

Example Laboratory Report $\delta^2\text{H}$ (deuterium) and $\delta^{18}\text{O}$ of Doubly Labelled Water (DLW)

Client Details

Name: Your Company
Contact(s): Your Name

Sample Tracking

IA Reference No.: Our LIMS Code
Date of Arrival: April 20, 2007

We have completed the deuterium and oxygen-18 analysis of the urine and dose samples that we received on April 2, 2007. The results of analysis can be found attachment as an MS Excel worksheet. The samples were measured in duplicate with results being presented in both per mil (‰) and parts per million (ppm) notation. The analysis proceeded as follows:

Deuterium

A sample size of 0.3 mL was pipetted into septum sealed vials and insert vials containing 5 % platinum on alumina catalyst added. The vials were sealed and the headspace flushed with pure H_2 gas. References and quality control check samples were prepared in the same manner. Once all vials were flushed they were left to equilibrate for a period of three days to ensure complete equilibration. The samples and references were subsequently analysed by Continuous Flow - Isotope Ratio Mass Spectrometry (CF-IRMS) using a Europa Scientific ANCA-GSL and GEO 20-20 IRMS.

Samples were calibrated against two laboratory reference waters IA-R018 ($\delta^2\text{H}_{\text{V-SMOW}} = -56.5$ ‰) and IA-R020 ($\delta^2\text{H}_{\text{V-SMOW}} = 1089.2$ ‰). Accuracy was checked by measuring laboratory standard water IA-R019 ($\delta^2\text{H}_{\text{V-SMOW}} = 522.3$ ‰) as a check sample within each batch of samples. Data for the check samples is reported in the results table.

Oxygen-18

Following deuterium analysis, vials were flushed with pure CO_2 gas and left to equilibrate for 24 hours. Reference waters and quality control check samples were prepared in the same manner. The samples and references were subsequently analysed by CF-IRMS using a Europa Scientific ANCA-G and Hydra 20-20 IRMS.

Samples were calibrated against two laboratory reference waters IA-R018 ($\delta^{18}\text{O}_{\text{V-SMOW}} = -7.86$ ‰) and IA-R021 ($\delta^{18}\text{O}_{\text{V-SMOW}} = 247.96$ ‰). Accuracy was checked by measuring laboratory standard water IA-R011 ($\delta^{18}\text{O}_{\text{V-SMOW}} = 109.21$ ‰) as a check sample within each batch of samples. Data for the check samples is reported in the results table.

Preparation of Doses

The doubly labelled water dose was prepared such that each subject received 2.5 grams of 10 % oxygen-18 and 0.15 grams of 99.9 % deuterium oxide per kg of Total Body Water (TBW). TBW was estimated to be 55 % of body weight. The required doses of doubly labelled water calculated for each subject were dispensed into plastic bottles fitted with 'sport caps'. 1 mL of the dose was removed and retained for isotope analysis (see below). The bottles, containing the remaining dose, were then weighed to 4 decimal places. The bottles were re-weighed after the doses had been administered in order to determine the Dose Consumed (g) value reported in the results file.

Dose Dilutions

An accurately weighed (to 4 decimal places) aliquot of the dose sample was diluted to 100 ml with tap water in a volumetric flask. The weight of the doses and deuterium and oxygen-18 content of the diluted doses and laboratory water used for preparation of the dose dilutions are supplied in the results table.

Analysis Notes

1. The results file contains the TBW calculations for each subject. These have been calculated by using the diluted dose method. The TBW calculations show that there is excellent agreement for the calculated D and O spaces.
2. We were not provided with complete information about the collection times for each urine sample, therefore we have not provided any excretion plots.

The unused portions of the samples will be returned to you if you request us to do so, otherwise they will be placed in storage for a period of 3 months, after which time they will be disposed of. If you require any further information or have any questions about the results, please don't hesitate to contact us.

