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The Municipality of Trent Hills

## **ANNUAL REPORT**

# Warkworth Waste Stabilization Ponds and Collection System 2023

Prepared by

Wastewater Operations Department

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Section 11(4) of the Environmental Compliance Approval no.6023-BDQR6H, for the Warkworth Waste Stabilization Ponds states, "The owner shall prepare performance reports on a calendar year basis and submit to the District Manager by March 31 of the calendar year following the period being reported upon. The reports shall contain, but shall not be limited to, the following information pertaining to the reporting period:

- (a) A summary and interpretation of all Influent monitoring data, and a review of the historical trend of the sewage characteristics and flow rates;
- (b) A summary and interpretation of all Final Effluent monitoring data, including concentration, flow rates, loading and a comparison to the design objectives and compliance limits in this approval, including an overview of the success and adequacy of the Works;
- (c) A summary of all operating issues encountered and corrective actions taken;
- (d) A summary of all normal and emergency repairs and maintenance activities carried out on any major structure, equipment, apparatus or mechanism forming part of the Works;
- (e) A summary of any effluent quality assurance or control measures taken;
- (f) A summary of the calibration and maintenance carried out on all Influent, Imported Sewage and Final Effluent monitoring equipment to ensure the accuracy is within the tolerance of that equipment as required in this Approval or recommended by the manufacturer;
- (g) A summary of efforts made to achieve the design objectives in this Approval, including an assessment of the issues and recommendations for pro-active actions if any are required under the following situations:
  - i. when any of the design objectives is not achieved more than 50% of the time in a year, or there is an increasing trend in deterioration of Final Effluent quality
  - ii. when the Annual Average Daily Influent Flow reaches 80% of the Rated Capacity;
- (h) A tabulation of the volume of sludge generated, an outline of anticipated volumes to be generated in the next reporting period and a summary of the locations to where the sludge was disposed; a tabulation of the measured volume of sludge accumulated in the lagoon cells in five year intervals and the estimated volume in the interim years and when sludge was disposed of during the reporting period, a summary of disposal locations and volumes of sludge disposed at each location;
- (i) A summary of any complaints received and any steps taken to address the complaints;
- (j) A summary of all By-passes, Overflows, other situations outside Normal Operating Conditions and spills within the meaning of Part X of EPA and abnormal discharge events;
- (k) A summary of all Notice of Modifications to Sewage Works completed under Paragraph 1.d. of Condition 10, including a report status of implementation of all modification.
- (l) A summary of efforts made to achieve conformance with Procedure F-5-1 including but not limited to projects undertaken and completed in the sanitary sewer system that result in overall Bypass/Overflow elimination including expenditures and proposed projects to eliminate Bypass/Overflows with estimated budget forecast for the following year following that for which the report is submitted.

Note: This annual report is combined with ECA #0672-BFNR7G Warkworth Collection System Section 8 (3) (a-g). Also note that ECA 150-W601 Trent Hills Collection System was issued on December 7, 2023 replacing previous ECA.

## Section 1 – ECA Condition 11 (4) (a)

A summary of all monitoring data collected at the Warkworth Stabilization Ponds during the reporting period can be found in Appendix I. The summary or Performance Report provides Flow data, Raw sewage and Final effluent analytical results and an Effluent loadings summary.

Below is a summary of the Influent Data. During the spring and winter months in the reporting year flows are elevated due to infiltration and inflow, which historically is consistent. The flushing and CCTV program is being followed up immediately with repairs and problem areas of infiltration are being identified.

Warkworth - Monthly Average Influent Flow 2023												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Flow Total (m3)	7967	8615	11290	12190	8931	6144	5063	5172	4531	4163	3995	4698
Flow Average (m3)	257	308	364	406	288	205	163	167	151	134	133	152
Flow Min. (m3/d)	184	189	234	259	219	170	140	139	125	111	107	66
Flow Max. (m3/d)	423	406	595	635	415	304	181	230	193	158	174	212

The chart below summarizes the Monthly Influent Monitoring.

