CLEANING LABORATORY EVALUATION SUMMARY

SCL #:	2021
DateRun:	11/17/2021
Experimenters:	Nicole Kebler
ClientType:	Lab
ProjectNumber:	Project #5
Substrates:	Glass/Quartz, Other, Chrome
PartType:	Coupon
Contaminants:	Glass
Cleaning Methods:	Manual Wipe
Analytical Methods:	Gravimetric, Visual
Purpose:	To evaluate the effectiveness of the removal of glass soil from chrome, mirror, and glass using Earth Essentials cleaner.
Experimental Procedure:	Three coupons of each substrate (chrome, glass, and mirror) were collected and initial weights were taken. Glass soil was applied to each coupon and allowed to air dry for 24 hours. After the 24 hour dry time, the weights of the newly contaminated coupons were measured. All coupons were placed into a Straight-Line Washability (SLW) machine. A KC Wypall cleaning cloth was attached to the cleaning block used for the test. The Wypall cloth and all coupons received 2 sprays of the Earth Essentials Cleaner and the SLW machine was run for 20 repetitions, simulating 20 manual wipes. Once cleaning concluded, the cleaned coupons were allowed to air dry for 24 hours. After 24 hours, the weights of the cleaned coupons were measured.
Results:	Earth Essentials was most effective for the removal of glass soil on glass with a 102% removal. Chrome had a 93% removal and mirror had 88% removal. No glass soil was left on the surface of the substrates.

Substrate	Initial wt. of cont.	Final wt. of cont	Average	Combined Average
Chrome	0.0393	0.0055	86.01	93.42
	0.0676	0.0042	93.79	
	-0.9731	0.0045	100.46	
Mirror	0.0455	0.0045	90.11	87.65
	0.0446	0.0048	89.24	
	0.0415	0.0068	83.61	
Glass	0.0532	-0.0004	100.75	102.00
	0.0376	-0.0009	102.39	
	0.0457	-0.0013	102.84	

Summary:

Conclusion: Earth Essentials Cleaner was effective for the removal of glass soil from all three substrates.