COAL CONCEPTS

sanas Proficiency Testing Schemes Provider PTS0008

COAL CONCEPTS PROFICIENCY TESTING

GENERAL ANALYSIS SAMPLE

REPORT – ONE HUNDRED AND EIGHT

Revision 00

Final report

DATE ISSUED: 31 OCTOBER 2020

PARTICIPANT

LABORATORY CODE:

SCHEME COORDINATOR: K MUNSAMY

SIGNATURE

CHECKED BY: R BABOOLAL (SCHEME MANAGER)

Disclaimer: Opinions and interpretations expressed herein are outside the scope of SANAS accreditation
**Moisture in the analysis sample is not included in the SANAS schedule of accreditation as robust statistics cannot be applied. Chlorine, Fluorine, Quick ash, ASTM ash and ASTM Volatiles is not included in the scope of accreditation.*

THINKING QUALITY, QUALITY THINKING

REGISTRATION NUMBER: 2006/149731/23 (RMB INDUSTRIAL STATIONERS cc t/a)

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EXECUTIVE SUMMARY

1. Ninety-five samples were sent to participants with 93 timeous result submissions
2. The total number of outliers found were as follows (dry base):

    - ISO volatile matter x 10
    - Quick Ash x 3
    - ISO Ash x 2
    - Calorific value x 5
    - Total sulphur x 3
    - Phosphorus x 1
    - Nitrogen x 4

3. Chlorine, Fluorine, ASTM Ash, ASTM Volatile Matter participants were insufficient to warrant robust statistical calculations.
4. Trending for your laboratory is as follows:

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Dear Participant

RE: PROFICIENCY TESTING RESULTS FOR THE MONTH OF OCTOBER 2020

Thank you for your participation in the Coal Concepts proficiency testing scheme.

Your laboratory code is as per the cover page.

All results are totally confidential. Any results in ***Bold, Italics and Underlined*** are outliers. Where applicable, the most extreme outliers have been eliminated from calculations using the Grubbs estimate for outliers. Robust statistics has been applied where possible. Analysis results have been reported on air dry and dry base. The dry base results have been used to calculate the z-scores.

Please take note of the following:

1. Z-scores between -1 and +1 is deemed acceptable

2. Z-scores between -2 and -3 should serve as a warning that the analysis result could get worse

3. Z-scores between +2 and +3 should also serve as a warning that analysis results could get worse.

4. Z- scores lower than -3 and exceeding +3 should warrant an investigation

5. Compare your result to the robust average which will be the assigned value. The measurement of uncertainty (UoM) of the results is also stated.

6. Z-Score calculations can be made available upon request

The Coal Concepts scheme adheres to the requirements of ISO/IEC 17043:2010 – Conformity assessment – General requirements for proficiency testing.

Statistical analysis has been carried out using ISO/IEC 13528:2015-Statistical methods for use in proficiency testing by interlaboratory comparisons

Please find results attached together with Z-score trends.

Best Regards

R Baboolal

LIST OF PARTICIPANTS IN ALPHABETICAL ORDER

Arcelor Mittal - Vanderbijl Park	Arcelor Mittal - Newcastle
Anglo SOC - Goedehoop Colliery South Plant	Anglo SOC - Goedehoop Colliery North Plant
Anglo SOC - Kleinkopje Colliery	Anglo SOC - Greenside Colliery
Afrisam - Dudfield	Alfred H Knight -Richards Bay Laboratory
Afrisam - Ulco	AquaSpecto
Botswana Power Corporation - Morupule B Power Station	Botswana Power Corporation - Morupule A Power Station
Bureau Veritas Inspectorate Laboratories - Belfast	Bureau Veritas Inspectorate Laboratories - Middelburg
Bureau Veritas – Moatize, Vale	Bureau Veritas - Nacala
Bureau Veritas Inspectorate Laboratories - Tendele	Bureau Veritas Inspectorate Laboratories - Beira
Bureau Veritas Inspectorate Laboratories - Alton	Bureau Veritas Testing & Inspection SA - Pretoria
Castle Peak – Hong Kong	
Cotecna South Africa – Richards Bay	Cotecna South Africa - Nasonti
Cotecna South Africa - Lurco	Cotecna South Africa - Phola
Cotecna South Africa – Tselentis	Cotecna South Africa - Kangala
Cotecna South Africa - Middelburg	Cotecna Ubumbene(Pty)Ltd - Umlabu
Cotecna South Africa - Mimosa	Cotecna South Africa - AMR
Cotecna South Africa - Droogvallei	
Eyethu Coal Wilge	Eskom Holdings SOC Ltd - Matimba Power Station
Eskom Holdings SOC Ltd – Kendal Power station	Eskom Holdings SOC Ltd - Duvha Power Station
Eskom Holdings SOC Ltd – Lethabo Power Station	Eskom Holdings SOC Ltd - Komati Power Station
Eskom Holdings SOC Ltd - Tutuka Power Station	Eskom Holdings SOC Ltd - Grootvlei Power Station
Eskom Holdings SOC Ltd - ERID	Eskom Holdings SOC Ltd - Kriel Power Station
Eskom Holdings SOC Ltd - Hendrina Power Station	Eskom Holdings SOC Ltd – Majuba Power Station
Eskom Holdings SOC Ltd - Arnot Power Station	Exxaro Resources - Grootegeluk Mine
Eskom Holdings SOC Ltd - Matla Power Station	Eskom Holdings SOC Ltd – Medupi Power Station
Exxaro Resources - Matla Mine	G&W Base & Industrial Minerals
Glencore Wonderkop	Glencore -Rustenburg Smelter
Glencore Boshoek Smelter	Glencore Lion Smelter
HighVeld Laboratories	Hwange Colliery – Zimbabwe
Idwala Lime	Jindal Mining SA Pty Ltd – Kiepersol Colliery
Kangra Coal (Pty) Ltd	Khwezela Colliery - Landau
Lafarge Industries SA (Pty) Ltd - Lichtenburg	Leon Inspection and Testing - Pakistan
Mpumamanzi Group CC	Mafube Colliery Mine PTY (Ltd)
Morupule Coal Mine - Botswana	Mitra SK South Africa (PTY) Ltd
Msobo Coal PTY Ltd	M L Coal PTY Ltd
Nelson Mandela University - Innoventon	Noko Analytical Services CC - Twistdraai
Noko Analytical Services CC - Witbank	Noko Analytical Services CC - Welgemeend
Quality Ensure Eastside Laboratory	Richards Bay Minerals
Ronewa Lab Middelburg	Ronewa Lab Ubuntu
RSA Labs - Phalandwa	RSA Labs - Khanye
SB Mining Solutions	Seriti - Kriel Colliery
Seriti - New Vaal Colliery	Siza Coal Services - Kinross
Siza Coal Services - Vlakfontein	Siza Coal Services - Umlalazi
Siza Coal Services - Wescoal	Siza Coal Services - NCC
Siza Coal Services - Botswana	Siza Coal Services - Mooiplaats
Siza Coal Services - Middelburg	Siza Coal Services - Sasolburg
Siza Coal Services - Carolina	Siza Coal Services - NBC
Siza Coal Services - Wildfontein	Sibonisiwe Coal Laboratory Services CC Rietvlei Mining
South 32 – Khutala Colliery	Sibonisiwe Coal Laboratory Services CC Middelburg
Sibonisiwe Coal Laboratory Services CC - West Coal	Sibonisiwe Coal Laboratory Services CC – Mzimkhulu
Sibonisiwe Coal Laboratory Services CC – Clewer	SABS Commercial SOC Ltd Richards bay
SABS Commercial SOC Ltd CSIR	SABS Commercial SOC Ltd Secunda
SABS Commercial SOC Ltd Uitkomst	SABS Commercial SOC Ltd NewCastle
SPTE Lab - Middelburg	Tata Steel – Wales Lab, Europe
Umzamo Analytical Services - Overlooked Colliery	Umzamo Analytical Services - Witbank
Umzamo Analytical Services - Sudor	Umzamo Analytical Services - VDD
Vitrovian Analytical Services DELMAS	

1. TYPE OF SAMPLE USED

The coal used in this proficiency testing round was bituminous coal

2. PREPARATION OF SAMPLE

Approximately 1000kg's of coal with an approximate topsize of 50mm was sourced. This was crushed to -4mm using a jaw crusher. The -4mm material was reduced to -212um using a cross beat pulveriser. The 212 material was sieved using a 212um screen. Any +212um material was pulverised and sieved until all material passed through the 212 um sieve.

All the -212um material was then mixed in a mixing drum for 4 hours.

3. HOMOGENEITY CHECK

There were 100 participants in this round, 10 portions of sample were randomly extracted. These were packaged in their final form i.e. in 200ml sample bottles. The bottles were labelled 1 to 10. The results were as follows:

SAMPLE NO.	TEST PORTION 1	TEST PORTION 2	sample av (Xt)	range (Wt)	range sqd
1	13.67	13.85	13.76	0.18	0.0324
2	13.66	13.61	13.64	0.05	0.0025
3	13.71	13.69	13.70	0.02	0.0004
4	13.68	13.65	13.67	0.03	0.0009
5	13.68	13.85	13.77	0.17	0.0289
6	13.57	13.66	13.62	0.09	0.0081
7	13.61	13.64	13.63	0.03	0.0009
8	13.77	13.66	13.72	0.11	0.0121
9	13.78	13.72	13.75	0.06	0.0036
10	13.68	13.77	13.73	0.09	0.0081

GENERAL AVERAGE	13.70
STANDARD DEVIATION	0.057
WITHIN SAMPLE STANDARD DEVIATION	0.070
BETWEEN SAMPLE STANDARD DEVIATION	0.028

The between sample standard deviation must be ≤ 0.3 x σ'

(σ' = std deviation for the proficiency assessment)

σ' = 2% of the mean was used, which is the repeatability for ISO ash (Ash % > 10%)
Hence 0.3 x 0.274 = 0.082

Since 0.028 < 0.082 , the samples are homogenous

4. STABILITY CHECK

Samples were retained for sales as reference material. Ten of them were randomly chosen for stability testing. In order for the proficiency testing samples to be declared stable the general average from the homogeneity check and that of the stability check the difference in the general average should not differ by more than 0.3 X precision.