Warkworth - Monthly Average Influent Monitoring 2023												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Raw BOD5	86	888	177	161	353	245	112	182	47	100	88	58
Raw Phosphorous	2.72	16.3	4.81	2.51	4.48	3.69	4.76	6.39	3.14	4.56	4.3	2.77
Raw Suspended Solids	68	420	117	212	207	148	78	112	32	54	33	22
Raw TKN	34.8	66.4	42.2	17.5	30.5	38.1	44.1	49.1	35.9	49.6	42.4	24.8

## Section 2 – ECA Condition 11 (4) (b)

In 2023, there was a spring release where both lagoons were released and to facilitate the installation of replacement valves the release in the fall season was able to ensure the lagoons were at a low level. The spring release was not in compliance for Total Ammonia. According to the ECA the limit for Ammonia is 3 mg/l and the actual average for the spring release was 7.6 mg/l. This was again due in part to the ice cover until late in the season as was reported in 2022 and the relatively short time period available for a spring release. This non-compliance was reported immediately to the MECP on May 25, 2023. By releasing both lagoons in the fall and by addressing areas of infiltration in the system it is expected that a spring release may not be required to avoid further issues with the Ammonia levels.

Effluent quantity and quality criteria stipulated in ECA Condition 7(1) Schedule C are summarized as follow:

### Spring Discharge East Cell

East CELL MONTH/DATE	2023		2023		East CELL		DISCHARGE		Lab Samples					On Site			Comments	
	WEATHER	C°	OPERATOR	DEPTH	M <sub>1</sub>	IN."	M <sub>2</sub>	TOTAL PHOS.	Total AMMONIA	pH	CBOD5 mg/L	un-ionized ammonia	TSS	Sol.P	pH	Temp		
April 6/23	Sunny	4	SM	64.0	46,720	3.5	2555	0.32	8.4	8	18	0.323	25	0.04	8	8.2	Start release 1215, Collect first sample	
April 7/23	Overcast		SM	60.5	44,165	1.5	1095							0.11	6.9	7.8		
April 8/23			SM	59.0	43,070	0.5	365							0.13	7.6	5.6		
April 9/23			SM	58.5	42,705	3.0	2190							0.23	8	10		
April 10/23	Sunny	10	SM	55.5	40,515	1.5	1095							0.15	8	13		
April 11/23	Cloudy	6	SM	54.0	39,420	3.0	2190	0.16	8.8	7.7	18	0.175	35	0.05	7.7	9.1	Collect Samples	
April 12/23	Sunny	13	SM	51.0	37,230	2.0	1460							0.1	8	17.1		
April 13/23	Sunny	14	SM	49.0	35,770	3.5	2555							0.12	7.9	13.1		
April 14/23	Sunny	10	SM	45.5	33,215	5.0	3650							0.08	8.1	14.4		
April 15/23	Sunny	28	SM	40.5	29,565	3.0	2190							0.02	9	26.5		
April 16/23	Sunny	26	SM	37.5	27,375	1.5	1095							0	9.1	23.5		
April 17/23	Rain	7	SM	36.0	26,280	3.5	2555	0.12	8	8	20	0.41	27	0.01	8	14	Open bottom gate Collect Samples	
April 18/23	Overcast	3	SM	32.5	23,725	4.0	2920							0.08	8.3	11.3		
April 19/23	Windy	1	SM	28.5	20,805	3.5	2555							0.08	8.2	6.5	Closed gate slightly	
April 20/23	Sunny	1	AF	25.0	18,250	1.5	1095							0.04	8.7	12.3		
April 21/23	Sunny		AF	23.5	17,155	1.0	730							0.07	8.4	9.7		
April 22/23	Overcast		AF	22.5	16,425	1.0	730							0.08	8.6	17.2		
April 23/23	Sunny		AF	21.5	15,695	0.0	0							0.07	8.4	16.2		
April 24/23	Overcast	4	SM	21.5	15,695	0.0	0	0.15	8.7	8	13	0.196	12	0.06	8	12.1	Collect Samples, open gate slightly	
April 25/23	Overcast	8	SM	21.5	15,695	0.5	365							0.07	8.6	10.9		
April 26/23	Overcast	4	TS	21.0	15,330	1.0	730							0.06	8.5	10.9	Open gate slightly	
April 27/23	Sunny	10	SM	20.0	14,600	1.0	730							0.01	9.1	14.6		
April 28/23	Sunny	8	TS	19.0	13,870	0.5	365							0.02	8.4	14.1		
April 29/23	Rain	6	TS	18.5	13,505	0.5	365							0.12	8.1	12.1	Open gate slightly	
April 30/23	Overcast	11	TS	18.0	13,140	1.5	1095							0.26	8.5	12.6		
				<b>TOTAL</b>	46		34,675											<b>Total release hours : 588</b>
				<b>MINIMUM</b>			0.0	0										
				<b>MAXIMUM</b>			5.0	3,650										
				<b>AVERAGE</b>			1.9	1,415	0.200	8.48	8	18.7	0.303	29.0	0.08	8.24	12.9	

