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#### **Roth Professional Solutions**

## LIFT STATION CONDITION ASSESSMENT FORM

Assessment Date: 25 April 2023

Location: 8	99 Nelson Rd, Mosinee, WI	Municipality: Village of Kronenwetter	LS Type:	Duplex Submersible		
Engineer:	Roth Professional Solutions	Solutions         Technical & Equipment Assistance:         B&M Technical Services				
House Keep	oing: 📕 Good 🗌 N/A 🗌 Poor Lighting 📄 Sump Pump Inoperable 📄 Electric Sp	Tripping Hazards Present     No Fall Protectic vace Heater Inoperable     Potential for Shock or		Exposure to Raw Wastewater in Dry Well tion 🗌 Other		

Health and Safety Issues:

Other Observations:

Asset Class	Asset Present	Year Installed	Cond. Rank	Perf. Rank	Field Observations/Comments				
Site Improvement (SIM)									
* Access Driveway	X								
* Parking	X								
* Gate and Fencing			<u> </u>	 					
* Site Drainage	X			ا ا					
* Grounding System	X				Grounding Rods				
* Site Lighting									
* Site Alarm Horn and Strobe Lighting	X								
General Site Electrical Observa	tions								
Access Driveway Details: Parking Details: 🗌 None Fence Details: 🗍 Chain	Gravel	aggregate basec Pavec Fencing Height (	d		rete Pavement 🔳 Bituminous Pavement Fencing Length (ft):				
Gate Type: Single	Double								
Traffic: Other	r 🗌	] Site too Close t	to Traffic (	Jkay					
Grounding System Details:	System 📕 Present 🔄 Grounding Rings 📕 Grounding Rods								
If applicable, approximate pa	If applicable, approximate parking area:								
If applicable, approximate sit	If applicable, approximate site area:								
Other Notes:									
No ISO Valve due to Clo	og/Removal; Nee	ed pump tags 8	k Manuals i	in Panel					
Hinge Repair need in w/Well Hatch; Painted Cabinet-OK									



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Asset Class	CMMS Code	Asset Present	Year Installed	Cond. Rank	Perf. Rank	Utiliz. (%)	Field Observations/Comments		
Structure and Wetwell (PST)									
* Building	N/A								
Building Structures: O	one Concrete V	Walls Con Total Floor	ncrete Floor Area:		Plan Flo	oor Area:			
Field Observations: Goo	od 🗌 N/A 📃 R cks on the Wall 🗌	oof Degraded [ ] Cracks on the F	_		ng 🗌 N	leeds Paint			
* Odor Control		✓							
Odor Details: Ver	nt Pipe	Other	Details						
	perational and in use ther	On site,	but not required	Do	es not opera	ate, needs i	repair		
* Crane/Hoist							Portable / Off site		
Crane Details: Mar	nufacturer:		Model:		Ser	rial Number			
Field Observations: Go	od operating conditio	on 🗌 Does n	ot operate, requ	ires repair	Mou	nting Hard	ware intact		
Otl	ner								
* Bar Screen or Com minuter	N/A								
System Description:	No Bar Screen	Manually Raked	Bar Screen	Mechanio	ally Raked	Bar Screen	Screen Bypass Provided?		
Mechanical Bar Screens:	Manufacturer:		Model:	Seri	al Number:		Power Requirements (hp):		
Odor Details: N/A		frequent cleaning	g 🗌 Shor	t repsonse t	ime	Odor fly r	nuisance 🗌 Screens not in use		
Flow Meter	N/A								
	N/A								
Type: N			anufacturer:		Model:		Serial Number:		
Flow Meter Field Observat		al			ocation				
	Other		[	1					
* Wet Well		✓							
Walls: 📕 Concre	ete 🗌 Steel	Fiberglass							
Slab/Cover: 📕 Reinfo	orced Concrete	Steel Pur	mps, motors an	d electric p	anel are m	nounted or	n cover/slab directly over wet well		
Pump Control System: 📕	Floats Bubble	er System	Ultrasonic & Tra	nsducer					
Measurement (PPM):									
Wet Well Field Observations: 📕 Good 🗌 PN/A 🗌 Hatch Damaged or Difficult to Open 📄 Wet Structure Spalling or Cracked									
Evidence of Concrete Corrosion Wet Well Needs Cleaning - Solids/Grease Other									
Hatch Field Observations: Good Fair: Minor Corrosion to Hatches, Hinges, or Latches Poor:Corroded or Broken Hatches, Hinges, or Latches									
Other New Hinge on Access Hatch									
Wet Well Ladder Observations: Good Fair: Surface Corrosion; Steps Intact and Solid; Minor Anchor Bolt Corrosion									
Wet Well Wall Observations:		r: Concrete Sealar			L				
wet wen wan Observations.		/Missing Aggregat			Other	מוומנל			
Slab/Cover Observations:	Good Eair:	Concrete or Alum	iinum Grate Sligh	ntly Corrode	d But Safe				
	Poor: Concrete Ag	gregate Missing/	Exposed; Grate	Corroded o	<sup>r</sup> Warped; D	ebris Over	Platform Dther		