This test has been carried out about a month after the samples were received by the participating laboratories

SAMPLE NO.	TEST PORTION 1	TEST PORTION 2	sample av (Xt)	range (Wt)	range sqd
1	13.67	13.81	13.74	0.14	0.0196
2	13.66	13.74	13.70	0.08	0.0064
3	13.66	13.70	13.68	0.04	0.0016
4	13.84	13.73	13.79	0.11	0.0121
5	13.75	13.75	13.75	0.00	0.0000
6	13.67	13.72	13.70	0.05	0.0025
7	13.71	13.73	13.72	0.02	0.0004
8	13.75	13.77	13.76	0.02	0.0004
9	13.73	13.78	13.76	0.05	0.0025
10	13.63	13.73	13.68	0.10	0.0100

GENERAL AVERAGE	13.73
STANDARD DEVIATION	0.037
WITHIN SAMPLE STANDARD DEVIATION	0.053
BETWEEN SAMPLE STANDARD DEVIATION	0.006

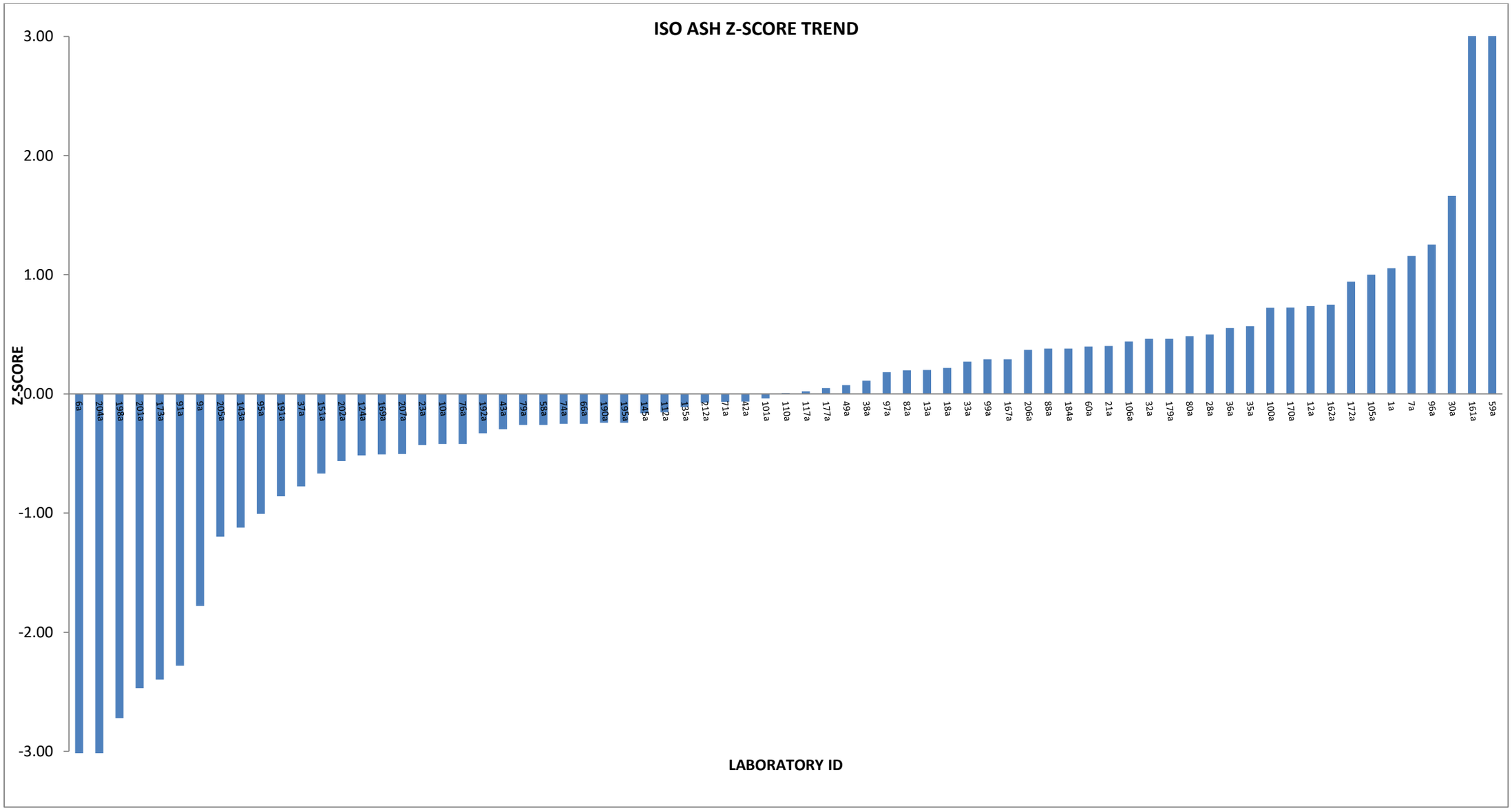
(σ = 0.274 was used)

For this report 0.3 x 0.274 = 0.082

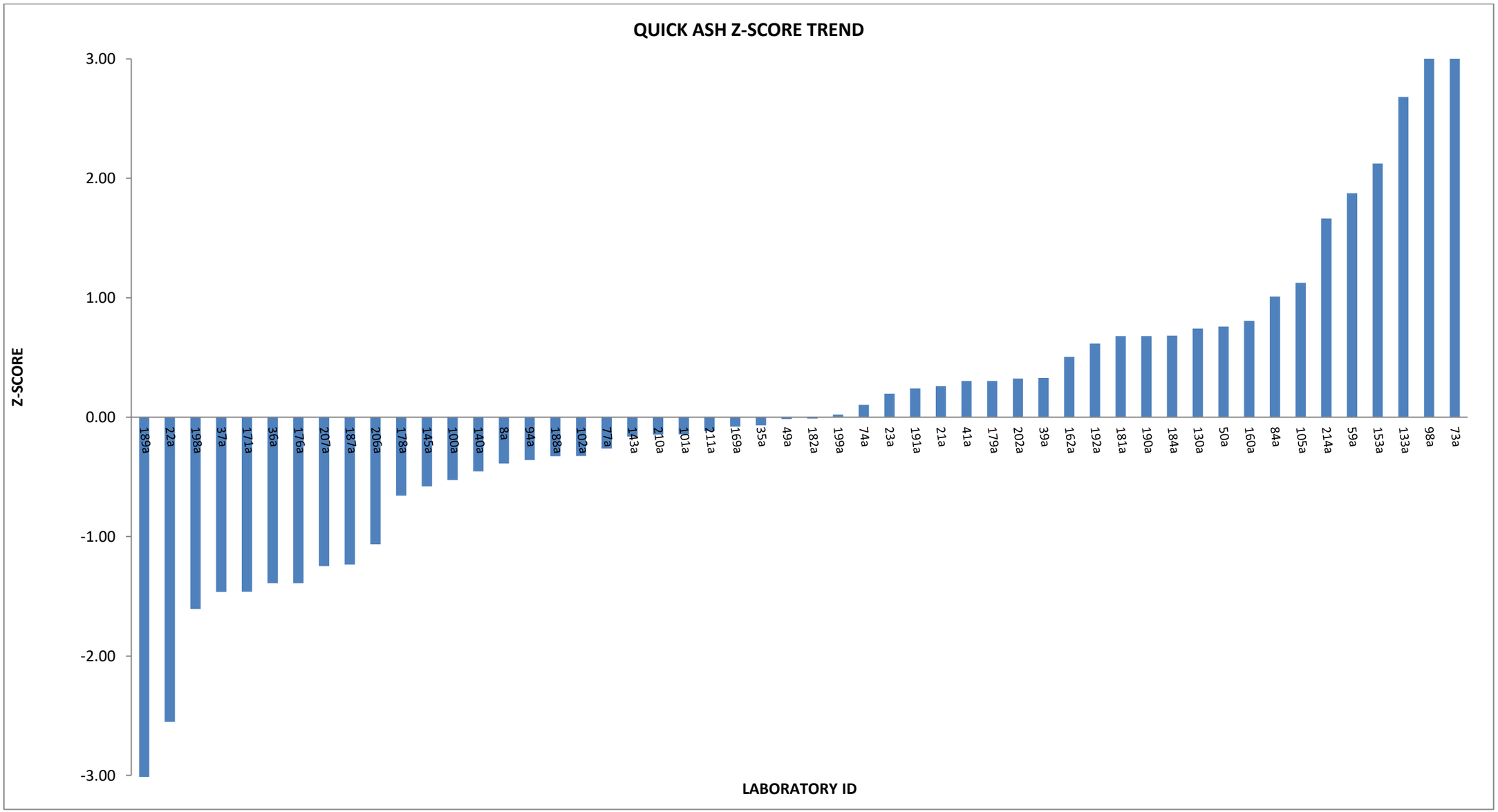
Absolute value of (13.73– 13.70) = 0.030

