Mississippi Mills Wastewater System

2020 Annual Report

January 1, 2020 – December 31, 2020

Prepared By



This report has been prepared to meet the requirements set out in the facility Certificate of Approval #1637-AC8NT7 dated August 8, 2016.

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Compliance Report Card

Compliance Event	# of Events	Details
Ministry of Environment Inspections	0	There were no Inspections during the reporting period
Ministry of Labour Inspections	0	There were no Inspections during the reporting period
Effluent Parameter Exceedances	0	There were no parameter exceedances during the reporting period
Bypass/Overflows	1	Gemmill's Bay SPS • January 11 2020
Community Complaints	0	There were no Community Complaints during the reporting period
Spills	2	Gemmill's Bay SPS • February 8 2020 • August 11 2020

System/Process Description

Flow enters the treatment and passes through screen channels which contain fine screens that lead to a screw compactor. Grit is removed using circular vortex grit removal, air lift and grit classifier system units. Flow then moves to secondary treatment which consists of two (2) treatment trains using the extended aeration activated sludge process. Each train is equipped with aeration tanks, anoxic tanks and a secondary clarifier. Chemicals are added to the process for phosphorus control. Tertiary treatment is achieved using Five (5) filter trains with three (3) filtration cells in each. Disinfection is provided using Ultraviolet (UV) lights. There is ability for chlorine disinfection in the event the UV units fail.

Solids from the biological process are transferred from the waste tank to a rotary disk thickener. From there the solids are processed through autothermic thermophilic aerobic digesters. The solids are then pressed to a cake form.

The Mississippi Mills WWTP also consists of a septage receiving station consisting of a storage tank, two (one duty and one standby) dry-pit pumps, and a grinder on the inlet piping

Proposed Alterations, Extensions, or Replacement to Works

There are no proposed alterations, extensions or replacements that would affect the Certificate of Approval.

Effluent Quality Assurance or Control Measures

The Municipality of Mississippi Mills facilities are part of OCWA's operational Mississippi Cluster. The facilities are supported by regional and corporate resources. Operational Services are delivered by OCWA staff that live and work in the community.

OCWA operates facilities in compliance with applicable regulations. The facility has comprehensive manuals detailing operations, maintenance, instrumentation, and emergency procedures. All procedures are treated as active documents, with annual reviews.

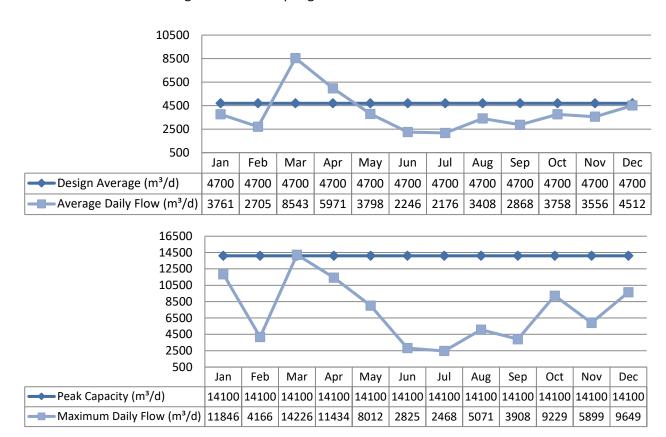
OCWA has additional "Value Added" and operational support services that the Municipality of Mississippi Mills benefits from including:

- Access to a network of operational compliance and support experts at the regional and corporate level, as well as affiliated programs that include the following:
 - Quality & Environmental Management System, Occupational Health & Safety System and an internal compliance audit system
 - Process Data Management (PDM) facility operating information repository, which consolidates field data, online instrumentation, and electronic receipt of lab test results for reporting, tracking and analysis
 - Work Management System (WMS) that tracks and reports maintenance activity, and creates predictive and preventative reports
 - Outpost 5 wide-area SCADA system allows for process optimization and data logging, process trending, remote alarming and optimization of staff time
- Client reporting which includes operational data, equipment inventory, financial statements, maintenance work orders, and capital status reports
- Site-Specific Contingency Plans and Standard Operating Procedures
- Use of accredited laboratories
- Additional support in response to unusual circumstances, and extra support in an emergency.
- Use of sampling schedules for external laboratory sampling

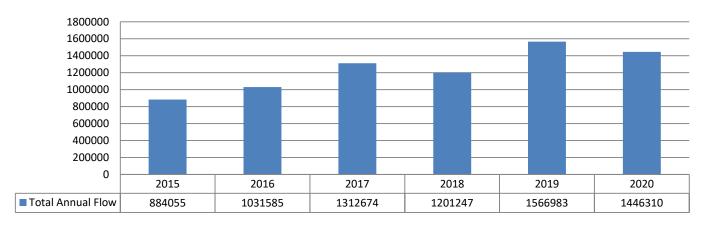
Treatment Flows

Raw Flow (m³/d)

Compliance is calculated as an annual average flow. The annual average flow for 2020 was 3,951.7 m³/d, which is in compliance with the limit of 4700 m³/d. The flow spikes are associated to wet weather events such as rain and seasonal changes such as the spring snow melt.



Annual Comparison (m³)

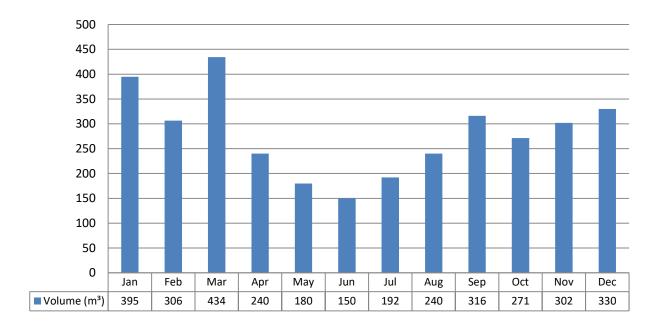


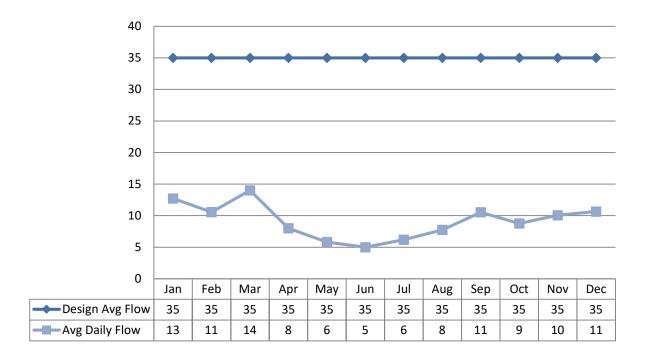
Septage Volumes

Average daily flow for $2020 = 9.2 \text{ m}^3/\text{d}$ Total Volume for $2020 = 3356.7 \text{ m}^3$

Septage flows are included in the Raw Flows as it enters the influent stream prior to the raw flow meter.

Total Monthly Volume Received





Raw Sewage Quality

Results of raw sewage concentrations and loadings are available in the Facility Performance Assessment Report in Appendix A.

Effluent Quality

The limits are based on current requirements in the facilities Environmental Compliance Approval. Laboratory samples are submitted to an accredited laboratory for regulatory analysis.

The Federal Government also regulates certain sewage effluent parameters under the Federal Fisheries Act. The results are submitted to Environment and Climate Change Canada's Effluent Regulatory and Reporting Information System (ERRIS) on a quarterly basis.

Effluent Exceedance Summary

Date	Parameter	Exceedance	Limit	Value	Corrective Action
	Thorowa	ara na affluant avacadances	during the r	onarting nor	iad
	rnere we	ere no effluent exceedances	during the r	eporting per	100

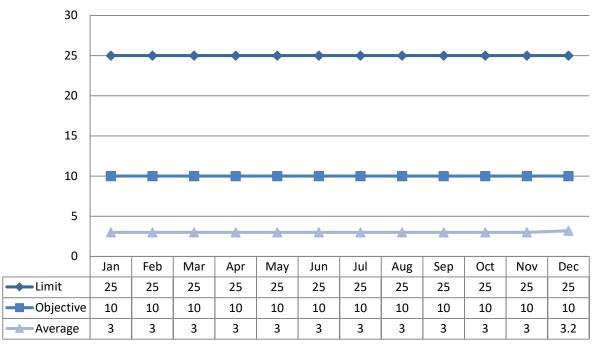
Other Effluent Sampling Issues

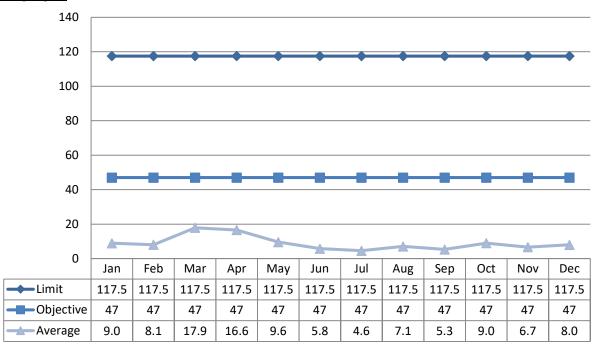
Sample	Legislation	Date	Details	Response
	The we	ere no effluent sa	ampling issues during the rep	porting period
	THE WE	ere no emaent se	impling issues during the rep	porting period

Effluent Parameter Summary

CBOD5

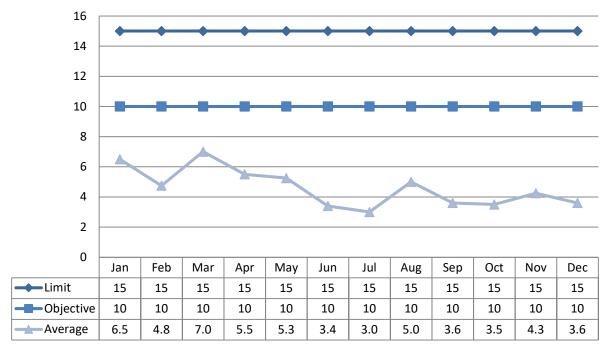
Concentration (mg/L)

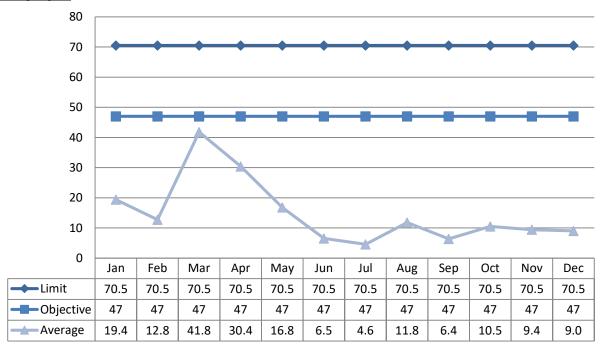




Total Suspended Solids

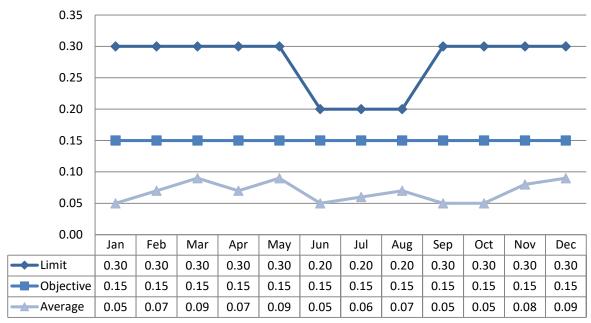
Concentration (mg/L)

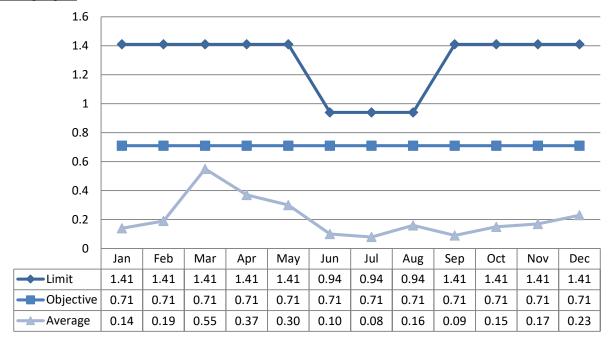




Total Phosphorus

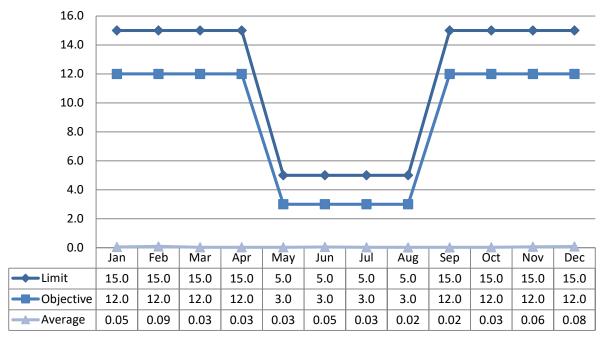
Concentration (mg/L)

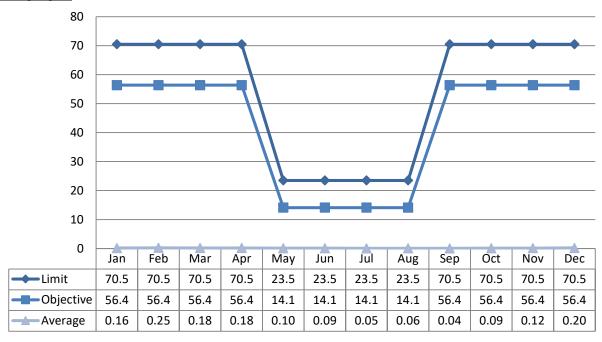




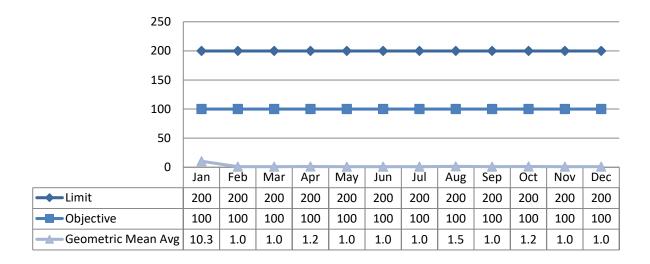
Total Ammonia Nitrogen

Concentration (mg/L)

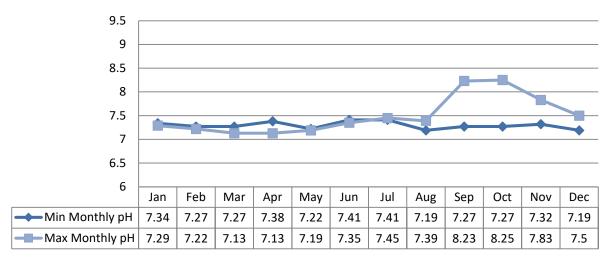




E-coliGeometric Mean Average



<u>рН</u>



Acute Lethality

There were four (4) samples collected in 2020 and tested for acute lethality (Rainbow Trout and Daphnia Magna). Results are displayed as % mortality.

Quarter	Rainbow Trout	Daphnia Magna
1 st Quarter	0%	0%
2 nd Quarter	0%	0%
3 rd Quarter	0%	0%
4 th Quarter	0%	0%

Septage Quality

Septage was tested when received. A summary of the results are attached in Appendix B. Grab samples are collected from each load.

The spill containment area for the septage receiving station received an upgrade in 2020. The upgrade included relocate piping to the catch basin adjacent to the WWTP, relocated piping to the septage tank in the WWTP and proper slope of septage receiving station to ensure no spill or overflow from the spill containment area to the natural environment will occur.

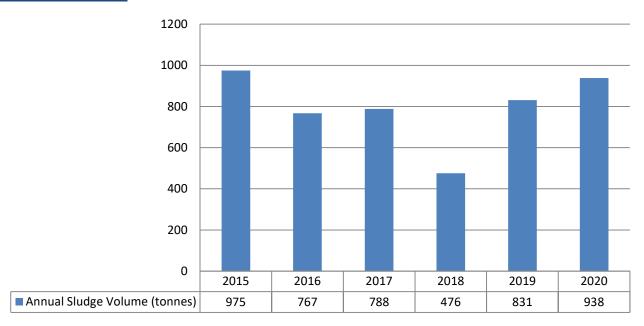
Biosolids

Sludge generated from the treatment plant was spread on agricultural land during the spreading season as per the Nutrient Management Act O.Reg 267/03. This facility dewaters and biosolids are handled as cake. During the winter cake is stored on-site until certified sites are ready for spreading.

Biosolids Disposal Summary

Date	Site	NASM Plan number	Volume (MT)
May 12 2020	Cochran – Steele	23782	470.5
November 9 2020	Cochran - Steele	23782	366.9
		Total	938.4

Annual Comparison



Quality

The biosolids sampling results are summarized in Appendix C. All results met the established guidelines.

Summary of Complaints

The following community complaints were received related to the operations of the Mississippi Mills WWTP.

Date	Location	Details
There were	no community complaints for the	e reporting period.

Summary of Bypass/Overflows

Event	Details of Events
Gemmill's Bay SPS January 11 2020	A heavy rain and snow melt caused high flows at Gemmill's Bay sewage pumping station. Both pumps were running at full speed could not keep up with the flow. This resulted in an overflow of raw sewage.

Summary of Spills/Abnormal Discharges

Event	Details of Events
Gemmill's Bay SPS February 8 2020	Staff received a high wet well alarm and arrived at Gemmill's Bay SPS to find no power. The Transfer Switch was stuck in the neutral position which caused the diesel generator backup to be off line. This resulted in an overflow of raw sewage.
Gemmill's Bay SPS August 11 2020	Power outage throughout the municipality and no back up power through the Transfer Switch was available caused the overflow raw sewage at Gemmill's Bay SPS. This resulted in an overflow of raw sewage.

