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Doug Le George —

Mike Bruder —

972-5703 —
Copper Lake Mining Co -
Managing → Director

Box 2001 -
Sun City - Az 85372

called - went to coast 9 mo -
around and ck in mail today
4-22-82 - 2:12 PM.

Aspen Lake Explorations
Inc.
24018 N. 93rd Ave.
972-6237

Howard Cassutt

Daryl Bruce

Mike Binder

Unmineable

Page 1	1,034,375	50,741	86,198	.049
Page 2	3,724,305	177,094	310,359	.048
Page 3b	514,000	24,245	42,833	.047
3a	3,379,800	188,905	281,650	.056
Page 4	317,025	29,322	26,419	.093
	8,969,505	470 307		
	747,459	764	747,459	.052
	764,069	747		**.052**
		17		

Total 1,111,825

Deal. 247,256

Sample Calc:

$1.75^2 \times \pi =$

$3.0625 \times 3.1416 = 9.62 \square''$

4½ ~~3.25~~ $^2 \times \pi$

$5.0625 \times \pi = 15.904 \square''$

$\times \frac{60}{1728 \left(95 \times 4.24''^3 \right.}$

$.5522$ cu. ft

$\frac{166.67 \text{ / cu ft}}{92.00 \text{ \#s / 5 ft length.}}$

1,243,045
1,415,000
2,416,860
991,500
1,820,940
4,075,615

11,962,960

996,913 Tons using 12.

1,019,068 Tons

12
2.3
36
24
27.6

1,108,505

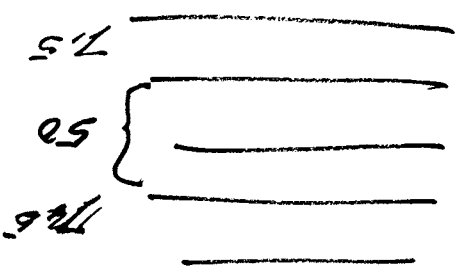
13,071,465

1,089,289
22036

1,111,325

Miscable

Page 1 – 86



A PROGRESS REPORT ON COPPER LAKE'S CLEMENTINE PROPERTY, MARICOPA CO., AZ. SUMMARIZING CALCULATED MINEABLE GOLD RESERVES

By

Gerald Weathers

TABLE OF CONTENTS

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RESERVES DEVELOPED AS A RESULT OF FORMER DRILL PROGRAMS	2
CURRENT DRILL PROGRAM	3
CURRENT GOLD RESERVES	3
COMMENTS	4
RECOMMENDATIONS	5

ILLUSTRATIONS

EXHIBIT NO. 1 -	REVISED MINEABLE RESERVES PREPARED BY M. J. BRUDER	Attached
EXHIBIT NO. 2 -	REPORT ON CLEMENTINE ORE RESERVES, MARICOPA COUNTY, ARIZONA BY M. J. BRUDER 11/30/81	Attached
FIG. I	CLEMENTINE GOLD PROPERTY MAP 1" = 40'	Attached
FIG. III	CLEMENTINE PROPERTY MAP 1" = 2,000'	Attached
CROSS SECTION	A-A'	
" "	B-B'	
" "	C-C'	
" "	D-D'	
" "	E-E'	

GEREX, INC.
MINERAL EXPLORATION

Post Office Box 826
Lake Montezuma, AZ. 86342

Telephone
(602) 567-4779

A PROGRESS REPORT ON COPPER LAKE'S CLEMENTINE PROPERTY, MARICOPA COUNTY, ARIZONA SUMMARIZING CALCULATED MINEABLE GOLD RESERVES

January 1982

By

Gerald Weathers

INTRODUCTION

The writer has been associated with the development of the Clementine Property since 1961. During this time the gold reserves have by means of intermittent drilling programs been consistently expanded from the gold mineralization occurring in a shallow shaft and numerous scattered prospect pits to the tonnages and grades outlined in this report, and also delineated on the enclosed maps.

GEOLOGIC CONCEPTS

Gold mineralization was observed to occur principally within a northeasterly trending-southeasterly dipping structure stained by red hematite and containing white subparallel to ramifying quartz veins; presenting a sharp contrast to the surrounding dark gray pre-Cambrian Yavapai schist host rock.

Exposures of this structure were sampled along its northeasterly trend for approximately a mile where it is covered by younger volcanic flows. (Refer to Map, Fig. III). Sample assays revealed the greatest surface concentration of gold to occur at the intersection of the quartz-hematite structure with a northwesterly trending, southwesterly dipping manganiferous-calcite structure, forming an ore shoot.

The majority of the gold within these intersecting structures was found found to be submicroscopic in size and thus invisible when searched for through the usual field lenses, placing heavy reliance on sample assays for exploration guidance.

Subsequently, this ore shoot has been mined by open pit methods and followe for 700 feet downdip by drilling, toward the south. The continuously mineralize zone is interpreted via these methods to be at least 700' wide and to dip to the south and rake to the east resulting in an apparent 30 degree dip to the southea Pending drill hole sample assays and future drilling programs should expand the volume of known gold reserves within this zone. (Refer to Property Map, Fig. II and Plan Map, Fig. I, plus sections).

Additional intersecting structures mineralized with gold have been observed along the principal structure, but remain unexplored at depth. (Refer to Map, Fig. III).

Recent brief studies by independent and company geologists have disclosed additional structures radiating from the open pit area and also other apparently unrelated (?) mineralized structures, particularly to the south of the present development. (Refer to Fig. III).

RESERVES DEVELOPED AS A RESULT OF FORMER DRILL PROGRAMS

1973

4,228 feet of shallow percussion holes were drilled along the strike of th main structure ending in July, 1973. As a result of this program, alculated measured reserves were 112,500 tons averaging .06 oz. gold/ton and 0.3 oz. silv ton. Indicated gold reserves were estimated to be 594,700 tons and inferred reserves 5,000,000 tons.

1981

Seventy-nine $4\frac{1}{2}$" diameter percussion holes totalling 9,025 feet were drill at 50' intervals along the strike and in the present pit area beginning Dec. 19 and ending April 1981.