<u>Since 0.030 < 0.082 the proficiency testing samples were stable</u>

COAL CONCEPTS - PROFICIENCY TESTING : OCTOBER 2020				
ANALYTICAL PARAMETER : ISO ASH (%)				
LAB ID	**MOISTURE IN ANALYSIS SAMPLE (%)**	**AIR DRY (%)**	**DRY BASE (%)**	**Z-SCORE (DRY BASE)**
1a	4.79	13.81	14.50	1.05
6a	3.21	***13.00***	***13.43***	***-5.30***
7a	3.94	13.95	14.52	1.16
9a	3.18	13.58	14.03	-1.78
10a	4.60	13.60	14.26	-0.42
12a	5.06	13.72	14.45	0.74
13a	4.60	13.70	14.36	0.20
18a	4.34	13.74	14.36	0.22
21a	4.13	13.80	14.39	0.40
23a	4.80	13.57	14.25	-0.43
28a	4.24	13.80	14.41	0.50
30a	4.09	14.01	14.61	1.66
32a	4.20	13.80	14.41	0.46
33a	4.26	13.76	14.37	0.27
35a	5.01	13.70	14.42	0.57
36a	4.30	13.80	14.42	0.55
37a	4.90	13.50	14.20	-0.78
38a	4.50	13.70	14.35	0.11
42a	4.58	13.66	14.32	-0.07
43a	4.60	13.62	14.28	-0.30
49a	4.04	13.76	14.34	0.07
58a	4.43	13.65	14.28	-0.26
59a	4.46	14.19	14.85	3.11
60a	4.75	13.71	14.39	0.40
66a	4.09	13.70	14.28	-0.25
71a	4.30	13.70	14.32	-0.07
74a	4.58	13.63	14.28	-0.25
76a	4.60	13.60	14.26	-0.42
79a	4.78	13.60	14.28	-0.26
80a	4.78	13.72	14.41	0.49
82a	3.90	13.80	14.36	0.20
88a	4.80	13.70	14.39	0.38
91a	4.60	13.30	13.94	-2.28
95a	3.58	13.65	14.16	-1.01
96a	4.39	13.90	14.54	1.25
97a	4.58	13.70	14.36	0.18
99a	4.70	13.70	14.38	0.29
100a	4.63	13.78	14.45	0.72
101a	4.89	13.62	14.32	-0.04
105a	4.80	13.80	14.50	1.00
106a	4.45	13.76	14.40	0.44
110a	4.66	13.66	14.33	0.0
112a	4.20	13.70	14.30	-0.15
117a	4.05	13.75	14.33	0.0
124a	4.14	13.65	14.24	-0.52
135a	3.62	13.79	14.31	-0.11
143a	4.79	13.46	14.14	-1.12
145a	4.19	13.70	14.30	-0.16
151a	4.74	13.54	14.21	-0.67
161a	4.30	14.20	14.84	3.03
162a	4.52	13.80	14.45	0.75
167a	4.70	13.70	14.38	0.29
169a	4.50	13.60	14.24	-0.51
170a	3.80	13.90	14.45	0.72
172a	4.25	13.87	14.49	0.94
173a	2.31	13.60	13.92	-2.40
177a	4.36	13.71	14.34	0.05
179a	4.20	13.80	14.41	0.46
184a	4.80	13.70	14.39	0.38
190a	4.10	13.70	14.29	-0.24
191a	4.10	13.60	14.18	-0.86
192a	4.00	13.70	14.27	-0.33
195a	4.66	13.62	14.29	-0.24
198a	3.80	13.34	13.87	-2.72
201a	3.95	13.36	13.91	-2.47
202a	4.93	13.53	14.23	-0.56
204a	3.60	13.20	***13.69***	***-3.75***
205a	5.27	13.38	14.12	-1.20
207a	3.10	13.80	14.24	-0.50
206a	3.40	13.90	14.39	0.37
212a	4.99	13.60	14.31	-0.07
Number of results	-	**71**	**71**	**71**	-
OUTLIERS	-	-	**1**	**2**	-
AVERAGE	-	**4.36**	**13.70**	**14.33**	-
STD DEVIATION	-	-	**0.17**	**0.17**	-
MEDIAN			**13.70**	**14.33**	
ROBUST AVERAGE	-	-	**13.69**	**14.33**	-
ROBUST STD DEVIATION	-	-	**0.17**	**0.17**	-
UoM			**0.03**	**0.03**	


ISO ASH Z-SCORE TREND
3.00
2.00
1.00
0.00
-1.00
-2.00
-3.00
Z-SCORE
6a
204a
198a
201a
173a
91a
9a
205a
143a
95a
191a
37a
151a
202a
124a
169a
207a
23a
10a
76a
192a
43a
79a
58a
74a
66a
190a
195a
145a
112a
135a
212a
71a
42a
101a
110a
117a
177a
49a
38a
97a
82a
13a
18a
33a
99a
167a
206a
88a
184a
60a
21a
106a
32a
179a
80a
28a
36a
35a
100a
170a
12a
162a
172a
105a
1a
7a
96a
30a
161a
59a
LABORATORY ID

COAL CONCEPTS - PROFICIENCY TESTING : OCTOBER 2020					
ANALYTICAL PARAMETER : QUICK ASH (%)					
	LAB ID	MOISTURE IN ANALYSIS SAMPLE (%)	AIR DRY (%)	DRY BASE (%)	Z-SCORE (DRY BASE)
	8a	4.50	13.50	14.14	-0.39
	21a	4.13	13.70	14.29	0.26
	22a	4.49	13.01	13.62	-2.55
	23a	4.80	13.59	14.28	0.20
	35a	5.01	13.50	14.21	-0.07
	36a	4.30	13.30	13.90	-1.39
	37a	4.90	13.20	13.88	-1.46
	39a	4.03	13.73	14.31	0.33
	41a	3.50	13.80	14.30	0.30
	49a	4.04	13.65	14.22	-0.02
	50a	3.74	13.87	14.41	0.76
	59a	4.46	14.02	14.67	1.88
	73a	2.87	***27.90***	***28.72***	***60.95***
	74a	4.58	13.60	14.25	0.10
	77a	4.70	13.50	14.17	-0.26
	84a	5.38	13.69	14.47	1.01
	94a	4.90	13.45	14.14	-0.36
	98a	4.00	***27.48***	***28.63***	***60.53***
	100a	4.63	13.45	14.10	-0.53
	101a	4.89	13.50	14.19	-0.14
	102a	4.60	13.50	14.15	-0.33
	105a	4.80	13.80	14.50	1.12
	130a	4.20	13.80	14.41	0.74
	133a	4.48	14.20	14.87	2.68
	140a	4.18	13.53	14.12	-0.45
	143a	4.79	13.51	14.19	-0.16
	145a	4.19	13.50	14.09	-0.58
	153a	4.30	14.10	14.73	2.12
	160a	4.30	13.80	14.42	0.81
	162a	4.52	13.70	14.35	0.51
	169a	4.50	13.57	14.21	-0.08
	171a	5.12	13.17	13.88	-1.46
	176a	4.30	13.30	13.90	-1.39
	178a	3.00	13.65	14.07	-0.66
	179a	4.20	13.70	14.30	0.30
	181a	4.10	13.80	14.39	0.68
	182a	5.10	13.50	14.23	0.0
	184a	4.80	13.70	14.39	0.68
	187a	4.70	13.28	13.93	-1.23
	188a	3.68	13.63	14.15	-0.33
	189a	5.07	***12.60***	***13.27***	***-4.02***
	190a	4.10	13.80	14.39	0.68
	191a	4.10	13.70	14.29	0.24
	192a	4.00	13.80	14.38	0.62
	198a	3.80	13.32	13.85	-1.61
	199a	3.75	13.70	14.23	0.0
	202a	4.93	13.60	14.31	0.32
	206a	3.40	13.50	13.98	-1.06
	207a	3.10	13.50	13.93	-1.25
	210a	3.97	13.63	14.19	-0.15
	211a	4.37	13.58	14.20	-0.12
	214a	2.90	14.20	14.62	1.66
Number of results	**-**	**52**	**52**	**52**	**-**
OUTLIERS	-	-	**3**	**3**	-
AVERAGE	-	**4.37**	**13.61**	**14.23**	-
STD DEVIATION	**-**	**-**	**0.24**	**0.24**	**-**
MEDIAN			**13.60**	**14.22**	
ROBUST AVERAGE	-	-	**13.62**	**14.23**	
ROBUST STD DEVIATION	**-**	**-**	**0.25**	**0.24**	
UoM			**0.04**	**0.04**	


