

RESEARCH REPORT NO. 5
March 15, 1963

A Summary of Reference Gas Analyses with Applied Physics Corporation
Infrared Gas Analysers No. 46 and No. 55
November 21, 1961 to December 7, 1962

I. Introduction

This report presents a summary of measurements of the concentration of carbon dioxide in specially prepared mixtures in nitrogen gas. The measurements were obtained at the Scripps Institution of Oceanography with the aid of continuous-flow infrared gas analysers at one time manufactured by the Applied Physics Corporation of Pasadena, California.

Index values proportional to concentration have been calculated from observed differences in scale readings of the analyser. The method of measurement and the calculation of index values are as described in Research Report No. 1, October 15, 1958, and Research Reports Nos. 2 and 3, June 1, 1961 and No. 4 of October 20, 1961 (referred to hereafter as "Report I", "Report II", "Report III" and "Report IV"). The format of this report follows closely that of Reports II through IV.

II. Succession of Standard Tanks

The primary, high span, and low span tanks, (2407, 2402, and 7358, respectively), whose index values were established in Report IV, were in use for the entire period of this report. On the closing date all three were replaced. The new tanks listed in the same order of use, are 4270, 10069, and 2408. The succession of tanks for the period of Report IV and this report are shown in Figure 1. For earlier periods see Figure 1 of Report III.

Secondary tank 4286, partially consumed during the period of Report IV, was continued in use until February 15. The average index value during the period of Report IV was 309.66. This value was employed in the calculation of indices in Report IV. Including runs during the period of this report, a final value of 309.72 is obtained. This latter value is used in this report for calculations. Tank 4286 was superseded by tank 4284, until July 25, and then by tank 4295. At the end of the period of this report tank 4295 still held 1200 p.s.i. of reference gas and will be used during 1963. Since all three principal standards were changed on December 7, 1962, tank 4295 serves as a check on continuity during the change over. An incomplete index value of 310.22 for tank 4295 is used for calculations in this report.

Super-primary tank 2406, established during the period of Report IV, was run frequently during the period of this report. Its previous index value was 313.20 based on 339 runs. During the period of this report 313.29 was obtained from 190 runs. The agreement is satisfactory.

On April 13, July 19, and August 23, tank 2406 was accidentally used to perform span checks. The calculations (including Table 3) for these days had to be deferred until an index value could be obtained for tank 2406. But since runs of secondary tanks 4284 and 4295 were made on the three days in question, and since 2406 had been run versus these secondaries on certain other days, a final value could not independently be obtained for tank 2406. To circumvent these difficulties, a method of successive approximations was employed. This worked well because tank 2406 was well determined without the runs versus tanks 4284 and 4295.

Specifically, the procedure was first to obtain a preliminary value for tank 2406 based on all data in Report IV plus all runs during the period of this report except those versus tanks 4284 and 4295. With this value the calculations for the three days in question were made and values obtained for the secondary tanks. Then 2406 was redetermined employing all runs. The new value agreed exactly (to the nearest 0.01 p.p.m.) with the preliminary value, so that already on the first approximations all the results were consistent. The data leading to the preliminary value as well as to the final value of tank 2406 are shown in Table V.

Final values for all standard tanks used in this report or planned for later use appear in Table 13.

III. Index Differences

Index differences in column 5 of Table 3 were obtained from the index values of the separate tanks listed in Table 13 as follows:

2402	vs	2407	337.94	-	315.47	=	22.47
2407	vs	7358	315.47	-	279.27	=	36.20
2402	vs	7358	337.94	-	279.27	=	58.67
2402	vs	2406	337.94	-	313.23	=	24.71
2406	vs	7358	313.23	-	279.27	=	33.96

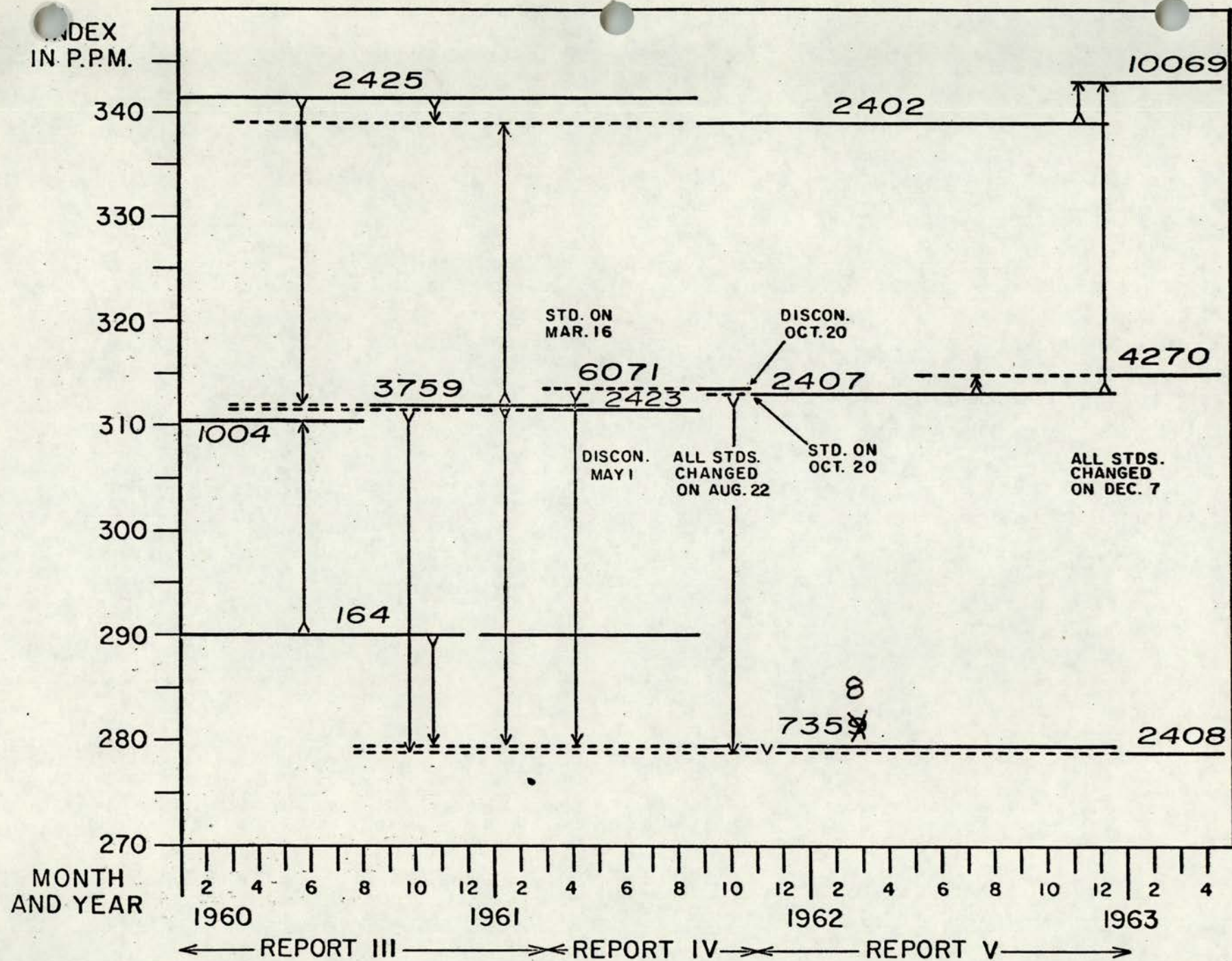


Fig. I - PROGRESSION OF STANDARD REFERENCE GASES

Table 1. Reference Gas Comparisons with Analyser No. 116

Col:	1	2	3	4	5	6	7	8	9
	(Sub) Standard Tank No.	Compared Tank No.	Observed Scale Difference	No. of Compari- sons	Recorder Scale Factor	Computed Index Difference	Computed Index	Table and Sheet No.	Date of Analysis
	<u>Span 310</u>		<u>Use Codes</u>						<u>1961</u>
	2407	7358	30 -39.17	10	19.52	-	-	3 346	Nov. 21
	2407	4286	41 -6.16	11		-5.68	309.79	5 346	
	7358	4286	41 33.23	10		30.64	309.91	5 346	
	4286	4275	5105 -5.49	10		-5.06	304.66	12D 346	
	4286	4272	5105 -1.72	10		-1.59	308.13	12D 346	
	4286	7355	5105 -2.43	10		-2.24	307.48	12D 347	
	4286	10068	5103 -1.08	10		-1.00	308.72	12E 347	
	2407	7358	30 -39.22	10		-	-	3 347	
	2407	7358	30 -38.85	10	19.32	-	-	3 348	Dec. 7
	2407	4286	41 -6.09	10		-5.67	309.80	5 348	
	7358	4286	41 32.89	10		30.64	309.91	5 348	
	4286	10070	5.61	10		5.23	314.95	12A 348	
	4286	10074	3.35	11		3.12	312.84	12B 348	
	4286	10072	-5.52	10		-5.14	304.58	12D 349	
	4286	10064	-8.86	10		-8.25	301.47	12D 349	
	4286	10065	-33.09	11		-30.83	278.89	12A 349	
	7358	10065	-0.40	10		-0.37	278.90	12A 349	
	2407	7358	-38.71	10		-	-	3 349	
	2407	7358	-38.82	10	19.45	-	-	3 350	Dec. 18
	2407	4286	-6.09	11		-5.64	309.83	5 350	
	7358	4286	32.98	10		30.52	309.79	5 350	
	4286	10072	-5.34	10		-4.94	304.78	12D 350	
	4286	10064	-8.79	10		-8.13	301.59	12D 350	
	4286	3757	-11.19	9		-10.36	299.36	12E 351	
	4286	2427	-13.35	6		-12.35	297.37	12E 351	
	4286	148	9.19	10		8.50	318.22	12D 351	
	4286	10074	3.26	10		3.02	312.74	12B 351	
	4286	10070	5.49	11		5.08	314.80	12A 351	
	2407	2402	24.50	9		-	-	3 352	

Table 1. Reference Gas Comparisons with Analyser No. 46

Col:	1	2	3	4	5	6	7	8	9
	(Sub) Standard Tank No.	Compared Tank No.	Observed Scale Difference	No. of Compari- sons	Recorder Scale Factor	Computed Index Difference	Computed Index	Table and Sheet No.	Date of Analysis
	<u>Span 340</u>								<u>1962</u>
	2407	2402	26.98	10	21.51	-	-	3 353	Jan. 10
	2407	4286	-6.60	10		-5.52	309.95	5 353	
	2402	4286	-33.36	10		-27.92	310.02	5 353	
	2407	2406	-2.41	10		-2.02	313.45	5 353	
	4286	160-8	10.46	10		8.75	318.47	12F 353	
	4286	160-16	53.61	10		44.86	354.58	12F 354	
	2407	2402	26.80	10		-	-	3 354	
	<u>Span 310</u>								
	2407	7358	-38.43	12	19.11	-	-	3 355	Jan. 12
	2407	4286	-6.06	11		-5.71	309.76	5 355	
	7358	4286	32.37	10		30.49	309.76	5 355	
	4286	4284	0.74	11		0.70	310.42	12C 355	
	4286	4290	28.83	10		27.16	336.88	12C 355	
	4286	2408	-32.64	10		-30.74	278.98	12C 356	
	2407	4284	-5.49	11		-5.17	310.30	12C 356	
	2407	7358	-38.42	10		-	-	3 356	

Table 1. Reference Gas Comparisons with Analyser No. 116

Col:	1	2	3	4	5	6	7	8	9
	(Sub) Standard Tank No.	Compared Tank No.	Observed Scale Difference	No. of Compari- sons	Recorder Scale Factor	Computed Index Difference	Computed Index	Table and Sheet No.	Date of Analysis
	<u>Span 310</u>								<u>1962</u>
	2407	2402	24.19	10	19.41	-	-	3 357	Jan. 13
	2407	4286	-6.47	9		-6.00	309.47	5 357	
	2402	4286	-30.59	10		-28.37	309.57	5 357	
	4286	4284	0.76	10		0.70	310.42	12C 357	
	4286	4290	29.21	10		27.09	336.81	12C 357	
	4286	4273	5.68	10		5.27	314.99	12C 358	
	4286	2403	0.74	12		0.69	310.41	12C 358	
	4286	2421	-2.36	10		-2.19	307.53	12C 358	
	4286	2408	-32.86	10		-30.47	279.25	12C 358	
	2402	4290	-1.51	11		-1.40	336.54	12C 358	
	2407	2408	-39.08	12		-36.24	279.23	12C 359	
	2407	7358	-39.23	10		-	-	3 359	
	2407	7358	-39.19	10	19.55	-	-	3 360	Jan. 14
	2407	4286	-6.32	11		-5.82	309.65	5 360	
	7358	4286	32.86	10		30.25	309.52	5 360	
	4286	4284	0.66	10		0.61	310.33	12C 360	
	4286	2408	-33.12	10		-30.49	279.23	12C 360	
	4286	4290	29.51	11		27.17	336.89	12C 361	
	2407	4290	23.34	11		21.49	336.96	12C 361	
	2407	4284	-5.38	10		-4.95	310.52	12C 361	
	2407	2408	-39.19	11		-36.08	279.39	12C 361	
	2407	2406	-2.30	10		-2.12	313.35	5 361	
	2407	2402	24.56	10		-	-	3 362	

Table 1. Reference Gas Comparisons with Analyser No. 46

Col:	1	2	3	4	5	6	7	8	9
	(Sub) Standard Tank No.	Compared Tank No.	Observed Scale Difference	No. of Compari- sons	Recorder Scale Factor	Computed Index Difference	Computed Index	Table and Sheet No.	Date of Analysis
	<u>Span 310</u>								<u>1962</u>
	2407	7358	-38.75	10	19.26	-	-	3 363	Jan. 15
	2407	4286	-6.18	11		-5.78	309.69	5 363	
	7358	4286	32.85	11		30.70	309.97	5 363	
	4286	4276	-12.14	10		-11.35	298.37	12C 363	
	4286	6052	-10.63	10		-9.93	299.79	12C 363	
	4286	4295	-10.77	10		-10.07	299.65	12C 364	
	4286	2404	-3.85	12		-3.60	306.12	12C 364	
	4286	2405	-2.83	10		-2.64	307.08	12C 364	
	4286	2421	-2.46	10		-2.30	307.42	12C 364	
	4286	2403	0.58	12		0.54	310.26	12C 364	
	4286	4273	5.54	10		5.18	314.90	12C 365	
	2407	7358	-38.39	10		-	-	3 365	
	2407	7358	-38.55	10	19.23	-	-	3 366	Jan. 16
	2407	4286	-5.90	10		-5.52	309.95	5 366	
	7358	4286	32.90	11		30.80	310.07	5 366	
	4286	4276	-12.24	11		-11.46	298.26	12C 366	
	4286	6052	-10.58	10		-9.90	299.82	12C 366	
	4286	4295	-10.94	10		-10.24	299.48	12C 367	
	4286	2404	-3.89	11		-3.64	306.08	12C 367	
	4286	2405	-2.90	11		-2.71	307.01	12C 367	
	4286	2421	-2.40	10		-2.25	307.47	12C 367	

Table 1. Reference Gas Comparisons with Analyser No. 46

Col:	1	2	3	4	5	6	7	8	9
	(Sub) Standard Tank No.	Compared Tank No.	Observed Scale Difference	No. of Compari- sons	Recorder Scale Factor	Computed Index Difference	Computed Index	Table and Sheet No.	Date of Analysis
	<u>Span 310</u>								<u>1962</u>
	2407	7358	-38.48	10	19.30	-	-	3 369	Jan. 17
	2407	4286	-6.31	10		-5.88	309.59	5 369	
	7358	4286	32.01	11		29.85	309.12	5 369	
	4286	4276	-11.86	10		-11.06	298.66	12C 369	
	4286	6052	-10.24	10		-9.55	300.17	12C 369	
	4286	4295	-10.48	10		-9.77	299.95	12C 370	
	4286	2404	-3.64	10		-3.39	306.33	12C 370	
	4286	2405	-2.64	11		-2.46	307.26	12C 370	
	4286	4273	5.67	10		5.29	315.01	12C 370	
	2407	2403	-5.27	10		-4.92	310.55	12C 370	
	2407	2406	-2.26	10		-2.11	313.36	5 371	
	2407	2402	24.63	10		-	-	3 371	
	2407	2402	24.45	10	19.61	-	-	3 372	Jan. 24
	2407	4286	-6.53	10		-5.99	309.48	5 372	
	2402	4286	-30.90	9		-28.36	309.58	5 372	
	4286	6073	2.55	10		2.34	312.06	12C 372	
	4286	4278	4.29	9		3.94	313.66	12C 372	
	4286	4292	36.57	10		33.57	343.29	12C 373	
	4286	4283	36.31	9		33.33	343.05	12C 373	
	4286	IG0-8	12.14	10		11.14	320.86	12F 373	
	4286	IG0-16	49.43	10		45.37	355.09	12F 373	
	2407	6073	-3.35	10		-3.07	312.40	12C 373	
	2407	4278	-1.86	10		-1.71	313.76	12C 374	
	2407	2402	24.61	10		-	-	3 374	

Table 1. Reference Gas Comparisons with Analyser No. 46

Col:	1	2	3	4	5	6	7	8	9
	(Sub) Standard Tank No.	Compared Tank No.	Observed Scale Difference	No. of Compari- sons	Recorder Scale Factor	Computed Index Difference	Computed Index	Table and Sheet No.	Date of Analysis
	<u>Spar 310</u>								<u>1962</u>
	2407	2402	25.05	11	19.71	-	-	3 375	Jan. 25
	2407	4286	-5.91	10		-5.40	310.07	5 375	
	2402	4286	-30.71	10		-28.05	309.89	5 375	
	4286	4283	36.19	12		33.05	342.77	12C 375	
	4286	4296	-18.24	10		-16.66	293.06	12G 375	
	4286	1004	1.85	11		1.69	311.41	12G 376	
	4286	2418	-1.41	11		-1.29	308.43	12C 376	
	4286	6078	-7.85	10		-7.17	302.55	12E 376	
	2407	6073	-3.67	10		-3.35	312.12	12C 376	
	2407	4278	-1.86	10		-1.70	313.77	12C 376	
	2407	2406	-2.23	10		-2.04	313.43	5 377	
	2407	7358	-38.50	10		-	-	3 377	
	2407	7358	-39.06	10	19.58	-	-	3 378	Jan. 26
	2407	4286	-5.98	10		-5.50	309.97	5 378	
	7358	4286	33.18	12		30.50	309.77	5 378	
	4286	10077	-32.27	10		-29.67	280.05	12E 378	
	4286	100-10	-38.41	10		-35.31	274.41	12F 378	
	4286	6073	2.18	12		2.00	311.72	12C 379	
	4286	10069	2.67	10		2.45	312.17	12E 379	
	4286	4278	4.03	10		3.70	313.42	12C 379	
	4286	3752	12.33	10		11.33	321.05	12D 379	
	4286	136	13.70	10		12.59	322.31	12D 379	
	4286	4283	36.38	10		33.44	343.16	12C 380	
	2407	2402	24.77	10		-	-	3 380	

Table 1. Reference Gas Comparisons with Analyser No. 116

Col:	1	2	3	4	5	6	7	8	9
	(Sub) Standard Tank No.	Compared Tank No.	Observed Scale Difference	No. of Compari- sons	Recorder Scale Factor	Computed Index Difference	Computed Index	Table and Sheet No.	Date of Analysis
	<u>Span 310</u>								<u>1962</u>
	2407	2402	25.14	10	20.01	-	-	3 381	Jan. 29
	2407	4286	-5.91	10		-5.32	310.15	5 381	
	2402	4286	-30.84	10		-27.74	310.20	5 381	
	4286	4283	36.46	10		32.80	342.52	12C 381	
	4286	160-16	50.03	10		45.00	354.72	12F 381	
	4286	160-8	12.62	11		11.35	321.07	12F 382	
	4286	4278	4.17	11		3.75	313.47	12C 382	
	4286	6073	2.26	9		2.03	311.75	12C 382	
	4286	C-7	11.53	10		10.37	320.09	12G 382	
	2402	4283	5.69	10		5.12	343.06	12C 382	
	2407	4278	-1.93	11		-1.74	313.73	12C 383	
	2407	2402	24.86	10		-	-	3 383	
	2407	2402	25.01	10	19.88	-	-	3 384	Jan. 30
	2407	4286	-5.96	11		-5.40	310.07	5 384	
	2402	4286	-30.69	10		-27.79	310.15	5 384	
	4286	10069	2.83	12		2.56	312.28	12E 384	
	4286	4278	4.02	12		3.64	313.36	12C 384	
	4286	6073	2.25	10		2.04	311.76	12C 385	
	4286	4283	36.40	11		32.96	342.68	12C 385	
	4286	160-16	49.62	12		44.93	354.65	12F 385	
	2407	10069	-3.29	11		-2.93	312.49	12E 385	
	2407	4283	30.35	12		27.48	342.95	12C 385	
	2407	2406	-2.32	10		-2.10	313.37	5 386	
	2407	2402	24.70	10		-	-	3 386	