### Spring Discharge West Cell

West CELL MONTH/DATE	2023		2023		East CELL		DISCHARGE		Lab Samples					On Site			Comments	
	WEATHER	C°	OPERATOR	DEPTH	M <sub>1</sub>	IN."	M <sub>2</sub>	TOTAL PHOS.	Total AMMONIA	pH	CBOD5 mg/L	un-ionized ammonia	TSS	Sol.P	pH	Temp		
May 1/23	Overcast	5	SM	66.0	48,180	4	2920							0.08	8	11	Begin release of West cell, no odour Collect samples	
May 2/23	Drizzle	5	SM	62.0	45,260	3.0	2190	0.43	6.3	7.9	22	0.022	44	0.01	7.9	9.5		
May 3/23	Drizzle	6	TS	59.0	43,070	1.5	1095							0.03	7.9	13.2		
May 4/23	Overcast		AF	57.5	41,975	1.5	1095							0.1	7.7	13.6		
May 5/23	Sunny		AF	56.0	40,880	1.5	1095							0.16	7.8	14.2		
May 6/23	Sunny		AF	54.5	39,785	1.0	730							0.19	7.8	14.7		
May 7/23	Sunny		AF	53.5	39,055	1.0	730							0.12	7.8	14.7		
May 8/23	Sunny	11	SM	52.5	38,325	4.5	3285	0.15	6.5	7.8	5	0.355	6	0.34	7.8	16.4	Collect samples	
May 9/23	Sunny	14	SM	48.0	35,040	4.0	2920							0.18	7.8	16.9		
May 10/23	Sunny	10	SM	44.0	32,120	3.0	2190							0.08	7.9	16.1		
May 11/23	Sunny	23	SM	41.0	29,930			0.16	6.6	7.9	4	0.41	4	0.17	7.9	23.3	Collect samples, Stop Release 14:00	
				<b>TOTAL</b>	46		18,250											<b>Total release hours : 254</b>
				<b>MINIMUM</b>			1.0	730										
				<b>MAXIMUM</b>			4.5	3,285										
				<b>AVERAGE</b>			1,659	0.247	6.47	8	10.3	0.262	18.0	0.13	7.85	14.9		