QUICK ASH Z-SCORE TREND
Z-SCORE
3.00
2.00
1.00
0.00
-1.00
-2.00
-3.00
189a
22a
198a
37a
171a
36a
176a
207a
187a
206a
178a
145a
100a
140a
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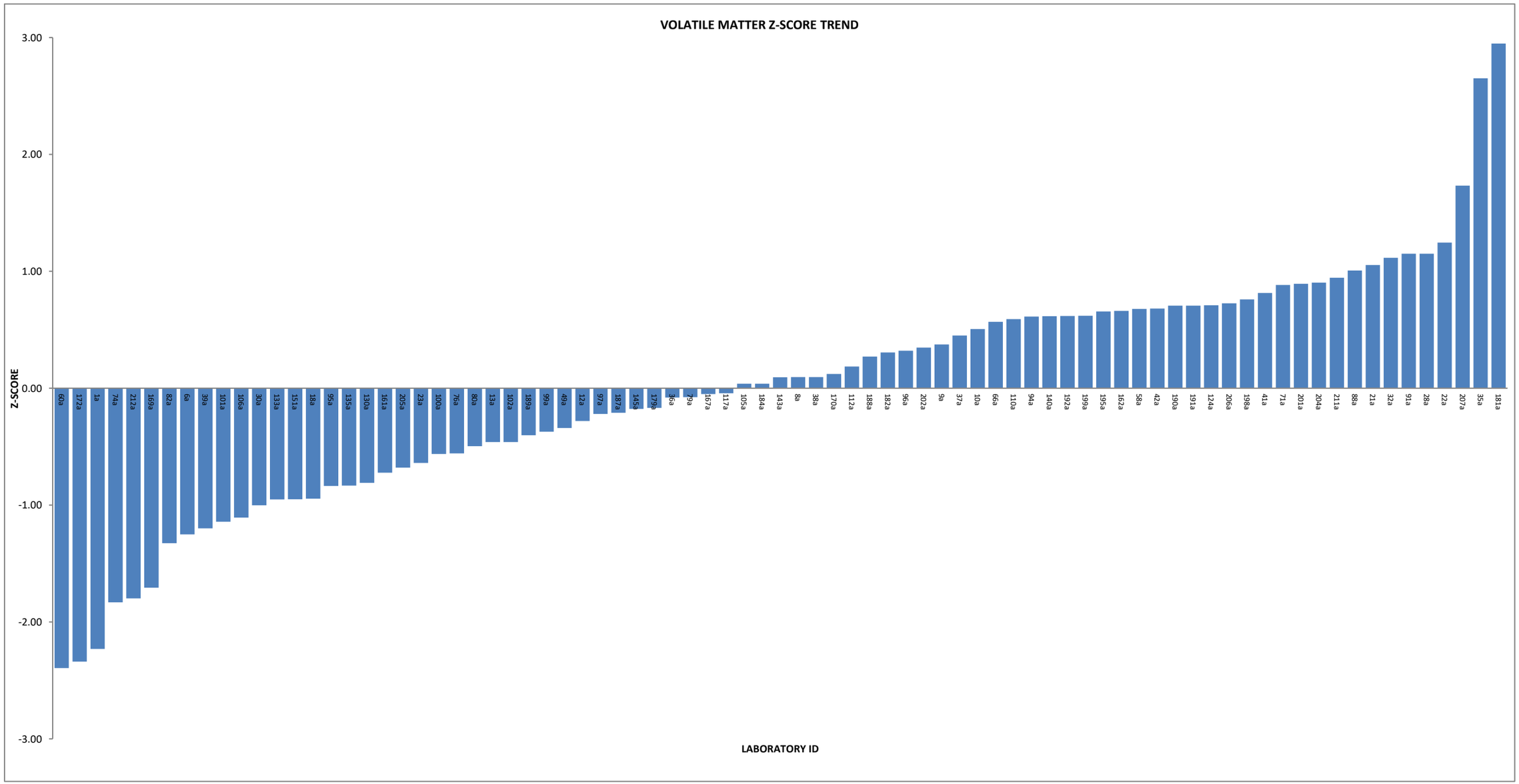
162a
192a
181a
190a
184a
130a
50a
160a
84a
105a
214a
59a
153a
133a
98a
73a
LABORATORY ID

COAL CONCEPTS - PROFICIENCY TESTING -OCTOBER 2020

ANALYTICAL PARAMETER : ISO VOLATILE MATTER (%)

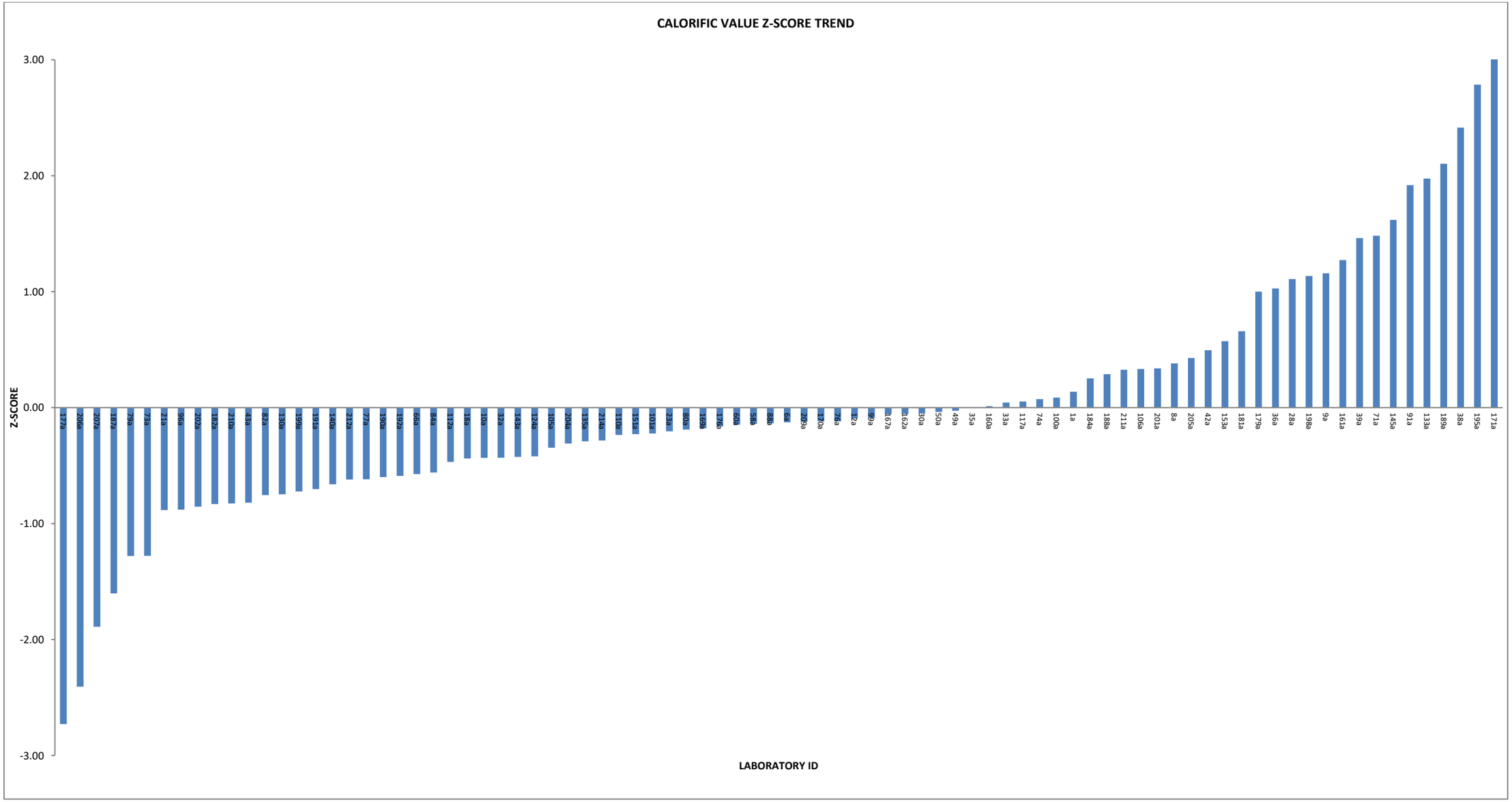
LAB ID	MOISTURE IN ANALYSIS SAMPLE (%)	AIR DRY	DRY BASE	Z-SCORE (DRY BASE)
1a	4.79	25.40	26.68	-2.23
6a	3.21	26.13	27.00	-1.25
7a	3.94	***23.91***	***24.89***	***-7.72***
8a	4.50	26.20	27.43	0.10
9a	3.18	26.65	27.53	0.37
10a	4.60	26.30	27.57	0.51
12a	5.06	25.93	27.31	-0.28
13a	4.60	26.00	27.25	-0.46
18a	4.34	25.92	27.10	-0.95
21a	4.13	26.60	27.75	1.05
22a	4.49	26.56	27.81	1.25
23a	4.80	25.89	27.20	-0.64
28a	4.24	26.60	27.78	1.15
30a	4.09	25.97	27.08	-1.00
32a	4.20	26.60	27.77	1.12
33a	4.26	25.06	***26.18***	***-3.78***
35a	5.01	26.85	28.27	2.65
36a	4.30	26.20	27.38	-0.08
37a	4.90	26.20	27.55	0.45
38a	4.50	26.20	27.43	0.10
39a	4.03	25.93	27.01	-1.20
41a	3.50	26.70	27.67	0.81
42a	4.58	26.36	27.63	0.68
43a	4.60	***30.36***	***31.82***	***13.59***
49a	4.04	26.19	27.29	-0.34
50a	3.74	***22.28***	***23.15***	***-13.09***
58a	4.43	26.40	27.62	0.68
59a	4.46	***28.09***	***29.40***	***6.14***
60a	4.75	25.36	26.62	-2.39
66a	4.09	26.46	27.59	0.57
71a	4.30	26.50	27.69	0.88
73a	2.87	***69.27***	***71.32***	***135.00***
74a	4.58	25.58	26.81	-1.83
76a	4.60	25.97	27.22	-0.56
77a	4.70	***31.00***	***32.53***	***15.76***
79a	4.78	26.07	27.38	-0.08
80a	4.78	25.94	27.24	-0.50
82a	3.90	25.92	26.97	-1.33
88a	4.80	26.40	27.73	1.01
91a	4.60	26.50	27.78	1.15
94a	4.90	26.25	27.60	0.61
95a	3.58	26.16	27.13	-0.84
96a	4.39	26.30	27.51	0.32
97a	4.58	26.08	27.33	-0.22
98a	4.00	***20.47***	***21.32***	***-18.69***
99a	4.70	26.00	27.28	-0.37
100a	4.63	25.96	27.22	-0.56
101a	4.89	25.71	27.03	-1.14
102a	4.60	26.00	27.25	-0.46
105a	4.80	26.10	27.42	0.04
106a	4.45	25.84	27.04	-1.11
110a	4.66	26.31	27.60	0.59
112a	4.20	26.31	27.46	0.18
117a	4.05	26.28	27.39	-0.04
124a	4.14	26.49	27.63	0.71
130a	4.20	26.00	27.14	-0.81
133a	4.48	25.88	27.09	-0.95
135a	3.62	26.15	27.13	-0.83
140a	4.18	26.45	27.60	0.62
143a	4.79	26.12	27.43	0.09
145a	4.19	26.20	27.35	-0.18
151a	4.74	25.81	27.09	-0.95
161a	4.30	26.00	27.17	-0.72
162a	4.52	26.37	27.62	0.66
167a	4.70	26.10	27.39	-0.05
169a	4.50	25.64	26.85	-1.71
170a	3.80	26.40	27.44	0.12
172a	4.25	25.51	26.64	-2.34
173a	2.31	***28.42***	***29.09***	***5.19***
179a	4.20	26.20	27.35	-0.17
181a	4.10	27.20	28.36	2.95
182a	5.10	26.10	27.50	0.31
184a	4.80	26.10	27.42	0.04
187a	4.70	26.05	27.33	-0.21
188a	3.68	26.48	27.49	0.27
189a	5.07	25.89	27.27	-0.40
190a	4.10	26.50	27.63	0.71
191a	4.10	26.50	27.63	0.71
192a	4.00	26.50	27.60	0.62
195a	4.66	26.33	27.62	0.66
198a	3.80	26.60	27.65	0.76
199a	3.75	26.57	27.61	0.62
201a	3.95	26.60	27.69	0.89
202a	4.93	26.16	27.52	0.35
204a	3.60	26.70	27.70	0.90
205a	5.27	25.75	27.18	-0.68
206a	3.40	26.70	27.64	0.73
207a	3.10	27.10	27.97	1.73
211a	4.37	26.50	27.71	0.95
212a	4.99	25.48	26.82	-1.80
214a	2.90	25.10	***25.85***	***-4.78***
NUMBER OF RESULTS	-	91	91	91	-
OUTLIERS	-	-	**8**	**10**	-
AVERAGE	-	**4.30**	**26.18**	**27.40**	-
STD DEVIATION	-		**0.39**	**0.33**	-
MEDIAN			**26.20**	**27.43**	
ROBUST AVERAGE	-	-	**26.18**	**27.40**	-
ROBUST STD DEVIATION	-	-	**0.42**	**0.35**	-
UoM	-	-	**0.06**	**0.05**	


