



CONTACT INFORMATION
Mining Records Curator
Arizona Geological Survey
416 W. Congress St., Suite 100
Tucson, Arizona 85701
602-771-1601
<http://www.azgs.az.gov>
inquiries@azgs.az.gov

The following file is part of the A. F. Budge Mining Ltd. Mining Collection

ACCESS STATEMENT

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

CONSTRAINTS STATEMENT

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

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

QUALITY STATEMENT

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

Notes provided by MSHA

8-13-85 RJ.

RADON DAUGHTER CONCENTRATIONS GREATER THAN 0.3 WL
(IN ACTIVE WORKING AREAS OR AREAS TO WHICH WORKERS HAVE ACCESS)

- 1) REQUIRES COMPLIANCE WITH 57.5037 (a) (2) (MONITORING) AND COMPLIANCE WITH 57.5040 (b) (2) NOT REQUIRED AT THIS TIME. .5040 REQUIRES THAT RECORDS OF INDIVIDUAL EXPOSURES BE KEPT.

Best read
this pamphlet

INTERPRETATION OF 57.5037 (a) (2) WHERE URANIUM IS NOT MINED

0.1 - 0.3 WL

- a) WHEN radon daughter concentrations are BETWEEN 0.1 and 0.3 WL - WORKER BREATHING ZONE SAMPLES ARE REQUIRED EVERY 3 MONTHS UNTIL SUCH TIME AS THEY ARE BELOW 0.1 WL THEN ANNUALLY THEREAFTER.

> 0.3 WL

- b. IF RADON DAUGHTERS ARE GREATER THAN 0.3 WL IN ACTIVE WORKING AREAS OR AREAS TO WHICH WORKERS HAVE ACCESS THEN SAMPLES ARE NECESSARY AT LEAST WEEKLY UNTIL THE AREAS HAVE BEEN 0.3 WL or less FOR 5 consecutive WEEKS.

< 0.1 WL

- c. IF RADON DAUGHTER CONCENTRATIONS ARE less THAN 0.1 WL IN EXHAUST AIR, THEREAFTER NO FURTHER EXHAUST AIR SAMPLING IS REQUIRED.

NOTE:

IN AREAS WHERE RADON DAUGHTERS ARE 1.0 WL OR GREATER, Respirators ARE REQUIRED AND SMOKING IS NOT ALLOWED ^{and a sign shall be posted.} Should standard .5040 BE INVOKED AT A LATER DATE THEN STANDARD .5041 ON SMOKING WOULD BE ENFORCED.

RECORD OF INDIVIDUAL EXPOSURE TO RADON DAUGHTERS
FORM COMPLETION INSTRUCTIONS

Subsection .5-40 of Part 57, Subchapter N, Title 30, Code of Federal Regulations requires records to be kept of radon daughter concentrations that exist within active workings of a mine and individual worker's exposure when working levels exceed specified limits. Section .5-40 also requires that a copy of the record of employee exposure to radon daughters be forwarded on or before February 15th of each calendar year, or within forty five (45) days after the shutdown of mining operations for the calendar year to:

Branch of Enforcement Information Systems
Health and Safety Analysis Center
Mine Safety and Health Administration
P. O. Box 25367
Denver Federal Center
Denver, Colorado 80225

Mine I. D. Number, is the number assigned to the operation by the Mine Safety and Health Administration (MSHA). If this number is not known with certainty, contact the nearest MSHA office and request confirmation.

Mine. The name normally used for this mine in correspondence and legal documents.

Section, Township, Range. Information used to legally describe the geographical location of the mine. Survey and section numbers may be used in states where that system is practiced.

County and State are the county and state in which the mine is located.

Operator, fill in the name of the operator.

Period. Calendar year for which individual exposures are reported.

Name, Social Security Number. Self explanatory terms. These items shall be entered on the same line that an individual's exposure is reported under working level months.

Exposure, WLM. This section contains the calculations of each listed individual's exposure to radiation hazards from radon daughters, expressed as working level months (WLM), computed as follows:

To calculate an individual exposure in WLM for a given period of time, multiply the total exposure time (hours to the nearest half-hour) in an active working area by the average concentration of airborne radon daughters for the applicable active working area (average working level calculated to the nearest hundredth working level), and divide the product by the constant, one hundred seventy-three (173) hours per month.

An average airborne radon daughter concentration for a designated active working area shall be determined by averaging all sampling results for that working area during the time that persons are present. Any sample taken by Federal or State mine inspectors, which represents exposure to miners and reported to the operator within three (3) days of being taken, shall be included in the average concentration; except that if the mine operator samples simultaneously with the inspector, he may use his own sample results.

Current Year. For the operator submitting this report, "current year" shall reflect the sum of exposures incurred by each individual employed at this operation for all or a part of the calendar year of this report.

Cumulative Total. "Cumulative total" shall be the sum of the current year exposure plus exposure incurred prior to the current year for all periods in which the individual was in your employ. Do not report exposures obtained by another operator.

If questions arise, the nearest MSHA office may be contacted for clarification.

This report is required by law (30 CFR, Part 57). Failure to report can result in assessment of a civil penalty under Section 110 and institution of a civil action for relief under Section 108 of the Federal Mine Safety and Health Act of 1977. Knowingly making a false statement or concealing a material fact can result in criminal prosecution under Section 110 of the Federal Mine Safety and Health Act of 1977 and 18 U.S.C. 1001.

RADON DAUGHTER MONITORING

EVALUATION METHOD

Measurement of the radon daughter concentration in the mine atmosphere consists of collecting airborne particulate on a filter and counting the alpha decay from the material deposited on the filter with a scintillation device. Results are in working levels where a working level is any combination of the short-lived radon daughters in 1 liter of air which will result in ultimate 1.3×10^5 million electron volts of potential alpha energy.

The air volume sampled is drawn through a filter media by a battery operated air pump calibrated at 2 liters per minute. Sampling time is exactly 5 minutes. When necessary, air volume corrections are made for altitude and temperature.

The alpha counter is a scintillation device calibrated within 6 months prior to use to determine its efficiency. Calibration reliability is checked using a Th^{230} source immediately before counting the sample.

Working levels (WL) are calculated using the following formula:

$$\text{WL} = \frac{\text{cpm} \times \text{eff}}{\text{L} \times \text{F}}$$

where:

cpm = instrument reading (counts per minute)

eff = instrument efficiency

L = air volume sampled (usually 10 liters)

F = time factor relating the field count from 40 to 90 minutes following sampling to the number of counts which should be present from an initial concentration of one working level.

Time weighted average exposures are calculated by relating appropriate spot sample results to estimated occupancy times given for each individual on the day of the evaluation.

Immediate corrective action shall be taken and men shall be withdrawn from areas where atmospheric concentrations higher than 2.0 working levels are found; the men shall be withdrawn from the area until corrective action is taken and the radon daughter atmospheric concentrations are reduced to 1.0 working level or less. Immediate corrective action shall be taken or the men shall be withdrawn if samples show an atmospheric concentration of over 1.0 WL but less than 2.0 WL.

No employee shall receive an exposure for more than 4 WLM (working level months) per annum. (Inhalation of air containing a radon daughter concentration of 1 WL for 173 hours results in an exposure of 1 WLM).

- (b) Phenol.
- (c) 4 Nitrobiphenyl.
- (d) Alpha-naphthylamine.
- (e) 4,4 Methylene Bis (2 chloroaniline).
- (f) Methyl chloromethyl ether.
- (g) 3,3 Dichlorobenzidine.
- (h) Bis (chloromethyl) ether.
- (i) Beta-naphthylamine.
- (j) Benzidine.
- (k) 4-Aminodiphenyl.
- (l) Ethyleneimine.
- (m) Beta-propiolactone.
- (n) 2 Acetylaminofluorene.
- (o) 4-Dimethylaminobenzene, and
- (p) N-Nitrosodimethylamine.

Air Quality—Surface Only

§ 57.5010 Abrasive blasting.

Silica sand, or other materials containing more than 1 percent free silica, shall not be used as an abrasive substance in abrasive blasting cleaning operations without requiring full-flow respiratory protection, or equivalent, to all exposed persons.

Air Quality—Underground Only

§57.5015 Oxygen deficiency.

Air in all active workings shall contain at least 19.5 volume percent oxygen.

§ 57.5016 Abrasive blasting.

Silica sand, or other materials containing more than 1 percent free silica, shall not be used as an abrasive substance in abrasive blasting cleaning operations.

Radiation—Underground Only

§ 57.5037 Radon daughter exposure monitoring.

(a) In all mines at least one sample shall be taken in exhaust mine air by a competent person.

(2) Where uranium is not mined—when radon daughter concentrations between 0.1 and 0.3 WL are found in an active working area, radon daughter concentration measurements representative of worker's breathing zone shall be determined at least every 3 months at random times until such time as the radon daughter concentrations in that area are below 0.1 WL, and annually thereafter. If concentrations of radon daughters are found in excess of 0.3 WL in an active working area radon daughter concentrations thereafter shall be determined at least weekly in that working area until such time as the weekly determinations in that area have been 0.3 WL or less for 5 consecutive weeks.

(b) If concentrations of radon daughters less than 0.1 WL are found in an exhaust mine air sample, thereafter;

(1) Where uranium is mined—at least one sample shall be taken in the exhaust mine air monthly.

(2) Where uranium is not mined—no further exhaust mine air sampling is required.

(c) The sample date, locations, and results obtained under (a) and (b) above shall be recorded and retained at the mine site or nearest mine office for at least two (2) years and shall be made available for inspection by the Secretary or his authorized representative.

(Approved by the Office of Management and Budget under OMB control number 1219-0003)

§ 57.5038 Annual exposure limits.

No person shall be permitted to receive an exposure in excess of 4 WLM in any calendar year.

§ 57.5039 Maximum permissible concentration.

Except as provided by standard § 57.5005, persons shall not be exposed to air containing con-

to determine if concentrations of radon daughters are present. Sampling shall be done using suggested equipment and procedures described in section 14.3 of ANSI N13.8-1973, entitled "American National Standard Radiation Protection in Uranium Mines," approved July 18, 1973, pages 13-15, by the American National Standards Institute, Inc., which is incorporated by reference and made a part of the standard or equivalent procedures and equipment acceptable to the Administrator, Metal and Nonmetal Mine Safety and Health, Mine Safety and Health Administration. This publication may be examined at any Metal and Nonmetal Mine Safety and Health Subdistrict Office of the Mine Safety and Health Administration, or may be obtained from the American National Standards Institute, Inc., 1430 Broadway, New York, New York 10018. The mine operator may request that the required exhaust mine air sampling be done by the Mine Safety and Health Administration. If concentrations of radon daughters in excess of 0.1 WL are found in an exhaust air sample, thereafter—

(1) Where uranium is mined—radon daughter concentrations representative of worker's breathing zone shall be determined at least every two weeks at random times in all active working areas such as stopes, drift headings, travelways, haulageways, shops, stations, lunch rooms, magazines, and any other place or location where persons work, travel, or congregate. However, if concentrations of radon daughters are found in excess of 0.3 WL in an active working area, radon daughter concentrations thereafter shall be determined weekly in that working area until such time as the weekly determinations in that area have been 0.3 WL or less for 5 consecutive weeks.

(B) The operator shall maintain the form entitled "Record of Individual Exposure to Radon Daughters" (Form 4000-9), or equivalent forms that are acceptable to the Administrator, Metal and Nonmetal Mine Safety and Health, Mine Safety and Health Administration, on which there shall be recorded the specific information required by the form with respect to each person's time-weighted current and cumulative exposure to concentrations of radon daughters.

(1) The form entitled "Record of Individual Exposure to Radon Daughters" (Form 4000-9), shall consist of an original of each form for the operator's records which shall be available for examination by the Secretary or his authorized representative.

(2) On or before February 15 of each calendar year, or within 45 days after the shutdown of mining operations for the calendar year, each mine operator shall submit to the Mine Safety and Health Administration a copy of the "Record of Individual Exposure to Radon Daughters" (Form 4000-9), or acceptable equivalent form, showing the data required by the form for all personnel for whom calculation and recording of exposure was required during the previous calendar year.

(3) Errors detected by the operator shall be corrected on any forms kept by the operator and a corrected copy of any forms submitted to the Mine Safety and Health Administration shall be submitted to the Mine Safety and Health Administration within 60 days of detection and shall identify the errors and indicate the date the corrections are made.

(4) The operator's records of individual exposure to concentrations of radon daughters and copies of "Record of Individual Exposure to Radon Daughters" (Form 4000-9) or acceptable

concentrations of radon daughters exceeding 1.0 WL in active workings.

§57.5040 Exposure records.

(a) The operator shall calculate and record complete individual exposures to concentrations of radon daughters as follows:

(1) Where uranium is mined—the complete individual exposures of all mine personnel working underground shall be calculated and recorded. These records shall include the individual's time in each active working area such as stopes, drift headings, travelways, haulageways, shops, stations, lunch rooms, magazines and any other place or location where persons work, travel or congregate, and the concentration of airborne radon daughters for each active working area.

(2) Where uranium is not mined—the complete individual exposure of all mine personnel working in active working areas with radon daughter concentrations in excess of 0.3 WL shall be calculated and recorded. These records shall include the individual's time in each active working area and the concentrations of airborne radon daughters for each active working area. The operator may discontinue calculating and recording the individual exposures of any personnel assigned to work in active working areas where radon daughter concentrations have been reduced to 0.3 WL or less for 5 consecutive weeks provided that such exposure calculation and recordation shall not be discontinued with respect to any person who has accumulated more exposure than $\frac{1}{12}$ (one-twelfth) of a WLM times the number of months for which exposures have been calculated and recorded in the calendar year in which the exposure calculation and recordation is proposed to be discontinued.

sample taken by Federal or State mine inspectors, which represents exposure to miners and reported to the operator within three days of being taken, shall be included in the average concentration; except that if the mine operator samples simultaneously with the inspector, he may use his own sample results.

(Approved by the Office of Management and Budget under OMB control number 1219-0003)

§ 57.5041 Smoking prohibition.

Smoking shall be prohibited in all areas of a mine where exposure records are required to be kept in compliance with standard 57.5040.

§ 57.5042 Revised exposure levels.

If levels of permissible exposures to concentrations of radon daughters different from those prescribed in 57.5038 are recommended by the Environmental Protection Agency and approved by the President, no employee shall be permitted to receive exposures in excess of those levels after the effective dates established by the Agency.

§ 57.5044 Respirators.

The wearing of respirators approved for protection against radon daughters shall be required in environments exceeding 1.0 WL and respirator use shall be in compliance with standard 57.5005.

§ 57.5045 Posting of inactive workings.

Inactive workings in which radon daughter concentrations are above 1.0 WL, shall be posted against unauthorized entry and designated by signs indicating them as areas in which approved respirators shall be worn.

§ 57.5046 Protection against radon gas.

Where radon daughter concentrations exceed 10 WL, respirator protection against radon gas

equivalent form or true legible facsimiles thereof (microfilm or other), shall be retained at the mine or nearest mine office for a period as specified in paragraph 9.8, ANSI N13.8-1973, or shall be submitted to the Mine Safety and Health Administration. These records, if retained by the operator, shall be open for inspection by the Secretary of Labor, his authorized representative, and authorized representatives of the official mine inspection agency of the State in which the mine is located. Paragraph 9.8, ANSI N13.8-1973, is incorporated by reference and made a part of this standard. ANSI N13.8-1973 may be examined at any Metal and Nonmetal Mine Safety and Health Subdistrict Office of the Mine Safety and Health Administration, and may be obtained from the American National Standards Institute, Inc., at 1430 Broadway, New York, New York 10018.

(5) Upon written request from a person who is a subject of these records, a statement of the year-to-date and cumulative exposure applicable to that person shall be provided to the person or to whomever such person designates.

(6) The blank form entitled "Record of Individual Exposure to Radon Daughters" (Form 4000-9) may be obtained on request from any Metal and Nonmetal Mine Safety and Health Subdistrict Office of the Mine Safety and Health Administration.

NOTE.—To calculate an individual's exposure to WLM for a given period of time, multiply the total exposure time (hours to the nearest half-hour) in an active working area by the average concentration of airborne radon daughters for the applicable active working area (average working level calculated to the nearest hundredth working level) and divide the product by the constant 173 hours per month.

An average airborne radon daughter concentration for a designated active working area shall be determined by averaging all sampling results for that working area during the time that persons are present. Any

shall be provided in addition to protection against radon daughters. Protection against radon gas shall be provided by supplied air devices or by face masks containing absorbent material capable of removing both the radon and its daughters.

§ 57.5047 Gamma radiation surveys.

(a) Gamma radiation surveys shall be conducted annually in all underground mines where radioactive ores are mined.

(b) Surveys shall be in accordance with American National Standards (ANSI) Standard N13.8-1973, entitled "Radiation Protection in Uranium Mines", section 14.1 page 12, which is hereby incorporated by reference and made a part hereof. This publication may be examined in any Metal and Nonmetal Mine Safety and Health Subdistrict Office, Mine Safety and Health Administration, or may be obtained from the American National Standards Institute, Inc., 1430 Broadway, New York, NY 10018.

(c) Where average gamma radiation measurements are in excess of 2.0 milliroentgens per hour in the working place, gamma radiation dosimeters shall be provided for all persons affected, and records of cumulative individual gamma radiation exposure shall be kept.

(d) Annual individual gamma radiation exposure shall not exceed 5 Rems.

(Approved by the Office of Management and Budget under OMB control number 1219-0039)

Physical Agents—Surface and Underground

§ 57.5050 Exposure limits for noise.

(a) No employee shall be permitted an exposure to noise in excess of that specified in the table below. Noise level measurements shall be

DECONCINI MCDONALD BRAMMER YETWIN & LACY, P. C.

ATTORNEYS AT LAW

240 NORTH STONE AVENUE
TUCSON, ARIZONA 85701-1295

(602) 623-3411

PHOENIX OFFICE
4041 NORTH CENTRAL AVENUE
SUITE 640
PHOENIX, ARIZONA 85012-3398
(602) 248-0036

DINO DECONCINI
OF COUNSEL

EVO DECONCINI
J. WM. BRAMMER, JR.
JOHN C. LACY
WILLIAM B. HANSON
JOHN C. RICHARDSON
GARY L. LASSEN
JAMES A. JUTRY
MICHAEL R. URMAN
NANCY DARU YAELI
VIRGINIA BARKLOW
KENNETH C. SUNDLOF, JR.

