CLEANING LABORATORY EVALUATION SUMMARY

SCL #:	2016
DateRun:	11/15/2016
Experimenters:	Francisco Abreau, Vinh Tran, James Keats
ClientType:	Maintenance Shop
ProjectNumber:	Project #1
Substrates:	Aluminum, Stainless Steel
PartType:	Part
Contaminants:	Greases, Lubricating/Lapping Oils, Dirt
Cleaning Methods:	Manual Wipe
Analytical Methods:	Gravimetric
Purpose:	To evaluate the effectiveness of the supplied cleaners with bike soil removal on provided substrates.
Experimental Procedure:	Fifteen stainless steel coupons and fifteen aluminum coupons were weighed to attain initial weights. Bike soil was prepared using 1.6 grams of bike soil and 50 drops of Tri-flow lubricant. Each coupon was then soiled with 1.6 grams of bike soil and 50 drops of Tri-flow lubricant. Dirty weights were recorded. Three coupons were placed in the manual SLW machine at a time and sprayed twice each with the selected cleaner, as well as the paper towel. The coupons were then run for a total of 5 cycles. The process was repeated for all of the 30 coupons. After the cleaning process, the coupons were allowed to dry. Subsequently, the dried coupons were weighed to attain final weights.

Results:

Cleaner	Initial wt	Final wt	% Removed	%Average
Pro-Gold Degreaser Steel	0.1719	0.0099	94.24	
	0.2574	0.0209	91.88	
	0.2475	0.0134	94.59	93.57
Pedro's Oranj Peelz Steel	0.2628	0.0070	97.34	
	0.3059	0.0167	94.54	
	0.2986	0.0175	94.14	95.34
Pedro's Degreaser 13 Steel	0.3862	0.0182	95.29	
	0.3260	0.0413	87.33	
	0.2809	-0.0117	104.17	95.59
Pedro's Green Fizz Steel	0.5200	0.0236	95.46	
	0.4071	0.0072	98.23	
	0.2818	0.0084	97.02	96.90
White Lightning Clean Streak Steel	0.3676	0.0311	91.54	
	0.5533	0.0203	96.33	
	0.3292	0.0075	97.72	95.20
Pro-Gold Degreaser Aluminum	0.2761	0.0190	93.12	
	0.4549	0.5124	-12.64	
	0.3712	-0.4558	222.79	101.09
Pedro's Oranj Peelz Aluminum	0.4543	0.0231	94.92	
	0.5037	0.0249	95.06	

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	0.4093	0.0241	94.11	94.69
Pedro's Degreaser 13 Aluminum	0.5352	0.0206	96.15	
	0.4849	0.0193	96.02	
	0.2616	0.0235	91.02	94.40
Pedro's Green Fizz Aluminum	0.7770	0.0458	94.11	
	0.3967	0.0219	94.48	
	0.3612	0.0233	93.55	94.04
White Lightning Clean Streak Aluminum	0.5789	0.0291	94.97	
	0.7295	0.0367	94.97	
	0.5266	0.0229	95.65	95.20

Summary:

Substrates:	Aluminum, Stainless Steel
Contaminants:	Greases, Lubricating/Lapping Oils, Dirt

Company Name:	Product Name:	Conc.:	Efficiency:	Effective:	Observations:
Abc Compounding	Pro-gold Degreaser	100	97.33	☑	
Pedro's	Oranj Peelz	100	95.02	☑	
Pedro's	Degreaser 13	100	95.00	☑	
Pedro's	Green Fizz	100	95.47	☑	
White Lightning	Clean Streak (Aerosol)	100	95.20	☑	

Conclusion:

Overall all five of the cleaners were very effective at removing the bike soil from both stainless steel and aluminum. All of the cleaners had an average removal of above 93%, well above the optimal percentage removal of 85%.