TRINIDAD AND TOBAGO.

Council Paper No. 67 of 1909.

# MINES.

Annual Report of the Inspector of Mines for 1908.

Circulated for the information of Members of the Legislative Council. To be laid at the next meeting.

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### MINES.

## Annual Report of the Inspector of Mines for 1908.

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M.P. No. 2679/1909

The Hon'ble Colonial Secretary.

In accordance with Section 35 of the Mines, Borings and Quarries Ordinance, No. 13 of 1907, I have the honour to submit the following report on the work which came under my direction during the year ended 1908.

A report of the proceedings under the Asphalt Industry Ordinance, No. 10 of 1906, has also to be submitted, and I therefore embody the transactions under it in this report.

#### OFFICIAL DUTIES.

The administrative work was attended to by myself in addition to my duties in the Public Works Department, with the exception of the time, 21st August to 21st September, that the Inspector of Mines, Dr. J. Cadman, was in the Colony.

The Assistant, Mr. Galt, left for St. Lucia in April to take up an appointment there and Mr. N. Betancourt succeeded him. The duties of the Assistant were mainly in connection with the survey work at La Brea, under the Asphalt Industry Ordinance, and the routine inspection of Quarries.

The work, generally speaking, has included inspection of Mines, Borings and Quarries; inquiry into many working details which came to notice: attendance at an inquest; and the general supervision of mining operations at La Brea.

On account of my dual office, it was found inconvenient to continue to carry on the Mines' work in the office at the Government Buildings, and with the consent of the Hon'ble Director of Public Works, and the approval of His Excellency the Governor, I performed, from October on, the Mines' work at my office in the Public Works Department. The change not only benefitted the work of the Department, but led to a saving in its working.

Mr. J. de Nobriga, Clerk in the Public Works Department, was temporarily appointed in September to do the Clerical work.

The following was the expenditure:

Personal Emoluments			•••	 £281	1	$4\frac{1}{3}$
Surveys	***			 150	13	$11\frac{1}{2}$
Travelling Expenses	***		***	 26	10	$2^{-}$
Quarters, La Brea	***		414	 37	10	0
Contingencies		***	* * *	 12	5	$0\frac{1}{2}$
	TOTAL	•••	• • • •	 £508	0	$\frac{-6\frac{1}{2}}{6}$

## WORK UNDER THE MINES BORINGS AND QUARRIES ORDINANCE, No. 13 OF 1907.

QUARRIES.—Though the Ordinance was proclaimed Law in July, 1907, it was not found possible to take immediate steps to bring it into operation. The Inspector of Miues unavoidably had to go on leave of absence from the Colony soon after its proclamation and before leaving he did some preparatory work to introduce its working. So soon as it was known that his special work in England at the time made it impossible for him to return within the time he had hoped to, steps were taken to bring it into force.

A copy was sent to every known Owner of a Mine, Boring or Quarry, and subsequently copies of the Regulations under it were supplied to the persons who were found actually carrying on work.

All the important Quarries in Port-of-Spain, San Fernando, and certain of those of the Out-Districts, were inspected, and, in many cases, the Managers, nominated under Section 4 of the Ordinance, were given detailed explanation on various matters connected with the Ordinance.

It was found that some Owners and Lessees were working Quarries in ignorance of the existence of the Law, and special notices were at once inserted in the Royal Gazette and Local Papers calling attention generally to the Ordinance and particularly to Sections 4 and 20. The parties concerned, on their attention being called to the Ordinance, took immediate steps to follow it.

Blasting operations are now being conducted with far greater care than before and no accidents of any serious nature have been reported. Care is taken to see that the Regulations are kept conspicuously posted up around the Quarries; and, I believe, workers now know the various sateguards and the regular hours and signals for blasting.

Two of the principal Quarries near Port-of-Spain were found with very dangerous overburdens and written notices of the danger were immediately given to the Managers under Section 23 of the Ordinance. Detailed instructions were also given them and they took early steps to carry them out. Work is now proceeding on a better basis.