JOHN R. MCDONALD
RICHARD M. YETWIN
ROBERT M. STRUSE
DOUGLAS G. ZIMMERMAN
DAVID C. ANSON
DEBORAH OSERAN
SPENCER A. SMITH
DENISE M. BAINTON
DIANE M. MILLER
NEIL J. KONIGSBERG
BERNARD C. OWENS

August 15, 1985

VIA FEDERAL EXPRESS

RECEIVED AUG 16 1985

Ms. Carole O'Brien
DMEA Ltd.
7340 East Shoeman Lane
Suite 111 "B" (E)
Scottsdale, Arizona 85251

Re: Indemnification Agreement

Dear Carole:

I have enclosed an Indemnification Agreement and Waiver for your use in allowing third parties to come onto the mining property in Jerome.

Very truly yours,


John C. Lacy

jk

Enc.

Notes provided by MSHA

8-13-85 RJ

RADON DAUGHTER CONCENTRATIONS GREATER THAN 0.3 WL (IN ACTIVE WORKING AREAS OR AREAS TO WHICH WORKERS HAVE ACCESS)

- 1) REQUIRES COMPLIANCE WITH 57.5037 (a) (2) (MONITORING) AND COMPLIANCE WITH 57.5040 (a) (2) NOT REQUIRED AT THIS TIME. .5040 REQUIRES THAT RECORDS OF INDIVIDUAL EXPOSURES BE KEPT.

INTERPRETATION OF 57.5037 (a) (2) WHERE URANIUM IS NOT MINED

0.1 - 0.3 WL

- a) WHEN radon daughter concentrations are BETWEEN 0.1 and 0.3 WL - WORKER BREATHING ZONE SAMPLES ARE REQUIRED EVERY 3 MONTHS UNTIL SUCH TIME AS THEY ARE BELOW 0.1 WL THEN ANNUALLY THEREAFTER.

> 0.3 WL

- b. IF RADON DAUGHTERS ARE GREATER THAN 0.3 WL IN ACTIVE WORKING AREAS OR AREAS TO WHICH WORKERS HAVE ACCESS THEN SAMPLES ARE NECESSARY AT LEAST WEEKLY UNTIL THE AREAS HAVE BEEN 0.3 WL OR LESS FOR 5 CONSECUTIVE WEEKS.

< 0.1 WL

- c. IF RADON DAUGHTER CONCENTRATIONS ARE LESS THAN 0.1 WL IN EXHAUST AIR, THEREAFTER NO FURTHER EXHAUST AIR SAMPLING IS REQUIRED.

NOTE:

IN AREAS WHERE RADON DAUGHTERS ARE 1.0 WL OR GREATER, Respirators ARE REQUIRED AND SMOKING IS NOT ALLOWED ^{and areas shall be posted.} Should standard .5040 BE INVOKED AT A LATER DATE THEN STANDARD .5041 ON SMOKING WOULD BE ENFORCED.

R. JACKSON

RECORD OF INDIVIDUAL EXPOSURE TO RADON DAUGHTERS
FORM COMPLETION INSTRUCTIONS

Subsection .5-40 of Part 57, Subchapter N, Title 30, Code of Federal Regulations requires records to be kept of radon daughter concentrations that exist within active workings of a mine and individual worker's exposure when working levels exceed specified limits. Section .5-40 also requires that a copy of the record of employee exposure to radon daughters be forwarded on or before February 15th of each calendar year, or within forty five (45) days after the shutdown of mining operations for the calendar year to:

Branch of Enforcement Information Systems
Health and Safety Analysis Center
Mine Safety and Health Administration
P. O. Box 25367
Denver Federal Center
Denver, Colorado 80225

Mine I. D. Number, is the number assigned to the operation by the Mine Safety and Health Administration (MSHA). If this number is not known with certainty, contact the nearest MSHA office and request confirmation.

Mine. The name normally used for this mine in correspondence and legal documents.

Section, Township, Range. Information used to legally describe the geographical location of the mine. Survey and section numbers may be used in states where that system is practiced.

County and State are the county and state in which the mine is located.

Operator, fill in the name of the operator.

Period. Calendar year for which individual exposures are reported.

Name, Social Security Number. Self explanatory terms. These items shall be entered on the same line that an individual's exposure is reported under working level months.

Exposure, WLM. This section contains the calculations of each listed individual's exposure to radiation hazards from radon daughters, expressed as working level months (WLM), computed as follows:

To calculate an individual exposure in WLM for a given period of time, multiply the total exposure time (hours to the nearest half-hour) in an active working area by the average concentration of airborne radon daughters for the applicable active working area (average working level calculated to the nearest hundredth working level), and divide the product by the constant, one hundred seventy-three (173) hours per month.

An average airborne radon daughter concentration for a designated active working area shall be determined by averaging all sampling results for that working area during the time that persons are present. Any sample taken by Federal or State mine inspectors, which represents exposure to miners and reported to the operator within three (3) days of being taken, shall be included in the average concentration; except that if the mine operator samples simultaneously with the inspector, he may use his own sample results.

Current Year. For the operator submitting this report, "current year" shall reflect the sum of exposures incurred by each individual employed at this operation for all or a part of the calendar year of this report.

Cumulative Total. "Cumulative total" shall be the sum of the current year exposure plus exposure incurred prior to the current year for all periods in which the individual was in your employ. Do not report exposures obtained by another operator.

If questions arise, the nearest MSHA office may be contacted for clarification.

This report is required by law (30 CFR, Part 57). Failure to report can result in assessment of a civil penalty under Section 110 and institution of a civil action for relief under Section 108 of the Federal Mine Safety and Health Act of 1977. Knowingly making a false statement or concealing a material fact can result in criminal prosecution under Section 110 of the Federal Mine Safety and Health Act of 1977 and 18 U.S.C. 1001.

RADON DAUGHTER MONITORING

EVALUATION METHOD

Measurement of the radon daughter concentration in the mine atmosphere consists of collecting airborne particulate on a filter and counting the alpha decay from the material deposited on the filter with a scintillation device. Results are in working levels where a working level is any combination of the short-lived radon daughters in 1 liter of air which will result in ultimate 1.3×10^5 million electron volts of potential alpha energy.

The air volume sampled is drawn through a filter media by a battery operated air pump calibrated at 2 liters per minute. Sampling time is exactly 5 minutes. When necessary, air volume corrections are made for altitude and temperature.

The alpha counter is a scintillation device calibrated within 6 months prior to use to determine its efficiency. Calibration reliability is checked using a Th^{230} source immediately before counting the sample.

Working levels (WL) are calculated using the following formula:

$$\text{WL} = \frac{\text{cpm} \times \text{eff}}{\text{L} \times \text{F}}$$

where:

cpm = instrument reading (counts per minute)

eff = instrument efficiency

L = air volume sampled (usually 10 liters)

F = time factor relating the field count from 40 to 90 minutes following sampling to the number of counts which should be present from an initial concentration of one working level.

Time weighted average exposures are calculated by relating appropriate spot sample results to estimated occupancy times given for each individual on the day of the evaluation.

Immediate corrective action shall be taken and men shall be withdrawn from areas where atmospheric concentrations higher than 2.0 working levels are found; the men shall be withdrawn from the area until corrective action is taken and the radon daughter atmospheric concentrations are reduced to 1.0 working level or less. Immediate corrective action shall be taken or the men shall be withdrawn if samples show an atmospheric concentration of over 1.0 WL but less than 2.0 WL.

No employee shall receive an exposure for more than 4 WLM (working level months) per annum. (Inhalation of air containing a radon daughter concentration of 1 WL for 173 hours results in an exposure of 1 WLM).

- 57500
- (b) Phenol.
 - (c) 4-Nitrobiphenyl.
 - (d) Alpha-naphthylamine.
 - (e) 4,4-Methylene Bis (2-chloroaniline).
 - (f) Methyl-chloromethyl ether.
 - (g) 3,3-Dichlorobenzidine.
 - (h) Bis (chloromethyl) ether.
 - (i) Beta-naphthylamine.
 - (j) Benzidine.
 - (k) 4-Aminodiphenyl.
 - (l) Ethylenimine.
 - (m) Beta-propiolactone.
 - (n) 2-Acetylaminofluorene.
 - (o) 4-Dimethylaminobenzene, and
 - (p) N-Nitrosodimethylamine.

Air Quality—Surface Only

§ 57.5010 Abrasive blasting.

Silica sand, or other materials containing more than 1 percent free silica, shall not be used as an abrasive substance in abrasive blasting cleaning operations without requiring full-flow respiratory protection, or equivalent, to all exposed persons.

Air Quality—Underground Only

§ 57.5015 Oxygen deficiency.

Air in all active workings shall contain at least 19.5 volume percent oxygen.

§ 57.5016 Abrasive blasting.

Silica sand, or other materials containing more than 1 percent free silica, shall not be used as an abrasive substance in abrasive blasting cleaning operations.

Radiation—Underground Only

§ 57.5037 Radon daughter exposure monitoring.

(a) In all mines at least one sample shall be taken in exhaust mine air by a competent person.

(2) Where uranium is not mined—when radon daughter concentrations between 0.1 and 0.3 WL are found in an active working area, radon daughter concentration measurements representative of worker's breathing zone shall be determined at least every 3 months at random times until such time as the radon daughter concentrations in that area are below 0.1 WL, and annually thereafter. If concentrations of radon daughters are found in excess of 0.3 WL in an active working area radon daughter concentrations thereafter shall be determined at least weekly in that working area until such time as the weekly determinations in that area have been 0.3 WL or less for 5 consecutive weeks.

(b) If concentrations of radon daughters less than 0.1 WL are found in an exhaust mine air sample, thereafter;

(1) Where uranium is mined—at least one sample shall be taken in the exhaust mine air monthly.

(2) Where uranium is not mined—no further exhaust mine air sampling is required.

(c) The sample date, locations, and results obtained under (a) and (b) above shall be recorded and retained at the mine site or nearest mine office for at least two (2) years and shall be made available for inspection by the Secretary or his authorized representative.

(Approved by the Office of Management and Budget under OMB control number 1219-0003)

§ 57.5038 Annual exposure limits.

No person shall be permitted to receive an exposure in excess of 4 WLM in any calendar year.

§ 57.5039 Maximum permissible concentration.

Except as provided by standard § 57.5005, persons shall not be exposed to air containing con-

to determine if concentrations of radon daughters are present. Sampling shall be done using suggested equipment and procedures described in section 14.3 of ANSI N13.8-1973, entitled "American National Standard Radiation Protection in Uranium Mines," approved July 18, 1973, pages 13-15, by the American National Standards Institute, Inc., which is incorporated by reference and made a part of the standard or equivalent procedures and equipment acceptable to the Administrator, Metal and Nonmetal Mine Safety and Health, Mine Safety and Health Administration. This publication may be examined at any Metal and Nonmetal Mine Safety and Health Subdistrict Office of the Mine Safety and Health Administration, or may be obtained from the American National Standards Institute, Inc., 1430 Broadway, New York, New York 10018. The mine operator may request that the required exhaust mine air sampling be done by the Mine Safety and Health Administration. If concentrations of radon daughters in excess of 0.1 WL are found in an exhaust air sample, thereafter—

(1) Where uranium is mined—radon daughter concentrations representative of worker's breathing zone shall be determined at least every two weeks at random times in all active working areas such as stopes, drift headings, travelways, haulageways, shops, stations, lunch rooms, magazines, and any other place or location where persons work, travel, or congregate. However, if concentrations of radon daughters are found in excess of 0.3 WL in an active working area, radon daughter concentrations thereafter shall be determined weekly in that working area until such time as the weekly determinations in that area have been 0.3 WL or less for 5 consecutive weeks.

(B) The operator shall maintain the form entitled "Record of Individual Exposure to Radon Daughters" (Form 4000-9), or equivalent forms that are acceptable to the Administrator, Metal and Nonmetal Mine Safety and Health, Mine Safety and Health Administration, on which there shall be recorded the specific information required by the form with respect to each person's time-weighted current and cumulative exposure to concentrations of radon daughters.

(1) The form entitled "Record of Individual Exposure to Radon Daughters" (Form 4000-9), shall consist of an original of each form for the operator's records which shall be available for examination by the Secretary or his authorized representative.

(2) On or before February 15 of each calendar year, or within 45 days after the shutdown of mining operations for the calendar year, each mine operator shall submit to the Mine Safety and Health Administration a copy of the "Record of Individual Exposure to Radon Daughters" (Form 4000-9), or acceptable equivalent form, showing the data required by the form for all personnel for whom calculation and recording of exposure was required during the previous calendar year.

(3) Errors detected by the operator shall be corrected on any forms kept by the operator and a corrected copy of any forms submitted to the Mine Safety and Health Administration shall be submitted to the Mine Safety and Health Administration within 60 days of detection and shall identify the errors and indicate the date the corrections are made.

(4) The operator's records of individual exposure to concentrations of radon daughters and copies of "Record of Individual Exposure to Radon Daughters" (Form 4000-9) or acceptable

concentrations of radon daughters exceeding 1.0 WL in active workings.

§57.5040 Exposure records.

(a) The operator shall calculate and record complete individual exposures to concentrations of radon daughters as follows:

(1) Where uranium is mined—the complete individual exposures of all mine personnel working underground shall be calculated and recorded. These records shall include the individual's time in each active working area such as stopes, drift headings, travelways, haulageways, shops, stations, lunch rooms, magazines and any other place or location where persons work, travel or congregate, and the concentration of airborne radon daughters for each active working area.

(2) Where uranium is not mined—the complete individual exposure of all mine personnel working in active working areas with radon daughter concentrations in excess of 0.3 WL shall be calculated and recorded. These records shall include the individual's time in each active working area and the concentrations of airborne radon daughters for each active working area. The operator may discontinue calculating and recording the individual exposures of any personnel assigned to work in active working areas where radon daughter concentrations have been reduced to 0.3 WL or less for 5 consecutive weeks provided that such exposure calculation and recordation shall not be discontinued with respect to any person who has accumulated more exposure than $\frac{1}{12}$ (one-twelfth) of a WLM times the number of months for which exposures have been calculated and recorded in the calendar year in which the exposure calculation and recordation is proposed to be discontinued.

sample taken by Federal or State mine inspectors, which represents exposure to miners and reported to the operator within three days of being taken, shall be included in the average concentration: except that if the mine operator samples simultaneously with the inspector, he may use his own sample results.

(Approved by the Office of Management and Budget under OMB control number 1219-0003)

§ 57.5041 Smoking prohibition.

Smoking shall be prohibited in all areas of a mine where exposure records are required to be kept in compliance with standard 57.5040.

§ 57.5042 Revised exposure levels.

If levels of permissible exposures to concentrations of radon daughters different from those prescribed in 57.5038 are recommended by the Environmental Protection Agency and approved by the President, no employee shall be permitted to receive exposures in excess of those levels after the effective dates established by the Agency.

§ 57.5044 Respirators.

The wearing of respirators approved for protection against radon daughters shall be required in environments exceeding 1.0 WL and respirator use shall be in compliance with standard 57.5005.

§ 57.5045 Posting of inactive workings.

Inactive workings in which radon daughter concentrations are above 1.0 WL, shall be posted against unauthorized entry and designated by signs indicating them as areas in which approved respirators shall be worn.

§ 57.5046 Protection against radon gas.

Where radon daughter concentrations exceed 10 WL, respirator protection against radon gas

equivalent form or true legible facsimiles thereof (microfilm or other), shall be retained at the mine or nearest mine office for a period as specified in paragraph 9.8, ANSI N13.8-1973, or shall be submitted to the Mine Safety and Health Administration. These records, if retained by the operator, shall be open for inspection by the Secretary of Labor, his authorized representative, and authorized representatives of the official mine inspection agency of the State in which the mine is located. Paragraph 9.8, ANSI N13.8-1973, is incorporated by reference and made a part of this standard. ANSI N13.8-1973 may be examined at any Metal and Nonmetal Mine Safety and Health Subdistrict Office of the Mine Safety and Health Administration, and may be obtained from the American National Standards Institute, Inc., at 1430 Broadway, New York, New York 10018.

(5) Upon written request from a person who is a subject of these records, a statement of the year-to-date and cumulative exposure applicable to that person shall be provided to the person or to whomever such person designates.

(6) The blank form entitled "Record of Individual Exposure to Radon Daughters" (Form 4000-9) may be obtained on request from any Metal and Nonmetal Mine Safety and Health Subdistrict Office of the Mine Safety and Health Administration.

NOTE.—To calculate an individual's exposure to WLM for a given period of time, multiply the total exposure time (hours to the nearest half-hour) in an active working area by the average concentration of airborne radon daughters for the applicable active working area (average working level calculated to the nearest hundredth working level) and divide the product by the constant 173 hours per month.

An average airborne radon daughter concentration for a designated active working area shall be determined by averaging all sampling results for that working area during the time that persons are present. Any

shall be provided in addition to protection against radon daughters. Protection against radon gas shall be provided by supplied air devices or by face masks containing absorbent material capable of removing both the radon and its daughters.

§ 57.5047 Gamma radiation surveys.

(a) Gamma radiation surveys shall be conducted annually in all underground mines where radioactive ores are mined.

(b) Surveys shall be in accordance with American National Standards (ANSI) Standard N13.8-1973, entitled "Radiation Protection in Uranium Mines", section 14.1 page 12, which is hereby incorporated by reference and made a part hereof. This publication may be examined in any Metal and Nonmetal Mine Safety and Health Subdistrict Office, Mine Safety and Health Administration, or may be obtained from the American National Standards Institute, Inc., 1430 Broadway, New York, NY 10018.

(c) Where average gamma radiation measurements are in excess of 2.0 milliroentgens per hour in the working place, gamma radiation dosimeters shall be provided for all persons affected, and records of cumulative individual gamma radiation exposure shall be kept.

(d) Annual individual gamma radiation exposure shall not exceed 5 Rems.

(Approved by the Office of Management and Budget under OMB control number 1219-0039)

Physical Agents—Surface and Underground

§ 57.5050 Exposure limits for noise.

