Synoptic CB: Porewater Sulfide

July 2025 Samples Plate 4

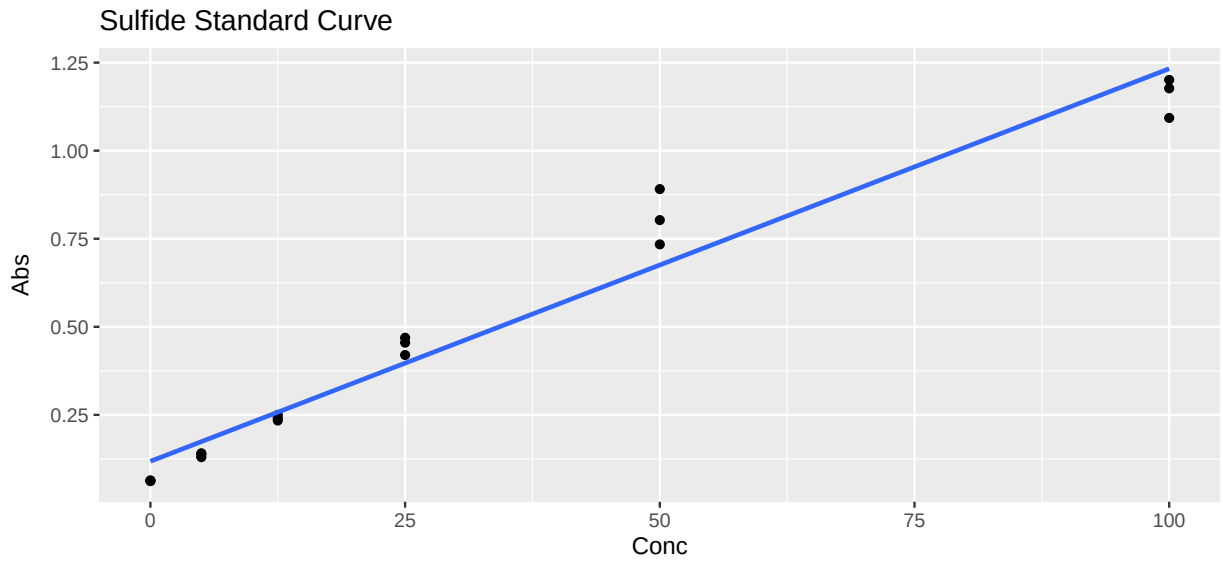
2025-10-23

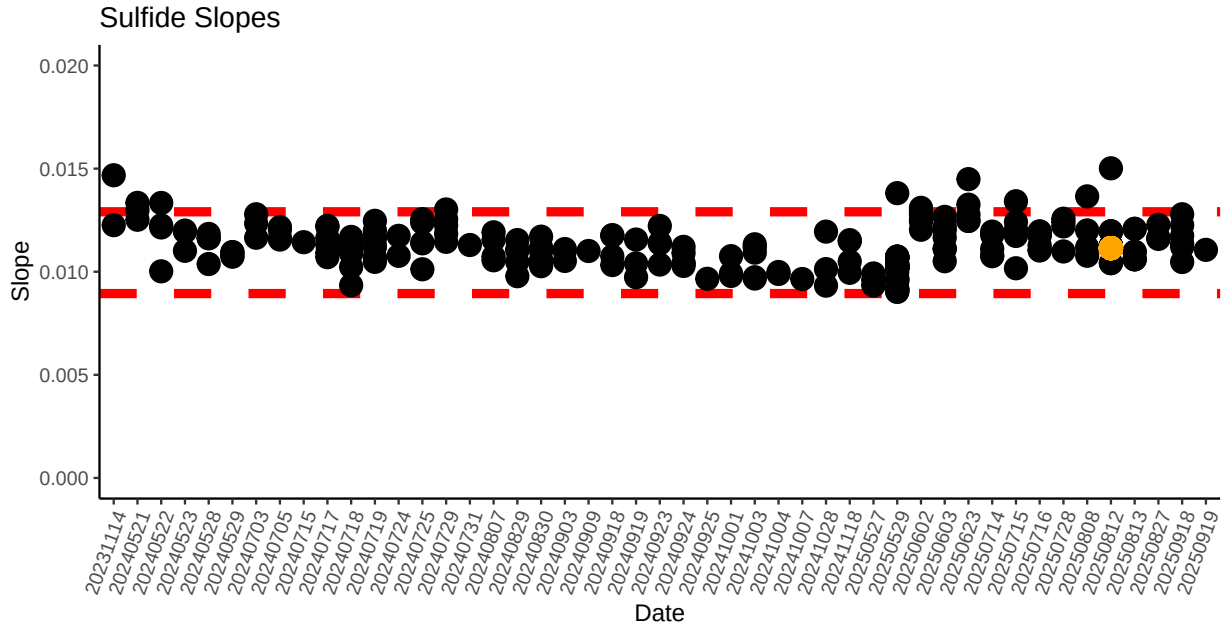
Run Information

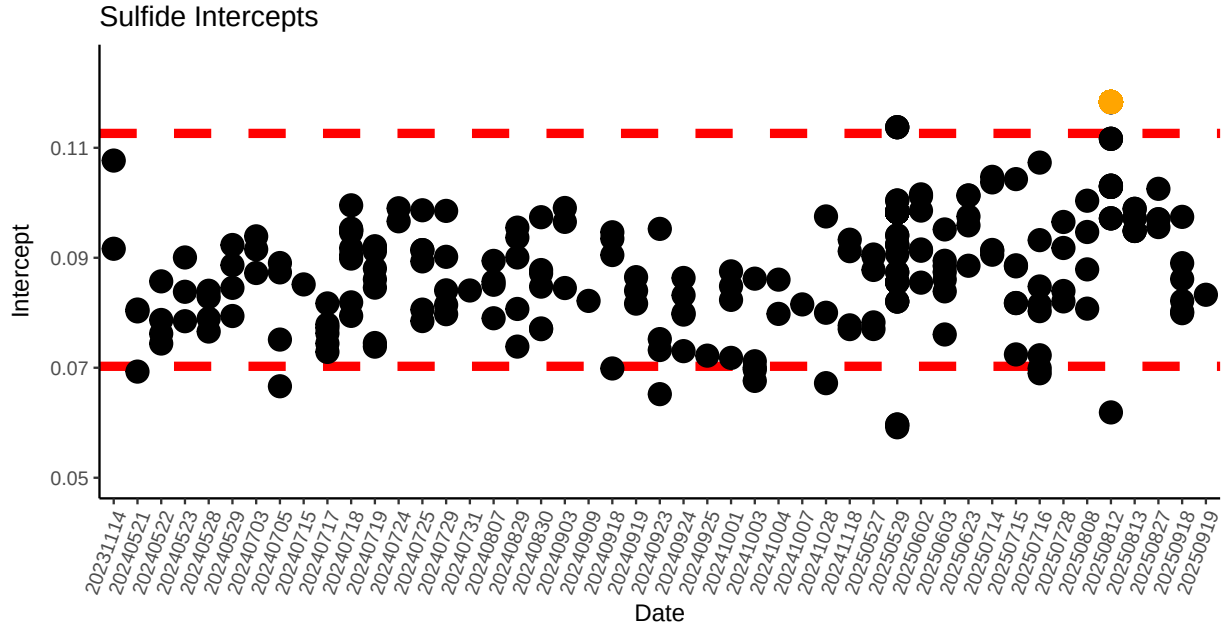
```
###### Run information - PLEASE CHANGE
  Date_Run = "20250812"  #Date that instrument was run
  Plate = "4"
  Month = "July"
  Year = "2025"
  Run_by = "Melanie Giessner"  #Instrument user
  Script_run_by = "Zoe Read" #Code user
  Project = "COMPASS"
  run_notes = "Std curve R squared is below cutoff: 0.9565605.
  Chk Std 0 is significantly different from Std 0 (Both DI water).
  Matrix Check 10 is signficantly higher than Std 5.
  Sample 59 still has high CV after on replicate removed.
  Both dups & respective samples had H2S values of 0.
  " #any notes from the run

###### STDs to remove manually - NA unless standards have high CVs - CHECK THESE!
  stds_to_remove <- c(NA) #Ex. c("A02", "B02")

  Chkstds_to_remove <- c("D07")

  MCs_to_remove <- c(NA)

##Sample data that was entered incorrectly
  # The Old ID is the original, incorrecly-entered ID and the New ID is the correct ID to change it to.
# Old_ID_1 = "17 Dup"
# New_ID_1 = "16 Dup"
cat(run_notes)
```

