

Caterpillar C13 Test Criteria

500 hour – Steady State Test Cycle with CCV

Test Pass/Fail Criteria:

1. No Loss of Oil Consumption Control
<50% (based on average of EOT vs SOT)
2. Last 150 hours stable Oil Consumption
3. No stuck rings/Loss of ring side clearance
4. No Liner Scuffing or Bore Polish
5. CCV pass/fail to be assessed



Caterpillar C13 Test Status

Status Test Development:

- 1) Test Cycle Completed
- 2) C13 Test engines installed – 11
- 3) C13 Test engines provided to date - 13
- 4) CCV Pseudo system defined and being tested



Caterpillar C13 Test Status

Status Hardware:

- 1) Close tolerance Production Liners, Piston and rings supplied to all labs
 - Initial Oil Consumption studies on-going
- 2) Low reference Ref Oil supplied to all labs
- 3) Three Potential High reference oils being assessed
- 4) Complete test by end Oct '04



Caterpillar C13 Test Update

Three C13 tests completing this week – two Low Ref
and 1 Potential High Ref oils

Repeat of one, two or three tests as required.

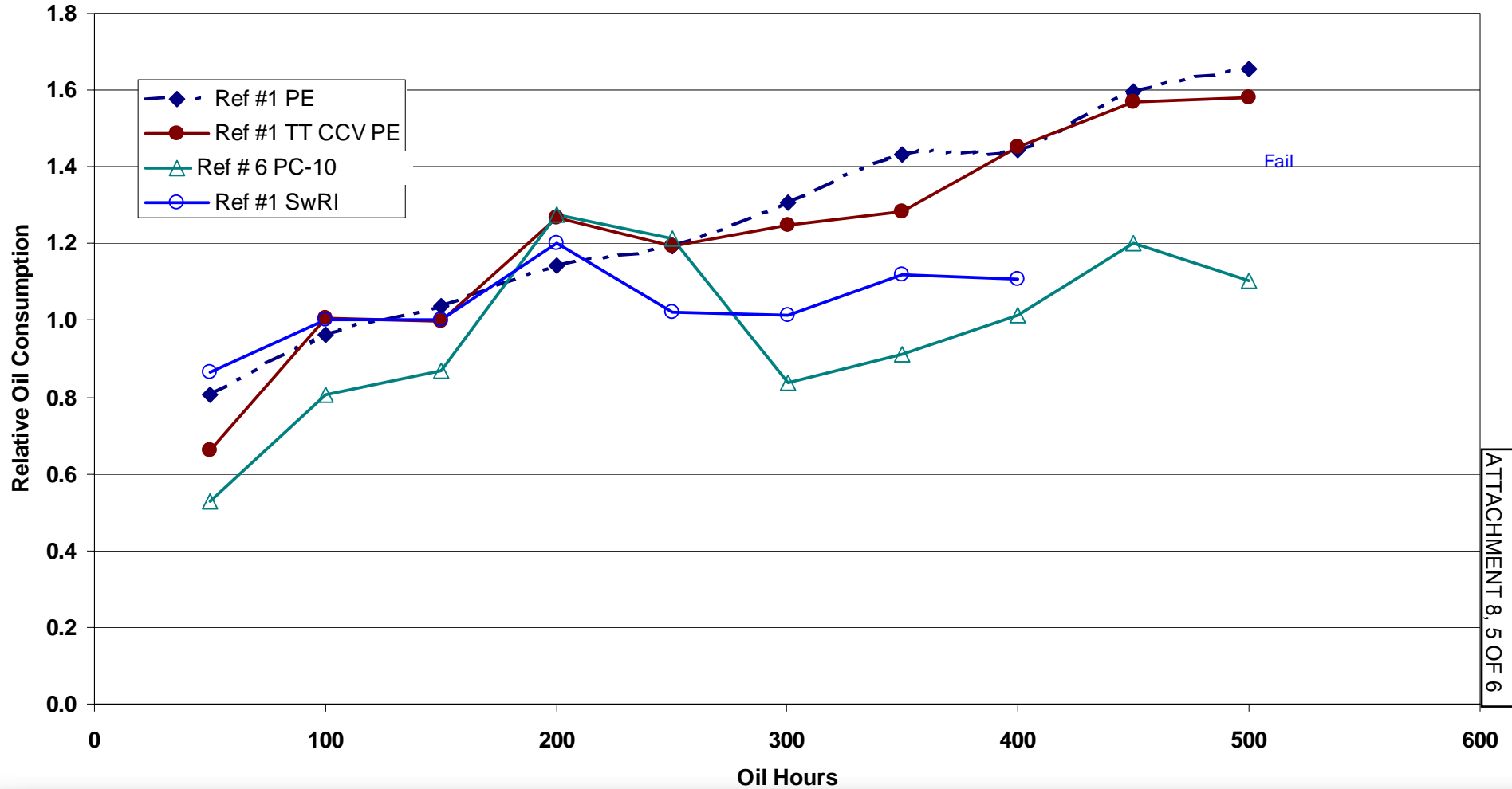
One test showed loss of oil consumption.

CCV Pseudo system not affecting deposits

No noticeable effect of fuel sulfur on test



C13 Normalized Oil Consumption



ATTACHMENT 8, 5 OF 6



Caterpillar SCOTE PC-10 Position

C13 and 1P tests deemed the best protection for CAT in PC-10

1K/1N would ONLY be supported in addition to C13/1P if required by other OEMs.

IM-PC Liner decision to use production hardware accepted/supported by Surveillance Panel (Richmond Sept 4, 04)