(a) No employee shall be permitted an exposure to noise in excess of that specified in the table below. Noise level measurements shall be



NOVA MUD CORPORATION

14010 Mt. Anderson - Stead

Reno, Nevada 89506

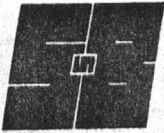
(702) 972-6800

8/31

Mr. Martinez (local Mayor)
brought this down and gave
us a copy. To keep from
getting him in a bind, better
not mention the source.

A handwritten signature in black ink, appearing to be the initials "MB" in a stylized, cursive font.

Please send back a copy.



ESSENBEE, INC.

Post Office Box M, Jerome, Arizona 86331 602/634-9381

August 22, 1985

Corporate Secretary
Verde Exploration Limited
40 Wall Street
New York, New York 10005

An Open Letter to the Board of Directors

Ladies and Gentlemen of the Board:

On August 19, 1985, Esseenbee, Inc. received a letter from your president, William T. Golden, which in effect states that legal action will be taken to sabotage the restoration of the historic Little Daisy Miners Hotel -- a project that has been found to have universal appeal and broad popular support.

The basis for Mr. Golden's action is an oblique interpretation of a clause in the original purchase agreement that was intended to prevent a factory being opened on the site. The motive for this ill-advised action is not clear, but Mr. Golden earlier stated that his primary purpose was to "strike it rich" with the old left-over gold stope below the Powder-Box Church, and that he was not inclined to support any real estate development that would inhibit this goal.

The credibility of this statement, however, is in doubt since the hotel in question was once a desirable adjunct to a very much larger mining operation. Furthermore, the existence of the Arizona State Historic Park with a public parking lot in the mine yard certainly will continue to sustain traffic much closer to the mining operation and far in excess of any the Little Daisy Hotel could generate.

The real motivation may lie in recounting the recent history of Jerome and the Little Daisy property. Through the good graces of the late Dr. Lewis W. Douglas and Mr. Robert Searls, some of the residential portion of the U.V.X. mining property was purchased by a partnership formed by Mr. Searls and Mr. W. E. Bell. The intent was to begin restoration of the residences (including the ambassador's house), some of which were nearly beyond repair. At the time, such an expenditure was considered by many as imprudent, considering the slim margin by which Jerome was clinging to life. The hotel was considered by the mine owners to be a worthless liability, and acceptance of that structure was the "quid pro quo" for the rest of the property. The fact that this structure now has the potential of providing the Jerome community with a substantial employment and tax base is due in no small measure to the diligence and foresight of the Jerome Historical Society and other local pioneers. The realization that the "sow's ear" is about to be turned into a "silk purse" may be the real motivation behind the attempt to kill the project.

In any case, the relevant question is: can an absentee owner with special interests force conformance with a provision that is not in the best interest of the community? I think not.

Mining and mining exploration can be considered hazardous both to the employees and to the quality of life in the surrounding community. The present operation is being conducted with an arrogant indifference typical of absentee owners. How many communities in New York would tolerate a large noisy fan venting large amounts of potentially hazardous radioactive gases from ancient mine workings into their atmosphere?

I suggest the board of directors clearly think through the implications of forcing our community to choose between your operation and the restoration of the beloved Little Daisy Hotel.

Yours truly,
ESSENBEE, INC.

W. E. Bell

William Earl Bell, President

cc: The Honorable Bruce Babbitt, Governor of Arizona
The Honorable Luis Martinez, Mayor of Jerome
Ann Bassett, Richard Flagg, Valerie Fekete and Roderick Segretti,
Members of the Jerome Town Council
Peggy Tovrea, President, Jerome Historical Society, Inc.
Robert J. Searls
Robert S. Pecharich, Attorney

U.V.X 12000 L

Green = Open workings, 1983



U.V. 1000 L

U.V.X 800 L

1" = 400'

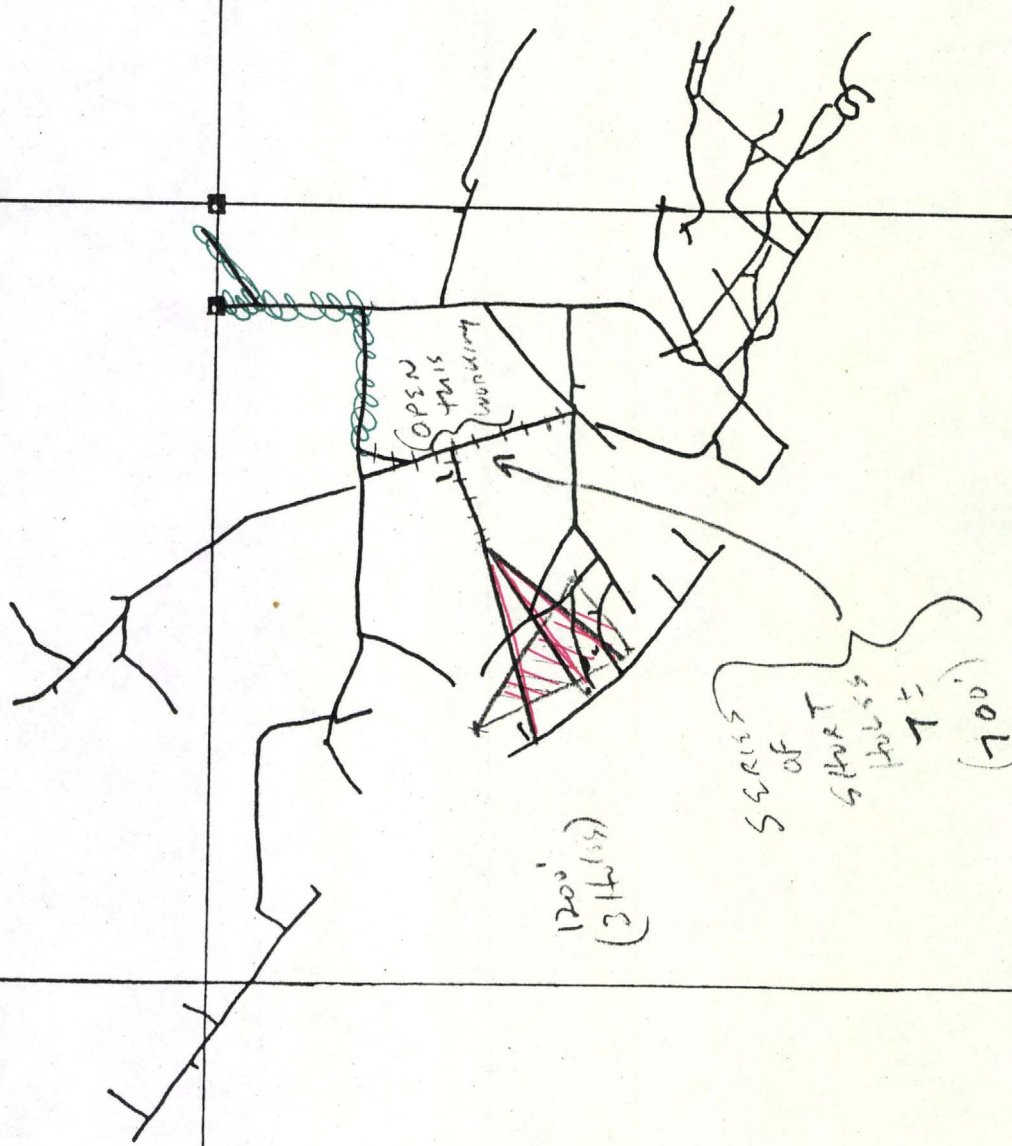
U.V. 5000 L

U.V. 2000 L

U.V. 6000 L

UVX 12000

Green = open workings, 1982



UVX 9000

1900

UVX 950
1" = 400'

UVX 10000

UV20000

UV 6000

UVX LEVELS OPENED 1982

950

1100

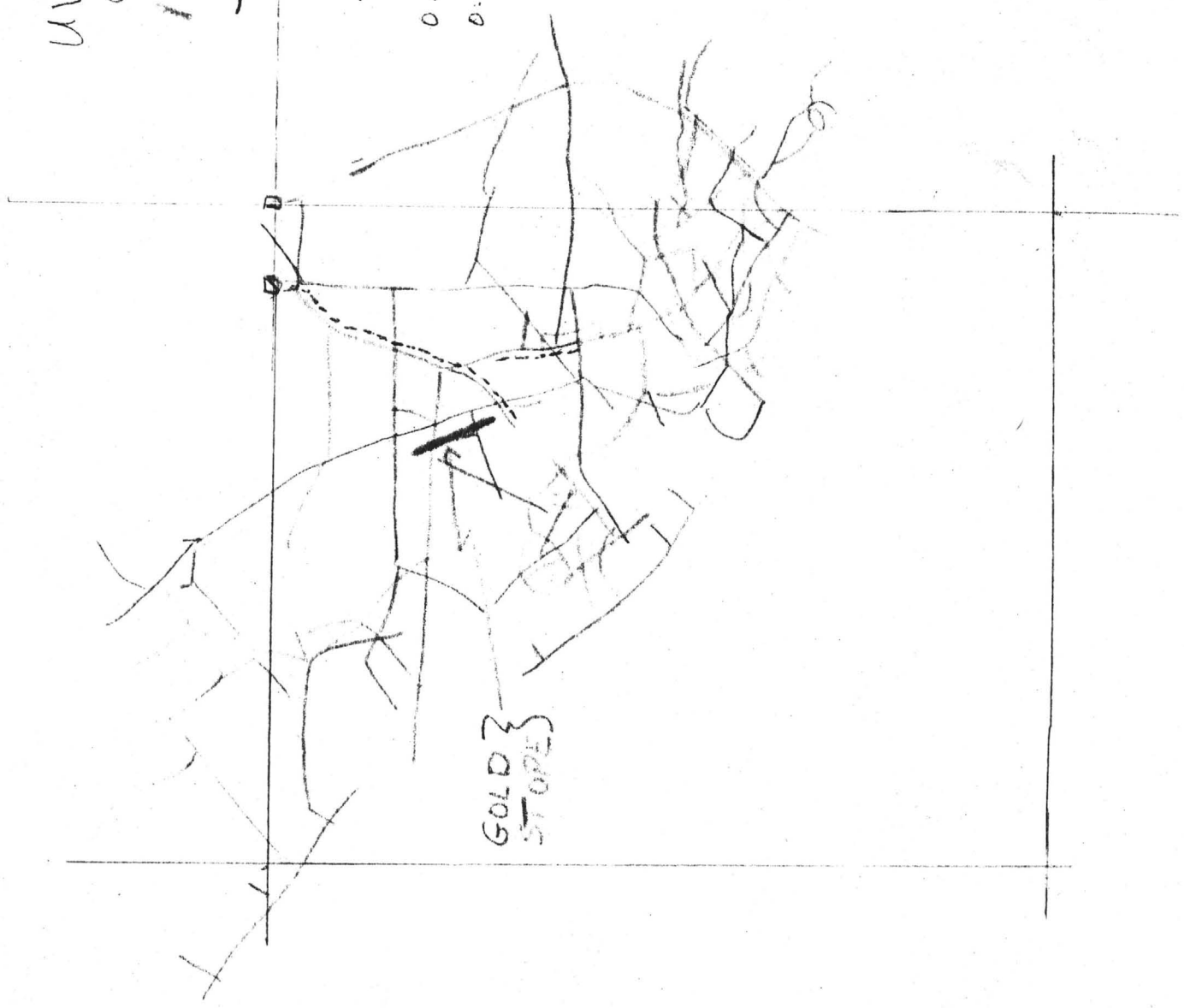
----- FIRST DRIFT TO
BE OPENED TO GET
UNDER GOLD STOPE

--- AREA OF GOLD ASSAYS
SEE SECTION C

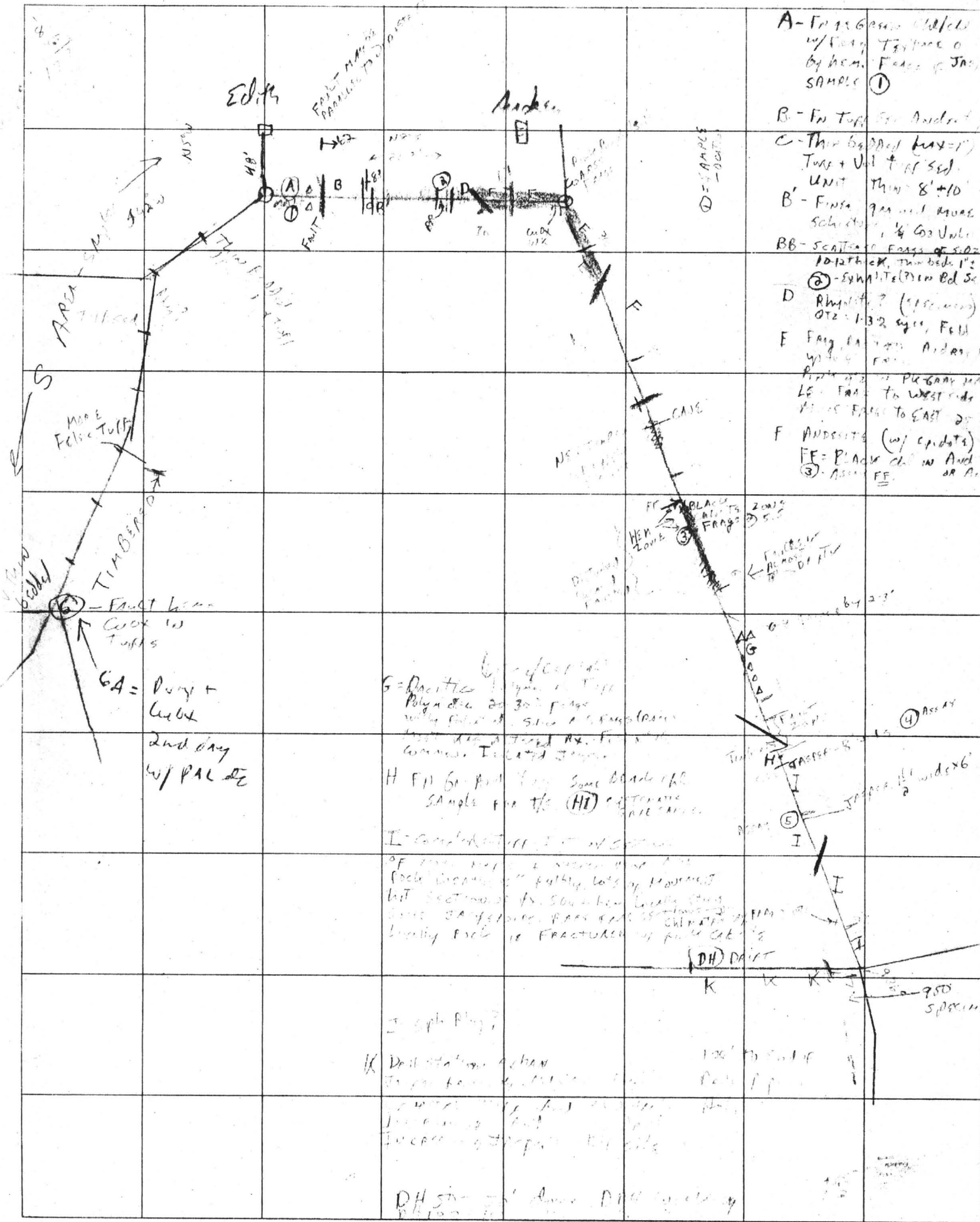
0.4240 g/t 16 SAMPLES

0.350 g/t 69 SAMPLES

1" = 400'



PAH 4/10/82



- A - Frag. G... w/frag. Tufface o... by hem. Frag. of J... SAMPLE ①
- B - In top... See And...?
- C - Thin... Tuff + Vol + (F. S...)
- B' - Finsa... 9... and... Sch... 1/4 G... Un...?
- BB - Scat... Frag... of... 10... 12... 1'2... ② - S... Tel... Bd...?
- D - Rh...? (of...)
- E - Frag... w/... And...?
- F - AND... (w/ ep...)
- FF - PLAC... in And... OR A...
- ③ - ASSAY FF

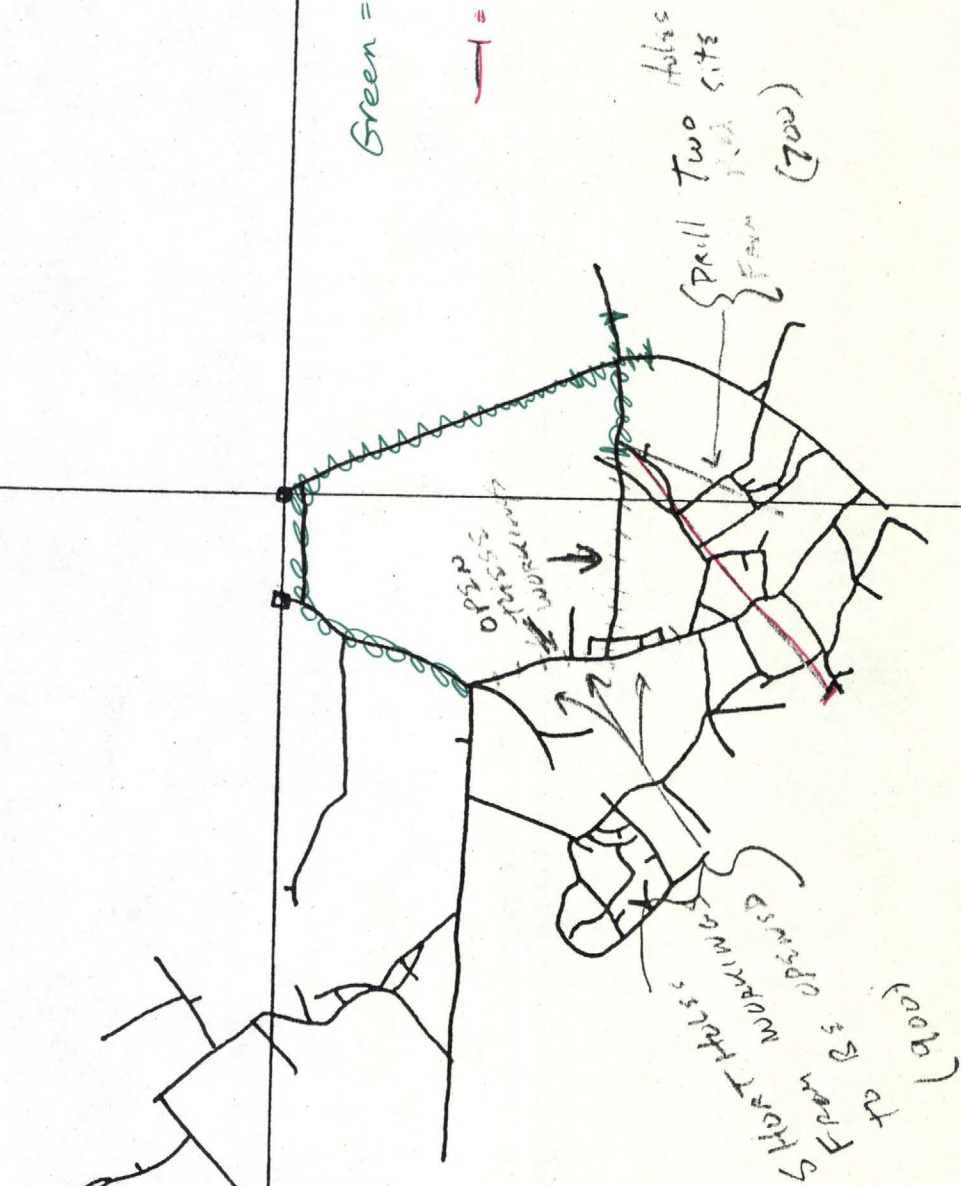
G = Dacitic...
 H = F...
 I = ...
 K = ...
 DH = ...

