



**AOF Test Check Program
Bimonthly Report
Round 6
November – 2016**

Result Receival Dates

Lab Code	Date
A	30/11/2016
B	
C	30/11/2016
D	26/11/2016
E	15/11/2016
F	
G	
H	15/11/2016
I	23/11/2016
J	25/11/2016
K	
L	14/11/2016
M	30/11/2016
N	
O	30/11/2016
Q	
R	11/11/2016
S	30/11/2016

Discussion of Results

Test Weight

Sample 1 – Outliers were identified for Lab **C** and **M** with a 9.44 and 0.24 g/hL discrepancy, respectively, from the upper quartile limit (69.80 g/hL).

Sample 2 – No outliers were observed for this test.

Sample 3 – No outliers were observed for this test.



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Impurities

Sample 1 – No outliers were observed for this test.

Sample 2 – No outliers were observed for this test.

Sample 3 – One outlier was identified for Lab **M** where the result was found at the upper quartile limit of 0.84%.

Oil Rapid

Sample 1 – One outlier was identified for Lab **J** with a 0.56 of a percent discrepancy from the lower quartile limit (46.39%).

Sample 2 – One outlier was identified for Lab **D** with a 0.04 of a percent discrepancy from the upper quartile limit (42.51%).

Sample 3 – No outliers were observed for this test.

For sample 2 the rapid test sat within quartile limits published for solvent extraction. Results found sample 1 was the highest and sample 3 was the mid range oil content samples in the set and these samples varied by 0.76 and 0.57 percent, respectively, between NIR and oil extraction mean results. Results maintained similar accuracies through lower variability across laboratories for sample 3, however, sample 1 had similar accuracies when compared with solvent extraction variance.

Oil Solvent Extraction

Sample 1 – One outlier was identified for Lab **J** with a 0.22 of a percent discrepancy from the lower quartile limit (45.62%).

Sample 2 – No outliers were observed for this test.

Sample 3 – One outlier was identified for Lab **D** with a 0.02 of a percent discrepancy from the lower quartile limit (44.15%).

Standard deviation of each test was within the reproducibility for ISO659:2009. 4 of the 6 labs were participating within protocol guidelines outlined by ISO659:2009.

Removal of results submitted by laboratories not participating at the capacity outlined by the method protocol has a minor effect on the mean results. All sample set mean results increased across samples from a minimum of 0.15 to a maximum of 0.36% (not stated). The removal of these results also decreased standard deviation in one sample by 0.32 while increasing standard deviation in another set by 0.15 (not stated). Decreasing the population of participants to 4 laboratories has the expected increase in error values.



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Moisture Oven

Sample 1 – No outliers were observed for this test.

Sample 2 – No outliers were observed for this test.

Sample 3 – One outlier was identified for Lab **D** with a 0.33 of a percent discrepancy from the lower quartile limit (5.95%).

Moisture Rapid

No outliers were observed for this test.

Oleic acid

No outliers were observed for this test.

Linoleic acid

No outliers were observed for this test.

Linolenic acid

No outliers were observed for this test.

Free Fatty Acid

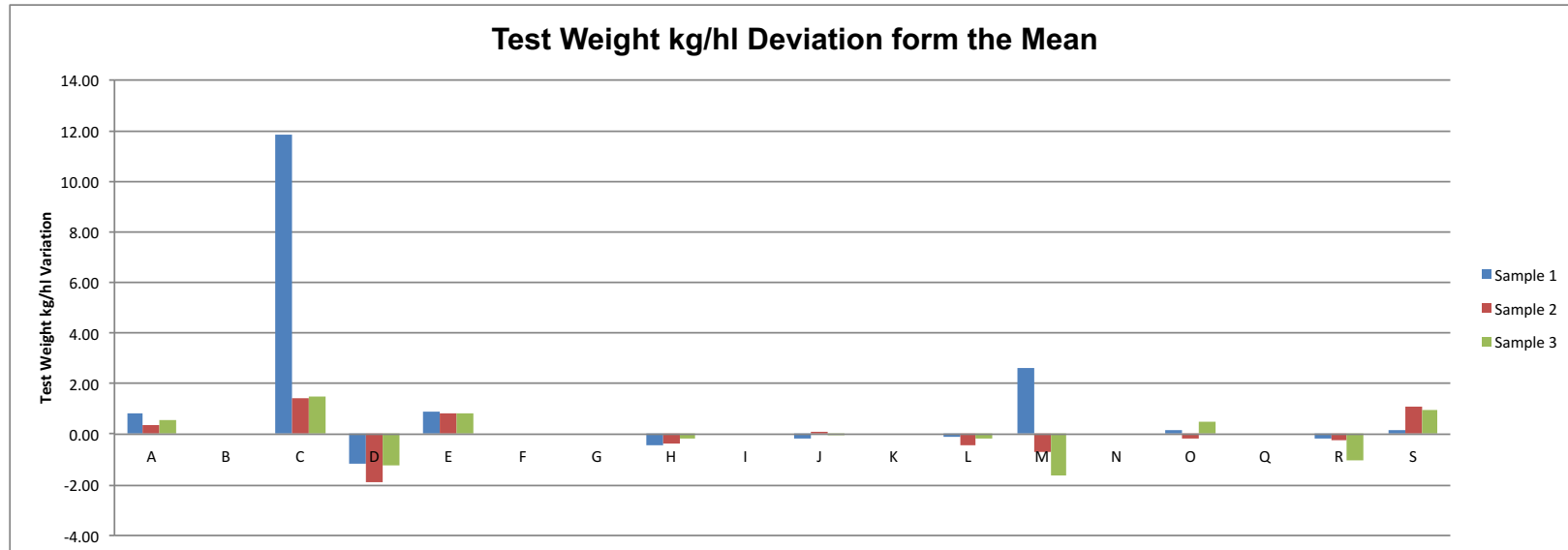
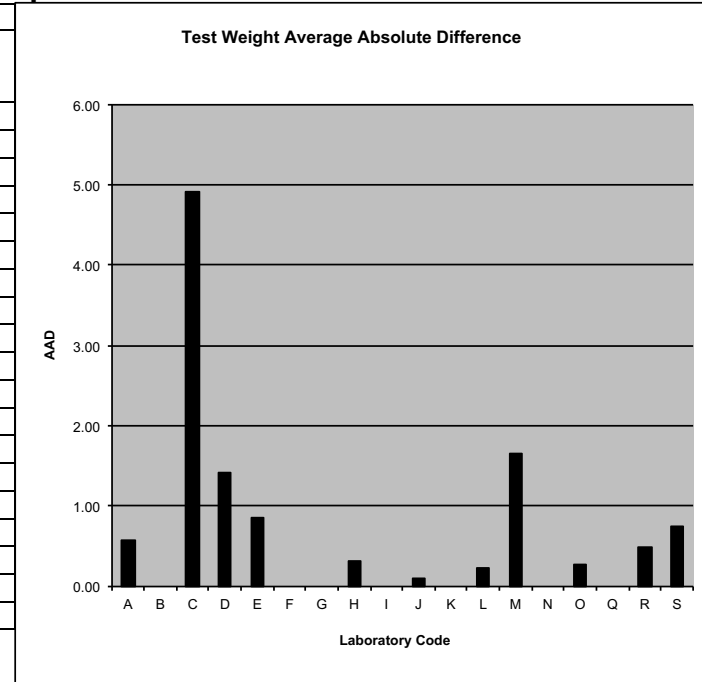
Sample 1 – One outlier was identified for Lab **D** with a 0.29 of a percent discrepancy from the upper quartile limit (0.23%).

