



**AOF Test Check Program
Bimonthly Report
Round 4
July – 2016**

Result Receival Dates

Lab Code	Date
A	29/07/2016
B	
C	31/07/2016
D	28/07/2016
E	03/07/2016
F	04/07/2016
G	
H	05/07/2016
I	12/07/2016
J	26/07/2016
K	12/07/2016
L	27/07/2016
M	29/07/2016
N	
O	26/07/2016
Q	
R	11/07/2016
S	29/07/2016

Discussion of Results

Test Weight

No outliers were observed for this test.

Impurities

Sample 1 – No outliers were observed for this test.

Sample 2 – One outlier was identified for Lab **C** with a 0.19 of a percent discrepancy from the upper quartile limit (0.77%).

Sample 3 – No outliers were observed for this test.



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Oil Rapid

Sample 1 – Outliers were identified for Lab **E**, **I**, **J**, **R** and **S**. Lab **I** and **J** were 0.33, and 1.03 of a percent discrepancy, respectively, from the lower quartile limit (47.03%). Lab **E**, **R** and **S** were 0.54, 0.14 and 0.04 of a percent discrepancy, respectively, from the upper quartile limit (47.46%).

Sample 2 – No outliers were observed for this test.

Sample 3 – Outliers were identified for Lab **E**, **H**, **K** and **M**. Lab **H** and **M** were 0.01 of a percent discrepancy from the lower quartile limit (41.91%). Lab **E** and **K** were 0.23 and 0.08 of a percent discrepancy, respectively, from the upper quartile limit (42.07%).

For samples 1 and 3, the rapid test sat within or very close to results published for solvent extraction. Sample 2 results were the highest oil content in the set and varied by 0.73 percent between NIR and oil extraction mean results, however, maintained similar accuracies through lower variability across laboratories. Results published by all laboratories displaying outlying data were outside parameters found for solvent extraction variability provided in the next section.

Oil Solvent Extraction

Sample 1 – One outlier was identified for Lab **S** with a 0.05 of a percent discrepancy from the upper quartile limit (47.69%).

Sample 2 – No outliers were observed for this test.

Sample 3 – No outliers were observed for this test.

Standard deviation of each test was within the reproducibility for ISO659:2009. 5 of the 7 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 little effect on the mean results. One sample set mean decreases by 0.11% another increases 0.1% and the other remains unchanged (not stated). The removal of these results also has both a decrease (0.14) and increase (0.09) and zero change in variability (not stated). Decreasing the population of participants to 5 laboratories has the expected increase in error values.



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Moisture Oven

- Sample 1 – One outlier was identified for Lab **J** with a value situated at the upper quartile limit (5.92%).
- Sample 2 – One outlier was identified for Lab **K** with a 0.14 of a percent discrepancy from the lower quartile limit (5.70%).
- Sample 3 – One outlier was identified for Lab **C** with a 0.05 of a percent discrepancy from the upper quartile limit (7.25%).

Moisture Rapid

- Sample 1 – One outlier was identified for Lab **J** with a 0.88 of a percent discrepancy from the upper quartile limit (5.77%).
- Sample 2 – No outliers were observed for this test.
- Sample 3 – One outlier was identified for Lab **J** with a 0.82 of a percent discrepancy from the upper quartile limit (6.78%).

Oleic acid

- Sample 1 – One outlier was identified for Lab **S** with a 2.19 of a percent discrepancy from the upper quartile limit (72.86%).
- Sample 2 – One outlier was identified for Lab **S** with a 2.34 of a percent discrepancy from the upper quartile limit (63.41%).
- Sample 3 – One outlier was identified for Lab **S** with a 1.13 of a percent discrepancy from the upper quartile limit (64.22%).

Linoleic acid

- Sample 1 – No outliers were observed for this test.
- Sample 2 – One outlier was identified for Lab **S** with a 0.39 of a percent discrepancy from the upper quartile limit (21.66%).
- Sample 3 – No outliers were observed for this test.



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Linolenic acid

Sample 1 – One outlier was identified for Lab **S** with a 0.30 of a percent discrepancy from the lower quartile limit (6.60%).

Sample 2 – Outliers were identified for Lab **D**, and **S**. Lab **D** was 0.01 of a percent discrepancy from the upper quartile limit (7.97%). Lab **S** was 0.37 of a percent discrepancy from the lower quartile limit (7.57%).

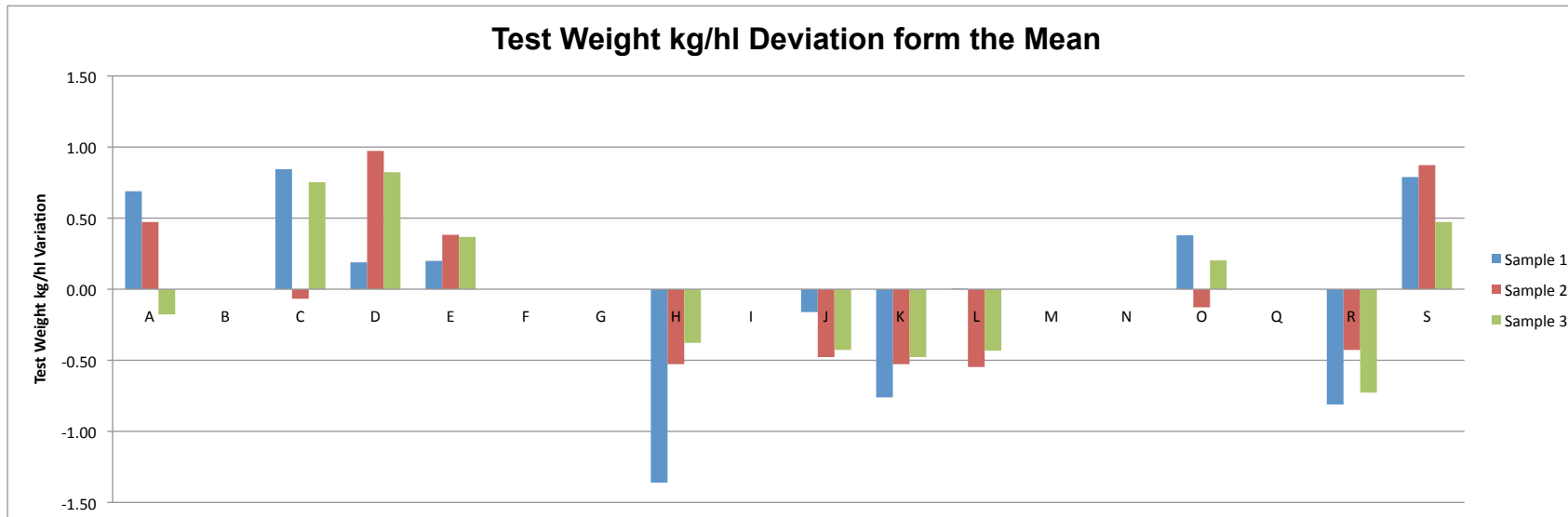
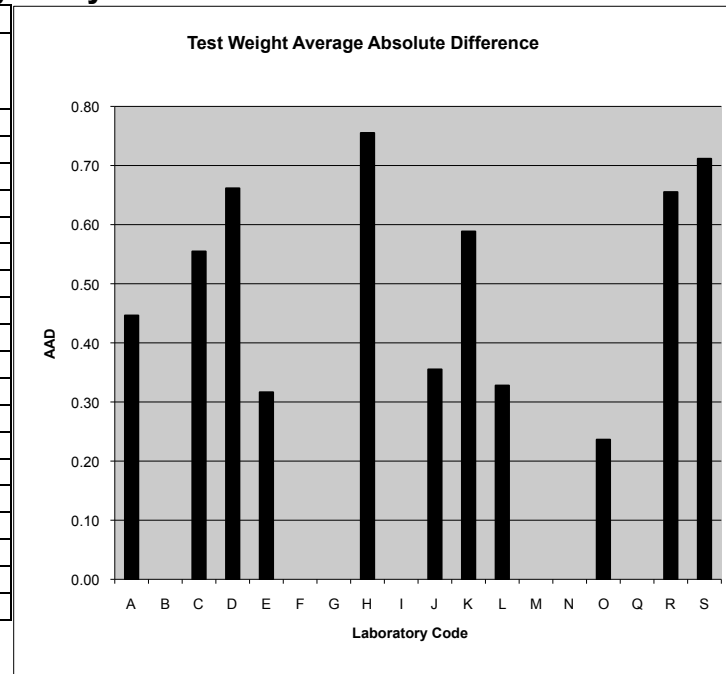
Sample 3 – One outlier was identified for Lab **S** with a 0.03 of a percent discrepancy from the lower quartile limit (9.28%).

