

Medora Corporation

THM Removal in Two 300,000 Gallon Clearwells

Greater than 60% THM reduction observed.

Topics: clearwell, certified tests, chlorine, trihalomethane reduction, stratification



Contact Information

Further information may be available upon request. Please contact Medora Corporation via phone at 866-437-8076 or by e-mail, info@medoraco.com

System Overview:

Water flows in series through Clearwell # 1 to # 2, then onto distribution.

Tank / Reservoir Build Information:

Tank Type: Two (2) Identical, Cylindrical, Steel GST
Tank Size (Gallons): 300,000
Height (ft.): 16.75
Diameter (ft.): 58
Roof Type: Flat
Baffles: Tanks are divided into four (4) sections.

Disinfectant Type:

 Chlorine

Conditions: The community conducted a distribution system evaluation for total trihalomethanes (TTHMs).

Concentrations at several locations exceeded the maximum contaminant level of 80 ppb as required by EPA Stage 2 DBPR.

Objectives: To lower their TTHMs to be in compliance with EPA.

Solution:

Clearwell # 1 & # 2: One (1) Large Frame SN Series THM Removal System

Results: The community has conducted certified lab tests during the peak THM season. Results show consistent THM reduction of 60% or more. (See chart below for certified lab test results). The community is pleased with the ongoing results in THM reduction, and is happy with Medora Corporation's service and support as well.

SAMPLE DATE	WATER TEMP °C	WTP PRODUCTION (MG)	WTP PRODUCTION RATE (GPM)	UNTREATED WET WELL	TREATED WET WELL	DS202 (Dist. Sample)	% REMOVAL IN CLEARWELL #2	REGROWTH IN SYSTEM	"COULD'VE BEEN" TTHM VALUE
4/03/2013	7	0.411	600	29.6	18.4	31.8	38%	13.4	43
5/06/2013	15	0.554	600	47.2	20.4	43.4	57%	23	70
5/20/2013	18	0.657	700	56.2	24.8	64.7	56%	39.9	96
6/03/2013	20	0.412	700	49.2	30.1	58.8	39%	28.7	78
6/17/2013	22	0.520	700	62.7	21.2	62.3	66%	41.1	104
7/01/2013	24	0.535	700	63.2	30.7	64.7	51%	34	97
7/16/2013	26	0.531	700	72.9	29.5	72.5	60%	43	116
7/30/2013	24	0.450	700	60.6	21	60.3	65%	39.3	100
8/13/2013	23	0.435	700	53.3	20.3	52.1	62%	31.8	85