

# T-13 RO 824 Target

ASTM Data Analysts Quorum from April 10, 2025, Meeting

April 10, 2025

# RO 824 'Prelim' Targets

	FTIR Peak Height Oxidation		SQRT(PVIS 40C, 300-360 Hours)	
	Mean	s	Mean	s
T-13 Targets				
RO 823	127.4	11.1	8.61	0.929
RO 823-1	109.3	11.1	8.139	0.929
RO 824	48.03	11.8	3.699	0.97

- No change in ICF at the time, BUT
  - Liner D is directionally more severe than Liner C and may warrant a change in the KV40 ICF and/or development of an IRPH ICF
  - Plots at end show potential for better centering if ICF lowered from +0.857 for KV40 and a slightly negative ICF were applied to IRPH

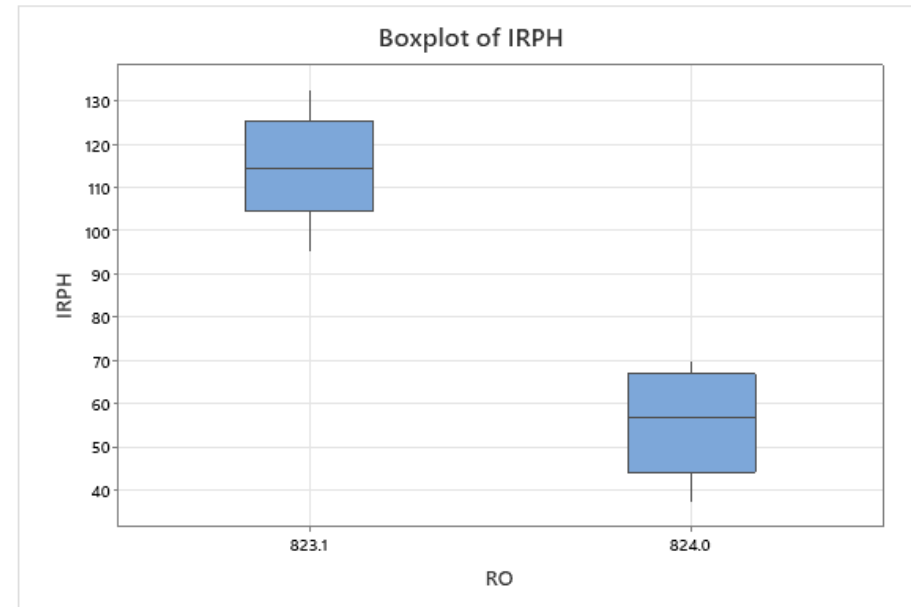
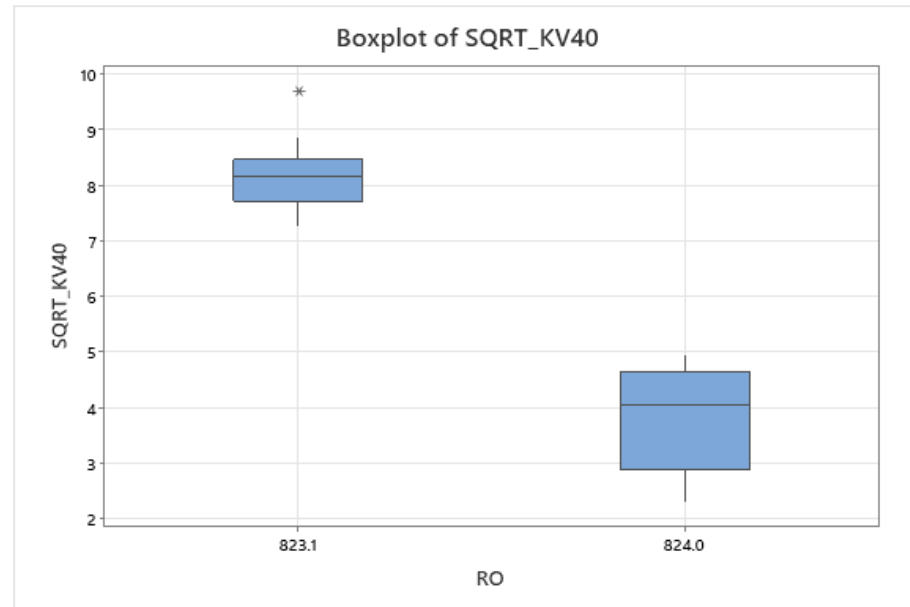
# Summary Statistics (824 s estimates)

