

# Waterworks Compliance Inspection - Human Consumptive Use (Part I)

**System Name:** FORT QU'APPELLE WATERWORKS      Remote Inspection ID: 1139894  
**Approval No:** 00002189-04-00  
**Population:** 2053      **Announced:** Yes  
**Date:** 14-FEB-2019 10:00      **Person Interviewed:** DAVIDSON, LARRY

## General Section

**Water Supplies in Service :** GROUNDWATER      **System Classification:** TWO WT TWO WD  
**# of Service Connections:** 900      **System Type:** MUNICIPAL SYSTEM  
**Service Connection Metering:** Yes      **Source Inspection Completed:** No

**Comments:**

## Contacts

Name	Position	Phone / Fax	Email
GIROUX, BRIAN	FOREMAN	Business: (306) 332-6726 Cell: (306) 331-8118	N/A
ROKOSH, DON	SUPERINTENDENT	Business: (306) 332-6726 Cell: (306) 331-8613	N/A
HOLLERBAUM, SHAWN	OPERATOR	Cell: (306) 550-5785	N/A
DAVIDSON, LARRY	ADMINISTRATOR	Phone: (306) 332-4341 Business: (306) 332-5266	FORTCAO@SASKTEL.NET
BETTERIDGE, BRUCE	OPERATOR	Cell: (306) 699-7509	N/A

## **Complaints:**

N/A

## Operator Certification Section

Operator Name	Certification Levels		Expiry Date	Operator is a Supervisor
	Water Distribution	Water Treatment		
GIROUX, BRIAN	TWO	TWO	15-JUN-2019	Yes
ROKOSH, DON	TWO	TWO	15-FEB-2020	No
HOLLERBAUM, SHAWN	ONE	ONE	15-MAY-2020	No
BETTERIDGE, BRUCE	ONE	ONE	15-JAN-2021	No

## Test Results

Station #	Sample ID	Location/Comments	Variable	Flag	Measurement	Qualifier
SK05JL0004	2019067009	COOP	CHLORINE (FREE)	N/A	0.270 mg/l	N/A
"	"	"	CHLORINE (TOTAL)	N/A	0.520 mg/l	N/A
"	"	"	TURBIDITY	N/A	0.210 NTU	N/A
"	2019067010	TOWN SHOP	CHLORINE (FREE)	N/A	0.310 mg/l	N/A
"	"	"	CHLORINE (TOTAL)	N/A	0.750 mg/l	N/A
"	"	"	TURBIDITY	N/A	0.250 NTU	N/A
"	2019067011	MINISTRY OF ENVIRONMENT - BACTI TAKEN.	CHLORINE (FREE)	N/A	0.480 mg/l	N/A
"	"	"	CHLORINE (TOTAL)	N/A	0.750 mg/l	N/A
"	"	"	TURBIDITY	N/A	0.390 NTU	N/A
"	2019067012	TREATY 4 GOVERNANCE CENTRE	CHLORINE (FREE)	N/A	0.340 mg/l	N/A
"	"	"	CHLORINE (TOTAL)	N/A	0.650 mg/l	N/A
"	"	"	TURBIDITY	N/A	0.240 NTU	N/A
"	2019067013	WTP	CHLORINE (FREE)	N/A	0.610 mg/l	N/A
"	"	"	CHLORINE (TOTAL)	N/A	1.010 mg/l	N/A
"	"	"	TURBIDITY	N/A	0.220 NTU	N/A
"	N/A	WTP SPLIT	CHLORINE (FREE)	N/A	0.630 mg/l	N/A
"	"	"	CHLORINE (TOTAL)	N/A	0.990 mg/l	N/A
"	"	"	TURBIDITY	N/A	0.240 NTU	N/A

## Equipment Validation

### Turbidity

Equipment Type	Equipment Name/Number	STD1(L) (Expected, Test)	STD2 (Expected, Test)	STD3 (Expected, Test)	STD4 (Expected, Test)	Result	Gel Standard
HACH 2100P	N/A	(0.10, 0.15)	(20.00, 20.20)	(100.00, 100.00)	(800.00, 796.00)	SEND FOR REPAIR	N/A

**Comment:** EQUIPMENT WAS CALIBRATED WITH PERMITTEE STANDARDS IN NOVEMBER. TRIED MULTIPLE CALIBRATIONS AND STILL COULDN'T GET LOW END STANDARD TO READ PROPERLY.

