

ISC - 2
AA, TSNA, Phenols

Sample I.D.		Cigar Name / Description	Wednesday 9/21/2005	Thursday 9/22/2005
≤ 10 mm diameter				
1	SSC	Swisher Sweets Cigarillos **	√	
2	SSTC	Swisher Sweets Tip Cigarillos		√
3	MBM	Middleton's Black and Mild	√	
4	MGM	Middleton's Gold and Mild	√	
5	MFB	Middleton's Black and Mild Fast Break		√
6	MM	Macunudo Miniatures **	√	
7	GV	Garcia Y Vega Sweet and Mild **		√
8	HTJS	Hav-a-Tampa Jewels Sweet		
9	HTBG	Hav-a-Tampa Jewels Black and Gold		
10	BMN	Backwoods Mild n' Natural **		
> 10 mm diameter				
11	SSS	Swisher Sweets Slims		
12	SSB	Swisher Sweets Blunts		
13	SP	Swisher Perfecto		
14	DMP	Dutch Master Pantella		
15	PB	Phillies Blunt		
16	WOD	White Owl Demi-Tip		

Legend

** = untipped

0 = scheduled

√ = completed

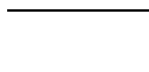
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	ISC - 2	NIC / WATER	ISC - 1 VOC & PAH			
Friday 9/23/05	Monday 9/26/2005	Tuesday 9/27/2005	Thursday 9/29/05	Friday 9/30/05	Monday 10/3/05	Thursday 10/20/05
ISC-1 trials with impinger set-up		✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓	✓ ✓ ✓		data evaluation	
	✓ ✓ ✓ data evaluation	✓ ✓ ✓ ✓		large diameter trials if holders are available	✓ ✓ ✓ ✓	large diameter trials

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Thursday
1/12/06

data
evaluation

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Sample Information

	Sample I.D.	Cigar Name / Description	Cigar Lenth (mm)	Tip Lenth (mm)	Smoking Lenth (mm)	Diameter (mm)	Weight (g)
≤ 10 mm diameter							
1	SSC	Swisher Sweets Cigarillos **	109	33	76	10	2.96
2	SSTC	Swisher Sweets Tip Cigarillos	123	45	78	10	3.70
3	MBM	Middleton's Black and Mild	125	45	80	9	3.87
4	MGM	Middleton's Gold and Mild	125	45	80	9	3.79
5	MFB	Middleton's Black and Mild Fast Break	86	45	41	9	2.96
6	MM	Macunudo Miniatures **	93	33	60	8	1.90
7	GV	Garcia Y Vega Sweet and Mild **	108	33	75	9	3.20
8	HTJS	Hav-a-Tampa Jewels Sweet	120	45	75	10	4.11
9	HTBG	Hav-a-Tampa Jewels Black and Gold	122	45	77	10	3.93
10	BMN	Backwoods Mild n' Natural **	108	33	75	9	2.66
11	SBC	Swisher Blackstone Cherry	125	45	80		
≥ 10 mm diameter							
12	SSS	Swisher Sweets Slims	135	37	98	13	6.27
13	SSB	Swisher Sweets Blunts	112	33	79	15	6.31
14	SP	Swisher Perfecto	126	33	93	15	7.03
15	DMP	Dutch Master Pantella	136	33	103	12	6.67
16	PB	Phillies Blunt	123	33	90	15	7.49
17	WOD	White Owl Demi-Tip	130	45	85	11	4.67

Smoking Information	Puff Volume (cc)	Puff Duration (Sec.)	Puff Interval (Sec.)
	20	1.5	40

conditioned for 48 hours, sine wave puff profile

Legend

** = Untipped

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Puff Count	TPM (mg/cig)	Percent Smoked
38.3	68.7	66%
37.8	46.4	57%
49.7	78.5	60%
45.9	59.9	60%
30.2	38.6	44%
35.3	39.6	60%
60.2	60.5	65%
41.9	64.4	53%
39.7	58.8	51%
52.8	41.7	65%
58.5	35.0	68%
49.3	38.9	63%
59.3	39.5	63%
68.2	54.2	68%
82.1	40.0	64%
60.6	76.8	63%

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Sample ≤ 10 mm diameter		Nic / Water					ISC - 1 (VOC, TSNA & PAH)			ISC - 2 AA
Swisher Sweets Cigarillos (SSC)		SSC-1	SSC-2	SSC-3	Avg	SD	SSC-1	SSC-2	SSC-3	SSC-1
Port #		1	8	15			1	7	13	4
Puff Count		38	35	43	38.67	4.04	34	44	35	36
Nicotine (mg/cig)		2.97	2.84	1.65	2.49	0.73				
TPM (mg/cig)		67.3	69.6	54.8	63.90	7.96	80.4	60.7	77	66.4
Water (mg/cig)		9.66	10.89	9.12	9.89	0.91				
TAR (mg/cig)		54.67	55.87	44.03	51.52	6.52				
Weight , g					#DIV/0!	#DIV/0!	2.9195	3.594	2.924	2.7788
Weight after smoking , g					#DIV/0!	#DIV/0!	1.0935	1.2256	1.0214	0.9532
% Smoked					#DIV/0!	#DIV/0!	63%	66%	65%	66%
Middleton's Black and Mild (MBM)		MBM-1	MBM-2	MBM-3	Avg	SD	MBM-1	MBM-2	MBM-3	MBM-1
Port #		3	10	17			1	7	13	2
Puff Count		50	49	60	53.00	6.08	52	44	43	45
Nicotine (mg/cig)		1.8	1.72	1.15	1.56	0.35				
TPM (mg/cig)		85	79.9	66.6	77.17	9.50	57.3	77.4	73	88.2
Water (mg/cig)		16.14	15.1	14.28	15.17	0.93				
TAR (mg/cig)		67.06	63.08	51.17	60.44	8.27				
Weight , g					#DIV/0!	#DIV/0!	4.1053	3.6351	3.708	3.8259
Weight after smoking , g					#DIV/0!	#DIV/0!	1.515	1.4621	1.4855	1.504
% Smoked					#DIV/0!	#DIV/0!	63%	60%	60%	61%
Middleton's Gold and Mild (MGM)		MGM-1	MGM-2	MGM-3	Avg	SD	MGM-1	MGM-2	MGM-3	MGM-1
Port #		4	11	18			1	7	13	1
Puff Count		42	47	50	46.33	4.04	52	44	43	47
Nicotine (mg/cig)		1.2	0.91	0.72	0.94	0.24				
TPM (mg/cig)		66.4	54.3	52.6	57.77	7.52	57.3	77.4	73	59.7
Water (mg/cig)		13.01	12.57	11.98	12.52	0.52				