### Fall Discharge East and West Cell

West CELL	2023		2023		East CELL		DISCHARGE		Lab Samples					On Site			Comments
	MONTH/DATE	WEATHER	C°	OPERATOR	DEPTH	M <sub>2</sub>	IN.*	M <sub>2</sub>	TOTAL PHOS.	Total AMMONIA	pH	CBOD5 mg/L	un-ionized ammonia	TSS	Sol.P	pH	
Oct. 24/23	Sunny	8	SM	43.5	31,755	-	-	0.03	0.3	8.1	<4	0.008	3	0.08	8.1	9	0800 - Start Release and collect first sample. No odor.
Oct.25/23	Overcast	14	SM	43.5	31,755	3.0	2190							0.12	8.2	13.4	
Oct.26/23	Overcast	14	SM	40.5	29,565	2.0	1460							0.07	8.4	13.6	
Oct.27/23	Sunny	14	AF	38.5	28,105	2.0	1460							0.09	8.4	14.2	
Oct.28/23	Sunny	13	AF	36.5	26,645	2.0	1460							0.07	7.8	14	
Oct.29/23	Overcast	10	AF	34.5	25,185	0.5	365							0.09	7.7	13.6	
Oct.30/23	Drizzle	1	SM	34.0	24820	2.0	1460	0.04	0.5	7.7	<4	0.018	2	0.05	7.7	13	
Oct.31/23	Cloudy	-4	SM	32.0	23,360	2.0	1460							0.08	8.5	4.7	
Nov.1/23	Overcast	-3	SM	30.0	21,900	1.5	1095							0.05	8.4	4.5	
Nov.2/23	Cloudy	-1	SM	28.5	20,805	3.0	2190							0.02	8.4	4	
Nov.3/23	Cloudy	4	SM	25.5	18,615	3.0	2190							0.1	8.5	6.1	
Nov.4/23	Overcast	5	SM	22.5	16,425	3.0	2190							0.08	8.5	6.1	
Nov.5/23	Sunny	3	SM	19.5	14,235	2.5	1825							0.09	8.5	6.2	
Nov.6/23	Drizzle	2	SM	17.0	12,410	2.0	1460	0.05	0.4	8.5	5	0.015	5	0.09	8.5	5.5	
Nov.7/23	Cloudy	10	SM	15.0	10,950	1.0	730							0.07	8.3	9.5	
Nov.8/23	Sunny	-5	SM	14.0	10,220	2.0	1460							0.04	8.4	1.4	
Nov.9/23	Overcast	2	SM	12.0	8,760	2.5	1825							0	8.4	2.5	
Nov.10/23	Sunny	3	SM	9.5	6,935	2.5	1825							0.06	8.3	3.5	
Nov.11/23	Cloudy	1	SM	7.0	5,110	1.5	1095							0.13	8.5	3.9	
Nov.12/23	Overcast	3	SM	5.5	4,015	1.5	1095							0.1	8.5	4.9	
Nov.13/23	Overcast	-2	SM	4.0	2,920	1.0	730	0.1	2.3	8.3	<4	0.043	10	0	8.3	2	
Nov.14/23	Cloudy	4	SM	3.0	2,190	1.0	730							0.2	8.1	5.2	
Nov.15/23	Sunny	-3	SM	25.0	18,250	2.0	1460							0.32	8.2	1.6	
Nov.16/23	Sunny	5	TS	23.0	16,790	1.0	730							0.1	8.1	6.3	
Nov.17/23	Rain	6	TS	22.0	16,060	1.0	730							0.13	8.1	5	
Nov.18/23	Sunny	0	TS	21.0	15,330	1.0	730							0.1	8.1	5.1	
Nov.19/23	Overcast	1	TS	20.0	14,600	1.5	1095							0.12	8.1	3.9	
Nov.20/23	Sunny	-10	SM	18.5	13,505			0.05	7.9	8.1	<4	0.33	4	0.05	8.1	5.5	
Stop West release, Start East release 1030																	
Stop release 0800. Collect final samples																	
<b>TOTAL</b>							48.0	35,040									
<b>MINIMUM</b>							1.0	730							0	7.7	1.40
<b>MAXIMUM</b>							3.0	2,190							0.32	8.5	14.2
<b>AVERAGE</b>							1.8	1,348	0.054	2.28	8	4.0	0.083	4.8	0.10	8.25	6.7
<b>Total release hours : Oct. 184 hrs. Nov. - 464 hrs</b>																	

### Section 3 - ECA Condition 11(4) (c)

The only operating issues encountered were during the spring release with the elevated ammonia levels as reported to the MECP. It was noted that the ice cover remained slightly longer than usual and there was a small window in which to release. It is anticipated that by releasing from both lagoons in the fall season and attempting to get the level as low as possible in addition to the work being completed within the system dealing with infiltration a spring release may not be required to avoid issues with Ammonia in the future.

Elevated flows were experienced in the spring of 2023. Municipal staff completed manhole inspections and were able to locate areas of interest. Grouting and sewer repairs were completed as a result of these investigations.

### Section 4 – ECA Condition 11(4) (d)

Normal maintenance occurred on all pumps and no emergency repairs had to be completed. A list of repairs and replacements are below:

Replace discharge valves on East and West lagoons  
STI Grout various locations throughout town  
Manual transfer switch installed at George St. Pumping Station for Emergency Power.