Sample 2 – One outlier was identified for Lab **D** with a 0.06 of a percent discrepancy from the upper quartile limit (0.39%).

Sample 3 – No outliers were observed for this test.

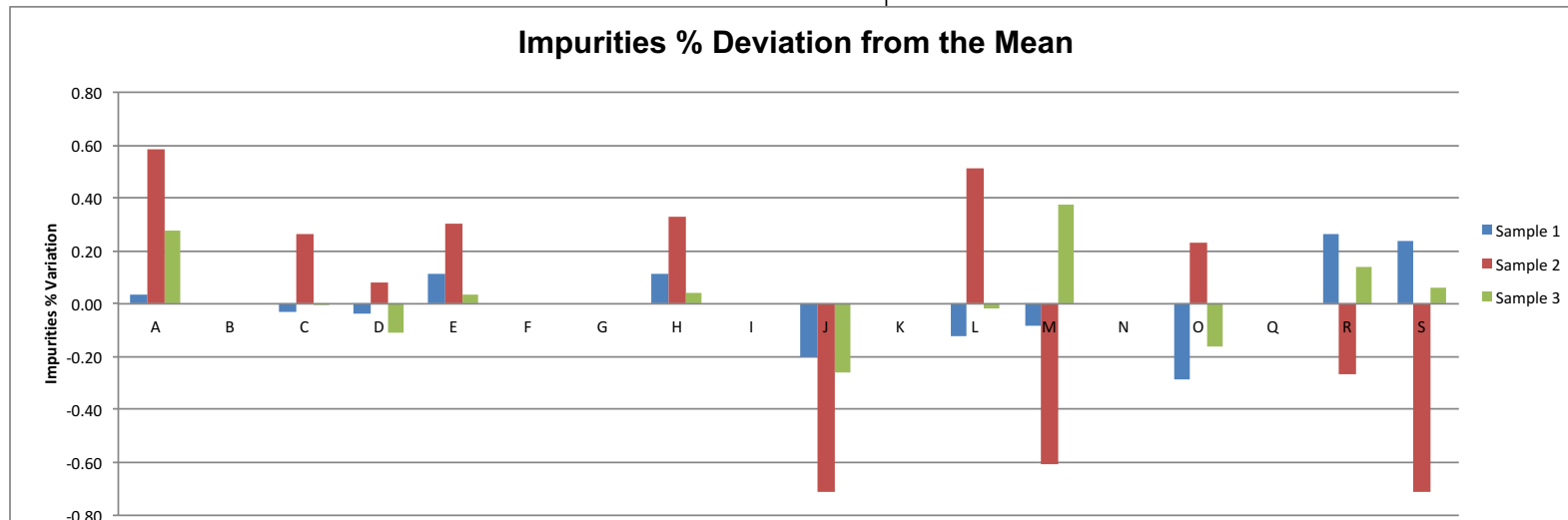
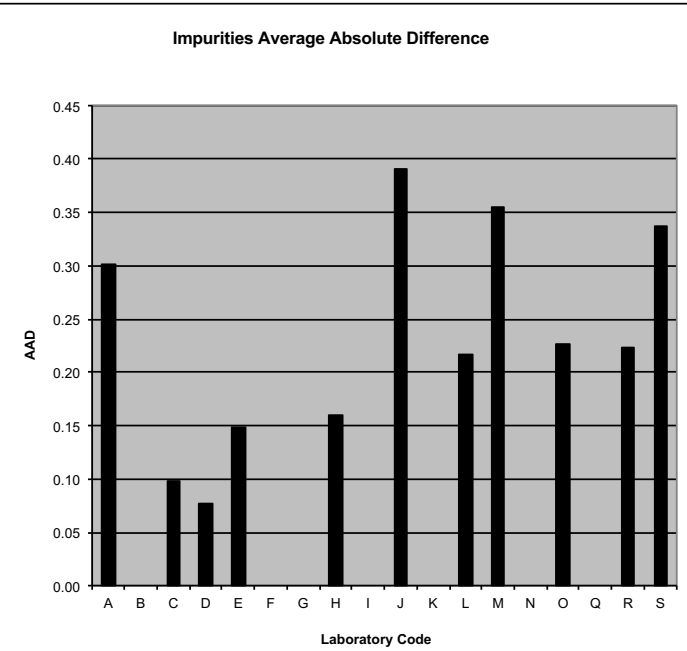
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Test Weight kg/hl								
	Sample 1		Sample 2		Sample 3		Mean of Differences	Average Absolute Difference
Lab	Result	S1-Mean	Result	S2-Mean	Result	S3-Mean		
A	68.25	0.84	68.75	0.36	69.50	0.53	0.58	0.58
B								
C	79.24	11.82	69.83	1.43	70.44	1.47	4.91	4.91
D	66.25	-1.16	66.50	-1.89	67.75	-1.22	-1.42	1.42
E	68.28	0.86	69.25	0.86	69.80	0.83	0.85	0.85
F								
G								
H	67.00	-0.41	68.00	-0.39	68.80	-0.17	-0.32	0.32
I								
J	67.25	-0.16	68.45	0.06	68.90	-0.07	-0.06	0.10
K								
L	67.28	-0.13	67.97	-0.42	68.80	-0.17	-0.24	0.24
M	70.04	2.63	67.72	-0.67	67.32	-1.65	0.10	1.65
N								
O	67.56	0.15	68.21	-0.18	69.48	0.51	0.16	0.28
Q								
R	67.23	-0.18	68.13	-0.26	67.95	-1.02	-0.49	0.49
S	67.60	0.19	69.50	1.11	69.90	0.93	0.74	0.74
MEAN	67.41		68.39		68.97			1.05
STDEV	0.62		0.93		0.98			



