



**AOF Test Check Program
Bimonthly Report
Round 6
November – 2017**

Result Receiving Dates

Laboratory Code	Date
A	27/11/2017
B	-
C	1/12/2017
D	2/11/2017
E	2/11/2017
F	30/11/2017
G	21/11/2017
H	2/11/2017
I	2/11/2017
J	10/11/2017
K	2/11/2017
L	2/11/2017
M	28/11/2017
N	-
O	29/11/2017
Q	1/12/2017
R	1/12/2017
S	30/11/2017



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Discussion of Results

Test Weight

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 Laboratory **Q** with a 1.83 of a Kg/hL discrepancy from the upper quartile limit (67.96 Kg/hL).

Impurities

No outliers were observed for this test.

Oil Rapid

Sample 1 – No outliers were observed for this test.

Sample 2 – One outlier was identified for Laboratory **J** with a 0.41% discrepancy from the lower quartile limit (45.16%).

Sample 3 – Outliers were identified for Laboratory **I** and **L** at 0.06 and 0.36 of a percent discrepancy, respectively, from the lower quartile limit (48.41%).

Where rapid and reference oil content analysis are compared on the 7th tab, “Rapid Vs Solvent” in the “AOF Results Summary 2017 November”, values reported for laboratory I and J are showing a consistent negative trend over the last 6 rounds. Values have reached reported results lower than solvent extraction content greater than 2%. As a comparison ISO-659:2009 suggests reproducibility between solvent extraction results to be 1.54% in 95% of cases.

Oil Solvent Extraction

Sample 1 – One outlier was identified for Laboratory **D** with a 1.97% discrepancy from the lower quartile limit (45.42%).

Sample 2 – One outlier was identified for Laboratory **D** with a 0.66% discrepancy from the upper quartile limit (43.33%).

Sample 3 – One outlier was identified for Laboratory **D** with a 0.25% discrepancy from the lower quartile limit (49.15%).



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Standard deviation of each test was within the reproducibility limit for ISO659:2009. 6 of the 8 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 effect on the mean results. Sample means differ by as little as 0.26 and as much as 0.43% (not stated). The removal of these results also uniformly decreases standard deviation to as much as 0.24 to 0.40% (not stated). With the difference in variation between results being reduced by more than half, decreasing the population of participants to 6 laboratories has the opposite affect on error values and decreases these instead of the expected increase. This suggests reported values for round 6 are very close.

Laboratory D results for sample 1 were reported with differences from published averages greater than reproducibility limits stipulated within ISO659:2009 (1.54% from mean values of 43.06%). All other outlying results were within this tolerance.

Moisture Oven

Sample 1 – One outlier was identified for Laboratory **C** with a 0.02 of a percent discrepancy from the upper quartile limit (5.91%).

Sample 2 – No outliers were observed for this test.

Sample 3 – No outliers were observed for this test.

Moisture Rapid

Sample 1 – No outliers were observed for this test.

Sample 2 – No outliers were observed for this test.

Sample 3 – Outliers were identified for Laboratory **I**, **L** and **M**. Laboratory **I** and **L** was 0.08 and 0.12 of a percent discrepancy, respectively, from the upper quartile limit (5.12%). Laboratory **M** was 0.12 of a percent discrepancy from the lower quartile limit (3.97%).

Oleic acid

No outliers were observed for this test.



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Linoleic acid

Sample 1 – One outlier was identified for Laboratory **M** with a 0.14 of a percent discrepancy from the lower quartile limit (21.19%).

Sample 2 – One outlier was identified for Laboratory **M** with a 0.10 of a percent discrepancy from the lower quartile limit (24.31%).

Sample 3 – One outlier was identified for Laboratory **M** with a 0.32 of a percent discrepancy from the lower quartile limit (20.36%).

Linolenic acid

Sample 1 – No outliers were observed for this test.

Sample 2 – One outlier was identified for Laboratory **D** with a 0.24 of a percent discrepancy from the lower quartile limit (11.51%).

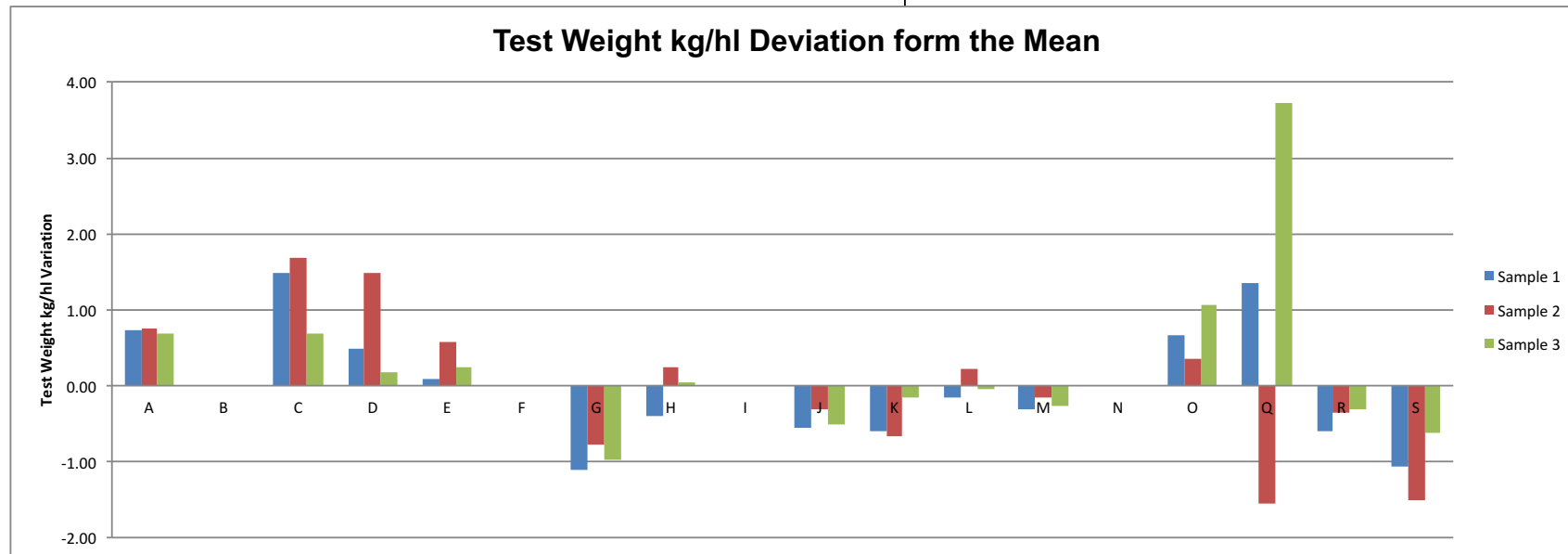
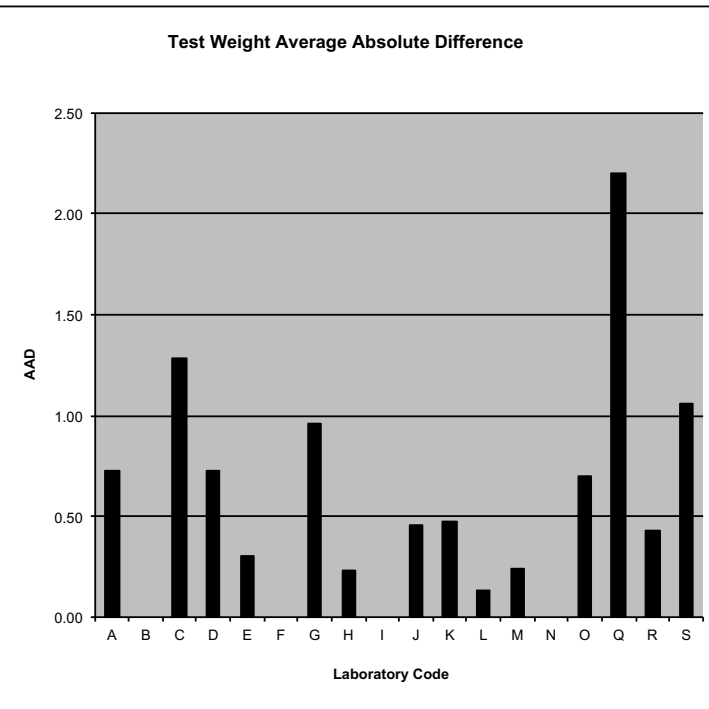
Sample 3 – No outliers were observed for this test.