Mr. Brian Bond, a Geological Engineer, was employed to on site supervise the last portion of this program. In his May 1981 report, Mr. Bond, calculated:

Proven Reserves - 329,352 tons grading .06 oz. gold/ton.
Probable Reserves - 538,627 tons grading .06 oz. gold/ton.
Possible Reserves - 2,338,008 tons.

These near surface reserves were calculated from data received from blast-hole, bulk, channel and drill hole sample assays.

Samples were assayed by a registered Assayer, who installed an Atomic Absorption Spectophotometer in a laboratory constructed on the property. Assays of check samples were obtained from independent assay laboratories, who used both atomic absorption and fire assay methods. Mr. Bond calculated the average deviation between the two methods to be .01 oz/ton.

During this drilling program, 84,319 tons of material were open pit mined, using scraper loaders, and dumped on a leach pad. Representative bulk samples from each load dumped were consolidated, prepared as composite samples and submitted to Mountain States Engineering for assaying and feasibility tests. The mined material averaged .05 oz. gold/ton.

CURRENT DRILL PROGRAM

25,825 feet of 5 inch diameter percussion holes were drilled starting with CR 80 in August 1981 and ending with CR 169 in the latter part of December 1981. The drill hole locations are shown on Fig. I - Gold Interval Intercepts; grade and hole depths are shown on the enclosed tables and sections.

CURRENT GOLD RESERVES

Mr. M. J. Bruder, a Mining Engineer, was employed to supervise the balance of the drill program, to calculate gold reserves, and to propose the plan for an open pit mining operation designed to mine the proven mineable reserves.

Based on the information developed to date, Mr. Bruder has calculated the mineable proven gold reserves to be 737,063 tons averaging .051 oz. gold per ton with a stripping ration of 1.4: 1 (Refer to Exhibit No. 1 and Fig. I).

In addition to the above reserves, 84,319 tons of material averaging .05 oz. gold per ton has been placed on the leach pad, and muck selectively removed from the open pit using an end loader has been stockpiled as follows:

	Est. Tons	Est. Grade (Assays Pending)
	50,000	.07 oz. Au/T
	10,000	.03 oz. Au/T
	20,000	.047 oz. Au/T
Total	80,000	.06 oz. Au/T

3500.
300
940
8) 4740 .06 ok

Thus, the proven mineable, plus stockpiled gold reserves are presently judged to be 901,382 tons averaging .052 oz. gold/ton.

It is expected that pending assays of sampled drill hole intervals multiplied by their calculated areas of influence will result in mineable proven gold reserves in excess of 1 million tons.

Assay comparisons of check samples sent to independent assayers are tabulated in Bruder's report, Exhibit 2).

Bruder has estimated probable gold reserves to be 5.52 million tons grading 0.055 oz. gold/ton and possible reserves to be 17.7 million tons grading .05 oz. Au/Ton, based on a study of the available data and the occurrence of favorable geologic structures.

COMMENTS

A large percentage of Bruder's mineable gold reserve polygon areas and calculations were closely checked and found to be reliable.

The proven reserves in the areas adjacent to the mineable reserves will have to be expanded or shown to continue into the mineable reserves by future development exploration before they can be seriously considered for mining.

Geologic investigations have been confined to a northeasterly trending structure and principally to the intersecting structure in the open pit area. It is expected that future geologic work will reveal the occurrence of a mineralized structural pattern along these and other structures.

There is no drill hole information below 300 feet on the down dip projection of the known ore shoot; however, it is reported (news release) that Ranchers' Exploration, who have recently drilled around the Gunbolt Prospect immediately to the east (Fig. III), have encountered high grade drill hole intercepts near the 800 foot depth.

There is no known subsurface geologic information available pertaining to the areas overlain by alluvium or by younger volcanic flows. (Fig. III)

Based upon the above enumerated observations as well as the fact that the explored portion of this property is confined to a 20 acre tract encompassed by about 2,100 acres within the property boundary, it is apparent that only a small fraction of the underlying gold bearing potential of this property has been explored.

RECOMMENDATIONS

It is recommended that the base map being prepared for this property be completed.

The geologic field investigations should continue and results obtained plotted on the base map.

Information derived from the drilling program should be evaluated and another drilling program planned designed to expand the proven gold reserves.

January 1, 1982

Gerald Weathers

Gerald Weathers
Gerex, Inc.

REPORT ON

CLEMENTINE ORE RESERVES

MARICOPA COUNTY, ARIZONA

by

Michael J. Bruder

11/13/81

EXHIBIT NO. 2

Table of Contents

PAGE	
1	Ore reserves
2-3	Methods of calculations
	Appendix
1-9	Ore reserve calculations
10-11	Independent assay comparisons
12-14	Independent assay certificates

RESULTS

As of November 11, 1981 1,002,943 tons of ore with an average grade of .054 oz/ton Gold have been proven. Proven reserves are measured directly from drill hole assays and no information is interpreted more than 100 feet in any direction.

Probable (indicated) reserves are 5.52 million tons at .055 oz/ton average grade. Probable reserves are estimated using surface samples as a guide to the extent of the ore and the average thickness (42 feet) from previous drilling.

Possible (inferred) reserves are 17.7 million tons at .055 oz/ton average grade. Inferred reserves are determined by locating favorable geologic structures and estimating grade and thickness.

METHODS

Drilling on the Clementine Property is being performed by Venture Drilling Company of Tucson, Arizona. A CP 650-W9 percussion drill rig with an attached cyclone sampling system is recovering 10 pound samples every five feet. These samples are split, bagged and marked at the drill site. When the samples arrive at the bucking room they are split into 3 separate samples. One sample is pulverised and sent to the lab for assaying, the second goes to the Geologist for mineralogical identification and the third is stored for future reference. Periodically parts of the third sample are sent to other assay labs in the area as a check. The results of these independent assays can be found in the appendix on pages 12-14.

Assaying is being done in a mine site laboratory by Fred C. copeland, a certified assayer, and two assistants. The Gold is chemically extracted from 5 gram samples and the concentration is determined using a Varian AA-275 Atomic Absorption Spectrophotometer. The results are recorded in the lab and the Geology/Mining department.

