



## CHE APPENDIX G

## DRUG CHEMISTRY EQUIPMENT MAINTENANCE SCHEDULE

	DAY OF USE	WEEK OF USE	MONTH OF USE	Q *	SEMI-ANNUALLY	ANNUALLY	OTHER/AS NEEDED	NOTES
Reagents	[Reagent check] Check for day of use reagents only		[Reagent check] All other reagents except Quant only reagents are checked each month of use				[Reagent check] Quant only reagents: Concurrent use of quality assurance procedures to include calibrators, controls (positive and negative) within the analytical batch	
Balances		[Instrument/equipment QC] Calibration check using certified weight reference standards				[Preventative Maintenance] Annual Calibration from outside vendor	[Maintenance/Service] Send to certified vendor	Weight Reference Standards to be used as follows: <b><u>ANALYTICAL BALANCES</u></b> 5mg, 50mg, 100mg, 2g, 10g, 20g <b><u>OPEN PAN BALANCES</u></b> 50mg, 100mg, 2g, 10g, 100g, 1000g <b><u>LARGE CAPACITY BALANCES</u></b> 10g, 1Kg, 4Kg, 10 Kg, 20Kg
FTIR		[Instrument/equipment QC] ValPro and desiccant checks				[Preventative Maintenance] Planned Maintenance	[Maintenance/Service] Align Spectrometer	
Raman		[Instrument/equipment QC] ValPro and desiccant checks				[Preventative Maintenance] Planned Maintenance	[Maintenance/Service] Align Spectrometer	
GCMS		[Instrument/equipment QC] Instrument tuned, Drug performance mixture				[Preventative Maintenance] Planned Maintenance	[Maintenance/Service] Replace liners, inlet seals, septa, merlins, filaments, etc.	
HPLC-UV-DAD	[Instrument/equipment QC] Cannabinoid performance mixture					[Preventative Maintenance] Planned Maintenance	[Instrument/equipment QC] Columns, guard columns, etc	
Fume Hoods					[Preventative Maintenance] Bi-annual check			



CHE APPENDIX G

DRUG CHEMISTRY EQUIPMENT MAINTENANCE SCHEDULE

Microscope					[Preventative Maintenance] Annual check		
Pipettors	[Instrument/ equipment QC] Performance check				[Preventative Maintenance] Annual calibration		
Thermometers (Rees System)					[Preventative Maintenance] Annual certification		
Weight Reference Standards						[Preventative Maintenance] Every 2 years: send to certified vendor for recertification	[Maintenance/Service] If a weight is dropped, it will be evaluated to determine if it was damaged. This may include sending to certified vendor for recertification.
Drug Reference Materials						Verified prior to casework (Paper logbooks required)	
Miscellaneous Equipment **							[Maintenance/Service] No set maintenance or schedule, cleaned/serviced as needed
Personal Protective Equipment (PPE) ***							[Maintenance/Service] Replaced as needed
Sample Preparation Equipment							[Maintenance/Service] Replace as needed. Most equipment items are disposable
Lab Safety Equipment					[Preventative Maintenance] 2 inspections per year		
Fire Extinguishers					[Preventative Maintenance] Annual check		
BALANCE TYPE	READABILITY	TOLERANCES			Min Sample Load	Max Sample Load	Current Uncertainty



**CHE APPENDIX G DRUG CHEMISTRY EQUIPMENT MAINTENANCE SCHEDULE**

Analytical	0.00001g		$\geq 0.005g \leq 2g: \pm 0.00007g$	$> 2g \leq 20g: \pm 0.00011g$	0.005g	20g	$\pm 0.000327747g$
Open Pan	0.01g	$\leq 50g: \pm 0.01g$	$> 50g \leq 200g: \pm 0.02g$	$> 200g: \pm 0.03g$	0.10g	1000g	$\pm 0.035399586g$
Large Capacity	0.1g	$\leq 500.0g: \pm 0.1g$	$> 500.0g \leq 2000.0g: \pm 0.2g$	$> 2000.0g: \pm 0.3g$	10g	20000g	$\pm 0.403970811g$

\*There are no current specifications for Quarterly checks or maintenance.

\*\*Miscellaneous Equipment includes: vortex mixer, hot plates, heat baths, grinders & centrifuges.

\*\*\*PPE includes: lab glasses, lab coats, gloves & respirators.