VOLATILE MATTER Z-SCORE TREND
3.00
2.00
1.00
0.00
-1.00
-2.00
-3.00
Z-SCORE
60a 172a 1a 74a 212a 169a 82a 6a 39a 101a 106a 30a 133a 151a 18a 95a 135a 130a 161a 205a 23a 100a 76a 80a 13a 102a 189a 99a 49a 12a 97a 187a 145a 179a 36a 79a 167a 117a 105a 184a 143a 8a 38a 170a 112a 188a 182a 96a 202a 9a 37a 10a 66a 110a 94a 140a 192a 199a 195a 162a 58a 42a 190a 191a 124a 206a 198a 41a 71a 201a 204a 211a 88a 21a 32a 91a 28a 22a 207a 35a 181a
LABORATORY ID

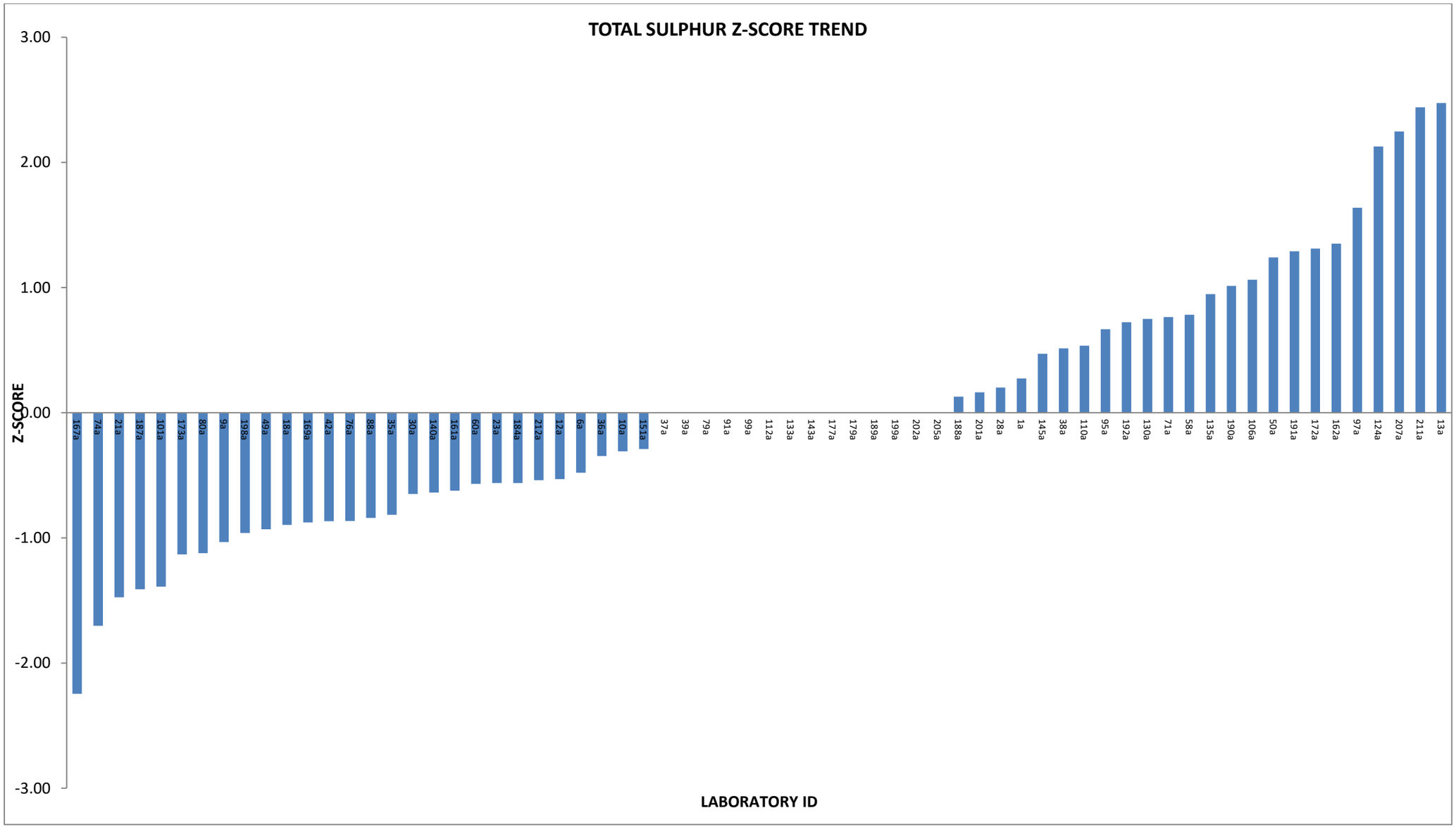
COAL CONCEPTS : PROFICIENCY TESTING- OCTOBER 2020

ANALYTICAL PARAMETER : CALORIFIC VALUE (MJ/kg)