Free Fatty Acid

No outliers were observed for this test.

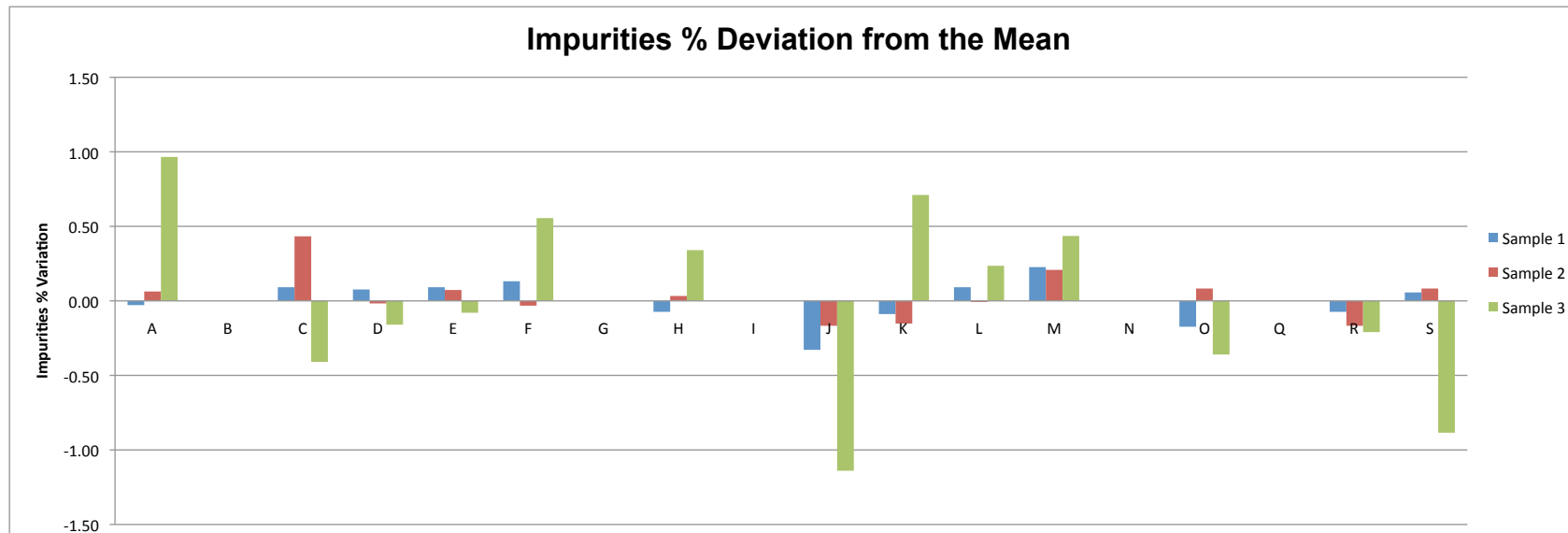
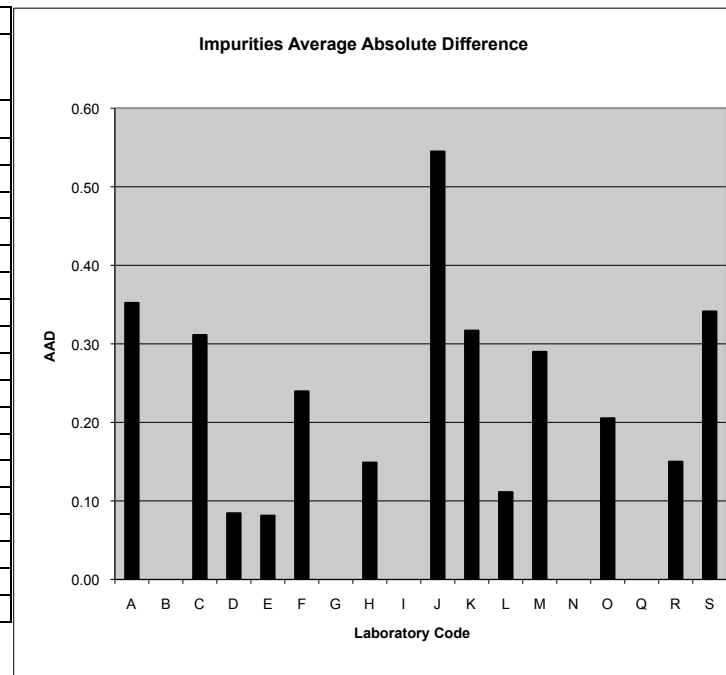
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Test Weight kg/hl								
Lab	Sample 1		Sample 2		Sample 3		Mean of Differences	Average Absolute Difference
	Result	S1-Mean	Result	S2-Mean	Result	S3-Mean		
A	68.25	0.69	69.50	0.47	68.50	-0.18	0.33	0.45
B								
C	68.41	0.84	68.96	-0.07	69.43	0.75	0.51	0.55
D	67.75	0.19	70.00	0.97	69.50	0.82	0.66	0.66
E	67.76	0.20	69.41	0.38	69.05	0.37	0.32	0.32
F								
G								
H	66.20	-1.36	68.50	-0.53	68.30	-0.38	-0.76	0.76
I								
J	67.40	-0.16	68.55	-0.48	68.25	-0.43	-0.36	0.36
K	66.80	-0.76	68.50	-0.53	68.20	-0.48	-0.59	0.59
L	67.57	0.00	68.48	-0.55	68.25	-0.43	-0.33	0.33
M								
N								
O	67.94	0.38	68.90	-0.13	68.88	0.20	0.15	0.24
Q								
R	66.75	-0.81	68.60	-0.43	67.95	-0.73	-0.66	0.66
S	68.35	0.79	69.90	0.87	69.15	0.47	0.71	0.71
MEAN	67.56		69.03		68.68			0.51
STDEV	0.72		0.58		0.54			



