

**RJR INTEROFFICE MEMORANDUM**

March 25, 1996

To: Ms. Lynn Beasley  
Mr. Cliff Pennell

Re: Product Moisture

Attached is information regarding product moisture that was reviewed with Ove on Friday, March 22. Attached also are the agreed to next steps.

  
Skip Tinsley

xc: Mr. Denny Potter  
Mr. Percy Phillips  
Mr. Rudy Cook  
Mr. Hal Guess  
Dr. Carl Ehmann  
Mr. Doug Weber

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1. **Product Age at Retail Report indicates**

3/22/96

- The age of product in market is older in 1995 than in 1990.
- Pack moisture at retail show RJR product declining and large variations.
  - The sample is too small to draw conclusions.

2. **Do we have other data on our moisture performance vs competition?**

**Pack seal from competitive audit parity (att)**

**Quarterly Moisture Data from competitive audit parity (att)**

- This is two month old product in carton at jobber.

**%moisture 4Q Avg**

<b>CAMEL LT</b>	<b>12.0</b>
<b>WINSTON SELECT LT</b>	<b>12.23</b>
<b>Marlboro LT</b>	<b>11.6</b>

**Aging Studies**

- **Winston vs. Marlboro (1990)** Winston declines 3.4% Marlboro 2.9% at 6 months. APET Salem declines .75% in 5 months and 3.75% in polypropylene. (att3,4)

3. **Is taste Impacted by age of product?**

**Key Findings In 1987 Study**

- **Conclusions :** Based on this report by Cindi Davis it was recommended to reduce shelf policy for all brand styles to 6 months in hot/arid and hot/humid climates and 8 months retail policy in normal climate.
- **Acceptance:** In general at 5 - 8 months age the products had lower +70 scores.
- **Attributes:** In general products were harsher and stronger.

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## Summary

- The production of RJR products are in control for moisture at time of manufacture.
- Competitive audit indicates our products are comparable to Marlboro at 2 months age at jobbers.
- Controlled studies indicate both Winston and Marlboro lose moisture over 6 months in polypropylene film. Winston loses 3.4% and Marlboro loses 2.9%.
- Controlled studies indicate APET improved moisture. Poly Salem lost 3.75% in 5 months and .75% in APET.
- Environmental conditions at retail vary significantly.
  - Tax Stamping Issue:
    - Basically we have control of the pack until it leaves the carton, but once in pack form the environment has a significant impact.
- Previous testing in 1987 indicates a shelf life of 6 to 8 months.
- There is considerable data that indicates taste/dry and stale complaints get worse after 6 months.