The Boiler Certificates under Rule 16 of the Regulations have been obtained from the Owners who have engines. So far only three Quarries are provided with engines.

One fatal accident was reported. Investigation showed that a man in clearing a mound and in blasting some stones in it for the purpose of levelling a yard near Port-of-Spain worked in a way to cause his own unfortunate death. This was practically the Coroner's verdict. Not being a Quarry the work did not come under the Ordinance.

On the whole it may be said that work is now being carried on at all of the Quarries in a fairly satisfactory way, and that the "happy-go-lucky" manner of working, referred to by the Inspector of Mines in his last administration report, is a thing of the past.

Borings.—Borings for Oil, with what is looked upon as successful results, have been conducted by the New Trinidad Lake Asphalt Company, Limited, at La Brea, and the Trinidad Petroleum Company, Limited, at Guapo, and an aggregate of three thousand seven hundred and fifty-eight (3,758) feet of borings have been made. At both places oil from the wells is being used as fuel for the engines with very satisfactory results. The works at both places were inspected.

The Boiler Certificates under the Regulations were supplied by the Managers.

The Government Analyst, Professor P. Carmody, kindly analysed a sample of the oil obtained from one of the wells at Guapo. The following is his report:—

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Specific gravity at 29^{\circ} C. = 0.938
Mineral matter = 0.128%
Boiling point about 73^{\circ} C.
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#### Results of Fractional Distillation-

Petroleum Spirit	(Votatile	below $150^{\circ}$	C.)	• • •	=	6.4
Illuminating Oils	( "	between 15	0° and 300° ().	)	-	2.0
Lubricating Oils	, 29	above $300^{\circ}$	C.)	*		58.0
Residual Bitumen		•••	•••		Princepoint	4.0
Loss		***	***	•••		4.0
						100.0
						100.0

At the Guayaguayare Oil Fields work was at a stand-still, and no special necessity arose to inspect the wells there.

Two applications for licenses to search Crown Lands for Petroleum, &c., under the Lands Regulations, were received and dealt with.

The provisions of the Ordinance and the Regulations under it have been followed by all concerned.

MINES.—Development work was only carried on by the Trinidad Vista Bella Manjak Company, Limited, at the Vista Bella Manjak Mine in the San Fernando District. Three underground inspections of the Mine were made, and a license, under the Regulations, permitting the use of explosives was issued. A qualified Mining Engineer is in charge and the provisions of the Ordinance have been followed. No accidents of any nature have been reported.

No necessity has as yet arisen for the appointment of the Board under Section 8.

## RETURNS UNDER THE ORDINANCE.

The enclosed table (Appendix A), compiled from the Annual Returns made under Section 18 of the Ordinance, shows the average number of persons employed and minerals won from the various Mines, Borings and Quarries. Most of the returns were only got after inviting special attention to the Section, and in some cases several reminders had to be sent. Those concerned were apparently not aware of their obligations and in consequence the returns, I am afraid, are not altogether reliable. Failure to comply with the Section or any return which is knowingly false in any particular is an offence against the Ordinance and it is hoped that the necessity to enforce the Law will not arise in future.

Lists of the Mines, Borings and Quarries (Appendix B) worked during the year are also enclosed.

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

No additional land was declared Asphalt-bearing land, and the work under the Ordinance was therefore, as hitherto, confined to the digging operations by some of the private Owners of lots in the village of La Brea.

Comparatively speaking little work was done. Seven lots were excavated under "Notices to Commence" (Section 8).

Three Permits under Section 9 were applied for, but it was only found possible to issue one, and, as the Ordinance requires, the reasons for the refusal of the others were given to the applicants. The work for which the Permit was issued was carried out.

