



## **CONTACT INFORMATION**

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Arizona Geological Survey  
1520 West Adams St.  
Phoenix, AZ 85007  
602-771-1601  
<http://www.azgs.az.gov>  
[inquiries@azgs.az.gov](mailto:inquiries@azgs.az.gov)

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Arizona Department of Mines and Mineral Resources Mining Collection

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PRINTED: 01/15/2003

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES AZMILS DATA

PRIMARY NAME: CONGRESS

ALTERNATE NAMES:

CONGRESS MINE, PATENTED 878  
FRACTION, PATENTED 883  
NIAGARA  
NIAGRA  
GOLDEN KEY  
HERSKOWITZ PROPERTY  
QUEEN OF THE HILLS  
OHAHA  
PLANET MIER  
JAQUAYS  
B AND M  
PATENTED CLAIMS MS 2888 & 3523

YAVAPAI COUNTY MILS NUMBER: 440C

LOCATION: TOWNSHIP 10 N RANGE 6 W SECTION 23 QUARTER N2  
LATITUDE: N 34DEG 12MIN 05SEC LONGITUDE: W 112DEG 50MIN 54SEC  
TOPO MAP NAME: CONGRESS - 7.5 MIN

CURRENT STATUS: PAST PRODUCER

COMMODITY:

GOLD  
SILVER  
COPPER SULFIDE  
FELDSPAR

BIBLIOGRAPHY:

ADMMR CONGRESS MINE FILE  
ADMMR CONGRESS COLVO FILE  
ADMMR NIAGARA MINE & MILL FILE  
ADMMR GOLDEN KEY FILE  
REPORT OF THE GOVERNOR OF AZ 1899 P 54-56  
WILSON, E.D. ETAL. AZ LODE GOLM MINES AZBM  
METZGER, O.H. GOLD MINING & MILLING IN THE  
WICKENBURG AREA USBM IC 6991 1938 P 45

CONTINUED ON NEXT PAGE

LAW OFFICES OF  
**BOYLE, EATON & PECHARICH**  
SECOND FLOOR, PLAZA BUILDING  
100 EAST UNION STREET  
P. O. BOX 1549  
PRESCOTT, ARIZONA 86302

JAMES P. BOYLE, JR.  
WM. LEE EATON  
ROBERT S. PECHARICH  
WILLIAM R. WHITTINGTON

TELEPHONE 445-0122  
AREA CODE 602

May 11, 1983

Mrs. Virgie Brown  
First American Title Insurance  
Agency of Yavapai, Inc.  
709 East Mingus  
Cottonwood, Arizona 86326

Re: Opening of New Escrow

Dear Mrs. Brown:

Please be advised that I represent the sellers as set forth in the Agreement for Sale of Patented Mining Claims enclosed herein. Please open an escrow to complete this sale.

The following are enclosed for your file:

1. Original Agreement for Sale of Patented Mining Claims.
2. Original Deed of Trust.
3. Four separate Promissory Notes covering payments to come due in the future.
4. Instructions to Escrow signed by all sellers.
5. Check in the amount of \$1,500 payable to First American Title Insurance Agency which hopefully will be sufficient to cover all of sellers' expenses.
6. Warranty Deed - please secure execution of this Warranty Deed as the Deed was inadvertently not signed at the time the Agreement for Sale was signed.

It is the intention of the parties that sellers pay the costs of title insurance and that all other costs of escrow be split evenly between buyer and sellers except those items such as real property taxes which are normally prorated.

.....

Mrs. Virgie Brown  
May 11, 1983  
Page Two

The first payment due, upon execution of the Agreement for Sale, of \$18,000 has already been paid outside of escrow. Please institute a collection account for the remaining payments due to the sellers. I have also enclosed a list of mailing addresses for each of the sellers for use in setting up the collection.

Please prepare the necessary escrow instructions and affidavit of value and notify the parties when the instruments are ready to be signed. The buyer's address is: David DuBois, 28 North Shoshone, Flagstaff, Arizona 86001 (phone #525-1123). Buyer may also be reached through Walter Jordan, Jr. at 282-7196 or 282-7038. Buyer's attorney is Leo Crowley, Esq., Post Office Box 1928, Flagstaff, Arizona 86002 (phone #779-3607).

The final enclosure is the original of a First Amendment to Agreement for Sale of Patented Mining Claim which is necessary to clarify how the proceeds paid under paragraph 5.B. of the Agreement for Sale of Patented Mining Claims would be distributed among the sellers in this matter and which I am enclosing for signature by all the parties involved.

Please feel free to telephone me regarding any questions you may have on this escrow.

Sincerely yours,

BOYLE, EATON & PECHARICH

Robert S. Pecharich

RSP:jaf  
Enclosures  
cc: Walter Jordan, Jr.  
Leo Crowley, Esq.  
David DuBois

DORIS E. CHILSON and HARRISON L. CHILSON  
Box 522  
Clarkdale, Arizona 86324

RUTH C. WILHOIT  
St. Rt. 1 - Box 100  
Cottonwood, Arizona 86326

KATHERINE ELIZABETH WILLIAMS  
Box 131  
Clarkdale, Arizona 86324

SHIRLEY C. DuBOIS  
Rt. 1, Box 51  
Cottonwood, Arizona 86326

# **ROBIN R. WIER**

## **Land Surveyor**

14643 North 31st Avenue  
Phoenix, Arizona  
85023  
(602)942-7975

October 19, 1984

Mr. Michael Dill  
Mr. David DuBois  
208 North Shoshone  
Flagstaff, Arizona 86001

Dear Sirs:

I recently received your letter (dated October 8, 1984), inquiring as to the feasibility and costs of performing certain survey work. Said survey work to include the location on the surface of certain mining claim corners. Said mining claim corners were identified to me as Congress, Queen of the Hills, Niagra, Mosouri(?), Why Not, Fraction, Niagara Mill Site, Excelsior, Incline, Rich Quartz, Golden Eagle, Snowstorm, Ohio, Old State, and Golden Thread. Said claims are located in the Date Creek Mountains and are in the Martinez Mining District.

Having made an investigation of public records, I have come to the following conclusions:

- a) Various County, State, and Federal agencies have available to the public, various deeds, plats, original survey field notes, etc., copies of which may be purchased.
- b) Said copies would indicate a mathematical relationship between the corners of the mining claims listed previously. Said copies would indicate a mathematical relationship to other survey corners (section corners,  $\frac{1}{4}$  corners, witness corners, etc.).
- c) The total number of corners (including mining claim corners) that might be necessary in determining the location of all the corners of the claims listed previously is in excess of one-hundred.

Mr. Michael Dill  
Mr. David DuBois

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October 19, 1984

d) The large numbers of potentially useful original survey marks or corners, together with their remoteness as to terrain features, would, in my opinion, preclude the possibility that a sufficient number of them could be missing at this time to prohibit an accurate survey of the mining claim corners in question.

I, therefore, do hereby submit the following proposal to do certain survey work as outlined below at the prices indicated.

<u>PHASE</u>	<u>OFFICE WORK</u>	<u>FIELD WORK</u>	<u>PRICE</u>	<u>COMMENTS</u>
I	Purchase necessary copies from various agencies. Analyze data in copies and prepare a composite work sheet showing theoretical relationship between 100+ corners. Show terrain features on work sheet to aid in finding existing corners in the field.		\$1300.00	Actual cost for copies will be between \$300 and \$600.  Time estimate to prepare work sheet = 20 days.  Work sheet must remain in possession of the surveyor as it would be of great value to others in determining the corner locations.
II		Find and identify any of the 100+ corners that are easily found. Set "working points" near remaining corners not found. Locate all found corners and "working points" relative to each other mathematically.	\$1600.00	time estimate = 20 days

<u>PHASE</u>	<u>OFFICE WORK</u>	<u>FIELD WORK</u>	<u>PRICE</u>	<u>COMMENTS</u>
III	Revise the work sheet to reflect the actual mathematical relationship between the found corners. Revise the work sheet to reflect the new theoretical location of those of the 100+ points not yet found.		\$700.00	time estimate = 10 days
IV		Make search in vicinity of the new theoretical location of corners not yet found. Locate mathematically any corners found. Set temporary points at theoretical location of mining claim corners not yet found.	\$2200.00	time estimate = 30 days  In this surveyors opinion the field search in this phase will result in the discovery of between 20 and 50 original corners.
V	Revise work sheet to reflect the actual mathematical relationship between all found corners. Revise work sheet to reflect new and final mathematical location of mining claim corners not found.		\$700.00	time estimate = 10 days
VI		Adjust temporary points set previously to final mathematical location and set new mining claim corner. (iron pipe unless specified different by client) Mark all mining claim corners so as to be identifiable by the client.	\$800.00	time estimate = 15 days (for iron pipe)  (additional time and charge for other type of corner)

Mr. Michael Dill  
Mr. David DuBois

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October 19, 1984

<u>PHASE</u>	<u>OFFICE WORK</u>	<u>FIELD WORK</u>	<u>PRICE</u>	<u>COMMENTS</u>
VII	Prepare final plat or plats showing mathematical location and physical description of all corners found or set.		\$1100.00	time estimate = 15 days
VIII	Plot roads located on final plat or plats.	Locate roads drivable by 2-wheel drive vehicles as they cross the mining claims surveyed	\$500.00	time estimate = 10 days
IX	Plot location of entrances on plat or plats	Locate mine entrances (shaft openings) on or near the claims surveyed.	\$300.00	time estimate = 5 days
X	Plot structures located on final plat or plats	Locate structures on surface of claims surveyed as directed by client.	\$50.00/ per structure	10 structures/ per day = time estimate
XI	Plot R.R.tracks on final plat or plats	Locate R.R.tracks on or near claims surveyed	\$700.00/ per mile of track	time estimate = 5 days/ per mile of track
XII	Plot power poles and other transmission lines and poles on plat or plats.	Locate power poles or other transmission lines on or near the claims surveyed.	\$35.00/ per pole	10 days = time estimate

Mr. Michael Dill  
Mr. David DuBois

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October 19, 1984

The preceding work and price proposal is based upon work above ground only. This surveyor intends to do NO work below the surface.

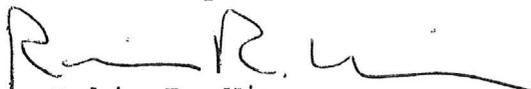
Any contour(3D ?)maps of the surface would require a separate additional proposal based upon the clients specifications for said contour maps.

It will be necessary to receive payment in advance prior to beginning any phase of work. Therefore I will accept your check for \$1300.00 as a notice to proceed with Phase I(as outlined in the proposal)

Thanks to both of you for your consideration.



Sincerely,

  
Robin R. Wier



*Pincock, Allen & Holt, Inc.*

1750 E. BENSON HIGHWAY • TUCSON, ARIZ. 85714 - 1798

Telephone (602) 746-1451 • Cable KAYPIN • Telex 66-6457 (WUI)

September 14, 1984

Mr. David DuBois  
c/o Michael R. Dill  
208 N. Shoshone  
Flagstaff, AZ 86001

Dear Mr. DuBois:

Enclosed are the names and telephone numbers of four land surveyors that you may contact to get estimates on the cost of relocating the boundaries of your claims:

- ✓ Robin R. Wier, Business: 942-7975, Home: 942-5638, Phoenix
- ✓ Andrew Atherton, Business: 242-6229, Phoenix
- ✓ Statewide Engineering Company, Business: 265-0006, Phoenix
- ✓ Antonio Boggero, Business: 888-1084, Home: 795-8604, Tucson

When you talk to these people, please make it clear to them that what you want is to establish the property line location for your group of patented claims, and not a survey to locate newly acquired unpatented claims.

Also, the Wickenburg Chamber of Commerce or some of the real estate agents in Wickenburg may know of a local registered land surveyor who does mineral survey work in that region.

I hope this information may be of use to you in getting your property lines tied down.

Yours truly,

*J. A. Riddle*  
J. A. Riddle  
Sr. Mining Eng.

JAR:eg

Mr. Robin Weir

14643 North 31st Ave.  
Phoenix, AZ 85023

Mr. Andrew Atherton  
Attn: Dan  
6747 N. Black Canyon Hwy.  
Phoenix, AZ 85015

Mr. Bob Woosley  
Statewide Engineering Co.  
3821 N. 15th Ave.  
Phoenix, AZ 85015

Mr. Antonio Boggero  
3721 N. Cherry Ave.  
Tuscon, AZ 85719

208 N. Shoshone  
Flagstaff, AZ 86001  
October 8, 1984

Mr. -----  
-----  
-----

Dear -----:

We currently own fourteen (14) patented claims in the Martinez Mining District, which is located in the Date Creek Mountains about fifteen miles from Wickenburg.

These fourteen (14) claims comprise most of the old working from the Congress Mine. There are approximately seven major shafts that have not been worked since World War II or the early 1950's. We are interested in having these mineral rights surveyed. Our fourteen (14) claims do not include the surface or down to the first 40 feet. We own the mineral rights below 40 feet, plus we have the access rights ~~below~~ for any mining operation. (Note: We do own 2.5 acres of surface here, but that is all.)

Now, before a complete survey can be done, there is one small difficulty. The original landmarks used in locating the corners have been destroyed or moved. Therefore the original difficulty is to determine where these corners are. Please consider this in your estimates. In fact, if you could break down this cost separately from the actual surveying costs, we would appreciate it greatly.

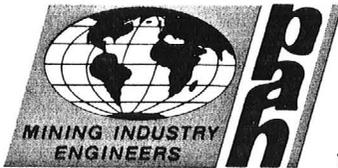
We are now entertaining bids on both the locating costs and the surveying costs. Please submit your estimates on both. Also, we would be interested in 3-D maps of these claims so that we might get a clearer picture ourselves.

If you have any questions, please don't hesitate to give us a call at 602/525-1123 or 602/525-1177.

Sincerely,

Michael Dill

David Dubois



*Pincock, Allen & Holt, Inc.*

1750 E. BENSON HIGHWAY • TUCSON, ARIZ. 85714 - 1798

Telephone (602) 746-1451 • Cable KAYPIN • Telex 66-6457 (WUI)

June 5, 1984

Mr. David DuBois  
c/o Michael R. Dill  
208 N. Shoshone  
Flagstaff, AZ 86001

Dear Mr. DuBois:

Enclosed are articles relating to the Congress Mine that we discussed on the telephone. We were able to locate most of the articles that you mentioned in the University library. Some of the bulletins only had a very short mention of the mine, so we copied what was revelant by hand (exact quotes) and have included them as typewritten notes. I hope that his information will help fill in your knowledge of the property.

If we can be of further assistance, please don't hesitate to call on us.

Yours very truly,

Steve L. Milne, P.E.  
Manager, Underground Mining

SM:eg

Encl.

University of Arizona Technical & Scientific Library  
 U.S.G.S. Bulletin #782  
 1926 - W. Lindgren - Page 5 - (3N. QE 75 B9)

"The two quadrangles here described (Jerome and Bradshaw Mtn. quadrangles) contain the greater part of the workable deposits in Yavapai County. In the adjacent Congress quadrangle, to the west, also in this (Yavapai) County, there are a considerable number of mines, though most of them are now closed. Among these are the Octave and Congress gold mines, which about a decade or two ago were notable producers.

I.C. U.S.G.S. Information Circulars (3N. QE 75 B9)  
 Circulars to #750 only (1977), Want #6991, #69-No, #99-None in file #691-No, #699-No, #91-No

Arizona Bureau of Mines Bulletins (4 Ctr. TN 24 AG)

Bulletin #125 - 1928 - Page 98

Wickenburg - Congress District  
 Location and General Geology ---  
 Mining Activity:

There are two mine producing, both of them old, rich mines.

Vulture Mine ---

Congress Mine -

This mine, near Congress Jct, was also an old bonanza producer. The tailings pile from the old mill is now being reworked on a small scale.

In addition to these two producers, considerable prospect and development work is being conducted by a number of operators.

Bulletin #129 - Not in stacks

Bulletin #137 - Xerox Pages 69, 70, 71, 72, 73  
 1934 (Gold values of \$20.67 per ounce used in bulletin.)

Bulletin #180 - 1969  
Mineral and Water Resources of Arizona

By 1875, most of the placer deposits known in Arizona today had been discovered, and by 1885 the bulk of the placer gold production recorded for this state had been made. In the lode deposits most of the free milling gold was found to be

superficial and, with few exceptions, the deposits were shortly abandoned and mining interests turned to silver and the base metals.

A few large, rich gold deposits were still being found, however, and in 1887 the Congress deposit in the Martinez district, Yavapai County was discovered, and in 1888, development work on the Harquahala gold deposit in the Ellsworth district, Yuma County, was started.

Arizona Mining Journal  
August 1919 - Page 13

Main Library - Special Collections

One paragraph only under heading "Arizona Bureau of Mine Notes"

"The old Congress Mine lived out it's life, made it's money, then died out, and now even the machinery is being dismantled, leaving nothing but the ruins of a place that was a hive of industry but a comparatively few years ago."

Arizona Mining Activities  
December 1919 - Page 30

Huge Plants Being Dismantled

Jack Rosenburg, manager of the Rosenburg & Company of Los Angeles, dealers in mining and pumping machinery, is in Congress Jct. where his firm is dismantling the mine and milling machinery of the Congress, Alvarado, Rincon and Bee Hive mines.

The machinery now being dismantled by Rosenburg & Company is valued at \$1,000,000 and is said to be some of the finest in the state.

Mr. Rosenburg will ship the machinery to his Los Angeles warehouse, except where local sales are made, in which instance the shipment will be made direct from Congress Jct. He has already placed a great quantity of the machinery in this state and he expects to dispose of considerable more before making the final shipment to Los Angeles.

General Land Office  
No. 23709

Mineral Certificate  
No. 246

The United States of America,  
Do hereby certify that the following is a true and correct copy of the  
Mineral Certificate, in pursuance of the provisions  
of the Revised Statutes of the United  
States, Chapter Six, Title Thirty-two,  
and legislation supplemental  
thereto, there have been deposited  
in the General Land Office of the  
United States the Plat and Field  
Notes of survey of the millsite claim  
of the Congress Gold Mining Company  
accompanied by the Certificate of the  
Register of the Land Office at Prescott  
in the Territory of Arizona, whereby  
it appears that in pursuance of  
the said Revised Statutes of the United  
States the said Congress Gold Mining  
Company did on the twenty-eighth  
day of December A. D. 1892, enter and  
pay for said millsite claim, being  
Mineral Entry No. 246, in the series  
of said Office, designated by the  
Surveyor General as Lot No. 40 B,  
known as the Niagara Millsite  
claim, and embracing a portion  
of the unsurveyed public domain  
in the Martinez mining district,  
in the county of Navajo and  
Territory of Arizona, in the District  
of Lands subject to sale at Prescott,  
and according to the returns on  
file in the General Land Office,  
bounded, described and platted  
as follows, with magnetic varia-  
tion fourteen degrees and twenty

minutes east.

