

O. H. M. S.

W. J. Gerald
Deputy Minister.

LABORATORY
OF THE
INLAND REVENUE DEPARTMENT
OTTAWA, CANADA
BULLETIN No. 139
FERTILIZERS AS SOLD 1907.

Handwritten scribbles or marks at the top of the page.

Horizontal line of text, possibly a header or separator.

Horizontal line of text, possibly a header or separator.

Horizontal line of text, possibly a header or separator.

Horizontal line of text, possibly a header or separator.

Horizontal line of text, possibly a header or separator.

Horizontal line of text, possibly a header or separator.

Horizontal line of text, possibly a header or separator.

Horizontal line of text, possibly a header or separator.

Horizontal line of text, possibly a header or separator.

Horizontal line of text, possibly a header or separator.

....

BULLETIN No. 139.

FERTILIZERS AS SOLD, 1907.

ERRATA.

Page 4—No. 29521—Thomas Phosphate Powder. This sample should be compared with 1961 or 1971 of Bulletin 134. The relative values found for these samples are \$16.00 and \$17.17 respectively. The value found for No. 29521 is \$11.89.

Page 8—No. 29521—In column 'Identified with standard,' read 1961 or 1971.

Page 9—No. 29521—For relative value, \$14.24, read \$11.89.

Page 9—No. 29521—For relative value, \$18.53, read \$16.00.

Page 9—No. 26234—In column 'Potash' read *trace*.

Page 9—No. 26235—For relative value, \$16.64, read \$14.45.

Page 11—No. 32511—For relative value, \$15.63, read \$24.24.

The basis of these calculated values is given in Bulletin 134, p. 3, but may be repeated here:—

	Cents per lb.
Nitrogen, in salts of ammonia, or nitrates, as well as in compound fertilizers.	17
Organic nitrogen, in ground bone, fish, blood or tankage.	16
Phosphoric Acid—	
Soluble in water	6
Soluble in 1 per cent citric acid solution.	5½
Insoluble in Thomas phosphate powder, bone and fertilizers generally.	1½
Potash, in compound fertilizers.	5

Insoluble phosphoric acid in Thomas phosphate powder has, in earlier bulletins, been given the value 3½ cents per lb.

(Sd) A. MCGILL,
Chief Analyst.

[Faint handwritten text]

[Faint printed text]

[Faint printed text]

[Faint printed text]

[Faint printed text]

[Faint printed text]

W

ch
ho

so
ig
wl
or
id
to
su

E
V
C
T
T
T

LABORATORY
OF THE
INLAND REVENUE DEPARTMENT

OTTAWA, CANADA

BULLETIN No. 139

FERTILIZERS AS SOLD 1907.

OTTAWA, July 25, 1907.

W. J. GERALD, Esq.,

Deputy Minister of Inland Revenue.

SIR,—I have the honour to submit a report upon 107 samples of Fertilizers, purchased by our own Inspectors, and submitted to analysis for the purpose of ascertaining how far the articles sold are in conformity with the guarantee of the manufacturer.

Great difficulty has always been found in identifying with certainty the sample sold, with the corresponding article as guaranteed. The retail vendor is frequently ignorant of the registered name; and he is satisfied to sell as "Ground Bone" an article which may be registered as 'Bone Flour,' 'Bone Meal,' 'Fine Ground Bone' with or without other distinguishing words. It is evident that without satisfactory proof of identity, it becomes impossible to speak with assurance of the conformity of the sample to a standard. The following classification of the samples now reported, is offered subject to limitations just mentioned.

Fully identified and up to guarantee	62 samples
Doubtfully identified and up to guarantee	18 "
" " and below "	3 "
Apparently not registered	24 "

107

The samples classified as 'below guarantee,' are the following:—

No. 30,371—Bone Meal, manufactured by W. Harris & Co., Toronto.

The sample in question was obtained at the factory, and shows a value of \$24.30 as compared with \$33.69 shewn (on same scale) by the sample registered. It is noteworthy however, that no explicit guarantee accompanied either of these samples; and comparison can only be made with the Standard deposited with the Department, as required by the Fertilizers Act. It is no unusual thing for a standard sample to possess a value greatly above the minimum value guaranteed by the manufacturer; and to require every sample sold to reach the value possessed by the

manufacturer's sample deposited, would result in condemnation of a very large percentage of all fertilizers sold. Nor would it be just to the manufacturer, who sells on the basis of a plainly printed guarantee, which may be considerably below actual value, and all the purchaser has any right to do, is to require him to live up to this guarantee. The fault, in the present case, is the selling without such explicit guarantee; a fault, however, which cannot be held to justify us in substituting for such guarantee, the standard sample deposited here, and requiring the manufacturer to live up to such standard. The difficulty met here arises out of imperfections in our Fertilizer Act; and it would not, I conceive, be just to press the case against the manufacturer of No. 30371.

No. 32446—High Grade Potash—American Agricultural & Chemical Co., Buffalo.

This brand is guaranteed to contain 10 per cent of potash. The sample analysed contained only 4.44 per cent. The standard sample deposited here contained 10.34 per cent of potash. This sample was registered as *High Grade Potash Compound*, No. 1946. Sample 32446 is sold as *High Grade Potash*, without the word 'Compound.' The name of the manufacturer, would probably be held to sufficiently identify the brand, as sold, with the brand, as registered; but as this is only *probable*, I am inclined to use this case rather as an argument for improving our machinery of identification, than as a case for prosecution.

No. 29521—Thomas Phosphate Powder—The Anglo-Canadian Chemical Co., St. John, N.B.

The guarantee is 17.80 per cent Phosphoric acid, while the sample contains but 15.08 per cent.

Here again, however, there is decided uncertainty in identification. The sample registered as 2039 is named Ohlendorf's Ground Basic Slag.

Nothing can be clearer than that efficient fertilizer inspection is only possible when assured identification of every sample sold makes reference to, and comparison with a registered standard easy and certain. This involves the affixing of a tag or label to every package sold. Such tag or label should carry a printed guarantee, together with the name of the brand, and of the manufacturer. It would further simplify identification if each brand were designated by a registered number.

There seems no reason why tags or labels of the kind described, should not be furnished by the Inland Revenue Department to manufacturers of fertilizers, on registration, and at a fixed price. The income so derived would constitute a fund to meet the expenses of carrying out the Fertilizer Act. Not only would the question of identification be solved in this way, but the other difficulty of knowing whether a fertilizer were registered or not, would be met at the same time.

The following list comprises those brands of fertilizers purchased by our Inspectors, which do not appear to be registered as required by the Act.

No.	Name.	Manufacturer.	Vendor.
487	Earliana General Fertilizer	E. St. Jacques	Pharmacie St. Hyacinthe.
27374	Orchard Brand	Pidgeon Fert. Co., Windsor, N.S.	Capt. C. O. Allen, Kentville, N. S.
29522	Colombian Potato	The Col. Mortimer Co., New York.	Geo. F. Baird Co., Perth, N.B.
30373	Bone Dust	Amer. Agric. Co., Buffalo, N. Y.	J. A. Bruce, Hamilton.
30375	Blood Bone and Tankage	Can. Packing Co., London	Same.
32087	Bone Meal	Sylvester Feed Co., Victoria, B.C.	Wm. Rennie Co., Victoria, B.C.
32250	Market Gardeners Special Fertilizer	Nichols Chem. Co., Capleton, P.Q.	Kenneth McDonald, Ottawa.
32440	Land Rock	R. C. Mosher, N.B.	Chase Bros., is not fertilizer Colborne, J under the Act.
32443	Lawn Fertilizer	W. A. Freeman, Hamilton	G. S. Thompson, Cobourg.
32445	Plaster	Not known	E. A. Duncan, is not fertilizer Cobourg, J under the Act.
32513	Eureka	Fertilizer Co., Buckingham	R. J. Latimer, Montreal.
33221	Lawn Fertilizer	W. A. Freeman, Hamilton	S. L. Taylor, Brampton.
33267	Lawn Fertilizer	Wm. Rennie Co., Toronto	Same.
33268	Farm and Garden	" "	"
33269	Freeman's	W. A. Freeman, Hamilton	Steele Briggs & Co., Toronto.
33271	Tankage	Wm. Davies & Co., Toronto	Same.
33272	"	Park Blackwell Co., Toronto	"
33273	General	Western Fertilizer Co., Toronto	"
33274	Bone and Potash	" "	"
33275	Tankage Fertilizer	Fowlers Can. Co., Hamilton	"
33276	Flower Food Fertilizer	W. A. Freeman, Hamilton	Steele Briggs Co., Hamilton.
33277	Plant Food	W. M. Rennie, Toronto	C. Stock & Son, Brampton.
33279	Bone and Potash Fertilizer	Western Fertilizer Co., Toronto	Same (like 33274)
33280	General Fertilizer	" " "	" (like 33273)

The 24 samples in question appear to represent 22 distinct brands. Of this number, two (Nos. 32440 and 32445) are not fertilizers, under the Act, since they do not contain phosphoric acid, nitrogen or potash. It is possible that some of these samples may be registered brands, but sold under names which do not suffice for their certain identification. This inference seems justified by the fact that several of the manufacturers named, have registered one or more brands, and are not likely to have, willingly, put unregistered brands on the market.

In the cases of samples 33273 and 33274 (also 33279 and 33280, which appear to be the same brands), it is worthy of remark that articles of very low value indeed are put on the market as chemical fertilizers. This fact, together with the fact of their non-registration, would appear to be sufficient ground for restrictive legal action.

Finally, I would respectfully draw your attention to the need of revising and improving our Fertilizer Act; so as to make it truly efficient in protecting the agricultural interests of Canada; and would recommend the publication of this report, with accompanying tables, as Bulletin No. 139.

I have the honour to be, Sir,

Your obedient servant,

A. MCGILL,

Acting Chief Analyst.

RECORD OF SAMPLES OF

Date of Collection.	Designation.	No. of Sample.	Name and Address of Manufacturer.	Name and Address of Vendor.	Identified with Standard.
1897.			<i>District of Nova Scotia.— R. J. Waugh, Inspector.</i>		
May 14	Victor Guano	27366	Provincial Chemical Co., St. John, N.B.	J. H. Longmire & Sons, Bridgetown, N. S.	1986..
" 14	Potato Fertilizer.	27367	Provincial Chemical Co., St. John, N.B.	J. H. Longmire & Sons, Bridgetown, N.S.	1985..
" 14	Potato Manure.	27368	Swift Lowell Fertilizer Co., Boston, Mass.	N. E. Chute, Bridgetown, N.S.	1956..
" 14	Animal Brand	27369	Swift Lowell Fertilizer Co., Boston, Mass.	N. E. Chute, Bridgetown, N.S.	1955..
" 15	XXX Fish and Potash Brand.	27370	Russia Cement Co., Gloucester, Mass.	G. N. Ray, Middletown, N.S.	1893..
" 15	Market Garden and Potato Brand.	27371	Russia Cement Co., Gloucester, Mass.	G. N. Ray, Middletown, N.S.	1894..
" 16	Six per cent Fertilizer.	27372	Bowker, Boston, Mass.	G. F. Roy, Kentville, N.S.	1922..
" 16	Potato Manure.	27373	Swift's Lowell Fertilizer Co., Boston, Mass.	G. F. Roy, Kentville, N.S.	1956..
" 16	Orchard Brand	27374	Pigeon Fertilizer Co., Windsor, N.S.	Capt. C. O. Allen, Kentville, N.S. . . . .	.....
" 17	Stockbridge Manure.	27375	Bowker Fertilizer Co., Boston, Mass.	F. W. Woodman, Wolfville, N.S.	1930..
" 17	Square Brand.	27376	Bowker Fertilizer Co., Boston, Mass.	F. W. Woodman, Wolfville, N.S.	1917..
" 17	'Swift's Animal Brand' for all crops.	27377	Swift's Lowell Fertilizer Co., Boston, Mass.	R. E. Harris & Son, Wolfville, N.S.	1955..
" 23	Potato Special	27378	American Agricultural Chemical Co., New York.	E. M. Walker, Dartmouth, N.S.	2033..
			<i>District of Prince Edward Island.—T. Moore, Inspector.</i>		
" 20	Swift's Lowell Bone Fertilizer for Corn & Grain	31121	Swift Lowell Fertilizer Co., Boston, Mass.	Pool & Thompson, Montague Bridge, P.E.I.	1952..
" 20	Ceres Superphosphate, a Complete Fertilizer.	31122	Nova Scotia Fertilizer Co., Halifax, N.S.	R. E. Mutch, Charlottetown, P.E.I.	1980..
" 20	Bone and Potash.	31123	Nova Scotia Fertilizer Co., Halifax, N.S.	R. E. Mutch, Charlottetown, P.E.I.	1983..
			<i>District of New Brunswick.— J. C. Ferguson, Inspector.</i>		
April 17	Potato and Vegetable Phosphate.	24361	Bowker Fertilizer Co., Boston, Mass.	D. J. Seely & Son, St. John, N. B.	1915..
" 18	Swift's Potato Manure.	24362	Swift's Lowell Fertilizer Co., Boston, Mass.	P. Nase & Son, St. John, N.B.	1956..
" 19	Reid's Superphosphate.	24363	Thos. Reid, St. John, N.B.	Thos. Reid, St. John, N. B.	1990..
" 20	Special Potato Phosphate	24364	The Provincial Chemical Fertilizer Co., Ltd., St. John Co., (East) N.B.	The Provincial Chemical Fertilizer Co., Ltd., St. John, Co. (East) N.B.	1985..

FERTILIZERS AS SOLD.

	NITROGEN PER CENT.		RESULT OF ANALYSIS. PHOSPHORIC ACID—PER CENT.						Potash.	Moisture.	Relative value per ton of 2,000 lbs.	Remarks.
	Total; including that of nitric acid or ammonia if present.	Total calculated as ammonia.	Soluble in water.	Reverted or citrate, soluble.	Insoluble.	Total.	Total available.					
										\$	cts.	
86..	2.10	2.55	4.55	3.73	2.12	10.40	8.28	4.76	12.27	22	10	Up to guaranteed value.
	1.65	2.00				7.00		2.50				
85..	2.18	2.65	4.70	2.73	1.57	9.00	7.43	6.52	11.99	22	75	Up to guarantee.
	2.06	2.50				8.00		6.50				
56..	1.60	1.94	3.25	4.75	2.00	10.00	8.00	5.57	8.99	20	74	" "
	1.65	2.00				8.00	7.00	4.00		17	61	
55..	2.27	2.75	4.70	5.03	4.24	13.95	9.73	4.45	11.20	24	61	" "
	2.47	3.00				10.00	8.00	4.00		21	80	
93..	2.35	2.86	1.50	6.70	6.70	15.00	8.20	2.56	8.99	21	73	" "
	2.06	2.50				12.00	9.00	2.25		20	05	
94..	2.07	2.52	3.00	7.18	3.87	14.05	10.18	4.58	12.74	24	28	" "
	2.00	3.40	4.00	4.00	2.00	10.00		5.00		21	60	
22..	1.15	1.39	2.25	4.00	4.15	10.40	6.25	8.43	14.54	20	69	" "
	0.82	1.00				7.00	6.00	6.00		15	69	
56..	1.79	2.18	3.95	3.55	2.60	10.10	7.50	5.92	7.26	21	43	" "
	1.65	2.00				8.00	7.00	4.00		17	61	
	0.10	0.13	4.25	2.45	1.30	8.00	6.70	7.25	13.18	15	78	Cannot be identified with any of the 5 brands registered by the Pidgeon Fertilizer Co. Not registered.
30..	2.92	3.55	3.10	4.53	3.32	10.95	7.62	8.89	11.08	28	52	Up to guarantee. No. 1930 is registered as 'Stockbridge Special Complete Manure.' Hence identification is uncertain.
	3.30	4.00				7.00	6.00	10.00		28	12	
17..	1.61	1.95	6.05	4.02	2.24	12.31	10.07	2.28	11.15	20	11	Up to guarantee.
	1.65	2.00				7.00	6.00	2.00		14	51	
55..	2.24	2.72	5.95	3.98	4.67	14.60	9.93	4.68	9.95	25	22	" "
	2.47	3.00				10.00	8.00	4.00		21	80	
33..	2.35	2.86	5.55	3.08	2.57	11.20	8.63	5.44	14.74	24	16	Up to guarantee. No. 2033 is registered as 'Standard Special for Potatoes.' Hence identification is uncertain.
	2.06	2.50	5.00	3.00	2.00	10.00	8.00	3.00		19	90	
52..	2.24	2.72	4.05	4.73	4.35	13.13	8.78	3.83	5.12	22	81	Up to guarantee, but identification uncertain; No. 1952 is registered without the words 'for corn and grain.'
	1.65	2.00				9.00	8.00	3.00		17	71	
80..	1.54	1.83	8.25	1.73	1.77	11.75	9.98	4.23	12.20	21	80	Up to guarantee.
	1.65	2.00				7.00		2.00				
83..	2.83	3.43		13.85	10.35	24.20	13.85	3.03	10.40	30	99	Standard 1983, is registered under the name, 'Blood, Bone and Potash.' Is up to this guarantee; but identification is uncertain.
	1.65	2.00				7.00		4.00				
15..	6.02	7.31		6.40	3.90	10.30	6.40	2.47	9.53	31	14	Up to guarantee.
	1.65	2.00				9.00	8.00	2.00		16	71	
56..	1.37	1.67	4.05	3.50	2.10	9.65	7.55	7.32	8.00	21	32	Up to guarantee, but identification uncertain. No. 1956 is registered as 'Swift's Lowell Potato Manure.'
	1.65	2.00				8.00	7.00	4.00		17	61	
90..	2.74	3.33	1.85	7.75	1.55	11.15	9.60	2.48	20.32	23	01	Nearly up to value of standard sample, whose analysis is quoted. Up to guarantee.
	4.41	5.35	2.16	3.41	4.90	10.47	5.57	2.00	5.25	24	80	
85..	3.33	4.05	6.50	0.74	1.20	8.44	7.24	3.53	6.57	28	83	Up to guarantee, but identification uncertain. No. 1985 is registered simply as 'Potato Phosphate.'
	2.06	2.50				8.00		6.50				

RECORD OF SAMPLES OF

FERT

Date of Collection.	Designation.	No. of Sample.	Name and Address of Manufacturer.	Name and Address of Vendor.	Identified with Standard.
1907.			<i>District of New Brunswick—Con.</i>		
" 22	New England Peerless Fertilizer.	24365	New England Fertilizer Co. Boston, Mass.	P. Nase, Main st., St. John, N.B.	1949..
" 23	Farm and Garden Phosphate.	24366	Bowker Fertilizer Co., Boston, Mass.	W. B. McKay & Co., Sussex, N.B.	1919..
May 9	Chimax Phosphate.....	24368	The American Agricultural Chemical Co., New York.	F. McMurchie, St. Stephen, N.B.	2027...
" 9	Bradley's XL Superphosphate of Lime.	29519	The American Agricultural Chemical Co., New York.	Hy. E. Hill, St. Stephen, N.B.	2007..
" 14	Potato Manure.....	29520	The American Agricultural Chemical Co., New York.	Solomon Perley, Woodstock, N.B.	2033..
" 15	Thomas Phosphate Powder.	29521	The Anglo-Canadian Chemical Co., St. John, N.B.	J. W. James, Andover, N.B.	2020...
" 15	Columbian Potato.....	29522	The Col. Mortimer Co., New York.	Geo. F. Baird Co., Ltd., Perth, N.B.	.....
May 15	Potato Phosphate.	29523	The Nova Scotia Fertilizer Co., Halifax, N.S.	DeWitt and Hefferman, Perth, N.B.	1982
April 25	Pacific Potato Special...	24367	American Agricultural Co., New York.	Toombs & Son, Moncton, N.B.	2023
			<i>District of Quebec—E. Beland, Inspector.</i>		
April 19	'Victor'.....	26230	Capleton Chemical Fertilizer Co.	Clovis Mercier, St. Marie, Beauce.	1994
" 19	'Phosphate No. 1'...	26234	Nichols Chemical Co., Capleton, P.Q.	Geo. Gagnon, St. Marie, Beauce.	1992
" 19	'Thomas Phosphate Powder.'	26235	H. O. E. Albert, London, England.	Geo. Gagnon, St. Marie, Beauce.	1971
" 19	Victor.....	26236	Nichols Chemical Co., Capleton, P.Q.	Geo. Gagnon, St. Marie, Beauce.	1994
" 19	Sure Crop 6 per cent Potato Fertilizer.....	26238	Bowker & Co., New York.	Geo. Beaudoin, St Elzear, Beauce.	1922
" 19	Sure Crop Bowker's 6 per cent Potato Fertilizer..	26239	" " "	J. Berthiaume, St. Elzear, Beauce.	1922
" 19	Sure Crop.....	26240	" " "	J. Berthiaume, St. Elzear, Beauce.	1920
			<i>District of St. Hyacinthe—J. C. Rouleau, Inspector.</i>		
May 3	Corn Fertilizer.....	484	Bowker Fertilizer Co., New York.	D. E. Taylor, Kingsley Road, Richmond.	1916
" 7	6 per cent Potash.....	485	" " "	A. J. Brown, Lawrenceville.	1922
" 13	Victor Guano.....	486	Provincial Chemical Fertilizer Co., St. John, N.B.	Chas. Racicot, St. Hyacinthe.	1986
" 17	Earliana General Fertilizer.	487	T. St. Jacques.....	Pharmacie St. Hyacinthe, St. Hyacinthe.	.....
" 1	'Sure Crop Phosphate'..	480	Bowker Fertilizer Co., New York.	G. N. Salisbury, Abbots Corner.	1920
May 1	Potato and Vegetable Phosphate.	481	" " "	G. N. Salisbury, Abbots Corner.	1915

Total: including that of nitric acid or ammonia

NIT
PER

1
0
1
1
0
1

1
2
2
2

1
1
1
1
1

FERTILIZERS AS SOLD.

S OF

Identified with Standard.

	NITROGEN PER CENT.		RESULTS OF ANALYSIS. PHOSPHORIC ACID—PER CENT.						Potash.	Moisture.	Relative value per ton of 2,000 lbs.	Remarks.
	Total: including that of nitric acid or ammonia if present.	Total calculated as ammonia.	Soluble in water.	Reverted or citrate, soluble.	Insoluble.	Total.	Total available.					
949..	1.12	1.36	1.95	4.72	2.25	8.92	6.67	1.67	9.34	13.69	Up to guarantee.	
	0.82	1.00			1.00	8.00	7.00	1.00		11.79		
919..	1.99	2.41	5.35	3.05	3.70	12.10	8.40	2.11	14.48	19.76	" "	
	1.65	2.00				9.00	8.00	2.00		16.71		
027..	0.81	0.99	4.75	5.18	3.07	13.00	9.93	2.95	17.38	18.02	Up to guarantee, but identification uncertain. No. 2027 is registered as 'Quinnipiac Climax Phosphate, for all crops.'	
	1.03	1.25	6.00	2.00	2.00	10.00	8.00	2.00		15.50		
907..	1.88	2.28	5.40	3.17	3.70	11.27	8.57	1.71	16.34	19.18	Up to guarantee.	
	2.06	2.50	5.00	3.00	2.00	10.00	8.00	1.50		18.40		
033..	3.28	3.98	2.75	3.24	2.10	8.59	5.99	10.67	11.16	29.32	Up to guarantee. No. 2033 is registered as 'Standard Special for Potatoes.' Hence identification is uncertain.	
	2.06	2.50	5.00	3.00	2.00	10.00	8.00	3.00		19.90		
020..				9.21	5.87	15.08	9.21		0.16	14.24	Below guarantee; but identification uncertain. No. 2039 is registered as 'Ohlendoff's ground basic slag.'	
				15.18	2.62	17.80				18.53		
1982	1.18	1.48	3.20	1.14	3.12	7.46	4.34	3.16	16.23	12.90	Not registered.	
	1.90	2.31	6.05	1.25	2.02	9.32	7.25	7.21	10.43		Up to guarantee.	
0203	1.65	2.00				7.00		4.00				
	2.04	2.48	4.70	3.96	3.45	11.71	8.66	3.67	17.23	21.64	"	
	2.06	2.50	5.00	3.00	2.00	10.00	8.00	3.00		19.90		
994	2.10	2.55	4.40	2.80	5.66	12.86	7.20	2.64	9.54	19.84	Up to guarantee.	
	2.00					7.00		3.00				
992	0.77	0.93	2.33	5.20	2.65	10.18	7.53	3.45	5.12	15.38	"	
						10.00						
971				11.64	5.48	17.12	11.64		0.14	16.64	"	
						17.00						
994	1.05	1.27	3.04	3.80	3.10	9.94	6.84	2.57	8.60	14.90	"	
	2.00					7.00		3.00				
922	1.33	1.61	4.59	3.55	0.53	8.67	8.14	5.64	10.77	19.73	"	
	0.82	1.00				7.00	6.00	6.00		17.59		
922	1.75	2.12	4.38	3.41	0.85	8.64	7.79	3.84	13.42	19.05	"	
	0.82	1.00				7.00	6.00	6.00		17.59		
920	1.01	1.22	4.97	3.32	0.83	9.12	8.29	3.12	14.04	16.42	Up to guarantee. No. 1,920 is registered as 'Bowker's Sure Crop Phosphate.' Hence identification uncertain.	
	0.82	1.00				9.00	8.00	2.00		13.92		
916	1.89	2.29	3.83	3.69	2.28	9.80	7.52	2.01	14.30	17.78	Up to guarantee. No. 1,916 is registered as 'Bowker's Corn Phosphate.' Hence identification uncertain.	
	1.65	2.00				9.00	8.00	2.00				
922	1.26	1.53	4.27	2.64	2.02	8.93	6.91	5.44	11.17	18.36	Up to guarantee. No. 1,922 is registered as 'Bowker's 6 p.c. Potato Fertilizer.' Hence identification uncertain.	
	0.82	1.00				7.00	6.00	6.00		17.59		
986	1.54	1.87	4.56	8.90	1.97	15.43	13.46	1.87	11.35	22.96	Up to guarantee.	
	1.65	2.00				7.00		2.50				
	4.27	5.13	0.40	3.76	0.49	4.67	4.16	7.34	1.66	26.62	Not registered.	
920	1.26	1.53	5.79	2.03	1.98	9.80	7.82	4.87	13.05	18.93	Up to guarantee.	
	0.82	1.00				9.00	8.00	2.00		13.92		
915	1.96	2.38	5.39	3.41	2.17	10.97	8.80	4.79	12.36	22.32	"	
	1.65	2.00				9.00	8.00	2.00		16.71		

RECORD OF SAMPLES OF

Date of Collection.	Designation.	No. of Sample.	Name and Address of Manufacturer.	Name and Address of Vendor.	Identified with Standard.
1907.			<i>District of St. Hyacinthe</i> —Con.		
May 1	Tucker's Improved Bone Phosphate for all crops	482	American Agricultural Chemical Co., N Y.	H. H. Miner, Dunham....	2021
			<i>District of Montreal—J. J. Costigan, Inspector.</i>		
April 30	Celery and Vegetable ...	32507	W. A. Freeman & Co., Hamilton.	Wm. Ewing Co., Montreal.	1933
" 30	Sure Growth.....	32508	" " ..	" " ..	1931
" 30	Potato Manure	32509	" " ..	" " ..	1935
" 30	Tobacco Manure.....	32510	" " ..	" " ..	1937
" 30	Royal Canadian.....	32511	Capelton Chemical Co....	R. J. Latimer & Co., 21 St. Antoine St., Montreal.	1993
" 30	Victor	32512	Fertilizer Co., Buckingham	R. J. Latimer & Co., 21 St. Antoine St., Montreal.	1994
" 30	Eureka	32513	" " ..	R. J. Latimer & Co., 21 St. Antoine St., Montreal.	.....
" 30	No. 1.....	32514	" " ..	R. J. Latimer & Co., 21 St. Antoine St., Montreal.	1992
May 10	Vermont	32515	Bowker Fertilizer Co.....	O. Chevalier, Joliette, P.Q.	1913
" 14	Corn Phosphate.....	32516	"	Thos. Cogland, Hurdmans, P. Q.	1916
" 14	Sure Crop.....	32517	"	Ehos. Cogland, Hurdmans, P. Q.	1920
" 14	'Bradley's B'.....	32518	American Agricultural Chemical Co	Wm. Anderson, Hurdmans, P. Q.	1943
			<i>District of Ottawa—E. Belisle, General Inspector.</i>		
May 31	Royal Fertilizer.....	32243	Standard Fertilizer and Chemical Co., Smith's Falls.	Manufacturers.....	2001
" 31	Victor Fertilizer.....	32245	Capelton Chemical and Fertilizer Co., Buckingham, Que.	A. E. Cameron, Brockville.	1994
" 31	Bradley's Sea Fowl	32246	American Agricultural Chemical Co., Buffalo, N. Y.	A. Brown & Sons, Brockville.	1943
" 31	Potato Fertilizer.....	32247	" " ..	" " ..	2033
" 31	Complete Manure.....	32248	" " ..	" " ..	1906
June 4	Market Gardeners Special Fertilizer.	32250	The Nichols Chemical Co., Capelton, P. Q.	Kenneth McDonald, Market Square, Ottawa, Ont.	.....
			<i>District of Kingston—Jas. Hogan, Inspector.</i>		
April 22	Potato Manure	32439	W. A. Freeman, Hamilton.	W. C. Peters, Brock St., Kingston.	1935
" 23	Land Rock.....	32440	R. C. Mosher, N. B.....	Chase Bros., Colborne.....	.....

FER

 Ni
 Pe
 Total: including this of nitric

FERTILIZERS AS SOLD.