Ore reserves are calculated using a polygonal approach. Most development drilling is on 50 foot centers while exploration drilling is on 100 foot centers. The area of influence of each hole, as determined from the polygons, is multiplied by the number of 5 foot intervals greater than .020 oz/ton to determine volume. The volume of each hole is multiplied by the average grade of that hole to determine a volume-assay product. The sum of all the volume-assay products is divided by the sum of all the volumes to determine an average grade. Tonnage is calculated by dividing the total volume(in cubic feet) by 27 then

multiplying by 2.3 tons/cubic yard. The figure of 2.3 tons/cubic yard is taken from a book by Milton B. Dobrin entitled "Introduction to Geophysical Prospecting" and is for a schist with little mineralization. (Most overburden is Precambrian Yavapi Schist.) The density of the Clementine ore will be slightly greater than 2.3 tons/cubic yard due to the presence of Manganese and Hemitite, both of which are more dense than the schist. Ore reserve tonnage will increase with the completion of density studies now planned.

Assay Comparisons

Hole #	Interval	Copper Lake lab	Independent* Assayer	
94	100-105	.057	.058	-.001
	150-155	.066 .008	.058	
95	70-75	.040	.052	-.012
	135-140	.080 .016	.064	
96	135-140	.046	.054	-.008
98	140-145	.036	.042	-.006
	145-150	.094 .006	.088	
100	130-135	.717 .061	.556	
	135-140	.295 .137	.158	
101	135-140	.247	.296	-.049
	140-145	.072	.116	-.044
102	135-140	.107 .017	.090	
	140-145	.082 .020	.062	
		+.265 .035	-.120	= .022

* IRON KING Assay Office (FIRE Assay)

Assays IN oz/ton Gold

$\frac{19.39}{13} .149 \frac{16.94}{13} = .130$

Wt. .019

12.75% 14.61%

Assay Comparisons

Hole #	Interval	Copper Lake lab	Independent* Assayer
80	15-20	.004	.01
	50-55	.006	.01
81	30-35	.006	.01
	55-60	.005	TR
82	30-35	Nil	TR
	85-90	.011	TR
83	55-60	.007	TR
	75-80	.006	TR
84	30-35	.008	TR
	45-50	.011	.01
85	80-85	.003	.01
	85-90	.002	.01
86	80-85	.008	.01
	70-75	.008	TR
87	50-55	.010	.01
	75-80	.007	.01
88	50-55	.009	.01
	60-65	.017	.01
89	80-85	.012	.01
	130-135	.011	.01
90	95-100	.007	.02
	165-170	.008	.02
91	195-200	.008	.01
	220-225	.008	.01
92	10-15	.016	.02
	80-85	.009	.02
93	70-75	.013	.01
	120-125	.015	.01
94	105-110	.053	.04
	155-160	.026	.03
95	5-10	.006	TR
	25-30	.012	.01
96	375-380	.008	.01
	380-385	.015	.01
97	130-135	.004	.01
	85-90	.028	.03
98	20-25	.004	.01
	105-110	.006	.01
		.397	.41
		37	

*Arizona Testing laboratories (Atomic Absorption)

Assays in Oz/Ton Gold .011 .011

IRON KING ASSAY OFFICE

ASSAY CERTIFICATE

BOX 207 — PHONE 632-7410
HUMBOLDT, ARIZONA 86329

REGISTERED ASSAYER
CERTIFICATE NO. 2978
WALTER G. STATTER
Date Signed 9-22-81
ARIZONA, U.S.A.

Copper Lake Mining Co
Box 2001
Sun City, Az. 85372

Sept. 22, 1981

DESCRIPTION		oz/ton Au	oz/ton Ag		% Fe	% Pb	% Zn	% Cu
CR 94A	100-105	0.058	0.20					
" 94A	150-155	0.058	0.18					
" 95A	70-75	0.052	0.09					
" 95A	135-140	0.064	0.26					
" 96A	135-140	0.054	0.05					
" 98A	140-145	0.042	Tr					
" 98A	145-150	0.088	0.35					
CR 100A	130-135	0.556	0.46					
" 100A	135-140	0.158	0.29					
" 101A	135-140	0.296	0.38					
" 101A	140-145	0.116	0.30					
" 102A	135-140	0.090	0.29					
" 102A	140-145	0.062	0.06					

$107.25

ASSAYER _____

Arizona Testing Laboratories

817 West Madison · Phoenix, Arizona 85007 · Telephone 264-6181

For Copper Lake Exploration
Post Office Box 2001
Sun City, Arizona 85372

Date September 9, 1981

ASSAY CERTIFICATE

LAB NO.	IDENTIFICATION	OZ. PER TON		PERCENTAGES			
		GOLD	SILVER	COPPER			
32111	CR 82 A-A 30-35 nil	Trace					
1	CR 82 A-A 85-90.011	Trace					
2	CR 83 A-A 55-60.007	Trace					
2	CR 83 A-A 75-80.006	Trace					
3	CR 84 A-A 30-35.008	Trace					
3	CR 84 A-A 45-50.011	0.01					
4	CR 85 A-A 80-85.003	0.01					
4	CR 85 A-A 85-90.002	0.01					
5	CR 86 A-A 70-75.008	0.01					
5	CR 86 A-A 80-85.008	Trace					
6	CR 87 A-A 50-55.010	0.01					
6	CR 87 A-A 75-80.007	0.01					
7	CR 88 A-A 50-55.009	0.01					
7	CR 88 A-A 60-65.017	0.01					
8	CR 89 A-A 80-85.012	0.01					
8	CR 89 A-A 130-135.011	0.01					

Page 2 of 2 Pages

1 Denoted as CR 82 A in lab log
Denoted as CR 83 A " " "
Denoted as CR 84 A " " "
Denoted as CR 85 A " " "
Denoted as CR 86 A " " "
Denoted as CR 87 A " " "
Denoted as CR 88 A " " "
Denoted as CR 89 A " " "

Respectfully submitted,
ARIZONA TESTING LABORATORIES

Claude E. McLean, Jr.

Registered Assayer
CERTIFICATE NO.
6258
CLAUDE EUGENE McLEAN, JR.
ARIZONA, U.S.A.

