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Preliminary Investigation
of the
Castle Mining Claims
Red Picacho Mining District
Yavapai County, Arizona

for

Castle Mining Company, Inc.

June 1977

by

GEOEX

GEOEX Job#1175

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A broad induced polarization survey designed to penetrate 2000 or 3000 feet would likely define the overall sulfide system and would perhaps show areas of sulfide mineralization extending to large depths as would typically be expected in a porphyry copper rather than the near surface pyritic veneer which is present in the previously drilled portion of the area.

The above work is recommended only on a purely speculative, "wildcat", basis. Based on the available existing information, there are no compelling reasons to believe that a porphyry copper target exists in the area - only that there is no proof that none exists and some of the factors present are sometimes related to porphyry copper mineralization.

Similarly, cases could also be conceived for related precious metal occurrences of one kind or another, but such work would also have to be classed as highly speculative under the present evidence and conditions presented.

Such programs would typically involve $10,000 to $20,000 prior to drilling any targets which may or may not be delineated as a result. Drilling, logging and sampling would then require at least similar amounts to properly test the targets. Admittedly, the risk factors in attempting this type of program are at least as good or as bad as many exploration projects often seen initiated from time to time by most of the large mining companies. Thus, such work should only be considered on the basis of the availability of high venture risk capital.

Respectfully submitted,

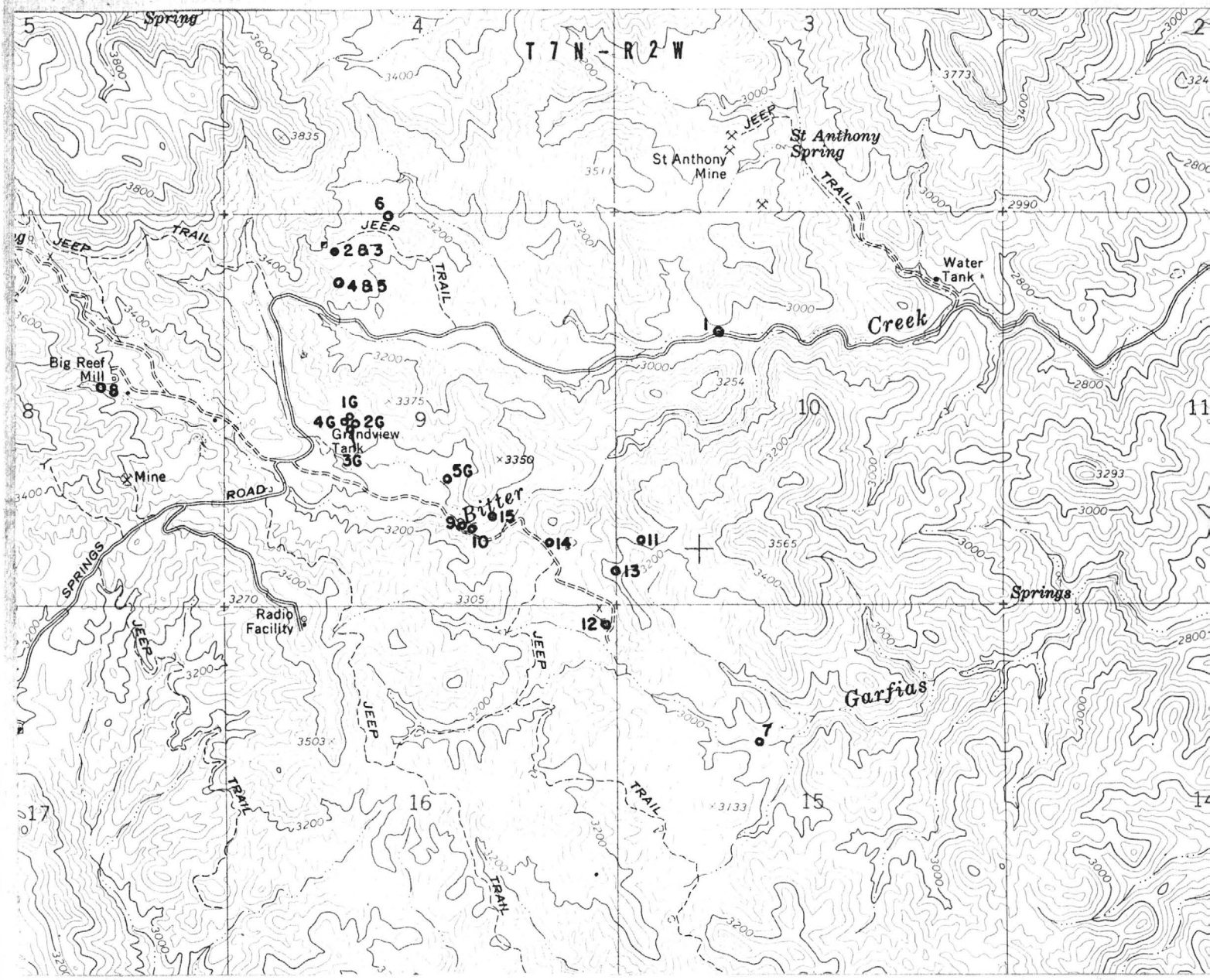
Heinrichs GEOExploration Company

Walter E. Heinrichs, Jr., President

Chris S. Ludwig
Chief Geophysicist

WEH&CSL:mt

SAMPLE LOCATION MAP
of the
CASTLE MINING CLAIMS
RED PICACHO MINING DISTRICT
YAVAPAI COUNTY, ARIZONA
by
HEINRICHS GEOEXPLORATION COMPANY
P.O. BOX 5964, TUCSON, AZ. 85703
JOB NUMBER 1175 JUNE 1977



SCALE: 1:24,000

1435 S. 10th AVE.

[redacted]

Jacobs Assay Office

Registered Assayers

PHONE 622-0813

TUCSON, ARIZONA 85713

Certificate No. 59798

June 2 1917

Sample Submitted by Mr. Heinrichs Geoexploration Co.

SAMPLE MARKED	GOLD Ozs. per ton ore	GOLD Value per ton ore *	SILVER Ozs. per ton ore	COPPER Per cent Wet Assay	LEAD Per cent Wet Assay	Per cent Wet Assay	Per cent Wet Assay
#2408	Trace	$ —	0.15	0.05			
11	Trace	—	0.10	0.45			
12	0.005	—	0.75	2.55			
13	Trace	—	0.10	—			
14	0.01	—	0.15	0.02			
15	0.005	—	0.20	0.17			
16	0.01	—	0.15	0.02			
17	Trace	—	0.10	—			
23	0.005	—	0.20	0.03			
24	0.005	—	0.20	0.02			
25	0.015	—	0.10	0.30			
26	0.01	—	0.15	0.03			
27	Trace	—	0.20	0.06			
28	0.005	—	0.15	0.02			
24 39	Trace	—	0.10	0.02			

REGISTERED ASSAYER 1041 BENJAMIN F. JACOBS

* Gold Figured $100.00 per oz. Troy

Charges $ 101.00

Very respectfully,

Ben F. Jacobs

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To the best we can determine, Bear Creek's geology, geophysics and drilling program yielded no significant encouragement. In fact, their drilling apparently showed the pyritized volcanics to be a thin zone resting on barren Precambrian rocks.

The remaining economic possibilities are quite speculative and in our viewpoint consist mainly of attempting to backtrack the pyritic alteration to a mineralizing source in the hope that this alteration might represent a "pyritic halo" fringing a porphyry copper. The possible porphyry copper could be at depth and/or laterally away from the pyritic zone and a rather large scale search would necessarily be involved. A careful geologic mapping program paying special attention to type and degree of alteration could possibly define a porphyry target. A large scale geochemical copper-molybdenum sampling program may also be helpful, particularly if coupled with a geologic study.

A broad induced polarization survey designed to penetrate 2000 or 3000 feet would likely define the overall sulfide system and would perhaps show areas of sulfide mineralization extending to large depths as would typically be expected in a porphyry copper rather than the near surface pyritic veneer which is present in the previously drilled portion of the area.

The above work is recommended only on a purely speculative, "wildcat", basis. Based on the available existing information, there are no compelling reasons to believe that a porphyry copper target exists in the area - only that there is no proof that none exists and some of the factors present are sometimes related to porphyry copper mineralization.

Similarly, cases could also be conceived for related precious metal occurrences of one kind or another, but such work would also have to be classed as highly speculative under the present evidence and conditions presented.

Such programs would typically involve $10,000 to $20,000 prior to drilling any targets which may or may not be delineated as a result. Drilling, logging and sampling would then require at least similar amounts to properly test the targets. Admittedly, the risk factors in attempting this type of program are at least as good or as bad as many exploration projects often seen initiated from time to time by most of the large mining companies. Thus, such work should only be considered on the basis of the availability of high venture risk capital.

