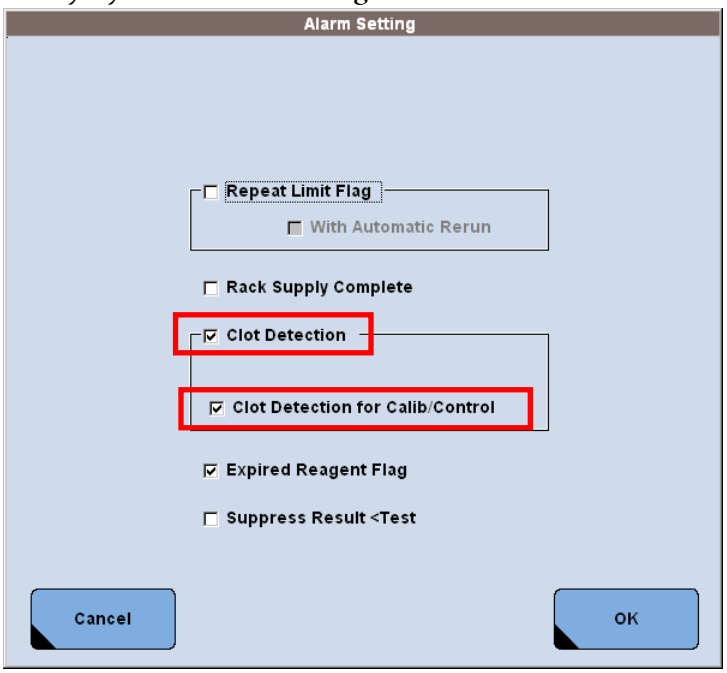
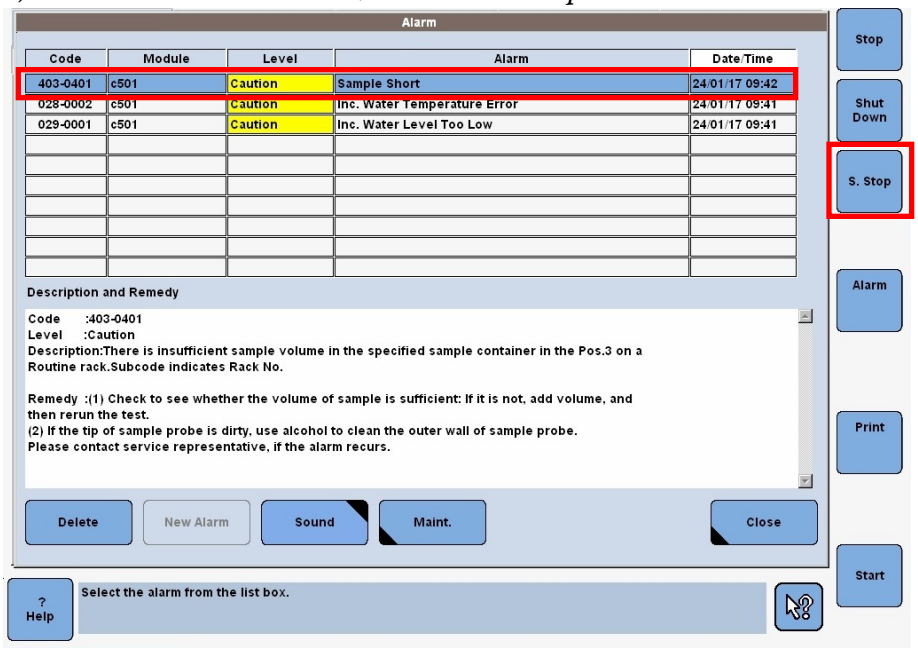
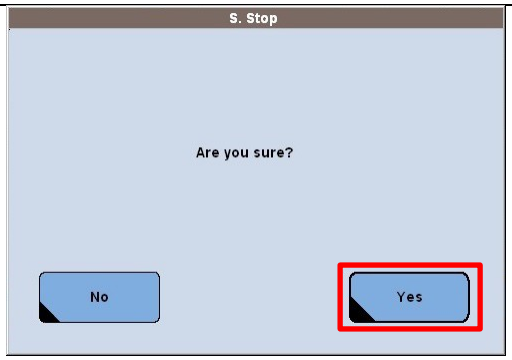
When the system alarm *Sample Short* or *Abnormal Probe Sucking* is issued while there is still sufficient amount of sample volume, it is necessary to replace the sample probe. A verification of the measurement results is required.