Table 1. Reference Gas Comparisons with Analyser No. 46

Col:	1	2	3	4	5	6	7	8	9
	(Sub) Standard Tank No.	Compared Tank No.	Observed Scale Difference	No. of Compari- sons	Recorder Scale Factor	Computed Index Difference	Computed Index	Table and Sheet No.	Date of Analysis
	<u>Span 310</u>								<u>1962</u>
	2407	7358	-38.49	10	19.19	-	-	3 387	Feb. 2
	2407	4286	-6.10	11		-5.72	309.75	5 387	
	7358	4286	32.76	10		30.73	310.00	5 387	
	4286	2427	-12.93	10		-12.13	297.59	12E 387	
	4286	3757	-11.00	12		-10.32	299.40	12E 387	
	4286	10065	-32.91	9		-30.87	278.85	12A 388	
	4286	LGO-10	-37.54	9		-35.21	274.51	12F 388	
	4286	10070	5.51	11		5.17	314.89	12A 388	
	2407	7358	-38.46	10		-	-	3 388	
	2407	7358	-39.04	11	19.32	-	-	3 389	Feb. 15
	2407	4286	-6.15	11		-5.73	309.74	5 389	
	7358	4286	32.55	11		30.33	309.60	5 389	
	4286	10069	2.71	10		2.52	312.24	12E 389	
	4286	3755	-3.85	10		-3.59	306.13	12E 389	
	4286	10077	-31.91	10		-29.73	279.99	12E 390	
	4286	4296	-18.12	10		-16.88	292.84	12G 390	
	4286	2427	-13.51	10		-12.59	297.13	12E 390	
	4286	LGO-10	-37.73	11		-35.15	274.57	12F 390	
	7358	LGO-10	-4.83	10		-4.50	274.77	12F 390	
	2407	10068	-7.07	11		-6.59	308.88	12E 391	
	2407	7358	-38.83	10		-	-	3 391	

Table 1. Reference Gas Comparisons with Analyser No. 146

Col:	1	2	3	4	5	6	7	8	9
	(Sub) Standard Tank No.	Compared Tank No.	Observed Scale Difference	No. of Compari- sons	Recorder Scale Factor	Computed Index Difference	Computed Index	Table and Sheet No.	Date of Analysis
	<u>Spec 310</u>								<u>1962</u>
	2407	2402	24.25	10	19.45	-	-	3 392	Mar. 16
	2407	4284	-5.64	9		-5.22	310.25	5 392	
	2402	4284	-30.27	10		-28.01	309.93	5 392	
	4284	4292	36.07	10		33.38	343.74	12B 392	
	4284	160-16	48.95	10		45.30	355.66	12F 392	
	4284	3751	18.21	11		16.85	327.21	12D 393	
	4284	160-8	11.84	10		10.96	321.32	12F 393	
	4284	10074	2.74	10		2.54	312.90	12B 393	
	4284	7364	-8.37	10		-7.75	302.61	12D 393	
	2407	7358	-38.70	11		-	-	3 393	
	2407	7358	-39.07	10	19.40	-	-	3 394	Mar. 21
	2407	4284	-5.74	10		-5.33	310.14	5 394	
	7358	4284	33.41	12		31.00	310.27	5 394	
	4284	7362	-9.15	11		-8.49	301.87	12A 394	
	4284	4272	-8.81	10		-8.17	302.19	12D 394	
	4284	7344	-9.16	12		-8.50	301.86	12D 395	
	4284	6067	-7.08	10		-6.57	303.79	12D 395	
	4284	6081	-8.02	11		-7.44	302.92	12D 395	
	4284	4296	-18.67	10		-17.32	293.04	12G 395	
	2407	7358	-38.82	10		-	-	3 395	
	2407	7358	-38.72	10	19.34	-	-	3 398	Apr. 10
	2407	4284	-5.48	9		-5.10	310.37	5 398	
	7358	4284	33.64	10		31.31	310.58	5 398	
	4284	1540	-5.09	10		-4.74	305.62	12A 398	
	4284	4276	-5.99	10		-5.57	304.79	12A 398	
	4284	2405	-4.77	10		-4.44	305.92	12A 399	
	4284	4293	-3.79	11		-3.53	306.83	12A 399	
	4284	7366	-6.52	10		-6.07	304.29	12A 399	
	4284	10065	-33.74	10		-31.40	278.96	12A 399	
	2407	7358	-38.90	11		-	-	3 399	

Table 1. Reference Gas Comparisons with Analyser No. 46

Col:	1	2	3	4	5	6	7	8	9
	(Sub) Standard Tank No.	Compared Tank No.	Observed Scale Difference	No. of Compari- sons	Recorder Scale Factor	Computed Index Difference	Computed Index	Table and Sheet No.	Date of Analysis
	<u>Span 310</u>								<u>1962</u>
	2407	2402	24.27	11	19.54	-	-	3 400	Apr. 11
	2407	4284	-5.75	10		-5.30	310.17	5 400	
	2402	4284	-30.12	12		-27.75	310.19	5 400	
	4284	10070	5.19	10		4.78	315.14	12A 400	
	4284	10069	2.28	12		2.10	312.46	12E 400	
	4284	2421	9.26	13		8.53	318.89	12A 401	
	4284	4273	10.36	10		9.54	319.90	12A 401	
	4284	6052	10.01	10		9.22	319.58	12A 401	
	4284	7355	9.61	10		8.85	319.21	12A 401	
	4284	7361	9.65	11		8.89	319.25	12A 401	
	2407	2402	24.57	10		-	-	3 402	
	2407	7358	-38.82	10	19.34	-	-	3 404	Apr. 12
	2407	4284	-5.23	11		-4.91	310.56	5 404	
	7358	4284	33.58	10		31.25	310.52	5 404	
	4284	6074	-12.27	10		-11.42	298.94	12E 404	
	4284	3756	-13.89	10		-12.93	297.43	12E 404	
	4284	7366	-6.83	11		-6.36	304.00	12A 405	
	4284	4276	-6.09	10		-5.67	304.69	12A 405	
	4284	2405	-4.70	10		-4.37	305.99	12A 405	
	4284	4293	-3.93	10		-3.66	306.70	12A 405	
	4284	2406	3.09	11		2.88	313.24	5 405	
	2407	7358	-39.02	10		-	-	3 406	

Table 1. Reference Gas Comparisons with Analyser No. 6

Col:	1	2	3	4	5	6	7	8	9
	(Sub) Standard Tank No.	Compared Tank No.	Observed Scale Difference	No. of Compari- sons	Recorder Scale Factor	Computed Index Difference	Computed Index	Table and Sheet No.	Date of Analysis
	<u>Span 310</u>								<u>1962</u>
	2407	2402	24.30	10	19.51	-	-	3 407	Apr. 13
	2407	4284	-5.73	10		-5.29	310.18	5 407	
	2402	4284	-30.12	10		-27.79	310.15	5 407	
	4284	10070	5.19	10		4.79	315.15	12A 407	
	4284	2421	9.37	10		8.64	319.00	12A 407	
	4284	4273	10.31	10		9.51	319.87	12A 408	
	4284	6052	10.02	10		9.24	319.60	12A 408	
	4284	7355	9.52	10		8.78	319.14	12A 408	
	4284	7361	9.79	10		9.03	319.39	12A 408	
	2406	10070	2.14	11		1.97	315.20	12A 408	
	2406	6051	-3.42	10		-3.16	310.07	12G 409	
	2406	2402	26.80	10		-	-	3 409	
	2407	7358	-39.24	9	19.45	-	-	3 410	Apr. 16
	2407	4284	-5.62	10		-5.20	310.27	5 410	
	7358	4284	33.43	10		30.94	310.21	5 410	
	4284	4276	-5.77	10		-5.35	305.02	12A 410	
	4284	2405	-4.51	10		-4.17	306.19	12A 410	
	4284	4293	-3.75	10		-3.47	306.89	12A 411	
	4284	7366	-6.51	10		-6.02	304.34	12A 411	
	4284	10065	-33.83	10		-31.31	279.05	12A 411	
	4284	4287	-17.75	10		-16.43	293.93	12G 411	
	7358	10065	-0.38	8		-0.35	278.92	12A 411	
	2407	7358	-39.07	10		-	-	3 412	

Table 1. Reference Gas Comparisons with Analyser No. 46

Col:	1	2	3	4	5	6	7	8	9
	(Sub) Standard Tank No.	Compared Tank No.	Observed Scale Difference	No. of Compari- sons	Recorder Scale Factor	Computed • Index Difference	Computed Index	Table and Sheet No.	Date of Analysis
	<u>Span 310</u>								<u>1962</u>
	2407	2402	24.36	9	19.60	-	-	3 413	Apr. 17
	2407	4284	-5.85	10		-5.37	310.10	5 413	
	2402	4284	-30.19	10		-27.73	310.21	5 413	
	4284	10070	5.28	9		4.85	315.21	12A 413	
	4284	6052	10.04	10		9.22	319.58	12A 413	
	4284	7355	9.65	10		8.86	319.22	12A 414	
	4284	4273	10.48	10		9.62	319.98	12A 414	
	4284	7361	9.71	9		8.92	319.28	12A 414	
	4284	2406	3.32	10		3.05	313.41	5 414	
	4284	6051	-0.33	10		-0.30	310.06	12G 414	
	4284	1004	1.55	10		1.42	311.78	12G 415	
	2407	2402	24.71	10		-	-	3 415	
	2407	2402	24.41	10	19.58	-	-	3 418	Apr. 24
	2407	4284	-5.74	10		-5.28	310.19	5 418	
	2402	4284	-30.24	10		-27.80	310.14	5 418	
	4284	2404	-0.03	9		-0.03	310.33	12A 418	
	4284	4295	-0.10	10		-0.09	310.27	5 418	
	4284	10070	5.14	10		4.73	315.09	12A 419	
	4284	6051	-0.32	10		-0.29	310.07	12G 419	
	4284	2421	9.03	10		8.30	318.66	12A 419	
	2407	3760	-4.56	10		-4.19	311.28	12E 419	
	2407	2403	-4.72	12		-4.34	311.13	12D 419	
	2407	2406	-2.45	11		-2.25	313.22	5 420	
	2407	2402	24.40	10		-	-	3 420	

Table 1. Reference Gas Comparisons with Analyser No. 46

Col:	1	2	3	4	5	6	7	8	9
	(Sub) Standard Tank No.	Compared Tank No.	Observed Scale Difference	No. of Compari- sons	Recorder Scale Factor	Computed Index Difference	Computed Index	Table and Sheet No.	Date of Analysis
	<u>Span 500</u>								
	2407	7358	-59.82	10	29.69	-	-	3 422	1962 Apr. 26
	2407	4284	-8.57	11		-5.20	310.27	5 422	
	7358	4284	51.18	10		31.03	310.30	5 422	
	4284	2403	1.49	9		0.90	311.26	12D 422	
	4284	2404	-0.07	10		-0.04	310.32	12A 422	
	4284	3760	1.90	10		1.15	311.51	12B 423	
	4284	4289	-8.76	10		-5.31	305.05	12A 423	
	4284	4295	-0.09	10		-0.05	310.31	5 423	
	4284	10070	7.78	10		4.72	315.08	12A 423	
	2407	2403	-7.14	10		-4.33	311.14	12D 423	
	2407	2404	-8.77	12		-5.32	310.15	12A 424	
	2407	7358	-59.54	10		-	-	3 424	
	<u>Span 310</u>								
	2407	2402	24.06	13	19.33	-	-	3 425	Apr. 27
	2407	4284	-5.72	10		-5.33	310.14	5 425	
	2402	4284	-29.70	10		-27.66	310.28	5 425	
	2402	4290	-1.32	12		-1.23	336.71	12A 425	
	4284	4290	28.60	9		26.63	336.99	12A 425	
	4284	10070	5.15	10		4.80	315.16	12A 426	
	4284	4295	-0.05	10		-0.05	310.31	5 426	
	4284	2403	0.94	12		0.88	311.24	12D 426	
	4284	3760	1.14	10		1.06	311.42	12B 426	
	2407	2406	-2.24	11		-2.09	313.38	5 426	
	2407	1004	-4.09	10		-3.81	311.66	12G 427	
	2407	2402	24.38	10		-	-	3 427	

Table 1. Reference Gas Comparisons with Analyser No. 116

Col:	1	2	3	4	5	6	7	8	9
	(Sub) Standard Tank No.	Compared Tank No.	Observed Scale Difference	No. of Compari- sons	Recorder Scale Factor	Computed Index Difference	Computed Index	Table and Sheet No.	Date of Analysis
	<u>Span 310</u>								<u>1962</u>
	2407	7358	-38.74	10	19.38	-	-	3 428	Apr. 30
	2407	4284	-5.38	10		-5.00	310.47	5 428	
	7358	4284	33.66	11		31.26	310.53	5 428	
	4284	4289	-5.87	11		-5.45	304.91	12A 428	
	4284	2403	0.89	9		0.83	311.19	12D 428	
	4284	3760	1.09	10		1.01	311.37	12B 429	
	4284	10071	9.62	10		8.93	319.29	12E 429	
	4284	10073	-12.52	10		-11.63	298.73	12E 429	
	4284	2404	-0.22	12		-0.20	310.16	12A 429	
	4284	4295	-0.20	11		-0.19	310.17	5 429	
	2407	2406	-2.45	11		-2.28	313.19	5 430	
	2407	2402	24.30	10		-	-	3 430	
	2407	7358	-38.41	11	19.29	-	-	3 434	May 4
	2407	4284	-5.15	11		-4.81	310.66	5 434	
	7358	4284	33.92	12		31.65	310.92	5 434	
	4284	4289	-6.30	10		-5.88	304.48	12A 434	
	4284	11663	-4.08	12		-3.81	306.55	12A 435	
	4284	11089	-4.86	14		-4.53	305.83	12A 435	
	4284	3760	0.88	9		0.82	311.18	12B 435	
	2407	2402	24.13	10		-	-	3 436	

Table 1. Reference Gas Comparisons with Analyser No. 46

Col:	1	2	3	4	5	6	7	8	9
	(Sub) Standard Tank No.	Compared Tank No.	Observed Scale Difference	No. of Compari- sons	Recorder Scale Factor	Computed Index Difference	Computed Index	Table and Sheet No.	Date of Analysis
	<u>Span 310</u>								<u>1962</u>
	2407	7358	-39.36	11	19.53	-	-	3 437	May 5
	2407	4284	-5.86	10		-5.40	310.07	5 437	
	7358	4284	33.25	10		30.64	309.91	5 437	
	4284	11089	-4.38	11		-4.04	306.32	12A 437	
	4284	11633	-3.56	12		-3.28	307.08	12A 437	
	4284	10070	4.85	11		4.47	314.82	12A 438	
	4284	3760	0.95	10		0.88	311.23	12B 438	
	2407	4295	-5.49	10		-5.06	310.41	5 438	
	2407	2404	-5.49	11		-5.06	310.41	12A 438	
	2407	2402	24.43	10		-	-	3 439	
	2407	7358	-38.37	11	19.15	-	-	3 440	May 10
	2407	4284	-5.37	10		-5.05	310.42	5 440	
	7358	4284	33.27	10		31.27	310.54	5 440	
	4284	11633	-3.57	10		-3.36	307.00	12A 440	
	4284	11089	4.43	10		4.16	306.20	12A 440	
	2407	2406	-2.19	12		-2.06	313.41	5 441	
	2407	3760	-4.12	10		-3.87	311.60	12B 441	
	2407	4295	-5.30	10		-4.98	310.49	5 441	
	2407	7358	-38.53	9		-	-	3 441	
	2407	7358	-38.58	12	19.19	-	-	3 442	May 24
	2407	4284	-5.48	11		-5.14	310.33	5 442	
	7358	4284	33.25	12		31.19	310.46	5 442	
	4284	10064	9.35	10		8.77	301.59	12D 442	
	4284	2426	2.93	10		2.75	307.61	12E 442	
	4284	11097	-3.15	10		-2.96	307.40	12D 443	
	4284	11078	-2.15	10		-2.02	308.34	12D 443	
	4284	4274	1.71	10		1.60	308.76	12C 443	
	4284	4285	-3.35	10		-3.14	307.22	12C 443	
	2407	7358	-38.43	10		-	-	3 443	

Table 1. Reference Gas Comparisons with Analyser No. 46

Col:	1	2	3	4	5	6	7	8	9
	(Sub) Standard Tank No.	Compared Tank No.	Observed Scale Difference	No. of Compari- sons	Recorder Scale Factor	Computed Index Difference	Computed Index	Table and Sheet No.	Date of Analysis
	<u>Span 310</u>								<u>1962</u>
	2407	2402	24.46	10	19.54	-	-	3 444	May 30
	2407	4284	-5.23	11		-4.82	310.65	5 444	
	2402	4284	-29.70	10		-27.36	310.58	5 444	
	4284	148	8.67	11		7.99	318.35	12D 444	
	4284	11669	5.39	12		4.97	315.33	12C 444	
	4284	11083	4.20	12		3.87	314.23	12D 445	
	4284	4270	5.49	12		5.06	315.42	5 445	
	4284	11589	5.13	11		4.73	315.09	12F 445	
	4284	3752	1.57	10		1.45	311.81	12C 445	
	2407	2402	24.24	10		-	-	3 445	
	2407	7358	-38.55	10	19.30	-	-	3 446	June 5
	2407	4284	-5.41	10		-5.05	310.42	5 446	
	7358	4284	33.32	12		31.08	310.35	5 446	
	4284	4274	-1.80	11		-1.68	308.68	12C 446	
	4284	4285	-3.31	10		-3.09	307.27	12C 446	
	4284	2426	-3.16	10		-2.95	307.41	12E 447	
	4284	3756	-0.04	11		-0.04	310.32	12E 447	
	4284	136	-0.02	10		-0.02	310.34	12C 447	
	4284	4275	1.94	12		1.81	312.17	12A 447	
	4284	11669	5.52	10		5.15	315.51	12C 447	
	2407	2402	24.32	10		-	-	3 448	

Table 1. Reference Gas Comparisons with Analyser No. 46

Col:	1	2	3	4	5	6	7	8	9
	(Sub) Standard Tank No.	Compared Tank No.	Observed Scale Difference	No. of Compari- sons	Recorder Scale Factor	Computed Index Difference	Computed Index	Table and Sheet No.	Date of Analysis
	<u>Span 310</u>								<u>1962</u>
	2407	2402	24.59	12	19.47	-	-	3 449	June 14
	2407	4284	-5.25	13		-4.85	310.62	5 449	
	2402	4284	-29.52	10		-27.29	310.65	5 449	
	4284	10074	2.53	12		2.34	312.70	12B 449	
	4284	4270	5.40	10		4.99	315.35	5 449	
	4284	11669	5.43	10		5.02	315.38	12C 450	
	4284	4274	-1.75	12		-1.62	308.74	12C 450	
	4284	4285	-3.33	10		-3.08	307.28	12C 450	
	2407	136	5.29	11		4.89	310.58	12C 450	
	2407	7358	-38.74	11		-	-	3 450	
	2407	2402	24.62	12	19.58	-	-	3 451	June 27
	2407	4284	-5.26	11		-4.84	310.63	5 451	
	2402	4284	-29.69	10		-27.29	310.65	5 451	
	4284	4292	35.32	10		32.47	342.83	12B 451	
	4284	11589	4.54	11		4.17	314.53	12F 451	
	4284	11083	4.18	10		3.84	314.20	12D 452	
	4284	3752	1.62	10		1.49	311.85	12C 452	
	4284	3760	0.89	10		0.82	311.18	12B 452	
	2407	4295	-5.51	11		-5.07	310.40	5 452	
	2407	2402	24.24	10		-	-	3 452	
	2407	2402	24.85	11	19.71	-	-	3 453	July 6
	2407	4284	-5.21	10		-4.76	310.71	5 453	
	2402	4284	-30.03	10		-27.42	310.52	5 453	
	4284	3751	34.57	12		31.57	341.93	12C 453	
	4284	11669	5.62	10		5.13	315.49	12C 453	
	4284	4275	1.88	13		1.72	312.08	12A 454	
	4284	11589	4.61	12		4.21	314.57	12F 454	
	4284	4270	5.65	11		5.16	315.52	5 454	
	2407	136	-5.38	12		-4.91	310.56	12C 454	
	2407	7358	-38.88	10		-	-	3 454	

Table 1. Reference Gas Comparisons with Analyser No. 46

Col:	1	2	3	4	5	6	7	8	9
	(Sub) Standard Tank No.	Compared Tank No.	Observed Scale Difference	No. of Compari- sons	Recorder Scale Factor	Computed Index Difference	Computed Index	Table and Sheet No.	Date of Analysis
	<u>Span 310</u>								<u>1962</u>
	2407	7358	-38.78	10	19.21	-	-	3 455	July 17
	2407	4284	-5.48	11		-5.13	310.34	5 455	
	7358	4284	33.24	12		31.15	310.42	5 455	
	4284	6074	-16.79	12		-15.73	294.63	12C 455	
	4284	6078	-7.90	10		-7.40	302.96	12E 455	
	4284	3755	-4.02	12		-3.77	306.59	12E 456	
	4284	10068	-1.40	12		-1.31	309.05	12E 456	
	4284	10072	-5.80	11		-5.43	304.93	12D 456	
	4284	164	-1.67	12		-1.56	308.80	12C 456	
	2407	7358	-38.42	11		-	-	3 456	
	2407	2402	24.67	10	19.68	-	-	3 457	July 19
	2407	4284	-5.54	11		-5.07	310.40	5 457	
	2402	4284	-30.07	10		-27.50	310.44	5 457	
	4284	4270	5.68	11		5.20	315.56	5 457	
	4284	10083	4.31	10		3.94	314.30	12D 457	
	4284	11589	4.72	10		4.32	314.68	12F 458	
	4284	3751	34.59	10		31.64	342.00	12C 458	
	4284	3760	1.10	10		1.01	311.37	12B 458	
	2406	11669	2.56	11		2.34	315.57	12C 458	
	2406	2402	26.96	10		-	-	3 458	