Maintenance

OCWA uses a risk-based preventative maintenance framework that ensures assets are maintained to manufacturer's and/or industry standards. Maintenance is completed using various tools and operational supports. The Ottawa Valley Hub has specialized certified staff such as Millwrights, Electricians and Instrumentation Specialists to name a few.

OCWA uses a Workplace Maintenance System (WMS). WMS is a maintenance tracking system that can generate work orders as well as give summaries of completed and scheduled work. During the year, the operating authority at the facility generates scheduled work orders on a weekly, monthly and annual basis. The service work is recorded in the work order history. This ensures routine and preventive maintenance is carried out. Emergency and capital repair maintenance is completed and added to the system.

Capital projects are listed and provided to the Municipality of Mississippi Mills in the form of a "Capital Forecast". This list is developed by facility staff and provides recommendations for facility components requiring upgrading or improvement.

Maintenance Highlights

Gemmill's Bay Sewage Pumping Station is equipped with a diesel generator and an automatic transfer switch to provide backup power to the pumping station in the event of a power outage. The transfer switch was replaced in 2020.

WO #	Summary
1621936	Capital Turbo Blower 3 Replacement
1621945	Capital ATAD Roof repair
1624582	Capital Replaced 2 CH4 Detectors
1624602	Capital Replacement Pump parts
1662000	Capital SCADA Work by Capital Controls
1793282	Capital Repair to backflow preventers
1873056	Capital Install davit sockets for aeration tanks
1873204	Capital Capital Controls Onsite Troubleshooting Dewatering Control Panel
1875388	Capital Clarifier 1 Repairs
1916523	Capital Replaced motion sensor for Cake
1917270	Capital Fabricate and install 2 davit bases for anoxic mixers
1917742	Capital Parts for Clarifiers
1918334	Capital Odour Remediation
1959634	Capital Annual fastener order
1963992	Capital Replaced Hach pH meter with new one
1963993	Capital Printer
1997569	Capital pH electrode for YSI
1999593	Capital EAU 2 replace motor bearings
1622788	Capital Replace wear parts on wash press
1623855	Capital Parts for Sand lifts
1662834	Capital Bruce Mechanical onsite for boiler repair visit and troubleshoot HVAC

WO#	Summary
1707165	Capital Blower 2 Repairs
1871957	Capital Fire Alarm Panel Battery Replacement
1871961	Capital Wear parts for Bar screen and compactor
1874124	Capital D.O control limitations
1999995	Capital Septage annual website hosting fee
2000170	Capital Incline conveyor gearbox in cake barn
2000176	Capital Replace blower motor on boiler # 2
2000915	Capital Troubleshoot aeration sludge pump
2001049	Capital Replacement Combustion Blower on Boiler #2
2001685	Capital Blower 3 Repairs
2036630	Capital Replace Turbo Blower 3 breaker
2038281	Capital New SCADA system printer

Calibration

The flow meters were calibrated on January 30, 2020. Records are attached in Appendix D. Analyzers are scheduled for maintenance in the WMS program. Work is completed and logged in the logbook and in the WMS.

Collection Highlights

Collection Highlights were provided by the Municipality of Mississippi Mills.

Collection Highlights

Maintenance & Operations

- One (1) quarter of Town of Almonte flushed and CCTV
- Sewer inspection program
- Several repairs multiple laterals to main line
- Preventative flushing
- New sewer mains commissioned in White Tail Ridge Phase 2 Subdivision, Mill Run Phase 5
 Subdivision

Planning Initiatives

- New sewer mains commissioning in White Tail Ridge, Mill Run Subdivision, Industrial Area
- Lining of a section of Mitcheson Street
- Preventative flushing

Appendix A

Facility Assessment Report

Ontario Clean Water Agency Performance Assessment Report Wastewater/Lagoon

om: 01/01/2020 to 31/12/2020

Facility: [5678] MISSISSIPPI MILLS WASTEWATER TREATMENT FACILITY

Works: [110000873]

	01/2020	02/2020	03/2020	04/2020	05/2020	06/2020	07/2020	08/2020	09/2020	10/2020	11/2020	12/2020	<total></total>	<ava></ava>	<max></max>	<criteria></criteria>
Flows:	01/2020	02/2020	03/2020	04/2020	03/2020	00/2020	07/2020	06/2020	09/2020	10/2020	11/2020	12/2020	< 1 Oldi>	<avg></avg>	<ividx></ividx>	<cittella></cittella>
Raw Flow: Total - Raw Sewage (m³)	116588.36	78439.56	264825.26	179142.35	117731.28	67379.63	67451.35	105662.83	86026.58	116501.79	106693.79	139866.99	1446309.77			
Raw Flow: Avg - Raw Sewage (m³/d)	3760.91	2704.81	8542.75	5971.41	3797.78	2245.99	2175.85	3408.48	2867.55	3758.12	3556.46	4511.84	1440303.77	3941.83		
Raw Flow: Max - Raw Sewage (m³/d)	11845.95	4165.75	14225.63	11434.39	8012.03	2824.70	2468.38	5071.46	3907.88	9229.01	5898.90	9649.16		3941.03	14225.63	
Eff. Flow: Total - Final Effluent (m³)	92545.86	77856.72	185173.73	165896.23	99278.32	57714.64	47189.14	73171.55		93145.53	66547.07	77833.76	1089471.89		14223.03	
Eff. Flow: Avg - Final Effluent (m³/d)	2985.35	2684.71	5973.35	5529.87	3202.53	1923.82	1522.23	2360.37	1770.64	3004.69	2218.24	2510.77	1009471.09	2973.88		
Eff. Flow: Max - Final Effluent (m³/d)	6015.80	3810.69	8705.21	7084.46	5940.66	2368.71	1833.69	3721.20	2576.65	6862.41	3558.00	4245.38		2973.00	8705.21	
Carbonaceous Biochemical Oxygen Demand: CBOD:	0015.00	3610.09	6705.21	7004.40	3940.00	2300.71	1033.09	3721.20	2576.05	0002.41	3336.00	4243.30			6703.21	
Raw: # of samples of cBOD5 - Raw Sewage (mg/L)	4	4	5	4	1	5	4	4	5	4	4	5	52			
Eff: Avg cBOD5 - Final Effluent (mg/L)	< 3.000	< 3.000	< 3.000	< 3.000	< 3.000	< 3.000 <	3.000	< 3.000	< 3,000	3.000	< 3.000	< 3.200	32	< 3.017	< 3.200	25.0
Eff: # of samples of cBOD5 - Final Effluent (mg/L)	4	3.000	5.000	3.000	3.000	5.000 <	3.000	4	< 3.000 4	3.000	< 3.000	5.200	52	< 3.017	< 3.200	23.0
Loading: cBOD5 - Final Effluent (kg/d)	< 8.956	< 8.054	< 17.920	< 16.590	< 9.608	< 5.771 <	4.567	< 7.081	< 5.312	9.014	< 6.655	< 8.034	52	< 8.963	< 17.920	117.5
Percent Removal: cBOD5 - Raw Sewage (mg/L)	96.542	97.880	96.134	92.453	97.531	98.809	98.608	97.315	98.013	98.049	97.463	96.929		< 8.903	98.809	117.5
	90.542	97.880	90.134	92.453	97.531	98.809	98.608	97.315	98.013	98.049	97.463	90.929			98.809	_
Biochemical Oxygen Demand: BOD5:	4	4	5	1	1	5	4	4	-	4	1	5	52			_
Raw: # of samples of BOD5 - Raw Sewage (mg/L)	< 3.000	< 3.000	< 3.000	< 3.500	< 3.000	< 3.200 <	3.000	< 3.000	< 3.000	3.000	< 3.000	< 3.000	52	< 3.058	< 3.500	25.0
Eff: Avg BOD5 - Final Effluent (mg/L)							3.000				< 3.000			< 3.058		25.0
Loading: BOD5 - Final Effluent (kg/d)	< 8.956	< 8.054	< 17.920	< 19.355	< 9.608	< 6.156 <	98.658	< 7.081	< 5.312	9.014		< 7.532		< 9.184	< 19.355	
Percent Removal: BOD5 - Raw Sewage (mg/L)	97.674	98.425	96.888	93.722	98.030	99.036	98.658	98.370	98.614	98.233	97.997	97.741			99.036	
Total Suspended Solids: TSS:	200 000	105.000	005.000	98,750	162,500	318.000	266,250	212.500	0.47.000	400.000	007.500	000.000		000.050	0.47.000	
Raw: Avg TSS - Raw Sewage (mg/L)	220.000	195.000	205.000						347.000	130.000	287.500	209.000		220.958	347.000	
Raw: # of samples of TSS - Raw Sewage (mg/L)	4	4	5	4	4	5	4	4	5	4	4	5	52			
Eff: Avg TSS - Final Effluent (mg/L)	6.500	< 4.750	7.000	5.500	5.250	< 3.400 <	3.000	< 5.000	< 3.600	3.500	< 4.250	< 3.600		< 4.613	7.000	15.0
Eff: # of samples of TSS - Final Effluent (mg/L)	4	4	5	4	-	5	4	4	5	4	4	5	52			
Loading: TSS - Final Effluent (kg/d)	19.405	< 12.752	41.813	30.414	< 16.813	< 6.541 <	4.567	< 11.802	< 6.374	10.516	< 9.428	< 9.039		< 14.955	41.813	70.5
Percent Removal: TSS - Raw Sewage (mg/L)	97.045	97.564	96.585	94.430	96.769	98.931	98.873	97.647	98.963	97.308	98.522	98.278			98.963	
Total Phosphorus: TP:																
Raw: Avg TP - Raw Sewage (mg/L)	3.655	5.328	3.872	2.490	4.745	9.834	8.908	4.530	11.236	5.475	5.725	3.942		5.812	11.236	
Raw: # of samples of TP - Raw Sewage (mg/L)	4	4	5	4	4	5	4	4	5	4	4	5	52			
Eff: Avg TP - Final Effluent (mg/L)	0.048	0.070	0.092	0.067	0.093	0.052	0.055	0.068	0.052	0.050	0.075	0.090		0.068	0.093	0.2 - 0.3
Eff: # of samples of TP - Final Effluent (mg/L)	4	4	5	4	4	5	4	4	5	4	4	5	52			
Loading: TP - Final Effluent (kg/d)	0.142	0.188	0.550	0.373	0.296	0.100	0.084	0.159	0.092	0.150	0.166	0.226		0.211	0.550	1.41
Percent Removal: TP - Raw Sewage (mg/L)	98.700	98.686	97.624	97.289	98.051	99.471	99.383	98.510	99.537	99.087	98.690	97.717			99.537	
Nitrogen Series:																
Raw: Avg TKN - Raw Sewage (mg/L)	28.200	30.925	21.260	13.525	27.150	48.800	47.800	28.275	54.960	34.150	41.750	28.380		33.765	54.960	
Raw: # of samples of TKN - Raw Sewage (mg/L)	4	4	5	4	4	5	4	4	5	4	4	5	52			
Eff: Avg TAN - Final Effluent (mg/L)	0.053	0.093	0.030	0.033	0.033	0.048	0.033	< 0.025	0.022	0.030	0.055	0.078		< 0.044	0.093	5.0 - 15.0
Eff: # of samples of TAN - Final Effluent (mg/L)	4	4	5	4	4	5	4	4	5	4	4	5	52			
Loading: TAN - Final Effluent (kg/d)	0.157	0.248	0.179	0.180	0.104	0.092	0.049	< 0.059	0.039	0.090	0.122	0.196		< 0.126	0.248	70.5
Disinfection:																
Eff: GMD E. Coli - Final Effluent (cfu/100mL)	10.300	1.000	1.000	1.189	1.000	1.000	1.000	1.495	1.000	1.189	1.000	1.000		1.848	10.300	200.0
Eff: # of samples of E. Coli - Final Effluent (cfu/100mL)	4	4	5	4	4	5	4	4	5	4	4	5	52			

Appendix B

Septage Sample Data

Ontario Clean Water Agency Time Series Info Report

From: 01/01/2020 to 31/12/2020

Facility Org Number: 5678
Facility Works Number: 110000873

Facility Name: MISSISSIPPI MILLS WASTEWATER TREATMENT FACILITY

Facility Owner: Municipality: Municipality of Mississippi Mills

Facility Classification: Class 3 Wastewater Treatment
Receiver: Mississippi River

Receiver: Service Population:

Total Design Capacity: 14100.0 m3/day

	01/2020	02/2020	1	03/2020	04/2020		05/2020	06/20	20	07/2020	08/2020		09/2020		10/2020	1	1/2020	12/2020	_	Total	Avg	Max	M	1in
Septage / Biochemical Oxygen Demand: BOD5 - mg/L																								
Count Lab	14	8		12	0		0	1		1	0		0		0		0	0	T	36				
Max Lab	4810	2580		2720				780)	5320												7800		
Mean Lab	1278.357	886.375		1033.417				780)	5320											1455.052			
Min Lab	86	130		110				780)	5320														86
Septage / Total Kjeldahl Nitrogen: TKN - mg/L																								
Count Lab	14	8		12	0		0	1		1	0		0		0		0	0	T	36			T	
Max Lab	2010	1170		892				292)	2320									T			2920	T	
Mean Lab	714.957	327.838		218.492				292)	2320											594.466			
Min Lab	18.8	79.1		67.3				292)	2320														18.8
Septage / Total Phosphorus: TP - mg/L																								
Count Lab	14	8		12	0		0	1		1	0		0		0		0	0		36				
Max Lab	164	96.7		67.9				235		165												235		
Mean Lab	53.839	37.555		24.914				235		165									T		50.561		T	
Min Lab	3.64	8.34		7.86				235		165														3.64
Septage / Total Solids: TS - mg/L																								
Count Lab	14	8		12	0		0	1		1	0		0		0		0	0		36				
Max Lab	11200	5300		27500				1140	0	9900												27500		
Mean Lab	4135.714	2557.5		6872.5				1140	0	9900											4604.828			
Min Lab	180	780		1340				1140	0	9900														180
Septage / Total Suspended Solids: TSS - mg/L																								
Count Lab	14	8		12	0		0	1		1	0		0		0		0	0	T	36				
Max Lab	8700	3700		10000				290)	2600												10000		
Mean Lab	2352.143	1446.25		2606.25				290)	2600											2108.103			
Min Lab	150	200		65				290)	2600														65
Septage / pH																								
Count Lab	14	8		12	0		0	1		1	0		0		0		0	0		36				
Max Lab	8.83	8.8		8.65				7.19)	7.05												8.83		
Mean Lab	7.959	7.623		7.457		П		7.19)	7.05		T		Т					Т		7.646		T	
Min Lab	6.54	6.72		6.79		П		7.19)	7.05									T					6.54

Appendix C

Biosolids Quality

Ontario Clean Water Agency Biosolids Quality Report - Liquid Digestor Type: AEROBIC Solids and Nutrients

Facility: MISSISSIPPI MILLS WASTEWATER TREATMENT FACILITY

Works: 5678

Period: 01/01/2020 to 12/01/2020

Facility Works Number: 1.10000873E8

Facility Name: MISSISSIPPI MILLS WASTEWATER TREATMENT FACILITY

Facility Owner: Municipality: Municipality of Mississippi Mills

Facility Classification: Class 3 Wastewater Treatment

Receiver: Mississippi River

Service Population:

Total Design Capacity: 14100.0 m3/day

Period Being Reported: 01/01/2020 12/01/2020

Note: all parameters in this report will be derived from the Bslq Station

Month	Total Sludge Hauled (m3)	Avg. Total Solids (mg/L)	Avg. Volatile Solids (mg/L)	Avg. Total Phosphorus (mg/L)	Ammonia (mg/L)	Nitrate (mg/L)	Nitrite (mg/L)	TKN (mg/L)	Ammonia + Nitrate (mg/L)	Potassium (mg/L)		
Site	MISSISSIPPI MILLS WASTEW	ATER TREATMENT	FACILITY									
Station	Bslq Station only	Station only										
Parameter Short Name	HauledVol	TS	vs	ТР	NH3p_NH4p_N	NO3-N	NO2-N	TKN	calculation in	К		
T/s	IH Month.Total			Lab Published Month Mean	Lab Published Month Mean		Lab Published Month Mean	Lab Published Month Mean	*	Lab Published Month Mean		
Jan		43,950.000	23,400.000	1,080.000	2.990	120.500	0.150	1,950.000	61.745			
Feb		37,250.000	20,300.000	1,178.500	1.970	191.500	0.550	2,015.000	96.735			
Mar		35,000.000	19,100.000	987.000	2.720	271.000	0.100	1,895.000	136.860			
Apr												
May												
Jun												
Jul												
Aug												

Sep										
Oct										
Nov		44,800.000	24,800.000	1,840.000	7.225	40.350	1.650	2,350.000	23.788	
Dec		53,550.000	29,750.000	1,355.000	5.120	88.950	0.850	1,605.000	47.035	
Average		42,910.000	23,470.000	1,288.100	4.005	142.460	0.660	1,963.000	73.233	
Total	0.000	214,550.000	117,350.000	6,440.500	20.025	712.300	3.300	9,815.000	366.163	0.000

Ontario Clean Water Agency Biosolids Quality Report - Liquid - Based on Last 4 Samples Digestor Type: AEROBIC

MISSISSIPPI MILLS WASTEWATER TREATMENT FACILITY Facility: Works: 5678 01/01/2020 to 12/01/2020

Period:

Note: all parameters in this report will be derived from the Bslq Station

Parameter Short Name	Time Series	11/03/2020	11/17/2020	12/01/2020	12/14/2020	Average	Metal Concentrations in Sludge (mg/kg):	Max. Permissible Metal Concentrations (mg/kg of Solids):
As (mg/L)	Lab Published							170
Cd (mg/L)	Lab Published							34
Co (mg/L)	Lab Published							340
Cr (mg/L)	Lab Published							2800
Cu (mg/L)	Lab Published							1700
Hg (mg/L)	Lab Published							11
Mo (mg/L)	Lab Published							94
Ni (mg/L)	Lab Published							420
Pb (mg/L)	Lab Published							1100
Se (mg/L)	Lab Published							34
Zn (mg/L)	Lab Published							4200
E. Coli: Dry Wt (cfu/g)	Lab Published						E.Coli average is the GMD	
TS (mg/L)	Lab Published	40,400.000	49,200.000	57,400.000	49,700.000	49,175.000		•
VS (mg/L)	Lab Published	21,400.000	28,200.000	32,400.000	27,100.000	27,275.000		
TP (mg/L)	Lab Published	1,790.000	1,890.000	1,650.000	1,060.000	1,597.500		
NO2-N (mg/L)	Lab Published	2.300	1.000	0.700	1.000	1.250		
TKN (mg/L)	Lab Published	2,260.000	2,440.000	2,090.000	1,120.000	1,977.500		
K (mg/L)	Lab Published							
NH3p_NH4p_N (mg/L)	Lab Published	6.430	8.020	6.750	3.490	6.172		
NO3-N (mg/L)	Lab Published	43.000	37.700	55.900	122.000	64.650		

Appendix D

Calibration Records

The Town of Almonte

Waste Water Calibration / Verification of Instrumentation

Report January 30, 2020

Calibration Date: January 28, 2020

Calibration Due: January 28, 2021

Verifications performed by Tim Stewart

Report prepared by Tim Stewart



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1 List of Verified Devices

This letter is to confirm that annual verification on the following devices has been completed. Results of the all verifications are listed below.