#### **Roth Professional Solutions**

Asset Class	CMMS Code	Asset Present	Year Installed	Cond. Rank	Perf. Rank	Utiliz. (%)	Field Observations/Comments		
Influent Pipe Observations:	Good 🗌 Fair:	: Slight Corrosion;	Pipe Intact	Poor: Se	vere Pipe Co	prrosion	Other		
Alarm Float Observations:	Good I	Fair: Some Grease	But Operating F	Properly	Poor:	Covered in	Grease or Broken 🗌 Other		
Pump Vent Line Observations: Good Fair: Slight Corrosion But Operates Properly; Needs Sealant Around Opening									
Poor: Any One Vent Does Not Operate; Corroded or Broken Off at Wall 📕 Other N/A									
* Dry Well		<ul> <li>✓</li> </ul>		T	 	 	Valve Vault		
Location Type:		nderground pump	vault with acces	ss tube and	ladder	Locate	ed below grade inside building		
Lighting:			Mar.						
Cathodic Protection			Yes						
Access Tube and Ladder Field	Observations:	📄 N/A 🔳 Goo r Broken Steps; Co				ntact and So Other	olid; Minor Anchor Bolt Corrosion		
Underground Vault Observatio		N/A 🔲 Goo		Irface Corros		Poor: Corr	rosion 🗌 Other		
Building Floor Slabs:	I/A Good	Fair: Concrete Sea	alant Peeled or C	Cracked; Cor	icrete Soft a	at Surface			
Po	oor: Exposed/Missing	g Aggregate; Expc	osed/Missing Re-	-bar 🗌 O	ther				
Staircases/Stairwells:	N/A 🗌 Good [	Fair: Concret	e Cracked; Conci	rete Soft at	Surface				
	Poor: Exposed/Mi	lissing Aggregate; E	Exposed/Missing	Re-bar	Other				
Building Walls:	N/A 🗌 Good [	Fair: Concret	e Sealant Peeled	or Cracked;	Concrete S	oft at Surfa	ce		
	Poor: Exposed/Mis	ssing Aggregate; F	Exposed/Missing	g Re-bar	] Other				
Sump Pump: No Ye	es Type	Model:		Power (h	p):		TDH: Serial:		
Field Observations:	ot Operational	Poor Floor Drain	nage 📕 O	Other <mark>N/A</mark>					
* Cathodic Protection	N/A			<u> </u>					
Field Observations:	isconnected 🗌 C	Other							
			HVAC (HVA	<b>A</b> )					
* Dry Well HVAC	N/A			T	$\square$	<u> </u>			
Asset Size:									
	ood 🗌 N/A 🗌 entilation Duct Work		Ventilation Inope Belts Loose o		Makes		Fans Vibrate Roof Vents Other		
* Wet Well HVAC	N/A								
Asset Size:	L	<u> </u>	L						
Field Observations: Good N/A Old Ventilation Inoperable Makes Noise Fans Vibrate Belts Loose or Torn									
Ventilation Duct Work Corroded Louvers Roof Vents Other									
Electrical Systems (ELE)	,			_ <del>_</del>					
* Control Panel		✓					Need Pump Tags & Manuals in Panel		
Asset Size (Volts) 208 VAC	2	Single	e phase	Three Ph	ase				
Manufacturer: Hoffman		Model: Type		Serial Nu	mber:				
Power Supply Manufactu	ırer:		Model:				Type: 48"x36"x12" Painted		