Four applications for certificates under Section 11 were applied for by the Sub-Intendant of Crown Lands. In two instances certificates, under Section 14, were granted, and in the other two no undue depletion was found. In some cases, I believe, the Sub-Intendant obtained injunctions from the Court to restrain digging. In all cases the parties in difference were heard before arriving at a final decision.

Work under the Notices and the Permits entailed the taking of 2,486 levels. There are now on record 13,086 levels in connection with work done by the Department since the introduction of the Ordinance. The twenty-three fixed bench marks were checked and found correct.

The information in regard to the amount of Asphalt won from the Pitch Lake by the New Trinidad Lake Asphalt Company, Limited, and the Private Owners in the Village of La Brea, and the average number of persons employed by them, is given in Appendix A.

No difficulty was experienced in locating the various boundaries of the lots worked from the plan prepared under Ordinance No. 18 of 1905.

There has been some difficulty in getting a few of the minor provisions of the Ordinauce followed in some cases, but on the whole the work under the Ordinauce during the year may be said to have been satisfactorily conducted.

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.

The Assistant and the Clerk performed their duties satisfactorily.

D. M. HAHN, Acting Inspector of Mines.

#### APPENDIX A.

Average number of Persons employed and quantity and value of Minerals obtained from Mines, Borings and Quarries during the year ended 1908.

Mineral.	Average num emp	ber of Persons, loyed.	Total.	Quantity.	Approximate value.
24.1102.111	Males.	Females.			7,00
Manjak	52	2	54	1,790 tons	£ s. d.
Ой	30		30	5,900 gals.	49 9 2
Asphalt	290	16	308	125,994½ tons	75,012 6 3
Private Quarries — (Ston Boulders, Marl, Gravel, &	e, (c.) 211	165	376	71,6862 ,,	4,040 13 8
Government Quarries—(Met Boulders and Limestone)	tal, 539	256	795	28,201 ,,	3,424 15 5

Note.—No return was received from the New Trinidad Lake Asphalt Company, Ltd., in respect of Oil, and the Super-intendent is not at present in the Colony.

## APPENDIX B.-List of Mines, Borings and Quarries worked during 1908.

No.	Name.	Situation.	Owner and Address.	Manager.	Average No. of Persons employed.	Mineral worked.
W - Tamond I Million	Mines.	The second secon				•
1	Vista Bella	. Naparima	The Trinidad Vista Bella Manjak Company, Limited, Port-of-Spain.	J. C. T. Raspass, M. I. M. E.	54	Manjak.
2	Pitch Lake	La Brea	The New Trinidad Lake Asphalt Company, Limited,	Capt. R. K. Wright	)	
3	Do	do	London, England. Chas. F. Stollmeyer, Port-of-Spain	C. Phelps	306	Asphalt.
4	Do	do	L. F. Ambard and Protheroe, Port-of-Spain	R. FitzAllen	)	
	Borings,					
1	Oil Wells	La Fortunee Estate, Guape	The Trinidad Petroleum Company, Limited, 41, Bishops- gate Street, London, E. C.	T. A. P. May, A.M.I.M.E.	30	Oil.

Note. - No return has been received from Messrs. The New Trinidad Lake Asphalt Company, Ltd., in respect of Oil. Their Superintendent is at present not in the Colony.

