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08/07/97

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES FILE DATA

PRIMARY NAME: RED BIRD MINE

ALTERNATE NAMES:
GOLD COIN

COCHISE COUNTY MILS NUMBER: 63

LOCATION: TOWNSHIP 15 S RANGE 23 E SECTION 11 QUARTER SW
LATITUDE: N 32DEG 08MIN 15SEC LONGITUDE: W 109DEG 58MIN 19SEC
TOPO MAP NAME: RED BIRD HILLS - 7.5 MIN

CURRENT STATUS: PAST PRODUCER

COMMODITY:
GOLD LODE
SILVER

BIBLIOGRAPHY:
ADMMR RED BIRD MINE FILE
ADMMR RED BIRD MINE COLVO FILE
KEITH, S.B., 1973, INDEX OF MINING PROP. IN COCHISE COUNTY, AZ, AZBUR.MINES BULL. 187, P. 59
USGS MAP I-1310-B
MINES HANDBOOK 1926, P 242 (COCHISE GOLD MNG)
ADDNL HOLDING IN T15S-R23E, SEC. 14

RED BIRD

10/84

COCHISE COUNTY
COCHISE MINING DISTRICT
T15S R23E Sec. 11 S½
14 N½

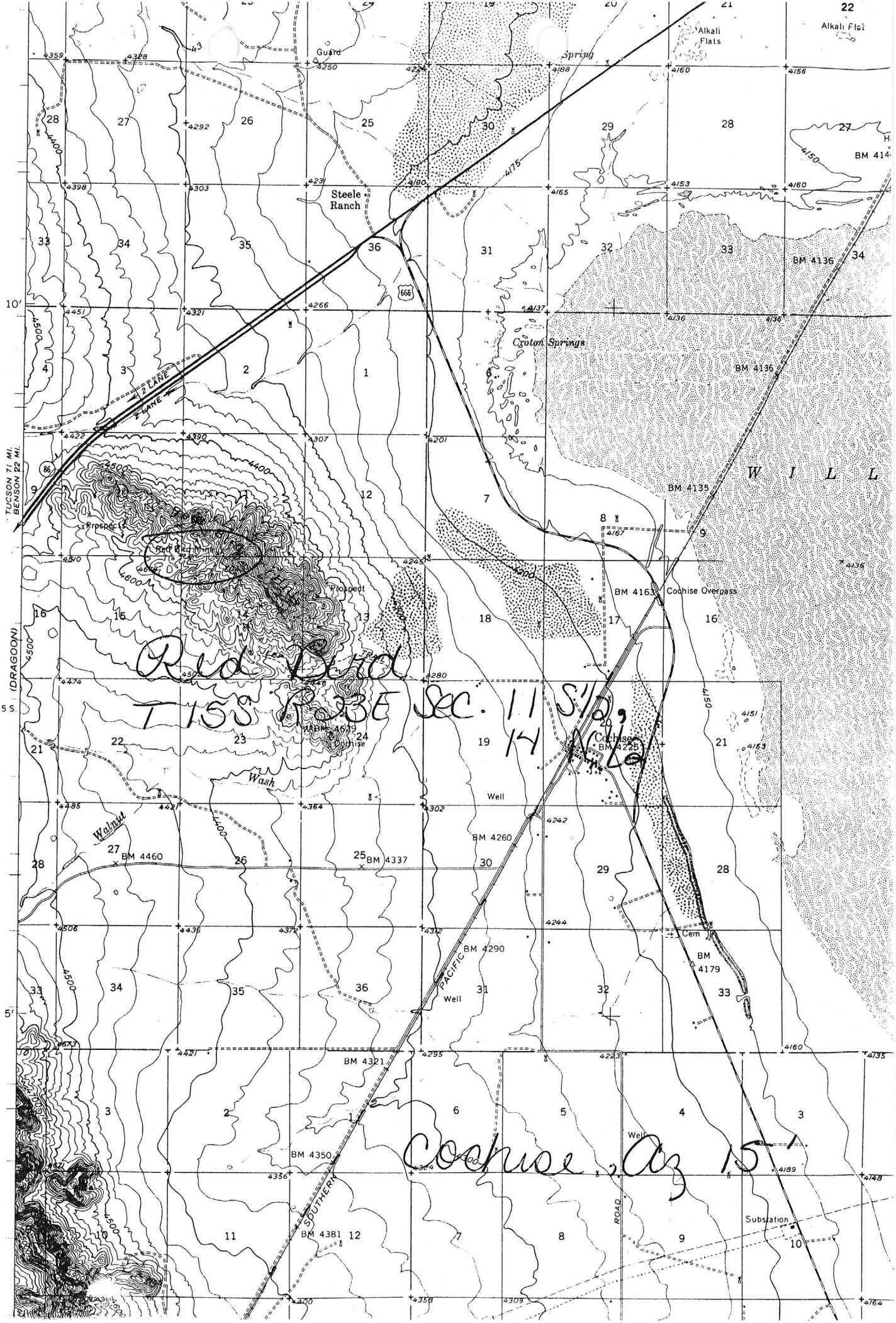
Cochise MILS Index #63

AKA: Gold Coin

See: Map I-1310-B p. 46; Mineral Deposit Map of the Silver City 1° x 2° Quad., NM & AZ

AZ Bur Mines Bull 187, p. 59

Cochise 15' Quad (included in file)


Alkali Flats
Alkali Flat
Guard
Spring
Steele Ranch
Cotton Springs
2 LANE
TUCSON 71 MI.
BENSON 22 MI.
Prospect
Red Rock Mine
Prospect
BM 4163
Cochise Overpass
W I L L
(DRAGOON)
T. 15 S.
Red Rock
T 15S R23E Sec. 11 S1/2, 14
Cochise
BM 4225
Wash
Well
Walnut
BM 4460
BM 4337
BM 4260
BM 4290
Cem
BM 4179
PACIFIC
Well
BM 4321
BM 4350
Well
Cochise, Az 15'
SOUTHERN
ROAD
BM 4381
Substation

RED BIRD MINE

COCHISE

Field interview with Maurice Hedderman at Amado regarding activity at his Red Bird mine near Cochise, the Silver Coin north of Arivaca and the Allison gold mine that he used to operate. He also owns the Arc & bar claims east of the Glove and optioned to C.F.&I. GWI WR 11/6/73

Field interview with Maurice Hedderman, Amado, operator of the Silver Coin mine at Arivaca. He also owns the Red Bird mine in Cochise County but is not working it at present. GI WR 5-19-74

M. Hedderman owns the Red Bird mine in Cochise County near Cochise, but it is in litigation relating to a man named Parsons (apparently in association with Howard Birchfield) who jumped the mining claims on which Hedderman has complete documentation to prove that all assessment work requirements were fulfilled and recorded. It appears that a law firm in Bisbee and another in Tucson may be trying to acquire control of the property which contains a proven disseminated deposit of gold ore. VBD WR 7/16/75

Paul Buzzi and I drove to Amado to inquire about purchase of Red Bird Mine from Maurice Hedderman. Hedderman advised: (1) There is a clouded title; his attorney now is trying to get a claim jumping suit on docket in Cochise County Superior Court (2) Assessment work was done and labor affidavits filed when claims were jumped by a man named Parsons. (3) A Florida resident named Dick Johnson purchased half interest in the Red Bird mine from Mr. Hedderman. (4) Johnson also purchased half interest in the Allison Mine in the Baboquivari Mountains, Papago Indian Reservation, Pima County. (5) A man named Jack Tillman has tried to purchase Red Bird mine unsuccessfully. Mr. Hedderman will advise Buzzi when title is cleared on the Red Bird. VBD WR 11/25/75

MG WR 11/6/81: The Maurice Hedderman estate owns the Silica Money Metals claim group in Cochise Co. (Cochise Mining District). The unpatented lode claims are number 1-39. This claim group apparently covers the old Red Bird mine area in the Red Bird Hills of Cochise County. Mrs. M. H. Hall (sister of Maurice) and her children manage the Hedderman estate. Mrs. Hall's address: 821 N. Sawtelle Ave., Tucson, Arizona, phone 326-8913; her daughter is Cathy Sales of Tucson, phone 327-3015.

The Silica Money Metals claims were originally located as being in Sec. 10-15, T15S R24E. The Hedderman heirs and I believe they are more likely in Secs. 10-15, T15S R23E. HOmestake dropped an option they had on the property this year.

[redacted]

RED BIRD COCHISE COUNTY

NJN WR 2/5/88: Fred Bodine (card) reported that the Red Bird Mine (card) Cochise County contains reserve of about 100,000 oz contained in about 1 million tons that average .1 oz/ton Au.

NJN WR 3/18/88: Fred Bodine (card) reported that the owner of the Red Bird (file) Cochise County is Dick Johnson, P O Box 850, Immokalee, Florida 33934. Homestake reportedly identified a reserve averaging .1 containing 100,000 oz/ton Au. Their geologist recommended more drilling but management killed the project. This project was active circa 1980.

SUMMARY REPORT OF MINERALS EXAMINATION

State Arizona County Cochise Mineral Products gold

Name of property or deposit Red Bird Mine

Date examined 4/22/77 Engineer V.B. Dale Date of this report 4/27/77

Reason for examination Owner's & ASARCO's requests

Engineer accompanied by Bob Erstand Jim Sells Address Bx 5795, Tucson 85703

Extent of property 17 unpatented lode claims

Owner Maurice Heddecman & Dick Johnson Address Box 727, Amado, Az. 85640

Leased or optioned to No one Address

Location of property (be specific) Secs. 10, 11 & 14, T15S., R23E.

Type of deposit and mineralogy (brief description) gold-silver mineralization in limestone breccia with some silicification.

Known dimensions of the deposit Length ± 1 mile Width ± 100 Ft. Depth ± 200 Ft.

Attitude of the deposit (strike, dip, etc.) In general N 60° W with probable easterly dip.

Possible extensions; correlation of known showings Ariz. B/M Cochise Co. Geology map shows fault contacts between Cretaceous and Permian limestones. Two faults one striking N 60° W and the other N 30° W intersect in area of mine workings. There are numerous faults.

Mine workings (brief description or attach map or sketch) (indicate whether accessable)

6 x 8 shaft 165 Ft. - burned out. Entrance to 60-Ft level and 100-Ft. level through winzes and partially filled drifts. ~~There are~~ There are over 1200 feet of drifts on four levels, another shaft is 90 ft deep with 140 feet of drifting. There are a number of 6" rotary holes and many pits & drifts.

(over)

Mining and milling equipment on property None

Past production (if any) 75 tons between 1930-32, According to Ariz. B/M Cochise County index.

Present rate of production (if any) None

Sampling (describe briefly, or attach sketch) ASARCO cut probably 6 preliminary samples.

Tentative Estimate of Reserves

(Subject to revision when assays are received or after engineering calculations)

Measurable ..... tons ..... Grade .....

Indicated ..... tons ..... Grade .....

Inferred ..... tons ..... Grade .....

Mining method (actual or suggested) open pit or block caving.

Milling or processing method (actual or suggested) Flotation or perhaps Cyanidation.

Processing tests suggested None

Tentative conclusion and decision a complete, thorough sampling job is a requisite prior to further exploration.

FVDS.15

Arizona Department of Mines and Mineral Resources

MINE AND PROSPECT FIELD VISIT DATA SUMMARY

Sheet 1 of 2

COMMODITIES: **Gold, Silver**

MILS ID No.: **Cochise 63** DATE: **May 11, 1989**

ENGINEER: **Ken A. Phillips and Nyal Niemuth**

INFORMATION FROM: **Field visit above day**

PROPERTY SUMMARY

I. MINE NAME: **Red Bird** OTHER POSSIBLE NAMES INCL. ANY CALIM NAMES NOTED

II. LOCATION: T **15S** R **23E** SEC(S): **11,14** MINE DISTRICT **Cochise**

ELEV.: **4800** COUNTY **Cochise** TOPO QUAD **Cochise 15'**

DIRECTIONS: **See Topo** **Cochise 7½'**

MAP ATTACHED:

III. OWNERSHIP: NAME **Rick Johnson** PHONE:

ADDRESS: **P.O. Box 850, Immokale, Florida 33934**

COMPANY NAME IF ANY:

PERTINENT PEOPLE:

IV. PROPERTY AND HOLDINGS: **Unpatented claims**

V. PAST PRODUCTION-NOTED, KNOWN, PROBABLE, UNKNOWN, NONE: **Approximately 500 tons based on size of stamp mill tails, 50 - 100 tons jig tails and 75 tons in AzBM Bulletin 187, p 59.**

VI. CURRENT STATUS: **Past Producer**

VII. WORKINGS: **Shafts, drifts.**

VIII GEOLOGY AND MINERALOGY: DEPOSIT TYPE: Sediment hosted precious metal

LENGTH: ? WIDTH ? STRIKE S70E DIP

HOST ROCK: Cretaceous Bisbee Formation, (limestone, sandstone, conglomerate

COMMENTS: Old working in faultzone, disseminated potential based on secondary calcite alteration, silicification limited scarn mineralization. Area shows bleaching, and hematitic and limonitic alteration.

IX. EQUIPMENT ON SIGHT: None - Ruins of mill site.

X. SAMPLING: NOTE TYPE IF ANY, DRILLING? Evidence of drilling in last decade. Five drills holes noted. Believed to be Homestake - needs to be confirmed.

