

Report #: [REDACTED]
Title: [REDACTED] Testing Report
Project Name: [REDACTED]
PPQA: [REDACTED]
Originator: Jackson Zilles
Revision: C
Date: July 28, 2023

Introductory Note: This report contains information from multiple tests performed on multiple days with varying products. For clarity, the newest results are highlighted.

Abstract: This report details the testing and comparison of two potential material choices for the [REDACTED] via use in two simulation [REDACTED]. Overall, [REDACTED] proved to resist damage [REDACTED] better than [REDACTED]. [REDACTED] Therefore, [REDACTED] is recommended for further testing.

This report has been modified to include the results of two more [REDACTED]. Comparison between the [REDACTED] in this report shows [REDACTED] consistently underperformed compared to [REDACTED]. [REDACTED] resisted damage [REDACTED] is again recommended for further testing.

*This report has been modified to include the results of the previous [REDACTED] when used with the [REDACTED]. In this report, these [REDACTED] are referenced as [REDACTED]. In comparison with [REDACTED] used in the [REDACTED]

1. PURPOSE

This report evaluates the testing and analysis of the [REDACTED]

2. SCOPE**2.1.Product:**

	Part Number	Rev.	Description
2.1.1			[REDACTED]
2.1.2			[REDACTED]
2.1.3			[REDACTED]
2.1.4			[REDACTED]

2.2.Components:

	Part Number	Rev.	Description
2.2.1	[REDACTED]	I	[REDACTED]
			Stryker
			[REDACTED]
2.2.2			[REDACTED]
2.2.3	[REDACTED]		[REDACTED]

3. PROCEDURE

- 3.1. [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
- 3.2. [REDACTED]
[REDACTED]
- 3.3. [REDACTED]
[REDACTED]

4. RESULTS

4.1 [REDACTED]




























See Appendix 7.1 for Raw Data Sheets.

Measurements: [REDACTED]