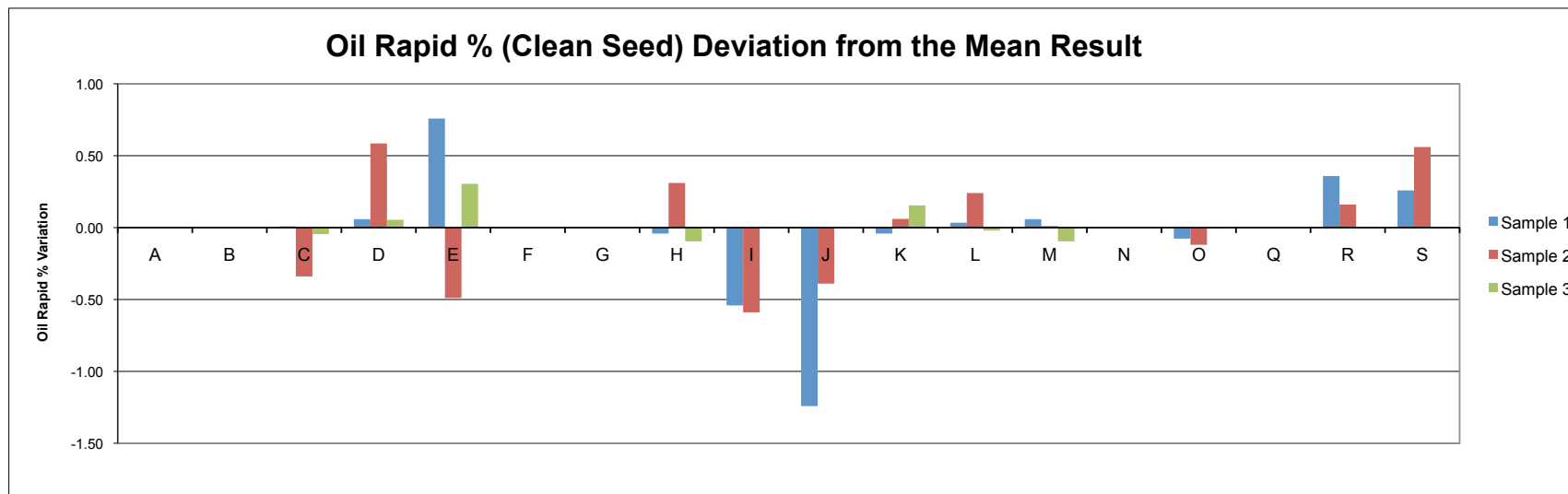
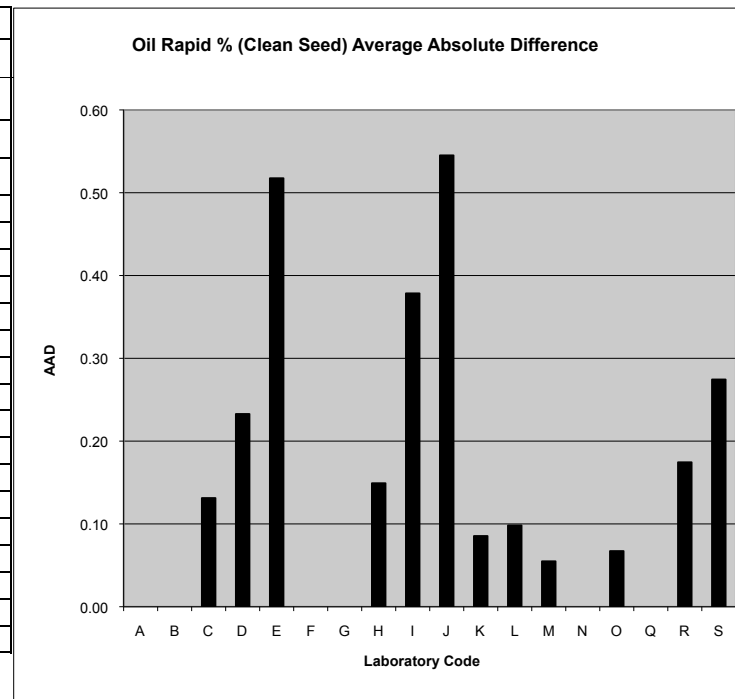
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Impurities %								
Lab	Sample 1		Sample 2		Sample 3		Mean of Differences	Average Absolute Difference
	Result	S1-Mean	Result	S2-Mean	Result	S3-Mean		
A	0.65	-0.03	0.58	0.06	2.53	0.97	0.33	0.35
B								
C	0.77	0.09	0.95	0.43	1.15	-0.41	0.04	0.31
D	0.75	0.08	0.50	-0.02	1.40	-0.16	-0.03	0.08
E	0.77	0.09	0.59	0.07	1.48	-0.08	0.03	0.08
F	0.81	0.13	0.49	-0.03	2.12	0.56	0.22	0.24
G								
H	0.60	-0.07	0.55	0.03	1.90	0.34	0.10	0.15
I								
J	0.35	-0.33	0.35	-0.17	0.42	-1.14	-0.55	0.55
K	0.59	-0.09	0.37	-0.15	2.27	0.71	0.16	0.32
L	0.77	0.09	0.51	-0.01	1.80	0.24	0.11	0.11
M	0.90	0.23	0.73	0.21	2.00	0.44	0.29	0.29
N								
O	0.50	-0.17	0.60	0.08	1.20	-0.36	-0.15	0.21
Q								
R	0.60	-0.07	0.35	-0.17	1.35	-0.21	-0.15	0.15
S	0.73	0.06	0.60	0.08	0.68	-0.88	-0.25	0.34
MEAN	0.67		0.52		1.56			0.24
STDEV	0.15		0.12		0.62			



