

APPENDIX A

Splitting Data

SPLITTING ALR MATERIAL

SAMPLE JAR NUMBER : 1

ALR		
Gross mass :	2406.6	g
Tare mass :	1598.9	g
Net mass :	807.7	g

SAMPLE JAR NUMBER : 2

ALR		
Gross mass :	2439.7	g
Tare mass :	1610.8	g
Net mass :	828.9	g

	Gross (g)	Tare (g)	Mass (g)
Split No. 1	148.91	98.99	49.92
Split No. 2	152.70	101.41	51.29
Split No. 3	149.84	99.30	50.54
Split No. 4	148.28	99.36	48.92
Split No. 5	149.61	99.95	49.66
Split No. 6	148.58	99.53	49.05
Split No. 7	153.51	102.44	51.07
Split No. 8	150.15	99.18	50.97
Split No. 9	154.75	103.29	51.46
Split No. 10	149.98	99.58	50.40
Split No. 11	148.75	98.36	50.39
Split No. 12	150.96	99.12	51.84
Split No. 13	151.12	99.44	51.68
Split No. 14	152.39	99.33	53.06
Split No. 15	149.88	100.48	49.40
Split No. 16	147.18	99.14	48.04

	Gross (g)	Tare (g)	Mass (g)
Split No. 1	153.02	102.19	50.83
Split No. 2	148.92	98.04	50.88
Split No. 3	151.71	101.90	49.81
Split No. 4	150.43	99.99	50.44
Split No. 5	148.61	98.36	50.25
Split No. 6	153.33	101.79	51.54
Split No. 7	153.50	102.54	50.96
Split No. 8	153.70	100.00	53.70
Split No. 9	155.25	100.87	54.38
Split No. 10	154.08	99.61	54.47
Split No. 11	154.86	101.39	53.47
Split No. 12	154.60	102.20	52.40
Split No. 13	153.49	101.37	52.12
Split No. 14	152.12	100.68	51.44
Split No. 15	152.14	98.55	53.59
Split No. 16	149.92	101.33	48.59

Standard Deviation 1.2846087
 % Standard Deviation 2.54%
 Average 50.48
 Relative Splitting Difference 9.46

Standard Deviation 1.73318
 % Standard Deviation 3.35%
 Average 51.80

SPLITTING ALR MATERIAL

SAMPLE JAR NUMBER : 3

ALR		
Gross mass :	2478.9	g
Tare mass :	1626.7	g
Net mass :	852.2	g

SAMPLE JAR NUMBER : 4

ALR		
Gross mass :	2469.2	g
Tare mass :	1637.0	g
Net mass :	832.2	g

	Gross (g)	Tare (g)	Mass (g)
Split No. 1	154.41	102.24	52.17
Split No. 2	151.33	99.00	52.33
Split No. 3	155.84	103.65	52.19
Split No. 4	152.73	99.58	53.15
Split No. 5	153.61	100.34	53.27
Split No. 6	155.71	102.59	53.12
Split No. 7	152.09	98.19	53.90
Split No. 8	154.74	100.86	53.88
Split No. 9	157.66	102.67	54.99
Split No. 10	159.00	104.65	54.35
Split No. 11	156.74	101.64	55.10
Split No. 12	157.19	108.37	48.82
Split No. 13	156.43	102.92	53.51
Split No. 14	155.77	102.13	53.64
Split No. 15	152.89	99.18	53.71
Split No. 16	152.73	98.67	54.06

	Gross (g)	Tare (g)	Mass (g)
Split No. 1	152.32	99.97	52.35
Split No. 2	155.06	101.42	53.64
Split No. 3	155.72	102.36	53.36
Split No. 4	156.74	102.76	53.98
Split No. 5	155.78	101.85	53.93
Split No. 6	154.81	101.91	52.90
Split No. 7	154.40	101.99	52.41
Split No. 8	154.38	102.44	51.94
Split No. 9	154.23	102.78	51.45
Split No. 10	152.37	101.74	50.63
Split No. 11	152.66	102.26	50.40
Split No. 12	153.42	103.25	50.17
Split No. 13	153.96	103.33	50.63
Split No. 14	153.01	102.25	50.76
Split No. 15	155.09	103.39	51.70
Split No. 16	155.20	103.28	51.92