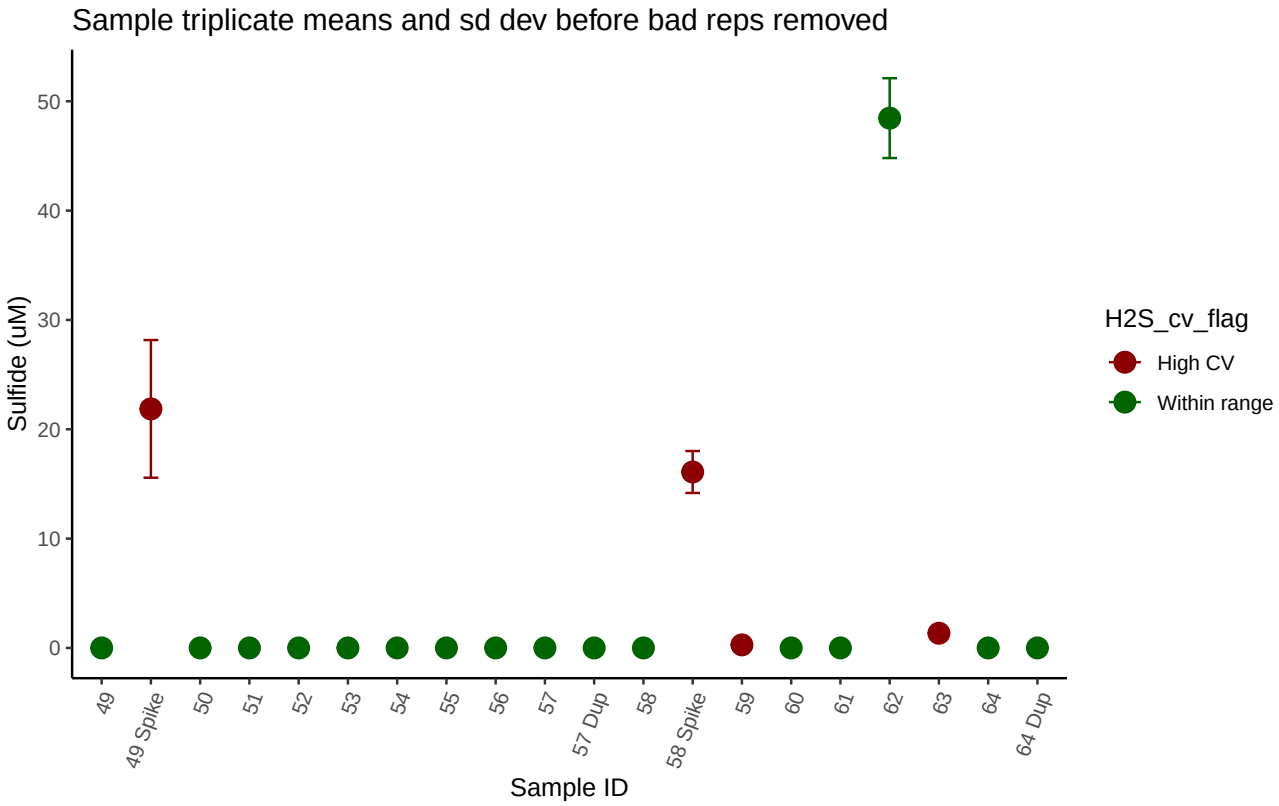
```
## Std curve R squared is below cutoff: 0.9565605.
##   Chk Std 0 is significantly different from Std 0 (Both DI water).
##   Matrix Check 10 is signficantly higher than Std 5.
##   Sample 59 still has high CV after on replicate removed.
##   Both dups & respective samples had H2S values of 0.
##
```

