

ADVIA Centaur®
ADVIA Centaur® XP
ADVIA Centaur® XPT
ADVIA Centaur® CP

ADVIA Centaur CKMB Calibrator Bias and Out of Range Results Using Master Curve Material (MCM)

Our records indicate that your facility may have received the following product:

Table 1. ADVIA Centaur Affected Product(s)

Product	Catalog Number	Siemens Material Number (SMN)	Lot Number	Manufacturing Date (YYYY-MM-DD)	Expiration Date (YYYY-MM-DD)
ADVIA Centaur CKMB Calibrator	09318028	10311570	57834A64 57835A64 72519A64 98115A64	2017-12-11	2018-12-11
ADVIA Centaur CKMB MCM	07867768	10309782	35061	2016-08-10	2019-02-10

Reason for Recall

The purpose of this communication is to inform you of an issue with the products indicated in Table 1 above and provide instructions on actions for your laboratory to take.

Siemens Healthcare Diagnostics has identified a bias with ADVIA Centaur CKMB Calibrator kit lots ending in 64 (CK64) when compared to internal standards and previously released ADVIA Centaur CKMB Calibrator kit lots ending in 63 (CK63) on the ADVIA Centaur/XP/XPT and ADVIA Centaur CP systems. The patient sample bias observed when comparing ADVIA Centaur CKMB Calibrator kit lots ending in 64 to unaffected ADVIA Centaur CKMB Calibrator kit lots ending in 63 is found in Table 2, Figure 1 and Figure 2.

Alignment to the internal standardization is restored with the release of ADVIA Centaur CKMB Calibrator kit lots ending in 68 (CK68).

Customers may observe a shift in Quality Control (QC) material, Master Curve Material (MCM) and patient results when transitioning from ADVIA Centaur CKMB Calibrator Lots ending in 64. Refer to the *Additional Information* section for information related to patient sample bias and Bio-Rad controls.

Siemens has also identified the potential for out of range ADVIA Centaur CKMB Master Curve Material results when using the lot identified in Table 1 on the ADVIA Centaur/XP/XPT and ADVIA Centaur CP systems.

The root cause is currently under investigation.

Table 2. CKMB Calibrator Lot-to-Lot Patient Sample Bias

	ADVIA Centaur/XP/XPT	ADVIA Centaur CP
Range of Patient Sample CKMB Values	CK64 vs. CK63	CK64 vs. CK63
2.0 - 4.9 ng/mL (0.0250 - 0.0613 nmol/L) [Bias range]	2% [0% to 5%]	-1% [-5% to 6%]
5.0 - 25 ng/mL (0.0625 - 0.3125 nmol/L) [Bias range]	7% [5% to 9%]	12% [7% to 16%]
26 - 50 ng/mL (0.3250 - 0.6250 nmol/L) [Bias range]	9% [9% to 10%]	17% [15% to 17%]
51 - 150 ng/mL (0.6375 - 1.88 nmol/L) [Bias range]	11% [10% to 12%]	21% [18% to 24%]
151 - 300 ng/mL (1.89 - 3.75 nmol/L) [Bias range]	13% [12% to 14%]	29% [25% to 34%]

Figures 1 and 2 are bias plots created using the data from Table 2. Figure 1 includes the entire Analytical Measurement Range while Figure 2 focuses on the samples around the assay cutoff of 5 ng/mL (0.0625 nmol/L).

Figure 1. CKMB Calibrator Lot-to-Lot Bias on ADVIA Centaur/XP/XPT and ADVIA Centaur CP, 2.0 – 300 ng/mL (0.0250 – 3.75 nmol/L)

