

	TRACE-PM 7.0 Instrument Standards & Controls and Maintenance Schedule	
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	Document Manager: Cheryl Lozen	Approved By: Ryan Larrison

7.0 Instrument Standards and Controls

See *TRACE EVIDENCE DISCIPLINE SCHEDULED MAINTENANCE* below

7.1 Microspectrophotometer (MSP)

7.2 Fourier Transform Infrared Spectrometer (FTIR)

7.3 Ion Chromatography (IC)

7.4 EDAX EDS System (SEM-EDS)

7.5 Micro X-Ray Fluorescence Spectrometer (XRF)

7.6 AccuTOF-DART Mass Spectrometry

7.7 Gas Chromatography - Mass Spectrometer (GC-MS)

TRACE EVIDENCE UNIT SCHEDULED MAINTENANCE			
Instrument Type	Minimum Interval	Maintenance Action	Minimum Competency Level to Perform
Microspectrophotometer (Lansing)	As Needed	Change Bulb(s)	Unit Instrument Monitor or FSD Equipment Technician
Gas Chromatograph-Mass Spectrometer (GC-MS) (Bridgeport, Grand Rapids, Lansing and Northville)	As Needed	Septum Change	Scientist
		Syringe Check / Change	
		Liner Change	Unit Instrument Monitor or FSD Equipment Technician
		Autosampler Alignment Check	
		Wash Vial Cleaning / Refill	
		Wash / Waste Vial	
		Septum Change (If Equipped)	
		Add Fore (Rough) Pump Oil	
Clip Column			



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		Manual Tune (<u>Changes on Lens Tab of Manual Tune Page Only; No Resolution Changes or Calibration Allowed; Notify Equipment Technician of Specific Change</u>)	
	As Needed	MS Ion Source Cleaning Autosampler Alignment GC Column Change	FSD Equipment Technician Only
	As Needed or After MS Ion Source Cleaning	Full Automatic Tune / Calibration	
	As Needed or at least every 24 months or After MS Ion Source Cleaning	Change Fore (Rough) Pump Oil	
Fourier Transform Infrared Spectrometer (Grand Rapids, Lansing and Northville)	Semi-Yearly	Change Desiccant	Unit Instrument Monitor or FSD Equipment Technician
	Yearly	Electrical Alignments	FSD Equipment Technician Only
DART- ToF (Lansing) *off-line	*		
SEM-EDS (Lansing)	As Needed	Check/Add pump oil	Unit Instrument Monitor or FSD Equipment Technician
	As Needed	Change pump oil	FSD Equipment Technician Only
	As Needed	Clean Source	Unit Instrument Monitor or FSD Equipment Technician
	As Needed	Change Filament	Unit Instrument Monitor or FSD Equipment Technician
Ion Chromatography (Lansing)	As Needed	Check air lines for crimping or discoloration; Check pump for leaks	Unit Instrument Monitor or FSD Equipment Technician
X-Ray Fluorescence (Grand Rapids)	As Needed	Check/Add pump oil	Unit Instrument Monitor or FSD Equipment Technician
	As Needed	Change pump oil	FSD Equipment Technician Only

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GRIM (Grand Rapids)	Yearly	Microscope cleaning/check	Outside vendor