



## **CONTACT INFORMATION**

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602-771-1601  
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Arizona Department of Mines and Mineral Resources Mining Collection

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PRINTED: 10-12-2012

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES AZMILS DATA

PRIMARY NAME: CONGRESS

ALTERNATE NAMES:

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

YAVAPAI COUNTY MILS NUMBER: 440C

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

CURRENT STATUS: PAST PRODUCER

COMMODITY:

GOLD  
SILVER  
COPPER SULFIDE  
FELDSPAR

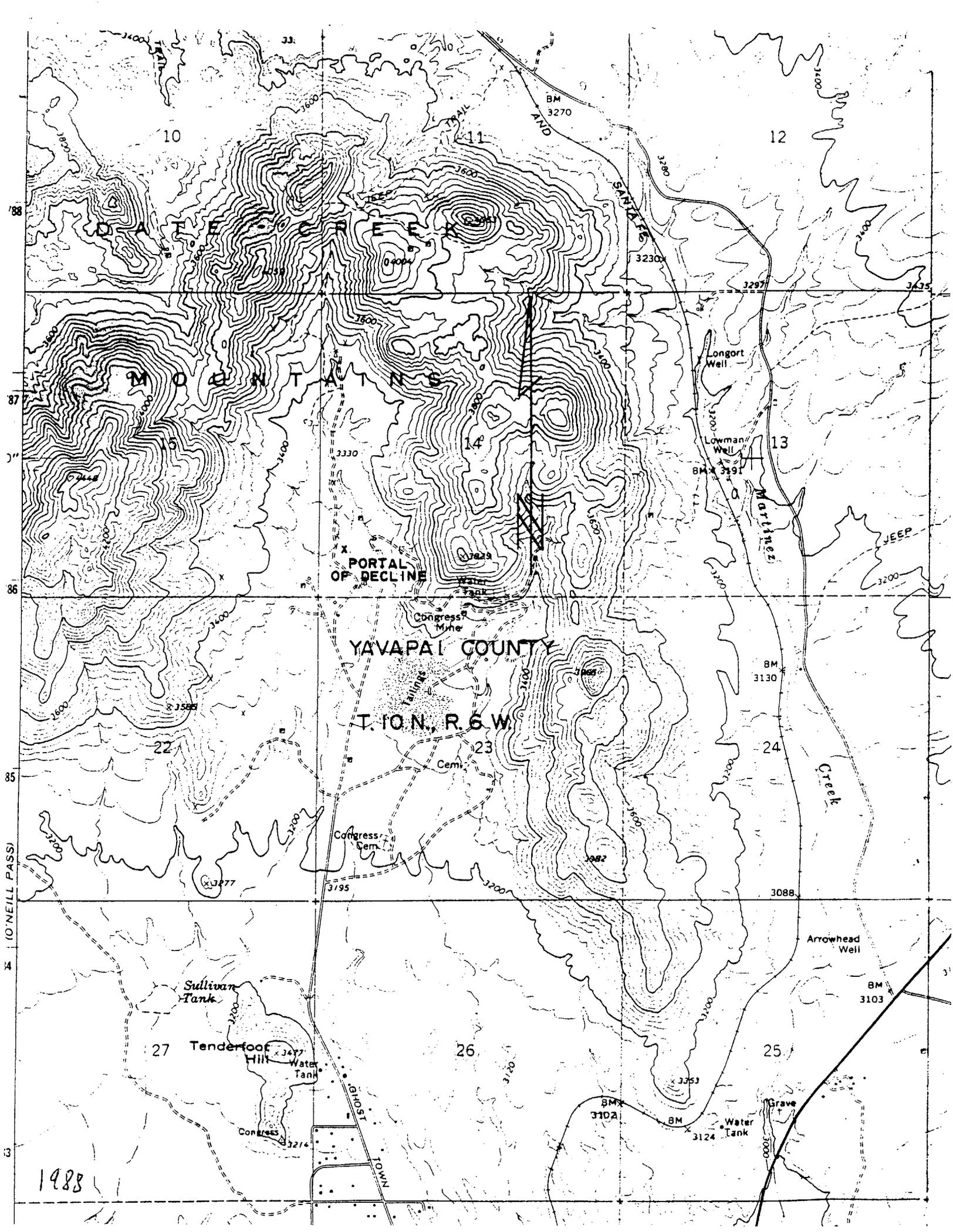
BIBLIOGRAPHY:

ADMMR CONGRESS MINE FILE  
ADMMR CONGRESS COLVO FILE  
ADMMR NIAGARA MINE & MILL FILE  
PHOTO FILE - P10, 11, 12, 13  
REPORT OF THE GOVERNOR OF AZ 1899 P 54-56  
WILSON, E.D. ETAL. AZ LODE GOLM MINES AZBM  
METZGER, O.H. GOLD MINING & MILLING IN THE  
WICKENBURG AREA USBM IC 6991 1938 P 45

CONTINUED ON NEXT PAGE

CONTINUATION OF CONGRESS

USGS BULL 782 P. 5  
USGS PP 610 P 49  
USBM IC 8969 P. 16, 19-21, 22  
BLM MINING DISTRICT SHEETS 309, 310  
LAND ALSO IN SEC. 13, 14, 15 & 23



YAVAPAI COUNTY

T. 10 N., R. 6 W.

PORTAL OF DECLINE

O'NEILL PASS

1988

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES

INFORMATION FROM MINE CARDS IN MUSEUM

|                      |         |                  |
|----------------------|---------|------------------|
| ARIZONA              | MM 1403 | Pyritic Gold Ore |
| YAVAPAI COUNTY       | MM-1403 | Pyritic Gold Ore |
|                      | K-459   | Gold ore         |
| <u>CONGRESS MINE</u> | K604    | Gold ore         |
|                      | K605    | Gold ore         |

MILS # 4400  
6-ARPA  
Congress mine (file)

CONGRESS MINE

YAVAPAI COUNTY

ABM Bull. 125 p. 98  
ABM Bull. 129 p. 86  
ABM Bull. 137 p. 69

USGS Bull. 782 p. 5  
USGS P.P. 610 p. 49

IC 6991 p. 45

ABM Bull. 180, p. 159

See: Arizona Mining Journal Issues  
Aug. 1919 p. 13, Dec. 1919 p. 30

See: A map of Black Rock District, and a map of Wickenburg showing points of interest  
filed in the Wickenburg general file. 11-23-77 bh

See: "Arizona's RICH HILL The West's Most Amazing Gold Strike", By John D. Wilburn,  
JHJ's Office, Page 10.

See: Niagra Mine (file) Yavapai County

See: IC 8969 -- Gold and Silver Leaching Practices in the U.S.; p. 16, 19-21; 22

Source

A21-94



1938  
PHOTO

Dumps & tailings

1938

|  |   |  |                                |
|--|---|--|--------------------------------|
| NAME OF MINE: <input checked="" type="checkbox"/> CONGRESS |   | COUNTY: Yavapai                                |                                |
| OWNER: <input checked="" type="checkbox"/>                 |   | DISTRICT: <input checked="" type="checkbox"/>  |                                |
|  |   | METALS: <input checked="" type="checkbox"/> Au |                                |
| OPERATOR AND ADDRESS                                       |   | Visited  | MINE STATUS                    |
| Date:  |   | Date:  |                                |
| 6/46   | <input checked="" type="checkbox"/> Congress Metals, Inc.,<br><input checked="" type="checkbox"/> John F. Williams, Congress Jct. | 8/46<br>9/46                                   | Rehabilitating mill<br>Milling |
| 10-48  | <input checked="" type="checkbox"/> Byron Moyer, Yarnell  | 10-48  | Revamping mine and<br>mill     |

SUE GUENTHER  
5830 E. MCKENZIE ROAD #99  
MESA, AZ 85215  
480.218.4815

002-255-3777

To: Nyal Niemuth

Re: Authenticity of Report

Nyal:

Here is a copy of the paperwork I have concerning the Congress land I spoke with you about. I appreciate your willingness to inspect the attached. Please advise me of your comments and concerns.

It was a pleasure to meet you and speak with you on Friday. I hope your 4th of July holiday was pleasant.

Thanks.

*Sue Guenther*

**DORMAN S. O'LEARY**  
REGISTERED MINING ENGINEER  
REGISTERED LAND SURVEYOR  
WICKENBURG, ARIZONA  
85358

**CONGRESS MINE**

|                                   |               |                     |
|-----------------------------------|---------------|---------------------|
| Mill Tailings                     | 370, 000 tons |                     |
| New Decline<br>(10x16x7900' long) | 88,500        |                     |
| Cyanide pit (newly mined)         | 432,000       |                     |
| No 3 mine dump                    | 20,000        |                     |
| No. 5 mine dump                   | 20,000        |                     |
| Mine dump above<br>mill tailings  | 20,000        |                     |
| Miscellaneous small dumps         | 10,000        |                     |
| <b>Total</b>                      |               | <b>960,500 tons</b> |

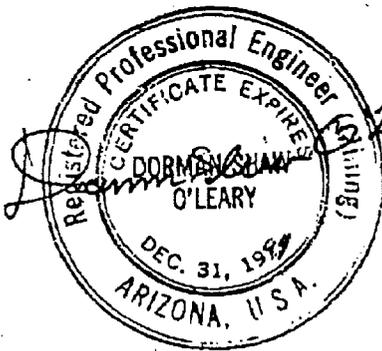
$$\begin{array}{r}
 960,500 \\
 \times 0.05 \\
 \hline
 48025 \\
 \times 410 \\
 \hline
 \$ 19,688,000.
 \end{array}$$
 Gold

Estimates were determined by the using aerial photos for the horizontal area of the various dumps and tailing piles, angular and tape measurements for heights, and educated estimates of the topography of the base of each pile.

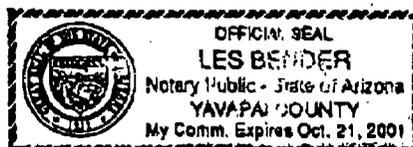
The mill tailings originally are said to have contained over 600,000 tons of material assaying 0.05 oz/ton. (Arizona Bureau of Mines Bulletin 137, Arizona Lode Mines and Gold Mining, Wilson, Cunningham and Butler, 1934). An estimated 200,000 or more tons have been lost by erosion, and the remaining 30,000 tons used in the construction of the new cyanide pit.

|                                  |  |                       |
|----------------------------------|--|-----------------------|
| <b>ALVARADO MINE</b>             | 139,000 tons at 0.027 o/t (Barringer Laboratories) |                       |
| <b>OCTAVE MINE</b>               | 224,000 tons AT 0.022 o/t (R. Godfrey, P.E 02966)  |                       |
| <b>Total of three properties</b> |  | <b>1,323,500 tons</b> |

The above signed, Dorman S. O'Leary, acknowledged this statement before me, the undersigned



*Dorman S. O'Leary*  
Dec 8, 1998

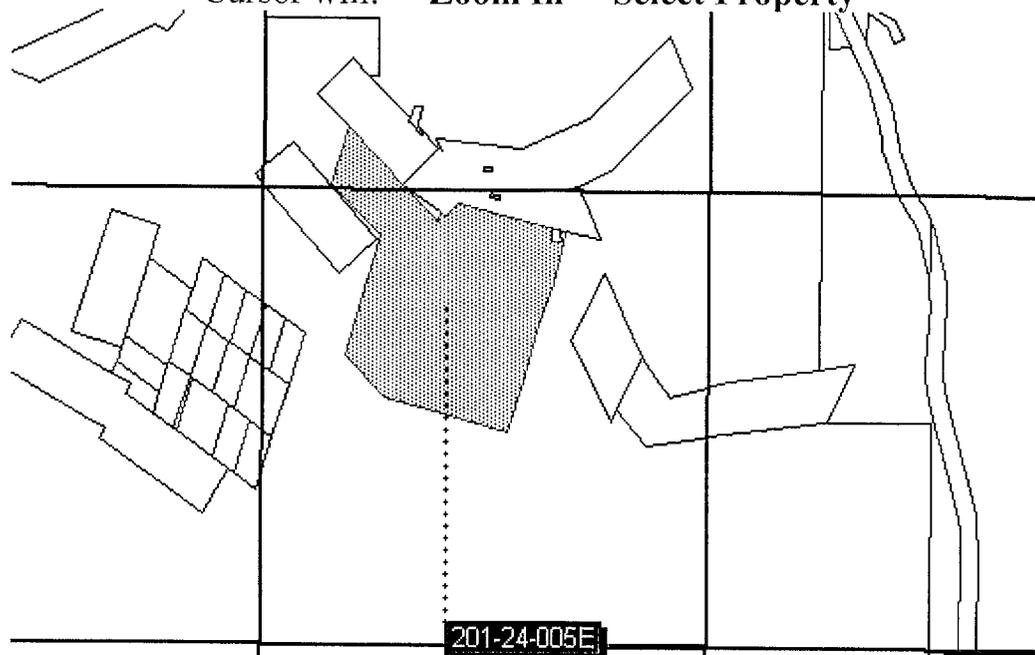


*Les Bender*  
Notary

**Locate  
Property  
Information  
Tool**

[JFS Home](#) | [Online Mapping Applications](#) | [Products](#) | [FAQ's](#)