Beginning at corner No. 1, a granite rock 20x14x12 inches, marked J. M. N. M. S. No. 1, with mound of stones, from which U. S. Mineral monument No. 1 bears south eighty-two degrees and forty-four minutes west seven thousand one hundred and sixty feet distant; and Initial monument No. 1 marking east center end of Niagara mining claim bears south fifty degrees and forty-five minutes west four thousand five hundred and eighty-five feet distant.

Thence, first course, south one degree east four hundred and ninety feet to corner No. 2.

Thence, second course, north eighty-five degrees west two hundred and seventy feet to center of Martinez creek; four hundred and forty feet to corner No. 3.

Thence, third course, north one degree west four hundred and ninety feet to corner No. 4.

Thence, fourth course, south eighty-five degrees east three hundred feet to center of said creek; four hundred and forty feet to corner No. 1, the place of beginning said lot No. 40 B, containing four acres and ninety-five hundredths of an acre of land more or less.

Now known, that the United States of America, in consideration of the premises and in conformity with said Revised Stat

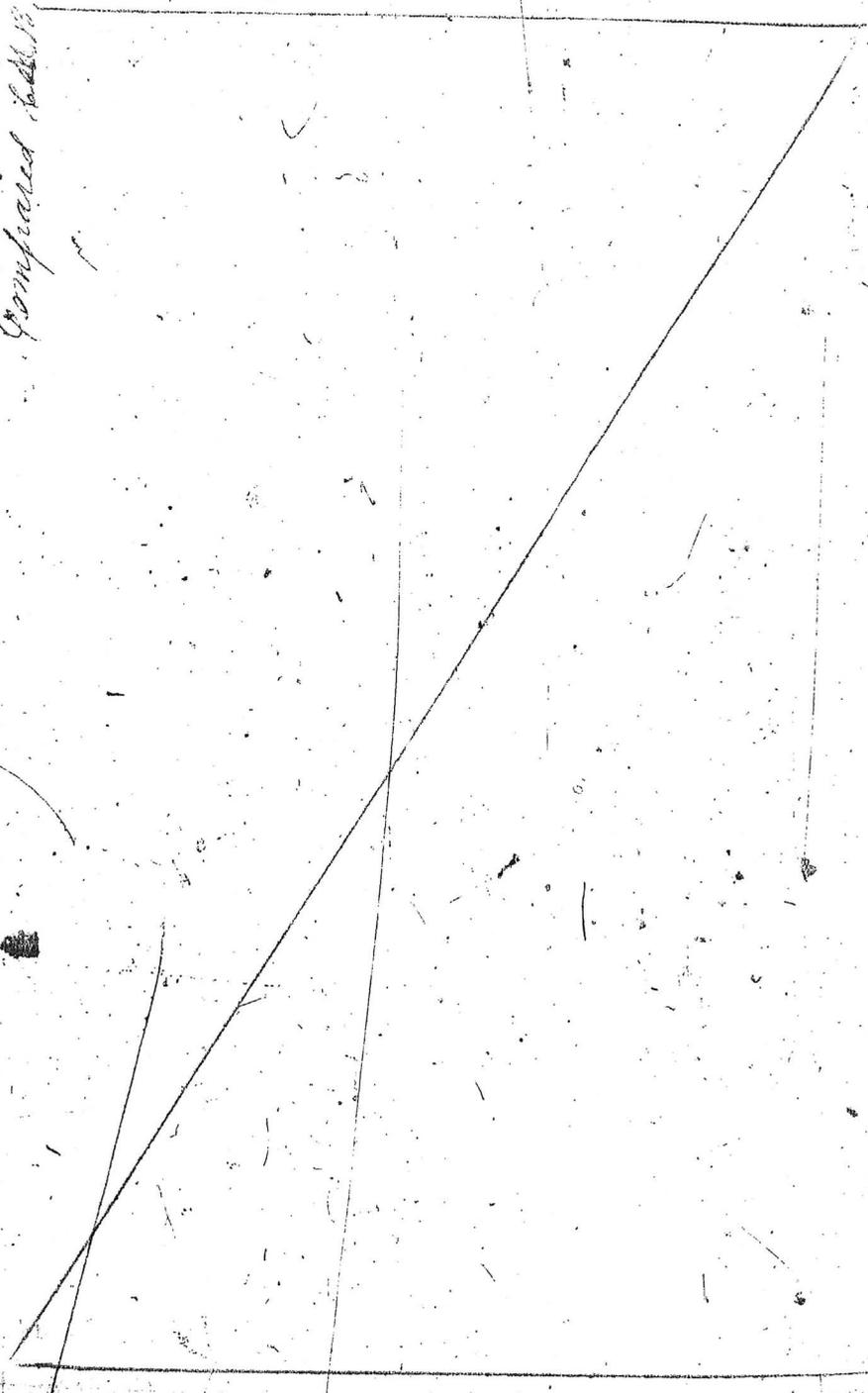




By the President James Cleveland  
By: W. McKeen  
Secretary

L. G. Lamar  
Recorder of the General Land Office

Compared with



That we have also located in connection <sup>22</sup>  
with the said Mill Site herein Five hundred  
inches miners measure of the water of this  
Water under and in accordance with the  
laws of the Territory of Arizona regulating  
the location and possession of water rights

The dimensions of the ditch for di-  
verting the water from its natural  
course at the head being ~~being~~ as fol-  
lows: 25 Inch wide at top, 25 Inch  
wide at bottom, 25 Inches in depth  
with a uniform grade of  
to the road.

Dated on the ground this 12<sup>th</sup> day of  
November 1888.

Witness: Congress Gold Mining Co  
Arthur Drapeau. By J. M. Murphy  
Supt.

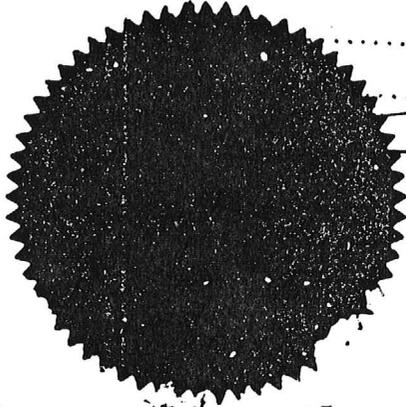
Recorded at request of J. M. Murphy Nov.  
13<sup>th</sup> A. D. 1888 at 4.55 o'clock P. M. in Book  
2 of Mill Sites & Water Rights, pages  
16 & 17. Records of Navapai County, Arizona.  
E. J. F. Horne  
County Recorder.

Territory of Arizona, }  
County of Yavapai. } ss.

23

I, E. J. F. Horne County Recorder, in and  
for the County of Yavapai, in the Territory of Arizona, and Custodian of the Records

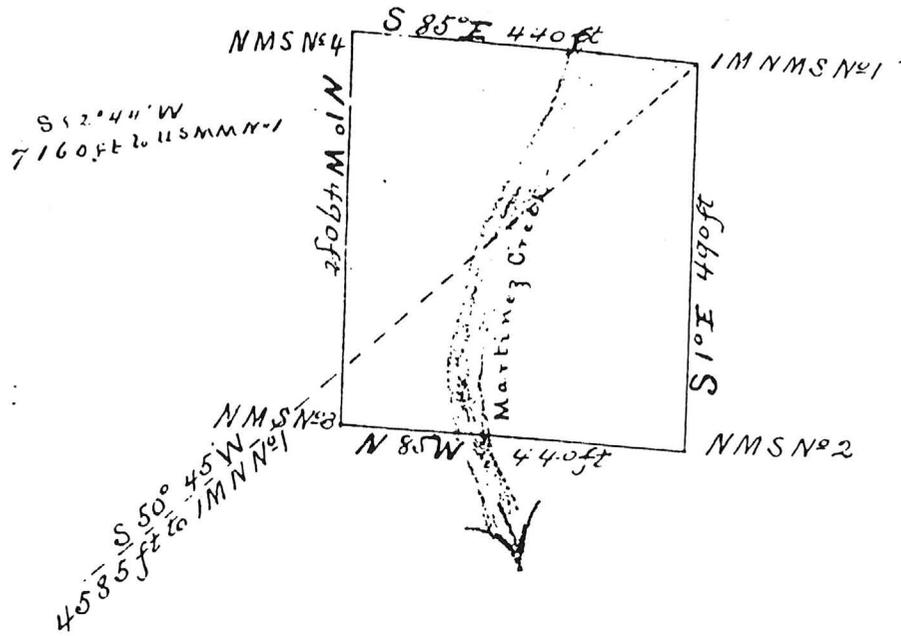
thereof, do hereby certify that I have compared the above and foregoing with, and the  
same is a full, true and correct copy of the original Location Notice  
of the "Niagara" Mill Site and Water Right  
claim, situate, lying and being, in the  
Martinez Mining District in Yavapai Co.  
Arizona Territory; as the same appears of  
record in this office



Given under my hand and seal of office this 13<sup>th</sup>  
day of December A. D. 1888.

E. J. F. Horne  
County Recorder.  
Yavapai Co. A. T.

Partied Copy



Plot of the  
*Niagara Mill Site Claim.*

Situated in Maricopa Mining Dist Yavapai County  
 ARIZONA  
 CLAIMED BY

*Congress Gold Mining Co.*

SURVEYED BY *U. B. Foster U.S.D.S. JAN 11 1885*

Contains *4* <sup>95</sup> acres.

Scale 200 ft to 1 inch      *Var 14° 20' E*

(4-687.)

# Surveyor General's Certificate of Approval of Field Notes and Survey of Mining Claim.

Department of the Interior,

Office of U. S. Surveyor General,

*Queson A. J.*

*June 24<sup>th</sup> 1889.*

I, U. S. Surveyor General for *Arizona*

do hereby certify that the foregoing and hereto attached Field Notes and Return of the  
Survey of the Mining Claim of *and mill site*

*Congress Gold Mining Co.*

, known as the

*Niagara & mill site*

situate in *Martinez* mining district.

*Yavapai* County, *Arizona*

in Section \_\_\_\_\_, Township No. \_\_\_\_\_, Range No. \_\_\_\_\_

\_\_\_\_\_ designated as Survey No. \_\_\_\_\_

executed by *C. B. Foster* U. S. Deputy Mineral

Surveyor, *January 14<sup>th</sup> 1889*, under my instructions dated

*Dec 19<sup>th</sup> 1889*, have been critically examined and the

necessary corrections and explanations made, and the said Field Notes and Return, and

the Survey they describe, are hereby approved. A true copy of the copy of the location

certificate filed by the applicant for survey is included in the field notes.

*John Hise*  
*Arizona*

U. S. Surveyor General for



Oct. 19, 1984

Dear Mr. Gill,

Enclosed find the maps and field notes for Niagara Millsite that we found at the B. L. M. According to the assors office in Prescott Mr. Jaquays owns only the mineral on this millsite, two other parties own the surface rights. Mr. Jaquays was sent the tax bill about two weeks ago. I am sending a copy of the tax sheet.

If we can be any further help just give us a call.

Thank you,

*Dani Garrity*

Dani Garrity

## PLAT

OF THE

*Niagara*

MILL-SITE CLAIM.

*Martinez* Mining District,*Yavapai* County,

ARIZONA.

Claimed by *Congress Gold Mining Co*Located *November 12<sup>th</sup> 1888*Surveyed by *C. B. Foster* U. S. D. S.*January 14<sup>th</sup> 1889*Containing an Area of *4.95* Acres.

Scale 200 feet to the inch.

Variation *14° 20'* East.

The original Field Notes of the Survey of the

*Niagara* mill-site Claim from which this plat has been made, have been examined and approved and are on file in this office; and I hereby certify that they furnish such an accurate description of said mill-site Claim as will, if incorporated into a patent, serve fully to identify the premises; and that such reference is made therein to natural objects and permanent monuments, as will perpetuate and fix the locus thereof.

I further certify that the value of the labor and improvements upon the *Niagara* Mining Claim, placed thereon by the applicants and their grantors is not less than five hundred dollars, and that said mill-site is claimed in connection with said mining claim.

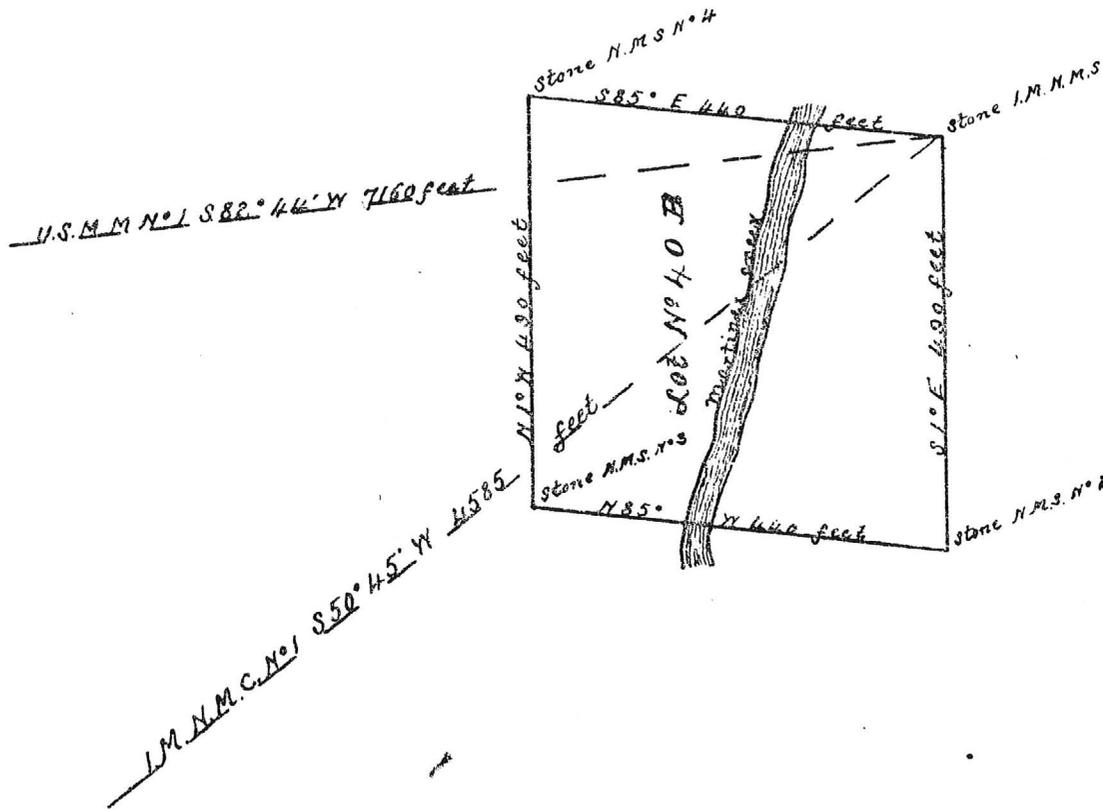
And I further certify that said mill-site is upon non-mineral ground and that this is a correct plat of said mill-site claim or premises, made in conformity with said original field-notes of survey thereof.

*John Wise*  
U. S. Surveyor General for Arizona.

U. S. Surveyor General's Office,  
Tucson, Arizona,

12-21-93  
23702  
cat No.

181 No. ME 246 P.



(4-683.)

Mineral Survey No. 880

Lot No. 40 H. & B.

Pracash, Land District.

FIELD NOTES

OF THE SURVEY OF THE <sup>mill site</sup> MIXING CLAIM OF  
Covycras Esed Mining Co.

KNOWN AS THE

Niagara mine and mill site  
Martinez Mining District.

Yavapai County, Arizona  
Section Township Range

Surveyed under instructions dated Dec 19<sup>th</sup> 1888.

by C. B. Foster  
U. S. Deputy Mineral Surveyor.

Claim located Oct 18<sup>th</sup> 1887 and Nov 12<sup>th</sup> 1888.  
Survey commenced January 14<sup>th</sup> 1889.  
Survey completed January 14<sup>th</sup> 1889.

# FINAL OATHS FOR SURVEYS.

## LIST OF NAMES.

A list of the names of the individuals employed by C. B. Foster  
 United States Deputy Mineral Surveyor, to assist in running, measuring, and marking the lines  
 corners and boundaries described in the foregoing field notes of the survey of the mining claim  
 of Congress Gold Mining Company  
 known as the Niagara Mill Site  
 and showing the respective capacities in which they acted.

- Thos Woodlock ..... Chairman.
- W. E. Baker ..... Chairman.
- Jos Bishop ..... Assn.
- ....., Flagman.

## FINAL OATHS OF ASSISTANTS.

We Thos Woodlock & W. E. Baker  
 and Jos Bishop ..... do solemnly swear that we assisted  
C. B. Foster United States Deputy Mineral Surveyor, in marking the corners and  
 surveying the boundaries of the mining claim of Niagara Mill Site

Congress Gold Mining Company  
 known as the Niagara Mill Site ..... represented

in the foregoing field notes as having been surveyed by said deputy mineral surveyor and under  
 his direction; and that said survey has been in all respects, to the best of our knowledge and  
 belief, faithfully and correctly executed, and the corner and boundary monuments established  
 according to law and the instructions furnished by the United States Surveyor-General for

Arizona

- Thos Woodlock ..... Chairman.
- W. E. Baker ..... Chairman.
- Jos Bishop ..... Assn.
- ....., Flagman.

C. B. Foster

Subscribed and sworn to by the above-named persons before me  
 this 16 day of January 1887

C. B. Foster  
 Notary Public

# Non-Mineral Affidavit.

TERRITORY OF ARIZONA, }  
County of Yavapai } ss.