XI. REFERENCES AND REMARKS: AzBM Bull. 187, page 59

EXHIBIT A

The following unpatented lode mining claims situated in the Cochise Mining District, of Cochise County, in the state of Arizona, Sections 10, 11, 14, and 15, Township 15S., Range 23, and 24E. which are of record in the office of the Cochise County Recorder and more particularly described as follows:

Name of Claim	Book(or Docket)	Page	BLM #
SILICA MONEY METALS #1-#8 (Amended)	327	323-330	A MC73827-73834
SILICA MONEY METALS #9-#27, #29-#39	843	286-315	A MC73835-73864

COCHISE COUNTY RECORDER

STATE OF ARIZONA] SS.
COUNTY OF COCHISE

WITNESS MY HAND AND OFFICIAL SEAL
CHRISTINE VIRGES, COUNTY RECORDER

DEPUTY

INDEXED | PHOTOSTAT COMPARED | PLOTTED

I HEREBY CERTIFY THAT THE WITHIN INSTRUMENT WAS FILED AND RECORDED AT REQUEST OF: Homestake Mining Co. 3570 No. Edison Way Suite Reno, Nevada 8975

FEE $ 3.00

DRAFT

JUN 19 '81 - 11 10 AM

DATE

DOCKET 1515 PAGE 432 NO 12755

433

DKT 1515 PAGE 433

NOTICE OF SURRENDER

HOMESTAKE MINING COMPANY, a California corporation, ("Homestake") hereby surrenders all of its right, title and interest in and to that certain Mining Lease with Option to Purchase dated August 22, 1980, between Michael Hall, as Executor of the Estate of Maurice Hedderman, Deceased, and Homestake covering certain unpatented mining claims located in Cochise County, Arizona, more particularly described in Exhibit A.

Dated: June 6, 1981, 1981

5/6/81

HOMESTAKE MINING COMPANY

BY James A. Anderson

Executive Vice President

STATE OF CALIFORNIA
CITY AND COUNTY OF SAN FRANCISCO } ss.:

On June 5th, 1981, before me, Joan C. Batton, a Notary Public of said State, duly commissioned and sworn, personally appeared James A. Anderson known to me to be an Executive Vice-President of HOMESTAKE MINING COMPANY, a California corporation, and known to me to be the person who executed the within instrument on behalf of said corporation, and acknowledged to me that said corporation executed the within instrument as its free and voluntary act and deed, for the uses and purposes therein mentioned, and on said oath stated that he was authorized to execute said instrument on behalf of said corporation by authority of its by-laws or by resolution of its board of directors.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year in this certificate first above written.

OFFICIAL SEAL
JOAN E. BATTON
NOTARY PUBLIC - CALIFORNIA
(Notarial Seal)

Joan C. Batton
Notary Public in and for said State
Residing at: San Francisco, Calif.
My commission expires: July 13, 1984

AFFIDAVIT OF PERFORMANCE OF ANNUAL WORK

STATE OF NEVADA)
) ss.
County of Washoe)

Richard R. Kern , being duly sworn, deposes and says:

1. That he is a citizen of the United States and more than eighteen years of age, and that he resides at 2596 Janelle Drive, in Washoe County, Sparks, Nevada.

2. That he is personally acquainted with the mining claims described in EXHIBIT A.

3. That between the 1st day of October, 1980 and the 31st day of April, 1981, at least one hundred dollars worth or work and improvements were done and performed upon each of said claims, not including the location work of said claims. Such work and improvements were made by and at the expense of Homestake Mining Company on behalf of RICHARD AND CAROLYN JOYCE JOHNSON, AND MICHAEL HALL-EXECUTOR OF ESTATE FOR MAURICE HEDDERMAN, owners of said claims, for the purpose of complying with the laws of the United States pertaining to assessment or annual work and (here name the miners or men who worked upon the claims in doing the work) Max Van Gaasbeck (Homestake employee), O'Keefe Drilling Co., P. O. Box 3810, Butte, MO 59701, and Mountain States Engineering, Tucson, AZ, were the men who labored upon said claims, did said work and improvements, the same being as follows, to wit: (here describe the work done) drilling in excess of $8,000.00, sampling in excess of $1,500.00, preparation of drillpads and access roads in excess of $1,000.00, and surface mapping in excess of $2,500.00. Total expenditure for 38 contigious unpatented lode claims equals approximately $13,000.00.

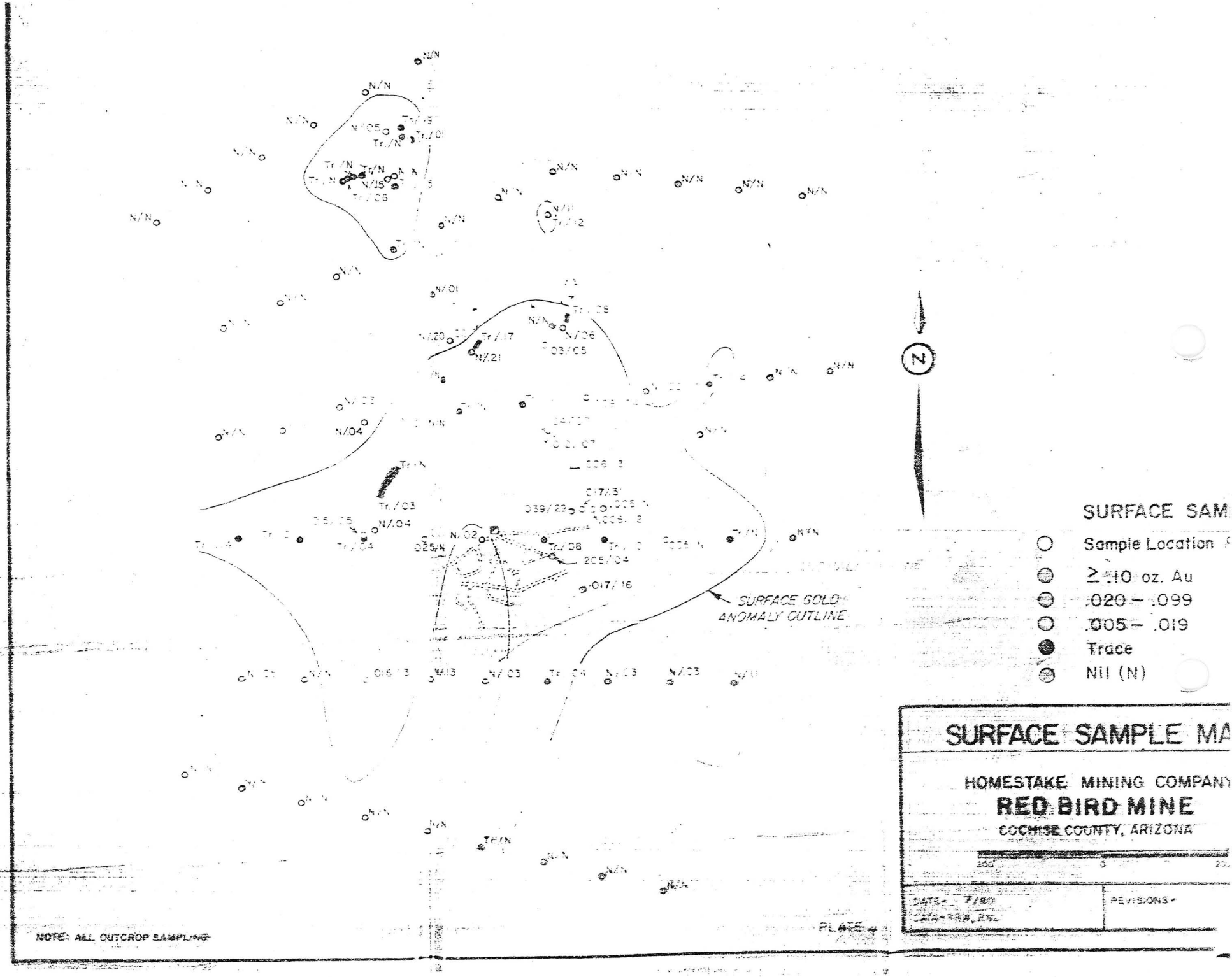
Richard R. Kern
RICHARD R. KERN

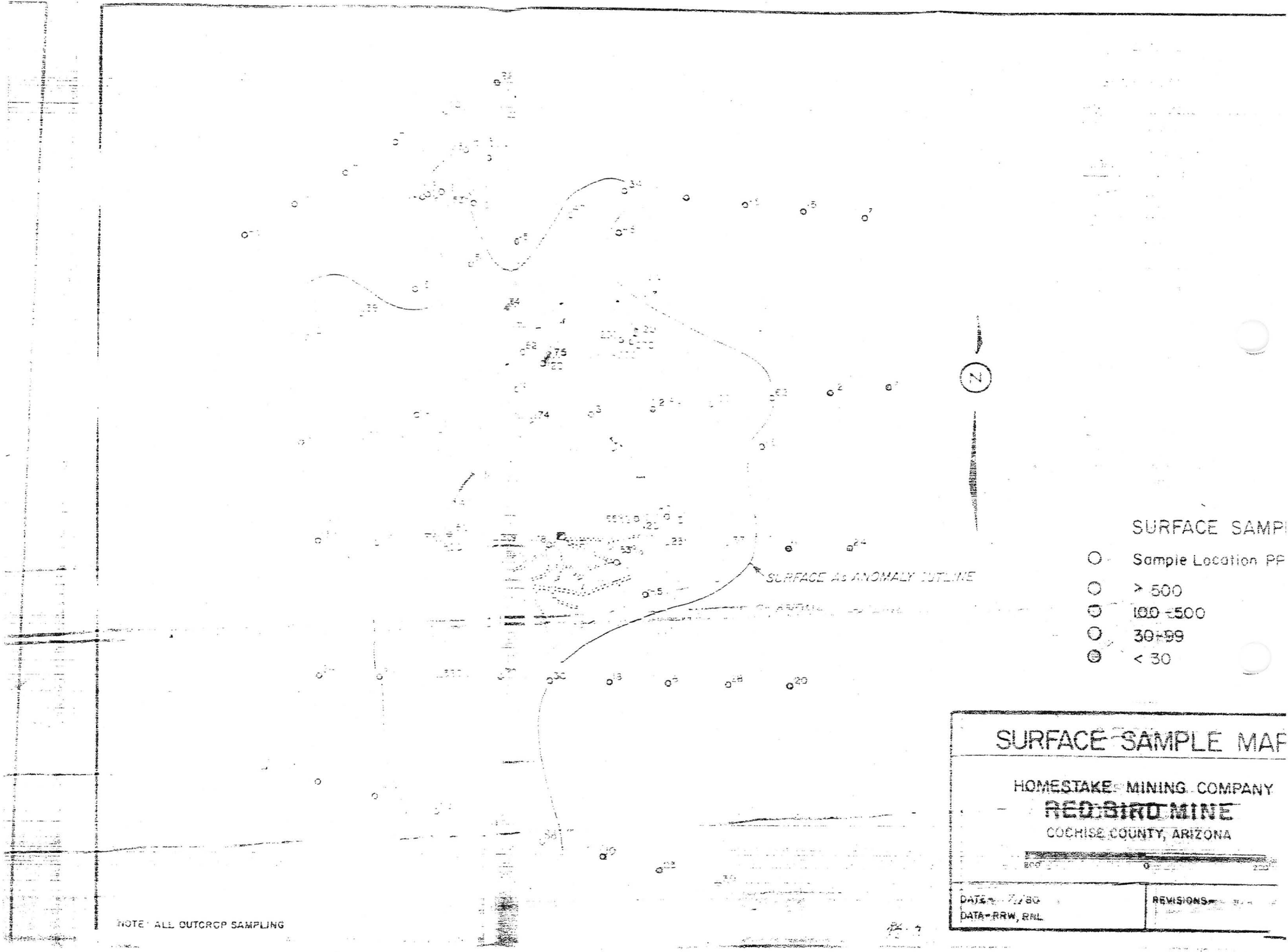
SUBSCRIBED AND SWORN TO before me this 12th day of June , 1981 .