Analysed & Reported by:

Steve Brookes, PhD

Checked by:

Ian Begley, PhD

Example Laboratory Report Core Waters

Client Details

Name: Your Company
 Contact(s): Your Name
 PO No.: Your Order Code

Sample Details

Number: 16 subjects
 Material: Urine and dose
 Field ID: Your Field Code
 Well ID: Your Well Code
 Job ID: Your Job Code

Sample Tracking

IA Reference No.: Our LIMS Code
 Date of Arrival: 2/4/2007

Analysis Details

Isotope: $\delta^2\text{H}$ & $\delta^{18}\text{O}$
 Method: Equilibration-IRMS
 Report Date: April 20th 2007

Subject: 1		Container Number	$\delta^2\text{H}_{\text{V-SMOW}}$ (‰)	^2H (ppm)	$\delta^{18}\text{O}_{\text{V-SMOW}}$ (‰)	^{18}O (ppm)	Comments
Gender	Male	Dose	808.67	281.64	116.3	2233.4	
			813.68	282.42	116.39	2233.58	
Age (Years)	21	1	716.11	267.23	105.28	2211.4	
			712.73	266.7	104.94	2210.73	
Height (cm)	175	2	692.91	263.62	102.32	2205.5	
			690.13	263.19	102.22	2205.29	
Weight at sampling (kg)	65.4	3	452.03	226.12	56.93	2114.88	
			451.23	225.99	56.98	2114.98	
Dose consumed (g)	93.2325	4	432.33	223.05	54.03	2109.07	
			428.85	222.51	53.96	2108.94	
Dose diluted (g/100 mL)	0.2565	5	258.78	196.03	27.63	2056.37	
			259.04	196.07	27.59	2056.28	

6	275.13	198.57	26.97	2055.06
	275.13	198.57	26.94	2054.99
Baseline	-20.34	152.57	-2.47	1996.24
	-19.2	152.75	-2.49	1996.22

Subject: 2		Container Number	$\delta^2\text{H}_{\text{V-SMOW}}$ (‰)	^2H (ppm)	$\delta^{18}\text{O}_{\text{V-SMOW}}$ (‰)	^{18}O (ppm)	Comments
Gender	Male	Dose	805.3	281.11	117.64	2236.08	Container labelling suggests that container 6 was used before container 5, explaining why the ^2H and ^{18}O values for container 6 are higher than for container 5.
			801.21	280.48	117.07	2234.95	
Age (Years)	27	1	652.86	257.38	99.2	2199.27	
			651.66	257.2	99.03	2198.92	
Height (cm)	175	2	622.72	252.69	92.98	2186.86	
			625.25	253.09	92.71	2186.32	
Weight at sampling (kg)	77.5	3	485.93	231.4	65.38	2131.74	
			487.16	231.59	65.21	2131.41	
Dose consumed (g)	113.5812	4	474.97	229.69	63.26	2127.52	
			474.33	229.59	63.04	2127.07	
Dose diluted (g/100 mL)	0.2581	5	319.97	205.56	36.57	2074.22	
			317.68	205.2	36.25	2073.58	
		6	322.01	205.87	37.44	2075.96	
			322.44	205.94	37.49	2076.05	
		Baseline	-23.43	152.09	-3.13	1994.94	
			-21.77	152.35	-3.2	1994.8	

Subject: 3		Container Number	$\delta^2\text{H}_{\text{V-SMOW}}$ (‰)	^2H (ppm)	$\delta^{18}\text{O}_{\text{V-SMOW}}$ (‰)	^{18}O (ppm)	Comments
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Gender	Male	Dose		812.35	282.21	116.49	2233.79
				812.54	282.24	116.63	2234.06
Age (Years)	na		1	663.22	259	99.21	2199.29
				662.7	258.91	98.97	2198.82
Height (cm)	na		2	647.17	256.5	95.57	2192.03
				647.38	256.53	95.52	2191.91
Weight at sampling (kg)	74.2		3	471.29	229.12	60.49	2121.98
				467.48	228.52	60.52	2122.05
Dose consumed (g)	105.8241		4	445.57	225.11	57.33	2115.67
				443.59	224.8	57.25	2115.51
Dose diluted (g/100 mL)	0.2561		5	257.87	195.89	28.19	2057.49
				260.43	196.29	28.18	2057.46
			6	201.12	187.05	19.71	2040.55
				199.77	186.84	19.7	2040.52
		Baseline		-31.11	150.89	-3.62	1993.96
				-31.71	150.8	-3.7	1993.8

