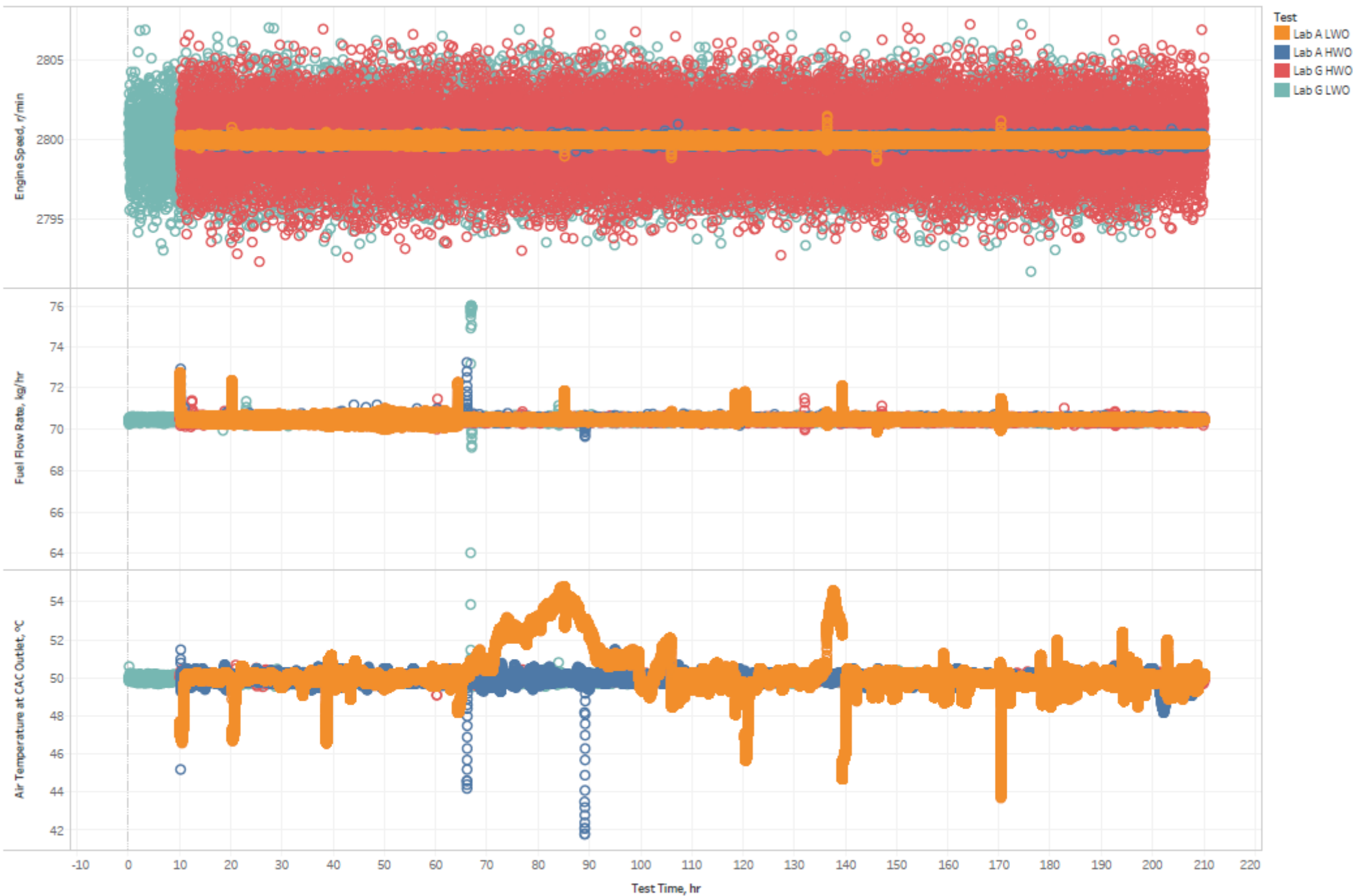


Ford 6.7 VTWT Prove out Operational Data

4 Total Tests, 2 at each lab (SwRI and Intertek), 1 HWO and 1 LWO