Arizona Testing Laboratories

817 West Madison · Phoenix, Arizona 85007 · Telephone 254-6181

Copper Lake Exploration
Post Office Box 2001
Sun City, Arizona 85372

Date September 9, 1981

ASSAY CERTIFICATE

LAB NO.	IDENTIFICATION	OZ. PER TON		PERCENTAGES			
		GOLD	SILVER	COPPER			
3211	CR 90 A 95-100 .007	0.02					
	CR 90 A 165-170 .008	0.02					
	CR 91 A 195-200 .006	0.01					
	CR 91 A 220-225 .003	0.01					
	CR 92 A 10-15 .016	0.02					
	CR 92 A 80-85 .009	0.02					
	CR 93 A 70-75 .013	0.01					
	CR 93 A 120-125 .015	0.01					
	CR 94 A 105-110 .053	0.04					
	CR 94 A 155-160 .026	0.03					
	CR 95 A 5-10 .006	Trace					
	CR 95 A 25-30 .012	0.01					
	CR 96 A 375-380 .008	0.01					
	CR 96 A 380-385 .015	0.01					
	CR 97 A 85-90 .004	0.01					
	CR 97 A 130-135 .029	0.03					
	CR 98 A 20-25 .004	0.01					
	CR 98 A 105-110 .004	0.01					
*	CR 80 A-A 15-20 .004	0.01					
*	CR 80 A-A 50-55 .017	0.01					
*	CR 81 A-A 30-35 .006	0.01					
*	CR 81 A-A 55-60 .005	Trace					

* Denoted in lab log as CR 80 A

Respectfully submitted,

ARIZONA TESTING LABORATORIES

Claude E. McLean, Jr.

Certificate No. 6288 Claude Eugene McLean Jr. Arizona U.S.A. 1/9/61

Mineable Reserves

	Hole	Area of Influence	Thickness	Volume	Average Grade	Volume: Assay Product	Volume waste
	CR 5 ✓	2250 ft²	50'	112,500 ft³	.081 $\frac{oz}{TON}$	9113 $\frac{oz\ ft^3}{TON}$	⊖ ft³
X	CR 6 ✓	2500	50'	125,000	.054	6750	⊖
	CR 8 ✓	2500	25'	62,500	.022	1375	50,000
	CR 17 ✓	1250	50'	62,500	.034	2125	⊖
X	CR 21 ✓	2025	75'	151,875	.056	8505	50,625
X	CR 22 ✓	1750	50'	87,500	.071	6213	43,750
X	CR 23 ✓	1400	50'	70,000	.056	3920	⊖
	CR 56 ✓	2500	25'	62,500	.036	2250	100,000
	CR 69 ✓	2100	75'	157,500	.045	7088	⊖
	CR 70 ✓	2850	50'	142,500	.024	3420	71,250
				1,034,375 ft³		50,741 $\frac{oz\ ft^3}{TON}$	315,625 ft³
				86,198	.049		

25' bench mineable avg. 0.02+

Mineable Reserves 12/2/81

Hole	Area of Influence	Thickness	Volume	Average Grade	Volume · Assay Product	Volume waste
CR 95 ✓	1600 ft²	50'–	80,000 ft³	.030 $\frac{oz}{ton}$	2400 $\frac{oz\ ft^3}{ton}$	200,000 ft³
CR 96 ✓	2250	50'–	112,500	.032	3600	292,500
CR 97	(2500)	–	–	–	–	450,000
CR 98 ✓	2500	50'–	125,000	.038	4750	325,000
CR 99 ✓	2500 ·	75'–	187,500	.027	5063	262,500
CR 100 ✓	2500	75'	187,500	.107	20,063	200,000
CR 101 ✓	2500	50'	125,000	.054	6750	262,500
CR 102 ✓	2500	50'–	125,000	.031	3875	287,500
CR 103 ✓	2990	140'–	418,600	.034	14,232	287,500
CR 104 ✓	2944	70 –	206,080	.036	7419	220,800
CR 105 ✓	3000	100 –	300,000	.045	13,500	165,000
CR 106 ✓	3000	50	150,000	.026	3900	255,000
CR 107 ✓	2250	50	112,500	.039	4388	202,500
CR 108 ✓	2250	125 –	281,250	.047	13,219	45,000
CR 109 ✓	2500	25	62,500	.088	5500	325,000
CR 116 ✓	2936	125	367,000	.035	12,845	293,600
CR 117 ✓	3735	50 –	186,750	.044	8217	634,950
CR 118 ✓	2250	50 –	112,500	.072	8100	393,750
CR 119 ✓	3871	25	96,775	.033	3194	736,490
CR 120 ✓	5714	25 –	142,850	.096	13,714	942,810
CR 121 ✓	3000	85 –	255,000	.063	16,065	–
CR 122 ✓	3000	30	90,000	.070	6300	–
			3,724,305 ft³		177,094 $\frac{oz\ ft^3}{ton}$	6,781,400 ft³

Minable Reserves — 12/2/81

Hole	Area of Influence	Thickness	Volume	Average Grade	Volume · Assay Product	Volume waste
CR 123 ✓	2050 ft²	50' —	102,500 ft³	.043 oz/ton	4408 oz ft³/ton	— ft³
CR 124 ✓	2500	25 ?	62,500	.027	1688	350,000
CR 128 ✓	4128	150 —	619,200	.037	22,910	—
CR 129 ✓	2500	100 ·	250,000	.046	11,500	125,000
CR 130 ✓	3000	150	450,000	.076	34,200	—
CR 131 ✓	3225	125	403,125	.106	42,731	80,625
CR 132 ✓	3500	75 —	262,500	.117	30,713	245,000
CR 133 ✓	2500	50 —	125,000	.040	5000	300,000
CR 134 ✓	(2500)	—	—	—	—	437,500
CR 135 ✓	2500	185 —	462,500	.031	14,338	—
CR 136 ✓	3250	50	187,500	.046	8625	431,250
CR 137 ✓	2500	85 —	212,500	.048	10,200	250,000
CR 137' ✓	(3000)	—	—	—	—	540,000
CR 138 ✓	2500	50 —	125,000	.037	4625	325,000
CR 139 ✓	4699	25	117,475	.021	2467	728,345
			3,379,800 ft³		188,905 oz ft³/ton	3,812,720 ft³
CR 152 ✓	2500	50 —	125,000	.060	7500	312,500
CR 146 ✓	2925	30 —	87,750	.047	4142	⊖
CR 147 ✓	3250	35	113,250	.052	5915	⊖
CR 151 ✓	2500	25 ·	62,500	.039	2438	375,000
CR 154 ✓	2500	50 —	125,000	.034	4250	462,500
			514,000 ft²		24,245 oz ft³/ton	1,150,000
Totals			8,652,480 ft³		440,985 oz ft³/ton	12,059,745 ft³