(& Phenolics)		Ammonia			Carbonyl			Grand Avg	Grand SD
SSC-2	SSC-3	SSC-1	SSC-2	SSC-3	SSC-1	SSC-2	SSC-3		
11	18	5	11	17	3	7	13		
37	42	39	38	38	40	37	41	38.47	3.02
								2.49	0.73
68.4	75.5	70.2	64.9	69				68.68	6.97
2.7415	2.9231	2.912	2.9388	2.9415	3.0618	3.0021	3.0619	2.98	0.21
0.9486	0.8379	0.947	1.0221	0.9955	1.0148	0.9951	1.054	1.01	0.09
65%	71%	67%	65%	66%	67%	67%	66%	66%	0.02
MBM-2	MBM-3	MBM-1	MBM-2	MBM-3	MBM-1	MBM-2	MBM-3	Grand Avg	Grand SD
9	16	3	9	15	3	7	11		
53	47	54	49	50	47	51	42	49.07	4.71
								1.56	0.35
79.8	88.7	84.2	80.2	81.1				78.45	9.09
3.8922	3.7505	4.0243	3.9525	3.9704	3.8124	4.066	3.7265	3.87	0.15
1.4848	1.4592	1.6299	1.6664	1.6466	1.511	1.5806	1.6161	1.55	0.08
62%	61%	59%	58%	59%	60%	61%	57%	60%	0.02
MGM-2	MGM-3	MGM-1	MGM-2	MGM-3	MGM-1	MGM-2	MGM-3	Grand Avg	Grand SD
8	15	5	11	17	5	11	15		
44	56	41	37	48	44	51	50	46.40	4.93
								0.94	0.24
61.7	57	54.1	56.5	49				59.92	8.46

TAR (mg/cig) Weight , g Weight after smoking , g % Smoked	52.19	40.82	39.9	44.30	#DIV/0!	6.85	4.1053	3.6351	3.708	3.8311
				#DIV/0!	#DIV/0!		1.515	1.4621	1.4855	1.4824
				#DIV/0!	#DIV/0!		63%	60%	60%	61%
Backwoods Mild n' Natural (BMN) UNCONDITIONED	BMN-1	BMN-2	BMN-3	Avg	SD	BMN-1	BMN-2	BMN-3	BMN-1	BMN-1
										pad leak
	4	11	18			1	3	5	4	4
	44	46	48	46.00	2.00	46	64	59	52	52
	Nicotine (mg/cig)									
	TPM (mg/cig)	1.58	1.79	1.67	0.11					
	Water (mg/cig)	36.8	39.2	47.6	5.67	43.9	34.1	59.6	19.9	
	TAR (mg/cig)	7.84	8.53	9.9	1.05					
	Weight , g	27.32	29.09	35.91	4.54					
	Weight after smoking , g	2.7741	2.3911	2.6282	0.19	2.6174	2.6491	2.6657	2.7898	
	% Smoked	0.8906	0.8943	0.9061	0.01	0.91	0.8482	0.993	1.0935	
		68%	63%	66%	0.03	65%	68%	63%	61%	
Swisher Blackstone Cherry (SBC) MZCIG-2006-3 BC 119439	SBC-1	SBC-2	SBC-3	Avg	SD	SBC-1	SBC-2	SBC-3	SBC-1	SBC-1
	2	9	16			3	11	17	2	2
	49	48	48	48.33	0.58	48	48	47	46	46
	Nicotine (mg/cig)									
	TPM (mg/cig)	3.25	3.08	2.90	3.07					
	Water (mg/cig)	80.9	77.7	74	77.53	91	73.6	80.5	81.7	
	TAR (mg/cig)	7.005	6.645	6.125	6.59					
	Weight , g	70.65	67.975	64.98	67.87					
	Weight after smoking , g	3.4335	3.3441	3.4541	3.41	3.4955	3.4488	3.4719	3.345	
	% Smoked	1.412	1.3806	1.4632	1.42	1.4018	1.4833	1.491	1.4562	
		59%	59%	58%	58%	60%	57%	57%	56%	
2R4F Control	2R4F-1	2R4F-2	2R4F-3	Avg	SD	2R4F-1	2R4F-2	2R4F-3	2R4F-1	2R4F-1
	2	16				3	11	17	2	2
	9.7	9		9.35	0.49	9.4	8.9	9.3	9.5	9.5
	Nicotine (mg/cig)									
	TPM (mg/cig)	0.868	0.822		0.85					
	Water (mg/cig)	12.64	12.08		12.36	12.8	12.9	11.8	12.34	
		1.004	0.979		0.99					
					0.02					

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3.7163	4.2121	3.6096	3.3812	3.9546	3.7796	4.0443	3.9825	3.83	0.24
1.5141	1.5486	1.5456	1.4479	1.564	1.5145	1.5621	1.4181	1.50	0.05
59%	63%	57%	57%	60%	60%	61%	64%	61%	0.02
BMN-2	BMN-3	BMN-1	BMN-2	BMN-3	BMN-1	BMN-2	BMN-3	Grand Avg	Grand SD
pad leak									
10	16	7	13	19	5	11	15		
48	55	59	44	68	48	52	42	51.67	7.81
								1.67	0.11
24.8	46.9	49.9	42.8	54.3				41.65	11.53
2.684	2.7599	2.6712	2.3373	2.9058	2.7255	3.2732	3.192	2.74	0.25
0.9014	1.0524	0.9606	0.8614	0.9057	1.0123	1.2069	1.0136	0.96	0.10
66%	62%	64%	63%	69%	63%	63%	68%	65%	0.03
SBC-2	SBC-3	SBC-1	SBC-2	SBC-3	SBC-1	SBC-2	SBC-3	Grand Avg	Grand SD
10	18	3	11	19	3	11	19		
47	41	51	44	48	48	45	46	46.93	2.34
								3.07	0.18
80.9	76.5	73.7	70.9	70.2				77.63	5.81
3.445	3.1989	3.4606	3.2784	3.3776	3.2722	3.2386	3.3093	3.37	0.10
1.4876	1.4287	1.3548	1.3896	1.3745	1.4125	1.4077	1.3956	1.42	0.04
57%	55%	61%	58%	59%	57%	57%	58%	58%	0.01
2R4F-2	2R4F-3	2R4F-1	2R4F-2	2R4F-3	2R4F-1	2R4F-2	2R4F-3	Grand Avg	Grand SD
10	18	3	11	19	3	7	13		
9.6	9.1	9.5	9	9.1	9	8	9	9.15	0.42
								0.85	0.03
11.82	11.48	11.86	11.06	11.72				12.04	0.56