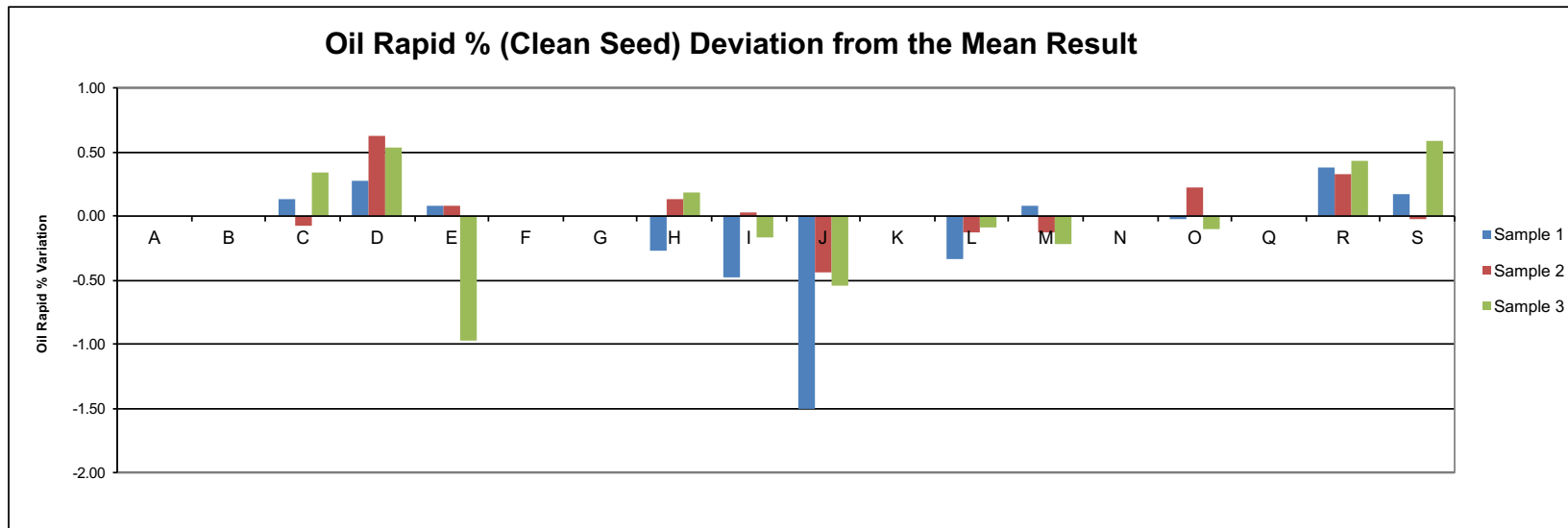
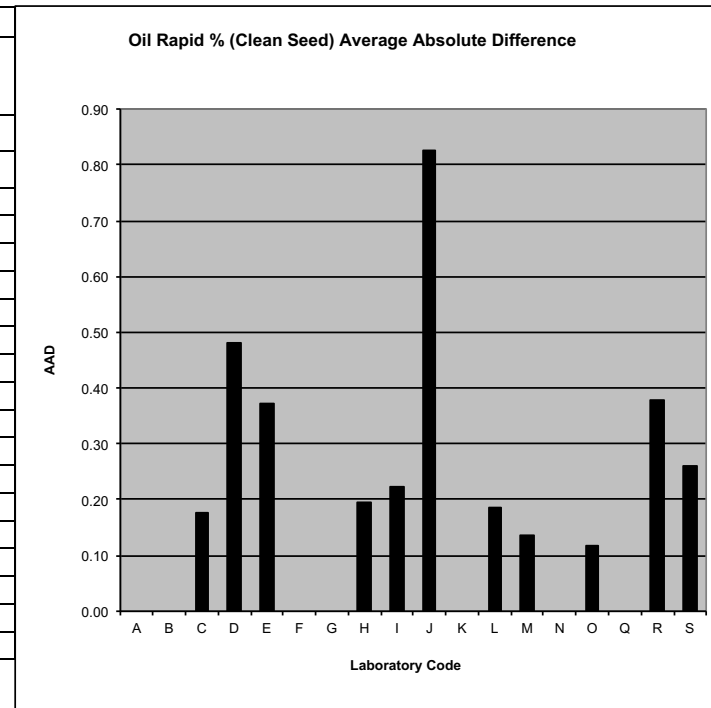
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Impurities %								
Lab	Sample 1		Sample 2		Sample 3		Mean of Differences	Average Absolute Difference
	Result	S1-Mean	Result	S2-Mean	Result	S3-Mean		
A	0.73	0.04	1.96	0.59	0.74	0.28	0.30	0.30
B								
C	0.66	-0.03	1.64	0.27	0.46	0.00	0.08	0.10
D	0.65	-0.04	1.45	0.08	0.35	-0.11	-0.02	0.08
E	0.80	0.11	1.67	0.30	0.50	0.03	0.15	0.15
F								
G								
H	0.80	0.11	1.70	0.33	0.50	0.04	0.16	0.16
I								
J	0.49	-0.20	0.66	-0.71	0.20	-0.26	-0.39	0.39
K								
L	0.57	-0.12	1.88	0.51	0.45	-0.02	0.12	0.22
M	0.61	-0.08	0.76	-0.61	0.84	0.37	-0.11	0.36
N								
O	0.40	-0.29	1.60	0.23	0.30	-0.16	-0.07	0.23
Q								
R	0.95	0.26	1.10	-0.27	0.60	0.14	0.04	0.22
S	0.93	0.24	0.66	-0.71	0.52	0.06	-0.14	0.34
MEAN	0.69		1.37		0.46			0.23
STDEV	0.17		0.49		0.15			



