



AOF Test Check Program
Bimonthly Report
Round 4
July – 2017

Result Receipt Dates

Laboratory Code	Date
A	31/07/2017
B	-
C	24/07/2017
D	24/07/2017
E	07/07/2017
F	-
G	04/08/2017
H	07/07/2017
I	19/07/2017
J	28/07/2017
K	06/07/2017
L	18/07/2017
M	26/07/2017
N	24/07/2017
O	25/07/2017
Q	04/08/2017
R	03/08/2017
S	31/07/2017

Discussion of Results

Test Weight

No outliers were observed for this test.



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Impurities

Sample 1 – Outliers were identified for Laboratory **J**, **N**, **Q**, and **S**. Laboratory **J** and **N** were 0.15, and 0.19 of a percent discrepancy, respectively, from the lower quartile limit (0.57%). Laboratory **Q** and **S** were 0.15 and 0.45 of a percent discrepancy, respectively, from the upper quartile limit (1.05%).

Sample 2 – One outlier was identified for Laboratory **A** with a 0.05% discrepancy from the upper quartile limit (3.68%).

Sample 3 – No outliers were observed for this test.

Oil Rapid

Sample 1 – One outlier was identified for Laboratory **J** with a 0.49% discrepancy from the lower quartile limit (46.39%).

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

Sample 3 – No outliers were observed for this test.

Reported laboratory values excluding laboratories reporting for the first time this round have had a uniform increase in difference in rapid testing from reference testing in comparison to the previous round by 0.48% oil. Adjusting the average difference across participants from -0.37% last round to 0.11%.

Oil Solvent Extraction

Sample 1 – One outlier was identified for Laboratory **D** with a 0.13% discrepancy from the lower quartile limit (45.32%).

Sample 2 – One outlier was identified for Laboratory **J** with a 1.13% discrepancy from the lower quartile limit (45.83%).

Sample 3 – One outlier was identified for Laboratory **J** with a 0.82% discrepancy from the lower quartile limit (41.57%).

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.



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Removal of results submitted by laboratories not participating at the capacity outlined by the method protocol has a minor effect on the mean results. One sample had the effect of a 0.25% increase while the rest remained the same (not stated). The removal of these results also ranged in affects on standard deviation from a decrease of 0.23 to an increase in other sets by 0.14 and 0.18 (not stated). Decreasing the population of participants to 6 laboratories has the expected increase in error values.

All outlying laboratory results were reported with differences from published averages greater than reproducibility limits stipulated within ISO659:2009 (1.54% from mean values of 43.06%).

Moisture Oven

Sample 1 – Outliers were identified for Laboratory **C**, **D**, **N**, and **Q**. Laboratory **C** was 0.43 of a percent discrepancy from the upper quartile limit (5.93%). Laboratory **D**, **N** and **Q** were 0.19, 0.01 and 0.10 of a percent discrepancy, respectively, from the lower quartile limit (5.38%).

Sample 2 – Outliers were identified for Laboratory **C**, **D**, and **J**. Laboratory **C** and **J** were 0.69 and 0.03 of a percent discrepancy, respectively, from the upper quartile limit (5.77%). Laboratory **D** was 0.07 of a percent discrepancy from the lower quartile limit (5.38%).

Sample 3 – One outlier was identified for Laboratory **R** with a 0.08 of a percent discrepancy from the lower quartile limit (4.95%).

Moisture Rapid

No outliers were observed for this test.

Oleic acid

No outliers were observed for this test.

Linoleic acid

Sample 1 – One outlier was identified for Laboratory **Q** with a 0.04 of a percent discrepancy from the lower quartile limit (12.95%).

Sample 2 – One outlier was identified for Laboratory **Q** with a 0.28 of a percent discrepancy from the lower quartile limit (22.01%).

Sample 3 – No outliers were observed for this test.



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Linolenic acid

Sample 1 – One outlier was identified for Laboratory **D** with a 0.08 of a percent discrepancy from the lower quartile limit (6.33%).

Sample 2 – Outliers were identified for Laboratory **A** and **D**. Laboratory **A** was 0.01 of a percent discrepancy from the upper quartile limit (11.15%). Laboratory **D** was 0.15 of a percent discrepancy from the lower quartile limit (10.27%).

Sample 3 – No outliers were observed for this test.