### Chlorine

Equipment Type	Equipment Name/Number	STD1 (Expected, Test)	STD2 (Expected, Test)	STD3 (Expected, Test)	Result
DR890	N/A	(0.21, 0.22)	(0.85, 0.89)	(1.53, 1.60)	GOOD

## Human Consumptive Regulatory Section C=Compliant NC=Non-Compliant N/A=Not Applicable

C	NC	NA	General	Comments
X			Valid permit to operate and/or construct EMPA2010 24(1)	
X			Certified operator WWSW 62	CONTINUE TO GET OTHER STAFF MEMBERS FULLY CERTIFIED TO COVER OFF HOLIDAYS/ILLNESS ETC.
X			Valid water rights license EMPA2010 29(1)	WRL - 1930 & 2199
X			Copy of permit posted at waterworks EMPA2010 29(1)	
			<b>Wells</b>	
X			Constructed to exclude contaminants WWSW 22(2)	
X			Disinfection of new lines & repairs WWSW 22(2)f	
			<b>Distribution System</b>	
	X		Common trenching WWSW 23(1,2)	RIVERSIDE AREA IN FORT QU'APPELLE HAS COMMON TRENCHING. TOWN MUST ENSURE THAT ANY STAFF DOING WORK ON DISTRIBUTION LINES ARE MADE AWARE OF THIS. AS LINES ARE REPLACED PROPER ENGINEERING PRACTICES MUST BE ADHERED TO.
X			Disinfection of new and repaired pipelines WWSW 23(4)& 27(4)	
			<b>Water Storage Reservoirs</b>	
X			Water tight cover WWSW 24(2)a	
X			In good repair WWSW 24(2)b	
X			Meets reservoir design requirements WWSW 24(2)c (only applies to facilities constructed after June 1, 2015)	
X			Manholes WWSW 24(3,4) (all manholes must be 150mm above grade, 50mm lip, and locked if located outside WTP)	
X			Pipe entries installed to prevent contamination WWSW 24(5)	FIXED THE RESERVOIR HATCH ON TOP OF HILL SINCE LAST INSPECTION. OPERATOR HAS PROVIDED PICTURES. COULDN'T CONFIRM ON INSPECTION AS IT'S WINTER TIME.

X			Vents WWSW 24(6)	
			<b>Water Treatment Plants and Pumphouses</b>	
X			Floor drainage to drains or sumps WWSW 25(a)	
X			Drain lines to sanitary sewers have trap WWSW 25(b)	
X			Backflow prevention device on treatment component WWSW 25(c)	
X			Water meter(s) installed in WTP or pumphouse WWSW 25(d)	
X			Adjustable chemical feeder WWSW 25(e)	
X			Water quality monitoring and testing equipment is maintained and calibrated as recommended by manufacturer EMPA2010 29(1)	WHEN PERMIT WAS RENEWED IN NOVEMBER 2018, IT REQUIRED CALIBRATIONS OF HANDHELD INSTRUMENTS AS PER MANUFACTURERS SPECIFICATIONS.
X			Facility is clean and in orderly condition WWSW 25(f)	
X			NSF/ANSI 60 Approved chemicals being used and at or below Max. use limit WWSW 27(3) (unless otherwise approved)	
			<b>Disinfection</b>	
X			Continuous chlorine disinfection WWSW 27(5) (unless otherwise approved per 27(7))	AT BREAKPOINT
X			A free chlorine residual of not less than 0.1 mg/L in water entering the distribution system WWSW 27(6)a	
X			A total chlorine residual of not less than 0.5 mg/L OR a free chlorine residual of not less than 0.1 mg/L in water throughout the distribution system WWSW 27(6)b	ONE BACTI WAS BELOW LIMITS AND OPERATORS RESAMPLED AS IT WAS DUE TO NOT LETTING THE TAP LONG ENOUGH.
			<b>Standards</b>	
X			Bacteriological WWSW 29	NO POSITIVES.
X			Chemical standards WWSW 26(2,3) & 31	
X			Waterworks meets the requirements of current and future chemical health and pesticide related standards (effective Dec. 2010 and July 1, 2020) see Table 3 WWSW 31	
X			Less than or equal to 1.0 NTU discrete measurements (95%) WWSW 30(2)e(i)	
			<b>Assessment</b>	
X			Proper waterworks assessment WWSW 32	COMPLETED
			<b>Operational Anomalies</b>	
	X		Reported upset condition WWSW 34(1)	ON FEBRUARY 11TH A CHEMICAL OVERFEED WAS CALLED INTO WSA. OVERFEED OCCURRED ON FEBRUARY 4TH. MUST BE CALLED INTO SOONER.
X			Reported disinfection system upset WWSW 34(2)a,b	
X			Reported missing on-site water quality testing records WWSW 34(2)c	
			<b>Testing</b>	
X			Bacteriological testing WWSW 37(2)	DATABASE WAS MISSING SAMPLE FROM DECEMBER 23-29TH. PERMITTEE PROVIDED EPO A COPY ON INSPECTION.
X			Bacteriological follow-up WWSW 37(5) & 37(9)	
X			Bacteriological sample after completion, alteration, extension or repair WWSW 38	

