

#### Memorandum

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Subject Well Installation and Repair Field Activities, June 6 to June 15, 2019

**Project Name** Tyco Fire Products LP Site, Marinette, Wisconsin

Attention Tyco Fire Products LP

**From** Jacobs Engineering Group Inc.

Date January 2020

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Document Control No. D3235600.270

#### 1. Introduction

On behalf of Tyco Fire Products LP (Tyco), Jacobs Engineering Group Inc. (Jacobs) has prepared this memorandum to document the monitoring well installation and repair activities at the Tyco facility at One Stanton Street, Marinette, Wisconsin (site; Figure 1). The field activities were completed in accordance with the *Addendum to 2015 Barrier Wall Groundwater Monitoring Plan Update* (Jacobs 2019a) that was finalized on June 24, 2019, and approved by the U.S. Environmental Protection Agency (USEPA) on September 4, 2019. The addendum provided enhancements to the hydraulic monitoring program for assessing the vertical barrier wall that were agreed to during discussions between Tyco, USEPA, and the Wisconsin Department of Natural Resources, as discussed in the addendum.

#### 2. Field Activities

Fieldwork was conducted at the site between June 6 and June 15, 2019. The field activities included:

- Drilling and collecting continuous core soil samples for soil characterization at six locations using rotary sonic drilling techniques.
- Installing and developing one bedrock replacement well (MW118D-R) as a replacement for MW118D, which was damaged and abandoned in 2018.
- Installing and developing five shallow overburden monitoring wells (MW107S, MW121S, MW122S, MW123S, and MW124S) in the Main Plant to provide an enhanced monitoring well network along the vertical barrier wall near the Menominee River, with a final average spacing of approximately175 feet and no distance greater than 200 feet between shallow wells along the shoreline barrier wall.
- Repairing two existing monitoring well surface completions (MW118S and MW118M), which were damaged by a snowplow in winter 2018-2019.
- Converting MW068S from a flush-mount well to a stickup.

<sup>&</sup>lt;sup>1</sup> There were no changes regarding the well locations between the draft and final versions of the addendum.



 Installing temporary well points and sampling groundwater at two locations. Samples were collected near former monitoring well locations MW008S and TW-2 for volatile organic compounds to aid in the ongoing vapor intrusion assessment.

On August 22, 2019, newly installed monitoring and repaired wells were surveyed following the installation and repair. Photographic documentation of field activities is included as Attachment 1.

### 3. Utility Locates

Walker-Hill Environmental of Foxworth, Mississippi was contracted by Jacobs to complete the drilling, well installation, borehole abandonment, temporary well point installation, and well repair activities. Walker-Hill Environmental was responsible for obtaining underground utility clearance for the proposed drilling locations, which included notifying Diggers Hotline: Wisconsin's One-Call Center before starting construction, notifying private and local utility owners, and consulting with the utility companies.

Coordination and review of proposed locations with Tyco was completed, and a third-party utility locate provider was used to clear each boring location before boring advancement. For the monitoring wells near the barrier wall, ground penetrating radar and a metal detector were employed to help locate buried sheet pile tie-back structures and other obstructions known to be in the area. In addition, all locations were hand augered to an approximate depth of 5 feet before drilling.

#### 4. Monitoring Well Replacement, Installations, and Development

#### 4.1 Bedrock Monitoring Well Replacement

One replacement bedrock monitoring well (MW118D-R) was installed in the Main Plant area (Figure 2), and borings were advanced using a rotary sonic drilling rig. Soil was continuously collected and logged by a Jacobs geologist down to the bedrock surface. Soil descriptions (grain size, color, moisture content, relative density, consistency, soil structure, and other relevant information) were recorded in accordance with United Soil Classification System and ASTM D2488.

Once the boring was advanced to a minimum depth of 2 feet below the bedrock surface, a 6-inch-diameter-steel casing was set and grouted (using site-specific grout mixtures) across the thickness of unconsolidated materials to isolate soil and shallow groundwater from the bedrock aquifer. The grout was installed using a rubber plug, which pushed grout down and out around the base of the surface casing to seal off the overlying unconsolidated deposits. The seal was allowed to cure for 24 hours, the rubber seal was drilled out, and the seal was tested by filling the casing with water and monitoring the level of the water over approximately 24 hours to verify the seal was watertight.

Following an initial drop in water levels during the first 2 hours, the seal held and there was no water loss from the casing. A 4-inch-diameter bedrock boring was then drilled through the cemented casing to approximately 53 feet below ground surface (bgs). Rock cores were collected using a rotary sonic drill rig and logged as part of the installation. MW118D-R was installed within the inner casing as a 2-inch-diameter Schedule 40 polyvinyl chloride (PVC) riser with a 5-foot-long 10 slot PVC screen and 6-inch sump. The well screen was set to span an interval of 47 to 52 feet bgs. A sand filter pack (Global #7 sand) was installed 2 feet above the top of the screen, and 2 feet of a finer transition sand (Global #8 sand) was installed above the filter pack to approximately 43 feet bgs. The site-specific grout mixture was placed above transition sand.

The well was completed with a stickup cover and a compression cap to prevent damage from traffic and infiltration of surface water. Following a grout curing period of at least 24 hours, MW-118D-R was developed in conjunction with other newly installed monitoring wells as described below. Attachment 2

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<sup>&</sup>lt;sup>2</sup> The required mix design for the site-specific grout is one bag (94 pounds) of Type II Portland cement, 4.5 gallons water, and 2 cubic feet of fine-grained sand.



contains the soil boring log, and Table 1 provides final construction details for MW118D-R. Attachment 3 contains the bedrock monitoring well construction log, and Attachment 4 contains a copy of the well development log.

#### 4.2 Shallow Monitoring Well Installations

Five shallow depth monitoring wells (MW107S, MW121S, MW122S, MW123S, and MW124S) were installed. Borings at each location were advanced within the unconsolidated deposits to a depth of at least 15.5 feet bgs using the same drilling and logging approach as described for the unconsolidated deposits above for MW118D-R. Borings for MW107S, MW123S, and MW124S were each drilled to 17 feet bgs. Screens for shallow wells were placed 5 to 15 feet bgs in the fill and alluvium. Each monitoring well was installed with a 2-inch-diameter Schedule 40 PVC riser with a 10-foot-long slotted PVC screen and 6-inch sump. The sand filter pack for each monitoring well was installed from the base of the borehole to 2 feet above the top of the screen (Table 1). A 0.5-foot-thick layer of finer transition sand (Global #8 sand) was installed above the filter pack to 2.5 feet bgs. The site-specific grout mixture was placed above the sand filter pack. Attachment 2 contains the soil boring logs, Table 1 provides final construction details for each monitoring well, and Attachment 3 contains copies of the monitoring well construction logs.

#### 4.3 Monitoring Well Development

Following well installation, the wells were developed between June 12 and June 15, 2019 by manually surging the well screen with the pump followed by continuous pumping using a submersible pump. To enhance the well's connection with the adjacent formation, each well was surged and pumped at various intervals across the screen length to remove fines from the filter pack and screen.

Development was initiated a minimum of 24 hours after installation and was considered complete when groundwater was running clear and turbidity levels were deemed acceptable by Jacobs's field oversight support. The development logs are provided in Attachment 4.

Well development was performed in accordance with Wisconsin Department of Natural Resources NR 141 requirements. Development water was containerized in a 300-gallon polyethylene tank and transported to the onsite staging area to be transferred to the onsite groundwater collection and treatment system or was disposed of offsite with the pump down program groundwater.

#### 4.4 Well Repairs

The following well repairs were performed:

- MW118S: 2-inch well casing and protective casing was repaired.
- MW118M: 2-inch well casing and protective casing was repaired.
- MW068S: Converted from a flush-mount completion to a stickup. This included extending the 2-inch
  well casing, replacing the protective casing, replacing the concrete pad, and installing protective
  bollards.

A summary of repairs and dates completed is provided in Table 1.

#### 5. Surveying

On August 22, 2019, McMahon Associates, Inc, a Wisconsin-certified surveyor, of Neenah, Wisconsin, surveyed the top of casing elevations (in feet above mean sea level in Wisconsin State Plane Coordinate System North American Vertical Datum 1988) of the newly installed monitoring wells, repaired staff gauge (damaged in late June and repaired in early July 2019), and wells with repairs where casing elevations were altered. Updated survey information is included in Table 1. The survey information will be used to plot the monitoring wells on site figures and for use in groundwater elevation evaluations in the future.



#### 6. Temporary Well Point Groundwater Sampling

The driller advanced two soil borings (GW008S and GW-TW02³) to facilitate collecting groundwater samples. Groundwater samples were collected from a pre-pack screen placed in each boring. A summary of the boring locations and sampled depths is included in Table 2. Samples were collected for Appendix IX volatile organic compounds. Sampling data was provided in the *Vapor Intrusion Assessment and Work Plan* dated September 27, 2019 (Jacobs 2019b) and a summary will also be provided in the 2019 annual report.

Following collection of the groundwater samples, soil borings were abandoned per Wisconsin Department of Natural Resources Administrative Code (NR 811, NR 812, and NR 141). Attachment 5 contains the borehole abandonment logs for the soil borings that were abandoned.

#### 7. References

Jacobs Engineering Group Inc. (Jacobs). 2019a. Addendum to 2015 Barrier Wall Groundwater Monitoring Plan Update. June 24.

Jacobs Engineering Group Inc. (Jacobs). 2019b. *Vapor Intrusion Assessment and Work Plan.* September 27.

U.S. Environmental Protection Agency (USEPA). 2009. *Resource Conservation and Recovery Act Administrative Order on Consent, Ansul, Incorporated.* USEPA Docket No. RCRA -05-2009- 0007542-S-02-001. February 26.

<sup>&</sup>lt;sup>3</sup> The temporary well point groundwater grab sample locations GW008S and GW-TW02 are stepped out from the abandoned monitoring well locations MW008S and TW-2 and are named because of their proximity to those abandoned wells.

