CONTACT INFORMATION
Mining Records Curator
Arizona Geological Survey
416 W. Congress St., Suite 100
Tucson, Arizona 85701
520-770-3500
http://www.azgs.az.gov
inquiries@azgs.az.gov

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James Doyle Sell Mining Collection

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ASARCO

Southwestern Exploration Division

September 29, 1977

FILE MEMORANDUM

Red Bird Mine
Red Bird Hills
Cochise District
Cochise County, Arizona

In April, R. Crist and I accompanied Vernon Dale to the Red Bird Mine where we went underground to look at the workings and "hi-grade" areas remembered by Mr. Dale.

Four samples were cut and are reported on the AARL sheet for Au, Ag, geochem Cu, Pb, Zn, Mo. Only the moly samples appear of interest geochemically. The samples were cut on the 3rd(?) level or about 300 feet below the surface. The shaft is deeper and another level is apparent but no other connections were found from the level we were on gained thru corkscrew workings, stopes, inclines, etc. The level contains NS vertical fracturing which leads up into the main iron-rich brecciated limestone horizon. The horizon strikes N30°E and dips 35°NW and appears to slightly crosscut the enclosing limestones bedding.

Sample No.	Location-Description
RB-1	100 ft. east of shaft. Vertical N/S 18" vein of weak oxidized iron with crushed calcite, in footwall of flattish bedding zone.
RB-2	150 feet south of shaft and 100 feet east of shaft in drift parallel to RB-1 drift. Sample in 6" bedding gouge striking N35°E, dip 35°NW.
RB-3	Same drift as RB-2, but on 50 ft. east of shaft. 18" pod in fault breccia, sanded dolomite(?), very black material.
RB-4	"Hi-grade" pocket S & W of shaft ±150 feet. Hematite spotted "chert" limestone within the bedding.

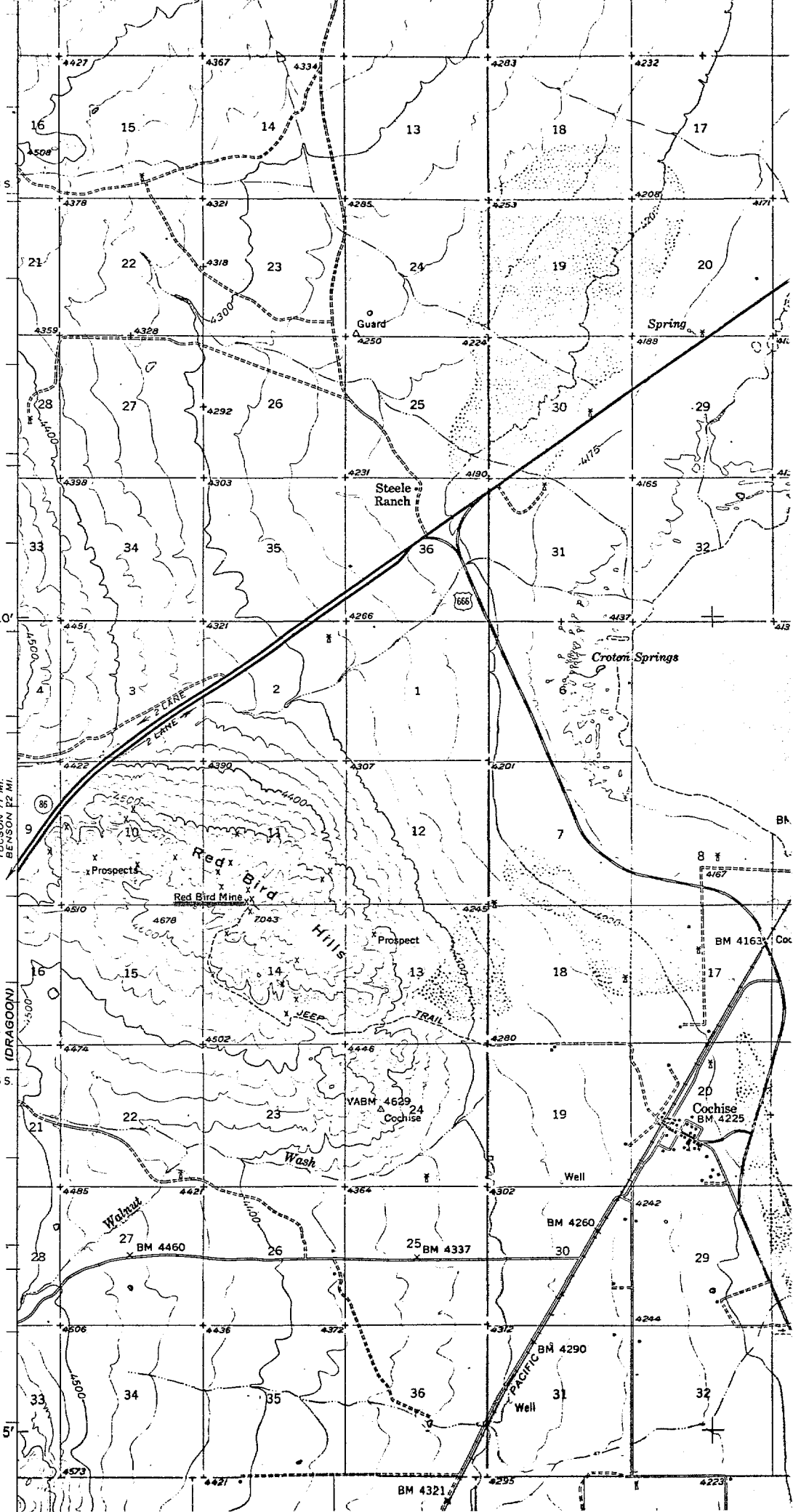
The assay results show only minor gold-silver values.

James D. Sell

James D. Sell

JDS:lb
Atts.

cc: SRDavis - w/atts.


T. 14 S.
T. 15 S.
10′
5′
Guard
Spring
Steele Ranch
Croton Springs
2 LANE
TUCSON 71 MI.
BENSON 22 MI.
(DRAGOON)
Prospects
Red Bird Mine
Red Bird Hills
Prospect
JEEP TRAIL
VABM 4629
Cochise
Cochise
BM 4225
Wash
Well
Walnut
BM 4460
BM 4337
BM 4260
BM 4290
PACIFIC
Well
BM 4321
BM 4163

3441 East Milber

Phone 889-5787

AMERICAN ANALYTICAL and RESEARCH LABORATORIES

ASSAYERS - CHEMISTS - METALLURGISTS

TUCSON, ARIZONA 85714

SAMPLE SUBMITTED BY ASARCO, INC.