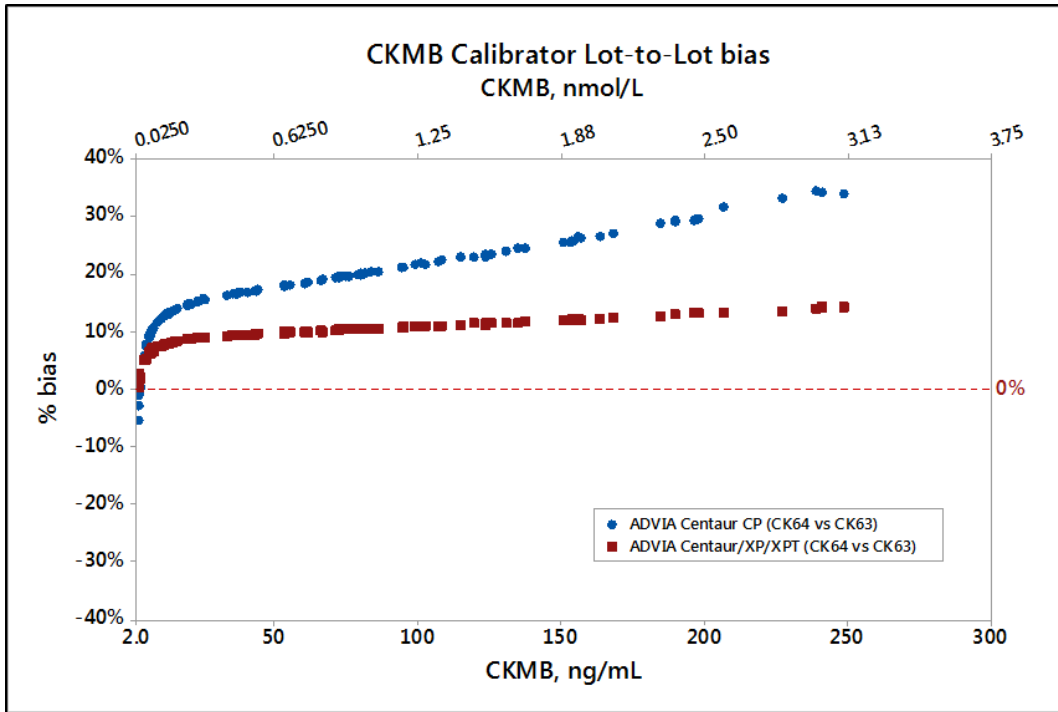
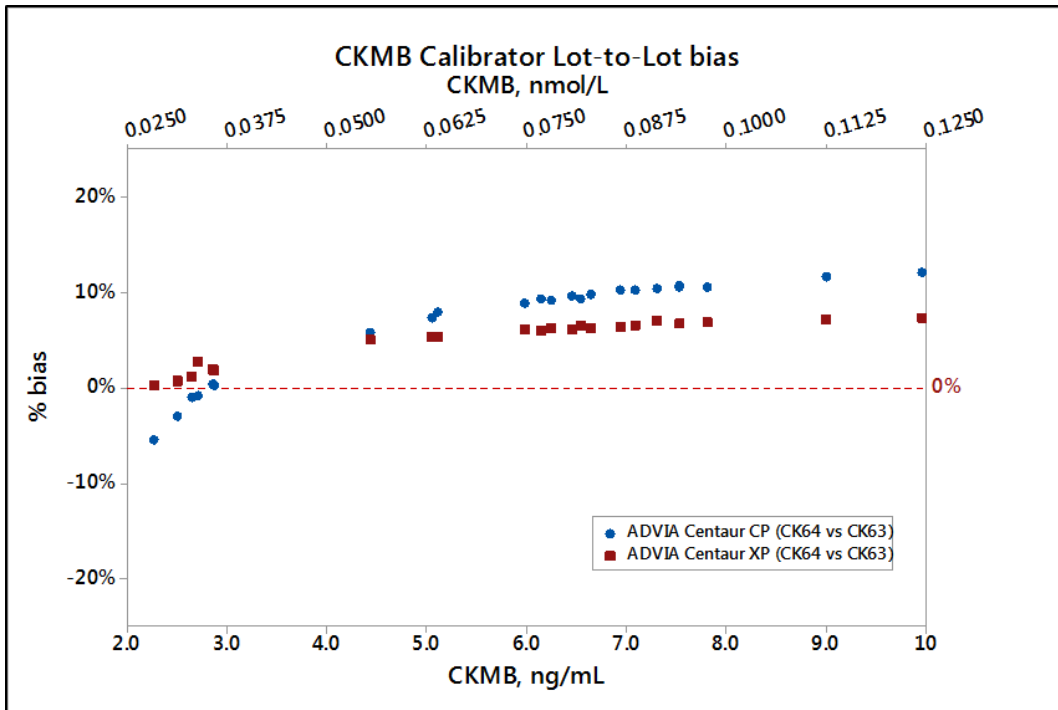


Figure 2. CKMB Calibrator Lot-to-Lot Bias on ADVIA Centaur/XP/XPT and ADVIA Centaur CP, 2.0 – 10 ng/mL (0.0250 – 0.1250 nmol/L)



Risk to Health

The differences in results across the assay range when using CK64 or when moving to CK68 (see *Additional Information*) would not be expected to cause a clinically significant difference in patient management during interpretation of serial CK-MB results and ECG assessment. There are minimal differences at the cutoff (**5 ng/mL or 0.0625 nmol/L**) for high suspicion of acute myocardial infarction. Failure of an MCM due to this issue is sporadic and would be apparent to the laboratory. The risk to health is negligible. Siemens is not recommending a review of previously generated results.