Free Fatty Acid

No outliers were observed for this test.

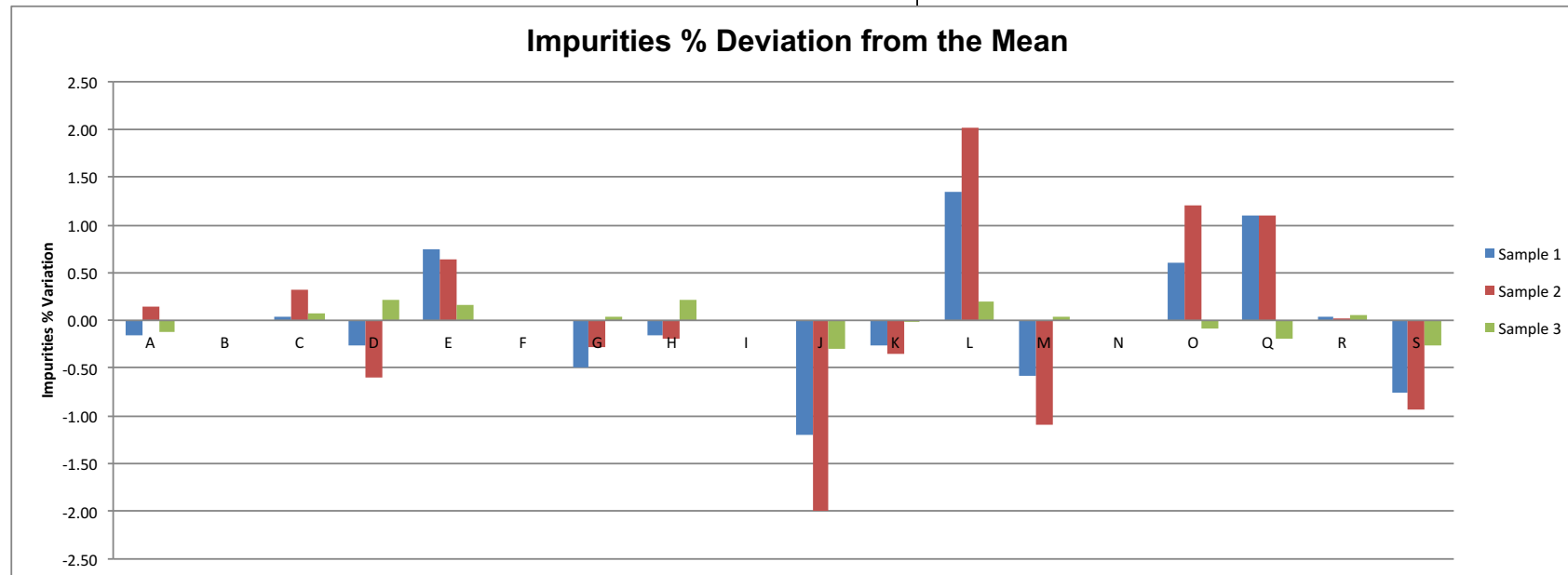
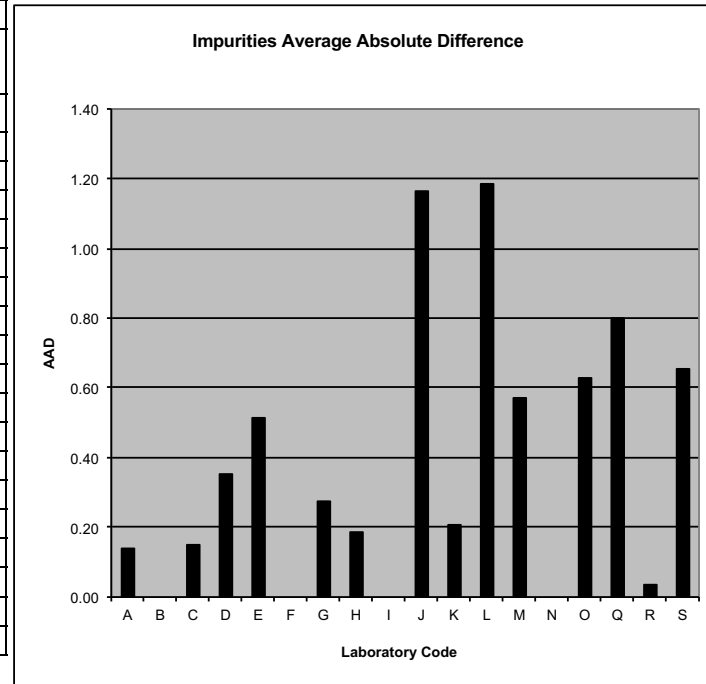
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Test Weight kg/hl								
Lab	Sample 1		Sample 2		Sample 3		Mean of Differences	Average Absolute Difference
	Result	S1-Mean	Result	S2-Mean	Result	S3-Mean		
A	67.75	0.74	70.00	0.74	66.75	0.68	0.72	0.72
B								
C	68.49	1.48	70.94	1.68	66.75	0.68	1.28	1.28
D	67.50	0.49	70.75	1.49	66.25	0.18	0.72	0.72
E	67.10	0.09	69.83	0.57	66.32	0.25	0.30	0.30
F								
G	65.91	-1.10	68.47	-0.79	65.09	-0.98	-0.96	0.96
H	66.60	-0.41	69.50	0.24	66.10	0.03	-0.04	0.23
I								
J	66.45	-0.56	68.95	-0.31	65.55	-0.52	-0.46	0.46
K	66.40	-0.61	68.60	-0.66	65.90	-0.17	-0.48	0.48
L	66.86	-0.15	69.48	0.22	66.03	-0.04	0.01	0.14
M	66.70	-0.31	69.10	-0.16	65.80	-0.27	-0.24	0.24
N								
O	67.68	0.67	69.62	0.36	67.12	1.05	0.70	0.70
Q	68.35	1.34	67.71	-1.55	69.79	3.72	1.17	2.20
R	66.40	-0.61	68.90	-0.36	65.75	-0.32	-0.43	0.43
S	65.95	-1.06	67.75	-1.51	65.45	-0.62	-1.06	1.06
MEAN	67.01		69.26		66.07			0.71
STDEV	0.83		0.97		0.57			