Subject: 4		Container Number		$\delta^2\text{H}_{\text{V-SMOW}}$	^2H	$\delta^{18}\text{O}_{\text{V-SMOW}}$	^{18}O	Comments
				(‰)	(ppm)	(‰)	(ppm)	
Gender	Male	Dose		819.69	283.35	117.47	2235.75	
				822.77	283.83	117.38	2235.56	
Age (Years)	23		1	709.71	266.23	105.11	2211.06	
				711.76	266.55	104.79	2210.42	
Height (cm)	174.5		2	704.76	265.46	103.38	2207.61	
				707.15	265.84	103.45	2207.74	
Weight at sampling (kg)	73.1		3	450.41	225.86	55.3	2111.62	
				452.37	226.17	55.27	2111.56	

Dose consumed (g)	103.6192	4	428.06	222.39	51.59	2104.2
			422.23	221.48	51.47	2103.98
Dose diluted (g/100 mL)	0.2579	5	203.72	187.46	20.37	2041.88
			203.13	187.36	20.2	2041.53
		6	202.53	187.27	20.02	2041.17
			203.38	187.4	19.98	2041.09
	Baseline		-26.46	151.62	-3.54	1994.11
			-28.59	151.28	-3.63	1993.93

Subject: 5		Container Number	$\delta^2\text{H}_{\text{V-SMOW}}$ (‰)	^2H (ppm)	$\delta^{18}\text{O}_{\text{V-SMOW}}$ (‰)	^{18}O (ppm)	Comments
Gender	Male	Dose	810.85	281.98	115.72	2232.24	
			811.06	282.01	115.86	2232.53	
Age (Years)	22	1	688.19	262.88	101.71	2204.28	
			685.36	262.44	101.74	2204.35	
Height (cm)	183.5	2	668.2	259.77	97.64	2196.15	
			666.83	259.56	97.71	2196.3	
Weight at sampling (kg)	78.7	3	481.6	230.72	61.76	2124.52	
			481.41	230.69	61.68	2124.36	
Dose consumed (g)	113.0729	4	479.8	230.44	61.11	2123.23	
			484.4	231.16	61.16	2123.31	
Dose diluted (g/100 mL)	0.2549	5	280.15	199.36	29.52	2060.13	
			278.83	199.15	29.3	2059.69	
		6	279.78	199.3	29.27	2059.64	
			278.51	199.1	29	2059.1	
	Baseline		-20.38	152.56	-3	1995.19	
			-21.79	152.34	-3.03	1995.14	

Subject: 6		Container Number	$\delta^2\text{H}_{\text{V-SMOW}}$ (‰)	^2H (ppm)	$\delta^{18}\text{O}_{\text{V-SMOW}}$ (‰)	^{18}O (ppm)	Comments
Gender	Male	Dose	811.83	282.13	117.22	2235.24	
			814.7	282.58	117.2	2235.21	
Age (Years)	24	1	716.9	267.35	107.61	2216.05	
			717.88	267.51	107.25	2215.34	
Height (cm)	191.5	2	658.09	258.2	96.19	2193.25	
			660.52	258.58	96.17	2193.23	
Weight at sampling (kg)	86.6	3	443.46	224.78	55.87	2112.75	
			437.94	223.92	55.86	2112.73	
Dose consumed (g)	125.2689	4	413.85	220.17	51.86	2104.76	
			411.4	219.79	51.61	2104.24	
Dose diluted (g/100 mL)	0.257	5	201.04	187.04	20.68	2042.49	
			202.97	187.34	20.64	2042.41	
		6	203.45	187.41	20.48	2042.08	
			202.63	187.29	20.36	2041.85	
		Baseline	-33.39	150.54	-4.01	1993.18	
			-32.47	150.68	-4.12	1992.96	

Subject: 7		Container Number	$\delta^2\text{H}_{\text{V-SMOW}}$ (‰)	^2H (ppm)	$\delta^{18}\text{O}_{\text{V-SMOW}}$ (‰)	^{18}O (ppm)	Comments
Gender	Male	Dose	821.45	283.63	115.8	2232.4	
			822.35	283.77	115.8	2232.41	
Age (Years)	21	1	723.91	268.44	105.65	2212.14	

			728.16	269.11	105.63	2212.1
Height (cm)	185.5	2	717.16	267.39	103.83	2208.51
			719.18	267.71	103.9	2208.65
Weight at sampling (kg)	88.2	3	470.03	228.92	58.47	2117.96
			472.57	229.32	58.41	2117.84
Dose consumed (g)	125.2607	4	455.74	226.69	55.39	2111.8
			455.36	226.64	55.38	2111.78
Dose diluted (g/100 mL)	0.2562	5	247.04	194.2	25.05	2051.22
			248.78	194.47	25.05	2051.21
		6	249.82	194.63	24.96	2051.04
			247.48	194.27	24.84	2050.79
		Baseline	-30.22	151.03	-3.37	1994.46
			-31.16	150.88	-3.48	1994.24