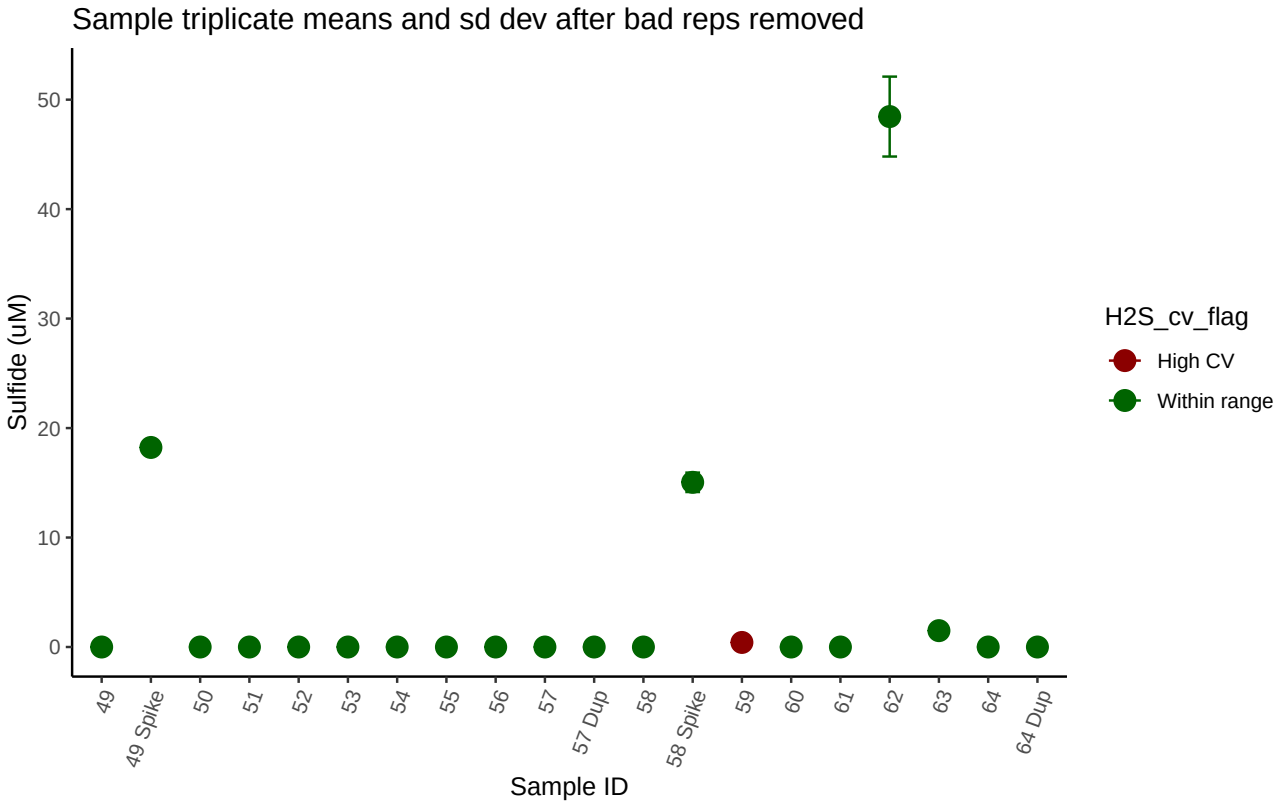
```
## [1] "Std Curve R squared: 0.9566"
```