at each lab. Testing conducted in 2019 and 2018.

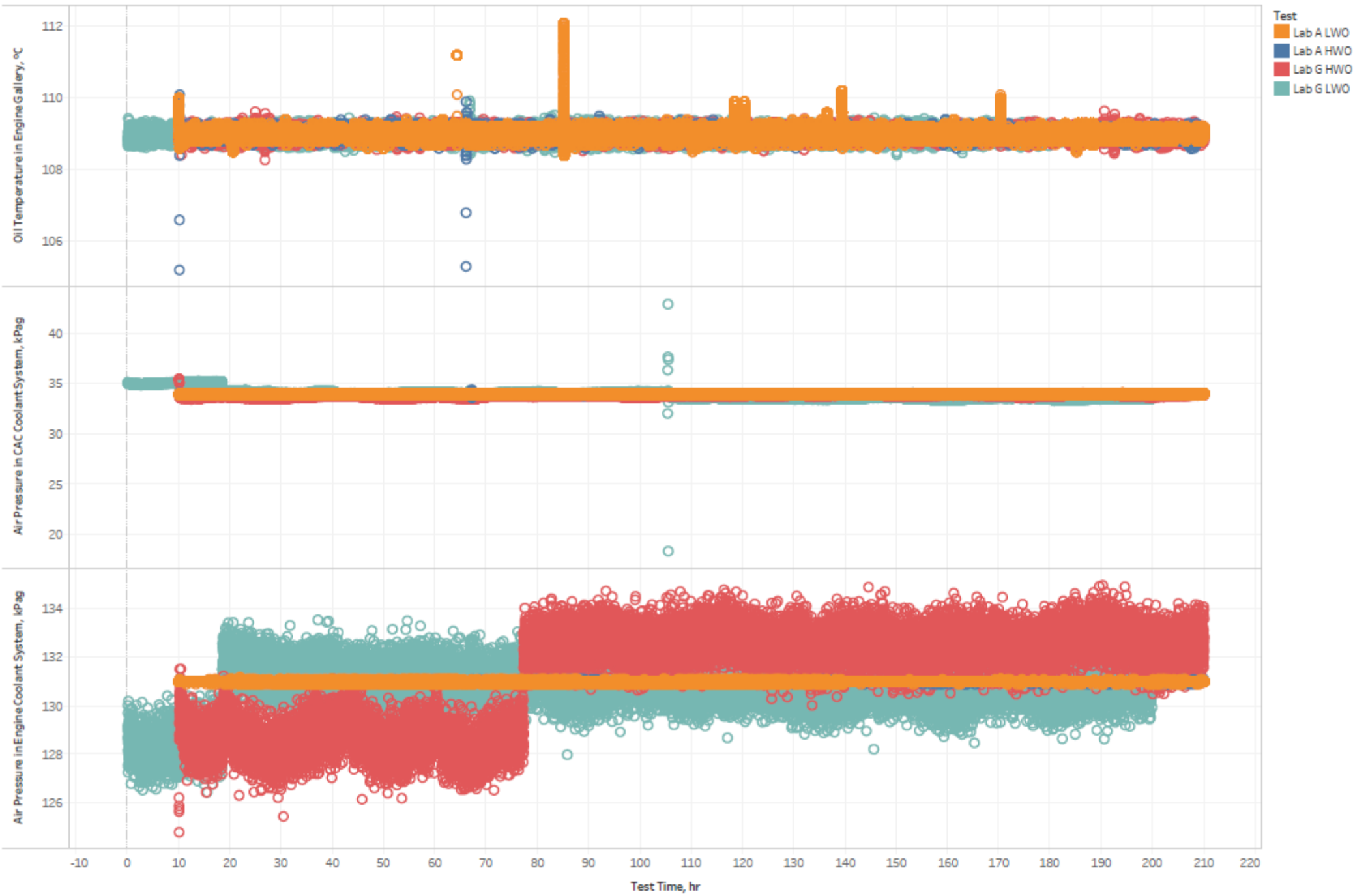
Controlled Parameters



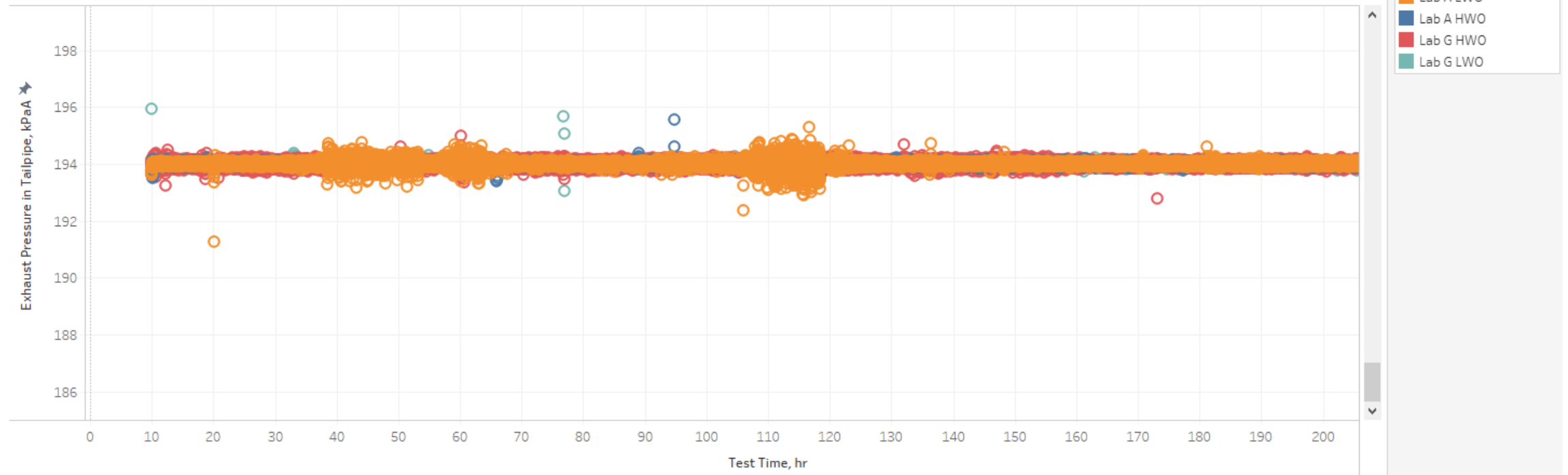