MINE _____ LOCATION _____ LEVEL _____
 GEOLOGY BY _____ SURVEY _____ DATE _____ SCALE _____
 N _____ F _____ E1 _____

U.V. 12000 N

Green = Open workings, 1982

— = 1982 PD DDH (2)



U.V. 1000 S

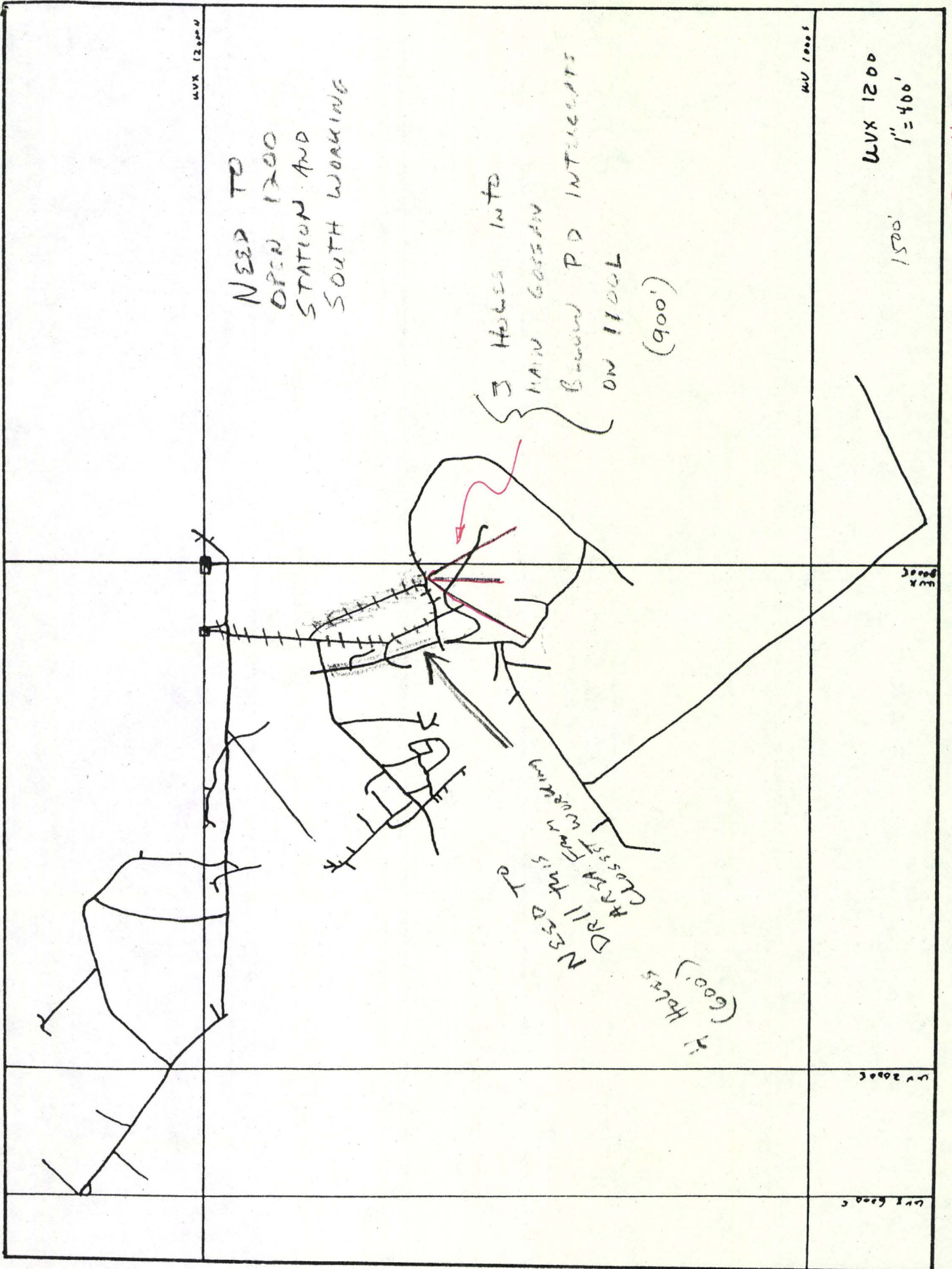
U.V. X 1100
1" = 400'

(1600±)

U.V. 5000 E

U.V. 2000 E

U.V. 6000 E



12/20/04

NEED TO
OPEN 1200
STATION AND
SOUTH WORKING

3 HOLES INTO
MAIN GASSAN
BLOWN PD INTERCEPT
ON 1100L
(900')

NEED TO
DRILL THIS
AREA FROM
WORKING
CLOSEST
WORKING

4 HOLES
(600')

12/20/04

1200'
1" = 400'

Paul Handwerker's
drill hole plan

UVX 12000M

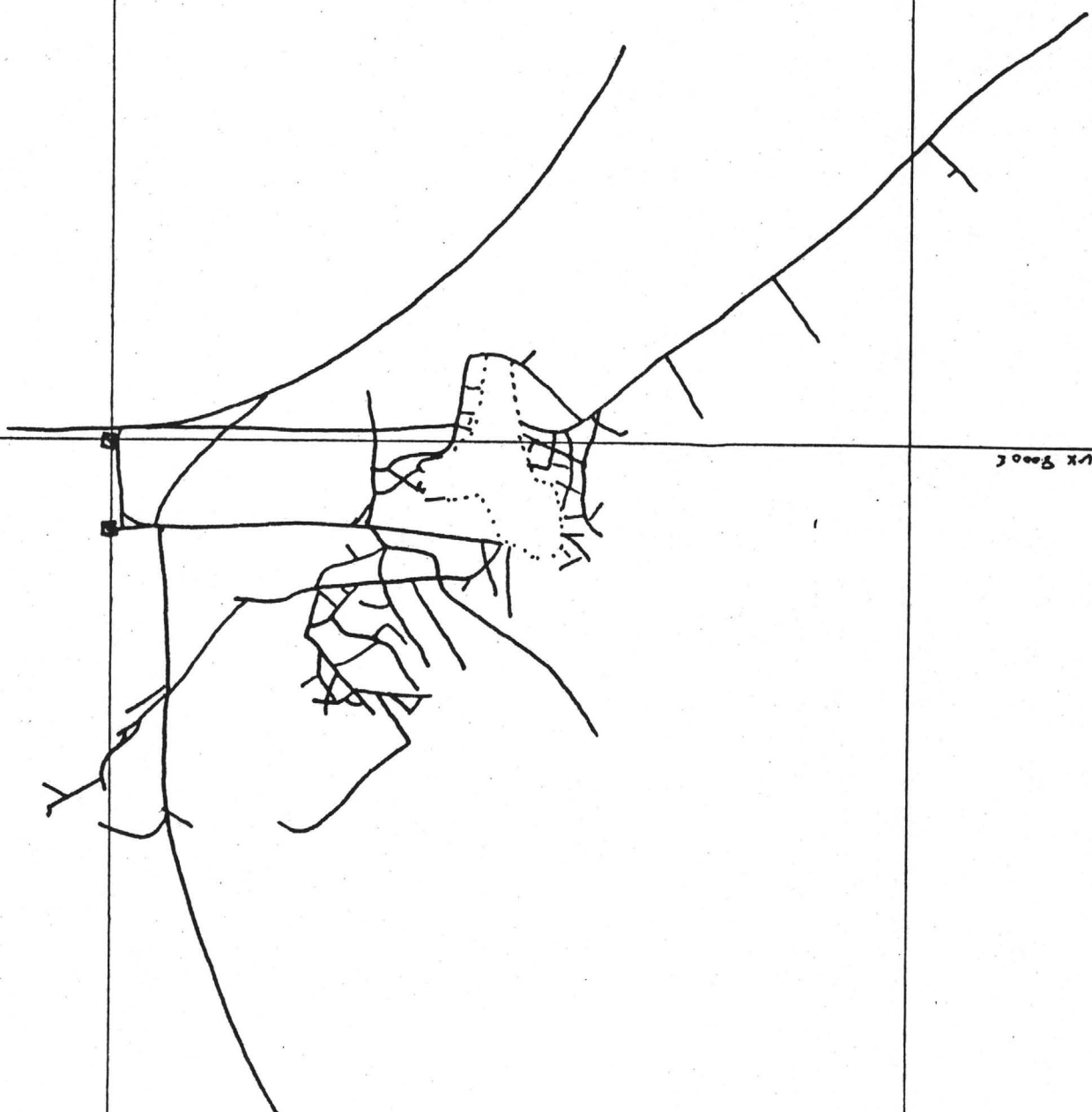
UV 10000

UVX 1300
I' = 400'

UVX 8000

UV 2000

UV 6000



Please note my corrections on this sheet
Rah

5/85

B.F.D.

UPPER ENGINEERING VAULT INDEX
PIGEON HOLES

UVX Vault

- A1 JEROME-COPPER CHIEF AREA GEOLOGY. 1"=1000'.
GEOLOGY OF THE JEROME DISTRICT. 1949. 1"=1000'
PRELIMINARY INTERPRETIVE GEOLOGIC MAP OF THE JEROME DIST. 1949. 1"=1000'
GEOLOGY OF THE JEROME DISTRICT, NORTH SHEET, MMM CORP. 1950. 1"=1000'
- A2 BENEDICT'S UVX CROSS SECTIONS. WORKSHEETS? 1949. 1"=200'
- A3 PRECAMBRIAN GEOLOGY BETWEEN VERDE & LONESOME VALLEYS. SULLIVAN 1949.
1.39"= 1MI.
GEOLOGY OF MINGUS MOUNTAIN WITH REPORT. NORMAN 1948. 1"=1.39MI.
- A4 NORMAN GEOLOGIC MAP. 1"=1000' REDUCTION OF 1"=400' SET.
- A5 SECTION AND PLAN OF DH 4-0-7-3750. 1"=200'
CROSS SECTIONS ACROSS UV-VE PROPERTY LINE. 1"=200'
GEOLOGY OF THE VERDE DISTRICT SHOWING WORKINGS, DRILL HOLES, AND OLD
PRECAMBRIAN MARKER BEDS E. & W. OF VERDE FAULT. 1949. 1"=800'
FAULTS AND FOLDS OF THE VERDE DISTRICT. 1949. 1"=1000'
- A6 DIORITE FIT USING UV 300 LEVEL AND UVX 1400 LEVEL. NORMAN 1949
COMPOSITE MAP OF UV HOPEWELL CORRIDOR SHOWING PROPERTY LINES, SOME
GEOLOGY, AND PROPOSED HOLE. LINDBERG-1974. 1"=400'
- A7 COMPOSITE MAP SHOWING DIORITE CONTACTS & DDH. 1"=200' MMM CORP.
MAP SHOWING CONTOURS ON DIORITE, VERDE FAULT, & FLORENCIA FAULT. 1"=100'
COMPOSITE MAP OF DIORITE CONTOURS AT THE UV MINE AND DRILLING DONE BY
MMM CORP. 1951. 1"=200'
UV MAP SHOWING DIORITE CONTOURS, LOWER LEVELS, SELECTED WORKINGS. 1940.
1"=100'
UV DIORITE CONTACT CONTOURS. 1"=400'
MISCELLANEOUS DIORITE-QP CONTOUR MAPS, UV AREA. 1"=100'
- A8 MAP SHOWING DIORITE, QTZ PORPHYRY, AND ORE CONTACTS.
COMPOSITE UV MAP SHOWING MINOR FOLD AXIS. 1949
MAP SHOWING UV CONTACTS, STRIKES, AND DIPS. 1949. 1"=200'
UV PLAN OF 500 LEVEL WEST OF VERDE FAULT. 1"=200'
- A9 GEOLOGY OF THE COPPER CHIEF AREA. 1950. 1"=200' NORMAN
SECTION IN VICINITY OF GREEN MONSTER AND CLIFF MINE. 1951. 1"=400'
- A10 NORMAN'S PALEOZOIC MARKER BEDS FOR VERDE FAULT MOVEMENT.
SECTIONS SHOWING THE PALEOZOIC MARKER BEDS, DRILL HOLES, AND FAULTS.
SURFACE MAP OF PALEOZOIC MARKER BEDS NEAR UV PIT.
- A11 AERIAL PHOTO MAP OF VERDE DISTRICT WITH INDEX MAPS. 1948.

- B1 NORMAN GEOLOGIC MAPS OF VERDE DISTRICT (PAPER). 1"=400'
- B2 " " " " " " " " "
- B3 JEROME DISTRICT GEOLOGY SHEETS BY NORMAN. 1"=400.
GEOLOGIC MAP OF JEROME, NORTH SHEET. 1"=400'
- B4 TOPOGRAPHIC MAPS BY NORMAN NORTH OF JEROME AT 1"=1000'. LINEN AND PAPER. 1950.
- B5 GEOLOGY AND CLAIMS OF THE VERDE DISTRICT. 1"=400' 1950?
ANDERSON'S (?) STRUCTURE AT SOUTH END OF VERDE DISTRICT. (?)
- B6 GEOLOGY ON BOTH SIDES OF THE VERDE FAULT IN THE VICINITY OF THE UV-UVX ORE BODIES. 1951. 1"=400'
GEOLOGY OF THE HAYNES, UV FOOTWALL, VERDE FAULT, AND UVX 1400 LEVEL. 1948. 1"=400'
- B7 OVERSIZED FIGURES AND TRACINGS FROM BRANT GEOPHYSICAL REPORT FIGURES 6A,6C,7A,7C,8A,8C,9,10A,10B,13,16C,18,20,21, AND 2 IP MAPS. MAP SHOWING GEOPHYSICAL WORK COMPLETED NBY MMM CORP. (6/51) 1"=1000' PROJECTED GEOPHYSICAL LINES IN VERDE DISTRICT BY MMM CORP. SELF POTENTIAL SURVEY OF THE 800 LEVEL, UVX. 1"=30'
- B8 MAP OF GEOPHYSICAL WORK COMPLETED FOR MINGUS MOUNTAIN MINING CORP WITH DATA ABOUT PROPOSED SITES. 1951. 1"=1000'
GRAVITY MAP OF THE HOPEWELL TUNNEL.
TOPOGRAPHIC CORRECTION CHART USED IN 1968 GRAVITY SURVEY BY VERDE.
MAP OF QUARTZ PORPHYRY CONTACTS, ANOMALIES, DDH, AND PROPERTY LINE.
- B9 JEROME DISTRICT GEOLOGY AND DH THROUGH 1971. 1"=2000'
- B10 UV PIT AREA WITH SOME GEOLOGY. UNCOLORED. 1"=200'
- B11 MINGUS MTN. DRILLHOLE SECTIONS (DH 1 - 8). 1"=50'. HOWARD(?)
DRILLHOLE SECTION OF MM1,2,5,6 AND 17-2H-1 AND 17-2H-2. 1951. 1"=200'
-
- C1 VERDE DISTRICT GEOLOGY. ORIGINAL LINENS BY NORMAN. NORTH, CENTRAL AND SOUTH SHEETS. 1"=400'.
- C2 BLACK COPIES OF NORMAN VERDE DISTRICT TOPOGRRAPHY (3 SHEETS). (USED TO MAKE COPIES). 1"=400'
- C3 PAPER COPIES OF NORMAN'S NORTH, CENTRAL AND SOUTH TOPOGRAPHICAL MAPS. 1"=400'
- C9 JEROME GRANDE GEOLOGY. 1"=100'
- C10 TOPOGRAPHIC BLOWUP OF VERDE DISTRICT. 1"=1000'
- C11 UVX SHOWING RANSOME SAMPLE LOCATIONS AND GEOLOGY. (HOWARD?) 1"=100'