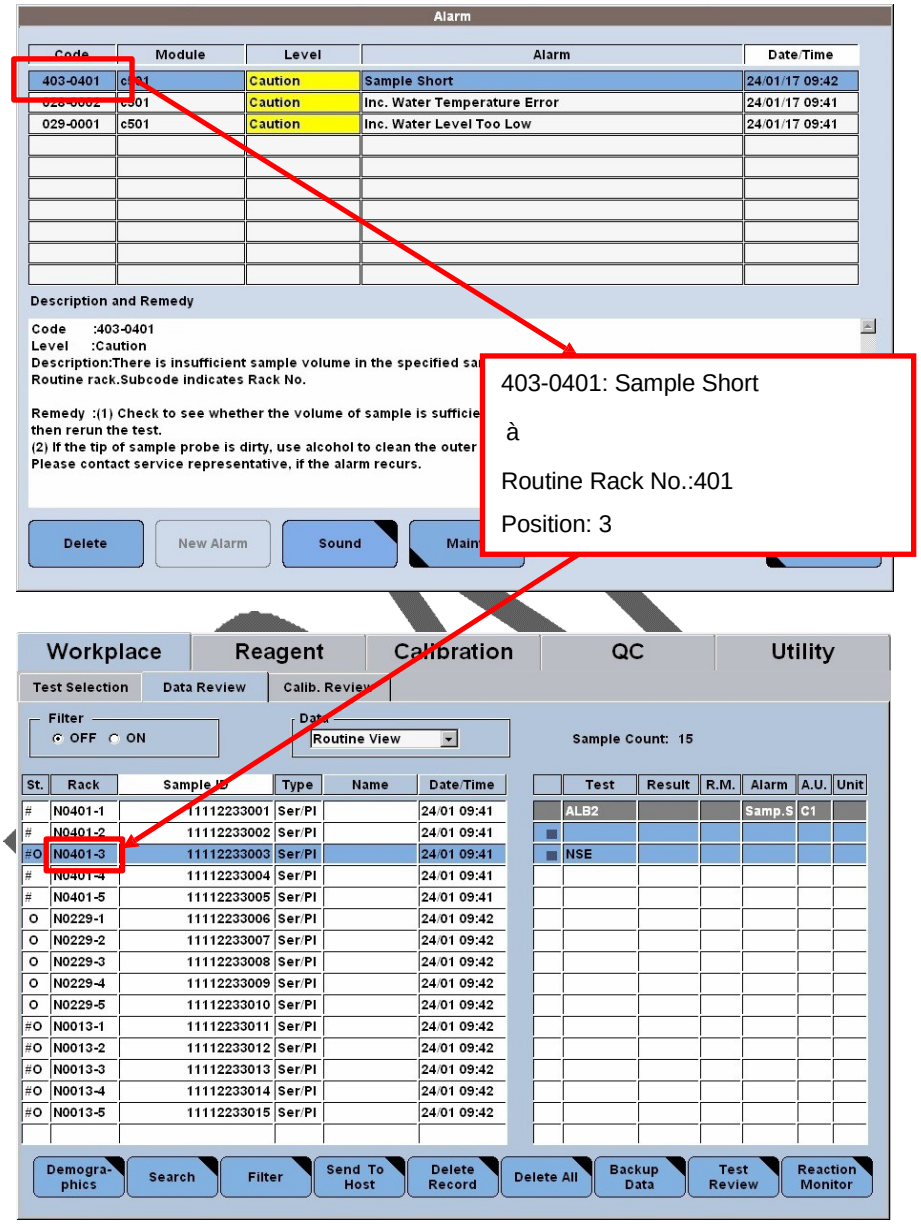
When there is no replacement sample probe available, clean the inside and the outside of the sample probe. This is described in the Operator's Manual Version 8.0 and in the manual "Interlock function cobas c 501 with ISE Version 1.2". The inside cleaning maintenance actions of the cobas® 6000 analyzer series can only be performed by specially trained operators. Please refer to the coinciding procedures "Replacing sample, ISE and reagent probes – elimination of blockages" and "Cleaning sample probe, reagent probes, ISE probe and ISE sipper nozzle".