Cursor will:  Zoom In  Select Property



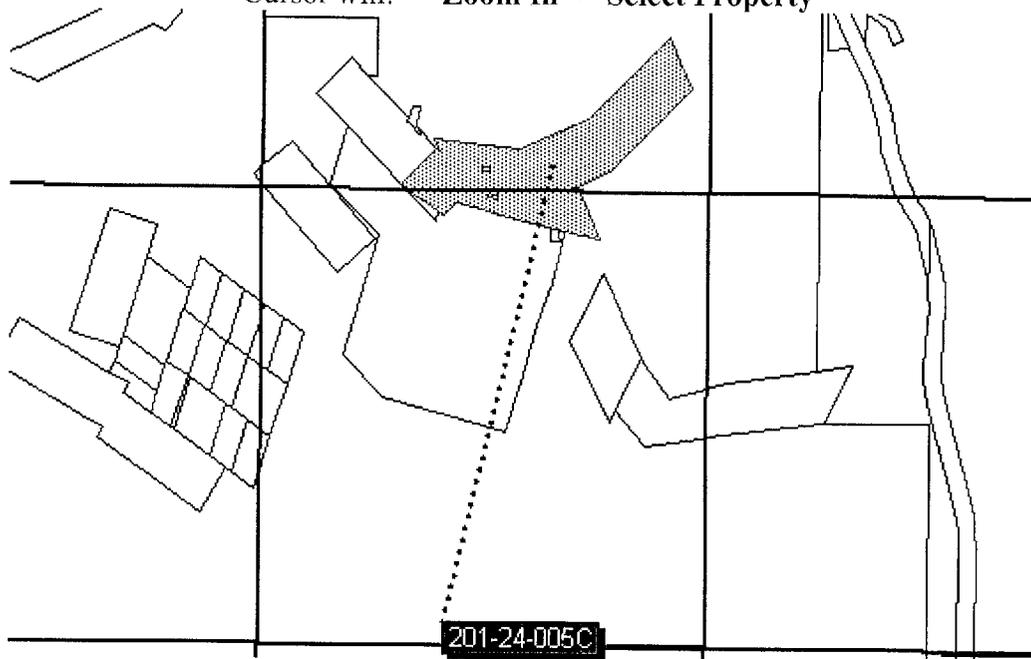
◀ ▲ ▼ ▶ **Zoom In** **Zoom Out** **Full Extent** **Map Size**

|   |                     |
|---|---------------------|
| <b>PARCEL NUMBER:</b>                     | 201-24-005E         |
| <b>PARCEL ID:</b>                         | 1320124005058       |
| <b>OWNER:</b>                             | GRACE DEV CO        |
| <b>SECONDARY OWNER:</b>                   | CONGRESS MINE       |
| <b>MAILING ADDRESS:</b>                   | PO BOX 361          |
| <b>CITY:</b>                              | CONGRESS            |
| <b>STATE:</b>                             | AZ                  |
| <b>ZIP:</b>                               | 85332               |
| <b>SUBDIVISION:</b>                       | N/A                 |
| <b>ACRES:</b>                             | 120.46              |
| <b>2001 FULL CASH VALUE:</b>              | \$55,627            |
| <b>2001 LIMITED VALUE:</b>                | \$53,210            |
| <b>LEGAL CLASS:</b>                       | 02.R                |
| <b>ASSESSMENT RATIO:</b>                  | 16                  |
| <b>2000 TAXES BILLED:</b>                 | N/A                 |
| <b>2001 NET ASSESSED FULL CASH VALUE:</b> | \$8,900             |
| <b>2001 NET ASSESSED LIMITED VALUE:</b>   | \$8,514             |
| <b>LAST TRANSFER DOCUMENT DOCKET:</b>     | 3743                |
| <b>LAST TRANSFER DOCUMENT PAGE:</b>       | 735                 |
| <b>RECORDED DATE:</b>                     | 2000-03-31 00:00:00 |
| <b>INSTRUMENT TYPE:</b>                   | 6                   |
| <b>INCORPORATED AREA:</b>                 | N/A                 |
| <b>SCHOOL DISTRICT:</b>                   | CONGRESS SD #17     |
| <b>FIRE DISTRICT:</b>                     | N/A                 |
| <b>SALE DATA</b>                          |                     |
| <b>DATE OF MOST RECENT SALE:</b>          | N/A                 |

**Locate Property Information Tool**

[GIS Home](#) | [Online Mapping Applications](#) | [Products](#) | [FAQ's](#)

Cursor will:  Zoom In  Select Property



|                                    |                               |
|------------------------------------|-------------------------------|
| PARCEL NUMBER:                     | 201-24-005C                   |
| PARCEL ID:                         | 1320124005030                 |
| OWNER:                             | 1188045 ONTARIO LTD           |
| SECONDARY OWNER:                   | COLIN KIRKPATRICK PO BOX 1624 |
| MAILING ADDRESS:                   | WAWA ONTARIO                  |
| CITY:                              | CANADA POS 1K0                |
| STATE:                             | N/A                           |
| ZIP:                               | N/A                           |
| SUBDIVISION:                       | N/A                           |
| ACRES:                             | 50.25                         |
| 2001 FULL CASH VALUE:              | \$23,204                      |
| 2001 LIMITED VALUE:                | \$22,196                      |
| LEGAL CLASS:                       | 02.R                          |
| ASSESSMENT RATIO:                  | 16                            |
| 2000 TAXES BILLED:                 | N/A                           |
| 2001 NET ASSESSED FULL CASH VALUE: | \$3,713                       |
| 2001 NET ASSESSED LIMITED VALUE:   | \$3,551                       |
| LAST TRANSFER DOCUMENT DOCKET:     | 3738                          |
| LAST TRANSFER DOCUMENT PAGE:       | 598                           |
| RECORDED DATE:                     | 2000-03-13 00:00:00           |
| INSTRUMENT TYPE:                   | 6                             |
| INCORPORATED AREA:                 | N/A                           |
| SCHOOL DISTRICT:                   | CONGRESS SD #17               |
| FIRE DISTRICT:                     | N/A                           |
| SALE DATA                          |                               |
| DATE OF MOST RECENT SALE:          | 03/01/2000                    |
| SALE AMOUNT:                       | \$50,000                      |
| DEED TYPE:                         | WD                            |

June 17th, 2002

Ken A. Phillips  
Chief Engineer  
1502 W. Washington  
Phoenix, Arizona 85007-3210

David C. DuBois  
331 N. Verde Heights Drive  
Cottonwood, Arizona 86326  
(928)634-5464

Dear Sirs,

This is a summary on the ore bodies of the Congress Mine. I did not come on this information until just a few years ago. I have been able to locate 6 major ore bodies that are on the Congress Mine. Two of these ore bodies are of the proven nature. The GOB and the Brooks find. Three are probable in nature. These are New Strike, New #5 Shaft and Queen of the Hills. There is one in the possible range and that is the East End Extention.

The GOB has been assayed on all four sides of the ore body. It is estimated to contain from (700,000) 700 thousand tons to (1,00000,000) one million tons of ore that is economical to mine. It starts at 650' foot level to 1,400' foot level. It is roughly from #1 shaft to #3 shaft. The average grade is .55 oz. per ton.

The Brooks find was discovered during WW1 and that was just after the major operations in 1910. The body of ore was discovered coming into the overhang on #3 shaft. It was believed to be Niagra Vain rather than the Congress Vain. It was diamond drilled and it is 1,500' foot in size and within my property. The average grade is .60 oz. per ton. It was thought to be (300,000) three hundred thousand tons.

These next bodies of ore are probable finds. New Strike was discovered in the 1930's by Mr. Colburn. This was well after the major operation of 1910. He shipped several railroad car samples to Globe, Arizona. The average grade 2.00 per ton. Total tonnage is unknown to this date. This is the only place where there is placer gold in the Congress Mine. This ore is not typical ore found on the Congress. This was confirmed by Ike

Krisisto who worked on the Congress in 1930's to 1950's.

The Queen of the Hills is the least developed of the major ore bodies, with the exception of New Strike. It was thought by the old timers to be a broken spure vain of the Congress dike. There is thought to be (200,000) 200 thousand tons in Queen of the Hills. The average grade is .50 oz. The location thought to be by present developers is not the same that was told to me. Again, I have turned to Ike Kusisto who had a small operation at that time and and turned a profit on the operation.

The New #5 shaft is the ore the Congress Mining Co. was working on when they shut down operation in 1910. From eye witness there is (400,000) 400 thousand tons of ore that is broken and laying in stope and such. The grade is .70 oz per ton. This vain is only part mined because the vain continues downward, at the same degree it was mined.

The East End Extention is categorized as possible. Mr. Colburn has a different theory than Mr. Stanton, who was the last superintendent of the Congress Mine in 1910. Mr. Colburn feels the ore started by the Queen of the Hills and comes out by the old #5 shafts. Mr. Stanton believes the East end extention is north and east off the New #5 shaft. If this body of ore exist this would add many years of life to the Congress.

In conclusion, many new facts have come out by the old timer. It has come to my attention that the Congress is a better mine than I originally thought.

The first fact is the GOB is much richer than originally thought. It was thought to be .10 oz. average grade, but Mr. Colburn has the grade at .55 oz. per ton

The second fact is that most of the low grade ore was stacked up and used as supports for the shafts. The cut off grade was at .35 oz or \$7.00 dollars a ton was the point where the old timers could mine it at a profit. A lot of this ore could be mined today at a profit. I originally thought that the low grade ore that could be mined was 80% of the total ore in the mine and only 20% was high grade to be mined; however, from reading the reports it was stated that this ratio is a 50/50 rather than what I thought was true.

Third, the old timer stated the total ore to be economically mined was (6,00000,000) Six million tons. This was a lot more than the impression I had earlier. I was under the assumption of around (3,00000,000) three million tons.

It looks to me that if the price moves up that the congress could still have a future.

Best Regards,

David C. DuBois

P.S. It was also stated by Mr. Stanton that a large body of low grade ore is just off #1 and #2 shafts beyond the 1,700' level.

Date Printed: 12/07/93

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES

VERBAL INFORMATION SUMMARY

Information from: Jim Weatherby

Company: Republic Goldfields

Address:

City, State ZIP: Congress, Arizona

Phone:

MINE: Congress

ADMMR Mine File: Congress Mine file

County: Yavapai

AzMILS Number: 440C

SUMMARY

Jim Weatherby reported that reverse circulation drilling has commenced on the "newly discovered" Last Chance orebody at the Congress Mine. About 5,000 feet of drilling is planned. Initially drilling will be on 25' centers. If the results are positive they will come back and fill in on 10' centers. The deepest hole will be about 140'.

With positive results the orebody could be in production by spring. He has invited us to come for a visit.

Ken A. Phillips, Chief Engineer      Date: December 6, 1993

## ADMMR MINE FIELD VISIT DATA SUMMARY

|                            |                                |
|----------------------------|--------------------------------|
| MINE Congress              | COMMODITIES Gold               |
| AZMILS NUMBER Yavapai 440C | DATE March 31, 1992            |
| ENGINEER Nyal J. Niemuth   | INFORMATION FROM Jim Weatherby |

---

I. MINE Congress                      OTHER NAMES Niagara

II. LOCATION Township 10 North, Range 6 West, Section 23, North 1/2

III. OWNERSHIP Republic Goldfields Inc.  
ADDRESS P. O. Box 361, Congress, AZ 85322PHONE 427 - 3393

### IV. SUMMARY

In the company of Jim Weatherby a tour was made of the surface facilities and mill of Republic Goldfields's Congress Mine. A copy of a company produced report entitled Technical Summary is attached to this report. The report is the same as was distributed to attendees of the SME field trip to the property conducted February 28, 1992. It describes the technical aspects of the geology, mine workings, and mill operation along with historical background of the property.

Currently the mining operation is experiencing a crisis. For some time the mine has been short on development and the deeper mining proceeds the longer the decline haul becomes. No capital has been received from the corporate office since the mill was started. Now the Niagara vein is pinching in the present stope areas, reducing the amount and grade of ore available. In an attempt to continue a positive cash flow, while underground development continues, preparations are underway to process the old tailings dumps. The mill is being modified to handle 800 tons per day, double the normal capacity. Planned daily feed will include only 100 tons of new ore from the underground while the balance, hoped to total 700 tons, comes from the tailings. While the grade of the old tailings varies considerably it will generally be lower than new ore. It is hoped the additional throughput will result in similar production or at least a profitable net return. Costs are being reduced during this period by personnel layoffs and other cutbacks where possible. The underground trucks will be used to mine the tailings.

ABSTRACTED FROM ADMMR ACTIVE MINES DIRECTORY, 1992

*Yavapai County*

**REPUBLIC GOLDFIELDS INC.**

**Congress Mine T10N R6W Sec. 23**

P.O. Box 361, Congress, AZ 85332 - Phone 427-3393 - Employees: 85 - Located 16 miles northwest of Wickenburg - Underground gold mine - 350 TPD CIP mill.

General Manager Fred Smith  
Chief Engineer Matt Christian  
Mine Geologist Robert Prevost  
Exploration Geologist Scott Petzel  
Mill Superintendent Colin Kirkpatrick  
Metallurgist Jim Weatherby  
Maintenance Chief Al Roscigno  
Chief Electrician Lowell Hatfield  
Personnel and Safety Chief John Lemiux  
Purchasing Agent Dana Leghorn

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES

VERBAL INFORMATION SUMMARY

1. Information from: Jim Weatherby, Metallurgist

Company: Malartic Hygrade, U.S. Inc.

Address: P. O. Box 361  
Congress, AZ 85332

2. Phone: (602) 427-3393

3. Mine: Congress

4. ADMMR Mine File: Congress

5. County: Yavapai MILS Number:

6. Summary of information received, comments, etc.:

The Congress mill is still being underutilized. Development difficulties have limited ore production at the mine. Currently only one stope is producing and the vein has become more flat dipping in that area. They have not yet processed any custom ore, but are still interested.

He believes trial production has begun at the Mystic, but he hasn't received anything but a small composite sample. He plans to custom treat Mystic ore at the Congress mill.

Date: May 1, 1991

Engineer: Ken A. Phillips

ABSTRACTED FROM ADMMR ACTIVE MINES DIRECTORY, 1991

**MALARTIC HYGRADE U. S. INC.**

**Congress Mine T10N R6W Sec. 23**

P.O. Box 361, Congress, AZ 85332 - Phone 427-3393 - Employees: 62  
- Located 16 miles northwest of Wickenburg - Underground gold mine  
- 350 TPD CIP mill.

General Manager ..... Robert Stoughton  
Chief Engineer ..... Matt  
Christian  
Mine Geologist ..... Robert  
Prevost  
Exploration Geologist ..... Scott  
Petzel  
Mill Superintendent ..... Colin Kirkpatrick  
Metallurgist ..... Jim  
Weatherby  
Maintenance Chief ..... Al Roscigno  
Chief Electrician ..... Lowell  
Hatfield  
Personnel and Safety Chief..... Fred Smith  
Purchasing Agent .....Wayne Stoughton

Arizona Department of Mines and Mineral Resources

Field Visit Report

May be Reproduced

1. Information from: Field Visit  
Address:

2. Mine: Congress

3. ADMMR Mine File Same

4. County: Yavapai

5. District

6. Township Range

Sec(s)

7. Location:

8. No. of Claims - Patented

Unpatented

9. Owner ( if different from above)

10. Address:

11. Operating Company:

12. Pertinent People and/or Firm:

13. Commodities:

14. Operational Status:

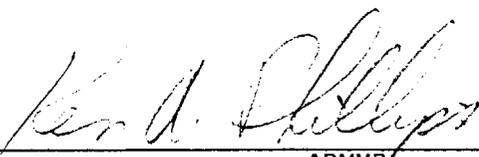
15. Summary of information received, comments, etc.:

Noted mill under construction, tanks and mill building in place. One photo taken in heavy rain.

Noted tailings impoundment under construction. Tailings to be in basin southeast of old tailings.

Date: Feb. 1, 1990

Signature

  
ADMMR

ABSTRACTED FROM ADMMR ACTIVE MINES DIRECTORY, 1990

**MALARTIC HYGRADE U. S. INC.**

**Congress Mine T10N R6W Sec. 23**

P.O. Box 361, Congress, AZ 85332 - Phone 427-3393 - Employees: 62  
- Located 16 miles northwest of Wickenburg - Underground gold mine  
- 350 TPD CIP mill.

|                                 |                   |
|---------------------------------|-------------------|
| General Manager .....           | Robert Stoughton  |
| Chief Engineer .....            | Matt Christian    |
| Mine Geologist .....            | Robert Prevost    |
| Exploration Geologist .....     | Scott Petzel      |
| Mill Superintendent .....       | Colin Kirkpatrick |
| Metallurgist .....              | Jim Weatherby     |
| Maintenance Chief .....         | Al Roscigno       |
| Chief Electrician .....         | Lowell Hatfield   |
| Personnel and Safety Chief..... | Fred Smith        |
| Purchasing Agent .....          | Wayne Stoughton   |

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES

FIELD VISIT

1. Date: January 19, 1989
2. Information from: Mine visit by Ken A. Phillips & Nyal Niemuth
3. Mine or property name: Congress Mine
4. ADMMR Mine File: Congress Mine
5. County: Yavapai
6. Operational Status: Active-Producing
7. Summary of information received, comments, etc.:

A tour of the surface operations and the underground gold mine at Echo Bay's Congress Mine operation was taken with David Jarvis, Mine Engineer. Brief discussions were also held with Robert D. Purcell, Mine Superintendent and the geologist Scott Petsel.