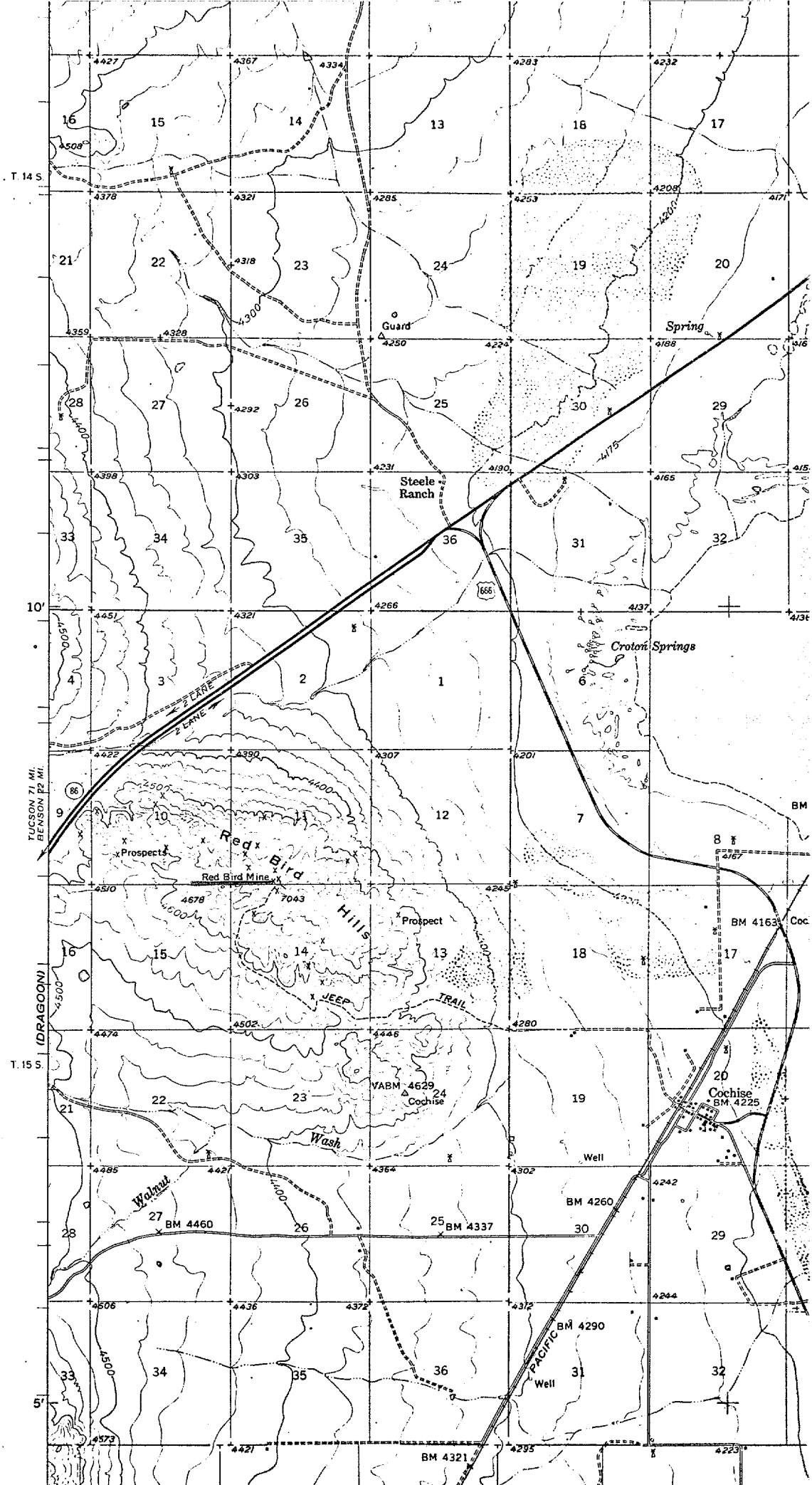
DATE April 30, 1977

SAMPLE MARKED	GOLD OZ./TON	SILVER OZ./TON	PPM COPPER	PPM LEAD	PPM ZINC	PPM MOLYBDENUM		
RB-1	.014	0.27	114	19	781	16		
RB-2	.024	0.17	91	49	603	11		
RB-3	.020	0.13	33	15	151	29		
RB-4	.019	0.12	55	14	24	28		

CHARGES $ 49.00

Invoice # 14891

ASSAYER-CHEMIST


T. 14 S.
T. 15 S.
10'
5'
Guard
Spring
Steele Ranch
Croton Springs
2 LANE
2 LANE
TUCSON 71 MI.
BENSON 72 MI.
Red Bird Hills
Prospects
Red Bird Mine
Prospect
JEEP TRAIL
(DRAGOON)
VABM 4629
Cochise
Cochise
BM 4225
Wash
Walnut
Well
BM 4460
BM 4337
BM 4260
BM 4290
PACIFIC
Well
BM 4321
BM 4163
BM

3441 East Milber

Phone 889-5787

C.C. Vernon Dale Dragoon, AZ

AMERICAN ANALYTICAL and RESEARCH LABORATORIES

ASSAYERS - CHEMISTS - METALLURGISTS

TUCSON, ARIZONA 85714

SAMPLE SUBMITTED BY ASARCO, INC.

DATE April 30, 1977

SAMPLE MARKED	GOLD OZ./TON	SILVER OZ./TON	PPM COPPER	PPM LEAD	PPM ZINC	PPM MOLYBDENUM		
RB-1	.014	0.27	114	19	781	16		
RB-2	.024	0.17	91	49	603	11		
RB-3	.020	0.13	33	15	151	29		
RB-4	.019	0.12	55	14	24	28		

REGISTERED ASSAYER CERTIFICATE NO. 6452 FLORES Date Signed 4/30/77 Arizona U. S. A.

CHARGES $ 49.00

Invoice # 14891

ASSAYER-CHEMIST

N-S fracture/vert? ~~unclr~~ bx bed (Fe) N30E dip 35° W

Lower level

RB-1 Vert. NS vein of oxidized (18") cushed calcite. Prob. in FW of flat bedding zone. 100'± east of shaft. lowest level.

RB-2 6" gouge in N30°E, dip 35° NW. ≠ 150' south of shaft & 100 E along parallel drift to RB-1.

RB-3 18" pod in fault Bx of several faults. Sanded dolomite? very black. ≠50' from tunnel S of shaft. (Same xdrift as RB-2).

RB-4 heavily spotted chert lens in bedding. VDolo "bigsed". (50W of shaft)

Top of hill SE area T18S R26E

Many anomaly (Olivine?? in rhyolite dike?)
next in place is folded lim (based Dm).
further SE in N60E volcanic (hummocky lava vein and tile flow!)
also further SW seam N30°W in trenches.

N45E, 35° SE dip of giant mullion slickenside on fox south side in potential claim area.

Ralph & Harvey Cantwell Box 146 Pearce Ariz 85625.
Manuel Hernandez

5-3342
12327
40975

86.820
2000
173,640.00

17680
2000
35,360,000

3.700
7400

18175
7276
10,905

37144
16174
21,270
20

43780
2
87,560.000

8980
2
17,840,000

29064
5556
15508

83.400
16,800.000

4100
2
8200

68000
136

50200
100400

3900
7800

826-3634

H & K DISPOSAL SERVICE

SATISFACTION GUARANTEED OR
DOUBLE YOUR TRASH BACK

MANUEL HERNANDEZ & SONS
P.O. BOX 61
PEARCE, AZ. 85625

SRD - JDS 4/28/77

MORRIS HEDDERMAN
P.O. BOX 727
AMADO, AZ 85640

Red Bird - old Reports - some drill Logs are available at his home in AMADO
- copy of ASSAYS - sampled by JDS & RBC

other Hedderman properties

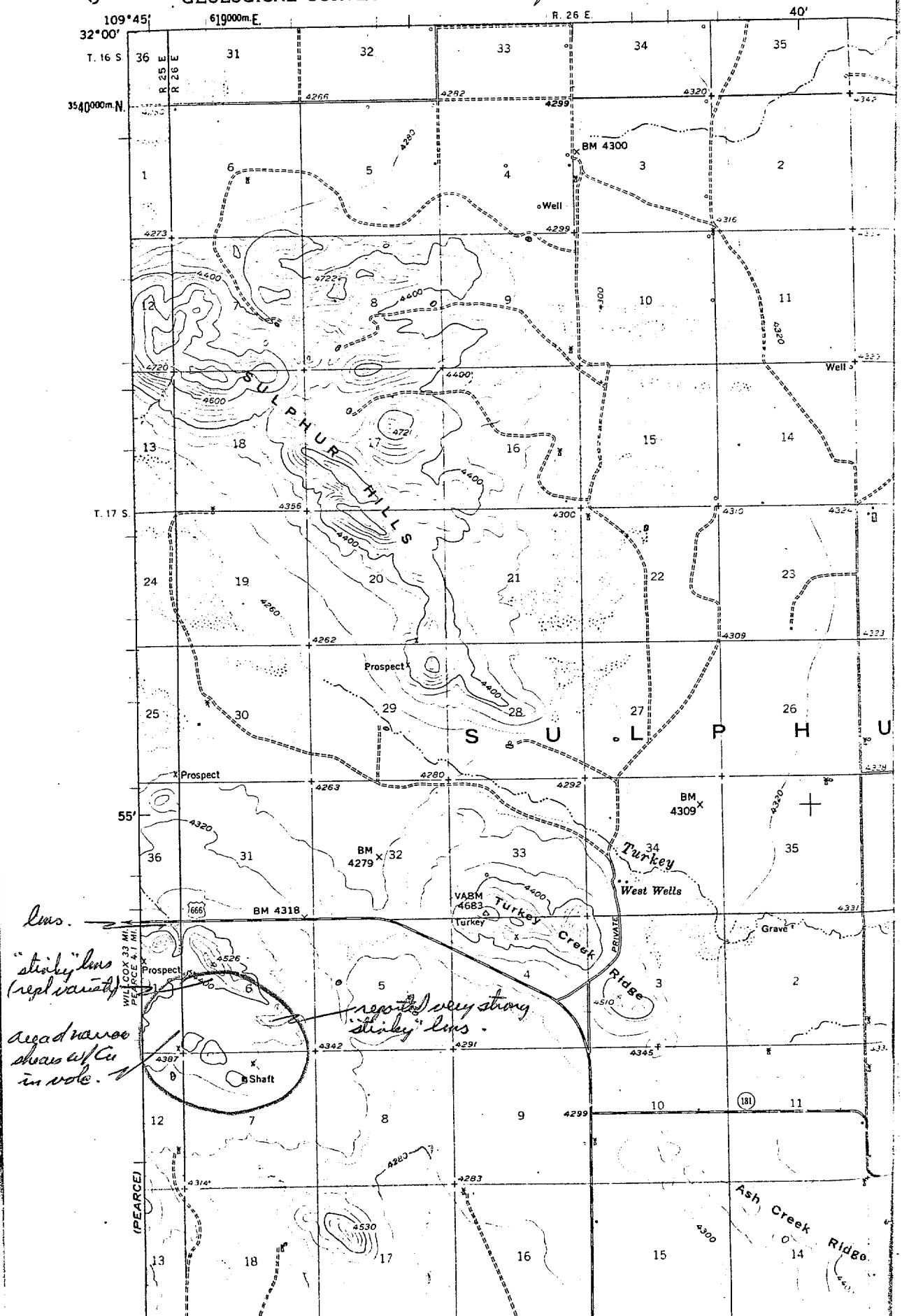
Allison Mine - BABOQUIVARI'S
Silver Coin Property - 4 miles W. of ARAVACA.