Free Fatty Acid

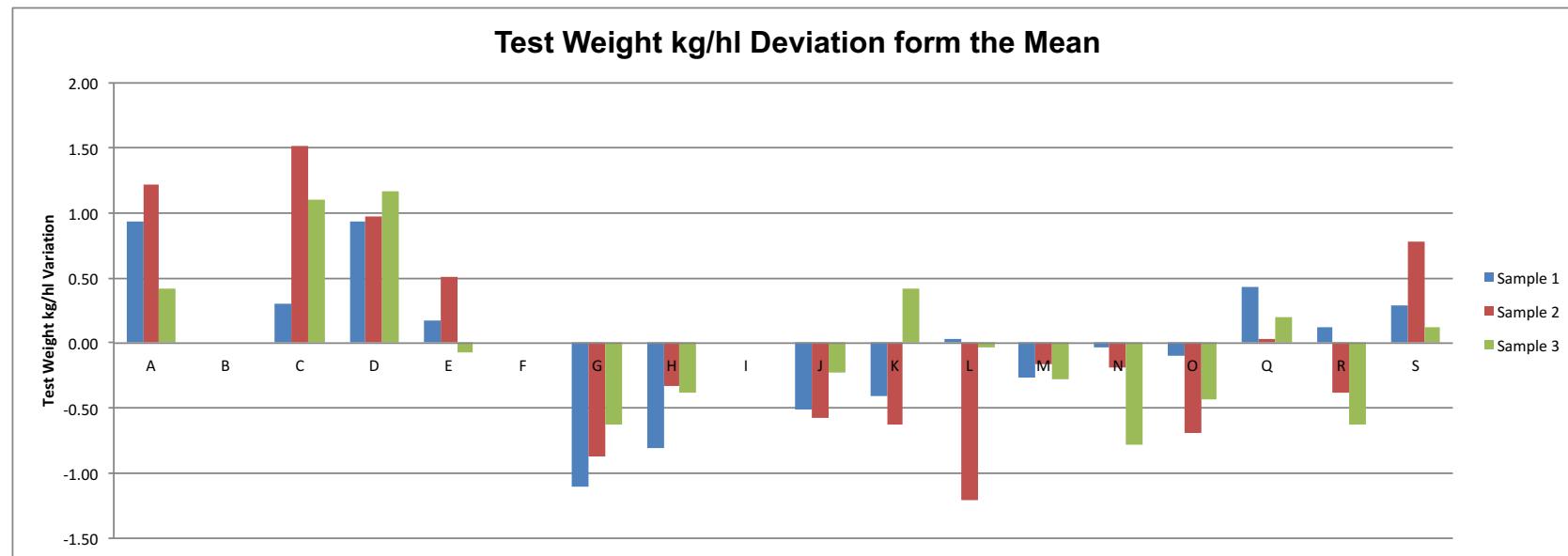
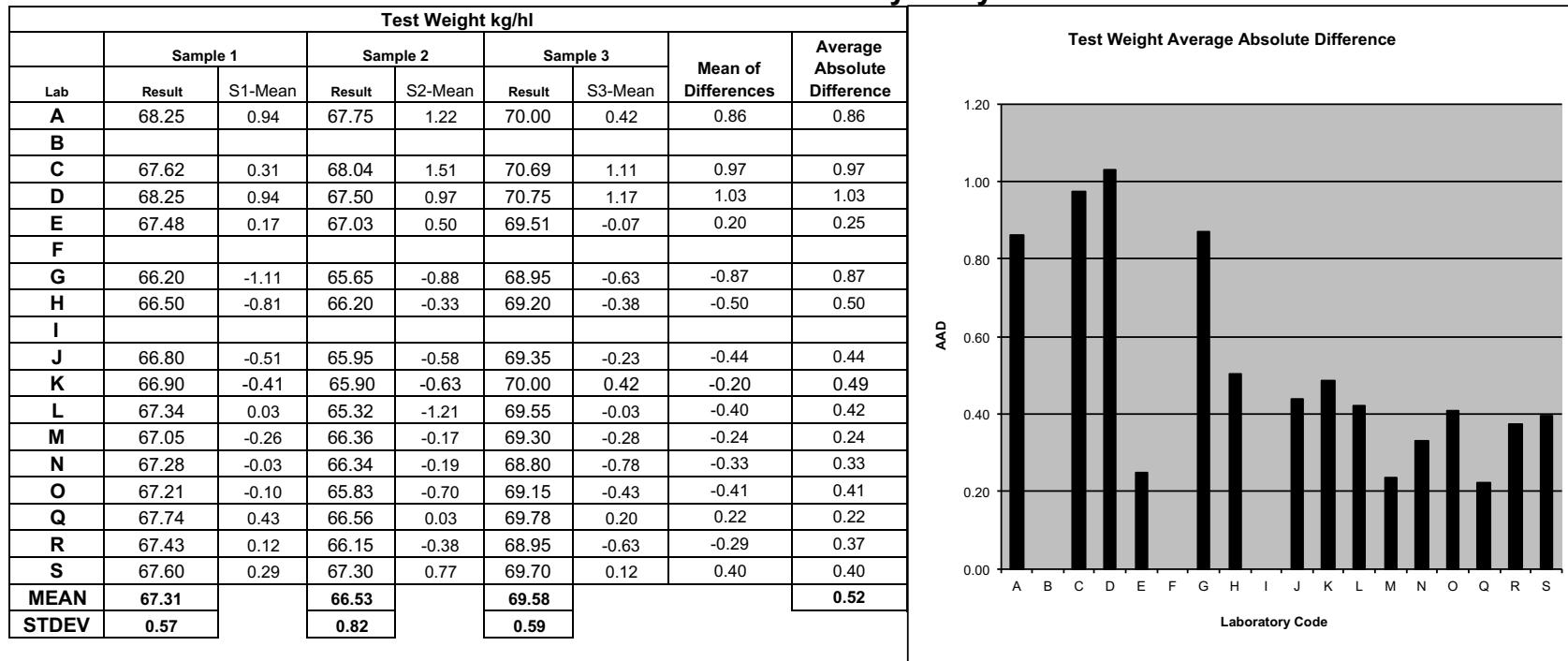
Sample 1 – No outliers were observed for this test.

Sample 2 – One outlier was identified for Laboratory **Q** with a 0.01 of a percent discrepancy from the upper quartile limit (0.32%).

Sample 3 – No outliers were observed for this test.