H. N. Palmer and Wm O Harrell of said

County and Territory, being first duly sworn, each for himself and not one for the other, deposes and says

that he is well acquainted with the land of the Niagara mill-site claim

situated in Martinez Mining District

Gila and Salt River Meridian, in the County of Yavapai and Territory of Arizona, claimed

by Congress Valid Mining Company appli-

cant taken in connection with the Niagara Mining claim for United States patent therefor; that he is well acquainted with the character of said described

land included within the boundary lines as officially surveyed by C. B. Foster,

United States Deputy Surveyor, having frequently passed over the same; that his knowledge of such land

is such as to enable him to testify understandingly with regard thereto; that there is not to his knowledge

within the limits thereof any vein or lode of quartz or other rock in place bearing gold, silver, cinnabar

lead, tin or copper or any deposit of coal; that there is not within the limits of said land, within his

knowledge, any placer, cement, gravel or other gravel mineral deposits; that no portion of said land is

claimed under the local customs or rules of miners or otherwise; that no portion of said land is worked

for minerals during any part of the year by any person or persons; that said land is essentially non-min-

eral land, and that there is within the boundaries of said claim improvements, to-wit:

1 Shaft and buildings also road grades

exceeding in value five hundred dollars,

and that he has no interest whatever in said described mill-site claim.

H. N. Palmer  
Wm O Harrell

SUBSCRIBED AND SWORN to before me this 9<sup>th</sup> day of

February A. D. 1889; and I hereby certify that the foregoing

affidavit was read to the said H. N. Palmer and

W. O. Harrell previous to their names being subscribed thereto, and

that deponents are reputable persons to whose affidavits full faith and credit should

be given.

Chas. A. Randall  
Notary Public  
Yavapai County  
Ariz.

# Niagara-- Mill Site

Location notice of the Mill Site. Claim  
and Water Right.

Know all men by these Presents:  
That the undersigned have this day located  
a Mill Site, for the purpose of erecting  
suitable works for reducing the ores of  
the Niagara Mining claim situated in  
Martinez Mining District of Yavapai County,  
Arizona Territory. The exterior boundaries  
of said Niagara Mill Site claim are as  
follows viz:--

Commencing at a monument of stone  
at N.E. corner of claim, and running  
thence in a westerly direction,  $466\frac{1}{2}$  feet  
to monument of stone at N.W. corner of  
claim, thence in a southerly direction  
 $466\frac{1}{2}$  feet to monument of stone at S.  
W. corner of claim, thence in an easter-  
ly direction  $466\frac{1}{2}$  feet to monument  
of stone at S.E. corner of claim, thence  
in a northerly direction,  $466\frac{1}{2}$  feet to  
monument of stone at N.E. corner of  
claim and place of beginning

This location may be more generally de-  
scribed as being situated about one mile  
in a North Easterly direction from the  
Congress Mining claim and about one  
mile in a northerly direction from the  
Piedmont Battle Company's House on  
Martinez creek and south from what is  
known as the Congress Mill Site on same  
creek.



*Pincock, Allen & Holt, Inc.*

1750 E. BENSON HIGHWAY • TUCSON, ARIZ. 85714 - 1798

Telephone (602) 746-1451 • Cable KAYPIN • Telex 66-6457 (WUI)

June 5, 1984

*DAVID - Please  
PAY them  
\$3000  
MLG*

Mr. Richard L. Guyton  
201 Park Avenue South  
New York, NY 10002

Dear Mr. Guyton:

Enclosed is our invoice for the preliminary evaluation of the Congress Mine in the amount of \$3,000 (ref: PAH Project No. 517.00). The invoice covers all labor and travel expense for travelling to the site and issuing our report. The report was sent to you during May and we have terminated any further work on the project until we here from you or your partners.

As you can see from the invoice, we overran our estimate by \$421.30. However, we have reduced the invoice to the \$3,000 amount authorized in your letter of April 17, 1984. Your prompt attention to this invoice will be appreciated.

We appreciate the opportunity to assist you and your partners in the evaluation of your mineral assets and look forward to being of service in the future.

Yours very truly,

Steve L. Milne, P.E.  
Manager, Underground Mining

SM:eg

Encl.



*Pincock, Allen & Holt, Inc.*

A MEMBER OF THE MATTHEW HALL GROUP  
Please mail payments to our  
Accounts Receivable Dept.  
P. O. Box 29998 Phoenix, Arizona 85038-0998

INVOICE

Date: May 31, 1984

Mr. Richard L. Guyton  
201 Park Avenue South  
New York, NY 10002

Terms: Net Cash on Receipt of Invoice

Invoice No. 05094-517.00

May 1984

Professional Services, Congress Mine Evaluation:

S. Milne	0.5000 Days @	\$ 700.00	\$ 350.00
J. Riddle	4.2500	660.00	2,805.00
Typist/clerical	2.0000 Hours @	20.00	40.00
Subtotal			----- 3,195.00
Expenses per attached schedule			226.30 -----
Subtotal, labor and expenses			3,421.30
Less budget adjustment			(421.30) -----
TOTAL AUTHORIZED NOT-TO-EXCEED INVOICE			\$ 3,000.00 =====

This bill is due and payable and becomes past due if not paid within 30 days of invoice date.  
A late charge will be made for all accounts past due at 1½% per month, annual rate of 18%.

EXPENSE SCHEDULE

Invoice Number: 05094-517.00

Month: May 1984

Printing Charges

Photocopies	\$	1.92	
Paper prints (blueline, blackline)			
Sepia prints			
Sensitized Mylar (Diaz)			
Outside sources			
		-----	1.92

Computer Charges

IBM 5120  
IBM 5100; HP 9845  
    Data processing  
    Program development  
HP 9825  
    Data processing  
    Program development  
VAX  
DEC  
Timesharing  
Connect Charges  
Plotter; Digitizer  
Disc drive  
Printer  
Tapes

Miscellaneous

Travel expenses per schedule	108.39	
Telephone & Telex	5.49	
Local transportation	110.50	
Project supplies		
Postage & Freight		
Miscellaneous		224.38
	-----	-----

TOTAL EXPENSES

\$ 226.30  
=====

TRAVEL EXPENSE SCHEDULE  
Invoice Number 05094-517.00  
Month: May 1984

ITEMIZED BY EMPLOYEE  
-----

Air Fare

\$

Meals and Lodging

S. Milne

81.01

Auto Expense

S. Milne

15.00

Miscellaneous

S. Milne

12.38

12.38

TOTAL TRAVEL EXPENSES

\$ 108.39  
=====

Hamm

CONGRESS (f) 86435500



CONGRESS (f)

# Office of State Mine Inspector

705 West Wing, Capitol Building  
Phoenix, Arizona 85007  
602-255-5971

STATE MINE INSPECTOR

OCT 7 1985

## NOTICE TO ARIZONA STATE MINE INSPECTOR

In compliance with Arizona Revised Statute Section 27-303\*, we are submitting this written notice to the Arizona State Mine Inspector (705 West Wing, Capitol Building, Phoenix, Arizona 85007) of our intent to start/stop (please circle one) a mining operation.

COMPANY NAME Echo Bay Exploration Inc.

CHIEF OFFICER Mr. John Zigarlick, Jr.

COMPANY ADDRESS 14618 W. 6th Ave., Suite 221, Golden, CO. 80401

COMPANY TELEPHONE NUMBER 303-278-3662

MINE OR PLANT NAME Congress Project

MINE OR PLANT LOCATION (including county and nearest town, as well as directions for locating by vehicle)

T. 10 N., R. 6 W., Yavapai Co., AZ.; two miles north  
of the town of Congress on Ghost Town Rd.

TYPE OF OPERATION Exploration PRINCIPAL PRODUCT Gold

STARTING DATE Oct. 21, 1985 CLOSING DATE Jan. 31, 1986

DURATION OF OPERATION 3 months

PERSON SENDING THIS NOTICE Christopher E. Herald

TITLE OF PERSON SENDING THIS NOTICE Senior Geologist

DATE NOTICE SENT TO STATE MINE INSPECTOR October 4, 1985

RECEIVED
NOV 20 1985
DEPT. OF MINES & METALLURGICAL RESOURCES

\*A.R.S. Section 27-303 NOTIFICATION TO INSPECTOR OF BEGINNING OR SUSPENDING OPERATIONS: When mining operations are commenced in any mine or when operations therein are permanently suspended, the operator shall give written notice to the inspector at his office prior to commencement or suspension of operations.



*Pincock, Allen & Holt, Inc.*

1750 E. BENSON HIGHWAY • TUCSON, ARIZ. 85714 - 1798

Telephone (602) 746-1451 • Cable KAYPIN • Telex 66-6457 (WUI)

June 7, 1985

Mr. David Dubois  
c/o Mr. Michael R. Dill  
208 North Shoshone  
Flagstaff, Arizona 86001

Dear Mr. Dubois:

Please find enclosed our May 1985 invoice in the amount of \$552.29 for consulting services rendered on the Congress Mine (Ref. PAH Project 586.00).

The invoice represents time spent by Mr. Riddle and myself in meetings with you and your representatives here in Tucson and some drafting requested by Mr. Guyton.

At Mr. Guyton's request we are presently assembling data from old reports on the district onto a composite map to indicate where potential reserves might be located. I understand that some additional information is being compiled and will be sent down for incorporation into the map.

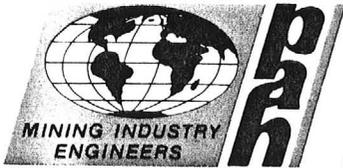
If you have any questions regarding the invoice or on the work currently in progress please let me know.

Yours Very Truly,

Steve L. Milne,  
Manager, Underground Mining

SLM/me

Enclosure



**Pincock, Allen & Holt, Inc.**

A MEMBER OF THE MATTHEW HALL GROUP  
 Please mail payments to our  
 Accounts Receivable Dept.  
 P. O. Box 29998 Phoenix, Arizona 85038-0998

INVOICE

Date: May 31, 1985

Mr. David Dubois  
 c/o Mr. Michael R. Dill  
 208 North Shoshone  
 Flagstaff, AZ 86001

Terms: Net Cash on Receipt of Invoice

Invoice No. 05751-586.00

May 1985

Professional Services, Congress Mine Joint Venture:

Cruz, L.	0.1250 Days @	\$ 224.00	\$ 28.00
Milne, S.	0.3750	720.00	270.00
Riddle, J.	0.2500	680.00	170.00
Taylor, R.	0.3125	224.00	70.00
Subtotal			----- 538.00

Expenses:

Photocopies	1.44	
VAX Computer	12.85	14.29
	-----	-----
TOTAL INVOICE		\$ 552.29
		=====

*paid Oct 4, 1985 → \$ 2835.10*  
*Y2*  
*Total = \$ 1417.55*  
*paid 12-5-85 remaining balance*  
*paid 3/19/86 - \$ 14500*

This bill is due and payable and becomes past due if not paid within 30 days of invoice date.  
 A late charge will be made for all accounts past due at 1½% per month, annual rate of 18%.



**Pincock, Allen & Holt, Inc.**

1750 E. BENSON HIGHWAY • TUCSON, ARIZ. 85714-1798  
Telephone (602) 746-1451 • Cable KAYPIN • Telex 66-6457 (WUI)

July 8, 1985

Mr. David DuBois  
c/o Mr. Jack Mirnet  
P.O. Box H  
DuBois, Pennsylvania 15801

Dear Mr. DuBois:

Please find enclosed our June 1985 invoice in the amount of \$1,690.21 for consulting services rendered on the Congress Mine (Ref. PAH Project No. 586.00).

The invoice represents time spent by Mr. Riddle and myself reviewing old reports on the Congress Mine and plotting information from these reports regarding possible ore reserves on a map of the Congress/Niagara workings developed for this purpose. The invoice also includes time spent in a meeting here in our offices with yourself, Mr. Jordan and Mrs. DuBois and the subsequent summary report that was issued.

Our records indicate that there is an outstanding balance due in the amount of \$1,066.34 for prior work on this project. We would appreciate your remittance of this balance with the current invoice amount.

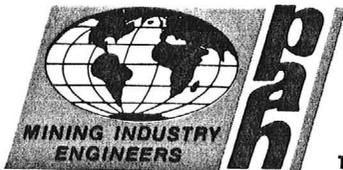
If you have any questions regarding the current invoice or the past due balance, please let me know.

PAH appreciates the opportunity to assist you and your partners with the Congress Mine negotiations and look forward to being of service as your needs dictate.

Yours Very Truly,

Steve L. Milne, P.E.  
Manager, Underground Mining

SLM/me



*Pincock, Allen & Holt, Inc.*

1750 E. BENSON HIGHWAY • TUCSON, ARIZ. 85714 - 1798

Telephone (602) 746-1451 • Cable KAYPIN • Telex 66-6457 (WUI)

August 7, 1985

Mr. David DuBois  
c/o Mr. Jack Mirnet  
P.O. Box H  
DuBois, Pennsylvania 15801

Dear Mr. DuBois:

Please find enclosed our July 1985 invoice in the amount of \$78.55 (Ref. PAH Project No. 586.00). The invoice represents one hour of drafting and two hours of clerical time, along with some miscellaneous expenses that did not get included in last months invoice. I have checked with our accounting and there does not appear to be any other outstanding charges related to this project other than the May and June invoices which total \$2,756.55. To date we have not received payment for this amount.

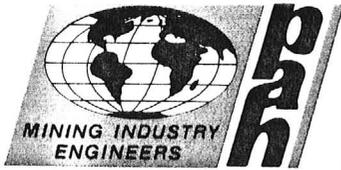
PAH would appreciate your prompt attention to the overdue balance and current invoice.

If you have any questions regarding the current invoice(s) please feel free to contact myself or Mr. Riddle here in Tucson.

Yours Very Truly,

Steve L. Milne, P.E.  
Manager, Underground Mining

SLM/bjc



*Pincock, Allen & Holt, Inc.*

A MEMBER OF THE MATTHEW HALL GROUP  
 Please mail payments to our  
 Accounts Receivable Dept.  
 P. O. Box 29998 Phoenix, Arizona 85038-0998

INVOICE

Date: July 31, 1985

Mr. David DuBois  
 c/o Mr. Jack Mirnet  
 P. O. Box H  
 DuBois, Pennsylvania 15801

Terms: Net Cash on Receipt of Invoice

Invoice No. 05834-586.00

July 1985

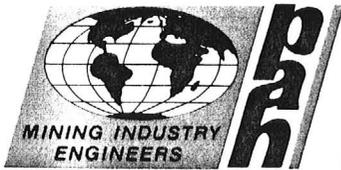
Professional Services, Congress Mine Joint Venture:

Cruz, L.	0.1250 Days @	\$ 224.00	\$ 28.00
Elliott, M.	0.2500	168.00	42.00
			-----
Subtotal			70.00

Expenses:

VAX Computer	8.07	
Project Supplies	.48	8.55
	-----	-----

TOTAL INVOICE	\$ 78.55
	=====



**Pincock, Allen & Holt, Inc.**

A MEMBER OF THE MATTHEW HALL GROUP

Please mail payments to our  
Accounts Receivable Dept.

P. O. Box 29998 Phoenix, Arizona 85038-0998

INVOICE

Date: June 28, 1985

Mr. David Dubois  
c/o Mr. Michael R. Dill  
208 North Shoshone  
Flagstaff, AZ 86001

Terms: Net Cash on Receipt of Invoice

Invoice No. 05800-586.00

~~June 1985~~

Professional Services, Congress Mine Joint Venture:

Elliott, M.	0.1875 Days @	\$ 168.00	\$ 31.50
Fretz, J.	0.0625	520.00	32.50
Milne, S.	0.2500	720.00	180.00
Riddle, J.	1.2500	680.00	850.00
Taylor, R.	2.4375	224.00	546.00

Subtotal 1,640.00

Expenses per attached schedule 50.21

TOTAL INVOICE \$ 1,690.21

This bill is due and payable and becomes past due if not paid within 30 days of invoice date.  
A late charge will be made for all accounts past due at 1½% per month, annual rate of 18%.

EXPENSE SCHEDULE

Invoice Number: 05800-586.00  
Month: June 1985

Printing Charges

Photocopies	\$	3.52	
Paper prints (blueline, blackline)		1.75	
Sepia prints			
Sensitized Mylar (Diaz)			
Outside sources			5.27
		-----	

Computer Charges

IBM 5120			
IBM 5100; HP9845			
Data Processing			
Program development			
IBM PC			
VAX		36.28	
DEC			
Timesharing			
Connect Charges			
Plotter; Digitizer			
Disc drive			
Printer			
Tapes			36.28
		-----	

Miscellaneous

Travel expenses per schedule			
Telephone & Telex		8.66	
Local transportation			
Project supplies			
Postage & Freight			
Miscellaneous			8.66
		-----	-----

TOTAL EXPENSES

\$ 50.21  
=====



*Pincock, Allen & Holt, Inc.*

1750 E. BENSON HIGHWAY • TUCSON, ARIZ. 85714 - 1798

Telephone (602) 746-1451 • Cable KAYPIN • Telex 66-6457 (WUI)

April 4, 1985

Mr. David Dubois  
c/o Mr. Michael R. Dill  
208 North Shoshone  
Flagstaff, Arizona 86001

Dear Mr. Dubois:

Please find enclosed our March 1985 invoice in the amount of \$912.50 for consulting services rendered toward your possible joint venture agreement with Echo Bay on the Congress Mine near Wickenburg, Arizona. (Ref. PAH Project No. 586.00).

The invoice represents time expended by the listed engineers in meetings in our office during the billable month.

When you and your partners have come to an agreement on the route you wish to proceed with, we would be pleased to assist you in formulating your most advantageous options for presentation to Echo Bay Mining.

If you have any questions regarding the invoice or need additional information regarding your alternatives, please feel free to contact us here in Tucson.

PAH appreciates the opportunity to assist you and your partners in the evaluation and development of your mineral assets and look forward to being of service in the future.

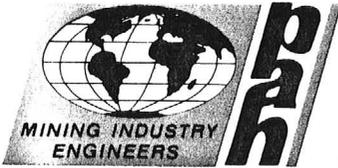
Yours Very Truly,

Steve L. Milne, P.E.  
Manager, Underground Mining

SLM/me

Enclosure

*PAH #400.00  
April 11, 1985*



**Pincock, Allen & Holt, Inc.**  
 A MEMBER OF THE MATTHEW HALL GROUP  
 Please mail payments to our  
 Accounts Receivable Dept.  
 P. O. Box 29998 Phoenix, Arizona 85038-0998

INVOICE

Date: March 31, 1985

Mr. David Dubois  
 c/o Michael R. Dill  
 208 N. Shoshone  
 Flagstaff, Arizona 86001

Terms: Net Cash on Receipt of Invoice

Invoice No. 05641-586.00

March 1985

Professional Services, Congress Mine Joint Venture:

Milne, S.	0.6250 Days @	\$ 720.00	\$ 450.00
Riddle, J.	0.3125	680.00	212.50
Winters, H.	0.2500	1,000.00	250.00
			-----
Subtotal			912.50

Expenses:

VAX Computer			1.55
			-----

TOTAL INVOICE \$ 914.05  
 =====

This bill is due and payable and becomes past due if not paid within 30 days of invoice date.  
 A late charge will be made for all accounts past due at 1½% per month, annual rate of 18%.