LAB ID	MOISTURE IN ANALYSIS SAMPLE (%)	AIR DRY (MJ/kg)	DRY BASE (MJ/kg)	Z-SCORE (DRY BASE)
1a	4.79	26.30	27.62	0.14
6a	3.21	26.66	27.54	-0.13
8a	4.50	26.45	27.70	0.38
9a	3.18	27.04	27.93	1.16
10a	4.60	26.19	27.45	-0.43
12a	5.06	26.16	27.55	-0.09
18a	4.34	26.26	27.45	-0.44
21a	4.13	26.19	27.32	-0.88
23a	4.80	26.20	27.52	-0.20
28a	4.24	26.73	27.91	1.11
30a	4.09	26.44	27.57	-0.05
32a	4.20	26.30	27.45	-0.43
33a	4.26	26.42	27.60	0.04
35a	5.01	26.20	27.58	0.00
36a	4.30	26.69	27.89	1.03
37a	4.90	***27.86***	***29.30***	***5.74***
38a	4.50	27.03	28.30	2.42
39a	4.03	26.89	28.02	1.46
42a	4.58	26.46	27.73	0.49
43a	4.60	26.08	27.34	-0.82
49a	4.04	26.46	27.57	-0.03
50a	3.74	26.54	27.57	-0.04
58a	4.43	26.32	27.54	-0.14
60a	4.75	26.23	27.54	-0.15
66a	4.09	26.29	27.41	-0.57
71a	4.30	26.82	28.03	1.48
73a	2.87	26.42	27.20	-1.28
74a	4.58	26.34	27.60	0.07
76a	4.60	26.28	27.55	-0.12
77a	4.70	26.11	27.40	-0.62
79a	4.78	25.90	27.20	-1.28
80a	4.78	26.21	27.53	-0.19
82a	3.90	26.29	27.36	-0.75
84a	5.38	25.94	27.41	-0.56
88a	4.80	26.22	27.54	-0.13
91a	4.60	26.86	28.16	1.92
95a	3.58	***29.62***	***30.72***	***10.50***
96a	4.39	26.12	27.32	-0.88
98a	4.00	***20.84***	***21.71***	***-19.67***
99a	4.70	26.26	27.56	-0.09
100a	4.63	26.33	27.61	0.09
101a	4.89	26.17	27.52	-0.22
102a	4.60	***28.26***	***29.62***	***6.83***
105a	4.80	26.16	27.48	-0.35
106a	4.45	26.45	27.68	0.33
110a	4.66	26.23	27.51	-0.23
112a	4.20	26.29	27.44	-0.47
117a	4.05	26.48	27.60	0.05
124a	4.14	26.32	27.46	-0.42
130a	4.20	26.21	27.36	-0.75
133a	4.48	26.91	28.17	1.97
135a	3.62	26.50	27.50	-0.29
140a	4.18	26.24	27.38	-0.66
143a	4.79	26.14	27.46	-0.43
145a	4.19	26.89	28.07	1.62
151a	4.74	26.21	27.51	-0.23
153a	4.30	26.56	27.75	0.57
160a	4.30	26.40	27.59	0.01
161a	4.30	26.76	27.96	1.27
162a	4.52	26.32	27.57	-0.05
167a	4.70	26.27	27.57	-0.06
169a	4.50	26.29	27.53	-0.18
170a	3.80	26.50	27.55	-0.12
171a	5.12	27.04	28.50	3.07
172a	4.25	***25.12***	***26.23***	***-4.51***
176a	4.30	26.35	27.53	-0.16
177a	4.36	25.60	26.77	-2.73
179a	4.20	26.71	27.88	1.00
181a	4.10	26.64	27.78	0.66
182a	5.10	25.94	27.33	-0.83
184a	4.80	26.33	27.66	0.25
187a	4.70	25.83	27.10	-1.60
188a	3.68	26.65	27.67	0.29
189a	5.07	26.78	28.21	2.10
190a	4.10	26.28	27.40	-0.60
191a	4.10	26.25	27.37	-0.70
192a	4.00	26.31	27.41	-0.59
195a	4.66	27.09	28.41	2.79
198a	3.80	26.86	27.92	1.13
199a	3.75	26.34	27.37	-0.72
201a	3.95	26.59	27.68	0.34
202a	4.93	25.98	27.33	-0.85
204a	3.60	26.50	27.49	-0.31
205a	5.27	26.25	27.71	0.43
206a	3.40	25.95	26.86	-2.41
207a	3.10	26.18	27.02	-1.89
209a	5.03	26.16	27.55	-0.12
210a	3.97	26.25	27.34	-0.83
211a	4.37	26.47	27.68	0.33
212a	4.99	26.03	27.40	-0.62
214a	2.90	26.70	27.50	-0.28
NUMBER OF RESULTS	-	91	91	91	-
OUTLIERS	-	-	**5**	**5**	-
AVERAGE	-	**4.37**	**26.38**	**27.58**	-
STD DEVIATION	-	-	**0.30**	**0.30**	-
MEDIAN			**26.32**	**27.54**	
ROBUST AVERAGE	-	-	**26.38**	**27.58**	-
ROBUST STD DEVIATION	-	-	**0.32**	**0.31**	-
UoM	-	-	**0.04**	**0.04**	-


CALORIFIC VALUE Z-SCORE TREND
3.00
2.00
1.00
0.00
-1.00
-2.00
-3.00
Z-SCORE
177a 206a 207a 187a 79a 73a 21a 96a 202a 182a 210a 43a 82a 130a 199a 191a 140a 212a 77a 190a 192a 66a 84a 112a 18a 10a 32a 143a 124a 105a 204a 135a 214a 110a 151a 101a 23a 80a 169a 176a 60a 58a 88a 6a 208a 170a 76a 12a 99a 67a 162a 30a 50a 49a 35a 160a 33a 117a 74a 100a 1a 184a 188a 211a 106a 201a 8a 205a 42a 153a 181a 179a 36a 28a 198a 9a 161a 39a 71a 145a 91a 133a 189a 38a 195a 171a
LABORATORY ID

COAL CONCEPTS - PROFICIENCY TESTING -OCTOBER 2020					
ANALYTICAL PARAMETER : TOTAL SULPHUR (%)					
	LAB ID	MOISTURE IN ANALYSIS SAMPLE (%)	AIR DRY	DRY BASE	Z-SCORE (DRY BASE)
	1a	4.79	0.45	0.47	0.27
	6a	3.21	0.43	0.44	-0.48
	7a	3.94	***0.18***	***0.19***	***-7.30***
	9a	3.18	0.41	0.42	-1.03
	10a	4.60	0.43	0.45	-0.31
	12a	5.06	0.42	0.44	-0.53
	13a	4.60	***0.53***	0.56	2.48
	18a	4.34	0.41	0.43	-0.90
	21a	4.13	0.39	0.41	-1.47
	23a	4.80	0.42	0.44	-0.56
	28a	4.24	0.45	0.47	0.20
	30a	4.09	0.42	0.44	-0.65
	35a	5.01	0.41	0.43	-0.82
	36a	4.30	0.43	0.45	-0.35
	37a	4.90	0.44	0.46	0.00
	38a	4.50	0.46	0.48	0.51
	39a	4.03	0.44	0.46	0.00
	42a	4.58	0.41	0.43	-0.87
	49a	4.04	0.41	0.43	-0.93
	50a	3.74	0.49	0.51	1.24
	58a	4.43	0.47	0.49	0.78
	60a	4.75	0.42	0.44	-0.57
	71a	4.30	0.47	0.49	0.76
	74a	4.58	0.38	0.40	-1.70
	76a	4.60	0.41	0.43	-0.86
	79a	4.78	0.44	0.46	0.00
	80a	4.78	0.40	0.42	-1.12
	88a	4.80	0.41	0.43	-0.84
	91a	4.60	0.44	0.46	0.00
	95a	3.58	0.47	0.49	0.67
	97a	4.58	0.50	0.52	1.64
	99a	4.70	0.44	0.46	0.00
	101a	4.89	0.39	0.41	-1.39
	106a	4.45	0.48	0.50	1.06
	110a	4.66	0.46	0.48	0.53
	112a	4.20	0.44	0.46	0.00
	124a	4.14	0.52	0.54	2.13
	130a	4.20	0.47	0.49	0.75
	133a	4.48	0.44	0.46	0.00
	135a	3.62	0.48	0.50	0.95
	140a	4.18	0.42	0.44	-0.64
	143a	4.79	0.44	0.46	0.00
	145a	4.19	0.46	0.48	0.47
	151a	4.74	0.43	0.45	-0.29
	161a	4.30	0.42	0.44	-0.62
	162a	4.52	0.49	0.51	1.35
	167a	4.70	0.36	0.38	-2.25
	169a	4.50	0.41	0.43	-0.88
	172a	4.25	0.49	0.51	1.31
	173a	2.31	0.41	0.42	-1.13
	177a	4.36	0.44	0.46	0.00
	179a	4.20	0.44	0.46	0.00
	181a	4.10	***0.56***	***0.58***	***3.23***
	184a	4.80	0.42	0.44	-0.56
	187a	4.70	0.39	0.41	-1.41
	188a	3.68	0.45	0.47	0.13
	189a	5.07	0.44	0.46	0.00
	190a	4.10	0.48	0.50	1.01
	191a	4.10	0.49	0.51	1.29
	192a	4.00	0.47	0.49	0.72
	198a	3.80	0.41	0.43	-0.96
	199a	3.75	0.44	0.46	0.00
	201a	3.95	0.45	0.47	0.16
	202a	4.93	0.44	0.46	0.00
	204a	3.60	***0.60***	***0.62***	***4.25***
	205a	5.27	0.44	0.46	0.00
	207a	3.10	***0.53***	0.55	2.25
	211a	4.37	***0.53***	0.55	2.44
	212a	4.99	0.42	0.44	-0.54
NUMBER OF RESULTS		**69**	**69**	**69**	-
OUTLIERS	-	-	**6**	**3**	-
AVERAGE	-	**4.33**	**0.44**	**0.46**	
MEDIAN		-	**0.44**	**0.46**	
STD DEVIATION	-	-	**0.03**	**0.04**	
ROBUST AVERAGE	-	-	**0.44**	**0.46**	-
ROBUST STD DEVIATION	-	-	**0.03**	**0.04**	-
UoM	-	-	**0.01**	**0.01**	


