



Waterworks Compliance Inspection - Human Consumptive Use (Part I)

System Name: WADENA WATERWORKS Remote Inspection ID: 1159078

Approval No: 00002553-04-00

Population: 1288 **Announced:** No

Date: 21-FEB-2019 10:00 **Person Interviewed:** CULL, GARRET

General Section

Water Supplies in Service : GROUNDWATER **System Classification:** TWO WT TWO WD

of Service Connections: 750 **System Type:** MUNICIPAL SYSTEM

Service Connection Metering: Yes **Source Inspection Completed:** No

Comments:

Contacts

Name	Position	Phone / Fax	Email
BAHT, MURRAY	CONTRACT/REGIONAL OPERATOR	Phone: (306) 338-3552 Cell: (306) 813-7080	N/A
CULL, GARRET	FOREMAN	Phone: (306) 338-2145 Cell: (306) 338-7572	N/A
LINNEN, GREG	MAYOR	Business: (306) 338-2051 Cell: (306) 338-7519	N/A
HEBIG, FERNE	ADMINISTRATOR	Business: (306) 338-2145 Cell: (306) 338-7477	WADADMIN@SASKTEL.NET
SHEICHUK, RICK	ENVIRONMENTAL PROJECT OFFICER	Phone: (306) 786-1424	RICK.SHEICHUK@WSASK.CA

Complaints:

N/A

Operator Certification Section

Operator Name	Certification Levels		Expiry Date	Operator is a Supervisor
	Water Distribution	Water Treatment		
BAHT, MURRAY	TWO	TWO	15-APR-2019	Yes
CULL, GARRET	ONE	ONE	15-SEP-2019	Yes

Test Results

Station #	Sample ID	Location/Comments	Variable	Flag	Measurement	Qualifier
SK05MA0014	2019065035	TOWN SHOP - BACTI	CHLORINE (FREE)	N/A	0.790 mg/l	N/A
"	"	"	CHLORINE (TOTAL)	N/A	1.080 mg/l	N/A
"	"	"	TURBIDITY	N/A	0.510 NTU	N/A
"	2019065036	TOWN OFFICE	CHLORINE (FREE)	N/A	0.930 mg/l	N/A
"	"	"	CHLORINE (TOTAL)	N/A	1.120 mg/l	N/A
"	"	"	TURBIDITY	N/A	0.600 NTU	N/A
"	2019065037	NUTRIEN	CHLORINE (FREE)	N/A	0.460 mg/l	N/A
"	"	"	CHLORINE (TOTAL)	N/A	0.810 mg/l	N/A
"	"	"	TURBIDITY	N/A	0.420 NTU	N/A
"	2019065038	RINK	CHLORINE (FREE)	N/A	0.510 mg/l	N/A
"	"	"	CHLORINE (TOTAL)	N/A	0.800 mg/l	N/A
"	"	"	TURBIDITY	N/A	0.490 NTU	N/A
N/A	N/A	OPR SPLIT - WTP	CHLORINE (FREE)	N/A	0.700 mg/l	N/A
"	"	"	CHLORINE (TOTAL)	N/A	1.160 mg/l	N/A
"	"	"	TURBIDITY	N/A	0.440 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	(10.00, 10.10)	(20.00, 20.20)	(100.00, 97.40)	(800.00, 786.00)	CALIBRATE	N/A
Comment							
DUE FOR CALIBRATION							

Chlorine

Equipment Type	Equipment Name/Number	STD1 (Expected, Test)	STD2 (Expected, Test)	STD3 (Expected, Test)	Result
DR890	...3458	(0.22, 0.20)	(0.87, 0.86)	(1.53, 1.54)	GOOD

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

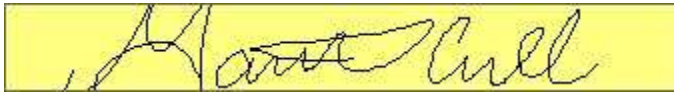
C	NC	NA	General	Comments
X			Valid permit to operate and/or construct EMPA2010 24(1)	
X			Certified operator WWSW 62	REGIONAL OPERATOR MUST COME IN ONCE A WEEK TO SIGN AND REVIEW TESTING SHEETS. THE TOWN FOREMAN IS PLANNING ON WRITING HIS CLASS II CERTIFICATION EXAMS IN THE NEAR FUTURE.
X			Valid water rights license EMPA2010 29(1)	
X			Copy of permit posted at waterworks EMPA2010 29(1)	PERMIT TO OPERATE MUST BE POSTED AT THE WTP.
			Wells	
X			Constructed to exclude contaminants WWSW 22(2)	SINCE THE ARTESIAN WELLS ARE IN CLOSE PROXIMITY AND POSSIBLY HYDRAULICALLY CONNECTED TO THE LAKE/SLOUGH WHICH RECEIVES DRAINAGE FROM MILLIGAN CREEK, THE COMMUNITY MUST MOVE FORWARD WITH A GUDI ASSESSMENT AS IDENTIFIED IN THE RECENT WSA TO DEEM THE WELLS EITHER GUDI OR NON-GUDI. THE OPERATOR REPORTED THAT A HYDROLOGIST HAS BEEN ENGAGED. FAILED PHASE ONE AND TWO AND WORKING ON PHASE THREE.
X			Disinfection of new lines & repairs WWSW 22(2)f	
			Distribution System	
X			Common trenching WWSW 23(1,2)	