Current production is at a rate of 325 tons ore per day, up from last years at 300 tons per day and soon to be increased to 350 tons per day. Cutoff grade is 0.1 tr. oz. Au/ton.

Waste is being produced from development work at a rate of 1200 - 1500 tons per week. Plus 5" barren granite from development is stockpiled for possible sale as rip rap. Minus 5" material is contract crushed and screened for sale as landscape material ("yard rock").

The mine is developed by means of a switch back (modified spiral) decline ramp at a grade of 28%. The eastern (portal) end is in the hanging wall and the western end in the footwall. Below 250' it is entirely in the footwall.

Mining widths run from 2' to 35' with a reported average width of 8' (as was observed). All haulage is by rubber tire equipment. LHDs are used to transfer material from the stopes to loading stations. There it is loaded into trucks and hauled to the surface.

Mining is done on a single shift, down from three shifts in August 1988 and loading and hauling is done on two shifts. Development is down to just below 500' and the decline ramp is advancing. A shaft collar was in the process of being formed for a new ventilation raise which is to be bored from the 500' level. The mining method is referred to as a modified end slice method, but in actuality is much like open stoping. The miners are typically well experienced having worked at other Echo Bay operations or in Northern Idaho. Miners are paid \$13.50 per hour plus bonuses. Bonuses paid have been as high as \$1500 per week and are paid on both a tonnage and footage basis.

Country rock is Precambrian granite with Precambrian pegmatite with presumably Tertiary diabase dikes locally intruding the footwall. The quartz vein consists of 5 - 10% sulfides in white quartz. Sulfide minerals include pyrite, chalcopyrite, galena, and tetrahedrite. Rare specimens of covelite and calcite were noted. The gold occurs in the sulfides and no visible gold has been noted.

Deepest exploration drilling has been to 2000'. No underground exploration drilling is taking place. Surface drilling continues on last years exploration budget.

Ore is trucked to Phelps Dodge's Hildalgo Smelter in New Mexico. Trucks are loaded to "one bucket short of full weight" and then topped off on a digital scale to the pound. Management is currently investigating both a closer smelter or building a mill. They have looked at the McCabe mill with the possibility of either acquiring it or using it on a custom basis.

Leached material from Jacquay's previous cyanide leaching operation is used for road surfacing and surfacing the underground ramp.

They are negotiating with ASARCO to ship old Congress Mine tailings to the Hayden Smelter.

The Cypress Smelter (Inspiration) does not want either the ore or the tailings reportedly because of the high alumina content.

They have begun using a nonregistered assayer in the Wickenburg area, Cory Eddington, P.O. Box 2754, Wickenburg, 85358, phone 684-3816, because of his overnight turn around time and reliability.

Property submittals to Echo Bay are encouraged. Those in central Arizona should be sent Mr. Purcell at the Congress Mine.

The following suggestions were made:

They should investigate the availability of custom mill capacity at the Magma Superior mill.

They should try harder to find a favorable freight rate from the railroad.

Thirtyfive black and white photographs were taken during the visit.

Date: January 21, 1989 Myra J. Niemi, Lisa A. Phillips  
(Signature) AzDMMR

## ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES

VERBAL INFORMATION SUMMARY

1. Mine file: CONGRESS & [4 sale list]
2. Mine name if different from above:
3. County: Yavapai
4. Information from: numerous reliable sources

Company:

Address:

Phone:

5. Summary of information received, comments, etc.:

Echo Bay Mining continues to produce gold bearing silica flux at the Congress mine at a rate of about 300 TPD. Surface exploration drilling is underway to add to the existing reserves. Never the less, the company has the property for sale. Reasons for this may include: the property is a higher cost producer, lack of a mill, large trucking costs to Phelps Dodge's smelter in Playas New Mexico, and size of overhead carried for a small operation. Rumored purchase price would be less than 10 million dollars.

Date: January 4, 1989

Nyal J. Niemuth, Mining Engineer

ABSTRACTED FROM ADMMR ACTIVE MINES DIRECTORY, 1989

**MALARTIC HYGRADE U. S. INC.**

**Congress Mine**

T10N R6W Sec. 23

P.O. Box 361, Congress 85332 - Phone 427-3633 - Employees 40 - Located 16 miles northwest of Wickenburg - Underground gold mine - Surface stockpiling ore - 350 TPD CIP mill under construction - Mill startup scheduled for April 1990.

|  |                  |
|--|------------------|
| General Manager .....                    | Robert Stoughton |
| Chief Engineer .....                     | Matt Christian   |
| Chief Geologist .....                    | Scott Petzel     |
| Chief Maintenance and Safety Chief ..... | Doug Perkins     |
| Safety Chief .....                       | Paul Johnson     |
| Purchasing Agent.....                    | Wayne Stoughton  |

ABSTRACTED FROM ADMMR ACTIVE MINES DIRECTORY, 1988

**ECHO BAY MINES INC.**

**Congress Mine**

T10N R6W Sec. 23

P.O. Box 361, Congress 85332 - Phone 427-3633 - Employees 40 - Located 16 miles northwest of Wickenburg - Underground gold mine - Shipping gold bearing silica flux to copper smelters.

|                           |                  |
|---------------------------|------------------|
| General Manager .....     | Robert Stoughton |
| Mine Superintendent ..... | Bob Purcell      |
| Chief Engineer .....      | Matt Christian   |
| Chief Geologist .....     | Ralph Rupp       |
| Chief Maintenance .....   | Doug Perkins     |
| Safety Chief .....        | Paul Johnson     |

CONGRESS MINE

YAVAPAI COUNTY

NJN WR 1/15/88: It was reported that Echo Bay may ship Congress (file) Yavapai County material as flux, not mill is as previously reported. Their reserves may now total 700,000 tons of .3 and they may be able to develop additional tonnage. Echo Bay is now operating the mine with their own crew.

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NJN WR 3/18/88: John Zigarlick, president of Echo Bay Mining (card) reported that they have four years of reserves at the Congress Mine (file) Yavapai County and could develop additional reserves if they succeed in adjacent ground surrounding their current position.

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NJN WR 5/13/88: Jan Lamb of Redtail Mining (card) reported that Echo Bay has acquired the adjacent ground at the Congress Mine (file) Yavapai County. Acquisition of this property should enable Echo Bay to extend the life of the mine for several years.

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KAP WR 6/17/88: Alan Rabinoff reported on a recent conversation he had with Scott Petsel, Geologist at Echo Bay's operation at the Congress Mine (file) Yavapai County. He reported that current underground mining began in March 1988 at 200 tons per day, 6 days a week. Ore is shipped to Phelps Dodge's smelter at Hildalgo, New Mexico. Shipments average 0.3 tr oz Au per ton, 72 - 85 % (average 78.5) silica and 6-8% alumina. Current mining plans extend into early 1990. The current mining width is 1-10 feet; when deeper it will be up to 30 feet wide. Mining is done by a combination of cut-and-fill and sublevel stoping. Average vein width is between 4 and 5 feet. The bottom of the ore is about 1000 feet deep with a strike length of about 2000 feet. The quartz vein is in grandodiorite. The vein is typically 85% SiO<sub>2</sub> with pyrite and goethite. The gold is associated with the goethite.

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CONGRESS MINE

YAVAPAI COUNTY

NJN WR 10/16/87: Jim Loghry (card) of Metals Economic Group (card) of Boulder, Colorado reported that Echo Bay Mining Co (card) has bought out Magic Circle Energy Company's (card) interest in the Congress Mine (file) Yavapai County.

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MG WR 10/31/87: Miners Incorporated (card) is still working underground at the Congress Mine (file) Yavapai County. The Echo Bay project office address is: P O Box 34, Congress, Arizona 85332, 427-3633. Echo Bay employees include Mr. Nigel Bain, project engineer and Mr. Ralph Rupp, project geologist.

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NJN WR 11/27/87: Bob Purcel of Echo Bay Exploration (card) reported that they will have their own people at the Congress (file) Yavapai County for mining after the first of the year. They are currently doing a feasibility study to determine the best way to process the ore. They are tentatively planning to construct a mill and plan to be in production by the 4th quarter of 1988. The local address of the mine is P O Box 361, Congress, Arizona 85332, 427-3637.

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KAP WR 12/4/87: Learned that Echo Bay Mining Co is shipping development ore from their Congress Mine (file) Yavapai County, to the Phelps Dodge Hildalgo Smelter in New Mexico. Their hope is to recover some of the preproduction costs. The ore is apparently being shipped as gold bearing silica flux. A difficulty has developed over differences in silica and alumina assays done by Phelps Dodge and for Echo Bay. Echo Bay is penalized for excess alumina and deficiencies in silica. Such penalties may be high enough to exceed any net returns on the shipment. They are trying to find a reliable and repeatable laboratory equipment do do the assays so that they can be confident a given shipment will be profitable. They also hope to obtain some type of visual guidelines so as to be able to estimate that a shipment is not going to be penalized before it is loaded. Shipments are reportedly running .1 - .2 tr. oz. Au/ton. Once the construction of on site treatment facilities are completed, the direct shipments will cease.

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KAP WR 12/18/87: Provided tax information to John Malysa, Sunnyside Gold, P O Box 177, Silverton, CO 81433, phone (303) 387-5533. He is working on economic planning data for the Congress Mine (file) Yavapai County. He confirmed the fact that Echo Bay is shipping development ore from the Congress Mine to Phelps Dodge's Hildalgo Smelter in Playas New Mexico. Some of the technical people at the Sunnyside Mine will be transferring to the Congress Mine after the first of the year. Echo Bay owns the Sunnyside Mine.

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CONGRESS MINE

YAVAPAI

NJN WR 3/6/87: Rich Lundin, Geologist, Tanner Construction reported that the decline is under development at the Congress Mine (file), Yavapai County. Tanner Construction was a subcontractor on the job to furnish concrete work.

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NJN WR 7/10/87: Jim Roy Weatherby (card) reported that the decline that Centennial Development Company (card) is driving at the Congress Mine (file) Yavapai County has bottomed out. They have now been drifting on new headings for the last 3 weeks.

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NJN WR 7/17/87: Five Thousand tons have already been stockpiled at the Congress Mine (file) Yavapai County by the mine contractor Centennial Development (card).

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NJN WR 8/14/87: Bob Gilroy of Echo Bay Mining (card) 3300 Manulife Place 10180, 101st Street, Edmonton, Alberta, Canada T5J 3S4 (403) 429-5811 is in charge of development and mining at the Congress Mine (file) Yavapai County and should be contacted regarding their listing in our upcoming Active Mines Directory.

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KAP WR 9/4/87: Kathy White, Miners Incorporated, 9137 E. Mineral Circle, Suite 160, Inglewood, Colorado 80112 called requesting information on explosives permits. She explained that her firm is a contract mining company and has been hired by Echo Bay to continue mining operations at the Congress Mine (file) Yavapai Co. Their contract calls for breaking ore and delivering it to the surface using development work completed by the previous contractor.

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MG WR 9/18/87: Mike Canty (c) reports that Echo Bay had identified a reserve at the Congress mine of 200,000,000 tons grading 0.3 opt gold. These figures have not been confirmed.

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NJN WR 9/11/87: Alan Young with Echo Bay Mines Ltd (card) called seeking a pertinent Data so Echo Bay could obtain the remaining permits to operate the Congress Mine (file) Yavapai County. Bob Purcell will become the chief engineer for the project and is setting up a local office at the Congress Mine. The mailing address is : P O Box 2821, Wickenburg, Arizona 85358. With the establishment of this office, operations will no longer be conducted from the Edmonton office. For the rest of the year they will continue to drift for development and obtain bulk samples.

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CONGRESS MINE

YAVAPAI COUNTY

NJN WR 3/1/85: It was reported Echo Bay has their Congress Mine (f) exploration project on the backburner while their efforts are directed to the recently acquired Round Mountain Mine in Nevada.

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NJN WR 3/15/85: I located a copy of the Colvo report on the Congress Mine (f) Yavapai County at the BLM District Office. I am having the plus inch thick report copied and it will then be added to the Colvo Mine file collection.

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NJN WR 4/26/85: Chris Harold (c) of Echo Bay Mines (c) reported on the AGS spring field trip that Echo Bay has finished drilling 30 holes on the "new ~~Magma~~ Niagra ore shoot" of the Congress Mine (f) Yavapai County. They found better grades and tonnages than Magic Circle had outlined but it will take an increase in price of gold (currently \$330/oz) to justify underground exploration.

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NJN WR 10/24/86: Pat O'Hara (c) reported that Echo Bay Mining (c) is requesting bids to drive a ramp decline at the Congress Mine (file) Yavapai County.

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NJN WR 11/21/86: Jim Roy Weatherby (c) reported that the Echo Bay Mining Co (c) has issued a contract for the Congress Mine (file) Yavapai County to Centennial Development Company (c). They should be setting a construction camp up there in the next couple of weeks.

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NJN WR 2/13/87: D. W. Jaquays (c) reported that Centennial Exploration (c) has 600' of decline driven at the Congress Mine (file) Yavapai County. They are driving the incline in the hanging wall and Congress vein zone. Based on his previous experience, this is not the location he would have selected, as he believes that shortly faults and bad ground will be encountered.

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CONGRESS MINE

YAVAPAI COUNTY

KAP WR 11/16/84: Visited and toured part of the exploration project at the Congress Mine with Micheal D. Russ, Consulting Geologist, 579 Wright Street, #205, Lakewood Colorado 80228, phone (303) 278-3584. Mr. Russ is currently project geologist for Echo Bay Exploration, 14618 West 6th Avenue, Suite 221, Golden, Colorado 80401, phone (303) 278-3662, U.S. subsidiary for Echo Bay Mines Limited, 10180 First Street, Edmonton, Alberta, Canada T5J 3S4 at the Congress Mine (file) Yavapai County. A separate report on the property visit has been written.

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KAP WR 11/30/84: Provided information on permit requirements for underground development work to Chris Harold of Echo Bay Explorations, (c). Echo Bay is in the final planning stages for a project to sink a rubber tire incline and cut underground drilling stations at the Congress Mine (f) Yavapai Co.

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NJN WR 11/23/84: It was reported that Magic Circle Energy (c) was given Phelps Dodge mine and engineering plans from their recent evaluation of the Congress Mine (f) Yavapai County. These included a proposed decline to reach the Niagra View.

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NJN WR 1/18/85: Allan St. James (c) reported that Echo Bay has finished their drilling project at the Congress Mine (f) Yavapai County and will soon make a decision about continuing the project.

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KAP WR 1/11/85: Chris Harold, exploration manager of Echo Bay Mines in Denver reported his firm is still evaluating data in preparation to make a decision on further underground exploration at the Congress Mine.