Shelley A. King
NOTARY PUBLIC

SHELLEY A. KING
Notary Public - State of Nevada
Washoe County
My Commission expires Jan. 19, 1982

BK 1515 PAGE 432


SURFACE GOLD ANOMALY OUTLINE
N
SURFACE SAM
Sample Location
≥ .10 oz. Au
.020 – .099
.005 – .019
Trace
Nil (N)
SURFACE SAMPLE MA
HOMESTAKE MINING COMPANY
RED BIRD MINE
COCHISE COUNTY, ARIZONA
200
0
DATE
REVISIONS
NOTE: ALL OUTCROP SAMPLING
PLATE


SURFACE As ANOMALY OUTLINE
N
SURFACE SAMPL
Sample Location PP
> 500
100 -500
30-99
< 30
SURFACE SAMPLE MAP
HOMESTAKE MINING COMPANY
RED BIRD MINE
COCHISE COUNTY, ARIZONA
DATA - RRW, RNL
REVISIONS
NOTE: ALL OUTCROP SAMPLING

EXPLANATION

GEOLOGY:

- Kg — GLANCE CONGLOMERATE Minor Siltstone - Cretaceous
- JTRv — WALNUT GAP VOLCANICS Jurassic
- MAJOR FAULT
- MINOR FAULT
- SHEAR ZONE
- BEDDING (banding in altere
- JOINTS
- CONTACTS

ALTERATION:

- LIMIT OF SILICIFICATION
- LIMIT OF ARGILLIZATION
- PROPOSED ROTARY DRILL HOLE

GEOLOGY

HOMESTAKE MINING COMPANY

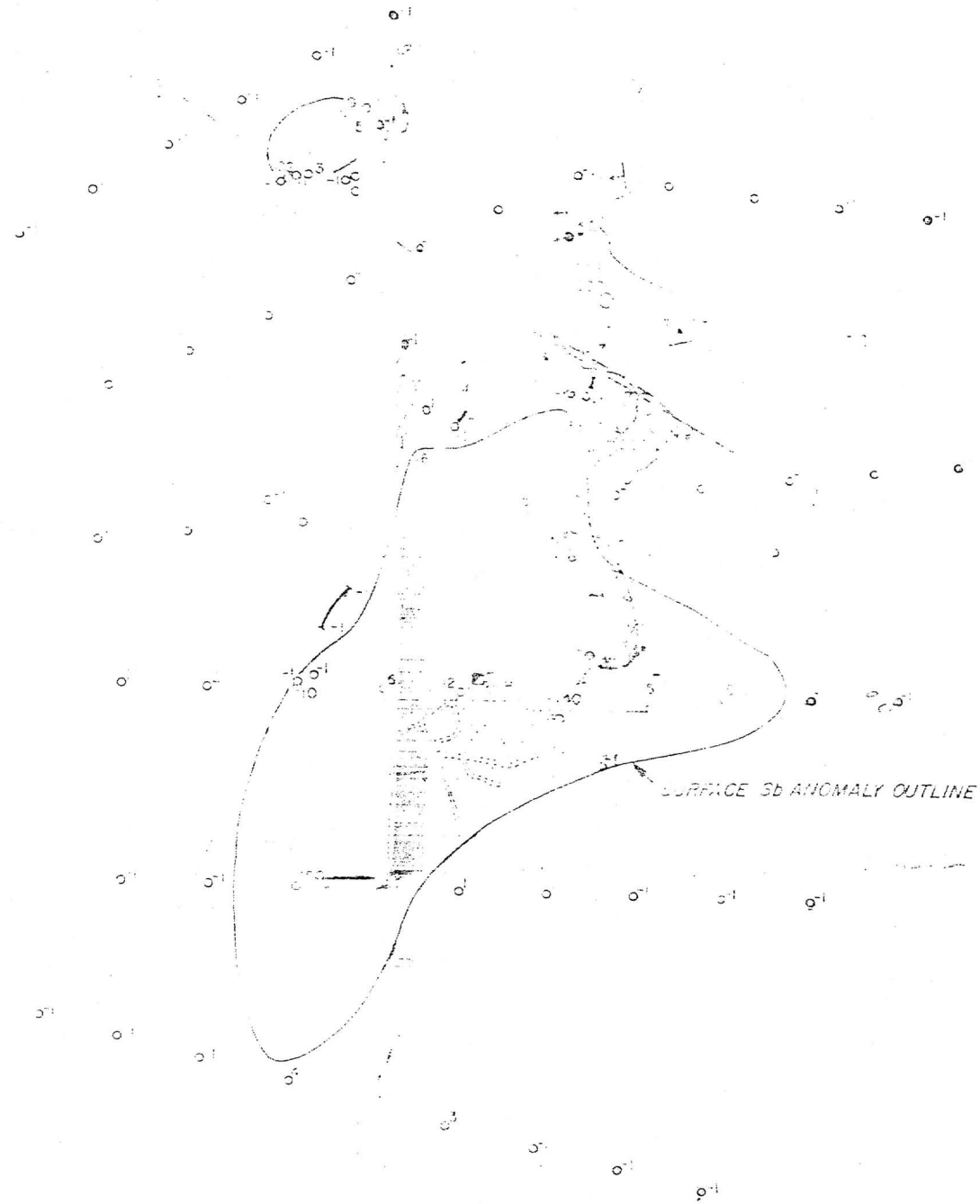
RED BIRD MINE

COCHISE COUNTY, ARIZONA

200' 0 200'

DATE- 1/80
DATA-RRW

REVISIONS- 5/80, RRK



NOTE: ALL OUTCROP SAMPLING

GEOL

Kg

ALTERATION:

PROPOSED ROTARY HOLE

SURFACE SAMP

Sample Location

> 60

20-60

5-19

< 5

SURFACE SAMPLE MAP

GEOLOGY

HOMESTAKE MINING COMPANY

REDBIRD MINE

COCHISE COUNTY, ARIZONA

DATE: 7/80

DATA BY: RNL

REVISIONS -

DRILL HOLE LOG
HOMESTAKE MINING COMPANY
EXPLORATION DIVISION
WESTERN REGION

1726 Cole Blvd.
Golden, CO 80401

HOLE NUMBER RB-1 DEPTH 250 ft.

INCLINATION 90° BEARING —

COLLAR COORDINATES N. 75' South

E. 25' West

COLLAR ELEVATION Approx 4772' U.S.G.S Topo
1037' - Red Bird Grid-topo

PROJECT NAME RED BIRD

AFE NUMBER 81-35-21

STATE ARIZONA COUNTY COCHISE

MINING DISTRICT COCHISE

BASE LINE & MERIDIAN

TOWNSHIP T 15 S RANGE R 23 E

SECTION 14

CLAIM HEDDERMAN-JOHNSON & BUMMER

PROPERTY OWNER

GEOLOGY LOGGED BY M. D. VAN GAASBEEK

SAMPLER PAUL S. PLATT

ASSAYING BY Mountain States Eng. Co.
Tucson, Ariz.

TYPE OF DRILLING Reverse Circulation - Rotary

EQUIPMENT CP - Rotary Drill

CONTRACTOR O'Keefe Drilling Co.

ADDRESS P.O. Box 3810
Butte, Montana 59701

STARTED 4/3/81 COMPLETED 4/5/81

NO. SHIFTS 3 HOURS DRILLED 17

FT./SHIFT 83.33 FT./HOUR 14.71

RECOVERY 95% +

TOTAL COST COST/FT.

CASING RECORD

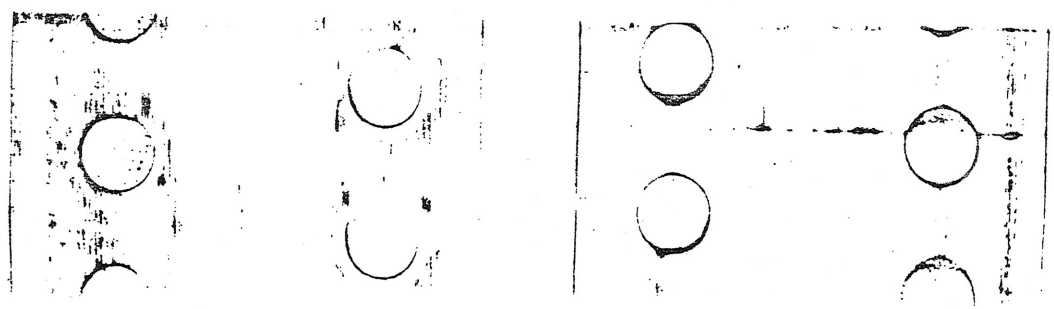
LOCATION MAP

SCALE
LOGGED BY: MDV

PROJECT Red Bird Au

HOLE NO. RB-1

ROCK TYPE	ALTERATION REMARKS	GANGUE REMARKS	METALLIZATION	DEPTH	% REC	Graphic Col	DETAIL	ASSAYS - Fire Au	Ag	SAMPLE NO.	REMARKS
0' Limestone — Mixed Litho — Dom. Brownish Black fn crystln w/lesser Med brownish gray f/m crystln. — Conglomerate. occ-rare Lt. dk. gray, crypto-crystln ls. Frags on depositional edges appear to be Sub rndd/Sub angular.	Weak-Mod Silicif. Hint of Jasperoidal alteration.	Calcite:-v.fn-thick vng. Mod-Intense	5 Hematite staing on frags-Mod red to Dk reddish brown	5'			~6" Overburden OXIDE ZONE	.002 .04		0001 RB	
			3 Sh decr. in Hematite staining.	10'				.001 .06		2 RB	
				15'				.002 .04		3RB	
				20'				.001 .01		4RB	
	25' Weak Silicif.	25' Intense $CaCO_3$ Vng. - 50% of Sample		25'				.002 .02		5RB	
		30' Mod. Calcite Vng. noted		30'				.016 .06		6RB	
35' Sh color change Limestones becoming lighter - Lt/Med brownish gray.	35' No Silicif. Noted		5 Decr. in Hematite. faint staining	35'				.001 .01		7RB	
			2 Increase in Hematite	40'				.002 .01		8RB	
			5 Incr in Hematite	45'				.006 ND		9RB	
50' Dom. Rx type Med-Dk Brownish Black, fn crystln Limestone — occ. Mixed Litho. w/traces of Lt/Med. brownish gray Ls.		50'-75' Wk-Mod. Calcite Vng. noted.	15 Hvy Incr in Hematite. Pervasive — in clay gouge.	50'			50' Poss. Fault Zone. ? Clay-gouge noted.	.012 .08		0010RB	V Sltly moist Sample. Not cohesive.
			7 Sh-mod. pervasive Hematite & coating frags.	55'			55' Traces of clay-gouge -	.052 .11		11RB	
				60'				.031 .08		12RB	
	65' Rare — v. weak Silicif noted.			65'				.039 ND		13RB	
			5 Hvy Hematite. Pervasive in clay gouge.	70'			70' Poss. Fault zone Clay-gouge noted.	.080 .07		14RB	V sltly moist Sample
		75'		75'			75'	.015 .14		15RB	

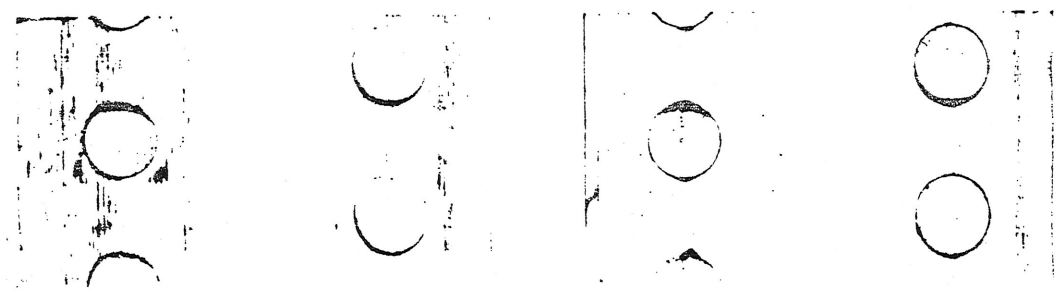


SCALE 1"=10'
LOGGED BY: MDY

PROJECT Red Bird Au

HOLE NO. RB-1

ROCK TYPE	ALTERATION REMARKS	GANGUE REMARKS	METALLIZATION	DEPTH 75'	% REC	Graphic Col	DETAIL	ASSAYS Au	ASSAYS Ag	SAMPLE NO.	REMARKS
Limestone – Mostly Med.–Dk brownish black, fn crystln – occ Lt/med brownish gray.	Rare v. weak Silicif. Noted	Calcite vng noted – v.fn – thick	Hematite staining – Some Perusive Increasing.	80'				.017	ND	0016RB	
		Decreasing calcite gangue		85'				.009	.06	17RB	
							Some Clay-gouge noted Poss Fault or Fract. System.				
90' Sandy – Quartzitic 70% of Sample Argillic mtx.	Argillic clay mtx of sand grains. Considered weak Alteration	90' Trace Calcite	90' Limonitic – Yellowish stain.	90'				.018	.07	18RB	
95' Mostly Ls as above. Traces – Quartzitic Rx		95' v.v. Rare Calcite.	95' Red brown Hematitic stain.	95'				.008	.04	19RB	
100' Dom. Rx Type – Quartzite – Lt/med olv. gray. – unsorted. Mostly silica mtx w/ occ Argillic-like clay mtx – Occ dk brownish blk Ls frags.			100' Mostly yellowish Limonitic stain – Tr. Hem. stain.	100'				.011	ND	0020RB	
	105' No clay mtx noted	105' occ frags of pnk white gangue Quartz.	105 Mostly Reddish brown Hem stain – v. minor Limonitic stain.	105'				.013	.07	21RB	
110' Interbdd w/ Olive blk v.fn Argillites.	Wk-Mod Silicif of Argillites	110' No gangue noted.		110'				.007	ND	22RB	
				115'				.006	ND	23RB	
				120'				.004	.05	24RB	
							No log sample Questionable Assay.				Hit underground workings @ ~123 ft – 100 Level – South drft Start Tri-cone bit
				125'				.034	.10	25RB	
			Specks of Reddish brown hematite Speckled appear.	130'				.0285	.19	26RB	
130 Mostly fn gn Quartzite.			Selective Perusive Hematite stain.	135'				.338	.18	27RB	
135' Argillites – Dom. Rx Dk brownish gray w/ interbdd Lt/Med Olv. gray Quartzites.			Rare – Traces Hematite stain	140'				.011	.12	28RB	
				145'				.007	.03	29RB	
			SH Incr. in Hematite Stain.	150'			~147.5' – 155' Poss Fault Clay gouge noted	.003	.01	0030RB	



SCALE 1" = 10'
LOGGED BY: MDV

PROJECT Red Bird Au

HOLE NO. RB-1

ROCK TYPE	ALTERATION REMARKS	GANGUE REMARKS	METALLIZATION	DEPTH	% REC	Graphic Col	DETAIL	ASSAYS Au	ASSAYS Ag	SAMPLE NO.	REMARKS
Argillites w/ Interbdd Quartzites.	Wk-Mod Silicif of Argillites.		Dk reddish brown Hematite staining Sbly Pervasive	150'			Clay gouge noted Fault Zone				
155' Limestone - Lt/Med Olv. grey & Dk brown blk crypto-cryst to v.fn gn w/ thin interbdd Quartzites. Limestones appear massive.	155'	165' to 185' Calcite Vng Noted	Decr. in Hematite Stain - appears to be on hrline fracts & bedding planes	155'			155'	.002	.04	0031RB	
				160'				.003	.01	32RB	
				165'				.004	.04	33RB	
				170'				ND	.04	34RB	
			V. Slt Increase in Reddish Hematite Staining	175'				.001	.12	35RB	
				180'				.001	.01	36RB	
185' Incr. in overall Quartzite - Ls Dom. Rx Type.		185'		185'				.002	.01	37RB	
				190'				.006	.10	38RB	
			Incr. in ferrogenous red Hematite.	195'				.014	ND	39RD	
				200'				.002	.01	0040RB	
	205' v. wk silicif			205'				.007	.05	41RB	
				210'				.062	.04	42RB	
		215' Traces white/clear Calcite - indicating v.fn fract. fill.		215'				.003	.06	43RB	
				220'				.001	.01	44RB	Check Assay -0045RB
				225'				.535	.08	0045RB	.001 Au - .10 Ag