**Tables** 

#### Table 1. 2019 Well Installation Information

Tyco Fire Products LP Facility, Marinette, Wisconsin

					Top of										Well				
				Top of	Protective		Soil		Installation			Top of Sand		1 1 1					
				Casing	Cover	Surface	Conditions	Installation	Completion	Boring Depth			Well Screen		Length**	Development			
Location ID	Area	Northing <sup>a</sup>	Easting <sup>a</sup>	Elevation <sup>b</sup>	Elevation <sup>D</sup>	Elevation <sup>D</sup>	Logged	Start Date	Date	(feet bgs)	(feet bgs)	bgs)	(feet bgs)	bgs)	(feet )	Date	or Stick Up	Surface	Comments
MW068S	Main Plant	470207.692	2584825.714	586.34	586.60	583.29	-	6/14/2019*	6/15/2019*	-	-	-	-	-	-	-	Stick-up	Concrete Pad	Converted from flush-mount to stickup
MW107S	Main Plant	470360.286	2584936. 501	585.51	585.72	583.04	x	6/9/2019	6/9/2019	17	17	3	15	5	10	6/13/2019	Stick-up	Concrete Pad	
MW118S	Main Plant	470465.376	2584808.44	586.02	586.11	583.22	-	6/14/2019*	6/14/2019*	-	-	-	-	-	-	-	Stick-up	Concrete Pad	Extend 2-inch well casing and add new protective cover
MW118M	Main Plant	470466.938	2584803.916	585.77	586.05	583.25	-	6/14/2019*	6/14/2019*	-	-	-	-	-	-	-	Stick-up	Concrete Pad	Extend 2-inch well casing and add new protective cover
MW118D-R	Main Plant	470462.053	2584806. 978	585.97	585.94	583.16	х	6/7/2019	6/11/2019	53	53	45	52	47	5	6/15/2019	Stick-up	Concrete Pad	
MW121S	Main Plant	470581.935	2584464. 270	585.64	585.91	583.06	x	6/13/2019	6/13/2019	15.5	15.5	3	15	5	10	6/14/2019	Stick-up	Concrete Pad	
MW122S	Main Plant	470515.58	2584652.461	585.55	585.87	582.74	Х	6/13/2019	6/13/2019	15.5	15.5	3	15	5	10	6/14/2019	Stick-up	Concrete Pad	
MW123S	Main Plant	470172.224	2584921.822	586.11	586.33	583.73	х	6/8/2019	6/9/2019	17	17	3	15	5	10	6/12/2019	Stick-up	Concrete Pad	
MW124S	Main Plant	469893.405	2584986. 320	585.47	585.68	583.07	х	6/8/2019	6/8/2019	17	17	3	15	5	10	6/12/2019	Stick-up	Concrete Pad	

#### Notes:

<sup>\*</sup> Dates represent repair start and repair completion, respectively

\*\* All wells were constructed of 2" Schedule 40 PVC with 10-slot PVC wells screens and filter packs consisting of Global #7 sand

<sup>- =</sup> not applicable

bgs = below ground surface

<sup>&</sup>lt;sup>a</sup> Wisconsin State Plane Coordinates, Central Zone, US Survey Feet

<sup>&</sup>lt;sup>b</sup> Wisconsin State Plan Coordinates, North American Vertical Datum 1988 (NAVD88), elevation in feet above mean sea level

#### Table 2. 2019 Temporary Well Point Groundwater Sampling Table

Tyco Fire Products LP Facility, Marinette, Wisconsin

Location ID	Area	Latitude (N)	Longitude (W)	Sample Date	Sample Interval Depth (feet bgs)	Sample Analyses	Date Borehole Abandoned*
GW008S**	Main Plant	470136.3261	2584730.502	6/9/2019	5-7	VOCs Appendix IX	6/9/2019
GW-TW02**	Main Plant	469886.9892	2584860.958	6/12/2019	3-5	VOCs Appendix IX	6/12/2019

Notes:

NA - not applicable

bgs - below ground surface

<sup>\*</sup>Soil borings were abandoned by filling with site-specific grout mix and wells were abandoned in accordance with Wisconsin Code NR 141 requirements

<sup>\*\*</sup> The temporary well point groundwater grab sample locations GW008S and GW-TW02 are stepped out from the abandoned monitoring well locations MW008S and TW-2 and are named because of their proximity to those abandoned wells.

# **Figures**

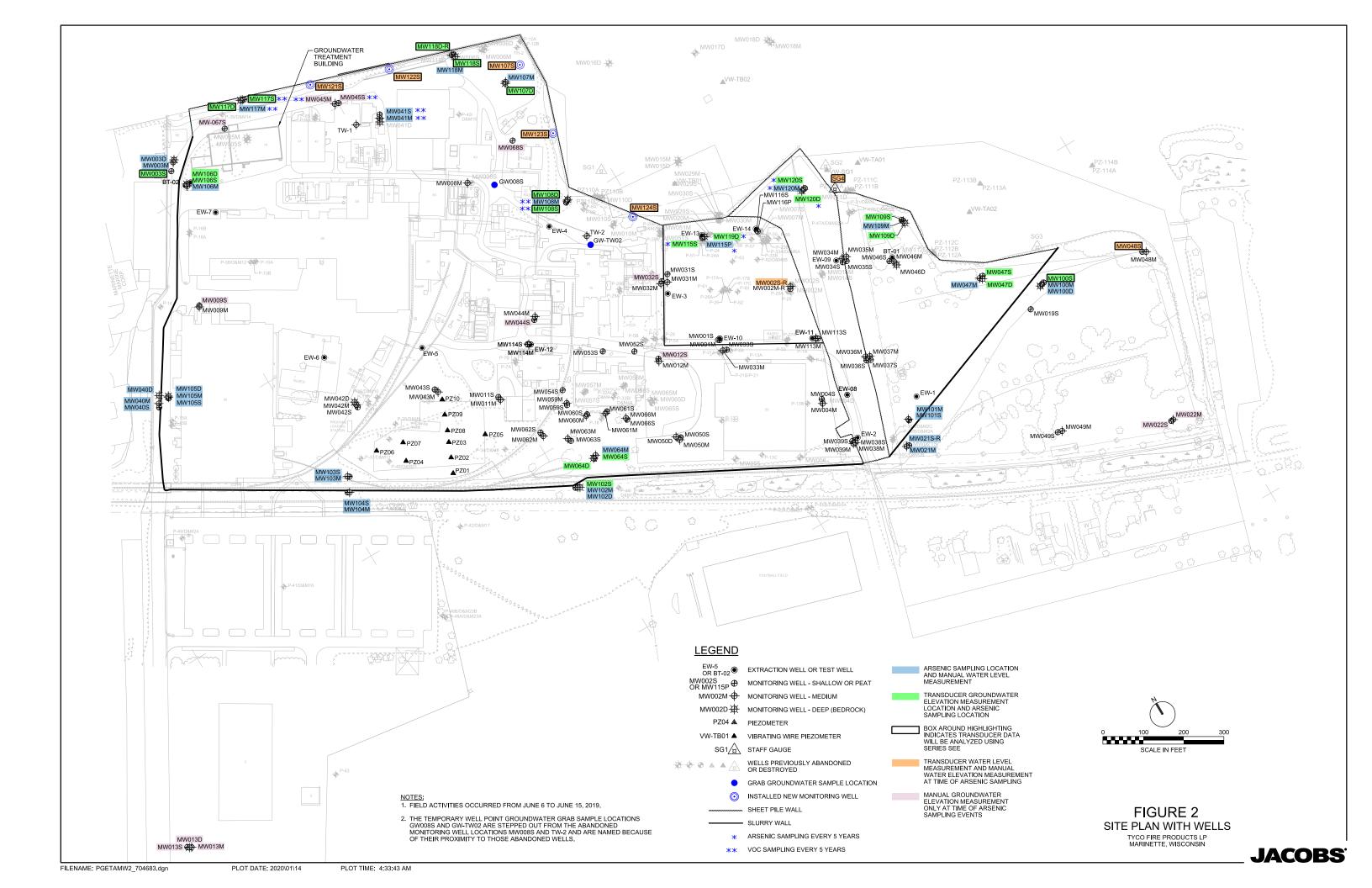


Figure 1. Site Map

Tyco Fire Products LP Facility

Marinette, WI





# Attachment 1 Photograph Log



## Photo Log

Well Installation and Repair Field Activities, June 6 to June 15, 2019 January 2020

Project Title Well Installation and Repair Field Activities, June 6 to June 15, 2019

**Location** Tyco Fire Products LP Site, Marinette, Wisconsin

Date January 2020



Photograph 1: MW121S completed well pad and bollard installation





Photograph 2: MW122S completed well pad and bollard installation





Photograph 3: MW123S completed well pad and bollard installation





Photograph 4: MW124S completed well pad and bollard installation





Photograph 5: MW107S completed well pad and bollard installation





Photograph 6: MW118D-R well installation and MW118S and MW118M well repairs





Photograph 7: MW068S well repair





**Photograph 8: GW-TW02 temporary point well groundwater sample location** (The temporary well point groundwater grab sample location GW-TW02 is stepped out from the abandoned well location TW-2 and is named because of its proximity to this abandoned well.)

Attachment 2
Boring Logs

#### SOIL BORING LOG INFORMATION Form 4400-122 Rev. 7-98

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## SOIL BORING LOG INFORMATION

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#### SOIL BORING LOG INFORMATION Form 4400-122 Rev. 7-98

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#### SOIL BORING LOG INFORMATION Form 4400-122 Rev. 7-98

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				•	<del></del>								Page	_ 1	of	1
Facilit				<del></del>		Licens	se/Perr	nit/Mo	nitorin	g Num	ber		Numl 1215			
			cts LP Name	of crew chief (first, last) and	Firm	Date F	rilling	Starte	d	Date F	rilling			Drillin	a Meti	nod
First N	ame: M	ark		Last Name: Michaud		1	_	, <u>201</u> 9			, 13	_			-soni	
	Walke vique V			DNR Well ID No.   Well N	ame	mm	d d	y y Water I	уу		d d			Boreho		
				MW	121S	_		Feet M		Jui iac		Feet!		6		nches
Local State F	Grid O	rigin 470	□ (es 581.9	timated:  ) or Boring Loc N, 2584464.27	ation 🗆 E	L	at	۰ ۰	11	Local	Grid L					<b>-</b>
	1/4 of			Section, TN,	 R	Lor	ıg	° '			F	eet □	N   S			□ E □ W
Facilit	-	2		County	Co	ounty C 38	ode	Civil		•	r Villaį	ge				
4380 <b>Sam</b>	39470 ple	)	ତ	Marinette		30 _		iviar	inette	e, VVI		Soil	Prope	rties		
		ıts	surfac	Soil/Rock Descr	ription			1			ပ္					
er ype	h Au ered	Cour	in For	And Geologic Or Each Major I	_		S	္သ	m	Œ	essiv	ure nt	_	ity		ents
Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth in Feet (Below ground surface)	Zaon Major C	· · · · · · · · · · · · · · · · · · ·		USC	Graphic Log	Well Diagram	PID/FID	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
		H	0.0	0-1' Fill, Lean Clay (CL), I	Prown Moist	_	CL	G 7		1	S	O	11	Р	Д,	#O
HA-1	0- 5.5		0.0	medium stiff.	orowii, ivioist	-,	CL									
	ی.ی		1.0	1-5' Fill, Silty Fine Grave	with Clay (G	iM),	GM			0						
				Grey, moist, medium de												
										0						
S-1	5.5-		5.0	5-8' Poorly Graded Sand	with Silt (SP	)	SP	5 ft	Ш	0						
	10.5		] 3.0	Grey, wet, coarse graine						ľ				•		
	(3/5)									0						
			8.0	8-10' Loss				Ì								
C 2										2.2						
S-2	10.5		10	10-15.5' Poorly Graded (SP), Black, wet, coarse			SP			2.2						
	- 15.5			loose, construction woo						4.7				1		
	(5/5)															
										6.3						
										12						
								15 ft		4.2						
								1311	15.5 ft	1.8						
I here	by cert	L tifv th	at the	I information on this form is	true and corre	ect to t	he hes	t of m	L		L е.	l	l <u></u>	<u> </u>	L	<u> </u>
Signat			Conv			TC:	Iacob		,							