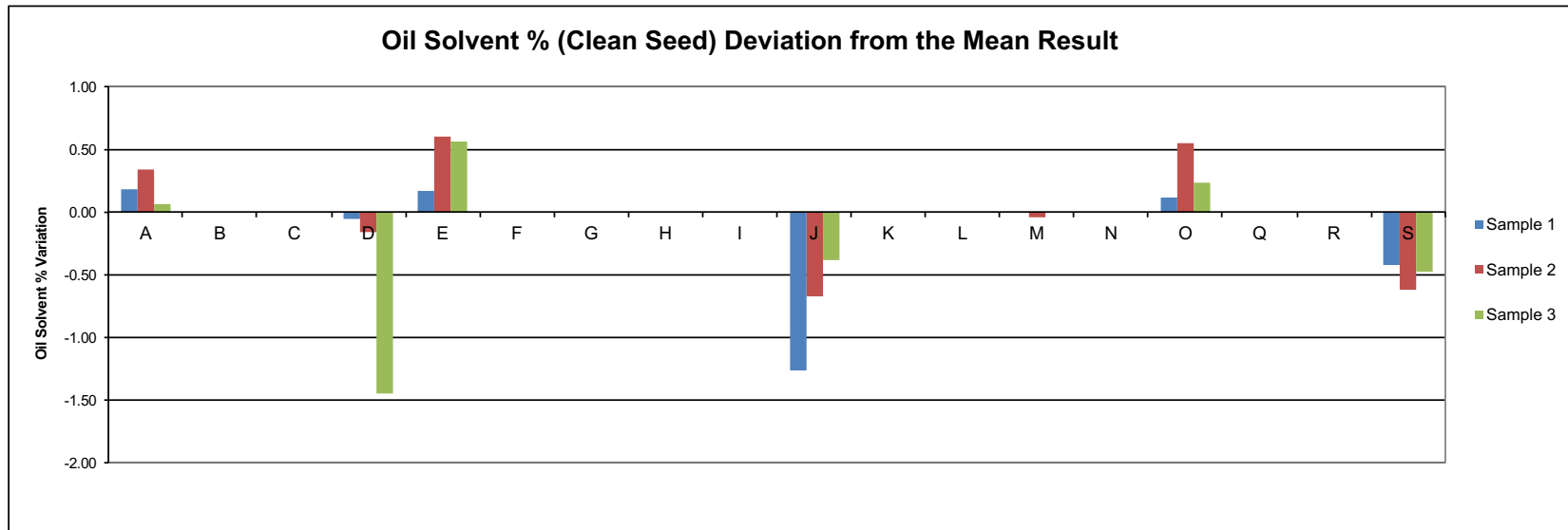
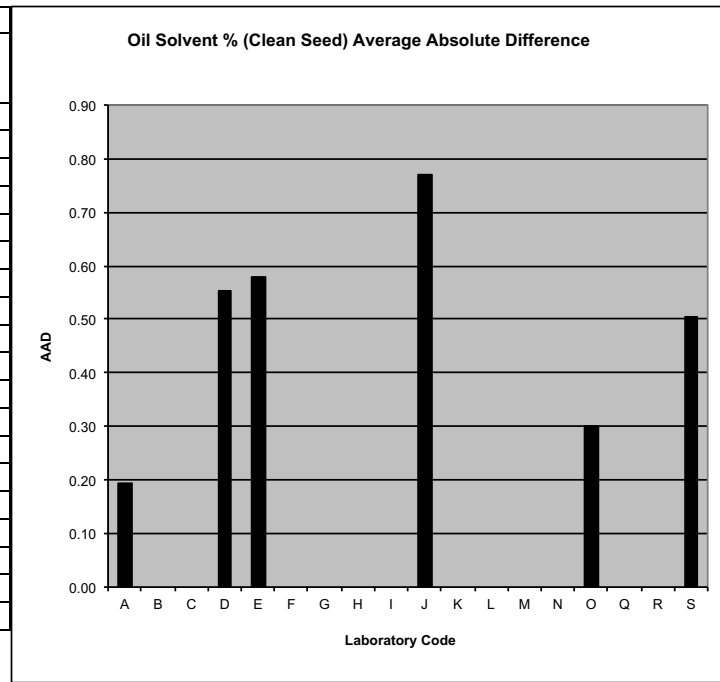
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Oil Rapid % (Clean Seed) Deviation from the Mean								
Lab	Sample 1		Sample 2		Sample 3		Mean of Differences	Average Absolute Difference
	Result	S1-Mean	Result	S2-Mean	Result	S3-Mean		
A								
B								
C	47.45	0.13	41.85	-0.07	46.25	0.34	0.13	0.18
D	47.60	0.28	42.55	0.63	46.45	0.54	0.48	0.48
E	47.40	0.08	42.00	0.08	44.95	-0.96	-0.27	0.37
F								
G								
H	47.05	-0.27	42.05	0.13	46.10	0.19	0.01	0.20
I	46.85	-0.47	41.95	0.03	45.75	-0.16	-0.20	0.22
J	45.83	-1.50	41.49	-0.44	45.37	-0.54	-0.83	0.83
K								
L	46.99	-0.34	41.79	-0.13	45.83	-0.08	-0.19	0.19
M	47.40	0.08	41.80	-0.12	45.70	-0.21	-0.09	0.14
N								
O	47.30	-0.02	42.15	0.22	45.81	-0.10	0.03	0.12
Q								
R	47.70	0.38	42.25	0.33	46.35	0.44	0.38	0.38
S	47.50	0.18	41.90	-0.02	46.50	0.59	0.25	0.26
MEAN	47.32		41.92		45.91		0.25	0.26
STDEV	0.28		0.21		0.48			0.31



