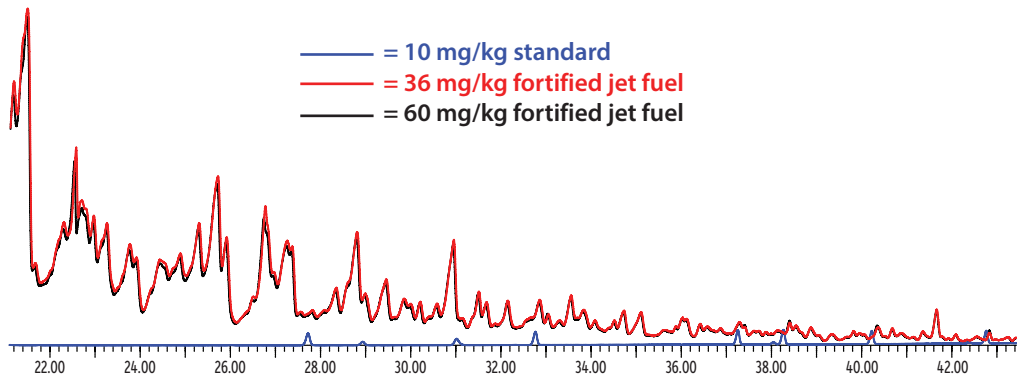
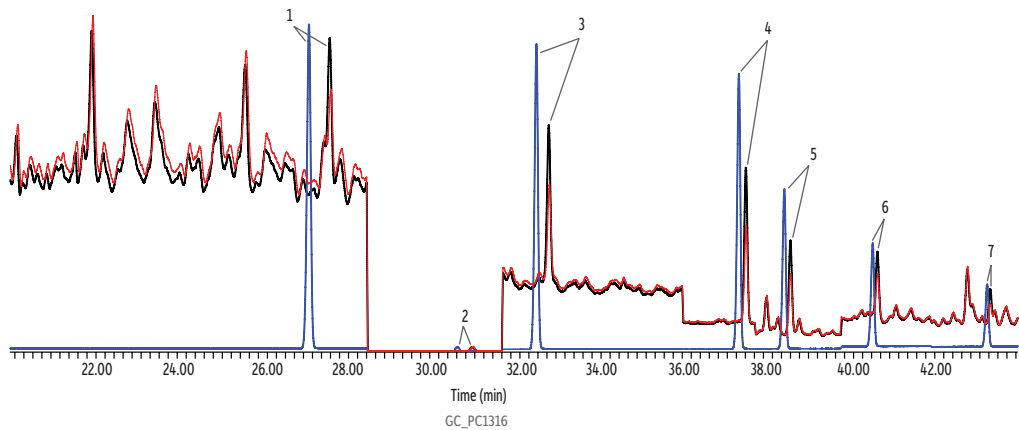


Matrix Hydrocarbons cause FAME Retention Time Shift (Scan and SIM Modes)

Scan TIC



SIM TIC



Peaks

1. Methyl hexadecanoate (C16:0, methyl palmitate)
2. Methyl heptadecanoate-d33 (IS, methyl margarate-d33)
3. Methyl heptadecanoate (C17:0, methyl margarate)
4. Methyl octadecanoate (C18:0, methyl stearate)
5. Methyl octadecenoate (C18:1, methyl oleate)
6. Methyl octadecadienoate (C18:2, methyl linoleate)
7. Methyl octadecatrienoate (C18:3, methyl linolenate)

Column Sample Stabilwax, 60 m, 0.25 mm ID, 0.50 µm (cat.# 10641)
Methyl palmitate (cat.# 35048)
Methyl heptadecanoate (cat.# 35050)
Methyl stearate (cat.# 35051)
Methyl oleate (cat.# 35052)
Methyl linoleate (cat.# 35053)
Methyl linolenate (cat.# 35054)

Diluent: Isooctane
Conc.: See notes

Injection
Inj. Vol.: 1 µL splitless (hold 1 min)
Liner: Premium 4 mm single taper w/wool (cat.# 23303)
Inj. Temp.: 260 °C
Purge Flow: 100 mL/min

Oven
Oven Temp.: 150 °C (hold 5 min) to 200 °C at 12 °C/min (hold 17 min) to 252 °C at 3 °C/min (hold 10 min)

Carrier Gas
Flow Rate: He, constant flow
0.8 mL/min

Detector MS
Mode: SIM
SIM Program:

Group	Start Time (min)	Ion(s) (m/z)	Dwell (ms)
1	20	227, 239, 270, 271	50
2	28	317	50
3	29	241, 253, 284	50
4	35	255, 267, 298	50
5	36.6	264, 265, 296	50
6	38.5	262, 263, 264, 294, 295	50
7	40.5	236, 263, 292, 293	50

Transfer Line Temp.: 260 °C
Analyzer Type: Quadrupole
Source Type: Extractor
Extractor Lens: 9 mm ID
Source Temp.: 300 °C
Quad Temp.: 180 °C
Solvent Delay Time: 20 min
Instrument Agilent 7890B GC & 5977A MSD
Notes

Samples in Overlay
Blue line: 10 mg/kg standard in solvent
Red line: 36 mg/kg fortified jet fuel sample
Black line: 60 mg/kg fortified jet fuel sample