Standard Deviation 1.468633
 % Standard Deviation 2.76%
 Average 53.26

Standard Deviation 1.28805
 % Standard Deviation 2.48%
 Average 52.01

SPLITTING ALR MATERIAL

SAMPLE JAR NUMBER : 5

ALR		
Gross mass :	2468.6	g
Tare mass :	1640.3	g
Net mass :	828.3	g

SAMPLE JAR NUMBER : 6

ALR		
Gross mass :	2482.9	g
Tare mass :	1635.5	g
Net mass :	847.4	g

	Gross (g)	Tare (g)	Mass (g)
Split No. 1	155.39	103.05	52.34
Split No. 2	154.18	102.32	51.86
Split No. 3	155.04	103.24	51.80
Split No. 4	152.77	101.90	50.87
Split No. 5	153.09	101.63	51.46
Split No. 6	153.87	103.03	50.84
Split No. 7	153.97	102.88	51.09
Split No. 8	154.47	102.22	52.25
Split No. 9	154.45	101.95	52.50
Split No. 10	155.39	102.99	52.40
Split No. 11	155.35	102.68	52.67
Split No. 12	154.92	103.18	51.74
Split No. 13	154.09	102.71	51.38
Split No. 14	154.34	102.56	51.78
Split No. 15	154.02	101.91	52.11
Split No. 16	153.29	102.09	51.20

	Gross (g)	Tare (g)	Mass (g)
Split No. 1	154.32	102.06	52.26
Split No. 2	153.16	101.67	51.49
Split No. 3	153.11	101.69	51.42
Split No. 4	153.66	102.10	51.56
Split No. 5	154.91	102.58	52.33
Split No. 6	156.50	102.01	54.49
Split No. 7	157.43	102.27	55.16
Split No. 8	157.19	102.79	54.40
Split No. 9	156.84	102.23	54.61
Split No. 10	156.64	102.27	54.37
Split No. 11	156.18	101.79	54.39
Split No. 12	155.56	102.20	53.36
Split No. 13	154.89	102.29	52.60
Split No. 14	153.80	102.03	51.77
Split No. 15	155.12	103.16	51.96
Split No. 16	153.60	102.38	51.22

Standard Deviation 0.5848672
 % Standard Deviation 1.13%
 Average 51.77

Standard Deviation 1.3933806
 % Standard Deviation 2.63%
 Average 52.96

SPLITTING ALR MATERIAL

SAMPLE JAR NUMBER : 7

ALR		
Gross mass :	2470.1	g
Tare mass :	1637.0	g
Net mass :	833.1	g

SAMPLE JAR NUMBER : 8

ALR		
Gross mass :	2402.1	g
Tare mass :	1597.8	g
Net mass :	804.3	g

	Gross (g)	Tare (g)	Mass (g)
Split No. 1	154.26	102.25	52.01
Split No. 2	154.77	103.28	51.49
Split No. 3	154.44	103.39	51.05
Split No. 4	154.18	103.25	50.93
Split No. 5	152.92	103.33	49.59
Split No. 6	152.04	101.85	50.19
Split No. 7	151.07	99.97	51.10
Split No. 8	152.24	101.42	50.82
Split No. 9	153.99	102.26	51.73
Split No. 10	153.99	101.74	52.25
Split No. 11	156.57	102.76	53.81
Split No. 12	156.76	102.36	54.40
Split No. 13	156.18	101.91	54.27
Split No. 14	156.01	101.99	54.02
Split No. 15	155.72	102.78	52.94
Split No. 16	154.92	102.44	52.48

	Gross (g)	Tare (g)	Mass (g)
Split No. 1	149.47	99.74	49.73
Split No. 2	149.68	100.66	49.02
Split No. 3	151.43	102.13	49.30
Split No. 4	149.48	99.98	49.50
Split No. 5	149.48	99.28	50.20
Split No. 6	151.40	99.80	51.60
Split No. 7	151.03	98.53	52.50
Split No. 8	151.98	99.69	52.29
Split No. 9	150.54	99.44	51.10
Split No. 10	153.79	103.15	50.64
Split No. 11	148.52	98.62	49.90
Split No. 12	147.52	98.07	49.45
Split No. 13	149.01	98.99	50.02
Split No. 14	148.38	98.71	49.67
Split No. 15	151.93	102.08	49.85
Split No. 16	148.44	98.90	49.54