ID	Process	Make/Model	Results
FIT-310	Septage Inlet Grinder	E&H/ Promag 53W	Passed
FIT-350	Septage Tank	E&H/ Promag 53P	Passed
FIT-611	R.A.S.	E&H/ Promag 10P	Passed
FIT-612	W.A.S.	E&H/ Promag 10P	Passed
FIT-631	R.A.S.	E&H/ Promag 10P	Passed
FIT-621	R.A.S.	E&H/ Promag 10P	Passed
FIT-622	W.A.S.	E&H/ Promag 10P	Passed
FIT-632	W.A.S.	E&H/ Promag 10P	Passed
FIT-750	Filtrate Tank	E&H/ Promag 10P	Passed
FIT-1091	Service Water	E&H/ Promag 10P	Passed
FIT-405	Attenuation	E&H/ Promag 53P	Passed
FIT-946	Fournier Press #1 Polymer	E&H/ Promag 50P	Passed
FIT-940	Fournier Press#1 Sludge	E&H/ Promag 50W	Passed
FIT-956	Fournier Press #2 Polymer	E&H/ Promag 50P	Passed
FIT-950	Fournier Press#2 Sludge	E&H/ Promag 50W	Passed
FIT-470	Raw Sewage Vortex #1	Siemens/Multiranger200	Passed
FIT-480	Raw Sewage Vortex #1	Siemens/Multiranger200	Passed
FIT-01	White Tail Ridge	E&H/ Promag 10	Passed
FIT-700	Plant	Rosemount/871	Passed
FIT-1180	Final Effluent	Siemens/OCM III	Passed

Signed by Field Technician:

Tim Stewart



2 Equipment Used

The following equipment was used to perform the calibrations:

Fluke 725 Multifunction Process Calibrator used to measure current and pressure.

Level Simulator for the Flume Flow Meters

Endress and Hauser FieldCheck for Magnetic Flow Meters

3 Procedures Used

To verify the equipment standard verification procedures developped by the Township were used and standard industry practice.

3.1 Flowmeter Verification

Verification, Magnetic Flow Meter:

The verification of Endress & Hauser Flow measuring devices (the device under test) are checked for the following characteristic values:

- 1. Functionality and deviation in flow measurement.
- 2. Deviation in the current and frequency outputs in reference to the flow rate data determined by the measuring device.

<u>Measuring devices</u>: The verification system consists of the FlowCheck flow simulator, the Simubox and the appropriate connection cables.

<u>FieldCheck</u>: The FieldCheck flow simulator generates the flow simulation signals and processes the measured values sent back from the transmitter.

<u>Simubox</u>: The Simubox ensures that the FieldCheck simulation signal are correctly converted in the transmitter, by comparing the measurements returned from the transmitter to data stored within the Simubox for various parameters (Electromagnetic Field vs. Flow, Flow vs. Current, and various other parameters important in verifying the proper functionally of the device under test.



Verification of Flume Flow Meters:

By use of a mechanical level simulating tool installed in the Parshall Flume an exact level can be simulated causing the transmitter to display flow based on the simulator adjusted level.

Shown below is a picture of a simple level simulator used to simulate flows/levels in a Parshall Flume.



By adjusting the reflector upward from the bottom ridge of the base, which will sit on the floor of the flume directly under the level sensor, the flow meter will transmit and display the flow proportional to the simulated level. In this case a 24inch Parshall flume with the simulator set to 240mm can be verified against the chart on the next page. The flow on the transmitter should be comparable to 156.4 l/s.



Electrical/Control Panels – PLC/SCADA Programming – Instrumentation Calibrations

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FLOW CHART GREYLINE INSTRUMENTS INC. 24° Parshall Flume

Formula: Q = KH'n, where: Q = Flow in Liters per Second. K = 0.031982

H = 0.031982 H = Head in Millimeters. n = 1.5500 H maximum: 750.0 Millimeters H increment: 5 Millimeters

mm	L/s	mm	L/s	mm	L/s	nm	L/s
5.000	0.3875	195.0	113.4	385.0	325.4	575.0	605.9
10.00	1.135	200.0	117.9	390.0	331.9	580.0	614.1
15.00	2.127	205.0	122.5	395.0	338.6	585.0	622.3
20.00	3.323	210.0	127.2	400.0	345.2	590.0	630.6
25.00	4.696	215.0	131.9	405.0	351.9	595.0	638.9
30.00	6.229	220.0	136.7	410.0	358.7	600.0	647.2
35.00	7.911	225.0	141.5	415.0	365.5	605.0	655.6
40.00	9.730	230.0	146.4	420.0	372.3	610.0	664.0
45.00	11.68	235.0	151.4	425.0	379.2	615.0	672.5
50.00	13.75	240.0	156.4	430.0	386.2	620.0	681.0
55.00	15.94	245.0	161.5	435.0	393.2	625.0	689.5
60.00	18.24	250.0	166.6	440.0	400.2	630.0	698.1
65.00	20.65	255.0	171.8	445.0	407.3	635.0	706.7
70.00	23.16	260.0	177.1	450.0	414.4	640.0	715.3
75.00	25.78	265.0	182.4	455.0	421.5	645.0	724.0
80.00	28.49	270.0	187.7	460.0	428.7	650.0	732.7
85.00	31.30	275.0	193.1	465.0	436.0	655.0	741.5
90.00	34.20	280.0	198.6	470.0	443.3	660.0	750.2
95.00	37.19	285.0	204.1	475.0	450.6	665.0	759.1
100.0	40.26	290.0	209.7	480.0	458.0	670.0	767.9
105.0	43.43	295.0	215.3	485.0	465.4	675.0	776.8
110.0	46.67	300.0	221.0	490.0	472.8	680.0	785.8
115.0	50.00	305.0	226.8	495.0	480.3	685.0	794.8
120.0	53.41	310.0	232.6	500.0	487.9	690.0	803.8
125.0	56.90	315.0	238.4	505.0	495.5	695.0	812.8
130.0	60.47	320.0	244.3	510.0	503.1	700.0	821.9
135.0	64.11	325.0	250.2	515.0	510.8	705.0	831.0
140.0	67.83	330.0	256.2	520.0	518.5	710.0	840.2
145.0	71.62	335.0	262.3	525.0	526.2	715.0	849.3
150.0	75.48	340.0	268.4	530.0	534.0	720.0	858.6
155.0	79.42	345.0	274.5	535.0	541.8	725.0	867.8
160.0	83.43	350.0	280.7	540.0	549.7	730.0	877.1
165.0	87.50	355.0	286.9	545.0	557.6	735.0	886.5
170.0	91.64	360.0	293.2	550.0	565.6	740.0	895.8
175.0	95.86	365.0	299.5	555.0	573.5	745.0	905.2
180.0	100.1	370.0	305.9	560.0	581.6	750.0	914.7
185.0	104.5	375.0	312.4	565.0	589.6	1	
190.0	108.9	380.0	318.8	570.0	597.7	1	



4 Instrument Verification

See the following pages of reports for individual equipment.

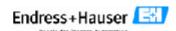


Electrical/Control Panels – PLC/SCADA Programming – Instrumentation Calibrations

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4.1 FIT- 310 Septage Inlet Grinder

Customer	Plant	
Order code	Tag Name	
PROMAG 53 W DN100	1.2931 - 1.2931	
Device type	K-Factor	
E309B116000	6	
Serial number	Zero point	
/2.03.00	V1.05.03	
oftware Version Transmitter	Software Version I/O-Modu	ile
01/28/2020	10:44 AM	
/erification date	Verification time	
Verification result Transn	nitter: Passed	
		Applied Limit
est item	Result	
est item Amplifier		
est item mplifier current Output 1	Result Passed	Applied Limits Basis: 0.53 % 0.05 mA 0 P
Test item Amplifier Current Output 1 Pulse Output 1	Result Passed Passed	Basis: 0.53 % 0.05 mA
Test item Amplifier Current Output 1 Pulse Output 1	Result Passed Passed Not tested	Basis: 0.53 % 0.05 mA
Fest item Amplifier Current Output 1 Pulse Output 1 Fest Sensor	Result Passed Passed Not tested	Basis: 0.53 % 0.05 mA
Verification result Transn Test item Amplifier Current Output 1 Pulse Output 1 Test Sensor FieldCheck Details 240223	Result Passed Passed Not tested Passed Simubox Details 8784351	Basis: 0.53 % 0.05 mA
FieldCheck Details 240223	Result Passed Passed Not tested Passed Simubox Details 8784351 Production number	Basis: 0.53 % 0.05 mA
FieldCheck Details 240223 Production number 1.07.08	Result Passed Passed Not tested Passed Simubox Details 8784351 Production number 1.00.01	Basis: 0.53 % 0.05 mA
Test item Amplifier Current Output 1 Pulse Output 1 Test Sensor	Result Passed Passed Not tested Passed Simubox Details 8784351 Production number	Basis: 0.53 % 0.05 mA



Electrical/Control Panels – PLC/SCADA Programming – Instrumentation Calibrations

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FieldCheck - Result Tab Transmitter

	IOIGOIIOOK IX	JOUIL I WE I I WITE		111101	
Cu	stomer] [Plant	
Or	der code] [Tag Name	
De	evice type	PROMAG 53 W DN100	П	K-Factor	1.2931 - 1.2931
Se	rial number	E309B116000] [Zero point	6
So	ftware Version Transmitter	V2.03.00	П	Software Version I/O-Module	V1.05.03
Ve	rification date	01/28/2020	11	Vertfication time	10:44 AM

Verification Flow end value (100 %): 4633.180 m3/d Flow speed 6.83 m/s

Passed / Failed	Test item	Simul. Signal	Limit Value	Deviation
	Test Transmitter			
	Amplifier	231.659 m3/d (5%)	1.09 %	-0.54 %
		463.318 m3/d (10.0%)	0.79 %	-0.14 %
✓		2316.590 m3/d (50.0%)	0.56 %	-0.08 %
-		4633.180 m3/d (100%)	0.53 %	-0.08 %
	Current Output 1	4.000 mA (0%)	0.05 mA	-0.005 mA
		4.800 mA (5%)	0.05 mA	-0.005 mA
		5.600 mA (10.0%)	0.05 mA	-0.017 mA
		12.000 mA (50.0%)	0.05 mA	-0.006 mA
		20.000 mA (100%)	0.05 mA	0.004 mA
	Pulse Output 1	_	_	_
		Start value	Limits range	Measured valu
	Test Sensor			
✓	Coll Curr. Rise	5.000 ms	0.00014.250 ms	7.890 ms
	Coll Curr. Stability		_	_
	Electrode Integrity	mV	0.0300.000 mV	0.000 mV

Legend of symbols				
~ ~	×	_	?	<u> </u>
Passed	Falled	not tested	not testable	Attention



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FieldCheck: Parameters Transmitter

Customer		Plant	
Order code		Tag Name	
Device type	PROMAG 53 W DN100	K-Factor	1.2931 - 1.2931
Serial number	E309B116000	Zero point	6
Software Version Transmitter	V2.03.00	Software Version I/O-Module	V1.05.03
Verification date	01/28/2020	Verification time	10:44 AM

Curent Output	Assign	Current Range	Value 0_4mA	Value 20 mA	
Terminal 26/27	VOLUME FLOW	4-20 mA activ	0.0 m3/d	3270.60 m3/d	
Pulse Output	Assign	Pulse Value	Output signal	Pulse width	
Terminal 24/25	VOLUME FLOW	0.004 m3/P	Passive/Negativ e	20.00 ms	



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4.2 FIT- 350 Septage Tank

	Plant	
Customer	FIT350	
Nadada	Tag Name	
order code	1.2918 - 1.2918	
ROMAG 53 P DN100	K-Factor	
evice type	2	
60E6616000	Zero point	
erial number		
2.03.00	V1.05.03	Indula
oftware Version Transmitter	Software Version I/O-I	woodle
1/28/2020	10:59 AM	
erification date	Verification time	
est item	Result	Applied Limit
rerification result Transmitter: P	assed	
est item	Result	
est item mplifier	Result Passed	Basis: 0.55 %
est item mplifier urrent Output 1	Result Passed Passed	Basis: 0.55 % 0.05 mA
est item mplifier urrent Output 1 ulse Output 1	Result Passed Passed Not tested	Basis: 0.55 %
Fest item Amplifier Current Output 1 Pulse Output 1	Result Passed Passed	Basis: 0.55 % 0.05 mA
Fest item Amplifier Current Output 1 Pulse Output 1	Result Passed Passed Not tested	Basis: 0.55 % 0.05 mA
Fest item Amplifier Current Output 1 Pulse Output 1 Fest Sensor	Result Passed Passed Not tested	Basis: 0.55 % 0.05 mA 0 P
Fest item Amplifier Current Output 1 Pulse Output 1 Fest Sensor FieldCheck Details 240223	Result Passed Passed Not tested Passed Simubox Details 8784351	Basis: 0.55 % 0.05 mA 0 P
iest item Implifier Current Output 1 Pulse Output 1 Pest Sensor ieldCheck Details 240223 roduction number	Result Passed Passed Not tested Passed Simubox Details 8784351 Production number	Basis: 0.55 % 0.05 mA 0 P
FieldCheck Details 240223 Production number 1.07.08	Result Passed Passed Not tested Passed Simubox Details 8784351 Production number 1.00.01	Basis: 0.55 % 0.05 mA 0 P
Fest item Amplifier Current Output 1 Pulse Output 1 Fest Sensor FieldCheck Details 240223 Production number .07.08 Introduction number	Result Passed Passed Not tested Passed Simubox Details 8784351 Production number 1.00.01 Software Version	Basis: 0.55 % 0.05 mA 0 P
Verification result Transmitter: P Test item Amplifier Current Output 1 Pulse Output 1 Test Sensor	Result Passed Passed Not tested	Basis: 0.55 0.05 mA
Test item Amplifier Current Output 1 Pulse Output 1 Test Sensor FieldCheck Details 240223 Production number 1.07.08	Result Passed Passed Not tested Passed Simubox Details 8784351 Production number 1.00.01	Basis: 0.55 % 0.05 mA 0 P
Fest item Current Output 1 Pulse Output 1 Fest Sensor FieldCheck Details 240223 Froduction number .07.08 oftware Version	Result Passed Passed Not tested Passed Simubox Details 8784351 Production number 1.00.01 Software Version	Basis: 0.55 % 0.05 mA 0 P
iest item Implifier Fourient Output 1 Fulse Output 1 Fest Sensor ieldCheck Details 240223 Foduction number 1.07.08	Result Passed Passed Not tested Passed Simubox Details 8784351 Production number 1.00.01	Basis: 0.55 % 0.05 mA 0 P



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FieldCheck - Result Tab Transmitter

I IOIGOIIOOK IX	oouit lab llallo	1111111111	
Customer		Plant	
Order code		Tag Name	FIT350
Device type	PROMAG 53 P DN100	K-Factor	1.2918 - 1.2918
Serial number	E60E6616000	Zero point	2
Software Version Transmitter	V2.03.00	Software Version I/O-Module	V1.05.03
Verification date	01/28/2020	Vertfication time	10:59 AM

Verification Flow end value (100 %): 2714.336 m3/d Flow speed 4.00 m/s

Passed / Failed	Test item	Simul. Signal	Limit Value	Deviation
	Test Transmitter			
	Amplifier	135.717 m3/d (5%)	1.50 %	-0.43 %
		271.434 m3/d (10.0%)	1.00 %	-0.43 %
		1357.168 m3/d (50.0%)	0.60 %	-0.07 %
		2714.336 m3/d (100%)	0.55 %	-0.01 %
	Current Output 1	4.000 mA (0%)	0.05 mA	-0.007 mA
 >		4.800 mA (5%)	0.05 mA	-0.007 mA
 -		5.600 mA (10.0%)	0.05 mA	-0.019 mA
		12.000 mA (50.0%)	0.05 mA	-0.003 mA
<u> </u>		20.000 mA (100%)	0.05 mA	0.014 mA
	Pulse Output 1	_	_	_
		Start value	Limits range	Measured value
	Test Sensor			
✓	Coll Curr. Rise	5.000 ms	0.00014.250 ms	6.257 ms
	Coll Curr. Stability		_	_
	Electrode Integrity	mV	0.0300.000 mV	3.272 mV

Legend of symbols				
~ ~	×	_	?	<u> </u>
Passed	Falled	not tested	not testable	Attention



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FieldCheck: Parameters Transmitter

Customer		Plant		
Order code		Tag Name	FIT350	
Device type	PROMAG 53 P DN100	K-Factor	1.2918 - 1.2918	
Serial number	E60E6616000	Zero point	2	
Software Version Transmitter	V2.03.00	Software Version I/O-Module	V1.05.03	
Verification date	01/28/2020	Verification time	10:59 AM	

Curent Output	Assign	Current Range	Value 0_4mA	Value 20 mA	
Terminal 26/27	VOLUME FLOW	4-20 mA activ	0.0 m3/d	4320.00 m3/d	
Pulse Output	Assign	Pulse Value	Output signal	Pulse width	
Terminal 24/25	VOLUME FLOW	0.008 m3/P	Passive/Positiv e	100.00 ms	

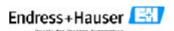
Actual System Ident.