# **SOIL BORING LOG INFORMATION** Form 4400-122 Rev. 7-98

			Rout		Vastewater Wa Revelopment X											
					• —	_	-						Page	1	of	1
	y/Proje			<del></del> .		Licer	ise/Perr	nit/Mo	nitorin	g Nun	ber		<b>g Num</b> i /1225			
	Fire F			of crew chief (first,	ast) and Firm	Date	Drilling	Starte	ed.	Date I	) Prilling		pleted	Drillin	g Meti	hod
First N	lame: M	ark		Last Name: Michaud	,	06	, 13	, 2019	9	06	, <u>13</u>	<u>201</u> 9	9		-soni	
	Walke			DNR Well ID No.	Well Name		d d				d d		у у	Boreh		
	- — -		_		MW122S			Feet M	ISL	l _		_Feet		6		nches
Local State I	Grid O Plane _	rigin 470	es 515.5	timated: (a) or Box 8 N, 258465	ring Location □ 52.46 E		Lat	۰ _ 0		Local	Grid L		n N			□ E
	1/4 of		1/4 of	Section, T	N, R	Lo		0 '		<u> </u>		eet 🗖				
Facili 4380	i <b>y ID</b> )3947(	)		County  Marinette		County 0	Code	ı	Town/ inette	•	r Villa	ge				
Sam	nple		ice)	Warmette		<u> </u>						Soil	Prope	rties		
Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth in Feet (Below ground surface)	And Geol	ck Description logic Origin For Major Unit		USCS	Graphic Log	Well Diagram	PID/FID	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
HA-1	0-		0.0	0-2' Fill, Lean Clay	/ (CL), Brown, Mo	oist	CL			0	_					
	5.5			(wet at 8-inches),	medium stiff.											
			2.0	2-7' Fill, Clayey G medium dense.	ravel (GC), Browr	n, wet,	GC	Ŀ		0						
								- 4								
S-1	5.5-							5 ft								
	10.5							ŀ								
	(3/5)			7-8' Wood												
			7.0	7-8 WOOd						İ						
			8.0	8-10' Loss				Ì								ļ
S-2	10.5		10	10-11' Fill, Clayey wet, medium der		wn,	GC			2.2						
	15.5 (5/5)		11	11-12' Silty fine sa Dense	and (SM), Black, I	Moist,	SM			2.7						<u>.</u>
			12	12-15.5' Silty fine (Fill), 60% wood, clay, Black, Wet D	20% sand, 15% si		SM	15 ft 15.5 f	11 I	7.3						
										1.7						
				information on this	form is true and co				y kno	wledg	e.					
Signat	ure \//	วงทอ	Conw	vav.		Firm	lacol	าร								

# **SOIL BORING LOG INFORMATION** Form 4400-122 Rev. 7-98

			Rout		Vastewater Wa Revelopment X		gement		_							
					-								Page	1	of	1
Facilit						Lice	nse/Peri	nit/Mo	nitorir	ng Nun	nber		<b>g Num</b> /1235			
			Name	e of crew chief (first,	ast) and Firm	Date	Drilling	Starte	·d	Date 1	Orilling			Drillin	a Meti	had
First N	lame: M	ark		Last Name: Michaud	aust) und 1 mm		<u>/ 08</u>				, 09		-		-	
	Walk			DNR Well ID No.	Wall Name	mn	dd	у у	у у	m m	d d	<u>y</u> <u>y</u>			-sonic	
WIUI	nique V	veli N	о.	DNK WEII ID No.	Well Name MW123S	Fina	Static '	Feet M		Suria	ce Elev	Feet	MSL	Boren 6		ameter nches
Local	Grid O	rigin	(es 172.2	timated:   or Bo  N, 258492	ring Location □		Lat	0 1	11	Local	Grid L	ocatio	n			
State 1	1/4 of			Section, T	N, R		ong	0 '	11		F	Eet ⊑	l N			□ E □ W
Facilit			_ 1/ 1 01	County		County		Civil '	Town/	City/ c	τ Villa				_1 001	
	3947	0	_	Marinette		38		Mar	inette	e, WI	T	6.3				
Sam	pie ਕ ਵਿ		t urface)	\$a;1/ <b>D</b> a	ck Description							2011	Prope	rties		
r ed	Length Att. & Recovered (in)	Blow Counts	Depth in Feet (Below ground surface)	And Geo	logic Origin For		S		E	۵	Compressive Strength	87		ty		snts
Number and Type	angth cove	) wo	pth i	Each	Major Unit		sc	Graphic Log	Well Diagram	PID/FID	mpre	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
Z W	7 %	BI	∆ĕ				Þ	క్ 3	≯ ä	Ы	රිනී	žŏ	22	Pl: In	Ъ	≚೮
HA-1	0-5		0.0	0-4' Fill, Gravel with S Wet at 0.5 feet bgs, d		l), Grey	GW-				E					
			1.0	<b>.</b>			GM			ŀ					ĺ	
			1.0				İ									
								1							'	
								•			ľ					
			4.0	4-6' Silty Sand (SM), (	Grevish Brown wet n	oorly		5 ft			ļ					
			14.0	graded, medium graii			SM							}		
S-1	5-															
	7 (2/2)		6.0	6-7' Wood												
S-2	(2/2)   7-		7.0	7-8' Poorly Graded Fi	ne Sand with Cobbles	(SP),	SP				İ					
	12		'	Grey, wet, dense			J SP			İ						
	(2/5)		8.0	8-9' Wood					E							
			9.0	9-12' Loss												
			3.0													
S-3	12-		12	12-13' Poorly Graded Grey, moist, medium		l (SP),	SP									
	17		12	13-14' Poorly Graded wet, medium dense.	Medium Sand (SP), D	ark Grey,										
	(5/5)		13	14-15' Poorly Graded	Fine Sand (SP), Grey,	wet,	SP	15 ft					}			
			14	medium dense. 15-16' Poorly Graded	Medium Sand (SP) Ve	erv Dark	SP	15.5 f		Ì						
				Grey, wet, medium de	nse.	,										į
				16-17' Poorly Graded medium dense.	Fine Sand (SP), Grey,	wet,		17 ft								
I here	by cer	tify th	at the	information on this	form is true and co	orrect to	the bes	st of m	y kno	wledg	e.	-				<u></u>
			Conw			Firm										<del></del>

#### SOIL BORING LOG INFORMATION Form 4400-122 Rev. 7-98

			Rout	te To: Watershed/Wastewater   Wast Remediation/Revelopment   O		_	Ц	_							
				•								Page	1	_of	2
Facilit					Licen	se/Perr	nit/Mo	nitorin	g Num	ber	Boring MW	Numl			
			icts LP	e of crew chief (first, last) and Firm	Data I	Drilling	C		D-4- F	N=:11:			Drillin	- M-s	
	ame: M		Ivaille	Last Name: Michaud	1	_				-	•				
	Walk					/ <u>08</u>			m   m	/ <u>0</u> 8_/	<u>y</u> <u>y</u> <u>y</u>	<u>y</u> <u>y</u>	Roto	-soni	
WI Ur	nique V	Vell N	o.	DNR Well ID No. Well Name MW124S	Final	Static V			Surfac	e Elev		Met	Boreho		
Local	Grid O	rigin	 (est	stimated:  ) or Boring Location			Feet M	13L	Local	Grid L	_Feet l		6	11	nches
State F	Plane _	469	<u>893.4</u>	1 N, <u>2584986.32</u> E	l	_at	0 -	· — ;				N			□ E
	1/4 of		1/4 of	Section, TN, R	Lo	ng			<u> </u>		eet 🗆	<u>s</u> _		Feet	□ W
Facilit	<b>עו א</b> 13947	)		County  Marinette	County C 38	oae		inette	-	r Villa	ge				
Sam			<u> </u>				IVIGI	Incti	, , ,		Soil	Prope	rties		
	t. & (in)	ıts	surfa	Soil/Rock Description			'			Ģ					
er /pe	h Att	Cour	in F	And Geologic Origin For Each Major Unit		S	် ပ	E	I≘	essiv th	8 t		ity		ents
Number and Type	Length Att. Recovered (	Blow Counts	Depth in Feet (Below ground surface)	Each Major Offic		sc	Graphic Log	Well Diagram	PID/FID	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
Z &	7, %	B	Δĕ			n	Graf Log	≥ □	<u>a</u>	ర్రిస్ట	∑Ŭ	בנ	P! In	Ъ	<b>&amp;</b> ℧
HA-1	0-5		0.0	0-5' Fill, Sandy Fine Poorly Graded		GW-									
				Limestone Gravel with Silt (GP), Gre Wet, dense.	ξÀ	GM									
			1.0	wet, dense.											
S-1	5-		5.0	5-8' Poorly Graded Very Fine Sand (	SP),	SP			0.3	•					
J 1	7			Black, wet, medium dense			5 ft		0.5	:					
	(2/2)								2.8						<b> </b>
S-2	7-		7.0						12.3						
	12			8-8.3' Silty Fine Sand (SM), Brown, v	wet				6.2		ł	İ			
	(2/5)		8.0	medium dense, roots.	• • • • •	SM			1.7						
			9.0	8.3-9' Silty Medium Sand (SM), Brow	wn,	SM			2.3						
			9.0	wet, medium dense.	- >				6.7						
			10.0	9-9.6' Silty Fine Sand with wood (SN	Λ),	SM			4.3						
			10.0	Black, wet, medium dense. 9.6-11' Poorly Graded Fine Sand wit	h Silt	SP	l		1.7	}					
			11.0	(SP)	in Siic	38			2.3	l					
6.3	12-			11-13' Poorly Graded Medium Sand	l with	SP			1.1						
S-3	17			Silt (SP), Brown, wet, medium dense						1					
	(5/5)			13-13.7' Sandy Fine Gravel with Silt		GP	l								
			13	wet, medium dense (likely fill, yello limestone gravel).	vv							}			
				innestone gravery.											
I here	by cer	ify th	at the	information on this form is true and cor	rect to t	he bes	t of m	y kno	wledg	e.					
Signati	ure //	/avne	Conw	vav	Firm	Jac	obs								

15 14.7-15.5' Silty Medium Sand (SM), Very SM Dark Brown, wet, medium dense, roots 15.5 ft present.	
15.5-16' Well Graded Coarse Sand (SW), SW Grey, wet, medium dense, approx 10	Number and Type
percent silt  16-17' Silt (ML) with Gravel, Light  Brownish Grey, moist, very stiff.	Length Att. & Recovered (in)
z.o.m.s.r e.e.y, meist, very stim.	Blow Counts
	Depth in Feet
	Soil/Rock Description And Geologic Origin For Each Major Unit
	USCS
<del></del>	Graphic Log
	Well Diagram
	PID/FID
	Compressive Strength
	Moisture Content
	Liquid Limit Plasticity
	Plasticity Index
	P 200