Subject: 8		Container Number	$\delta^2\text{H}_{\text{V-SMOW}}$ (‰)	^2H (ppm)	$\delta^{18}\text{O}_{\text{V-SMOW}}$ (‰)	^{18}O (ppm)	Comments
Gender	Male	Dose	827.38	284.55	116.37	2233.54	
			829.49	284.88	116.66	2234.12	
Age (Years)	23	1	776.16	276.58	113.95	2228.72	
			777.51	276.79	113.6	2228.01	
Height (cm)	192.5	2	766	275	112.23	2225.29	
			761.68	274.32	112.2	2225.22	
Weight at sampling (kg)	95.6	3	555.71	242.26	71.62	2144.21	
			554.87	242.13	71.27	2143.5	
Dose consumed (g)	135.3861	4	537.47	239.42	68.19	2137.36	
			540.39	239.87	68.29	2137.56	
Dose diluted (g/100 mL)	0.2565	5	295.4	201.73	32.06	2065.21	

		298.18	202.16	31.74	2064.58
	6	293.49	201.43	31.45	2063.99
		296.01	201.83	31.54	2064.18
	Baseline	-24.58	151.91	-3	1995.19
		-26.1	151.67	-3.03	1995.14

Subject: 9		Container Number	$\delta^2\text{H}_{\text{V-SMOW}}$ (‰)	^2H (ppm)	$\delta^{18}\text{O}_{\text{V-SMOW}}$ (‰)	^{18}O (ppm)	Comments
Gender	Female	Dose	822.64	283.81	115.83	2232.46	
			823.94	284.02	115.76	2232.32	
Age (Years)	25	1	722.78	268.27	104.62	2210.09	
			720.79	267.96	104.59	2210.04	
Height (cm)	162	2	689.52	263.09	99.64	2200.14	
			690.5	263.24	99.43	2199.72	
Weight at sampling (kg)	48.6	3	371.96	213.65	43.76	2088.58	
			372.66	213.76	43.53	2088.12	
Dose consumed (g)	67.5302	4	362.96	212.25	42.14	2085.34	
			357.84	211.45	42.01	2085.08	
Dose diluted (g/100 mL)	0.2553	5	N/A	N/A	N/A	N/A	
			---	---	---	---	
		6	166.3	181.63	15.96	2033.06	
			167.93	181.88	15.83	2032.8	
		Baseline	-26.67	151.58	-2.74	1995.71	
			-23.06	152.14	-2.87	1995.45	

Subject: 10		Container Number	$\delta^2\text{H}_{\text{V-SMOW}}$ (‰)	^2H (ppm)	$\delta^{18}\text{O}_{\text{V-SMOW}}$ (‰)	^{18}O (ppm)	Comments
Gender	Female	Dose	813.46	282.39	114.55	2229.91	Container labelling suggests that container 4 was used before container 3, explaining why the ^2H and ^{18}O values for container 4 are higher than for container 3. There was no date on container 3
			807.24	281.42	114.56	2229.94	
Age (Years)	22	1	783.14	277.67	114.91	2230.64	
			782.54	277.57	115.05	2230.92	
Height (cm)	160	2	768.88	275.44	109.65	2220.12	
			768.62	275.4	109.87	2220.58	
Weight at sampling (kg)	59.5	3	541.21	240	66.09	2133.16	
			543.36	240.34	65.55	2132.08	
Dose consumed (g)	84.0136	4	561	243.08	69.01	2138.99	
			557.47	242.53	68.97	2138.91	
Dose diluted (g/100 mL)	0.2535	5	302.32	202.81	31.76	2064.62	
			306	203.38	31.75	2064.6	
		6	290.95	201.04	30.04	2061.18	
			290.53	200.97	30.06	2061.22	
		Baseline	-30.55	150.98	-3.39	1994.41	
			-28.08	151.36	-3.25	1994.69	