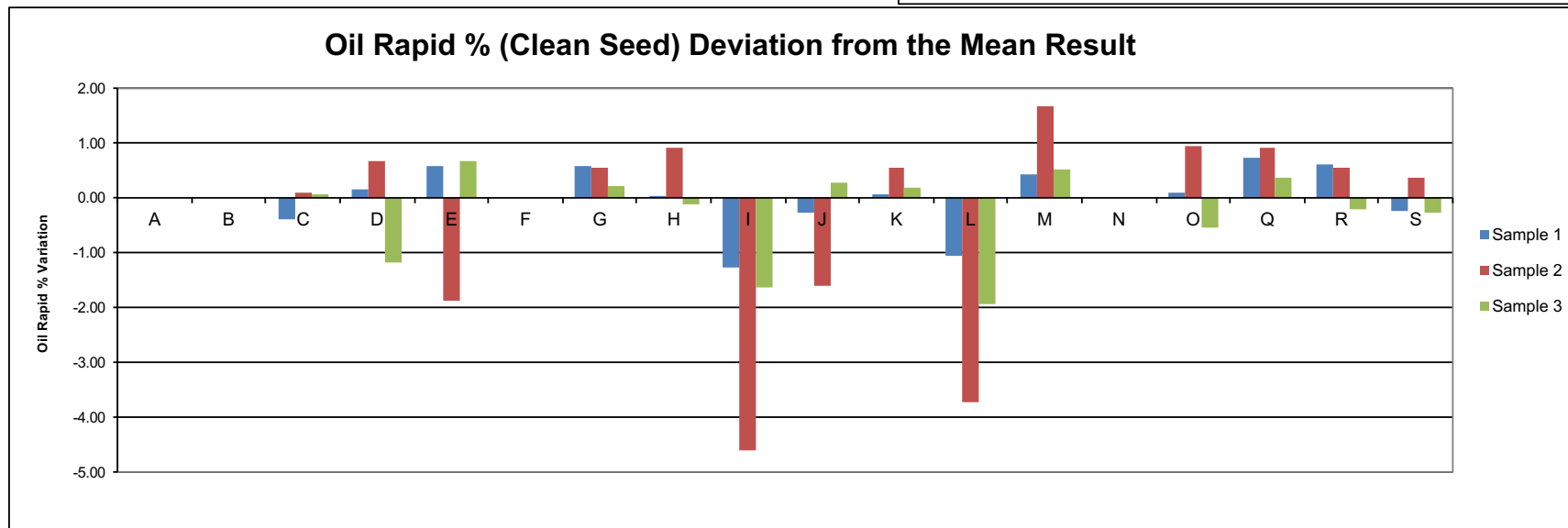
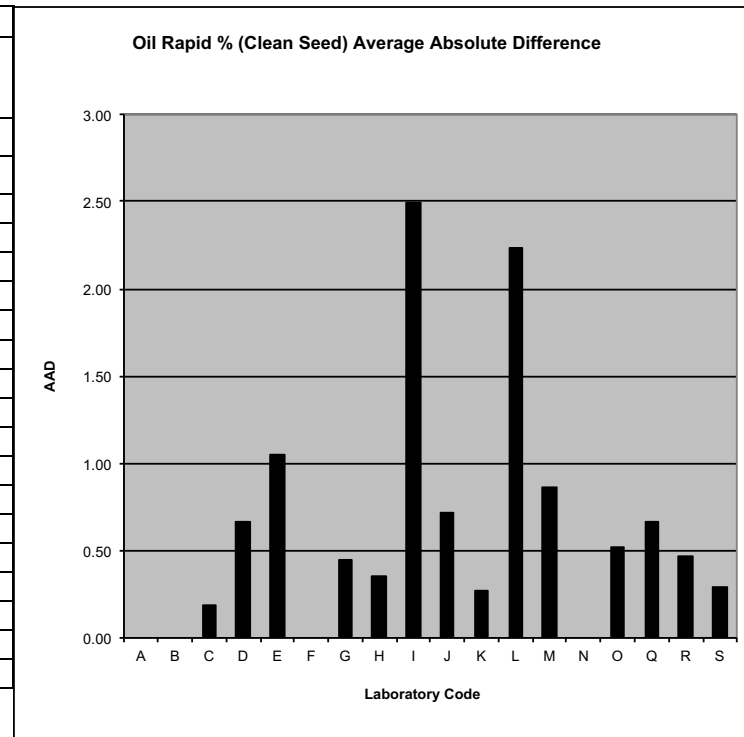
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Impurities %								
Lab	Sample 1		Sample 2		Sample 3		Mean of Differences	Average Absolute Difference
	Result	S1-Mean	Result	S2-Mean	Result	S3-Mean		
A	1.46	-0.15	2.74	0.15	0.57	-0.13	-0.04	0.14
B								
C	1.65	0.05	2.92	0.33	0.77	0.08	0.15	0.15
D	1.35	-0.25	2.00	-0.59	0.90	0.21	-0.21	0.35
E	2.35	0.74	3.24	0.64	0.86	0.16	0.51	0.51
F								
G	1.11	-0.50	2.32	-0.28	0.74	0.04	-0.25	0.27
H	1.45	-0.15	2.40	-0.19	0.90	0.21	-0.05	0.19
I								
J	0.40	-1.20	0.60	-1.99	0.40	-0.29	-1.16	1.16
K	1.34	-0.26	2.25	-0.34	0.68	-0.01	-0.21	0.21
L	2.96	1.35	4.61	2.01	0.89	0.19	1.18	1.18
M	1.03	-0.58	1.50	-1.09	0.73	0.03	-0.55	0.57
N								
O	2.20	0.60	3.80	1.21	0.60	-0.09	0.57	0.63
Q	2.70	1.10	3.70	1.11	0.50	-0.19	0.67	0.80
R	1.65	0.05	2.60	0.01	0.75	0.06	0.04	0.04
S	0.84	-0.76	1.66	-0.94	0.43	-0.27	-0.66	0.66
MEAN	1.60		2.59		0.69			0.49
STDEV	0.72		1.03		0.17			