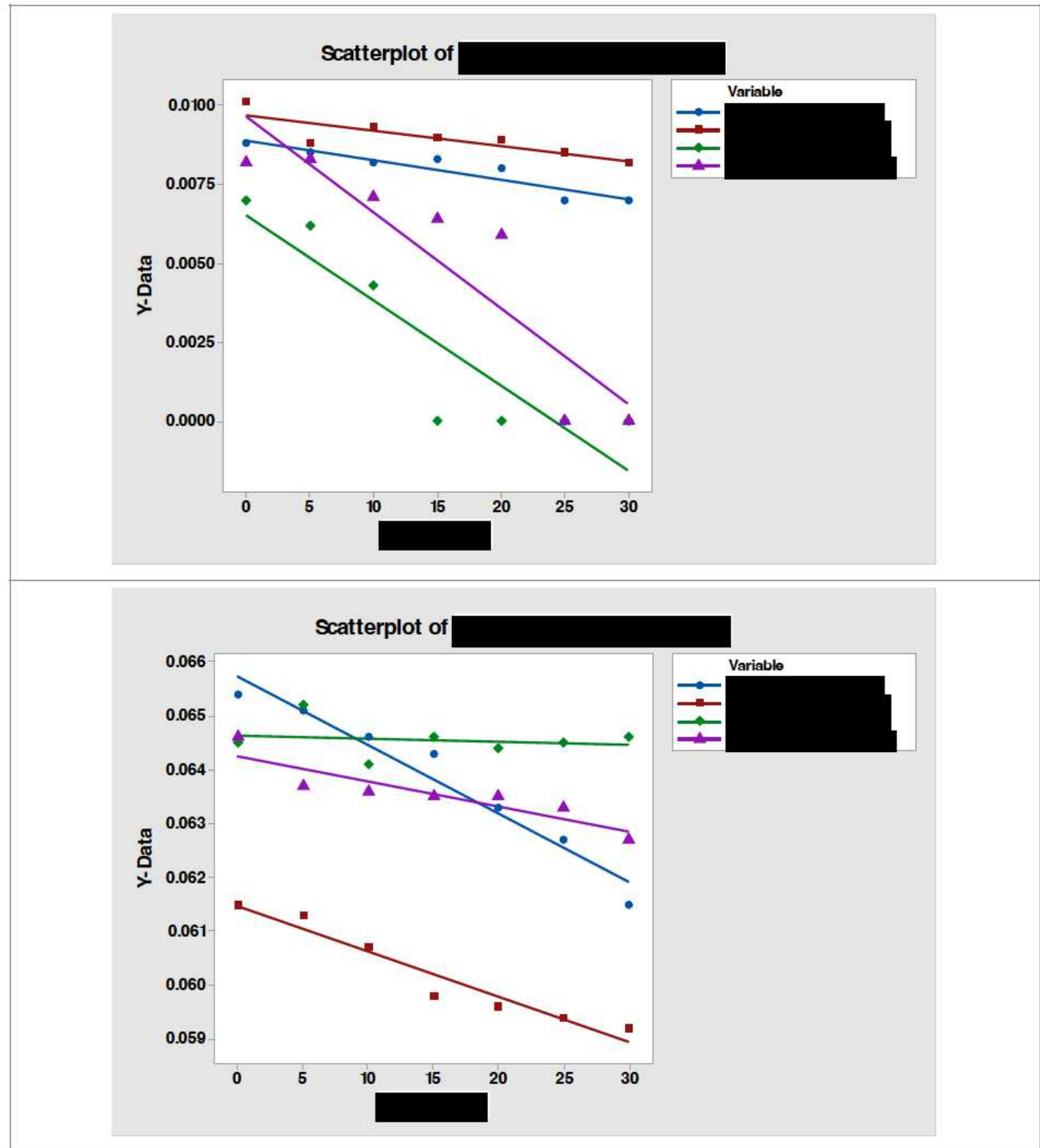
4.1.1. Keyence Measurement Results

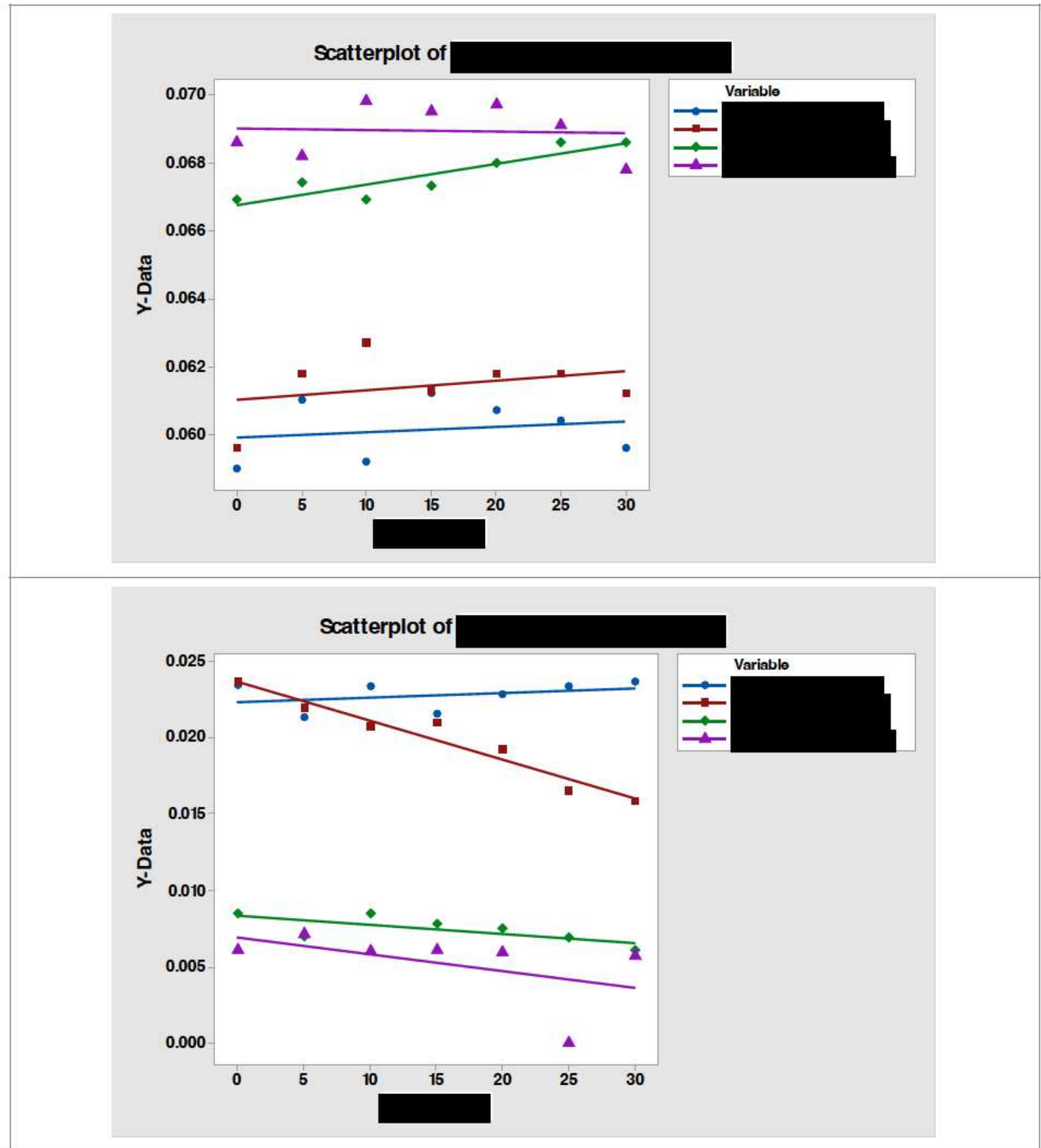
Table 1: Material [REDACTED]