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NJN WR 12/24/82: The address and phone number for the home office of Magic Circle Energy Co., new owners of the Congress Gold Mine, is 4141 Northwest Expressway, Oklahoma City, Oklahoma, Phone (405) 843-6654, local number 427-3603. Allan Bird, Manager at Congress.

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NJN WR 1/7/83: It was reported that the Congress Leach Operations has switched over to carbon columns replacing the Merrill Crowe Plant that was there. However, the operation there has been shut down since Mid-November.

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RRB WR 3/18/83: Paul Russell, P.E. Consulting Mining Engineer, 5040 W. Yale Ave., Denver, Colorado 80227 Phone (303) 986-6363 is the consultant for Magic Circle Energy Company at the Congress Mine. He reports that they have found an orebody that did not outcrop approximately 800-900 feet below the surface. Drill hole data indicates a 6 foot vein dipping at 40° and grading ½ to 1/3 oz/ton gold in sufficient quantity to feed a 250 TPD mill for five years. He is hesitant to design a mill based on drill hole data alone but says that it appears to be very fine gold that is fairly evenly disseminated through-out the vein. Mr. Russell is a graduate of the U. of A. and is retired from the Bureau of Mines.

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The Narrow-Gage Scout of Casper, Wyoming in issue of June 1983 reported that Magic Circle Energy Corporation at the Congress mine is welcoming proposals for a joint-venture partnership for a cyanide vat leach mill in the Congress area. Call Bob Hall, President at 800/654-9128. The planned milling and mining operation will total approximately \$7 million according to Hall.

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MG WR 7/29/83: Referring to the new orebody at the Congress Mine in Yavapai County reported by RRB, 3/18/83, the vein is called the Niagara(?). Probable (drilled only) reserves have been calculated to be some 350,000 tons averaging 0.36 oz/ton gold, with a 0.15 oz cutoff. All reserves are underground.

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NJN WR 6/15/84: Assisted John Daughtery of the business desk of the Phoenix Gazette with a story on Echo Bay Mines Co., 10909 Jasper Avenue, Edmonton, Alberta, Canada TSJ 3L9 who have recently joint ventured with Magic Circle Energy at the Congress Mine (file) Yavapai County. Their exploration (drilling) expenditures could reach \$7 million if conditions are favorable.

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CONGRESS MINE

YAVAPAI COUNTY

CJH WR 2/19/82: Gave the DMR talk and slide show to the Pinal Mountain Section, AIME at the Cobre Valle Country Club, Miami, AZ. Fifty-nine members and guests attended. D. W. Jaquays was at the meeting. He mentioned that he had sold the Congress Mine to some Oklahoma people.

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MG WR 4/16/82: Gary Dillard of Pay Dirt reports that the Congress Consolidated Gold Mining Company (Congress Mine in Yavapai County) has been sold to the Magic Circle Energy Company of Oklahoma City, Oklahoma.

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NJN WR 5/7/82: Production figures were received from Don Gest with BGMT the following mine:  
Congress Mine, Yavapai County 1887-1950 Total Production 1,000,000 tons  
107,590 lb copper; 390,600 oz. silver; 445,050 oz gold; 1,600 lb lead.

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KAP WR 6/18/82: Mr. D. W. Jaquays reported that the Congress mine contains a reserve of 300,000 tons of ore which runs 0.3 tr.oz Au/ton over a width of 6 feet to 20 feet.

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RRB WR 6/25/82: Visited the Congress Mine, Yavapai County and talked to Allen Bird who is a consultant for the new owners. He reports that they have blocked out 300,000 tons of 0.31 oz ore underground but that for now they intend to crush the material on the pads to  $\frac{1}{2}$  inch and re-leach it. They have conducted tests that indicate that they can recover as much gold on this second run as was recovered on the first run. They will use the present plant except they are replacing the Merrill-Crowe with carbon towers. When they mine new ore they will build a regular agitation cyanide mill to treat it and will use the old leach pads for tailings disposal. Two geologists from Uranus were on the property when I was there.

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KAP WR 8/27/82: Allan Bird is the geologist at the Congress mine, Martinez District, Yavapai County. The owners-operators are Magic Circle, P.O. Box 597, Congress, AZ 85332.

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It is reported at Congress that Mr. Jaquays is building a cyanide mill to treat the old Congress mine tailings. GW WR 4/29/76

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Mr. Jaquays has 3 men working on the mill site near the old Congress dumps but no equipment has been installed. GW WR 6/2/76

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GM/WR 4/12/79 - Attended AIME meeting where Mr. Jaquays spoke about his Congress Gold Mine. Between 1880 and 1911 the mine produced 412,344.95 ozs of Au. From 1938 - 1942, 23,867.95 ozs Au were produced by remilling tails and rock dumps. Currently their leach pad is approximately 140,000 sq feet (about four acres). The pad is divided into three parts; they try and load one section while the other sections are leaching. It takes about thirty days to cycle. They are using three foot lifts and plan to go to about 20'. Mr. Jaquays said that each section carries about 10,000 tons of ore at a time. They have a ramp along one edge of pad and a carry-all dumps the ore at edge and then a cat pushed the ore over the leach area. Mr. Jaquays emphasized that no wheel vehicle is allowed on the leach pad. The pregnant solution tank will hold about 400 tons of solution. They have two softy ponds which will hold from 6,000 to 7,000 tons of solution. Also they have channelized a drainage away from the dump area. This wet year has given them some trouble. They have had 11" of rain so far and Mr. Jaquays estimated because of this they had 4,600 tons of extra solution to handle. Mr. Jaquays estimated that they have processed 150,000 tons of ore to date and that there are 300,000 to 400,000 tons left. Also that they are currently constructing two leach pads. Each of these pads will hold about 10,000 tons of ore. 4/26/79 a.p.

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KAP WR 5/21/80: Dan Jacobs reported that stories he has received are that DOME MINES has not yet completed negotiations with D. W. Jacquays and other owners of the CONGRESS CONSOLIDATED GOLD MINES and adjacent properties.

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RRB WR 3/12/81: In the company of Ken Phillips visited the Congress Mine north Congress, Yavapai County.

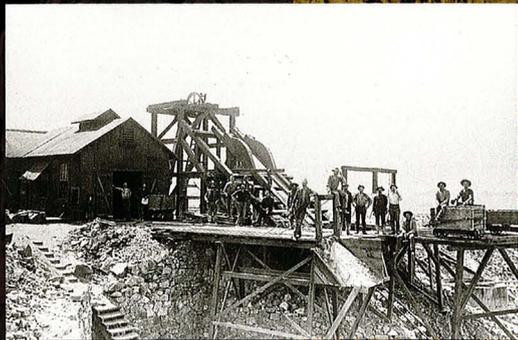
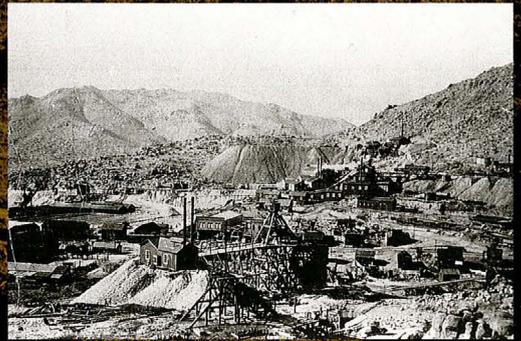
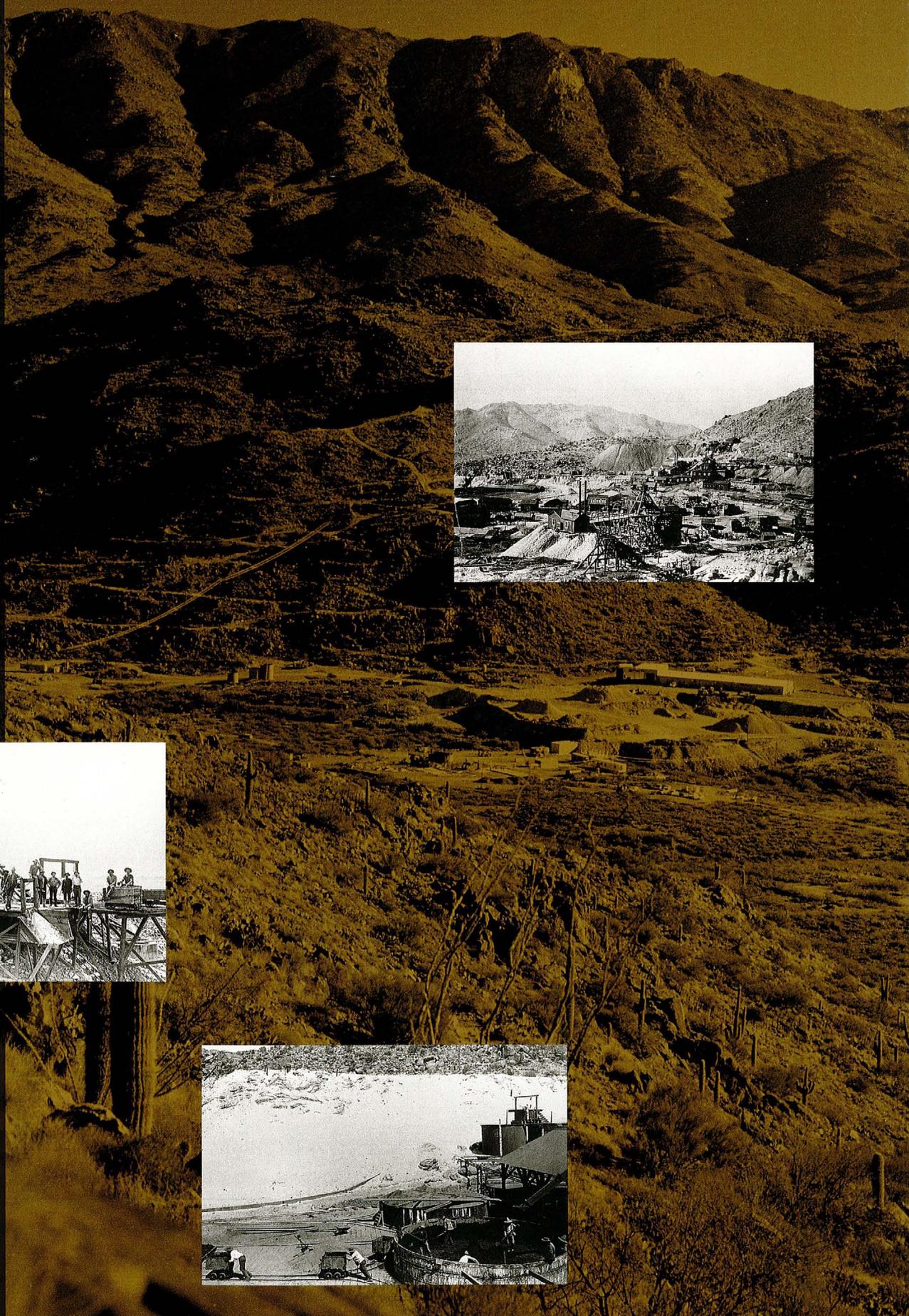
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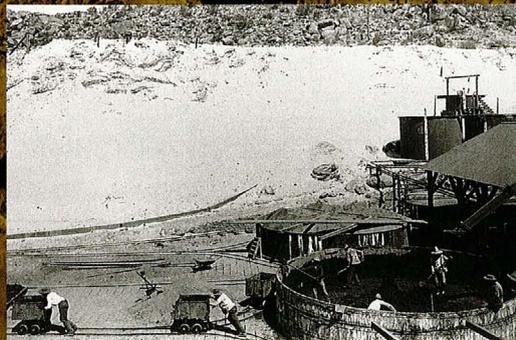
Malartic  
Hygrade  
Annual  
Report  
1989

CONGRESS (A) YAVAPAI

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*Congress Mine*



**Malartic Hygrade  
Gold Mines (Canada) Ltd.**

*About the cover:  
At the spectacular site  
of the Congress Mine  
in Arizona, Malartic  
Hygrade is building  
for the future on the  
solid gold foundations  
of the past. Discovered  
in 1888, Congress  
was the largest gold  
mine in Arizona by  
the turn of the century,  
and yielded close to  
400,000 ounces  
between 1891 and  
1911.*

Malartic Hygrade is in the business of finding and mining gold. With two major mining properties—at Val d'Or, Quebec and Congress, Arizona—the Company is a proven low cost producer which plans continued growth through strategic acquisitions as well as ongoing exploration and development programs.

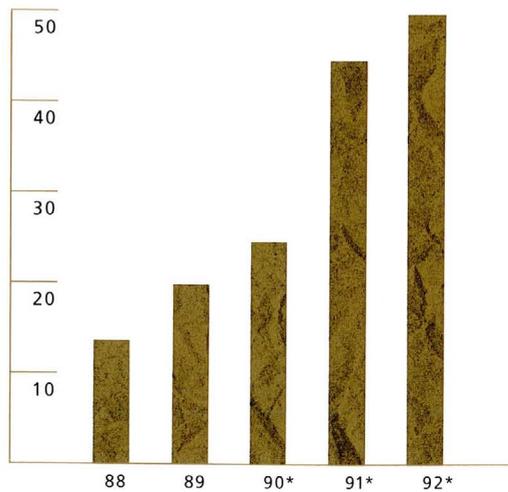
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| 1  | Financial Highlights                    |
| 2  | President's Message                     |
| 4  | Operations                              |
| 10 | Management's Discussion<br>and Analysis |
| 12 | Financial Statements                    |
| 15 | Notes to Financial<br>Statements        |

## Financial Highlights

|  | 1989         | 1988         |
|--|--------------|--------------|
| While adding substantially to asset values in 1989, Malartic Hygrade maintained both its profitability in a weak gold price environment, and its strong balance sheet. |              |              |
| Gold production (ounces)   | 20,015       | 13,881       |
| Average gold price realized per oz Au (CDN\$)  | 447          | 529          |
| Operating cost per oz Au (CDN\$)   | 341          | 317          |
| Revenue  | \$ 9,923,646 | \$ 7,842,914 |
| Net income before extraordinary item   | \$ 595,226   | \$ 743,430   |
| Earnings per share before extraordinary item   | \$ 0.15      | \$ 0.20      |
| Shareholders' equity   | \$21,977,393 | \$17,791,190 |

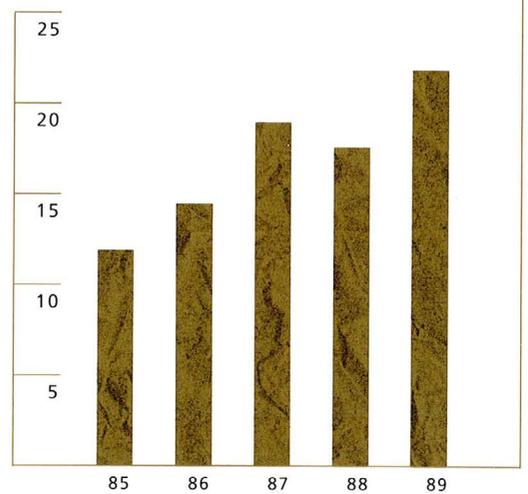
### Annual Production

Thousands of ounces



### Growth in Shareholders' Equity

Millions of \$



\* estimated, based on existing operations only

## **President's Message**

### **To the Shareholders,**

In 1989, Malartic established the foundations for becoming a 100,000 ounce gold producer. During the preceding two years, the Company made a strong commitment and heavy investment in pursuit of this strategic objective. With production rising and our asset base expanding, the stage is set for strong growth in the new decade.