Table 1. Reference Gas Comparisons with Analyser No. 46

Col:	1	2	3	4	5	6	7	8	9
	(Sub) Standard Tank No.	Compared Tank No.	Observed Scale Difference	No. of Compari- sons	Recorder Scale Factor	Computed Index Difference	Computed Index	Table and Sheet No.	Date of Analysis
	Span 310								1962
	2407	7358	-39.11	11	19.38	-	-	3 459	July 25
	2407	4284	-5.74	11		-5.33	310.14	5 459	
	7358	4284	33.39	12		31.01	310.28	5 459	
	4284	6074	-16.91	12		-15.71	294.65	12C 459	
	4284	11085	-11.33	12		-10.52	299.84	12C 459	
	4284	11111	-8.15	10		-7.57	302.80	12C 460	
	4284	11080	-7.87	10		-7.31	303.05	12C 460	
	4284	7364	-6.98	10		-6.48	303.88	12C 460	
	4284	143	-4.00	10		-3.72	306.64	12C 460	
	4284	10064	-4.83	10		-4.49	305.87	12C 460	
	4284	10067	-8.56	10		-7.95	302.41	12C 461	
	4284	11082	-7.78	10		-7.23	303.13	12C 461	
	7358	6074	16.41	11		15.24	294.51	12C 461	
	2407	7358	-38.65	11		-	-	3 461	
	2407	7358	-39.25	10	19.41	-	-	3 462	July 26
	2407	4295	-5.76	10		-5.34	310.13	5 462	
	7358	4295	33.33	12		30.91	310.18	5 462	
	4295	11094	-8.99	12		-8.34	301.88	12C 462	
	4295	11092	-7.34	12		-6.81	303.40	12C 462	
	4295	10073	-11.96	12		-11.09	299.13	12C 463	
	4295	11076	-8.38	10		-7.77	302.45	12C 463	
	4295	6074	-16.70	10		-15.49	294.73	12C 464	
	2407	7358	-38.76	11		-	-	3 464	
	2407	7358	-38.75	10	19.26	-	-	3 465	Aug. 9
	2407	4295	-5.50	11		-5.14	310.33	5 465	
	7358	4295	33.23	12		31.06	310.33	5 465	

Table 1. Reference Gas Comparisons with Analyser No. 46

Col:	1	2	3	4	5	6	7	8	9
	(Sub) Standard Tank No.	Compared Tank No.	Observed Scale Difference	No. of Compari- sons	Recorder Scale Factor	Computed Index Difference	Computed Index	Table and Sheet No.	Date of Analysis
	<u>Span 310</u>								<u>1962</u>
	2407	7358	-38.69	10	19.17	-	-	3 466	Aug. 13
	2407	4295	-5.53	10		-5.19	310.28	5 466	
	7358	4295	33.17	11		31.15	310.42	5 466	
	4295	148	-4.02	11		-3.77	306.45	12C 466	
	4295	7364	-6.99	10		-6.56	303.66	12C 466	
	4295	10064	-4.69	10		-4.40	305.82	12C 466	
	4295	10067	-8.38	10		-7.87	302.35	12C 466	
	4295	11080	-7.83	10		-7.40	302.82	12C 466	
	4295	11082	-7.61	10		-7.15	303.07	12C 466	
	4295	11085	-11.20	9		-10.52	299.70	12C 466	
	4295	11111	-7.94	10		-7.46	302.76	12C 466	
	7358	6074	16.18	11		15.19	294.46	12C 466	
	2407	7358	-38.25	10		-	-	3 466	
	2407	7358	-38.91	10	19.40	-	-	469	Aug. 14
	2407	4295	-5.51	10		-5.11	310.36	5 469	
	7358	4295	33.32	12		30.92	310.19	5 469	
	4295	164	-1.62	11		-1.50	308.72	12C 469	
	4295	11076	-8.60	11		-7.98	302.24	12C 469	
	4295	10092	-7.53	10		-6.99	303.23	12C 470	
	4295	10094	-9.20	10		-8.54	301.68	12C 470	
	4295	3760	1.21	11		1.12	311.34	12B 470	
	4295	4275	1.97	10		1.83	312.05	12A 470	
	4295	11083	4.41	10		4.09	314.31	12D 470	
	4295	4270	5.82	12		5.40	315.62	5 471	
	2402	3751	4.61	10		4.28	342.22	12C 471	
	2407	2402	24.38	10		-	-	471	

Table 1. Reference Gas Comparisons with Analyser No. 46

Col:	1	2	3	4	5	6	7	8	9
	(Sub) Standard Tank No.	Compared Tank No.	Observed Scale Difference	No. of Compari- sons	Recorder Scale Factor	Computed Index Difference	Computed Index	Table and Sheet No.	Date of Analysis
	<u>Span 310</u>								<u>1962</u>
	2407	7358	-38.46	11	19.14	-	-	3 472	Aug. 17
	2407	4295	-5.46	13		-5.13	310.34	5 472	
	7358	4295	33.08	14		31.11	310.38	5 472	
	4295	3755	-5.65	13		-5.31	304.91	12A 472	
	4295	4285	-8.67	10		-8.15	302.07	12D 472	
	4295	10068	-7.16	11		-6.73	303.49	12A 473	
	4295	10071	-9.09	10		-8.55	301.67	12E 473	
	4295	4272	-8.58	12		-8.07	302.15	12D 473	
	2407	7358	-38.49	12		-	-	3 473	
	2407	7358	-38.42	13	19.05	-	-	3 474	Aug. 21
	2407	4295	-5.70	10		-5.39	310.08	5 474	
	7358	4295	32.46	10		30.67	309.94	5 474	
	4295	4274	-7.54	9		-7.12	303.10	12A 474	
	4295	10073	-5.12	10		-4.84	305.38	12A 474	
	4295	6078	-7.12	12		-6.73	303.49	12A 475	
	4295	10072	-7.45	10		-7.04	303.18	12F 475	
	4295	4270	5.75	12		5.43	315.65	5 475	
	4295	3751	33.55	11		31.70	341.92	12C 475	
	2407	3751	28.32	9		26.76	342.23	12C 475	
	2407	2402	23.81	9		-	-	3 476	
	2407	7358	-38.24	11	18.99	-	-	3 477	Aug. 23
	2407	4295	-5.52	11		-5.23	310.24	5 477	
	7358	4295	32.82	9		31.11	310.38	5 477	
	4295	3757	-11.49	10		-10.89	299.33	12E 477	
	4295	3755	-5.57	12		-5.28	304.94	12A 477	
	4295	4285	-8.62	10		-8.17	302.05	12D 478	
	4295	10068	-7.18	11		-6.81	303.41	12A 478	
	4295	10071	-9.00	11		-8.53	301.69	12E 478	
	2406	136	-2.79	10		-2.64	310.59	12C 478	
	2406	6074	-19.55	10		-18.53	294.70	12C 478	
	2406	7358	-35.70	12		-	-	3 479	

Table 1. Reference Gas Comparisons with Analyser No. 116

Col:	1	2	3	4	5	6	7	8	9
	(Sub) Standard Tank No.	Compared Tank No.	Observed Scale Difference	No. of Compari- sons	Recorder Scale Factor	Computed Index Difference	Computed Index	Table and Sheet No.	Date of Analysis
	<u>Span 310</u>								<u>1962</u>
	2407	2402	23.80	11	19.14	-	-	3 480	Aug. 28
	2407	4295	-5.83	10		-5.48	309.99	5 480	
	2402	4295	-29.70	10		-27.93	310.01	5 480	
	4295	4291	26.82	10		25.22	335.44	12E 480	
	4295	4270	5.81	10		5.46	315.68	5 480	
	4295	10074	2.93	10		2.76	312.98	12B 481	
	4295	7321T	1.98	10		1.86	312.08	12F 481	
	4295	4292	35.35	10		33.24	343.46	12B 481	
	2402	136	-29.47	11		-27.71	310.23	12C 481	
	2407	136	-5.22	10		-4.91	310.56	12C 482	
	2407	2402	24.00	10		-	-	3 482	
	2407	7358	-37.52	10	18.76	-	-	3 483	Sept. 20
	2407	4295	-5.34	10		-5.12	310.35	5 483	
	7358	4295	32.38	10		31.07	310.34	5 483	
	4295	488220	-27.36	10		-26.25	283.97	12F 483	
	4295	4274	-7.54	11		-7.23	302.99	12A 483	
	4295	10073	-5.13	10		-4.92	305.30	12A 484	
	4295	6078	-7.25	10		-6.96	303.26	12A 484	
	4295	10074	2.68	11		2.57	312.79	12B 484	
	4295	4270	5.46	11		5.24	315.46	5 484	
	4295	4291	26.08	11		25.02	335.24	12E 485	
	2407	2402	23.53	10		-	-	3 485	

Table 1. Reference Gas Comparisons with Analyser No. 46

Col:	1	2	3	4	5	6	7	8	9
	(Sub) Standard Tank No.	Compared Tank No.	Observed Scale Difference	No. of Compari- sons	Recorder Scale Factor	Computed Index Difference	Computed Index	Table and Sheet No.	Date of Analysis
	<u>Span 310</u>								<u>1962</u>
	2407	7358	-37.37	9	18.47	-	-	3 486	Oct. 3
	2407	4295	-5.55	10		-5.41	310.06	5 486	
	7358	4295	31.31	10		30.51	309.78	5 486	
	4295	3755	-5.18	10		-5.05	305.17	12A 486	
	4295	4274	-7.21	10		-7.03	303.19	12A 486	
	4295	6078	-6.92	10		-6.74	303.48	12A 487	
	4295	10068	-6.74	11		-6.57	303.65	12A 487	
	4295	10073	-4.96	10		-4.83	305.39	12A 487	
	4295	4270	5.52	10		5.38	315.60	5 487	
	2407	2402	23.10	10		-	-	3 487	
	2407	7358	-36.34	10	18.13	-	-	3 488	Oct. 16
	2407	4295	-5.19	10		-5.15	310.32	5 488	
	7358	4295	31.31	10		31.09	310.36	5 488	
	4295	4272	-8.34	10		-8.28	301.94	12D 488	
	4295	6067	-6.71	10		-6.66	303.56	12D 488	
	4295	2418	-1.36	10		-1.35	308.87	12C 489	
	4295	2403	0.86	10		0.85	311.07	12D 489	
	4295	10074	2.62	10		2.60	312.82	12B 489	
	2402	4291	-2.79	10		-2.77	335.17	12E 489	
	2407	2402	22.67	10		-	-	3 489	

Table 1. Reference Gas Comparisons with Analyser No. 46

Col:	1	2	3	4	5	6	7	8	9
	(Sub) Standard Tank No.	Compared Tank No.	Observed Scale Difference	No. of Compari- sons	Recorder Scale Factor	Computed Index Difference	Computed Index	Table and Sheet No.	Date of Analysis
	<u>Span 310</u>								<u>1962</u>
	2407	7358	-36.38	10	18.15	-	-	3 490	Oct. 17
	2407	2408	-36.30	10		-36.00	279.47	5 490	
	7358	2408	0.32	10		0.32	279.59	5 490	
	7358	4296	13.77	10		13.66	292.93	12G 490	
	7358	4287	14.72	10		14.60	293.87	12G 490	
	4295	2403	0.86	10		0.85	311.07	12D 491	
	4295	2399	25.40	10		25.19	335.41	12D 491	
	2402	2399	-2.44	10		-2.42	335.52	12D 491	
	2407	2402	22.67	10		-	-	3 491	
	2407	2402	22.29	10	17.84	-	-	3 493	Oct. 25
	2407	2403	-4.37	11		-4.41	311.06	12D 493	
	2402	2403	-26.64	10		-26.88	311.06	12D 493	
	4295	2403	0.78	11		0.79	311.01	12D 493	
	4295	11083	3.97	10		4.01	314.23	12D 493	
	4295	11589	4.32	10		4.36	314.58	12F 494	
	4295	4270	5.16	10		5.21	315.43	5 494	
	4295	4284	11.36	10		11.46	321.68	12E 494	
	4295	2399	24.94	10		25.16	335.38	12D 494	
	2402	2399	-2.35	10		-2.37	335.57	12D 495	
	2407	2402	22.25	10		-	-	3 495	

Table 1. Reference Gas Comparisons with Analyser No. 46

Col:	1	2	3	4	5	6	7	8	9
	(Sub) Standard Tank No.	Compared Tank No.	Observed Scale Difference	No. of Compari- sons	Recorder Scale Factor	Computed Index Difference	Computed Index	Table and Sheet No.	Date of Analysis
	<u>Span 310</u>								<u>1962</u>
	2407	2402	22.33	10	17.67	-	-	3 496	Nov. 1
	2407	4295	-5.09	11		-5.19	310.28	5 496	
	2402	4295	-27.09	10		-27.60	310.34	5 496	
	4295	2423	0.81	11		0.83	311.05	12D 496	
	4295	3757	2.00	10		2.04	312.26	12E 496	
	4295	4286	3.53	10		3.60	313.82	12E 497	
	4295	4278	4.00	10		4.07	314.29	12E 497	
	4295	10072	4.44	10		4.52	314.74	12E 497	
	4295	7362	4.97	10		5.06	315.28	12E 497	
	4295	4284	11.33	10		11.54	321.76	12E 497	
	2407	2402	21.86	10		-	-	3 498	
	2407	2402	22.29	11	17.73	-	-	3 499	Nov. 5
	2407	4295	-5.05	11		-5.13	310.34	5 499	
	2402	4295	-27.22	10		-27.63	310.31	5 499	
	4295	10069	35.64	10		36.18	346.40	5 499	
	4295	10077	36.07	10		36.62	346.84	12F 499	
	4295	4270	5.14	11		5.22	315.44	5 500	
	4295	3757	1.99	11		2.02	312.24	12E 500	
	4295	4278	3.90	10		3.96	314.18	12E 500	
	4295	7362	5.21	9		5.29	315.51	12E 500	
	2407	2402	21.93	10		-	-	3 500	

Table 1. Reference Gas Comparisons with Analyser No. 116

Col:	1	2	3	4	5	6	7	8	9
	(Sub) Standard Tank No.	Compared Tank No.	Observed Scale Difference	No. of Compari- sons	Recorder Scale Factor	Computed Index Difference	Computed Index	Table and Sheet No.	Date of Analysis
	Span 310								1962
	2407	7358	-35.39	11	17.49	-	-	3 501	Nov. 9
	7358	4287	14.01	10		14.42	293.69	12G 501	
	2407	4287	-21.22	10		-21.84	293.63	12G 501	
	7358	2408	0.12	9		0.12	279.39	5 501	
	7358	4296	13.08	12		13.46	292.73	12G 501	
	4295	2425	0.49	10		0.50	310.72	12D 502	
	4295	10072	4.41	10		4.54	314.76	12E 502	
	4295	4286	3.34	10		3.44	313.66	12E 502	
	4295	1004	1.36	10		1.40	311.62	12G 502	
	2407	7358	34.85	10		-	-	3 502	
	2407	2402	21.99	11	17.61	-	-	3 503	Nov. 12
	2407	10069	30.49	11		31.17	346.64	5 503	
	2402	10069	8.51	11		8.70	346.64	5 503	
	2402	10077	8.90	10		9.10	347.04	12F 503	
	2407	2402	22.30	10	17.73	-	-	3 504	Nov. 15
	2407	10069	30.85	11		31.32	346.79	5 504	
	2402	10069	8.84	11		8.97	346.91	5 504	
	2402	10077	8.99	10		9.13	347.07	12F 504	
	2402	2399	-2.20	10		-2.23	335.71	12D 504	
	4295	C-7 (221)	9.81	11		9.96	320.18	12G 505	
	4295	2406	2.81	10		2.85	313.07	5 505	
	2402	2424	34.35	10		34.87	372.81	12F 505	
	2402	4292	5.34	11		5.42	343.36	12B 505	
	2407	4292	27.43	10		27.85	343.32	12B 505	

Table 1. Reference Gas Comparisons with Analyser No. 46

Col:	1	2	3	4	5	6	7	8	9
	(Sub) Standard Tank No.	Compared Tank No.	Observed Scale Difference	No. of Compari- sons	Recorder Scale Factor	Computed Index Difference	Computed Index	Table and Sheet No.	Date of Analysis
	<u>Span 310</u>								
	2407	7358	-35.22	10	17.33	-	-	3 506	<u>1962</u> Nov. 20
	2407	4295	-5.06	11		-5.26	310.21	5 506	
	7358	4295	29.31	10		30.44	309.71	5 506	
	4295	2418	-1.31	10		-1.36	308.86	12C 506	
	4295	2426	-2.45	10		-2.54	307.68	12E 506	
	4295	2427	-11.84	10		-12.30	297.92	12E 507	
	4295	3756	-0.14	9		-0.15	310.07	12E 507	
	4295	4270	5.17	10		5.37	315.59	5 507	
	4295	3760	1.13	10		1.17	311.39	12B 507	
	2407	7358	34.96	10		-	-	3 507	
	2407	7358	-34.98	11	17.38	-	-	3 508	Nov. 21
	2407	2402	21.83	10		-	-	3 508	
	2407	2399	19.47	11		20.16	335.63	12D 508	
	2402	2399	-2.20	10		-2.28	335.66	12D 508	
	2402	10069	8.54	10		8.84	346.78	5 508	
	2402	10077	8.95	11		9.27	347.21	12F 509	
	4295	10077	35.79	11		37.07	347.29	12F 509	
	4295	10069	35.43	10		36.69	346.91	5 509	
	2402	2399	-2.32	11		-2.40	335.54	12D 509	
	2407	2399	19.31	11		20.00	335.47	12D 509	
	2407	7358	-34.74	10		-	-	3 510	
	2402	4296	-13.30	10		-44.84	293.10	12G 510	

Table 1. Reference Gas Comparisons with Analyser No. 46

Col:	1	2	3	4	5	6	7	8	9
	(Sub) Standard Tank No.	Compared Tank No.	Observed Scale Difference	No. of Compari- sons	Recorder Scale Factor	Computed Index Difference	Computed Index	Table and Sheet No.	Date of Analysis
	<u>Span 310</u>								<u>1962</u>
	2407	7358	-35.43	10	17.52	-	-	3 511	Nov. 26
	2407	4295	-5.33	11		-5.48	309.99	5 511	
	7358	4295	29.88	10		30.70	309.97	5 511	
	4295	3760	1.36	10		1.40	311.62	12B 511	
	4295	4270	5.18	11		5.32	315.54	5 511	
	2407	4270	0.14	10		0.14	315.61	5 512	
	2407	2406	-2.18	11		-2.24	313.23	5 512	
	4295	2406	2.94	11		3.02	313.24	5 512	
	4295	6073	1.64	10		1.68	311.90	12C 512	
	4295	6051	-0.12	10		-0.12	310.10	12G 512	
	2407	7358	-35.07	10		-	-	3 513	
	2407	2402	21.75	10	17.41	-	-	3 514	Nov. 27
	2407	4270	0.00	10		0.00	315.47	5 514	
	2402	4270	-21.84	10		-22.58	315.36	5 514	
	4295	4270	5.11	11		5.28	315.50	5 514	
	4295	C-7	9.90	10		10.24	320.46	12G 514	
	4295	1004	1.33	10		1.38	311.60	12G 515	
	4295	6051	-0.16	5		-0.17	310.05	12G 515	
	4295	6073	1.60	10		1.65	311.87	12C 515	
	4295	2406	2.92	10		3.02	313.24	5 515	
	2407	2406	-2.15	10		-2.22	313.25	5 515	
	2407	2402	21.61	10		-	-	3 516	

Table 1. Reference Gas Comparisons with Analyser No. 46

Col:	1	2	3	4	5	6	7	8	9
	(Sub) Standard Tank No.	Compared Tank No.	Observed Scale Difference	No. of Compari- sons	Recorder Scale Factor	Computed • Index Difference	Computed Index	Table and Sheet No.	Date of Analysis
	<u>Span 310</u>								<u>1962</u>
	2407	7358	-35.01	10	17.32	-	-	3 517	Nov. 30
	2407	2408	-34.92	11		-36.29	279.18	5 517	
	7358	2408	0.12	12		0.12	279.39	5 517	
	7358	4296	13.02	11		13.53	292.80	12G 517	
	4295	4296	-16.73	10		-17.39	292.83	12G 517	
	2407	2402	21.54	10		-	-	3 518	
	2407	10069	29.87	11		31.04	346.51	5 518	
	2402	10069	8.43	10		8.76	346.70	5 518	
	4295	10069	34.97	11		36.34	346.56	5 518	
	4295	4287	-15.65	11		-16.26	293.96	12G 518	
	7358	4287	13.82	10		14.36	293.63	12G 518	
	2407	7358	-34.95	11	17.32	-	-	3 520	Dec. 3
	2407	10069	30.15	11		31.33	346.80	5 520	
	2402	10069	8.55	11		8.89	346.83	5 520	
	2402	10077	8.76	11		9.10	347.04	12F 520	
	2407	10077	30.41	10		31.60	347.07	12F 520	
	4295	10077	35.60	11		37.00	347.22	12F 521	
	4295	10069	35.28	10		36.67	346.89	5 521	
	4295	4292	31.89	11		33.14	343.36	12B 521	
	2402	4292	5.18	11		5.38	343.32	12B 521	
	2407	2402	21.55	11		-	-	3 521	
	2407	7358	-34.88	11		-	-	3 521	
	2402	7358	56.30	8		-	-	3 522	