- D1 MISCELLANEOUS MINING TECHNIQUES AT THE UVX MINE.
CROSS SECTIONS THROUGH UVX 1407-7-1 STOPE AT 25' INTERVALS. 1918. 1"=10'
SURFACE & MINE LEVEL MAPS OF UVX WITH ELEVATION CONTROLS. 1919. 1"=200'
- D2 PLAN OF 1700 LEVEL UVX. 1"=200'
VALUATION OF FLORENCIA CLAIM. PLANS OF UVX 903,950,1100,1200,1300,& 1500
LEVELS WITH ASSAY DATA. 1"=50' (?)
UVX 1900 LEVEL DDH AND PROPOSED 2200 LEVEL. SECTION & PLAN.
- D3 UVX MINE WORKINGS, CROSS SECTIONS, AND STOPE MAPS. 1918. 1"=30'
PRODUCTION-OVERHEAD COSTS FOR THE UVX FROM 1919-1925.
- D4 TOPOGRAPHY OF NORTH END OF VERDE DISTRICT. 1"=1 MI.
COMPOSITE PLAN OF UVX UNDERGROUND WORKINGS SHOWING
UNDERGROUND WATER LINES, GEOLOGY, AND SURFACE WORKINGS. 1916. 1"=40'
GEOLOGY OF THE DAISY SHAFT. 1920. 1"=40'
- D5 UVX SILL FLOOR SHOWING 1200 LEVEL WORKINGS. 1919
UVX BUILDING, AIR LINES, WATER LINES. 1917,1918.
LEWIS DOUGLAS HOME.
UVX WORKINGS, CLAIM BOUNDARIES, CITY BUILDINGS. 1"=300'
PLAT OF PROPOSED UVX 803 DRIFT. 1919. 1"=40'
PLAN FOR PROPOSED RAISES AND CROSSCUT ON UVX 800 LEVEL. 1"=40'
- D6 UVX STOPE MAPS, 950 LEVEL, AND GOLDSTOPE. 1"=30'
- D7 UVX CLAIMS SHOWING JOSEPHINE TUNNEL LOCATION. 1"=800'
JOSEPHINE TUNNEL MAPS INCLUDING GEOLOGY.
JOSEPHINE TUNNEL AND AERIAL TRAM SHOWING CLAIMS. 1"=300'
GEOLOGY OF JOSEPHINE TUNNEL WITH SAMPLE LOCATIONS. 1"=100'
- D8 E-W CROSS SECTION THROUGH UVX ON 11,400N BY NORMAN (1949). LINEN AND
PAPER. 1"=100'
E-W CROSS SECTION THROUGH UVX ON 11,600N BY NORMAN (1949). LINEN. 1"=100'
E-W CROSS SECTION THROUGH UVX ON 11,900N BY NORMAN (1949). LINEN AND
PAPER. 1"=100'
N-S CROSS SECTION THROUGH UVX BY NORMAN (1949). LINEN. 1"=100'
- D9 DIAGRAMATIC SECTION OF THE GEOLOGICAL HISTORY OF THE UV ORE BODY. 1"=100'
SCHEMATIC CROSS SECTION OF THE UV AND UVX ORE BODIES. 1"=100'
UVX SECTION NO. 1 PERPENDICULAR TO VERDE FAULT. 1"=100'
- D10 UVX DRILL HOLE CROSS SECTIONS ON 1100 LEVEL. 1926. 1"=40'
UVX SECTIONS AA,BB,CC,DD THROUGH ORE BODY. 1"=100'
- D11 UVX CROSS SECTIONS AS LISTED: (SCALE= 1"=30 HOR. & 1"=20' VERT.) 1918
ON 1550E LOOKING E ON 2925N LOOKING N
ON 1600E LOOKING E ON 3000N LOOKING N
ON 1750E LOOKING E ON 3050N LOOKING N
ON 1800E LOOKING E ON 3100N LOOKING N
ON 1850E LOOKING E ON 3150N LOOKING N
ON 1900E LOOKING E ON 3300N LOOKING N
ON 1950E LOOKING E ON 3350N LOOKING N
ON 2000E LOOKING E
ON 2100E LOOKING E
ON 2150E LOOKING E

- E1 NORTH SHEET SHOWING WORKINGS AND PRECAMBRIAN SURFACE ELEVATIONS. 1"=400'
NORTH SHEET SHOWING DH, WORKINGS, DEPTH TO PC. 1"=400'
- E3 PLANS SHOWING UVX GEOLOGY (COLORED - PAPER). THREE MAPS FOR EACH OF THE
800, 950, AND 1100 LEVELS. 1930. 1"=40' **REPAIR**
- E4 PLANS AND SKETCHES OF HERMIT BY D'ARCY. 1"=200'
- E5 VERDE DISTRICT GEOLOGY SHOWING 1950 AIRPHOTO LOCATIONS. 1"=400'
- E6 UVX CROSS SECTION WORK SHEETS (UNUSED).
UVX SECTION AND PLAN PRE DISCOVERY. SEPT 1914. 1"=200'
UVX-UV-VC ELEVATIONS OF WORKINGS SHOWN IN CROSS SECTION. 1"=200'
- E7 CROSS SECTION SHOWING N. J. ZINC DRILLHOLES IN DELMONTE GULCH. 1"=200'
HOPEWELL TUNNEL CLAIMS, PRECIPITATION PLANT, DUMPS, RR. 1938. 1"=300'
- E8 REDUCTION OF REBER'S VERDE FAULT PROJECTION. 1"=400'.
REBER'S GEOLOGIC MAPS OF UV-UVX AREA (SHEETS 1,2,3). 1"=400'
- E9 A & A GEOLOGY. A & A CLAIM MAPS WITH SURVEY CONTROL.
- E10 HAYNES UNDERGROUND SECTIONS AND PLANS WITH GEOLOGY AND DH.
- E11 JEROME VERDE UNDERGROUND AND SURFACE MAPS. 1"=300'
MAINTOP AREA MAP WITH DRILL HOLE DATA. 1"=50'

-
- F1 VERDE MINING DISTRICT BY MMM CORP. 1948. 1"=1000'
PROPERTY AND DRILLHOLE MAP, SOUTH AREA. PAH-1966. 1"=1000'
MISCELLANEOUS SURVEY MAPS OF UVX CLAIMS. (GRANNY, GROUP 3197, TRIDENT).
- F2 MAPS OF THE JEROME MINING DISTRICT-1926. 1"=800'
CLAIM MAP OF THE CENTRAL PART OF THE MINING DISTRICT, 1927. 1"=500'
VERDE DISTRICT MINERAL CLAIMS. 1906.
MISCELLANEOUS OLD CLAIM MAPS.
- F3 JEROME CLAIM MAPS. 1"=1000'
- F4 SOUTHEASTERN CLAIM MAP OF VE LTD. HANDVERGER. 1963, 1966, 1967
- F5 PITTSBURG & JEROME CLAIMS AND WORKINGS. 1"=400'
PROPERTY MAPS (WITH DH LOCATION ON ONE). HANDVERGER. 1"=1000'
- F6 MAIN PRODUCING CLAIMS OF PHELPS DODGE SHOWING WORKINGS. 1943. 1"=400' &
1"=1000'
- F7 MINERAL CLAIMS OF VERDE DISTRICT-1906. 1"=1000'
- F8 MINERAL SURVEY DATA. 1915. 1"=300'
JV SURVEY SURVEY DATA AND CLAIMS.
UVX MINING CLAIMS. 1"=500' G CLAIM MAP OF THE JV COPPER COMPANY.
1"=300'

- F9 UNTITLED CLAIM MAP SHOWING CONTOURS, AND LIMITED STRUCTURAL AND GEOGRAPHIC DATA OF JEROME AREA. CLAIM MAPS WITH WORKINGS SHOWING UVX, VERDE CENTRAL, UV, JEROME GRANDE, AND JV DEVELOPMENT. 1"=300'
1931 CLAIM MAP OF THE VERDE DISTRICT.
- F10 ABANDONED MMM CORP. MONING CLAIMS. 1949-1951. 1"=400'
CLAIM MAP OF THE AUTOMOBILE AND JEROME SUPERIOR CLAIMS OF THE UV.
-
- G1 AIA-A5 AREA, VE SOUTHERN CLAIMS, PROJECTED GEOLOGY. PAH-1966. 1"=200'
FOOTWALL GEOLOGY AND HANGING WALL DRILLHOLES, SOUTH AREA. PAH-1965.
1"=400'
- G2 VE PROPERTY MAP SHOWING THIN SECTION LOCATIONS. PAH-1963. 1"=1000'
MAIN SHEAR ZONES, VERDE DISTRICT. PAH-1966. 1"=1000'
PROPERTY MAP, VERDE DISTRICT, WITH DRILL HOLES. PAH-1967. 1"=1000'
VERDE DISTRICT ALTERATION, SHEAR ZONES, AND SELECTED GEOLOGY. PAH-1963.
1"=1000'
DRILLHOLE A1A EPIDOTE/CHLORITE ALTERATION GRAPH.
- G3 SECTION CC' AND DD' OF P. PRICE REPORT DATED 11/1/65. 1"=400'
CROSS SECTION OF DRILLHOLES IN SOUTH AREA. PAH-1970 1"=200'
CROSS SECTION OF DRILLHOLES A3 & A5. PAH-1966. 1"=50'
DRILLHOLE CROSS SECTION OF AIA-V10. PAH-1967. 1"=100'
DRILLHOLE CROSS SECTION OF V11-V16. PAH-1967. 1"=100'
- G4 UVX OREBODIES PROJECTED TO ONE HORIZON. PAH-1968. 1"=100'
CROSS SECTION PROJECTION OF UVX ORE BODIES. PAH-1968. 1"=100'
WORK SHEET PLAN SHOWING UVX GOSSAN AND ORE BODY. 1"=100'
- G5 SET OF SOUTH AREA CROSS SECTIONS. PAH-1965. 1"=400'
INDEX MAP AND CROSS SECTIONS OF VERDE DISTRICT. PAH-A967. 1"=400'
- G6 NORTH SHEET, ^{AND CENTRAL SHEET} SHOWING MINE WORKINGS AND PROPERTY LINES. PAH-3/63. 1"=400'
MINE WORKINGS ON NORTH SHEET. PAH-1963. 1"=400'
- G7 CAMBRUZZI AREA GEOLOGY AND DEVELOPMENT (3 PLATES). PAH-1967. 1"=400'
CROSS SECTION AND PLAN OF DH CRJ-1 TO 4. PAH-1970. 1"=200'
- G8 CROSS SECTIONS OF HOLES C11, A7, A8, A2, A3, C5/ PAH-1966. 1"=200'
NEWMONT DRILLHOLES WITH GEOLOGY OF SOUTH AREA. PAH-1968.
- G9 SILVER PLATE PROPERTY AND DRILLHOLE LOCATION. HANDVERGER. 1967. 1"=1000'
DRILL HOLE LOCATION MAP FROM JDIA TO CERRO DH 2. 1965. 1"=400'
GADSDEN MAP TO ACCOMPANY MEMO. PAH-1965. 1"=1000'
- G10 JASPEROID SAMPLE LOCATION MAP. 1968. 1"=1000'
GEOCHEMISTRY AND SELECTED GEOLOGY OF THE SOUTH AND CENTRAL SHEETS, VERDE DISTRICT. PAH-1963. 1"=400'
- G11 PLAN AND PROFILE OF PROPOSED STATE HIGHWAY, PRESCOTT TO FLAGSTAFF. 1941.

- H1 LOCATION OF DRILL HOLES BY COMINCO ON PECHARICH PROPERTY ON MINGUS MOUNTAIN. 1963. 1"=1000'
- H2 NEW JERSEY ZINC GEOCHEMICAL RESULTS (NORTH, CENTRAL AND SOUTH SHEETS). 1956. PAPER COPIES WITH CONTOURS. 1"=400'
- H3 QTZ PORPHYRIES, SHEAR ZONES, AND GEOCHEMICAL ANOMALIES, VERDE DISTRICT. PAH-1967. 1"=1000'
INTERPRETATION OF N.J ZINC GEOCHEMICAL PROJECT. PAH-1963. 1"=400'
- H4 CROSS SECTIONS SOUTH AREA TOPOGRAPHY AND DRILLHOLES WITHOUT GEOLOGY. 1971. 1"=400'
- H5 UV PIT AND SURFACE MAPS.
COMPOSITE MAP SHOWING THE RELATIONSHIP OF UNDERGROUND EXPLORATION TO THE PROPERTY LINES. 1944. 1"=200'
SECTIONS SHOWING DH LOCATIONS ON UV 4050 & 4500 LEVELS.
- H6 GEOLOGIC MAP OF THE UV UNLABLED.
MAP OF THE APPROXIMATE CONTACT OF SEDIMENTS AND TUFF AT THE UV. 1"=100'
- H7 COMPOSITE MAP OF UV 500 LEVEL, DILLON TUNNEL, VERDE CENTRAL 600 LEVEL AT 5000 MSL.
COMPOSITE MAPS OF THE VERDE CENTRAL SOUTH DRIFTS (500,1650,2100 LEVELS) 1"=100'
MAP OF 2100 LEVEL, VULCAN GROUP, JEROME GRANDE, GOLD HILL TUNNEL, DDH, WALNUT SPRINGS.
- H8 SURFACE BUILDING OF UVX AND SURROUNDING AREA. 1"=100'
UTILITY EASEMENT MAPS
- H9 LOCATION MAP OF THE EXTENSION OF THE VERDE TUNNEL AND SMELTER RR. HOPEWELL TO 300 LEVEL. 6/18/1917.
PLANS FOR THE VERDE VALLEY RAIL YARD. 10/28/1912. 1"=200'
SURVEY RECORDS OF THE UV HOPEWELL TUNNEL RR LINE.
- H10 LOCATION MAP OF AZ EXTENSION RR R/W, CLARKDALE SMELTER LINE, SMELTER-MINE BRANCH.
AZ EXTENSION RR R/W PLAT. 1"=400'.
UVX RAILROAD MAPS
PAZ COTA SUBDIVISION, CLARKDALE (REDUCED).
- H11 ARIZONA EXTENSION RAILROAD SURVEY. 1916-1917.
CLEMANCEAU AIRPORT, TAYLOR TRACT.
-
- J1 OFFICIAL JEROME TOWNSITE MAP.
- J2 PHELPS DODGE MAP OF TOWN OF JEROME WITH SOME GEOLOGY. 1937. 1"=100'
- J3 PRESCOTT NATIONAL FOREST. 1920. 1"=4 MILES.
COPPER CHIEF LOTS, NO 2 AND NO 3 CLAIM LOTS, HAMPSHIRE SUBDIVISION, MARCH SUBDIVISION, MOUNTAINVIEW SUBSIVISION, DECEPTION GULCH LOTS, LONE STAR SUBDIVISION, MARCH CLAIM, OREGON LODE-BLOCK 1.
- J4 UVX MAP OF PROPOSED TOWNSITE BELOW H.S. WITH CONTOURS. 1"=50'
CARROL RANCH. 1"=100'

- J5 YAVAPAI SHIST BELT SHOWING MINES (JEROME TO CAVE CREEK). 1917
LONESTAR SUBDIVISION, LONESTAR AND NELLIE BLYE CLAIMS.
ARKANSAS, NELLIE BLYE, AND MOUNTAIN VIEW LOTS.
MARCH CLAIM SUBDIVISION. FLORENCIA #19 LOTS.
JEROME LOTS WITH OWNER'S NAMES (BEALE'S COPY). 1"=50'
YAVAPAI COUNTY MINERAL DEPOSITS (JEROME TO CROWN KING).
- J6 WATER LINES, TOWN OF JEROME. WATER FIRE LINES, CLEMANCEAU.
- J7 HOPKINS RANCH SUBDIVISION
GLO MAP OF T. 14 N., R. 3 E. (1935)
- J8 MAP OF SEC. 27, 28, 33, & 34, T.16N., R.3E.. 1"=300'
RANCH LANDS OWNERSHIP NEAR HASKELL SPRINGS, T.16N., R.3E.
- J9 MAP OF CLEMANCEAU AIRPORT AND VERDE VALLEY. 1"=2400'
RANCH LANDS OF THE CLEMANCEAU MINING CORP. D'ARCY CLAIM MAP ABOUT 1950.
1"=1000'
LAND OWNERSHIP IN SECS. 13,14 T.14N.,R.3E. 1929 1"=300'
RANCH LANDS IN SECS. 26 & 35, T.16N., R.3E. 1920
- J10 NEGATIVES AND ENLARGEMENTS OF PARTS OF THE CLARKDALE QUAD.
- J11 MINGUS MOUNTAIN QUAD. HARD AND SOFT COPIES. 1"=2000'

ANACONDA MAPS IN METAL MAP HOLDER ON FLOOR

- GEOLOGIC MAPS OF THE JEROME DISTRICT (NORTH AND SOUTH SHEETS). LINDBERG,
MEYER AND CAVALLERO. 1972. 1"=400'
- ANACONDA GEOCHEMICAL DATA POINTS. (2 PLATS).
- GEOLOGIC SCTIONS OF JEROME AREA. 1971. 1"=400'
- PHASE ANGLE. NORTH AND SOUTH SHEETS. 1974. 1"=400'
- RESISTIVITY. NORTH AND SOUTH SHEETS. 1974. 1"=400'
- ISOPACH MAPS OF PALEOZOIC. N. & S. SHEETS. 1974. 1"=400'
- GEOLOGY MAPS. N. & S. SHEETS. 1974. 1"=400'
- BLOCK DIAGRAM IN MINE AREA. 1"=400'. 1973.
- SCHEMATIC HISTORY OF THE VERDE FAULT. 1974. 1"=1000'.

Mr. Ben F. Dickerson
DMEA Limited
7340 E. Shoeman Lane
Suite III-B-E
Scottsdale, Az. 85251

RECEIVED JUN 4 1985

June 1, 1985

Dear Mr. Dickerson,

Don White suggested I contact you concerning work in the Jerome area this summer. I am a geologist with two years experience in metals exploration and a years experience teaching geology at Yavapai College in Prescott.

My exploration experience is primarily in precious metals. I worked for about six months in the Bradshaw Mtns. south of Prescott, looking at high grade vein deposits in the Yavapai Series and the intrusives. The college classes I taught include Geology of the Prescott Region and Geology of the Verde Valley. My work experience in the Black Hills-Verde Valley area was furthered last summer when I worked part-time as a geologist for the Forest Service. I worked for a soil scientist, researching and reconnoitering the area to report on material for local soils.

I am currently doing geologic drafting on a free-lance basis and because of my flexible schedule am free for any field work that may come up. I'm enclosing my resume for you to look over; if you can use me on your Jerome project, please let me know.

Thank you,

Beverly E. Morgan

Beverly E. Morgan

1121 E. Hedrick

Tucson, Az. 85719

(602) 623-9172

ORDER FOR ANALYTICAL

JOB NO. UQX028

SAMPLES RECEIVED 6-24-85

PLEASE USE THE ABOVE NUMBER
ON ALL CORRESPONDENCE
THANK YOU!

