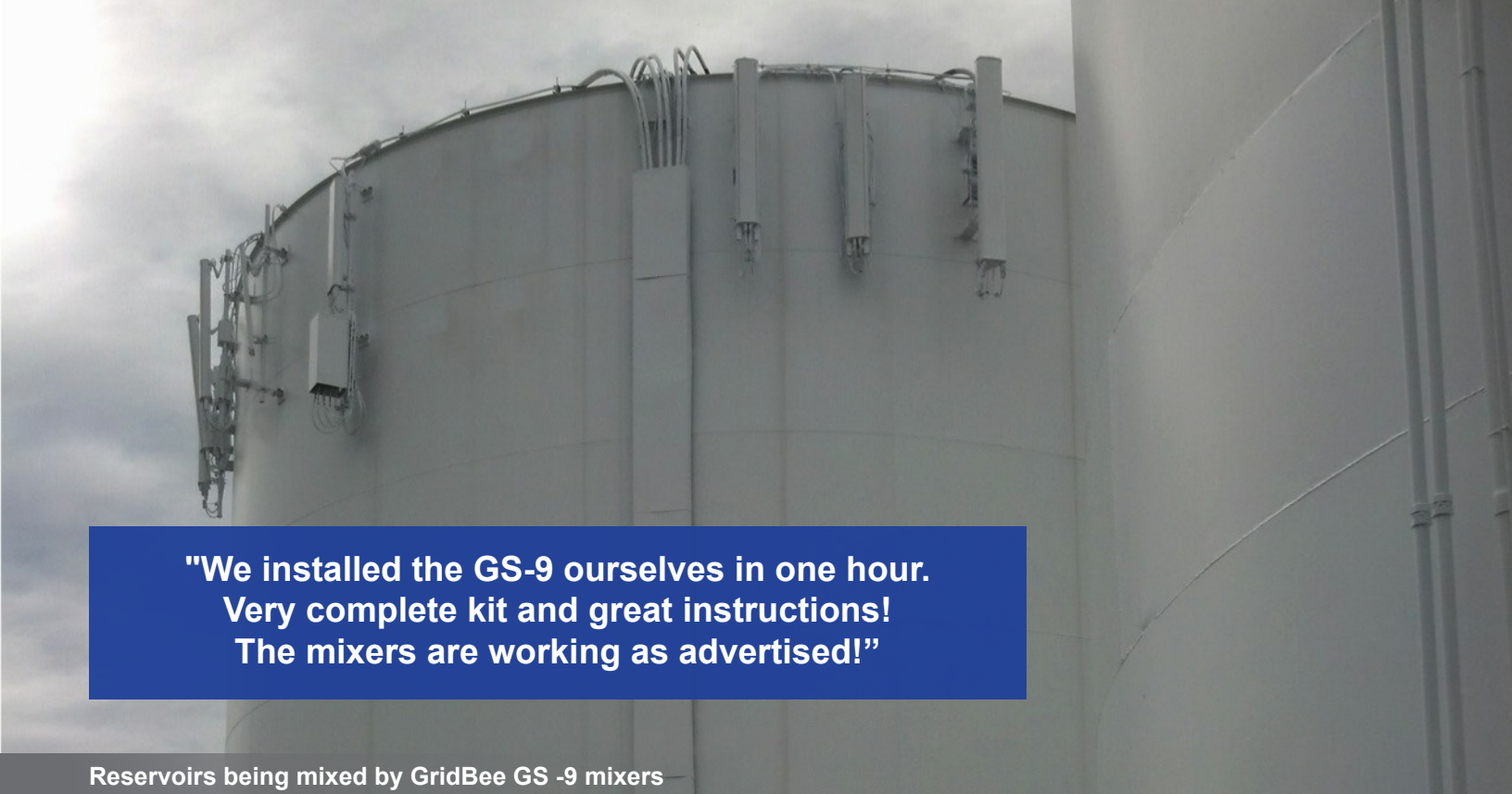


Medora Corporation

Stratification & Water Age Issues In Drinking Water

USWAPW-LOC2544.001 – 002



**"We installed the GS-9 ourselves in one hour.
Very complete kit and great instructions!
The mixers are working as advertised!"**

Reservoirs being mixed by GridBee GS -9 mixers

Customer: Information is available upon request. Contact Medora Corporation by phone 1-866-437-8076 or email info@medoraco.com

Overview: Customer was performing seismic retrofits on two potable water reservoirs and wanted to add active mixing as part of the overall project. Tank volumes are 500,000 to 750,000 gallons with each tank having a common inlet / outlet. Both are part of a non-treated system (no added chemicals).