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TAR (mg/cig)	10.768	10.279		10.52	0.35				
Weight , g				#DIV/0!	#DIV/0!				
Weight after smoking , g				#DIV/0!	#DIV/0!				
% Smoked	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!

Sample ID	Cigar Name / Description	Length (cm)	Diameter (mm)	Weight (g)	Puff Count	TPM (mg/kg)	Tar (mg/cig)	Nicotine (mg/cig)	Water (mg/cig)	Tip	Quantity (packs)
≤ 10 mm diameter											
1	SEC	10.9	10	3.69	38	69	51.5	2.50	9.90		6
2	MBM	10.8	10	3.86	49	77	60.4	1.55	19.2	Y	7
3	MGM	10.8	9	3.60	47	62	44.3	0.94	12.5	Y	7
4	BMN	10.6	9	3.64							6
5	BMN C	10.4	9	3.64	55	37	30.8	1.67	8.76		
6	SEC	10.0		3.37	46	73	67.9	3.07	6.56	Y	5

For Cigarette Comparison

(data from Label (2003))

Marlboro KINGS FHP	8	13	14.0	0.30	2.20
Marlboro KINGS FHP Ultra	8	12	10.4	0.75	0.91
Marlboro KINGS FHP Ultra-Lt	8	7	5.5	0.47	0.26

Camel Lights			10.5	0.85	0.96
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For Comparison

(data from Label (2003))

Camel Lights			9.4	0.75	0.73
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B[a]A (ng/kg)	B[a]P (ng/kg)	Pyrene (ng/kg)	hKk (ng/kg)	hNk (ng/kg)	NAT (ng/kg)	NAB (ng/kg)	o-Toluidine (ng/kg)	o-Anisidine (ng/kg)	2-Naphthylamine (ng/kg)	4-Aminobiphenyl (ng/kg)	Hydroquinone (ng/kg)
115.2	62.4	476.6	274.7	547.9	573.9	73.2	453.1	20.9	62.4	13.2	332.0
142.5	82.2	325.4	465.7	695.6	226.8	34.3	351.2	15.2	57.1	12.6	222.0
94.6	56.6	228.3	338.8	595.9	223.0	32.0	206.2	8.3	41.3	12.2	151.1
			173.1	334.9	203.0	33.0	178.1	5.7	13.0	6.5	109.0
56.9	30.6	209.0	147.7	229.9	165.0	19.5	172.6	5.3	22.0	8.3	114.0
123.3	64.6	427.0	349.5	470.6	327.0	62.2	462.0	22.5	81.6	15.5	300.4

18.9	9.4	35.0	100	150	141	20.3			14.9	2.46	45.1
15.1	7.4	28.5	87.9	129	123	19.1			14.6	2.30	36.2
8.91	4.5	17.4	57.2	84.5	85.6	12.7			14.2	2.15	26.3

12.6	8.9	36.4	91.8	112.9	79.7	9.3	82.3	2.5	11.4	2.5	35.1
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17.3	8.0	32.3	124	139	125	16.1			14.3	2.3	32.8
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Resorcinol (ug/kg)	Catechol (ug/kg)	Phenol (ug/kg)	m, p-Cresol (ug/kg)	o-Cresol (ug/kg)	Benzene (ug/kg)	1,3-Butadiene (ug/kg)	Isoprene (ug/kg)	Acrylonitrile (ug/kg)	Toluene (ug/kg)	Styrene (ug/kg)	Pyridine (ug/kg)
5.4	259.0	166.0	109.0	49.6	418.4	329.0	3269.0	62.6	1050.3	122.1	198.1
11.1	232.0	151.0	103.0	93.5	235.5	187.5	1754.5	50.5	663.1	77.7	83.0
5.1	132.7	79.3	55.8	41.0	227.6	180.1	1267.4	47.5	496.2	57.5	50.8
nd	62.2	40.5	13.6	13.7							
n.d.	62.1	39.1	21.0	12.1	335.0	245.7	1970.0	70.0	682.9	92.3	87.7
4.7	571.4	169.6	122.9	87.9	248.8	130.3	1598.6	54.5	535.6	73.4	104.8
0.82	45.3	14.6	10.3	3.41	33.7	50.5	457	5.50	63.0	8.52	14.2
0.77	37.9	8.30	6.58	2.06	33.9	44.9	397	7.75	55.0	6.32	8.05
0.73	30.5	2.00	2.82	0.71	28.2	39.3	336	6.00	47.0	4.13	1.89
0.8	50.0	8.3	8.9	2.7	59.4	38.1	436	11.5	103.1	8.0	2.7
NO	38.8	6.4	6.0	2.0	39.1	46.7	351	6.62	58.5	5.52	5.05