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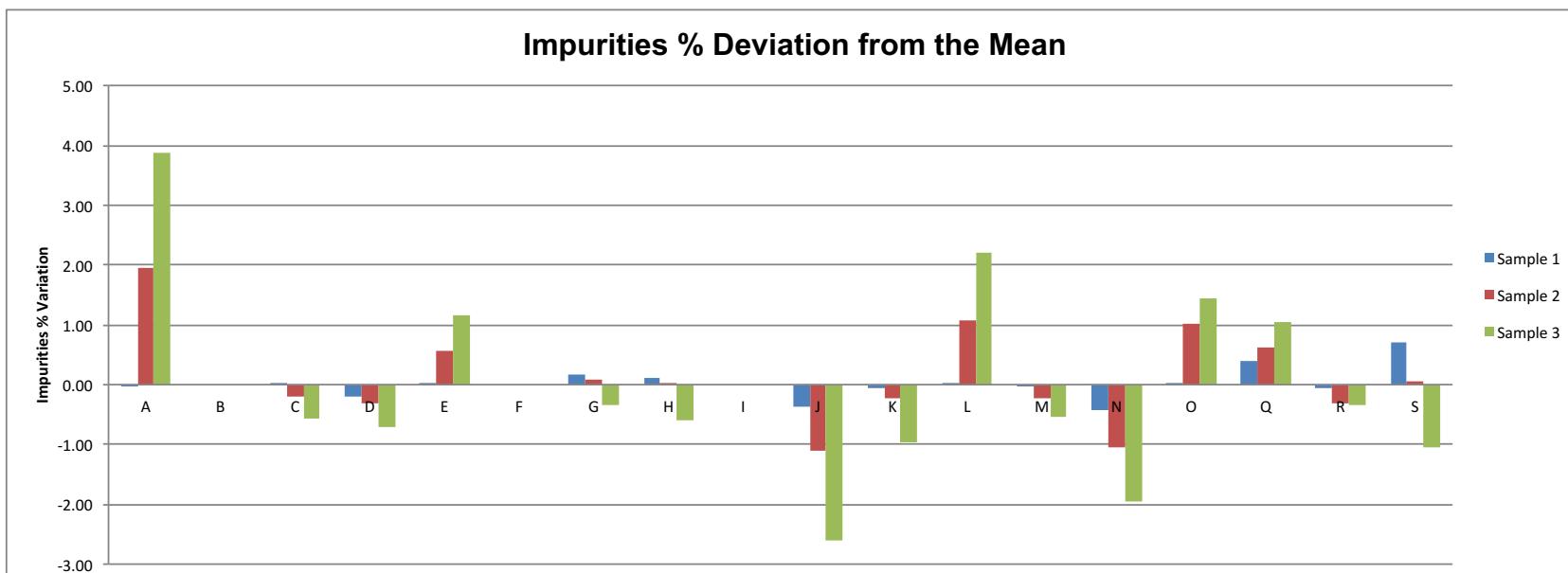
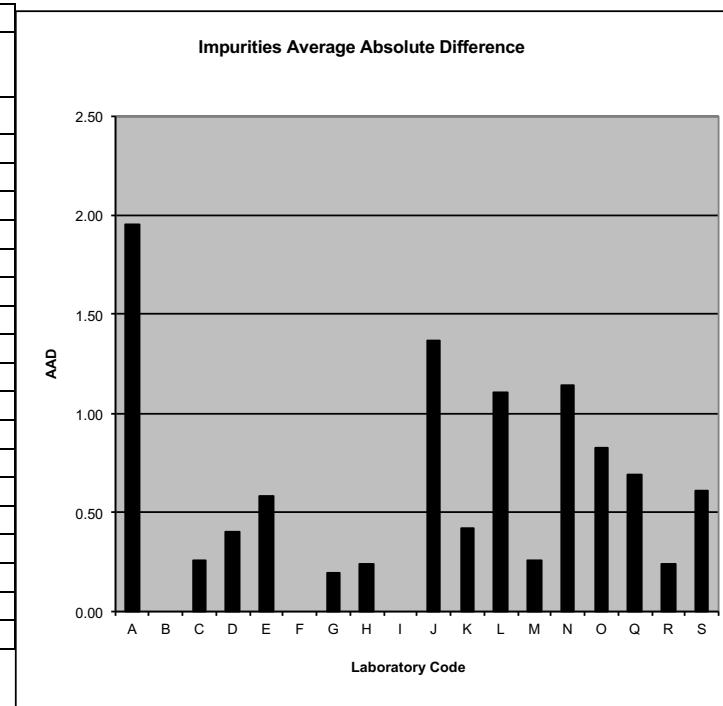
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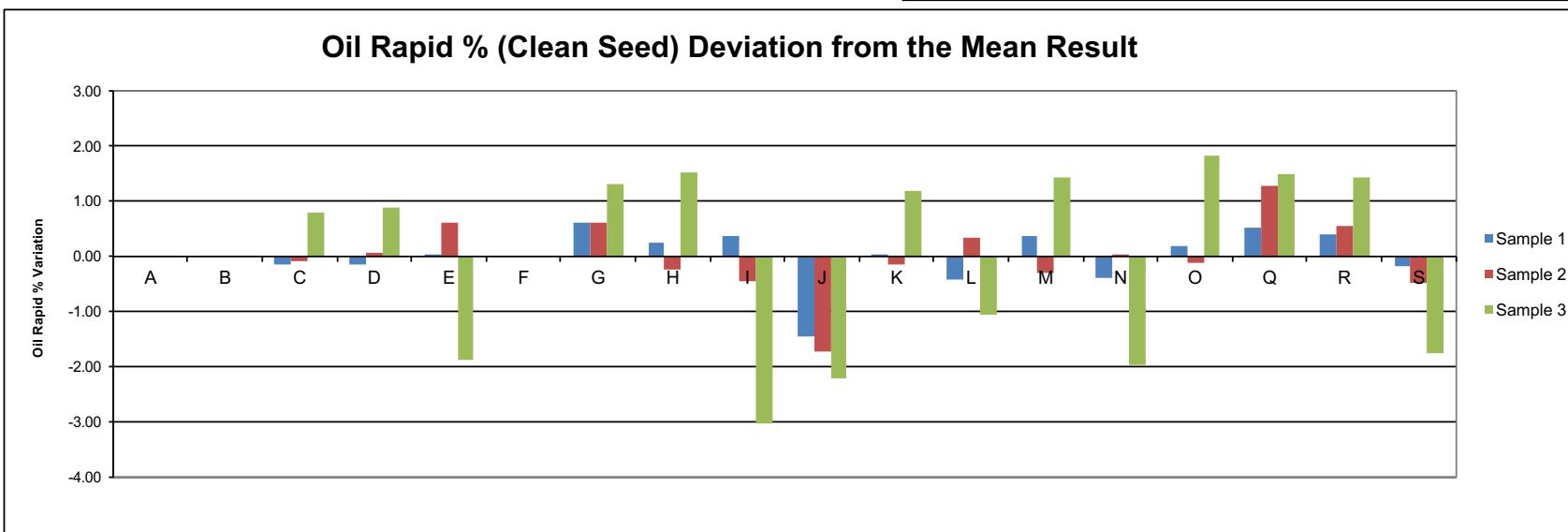
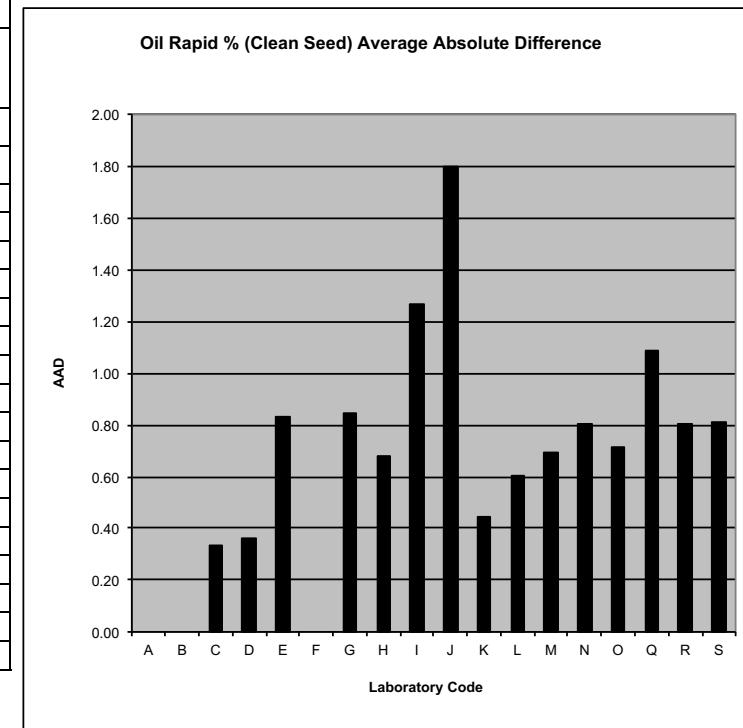
Impurities %								
	Sample 1		Sample 2		Sample 3		Mean of Differences	Average Absolute Difference
Lab	Result	S1-Mean	Result	S2-Mean	Result	S3-Mean		
A	0.76	-0.04	3.73	1.95	6.83	3.88	1.93	1.96
B								
C	0.80	0.00	1.57	-0.20	2.38	-0.57	-0.26	0.26
D	0.60	-0.19	1.45	-0.32	2.25	-0.70	-0.41	0.41
E	0.82	0.03	2.33	0.55	4.12	1.17	0.58	0.58
F								
G	0.95	0.16	1.85	0.08	2.60	-0.35	-0.04	0.20
H	0.90	0.11	1.80	0.03	2.35	-0.60	-0.16	0.25
I								
J	0.42	-0.38	0.66	-1.12	0.35	-2.60	-1.37	1.37
K	0.75	-0.05	1.55	-0.22	1.98	-0.98	-0.42	0.42
L	0.84	0.04	2.85	1.08	5.15	2.20	1.11	1.11
M	0.79	-0.01	1.56	-0.22	2.41	-0.55	-0.26	0.26
N	0.38	-0.41	0.73	-1.05	0.99	-1.96	-1.14	1.14
O	0.80	0.01	2.80	1.03	4.40	1.45	0.83	0.83
Q	1.20	0.41	2.41	0.63	3.99	1.04	0.69	0.69
R	0.75	-0.04	1.45	-0.32	2.60	-0.35	-0.24	0.24
S	1.50	0.71	1.84	0.07	1.90	-1.06	-0.09	0.61
MEAN	0.79			1.77		2.95		0.69
STDEV	0.09			0.66		1.67		