# Attachment 3 Well Completion Logs

	Vatershed/Wastewater W	Vaste Management M	ONITORING WELL CONSTRUCTION
R	emediation/Redevelopment X C	ther Fo	rm 4400-113A Rev. 7-98
Tyco Fire Products	Local Grid Location of Well R. R.	ft. □ E. W	ell Name MW107S
Facility License, Permit or Monitoring No.	Local Grid Origin (estimated:	) or Well Location [7] [W	is. Unique Well No. DNR Well ID No.
Facility ID	Lat Long St. Plane ft. N,	ft. E. S/C/N D	ate Well Instalical
430 039 4/0	Section Location of Waste/Source	It. E. 3/C/N	06_/119 / 2019
Type of Well monitoring Well Code /	N 1/4 of W 1/4 of Sec. 5		m m d d y y y y  Yell Installed By: Name (first, last) and Firm
Distance from Waste/ Enf. Stds.	Location of Well Relative to Waste,	Source Gov. Lot Number	Mark Michaud
Sourceft. Apply [	u ☐ Upgradient s ☐ Sid		Walker-Hill Env.
A. Protective pipe, top elevation 2	.5_ft. MSL	I. Cap and lock?	⊠ Yes □ No
B. Well casing, top elevation $= -2$	ft. MSL	2. Protective cover pipe	
C. Land surface elevation C	O_ft. MSL	a. Inside diameter: b. Length:	5.0 in.
D. Surface seal, bottom 3 . 0 ft. MSI		6. Material:	Steel 🖔 04
	19, 2010, 7 6		Other 🗆
12. USCS classification of soil near screen: GP □ GM □ GC □ GW □ SV	1 (0) 12	d. Additional protect	ion? X Yes 🗆 No
SM SC ML MH CI	W B SP B	If yes, describe:	J Plug
Bedrock □		3. Surface scal:	Bentonite 30
	es 🖾 No	\ Cement/San	d Mix Concrete 0 01
	ry 🗆 50	4. Material between we	ll casing and protective pipe:
Sonic Hollow Stem Aug	er 🖂 💮	Cement/San	D
			Other M
D. 1111	Air 🗆 01	5. Annular space seal:	
Drilling Mud □ 0 3 No	me □ 99   👸		weight Bentonite-sand slurry □ 35 weight Bentonite slurry □ 31
16. Drilling additives used?	es 🛮 No	d % Bentonite	weight Bentonite slurry □ 31 Bentonite-cement grout □ 50
		eFt <sup>3</sup> vo	lume added for any of the above
Describe		f. How installed:	Tremie D 0.1
17. Source of water (attach analysis, if requir	ed);	Grout: 1 bag (94 pounds) Type 4.5 gallons water, and 2 cubic for	II Portland Cement, Tremie pumped 02
City		6. Bentonite seal:	Gravity 🖾 0.8
0.0		b. □1/4 in, □3/8 i	a, Bentonite granules 33
Bentonite seal, top ft. MSL	orft.	/ c. N/A =5/01	n. 1/2 in. Bentonite chips 3 2 Other 1
Fine sand, top2_5_ft. MSL	or A.	7. Fine sand material: 1	Manufacturer, product name & mesh size
	1 100	/ a. Global #	8 sand
Filter pack, topft. MSL	or ft.	b. Volume added	.5 <sub>63</sub>
Screen joint, top5_0_ ft. MSL	or ft.	8. Filter pack material: 1	Manufacturer, product name & mesh size
Well bottom 15.0 ft. MSL	or ft.	b. Volume added 1	ft <sup>3</sup>
	""		sh threaded PVC schedule 40 🖄 23
Filter pack, bottom . 17.0 _ ft. MSL	or ft.	FIU	sh threaded PVC schedule 80 24
Borehole, bottom ft. MSL	orft.		VC Other 🗆 🚐
		a. Screen type:	Factory cut 🖾 11
Borehole, diameter $-\frac{6}{2} \cdot 0$ in.			Continuous slot □ 01
O.D. well casing 2.5_ in.		b. Manufacturer J. c. Slot size:	ohnson Other 0.10 in.
I.D. well casing 2.0		d. Slotted length:	_10 n.
I.D. well casing $\frac{2 \cdot 0}{1 \cdot 1} = \frac{1}{1 \cdot 1}$ in.		11. Backfill material (belo Sand	T7
	rm is true and correct to the best of	Dalid	Other 🖾 🎡

Please complete both Porms 4400-113A and 4400-113B and return them to the appropriate DNR office and bureau. Completion of these reports is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file information on these forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should be sent.

1,

	Watershed/Wastewater W	aste Management	MONITORING WELL		CTION
Facility/Project Name	Remediation/Redevelopment X O	ther	Form 4400-113A	Rev. 7-98	
	ILocal Grid Location of Well	CIE.	Well Name		
Tyco Fire Productss	f. S.	ft. □ E.	MW118D-R		
Facility License, Permit or Monitoring No.	Local Grid Origin (estimated:	) or Well Location □	Wis. Unique Well No.	DNR Well ID	No.
Facility ID	St Dione S M		Date Well Installed		
43 80 39 47 0	St. Plane ft. N, Section Location of Waste/Source	ft. E. S/C/N	Date Well Installed	11 /2019	)
Type of Wellmonitoring		20N OF ME	Well Installed By: Nar	d d v v	VY
Well Code/	N 1/4 of W 1/4 of Sec. 5		Mark Micha	ne (nrsi, iasi) an	id Firm
Distance from Waste/ Enf. Stds.	Location of Well Relative to Waste	Source Gov. Lot Number	TIGER TILCHE	100	-
Sourceft. Apply	u □ Upgradient s □ Sid	Known —	Walker-Hil	Ll Env.	
A. Protective pipe, top elevation	2.5_ft.MSL	1. Cap and lock?		X Yes 🗆	No
B. Well casing, top elevation 2.0	) ft. MSL —	2. Protective cover p	ipe:		
1. Head To the control # 10 10 10 10 10 10 10 10 10 10 10 10 10		a. Inside diameter	:	4.0	_ in.
C. Land surface elevation	ft. MSL	b. Length:		5.0	ft.
D. Surface seal, bottom 3 . O _ ft. MS		c. Material:		Steel X	04
The state of the s	W. T. T. T. T. T. T. T. T. T. T. T. T. T.			Other 🗆	XXXX
12. USCS classification of soil near screen		d. Additional prot	ection?	Yes 🗆	No
GP GM GC GW S	W L SP L	If yes, describe		C. 20 C. 20 Z	0.17
SM □ SC □ ML□ MH□ (	TO CHO!	1 300		Bentonite 🗆	30
		3. Surface scal:		Concrete X	01
	Yes 🛣 No	\ Cement/	Sand Mix	Other 🗆	
14. Drilling method used: Rot	ary □ 50	4. Material between	well casing and protective	ve nine:	****
Hollow Stem Au	iger □ 41		0	Bentonite 🗆	30
Sonic	ther 40   💥 💥	Cement/	Sand Mix	Other 🕹	
12 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		5. Annular space sea			33
[ J. T. T. 프로그리스 N T. C. T. C. T. T. T. T. T. T. T. T. T. T. T. T. T.	Air □ 01		ud weight Bentonite		35
Drilling Mud □ 0 3 N	Ione □ 99   🚟 🦝		ud weight Bento		31
16. Drilling additives used?	/es X No		te Bentonite-ce		50
16. Drilling additives used?	es 2 No	Ft 3	volume added for any o	of the above	30
D3		f. How installed:	mand added ith they to	Tremie 🕅	01
Describe		Grout: 1 bag (94 pounds) Typ	e II Portland Cement, Trem	ie pumped	
17. Source of water (attach analysis, if requ	ired):	4.5 gallons water, and 2 cubic	feet of fine sand; 50 gal	Gravity □	02
City		6. Bentonite seal:	a Rentoni	te granules	08
			/8 in. □1/2 in. Bent		
E. Bentonite seal, topO_O_ft. MSI	_ or ft.	/ cN/A	o m. 1/2 m. Dem		32
F. Fine sand, top43.0_ft. MSI	orft.\	7. Fine sand material:	: Manufacturer, produc		e.c.
45.0		/ a Global #	#8 sand		
G. Filter pack, top 45.0 ft. MSI	orft.	b. Volume added	.5 ft <sup>3</sup>		
47.0		8. Filter pack materia	l: Manufacturer, produc	t name & mesh	size
H. Screen joint, top $47.0$ ft. MSI	or ft.	a_Global #			38888
52.0		b, Volume added	6.0 ft <sup>3</sup>	5	200
. Well bottom 52.0 ft MSI	.or ft.		Flush threaded PVC sch	nedule 40 🛚	23
	1:1-3		Flush threaded PVC sch		24
Filter pack, bottomft. MSI	. orft.	6" outer steel	casing to 37 ft	Other X	
53.0		10. Screen material:	PVC		
C. Borehole, bottom ft. MSI	or ft.	a. Screen type:	F	actory cut	11
6.0				nuous slot 🗆	01
Borehole, diameter6.0 in.	1				(Contra)
		b. Manufacturer	Johnson		22
M. O.D. well casing $2.5_{\text{in}}$ .		c. Slot size:		0 1	Oin.
		d. Slotted length:		5.0	ft.
V. I.D. well casing _2.0_ in.		11. Backfill material (b	elow filter nach)	None 🗆	14
		Sand	The packy.	77	14
hereby certify that the information on this f	orm is true and correct to the best of	my knowledge.		Outer Ed	700 ST
Sharana Co. 1	Firm	•			_
Chris Hayslip		I Environmental, Inc	<b>3.</b>		

Please complete both Forms 4400-113A and 4400-113B and return them to the appropriate DNR office and bureau. Completion of these reports is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299. Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file these forms may result in a forfeiture of between \$10 and \$25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on these forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should be sent.

Facility/Project Name	Remediation/Redevelor Local Grid Location of	of Well		Form 4400-113A Well Name	Rev. 7-98	
Tyco Fire Products		ft. 🗆 N.	ft. 🛮 E. W.	Well Name MW121S		
Facility License, Permit or Monitoring No.	Local Grid Origin  Lat		Well Location	Wis. Unique Well No.	DNR Well	ID No.
Facility ID 438 039 470	St. Plane	ft. N,	ft. E. S/C/N	Date Well Installed	13, 20	019
Type of Well monitoring Well Code/	Section Location of W	aste/Source of Sec. 5 T30N	N, R. 24	Well Installed By: Na	d d v v	V 10 17
Distance from Waste/ Enf. Stds. Source ft. Apply	Location of Well Rela u Upgradient		Gov. Lot Number	Mark Micha Walker-Hil		-
	2:5_ft. MSL —		. Cap and lock?	WAIKET-IIII	☐ Yes	
	2.0_ft. MSL		Protective cover p			.0 in.
C. Land surface elevation	0.0_ft.MSL _		b. Length:		5	-O in
D. Surface seal, bottom 3 . 0 ft. MS			c. Material:		Steel	K 04
12. USCS classification of soil near screen					Other I	
GP GM GC GW S SM SC ML MH C	W   SP   CH		d. Additional prote If yes, describe		Ŭ Yes [	□ No
Bedrock	7.7	3,	Surface seal:		Bentonite I	
	res 🖄 No		Cement/Sa	and Mix	Concrete C	
	ату □ 5 0	4.	Material between	well casing and protective	ve pipe:	
Sonic Hollow Stem Au	ger U 4 1 her 🖄 🏬		Cement/Sa	and Mix	Bentonite D	
15. Drilling fluid used: Water 202	Air 🗆 01	5.	Annular space seal	a. Granular/Chippe		33
- Bulletin 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	one □ 99			ud weight Bentonite		
16 D.m. 1m.	17		Lbs/gal mi	ud weight Bento	mite slurry	
16. Drilling additives used? ☐ Y	es 🖄 No		Ft 3	volume added for any o	ement grout L	J 50
Describe		f.	How installed:	The made and the dity of	Tremie [	J 01
17. Source of water (attach analysis, if requi	red):		Grout: 1 bag (94 pounds) Ty		ie pumped [	0 0 2
City		6339 R336	4.5 gallons water, and 2 cubic		Gravity 2	0 8
			b. □1/4 in, □3/	12.1	te granules [	-
E. Bentonite seal, top _ O O ft, MSI	or ft.		cN/A	Beni	tonite chips [ Other [	
Fine sand, top $-2.5$ ft. MSL	orft.	7.	Fine sand material: a Global	Manufacturer, produc	t name & me	sh size
6. Filter pack, top $-3 \cdot 0$ ft. MSL	or ft.	13 13	b. Volume added_	.5 63		44
I. Screen joint, top ft. MSL	or ft.			l: Manufacturer, product #7 sand		esh size
Well bottom _ 15.0 _ ft. MSL		f. harmal a	b. Volume added _	11.0 ft <sup>3</sup>		***
		9.		Flush threaded PVC sch		
Filter pack, bottom It. MSL	or ft.			Flush threaded PVC sch	other	700.00
. Borehole, bottom ft. MSL	or ft.	11/1/2	Screen material: Screen type:	PVC	actory cut	
Borehole, diameter6 .0 in.					nuous slot 🗆	01
I. O.D. well casing 25 in.		b		Johnson	Other	22.20:
		\ d	. Slotted length:			0 in. 0 ft.
I.D. well casing $2 \cdot 0$ in.			Backfill material (b Sand	elow filter pack):	None D	1 14
nereby certify that the information on this fo					Ouier E	F 300000

