CLEANING LABORATORY EVALUATION SUMMARY

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SCL #:	1998
DateRun:	04/02/1998
Experimenters:	Jason Marshall
ClientType:	Manufacturers of Precision Parts and Assemblies
ProjectNumber:	Project #2
Substrates:	Stainless Steel
PartType:	Part
Contaminants:	Cutting/Tapping Fluids, Lubricating/Lapping Oils, Oil
Cleaning Methods:	
Analytical Methods:	OSEE
Purpose:	Evaluate cleanliness of parts

Experimental Procedure: Six parts from each cleaning stage were analyzed using an Optically Stimulated Electron Emissions instrument(OSEE) from PAT Inc. One reading was made for each sample. An average of the six readings was made.

SUBSTRATE MATERIAL: 303 Stainless steel
CONTAMINANTS: C-Eblis oil (sulfur based)

Results: The values obtained for the new bath were greater than the 2-week old bath. With only two different stages available for testing, not a lot of comparison can be made. Table 1 lists the individual and average readings for the new and 2-week samples.

Table 1 OSEE Readings

Bath Age	OSEE #1	#2	#3	#4	#5	#6	Average
New	1350	1349	1340	1319	1351	1351	1343
2 Weeks	202	191	193	178	210	201	196

Because of the small size of the parts only one reading per sample was recorded (OSEE values decrease the longer a sample is exposed to the ultraviolet light).

Summary:

Conclusion: As of now, limited conclusions can be made due to the number of bath ages to be analyzed. With time, specific relationships may be determined with more data.
Next, tests will be conducted on the liquid cleaning bath. Hopefully, readings of the bath characteristics can be related to cleaning efficiency. This will allow the client to determine when the cleaning bath needs to be changed.