Vernon Dyke
Box
192
Dragoon, AZ
85609

done

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Square Top Hills Quad.



~~Edmond~~ "Bill" Edgemon

Missouri Shaft.
Water now out.
1920*
Shutes-bins full of "ore."
New timber etc.

622-5297
Redondo Towers.

Carl Yorger
Whitestone

Howard Brickfield
Kenneth McLaughlin Project Manager.

Tuesday 19th

Middlemach Area
Summer 1977
Jerry

George Morse of Willcox
reported in early Oct 1973
that
Frank Nelson
Freeport Sulfur
has option & is to drill the
Jhus, Chiricahua property.

He was also interested in
Little Emmigrant Canyon
Gold and we sampled

George Morse – Bruce Crawford 324-3244 Willcox

Called again on Little Emmigrant on 1/3/80.

~~WEH~~

File Memo.

Drill Rig at South end of
Texas Canyon, Cochise County, Ariz.

Bruce Kilpatrick (Weinstein) came in (11/7/73) to pick up the Tunnell paper and I asked if that was his rig. He said No, that it was probably Superior Oil as they were moving south from Johnson Camp and had picked up some land N.E. of Benson.

JWS

Geol & Ore Deposits at I-10 Prospect
T.J. Weeks, M.S., 1976 UA.

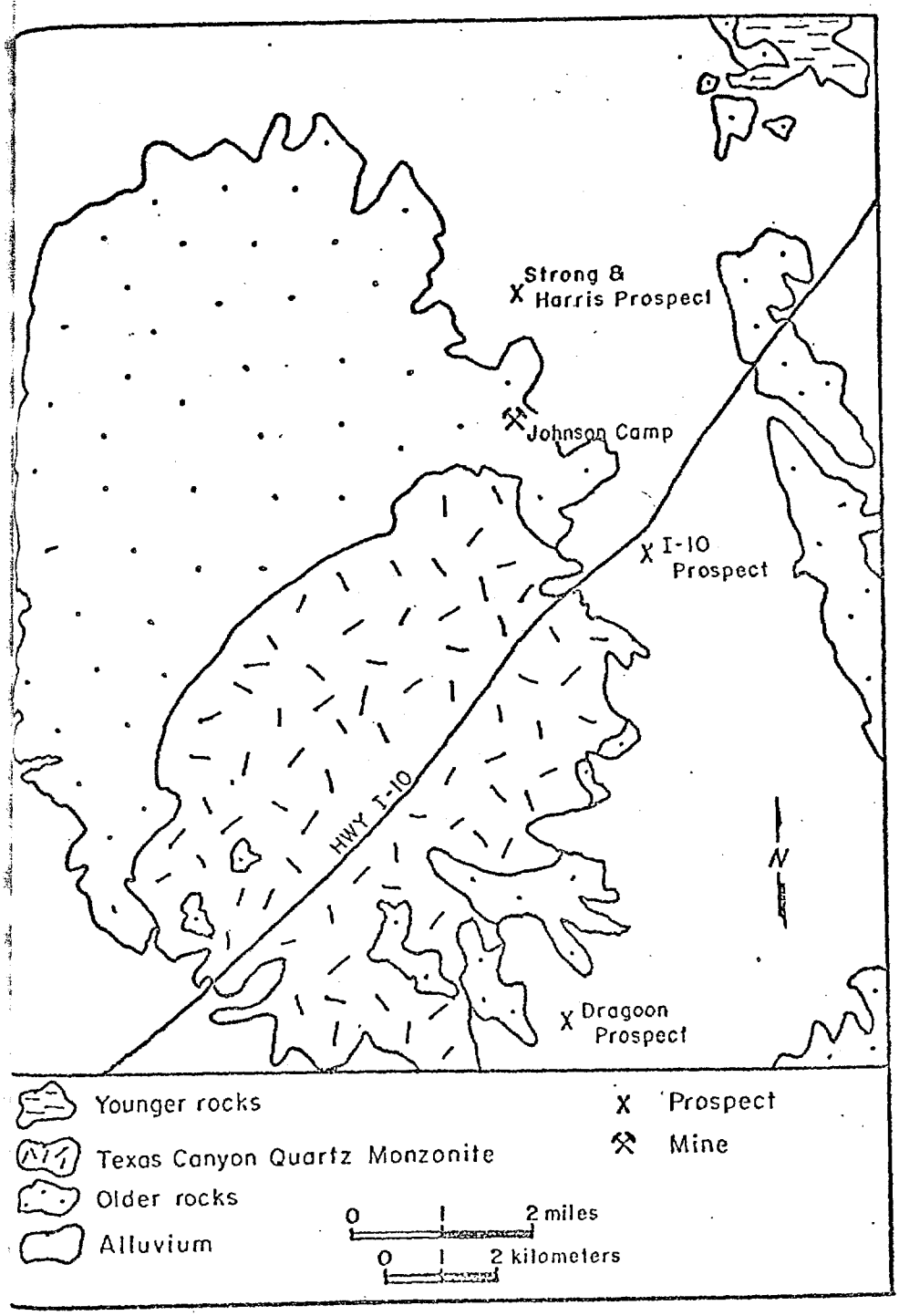


Figure 35. Location map of important mineral occurrences ripheral to the Texas Canyon Quartz Monzonite stock

See Figure 1 for specific rock identities.

Filed

→ JDSell – this may be the Stanford student who contacted JAC several months ago. call him if you wish.

Another grad student

Bill Bilodeau

FTG
7/6/77

– is doing some work on the SE (from Tucson down) part of Arizona in cretaceous rock. He wants to know if Asarco is doing any drilling in this area....

– his number: 326-2588

2:20pm
July 5/77
JAC.

5-5-77

FROM: J. H. COURTRIGHT

To: ~~EFG~~ JD FOR G.

Failed to get in touch with Bilodeau — note that his now at Stanford — but will return in June.

Suggest you contact him then —

JHC

EFG

Jim

You contact him when he gets back in town

No letter by No in direction. Should we take to counsel? Jim → No let him call EFG

Suggest we agree
to "lend a hand", providing
we get first look at
any mineralized - altered
poor boulders that he
might stumble over
in The Glance ——
outside the Bisbee Dist

JAC

Fine - FTG.

WXK - RFG - JDS

April 11, 1977

J. H. C.

APR 12 1977

RECEIVED
APR 12 1977
EXPLORATION DEPT.

Mr. Harald Courtright
ASARCO Inc.
Exploration Dept.
P.O. Box 5747
Tucson, Arizona 85703

Dear Mr. Courtright:

I am a graduate student in geology at Stanford University working on a Ph.D. thesis problem in southeastern Arizona. I am writing to you on the advice of Dick Knostman of Anaconda with the hope that your company may have done some exploration work in southeastern Arizona and may have some information that will help me on my thesis project. My thesis is not an ore-deposit thesis, it is a sedimentological and structural one. Presently, it is entitled "A stratigrphic and structural facies analysis of the Lower Cretaceous Glance Conglomerate in southeastern Arizona."

What I am trying to do is to work out the regional tectonic environment of southeastern Arizona in mid-Mesozoic times, using the Lower Cretaceous Glance Conglomerate. The Glance Conglomerate, the basal unit of the Bisbee Group rocks, is for the most part, an alluvial fan fanglomerate with a regional distribution that suggests mid-Mesozoic "basin and range" tectonics. The nature of the basal Mesozoic unconformity and the basal Cretaceous unconformity is very important to my research problem. My study will include recording paleocurrent source directions, thickness and composition variations, working out depositional environments, regional distributions and any relationships of the Glance to bounding fault structures. My field area covers a very large area--from Tucson south to the Mexican Border and east to the New Mexico border, or anywhere Glance or its equivalent mid-Mesozoic rocks are exposed.

I would greatly appreciate any information your company would be willing to provide concerning thicknesses and compositions of any Glance Conglomerate that you may have drilled through or mapped and what lies above and below it. I would also benefit from any general information or ideas you or any of your fellow geologists may have on my thesis topic.

I am presently doing fieldwork here in SE Arizona and can be reached c/o Jim Johnston 2832 East Edison, Tucson, AZ 85716. I will be here through May 1st, then I can be contacted through Stanford University. I will be in Tucson again in mid-June.

Thankyou for your time.

Ph. 326-2588

Sincerely,

William L. Bilodeau

William L. Bilodeau
Geology Dept.
Stanford University
Stanford, CA 94305

JDS 4/3/28

ARKANSAS

Dale claims to have spotted another in excellent condition

Horse whim type.