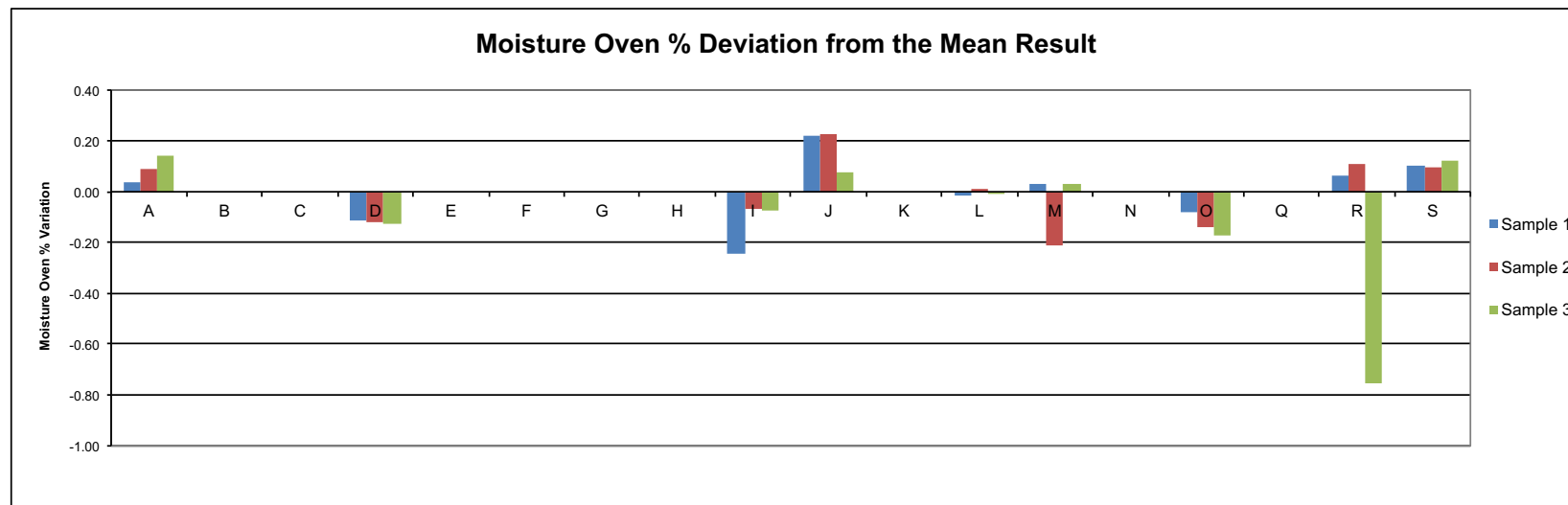
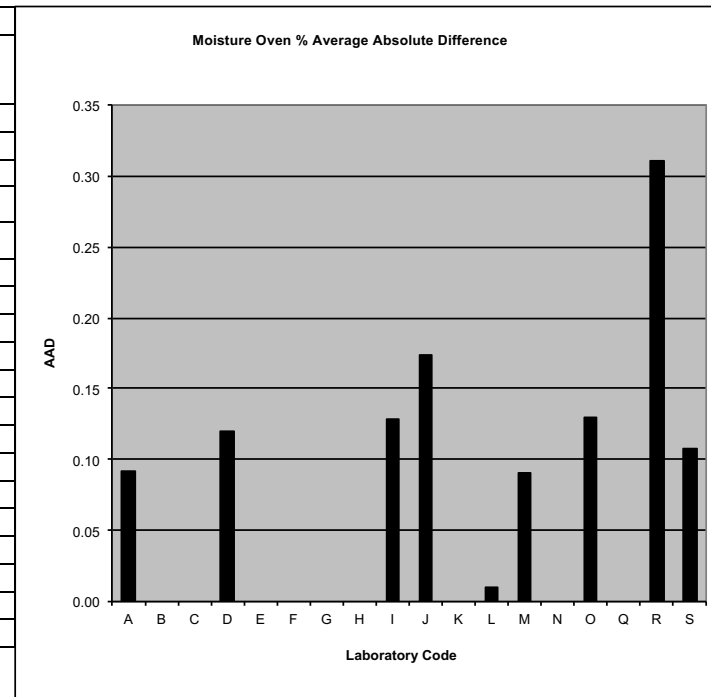
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Oil Solvent % (Clean Seed) Deviation from the Mean								
Lab	Sample 1		Sample 2		Sample 3		Mean of Differences	Average Absolute Difference
	Result	S1-Mean	Result	S2-Mean	Result	S3-Mean		
A	46.86	0.19	42.41	0.34	45.64	0.06	0.20	0.20
B								
C								
D	46.62	-0.05	41.91	-0.16	44.13	-1.45	-0.55	0.55
E	46.84	0.17	42.67	0.60	46.14	0.56	0.58	0.58
F								
G								
H								
I								
J	45.40	-1.27	41.40	-0.67	45.20	-0.38	-0.77	0.77
K								
L								
M			42.03	-0.04				
N								
O	46.79	0.12	42.61	0.54	45.82	0.24	0.30	0.30
Q								
R								
S	46.25	-0.42	41.45	-0.62	45.10	-0.48	-0.50	0.50
MEAN	46.67		42.07		45.58			0.48
STDEV	0.25		0.52		0.43			



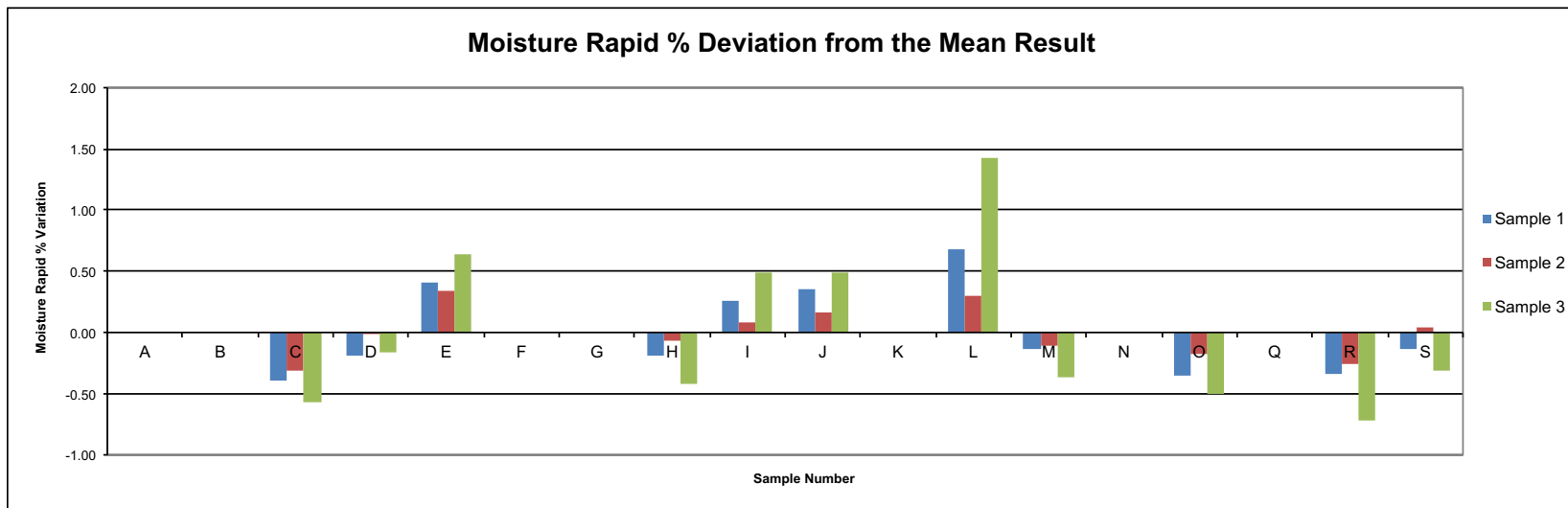
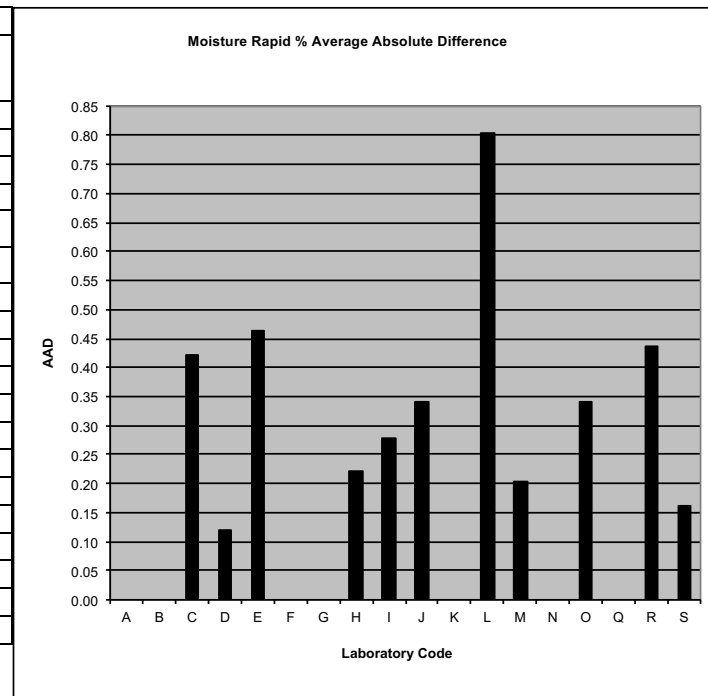
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Moisture Oven % Deviation from the Mean								
Lab	Sample 1		Sample 2		Sample 3		Mean of Differences	Average Absolute Difference
	Result	S1-Mean	Result	S2-Mean	Result	S3-Mean		
A	5.44	0.04	6.70	0.09	6.52	0.14	0.09	0.09
B								
C								
D	5.29	-0.11	6.48	-0.12	6.25	-0.13	-0.12	0.12
E								
F								
G								
H								
I	5.16	-0.24	6.54	-0.07	6.30	-0.08	-0.13	0.13
J	5.62	0.22	6.83	0.23	6.45	0.07	0.17	0.17
K								
L	5.38	-0.02	6.62	0.01	6.38	0.00	0.00	0.01
M	5.43	0.03	6.39	-0.21	6.41	0.03	-0.05	0.09
N								
O	5.32	-0.08	6.47	-0.14	6.21	-0.17	-0.13	0.13
Q								
R	5.46	0.06	6.72	0.11	5.62	-0.76	-0.19	0.31
S	5.50	0.10	6.70	0.10	6.50	0.12	0.11	0.11
MEAN	5.40		6.60		6.38			0.13
STDEV	0.13		0.14		0.12			