Standard Deviation 1.4841406
 % Standard Deviation 2.85%
 Average 52.07

Standard Deviation 1.0640142
 % Standard Deviation 2.12%
 Average 50.27

SPLITTING ALR MATERIAL

SAMPLE JAR NUMBER : 9

ALR		
Gross mass :	2404.9 g	
Tare mass :	1603.5 g	
Net mass :	801.5 g	

SAMPLE JAR NUMBER : 10

ALR		
Gross mass :	2436.9 g	
Tare mass :	1605.4 g	
Net mass :	831.5 g	

	Gross (g)	Tare (g)	Mass (g)
Split No. 1	148.19	99.31	48.88
Split No. 2	153.04	103.59	49.45
Split No. 3	147.85	99.33	48.52
Split No. 4	151.62	102.91	48.71
Split No. 5	150.60	100.01	50.59
Split No. 6	150.67	99.11	51.56
Split No. 7	153.76	102.82	50.94
Split No. 8	150.43	99.64	50.79
Split No. 9	149.39	98.88	50.51
Split No. 10	150.54	100.29	50.25
Split No. 11	149.48	98.86	50.62
Split No. 12	149.87	99.82	50.05
Split No. 13	150.44	99.95	50.49
Split No. 14	150.20	100.00	50.20
Split No. 15	150.38	100.03	50.35
Split No. 16	148.45	98.91	49.54

	Gross (g)	Tare (g)	Mass (g)
Split No. 1	155.23	102.32	52.91
Split No. 2	150.78	98.22	52.56
Split No. 3	154.59	102.71	51.88
Split No. 4	152.87	100.17	52.70
Split No. 5	150.52	98.92	51.60
Split No. 6	153.10	99.57	53.53
Split No. 7	151.38	99.45	51.93
Split No. 8	149.75	98.91	50.84
Split No. 9	151.88	100.62	51.26
Split No. 10	154.19	103.74	50.45
Split No. 11	149.97	99.68	50.29
Split No. 12	149.43	99.49	49.94
Split No. 13	151.80	100.12	51.68
Split No. 14	156.08	102.99	53.09
Split No. 15	153.19	99.07	54.12
Split No. 16	152.11	99.42	52.69

Standard Deviation 0.8521774
 % Standard Deviation 1.70%
 Average 50.09

Standard Deviation 1.2071659
 % Standard Deviation 2.32%
 Average 51.97

SPLITTING ALR MATERIAL

SAMPLE JAR NUMBER : 11

ALR		
Gross mass :	2459.7	g
Tare mass :	1624.6	g
Net mass :	835.1	g

SAMPLE JAR NUMBER : 12

ALR		
Gross mass :	2409.8	g
Tare mass :	1614.7	g
Net mass :	795.1	g

	Gross (g)	Tare (g)	Mass (g)
Split No. 1	152.78	102.14	50.64
Split No. 2	153.13	102.08	51.05
Split No. 3	150.66	99.95	50.71
Split No. 4	151.29	100.44	50.85
Split No. 5	151.49	100.20	51.29
Split No. 6	150.35	99.28	51.07
Split No. 7	151.75	99.61	52.14
Split No. 8	151.46	99.88	51.58
Split No. 9	156.83	103.04	53.79
Split No. 10	158.14	103.46	54.68
Split No. 11	158.12	103.54	54.58
Split No. 12	156.07	101.84	54.23
Split No. 13	156.50	103.32	53.18
Split No. 14	154.67	101.79	52.88
Split No. 15	153.42	102.01	51.41
Split No. 16	153.07	102.06	51.01

	Gross (g)	Tare (g)	Mass (g)
Split No. 1	148.63	99.64	48.99
Split No. 2	149.24	100.13	49.11
Split No. 3	153.05	103.24	49.81
Split No. 4	152.88	102.61	50.27
Split No. 5	151.61	100.01	51.60
Split No. 6	153.15	100.79	52.36
Split No. 7	151.86	100.26	51.60
Split No. 8	149.76	100.19	49.57
Split No. 9	152.29	102.61	49.68
Split No. 10	149.30	99.35	49.95
Split No. 11	150.98	102.61	48.37
Split No. 12	148.00	99.21	48.79
Split No. 13	148.89	100.60	48.29
Split No. 14	150.69	102.39	48.30
Split No. 15	150.60	101.45	49.15
Split No. 16	148.86	99.62	49.24