Matthee - Golden Rule

216 W. 3rd St.

Benson

FROM: W. L. KURTZ

Lisa Gray Lüt
Mar 7, 1975

To: ~~JDS~~/~~GJS~~

Have you received
Operation 74-112?

Please do so.

6/19/75

JDS—

Why don't you check
out the old TKa north
of mapped area and just
see and plot all the
old drilling, plus current
St Joe work.

Without going into the files to check old work by JHC etc in the area; the following notes:

1) the suggestion of altered TKandesite (of Silver Bell equivalent) in an area of dike? & sill masses of quartz monzonite with associated anomalous metallic values should be further investigated.

2) The pyritic altered area is apparently 1½-2 miles north of the mapped andesite (ie, of the mapped area NMG see Bull 57, map.

3) Fault pattern, intrusive pattern, and metal distribution suggests that the metal distribution is strongly related to the q.mon areas and the pre-monzonite faults, especially the dikes & sills & fault structure around the Johnny Bull area (Sec. 3)

4.) The sills apparently dip westerly but are steeper than the sediments as do cross cut them at some angle. Note also how the main mass extensions of the sills in Sec 3 curve & strongly cross cut the formations in Sec. 10 (South), & Sec. 33 (North). This might suggest a source central to the main q mon to be westerly and with the bulk of the anomalous metal values it is suggestive to be northwesterly under the altered TKandesite area.

5.) A certain amount of metallic mineralization is associated with other qm masses, especially along the NW trending fault north of Cracker Mtn.

6) The other areas of metallization appear to be the extension SE of Johnny Bull area along fault structure readdressed & partially filled by younger Tlatt dike.

NW trend faults

1) Older than Tm, Tm filling along & cross cutting fault.
downdropped to East.

① Cone Not Preacher Mtn

② Other just S of Johnny Bull Gap.

Slight divergence pattern.

dike sections of sills of Tm with lows cont & cross cutting cont.

2) younger than Tm, older than Tn, intruded along by Tl

③ Bisect other two faults above S of Johnny Bull gap.
Tn & Tl cross cut Tm

④ Swarm of Tl in central part along TPh bedding & fault?

⑤ Swarm NW N of Granite Gap in KTq & cut Tm
cross cut all NE faults.
Prob some fault control.

NE trend.

⑥ Granite Gap cut KTq
crosscut by Tl

⑦ Northof Preacher Mt.
May have been intruded by Tm but extension effects Tm
on E side cut by Tl.

Cu:

(A) largest concentration at Granite Gap in sediments w/ Tl dike

(B) Other at McGhee Peak, mainly in Sed & along NW fault (2) pre Tm, bx.

(C) yes 5 patches along fault 3, post Tm

(D) + adjacent to NE fault (2) pre Tm

→ Large area of alt Ag Bell = NW & below ~~Tm~~ main mass of Tm, west of McGhee Peak.

Lead: follows Cu above, the somewhat expanded

Zinc follows Cu-Pb above, the somewhat expanded. leaping along (f1)

Mo More restrictive:
best in S granite gap area
best in McGhee area.
Apparently favors Pre Tm & Tm structures & areas.

Ag as above

Bi: Very restrictive, the +300 ppm usual value.
(B) (1) McGhee Peak & pre Tm - Tm feature.
(2) & along f3 area but in complex - probably Pre Tm activity
(3) along NE fault around Tm intrusion.
(4) Some in granite gap area.

Results:
Tight as with Bi above.

Intrusion of KTg on south.
Cut by NE faults on N & S sides.
"Residual" NW fault in block N of KTg.
Preservation of TKa structural ≅ at confluence of NW fault on NW side
Intrusion of Tm along or near NE & NW faults & as sills, all N of KTg & ~~Strike N out of KTg~~ & mainly sills in Johnny Bull area (target area).
Further NW faulting, mainly between other NW faults, intruded, cut by Tr & Tl w/ prob post Tl movement somewhat.
Other swarms of Tl apparently not along fault exit (?) but cutting KTg, Tm & assoc

G.J.S.

I agree with Jim in that the area should be looked at, but I can't get excited over the USGS geochem results. I don't consider the area a high priority target.

Mineralization is replacement type (primary sulfide) controlled mostly along contact with NW trending qmp & volcanic-like acid dikes. Geochem values Cu, Mo, Pb, Zn, W, Ag & Sb mostly overlap one another in widely scattered-pod-like occurrences. There is no good area zonation of elements. Here for instance the Pb & Zn go together. No apparent mineralization within or adjacent to the pre ore granite (Cret-Tertiary) which form a large mass at the southern part of the area.

The altered, pyritic zone of Silver Bell type barite veins penciled in by Sell to the north should be looked at. Hopefully it will be altered to something more than just chlorite & epidote.

6-2-75

P.S. I understand Steve & Davis has seen some of this area

ASARCO

Cochise Co

Exploration Department
Southwestern United States Division

February 6, 1980

George Morse
3708 El Portal
Las Vegas, Nevada 89102

Dear George:

Sorry for the delay but I've been out while the assays were in. Have not been to the property so have no other info at this time.

The samples are numbered:

Emigrant Canyon:
- E-1. Blue Ribbon #5, upper dump
- E-2. Dump sample from caved mine in NW area, Mary E #3 claim
- E-3. Blue Ribbon #6, Lower mine, vein material
- E-4. Blue Ribbon #5, Upper mine, vein material

Off of Portal Road:
- P-1. Pussycat 1 & 2, three-foot vein
- P-2. Pussycat 1 & 2, replacement in limestone

(Note: P-1 & P-2 probably mixed as labels and contents do not match; i.e., vein material in sample labeled P-2.)

The values are of interest, but I need to further check out the wall rock. Also need to know the location of the Pussycat group.

Sincerely,

James D. Sell

James D. Sell

JDS:lb
Atts.

ASARCO Incorporated P. O. Box 5747 Tucson, Az 85703
1150 North 7th Avenue (602) 792-3010

3441 East Milber

Phone 889-5787

AMERICAN ANALYTICAL and RESEARCH LABORATORIES

ASSAYERS • CHEMISTS • METALLURGISTS

TUCSON, ARIZONA 85714

SAMPLE SUBMITTED BY ASARCO, INC. DATE JAN. 14, 1980

SAMPLE MARKED	GOLD OZ./TON	SILVER OZ./TON	PPM COPPER	PPM LEAD	PPM ZINC	PPM MOLYBDENUM	Percent Lead	Percent Copper
E-1	.010	0.09	63	399	218	6		
E-2	.074	0.18	42	73	74	7		
E-3	.122	0.71	46		144	5	0.53	
E-4	.041	1.29	59		396	57	1.27	
P-1	.003	0.42	184	121	120	2		
P-2	.006	16.18		414	339	1		0.83

REGISTERED ASSAYER CERTIFICATE NO. 6312 PETE S. FLORES 01/15/80 Signed Arizona U. S. A.

CHARGES $ 79.75

16805

ASSAYER • CHEMIST

To Jim Dell

Date 1/29 Time 9:10

WHILE YOU WERE OUT

M. George Morse

of Sun Chegas

Phone

Area Code Number Extension

TELEPHONED		PLEASE CALL	
CALLED TO SEE YOU		WILL CALL AGAIN	✓
WANTS TO SEE YOU		URGENT	
RETURNED YOUR CALL			

Message

Operator

No. 2725 S Clark Office Products Phone 295 2374

2268.

~~Northwest Research Laboratory~~
Mineral Resources
MRL-28
S/E Alaska

Paul Gilman
324-5450
See Little Emigrant report

Emigrant Canyon

E-1 Blue Ribbon #5, upper dump.
weak argillic, some silica, hematite stained fenomagn. prop?

E-2 Dump sample from caved mine in NW area. May be #3 claim.
qtz-py vein in v. weak argillic w/ manganese stain.

E-3 Blue Ribbon #6 Lower mine, vein material
galena pods in vein qtz w/ sheared weakly altered wall rock.

E-4 Blue Ribbon #5 Vein material, upper mine
minor galena specks in massive to drusy qtz vein cutting weakly sheared & weakly alt granite.

Off of Portal road.

P-1 Pussycat 1 & 2; 3' vein, upper oxidized area.
fine oxidized brown-black-orange (pyritic) specks in weakly altered limestone. (fracture zones?)

P-2 Pussycat 1 & 2; replacement in limestone beside vein
azurite-malachite in qtz-bx (drusy) following bx limestone zone.

Note: labels probably mixed up.

Blue Ribbon # 5
upper dump.
E-1

SATISFACTION
GUARANTEED

LICENSE NO. 15524

GEORGE MORSE CONSTRUCTION

LICENSED AND BONDED

3708 EL PORTAL
LAS VEGAS, NV 89102

876—3543

Little Emigrant
Dump sample
mine caved in
N/W area
Mary E. # 3
claim

E-2

Blue Ribbon #6

Lower mine

Vein material

E-3

Blue Ribbon #5

Vein material

upper mine.