Respectfully submitted,

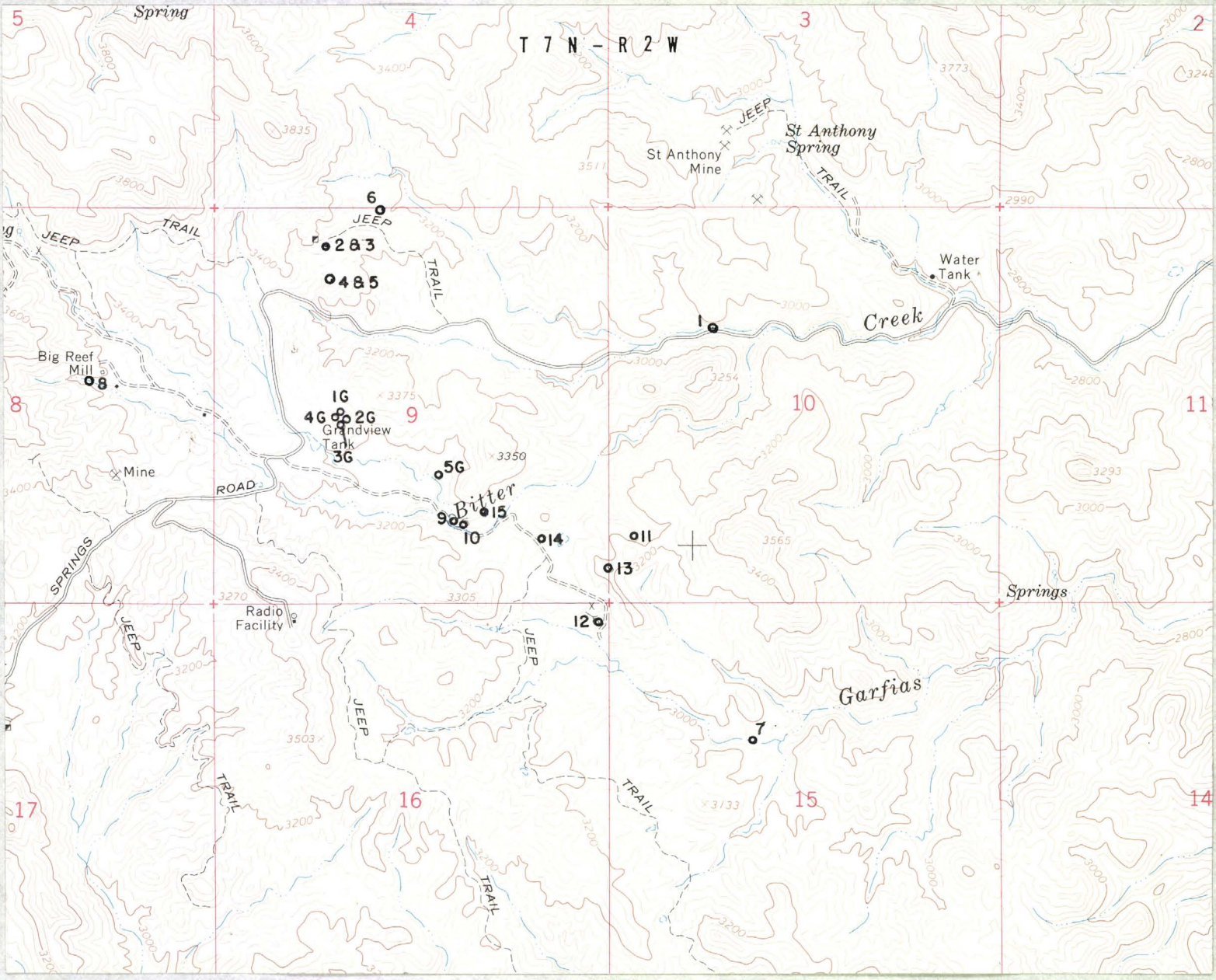
Heinrichs GEOEXploration Company

Walter E. Heinrichs, Jr., President

Chris S. Ludwig
Chief Geophysicist

WEH&CSL:mt

SAMPLE LOCATION MAP
of the
CASTLE MINING CLAIMS
RED PICACHO MINING DISTRICT
YAVAPAI COUNTY, ARIZONA
by
HEINRICHS GEOEXPLORATION COMPANY
P.O. BOX 5964, TUCSON, AZ. 85703
JOB NUMBER 1175 JUNE 1977



SCALE: 1:24,000

EFCO LABORATORIES
North Freeway at Ruthrauf Road P. O. Box 5526
TUCSON ARIZONA 85703
Phone (602) 887-4241
GEOEX
Cable: GEOEX

J.O. #1175

REC'D JUN 4 1977 REC'D

BOX 5964 TUCSON, ARIZONA 85703
Phone: (AREA 602) 623-0578

Laboratory Analysis Report

Heinrichs Geoexploration Co.
P.O. Box 5964
Tucson, Arizona 85703

Chris Ludwig

REPORT NO. 775942
DATE SUBMITTED 5-31-77
DATE REPORTED 6-3-77
GEOEX #1175

Sample Number	PPM Copper	PPM Silver	PPM Gold
2418	38	1.0	0.17
2419	29	1.7	<0.10
2420	21	<1.0	<0.10
2421	31	<1.0	<0.10
2422	85	<1.0	0.16

Nancy McSwegin
Signed

VALLEY ASSAY OFFICE
AND ORE TESTING LABORATORY
MEMORANDUM OF ASSAY

Made for Castle Mining Co. Tempe, Arizona March 13, 1975

SAMPLE NO.	PER TON OF 2000 POUNDS AVOIRDUPOIS								COPPER, OR			LEAD, OR			ZINC, OR			TOTAL	
	GOLD, PLATINUM #				SILVER														
	AT	PER OUNCE			AT	PER OUNCE			AT	PER LB.		AT	PER LB.		AT	PER LB.			
	OZS.	100's	$	Cts	OZS.	100's	$	Cts.	%	$	Cts.	%	$	Cts.	%	$	Cts.	$	Cts.
A-C 1	0.	04			4.	80			31.8										
" 14	0.	03			0.	65			1.3										
" 15	0.	03			0.	60			1.9										
" 16	0.	04			0.	70			1.1										
" 17	0.	02			0.	50			.85										
" 19	0.	02			0.	60			.95										
" 20	0.	03			0.	70			.65										
" 23	0.	04			0.	80			.95										
" 29	0.	02			0.	65			.80										
REMARKS:																			

ASSAYER'S CERTIFICATE EXPIRES DEC. 1, 1975 J. LEE BOYER 8053 ARIZONA, U.S.A.

BY J. Lee Boyer Registered Assayer.

NO.

CHARGE $ 108.00 Pd.

MINERALS ENGINEERING CO.

ENGINEERS Moco ASSAYERS

1098 SUBWAY TERMINAL BLDG.
417 SOUTH HILL STREET
LOS ANGELES, CALIF. 90013
TELEPHONE 626-6793

THIS CERTIFIES THAT THE SAMPLES DESCRIBED BELOW SUBMITTED BY

Philip Wickstrom

DATE October 14, 1975

CHARGES $ Paid

ASSAY AS FOLLOWS:

LABORATORY NO.	OWNER'S MARK ON SAMPLE	GOLD AT $ ____ PER OZ.		SILVER AT $ ____ PER OZ.		TOTAL VALUE PER TON	PERCENTAGE OF
		OZ. PER TON	VALUE PER TON	OZ. PER TON	VALUE PER TON		
			$		$	$	
	CONC 15 AT						
44501	Castle 9 -		Trace		0.02		
44502	Hall 98 -		Trace		0.04		
44503	Castle 181 -		Trace		0.04		
44504	Hall 91 -		Trace		0.05		
44505	Hall 94 -		Trace		0.02		
44506	Castle 110 -		Trace		0.05		
44507	Hall 96 -		Trace		0.04		
44508	Castle 112 -		Trace		0.04		
44509	Castle 157		Trace		0.05		
44510	Tunnel		Trace		0.03		

MINERALS ENGINEERING CO.

BY Norman Whitmore

SPECTROGRAPH—THE TOTAL WILL NOT EQUAL 100% AS GASES DO NOT SHOW. SUCH AS QUARTZ IS 28 PARTS SILICON AND 32 PARTS OXYGEN. TOTAL IS USUALLY ABOUT 48%.

MINERALS ENGINEERING CO.

ENGINEERS Moco ASSAYERS

1098 SUBWAY TERMINAL BLDG.
417 SOUTH HILL STREET
LOS ANGELES. CALIF. 90013
TELEPHONE 628-6783

THIS CERTIFIES THAT THE SAMPLES DESCRIBED BELOW SUBMITTED BY

Philip Wickstrom

DATE October 1, 1975
CHARGES $ Paid
ASSAY AS FOLLOWS:

LABORATORY NO.	OWNER'S MARK ON SAMPLE	GOLD AT $ ____ PER OZ. OZ. PER TON	GOLD AT $ ____ PER OZ. VALUE PER TON	SILVER AT $ ____ PER OZ. OZ. PER TON	SILVER AT $ ____ PER OZ. VALUE PER TON	TOTAL VALUE PER TON	PERCENTAGE OF
			$		$	$	
	9-6-75 Conc 15 AT						
44442	Hall 73	0.051		0.06			
44443	Hall 90	0.01		0.05			
44444	Castle 3	0.003		0.01			
44446	Castle 10	0.001		0.003			

MINERALS ENGINEERING Co.

BY Norman Whitmore

Concentrate 15AT

Claim 185	.0027	.053
Hall 141	.002	.046
May 40	.001	.013

SPECTROGRAPH—THE TOTAL WILL NOT EQUAL 100% AS GASES DO NOT SHOW. SUCH AS QUARTZ IS 28 PARTS SILICON AND 32 PARTS OXYGEN. TOTAL IS USUALLY ABOUT 46%.

5

MINERALS ENGINEERING CO.

ENGINEERS Moco ASSAYERS

1099 SUBWAY TERMINAL BLDG.
417 SOUTH HILL STREET
LOS ANGELES, CALIF. 90013
TELEPHONE 628-6793

THIS CERTIFIES THAT THE SAMPLES DESCRIBED BELOW SUBMITTED BY Philip Wickstrom

DATE October 28, 1975
CHARGES $ Paid
ASSAY AS FOLLOWS:

LABORATORY NO.	OWNER'S MARK ON SAMPLE	GOLD AT $ ____ PER OZ.		SILVER AT $ ____ PER OZ.		TOTAL VALUE PER TON	PERCENTAGE OF
		OZ. PER TON	VALUE PER TON	OZ. PER TON	VALUE PER TON		
			$		$	$	
44544	AC. 35	Trace		0.2		Claim # 157	
44545	AC. 36	0.02		1.2		" "	
44546	AC. 37	Trace		0.4		" # 44	
44547	AC. 38	0.04		1.4		" # 99	
44548	AC. 39	Trace		0.2		# # 142	

MINERALS ENGINEERING CO.

BY Norman Whitmore

SPECTROGRAPH—THE TOTAL WILL NOT EQUAL 100% AS GASES DO NOT SHOW. SUCH AS QUARTZ IS 28 PARTS SILICON AND 32 PARTS OXYGEN. TOTAL IS USUALLY ABOUT 46%.

MINERALS ENGINEERING CO.

ENGINEERS Moco ASSAYERS

1098 SUBWAY TERMINAL BLDG.
417 SOUTH HILL STREET
LOS ANGELES, CALIF. 90013
TELEPHONE 629-6793

THIS CERTIFIES THAT THE SAMPLES DESCRIBED BELOW SUBMITTED BY DATE October 1, 1975

Philip Wickstrom CHARGES $

ASSAY AS FOLLOWS:

LABORATORY NO.	OWNER'S MARK ON SAMPLE	GOLD AT $ ____ PER OZ.		SILVER AT $ ____ PER OZ.		TOTAL VALUE PER TON	PERCENTAGE OF
		OZ. PER TON	VALUE PER TON	OZ. PER TON	VALUE PER TON		
	9-6-75		$		$	$	
	Concentrated 15 AT						
44436	Claim 185	0.0027		0,053			
44437	Hall 141	0.002		0.046			
44438	May 40	0.001		0.013			
44439	Hall 39	0.0027		0.013			
44440	Hall 89	Trace		0.026			
44441	Hall 92	0.002		0.04			

Silver bromide & chloride

MINERALS ENGINEERING CO.

BY

SPECTROGRAPH—THE TOTAL WILL NOT EQUAL 100% AS GASES DO NOT SHOW. SUCH AS QUARTZ IS 28 PARTS SILICON AND 32 PARTS OXYGEN. TOTAL IS USUALLY ABOUT 46%.

5

MINERALS ENGINEERING CO.