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Facility/Project Name	Remediation/Redevelopment   Local Grid Location of Well ft.	Other	Wall Mana	Rev. 7-98	
Tyco Fire Products	ft.	] Nft.   E	Well Name MW122S		
racinty License, Permit or Monitoring No.	Local Grid Origin	ated:  ) or Well Location	Wis. Unique Well No.	DNR Well T	D No
		ft. E. S/C/N	Date Well Installed	13 / 20	19
Type of Well monitoring Well Code/	N 1/4 of W 1/4 of Sec.	5 , T. 30N N, R. 24	Well Installed By: Nar Mark Micha	d d v v me (first, last)	and F
Distance from Waste/ Enf. Stds. Sourceft. Apply	Location of Well Relative to V u □ Upgradient s □ d □ Downgradient n □	Sidegradient	Walker-Hil		-
A. Protective pipe, top elevation	2.5_ft. MSL	1. Cap and lock?	- MALKEL HILL	☐ Yes □	
	2.0_ft. MSL	2. Protective cover	oipe:		
		a. Inside diamete		4.	O ir
C. Land surface elevation	0_0_ft. MSL	b. Length:		5.	Oft
D. Surface seal, bottom 3 . 0 ft. MS	Lor ft.	c. Material:		Steel K	5 0
12. USCS classification of soil near screen		<b>                                   </b>		Other [	
GP GM GC GW ST SM SC ML MH C	WIL SE LI	d. Additional pro If yes, describe		ĭ Yes □	] No
Bedrock □		3. Surface scal:		Bentonite	200
	es 🖄 No	Cement/S	and Mix	Concrete Other	
	ry □ 5 0		well casing and protective	Ve pine:	1
Sonic Hollow Stem Aug	ger 🗆 4 1	Cement/S		Bentonite  Other	5 0 0 0 0 0
15. Drilling fluid used: Water 🖔 0 2	Air 🗆 01	5. Annular space sea	1; a. Granular/Chippe		3 3
	one □ 99		ud weight Bentonite-		
		cLbs/gal m	ud weight Bento	nite slurry	3
6. Drilling additives used?	es 🖄 No	d % Bentoni	te Bentonite-ce	ment grout	5 (
			volume added for any of		
Describe		f. How installed:		Tremie 🗆	0 :
7. Source of water (attach analysis, if require	red):	Grout: 1 bag (94 pounds) 2  4.5 gallons water, and 2 cu	Type II Portland Cement, Tremi		
City		6		Gravity 🖔	0.8
			a. Denienii	te granules 🛚	33
Bentonite seal, top 0 . 0 ft. MSL	orft.	c	/8 in. □1/2 in. Bent	Other	
Fine sand, top 2 _ 5 _ ft. MSL	or ft.	7. Fine sand material	: Manufacturer, product #8 sand	i name & mesl	h size
Filter pack, top3.0_ft, MSL	or_ ft.	18	-	_	<b>14.44</b>
5.0		b. Volume added			
15.0	orft.	a Global  b. Volume added	l: Manufacturer, produc #7 sand 11.0 ft3	_	sh size
Well bottom ft_ MSL	or ft.\	9. Well casing:	Flush threaded PVC sche		22
Filter pack, bottomft. MSL	or ft.		Flush threaded PVC scho		23
Borehole, bottom ft. MSL		10. Screen material:	PAC	Other L	<del>70.00</del>
Borehole, bottom ft. MSL	orn,	a. Screen type:	Fa	actory cut	11
Borehole, diameter6 .0 in.			Contin	uous slot 🗆	01
		b. Manufacturer _	Johnson	Other	
O.D. well casing $2.5_{-}$ in.		c. Slot size: d. Slotted length:		0. <u>1 (</u>	0_in. 0_ft.
0.0				_ ± 5	~_ II.
I.D. well casing $2 \cdot 0$ in.		11, Backfill material (t Sand	elow filter pack):		14

Please complete both Forms 4400-113A and 4400-113B and return them to the appropriate DNR office and bureau. Completion of these reports is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file information on these forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should be sent.

	Vatershed/Wastewater W	aote Management	MONITORING WELL CONSTRUCTION Form 4400-113A Rev. 7-98
Facility/Project Name Tyco Fire Products	Remediation/Redevelopment X C Local Grid Location of Well N.	Otherft.	Well Name MW123S
Facility License, Permit or Monitoring No.	Local Grid Origin [ (estimated:	or Well Location	Wis. Unique Well No. DNR Well ID No.
Facility ID438039470	St. Plane ft. N,	ft. E. S/C/N	Date Well Installed , 09 / 2019
Type of Well monitoring Well Code/	Section Location of Waste/Source  1/4 of1/4 of Sec Location of Well Relative to Waste		well Installed By: Name (first, last) and Firm Mark Michaud
Distance from Waste/ Enf. Stds. Sourceft. Apply _		degradient ————————————————————————————————————	Walker-Hill Env.
- ''' - ''	2.5_ft. MSL	1. Cap and lock? 2. Protective cover p	ĭ Yes □ No
B. Well casing, top elevation	2.0_ft. MSL	a. Inside diameter	1 0
C. Land surface elevation	O.O_ft.MSL	b. Length:	5.0 ft.
D. Surface seal, bottom 3 . 0 ft. MS	Lor ft.	c. Material:	Steel 🖔 04
12. USCS classification of soil near screen	W. 10/6-443	d. Additional pro	Other ☐ lection? Ď Yes ☐ No
	W D SP D	If yes, describe	: J Plug
Bedrock □		3. Surface scal:	Bentonite 30 Concrete 01
13. Sieve analysis performed?	Yes 🗓 No	\ Cement/S	and Mix Other M
the same of the second of the	ary 🗆 5 0	<ol> <li>Material between</li> </ol>	well casing and protective pipe:
Sonic Hollow Stem Au	nger ∐ 41 km km km km km km km km km km km km km	Cement/S	and Mix
		The Control of the Co	Omer ta
15. Drilling fluid used: Water 🛱 0 2	Air □ 01	5. Annular space sea	ud weight Bentonite-sand slurry ☐ 35
Drilling Mud □ 03 N	lone □ 99		and weight Bentonite slurry  31
16. Drilling additives used?	res 🛮 No	d % Benton	te Bentonite-cement grout 5 0
_			volume added for any of the above
Describe		f. How installed: Grout: 1 bag (94 pounds) Typ	Tremie 0 1  oe II Portland Cement, Tremie pumped 0 0 2
17. Source of water (attach analysis, if requ	ired):	4.5 gallons water, and 2 cubic	feet of fine sand  Tremie pumped   Gravity   0 2
City		b. Bentonite seal:	a. Bentonite granules  33
E. Bentonite seal, top _ 0.0 _ ft, MS		b. □1/4 in. □3	3/8 in. □1/2 in. Bentonite chips □ 3 2
		/ c	Other 🗆
F. Fine sand, top $2.5$ ft. MS	Lorft.	/ Global	H8 sand
G. Filter pack, top 3 . 0 _ ft. MS	Lorft.	b. Volume added	
H. Screen joint, top5_0_ ft. MS	L or ft.	8. Filter pack materi a. Global	al: Manufacturer, product name & mesh size #7 sand
I. Well bottom 15.0 ft. MS	Lorft.	<ul><li>b. Volume added</li><li>9. Well casing:</li></ul>	11.0 ft <sup>3</sup> Flush threaded PVC schedule 40 🖄 23
		5. Well casing.	Flush threaded PVC schedule 80 \( \sigma 24
J. Filter pack, bottom 17.0 ft. MSI	L orft.	10. Screen material:	PVC Other
K. Borehole, bottom 17.0 ft. MSI	L or ft.	a. Screen type:	Factory cut 🖾 11
L. Borehole, diameter $-\frac{6}{0} \cdot 0$ in.			Continuous slot   Other   Other
M. O.D. well casing 2.5_ in.		b. Manufacturer . c. Slot size:	Johnson 0. 10 in.
N. I.D. well casing 2.0 in.		d. Slotted length:	
in his well casing m.		11. Backfill material ( Sand	below filter pack): None 1 4 Other 2
I hereby certify that the information on this	form is true and correct to the best of	of my knowledge.	<u> </u>
Signature Chris Hayslip	Firm Walker-H	ill Environmental, In	C.