SubTotal 737,063 tons @ .051 oz/ton — 1.4 : 1 stripping ratio

3A

Mineable Reserves

Hole	Area of Influence	Thickness	Volume	Average Grade	Volume Asso/ Product	Volume Waste
CR 153 ✓	2500 ft²	100'	250,000 ft³	.076 oz/ton	19,000 oz·ft³/ton	300,000 ft³
CR 169 ✓	2681	25'	67,025	.15	10,322	93,835
			317,025 ft³		29,322 oz·ft³/ton	
			27,006 tons		.092 oz/ton Average	Grade

Total 764,069 tons at .052 oz/ton Average Grade

Ore Reserve Estimate - Proven (Geologic) .020 $\frac{oz}{ton}$ Cutoff 12/17/81

CR1 - CR 143

Area 279,113 ft^2

Volume 11,962,970 ft^3

Volume Assay Product 649,233 $\frac{oz\,ft^3}{ton}$

$\frac{11,962,970\ ft^3}{279,113\ ft^2} = 42.9'$ Average Thickness

$\frac{649,233\ \frac{oz\,ft^3}{ton}}{11,962,970\ ft^3} = .054\ \frac{oz}{ton}$ Average Grade

$11,962,970\ ft^3 \times \frac{1\ yd^3}{27\ ft^3} \times 2.3\ \frac{ton}{yd^3} = 1,019,068$ tons Ore

---

Total Proven Reserves (Geologic) .030 $\frac{oz}{ton}$ Cutoff 4/13/82

Volume 13,335,915 ft^3

Volume Assay Product 728,547 $\frac{oz\,ft^3}{ton}$

$\frac{728,547\ \frac{oz\,ft^3}{ton}}{13,335,915\ ft^3} = .055$ oz/ton Average Grade

$13,335,915\ ft^3 \times \frac{1\ yd^3}{27\ ft^3} \times 2.3\ \frac{ton}{yd^3} = 1,136,022$ tons

.020 $\frac{oz}{ton}$ Cutoff

Proven Geologic Reserves

Hole	Area of Influence	Thickness	Volume	Average Grade	Volume · Assay Product	Comments
CR 1	2750 ft^2	35'	96,250 ft^3	.040 $\frac{oz}{ton}$	3850 $\frac{oz\,ft^3}{ton}$	
CR 2	1625	30	48,750	.085	4144	
CR 3	1750	15	26,250	.027	709	
CR 4	4050	10	40,500	.020	810	
CR 5	2453	80	196,240	.072	14,129	
CR 6	2665	50	133,250	.055	7329	
CR 7	2850	20	57,000	.046	2622	
CR 8	2500	15	37,500	.030	1125	
CR 11	1645	25	41,125	.028	1152	
CR 13	1600	15	24,000	.071	1704	
CR 14	1750	25	43,750	.337	14,744	
CR 15	2000	10	20,000	.185	3700	
CR 16	1250	10	12,500	.030	375	
CR 17	1250	30	37,500	.039	1463	
CR 21	2228	85	189,380	.053	10,037	
CR 22	1750	45	78,750	.086	6773	
CR 23	1400	50	70,000	.058	4060	
CR 24	1750	10	17,500	.050	875	
CR 25	2070	5	10,350	.140	1449	
CR 28	3040	5	15,200	.044	669	
CR 30	1120	5	3,750	.051	191	Ends in Ore
CR 31	1800	5	9,000	.022	198	
CR 33	1150	30	34,500	.056	1932	
	46,446 ft^2		1,243,045 ft^3		84,040 $\frac{oz\,ft^3}{ton}$	

.020 oz/ton Cutoff

Proven Geologic Reserves

Hole	Area of Influence	Thickness	Volume	Average Grade	Volume · Assay Product	Comments
CR 34	1650 ft²	20'	33,000 ft³	.030 oz/ton	990 oz·ft³/ton	
CR 35	2275	5	11,375	.022	250	
CR 36	2400	55	132,000	.027	3560	
CR 37	2100	20	42,000	.026	1092	
CR 40	2000	105	210,000	.043	9030	
CR 41	2500	25	62,500	.038	2375	
CR 42	2750	20	55,000	.025	1375	
CR 43	2250	30	67,500	.065	4388	
CR 56	2500	15	37,500	.065	2438	
CR 60	1625	10	16,250	.073	1186	
CR 61	2250	5	11,250	.038	428	
CR 62	2250	35	78,750	.079	6221	
CR 63	3000	35	105,000	.042	4410	
CR 66	1800	15	27,000	.033	891	
CR 67	1875	10	18,750	.040	750	
CR 68	1875	10	18,750	.020	375	
CR 69	2100	60	126,000	.043	5418	
CR 70	2850	50	142,500	.027	3849	
CR 71	1550	10	15,500	.025	388	
CR 73	1375	15	20,625	.037	763	
CR 78	3250	45	146,250	.044	6435	
CR 79	2500	5	12,500	.020	250	
CR 88	5000	5	25,000	.020	500	
	53,725 ft²		1,415,000 ft³		57,362 oz·ft³/ton	

