

Testing for Overall Linseed Oil Reduction

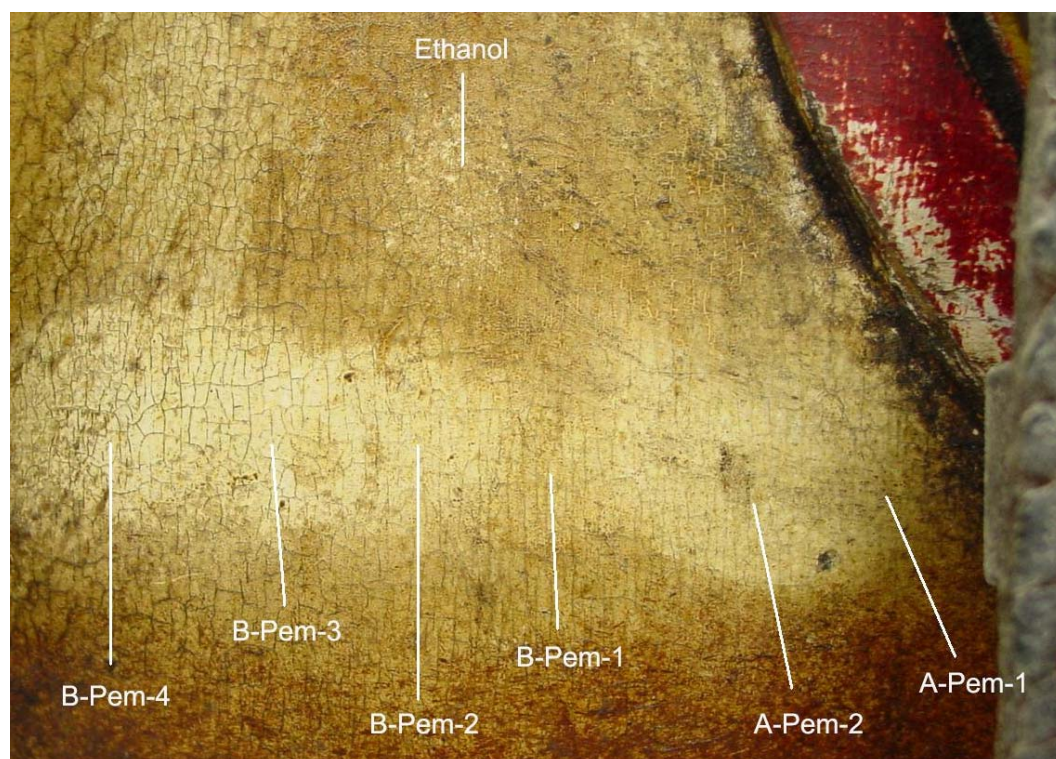
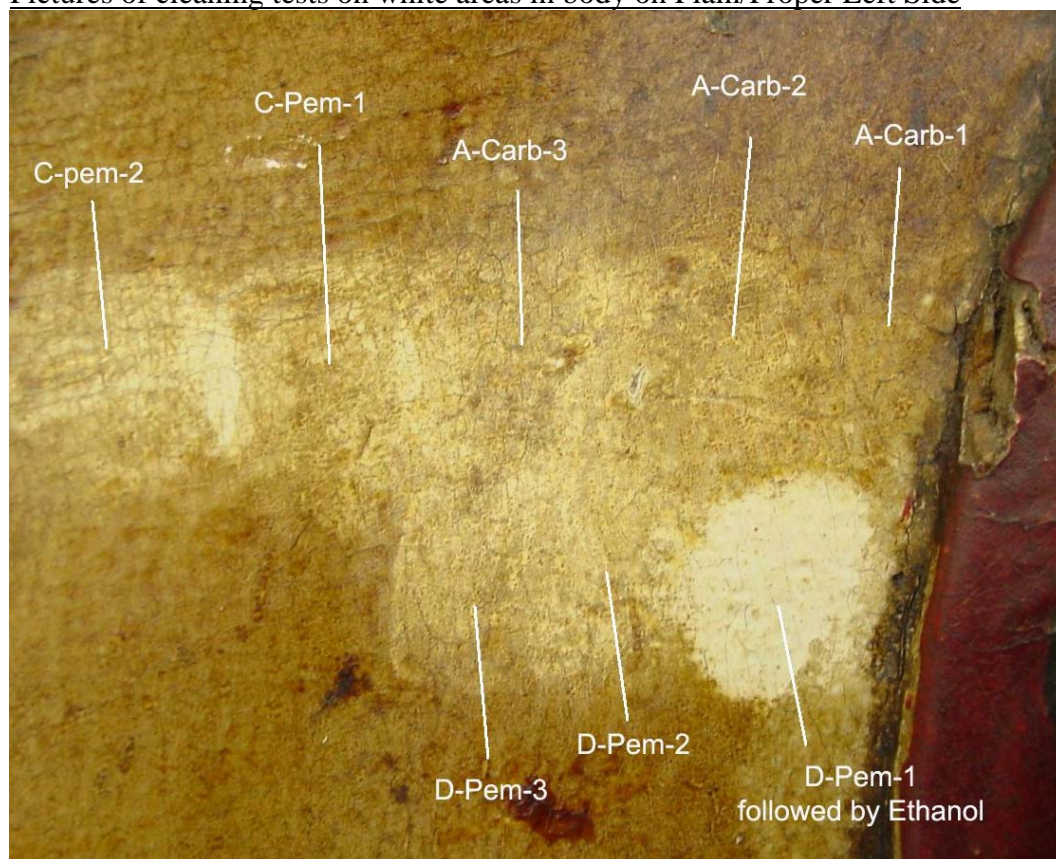
Paint Color in Area Tested	Solvent/ Gel/ Emulsion	Labels for Gels/ Emulsions	Time	Notes
White in body	Deionized Water			needs a lot of agitation, small amounts of grime and dirt, light brownish color
	Acetone			same as Deionized water
	Ethanol			same as Deionized water
	Petroleum Benzine			no linseed oil comes up, clean swab
	A-Pem 1 g Pemulen 20 mL of 2% Tris in deionized water 1 mL of TEA 100 mL deionized water	<i>A-Pem-1</i>	30 seconds	no significant linseed oil removal
		<i>A-Pem-2</i>	1 minute	darker brown removed, swirling, a yellow residue left on surface
	B-Pem 1 g Pemulen 5 mL TEA 5 mL 2% Tris in deionized water 100 mL deionized water	<i>B-Pem-1</i>	remove immediately	swab a medium dark brown color, works faster than A-Pem-2
		<i>B-Pem-2</i>	30 seconds	removes more than B-Pem-1 and almost as much as A-Pem-1
		<i>B-Pem-3</i>	45 seconds	Removes more than B-Pem-2 and A-Pem-2, swab dark brown,
		<i>B-Pem-4</i>	1 minute	cleans more than B-Pem-3, swab dark brown with grayish tones
	C-Pem 1 g Pemulen 10 mL of TEA 10 mL Benzyl Alcohol 100 mL deionized water	<i>C-Pem-1</i>	remove immediately	swab is medium brown with gray, cleans about the same as A-Carb-3
		<i>C-Pem-2</i>	30 seconds	Swab is medium dark brown, reveals some paint layer without removing the varnish layer, does not clean as well as B-Pem-1
	D-Pem 1 g of Pemulen 10 mL of TEA 3 mL of Ethanol 100 mL of deionized water	<i>D-Pem-1</i>	remove immediately	Swab is dark brown with gray, cleans unevenly, cleans better than B-Pem-1
		<i>D-Pem-2</i>	30 seconds	Swab is dark brown with gray, cleans unevenly, cleans same as D-Pem-1
		<i>D-Pem-3</i>	1 minute	swab is dark brown with gray, cleans unevenly and the same as D-Pem-1 and D-Pem-2
	A-Carb 1 g Carbopol 5 mL of TEA	<i>A-Carb-1</i>	remove immediately	swab is light brown, does not seem to pick up the linseed oil