Controlled Parameters



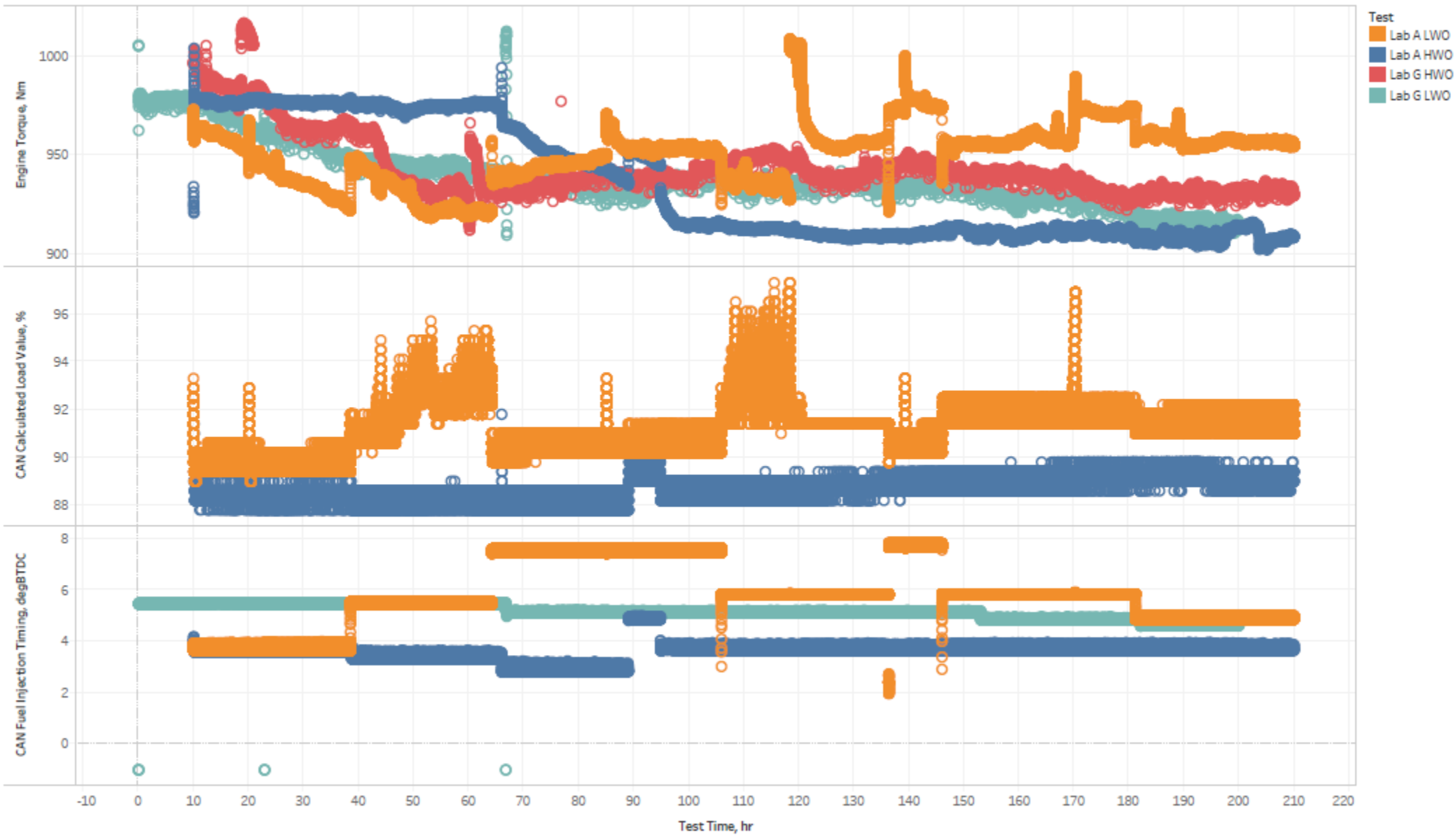
Controlled Parameters



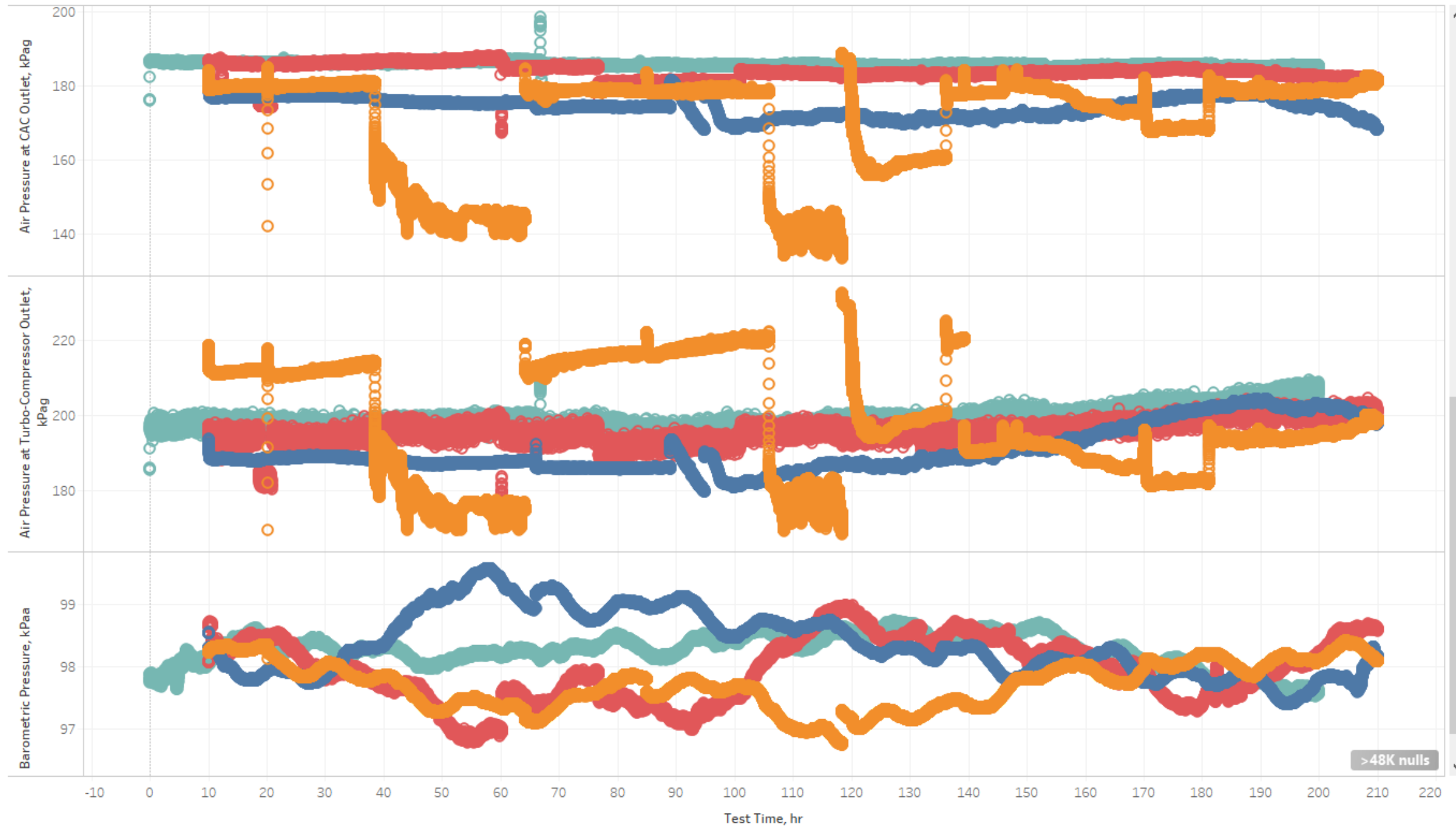