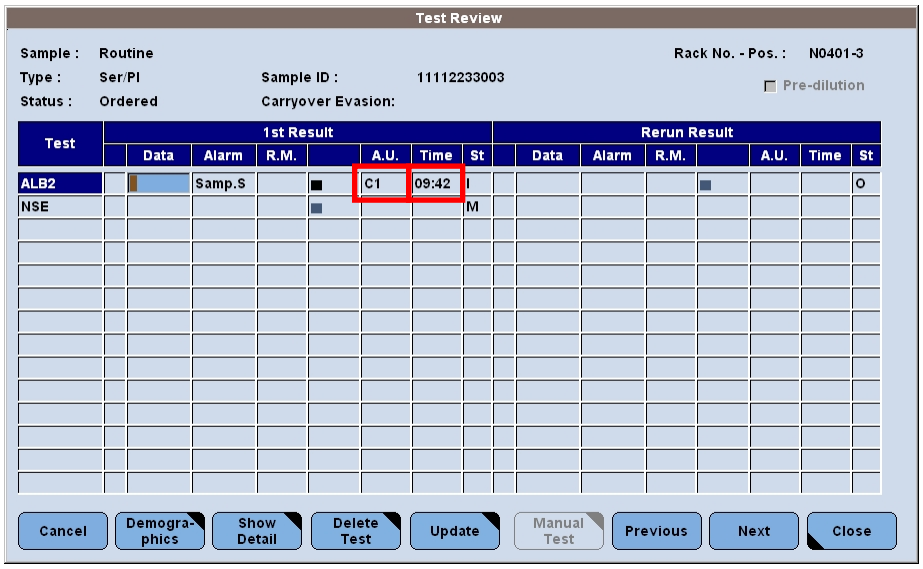
	Step	Action
Preparation: Clot Detection ON	**1**	Enable the Clot Detection and Clot Detection for Calib/Control settings in *Utility-System-Alarm Settings.* 

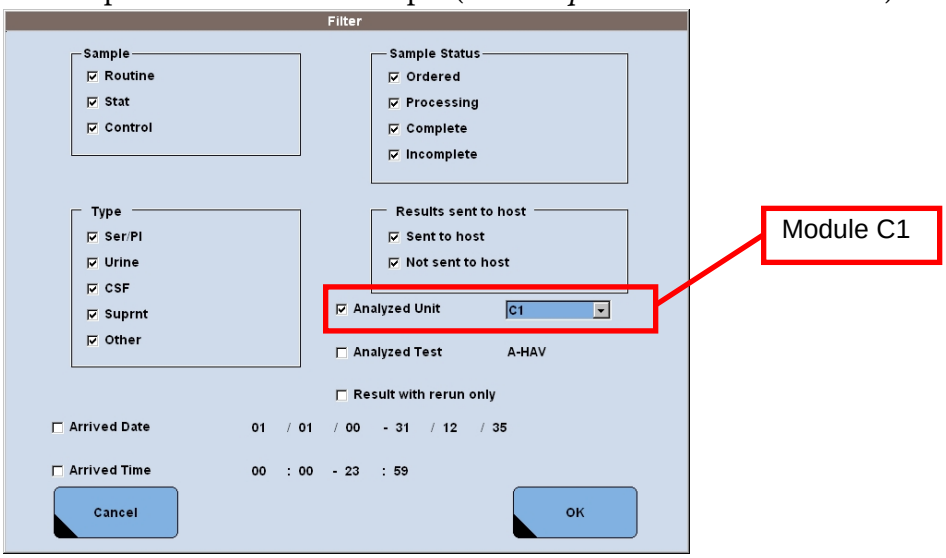
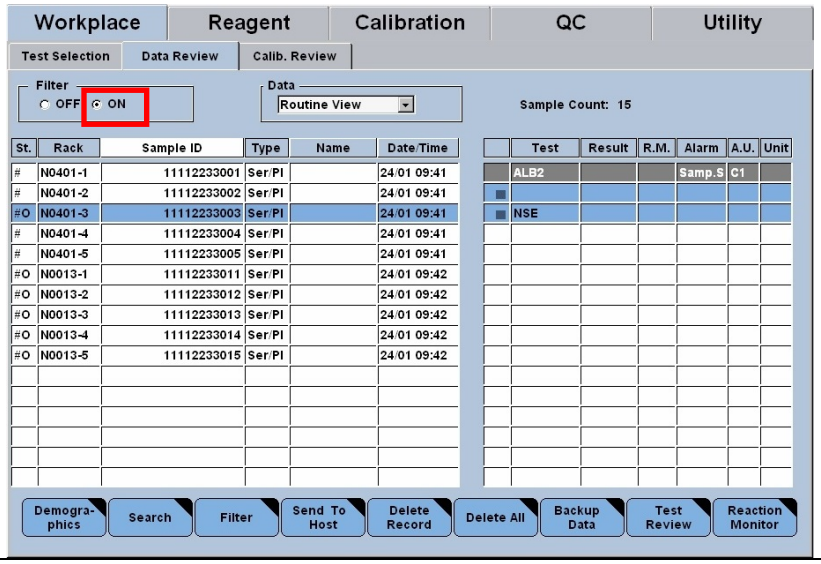
<table>
<tr><th></th><th>Step</th><th>Action</th></tr>
<tr><td>Check the Sample Short and Sample Clot alarm</td><td>2</td><td>The table below shows the system alarm list of Sample Short and Sample Clot.
<table>
<tr><th>Alarm</th><th>Alarm Code</th><th>Alarm Sub-Code</th></tr>
<tr><td rowspan="9">Sample Short</td><td>431 - 435</td><td>0001-9999</td></tr>
<tr><td>436 - 440</td><td>0001-9999</td></tr>
<tr><td>401 - 405</td><td>0001-9999</td></tr>
<tr><td>406 - 410</td><td>0001-9999</td></tr>
<tr><td>411 - 415</td><td>0001-9999</td></tr>
<tr><td>416 - 420</td><td>0001-9999</td></tr>
<tr><td>421 - 425</td><td>0001-9999</td></tr>
<tr><td>426 - 430</td><td>0001-9999</td></tr>
<tr><td>441</td><td>0001</td></tr>
<tr><td rowspan="9">Abnormal Probe sucking
(The alarm of Sample Clot is issued as "Abnormal Probe sucking")</td><td>481 - 485</td><td>0001 - 9999</td></tr>
<tr><td>486 - 490</td><td>0001 - 9999</td></tr>
<tr><td>451 - 455</td><td>0001 - 9999</td></tr>
<tr><td>456 - 460</td><td>0001 - 9999</td></tr>
<tr><td>461 - 465</td><td>0001 - 9999</td></tr>
<tr><td>466 - 470</td><td>0001 - 9999</td></tr>
<tr><td>471 - 475</td><td>0001 - 9999</td></tr>
<tr><td>476 - 480</td><td>0001 - 9999</td></tr>
</table></td></tr>
<tr><td>Sampling Stop</td><td>3</td><td>a) When the alarm is issued, select the S. Stop button.