Table 1. Reference Gas Comparisons with Analyser No. 46

Col:	1	2	3	4	5	6	7	8	9
	(Sub) Standard Tank No.	Compared Tank No.	Observed Scale Difference	No. of Compari- sons	Recorder Scale Factor	Computed Index Difference	Computed Index	Table and Sheet No.	Date of Analysis
	<u>Span 310</u>								<u>1962</u>
	2407	2402	21.33	10	17.14	-	-	3 523	Dec. 6
	2407	10069	29.89	11		31.39	346.86	5 523	
	2402	10069	8.40	10		8.82	346.76	5 523	
	4295	10069	34.90	11		36.65	346.87	5 523	
	4295	10077	35.27	10		37.04	347.26	12F 523	
	4295	11083	3.93	9		4.13	314.35	12D 524	
	4295	11589	4.36	10		4.58	314.80	12F 524	
	4295	6051	-0.23	9		-0.24	309.98	12G 524	
	4295	6073	1.57	10		1.65	311.87	12C 524	
	4295	C-7	9.72	10		10.21	320.43	12G 524	
	2407	2402	21.37	10		-	-	3 525	
	2407	2402	21.46	9	17.24	-	-	3 526	Dec. 7
	2407	4295	-5.10	10		-5.32	310.15	5 526	
	2402	4295	-26.71	11		-27.89	310.05	5 526	
	4295	1004	1.46	9		1.52	311.74	12G 526	
	4295	2406	2.96	11		3.09	313.31	5 526	
	2402	2406	-23.73	11		-24.78	313.16	5 527	
	2402	4270	-21.61	10		-22.56	315.38	5 527	
	4295	4270	5.17	10		5.40	315.62	5 527	
	4295	3760	1.18	10		1.23	311.45	12B 527	
	4295	7350	3.63	10		3.79	314.01	12F 527	
	2407	2402	21.48	9		-	-	3 528	

Table 2. Reference Gas Comparisons with Analyser No. 55

Col:	1	2	3	4	5	6	7	8	9
	(Sub) Standard Tank No.	Compared Tank No.	Observed Scale Difference	No. of Compari- sons	Recorder Scale Factor	Computed Index Difference	Computed Index	Table and Sheet No.	Date of Analysis
	<u>Span 340</u>								<u>1962</u>
	2407	7358	-37.15	10	18.43	-	-	396	Mar. 21
	2407	2418	-7.34	11		-7.17	308.30	12C 396	
	7358	2418	29.46	11		28.77	308.04	12C 396	
	2407	7362	-13.85	12		-13.53	301.94	12A 396	
	2407	2402	23.15	10		-	-	396	
	2407	7358	-35.35	10	17.74	-	-	397	Apr. 9
	2407	4284	-4.95	11		-5.01	310.46	5 397	
	7358	4284	30.92	10		31.37	310.64	5 397	
	4284	7362	-8.72	10		-8.85	301.50	12A 397	
	2407	7358	-35.80	10		-	-	397	
	2407	7358	-35.29	11	17.53	-	-	416	Apr. 18
	2407	4284	-5.34	11		-5.48	309.99	5 416	
	7358	4284	29.96	10		30.76	310.03	5 416	
	4284	7362	-8.31	10		-8.53	301.82	12A 416	
	4284	1540	-4.40	11		-4.52	305.83	12A 416	
	2407	2402	21.82	10		-	-	416	
	2407	7358	-35.18	10	17.46	-	-	421	Apr. 25
	2407	7362	-13.21	10		-13.62	301.85	12B 421	
	7358	7362	22.14	9		22.82	302.09	12B 421	
	7358	1540	25.28	10		26.06	305.33	12A 421	
	2407	1540	-9.58	10		-9.83	305.59	12A 421	

Table 2. Reference Gas Comparisons with Analyser No. 55

Col:	1	2	3	4	5	6	7	8	9
	(Sub) Standard Tank No.	Compared Tank No.	Observed Scale Difference	No. of Compari- sons	Recorder Scale Factor	Computed Index Difference	Computed Index	Table and Sheet No.	Date of Analysis
	<u>Span 240</u>								<u>1962</u>
	2407	7358	-35.47	10	17.68	-	-	431	May 1
	2407	1540	-9.91	11		-10.09	305.38	12A 431	
	7358	1540	25.64	12		26.10	305.37	12A 431	
	7358	4284	30.32	10		30.87	310.14	5 431	
	2407	4284	-5.03	10		-5.12	310.35	5 431	
	2407	2402	22.24	10		-	-	432	
	2407	2402	22.20	11	17.62	-	-	433	May 3
	2407	7361	4.09	10		4.18	319.65	12A 433	
	2402	7361	-18.11	11		-18.50	319.44	12A 433	
	2407	1540	-9.57	12		-9.78	305.69	12A 433	
	2407	7358	34.88	12		-	-	433	

Table 3. Recorder Scale Factors of Analyser No. 46

Col:	1	2	3	4	5	6	7	8
	(Sub) Standard Tank No.	Compared Tank No.	Observed Scale Difference	No. of Comparisons	Index Difference	Recorder Scale Factor Single Wt'd Set Average		Date of Analysis
	<u>Span 310</u>							<u>1961</u>
	2407	7358	-39.17	10	36.20	19.48		Nov 21
	2407	4286	- 6.16	10				
	7358	4286	33.23	10				
	2407	7358	-39.39*	10*	36.20	19.59		
	2407	7358	-39.22	10	36.20	19.50		
				30			19.52	
	2407	7358	-38.85	10	36.20	19.32		Dec 7
	2407	4286	- 6.09	10				
	7358	4286	32.89	10				
	2407	7358	-38.98*	10*	36.20	19.38		
	2407	7358	-38.71	10	36.20	19.25		
				30			19.32	
	2407	7358	-38.82	10	36.20	19.30		Dec 18
	2407	4286	- 6.09	11				
	7358	4286	32.98	10				
	2407	7358	-39.07*	10*	36.20	19.43		
	2407	2402	24.50	9	22.47	19.63		
				29			19.45	
	<u>Span 340</u>							<u>1962</u>
	2407	2402	26.98	10	22.47	21.61		Jan 10
	2407	4286	- 6.60	10				
	2402	4286	-33.36	10				
	2407	2402	26.76*	10*	22.47	21.44		
	2407	2402	26.80	10	22.47	21.47		
				30			21.51	

Table 3. Recorder Scale Factors of Analyser No.46

Col:	1	2	3	4	5	6	7	8
	(Sub) Standard Tank No.	Compared Tank No.	Observed Scale Difference	No. of Comparisons	Index Difference	Recorder Scale Factor Single Wt'd Set Average		Date of Analysis
	<u>Span 310</u>							<u>1962</u>
	2407	7358	-38.43	12	36.20	19.11		Jan. 12
	2407	4286	- 6.06	11				
	7358	4286	32.37	10				
	2407	7358	-38.43*	10*	36.20	19.11		
	2407	7358	-38.42	10	36.20	19.10		
				32			19.11	
	2407	2402	24.19	10	22.47	19.38		Jan. 13
	2407	4286	- 6.47	9				
	2402	4286	-30.59	10				
	2407	2402	24.12*	9*	22.47	19.32		
	2407	7358	-39.23	10	36.20	19.51		
				29			19.41	
	2407	7358	-39.19	10	36.20	19.49		Jan. 14
	2407	4286	- 6.32	11				
	7358	4286	32.86	10				
	2407	7358	-39.18*	10*	36.20	19.48		
	2407	2402	24.56	10	22.47	19.67		
				30			19.55	
	2407	7358	-38.75	10	36.20	19.27		Jan. 15
	2407	4286	- 6.18	11				
	7358	4286	32.85	11				
	2407	7358	-39.03*	11*	36.20	19.41		
	2407	7358	-38.39	10	36.20	19.09		
				31			19.26	

Table 3. Recorder Scale Factors of Analyser No. 46

Col:	1	2	3	4	5	6	7	8
	(Sub) Standard Tank No.	Compared Tank No.	Observed Scale Difference	No. of Comparisons	Index Difference	Recorder Scale Factor Single Wt'd Set Average		Date of Analysis
	<u>Span 310</u>							<u>1962</u>
	2407	7358	-38.55	10	36.20	19.17		Jan 16
	2407	4286	- 5.90	10				
	7358	4286	32.90	11				
	2407	7358	-38.80*	10*	36.20	19.29		
				20			19.23	
	2407	7358	-38.48	10	36.20	19.13		Jan 17
	2407	4286	- 6.31	10				
	7358	4286	32.01	11				
	2407	7358	-38.32*	10*	36.20	19.05		
	2407	2402	24.63	10	22.47	19.73		
				30			19.30	
	2407	2402	24.45	10	22.47	19.59		Jan 24
	2407	4286	- 6.53	10				
	2402	4286	-30.90	9				
	2407	2402	24.37*	9*	22.47	19.52		
	2407	2402	24.61	10	22.47	19.71		
				29			19.61	
	2407	2402	25.05	11	22.47	20.07		Jan 25
	2407	4286	- 5.91	10				
	2402	4286	-30.71	10				
	2407	24.02	24.80*	10*	22.47	19.87		
	2407	7358	-38.50	10	36.20	19.14		
				31			19.71	

Table 3. Recorder Scale Factors of Analyser No. 46

Col:	1	2	3	4	5	6	7	8
	(Sub) Standard Tank No.	Compared Tank No.	Observed Scale Difference	No. of Comparisons	Index Difference	Recorder Scale Factor Single Wt'd Set Average		Date of Analysis
	<u>Span 310</u>							<u>1962</u>
	2407	7358	-39.06	10	36.20	19.42		Jan 26
	2407	4286	- 5.98	10				
	7358	4286	33.18	12				
	2407	7358	-39.16*	10*	36.20	19.47		
	2407	2402	24.77	10	22.47	19.84		
				30			19.58	
	2407	2402	25.14	10	22.47	20.14		Jan 29
	2407	4286	- 5.91	10				
	2402	4286	-30.84	10				
	2407	2402	24.93*	10*	22.47	19.97		
	2407	2402	24.86	10	22.47	19.91		
				30			20.01	
	2407	2402	25.01	10	22.47	20.03		Jan 30
	2407	4286	- 5.96	11				
	2402	4286	-30.69	10				
	2407	2402	24.73*	10*	22.47	19.81		
	2407	2402	24.70	10	22.47	19.79		
				30			19.88	
	2407	7358	-38.49	10	36.20	19.14		Feb 2
	2407	4286	- 6.10	11				
	7358	4286	32.76	10				
	2407	7358	-38.86*	10*	36.20	19.32		
	2407	7358	-38.46	10	36.20	19.12		
				30			19.19	

Table 3. Recorder Scale Factors of Analyser No. 46

Col:	1	2	3	4	5	6	7	8
	(Sub) Standard Tank No.	Compared Tank No.	Observed Scale Difference	No. of Comparisons	Index Difference	Recorder Scale Factor Single Wt'd Set Average		Date of Analysis
	<u>Span 310</u>							<u>1962</u>
	2407	7358	-39.04	11	36.20	19.41		Feb 15
	2407	4286	- 6.15	11				
	7358	4286	32.55	11				
	2407	7358	-38.70*	11*	36.20	19.24		
	2407	7358	-38.83	10	36.20	19.31		
				32			19.32	
	2407	2402	24.25	10	22.47	19.43		Mar 16
	2407	4284	- 5.64	9				
	2402	4284	-30.27	10				
	2407	2402	24.63*	9*	22.47	19.73		
	2407	7358	38.70	11	36.20	19.24		
				30			19.45	
	2407	7358	-39.07	10	36.20	19.43		Mar 21
	2407	4284	- 5.74	10				
	7358	4284	33.41	12				
	2407	7358	-39.15*	10*	36.20	19.47		
	2407	7358	-38.82	10	36.20	19.30		
				30			19.40	
	2407	7358	-38.72	10	36.20	19.25		Apr 10
	2407	4284	- 5.48	9				
	7358	4284	33.64	10				
	2407	7358	-39.12*	9*	36.20	19.45		
	2407	7358	-38.90	11	36.20	19.34		
				30			19.34	

Table 3. Recorder Scale Factors of Analyser No. 46

Col:	1	2	3	4	5	6	7	8
	(Sub) Standard Tank No.	Compared Tank No.	Observed Scale Difference	No. of Comparisons	Index Difference	Recorder Scale Factor Single Wt'd Set Average		Date of Analysis
	<u>Span 310</u>							<u>1962</u>
	2407	2402	24.27	11	22.47	19.44		Apr 11
	2407	4284	- 5.75	10				
	2402	4284	-30.12	12				
	2407	2402	24.37*	10*	22.47	19.52		
	2407	2402	24.57	10	22.47	19.68		
				31			19.54	
	2407	7358	-38.82	10	36.20	19.30		Apr 12
	2407	4284	- 5.28	11				
	7358	4284	33.58	10				
	2407	7358	-38.86*	10*	36.20	19.32		
	2407	7358	-39.02	10	36.20	19.40		
				30			19.34	
	2407	2402	24.30	10	22.47	19.47		Apr 13
	2407	4284	- 5.73	10				
	2402	4284	-30.12	10				
	2407	2402	24.39*	10*	22.47	19.54		
	2406	2402	26.80	10	24.71	19.52		
				30			19.51	
	2407	7358	-39.24	9	36.20	19.51		Apr 16
	2407	4284	- 5.62	10				
	7358	4284	33.43	10				
	2407	7358	-39.05*	10*	36.20	19.42		
	2407	7358	-39.07	10	36.20	19.43		
				29			19.45	

Table 3. Recorder Scale Factors of Analyser No. 46

Col:	1	2	3	4	5	6	7	8
	(Sub) Standard Tank No.	Compared Tank No.	Observed Scale Difference	No. of Comparisons	Index Difference	Recorder Scale Factor Single Wt'd Set Average		Date of Analysis
	<u>Span 310</u>							<u>1962</u>
	2407	2402	24.36	9	22.47	19.51		Apr 17
	2407	4284	- 5.85	10				
	2402	4284	-30.19	10				
	2407	2402	24.34*	10*	22.47	19.50		
	2407	2402	24.71	10	22.47	19.79		
				29			19.60	
	2407	2402	24.41	10	22.47	19.55		Apr 24
	2407	4284	- 5.74	10				
	2402	4284	-30.24	10				
	2407	2402	24.50*	10*	22.47	19.63		
	2407	2402	24.40	10	22.47	19.55		
				30			19.58	
	<u>Span 500</u>							<u>1962</u>
	2407	7358	-59.82	10	36.20	29.74		Apr 26
	2407	4284	- 8.57	11				
	7358	4284	51.18	10				
	2407	7358	-59.75*	10*	36.20	29.71		
	2407	7358	-59.54	10	36.20	29.61		
				30			29.69	
	<u>Span 310</u>							<u>1962</u>
	2407	2402	24.06	13	22.47	19.27		Apr 27
	2407	4284	- 5.72	10				
	2402	4284	-29.70	10				
	2407	2402	23.98*	10*	22.47	19.21		
	2407	2402	24.38	10	22.47	19.53		
				33			19.33	

Table 3. Recorder Scale Factors of Analyser No. 46

Col:	1	2	3	4	5	6	7	8
	(Sub) Standard Tank No.	Compared Tank No.	Observed Scale Difference	No. of Comparisons	Index Difference	Recorder Scale Factor Single Wt'd Set Average		Date of Analysis
	<u>Span 310</u>							<u>1962</u>
	2407	7358	-38.74	10	36.20	19.26		Apr 30
	2407	4284	- 5.38	10				
	7358	4284	33.66	11				
	2407	7358	-39.04*	10*	36.20	19.41		
	2407	2402	24.30	10	22.47	19.47		
				30			19.38	
	2407	7358	-38.41	11	36.20	19.10		May 4
	2407	4284	- 5.15	11				
	7358	4284	33.92	12				
	2407	7358	-39.07*	11*	36.20	19.43		
	2407	2402	24.13	10	22.47	19.33		
				32			19.29	
	2407	7358	-39.36	11	36.20	19.57		May 5
	2407	4284	- 5.86	10				
	7358	4284	33.25	10				
	2407	7358	-39.11*	10*	36.20	19.45		
	2407	2402	24.43	10	22.47	19.57		
				31			19.53	
	2407	7358	-38.37	11	36.20	19.08		May 10
	2407	4284	- 5.37	10				
	7358	4284	33.27	10				
	2407	7358	-38.64*	10*	36.20	19.21		
	2407	73.58	-38.53	9	36.20	19.16		
				30			19.15	

Table 3. Recorder Scale Factors of Analyser No. 46

Col:	1	2	3	4	5	6	7	8
	(Sub) Standard Tank No.	Compared Tank No.	Observed Scale Difference	No. of Comparisons	Index Difference	Recorder Scale Factor Single Wt'd Set Average		Date of Analysis
	<u>Span 310</u>							<u>1962</u>
	2407	7358	-38.58	12	36.20	19.18		May 24
	2407	4284	- 5.48	11				
	7358	4284	33.25	12				
	2407	7358	-38.73*	11*	36.20	19.26		
	2407	7358	-38.43	10	36.20	19.11		
				33			19.19	
	2407	2402	24.46	10	22.47	19.59		May 31
	2407	4284	- 5.23	11				
	2402	4284	-29.70	10				
	2407	2402	24.47*	10*	22.47	19.60		
	2407	2402	24.24	10	22.47	19.42		
				30			19.54	
	2407	7358	-38.55	10	36.20	19.17		Jun 5
	2407	4284	- 5.41	10				
	7358	4284	33.32	12				
	2407	7358	-38.73*	10*	36.20	19.26		
	2407	2402	24.32	10	22.47	19.48		
				30			19.30	
	2407	2402	24.59	12	22.47	19.70		Jun 14
	2407	4284	- 5.25	13				
	2402	4284	-29.52	10				
	2407	2402	24.27*	10*	22.47	19.44		
	2407	7358	-38.74	11	36.20	19.26		
				33			19.47	

Table 3. Recorder Scale Factors of Analyser No. 46

Col:	1	2	3	4	5	6	7	8
	(Sub) Standard Tank No.	Compared Tank No.	Observed Scale Difference	No. of Comparisons	Index Difference	Recorder Scale Factor Single Wt'd Set Average		Date of Analysis
	<u>Span 310</u>							<u>1962</u>
	2407	2402	24.62	12	22.47	19.72		Jun 27
	2407	4284	- 5.26	11				
	2402	4284	-29.69	10				
	2407	2402	24.43*	10*	22.47	19.57		
	2407	2402	24.24	10	22.47	19.42		
				32			19.58	
	2407	2402	24.85	11	22.47	19.91		Jul 6
	2407	4284	- 5.21	10				
	2402	4284	-30.03	10				
	2407	2402	24.82*	10*	22.47	19.88		
	2407	7358	-38.88	10	36.20	19.33		
				31			19.71	
	2407	7358	-38.78	10	36.20	19.28		Jul 17
	2407	4284	- 5.48	11				
	7358	4284	33.24	12				
	2407	7358	-38.72*	11*	36.20	19.25		
	2407	7358	-38.42	11	36.20	19.10		
				32			19.21	
	2407	2402	24.67	10	22.47	19.76		Jul 19
	2407	4284	- 5.54	11				
	2402	4284	-30.07	10				
	2407	2402	24.53*	10*	22.47	19.65		
	2406	2402	26.96	10	24.71	19.64		
				30			19.68	

Table 3. Recorder Scale Factors of Analyser No. 46

Col:	1	2	3	4	5	6	7	8
	(Sub) Standard Tank No.	Compared Tank No.	Observed Scale Difference	No. of Comparisons	Index Difference	Recorder Scale Factor Single Wt'd Set Average		Date of Analysis
	<u>Span 310</u>							<u>1962</u>
	2407	7358	-39.11	11	36.20	19.45		Jul 25
	2407	4284	- 5.74	11				
	7358	4284	33.39	12				
	2407	7358	-39.13*	11*	36.20	19.46		
	2407	7358	-38.65	11	36.20	19.22		
				33		19.38		
	2407	7358	-39.25	10	36.20	19.52		Jul 26
	2407	4295	- 5.76	10				
	7358	4295	33.33	12				
	2407	7358	-39.09*	10*	36.20	19.44		
	2407	7358	-38.76	11	36.20	19.27		
				31			19.41	
	2407	7358	-38.75	10	36.20	19.27		Aug 9
	2407	4295	- 5.50	11				
	7358	4295	33.23	12				
	2407	7358	-38.73*	11*	36.20	19.26		
				21			19.26	
	2407	7358	-38.69	10	36.20	19.24		Aug 13
	2407	4295	- 5.53	10				
	7358	4295	33.17	11				
	2407	7358	-38.70*	10*	36.20	19.24		
	2407	7358	-38.25	10	36.20	19.02		
				30			19.17	