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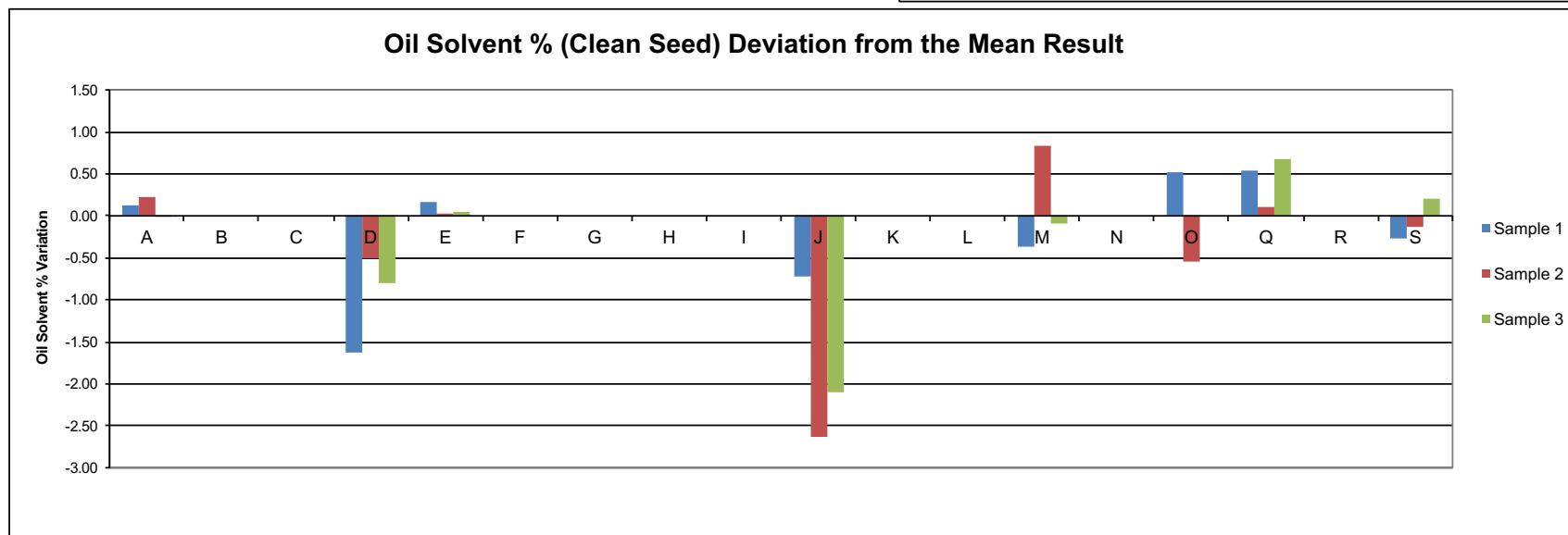
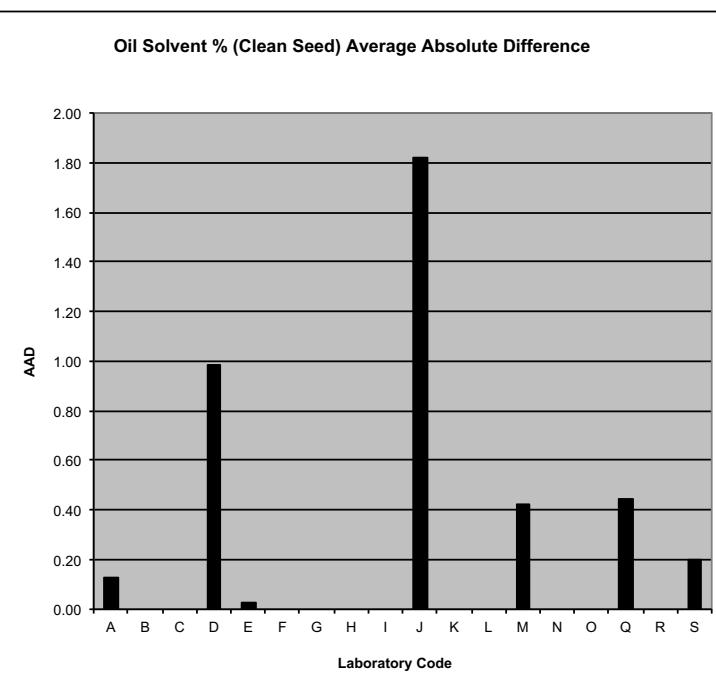
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Oil Rapid % (Clean Seed) Deviation from the Mean								
Lab	Sample 1		Sample 2		Sample 3		Mean of Differences	Average Absolute Difference
	Result	S1-Mean	Result	S2-Mean	Result	S3-Mean		
A								
B								
C	47.20	-0.14	46.40	-0.08	43.45	0.79	0.19	0.34
D	47.20	-0.14	46.55	0.07	43.55	0.89	0.27	0.36
E	47.35	0.01	47.10	0.62	40.80	-1.86	-0.41	0.83
F								
G	47.95	0.61	47.10	0.62	43.97	1.30	0.84	0.84
H	47.60	0.26	46.25	-0.23	44.20	1.54	0.52	0.68
I	47.70	0.36	46.05	-0.43	39.65	-3.01	-1.03	1.27
J	45.90	-1.44	44.75	-1.73	40.45	-2.21	-1.80	1.80
K	47.35	0.01	46.35	-0.13	43.85	1.19	0.35	0.44
L	46.92	-0.42	46.82	0.34	41.61	-1.05	-0.38	0.60
M	47.70	0.36	46.20	-0.28	44.10	1.44	0.50	0.69
N	46.95	-0.39	46.54	0.05	40.70	-1.97	-0.77	0.80
O	47.54	0.20	46.36	-0.12	44.48	1.82	0.63	0.71
Q	47.85	0.51	47.75	1.27	44.15	1.49	1.09	1.09
R	47.75	0.41	47.05	0.57	44.10	1.44	0.80	0.80
S	47.15	-0.19	46.00	-0.48	40.90	-1.76	-0.81	0.81
MEAN	47.34		46.48		42.66			0.81
STDEV	0.51		0.68		1.73			