# ECHO BAY MINES LTD.

14618 WEST 6TH AVE., SUITE 221  
GOLDEN, COLORADO 80401  
TELEPHONE: (303) 278-3662

CHRISTOPHER E. HERALD  
SENIOR GEOLOGIST  
U.S. EXPLORATION

March 1, 1985

Mr. Leo Crowley  
Attorney at Law  
Post Office Box 1928  
Flagstaff, AZ 86002

Dear Leo:

Attached are some of my thoughts for putting a Joint Venture together on the Congress Property. It's not written in any kind of legal language, but it should make a good starting point for us. It's structured very similarly to the Magic Circle agreement. Naturally, the numbers we're talking about with you are less than our agreement called for with Magic Circle because they had expended over \$4,000,000 on the property and had delineated a significant reserve before our participation. Gold was also selling at \$370/oz., or nearly 30 percent more than today's current price. However, the expenditure amounts I'm suggesting to you are substantial and will go a long way to putting the property into production.

The \$250,000 expenditure commitment will be adequate to discover new orebodies, if they exist. The Phase II commitment of \$500,000 will be sufficient to delineate the size and dimensions of a new orebody. The Phase III expenditure of \$1,250,000 should be enough to go underground and start some development.

Most important, however, because it sounds as if the DuBois Partnership really want to actively participate in mining on the property, it gives the Partnership good flexibility to remain an active participant, not usually included in mining agreements. In my opinion, this carried interest mentioned in 4-A makes this agreement exceptionally attractive.

This proposal is strictly my own Leo. I believe it would be acceptable to Echo Bay's management; certainly I would push for it. The numbers I've proposed are substantial with a concrete time schedule.

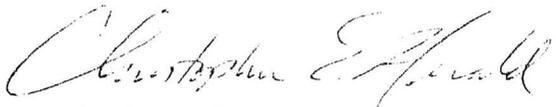


REC'D MAR 4 1985

Mr. Leo Crowley  
March 1, 1985  
page two

After reviewing these numbers, please give me a call with your thoughts. If we can come to some early understanding, a Letter of Intent can be drafted and we can start looking for ore!

Best regards,

A handwritten signature in cursive script, reading "Christopher E. Herald".

Christopher E. Herald

Att.

# ECHO BAY MINES LTD.

14618 WEST 6TH AVE., SUITE 221  
GOLDEN, COLORADO 80401  
TELEPHONE: (303) 278-3662

CHRISTOPHER E. HERALD  
SENIOR GEOLOGIST  
U.S. EXPLORATION

February 1, 1985

Mr. Leo Crowley  
510 N. Humphreys St.  
P.O. Box 1928  
Flagstaff, Arizona 86002

Dear Leo:

Good talking to you yesterday and am hopeful we can get the Congress property going. Enclosed is the materials sent to Mike Dill. It was my understanding that he was communicating with everyone, obviously I was misinformed. I like your idea about pursuing a joint venture type of arrangement. You potentially can make far more money, and we cut our risk. Please talk to David at your earliest possible convenience and try and formulate a proposal with specific numbers for us to consider. Please make them realistic, I can assure you that if they are, we will proceed quickly.

As a little promotion for us: 1. Our geologists have worked on the property for seven months and are probably the best people to find new ore on your property; 2. Echo Bay has excellent technical expertise in underground mining and would make good partners; 3. Echo Bay also has the financial strength to undertake such a capital intensive project. Let's get this project going before it gets too hot down there. As I said in my letter to Mike, we're not out to get your property for nothing, only to see the mine go profitably into production.

Best regards,

*Christopher E. Herald*

Christopher E. Herald

REC'D FEB 5 1985



# ECHO BAY MINES LTD.

14618 WEST 6TH AVE., SUITE 221  
GOLDEN, COLORADO 80401  
TELEPHONE: (303) 278-3662

CHRISTOPHER E. HERALD  
SENIOR GEOLOGIST  
U.S. EXPLORATION

DECEMBER 3, 1984

Mr. Mike Dill  
824 Mesa Trail  
Flagstaff, Arizona 86001

Dear Mike:

I've enclosed some figures on mining costs, backup material for these mine costs, mining methods and an analysis of anticipated cash flow at various gold prices at the Congress Property. This analysis is rough, but should be close to reality.

The numbers do not look to encouraging (from Echo Bay's perspective) until gold goes over \$500 per ounce. The NSR offer we have made is generous, especially when considering that gold is now selling around \$330 per ounce, and we are guaranteeing a substantial advanced minimum royalty. If you look at the cash flow analysis your percentage of the profits ranges from 100% to 15%, which is extremely generous.

Please consider our offer carefully. We are not out to steal your property and reap windfall profits while you receive nothing. I think your idea about "shopping around" for offers is excellent, because I firmly believe our offer will prove to be the best. However, a note of caution, the attention span of senior management is limited, and although you may feel time is on your side, I can assure you that it is not. When you reach the conclusion that our offer is not only reasonable, but will net you the most money (BY FAR) for your property, give me a call. I really want to see this property go into production and believe Echo Bay is the best company with the best people to make it happen.

Merry Christmas,

With best regards,



Christopher E. Herald



CONGRESS GOLD MINE PROJECT

ASSUMPTIONS: ECHO BAY FINDS NEW ORE RESERVES OF 350,000 TONS AT A GRADE OF 0.300 OUNCES PER TON GOLD; THE DISCOVERY IS MADE IN 1985; ECHO BAY GOES UNDERGROUND IN 1986 AND DEVELOPES THE UNDERGROUND IN 1987; PRODUCTION RATE OF 200 TPD FROM 1988 TO 1992.

CAPITAL COSTS:

MILL (200 TPD)	\$ 2,000,000
PRIMARY UNDERGROUND DEVELOPMENT	4,000,000
MINE EQUIPMENT	2,000,000
SURFACE FACILITIES	1,000,000
	<u>\$ 9,000,000</u>

OPERATING COSTS:

MINING	\$ 55.00 / ton
MILLING	18.00 / ton
ADMINISTRATION	<u>10.00 / ton</u>
TOTAL <u>DIRECT</u> OPERATING COSTS	\$ 83.00 / ton
AMORTIZATION OF CAPITAL COSTS (12% interest over 5 years)	<u>34.00 / ton</u>
TOTAL OPERATING COSTS	\$ 117.00 / ton

DISCUSSION: In order for Echo Bay to break even mining the hypothetical deposit described in the ASSUMPTIONS section above we have to find ore containing more than \$117 value in gold. We haven't even added your Net Smelter Return yet, which will mean we have to find ore that is even richer, or have a higher gold price. Assuming ore will average 0.300 ounces per ton, a ton of ore is worth the following at various gold prices:

@ \$330 gold 1 ton = \$ 99	@ \$500 gold 1 ton = \$150
@ \$400 gold 1 ton = \$120	@ \$600 gold 1 ton = \$180

CASH FLOW

Gold Price	\$350	\$400	\$450	\$500	\$600*	\$700*
Net Smelter Return	2.5%	3.5%	3.5%	5.0%	5.0%	5.0%
Dubois \$ / Ton	\$2.73	\$4.20	\$4.73	\$7.50	\$9.00	\$10.50
Dubois \$ / Year	\$184,000	\$294,000	\$331,000	\$525,000	\$630,000	\$735,000
Echo Bay Profit/Ton	LOSS	LOSS	\$13.27	\$25.50	\$42.00	\$70.50
Echo Bay Profit/Year	LOSS	LOSS	\$929,000	\$1.785 M	\$2.940 M	\$4.935 M
% Dubois / EBM Profit	100%	100%	36%	29%	21%	15%

DISCUSSION:

As can be seen from this rough analysis, Echo Bay will not make a good profit until \$500 gold is seen. But, \$400 to \$500 gold would probably be sufficient to get us started getting ready for production. It also shows that you are guaranteed substantial income that ranges from 100% to 15% of what Echo Bay might realize from your property, a percentage not excessive by anyone's standards.

\*Direct operating costs for gold at \$600 and \$700 was raised 10% from \$117 / ton to \$128.70 / ton because such a rise in the price of gold surely indicates that inflation is rampant and our cost would rise.

BACKUP SOURCES FOR COSTS

CAPITAL COSTS:

MILL: see Paper 1, page 2  
PRIMARY UNDERGROUND DEVELOPMENT: see Paper 2, page 4  
MINE EQUIPMENT: estimate  
SURFACE FACILITIES: see Paper 3

OPERATING COSTS:

MINING: see Paper 4, last page  
MILLING: see Paper 1, page 4  
ADMINISTRATION: \$10/ton is fairly standard figure

Congress

DATE: January 18, 1985  
TO: Mr. F. J. Menzer, Chief Geologist ✓  
FROM: J. A. Waegli, Geologist  
SUBJECT: Arizona Department of Mineral Resources  
List of Flux Properties

In early October, 1984, Mr. John Robertson, Ore Buyer for Phelps Dodge Corporation, requested that the Arizona Department of Mineral Resources (ADMR) compile a list of properties in the state that could produce material grading +80% SiO<sub>2</sub> and +1/3 O/T Au. In response, Mr. Nyal Niemuth, Mineral Resources Specialist with the ADMR, compiled a list of 16 properties (attached) that he feels are capable of producing +70% SiO<sub>2</sub> with \$100.00 metal credits. (He stated that he did not know of any mines capable of meeting Mr. Robertson's criteria.)

November 19-21 were spent in Phoenix examining ADMR files to obtain information on each of the mines. Mr. J. E. DuHamel of Western Exploration screened their files and compiled the resulting information in a memo dated November 27 (attached). Based on his memo, pertinent reports were copied from the Western Exploration files on December 3 and 4.

The following is a listing of these 16 properties arranged in order by quad number. A brief description of each property is given, with information on current activity and a summary of past work conducted by Phelps Dodge Corporation. Recommendations based on information compiled to date are also given. Table 1 summarizes information compiled in this report.

Taking a composite of various reports, it appears that siliceous material from the mine can be expected to run less than 0.1 O/T Au, less than 1.0 O/T Ag, and +1.0% Cu. These grades, combined with an average vein width of 5 feet, and shallow dip, make the property unattractive at current metal prices. Further work does not appear warranted.

2. ALVARADO MINE (Figure 1): Yavapai County, T.10N., R.5W., Sec. 21, AZ 244N

This shallow-dipping, gold-quartz vein was sampled by M. R. Pawlowski, Morenci Branch geologist, in July, 1984. Because of low precious metal values, he concluded that the property is not of interest to the Small Mines Division.

3. CONGRESS MINE (Figure 1): Yavapai County, T.10N., R.6W., Sec. 23, AZ 244

The Congress Mine has exploited several shallow-dipping, gold-quartz veins that are typical of structures in the Congress and Octave districts.

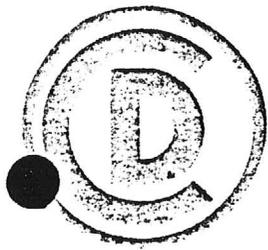
The mine was examined by M. R. Pawlowski, Morenci Branch Geologist, in September, 1983 (see memo dated September 14, 1983). After reviewing drilling data generated by Magic Circle Energy Corporation (property owner), Mr. Pawlowski concluded that probable reserves in the New Niagra ore shoot are 210,000 tons grading 0.416 O/T Au. An exploration/mine development proposal was also formulated (see report dated December 5, 1983), which estimated that \$1.7 million would be required for mine development by a 15% decline and 325-foot ventilation borehole.

Negotiations with Magic Circle proceeded into 1984, but the venture was deemed to be marginal on the basis of known reserves. Meanwhile, Magic Circle was negotiating with other companies and signed a joint venture agreement with Echo Bay Mines of Alberta, Canada in June, 1984. According to Engineering and Mining Journal (August, 1984), Echo Bay planned to spend \$250,000 on drilling by the end of 1984. Additional expenditures of up to \$7.2 million may be made by 1988 for Echo Bay to earn a 51% interest in the property.

Because of the current joint venture agreement between Magic Circle and Echo Bay, the property is not currently available for acquisition.

4. BISHOP (Figure 2): Yavapai County, T.9N., R.4W., Sec. 4, AZ 245

The Bishop is thought to be an eastern extension of the Octave vein. It strikes approximately east-west and dips 25°-35°N. The property has produced a small amount of gold ore.



CONCRETE MINE

64344171

Dave

STATE MINE INSPECTOR

NOV 05 1986

## Centennial Development Company

P.O. BOX 151065  
3808 SOUTH WEST TEMPLE  
SALT LAKE CITY, UTAH 84115  
PHONE (801) 262-2914  
TELEX 3789532

November 3, 1986

- Note phone on card & driving decline at Congress

Mr. James McCutchan  
Arizona State Mine Inspector  
1624 West Adams - Room 208  
Phoenix, Arizona 85007

Gentlemen:

Centennial Development Company will be performing decline and lateral mine development work as an independent contractor for Echo Bay Exploration Inc. The project will be at the Congress Mine approximately three miles north of Congress, Arizona.

Mr. Tim Bracken will be Centennial's project superintendent. At this time a mailing address or phone number for the project has not been established. This information will be forwarded to your office when it is available.

Preliminary on-site work will start November 6, 1986.

If you have any questions or need additional information please let us know.

Sincerely,

CENTENNIAL DEVELOPMENT COMPANY

*Dave Bovee*  
Dave Bovee  
President

DB:ce

cc: Mr. R. C. Phillips  
Mr. Tim Bracken

DEL TIERRA ENGINEERING & MINING CORP.

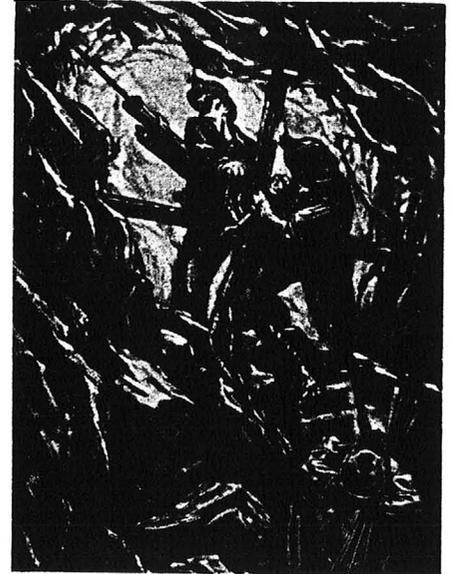
HARVEY W. SMITH, E.M. PRESIDENT

Registered Mining Engineer U.S. Mineral Surveyor  
U.S. Approved Title Abstracter

Member Board of Governors of the Arizona Dept. of Mines & Mineral Resources

4310 North Brown Avenue / Suite 3 Scottsdale, Arizona 85251  
Tel. 602 / 946-3996

October 30, 1986



Reproduction of the Colony  
Rock - 1940s

Tom D. Hoffman

Department of Mines & Mineral Resources  
Fairgrounds, 19th Ave. & McDowell  
Phoenix, AZ 85007

Re: Federal Mine ID No. 02-02340

Gentlemen:

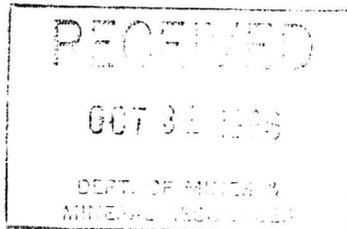
Enclosed is Mining Plan of Operations, Notice of Intent and supporting maps.

These documents have been submitted to the Bureau of Land Management, Phoenix District Office, State Land Department and State Mine Inspector. These are being sent to you for your information.

Sincerely,

Harvey W. Smith, E.M.  
President

HWS/hm  
Enclosures





# United States Department of the Interior

## BUREAU OF LAND MANAGEMENT

Phoenix District Office  
2015 West Deer Valley Road  
Phoenix, Arizona 85027

(602) 863-4464

### NOTICE OF INTENT

Oct. 28, 1986

1. Name and mailing address of claimant and operator. phone number

Claimant Congress Consolidated Gold Mining Co.  
c/o Magic Circle Energy Corp.  
4141 N.W. Expressway  
Oklahoma City, OK 73116 (405) 843-6654

Operator Echo Bay Exploration Inc.  
c/o Del Tierra Engineering  
4310 N. Brown Ave., Ste 3  
Scottsdale, AZ 85251 (602) 946-3996

2. Name of mining claims, legal descriptions (township, range and section) and A.M.C. or M.S. number.

	A MC	Twp.	Range	Sec.
Congress Extension No. 17	68949	10 N.	6 W.	14
Congress Extension No. 38	111192	10 N.	6 W.	14

3. Describe the activities proposed, type of equipment to be used, total surface area to be disturbed and access to claims. Please include a map locating the site on the ground.

Construction of shaft  
Waste and tailings to patented site

4. Will construction or improvement of access involve cuts of 3 feet or more on the inside edge?

No.

5. I will complete reclamation of all disturbed sites during my operations in accordance with 43 CFR 3809.1-3(d) and all reasonable measures will be taken to prevent unnecessary or undue degradation of the Federal lands during operations.

Oct. 28, 1986

Date

  
Signature of Claimant or Operator

For Echo Bay Exploration Inc.

Reference: Title 43 Code of Federal Regulations 3809



E. ACCESS (See attached)

Access to the property is gained by existing roads in the area. The portal of the decline is approximately 100 ft. from present access road.

F. PERSONNEL, VEHICLES, EQUIPMENT

Approximately 10 people will be working in the area of operation during a shift.

The following vehicles and equipment, listed by type and size, will be utilized in this operation:

Type and Size	Location in Area of Operation
Scoop Trams	Decline & dump area
Jumbo Drills	Decline
Generator	Vicinity of portal
Compressor - 750 cfm	" " "
Shop Trailer	" " "
Shower & Dry Trailer	" " "
Office Trailer	" " "
Pick-up trucks, 1/2 ton	" " "

G. DESCRIPTION OF OPERATIONS

Mining Method: Present plans call for sinking a 12' x 15' decline 2,200 feet on 15% grade. Maximum depth will be 3,500 feet.