5 mL of citric acid 100 mL deionized water	A-Carb-2	30 seconds	swab is light brown with gray, shows a little of the paint color without removing the varnish layer
	A-Carb-3	1 minute	swab is light medium brown with gray, shows more paint color without removing the varnish layer, clears more than A-Carb-2 but not as much as B-Pem-1
B-Pem-1 followed by Ethanol			removes a significant amount of linseed oil while leaving the varnish layer, I am still able to clean with Ethanol the next day after the B-Pem-1.
D-Pem-1 followed by Ethanol			removes more linseed oil than (B-Pem-1 followed by Ethanol), leaves varnish layer in tact, slight blanching Even though, I am still able to clean with Ethanol after having cleaned with the D-Pem-1 the previous day, I choose to clean immediately with Ethanol after the D-Pem-1
D-Pem-1 followed by Acetone			removes more linseed oil than (B-Pem-1 followed by Ethanol), leaves varnish layer in tact, cleans about the same amount as D-Pem-1 followed by Ethanol, no blanching Even though, I am still able to clean with Acetone after having cleaned with the D-Pem-1 the previous day, I choose to clean immediately with Acetone after the D-Pem-1.
<u>Catagorized by strength</u> <i>D-Pem-1 followed by Ethanol > D-Pem-1 followed by Acetone > B-Pem-1 followed by Ethanol > B-Pem-1 followed by Acetone > D-Pem-1 > B-Pem > A-Pem > C-Pem > A-Carb</i> (Sometimes used 1:1 Ethanol:Acetone Mix or Acetone, did not use C-Pem in cleaning, mostly used D-Pem followed by either Ethanol, Acetone or 1:1 mix of Ethanol:Acetone)			

Pictures of cleaning tests on white areas in body on Plain/Proper Left Side



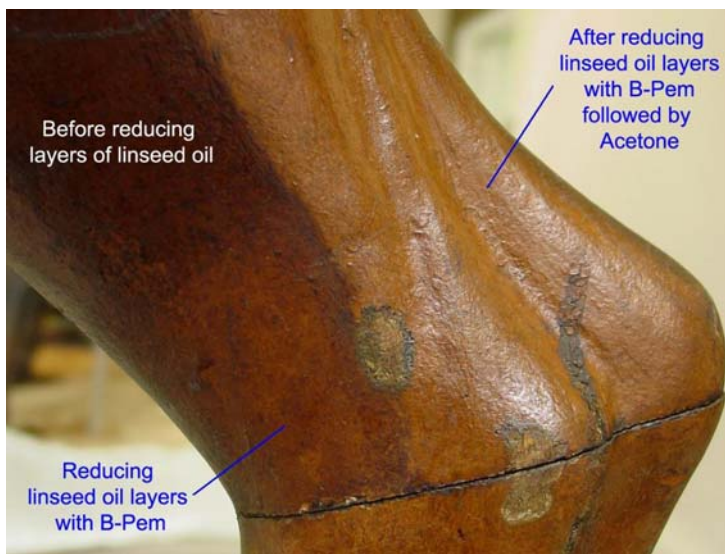
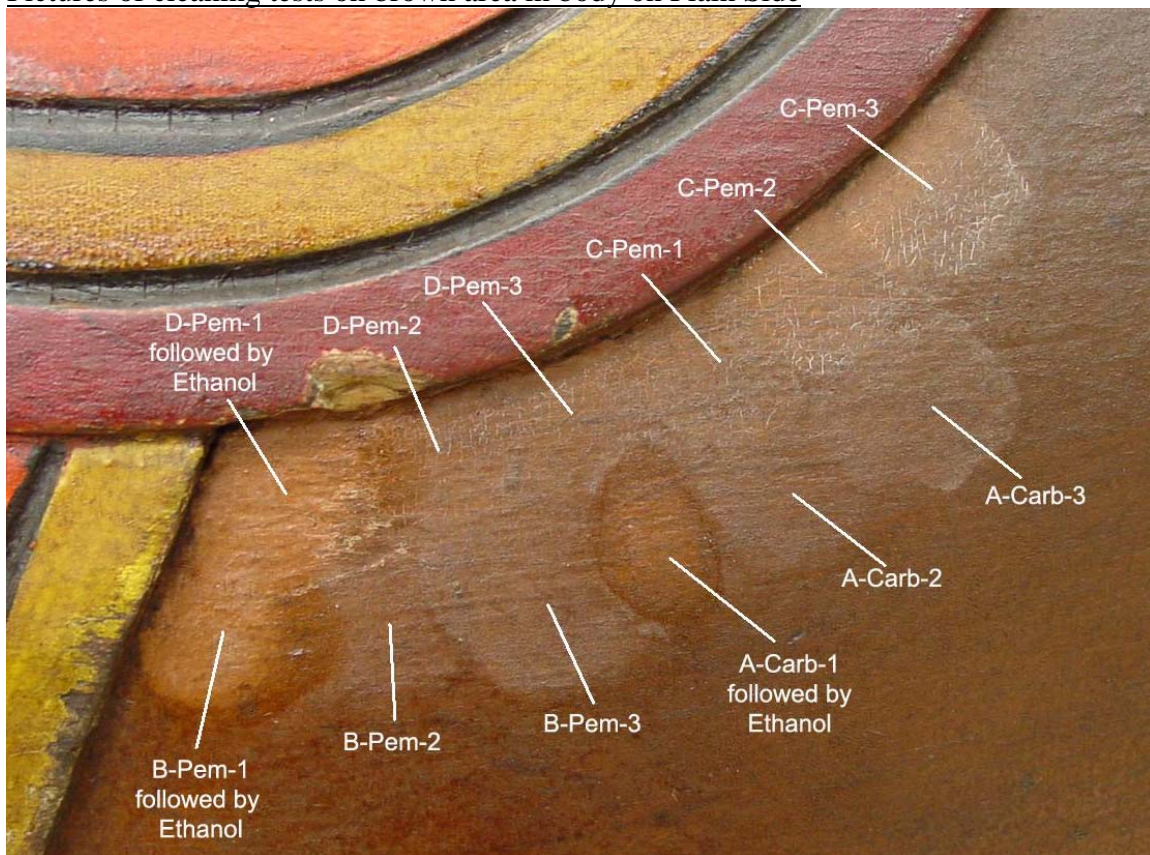
Pictures of cleaning tests on white areas in body on Plain/Proper Left Side