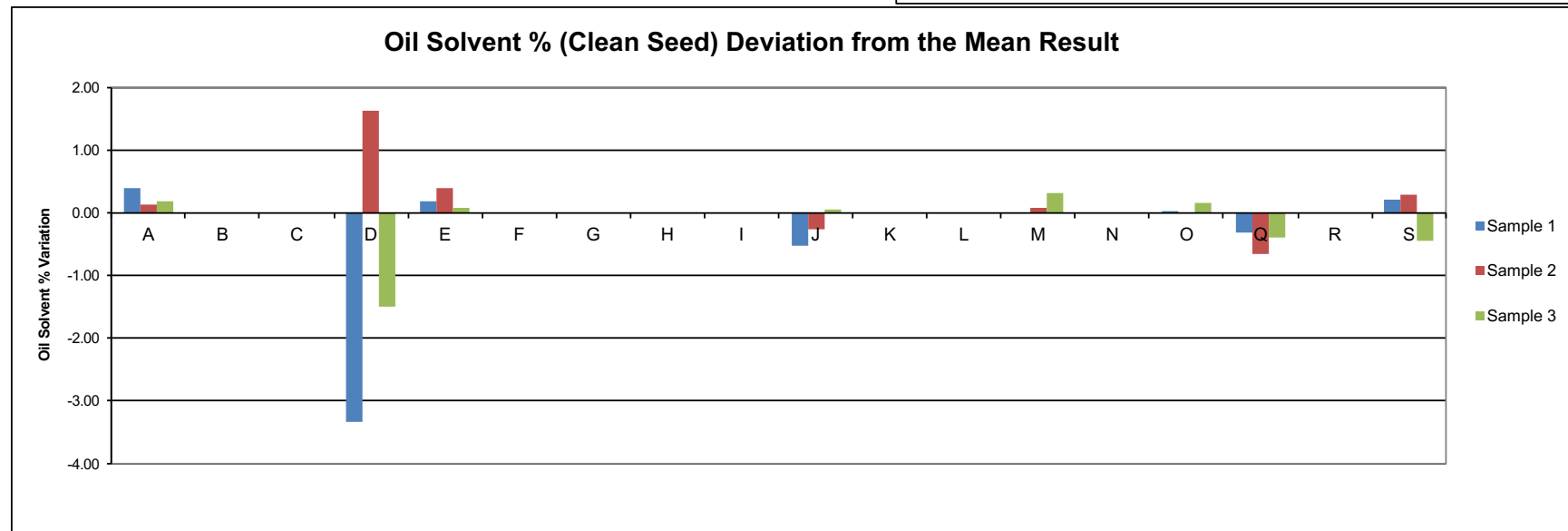
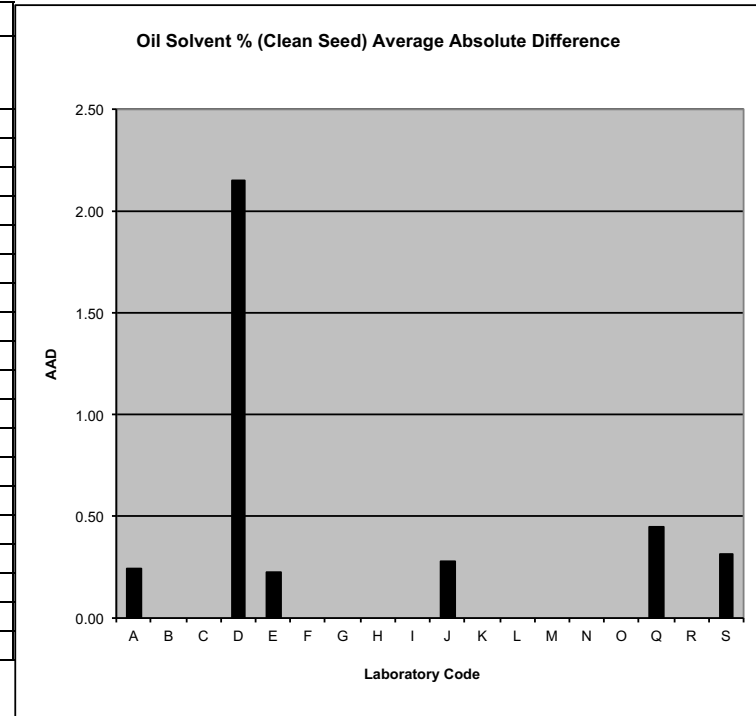
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Oil Rapid % (Clean Seed) Deviation from the Mean								
Lab	Sample 1		Sample 2		Sample 3		Mean of Differences	Average Absolute Difference
	Result	S1-Mean	Result	S2-Mean	Result	S3-Mean		
A								
B								
C	45.95	-0.38	43.35	0.11	50.05	0.08	-0.07	0.19
D	46.50	0.17	43.90	0.66	48.80	-1.17	-0.12	0.67
E	46.90	0.57	41.35	-1.89	50.65	0.68	-0.22	1.05
F								
G	46.91	0.57	43.80	0.55	50.20	0.22	0.45	0.45
H	46.35	0.02	44.15	0.91	49.85	-0.12	0.27	0.35
I	45.05	-1.28	38.65	-4.59	48.35	-1.62	-2.50	2.50
J	46.05	-0.28	41.65	-1.59	50.25	0.28	-0.53	0.72
K	46.40	0.07	43.80	0.56	50.15	0.18	0.27	0.27
L	45.26	-1.07	39.52	-3.72	48.05	-1.92	-2.24	2.24
M	46.75	0.42	44.90	1.66	50.50	0.53	0.87	0.87
N								
O	46.43	0.09	44.18	0.93	49.44	-0.53	0.16	0.52
Q	47.05	0.72	44.15	0.91	50.35	0.38	0.67	0.67
R	46.95	0.62	43.80	0.56	49.75	-0.22	0.32	0.47
S	46.10	-0.23	43.60	0.36	49.70	-0.27	-0.05	0.29
MEAN	46.33		43.24		49.97			0.80
STDEV	0.61		1.49		0.51			