SCALE 1" = 10'
LOGGED BY: MDV

PROJECT Red Bird Au

HOLE NO. RB-1

ROCK TYPE	ALTERATION REMARKS	GANGUE REMARKS	METALLIZATION	DEPTH	% REC	Graphic Col	DETAIL	ASSAYS Au	ASSAYS Ag	SAMPLE NO.	REMARKS
25' Limestone. Dk brown black & Lt/Med olv. gray. v. fn gn to crypto-cryst. w/ v. thin interbdd Quartzite	wk silicif	Traces white/clear calcite.	Ferrogenous red Hematite stain.	225							
			Incr. in Hematite stain	230'				.001	.01	00 46 RB	
		225 No calcite noted		235'				.004	.02	47RB	
			Decr. in Hematite stain.	240'				.001	.01	48RB	
				245'				.003	.05	49RB	
T.D. 250 ft				250'			E.O.H. - 250' 4/5/81	.001	.02	0050RB	

DRILL HOLE LOG
HOMESTAKE MINING COMPANY
EXPLORATION DIVISION
WESTERN REGION

1726 Cole Blvd.
Golden, CO 80401

HOLE NUMBER RB-2 DEPTH 200 ft

INCLINATION 90° BEARING

COLLAR COORDINATES N. 30' North

E. 20' west

COLLAR ELEVATION Approx 4750' USGS topo
1018' - Red Bird Grid - topo

PROJECT NAME RED BIRD

AFE NUMBER 81-35-21

STATE ARIZONA COUNTY COCHISE

MINING DISTRICT COCHISE

BASE LINE & MERIDIAN

TOWNSHIP T15S RANGE R23E

SECTION 11

CLAIM Hedderman - Johnson

PROPERTY OWNER

GEOLOGY LOGGED BY M.D. VanGaasbeek

SAMPLER Paul S. Platt

ASSAYING BY Mountain States Eng. Co.
Tucson, Ariz.

TYPE OF DRILLING Reverse Circulation - Rotary

EQUIPMENT CP - Rotary Drill

CONTRACTOR O'Keefe Drilling Co.

ADDRESS PO Box 3810
Butte, Montana 5970

STARTED 4/6/81 COMPLETED 4/7/81

NO. SHIFTS 1.5 HOURS DRILLED 10

FT./SHIFT 133.3 FT./HOUR 20

RECOVERY 96% +

TOTAL COST COST/FT.

CASING RECORD

LOCATION MAP

SCALE 1"=10'
LOGGED BY: MDV

PROJECT Red Bird Au

HOLE NO. RB-2

ROCK TYPE	ALTERATION REMARKS	GANGUE REMARKS	METALLIZATION	DEPTH	% REC	Graphic Col.	DETAIL	ASSAYS Au	ASSAYS Ag	SAMPLE NO.	REMARKS
0-30' Waste Dump Material Large frags. & pebbles Mostly Siliceous, Dk brown black Ls. Few traces of Argl. alteration. Rare Quartzite frags Hematitic Stained				5'			0-30' Waste Dump Material	.029	.02	0052RB	Old Waste Dump. — Assay are not from bedrock.
				10'				.074	.02	53RB	
				15'				.033	ND	54RB	
				20'				.025	ND	0055RB	
				25'				.026	.05	56RB	
30' Bedrock				30'				.014	.13	57RB	
LIMESTONES Mostly Dk brownish black v.fn-gn w/~30% Dk yellow brown, crypto-crystln Ls. Conglm. Appearance	Mod-Strong Silicif Rare v. wk argillic alteration along hrline frxx.	Hvy Calcite Vng.	5 Dk Ferrogenous Red Hematite staining on frags w/ occ hrline strks	35'			Oxide Zone	.013	.06	58RB	
				40'				.018	.04	59RB	
				45'				.020	.07	0060RB	
50' Quartzite - v.lt. tan gray, v.fn-fn-gn. Silic - argill. mtx	Quartzitic mtx not siliceous. Wk-Mod argl. alteration ? (de-calcified Ls)	No calcite Noted	1 V. Faint Hematite Stain Some yellowish Limonite Staining	50'				.028	.04	61RB	Soft Rx - Fast Drilling
			2 Faint Purple FeOx Stain.	55'				.004	ND	62RB	
60' Quartzite Dom. Rx w/ ± 20% rem. decalcified Ls.	Wk Argl. Alteration		1 Scattered Dk Ferrogenous Red Hematite staining on frags Rare yellow-brown stain	60'				.007	ND	63RB	
				65'				.007	.02	64RB	
				70'			70' Some clay-gouge noted, Poss. Fault ?	.003	.02	65RB	
			5 Hematite stain more Pervasive in clay-gouge.	75'			75'	.003	.05	0066RB	

SCALE 1" = 10'
LOGGED BY: MDV

PROJECT Red Bird Au

HOLE NO. RB-2

ROCK TYPE	ALTERATION REMARKS	GANGUE REMARKS	METALLIZATION	DEPTH	% REC	Graphic Col.	DETAIL	ASSAYS Au	ASSAYS Ag	SAMPLE NO.	REMARKS
Quartzite Dom. Rx w/ Traces of rem. de-calcified Ls.	Wk Argl. Alteration.	75' Calcit noted - Poss. frx fill.	Wk. Dk Ferrogenous Red Hematite staining	75'							
	Decr. in Argl. Alteration - V. V. weak	80' No Calcite Noted	Slt Incr. in Hematite.	80'				.003	ND	0067RB	
				85'				.003	.08	68RB	
				90'				.002	ND	0069RB	
				95'				.005	ND	0070RB	
				100'			100' Traces clay like gouge.	.003	.05	71RB	
	105' Slt Incr. in Argl. Alteration		Decr. in Hematite Stain.	105'			105' ? Poss. Fault ?	.003	.02	72RB	
		110' Calcite Noted.		110'				.002	ND	73RB	
		No Calcite Noted - 115'		115'				.002	.02	74RB	
				120'				.002	.05	75RB	
				125'				.002	ND	76RB	
120' Shows of dk grey-blk Interbdd Argillites	Mod Silic. Argillites		Hematite stained Clays	130'			130' Some clay gouge noted Poss. Fault	.003	ND	77RB	Slt'ly damp samples
				135'			135'	.002	ND	78RB	
Slt Incr in Argillites. V. slt. calcareous reaction.			Decr. in Hematite Some pale yellow Limonite stain.	140'				.003	.04	0079RB	
				145'				.002	ND	0080RB	
				150'				.002	ND	81RB	

SCALE 1"=10'
LOGGED BY: MDV

PROJECT Red Bird Au

HOLE NO. RB-2

ROCK TYPE	ALTERATION REMARKS	GANGUE REMARKS	METALLIZATION	DEPTH	% REC	Graphic Col.	DETAIL	ASSAYS Au	ASSAYS Ag	SAMPLE NO.	REMARKS
Quartzites - v. lt. tan gray w/ thin Interbdd Dk gray - blk Argillites - Sh. Calcareous content.	V. wk. Argillic Alteration. Mod. Silic. Argillits.		Some pale yellow Limonite stain	150							Sltly Damp Samples.
				155				.003	ND	002RB	
				160			160' Some clay fill Noted. Poss. Frags off of Fault Zone.	.002	.02	83RB	Incr in Sample Moisture
			5 Hematite stain Pervasive in clays	165				.005	ND	84RB	
				170				.003	ND	85RB	
			1 Decr in Hematite Stain.	175			175' Clay gouge noted Fault zone	.002	.02	86RB	
180' Thin interbdd Dkg yellow brown Limestones				180				.002	.02	87RB	Sltly Damp
185' Ls - Dom. Rx-type ↓ Trs. Quartzit.	wk silic of Ls.	185' Calcite gangue noted Poss. Fault Brxc fill ↓		185			185'	.002	ND	88RB	Dry Samples ↓
				190'				.002	ND	89RB	
			2 Incr in Hematite	195'				.002	.03	0090RB	
T.D. 200'				200'			E.O.H. 200 ft.	.002	ND	0091RB	

DRILL HOLE LOG
HOMESTAKE MINING COMPANY
EXPLORATION DIVISION
WESTERN REGION

1726 Cole Blvd.
Golden, CO 80401

HOLE NUMBER RB-3 DEPTH 250 ft

INCLINATION 90° BEARING

COLLAR COORDINATES N. 215' South

E. 32' West

COLLAR ELEVATION Approx. 4775' USGS topo
1040' - Red Bird Grid - topo

PROJECT NAME RED BIRD

AFE NUMBER 81-35-21

STATE Arizona COUNTY Cochise

MINING DISTRICT Cochise

BASE LINE & MERIDIAN

TOWNSHIP T15S RANGE R23E

SECTION 14

CLAIM Hedderman - Johnson

PROPERTY OWNER

GEOLOGY LOGGED BY M.D. VanGaasbeek

SAMPLER Paul S. Platt

ASSAYING BY Mountain States Eng. Co.
Tucson, Az.

TYPE OF DRILLING Reverse Circulation - Rotary

EQUIPMENT CP - Rotary Drill

CONTRACTOR O'Keefe Drilling Co

ADDRESS P.O. Box 3810
Butte, Montana 59701

STARTED 4/8/81 COMPLETED 4/8/81

NO. SHIFTS 1 HOURS DRILLED 10.5

FT./SHIFT 250 FT./HOUR 23.8

RECOVERY 95% +

TOTAL COST COST/FT.

CASING RECORD

LOCATION MAP

SCALE 1" = 10'
LOGGED BY: MDV

PROJECT Red Bird Au

HOLE NO. RB-3

ROCK TYPE	ALTERATION REMARKS	GANGUE REMARKS	METALLIZATION (1-2-3-4 % of Sample)	DEPTH	% REC	Graphic Col.	DETAIL	ASSAYS - fire Au	Ag	SAMPLE NO.	REMARKS
Overburden Weathered Ls.				0			0-5' OB				OVERBURDEN Grab sample 5 ft
5' Ls - Dusky Yellow Brown - Dk Brownish black v.fn.-fngn. - occ g/z grains	Mod-Strong Silicif. Wk-Mod Argl. Alteration.	Freq Calcite gangue	4	5'				.008	.04	0092RB	
							Oxide Zone				
		v. Freq Calcite gangue 50% of Sample	1	10'				.002	.04	93RB	
	15 v. Wk-Wk Argillic Alteration	Trs-Lt Calcite	4	15'				.006	ND	94RB	
							Clay-gouge noted Posc. Fault				
				20				.002	.05	95RB	
20' Interbdd Ls (as above) w/ Dk brown v.fn-gn Silt-Stones & Quartzites. May indicate selective decalcification of Limestones? Mostly Siltstones & Quartzites to 40'	20' Limestones v. weakly Silicified - Sltstones & Quartzite Mod-Strong Silicif.	20'-40' No Calcite Noted.						.001	.07	96RB	
			3	25'							
				30'				.001	.07	97RB	
				35'				.001	.07	98RB	
				40'				.003	.08	99RB	
40' Interbdd Ls, Sltstn, & Quartzites - As above.		40 Calcite Healed Frxx	5				Frxx - noted Some Slt. Brxx. Calcite matrix	.007	.02	0100RB	
				45'							
				50'				.001	.07	101RB	
				55'				.001	.03	102RB	
				60'				.001	.02	103RB	
			3								
				65'				ND	.05	104RB	
				70'				.003	.02	105RB	
		75' Calcite mtx Brxx		75'			Crackle - local Rubble Brxx. Calcite matrix	.001	.07	106RB	

Slt Decr. in Hematite Staining.