RO824\_TARGETS.MWX

Descriptive Statistics: SQRT\_KV40, IRPH

## Statistics

Variable	RO	N	Mean	StDev	Minimum	Median	Maximum
SQRT_KV40	823.1	14	8.18783	0.609699	7.26636	8.15353	9.69020
	824.0	8	3.86842	0.969726	2.30217	4.05954	4.93964
IRPH	823.1	14	114.779	11.6815	95.2	114.45	132.6
	824.0	8	55.7125	11.8115	37.2	56.75	69.7



# SQRT(KV40)

## Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
RO	1	83.684	83.6836	126.49	0.000
LTMSLAB	3	0.307	0.1023	0.15	0.925
LINERID	1	0.640	0.6405	0.97	0.340
Error	16	10.585	0.6616		
Lack-of-Fit	5	6.389	1.2779	3.35	0.044
Pure Error	11	4.196	0.3814		
Total	21	106.398			

## Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0.813363	90.05%	86.94%	79.61%

## Means

Term	Fitted Mean	SE Mean
RO		
823.1	8.056	0.249
824.0	3.616	0.385
LTMSLAB		
A	5.857	0.383
B	5.743	0.426
D	5.716	0.455
G	6.028	0.355
LINERID		
C	5.584	0.474
D	6.089	0.197

# IRPH

## Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
RO	1	15931.6	15931.6	128.95	0.000
LTMSLAB	3	375.9	125.3	1.01	0.412
LINERID	1	268.7	268.7	2.17	0.160
Error	16	1976.8	123.5		
Lack-of-Fit	5	925.5	185.1	1.94	0.168
Pure Error	11	1051.3	95.6		
Total	21	20511.7			

## Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
11.1152	90.36%	87.35%	79.54%

## Means

Term	Fitted Mean	SE Mean
RO		
823.1	111.81	3.40
824.0	50.54	5.27
LTMSLAB		
A	87.67	5.24
B	80.24	5.83
D	78.99	6.22
G	77.82	4.85
LINERID		
C	76.01	6.48
D	86.35	2.70

# Methodology to Estimate Mean Target

- Analyze data to estimate apples-to-apples LS Mean for RO 823-1 and RO 824 on C and D Liners
  - 22 test results in 4 Labs
- Estimate the difference between the LS Mean of 823-1 and 824
  - This is an apples-to-apples difference between the means
  - The estimated difference is independent of Lab and Liner
- Apply the estimated difference to the TARGET for RO 823-1
  - In theory, this represents an adjusted target, due to any unknown changes in the test since targets established for 823-1, for RO 824
    - Theoretically the target that would have been for RO 824 if the data were developed during the time when the target was set for RO 823-1