Three important developments in 1989 brought us closer to our goal:

- In August, Malartic completed the acquisition of the Congress Mine in Arizona from Echo Bay Mines Ltd., and immediately initiated construction of an on-site mill – now nearing completion;
- In December, we concluded a complex agreement to option the Ellison Property in Bousquet Township, Quebec – a property situated between the two largest gold producers in the province; and
- In April, we began the deep level drift at the Orion Mine, which should begin to produce results by the third quarter of 1990.

### **Congress Acquisition: A Key U.S. Base**

The highlight of the year was the acquisition of the Congress Mine in Arizona – an acquisition that will add over 30,000 ounces per year when commercial production begins later this year. The anticipated production cost, at US \$225 per ounce, will have a measurable impact on reducing the Company's overall cost profile.

In addition to the obvious benefits of higher production and lower costs, the Congress acquisition represents a critical step in geographical diversification, creating a multi-mine company with operations in both Canada and the United States. It also brings us into a valuable association with Echo Bay – prior owners of Congress, and now significant shareholders in Malartic as a result of the terms of acquisition. As a base of operations for Malartic in the U.S., Congress represents an important source of future growth.

### **Quebec Expansion**

Our strategy for expanding in the U.S. from Congress parallels the approach we have taken at Val d'Or in Quebec. In 1989, we launched a major underground exploration and development program on the Orion Property in Val d'Or, which will culminate in a feasibility study this fall. At the same time, we aggressively pursued further expansion opportunities within the region, which resulted in the acquisition of options on two properties near Val d'Or.

Of major importance is the Ellison Property which is located in a prolific 10 mile gold belt, between and adjoining the two largest gold mines in Quebec. With the Ellison Property, the land situation is similar to the one that existed between Malartic and Camflo in 1980, prior to the execution of the original 60/40 profit sharing agreement. However, at Ellison, the ore potential of greater than 2 million tons has actually been drill indicated – rather than inferred, as was the case at Malartic-Camflo. This agreement promises to enhance our existing base of operations at Val d'Or and reinforces our position in the area.

### **Maintaining Financial Strength**

We are pleased to report that the growth in asset values over the past year was accomplished in the context of continued profitability and the maintenance of a strong balance sheet. Subsequent to year end, the Company arranged a US \$5 million gold loan facility with a major Canadian Chartered Bank to finance construction of the Congress Mill. This low cost method of project financing will leave Malartic with substantial cash reserves available for exploration, development, or future acquisitions.

### Building Shareholder Value

As we have frequently stated, the driving goal of Malartic Hygrade is to be a low cost, 100,000 ounce producer. Higher production levels contribute to shareholder value in two ways: they create operational efficiencies, as a critical mass of production is achieved; and they improve market efficiencies, by attracting institutional interest and sponsorship, lowering the Company's cost of capital over the longer term. This improves our competitive ability to acquire and develop additional mines.

To achieve our goal, we plan to continue with the strategies that were established in 1988 by:

- improving production costs;
- further developing our acquisitions niche – which entails buying North American properties with low technical risk and access to established infrastructure – and bringing added value to those properties through Malartic's proven expertise in successfully developing smaller underground mines;
- maintaining an active and diversified exploration program – a "discovery"; after all, still creates the highest return to resource company investors; and
- maintaining a strong balance sheet and conservative financial orientation.

For the year ahead, thanks to the Congress acquisition, production levels should begin to climb substantially, beginning in the third quarter – at which point the Company's cost profile should begin to decline. In 1991, from existing operations alone, production should approach the 50,000 ounce level. Further development of existing properties would make an additional contribution and we continue to actively assess new opportunities.

The renewed interest in gold and gold mining stocks by the investment community in recent months is a significant development which should facilitate our expansion program. We look forward to another year of progress for Malartic Hygrade – and a good decade for shareholders.

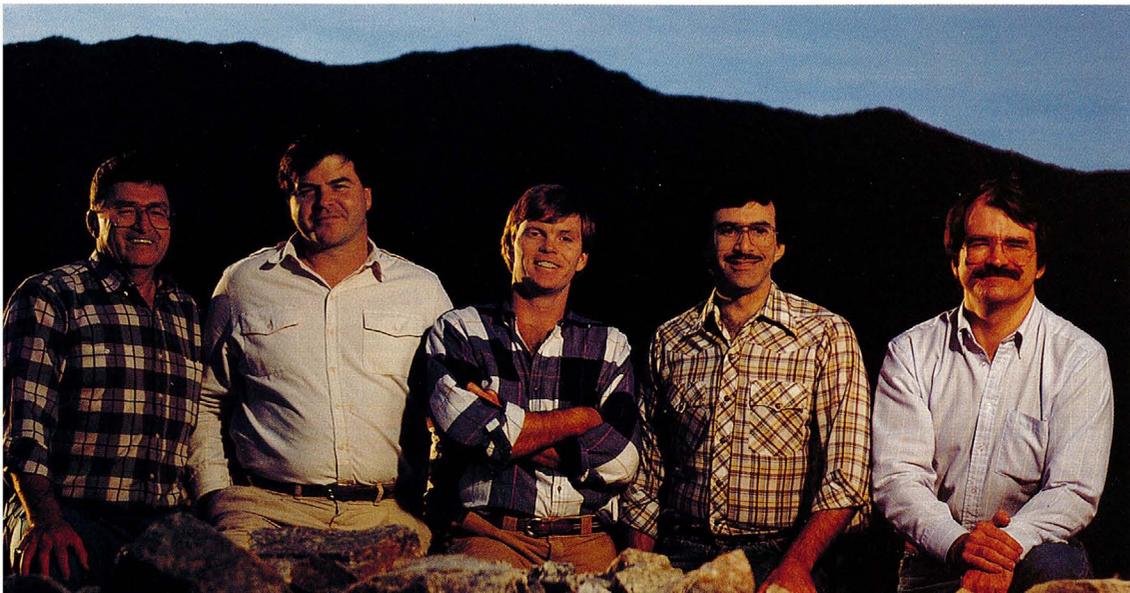
On behalf of the Board,



Marc C. Henderson

President

March 15, 1990



Malartic's management team, on site at Congress in Arizona: (left to right) Bob Stoughton, Mine Manager, Congress; Jim Sullivan, Vice-President, Operations; Marc Henderson, President; Rick Williams, Vice-President and Secretary; and Paul Caldwell, Comptroller. (not pictured Paul Cregheur, Mine Manager, Val d'Or)

## Operations

### The Congress Mine

#### Mill Construction on Target

Since August of 1989, when Malartic Hygrade acquired the Congress Mine near Phoenix, Arizona, we have made excellent progress in preparing for full-scale commercial production at this high grade underground gold mining operation. Our first priority has been the construction of an on-site mill—a project which will allow us to revitalize the mine and optimize profitability over the long term. This project is proceeding on schedule, and the mill should be in full operation by mid-year.

#### Impact on Production

Operation of the Congress Mine, which should initially produce 30,000 ounces of gold a year, will have a substantial impact on the Company's output and revenues—more than doubling current production levels.

With the on-site mill, this will be a low cost operation, producing at US \$225 per ounce, and will help accelerate the trend towards lower operating costs. At the time of acquisition, reserves on the high grade Niagara vein—where most of the current reserves are located—were established at 492,450 tons, grading 0.29 ounces of gold per ton. Including tailings and ore classified in the possible category, total reserves of 1,036,588 tons grading 0.177 ounces of gold per ton should ensure economic production at the 30,000 ounce level for at least the first half of the decade.

#### Future Prospects

Beyond the immediate and impressive impact on production, reserves and operating costs, the Congress Mine represents an important source of future growth for the Company.

With the exception of the Niagara vein and the Congress vein—which yielded 388,000 ounces of gold from 692,000 tons between 1891 and 1911—the 2,400 acre property remains largely unexplored and undeveloped.

In January, 1990 we began a 10,000 foot diamond drilling program from surface to expand existing reserves and further test the property. Exploration will be ongoing, and we believe the ultimate mining life of the property will greatly exceed the life expectancy based on current reserves.

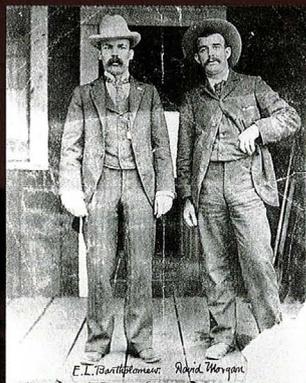
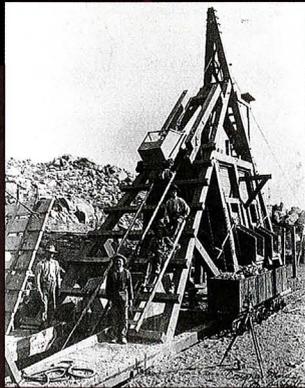
We are well placed to handle increased production levels at Congress: the milling facilities have been designed with expansion in mind, and can be economically expanded from initial processing levels of 350 tons per day to 500 tons per day.

In addition to further prospects on the property itself, the Congress Mine provides the Company with an exceptional base from which to pursue expansion opportunities in the Western United States.

*Employing over 500 people, Congress had become the largest gold mine in Arizona by 1897 - an historic year that saw William McKinley campaigning for the U.S. presidency as a staunch champion of the gold standard. Congress' prominence was marked by a visit from President McKinley (seen below) in 1901.*



Today, Malartic prepares for a new era of prominence for Congress, bringing modern mining technology and expertise to the task and handling operations with just 65 to 70 employees.



E.L. Santolomeas    Ralph Morgan

## Val d'Or

At our 1,450 acre Orion Property near Val d'Or, Quebec, the Company operates two producing gold mines:

- the Malartic/Barrick Mine – operated under an agreement with American Barrick since 1980, with Malartic having a 60% interest; and
- the Orion Mine which opened in mid-1988 as a 300 ton per day satellite operation. The upper portion of the Orion Mine is 100 per cent owned by Malartic Hygrade, while all reserves developed below 200 metres are included in our 60/40 profit sharing agreement with American Barrick, extended in January, 1989 to include the entire southern half of the property.

Ore from both mines is processed at the Camflo Mill, adjacent to the Malartic/Barrick Mine. This 1,400 ton per day facility is one of the lowest cost gold mills in North America.

### Operating Results

Gold production from Val d'Or operations increased significantly in 1989 to 19,899 ounces from 13,881 ounces in the prior year, an increase of 43%. A full year of production from the Orion Mine was responsible for the increase as the start-up problems encountered in 1988 were overcome.

For the year, a total of 135,005 tons (net to Malartic) were milled with a recovered grade of 0.147 ounces of gold per ton. Excellent mill recoveries were a feature of the operation as improvements to the recovery circuit in the Camflo Mill were successful, bringing recoveries to the 94% level.

Total operating profits for the year declined to \$2.1 million from \$2.7 million due to an \$82 per ounce decrease in realized bullion prices as well as higher cash operating costs of \$341 (US \$287) per ounce as against \$317 (US \$265) per ounce in 1988. A higher proportion of production from the upper portion of the Orion Mine was largely responsible for the increased cost as processing from this satellite operation includes both trucking and custom milling.

In accordance with the January, 1989 Malartic/Barrick Agreement, production from the deeper levels of the Orion deposit will be accessed through the Malartic/Barrick Mine and milled at cost, with a clearly beneficial impact on the economics of developing these reserves.

Year end ore reserves in all categories at the Malartic/Barrick and Orion Deep deposits total 514,065 tons grading 0.133 ounces of gold per ton. These reserves are subject to profit sharing, with Malartic receiving 60% under the terms of the Malartic/Barrick Agreements.

### Val d'Or Prospects

At the Orion Property, the Company sees significant potential for future development. At present, two major development programs are underway – one on the south half of the property with American Barrick, and the other on the north half which continues to be wholly owned by Malartic.

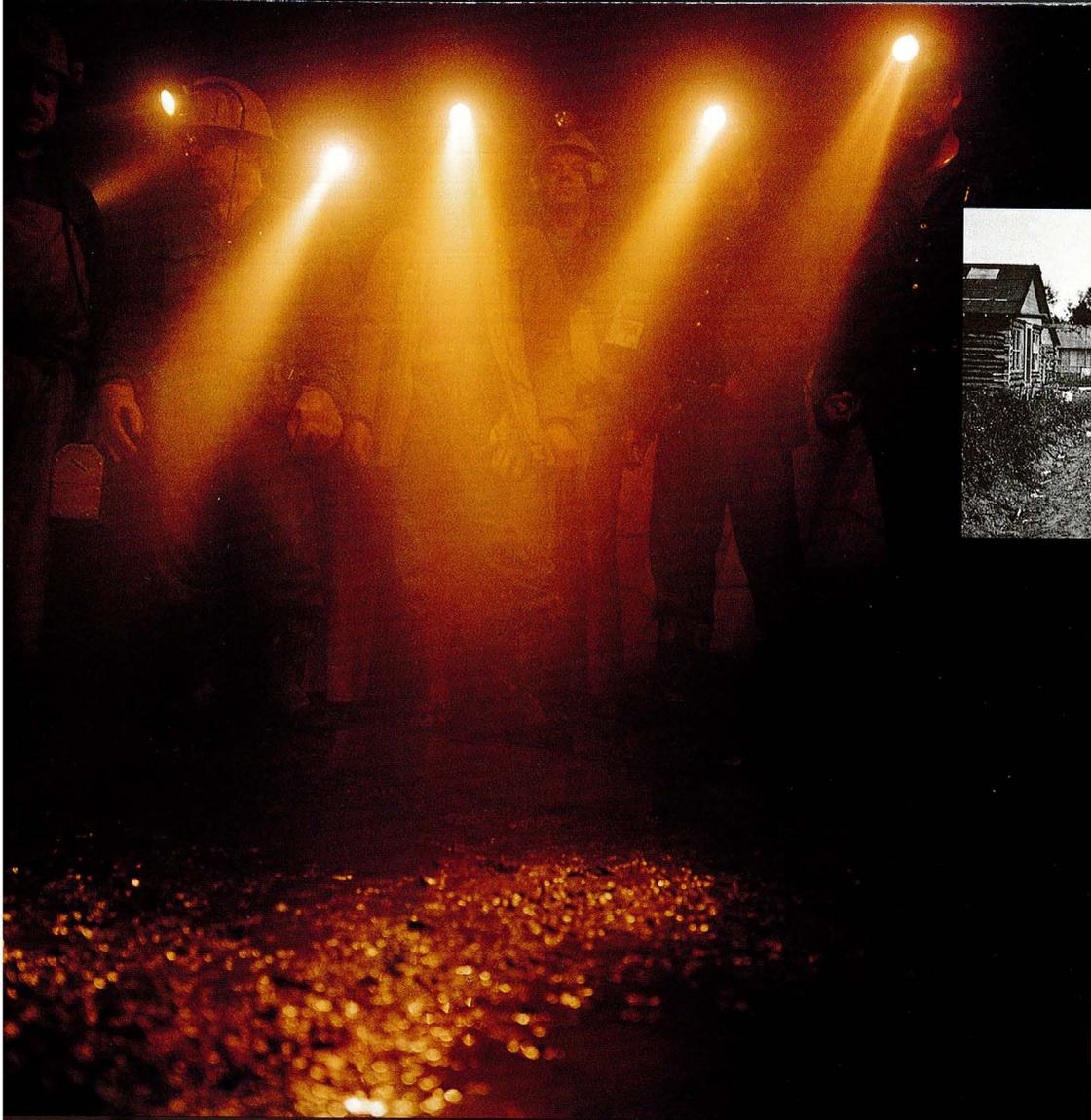
Exploration activities, detailed elsewhere in this report, should add substantially to reserves on the property over the years ahead. Particularly encouraging was the discovery of a new gold zone in the north half of the property during 1989.