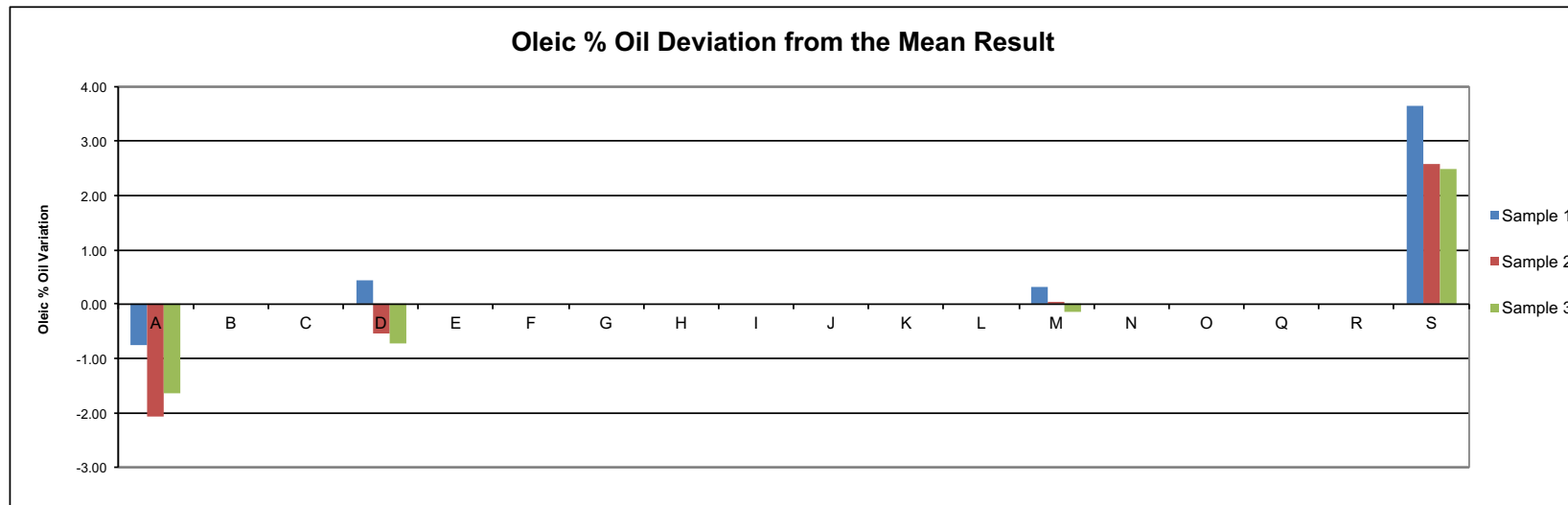
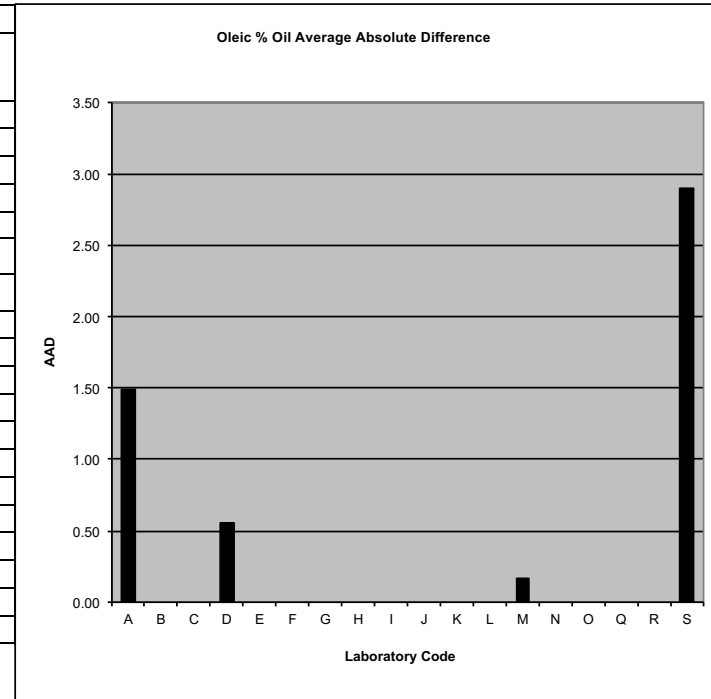
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Moisture Rapid % Deviation from the Mean								
Lab	Sample 1		Sample 2		Sample 3		Mean of Differences	Average Absolute Difference
	Result	S1-Mean	Result	S2-Mean	Result	S3-Mean		
A								
B								
C	4.65	-0.39	6.05	-0.31	5.20	-0.56	-0.42	0.42
D	4.85	-0.19	6.35	-0.01	5.60	-0.16	-0.12	0.12
E	5.45	0.41	6.70	0.34	6.40	0.64	0.46	0.46
F								
G								
H	4.85	-0.19	6.30	-0.06	5.35	-0.41	-0.22	0.22
I	5.30	0.26	6.45	0.09	6.25	0.49	0.28	0.28
J	5.40	0.36	6.53	0.17	6.26	0.50	0.34	0.34
K								
L	5.72	0.68	6.67	0.30	7.19	1.43	0.80	0.80
M	4.90	-0.14	6.25	-0.11	5.40	-0.36	-0.20	0.20
N								
O	4.69	-0.35	6.19	-0.17	5.26	-0.50	-0.34	0.34
Q								
R	4.70	-0.34	6.10	-0.26	5.05	-0.71	-0.44	0.44
S	4.90	-0.14	6.40	0.04	5.45	-0.31	-0.14	0.16
MEAN	5.04		6.36		5.76			0.35
STDEV	0.36		0.21		0.67			



