CLEANING LABORATORY EVALUATION SUMMARY

SCL #:	2020
DateRun:	11/24/2020
Experimenters:	Justin Kiander
ClientType:	Metal Working
ProjectNumber:	Project #1
Substrates:	Aluminum
PartType:	Part
Contaminants:	Buffing/Polishing Compounds
Cleaning Methods:	Ultrasonics
Analytical Methods:	Visual
Purpose:	The purpose of this experiment was to determine effectiveness of alternative solutions in cleaning "blasted edge" parts provided by the company.
Experimental Procedure:	Cleaners were prepared to the following concentrations: Metalnox 6386 100% and SC Aircraft & Metal Cleaner 30%. One aluminum mirror polish blasted edge part pre-soiled with buffing compound by the company was obtained for each cleaner. Cleaners were heated to 120°F and added to an ultrasonic bath also at 120°F. Once solutions reached the proper temperature, the parts were submerged into their respective cleaner for 15 minutes. After the 15 minutes, the part cleaned with SC Aircraft was submerged into a deionized water bath at 120°F for 30 seconds. Parts were then dried with a heat gun. Observations of cleaning were then recorded.
Results:	Before cleaning, substrates had a crystalline almost sanded appearance on the back and edges due to "blasting" conditions. The fronts of each part appeared to be mirror polished and shiny. Following the cleaning process for both alternatives, there seemed to be very little change in substrate appearance. After the drying process, some markings had appeared on the front of the Metalnox substrate. The parts will have to be returned to the company to verify effectiveness of the cleaning process.
Summary:	
Conclusion:	Upon completion of testing, it was determined that company input is required to verify the effectiveness of cleaning process.