



GRAYMONT

MINERAL SHIPMENTS ON THE NBER

NEARS Conference

October 1, 2014

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Agenda

- ▶ **Graymont**
- ▶ **Lime's History**
- ▶ **Lime Production**
- ▶ **Lime's Uses**
- ▶ **Lime Production in Centre County**
- ▶ **NBER Rail Shipments**
- ▶ **Opportunities and Challenges**

About Graymont

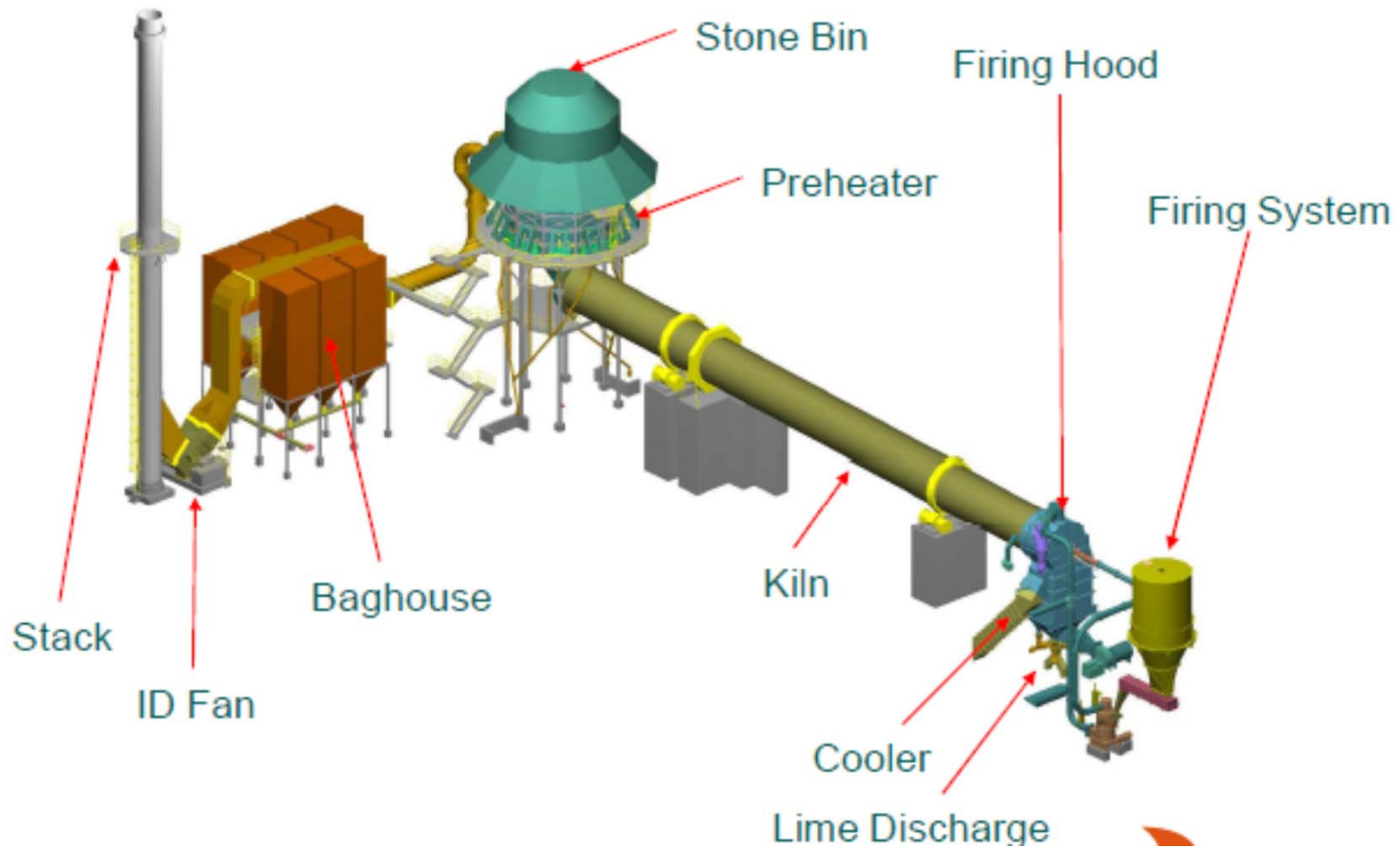
- ▶ **Graymont is the 2nd largest lime producer in N. America**
- ▶ **Privately owned**
- ▶ **Operate 19 plants, 39 kilns, & 14 terminals throughout US & Canada**
- ▶ **Products transported via rail, truck and barge**
- ▶ **Overall production capacity of over 7 million tons per year**