SCALE 1"=10'
LOGGED BY: MDV

PROJECT Red Bird Au

HOLE NO. RB-3

ROCK TYPE	ALTERATION REMARKS	GANGUE REMARKS	METALLIZATION	DEPTH	% REC	Graphic Col.	DETAIL	ASSAYS Au	ASSAYS Ag	SAMPLE NO.	REMARKS
Interbdd Dk brown Limestone, Siltstones & Quartzites – Quartzites appear v. thin bdd. Rare-occ Traces of v.v.fn siliceous Siltstones – Thus Argillites	Wk silicif of Limestones Mod-Strong silicif of Siltstones, Quartzites and rare Argillites. Some v.wk Argillic Alteration along frxx	Calcite matrix frxx & brxx.	Dk Ferrogenous Red Hematitic stain – Mostly on frags – occ along frxx.	75'			Fractured – w/ Crackle & occ. fn Rubble Breccia Calcite mtx.				
				80'				.001	ND	0107RB	
				85'				ND	.02	108RB	
				90'				.001	.02	109RB	
				95'				.001	.02	0110RB	
				100'				ND	.02	111RB	
				105'				ND	.02	112RB	
				110'				ND	.02	113RB	
				115'				.001	.06	114RB	
				120'				.001	.04	115RB	
				125'				ND	.02	116RB	
				130'				ND	ND	117RB	
				135'				ND	ND	118RB	
				140'				.001	.05	119RB	
				145'				.001	.04	0120RB	
				150'				.001	.02	121RB	

SCALE 1"=10'
LOGGED BY: MDV

PROJECT Red Bird Au

HOLE NO. RB-3

ROCK TYPE	ALTERATION REMARKS	GANGUE REMARKS	METALLIZATION	DEPTH	% REC	Geogenic Col	DETAIL	ASSAYS Au	ASSAYS Ag	SAMPLE NO.	REMARKS
Limestone - Dk brown v.fn gn, Interbdd w/ v.lt gray quartzites and occ v.fn gn siltstones. Occ traces of Argillite	Wk Silicif. of Limestone Mod-Strong Silicif. of Quartzites, Siltstones and rare Argillites. V. wk Argillic Alteration along frxs - Decreasing from above	Calcite mtx Frxs & brxs	DL Ferrogenous Red Hematite Stain - Mostly on frags - Some locally pervasive.	150'			Fractured - Brecciated Rx - Mostly Crackle Brxx w/ occ fn Rubble. - Calcite matrix				
				155'				.001	ND	0122RB	
				160'				.001	ND	123RB	
				165'				.001	ND	124RB	
				170'				.001	.02	125RB	
				175'				.001	.02	126RB	
				180'				.001	.02	127RB	
				185'				.002	ND	128RB	
				190'				.001	02	129RB	
				195'				.001	.02	0130RB	
				200'				.001	ND	131RB	
				205'				.001	ND	132RB	
				210'				.001	ND	133RB	
				215'				.001	ND	134RB	
				220'				.001	.02	135RB	
				225'				.01	ND	0136RB	

SCALE MDV 1"=10'
LOGGED BY:

PROJECT Red Bird Au

HOLE NO. RB-3

ROCK TYPE	ALTERATION REMARKS	GANGUE REMARKS	METALLIZATION	DEPTH	% REC	Graphic Col	DETAIL	ASSAYS Au	ASSAYS Ag	SAMPLE NO.	REMARKS
Interbdd Ls, Quartzite, Siltstone & rare Argillite	wk Silicif of Ls. Mod-Strong Silicif of Qtzite, Sltstn & Argl. V. wk Argillic Alteration decreasing w/ depth	Calcite mtx frxx & brxx	3 Dk Fe Red Hematite Stain. - Some local pervasive	225'							
				230'			Fractured - Brecciated Most Crackle Brxx w/ occ fn Rubble Brxx.	.001	ND	0137RB	
				235'				.001	ND	138RB	
				240'				.001	ND	139RB	
				245'				.001	ND	0140RB	
				250'				.001	ND	0141RB	
250ft. T.D.							E.O.H. - 250ft				

DRILL HOLE LOG
HOMESTAKE MINING COMPANY
EXPLORATION DIVISION
WESTERN REGION

1726 Cole Blvd.
Golden, CO 80401

HOLE NUMBER RB-4 DEPTH 200 ft

INCLINATION 90° BEARING

COLLAR COORDINATES N. 170' North

E. 65' East

COLLAR ELEVATION Approx 4743' USGS topo
1010' Red Bird Grid - topo

PROJECT NAME RED BIRD

AFE NUMBER 81-35-21

STATE Arizona COUNTY Cochise

MINING DISTRICT Cochise

BASE LINE & MERIDIAN

TOWNSHIP T15S RANGE R23E

SECTION 11

CLAIM Hedderman - Johnson

PROPERTY OWNER

GEOLOGY LOGGED BY M.D. VanGaasbeck

SAMPLER Paul S. Platt

ASSAYING BY Mountain States Eng. Co.
Tucson, Ariz.

TYPE OF DRILLING Reverse Circulation-Rotary

EQUIPMENT CP- Rotary Drill

CONTRACTOR O'Keefe Drilling Co

ADDRESS P.O. Box 3810
Butte, Montana 59701

STARTED 4/9/81 COMPLETED 4/9/81

NO. SHIFTS 1 HOURS DRILLED 10

FT./SHIFT 200 FT./HOUR 20

RECOVERY 95% +

TOTAL COST COST/FT.

CASING RECORD

LOCATION MAP

SCALE 1"=10'
LOGGED BY: MDV

PROJECT Red Bird Au

HOLE NO. RB-4

PAGE 1 OF 3

ROCK TYPE	ALTERATION REMARKS	GANGUE REMARKS	METALLIZATION	DEPTH	% REC	Graphic Col.	DETAIL	ASSAYS Au	ASSAYS Ag	SAMPLE NO.	REMARKS
Limestone - Conglm. Dk olv. gray - Dk brownish black. V. fn gn - Sttly decalcified	Wkly Silicif. Wk Argillic Alteration		3 Mod-Dk Ferrogenous Red Hematitic stain	5'			1' - overburden	.004	.05	0142 RB	
10' Limestone as a base ~ 80%+ decalcified Residual qtz grains w/ quartzitic appear.	10' Mod-Strong Silicif Mod Argillic Alteration Some Bleached appear.		5 10' Decr. in Hematitic Staining.	10'				.002	.01	143RB	
				15'				.001	.06	144 RB	
				20'				.001	.01	145RB	
Increasing Decalcification ↓				25'				.001	.02	146RB	
				30'				.002	.03	147RB	
				35'				.002	.02	148RB	
40' Decalcified Unit - Quartzite Siltstones Traces of Argillite. Some Conglm. appear.	40' Strong Silicif. thru-out. Wk Argill. on & adj. to fx.		4 Hematite & Limonite Staining. - Mostly hematite w/ free. stks & some Pervasive Stain. Wk-Mod Limonite.	40'				.002	.03	149RB	
				45'				.004	.03	0150RB	
				50'				.003	.02	151RB	
				55'				.003	.03	152RB	
				60'				.026	.08	153RB	
				65'				.011	.06	154RB	
				70'				.003	.01	155RB	
↓	↓		↓	75'				.006	.05	0156RB	

SCALE 1"=10'
LOGGED BY: MDY

PROJECT Red Bird Au

HOLE NO. RB-4

ROCK TYPE	ALTERATION REMARKS	GANGUE REMARKS	METALLIZATION	DEPTH 75'	% REC	Geologic Col.	DETAIL	ASSAYS Au	ASSAYS Ag	SAMPLE NO.	REMARKS
Decalcified Unit Quartzites, Siltstones Traces Argillites Some Conglm. Appear.	Strong Silicif wk Argill. adj. to frx.		4 Hematitic & Limonitic staining – As above	80'				.002	.01	0157 RB	
	85' SH increase in Argillic Alteration.			85'				.003	.01	158 RB	
				90'				.002	.01	159 RB	
				95'				.028	.04	160 RB	
				100'				.048	ND	0161 RB	
				105'				.004	.01	162 RB	
				110'				.006	.05	163 RB	
110' Mostly Brown Black decalcified Siltstones & Argillites.	110' Decr. in Argill Alter.			115'				.003	ND	164 RB	
				120'				.005	.01	165 RB	
120' Mostly quartzite-like Rx.	120' Incr in Argl. Alter. Somewhat Bleached		8 Decr. in Hem & Lim stain	125'			Poss. Fault Zone. Traces Clay-like Gouge – Bleached Zone.	.001	.02	166 RB	
				130'				.004	.03	167 RB	
130' LIMESTONES Dk Brown gray – Dk Brown black, v.fn crystln. Traces of Lt olv. gray quartzitic-type Rx	130' Wk Silicification. Wk Argl. Alteration on frx or pebbles.	130' Calcite gangue Mostly Vng.	5 130' Dk Ferrogenous Red Hematitic stain on Rx – Some Pervasive	135'				ND	.01	168 RB	
		140' Calcite healed frxs		140'			Wk Fracturing w/ Calcite mtx.	.001	.01	169 RB	
Massive-type Unit w/ Trace of Conglm. appear.				145'				.001	.01	170 RB	
				150'				.001	.01	0171 RB	

SCALE 1"=10'
LOGGED BY: MDV

PROJECT Red Bird Au

HOLE NO. RB-4

ROCK TYPE	ALTERATION REMARKS	GANGUE REMARKS	METALLIZATION	DEPTH 150	% RED	Graphic Col.	DETAIL	ASSAYS Au	ASSAYS Ag	SAMPLE NO.	REMARKS
Limestone - Dk brown gray - dk brown black, v. fn crystl'n - Traces of Lt. olv. gray quartzite.	Wk silicification - overall - w/ Mod - strong silic. of Quartzites. Some v. weak Argill. Alteration.	Calcite healed frxs.	S. Dk Ferr. Red stain, Hematite, on Rx Some Pervasive.	155			Wk Fracturing w/ Calcite mtx.	.001	.01	0172RB	
				160'				ND	.01	173RB	
				165'				.001	.03	174RB	
165' Incr in Quartzitic Siltstone Rx May indicated Selective decalcification of Ls cobbles.	165' Wk-Mod silicification overall. Rare Argillic Alteration.	165' Calcite healed Frxx & Brxx.		170'			Increase in fracturing w/ occ Crackle Breccia. Calcite mtx.	.001	.01	175RB	
				175'				.001	.03	176RB	
			2. Decr. in Hematitic stain	180'				.002	.01	177RB	
				185				.001	.03	178RB	
				190				.002	.04	179RB	
				195				.001	.01	0180RB	
200' T.D.				200'			200' E.O.H. 4/9/81	.001	.03	0181RB	

DRILL HOLE LOG
HOMESTAKE MINING COMPANY
EXPLORATION DIVISION
WESTERN REGION

1726 Cole Blvd.
Golden, CO 80401

HOLE NUMBER RB-5 DEPTH 150 ft

INCLINATION 90° BEARING

COLLAR COORDINATES N. 305' North

E. 10' West

COLLAR ELEVATION Approx. 4682' USGS topo
950 ft Red Bird topo-grid

PROJECT NAME RED BIRD

AFE NUMBER 81-35-21

STATE ARIZONA COUNTY COCHISE

MINING DISTRICT COCHISE

BASE LINE & MERIDIAN

TOWNSHIP T15S RANGE R23E

SECTION 11

CLAIM Johnson-Hedderman

PROPERTY OWNER

GEOLOGY LOGGED BY M.D. VanGaasbeek

SAMPLER Paul S. Platt

ASSAYING BY Mountain States Eng. Co.
Tucson, Ariz.

TYPE OF DRILLING Reverse Circulation-Rotary

EQUIPMENT CP- Rotary Drill

CONTRACTOR O'Keefe Drilling Co.

ADDRESS P.O. Box 3810
Butte, Montana

STARTED 4/10/81 COMPLETED 4/11/81

NO. SHIFTS 1 HOURS DRILLED 8

FT./SHIFT 150 ft FT./HOUR 18.75

RECOVERY 90% +

TOTAL COST COST/FT.

CASING RECORD

LOCATION MAP

SCALE 1"=10'
LOGGED BY: MDY

PROJECT Red Bird Au

HOLE NO. RB-5

PAGE 1 OF 2

ROCK TYPE	ALTERATION REMARKS	GANGUE REMARKS	METALLIZATION	DEPTH	% REC	Graphic Col.	DETAIL	ASSAYS Au	ASSAYS Ag	SAMPLE NO.	REMARKS
	Mod- Strong Silicif. Mod Argill Alteration. Sh. Bleached appear.		1 Wk-Mod yellowish Limonitic staining V. Wk Hematitic	5			0-5 No Logg Sample	X	X	018 & RB Voided/ No Sample	Sample number Voided No Sample taken
5' Decalcified Unit Quartzitic & Siltstone Type - rocks. Lt-Med Olv. gray. Sandy Traces of Limey groundmass				10'				.002	.02	0183RB	
				15				.001	ND	184RB	
				20				.002	.02	185RB	
				25				.001	ND	186RB	
				30				.001	ND	187RB	
35' Pebble-rich Limestone - Dk brown gray, v.fn crystln w/ quartzitic & siltstone type rock - ~30-40% decalcified Brxx-appear.	35' Mod silic. overall. Wk-Mod Argillic Alteration		3 Incr in Hematit Stain - No Limonitic Stain Noted	35			35' Clay gouge noted Fault Zone	.001	.02	188RB	35' Y. Sltly damp Samples
				40				.001	ND	189RB	
				45			45' Fine Rubble Brxx ? Fault - Brxx ?	.001	ND	0190RB	45'
				50				.008	ND	191RB	
				55				.001	ND	192RB	
				60				.001	ND	193RB	66'
66' Mostly Fault-gouge w/ Ls fragments.	Selective Silicification Not Pervasive. Wk-Mod Overall, although some frags are strongly silicified. V.V. Rare argillic Alteration.	Tr hrline Calcite Veinlets noted in Ls frags	12 V. strong, pervasive Hematitic stain in Clay gouge.	65			Fault - Zone Hvy Clay gouge	.002	ND	194RB	Sltly damp samples
70' Limestone Pebble-poor - Lt olv gray to Dk brown black, v.fn crystln - occ-rare quartzitic type-rx			9 Decr in Hematitic stain - Sh Pervasive	70			V. slt fracture appearance - Calcite mtx	.002	ND	195RB	70'
				75				.001	ND	196RB	

SCALE 1"=10'
LOGGED BY: MDV

PROJECT Red Bird Au

HOLE NO. RB-5

ROCK TYPE	ALTERATION REMARKS	GANGUE REMARKS	METALLIZATION	DEPTH 75'	% REC	Graphic Col.	DETAIL	ASSAYS Au	ASSAYS Ag	SAMPLE NO.	REMARKS
Limestone – Pebble-pass, More Massive. Lt olv. gray to Dk brown black, v.fn crystln occ – rare quartzite – Siltstone type lithos. Maybe some selective decalcification	Selective Silicification – Not Pervasive Wk-Mod Silicif over-all, although some local strong. V.V. Rare argillic Alteration.	Calcite healed frxx.	Strong Dk ferrogenous Red Hematite staining				occ hairline – v.fn frxx, Calcite mtx				
				80'				.001	.02	0197RB	
				85'				.001	.02	0198RB	
				90'				.001	ND	199RB	
			Decr. in Hematite stain. occ Pervasively stained frags.	95				.001	ND	0200RB	
				100'				.001	ND	0201RB	
				105'				ND	ND	202RB	
				110'				.001	.12	203RB	
				115'				ND	ND	204RB	
				120'				.001	ND	205RB	
			Decr in Hematite staining	125'				.001	.02	206RB	
				130'				.001	ND	207RB	
				135'			JH Incr. in Fr staining.	.001	ND	208RB	
				140'			Calcite mtx.	.001	ND	209RB	
				145				.001	ND	0210RB	
150' T.D.				150'			150' E.O.H. 4/11/81	.001	.02	0211RB	

DRILL HOLE LOG
HOMESTAKE MINING COMPANY
EXPLORATION DIVISION
WESTERN REGION

1726 Cole Blvd.
Golden, CO 80401

HOLE NUMBER RB-6 DEPTH 300ft

INCLINATION 90° BEARING

COLLAR COORDINATES N. 280ft South

E. 120ft East

COLLAR ELEVATION 4820' Approx, USGS topo
1077' Red Bird Grid-Topo

PROJECT NAME RED BIRD

AFE NUMBER 81-35-21

STATE Arizona COUNTY Cochise

MINING DISTRICT COCHISE

BASE LINE & MERIDIAN

TOWNSHIP T15S RANGE R23E

SECTION 14

CLAIM Hedderman - Johnson

PROPERTY OWNER

GEOLOGY LOGGED BY M.D. VanGaasbeek

SAMPLER Paul S. Platt

ASSAYING BY Mountain States Eng. Co.
Tucson, Ariz.