Beneficiation Method (if on site): Plans not developed yet.

Estimated Mine Life: 5 years

Type and magnitude of the operation: The underground mining operation will be developed after the ore-body is reached at 2,200 ft. depth.

The site for the portal is practically devoid of cover and is level. It is anticipated the portal will be in hard rock with very little concreting necessary.

Waste from the decline will be dumped on the Golden-Thread patented claim.

Centennial Development Co. of Salt Lake City will be the contractor.

H. RECLAMATION MEASURES

Upon conclusion of mining, the portal to the decline will be closed. Any surface disturbance will be recontoured and reseeded if necessary.

I. PERIODS OF NONOPERATION

Periods of nonoperation are not contemplated at this time. However, should this occur, plans will be developed and submitted.

J. COMMENCEMENT OF OPERATIONS

Desired start-up date is: Nov. 15, 1986. (A date not to precede plan approval.)

K. OTHER RULES AND REGULATIONS

Note: Under 43 CFR 3833 all mining claims in Arizona must be filed with the Bureau of Land Management, 2400 Valley Bank Center, Phoenix, Arizona 85073.

The operator should be familiar with the State Mining Codes administered by the Arizona State Mine Inspector, 705 Capitol Tower, Phoenix, Arizona 85007 and regulations administered by the USDI, Mine Safety and Health Administration.

Water is a very limited resource in Arizona making it necessary to record and regulate its use. All mining claimants/operators that plan to use, store, or divert water are required under Arizona statute to file an application or Notice of Intent to drill with the Department of Water Resources prior to the use of the water source. They can be contacted by telephone at (602) 255-1554 or by letter at 99 E. Virginia, Phoenix, Arizona 85004.

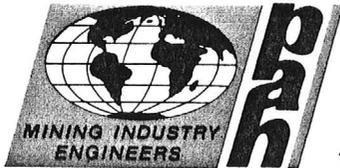
L. ENCLOSURES

- 1. Exhibit A - Map of general area showing mining claims
2. Exhibit B - Operations site map

SUBMITTED BY:

Signature: 

Date: 10/29/86



*Pincock, Allen & Holt, Inc.*

A MEMBER OF THE MATTHEW HALL GROUP

1750 E. BENSON HIGHWAY • TUCSON, ARIZ. 85714 - 1798

Telephone (602) 746-1451 • Cable KAYPIN • Telex 66-6457 (WUI)

October 15, 1986

Mr. David Dubois  
208 North Shoshone  
Flagstaff, Arizona 86001

Dear Mr. Dubois:

Please find enclosed a summary of our invoices for professional services rendered on the Congress Property (Ref. PAH No. 586.00).

We would appreciate settlement of these invoices as soon as possible to avoid any collection expense that may become necessary on our part.

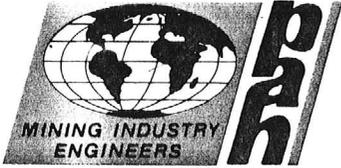
We look forward to receiving payment in the near future and providing guidance on your behalf for an equitable agreement between yourself and potential investors in the Congress property.

If you have any questions or would like to discuss this further, please let me know.

Yours very truly,

Steve L. Milne, P.E.  
Vice President

SLM/me



*Pincock, Allen & Holt, Inc.*

A MEMBER OF THE MATTHEW HALL GROUP

Please mail payments to  
1750 E. Benson Highway  
Tucson, AZ 85714

INVOICE

Date:  
October 15, 1986

David Dubois  
208 N. Shoshone  
Flagstaff, AZ 86001

Terms: Net Cash on Receipt of Invoice

Invoice No.

STATEMENT OF ACCOUNT

DATE	INV NO	JOB NO	AMOUNT INVOICED	AMOUNT PAID	AMOUNT DUE
1/31/86	7017	586.00	\$ 1,053.41	\$ <75.00>	\$ 978.41
2-28-86	7232	586.00	540.00	-0-	540.00
3-31-86	7430	586.00	240.13	-0-	240.13
5-31-86	7807	586.00	821.00	-0-	821.00
9-86	7017	586.00		<100.00>	<100.00>
TOTAL AMOUNT DUE					\$ 2,479.54 =====



*Pincock, Allen & Holt, Inc.*

A MEMBER OF THE MATTHEW HALL GROUP

Please mail payments to  
1750 E. Benson Highway  
Tucson, AZ 85714

INVOICE

Date: August 8, 1986

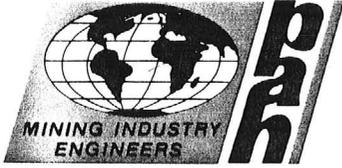
Mr. David Dubois  
208 North Shoshone  
Flagstaff, AZ 86001

Terms: Net Cash on Receipt of Invoice

Invoice No.

STATEMENT OF ACCOUNT

DATE	INV NO	JOB NO	AMOUNT INVOICED	AMOUNT PAID	AMOUNT DUE
1/31/86	7019	586.00	\$ 1,053.41	\$ 75.00	\$ 978.41
2/28/86	7232	586.00	540.00	-0-	540.00
3/30/86	7430	586.00	240.13	-0-	240.13
5/30/86	7807	586.00	821.00	-0-	821.00
TOTAL AMOUNT DUE					\$ 2,579.54



*Pincock, Allen & Holt, Inc.*

A MEMBER OF THE MATTHEW HALL GROUP

Please mail payments to  
1750 E. Benson Highway  
Tucson, AZ 85714

INVOICE

Date: July 21, 1986

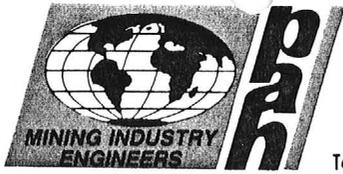
Mr. David Dubois  
208 North Shoshone  
Flagstaff, AZ 86001

Terms: Net Cash on Receipt of Invoice

Invoice No.

STATEMENT OF ACCOUNT

DATE	INV NO	JOB NO	AMOUNT INVOICED	AMOUNT PAID	AMOUNT DUE
1/31/86	7019	586.00	\$ 1,053.41	\$ 75.00	\$ 948.41
2/28/86	7232	586.00	540.00	-0-	540.00
3/30/86	7430	586.00	240.13	-0-	240.13
5/30/86	7807	586.00	821.00	-0-	821.00
TOTAL AMOUNT DUE					\$ 2,549.54



*Pincock, Allen & Holt, Inc.*

1750 E. BENSON HIGHWAY • TUCSON, ARIZ. 85714-1798  
Telephone (602) 746-1451 • Cable KAYPIN • Telex 66-6457 (WUI)

June 2, 1986

Mr. David Dubois  
208 North Shoshone  
Flagstaff, Arizona 86001

Dear Mr. Dubois:

Enclosed please find our May 1986 invoice in the amount of \$821.00 for professional services rendered on the Congress Mine (Ref. PAH Project No. 586.00).

The invoice represents time spent by Mr. Riddle reviewing and rendering an opinion on information submitted to him by you (reference your letter dated April 15, 1986). This review was completed and a letter containing Mr. Riddle's comments was sent May 15, 1986 which you should have received by now. We will not do any further work on this unless authorized by you.

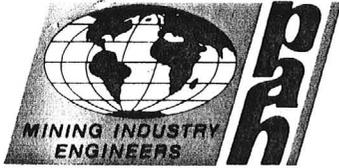
PAH continues to appreciate the opportunity to assist you and your partners with the Congress Mine evaluation and we look forward to being of service in the future as your needs require.

Yours very truly,

Steve L. Milne, P.E.  
Manager, Underground Mining

SLM/me

Enclosure



*Pincock, Allen & Holt, Inc.*

A MEMBER OF THE MATTHEW HALL GROUP

Please mail payments to  
1750 E. Benson Highway  
Tucson, AZ 85714

INVOICE

Date: May 29, 1986

Mr. David Dubois  
208 North Shoshone  
Flagstaff, AZ 86001

Terms: Net Cash on Receipt of Invoice

Invoice No. 07807-586.00

MAY 1986

Professional Services:

CRUZ, L	0.0625 Days @	\$ 224.00	\$ 14.00
ELLIOTT, M	0.2500	168.00	42.00
RIDDLE, J.	1.1250	680.00	765.00
			-----

TOTAL INVOICE

\$ 821.00  
=====



*Pincock, Allen & Holt, Inc.*

A MEMBER OF THE MATTHEW HALL GROUP

1750 E. BENSON HIGHWAY • TUCSON, ARIZ. 85714 - 1798

Telephone (602) 746-1451 • Cable KAYPIN • Telex 66-6457 (WUI)

May 15, 1986

David C. DuBois, President  
Green Glen Corporation  
208 North Shosone  
Flagstaff, Arizona 86001

Dear Mr. DuBois:

Thank you for your letter of April 15, 1986 and the additional data on your Congress Mine. Mr. Riddle has reviewed the information, sample assays, reports and smelter receipts and his comments are as follows:

The list of hand sample assays taken at the Congress Mine from March 15, 1948 to September 17, 1951 does contain certain samples from the 650 level at the #2 Shaft that show encouraging gold values. This is the same location as mentioned by Mr. Colburn in his reports of April 27, 1948 and April 8, 1949 and is designated as Area 7 on the map in our report to you of June 25, 1986 (copy of map attached). While the assays for Area 7 are encouraging, not enough information of their location on the 650 level or their sample widths is given in order to reasonably estimate a tonnage for the area in question. Mr. Colburn states the ore shoot is about 150 ft. long and 2 ft. wide on the 650 level but he prudently declines to make any estimate of the tonnage involved. Further exploration work is needed before the tonnage contained in this ore showing can be properly quantified.

Of interest in the assay report is the average of all the samples of mine fill at .33 oz Au/ton. This average corresponds closely to the grade quoted by Mr. Colburn in his 1950 reports for the mine fill at .29 oz Au/ton, but is appreciably higher than the fill grade estimated by Mr. Colvocoresses in July 1943 at .14 oz. Au/ton.

The assay reports also show that none of the 1948-1951 sampling was done below the 1000 level, probably due to the deeper levels being flooded, because in 1943 Mr. Colvocoresses stated the water was up to the 1200 level. This flooding would account for many of the 1948-1951 samples to be taken on the

Mr. David C. DuBois  
Green Glen Corporation  
Page 2  
May 15, 1986

upper levels and so give the appearance of the remaining ore being not very deep as per observations in your letter of April 15, 1986.

As to the existence of a second ore body on the Congress properties amounting to 700,000 tons at .25 oz/Au/ton, I cannot find any confirmation of either this tonnage or grade in the data supplied to us so far. 700,000 tons is approximately equal to the total amount of ore mined during the period 1889 to 1911, and is also equal to Mr. Colburn's 1950 estimate of the mine fill tonnage.

Undoubtedly, many of the areas listed on the assay report would be thoroughly examined and in some cases possibly mined if the Congress property currently had the necessary operational mining and ore processing facilities available on site. Consequently, your statement that the mine, or at least some areas of the mine, might be profitably worked at today's metal prices is not completely unfounded if the mine were already in operation. However, there are presently insufficiently proven reserves on the Congress property to warrant the large initial capital investments needed to rehabilitate the mine and construct an ore processing plant.

Also of interest in the recently received data are the smelter returns from ASARCO's Hayden Plant during 1950. Shipments of high silica direct smelting ore were made at that time. From March through July, 1950 204 tons of ore were shipped with a return to the mine, including Mr. Colburn's 15 percent royalty, of \$4.15 per ton. Mining and royalty costs would have to be paid out of the \$4.15 per ton. Later in 1950, Mr. Fred Schemmer, a well known small mine operator from Prescott, shipped 54 tons of Congress Mine ore to Hayden with a return of only \$0.48 per ton to cover mining costs. These figures surely do not suggest that the Congress Mine was a profitable operation in the 1950's.

It is possible that you can obtain more information on the Congress Mine through the Arizona Historical Society records. PAH has sent copies of all pertinent articles from the University of Arizona science library.



**Pincock, Allen & Holt, Inc.**

1750 E. BENSON HIGHWAY • TUCSON, ARIZ. 85714 - 1798  
Telephone (602) 746-1451 • Cable KAYPIN • Telex 66-6457 (WUI)

April 7, 1986

Mr. David Dubois  
208 North Shoshone  
Flagstaff, Arizona 86001

Dear Mr. Dubois:

Enclosed please find our March 186 invoice in the amount of \$240.13 for professional services rendered on the Congress Mine lease/sale alternatives (Ref. PAH Project No. 586.00).

The invoice represents my time conversing with potential joint venture partners and Mr. Richard Guyton. As was mentioned in our last invoice letter, we are not doing any further work on this project unless requested to do so by you or your associates. This small amount of time occurred just after our last close-out date for invoicing of the 25th of February and therefore did not get included on our last invoice. We have not done any work since that time so there should be no further invoicing unless additional work is requested.

If you have any questions regarding the invoice, please let me know.

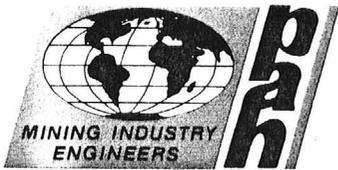
PAH has appreciated the opportunity to assist you and your partners in trying to reach an equitable agreement for the Congress property and we look forward to being of service in the future as your needs require.

Yours Very Truly,

Steve L. Milne, P.E.  
Manager, Underground Mining

SLM/me

Enclosure



*Pincock, Allen & Holt, Inc.*

A MEMBER OF THE MATTHEW HALL GROUP  
Please mail payments to our

1750 E. Benson Hwy./Tucson, Arizona 85714  
(602) 746-1451/Telex: 66-6457 WUI/Cable: KAYPIN

I N V O I C E

Date: March 31, 1986

Mr. David Dubois  
208 North Shoshone  
Flagstaff, AZ 86001

Terms: Net Cash on Receipt of Invoice

Invoice No. 07430-586.00

March 1986

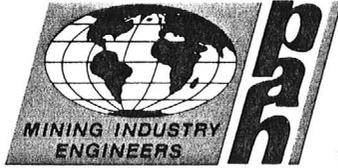
Professional Services:

Elliott, M.00029	0.2500 Days @	\$ 168.00	\$ 42.00
Milne, S.00003	0.2500 Days @	\$ 720.00	\$ 180.00
			-----
	Subtotal		222.00

Expenses:

Telephone			18.13
			-----

TOTAL INVOICE			\$240.13
			=====



*Pincock, Allen & Holt, Inc.*

1750 E. BENSON HIGHWAY • TUCSON, ARIZ. 85714 - 1798

Telephone (602) 746-1451 • Cable KAYPIN • Telex 66-6457 (WUI)

March 7, 1986

Mr. David Dubois  
208 North Shoshone  
Flagstaff, Arizona 86001

Dear Mr. Dubois:

Enclosed please find our February 1986 invoice in the amount of \$540.00 for professional services rendered on the Congress Mine lease/sale alternatives (Ref. PAH Project No. 586.00).

The invoice represents my time in contacting and conversing with Mr. Richard Guyton, Echo Bay Mining and other potential joint venture partners. Since my last conversation with Mr. Guyton and Mr. Crowley, they have decided that I do no further work on this, at least for the time being. It appears that, unless Echo Bay changes their mind, they are not interested in putting up any front-end money for the right to explore your property nor are they interested in buying the minority interest in the Congress. If I hear of anyone else who might be interested, I will let Mr. Crowley or Mr. Guyton know. However, I intend to cease any further work on this project unless otherwise directed to do so.

If you have any questions regarding the invoice, please let me know.

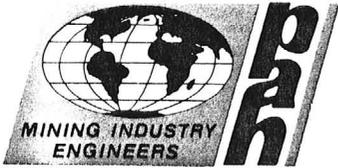
PAH appreciates the opportunity to assist you and your partners in reaching an agreement for the Congress property and we look forward to being of service in the future as your needs require.

Yours very truly,

Steve L. Milne, P.E.  
Manager, Underground Mining

SLM/me

Enclosure



*Pincock, Allen & Holt, Inc.*

A MEMBER OF THE MATTHEW HALL GROUP

1750 E. Benson Hwy./Tucson, Arizona 85714  
(602) 746-1451/Telex: 66-6457 WUI/Cable: KAYPIN

INVOICE

Date: March 3, 1986

Mr. David Dubois  
c/o Mr. Michael R. Dill  
208 North Shoshone  
Flagstaff, AZ 86001

Terms: Net Cash on Receipt of Invoice

Invoice No. 07232-586.00

February 1986

Professional Services:

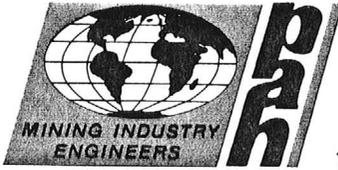
Milne, S.	0.7500 Days @	\$ 720.00	\$ 540.00
			-----

TOTAL INVOICE

\$ 540.00  
=====

*payment 3/19/86*

*\$7500*  
*Balance \$46500*



*Pincock, Allen & Holt, Inc.*

1750 E. BENSON HIGHWAY • TUCSON, ARIZ. 85714 - 1798

Telephone (602) 746-1451 • Cable KAYPIN • Telex 66-6457 (WUI)

February 12, 1986

Mr. David Dubois  
208 North Shoshone  
Flagstaff, Arizona 86001

Dear Mr. Dubois:

Enclosed please find our January 1986 invoice in the amount of \$1,053.41 for professional services rendered on the Congress Mine. (Ref. PAH Project No. 586.00).

The invoice represents my time in researching potential lease/sale alternatives that might be available to you and your partners. This is being performed at the request of Mr. Richard Guyton.

I have recently been in touch with Mr. Guyton about the information gathered to-date and my recommendations. There remains a small amount of research yet to be done for Mr. Guyton on this phase. I'm sure he will be in contact with you regarding the various alternatives available. I have been impressed with the manner in which he is trying to look after your best interests.

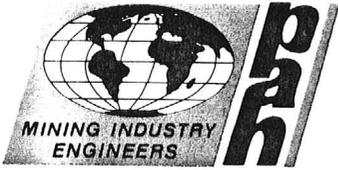
If you have any questions regarding the invoice, please let me know.

PAH continues to appreciate the opportunity to assist you and your partners in reaching an equitable agreement of the Congress property and we look forward to being of continued service.