ENGINEERS Moco ASSAYERS

1099 SUBWAY TERMINAL BLDG.
417 SOUTH HILL STREET
LOS ANGELES. CALIF. 90013
TELEPHONE 628-6783

THIS CERTIFIES THAT THE SAMPLES DESCRIBED BELOW SUBMITTED BY Philip Wickstrom

DATE November 10, 19

CHARGES $ Paid

ASSAY AS FOLLOWS:

LABORATORY NO.	OWNER'S MARK ON SAMPLE	GOLD AT $ ____ PER OZ. OZ. PER TON	GOLD AT $ ____ PER OZ. VALUE PER TON	SILVER AT $ ____ PER OZ. OZ. PER TON	SILVER AT $ ____ PER OZ. VALUE PER TON	TOTAL VALUE PER TON	PERCENTAGE OF
	DISC HOLE		$		$	$	
✓ 44574	D. 47	0.02		1.8			
44575	MY.31	Trace		1.2			
✓ 44576	C.157	Trace		1.2			
44577	Don.49	Trace		1.2			
✓ 44578	Hall. 74	0.02		0.8			
✓ 44579	C. 106	Trace		1.2			
✓ 44580	Castle. 12	Trace		0.2			
✓ 44581	C. 108	Trace		Trace			
✓ 44582	C. 104	Trace		0.4			
✓ 44583	My. 102	Nil		0.6			
44584	C. 84 184	Trace		Trace			
44585	Don 44	Trace		Nil			
4586	C. 155	Nil		0.2			
44587	C. 112 E. End	Nil		0.2			
44588	Castle 6	Trace		Trace			
44589	May. 22	Trace		0.2			
44590	M. 24	Trace		0.8			
44591	6 A	0.02		Nil			
44592	D. 41	Trace		Nil			
✓ 44593	D. 49	Trace		Nil			

MINERALS ENGINEERING CO.

BY Norman Whitmore

SPECTROGRAPH—THE TOTAL WILL NOT EQUAL 100% AS GASES DO NOT SHOW. SUCH AS QUARTZ IS 28 PARTS SILICON AND 32 PARTS OXYGEN. TOTAL IS USUALL ABOUT 46%.

THIS REPORT IS SUBMITTED TO THE ADDRESSED CLIENT FOR HIS EXCLUSIVE USE. AS A PROTECTION TO THE CLIENT, THE PUBLIC AND THIS LABORATORY, THIS REPOR

MINERALS ENGINEERING CO.

ENGINEERS Moco ASSAYERS

1099 SUBWAY TERMINAL BLDG.
417 SOUTH HILL STREET
LOS ANGELES, CALIF. 90013
TELEPHONE 626-6793

THIS CERTIFIES THAT THE SAMPLES DESCRIBED BELOW SUBMITTED BY Philip Wickstrom

DATE October 14, 1975
CHARGES $ Paid
ASSAY AS FOLLOWS:

LABORATORY NO.	OWNER'S MARK ON SAMPLE	GOLD AT $ ____ PER OZ.		SILVER AT $ ____ PER OZ.		TOTAL VALUE PER TON	PERCENTAGE OF
		OZ. PER TON	VALUE PER TON	OZ. PER TON	VALUE PER TON		
	Conc 15 AT		$		$	$	
44491	Myrtle 37	Trace		0.06			
44492	Hall 93	Trace		0.04			
44493	Castle 7	Trace		0.05			
44494	Hall 95	Trace		2.2			
44495	Hall 183	Trace		0.03			
44496	Hall 91	Trace		0.05			
44497	Back S 1	Trace		0.04			
44498	Don 44	Trace		0.06			
44499	Hall 97	Trace		0.05			
44500	Castle 8	Trace		Trace			

MINERALS ENGINEERING CO.

BY Norman Whitmore

SPECTROGRAPH—THE TOTAL WILL NOT EQUAL 100% AS GASES DO NOT SHOW. SUCH AS QUARTZ IS 28 PARTS SILICON AND 32 PARTS OXYGEN. TOTAL IS USUALLY ABOUT 46%.

MINERALS ENGINEERING CO.
ENGINEERS Moco ASSAYERS
1099 SUBWAY TERMINAL BLDG.
417 SOUTH HILL STREET
LOS ANGELES, CALIF. 90013
TELEPHONE 628-6793

THIS CERTIFIES THAT THE SAMPLES DESCRIBED BELOW SUBMITTED BY

Philip Wickstrom

DATE March 18, 1975
CHARGES $ Paid
ASSAY AS FOLLOWS:

LABORATORY NO.	OWNER'S MARK ON SAMPLE	GOLD AT $ ____ PER OZ.		SILVER AT $ ____ PER OZ.		TOTAL VALUE PER TON	PERCENTAGE OF
		OZ. PER TON	VALUE PER TON	OZ. PER TON	VALUE PER TON		
			$		$	$	
43913	AC-11	Trace		Trace			
43914	AC-13	0.08		Trace			
43915	AC-21	0.06		Trace			
43916	AC-~~21~~ 31	0.02		0.2			
43917	Spec. 2	0.02		Trace			

? 5/24/77

MINERALS ENGINEERING CO.

BY Norman Whitmore

SPECTROGRAPH—THE TOTAL WILL NOT EQUAL 100% AS GASES DO NOT SHOW. SUCH AS QUARTZ IS 28 PARTS SILICON AND 32 PARTS OXYGEN. TOTAL IS USUALLY ABOUT 48%.

Reed Engineering

1140 North Lemon Street, Orange, Calif. 92667 - Phone 714-538-2776 (24 hours)

Date: JAN 22 1975

Mr. Philip Wickstrom
2833 Cheryl Dr
Phoenix, AZ 85028

Sample No: #1

Film No: 01

SPECTROGRAPHIC ANALYSIS - QUALITATIVE

	Percent	Lbs. per ton
Aluminum	4.0	80
Antimony**		
Barium		
Beryllium		
Bismuth		
Cadmium		
Calcium	4.8	96
Cesium		
Chromium	.01	.2
Cobalt		
Columbium		
Copper	.02	.4
Fluorine		
Gallium		
Germanium**		
Gold*		
Hafnium		
Indium		
Iridium*		
Iron	7.9	158
Lead	.005	.1
Lithium		
Magnesium	2.4	48
Manganese	.02	.4
Mercury		
Molybdenum		
Nickel		
Osmium**		
Palladium*		
Platinum*		
Potassium	2.1	42
Rhodium*		
Rubidium*		
Ruthenium*		
Silver	trace	---
Sodium	.9	18
Strontium	.03	.6
Tantalum		
Thallium		
Thorium*		
Tin		
Titanium	.03	.6
Tungsten		
Vanadium	.01	.2
Zinc	.002	.04
Zirconium		

Approximate Values

RARE EARTH ELEMENTS : none

	Percent
Cerium	
Dysprosium	
Erbium	
Europium	
Gadolinium	
Holmium	
Lanthanium	
Lutetium	
Neodymium	
Praseodymium	
Samarium	
Terbium	
Thulium	
Ytterbium	
Yttrium	

Random Surface Sample Gaultois Wash

RADIOMETRIC ASSAY

(e) Uranium Oxide 0.0 Percent

Silicon, gases 77.8 Percent

ADDITIONAL TESTS RECOMMENDED

FLUORESCENCE

Short wave UV

Long wave UV

Notes:

*Elements not detectable below .05%

**Elements not detectable below .5%

Percentages are computed estimates based on film densities and are relative, not exact.

Respectfully submitted,
REED ENGINEERING

2. Approx. 2025 mile, in wash, below old mine tunnel (caved in)

Reed Engineering

1140 North Lemon Street, Orange, Calif. 92667 - Phone 714-538-2776 (24 hours)

+

Mr. Philip Wickstrom

Date: JAN 22 1975

Sample No: #2

Film No: 02

+

SPECTROGRAPHIC ANALYSIS - QUALITATIVE

	Percent	Lbs. per ton
Aluminum	9.0	180
Antimony**		
Barium	1.6	32
Beryllium		
Bismuth		
Cadmium		
Calcium	17.5	350
Cesium		
Chromium	.5	10
Cobalt		
Columbium		
Copper	.001	.02
Fluorine		
Gallium		
Germanium**		
Gold*		
Hafnium		
Indium		
Iridium*		
Iron	1.7	34
Lead	.002	.04
Lithium		
Magnesium	4.6	92
Manganese	.4	8
Mercury		
Molybdenum		
Nickel		
Osmium**		
Palladium*		
Platinum*		
Potassium	2.2	44
Rhodium*		
Rubidium*		
Ruthenium*		
Silver		
Sodium	1.9	38
Strontium	.03	.6
Tantalum		
Thallium		
Thorium*		
Tin		
Titanium	.3	6
Tungsten		
Vanadium	.001	.02
Zinc		
Zirconium		

Approximate Values

RARE EARTH ELEMENTS: none

	Percent
Cerium	
Dysprosium	
Erbium	
Europium	
Gadolinium	
Holmium	
Lanthanium	
Lutetium	
Neodymium	
Praseodymium	
Samarium	
Terbium	
Thulium	
Ytterbium	
Yttrium	

Random Surface Sample Surfaces Washed

RADIOMETRIC ASSAY

(e) Uranium Oxide 0.0 Percent

Silicon, gases 60.2 Percent

ADDITIONAL TESTS RECOMMENDED

FLUORESCENCE

Short wave UV

Long wave UV

Notes:

*Elements not detectable below .05%

**Elements not detectable below .5%

Percentages are computed estimates based on film densities and are relative, not exact.

Respectfully submitted,
REED ENGINEERING

225/26

Reed Engineering

1140 North Lemon Street, Orange, Calif. 92667 - Phone 714-538-2776 (24 hours)

Mr. Philip Wickstrom

Date: JAN 22 1975

Sample No: #3

Film No: 03

SPECTROGRAPHIC ANALYSIS - QUALITATIVE

	Percent	Lbs. per ton
Aluminum	6.5	130
Antimony**		
Barium	.5	10
Beryllium		
Bismuth		
Cadmium		
Calcium	10.5	210
Cesium		
Chromium	1.1	22
Cobalt		
Columbium		
Copper		
Fluorine		
Gallium		
Germanium**		
Gold*		
Hafnium		
Indium		
Iridium*		
Iron	2.1	42
Lead	.001	.02
Lithium		
Magnesium	4.9	98
Manganese	.003	.06
Mercury		
Molybdenum	.002	.04
Nickel		
Osmium**		
Palladium*		
Platinum*		
Potassium	2.3	46
Rhodium*		
Rubidium*		
Ruthenium*		
Silver		
Sodium	1.0	20
Strontium	.4	8
Tantalum		
Thallium		
Thorium*		
Tin		
Titanium	.2	4
Tungsten		
Vanadium	.001	.02
Zinc		
Zirconium		

Approximate Values

RARE EARTH ELEMENTS : none

	Percent
Cerium	
Dysprosium	
Erbium	
Europium	
Gadolinium	
Holmium	
Lanthanium	
Lutetium	
Neodymium	
Praseodymium	
Samarium	
Terbium	
Thulium	
Ytterbium	
Yttrium	

Random Surface Sample - Garfias Wash

RADIOMETRIC ASSAY

(e) Uranium Oxide 0.0 Percent

Silicon, gases 70.4 Percent

ADDITIONAL TESTS RECOMMENDED

FLUORESCENCE

Short wave UV

Long wave UV

Notes:

*Elements not detectable below .05%

**Elements not detectable below .5%

Percentages are computed estimates based on film densities and are relative, not exact.