[REDACTED] [REDACTED]	[REDACTED] [REDACTED] [REDACTED]	[REDACTED] [REDACTED] [REDACTED]	[REDACTED] [REDACTED] [REDACTED]	[REDACTED] [REDACTED] [REDACTED]	[REDACTED] [REDACTED] [REDACTED]		[REDACTED] [REDACTED] [REDACTED]	[REDACTED] [REDACTED] [REDACTED]
0	0.0088	0.0070	0.0654	0.0615	0.0590	0.0596	0.0234	0.0236
5	0.0085	0.0062	0.0651	0.0613	0.0610	0.0618	0.0213	0.0219
10	0.0082	0.0043	0.0646	0.0607	0.0592	0.0627	0.0233	0.0207
15	0.0083	0.0000	0.0643	0.0598	0.0612	0.0613	0.0215	0.0209
20	0.0080	0.0000	0.0633	0.0596	0.0607	0.0618	0.0228	0.0192
25	0.0070	0.0000	0.0627	0.0594	0.0604	0.0618	0.0233	0.0165
30	0.0070	0.0000	0.0615	0.0592	0.0596	0.0612	0.0236	0.0158
[REDACTED] [REDACTED]	[REDACTED] [REDACTED] [REDACTED]	[REDACTED] [REDACTED] [REDACTED]	[REDACTED] [REDACTED] [REDACTED]	[REDACTED] [REDACTED] [REDACTED]	[REDACTED] [REDACTED] [REDACTED]	[REDACTED] [REDACTED] [REDACTED]	[REDACTED] [REDACTED] [REDACTED]	
0	0.0101	0.0082	0.0645	0.0646	0.0669	0.0686	0.0085	0.0061
5	0.0088	0.0083	0.0652	0.0637	0.0674	0.0682	0.0070	0.0071
10	0.0093	0.0071	0.0641	0.0636	0.0669	0.0698	0.0085	0.0060
15	0.0090	0.0064	0.0646	0.0635	0.0673	0.0695	0.0078	0.0061
20	0.0089	0.0059	0.0644	0.0635	0.0680	0.0697	0.0075	0.0059
25	0.0085	0.0000	0.0645	0.0633	0.0686	0.0691	0.0069	0.0000
30	0.0082	0.0000	0.0646	0.0627	0.0686	0.0678	0.0061	0.0057
[REDACTED] [REDACTED]	[REDACTED] [REDACTED] [REDACTED]	[REDACTED] [REDACTED] [REDACTED]	[REDACTED] [REDACTED] [REDACTED]	[REDACTED] [REDACTED] [REDACTED]	[REDACTED] [REDACTED] [REDACTED]	[REDACTED] [REDACTED] [REDACTED]	[REDACTED] [REDACTED] [REDACTED]	[REDACTED] [REDACTED] [REDACTED]
0	0.0099	0.0081	0.0658	0.0638	0.0555	0.0575	0.0292	0.0264
5	*	*	0.0656	0.0631	*	*	*	*
10	*	*	0.0652	0.0629	*	*	*	*