Subject: 11		Container Number	$\delta^2\text{H}_{\text{V-SMOW}}$ (‰)	^2H (ppm)	$\delta^{18}\text{O}_{\text{V-SMOW}}$ (‰)	^{18}O (ppm)	Comments
Gender	Female	Dose	838.32	286.26	109.8	2220.42	Dose bottle was not returned and could not be re-weighed. Therefore dose consumed has been estimated to be 98.82% (average consumption rate
			842.02	286.83	109.59	2220	
Age (Years)	23	1	888.02	293.99	121.18	2243.14	
			893.58	294.86	121.1	2242.99	
Height (cm)	162.5	2	865.95	290.56	117.63	2236.07	

Weight at sampling (kg)	63.6	3	869.37	291.09	117.56	2235.92	of females) of the original dose in the bottle.
			552.42	241.75	63.61	2128.21	
			547.19	240.93	63.88	2128.75	
Dose consumed (g)	93.3287	4	503.81	234.18	57.6	2116.21	
			503.59	234.14	57.51	2116.04	
Dose diluted (g/100 mL)	0.254	5	N/A	N/A	N/A	N/A	
			---	---	---	---	
		6	N/A	N/A	N/A	N/A	
			---	---	---	---	
	Baseline		-33.36	150.54	-3.73	1993.74	
			-32.36	150.7	-3.72	1993.75	

Subject: 12		Container Number	$\delta^2\text{H}_{\text{V-SMOW}}$ (‰)	^2H (ppm)	$\delta^{18}\text{O}_{\text{V-SMOW}}$ (‰)	^{18}O (ppm)	Comments
Gender	Female	Dose	879.62	292.68	109.99	2220.8	Container labelling suggests that container 2 was used before container 1, explaining why the D and ^{18}O values for container 2 are higher than for container 1. There were no dates on either container
			879.64	292.69	110.16	2221.15	
Age (Years)	22	1	883.26	293.25	112.58	2225.97	
			881.31	292.95	112.73	2226.27	
Height (cm)	164.5	2	889.48	294.22	115.06	2230.93	
			888.13	294.01	115.22	2231.25	
Weight at sampling (kg)	67	3	634.39	254.51	68.8	2138.57	
			634.07	254.46	68.63	2138.24	
Dose consumed (g)	91.4851	4	611.59	250.96	65.02	2131.03	
			614.72	251.45	65.28	2131.54	
Dose diluted (g/100 mL)	0.2553	5	281.35	199.54	22.9	2046.91	
			285.17	200.14	22.66	2046.45	
		6	277.33	198.92	21.88	2044.89	

	272.59	198.18	22.05	2045.23
Baseline	-26.15	151.66	-2.51	1996.18
	-26.35	151.63	-2.55	1996.09

Subject: 13		Container Number	$\delta^2\text{H}_{\text{V-SMOW}}$ (‰)	^2H (ppm)	$\delta^{18}\text{O}_{\text{V-SMOW}}$ (‰)	^{18}O (ppm)	Comments
Gender	Female	Dose	879.48	292.66	109.68	2220.19	
			881.52	292.98	109.58	2220	
Age (Years)	na	1	856.6	289.1	110.14	2221.1	
			857.46	289.23	110.08	2221	
Height (cm)	na	2	840.52	286.6	108.86	2218.56	
			837.97	286.2	108.94	2218.7	
Weight at sampling (kg)	69.5	3	N/A	N/A	N/A	N/A	
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Dose consumed (g)	101.1014	4	483.17	230.97	50.81	2102.65	
			480.23	230.51	50.48	2102	
Dose diluted (g/100 mL)	0.2539	5	N/A	N/A	N/A	N/A	
			---	---	---	---	
		6	271.59	198.02	23.58	2048.27	
			266.55	197.24	23.58	2048.27	
		Baseline	-29.74	151.11	-3.33	1994.55	
			-30.18	151.04	-3.29	1994.62	

