

Bureau of Standards

Certificate of Analysis

OF

STANDARD SAMPLE No. 13a

BASIC OPEN-HEARTH STEEL, 0.6% CARBON

ANALYST.	CARBON.			SILICON.		PHOSPHORUS.				SULPHUR.			MANGANESE.				
	DIRECT COMBUSTION.	SOLUTION AND COMBUSTION.	COLORIMETRY.	DROWN METHOD.	OTHER METHODS.	ALKALI-MOLYBDATE.	MOLYBDATE REDUCTION.	WEIGHING PHOSPHO-MOLYBDATE.	AS $Mg_2P_2O_7$ FROM PHOSPHO-MOLYBDATE.	OXIDATION.	EVOLUTION (Cob-Iodine).	OTHER METHODS.	FORD (Weighing as $Mn_2P_2O_7$).	FORD-WILLIAMS.	VOLHARD.	BISMUTHATE.	COLOR (Persulphate).
1	.573				.13	.015				.028		.028 ^a				.64	
2	.588				.12		.017			.031		.028 ^a				.63	
3	.589	.588			.12		.014		.014	.029	.029					.63	
4	.567	.564		.12	.12		.012			.033		.022 ^b				.62	
5	.584		.57	.11			.014	.014		.035	.035					.62	
6	.570					.015				.035	.032			.64			
7		.590	.60	.12		.013					.031		.64				.63
8		.590		.11	.11	.013		.013			.031		.64				.65
9		.579			.11			.013			.031						.62
10	.584	.577		.11		.013		.013		.035	.034 ^c				.64		.65
AVERAGE	.579	.581	.585	.114	.118	.014	.014	.013	.014	.032	.032	.028	.64	.64	.64	.63	.64
GENERAL AVERAGE	.581			.116		.014				.032			.635				

^a Evolution= H_2O_2 -BaSO₄.^b Evolution=PbS-BaSO₄, omitted from averages.^c Evolution=ZnS-iodine.

INDEX TO ANALYSTS

1. John R. Cain, Bureau of Standards.
2. L. F. Witmer, Bureau of Standards.
3. Porter W. Shimer, Easton, Pa.
4. Booth, Garrett & Blair, Philadelphia, Pa.
5. Jones & Laughlin Steel Co., South Side Department Laboratory, Pittsburgh, Pa.

6. George P. Vanier, Pennsylvania Steel Co., Steelton, Pa.
7. W. D. Brown, Carnegie Steel Co., Duquesne Works.
8. C. H. Rich, Carnegie Steel Co., Clairton Works.
9. J. L. Harvey, Carnegie Steel Co., Homestead Works.
10. Carnegie Steel Co., Edgar Thomson Works.

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

S. W. STRATTON,
Director.

Washington, D. C.