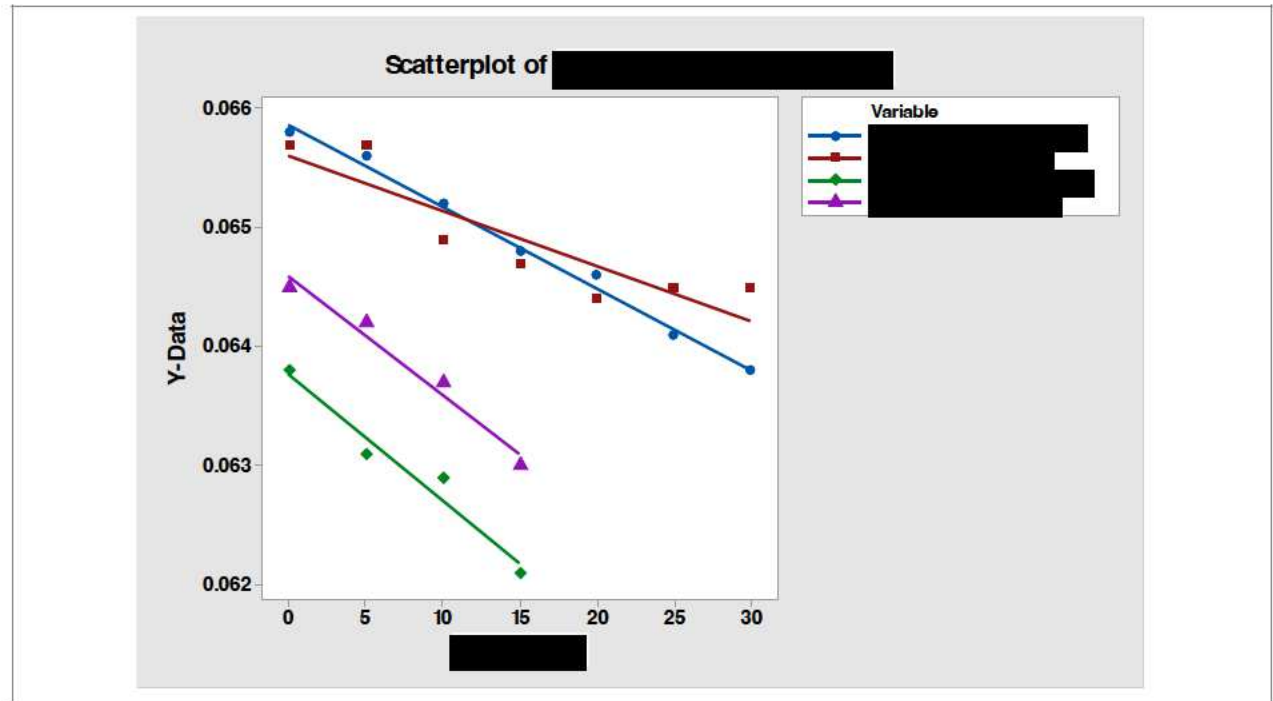
15	*	0.0000	0.0648	0.0621	*	0.0640	*	0.0146
20	*		0.0646		*		*	
25	*		0.0641		*		*	
30	0.0081		0.0638		0.0575		0.0264	
								