Subject: 14		Container Number	$\delta^2\text{H}_{\text{V-SMOW}}$ (‰)	^2H (ppm)	$\delta^{18}\text{O}_{\text{V-SMOW}}$ (‰)	^{18}O (ppm)	Comments
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Gender	Female	Dose		847.68	287.71	110.25	2221.33
				851.85	288.36	110.24	2221.3
Age (Years)	22	1		955.71	304.53	128.07	2256.89
				949.56	303.57	128.18	2257.12
Height (cm)	163	2		907.03	296.95	121.59	2243.97
				909.09	297.27	121.52	2243.82
Weight at sampling (kg)	71.2	3		492.42	232.41	51.38	2103.78
				492.78	232.46	51.28	2103.6
Dose consumed (g)	102.8464	4		N/A	N/A	N/A	N/A
				---	---	---	---
Dose diluted (g/100 mL)	0.2552	5		465.03	228.14	48.43	2097.91
				462.71	227.78	48.34	2097.72
		6		418.88	220.96	42.82	2086.7
				420.21	221.16	43.02	2087.1
		Baseline		-23.32	152.11	-3	1995.21
				-20.35	152.57	-3	1995.19

Subject: 15		Container Number	$\delta^2\text{H}_{\text{V-SMOW}}$ (‰)	^2H (ppm)	$\delta^{18}\text{O}_{\text{V-SMOW}}$ (‰)	^{18}O (ppm)	Comments
Gender	Female	Dose	878.85	292.56	109.45	2219.73	
			869.89	291.17	109.65	2220.13	
Age (Years)	23	1	887.71	293.94	116.55	2233.91	
			884.68	293.47	116.47	2233.74	
Height (cm)	176.5	2	865.73	290.52	113.22	2227.26	
			867.53	290.8	113.52	2227.85	
Weight at sampling (kg)	76	3	500.13	233.61	52.89	2106.8	
			501	233.74	53.03	2107.09	

Dose consumed (g)	108.7512	4	472.48	229.3	49.47	2099.97
			470.47	228.99	49.5	2100.04
Dose diluted (g/100 mL)	0.2533	5	234.46	192.24	20.56	2042.26
			237.14	192.66	20.49	2042.1
		6	196.88	186.39	15.97	2033.09
			199.86	186.86	16.01	2033.15
	Baseline		-32.02	150.75	-3.72	1993.76
			-29.96	151.07	-3.72	1993.76

Subject: 16		Container Number	$\delta^2\text{H}_{\text{V-SMOW}}$ (‰)	^2H (ppm)	$\delta^{18}\text{O}_{\text{V-SMOW}}$ (‰)	^{18}O (ppm)	Comments
Gender	Female	Dose	851.37	288.29	110.52	2221.87	
			856	289.01	110.47	2221.76	
Age (Years)	24	1	853.74	288.65	114.32	2229.46	
			851.67	288.33	114.18	2229.17	
Height (cm)	168	2	846.46	287.52	112.59	2226	
			846.3	287.5	112.54	2225.91	
Weight at sampling (kg)	76.1	3	640.21	255.41	72.28	2145.53	
			637.15	254.94	72.49	2145.94	
Dose consumed (g)	112.0818	4	601.84	249.44	67.72	2136.41	
			603.04	249.63	67.75	2136.48	
Dose diluted (g/100 mL)	0.2551	5	361.67	212.05	35.8	2072.67	
			360.18	211.82	35.58	2072.23	
		6	364.01	212.41	34.82	2070.73	
			365.07	212.58	34.97	2071.02	
	Baseline		-19.09	152.76	-2.58	1996.03	
			-22.99	152.16	-2.73	1995.73	

Iso-Analytical Water

	$\delta^2\text{H}_{\text{V-SMOW}}$ (‰)	^2H (ppm)	$\delta^{18}\text{O}_{\text{V-SMOW}}$ (‰)	^{18}O (ppm)
Used for diluting the dose samples prior to analysis	-42.12	149.18	-6.79	1987.62
	-42.91	149.05	-6.72	1987.77

Cont/

Quality Control Check Samples

Replicate	IA-R019	IA-R011
	$\delta^2\text{H}_{\text{V-SMOW}}$	$\delta^{18}\text{O}_{\text{V-SMOW}}$
	(‰)	(‰)
1	520.72	109.63
2	522.59	109.7
3	519.57	109.64
4	517.68	109.69
5	525.67	109.69
6	525.19	109.54
7	519.27	109.13
8	518.52	109.35
9	522.53	109.41
10	522.74	109.58
11	520.49	109.27
12	519.12	109.46
13	519.82	109.38
14	523.16	109.3
15	523.85	109.26
16	520.46	109.22
Mean	521.34	109.45
St. Dev.	2.39	0.19
N	16	16
Accepted Value	522.3	109.21