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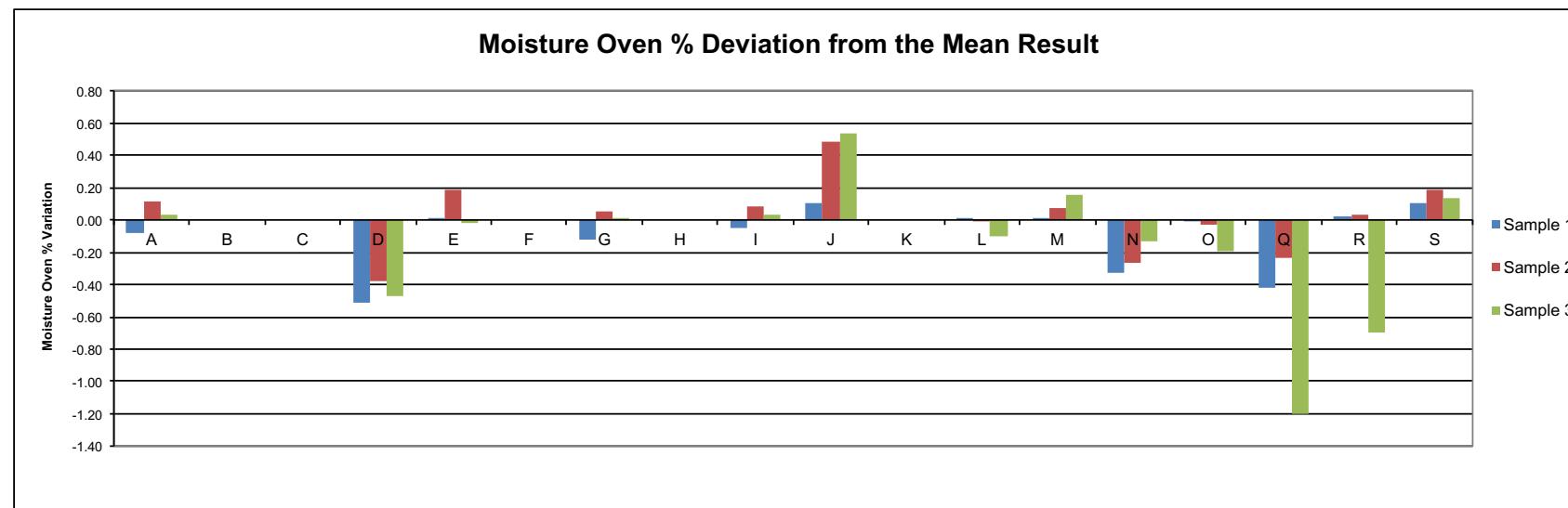
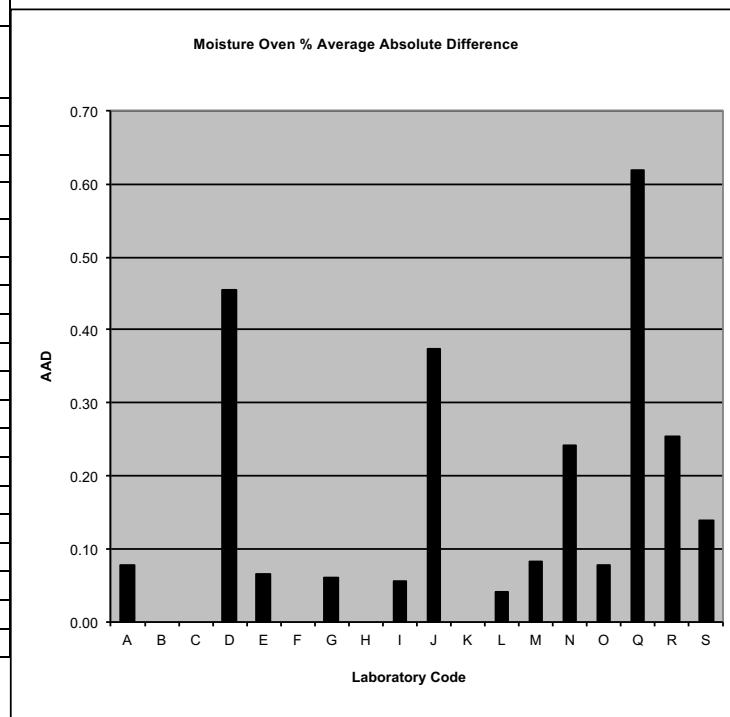
Oil Solvent % (Clean Seed) Deviation from the Mean								
Lab	Sample 1		Sample 2		Sample 3		Mean of Differences	Average Absolute Difference
	Result	S1-Mean	Result	S2-Mean	Result	S3-Mean		
A	46.96	0.13	47.55	0.22	42.83	-0.02	0.11	0.12
B								
C								
D	45.19	-1.63	46.82	-0.51	42.05	-0.81	-0.98	0.98
E	46.99	0.17	47.35	0.02	42.89	0.04	0.03	0.03
F								
G								
H								
I								
J	46.10	-0.72	44.70	-2.63	40.75	-2.10	-1.82	1.82
K								
L								
M	46.47	-0.36	48.16	0.83	42.77	-0.09	0.13	0.43
N								
O	47.35	0.52	46.79	-0.54				
Q	47.37	0.54	47.44	0.11	43.53	0.67	0.44	0.44
R								
S	46.55	-0.27	47.20	-0.13	43.05	0.20	-0.07	0.20
MEAN	46.82		47.33		42.85			0.58
STDEV	0.47		0.47		0.48			