Actions to be Taken by the Customer

Please review this letter with your Medical Director.

ADVIA Centaur CKMB Calibrator Lots ending in 64

- If you are currently using ADVIA Centaur CKMB Calibrator Lots in Table 1, review your inventory of these products and immediately order replacement ADVIA Centaur CKMB Calibrator kit lots ending in 68 by completing the Field Correction Effectiveness Check Form attached to this letter.
- You may continue use of ADVIA Centaur CKMB Calibrator kit lots in Table 1 until replacement product is received in your laboratory. Refer to Table 2, Figure 1 and Figure 2 for ADVIA Centaur CKMB Calibrator lot bias information.
- Upon receipt of replacement product in your laboratory, discontinue use of and discard the ADVIA Centaur CKMB Calibrator kit lots listed in Table 1.
- ADVIA Centaur CKMB Calibrator kit lots ending in 63 may continue to be used until the assigned expiration date.

Refer to the *Additional Information* section for expected patient sample bias when transitioning to ADVIA Centaur CKMB Calibrator kit lots ending in 68.

ADVIA Centaur Master Curve Material

- Discontinue use of and discard the ADVIA Centaur MCM lots in Table 1.
- Review your inventory of these products and order replacement ADVIA Centaur CKMB Master Curve Material by completing the Field Correction Effectiveness Check Form attached to this letter.
- Utilize ADVIA Centaur CKMB MCM Lot 13384 and future lots.

Complete and return the Field Correction Effectiveness Check Form attached to this letter within 30 days.

If you have received any complaints of illness or adverse events associated with the products listed in Table 1, immediately contact your local Siemens Customer Care Center or your local Siemens technical support representative.

Please retain this letter with your laboratory records, and forward this letter to those who may have received this product.

We apologize for the inconvenience this situation may cause. If you have any questions, please contact your Siemens Customer Care Center or your local Siemens technical support representative.

Additional Information

When switching to ADVIA Centaur CKMB Calibrator Lots ending in 68, refer to the patient sample bias information in Table 3 and Figures 3 through 6. Table 3 data includes multiple calibrator lot and reagent lot combinations. Figures 3 through 6 represent a subset of the data in Table 3 and contain the bias observed between calibrator lots when using a constant reagent lot. Figures 3 and 5 include the entire Analytical Measurement Range while Figure 4 and 6 focus on the samples around the assay cutoff of 5 ng/mL (0.0625 nmol/L).

Table 3. CKMB Calibrator Lot-to-Lot Patient Sample Bias Across Various Reagent Lots

Range of Patient Sample CKMB Values [Bias range]	ADVIA Centaur/XP/XPT		ADVIA Centaur CP	
	CK68 vs CK63	CK68 vs CK64	CK68 vs CK63	CK68 vs CK64
2.0 - 4.9 ng/mL (0.0250 - 0.0613 nmol/L) [Bias range]	-2% [-14% to 14%]	-5% [-16% to 13%]	6% [-3% to 22%]	2% [-5% to 19%]
5.0 - 25 ng/mL (0.0625 - 0.3125 nmol/L) [Bias range]	-1% [-15% to 5%]	-10% [-21% to -5%]	-1% [-5% to 13%]	-5% [-12% to 11%]
26 - 50 ng/mL (0.3250 - 0.6250 nmol/L) [Bias range]	-2% [-11% to 0%]	-12% [-21% to -10%]	-3% [-4% to 2%]	-7% [-13% to -1%]
51 - 150 ng/mL (0.6375 - 1.88 nmol/L) [Bias range]	-2% [-12% to 4%]	-14% [-23% to -7%]	-4% [-8% to 7%]	-9% [-15% to 4%]
151 - 300 ng/mL (1.89 - 3.75 nmol/L) [Bias range]	-3% [-14% to 1%]	-17% [-27% to -12%]	-9% [-24% to -4%]	-16% [-28% to -8%]

