

Open-Path FTIR Atmospheric Gas Analyzer — Quick Reference Checklist

Field Technician Calibration & Service Execution Form

Technician Name:	_____	Date:	2026-____-____
Station / Location:	_____	Instrument S/N:	_____
Weather / Ambient Temp:	_____ °C / _____ % RH	Battery / Power Level:	_____ V DC

Step #	Procedure / Audit Task	Target Range / Criteria	Status
1	MCT Detector LN2 Cooling	Detector temperature verified at 77 K	☐ Pass ☐ Fail
2	Internal N2 Purge Flow	Purge rate 1.0 L/min; zero moisture in optics	☐ Pass ☐ Fail
3	HeNe Laser Alignment	Reference laser co-aligned with IR beam	☐ Pass ☐ Fail
4	Retroreflector Target Check	Clean mirror face at 200m distance	☐ Pass ☐ Fail
5	Modulated Signal Maximization	Signal throughput > 85% on scope	☐ Pass ☐ Fail
6	Short-Path Background Capture	1m cell zero spectrum acquired	☐ Pass ☐ Fail
7	HITRAN Absorption Fit	R2 > 0.998 for H2O/CH4 lines	☐ Pass ☐ Fail
8	Wavenumber Calibration	Precision +/- 0.01 cm-1 verified	☐ Pass ☐ Fail
9	Pathlength Measurement	Laser rangefinder distance +/- 0.1 m	☐ Pass ☐ Fail
10	Data Stream Telemetry Sync	Concentrations logged to DAS	☐ Pass ☐ Fail

FIELD REMARKS & CONDITIONAL OBSERVED ANOMALIES:

PREPARED BY (DOCUMENT CONTROL): Lead Field Specialist: Kadeem Manning Role: Author & QA/QC Reviewer Signature: <i>Kadeem Manning</i> Date: 2026-09-16	FIELD TECHNICIAN EXECUTION SIGN-OFF: Technician Signature: _____ Printed Name: _____ Execution Date: 2026-____-____ Status: ☐ Approved ☐ Follow-Up Req.
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