E-4

Pussycat 1 + 2

3' vein.

upper oxidized area.

P-1

Pussycat 1 + 2

Replacement in limestone
beside vein.

P-2

3226 East 46th Street

Phone 624-0049

AMERICAN ANALYTICAL and RESEARCH LABORATORIES

ASSAYERS - CHEMISTS - METALLURGISTS

TUCSON, ARIZONA 85713

SAMPLE SUBMITTED BY JAMES D SELL DATE Jun. 9 1980

SINGLE ANALYSIS ☒ Geochem plus

VERIFIED ANALYSIS ☐

UMPIRE QUALITY ☐

SAMPLE	Au	Ag	Cu	Pb	Zn	Ox Cu	Fe	Insol	Al_2O_3	SiO_2	Mo	S.
E-1	✓	✓	✓	✓	✓						✓	
E-2	↓	↓	↓	↓	↓						↓	
E-3	↓	↓	↓	↓	↓						↓	
E-4	↓	↓	↓	↓	↓						↓	
P-1	↓	↓	↓	↓	↓						↓	
P-2	↓	↓	↓	↓	↓						↓	

INVOICE NO. 16895

Phone 889-5787

3441 East Milber

AMERICAN ANALYTICAL and RESEARCH LABORATORIES

ASSAYERS · CHEMISTS · METALLURGISTS

TUCSON, ARIZONA 85714

DATE JAN. 15, 1980

SAMPLE SUBMITTED BY ASARCO, INC.

Mr. James D. Sell

SAMPLE MARKED	ANALYSIS	CHARGES
E-1 -- E-4 P-1, P-2	6 Au, Ag, 5 Geo Chem Cu, 4 Geo- Chem Pb 6 Geo-Chem Zn, 6 Geo-Chem Mo, 2 Pb, 1 Cu	$ 73.75
	Preparation	6.00
	TOTAL	$ 79.75

OK for payment
James D Sell
General Exploration

THANK YOU MUCH!

REGISTERED ASSAYER
CERTIFICATE NO. 6312
FELIX S. FLORES
DATE Signed 1/15/80
Arizona U. S. A.

CHARGES $ 79.75

INVOICE NO. 16895

ASSAYER · CHEMIST

3441 East Milber

Phone 889-5787

AMERICAN ANALYTICAL and RESEARCH LABORATORIES

ASSAYERS • CHEMISTS • METALLURGISTS

TUCSON, ARIZONA 85714

SAMPLE SUBMITTED BY ASARCO, INC. DATE JAN. 14, 1980

SAMPLE MARKED	GOLD OZ./TON	SILVER OZ./TON	PPM COPPER	PPM LEAD	PPM ZINC	PPM MOLYBDENUM	Percent Lead	Percent Copper
E-1	.010	0.09	63	399	218	6		
E-2	.074	0.18	42	73	74	7		
E-3	.122	0.71	46		144	5	0.53	
E-4	.041	1.29	59		396	57	1.27	
P-1	.003	0.42	184	121	120	2		
P-2	.006	16.18		414	339	1		0.83

REGISTERED ASSAYER CERTIFICATE NO. 6892 PETE S. FLORES Date Signed 1/15/80 Arizona U. S. A.

CHARGES $ 79.75

INVOICE NO. 16895

ASSAYER - CHEMIST

SATISFACTION GUARANTEED

LICENSE NO. 15524

Due on 1/4/00 w/ wife Mary. will collect more samples & stop in.

GEORGE MORSE CONSTRUCTION

LICENSED AND BONDED

3708 EL PORTAL
LAS VEGAS, NV 89102

876—3543

Aa-3.0.0

AMERICAN SMELTING AND REFINING COMPANY
Tucson Arizona

June 10, 1968

To: J.H. Courtright

From: J.D. Sell

LITTLE EMIGRANT CANYON
CHIRICAHUA MOUNTAINS
COCHISE COUNTY, ARIZONA

Summary and Conclusions

A weak area of alteration, mainly hematite addition, containing a few diggings on shallow-dipping quartz vein structures was reported to contain gold-silver values of interest to open pit exploration. Samples in the adits, selected quartz stringer material, and of the general dump material failed to disclose values of continued interest.

General

In the company of George Morse, of Willcox, the subject area was visited and minor sampling undertaken. Eight samples (LEC-series) were taken in the adit areas of sections 8-9, T 15S, R 29E in Little Emigrant Canyon. See attachment A for the general location. As shown on the fire assay results, reported in attachment B, the general value is less than $1.15 with the exception of sample LEC-7. The sample LEC-7 was taken on selected quartz dump material sorted and stocked from the main adit workings. Although the value is reasonable, the general adit sample and the general dump grab sample failed to return values of interest.

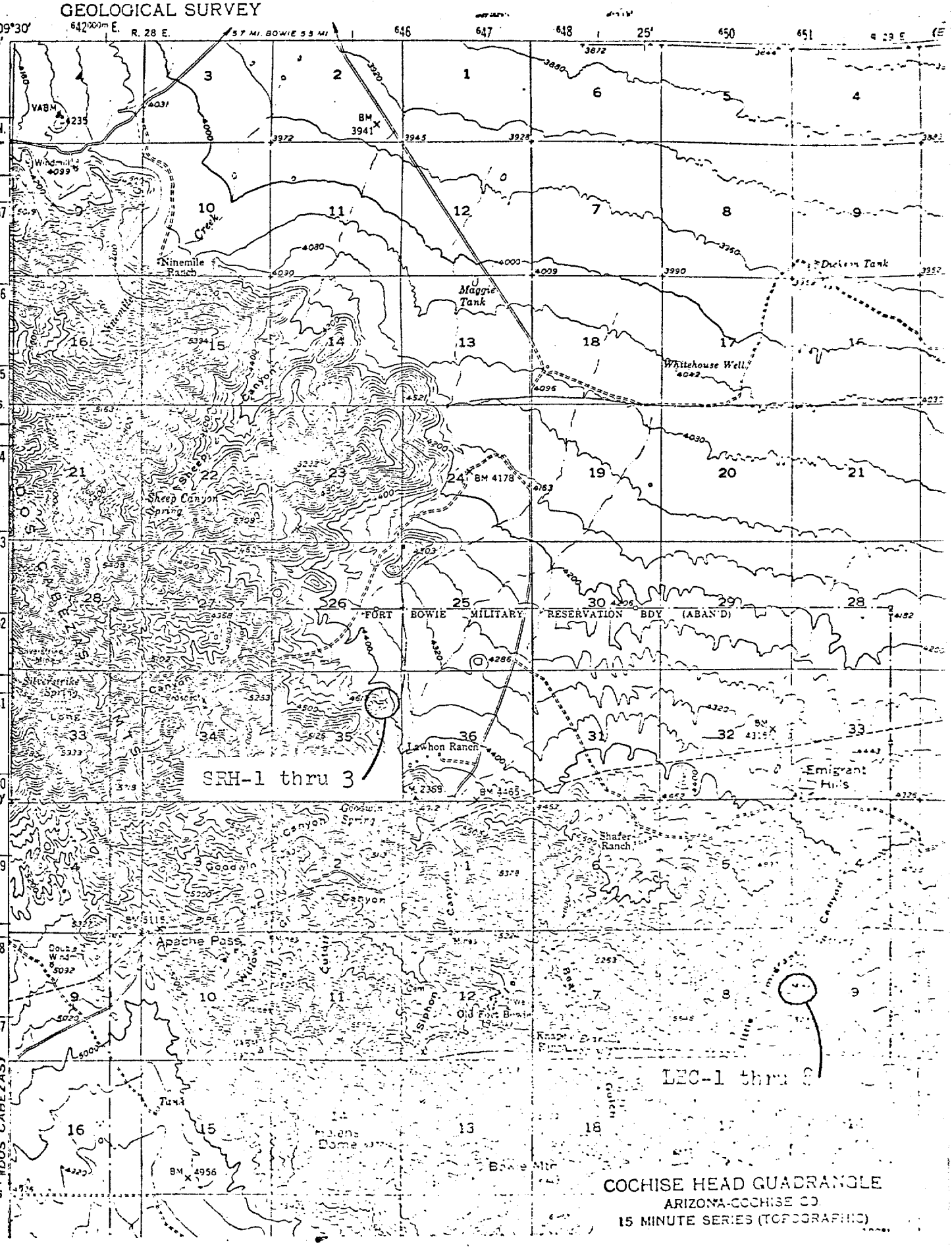
The rock in the area is Precambrian granite and gneissic-granite cut by some aplite dikes and areas of shallow-dipping quartz vein structures. A color zone is evident in the basin area and appears to be more strongly related to three or four zones of the quartz vein structures. Although some of the color is the result of hematite from the breakdown of the ferromagnesium minerals, it is also probable that a good part is thru the addition of iron along small fracture structures.