Table 3. Recorder Scale Factors of Analyser No. 46

Col:	1	2	3	4	5	6	7	8
	(Sub)							
	Standard	Compared	Observed	No. of	Index	Recorder Scale		Date of
	Tank No.	Tank No.	Scale	Comparisons	Difference	Factor		Analysis
			Difference			Single Wt'd		
						Set Average		
<u>Span 310</u>								<u>1962</u>
	2407	7358	-38.91	10	36.20	19.35		Aug. 14
	2407	4295	- 5.51	10				
	7358	4295	33.32	12				
	2407	7358	-38.83*	10*	36.20	19.31		
	2407	2402	24.38	10	22.47	19.53		
				30			19.40	
	2407	7358	-38.46	11	36.20	19.12		Aug. 17
	2407	4295	- 5.46	13				
	7358	4295	33.08	14				
	2407	7358	-38.54*	13*	36.20	19.16		
	2407	7358	-38.49	12	36.20	19.14		
				36			19.14	
	2407	7358	-38.42	13	36.20	19.10		Aug. 21
	2407	4295	- 5.70	10				
	7358	4295	32.46	10				
	2407	7358	-38.16*	10*	36.20	18.97		
	2407	2402	23.81	9	22.47	19.07		
				32			19.05	
	2407	7358	-38.24	11	36.20	19.01		Aug. 23
	2407	4295	- 5.52	11				
	7358	4295	32.82	9				
	2407	7358	-38.34*	9*	36.20	19.06		
	2406	7358	-35.70	12	33.96	18.92		
				32			18.99	

Table 3. Recorder Scale Factors of Analyser No. 46

Col:	1	2	3	4	5	6	7	8
	(Sub) Standard Tank No.	Compared Tank No.	Observed Scale Difference	No. of Comparisons	Index Difference	Recorder Scale Factor Single Wt'd Set Average		Date of Analysis
	<u>Span 310</u>							<u>1962</u>
	2407	2402	23.80	11	22.47	19.07		Aug. 28
	2407	4295	- 5.83	10				
	2402	4295	-29.70	10				
	2407	2402	23.87*	10*	22.47	19.12		
	2407	2402	24.00	10	22.47	19.23		
				31			19.14	
	2407	7358	-37.52	10	36.20	18.66		Sep. 21
	2407	4295	- 5.34	10				
	7358	4295	32.38	10				
	2407	7358	-37.72*	10*	36.20	18.76		
	2407	2402	23.53	10	22.47	18.85		
				30			18.76	
	2407	7358	-37.37	9	36.20	18.58		Oct. 3
	2407	4295	- 5.55	10				
	7358	4295	31.31	10				
	2407	7358	-36.86*	10*	36.20	18.33		
	2407	2402	-23.10	10	22.47	18.50		
				29			18.47	
	2407	7358	-36.34	10	36.20	18.07		Oct. 16
	2407	4295	- 5.19	10				
	7358	4295	31.31	10				
	2407	7358	-36.50*	10*	36.20	18.15		
	2407	2402	22.67	10	22.47	18.16		
				30			18.13	

Table 3. Recorder Scale Factors of Analyser No. 46

Col:	1	2	3	4	5	6	7	8
	(Sub)							
	Standard	Compared	Observed	No. of	Index	Recorder Scale		Date of
	Tank No.	Tank No.	Scale	Comparisons	Difference	Factor		Analysis
			Difference			Single Wt'd		
						Set Average		
	<u>Span 310</u>							<u>1962</u>
	2407	7358	-36.38	10	36.20	18.09		Oct. 17
	2407	2408	-36.30	10				
	7358	2408	0.32	10				
	2407	7358	-36.62*	10*	36.20	18.21		
	2407	2402	22.67	10	22.47	18.16		
				30			18.15	
	2407	2402	22.29	10	22.47	17.86		Oct. 25
	2407	2403	- 4.37	11				
	2402	2403	-26.64	10				
	2407	2402	22.27*	10*	22.47	17.84		
	2407	2402	22.25	10	22.47	17.82		
				30			17.84	
	2407	2402	22.33	10	22.47	17.89		Nov. 1
	2407	4295	- 5.09	11				
	2402	4295	-27.09	10				
	2407	2402	22.00*	10*	22.47	17.62		
	2407	2402	21.86	10	22.47	17.51		
				30			17.67	
	2407	2402	22.29	11	22.47	17.86		Nov. 5
	2407	4295	5.05	11				
	2402	4295	-27.22	10				
	2407	2402	22.17*	10*	22.47	17.76		
	2407	2402	21.93	10	22.47	17.57		
				31			17.73	

Table 3. Recorder Scale Factors of Analyser No. 46

Col:	1	2	3	4	5	6	7	8
	(Sub) Standard Tank No.	Compared Tank No.	Observed Scale Difference	No. of Comparisons	Index Difference	Recorder Scale Factor Single Wt'd Set Average		Date of Analysis
	<u>Span 310</u>							<u>1962</u>
	2407	7358	-35.39	11	36.20	17.60		Nov. 9
	2407	4287	-21.22	10				
	7358	4287	14.01	10				
	2407	7358	-35.23*	10*	36.20	17.52		
	2407	7358	34.85	10	36.20	17.33		
				31			17.49	
	2407	2402	21.99	11	22.47	17.62		Nov. 12
	2407	10069	30.49	11				
	2402	10069	8.51	11				
	2407	2402	21.98*	11*	22.47	17.61		
				22			17.61	
	2407	2402	22.30	10	22.47	17.86		Nov. 15
	2407	10069	30.85	11				
	2402	10069	8.84	11				
	2407	2402	22.01*	11*	22.47	17.63		
	2407	4292	27.43	10				
	2402	4292	5.34	11				
	2407	2402	22.09*	10*	22.47			
				31		17.70	17.73	
	2407	7358	-35.22	10	36.20	17.51		Nov. 20
	2407	4295	- 5.06	11				
	7358	4295	29.31	10				
	2407	7358	-34.37*	10*	36.20	17.09		
	2407	7358	34.96	10	36.20	17.38		
				30			17.33	

Table 3. Recorder Scale Factors of Analyser No. 46

Col:	1	2	3	4	5	6	7	8
	(Sub)							
	Standard	Compared	Observed	No. of	Index	Recorder Scale		Date of
	Tank No.	Tank No.	Scale	Comparisons	Difference	Factor		Analysis
			Difference			Single Wt'd		
						Set Average		
<u>Span 310</u>								<u>1962</u>
	2407	7358	-34.98	11	36.20	17.39		Nov. 21
	2407	2402	21.83	10	22.47	17.49		
	2407	2399	19.47	11				
	2402	2399	- 2.20	10				
	2407	2402	21.67*	10*	22.47	17.36		
	2407	2399	19.31	11				
	2402	2399	- 2.32	11				
	2407	2402	21.63*	11*	22.47	17.33		
	2407	7358	-34.74	10	36.20	17.27		
				52			17.38	
	2407	7358	-35.43	10	36.20	17.62		Nov. 26
	2407	4295	- 5.33	11				
	7358	4295	29.88	10				
	2407	7358	-35.21*	10*	36.20	17.51		
	2407	7358	-35.07	10	36.20	17.44		
				30			17.52	
	2407	2402	21.75	10	22.47	17.42		Nov. 27
	2407	4270	0.00	10				
	2402	4270	-21.84	10				
	2407	2402	21.84*	10*	22.47	17.50		
	2407	2402	21.61	10	22.47	17.31		
				30			17.41	

Table 3. Recorder Scale Factors of Analyser No. 46

Col:	1	2	3	4	5	6	7	8
	(Sub) Standard Tank No.	Compared Tank No.	Observed Scale Difference	No. of Comparisons	Index Difference	Recorder Scale Factor Single Wt'd Set Average		Date of Analysis
	<u>Span 310</u>							<u>1962</u>
	2407	7358	-35.01	10	36.20	17.41		Nov. 30
	2407	2408	-34.92	11				
	7358	2408	0.12	12				
	2407	7358	35.04*	11*	36.20	17.42		
	2407	2402	21.54	10	22.47	17.26		
	2407	10069	29.87	11				
	2402	10069	8.43	10				
	2407	2402	21.44*	10*	22.47	17.17		
				41			17.32	
	2407	7358	-34.95	11	36.20	17.38		Dec. 3
	2407	10069	30.15	11				
	2402	10069	8.55	11				
	2407	2402	21.60*	11*	22.47	17.30		
	2407	10077	30.41	10				
	2402	10077	8.76	11				
	2407	2402	21.65*	10*	22.47	17.34		
	2407	2402	21.55	11	22.47	17.26		
	2407	7358	-34.88	11	36.20	17.34		
	2402	7358	56.30	8	58.67	17.27		
				62			17.32	
	2407	2402	21.33	10	22.47	17.09		Dec. 6
	2407	10069	29.89	11				
	2402	10069	8.40	10				
	2407	2402	21.49*	10*	22.47	17.21		
	2407	2402	21.37	10	22.47	17.12		
				30			17.14	

Table 3. Recorder Scale Factors of Analyser No. 46

Col:	1	2	3	4	5	6	7	8
	(Sub) Standard Tank No.	Compared Tank No.	Observed Scale Difference	No. of Comparisons	Index Difference	Recorder Scale Factor Single Wt'd Set Average		Date of Analysis
	<u>Span 310</u>							<u>1962</u>
	2407	2402	21.46	9	22.47	17.19		Dec. 7
	2407	4295	- 5.10	10				
	2402	4295	-26.71	11				
	2407	2402	21.61*	10*	22.47	17.31		
	2407	2402	21.48	9	22.47	17.21		
				28			17.24	

Table 4. Recorder Scale Factors of Analyser No. 55

Col:	1	2	3	4	5	6	7	8
	(Sub) Standard Tank No.	Compared Tank No.	Observed Scale Difference	No. of Comparisons	Index Difference	Recorder Scale Factor Single Wt'd Set Average		Date of Analysis
	<u>Span 340</u>							1962
	2407	7358	-37.15	10	36.20	18.47		Mar. 21
	2407	2418	- 7.34	11				
	7358	2418	29.46	11				
	2407	7358	-36.80*	11*	36.20	18.30		
	2407	2402	23.15	10	22.47	18.54		
				31			18.43	
	2407	7358	-35.35	10	36.20	17.58		Apr. 9
	2407	4284	- 4.95	11				
	7358	4284	30.92	10				
	2407	7358	-35.87*	10*	36.20	17.84		
	2407	7358	-35.80	10	36.20	17.80		
				30			17.74	
	2407	7358	-35.29	11	36.20	17.55		Apr. 18
	2407	4284	- 5.34	11				
	7358	4284	29.96	10				
	2407	7358	-35.30*	10*	36.20	17.55		
	2407	2402	21.82	10	22.47	17.48		
				31			17.53	

Table 4. Recorder Scale Factors of Analyser No. 55

Col:	1	2	3	4	5	6	7	8
	(Sub) Standard Tank No.	Compared Tank No.	Observed Scale Difference	No. of Comparisons	Index Difference	Recorder Scale Factor Single Wt'd Set Average		Date of Analysis
	<u>Span 340</u>							<u>1962</u>
	2407	7358	-35.18	10	36.20	17.49		Apr. 25
	2407	7362	-13.21	10				
	7358	7362	22.14	9				
	2407	7358	-35.35*	9*	36.20	17.58		
	2407	1540	- 9.58	10				
	7358	1540	25.28	10				
	2407	7358	-34.86*	10*	36.20	17.33		
				29			17.46	
	2407	7358	-35.47	10	36.20	17.64		May 1
	2407	1540	9.91	11				
	7358	1540	25.64	12				
	2407	7358	-35.55*	11*	36.20	17.68		
	2407	4284	- 5.03	10				
	7358	4284	30.32	10				
	2407	7358	-35.35*	10*	36.20	17.58		
	2407	2402	22.24	10	22.47	17.82		
				41			17.68	

Table 4. Recorder Scale Factors of Analyser No. 55

Col:	1	2	3	4	5	6	7	8
	(Sub) Standard Tank No.	Compared Tank No.	Observed Scale Difference	No. of Comparisons	Index Difference	Recorder Scale Factor Single Wt'd Set Average		Date of Analysis
	<u>Span 340</u>							1962
	2407	2402	22.20	11	22.47	17.78		May 3
	2407	7361	4.09	10				
	2402	7361	18.11	11				
	2407	2402	22.20*	10*	22.47	17.78		
	2407	7358	34.88	12	36.20	17.34		
				33			17.62	

Table 5. Index Values of Standards and Substandards

Col: 1	2	3	4	5	6	7	8	9	10	11
Analysers	(Sub) Standard Tank No.	Compared Tank No.	Single No. of Compari- sons	Set Index	Wt'd No. of Compari- sons	Av. Index	Compared No. Pressure Tank (P.S.I.)		Date of Analysis	Dates of Use
<u>Super-Primary Standard - Special Preliminary Tabulation for Table 3</u>										
46	Various	2406	339	313.20					Aug. 25, 1960 to Oct. 20, 1961* 1962	
46	2407	2406	10	313.45			1900-1820		Jan. 10	
46	2407	2406	10	313.35			1780-1800		Jan. 14	
46	2407	2406	10	313.36			1760-1820		Jan. 17	
46	2407	2406	10	313.43			1710-1820		Jan. 25	
46	2407	2406	10	313.37			1650-1820		Jan. 30	
46	4284	2406	11	- -			1390-1820		Apr. 12	
46	4284	2406	10	- -			1290-1760		Apr. 17	
46	2407	2406	11	313.22			1300-1780		Apr. 24	
46	2407	2406	11	313.38			1220-1760		Apr. 27	
46	2407	2406	11	313.19			1200-1780		Apr. 30	
46	2407	2406	12	313.41			1080-1640		May 10	
46	4295	2406	10	- -			1400-1710		Nov. 15	
46	2407	2406	11	313.23			380-1640		Nov. 26	
46	4295	2406	11	- -			1370-1630		Nov. 26	
46	4295	2406	10	- -			1270-1600		Nov. 27	
46	2407	2406	10	313.25			350-1600		Nov. 27	
46	4295	2406	11	- -			1210-1690		Dec. 7	
46	2402	2406	11	313.16	466	313.23	2406 360-1680		Dec. 7	

*See Report IV, Table 5

Table 5. Index Values of Standards and Substandards

Col: 1	2	3	4	5	6	7	8	9	10	11
Analyser	(Sub) Standard Tank No.	Compared Tank No.	Single No. of Compara- sons	Set Index	Wt'd No. of Compara- sons	Av. Index	Compared Tank No. Pressure (P.S.I.)		Date of Analysis	Dates of Use
<u>Super-Primary Standard</u>										
46	Various	2406	339	313.20					Aug. 25, 1960 to Oct. 20, 1961*	
									<u>1962</u>	
46	2407	2406	10	313.45			1900-1820		Jan. 10	
46	2407	2406	10	313.35			1780-1800		Jan. 14	
46	2407	2406	10	313.36			1760-1820		Jan. 17	
46	2407	2406	10	313.43			1710-1820		Jan. 25	
46	2407	2406	10	313.37			1650-1820		Jan. 30	
46	4284	2406	11	313.24			1390-1820		Apr. 12	
46	4284	2406	10	313.41			1290-1760		Apr. 17	
46	2407	2406	11	313.22			1300-1780		Apr. 24	
46	2407	2406	11	313.38			1220-1760		Apr. 27	
46	2407	2406	11	313.19			1200-1780		Apr. 30	
46	2407	2406	12	313.41			1080-1640		May 10	
46	4295	2406	10	313.07			1400-1710		Nov. 15	
46	2407	2406	11	313.23			380-1640		Nov. 26	
46	4295	2406	11	313.24			1370-1630		Nov. 26	
46	4295	2406	10	313.24			1270-1600		Nov. 27	
46	2407	2406	10	313.25			350-1600		Nov. 27	
46	4295	2406	11	313.31			1210-1690		Dec. 7	
46	2402	2406	11	313.16	190	313.29**	360-1680		Dec. 7	
					529	313.23	2406		Not a Final Value	

*See Report IV, Table 5

**This Report Only

Table 5. Index Values of Standards and Substandards

Col: 1	2	3	4	5	6	7	8	9	10	11
Analysers	(Sub) Standard Tank No.	Compared Tank No.	Single No. of Compara- sons	Set Index	Wt'd No. of Compara- sons	Av. Index	Compared Tank No. Pressure (P.S.I.)		Date of Analysis	Dates of Use
	New Low Span Standard								1958	
55	3758	2408	10	280.75*					Sep. 10*	
55	4283	2408	10	280.09*					Sep. 11*	
55	A-20	2408	10	280.45*					Sep. 12*	
55	3758	2408	10	281.24*					Sep. 12*	
55	4283	2408	10	280.49*					Sep. 12*	
55	A-20	2408	10	279.93*					Sep. 12*	
55	3758	2408	8	279.94*					Sep. 12*	
55	3758	2408	5	279.63*					Sep. 13*	
55	A-20	2408	5	279.69*					Sep. 13*	
									1960	
46	7344	2408	12	279.03			1470-1900		Mar. 11**	
46	2423	2408	10	279.08			2080-1920		Aug. 3**	
46	2423	2408	10	279.00			1970-1900		Aug. 9**	
46	2423	2408	11	279.14			1900-1900		Aug. 10**	
46	2423	2408	10	278.92			1820-1880		Aug. 15**	
									1962	
46	4286	2408	10	278.98			860-1720		Jan. 12	
46	4286	2408	10	279.25			800-1700		Jan. 13	
46	2407	2408	12	279.23			1825-1700		Jan. 13	
46	4286	2408	10	279.23			780-1700		Jan. 14	
46	2407	2408	11	279.39			1790-1690		Jan. 14	
46	2407	2408	10	279.47			590-1610		Oct. 17	
46	7358	2408	10	279.59			840-1610		Oct. 17	
46	7358	2408	9	279.39			740-1680		Nov. 9	
46	2407	2408	11	279.18			320-1650		Nov. 30	
46	7358	2408	12	279.39	158	279.22	Final 720-1640		Nov. 30	
							Value***			

* Data in Report II Table II Omitted from Av.

** Data in Report III Table 12C - Antarctic 5th Year Low Span Tank

*** Tank Converted to Standard January 1, 1963

Table 5. Index Values of Standards and Substandards

Col: 1	2	3	4	5	6	7	8	9	10	11
Analysers	(Sub) Standard Tank No.	Compared Tank No.	Single No. of Compara- sons	Set Index	Wt'd No. of Compara- sons	Av. Index	Compared Tank No. Pressure (P.S.I.)		Date of Analysis	Dates of Use
<u>New Primary Standard</u>									<u>1962</u>	
46	4284	4270	12	315.42			815-2115		May 30	
46	4284	4270	10	315.35			720-2105		Jun. 14	
46	4284	4270	11	315.52			610-2110		Jul. 6	
46	4284	4270	11	315.56			530-2090		Jul. 19	
46	4295	4270	12	315.62			1870-2110		Aug. 14	
46	4295	4270	12	315.65			1900-1990		Aug. 21	
46	4295	4270	10	315.68			1830-1990		Aug. 28	
46	4295	4270	11	315.46			(4295-4270)		Sep. 20	
46	4295	4270	10	315.60			1710-2000		Oct. 3	
46	4295	4270	10	315.43			1550-2060		Oct. 25	
46	4295	4270	11	315.44			1540-2040		Nov. 5	
46	4295	4270	10	315.59			1360-2050		Nov. 20	
46	4295	4270	11	315.54			1370-1970		Nov. 26	
46	2407	4270	10	315.61			385-1950		Nov. 26	
46	2407	4270	10	315.47			290-2030		Nov. 27	
46	2402	4270	10	315.36			370-2020		Nov. 27	
46	4295	4270	11	315.50			1300-2010		Nov. 27	
46	2402	4270	10	315.38			350-2020		Dec. 7	
46	4295	4270	10	315.62	202	315.52	Final Value*	1210-2010	Dec. 7	

*Tank Converted to Standard on January 1, 1963

Table 5. Index Values of Standards and Substandards

Col: 1	2	3	4	5	6	7	8	9	10	11
Analysers	(Sub) Standard Tank No.	Compared Tank No.	Single No. of Compari- sons	Set Index	Wt'd No. of Compari- sons	Av. Index	Compared Tank No. Pressure (P.S.I.)		Date of Analysis	Dates of Use
<u>Secondary Standard</u>									<u>1960</u>	
46	3759	4284	10	310.38			1940-2200		Apr. 28*	
46	3759	4284	10	310.30			1530-2190		Jun. 30*	
46	2423	4284	10	310.37			2100-2190		Aug. 3*	
46	2423	4284	10	310.38			2020-2190		Aug. 4*	
46	2423	4284	10	310.31			1980-2150		Aug. 9*	
46	2423	4284	11	310.31			1920-2150		Aug. 10*	
									<u>1962</u>	
46	4286	4284	11	310.42			860-1690		Jan. 12**	
46	2407	4284	11	310.30			1850-1670		Jan. 12**	
46	4286	4284	10	310.42			840-1650		Jan. 13**	
46	4286	4284	10	310.33			790-1650		Jan. 14**	
46	2407	4284	10	310.52			1800-1625		Jan. 14**	
46	2407	4284	9	310.25			1540-1660		Mar. 16	
46	2402	4284	10	309.93			970-1660		Mar. 16	
46	2407	4284	10	310.14			1525-1630		Mar. 21	
46	7358	4284	12	310.27			1380-1610		Mar. 21	
55	2407	4284	11	310.46			1470-1490		Apr. 9	
55	7358	4284	10	310.64			1320-1490		Apr. 9	
46	2407	4284	9	310.37			1450-1520		Apr. 10	
46	7358	4284	10	310.58			1330-1510		Apr. 10	
46	2407	4284	10	310.17			1420-1480		Apr. 11	
46	2402	4284	12	310.19			940-1480		Apr. 11	
46	2407	4284	11	310.56			1410-1430		Apr. 12	
46	7358	4284	10	310.52			1300-1410		Apr. 12	
46	2407	4284	10	310.18			1360-1390		Apr. 13	
46	2402	4284	10	310.15			920-1340		Apr. 13	