123.0



10-830 Industrial Ave. Ottawa, ON K1G-4B8 Ph. 613 248-1999 Fax: 613 248-1997 **4.3 FIT- 611 R.A.S.**

Customer	Plant			
	FIT-611			
Order code	Tag Name			
PROMAG 10 P DN150	1.0042 - 1.0042			
Device type	K-Factor			
E6085316000	0			
Serial number	Zero point			
/1.03.00				
Software Version Transmitter	Software Version I/O-N	Module		
01/28/2020	12:37 PM			
Verification date	Verification time			
		Applied Limits		
Verification result Transmitter: P	assed			
	assed Result	Applied Limits		
Test item		Applied Limits Basis: 0.65 %		
Test item Amplifier	Result			
T est item Amplifier Current Output 1 Pulse Output 1	Result Passed Passed Not tested	Basis: 0.65 %		
Verification result Transmitter: Parest item Amplifier Current Output 1 Pulse Output 1 Test Sensor	Result Passed Passed	Basis: 0.65 % 0.05 mA		
Test item Amplifier Current Output 1 Pulse Output 1	Result Passed Passed Not tested	Basis: 0.65 % 0.05 mA		
T est item Amplifier Current Output 1 Pulse Output 1	Result Passed Passed Not tested	Basis: 0.65 % 0.05 mA		
Fest item Amplifier Current Output 1 Pulse Output 1 Fest Sensor FieldCheck Details 240223	Result Passed Passed Not tested Passed Simubox Details 8784351	Basis: 0.65 % 0.05 mA		
FieldCheck Details 240223	Result Passed Passed Not tested Passed Simubox Details 8784351 Production number	Basis: 0.65 % 0.05 mA		
FieldCheck Details 240223 Production number 1.07.08	Result Passed Passed Not tested Passed Simubox Details 8784351 Production number 1.00.01	Basis: 0.65 % 0.05 mA		
FieldCheck Details 240223	Result Passed Passed Not tested Passed Simubox Details 8784351 Production number	Basis: 0.65 % 0.05 mA		



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FieldCheck - Result Tab Transmitter

Customer		Plant	
Order code		Tag Name	FIT-611
Device type	PROMAG 10 P DN150	K-Factor	1.0042 - 1.0042
Serial number	E6085316000	Zero point	0
Software Version Transmitter	V1.03.00	Software Version I/O-Module	
Verification date	01/28/2020	Verification time	12:37 PM

Verification Flow end value (100 %): 6107.256 m3/d Flow speed 4.00 m/s

Passed / Failed	Test item	Simul. Signal	Limit Value	Deviation
	Test Transmitter			
	Ampillier	305.363 m3/d (5%)	1.60 %	-0.86 %
		610.726 m3/d (10.0%)	1.10 %	-0.64 %
		3053.628 m3/d (50.0%)	0.70 %	-0.12 %
		6107.256 m3/d (100%)	0.65 %	-0.06 %
<u>~</u>	Current Output 1	4.000 mA (0%)	0.05 mA	-0.005 mA
		4.800 mA (5%)	0.05 mA	-0.005 mA
		5.600 mA (10.0%)	0.05 mA	-0.003 mA
		12.000 mA (50.0%)	0.05 mA	0.008 mA
		20.000 mA (100%)	0.05 mA	0.035 mA
	Pulse Output 1	_	_	_
		Start value	Limits range	Measured value
·	Test Sensor			
✓	Coll Curr. Rise	83.300 ms	20.00083.300 ms	66.711 ms
	Coll Curr. Stability		_	_

Legend of symbols					
	×	_	?	<u>.</u>	
Passed	Falled	not tested	not testable	Attention	



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FieldCheck: Parameters Transmitter

Customer		Plant	
Order code		Tag Name	FIT-611
Device type	PROMAG 10 P DN150	K-Factor	1.0042 - 1.0042
Serial number	E6085316000	Zero point	0
Software Version Transmitter	V1.03.00	Software Version I/O-Module	
Verification date	01/28/2020	Verification time	12:37 PM

Curent Output	Assign	Current Range	Value 0_4mA	Value 20 mA	
Terminal 26/27	VOLUME FLOW	4-20 mA activ	0.0 m3/d	5000.00 m3/d	
Pulse Output	Assign	Pulse Value	Output signal	Pulse width	
Terminal 24/25	VOLUME FLOW	0.025 m3/P	Passive/Positiv e	100.00 ms	



10-830 Industrial Ave. Ottawa, ON K1G-4B8 Ph. 613 248-1999 Fax: 613 248-1997 **4.4 FIT- 612 W.A.S.**

Plant FIT-612 Tao Name 1.0337 - 1.0337 K-Factor 0 Zero point Software Version I/O-Module 03:16 PM Verification time	Page
Plant FIT-612 Tad Name 1.0337 - 1.0337 K-Factor 0 Zero point Software Version I/O-Module 03:16 PM	
FIT-612 Tad Name 1.0337 - 1.0337 K-Factor 0 Zero point Software Version I/O-Module 03:16 PM	3
FIT-612 Tad Name 1.0337 - 1.0337 K-Factor 0 Zero point Software Version I/O-Module 03:16 PM	1
Tad Name 1.0337 - 1.0337 K-Factor 0 Zero point Software Version I/O-Module 03:16 PM	1
1.0337 - 1.0337 K-Factor 0 Zero point Software Version I/O-Module 03:16 PM	
K-Factor 0 Zero point Software Version I/O-Module 03:16 PM	•
K-Factor 0 Zero point Software Version I/O-Module 03:16 PM	1
O Zero point Software Version I/O-Module 03:16 PM	1
Zero point Software Version I/O-Module 03:16 PM	ı
Software Version I/O-Module 03:16 PM	1
03:16 PM	1
03:16 PM	-
Verification time	
ed	
ea	
Result	Applied Limits
	Basis: 0.63 %
	0.05 mA
Not tested	0 P
Passed	
Cimubay Dataile	
1.00.01	
Software Version	
03/2019	
Last Calibration Date	
	s Sian
specitor	
functional, and the measuri	ng results lie
	-
ational standards.	
donal standards.	
atorial standards.	
	Result Passed Passed Not tested Passed Simubox Details 8784351 Production number 1.00.01 Software Version 03/2019 Last Calibration Date



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FieldCheck - Result Tab Transmitter

Customer		Plant	
Order code		Tag Name	FIT-612
Device type	PROMAG 10 P DN80	K-Factor	1.0337 - 1.0337
Serial number	E6086D16000	Zero point	0
Software Version Transmitter	V1.03.00	Software Version I/O-Module	
Verification date	01/28/2020	Verification time	03:16 PM

Verification Flow end value (100 %): 2856.000 m3/d Flow speed 6.58 m/s

Passed / Failed	Test item	Simul. Signal	Limit Value	Deviation
	Test Transmitter			
	Ampillier	142.800 m3/d (5%)	1.21 %	-0.51 %
 >		285.600 m3/d (10.0%)	0.90 %	-0.06 %
		1428.000 m3/d (50.0%)	0.66 %	0.00 %
		2856.000 m3/d (100%)	0.63 %	-0.07 %
√	Current Output 1	4.000 mA (0%)	0.05 mA	0.003 mA
		4.800 mA (5%)	0.05 mA	-0.007 mA
<u> </u>		5.600 mA (10.0%)	0.05 mA	-0.007 mA
<u> </u>		12.000 mA (50.0%)	0.05 mA	-0.007 mA
√		20.000 mA (100%)	0.05 mA	0.013 mA
	Pulse Output 1	_	_	_
		Start value	Limits range	Measured val
	Test Sensor			
✓	Coll Curr. Rise	50.000 ms	13.34050.000 ms	43.203 ms
	Coll Curr. Stability		_	_

Legend of symbols					
	×	_	?	<u>.</u>	
Passed	Falled	not tested	not testable	Attention	



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FieldCheck: Parameters Transmitter

Customer		Plant	
Order code		Tag Name	FIT-612
Device type	PROMAG 10 P DN80	K-Factor	1.0337 - 1.0337
Serial number	E6086D16000	Zero point	0
Software Version Transmitter	V1.03.00	Software Version I/O-Module	
Verification date	01/28/2020	Verification time	03:16 PM

Curent Output	Assign	Current Range	Value 0_4mA	Value 20 mA	
Terminal 26/27	VOLUME FLOW	4-20 mA activ	0.0 m3/d	864.00 m3/d	
Pulse Output	Assign	Pulse Value	Output signal	Pulse width	
Terminal 24/25	VOLUME FLOW	0.005 m3/P	Passive/Positiv e	100.00 ms	

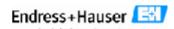
Actual System Ident.

121.0



10-830 Industrial Ave. Ottawa, ON K1G-4B8 Ph. 613 248-1999 Fax: 613 248-1997 **4.5 FIT- 631 R.A.S.**

Customer	Plant	
	FIT-631	
Order code	Tag Name	
ROMAG 10 P DN150	1.016 - 1.016	
Device type	K-Factor	
608FE16000	0	
Serial number	Zero point	
/1.03.00		
Software Version Transmitter	Software Version I/O-I	Module
01/28/2020	03:27 PM	
/ertfication date	Verification time	
est item	Result	Applied Limit
Verification result Transmitter: I	Passed	
		Applied Limit
est item		Applied Limit Basis: 0.85 %
est item Implifier Current Output 1	Result Passed Passed	Basis: 0.65 % 0.05 mA
est item Implifier Current Output 1 Pulse Output 1	Result Passed	Basis: 0.65 %
Test item Amplifier Current Output 1 Pulse Output 1	Result Passed Passed Not tested	Basis: 0.65 % 0.05 mA
Verification result Transmitter: Test item Amplifier Current Output 1 Pulse Output 1 Test Sensor	Result Passed Passed Not tested Passed	Basis: 0.65 % 0.05 mA 0 P
FieldCheck Details	Result Passed Passed Not tested Passed	Basis: 0.65 % 0.05 mA 0 P
Fest item Amplifier Current Output 1 Pulse Output 1 Test Sensor FieldCheck Details 240223	Result Passed Passed Not tested Passed Simubox Details 8784351	Basis: 0.65 % 0.05 mA 0 P
Fest item Amplifier Current Output 1 Pulse Output 1 Fest Sensor FieldCheck Details 240223 Production number 1.07.08 Software Version	Result Passed Passed Not tested Passed Simubox Details 8784351 Production number 1.00.01 Software Version	Basis: 0.65 % 0.05 mA 0 P
Test item Amplifier Current Output 1 Pulse Output 1 Test Sensor FieldCheck Details 240223 Production number 1.07.08 Software Version 03/2019	Result Passed Passed Not tested Passed Simubox Details 8784351 Production number 1.00.01 Software Version 03/2019	Basis: 0.65 % 0.05 mA 0 P
Test item Amplifier Current Output 1 Pulse Output 1 Test Sensor	Result Passed Passed Not tested Passed Simubox Details 8784351 Production number 1.00.01 Software Version	Basis: 0.65 % 0.05 mA 0 P
Test item Amplifier Current Output 1 Pulse Output 1 Test Sensor FieldCheck Details 240223 Production number 1.07.08 Software Version 03/2019	Result Passed Passed Not tested Passed Simubox Details 8784351 Production number 1.00.01 Software Version 03/2019	Basis: 0.65 % 0.05 mA 0 P
FieldCheck Details 240223 Production number 1.07.08 506fware Version 03/2019	Result Passed Passed Not tested Passed Simubox Details 8784351 Production number 1.00.01 Software Version 03/2019 Last Calibration Date	Basis: 0.65 % 0.05 mA 0 P



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FieldCheck - Result Tab Transmitter

Customer		Plant	
Order code		Tag Name	FIT-631
Device type	PROMAG 10 P DN150	K-Factor	1.016 - 1.016
Serial number	E608FE16000	Zero point	0
Software Version Transmitter	V1.03.00	Software Version I/O-Module	
Verification date	01/28/2020	Verification time	03:27 PM

Verification Flow end value (100 %): 6107.256 m3/d Flow speed 4.00 m/s

Passed / Failed	Test item	Simul. Signal	Limit Value	Deviation
	Test Transmitter			
	Ampillier	305.363 m3/d (5%)	1.60 %	-0.63 %
<u>~</u>		610.726 m3/d (10.0%)	1.10 %	-0.29 %
/		3053.628 m3/d (50.0%)	0.70 %	-0.11 %
~		6107.256 m3/d (100%)	0.65 %	-0.08 %
<u>~</u>	Current Output 1	4.000 mA (0%)	0.05 mA	-0.001 mA
		4.800 mA (5%)	0.05 mA	-0.008 mA
		5.600 mA (10.0%)	0.05 mA	-0.008 mA
		12.000 mA (50.0%)	0.05 mA	-0.007 mA
		20.000 mA (100%)	0.05 mA	0.012 mA
	Pulse Output 1	_	_	_
		Start value	Limits range	Measured valu
·	Test Sensor			
✓	Coll Curr. Rise	83.300 ms	20.00083.300 ms	66.659 ms
	Coll Curr. Stability		_	_

Legend of symbols					
	×	_	?	<u>.</u>	
Passed	Falled	not tested	not testable	Attention	



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FieldCheck: Parameters Transmitter

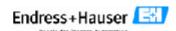
Customer		Plant	
Order code		Tag Name	FIT-631
Device type	PROMAG 10 P DN150	K-Factor	1.016 - 1.016
Serial number	EG08FE1G000	Zero point	0
Software Version Transmitter	V1.03.00	Software Version I/O-Module	
Verification date	01/28/2020	Verification time	03:27 PM

Curent Output	Assign	Current Range	Value 0_4mA	Value 20 mA	
Terminal 26/27	VOLUME FLOW	4-20 mA activ	0.0 m3/d	5000.00 m3/d	
Pulse Output	Assign	Pulse Value	Output signal	Pulse width	
Terminal 24/25	VOLUME FLOW	0.025 m3/P	Passive/Positiv e	100.00 ms	



10-830 Industrial Ave. Ottawa, ON K1G-4B8 Ph. 613 248-1999 Fax: 613 248-1997 **4.6 FIT- 621 R.A.S.**

Customer	Plant	
	FIT-821	
Order code	Tag Name	
PROMAG 10 P DN150	1.0176 - 1.0176	
Device type	K-Factor	
E6087E16000	0	
Serial number	Zero point	
/1.03.00		
Software Version Transmitter	Software Version I/O-I	Module
01/28/2020	03:37 PM	
/ertfication date	Verification time	
est item	Result	Applied Limit
Verification result Transmitter: Pa	ssed	
		Applied Limit
est item		Applied Limit Basis: 0.65 %
est item Amplifier Current Output 1	Result Passed Passed	Basis: 0.65 % 0.05 mA
Fest item Amplifier Current Output 1 Pulse Output 1	Result Passed Passed Not tested	Basis: 0.65 %
T est item Amplifier Current Output 1 Pulse Output 1	Result Passed Passed	Basis: 0.65 % 0.05 mA
Verification result Transmitter: Pa Test item Amplifier Current Output 1 Pulse Output 1 Test Sensor FieldCheck Details	Result Passed Passed Not tested Passed	Basis: 0.65 % 0.05 mA
Fest item Amplifier Current Output 1 Pulse Output 1 Test Sensor FieldCheck Details 240223	Result Passed Passed Not tested Passed	Basis: 0.65 % 0.05 mA
Test item Amplifier Current Output 1 Pulse Output 1 Test Sensor FieldCheck Details 240223 Production number 1.07.08	Result Passed Passed Not tested Passed Simubox Details 8784351 Production number 1.00.01	Basis: 0.65 % 0.05 mA
Test item Amplifier Current Output 1 Pulse Output 1 Test Sensor FieldCheck Details 240223 Production number	Result Passed Passed Not tested Passed Simubox Details 8784351 Production number	Basis: 0.65 % 0.05 mA
Test item Amplifier Current Output 1 Pulse Output 1 Test Sensor FieldCheck Details 240223 Production number 1.07.08	Result Passed Passed Not tested Passed Simubox Details 8784351 Production number 1.00.01	Basis: 0.65 9 0.05 mA



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FieldCheck - Result Tab Transmitter

Customer		Plant	
Order code		Tag Name	FIT-621
Device type	PROMAG 10 P DN150	K-Factor	1.0176 - 1.0176
Serial number	E6087E16000	Zero point	0
Software Version Transmitter	V1.03.00	Software Version I/O-Module	
Verification date	01/28/2020	Verification time	03:37 PM