History of Lime

- ▶ **Lime is one of the oldest and most vital chemicals used by mankind**
 - Earliest uses date back some 10,000 years
- ▶ **Ancient Romans used lime in building and road construction. It was also used in building the pyramids.**
- ▶ **From earliest times lime has been made by heating limestone to high temperatures**
 - This process, known as calcining, produces calcium oxide or quicklime
 - Hydrated lime is produced by the controlled slaking of quicklime with water
- ▶ **By tonnage, lime ranks second to sulfuric acid as the most used chemical**

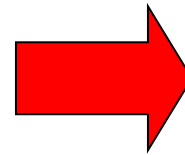
Typical Rotary Lime Kiln

Coal Fired, Preheater Lime Kiln System with Pulse Jet Baghouse

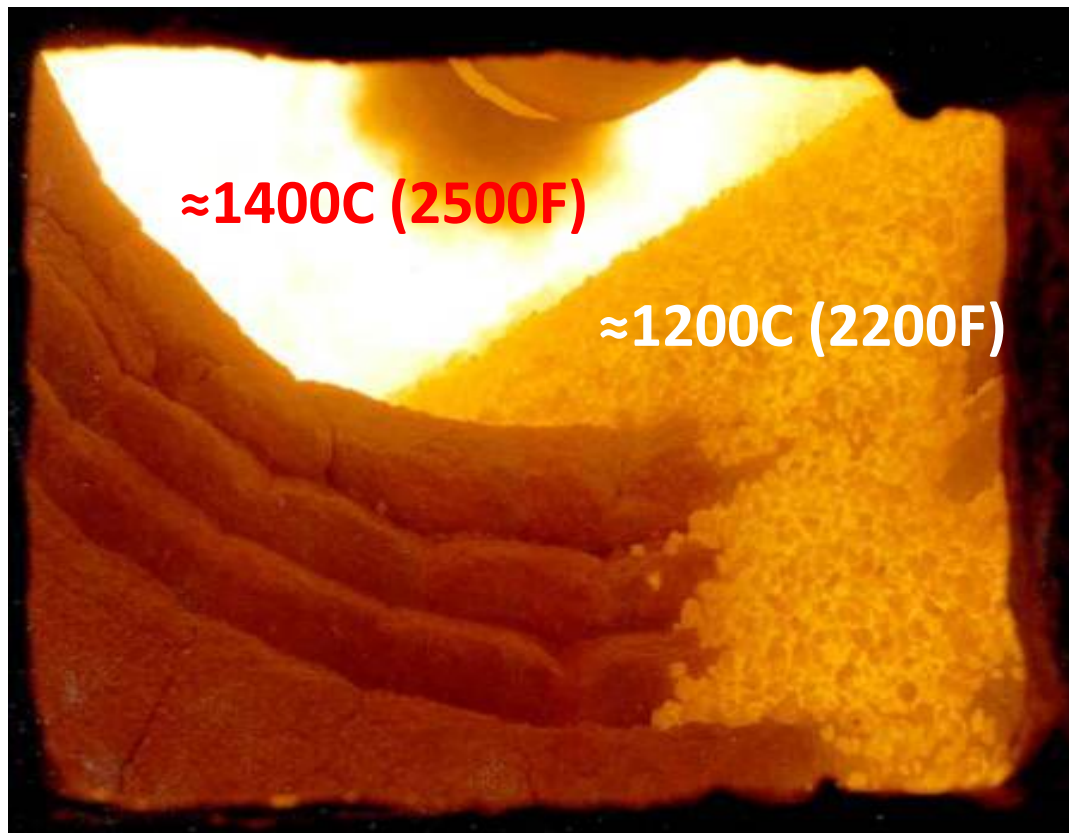


Calcining Limestone

Limestone + Heat



Lime



Primary Markets

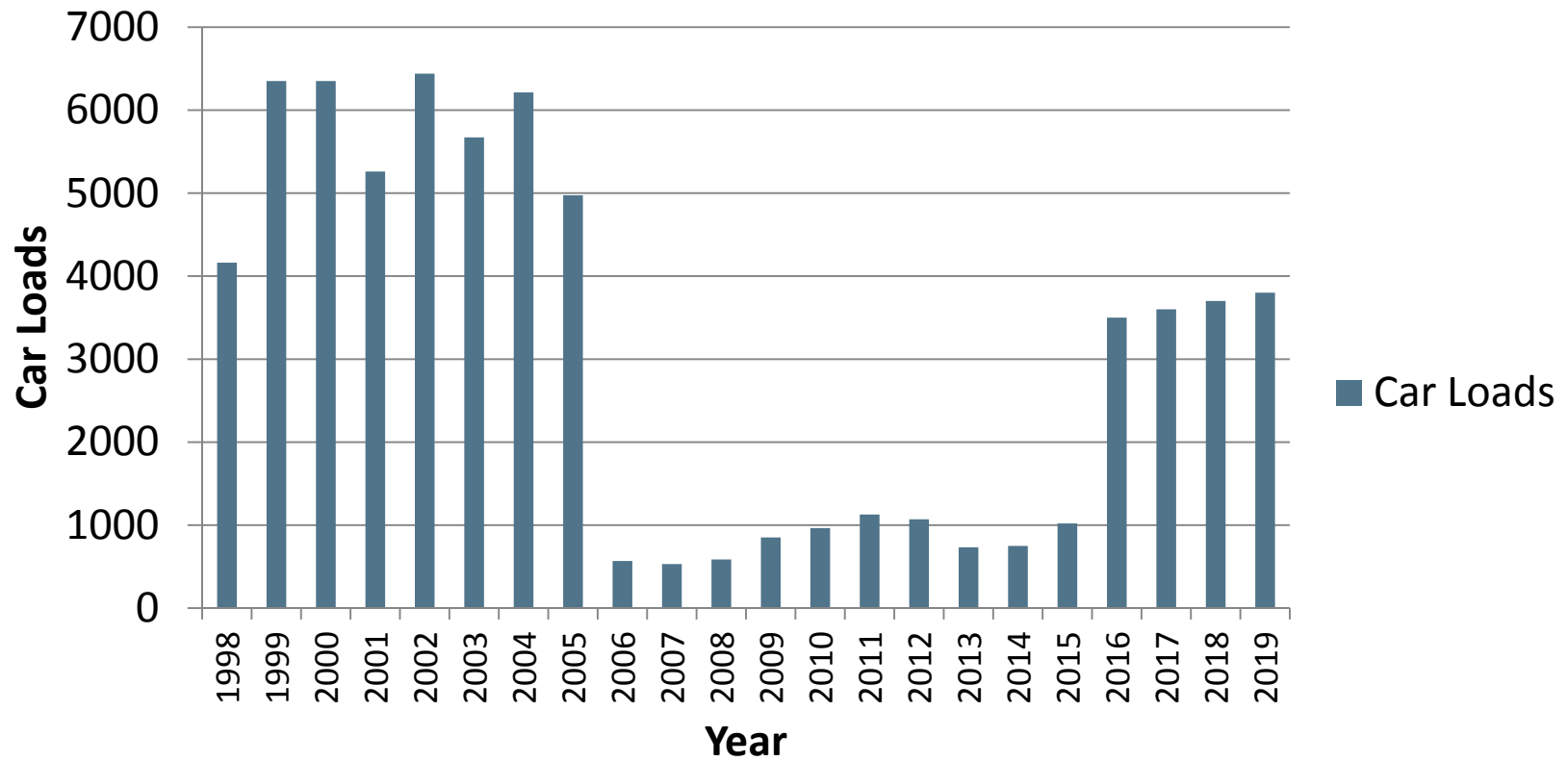
- ▶ **Steel**
- ▶ **Power (Flue Gas Treatment)**
- ▶ **Pulp & Paper**
- ▶ **Mining**
- ▶ **Construction Applications**
- ▶ **Water/Wastewater Treatment**
- ▶ **Variety of other commercial applications**

Limes History in Centre County

- ▶ High purity limestone found in this area in the early 1800's
- ▶ Early use supported the local iron furnaces
- ▶ First commercial lime was shipped by rail in 1863
- ▶ Numerous independently owned plants have operated over the years
- ▶ All plants consolidated under Graymont in 2001
- ▶ All calcining centralized to Graymont's Pleasant Gap plant in 2006

NBER Rail Shipments

Car Loads per Year



Future Opportunities and Challenges

► Opportunities

- Terminal trans-loads
- Inter-plant support
- Partnering

► Challenges

- Limited rail direct customers
- Car supply
- Transit times
- Competitive rates from trucks
- Timely delivery service to customers

Questions?