Paint Color in Area Tested	Solvent/ Gel/ Emulsion	Labels for Gels/ Emulsions	Time	Notes
Brown in body	Deionized Water			swab is a very light brown color, does not get to linseed oil
	Acetone			swab is light very light brown color slightly darker than the deionized water, able to clear some of the linseed oil layers with acetone after wetting the surface with deionized water
	Ethanol			more effective than acetone, need to leave on the surface longer,
	Isopropanol			swab is a dark brown gray, removes same amount as the acetone, does not really get to the linseed oil layer
	Petroleum Benzine			removes same amount as isopropanol
	B-Pem 1 g Pemulen 5 mL TEA 5 mL 2% Tris in deionized water 100 mL deionized water	<i>B-Pem-1</i>	remove immediately	swab is a light yellow brown with gray, no signs of blanching, cleans evenly
		<i>B-Pem-2</i>	30 seconds	swab is a darker medium yellow brown with gray, cleans evenly and better than B-Pem-1, no blanching
		<i>B-Pem-3</i>	1 minute	same as B-Pem-2 and D-Pem-1, D-Pem-2, and D-Pem-3
	C-Pem 1 g Pemulen 10 mL of TEA 10 mL Benzyl Alcohol 100 mL deionized water	<i>C-Pem-1</i>	remove immediately	swab is a light brown gray, cleans evenly, cleans about the same as D-Pem-3, leaves a little blanching,
		<i>C-Pem-2</i>	30 seconds	swab is a light brown gray, cleans a little better than C-Pem-1, blanching in interstices
		<i>C-Pem-3</i>	1 minute	swab is a medium brown gray, cleans better than C-Pem-2, shows more of paint color, blanching
	D-Pem 1 g of Pemulen 10 mL of TEA 3 mL of Ethanol 100 mL of deionized water	<i>D-Pem-1</i>	remove immediately	swab is a light brown yellow, cleans somewhat evenly, no blanching
		<i>D-Pem-2</i>	30 seconds	swab is a light brown yellow, cleans somewhat evenly, same level of cleaning as D-Pem-1
		<i>D-Pem-3</i>	1 minute	swab is a darker yellow brown than D-Pem-2, slightly cleaner than D-Pem-2

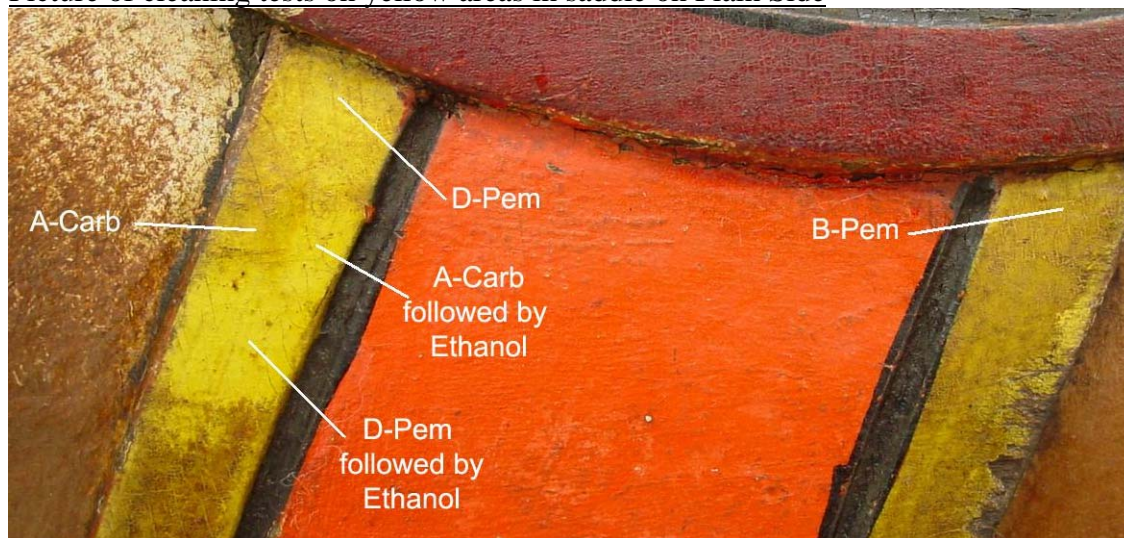
A-Carb 1 g Carbopol 5 mL of TEA 5 mL of citric acid 100 mL deionized water	A-Carb-1	remove immediately	swab is a light yellow brown, no blanching, clears evenly
	A-Carb-2	30 seconds	swab is a darker light yellow brown than A-Carb-1, no blanching, cleans evenly
	A-Carb-3	1 minute	same as A-Carb-2, no blanching, paint color is not seen as clearly as B-Pem
D-Pem-1 followed by Ethanol			works effectively, clears off more linseed oil than B-Pem-1 followed by ethanol, some blanching, used on thicker layers of linseed oil
B-Pem-1 followed by Ethanol			a little blanching, does make original paint color more visible,
B-Pem-1 applied once, followed by acetone			no blanching, cleans about the same as B-Pem-1 followed by Ethanol, I need agitate the acetone swab on the surface longer than I do with Ethanol
B-Pem-1 applied once, followed by A-Carb-1/A-Pem, followed by acetone			no blanching, cleans better than B-Pem-1 followed by acetone, used to clean thicker layers of linseed oil, medium strength
B-Pem-1 applied 2X, followed by acetone			no blanching, used this to clean thickest layers of linseed oil with less solvent, stronger than previous,
A-Carb-1 followed by acetone			no blanching, used to clean the thinner areas of linseed oil like in the upper parts of the neck on proper left, plain side of the horse.
Buffer by itself			used in the thinner areas of linseed oil, does not work as effectively as A-Carb-1
<u>Categorized by strength</u> <i>D-Pem-1 followed by Ethanol > D-Pem-1 followed by Acetone > B-Pem-1 followed by Ethanol > B-Pem-1 followed by Acetone > A-Carb-1 followed by acetone > D-Pem > C-Pem > B-Pem > A-Pem > A-Carb (Sometimes used 1:1 Ethanol:Acetone Mix or Acetone, did not use C-Pem for cleaning, overall, I thought B-Pem followed by acetone worked the best)</i>			