Yours Very Truly,

Steve L. Milne, P.E.  
Manager, Underground Mining

SLM/me



*Pincock, Allen & Holt, Inc.*

A MEMBER OF THE MATTHEW HALL GROUP  
Please mail payments to our

Please remit to:

Pincock, Allen & Holt, Inc.  
1750 East Benson Highway  
Tucson, Arizona 85714

INVOICE

Date: January 31, 1986

Mr. David Dubois  
c/o Mr. Michael R. Dill  
208 North Shoshone  
Flagstaff, AZ 86001

Terms: Net Cash on Receipt of Invoice

Invoice No. 07019-586.00

January 1986

Professional Services:

Milne, S.	1.3750 Days @ \$ 720.00	\$ 990.00
		-----
	Subtotal	990.00

Expenses:

Telephone		63.41
		-----

TOTAL INVOICE		\$ 1,053.41
		=====

# Echo Bay Mines Annual Report 1986

*K. [Signature]*

## Advanced programs

Property	Echo Bay interest	Background	.987 plans
1. Alaska-Juneau Alaska	85%	Large-tonnage, low-grade mine operated 1901-43.	Feasibility of optical ore-sorting being studied. Resource information being confirmed by drilling.
2. Cameron Lake Ontario	Up to 49%	Echo Bay can earn up to a 49% interest in Nuinsco Resources Ltd. by funding development of the Cameron Lake program. At year end, Echo Bay's interest was 27%.	Currently driving a decline ramp to examine deposit from underground. Drill indicated resource of 1.2 million tons containing 200,000 ounces gold.
3. Congress Arizona	Up to 51%	Property contains geological resource of 100,000 ounces gold.	Currently a decline ramp is being driven to access the deposit. Potential for small tonnage mine in 1988.
4. Cove Nevada	100%	Recently discovered gold deposit on McCoy mine property. Both high- and low-grade resources found.	Active drilling program to delineate mineralization. Currently open at depth and in most directions.
5. Easy Junior Nevada	100%	Geological resource of approximately 400,000 ounces gold indicated by drilling.	Drilling to determine extent of resource. Potential for open pit, heap leach operation.
6. Illipah Nevada	100%	55,000-ounce gold resource identified, including 33,800 ounces of ore reserves.	Being developed for production in 1987. Exploration will continue on the property.
7. Indin Lake Northwest Territories	75%	Extensive drilling on Main and Cass zones in 1985 and 1986.	Additional drilling is already underway on Cass.
8. Kettle River Republic, Washington	Up to 60%	The Granny and Key projects contain geological resources of 350,000 ounces gold.	\$1.1 million budgeted for delineation drilling and preliminary feasibility in 1987.
9. Randsburg California	100%	Geological resource of 260,000 ounces, including 184,900 ounces in reserves, in two surface deposits identified.	Feasibility study underway for possible 1988 production.

## Early stage programs

10. Bagdad Chase California	100%	Drilling has outlined three areas of gold mineralization.	Further exploration being evaluated.
11. Bathurst Inlet Northwest Territories	100%	Properties cover 91,400 acres of Lupin-type iron formation.	Surface drilling.
12. Foreman Creek Nevada	100%	Claims located 5 miles north of Jerritt Canyon deposit.	Surface drilling.
13. Frying Pan and East Walker River California-Nevada border	100%	Located on the westward continuation of the Fletcher Basin which contains the Borealis mine.	Exploration for Borealis-type gold deposits.
14. Herbert Glacier Alaska	100%	Property covers narrow vein system containing high-grade gold values.	Additional work to evaluate potential for small tonnage resource.
15. King Solomon Nevada	100%	Drilling has identified a geological resource of 100,000 ounces gold.	Drilling to define extent of the resource.
16. Lupin Region Northwest Territories	100%	103,000 acres of property extending 70 miles west from the Lupin mine.	Surface drilling.
17. Morgan Ranch Nevada	100%	Property covers large alteration system in volcanic rocks with surface gold anomalies.	Surface drilling
18. Oro Blanco Arizona	50%	20,000-ounce gold resource in stockwork vein system.	Drilling on additional alteration zones.
19. Williams Vein Alaska	100%	Quartz vein produced 24,000 tons grading 0.30 ounces per ton between 1931 and 1942.	Additional work to evaluate potential for small tonnage resource.

JOHN L. MERCER

Mining Broker  
 Superintendent Shannon Mining & Milling Co., Inc.  
 Owner of Silver Reef Mine  
 Gold and Silver Mines for Sale  
 Tucson, Arizona

April 1, 1933.

CONGRESS MINESITUATED :

Three miles from Congress Junction, one mile off  
 black top road; Martinez Mining District, Yavapai County, Ariz.

Railroad and Power Line at the Junction.

I made a thorough examination of this property before  
 entering into our contract with Mr. Colburn, and found that  
 the ore in the stopes, as to quality and quantity, is substanti-  
 ally of the same values and tonnage that Mr. Colburn's and  
 Mr. Stanton's reports show it to be.

CLAIMS :

There are 14 patented claims and 12 unpatented claims  
 recorded at the County Seat of Yavapai County, Arizona.

COMMENTS

and

ESTIMATES :

Taking the estimates of tonnage in the stopes already  
 mined, as represented by Stanton's report, namely, 700,000  
 tons at \$11.60 per ton, we have a gross value of:

Gross Value 700,000 tons @ \$11.60 - 8,120,000.

Cost of pulling the stopes, @ \$1.00 per ton	700,000
Cost of Milling @ \$2.50 per ton	1,750,000
Royalties at 10%, \$1.16 per ton	812,000
Overhead, Insurance, Taxes	150,000
	<u>3,412,000</u>

Total Cost on this ore 3,412,000.

Net Profit, apparent 4,708,000.

While this appears to be a very nice profit, one should  
 not overlook the fact that this mine shows evidence of much more  
 ore of twice the values indicated about this fill in the stopes  
 in many places in the mine.

The mining costs of developing and mining new ore should  
 not exceed \$4.00 per ton.

I am told that the available reports do not show all  
 of the production the mine has made and that the correct amount  
 is over Twenty-One Million Dollars. It is my own conclusion that

the mine has only been scratched as yet. There are many areas where one can start to mine very good grades of ore with little or no extra preparation.

Of course when a mine has been shut down for a number of years, there is always, to the uninitiated a very sad look about it. Portals caved in; some caving in of shafts and tunnels, buildings dilapidated and general air of sadness about the whole setup.

This mine is no exception, and I would like to point out what I would do if I were to operate it, and estimate costs,

There are six incline shafts, all needing some repair but all not necessary in the working of the mine, as they are all more or less connected up below ground and one or two would be all I would use. These are not in too bad shape. The No. 3 shaft could be cleaned up in a few days; it has rails and track already in and a great deal of the ore is readily accessible to besides a lot of new ore in places. It has a head frame and sheave wheel in place. One contractor says he can fix this shaft up and be pulling ore in four days. Nevertheless, it all costs somebody something, - such as -

<u>REHABILITATION</u> :	of shafts and tunnels and one	
	of two of the buildings	\$ 5,000.00
	Installing water and power lines	
	for mill	10,000.00
	Mill, 250 tons per day	70,000.00
	Mill, moving and installing	10,000.00
	Incidentals	5,000.00
	TOTAL	\$100,000.00

Of course one could not install a new 250 ton mill for \$100,000.00, with all the extras that go into such a deal, but in this case I happen to know where there is such a mill and it is practically new and includes a good steel building as well, and, if we put it on a good mine such as the Longcross, they will not ask any money down, and will take a 5% royalty on ores processed until paid, if this is an item of interest; if not, it can possibly be purchased for somewhat less for cash. Ordinarily such a mill would cost around \$300,000.00.

There would be the cost of mining equipment in addition to the foregoing of approximately \$15,000. to \$20,000.

Very good depreciation is allowed on all mining equipment, and of course all the initial rehabilitation, labor and expenses can be written off entirely in the same year expended. There is also a 15% allowance for depletion of ore reserves on which there are no income taxes to pay, - on this 15% of the gold and silver produced.

Purchase Price  
Terms: Cash

\$1,000,000.00  
150,000.00

Balance:

7.5% Royalty on ore up to \$15.00 and 10%  
on higher grades.

\$50,000.00 minimum guaranteed Royalty,  
whichever is greater.

A mill must be installed with a minimum capacity of  
100 tons per day.

On tungsten and uranium ores extracted, the royalty  
is 15%.

Respectfully submitted.

---

J. L. Mercer

E. A. Colburn, Jr.  
P. O. Box 132  
WICKMEBURG, ARIZONA

September 1, 1955

Mr. W. A. Murray,  
Washington,  
D. C.

Dear Mr. Murray:

In order that you may have the basic facts about the Congress Mine, Congress, Yavapai County, Arizona, without too much detailed data ordinarily included in a mine report I am, below, more or less abbreviating the salient points regarding the property.

There are 14 patented claims and 9 unpatented claims in the property, all located in a block about two and one half (2½) miles by good level road from Congress Junction which is a station on the Santa Fe Railroad. It is also on paved Highway 89 and paved State Highway 70. The claims are on the flat desert, and on the Date Creek Mountains in the Martinez Mining District. This is one of the most advantageous situations for a mining property in the west.

Past authenticated production has been close to \$8,000,000.00 mostly in gold with some silver and the production was had prior to 1910 when the price of gold was at \$20.00 per ounce. From old letters and papers it is apparent that the production in tons ran around 700,000 at least that was what was run through the mills. Recovery ran 94.33% from 1894 to 1910. Gross value of the ore was \$13.01 with gold at \$20.67 and silver at \$0.60. Present value would be over \$20.00 per ton.

Development consists of several shafts and many levels run at the interval of around 75 ft. as measured on the vein.

These levels consist of many miles, perhaps 20 or over.

CONGRESS VEIN WORKINGS

Shaft No. 1	1,000 ft. deep
" " 2	1,700 " "
" " 3	4,000 " "
Highway Shaft No. 4	1,900 " "
" " 5	2,050 " "
" " 6	1,800 " "
Queen of the Hills Winze	600 " "

The cross vein worked from both No. 1 shaft above the 650 ft. level and No. 2 Shaft below that level with a winze extending from the 650 ft. level to the 1,000 ft. level. Queen of the Hills vein (probably a displaced segment of the Cross Vein) had three tunnels; top, middle, and lower, the latter one going clear through the hill.

There is ample dump room for both mine waste and mill tailings, possibly about 100 acres of flat land, some of which is now occupied by tailing, but not filled by any seams. There are several mill sites on the property.

Some water is available from Martinez creek about 5,600 ft. from the main workings and now connected by pump and pipe line. Electric line already in at the pump which could be extended to the mine, or power could be brought in from the south where the distance is somewhat greater but the terrain better. There is plenty of water in the old mine workings to keep a good sized mill in operation if the water is taken care of by filtering etc.

Proposed mill capacity to start with would be about 100 tons per 24 hours, to be located at or near No.1 Shaft, which would be the main production opening for the Congress vein. The flow sheet would depend upon future work in the development of the uranium ore body but would probably include gravity and flotation concentration for uranium and the cyanidation of tailings for gold and silver. Sorting and washing arrangements in the crushing plant would provide sources of waste for the mine dumps and shipping grade ore to be sent to outside mills or smelters for final recovery.

The cost of such a plant would be in the neighborhood of \$150,000.00. This would include cost of power line (if any) and other extras incident to the mill. The power company has told us that they would bring in a high tension line without cost if we had a commercial load. The ideal power hookup, in my judgment, would be to buy power for the steady loads as milling etc., and make with Diesel engines the fluctuation loads as developed by hoists, compressors, etc. which run only a portion of the 24 hours, but this would necessitate the purchase of engines and generators and the employment of extra labor. However, I believe that it would pay in the long run as it would keep the peak power demand quite low and thus avoid excessive power costs. Synchronous motors on any large horse power drives would also be an aid here as well as keeping up the power factor.

On a basis of producing about 100 tons per day, the No.3 Shaft would have to be equipped with a double drum hoist and a four or five drill compressor. This would run about \$10,000.00. For No. 5 Shaft and Queen of the Hills tunnel, separate equipment would have to be furnished as the openings are at considerable distance apart. These two together would run about the same as the figure quoted above.

Underground supplies and equipment would include skips, cars, track and pipe and some timber, although there is several thousand dollars worth of good mine timber available in No. 3 Shaft. Also would need rock drill, hose, slusher hoists etc. Total of around \$25,000.00 depending on the scale of operations.

The tonnage of the uranium ore is not especially well known just at the present time, but from indications, samplings and experience with conditions in the mine, I would judge that there should be available about 30,000 tons in and adjacent to No. 3 Shaft. I would indicate an area 150 ft. long, 800 ft. high and 3 ft. wide extending from the 200 ft. level to the 1,000 ft. level and pitching at an approximate angle of 30 Deg. west. This area has been developed by the shaft and the 550 and 1,000 ft levels, and is not directly in contact with the old gold stopes. Then there is the showing all the way down No. 2 Shaft from the tunnel level to the 550 ft. level which is in the hanging wall of the old gold stope which is now filled with ore. It is my judgment that the combined mineral content over the entire width of the dyke in the area where the footwall seam was mined for gold will make pay ore if properly mined and milled. However, such an operation would have to be on a good tonnage basis. This would run the tonnage figure to around 3,000,000 tons. There are certain areas in the dyke where the gold stringers, which are more nearly vertical than the dyke, are closer together and which form pay ore for the whole dyke and the uranium ore as shown in No. 3 Shaft seems to follow very closely the fracturing and shattering of the dyke, sometimes being nearly from dyke wall to wall. This condition may well obtain in No. 2 Shaft in the hanging wall of the old stopes. In the Queen of the Hills lower tunnel we have a gold ore body which is developed between that level and the middle tunnel above which should contain 30,000 tons of ore of mill grade. This gold quartz is associated with some pretty good spots of uranium ore which occurs both in the foot wall and the hanging in some gouge slips and fault fissures. Everywhere the uranium ore seems to be associated with post gold faulting and is largely localized in said fault gouge and in fault shattered rock regardless of whether it is dyke rock or vein material associated with granite. On straight gold ore contained in the old filled stopes, disregarding any uranium content, I would estimate at least 400,000 tons of an average grade of over \$11.00 per ton as shown by my samplings. This would be net tonnage to be milled after screening and sorting.

The surface showing of uranium is quite small due to the solubility of that mineral and the almost endless combinations it makes in nature with other metals and bases. But it does extend from the so-called break just west of the No. 1 Shaft on the Congress vein westerly to and beyond the No. 2 Shaft. On the tunnel level or 200 ft. level, where the tunnel passes behind the above shaft, the background count is quite high. This is not due to radon gas for there is a very heavy movement of air at this point and any concentration of gas would be swept out to surface as the

air is moving rapidly in that direction. Here the low grade mass extends from foot to hanging wall of the dyke, a distance of about 20 ft. No work has been done here or elsewhere to limit the ore body. The ore was followed down No. 2 Shaft to the 650 ft. level by the AEC engineer and several samples taken. No. 2 Shaft being sunk in the dyke or on the foot wall of it and in direct contact with the old gold stopes which have been filled with low grade ore shows a general average of about 0.15 % U<sub>3</sub>O<sub>8</sub> all the way down. The uranium is confined to hanging wall of the dyke and occupies the fault plane which extends downward from the granite for about a couple of feet. Where ever the dyke is crushed the uranium ore follows into these fine seams contained in the dyke and mineralizes them. On the tunnel level west of No. 2 Shaft the bottom of the drift shows up well on the Sieger counter and this would seem possibly to be the upward extension of the uranium ore in Shaft No. 3 farther west, as explained above.

The Green of the Hills vein, also as explained above, is entirely in the granite country rock and has no dyke with it. However, we find good grade uranium ore in direct contact with the quartz gold ore, not that the quartz is radio active, but the gouge on either side of the quartz is. There has been considerable movement horizontally along this vein to account for this gouge.

Farther north where this vein crossed the Bellick dyke, which is more or less parallel to the Congress dyke, and very much like it otherwise, the situation is again quite active in the line of uranium. The background count is so high at this point, which is the situation of the Green of the Hills 600 ft. winze, that one is practically unable to get a reading on the counter without getting out of the tunnel and waiting for a couple of hours before the counter comes back to normal. Then only can a reading be had on material collected in the tunnel. No chemical assay tests for uranium have been made here.

It seems to me that the above showings in uranium is well worth the time, effort and money to be expended thereon. The uranium mineral contained in the Congress ores has been classified as LEUCOKITE, a high grade mineral of unique occurrence. This classification came from the Naval Gun Factory Laboratory in Washington and should be authentic.

Now as to the tonnage of gold ores exposed in the workings. Reports show that the mine has produced over 700,000 tons of ore and that tonnage has been run through the mill. There is at least an equal tonnage left in the old stopes which have been sampled several times at about \$11.60 per ton in the minus one inch size which would mean sorting some of the waste out and thus reducing the tonnage to about 400,000 tons. This is an enormous backlog for a small milling plant and constitutes only a portion of the ore available for milling. The area vein near to the No. 1 Shaft

should produce ore without sorting of around \$14.00 per ton. Samples were taken in a tunnel close to the surface at \$12.00 and on the same vein at the 650 ft. level at \$16.00 per ton. Many samples have been taken in various places showing \$14.00 to \$18.00 per ton even in large mill runs and, of course, some have been taken of a lower grade of from \$4.00 up to \$10.00 all in broken ore. There is quite a ledge available in the old slopes of the Niagara vein and one quite large body of unbroken ore therein that shows assays of \$20.00 and \$31.00 at 350 ft. depth. This was discovered when caving from the hanging wall disclosed it to view, about 10 ft. in width and at least 100 ft. long.

Perhaps the most interesting thing from a high grade standpoint is the ore body at the bottom of No. 5 Shaft on the Niagara vein. This vein lies to the south of the Congress and is in the granite formation on all upper levels and dips more steeply than the other veins or about 30 to 40 degrees. The ore was vider but not quite so good as that contained in the Congress vein and it contains some free gold and some heavy pyritic ore as well. As it reaches the lower level it comes in contact with a basic dyke quite similar to that accompanying the Congress vein and flattened off on it making a fine long, high grade ore body on the contact. The dyke comes in from the foot wall and carries the vein along with it making a virgin mine from that point downward of good high grade ore of an equal to that contained in the Congress vein in early days. It could even be shipped to the smelter at a fine profit, but would be much more profitable if milled locally along with the lower grade ore.