0	0.0102	0.0083	0.0657	0.0645	0.0564	0.0579	0.0280	0.0252
5	*	*	0.0657	0.0642	*	*	*	*
10	*	*	0.0649	0.0637	*	*	*	*
15	*	0.0000	0.0647	0.0630	*	0.0655	*	0.0148
20	*		0.0644		*		*	
25	*		0.0645		*		*	
30	0.0083		0.0645		0.0579		0.0252	
								
0	0.0091	0.0064	0.0656	0.0630	0.0571	0.0589	0.0268	0.0263
5	*	*	0.0646	0.0623	*	*	*	*
10	*	*	0.0648	0.0615	*	*	*	*
15	*	*	0.0637	0.0603	*	*	*	*
20	*	*	0.0639	0.0593	*	*	*	*
25	*	*	0.0632	0.0589	*	*	*	*
30	0.0064	0.0000	0.0630	0.0590	0.0589	0.0588	0.0263	0.0155
								
0	0.0088	0.0071	0.0659	0.0648	0.0557	0.0586	0.0293	0.0253
5	*	*	0.0652	0.0639	*	*	*	*
10	*	*	0.0647	0.0637	*	*	*	*
15	*	*	0.0648	0.0623	*	*	*	*
20	*	*	0.0647	0.0620	*	*	*	*
25	*	*	0.0648	0.0620	*	*	*	*
30	0.0071	0.0000	0.0648	0.0617	0.0586	0.0613	0.0253	0.0158