Figure 3. CKMB Calibrator Lot-to-Lot Bias within Reagent Lots on ADVIA Centaur/XP/XPT, 2.0 – 300 ng/mL (0.0250 – 3.75 nmol/L)

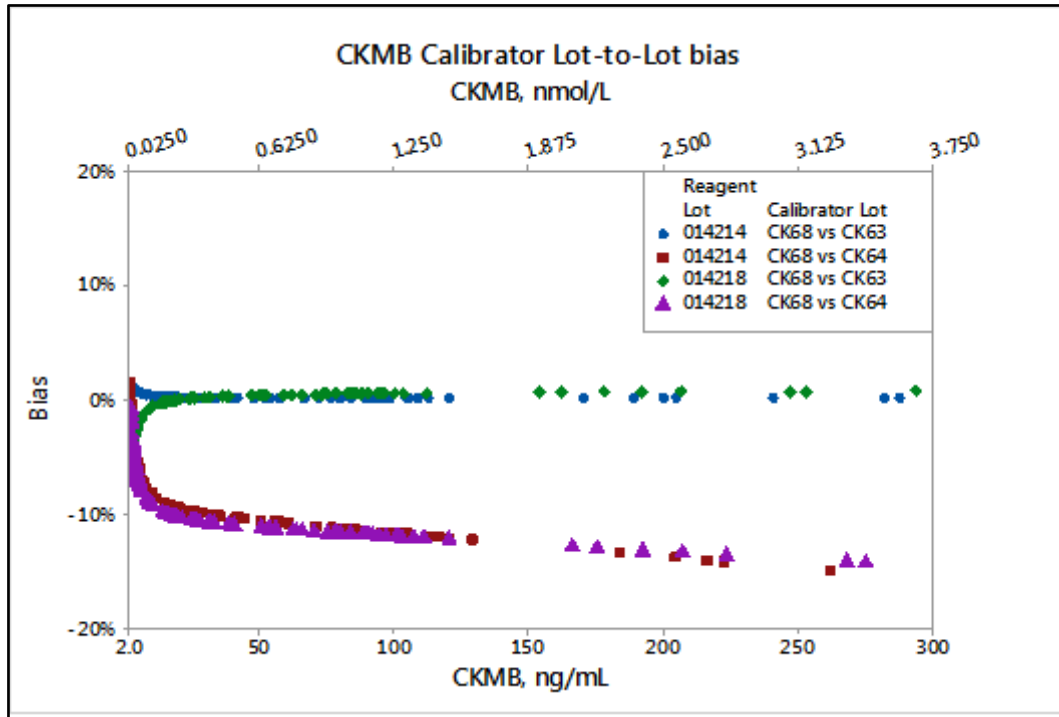


Figure 4. CKMB Calibrator Lot-to-Lot Bias Within Reagent Lots on ADVIA Centaur/XP/XPT, 2.0 – 10 ng/mL (0.0250 – 0.1250 nmol/L)

