ABCA2 Maintenance Report

Job Number:	SE0741 (ABCA 3 SERVICE)		
Customer:	Biomnis, Lyon, France		
Instrument Serial #	20602-201320	Gas Box Serial #	10602-201312
ASX 7400 Serial #	011302A7400HR	Software Version	V600.0.112
Contact:	Pauline Marini		
Date of Visit:	17/11/2026	Days:	3
Engineer:	Thomas Iordanidis		

Pre Maintenance Checks

Initial Tuning Parameters:

HT	2393	IR	-4.5
Focus	82	eV	-80
HP	-7	Trap	200
Emission	495.7		
Vacuum	5.8E-8 (2.7E-6 with v10 open)		

Initial Performance Evaluation

Peak Shape	Good	Sheet Number 1
Stability	Good	Sheet Number 2
Ref Gas Precision	0.031‰	Sheet Number 3
Linearity	0.872‰	Sheet Number 4
Breath Precision	0.037‰	Sheet Number 5

Maintenance Checklist		
Filament Change	Initial: TI	Date: 17/11/2026
Oil Change	Initial: TI	Date: 17/11/2026
Filament Condition	Initial: TI	Date: 17/11/2026
Tune Optimisation	Initial: TI	Date: 18/11/2026
Replace Syringe O Rings	Initial: TI	Date: 18/11/2026
Gas Flow Check and Optimisation	Initial: TI	Date: 18/11/2026
Magnet Position Optimisation (If Applicable)	Initial: N/A	Date: N/A
System Leak Check	Initial: TI	Date: 18/11/2026

Final Performance Evaluation

HT	2398	IR	-7.5
Focus	82	eV	-80
HP	-15	Trap	200
Emission	537.2		
Vacuum	5.8 E-8 (2.7E-6 with v10 open)		

Final Performance Evaluation

Peak Shape	Good	Sheet Number 6
Stability	Good	Sheet Number 7
Ref Gas Precision	0.017‰	Sheet Number 8
In Tube Precision	0.076‰	Sheet number 9
Sensitivity	23.2nA	Sheet Number 10
Linearity	0.316‰	Sheet Number 11
Breath Precision	0.054‰	Sheet Number 12

Faults and Issues:
Rotary pump oil level was found to be just above the minimum mark and a significant oil leak was visible. O-ring inspected no issues seen and all connections were tightened. It looks like the leak is coming from the body of the rotary pump, if this is the case a new rotary pump will be required for the system – monitor the oil level
Follow Up:
Service: • System in good condition, no issues reported by customer, with good pre-service specifications • Pump readback on arrival was 5.8E-8 & flow meter not reading back – customer is aware • Service commenced – Changed rotary pump oil, filament, grub screws, copper gasket, sample inlet ferrule & source screws • Filament conditioned at a vacuum of ~2.3E-7 with good emissions & source continuity checked on bench top & in flight tube – all okay • Vacuum reached ~8.2E-8 by the start of day 2 • Syringe and block O-rings replaced and leak checked -all okay • System passed all specifications with new filament (see results above) • Vacuum reached ~5.8E-8 by day 3 • System handed back over to customer for normal use Please contact us at service@sercongroup.com if you have any future questions or problems with this system going forwards

Engineer:	Thomas Iordanidis	Date:	19/11/2026
Signed:			
Customer:	Pauline Marini	Date:	19/11/2026
Signed:			