Samples Sent to:

SKYLINE LABS, INC.
P.O. BOX 50106 • 1700 WEST GRANT ROAD
TUCSON, ARIZONA 85703
(602) 622-4836

RECEIVED JUN 26 1985

(Report and invoice in duplicate will be sent to address below unless otherwise instructed)

Address Report To:

Ben F. Dickerson III
DMEA, Ltd.
2340 East Sherman Ln.
Suite 111 - B - (E)
Scottsdale AZ 85251
Tel. _____

P.O. NO.: _____
SHIPMENT NO.: _____
DATE SHIPPED: Wed. June 19, 1985
SHIPPED VIA: US Postal Service (Insured)
NO. OF CARTONS: One (1)
NO. OF SAMPLES: Fifteen (15)
(Information above helps us trace lost shipments)

Send Invoice To: Above

Send Copy of Report To: Don White
319 South Mt Vernon Av.
Prescott, AZ 86301
602-778-3140

LIST SAMPLE NOS.	DESCRIBE MATERIAL	LIST ELEMENTS TO BE DETERMINED (Give anticipated range of values, if possible) Describe any special sample preparation procedures desired.	INDICATE METHOD OF ANALYSIS*	✓ IF 31 - ELEMENT EMISSION SPEC SCAN DESIRED	
1	Rock	Gold + Silver using Fire Assay/AA and one assay ton			
2					UVX-5-5J1
3					2J5
4					3J5
5					4J5
6					5J5
7		<u>Note: Because samples are small, please crush entire sample to minus 20-mesh before splitting.</u>			
8	UVX-5-7J-5				
9	UVX-6-9D23				
10	6D27				
11	1D29				
12	4D29				
13	6D29				
14	9D29				
15	11D29				
	UVX-6-12D29				

PAYMENT FOR SERVICES REQUESTED MUST ACCOMPANY ORDER UNLESS CREDIT ARRANGED

Signature of person authorizing work: Don White
(Use Continuation Sheet If Necessary)

INSTRUCTIONS

*METHOD OF ANALYSIS: G-Geochem, Q-Quantitative or Routine Assay
W-Wet Assay, F-Fire Assay

†SAMPLE STORAGE: Pulps stored 90 days pending instructions, bulk rejects stored 30 days pending instructions.

Enclose yellow original with samples, send white copy by mail, retain pink copy. White copy will be returned to shipper as an acknowledgement that shipment has been received.

INDICATE DESIRED DISPOSITION OF SAMPLES AFTER ANALYSIS	Bulk Rejects	Pulp
Return at customer's expense via: <u>UPS.</u>	✓	✓
Store temporarily pending instructions†		
Discard immediately		

Edith Shaft, Jerome AZ

Radon Readings 1 Oct, 1985

Sample	Location	WL	on avg of - readings
1	1101 Dr.	0.15	2
2	1100 L., Drill station	0.27	2
3	950 L., Drill Station *	0.33	5
4	✓ ✓ ✓ *	0.29	5

Took sample in A.M. Readings were erratic, 5 readings on same filter gave results from 0.10 WL to 0.61. Went back in afternoon and took another sample. Again took five readings, this time they ranged from 0.25 to 0.35 WL. This is more reasonable, since about ± 0.05 WL seems to be about the limit of accuracy to be expected.

The standard checked within limits both in the morning and the afternoon.

Vent line was put in beyond the drill into 901 W Dr., since the drillers were complaining about it blowing directly on them. We'll cut back the length of vent bag, since it appears the fan exhaust is stirring up the dead air in 901-W. If that doesn't work, we'll brattice it off. (over)

Took radon reading at 250 L D.V. sta on Wed 3rd
after disconnecting the vent line beyond the drill
0.15 W.L.

RECEIVED OCT 9 1985

The standard checked within limits both
in the morning and the afternoon.
about the limit of accuracy to be expected.
reasonable, since about ± 0.02 W.L. seems to be
They ranged from 0.22 to 0.32 W.L. This is more
sample. Again, take five readings, this time
0.1. Went back in afternoon and took another
5 readings on same filter for next 5 days.
Took sample in A.M. Readings were erratic,

INDEMNIFICATION AGREEMENT AND WAIVER

The undersigned, in consideration of the permission granted by Ben F. Dickerson III d/b/a DMEA Ltd., as agent for A. F. Budge (Mining) Limited, (the "Indemnitees" herein), to the undersigned to enter upon the UVX Mine Property in the Jerome Mining District, Yavapai County, Arizona (the "Property"), the undersigned to hereby agree as follows:

1. Indemnification

The undersigned hereby assume the risk of all damage, loss, costs and expense, and agree to indemnify and hold the Indemnitees harmless, including their officers, agents, and employees from and against any and all liability, damage, loss, cost and expense that may accrue to or be sustained by the undersigned on account of any claim, suit, or action made or brought against Indemnitees, their officers, agents or employees, for the death of or any injury to persons or destruction of property involving the undersigned, sustained in connection with the entrance and inspection of the Property arising from any cause whatsoever (including without limitation falls or injuries resulting from the condition of the land, mines, equipment and materials) except willful misconduct of Indemnitees or their employees acting within the scope of their employment.

2. Compliance With Laws and Safety

The undersigned agree that they will comply with all the Indemnitees' instructions, safety rules and all rules,

regulations and legal standards while on the Property, including the undersigned furnishing their own protective equipment such as hard hats, safety glasses, and/or any other personal protective equipment, as required.

3. Waiver and Release

The undersigned hereby waive all rights to make claim or file suit against Indemnites for, and relieve Indemnites from all liability or responsibility of any kind arising from, such damage, loss, cost or expense and the considerations received by the undersigned pursuant to the right to inspect said Property is complete satisfaction of all such damage, loss and other expense heretofore or hereafter sustained.

DATED this 24 day of September, 198 85

SIGNED:

Ray D. Smith

Kendy Jo Jones

Cynthia M Walck

INDEMNIFICATION AGREEMENT AND WAIVER

The undersigned, in consideration of the permission granted by Ben F. Dickerson III d/b/a DMEA Ltd., as agent for A. F. Budge (Mining) Limited, (the "Indemnitees" herein), to the undersigned to enter upon the UVX Mine Property in the Jerome Mining District, Yavapai County, Arizona (the "Property"), the undersigned to hereby agree as follows:

1. Indemnification

The undersigned hereby assume the risk of all damage, loss, costs and expense, and agree to indemnify and hold the Indemnitees harmless, including their officers, agents, and employees from and against any and all liability, damage, loss, cost and expense that may accrue to or be sustained by the undersigned on account of any claim, suit, or action made or brought against Indemnitees, their officers, agents or employees, for the death of or any injury to persons or destruction of property involving the undersigned, sustained in connection with the entrance and inspection of the Property arising from any cause whatsoever (including without limitation falls or injuries resulting from the condition of the land, mines, equipment and materials) except willful misconduct of Indemnitees or their employees acting within the scope of their employment.

2. Compliance With Laws and Safety

The undersigned agree that they will comply with all the Indemnitees' instructions, safety rules and all rules,

regulations and legal standards while on the Property, including the undersigned furnishing their own protective equipment such as hard hats, safety glasses, and/or any other personal protective equipment, as required.

3. Waiver and Release

The undersigned hereby waive all rights to make claim or file suit against Indemnites for, and relieve Indemnites from all liability or responsibility of any kind arising from, such damage, loss, cost or expense and the considerations received by the undersigned pursuant to the right to inspect said Property is complete satisfaction of all such damage, loss and other expense heretofore or hereafter sustained.

DATED this 7th day of Sept., 198 5.

SIGNED:

 Kirk Figy Figy
 Bruce Figy ✓

U. S. Department of Labor

Mine Safety and Health Administration
3221 North 16th Street
Phoenix, Arizona 85016



November 26, 1985

Fred H. Brooks, President
Brooks Minerals, Inc.
8700 W. 14th
Lakewood, CO 80215

RECEIVED NOV 27 1985

RECEIVED NOV 27 1985

Dear Mr. Brooks:

This enclosed inspection report covers a federal inspection of the Edith Shaft, I. D. No. 02-02066, Jerome, Yavapai County, Arizona, conducted on October 16, 1985. The inspection was made pursuant to Public Law 91-173 (83 STAT. 742) as amended by Public Law 95-164 (91 STAT. 1290).

Industrial hygiene samples collected during this inspection require laboratory analysis. You will receive a supplement to this inspection report upon completion of the analysis.

Actions taken as a result of this inspection were:

ORIGINAL ACTIONS THIS INSPECTION:

	<u>Issue</u>	<u>Terminate</u>	<u>Modify</u>	<u>Extend</u>	<u>Rep by Order</u>	<u>Vacate</u>
Citations:	1					
Orders:	0					

ACTIONS ON PREVIOUS VIOLATIONS:

	<u>Issue</u>	<u>Terminate</u>	<u>Modify</u>	<u>Extend</u>	<u>Rep by Order</u>	<u>Vacate</u>
Citations:				1		
Orders:						

INCIDENCE RATES

	<u>Fatal</u>	<u>NFDL</u>	<u>NDL</u>	<u>TIME PERIOD</u>
This Operation	0	0	0	Jan. - June 1985
Mine Type (Nat'l)	.10	4.84	4.11	Jan. - June 1985

Sincerely,

Vernon R. Gomez
VERNON R. GOMEZ
Subdistrict Manager

Mine Citation/Order
Continuation

U.S. Department of Labor
Mine Safety and Health Administration



1. Dated (original issue)		2. Citation/Order Number			
Mo	Da	Yr			
08	22	85	2247148-		
3. Subsequent Action <input checked="" type="checkbox"/> Continuation <input type="checkbox"/>			4. Date	5. Time (24 hr. clock)	6. Served To
			10/16/85	1500	Pete Flores
7. Operator			Mine	8. Mine ID	(Contractor)
Brooks mine - Edith shaft				02-02066-	

Justification For Action

EXTENSION WAS GRANTED. THE COMPANY NEED MORE TIME TO MAKE AND KEEP RECORDS OF THE INDIVIDUAL OF ALL MINE PERSONNEL WORKING IN ACTIVE WORKING AREAS WITH RADON DAUGHTER CONCENTRATION IN EXCESS OF 0.3 WL.

9. Extended To: <input checked="" type="checkbox"/>	9a. Date	9b. Time (24 hr. clock)	10. Vacated <input type="checkbox"/>	Terminated <input type="checkbox"/>	Modified <input type="checkbox"/>
	10/25/85	0900			
11. See Continuation Form <input type="checkbox"/>		12. Type of Inspection	13. Event Number		
		001	0143636		
14. Signature			AR Number		
<i>Walter D. Wainwright</i>			586		



Section I - Violation Data

1. Date	Mo	Da	Yr	2. Time (24 Hr. Clock)	3. Citation/Order Number
	00	16	85	1500	2670350
4. Served To	5. Operator				
Pete Flores	Brooks Minerals Inc				
6. Mine	7. Mine ID				
Edith Sharp	02-02066 (Contractor)				
8. Condition or Practice					8a. Written Notice (103g) <input type="checkbox"/>

The operator failed to submit MSHA Form 7000-2 (Quarterly mine Employment Report) for the second and third calendar quarter of 1985

9. Violation	A. Health Safety Other <input checked="" type="checkbox"/>	B. Section of Act	C. Part/Section of Title 30 CFR
		-	50. 30A

Section II - Inspector's Evaluation

10. Gravity:

A. Injury or Illness (has) (is): No Likelihood Unlikely Reasonably Likely Highly Likely Occurred

B. Injury or Illness could reasonably be expected to be: No Lost Workdays Lost Workdays or Restricted Duty Permanently Disabling Fatal

C. Significant and Substantial (See Reverse): Yes No D. Number of Persons Affected: 1

11. Negligence (check one): A. None B. Low C. Moderate D. High E. Reckless Disregard

12. Type of Action: 104-a

13. Type of Issuance (check one): Citation Order Safeguard

14. Initial Action: A. Citation B. Order C. Safeguard D. Written Notice E. Citation/Order Number: F. Dated: Mo Da Yr

15. Area or Equipment:

16. Termination Due	A. Date	Mo	Da	Yr	B. Time (24 Hr. Clock)
	10	25	85		0800

Section III - Termination Action

17. Action to Terminate:

18. Terminated: A. Date: Mo Da Yr B. Time (24 Hr. Clock):

Section IV - Automated System Data

19. Type of Inspection (activity code)	20. Event Number	21. Primary or Mill
001	0143636	P
22. Signature: <i>Vincent P. Warner</i>		23. AR Number: 586

U. S. Department of Labor

Mine Safety and Health Administration
3221 North 16th Street
Phoenix, Arizona 85016



November 25, 1985

Fred H. Brooks, President
Brooks Minerals, Inc.
8700 W. 14th
Lakewood, CO 80215

RECEIVED NOV 27 1985

Dear Mr. Brooks:

This enclosed inspection report covers a federal inspection of the Edith Shaft, I. D. No. 02-02066, Jerome, Yavapai County, Arizona, conducted on October 24, 1985. The inspection was made pursuant to Public Law 91-173 (83 STAT. 742) as amended by Public Law 95-164 (91 STAT. 1290).

Actions taken as a result of this inspection were:

ORIGINAL ACTIONS THIS INSPECTION:

	<u>Issue</u>	<u>Terminate</u>	<u>Modify</u>	<u>Extend</u>	<u>Rep by Order</u>	<u>Vacate</u>
Citations:	0					
Orders:	0					


ACTIONS ON PREVIOUS VIOLATIONS:

	<u>Issue</u>	<u>Terminate</u>	<u>Modify</u>	<u>Extend</u>	<u>Rep by Order</u>	<u>Vacate</u>
Citations:		1		1		
Orders:						

INCIDENCE RATES

	Fatal	NFDL	NDL	TIME PERIOD
This Operation	0	0	0	Jan. - June 1985
Mine Type (Nat'l)	.10	4.84	4.11	Jan. - June 1985

Sincerely,


VERNON R. GOMEZ
Subdistrict Manager

Miscellaneous Contaminants
Sampling Results

U. S. Department of Labor
Mine Safety and Health Administration



Mine ID Number	Date of Sample(s)	Contaminant			
02-02066	October 24, 1985	<input checked="" type="checkbox"/> Gas	<input type="checkbox"/> Vapor	<input type="checkbox"/> Mist	<input type="checkbox"/> Other (specify)
Mine Name	Company Name	Address			

Edith Shaft

Brooks Minerals Inc.

*P. O. Box 938
Jerome, AZ 86631*

Name and Social Security Number	Occupation and Location	Sample Number	Sampling Time (min)	Contaminant Name	Contaminant Concentration (W.L.) **	SWA or TWA* () **	TLV () **	Comments
								<i>Working Level (W.L.)</i>
<i>Area Sample</i>	<i>950 Diamond Drill Station</i>	<i>1</i>	<i>9:15am</i>	<i>Radon Daughters</i>	<i>0.03</i>		<i>.1 - .3</i>	
<i>Area Sample</i>	<i>11:00 Level Audri Shaft</i>	<i>2</i>	<i>9:35am</i>	<i>Radon Daughters</i>	<i>0.08</i>		<i>.1 - .3</i>	
<i>Area Sample</i>	<i>11.00 Level Diamond Drill Station</i>	<i>3</i>	<i>9:50am</i>	<i>Radon Daughters</i>	<i>0.18</i>		<i>.1 - .3</i>	<i>Individual Exposure Records are Logged</i>
<i>Area Sample</i>	<i>1100 Level Edith Shaft</i>	<i>4</i>	<i>10:10am</i>	<i>Radon Daughters</i>	<i>0.06</i>		<i>.1 - .3</i>	

Mine Citation/Order
Continuation

U.S. Department of Labor
Mine Safety and Health Administration



1. Dated (original issue)			2. Citation/Order Number								
Mo.	Da.	Yr.	2247148-								
3. Subsequent Action <input checked="" type="checkbox"/> Continuation <input type="checkbox"/>			4. Date			5. Time(24 hr. clock)			6. Served To		
Mo.	Da.	Yr.	10 24 85			1130			Maurice Bracey		
7. Operator						8. Mine ID			(Contractor)		
Brooks Minerals Inc Elbith Shaft						02-02066-					

Justification For Action

EXTENSION WAS GRANTED. THE COMPANY NEEDS MORE TIME TO MAKE AND KEEP RECORDS OF THE INDIVIDUALS OF ~~THE~~ MINE PERSONNEL WORKING IN ACTIVE WORKING AREAS WITH RADON DAUGHTER CONCENTRATION IN EXCESS OF 0.3 W.L.