*Data in Report III, Table 12C, Former Antarctic Primary Standard

**Data in Report V, Table 12C

Table 5. Index Values of Standards and Substandards

Col: 1	2	3	4	5	6	7	8	9	10	11
Analysers	(Sub) Standard Tank No.	Compared Tank No.	Single No. of Compari- sons	Set Index	Wt'd No. of Compari- sons	Av. Index	Compared Tank No. Pressure (P.S.I.)		Date of Analysis	Dates of Use
									<u>1962</u>	
46	2407	4284	10	310.27			1380-1560		Apr. 16	
46	7358	4284	10	310.21			1330-1380		Apr. 16	
46	2407	4284	10	310.10			1350-1320		Apr. 17	
46	2402	4284	10	310.21			900-1310		Apr. 17	
55	2407	4284	11	309.99			1300-1270		Apr. 18	
55	7358	4284	10	310.03			1200-1270		Apr. 18	
46	2407	4284	10	310.19			1320-1250		Apr. 24	
46	2402	4284	10	310.14			870-1230		Apr. 24	
46	2407	4284	11	310.27			1260-1210		Apr. 26	
46	7358	4284	10	310.30			1230-1210		Apr. 26	
46	2407	4284	10	310.14			1230-1170		Apr. 27	
46	2402	4284	10	310.28			860-1160		Apr. 27	
46	2407	4284	10	310.17			1200-1110		Apr. 30	
46	7358	4284	11	310.53			1190-1110		Apr. 30	
55	7358	4284	10	310.14			1200- 990		May 1	
55	2407	4284	10	310.35			1180- 980		May 1	
46	2407	4284	11	310.66			1120-1000		May 4	
46	7358	4284	12	310.92			1190-1000		May 4	
46	2407	4284	10	310.07			1100- 970		May 5	
46	7358	4284	10	309.91			1150- 970		May 5	
46	2407	4284	10	310.42			1080- 910		May 10	
46	7358	4284	10	310.54			1150- 910		May 10	
46	2407	4284	11	310.33			1015- 900		May 24	
46	7358	4284	12	310.46			1130- 900		May 24	
46	2407	4284	11	310.65			1000- 840		May 30	
46	2402	4284	10	310.58			790- 840		May 30	

Table 5. Index Values of Standards and Substandards

Col: 1	2	3	4	5	6	7	8	9	10	11
Analysers	(Sub) Standard Tank No.	Compared Tank No.	Single No. of Compari- sons	Set Index	Wt'd No. of Compari- sons	Av.	Compared Tank No. Pressure (P.S.I.)		Date of Analysis	Dates of Use
									<u>1962</u>	
46	2407	4284	10	310.42			990-	800	Jun.	5
46	7358	4284	12	310.35			1100-	790	Jun.	5
46	2407	2484	13	310.62			990-	740	Jun.	14
46	2402	4284	10	310.65			760-	730	Jun.	14
46	2407	4284	11	310.63			950-	700	Jun.	27
46	2402	4284	10	310.65			750-	700	Jun.	27
46	2407	4284	10	310.71			910-	650	Jul.	6
46	2402	4284	10	310.52			720-	650	Jul.	6
46	2407	4284	11	310.34			860-	610	Jul.	17
46	7358	4284	12	310.42			1070-	600	Jul.	17
46	2407	4284	11	310.40			840-	550	Jul.	19
46	2402	4284	10	310.44			700-	540	Jul.	19
46	2407	4284	11	310.14			820-	540	Jul.	25
46	7358	4284	12	310.28	680	310.36	Final Value*	1050-	510	Jul. 25

*Tank Retired from use

Table 5. Index Values of Standards and Substandards

Col: 1	2	3	4	5	6	7	8	9	10	11
Analysers	(Sub) Standard Tank No.	Compared Tank No.	Single No. of Compari- sons	Set Index	Wt'd No. of Compari- sons	Av. Index	Compared Tank No. Pressure (P.S.I.)		Date of Analysis	Dates of Use
<u>Secondary Standard</u>									<u>1961</u>	
46	Various	4286	473	309.66					Jun. 9, to Oct. 18*	
46	2407	4286	11	309.79			2010-1050		Nov. 21	
46	7358	4286	10	309.91			1620-1050		Nov. 21	
46	2407	4286	10	309.80			2000-1010		Dec. 7	
46	7358	4286	10	309.91			1610-1010		Dec. 7	
46	2407	4286	11	309.83			1940- 980		Dec. 18	
46	7358	4286	10	309.79			1580- 970		Dec. 18	
									<u>1962</u>	
46	2407	4286	10	309.95			1910- 940		Jan. 10	
46	2402	4286	10	310.02			1100- 940		Jan. 10	
46	2407	4286	11	309.76			1880- 900		Jan. 12	
46	7358	4286	10	309.76			1540- 900		Jan. 12	
46	2407	4286	9	309.47			1830- 850		Jan. 13	
46	2402	4286	10	309.57			1090- 840		Jan. 13	
46	2407	4286	11	309.65			1775- 805		Jan. 14	
46	7358	4286	10	309.52			1500- 800		Jan. 14	
46	2407	4286	11	309.69			1740- 800		Jan. 15	
46	7358	4286	11	309.97			1500- 760		Jan. 15	
46	2407	4286	10	309.95			1760- 730		Jan. 16	
46	7358	4286	11	310.07			1510- 730		Jan. 16	

*See Report IV, Table 5

Table 5. Index Values of Standards and Substandards

Col: 1	2	3	4	5	6	7	8	9	10	11
Analysers	(Sub) Standard Tank No.	Compared Tank No.	Single No. of Compari- sons	Set Index	Wt'd No. of Compari- sons	Av. Index	Compared Tank No. Pressure (P.S.I.)		Date of Analysis	Dates of Use
									<u>1962</u>	
46	2407	4286	10	309.59			1750-	690	Jan. 17	
46	7358	4286	11	309.12			1500-	680	Jan. 17	
46	2407	4286	10	309.48			1730-	640	Jan. 24	
46	2402	4286	9	309.58			1040-	640	Jan. 24	
46	2407	4286	10	310.07			1700-	600	Jan. 25	
46	2402	4286	10	309.89			1020-	600	Jan. 25	
46	2407	4286	10	309.97			1680-	560	Jan. 26	
46	7358	4286	12	309.77			1480-	560	Jan. 26	
46	2407	4286	10	310.15			1680-	530	Jan. 29	
46	2402	4286	10	310.20			1020-	520	Jan. 29	
46	2407	4286	11	310.07			1660-	500	Jan. 30	
46	2402	4286	10	310.15			1000-	480	Jan. 30	
46	2407	4286	11	309.75			1590-	450	Feb. 2	
46	7358	4286	10	310.00			1460-	450	Feb. 2	
46	2407	4286	11	309.74			1580-	420	Feb. 15	
46	7358	4286	11	309.60	352	309.81*	1430-	410	Feb. 15	
					825	309.72	Final Value**			

*This Report Only

**Tank Retired from use

Table 5. Index Values of Standards and Substandards

Col: 1	2	3	4	5	6	7	8	9	10	11
Analysers	(Sub) Standard Tank No.	Compared Tank No.	Single No. of Compara- sons	Set Index	Wt'd No. of Compara- sons	Av. Index	Compared Tank No. Pressure (P.S.I.)		Date of Analysis	Dates of Use
	<u>Secondary Standard</u>								<u>1962</u>	
46	4284	4295	10	310.27			1230-2200		Apr. 24	
46	4284	4295	10	310.31			1190-2200		Apr. 26	
46	4284	4295	10	310.31			1140-2200		Apr. 27	
46	4284	4295	11	310.17			1010-2230		Apr. 30	
46	2407	4295	10	310.41			1100-2180		May 5	
46	2407	4295	10	310.49			1050-2160		May 10	
46	2407	4295	11	310.40			950-2150		Jun. 27	
46	2407	4295	10	310.13			810-2180		Jul. 26	
46	7358	4295	12	310.18			1020-2150		Jul. 26	
46	2407	4295	11	310.33			780-1990		Aug. 9	
46	7358	4295	12	310.33			910-1980		Aug. 9	
46	2407	4295	10	310.28			770-1990		Aug. 13	
46	7358	4295	11	310.42			890-1980		Aug. 13	
46	2407	4295	10	310.36			760-1930		Aug. 14	
46	7358	4295	12	310.19			970-1920		Aug. 14	
46	2407	4295	13	310.34			740-1880		Aug. 17	
46	7358	4295	14	310.38			960-1870		Aug. 17	
46	2407	4295	10	310.08			630-1930		Aug. 21	
46	7358	4295	10	309.94			840-1920		Aug. 21	
46	2407	4295	11	310.24			690-1790		Aug. 23	
46	7358	4295	9	310.38			920-1790		Aug. 23	
46	2407	4295	10	309.99			600-1840		Aug. 28	
46	2402	4295	10	310.01			600-1840		Aug. 28	
46	2407	4295	10	310.35			650-1720		Sep. 20	
46	7358	4295	10	310.34			900-1710		Sep. 20	
46	2407	4295	10	310.06			-1740		Oct. 3	
46	7358	4295	10	309.78			810-1740		Oct. 3	
46	2407	4295	10	310.32			610-1610		Oct. 16	
46	7358	4295	10	310.36			860-1610		Oct. 16	

Table 5. Index Values of Standards and Substandards

Col: 1	2	3	4	5	6	7	8	9	10	11
Analysers	(Sub) Standard Tank No.	Compared Tank No.	Single No. of Compari- sons	Set Index	Wt'd No. of Compari- sons	Av. Index	Compared Tank No. Pressure (P.S.I.)		Date of Analysis	Dates of Use
									<u>1962</u>	
46	2407	4295	11	310.28			540-1520		Nov. 1	
46	2402	4295	10	310.34			560-1520		Nov. 1	
46	2407	4295	11	310.34			530-1480		Nov. 5	
46	2402	4295	10	310.31			560-1470		Nov. 5	
46	2407	4295	11	310.21			2140-1400		Nov. 20	
46	7358	4295	10	309.71			770-1390		Nov. 20	
46	2407	4295	11	309.99			330-1410		Nov. 26	
46	7358	4295	10	309.97			680-1390		Nov. 26	
46	2407	4295	10	310.15			250-1220		Dec. 7	
46	2402	4295	11	310.05	412	310.22*	4295 360-1220		Dec. 7	

*Weighted average index value used in Report V but not final value

Table 5. Index Values of Working Reference Gases and Retired (Sub)standards

Col: 1	2	3	4	5	6	7	8	9	10	11
Analysers	(Sub) Standard Tank No.	Compared Tank No.	Single No. of Compari- sons	Set Index	Wt'd No. of Compari- sons	Av. Index	Compared No. Pressure Tank (P.S.I.)		Date of Analysis	Dates of Use
<u>New High Span Standard</u>									<u>1962</u>	
46	4295	10069	10	346.40			1470-2270		Nov. 5	
46	2407	10069	11	346.64			410-2150		Nov. 12	
46	2402	10069	11	346.64			470-2140		Nov. 12	
46	2407	10069	11	346.79			470-2070		Nov. 15	
46	2402	10069	11	346.91			510-2060		Nov. 15	
46	2402	10069	10	346.78			460-2080		Nov. 21	
46	4295	10069	10	346.91			1400-2070		Nov. 21	
46	2407	10069	11	346.51			310-2110		Nov. 30	
46	2402	10069	10	346.70			420-2100		Nov. 30	
46	4295	10069	11	346.56			1320-2090		Nov. 30	
46	2407	10069	11	346.80			310-2120		Dec. 3	
46	2402	10069	11	346.83			420-2100		Dec. 3	
46	4295	10069	10	346.89			1280-2090		Dec. 3	
46	2407	10069	11	346.86			270-2070		Dec. 6	
46	2402	10069	10	346.76			380-2070		Dec. 6	
46	4295	10069	10	346.87	159	346.73	Final Value*	1290-2060	Dec. 6	

*Tank Converted to Standard on January 1, 1963

Table 12. Index Values of Working Reference Gases and Retired (Sub)standards

Col: 1	2	3	4	5	6	7	8	9	10	11
Analysers	(Sub) Standard Tank No.	Compared Tank No.,	Single No. of Compara- sons	Set Index	Wt'd No. of Compara- sons	Av. Index	Compared No. Pressure Tank (P.S.I.)		Date of Analysis	Dates of Use
A. Scripps Pier									1962	
46	4284	1540	10	305.62			2280		Apr. 10	
55	4284	1540	11	305.83			2250		Apr. 18	
55	7358	1540	10	305.33			2200		Apr. 25	
55	2407	1540	10	305.59			2190		Apr. 25	
55	2407	1540	11	305.38			1820		May 1	
55	7358	1540	12	305.37			1790		May 1	
55	2407	1540	12	305.69	76	305.55	1540	1540	May 3	
									1960	
46	3759	2418	10	308.43			2160		June 22*	
									1962	
46	4286	2418	11	308.43			690		Jan. 25**	
55	2407	2418	11	308.30			510		Mar. 21**	
55	7358	2418	11	308.04	43	308.30	2418	510	Mar. 21**	
46	4284	7362	11	301.87			2270		Mar. 21	
55	2407	7362	12	301.94			2220		Mar. 21	
55	4284	7362	10	301.50			1320		Apr. 9	
55	4284	7362	10	301.82			700		Apr. 18	
55	2407	7362	10	301.85			200		Apr. 25	
55	7358	7362	9	302.09	62	301.84	7362	200	Apr. 25	

* Data in Report III, Table 12C

** Data in Report V, Table 12C

Table 12. Index Values of Working Reference Gases and Retired (Sub)standards

Col: 1	2	3	4	5	6	7	8	9	10	11
Analysers	(Sub) Standard Tank No.	Compared Tank No.	<u>Single</u> No. of Compari- sons	<u>Set</u> Index	<u>Wt'd</u> No. of Compari- sons	<u>Av.</u> Index	<u>Compared Tank</u> No. Pressure (P.S.I.)		Date of Analysis	Dates of Use
A.	<u>Lusiad Pre-Cruise</u>								<u>1962</u>	
46	4284	2404	9	310.33				2210	Apr. 24	
46	4284	2404	10	310.32				2200	Apr. 26	
46	2407	2404	12	310.15				2210	Apr. 26	
46	4284	2404	12	310.16				2250	Apr. 30	
46	2407	2404	11	310.41	54	310.27	2404	2180	May 5	
46	4284	2405	10	305.92				2290	Apr. 10	
46	4284	2405	10	305.99				2280	Apr. 12	
46	4284	2405	10	306.19	30	306.03	2405	2200	Apr. 16	
46	4284	2421	13	318.89				2250	Apr. 11	
46	4284	2421	10	319.00				2250	Apr. 13	
46	4284	2421	10	318.66	33	318.85	2421	2200	Apr. 24	
46	4295	3755	13	304.91				2290	Aug. 17	
46	4295	3755	12	304.94				2280	Aug. 23	
46	4295	3755	10	305.17	35	304.99	3755	2190	Oct. 3	
46	4284	4273	10	319.90				-	Apr. 11	
46	4284	4273	10	319.87				2250	Apr. 13	
46	4284	4273	10	319.98	30	319.92	4273	2230	Apr. 17	
46	4295	4274	9	303.10				2160	Aug. 21	
46	4295	4274	11	302.99				2260	Sept. 20	
46	4295	4274	10	303.19	30	303.09	4274	2170	Oct. 3	

Table 12. Index Values of Working Reference Gases and Retired (Sub)standards

Col: 1	2	3	4	5	6	7	8	9	10	11
Analysers	(Sub) Standard Tank No.	Compared Tank No.	Single No. of Compari- sons	Set Index	Wt'd No. of Compari- sons	Av. Index	Compared No. Pressure Tank (P.S.I.)		Date of Analysis	Dates of Use
A.	Lusiad Pre-Cruise	(Cont)							1962	
46	4284	4275	12	312.17			2120		Jun. 5	
46	4284	4275	13	312.08			2120		July 6	
46	4295	4275	10	312.05	35	312.10	4275 2120		Aug. 14	
46	4284	4276	10	304.79			2280		Apr. 10	
46	4284	4276	10	304.69			2280		Apr. 12	
46	4284	4276	10	305.02	30	304.83	4276 2280		Apr. 16	
46	4284	4289	10	305.05			2200		Apr. 26	
46	4284	4289	11	304.91			2220		Apr. 30	
46	4284	4289	10	304.48	31	304.82	4289 2210		May 4	
									1960	
46	7344	4290	11	336.93			2170		Feb. 19*	
46	3759	4290	12	336.78			1970		Apr. 1*	
46	3759	4290	12	336.87			1850		Apr. 14*	
46	3759	4290	10	336.84			2150		Apr. 28*	
46	3759	4290	10	336.95			2140		Jun. 22*	
46	2423	4290	10	336.63			2150		Aug. 4*	
									1962	
46	4286	4290	10	336.88			1690		Jan. 12**	
46	4286	4290	10	336.81			1650		Jan. 13**	
46	2402	4290	11	336.54			1700		Jan. 13**	
46	4286	4290	11	336.89			1670		Jan. 14**	
46	2407	4290	11	336.96			1650		Jan. 14**	
46	2402	4290	12	336.71			1680		Apr. 27	
46	4284	4290	9	336.99	139	336.83	4290 1650		Apr. 27	

* Data in Report III, Table 12 C

** Data in Report V, Table 12 C

Table 12. Index Values of Working Reference Gases and Retired (Sub)standards

Col: 1	2	3	4	5	6	7	8	9	10	11
Analysers	(Sub) Standard Tank No.	Compared Tank No.	Single No. of Compari- sons	Set Index	Wt'd No. of Compari- sons	Av. Index	Compared No. Pressure (P.S.I.)	Tank	Date of Analysis	Dates of Use
A.	<u>Lusiad Pre-Cruise</u>	<u>(Cont)</u>							<u>1962</u>	
46	4284	4293	11	306.83				2260	Apr. 10	
46	4284	4293	10	306.70				2280	Apr. 12	
46	4284	4293	10	306.89	31	306.81	4293	2220	Apr. 16	
46	4284	6052	10	319.58				2250	Apr. 11	
46	4284	6052	10	319.60				2210	Apr. 13	
46	4284	6052	10	319.58	30	319.59	6052	2210	Apr. 17	
46	4295	6078	12	303.49				2160	Aug. 21	
46	4295	6078	10	303.26				2250	Sep. 20	
46	4295	6078	10	303.48	32	303.42	6078	2160	Oct. 3	
46	4284	7355	10	319.21				2260	Apr. 11	
46	4284	7355	10	319.14				2240	Apr. 13	
46	4284	7355	10	319.22	30	319.19	7355	2200	Apr. 17	
46	4284	7361	11	319.25				2250	Apr. 11	
46	4284	7361	10	319.39				2210	Apr. 13	
46	4284	7361	9	319.28				2210	Apr. 17	
55	2407	7361	10	319.65				2300	May 3	
55	2402	7361	11	319.44	51	319.40	7361	2240	May 3	
46	4284	7366	10	304.29				2230	Apr. 10	
46	4284	7366	11	304.00				2280	Apr. 12	
46	4284	7366	10	304.24	31	304.20	7366	2250	Apr. 16	
46	4286	10065	11	278.89				2120	<u>1961</u> Dec. 7	
46	7358	10065	10	278.90				2110	Dec. 7	
46	4286	10065	9	278.85				2120	<u>1962</u> Feb. 2	
46	4284	10065	10	278.96				2070	Apr. 10	
46	4284	10065	10	279.05				2090	Apr. 16	
46	7358	10065	8	278.92	58	278.93	10065	2090	Apr. 16	

