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MVS[®] Calibrator Plate Calibration Certificate

Calibration Number:	strTestNum	Customer:	strCustomerName	Issue Date:	09 Apr 2012
Condition:	strCondition	Address:	strAddress1	Test Date:	strTestDate
Test Type:	strTestType		strAddress2	Test Status:	strTestStatus
Serial Number:	strSerialNum		strAddress3	Expiration Date:	strExpDate

strStatement

Description of Item Calibrated:

The MVS Calibrator Plate is used to ensure the performance of each MVS system. The Calibrator Plate is an absorbance standard that contains sealed cuvettes and a neutral density glass filter. The absorbance of each of these components is measured at 520.2 nm and 730.5 nm. The absorbance readings are corrected to a reference temperature of 25°C.

Traceability:

Calibration is performed on a Varian UV/VIS Spectrophotometer, Serial Number EL05073629 or EL02065994. These instruments are calibrated monthly using standards traceable to the International System of Units (SI) through the National Physical Laboratory, UKAS No. 0478, Certified Reference Materials RM-NIN35N Serial Number 7308, RM-IN2N3N Serial Number 7232, and RM-DID39N Serial Number 8984.

Calibration Method Document Number: 310A4874

The measured values reported below are embedded in the barcode on the Calibrator Plate.

Sample	520.2 nm Absorbance (A) median reading. Temp corrected 25°C n=3	Uncertainty K=2	730.5 nm Absorbance (A) median reading Temp corrected 25°C n=3	Uncertainty K=2
Neutral Density Filter	strND520	0.0025	strND730	0.0019
Cuvette 1	str1520	0.0012	str1730	0.0012
Cuvette 2	str2520	str2520K	str2730	str2730K
Cuvette 3	str3520	str3520K	str3730	str3730K
Cuvette 4	str4520	str4520K	str4730	str4730K
Cuvette 5	str5520	str5520K	str5730	str5730K

These results relate only to the MVS Calibrator Plate identified in this report.



Artel Laboratory

Calibration Number: strTestNum
Serial Number: strSerialNum

Uncertainty:

Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k=2$.

Additional Information:

The MVS Calibrator Plate is used to normalize the absorbance measurements made by the MVS Plate Reader to correlate with those made by a reference spectrophotometer. The Data Manager software obtains critical information from the barcode concerning the absorbance standards used in the Calibrator Plate, then compares and adjusts the readings of the Plate Reader accordingly.

The contents of the MVS Calibrator Plate are subject to degradation with time, extreme temperature changes, and prolonged exposure to light. The plate should be stored in darkness in its case at room temperature (15°C to 30°C) between uses to ensure the shelf life. Prior to use, the MVS Calibrator Plate should be thermally equilibrated to room temperature. Handle the MVS Calibrator Plate with extreme care, and adhere to the cleaning procedures described in the MVS Procedure Guide.

The A2LA symbol does not imply certification/approval of the products, but rather accreditation of the competency of the Artel Laboratory to perform this calibration. This calibration certificate shall not be reproduced except in full, without written approval of the Artel Laboratory.

The MVS Calibrator Plate is covered by patents listed at <http://www.artel-usa.com/patents.aspx>.

Performed by: PerformedBySig Date: strPBDate
Technician: strPerformedBy

Authorized by: strAuthorizedBy Date: 09 Apr 2012
Technical Manager: strAuthorizedBy