With the infrastructure already in place at Val d'Or, we see the property as an important centre for regional expansion through to the next century – an ideal northern counterpart to the Congress Property in Arizona.

*In Northern Quebec, Val d'Or - Valley of Gold - was named for rich gold strikes in the region in the late 1920s. The town became a major mining centre during the 'thirties - a glimmer of gold in the dark days of the Great Depression. Gold mining remains the lifeblood of the community to this day.*



With its current operations on the Orion Property – and extensive exploration throughout the region Malartic has a solid stake in this important gold camp – a camp that has produced over 20 million ounces to date



## Exploration

In 1989, the Orion Property remained our primary exploration focus. During the year, we initiated a major underground exploration program from the 1,500 foot level of the Malartic/Barrick Mine. A drift which will ultimately exceed 6,000 feet in length is currently being driven across a major portion of the south half of the Orion Property. With this program, we will complete delineation drilling of the Orion Deep deposit in order to upgrade and establish additional reserves.

As part of the same program, we will be testing the Malartic Hygrade porphyry at depth and the Marban fault structure. The cost of the initial phase of the program, which will lead to a mining decision regarding the Orion Deep deposit, is currently estimated at \$3.3 million—of which Malartic's share is 60%.

Drilling on the central part of the wholly owned north half of the Orion Property has identified a new gold discovery. Although it is too early to establish an ore reserve, we have seen several positive results and we are continuing to evaluate the significance of this discovery.

Apart from the Orion Property, we acquired options on two properties near Val d'Or during 1989. The Ellison Property, 35 miles west of Val d'Or in Bousquet Township, Quebec, is located between the two largest gold mines in the province—the Lac-Cambior Doyon mine to the west, and the Lac-Bousquet mines to the East, with annual gold production of 275,000 and 200,000 ounces, respectively.

At Ellison, two parallel ore zones, A & C, have been outlined and can be mined either independently or from adjoining mining operations. According to an in-depth report by David S. Robertson and Associates, the A-Zone contains probable and possible reserves totalling 861,000 tons grading 0.204 ounces of gold per ton. No reserves are calculated for the C Zone, but limited, widely spaced drilling has indicated an ore potential for the C Zone in excess of 1 million tons. Both the A & C Zones are open to depth with excellent potential to define additional reserves—as is now being clearly demonstrated at the adjoining mining operations.

The Audet Property is located approximately 5 miles east of Val d'Or and 10 miles west along strike from the major base metal discovery made by Aur Resources Inc. This 800 acre property will be investigated for both its gold and base metals potential.

Malartic has also maintained its investment and management interest in its exploration affiliate, Minefinders Corporation Ltd. Minefinders is carrying out exploration on ten gold prospects in Western Quebec, including the Dubuisson East Property, where gold reserves of 75,000 ounces have been drill indicated.

Malartic Hygrade is continuing to study and examine property acquisition opportunities. Our corporate goal of increasing gold production will be achieved through exploration success, by the delineation of new reserves and through the acquisition of existing reserves. We intend to pursue all of these strategies aggressively.

*When gold was first discovered at Congress and at Val d'Or, exploration was more of an art than a science. The amount of gold discovered historically through the use of relatively primitive exploration and prospecting techniques is a strong indication of the richness and still-untapped potential of both regions.*



Today, skilled geologists using advanced drilling techniques, and modern exploration technology give Malartic a view of the mining potential that Gold Rush prospectors could only have guessed at.

Camflo Ore Zone

Malartic/Barrick Shaft

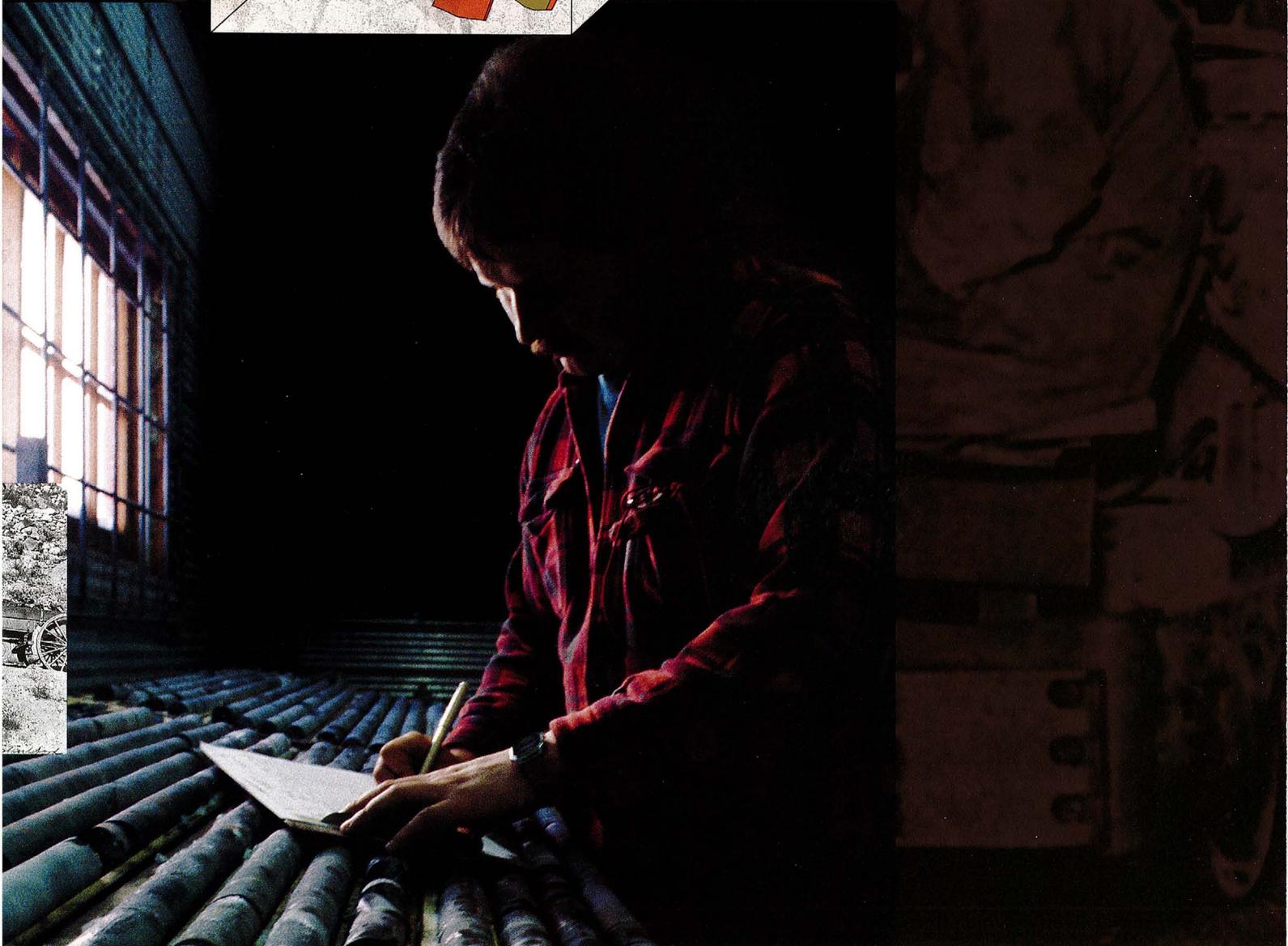
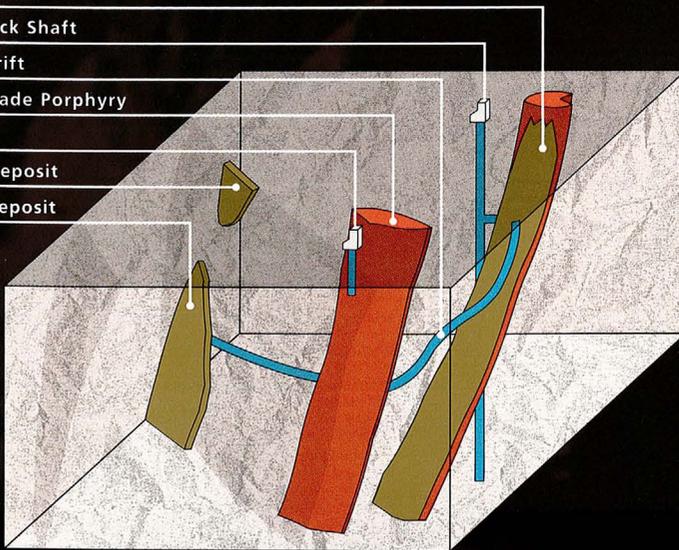
1500' Level Drift

Malartic Hygrade Porphyry

Orion Shaft

Orion No. 8 Deposit

Orion Deep Deposit



## Management's Discussion and Analysis

Malartic Hygrade is exclusively engaged in the business of finding and mining gold. The gold mining industry is a highly competitive, cyclical industry with bullion prices subject to a high degree of volatility. The relationship between realized bullion prices and mine operating costs is the primary determinant of the Company's earnings and cash flows, and operating margins over the past five years have ranged from a high of \$327 per ounce in 1987 to a low of \$106 per ounce in 1989. The Company also derives substantial income from investments.

Operations are presently centered on a producing mining property in Val d'Or, Quebec—the site of two separate mineable deposits—and on the Congress Mine near Wickenburg, Arizona which is currently under development. The Congress Mine is wholly owned, subject to certain royalties, while the Val d'Or Mines are subject to profit sharing agreements with Barrick Minerals (Canada) Inc., a subsidiary of American Barrick Resources Corporation. Under the terms of these agreements, Malartic receives 60% and Barrick receives 40% of all profits derived from the mining of a defined area of Malartic's 1,450 acre Orion Property.

Historically, the Company has maintained a very strong financial position with no debt and substantial cash reserves. To date, all capital expenditures at the Val d'Or operations, including the Orion Deep Development Program, have been funded from internal cash flow.

### Results of Operations

Gold production for the twelve months ended December 31, 1989 increased to 20,015 ounces from 13,881 ounces in 1988. Production figures for 1989 include 116 ounces from a custom smelting test at Congress; production figures in 1988 include 947 ounces extracted from the Orion Mine which were credited to deferred exploration and development expenditures and therefore were not reflected in revenues. Average realizable gold prices declined to \$447 (US \$376) per ounce from \$529 (US \$442) per ounce in the prior year. This decline, combined with higher cash operating costs of \$341 (US \$287) per ounce in 1989 compared with \$317 (US \$265) per ounce in 1988, contributed to lower operating profit of \$2,124,329 versus \$2,741,492.

Net income before extraordinary items in 1989 was \$595,226 or \$0.15 per share on revenues of \$9,923,646 compared with \$743,430 or \$0.20 per share on revenues of \$7,842,914 during 1988. A write-off of deferred exploration and development costs related to the Orion Mine resulted in a net loss of \$0.30 per share in 1988. Cash flow from operations was \$1,213,179 or \$0.31 per share in 1989 compared with \$1,411,255 or \$0.33 per share in 1988.

Lower profitability in 1989 reflects several factors—notably an \$82 per ounce decrease in realized bullion prices as well as slightly higher operating costs due to the higher percentage of production from the upper portion of the Orion Mine. This mine, which is essentially a satellite operation, requires both trucking and custom milling, resulting in all-in milling costs which were \$54 per ounce higher than comparable costs at the Malartic/Barrick Mine. Corporate administrative and exploration costs were also higher in 1989, reflecting our efforts to expand the Company's reserve and asset base. Overall profitability should improve in 1990, particularly in the latter half of the year when lower cost production from the Congress Mine begins to have an impact.

### Liquidity and Capital Resources

Malartic's liquidity and financial position remain strong. Cash and investments at December 31, 1989, including investments in U.S. Government treasury securities and the preferred shares of top-rated Canadian corporations, amounted to \$5.1 million.

Capital spending in 1989 was \$5.3 million, with expenditures primarily related to the cost of the 1.1 mile drift to access the Orion Deep deposit and mill construction at Congress. Malartic's share of the capital expenditure on Orion Deep amounted to \$1.1 million in 1989, which is approximately 55% of the total two year budget for this program. While the budget has increased for Orion Deep principally due to higher than anticipated ventilation and ground support costs, the completion date for the access drift and related definition and exploratory drilling remains on target. All capital expenditures on the Orion Deep in 1989 were funded from internal cash flow and the Company intends to continue funding the program in this way.

At Congress, capital spending in 1989 amounted to \$4.1 million, of which \$2.8 million related to the construction of the mill and \$1.3 million related to deferred development including driving of the main haulage ramp and stope preparation. The capital budget for mill construction and related deferred development at Congress in 1990 is \$6.3 million. Financing for this program has been arranged via a US \$5 million gold loan facility with the Bank of Nova Scotia. The loan bears interest at 2 1/8%, is convertible at any time into a U.S. Dollar facility, and is repayable in eight quarterly installments beginning on December 31, 1990. We expect that the loan will be drawn down in the first quarter of 1990.

