CLEANING LABORATORY EVALUATION SUMMARY

SCL #:	2005
DateRun:	07/25/2005
Experimenters:	Jason Marshall
ClientType:	Cleaner Manufacturer
ProjectNumber:	Project #1
Substrates:	Ceramics, Fiberglass, Chrome
PartType:	Coupon
Contaminants:	Films, Soaps
Cleaning Methods:	Manual Wipe
Analytical Methods:	Gravimetric
Purpose:	To evaluate supplied products for bathroom cleaning from three substrates.

Experimental Procedure:

Two supplied cleaning product were diluted to vendor recommended concentration for bathroom cleaning (2.5%). The product was diluted with DI water. Six preweighed fiberglass, six ceramic and six chrome coupons were coated with SSL Soil 1 (Bathroom soap scum: Vaseline Dry Skin Lotion 21.4%, Dial Clean Rinsing Body Wash 14.3%, Market Basket Shampoo & Conditioner (Pert) 28.6%, Soft Soap Natural Liquid hand soap 21.4%, Coast Deodorant bar soap 7.2% and Water 7.1%) using a hand held swab and allowed to dry for 24 hours at room temperature. The contaminated coupons were weighed again to determine the amount of soil added.

Three coupons were placed into a Gardner Straight Line Washability unit. A Professional Painter's Rag was attached to the cleaning sled and soaked with 5-7 sprays of cleaning solutions. Each coupon was sprayed 7-10 times with the same cleaning solution. The cleaning unit was run for 20 cycles (~33 seconds). At the end of the cleaning, coupons were wiped once with a dry paper towel. Final weights were recorded. Efficiencies were calculated and recorded.

Results:

The cleaning solutions had little difficulty with SSL Soil 1 on all three substrates. The table below lists the amount of soil added, removed and the efficiency for each coupon cleaned.

Table 1. Soil Removal

Cleaner	Substrate	Initial wt	Final wt	% Removed
DFC 23	Fiberglass	0.2805	0.0029	98.97
		0.1754	0.0031	98.23
		0.2931	0.0059	97.99
DFC 30		0.2579	0.0024	99.07
		0.3653	0.0018	99.51
		0.1317	0.0004	99.70
DFC 23	Chrome	0.1536	0.0048	96.88
		0.1522	0.0029	98.09
		0.2429	0.0023	99.05
DFC 30		0.2280	0.0041	98.20
		0.2379	0.0062	97.39
		0.2330	0.0059	97.47
DFC 23	Ceramic	0.1603	0.0037	97.69
		0.0899	0.0002	99.78
		0.2272	0.0016	99.30
DFC 30		0.2782	0.0016	99.42
		0.2375	0.0012	99.49
		0.2064	0.0011	99.47

Summary:

Substrates:	Ceramics, Fiberglass, Chrome				
Contaminants:	Films, Soaps				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
Cogent Environmental Solutions	DFC 23	2.5	98.44	☑	
Cogent Environmental Solutions	DFC 30	2.5	98.86	☑	

Conclusion:

The overall efficiency for DFC 23 and DFC 30 were both over 98%, passing the cut off of 85% established for the Massachusetts EPP janitorial cleaning evaluations.