Verification Flow end value (100 %): 6107.256 m3/d Flow speed 4.00 m/s

Passed / Failed	Test item	Simul. Signal	Limit Value	Deviation
	Test Transmitter			
	Ampiffer	305.363 m3/d (5%)	1.60 %	-0.28 %
		610.726 m3/d (10.0%)	1.10 %	0.02 %
		3053.628 m3/d (50.0%)	0.70 %	-0.12 %
		6107.256 m3/d (100%)	0.65 %	-0.03 %
✓	Current Output 1	4.000 mA (0%)	0.05 mA	-0.002 mA
		4.800 mA (5%)	0.05 mA	-0.009 mA
		5.600 mA (10.0%)	0.05 mA	-0.010 mA
✓		12.000 mA (50.0%)	0.05 mA	-0.010 mA
<u> </u>		20.000 mA (100%)	0.05 mA	0.008 mA
	Pulse Output 1	-	_	_
		Start value	Limits range	Measured valu
	Test Sensor			
✓	Coll Curr. Rise	83.300 ms	20.00083.300 ms	66.529 ms
	Coll Curr. Stability		_	_

Legend of symbols					
	×	_	?	<u>.</u>	
Passed	Falled	not tested	not testable	Attention	



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FieldCheck: Parameters Transmitter

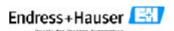
Customer		Plant	
Order code		Tag Name	FIT-621
Device type	PROMAG 10 P DN150	K-Factor	1.0176 - 1.0176
Serial number	E6087E16000	Zero point	0
Software Version Transmitter	V1.03.00	Software Version I/O-Module	
Verification date	01/28/2020	Verification time	03:37 PM

Curent Output	Assign	Current Range	Value 0_4mA	Value 20 mA	
Terminal 26/27	VOLUME FLOW	4-20 mA activ	0.0 m3/d	5000.00 m3/d	
D. L. O. J. J.					
Pulse Output	Assign	Pulse Value	Output signal	Pulse width	
Terminal 24/25	Assign VOLUME FLOW	0.025 m3/P	Passive/Positiv e	100.00 ms	



10-830 Industrial Ave. Ottawa, ON K1G-4B8 Ph. 613 248-1999 Fax: 613 248-1997 **4.7 FIT- 622 W.A.S.**

	Plant	
Customer		
	FIT-622	
Order code	Tag Name	
PROMAG 10 P DN80	1.0288 - 1.0288	
Device type	K-Factor	
E608FC16000		
Serial number	Zero point	
V1.03.00		
Software Version Transmitter	Software Version I/O-I	Module
01/28/2020	03:46 PM	
Verification date	Vertfication time	
Verification result Transmitter:	Passed Result	Applied Limits
Verification result Transmitter:	Passed Result	
Verification result Transmitter: Test item Amplifier	Passed Result Passed	Basis: 0.65 %
Verification result Transmitter: Test item Amplifier Current Output 1	Result Passed Passed	
Verification result Transmitter: Test item Amplifier Current Output 1 Pulse Output 1	Passed Result Passed	Basis: 0.65 % 0.05 mA
Verification result Transmitter: Test item Amplifier Current Output 1 Pulse Output 1 Test Sensor FieldCheck Details	Result Passed Passed Not tested	Basis: 0.65 % 0.05 mA 0 P
Verification result Transmitter: Test item Amplifier Current Output 1 Pulse Output 1 Test Sensor FieldCheck Details 240223	Result Passed Passed Not tested Passed Simubox Details 8784351	Basis: 0.65 % 0.05 mA 0 P
Verification result Transmitter: Test item Amplifier Current Output 1 Pulse Output 1 Test Sensor FieldCheck Details 240223 Production number	Result Passed Passed Passed Not tested Passed Simubox Details 8784351 Production number	Basis: 0.65 % 0.05 mA 0 P
Verification result Transmitter: Test item Amplifier Current Output 1 Pulse Output 1 Test Sensor	Result Passed Passed Not tested Passed Simubox Details 8784351	Basis: 0.65 % 0.05 mA 0 P
Verification result Transmitter: Test item Amplifier Current Output 1 Pulse Output 1 Test Sensor FieldCheck Details 240223 Production number 1.07.08	Passed Result Passed Passed Not tested Passed Simubox Details 8784351 Production number 1.00.01	Basis: 0.65 % 0.05 mA 0 P



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FieldCheck - Result Tab Transmitter

I IOIGOIIOON IX	Jount Lab Lland	111111111	
Customer		Plant	
Order code		Tag Name	FIT-622
Device type	PROMAG 10 P DN80	K-Factor	1.0288 - 1.0288
Serial number	E608FC16000	Zero point	0
Software Version Transmitter	V1.03.00	Software Version I/O-Module	
Verification date	01/28/2020	Verification time	03:46 PM

Verification Flow end value (100 %): 1737.175 m3/d Flow speed 4.00 m/s

Passed / Failed	Test item	Simul. Signal	Limit Value	Deviation
	Test Transmitter			
	Ampillier	86.859 m3/d (5%)	1.60 %	-0.82 %
 >		173.717 m3/d (10.0%)	1.10 %	-0.14 %
		868.588 m3/d (50.0%)	0.70 %	-0.04 %
		1737.175 m3/d (100%)	0.65 %	-0.02 %
<u> </u>	Current Output 1	4.000 mA (0%)	0.05 mA	0.001 mA
√		4.800 mA (5%)	0.05 mA	-0.004 mA
<u> </u>		5.600 mA (10.0%)	0.05 mA	-0.003 mA
<u>√</u>		12.000 mA (50.0%)	0.05 mA	0.003 mA
		20.000 mA (100%)	0.05 mA	0.031 mA
	Pulse Output 1	_	_	_
		Start value	Limits range	Measured valu
	Test Sensor			
✓	Coll Curr. Rise	50.000 ms	13.34050.000 ms	43.125 ms
	Coll Curr. Stability		_	_

Legend of symbols					
	×	_	?	<u>.</u>	
Passed	Falled	not tested	not testable	Attention	



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FieldCheck: Parameters Transmitter

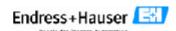
THE PROPERTY OF THE PROPERTY O						
Customer		Plant				
Order code		Tag Name	FIT-622			
Device type	PROMAG 10 P DN80	K-Factor	1.0288 - 1.0288			
Serial number	E608FC16000	Zero point	0			
Software Version Transmitter	V1.03.00	Software Version I/O-Module				
Verification date	01/28/2020	Verification time	03:46 PM			

Curent Output	Assign	Current Range	Value 0_4mA	Value 20 mA	
Terminal 26/27	VOLUME FLOW	4-20 mA activ	0.0 m3/d	864.00 m3/d	
Pulse Output	Assign	Pulse Value	Output signal	Pulse width	
Terminal 24/25	VOLUME FLOW	0.005 m3/P	Passive/Positiv e	100.00 ms	



10-830 Industrial Ave. Ottawa, ON K1G-4B8 Ph. 613 248-1999 Fax: 613 248-1997 **4.8 FIT- 632 W.A.S.**

Customer	Plant	
	FIT-632	
Order code	Tag Name	
PROMAG 10 P DN80	1.055 - 1.055	
Device type	K-Factor	
E6088416000	0	
Serial number	Zero point	
V1.03.00		
Software Version Transmitter	Software Version I/O-N	Module
01/28/2020	04:01 PM	
Verification date	Verification time	
Verification result Transmitter: Pa	assed	
Verification result Transmitter: Pa	assed	
	assed Result	Applied Limits
Test item		Applied Limits Basis: 0.85 %
Test item Amplifier Current Output 1	Result	Basis: 0.65 % 0.05 mA
Test item Amplifier Current Output 1 Pulse Output 1	Result Passed Passed Not tested	Basis: 0.65 %
Verification result Transmitter: Pa	Result Passed Passed	Basis: 0.65 % 0.05 mA
Test item Amplifier Current Output 1 Pulse Output 1	Result Passed Passed Not tested	Basis: 0.65 % 0.05 mA
Test item Amplifier Current Output 1 Pulse Output 1	Result Passed Passed Not tested	Basis: 0.65 % 0.05 mA
Test item Amplifier Current Output 1 Pulse Output 1 Test Sensor	Result Passed Passed Not tested	Basis: 0.65 % 0.05 mA
Test item Amplifier Current Output 1 Pulse Output 1 Test Sensor FieldCheck Details 240223	Result Passed Passed Not tested Passed Simubox Details 8784351	Basis: 0.65 % 0.05 mA
FieldCheck Details 240223	Result Passed Passed Not tested Passed Simubox Details 8784351 Production number	Basis: 0.65 % 0.05 mA
Test item Amplifier Current Output 1 Pulse Output 1 Test Sensor FieldCheck Details 240223 Production number 1.07.08	Result Passed Passed Not tested Passed Simubox Details 8784351 Production number 1.00.01	Basis: 0.65 % 0.05 mA
Test item Amplifier Current Output 1 Pulse Output 1 Test Sensor FieldCheck Details 240223	Result Passed Passed Not tested Passed Simubox Details 8784351 Production number	Basis: 0.65 % 0.05 mA



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FieldCheck - Result Tab Transmitter

Customer		Plant	
Order code		Tag Name	FIT-632
Device type	PROMAG 10 P DN80	K-Factor	1.055 - 1.055
Serial number	E6088416000	Zero point	0
Software Version Transmitter	V1.03.00	Software Version I/O-Module	
Verification date	01/28/2020	Verification time	04:01 PM

Verification Flow end value (100 %): 1737.175 m3/d Flow speed 4.00 m/s

Passed / Failed	Test item	Simul. Signal	Limit Value	Deviation
	Test Transmitter			
	Ampillier	86.859 m3/d (5%)	1.60 %	-0.29 %
 >		173.717 m3/d (10.0%)	1.10 %	-0.21 %
		868.588 m3/d (50.0%)	0.70 %	-0.06 %
		1737.175 m3/d (100%)	0.65 %	0.00 %
<u> </u>	Current Output 1	4.000 mA (0%)	0.05 mA	-0.005 mA
√		4.800 mA (5%)	0.05 mA	-0.006 mA
<u> </u>		5.600 mA (10.0%)	0.05 mA	-0.006 mA
<u>√</u>		12.000 mA (50.0%)	0.05 mA	0.002 mA
		20.000 mA (100%)	0.05 mA	0.026 mA
	Pulse Output 1	_	_	_
		Start value	Limits range	Measured valu
	Test Sensor			
✓	Coll Curr. Rise	50.000 ms	13.34050.000 ms	43.281 ms
	Coll Curr. Stability		_	_

Legend of symbols					
	×	_	?	<u>.</u>	
Passed	Falled	not tested	not testable	Attention	



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FieldCheck: Parameters Transmitter

THE STATE OF THE S						
Customer		Plant				
Order code		Tag Name	FIT-632			
Device type	PROMAG 10 P DN80	K-Factor	1.055 - 1.055			
Serial number	E6088416000	Zero point	0			
Software Version Transmitter	V1.03.00	Software Version I/O-Module				
Verification date	01/28/2020	Verification time	04:01 PM			

Curent Output	Assign	Current Range	Value 0_4mA	Value 20 mA	
Terminal 26/27	VOLUME FLOW	4-20 mA activ	0.0 m3/d	864.00 m3/d	
Pulse Output	Assign	Pulse Value	Output signal	Pulse width	
Terminal 24/25	VOLUME FLOW	0.005 m3/P	Passive/Positiv e	100.00 ms	



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4.9 FIT- 750 Filtrate Tank

	fication Cartificata	Transmitter	
riowilleter veri	fication Certificate	Tran <u>ismiller</u>	
Customer		Plant	
		FIT-750	
Order code		Tag Name	
PROMAG 10 P DN80		1.1234 - 1.1234	
Device type		K-Factor	
E6086E16000			
Serial number		Zero point	
/1.03.00			
Software Version Transmitter		Software Version I/O-N	Module
01/28/2020		12:27 PM	
Verification date		Vertication time	
est item		Result	Applied Limits
mplifier		Passed	Basis: 0.65 %
		Passed	0.05 mA
Current Output 1		Passed Not tested	0.05 mA 0 P
Current Output 1 Pulse Output 1			
Current Output 1 Pulse Output 1		Not tested	
Current Output 1 Pulse Output 1 Test Sensor		Not tested	
Current Output 1 Pulse Output 1 Test Sensor		Not tested Passed Simubox Details 8784351	
Current Output 1 Pulse Output 1 Test Sensor FieldCheck Details 240223 Production number		Not tested Passed Simubox Details 8784351 Production number	
Current Output 1 Pulse Output 1 Fest Sensor FieldCheck Details 240223 Production number 1.07.08		Simubox Details 8784351 Production number 1.00.01	
Current Output 1 Pulse Output 1 Fest Sensor FieldCheck Details 240223 Production number 1.07.08 Software Version		Simubox Details 8784351 Production number 1.00.01 Software Version	
Current Output 1 Pulse Output 1 Test Sensor FieldCheck Details		Simubox Details 8784351 Production number 1.00.01	
Current Output 1 Pulse Output 1 Test Sensor FieldCheck Details 240223 Production number 1.07.08 Software Version 03/2019		Simubox Details 8784351 Production number 1.00.01	
Current Output 1 Pulse Output 1 Test Sensor FieldCheck Details 240223 Production number 1.07.08 Software Version 03/2019		Simubox Details 8784351 Production number 1.00.01 Software Version 03/2019	
Current Output 1 Pulse Output 1 Test Sensor FieldCheck Details 240223 Production number 1.07.08 Software Version 03/2019 Last Calibration Date	Operator's Sign	Simubox Details 8784351 Production number 1.00.01 Software Version 03/2019 Last Calibration Date	0 P
Current Output 1 Pulse Output 1 Test Sensor FieldCheck Details 240223 Production number 1.07.08 Solvane Version 03/2019 Last Calibration Date Date Overall results:	Operator's Sign	Simubox Details 8784351 Production number 1.00.01 Software Version 03/2019 Last Calibration Date	0 P
Current Output 1 Pulse Output 1 Test Sensor FieldCheck Details 240223 Production number 1.07.08 Software Version 03/2019 Last Calibration Date Date Overall results: The achieved test results s	Operator's Sign how that the instrumment is comp	Simubox Details 8784351 Production number 1.00.01 Software Version 03/2019 Last Calibration Date	0 P
Current Output 1 Pulse Output 1 Fest Sensor FieldCheck Details 240223 Production number 1.07.08 Software Version 03/2019 ast Calibration Date Details Overall results: The achieved test results sivithin +/- 1% of the original	Operator's Sign how that the instrumment is comp I calibration. 1)	Simubox Details 8784351 Production number 1.00.01 Software Version 03/2019 Last Calibration Date Inspec	0 P
Current Output 1 Pulse Output 1 Fest Sensor FieldCheck Details 240223 Production number 1.07.08 Fortware Version 13/2019 Fortware Version Date Diverall results: The achieved test results sivithin +/- 1% of the original	Operator's Sign how that the instrumment is comp	Simubox Details 8784351 Production number 1.00.01 Software Version 03/2019 Last Calibration Date Inspec	0 P
Current Output 1 Pulse Output 1 Fest Sensor FieldCheck Details 240223 Production number 1.07.08 Software Version 13/2019 Last Calibration Date Date Detail results: The achieved test results swithin +/- 1% of the original The calibration of the Fields	Operator's Sign how that the instrumment is comp I calibration. ¹⁾ check test system is fully traceable	Simubox Details 8784351 Production number 1.00.01 Software Version 03/2019 Last Calibration Date Inspec	0 P
Current Output 1 Pulse Output 1 Test Sensor FieldCheck Details 240223 Production number 1.07.08 Software Version 03/2019 Last Calibration Date Date Overall results: The achieved test results s' within +/- 1% of the original The calibration of the Fielde	Operator's Sign how that the instrumment is comp I calibration. 1)	Simubox Details 8784351 Production number 1.00.01 Software Version 03/2019 Last Calibration Date Inspec	0 P



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FieldCheck - Result Tab Transmitter

I IOIGOIICOIL IL	TOUR TWO TIMES	•	114441	
Customer] [Plant	
Order code] [Tag Name	FIT-750
Device type	PROMAG 10 P DN80] [K-Factor	1.1234 - 1.1234
Serial number	E6086E16000] [Zero point	0
Software Version Transmitter	V1.03.00] [Software Version I/O-Module	
Verification date	01/28/2020] [Verification time	12:27 PM

Verification Flow end value (100 %): 1737.175 m3/d Flow speed 4.00 m/s

Passed / Failed	Test item	Simul. Signal	Limit Value	Deviation
	Test Transmitter			
	Amplifier	86.859 m3/d (5%)	1.60 %	-0.46 %
— <u>-</u>		173.717 m3/d (10.0%)	1.10 %	-0.84 %
		868.588 m3/d (50.0%)	0.70 %	-0.14 %
		1737.175 m3/d (100%)	0.65 %	-0.05 %
<u> </u>	Current Output 1	4.000 mA (0%)	0.05 mA	-0.004 mA
√		4.800 mA (5%)	0.05 mA	-0.005 mA
<u> </u>		5.600 mA (10.0%)	0.05 mA	-0.003 mA
<u>√</u>		12.000 mA (50.0%)	0.05 mA	0.003 mA
<u> </u>		20.000 mA (100%)	0.05 mA	0.030 mA
	Pulse Output 1	_	_	_
		Start value	Limits range	Measured valu
	Test Sensor			
✓	Coll Curr. Rise	50.000 ms	13.34050.000 ms	43.828 ms
	Coll Curr. Stability		_	_

Legend of symbols					
	×	_	,	<u> </u>	
Passed	Falled	not tested	not testable	Attention	



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FieldCheck: Parameters Transmitter