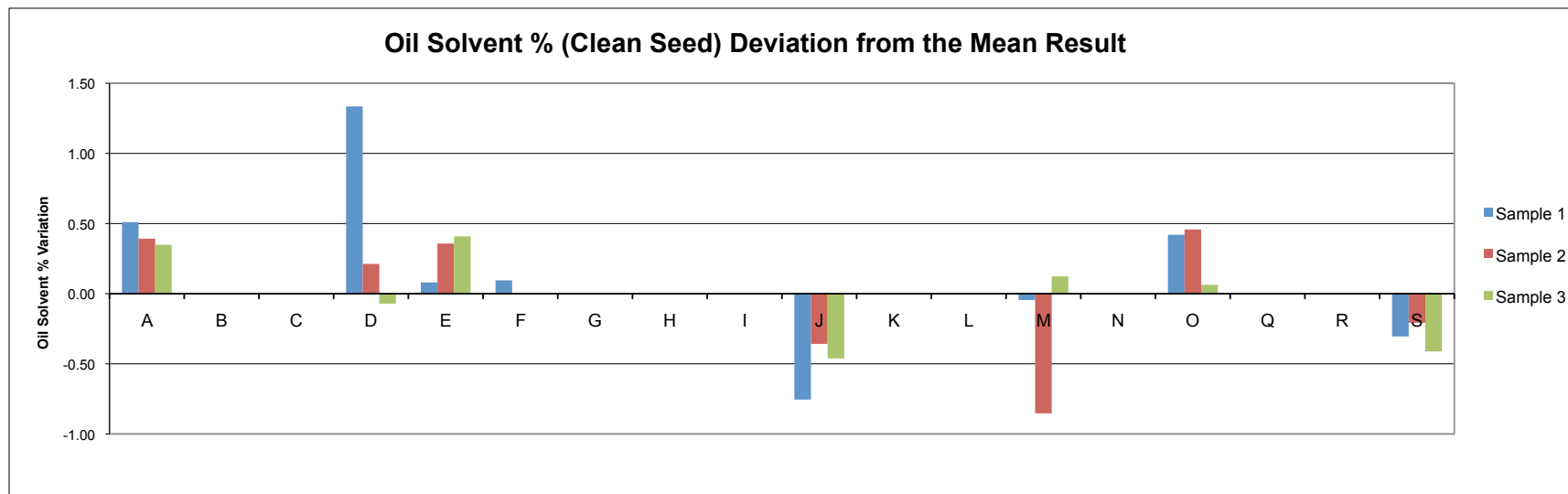
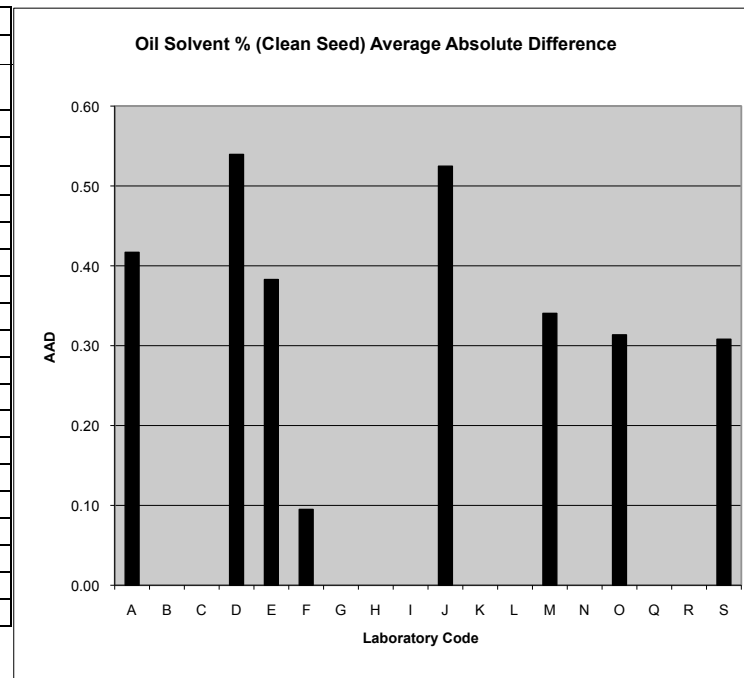
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Oil Rapid % (Clean Seed) Deviation from the Mean								
Lab	Sample 1		Sample 2		Sample 3		Mean of Differences	Average Absolute Difference
	Result	S1-Mean	Result	S2-Mean	Result	S3-Mean		
A								
B								
C	47.25	0.01	45.50	-0.34	41.95	-0.05	-0.13	0.13
D	47.30	0.06	46.43	0.59	42.05	0.05	0.23	0.23
E	48.00	0.76	45.35	-0.49	42.30	0.30	0.19	0.52
F								
G								
H	47.20	-0.04	46.15	0.31	41.90	-0.10	0.06	0.15
I	46.70	-0.54	45.25	-0.59	42.00	0.00	-0.38	0.38
J	46.00	-1.24	45.45	-0.39	42.00	0.00	-0.54	0.55
K	47.20	-0.04	45.90	0.06	42.15	0.15	0.06	0.09
L	47.28	0.03	46.08	0.24	41.98	-0.02	0.08	0.10
M	47.30	0.06	45.85	0.01	41.90	-0.10	-0.01	0.05
N								
O	47.17	-0.08	45.72	-0.12	41.99	-0.01	-0.07	0.07
Q								
R	47.60	0.36	46.00	0.16	42.00	0.00	0.17	0.17
S	47.50	0.26	46.40	0.56	42.00	0.00	0.27	0.27
MEAN	47.24		45.84		42.00			0.23
STDEV	0.05		0.39		0.03			