Respectfully submitted,
REED ENGINEERING

Reed Engineering

1140 North Lemon Street, Orange, Calif. 92667 - Phone 714-538-2776 (24 hours)

Mr. Philip Wickstrom

Date: JAN 22 1975

Sample No: #4

Film No: 04

SPECTROGRAPHIC ANALYSIS - QUALITATIVE

	Percent	Lbs. per ton
Aluminum	2.5	50
Antimony**		
Barium	.1	2
Beryllium		
Bismuth		
Cadmium		
Calcium	2.2	44
Cesium		
Chromium		
Cobalt		
Columbium		
75/66 Copper	2.1	42
Fluorine		
Gallium		
Germanium**		
Gold*		
Hafnium		
Indium		
Iridium*		
Iron	7.3	146
Lead	.04	.8
Lithium		
Magnesium	.9	18
Manganese		
Mercury		
Molybdenum		
Nickel		
Osmium**		
Palladium*		
Platinum*		
Potassium	2.4	48
Rhodium*		
Rubidium*		
Ruthenium*		
Silver	trace	---
Sodium	.5	10
Strontium	.03	.6
Tantalum		
Thallium		
Thorium*		
Tin		
Titanium	.3	6
Tungsten		
Vanadium		
Zinc		
Zirconium		

Approximate Values

RARE EARTH ELEMENTS : none

	Percent
Cerium	
Dysprosium	
Erbium	
Europium	
Gadolinium	
Holmium	
Lanthanium	
Lutetium	
Neodymium	
Praseodymium	
Samarium	
Terbium	
Thulium	
Ytterbium	
Yttrium	

Random Sample from Saufier Wash

RADIOMETRIC ASSAY

(e) Uranium Oxide 0.0 Percent

Silicon, gases 82.4 Percent

ADDITIONAL TESTS RECOMMENDED

Quantitative: Copper

FLUORESCENCE

Short wave UV

Long wave UV

Notes:

*Elements not detectable below .05%

**Elements not detectable below .5%

Percentages are computed estimates based on film densities and are relative, not exact.

Respectfully submitted,
REED ENGINEERING

Reed Engineering

1140 North Lemon Street, Orange, Calif. 92667 - Phone 714-538-2776 (24 hours)

Mr. Philip Wickstrom

Date: JAN 22 1975

Sample No: #5

Film No: 05

SPECTROGRAPHIC ANALYSIS - QUALITATIVE

	Percent	Lbs. per ton
Aluminum	3.2	64
Antimony**		
Barium		
Beryllium		
Bismuth		
Cadmium		
Calcium	.9	18
Cesium		
Chromium	.02	.4
Cobalt		
Columbium		
Copper	.8	16
Fluorine		
Gallium		
Germanium**		
Gold*		
Hafnium		
Indium		
Iridium*		
Iron	3.7	74
Lead	.002	.04
Lithium		
Magnesium	.03	.6
Manganese	.005	.1
Mercury		
Molybdenum	.002	.04
Nickel		
Osmium**		
Palladium*		
Platinum*		
Potassium	3.9	78
Rhodium*		
Rubidium*		
Ruthenium*		
Silver	trace	---
Sodium	.5	10
Strontium	.01	.2
Tantalum		
Thallium		
Thorium*		
Tin		
Titanium	.02	.4
Tungsten		
Vanadium		
Zinc		
Zirconium		

Approximate Values

RARE EARTH ELEMENTS : none

	Percent
Cerium	
Dysprosium	
Erbium	
Europium	
Gadolinium	
Holmium	
Lanthanium	
Lutetium	
Neodymium	
Praseodymium	
Samarium	
Terbium	
Thulium	
Ytterbium	
Yttrium	

Random Sample from Surfas Work

RADIOMETRIC ASSAY

(e) Uranium Oxide 0.0 Percent

Silicon, gases 86.9 Percent

ADDITIONAL TESTS RECOMMENDED

Quantitative: Copper

FLUORESCENCE

Short wave UV

Long wave UV

Notes:

*Elements not detectable below .05%

**Elements not detectable below .5%

Percentages are computed estimates based on film densities and are relative, not exact.

Respectfully submitted,
REED ENGINEERING

RONALD D. KARVINEN
CONSULTING GEOLOGIST

4625 E. BROADWAY - SUITE 119-C
TUCSON, ARIZONA 85711

BUS. (602) 327-7729
RES. (602) 297-1675

January 6, 1975

TO: Mr. Philip Wickstrom

FROM: Ronald D. Karvinen

SUBJECT: Garfias Wash Property
Art Counsins - Owner
U.S.G.S. Garfias Mountain Quad (7-1/2')

LOCATION: White Picacho Mining District
Yavapai County, Arizona.
Sections 9, 10, 11, 14, 15, and 16,
T. 7 N., R. 2 W.

The property consists of a sulfide system trending east-west with dimensions of 3 by 1-1/2 miles. Most, if not all, of the zone is held by 157 unpatented lode claims belonging to Mr. Art Cousins - Phoenix.

Host rocks are Cretaceous volcanics (mostly rhyolites and andesites) overlying a Precambrian schist. A few basic post-mineral dikes are also present.

Most striking is the pervasive nature of the hydrothermal alteration-mineralization within the system. The alteration is predominantly phyllic or quart-zericite. Sulfide content, mostly pyrite, ranges up to as much as 10% of the rock, mostly as disseminations. Sulfides are evident in all of the more deeply incised drainages.

Iron oxides or limonites after copper sulfides are scarce, but these features could be masked by the high ratio of pyrite to any other sulfides that might have been present. The foregoing is not to say this is a porphyry copper prospect as such, though one should think of vertical zonation as he examines the property.

The size of the system is impressive as is the character of the pyrite wherever observed, i.e., the disseminated crystals of pyrite do not have the bright, brassy appearance as exhibited when they are barren. In other words, the pyrites could be auriferous, cupriferous or otherwise enriched.

To best grasp the feel for rock types and mineralization intensities, one should traverse both the Bitter Creek and Garfias Wash drainages.

34
56 89

Note that a cube 500 feet on a side contains in excess of 10,000,000 tons. Given the size of this sytem, it becomes evident that more than 400 of these cubes could be placed within the surface traces of the zone. In other words, one could easily overlook an area this size which could contain gold assays of 0.05 oz/ton which at today's prices could become a viable "porphyry gold" deposit.

As described in our personal communications of January 2nd last, the possibility of commercial gold accumulation would seem to be in the soil mantle as found within the sulfide system. These accumulations would be the product of the residual concentration of heavy minerals while normal erosion ensues.

The foregoing conclusion is based on assays of numerous samplings of the bedrock, however, one must remain aware of the 500 foot cube aforementioned.

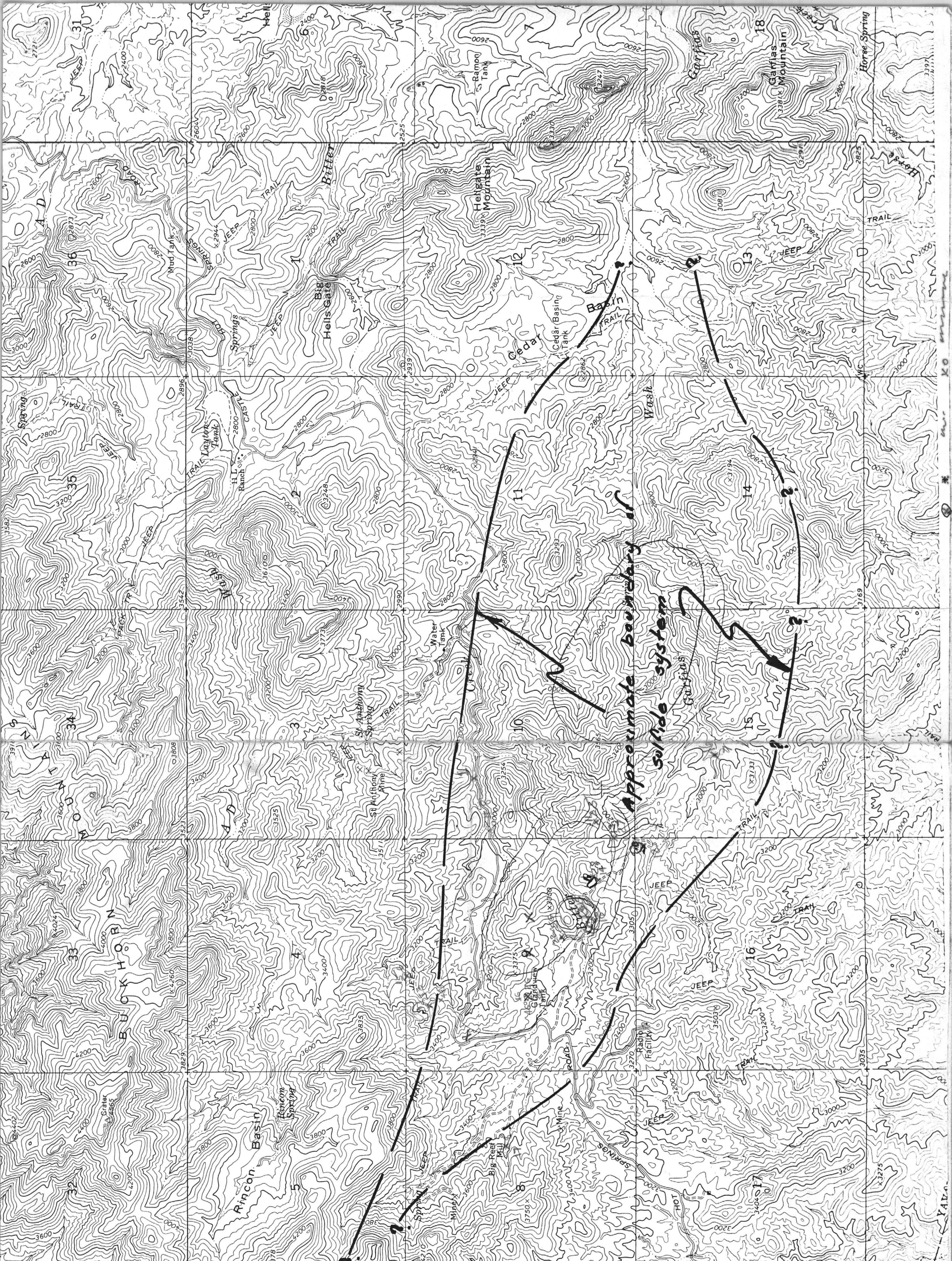
A conservative estimate allows for 5,000,000 tons of residual soil material and if bulk sampling of the soils in the system can verify grades of .02 Au and 0.15 Ag, further work is warranted.

Attached is a map roughly outlining the area of interest.