Malartic Hygrade remains in an excellent financial position to pursue its goal of profitable expansion in the North American gold mining industry.

| 1989 Selected<br>Quarterly Data | Bullion<br>Revenue | Investment<br>Revenue | Net<br>Income | Earnings<br>per Share | Gold<br>Production<br>(ozs) |
|---------------------------------|--------------------|-----------------------|---------------|-----------------------|-----------------------------|
| 1st Quarter                     | \$2,025,409        | \$187,450             | \$211,353     | \$0.06                | 4,349                       |
| 2nd Quarter                     | 1,928,365          | 433,842               | 80,154        | 0.02                  | 4,303                       |
| 3rd Quarter                     | 2,341,583          | 168,099               | 199,645       | 0.04                  | 5,432                       |
| 4th Quarter                     | 2,646,331          | 192,567               | 104,074       | 0.03                  | 5,931                       |
| Year                            | \$8,941,688        | \$981,958             | \$595,226     | \$0.15                | 20,015                      |

## Consolidated Balance Sheets

as at December 31

|                             |   | 1989         | 1988         | 1987         |
|-----------------------------|---|--------------|--------------|--------------|
| <b>Assets</b>               | <b>Current</b>                              |              |              |              |
|                             | Cash and Short Term Deposits                | \$ 770,475   | \$ 1,032,031 | \$ 832,447   |
|                             | Government Treasury Bills                   | —            | 292,145      | 3,046,541    |
|                             | Marketable Securities                       | 529,111      | 9,553        | 504,162      |
|                             | Accounts Receivable                         | 463,786      | 138,884      | 347,704      |
|                             | Due from Barrick Minerals (Canada) Inc.     | 38,527       | 169,930      | 275,513      |
|                             | Inventories (Note 2)                        | 1,005,151    | 871,065      | —            |
|                             | Deferred Mining Costs                       | —            | 820,745      | —            |
|                             | Prepaid Expenses                            | 72,595       | —            | —            |
|                             |   | 2,879,645    | 3,334,353    | 5,006,367    |
|                             | <b>Investments (Note 3)</b>                 | 3,764,255    | 9,752,027    | 8,444,593    |
|                             | <b>Investment in Affiliate (Note 4)</b>     | 707,302      | 694,728      | 646,800      |
|                             | <b>Fixed (Note 5)</b>                       | 6,843,203    | 2,629,799    | 2,528,357    |
|                             | <b>Deferred Foreign Exchange Loss</b>       | 6,827        | 206,621      | 152,485      |
|                             | <b>Deferred Exploration and Development</b> |              |              |              |
|                             | <b>Expenditures (Note 6)</b>                | 6,192,949    | 3,484,972    | 6,896,761    |
|                             | <b>Mining Properties (Note 7)</b>           | 6,675,679    | 1,853,330    | 1,853,330    |
|                             |   | 24,190,215   | 18,621,477   | 20,522,326   |
|                             | \$27,069,860                                | \$21,955,830 | \$25,528,693 |              |
| <b>Liabilities</b>          | <b>Current</b>                              |              |              |              |
|                             | Accounts Payable and Accrued Liabilities    | \$ 649,190   | \$ 863,546   | \$ 657,401   |
|                             | Dividends Payable                           | 140,735      | 142,875      | 522,554      |
|                             | Income Taxes Payable                        | 302,360      | 482,485      | 587,687      |
|                             | Due to Echo Bay Mines Ltd. (Note 12)        | 1,410,703    | —            | —            |
|                             |   | 2,502,988    | 1,488,906    | 1,767,642    |
|                             | <b>Deferred Income Taxes</b>                | 2,589,479    | 2,675,734    | 4,540,546    |
|                             | 5,092,467                                   | 4,164,640    | 6,308,188    |              |
| <b>Shareholders' equity</b> | <b>Share Capital (Note 8)</b>               | 11,425,078   | 7,834,101    | 7,759,101    |
|                             | <b>Retained Earnings</b>                    | 10,552,315   | 9,957,089    | 11,461,404   |
|                             |   | 21,977,393   | 17,791,190   | 19,220,505   |
|                             |   | \$27,069,860 | \$21,955,830 | \$25,528,693 |

Approved by the Board



H. Peter Jarvis  
Director



James G. Brown  
Director

## Consolidated Statements of Income and Retained Earnings

*for the years ended December 31*

|   | 1989                | 1988         | 1987         |
|---|---------------------|--------------|--------------|
| <b>Revenue from Gold Production (Note 13)</b>                     | <b>\$ 8,941,688</b> | \$ 6,840,265 | \$ 6,035,784 |
| <b>Cost of Production (Note 9)</b>                                | <b>6,817,359</b>    | 4,098,773    | 2,691,537    |
|   | <b>2,124,329</b>    | 2,741,492    | 3,344,247    |
| <b>Expenses</b>   |                     |              |              |
| Administrative  | 1,084,813           | 944,701      | 475,166      |
| Exploration   | 474,649             | 325,735      | 511,061      |
| Interest  | 106,281             | 45,531       | 11,128       |
| Mining Taxes  | —                   | 220,879      | —            |
| Depreciation  | 692,246             | 689,494      | 728,627      |
|   | <b>2,357,989</b>    | 2,226,340    | 1,725,982    |
|   | <b>(233,660)</b>    | 515,152      | 1,618,265    |
| <b>Investment Income (Note 10)</b>                                | <b>981,958</b>      | 1,002,649    | 1,019,321    |
| <b>Foreign Exchange (Loss) Gain</b>                               | <b>(236,115)</b>    | (516,616)    | (154,873)    |
| Income before the undernoted items                                | 512,183             | 1,001,185    | 2,482,713    |
| <b>Income Taxes (Note 11)</b>                                     |                     |              |              |
| Current   | —                   | 396,593      | 182,437      |
| Deferred  | (83,043)            | (138,838)    | 292,546      |
|   | <b>(83,043)</b>     | 257,755      | 474,983      |
| <b>Income before Extraordinary Item</b>                           | <b>595,226</b>      | 743,430      | 2,007,730    |
| Write-off of Deferred Exploration and<br>Development Expenditures | —                   | (1,871,726)  | —            |
| Mining Tax Refund   | —                   | —            | 1,630,416    |
| <b>Net Income (Loss) for the Year</b>                             | <b>595,226</b>      | (1,128,296)  | 3,638,146    |
| <b>Retained Earnings, Beginning of Year</b>                       | <b>9,957,089</b>    | 11,461,404   | 8,569,433    |
|   | <b>10,552,315</b>   | 10,333,108   | 12,207,579   |
| Dividends Declared  | —                   | 376,019      | 746,175      |
| <b>Retained Earnings, End of Year</b>                             | <b>\$10,552,315</b> | \$ 9,957,089 | \$11,461,404 |
| <b>Earnings Per Share</b>   |                     |              |              |
| Income before Extraordinary Item                                  | <b>\$0.15</b>       | \$ 0.20      | \$0.54       |
| Income (Loss) for the year  | <b>\$0.15</b>       | \$(0.30)     | \$0.99       |
| <b>Dividends Per Share</b>  | <b>\$ —</b>         | \$ 0.10      | \$0.20       |

## Consolidated Statements of Changes in Financial Position

*for the years ended December 31*

|   | 1989               | 1988                | 1987               |
|---|--------------------|---------------------|--------------------|
| <b>Cash provided from (used in)</b>   |                    |                     |                    |
| <b>Operating Activities:</b>  |                    |                     |                    |
| Income before Extraordinary Item  | \$ 595,226         | \$ 743,430          | \$ 2,007,730       |
| Items not affecting cash:   |                    |                     |                    |
| Depreciation  | 692,246            | 689,494             | 728,627            |
| Deferred Income Taxes   | (83,043)           | (138,838)           | 292,546            |
| Other   | 8,750              | 117,169             | 52,896             |
|   | <b>1,213,179</b>   | <b>1,411,255</b>    | <b>3,081,799</b>   |
| Net Change in Accounts Receivable and<br>Payable, Inventories, Deferred Mining<br>Costs, Prepaid Expenses and Income<br>Taxes Payable | <b>1,020,616</b>   | <b>(1,276,464)</b>  | <b>77,034</b>      |
|   | <b>2,233,795</b>   | <b>134,791</b>      | <b>3,158,833</b>   |
| Mining Tax Refund   | —                  | —                   | 1,630,416          |
|   | <b>2,233,795</b>   | <b>134,791</b>      | <b>4,789,249</b>   |
| <b>Cash provided from (used in)</b>   |                    |                     |                    |
| <b>Investing Activities:</b>  |                    |                     |                    |
| Government Treasury Bills   | 292,145            | 2,754,396           | (1,820,358)        |
| Marketable Securities   | (519,558)          | 494,609             | 861,709            |
| Investments   | 6,097,826          | (1,478,739)         | (1,402,063)        |
| Investment in Affiliate   | (12,574)           | (47,928)            | (380,000)          |
| Fixed Assets — Net  | (2,924,092)        | (790,936)           | (499,946)          |
| Deferred Exploration Expenditures   | (2,588,057)        | (260,911)           | (3,686,455)        |
| Mining Properties   | 240,000            | —                   | (3,150)            |
| Acquisition of Congress Mine (Note 12)  | (8,158,359)        | —                   | —                  |
|   | <b>(7,572,669)</b> | <b>670,491</b>      | <b>(6,930,263)</b> |
| <b>Cash provided from (used in)</b>   |                    |                     |                    |
| <b>Financing Activities:</b>  |                    |                     |                    |
| Due to Echo Bay Mines Ltd. (Note 12)  | 1,410,703          | —                   | —                  |
| Common Shares issued to<br>Echo Bay Mines Ltd. (Notes 8 & 12)   | 2,550,000          | —                   | —                  |
| Common Shares (Note 8)  | 1,118,755          | 150,000             | 3,300,000          |
| Dividends Paid  | (2,140)            | (755,698)           | (718,493)          |
|   | <b>5,077,318</b>   | <b>(605,698)</b>    | <b>2,581,507</b>   |
| <b>Increase (decrease) in cash<br/>for the year</b>   | <b>(261,556)</b>   | <b>199,584</b>      | <b>440,493</b>     |
| <b>Cash</b>   |                    |                     |                    |
| Beginning of year   | 1,032,031          | 832,447             | 391,954            |
| End of Year   | <b>\$ 770,475</b>  | <b>\$ 1,032,031</b> | <b>\$ 832,447</b>  |

# Auditors' Report

To the Shareholders of  
Malartic Hygrade Gold  
Mines (Canada) Ltd.

We have examined the consolidated balance sheets of Malartic Hygrade Gold Mines (Canada) Ltd. as at December 31, 1989, 1988 and 1987 and the consolidated statements of income and retained earnings and changes in financial position for each of the years in the three year period ended December 31, 1989. Our examinations were made in accordance with generally accepted auditing standards, and accordingly included such tests and other procedures as we considered necessary in the circumstances.

In our opinion, these consolidated financial statements present fairly the financial position of the Company as at December 31, 1989, 1988 and 1987 and the results of its operations and the changes in its financial position for each of the years in the three year period ended December 31, 1989 in accordance with generally accepted accounting principles consistently applied.

Toronto, Canada  
March 9, 1990

Pannell Kerr MacGillivray  
Chartered Accountants

## Notes to Consolidated Financial Statements

### 1 Summary of Accounting Policies

These consolidated financial statements have been prepared by management in accordance with accounting principles generally accepted in Canada. The more significant of the Company's accounting policies are:

(a) Basis of Consolidation

These consolidated financial statements include the accounts of the Company and its 100% owned United States subsidiary, Malartic Hygrade U.S. Inc.

(b) Short Term Investments

Investments in government treasury bills and marketable securities are carried at cost, which approximates market value.

(c) Fixed Assets

Fixed assets, which include the Company's proportionate share of certain equipment at the Malartic/Barrick Mine, are recorded at cost.

Depreciation is charged to operations on mine assets when commercial production is attained and on other assets when put into use on the straight line method over the following estimated service lives:

|                                    |          |
|------------------------------------|----------|
| Buildings, machinery and equipment | 5 years  |
| Furniture and fixtures             | 5 years  |
| Leasehold improvements             | 10 years |
| Automobiles and trucks             | 3 years  |
| Data processing equipment          | 5 years  |

The Company's proportionate share of the cost of deepening the Malartic/Barrick Mine shaft and the related haulageway development to access the Company's ore body at new levels, is charged to operations on a units of production basis.

(d) Mining Properties and Deferred Expenditures

Mining properties are recorded at cost. Exploration and development expenditures for specific major projects are deferred. General exploration expenditures are charged to income when incurred. The costs of mining properties and deferred expenditures are charged to income on a units of production basis when the related ore bodies are put into production. If a project is abandoned or determined not to be commercially feasible the property costs and related deferred expenditures are written off.

At any time the carrying values of these items represent costs to be charged to income in the future and do not necessarily reflect their present or future values.

(e) Mining Operations

The consolidated statement of income includes the bullion revenue and operating costs of the Orion Mine and the Company's 60% share of bullion revenue and operating costs at the Malartic/Barrick Mine arising from its Agreement with Barrick Minerals (Canada) Inc.

(f) Translation of Foreign Currencies

Monetary assets and liabilities denominated in foreign currency have been translated into Canadian Dollars at the year end rate of exchange. Revenue and expenses are translated at the approximate exchange rates on the dates of the transactions. The unrealized gains and losses arising on translation of monetary items with a term greater than one year have been deferred and are being amortized over their remaining term.

(g) Income Taxes

Deferred income taxes result from claiming capital cost allowances for income tax purposes which differs from the depreciation of fixed assets recorded in these financial statements, claiming exploration expenses for income tax purposes that have been capitalized in these financial statements, and include the foregone tax benefit of exploration expenditures under the flow-through share agreements.

**2 Inventories**

In 1989, inventories consist of 2,861 tons of ore (1988 – 20,103 tons) at an average cost of \$47.98 per ton (1988 – \$43.12 per ton) that have been stockpiled on surface at the Orion Mine, and 5,507 tons of ore at an average cost of \$53.96 per ton that have been stockpiled on surface and mining supplies totalling \$570,756 at the Congress Mine.

|   | Market Value       | 1989               | 1988               | 1987               |
|---|--------------------|--------------------|--------------------|--------------------|
| <b>3 Investments</b>  |                    |                    |                    |                    |
| United States Government Treasury Notes, at cost, less unamortized purchase discount. Face value of US \$500,000 (1988 – US\$2,100,000; 1987 – US\$3,600,000) | \$ 559,727         | \$ 561,715         | \$2,458,518        | \$4,614,781        |
| Marketable Securities, consisting of common shares, at cost   | 196,078            | 1,127,823          | 4,382,260          | –                  |
| Marketable Securities, consisting of preferred shares, at cost  | 1,779,488          | 1,905,902          | 2,661,444          | 3,569,201          |
| Other, at cost  | 76,517             | 168,815            | 249,805            | 260,611            |
|   | <b>\$2,611,810</b> | <b>\$3,764,255</b> | <b>\$9,752,027</b> | <b>\$8,444,593</b> |

Virtually all the preferred shares are redeemable or retractable in the future for amounts equal to or exceeding cost.

**4 Investment in Affiliate**

This investment consists of 16.6% (1988 – 21.1%; 1987 – 23.7%) of the outstanding common shares of Minefinders Corporation Ltd., ("Minefinders") whose directors and officers are also directors and officers of the Company. Minefinders is a mining exploration company not generating earnings and accordingly the investment is carried at cost. The market value at December 31, 1989 was \$439,280.

|  | Accumulated Cost    | Depreciation       | Net Book Value     | 1989               | 1988               | 1987        |
|--|---------------------|--------------------|--------------------|--------------------|--------------------|-------------|
| <b>5 Fixed Assets</b>                                      |                     |                    |                    |                    |                    |             |
| Buildings, Machinery and Equipment                         | \$ 4,205,871        | \$1,668,876        | \$2,536,995        | \$ 622,050         | \$ 244,590         |             |
| Construction-in-Progress                                   | 2,677,912           | –                  | 2,677,912          | –                  | –                  |             |
| Furniture and Fixtures                                     | 208,887             | 176,509            | 32,378             | 8,667              | 20,155             |             |
| Leasehold Improvements                                     | 75,534              | 27,113             | 48,421             | 56,605             | 49,524             |             |
| Automobiles and Trucks                                     | 59,714              | 14,100             | 45,614             | 8,635              | –                  |             |
| Data Processing Equipment                                  | 83,546              | 25,772             | 57,774             | 14,711             | 11,256             |             |
| Mine Shaft and Haulageways                                 | 3,491,701           | 2,047,592          | 1,444,109          | 1,919,131          | 2,202,832          |             |
|  | <b>\$10,803,165</b> | <b>\$3,959,962</b> | <b>\$6,843,203</b> | <b>\$2,629,799</b> | <b>\$2,528,357</b> |             |
|  |                     |                    |                    | <b>1989</b>        | <b>1988</b>        | <b>1987</b> |
| <b>6 Deferred Exploration and Development Expenditures</b> |                     |                    |                    |                    |                    |             |
| Orion Property   |                     |                    | \$3,842,866        | \$3,484,972        | \$3,224,061        |             |
| Orion Mine   |                     |                    | –                  | –                  | 3,672,700          |             |
| Orion Deep Project   |                     |                    | 931,554            | –                  | –                  |             |
| Congress Mine  |                     |                    | 1,418,529          | –                  | –                  |             |
|  |                     |                    | <b>\$6,192,949</b> | <b>\$3,484,972</b> | <b>\$6,896,761</b> |             |

|                            | 1989               | 1988               | 1987               |
|----------------------------|--------------------|--------------------|--------------------|
| <b>7 Mining Properties</b> |                    |                    |                    |
| Orion Property             | \$1,508,500        | \$1,758,500        | \$1,758,500        |
| Panache Property           | 94,830             | 94,830             | 94,830             |
| Congress Property          | 5,062,349          | —                  | —                  |
| Audet Property             | 10,000             | —                  | —                  |
|                            | <b>\$6,675,679</b> | <b>\$1,853,330</b> | <b>\$1,853,330</b> |

#### Orion Property

Consists of an 100% interest in a mining concession covering 40 hectares, two mining leases covering 166 hectares and thirteen claims covering a total of 380 hectares in the Township of Malartic in the Province of Quebec.