There are no maps covering the territory stoped above this area except one drawn many years later from reports of development work and shipping and milling data of the ore. This map shows with in dashed lines an area with the following caption "Large stopes, position and boundary indefinite, records show 140,000 tons taken from No. 5 Shaft since 1903, probably from this general area." This shaft was closed in 1910.

The ore in this shoot should be from 500 ft. to 700 ft. in length and should extend down ward indefinitely, as the Congress mine has never been bottomed and is at a very much greater depth. Also some of the ore in the easterly section of the Niagara vein has been cut off by what is known as the "East Fault". This, to date, has not been solved, but from recent disclosures it would seem that it should be readily figured out, as I have been able to determine the horizontal thrust and have figured the vertical component at about 150 ft. This would throw the lost segment that much nearer the surface.

Another vein of great promise is the New Strike Vein north of, and up the hill from, the Congress vein. It is exposed at

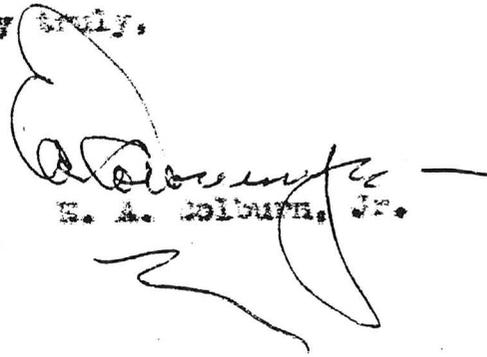
several points on surface and has produced one shipment that I know about of \$51.00 per ton. The vein is rather narrow, about 18", but is high grade and contains considerable specular rock showing free gold.

There are several parallel veins in the Congress workings which show high grade ore that has not been stopped, notably on the 650 ft. level, now inaccessible where a vein in the hanging rock wall having a width of about a foot shows \$75 rock over a slope length of around 100 ft. It wouldn't take too much work to get at this ore whenever the mine is opened. I personally saw this ore more than 20 years ago, in fact I have seen most of the ore I have written about except that in the bottom of the No. 5 shaft and that data is from a letter from the former manager who believed this deposit to be the best in the mine.

Cost of mining should be held down to \$4.00 per ton and if only recovering ore from the fills, quite a little less than that figure. On a basis of breaking the whole width of the dyke I believe that it can be done for \$3.00 per ton. Milling will run about \$4.50 per ton, not taking into account the marketing expense of the uranium concentrate, which is not known to me at this writing.

Cost of mining and cleanup together with the initial machinery expense fund would run about \$150,000.00. Cost of milling building as was given above \$150,000.00. And there should be a working capital of about \$50,000.00, at least, to tide over until the mill would come into production. It is apparent that these figures could be modified down ward if it were necessary to limit working places and equipment for lack of capital, but with the scheme as outlined above the results would come quicker and more surely.

Very truly,

  
E. A. Colburn, Jr.

## The Congress Mine.

The Congress Mine is located in the Martinez Mining District, Yavapai County, Arizona in the base of the Date Creek Mountains three miles northwesterly from Congress Junction, Arizona. There are 14 patented claims and 9 un-patented claims covering the apices of several large veins and many smaller ones. Three miles of good flat road connects with the Santa Fe Railroad and Highway 89 at Congress Junction. Climate of the best. Probably one of the best situated mines in the west. Water rights on Martinez Creek 6600 ft. from main workings with pipe line and pump connected. Power available at pump house for same and could be extended to mine from there. Water in the mines stand at 1200 ft. now with water at 130 depth in No. 6 shaft, making large reservoir of stored water which is desirable for milling.

The property has had no underground work since 1910 and all stopes are filled with low grade ore. The most prominent vein is the Congress lode which has been worked to a depth of 4,100 ft., ore sheet length of nearly 2,000 ft. and general average width of about  $3\frac{1}{2}$  ft. Ore mined from this vein alone amounts to over three hundred thousand tons with an average grade of 0.70 oz. per ton. It is in the hanging wall of this vein, composed of the micrite dyke, that the tungsten ore has been found. Total production runs to about \$8,000,000 from the whole property. The Congress vein occupies the footwall of the above dyke which has a width of 10 to 15 ft. It is crushed and permeated by many quartz stringers all of which carry good gold values. The tungsten value seems to lie in the dyke rock itself not so much in the quartz. Analyses show that the dyke carries about 10% iron some of which probably has been replaced by tungsten. Average of tungsten assays on dyke material on the lumps which came from all parts of the Congress vein and dyke run around 0.226 % W03. This would equal \$14.23 at \$63 per unit. Samples taken of the fines  $\frac{1}{4}$  thru 1" mesh from the fills ran an average of \$11.60. Practically all of the coarse rock from the fills would be good tungsten ore and carry \$5 per ton in gold as well. Vein and dyke run about N 75 W and dip about 25 to the north. There are many other small and large veins and feeders in the hanging and foot walls, as well.

The Niagara vein is south a few hundred feet from the Congress vein and is entirely within the granite country rock. It is nearly the same strike but dips more steeply, about 30 to 40 deg. north; it has been mined very extensively for about 1500 ft in length, intersected by a flat dyke similar to that along the Congress vein and below that point the vein flattens off on the dyke. From this point downward the ore has never been mined and will go better than \$20 per ton gold. Assays on the dyke from this point also show good tungsten values.

The Dress Vein is a large vein running about N 30 E that has been mined extensively from the Congress vein workings and has had a high production record. Gob from openings on this vein runs from \$12 to \$16 per ton. It is entirely within the granite formation and probably forms the queen of the Hills vein as disclosed in tunnels and shafts on that and adjoining claims. In these claims it is almost virgin ground and runs in width from 3 to 8 ft.; ore sheets are long, 300 to 500 ft.; dip of vein 25 deg. N; probably 50,000 tons of ore now in sight between tunnels. This vein also intersects another east west dyke in the northern section of the property and apparently made the ore thereon, as it was followed by shaft to a depth of 600 ft. below the lower tunnel level and produced a lot of tonnage. The vein shows very little tungsten, but the dyke has about the same content as the Congress dyke.

## The Congress Mine #2

As mentioned above, there are other veins which have had no development but show good values on surface. Two or three of these are shown on surface south of the Niagara vein and assay about half an ounce in gold over good widths. The New Strike vein north of the Congress is a high grade vein from 8 to 18 inches in width and considerable length which has produced some free gold ore on surface. Assays nearly \$100 per ton in the west breast of a drift 50 ft. from surface in a 50 ft. shaft. Shipments from surface holes in 1934 gave \$51. per ton. No underground work other than above has been done.

The old mill treated 700,000 tons of ore and for every ton treated there were left in the stopes twice the tonnage taken out, however it has been estimated that there are 700,000 tons of fills in the mine. The hanging wall dyke in the Congress workings can also be mined for tungsten and gold. Probably a width of at least 10 ft. part of which is fill and the balance dyke rock, can be mined and milled at a good profit. This would run into about a million tons. Mining at this width would be quite inexpensive especially as some of it is already broken. There is also low grade ore left from former operations (under 0.35 oz. Au.) which is in place. And it was not only low grade that was left, as many places show solid iron sulphide from a few inches to 1 1/2 ft. in width that will go from \$16 to \$250 per ton. Also very little work has been done on the hanging wall side of the dyke and recent caves have shown good widths of commercial ore on the hanging wall of the dyke. There is also a good body of ore that has not been stoped, between the 1700 level and the 2300 level and between No. 2 shaft and No. 3 shaft. Those shafts are 1,000 ft. apart. Before the war the plan was to rehabilitate No. 3 shaft and take this body of ore out, but they could do no underground mining until the RFC loan was paid. The war stopped the whole operation in 1942.

The ore is a simple one containing iron sulphide with a gangue of white quartz. The dyke is mineralized as well but does not show the iron at all well on account of the dark green to black color. Milling is relatively easy and cheap as the ore has already been treated by concentration and by cyanidation. The old mill used vanners and cyanided the tailing in sand tanks. The last mill used sliming and decantation in cyanide solution. A 0.02 oz. Au. tailing can easily be had by this last method. Tests indicate that flotation will give equal results producing a concentrate of high grade which may be treated locally or shipped to the smelter. Flotation will probably have to be used for the recovery of the tungsten minerals, but there may be a call for heavy medium concentration to separate coarse tungsten bearing rock from barren gangue. That is a matter for future study.

Mr. Colburn Report

CONGRESS MINE

The Congress group of mines is located in Martinez mining district, Yavapai County, Arizona, near the line of the Santa Fe, Prescott and Phoenix Railway, about 70 miles north of Phoenix, and 77 miles <sup>south</sup> north of Prescott. The mines are the property of the Congress Gold Company, a company incorporated under the laws of Arizona.

The town of Congress and the mines and reduction works are located at the mouth of a short canyon broad enough at the bottom to give ample room for the necessary buildings for town and works. The outcrops of the veins are on the mountain sides, giving abundant fall for waste dumps and the proper arrangements of the mills.

The water supply comes from Martinez Creek, 1 mile away. It is raised 500 feet by a steam pump to get over the ridge and runs into the camp by gravity.

Three hundred and fifty men are employed in the mines and surface works. The mills, mine, and all company buildings are lighted by electricity. The company owns and operates its own railroad from the junction to the camp. By a system of switch backs the cars are taken up the mountain side so as to delivery coal, timber, and other mine freight directly at the mines.

The company operates a general merchandise store and boarding house, and provides sleeping rooms lighted by electricity for its men. A hospital is also maintained, where the injured and sick are cared for.

The wires of the Postal Telegraph and Cable Company come into the camp, and the Congress company maintains a regular office.

Twenty-two claims are owned or controlled by the company, but the greater part of the work has been done on only two—the Congress and the Why Not—although the others all carry promising veins and will be explored in the future.

Besides the Congress vein, described above, and upon which nearly all the work has been done, there are several others of great promise on the surface and holding out well to the extent of the development work that has been done upon them. The principal of these is the Niagara vein, running nearly parallel with the Congress, but unlike the latter, seeming to be entirely inclosed in the granite without the accompanying dike which is such a marked feature of the Congress vein. Preparations are now being made to thoroughly explore the Niagara vein with a view to large increase the ore output. A cross cut is being run from the Congress workings on the 1,375-foot level to cut the Niagara vein, and a new shaft is being started (on the outcrop) which will be pushed down to a connection with this cross cut on the vein at the 1,375 level. There are already two shafts on the vein, one on the Remnant 250 feet deep, and the other on the Why Not, 150 feet, both showing the vein strong and continuous to these depths and carrying ore which gave concentrates assaying 15 ounces gold and 55 ounces silver. The high silver is a peculiarity of the Niagara vein, distinguishing it from the Congress, the concentrates from which rarely carry over 3 ounces of silver per ton. There are numerous smaller veins carrying good ore and running approximately parallel to the Congress and Niagara, but none of them have been explored to any extent.

There are 3 principal shafts on the Congress, all sunk on the vein and conformably to its dip. The No. 2 shaft is at present the main working shaft, and has attained a depth on

CONGRESS MINE -cont'd. 1896

the vein of 1,740 feet. The 1,700-foot level is now being opened, and shows the dike and ore to be continuous and strong to that depth. The No. 1 shaft is also used for working purposes and will be carried down with the No. 2 and connected with it at intervals of about 300 feet for air and to block out the ground preparatory to stopping. The No. 3 shaft is at present merely an air connection, but a hoist has been ordered capable of sinking it 2,000 feet, and it will ultimately become of great importance in the operation of the mine.

The present reduction works consist of a 40-stamp mill and a cyanide plant for treating the tailings. In the spring of 1895 a cyanide plant was built to work the tailings.

The present production of the company is at the rate of about 3,600 ounces of gold per month, all from the Congress vein. With the opening of the Niagara vein, and the largely increased milling plant now in contemplation, this rate of production will probably be doubled in the near future. Present indications point to the probable adoption of the direct cyanide treatment of all ore, preceded by roasting.

1897

The Congress is developed to a depth of 1,700 feet, has a 40-stamp mill in operation, besides a large roasting and cyanide plant, the latter being used exclusively in the treatment of the tailings from the mill. The ore is sulphide, and the product of the mill is shipped in the form of concentrates.

1899

Production-The gross production of the mines to date is in the neighborhood of \$5,000,000, and notwithstanding the fact that the reduction works have been continuously operated at full capacity, the development of the mines has been kept so far in advance of stoping that there is now more ore in sight than at any time since the company began operations.

CONGRESS MINE

Situation: The Congress Mine is 3 miles by road Northwest of Congress Junction, a station on the Santa Fe Railway and U.S. Highway 89.

History: The Congress deposit, according to Staunton, was located by Dennis May, who, about 1887, sold it to "Diamond Joe" Reynolds for \$65,000, who had supervision of the property from 1910; continues, "Reynolds developed the property to some extent and built a 20-stamp mill with frue vanner tables for concentration. No amalgamating plates were used, as there was practically no free Gold....The surface ores were much oxidized, in spite of which no savings of consequence could be made by amalgamation or concentration. The cyanide process was in its infancy then and little known, so that it was commonly said of the Congress mine in its early history that although it showed much good ore, there was no known method of extraction. The findings of sulphides by sinking solved the problem to a certain extent, as such ores were amenable to concentration and the concentrates could be shipped to custom smelters. This furnished the means to profitable operation, but the crude methods employed at that time--fine crushing by stamps followed by simple unclassified concentration on frue vanners--necessarily resulted in high tailing losses on account of the large amount of sliming that took place. Flotation, as practiced today, was then unknown. Fortunately the tailings from the early operations were saved and were re-treated later by cyanide with good extraction.

The property was operated from March 1889 to August 1891 when, owing to the death of Mr. Reynolds, and to await the construction of the Santa Fe Prescott and Phoenix R.R., active operation was suspended except for a certain development work and enlargement of the mill from 20 to 40 stamps with the necessary additional frue vanners. The No. 2 shaft had been sunk to a depth on the vein of 1,000 feet, but no stoping had been done below the 650-foot level.

"In March 1894, new interests acquired control of the Company, the name of which then was the Congress Gold Company, with E.B. Gage, President, and active operations were resumed, continuing thereafter until the end of 1910. "Water was pumped from a well in Date, Creek 8 miles distant.

Blake states that, in 1895, a plant was built to treat the tailings by light roasting and cyanidation.

In 1901, the company was reorganized as the Congress Consolidated Mines Company, Ltd. About four hundred and fifty men were employed in the mine and mill.

Production: Staunton gives the total recorded Production as follows:

<u>Production of Congress Mine</u>	Tons	Net Return
March 3, 1889 to Aug. 31, 1891 ore shipped .....	1,129.4	\$ 155,652.29
Sept. 26, 1889 to Jan. 28, 1891, concentrates shipped..	2,500.8	335,308.87
June 3, 1891 to Aug. 31, 1891, concentrates shipped ...	1,062.8	101,113.73
March 1894 to December, 1910, concentrates and ore shipped.....	3,661.0	4,259,571.30
March 1894 to Dec. 1910, Cyanidebullin shipped .....		2,797,851.45
<b>Total .....</b>		<b>\$ 7,649,497.64</b>

Tons of Mined from the Veins

	Congress Tons	Niagara	Queen of the Hills	Total Tons
March 3, 1889 to Aug. 31, 1891 .....	71,129			71,129
March 1, 1894 to Dec. 31, 1910 .....	307,863	293,215	20,125	621,203
Total Tons .....	378,992	293,215	20,125	692,332

"The recorded production of Gold and Silver in shipment, a total of 388,477 ounces of Gold and 345,598 ounces of Silver. As this came from 692,332 tons of ore, a recovery is indicated of \$11.81 a ton, Gold being figured at \$20.67 and Silver at 60¢ per ounce. Average tailings were about \$1.20, which indicates a gross average value of all ore mined of \$13.01. A total of 687,542 tons of ore was milled.

Except for a few attempts to work the dumps, the property has remained more or less dormant since 1910. The surface equipment and the 4-mile railroad leading to Congress Junction were dismantled about 1920. During 1923, 1925, 1926 and 1931, lessees shipped a few cars of ore from the property. In 1928 several thousand tons of mine dump material were treated by combined gravity concentration and flotation. In 1931, the Southwest Metal Extraction Corporation treated about 10,000 tons of the old mill tailings dump by cyanidation. Early in 1934, the Illinois Mining Corporation began treating material from the mine waste dumps in a 150-ton plant equipped with a ball mill, tables, and cyanide tanks, but suspended these operations after several weeks' run. In May, 1934 this company was reconditioning No. 2 shaft and having a geophysical survey made.

Geology: The Congress mine is at an elevation of 3,400 feet at the southern base of the eastern end of the Date Creek Mountains. This portion of the range consists essentially of Coarse-grained biotite, intruded by aplite, pegmatite, and greenstone dikes. These greenstone dikes, where unaffected by superficial alteration are fine-grained, dense, and greenish black. Examined microscopically in thin section, the rock is seen to consist of finely divided aggregate of altered hornblende together with pyrite, present and abundant calcite and quartz, scattered grains of magnetite. Staunton states that the following analysis of an average specimen of the greenstone was reported from the Sheffield Scientific School: SiO<sub>2</sub> 52.20 percent; Al<sub>2</sub>O<sub>3</sub>, 13.40 percent; Fe O, 9.75 percent; Mn O, 1.90 percent; CaO, 960 percent and MgO, 1.16 percent. Veins and workings: This property contains several goldbearing quartz veins of which the Congress, Niagara, and Queen of the Hills have been of particular economic importance. These veins occur within fault fissures which strike generally westward and dip northward. The Congress fissure dips 200 to 300 N. and occurs largely within a greenstone dike that is about 15 feet thick. The vein filling consists of coarse-textured, massive grayish-white quartz together with sulphide. Staunton regarded the iron sulphide as marcasite, but microscopic examination in polished section proves it to be pyrite. Galena is rare, and very little free gold has been reported.

Although the vein as a whole follows an irregular course within the greenstone dike, the ore-bearing portions are generally flat lenses near the footwall. These lenses commonly terminate as stringers. Staunton says: "Although the Congress vein is continuous and well defined for a mile or more to the west of the mine workings and shows both the characteristic quartz and sulphides, the pay ore was practically confined to a shoot in the vein pitching to the northwest and coinciding closely with the intersection of one of the fissure vein in the granite. The granite vein is faulted by the Congress vein so that the intersection is obscure in the mine workings, the portion of the granite vein in the hanging wall of the Congress carried bodies of pay ore.