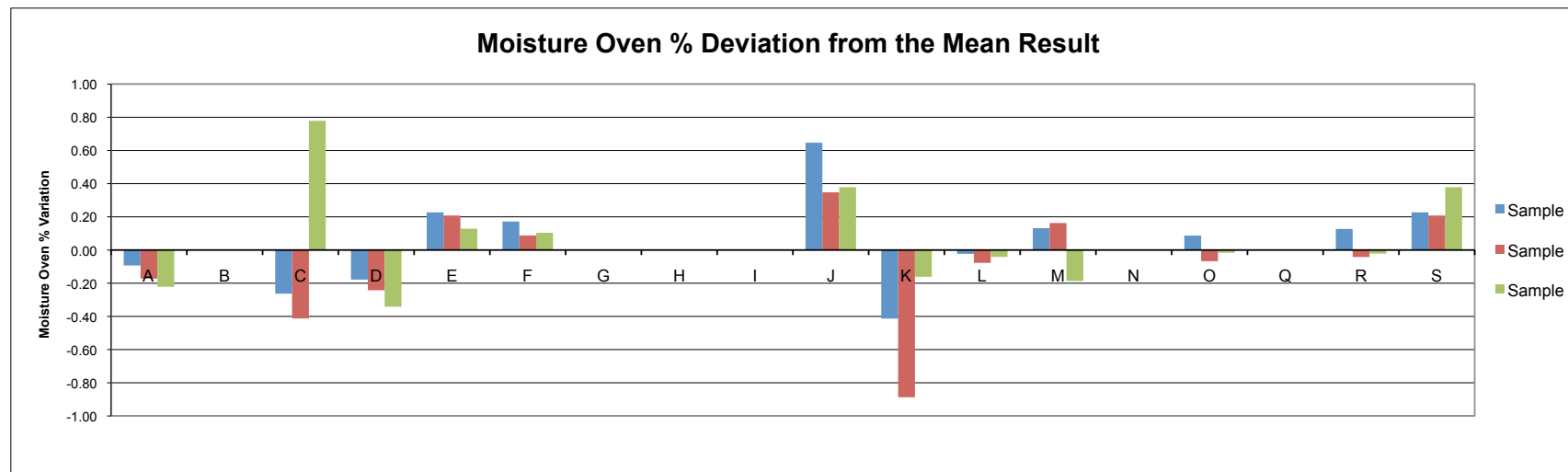
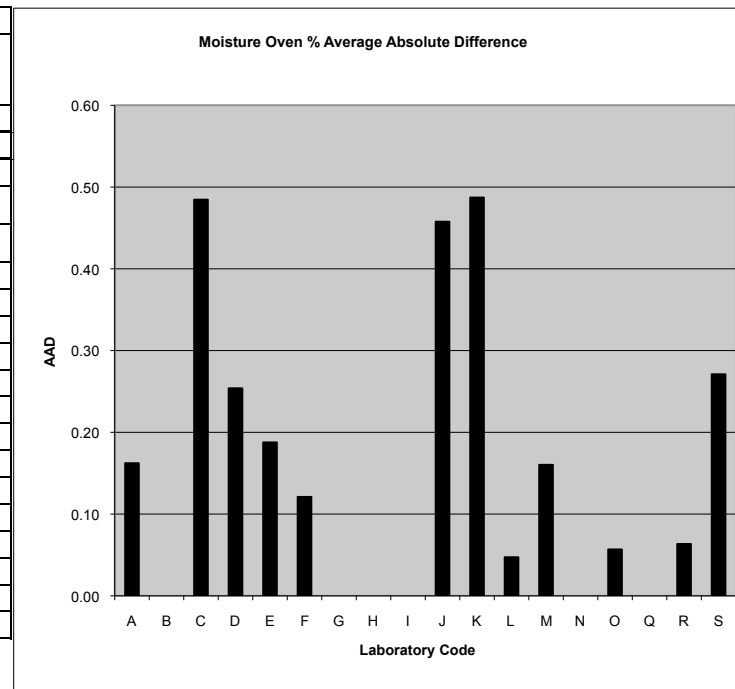
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Oil Solvent % (Clean Seed) Deviation from the Mean								
	Sample 1		Sample 2		Sample 3		Mean of Differences	Average Absolute Difference
Lab	Result	S1-Mean	Result	S2-Mean	Result	S3-Mean		
A	46.92	0.51	45.85	0.39	42.51	0.35	0.42	0.42
B								
C								
D	47.74	1.33	45.67	0.21	42.09	-0.07	0.49	0.54
E	46.49	0.08	45.82	0.36	42.57	0.41	0.38	0.38
F	46.50	0.09					0.09	0.09
G								
H								
I								
J	45.65	-0.76	45.10	-0.36	41.70	-0.46	-0.52	0.52
K								
L								
M	46.36	-0.05	44.61	-0.85	42.29	0.12	-0.26	0.34
N								
O	46.83	0.42	45.92	0.46	42.23	0.06	0.31	0.31
Q								
R								
S	46.10	-0.31	45.25	-0.21	41.75	-0.41	-0.31	0.31
MEAN	46.41		45.46		42.16			0.37
STDEV	0.43		0.49		0.34			