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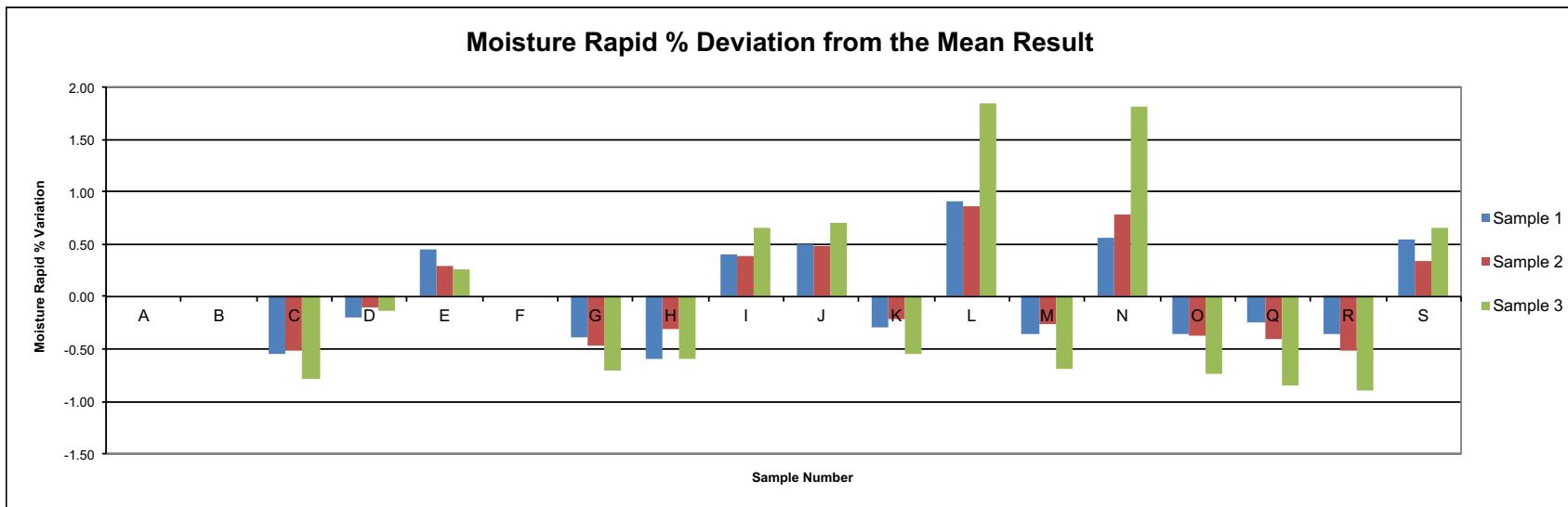
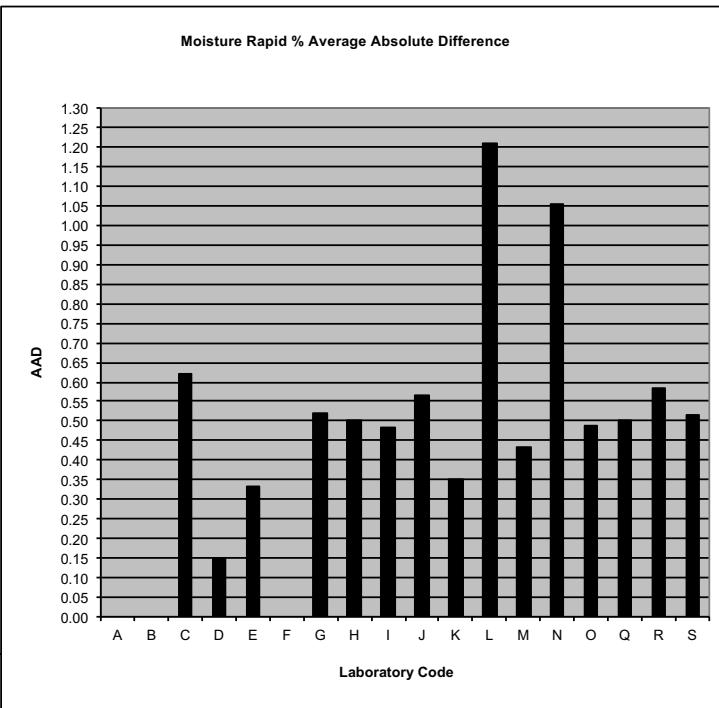
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Moisture Oven % Deviation from the Mean								
Lab	Sample 1		Sample 2		Sample 3		Mean of Differences	Average Absolute Difference
	Result	S1-Mean	Result	S2-Mean	Result	S3-Mean		
A	5.62	-0.08	5.44	0.12	5.60	0.03	0.02	0.08
B								
C								
D	5.19	-0.51	4.94	-0.38	5.10	-0.47	-0.46	0.46
E	5.70	0.00	5.50	0.18	5.55	-0.02	0.06	0.07
F								
G	5.58	-0.12	5.37	0.05	5.58	0.01	-0.02	0.06
H								
I	5.65	-0.05	5.40	0.08	5.60	0.03	0.02	0.06
J	5.80	0.10	5.80	0.48	6.10	0.53	0.37	0.37
K								
L	5.71	0.01	5.31	-0.01	5.47	-0.10	-0.03	0.04
M	5.72	0.02	5.39	0.07	5.73	0.16	0.08	0.08
N	5.37	-0.33	5.05	-0.27	5.43	-0.13	-0.24	0.24
O	5.69	-0.01	5.29	-0.03	5.37	-0.20	-0.08	0.08
Q	5.28	-0.42	5.08	-0.24	4.37	-1.20	-0.62	0.62
R	5.73	0.03	5.35	0.03	4.87	-0.70	-0.21	0.25
S	5.80	0.10	5.50	0.18	5.70	0.13	0.14	0.14
MEAN	5.70		5.32		5.57			0.20
STDEV	0.08		0.15		0.25			



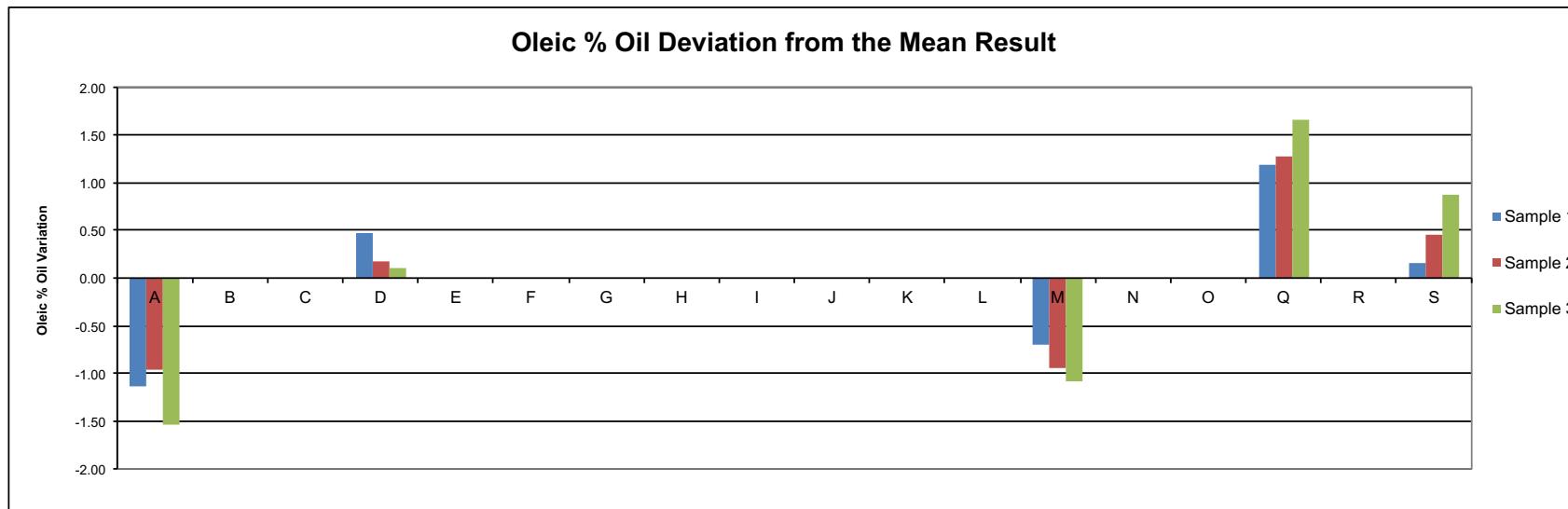
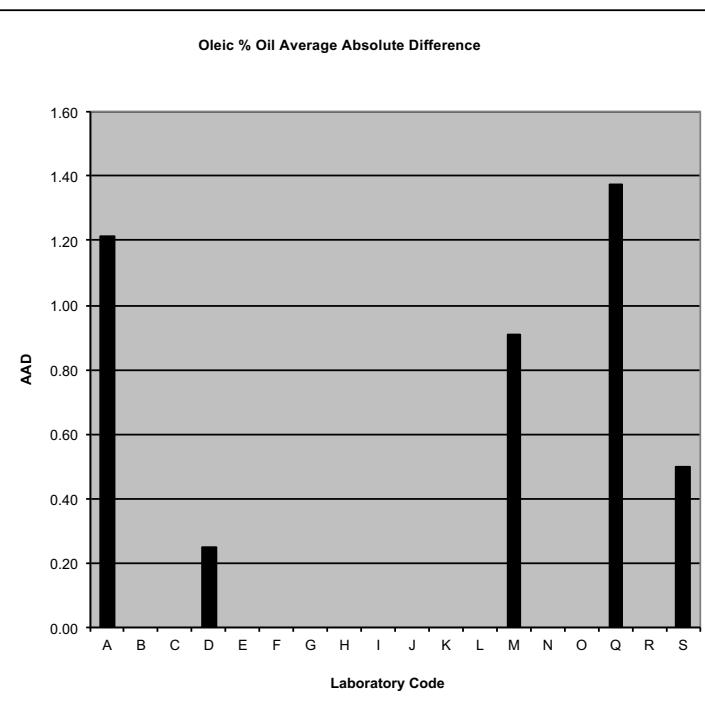
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Moisture Rapid % Deviation from the Mean								
	Sample 1		Sample 2		Sample 3		Mean of Differences	Average Absolute Difference
Lab	Result	S1-Mean	Result	S2-Mean	Result	S3-Mean		
A								
B								
C	4.75	-0.55	4.65	-0.51	4.35	-0.79	-0.62	0.62
D	5.10	-0.20	5.05	-0.11	5.00	-0.14	-0.15	0.15
E	5.75	0.45	5.45	0.29	5.40	0.26	0.33	0.33
F								
G	4.91	-0.39	4.70	-0.46	4.43	-0.71	-0.52	0.52
H	4.70	-0.60	4.85	-0.31	4.55	-0.59	-0.50	0.50
I	5.70	0.40	5.55	0.39	5.80	0.66	0.48	0.48
J	5.80	0.50	5.65	0.49	5.85	0.71	0.56	0.56
K	5.00	-0.30	4.95	-0.21	4.60	-0.54	-0.35	0.35
L	6.22	0.91	6.03	0.87	6.99	1.84	1.21	1.21
M	4.95	-0.35	4.90	-0.26	4.45	-0.69	-0.44	0.44
N	5.86	0.56	5.95	0.79	6.96	1.82	1.05	1.05
O	4.94	-0.36	4.80	-0.37	4.41	-0.73	-0.49	0.49
Q	5.05	-0.25	4.75	-0.41	4.30	-0.84	-0.50	0.50
R	4.95	-0.35	4.65	-0.51	4.25	-0.89	-0.59	0.59
S	5.85	0.55	5.50	0.34	5.80	0.66	0.51	0.51
MEAN	5.30		5.16		5.14			0.55
STDEV	0.50		0.48		0.94			