Controlled Parameters



Injection Related



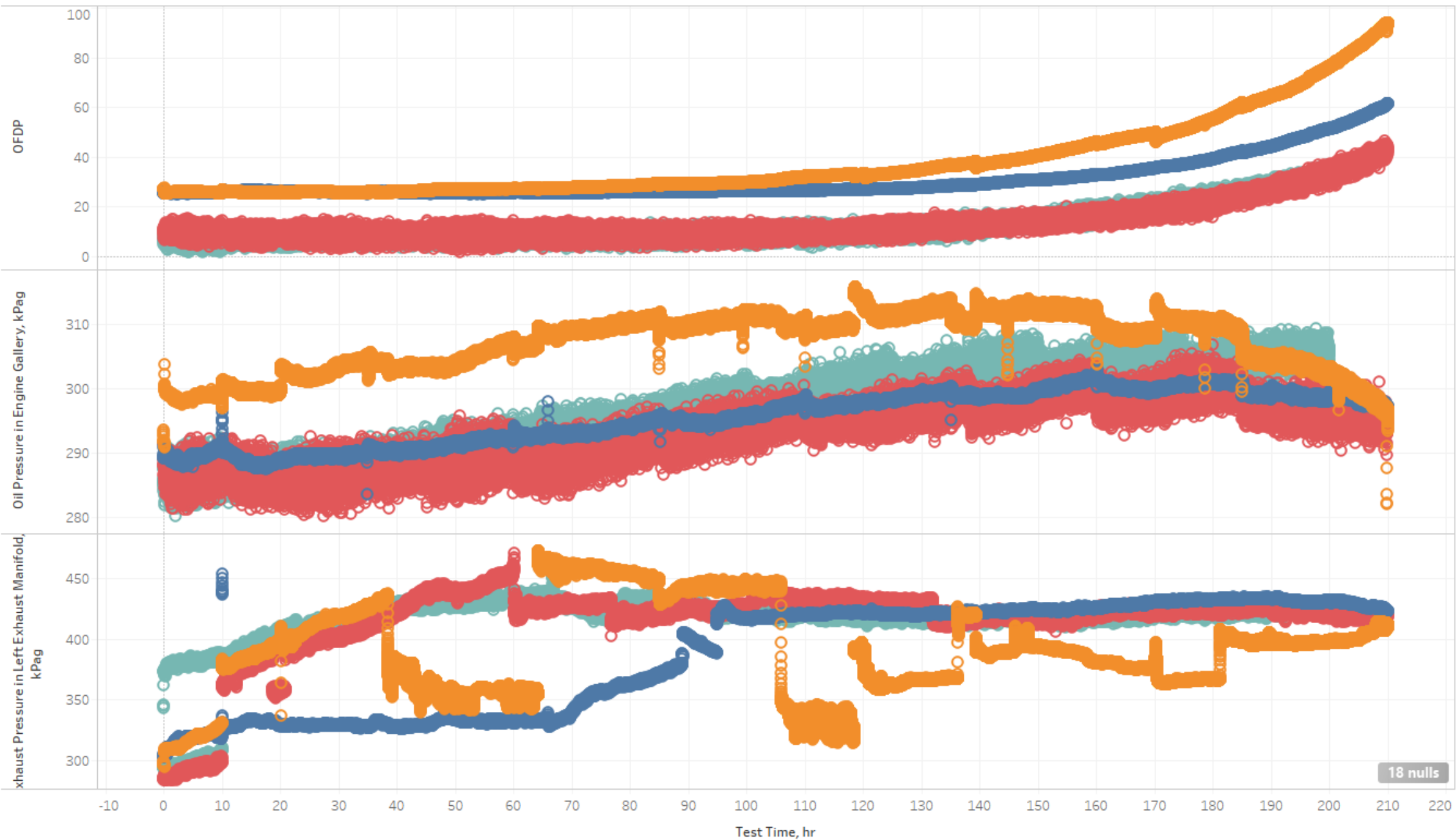
Injection Related



- Test
- Lab A LWO
 - Lab A HWO
 - Lab G HWO
 - Lab G LWO