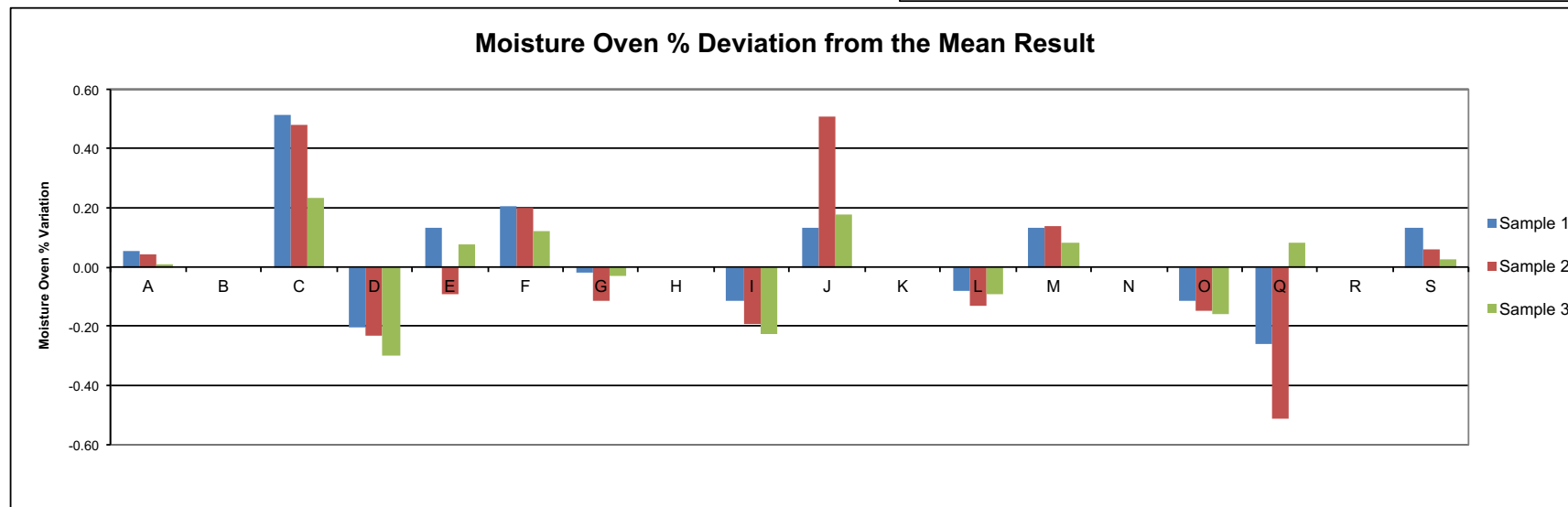
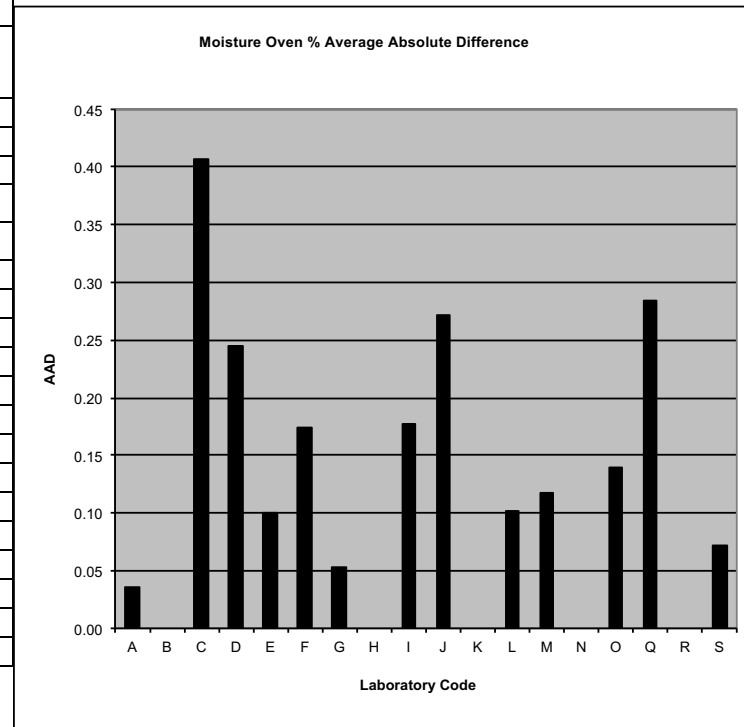
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Oil Solvent % (Clean Seed) Deviation from the Mean								
Lab	Sample 1		Sample 2		Sample 3		Mean of Differences	Average Absolute Difference
	Result	S1-Mean	Result	S2-Mean	Result	S3-Mean		
A	47.19	0.40	42.49	0.13	50.59	0.20	0.24	0.24
B								
C								
D	43.45	-3.33	43.98	1.62	48.90	-1.50	-1.07	2.15
E	46.98	0.19	42.74	0.38	50.47	0.07	0.23	0.23
F								
G								
H								
I								
J	46.25	-0.53	42.10	-0.26	50.45	0.06	-0.24	0.28
K								
L								
M			42.45	0.09	50.72	0.33		
N								
O	46.83	0.04			50.55	0.16		
Q	46.47	-0.31	41.72	-0.64	50.01	-0.38	-0.45	0.45
R								
S	47.00	0.22	42.65	0.29	49.95	-0.44	0.02	0.32
MEAN	46.78		42.36		50.39			0.61
STDEV	0.35		0.38		0.29			



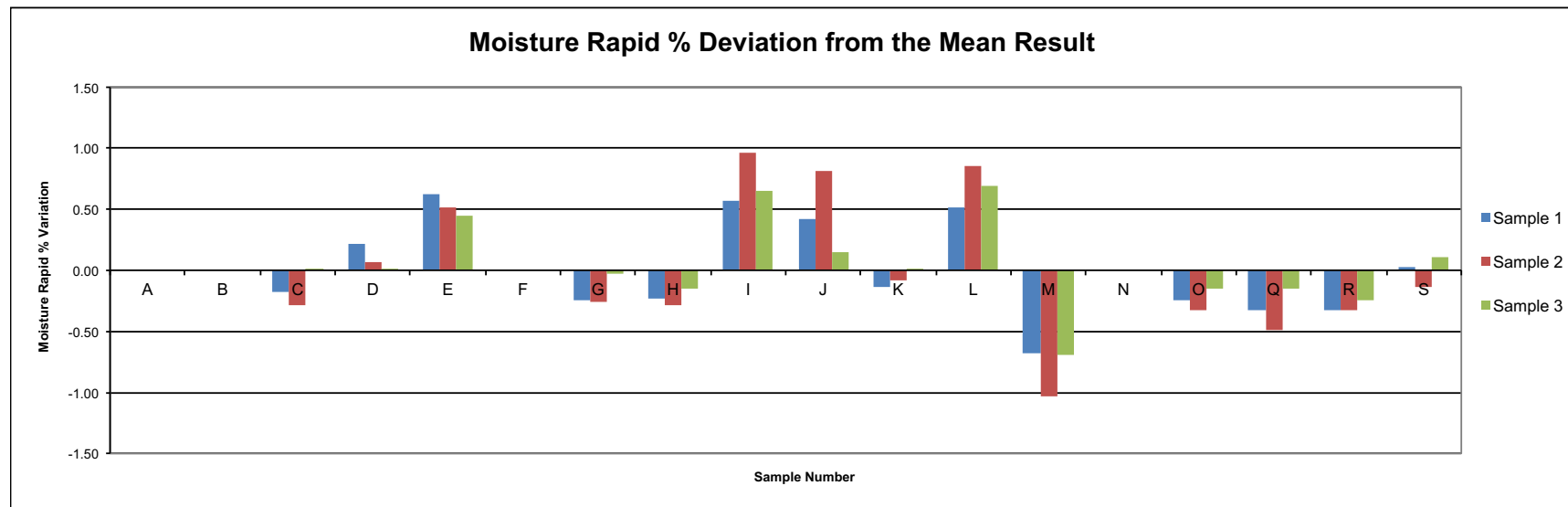
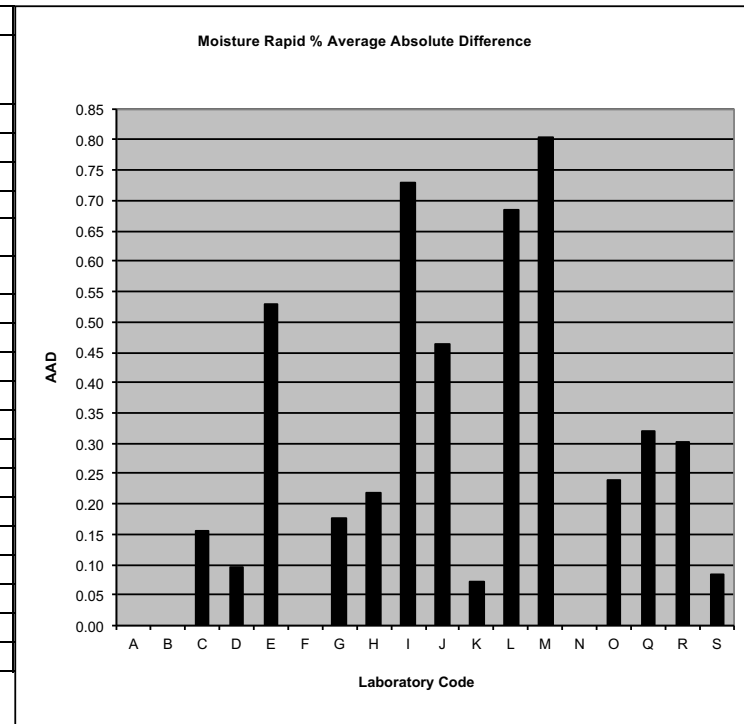
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Moisture Oven % Deviation from the Mean								
Lab	Sample 1		Sample 2		Sample 3		Mean of Differences	Average Absolute Difference
	Result	S1-Mean	Result	S2-Mean	Result	S3-Mean		
A	5.47	0.05	5.79	0.04	4.99	0.01	0.04	0.04
B								
C	5.93	0.51	6.22	0.48	5.21	0.23	0.41	0.41
D	5.22	-0.20	5.51	-0.23	4.68	-0.30	-0.24	0.24
E	5.55	0.13	5.65	-0.09	5.05	0.08	0.04	0.10
F	5.62	0.20	5.94	0.20	5.10	0.12	0.17	0.17
G	5.40	-0.02	5.63	-0.11	4.95	-0.03	-0.05	0.05
H								
I	5.30	-0.12	5.55	-0.19	4.75	-0.22	-0.18	0.18
J	5.55	0.13	6.25	0.51	5.15	0.18	0.27	0.27
K								
L	5.34	-0.08	5.61	-0.13	4.89	-0.09	-0.10	0.10
M	5.55	0.13	5.88	0.14	5.06	0.08	0.12	0.12
N								
O	5.31	-0.11	5.60	-0.15	4.82	-0.16	-0.14	0.14
Q	5.16	-0.26	5.23	-0.51	5.06	0.08	-0.23	0.28
R								
S	5.55	0.13	5.80	0.06	5.00	0.03	0.07	0.07
MEAN	5.42		5.74		4.97			0.17
STDEV	0.15		0.28		0.16			