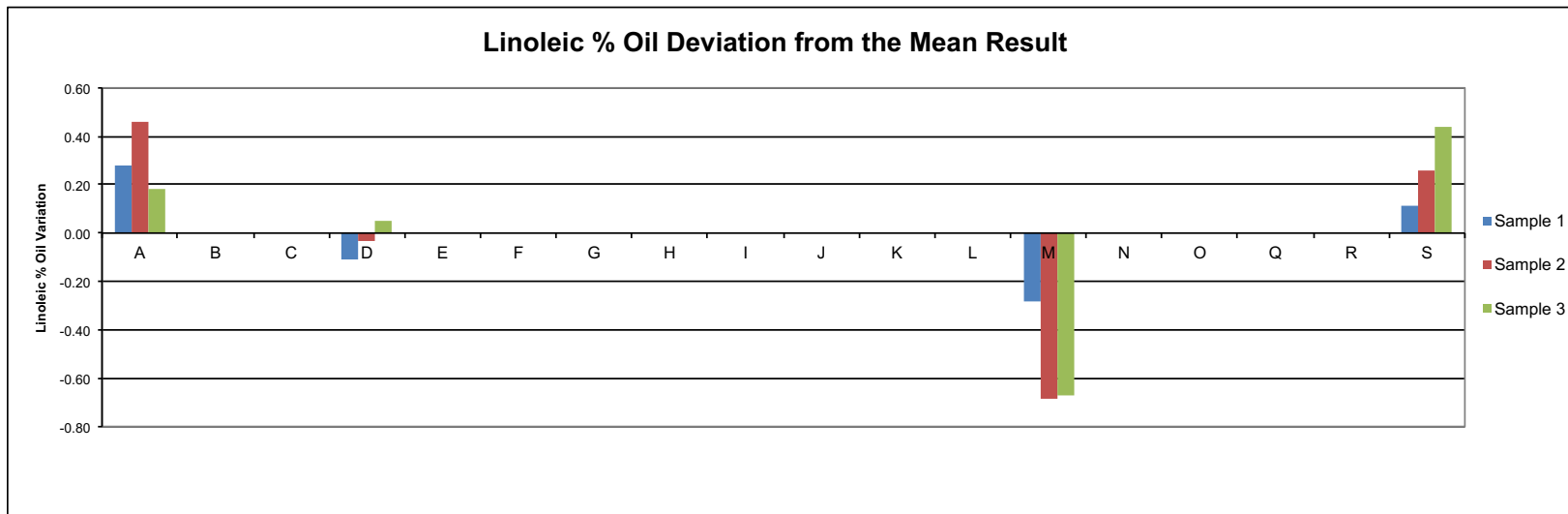
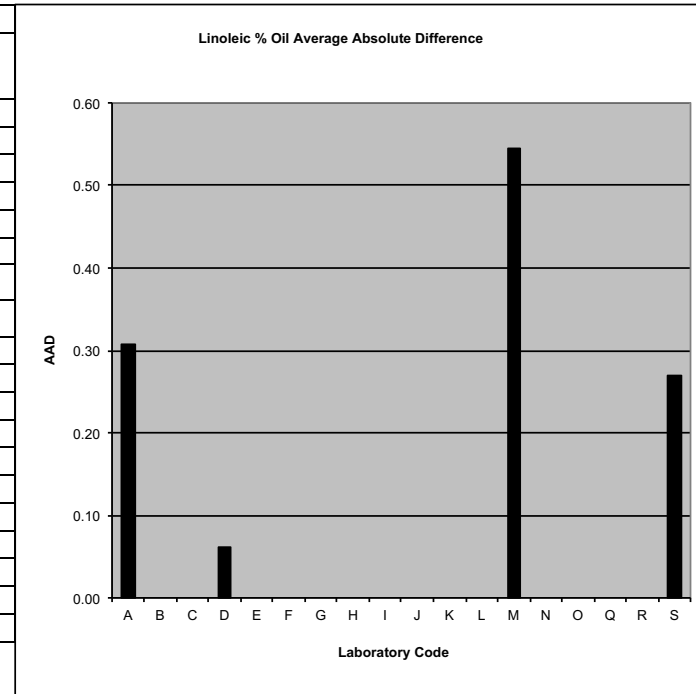
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Oleic % Oil Deviation from the Mean								
Lab	Sample 1		Sample 2		Sample 3		Mean of Differences	Average Absolute Difference
	Result	S1-Mean	Result	S2-Mean	Result	S3-Mean		
A	70.53	-0.77	61.86	-2.08	62.12	-1.64	-1.50	1.50
B								
C								
D	71.74	0.44	63.41	-0.53	63.05	-0.71	-0.26	0.56
E								
F								
G								
H								
I								
J								
K								
L								
M	71.62	0.32	63.98	0.04	63.62	-0.14	0.07	0.17
N								
O								
Q								
R								
S	74.95	3.65	66.50	2.57	66.25	2.49	2.90	2.90
MEAN	71.30		63.94		63.76			1.28
STDEV	0.67		1.93		1.77			