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Naphthalene (ug/kg)	Quinoline (ug/kg)	Aniline (ug/kg)	Formaldehyde (ug/kg)	Acetaldehyde (ug/kg)	Acetone (ug/kg)	Acrolein (ug/kg)	Glucosylaldehyde (ug/kg)	Propionaldehyde (ug/kg)	Methyl Ethyl Ketone (ug/kg)	Butyraldehyde (ug/kg)
7.0	2.1	57.9	6.00	1733	2204	37.5	227	98.0	506	150
5.2	1.9	48.5	12.7	2422	1104	90.0	211	78.1	422	117
0.9	1.6	37.0	26.7	1830	1931	92.2	254	92.8	466	115
4.7	2.2	46.9	3.9	2032	1600	12.6	196	12.2	562	129
10.1	2.2	50.6	18.0	2133	1523	74.5	215	67.2	368	120
C.02	0.34	25.0	30.0	590	207	60.0	18.9	48.0	01.4	20.2
C.31	0.22	19.0	22.4	498	231	57.5	14.0	40.0	53.6	27.1
C.13	0.10	10.0	9.5	274	131	27.5	5.9	23.1	30.4	15.1
0.5	0.2	43.7	19.1	698.6	292.4	84.0	40.0	12.6	86.4	23.8
0.274	0.2	11.7	21.8	452	233	51.2	12.6	38.6	55.2	25.2

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AMA No:						Date:		
FTC Aromatic Amines Yields - Project Garnet						ISC-2		
Date of Analysis	Mainstream Smoke	o-Toluidine (ng/cig)	o-Anisidine (ng/cig)	2-Naphthylamine (ng/cig)	4-Aminobiphenyl (ng/cig)	Puff Count	TPM (mg/cig)	% Smoked
09/21/05	SSC-1	486.5	21.4	64.0	17.5	37.0	68.4	66
09/21/05	SSC-2	440.4	18.3	60.6	13.8	37.0	68.4	65
09/21/05	SSC-3	552.2	23.0	62.6	17.3	42.0	75.0	71
	Mean	493.1	20.9	62.4	16.2	38.3	69.9	67.3
	Stdev	56.2	2.4	1.7	2.1	3.2	4.5	3.2
	CV%	11.4%	11.5%	2.7%	12.9%	8.4%	6.4%	4.8%
09/21/05	MBM-1	30.9	15.7	60.4	12.8	45.0	88.2	61
09/21/05	MBM-2	28.8	14.0	51.8	11.9	53.0	79.8	62
09/21/05	MBM-3	319.9	16.0	59.1	13.1	47.0	88.7	61
	Mean	301.2	15.2	57.1	12.6	48.3	85.6	61.3
	Stdev	19.0	1.1	4.7	0.6	4.2	5.0	0.6
	CV%	6.3%	7.0%	8.1%	5.1%	8.6%	5.8%	0.9%
09/21/05	MGM-1	209.4	8.3	43.6	10.6	47.0	59.7	61
09/21/05	MGM-2	228.8	9.4	46.2	10.9	44.0	61.7	59
09/21/05	MGM-3	180.6	7.1	34.2	9.0	55.0	57.0	63
	Mean	206.2	8.3	41.3	10.2	49.0	59.5	61.0
	Stdev	24.3	1.1	6.3	1.1	6.2	2.4	2.0
	CV%	11.8%	13.5%	15.3%	10.4%	12.7%	4.0%	3.3%
09/26/05	BMN-1	165.4	5.1	15.8	5.5	52.0	15.9	61
09/26/05	BMN-2	196.2	4.9	15.4	5.2	48.0	24.8	66
09/26/05	BMN-3	172.7	7.0	25.6	8.9	55.0	46.1	62
	Mean	178.1	5.7	19.0	6.5	51.7	30.3	63.0
	Stdev	16.1	1.2	5.8	2.0	3.5	13.9	2.6
	CV%	9.0%	20.5%	30.5%	30.9%	6.8%	46.0%	4.2%
04/21/06	SBC-1	468.3	21.7	79.6	15.7	45.0	81.7	56
04/21/06	SBC-2	458.7	22.6	79.5	15.0	47.0	80.9	57
04/21/06	SBC-3	460.7	23.3	85.9	15.9	41.0	76.5	55
	Mean	462.6	22.5	81.6	15.5	44.7	79.7	56.0
	Stdev	5.0	0.8	3.7	0.5	3.2	2.8	1.0
	CV%	1.1%	3.7%	4.5%	3.0%	7.2%	3.5%	1.8%
04/21/06	2R4F-1	63.2	2.6	11.8	2.6	9.5	12.3	
04/21/06	2R4F-2	61.9	2.3	10.9	2.4	9.6	11.8	
04/21/06	2R4F-3	61.7	2.6	11.5	2.6	9.1	11.5	
	Mean	62.3	2.5	11.4	2.5	9.4	11.9	
	Stdev	0.8	0.2	0.4	0.1	0.3	0.4	
	CV%	1.3%	6.7%	3.9%	3.6%	2.8%	3.6%	