Respectfully submitted,

Ronald D. Karvinen

RDK:jp



Sulphide System as outlined
By Ren Karvinen -

Garfias Mtn Group
Yavapai Co
Twp 7N 2W

GSR METALS, INC.
31 SOUTH 42ND PLACE
PHOENIX, ARIZONA 85034

PLANT 602/275-2009

MEMORANDUM

TO: Mr. C. Hughes
Mr. A. Cousins
Phoenix, Arizona

October 2, 1974

Gentlemen:

This memorandum will attempt to set forth some of the more pertinent points regarding the economics and feasibility of starting a gold recovery operation on your property north of Morristown.

The various samples brought to us for analysis to date clearly demonstrate the persistency of the gold values throughout the open cut where the samples were derived. Table IV shows a range of values of gold content from 0.2 - 3.0 oz./T. At current gold prices the values are from $30 to $450 per ton.

The following is our tentative conclusion:

CONCLUSION:

The preliminary investigations reveal the following:

1. Gold values persist throughout the cut (0.2-3.0 ozs/ton).
2. The oversize fraction contains the higher values (7 oz/ton).
3. A proper size mining operation would probably be within a range of 100 tons/day.
4. After concentration the values would be in the range of $20,000/ton of final concentrate.
5. The final concentrate would be within a range of 1/2 ton/day. (Note: the tests showed higher concentration ratio.)
6. Projected gross revenues from such operation would be within the range of $13,000/day.

The preliminary investigation is based upon the following samples:

1. A one-pound concentrate hand-delivered by Mr. Cousins. This sample apparently was derived by upgrading the sluice concentrate rather manually. (See Table III.)
2. A second sample of approximately 100 pounds was brought in three five-gallon plastic buckets described as the ore after having undergone crushing and wet grinding at the mine site. (See Table III.)

3. Samples taken as follows:

   a. Random samples taken across the face of the open cut.

   b. Samples obtained off the concentrating sluices while in operation, representing an operational profile.

   c. Multiple assay tests were conducted to ascertain the values, and to determine the percentage distribution throughout the various screen sizes. (See Table IV.)

Preliminary Evaluation:

1. The present concentrating method being used at the mine would, by and large, be suitable for future operation.

2. Excluding some modification in the future, the proposed operation will most likely include the following general steps:

   a. Mining:

      1. Open pit mining, employing a ripper and a loader.

      2. Primary and secondary crushing with screening steps.

   b. Concentrating:

      1. Desliming, followed by wet grinding of the feed.

      2. Table-concentrating or other form of concentrating devices.

      3. Filtration and collecting concentrates to be delivered to the processing plant.

   c. Processing:

      1. Treating above concentrate by various means currently being investigated to obtain a final concentrate.

      2. Treating such final concentrate chemically and physically to obtain metal bars.

      3. Treating such bars to obtain gold bullion of mint grade.

OBSERVATION:

1. Generally speaking, it is advantageous to upgrade the ore at the mine site as much as is feasible in order to save expenses in subsequent hauling to processing plant.

2. The advantages gained may be offset, however, by the necessity to equip the mining camp for self-sufficiency in repairs, spare parts, supplies, etc. Daily fresh supplies would have to be brought in so that men will stay on the site.

3. The concentrate in its final form would be of such high values as to introduce security problems. Material balance control would have to be very stringent in order to satisfy any auditing system.

4. As a remedy it may be suggested to haul the ore after crushing to a near city location where further upgrading and recovery would be done in proximity of each other.

5. Hauling raw feed, however, is unduly more expensive than hauling the low bulk concentrate.

6. Disposal rules are more stringent in cities than at the mine site.

7. Ample land should be available or may have to be reclaimed by the dumping of large tonnages of ore.

As was suggested above, our viewpoint is preliminary in nature. More samples would have to be run to ascertain the extent of the reserves and the final content of the ore. We hasten to add, however, that the showings so far are very encouraging. We certainly hope the above preliminary work will hold up and will closely reflect the final conclusion.

We would like to take this opportunity and express our thanks for letting us work with you, and look forward to a long-term association.

Very sincerely,

D. Underwood

S. Makalla

TABLE I

DISTRIBUTION OF VALUE

	WEIGHT TONS/DAY	CONTAINED VALUES	VALUES RECOVERABLE	VALUES RECYCLED	VALUES RECOVERED	VALUES LOST
(1) Oversize	35	$15,750	$13,110	$2,640	$12,454	$856
(2) Undersize	37	2,775	2,220	555	2,109	111
(3) Slime Portion	28	1,140	-	1,140	-	-
TOTAL	100	$19,665	$15,330	$4,335	$14,563	$967
PERCENTAGE	-	100	78	22	74.05	4

TABLE II

PROCESS EVALUATION
VARIOUS CONCENTRATION ROUTES
(PROJECTION FOR 100 TON MINING OPERATION PER DAY)

	MINING DEPARTMENT			CONCENTRATING DEPARTMENT			PROCESSING DEPARTMENT (ASSUMING 95% EXTRACTION)	
	ORE MINED TONS/DAY	AVAILABLE FEED TO CONCENTRATE TONS/DAY	VALUES BEFORE CONC. OZ/TON	VALUES AFTER CONC. OZ/TON	RATIO BY WEIGHT OF CONC. TO FEED APPROX.	TOTAL CONC. TONS/DAY	VALUES/TON @$150/OZ $	GROSS VALUES RECOVERED $
(1) Oversize Fraction +10 Mesh	100	35	3.0	200	80:1	0.437	30,000	12,454
(2) Undersize -10+400	100	37	.5	40	100:1	0.370	6,000	2,109
(3) Oversize & Undersize (less slimes)	100	72	1.71	120	90:1	0.807	18,990	14,563
				-	-	-	-	-

REMARKS:

a. By keeping both fractions the load to processing plant doubles with an extra recovery of 10%.

b. The figures do not reflect efficiency of concentration. See table I for recycling figures.

c. At the processing plant the recovery is 95%.

TABLE III

VARIOUS RESULTS OF SAMPLES SUBMITTED

SAMPLE NO.	ASSAY OZ/TON	VALUES/TON AT $150/OZ.	REMARKS
1	140	$21,000	Sample brought by Cousins in jar; weight 361 gm. This apparently was hand panned after wet grinding and sluiced.
2	7	1,050	Ore brought in 3 five-gallon buckets, after grinding.
3	1.3	195	Feed picked from cut, dry crushing only.
4	1.0	150	Various rocks on top of hill.
5	3.0	450	Concentrate off trough, after wet grinding.

TABLE IV

SCREEN SIZE DISTRIBUTION
SHOWING VALUES IN FRACTIONS

SAMPLE	% WEIGHT DISTRIBUTION	VALUES OZ/TON	CALCULATED HEAD	% VALUES DISTRIBUTION (APPROX.)
(1) Oversize + 10	35	3	1.05	80.0
(2) Undersize -10+100	37	.5	.185	14.0
(3) Undersize -100+400	10	.4	.04	3.0
(4) Slimes -400	18	.2	.04	3.0
			1.315	100.0

REMARKS: No. (1) fraction is only 35% of the mined rock, but contains 80% of total value in place.

Quintana Minerals Corporation
1892 WEST GRANT ROAD
TUCSON, ARIZONA 85705
602/622-4801

May 7, 1974

Mrs. Del Koch
34 Colonia Miramonte
Phoenix, Arizona 85018

Dear Mrs. Koch:

I visited the Cousins property on the Castle Hot Springs Road, Yavapai County, during the last week of April and spent approximately three days traversing the area. During this time, I collected several samples from bedrock across the area. I am enclosing a map showing the sample locations, together with the analytical results, with this letter.

The area contains a large pyritic alteration zone mainly in rhyolitic volcanic rocks. This alteration zone is of considerable interest because of its size; however, the results of my investigation indicate that the possibility of encountering significant amounts of economic mineralization in the area are not sufficiently attractive for Quintana to pursue further at this time. We appreciate your bringing this property to our attention. If you have any additional information on this or other properties in the future, we would be happy to consider it.

