Sample

Contact/User:	
Cal. Date:	Nov/29/2005
Recal. Due:	Feb/28/2006
Make:	Finnpipette
Model:	50 - 300 ul 8 channe Digital 4510
Serial Number:	Sample
Id Marks:	Sample
Tracking Number:	80048.004
Calibrated By:	GK

Standard:	METTLER AT261
Balance SN:	1118121970
Balance Recal Due:	Apr/30/2006
Weight Set:	84359
Wt.Recal Due:	Oct/31/2006
Weight Set:	PASS
Temp. deg. C:	21.1
Humidity %RH:	26.5
Barometer mm. Hg:	30.32
Water Den. (g/ml):	0.99695
Z factor (1/density):	1.00306

As Left 50 ul

Repetition	1	2	3	4	5	6	7	8	
1	50.1	50.0	50.1	50.3	49.9	50.2	50.0	50.4	
2	49.9	49.7	49.9	50.0	50.1	50.1	49.8	50.3	
3	49.9	49.9	49.8	50.1	49.9	49.7	50.1	50.4	
4	49.5	49.7	49.9	49.7	50.0	50.2	50.2	50.3	
Average	49.80	49.78	49.88	49.98	49.93	50.00	49.98	50.30	49.96
St. Dev.	0.25	0.15	0.13	0.25	0.10	0.24	0.17	0.06	0.22
Manuf. Spec. Ave.	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS
Manuf. Spec. STDev.	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS

As Left 300 ul

Repetition	1	2	3	4	5	6	7	8	
1	299.3	299.9	299.5	300.5	299.4	301.1	301.2	300.8	
2	298.9	299.2	299.4	299.5	298.8	300.1	300.6	300.3	
3	299.0	298.9	298.8	299.4	298.7	300.4	300.3	300.1	
4	299.5	298.6	299.5	299.3	298.8	300.3	300.3	300.5	
Average	299.19	299.16	299.31	299.69	298.94	300.49	300.62	300.44	299.73
St. Dev.	0.28	0.56	0.34	0.56	0.32	0.44	0.43	0.30	0.75
Manuf. Spec. Ave.	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS
Manuf. Spec. STDev.	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS

Volume	50 UL	300 UL
Average (ul)	47.7 - 52.3	297 - 303
STDev. (ul)	0.8	0.9

Procedure:
This pipette was calibrated gravimetrically using Protocol CP 1.04.01 with water that is no less than 1 Megaohm/cm3.
All balances are certified against NIST traceable standards and serviced yearly by the manufacturer.
The volume reported is calculated by muliplying the weight as measured by the balance by the Z factor as shown in the standards and conditions.
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Parts Replaced:

Calibrators Comments:

Remedial action:
Items replaced as indicated in "Parts Replaced".
Pipette was recalibrated to manuf. specifications.

80048.004

E46649

Report reviewed by:

Date of review: Nov/29/2005