



CONTACT INFORMATION  
Mining Records Curator  
Arizona Geological Survey  
3550 N. Central Ave, 2nd floor  
Phoenix, AZ, 85012  
602-771-1601  
<http://www.azgs.az.gov>  
[inquiries@azgs.az.gov](mailto:inquiries@azgs.az.gov)

The following file is part of the Grover Heinrichs Mining Collection

#### **ACCESS STATEMENT**

These digitized collections are accessible for purposes of education and research. We have indicated what we know about copyright and rights of privacy, publicity, or trademark. Due to the nature of archival collections, we are not always able to identify this information. We are eager to hear from any rights owners, so that we may obtain accurate information. Upon request, we will remove material from public view while we address a rights issue.

#### **CONSTRAINTS STATEMENT**

The Arizona Geological Survey does not claim to control all rights for all materials in its collection. These rights include, but are not limited to: copyright, privacy rights, and cultural protection rights. The User hereby assumes all responsibility for obtaining any rights to use the material in excess of "fair use."

The Survey makes no intellectual property claims to the products created by individual authors in the manuscript collections, except when the author deeded those rights to the Survey or when those authors were employed by the State of Arizona and created intellectual products as a function of their official duties. The Survey does maintain property rights to the physical and digital representations of the works.

#### **QUALITY STATEMENT**

The Arizona Geological Survey is not responsible for the accuracy of the records, information, or opinions that may be contained in the files. The Survey collects, catalogs, and archives data on mineral properties regardless of its views of the veracity or accuracy of those data.

December 18, 1970

Mr. Dan King  
A.C.M. Corporation  
P.O. Box 98  
Agulla, Arizona 85320

Dear Dan:

We have now had an opportunity to review the information you forwarded in your letter of December 7 regarding the Parker project. I can assure you that we have taken steps to keep the information out of the "Club."

It is our best estimate that the best unit cost for an operation at Parker would be about 45¢ per pound. This is the result of a detailed engineering study by a factoring based upon our collective experience. Frankly, I would prefer that our first venture is not ammonia leach; consequently, we are not interested in proceeding with the leaching aspect of the Parker property at this time.

I am sure you know that I feel that the property has merits. Therefore, I would like to have our new exploration staff take a look at the property sometime at your convenience. Mr. Paul Eimon, who is our new Exploration Manager, will be in contact with you to schedule an inspection sometime early next year.

Best personal regards for the holiday season.

Very truly yours,

ESSEX INTERNATIONAL, INC.

Howard Lanier, General Manager  
Copper Operations

HL:td

Mr. Lanier

Empire

12/18/70

Mining - 5000 T/D.

Milling

5000 T/D.

30,000,000 tons x 11 lb. = 330,000,000 # Cu

5000 x 340 = 1,700,000 Tons / yr. = 18,700,000 # / yr.

17 years. 55,000 # Cu / day.

He has a handle of \$2,500 / Tons day or  
capital cost of \$12,500,000 to develop the mine  
and build a plant for 5000 T/D.

This may be a good figure for the inclusion of  
an Ammonia Leach Plant.

The ore is not deep according to Larry Drake  
so perhaps \$2,500,000 would equip, strip and develop  
the mine leaving \$10,000,000 for the plant. This  
to be Ammonia - LIX64 - Electric precipitation.

at least \$5,000,000 for the LIX-EW

Ammonia Leach - ? Wet grind - agitation leach - liquid  
separation (C.C.D.) -  $NH_3$  recovery - Cyanide the  
tails for Au & Ag - \$5,000,000 - seems low -

Milling cost -

\$1.00 / ton (40 mesh grind) o.k.

Reagents & Power 0.57

\$1.57

$NH_3$  - 0.46

1.08

LIX-EW - 0.62

\$2.65 / ton

Overhead - ? 1.08

?