### ***Section 5 – EC A Condition 11 (4) (e)***

Effluent control measures and quality assurance include taking pre-release samples beginning at least one month before the scheduled release. If all parameters are compliant then a release is started and as a contingency, alum can be added to the lagoon prior to release for pre-treatment. Because of the ongoing collection CCTV and flushing program, flows have decreased enough to use one lagoon per season and allow the other to remain idle for half of the year, giving more time for treatment. Operators also do in house testing during releases. In house testing provides real time results, which enhance process and operational performance. All in house sampling and analysis is performed by certified operators utilizing methods and protocols for sampling, analysis and recording as specified in the Ministry’s Procedure F–10-1, “Procedures for Sampling and Analysis Requirements for Municipal and Private Sewage Treatment Works”, the Ministry’s publication, “Standard Methods for the Examination of Water and Wastewater”.

All effluent samples collected during the reporting period to meet C of A sampling requirements were analyzed by SGS Lakefield, with the exception of pH and temperature. SGS Lakefield has been deemed by the Canadian Association for Laboratory Accreditation (CALA) to be an accredited laboratory, meeting strict provincial guidelines including an extensive quality assurance/quality control program.

### **Section 6 – ECA Condition 11(4) (f)**

The Worktech system automatically generates work orders and schedules calibration and certification of Flowmeters and lab equipment.

These calibrations are carried out by a certified, third party qualified technician and performed on an annual basis. A copy of the 2023 Annual Calibration Record for the influent flow meter is located in Appendix II.

### **Section 7 – ECA Condition 11(4) (g)**

Condition 6 – Effluent Objectives, subsection (1) (c) states, “The Owner shall design and undertake everything practicable to operate the Sewage Treatment Plant in accordance to the following objectives: c. Annual Average Daily Influent Flow is within the Rated Capacity of the Sewage Treatment Plant.”

The following table provides a comparison of the rated capacity of the works to the actual flow data obtained during the 2023 reporting period.



Warkworth - Monthly Flow Monitoring 2023												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Average Daily Flow m3/d	257	308	364	406	288	205	163	167	151	134	133	152
Rated Capacity m3/d	390	390	390	390	390	390	390	390	390	390	390	390

The above table shows that the Warkworth Wastewater Stabilization Lagoons ECA rated capacity was exceeded in April 2023. The Annual Average Daily Influent Flow of 227 m3/day is 58% of the Rated Capacity of the Sewage Treatment Plant of 390 m3/d.

**Section 8 – ECA Condition 11 (4) (h)**

During the 2023 reporting year there were zero biosolids removed from the lagoons and there will be no biosolids removed in the upcoming year. It is estimated that each lagoon has a thirty (30) year capacity for biosolids and they were dredged in 2012 (West lagoon) and 2013 (East lagoon). Operations staff have created work orders to tabulate the volume of sludge accumulated to date and both lagoons were completed in the August of 2020 as per ECA # 6023-BDQR6H and the West lagoon was completed in 2023. Biosolids will be monitored on an annual basis going forward depending on which cell is deep enough to use the pontoon boat.

Below is the summary of the last measured volume of the sludge levels of the East Cell in 2020 and the West Cell in 2023. It will be measured next annually if possible and within the 5 year interval as stated in ECA # 6023-BDQR6H prior to 2025.

Warkworth - Biosolids Summary 2023			
	Average Sludge Depth (inches)	m3/inch	Volume of Biosolids m3
East Lagoon 2020	8.69	730	6344
West Lagoon 2023	12.25	730	8942

**Section 9 – ECA Condition 11 (4) (i)**

There were no community complaints received during the 2023 reporting period.

**Section 10 – ECA Condition 11 (4) (j)**

There were no by-pass, spills or abnormal discharge events during the 2023 reporting period.

**Section 11 – ECA Condition 11 (4) (k)**

There were no Notice of Modification to Sewage Works forms completed during the 2023 reporting period.

**Section 12 – ECA Condition 11 (4) (l)**

The Warkworth collection system has not experienced Bypass/Overflow situations in recent years and the Sewer system is 100% separated. In efforts to eliminate the possibility of Overflow/Bypass events as well as Inflow and Infiltration in the system, the Municipality has a multi-year plan in place to flush and CCTV a portion of the system each year. This means that all areas of the wastewater collection systems in Trent Hills are flushed, and CCTV inspected over a seven (7) year maintenance cycle. Areas identified for repair, are completed immediately or in some situations are identified for future rehabilitation.

During periods of elevated flow, municipal staff complete flow monitoring to identify areas of concern.

The Municipal budget for CCTV and flushing will remain at \$57,000 for the three (3) systems within the Municipality of Trent Hills and \$23,000 for repairs.