	QUARRIE	S.	İ					
1	Clifton Hill		East of Port-of-Spain	J. W. McCarthy, St. Ann's Road	***	C. Burket	4	Limestone.
2	Basilon Street		East Dry River	J. T. Gittens, 25, Tragarete Road		N, Waterman	27	do.
3	Pall Mall Street	***	do	do. do.		C. Burket .	1	do.
4	Queen Street	***	Queen Street	The United Brothers	,,,,	J. Griffith	2	do.
5	Campo .,	***	San Juan	J. T. Gittens, 25, Tragarete Rood	***	J. Anderson	3	do.
6	McShine's	***	Belle Eau Road	do. do.	,	C. Burket	1	do.
7	Graham	***	Laventille	H. A. Graham, 50, Belmont Circular Ro	ad .	H. A. Graham	2	do.
8	St. John	***	East of Port-of-Spain	Heirs of Sorzano		J. T. Gittens	7	do.
9	Quarry Street	***	do	do	***	do	20	do.
10	Rock River	***	Moruga Ward .	F. Herrera, 40, South Quay	***	E. Herrera	4	Sandstone.
11	Prisoner's	•••	Laventille	Trinidad Government		Supt. of Prisons	83	Limestone.
12	Carrera	•••	Carrera Islands	do	•••	W. Marsh		do.
13	Town Board	***	Quarry Street	Town Poard, Town Hall	***	Town Engineer	30	do.
14	Duke Street	**1	Duke Street	B. Sorzano, 47, Frederick Street		. C. I'rime	3	do.

APPENDIX B.-List of Mines, Borings and Quarries worked during 1908.-Continued.

No.	Name.		Situation.	Owner and Address.		Manager.		Average No. of Persons emyloyed.	Min	eral worked.			
15	Glendale	,.	!	Helen McClean,	San Fernando	)	e 5	H. R. McClean		5 .	Gravel.	,	
16	Mon Repos	•••	do	The New Coloni	ial Company, I	Limited, San	Fernando	Н. Т. Сох		12	do.		
17	Circular Pit and Carib	Pit	Circular Road and Carib	Borongh Counci	l, San Fernaud	lo	**	J. J. Waddell		28	Marl.		
18	La Coulée Pit	***	Street, San Fernando Carib Street, San Fernando	Pauline Oliverra	ı	•••		A. Pit		2	do.		
19	Bonne Aventure	*** >**	Bonne Aventure Road	The Trinidad G	overnment	***	• •	District Officer		12	Limestone	<del>;</del> .	
20	Mayo	***	Mayo	do.	do,		ww.r	do.		12	do.		
21	Mayo	***	5½ mile, Mayo Road	do.	do.	***	**	do.		25	Metal and	Boulders	
22	Corosai	***	Corosal Road	W. L. Knox, 8a	ilvador Estate,	, Montserrat		F. Seheult		<b>2</b> 5	do.	des.	
23	Moriehal	***	Morichal Road	The Trinidad G	overnmer:	* * *	**	District Officer		15	do.	đo.	
24	Guaracara	*** /**	Tabaquite	do,	do.	• •		do.		14	do.	ele».	
25	Brasso	***	Brasso	do.	do.	* 4	***	do.		12	Limeston	÷.	
26	Nariva	***	Tabaquite	do.	de.			do.		24	do.		
27	Siparia	***	San Fernando-Siparia-	do.	the.	2.4	***	do.		14	Metal and	l Boulders	
28	Mornga	***	Moruga Road Erin Road		do.	***	***	do.		16	Limeston	Ρ,	
20	River Estate		Diego Martin	do.	i;(),	***	***	đo.		18	do.		
<b>3</b> 0	Cutucupano	***	Santa Cruz	do.	ξ <sup>†</sup> 13.			do.		10	de		
31	Mochel Poorie	***	Talparo Road	do.	do.			, do.		45	do.		
32	Plum		Manzanilla	do.	ζ <sup>†</sup> .	***		do.	•••	35	do.		
33	Upper Cunapo		Guaico Tamana Road	do.	d	> 8.F	1 * 1	do.		17	do.		
34	Eastern Quarry	***	Laventille	do.	do.		**	J. de Nobriga		169	do.		
35	Cooper	4.57 864	Savana Grande	J. Cooper, India	an Walk	***	** ,	S. Morris	***	7	Marl.		
36	Ellen Grove	** **	do	A. Ayers, Hind	ustan Road, S	avana Grand	le	A. Ayers		18	do.		
37	Dunmore Hill			Ramdin, Aldan				Ramdin	•••	6	do.		