

Biochemical Reactions / OPR Values Charts

Sources: YSI Environmental (Chart 1); thewastewaterblog.com (Chart 2)

Biochemical Reactions and Corresponding ORP Values

<u>Biochemical Reaction</u>	<u>ORP, mV</u>
Nitrification	+100 to +350
CBOD ₅ degradation with free molecular oxygen	+50 to +250
Biological phosphorus removal	+25 to +250
Denitrification	+50 to -50
Sulfide (H ₂ S) formation	-50 to -250
Biological phosphorus release	-100 to -250
Acid formation (fermentation)	-100 to -225
Methane production	-175 to -400

Wastewater ORP Ranges