TOTAL SULPHUR Z-SCORE TREND
3.00
2.00
1.00
0.00
-1.00
-2.00
-3.00
Z-SCORE
167a
74a
21a
187a
101a
173a
80a
9a
198a
49a
18a
169a
42a
76a
88a
35a
30a
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161a
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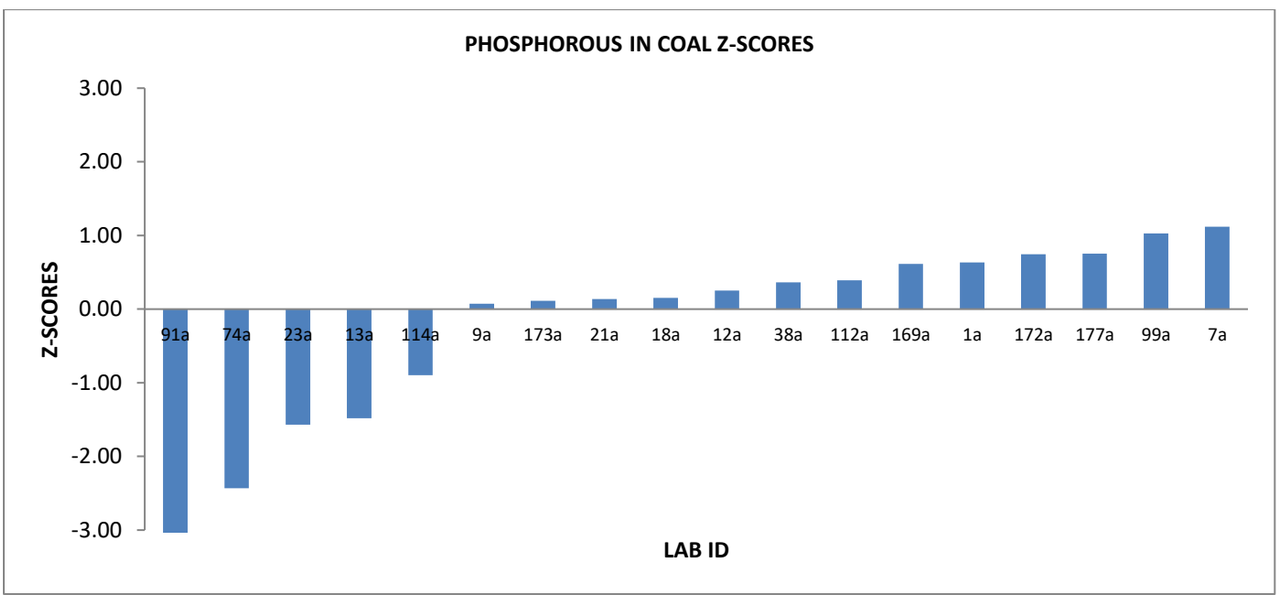
190a
106a
50a
191a
172a
162a
97a
124a
207a
211a
13a
LABORATORY ID

COAL CONCEPTS - PROFICIENCY TESTING -SEPTEMBER 2020					
ANALYTICAL PARAMETER : PHOSPHOROUS IN COAL (%)					
	LAB ID	MOISTURE IN ANALYSIS SAMPLE (%)	AIR DRY	DRY BASE	Z-SCORE (DRY BASE)
	1a	4.02	0.040	0.042	-0.16
	7a	3.63	0.058	0.061	2.26
	9a	3.28	0.041	0.042	-0.07
	12a	4.52	0.053	0.056	1.61
	13a	4.20	0.042	0.044	0.11
	18a	3.78	0.036	0.037	-0.71
	21a	4.40	0.043	0.045	0.26
	23a	4.08	0.034	0.035	-0.99
	38a	3.50	0.043	0.045	0.21
	67a	4.10	0.037	0.039	-0.56
	69a	4.10	0.045	0.047	0.51
	74a	4.06	0.044	0.046	0.37
	91a	2.30	0.022	0.023	-2.62
	112a	4.00	0.036	0.038	-0.70
	113a	4.23	0.046	0.048	0.65
	114a	3.80	0.041	0.043	0.0
	139a	4.11	0.040	0.042	-0.16
	146a	4.00	0.048	0.050	0.90
	169a	3.76	***0.190***	***0.197***	***19.78***
	172a	3.76	0.038	0.039	-0.44
	177a	1.83	0.039	0.040	-0.41
Number of results	-	21	21	21	-
OUTLIERS	-	-	1	1	-
AVERAGE	-	3.78	0.041	0.043	-
STD DEVIATION	-	-	0.007	0.008	-
MEDIAN		-	0.041	0.043	
ROBUST AVERAGE	-	-	0.041	0.043	
ROBUST STD DEVIATION	-	-	0.006	0.006	
UoM	-	-	0.002	0.002	



COAL CONCEPTS - PROFICIENCY TESTING -OCTOBER 2020					
ANALYTICAL PARAMETER : TOTAL CARBON (%)					
	LAB ID	MOISTURE IN ANALYSIS SAMPLE (%)	AIR DRY	DRY BASE	Z-SCORE (DRY BASE)
	1a	4.79	66.51	69.86	-0.15
	9a	3.18	67.00	69.20	-0.71
	12a	5.06	66.20	69.73	-0.26
	18a	4.34	66.77	69.80	-0.20
	21a	4.13	66.95	69.83	-0.17
	36a	4.30	65.56	68.51	-1.31
	42a	4.58	66.56	69.75	-0.24
	88a	4.80	68.50	71.95	1.66
	99a	4.70	67.00	70.30	0.24
	145a	4.19	64.95	67.79	-1.93
	173a	2.31	***70.46***	72.13	1.80
	177a	4.36	67.00	70.05	0.02
	202a	4.93	67.38	70.87	0.73
	212a	4.99	67.10	70.62	0.51
Number of results	-	14	14	14	-
OUTLIERS	-	-	**1**	**0**	-
AVERAGE	-	**4.33**	**66.73**	**70.03**	-
MEDIAN	-	-	**66.95**	**69.85**	-
STD DEVIATION	-	-	**0.86**	**1.16**	-
ROBUST AVERAGE	-	-	66.73	70.04	
ROBUST STD DEVIATION	-	-	0.73	1.20	
UoM	-	-	0.25	0.40	

COAL CONCEPTS - PROFICIENCY TESTING -OCTOBER 2020					
ANALYTICAL PARAMETER : HYDROGEN (%)					
	LAB ID	MOISTURE IN ANALYSIS SAMPLE (%)	AIR DRY	DRY BASE	Z-SCORE (DRY BASE)
	1a	4.79	3.71	3.90	-0.72
	9a	3.18	3.82	3.95	-0.54
	12a	5.06	3.77	3.97	-0.45
	18a	4.34	4.03	4.21	0.42
	21a	4.13	3.70	3.86	-0.85
	36a	4.30	4.12	4.31	0.75
	42a	4.58	3.83	4.01	-0.30
	88a	4.80	3.94	4.14	0.15
	99a	4.70	3.78	3.97	-0.47
	177a	4.36	4.27	4.46	1.33
	202a	4.93	4.45	4.68	2.10
	212a	4.99	3.52	3.70	-1.41
Number of results		12	12	12	
OUTLIERS	-	-	**0**	**0**	-
AVERAGE	-	**4.51**	**3.91**	**4.10**	-
MEDIAN		-	**3.83**	**3.99**	-
STD DEVIATION	-	-	**0.26**	**0.28**	-
ROBUST AVERAGE	-	-	3.90	4.08	
ROBUST STD DEVIATION	-	-	0.28	0.29	
UoM	-	-	0.10	0.11	

COAL CONCEPTS - PROFICIENCY TESTING -OCTOBER 2020					
ANALYTICAL PARAMETER : NITROGEN(%)					
	LAB ID	MOISTURE IN ANALYSIS SAMPLE (%)	AIR DRY	DRY BASE	Z-SCORE (DRY BASE)
	1a	4.79	1.63	1.71	0.84
	9a	3.18	***2.48***	***2.56***	***42.70***
	12a	5.06	1.59	1.67	-1.00
	18a	4.34	1.630	1.70	0.00
	36a	4.30	1.53	***1.60***	***-4.74***
	42a	4.58	1.63	1.71	0.65
	88a	4.80	1.76	***1.85***	***7.58***
	99a	4.70	1.61	1.69	-0.28
	177a	4.36	1.64	1.71	0.97
	202a	4.93	1.58	1.66	-1.63
	212a	4.99	***1.95***	***2.05***	***17.61***
Number of results		11	11	11	-
OUTLIERS	-	-	**2**	**4**	-
AVERAGE	-	**4.55**	**1.62**	**1.695**	-
MEDIAN		-	**1.63**	**1.70**	-
STD DEVIATION	-	-	**0.06**	**0.020**	-

COAL CONCEPTS - PROFICIENCY TESTING -OCTOBER 2020				
ANALYTICAL PARAMETER : ASH FUSION TEMPERATURES (oC)				
LAB ID	**DEFORMATION**	**SOFTENING**	**HEMISPHERE**	**FLOW**
1a	1500	1500	1500	1500
9a	1500	1500	1500	1500
10a	1500	1500	1500	1500
18a	1500	1500	1500	1500
21a	1500	1500	1500	1500
23a	1463	***1485***	1500	1500
28a	1385	***1480***	***1490***	***1495***
38a	1500	1500	1500	1500
42a	1500	1500	1500	1500
49a	1500	1500	1500	1500
80a	1500	1500	1500	1500
95a	1500	1500	1500	1500
99a	1500	1500	1500	1500
151a	1390	***1430***	***1460***	1500
167a	1500	1500	1500	1500
212a	1500	1500	1500	1500
Number of results	16	16	16	16
Outliers	0	3	2	1
AVERAGE	1484	1500	1500	1500
MEDIAN	1500	1500	1500	1500
STDEV	39	0	0	0
REPRODUCIBILITY				
UPPER LIMIT	1500	1500	1500	1500
LOWER LIMIT	1404	1500	1500	1500