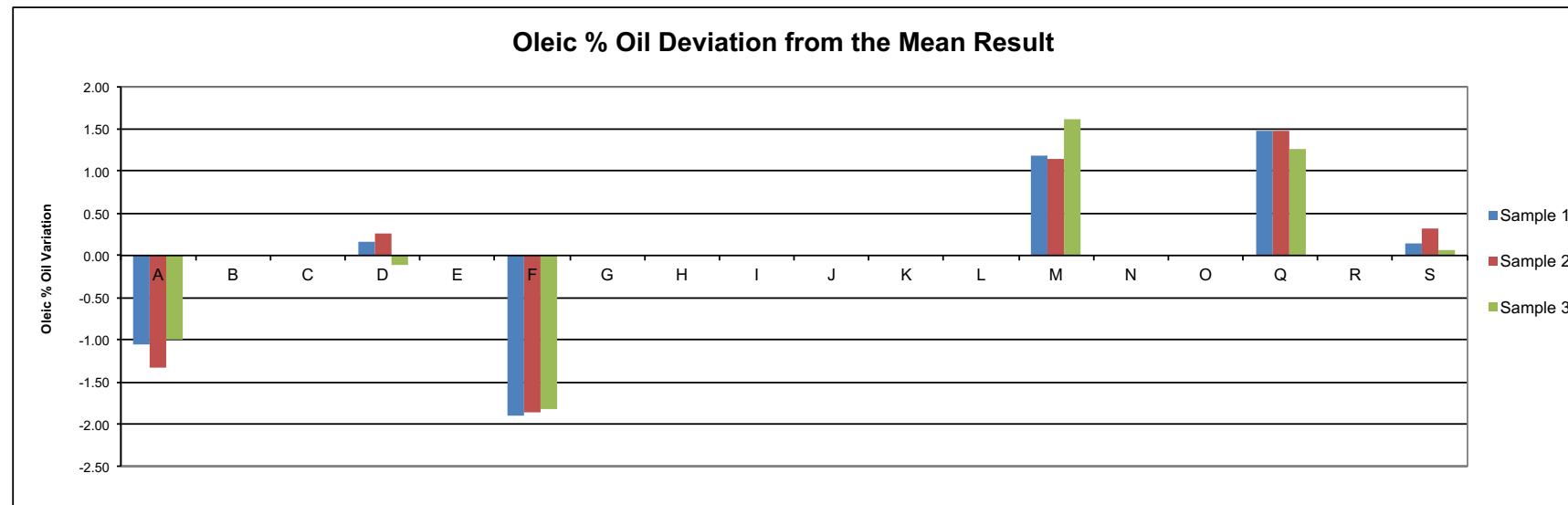
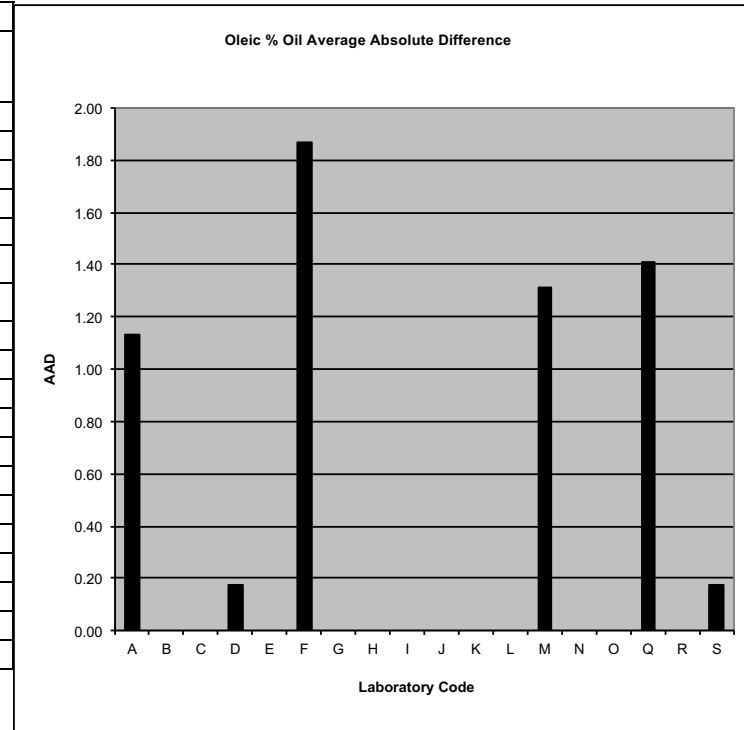
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Moisture Rapid % Deviation from the Mean								
Lab	Sample 1		Sample 2		Sample 3		Mean of Differences	Average Absolute Difference
	Result	S1-Mean	Result	S2-Mean	Result	S3-Mean		
A								
B								
C	4.80	-0.18	4.70	-0.28	4.55	0.00	-0.15	0.16
D	5.20	0.22	5.05	0.07	4.55	0.00	0.10	0.10
E	5.60	0.62	5.50	0.52	5.00	0.45	0.53	0.53
F								
G	4.74	-0.24	4.72	-0.26	4.52	-0.03	-0.18	0.18
H	4.75	-0.23	4.70	-0.28	4.40	-0.15	-0.22	0.22
I	5.55	0.57	5.95	0.97	5.20	0.65	0.73	0.73
J	5.40	0.42	5.80	0.82	4.70	0.15	0.46	0.46
K	4.85	-0.13	4.90	-0.08	4.55	0.00	-0.07	0.07
L	5.49	0.51	5.84	0.85	5.24	0.69	0.69	0.69
M	4.30	-0.68	3.95	-1.03	3.85	-0.70	-0.80	0.80
N								
O	4.74	-0.24	4.66	-0.32	4.40	-0.15	-0.24	0.24
Q	4.65	-0.33	4.50	-0.48	4.40	-0.15	-0.32	0.32
R	4.65	-0.33	4.65	-0.33	4.30	-0.25	-0.30	0.30
S	5.00	0.02	4.85	-0.13	4.65	0.10	0.00	0.09
MEAN	4.98		4.98		4.55			0.35
STDEV	0.40		0.58		0.19			



