

# KMC Mining Corporation



## HAULAGE AND LOADING EXHIBITION

# KMC MINING



KMC began operations in 1949 and over the company's 70 year history has grown to be one of the safest and most reliable contractors in the mining industry.

With a dedicated workforce and over ~175 pieces of heavy civil earthworks equipment, KMC has been involved with some of Western Canada's most exciting development projects.

Our continual focus on safety, excellence, and teamwork ensures that KMC provides cost effective, quality mining services and expertise to our customers and the industry.

By combining new technology, innovative thinking and a highly skilled workforce, KMC has maintained a position as an industry leader.

Dealing with ever-changing mining conditions, KMC has developed several strategies over the years to improve productivity in the pits.



# KMC MINING

■ KMC has one of the largest, well-maintained, diverse and productive construction and mining fleets in Western Canada:

- + Large Hydraulic Shovels up to PC8000 sizes
- + Mine Trucks
  - + 320 Ton Trucks (930)
  - + 100-250 Ton Trucks (777-793)
- + Track Dozers D6-D11 sizes
- + Excavators & Graders up to 24M sizes

■ Proactive investment in maintenance and technology keep the fleet operating smoothly and efficiently



Haul Trucks



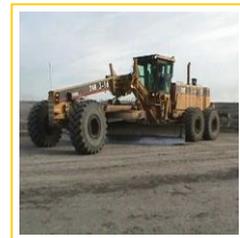
Shovels



Excavators



Dozers & Graders



# Overview



- KMC has a unique viewpoint being a large scale mining contractor and is often faced with complex and challenging circumstances.
  
- Key to success is ensuring our customers have their product delivery achieved
  - Simplifying processes
    1. Is Maintenance delivering the hours?
    2. How effectively are operations utilizing the hours?



- **Without safety there is no production**

- Visible Felt Leadership

- As a contractor we recognize that although we do have our own safety standards, we must adapt *and* meet or exceed the standards of the clients we serve

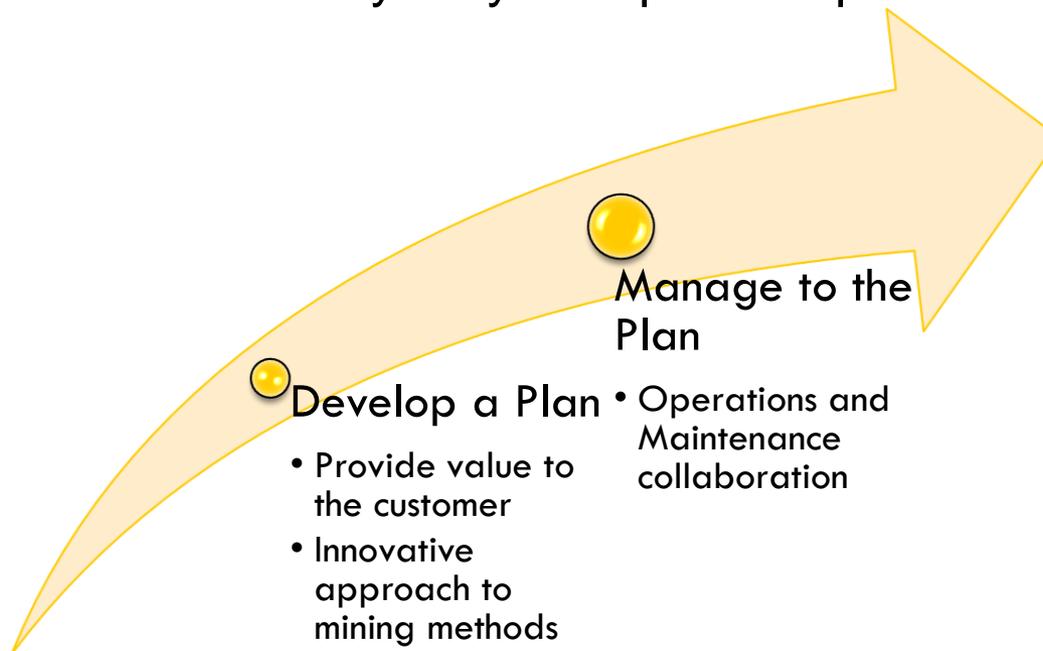
- Culture

- We must ensure that our leaders understand, know and abide by all site procedures and can deliver them with clarity to our workforce, while reinforcing compliance



# Simplify

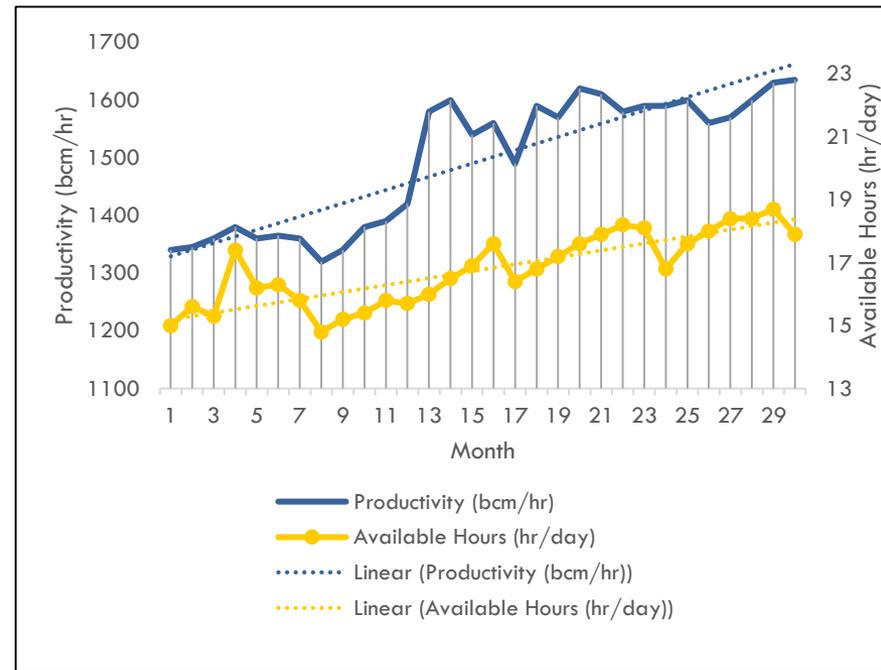
- Often times we complicate the solutions to productivity gaps and missed metrics when really they are quite simple



