

Limestone covers 80% of the island and ranges in thickness from 45m (central) to 105m (near coast). The thickest sections are about 190m and are found in the St. George to St. Philip Valley.

The Limestone which is greater than 97% calcium carbonate in purity is mined throughout the island from about 16 registered quarries. Excavation is by blasting and/or ripping by use of excavators. The resulting product ranges in size from Boulders to marl to dust. Mining operations result in the removal of about 2.5 million tons of limestone per annum.

It is estimated that there are reserves in excess of 30 billion tones of limestone to a depth of about 35m. This proves limestone reserves to be practically unlimited with the employment of effective mining measures.

Sand, clay and shale are mined from the exposed Pleistocene Scotland District in the east of the island. The sand which is used for aggregate addition in the construction industry is mined mainly from the Walkers dunes in St. Andrew. It is estimated that there are sand reserves of about 69.5 million tons to a 30 m depth. These reserves are made up as follows from the individual geographical locations.

|          |
|----------|
| LOCALITY |
|----------|

|             |
|-------------|
| METRIC TONS |
|-------------|

|         |
|---------|
| Walkers |
|---------|

|      |
|------|
| 17.6 |
|------|

Chalky Mt.

30.3

Greenland

12.7

Springfield

8.9

At the current rate of mining extraction of about 250-300 thousand tons/annum of sand from the Walkers area, it is estimated that there is only a safe period of about 10 years remaining before adverse effects of the coastline environment occur.

It is now therefore advisable to utilize alternative sites where comparable sand deposits occur in the Murphy formation. These sites are less accessible and blasting and crushing methods may have to be employed as the sand in this area is more siliceous and consolidated.

Shale is mined from the Greenland area from the Morgan Lewis Formation and is used solely for the production of Portland cement. The current quarry is approximately 52 acres in area with reserves of about 8.5 mill tons. The shale is mined at a rate of 100,000 tons/annum.

There are also clay rich deposits which are mined in the Scotland District. These clays are

## Quarrying

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mainly of smectite composition and are used mainly for the manufacture of roof shingles, floor tiles and decorative bricks. The Kaolin type clays are found in the upper Scotland sands in small seams and support a small pottery industry.

There are about 125 mill tons of clay in reserve to depth of 30m and is made up in quantity from the following geographical locations.

LOCALITY

METRIC TONS

Morgan Lewis

77.8

Chalky Mount

5.0

Mount

14.9

Turners Hall

11.4

Fosters Hall

16.0

With the exception of the Morgan Lewis clays, these clays are usually poor quality with some silica content. Clay is mined at a rate of about 20,000/annum.