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Asset Class	CMMS Code	Asset Present	Year Installed	Cond. Rank	Perf. Rank	Utiliz. (%)	Field Observations/Comments		
Field Observations:	Good Danel Corro		/ Outdated / Obs			Loose	Cables Fatigued Checked		
<ul> <li>Dust Inside Panel</li> <li>Exposed Wires</li> <li>Shop Drawings Available</li> <li>UL Listed</li> <li>Uncovered Holes</li> <li>Surge Protection</li> <li>Grounded</li> <li>Wiring Labelled</li> <li>Panel Labelled</li> <li>Other Pump Tags</li> </ul>									
* Usera Donol				°α ∟		30 💼 Uu	ther Pump Tags		
* Lighting Panel	N/A		<u> </u>		<u> </u>				
Asset Size (Volts) Manufacturer:		Model:		Serial Nur	mber:				
Field Observations:       Good       Panel Corroded       Old / Outdated / Obsolete       Contacts Loose       Cables Fatigued Checked         Dust Inside Panel       Exposed Wires       Switch Gear Worn       Bus and or lugs corroded       Spare Spaces Available         Breakers Labelled       Panel Grounded       Panel Labelled       Other									
* Main Switch		✓		Τ		Γ			
Asset Size (Volts) 20	)8 VAC	<u>.</u>							
Manufacturer: (	3E	Model: TEB 1	321	Serial Nu	mber:				
Field Observations:	Field Observations:          Good         Panel Corroded         Old / Outdated / Obsolete         Contacts Loose         Cables Fatigued Checked         Dust Inside Panel         Exposed Wires         Switch Gear Worn         Lugs Corroded         Panel Grounded         Panel Labelled         Other								
* Transfer Switch		<b>~</b>		Τ	Γ	Γ	Manual Portable Generator		
Asset Size (Volts	Manual Portable Genera	<u>.</u>	<u>.</u>						
Manufacturer:		Model:		Serial Nu	mber:				
Field Observations:	Good Panel Corre Dust Inside Panel Panel Panel Labelled	roded 📄 Old / Exposed Wires Other	/ Outdated / Obs s 🗌 Switch G		Contacts L	.oose	Cables Fatigued Checked		
* Motor Control C	Center N/A								
Asset Size (Volts)									
Manufacturer:		Model:		Serial Nur	nber:				
Field Observations:	Good Panel Corro	oded 🗌 Old / ] Exposed Wires	/ Outdated / Obso			oose 🗌 Corroded [	Cables Fatigued Checked Panel Labelled		
* Junction Box		✓							
Asset Size (Volts)	48x36x12 Mounted					L	<u></u>		
Manufacturer:	Hoffman	Model: Type 3	3R	Serial Nur	nber:				
Field Observations:          Good         Panel Corroded         Old / Outdated / Obsolete         Contacts Loose         Cables Fatigued Checked         Dust Inside Panel         Exposed Wires         Switch Gear Worn         Lugs Corroded         Panel Grounded         Panel Labelled         Other         Other									
* Miscellaneous Pa	inel 1	<b>&gt;</b>		T	Ī	[]	Replace Back-up Controllers; 1-2x a yr; 11 STA		
Asset Size									
Manufacturer:		Model:		Serial Nu	mber:				
Field Observations:       Good       Panel Corroded       Old / Outdated / Obsolete       Contacts Loose       Cables Fatigued Checked         Dust Inside Panel       Exposed Wires       Switch Gear Worn       Lugs Corroded       Panel Grounded         Panel Labelled       Other       Motor Starters replaced 2020       Motor Starters replaced 2020									