Very truly yours,

Bruce E. Kilpatrick

Bruce E. Kilpatrick
Senior Staff Geologist

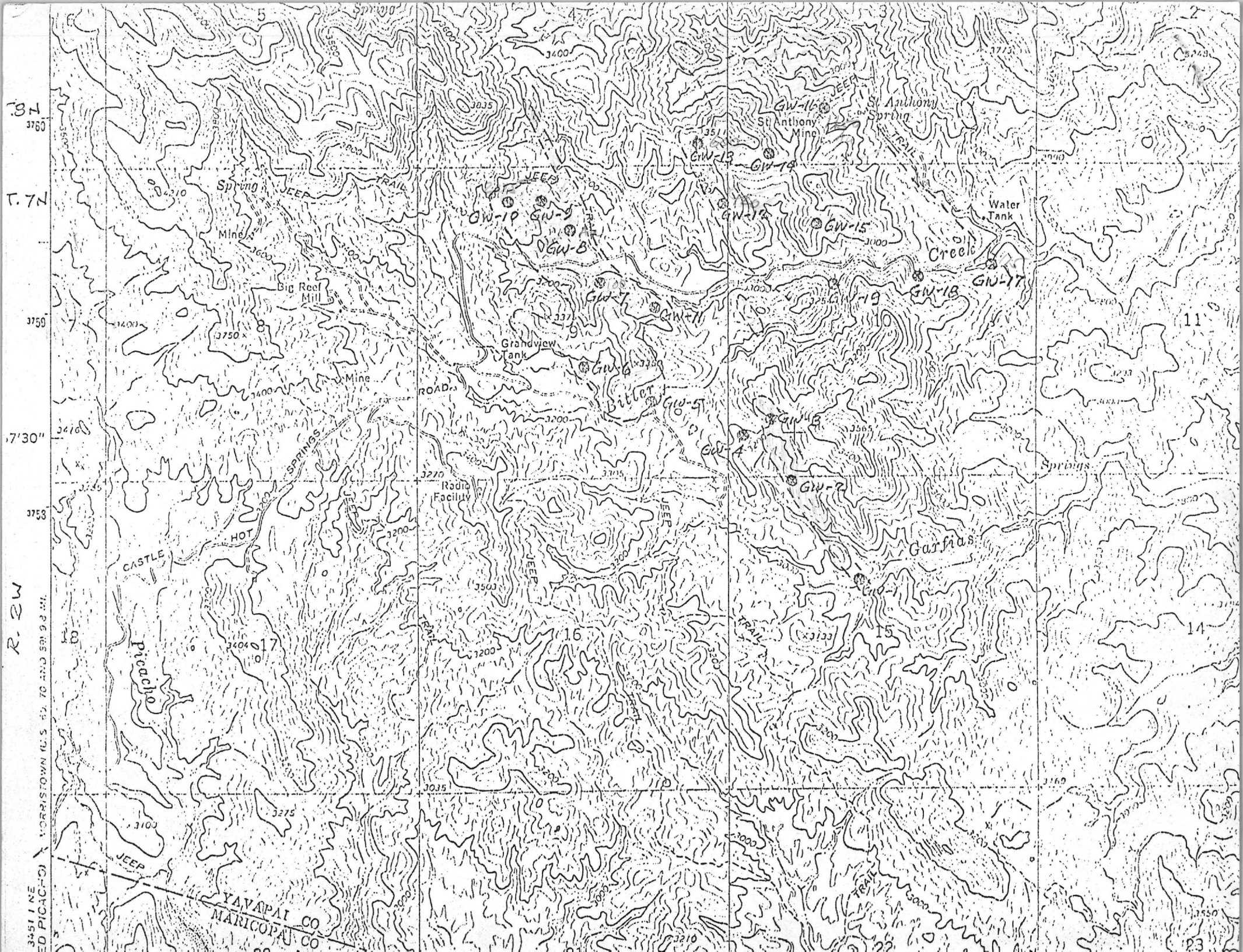
BEK/ln

Enclosures

cc: Mr. W. E. Saegart
Mr. A. W. Cousins

GEOCHEMICAL DATA FROM ROCK SAMPLES

Sample No.	Element, ppm			
	Cu	Mo	Au	Ag
GW-1	50	< 2	< 0.02	< 0.2
GW-2	15	< 2	< 0.02	< 0.2
GW-3	25	< 2	< 0.02	< 0.2
GW-4	55	< 2	< 0.02	< 0.2
GW-5	15	< 2	< 0.02	< 0.2
GW-6	55	< 2	< 0.02	< 0.2
GW-7	100	< 2	< 0.02	< 0.2
GW-8	40	6	0.38	< 0.4
GW-9	10	< 2	< 0.02	< 0.2
GW-10	205	10	< 0.02	< 0.2
GW-11	90	< 2	< 0.02	< 0.2
GW-12	120	< 2	< 0.02	< 0.2
GW-13	600	< 2	< 0.02	< 0.2
GW-14	95	< 2	< 0.02	< 0.2
GW-15	40	< 2	< 0.02	< 0.2
GW-16	1150	< 2	0.48	< 0.2
GW-17	115	< 2	< 0.02	< 0.2
GW-18	40	< 2	< 0.02	< 0.2
GW-19	10	< 2	< 0.02	< 0.2


GW-19
GW-9
GW-8
GW-7
GW-11
GW-6
GW-5
GW-4
GW-3
GW-2
GW-1
GW-16
GW-13
GW-14
GW-12
GW-15
GW-18
GW-17
St Anthony Mine
St Anthony Spring
Water Tank
Creek
Big Reef Mill
Mine
Grandview Tank
Bitter
Springs
Radio Facility
Garfias
Picacho
JEEP TRAIL
ROAD
HOT SPRINGS
CASTLE
YAVAPAI CO
MARICOPA CO
T. 7 N
R. 2 W
7'30"

I.C.C.Co. - SMELTING DEPT.

SETTLEMENT SHEET

Shipper A. W. Cousins

Smelter Lot 8783 Shipper Lot 2

Received 9-19-72

Wet Weight Lbs. 72,100 H_2O 1.13 Dry Weight Lbs. 71,285

Dry Weight Tons 35.6425

ASSAYS		CONTENTS	DEDUCT	PAID FOR OR RETURNED		VALUES	
				Total	Per Ton	Per Ton	Total
Ag	.14	5	—	—	—	$ —	$
Au	tr	—	—	—	—	—	
Cu	0.96	716	373	343	9 20	4 78	
SiO_2	67.6	50 434					
Al_2O_3	8.5	6 312					
Fe	5.2	3 880					
CaO	1.8	—					
S	0.1	75					

Total Values	4 78	
Smelting Charges	10 00	
Silica Credit Units @8¢	—	
Total Charges	10 00	
Net Value	(5 22)	(194 72)
Sampling		
Net Value		
Freight		
Trucking		
Royalty		
Due Shipper		$ (194 72)
Advance		
Net ~~Due Shipper~~ Dissipation		194 72

COPPER PRICE

60.000 less 8.000 = 52.000 ¢

Silver Price = —

SMELTING CHARGES:

Base Rate (1st $15.00) 10.00

Next $25.00 @ 10% —

— @ 5% —

Total $10.00

Figured _____ Checked _____

ARIZONA TESTING LABORATORIES

A DIVISION OF CLAUDE E. McLEAN & SON LABORATORIES, INC.
817 WEST MADISON ST. PHOENIX, ARIZONA 85007 PHONE 254-6181

For A. W. Cousin Date June 22, 1973

Sample of Ore Received:

Submitted by: same

ASSAY CERTIFICATE

Gold figured at $ 80.00 per ounce Silver figured at $ 2.00 per ounce

LAB. NO.	IDENTIFICATION	GOLD		SILVER		PERCENTAGES	
		OZ. PER TON	VALUE	OZ. PER TON	VALUE	Copper	
4684	No Mark			16.5	33.00	50.5%	

Respectfully submitted,

ARIZONA TESTING LABORATORIES

Claude E. McLean, Jr.

VALLEY ASSAY OFFICE
AND ORE TESTING LABORATORY
MEMORANDUM OF ASSAY

Made for Del Koch Cousens

Tempe, Arizona..... May...30....., 1974..

SAMPLE NO.	PER TON OF 2000 POUNDS AVOIRDUPOIS								COPPER, OR			LEAD, OR			ZINC, OR			TOTAL	
	GOLD, ########				SILVER				AT		PER LB.	AT		PER LB.	AT		PER LB.		
	AT OZS.	PER OUNCE 100's	$	Cts	AT OZS.	PER OUNCE 100's	$	Cts	%	$	Cts.	%	$	Cts.	%	$	Cts.	$	Cts.
1	0.	11																	
2	0.	42			0.	90			2.3										
(1). Red & Black Ores - Top of hill																			
(2). " " " "																			
REMARKS:																			

NO.....

CHARGE $ 14.00 Pd.

BY T. Lee Boyer
Registered Assayer.

ARIZONA ASSAYER
CERTIFICATE EXPIRES
L. LEE
BOYER
DEC. 31, 19 74
ARIZONA, U.S.A.

VALLEY ASSAY OFFICE

AND ORE TESTING LABORATORY

MEMORANDUM OF ASSAY

ade for Don Compton Cousins

Tempe, Arizona June 4, 1974

SAMPLE NO.	PER TON OF 2000 POUNDS AVOIRDUPOIS								COPPER, OR			LEAD, OR			ZINC, OR			TOTAL	
	GOLD, ########				SILVER														
	AT		PER OUNCE		AT		PER OUNCE		AT		PER LB.	AT		PER LB.	AT		PER LB.		
	OZS.	100's	$	Cts	OZS.	100's	$	Cts.	%	$	Cts.	%	$	Cts.	%	$	Cts.	$	Cts.
1- D	0.	04	.06		0.	70			.05										
2 D	0.	11	.06		0.	50			.10										
3 D	0.	14	.11		0.	80			.15										
REMARKS:																			

D.

HARGE $ 30.00 Pd.

BY L. Lee Boyer
Registered Assayer.

REGISTERED ASSAYER CERTIFICATE EXPIRES L. LEE BOYER 31, 1974 ARIZONA

MAGNETOMETER STUDY

OF THE

HOT SPRINGS AREA CLAIM GROUP

YAVAPAI COUNTY, ARIZONA

INTRODUCTION

The services of Carpenter Development, Inc., consulting geologists/geophysicists, were retained to conduct a magnetometer survey of the Hot Springs area claim group located in Yavapai County, Arizona. All data was gathered along predetermined data lines in the general area.

This claim group is located in Section 9, T 7N, R 2 W of Yavapai County, Arizona. No topographic maps of the area were available, however, detailed aerial photo coverage was furnished as a base for the laying out of survey data gathering points and survey lines. Figure 1 shows the general layout of the claims and the area of study for this report.

DATA PROCEDURES

Data was gathered in the field by a continuous recording process in which both magnetic and radiometric instruments operated simultaneously. Data stations were spaced at approximately 1320' intervals. The data gathering technique is a combination of new data reduction techniques with old gathering principals. By combining the two techniques it is possible to locate previously hidden mineralization zones.

Both the magnetic and radiometric systems are instrumented for instant recording of all data and have designed and modified for operation from moving vehicles.

The system utilized for this work are custom built geophysical apparatus based on the primary design functions of the Sharpe Magnetometer and precision radiation simulation equipment. All equipment has been custom re-designed and transistorized for the specific uses to which it has been placed.

The nature of the sensing systems are such that true magnetic north orientation of the equipment is not necessary. The magnetic portion of the system is designed to give the relative magnetic variations of the total vertical magnetic field rather than an absolute value for the vertical field. Since these data are acquired for the purpose of economic evaluation and exploration work, it is not necessary that the absolute value for the vertical intensity be measured, only the relative changes of same, which are significant when determining mineralization zones and potential economics of a mineral deposit.

All data was brought back to the Phoenix Office, and necessary corrections for terrain, diurnal variations, and instrument corrections were applied before data was reduced through computerized technique formulas for plotting.

RESULTS OF STUDY

Vertical Magnetics

The results of the Magnetic portion of the survey are presented in Figure 2. This is a plot of the residual vertical force magnetics as computed from the field data with all of the regional effects removed.

Examination of Figure 2 indicates that there are two large anomalous areas in the general area of the claim group. The highest residual reading of 800 gammas in the western portion of the claim group is significant and it is felt that the 600 gamma residual anomaly in the eastern section is also of importance. Because of the nature of

the distribution of the anomaly, it is felt that this anomaly represents some type of disseminated mineralization, as opposed to veins or dikes in the area.

This disseminated mineralization could be a sulfide body at depth or some other type of metalic ore occurance. It is felt by this writer that the anomaly represents a disseminated mineralized zone at a depth greater than 300'. If the zone were shallower than 300', and highly mineralized it is felt that the residual anomaly in this particular area would have been considerably higher than is evidenced at this point. It is felt that anything below the 200 gamma anomaly line would be insignificant with respect to ore deposition or mineralization at any depth practical to mining.

Radiometric Data

Residual Radiation data as accumulated in the area is plotted in Figure 3. This data was acquired in order to maintain a check on the region to determine if high radiation was found associated with any of the mineralization. It can be seen by a study of this figure that little radiation was evidenced in the region. There is no general pattern which can be attributed to mineralization in the region which has any association with high radiation activity.

CONCLUSIONS AND RECOMMENDATIONS

After a study of the data the following conclusions may be derived from this study:

1. There is indication of a disseminated mineralized zone underlying the major portions of the claim area.
2. The heaviest concentration of this mineralized zone is located in the western half of the claims with an equally good zone located in the eastern half.
3. The rock appears to be mineralized at a depth greater than 300'.
4. There is no significant radiation activity associated with these zones which would aid in determining depth or extent of the area.

5. No major faults were evidenced in the data gathered, however it is possible that numerous minor faults exist in the region.