4.1.2. [REDACTED] Scatterplots

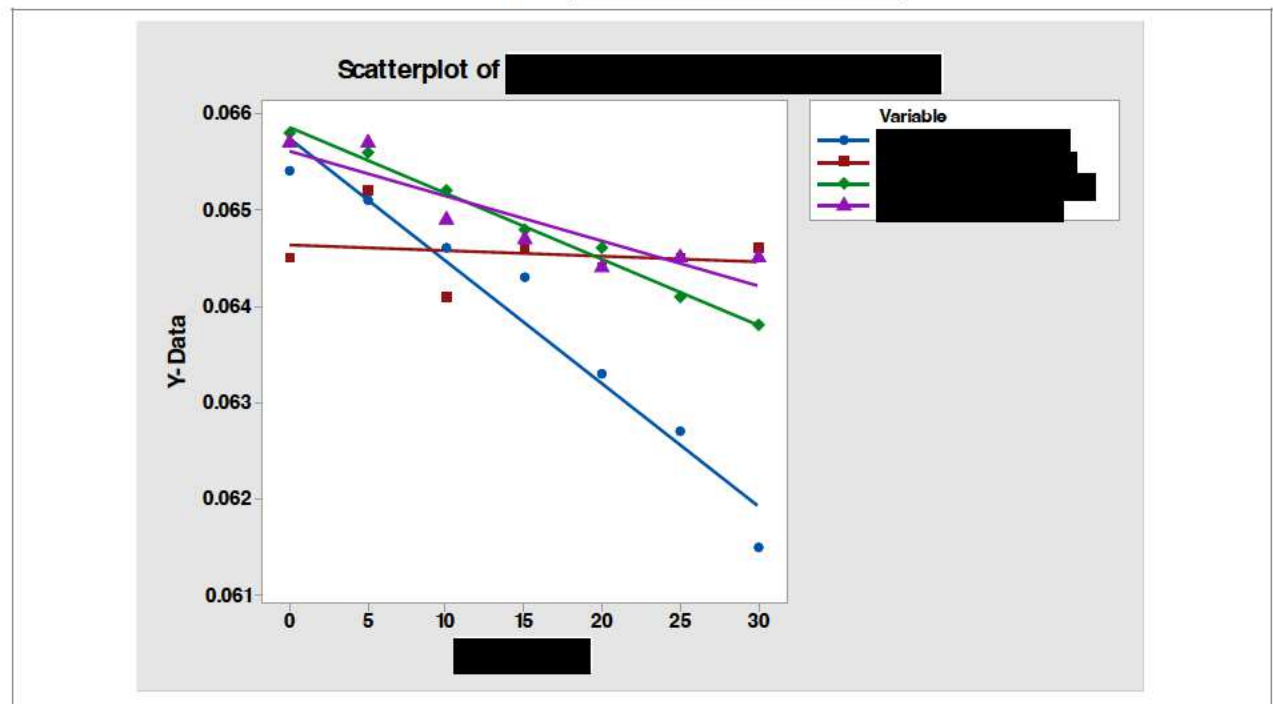


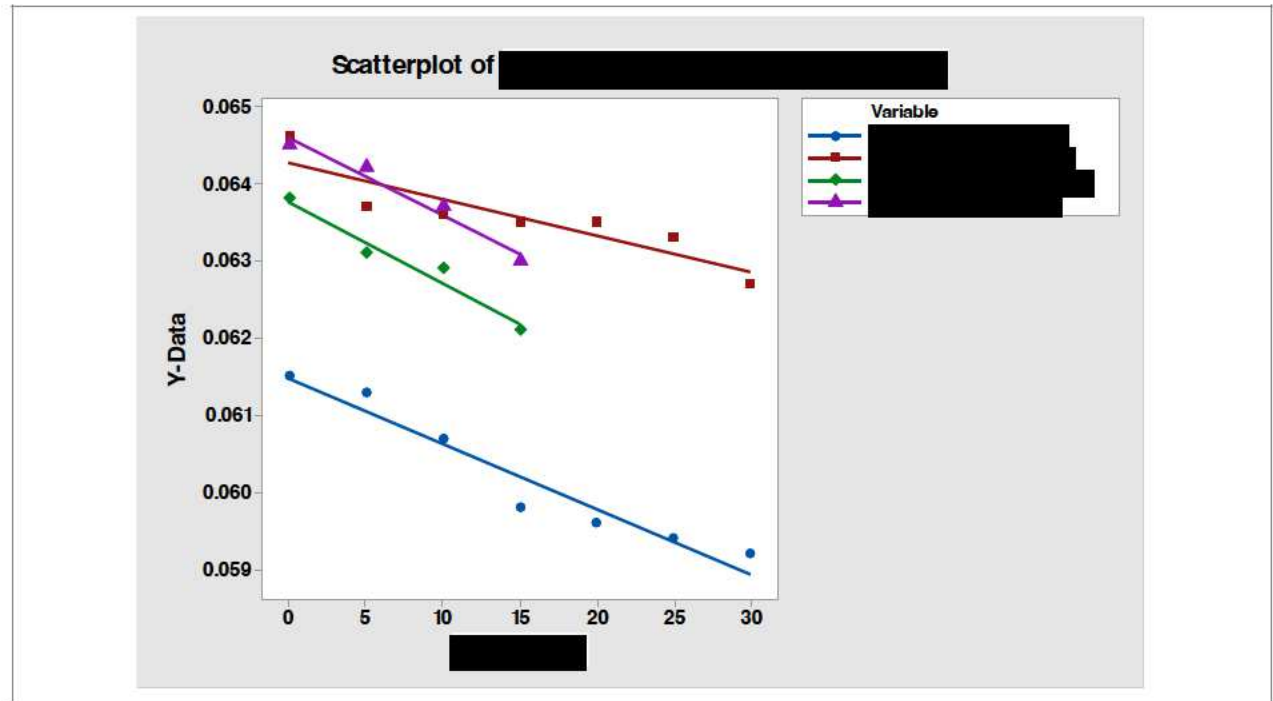


4.1.3. [REDACTED] Scatterplots

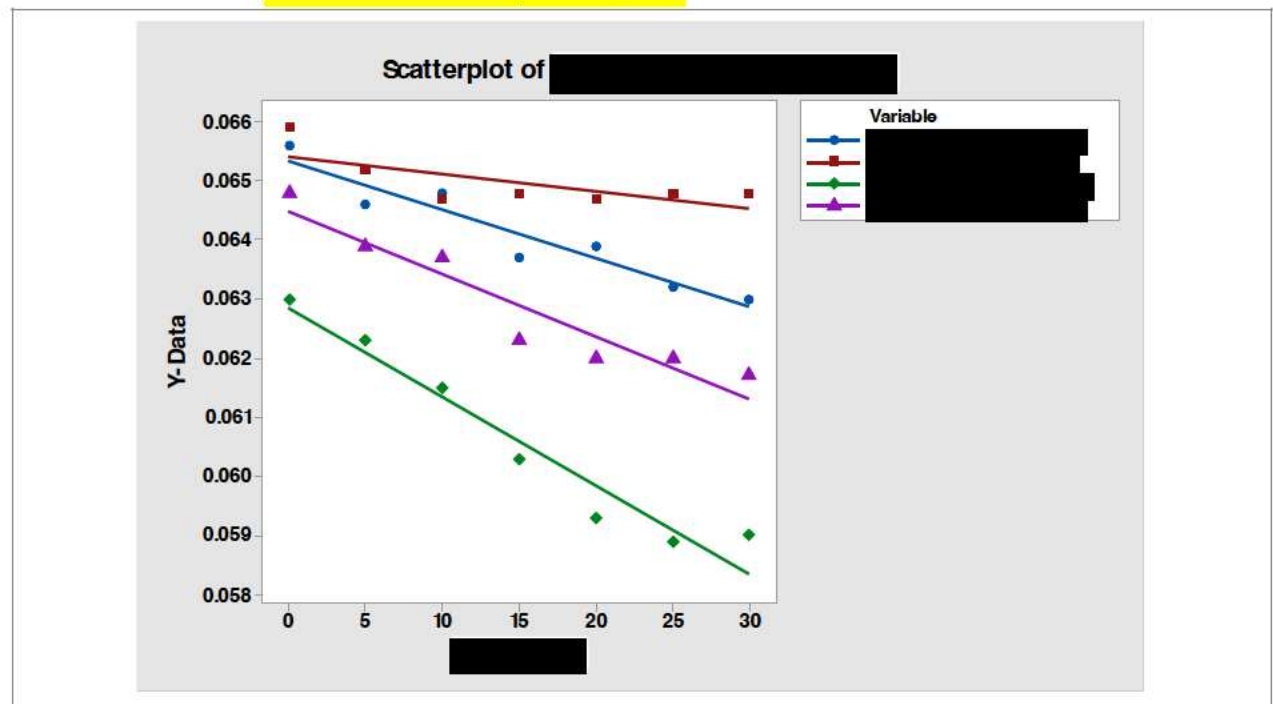


4.1.4. Combined Scatterplots [REDACTED]

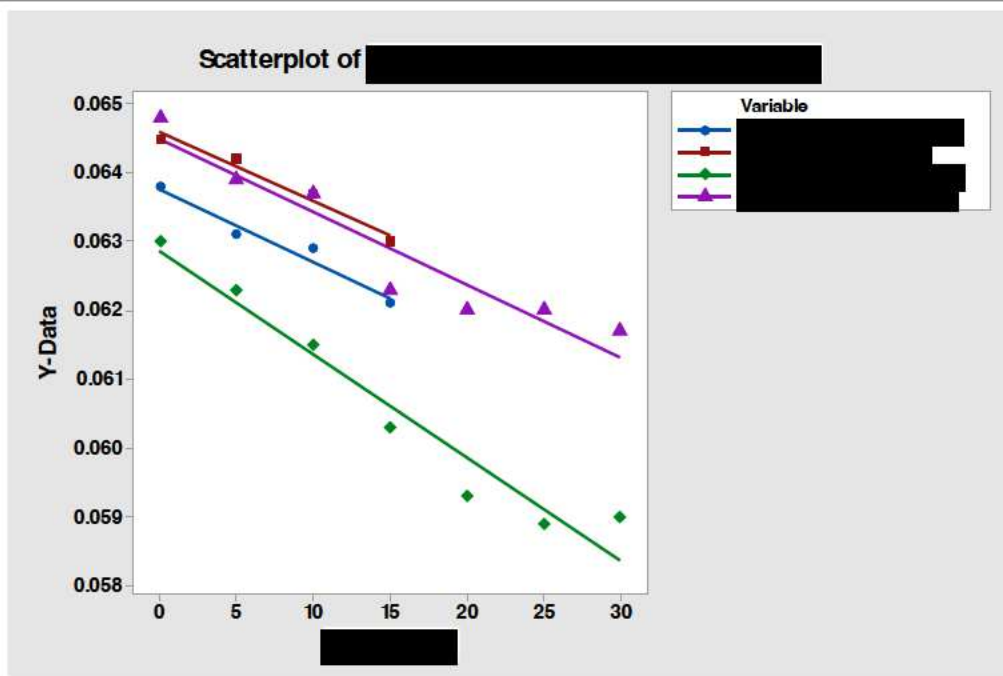
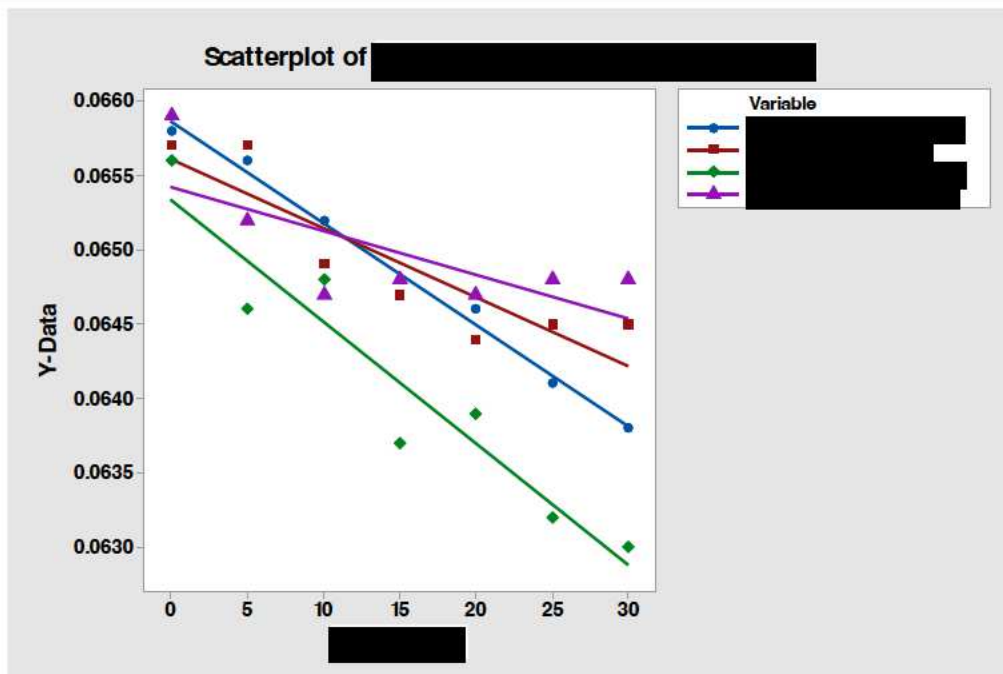




4.1.5. [REDACTED] Scatterplots



4.1.6. [REDACTED]



5. DISCUSSION OF RESULTS

5.1. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

6. CONCLUSION

[REDACTED] slightly outperformed [REDACTED] and significantly outperformed in [REDACTED]. It is recommended that the [REDACTED] be manufactured to the updated spec for further testing.

[REDACTED] performed inferiorly to the [REDACTED].

[REDACTED]

[REDACTED] It is recommended that the [REDACTED] be manufactured to the updated spec for further testing.

[REDACTED] once again outperformed the [REDACTED] with the results aligning with previous testing. The mixed results provided by a comparison of the [REDACTED] suggest that the [REDACTED] is of similar safety in terms of [REDACTED]. It is important that the [REDACTED] [REDACTED] is tested, as that it the most likely location for damage to occur.

7. APPENDIX

7.1.A – Raw Data Sheets (from Keyence measurements)