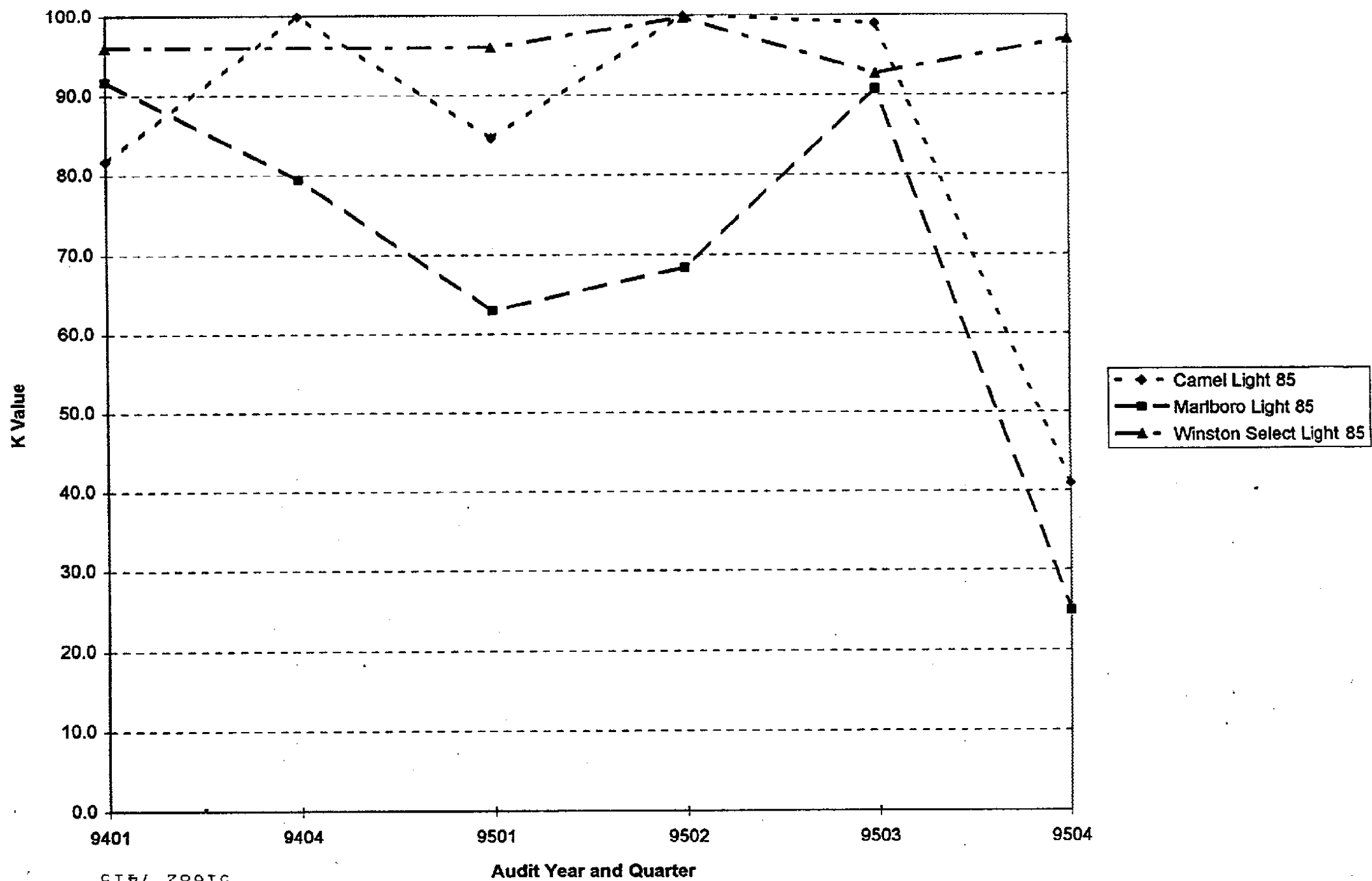
## Next steps

### Product Aging Studies

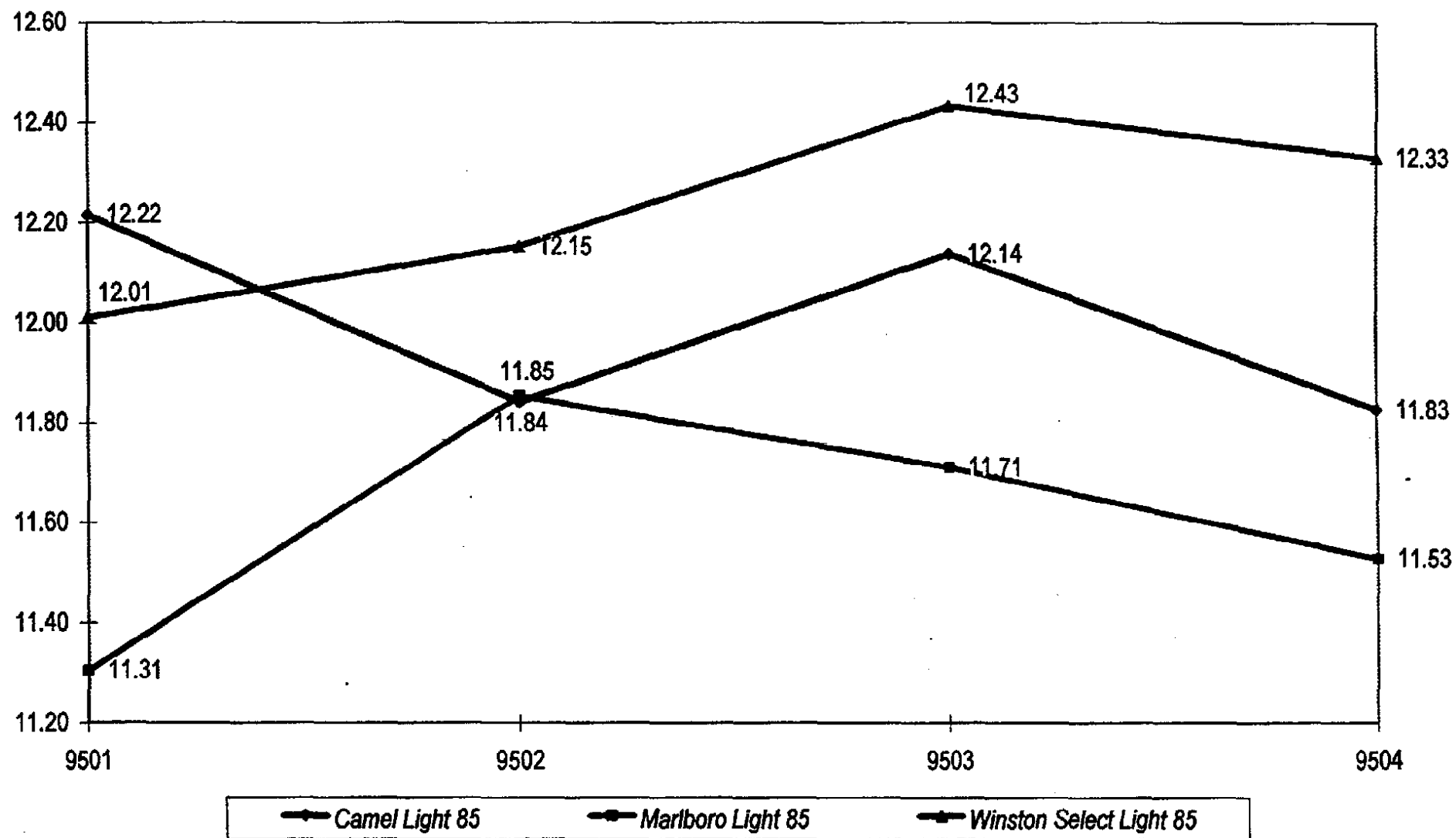
- Complete product aging studies for Camel, Winston, Marlboro for open and closed packs.
  - In Pack
  - Open Packs
- Evaluate QA quarterly audit to determine if we need to be picking up packs at retail.
- Complete a study of packs at retail for Camel, Winston and Marlboro to determine moisture level.

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# Pack Seals (K Value)



**% Pack Moisture 1Q95 - 4Q95**



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MOISTURE LOSS AGING STUDY  
76F/34RH  
RETAIL SHELF CONDITIONS  
POLYPROPYLENE FILM