.020 $\frac{oz}{TON}$ Cutoff

Proven Geologic Reserves

Hole	Area of Influence	Thickness	Volume	Average Grade	Volume·Assay Product	COMMENTS
CR 64	3750 ft^2	50'	187,500 ft^3	.036 $\frac{oz}{TON}$	6750 $\frac{oz\,ft^3}{TON}$	
△1	2250	42'	94,500	.090	8505	CR 49,20,9 used for Grade
CR 89	5500	5	27,500	.023	623	
CR 90	6500	5	32,500	.028	910	
CR 91	5250	10	52,500	.025	1313	
CR 92	6000	30	180,000	.042	7560	
CR 93	3650	25	91,250	.033	3011	
CR 94	5000	55	275,000	.034	9350	
CR 95	6078	45	273,510	.040	10,940	
CR 96	2790	30	83,700	.047	3934	
CR 97	2750	10	27,500	.026	715	
CR 98	2500	30	75,000	.052	3900	
CR 99	2500	60	150,000	.034	5100	
CR 100	2500	125	312,500	.075	23,438	
CR 101	2500	60	150,000	.051	7650	
CR 102	2500	30	75,000	.050	3750	
CR 103	2940	110	328,900	.041	13,485	
	65,008 ft^2		2,416,860 ft^3		110,944 $\frac{oz\,ft^3}{TON}$	

.020 oz/ton Cutoff | Proven Geologic Reserves | 4

Hole	Area of Influence	Thickness	Volume	Ave. Grade	Volume · Assay Product	oz Au	Comments
CR 104	2944	40'	117,760	.054 oz/ton	6359		
CR 105	3000	90'	270,000	.053	14,310	1219	
CR 106	3000	55'	165,000	.027	4,455	380	
CR 107	2250	65'	146,250	.041	5,996	511	Ends Near ore (10')
CR 108	2250	80	180,000	.066	11,880	1012	Ends in ore
CR 109	2500	45'	112,500	.082	9225	786	Ends in ore Farthest SW drill
	15,944 ft²		991,510 ft³		52,225 ft·oz/ton		

$\frac{973,750\ ft^3}{15,500\ ft^2}$ = 62.8' Ave Thickness

$\frac{51,266\ \frac{oz\ ft^3}{ton}}{973,750\ ft^3}$ = .053 oz/ton Ave grade

$973,750\ ft^3 \times \frac{1\ yd^3}{27\ ft^3} \times 2.3\ \frac{ton}{yd^3}$ = 82,949 tons

CR 110				N			NW of Pit
CR 111	(2250)			N			NW of Pit
CR 112	2500	20'	50,000	.033	1650	140	NW of Pit
CR 113	(2500)			N			NW of Pit
CR 114	2500	55'	137,500	.032	4400		NE of Pit
CR 115	2500	185'	462,500	.034	15,725		NE of Pit
CR 116	2936	180'	528,480	.035	18,497		
CR 117	3735	30'	112,050	.069	7,731		
CR 118	2250	40'	90,000	.280	25,200		
CR 119	3871	30'	116,130	.042	4,877		
CR 120	5714	20'	114,280	.119	13,599		
CR 121	3000	70'	210,000	.072	15,120		Pit Floor
	29,006		1,026,440		106,799		

.020 oz/ton cutoff

Proven Geologic Reserves

Hole	Area of Influence	Thickness	Volume	Average Grade	Volume Assay Product	oz Au	Comments
CR122	3000	40'	120,000	.067	8040		Pit floor
CR123	2225	20'	44,500	.087	3872		1660 Bench
CR124	2500	40'	100,000	.030	300		
CR125	6487	25	162,175	.031	5027		
CR126	5410	10'	54,100	.030	1,623		
CR127	(5200)		N				
CR128	4128	115	474,720	.045	21,362		
CR129	2500	100	250,000	.047	11,800		
CR130	3000	180	540,000	.068	36,720		
CR131	3375	180	607,500	.084	51,030		
CR132	4410	65'	286,650	.141	40,418		
CR133	2500	35'	87,500	.052	4550		
CR134	2500	15'	37,500	.025	938		
CR135	2500	170'	425,000	.032	13,600		
CR136	3750	70'	262,500	.042	11,025		
CR137	2500	75'	187,500	.055	10,313		
CR138	2500	40	100,000	.044	4,400		
CR137'	3000	5'	15,000	.023	345		
CR139	4699	30	140,970	.041	5780		
CR140	3000	35'	105,000	.039	4095		Waste Dump
CR141	(3000)		N				Waste Dump
CR142	(5000)		N				
CR143	5000	15'	25,000	.035	2625		
	68,984 ft²		4,075,615 ft³		232,863 oz/ton		

.020 oz/ton Cutoff

Proven Geologic Reserves

Hole	Area of Influence	Thickness	Volume	Average Grade	Volume · Assay Product	Comments
CR 144	4875	35'	170,625	.037	6313	
CR 145	1750	10'	17,500	.026	455	
CR 146	2925	15'	43,875	.061	2676	
CR 147	3250	50'	162,500	.047	7638	
CR 148	3250	10'	32,500	.026	845	
CR 149	3348	10'	33,480	.031	1038	
CR 50	2500	5'	12,500	.021	263	
CR 151	2500	40'	100,000	.039	3900	
CR 152	2500	45'	112,500	.075	8438	
CR 153	2500	65	162,500	.114	18,525	
CR 154	2500	30'	75,000	.052	3900	
CR 155	4240	20'	84,800	.032	2714	
CR 156	4029	25'	100,725	.029	2921	
CR 157	5094					
CR 158	6003					
CR 159	5918					
CR 160	(5825)		N			need to be drilled deeper
CR 161	(6112)		N			need to be drilled deeper
CR 162	5476					
CR 163	5144					
CR 164	5093					
CR 165	5450					

.020 $\frac{oz}{ton}$ Cutoff

Proven Geologic Reserves

Hole	Area of Influence	Thickness	Volume	Average Grade	Volume·Assay Product	Comments
CR 166	2500 ft²					
CR 167	2500 ft²	10	25,000	.037	925	
CR 168	3797					
CR 169	2681	30	80,430	.143	11,501	
CR 170	5734	15'	86,010	.048	4128	
CR 171	4600	5'	23,000	.052	1196	
CR 172	6014					
CR 173						
CR 174						
CR 175						
CR 176	2500 N	5	12,500	.020	250	
CR 177			N			
CR 178						
CR 179	2500 N	15'	37,500	.045	1688	
CR 180						
CR 181						
CR 182						
CR 183						
CR 184						
CR 185						
CR 186						
CR 187						