A second area was visited northwest of Lawhon Ranch (attachment A) but the three chip samples (SRH-series), cut over a length of thirty feet each, show only very low values (attachment B)

James D. Sell

JDS:lzb
Enc.

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY



COCHISE HEAD QUADRANGLE
ARIZONA-COCHISE CO.
15 MINUTE SERIES (TOPOGRAPHIC)

Attachment B

HAWLEY & HAWLEY

ASSAYERS AND CHEMISTS, INC.

Registered Assayers

1700 WEST GRANT ROAD - TELEPHONE 622-4836 - POST OFFICE BOX 5934

TUCSON, ARIZONA 85703

K.V.D.S.
JUN 6 1988

THE SOUTHWEST'S LEADING ASSAYERS AND REPRESENTATIVES

Branch Representatives at Buyer's Plants:
Phelps Dodge Corp., Douglas, Arizona; ASARCO, El Paso, Amarillo, Texas and Hayden, Arizona

IDENTIFICATION	Gold ozs.	Silver ozs.	~~Lead~~ -%	Copper %	Zinc %	Mo: %			
			$ Value*						
Little Emigrant Canyon									
[illegible]	[illegible]	[illegible]	1.11	Channel cut - Middle Adit					
[illegible]	[illegible]	[illegible]	1.13	Qtz structure grab - Middle Adit dump					
[illegible]	[illegible]	[illegible]	0.70a	Dump material grab - Middle Adit dump					
[illegible]	[illegible]	[illegible]	0.15a	Channel cut - Upper Adit					
[illegible]	[illegible]	[illegible]	0.05a	Dump material grab - Upper Adit					
[illegible]	[illegible]	[illegible]	0.10a	Channel cut - Lower, main, Adit					
[illegible]	[illegible]	[illegible]	6.44	Qtz structure grab - Lower Adit					
[illegible]	[illegible]	[illegible]	-	Dump material grab - Lower Adit					
Lawhon Ranch									
[illegible]	[illegible]	[illegible]	—	South zone gneiss with qtz stringers					
[illegible]	[illegible]	[illegible]	—	Central zone volcanic schist with qtz stringers					
[illegible]	[illegible]	[illegible]	0.35a	North zone gneiss with qtz stringers					

* Calculated @ $350.00/oz Au, $2.00/oz Ag.

a = approximate

CC:
ADD:
CITY:
ADD:
CITY:

REMARKS:

Analysis Cert. By

Preparation $
Analysis $

ACC:

Date Spl. Received

Date Compl.

$

AMERICAN SMELTING AND REFINING COMPANY
Tucson Arizona

June 27, 1968

To: J.H. Courtright

From: J.D. Sell

CHECK Au-Ag ASSAYS
HAWLEY & HAWLEY vs EL PASO

A set of eight samples reported in the Little Emigrant Canyon, Cochise County, memorandum (June 10, 1968) have been assayed by two labs.

A comparison between Hawley and Hawley of Tucson and The ASARCO El Paso lab on the same pulp samples is shown in Attachment A. As shown, the El Paso results are somewhat higher.

The difference in value on the samples applicable to possible low-grade large tonnage targets is insufficient for continued interest in the area sampled. No checks were made on the H & H assays shown in the recent memorandum on the Aliso Spring, Pima County area (sample RWA series) but again the values in the wall rock and small shear structures away from the main diggings were low for continued interest.

James D. Sell

JDS:lzb
Encl.

ATTACHMENT "A"

COMPARISON OF ASSAYS

Sample	Hawley & Hawley			ASARCO El Paso		
No.	oz Au	oz Ag	$ Value*	oz Au	oz Ag	$ Value*
LEC-1	0.030	0.03	$1.11	0.05	0.21	$2.17
LEC-2	0.010	0.39	$1.13	0.02	0.62	$1.94
LEC-3	0.020	0.01 Nil	$0.70	0.005 Nil	0.20	$0.43
LEC-4	0.005	0.03	$0.15	0.005 Nil	0.24	$0.51
LEC-5	0.005 Nil	0.02	$0.05	0.005 Nil	0.10	$0.23
LEC-6	0.005	0.01 Nil	$0.10	0.01	0.15	$0.65
LEC-7	0.175	0.16	$6.44	0.24	0.27	$8.94
LEC-8	0.005 Nil	0.01 Nil	———	0.005 Nil	0.20	$0.43

* $ Value calculated at $35/oz Au and $2/oz Ag.

@ $400.00/oz Au and $15.00/oz Ag

$ 12.45	$ 23.15
9.85	17.30
8.15	5.00
2.45	5.60
2.30	3.50
2.15	6.25
72.40	100.05
2.15	5.00

June 27, 1968

Mr. George Morse
Route 1
Willcox, Arizona

LITTLE EMIGRANT CANYON
CHIRICAHUA MOUNTAINS
COCHISE COUNTY, ARIZONA

Dear Sir:

Attached is a copy of the Hawley and Hawley assays from the Little Emigrant Canyon area (LEC-series) and from west of the Lawhon Ranch area (SRH-series) which was recently inspected.

The LEC-series pulps were also assayed by the El Paso lab and a copy of the results is enclosed.

The samples of the wallrock show very low values and are insufficient for our continued interest in the area.

I thank you for the opportunity of looking at your areas and the courtesies extended by yourself.

Sincerely,

James D. Sell

JDS:lzb
Encl.

JDS

ASARCO

Exploration Department
Southwestern United States Division

James D. Sell
Manager

February 8, 1985

Mr. Vernon De Ruyter
2105 Glenview Drive
Berthoud, Colorado 80513

Dear Vernon:

Cochise Co, AZ

Thanks for the Gold Hill (AZ) and La Union (Costa Rica) notes and proposals.

The Arizona area has yet to be checked but the geochem golds seem anomalously low. However, we may get there yet.

The Costa Rica packet has been transmitted to Mr. W. L. Kurtz, Manager of Central America, and to the New York Office. The grades seem quite acceptable--what type of heap-leaching recovery tests have been conducted?

Thanks again for your bringing the Mayflower (Nevada) area to our attention and the work done.

Keep in touch.

Sincerely,

James D. Sell

JDS:mek

James D. Sell

ASARCO Incorporated P. O. Box 5747 Tucson, Az 85703
1150 North 7th Avenue (602) 792-3010

FROM: J. D. SELL 1/24/85

To: JRS - WDG

Please check the land status of

Sec 2 (State Section)
& T13S, R31E

Sec. 35 of T12S, R31E

Cochise Co, AZ
N of Tombstone

No unpatented claims in Sec 35 at hand which appears to be BLM.

Sec 2 - open 640.70

Sec 35 open
521.50 acres

phone call - 1-28-85

JMS

Vernon DeRuyter

GEOLOGIST

303 532-3238

2105 Glenview Drive
Berthoud, Colorado 80513

Geology of the
Gold Hill Prospect, North Peloncillo Mountains,
Cochise County, Arizona

The Gold Hill prospect consists of three silicified, altered and pyritic intrusion breccias at the southern border of a larger hypabyssal rhyolite porphyry stock of mid to late Tertiary age. Gold Hill is a 1000 feet diameter, 200 feet high isolated hill of pyritic, silicified rhyolite breccia and rhyolite. The other two occurrences are strongly pyritic and altered, but not as strongly silicified. Gold geochemistry reaches a high of 0.105 ppm gold, but structural intensity and pyrite content increase downward in the exposure, suggesting a target at depth.

Figure 1 (San Simon 15' quadrangle) shows Gold Hill in section 2, T13S, R31E, and the Figure 2 geologic map shows important pyritic altered areas in section 35 SW, T12S, R31E. Section 2 is Arizona state land.

Gold Hill consists of an intensely argillized and silicified matrix supported pyritic intrusion autobreccia. Both fragments and matrix are a coarsely porphyritic rhyolite with abundant phenocrysts of 5-10 mm set in a aphanitic groundmass. Chalcedonic quartz reaction rims mark the perimeter of fragments to 20 cm across suspended in the breccia matrix of similar composition and texture. Fragments of older andesite are rare, but distinctive owing to their FeOx-rich stain. The relative age of unbrecciated rhyolite porphyry capping Gold Hill and flanking its SE side is undetermined. They may be post-breccia. Intense silicification and pyritic chalcedonic quartz cement the mass into a highly resistant hill. A non-porphyitic rhyolite phase occurs near the shaft at the NW edge of the hill, which is bounded by NNW trending premineral faults. Silicification, mineralization, and minor fault-joint development affect all rocks on Gold Hill.

Rec Jan 24, '85

To the north in section 35, two strongly pyritic areas are found at elevations 4150-4250, equivalent to the upper levels of Gold Hill, within an extensive area of strongly argillized rhyolite porphyry stock. The eastern exposure consists of brecciated and intensely silicified rhyolite porphyry fragments in rhyolite porphyry similar to the autobreccia on Gold Hill. It is mineralized with 10% pyrite, now limonite and MnOx. To the west, disseminated pyrite in strongly jointed rhyolite porphyry is exposed in a wash along which a NW trending pre-mineral fault is postulated. No brecciated rock is seen here. Thirteen prospect pits were dug around the base of Gold Hill, but none are found in section 35 at those pyritic altered areas.