Z-SCORES				
LAB ID	**DEFORMATION**	**SOFTENING**	**HEMISPHERE**	**FLOW**
1a	0.42	0.00	0.00	0.00
9a	0.42	0.00	0.00	0.00
10a	0.42	0.00	0.00	0.00
18a	0.42	0.00	0.00	0.00
21a	0.42	0.00	0.00	0.00
23a	-0.53	***-3.00***	0.00	0.00
28a	-2.55	***-3.00***	***-3.00***	***-3.00***
38a	0.42	0.00	0.00	0.00
42a	0.42	0.00	0.00	0.00
49a	0.42	0.00	0.00	0.00
80a	0.42	0.00	0.00	0.00
95a	0.42	0.00	0.00	0.00
99a	0.42	0.00	0.00	0.00
151a	-2.42	***-3.00***	***-3.00***	0.00
167a	0.42	0.00	0.00	0.00
212a	0.42	0.00	0.00	0.00

COAL CONCEPTS - PROFICIENCY TESTING -OCTOBER 2020					
ANALYTICAL PARAMETER : CHLORINE (ppm)					
	LAB ID	MOISTURE IN ANALYSIS SAMPLE (%)	AIR DRY	DRY BASE	Z-SCORE (DRY BASE)
	12a	5.06	33	35	-
	177a	4.36	123	129	-
Number of results	-	**2**	**2**	**2**	-
OUTLIERS	-	-	-	-	-
AVERAGE	-	**4.71**	**78**	**82**	-
STD DEVIATION	-	-	**64**	**66**	-
MEDIAN	-	-	**78**	**82**	-

COAL CONCEPTS - PROFICIENCY TESTING -OCTOBER 2020					
ANALYTICAL PARAMETER : FLUORINE (ppm)					
	LAB ID	MOISTURE IN ANALYSIS SAMPLE (%)	AIR DRY	DRY BASE	Z-SCORE (DRY BASE)
	12a	5.06	255	269	-
	169a	4.50	332	347	-
	177a	4.36	288	301	-
Number of results	-	**3**	**3**	**3**	-
OUTLIERS	-	-	-	-	-
AVERAGE	-	**4.64**	**292**	**306**	-
STD DEVIATION	-	-	**38**	**40**	-
MEDIAN	-	-	**288**	**301**	-

COAL CONCEPTS - PROFICIENCY TESTING -OCTOBER 2020					
ANALYTICAL PARAMETER : ASTM ASH (%)					
	LAB ID	MOISTURE IN ANALYSIS SAMPLE (%)	AIR DRY (%)	DRY BASE (%)	Z-SCORE (DRY BASE)
	1a	4.79	13.96	14.66	-
	12s	4.67	13.64	14.31	
	209a	5.03	13.47	14.18	-
Number of results	-	**3**	**3**	**3**	-
OUTLIERS	-	-	-	-	-
AVERAGE	-	**4.73**	**13.69**	**14.38**	-
STD DEVIATION	-	-	**0.25**	**0.25**	-
MEDIAN	-	-	**13.64**	**14.31**	-

COAL CONCEPTS - PROFICIENCY TESTING -OCTOBER 2020					
ANALYTICAL PARAMETER : ASTM VOLS (%)					
	LAB ID	MOISTURE IN ANALYSIS SAMPLE (%)	AIR DRY (%)	DRY BASE (%)	Z-SCORE (DRY BASE)
	1a	4.79	26.47	27.80	-
	12a	4.67	26.49	27.79	-
	209a	5.03	25.92	27.29	-
Number of results	-	**3**	**3**	**3**	-
OUTLIERS	-	-	-	-	-
AVERAGE	-	**4.73**	**26.29**	**27.63**	-
STD DEVIATION	-	-	**0.32**	**0.29**	-
MEDIAN	-	-	**26.47**	**27.79**	-

CONCLUSIONS

1. The ISO Ash z-score trend is evenly distributed. The average, robust average and median are the same. The analysis was generally very well done with 2 outliers on dry base.
2. The average and robust average are the same on ISO volatile matter determination. The overall ISO volatile trend is evenly distributed. Ten outliers were detected. These seemed to be due to calculation and analytical errors.
3. Calorific value trend is negatively biased, indicating that generally lower higher results than the mean result were reported. The average and robust average were the same. Five outliers were detected. These seemed to be due to a combination of swopped samples and analytical errors.
4. The sulphur z-score trend is evenly distributed. The median, robust average and mean are the same. Three outliers were detected using Grubbs estimate. Numerous participants achieved perfect z-scores.
5. Phosphorous analysis: The z-score trend is positively biased, indicating generally high results reported (compared to the mean)
6. Carbon, Hydrogen and Nitrogen : Generally acceptable results were obtained on Carbon and Hydrogen. Nitrogen was poorly determined, with four outliers. These were out due to poor calibrations.

7. Assessment criterion for homogeneity check

7.1 Comparison of the between sample standard deviation with the standard deviation for proficiency testing
Standard deviation for ISO ash = 0.17
Check value = 0.17 x 0.3 = 0.051

Between sample standard deviation = 0.028

The between standard deviation is less than the check value for the criterion assessment for homogeneity, therefore homogeneity was established.

COAL CONCEPTS: Terms and Conditions

Return of results:
Laboratories participate in proficiency testing programs on the understanding that they will be sharing their results and information **anonymously** with other laboratories performing the same analysis. No return of results compromises the spirit of the programs, and reports will not be sent to laboratories unless they return results. Payment in full is required from all laboratories enrolling whether they return results or not.
Errors in Participant Proficiency Testing Results:
Proficiency testing reports should reflect the level of accuracy that a regular testing client would receive.
If a participant finds an error in their proficiency testing results, they may notify us in writing and change their submission **PRIOR** to the due date for return. Changes after this time will not be accepted.
Coal Concepts' reports results *as submitted* by participants.
On occasion, it seems as though participants have mixed up the samples or not processed the samples according to the instructions. Coal Concepts cannot make assumptions of this nature and change results 'to suit'. We also cannot compromise the integrity of the programs by suggesting to some participants that they should review their results prior to the due date. (This is unfair to other participants) It is the responsibility of the participants to check all aspects of the program, including sample identification, preparation, testing instructions, calculations and reporting of the results prior to results submission.
If samples are not in good condition on arrival to the participant laboratory, Coal Concepts must be notified in writing IMMEDIATELY, as often samples can be replaced in good time. Claims about samples received in bad condition will not be accepted after the report has been issued.
Late Enrolments and Late Results:
Late enrolment requests cannot always be accommodated, as sample manufacture must be scheduled well in advance to the shipping date of the program to allow all necessary quality assurance activities to be carried out.
Shipping of PT materials and evaluating test results from PTPs out of cycle with the mainstream programs is considerably time consuming and therefore costly.
In order not to disadvantage participants able to comply with time frames, Coal Concepts may charge a late fee in the following circumstances:
Requests that Coal concepts staff enters results on behalf of participants
Requests to record results after the due date
Requests for PTP participation that is out of cycle with the scheduled dates
Shipping fees and Customs clearance:
Costs incurred for shipping samples and clearance of same through customs are the responsibility of the participating laboratory unless otherwise indicated
Non-payment of fees:
Coal Concepts retains the right to withhold reports and/or test materials and services when invoices are outstanding.
Confidentiality of results:
All data and information received by Coal Concepts from its clients are considered confidential unless the client has given express permission to pass on information.
Definitions:
The dictionary definitions of "collusion" and "falsification" are as follows.
· *Collusion:* A secret agreement or cooperation for a fraudulent or
deceitful purpose.
· *Falsification:* Deliberately changing something to be false. In proficiency testing terms, collusion is comparing data (and perhaps changing data) to fit in with a believed "correct" result. This is contrary to the spirit of proficiency testing programs, which are issued with the intention of providing an objective comparison of a laboratory's performance with others. Coal Concepts tries to minimise the occurrence of collusion by being aware that laboratories should be objective when they report their results, and should therefore not know the intended results at the time they are reporting to us.
Answers are not provided to clients until results have been submitted.
To prevent collusion and falsification our advice to clients is:
DON'T confer with others about PT samples or results.
DO accept the fact that everyone makes errors.
DON'T average the results or opinions of every person in the laboratory before selecting the answer to be submitted. Instead, use one of the answers AS SUBMITTED to you and take advantage of the Coal Concepts internal QA services and submit all answers generated by the technicians.
DO have confidence in your own results.
Proficiency Testing (PT) is a compulsory part of laboratory accreditation, but it is also an important tool for giving you confidence in your results. "Enhancing" your PT results with assistance from another participant cannot increase
confidence in your laboratory's performance.
Coal concepts' testing staff are not told what the expected results are, nor what we are expecting.
We subject ALL results to analysis, even if they are different.
The staff have the right to check that the results we enter on their behalf are correctly transcribed.
Clients are always welcome to contact Coal Concepts to seek advice or information about collusion or falsification of data.
Policy for Participant Appeal of PT Performance Assessment:
If participants disagree with their performance assessment in a proficiency report, they should inform Coal Concepts in writing.
The response will include Coal Concepts interpretation of the outcome of the reassessment and an explanation of that outcome. (For example, explanation of a calculation, or the rationale for the outcome of the evaluation.)
If a mistake has been made by Coal Concepts, it will be dealt with via Coal Concepts' non-conformance system.
Liability
In no event shall a party's liability to the other party for direct damages exceed an amount equal to the value of the amount for the PT Programme, under that specific month
End of report