Condition: Large temperature stratification and water age issues especially in summertime conditions.

Objectives: Create uniform temperature profile top to bottom and maintain consistent water age.

Solution: One GridBee GS-9 installed in each tank

Results: Both tanks had mixers installed mid-August and had baseline temperature stratification measurements exceeding an 11° Fahrenheit difference top to bottom.

At 24 hours from start up of the GS-9 Mixers, the significant temperature stratification was replaced with temperature convergence to within < 1.0°. The larger Southwest Reservoir had a measured difference of 0.8° while the smaller Southeast Reservoir achieved even better results to only 0.3°.

At 72 hours from start up, an even mix was confirmed with further temperature convergence of 0.1° to 0.3°

Detailed before and after data tables on page 2.

Tank / Reservoir Information

Southwest 750,000 Gallon Reservoir	
Tank / Reservoir Description	Steel standpipe, 50 feet tall, 50 feet diameter, common inlet / outlet. Total volume of 750,000 gallons with an average operational range of 38.0 to 48.5 feet.
Condition	Temperature stratification and inconsistent water age.
Solution	One (1) GridBee GS-9 Mixer

Southwest 500,000 Gallon Reservoir	
Tank / Reservoir Description	Steel standpipe, 50 feet tall, 39 feet diameter, common inlet / outlet. Total volume of 500,000 gallons with an average operational range of 38.0 to 49.5 feet.
Condition	Temperature stratification and inconsistent water age.
Solution	One (1) GridBee GS-9 Mixer

Results

	August 14 Baseline	24 Hours	72 hours
Mixer Status	OFF	ON	ON
Ambient Temp. (F°)	61.0°	71.0°	75.0°
Stratification (F°)	11.8°	0.8°	0.2°

	August 15 Baseline	24 Hours	72 hours
Mixer Status	OFF	ON	ON
Ambient Temp. (F°)	61.0°	71.0°	75.0°
Stratification (F°)	11.2°	0.3°	0.1°

Water Level (ft)	Baseline (F°)	24 Hours (F°)	72 Hours (F°)
50	-	-	-
48	-	-	-
46	-	-	-
44	67.9°	-	-
42	67.9°	-	-
40	67.2°	58.7°	-
38	66.5°	58.7°	58.8°
36	65.3°	58.8°	58.8°
34	63.2°	58.7°	58.8°
32	60.2°	58.8°	58.8°
30	58.2°	58.7°	58.8°
28	57.8°	58.7°	58.8°
26	57.6°	58.8°	58.8°
24	57.4°	58.7°	58.9°
22	57.4°	58.8°	58.8°
20	57.3°	58.7°	58.8°
18	57.3°	58.7°	58.8°
16	57.2°	58.6°	58.8°
14	57.1°	58.6°	58.8°
12	57.1°	58.7°	58.8°
10	57.0°	58.6°	58.8°
8	57.0°	58.6°	58.8°
6	57.0°	58.5°	58.8°
4	57.0°	58.4°	58.8°
2	56.5°	58.2°	58.8°
0	56.1°	58.0°	58.7°

Water Level (ft)	Baseline (F°)	24 Hours (F°)	72 Hours (F°)
50	-	-	-
48	-	-	-
46	-	-	-
44	-	-	59.6°
42	66.9°	61.2°	59.6°
40	66.7°	61.2°	59.6°
38	66.7°	61.2°	59.6°
36	66.7°	61.2°	59.6°
34	66.5°	61.3°	59.6°
32	66.5°	61.2°	59.6°
30	66.3°	61.2°	59.6°
28	65.9°	61.2°	59.6°
26	65.7°	61.2°	59.6°
24	65.2°	61.2°	59.6°
22	64.6°	61.2°	59.6°
20	62.3°	61.2°	59.6°
18	58.2°	61.2°	59.6°
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14	57.2°	61.2°	59.6°
12	57.2°	61.2°	59.6°
10	57.0°	61.2°	59.6°
8	56.9°	61.2°	59.6°
6	56.6°	61.2°	59.6°
4	56.3°	61.2°	59.6°
2	55.9°	61.1°	59.5°
0	55.7°	61.0°	59.5°