Mineralization in all areas consists of uniformly tiny (0.1-1.0 mm) disseminated pyrite in tightly cemented finely crystalline to chalcedonic quartz. Manganese oxides coat joints and phenocryst voids. Near the top of Gold Hill a series of finely crystalline quartz veins 1-10 cm thick with finely pyritic chalcedonic quartz borders carry pyrite up to 3 mm and a 1 mm speck of argentite (?). Weathering in all areas is weak due to tight silica cement and extends only 0.5 - 1.0 cm into unbroken rock. Much fresh pyrite may be seen following repeated heavy hammer blows on massive pieces. Gold Hill carries an average 2% pyrite plus 2-3% MnOx.

Alteration consists of total argillization of phenocrysts, mafics, and groundmass to a siliceous white rock. Leaching of clays from the phenocrysts in strongly silicified areas has left voids frequently filled or rimmed with pyritic chalcedonic quartz. No sericite was seen, but it may have been removed during silicification.

Some breccia fragments seem to carry more pyrite than others. A possible pre-breccia period of mineralization may have occurred.

I wish to stress the following factors:

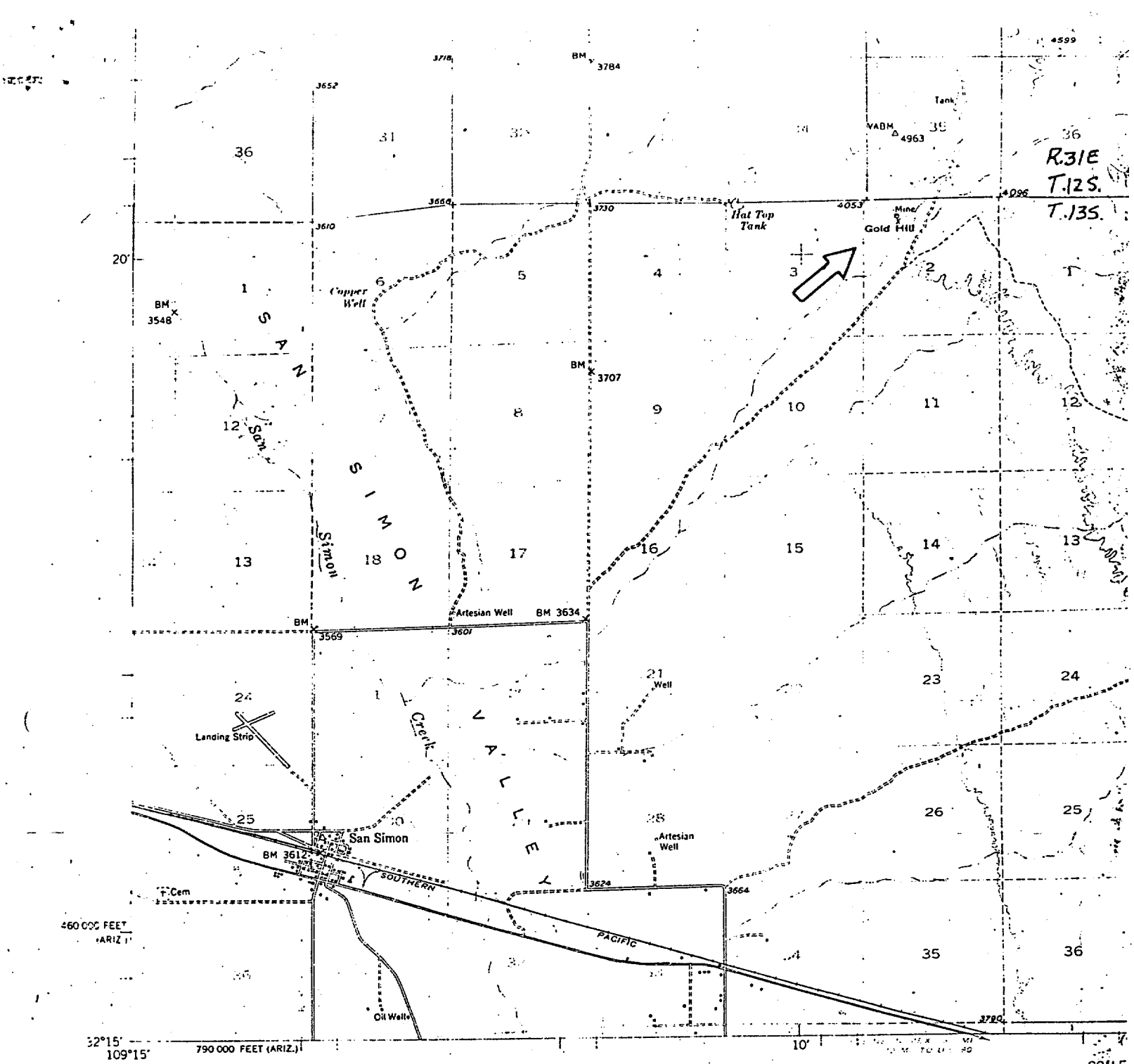
1. Of the three pyritic areas identified, erosion has exposed the Gold Hill breccia, only the cap of the eastern section 35 breccia, and only the pyritic halo to a postulated breccia beneath the western section 35 occurrence. Structural development, brecciation and pyrite content increase downward in Gold Hill.

2. If the lower elevation locations of prospects is an indication of Au-Ag mineralization, then the valuable rocks are only partly exposed on the flanks of Gold Hill and not exposed at all in section 35. Essentially all Au-Ag mineralization, if present, lies subsurface and possibly at open pit mineable depths. A large volume of pyritic rock is present.
3. Prospect pits expose disseminated pyrite without much structural control and the distribution of pits around the perimeter of Gold Hill suggests "shows" were found, but of insufficient grade for the 1880-1910 period of mining.
4. No drill holes or other evidence of recent development are present.
5. Section 2 state land was claimed by Archie Hall on June 5, 1977 as the HAL group for prospecting permit and lease (Cochise Co). No other claims are seen.
6. No base metal mineralization is in evidence, but the rhyolite breccia geologic environment is permissive for molybdenum and tin.
7. All prospects are represented in the 22 samples collected. Numbers 12092-12113.
8. Environmental restrictions to mining should be minimal in this area.
9. I recommend a land status study of Section 2 and 34-35 to the north in preparation for acquisition should encouraging geochemical results eventuate. Regardless, the evidence suggests the target is not exposed on the surface and land acquisition may be warranted even at low Au-Ag levels in this lucrative environment.

Vernon DeRuyter

Vernon D. DeRuyter
Geologist

VDD/ded



Mapped, edited, and published by the Geological Survey

Control by USGS and USC&GS

Topography from aerial photographs by multiplex methods
Aerial photographs taken 1947. Field check 1950

Polyconic projection. 1927 North American datum
10,000-foot grid based on Arizona coordinate system, east zone and New Mexico coordinate system, west zone