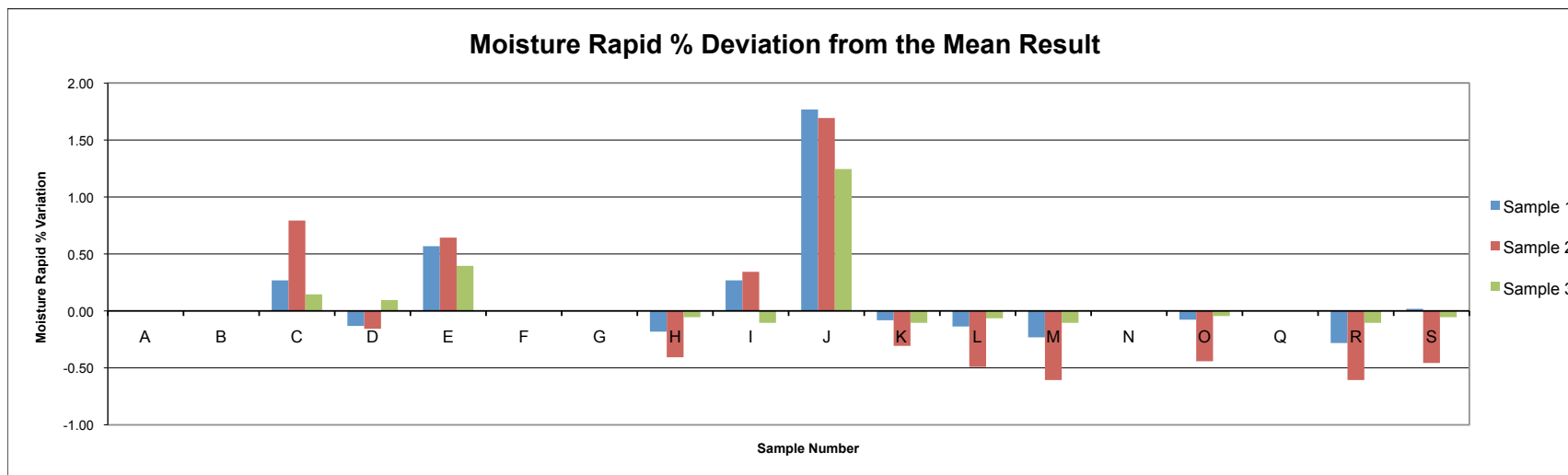
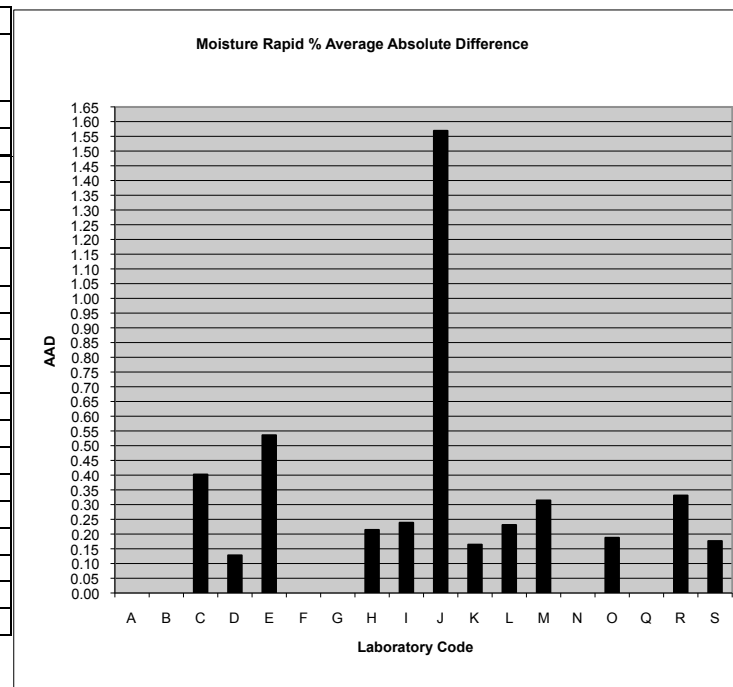
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Moisture Oven % Deviation from the Mean								
Lab	Sample 1		Sample 2		Sample 3		Mean of Differences	Average Absolute Difference
	Result	S1-Mean	Result	S2-Mean	Result	S3-Mean		
A	5.18	-0.09	6.27	-0.17	6.30	-0.22	-0.16	0.16
B								
C	5.01	-0.26	6.03	-0.41	7.30	0.78	0.03	0.48
D	5.10	-0.18	6.20	-0.24	6.18	-0.34	-0.25	0.25
E	5.50	0.23	6.65	0.21	6.65	0.13	0.19	0.19
F	5.45	0.17	6.53	0.09	6.63	0.10	0.12	0.12
G								
H								
I								
J	5.92	0.65	6.79	0.35	6.90	0.38	0.46	0.46
K	4.86	-0.41	5.56	-0.89	6.36	-0.16	-0.49	0.49
L	5.25	-0.02	6.37	-0.08	6.48	-0.04	-0.05	0.05
M	5.41	0.13	6.61	0.16	6.34	-0.19	0.04	0.16
N								
O	5.36	0.09	6.38	-0.07	6.51	-0.02	0.00	0.06
Q								
R	5.40	0.13	6.40	-0.04	6.50	-0.02	0.02	0.06
S	5.50	0.23	6.65	0.21	6.90	0.38	0.27	0.27
MEAN	5.27		6.44		6.52			0.23
STDEV	0.21		0.23		0.23			



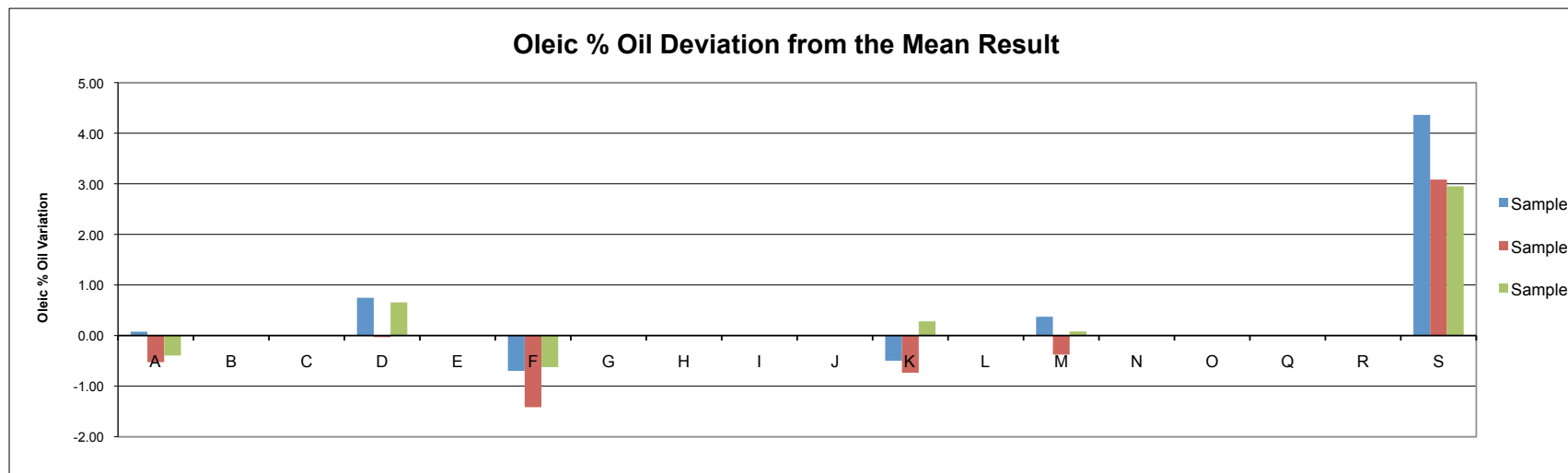
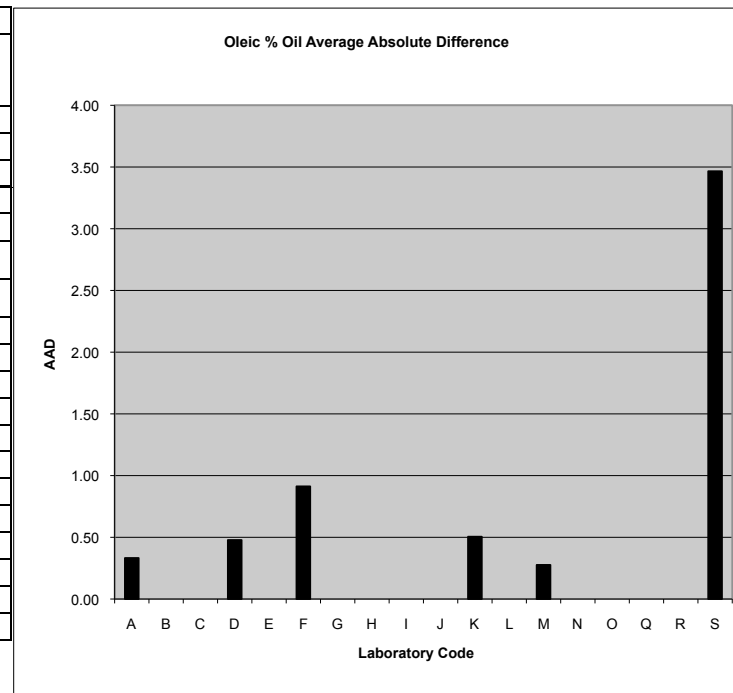
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Moisture Rapid % Deviation from the Mean								
Lab	Sample 1		Sample 2		Sample 3		Mean of Differences	Average Absolute Difference
	Result	S1-Mean	Result	S2-Mean	Result	S3-Mean		
A								
B								
C	5.15	0.27	6.60	0.79	6.40	0.15	0.40	0.40
D	4.75	-0.13	5.65	-0.16	6.35	0.10	-0.06	0.13
E	5.45	0.57	6.45	0.64	6.65	0.40	0.54	0.54
F								
G								
H	4.70	-0.18	5.40	-0.41	6.20	-0.05	-0.21	0.21
I	5.15	0.27	6.15	0.34	6.15	-0.10	0.17	0.24
J	6.65	1.77	7.50	1.69	7.50	1.25	1.57	1.57
K	4.80	-0.08	5.50	-0.31	6.15	-0.10	-0.16	0.16
L	4.75	-0.14	5.32	-0.49	6.19	-0.06	-0.23	0.23
M	4.65	-0.23	5.20	-0.61	6.15	-0.10	-0.31	0.31
N								
O	4.81	-0.08	5.37	-0.44	6.21	-0.04	-0.19	0.19
Q								
R	4.60	-0.28	5.20	-0.61	6.15	-0.10	-0.33	0.33
S	4.90	0.02	5.35	-0.46	6.20	-0.05	-0.16	0.18
MEAN	4.88		5.81		6.25			0.37
STDEV	0.26		0.72		0.16			