>48K nulls

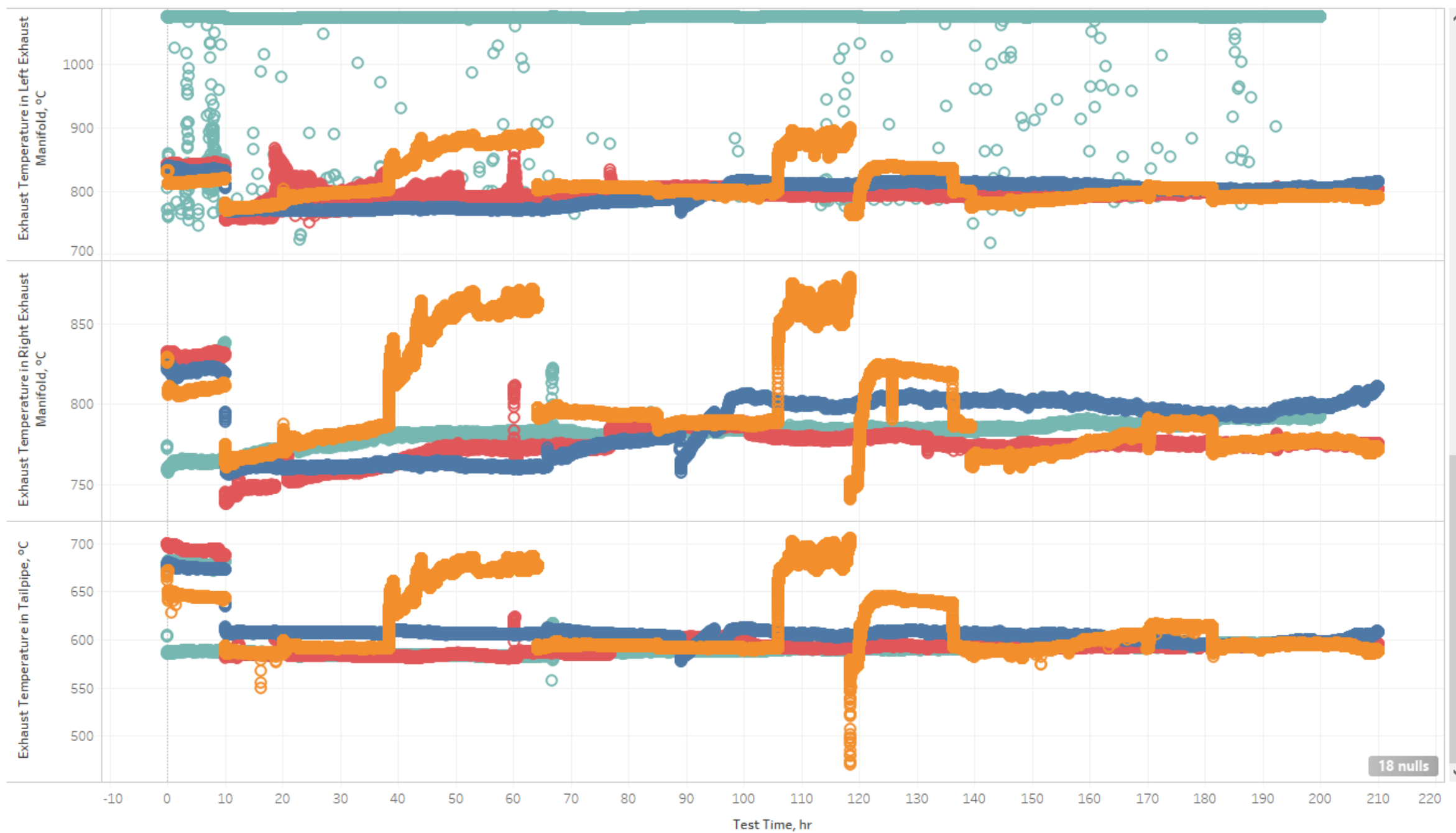
Other Op Data



- Test
- Lab A LWO
 - Lab A HWO
 - Lab G HWO
 - Lab G LWO

18 nulls