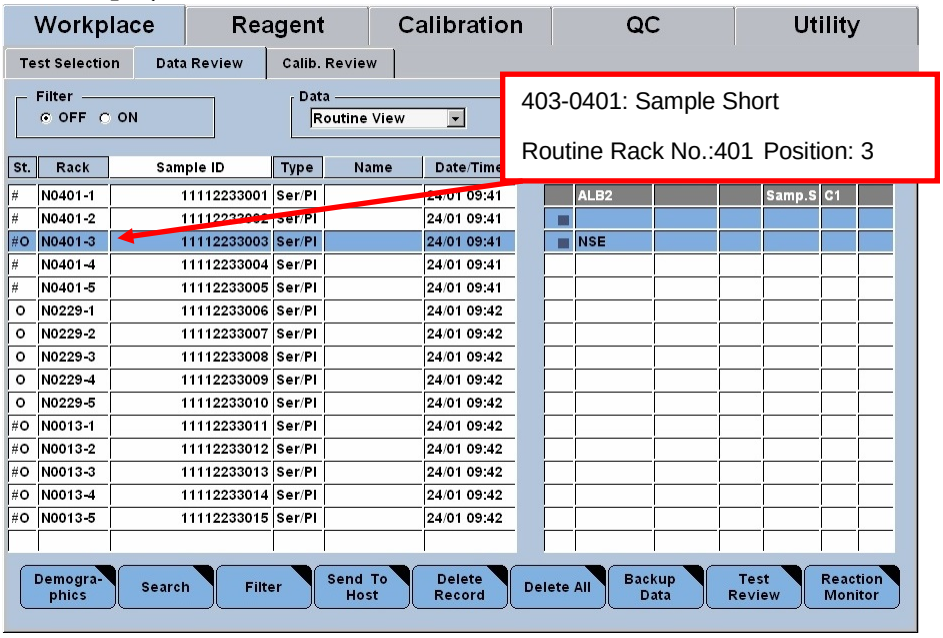
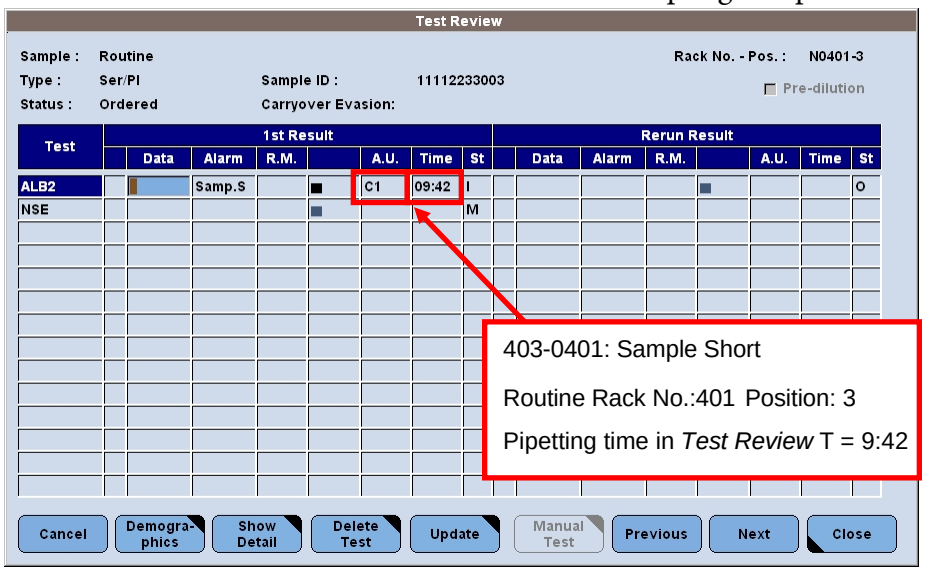
b) When the [S. Stop] window appears, choose [Yes].</td></tr>
</table>