Table 12. Index Values of Working Reference Gases and Retired (Sub)standards

Col:	1	2	3	4	5	6	7	8	9	10	11
	Analysers	(Sub) Standard Tank No.	Compared Tank No.	Single No. of Compari- sons	Set Index	Wt'd No. of Compari- sons	Av. Index	Compared No. Pressure Tank (P.S.I.)		Date of Analysis	Dates of Use
A.	Lusiad	Pre-Cruise	(Cont)							1962	
	46	4295	10068	11	303.49				2290	Aug. 17	
	46	4295	10068	11	303.41				2290	Aug. 23	
	46	4295	10068	11	303.65	33	303.52	10068	2290	Oct. 3	
										1961	
	46	4286	10070	10	314.95				2110	Dec. 7	
	46	4286	10070	11	314.80				2140	Dec. 18	
										1962	
	46	4286	10070	11	314.89				2120	Feb. 2	
	46	4284	10070	10	315.14				2070	Apr. 11	
	46	4284	10070	10	315.15				2110	Apr. 13	
	46	2406	10070	11	315.20				2100	Apr. 13	
	46	4284	10070	9	315.21				2100	Apr. 17	
	46	4284	10070	10	315.09				2090	Apr. 24	
	46	4284	10070	10	315.08				2090	Apr. 26	
	46	4284	10070	10	315.16				2090	Apr. 27	
	46	4284	10070	11	314.82	113	315.04	10070	2190	May 5	
	46	42 95	10073	10	305.38				2170	Aug. 21	
	46	4295	10073	10	305.30				2180	Sep. 20	
	46	4295	10073	10	305.39	30	305.36	10073	2180	Oct. 3	
	46	4284	11089	14	305.83				2220	May 4	
	46	4284	11089	11	306.32				2190	May 5	
	46	4284	11089	10	306.20	35	306.09	11089	2200	May 10	
	46	4284	11633	12	306.55				2210	May 4	
	46	4284	11633	12	307.08				2190	May 5	
	46	4284	11633	10	307.00	34	306.87	11633	2200	May 10	

Table 12. Index Values of Working Reference Gases and Retired (Sub)standards

Col: 1	2	3	4	5	6	7	8	9	10	11
Analysers	(Sub) Standard Tank No.	Compared Tank No.	<u>Single</u> No. of Compara- sons	<u>Set</u> Index	<u>Wt'd</u> No. of Compara- sons	<u>Av.</u> Index	<u>Compared</u> No. Pressure (P.S.I.)	<u>Tank</u>	Date of Analysis	Dates of Use
B. <u>Scripps Laboratory</u>									<u>1962</u>	
46	2407	3760	10	311.28				2220	Apr. 24	
46	4284	3760	10	311.51				2220	Apr. 26	
46	4284	3760	10	311.42				2220	Apr. 27	
46	4284	3760	10	311.37				2220	Apr. 30	
46	4284	3760	9	311.18				2010	May 4	
46	4284	3760	10	311.23				2180	May 5	
46	2407	3760	10	311.60				2150	May 10	
46	4284	3760	10	311.18					June 27	
46	4284	3760	10	311.37				2140	July 19	
46	4295	3760	11	311.34				2150	Aug. 14	
46	4295	3760	10	311.39				1920	Nov. 20	
46	4295	3760	10	311.62				1850	Nov. 26	
46	4295	3760	10	311.45	130	311.38	3760	1870	Dec. 7	

Table 12. Index Values of Working Reference Gases and Retired (Sub)standards

Col: 1	2	3	4	5	6	7	8	9	10	11
Analysers	(Sub) Standard Tank No.	Compared Tank No.	Single No. of Compari- sons	Set Index	Wt'd No. of Compari- sons	Av. Index	Compared Tank No. Pressure (P.S.I.)		Date of Analysis	Dates of Use
<u>B. Scripps Laboratory (Cont)</u>										
46	3760	4292	10	343.32			2180		<u>1959</u> Aug. 25*	
46	3760	4292	11	343.30			2200		Sep. 16*	
46	1004	4292	9	343.32			1970		Nov. 11*	
									<u>1960</u>	
46	2425	4292	9	343.37			2060		Jan. 26*	
46	7344	4292	10	343.23			1860		Mar. 18*	
46	3759	4292	10	343.49			1800		June 2*	
46	3759	4292	10	343.54			1760		Jul. 28*	
46	2423	4292	10	343.40			1730		Aug. 9*	
46	2423	4292	10	343.50			1710		Aug. 15*	
46	2423	4292	10	343.30			1630		Oct. 3*	
									<u>1961</u>	
46	2425	4292	10	343.32			1550		Mar. 2*	
46	2425	4292	10	343.06			1550		Apr. 18**	
46	4286	4292	10	343.35			1190		Sep. 14**	
46	2402	4292	10	343.20			1200		Oct. 14**	
46	2402	4292	10	343.07			1150		Oct. 16**	
									<u>1962</u>	
46	4286	4292	10	343.29			1100		Jan. 24	
46	4284	4292	10	343.74			1050		Mar. 16	
46	4284	4292	10	342.83			1010		June 27	
46	4295	4292	10	343.46			880		Aug. 28	
46	2402	4292	11	343.36			830		Nov. 15	
46	2407	4292	10	343.32			830		Nov. 15	
46	4295	4292	11	343.36	232	343.32	890		Dec. 3	
46	2402	4292	11	343.32	236	343.37	4292	880	Dec. 3	

* Data in Report III, Table 12B

** Data in Report IV, Table 12B

Table 12. Index Values of Working Reference Gases and Retired (Sub)standards

Col: 1	2	3	4	5	6	7	8	9	10	11
Analysers	(Sub) Standard Tank No.	Compared Tank No.	Single No. of Compari- sons	Set Index	Wt'd No. of Compari- sons	Av. Index	Compared No. Pressure Tank (P.S.I.)		Date of Analysis	Dates of Use
B.	<u>Scripps Laboratory</u>	<u>(Cont)</u>							<u>1961</u>	
46	6071	10074	10	312.91			2190		Apr. 13*	
46	3759	10074	11	312.93			2180		Apr. 17*	
46	2425	10074	10	312.84			2170		Apr. 17*	
46	2423	10074	8	313.03			2130		Apr. 17*	
46	6071	10074	10	312.89			2130		Apr. 17*	
46	4286	10074	11	312.71			1720		June 15*	
46	4286	10074	10	312.68			1360		Sep. 12*	
46	2402	10074	11	312.97			1050		Oct. 14*	
46	6071	10074	11	312.88			1050		Oct. 14*	
46	6071	10074	11	312.84			1050		Oct. 14*	
46	2402	10074	10	312.86			1050		Oct. 14*	
46	6071	10074	10	312.80			1050		Oct. 17*	
46	4286	10074	11	312.84			970		Dec. 7	
46	4286	10074	10	312.74			970		Dec. 18	
									<u>1962</u>	
46	4284	10074	10	312.90			800		Mar. 16	
46	4284	10074	12	312.70			670		June 14	
46	4295	10074	10	312.98			410		Aug. 28	
46	4295	10074	11	312.79			500		Sep. 20	
46	4295	10074	10	312.82	197	312.85	10074	490	Oct. 16	

* Data in Report IV, Table 12B

Table 12. Index Values of Working Reference Gases and Retired (Sub)standards

Col: 1	2	3	4	5	6	7	8	9	10	11
Analysers	(Sub) Standard Tank No.	Compared Tank No.	Single No. of Compari- sons	Set Index	Wt'd No. of Compari- sons	Av. Index	Compared No. Pressure Tank (P.S.I.)		Date of Analysis	Dates of Use
C. Antarctic Fifth Year Returns - Fourth Year Tanks									1962	
46	4286	4273	10	314.99				400	Jan. 13	
46	4286	4273	10	314.90				475	Jan. 15	
46	4286	4273	10	315.01	30	314.97	4273	370	Jan. 17	
46	4286	4276	10	298.37				360	Jan. 15	
46	4286	4276	11	298.26				310	Jan. 16	
46	4286	4276	10	298.66	31	298.42	4276	240	Jan. 17	
46	4286	4278	9	313.66				840	Jan. 24	
46	2407	4278	10	313.76				840	Jan. 24	
46	2407	4278	10	313.77				830	Jan. 25	
46	4286	4278	10	313.42				830	Jan. 26	
46	4286	4278	11	313.47				820	Jan. 29	
46	2407	4278	11	313.73				820	Jan. 29	
46	4286	4278	12	313.36	73	313.59	4278	810	Jan. 30	
46	4286	4283	9	343.05				1700	Jan. 24	
46	4286	4283	12	342.77				1710	Jan. 25	
46	4286	4283	10	343.16				1710	Jan. 26	
46	4286	4283	10	342.52				1710	Jan. 29	
46	2402	4283	10	343.06				1700	Jan. 29	
46	4286	4283	11	342.68				1700	Jan. 30	
46	2407	4283	12	342.95	74	342.88	4283	1650	Jan. 30	
46	4286	4295	10	299.65				410	Jan. 15	
46	4286	4295	10	299.48					Jan. 16	
46	4286	4295	10	299.95	30	299.69	4295	400	Jan. 17	

Table 12. Index Values of Working Reference Gases and Retired (Sub)standards

Col: 1	2	3	4	5	6	7	8	9	10	11
Analysers	(Sub) Standard Tank No.	Compared Tank No.	Single No. of Compari- sons	Set Index	Wt'd No. of Compari- sons	Av. Index	Compared No. Pressure (P.S.I.)	Tank	Date of Analysis	Dates of Use
<u>C. Antarctic Fifth Year Returns - Fourth Year Tanks (Cont)</u>										<u>1962</u>
46	4286	6052	10	299.79				370	Jan. 15	
46	4286	6052	10	299.82				330	Jan. 16	
46	4286	6052	10	300.17	30	299.93	6052	260	Jan. 17	
46	4286	6073	10	312.06				1060	Jan. 24	
46	2407	6073	10	312.40				1060	Jan. 24	
46	2407	6073	10	312.12				1060	Jan. 25	
46	4286	6073	12	311.72				1060	Jan. 26	
46	4286	6073	9	311.75				1060	Jan. 29	
46	4286	6073	10	311.76				1040	Jan. 30	
46	4295	6073	10	311.90				980	Nov. 26	
46	4295	6073	10	311.87				1020	Nov. 27	
46	4295	6073	10	311.87	91	311.94	6073	1010	Dec. 6	
46	4286	6078			10	302.55	6078*	2130	Jan. 25	
<u>C. Antarctic Fifth Year Returns - Fifth Year Tanks</u>										<u>1962</u>
46	4286	2403	12	310.41				250	Jan. 13	
46	4286	2403	12	310.26				225	Jan. 15	
46	2407	2403	10	310.55	34	310.40	2403	260	Jan. 17	
46	4286	2404	12	306.12				70	Jan. 15	
46	4286	2404	11	306.08				70	Jan. 16	
46	4286	2404	10	306.33	33	306.17	2404	160	Jan. 17	

* Returned full, reused as Ft. Barrow working tank

Table 12. Index Values of Working Reference Gases and Retired (Sub)standards

Col: 1	2	3	4	5	6	7	8	9	10	11
Analysers	(Sub) Standard Tank No.	Compared Tank No.	<u>Single</u> No. of Compari- sons	<u>Set</u> Index	<u>Wt'd</u> No. of Compari- sons	<u>Av.</u> Index	<u>Compared</u> No. Pressure (P.S.I.)	<u>Tank</u> Pressure (P.S.I.)	Date of Analysis	Dates of Use
<u>C. Antarctic Fifth Year Returns - Fifth Year Tanks (Cont)</u>										<u>1962</u>
46	4286	2405	10	307.08				160	Jan. 15	
46	4286	2405	11	307.01				180	Jan. 16	
46	4286	2405	11	307.26	32	307.12	2405	120	Jan. 17	
46	4286	2408	10	278.98				1720	Jan. 12	
46	4286	2408	10	279.25				1700	Jan. 13	
46	2407	2408	12	279.23				1700	Jan. 13	
46	4286	2408	10	279.23				1700	Jan. 14	
46	2407	2408	11	279.39	53	279.22	2408	1690	Jan. 14	
46	4286	2418	11	308.43				690	Jan. 25	
55	2407	2418	11	308.30				510	Mar. 21	
55	7358	2418	11	308.04				510	Mar. 21	
46	4295	2418	10	308.87*				100	Oct. 16	
46	4295	2418	10	308.86*	33	308.26	2418	160	Nov. 20	
46	4286	2421	10	307.53				450	Jan. 13	
46	4286	2421	10	307.42				450	Jan. 15	
46	4286	2421	10	307.47	30	307.47	2421	430	Jan. 16	
46	4284	4274	10	308.76				400	May 24	
46	4284	4274	11	308.68				380	June 5	
46	4284	4274	12	308.74	33	308.73	4274	380	June 14	

* Omitted from average on account of low tank pressure.

Table 12. Index Values of Working Reference Gases and Retired (Sub)standards

Col:	1	2	3	4	5	6	7	8	9	10	11
	Analysers	(Sub) Standard Tank No.	Compared Tank No.,	Single No. of Compari- sons	Set Index	Wt'd No. of Compari- sons	Av. Index	Compared No. Pressure (P.S.I.)	Tank	Date of Analysis	Dates of Use
	<u>C. Antarctic Fifth Year Returns - Fifth Year Tanks (Cont)</u>										<u>1962</u>
	46	4286	4284	11	310.42				1690	Jan. 12	
	46	2407	4284	11	310.30				1670	Jan. 12	
	46	4286	4284	10	310.42				1650	Jan. 13	
	46	4286	4284	10	310.33				1650	Jan. 14	
	46	2407	4284	10	310.52	52	310.40	4284	1625	Jan. 14	
	46	4284	4285	10	307.22				360	May 24	
	46	4284	4285	10	307.27				350	June 5	
	46	4284	4285	10	307.28	30	307.26	4285	380	June 14	
	46	4286	4290	10	336.88				1690	Jan. 12	
	46	4286	4290	10	336.81				1650	Jan. 13	
	46	2402	4290	11	336.54				1700	Jan. 13	
	46	4286	4290	11	336.89				1670	Jan. 14	
	46	2407	4290	11	336.96	53	336.81	4290	1650	Jan. 14	
	<u>C. Antarctic Seventh Year - New Fillings</u>										<u>1962</u>
	46	4284	136	10	310.34				2210	June 5	
	46	2407	136	11	310.58				2200	June 14	
	46	2407	136	12	310.56				2200	July 6	
	46	2406	136	10	310.59				2100	Aug. 23	
	46	2407	136	10	310.56				2100	Aug. 28	
	46	2402	136	11	310.23	64	310.48	136	2180	Aug. 28	
	46	4284	148	10	306.64				2240	July 25	
	46	4295	148	11	306.45	21	306.54	148	2230	Aug. 13	

Table 12. Index Values of Working Reference Gases and Retired (Sub)standards

Col: 1	2	3	4	5	6	7	8	9	10	11
Analysers	(Sub) Standard Tank No.	Compared Tank No.	Single No. of Compari- sons	Set Index	Wt'd No. of Compari- sons	Av. Index	Compared No. Pressure Tank (P.S.I.)		Date of Analysis	Dates of Use
C. Antarctic Seventh Year - New Fillings (Cont)									1962	
46	4284	164	12	308.80				2200	July 17	
46	4295	164	11	308.72	23	308.76	164	2210	Aug. 14	
46	4284	3751	12	341.93				2190	July 6	
46	4284	3751	10	342.00				2150	July 19	
46	2402	3751	10	342.22				2060	Aug. 14	
46	4295	3751	11	341.92				2070	Aug. 21	
46	2407	3751	9	342.23	52	342.05	3751	2070	Aug. 21	
46	4284	3752	10	311.81				2210	May 30	
46	4284	3752	10	311.85	20	311.83	3752	2200	June 27	
46	4284	6074	12	294.63				2200	July 17	
46	4284	6074	12	294.65				2210	July 25	
46	7358	6074	11	294.51				2190	July 25	
46	4295	6074	10	294.73				2100	July 26	
46	7358	6074	11	294.46				2200	Aug. 13	
46	2406	6074	10	294.70	66	294.63	6074	2090	Aug. 23	
46	4284	7364	10	303.88				2220	July 25	
46	4295	7364	10	303.66	20	303.77	7364	2230	Aug. 13	
46	4284	10064	10	305.87				2250	July 25	
46	4295	10064	10	305.82	20	305.85	10064	2200	Aug. 13	
46	4284	10067	10	302.41				2280	July 25	
46	4295	10067	10	302.35	20	302.38	10067	2250	Aug. 13	

Table 12. Index Values of Working Reference Gases and Retired (Sub)standards

Col: 1	2	3	4	5	6	7	8	9	10	11
Analysers	(Sub) Standard Tank No.	Compared Tank No.	Single No. of Compari- sons	Set Index	Wt'd No. of Compari- sons	Av. Index	Compared Tank No. Pressure (P.S.I.)		Date of Analysis	Dates of Use
C.	Antarctic	Seventh Year - New	Fillings	(Cont)					1962	
46	4295	11076	10	302.45				2260	July 26	
46	4295	11076	11	302.24	21	302.34	11076	2280	Aug. 14	
46	4284	11080	10	303.05				2240	July 25	
46	4295	11080	10	302.82	20	302.94	11080	2250	Aug. 13	
46	4284	11082	10	303.13				2280	July 25	
46	4295	11082	10	303.07	20	303.10	11082	2230	Aug. 13	
46	4284	11085	12	299.84				2260	July 25	
46	4295	11085	10	299.70	22	299.78	11085	2290	Aug. 13	
46	4295	11092	12	303.40				2240	July 26	
46	4295	11092	10	303.23	22	303.32	11092	2240	Aug. 14	
46	4295	11094	12	301.88				2190	July 26	
46	4295	11094	10	301.68	22	301.79	11094	2200	Aug. 14	
46	4284	11111	10	302.80				2270	July 25	
46	4295	11111	10	302.76	20	302.78	11111	2300	Aug. 13	
46	4284	11669	12	315.33				2240	May 30	
46	4284	11669	10	315.51				2200	June 5	
46	4284	11669	10	315.38				2210	June 14	
46	4284	11669	10	315.49				2230	July 6	
46	2406	11669	11	315.57	53	315.45	11669	2190	July 19	

Table 12. Index Values of Working Reference Gases and Retired (Sub)standards

Col: 1	2	3	4	5	6	7	8	9	10	11
Analysers	(Sub) Standard Tank No.	Compared Tank No.	Single No. of Compari- sons	Set Index	Wt'd No. of Compari- sons	Av. Index	Compared No. Pressure Tank (P.S.I.)		Date of Analysis	Dates of Use
<u>D. Mauna Loa Returns</u>									<u>1961</u>	
46	4286	4272			10	308.13	4272	430	Nov. 21	
46	4286	4275			10	304.66	4275	2140	Nov. 21	
46	4286	7355			10	307.48	7355	400	Nov. 21	
									<u>1962</u>	
46	4286	136			10	322.31	136	390	Jan. 26	
46	4286	3752			10	321.05	3752	500	Jan. 26	
46	4284	3751			11	327.21	3751	380	Mar. 16	
46	4284	7364			10	302.61	7364	300	Mar. 16	
46	4284	148			11	318.35	148	475	May 30	
46	4284	10072			11	304.93	10072	400	July 17	
46	4284	10064			10	301.59	10064	460	May 24	
46	4295	4272	12	302.15				480	Aug. 17	
46	4295	4272	10	301.94	Incomplete		4272	450	Oct. 16	
46	4295	6067			10	303.56	6067	520	Oct. 16	
<u>D. Mauna Loa - New Fillings</u>									<u>1961</u>	
46	4286	10064	10	301.47				2120	Dec. 7	
46	4286	10064	10	301.59	20	301.53	10064	2100	Dec. 18	
46	4286	10072	10	304.58				2110	Dec. 7	
46	4286	10072	10	304.78	20	304.68	10072	2110	Dec. 18	
46	4286	148			10	318.22	148	2090	Dec. 18	
									<u>1962</u>	
46	4284	4272			10	302.19	4272	2290	Mar. 21	
46	4284	6067			10	303.79	6067	2260	Mar. 21	
46	4284	6081			11	302.92	6081	2250	Mar. 21	
46	4284	7344			12	301.86	7344	2250	Mar. 21	
46	4284	11097			10	307.40	11097	2210	May 24	
46	4284	11078			10	308.34	11078	2230	May 24	

Table 12. Index Values of Working Reference Gases and Retired (Sub)standards

Col:	1	2	3	4	5	6	7	8	9	10	11
	Analysers	(Sub) Standard Tank No.	Compared Tank No.	<u>Single</u> No. of Compari- sons	<u>Set</u> Index	<u>Wt'd</u> No. of Compari- sons	<u>Av.</u> Index	<u>Compared</u> No. Pressure (P.S.I.)	<u>Tank</u>	Date of Analysis	Dates of Use
D.	<u>Mauna Loa - New Fillings</u>			<u>(Cont)</u>						<u>1962</u>	
	46	4295	4285	10	302.07				2290	Aug. 17	
	46	4295	4285	10	302.05	20	302.06	4285	2260	Aug. 23	
	46	4295	2423			11	311.05	2423	2210	Nov. 1	
	46	4295	2425			10	310.72	2425	2210	Nov. 9	
	46	2407	2403	12	311.13				2250	<u>1962</u> Apr. 24	
	46	4284	2403	9	311.26				2210	Apr. 26	
	46	2407	2403	10	311.14				2220	Apr. 26	
	46	4284	2403	12	311.24				2200	Apr. 27	
	46	4284	2403	9	311.19				2220	Apr. 30	
	46	4295	2403	10	311.07				2200	Oct. 16	
	46	4295	2403	10	311.07				2170	Oct. 17	
	46	2407	2403	10	311.06				2170	Oct. 25	
	46	2402	2403	10	311.06				2150	Oct. 25	
	46	4295	2403	10	311.01	102	311.12	2403	2140	Oct. 25	
	46	4284	11083	12	314.23				2230	May 30	
	46	4284	11083	10	314.20				2250	June 27	
	46	4284	11083	10	314.30				2200	July 19	
	46	4295	11083	10	314.31				2220	Aug. 14	
	46	4295	11083	10	314.23				2220	Oct. 25	
	46	4295	11083	9	314.35	61	314.27	11083	2200	Dec. 6	
	46	2402	2399	10	334.76*				1540	<u>1961</u> Oct. 16*	
	46	6071	2399	9	334.89*				1530	Oct. 16*	

* Data in Report IV, Table 12B, omitted from average.