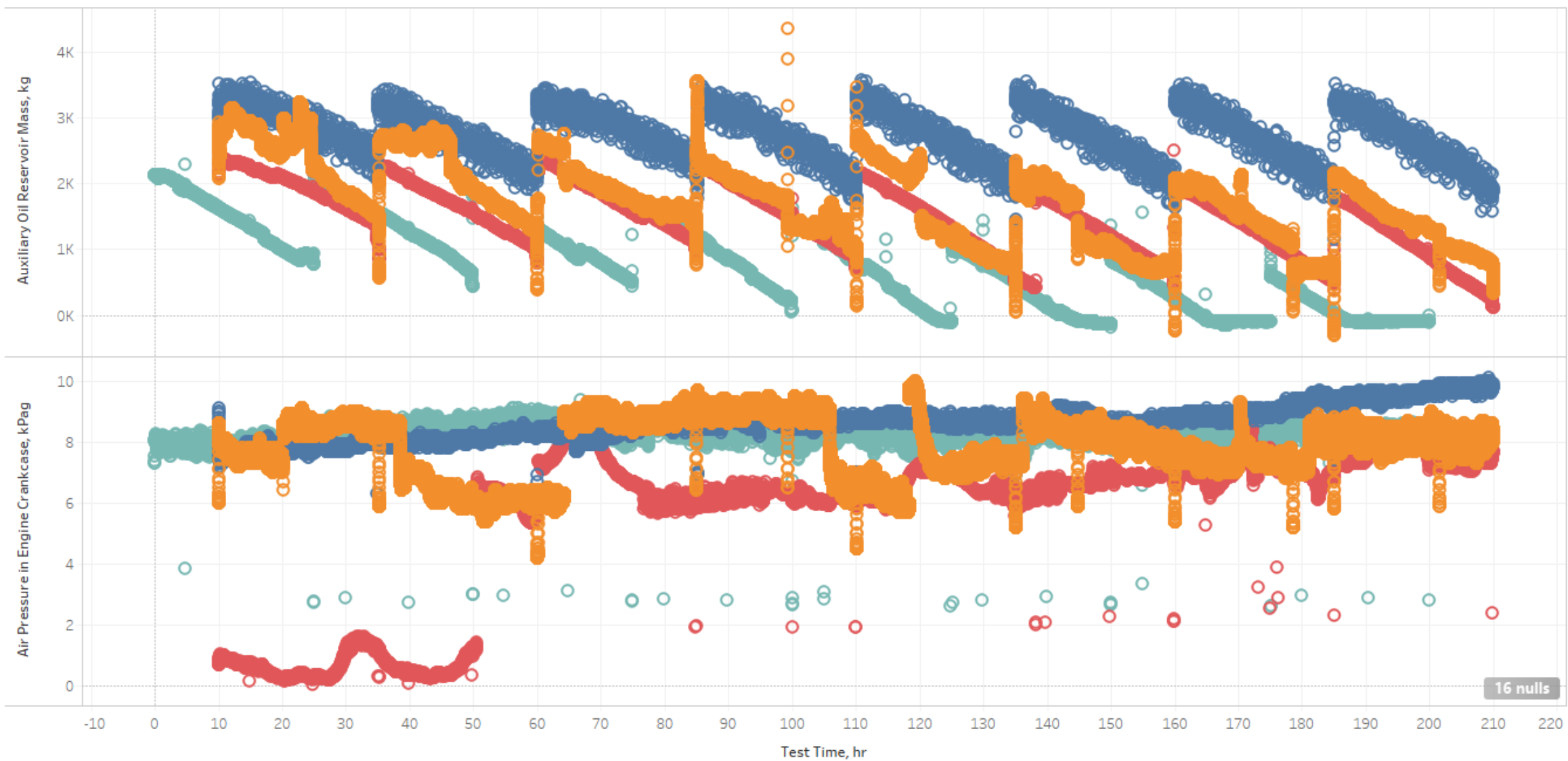
Other Op Data



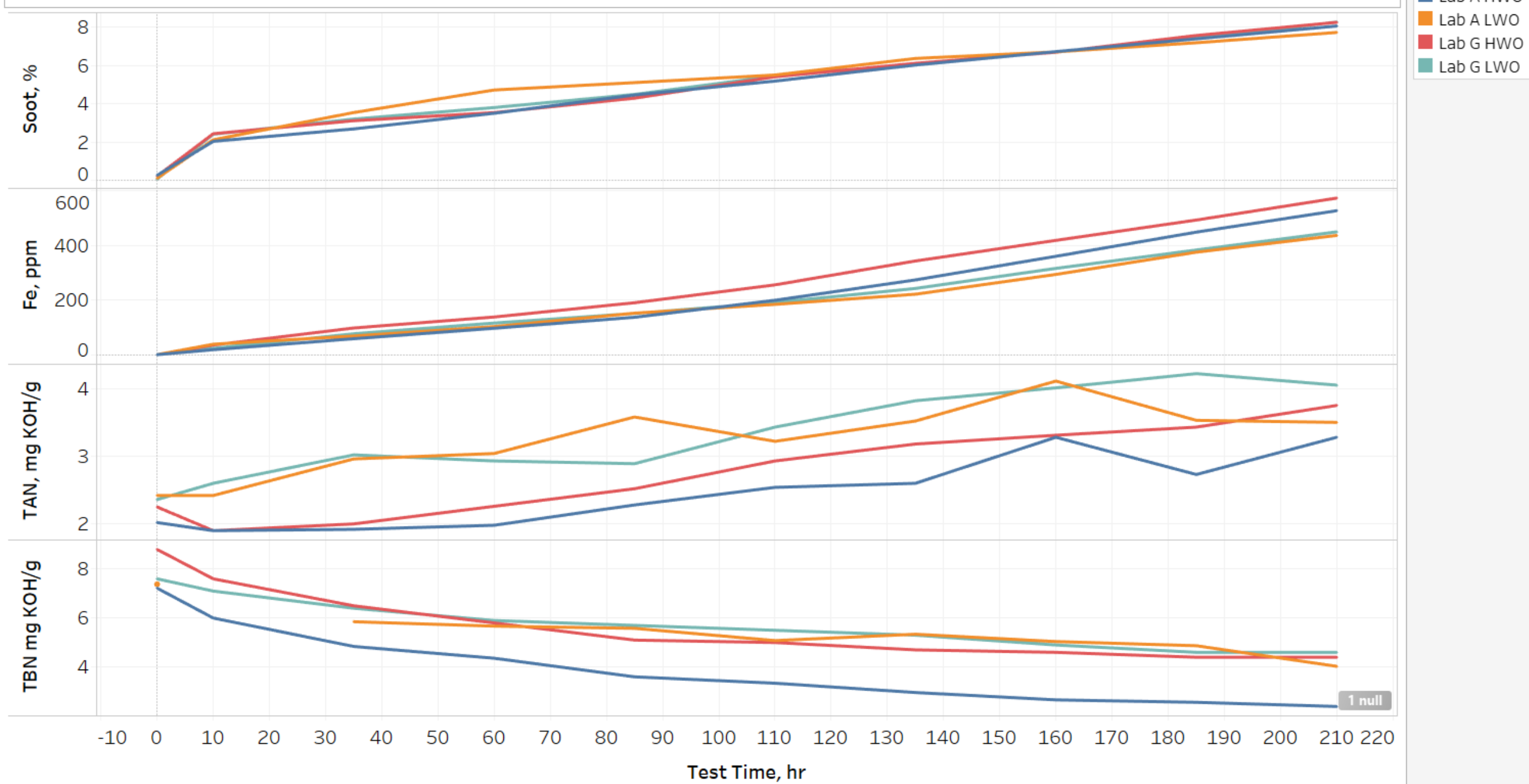
- Test
- Lab A LWO
 - Lab A HWO
 - Lab G HWO
 - Lab G LWO

