



# Descaler Strength Monitoring Guide



TUMS Test Monitoring			
Strength Test	Dissolve Time (m:s)	Difference from Prior Test	3X Baseline?
Baseline		N/A	NO
Hour 1			
Hour 2			
Hour 3			
Hour 4			
<b><i>Most Cleanings Conclude in 4 Hours</i></b>			
Hour 5			
Hour 6			
Hour 7			
Hour 8			
Hour 9			
Hour 10			

# Flowchart Notes

(see Descaling Procedure Flowchart, next page)

## **(a) Baseline Strength Test**

1. Gather a bottle, a small container, TUMS tablets, and a stopwatch.
2. Draw into the bottle about a quart of the newly created mixture being circulated.
3. Mark the sample "Baseline Sample", along with the project name.
4. Pour two (2) or three (3) ounces of the sample from the bottle into the small container.
5. Mark the fluid level on the container for consistency in sampling.
6. Place a single TUMS tablet into the small container holding the Baseline Sample.
7. Using a stopwatch, measure the time (to within a few seconds) the Baseline Sample requires to completely dissolve the TUMS tablet.
8. Be careful. Try to witness the last bit of the TUMS tablet being dissolved before stopping the watch.
9. The TUMS tablet is completely dissolved when the release of CO<sub>2</sub> gas ends and no bubbling is visible.
10. Rinse the container for subsequent testing.
11. The key to a consistent Baseline Sample Test is measuring the dissolve time using a consistent container and a consistent sample fluid level.
12. The actual dissolve time is not critical. This is merely a baseline against which to compare subsequent hourly tests.
13. The remainder of the bottle sample may be returned to our lab in the event additional testing is required.

## **(b) Hourly Strength Test**

1. Draw a fresh sample of the mixture being circulated.
2. Pour the sample into the same container and to the same level as in the Baseline Sample Test.
3. Place a TUMS tablet into this sample.
4. As with the Baseline Sample procedure, measure the time (to within a few seconds) to dissolve the TUMS tablet.
5. Record the results into the TUMS Test Monitoring table on the first page of this guide.
6. The key is to be consistent. The dissolve time trend is used in the decision making process.

## **(c) Verification (If Possible)**

1. Has the chemistry failed to weaken because the scale that weakens the chemistry has already been dissolved into solution?
2. Or, has the chemistry performed all the work it can, even though scale fouling remains?
3. Either way, additional work is not being accomplished efficiently. Call for support.
4. Consider disposing of the spent chemistry, rinsing until clear, and following procedures to return the equipment to service.

# Descaling Procedure Flowchart