TYPE OF DRILLING Reverse Circulation - Rotary

EQUIPMENT CP - Rotary Drill

CONTRACTOR O'Keefe Drilling Co.

ADDRESS P.O. Box 3810
Butte, Montana 59701

STARTED 4/11/81 COMPLETED 4/12/81

NO. SHIFTS 1.5 HOURS DRILLED 14

FT./SHIFT 200 ft FT./HOUR 21.4

RECOVERY 96% +

TOTAL COST COST/FT.

CASING RECORD

LOCATION MAP

HOLE NO. RB-6

PROJECT Red Bird Au

E 1" = 10

ED BY: MDV

ROCK TYPE	ALTERATION REMARKS	GANGUE REMARKS	METALLIZATION	DEPTH	% REC	Graphic Col	DETAIL	ASSAYS Au	ASSAYS Ag	SAMPLE NO.	REMARKS
tone Cobble ive - Brown - ~~Brownish~~ v.fn crystlin of grainy silica strongly silicif stones.	Selective Silicification - Some wk - some strong Overall - Moderate. No Apparent Argillic Alteration.	Calcite gangue thru-out	Dk. Ferrogenous Red Hematite - Pervasive in Cobble matrix - and along & adj. to frxx.	5'			Freq. Fractures w/ Breccia - Appears to be a fault-related Brxx. Calcite matrix Mostly Crackle Brxx. Some fn Rubble Brxx.	X	X	No Sample Void - 0212	Mostly Overburden No Sample
			Decr in Hematite	10'				.001	ND	0213RB	
				15'				.001	.07	214	
			Decr in Hematite.	20'				ND	.07	215	
				25'				.002	ND	216	
				30'				ND	ND	217	
				35'				.003	.03	218	
			strong Incr. in Hematite.	40'				ND	ND	219	
			Decr. in Hematite	45'				ND	.07	0220RB	
				50'				.001	ND	221	
				55'				.001	.07	222	
				60'				.001	ND	223	
				65'				ND	.07	224	
				70'				ND	ND	225	
				75'				.002	.04	0226RB	

SCALE 1"=10'
LOGGED BY: MDV

PROJECT Red Bird Au

HOLE NO. RB-6

ROCK TYPE	ALTERATION REMARKS	GANGUE REMARKS	METALLIZATION	DEPTH 75'	% REC	Graphic Col.	DETAIL	ASSAYS Au	ASSAYS Ag	SAMPLE NO.	REMARKS
Limestone Cobble Massive Ducky Brown-Brownish Black, v.fn. crystln. occ. hint of graing Silica in strongly silicif. limestones.	Selective Silicification. weak-none in Hematitic stained carbonate cobble fill - Mod. silicif of Brownish Black Ls cobbles - Strong Silicif of Dusky Brown cobbles. No Argillic Alter. noted	Calcite gangue thru-out	3 Dk Ferrogenous Red Hematitic Staining. Pervasive in cobble fill - and along & adj to most frxx.	80'			Freq. fractures w/ Brxx. Appears to be fault-related. Mostly Crackle Brxx w/ some fn Rubble Brxx.	ND	ND	0227RB	
				85'				.001	.07	228	
				90'				.002	ND	229	
				95'				.001	.06	230RB	
				100'				.001	.10	231	
				105'				ND	.05	232	
110'-140' Incr. in graing Silica noted in Some Ls cobbles.	110'-140' Mod-Strong Silicif Overall. - Incr in graing silica.			110'				.001	ND	233	
				115'				.001	.16	234	
				120'				.001	.11	235	
		125' Decr in amount of Calcite gangue	1 125' Decr. in Hematite stain.	125'			125' Decr in frequency of Frxx - Weaker-tighter Crackle Brxx.	.001	.11	236	
				130'				.001	.10	237	
				135'				.001	.13	238	
140'	140' Decr. in Silicif Mod. overall			140'				.001	.14	239	
				145'				.001	.12	240RB	
			2 145' Incr in Hematitic Stain	150'				.001	.10	0241RB	

SCALE 1"=10'
LOGGED BY: MDV

PROJECT Red Bird Au

HOLE NO. RB-6

ROCK TYPE	ALTERATION REMARKS	GANGUE REMARKS	METALLIZATION	DEPTH	% REC	Graphic Col.	DETAIL	ASSAYS Au	ASSAYS Ag	SAMPLE NO.	REMARKS
Limestone Cobble Massive Dusk Brown - Brownish Black, v.fn crystln occ hint of grainy silica in strongly Silicif Ls.	Selective Silicif, as above. Mod Silicif over-all. No. Argill. Alteration noted	Calcite in frxx & Brxx.	2 Dt. Ferrugenous Red Hematite staining. Pervasive in cobble mtx- and along & adj. to frxx.	130'			Occ-freq. frxx - Decreasing Brxx.				
				155'				ND	.13	0242RB	
				160'				ND	.09	243	
	Over-all Decr in Silicif - Weak - Moderate			165'				ND	.08	244	
				170'				ND	.09	245	
			4 Incr. in Hematite Stain	175'				ND	.04	246	
				180'				.001	.04	247	
			2 Decr. in Hematite Stain	185'				.006	.02	248	
				190'				.002	.09	249	
				195'				.001	.05	0250RB	
				200'				.005	ND	251	
205' Incr. in grainy silica and silic. Ls noted.	Sh. overall Incr. in Silicif - Moderate	205' occ calcite, v.fn veinlets & frxx fill		205'			Decr. in frxx - mostly rare - occ. Some v. tight, fn re & ~~mtx~~ Rubble Brxx occ calcite	.001	ND	252	
				210'				ND	.02	253	
				215'				.001	.07	254	
				220'				ND	ND	255	
				225'				.001	.02	0256RB	

SCALE 1" = 10'
LOGGED BY: MDV

PROJECT Red Bird Au

HOLE NO. RB-6

ROCK TYPE	ALTERATION REMARKS	GANGUE REMARKS	METALLIZATION	DEPTH	% REC	Graphic Col	DETAIL	ASSAYS Au	ASSAYS Ag	SAMPLE NO.	REMARKS
Massive Ls Cobble As Page 3	Mod. Silicif over-all.	occ calcite - v. fn Vnlets & frxx fill	2 DL Ferrogenous Red Hematite Staining. Pervasive in cobble fill and along occ frxx	230'			Rare - occ v. fn frxx. Some v. tight fn Rock matrix Rubble Brxx	ND	ND	0257RB	
				235'				.001	.02	258	
			1 240' Decr. in Hematite stain	240'				.001	.12	259	
				245'				.001	ND	0260RB	
			3 250' Incr in Hematite Stain	250'				.002	.04	261	
				255'				.001	.04	262	
				260				.001	ND	263	
				265'				.001	.04	264	
				270'				.001	.02	265	
	Overall Decr. in Silicification - weak - Moderate.			275'			Decr. in frequency & intensity of Brxx	.001	.07	266	
				280'				.001	ND	267	
				285'				.001	ND	268	
				290				.001	ND	269	
				295				.001	.02	0270RB	
300' TD				300			E.O.H 300' 4/12/01	.001	ND	0271RB	

SUMMARY REPORT OF MINERALS EXAMINATION

State Arizona County Cochise Mineral Products gold

Name of property or deposit Red Bird Mine

Date examined 4/22/77 Engineer V.B. Dale Date of this report 4/27/77

Reason for examination Owner's & ASARCO's requests

Engineer accompanied by Bob Cristand Jim Sells Address Bx 5795, Tucson 85703

Extent of property 17 unpatented lode claims

Owner Maurice Heddegmann Dick Johnson Address Box 727, Amado, Az. 85640

Leased or optioned to No one Address

Location of property (be specific) Secs. 10, 11 & 14, T15S., R23E.

Type of deposit and mineralogy (brief description) gold-silver mineralization in limestone breccia with some silicification.

Known dimensions of the deposit Length ± 1 mile Width ± 100 Ft. Depth ± 200 Ft.

Attitude of the deposit (strike, dip, etc.) In general N60°W with probable easterly dip.

Possible extensions; correlation of known showings Ariz. B/M Cochise Co. Geology map shows fault contacts between Cretaceous and Permian limestones. Two faults one striking N60°W and the other N30°W intersect in area of mine workings. There are numerous faults.

Mine workings (brief description or attach map or sketch) (indicate whether accessable)

6x8 shaft 165 Ft. - burned out. Entrance to 60-Ft level and 100-Ft. level through winzes and partially filled drifts. ~~There are~~ There are over 1200 feet of drifts on four levels, another shaft is 90 ft deep with 140 feet of drifting. There are a number of 6" rotary holes and many pits & drifts.

(over)

Mining and milling equipment on property None

Past production (if any) 75 tons between 1930-32, According to Ariz. B/M Cochise County index.

Present rate of production (if any) None

Sampling (describe briefly, or attach sketch) ASARCO CUT probably 6 preliminary samples.

Tentative Estimate of Reserves

(Subject to revision when assays are received or after engineering calculations)

Measurable ..... tons ..... Grade .....

Indicated ..... tons ..... Grade .....

Inferred ..... tons ..... Grade .....

Mining method (actual or suggested) open pit or block caving.

Milling or processing method (actual or suggested) Flotation or perhaps Cyanidation.

Processing tests suggested None

Tentative conclusion and decision a complete, thorough sampling job is a requisite here to further exploration.

Copy

TRANS-AMERICA OIL CO.
1411 Fourth Ave.
Seattle Washington

June 14, 1935

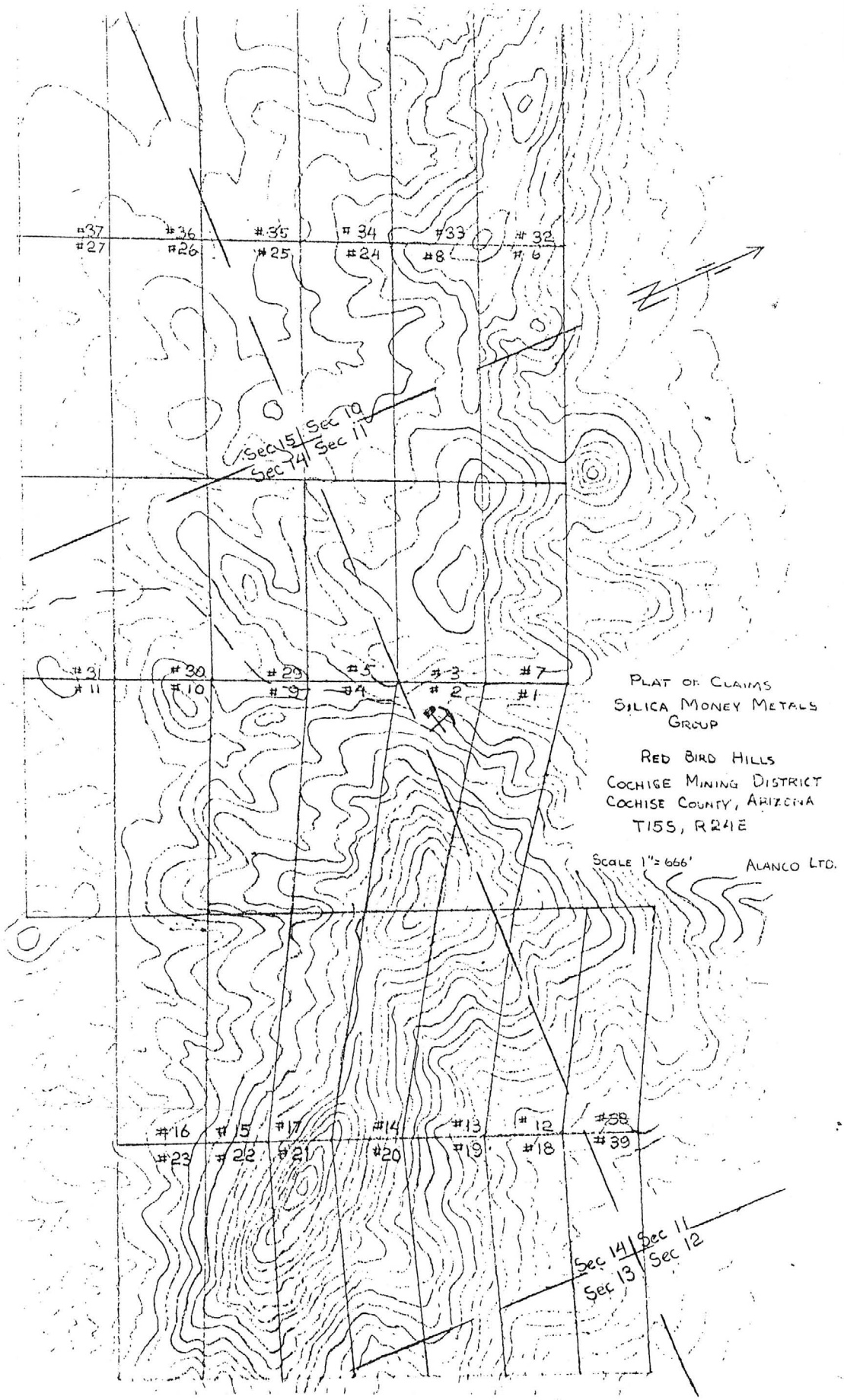
H. B. Chessher, Pres.