# Methodology to Estimate Mean Target

IRPH	Target	LSMean
RO 823-1	109.3	111.81
RO 824	48.0	50.54

Difference          61.27          61.27

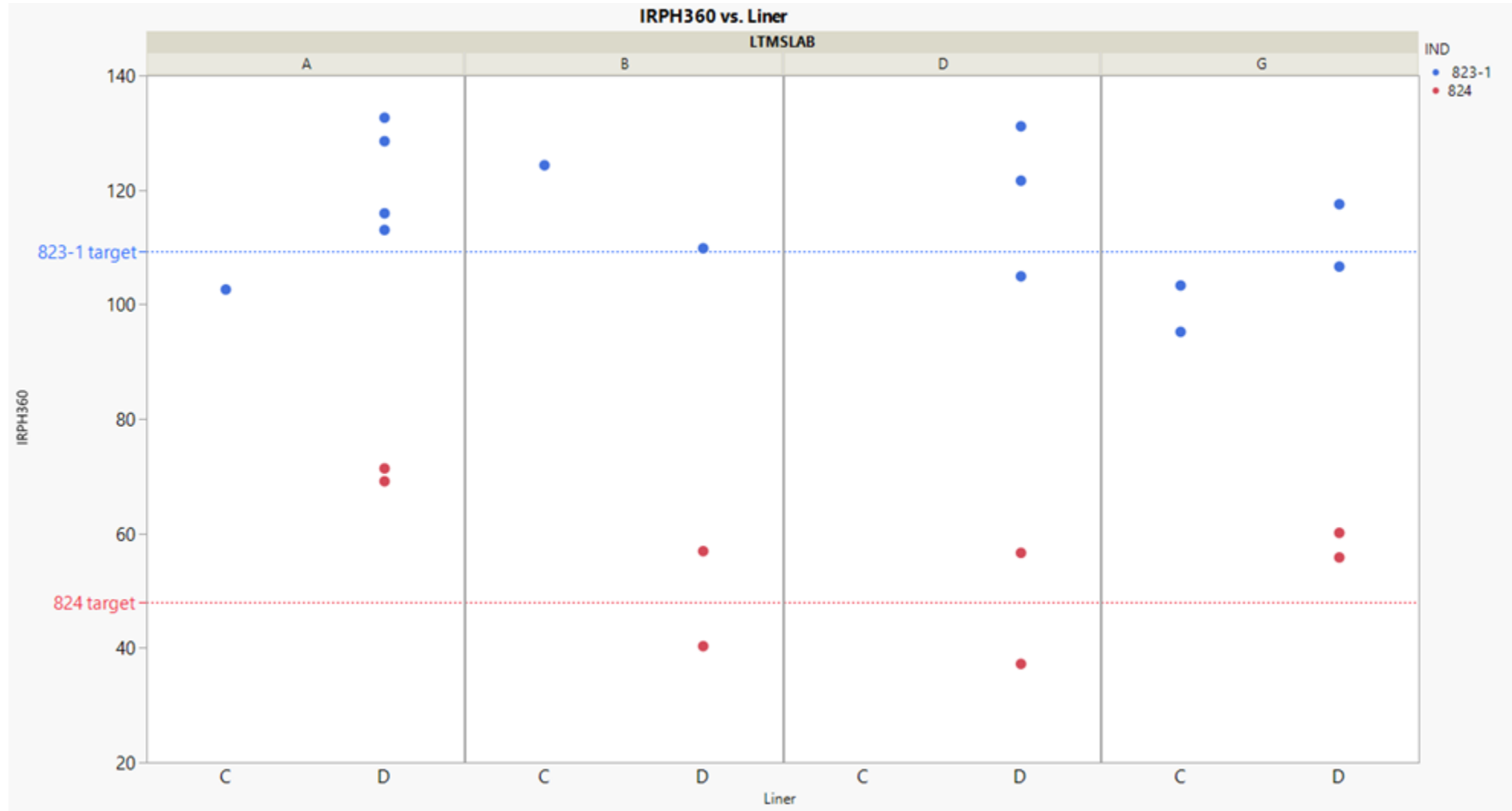
sqrtKV40	Target	LSMean
RO 823-1	8.139	8.057
RO 824	3.698	3.616

Difference          4.441          4.441

IRPH	Target	LSMean	Difference
RO 823-1	109.3	111.81	2.51
RO 824	48.0	50.54	2.51

sqrtKV40	Target	LSMean	Difference
RO 823-1	8.139	8.057	0.082
RO 824	3.698	3.616	0.082

# IRPH Targets in Action





# sqrtKV40 Targets in Action

- FNL is the corrected data (ICF=+0.857)