2R4F Data from validation: 81.4, 3.1, 17.5, 5.9

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3042259695

AMA No:		Date:										
FTC - MS VOC Yields - Project Garnet ISC-1												
Date of Analysis	Mainstream Smoke VOC's	Benzene (ug/dg)	1,3-Butadiene (ug/dg)	Isoprene (ug/dg)	Acrylonitrile (ug/dg)	Toluene (ug/dg)	Styrene (ug/dg)	Pyridine (ug/dg)	Naphthalene (ug/dg)	Quinoline (ug/dg)	Puff Count	TPM (mg/dg)
09/29/05	SSC-1	396.3	217.5	3080.5	85.6	1099.5	117.1	142.9	8.3	2.7	34.0	80.4
09/29/05	SSC-2	480.4	262.8	3786.0	07.5	1311.5	144.2	145.0	5.0	1.4	44.0	60.7
09/29/05	SSC-3	378.6	265.7	3000.5	84.7	848.8	105.0	120.6	7.7	2.3	35.0	77.0
	Mean	418.4	329.0	3289.0	92.6	1083.3	122.1	138.1	7.0	2.1	37.7	72.7
	Stdev	54.4	30.7	432.3	12.9	231.4	20.1	13.5	1.8	0.6	5.5	10.5
	CV%	13.0%	9.3%	13.1%	13.9%	21.4%	16.4%	9.9%	25.6%	29.9%	14.6%	14.5%
09/29/05	MDM-1	233.8	186.1	1683.8	50.9	550.1	41.1	96.7	11.6	2.1	52.0	57.3
09/29/05	MDM-2	190.3	187.4	1764.6	48.7	807.0	34.4	65.6	4.2	1.7	44.0	77.4
09/29/05	MDM-3	242.3	189.1	1755.2	51.7	547.3	37.6	82.7	6.3	1.9	43.0	73.0
	Mean	225.5	187.5	1734.5	50.5	683.7	37.7	82.0	5.2	1.9	46.3	69.2
	Stdev	6.1	1.5	44.2	1.5	165.8	3.4	14.1	1.5	0.2	4.9	10.6
	CV%	2.6%	0.8%	2.4%	3.1%	15.5%	4.3%	17.0%	28.1%	9.6%	10.6%	15.3%
09/30/05	MGM-1	229.8	132.2	1245.4	46.8	525.5	52.6	49.8	5.6	1.2	32.0	57.3
09/30/05	MGM-2	227.6	170.5	1277.3	48.1	485.1	56.3	56.5	6.7	1.8	44.0	77.4
09/30/05	MGM-3	225.2	156.5	1249.6	47.7	477.9	53.5	45.6	8.5	1.6	43.0	73.0
	Mean	227.5	166.1	1287.4	47.5	496.2	57.5	50.6	6.9	1.5	46.3	69.2
	Stdev	2.3	9.2	17.4	0.6	25.6	4.7	5.5	1.5	0.3	4.9	10.6
	CV%	1.0%	5.7%	1.4%	1.3%	5.2%	8.1%	10.8%	21.1%	20.9%	10.6%	15.3%
10/03/05	DMN-1	202.4	252.1	1827.8	69.9	675.6	91.6	77.9	4.0	2.2	46.0	49.0
10/03/05	DMN-2	323.7	232.4	1803.6	50.2	616.2	76.5	64.5	4.1	1.6	64.0	34.1
10/03/05	DMN-3	379.0	231.6	2278.7	80.8	756.9	108.8	120.6	5.8	2.7	59.0	35.6
	Mean	335.0	245.7	1970.0	70.0	682.9	92.3	87.7	4.7	2.2	56.3	47.7
	Stdev	39.5	11.6	267.6	10.8	70.6	16.2	29.3	1.0	0.5	9.3	12.8
	CV%	11.8%	4.7%	13.6%	15.5%	10.3%	17.5%	33.4%	26.3%	24.9%	16.5%	26.9%
04/24/06	SBC-1	256.3	187.0	1863.5	37.8	570.5	50.9	128.9	8.7	2.4	48.0	91.0
	SBC-2	227.7	164.8	1442.7	49.4	482.1	65.7	85.9	16.8	2.1	48.0	73.6
	SBC-3	262.3	188.2	1888.4	56.1	553.3	73.6	96.7	11.0	2.1	47.0	80.5
	Mean	248.8	180.3	1598.6	54.5	535.6	73.4	104.8	16.1	2.2	47.7	81.7
	Stdev	18.5	13.5	134.7	4.4	46.3	7.6	21.2	1.3	0.2	0.6	8.8
	CV%	7.4%	7.4%	8.4%	8.2%	8.6%	10.4%	20.2%	12.8%	7.3%	1.2%	10.7%
04/24/06	2R4F-1	58.4	38.5	481.6	11.5	107.0	8.0	2.6	0.5	0.3	9.4	19.8
	2R4F-2	60.7	37.5	461.4	11.8	107.1	8.4	3.0	0.6	0.3	8.9	12.9
	2R4F-3	59.1	38.4	453.2	11.1	100.2	7.7	2.4	0.5	0.2	9.3	11.8
	Mean	59.4	38.1	468.4	11.5	103.1	8.0	2.7	0.5	0.2	9.2	12.5
	Stdev	1.1	0.5	15.2	0.4	3.8	0.4	0.3	0.0	0.0	0.1	0.6
	CV%	1.9%	1.4%	3.2%	3.1%	3.5%	4.4%	11.3%	4.8%	14.2%	2.5%	4.5%

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AMA No.:		Date:					
TSNA Yields - Project Garnet		ISC-1					
Date of Analysis	Mainstream Smoke sample	NNK (ng/cig)	NNN (ng/cig)	NAT (ng/cig)	NAB (ng/cig)	Puff Count	TPM (mg/cig)
09/21/05	SSC -1	252	496	251	67.1	34.0	80.4
09/21/05	SSC -2	255	510	266	67.8	44.0	60.7
09/21/05	SSC -3	318	638	319	84.8	35.0	77.0
	Mean	274.7	547.9	278.8	73.2	37.7	72.7
	Stdev	37.1	78.4	35.8	10.0	5.5	10.5
	CV%	13.5%	14.3%	12.9%	13.7%	14.6%	14.5%
09/21/05	MBM -1	506	659	213	28.3	52.0	57.3
09/21/05	MBM -2	432	662	293	38.6	44.0	77.4
09/21/05	MBM -3	462	685	175	24.1	43.0	73.0
	Mean	466.7	668.6	226.8	30.3	46.3	69.2
	Stdev	36.9	14.3	60.5	7.5	4.9	10.6
	CV%	7.9%	2.1%	26.7%	24.7%	10.6%	15.3%
09/21/05	MGM -1	365	578	222	33.5	52.0	57.3
09/21/05	MGM -2	370	569	237	30.5	44.0	77.4
09/21/05	MGM -3	342	551	225	31.9	43.0	73.0
	Mean	358.8	565.9	228.0	32.0	46.3	69.2
	Stdev	15.1	13.9	8.1	1.5	4.9	10.6
	CV%	4.2%	2.5%	3.5%	4.7%	10.6%	15.3%
09/26/05	BMN-1	81.1	215	135	23.5	52.0	19.9
09/26/05	BMN-2	172	279	191	29.8	48.0	24.8
09/26/05	BMN-3	175	391	215	36.1	55.0	46.9
	Mean	142.5	295.0	180.2	29.8	51.7	30.5
	Stdev	53.2	88.7	41.3	6.3	3.5	14.4
	CV%	37.3%	30.1%	22.9%	21.2%	6.8%	47.1%
04/25/06	SBC-1	388	492	348	68.3	48	91
04/25/06	SBC-2	311	444	321	58.0	48	73.6
04/25/06	SBC-3	349	476	313	60.3	47	80.5
	Mean	349.5	470.8	327.0	62.2	47.7	81.7
	Stdev	38.5	24.5	18.2	5.4	0.6	8.8
	CV%	11.0%	5.2%	5.6%	8.7%	1.2%	10.7%
04/25/06	2R4F-1	92.6	106	78.0	8.69	9.4	12.8
04/25/06	2R4F-2	102	116	82.5	9.69	8.9	12.9
04/25/06	2R4F-3	89.5	114	78.6	9.52	9.3	11.8
	Mean	94.8	112.0	79.7	9.3	9.2	12.5
	Stdev	6.6	5.5	2.5	0.5	0.2	0.6
	CV%	6.9%	4.9%	3.1%	5.8%	2.5%	4.5%
2R4F data from validation		132	129	112	17		

