

Department of Commerce and Labor

# Bureau of Standards

## Certificate of Analyses

OF

STANDARD SAMPLE No. 22

### BESSEMER 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 YELLOW PRECIPITATE.	OXIDATION.	EVOLUTION (Gas-Iodine).	FORD (Min as $Mn_2P_2O_7$ ).	FORD-WILLIAMS.	VOIHARD.	BISMUTHATE.	COLOR (Persulphate).
1	.586				.071		.108		.069	.066 <sup>a</sup>		.704			
2	.588	.591			.072		.103		.072	.071	.692				
3	.598	.592		.076	.076		.099		.067	.064 <sup>b</sup>				.704	
4	.590			.072		.103				.064				.72	.72
5	.573	.577				.103				.054		.700			
6	.600		.60	.075				.101	.063	.061	.696				.70
7	.586		.61	.080	.080			.101	.060	.061	.712		.706		.71
8	.610			.086				.100		.062					.73
9	.589			.080		.102		.101	.062	.062					
AVERAGE	.591	.587	.605	.078	.075	.103	.103	.101	.066	.063	.700	.702	.706	.712	.715
GENERAL AVERAGE	.592			.077		.102			.064		.708				

<sup>a</sup> Evolution—NaSH-Iodine.

<sup>b</sup> Evolution—PbS-BaSO<sub>4</sub>.

### INDEX TO ANALYSTS

- John R. Cain, Bureau of Standards.
- Porter W. Shimer, Easton, Pa.
- Booth, Garrett & Blair, Philadelphia, Pa.
- Jones & Laughlin Steel Co., South Side Department Laboratory, Pittsburg, Pa.

- George P. Vanier, Pennsylvania Steel Co., Steelton, Pa.
- R. J. Wysor, Carnegie Steel Co., Duquesne Works.
- C. H. Rich, Carnegie Steel Co., Clairton Works.
- J. L. Harvey, Carnegie Steel Co., Homestead Works.
- Geo. D. Chamberlain, Carnegie Steel Co., Edgar Thompson 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.

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