Dashed land lines indicate approximate location

Unchecked elevations are shown in brown

TRUE NORTH
MAGNETIC NORTH
APPROXIMATE MEAN DECLINATION, 1950

SCALE

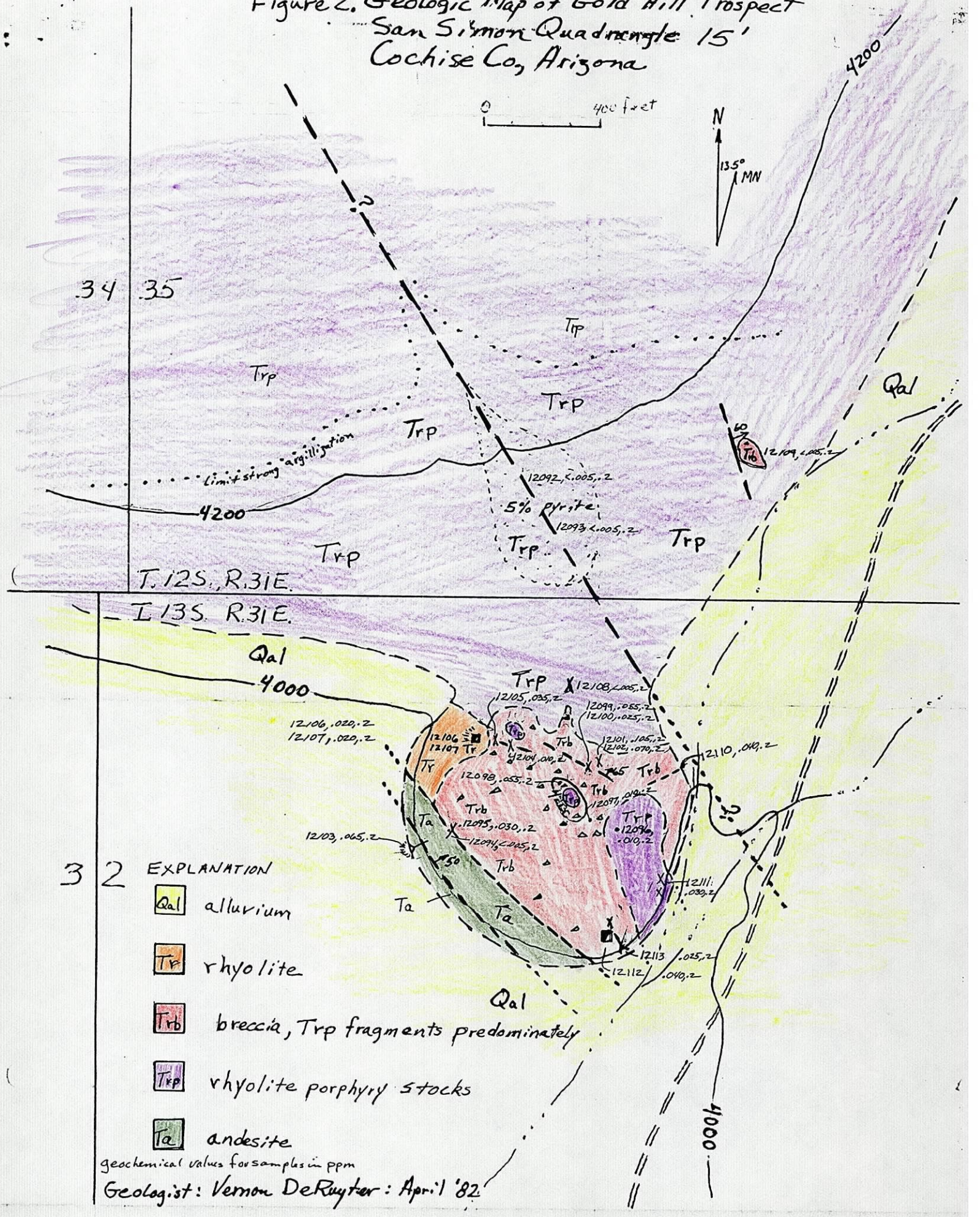
CONTOUR IN
DOTTED LINES REPRESEN
DATUM IS M

THIS MAP COMPLIES WITH NAT
FOR SALE BY U. S. GEOLOGICAL SURVEY, FEDERAL C
A FOLDER DESCRIBING TOPOGRAPHIC MA

San Simon 15' AZ
Cochise County

Figure 1. Location map.

Figure 2. Geologic Map of Gold Hill Prospect
San Simon Quadrangle 15'
Cochise Co, Arizona



geochemical values for samples in ppm

Geologist: Vernon DeRuyter : April '82

JDS

ASARCO

Southwestern Exploration Division

February 8, 1985

To: W. L. Kurtz

From: J. D. Sell

La Union Mine
Costa Rica, Central America

I attach a report and proposal submitted by Vernon De Ruyter on the La Union Mine in Costa Rica. The zone may have 4 million tons of 0.17 opt Au and 20 million tons of 0.04 opt Au surrounding the core mineralization, and all being open-pit heap-leach potential.

James D. Sell

James D. Sell

JDS:mek
Att.

cc: F. T. Graybeal - w/att.

Note: FTG, WLK, & VDR going down March 7 →

ASARCO

JDS

Exploration Department
Southwestern United States Division

February 10, 1988

Mr. Dale Seidel
Homeway Realty
N. Railroad Ave.
Willcox, AZ 85643

Dear Mr. Seidel:

With regard to your letter of 2/3/88, please send your data package on the Silver Group claims.

Thank you for considering Asarco.

Respectfully,

Mark A. Miller
Geologist

MAM:mek

cc: J.D. Sell

ASARCO Incorporated P. O. Box 5747 Tucson, Az 85703-0747
1150 North 7th Avenue (602) 792-3010

JDS

DALE
SEIDEL
REALTOR - ASSOCIATE

HOMEWAY REALTY
180 N. RAILROAD AVENUE - WILLCOX, AZ 85643
PHONE (602) 384-2448

T.E.S.
FEB 5 1988

S.W. MINING DEPT.
FEB 5 1988
TUCSON

HOMEWAY REALTY
North Railroad Avenue
llcox, Arizona 85643
602 384-2448

February 3, 1988

Asarco Incorporated
Exploration Department
Southwestern U.S. Division
1150 North 7th Avenue
P.O. Box 5747
Tucson, Arizona 85703

Dear Sir or Madam:

I currently have listed for sale eight contingent patented mining claims in the Dos Cabezas Mountains. Since your company has shown an interest in mining precious metals in Arizona, I wanted to let you know of the availability of this property.

According to information I have found at the Arizona Department of Mines these claims, known as the Silver Camp Group, have never been extensively mined but contain considerable deposits of Silver, some Gold and Copper. If you are interested I will gladly forward to you a package of all the information I have been able to gather on this property to date.

If you desire more information on these claims or if I may guide your represenative to the location I will be happy to make whatever efforts necessary. Thank you for your time and consideration and I will hope to hear from you soon.

Sincerely,

D.E. Seidel

Dale Edward Seidel

JDS

ASARCO

Queenstake Geologist
Dos Cabezas Project
(Bisbee mine area).

Exploration Department
Southwestern United States Division

James D. Sell
Manager

July 3, 1990

Mr. Timothy J. Pearson
809 N. Mesa Avenue
Willcox, AZ 85643

Employment

Dear Tim:

Thank you for your letter of June 27, but I must inform you that SWED has no positions open at this time.

Sincerely,

James D. Sell

JDS:mek

cc: W.L. Kurtz

ASARCO Incorporated P. O. Box 5747 Tucson, Az 85703-0747
1150 North 7th Avenue (602) 792-3010

Courtland-Gleeson? What is this?

430

To Bill

Date 12-9 Time 2:24 ☐AM ☒PM

WHILE YOU WERE OUT

M Fred Jenkins

of Sahara

505 Phone (505) 880-5302

Area Code Number Extension

TELEPHONED		PLEASE CALL	✓
CALLED TO SEE YOU		WILL CALL AGAIN	
WANTS TO SEE YOU		URGENT	
RETURNED YOUR CALL			

Message

Operator

AMPAD EFFICIENCY®

REORDER #23-000

New position
JV off others
than NW.

Cornillard-Gleason
Tombstone

Triassic - Bisbee Tops
400-700 Thousand Tons
9' thick
3% Cu
.12 Au
Starts at MINEX as
a blanket @ 300' depth
(sgl below).

Sol Contemporary opit
Rodlende - Eager Supplemt intersects
Abrigo — encouraged Ser-Ag
50'- 200' deep
50' - .25

Also at Victoria, NW

Will come by in Jan to check more
on things we might be interested in.

MR. WLK - part of Turquoise Dist? will you check this out WES

READ AND RETURN ____ PREPARE ANSWERS ____ HANDLE ____ FILE ____ INITIALS ____

W.E.S.
NOV 13 1970

HARMON E. KEYES & ASSOCIATES
CHEMICAL AND METALLURGICAL ENGINEERS

P.O. Box 213
Eagar, Arizona
85925

~~508 EAST CULVER STREET~~
TELEPHONE ~~Alpine 3-5909~~ 333-4448 Eagar
~~PHOENIX, ARIZONA~~ 333-4719 Greer

November 9, 1970

Attn. Mr. James D. Sell

RECEIVED
NOV 12 1970
S. W. U. S. EXPL. DIV.

Mr. W.E. Saegart, Supervisor
Southwestern Exploration Division
American Smelting and Refining Company
P.O. Box 5747
Tucson, Arizona 85703

Dear Mr. Saegart:

Acknowledging your letter of June 11, and not yet hearing from Mr. Sell, some new information is herewith passed on to you which may be of interest.

Mr. Paul Edmund Cook, 721 E. Mitchell Dr., Phoenix, Arizona, 85014, is a personal acquaintance who has conducted considerable mine exploration work. He has two properties which his parties are interested in selling, on which he states he will furnish all available information on request. His description is as follows-

> "The Pearce Group of mining claims are situated southwest o f the ghost town of Pearce, in Cochise County. Eighteen claims are in the south part of Sec. 7, T 19 S, R 25 E and seventeen claims adjoin in the north part of Sec. 18, T 19S, R 25 E. Much of the surrounding area has been taken up by Bearcreek Mining Co. This group has excellent oxide outcrop showings."

****

> "The Malachite Group of eighteen mining claims is located in the Alamo Mining District, Yuma County. These claims are situated Sec. 13 and 18, T 1 N, R 15 W. and have strong copper oxide showings."

To date I have not seen either of these properties, but would appreciate learning of your interest in examination.

Sincerely,

Harmon E. Keyes

Harmon E. Keyes

CC-
Paul E. Cook