X			Disinfection of new and repaired pipelines WWSW 23(4)& 27(4)	
			Water Storage Reservoirs	
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)	PRE 2015. ELEVATED STORAGE CAN MAINTAIN PRESSURE DURING POWER OUTAGES. ALSO A GEN SET IS AT THE WTP TO RUN THE DISTRIBUTION PUMPS DURING POWER OUTAGES.
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)	
X			Vents WWSW 24(6)	
			Water Treatment Plants and Pumphouses	
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)	CUBIC METERS
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)	2100Q CALIBRATED EVERY THREE MONTHS
X			Facility is clean and in orderly condition WWSW 25(f)	ENSURE GOOD HOUSEKEEPING AT ALL TIMES. HOSES TO CLEAN OUT WATER STORAGE RESERVOIRS MUST BE DESIGNATED ONLY FOR THAT PURPOSE TO PREVENT CONTAMINATION. ALSO, A DESIGNATED PAIR OF WORK BOOTS SHOULD BE KEPT AT THE LIFT STATION TO BE USED WHEN WORKING IN THE LIFT STATION SO CONTAMINATED BOOTS DO NOT ADVERSELY AFFECT WATER QUALITY AT THE WTP.
X			NSF/ANSI 60 Approved chemicals being used and at or below Max. use limit WWSW 27(3) (unless otherwise approved)	
			Disinfection	
X			Continuous chlorine disinfection WWSW 27(5) (unless otherwise approved per 27(7))	AS PER THE RECENT WSA ADDENDUM , CT IS BEING MET IF

				THE FREE RESIDUAL IS 0.15MG/L IN A FULL CLEAR WELL. FREE RESIDUAL MUST BE 0.3MG/L IF THE CLEAR WELL IS HALF FULL TO ACHIEVE CONTACT TIME. IF THE WELLS ARE DEEMED GUDI, THE SYSTEM MAY NOT MEET THE REQUIRED CONTACT TIME.
X			A free chlorine residual as required in the permit to operate a waterworks WWSW 27(7) & 31(1,2)	
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	
			Standards	
X			Bacteriological WWSW 29	
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	
			Groundwater	
X			Less than or equal to 1.0 NTU discrete measurements (95%) WWSW 30(2)e(i)	
			Assessment	
X			Proper waterworks assessment WWSW 32	
			Operational Anomalies	
X			Reported upset condition WWSW 34(1)	UPSET CONDITIONS ARE REPORTED.
X			Reported disinfection system upset WWSW 34(2)a,b	
X			Reported missing on-site water quality testing records WWSW 34(2)c	
			Testing	
X			Bacteriological testing WWSW 37(2)	ONE PER WEEK AS REQUIRED BY THE PERMIT TO OPERATE.
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)	
			Turbidity monitoring WWSW 37(2)(4)	
		X	Fluoride monitoring WWSW 37(6) & 39 (both onsite and offsite)	DISCONTINUED FLUORIDE ADDITION IN AUGUST, 2015.
			Other Constituents	

X			General chemical sampling conducted WWSW 37(2)(6)	DONE IN 2018. DUE AGAIN IN 2020.
X			Health and toxicity sampling conducted WWSW 37(2)(6)	DONE IN 2018. DUE AGAIN IN 2020.
			Water from Treatment Plant Discharged to Environment	
		X	Wastewater discharged to environment sampling conducted EMPA2010 29(1)	WASTEWATER DISCHARGED TO THE LAGOON.
			Operational Records	
X			Daily water meter reading WWSW 40(1)a	CUBIC METERS
X			Types, dosages and total amounts of chemical WWSW 40(1)b	
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)	
X			Chlorine upsets WWSW 40(1)g	
X			Calibration records for test equipment WWSW 40(1)h	
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	
			QA/QC and Recordkeeping Review	
X			QA/QC and ERP in place WWSW 41(1)	UPDATE THE QA/QC AND EMERGENCY RESPONSE PLAN IF NECESSARY AND FORWARD TO THE EPO. INFO AND TEMPLATES CAN BE FOUND ON SASKH20.CA.
X			Monthly review of records by permittee WWSW 41(2)	SIGNED BY ADMIN
X			Report abnormal or missing records WWSW 41(3)	
			Annual Notice To Customers	
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)	2017 ANNUAL NOTICE WAS RECEIVED. 2018 NOTICE IS DUE BEFORE JUNE 30, 2019.

			Written notification and advisory labels supplied to service connections on raw water supply line EMPA2010 29(1)	
			General	
X			Split sampling with the operator was completed	
X			Operator's test equipment appears to be performing adequately	
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)