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AMA No.:		Date:				
"FTC/ISO" PAH Yields - Project Garnet ISC-1						
Date of Analysis	Mainstream Smoke	B[a]A (ng/cig)	B[a]P (ng/cig)	Pyrene (ng/cig)	Puff Count	TPM (mg/cig)
09/29/05	SSC-1	120.2	65.8	497.4	34.0	80.4
	SSC-2	99.3	52.7	424.3	44.0	60.7
	SSC-3	120.3	68.8	508.2	35.0	77.0
	Mean	113.2	62.4	476.6	37.7	72.7
	Stdev	12.1	8.6	45.7	5.5	10.5
	CV%	10.7%	13.7%	9.6%	14.6%	14.5%
09/29/05	MBM-1	145.7	84.7	381.5	52.0	57.3
	MBM-2	124.0	73.1	373.2	44.0	77.4
	MBM-3	158.3	88.9	431.5	43.0	73.0
	Mean	142.6	82.2	395.4	46.3	69.2
	Stdev	17.4	8.2	31.5	4.9	10.6
	CV%	12.2%	9.9%	8.0%	10.6%	15.3%
09/30/05	MGM-1	93.2	52.9	284.0	52.0	57.3
	MGM-2	95.6	58.3	314.6	44.0	77.4
	MGM-3	94.9	58.3	296.2	43.0	73.0
	Mean	94.6	56.5	298.3	46.3	69.2
	Stdev	1.2	3.1	15.4	4.9	10.6
	CV%	1.3%	5.5%	5.2%	10.6%	15.3%
10/03/05	BMN-1	56.9	31.0	220.7	52.0	19.9
	BMN-2	49.0	26.1	164.8	48.0	24.8
	BMN-3	64.8	34.4	241.5	55.0	46.9
	Mean	56.9	30.5	209.0	51.7	30.5
	Stdev	7.9	4.2	39.7	3.5	14.4
	CV%	14.0%	13.8%	19.0%	6.8%	47.1%
04/24/06	SBC-1	135.8	70.1	534.9	48	91.0
	SBC-2	113.1	56.2	445.6	48	73.6
	SBC-3	121.1	67.6	480.6	47	80.5
	Mean	123.3	64.6	487.0	47.7	81.7
	Stdev	11.5	7.4	45.0	0.6	8.8
	CV%	9.3%	11.5%	9.2%	1.2%	10.7%
04/24/06	2R4F-1	12.3	7.5	36.7	9.4	12.8
	2R4F-2	12.1	6.8	36.3	8.9	12.9
	2R4F-3	11.6	6.5	36.1	9.3	11.8
	Mean	12.0	6.9	36.4	9.2	12.5
	Stdev	0.4	0.5	0.3	0.2	0.6
	CV%	3.1%	7.4%	0.9%	2.5%	4.5%

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AMA No.:		Date:							
FTC Yields - MS Phenolics - Project Garnet ISC-2									
Date of Analysis	Mainstream Smoke Phenolics	Hydroquinone (ug/cig)	Resorcinol (ug/cig)	Catechol (ug/cig)	Phenol (ug/cig)	m & p-Cresol (ug/cig)	o-Cresol (ug/cig)	Puff Count	TPM (mg/cig)
09/20/05	SSC-1	319	5.0	249	165	106	48.4	36.0	66.4
09/20/05	SSC-2	329	5.2	259	156	103	46.6	37.0	68.4
09/20/05	SSC-3	350	6.0	269	179	119	53.9	42.0	75.0
	Mean	332.3	5.4	259.1	166.3	109.3	49.6	38.3	69.9
	Stdev	15.9	0.6	9.6	11.4	8.6	3.8	3.2	4.5
	%RSD	4.8%	10.4%	3.7%	6.9%	7.9%	7.7%	8.4%	6.4%
09/20/05	MBM-1	227	9.6	241	159	109	98.1	45.0	88.2
09/20/05	MBM-2	208	14.3	217	131	91.5	84.2	53.0	79.8
09/20/05	MBM-3	230	9.5	259	162	108	98.0	47.0	88.7
	Mean	221.5	11.1	232.2	150.7	103.0	93.5	48.3	85.6
	Stdev	11.8	2.7	13.3	17.0	10.0	8.0	4.2	5.0
	%RSD	5.3%	24.4%	5.7%	11.3%	9.7%	8.5%	8.6%	5.8%
09/20/05	MGM-1	155	4.19	138	77.8	57.2	39.2	47.0	59.7
09/20/05	MGM-2	166	6.08	154	96.5	69.5	54.1	44.0	61.7
09/20/05	MGM-3	133	nd	106	54.5	40.7	29.7	56.0	57.0
	Mean	151	5.1	133	76.3	55.8	41.0	49.0	59.5
	Stdev	16.9	1.3	24.1	21.1	14.4	12.3	6.2	2.4
	%RSD	11.2%	26.0%	18.1%	27.6%	25.9%	30.0%	12.7%	4.0%
09/26/05	BMN-1	80.0	nd	47.7	34.6	16.5	10.2	52	19.9
09/26/05	BMN-2	74.5	nd	37.8	34.7	13.3	8.9	48	24.8
09/26/05	BMN-3	172	nd	101	52.2	29.0	22.0	55	46.9
unconditioned	Mean	108.9	#DIV/0!	62.2	40.5	19.6	13.7	51.7	30.5
	Stdev	54.8	#DIV/0!	34.0	10.1	8.3	7.2	3.5	14.4
	%RSD	50.4%	#DIV/0!	54.6%	25.0%	42.2%	52.8%	6.8%	47.1%
04/21/06	SBC-1	274.0	5.4	341.2	182.7	117.7	83.3	46	81.7
04/21/06	SBC-2	309.2	3.7	383.3	186.1	121.8	85.6	47	80.9
04/21/06	SBC-3	318.1	5.0	389.6	200.6	129.2	91.8	41	76.5
	Mean	300.4	4.7	371.4	189.8	122.9	87.9	44.7	79.7
	Stdev	23.3	0.8	26.3	9.5	5.8	4.3	3.2	2.8
	%RSD	7.8%	17.9%	7.1%	5.0%	4.7%	4.9%	7.2%	3.5%
04/21/06	2R4F-1	36.2	0.9	50.6	8.4	7.0	2.8	9.5	12.34
	2R4F-2	34.8	0.6	50.2	8.3	6.9	2.7	9.6	11.82
	2R4F-3	34.4	0.9	49.0	8.2	6.8	2.7	9.1	11.48
	Mean	35.1	0.8	50.0	8.3	6.9	2.7	9.4	11.9
	Stdev	0.9	0.2	0.9	0.1	0.1	0.0	0.3	0.4
	%RSD	2.7%	20.1%	1.7%	1.4%	1.3%	1.5%	2.8%	3.6%