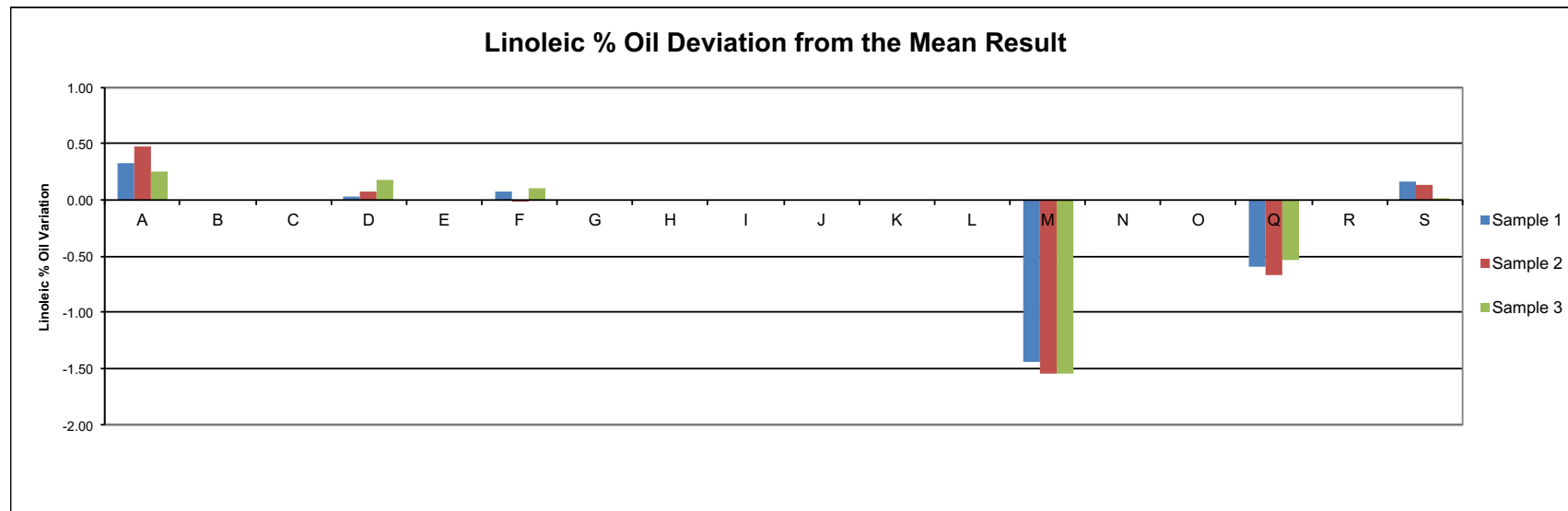
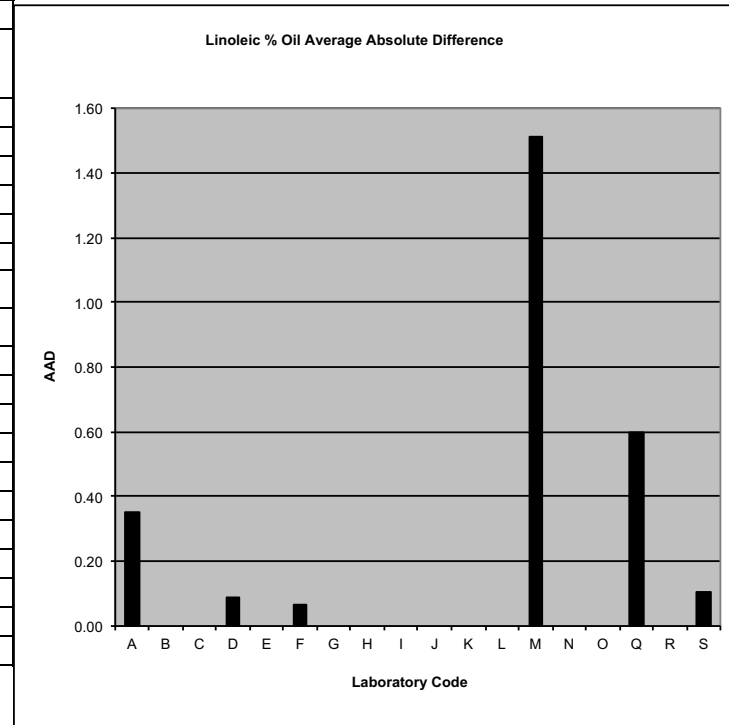
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Oleic % Oil Deviation from the Mean								
Lab	Sample 1		Sample 2		Sample 3		Mean of Differences	Average Absolute Difference
	Result	S1-Mean	Result	S2-Mean	Result	S3-Mean		
A	57.52	-1.05	51.69	-1.34	59.98	-1.00	-1.13	1.13
B								
C								
D	58.72	0.15	53.28	0.26	60.87	-0.11	0.10	0.17
E								
F	56.67	-1.90	51.16	-1.87	59.15	-1.83	-1.87	1.87
G								
H								
I								
J								
K								
L								
M	59.75	1.18	54.17	1.15	62.59	1.61	1.31	1.31
N								
O								
Q	60.05	1.48	54.50	1.47	62.25	1.27	1.41	1.41
R								
S	58.71	0.14	53.35	0.33	61.04	0.06	0.18	0.18
MEAN	58.57		53.02		60.98			1.01
STDEV	1.29		1.34		1.31			