Pictures of cleaning tests on brown area in body on Plain Side



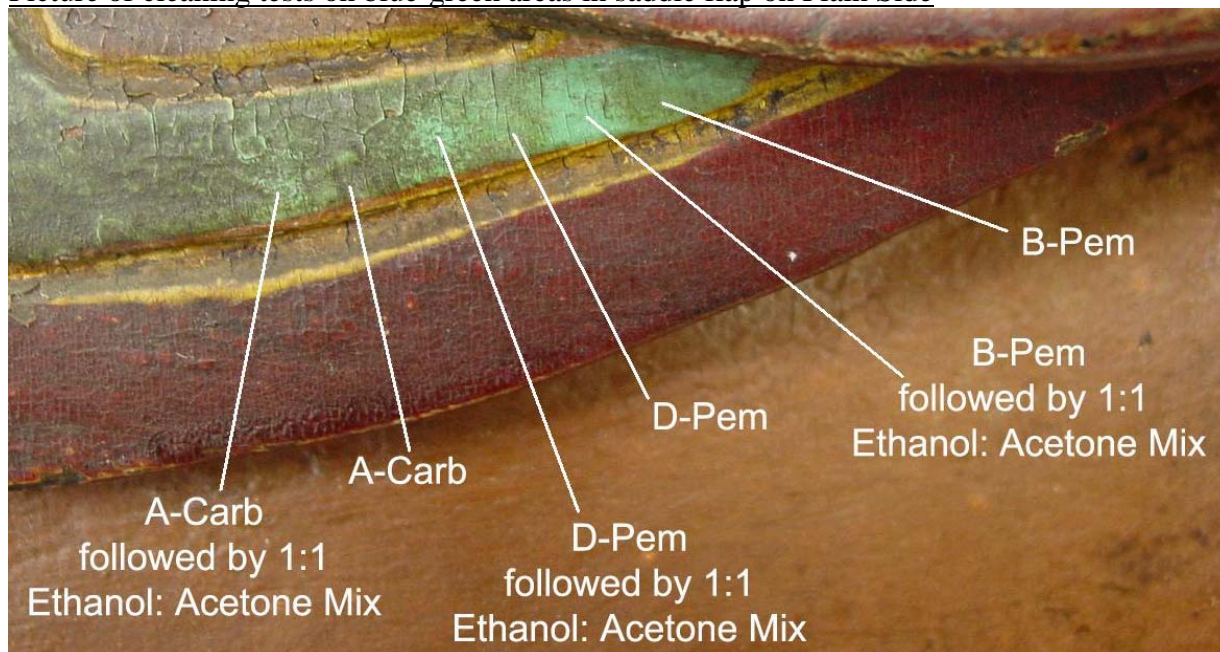
Paint Color in Area Tested	Solvent/ Gel/ Emulsion	Labels for Gels/ Emulsions	Time	Notes
Yellow in Saddle Straps/Girth	Acetone			removes a little, swab is light brown
	Ethanol			removes a little, swab is light brown
	1:1 mix Acetone: Ethanol			removes a little, swab is light brown
	<u>B-Pem</u> 1 g Pemulen 5 mL TEA 5 mL 2% Tris in deionized water 100 mL deionized water	<i>B-Pem</i>	remove immediately	remains grimy after cleaning, slight change in sheen, no significant change in continued agitation
	<u>D-Pem</u> 1 g of Pemulen 10 mL of TEA 3 mL of Ethanol 100 mL of deionized water	<i>D-Pem</i>	remove immediately	cleans evenly, makes paint color more readable, swab is light brown
	<u>A-Carb</u> 1 g Carbopol 5 mL of TEA 5 mL of citric acid 100 mL deionized water	<i>A-Carb</i>	remove immediately	cleans better than B-Pem-1 but not as well as D-Pem-1, cleans evenly, makes paint color more readable, swab is light brown
	D-Pem-1 followed by Ethanol			Ethanol removes the rest of the linseed oil layer down to varnish layer, a little blanching
	D-Pem-1 followed by 1:1 Ethanol:Acetone Mix			1:1 Ethanol: Acetone mix removes rest of linseed oil layer with less to no blanching
	A-Carb-1 followed by Ethanol			Ethanol removes the rest of the linseed oil layer down to varnish layer, a little blanching
	<u>Categorized by strength</u> <i>D-Pem followed by Ethanol > A-Carb followed by Ethanol > D-Pem > A-Carb > B-Pem (Sometimes used 1:1 Ethanol:Acetone Mix or Acetone, mostly used D-Pem-1 followed by 1:1 mix of Acetone: Ethanol)</i>			

Picture of cleaning tests on yellow areas in saddle on Plain Side



Paint Color in Area Tested	Solvent/ Gel/ Emulsion	Labels for Gels/ Emulsions	Time	Notes
Blue-green in Saddle Flap	B-Pem 1 g Pemulen 5 mL TEA 5 mL 2% Tris in deionized water 100 mL deionized water	<i>B-Pem</i>	remove immediately	swab a medium light brown color, swells the linseed oil, cleans evenly, effective after first pass--leaving a thin layer, continue to clean with buffer, reveals paint color
	D-Pem 1 g of Pemulen 10 mL of TEA 3 mL of Ethanol 100 mL of deionized water	<i>D-Pem</i>	remove immediately	swab is light brown, linseed oil swells a little, not as effective as B-Pem, takes off some sheen and grime, does not reveal original paint color
	A-Carb 1 g Carbopol 5 mL of TEA 5 mL of citric acid 100 mL deionized water	<i>A-Carb</i>	remove immediately	swab is yellow brown color, cleans about the same as D-Pem, not very effective, takes off some sheen and grime
	B-Pem-1 followed by 1:1 Ethanol:Acetone mix			no blanching, cleans evenly, reveals original paint color without removing too much of the varnish layer.
	<u>Categorized by strength</u> <i>B-Pem followed by Ethanol > B-Pem > D-Pem followed by Ethanol > A-Carb followed by Ethanol > D-Pem/A-Carb (mostly used B-Pem-1 followed by 1:1 mix of Acetone: Ethanol)</i>			

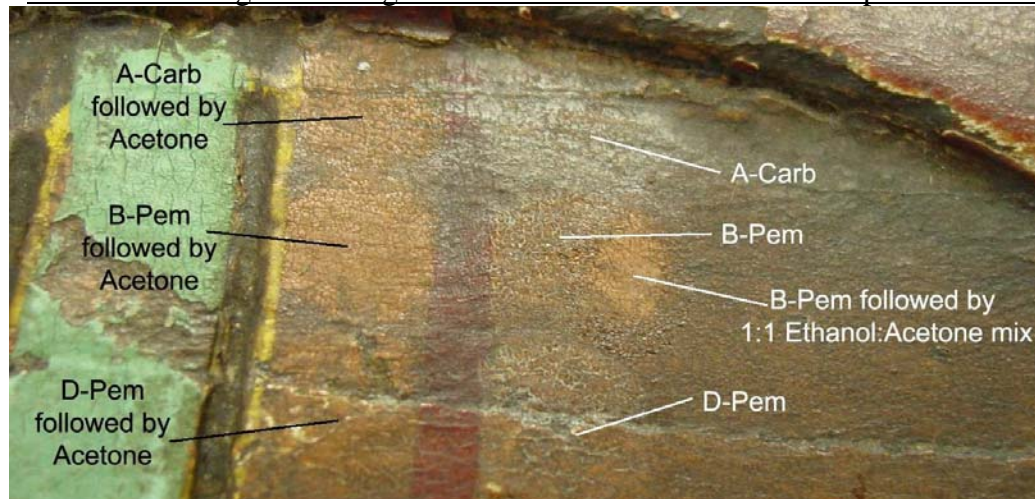
Picture of cleaning tests on blue-green areas in saddle flap on Plain Side



Paint Color in Area Tested	Solvent/ Gel/ Emulsion	Labels for Gels/ Emulsions	Time	Notes
Light Brown on Saddle seat and Saddle flap	B-Pem 1 g Pemulen 5 mL TEA 5 mL 2% Tris in deionized water 100 mL deionized water	<i>B-Pem</i>	remove immediately	swab is light/med brown, slight blanching, cleans better than A-Carb and A-Carb followed by Acetone, cleans evenly,
	D-Pem 1 g of Pemulen 10 mL of TEA 3 mL of Ethanol 100 mL of deionized water	<i>D-Pem</i>	remove immediately	cleans better than A-Carb, does not clean evenly, some blanching
	A-Carb 1 g Carbopol 5 mL of TEA 5 mL of citric acid 100 mL deionized water	<i>A-Carb</i>	remove immediately	swab is light brown, does not seem to pick up the linseed oil, cleans evenly,
	B-Pem-1 followed by 1:1 Ethanol: Acetone mix			cleans off as much linseed oil as B-Pem followed by acetone, some blanching
	B-Pem-1 followed by Acetone			no blanching, most effective out of all combinations
	D-Pem followed by Acetone			does not clean as well as B-Pem followed by acetone or as A-Carb followed by Acetone

A-Carb followed by Acetone			cleans better than D-Pem followed by acetone but not as well as B-Pem followed by acetone, reveals original color of paint,
<u>Categorized by strength</u> <i>B-Pem followed by acetone/B-Pem followed by 1:1 Acetone: Ethanol mix > A-Carb followed by Acetone > D-Pem followed by Acetone > B-Pem > D-Pem > A-Carb (mostly used B-Pem-1 followed by Acetone)</i>			

