CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 1996

DateRun: 06/19/1996

Experimenters: Jay Jankauskas

ClientType: Bicycle Manufacturer

ProjectNumber: Project #1

Substrates: Alloys, Aluminum

PartType: Part

Contaminants: Cutting/Tapping Fluids, Lubricating/Lapping Oils, Oil

Cleaning Methods:

Analytical Methods: OSEE, Wipe

Purpose: Analysis results from the parts

Experimental Procedure:

Results: Here is the cleanliness analysis results from the parts that you brought down to the lab yesterday. Two tests were done to test the cleaning efficiency of the 10% Daraclean 211 solution as compared to the current vapor degreasing process. The first test was the cotton swap wipe test which you saw in the lab. This showed that there was no distinguishable difference between the tubes cleaned with the Daraclean 212 and the Vapor Degreaser.

The second test I performed was using an OSEE (Optically Stimulated Electron Emission) unit. The OSEE exposes the metal part to UV light and measures the resulting electron emission in the form of a current. Contamination of the metal part will result in a resistance to electron emission and will produce a lower current. OSEE data was collected for both the interior and the exterior of the tubes with the results given below. It appears that the Daraclean 212 is just as effective as your current vapor degreasing operation.

OSEE RESULTS

Cleaned with 10% Daraclean 212		Cleaned in Vapor Degreaser		Dirty as received		
interior	exterior	interior	exterior	interior	exterior	
58	97	49	96	37	54	
59	99	48	91	42	53	
66	85	56	117	38	47	
69	113	40	98	43	48	
80	115	58	72	41	65	
57	84	38	88	51	47	
81	137	48	108	58	45	
63	97	82	115	46	51	
67	127	83	103	43	48	
54	105	66	90	40	52	
76	122	53	127	43	55	
55	118	51	132	57	50	
65.42	108.25	56	103.08	44.92	51.25	Average
9.51	16.54	14.46	17.46	6.91	5.33	Std Dev

Summary:

Substrates:	Alloys, Aluminum				
Contaminants:	Cutting/Tapping Fluids, Lubricating/Lapping Oils, Oil				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
Magnaflux	Daraclean 212	10	0.00	☑	

Conclusion: