

TRINIDAD AND TOBAGO.

Council Paper No. 85 of 1910.

MINES DEPARTMENT.

Administration Report of the Inspector of Mines
for 1909-10.

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1910.

MINES DEPARTMENT.

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M. P. No. 4383/1910.

1. I have the honour to submit for the information of His Excellency the following report on the work of the Mines department for the financial year 1909-10.

2. Ordinance No. 13 of 1907 having been amended by Ordinance No. 37 of 1909, in December, 1909, the returns under Section 18 have, since that amendment, to be furnished annually for the financial year and for this and other reasons this report is not for the calendar year as formerly. For the period 1st January, to 31st March, 1909, there is nothing special to record.

OFFICIAL DUTIES.

3. On the 1st July, 1909, I and Mr. D. M. Hahn, Engineer, Office and Works, of the Public Works department, were appointed Inspector and Deputy-Inspector of Mines, respectively, and on the 17th June, 1909, Professor J. Cadman, D.Sc., was appointed Expert Adviser. On the 1st April, 1909, Mr. N. Betancourt was appointed 2nd Assistant Inspector of Mines.

4. From the 1st of April to 30th June, Mr. Hahn acted as Inspector of Mines. From 23rd August to 6th December Mr. Hahn again acted in conjunction with his duties as Deputy-Inspector, while I was absent in England in connection with some special duty as Director of Public Works. All Mines' work was performed by me and the Deputy-Inspector of Mines in addition to our duties in the Public Works department.

5. The following was the expenditure:—

Personal Emoluments :

Deputy Inspector of Mines	...	...	£100	0	0	
Second Assistant Inspector	...	...	100	0	0	
Expert Adviser	...	...	78	17	9	
Clerk	...	...	25	0	0	
Messenger	...	...	5	0	0	£308 17 9

Other Charges :

Travelling Expenses	...	...	£ 73	17	1½	
Quarters, La Brea	...	...	Nil.			
Surveys	...	...	49	19	0	
Contingencies	...	...	9	16	8½	£133 12 10
Total	...	...				£442 10 7

WORK UNDER THE MINES, BORINGS AND QUARRIES ORDINANCE, No. 13 OF 1907, AND THE AMENDED ORDINANCE, No. 37 OF 1909.

6. MINES.—Mining work, under a qualified Mining Engineer, was continued by the Trinidad Vista Bella Manjack Company, Limited, at the Vista Bella Mine in the San Fernando district. The Mine was inspected and the provisions of the Ordinances are being complied with. Since the passing of the amended Ordinance the plans showing the location of the Mine and the workings were regularly produced under Section 16. No accidents of any nature were reported.

7. No necessity arose for the appointment of a Board under Section 8.

8. BORINGS.—Borings for oil were continued by the New Trinidad Lake Asphalt Company Limited, on their property at La Brea, and by the Trinidad Oilfields, Limited, (formerly the Trinidad Petroleum Company, Limited) under their lease at Guapo.

9. Operations at La Brea have been satisfactory. Apart from the actual borings several small settling pits: a covered one of some 800,000 gallons capacity; two large modern iron storage tanks, each of a capacity of 64,000 barrels; quarters for workmen; worksheds, &c., have been provided. The settling and storage tanks have all proper pipe connections and from the storage tanks a 10-inch pipe line has been run to a specially constructed pier from which vessels will shortly be able to load.

10. At Guapo, work was seriously interrupted by the late Manager's illness and unfortunate death. Litigation, too, in regard to the ownership of some lands has also impeded progress. Arrangements to again pursue active operations have been made and it is hoped that work will soon progress satisfactorily.

11. At Guayaguayare actual boring operations were only recommenced late in April, 1910. Active operations, however, were before conducted in other directions. Roads and tramways to open up the lands are being made, highwoods have been cleared, mosquito-proof and comfortable Bungalows have been erected for the European and Canadian employees; an Engineer and skilled drillers are at work; and drilling work is now proceeding.

12. The borings at La Brea and Guapo were regularly inspected and the provisions of the Ordinances and the regulations under them have been followed at both places. As work was started late at Guayaguayare no special necessity arose to inspect the wells there during the period under review. At all the above places, steam boilers are in use and oil from the wells is used as fuel.

13. The monthly abstract from the Logs, under Section 16 (Amended Ordinance), showing the working of the borings, their depths, strata bored through, quantity of oil extracted, and plans showing location of borings, have been regularly received. An aggregate of 5,927 feet of borings were drilled during the year. The total aggregate within recent years over the various oilfields is 17,625 feet. Generally speaking, oil was struck at fairly shallow depths.

14. The number of producing wells at the above places affords interesting proof of the value of the geological reports and the potentialities of the large oil bearing territory in the southern portion of the Island to which they particularly refer. Some of the parts of the region may be said to be practically out of the exploration stage.

15. Some of the most typical analyses made by the Government Analyst and others of oil samples from some of the wells have already been published and they are therefore not specially recorded here. It suffices to say that the qualities of the oils reported on are considered satisfactory in all cases, while some are exceptionally good.

16. An Ordinance (No. 15 of 1910) to facilitate the laying of pipe lines was before the Legislature and at the date of writing it is law.

17. QUARRIES.—The quarries worked during the year both by the Government and by private parties are given in Appendix B. Those in and near Port-of-Spain were inspected at least once monthly, and practically all those of the out-districts at least once quarterly. In some cases the attention of Managers had to be seriously drawn to the provisions of the Ordinances and to the regulations; but, generally speaking, work now is being conducted satisfactorily.

18. So far there are only four quarries provided with steam engines and the regulations governing steam boilers are being followed—In some cases steps towards this end had to be taken by the Department.

19. No accidents of any nature were reported.

20. Notices of the opening of five new quarries were received.

RETURNS UNDER THE ORDINANCES.

21. Appendix A., compiled from the returns received under Section 18, gives the average daily number of persons employed and the out-put from the various Mines, Borings and Quarries. Most of the returns were only received after inviting special attention to the termination of the period allowed in the Section and as the aggregates are made up from so many different sources they can only be looked upon as approximate. Some managers gave a great deal of unnecessary trouble in connection with the returns and should there be a recurrence next year it will be necessary to enforce the law.

22. A list of the Mines, Borings and Quarries (Appendix B) worked during the year is also attached.

WORK UNDER THE ASPHALT INDUSTRY ORDINANCE, No. 10 OF 1906.

23. No additional land was declared "Asphalt-bearing" under Section 7, and the work was therefore confined, as hitherto, to the digging of the various village lots at La Brea by private owners.

24. Eight lots were excavated under "Notices to Commence," (Section 8), and one under a "Permit," (Section 9).

25. Eight applications for certificates under Section 11 were received from the Sub-Intendant of Crown Lands and six awards under Section 14 were issued. In all cases the parties in difference were heard before arriving at a final decision. The work entailed the taking of 2,390 levels. There are now available for guidance 15,476 levels taken since the passing of the Ordinance. Work on each lot was inspected as necessity demanded and operations have been fairly satisfactorily conducted under the Ordinance by all parties.

26. No difficulty arose in correctly locating the boundaries of the various lots from the plan prepared under Ordinance No. 18 of 1905.

27. The fixed bench marks were checked and found intact.

PROSPECTING LICENSES.

28. At the end of the year we were on the eve of an important industrial awakening—The possibilities of the Southern Oilfields, to which Mr. Cunningham-Craig drew such marked attention in his reports when Government Geologist here, seem only then to have seriously attracted public notice. Towards the end of the year under review there was a rush for prospecting licenses for areas ranging from 50 to 5,000 acres, the total quantity of Crown lands thus applied for amounted by the close of the year to close on 50,000 acres, and has greatly increased since then. Practically the whole of the available Crown lands over and near the Central and Southern Anticlines have been petitioned for and several applications for large areas have also been received for supposed oil-bearing lands in other parts of the Central and Eastern Sections

of the Island. Some of the applicants have, in accordance with the decision of the Executive Council, given reasonable proof of their *bonâ fides* and of their capacity to carry out the terms imposed in the deeds and have been informed that His Excellency is prepared to issue the license prayed for; some applications have been refused: while a large number are still under consideration. When the year under review closed, one license over 500 acres had actually been issued and others were ripe for issue.

29. Licenses to prospect over and leases to work oil lands are governed by the published regulations but it may be of general interest to state briefly the basic conditions under which prospecting licenses have been dealt with up to now:—

Ordinary licenses to prospect under the Crown Lands Regulations are limited to areas of 500 acres, and the conditions attached thereto are the payment of a rental of one shilling per acre per annum, the drilling within two years of three wells to an aggregate depth of 3,000 feet (or in each well a lesser depth than 1,000 feet if satisfactory results are earlier acquired) and the giving a bond of £250 for satisfactory performance, Licensees being allowed to take 10 tons of oil free of royalty and above that quantity to pay a royalty to Government of 2/- per ton, or at the option of the Governor a royalty in kind at the rate of ten per cent. The cost of the survey of the land to be borne by the Licensee. The Government has decided that prospectors may in an application amalgamate their prospective licenses to cover blocks of up to 2,500 acres so as to save in the cost of survey. It has been further decided that in cases where an applicant or a syndicate is capable of giving satisfactory assurances of immediate ability to exploit the Government will give "Special" licenses to prospect in single areas of between 500 acres and 2,500 acres. The terms of these special licenses are as under:—

Area.	No. of Wells.	Aggregate depth.	Amount of Bond.	Oil allowed free of Royalty.	Royalty per ton.	Rent.
Above 500 acres and not above 1,500 acres	5	5,000 feet	£400	15 tons	2/- or ten % in kind	1/- per acre per annum
Above 1,500 acres and not above 2,500 acres	7	7,000 feet	£550	20 tons	do.	Do.

The Government will not grant more than one special license to any single person or syndicate nor will it grant licenses to prospect over an area totalling in excess of 5,000 acres except after very searching enquiries into the standing and ability of the prospective licensees at the date of writing however the receipt of applications has been stopped. When they are again to be received it will probably be on somewhat different lines.

Owners of lands sold out by Government but over which it still has mineral rights have up to a published date the first claim to prospecting licenses thereon provided they are able to give satisfactory proof of ability.

30. The possibility of meeting with Ozokerite in commercial quantities has been brought to the notice of the Department and the importance of the matter is borne in mind.

CONCLUSION.

31. In conclusion it gives me pleasure to say that from nearly all sides ready information and assistance were given to the department to carry out its work under the Ordinances.

32. Save in the matter of enquiry into the applications for licenses to prospect for oil practically all the detailed work of the department has fallen on the Deputy-Inspector, Mr. Hahn, to whose industry, tact and ability I am glad to bear tribute. He reports that the Second Assistant Inspector of Mines and the Clerk performed their duties satisfactorily.

33. Owing to the development of the work of the department it will be necessary shortly to increase the staff to provide proper supervision in the oilfields and in regard to this I will write specially.

ARCHIBALD G. BELL,
Inspector of Mines.

APPENDIX A.

Daily average number of Persons employed and quantity and value of minerals obtained from Mines, Borings and Quarries during the financial year ended 31st March, 1910.

Mineral.	Daily average number of Persons employed.		Total.	Quantity.	Approx. value.
	Males.	Females.			
Manjak	47	3	50	2,395 Tons	£ 4,989 11 8
Oil	107	...	107	*	*
Asphalt. (Crude, Epure, &c.) ...	517	25	542	141,924 Tons	£ 86,928 9 0
Private Quarries—(Limestone, Gravel, &c.)	106	38	144	42,510½ yds	£ 1,841 13 7
Government Quarries—(Limestone, &c.)	337	86	423	52,156½ „	£ 7,248 6 11

* Output and value not given as no correct aggregate can be compiled for the period.

APPENDIX B.—List of Mines, Borings and Quarries worked during the financial year 1909-10.

No.	Name.	Situation.	Owner and Address.	Manager.	Daily average No. of persons employed.	Mineral worked.
<i>Mines.</i>						
1	Vista Bella ... ..	.. Naparima	.. The Trinidad Vista Bella Manjak Company, Limited, Port-of-Spain	J. C. T. Raspas	50	Manjak.
2	Pitch Lake ... ..	.. La Brea	.. The New Trinidad Lake Asphalt Company, Limited, London, England	W. G. Fraser	277	Asphalt.
3	Do. ... ..	.. Do.	.. Charles F. Stollmeyer, Port-of-Spain	C. Phelps	138	do.
4	Do. ... ..	.. Do.	.. L. F. Ambard and A. Protheroe, Port-of-Spain	R. FitzAllen	127	do.
<i>Borings.</i>						
1	Oil wells ... ..	.. Brighton	.. The New Trinidad Lake Asphalt Company, Limited, London, England	W. G. Fraser	52	Oil.
2	Do. ... ..	.. Guapo	.. The Trinidad Oil Fields, Limited, London, England	H. P. Ingram	4	do.
3	Do. ... ..	.. Guayaguayare	.. The General Petroleum Properties of Trinidad, Limited, London, England	H. A. Huggins	51	do.
<i>Quarries.</i>						
1	Champs Flours ... ..	.. St. Joseph	.. F. J. Gransaul, St. Joseph	E. Barnswell	12	Limestone.
2	Duke Street ... ..	.. Duke Street	.. B. Sorzano, 47, Frederiek Street	Charles Prime	14	do.
3	Gloster Lodge ... ..	.. Gloster Lodge Road	.. Feddy Gonzalves, Gloster Lodge Road	Nathaniel Waterman	9	do.
4	Town Board ... ..	.. Quarry Street	.. The Port-of-Spain Town Board	Town Engineer	8	do.
5	Villaman ... ..	.. Gasparce	.. F. Herrera, 49, South Quay	Peter Charles	10	do.
6	Usine ... ..	.. San Fernando	.. The New Colonial Company, England	H. I. Cox	10	Gravel.
7	La Conlée ... ..	.. Do.	.. Heirs of Mary Joachin, San Fernando	Abraham Pitt	2	do.
8	Glendale ... ..	.. Do.	.. R. H. McClean, San Fernando	H. R. McLean	5	do.
9	Pickering ... ..	.. Do.	.. A. W. Harewood and P. P. Pickering, San Fernando	P. P. Pickering	2	do.
10	Basilon ... ..	.. Basilon Street	.. John T. Gittens, Tragarette Road, Port-of-Spain	William Gittens	26	Limestone.
11	Quarry Street ... ..	.. Quarry Street	.. Heirs of Sorzano	Do.	19	do.
12	Queen Street ... ..	.. Queen Street	.. The United Brothers	J. T. Gittens	4	do.
13	St. John St. John Street	.. Heirs of Sorzano	William Gittens	9	do.
14	Campo Street St. Juan	.. J. T. Gittens, Tragarete Road	John Anderson	5	do.

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APPENDIX B.—List of Mines, Borings and Quarries worked during the financial year 1909-10.—CONTINUED.

No.	Name.	Situation.	Owner and Address.	Manager.	Daily average No. of persons employed.	Mineral worked.
15	Circular Road	San Fernando	Borough Council, San Fernando	J. J. Waddell	3	Gravel and Stone.
16	Gasparce	Gasparce	J. T. Gittens	J. T. Gittens	6	Limestone
17	Bicho	Camapo Southern Road	The Trinidad Government	District Officer	20	do.
18	Tamaná	Guaico-Tamana Road	do. do.	do.	12	do.
19	Plum	Plum Road	do. do.	do.	15	do.
20	River Estate	Diego Martin	do. do.	do.	16	do.
21	Cutueaparo	Santa Cruz	do. do.	do.	10	do.
22	Providence	Tebago	do. do.	do.	4	Dead Rock.
23	Eastern	Laventille	do. do.	John De Nobriga	96	Limestone.
24	Mochel Poorie	Talparo Road	do. do.	District Officer	25	do.
25	Sanhelmu	Tamana Road	do. do.	do.	3	do.
26	El Cupan	Do.	do. do.	do.	40	Sandstone.
27	Carvera	Carvera Island	do. do.	The Supr. of Prisons	60	Limestone.
28	Prisoners'	Laventille	do. do.	do.	36	do.
29	Siparia	San Fernando-Siparia-Erin Road	do. do.	District Officer	24	do.
30	Guaracara	Guaracara-Tabaquite Road	do. do.	do.	9	do.
31	Morne Roche	Bonne Aventure Road	do. do.	do.	11	do.
32	Rock Hill	Moruga Road	do. do.	do.	12	do.
33	Atagual	Guaracara-Tabaquite Road	do. do.	do.	3	do.
34	Tabaquite-Nariva	Tabaquite-Nariva Road	do. do.	do.	8	do.
35	Brasso	Brasso Caparo Station Road	do. do.	do.	6	do.
36	Mayo	Mayo Village	do. do.	do.	6	do.
37	Monichal	Williamsville	do. do.	do.	7	do.

37. No return was received for the La Resource Quarry.