

Bureau of Standards

Certificate of Analyses

OF

STANDARD SAMPLE No. 13b

BASIC OPEN-HEARTH STEEL, 0.6% CARBON

ANALYST.	CARBON.			SILICON.		PHOSPHORUS.			SULPHUR.			MANGANESE.			CHROMIUM.	NICKEL.
	DIRECT COMBUSTION.	SOLUTION AND COMBUSTION.	OTHER METHODS.	DROWN METHOD.	DEHYDRATION BY SULPHURIC ACID.	ALKALI-MOLYBDATE.	WEIGHING PHOSPHO-MOLYBDATE.	AS $Mg_2P_2O_7$ FROM PHOSPHO-MOLYBDATE.	DIRECT OXIDATION.	MEINKE'S METHOD.	EVOLUTION (ZnS-Iodine).	BISMUTHATE.	PERSULPHATE (Arsenite titration).	COPPER. ($H_2S-CuS-CuO$).		
1	.61				.20	.026			.037	.037	.036	.60		.011	.015	.012
2	.61				.20	.025			.041	.039	.035	.61		.017		
3	.60		.60 ^a	.20	.20	.026		.026	.038	.037	{.037 .037 ^b }	.61	.61	{.008 .008 ^c }		
4	.60				.21	.027			.041		.040	{.59 .60 ^d }		.008		
5	.62	.63		.21	.21	.026			.038		{.038 .039 ^e }	.60 ^d	.60	.009 ^f		
6	.62		.62	.20	.20	{.024 .024 ^g }				.036	{.037 .037 ^e }	.62	.62	{.008 .007 ^g }		
7	.57				.20						.042	.59		.011		
8	.60 ^h				.20	.026					.037 ^e	.62				
9	.60			.20 ^j		.025					.040 ⁱ		.61			
10	.61				.20		.025		.039		.040		.61	.010		
11	.61				.21							.59		.015		
12	.61				.20	.027			.041	.038	{.040 .041 ^e }	{.60 .61 ^d }				
13	.60				.21	.026				.040	.038	.60		.010		
14		.58			.22							.58		.008		
AVERAGE GENERAL AVERAGE	.61	.61	.61	.20	.20	.026	.025	.026	.039	.038	.038	.60	.61	.010	.015	.012
	.61			.20		.026			.038			.60		.01	.015	.012

^a Ba(OH)₂-HCl. ^b NaOH-KIO₃. ^c Na₂S₂O₃-CuS-CuO. ^d Bismuthate-Arsenite. ^e CdS-Iodine. ^f Na₂S₂O₃-CuS-Electrolysis. ^g U. S. Steel Corporation method. ^h Ascarite absorbent-Midvale bulb. ⁱ CdS-KIO₃. ^j HCl dehydration.

INDEX TO ANALYSTS

- J. I. Hoffman, Bureau of Standards.
- Routine Laboratory, Bureau of Standards, H. A. Bright in charge.
- Wm. Brady, Illinois Steel Co., Chicago, Ill.
- J. L. Harvey, Carnegie Steel Co., Pittsburgh, Pa.
- A. D. Shankland, Bethlehem Steel Co., Bethlehem, Pa.
- J. L. Mayberry, Republic Iron & Steel Co., Youngstown, Ohio.
- W. J. Crook, Pacific Coast Steel Co., San Francisco, Calif.
- F. W. Brown and Wallace Garn, Laclede Steel Co., St. Louis, Mo.
- Watertown Arsenal, Watertown, Mass.
- Textor Chemical Laboratories, Cleveland, Ohio.
- General Electric Co., Schenectady, N. Y.
- W. D. Huffman, General Motors Corporation, Detroit, Mich.
- J. M. Lindgren, University of Illinois, Urbana, Ill.
- E. C. Link and W. A. Morgan, Georgia School of Technology, Atlanta, Ga.

This standard is not recommended for colorimetric carbon determinations, because of uncertainty as to the condition of the carbon.

Washington, D. C.

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S. W. STRATTON,

Director.