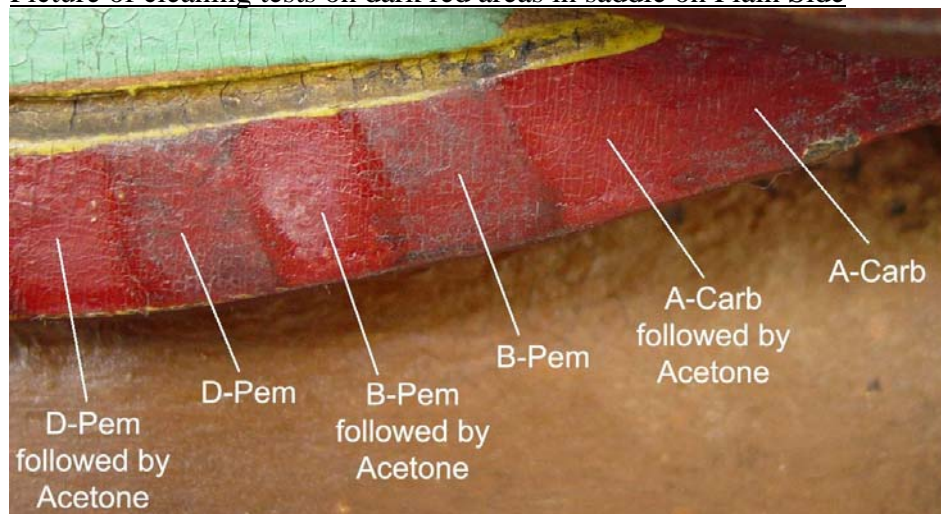
Picture of cleaning tests on light brown areas in saddle seat and flap on Plain Side



Paint Color in Area Tested	Solvent/ Gel/ Emulsion	Labels for Gels/ Emulsions	Time	Notes
Dark red on Saddle	<u>B-Pem</u> 1 g Pemulen 5 mL TEA 5 mL 2% Tris in deionized water 100 mL deionized water	<i>B-Pem</i>	remove immediately	swab is medium yellow-brown, does not seem to clear as well as A-Carb, can continue cleaning with buffer
	<u>D-Pem</u> 1 g of Pemulen 10 mL of TEA 3 mL of Ethanol 100 mL of deionized water	<i>D-Pem</i>	remove immediately	swab is medium dark brown, can continue cleaning with buffer, leaves behind same amount of linseed oil as B-Pem, does not clean as well as A-Carb
	<u>A-Carb</u> 1 g Carbopol 5 mL of TEA 5 mL of citric acid 100 mL deionized water	<i>A-Carb</i>	remove immediately	swab is dark brown, cleans evenly, leaves small amount of linseed oil behind, can continue cleaning with buffer, no red comes up
	B-Pem followed by Acetone			swab is dark brown, some blanching, can clean to the same level as A-Carb followed by acetone--needs a longer exposure to acetone

D-Pem followed by Acetone			swab is dark brown, longer exposure to acetone than with A-Carb, less blanching than B-Pem followed by acetone
A-Carb followed by Acetone			cleans to varnish layer, works better than B-Pem followed by acetone and D-Pem followed by acetone, no blanching
<u>Catagorized by strength</u> <i>A-Carb followed by acetone > D-Pem followed by acetone > B-Pem followed by Acetone > A-Carb > B-Pem/D-Pem (mostly used A-Carb-1 followed by Acetone)</i>			

Picture of cleaning tests on dark red areas in saddle on Plain Side



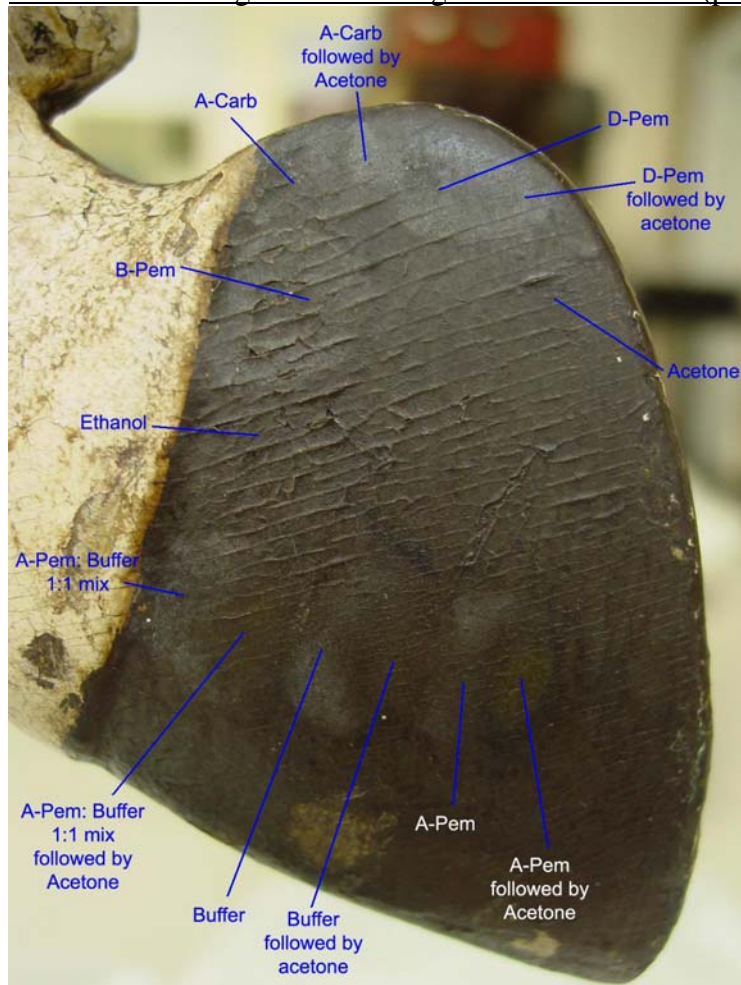
Paint Color in Area Tested	Solvent/ Gel/ Emulsion	Labels for Gels/ Emulsions	Time	Notes
Black in Mane	Petroleum Benzine			used to clean off wax drips
	B-Pem 1 g Pemulen 5 mL TEA 5 mL 2% Tris in deionized water 100 mL deionized water	<i>B-Pem</i>	remove immediately	swab is dark brown, does not seem to swell linseed oil
	D-Pem 1 g of Pemulen 10 mL of TEA 3 mL of Ethanol 100 mL of deionized water	<i>D-Pem</i>	remove immediately	swab is dark brown, works better than B-Pem, does swell linseed oil, a little too strong, some black pigment comes up, some blanching
	A-Carb 1 g Carbopol 5 mL of TEA 5 mL of citric acid 100 mL deionized water	<i>A-Carb</i>	remove immediately	cleans and leaves enough linseed oil behind, does not blanch, appears shinier after clearing,

	<u>Buffer (by itself)</u> 5 g TEA 100 mL deionized water add 5% citric acid till pH is 7.5			works about the same as B-Pem
	1:1 mix of B-Pem:Buffer			stronger than B-Pem by itself, a lot of brown on swab, cannot apply two times
	A-Carb followed by Acetone			cleans better than A-Carb by itself, no blanching
	<u>Catagorized by strength</u> <i>D-Pem > A-Carb followed by acetone > A-Carb > 1:1 mix of B-Pem: Buffer > A-Carb > B-Pem (mostly used A-Carb)</i>			