**Roth Professional Solutions** 

Asset Class	CMMS Code	Asset Present	Year Installed	Cond. Rank	Perf. Rank	Utiliz. (%)	Field Observations/Comments			
Generator (GEN)										
* Emergency Generator										
* Emer. Gen. Connector										
Asset Size: M	lanufacturer:		Model:		Serial:		Generator Type:			
	Field Observations:       Good       N/A       Contacts Loose       Cables Fatigued Checked       Engine Fluids Low       Poor Housekeeping         Poor Accessibility       Panel Grounded       Panel Labelled       Diesel Containment       Other									
Instrumentation (INS)										
* Auto Dialer		✓								
Manufacturer: Sensa	aPhone	Model: 8	00		Phone Nu	umber: 715	-693-7721			
Alarms: 📃 High Level	I Low Level	Generator	Running 🗌 I	Power Fail	Other	r				
* Float Controls	2 Float	✓	Back up							
* Bubbler Controls				<u>+</u>						
Manufacturer:			Model:							
* Submersible Level Controls		✓					0-5 PSI			
Field Observations: E Goo	od 🗌 N/A 🗌 B iin Condensate Traps	ubbler Compress s in Air System	or Failing		Clogged / Ful Controls C		re Other			
			SCADA	(SCA)						
Field Observations: Goo	od 📕 N/A 🗌	Obsolete	Other							
Variable Frequency Drive										
* Control Panel - VFD	N/A									
* Harmonic Filter	N/A									
* Output Filter	N/A									
Asset Size:	Manufactu	irer:	<u></u>	Model:			Observed RPM:			
Field Observations: Go	od 🗌 N/A 🗌	Makes Noise	Obsolete	Panel	Corroded /	Dusty / Lea	aky 🗌 Other			
			Motors (N	VITR)						
* Motor 1		✓		Γ		_ 				
Asset Size (HP) 10										
Manufacturer: Shinmaywa Pumps Model: 4CNX Serial Number:										
Field Observations:       Good       N/A       Makes Noise       Vibrates       Shaft Bearing Noise       Opposite End Bearing Noise         Overheating       Needs Lubrication       Over Lubricated       Mount Failing       Leaking         Emergency Stop Button in Dry Well Inoperable       Other										
* Motor 2		✓								
Asset Size (HP): 10	Manufactu	ırer: Shinmayw	la	Model: 4C	:NX		Serial Number:			
Field Observations:          Good         N/A         Nakes Noise         Vibrates         Shaft Bearing Noise         Overheating         Needs Lubrication         Over Lubricated         Mount Failing         Leaking         Emergency Stop Button in Dry Well Inoperable         Other										