During 1989, the Company extended its profit-sharing agreement with Barrick Minerals (Canada) Inc. to include the southern half of the Orion Property below the 200 metre level. The Company is bearing 60% of the costs of underground exploration and development on this project (the Orion Deep Project) and will receive 60% of the profits from future bullion production.

The company received \$250,000 from Barrick as initial consideration for the right to participate in the project which has been applied against the Orion Property carrying value.

#### Panache Property

Panache Property, consisting of 533 claims covering a total of 8,520 hectares in the Townships of Carpiquet and Urban in the Province of Quebec.

#### Congress Property

Congress Property, consisting of 19 patented mining claims and 153 unpatented mining and millsite claims covering a total of 2,386 acres in the County of Yavapai, State of Arizona.

#### Audet Property

Audet Property, consisting of the right to earn a 100% interest in 20 claims in the Township of Bourlamaque in the Province of Quebec, by making cash payments totaling \$200,000 by June 12, 1994 and spending \$100,000 in exploration per year in the period June 12, 1989 to June 12, 1994.

|  | Number of Shares |           |           |
|--|------------------|-----------|-----------|
|  | 1989             | 1988      | 1987      |
| <b>8 Share Capital</b>                     |                  |           |           |
| Common Shares without par value Authorized | <b>Unlimited</b> | Unlimited | 5,000,000 |
| Issued and Outstanding                     | <b>4,307,215</b> | 3,760,194 | 3,745,331 |

- (a) During the year, the Company issued for cash the following shares pursuant to flow-through share agreements whereby it has undertaken to incur exploration expenditures in the amount of the aggregate issue consideration. The income tax benefits arising out of these exploration expenditures pass to investors. Accordingly, the portion of the issue consideration representing the premium over the approximate market value at the date of issuance has been included in the deferred income tax liability.

|  | Number of Shares | Aggregate Issue Consideration | Deferred Income Taxes | Issued Share Capital |
|--|------------------|-------------------------------|-----------------------|----------------------|
| Middlefield Resource Fund 1988 Resource Partnership II | 37,129           | \$300,000                     | \$(77,778)            | \$222,222            |
| Somicom 1988 and Company Limited Partnership           | 33,467           | 250,000                       | —                     | 250,000              |
| CMP 1989 Resource Partnership and Company, Limited     | 46,425           | 400,000                       | —                     | 400,000              |
|  | <b>117,021</b>   | <b>\$950,000</b>              | <b>\$(77,778)</b>     | <b>\$872,222</b>     |

During the year, the Company entered into two agreements to issue flow-through shares in 1990. Under the agreements with CMP 1989 II Resource Partnership and Company, Limited and NIM Resource 1989 and Company, Limited Partnership, 24,507 shares and 16,741 shares have subsequently been issued for consideration of \$250,000 and \$150,000, respectively.

- (b) As partial consideration for the acquisition of the Congress Mine 400,000 shares at \$6% per share totalling \$2,550,000, were issued. In addition, 200,000 share purchase warrants exercisable at the price of US \$6.50 per share until August 15, 1992 were issued.
- (c) The Company has implemented a stock option plan under which employees and directors may be granted the option to acquire shares. There are 359,000 unissued shares reserved for this plan. Options granted during 1988 and 1989 are exercisable in 1989, 1990 and 1991. A total of 30,000 shares for a total consideration of \$168,755 were issued under this plan in 1989.

(d) In December, 1989 the Company entered into an option agreement to acquire all the issued shares of 114660 Canada Inc., a private company which holds an interest in the Ellison gold property near Rouyn-Noranda, Quebec. Ownership of the Ellison Property is presently being disputed and is the subject of litigation between 114660 Canada Inc. and Yorbeau Resources Inc., the latter claiming to have earned a majority joint venture interest in the property in accordance with the terms of a 1985 option agreement. 114660 Canada Inc. is a defendant in this action and if unsuccessful, would, in any event, retain a 41% net profits interest in the property. The litigation is presently at the discovery stage.

In consideration for the option, the Company has agreed to reimburse the vendor for legal fees incurred to date of \$50,000 and to assume all future legal costs related to the Yorbeau action. The term of the option expires 90 days following a court decision or settlement of the ownership dispute with Yorbeau. Should Malartic elect to exercise its option, the vendor would receive 600,000 common shares plus additional contingent consideration, also payable in common shares, based on any proven reserves delineated above 170,000 ounces of gold.

|   |   | 1989  | 1988               | 1987               |
|---|---|---|--------------------|--------------------|
| <b>9 Cost of Production</b>                         | Mining and Development  | \$3,713,950   | \$2,331,578        | \$1,551,233        |
|   | Milling   | 1,960,702   | 1,073,452          | 666,009            |
|   | Surface and Plant   | 512,965   | 326,774            | 259,748            |
|   | Mine General  | 629,742   | 366,969            | 214,547            |
|   |   | <b>\$6,817,359</b>  | <b>\$4,098,773</b> | <b>\$2,691,537</b> |
|   |   | 1989  | 1988               | 1987               |
| <b>10 Investment Income</b>                         | Interest and Dividends  | \$ 531,894  | \$ 945,730         | \$ 961,557         |
|   | Gain (Loss) on Sale of Investments                                    | 441,330   | (16,356)           | 9,596              |
|   | Other   | 8,734   | 73,275             | 48,168             |
|   |   | <b>\$ 981,958</b>   | <b>\$1,002,649</b> | <b>\$1,019,321</b> |
| <b>11 Income Taxes</b>                              | The Company's income tax provision is made as follows:                | 1989  | 1988               | 1987               |
|   | Combined basic federal and provincial income tax rate – approximately | 44.0%   | 46.0%              | 50.6%              |
|   | Increase (Decrease) in income taxes resulting from:                   |   |                    |                    |
|   | Resource and depletion allowances                                     | (36.6%)   | (6.9%)             | (15.4%)            |
|   | Provincial business income tax rate reduction                         | (5.7%)  | (5.3%)             | (4.7%)             |
|   | Non-taxable portion of capital (gains) losses                         | 5.9%  | 5.9%               | 1.5%               |
|   | Non-taxable dividend income   | (23.8%)   | (14.0%)            | (6.1%)             |
|   | Purchase of flow-through shares                                       | –   | –                  | (6.8%)             |
|   | Effective Income Tax Rate   | <b>(16.2%)</b>  | 25.7%              | 19.1%              |
|   | <b>12 Acquisition of Congress Mine</b>                                | In June 1989, the Company purchased the Congress Property and Mine from Echo Bay Mines Ltd. for consideration as follows: |                    |                    |
| Malartic Hygrade common shares                      |   |   |                    |                    |
| – 400,000 at \$6½ per share                         |   | \$2,550,000   |                    |                    |
| Malartic Hygrade warrants for common shares         |   |   |                    |                    |
| – 200,000 warrants at US \$6.50 per share           |   | –   |                    |                    |
| Transfer of Gold Texas Resources Ltd. common shares |   |   |                    |                    |
| – 698,000 at \$6 per share                          |   | 4,188,000   |                    |                    |
| Payable to Echo Bay Mines Ltd. in cash              |   | 1,420,359   |                    |                    |
|   |   | <b>\$8,158,359</b>  |                    |                    |
| Allocation of Purchase Price                        |   |   |                    |                    |
| Inventories – Materials and Supplies                |   | \$ 669,993  |                    |                    |
| – Ore   | 324,539   |   |                    |                    |
| Fixed Assets  | 1,981,558   |   |                    |                    |
| Advance Royalty                                     | 119,920   |   |                    |                    |
| Mining Properties                                   | 5,062,349   |   |                    |                    |
|   | <b>\$8,158,359</b>  |   |                    |                    |

**13 Orion Mine**

In December 1989, the Company completed mining operations at the upper portion of the Orion Mine, which had generated the following results included in the consolidated statements of income:

|                              | 1989               | 1988         |
|------------------------------|--------------------|--------------|
| Revenue from gold production | <b>\$5,802,483</b> | \$2,068,887  |
| Net operating profit (loss)  | <b>\$ 627,209</b>  | \$ (177,462) |

**14 Transactions with Related Parties**

Management consulting services are provided by companies controlled by certain shareholders, two of whom are directors, and the cost of these services, approximately \$122,000 (1988 - \$196,000, 1987 - \$71,000) is included in administrative expenses. The Company manages the exploration programs of Minefinders Corporation Ltd.

**15 Difference between Canadian and United States accounting principles**

The accounting principles utilized in the preparation of these financial statements conform in all material respects with those generally accepted in the United States except for the following items which in the United States would be included in the determination of income before extraordinary items:

- (a) Unrealized foreign exchange gains and losses on the translation of monetary items with a term greater than one year have been deferred and are being amortized over their respective terms.
- (b) The write-off of deferred exploration and development expenditures relating to the Orion Project in 1988 and the refund of mining duties received in 1987 have been accounted for as extraordinary items.

The following table adjusts net income and earnings per share as reported to net income and earnings per share that would have been reported under United States accounting principles:

|  | 1989             | 1988          | 1987        |
|--|------------------|---------------|-------------|
| Income before extraordinary item per financial statement       | <b>\$595,226</b> | \$ 743,430    | \$2,007,730 |
| Deferred foreign exchange loss                                 | <b>(17,450)</b>  | (28,000)      | (80,500)    |
|  | <b>\$577,776</b> | \$ 715,430    | \$1,927,230 |
| Write off of deferred exploration and development expenditures | -                | (1,871,726)   | -           |
| Mining tax refund  | -                | -             | 1,630,416   |
| Net Income (Loss) for the year as adjusted                     | <b>\$577,776</b> | \$(1,156,296) | \$3,557,646 |
| Earnings per share before extraordinary item                   | <b>\$0.15</b>    | \$ 0.20       | \$ 0.54     |
| Deferred foreign exchange loss                                 | -                | (0.01)        | (0.02)      |
|  | <b>\$0.15</b>    | \$ 0.19       | \$ 0.52     |
| Write-off of deferred exploration and development expenditures | -                | (0.50)        | -           |
| Mining tax refund  | -                | -             | 0.44        |
| Earnings (Loss) per share after extraordinary item as adjusted | <b>\$0.15</b>    | \$(0.31)      | \$ 0.96     |

The Company has not yet determined the impact upon the financial statements that may arise on adoption of the accounting standard for income taxes set out in Statement 96 of the Financial Accounting Standards Board, which has postponed its implementation.

**16 Subsequent event**

On February 6, 1990, the Company signed a commitment letter with the Bank of Nova Scotia for a US \$5,000,000 Gold Bullion/Dollar Credit Facility to finance the construction of a mill and related infrastructure at the Congress Mine.

**17 Segmented Information**

The Company is engaged solely in the business of gold mining.

During 1989 the Company acquired the Congress Property and Mine in Arizona, U.S.A., which is in the pre-production stage. Aggregate identifiable assets by country at December 31, 1989 are as follows:

|               |                     |
|---------------|---------------------|
| Canada        | \$14,838,901        |
| United States | 12,230,959          |
|               | <b>\$27,069,860</b> |

All of the Company's revenue and net income for 1989 and prior years was generated in Canada which was also the location of all identifiable assets at December 31, 1988 and 1987.



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**Corporate Directory****Directors**

James G. Brown, Toronto, Canada  
Paul Guilbault, Montreal, Canada  
Marc C. Henderson, Toronto, Canada  
Dale M. Hendrick, Toronto, Canada  
H. Peter Jarvis, Toronto, Canada  
Ross D. Parry, Isle of Man U.K., Chairman

**Audit Committee**

H. Peter Jarvis, Chairman  
James G. Brown, Vice Chairman  
Ross D. Parry

**Officers**

Marc C. Henderson, President  
Richard D. Williams, Vice-President  
& Secretary  
James A. Sullivan, Vice-President  
– Operations  
Paul D. Caldwell, Comptroller

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Robert L. Stoughton, Mine Manager  
– Congress  
Paul D. Cregheur, Mine Manager  
– Val d'Or  
Yvon Trudeau, Chief Geologist

**Executive Offices**

1 Dundas Street West, Suite 2402  
Toronto, Canada  
M5G 1Z3  
Tel: (416) 977-4653

**Mining and Exploration Offices**

P.O. Box 999  
Malartic, Quebec, Canada  
J0Y 1Z0

Ghost Town Road  
P.O. Box 361  
Congress, Arizona, USA  
85332

**Auditors**

Pannell Kerr MacGillivray

**Bankers**

The Royal Bank of Canada  
The Bank of Nova Scotia

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**Shareholder and  
Investor Data****Registrar**

National Trust Company  
21 King Street East  
Toronto, Canada  
M5C 1B3

**Form 10-K**

Copies of the Annual Report in Form 10-K  
filed with the Securities and Exchange  
Commission of the United States are  
available by writing to:

The Secretary  
1 Dundas Street West, Suite 2402  
Toronto, Canada  
M5G 1Z3

**Transfer Agents**

National Trust Company  
Toronto, Canada  
Canadian Imperial Bank of Commerce  
New York, USA

**Annual Meeting**

of Shareholders will be held at 11:00 am  
on May 8, 1990, at the Tweed Room,  
Chestnut Park Hotel, Chestnut Street,  
Toronto, Canada.

**Stock Exchange Listings**

American Stock Exchange, New York: "MHG"  
Vancouver Stock Exchange: "MYC"  
The Stock Exchange, London

Malartic Hygrade gratefully  
acknowledges the assis-  
tance of the organizations  
that provided the historical  
photography appearing in  
this report:

- Special Collections, University  
of Arizona Library
- Coll. Société d'histoire  
de Val d'Or – H. Goyette
- Northern Miner Press
- Musée régional des mines  
de Malartic