- “Low hanging fruit” can have significant impact on production improvement

# Is Maintenance delivering the hours? **KMC** MINING

- Ensuring equipment is available to operations and we are constantly striving to increase available hours on critical units (shovels, trucks, dozers)
- Preventative maintenance is key to reliably delivery hours to operations
- Reducing unplanned events
  - ▣ MTBF / MTTR
  - ▣ Field vs Shop repairs



# Unique challenges as a Contractor



- KMC has several challenges in regards to maintenance that are unique to the contracting world:
  - No permanent laydown/shop structure
  - Handling extreme weather conditions (cold/heat) without an enclosed building; all work is preformed outside
  - Coordination with other contractors and client when managing major maintenance activities



# Unique solutions



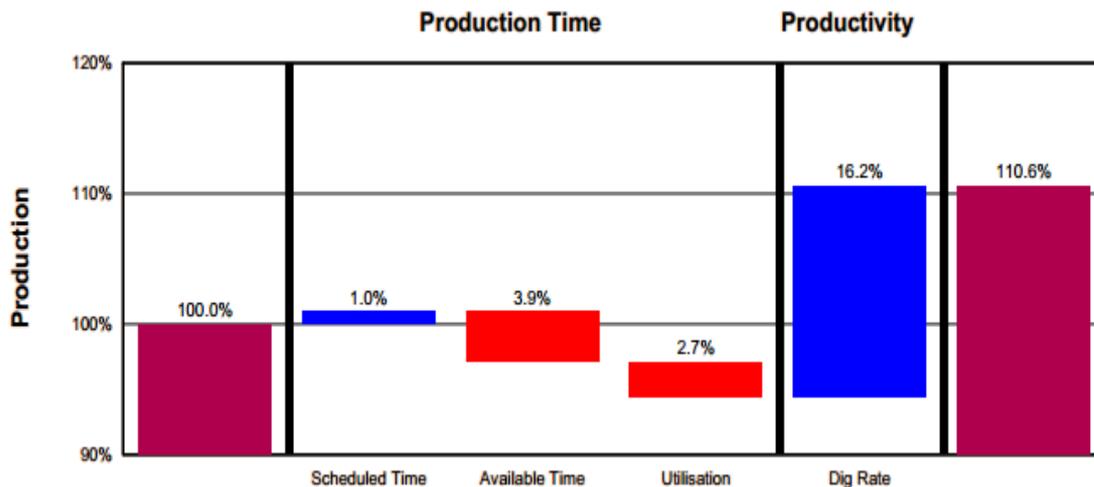
- Sharing of resources with clients for maintenance facilities on Short term projects
  - ▣ Use of facilities for component changeouts
  - ▣ Wash bay facilities
  - ▣ Other tasks that normally become difficult to accomplish in a field environment
- This cooperative effort has resulted in more efficient maintenance practices which ultimately benefit both parties in increased production



# How effectively are operations utilizing the hours?

## □ Roads Make Loads

- ▣ Roads and cycle times are two of the most significant factors that affect in-pit productivities



## □ Shovel productivity

- ▣ Effective pit management
- ▣ Reducing hang time
- ▣ Improve dig rate

# Unique challenges as a Contractor



- Operations must be able to recognize and mitigate several factors that can reduce equipment utilization:
  - ▣ Haul road conditions
  - ▣ Haul route management
  - ▣ Traffic frequency/intensity
  - ▣ Changing environmental conditions
  - ▣ Interaction with more than one neighbor (client fleet, other contractors and equipment in area)



## □ Haul Road Conditions

- Collaboration with other users of haul roads for grading and upkeep;
  - Taking turns grading high traffic areas
  - Sectioning areas of the haul road to specific users for responsibilities
  
- Hot changing/offsetting shift changes;
  - Ancillary and support equipment offset to ensure roads are in best condition possible for oncoming crews



- ❑ Haul route management
  - Preparing multiple dump options in conjunction with the client and their needs;
  - Maximizes cycle times and ensures efficient loading cycles with shovels
  
- ❑ Identifying options for changing environmental conditions;
  - KMC looks for opportunity to work with the client for dedicated sources of sand/gravel during cold and wet weather events, sometimes this means hauling and maintaining our pit areas at our own cost



- Key Strategies to Improve Productivity
  - ▣ Safety focus
  - ▣ Simplifying processes
  - ▣ Increasing equipment available hours from a maintenance standpoint
  - ▣ Ensuring operations are effectively using the available hours

# **KMC** MINING

KMC Mining values long term relationships with our customers and our goal is to provide safe and efficient, civil construction and mining services to deliver lasting value for our customers, our employees and our stakeholders.



# QUESTIONS