X			Chlorine monitoring WWSW 37(2)(4)	
X			Turbidity monitoring WWSW 37(2)(4)	
			<b>Other Constituents</b>	
X			General chemical sampling conducted WWSW 37(2)(6)	SAMPLED ON JANUARY 31, 2017. DUE AGAIN IN 2019.
X			Health and toxicity sampling conducted WWSW 37(2)(6)	SAMPLED ON JANUARY 31, 2017. DUE AGAIN IN 2019.
X			Accredited laboratory WWSW 37(2)b	

			<b>Operational Records</b>	
X			Daily water meter reading WWSW 40(1)a	
X			Types, dosages and total amounts of chemical WWSW 40(1)b	OPERATORS ARE NOW CALCULATING A DOSAGE.
X			Samples - locations, sampler, and results WWSW 40(1)c	
X			Abnormal operating procedures WWSW 40(1)d & 40(1)e	
X			Upset conditions WWSW 40(1)f (includes water treatment facility and water distribution system upsets)	UPSET WAS DOCUMENTED WHEN OCCURRED. NO NOTES REGARDING CALLING INTO WSA. OPERATOR ADDED A COMMENT DURING INSPECTION. ENSURE TO DOCUMENT CALLS INTO WSA FOR UPSETS.
X			Chlorine upsets WWSW 40(1)g	
X			Calibration records for test equipment WWSW 40(1)h	WHEN EQUIPMENT IS CALIBRATED IT MUST BE DOCUMENTED.
X			Maintenance WWSW 40(1)i	
X			Chronological order WWSW 40(2)a	
X			Permittee recorder WWSW 40(2)b	
X			Identification of recorder WWSW 40(2)c	
X			Five year history of log WWSW 40(2)d	
X			Explanatory notes WWSW 40(2)e	
X			Factual data entry WWSW 40(2)f	
X			No default values used WWSW 40(2)g	
			<b>QA/QC and Recordkeeping Review</b>	
	X		QA/QC and ERP in place WWSW 41(1)	WATERWORKS SUPERVISOR IS STILL WORKING ON UPDATING QA QC. ONCE DRAFT COMPLETED PLEASE PROVIDE TO EPO FOR COMMENTS.
X			Monthly review of records by permittee WWSW 41(2)	WATER PLANT RECORDS ARE COMPILED IN A REPORT AND THEN ARE ADDED TO COUNCIL MEETING MINUTES AS A PUBLIC WORKS REPORT. MUST ENSURE TO HAVE A SIGNED/RECEIVED COPY AT THE WATER PLANT.
X			Report abnormal or missing records WWSW 41(3)	
			<b>Annual Notice To Customers</b>	
X			On water quality and sample submission compliance WWSW 42(1)	
X			Written notice provided to Minister of completion of annual notice to consumers WWSW 42(2)	RECEIVED NOTICE FOR 2017. 2018 NOTICE IS DUE BY JUNE 30, 2019.

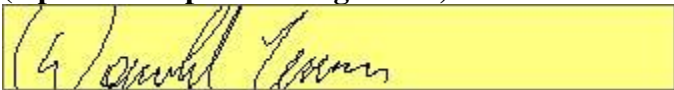
X			Written notification and advisory labels supplied to service connections on raw water supply line EMPA2010 29(1)	
			<b>General</b>	
X			Split sampling with the operator was completed	
	X		Operator's test equipment appears to be performing adequately	TURBIDIMETER WENT THROUGH MULTIPLE CALIBRATIONS ON INSPECTION AND STILL COULD NOT READ LOW END STANDARDS.
X			Representative of the waterworks signature was obtained	YES
X			Representative of the waterworks agreed with the inspection statements	YES



**(Operator/Supervisor Signature)**



**Agree with statements**



**(EPO Signature)**