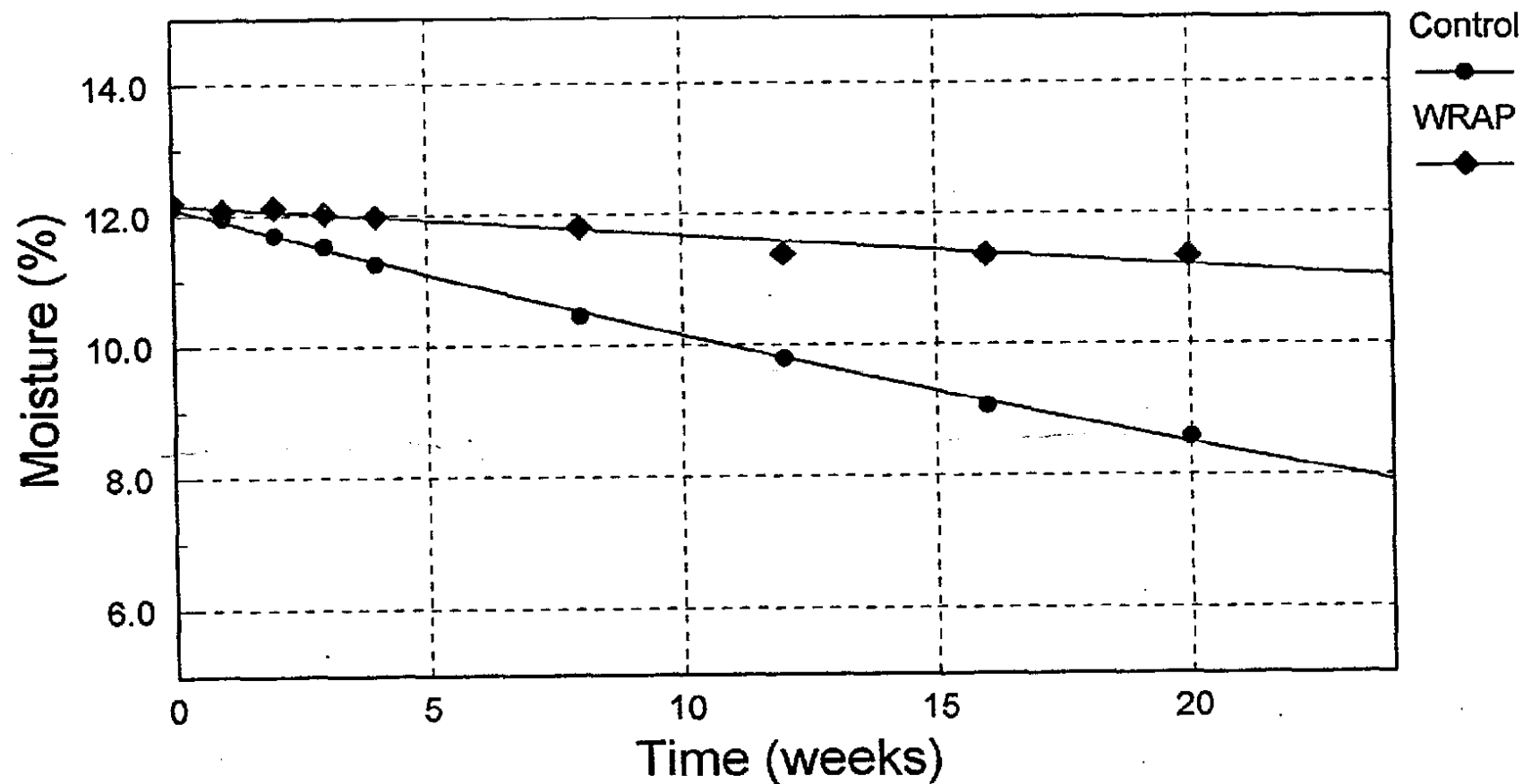
	<u>OLD WINSTON</u>		<u>NEW WINSTON</u>		<u>MARLBORO</u>	
<u>Week</u>	<u>Actual Moisture</u>	<u>Moisture Loss%</u>	<u>Actual Moisture</u>	<u>Moisture Loss%</u>	<u>Actual Moisture</u>	<u>Moisture Loss%</u>
0	12.95	0	12.17	0	12.42	0
12	10.71	2.24	10.24	1.93	10.66	1.76
25	9.20	3.75	8.76	3.41	9.52	2.90

Date: 1990

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# Salem Aging Study

Pack Moisture at 76F / 34% RH



Round Oven: 5 packs / rods only

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