Customer		Plant	
Order code		Tag Name	FIT-750
Device type	PROMAG 10 P DN80	K-Factor	1.1234 - 1.1234
Serial number	E6086E16000	Zero point	0
Software Version Transmitter	V1.03.00	Software Version I/O-Module	
Verification date	01/28/2020	Verification time	12:27 PM

Curent Output	Assign	Current Range	Value 0_4mA	Value 20 mA	
Terminal 26/27	VOLUME FLOW	4-20 mA activ	0.0 m3/d	4320.00 m3/d	
Pulse Output	Assign	Pulse Value	Output signal	Pulse width	
Terminal 24/25	VOLUME FLOW	0.005 m3/P	Passive/Positiv e	100.00 ms	



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4.10 FIT- 1091 Service Water

DTM Version: 3.29.00			Pag
Flowmeter Verific	ation Certificate	<u>Transmitter</u>	
		_	
Customer		Plant	
		FIT-1091	
Order code		Tag Name	
PROMAG 10 P DN150		1.0062 - 1.0062	
Device type		K-Factor	
608FD16000		0	
Gerial number		Zero point	
/1.03.00			
Software Version Transmitter		Software Version I/O-N	Module
01/28/2020		12:15 PM	
Vertification date		Vertification time	
erification resul	t Transmitter: Pa	issed	
Fact itam		Popult	Applied Limite
		Result	Applied Limits
Amplifier		Passed	Basis: 0.65 %
Amplifier Current Output 1		Passed Passed	Basis: 0.65 % 0.05 mA
Amplifier Current Output 1 Pulse Output 1		Passed	Basis: 0.65 %
Fest item Amplifier Current Output 1 Pulse Output 1 Test Sensor FieldCheck Details 240223 Production number 1.07.08 Software Version 03/2019 Last Calibration Date		Passed Passed Not tested	Basis: 0.65 % 0.05 mA



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FieldCheck - Result Tab Transmitter

_					
[Customer] [Plant	
[Order code] [Tag Name	FIT-1091
	Device type	PROMAG 10 P DN150] [K-Factor	1.0062 - 1.006
[Serial number	E608FD16000] [Zero point	0
	Software Version Transmitter	V1.03.00] [Software Version I/O-Module	
Γ	Verification date	01/28/2020	lſ	Vertfication time	12:15 PM

Verification Flow end value (100 %): 70.686 l/s Flow speed 4.00 m/s

Passed / Failed	Test item	Simul. Signal	Limit Value	Deviation
	Test Transmitter			
	Amplifier	3.534 Vs (5%)	1.60 %	-1.47 %
		7.069 l/s (10.0%)	1.10 %	0.36 %
		35.343 Vs (50.0%)	0.70 %	-0.07 %
-		70.686 l/s (100%)	0.65 %	-0.03 %
✓	Current Output 1	4.000 mA (0%)	0.05 mA	-0.006 mA
		4.800 mA (5%)	0.05 mA	-0.005 mA
		5.600 mA (10.0%)	0.05 mA	-0.005 mA
		12.000 mA (50.0%)	0.05 mA	0.002 mA
- ✓		20.000 mA (100%)	0.05 mA	0.025 mA
	Pulse Output 1	_	_	_
		Start value	Limits range	Measured valu
	Test Sensor			
✓	Coll Curr. Rise	83.300 ms	20.00083.300 ms	66.425 ms
	Coll Curr. Stability		_	_

Legend of symbols				
~	×		—— ئ	
Passed	Falled	not tested	not testable	Attention



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FieldCheck: Parameters Transmitter

I IOIGOIIOOII. I G	iola o llock: T al allioto to Transcillator				
Customer		Plant			
Order code		Tag Name	FIT-1091		
Device type	PROMAG 10 P DN150	K-Factor	1.0062 - 1.0062		
Serial number	E608FD16000	Zero point	0		
Software Version Transmitter	V1.03.00	Software Version I/O-Module			
Verification date	01/28/2020	Verification time	12:15 PM		

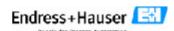
Curent Output	Assign	Current Range	Value 0_4mA	Value 20 mA	
Terminal 26/27	VOLUME FLOW	4-20 mA activ	0.0 Vs	50.00 Vs	
Pulse Output	Assign	Pulse Value	Output signal	Pulse width	
Terminal 24/25	VOLUME FLOW	0.025 m3/P	Passive/Positiv e	100.00 ms	



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4.11 FIT- 405 Attenuation

DTM Version: 3.29.00		Page
lowmeter Verification Certificate	Tran <u>smitter</u>	
ustomer	Plant	
	FIT-405	
rder code	Tag Name	
ROMAG 53 P DN200	1.0223 - 1.0223	
evice type	K-Factor	
8088316000	11	
rfal number	Zero point	
2.03.00	V1.05.03	
rftware Version Transmitter	Software Version I/O-Mo	dule
1/28/2020	11:09 AM	
erification date	Verification time	
est item	Result	Applied Limits
mplifier	Passed	Basis: 0.55 %
urrent Output 1	Passed	0.05 mA
ulse Output 1	Not tested	0 P
est Sensor	Passed	
FieldCheck Details	Simubox Details	
240223 roduction number	8784351 Production number	
.07.08	1.00.01	
oftware Version	Software Version	
3/2019	03/2019 Last Calibration Date	
ast Calibration Date		
ast Calibration Date		
Date Operator's Sign		tor's Sign
	Inspectely functional, and the meas	



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FieldCheck - Result Tab Transmitter

Customer			P
Order code			Ti
Device type	PROMAG 53 P DN200		K
Serial number	E6088316000		Z
Software Version Transmitter	V2.03.00	П	S
Verification date	01/28/2020	П	٧
	Customer Order code Device type Serial number Software Version Transmitter Verification date	Order code PROMAG 53 P DN200 Device type PROMAG 53 P DN200 Serial number E6088316000 Software Version Transmitter V2.03.00	Order code PROMAG 53 P DN200 Device type PROMAG 53 P DN200 Serial number E6088316000 Software Version Transmitter V2.03.00

Plant	
Tag Name	FIT-405
K-Factor	1.0223 - 1.0223
Zero point	11
Software Version I/O-Module	V1.05.03
Verification time	11:09 AM

Verification Flow end value (100 %): 125.884 l/s Flow speed 4.00 m/s

Passed / Failed	Test item	Simul. Signal	Limit Value	Deviation
	Test Transmitter			
	Amplifier	6.283 Vs (5%)	1.50 %	-0.46 %
		12.566 l/s (10.0%)	1.00 %	-0.12 %
<u> </u>		62.832 l/s (50.0%)	0.60 %	-0.09 %
<u>√</u>		125.664 Vs (100%)	0.55 %	-0.01 %
 _	Current Output 1	4.000 mA (0%)	0.05 mA	-0.007 mA
		4.800 mA (5%)	0.05 mA	-0.006 mA
<u> </u>		5.600 mA (10.0%)	0.05 mA	-0.021 mA
<u>√</u>		12.000 mA (50.0%)	0.05 mA	-0.004 mA
-		20.000 mA (100%)	0.05 mA	0.012 mA
_ _ _	Pulse Output 1	_	_	_
		Start value	Limits range	Measured value
	Test Sensor			
✓	Coll Curr. Rise	13.300 ms	0.00027.625 ms	18.288 ms
	Coll Curr. Stability		_	_
	Electrode Integrity	mV	0.0300.000 mV	3.269 mV

Legend of symbols	~			
y	,	_		<u> </u>
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123.0

FieldCheck: Parameters Transmitter

Customer		Plant	
Order code		Tag Name	FIT-405
Device type	PROMAG 53 P DN200	K-Factor	1.0223 - 1.0223
Serial number	E6088316000	Zero point	11
Software Version Transmitter	V2.03.00	Software Version I/O-Module	V1.05.03
Verification date	01/28/2020	Vertification time	11:09 AM

Curent Output	Assign	Current Range	Value 0_4mA	Value 20 mA	
Terminal 26/27	VOLUME FLOW	4-20 mA activ	0.0 Vs	150.00 l/s	
Pulse Output	Assign	Pulse Value	Output signal	Pulse width	
Terminal 24/25	VOLUME FLOW	37.854 VP	Passive/Positiv e	100.00 ms	

Actual System Ident.



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4.12 FIT- 946 Fournier Press #1 Polymer Flow

DTM Version: 3.29.00			Page 1/3
Flowmeter Verific	cation Certificate	Transmitter	
Customer		Plant	
		Tag Name	
Order code		0.8218 - 0.8218	
PROMAG 50 P DN25		K-Factor	
Device type		7	
DA084316000 Serial number		Zero point	
V2.03.00		V1.04.02	
Software Version Transmitter		Software Version I/O-Mo	odule
01/28/2020		11:36 AM	
Verification date		Verification time	
Verification resul	t Transmitter: Pa	assed	
Test item		Result	Applied Limits
Amplifier Current Output 1		Passed Passed	Basis: 0.55 % 0.05 mA
Pulse Output 1		Not tested	0.55 HA
Test Sensor		Passed	
FieldCheck Details		Simubox Details	_
240223		8784351	
Production number		Production number	
1.07.08 Software Version		1.00.01 Software Version	
03/2019		03/2019	
Last Calibration Date		Last Calibration Date	
Date	Operator's Sign	Inspec	ctor's Sign
Overall results:		1-1-1-5	
The achieved test results show within +/- 1% of the original cal		pietely functional, and the mea	suring results lie
The calibration of the Fieldcher		e to national standards.	
Prerequisite is an additional proof of electron	de integrity with a high voltage test.		



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FieldCheck - Result Tab Transmitter

Customer		Plant	
Order code		Tag Name	
Device type	PROMAG 50 P DN25	K-Factor	0.8218 - 0.8218
Serial number	DA084316000	Zero point	7
Software Version Transmitter	V2.03.00	Software Version I/O-Module	V1.04.02
Verification date	01/28/2020	Vertfication time	11:36 AM

Verification Flow end value (100 %): 7068.583 l/h Flow speed 4.00 m/s

Passed / Failed	Test item	Simul. Signal	Limit Value	Deviation
	Test Transmitter			
	Amplifier	353.429 Vh (5%)	1.50 %	-0.39 %
		706.858 l/h (10.0%)	1.00 %	-0.05 %
		3534,292 Vh (50.0%)	0.60 %	0.01 %
		7068.583 Vh (100%)	0.55 %	0.02 %
<u> </u>	Current Output 1	4.000 mA (0%)	0.05 mA	-0.006 mA
√		4.800 mA (5%)	0.05 mA	-0.007 mA
		5.600 mA (10.0%)	0.05 mA	-0.019 mA
		12.000 mA (50.0%)	0.05 mA	-0.001 mA
<u> </u>		20.000 mA (100%)	0.05 mA	0.019 mA
	Pulse Output 1	_	_	_
		Start value	Limits range	Measured valu
	Test Sensor			
/	Coll Curr. Rise	2.400 ms	0.0008.750 ms	3.589 ms
	Coll Curr. Stability		_	_
	Electrode Integrity	mV	0.0300.000 mV	3.268 mV

Legend of symbols					
	·	×	_	<u>م</u>	
P	assed	Falled	not tested	not testable	Attention



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FieldCheck: Parameters Transmitter

Customer		Plant	
Order code		Tag Name	
Device type	PROMAG 50 P DN25	K-Factor	0.8218 - 0.8218
Serial number	DA084316000	Zero point	7
Software Version Transmitter	V2.03.00	Software Version I/O-Module	V1.04.02
Verification date	01/28/2020	Vertfication time	11:36 AM

Curent Output	Assign	Current Range	Value 0_4mA	Value 20 mA	
Terminal 26/27	VOLUME FLOW	4-20 mA activ	0.0 l/h	4088.24 l/h	
Pulse Output	Assign	Pulse Value	Output signal	Pulse width	
Terminal 24/25	VOLUME FLOW	0.757 VP	Passive/Positiv e	100.00 ms	



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4.13 FIT- 940 Fournier Press #1 Sludge Flow

DTM Version: 3.29.00		Page 1
Flowmeter Verification Certificat	<u>e Transmitter</u>	
Customer	Plant	
Order code	Tag Name	
PROMAG 50 W DN80	0.9282 - 0.9282	
Device type	K-Factor	
02012116000	4	
Serial number	Zero point	
/2.03.00	V1.04.01	
Software Version Transmitter	Software Version I/O-N	Module
01/28/2020	11:26 AM	
Verification date	Verification time	
Verification result Transmitter: P	assed	
Test item	Result	Applied Limits
Amplifier	Passed	Basis: 0.55 %
Current Output 1	Passed	0.05 mA
Pulse Output 1	Not tested	0 P
Test Sensor	Passed	
FieldCheck Details	Simubox Details	
240223	8784351	
Production number 1.07.08	Production number 1.00.01	
Software Version	Software Version	
03/2019	03/2019	
ast Calibration Date	Last Calibration Date	
Date Operator's Sign	Inspe	ector's Sign
Overall results: The achieved test results show that the instrumment is conwithin +/- 1% of the original calibration.		asuring results lie
The calibration of the Fieldcheck test system is fully tracea	ble to national standards.	
) Prerequisite is an additional proof of electrode integrity with a high voltage test.		



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FieldCheck - Result Tab Transmitter

Customer		Plant	
Order code		Tag Name	
Device type	PROMAG 50 W DN80	K-Factor	0.9282 - 0.9282
Serial number	D2012116000	Zero point	4
Software Version Transmitter	V2.03.00	Software Version I/O-Module	V1.04.01
Verification date	01/28/2020	Verification time	11:26 AM

Verification Flow end value (100 %): 72.382 m3/h Flow speed 4.00 m/s

Passed / Failed	Test item	Simul. Signal	Limit Value	Deviation
	Test Transmitter			
	Ampiffer	3.619 m3/h (5%)	1.50 %	-0.36 %
 >		7.238 m3/h (10.0%)	1.00 %	-0.04 %
		36.191 m3/h (50.0%)	0.60 %	-0.04 %
		72.382 m3/h (100%)	0.55 %	0.02 %
	Current Output 1	4.000 mA (0%)	0.05 mA	-0.008 mA
		4.800 mA (5%)	0.05 mA	-0.007 mA
 -/		5.600 mA (10.0%)	0.05 mA	-0.022 mA
√		12.000 mA (50.0%)	0.05 mA	-0.003 mA
<u>√</u>		20.000 mA (100%)	0.05 mA	0.016 mA
	Pulse Output 1	_	_	_
		Start value	Limits range	Measured value
	Test Sensor			
4	Coll Curr. Rise	4.200 ms	0.00012.650 ms	5.342 ms
	Coll Curr. Stability		_	_
	Electrode Integrity	mV	0.0300.000 mV	0.000 mV

Legend of symbo	NS.								
		×		-		?			
Passed		Falle	2	not test	ted	not testab	ile	Atten	tion



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FieldCheck: Parameters Transmitter

Customer		Plant	
Order code		Tag Name	
Device type	PROMAG 50 W DN80	K-Factor	0.9282 - 0.9282
Serial number	D2012116000	Zero point	4
Software Version Transmitter	V2.03.00	Software Version I/O-Module	V1.04.01
Verification date	01/28/2020	Verification time	11:26 AM

Curent Output	Assign	Current Range	Value 0_4mA	Value 20 mA	
Terminal 26/27	VOLUME FLOW	4-20 mA activ	0.0 m3/h	45.42 m3/h	
Pulse Output	Assign	Pulse Value	Output signal	Pulse width	
Terminal 24/25	VOLUME FLOW	0.008 m3/P	Passive/Positiv e	100.00 ms	

Actual System Ident.