PLES OF

Identified with Standard.	NITROGEN PER CENT.		RESULT OF ANALYSIS, PHOSPHORIC ACID—PER CENT.					Potash.	Moisture.	Relative value per ton of 2,000 lbs.	Remarks.
	Total: including that of nitric acid or ammonia if present.	Total calculated as ammonia.	Soluble in water.	Reverted or citrate, soluble.	Insoluble.	Total.	Total available.				
2021	1.54 1.03	1.87 1.25	6.95 6.00	2.46 2.00	1.85 2.00	11.26 10.00	9.41 8.00	2.36 2.00	15.58 ...	19.20 15.50	Up to guarantee. No. 2021 is registered as 'Bowker's Potash Bone Phosphate.' Hence identification uncertain.
1933	4.13 4.12	5.01 5.00	1.48 ...	4.60 ...	1.51 ...	7.59 9.00	6.08 ...	6.50 5.00	14.53 ...	27.83 ...	Up to guarantee.
1931	2.52 2.88	3.06 3.50	1.51 ...	4.10 ...	4.41 ...	10.02 8.00	5.61 ...	3.30 3.00	14.85 ...	19.51 ...	"
1935	3.52 2.47	4.28 3.00	1.03 ...	5.19 ...	2.92 ...	9.19 8.00	6.27 ...	5.44 5.00	10.23 ...	25.29 ...	"
1937	3.92 2.47	4.76 3.00	2.68 ...	5.19 ...	1.61 ...	9.48 7.00	7.87 ...	2.98 4.00	10.31 ...	25.72 ...	"
1993	2.87 3.30	3.48 4.00	5.02 ...	3.29 ...	1.34 ...	9.65 9.00	8.31 ...	4.44 5.00	8.75 ...	15.63 ...	"
1994	1.54 2.00	1.87 ...	2.87 ...	4.31 ...	3.97 ...	11.15 7.00	7.18 ...	2.65 3.00	9.90 ...	17.26 ...	"
.....	1.88	2.29	1.90	3.43	1.58	6.91	5.33	3.31	5.17	16.26	Not registered.
1992	0.84	1.02	2.50	5.88	2.72	11.10	8.38	0.33	7.20	13.47	Up to guarantee.
1913	2.52 2.47	3.06 3.00	5.64 ...	3.34 ...	1.54 ...	10.52 10.00	8.98 8.00	5.04 4.00	14.73 ...	24.51 ...	"
1916	1.87 1.65	2.29 2.00	6.67 ...	1.75 ...	1.86 ...	10.28 9.00	8.42 8.00	2.01 2.00	14.29 ...	18.86 ...	"
1920	1.33 0.82	1.61 1.00	4.73 ...	2.31 ...	1.56 ...	8.60 9.00	7.04 8.00	2.23 2.00	12.77 ...	15.44 13.92	"
1943	1.61 2.06	1.95 2.50	5.87 6.00	2.14 2.00	1.68 1.00	9.69 9.00	8.01 8.00	4.48 1.50	10.49 ...	19.87 18.20	Up to guarantee. No. 1943 is registered as 'Bradley's B. D. Sea Fowl Guano.' Hence identification is uncertain.
2001	2.78 1.65	3.38 2.00	12.12 ...	4.30 ...	2.10 ...	18.52 10.00	16.42 8.00	5.18 3.00	10.00 ...	34.54 18.01	Up to guarantee.
1994	1.71 2.00	2.07 ...	4.23 ...	3.62 ...	1.72 ...	9.57 7.00	7.85 ...	5.06 3.00	6.15 ...	20.45 ...	"
1943	1.94 2.06	2.35 2.50	6.06 6.00	3.09 2.00	2.07 1.00	11.22 9.00	9.15 8.00	2.62 1.50	17.07 ...	20.51 18.20	"
2033	2.26 2.06	2.74 2.50	5.08 5.00	3.32 3.00	2.25 2.00	10.75 10.00	8.50 8.00	3.99 3.00	13.64 ...	22.10 19.90	Up to guarantee. No. 2033 is registered as 'Standard Special for Potatoes.' Hence identification uncertain.
1906	3.37 2.40	4.09 3.00	5.56 5.00	3.42 1.00	1.88 1.00	10.86 7.00	8.98 6.00	12.41 10.00	11.76 ...	34.87 25.56	Up to guarantee. No. 1906 is registered as 'A. A. C. Co., Arcostock Complete Manure.' Hence identification uncertain.
.....	3.06	3.71	7.87	2.31	3.27	13.45	10.18	5.62	6.85	28.99	Not registered.
1935	2.34 2.47	2.84 3.00	3.56 ...	4.29 ...	3.42 ...	11.27 8.00	7.85 ...	4.17 5.00	6.36 ...	22.14 ...	Up to guarantee.
.....	.....	.....	.....	.....	.....	Trace.	.....	Trace.	7.66	.....	Not registered. This substance is not technically a chemical fertilizer and should not have been purchased.

RECORD OF SAMPLES OF

Date of Collection.	Designation.	No. of Sample.	Name and Address of Manufacturer.	Name and Address of Vendor.	Identified with Standard.
1907.			<i>District of Kingston—Con.</i>		
" 24	Potato Manure	32441	W. A. Freeman, Hamilton.	G. S. Thompson, Cobourg.	1935
" 24	Sure Growth	32442	" " ..	" " ..	1931
" 24	Lawn Fertilizer.....	32443	" " ..	" " ..	
" 24	Bone Potash.....	32444	" " ..	" " ..	1932
" 24	Plaster.....	32445	Not known	E. A. Duncan, Cobourg...	
" 25	High Grade Potash.....	32446	American Agricultural and Chemical Co., Buffalo, N.Y.	G. Mathews, Trenton.....	1946
			<i>District of Toronto—H. J. Dager, Inspector.</i>		
May 11	Lawn Fertilizer.....	33267	Wm. Rennie & Co., Toronto.	Wm. Rennie & Co., Toronto.	
" 11	Farm and Garden.....	33268	" " ..	" " ..	
" 11	Freeman's.....	33269	Wm. A. Freeman, Hamilton.	Steel, Briggs & Co., Toronto.	
" 13	'Conc Tankage'.....	33270	Wm. Davies & Co., Toronto.	Wm. Davies Co., Toronto.	1891
" 13	'Tankage'.....	33271	" " ..	" " ..	
" 13	"	33272	Park, Blackwell Co., Toronto.	Park, Blackwell Co., Toronto.	
" 13	'General'	33273	Western Fertilizer Co., Toronto.	Western Fertilizer Co., Toronto.	
" 13	Bone and Potash..	33274	" " ..	" " ..	
" 22	'Tankage Fertilizer'...	33275	Fowler's Canadian Co., Hamilton.	Fowler's Canadian Co., Hamilton.	
" 22	Flower Food Fertilizer..	33276	Wm. A. Freeman, Hamilton.	Steel, Briggs Co., Hamilton.	
June 18	Lawn Fertilizer.....	33221	" " ..	T. L. Taylor, Brampton, Ont.	
" 18	Plant Food.....	33277	Wm. Rennie, Toronto, Ont.	C. Stork & Son, Brampton, Ont.	
" 18	Bone Meal.....	33278	W. A. Freeman, Hamilton, Ont.	Dale Estate, Brampton, Ont.	1938
" 20	Bone and Potash Fertilizer.	33279	Western Fertilizer Co., Toronto, Ont.	Western Fertilizer Co., Toronto.	
" 20	General Fertilizer.	33280	" " ..	" " ..	
			<i>District of London—T. Kidd, Inspector.</i>		
May 8	Bone Flour.....	30351	W. A. Freeman, Hamilton, Ontario.	Jas. Anson & Son, Guelph, Ont.	1938
" 9	Fertilizer (Harris H)....	30354	W. Harris & Co., Danford Road, near Toronto, Ont.	J. A. Simmons, Toronto, Ont.	1997

FERT

NITR
PER

Total: including that of nitric acid or ammonia

3.4
2.4
2.4
2.4
3.1
1.4
Trace
2.0
1.4
2.0
3.0
3.0
12.0
13.0
8.0
7.0
1.0
0.0
7.0
4.0
1.0
2.0
6.0
2.0
0.0
1.0
4.0
2.0
6.0
5.0

FERTILIZERS AS SOLD.

ES OF

Identified with Standard.

	NITROGEN PER CENT.		RESULT OF ANALYSIS. PHOSPHORIC ACID—PER CENT.					Potash.	Moisture.	Relative value per ton of 2,000 lbs.	Remarks.
	Total: including that of nitric acid or ammonia if present.	Total calculated as ammonia.	Soluble in water.	Reverted or citrate, soluble.	Insoluble.	Total.	Total available.				
1935	3.43	4.16	3.03	3.60	3.19	9.82	6.63	5.84	4.24	26.06	Up to guarantee.
	2.47	3.00				8.00		5.00			
1911	2.97	3.60	2.01	3.60	4.37	9.98	5.61	3.11	6.63	20.89	"
	2.88	3.50				8.00		3.00			
	2.88	3.49	4.12	2.70	4.65	11.47	6.82	3.41	9.84	22.51	Not registered.
1932	3.14	3.81	1.75	4.26	3.68	9.69	6.01	6.91	5.27	25.17	Up to guarantee.
	1.65	2.00				9.00		6.00			
	Trace.					Trace.			6.52		Not registered. See note to 32440.
1946	2.43	2.95	5.07	2.75	3.33	11.15	7.82	4.44	6.28	22.81	Below guarantee in potash.
	1.65	2.00	6.00	2.00	1.00	9.00	8.00	10.00		25.31	
	2.48	3.01	0.11	6.83	3.96	10.90	6.94	0.12	2.52	17.39	Not registered.
	3.16	3.84	0.17	8.51	3.10	11.78	8.68	0.16	2.98	21.40	"
	3.06	3.71	2.28	4.14	3.50	9.92	6.42	3.14	5.07	21.88	Not registered or incorrectly named by the vendor.
1891	12.44	15.10			0.28	1.23	0.95	0.98	8.02	41.92	Up to guarantee. No. 1891 is registered as 'Toronto B.'
	13.17	16.00							7.20	42.14	Hence identification uncertain.
	8.17	9.92	0.27	6.95	3.68	10.90	7.22	0.27	6.56	35.48	Not registered or insufficiently defined by the vendor.
	7.76	9.42	0.20	7.02	3.48	10.70	7.22	0.21	5.21	34.05	"
	1.93	2.34	None.	None.	0.88	0.89		0.63	1.97	7.46	Not registered. Possesses no value to justify its being sold as a chemical fertilizer.
	0.26	0.29	None.	0.74	1.08	1.62	0.54	0.77	0.57	2.57	"
	7.72	9.37	0.37	7.13	1.82	9.32	7.50	0.29	6.14	33.83	Not registered.
	4.87	5.91	1.60	3.44	2.41	7.46	5.04	2.92	1.96	25.91	"
	1.80	2.17	9.82	2.56	4.10	16.48	12.38	0.47	8.85	22.42	"
	2.88	3.47	Trace.	8.70	3.05	11.75	8.70	0.43	2.32	20.71	"
1938	6.27	7.56	Trace.	10.62	7.55	18.17	10.62	0.14	5.83	34.15	Up to guarantee.
	2.47	3.00				20.00					
	0.21	0.25	Trace.	1.70	1.85	3.55	1.70	1.37	1.00	4.51	Not registered. Has no value to warrant its being sold as a chemical fertilizer.
	1.93	2.35	Trace.	2.08	1.69	3.77	2.08	1.63	2.15	10.99	Not registered.
1938	4.95	6.01	0.17	12.96	2.65	15.78	13.13	0.21	1.96	32.30	Identification uncertain. No. 1938 is registered as 'Freeman's Pure Bone Meal. Up to standard.
	2.47	3.00				20.00					
1997	6.39	7.76	0.11	8.39	2.53	11.03	8.50	0.08	5.13	31.93	Up to standard sample. Analysis of standard sample is quoted.
	5.88	7.14		6.20	5.95	12.15	6.20		8.25	28.60	Up to guarantee.

RECORDS OF SAMPLES OF

FERT

Date of Collection.	Designation.	No. of Sample.	Name and Address of Manufacturer.	Name and Address of Vendor.	Identified with Standard.	Total: including that of nitric acid or ammonia
1907.			<i>District of London—Con.</i>			
May 10	Sure Growth.....	30361	Wm. A. Freeman, Hamilton, Ont.	Steel, Briggs & Co., Toronto, Ont.	1931	3'
" 15	Bone Meal.....	30371	W. Harris & Co., Danford Road, near Toronto, Ont.	W. Harris & Co., Danford Road, near Toronto, Ont.	1996	2' 3' 4'
" 15	Blood and Bone.....	30372	W. Harris & Co., Danford Road, near Toronto, Ont.	W. Harris & Co., Danford Road, near Toronto, Ont.	1997	6' 5'
" 16	Bone Dust.....	30373	American Agricultural Co., Buffalo, N.Y.	Jno. A. Bruce, Hamilton, Ont.	.....	3
" 16	Bone Meal.....	30374	W. A. Freeman, Hamilton, Ont.	W. A. Freeman, Hamilton, Ont.	1938	4 2
" 22	Blood, Bone and Tankage.	30375	Canadian Packing Co., London, Ont.	Canadian Packing Co., London, Ont.	.....	6
			<i>District of British Columbia—E. B. Parkinson, Insp.</i>			
" 13	Nitrate of Soda.....	32086	The Victoria Chemical Co., Victoria, B.C.	Wm. Rennie Co., Hastings St., Victoria, B.C.	2045	15
" 13	Bone Meal.....	32087	Sylvester Feed Co., Victoria, B.C.	Wm. Rennie Co., Hastings St., Victoria, B.C.	1876	16 2 3
" 13	'A' Fertilizer.....	32088	The Victoria Chemical Co., Victoria, B.C.	Wm. Rennie Co., Hastings St., Victoria, B.C.	2040	2
" 13	'B' ".....	32089	The Victoria Chemical Co., Victoria, B.C.	Wm. Rennie Co., Hastings St., Victoria, B.C.	2041	4 3
" 13	Muriate of Potash.....	32090	The Victoria Chemical Co., Victoria, B.C.	W. J. Henry, Westminster Road, Vancouver, B.C.	2048	.....
" 13	Nitrate of Soda.....	32091	The Victoria Chemical Co., Victoria, B.C.	W. J. Henry, Westminster Road, Vancouver, B.C.	2045	10
" 13	'B' Fertilizer.....	32092	The Victoria Chemical Co., Victoria, B.C.	M. J. Henry, Vancouver, B.C.	2041	4 1
" 14	Fish Guano.....	32093	Fraser River Oil and Guano Co., Fraser River, B.C.	Brackman & Kerr Milling Co., Vancouver, B.C.	1884	1
" 14	'B' Fertilizer.....	32094	The Victoria Chemical Co., Victoria, B.C.	Brackman & Kerr Milling Co., Vancouver, B.C.	2041	.....
" 4	'B' ".....	32095	The Victoria Chemical Co., Victoria, B.C.	Brown Bros., Vancouver, B.C.	2041	.....
" 4	'C' ".....	32096	The Victoria Chemical Co., Victoria, B.C.	Brown Bros., Vancouver, B.C.	2042	.....
" 4	Superphosphate.....	32097	The Victoria Chemical Co., Victoria, B.C.	Brown Bros., Vancouver, B.C.	2044	.....
" 4	Sulphate of Potash.....	32098	The Victoria Chemical Co., Victoria, B.C.	Brown Bros., Vancouver, B.C.	2047	.....
" 4	Muriate of Potash.....	32099	The Victoria Chemical Co., Victoria, B.C.	Brown Bros., Vancouver, B.C.	2048	.....
" 4	Bone Meal.....	32100	P. Burns Co., Vancouver, B.C.	Brackman & Kerr Milling Co., Vancouver, B.C.	1883	.....

