Ilion, New York April 1, 1968

TO: W. E. LREK

PROM: P. H. ECCLESTON

WD-40 GUM OIL Rocket Chemical Co., Inc., San Diego, Calif.

Evaluation of the sample gun oil submitted is complete. The tests included effect of the oil on materials normally encountered in guns and its ability to provide corrosion resistance.

Results of these tests are summarised as follows:

- 1. The sample gun oil has no adverse effect on Rubber Phenolic General Purpose Phenolic Tenite Mylon Delrin Cycolac and RK-W finish after 48 hours exposure.
- 2. The test oil showed good properties with regard to providing corrosion resistance.
- 3. In this test, Dulite Oil was superior to all other oils included.

Details of the Corrosion test follow:

Samples: Shotgun barrel sections finished through standard black oxide.

Costings: A - Control - no oil
B - Dulite EZ Oil
C - Plant oil

D - Hoppe's No. 9 E - WD-40

Method of Application: Dip cost.

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Test #1

All samples subjected to the environmental cabinet running 90% R.H. at 1200F dry bulb for 6 days.

Result: No failures.

Test #2

Samples subjected to Salt Spray using 5% salt solution at 95°F for a maximum of 5 hours. Samples inspected for signs of rust each hour.

Results: Control Pailed at 1 hour.

Dulite Ho failure after 5 hours.

Plant Oil Failed at 2 hours.

Hoppe's Pailed at 3 hours.

WD-40 Failed at 4 hours.

Test #3

The Dulite sample with no failure was allowed to remain in the salt spray cabinet without spray until failure.

Results: Within 24 hours - failed.

PHE:c Plastics Research Lab.