N- Nominal Area

.020 oz/ton Cutoff

Proven Geologic Reserves

Hole	Area of Influence	Thickness	Volume	Average Grade	Volume Assay Product	Comments
CR 188						
CR 189						
CR 190						
CR 191						
CR 192						
CR 193						
CR 194						
CR 195						

COST PER TON ANALYSIS -

BASED ON 1 SHIFT OF 6.5 HRS. & 60 MIN. & 3000 TONS COMBINED TOTAL OF WASTE & ORE (PLANT REQUIREMENT)

1 - 769 TRUCK @	669.03	SHIFT COST	
1 - 988 LOADER @	759.24	"	"
	1428.27		

$\frac{1428.27}{3000 \text{ TONS}}$ = $0.476 PER TON

1 - 769 TRUCK @	669.03	SHIFT COST	
1 - 980 LOADER @	580.50	"	"
	1249.53		

$\frac{1249.53}{3000 \text{ TONS}}$ = $0.417 PER TON

$0.640/TON 2 TRUCKS + 1 980C

SUPPORT EQUIP. - BASED ON FULL UTILIZATION

D8K	TRACTOR	719.41	SHIFT COST	
146	MOTOR GRADER	480.09	"	"
769	WATER TRUCK	658.99	"	"
		1858.49		

$\frac{1858.49}{3000 \text{ TONS.}}$ = $0.619 PER TON

$0.459/TON less Road Grader

Total Mining Costs $0.640
0.459
$1.10 /TON

% extraction - 80% - 65 mesh - single 100%

REPLY TO:
2940 N. CASA TOMAS
PHOENIX, ARIZONA 85016
TELEPHONE (602) 277-6053

Richard E. Mieritz
MINING CONSULTANT
ARIZONA REGISTERED
MINING ENGINEER AND GEOLOGIST

GEOLOGY
EXPLORATION
EVALUATION
FEASIBILITY
OPERATION

April 19, 1982

Mr. Daryl Buerge, Managing Director
Copper Lakes Mining Company
P. O. Box 2001
Sun City, Arizona, 85372

By verbal request of and authorization by Daryl Buerge, Managing Director of Copper Lakes Mining Company, Sun City, Arizona, the writer has reviewed and studied certain factual data pertaining to the Clementine gold property, Maricopa County, Arizona.

The factual data presented to and reviewed/studied by the writer included the following:

(1) A Progress Report on the Clementine gold property dated January 1, 1982 by Gerald Weathers,
(2) Report on Clementine Ore Reserves, dated November 13, 1981, by Michael J. Bruder, mining engineer for Copper Lakes,
(3) A Drill Hole Plan Map, M. J. Bruder,
(4) An Ore Reserve Block Plan Map, M. J. Bruder, and
(5) Sections A-A', B-B', C-C', D-D', E-E', F-F' and G-G' in various directions through a majority of the holes drilled, M. J. Bruder.

What was not provided were assay results of individual five foot samples from the drill holes -- only averages for the intersected mineralized zone/zones in the various drill holes.

ORE RESERVES:
General

The polygonal method of tonnage calculations as used by Mr. Bruder is an acceptable means. He has determined the volume of each block, applied an average grade of mineralization as determined by individual drill hole samples and weighted each block by multiplying the grade by the respective volume, adding these products and dividing by the accumulated volume of the blocks of concern.

Lack of an adequate, complete set of vertical Sections through the many drill holes in both directions leaves something to be desired as to the "choice" of the method used. The writer's interpretation of the "ore body" shape on 3 or 4 of the rather unreadable Sections given him, indicate a "fingering" of values from hole to hole, and thus, some inclusions of waste are present which have not been accounted for. The end result being a lower tonnage figure and suggests a different method of calculation.

Mineable Reserve:

The great number of holes drilled and the rather close grid spacing of such holes certainly suggests that a "proven" classification of mineralization is the right choice.

The writer has "spot checked" Mr. Bruder's calculations and found them to be correct. No large significant error was found.

The cubic foot per ton conversion factor used by Mr. Bruder--as he so states in his report--is in question and could be revised after tests on this characteristic have been resolved. The writer has used 12 cubic feet to the ton. As a result, the writers tonnage figures are slightly lower -- by comparison:

	TONS	GRADE
Bruder	764,070	0.052 oz Au/ton
Mieritz	747,460	0.052 oz Au/ton

Geologic Reserve:

A review and study of the "Proven Geologic Reserves" - Bruder, pages 1 through 7, indicates this total figure of 1,136,022 tons as of April 13, 1982, also includes the proven "Mineable Reserves" of 764,070 tons. The writer's Total figure for this category is 1,111,325 tons -- againusing a 12 cubic foot factor.

By review and comparison of hole mineralization intercept lengths and grades, the writer finds differences in the length and grade figures. This is fine as long as the lengths used in the "mineable" reserve are LESS than the length for the same hole in the "Geologic Reserve" category. In several instances this is not true. Examples, holes CR-69, 105, 108, 121, 132, 135, 153 and 154. No doubt there is a plausible answer, but it is not readily apparent to the writer from the information in hand. A lower "mineable" tonnage figure exists if the longer lengths were reduced to the lengths for the same holes in the "Geologic" tonnage.

Probable-Possible Reserves:

The writer can not comment either positive or negatively on Mr. Bruder's figures of 5.5 million tons and 17.7 million tons respectively for the probable-possible reserves.

The writer was on the property many years ago in the company of Mr. Gerald Weathers and is thus knowledgeable of same but not sufficiently so to form an opinion for this large area of mineralization even though the general area is recalled.

SAMPLING and ASSAYING:

Accurate sampling proceedures and accurate assaying methods and results

are a MUST. Constant checking is required.

Percussion drill is not necessarily the best drilling but is usually used as dictated by economics. The collected samples are subject to many fallacies--loss of air circulation, loss of sample, dilution, salting, etc.

A 4½ inch diameter drill bit will drill a hole slightly larger in diameter, however, for a five foot run it will cut a total sample of approximately 92 pounds of material using 12 cubic feet to the ton and if the sample recovery is 100%. Sample recovery can range from zero to in excess of 100%. If more than 100%, either salting or dilution has occurred.