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Asset Class	CMMS Code	Asset Present	Year Installed	Cond. Rank	Perf. Rank	Utiliz. (%)	Field Observations/Comments			
Hor/Vert Centrifugal Pumps										
* Pump 1	N/A									
Manufacturer	:	Ма	odel:			Serial Num	ber:			
Discharge Size (in)	Suction [	Diameter (in)		Pump Siz	e (GPM)		TDH			
Priming Pump 🗌 🛛 N	lanufacturer:	N	Nodel:		Serial	No.:	Size (hp):			
Pressure Gauge N	lanufacturer:		Pressure Rang	je:			PressureReading:			
Field Observations:       Good       N/A       Seals Leaking       Vibrating       Shaft Deflection       Cavitating       Belts Loose         Bearing Noise       Mount Failing       Evidence of Pipe Strain       Other										
* Pump 2	N/A									
Discharge Size (in)	Suction D	iameter (in)		Pump Size	e (GPM)		TDH			
Priming Pump Ma	anufacturer:	M	odel:		Serial I	No.:	Size (hp):			
Pressure Gauge 🗌 Ma	anufacturer:		Pressure Range	2:			PressureReading:			
Field Observations:       Good       N/A       Seals Leaking       Vibrating       Shaft Deflection       Cavitating       Belts Loose         Bearing Noise       Mount Failing       Evidence of Pipe Strain       Other										
		Sub	omersible Pur	nps (SUB)	)					
* Pump 1		<b>✓</b>								
Manufacturer:	Shinmaywa	Mod	del: 4CNX	·	Seri	al:				
Discharge Size (in) 4"	Suction Dia	ameter (in)		Pump Size	(GPM) <mark>1</mark> 7	5	TDH 10 HP			
	ood N/A I I	Rail System Corro v Addressed 202		s Not Seat \	Well	Cables Co	rroded or Failing			
* Pump 2		<b>~</b>								
Manufacturer:	Shinmaywa	Mod	del: 4CNX		Seri	al:				
Discharge Size (in) 4"	Suction Dia	ameter (in)		Pump Size	(GPM)		TDH			
Field Observations:	ood 🗌 N/A 🗌 I	Rail System Corro	ded 🗌 Doe	s Not Seat \	Well	Cables Co	rroded or Failing			
<b>O</b>	<sup>ther</sup> Seal Fail / Rela	y Addressed 20	020							
			Check Valv	res						
* Pump 1		<b>~</b>								
Size (in): 4"	Manufa	acturer:		Mod	lel:		Serial No:			
	Good N/A V Check Valve Not Seating Other	/alve Operator Stu g 🛛 (	uck 🗌 Valve Check Valve Not	Seat Leakin Operating	g		es Leaking nce of Pipe Strain			
* Pump 2		<b>v</b>								
Size (in): 4"	Manufa	octurer:	······	Mod	el:		Serial No:			
Field Observations:	ood N/A V neck Valve Not Seating	/alve Operator Stu	ick 🗌 Valve Check Valve Not	Seat Leaking Operating	g	_	s Leaking Other			



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Asset Class	CMMS Code	Asset Present	Year Installed	Cond. Rank	Perf. Rank	Utiliz. (%)	Field Observations/Comments		
Piping and Valves Suction Isolation Valves									
* Pump 1	N/A								
Size (in):	Manuf	acturer:		Мс	del:		Serial No:		
Field Observations:	Good N/A Check Valve Not Seating	Valve Operator S	tuck 🗌 Valve Check Valve No	e Seat Leak t Operating			es Leaking nce of Pipe Strain		
* Pump 2	N/A								
Size (in):	Manuf	acturer:		Mo	del:		Serial No:		
Field Observations:	Good N/A Check Valve Not Seating	Valve Operator S	tuck 🗌 Valve Check Valve No	e Seat Leak t Operating			es Leaking nce of Pipe Strain		
		Disch	narge Isolatior	Valves					
* Pump 1		<b>~</b>					ISO Valve Removed Due to Clogging		
Size (in):	Manufa	cturer:	I	Мо	del:	1	Serial No:		
Field Observations:	<ul> <li>Good N/A Valve Operator Stuck Valve Seat Leaking</li> <li>Check Valve Not Seating Check Valve Not Operating</li> <li>Other</li> </ul>								
* Pump 2	N/A								
Size (in):	Manufa	acturer:		Mo	del:		Serial No:		
Field Observations:	Good N/A	/alve Operator S	tuck 🗌 Valve Check Valve Not	e Seat Leaki			es Leaking nce of Pipe Strain		