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Facility/Project Name	Remediation/Redevelopmen Local Grid Location of We			Form 4400-113A	Rev. 7-98	
Tyco Fire Products	Local Ono Location of We	ll □ N. - □ S	, DE.	Well Name		
Facility License, Permit or Monitoring No.	Local Grid Origin  (es	timated:   "Long	• 11	MW124S Wis. Unique Well No	DNR Well II	D N
Facility ID		_ LONG	or	Date Well Installed		
<u>438 039 470</u>	Section Location of Waste/	t. N,	ft. E. S/C/N	Uh	108 1 201	19
Type of Well monitoring			O/ ME	Well Installed By: N	ame (first last)	y ond
Well Code/_	Location of Well Relative t	ec_J_,1.JUN	N.R. 24 W	Mark Mich	aud	1110
Distance from Waste/ Enf. Stds.	u Upgradient s	☐ Sidegradient	Gov. Lot Number	1 0 - 0		_
Sourceft. Apply	d Downgradient n	☐ Not Known		Walker-Hi	11 Env.	
A. Protective pipe, top elevation	2.5_ft.MSL ———		. Cap and lock?	•	☐ Yes □	1 N
B. Well casing, top elevation	2.0_ft. MSL	- R 2	. Protective cover p			
			a. Inside diameter		4.	0
C. Land surface elevation	0.0_ft.MSL	11 12	b. Length:		5.	0
D. Surface seal, bottom 3 . 0 ft. MS	Lor ft.		c. Material:		Steel K	]
12. USCS classification of soil near screen	14 2 Usa T . 4		G Saus Saus	<del></del>	Other	
GP □ GM □ GC □ GW □ S	WILL SPILL	1 3	d. Additional prot	T 70.1	ĭ Yes □	1 1
SM SC ML MH C	L CH D		If yes, describe	= 2 IIUS		
Bedrock □		3.	. Surface scal:		Bentonite 🗆	
13. Sieve analysis performed?	es 🖾 No		Cement/Sa	and Mix	Concrete Other	
14. Drilling method used: Rota	ary □ 50	4.		well casing and protect	Other Ex	( }
Sonic Hollow Stem Au	ger 🗆 41	4.			Bentonite 🗆	
Oni	her 🖾 🧎 📗		Cement/Sa	and Mix	Other 🖾	
15. Drilling fluid used: Water 💆 0 2	Air 🗆 01	5.	Annular space sea	l: a. Granular/Chipp		
	one □ 99	ь	Lbs/gal m	ud weight Bentonit	te-sand slurry	1 3
- US N	One LL 77	c.	Lbs/gal m	ud weight Ben	tonite slurry	1 :
16. Drilling additives used? ☐ Y	es 🛮 No	d.	% Bentonit	te Bentonite-	cement grout	
		e.		volume added for any		
Describe		f.		TI De el el Comort	Tremie 🗆	
<ol><li>Source of water (attach analysis, if requi</li></ol>	red):		4.5 gallons water, and 2 cubi	ype II Portland Cement, Trei ic feet of fine sand;	mie pumped	. (
City		6	Bentonite seal:	a Rentm	Gravity 🖄	
0.0		A KAA	Company of the Compan	/8 in. □1/2 in. Be		
E. Bentonite seal, top _ O . O _ ft. MSL	or ft.		c. N/A	70 пл. — 1/2 пл. — Вс.	Other	
2.5			T-100 100 100 100 100 100 100 100 100 100		100 Acres 114	
Fine sand, top $-2.5$ ft. MSL	or ft.		Fine sand material:	: Manufacturer, produ	ict name & mesh	h s
Filter pack, top 3 .0 ft. MSL	- 4	3/	4	#8 sand		
. The pack, top it. Wish	or II.	1 100	<ul> <li>b. Volume added _</li> </ul>		13	
. Screen joint, top5. Gt. MSL	or ft.	8.	Filter pack materia Global	il: Manufacturer, produ	uct name & mes	h s
			1	#/ sand	7	
Well bottom 15.0 ft. MSL	orft.		<ul> <li>b. Volume added _</li> <li>Well casing:</li> </ul>	Flush threaded PVC so	3	
				Flush threaded PVC so		2
Filter pack, bottom _ 17.0   ft. MSL	orft.	學人		unreduced F v C Sc	Other	2
Rorehole bottom 17.0 ft MSI		10.	Screen material:	PVC	Other L	*
Borehole, bottom ft. MSL	or ft.	TIII .	. Screen type:		Factory cut	1
5.0			1		inuous slot	0
Borehole, diameter $-\frac{6}{2} \cdot 0$ in.					Other 🗆	
0.D well 2 5		) b	. Manufacturer _	Johnson		
O.D. well casing $2.5$ in.		\ c			0. 10	)_i
I.D. well casing $2.0_{\text{in}}$		\ d	Slotted length:		_10	0_1
in.		11.1	Backfill material (b Sand	elow filter pack):	None □ Other 🔀	1

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# Attachment 4 Well Development Logs

Street: One Stanton Street

City/State/ZipMarinette, WI 54143

#### MONITORING WELL DEVELOPMENT Form 4400-113B Rev. 7-98

	County Name		Well Name	
Facility/Project Name Tyco Fire Products	Marinet	te		
Facility License, Permit or Monitoring Number	County Code	Wis. Unique Well Nu	MW121	DNR Well ID Number
1. Can this well be purged dry?	res √ No	11. Depth to Water	Before De	velopment After Development
2. Well development method		10 0		76 - ft0 · 85 - ft.
	41	well casing)		76 85
surged with bailer and pumped		100000000000000000000000000000000000000		
surged with block and bailed		Date ,	,	, , , , , , , , , , , , , , , , , , , ,
	62		$\frac{1}{m} = \frac{1}{m} = \frac{1}{4}$	d 2019 v m6 m 14 d 2019
surged with block, bailed and pumped				
compressed air		Time	00 :50	2 a.m. p.m. 09 50 p.m.
bailed only		1	08 - 50	
The state of the s	51	12. Sediment in well		inches inches
X	50	bottom		
Other	3	13. Water clarity	Clear D 1	10 Clear □ 20
	<del></del>		Turbid D	5 Turbid 25
. Time spent developing well			(Describe)	The state of the s
60	— min.			
. Depth of well (from top of well casisng)	ft.			Turb <50 NTU
			odor, Turk	250
. Inside diameter of well2	in.		NTU	
V. Volume of water removed from well120 _	gal. gal. gal.	14. Total suspended solids		nd well is at solid waste facility: mg/l mg/l mg/l mg/l
		16 Wall daysland hu	None (Cart )	(
O Applysis performed as water of the 10	an D	16. Well developed by	. Ivame (Iirst,	
<ol> <li>Analysis performed on water added?</li> <li>(If yes, attach results)</li> </ol>	es <sub>X</sub> □ No	First Name Mike		Last Name: Michaud
(11 yes, attach results)		Firmen u unu =		
7. Additional comments on development:		FirmWalker-Hill E	nvironmen	tal, Inc
gallons/minute pumping rate				
gallons/militate pumping rate				
lame and Address of Facility Contact/Owner/Responsib	le Party			April 200
last I set			the above inf	formation is true and correct to the best
Dyon Cuonnon		of my knowledge.		
ame: Ryan Name: Suennen				
Jame: Ryan Last Name: Suennen  Jacility/Firm: Tyco Fire Products LP		Signature: Jack Gre		

Print Namelack Graham

Jacobs-

Firm:

### MONITORING WELL DEVELOPMENT Form 4400-113B Rev. 7-98

Facility/Project Name		velopment County Name		Well Name		
Tyco Fire Products		Marine				
Facility License, Permit or Monitoring Number	r	County Code	Wis. Unique Well	MW122S Number	DNR Well	ID Number
		38				
1. Can this well be purged dry?	Ye Ye	s 🗆 No	11. Depth to Water		velopment	After Development
2. Well development method			(from top of		ft	ſ.
surged with bailer and bailed	□ 4	1	well casing)		24	$ \overline{Dry} \cdot$ fi.
surged with bailer and pumped	□ 6		A CONTRACTOR			
surged with block and bailed	0 4		Date		,	, ,
surged with block and pumped	□ 6			o no m d4	d 2019y	y m6m 14 d 201,9
surged with block, bailed and pumped	0 7					
compressed air	□ 2	0	Time	c. 40_ :25.	X p.m.	14 — : a.m. p.m.
bailed only				10 25		14 35 <sub>X</sub>
pumped only	<u>D</u> 5		12. Sediment in wel	11	inches	inches
pumped slowly	<u>D</u> 5		bottom			
Other			13. Water clarity	Clear 🛘 1	10	Clear 20
	****			Turbid 1	1.5	Turbid □ 25
3. Time spent developing well	_250_	min.		(Describe)		(Describe)
4. Depth of well (from top of well casisng)		ſt.		-		
				Black	——Т	urb <50 NTU
5. Inside diameter of well	_2	_ in.		-		
6. Volume of water in filter pack and well				-		<del></del>
The state of the s		gal.				
			Fill in if drilling flu	ids were used a	nd well is at	solid waste facility:
7. Volume of water removed from well	_ 77 _	gal.				
			14. Total suspende	d	mg/l	mg/l
8. Volume of water added (if any)		gal.	solids			
9. Source of water added			15. COD		mg/l	mg/l
			16. Well developed	har Nama (finat	last) and Firm	
10. Analysis performed on water added?	П Ус	s $\square$ No		by. Name (mst,		
(If yes, attach results)	L 10	X	First Name: Mike		Last Name	: ⁄lichaud
(			Firm:Walker-Hill	. Carriera na na an		
17. Additional comments on development:			- waiker-miii	Environmen	tal, Inc.	
rged after 30 minutes of pumping for 1	IA minu	tee and then	numped for 37 m	ninutae Pacu	ımad activ	ities after lunch
inged after 30 milliotes of pumping for i			i puilipeu ioi 37 ii	iiilules. Nesu	iiiieu aciiv	illes after fuffert,
	iiiiiiute					
rged again and pumped for another 30						
				·		
				·		
rged again and pumped for another 30	esponsible	Party	Tri i ii			
rged again and pumped for another 30  Name and Address of Facility Contact/Owner/Re		: Party			formation is	true and correct to the best
rged again and pumped for another 30  Name and Address of Facility Contact/Owner/Re		Party	I hereby certify the of my knowledge		formation is	true and correct to the best
Name and Address of Facility Contact/Owner/Refirst Name: Ryan Name: Suenne		Party	of my knowledge	).	formation is	true and correct to the best
rged again and pumped for another 30  Name and Address of Facility Contact/Owner/Re		Party	of my knowledge Signature:  Jack G	raham	formation is	true and correct to the best
Name and Address of Facility Contact/Owner/Refirst Name: Ryan Name: Suenne		Party	of my knowledge	raham	formation is	true and correct to the best

#### MONITORING WELL DEVELOPMENT Form 4400-113B Rev. 7-98

Facility/Project Name		County Name		Well Name		
Tyco Fire Products		Marinet	te			
Facility License, Permit or Monitoring Number		County Code	Wis. Unique Well N	lumber W123	SDNR V	Vell ID Number
1. Can this well be purged dry?	☐ Yes	□ No	11. Depth to Water			nt After Development
2. Well development method			(from top of	a	ft	·n.
surged with bailer and bailed	□ 4	1	well casing)	3	40	
surged with bailer and pumped	D 6	1				
surged with block and bailed	0 4	2	Date	h /	1	1 1
surged with block and pumped	□ 6	2		m6m 12	a 2 <b>919</b>	y y m6m 12d 2019
surged with block, bailed and pumped	7	0			a.m	n. 🛛 a.m.
compressed air	□ 2	0	Time	C. 45-177	_ p.n	1. a.m. 1. 16 33 y
bailed only					/\	^
pumped only	D 5	1	12. Sediment in well		inche	s inches
pumped slowly	□ 5	0	bottom			
Other		-	13. Water clarity	Clear   1		Turbid □ 25
3. Time spent developing well	50_	min.		(Describe)		(Describe)
4. Depth of well (from top of well casisng)		ft.		T <del>urb 600 l</del>	<del>VTU </del>	Turb <50 NTU
5. Inside diameter of well	2	in.				· ————
5. Volume of water in filter pack and well						
casing		gal.	Fill in if drilling flui	ds were used a	nd well is	s at solid waste facility:
7. Volume of water removed from well	200	gal.	14 Total suspended		ma	1mg/l
8. Volume of water added (if any)		gal.	solids		· — ""	·
9. Source of water added			15. COD		mg/	1mg/l
			16. Well developed b	y: Name (first,	last) and Fi	irm
<ol> <li>Analysis performed on water added? (If yes, attach results)</li> </ol>	☐ Yes	X No	First Name: Mike		Last Na	Michaud
7 Additional comments on developments			Firm: Walker-Hill	Environmer	ital, Inc.	
17. Additional comments on development:						
rged for 10 minutes and then pumped						
Name and Address of Facility Contact/Owner/Res	sponsible	Party	T11		c	
irst Last	170		of my knowledge.		iormation	n is true and correct to the bes
Name Ryan Last Name Suenne	n		of my knowledge.			
acility/Firm:yco Fire Products LP			Signature: Wayne	Conway		2 ×
StreetOne Stanton Street	1-		Print Name Co	1.2		
			Firm:	•		