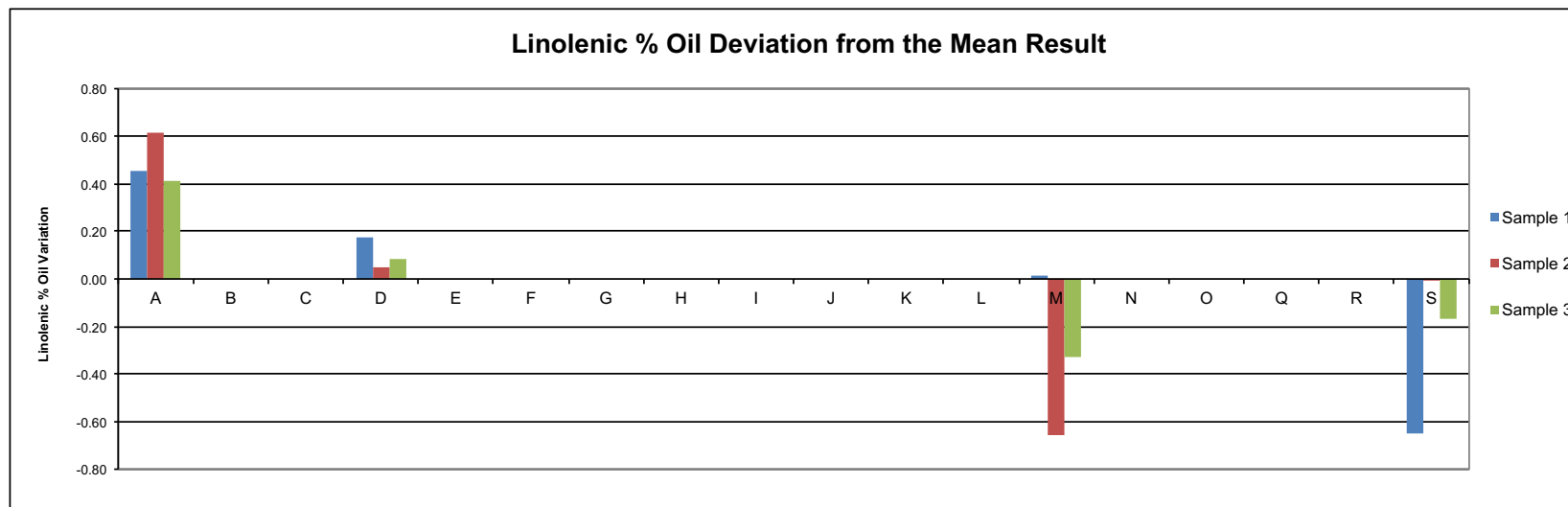
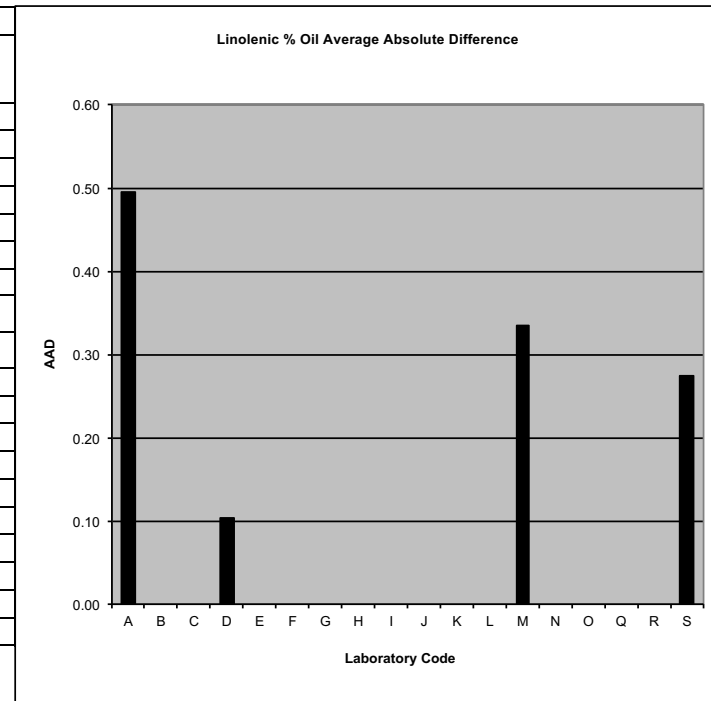
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Linoleic % Oil Deviation from the Mean								
Lab	Sample 1		Sample 2		Sample 3		Mean of Differences	Average Absolute Difference
	Result	S1-Mean	Result	S2-Mean	Result	S3-Mean		
A	13.87	0.28	19.20	0.46	21.20	0.18	0.31	0.31
B								
C								
D	13.48	-0.11	18.71	-0.03	21.06	0.05	-0.03	0.06
E								
F								
G								
H								
I								
J								
K								
L								
M	13.31	-0.28	18.06	-0.69	20.35	-0.67	-0.55	0.55
N								
O								
Q								
R								
S	13.70	0.11	19.00	0.26	21.45	0.44	0.27	0.27
MEAN	13.59		18.74		21.01			0.30
STDEV	0.25		0.50		0.47			



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Linolenic % Oil Deviation from the Mean								
Lab	Sample 1		Sample 2		Sample 3		Mean of Differences	Average Absolute Difference
	Result	S1-Mean	Result	S2-Mean	Result	S3-Mean		
A	7.01	0.46	9.82	0.62	7.83	0.41	0.49	0.49
B								
C								
D	6.73	0.18	9.26	0.05	7.51	0.09	0.10	0.10
E								
F								
G								
H								
I								
J								
K								
L								
M	6.56	0.01	8.55	-0.66	7.09	-0.33	-0.33	0.33
N								
O								
Q								
R								
S	5.90	-0.65	9.20	0.00	7.25	-0.17	-0.27	0.27
MEAN	6.55		9.21		7.42			0.30
STDEV	0.47		0.52		0.32			



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Free Fatty Acid % Oil Deviation from the Mean								
Lab	Sample 1		Sample 2		Sample 3		Mean of Differences	Average Absolute Difference
	Result	S1-Mean	Result	S2-Mean	Result	S3-Mean		
A	0.02	-0.06	0.06	-0.08	0.05	-0.09	-0.08	0.08
B								
C								
D	0.52	0.44	0.45	0.31	0.22	0.08	0.28	0.28
E								
F								
G								
H								
I								
J	0.14	0.06	0.23	0.09	0.28	0.14	0.10	0.10
K								
L								
M	0.09	0.01	0.18	0.04	0.12	-0.02	0.01	0.02
N								
O	0.05	-0.03	0.09	-0.05	0.06	-0.08	-0.05	0.05
Q								
R								
S	0.09	0.01	0.13	-0.01	0.11	-0.03	-0.01	0.02
MEAN	0.08		0.14		0.14			0.09
STDEV	0.04		0.07		0.09			