Paint Color in Area Tested	Solvent/ Gel/ Emulsion	Labels for Gels/ Emulsions	Time	Notes
Dark green-brown in hooves	<u>A-Pem</u> 1 g Pemulen 20 mL of 2% Tris in deionized water 1 mL of TEA 100 mL deionized water	<i>A-Pem</i>	Remove immediately	swab is a light yellow brown, blanching
	<u>B-Pem</u> 1 g Pemulen 5 mL TEA 5 mL 2% Tris in deionized water 100 mL deionized water	<i>B-Pem</i>	remove immediately	swab is light brown, does not swell linseed oil, cleans more effectively than A-Carb
	<u>D-Pem</u> 1 g of Pemulen 10 mL of TEA 3 mL of Ethanol 100 mL of deionized water	<i>D-Pem</i>	remove immediately	swab is a very light brown, not as effective as A-Carb, does not seem to swell linseed oil
	<u>A-Carb</u> 1 g Carbopol 5 mL of TEA 5 mL of citric acid 100 mL deionized water	<i>A-Carb</i>	remove immediately	swab is light brown, clears mostly loose grime, does not seem to swell linseed oil
	A-Pem followed by acetone			reveals brown green color of hooves, no blanching, cleans evenly

1:1 mix of A-Pem:Buffer solution			cleans a little better than B-Pem, not much blanching
1:1 mix of A-Pem:Buffer solution followed by acetone			no blanching, cleans to paint layer, not as effective as A-Pem followed by acetone
(General) B150Buffer			swab is a light yellow brown, blanching, cleans more than 1:1 mix of A-Pem:Buffer
B-Pem, D-Pem, and A-Carb followed by Acetone			acetone does not remove any more
<u>Categorized by strength</u> <i>A-Pem followed by acetone > 1:1 mix of A-Pem: Buffer followed by acetone > Buffer followed by acetone > A-Pem > 1:1 mix of A-Pem: Buffer > Buffer > B-Pem > A-Carb > D-Pem (mostly used A-Pem followed by Acetone)</i>			

Picture of cleaning tests on dark-green brown of hoof (proper left front hoof)



Paint Color in Area Tested	Solvent/ Gel/ Emulsion	Labels for Gels/ Emulsions	Time	Notes
Bright Red in Saddle flaps and saddle blankets -- tests done on Plain Side/ Proper Left Side unless otherwise noted	Deionized Water			nothing came up
	Acetone			removes small amount, dirt, swab light brown, removal probably attributed to agitation
	Ethanol			removes small amount, uneven cleaning, swab very light brown, becomes a darker brown with continued agitation (30-45 seconds)
	Isopropanol			a little yellow comes up, not efficient for cleaning
	Petroleum Benzine			nothing comes up even with continued agitation
	A-Pem 1 g Pemulen 20 mL of 2% Tris in deionized water 1 mL of TEA 100 mL deionized water	<i>A-Pem-1</i>	remove immediately	swab is light yellow brown with gray, does not clean as well as C-Pem-1, continues cleaning a little more with buffer on <i>Romance Side/Proper Right</i> -- the most effective at clearing the linseed oil without picking up the red
		<i>A-Pem-2</i>	30 seconds	light yellow brown with gray, cleans same as A-Pem-1
		<i>A-Pem-3</i>	1 minute	cleans same as A-Pem-1 and A-Pem-2
	B-Pem 1 g Pemulen 5 mL TEA 5 mL 2% Tris in deionized water 100 mL deionized water	<i>B-Pem-1</i>	remove immediately	swab is medium brown with gray, cleans a little more than A-Pem
		<i>B-Pem-2</i>	30 seconds	swab is darker medium yellow-brown with gray, no appreciable difference from B-Pem-1
		<i>B-Pem-3</i>	1 minute	swab is medium brown with a little gray, not much difference from B-Pem-1,-2
	C-Pem 1 g Pemulen 10 mL of TEA 10 mL Benzyl Alcohol 100 mL deionized water	<i>C-Pem-1</i>	remove immediately	swab is medium brown with gray, cleans better than A-Carb-3, cleans better than ethanol by itself, does not clean evenly
		<i>C-Pem-2</i>	30 seconds	swab is medium brown with gray, cleans a little better than C-Pem-1, does not clean evenly
		<i>C-Pem-3</i>	1 minute	swab is medium brown with gray and yellow, cleans a little better than C-Pem-2, does not clean evenly, but cleans a little more evenly than ethanol

D-Pem 1 g of Pemulen 10 mL of TEA 3 mL of Ethanol 100 mL of deionized water	<i>D-Pem-1</i>	remove immediately	swab is light brown yellow, no appreciable difference from B-Pem, less sheen
	<i>D-Pem-2</i>	1 minute	swab is medium brown yellow, cleans more than D-Pem-1, does not clean as well as C-Pem, but cleans more evenly,
	A-Carb 1 g Carbopol 5 mL of TEA 5 mL of citric acid 100 mL deionized water	<i>A-Carb-1</i>	remove immediately swab is light yellow brown, continues to clean with buffer, removes sheen <i>on Romance/Proper Right side-- too sensitive, picks up some pigment</i>
		<i>A-Carb-2</i>	30 seconds swab is light yellow brown, cleans more than A-Carb-1
		<i>A-Carb-3</i>	1 minute swab is a darker yellow brown than A-Carb-2, cleans better than A-Carb-2
	B-Carb Mix of 1 g Carbopol Carbopol 934 5 mL of TEA in deionized water 5 mL of citric acid ammonium hydroxide pH 11 100 mL deionized water mix to pH 8.5	<i>B-Carb-1</i>	remove immediately dot onto dark spots/black spots that could not be removed with normal aqueous cleaning gels or solvents, clear with general buffer and deionized water.
			some red pigment comes off, slight blanching
			swab is dark brown, no red comes up, very slight blanching
			swab is dark brown, no red comes up, some blanching- more than D-Pem-1
			swab is dark brown, no red comes up, no blanching.
			<i>on Romance/Proper Right side -- cleans more effectively than A-Pem,</i>
			<i>on Romance/Proper Right side -- cleans more effectively than Buffer by itself, does not pick up the red, used for the saddle flap</i>
			<i>on Romance/Proper Right side-- picks up some red</i>

CATAGORIZED BY STRENGTH

Plain Side (Proper Left Side)

C-Pem followed by Ethanol > D-Pem-2 followed by Ethanol > D-Pem-1 followed by Ethanol > D-Pem-1 followed by Acetone > C-Pem > D-Pem-2 > Ethanol > Carb > A-Pem/B-Pem

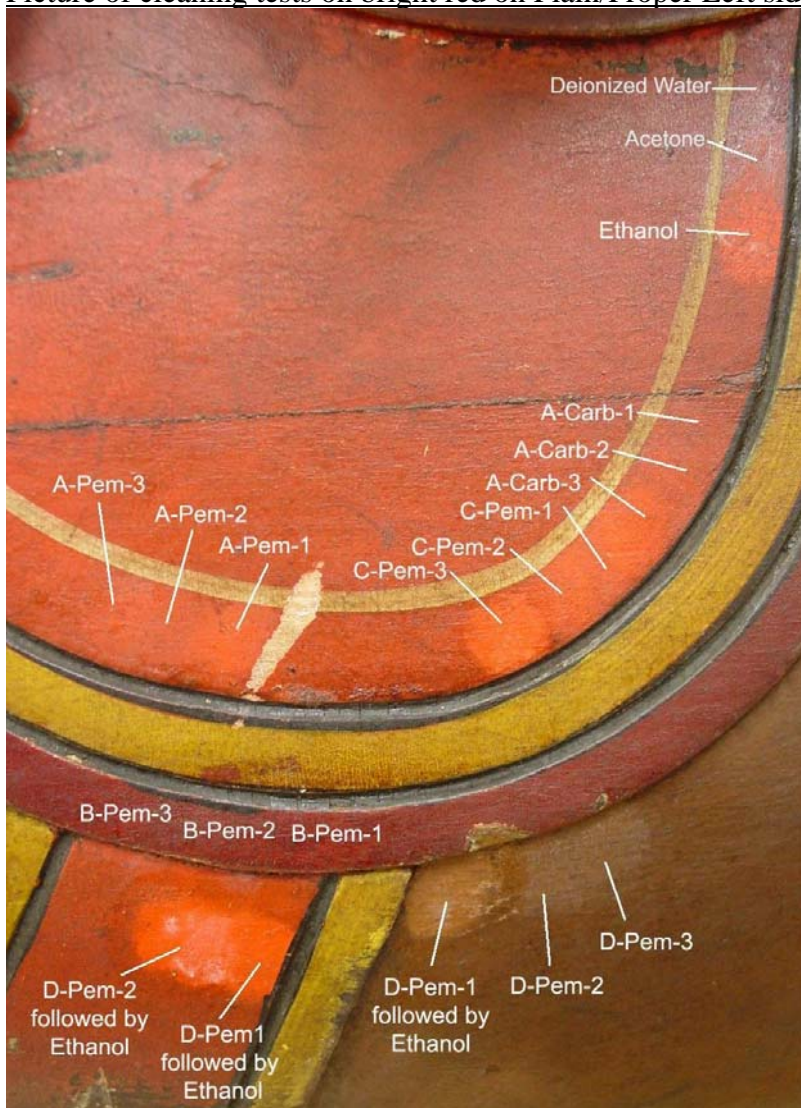
(Did not use C-Pem, used mostly D-Pem-1 followed by Ethanol, Acetone, or 1:1 mix of Ethanol:Acetone)