IT IS THEREFORE RECOMMENDED, that this property be more fully examined by a core drilling with at least one core hole extending to 500 feet in the vicinity of the 800 gamma residual anomaly in the western portion and the 600 gamma residual anomaly in the eastern portion.

It is possible that low grade disseminated sulfide ores may be wide spread in this area and these two core holes would certainly give an accurate indication of this existance.

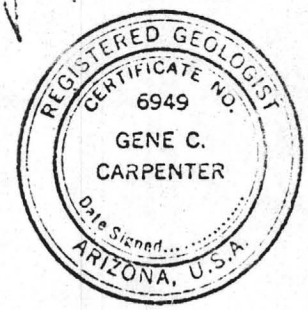
If the core holes show reasonable mineralization to be of commercial value, it is then recommended that a detailed core drilling program be laid out in conjunction with a detailed assay program for proving up the extent of mineralization on the property.

Respectfully Submitted,

CARPENTER DEVELOPMENT, INC.

Gene C. Carpenter

Gene C. Carpenter
Registered Geologist



DATE Sept. 2, 1970

Phoenix, Arizona
June 3, 1958

Bear Creek Mining Company
161 East 42nd Street
New York 17, New York

Gentlemen:

This is to confirm the conversations which Mr. Elsing has had with your Messrs. Robinson, Breckon, and Cook regarding the Missing Link Group of mining claims located in the Red Picacho Mining District, Yavapai County, Arizona, which mining claims are described in Exhibit A attached hereto and hereinafter referred to as the "mining claims".

1. I represent to Bear Creek that:

(a) I have options to purchase the mining claims, copies of which options are attached hereto and marked Exhibits B and C. That the claims are free and clear of any and all liens and encumbrances, subject to the paramount right of the United States, and are in good standing, with the exceptions noted on Exhibit A.

(b) I am desirous of having a preliminary examination of mining claims made by Bear Creek, providing that Bear Creek will do so at its own expense. If, after the examination, Bear Creek should desire to make a more detailed examination and to explore the claims, I will enter into an option agreement with Bear Creek wherein Bear Creek will have the right to buy the mining claims.

2. If Bear Creek is willing to make a preliminary examination of the mining claims, it shall do so in accordance with and subject to the following undertakings, terms and conditions:

(a) I represent that there have been duly and lawfully staked and recorded the claims as listed on Exhibit A and on which has been completed legal sized location work.

In consideration for the completion of the location work on the remaining claims as shown on Exhibit A, which Bear Creek agrees to do, I grant to Bear Creek the exclusive right, effective on the date of Bear Creek's acceptance of this offer

herein set forth and for a period of six months from the date hereof, to make an examination of the mining claims to the extent that Bear Creek, in its unfettered discretion, deems appropriate and advisable.

(b) If, after such examination, Bear Creek decides that the mining claims are of no interest to it, it will immediately on the expiration of said six months, so notify me in writing at the address given in (5) hereof. Bear Creek will also provide me with all geological, geophysical and geochemical data, reports, logs of holes, assays, spectroscopic analyses, maps, results of sampling, and other information obtained by it or made or prepared for it in regard to the claims and the ore therein and the geology and mineralogy relating thereto.

(c) If, however, Bear Creek should be interested in further examination and an opportunity to map and explore the claims, Bear Creek will so notify me, and I agree thereupon to enter into a full formal agreement with Bear Creek, the basic provisions of which shall contain in substance the following terms and conditions:

(1) Bear Creek shall have the option, exercisable at any time within five years from the date of the expiration of the preliminary examination period, to purchase the mining claims for the total sum of $750,000.00 cash, payable to me or my assigns. However, if Bear Creek intends to exercise its option, it shall give me notice of such intention seven months before the date that the option is to be actually exercised.

(2) On the signing of such formal agreement, I agree to deposit a deed to the mining claims, title to be free and clear of all liens and encumbrances, in escrow and under an agreement with the Valley National Bank of Phoenix, Arizona, to be delivered to Bear Creek if and when Bear Creek exercises the option, and I undertake that no lien or encumbrance shall attach to or have effect on the title to the mining claims as long as they are under option to Bear Creek.

(3) Bear Creek agrees that it will do nothing that will create a lien or encumbrance on the mining claims and, in the event that Bear Creek inadvertently does so, Bear Creek will forthwith, on notice from me, secure release of all such liens and encumbrance at its own cost.

(4) I shall grant an exclusive option to Bear Creek, and Bear Creek will agree to investigate, map and explore the mining claims and to amend them in my behalf to the extent that Bear Creek, in its unfettered discretion, deems appropriate and advisable; provided that Bear Creek will do the assessment work required to keep the claims in good standing during the first four months of each assessment year that the agreement is in force; and provided that beginning with the first day of the first month after the month in which the aforesaid formal agreement shall have been executed Bear Creek will pay a monthly rental fee of $200 per month. This rental shall be paid for the life of the formal agreement and all payments shall be deductible from the purchase price; provided, however, that no rent shall be payable in any month during which Bear Creek expends the sum of at least $1,000 in exploration and development work on the mining claims.

(5) If Bear Creek elects to exercise the option to purchase the mining claims, Bear Creek will notify me in writing by registered mail, addressed to me in care of John C. Hughes, First National Bank Building, Phoenix, Arizona, of its intention to so exercise the option.

(6) Bear Creek shall have the right, anything herein to the contrary notwithstanding, to terminate the option to explore described in paragraph (4) above at any time prior to sending its notice of intention to exercise its option, by notifying me in writing by registered mail addressed to me at the aforementioned address; and, in that event, Bear Creek shall have no further obligation to me; provided, however, that if Bear Creek shall have failed to meet the obligation of doing yearly assessment work as set forth in paragraph (4) above at the time of termination, it shall be obligated to make such further expenditure in the area as shall make up the deficiency to the date of termination.

3. Whenever performance under this letter agreement or the formal agreement referred to above shall be prevented by force majeure, notice of such interference shall be given to the other party and any time limitations specified shall be extended by a time equal to the period of interference.

4. I agree that I will refrain from staking additional claims or assuming any interest in any claims in that peripheral territory defined as that within a distance of three miles from

the external boundaries of the claims described in Exhibit A. If, however, claims or interests are acquired by me in any such will be considered to be for the interests and benefits of Bear Creek and will be transferred to Bear Creek and fall under the terms of this option agreement. Moreover, the transfer of such claims and interest to Bear Creek will not result in an increase of total purchase price nor increase the monthly rental payments of $200 per month. I also agree that if Bear Creek so desires to, it may patent any of the claims in my name, which patented claims shall be included in this option.

5. If Bear Creek purchases said mining claims and if within ten years from the date hereof it establishes a town on its own property in conjunction therewith, and if it permits the sale of alcoholic beverages on said property, it will give me or my assigns the exclusive right of such sales for a period of 21 years from the date hereof, subject to all laws applicable thereto, and will rent to me or my assigns space therefor at a reasonable monthly sum.

6. Bear Creek agrees that if it locates or assumes any interest in any claims within the peripheral territory defined above within seven years from the date hereof and if it does not exercise its option to purchase, then such claims and interest in such claims shall pass to me as though they were described in Exhibit A.

If the above is acceptable to Bear Creek, kindly denote such acceptance on the enclosed duplicate hereof and return it to me at the address given above. When a signed copy is so mailed, this letter will constitute the agreement between us.

Very truly yours,

ACCEPTED_____, 1958

BEAR CREEK MINING COMPANY

By_____
President

HEINRICHS GEOEXPLORATION CO.
P.O. BOX 5964 • TUCSON, ARIZONA 85703

JOB# 1175 Date 5/25/77

Description:

Pyritized & altered rhyolit
rock samples (3 pcs)
some brecciation in flat structure

1 pcs fresh? andesite porphyry
(8')

Assay Au, Ag & Cu
Tr, 0.15, 0.05

№ 2408

Heinrichs GEOEXploration Co.
Box 5964, Tucson, Ariz. 85703 Date _____

/

№ 2408

HEINRICHS GEOEXPLORATION CO.
P.O. BOX 5964 • TUCSON, ARIZONA 85703

Date 5/25/77

Description:

Andesite & rhy @ upper cut
N of road little or no
oxides Cu

№ 2409

Heinrichs GEOEXploration Co,
Box 5964, Tucson, Ariz. 85703 _ Date _____

№ 2409

HEINRICHS GEOEXPLORATION CO.
P.O. BOX 5964 • TUCSON, ARIZONA 85703

Date 5/25/77

Description:

Calc bearing rock & rhy
(near ~~& on their contact~~?)
rhy on top of andesite

mainly fracture filling
in lower cut (directly below # 9)

№ 2410

Heinrichs GEOEXploration Co.
Box 5964, Tucson, Ariz. 85703 Date _____

№ 2410

HEINRICHS GEOEXPLORATION CO.
P.O. BOX 5964 • TUCSON, ARIZONA 85703

Date 5/25/77

Description:

grab at sample 10

Assay Ag, Au & Cu
0.10, Tr, 0.45

№ 2411

Heinrichs GEOEXploration Co.
Box 5964, Tucson, Ariz. 85703 Date _____

2

№ 2411

HEINRICHS GEOEXPLORATION CO.
P.O. BOX 5964 • TUCSON, ARIZONA 85703

Date 5/25/77

Description:

High grade Cu at sample 10

Assay Au, Ag & Cu

0.005, 0.75, 2.55

№ 2412

Heinrichs GEOEXploration Co.
Box 5964, Tucson, Ariz. 85703 Date

3

№ 2412

HEINRICHS GEOEXPLORATION CO.
P.O. BOX 5964 • TUCSON, ARIZONA 85703

Date 5/25/77

Description:

100 yds SEly from #10
cherty material in altered rhy
1-2-3' wide zone steep dip S strike

Assay Ag & Au
0.10 Tr

№ 2413

Heinrichs GEOEXploration Co,
Box 5964, Tucson, Ariz. 85703 Date

4

№ 2413

HEINRICHS GEOEXPLORATION CO.
P.O. BOX 5964 • TUCSON, ARIZONA 85703

Date 5/25/77

Description:

alt rhy ~~dac~~ sample 13

50' grab - hogan ext

Assay Ag, Au & Cu

0.15, 0.01, 0.02

№ 2414

Heinrichs GEOEXploration Co,
Box 5964, Tucson, Ariz. 85703 Date

5

№ 2414

HEINRICHS GEOEXPLORATION CO.
P.O. BOX 5964 • TUCSON, ARIZONA 85703

Date 5/25/77

Description:

grab from N cut

#15

altered rhy f/or and
some Ca Ox

Assay Ag, Au & Ca

0.20, 0.005, 0.17

№ 2415

Heinrichs GEOEXploration Co.
Box 5964, Tucson, Ariz. 85703 Date

6

№ 2415

HEINRICHS GEOEXPLORATION CO.
P.O. BOX 5964 • TUCSON, ARIZONA 85703

Date 5/25/77

Description:

