Sequence VH O&H Meeting
September 16th, 2025 at 3:30 PM EST via MS Teams

Attendees: Dylan Beck, Pat Lang, Joe Anthony, Ben Maddock, Al Lopez, Tony Catanese, Mike Deegan

Overview:

1. Operation
2. Fuel

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1. **Operation**:

Fuel Dilution		
Lab A	Lab G	Notes
12.7%	16.8%	**Average of M-000054-3 Row 2**
18.2%	11.4%	**Labs trade Run 3 engines** - Comparable blowby values at ~66 L/min. - Comparing blowby carts made no difference
-	13.0%	**Swap intake manifold & injectors** - Injector flow and spray test acceptable
15.8%	12.3%	**Swap assembled cylinder heads + head gasket**

   a. The five parameters discussed yesterday suggests differences in the following areas:
      i. Cleaning procedure
         1. A is different, D & G match
      ii. Piston to Bore clearance
         1. G > D > A , all within specification
      iii. Surface Finish
         1. Various differences, needs further discussion
            a. Ra: D > G > A
            b. CV: G > D > A
         2. Crevice Volume added, Ford's surface expert input would be appreciated here
      iv. Ring Gaps
         1. G is different, A & D match
      v. Blowby
         1. Needs further confirmation
   b. Generally, the conversation focused on the differences in Piston-to-Bore clearance and Surface Finish discrepancies
   c. Labs to analyze the average surface finish values (Ra, Rz, Rk, Rvk, Rpk, MR2, CV) from two sets of data:
      i. Matching ~15% fuel dilution results between Labs A & G
      ii. Diverging fuel dilution results between Labs A (~12.5%) & G/D (~16.5%)

2. **Fuel** – **Matrix on hold until Engine Swap experiment is resolved**

M-000054-3 Fuel Approval Matrix

A1	A2	G1	G2	D
940 (175651)	931 (193861)	940 (175644)	1011-1 (191485)	931 (190601)
931 (193862)	1011-1 (193857)	1011-1 (199200)	931 (191483)	1011-1 (190602)
1011-1	931	931	1011-1	931

- M-000054 Fuel Batch Approval
  - M-000054 batch was too mild with two 940 results
    - https://www.astmtmc.org/ftp/docs/gas/sequencev/minutes/VMinutes20250130ConferenceCall_draft.pdf
  - M-000054-1 pilot batch was too severe with two 940 results
    - https://www.astmtmc.org/ftp/docs/gas/sequencev/minutes/VMinutes20250409ConferenceCall.pdf
  - M-000054-2 was too severe with a 931 and 1011-1 result
    - https://www.astmtmc.org/ftp/docs/gas/sequencev/minutes/VMinutes20250520ConferenceCall.pdf
  - M-000054-2a fuel dilution study
    - https://www.astmtmc.org/ftp/docs/gas/sequencev/minutes/VMinutes20250616%20ConferenceCall.pdf
  - M-000054-3 pilot batch row 1
    - 20250714 meeting
  - M-000054-3 big batch row 2
    - 20250819 meeting

intertek		Oil	AES	Yi	RCS	Yi	AEV	Yi	APV	Yi	OSCR	FD AVG	Oil Add
Pilot Blend Test	G	1011-1	8.71	0.491	9.42	-0.08	9.47	0.19	9.08	0.25	2	15.90	793
	D	931	7.92	-0.133	9.13	-0.643	8.7	-0.9	7.94	-0.683	80	15.60	925
	A	931	8.84	1.4	9.38	-1.236	9.04	0.233	8.12	-0.383	1	12.10	730
Final Blend	D	1011-1	8.75	0.561	9.46	-0.451	9.43	0	8.64	-0.667	6	16.40	
	G	1011-1	8.3	-0.228	9.4	0.097	9.68	1.19	9.24	0.583	2	16.69	500
	A	931	9.12	1.87	9.3	-1.02	9.02	0.17	8.22	-0.22	1	12.30	
	A	1011-1	9.47	1.82	9.6	-2.01	9.52	0.43	8.96	0.42	1	13.00	
	G	931	7.87	-0.217	8.86	-0.17	8.9	-0.233	7.64	-1.183	65	16.86	940
			avg	0.6955		-0.68913		0.135		-0.23538			