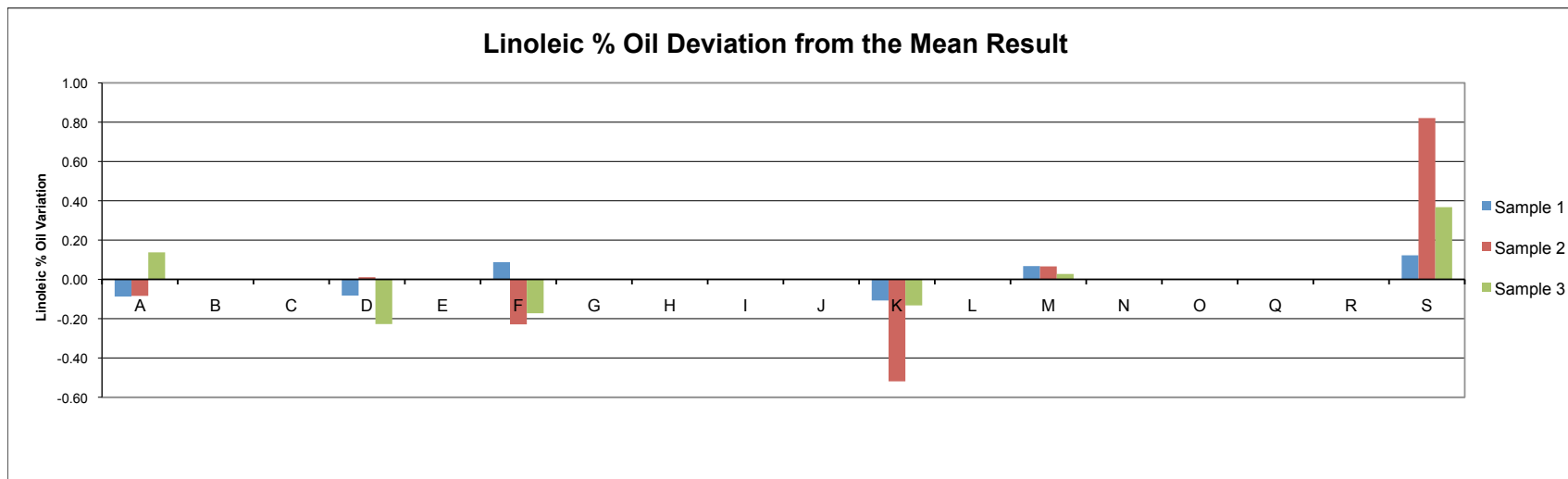
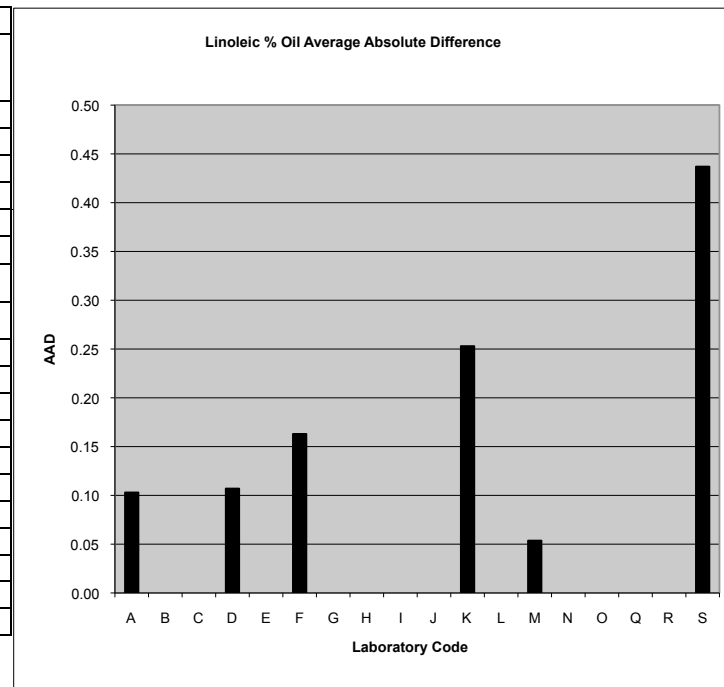
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Oleic % Oil Deviation from the Mean								
Lab	Sample 1		Sample 2		Sample 3		Mean of Differences	Average Absolute Difference
	Result	S1-Mean	Result	S2-Mean	Result	S3-Mean		
A	70.77	0.08	62.14	-0.53	62.01	-0.39	-0.28	0.33
B								
C								
D	71.44	0.75	62.64	-0.03	63.06	0.66	0.46	0.48
E								
F	69.99	-0.70	61.25	-1.42	61.78	-0.62	-0.91	0.91
G								
H								
I								
J								
K	70.19	-0.50	61.93	-0.74	62.68	0.28	-0.32	0.50
L								
M	71.06	0.37	62.29	-0.38	62.48	0.08	0.03	0.28
N								
O								
Q								
R								
S	75.05	4.36	65.75	3.08	65.35	2.95	3.47	3.47
MEAN	70.69		62.67		62.40			0.99
STDEV	0.60		1.58		0.51			