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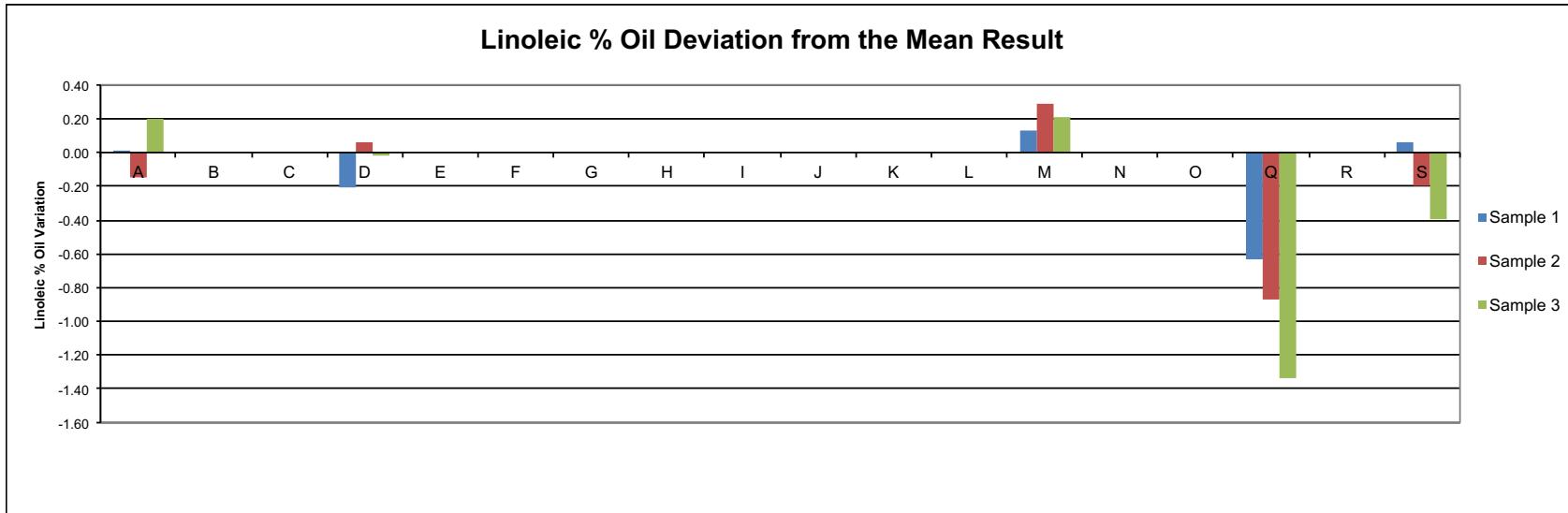
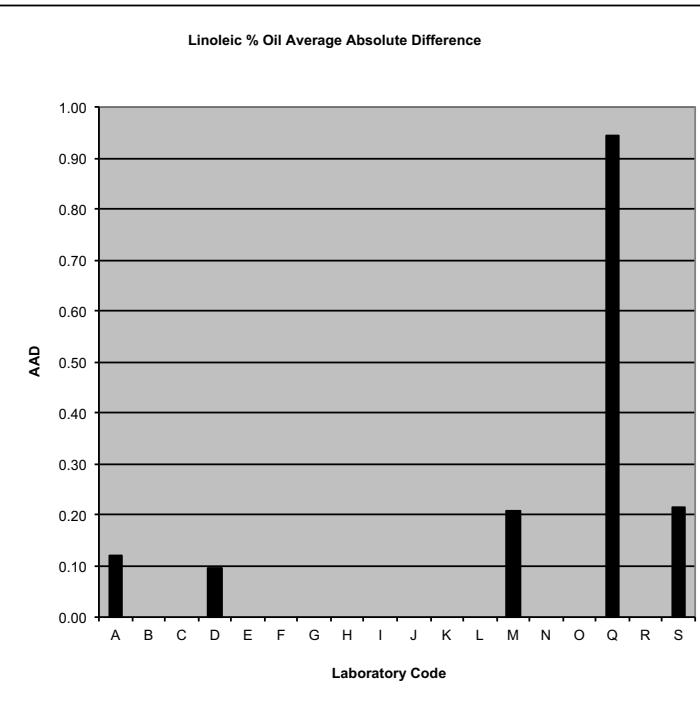
Oleic % Oil Deviation from the Mean								
	Sample 1		Sample 2		Sample 3		Mean of Differences	Average Absolute Difference
Lab	Result	S1-Mean	Result	S2-Mean	Result	S3-Mean		
A	70.86	-1.13	57.68	-0.96	51.34	-1.54	-1.21	1.21
B								
C								
D	72.47	0.48	58.82	0.17	52.99	0.11	0.25	0.25
E								
F								
G								
H								
I								
J								
K								
L								
M	71.29	-0.70	57.70	-0.94	51.79	-1.09	-0.91	0.91
N								
O								
Q	73.18	1.19	59.93	1.28	54.54	1.66	1.37	1.37
R								
S	72.15	0.16	59.10	0.46	53.75	0.87	0.50	0.50
MEAN	71.99		58.64		52.88			0.85
STDEV	0.93		0.96		1.33			