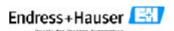
121.0



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4.14 FIT- 956 Fournier Press # 2 Polymer Flow

Customer		
	Plant	
Order code	Tag Name	
PROMAG 50 P DN25	0.8082 - 0.8082	
Device type	K-Factor	
DA084616000	16	
Gerfal number	Zero point	
/2.03.00	V1.04.02	
Software Version Transmitter	Software Version I/O-N	lodule
01/28/2020	11:55 AM	
Verification date	Verification time	
		Applied Limits
Verification result Transmitter: F	Passed	
		Applied Limits
Test item	Result	Applied Limits Basis: 0.55 %
Fest item Amplifier		Applied Limits Basis: 0.55 % 0.05 mA
Test item Amplifier Current Output 1 Pulse Output 1	Result Passed Passed Not tested	Basis: 0.55 %
Verification result Transmitter: F Test item Amplifier Current Output 1 Pulse Output 1 Test Sensor	Result Passed Passed	Basis: 0.55 % 0.05 mA
Test item Amplifier Current Output 1 Pulse Output 1 Test Sensor	Result Passed Passed Not tested Passed	Basis: 0.55 % 0.05 mA
Test item Amplifier Current Output 1 Pulse Output 1	Result Passed Passed Not tested	Basis: 0.55 % 0.05 mA
Test item Amplifier Current Output 1 Pulse Output 1 Test Sensor FieldCheck Details 240223	Result Passed Passed Not tested Passed	Basis: 0.55 % 0.05 mA
FieldCheck Details 240223 Production number 1.07.08	Result Passed Passed Not tested Passed Simubox Details 8784351 Production number 1.00.01	Basis: 0.55 % 0.05 mA
Test item Amplifier Current Output 1 Pulse Output 1 Test Sensor FieldCheck Details 240223 Production number	Result Passed Passed Not tested Passed Simubox Details 8784351 Production number	Basis: 0.55 % 0.05 mA



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FieldCheck - Result Tab Transmitter

Customer		Plant	
Order code		Tag Name	
Device type PRO	DMAG 50 P DN25	K-Factor	0.8082 - 0.8082
Serial number DA08	84616000	Zero point	16
Software Version Transmitter V2.03	03.00	Software Version I/O-Module	V1.04.02
Verification date 01/28	28/2020	Verification time	11:55 AM

Verification Flow end value (100 %): 7068.583 l/h Flow speed 4.00 m/s

Passed / Failed	Test item	Simul. Signal	Limit Value	Deviation
	Test Transmitter			
	Ampitfier	353.429 l/h (5%)	1.50 %	-0.41 %
		706.858 l/h (10.0%)	1.00 %	-0.06 %
		3534,292 Vh (50.0%)	0.60 %	0.03 %
		7068.583 Vh (100%)	0.55 %	0.03 %
<u> </u>	Current Output 1	4.000 mA (0%)	0.05 mA	-0.006 mA
✓		4.800 mA (5%)	0.05 mA	-0.006 mA
		5.600 mA (10.0%)	0.05 mA	-0.022 mA
		12.000 mA (50.0%)	0.05 mA	-0.002 mA
<u> </u>		20.000 mA (100%)	0.05 mA	0.016 mA
	Pulse Output 1	_	_	_
		Start value	Limits range	Measured valu
	Test Sensor			
/_	Coll Curr. Rise	2.400 ms	0.0008.750 ms	3.649 ms
 >	Coll Curr. Stability		_	_
	Electrode Integrity	mV	0.0300.000 mV	6.531 mV

Legend of symbols					
<u> </u>	×	_	ি ?	I	
Passed	Falled	not tested	not testable	Attention	



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FieldCheck: Parameters Transmitter

Customer		Plant	
Order code		Tag Name	
Device type	PROMAG 50 P DN25	K-Factor	0.8082 - 0.8082
Serial number	DA084616000	Zero point	16
Software Version Transmitter	V2.03.00	Software Version I/O-Module	V1.04.02
Verification date	01/28/2020	Vertfication time	11:55 AM

Curent Output	Assign	Current Range	Value 0_4mA	Value 20 mA	
Terminal 26/27	VOLUME FLOW	4-20 mA activ	0.0 l/h	4088.24 l/h	
Pulse Output	Assign	Pulse Value	Output signal	Pulse width	
Terminal 24/25	VOLUME FLOW	0.757 VP	Passive/Positiv e	100.00 ms	

Actual System Ident. 123.0



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4.15 FIT - 950 Fournier Press #2 Sludge Flow

Flowmeter Verification Certifi	cate Transmitter	Page
Customer	Plant	
Order code	Tag Name	
ROMAG 50 W DN80	1.0487 - 1.0487	
evice type	K-Factor	
4010116000		
erial number	Zero point	
2.03.00	V1.04.01	
oftware Version Transmitter	Software Version I/O-N	Module
1/28/2020	11:46 AM	
erffication date	Verification time	
-	Result Passed	Applied Limits Basis: 0.55 %
mplifier		
urrent Output 1	Passed	0.05 mA
Pulse Output 1 Test Sensor	Not tested Passed	0 P
	Simubox Details	
240223	8784351	
240223 roduction number		
240223 roduction number .07.08	8784351 Production number	
240223 roduction number .07.08 offware Version	8784351 Production number 1.00.01 Software Version	
FieldCheck Details 240223 Production number 1.07.08 Software Version 13/2019 ast Calibration Date	8784351 Production number 1.00.01	
240223 roduction number .07.08 offware Version (3/2019 ast Calibration Date	8784351 Production number 1.00.01 Software Version 03/2019 Last Calibration Date	and a Company
240223 roduction number .07.08 oftware Version 13/2019	8784351 Production number 1.00.01 Software Version 03/2019 Last Calibration Date Inspecies completely functional, and the meaning series and the meaning series are series.	ector's Sign asuring results lie
240223 roduction number .07.08 oftware Version 3/2019 ast Calibration Date Operator's Sign herall results: he achieved test results show that the instrumment rithin +/- 1% of the original calibration. 1)	8784351 Production number 1.00.01 Software Version 03/2019 Last Calibration Date Inspective completely functional, and the medianaceable to national standards.	



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FieldCheck - Result Tab Transmitter

I ICIGOTICCK - IX	COURT TOD TTUING	IIICCI	
Customer		Plant	
Order code		Tag Name	
Device type	PROMAG 50 W DN80	K-Factor	1.0487 - 1.0487
Serial number	D4010116000	Zero point	0
Software Version Transmitter	V2.03.00	Software Version I/O-Module	V1.04.01
Verification date	01/28/2020	Verification time	11:46 AM

Verification Flow end value (100 %): 72.382 m3/h Flow speed 4.00 m/s

Passed / Failed	Test item	Simul. Signal	Limit Value	Deviation
	Test Transmitter			
✓	Amplifier	3.619 m3/h (5%)	1.50 %	-0.49 %
		7.238 m3/h (10.0%)	1.00 %	0.02 %
✓		36.191 m3/h (50.0%)	0.60 %	0.01 %
-		72.382 m3/h (100%)	0.55 %	0.08 %
<u>~</u>	Current Output 1	4.000 mA (0%)	0.05 mA	-0.006 mA
		4.800 mA (5%)	0.05 mA	-0.007 mA
		5.600 mA (10.0%)	0.05 mA	-0.019 mA
		12.000 mA (50.0%)	0.05 mA	-0.003 mA
		20.000 mA (100%)	0.05 mA	0.015 mA
	Pulse Output 1	_	_	_
		Start value	Limits range	Measured valu
	Test Sensor			
✓	Coll Curr. Rise	4.200 ms	0.00012.650 ms	4.891 ms
	Coll Curr. Stability		_	_
	Electrode Integrity	mV	0.0300.000 mV	3.268 mV

Legend of symbols				
~ ~	×	_	?	
Passed	Falled	not tested	not testable	Attention



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FieldCheck: Parameters Transmitter

Customer		Plant	
Order code		Tag Name	
Device type	PROMAG 50 W DN80	K-Factor	1.0487 - 1.0487
Serial number	D4010116000	Zero point	0
Software Version Transmitter	V2.03.00	Software Version I/O-Module	V1.04.01
Verification date	01/28/2020	Verification time	11:46 AM

Curent Output	Assign	Current Range	Value 0_4mA	Value 20 mA	
Terminal 26/27	VOLUME FLOW	4-20 mA activ	0.0 m3/h	45.42 m3/h	
Pulse Output	Assign	Pulse Value	Output signal	Pulse width	
Terminal 24/25	VOLUME FLOW	0.008 m3/P	Passive/Positiv e	100.00 ms	

Actual System Ident. 121.0



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4.16 FIT 470 Raw Sewage Vortex #1

		FIELD I	EQUI	PMEI	NT V	/ERIFI	CATION	/ CALIBI	RATION	DATE: January 28 / 2020
DES	CRIPTION : Vortex #1			MODEL	_: Multi	iranger 20	00		TAG: FIT-4 7	_
MAN	UFACTURER : Siemens					D/B518038				
Clien	t Name: Almonte WWTP								Device	Output Signal: 4-20 mA
				INSTAL	LATIC	ON INSPE	CTION			
	DESCRIPTION			FIN	NDING	SS			COMME	NTS
			OK	FIXED	N/A	FAULTY				
	GENERAL		- OK	IIALD	IVA	I AULI I	12" Parshall flume			
1	TAGGING				~		P001 = 6 O			
	TAGGING			Х	1		CIVI			
2	MECHANICAL						P002= 1 P003= 3			
3	MOUNTING: check for proper for	astening etc	Х					2 transduce	<u> </u>	
	ORIENTATION: check for proper		X				P005=1 m			
	POSITION: relative position to o	<u> </u>	_					95m empty	distance	
,	(i.e. for proper flow, blanking dis	stance), etc.	^						distance	
6						P007= .76				
	ELECTRICAL						P601= 1.5			
7							P603= .762			
8	WIRE TAGGING: (exists and proper wire type)						P604= 399	984 m3/day		
9							P605= 0.0	01m		
10	GROUNDING:						P606= 4			
11	SHIELDING: (check if grounded only at PLC e	end of wire)	Х				P607= 0			
12	CERTIFICATION CSA, ULC:	end of wire)	Х							
13										
				SET-	UP/C	ALIBRAT	ΓΙΟΝ			
	DIGITAL		AD	IUSTME	ENT U	SING	VERIFI	ED USING		SETPOINT / RANGE
14	SETPOINT ADJUSTMENT	MECHANICAL TYPE					Level S	tand		
		ELECTRONIC TYPE	Fluke S/N 875	725 cal 59025	ibrato	r			4 -	20 mA = 39984 m3/day
Con	figuration Parameters:		Disp	ılav		Calibr Calculat	ation Data	a Test To	olerance: Status	5.00% Notes
	М	leasured Level		,				,, =		
		0.000 m		0 m3/d	lay	0 m	3/day	0.00%	Passed	
	0.072 m		117	8 m3/da	ay	1032	m3/day	0.37%	Passed	
	0.205 m			0 m3/da		5029 1	m3/day	0.63%	Passed	
Error	(% Full Scale) = ((Displayed C = ((5280-5029) / 3 = 0.63 % of full	Output - Calcula 19984)*100 I scale	ted Var	d Variable) / Full Scale) * 100				Checked By: <i>Tim Stewart</i> Cell: 613-325-9213 Email: tim.stewart@capitalcontrols.ca		



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4.17 FIT- 480 Raw sewage Vortex #2

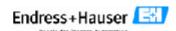
		FIELD I	EQUI	PMEI	NT V	/ERIFI	CATION	/ CALIB	RATION	DATE: January 28 / 2020
DES	CRIPTION : Vortex #2			MODEL	_: Multi	iranger 20	00		TAG: FIT-4 8	_
MAN	UFACTURER : Siemens					D/B518039				
Clien	t Name: Almonte WWTP								Device	Output Signal: 4-20 mA
			_	INSTAL	LATIC	ON INSPE	CTION			
	DESCRIPTION			FIN	NDING	SS			COMME	NTS
			OK	FIXED	N/A	FAULTY	,			
	GENERAL		- OK	IIXLD	IVA	AOLII	12" Parshall flume			
1	TAGGING		+		Х		P001= 6 OC			
	TAGGING	+		^	1) IVI			
2	MECHANICAL						P002= 1 P003= 3			
3	MOUNTING: check for proper for	actoning etc	Х					2 transduce	<u> </u>	
	ORIENTATION: check for proper		X				P004= 112			
	POSITION: relative position to o	<u> </u>						95m empty	distance	
	(i.e. for proper flow, blanking dis	stance), etc.							diotarioo	
6		_				P007= .76				
	ELECTRICAL					1	P601= 1.5			
7							P603= .765m			
8	WIRE TAGGING: (exists and proper wire type)						P604 3998	34		
9							P605= 0.0	01m		
10	GROUNDING:						P606=4			
11	SHIELDING: (check if grounded only at PLC e	end of wire)	Х				P607=0			
12	CERTIFICATION CSA, ULC:	end of wire)	Х							
13										
				SET-	UP/C	ALIBRAT	ΓΙΟΝ			
	DIGITAL		ADJ	USTME	ENT U	SING	VERIFI	ED USING		SETPOINT / RANGE
14	SETPOINT ADJUSTMENT	MECHANICAL TYPE					Level S	tand		
		ELECTRONIC TYPE	Fluke S/N 875	725 cal 9025	ibrato	r			4 -	20 mA = 39984 m3/day
Con	figuration Parameters:		Disp	lav		Calibr Calculat	ation Data	a Test T	olerance: Status	5.00% Notes
	М	leasured Level	Біор	iuy		Gaioaiai		70 E1101	Otatas	140100
		0.000 m		0 m3/d	lay	0 m	3/day	0.00%	Passed	
	0.070 m		102	6 m3/da	ay	988 n	n3/day	0.09%	Passed	
	0.205 m			0 m3/da			m3/day	1.1%	Passed	
Error	(% Full Scale) = ((Displayed C = ((5460-5029) / 3 = 1.1 % of full s	Output - Calcula 19984)*100 scale	ted Var	Variable) / Full Scale) * 100			0	Checked By: <i>Tim Stewart</i> Cell: 613-325-9213 Email: tim.stewart@capitalcontrols.ca		



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4.18 FIT-01 White Tail Ridge Pumping Station

Flowmeter Verification Certific		
	<u>ate i ransmitter</u>	
customer	Plant	
Order code	Tag Name	
PROMAG 10 ? DN80	1.0161 - 1.0161	
evice type	K-Factor	
0C068219000	0	
erial number	Zero point	
/1.03.00		
oftware Version Transmitter	Software Version I/O-I	Module
1/29/2020	12:55 PM	
/ertification date	Vertfication time	
/erification result Transmitter:	Passed	
		Applied Limits
est item	Result	Applied Limits
est item Amplifier		Basis: 0.65 %
Test item Amplifier Current Output 1	Result Passed	
Test item Amplifier Current Output 1 Pulse Output 1	Result Passed Passed	Basis: 0.65 % 0.05 mA
Verification result Transmitter: Test item Amplifier Current Output 1 Pulse Output 1 Test Sensor	Result Passed Passed Not tested	Basis: 0.65 % 0.05 mA
Test item Amplifier Current Output 1 Pulse Output 1 Test Sensor	Result Passed Passed Not tested Passed	Basis: 0.65 % 0.05 mA 0 P
Test item Amplifier Current Output 1 Pulse Output 1 Test Sensor	Result Passed Passed Not tested	Basis: 0.65 % 0.05 mA 0 P
Test item Amplifier Current Output 1 Pulse Output 1 Test Sensor FieldCheck Details 240223	Result Passed Passed Not tested Passed	Basis: 0.65 % 0.05 mA 0 P
Fest item Amplifier Current Output 1 Pulse Output 1 Fest Sensor FieldCheck Details 240223 Production number 1.07.08	Result Passed Passed Not tested Passed Simubox Details 8784351 Production number 1.00.01	Basis: 0.65 % 0.05 mA 0 P
Fest item Amplifier Current Output 1 Pulse Output 1 Test Sensor FieldCheck Details 240223	Result Passed Passed Not tested Passed Simubox Details 8784351 Production number	Basis: 0.65 % 0.05 mA 0 P



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FieldCheck - Result Tab Transmitter

Customer		Plant	
Order code		Tag Name	
Device type	PROMAG 10 7 DN80	K-Factor	1.0161 - 1.0161
Serial number	DC068219000	Zero point	0
Software Version Transmitter	V1.03.00	Software Version I/O-Module	
Verification date	01/29/2020	Verification time	12:55 PM

Verification Flow end value (100 %): 20.108 l/s Flow speed 4.00 m/s

Passed / Failed	Test item	Simul. Signal	Limit Value	Deviation	
	Test Transmitter				
-	Amplifier	1.005 Vs (5%)	1.60 %	-0.65 %	
<u> </u>		2.011 l/s (10.0%)	1.10 %	0.03 %	
-		10.053 Vs (50.0%)	0.70 %	-0.14 %	
- ✓		20.106 l/s (100%)	0.65 %	-0.04 %	
	Current Output 1	4.000 mA (0%)	0.05 mA	-0.009 mA	
		4.800 mA (5%)	0.05 mA	-0.015 mA	
 -		5.600 mA (10.0%)	0.05 mA	-0.015 mA	
<u>√</u>		12.000 mA (50.0%)	0.05 mA	-0.009 mA	
<u> </u>		20.000 mA (100%)	0.05 mA	0.023 mA	
	Pulse Output 1		_		
		Start value	Limits range	Measured value	
	Test Sensor				
✓	Coll Curr. Rise	50.000 ms	13.33350.000 ms	43.151 ms	
	Coll Curr. Stability		_	_	

Legend of symbols					
	×	_	?	<u>.</u>	
Passed	Falled	not tested	not testable	Attention	



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FieldCheck: Parameters Transmitter

Customer		Plant									
Order code		Tag Name									
Device type	PROMAG 10 ? DN80	K-Factor	1.0161 - 1.0161								
Serial number	DC068219000	Zero point	0								
Software Version Transmitter	V1.03.00	Software Version I/O-Module									
Verification date	01/29/2020	Verification time	12:55 PM								

Curent Output	Assign	Current Range	Value 0_4mA	Value 20 mA	
Terminal 26/27	VOLUME FLOW	4-20 mA activ	0.0 Vs	10.00 Vs	
Pulse Output	Assign	Pulse Value	Output signal	Pulse width	
Terminal 24/25	VOLUME FLOW	0.001 m3/P	Passive/Positiv e	100.00 ms	

Actual System Ident. 115.0



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4.19 FIT 700 Sludge Flow

		FIELD E	EQUI	PMEI	NT V	'ERIFI	CATION	/ CALIBI	RATION	DATE: January 29 / 2020
DESC	CRIPTION : Flow			MODEL	.: 8712	ESR1A1N	IONM4		TAG: FIT-7 0	_
MAN	JFACTURER : Rosemount			Serial #	031	8926				
Clien	Name: Almonte WWTP								Device	Output Signal: 4-20 mA
						ON INSPE	CTION			
	DESCRIPTION			FIN	NDING	SS			COMME	NTS
			ок	FIXED	N/A	FAULTY				
	GENERAL		+							
1	TAGGING				Х		Coil Resist	ance = 12.2 c	hme	
2	IAGGING							to ground =		
	MECHANICAL						Resistance	to ground =	шши	
3	MOUNTING: check for proper fa	astening, etc.	Х							
	ORIENTATION: check for prope		X							
5	POSITION: relative position to o (i.e. for proper flow, blanking dis	ther components	_							
6	(i.e. for proper now, blanking dis	tarice), etc.	+							
	ELECTRICAL									
7										
	(exists and proper wire type)									
_	QUALITY OF CONNECTIONS:									
10	GROUNDING:		X							
	SHIELDING: (check if grounded only at PLC e	end of wire)	X							
	CERTIFICATION CSA, ULC:	,	Х							
13										
				SET-	UP/C	ALIBRA1	ION			
	DIGITAL		ADJ	IUSTME	ENT U	SING	VERIFI	ED USING		SETPOINT / RANGE
14	SETPOINT ADJUSTMENT	MECHANICAL TYPE								
_		ELECTRONIC TYPE	Fluke S/N 875	725 cal 59025	ibrato	r			4	- 20 mA = 2617 l/min
Conf	figuration Parameters:					Calibr	ation Data	a Test To	olerance:	5.00%
			Disp	lay	1	Calculat	ed	% Error	Status	Notes
	Measured Curre	nt		0 l/mi	n	0.14	min	0.009/	Passed	
	4.00 mA		22		-			0.00%	Passed	
	5.44 mA			34 I/min 18 I/min			l/min l/min	0.06%	Passed	
	5.95 mA			. J. I/IIIIII		313.	y111111	U.U+ /0		
					ļ			1		1 15 Ti C: .
Error	(% Full Scale) = ((Displayed O = ((318-319.1) / 2 = 0.04 % of full	output - Calcula 617)*100 scale	ted Var	iable) /	Full S	cale) * 10)	Checked By: <i>Tim Stewart</i> Cell: 613-325-9213 Email: tim.stewart@capitalcontrols.ca		