		 c) Confirm the confirmation window with *[Yes]* 
Wait until racks are unloaded	**4**	Wait until all racks are transferred to the unloader. (Waiting time may vary depending on the condition of the ordered analysis)

Identify sample for which alarm was issued	**5**	Identify the sample for which the system alarm was issued according to the code of the system alarm (refer to the following figure).  Example of a sample with Sample Short alarm on a routine rack.

Check sample volume	**6**	Check a) the sample volume in the sample container, and b) whether there is any substance adhered to the sample probe. No action is required when the sample volume is insufficient, and the sample probe is clean. When there is sufficient sample volume, replace the sample probe and move on to step 7.
Module and sampling time in Test Review	**7**	Check the module and the sampling time for which the alarm was issued in the *Test Review* screen (*Workplace-Data Review-patient sample (in sample list)-Test Review*). 

Set filter for the specific module	**8**	Set an "*Analyzed Unit*" filter for samples for which sampling was performed on the specific module from step 7 (in *Workplace-Data Review-Filter*). 
Filter for the specific module	**9**	Select the *[ON]* radio button for Filter on *Data Review* screen. 
Verify the results or discard the samples	**10**	Check the test results which measured after the sampling time in step 7 on the data review screen in step 9. All affected samples have to be verified/ discarded according to the local rules. An example of tests to be verified is described on the next page.

Example	**11**	On the *Data Review* screen, select all samples that were sampled on the analyzer unit after the sample with the sample short alarm, including the sample concerned. Then display the Test Review window.  Confirm the module and the time on which the sampling was performed.  The example *Test Review* window of samples on *Data Review* screen is described in the table below.

Rack	Test	Alarm	A.U.	Time	St.	Judgment of measurement result
N0401-1	ALB2		C1	09:42		OK
	NSE		E1-2	09:47		OK
N0401-2	ALB2		C1	09:42		OK
	NSE		E1-2	09:48		OK
N0401-3	ALB2	Samp.S	C1	09:42		Target for verification (Sample for which the sample short alarm was issued) Time T=09:42, Module C1
	NSE				M	
N0401-4	ALB2		C1	09:42		Target for verification (pipetted on module C1 after 9:42)
	NSE		E1-2	09:48		Target for verification (sample pipetted on module c1 after 9:42)
N0401-5	ALB2		C1	09:42		Target for verification (pipetted on module C1 after 9:42)
	NSE		E1-2	09:49		Target for verification (sample pipetted on module c1 after 9:42)
N0013-1	ALB2				M	
	NSE		E1-2	09:44		OK
N0013-2	ALB2				M	
	NSE		E1-2	09:44		OK
N0013-3	ALB2				M	
	NSE		E1-2	09:45		OK
N0013-4	ALB2				M	
	NSE		E1-2	09:46		OK
N0013-5	ALB2				M	
	NSE		E1-2	09:46		OK
N0229-1	ALB2		C1	09:42		Target for verification (pipetted on module C1 after 9:42)
	NSE				M	
N0229-2	ALB2		C1	09:43		Target for verification (pipetted on module C1 after 9:42)
	NSE				M	
N0229-3	ALB2		C1	09:43		Target for verification (pipetted on module C1 after 9:42)
	NSE				M	
N0229-4	ALB2		C1	09:43		Target for verification (pipetted on module C1 after 9:42)
	NSE				M	
N0229-5	ALB2		C1	09:43		Target for verification (pipetted on module C1 after 9:42)
	NSE				M	

No target for verification, since not pipetted on c1 module