Standard Deviation 1.4655544
 % Standard Deviation 2.81%
 Average 52.19

Standard Deviation 1.2280852
 % Standard Deviation 2.47%
 Average 49.69

SPLITTING ALR MATERIAL

SAMPLE JAR NUMBER : 13

ALR		
Gross mass :	2449.8 g	
Tare mass :	1608.6 g	
Net mass :	841.2 g	

SAMPLE JAR NUMBER : 14

ALR		
Gross mass :	2450.3 g	
Tare mass :	1635.3 g	
Net mass :	815.0 g	

	Gross (g)	Tare (g)	Mass (g)
Split No. 1	154.55	102.26	52.29
Split No. 2	152.41	99.12	53.29
Split No. 3	151.08	98.42	52.66
Split No. 4	156.14	103.28	52.86
Split No. 5	155.70	102.25	53.45
Split No. 6	152.53	99.23	53.30
Split No. 7	151.43	98.52	52.91
Split No. 8	150.97	98.30	52.67
Split No. 9	155.93	103.88	52.05
Split No. 10	155.17	102.88	52.29
Split No. 11	153.50	100.47	53.03
Split No. 12	152.38	100.45	51.93
Split No. 13	153.12	101.27	51.85
Split No. 14	151.70	99.53	52.17
Split No. 15	151.53	98.89	52.64
Split No. 16	151.63	99.84	51.79

	Gross (g)	Tare (g)	Mass (g)
Split No. 1	152.78	102.02	50.76
Split No. 2	153.24	102.70	50.54
Split No. 3	153.26	101.88	51.38
Split No. 4	156.30	102.27	54.03
Split No. 5	155.93	102.22	53.71
Split No. 6	153.65	101.46	52.19
Split No. 7	155.49	102.88	52.61
Split No. 8	153.09	102.26	50.83
Split No. 9	152.29	101.82	50.47
Split No. 10	152.88	102.77	50.11
Split No. 11	150.95	101.99	48.96
Split No. 12	151.03	101.76	49.27
Split No. 13	150.90	101.54	49.36
Split No. 14	152.35	102.46	49.89
Split No. 15	153.53	103.16	50.37
Split No. 16	152.64	102.14	50.50

Standard Deviation 0.5405784
 % Standard Deviation 1.03%
 Average 52.57

Standard Deviation 1.4990391
 % Standard Deviation 2.94%
 Average 50.94

SPLITTING ALR MATERIAL

SAMPLE JAR NUMBER : 15

ALR		
Gross mass :	2489.2	g
Tare mass :	1635.2	g
Net mass :	854.1	g

SAMPLE JAR NUMBER : 16

ALR		
Gross mass :	2459.9	g
Tare mass :	1636.7	g
Net mass :	823.2	g

	Gross (g)	Tare (g)	Mass (g)
Split No. 1	154.57	102.15	52.42
Split No. 2	155.25	102.90	52.35
Split No. 3	155.14	103.21	51.93
Split No. 4	154.81	102.33	52.48
Split No. 5	155.74	101.92	53.82
Split No. 6	155.98	102.43	53.55
Split No. 7	156.38	102.39	53.99
Split No. 8	157.74	102.89	54.85
Split No. 9	156.07	102.24	53.83
Split No. 10	155.82	102.11	53.71
Split No. 11	155.05	101.52	53.53
Split No. 12	154.75	101.72	53.03
Split No. 13	155.45	101.50	53.95
Split No. 14	155.85	101.73	54.12
Split No. 15	155.99	102.13	53.86
Split No. 16	154.64	101.98	52.66

	Gross (g)	Tare (g)	Mass (g)
Split No. 1	157.29	102.99	54.30
Split No. 2	155.34	102.02	53.32
Split No. 3	154.16	102.66	51.50
Split No. 4	153.15	102.44	50.71
Split No. 5	151.99	101.67	50.32
Split No. 6	150.57	101.28	49.29
Split No. 7	151.54	102.55	48.99
Split No. 8	151.83	101.66	50.17
Split No. 9	151.55	102.39	49.16
Split No. 10	152.35	102.27	50.08
Split No. 11	152.60	102.16	50.44
Split No. 12	153.48	102.53	50.95
Split No. 13	154.63	102.76	51.87
Split No. 14	155.65	102.79	52.86
Split No. 15	157.14	102.33	54.81
Split No. 16	156.65	102.21	54.44