9. Extended To:		9a. Date		9b. Time(24 hr. clock)		10. Vacated <input type="checkbox"/>		Terminated <input type="checkbox"/>		Modified <input type="checkbox"/>	
<input checked="" type="checkbox"/>		10 26 85		0800							
11. See Continuation Form <input type="checkbox"/>				12. Type of Inspection		13. Event Number					
				002		0143640					
14. Signature						AR Number					
[Signature]						586					



Section I - Violation Data

1. Date	Mo	Da	Yr	2. Time (24 Hr. Clock)	3. Citation/Order Number
	00	16	85	1500	2670350

4. Served To	5. Operator
Pete Flores	Brooks Minerals Inc

6. Mine	7. Mine ID	(Contractor)
Edith Sharp	02-02066	

8. Condition or Practice 8a. Written Notice (103g)

The operator failed to submit an MSHA Form 7000-2 (Quarterly mine Employment Report) for the second and third calendar quarter of 1985

See Continuation Form (MSHA Form 7000-3a)

9. Violation	A. Health Safety Other	B. Section of Act	C. Part/Section of Title 30 CFR
	<input checked="" type="checkbox"/>	-	50. 30A

Section II - Inspector's Evaluation

10. Gravity:

A. Injury or Illness (has) (is): No Likelihood Unlikely Reasonably Likely Highly Likely Occurred

B. Injury or Illness could reasonably be expected to be: No Lost Workdays Lost Workdays or Restricted Duty Permanently Disabling Fatal

C. Significant and Substantial (See Reverse): Yes No D. Number of Persons Affected: 1

11. Negligence (check one)

A. None B. Low C. Moderate D. High E. Reckless Disregard

12. Type of Action	13. Type of Issuance (check one)
10A - a	Citation <input checked="" type="checkbox"/> Order <input type="checkbox"/> Safeguard <input type="checkbox"/>

14. Initial Action	D. Written Notice	E. Citation/Order Number	F. Dated	Mo	Da	Yr
A. Citation <input type="checkbox"/> B. Order <input type="checkbox"/> C. Safeguard <input type="checkbox"/>	<input type="checkbox"/>					

15. Area or Equipment

16. Termination Due	A. Date	Mo	Da	Yr	B. Time (24 Hr. Clock)
	10 25 85				0800

Section III - Termination Action

17. Action to Terminate

18. Terminated	A. Date	Mo	Da	Yr	B. Time (24 Hr. Clock)

Section IV - Automated System Data

19. Type of Inspection (activity code)	20. Event Number	21. Primary or Mill
001	0143636	P

22. Signature	23. AR Number
<i>Kyle P. Warner</i>	586

Mine Citation/Order
Continuation

U.S. Department of Labor
Mine Safety and Health Administration



1. Dated (original issue)			2. Citation/Order Number								
Mo.	Da.	Yr.	2670350-								
3. Subsequent Action <input checked="" type="checkbox"/> Continuation <input type="checkbox"/>			4. Date			5. Time (24 hr. clock)			6. Served To		
			Mo. Da. Yr.			1145			Maurice Drabey		
7. Operator						8. Mine ID					
Brooks Minerals Inc BEITL SHAFT.						02-02064-					
						(Contractor)					

Justification For Action

The operator has submit AN MSHA FORM 7000-2 QUARTERLY mine EMPLOYMENT REPORT FOR THE SECOND AND THIRD QUARTER OF 1985

9. Extended To: <input type="checkbox"/>		9a. Date			9b. Time (24 hr. clock)			10. Vacated <input type="checkbox"/>			Terminated <input checked="" type="checkbox"/>			Modified <input type="checkbox"/>		
		Mo.	Da.	Yr.												
11. See Continuation Form <input type="checkbox"/>					12. Type of Inspection			13. Event Number								
					002			0143640								
14. Signature								AR Number								
Vergil D. Wainwright								5786								

U. S. Department of Labor

Mine Safety and Health Administration
3221 North 16th Street
Phoenix, Arizona 85016



October 31, 1985

Fred H. Brooks, President
Brooks Minerals Inc.
8700 W. 14th
Lakewood, CO 80215

RECEIVED NOV 14 1985

Dear Mr. Brooks:

This enclosed inspection report covers a federal inspection of the Edith Shaft, I. D. No. 02-02066, Jerome, Yavapai County, Arizona, conducted on September 18, 1985. The inspection was made pursuant to Public Law 91-173 (83 STAT. 742) as amended by Public Law 95-164 (91 STAT. 1290).

Actions taken as a result of this inspection were:

ORIGINAL ACTIONS THIS INSPECTION:

	<u>Issue</u>	<u>Terminate</u>	<u>Modify</u>	<u>Extend</u>	<u>Rep by Order</u>	<u>Vacate</u>
Citations:	0					
Orders:	0					

ACTIONS ON PREVIOUS VIOLATIONS:

	<u>Issue</u>	<u>Terminate</u>	<u>Modify</u>	<u>Extend</u>	<u>Rep by Order</u>	<u>Vacate</u>
Citations:	0					
Orders:	0					

INCIDENCE RATES

	Fatal	NFDL	NDL	TIME PERIOD
This Operation	0	0	0	
Mine Type (Nat'l)	.10	4.84	4.11	

Sincerely,

VERNON R. GOMEZ
Subdistrict Manager

Miscellaneous Contaminants
Sampling Results

U. S. Department of Labor
Mine Safety and Health Administration



Mine ID Number: 02-02066
 Date of Sample(s): 9/18/85
 Contaminant: Gas Vapor Mist Other (specify) Radiation
 Detector Tube

Mine Name: Edith Shaft
 Company Name: Brooks Minerals, Inc.
 Address: P.O. Box 938
 Jerome, AZ 86631

Name and Social Security Number	Occupation and Location	Sample Number	Sampling Time (min)	Contaminant Name	Contaminant Concentration ()**	SWA or TWA* ()**	TLV ()**	Comments
				Radon daughters	()**	()**	()**	
Area Sample	1100 Diamond Drill Sta.	1	10:20	" "	.59 WL		0.1-0.3	A fan is being installed in this area. Citation outstanding.
Area Sample	950 D.D. station	2	10:40	" "	.22 WL		0.1-0.3	Fan is ventilating this area.
Area Sample	950 Level station	3	10:50	" "	.11 WL		0.1-0.3	New working area.
Area Sample	800 Station in front of curtain	4	11:00	" "	.08 WL		0.1-0.3	Inactive area.
Area Sample	500 Level Station	5	11:10	" "	.03 WL		0.1-0.3	Inactive area.
Area Sample	1100 D.D. station	1	10:21	Carbon dioxide	.01 %		0.5 %	Trace only.
Area Sample	1100 station	2	10:30	" "	.01 %		0.5 %	Trace only.
Area Sample	950 station	3	10:35	" "	.01 %		0.5 %	Trace only.
Area Sample	950 D.D. station	4	10:39	" "	.01%		0.5%	Trace only.
Area Sample	800 Station	5	11:02	" "	.01%		0.5%	Trace only.

BROOKS MINERALS INCORPORATED

8700 W. 14th AVE.
LAKEWOOD, CO 80215

TELEPHONE
(303) 232-5955

October 11, 1985

Ben F. Dickerson III
DMEA, Ltd.
7340 E. Shoeman Ln.
Scottsdale, AZ

Re: Longyear Charges

Dear Ben,

During October we supplied Longyear with some grease and diesel fuel. These were included in our Supplies so should not be invoiced to you from Longyear.

This amounted to :

✓ 25 gals. diesel
✓ 12 gals. Texclad cable dope
✓ 5 gals. Rock drill oil

Additionally, we supplied them with two hours of mechanic's time, repairing a bracket of theirs. These were overtime hours.

Since this time is included in our payroll, they should reimburse you that cost.

This would be:

2 hrs. @ \$16.50 x 18% burden x 1.15% fee
= \$44.78

Yours very truly,


Fred H. Brooks

cc: Jerome

UNITED STATES DEPARTMENT OF LABOR
MINE SAFETY AND HEALTH ADMINISTRATION
METAL AND NONMETAL MINE SAFETY AND HEALTH
V. R. Gomez, Subdistrict Manager
3221 North 16th Street, Suite 300
Phoenix, Arizona 85016

Mine Name Edith Shaft Identification No. 02-02066

Company Name Brooks Minerals, Inc.

SUPPLEMENT TO INSPECTION REPORT DATED August 22, 1985

Complete mine gases sample results and other pertinent data are included
in the attachment.

Miscellaneous Contaminants
Sampling Results

U. S. Department of Labor
Mine Safety and Health Administration



Mine ID Number: 02-02066 Date of Sample(s): 8/22/85 Contaminant: Gas Vapor Mist Other (specify)

Mine Name: Edith Shaft Company Name: Brooks Minerals, Inc. Address: P.O. Box 938
Jerome, AZ 86631

Name and Social Security Number	Occupation and Location	Sample Number	Sampling Time (min)	Contaminant Name Complete mine gases	Contaminant Concentration ()**	SWA or TWA* ()**	TLV ()**	Comments
Bistable sample	950 Level 300 foot from station by the XC. Next DD station	42824	10:25	Oxygen		20.53 %	19.5%	
" "	" "	"	"	Methane		.000ppm	.25%	
" "	" "	"	"	Carbon monoxide		.000ppm	50 ppm	
" "	" "	"	"	Carbon dioxide		.39 %	.51%	A vent pipe has been installed in this area.

*Circle calculation method used

**Specify Concentration Units

Jerome Project
week of Oct 20-26, 1985

RECEIVED NOV 8 1985

Monday 21st
1100L: still in chert, drilled about 15'.
950L: Drilling on plug all day long. Hung up again but got loose with help of chain hoist.
800L: Pete and Don went about 900' to west of shaft. High CO₂ out there.
Surface: JR worked 6 hrs. on reamer, etc. for Longyear.

Tues, 22nd
1100L: made 17'
950L: Back to bottom of hole, broken up red chert
Ran declination survey.
800L: No work.
Surface: JR on IR pump repair.

Wed, 23rd
1100L 20' softer material
950L: Abandoned hole, changing to drill the down hole
mechanical problems with hydraulic system
Surface: IR pump repair, links for cans, work for Longyear.

Thursday 1100L
950L: Mechanic out on hydraulics, drill down.
Surface: JR on stand for D.D. (Longyear acct) MSHA out, we took duplicate readings at:

Location	MSHA	0.03 WL	BMI	0.05
950 L D.D. sta				
Audrey (discharge) 1100L	✓	0.08	✓	0.12
1100 L D.D. sta	✓	0.18	✓	0.18
EJ.ith, 1100L sta	✓	0.06	✓	0.08

(over)

10/22/85

MB

①

Cost ESTIMATE

— 800 Level Work, Edith Shaft.

RECEIVED OCT 25 1985

Project (A)

To clean out station, widen 806 (west) drift as needed to allow passage of drill to a point @ $\pm 11890 N, 7250 E$ approximately 600 feet from station.

Clean up caves and bolt a/o timber as needed. Shoot out for diamond drill station, with bolts and wire.

Install 18" gauge track, air and water lines, and electric cable if an electro-hydraulic drill unit is used, from shaft to proposed drill station.

Material Needed

600' track = 1200' rail @ 35 [#] /yd = 7 tons rail	on hand
80 sets splice bars @ 11.00	✓ ✓
spikes	✓ ✓
Ties 3' intervals = 200 4' x 6" x 4" ÷ 12 = 1600 Bd ft.	✓ ✓
600' 4" Al air line @ 1.91 / ft.	\$ 1146
fittings, clamps, valves, etc. @ 0.4	458
600' 2" water line @ 1.20 / ft	720
fittings, etc @ 0.4	288
Electric cable @ 4.00 / ft	2400
✓ ✓ hookup (contract electrician)	400
TOTAL	\$5,412
	Say \$5750

Labor Cost

This will depend on a number of things

1. Disposition of the large pile of fallen rock at the station.
2. Quality of the people we can get for a short-lived project.
3. Wages needed because of the uncertainty of further employment after the cleanup and installation.
4. Dimensions of the largest piece of equipment that will have to be transported. The 806 drift is narrow and

crooked. It may have to be slabbed in places to allow room for ties, rail, timber truck and -then the largest piece of equipment on top of the above.

For a rough estimate it will take a two-man crew 3-4 weeks. Labor cost will probably have to be in the range of \$15/hr., plus fringes

Assume 18 working days

18 days x 2 men x 8 hrs/day = 288 man-hours.

288 x \$15 x 1.52 \$ 5702

Bolts, fencing, blasting supplies, bits, steel, etc @ 40% of above

2280
\$ 7,982 9,000

material (see page 1)

5412 5,700

Contingency 15%

2000 2200

TOTAL

\$15,394 \$16,900

3 say: 17,000 to 20,000

* This over and above present costs.

Over and above Current Costs

Notes

Costs for pipe, fittings and other items are based on BMI costs. If additional supplies are needed, costs may be higher.

5750
2280
5250
5800

Project (B)

as above, except work directed at setting up a drill station at ± 11,630 N, 7650 E via 806^(s) and 802 drifts. Distance ± ~~450~~⁵⁰⁰ feet.

Material: 3/4 cost of (A)	\$	4060	4200
Labor 15 days in place of 18		4750	5300
expendable supplies @ .4		1900	2300
		<u>10,710</u>	<u>11,800</u>
15%		<u>1600</u>	<u>1800</u>
TOTAL	\$	12,310	13,600 to 15,000

Overstature

In either case, if we could dispose of the muck at the shaft it would save a week's labor and time.

* (a)	\$	17,000 - 20,000	after start 3-4 wks
(b)		13,000 - 16,000	3 wks

If dispose muck in shaft - less one week labor but about same costs

U. S. Department of Labor

Mine Safety and Health Administration
3221 North 16th Street
Phoenix, Arizona 85016



October 31, 1985

Fred H. Brooks, President
Brooks Minerals Inc.
8700 W. 14th
Lakewood, CO 80215

Dear Mr. Brooks:

This enclosed inspection report covers a federal inspection of the Edith Shaft, I. D. No. 02-02066, Jerome, Yavapai County, Arizona, conducted on August 29, 1985. The inspection was made pursuant to Public Law 91-173 (83 STAT. 742) as amended by Public Law 95-164 (91 STAT. 1290).

Actions taken as a result of this inspection were:

ORIGINAL ACTIONS THIS INSPECTION:

	<u>Issue</u>	<u>Terminate</u>	<u>Modify</u>	<u>Extend</u>	<u>Rep by Order</u>	<u>Vacate</u>
Citations:	0					
Orders:	0					

ACTIONS ON PREVIOUS VIOLATIONS:

	<u>Issue</u>	<u>Terminate</u>	<u>Modify</u>	<u>Extend</u>	<u>Rep by Order</u>	<u>Vacate</u>
Citations:	0					
Orders:	0					

INCIDENCE RATES

	Fatal	NFDL	NDL	TIME PERIOD
This Operation	0	0	0	Jan. - June 1985
Mine Type (Nat'l)	.10	4.84	4.11	Jan. - June 1985

Sincerely,

VERNON R. GOMEZ
Subdistrict Manager

Miscellaneous Contaminants
Sampling Results

U. S. Department of Labor
Mine Safety and Health Administration



Mine ID Number 02-02066	Date of Sample(s) 8/29/85	Contaminant <input checked="" type="checkbox"/> Gas <input type="checkbox"/> Vapor <input type="checkbox"/> Mist <input type="checkbox"/> Other (specify) Carbon dioxide + oxides of nitrogen and carbon monoxide
Mine Name Edith Shaft	Company Name Brooks Minerals, Inc.	Address 8700 W. 14th Avenue Lakewood, CO 80215

Name and Social Security Number	Occupation and Location	Sample Number	Sampling Time (min)	Contaminant Name	Contaminant Concentration ()**	SWA or TWA* ()**	TLV ()**	Comments
	Area samples	10	1155	Carbon dioxide	.01%		.5%	
	1100 tail drift 300 crosscut	11	1210	" "	.02%		.5%	
	1100 Station 15 ft. outby	12	1220	" "	.00%		.5%	
	950 Station new D.D. station	13	1230	" "	.53%		.5%	Over TLV; no employees working in this area.
	950 Edith shaft	14	1235	" "	.00%		.5%	
	Exhaust shaft surface	15	1301	" "	.03%		.5%	Fan off. Natural ventilation.
	Exhaust shaft surface	16	1305	Carbon monoxide	.00%		.0050%	
	Exhaust shaft surface	17	1315	Oxides of nitrogen	.00%		.0005%	

Miscellaneous Contaminants
Sampling Results

U. S. Department of Labor
Mine Safety and Health Administration



Mine ID Number: 02-02066 Date of Sample(s): 8/29/85 Contaminant: Gas Vapor Mist Other (specify) oxygen radiation survey

Mine Name: Edith Shaft Company Name: Brooks Minerals, Inc. Address: 8700 W. 14th Avenue, Lakewood, CO 80215

Name and Social Security Number	Occupation and Location	Sample Number	Sampling Time (min)	Contaminant Name	Contaminant Concentration ()**	SWA or TWA* ()**	TLV ()**	Comments Not to exceed 1.0 WL. .03WL shall be recorded.
Area Sample	1100 station	1	11:55	Radon daughters	.65		1.0 WL	Exposure records shall be circulated & recorded.
Area Sample	1100 tail dr. 300' by the XC	2	12:10	" "	.61		1.0 WL	Exposure records shall be circulated & recorded.
Area Sample	1100 station 15' away from the shaft	3	12:20	" "	.38		1.0 WL	Station is being ventilated. Exposures recorded.
Area Sample	950 level Edith shaft station	4	12:30	" "	1.14		1.0 WL	This area will not be worked until ventilated.
Area Sample	950 Level Edith shaft station	5	12:35	" "	.20		1.0 WL	
Area Sample	1100 station	1	11:04	Oxygen	20.7		19.5	
Area Sample	1100 tail dr. by the XC 300' away from sta.	2	11:09	"	20.02		19.5	
Area Sample	950 level new diamond drill station	3	12:33	"	20.03		19.5	
Area Sample	950 level station Edith shaft	4	12:32	"	20.6		19.5	
								WL - working level

700 Level (also called 9th Floor above 800 Level)

Drifts & X-cuts forward & rearward of section

8th Floor

7th

6th

5th

4th

3rd

2nd Floor

826-27-28 Stopes

Open this plane to 100' forward

Open 90'-120' rearward

Open 50'-80' rear

Open 20' rear

800 Level

Network of drifts, X-cuts, & small stopes at 800 sill floor level, 100' forward to 100' rearward

10th Floor

Open 20'-50' rearward

9th

8th

Open ~40' rear

7th

6th

Open 20' rear

5th

4th

Open 30'-50' rear

3rd

2nd

Open 30'-60' rear

903 Int. Level

Two X-cuts rearward of section

903-N Drift

928-1 Stope

Open 20'-40' rear

Open 20' rear

Open, this plane

Open 20' forward

Open

Open, this plane

Open 10'-30' rear

Open 20' rear & forward

Open 20' rear & forward

Open, this plane

Open 20' rear

DDH 806-1 penetration as plotted on X-sec E-E'

Desired penetration to trace Au and minimize chance of loss in

DDH 806-1 penetration by extrapolating presently established drop rate in vertical dimension only. Two X-cuts forward at this section

To 950-?

To 950-?

No stope sheets found for 950-level or its floors

Workings projected fore and aft, as noted. Diorite within Verde fault, rear of section, chert within section.

* eg., thru 928-1 stope (auriferous as shown on X-section E-E') in plane of 903-N drift, 903 int. level, looking S34°W

Reduced copy 1"=40' forthcoming Monday

U.V.X. Cross Section, 1"=40'

Normal to D.D.H. 806-1 and thru drill target*

Compiled from 1"=30' stope sheets (up-to-date-?) in UVX vault.

OFFICE OF STATE MINE INSPECTOR

705 WEST WING, CAPITOL TOWER
PHOENIX, ARIZONA 85007-2859
(602) 255-5971

HEALTH AND SAFETY INSPECTION REPORT

COMPANY NAME: BROOKS MINERALS, INC.
MINE/PLANT NAME: United Verde Extension
MAILING ADDRESS: P. O. Box 938
CITY: Jerome **STATE:** AZ **ZIP:** 86331

MINE/PLANT LOCATION: RANGE: _____, **TOWNSHIP:** _____, **SECTION:** _____
100 yards west of the Jerome Museum.