Values from Weekend Data (2R4F) 34.6 45.3 9.3 6.8 2.7

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AI/AMA Tracking No.:		Completion Date:				
FTC - Ammonia Yields - Project Garnet						
Date of Analysis	Mainstream Smoke sample	Ammonia (ug/cig)	Puff Count	TPM (mg/cig)	IC Readout	
	MGM-1	40.4	41.0	54.1	0.8559	40.4175
	MGM-2	36.4	37.0	56.5	0.7713	36.4225
	MGM-3	34.2	48.0	49.0	0.7251	
	Mean	37.0	42.0	53.2		
	Stdev	3.1	5.6	3.8		
	CV%	8.5%	13.3%	7.2%		
	BMN-1	48.2	59.0	49.9	1.0214	
	BMN-2	38.4	44.0	42.8	0.8134	
	BMN-3	54.1	68.0	54.3	1.1464	
	Mean	46.9	57.0	49.0		
	Stdev	7.9	12.1	5.8		
	CV%	16.9%	21.3%	11.8%		
	MBM-1	51.3	54.0	84.2	1.0859	
	MBM-2	44.0	49.0	80.2	0.9309	
	MBM-3	50.1	50.0	81.1	1.0673	
	Mean	48.5	51.0	81.8		
	Stdev	4.0	2.6	2.1		
	CV%	8.2%	5.2%	2.6%		
	SSC-1	60.6	39.0	70.2	1.2837	
	SSC-2	50.5	38.0	64.9	1.0689	
	SSC-3	62.7	38.0	69.0	1.3287	
	Mean	57.9	38.3	68.0		
	Stdev	6.6	0.6	2.8		
	CV%	11.3%	1.5%	4.1%		
05/05/06	SBC-1	55.9	51.0	73.7	1.1845	55.9347
	SBC-2	54.5	44.0	70.9	1.1541	54.4992
	SBC-3	59.2	48.0	70.2	1.2546	59.245
	Mean	56.6	47.7	71.6		
	Stdev	2.4	3.5	1.9		
	CV%	4.3%	7.4%	2.6%		
05/05/06	2R4F-1	39.9	9.5	11.9	0.8442	39.865
	2R4F-2	47.1	9.0	11.1	0.9978	47.1183
	2R4F-3	44.0	9.1	11.7	0.932	44.0111
	Mean	43.7	9.2	11.5		
	Stdev	3.6	0.3	0.4		
	CV%	8.3%	2.9%	3.7%		

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FTC - Carbonyl Yields - Project Garnet						
Date of Analysis	Mainstream Smoke Carbonyls	Formaldehyde (ug/cig)	Acetaldehyde (ug/cig)	Acetone (ug/cig)	Acrolein (ug/cig)	Propionaldehyde (ug/cig)
05/09/06	SBC - 1	16.7	2207	1556	78.9	226
	SBC - 2	17.5	2166	1454	75.2	203
	SBC - 3	19.8	2195	1559	69.5	211
	Mean	18.0	2189	1523	74.5	213
	Stdev	1.6	20.9	59.8	4.7	11.8
	CV%	8.9%	1.0%	3.9%	6.4%	5.5%
05/15/06	MGM - 1	29.1	1811	2039	93.8	238
	MGM - 2	24.6	2009	1864	88.1	267
	MGM - 3	23.3	1849	1870	94.7	257
	Mean	25.7	1890	1931	92.2	254
	Stdev	3.0	104.8	93.8	3.6	14.8
	CV%	11.9%	5.5%	4.9%	3.9%	5.8%
05/15/06	SSC - 1	7.20	1992	2458	40.7	243.3
	SSC - 2	7.10	1814	2132	44.1	226.3
	SSC - 3	4.40	1581	2023	27.2	210.9
	Mean	6.2	1796	2204	37.3	226.8
	Stdev	1.6	205.7	226.7	8.9	16.2
	CV%	25.5%	11.5%	10.3%	23.9%	7.1%
05/16/06	MBM - 1	37.0	2392	1503	94.7	208
	MBM - 2	26.6	2532	1492	85.9	212
	MBM - 3	34.4	2341	1518	89.3	213
	Mean	32.7	2422	1504	90.0	211
	Stdev	5.4	98.7	13.0	4.4	3.0
	CV%	16.6%	4.1%	0.9%	4.9%	1.4%
05/16/06	BMN - 1 *	4.00	1792	1496	11.2	171
	BMN - 2 *	4.30	2276	1733	14.3	216
	BMN - 3 *	3.50	2027	1572	12.0	198
	Mean	3.93	2032	1600	12.5	195
	Stdev	0.40	242	121	1.6	22.7
	CV%	10.3%	11.9%	7.5%	12.9%	11.7%
05/16/06	BMN - 1 **	BELO	1749	1451	2.80	382
	BMN - 2 **	2.6	1241	1143	3.30	237
	BMN - 3 **	3.4	2409	2241	3.5	492
	Mean	2.7	1799	1612	8.53	370
	Stdev	1.0	586	566	9.5	127.6
	CV%	36.7%	32.5%	35.1%	111.3%	34.5%
05/09/06	2R4F-1	24.5	743	350	66.3	45.9
	2R4F-2	16.9	609	296	51.2	36.5
	2R4F-3	15.3	560	256	42.6	32.0
	Mean	18.9	637	300	53.4	38.1
	Stdev	4.9	94.7	47.3	12.0	7.1
	CV%	26.0%	14.9%	15.8%	22.5%	18.6%
05/15/06	2R4F-1	20.3	524	313	57.1	46.0
	2R4F-2	19.2	493	290	52.2	40.3
	2R4F-3	19.7	543	322	58.0	46.6
	Mean	19.7	520	308	55.8	44.3
	Stdev	0.6	25.0	16.5	3.1	3.5