Romance Side (Proper Right Side)

A-Carb > 1:1 mix of Buffer:A-Pem > Buffer > A-Pem

(used mostly the 1:1 mix of Buffer: A-Pem)

Picture of cleaning tests on bright red on Plain/Proper Left side



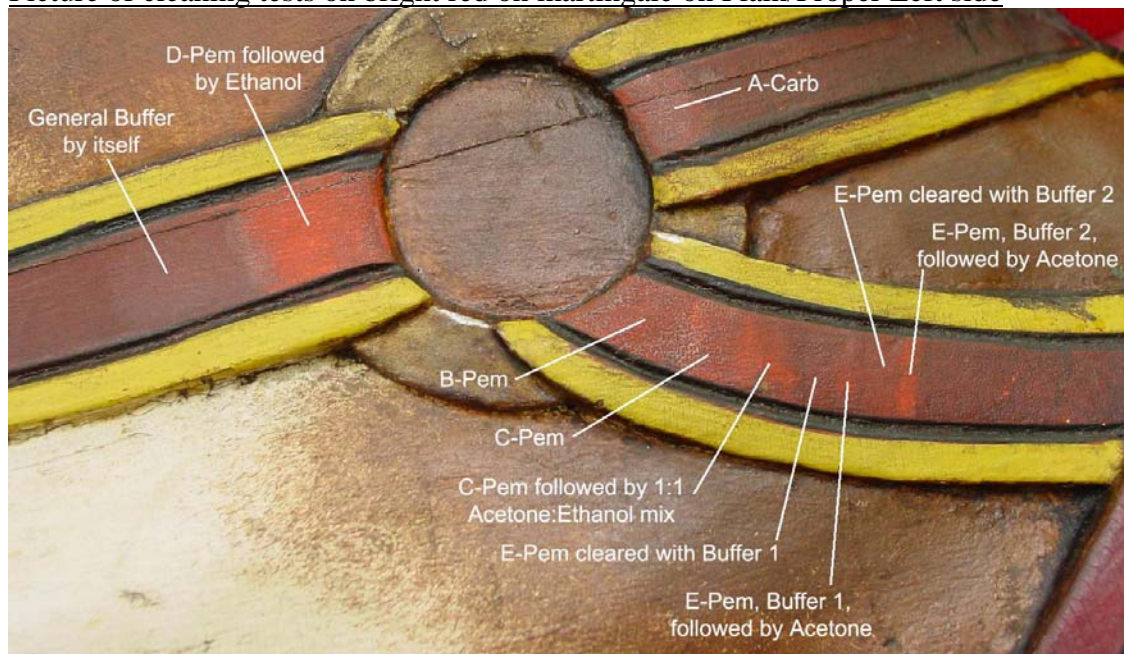
Picture of cleaning on Saddle blanket on Romance/Proper Right side



Paint Color in Area Tested	Solvent/ Gel/ Emulsion	Labels for Gels/ Emulsions	Time	Notes
Bright Red in Martingale	1:1 Acetone:Isopropanol			swab is light brown, less sheen on surface, not effective, can not read paint color
	1:1 Ethanol: Acetone			cleans unevenly, a little red comes up-- but less red than with the gels
	B-Pem 1 g Pemulen 5 mL TEA 5 mL 2% Tris in deionized water 100 mL deionized water	<i>B-Pem</i>	remove immediately	first pass- takes off linseed oil, uneven cleaning second pass- picks up some red, uneven cleaning
	C-Pem 1 g Pemulen 10 mL of TEA 10 mL Benzyl Alcohol 100 mL deionized water	<i>C-Pem</i>	remove immediately	cleans unevenly, blanches, also picks up red-- like with two passes of B-Pem
	D-Pem 1 g of Pemulen 10 mL of TEA 3 mL of Ethanol 100 mL of deionized water	<i>D-Pem</i>	remove immediately	

<p><u>E-Pem</u> 1:1 mix</p> <p>1 g Pemulen TR2 3 mL TEA 100 mL deionized water</p> <p>1 g Pemulen 1 mL TEA 20 mL TRIS 100 mL deionized water</p>	<i>E-Pem</i>	remove immediately	<p>Cleared with <u>Buffer 1</u> Concentrate (5x) 3.03 g TRIS 12 mL 10% acetic acid</p> <p>swab is light brown, no red comes up, cleans evenly, still leaves black grime in crevices of paint brush strokes</p>
			<p>Cleared with <u>Buffer 2</u> -stronger than Buffer1 Concentrate (5x) 9 g TEA 6 drops of glacial acetic acid 100 mL deionized water</p> <p>clears more than E-Pem and Buffer 1, cleans evenly, no red comes up.</p>
<p><u>A-Carb</u> 1 g Carbopol 5 mL of TEA 5 mL of citric acid 100 mL deionized water</p>	<i>A-Carb</i>	remove immediately	takes up a small amount of red
<p><u>B-Carb</u> Mix of</p> <p>1 g Carbopol 5 mL of TEA 5 mL of citric acid 100 mL deionized water</p> <p>Carbopol 934 in deionized water ammonium hydroxide pH 11</p> <p>mix to pH 8.5</p>	<i>B-Carb</i>	remove immediately	dot onto dark spots/black spots that could not be removed with normal aqueous cleaning gels or solvents, clear with general buffer and deionized water.
D-Pem followed by Ethanol			picks up some red
(General) Buffer			seems to clear off the grime and dust, does not swell linseed oil layers, does not pick up red
<p><u>Categorized by Strength</u> (I only included the ones that I used)</p> <p>E-Pem cleared with Buffer 2 > E-Pem cleared with Buffer 1 > General Buffer</p> <p>B-Carb was used on dark spots (possibly an epoxy)</p>			

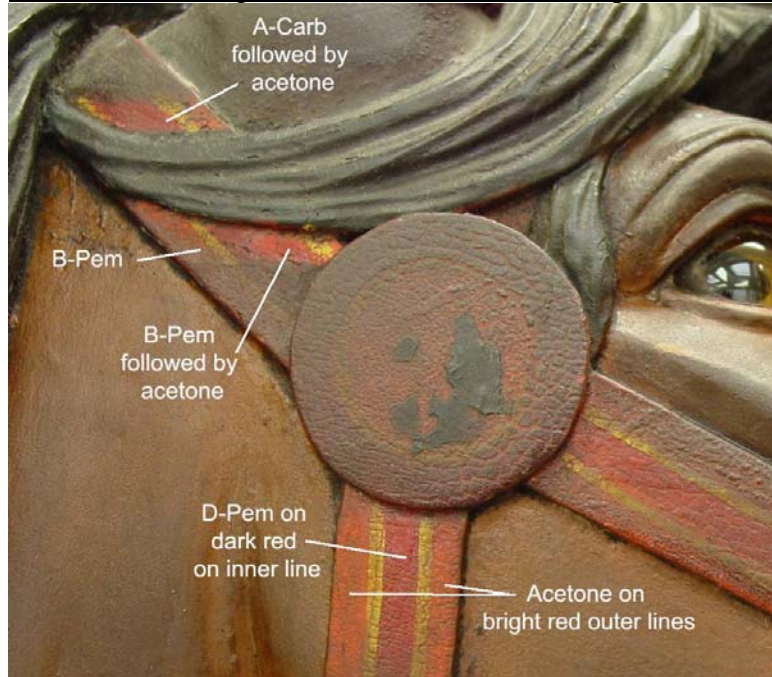
Picture of cleaning tests on bright red on martingale on Plain/Proper Left side



Paint Color in Area Tested	Solvent/ Gel/ Emulsion	Labels for Gels/ Emulsions	Time	Notes
Bright Red in Bridle and nose strap	Deionized Water			Only small amounts of dirt and grime come up with deionized water by itself, paint becomes sensitive to deionized water after application of the aqueous gels
	Acetone			Acetone, by itself, picks up some grime, but it is not efficient. After one application of the aqueous gel, the acetone was applied after allowing the area to dry. Fumigation with acetone continued to reduce the linseed oil layers.
	Ethanol			picks up some grime After first application of any aqueous gel, the paint becomes sensitive to ethanol
	Petroleum Benzine			is effective at removing wax, but does not swell the linseed layers
	A-Pem 1 g Pemulen 20 mL of 2% Tris in deionized water 1 mL of TEA 100 mL deionized water	<i>A-Pem</i>	remove immediately	I tested this aqueous gel, after having already reduced some of the linseed oil layers with a different aqueous gel. A-Pem picks up some red pigment

<u>B-Pem</u> 1 g Pemulen 5 mL TEA 5 mL 2% Tris in deionized water 100 mL deionized water	<i>B-Pem</i>	remove immediately	swells the linseed oil, but does not clean evenly
<u>C-Pem</u> 1 g Pemulen 10 mL of TEA 10 mL Benzyl Alcohol 100 mL deionized water	<i>C-Pem</i>	remove immediately	too strong, picks up linseed oil and paint
<u>D-Pem</u> 1 g of Pemulen 10 mL of TEA 3 mL of Ethanol 100 mL of deionized water	<i>D-Pem</i>	remove immediately	too strong, picks up linseed oil and paint
<u>E-Pem</u> 1:1 mix 1 g Pemulen TR2 1 g Pemulen 3 mL TEA 1 mL TEA 100 mL deionized 20 mL TRIS water 100 mL deionized water	<i>E-Pem</i>	remove immediately	Cleared with <u>Buffer 2</u> -stronger than Buffer1 Concentrate (5x) 9 g TEA 6 drops of glacial acetic acid 100 mL deionized water used on areas where the linseed oil has been thinned already with the first application of an aqueous gel
<u>A-Carb</u> 1 g Carbopol 5 mL of TEA 5 mL of citric acid 100 mL deionized water	<i>A-Carb</i>	remove immediately	does not clean as effectively as B-Pem, but cleans more evenly
<u>B-Carb</u> Mix of 1 g Carbopol Carbopol 934 5 mL of TEA in deionized water 5 mL of citric ammonium acid hydroxide pH 11 100 mL deionized water mix to pH 8.5	<i>B-Carb</i>	remove immediately	dot onto dark spots/black spots that could not be removed with normal aqueous cleaning gels or solvents, clear with general buffer and deionized water.
<p><u>Categorized by Strength</u> (I only included the ones that I used)</p> <p>B-Pem > A-Carb > E-Pem cleared with Buffer 2 > General Buffer > Acetone (fumigation done after initial cleaning with aqueous gels)</p> <p>B-Carb was used on dark spots (possibly an epoxy)</p>			

Picture of cleaning tests on bridle and nose strap on Romance/Proper Right side



Paint Color in Area Tested	Solvent/ Gel/ Emulsion	Labels for Gels/ Emulsions	Time	Notes
Dark Red in Bridle and nose strap	Deionized Water			picks up some grime, does not swell linseed oil, after application of aqueous gels, the paint becomes sensitive to water
	Acetone			picks up some grime, does not swell linseed oil, after application of aqueous gels, acetone can still be used to pick up linseed oil and some varnish, fumigation with acetone can be used in this area as well
	Ethanol			picks up some grime, does not swell linseed oil, after application of aqueous gels, the paint becomes sensitive to ethanol
	Petroleum Benzine			can be used to reduce wax drips, does not swell linseed oil, does not pick up grime
	A-Pem 1 g Pemulen 20 mL of 2% Tris in deionized water 1 mL of TEA 100 mL deionized water	<i>A-Pem</i>	remove immediately	I tested this aqueous gel, after having already reduced some of the linseed oil layers with a different aqueous gel. A-Pem picks up some red pigment

<u>B-Pem</u> 1 g Pemulen 5 mL TEA 5 mL 2% Tris in deionized water 100 mL deionized water	<i>B-Pem</i>	remove immediately	swells the linseed oil, but does not clean evenly
<u>C-Pem</u> 1 g Pemulen 10 mL of TEA 10 mL Benzyl Alcohol 100 mL deionized water	<i>C-Pem</i>	remove immediately	too strong, picks up linseed oil and paint
<u>D-Pem</u> 1 g of Pemulen 10 mL of TEA 3 mL of Ethanol 100 mL of deionized water	<i>D-Pem</i>	remove immediately	swells linseed oil layers, and picks up varnish. In some areas, the D-Pem is too strong.
<u>A-Carb</u> 1 g Carbopol 5 mL of TEA 5 mL of citric acid 100 mL deionized water	<i>A-Carb</i>	remove immediately	not as strong as B-Pem, but clears a little more evenly
<u>B-Carb</u> Mix of 1 g Carbopol Carbopol 934 5 mL of TEA in deionized water 5 mL of citric ammonium acid hydroxide pH 11 100 mL deionized water mix to pH 8.5	<i>B-Carb</i>	remove immediately	dot onto dark spots/black spots that could not be removed with normal aqueous cleaning gels or solvents, clear with general buffer and deionized water.
<u>E-Pem</u> 1:1 mix 1 g Pemulen TR2 1 g Pemulen 3 mL TEA 1 mL TEA 100 mL deionized 20 mL TRIS water 100 mL deionized water	<i>E-Pem</i>	remove immediately	Cleared with <u>Buffer 2</u> -stronger than Buffer1 Concentrate (5x) 9 g TEA 6 drops of glacial acetic acid 100 mL deionized water used on areas where the linseed oil has been thinned already with the first application of an aqueous gel
<p><u>Catagorized by Strength</u> (I only included the ones that I used)</p> <p>B-Pem > A-Carb > E-Pem cleared with Buffer 2 > General Buffer > Acetone (fumigation done after initial cleaning with aqueous gels)</p> <p>B-Carb was used on dark spots (possibly an epoxy)</p>			