Mr. C. D. Griffin
Cochise, Arizona

Dear Mr. Griffin:

Thanks for your letter advising that the ten claims had been located. The results from my duplicate assays were disappointing. With the hope that you can assist me I am enclosing herewith a sketch showing the 100' level of the Red Bird main shaft. Assays Nos. 106, 108, 109 and 110 were taken between the hanging wall and foot wall starting at the hanging wall in the southwest crosscut and ending at the foot wall in the northeast crosscut. The distance was approximately 52½ feet. The average of my assays was approximately 70 cents for the 52½ feet at the old price of gold. This is indeed disappointing and due to the fact that I took only the surface chips with my hand pick, I am inclined to believe that this accounts for the low values. I was very careful to see that the sample was kept in paper sacks while cut at the mine and also put in new paper sacks when shipped to each assayer. You will recall that I bucked the samples down to around ¼ inch and then divided them into three parts. I sent one part to W. L. Piers and one part to Wilfley & Bribach, both being reputable assay firms in Denver, Colorado. The sketch shows approximately where each sample was takne and the description also gives directions as to where the samples were taken. I left a tag (round) driven on a nail into the face of the spot where each sample was started and also left a tag on a nail at the spot where each sample ended. From the description it should be relatively easy to locate the spot of each sample. My trench was very light in each case and I fully appreciate that due to the freeness of the gold it might be characteristic of this ore to lose the gold when exposed to the elements. I did not, however, anticipate such low results as shown by my assayers as I felt sure my mode of sampling would check within 60% of the estimate given by you and Mr. Merrill to the ore at this spot.

I would like very much for you to arrange with some one in whom you have confidence and who knows the mine, to go on the 100 foot level and cut five samples every ten feet beginning at the hanging wall in the southwest crosscut on the 100' level and continue to the foot wall in the northwest crosscut. The trenches should be at least six inches deep and should be dug before taking the samples in order that all of the exposed material shall be eliminated from each sample. I suggest that the trench be started in the roof or on the wall and cut from hanging-wall to foot-wall. Be sure it is at least six inches deep. Then every ten feet cut a large sample of say fifty pounds on an oil cloth. Do not use a canvas because the free gold, as you know, will trap in the canvas. If you do not have an oil cloth I am sure a smooth piece of sheet tin would be O.K. Be sure the 50 lb. sample is then dumped into a good cardboard box with good heavy smooth paper in the bottom to keep the gold from sifting into crevices. Take the five samples to Cochise and then have him buck the ore down to a ¼ inch size and then thoroughly mix each sample and then cut out two samples for assay of two lbs. each.



PLAT OF CLAIMS
SILICA MONEY METALS GROUP

RED BIRD HILLS
COCHISE MINING DISTRICT
COCHISE COUNTY, ARIZONA
T15S, R24E

SCALE 1" = 666'

ALANCO LTD.

Red-Bird main shaft
C. D. Griffin #2

June 14, 1935

As you take the 50 lb. sample at the mine give it a number. For instance, number the first sample No. 1 and then drive a tag on a nail at the spot where No. 1 sample starts and mark on it No. 1-SW and then where No. 1 sample ends place another tag and mark on it No. 1-NE. Repeat this operation on each succeeding sample. Put 4 tags with No. 1 on each in the box of 50 lbs. sample and when you cut out the two samples of two lbs. each for the assayers, you can place in each of the assay samples one of the tags.

Please be sure to save for me the rejects (46 lbs.) of each sample after you have cut out the two lbs. each for sending to the assayers. I am enclosing herewith shipping tags and suggest that you send the samples via parcel post to the assayers. Advise me the charges and I will remit. On second thought, I am enclosing herewith a set of tags for the five set of samples. Please be sure to put the two lb. samples in a paper sack and see that they are securely wrapped with other paper to avoid leaking if the paper bag should break.

I assume that the above can be done for a total cost of $10.00 and upon receipt of advise that you have done as requested, I will send my check for $10.00 plus the amount due for the parcel post charges. Obivously the samples to be cut do not have to be exactly 50 lbs. Just approximately this amount. A rope 100' long should be taken to the mine so that the 50 lb. samples can be easily hoisted as the equipment over the shaft could not be used. Go down surface tunnel to 25' level as top of shaft does not have good ladder.

You of course know that I own 1/6 of the Red Bird mine and therefore have the right to take the samples as requested.

Here is hoping that you will see that the samples are taken fairly and that my results will be proven to have been in error.

With regards, I am

Yours very truly

(signed) H. B. Chessher

ASSAYS FROM RED BIRD MINE

SHAFT 100' LEVEL

RB 106 SHAFT 100' LEVEL: In SW drift on NE wall of SW drift beginning at 106 NW and across 10 ft. Merrill says $4.00 and Griffin reports $6.00. Begins at South corner of shaft.

Assayed by Piers 0.03 Oz. Au
Assayed by W & B 0.025 " "

RB 107 SHAFT 100' LEVEL: 112' from shaft to face of SW crosscut. Sampled the muck (lime) from last round of shots. The last 60' is all lime.

Assayed by Piers 0.015 oz. Au
Assayed by W & B 0.01 " "

RB 108 SHAFT 100' LEVEL: Started on NE wall behind E Corner of shaft, across 12' from 108 SW tag to 108 NE tag. This starts on opposite wall towards NE where NE ended. Merrill says went $3.50.

Assayed by Piers 0.05 oz. Au
Assayed by W & B 0.045 " "

RB 109 SHAFT 100' LEVEL: Across 14½ ft. from 108 NE between 109 SW and 109 NE along N wall of NE drift. Merrill says should run $3.50. Nos. 108, 109 and 110 and 106 should be width of entire ledge. (52½ ft.)

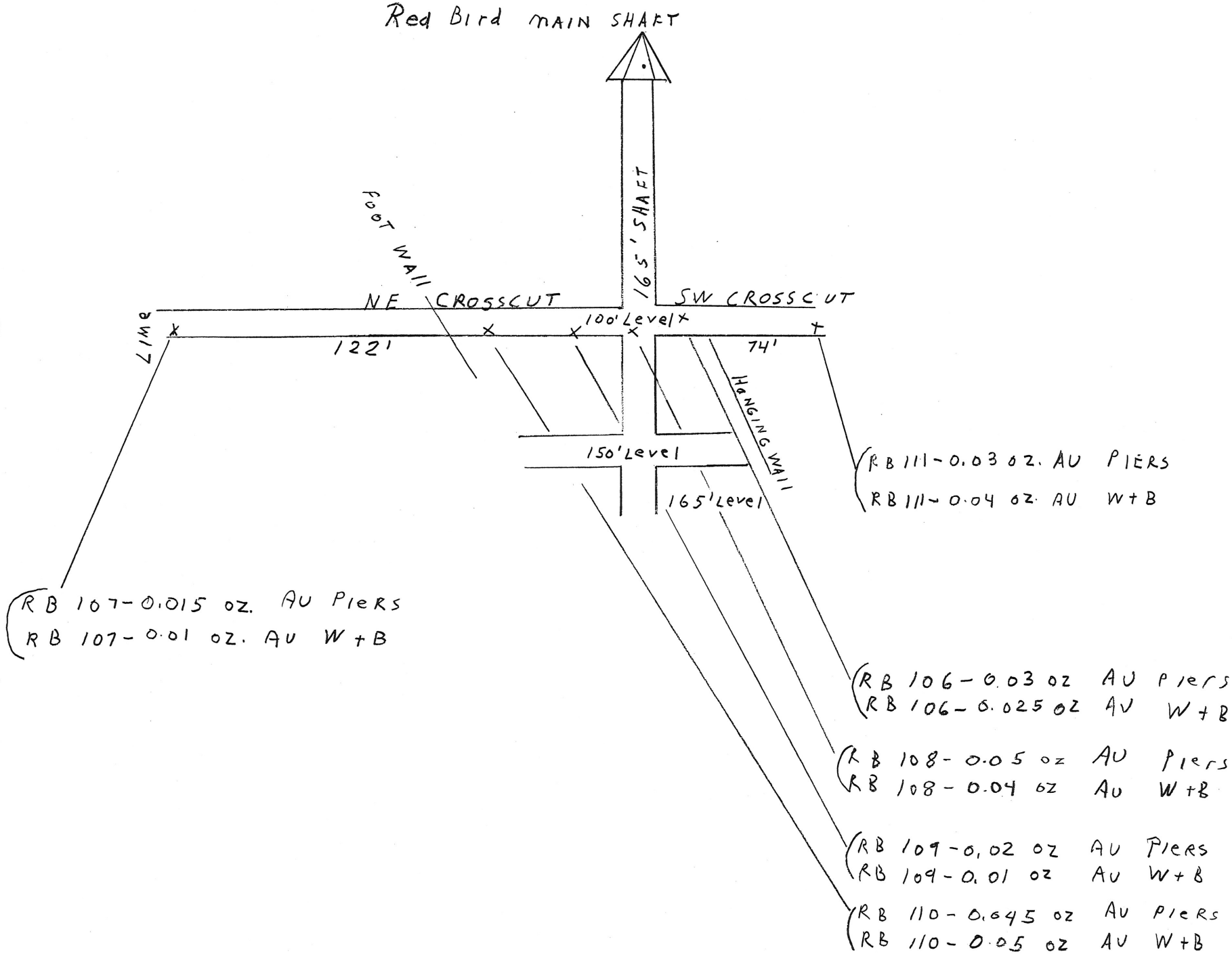
Assayed by Piers 0.02 oz. Au
Assayed by W & B 0.01 " "

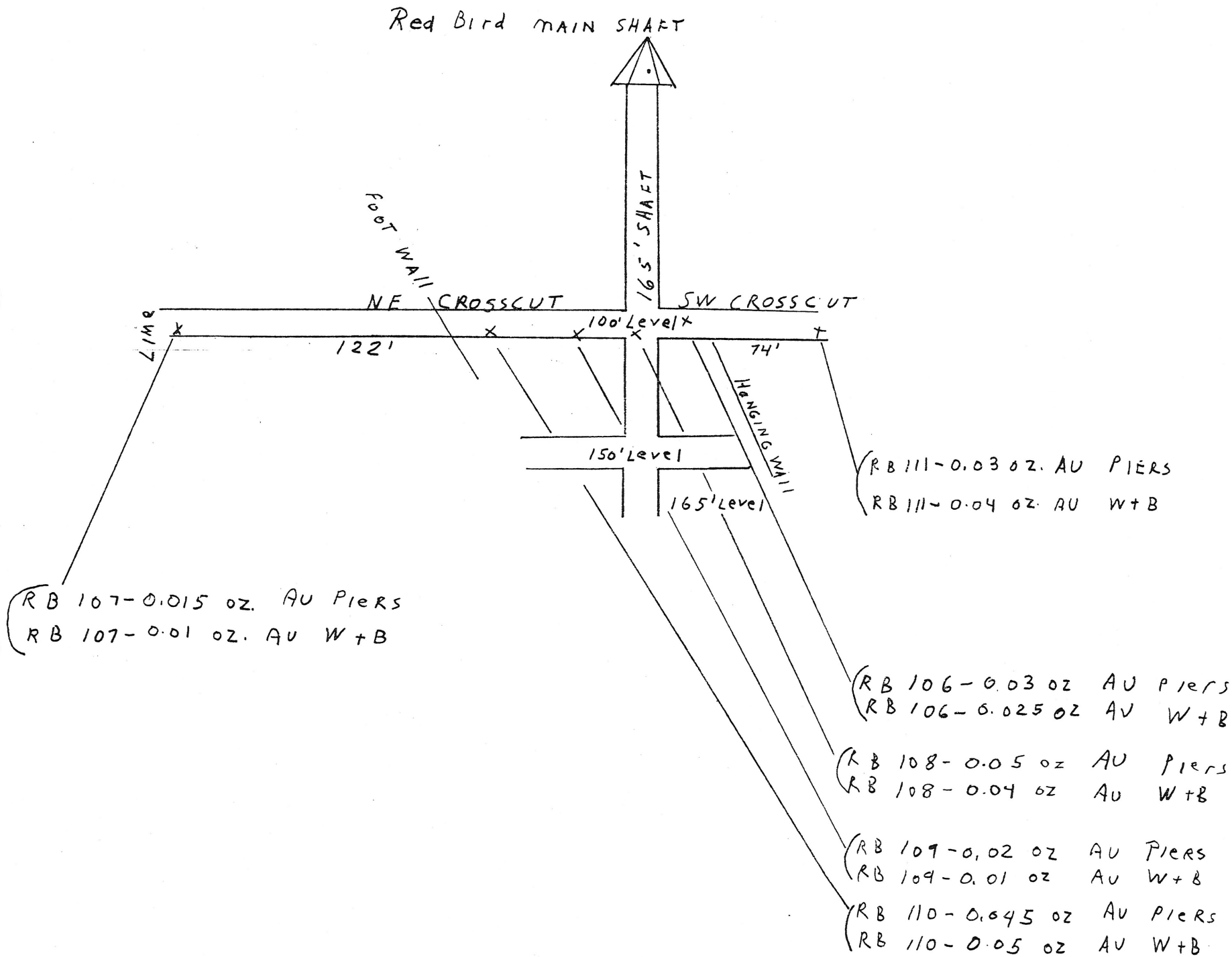
RB 110 SHAFT 100' LEVEL: From 109 NE across 16 ft. between 110 SW and 110 NE Merrill says that last 8 ft. of gouge in this sample assayed $4.50.

