CLEANING LABORATORY EVALUATION SUMMARY

SCL #:	2006
DateRun:	11/28/2006
Experimenters:	Jason Marshall, Heidi Wilcox
ClientType:	Metal Working
ProjectNumber:	Project #1
Substrates:	Steel
PartType:	Part
Contaminants:	Oil
Cleaning Methods:	Ultrasonics
Analytical Methods:	Visual, Wipe
Purpose:	To evaluate selected product on supplied parts.
Experimental Procedure:	One product was selected from the on-site visit. The product was diluted to 5% using DI water in 2000 ml beaker and heated to 130 F in a Branson 3510 ultrasonic tank filled with water. The solution was degassed for 5 minutes. A small, slotted basket was filled with dirty parts and immersed into the beaker. Parts were cleaned for 2 minutes using 40 kHz ultrasonic energy. Following cleaning, the parts in the basket were immersed into a two-stage heated tap water rinsing process. Parts were agitated for 15 seconds in each of the two rinse beakers. The cleaned and rinsed parts were then emptied into a large basket with slots to dry. In addition, excess water was removed by both shaking the larger basket of parts and through compressed-dry air at room temperature for 1 minute. Observations were made. Parts were sent back to client for final evaluations.
Results:	The parts looked very clean after two minutes of cleaning. No visible signs of oil were present. Likewise, following wipe testing with a white swab no oil was present. Photographs were also taken of each stage of the cleaning process.

Summary:

Substrates:	Steel				
Contaminants:	Oil				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
Warren Chemical Company	Sea Wash Blue	5	0.00	☑	

Conclusion: Sea Wash Blue at 5% for two minutes removed most of the oil that was on the parts. Parts were sent back for client approval.