

BROWN & WILLIAMSON TOBACCO CORPORATION

INTERNAL CORRESPONDENCE

RECEIVED
JAN 13 1981

TO: MS. LINDA P. WRIGHT

CC: DR. P. L. AULBACH
MR. M. L. HENDERSHOT
MR. D. B. LESTER
MR. R. C. WOOLSEY

FROM: MS. E. A. SWIFT/bfw/900

DATE: JANUARY 11, 1982

SUBJECT: TAR SUBSTANTIATION MONITORING PROGRAM

Attached are data through the fourth quarter 1981 for the following tar substantiation samples:

| | |
|----------------------------------|-----------|
| State Express International/U.K. | D.P.-1062 |
| State Express King Size/ U.K. | D.P.-1062 |
| H. B. King Size/Germany | D.P.-1064 |

Compared with previous data, H. B. is lower in tobacco weight, circumference and density, while tobacco alkaloids and smoke nicotine are slightly increased.

EAS

E. A. S.

eas/mem1/0111

Attachment

670835691

Brand: STATE EXPRESS INTERNATIONAL/U.K.Year: 1981

| Quarter of Year | | 1st | 2nd | 3rd | 4th |
|----------------------------|-------|----------|----------|----------|----------|
| Carton Codes | PROD. | Nov. '80 | Apr. '81 | June '81 | Sept '81 |
| | | WJTV | LNTY | VXIE | YNIO |
| <u>Smoke Analyses</u> | | | | | |
| Tar (mg/cig.) | | 15.0 | 15.2 | 14.8 | 14.2 |
| Nicotine (mg/cig.) | | 1.29 | 1.40 | 1.43 | 1.39 |
| Efficiency (%) | | 35.3 | 35.2 | 32.4 | 34.4 |
| Puffs | | 9.3 | 9.5 | 8.7 | 9.0 |
| CO (mg/cig.) | | 16.2 | 15.9 | 15.5 | 14.5 |
| H ₂ O (mg/cig.) | | 1.3 | 1.2 | 1.4 | 1.3 |
| <u>Cigarette Analyses</u> | | | | | |
| Pressure Drop (mm) | | | | | |
| Cigarette Open | | 129 | 136 | 116 | 126 |
| Cigarette Sealed | | | | | |
| Tobacco Section | | 71 | 79 | 62 | 68 |
| Filter | | 58 | 57 | 54 | 58 |
| Length (mm) | | | | | |
| Cigarette | | 95 | 95 | 94 | 95 |
| Filter | | 25 | 25 | 25 | 25 |
| Tipping | | 30 | 30 | 30 | 29 |
| Weight (mg) | | | | | |
| Cigarette | | 1164 | 1185 | 1115 | 1153 |
| NTW | | 247 | 243 | 239 | 249 |
| Tobacco | | 917 | 942 | 876 | 904 |
| Circumference (mm) | | 24.87 | 24.90 | 25.02 | 24.98 |
| Density (mg/cc) | | 268 | 274 | 255 | 262 |
| Ventilation (cc/puff) | | | | | |
| Paper | | | | | |
| Porosity (Coresta) | | 50 | 48 | 68 | 67 |
| Additive (%) Citrate | | | 0.7 | 0.7 | 0.9 |
| Phosphate | | | | | |
| <u>Tobacco Analyses</u> | | | | | |
| Alkaloids (%) | | 1.90 | 2.02 | 2.08 | 2.00 |
| Total Sugars (%) | | 17.9 | 18.5 | 18.8 | 16.7 |
| Reducing Sugars (%) | | 13.5 | 13.0 | 13.4 | 12.6 |
| Moisture (%) | | | | | |