Route to: Watershed/Wastewater

#### MONITORING WELL DEVELOPMENT Form 4400-113B Rev. 7-98

Facility License, Permit or Monitoring Number   County Code   38	County Code   38   Wis. Unique Well Number   DNR Well ID Number   DNR	Facility/Project Name Tyco Fire Products	County Name	+ 0	Well Name		
1. Can this well be purged dry?	. Can this well be purged dry?				MW124S	T == == == == ==	
2. Well development method surged with bailer and bailed surged with bailer and pumped surged with block and pumped surged with block and pumped surged with block and pumped surged with block and pumped surged with block and pumped compressed air bailed only pumped only pumped slowly Other  3. Time spent developing well 4. Depth of well (from top of well casisng) 4. Depth of well (from top of well casisng) 4. Depth of well (from top of water in filter pack and well casing  7. Volume of water added  8. Volume of water added  9. Source of water added  11. Depth to Water (from top of well casing)  a2 - 79 - ft.	Well development method surged with bailer and bailed   41   surged with bailer and pumped   61   surged with block and pailed   42   surged with block, bailed and pumped   62   surged with block, bailed and pumped   70   compressed air   20   20   bailed only   10   pumped only   51   pumped slowly   50   Other   80   min.   Depth of well (from top of well casisng)   17   29   ft.   Inside diameter of well   250   Volume of water in filter pack and well casing   -2   4   Source of water added   15   Sou	Pacinty License, Permit or Monitoring Number		Wis. Unique Well	Number	DNR Well I	D Number
2. Well development method surged with bailer and bailed   41   5   5   6   5   5   6   5   6   6   6	(from top of well easing)  (from top of well easing)  (from top of well easing)  (from top of well easing)  (from top of well easing)  (from top of well easing)  Date    Date	1. Can this well be purged dry?	es 🔽 No	11. Depth to Wate		velopment A	After Development
surged with bailer and pumped   61   61   51   51   51   51   51   51	surged with bailer and bailed   41   surged with bailer and pumped   61   surged with block and bailed   42   b.m.m./d2 d/2019 y y m.m./d2 d/2019 y m.m./d2 d/20	2. Well development method				70 — ft.	1 . 04 ft.
surged with block and bailed surged with block and pumped surged with block and pumped surged with block and pumped compressed air bailed only pumped only pumped slowly Other	surged with block and bailed surged with block and pumped surged with block, bailed and pumped compressed air compressed air bailed only pumped only pumped slowly Other	surged with bailer and bailed	4 1	well casing)		79 —	4-91-
surged with block and bailed surged with block and pumped 62 surged with block, bailed and pumped 70 compressed air 20 bailed only 10 pumped only 51 pumped slowly 550 Other 10.  3. Time spent developing well 8. Depth of well (from top of well casisng) 17 29 ft. 5. Inside diameter of well 250 ain. 6. Volume of water removed from well 250 agal. 7. Volume of water removed from well 250 agal. 8. Volume of water added 15. COD agal. 9. Source of water added 15. COD agal. 16. Well developed by: Name (first, last) and Firm	surged with block and bailed surged with block and pumped surged with block, bailed and pumped compressed air compressed air bailed only pumped only pumped slowly Other			1 1 1 1 1 1 1 1 1			
surged with block, bailed and pumped compressed air	surged with block, bailed and pumped compressed air bailed only 10 10 10 10 10 10 10 10 10 10 10 10 10			Date	/	1	
surged with block, bailed and pumped compressed air	surged with block, bailed and pumped compressed air bailed only 10 10 10 10 10 10 10 10 10 10 10 10 10	surged with block and pumped	52		m m d	a' <del>2019</del>	$\frac{-6}{m}$ $\frac{12}{d}$ $\frac{2019}{v}$
bailed only pumped only	bailed only pumped only pumped slowly Other						
bailed only pumped only	bailed only pumped only pumped slowly Other	compressed air	2 0	Time	c. 00_:14	_* p.m.	10_:24_X p.m.
bottom    Solution   S	bottom  13. Water clarity  13. Water clarity  14. Total suspended from well  15. CoD  16. Well developed by: Name (first, last) and Firm  16. Well developed by: Name (first, last) and Firm  16. Well developed by: Name (first, last) and Firm  17. Additional comments on development:	bailed only	10		09 14		10 34
bottom    Solution   S	Depth of well (from top of well casisng)   17_29_ft.   1.   1.   1.   1.   1.   1.   1.	pumped only	5 1	12. Sediment in we	ıı <u> </u>	inches	inches
Other	Other			bottom			
3. Time spent developing well80min.	Time spent developing well —80 min.  Depth of well (from top of well casisng) —17 29 ft.  Inside diameter of well —2 in.  Volume of water in filter pack and well casing —2 4 gal.  Volume of water removed from well —250 gal.  Volume of water added (if any) — gal.  Source of water added — gal.  Source of water added — mg/l mg/l  16. Well developed by: Name (first, last) and Firm  First Name: Mike Last Name: Michaud  Firm: Walker-Hill Environmental, Inc.			13. Water clarity	Clear   1	10 CI	
5. Inside diameter of well  -2 in.  6. Volume of water in filter pack and well casing  -2 - 4 gal.  7. Volume of water removed from well  8. Volume of water added (if any)  9. Source of water added  15. COD  16. Well developed by: Name (first, last) and Firm	Inside diameter of well  Volume of water in filter pack and well casing  ———————————————————————————————————	3. Time spent developing well — -80	min.				escribe)
6. Volume of water in filter pack and well casing — 2_4_ gal.  7. Volume of water removed from well — 250_ gal.  8. Volume of water added (if any) — gal.  9. Source of water added mg/l mg  16. Well developed by: Name (first, last) and Firm	. Volume of water in filter pack and well casing — 2_4_ gal.  . Volume of water removed from well — 250 — gal.  . Volume of water added (if any) — gal.  . Volume of water added (if any) — gal.  . Source of water added 15. COD mg/l mg/l  . Source of water added 16. Well developed by: Name (first, last) and Firm  16. Well developed by: Name (first, last) and Firm  17. Additional comments on development:    Walker-Hill Environmental, Inc.	4. Depth of well (from top of well casisng)17	29_ft.		Turb over	limit Tu	rb <50 NTU
casing2_4_ gal.  7. Volume of water removed from well250 gal.  8. Volume of water added (if any) gal.  9. Source of water added gal.  14. Total suspended mg/l mg  solids  15. COD mg/l mg  16. Well developed by: Name (first, last) and Firm	Casing —— 2_4_ gal.  Volume of water removed from well —— 250 gal.  Volume of water added (if any) —— gal.  Source of water added —— gal.  Source of water added —— gal.  14. Total suspended —— mg/l —— mg/l solids  15. COD —— mg/l —— mg/l —— mg/l  16. Well developed by: Name (first, last) and Firm  First Name: Mike —— Michaud  Firm: Walker-Hill Environmental, Inc.	5. Inside diameter of well2	in.				
7. Volume of water removed from well	. Volume of water removed from well		4_ gal.	Fill in if drilling flu	ide ware used a	nd wall is at ea	Aid waste facility
8. Volume of water added (if any) gal. solids 9. Source of water added 15. COD mg/l mg  16. Well developed by: Name (first, last) and Firm	Source of water added	7. Volume of water removed from well $-250$	gal.				
16. Well developed by: Name (first, last) and Firm	0. Analysis performed on water added?	8. Volume of water added (if any)	gal.		d	mg/i _	mg/I
	0. Analysis performed on water added?	9. Source of water added		15. COD		mg/l _	mg/l
	7. Additional comments on development:					last) and Firm	
10. Analysis performed on water added? ☐ Yes x☐ No First Name:  (If yes, attach results)	7. Additional comments on development:	<ol> <li>Analysis performed on water added?</li> <li>Ye</li> <li>(If yes, attach results)</li> </ol>	s <sub>X</sub> □ No	First Name: Mike		Last Name:	ichaud
	7. Additional comments on development:			Firm: Walker-H	ill Environme		
17. Additional comments on development: urged for 10 minutes and then pumped						,	
		Name and Address of Facility Contact /Owner/Responsible	e Party				
Name and Address of Facility Contact /Owner/Responsible Party	ame and Address of Facility Contact /Owner/Responsible Party	First Last	v z uitj			formation is tri	ue and correct to the best
irst last	rst Last			Signature:			
Name: Ryan Name: Suennen I hereby certify that the above information is true and correct to the of my knowledge.	rst Last Name: Suennen of my knowledge.						
Vame: Ryan	rst Last of my knowledge.  Signature: Wayne Conway	Street: One Stanton Street		Print NameWayne	Conway		

Firm:

Jacobs

Waste Management

City/State/ZipMarinette, WI 54143

Route to: Watershed/Wastewater

### MONITORING WELL DEVELOPMENT Form 4400-113B Rcv. 7-98

Remediation/Red	County Name	Other	Well Name	
Tyco Fire Products	Marinet	te	16:385523000	
Facility License, Permit or Monitoring Number	County Code	Wis. Unique Well N	umber	DNR Well ID Number
2. Well development method surged with bailer and bailed surged with bailer and pumped surged with block and bailed surged with block and pumped surged with block, bailed and pumped compressed air bailed only pumped only pumped slowly Other	es No  4 1 5 1 4 2 6 2 7 0 2 0 1 0 5 1 5 0	11. Depth to Water (from top of well casing)  Date  Time  12. Sediment in well bottom  13. Water clarity	Before Dev  a	velopment After Development  14 — ft. — 6 30 — ft.  14 — ft. — 6 30 — ft.  14 — ft. — 6 30 — ft.  15 — 30 — ft.  16 — 30 — ft.  17 — ft. — 6 30 — ft.  18 — ft. — 6 30 — ft.  19 — ft. — ft. — ft.  10 — ft. — ft. — ft. — ft.  11 — ft. — ft. — ft. — ft.  12 — ft. — ft. — ft. — ft.  13 — ft. — ft. — ft. — ft.  14 — ft. — ft. — ft. — ft.  15 — 30 — ft.  16 — sam. — ft. — ft. — ft.  16 — sam. — a.m. — a.m.  20 — ft. — ft. — ft. — ft.  20 — ft. — ft. — ft. — ft. — ft.  20 — ft. — ft
(II yes, mean results)				
17. Additional comments on development:		Walker-Hill	Environmen	ntal, Inc.
umped at ~1-2 gallons per minute				
Name and Address of Facility Contact/Owner/Responsibl First Last Name: Ryan Name: Suennen	e Party	I hereby certify the of my knowledge.	at the above inf	formation is true and correct to the best
Facility/Firm:Tyco Fire Products LP		Signature;	Conway	
Street: One Stanton Street		Print Name: ayne C	Conway	
City/State/ZipMarinette, WI 54143		Firm: Jacobs		

Waste Management \_\_\_\_

NOTE: See instructions for more information including a list of county codes and well type codes.