Standard Deviation 0.805324
 % Standard Deviation 1.51%
 Average 53.38

Standard Deviation 1.9422889
 % Standard Deviation 3.78%
 Average 51.45

SPLITTING ALR MATERIAL

SAMPLE JAR NUMBER : 17

ALR		
Gross mass :	2444.2	g
Tare mass :	1636.9	g
Net mass :	807.3	g

SAMPLE JAR NUMBER : 18

ALR		
Gross mass :	2496.4	g
Tare mass :	1642.6	g
Net mass :	853.8	g

	Gross (g)	Tare (g)	Mass (g)
Split No. 1	151.72	102.40	49.32
Split No. 2	153.02	103.03	49.99
Split No. 3	153.74	102.45	51.29
Split No. 4	151.61	101.52	50.09
Split No. 5	153.53	102.90	50.63
Split No. 6	151.42	101.85	49.57
Split No. 7	152.68	102.40	50.28
Split No. 8	151.59	102.41	49.18
Split No. 9	152.40	102.42	49.98
Split No. 10	152.92	102.32	50.60
Split No. 11	152.91	102.56	50.35
Split No. 12	154.07	102.81	51.26
Split No. 13	154.32	101.96	52.36
Split No. 14	152.78	102.17	50.61
Split No. 15	153.06	101.68	51.38
Split No. 16	152.39	102.01	50.38

	Gross (g)	Tare (g)	Mass (g)
Split No. 1	155.25	102.93	52.32
Split No. 2	154.74	102.30	52.44
Split No. 3	153.96	102.72	51.24
Split No. 4	153.21	102.47	50.74
Split No. 5	155.94	102.53	53.41
Split No. 6	157.96	102.90	55.06
Split No. 7	158.12	102.98	55.14
Split No. 8	158.02	102.68	55.34
Split No. 9	156.97	103.05	53.92
Split No. 10	156.27	102.68	53.59
Split No. 11	156.33	102.30	54.03
Split No. 12	156.47	103.02	53.45
Split No. 13	154.86	102.53	52.33
Split No. 14	156.14	102.55	53.59
Split No. 15	156.42	102.53	53.89
Split No. 16	155.69	102.39	53.30

Standard Deviation 0.8256308
 % Standard Deviation 1.64%
 Average 50.45

Standard Deviation 1.3035808
 % Standard Deviation 2.44%
 Average 53.36

SPLITTING ALR MATERIAL

SAMPLE JAR NUMBER : 19

ALR		
Gross mass :	2457.2	g
Tare mass :	1639.3	g
Net mass :	817.9	g

SAMPLE JAR NUMBER : 20

ALR		
Gross mass :	2432.7	g
Tare mass :	1617.3	g
Net mass :	815.3	g

	Gross (g)	Tare (g)	Mass (g)
Split No. 1	154.86	102.80	52.06
Split No. 2	155.83	103.25	52.58
Split No. 3	153.43	102.01	51.42
Split No. 4	154.11	102.99	51.12
Split No. 5	152.40	102.11	50.29
Split No. 6	152.38	102.48	49.90
Split No. 7	151.41	102.40	49.01
Split No. 8	152.61	102.32	50.29
Split No. 9	151.98	102.19	49.79
Split No. 10	153.08	102.86	50.22
Split No. 11	152.77	101.64	51.13
Split No. 12	153.09	101.92	51.17
Split No. 13	154.99	102.92	52.07
Split No. 14	154.60	102.25	52.35
Split No. 15	155.50	102.71	52.79
Split No. 16	154.16	102.47	51.69

	Gross (g)	Tare (g)	Mass (g)
Split No. 1	154.14	100.43	53.71
Split No. 2	151.88	99.55	52.33
Split No. 3	151.05	100.07	50.98
Split No. 4	151.00	100.76	50.24
Split No. 5	149.68	100.55	49.13
Split No. 6	151.36	101.93	49.43
Split No. 7	150.18	100.91	49.27
Split No. 8	149.21	99.91	49.30
Split No. 9	151.64	102.94	48.70
Split No. 10	151.76	102.52	49.24
Split No. 11	149.54	99.94	49.60
Split No. 12	148.19	99.40	48.79
Split No. 13	153.39	102.85	50.54
Split No. 14	154.20	100.26	53.94
Split No. 15	157.59	102.65	54.94
Split No. 16	157.85	102.67	55.18

Standard Deviation 1.1115785
 % Standard Deviation 2.17%
 Average 51.12

Standard Deviation 2.2889546
 % Standard Deviation 4.49%
 Average 50.96