## Mining Cost

Larry Drake - estimate \$ 1.00 / ton

## Recap

Mining	1.00	
Milling	2.65	<u>\$ / # Cu</u>
Overhead	0.55	
	<u>\$ 4.20 / ton</u>	<u>\$ 0.381</u>
Est. Capital cost	0.711 "	<u>0.064</u>
		<u>\$ 0.445</u>

Howard -

Above are my quick "doodles"  
on this project.

Why I mention Larry Drake is  
because he brought this up 2 or 3  
months ago - as Donkin's Property

Clyde Osburn  
12/18/70

Memorandum from . . .

HOWARD LANIER

12/11/70

CLYDE —

WHAT IS YOUR OPINION  
OF THE FIGURES USED BY  
DAN KING?

I'LL WANT TO REPLY  
TO DAN AFTER WE HAVE  
REVIEWED THIS.

H.

Tom King } NORTH STAR  
Pearl }

Tom is elder brother of Dan King

12/12/70

# ACM

CORPORATION

POST OFFICE BOX 98 • U. S. HIGHWAY 60 • AGUILA, ARIZONA 85320 • (602) 685-2344

SXM

DEC 10 1970

RECEIVED

December 7, 1970

Essex International, Inc.  
1704 West Grant Road  
Tucson, Arizona

Attention: Mr. Howard Lanier

Dear Howard:

Herewith some noodling on the Parker project which may shed some light on my thoughts as to production costs and therefore targets.

As I've mentioned, please keep this stuff confidential as respects the "Club" in Tucson.

Many thanks to you and your wife for taking the time to look this thing over, and my best regards to both of you.

Very truly yours,

*DMK*  
Dan M. King  
DMK:pk  
Enclosures

12/11/70

Please  
Keep  
Confidential  
HL.

# Empire Economics

Reserves: est 30,000,000 tons  
 @ 0.60% Cu \$ 2.00 Au + Ag  
 or 15 year life @ 5000 TPD

Recovery: Cu = 90% = 11 lbs/ton  
 Au + Ag = 70% = \$1.40

Development Cost to Production:

@ \$2500 per daily ton of capacity  
 @ 5000 TPD production rate ✓  
 = \$12,500,000  
 or per ton reserves - - - - \$0.42

Interest on capital @ 8%  
 on \$6.5 million = \$520,000/yr or - - - 0.29  
 Est. capital cost per daily ton - \$0.71

Direct costs

Mining & Waste removal - - -	0.70	
Milling - - - - -	1.00	
Reagents plus power - - -	0.57	2.27
<u>Estimated total cost per daily ton</u>		<u>\$2.98</u>

Estimated cost/lb. Cu  $\frac{2.98}{11} = 27¢$

Note: No credit for Au + Ag values  
 - shown here.