TELEPHONE NUMBER: (303) 232-5955/CO
226-5955 **IDENTIFICATION NUMBER:**

STATUS: PERMANENT INTERMITTENT TEMPORARY/PORTABLE

**THIS REPORT IS BASED ON AN INSPECTION MADE PURSUANT TO ARIZONA REVISED STATUTES
SECTION 27-124 AND SECTION 27-128**

DATE OF INSPECTION: 2/13/86 **COMPANY OFFICIALS:**
TYPE OF OPERATION: Underground/Exploration Fred H. Brooks, President
Morris Brady, Vice President
PRINCIPAL PRODUCT: AU Pete Florice, Project Superintendent
COUNTY: Yavapai

INSPECTION PARTY: **NUMBER OF EMPLOYEES:** 5
Morris Brady, Vice President
Pete Florice, Project Superintendent
David Hamm, Deputy Mine Inspector

DMEA LTD.

No violations were observed on this date, 2/13/86.

MAR 5 1986

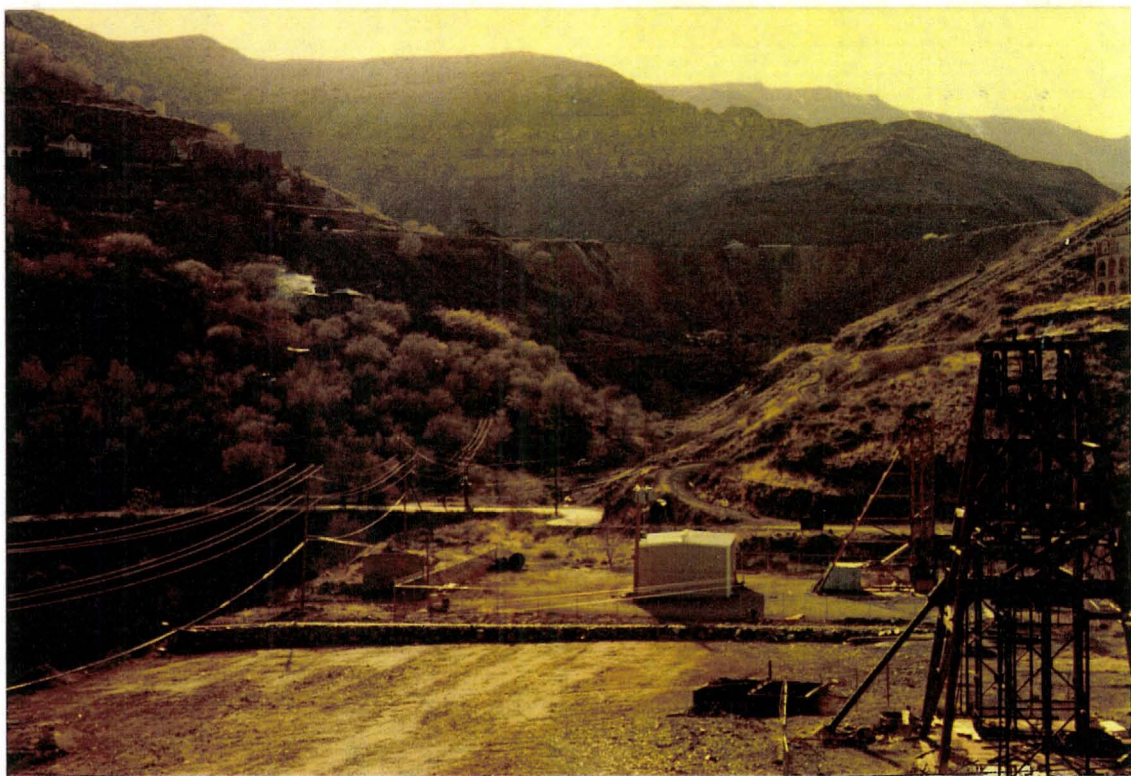
RECEIVED

CC: Brooks Minerals, Inc.
8700 West 14th Avenue
Lakewood, CO 80215

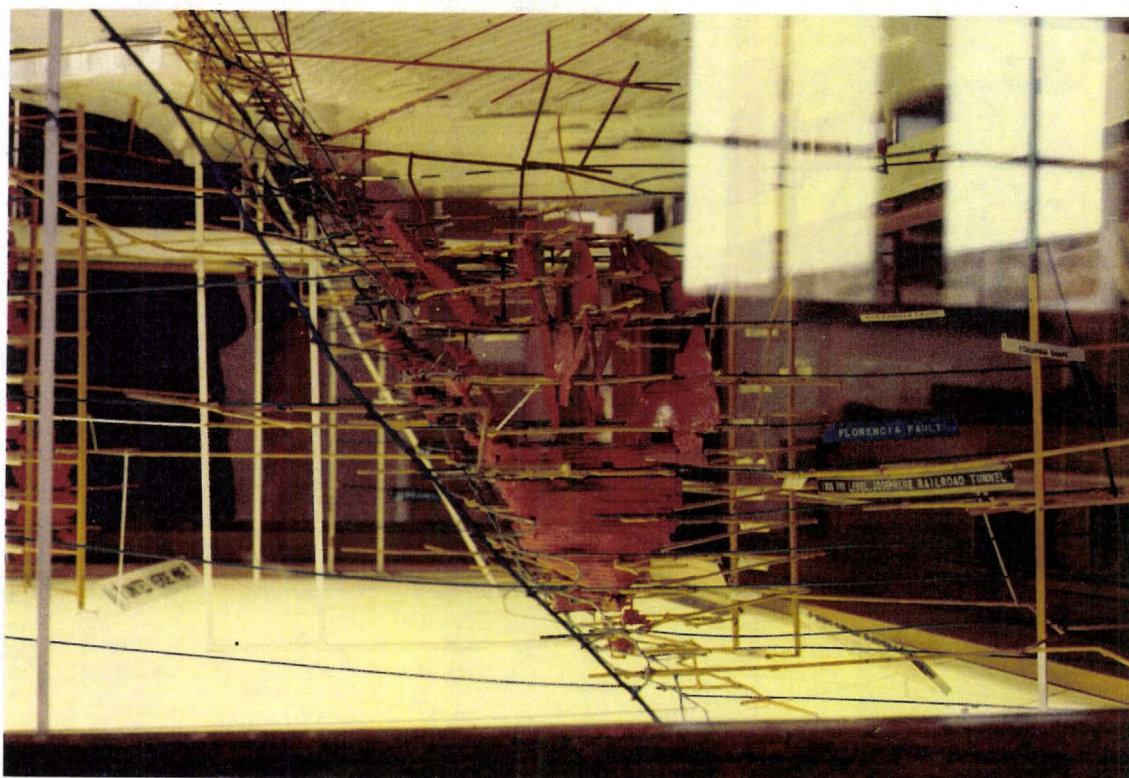
CC: DMEA Ltd. ✓
7340 E. Shoeman Lane, Suite 111 "B" (E)
Scottsdale, AZ 85251



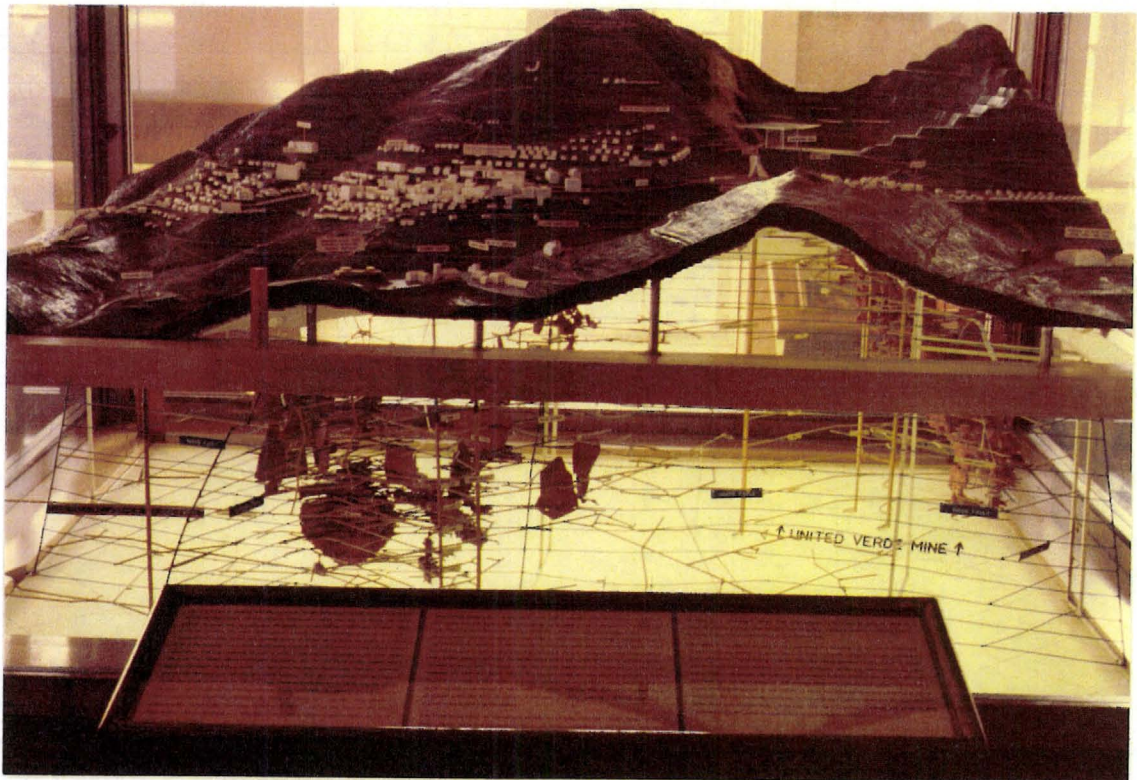
Edith and Audrey shafts of the UVX Mine, looking north.
Also Little Daisy Hotel ruins, and Douglas mansion.
Pit was glory hole for waste to backfill stopes.



Audrey shaft (foreground) and Edith shaft, looking west
to the United Verde open pit.

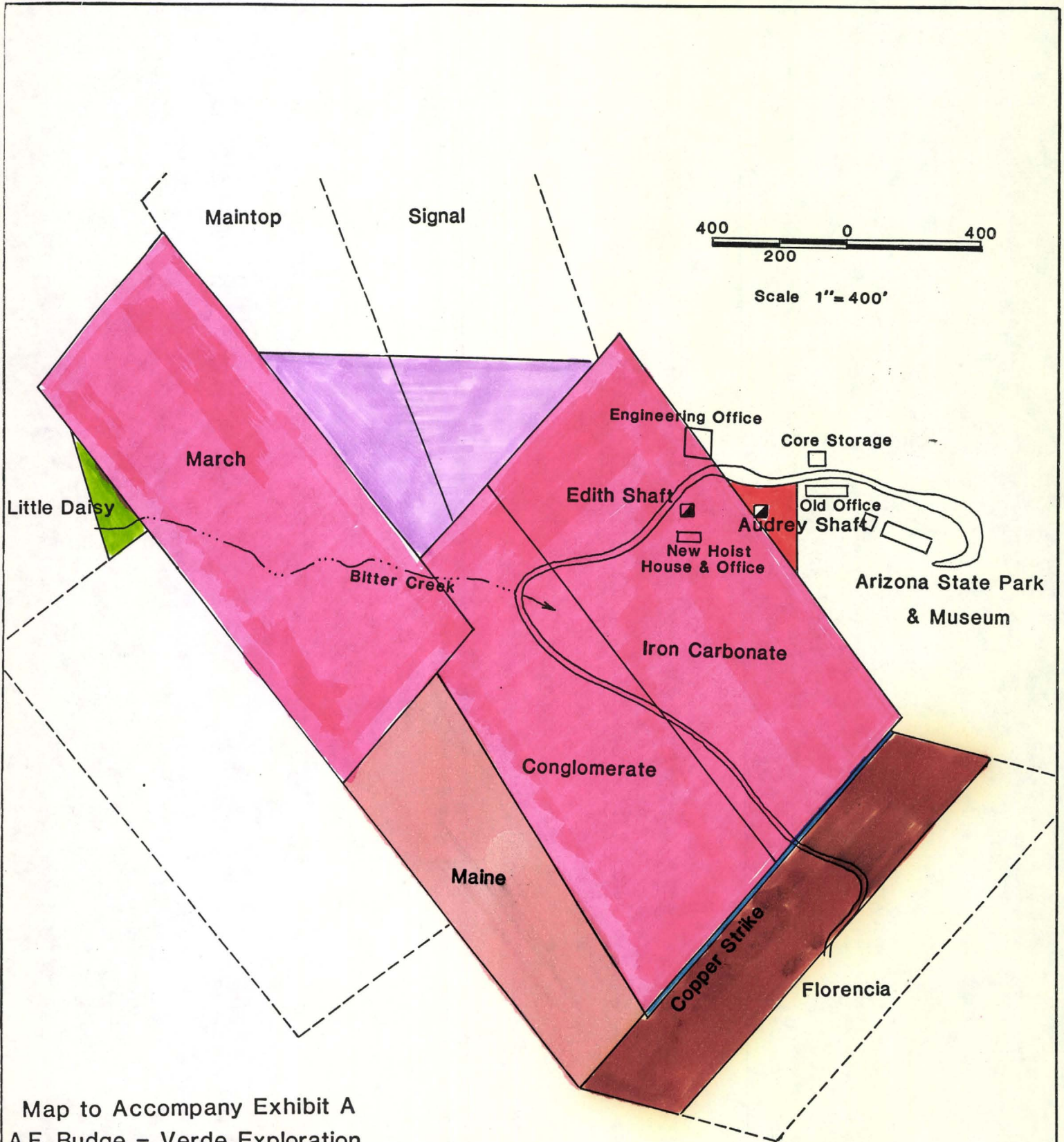


Same mine model, looking north-northwest in the plane of the Verde fault (blue). UVX stopes are red. The main orebody is lower center. Thinner, lobate orebodies are arrayed over the main orebody, behind and north of it, and as fault drag toward the upper left.



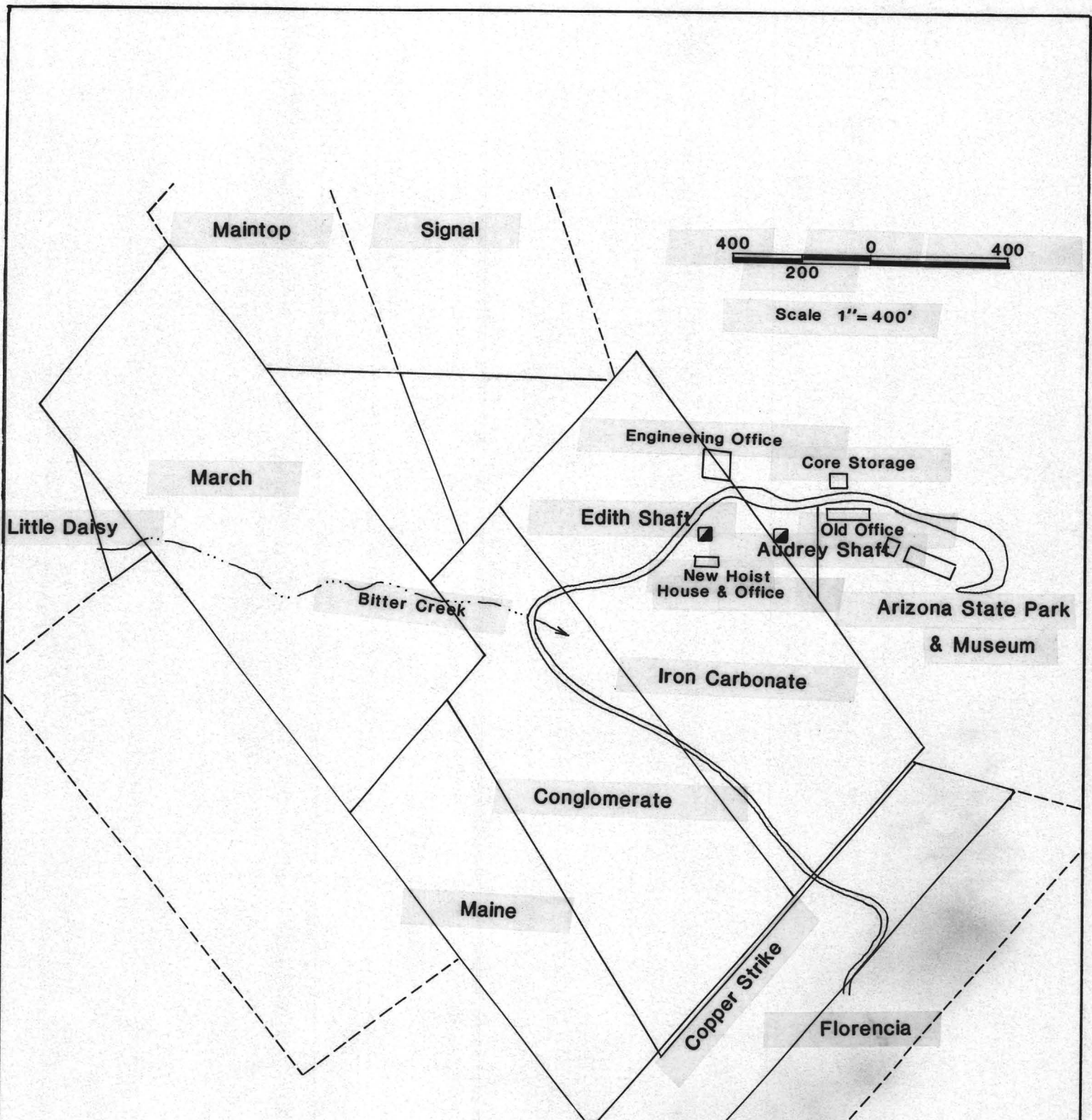
Mine model showing Jerome and the United Verde Extension orebodies, looking southwest.





Map to Accompany Exhibit A
 A.F. Budge - Verde Exploration
 Lease Agreement

Drawn by C.A. O'Brien (April 1985)
 from Original map by P.A. Handverger



Map to Accompany Exhibit A
 A.F. Budge - Verde Exploration
 Lease Agreement

Drawn by C.A. O'Brien (April 1985)
 from Original map by P.A. Handverger