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4.20 FIT-01 Final Effluent

	FIELD EQUIPMENT VERIFICATION / CALIBRATION DATE: January 28 / 2020									
DESC	CRIPTION : Final Effluent			MODEL	_: OCN	/ III			TAG: FIT-0 ′	_
MAN	JFACTURER : Siemens			Serial #	PBE)				
Clien	Name: Almonte WWTP								D	evice Output Signal: 4-20 mA
	DECODIDE					ON INSPE	CTION		0014145	MTC
	DESCRIPTION			FIR	NDING	35			COMME	N19
			ок	FIXED	N/A	FAULTY	1			
	GENERAL						12" Parsi	hall flume		
1	TAGGING				Х		Flow at m	ax height =	21554.5 n	n3/day
2							1	ht = 51.2 cm		
	MECHANICAL						Ratiometr			
3	MOUNTING: check for proper f	astening, etc.	Х				U0=1.522			
4	ORIENTATION: check for prope	r angle, etc.)	Х				Range at	zero head =	97.5 cm	
5	POSITION: relative position to o (i.e. for proper flow, blanking dis	ther components tance), etc.	X							
6										
	ELECTRICAL									
7			X							
8	WIRE TAGGING: (exists and proper wire type)		X							
9	QUALITY OF CONNECTIONS:		Х							
10	GROUNDING:		Х							
11	SHIELDING: (check if grounded only at PLC e	and of wire)	Х							
12	CERTIFICATION CSA, ULC:	ond or wile)	Х							
13										
						ALIBRA1				
	DIGITAL		ADJ	USTME	ENT US	SING	VERIF	ED USING		SETPOINT / RANGE
14	SETPOINT ADJUSTMENT	MECHANICAL TYPE					Measur	ing Tape		
		ELECTRONIC TYPE	Fluke S/N 875	725 cal 9025	ibrato	r			4 - 2	20 mA = 21554.5 m3/day
Conf	iguration Parameters:					Calibr	ation Dat	a Test To	olerance:	5.00%
			Disp	lay	Т	Calculat	ed	% Error	Status	Notes
	M	easured Level			.				Deess	
		0.087 m		60 m3/d			m3/day	0.40%	Passed	
	0.129 m 0.131 m			1 m3/da			m3/day	0.68%	Passed Passed	
		2/4	0 m3/da	ay	2610 1	m3/day	0.60%	rasseu		
							1	<u> </u>	- 15 F. C.	
Error	(% Full Scale) = ((Displayed C = ((2740-2610) / 2 = 0.60 % of full	output - Calcula 1554.5)*100 scale	ated Variable) / Full Scale) * 100				0	Checked By: <i>Tim Stewart</i> Cell: 613-325-9213 Email: tim.stewart@capitalcontrols.ca		



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Appendix A- Equipment Calibration Certificates



www.pylonelectronics.com

Pylon Electronics Inc.

147 Colonnade Road Page 1 of Ottawa, ON K2E 7L9 OF DATE OF CALLED ATTOM

CERTIFICATE OF CALIBRATION

 Description
 MULTI FUNCTION PROCESS
 Work Order
 H75 881

 Model Number
 725
 Serial Number
 875 90 25

 Instrument Id
 N/A
 Cal Procedure
 667 581

 Manufacturer
 FLUKE
 Cal Date
 5 Jun 2019

 Customer Name
 CAPITAL CONTROLS
 Recall Cycle
 52 Weeks

 Purchase Order
 CCISHOP-161
 Next Cal Date
 5 Jun 2020

•

Calibration Environment: Temperature 23.5 °C Relative Humidity 35.5 %RH

Received Condition: Within Tolerance Completed Condition: Within Tolerance

Standards Used to Establish Traceability

 Instrument Type
 Model
 Asset #
 Cal Due Date

 CALIBRATOR WITH SCOPE OPTION
 5522A-SC1100
 1144387
 1 Mar 2020

 MULTIMETER
 34401A
 240-120
 31 Jan 2020

Pylon certifies that, at the time of calibration, the above listed instrument meets or exceeds all of the specifications defined on the Test Data Sheet (TDS), unless otherwise indicated. The Certificate received and completed conditions and the TDS specifications are based on the procedure(s) and/or specification(s) referenced on the TDS unless otherwise indicated. Any statement of compliance is made without taking measurement uncertainty into account and is based on the instrument's performance against the test limits documented on the test data sheet.

The above listed instrument has been calibrated using standards that are traceable to the International System of Units (SI) through a National Metrological Institute (such as NRC or NIST). Pylon's quality system meets the requirements of ISO/IEC 17025:2005. Unless otherwise specified, Pylon maintains a minimum of a 4:1 ratio between the equipment under test and the measurement system.

This report consists of two parts with separate page numbering schemes; the Certificate of Calibration and the Test Data Sheet (TDS). Copyright of this report is owned by the issuing laboratory and may not be reproduced, other than in full, except with the prior written permission of the issuing laboratory.

Test data As Found and Final (as left) results are the same unless reported otherwise. Certificate remarks identify if adjustments were performed.

pykort1

Metrologist: 165 Quality Assurance: 301 Date of Issue: 5 Jun 2019 F083 Rav 15

HALIFAX MONTREAL OTTAWA TORONTO EDMONTON CALGARY



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			est Data		
Description Model:	on: MULTI FUNCTION PROCESS CALIBIW or 725 Seri		H75881 8759025		
		cedure:	667581		
Manufact	urer: FLUKE Pro	c. Rev.:	01-Apr-2014		Rev:05May2007
Custome			05-Jun-2019		
TEST	Noti02:Company Data\TDS\Elec TDS\725 Fluke.xis	Temp 151	Appr 062 RESU		F=0
REF.	TEST DESCRIPTION	MIN	AS FOUND		MAX
P. 25	UPPER DISPLAY VOLTAGE MEASUREMENT TES	rs			
	APPLIED (V)	V	V		V
	0	-0.002	0.000		0.002
	15	14.995	15.001		15.005
	30	29.992	30.002		30.008
P.26	LOWER DISPLAY mV/TC MEASUREMENT TESTS				
	APPLIED (V)	V	V	٧	V
	0.00 m	-0.02 m	0.00 m		0.02 m
	45.00 m	44.97 m	44.99 m		45.03 m
	90.00 m	89.96 m	89.99 m		90.04 m
P. 27	LOWER DISPLAY VOLTAGE MEASUREMENT TES	TS			
	APPLIED (V)	V	V	٧	V
	0.000	-0.002	0.000		0.002
	10.000	9.996	9.999		10.004
	20.000	19.994	19.999		20.006
			3.999		
P. 28	UPPER DISPLAY MA MEASUREMENT TESTS				
	APPLIED (A)	Α	Α	Α	Α
	4.000 m	3.997 m	3.999 m		4.003 m
	12.000 m	11.995 m	12.000 m		12.005 m
	24.000 m	23.993 m	24.003 m		24.007 m



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	PYLON Calib	ration T	est Data		
Description Model:	on: MULTI FUNCTION PROCESS CALIBIWo 725 Ser		H75881 8759025		
TEST			RESU	JLTS	
REF.	TEST DESCRIPTION	MIN	AS FOUND	FINAL	MAX
P. 29	LOWER DISPLAY MA MEASUREMENT TESTS				
	APPLIED (A)	A	A	Α	Α
	4.000 m	3.997 m	4.000 m		4.003 m
	12.000 m	11.995 m	12.001 m		12.005 m
	24.000 m	23.993 m	24.001 m		24.007 m
P. 30	LOWER DISPLAY FREQUENCY MEASUREMENT	TESTS			
	APPLIED FRQ (Hz)	Hz	Hz	Hz	Hz
	1 V P-P SQ 10 k	9.98 k	10.00 k		10.02 k
P. 31	LOWER DISPLAY FREQUENCY SOURCE TEST				
	TI OUTPUT (Hz)	Hz	Hz	Hz	Hz
	10 k	9.975 k	10.000 k		10.025 k
P. 32	LOWER DISPLAY 4-W RESISTANCE MEASUREME	ENT TESTS			
	APPLIED (Ω)	Ω	Ω	Ω	Ω
	15	14.90	14.99		15.10
	350	349.90	349.99		350.10
	500	499.5	499.9		500.5
	1500	1499.5	1499.9		1500.5
	3200	3199.0	3199.8		3201.0
P. 33	LOWER DISPLAY 3-WIRE RTD MEASUREMENT T	ESTS			
	APPLIED (Ω)	Ω	Ω	Ω	Ω
	350	349.80	349.94		350.20



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	PYLON	Calibr	ation T	est Data		
Description Model:	on: MULTI FUNCTION PROCESS C 725	ALIBIW orl Seria		H75881 8759025		
TEST				RESU	ILTS	
REF.	TEST DESCRIPTION		MIN	AS FOUND	FINAL	MAX
P. 34	LOWER DISPLAY T/C MEASUREMENT	TESTS				
	APPLIED (℃)	(V)	°C	%c	°C	o°
	0	0.000 m	-0.7	-0.1		0.7
P. 35	LOWER DISPLAY T/C SOURCE TEST					
	APPLIED (℃)		°C	°C	°C	ಌ
	0		-0.7	0.0		0.7
P. 36	LOWER DISPLAY mA SOURCE TESTS					
	OUTPUT (A)		Α	A	Α	A
	4 m		3.9972 m	3.9992 m		4.0028 m
	12 m		11.9956 m	11.9986 m		12.0044 m
	24 m		23.9932 m	23.9969 m		24.0068 m
P. 37	LOWER DISPLAY mV SOURCE TESTS					
	OUTPUT (V)		V	V	V	V
	0.00 m		-0.020 m	-0.002 m		0.020 m
	45.00 m		44.970 m	45.001 m		45.030 m
	100.00 m		99.960 m	100.004 m		100.040 m
	LOWER DISPLAY VOLTAGE SOURCE T	ESTS				
	OUTPUT (V)		V	V	V	V
	0.000		-0.002	0.000		0.002
	5.000		4.9970	5.0000		5.0030
	10.000	· · ·	9.9960	10.0001		10.0040
<u> </u>						



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Description			est Data H75881			
Model:	725 Seria	al:	8759025			
		RESULTS				
	TEST DESCRIPTION	MIN	AS FOUND	FINAL	MAX	
P. 38	LOWER DISPLAY RESISTANCE SOURCE TESTS					
	OUTPUT (Ω)	Ω	Ω	Ω	Ω	
	15	14.9	15.0		15.1	
	360	359.9	360.0		360.1	
	500	499.5	499.8		500.5	
	1500	1499.5	1500.2		1500.5	
	3200	3199.0	3200.2		3201.0	
P. 39	PRESSURE MODULE INPUT					
	(WITH 700 SERIES PRESSURE MODULE)					
	TI DISPLAY SHOWS (PSI)	Pass / Fail	n/a			



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Calibration Certificate Kalibrations-Zertifikat

FieldCheck

Page 1 of 2 Seite 1 of 2

Production Number Fabrikationshummer

Serial Number Seriennummer

Manufacturer Hersteller 240223

990B1402000

Endress+Hauser Flowtec AG

CH-4153 Reinach

Date Of Calibration

Kalibrierdatum

Location

Testing Instruction

Prüfanweisung Tost Program

Prüfprogramm

Test Engineer Profer 03/13/2019

DG-Greenwood

CalCenter_2

V1.01.10

MESSER

Used Test-/Calibration Interface Verwendete Prüf-/Kalibrierschnittstelle

Used Test-/Calibration Tools Verwendete Prüf-/Kalibriermittel

Max. Deviation (Specification)

Max. Abwelchung (Spezifikation) Current Source

Stromquelle

Frequency Source Frequenzgeber Keithley DMM2700 due 07/2019 Yokogawa CAL100 due 08/2019

0,01% of end value / des Endwertes (20mA)

+ 0,02% of signal / des Signals

0,01% of signal / des Signals

Notes Bemerkungen

The above mentioned calibration tools are traceable to national standards / NIST

Die oben genannten Kalibriermittel sind rückführbar auf nationale Normale

Date, Signature 03/13/2019,

Service \$9061402000 164 03-12-19 Pullmenter Centification 100 240223

- Stellen Wester



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Calibration Certificate Kalibrations-Zertifikat

FieldCheck

Production Number / Fabrikationsnummer. Scrial Number / Seriennummer.

240223 99071402000

Page 2 of 2 Seite 2 of 2

Measuring Data On Incoming		Rated Value	Moas, Value	Limit Value 1/-	Paes / Fail
Messdaten bei der Eingangsp		Vorgabewert	Mosswort	Grenzwert +/-	Cut/Fehlerhaft
Current Input	mA	0.000	0.005	0 005	Pass/Gut
Strom-Fingang	mA	20.000	19.994	0 010	Pass/Gut
Frequency Input	Hz	0.0	0.0	0.0	Pass/Gut
Frequenz Eingang	Hz	8000.0		4.0	Pass/Gut

Measuring Data After Calibrat Messdaten nach Kalibrierung		Kated Value Vorgabewert	Meas, Value Messwert	Limit Value =/- Gronzwert +/-
Current Input	mA.	0.000	0.002	0.002
Strom-Fingeng	mA	10.000	10.000	0.004
	mA	20,000	20.001	0.005
Frequency Input	Hz	0.0	0.0	0.0
Frequenz-Eingang	Hz	1000.0	1000.0	1.0
	Hz	0.0008	7999.9	2.0

Functional Safety Check Funktionaler Sicherheitscheck

This unit has passed the complete Functional Safety Check. All voltages and currents produced by this unit are within telerances.

Dieses Gerät hat den vollständigen funktionalen Sicherheitscheck bestanden. Alle von diesem Gerät proxiuzierten Spannungen und Ströme sind innerhalb der Tolicranz.

Date, Signature 03/13/2019,

- Sitten Martin



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Calibration Certificate Kalibrations-Zertifikat

Simubox MID

Page 1 of 2 Seite 1 of 2

Production Number Fabrikationsnummer

Serial Number Seriennummen

Manufacturer Hersteller

8784351

JA0FE402000

Endress+Hauser Flowtec AG

CH-4153 Reinach

Date Of Calibration Kalibrierdatum

Location

Ort

Testing Instruction

Profarweisung Test Program Prufprogramm

Test Engineer Prüfer

03/13/2019

DG-Greenwood

CalCenter_2

V1.01.10

MESSER

Used Test-/Calibration Interface Verwendelte Prüf-/Kalibrierschnittstelle

Used Test-/Calibration Tools Verwondete Prüf-/Kalibriermittel

> Max. Deviation (Specification) Max. Abweichung (Spezifikation)

Current Source Stromquelle

Frequency Source Frequenzgeber

Keithley DMM2700 due 07/2019 Yokogawa CAL100 due 08/2019

0,01% of end value / des Endwertes (20mA) + 0,02% of signal / des Signals

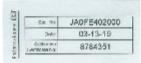
0,01% of signal / des Signals

Notes Bemerkungen

The above mentioned calibration tools are traceable to national standards / NIST

Die oben genannten Kalibriermittel sind rückführbar auf nationale Normale

Date. Signature. 03/13/2019.







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Calibration Certificate Kalibrations-Zertifikat

SimuBox MID

Production Number / Fabrikationsnummer. Serial Number / Seriennummer: 8784351 JADEE402000

Page 2 of 2 Seite 2 of 2

Measuring Data On Incoming Inspection Messdaten bei der Eingangsprüfung (Galculated Waan Values / Berechnete Mittalwerte)	Rated Value Vorgabewert [µV]	Meas. Value Mesawert [µV]	Limit Value 1/- Grenzwert ±/- [µV]	Pass / Fail Cut/Fehlerhaft
Meas. Range 1	57.0	57.0	1.0	Pass/Gut
Meas, Range 2	334.0	332.8	3.0	Pass/Gut
Meas. Range 3	2064.0	2061.8	10.0	Pass/Gut
Meas. Range 4	11926.0	11821.3	20.0	Pass/Gut

Measuring Data After Calibration Messdaten nach Kalibrierung (Sacuated Mean Veluge / Burechalle Millewerse)	Rated Value Vorgabewert [µV]	Meas. Value Messwert [µV]	Limit Value +/ Grenzwer(+/- [µV]
Meas. Range 1	50,0	49.8	0.5
Meas, Range 2	300.0	299.9	1.0
Meas. Range 3	2000.0	1999.9	3.0
Meas, Range 4	10000 0	9999.6	5.0

Date Signature: 03/13/2019,

- SELVERY