

Bureau of Standards

Certificate of Analyzes

OF

STANDARD SAMPLE No. 12 a.

BASIC OPEN-HEARTH STEEL, 0.4% CARBON RENEWAL

ANALYST.	CARBON. ^a			SILICON.		PHOSPHORUS.			SULPHUR.		MANGANESE.				
	DIRECT COMBUSTION.	SOLUTION AND COMBUSTION.	COLORIMETRY.	DROWN METHOD.	OTHER METHODS.	ALKALI-MOLYBDATE.	MOLYBDATE REDUCTION.	WEIGHING YEL-LOW PRECIPITATE.	OXIDATION.	EVOLUTION (Ods-Iodine).	FORD (Mn as Mn ₂ P ₂ O ₇).	FORD-WILLIAMS.	VOLHARD.	BISMUTHATE.	COLOR (Persulphate).
1a.....	.366	.....	.....	.....	.....	.011	.....	.....	.036	.037 ^a	.....	.405	.....	.....	.....
1b.....	.361	.....	.....	.....	.013	.011	.011	.....	.036	.040 ^a	.....	.....	.....	.404	.....
2.....	.362	.370	.....	.....	.014	.....	.011	.011 ^b	.037	.037	.....	.....	.....	.406	.....
3.....	.368	.362	.....	.012	.010	.....	.013	.....	.033	.030 ^c	.....	.....	.....	.410	.....
4.....	.360	.....	.37	.009	.011	.009	.....	.011	.....	.039	.410	.....	.....	.406	.....
5.....	.360	.368	.....	.009	.....	.012	.....	.....	.....	.033	.....	.410	.....	.....	.....
6.....	.....	.375	.....	.017	.....	.....	.....	.012	.032	.035	.420	.....	.....	.....	.....
7.....	.....	.375	.....	.020	.....	.012	.....	.012	.034	.036	.423	.....	.....	.....	.43
8.....	.....	.357	.....	.006	.....	.....	.....	.014	.....	.038	.....	.....	.....	.....	.44
9.....	.....	.359	.35	.009	.014	.011	.....	.012	.041	.037	.427	.....	.430	.....	.44
AVERAGE.....	.363	.366	.36	.012	.012	.011	.012	.012	.035	.036	.420	.407	.430	.407	.437
GENERAL AVERAGE..	.364			.012		.012			.036		.419				

^a Evolution—NaSH-Iodine.^b As Mg₂P₂O₇.^c Evolution—PbS-BaSO₄.

INDEX TO ANALYSTS

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

5. George P. Vanier, Pennsylvania Steel Co., Steelton, Pa.
6. R. J. Wysor, Carnegie Steel Co., Duquesne Works.
7. C. H. Rich, Carnegie Steel Co., Clairton Works.
8. J. L. Harvey, Carnegie Steel Co., Homestead Works.
9. 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.

Form 167.

Feb. 1, 1911.