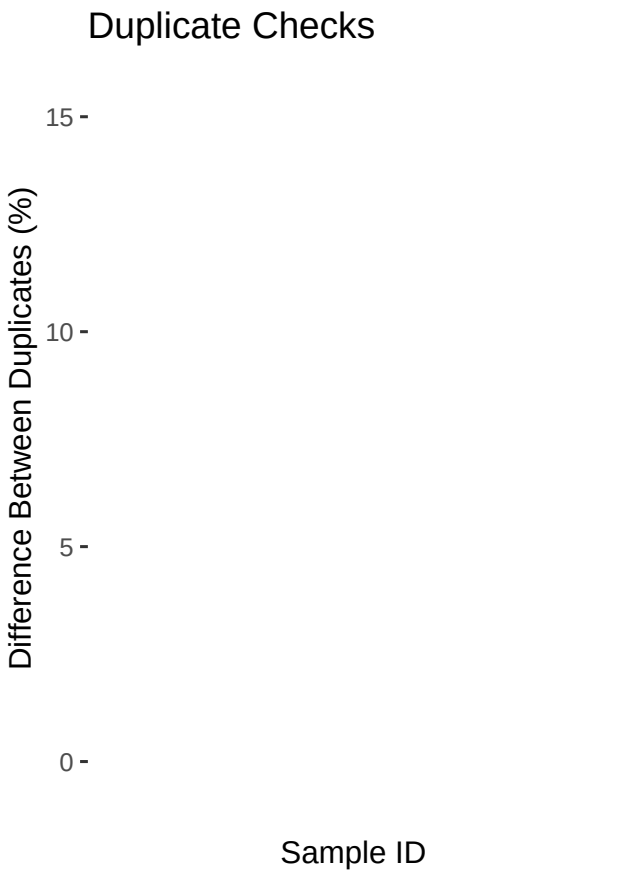

Sulfide Standard Curve
Abs
Conc
1.25
1.00
0.75
0.50
0.25
0
25
50
75
100

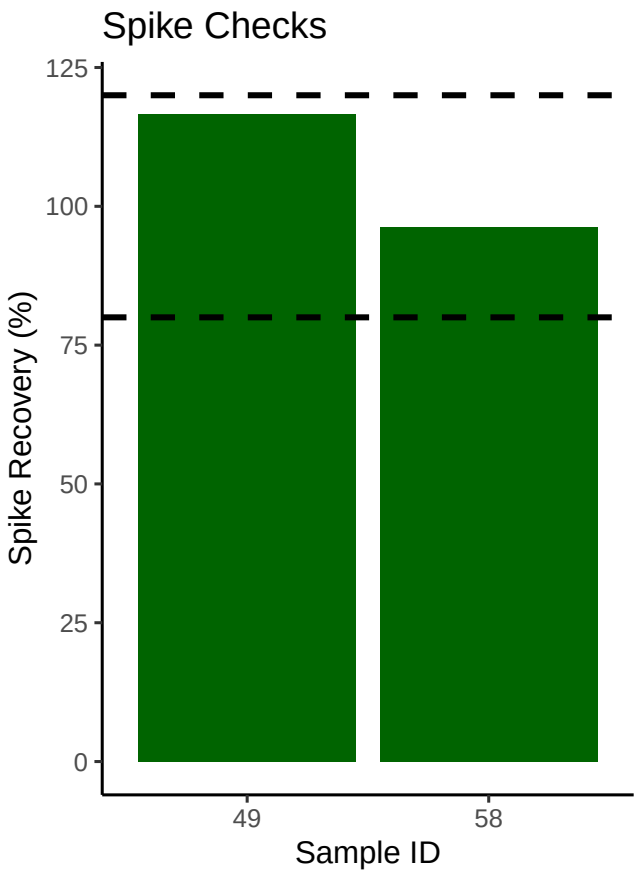

Sulfide Slopes
Slope
Date
0.020
0.015
0.010
0.005
0.000

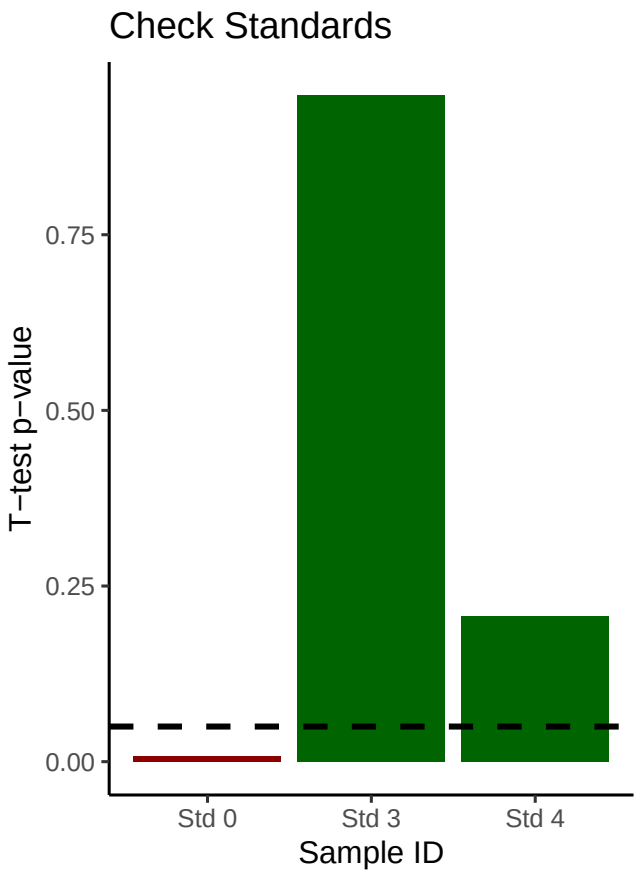

Sulfide Intercepts
Intercept
Date
0.11
0.09
0.07
0.05

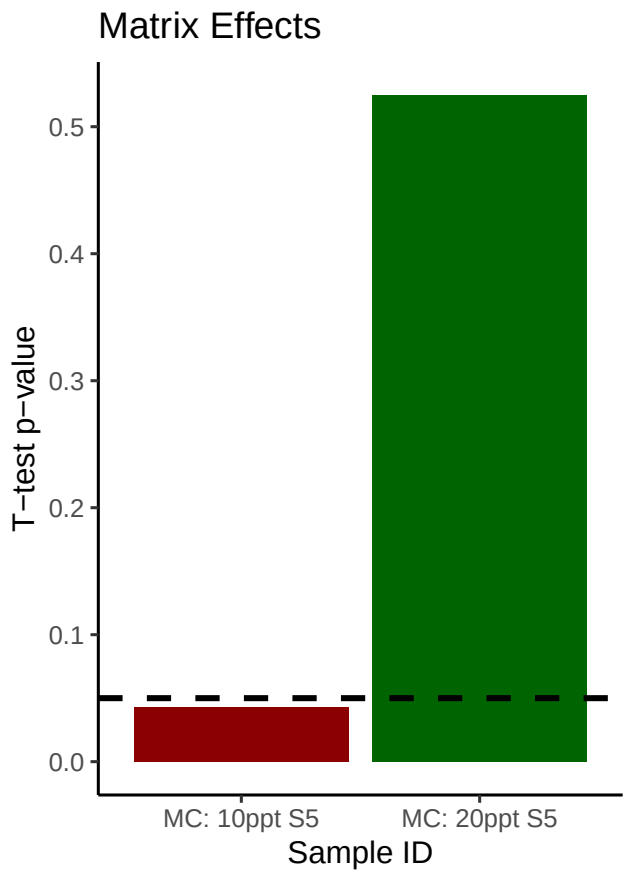

Sample triplicate means and sd dev before bad reps removed
Sulfide (uM)
0
10
20
30
40
50
49
49 Spike
50
51
52
53
54
55
56
57
57 Dup
58
58 Spike
59
60
61
62
63
64
64 Dup
Sample ID
H2S_cv_flag
High CV
Within range


Sample triplicate means and sd dev after bad reps removed
Sulfide (uM)
0
10
20
30
40
50
49
49 Spike
50
51
52
53
54
55
56
57
57 Dup
58
58 Spike
59
60
61
62
63
64
64 Dup
Sample ID
H2S_cv_flag
High CV
Within range


Duplicate Checks
Difference Between Duplicates (%)
15
10
5
0
Sample ID


Spike Checks
Spike Recovery (%)
125
100
75
50
25
0
49
58
Sample ID


Check Standards
T−test p−value
0.75
0.50
0.25
0.00
Std 0
Std 3
Std 4
Sample ID


Matrix Effects
T−test p−value
0.5
0.4
0.3
0.2
0.1
0.0
MC: 10ppt S5
MC: 20ppt S5
Sample ID