Epidotized & Fe Ox stained and (sly?) in wash by spring

#16

Assay Ag, Au & Cu

0.15, 0.01, 0.02

№ 2416

Heinrichs GEOEXploration Co.
Box 5964, Tucson, Ariz. 85703 _ Date _____

7

№ 2416

HEINRICHS GEOEXPLORATION CO.
P.O. BOX 5964 • TUCSON, ARIZONA 85703

Date 5/26/77

Description:

Qtz vein N60°W, 45°NE
2-3' wide much limonite
casts
N 100 - 150 yds up creek from
Big Reef Mill
#17

Assay Ag & Au
0.10, Tr

№ 2417

Heinrichs GEOEXploration Co.
Box 5964, Tucson, Ariz. 85703 _ Date _____

8

№ 2417

HEINRICHS GEOEXPLORATION CO.
P.O. BOX 5964 • TUCSON, ARIZONA 85703

Date 5/26/77

Description:

Res. soil samples
Grandview Tank peak
(Breccia pipe?)

four sides of peak
N, E, S & W about 50 to 100' below
peak

N Geochem Ag, Au & Cu
PPM 1.0, 0.17, 38

№ 2418

Heinrichs GEOEXploration Co.
Box 5964, Tucson, Ariz. 85703 Date_____

1G

№ 2418

HEINRICHS GEOEXPLORATION CO.
P.O. BOX 5964 • TUCSON, ARIZONA 85703

Date 5/26/77

Description:

Prop no 2418

E

Geochem Ag, Au & Cu

PPM 1.7, <0.1, 29

№ 2419

Heinrichs GEOEXploration Co,
Box 5964, Tucson, Ariz. 85703 Date

2G

№ 2419

HEINRICHS GEOEXPLORATION CO.
P.O. BOX 5964 • TUCSON, ARIZONA 85703

Date 5/26/77

Description:

Same as 2418

5

Geochem Ag, Au & Cu

<1, <0.1, 21

PPM

№ 2420

Heinrichs GEOEXploration Co,
Box 5964, Tucson, Ariz. 85703 Date

3G

№ 2420

HEINRICHS GEOEXPLORATION CO.
P.O. BOX 5964 • TUCSON, ARIZONA 85703

Date 5/26/77

Description:

Same as 2418

W

Geochem Ag, Au & Cu
<1, <0.1, 31

PPM

№ 2421

Heinrichs GEOEXploration Co,
Box 5964, Tucson, Ariz. 85703 _ Date _____

4G

№ 2421

HEINRICHS GEOEXPLORATION CO.
P.O. BOX 5964 • TUCSON, ARIZONA 85703

Date 5/26/77

Description:

Alt. Vol. at end of dozer
road cut (2 wood posts)

Geochem

Ag, Au & Cu

ppm <1, 0116, 85

№ 2422

Heinrichs GEOEXploration Co,
Box 5964, Tucson, Ariz. 85703 Date

5G

№ 2422

HEINRICHS GEOEXPLORATION CO.
P.O. BOX 5964 • TUCSON, ARIZONA 85703

Date 5/26/77

Description:

Dozer road cut
"B" of Bitter

W 200' dark Fe Ox stained andesite?
material
composite every ≈12'

Assay Ag, Au & Cu
0.20, 0.005, 0.03

№ 2423

Heinrichs GEOEXploration Co.
Box 5964, Tucson, Ariz. 85703 Date

9

№ 2423

HEINRICHS GEOEXPLORATION CO.
P.O. BOX 5964 • TUCSON, ARIZONA 85703

Date 5/26/77

Description:

"B" Dozer road cut

E 100'

light FeOx. why?
bleached looking

composite every ≈ 12'

Assay Ag, Au & Cu

0.20, 0.005, 0.02

№ 2424

Heinrichs GEOEXploration Co,
Box 5964, Tucson, Ariz. 85703 Date

10

№ 2424

HEINRICHS GEOEXPLORATION CO.
P.O. BOX 5964 • TUCSON, ARIZONA 85703

Date 5/26/77

Description:

Grab
Dump sample shear zone
working
Fe Ox very minor Cu Ox

Assay Ag, Au & Cu
0.10, 0.015, 0.30

№ 2425

Heinrichs GEOEXploration Co.
Box 5964, Tucson, Ariz. 85703 Date

11

№ 2425

HEINRICHS GEOEXPLORATION CO.
P.O. BOX 5964 • TUCSON, ARIZONA 85703

Date 5/26/77

Description:

Altered andesite by E old workings (adit ~ 200' SW of 9/10 / 16/15) FeOx but no visible Cu

30' grab

Assay Ag, Au & Cu
0.15, 0.01, 0.03

№ 2426

Heinrichs GEOEXploration Co,
Box 5964, Tucson, Ariz. 85703 Date _____

12

№ 2426

HEINRICHS GEOEXPLORATION CO.
P.O. BOX 5964 • TUCSON, ARIZONA 85703

Date 5/26/77

Description:

grab alte and.

some Cu Ox

dozer cuts on hill crest

Assay Ag, Au & Cu

0.20, Tr, 0.06

№ 2427

Heinrichs GEOEXploration Co,
Box 5964, Tucson, Ariz. 85703 Date

13

№ 2427

HEINRICHS GEOEXPLORATION CO.
P.O. BOX 5964 • TUCSON, ARIZONA 85703

Date 5/26/77

Description:

grab 150' N 20 E
@ 20' ∠ alt. and. along
small dozer cut

Assay Ag, Au & Cu
0.15, 0.005, 0.02

№ 2428

Heinrichs GEOEXploration Co.
Box 5964, Tucson, Ariz. 85703 Date

14

№ 2428

HEINRICHS GEOEXPLORATION CO.
P.O. BOX 5964 • TUCSON, ARIZONA 85703

Date 5/26/77

Description:

Blanched vol on west hillside "Bitter"

grab 200'×200' area

Assay Ag, Au & Cu
0.10, Tr, 0.02

№ 2429

Heinrichs GEOEXploration Co,
Box 5964, Tucson, Ariz. 85703 _ Date _____

15

№ 2429

1435 S. 10th AVE.
P. O. BOX 1689

Jacobs Assay Office

Registered Assayers

PHONE 622-0813

DUPLICATE

Certificate No. 59798

TUCSON, ARIZONA 85702 June 13 1947

Sample Submitted by Mr. Hinrichs Exploration Co.

SAMPLE MARKED	GOLD Ozs. per ton ore	GOLD Value per ton ore *	SILVER Ozs. per ton ore	COPPER Per cent Wet Assay	LEAD Per cent Wet Assay	Per cent Wet Assay	Per cent Wet Assay
#2408	Trace	$—	0.15	0.05			
11	Trace	—	0.10	0.45			
12	0.005	—	0.75	2.55			
13	Trace	—	0.10	—			
14	0.01	—	0.15	0.02			
15	0.005	—	0.20	0.17			
16	0.01	—	0.15	0.02			
17	Trace	—	0.10	—			
23	0.005	—	0.20	0.03			
24	0.005	—	0.20	0.02			
25	0.015	—	0.10	0.30			
26	0.01	—	0.15	0.03			
27	Trace	—	0.20	0.06			
28	0.005	—	0.15	0.02			
2429	Trace	—	0.10	0.02			

REGISTERED ASSAYER 1041 BENJAMIN P. JACOBS Dec. 31, 19 47 Arizona U. S. A.

* Gold Figured $100.00 per oz. Troy

Charges $ 101.00

Very respectfully,

Ben P. Jacobs

HEINRICHS GEOEXPLORATION COMPANY

808 W. Grant Road — P. O. Box 5964
TUCSON, ARIZONA 85703
Area Code 602 Phone 623-0578

PURCHASE ORDER

003841

SHOW THIS NUMBER ON YOUR INVOICE AND PACKAGE

To Skyline Laboratories

DATE 5/28/77 19

SHIP VIA

Please Enter Our Order For The Following:

QUAN.	DESCRIPTION	PRICE	AMOUNT
5	Geochem soil samples for Ag, Au & Cu		
2	Assay samples for Ag & Au		
13	Assay samples for Ag, Au & Cu		
	please save pulps & rejects & canvas sacks		

Charge To Job # 1175

Approved By Chris A. Ludwig

119-1 ☐

PSW File

December 1, 1975

Subject: A. W. Cousins mining claims in Yavapai County, Arizona, TWP 7N, R2W.

The property comprises approximately 100 claims, which are described, geologically, as to general nature, in the report of Geologist, Ronald Karvinen.

The Carpenter Magnetometer Study shows indications of two separate anomalies, which, location-wise, fit within the boundaries of the sulphide system outlined in the Karvinen report. The Karvinen report was written without knowledge of the Magnetometer Study.

The copies of assay reports were picked from specific locations, in those made by Valley Assay of Tempe, only. The balance were all made from samples taken from the bottom of new discovery holes dug in 1975, for the purpose of filing new claim locations, and title validation.

The significant general fact derived from these assays is the persistent content of silver, from random locations, and near surface samples (non over four feet depth), taken over a large geographic area. Discovery hole samples were assayed only for gold and silver.

Additional surface sampling is now in progress. Early in 1976, bulk surface samples will be run through a concentration process for further sampling of recoverable values.

Title to the entire property has been passed to:

Castle Mining Company, Inc.,
411 North Central Avenue
Phoenix Arizona 85004
c/o Hughes & Hughes

Any inquiry should be directed to this address.

Philip Wickstrom

Philip Wickstrom, Sec'y.

EFCO LABORATORIES

North Freeway at Ruthrauf Road P. O. Box 5526
TUCSON ARIZONA 85703
Phone (602) 887-4241

GEOEX
Cable: GEOEX

Jo #1175

REC'D JUN 4 1977 REC'D

BOX 5964 TUCSON, ARIZONA 85703
Phone: (AREA 602) 623-0578

Laboratory Analysis Report

REPORT NO. 775942

DATE SUBMITTED 5-31-77

DATE REPORTED 6-3-77

Heinrichs Geoexploration Co.
P.O. Box 5964
Tucson, Arizona 85703

Chris Ludwig

Sample Number	PPM Copper	PPM Silver	PPM Gold
2418	38	1.0	0.17
2419	29	1.7	<0.10
2420	21	<1.0	<0.10
2421	31	<1.0	<0.10
2422	85	<1.0	0.16

Nancy Mahoney
Signed

Basin
Rincon Spring
Spring
JEEP
TRAIL
Mine
Big Reef Mill
Grandview Tank
Mine
ROAD
Bitter
SPRINGS
JEEP
HOT
CASTLE
Radio Facility
JEEP
TRAIL
Pinacho
St Anthony Mine
JEEP
St Anthony Spring
TRAIL
Water Tank
Creek
JEEP
Springs
Cedar Tank
Springs
Wash
5
4
3
2
8
9
10
11
17
16
15
14
4378
4200
3800
3600
3400
3200
3000
2800
3835
3511
3525
3773
3610
3248
2990
2939
4210
3600
3400
3200
3375
3359
3750
3254
2941
3400
3270
3305
3503
3404
3133
3565
3293
2862
3194
3035
3169