Route to: Watershed/Wastewater

#### MONITORING WELL DEVELOPMENT Form 4400-113B Rev. 7-98

Facility/Project Name Tyco Fire Products	County Name Marinet	- t o	Well Name
Facility License, Permit or Monitoring Number	County Code	Wis. Unique Well N	umber DNR Well ID Number
	38	<u> </u>	
Can this well be purged dry?	es 🗆 No		Before Development After Development
Well development method		11. Depth to Water (from top of	
	4.1	well casing)	a. —— 3 · 3·9 — ft. —— Dry · —— ft.
surged with bailer and pumped		1 2	
surged with block and bailed		Date	$\frac{b.m_m}{m_m} \frac{1}{4} \frac{4d}{d} \frac{2019}{y} \frac{y}{y} \frac{m_m}{m_m} \frac{15d}{d} \frac{2019}{4019}$
	62	4	m dn d4d \$0 p3y y m dn d5d \$0 p3
	70	1 2 2 2 2	□ a.m. □ a.m.
compressed air	200	Time	c. $\frac{15}{15} = \frac{26}{26} = \frac{10}{x} = \frac{13}{13} = \frac{13}{25} = \frac{13}{x} = $
bailed only			^
pumped only pumped slowly	5 1	12. Sediment in well	inches inches
pumped slowly	5.0	bottom	
Other		13. Water clarity	Clear □ 10 Clear □ 20
			Turbid □ 15 Turbid □ 25
Time spent developing well — -14	1 min.		(Describe) (Describe)
Depth of well (from top of well casisng)	ft.		High turbidity Clear
Inside diameter of well —2—.	in.		Gloai
Volume of water in filter pack and well			
	- 9_ gal.		
	9 641.	Fill in if drilling fluid	ds were used and well is at solid waste facility:
Volume of water removed from well 25	gal.	1 111 111 11111111111111111111111111111	as word asset and work is at some waste racinty.
- 25 _	- · — Bui.	14 Total suspended	mg/l, mg/l
Volume of water added (if any)	1	solids	mgrmgr
	gal.	sonus	
Source of water added		15. COD	mg/l
			y: Name (first, last) and Firm
O. Analysis performed on water added?  (If yes, attach results)  Yes	cs <sub>X</sub> □ No	First Name: Mike	Last Name: Michaud
		Firm: Walker-Hill-	Environmental, Inc.
7. Additional comments on development:			
mped dry 3 times, slow recharge. Surged be	efore pumping	g.	
ame and Address of Facility Contact/Owner/Responsib	le Party	T L	at the above information is true and correct to the best
[1] [1] [1] [1] [1] [1] [1] [1] [1] [1]		of my knowledge.	
rst name: Ryan Last NameSuennen		of my knowledge.	
Type Fire Products I D		C:	
Tyco Fire Products LP		Signature: Wayne	CHANDAN .
			10.00 M
		In	
reet One Stanton Street		Print Name:	OUMAN
reet One Stanton Street		Print Name: Wayne C	onway
ity/State/ZirMarinette, WI 54143		Firm: Jacobs	onway

Waste Management [

# Attachment 5 Abandonment Logs

State of Wis., Dept. of Natural Resources dnr.wi.gov

### Well / Drillhole / Borehole Filling & Sealing Report

Form 3300-005 (R 4/2015)

Page 1 of 2

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and chs. NR 141 and 812, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between \$10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

☐ Verification Only	of Fill and Sea	1	Dri	DNR Bureau inking Water aste Manageme		Watershed/Wa	stewater [	Remed	liation/Redevelopment
1. Well Location Infor	mation					y / Owner Info	rmation		
County	WI Unique Well # Removed Well	of H	icap#		Facility Na			/008S	
Marinette					Facility ID	(FID or PWS)			
Latitude / Longitude (see in 45.0980789°	nstructions) N	Format C		Method Code  GPS008  SCR002	4380	39470 ermit/Monitoring #			
-087.6132836°	W		ОМ	OTH001	Licensen	annie wormoning w			
1/4 1 1/4 NW or Gov't Lot #	Section 5	Towns		Range E E	Original W	ell Owner			
Well Street Address One Stanton Street			0 N		Present W	ell Owner			
Well City, Village or Town Marinette				IP Code		dress of Present of anton St.	Owner		
Subdivision Name			Lot #		City of Pre Marinet	sent Owner tte		State WI	ZIP Code 54143
Reason for Removal from S Temporary Well	Service WI Un	ique Well #	# of Rep	lacement Well		Liner, Screen	, Casing & Sea d?	ling Mat	erial Yes No XN/A
3. Filled & Sealed Wel	I / Drillhole / Bo	orehole Ir	nforma	ation	Liner(s)	removed?			Yes No X N/A
Monitoring Well				nm/dd/yyyy)	Liner(s)	perforated?			Yes No X N/A
	6/9/20	19				removed?			Yes No X N/A
Water Well	If a Well C	Construction	n Repor	t is available,	Casing	left in place?			Yes No X N/A
X Borehole / Drillhole	please att		ritopor	t lo avallable,	Was cas	sing cut off below	surface?		Yes No N/A
Construction Type:					Did seal	ling material rise t	o surface?		Yes No N/A
X Drilled	Oriven (Sandpoint)		Dug		Did mat	erial settle after 2	4 hours?		Yes No N/A
Other (specify):					HI LOS LOS YES	es, was hole retop	The Sale of the Court of the Co		Yes No N/A
Formation Type:						nite chips were us ter from a known s	sed, were they hyd	rated	Yes No X N/A
X Unconsolidated Form	ation	Bedroc	k			Method of Placing			
Total Well Depth From Gro		Casing Di		(in.)			y X Conductor	Pipe-Pum	ped
7		4			Scre	ened & Poured tonite Chips)	Other (Expl		
Lower Drillhole Diameter (i	n.)	Casing De	epth (ft.)		Sealing Ma				
4		7	7			Cement Grout		Concrete	
Was well annular space gro	outod2	Yes [	No	Unknown		-Cement (Concre	ete) Grout	Bentonite	Chips
				OHKHOWH	For Monito	The state of the s	onitoring Well Bore	holes Onl	y:
If yes, to what depth (feet)?	Dept	h to Water	_		Bent	onite Chips	Bento	nite - Cem	ent Grout
		0.5	5		Gran	ular Bentonite		nite - Sand	
5. Material Used to Fil	l Well / Drillhol	е			From (ft.)	To (ft.)	No. Yards, Sacks S Volume (circle		Mix Ratio or Mud Weight
Sand-Cement Grout					Surface	7	volume (circle	one)	1 bag (94 pounds) Type II Portland Cement, 4.5 gallo water, and 2 cubic feet of
6. Comments									sand
Temporary well point no	ear former well I	MW0085	was ins	stalled for a g	roundwater	r sample and th	en abandoned.		
7. Supervision of Wor	k							ONR Use	Only
Name of Person or Firm Do Walker-Hill Environme	oing Filling & Seali	ng Licer	nse#	Date of F (mm/dd/)		ng or Verification 09/2019	Date Received		Noted By
Street or Route 5983 Commerce Road					elephone Nu (850 ) 5		Comments		
City Milton		State FL	ZIP C		Signature Chris Ha	of Person Doing V ryslip	Vork		ite Signed /1/2019

State of Wis., Dept. of Natural Resources dnr.wi.gov

## Well / Drillhole / Borehole Filling & Sealing Report

Form 3300-005 (R 4/2015)

Page 1 of 2

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and chs. NR 141 and 812, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between \$10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

Verification Only	of Fill and Se	al		to DNR Burea Orinking Water	u:	Watershed/Was	stewater	Remed	liation/Redevelopment	
			V	Vaste Manager	nent	Other:				
1. Well Location Inform			10.5			y / Owner Info	rmation			
County WI Unique Well # of Removed Well			Hicap #		Facility Na Tyco Fi	ame re Products LP	GW	/-TW02		
Marinette					Facility ID	(FID or PWS)				
Latitude / Longitude (see instructions) 45.0973848°  N Format Code  X GPS008					4360	438039470 License/Permit/Monitoring #				
-087.6128070°	-087.6128070° W		DM	SCR002	the latest the second second	sittiit/vioriitotiilg #				
	1/4			wnship Range E E		Original Well Owner				
ZY ALV 1 ED Y-	1,12		30 N			/ell Owner				
Well Street Address One Stanton Street						***************************************				
Well City, Village or Town  Marinette  54143						Mailing Address of Present Owner One Stanton St.				
Subdivision Name			Lot #		City of Pre	esent Owner		State	ZIP Code	
Subdivision Name				Lot#		Marinette WI 54143				
Reason for Removal from Service   WI Unique Well # of Replacement Well							, Casing & Sea	ling Mat		
Temporary Well						ind piping removed	H	Yes No XN/A		
3. Filled & Sealed Well / Drillhole / Borehole Information						Liner(s) removed?         Yes         No         X N/A           Liner(s) perforated?         Yes         No         X N/A				
Monitoring Well Original Construction			truction Date (mm/dd/yyyy)							
Water Well 6/12/2019			19			Casing left in place?				
If a Well Construct			n Rep	ort is available,						
X Borehole / Drillhole please attach.					To 1 1 To 2 1 1	Was casing cut off below surface? Yes No N/A				
Construction Type:					10.10.10.4	Did sealing material rise to surface?  Yes No N/A				
X Drilled Driven (Sandpoint) Dug					7 7 7 7 7 7	Did material settle after 24 hours?				
Other (specify):						If yes, was hole retopped? Yes No N/A  If bentonite chips were used, were they hydrated				
Formation Type:						nite chips were us ter from a known s		rated	Yes No X N/A	
X Unconsolidated Forma	ation	Bedro	ck			Method of Placing	~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~			
Total Well Depth From Gro	und Surface (ft.)	Casing D	iamete	er (in.)	Cond	ductor Pipe-Gravit	y X Conductor	Pipe-Pum	ped	
5						Screened & Poured (Bentonite Chips) Other (Explain):				
Lower Drillhole Diameter (in	n.)	Casing D	epth (fi	t.)	Sealing Ma	aterials		1.0		
4				5		Neat Cement Grout Concrete				
X	-	1	-33			d-Cement (Concre	ete) Grout	Bentonite	Chips	
Was well annular space gro	uted?	Yes	No	Unknow	n For Monito	oring Wells and Mo	onitoring Well Bore	holes Onl	y:	
If yes, to what depth (feet)? Depth to Wa			(feet)		Bent	tonite Chips	Bento	nite - Cem	ent Grout	
		0.5			Gran	Granular Bentonite Bentoni			te - Sand Slurry	
5. Material Used to Fil	l Well / Drillhol	e			From (ft.	) To (ft.)	No. Yards, Sacks S Volume (circle		Mix Ratio or Mud Weight	
Sand-Cement Grout					Surface	5	, , , , , , , , , , , , , , , , , , , ,		1 bag (94 pounds) Typ	
									Portland Cement, 4.5 water, and 2 cubic fee sand	
6. Comments									35110	
Temporary well point ne	ear former well	TW-02 w	as inst	talled for a gr	oundwater s	ample and then	abandoned.			
7. Supervision of Wor				· ·		A SECTION AND		ONR Use		
					Filling & Seali	ing or Verification	Date Received Noted By			
					/уууу) 06/12					
5000 6					Telephone No ( 850 ) 56		Comments			
City Milton		State	1000	Code	Signature	of Person Doing V	Vork		ate Signed	