Mr. Bruder indicates in his Report that of each sample received at the drill rig, 10 pounds of the material was collected for the true sample for assaying, mineralogical study and storage. The total sample received at the drill rig was not mixed prior to taking the 10 pound sample. The remainder of the sample at the drill site was discarded. Mr. Bruder explained that this "reject" of each sample was never "check assayed". Although some mixing of the cuttings occur in the cyclone collection system, layering still occurs in the collection bag. Actually, the collected sample should be "rolled or hand mixed" prior to removing the 10 pounds for the above mentioned uses. The large sample should be reduced by splitting at the rig. Moreover, occasional samples of the rejects should have been assayed for a check as to being representatively mixed or uniform. This assurance is of particular importance with "low grade" --"high dollar value" marginal ores where 0.005 oz./ton of gold could mean the difference between a profit or loss.

The "check assaying" of samples as shown on page 10 of Bruder's Report is good --where results are in thousands of an ounce. An analysis of the tabulated comparison indicates the independent assayer was slightly higher for 6 samples than Copper Lake in a range from 0.001 to 0.049. In contrast, Copper Lake was moderately higher than the independent assayer for 7 samples in a range from 0.006 to 0.137.

The average of the 13 samples for Copper Lake was 0.149 and 0.130 for the independent assayer. The difference is 0.019 oz/ton, or 12.75% higher if the Copper Lake average is used as a base--or--14.61% higher if the independent assayer's average is used as a base.

This analysis indicates poor sample mixing and/or poor assaying. The writer is of the opinion that it would be more inadequate mixing and erratic distribution of the mineralization which in turn reflects on the mixing of the sample.

The assay comparison on page 11 of Bruders Report both average out to 0.011oz./ton, however, comparing individual sample assays, there is considerable difference, again pointing to inadequate mixing and/or erratic distribution of the mineralization.

MINING COSTS:

Mr. Bruder provided the writer a summarized cost sheet for equipment operation as prepared by the equipment engineer. The shown cost of $1.10 for 2 trucks, 1 loader, 1 tractor and 1 water truck, which the writer assumes and includes operator, fuel, oil, maintenance, repair labor, parts replacement cost, down time, depreciation, interest on investment money, etc. Without a dollar and cents break-down of the costs, the writer can not opine seriously, but it is thought that the cost is low.

Mr. Bruder stated the drilling and blasting costs would bring the total mining-blasting-transport cost to $2.00/ton--ore or waste. The writer opines this figure is approximately 25% low.

MILLING--GOLD RECOVERY:

It is understood that "heap" leaching and zinc recovery of the values will be utilized. It is also understood that grinding of the ore to 65 mesh is necessary. The writer is not an enthusiast for "heap" leaching for high recovery rates and therefor desires to withhold an opinion in this regard.

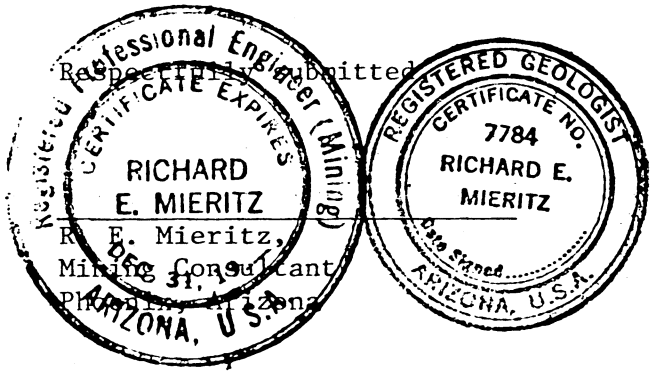
OVERALL COMMENTS:

Bruder's "Mineable Ore Reserve" is satisfactory as an initial metalliferous volume, but the writer opines more detail and refinements are required.

Considerable differences occur in the check assay routine which in the mind of the writer raises some doubt as to the projected grade of the metalliferous deposit. This condition is very serious, particularly since -- at this time of gold prices -- the deposit is so close to being marginal -- economically.

Although not previously discussed, but reviewed section-wise, as far as the information at hand is concerned, it appears that an overall ore to waste ratio will probably be 1 :: 2+, rather than the 1 :: 1.4, primarily because of the anticipated wast inclusions in some of the "ore blocks". This condition requires more detail and refinement.

The writer opines the mining-breaking-transporting costs are low. A more detailed study should be made in this direction.



Respectfully submitted,

R. E. Mieritz,
Mining Consultant
Phoenix, Arizona

April 19, 1982

TO:
Copper Lakes Mining Company
P. O. Box 2001
Sun City, Arizona, 85372

INVOICE

For Professional Services Rendered in connection with a review and study of the Clementine Gold property, Maricopa County, Arizona, as requested and authorized by Mr. Daryl Buerge, Managing Director of Copper Lakes Mining Co.

1 Day @ $300.00/day	$ 300.00
5 Hrs @ $40.00/hour	$ 200.00
TOTAL FEE DUE	$ 500.00

Time Spent

April 16,	2 hours	Review, study, calculations
April 17,	2 hours	" " " "
April 18,	3 hours	" " " "
April 19,	6 hours,	Study, Report preparation

Amount due is payable upon receipt of Invoice.

Please remit to R. E. Mieritz at above address.

April 19, 1982

TO:
Copper Lakes Mining Company
P. O. Box 2001
Sun City, Arizona, 85372

INVOICE

For Professional Services Rendered in connection with a review and study of the Clementine Cold property, Maricopa County, Arizona, as requested and authorized by Mr. Daryl Buerge, Managing Director of Copper Lakes Mining Co.

1 Day @ $300.00/day	$ 300.00
5 Hrs @ $40.00/hour	$ 200.00
TOTAL FEE DUE	$ 500.00

Time Spent

April 16,	2 hours	Review, study, calculations
April 17,	2 hours	" " " "
April 18,	3 hours	" " " "
April 19,	6 hbours,	Study, Report preparation

Amount due is payable upon receipt of Invoice.

Please remit to R. E. Mieritz at above address.