A. C. M.

CORPORATION  
U.S. HIGHWAY 60  
AGUILA, ARIZONA 85320

Reagents + power

$\text{NH}_3$  - anhydrous @ 60¢/ton  
@ 5% loss

15,000 tons soln @ 5%  $\text{NH}_3$  equivalent

= 750.0 tons  $\text{NH}_3$  in circuit

= 37.5 tons  $\text{NH}_3$  lost/day

@ 60¢/ton = 2300¢/day

per ton ore - - - = 0.46

power for electrolytic dep./cu

@ 2¢/lb. cu = per ton = 0.11

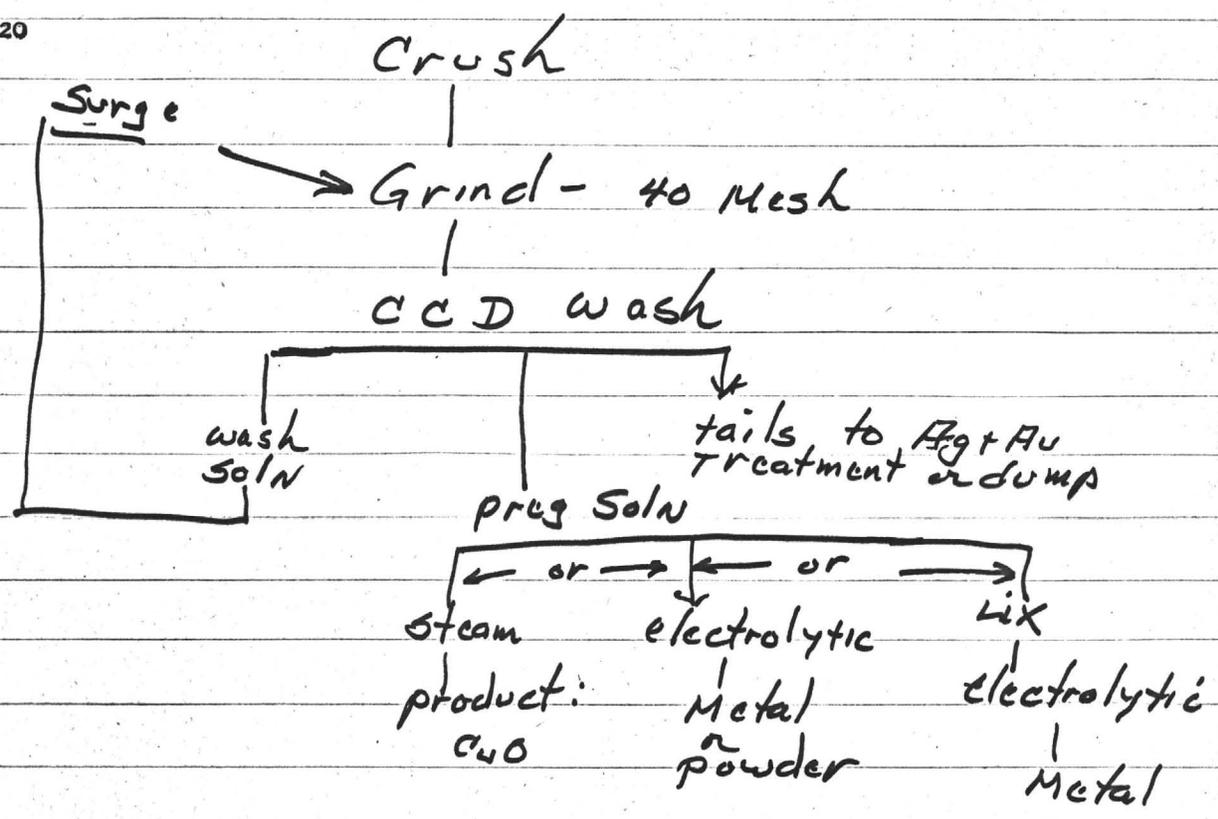
Total

0.57

**A. C. M.**

CORPORATION  
U. S. HIGHWAY 60  
AGUILA, ARIZONA 85320

# Tentative Flow Sheet



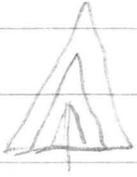
10-16-70

DAN KING

Empire Group

PARKER OXIDE DEPOSIT

4,000,000 T. 0.2 to 5%



NINE HOLES 130' bottom in ore

600' deep

Mineral Hill of Bagdad  
Beaugard

Sheep TANK

10/23/70

Discussion with Jerry Drake - (Al or King)

Caplan article report near Parker Canyon

North of Parker - near Lake Hammer

good news.

3 miles from Palo Verde

6,000,000 ton 0.7% Cu & covered by shelling.  
already  
Army - ~~Monetary~~ 300-500 # Acid King rock  
NH<sub>3</sub> level indicated -

Branch mine -

Danner - ~~air~~ company (Whitgate Air Co.?)  
out of D.A.

Joint Venture preference or buy out

Our body not delineated - more on our line  
proven by further shelling

Dan King

Property near Parker

Drilling avg depth 130'

1.5 millions tons 0.7 Cu <sup>Oxide</sup>

1:1 stripping ratio

Gold ? \_\_\_\_\_

Call 685 2344 Aquila  
684 7795 Wickenburg

Hungry Hill - Deer Trail

Bellota Ranch

Reeves