Any questions regarding the information contained in this report should be directed to the undersigned at 705-653-7113

*Troy Stephens*

Troy Stephens,  
Wastewater Treatment/Collection Head Operator,  
Municipality of Trent Hills

# Appendix I

2023 Warkworth Performance Report

## Warkworth WPC 2023 Performance Summary

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total	Avg.	Criteria
Flow Total (m3)	7967	8615	11290	12190	8931	6144	5063	5172	4531	4163	3995	4698	82759		
Flow Avg. (m3/d)	257	308	364	406	288	205	163	167	151	134	133	152		227	
Flow Min. (m3/d)	184	189	234	259	219	170	140	139	125	111	107	66			
Flow Max. (m3/d)	423	406	595	635	415	304	181	230	193	158	174	212			635
Raw BOD5	86	888	177	161	353	245	112	182	47	100	88	58		208	
Raw Phosphorous	2.72	16.3	4.81	2.51	4.48	3.69	4.76	6.39	3.14	4.56	4.3	2.77		5.04	
Raw Suspended Solids	68	420	117	212	207	148	78	112	32	54	33	22		125	
Raw TKN	34.8	66.4	42.2	17.5	30.5	38.1	44.1	49.1	35.9	49.6	42.4	24.8		39.6	
Raw # Samples	1	1	1	1	1	1	1	1	1	1	1	1	12		
Total Effluent Release				34675	18250					9855	25185		87965		
Cell				East	West					West	West/East				
Flow Duration Hours				588	254					184	464		1490		
CBOD				18.7	10.3					4	4.3				15(s)-10(f)
TSS				29	18					2.5	6.3				25
Total Ammonia				8.48	6.47					0.4	3.5				3
Unionized Ammonia				0.303	0.262					0.01	0.129				
TKN				11.92	6.4					1.75	4.9				
Nitrate				0.06	0.06					0.23	0.36				
Nitrite				0.04	0.04					0.06	0.08				
E.Coli				420	6.7					146	295				
pH				8.24	7.85					8.1	8.3				6-9.5
Total Phos				0.2	0.24					0.35	0.06				0.5

# APPENDIX II

2023 Warkworth WWTF Calibration Report

**Tower Electronics Canada Inc. Calibration Certificate**

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**Customer:**

Troy Stephens  
 Wastewater Collection/Treatment Plant Head Operator  
 Municipality of Trent Hills  
 705-653-1870

**Meter Information**

Date of Test: 2023-05-11  
 Location: Warkworth SPS  
 Meter Under Test: Raw Flow  
 Client Tag: n/a  
 Manufacturer: Greyline  
 Model: DFM 5.1  
 Serial Number: 17048  
 Totalizer As Found: 52219388L  
 Totalizer As Left: 52227068L

**Calibration by:**

Dan Matchett

**Standards:**

Fluke 289 S/N 96220182 NIST Cal Due April 2024

**Programming Parameters:**

DN Size: 6.04" ID  
 Cal Factor: 0.975  
 Zero Cal: 0  
 Allowable Error: 15%  
 Calibration Due: May-24

**Instrument Type**

Clamp-on Doppler Flow

**Method of verification**

Volumetric verification

**Units:** LPS  
**Zero:** 0.00  
**Span:** 50.00  
**Totalizer:** n/a

Flow Test						
Sim Setting	Sim Flow LPS	Meter Display	SCADA	Disp Error%	SCADAErr%	
0.000	0.000	0.000	0.010	0.000	0.000	
12.500	12.500	12.500	12.530	0.000	0.060	
25.000	25.000	25.000	25.040	0.000	0.080	
37.500	37.500	37.500	37.550	0.000	0.100	
50.000	50.000	50.000	50.050	0.000	0.100	
				Average Error%	0.00	0.07
				Result:	PASS	PASS

**Draw Down Test**

Chamber Volume Pumped	4508.000	L
Start Totalizer	52222341.000	L
End Totalizer	52227060.000	L
Volume Recorded By Meter	4719.000	L
Error%	-4.471	
Result:	PASS	

**Comments:**

Unit passes verification,  
 Volumetric/Draw down test using wet well chamber 2.4m Circ(10cm depth = 0.49M3)

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