CLEANING LABORATORY EVALUATION SUMMARY

SCL #:	1999
DateRun:	05/06/1999
Experimenters:	Jason Marshall
ClientType:	Metal Working
ProjectNumber:	Project #1
Substrates:	Brass, Sterling/Silver
PartType:	Part
Contaminants:	Buffing/Polishing Compounds, Cutting/Tapping Fluids, Lubricating/Lapping Oils, Oil
Cleaning Methods:	Immersion/Soak
Analytical Methods:	Visual
Purpose:	To further evaluate cleaning capabilities of two cleaners from previous trials on new and old supplied parts.
Experimental Procedure:	Two cleaners were used from the first trial at 10% dilutions. The solutions were heated to 130 F. Several parts were cleaned for five minutes in each of the two cleaners. Buckets were not fully cleaned on the inside due to the volume of cleaner needed. Also, the buckets were cleaned for two five-minute cycles. Figure 1 shows which parts were cleaned in each solution. Parts were rinsed with a tap water spray at 120 F for two minutes and dried using a Master Appliance Corp, Hot-air gun model HG at 500 F also for five minutes. SUBSTRATE MATERIAL: Brass parts & Silver part CONTAMINANTS: Buffing Compound (Lea Manufacturing Company, 2-B-111); Oil
Results:	After five minutes of cleaning, the buckets still had some buffing compound under the upper lip. An addition five minutes of cleaning were performed, followed by a tap water rinse. At this point most of the buffing compound was removed from the bucket cleaned with the Calgon product. The Oakite product was not as successful as the Calgon cleaner in the removal of the buffing compound. The other parts cleaned in both products appeared to be at the same level of cleanliness.

Summary:

Substrates:	Brass, Sterling/Silver				
Contaminants:	Buffing/Polishing Compounds, Cutting/Tapping Fluids, Lubricating/Lapping Oils, Oil				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
Calgon Corporation	Geo Guard 2215	10		☑	
Oakite Products	Inproclean 3800	10		☑	

Conclusion: Calgon Geo-Guard 2215 was more successful in the removal of buffing compound from the large buckets. Both cleaners were capable of dissolving the buffing compound from under the lip of the buckets, but both had some difficulty in escaping from under the lip. Addition energy, either in ultrasonic or spray form, could enhance the removal of this dissolved buffing compound trapped under the lip. Both products appear to be effective in the removal of the contaminants from the other parts.