FERTILIZERS AS SOLD.

ES OF

Identified with Standard.

	NITROGEN PER CENT.		RESULT OF ANALYSIS. PHOSPHORIC ACID—PER CENT.					Potash.	Moisture.	Relative value per ton of 2,000 lbs.	Remarks.
	Total; including that of nitric acid or ammonia if present.	Total calculated as ammonia.	Soluble in water.	Reverted or citrate, Soluble.	Insoluble.	Total.	Total available.				
1931	3.46	4.20	1.90	4.12	4.33	10.35	6.02	2.93	3.81	22.81	Up to guarantee.
1996	2.88	3.50	.....	.....	.....	8.00	.....	3.00	.....	24.30	Not up to standard sample. Analysis of standard sample is quoted.
	3.37	4.09	Trace.	9.64	9.49	19.13	9.64	0.06	5.72	33.69	
	4.76	5.84	.....	15.04	6.39	21.43	15.04	.....	4.26	29.87	May be 'Fertilizer H,' No. 1997 —but cannot identify with certainty. If so is up to standard.
1997	6.28	7.62	0.17	7.67	2.96	10.80	7.84	0.24	4.64	28.60	
	5.88	7.14	.....	6.20	5.95	12.15	6.20	.....	8.25	20.60	Am. Agr. Co., Buffalo, register 10 brands, but no brand bears the name 'Bone Dust'—under which this sample is sold.
.....	3.45	4.19	0.38	4.27	14.36	19.01	4.65	0.10	4.84	27.74	Up to guarantee.
1938	4.58	5.56	0.06	8.85	10.59	19.50	8.91	0.10	6.97	33.27	Not registered.
.....	2.47	3.00	.....	.....	.....	20.00	.....	.....	.....
	6.55	7.91	Trace.	10.43	1.82	12.25	10.43	0.29	5.00	54.23	Up to guarantee.
2045	15.95	19.37	.....	.....	.....	.....	.....	.....	2.72	54.40	
1876	16.00	.....	.....	.....	.....	.....	.....	.....	.....	17.07	Identification of this sample is uncertain. Apparently below standard, but may be unregistered.
	2.24	2.72	Trace.	7.20	6.60	13.80	.....	.....	5.80	25.93	
	3.83	4.65	1.20	9.97	4.15	15.32	11.17	0.05	.....	30.72	Up to guarantee.
2040	2.80	3.40	9.00	.....	1.00	10.00	.....	10.10	20.94	50.00	
2041	4.00	.....	.....	.....	.....	10.00	.....	7.00	.....	54.80	Up to guarantee.
	3.36	4.08	5.40	3.80	3.00	12.20	.....	12.00	13.40	50.00	
	3.50	.....	.....	.....	.....	9.00	.....	11.00	.....	54.80	Up to guarantee.
2048	.....	.....	.....	.....	.....	.....	.....	54.80	2.52	50.00	
2045	.....	.....	.....	.....	.....	.....	.....	50.00	.....	54.71	Up to guarantee.
	16.09	19.53	.....	.....	.....	.....	.....	.....	1.84	54.40	
2041	16.00	.....	.....	.....	.....	.....	.....	.....	.....	34.68	Up to guarantee.
	3.92	4.76	7.50	Trace.	0.50	8.00	.....	12.20	9.80	34.15	Up to guarantee.
	3.50	.....	.....	.....	.....	9.00	.....	11.06	.....	32.97	Up to guarantee.
1884	8.68	10.54	0.80	4.70	0.80	6.30	.....	.....	11.00	34.15	Up to guarantee.
	8.34	10.13	.....	.....	.....	6.55	.....	.....	6.32	32.97	Up to guarantee.
2041	3.08	3.74	9.00	Trace.	Trace.	9.00	.....	11.70	19.86	33.41	Up to guarantee.
	3.50	.....	.....	.....	.....	9.00	.....	11.00	.....	27.69	Up to guarantee.
2041	3.08	3.74	9.00	0.40	Trace.	9.40	.....	11.70	19.60	27.69	Up to guarantee.
	3.50	.....	.....	.....	.....	9.00	.....	11.00	.....	20.00	Up to guarantee.
2042	1.12	1.36	11.30	.....	.....	11.30	.....	10.30	22.60	19.00	Up to guarantee.
2044	Trace.	Trace.	16.30	0.40	Trace.	16.70	.....	.....	11.00	20.00	Up to guarantee.
2047	.....	.....	.....	.....	.....	16.00	.....	.....	.....	51.00	Up to guarantee.
2048	.....	.....	.....	.....	.....	.....	.....	51.00	0.96	50.00	
	.....	.....	.....	.....	.....	.....	.....	50.00	.....	53.00	Up to guarantee.
	.....	.....	.....	.....	.....	.....	.....	53.00	4.27	50.00	
1883	4.20	5.10	Trace.	10.20	9.50	19.70	.....	.....	8.78	27.51	Not up to guarantee, but practically identical with standard sample, of which the analysis is quoted.
	3.05	3.70	.....	.....	.....	29.00	.....	.....	3.00	28.41	
	3.71	4.50	0.96	10.72	10.39	22.07	11.68	0.48	7.00		