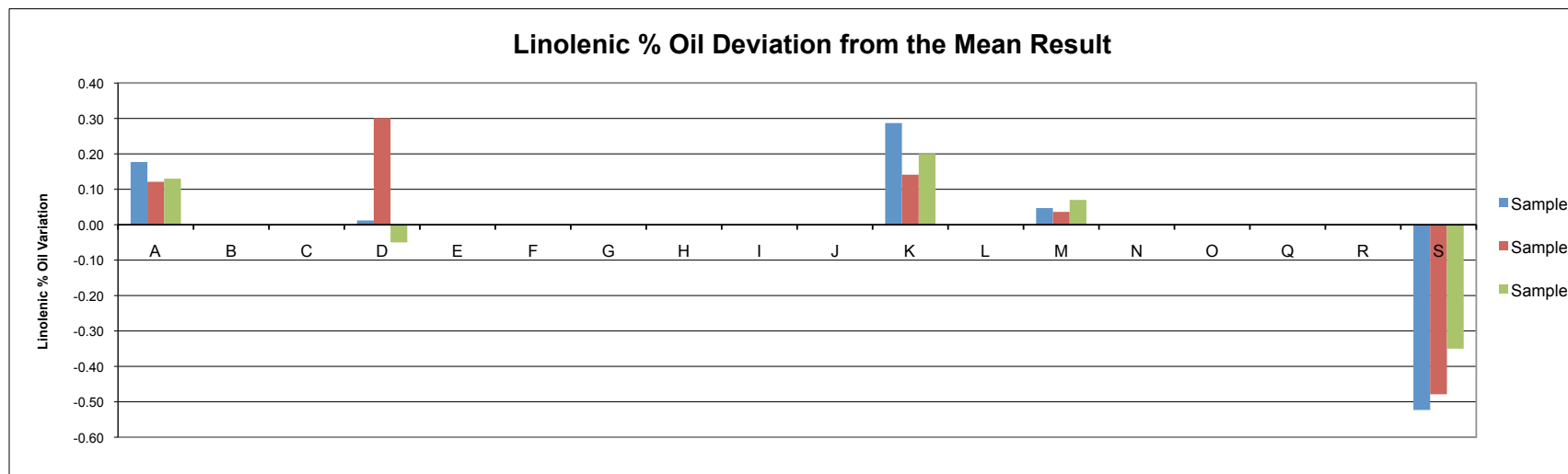
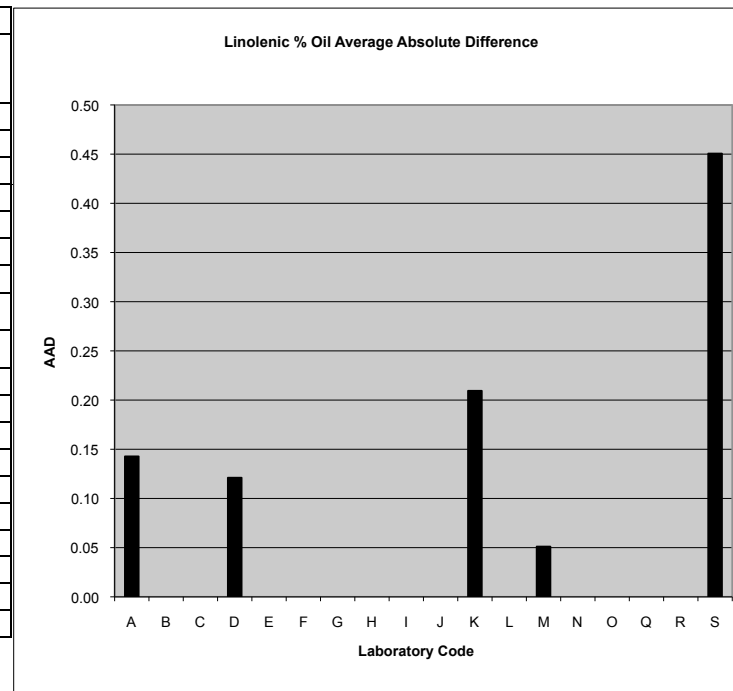
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Linoleic % Oil Deviation from the Mean								
Lab	Sample 1		Sample 2		Sample 3		Mean of Differences	Average Absolute Difference
	Result	S1-Mean	Result	S2-Mean	Result	S3-Mean		
A	13.59	-0.09	21.15	-0.08	19.12	0.14	-0.01	0.10
B								
C								
D	13.60	-0.08	21.24	0.01	18.76	-0.23	-0.10	0.11
E								
F	13.77	0.09	21.00	-0.23	18.81	-0.17	-0.10	0.16
G								
H								
I								
J								
K	13.57	-0.11	20.71	-0.52	18.85	-0.13	-0.25	0.25
L								
M	13.75	0.07	21.30	0.07	19.01	0.03	0.05	0.05
N								
O								
Q								
R								
S	13.80	0.12	22.05	0.82	19.35	0.37	0.44	0.44
MEAN	13.68		21.23		18.98			0.19
STDEV	0.10		0.50		0.23			



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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	7.00	0.18	7.80	0.12	9.73	0.13	0.14	0.14
B								
C								
D	6.84	0.01	7.98	0.30	9.55	-0.05	0.09	0.12
E								
F								
G								
H								
I								
J								
K	7.11	0.29	7.82	0.14	9.80	0.20	0.21	0.21
L								
M	6.87	0.05	7.72	0.04	9.67	0.07	0.05	0.05
N								
O								
Q								
R								
S	6.30	-0.52	7.20	-0.48	9.25	-0.35	-0.45	0.45
MEAN	6.82		7.68		9.60			0.19
STDEV	0.31		0.34		0.22			



Free Fatty Acid % Oil Deviation from the Mean				
Sample 1	Sample 2	Sample 3	Mean of	Absolute

Free Fatty Acid % oil Average Absolute Difference