"The Congress pay shoot varied greatly in length on different levels, being longest on the 650-ft. level, where it was stoped continuously for 1,800 feet. The average thickness of pay ore was less than three feet. Several pinches were met in following the vein down, most serious being at the 1700 foot level where there was no stoping ground. On the theory that if pay ore existed below that point it would probably be found on the general trend of the ore shoot above, a deep prospecting winze was sunk from the 1700 ft. level, in the vein but with a northwesterly pitch corresponding to the established trend of the pay ore in the upper workings. This winze was sunk 1,000 and bore out fully the theory upon which it was projected, the pay ore coming in again as good as ever after a few hundred feet of lean ground.

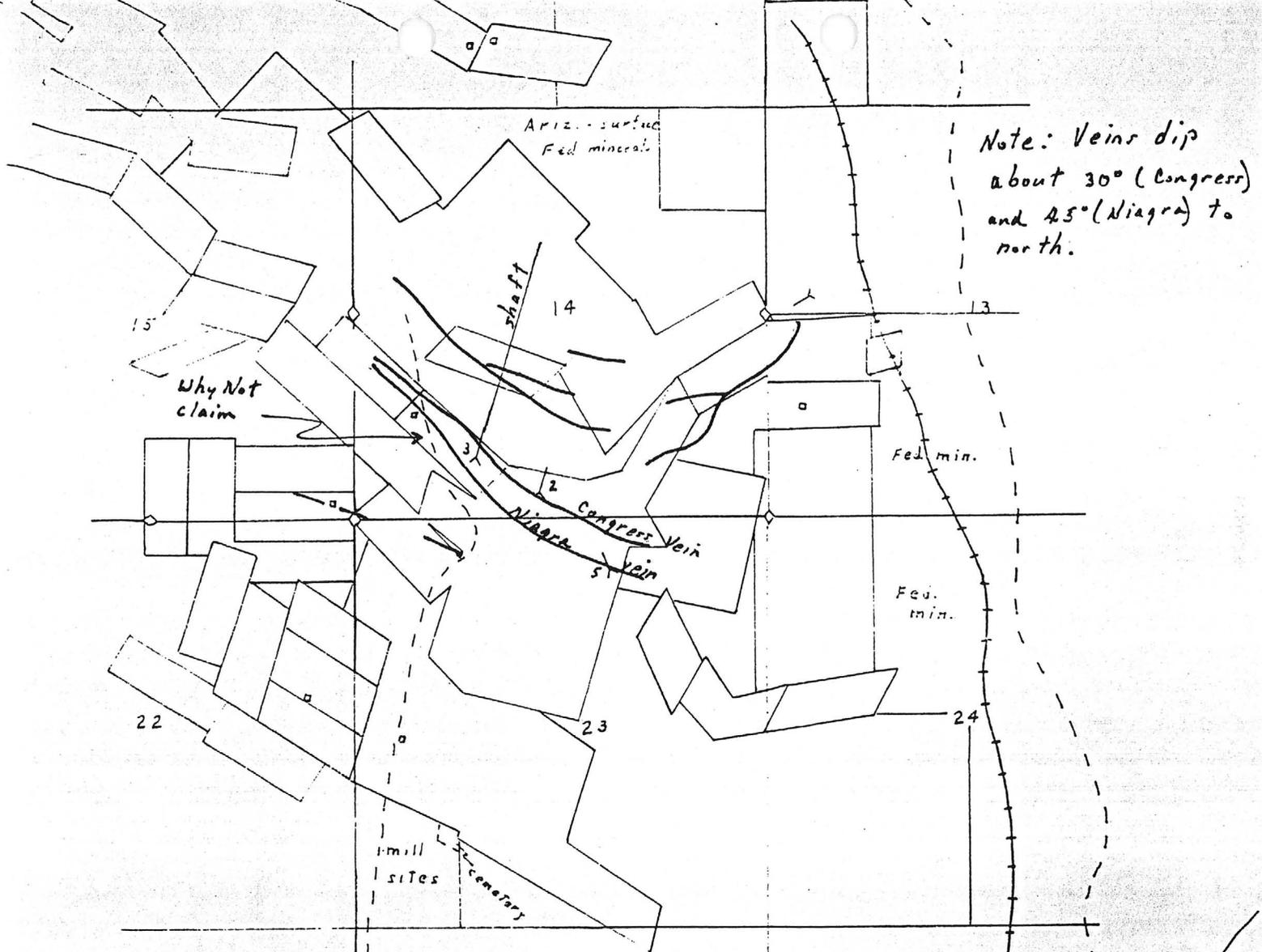
"The 3,900-ft. level was the deepest point at which any considerable amount of development was done. For several levels above there had been a gradual pinching off of the pay-shoot, which became small and irregular, although retaining its mineralogical characteristic and the small amount of sulphides which remained still showing the characteristically high gold content, about 7 ounces per ton. The conditions were similar to those existing at other horizons in the mine where persistent deep work had been rewarded by expansion of the ore shoot to normal size. "There are other veins entirely in the granite and unaccompanied by the greenstone so characteristic of the Congress vein. These strike east and west, but dip more steeply, from 40° to 50°. The development of quartz is more extensive than in the Congress vein and the average grade is lower. One of these veins, the Niagara, carried large bodies of ore of commercial grade to a depth of 2,000 feet. A characteristic of all-granite veins is the presence of a small amount of galena and higher silver content.

"Minor faulting is in evidence throughout the mine workings and there has been considerable relative movements of the walls of the Congress vein, resulting in local crumpling of the greenstone. The mine workings terminate to the east against a heavy fault beyond which the vein has not been definitely located. This fault cuts off both the Congress and Niagara veins.

"The mines were practically dry down to the deepest point reached 4,000 feet on the Congress vein at an approximate inclination of 25° from the horizontal, the small amount of surface water which found its way in being easily handled by bailing tanks in the shafts. No mine pumps were ever put in or needed.

"Seven shafts were sunk, all of them inclines following the veins. Three of them were on the Congress vein, designated as No. 1 (1,100 ft.) and No. 2 (1,700) and No. 3 (4,000 ft.); on the Niagara vein three shafts were also sunk, No. 4 (1,000 ft.) No. 5 (2,050 ft.) and No. 6 (1,800 ft.). On the Queen of the Hills vein one shaft was sunk to a depth of 200 feet below the tunnel level."

When visited in February, 1934, the mine workings below the 1,350 foot level of No. 2 shaft were under water.



Note: Veins dip about 30° (Congress) and 45° (Niagara) to north.

Land Status Map

Congress Mine Area  
T 10 N R 1 W

Legend

- Jaquays Patented claims
- Jaquays Unpatented claims
- Jaquays Surface rights (DuBois subsurface rights)
- Other patented claims
- Fee lands
- Other unpatented claims
- Open BLM lands

Ariz surface  
Fed minerals

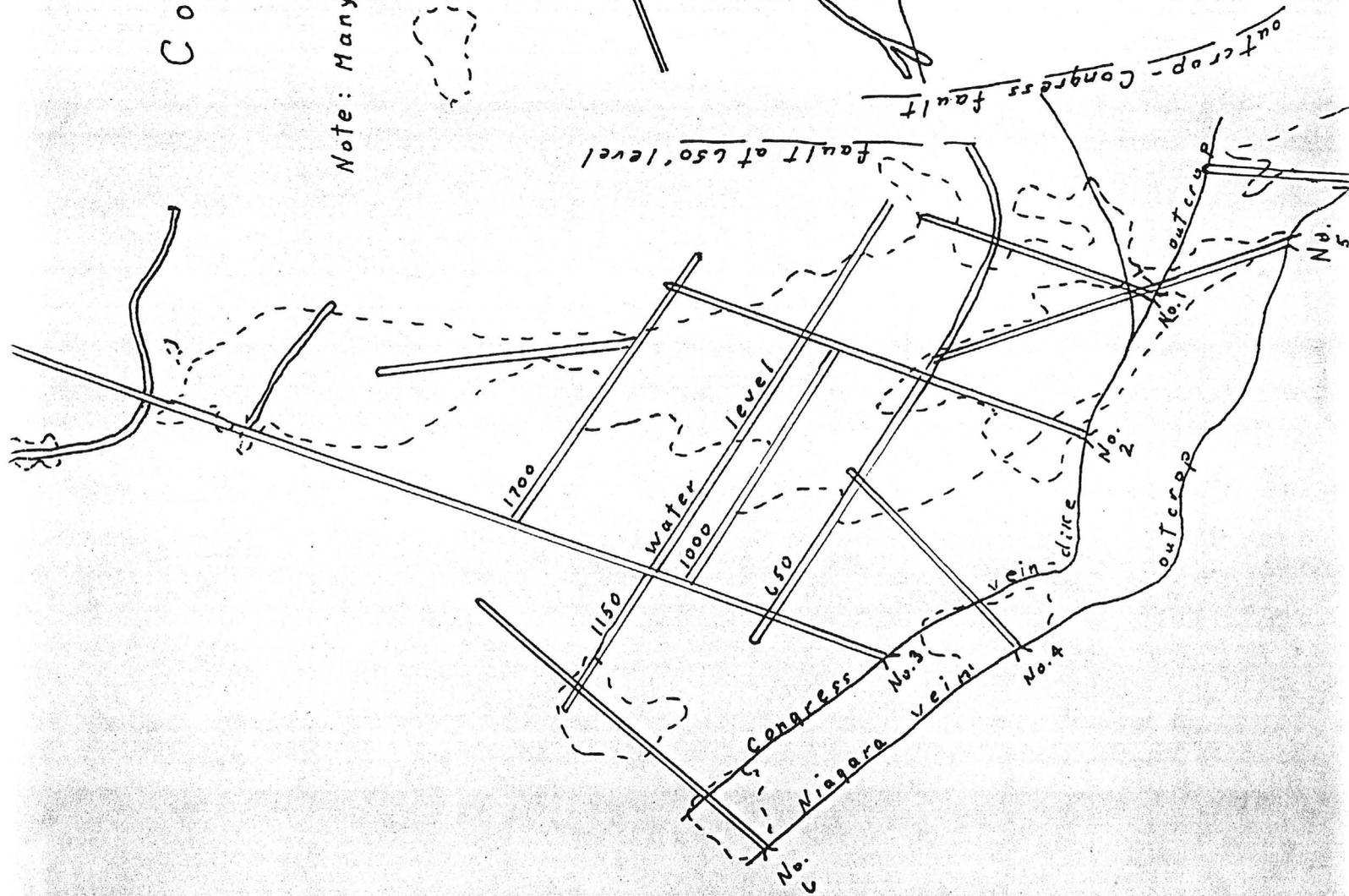
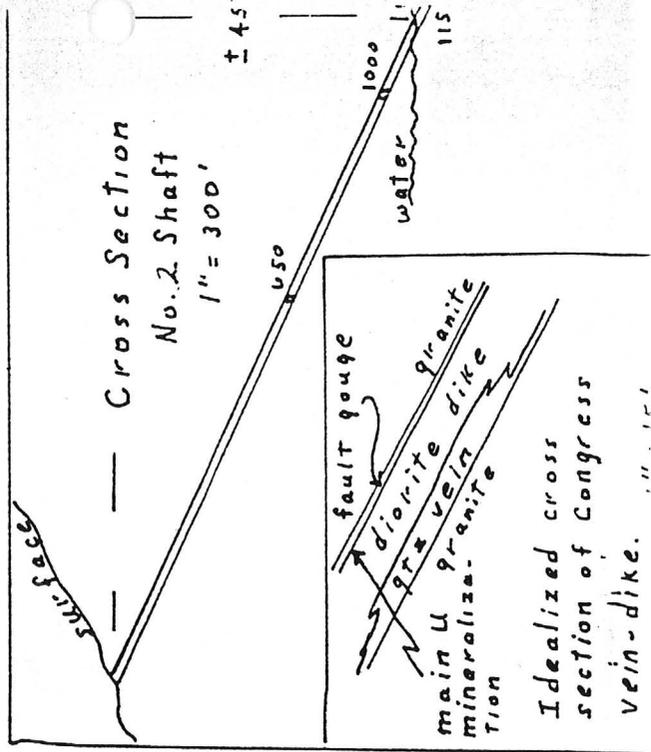
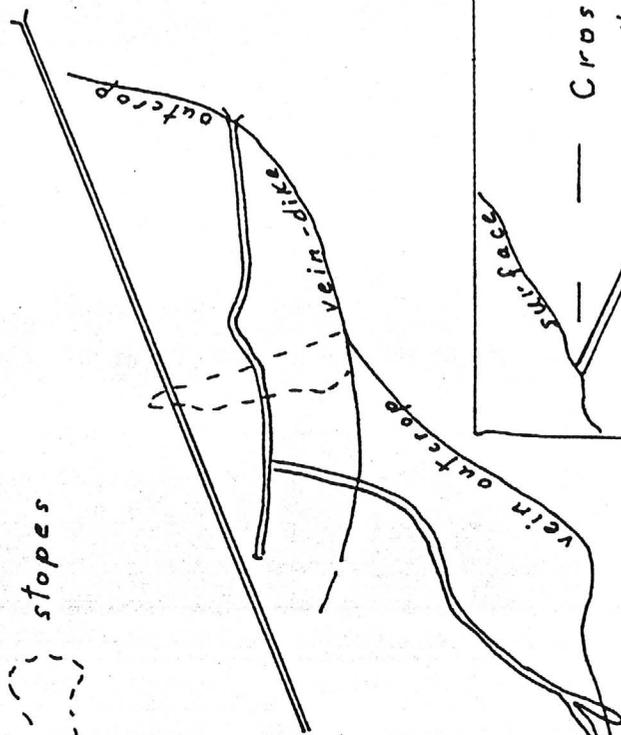
Yavapai Co., Arizona  
Base from USGS  
Congress 7 1/2' quad.  
1" = 2000'

# Plan View Congress Mine Workings

1" = 600'

Note: Many workings within stoped areas not shown.

stopes



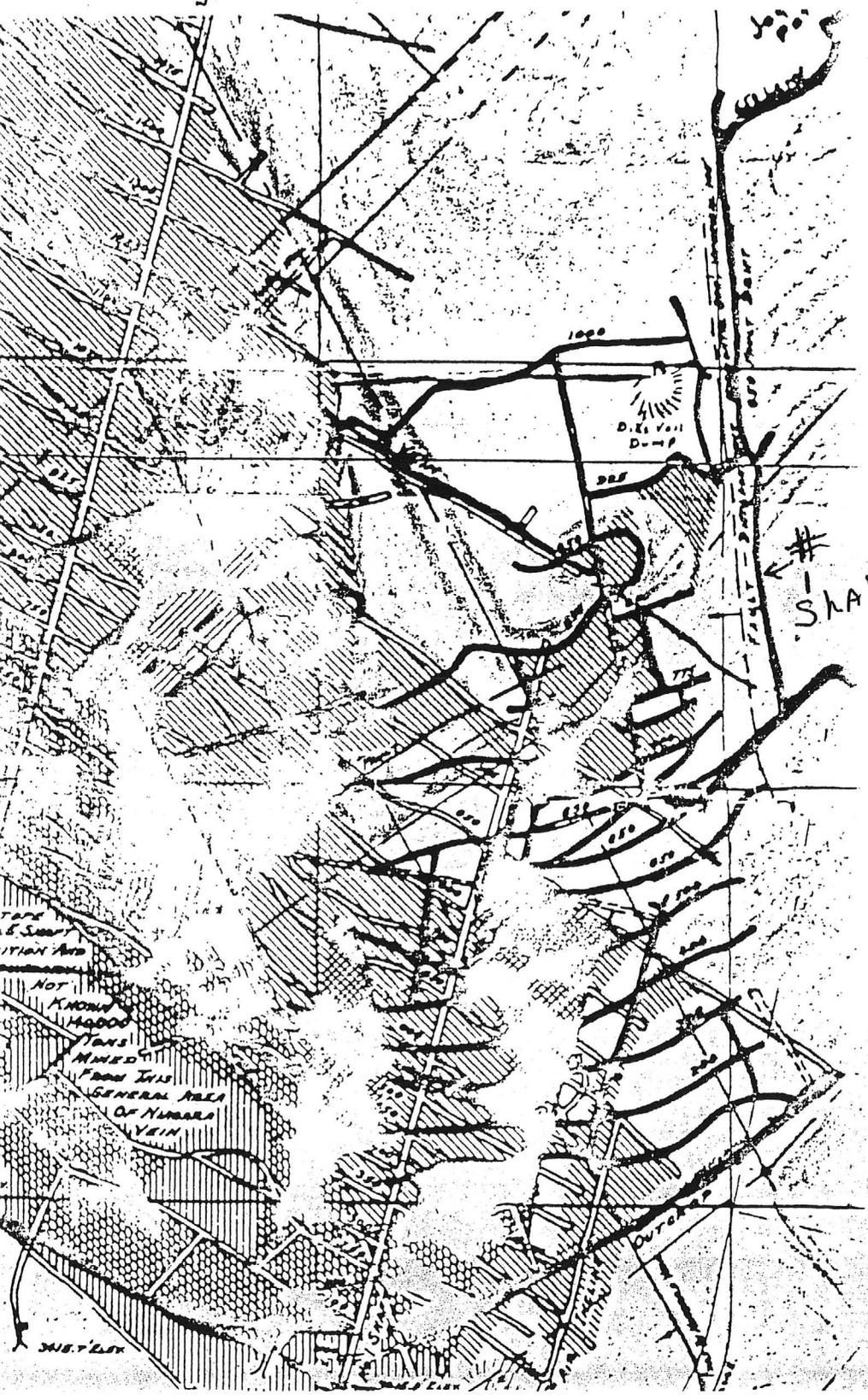


A'

#2  
SHAFT

#1  
SHAFT

D. E. Veil  
Dump



TAPS KNOWN TO HADDOG TAPS NAMED FROM THIS GENERAL AREA OF NUMBERS VEIL

NOT KNOWN TO HADDOG TAPS

TAPS KNOWN TO HADDOG TAPS NAMED FROM THIS GENERAL AREA OF NUMBERS VEIL

NOT KNOWN TO HADDOG TAPS



# SHAFT # 3  
SHAFT

Yates  
1892