18 nulls

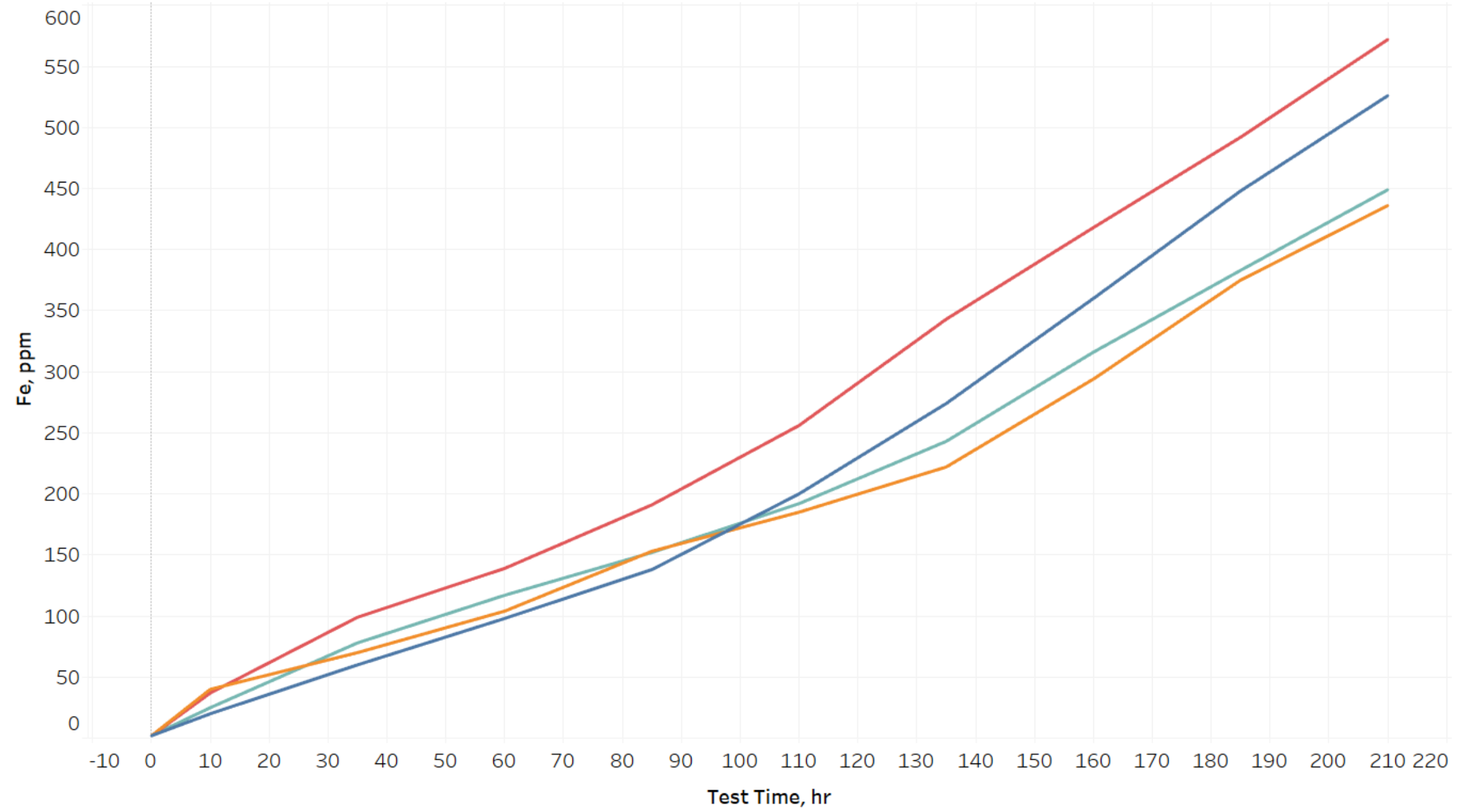
Oil Parameters



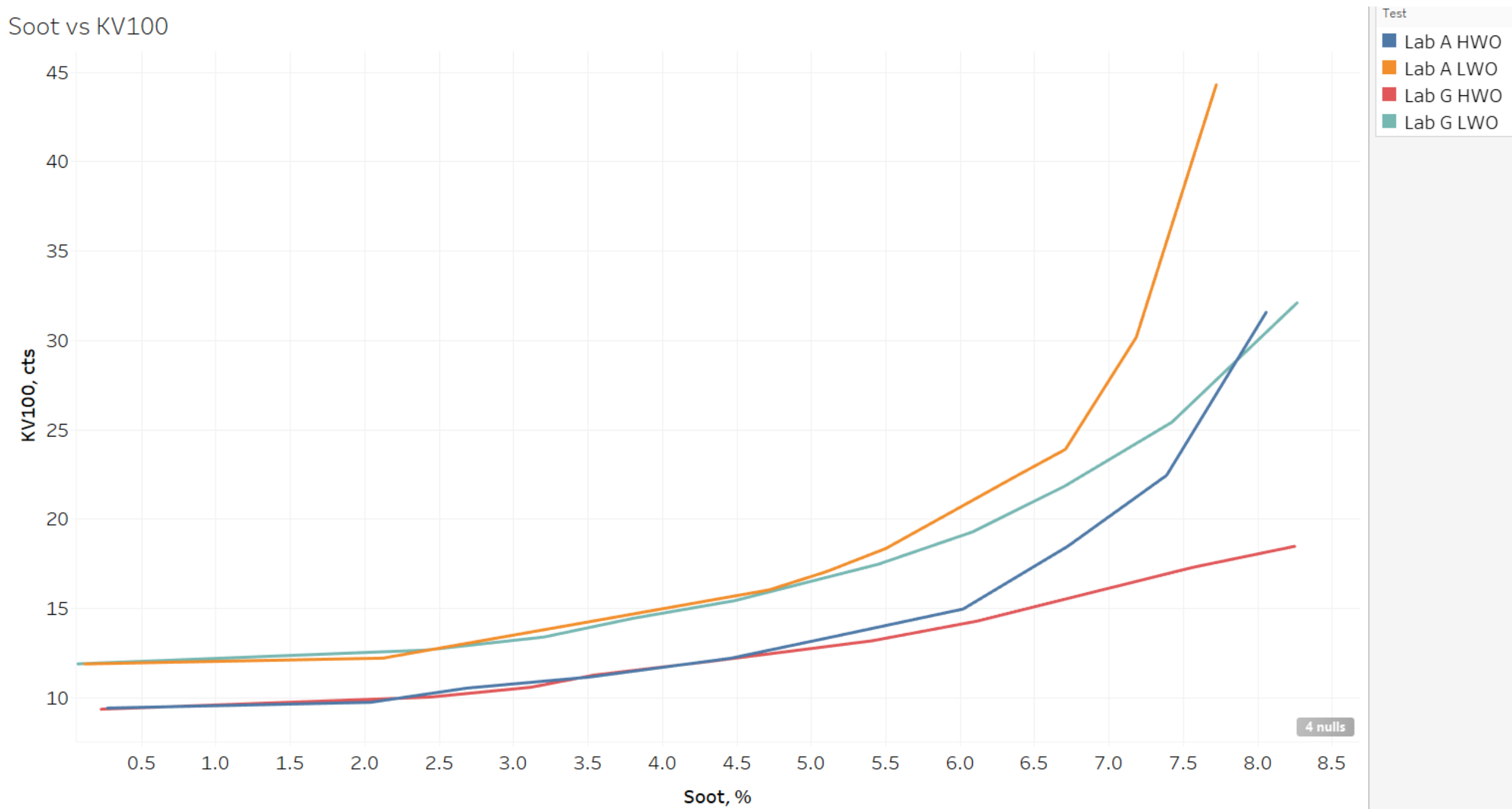
Ford 6.7L Soot Content



Ford 6.7L Iron Content



Soot vs KV100



ALL OPERATIONAL DATA IN PLOTS IS FROM “HWO LWO OP DATA AND CHEM” EXCEL SHEET PROVE OUT TESTS ON 210 HOUR VERSION OF THE TEST WHICH INCLUDED A 10 HOUR SOOT PHASE TO START THE TEST.