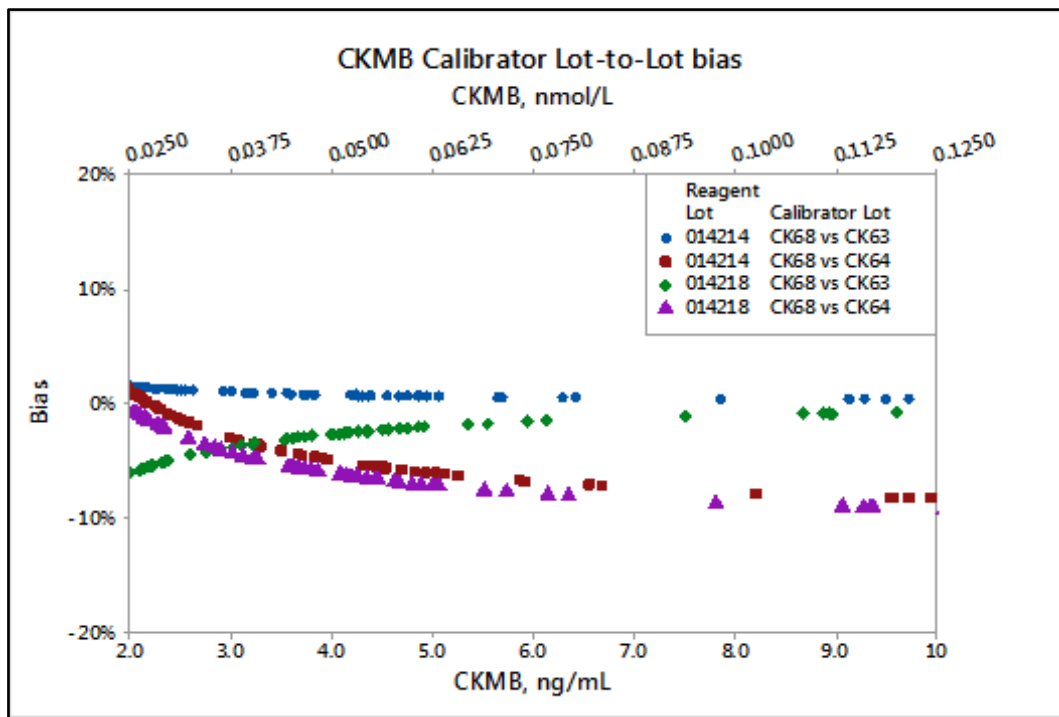


Figure 5. CKMB Calibrator Lot-to-Lot Bias within Reagent Lots on ADVIA Centaur CP, 2.0 – 300 ng/mL (0.0250 – 3.75 nmol/L)

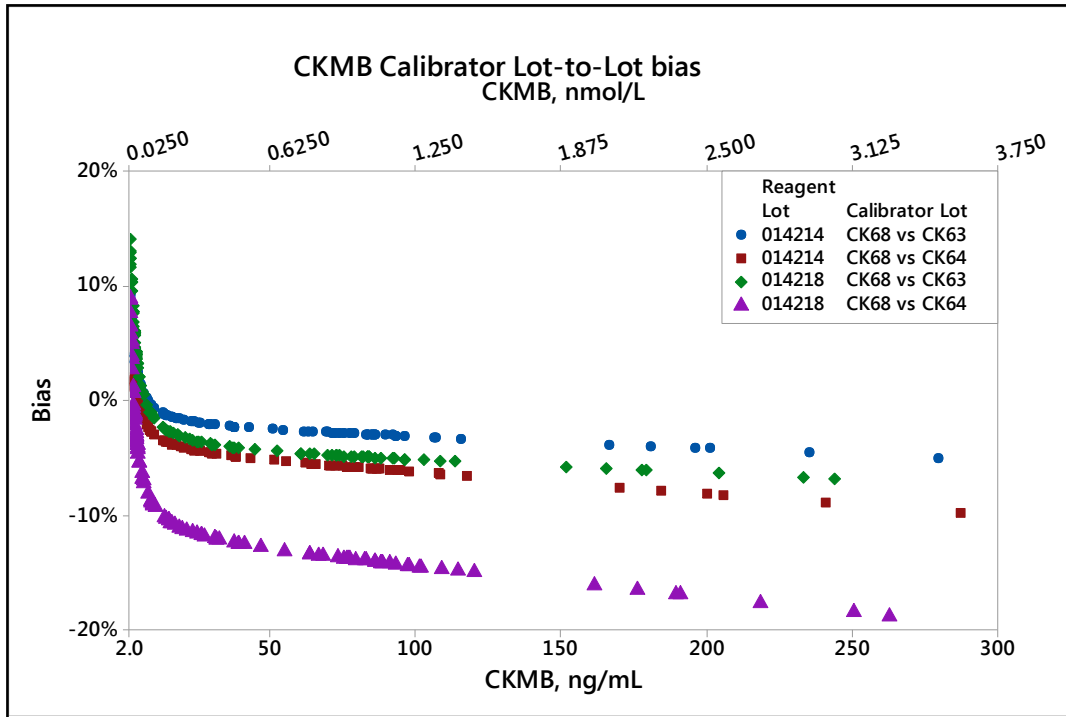
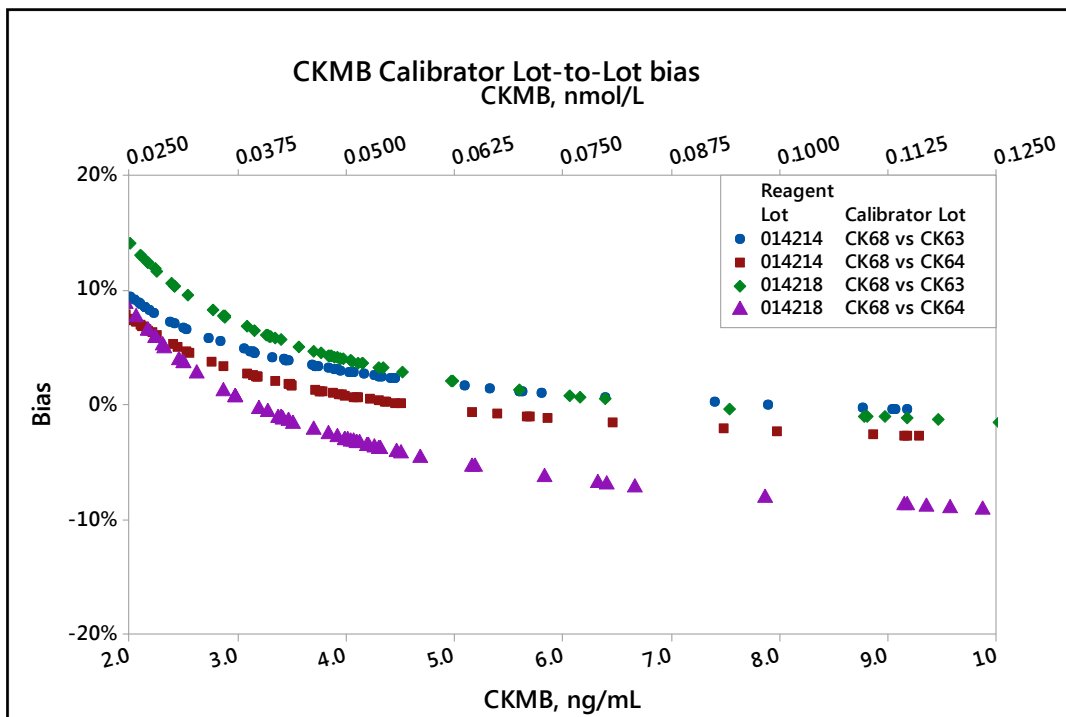