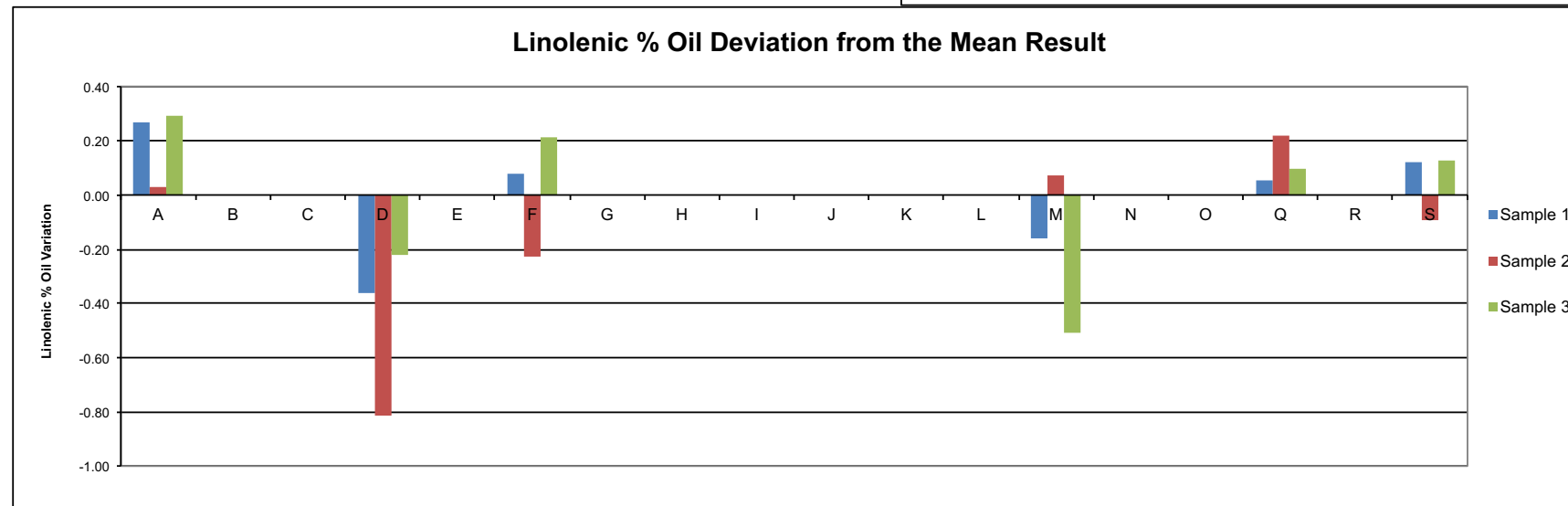
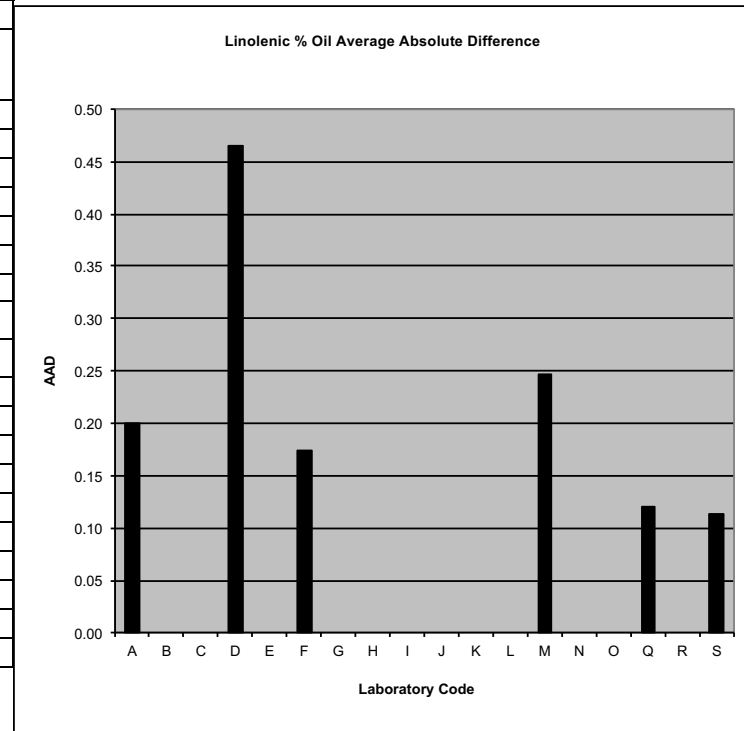
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Linoleic % Oil Deviation from the Mean								
Lab	Sample 1		Sample 2		Sample 3		Mean of Differences	Average Absolute Difference
	Result	S1-Mean	Result	S2-Mean	Result	S3-Mean		
A	22.82	0.33	26.24	0.48	21.83	0.25	0.35	0.35
B								
C								
D	22.52	0.02	25.83	0.07	21.76	0.18	0.09	0.09
E								
F	22.57	0.07	25.74	-0.02	21.69	0.10	0.05	0.07
G								
H								
I								
J								
K								
L								
M	21.05	-1.44	24.21	-1.55	20.04	-1.54	-1.51	1.51
N								
O								
Q	21.90	-0.59	25.09	-0.67	21.05	-0.54	-0.60	0.60
R								
S	22.65	0.16	25.90	0.14	21.60	0.01	0.10	0.10
MEAN	22.49		25.76		21.58			0.45
STDEV	0.35		0.42		0.31			



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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	11.02	0.27	12.36	0.03	10.03	0.30	0.20	0.20
B								
C								
D	10.38	-0.36	11.51	-0.81	9.52	-0.22	-0.47	0.47
E								
F	10.83	0.08	12.10	-0.23	9.95	0.22	0.02	0.17
G								
H								
I								
J								
K								
L								
M	10.59	-0.16	12.40	0.07	9.23	-0.51	-0.20	0.25
N								
O								
Q	10.80	0.05	12.54	0.22	9.83	0.09	0.12	0.12
R								
S	10.87	0.12	12.23	-0.09	9.86	0.13	0.05	0.11
MEAN	10.74		12.32		9.74			0.22
STDEV	0.23		0.17		0.31			



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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	0.11	-0.16	0.32	-0.15	0.10	-0.15	-0.15	0.15
B								
C								
D	0.36	0.09	0.31	-0.15	0.32	0.07	0.00	0.10
E								
F	0.31	0.04	0.50	0.03	0.23	-0.02	0.02	0.03
G								
H								
I								
J	0.39	0.12	0.76	0.29	0.41	0.17	0.19	0.19
K								
L								
M			0.65	0.18	0.22	-0.03		
N								
O	0.11	-0.17	0.32	-0.15	0.07	-0.17	-0.16	0.16
Q	0.37	0.09	0.44	-0.03	0.38	0.13	0.07	0.09
R								
S	0.26	-0.01	0.46	-0.01	0.24	-0.01	-0.01	0.01
MEAN	0.27		0.47		0.24			0.11
STDEV	0.12		0.17		0.12			