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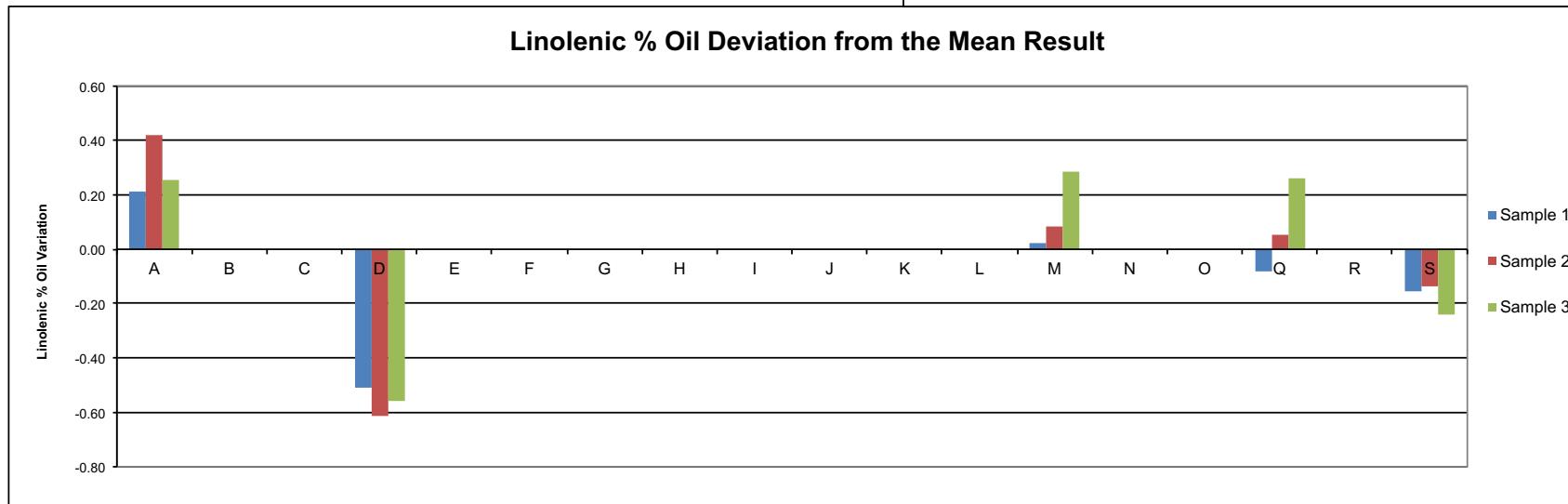
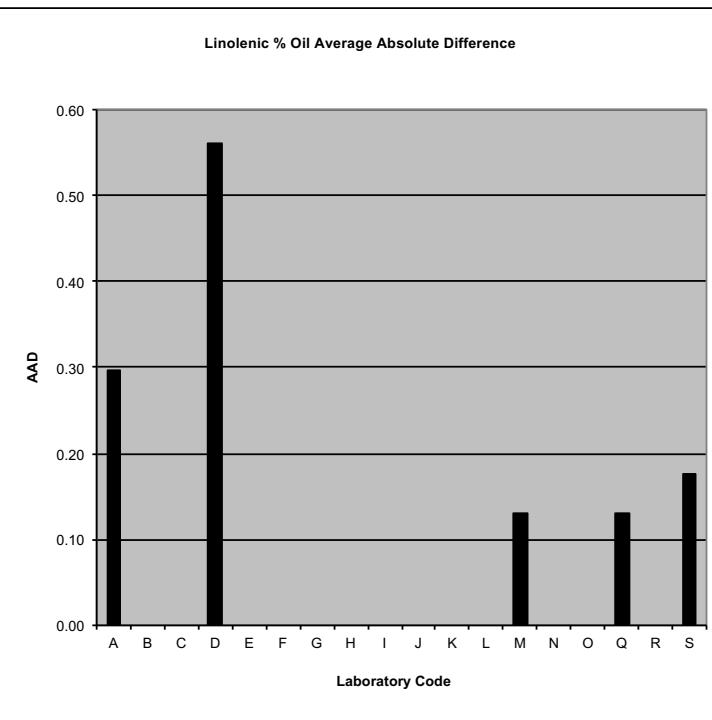
Linoleic % Oil Deviation from the Mean								
	Sample 1		Sample 2		Sample 3		Mean of Differences	Average Absolute Difference
Lab	Result	S1-Mean	Result	S2-Mean	Result	S3-Mean		
A	13.56	0.02	22.45	-0.15	26.35	0.20	0.02	0.12
B								
C								
D	13.34	-0.20	22.66	0.06	26.12	-0.02	-0.06	0.10
E								
F								
G								
H								
I								
J								
K								
L								
M	13.68	0.13	22.89	0.29	26.36	0.21	0.21	0.21
N								
O								
Q	12.91	-0.63	21.73	-0.87	24.81	-1.33	-0.95	0.95
R								
S	13.60	0.06	22.40	-0.20	25.75	-0.39	-0.18	0.22
MEAN	13.54		22.60		26.14			0.32
STDEV	0.14		0.22		0.28			



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Linolenic % Oil Deviation from the Mean								
	Sample 1		Sample 2		Sample 3		Mean of Differences	Average Absolute Difference
Lab	Result	S1-Mean	Result	S2-Mean	Result	S3-Mean		
A	6.97	0.21	11.16	0.42	12.35	0.25	0.30	0.30
B								
C								
D	6.25	-0.51	10.12	-0.61	11.53	-0.56	-0.56	0.56
E								
F								
G								
H								
I								
J								
K								
L								
M	6.78	0.02	10.82	0.08	12.38	0.29	0.13	0.13
N								
O								
Q	6.68	-0.08	10.79	0.05	12.35	0.26	0.08	0.13
R								
S	6.60	-0.16	10.60	-0.13	11.85	-0.24	-0.18	0.18
MEAN	6.76		10.73		12.09			0.26
STDEV	0.16		0.12		0.38			



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Free Fatty Acid % Oil Deviation from the Mean								
	Sample 1		Sample 2		Sample 3		Mean of Differences	Average Absolute Difference
Lab	Result	S1-Mean	Result	S2-Mean	Result	S3-Mean		
A	0.05	-0.10	0.10	-0.06	0.27	-0.12	-0.09	0.09
B								
C								
D	0.12	-0.02	0.18	0.02	0.38	-0.01	0.00	0.02
E								
F								
G								
H								
I								
J	0.29	0.15	0.33	0.17	0.59	0.20	0.17	0.17
K								
L								
M	0.17	0.02	0.21	0.05	0.45	0.06	0.04	0.04
N								
O	0.07	-0.07	0.11	-0.05	0.26	-0.13	-0.08	0.08
Q	0.08	-0.07	0.21	0.05	0.42	0.03	0.01	0.05
R								
S	0.22	0.08	0.16	-0.01	0.36	-0.03	0.02	0.04
MEAN	0.14		0.16		0.39			0.07
STDEV	0.09		0.05		0.11			

