TECHNICAL NOTE

TN 121 Mailing List 2

Filing Code 3800

Date Issued MAY 2 5 1970

no. 121

Bureau of Land Management U.S. DEPARTMENT OF THE INTERIOR

Subjects: Surface Mining, Planning, Design

Open Pit, Planning, Design

Selected References:

- 1. Engineering and Mining Journal, September 1967.
- 2. Mining Engineering, October 1967.

Data:

- 1. Issue emphasizes open pit mining including articles on:
 - a. State of Art (designing the total mine operation)

Contains tables on:

- (1) Mining planning methods
- (2) Mining methods and equipment
- (3) Major equipment details
- (4) Supporting equipment at mines
- (5) Cost of mining and mine equipment maintenance
- b. Front end loaders compares operating and capital costs of five-yard power shovel and ten-yard tractor shovel.
- c. Modern open pit blasting practice
- d. The cost of open pit mining today compares wheel loaders versus shovels; scrapers versus shovels, trucks and conveyors
- 2. Entire issue devoted to surface mining. Excerpted from AIME publication Surface Mining. Articles include:
 - a. Surface Mining Continues to Grow
 - b. Exploration First Step to Mine

- c. Feasibility Data Defines Risks
- d. Planning and Design
 - (1) Pit Planning and Layout
 - (2) Stripping Methods
 - (3) Production Systems Engineering
- e. Engineering Surface Coal Mines
- f. Drilling Selection Requires Value Judgments
- g. Blasting
- h. Excavation and Loading
 - (1) Stripping and Quarry-Mine Shovels
 - (2) Draglines
 - (3) Front-End Loaders
 - (4) Continuous Methods
 - (5) Dredging
- i. Haulage Methods
 - (1) Railroad
 - (2) Truck Haulage
 - (3) Conveyor Belts
 - (4) Hydraulic Transport
- j. Miscellaneous Subjects