DP-1047 DP-1050 DP-1054 DP-1062

670835692

Brand: STATE EXPRESS F. KS/U.K.Year: 1981

| Quarter of Year | | 1st | 2nd | 3rd | 4th |
|----------------------------|-------|------------------|------------------|------------------|------------------|
| Carton Codes | PROD. | Dec. '80 ZXJS | Mar. '81 VRLA | July '81 IXKS | Sept '81 YNIO |
| <u>Smoke Analyses</u> | | | | | |
| Tar (mg/cig.) | | 16.7 | 15.0 | 15.9 | 15.6 |
| Nicotine (mg/cig.) | | 1.46 | 1.32 | 1.29 | 1.46 |
| Efficiency (%) | | 33.8 | 34.3 | 32.4 | 32.7 |
| Puffs | | 8.7 | 8.3 | 7.9 | 8.6 |
| CO (mg/cig.) | | 16.4 | 15.7 | 13.5 | 14.7 |
| H ₂ O (mg/cig.) | | 2.1 | 1.5 | 1.2 | 1.8 |
| <u>Cigarette Analyses</u> | | | | | |
| Pressure Drop (mm) | | | | | |
| Cigarette Open | | 110 | 130 | 114 | 115 |
| Cigarette Sealed | | | | | |
| Tobacco Section | | 58 | 71 | 62 | 57 |
| Filter | | 52 | 59 | 52 | 58 |
| Length (mm) | | | | | |
| Cigarette | | 84 | 84 | 84 | 84 |
| Filter | | 20 | 20 | 20 | 20 |
| Tipping | | 24 | 24 | 24 | 24 |
| Weight (mg) | | | | | |
| Cigarette | | 1024 | 1033 | 1015 | 1023 |
| NTW | | 202 | 207 | 205 | 198 |
| Tobacco | | 822 | 826 | 810 | 825 |
| Circumference (mm) | | 24.96 | 24.77 | 24.92 | 24.73 |
| Density (mg/cc) | | 259 | 265 | 256 | 264 |
| Ventilation (cc/puff) | | | | | |
| Paper | | | | | |
| Porosity (Coresta) | | 40 | 54 | 54 | 57 |
| Additive (%) Citrate | | | 0.7 | 0.8 | 0.7 |
| Phosphate | | | | | |
| <u>Tobacco Analyses</u> | | | | | |
| Alkaloids (%) | | 1.92 | 2.01 | 2.07 | 2.04 |
| Total Sugars (%) | | 18.5 | — | 19.8 | 19.7 |
| Reducing Sugars (%) | | 14.7 | 14.9 | 15.4 | 14.8 |
| Moisture (%) | | | | | |

DP-1047 DP-1050 DP-1058 DP-1062

670835693

Brand: HB KS / GERMANY
 Year: 1981

| Quarter of Year | 4th - 1980 | 2nd | 3rd | 4th |
|----------------------------|------------|-----|--------|--------|
| Carton Codes | DTH 34 | | HRU 56 | KOH 34 |
| <u>Smoke Analyses</u> | | | | |
| Tar (mg/cig.) | 12.7 | | 13.6 | 14.0 |
| Nicotine (mg/cig.) | 0.92 | | 0.98 | 1.10 |
| Efficiency (%) | 33.1 | | 32.9 | 32.8 |
| Puffs | 8.9 | | 8.5 | 8.1 |
| CO (mg/cig.) | 12.6 | | 13.6 | 13.1 |
| H ₂ O (mg/cig.) | | | 1.6 | 1.6 |
| <u>Cigarette Analyses</u> | | | | |
| Pressure Drop (mm) | | | | |
| Cigarette Open | 94 | | 89 | 86 |
| Cigarette Sealed | 109 | | 110 | 101 |
| Tobacco Section | 53 | | 62 | 55 |
| Filter | 56 | | 48 | 46 |
| Length (mm) | | | | |
| Cigarette | 84 | | 84 | 84 |
| Filter | 21 | | 21 | 21 |
| Tipping | 24 | | 24 | 24 |
| Weight (mg) | | | | |
| Cigarette | 1029 | | 1018 | 982 |
| NTW | 195 | | 191 | 210 |
| Tobacco | 834 | | 827 | 772 |
| Circumference (mm) | 24.91 | | 24.93 | 24.77 |
| Density (mg/cc) | 268 | | 265 | 252 |
| Ventilation (cc/puff) | 20.0 | | 19.6 | 21.8 |
| Paper | | | | |
| Porosity (Coresta) | 26 | | 30 | 32 |
| Additive (%) Citrate | | | | |
| Phosphate | | | | |
| <u>Tobacco Analyses</u> | | | | |
| Alkaloids (%) | 1.61 | | 1.66 | 1.93 |
| Total Sugars (%) | 10.2 | | 12.0 | 13.3 |
| Reducing Sugars (%) | 7.5 | | 10.0 | 10.8 |
| Moisture (%) | 13.9 | | | |

DP-1042

DP-1059 DP-1064

670835694

BROWN & WILLIAMSON

1994-96 COLLECTION

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