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Crotonaldehyde (ug/cig)	Methyl Ethyl Ketone (ug/cig)	Butyraldehyde (ug/cig)	Puff Count
66.8	399	129	48.0
63.6	361	113	45.0
71.2	404	120	46.0
67.2	388	120	46.3
3.8	23.6	8.1	1.5
5.7%	6.1%	6.7%	3.3%
90.9	438	109	44.0
95.3	490	120	51.0
92.3	466	117	50.0
92.8	465	115	48.3
2.2	26.0	5.8	3.8
2.4%	5.6%	5.0%	7.8%
64.9	576	160	40.0
59.6	490	149	37.0
43.6	451	142	41.0
56.0	506	150	39.3
11.1	63.9	8.9	2.1
19.8%	12.6%	5.9%	5.3%
80.8	401	116	47.0
73.7	449	125	51.0
79.8	414	109	42.0
78.1	422	117	46.7
3.8	24.6	7.8	4.5
4.9%	5.8%	6.7%	9.7%
6.9	480	113	48.0
20.6	612	141	52.0
9.2	593	134	58.0
12.2	562	129	52.7
7.3	71.5	14.4	5.0
60.0%	12.7%	11.1%	9.6%
10.1	639	206	72.6
1.80	385	137	62.6
38.3	879	217	63.0
16.7	635	187	65.7
19.1	246.8	43.6	5.5
114.3%	38.9%	23.4%	8.4%
16.5	60.9	24.5	10.0
11.7	54.3	22.8	10.0
9.1	51.6	19.4	10.0
12.4	55.6	22.2	10.0
3.8	4.8	2.6	0.0
30.2%	8.6%	11.7%	0.0%
18.2	75.9	25.7	9.0
17.3	67.7	21.8	8.0
19.6	74.0	24.2	9.0
18.4	72.5	23.9	8.7
1.2	4.3	2.0	0.6

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	CV%	2.8%	4.8%	5.4%	5.6%	7.8%
5/16/2006	2R4F-1	18.1	626	261	51.9	37.0
	2R4F-2	16.7	596	259	48.5	33.8
	2R4F-3	20.9	674	286	58.3	41.8
	Mean	18.6	632	269	52.9	37.5
	Stdev	2.1	39.5	14.9	5.0	4.0
	CV%	11.5%	6.2%	5.5%	9.4%	10.7%

* Unconditioned Regular Holder

** Unconditioned Large Holder: we believe the large holder results are less reliable for this product only. The product is very soft and we believe leaks occurred during smoking. All other samples were smoked

18.9	637	300	53.4	38.1
19.7	529	308	55.8	44.3
18.6	632.3	268.6	52.9	37.5
19.1	597	292	54.0	40.0
0.6	66.2	21.0	1.5	3.7
3.2%	11.1%	7.2%	2.8%	9.4%

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6.3%	5.9%	8.2%	6.7%
6.4	73.0	24.1	10
3.8	65.0	28.0	10
10.9	75.5	23.7	9
7.0	71.2	25.3	9.7
3.6	5.5	2.4	0.6
51.1%	7.7%	9.4%	6.0%

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d with the Large Holder.

12.4	55.6	22.2	10
18.4	72.5	23.9	8.7
7.0	71.2	25.3	9.7
12.6	66.4	23.8	9.4
5.7	9.4	1.5	0.7
45.0%	14.2%	6.4%	7.3%

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OPERATOR: MLEL	DATE: 05/04/06	METHOD: Carbonyl	AIR FLOW:	
20-port Borgwaldt Linear	TEMPERATURE	HUMIDITY		
# CIGS. USED: *	Swisher Blackstone Cherry			
Sample ID:	Sample ID:	Sample ID:	Sample ID:	Sample ID:
Port ID:	Port ID:	Port ID:	Port ID:	Port ID:
TEMP / RH	TEMP / RH	TEMP / RH	TEMP / RH	TEMP / RH
PUFF VOLUME 1)	PUFF VOLUME 1)	PUFF VOLUME 1)	PUFF VOLUME 1)	PUFF VOLUME 1)
2)	2)	2)	2)	2)
3)	3)	3)	3)	3)
Leak Check (Y/N)	Leak Check (Y/N)	Leak Check (Y/N)	Leak Check (Y/N)	Leak Check (Y/N)
MS FINAL WT.	MS FINAL WT.	MS FINAL WT.	MS FINAL WT.	MS FINAL WT.
MS INITIAL WT.	MS INITIAL WT.	MS INITIAL WT.	MS INITIAL WT.	MS INITIAL WT.
TPM	TPM	TPM	TPM	TPM
PUFF COUNT	PUFF COUNT	PUFF COUNT	PUFF COUNT	PUFF COUNT
Time:	Time:	Time:	Time:	Time:
Length:	Length:	Length:	Length:	Length:
Butt Length:	Butt Length:	Butt Length:	Butt Length:	Butt Length:
Weight:	Weight:	Weight:	Weight:	Weight:
Weight after:	Weight after:	Weight after:	Weight after:	Weight after:
% Smoked:	% Smoked:	% Smoked:	% Smoked:	% Smoked: