REPORT OF SMALLEY FOUNDATION COMMITTEE A. O. C. S. 1934-1935

THE tables attached to this report summarize the results of the cooperative analytical program of the Smalley Foundation for the past year. The program was con-cluded, as usual, with thirty samples. There were 73 collaborators participating, as compared to 81 for the season 1933-1934, and 76 for the season 1932-1933.

In table No. 1 we show the standing of 48 collaborators who reported oil determinations on all samples. In the two preceding years 60 and 49, respectively reported oil determinations on all the samples.

Table No. 2 shows the standing of 55 collaborators who reported ammonia results on all samples. This number compared with 67 and 55, respectively, for the two preceding seasons.

Table No. 3 gives the average for both oil and ammonia for the 48 colloborators who reported oil and ammonia on all samples. In the two preceding seasons 60 and 49

collaborators, respectively, reported oil and ammonia on all samples.

The winning collaborators are as

The "Mississippi State Chemical Laboratory Cup" for the highest efficiency in the determination of both oil and ammonia on all samples is awarded to Analyst No. 16, Dr. W. F. Hand, Mississippi State College, State College, Miss., with an average of 99.977 per cent. The average efficiency is higher than that of last year, which was 99.959 per cent. Dr. Hand last year won the Battle Cup permanently. The certificate for second place goes to analyst No. 3, D. B. McIsaac, International Vegetable Oil Company, Savannah, Ga., with an efficiency of 99.947, as compared with 99.952 for last year. This certificate was won by the Southwestern Laboratories of Dallas, Texas, last year.

The certificate for the highest efficiency in determination of the oil only is awarded to Analyst No. 16, Dr. W. F. Hand, Mississippi State College, with an average of 99.974, as compared with 99.952 for last year. The certificate for second place goes to Analysts No. 3 and 39, Mr. D. B. McIsaac of Savannah, Ga., and the Geo. W. Gooch Laboratories, Los Angeles, Calif., with an efficiency of 99.926, as compared with 99.946 for last

The certificate for the highest efficiency in the determination of ammonia is awarded to analysts 20 and 42, the Barrow Agee Laboratories of Memphis, Tenn., who also won this certificate last year, and N. C. Hamner, Southwestern Laboratories, Dallas, Texas, with an average of 99.988, as compared with 99.983 for last year. The certificate for second place goes to Analyst No. 51, Geo. K. Redding, Larrowe Milling Company, Ross-

	TABLE NO.	II Percent
Analyst No.	Points Off	Efficiency
20	3	99.988
42	3	99.988
51	4	99.984
16	5	99.979
45	5	99.979
3 37	8	99.967
37	8 8 8	99.967
50		99.967
68	8	99.967
38 25	9	99.963
38	12	99.951
25	13	99.947

TABLE	NO. III
Analyst No.	Percent Efficiency
16	99.977
3	99.947
2	99.937
68	99.932
45	99.927
42	99.924
11	99.916
37 50	99.913 99.901
38	99.891
54	99.891
36	99.874
13	99.872
39	99.871
53	99.865
20	99.863
$\tilde{2}\tilde{2}$	99.863
47	99.853
66	99.850
28	99.848
55	99.842
63	99.834
58	99.821
43	99.820
60	99.819
24	99.813
67	99.812
30	99.808
70	99.796
9 56	99.791 99.791
62	00 701
15	99.791 9 5 .788
59	99.772
12	99.766
33	99.766
71	99,764
21	99.760
$\overline{64}$	99.741
6	99.720
65	99.686
29	99.678
41	99.657
49	99.650
34	99.614
1	99.575
7 10	99.518
10	99.425

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	TABLE NO.	
Amplerat No.	D.:	Percent
Analyst No.	Points Off	Efficiency
16 3	6 17	99.974 99.926
39	iź	99.926
iĭ	19	99.919
2	21	99.910
68	24	99.897
36	28	99.880
45	30	99.871
54	30	99.871
53	32	99.862
37	33	99.858
42	33	99.858
22	34	99.854
£0	39	99.832
28	40	99.828
38 13	40	99.828
24	42 43	99.819 99.815
63	43 43	99.815 99.815
55	44	99.810
47	45	99.806
43	53	99.771
64	53	99.771
70	54	99.767
66	56	99.758
60	56	99.758
15	58	99.751
30	58	99.751
58	58	99.751
20	62	99.725
59	62	99.725
67 71	65	99.719
12	68 73	99.707
62	77	99.686
33	78	99.668 99.664
21	79	99.660
-6	81	99.651
ğ	84	99.638
56	84	99.638
65	104	99.549
49	109	99.531
.1	117	99.496
41	118	99.492
29	120	99.483
10 34	121	99.479
34	137	90 TU 9

 $\frac{137}{207}$

16	5	99.979		
45	5	99.979		
40	9			
3	8	99.967		NO. III
37	8 8	99.967	Analyst No.	Percent Effi
50	8	99.967	16	99.977
68	8	99.967	3 2 68 45	99.947
2	9	99.963	$\tilde{2}$	99.937
2 38 25	12	99.951	68	99.932
25	13	99.947	45	99.927
9	15	99.938	42	99.924
56	15	99.938	11	99.916
66	15	99.938	37	99.913
13	19	99.922	50	99.901
11	21	99.913	9tt	
17	$\frac{21}{22}$	99,910	38	99.891
54	$\frac{22}{22}$	99.910	54	99.891
04	$\frac{22}{22}$	99.910	36	99.874
62			13	99.872
67	$\frac{24}{}$	99.901	39	99.871
47	25	99.897	39 53	99.865
58	27	99.889	20	99.863
60	30	99.876	22	99.863
$\frac{22}{55}$	31	99.873	$\overline{47}$	99.853
55	31	99.873	66	99,850
28	32	99.868	98	99.848
36	32	99.868	28 55	99.842
43	32	99.868	63	99.834
53	32	99.868	58	99.821
29	33	99.864	38	
30	33	99.864	43	99.820
33	33	99.864	60	99.819
			24	99.813
21	35	99.855	67	99.812
63	36	99.852	30	99.808
12	38	99.843	70	99.796
15	43	99.823	9	99.791
70	43	99.823	56	99.791
39	44	99.818	56 62 15	99,791
65	44	99.818	15	99.788
71	44	99,818	59	99.772
41	45	99.814	59 12	99.766
24	46	99.811	$\frac{33}{33}$	99.766
31	46	99.811	71	99.764
59	46	99.811	21	99.760
6	$\tilde{52}$	99.786	61	99.741
48	52	99.786	6	99.720
49	57	99.765	65	99.120
46	59	99.100		99.686
		99.756	29	99.678
19 64	64	99.737	41	99.657
	70	99.712	49	99.650
1	86	99.645	34	99.614
69	87	99.641	1	99.575
27	123	99.493	1 7 10	99.518
10	152	99.373	10	99.425

ford. Ohio, with an average of 99.984, as compared with 99.970 for last year.

The foregoing comparisons show that the percentage of efficiency for oil, ammonia, and the combined oil and ammonia work is higher than that for last year.

In concluding this report your

committee feels that the Society owes again to Mr. Thomas C. Law a tremendous debt for his care and attention in preparing and mailing the samples.

Personnel of committee:

- T. B. Caldwell
- L. B. Forbes

- E. H. Tenent
- J. N. Pless
- W. C. Moor
- M. E. Whitten
- B. L. Caldwell
- T. C. Law
- F. Paquin
- A. W. Putland, Chairman.