Figure 6. CKMB Calibrator Lot-to-Lot Bias Within Reagent Lots on ADVIA Centaur CP, 2.0 – 10 ng/mL (0.0250 – 0.1250 nmol/L)



As stated in the ADVIA Centaur CKMB assay Instructions for Use, each laboratory should select appropriate commercially available controls and evaluate control recovery based on their established internal laboratory quality control procedure. There are some changes to the Bio-Rad quality control material assignments resulting from this investigation. Please refer to the Bio-Rad website (www.qcnet.com) for new targets and ranges for Bio-Rad control products.

Product availability may vary from country to country and is subject to varying regulatory requirements. Due to local regulations, the ADVIA Centaur XPT may not be available in all countries.

ADVIA Centaur is a trademark of Siemens Healthcare Diagnostics.

FIELD CORRECTION EFFECTIVENESS CHECK

ADVIA Centaur CKMB Calibrator Bias and Out of Range Results Using Master Curve Material (MCM)

This response form is to confirm receipt of the enclosed Siemens Healthcare Diagnostics Urgent Field Safety Notice dated July 2018 regarding ADVIA Centaur CKMB Calibrator Bias and Out of Range Results Using Master Curve Material (MCM). Please read each question and indicate the appropriate answer.

Return this completed form to Siemens Healthcare Diagnostics as per the instructions provided at the bottom of this page.

1. I have read and understood the Urgent Field Safety Notice instructions provided in this letter. Yes No
2. Do you now have any of the noted product(s) on hand? Please check inventories before answering. Yes No

If the answer to the question above is yes, please complete the table below to indicate the quantity of affected product in your laboratory and replacement product required.

Product Description Product Catalog #/SMN #/Lot #	Quantity Discarded/ Replacement Quantity Required
ADVIA Centaur CKMB Calibrator/SMN 10311570 Lot 57834A64, 57835A64, 72519A64, 98115A64	
ADVIA Centaur CKMB MCM/SMN 10309782 Lot 35061	

Name of person completing questionnaire: _____

Title: _____

Institution: _____ Instrument Serial Number: _____

Street: _____

City: _____ State: _____

Phone: _____ Country: _____

Customer Sold To #: _____ Customer Ship To #: _____

Please send a scanned copy of the completed form via email to XXXX@XXXX

Or to fax this completed form to the Customer Care Center at XXXXXX.

If you have any questions, contact your local Siemens technical support representative.