Table 12 Index Values of Working Reference Gases and Retired (Sub)standards

Col: 1	2	3	4	5	6	7	8	9	10	11
Analyser	(Sub) Standard Tank No.	Compared Tank No.	Single No. of Compara- sons	Set Index	Wt'd No. of Compara- sons	Av. Index	Compared No. Pressure Tank (P.S.I.)		Date of Analysis	Dates of Use
<u>D. Mauna Loa - New Fillings (Cont)</u>										
									<u>1962</u>	
46	4295	2399	10	335.41			1220		Oct. 17	
46	2402	2399	10	335.52			1210		Oct. 17	
46	4295	2399	10	335.38			1210		Oct. 25	
46	2402	2399	10	335.57			1200		Oct. 25	
46	2402	2399	10	335.71			1110		Nov. 15	
46	2407	2399	11	335.63			1100		Nov. 21	
46	2402	2399	10	335.66			1090		Nov. 21	
46	2402	2399	11	335.54			1150		Nov. 21	
46	2407	2399	11	335.47	93	335.54	2399	1130	Nov. 21	
<u>E. Point Barrow - Returns</u>										
									<u>1962</u>	
46	4286	10069	10	312.17			410		Jan. 26	
46	4286	10069	12	312.28			400		Jan. 30	
46	2407	10069	11	312.49			380		Jan. 30	
46	4286	10069	10	312.24			380		Feb. 15	
46	4284	10069	12	312.46	55	312.33	10069	390	Apr. 11	
46	4286	10077	10	280.05			2000		Jan. 26	
46	4286	10077	10	279.99	20	280.02	10077	-	Feb. 15	
46	4286	3755	10	306.13			130		Feb. 15	
46	4284	3755	12	306.59*	10	306.13	3755	10	July 17	

* Omitted from average (Low Tank Pressure).

Table 12. Index Values of Working Reference Gases and Retired (Sub)standards

Col: 1	2	3	4	5	6	7	8	9	10	11
Analysers	(Sub) Standard Tank No.	Compared Tank No.	<u>Single</u> No. of Compara- sons	<u>Set</u> Index	<u>Wt'd</u> No. of Compara- sons	<u>Av.</u> Index	<u>Compared</u> No. Pressure (P.S.I.)	<u>Tank</u>	Date of Analysis	Dates of Use
E.	<u>Point Barrow - Returns</u>			(Cont)					1962	
46	4284	6074			10	298.94	6074	600	Apr. 12	
46	4284	3756			10	297.43	3756	390	Apr. 12	
46	4284	10071			10	319.29	10071	400	Apr. 30	
46	4284	10073			10	298.73	10073	400	Apr. 30	
46	4284	6078			10	302.96	6078	420	July 17	
46	4284	10068			12	309.05	10068	450	July 17	
46	4295	3757			10	299.33	3757	340	Aug. 23	
46	4295	4291	10	335.44				280	Aug. 28	
46	4295	4291	11	335.24				370	Sep. 20	
46	2402	4291	10	335.17	31	335.28	4291	250	Oct. 16	
46	4295	2426			10	307.68	2426	320	Nov. 20	
46	4295	2427			10	297.92	2427	280	Nov. 20	
46	4295	3756			9	310.07	3756	320	Nov. 20	
E.	<u>Point Barrow - New Fillings</u>								1961	
46	4286	2427	6	297.37				2040	Dec. 18	
46	4286	2427	10	297.59				2060	Feb. 2	
46	4286	2427	10	297.13	26	297.36	2427	2060	Feb. 15	
46	4286	3757	9	299.36				2100	Dec. 18	
46	4286	3757	12	299.40	21	299.38	3757	2110	Feb. 2	
46	4284	2426	10	307.61				2200	May 24	
46	4284	2426	10	307.41	20	307.51	2426	2180	June 5	

Table 12. Index Values of Working Reference Gases and Retired (Sub)standards

Col: 1	2	3	4	5	6	7	8	9	10	11
Analysers	(Sub) Standard Tank No.	Compared Tank No.	Single No. of Compari- sons	Set Index	Wt'd No. of Compari- sons	Av. Index	Compared Tank No.	Pressure (P.S.I.)	Date of Analysis	Dates of Use
E. Point Barrow - New	Fillings	(Cont)								
46	3760	6078	10	302.91				2200	July 6* 1959	
46	4286	6078	10	302.55	20	302.73	6078	2130	Jan. 25** 1962	
46	4286	10068	10	308.72				2060	Nov. 21 1961	
46	2407	10068	11	308.88	21	308.80	10068	2060	Feb. 15 1962	
46	4284	3756			10	310.32	3756	2220	June 5	
46	4295	10071	10	301.67				2290	Aug. 17	
46	4295	10071	11	301.69	21	301.68	10071	2270	Aug. 23	
46	4295	3757	10	312.26				2230	Nov. 1	
46	4295	3757	11	312.24	21	312.25	3757	2230	Nov. 5	
46	4295	4284	10	321.68				2180	Oct. 25	
46	4295	4284	10	321.76	20	321.72	4284	2160	Nov. 1	
46	4295	4278	10	314.29				2210	Nov. 1	
46	4295	4278	10	314.18	20	314.24	4278	2200	Nov. 5	
46	4295	7362	10	315.28				2200	Nov. 1	
46	4295	7362	9	315.51	19	315.39	7362	2210	Nov. 5	
46	4295	4286	10	313.82				2220	Nov. 1	
46	4295	4286	10	313.66	20	313.74	4286	2240	Nov. 9	
46	4295	10072	10	314.74				2220	Nov. 1	
46	4295	10072	10	314.76	20	314.75	10072	2210	Nov. 9	

* Data in Report II, Table 12C, Antarctic 4th Year.

** Data in Report V, Table 12C, Antarctic 4th Year.

Table 12. Index Values of Working Reference Gases and Retired (Sub)standards

Col: 1	2	3	4	5	6	7	8	9	10	11
Analysers	(Sub) Standard Tank No.	Compared Tank No.	<u>Single Set</u> No. of Compari- sons	Index	<u>Wt'd Av.</u> No. of Compari- sons	Index	<u>Compared Tank</u> No. Pressure (P.S.I.)		Date of Analysis	Dates of Use
<u>F. Special Use - Lamont Standards</u>									<u>1959 **</u>	
46	C-8	(1004) LGO-8	4	323.96				600	Apr. 16*	
46	3760	LGO-8	10	323.60				570	Apr. 17*	
46	3760	LGO-8	10	323.68				570	May 15*	
									<u>1960</u>	
46	1004	LGO-8	10	323.39				550	Nov. 13	
46	2423	LGO-8	10	322.41				560	Aug. 10	
									<u>1962</u>	
46	4286	LGO-8	10	318.47				540	Jan. 10	
46	4286	LGO-8	10	320.86				540	Jan. 24	
46	4286	LGO-8	11	321.07				540	Jan. 29	
46	4284	LGO-8	10	321.32			LGO-8	520	Mar. 16	
									<u>1959 **</u>	
46	C-8	LGO-10	2	274.98				1480	Apr. 16*	
46	3760	LGO-10	10	274.36				1450	Apr. 17*	
46	3760	LGO-10	10	274.61				1440	May 15**	
46	164	LGO-10	8	274.45				1410	Nov. 13	
									<u>1960</u>	
46	2423	LGO-10	10	274.36				1400	Aug. 9	
									<u>1962</u>	
46	4286	LGO-10	10	274.41				1420	Jan. 26	
46	4286	LGO-10	9	274.51				1420	Feb. 2	
46	4286	LGO-10	11	274.57				1420	Feb. 15	
46	7358	LGO-10	10	274.77			LGO-10	1410	Feb. 15	

* Data in Report II, Table 12F

** Data in Report III, Table 12F

Table 12. Index Values of Working Reference Gases and Retired (Sub)standards

Col:	1	2	3	4	5	6	7	8	9	10	11
	Analysers	(Sub) Standard Tank No.	Compared Tank No.	<u>Single Set</u> No. of Compara- sons	Index	<u>Wt'd Av.</u> No. of Compara- sons	Index	<u>Compared Tank</u> No. Pressure (P.S.I.)		Date of Analysis	Dates of Use
F.	<u>Special Use - Lamont Standards (Cont)</u>										
	46	C-8	IGO-16	2	355.31				700	1959 Apr. 16*	
	46	3760	IGO-16	10	355.40				700	Apr. 17*	
	46	3760	IGO-16	10	355.02				700	May 15*	
	46	1004	IGO-16	12	355.08					Nov. 13**	
	46	2425	IGO-16	9	355.19				460	Nov. 13**	
										1962	
	46	4286	IGO-16	10	354.58				450	Jan. 10	
	46	4286	IGO-16	10	355.09				450	Jan. 24	
	46	4286	IGO-16	10	354.72				450	Jan. 29	
	46	4286	IGO-16	12	354.65				450	Jan. 30	
	46	4284	IGO-16	10	355.66			IGO-16	440	Mar. 16	
F.	<u>Special Use - Manometric Standard</u>										
	46	7344	2424	10	372.84				1600	1960 Mar. 11***	
										1962	
	46	2402	2424	10	372.81	20	372.83	2424***	1480	Nov. 15	
F.	<u>Special Use - Reserve High Span</u>										
	46	4295	10077	10	346.84				2180	1962 Nov. 5	
	46	2402	10077	10	347.04				2140	Nov. 12	
	46	2402	10077	10	347.07				2080	Nov. 15	
	46	2402	10077	11	347.21				2070	Nov. 21	
	46	4295	10077	11	347.29				2070	Nov. 21	
	46	2402	10077	11	347.04				2150	Dec. 3	
	46	2407	10077	10	347.07				2130	Dec. 3	
	46	4295	10077	11	347.22				2120	Dec. 3	
	46	4295	10077	10	347.26	Incomplete			2110	Dec. 6	

* Data in Report II, Table 12 F

** Data in Report III, Table 12C

*** Formerly Antarctic First Year Tank A-19

Table 12. Index Values of Working Reference Gases and Retired (Sub)standards

Col: 1	2	3	4	5	6	7	8	9	10	11
Analysers	(Sub) Standard Tank No.	Compared Tank No.	Single No. of Compari- sons	Set Index	Wt'd No. of Compari- sons	Av. Index	Compared No. Pressure Tank (P.S.I.)		Date of Analysis	Dates of Use
F. <u>Special Use - Reserve Primary</u>									1962	
46	4284	11589	11	315.09				2210	May 30	
46	4284	11589	11	314.53				2200	June 27	
46	4284	11589	12	314.57				2200	July 6	
46	4284	11589	10	314.68				2170	July 19	
46	4295	11589	10	314.58				2180	Oct. 25	
46	4295	11589	10	314.80	Incomplete			2180	Dec. 6	
F. <u>Special Use - Rejected Drifter</u>									1960	
46	7344	7350	12	315.41					Jan. 22*	
46	7344	7350	10	315.18				2190	Feb. 12*	
46	1004	7350	12	315.09				2190	Feb. 12*	
46	1004	7350	9	314.98				2190	Feb. 19*	
46	1004	7350	11	314.81				2170	Mar. 4*	
46	1004	7350	9	314.87				-	Mar. 10*	
46	1004	7350	11	314.72				2150	Mar. 11*	
46	1004	7350	9	314.83				2180	Mar. 25*	
46	3759	7350	10	314.87				2180	Mar. 25*	
46	1004	7350	11	314.69				2150	Apr. 1*	
46	3759	7350	10	314.25				2180	July 1*	
46	1004	7350	21	314.40				2170	July 28*	
46	164	7350	10	314.31				2150	July 29*	
									1961**	
46	6071	7350	10	314.08				1600	Oct. 14	
46	4286	7350	10	314.08				1540	Oct. 18**	
									1962	
46	4295	7350	10	314.01			3750	1550	Dec. 7	

* Data in Report III, Table 12A

** Data in Report IV, Table 12A

Table 12. Index Values of Working Reference Gases and Retired (Sub)standards

Col: 1	2	3	4	5	6	7	8	9	10	11
Analysers	(Sub) Standard Tank No.	Compared Tank No.	Single No. of Compari- sons	Set Index	Wt'd No. of Compari- sons	Av. Index	Compared No. Pressure Tank (P.S.I.)		Date of Analysis	Dates of Use
<u>F. Special Use - N.C.A.R. Standards</u>										
46	4295	7321T			10	312.08	7321T	950	Aug. 28	1962
46	4295	488220			10	283.97	488220	1750	Sep. 20	
<u>F. Special Use - Contaminated Fillings</u>										
46	4295	10072			10	303.18	10072	2180	Aug. 21	1962
46	4295	10073			12	299.13	10073	2250	July 26	
<u>G. Retired Standards</u>										
46	3760	C-7	11	319.99				560	Apr. 17*	1959
46	C-5 (164)	C-7	11	320.19				550	Apr. 17*	
46	3760	C-7	10	320.07				550	Apr. 30*	
46	4296	C-7	11	320.04				540	July 6*	
46	3760	C-7	11	320.16				530	July 6*	
46	4296	C-7	10	320.29				530	July 6*	
46	3760	C-7	11	320.08				500	Aug. 25*	
46	4296	C-7	11	320.04				500	Aug. 25*	
46	4296	C-7	10	320.11				500	Aug. 25*	
46	3760	C-7	11	319.99				490	Aug. 28*	
46	4296	C-7	10	320.03				490	Aug. 28*	
46	1004	C-7	10	320.22				-	Nov. 13**	
<u>1960</u>										
46	2423	C-7	10	320.29				450	Aug. 15**	
46	2423	C-7	10	320.18				440	Oct. 4**	
46	2423	C-7	10	320.23				426	Oct. 10**	

* Data in Report II, Table 12G

** Data in Report III, Table 12G

Table 12. Index Values of Working Reference Gases and Retired (Sub)standards

Col: 1	2	3	4	5	6	7	8	9	10	11
Analysers	(Sub) Standard Tank No.	Compared Tank No.	Single No. of Compari- sons	Set Index	Wt'd No. of Compari- sons	Av. Index	Compared No. Pressure Tank (P.S.I.)		Date of Analysis	Dates of Use
G.	<u>Retired Standards</u>	<u>(cont)</u>								
									<u>1961</u>	
46	2423	C-7	10	320.54				420	Mar. 3**	
46	2423	C-7	11	320.54				420	Mar. 16B***	
46	2425	C-7	11	320.57				400	Mar. 16B***	
46	6071	C-7	10	320.34				420	Apr. 14***	
46	4236	C-7	10	320.15				400	Oct. 10***	
									<u>1962</u>	
46	4286	C-7	10	320.09				400	Jan. 29	
46	4295	C-7	11	320.18				390	Nov. 15	
46	4295	C-7	10	320.46				390	Nov. 27	
46	4295	C-7	10	320.43	250	320.22	C-7	385	Dec. 6	
									<u>1960</u>	
46	2423	1004	9	311.14				710	Oct. 4*	
46	2423	1004	11	311.12				705	Oct. 10*	
									<u>1961</u>	
46	2423	1004	11	311.14				700	Mar. 3*	
46	6071	1004	10	311.38				720	Apr. 14***	
46	8286	1004	10	311.34				690	Oct. 10***	
46	6071	1004	10	311.47				700	Oct. 14***	
46	6071	1004	10	311.41				700	Oct. 17***	
									<u>1962</u>	
46	4286	1004	11	311.41				680	Jan. 25	
46	4284	1004	10	311.78				670	Apr. 17	
46	2407	1004	10	311.66				660	Apr. 27	
46	4295	1004	10	311.62				670	Nov. 9	
46	4295	1004	10	311.60				640	Nov. 27	
46	4295	1004	9	311.74	131	311.44	1004	650	Dec. 7	

* Data in Report III, Table 12G

** Data in Report III, Table 12G

*** Data in Report IV, Table 12G

Table 12. Index Values of Working Reference Gases and Retired (Sub)standards

Col: 1	2	3	4	5	6	7	8	9	10	11
Analysers	(Sub) Standard Tank No.	Compared Tank No.	Single No. of Compari- sons	Set Index	Wt'd No. of Compari- sons	Av. Index	Compared Tank No. Pressure (P.S.I.)		Date of Analysis	Dates of Use
G. Retired Standards		(Cont)							1960	
46	2423	4296	10	292.70				410	Aug. 15*	
46	2423	4296	12	292.91				410	Sep. 22*	
46	2423	4296	10	292.98				400	Oct. 4*	
46	2423	4296	10	292.90				430	Oct. 16*	
									1961	
46	164	4296	11	293.00				420	Mar. 9*	
46	2423	4296	11	292.95				410	Mar. 9*	
46	164	4296	10	293.00				400	Apr. 13**	
46	6071	4296	11	292.88				380	Oct. 17**	
46	7358	4296	10	292.96				370	Oct. 17**	
46	7358	4296	10	292.96				360	Oct. 18**	
									1962	
46	4286	4296	10	293.06				310	Jan. 25	
46	4286	4296	10	292.84				340	Feb. 15	
46	4284	4296	10	293.04				350	Mar. 21	
46	7358	4296	10	292.93				260	Oct. 17	
46	7358	4296	12	292.73				220	Nov. 9	
46	2402	4296	10	293.10				260	Nov. 21	
46	7358	4296	11	292.80				320	Nov. 30	
46	4295	4296	10	292.83	188	292.92	4296	310	Nov. 30	

* Data in Report III, Table 12G

** Data in Report IV, Table 12G

Table 12. Index Values of Working Reference Gases and Retired (Sub)standards

Col: 1	2	3	4	5	6	7	8	9	10	11
Analysers	(Sub) Standard Tank No.	Compared Tank No.	<u>Single</u> No. of Compara- sons	<u>Set</u> Index	<u>Wt'd</u> No. of Compara- sons	<u>Av.</u> Index	<u>Compared</u> No. Pressure (P.S.I.)	<u>Tank</u>	Date of Analysis	Dates of Use
G. Retired Standards	(Cont)									
46	1004	4287	12	293.62			1660		1959 Nov. 10*	
46	2423	4287	10	293.99			1600		1960 Nov. 10*	
46	164	4287	11	294.14			1640		1961 Mar. 9*	
46	164	4287	10	293.94			1630		Apr. 13**	
46	6071	4287	11	293.90			1595		Oct. 17**	
46	7358	4287	10	293.99			1570		Oct. 17**	
46	7358	4287	11	293.82			1570		Oct. 18**	
46	6071	4287	10	293.82			1550		Oct. 18**	
46	4284	4287	10	293.93			1540		1962 Apr. 16	
46	7358	4287	10	293.87			1480		Oct. 17	
46	7358	4287	10	293.69			1540		Nov. 9	
46	2407	4287	10	293.63			1530		Nov. 9	
46	4295	4287	11	293.96			1510		Nov. 30	
46	7358	4287	10	293.63	146	293.85	4287	1490	Nov. 30	

* Data in Report III, Table 12D

** Data in Report IV, Table 12D

Table 12. Index Values of Working Reference Gases and Retired (Sub)standards

Col:	1	2	3	4	5	6	7	8	9	10	11
	Analysers	(Sub) Standard Tank No.	Compared Tank No.	Single No. of Compari- sons	Set Index	Wt'd No. of Compari- sons	Av. Index	Compared Tank No. Pressure (P.S.I.)		Date of Analysis	Dates of Use
G.	<u>Retired Standards</u>		<u>(Cont)</u>							<u>1960</u>	
	46	3759	6051	10	310.21			890		May 11*	
	46	3759	6051	12	310.17			890		June 23*	
	46	3759	6051	10	310.09			870		July 1*	
	46	2423	6051	9	310.05			870		Nov. 11*	
										<u>1961</u>	
	46	2423	6051	11	310.07			900		Mar. 9*	
	46	6071	6051	10	310.08			880		Apr. 14**	
	46	6071	6051	10	310.03			850		Oct. 17**	
	46	4286	6051	10	309.98			850		Oct. 18**	
	46	6071	6051	10	309.90			830		Oct. 18**	
										<u>1962</u>	
	46	2406	6051	10	310.07			830		Apr. 13	
	46	4284	6051	10	310.06			810		Apr. 17	
	46	4284	6051	10	310.07			800		Apr. 24	
	46	4295	6051	10	310.10			750		Nov. 26	
	46	4295	6051	5	310.05			790		Nov. 27	
	46	4295	6051	9	309.98	146	310.06	6051		Dec. 6	

* Data in Report III, Table 12D

** Data in Report IV, Table 12D

Table 13. Index Values of Standards and Principal Substandards

Reference To Table 5 of:	No. of Comparisons	Index	Use	Tank Number
Report IV	102	337.94	I _{HS}	2402
Report V	529	313.23**	Super I.	2406
Report IV	160	315.47	I.	2407
Report V	158	279.22	new I _{LS}	2408
Report V	202	315.52	new I.	4270
Report V	680	310.36	II	4284
Report V	825	309.72*	II	4286
Report V	412	310.22**	II	4295
Report IV	128	279.27	I _{LS}	7358
Report V	159	346.73	I _{HS}	10069

* This final value differs from the value used in Report IV (see text, p.2).

** Used in Report V, but not a final value.