Assayed by Piers 0.045 oz. Au
Assayed by W & B 0.05 " "

RB 111 SHAFT 100' LEVEL: Face of 74' NE drift, and incline run up on E wall by Mex. in lime. Took 12 scoops from muck at bottom. Same line as on dump from which got $1.80. Left tag on south wall of incline.

Assayed by Piers 0.03 oz. Au
Assayed by W & B 0.04 " "


Red Bird MAIN SHAFT
165' SHAFT
FOOT WALL
NE CROSSCUT
SW CROSSCUT
100' Level
LIME
122'
74'
HANGING WALL
150' Level
165' Level
RB 111 - 0.03 oz. AU PIERS
RB 111 - 0.04 oz. AU W+B
RB 107 - 0.015 oz. AU PIERS
RB 107 - 0.01 oz. AU W+B
RB 106 - 0.03 oz AU PIERS
RB 106 - 0.025 oz AU W+B
RB 108 - 0.05 oz AU PIERS
RB 108 - 0.04 oz AU W+B
RB 109 - 0.02 oz AU PIERS
RB 109 - 0.01 oz AU W+B
RB 110 - 0.045 oz AU PIERS
RB 110 - 0.05 oz AU W+B


Red Bird MAIN SHAFT
165' SHAFT
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NE CROSSCUT
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100' Level
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150' Level
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RB 111 - 0.03 oz. AU PIERS
RB 111 - 0.04 oz. AU W+B
RB 107 - 0.015 oz. AU PIERS
RB 107 - 0.01 oz. AU W+B
RB 106 - 0.03 oz AU PIERS
RB 106 - 0.025 oz AU W+B
RB 108 - 0.05 oz AU PIERS
RB 108 - 0.04 oz AU W+B
RB 109 - 0.02 oz AU PIERS
RB 109 - 0.01 oz AU W+B
RB 110 - 0.045 oz AU PIERS
RB 110 - 0.05 oz AU W+B

Received from G. W. Irvin (Tucson office) June 20, 1966. Also in the file was a report by H. I. Emerson on Red Bird Gold Mining & Milling Co. (report not copied). in July, 1962, Maurice Hedderman was the owner.

Mr. Irvin located the property in Section 11, T15S R23E.

Rec Bird Hu

HARLEY A. SILL
Consulting Engineer
1011 South Figueroa Street
Los Angeles

August 14th, 1934.

Dr. Henry Mace Payne,
546 North Western Ave.,
Los Angeles, Calif.

ASSAYS

Designation	GOLD Ounces	Value
Sample No. 1	0.11	$3.85
" " 2	0.09	3.15
" " 3	0.24	8.40
" " 4	0.17	5.95
" " 5	0.05	1.75
" " 6	0.17	5.95
" " 7	0.05	1.75
" " 8	0.07	2.45
" " 9	0.23	8.05
" " 10	0.20	7.00
" " 11 - Concentrates	6.95	243.25

* Gold @ $35.00

HARLEY A. SILL
Consulting Engineer

ART. AV. 138

LOCATION. The "Red Bird Mining Property" consist of eight unpatented claims, or 160 acres, lying 4.1 miles Northwest of Cochise Station on the Southern Pacific Railroad, in Cochise Mining District, Cochise County, Arizona.

The claims extend along the vein in a Northwest and Southeast direction. Cochise Station has an elevation of 4,225 ft. The top of the shaft at the "Red Bird" is approximately 7,000 ft. elevation.

The property is easily accessible by automobile direct to the mine, over a private road from the main highway.

GEOLOGY. In general it would appear that the "Red Bird" property lies in the same vein system which characterizes the "Powers Mine" under the North side of Kilberg Peak, about forty miles Northwest, and the "Pierce Mine" lying twenty miles Southeast.

The general dip is to the East, and in the mountain where the property centers, the vein begins at a depth of about 165 ft., to "cauliflower" out, toward the surface, giving rise to innumerable ore shoots which appear as typical eruptions.

Many of these shoots have been mined in the earlier days and much unrecorded gold recovered therefrom. As they are followed down from the surface, they converge into a distinct vein with excellent foot-wall and hanging-wall.

The gangue material is greatly altered and consists of brecciated andesite, porphyry, rhyolite and occasionally limestone. When mined, that portion from the 165 ft. level to the surface runs about 58% through a ¼" screen. The balance is very friable and no problem is encountered in reduction to screen sizes for concentration.

At the 100 ft. level the breccia follows the hanging-wall and the limestone appears along the foot-wall. From this point to the bottom of the shaft, the

vein is well defined and averages 60 ft. in width. While not specifically lenticular, nevertheless wherever talcose schists occur, higher values are invariably found, as local enrichments of the vein.

WATER SUPPLY. At the 165 ft. bottom of the shaft, permanent underground water level appears. It is logical to suppose therefore, that by further sinking, abundant water will be available. In any event, should more be required, an unlimited supply can be piped from Sulpher Springs Valley, 2½ miles West.

DEVELOPMENT. The underground development consists of:

Shaft 165 ft. deep, 6'X8' and well timbered in 1½ compartments, with manway ladders and landings in excellent repair.

On the shaft-level, are drifts or tunnels, extending 70 ft. East and 60 ft. South, and a Winze 45 ft. deep; also an incline 45° to the 60 ft. level, on which is a drift 40 ft. South, and a winze to the 100 ft. level. On the 60 ft. level is also a tunnel extending 70 ft. South, another 60 ft. Northeast, and one 40 ft. West, together with a cross-cut 42 ft. long extending Southeast, to the winze mentioned above.

On the 100 ft. level, are tunnels extending 40 ft. East, 20 ft. South, 160 ft. to the shaft, 60 ft. West, and a cross-cut running 74 ft. Northeast and 64 ft. Southwest.

260 ft. down the hill, and Northeast from the main shaft, is another 90 ft. shaft, with a 140 ft. tunnel to the East.

Around the hill, 150 ft. North of the main shaft, is an 80 ft. tunnel driven transversely into the vein, known as the "Cave Tunnel".

There are therefore 425 ft. of shafts and winzes, and 1023 ft. of tunnels and cross-cuts covering the "cauliflower" area and down the established unbroken continuity of the vein between the regular foot and hanging-walls.

VALUES. It is stated by the owners that on the 45 ft. level at the bottom of the 45 ft. winze, 55 ft. Southeast of the shaft, values ran from $7.85 to $30. per ton, and in a lens following a talcose lead, and assay showed $400. per ton at $20.67 per oz. Similarly it is stated that in the 140 ft. East cross-cut from 90 ft. shaft down the hill, a channel sample of ore across 20 ft. of vein assayed $3.50 to $20.67 per oz.

The owners also offer the following data of assays made on ores removed in sinking the main shaft, all on $20.67 per oz.:

14 assays averaged $4.10 per ton, ranging from 30¢ to $9.30.
23 assays averaged $5.24 per ton, ranging from $1.38 to $16.23.

ORE IN SIGHT. The development indicated, together with a number of irregular prospect holes and stopes not listed, covers 500 ft. NW-SE along the vein, with an average recoverable width of 60 ft. and 180 ft. of backs from the tunnels and cross-cuts, at the foot of the main shaft.

500 X 60 X 180 = 5,400,000 cu. ft. Allowing 10 cu. ft. per ton for ore in place, this would show better than one-half million tons of proven ore. As a matter of fact, there are a number of cross-cuts and stopes lying filled with mined ore ready for removal and milling. It is impossible to estimate this amount, but it unquestionably runs into several thousand tons.

SAMPLING. Sample No. 1. Across 6 ft. in a raise 70 ft. East of main shaft on top of shaft level.

Sample No. 2. Across 9 ft. at head of winze 50 ft. Southeast of main shaft.

Sample No. 3. Across 8 ft. at bottom of 45

Sample No. 4. Across many small ore shoots on 60 ft. level, 50 ft. South of main shaft.

Sample No. 5. Across 40 ft. of vein on the 60 ft. level, 120 ft. South of main shaft.

Sample No. 6. Across 40 ft. of vein on the 100 ft. level at bottom of winze, 160 ft. Southeast of main shaft.

Sample No. 7. Across 8 ft. of tunnel, 60 ft. from foot-wall and along hanging-wall, on the 100 ft. level, 165 ft. South of main shaft.

Sample No. 8. General mine-run sample of vein at mouth of tunnel leading to Main Shaft. (Same material as general sample sacked for "Spiro"-Concentrator test.)

Sample No. 10. Across face of "Cave" tunnel to East.

Sample No. 11. Consists of "Spiro"-Concentrates from 126 pounds of mine run ore from which sample No. 8. above, was taken.)

ASSAYS. The original assay report on these 11 samples made by Harley A. Sill of Los Angeles, California, is submitted herewith and made a part of this report.

The general average of the ten straight samples is $4.83 per ton.

There are therefore in the approximately one-half million tons of ore in sight, not less than $2,000,000 recoverable.

A report on the concentration test of this ore is subtended hereto.

Respectfully submitted,

(Signed) Henry Mace Payne
Henry Mace Payne

The Red Bird Gold Mining and Milling Co.:

Gentlemen:

I have made an examination of your property, The Red Bird Gold Mining and Milling Company, and submit herewith a report.

Yours truly,

(Signed) Geo. A. Bethune

REPORT ON RED BIRD MINE BY GEO. A. [illegible]

LOCATION

The Red Bird Gold Mining and Milling Company's property is situated four and one-half miles west of the town of Cochise, a shipping point of the Southern Pacific Railroad, a trans-continental line. Also a junction point with the Arizona Eastern Railways. In the Cochise District, Cochise County, Arizona.

CLAIMS

The property consists of twelve claims. Mining and Mill-Site combined. These claims are held by U.S. Location.

GEOLOGY

The geology of the Cochise Mining District is made up principally of the Paleozoic sediment cut by granite porphry replacements, contact, Metamorphic Veins, etc. The intrusion of silicified phrphry rose through the limestone, lifted, shifted and engulfed the superimposed Paleozoic strata which is now the principal and ever occurring rock of this part of the district. The mineral is found principally in sills between layers of limestone and quartz porphyry and the base of the Paleozoic strata.

VEINS

The outcrop of the principal property has a northwest and a southeast strike with a dip to the east. The surface croppings vary from several hundred feet to over a thousand feet in width and can be traced for over a mile in length.

Considerable prospecting has been done on the Red Bird Mine shafts and cross-cut tunnels have been made on the other claims. The Red Bird was sunk to a depth of 100 feet and shows good values in gold and silver.

Only recently, development has demonstrated that the Cochise-Dixmi district is a district of deep mining and some of the veins are frequently barren for hundreds of feet in depth and open up in strong and big ore chutes. From the number of strong indictions of mineralized rock on the surface of this property it ought to encourage the management to prosecute the development of this property.

WATER

Sufficient water may be encountered in development of the property or a series of wells can be sunk nearby and water pumped to the mill at a nominal cost.

CONCLUSION

Summing up, I find the property is traversed by numerous strong croppings. These croppings show gold and silver values. Everybody realizes that mining especially in its development stage has decided elements of chance and that nothing can be guaranteed in depth, but from my samples taken at different dumps, surface and openings on the property I can consistently state that the Red Bird Gold Mining and Milling Co. hold out excellent promise to develop into a big mine. In fact I do not know of another property that has such a big showing of mineral on the surface. All this is confirmed by tests: mostly large samples being taken and from the past development there is nothing to refute this statement, that work should be prosecuted and the property put on a paying basis.

RED BIRD GOLD MINING AND MILLING COMPANY

ASSAYS

	Gold	Silver	Total
Lower Level	$ 6.20	$ 2.47	$ 8.67
100 ft. level	6.00	1.06	7.06
" " "	22.40	1.56	23.96
" " "	6.80	.98	7.78
" " "	6.00	1.04	7.04
" " "	4.20	2.21	6.41
" " "	11.20	2.80	14.00
" " "	6.00	1.17	7.17
52 ft. level	6.40	1.20	7.60
" " "	2.00	1.30	3.30
" " "	6.00	1.43	7.43
" " "	2.00	1.19	3.19
" " "	6.00	1.24	7.24
" " "	5.00	2.47	7.47
" " "	18.00	1.43	19.43
Dumps	6.00	2.21	8.21
"	5.00	2.34	7.34
"	5.80	1.69	7.49
"	3.70		3.70
"	3.96		3.96
Surface	3.68		3.68
"	3.76		3.76
"	2.76		2.76
"	6.80		6.80

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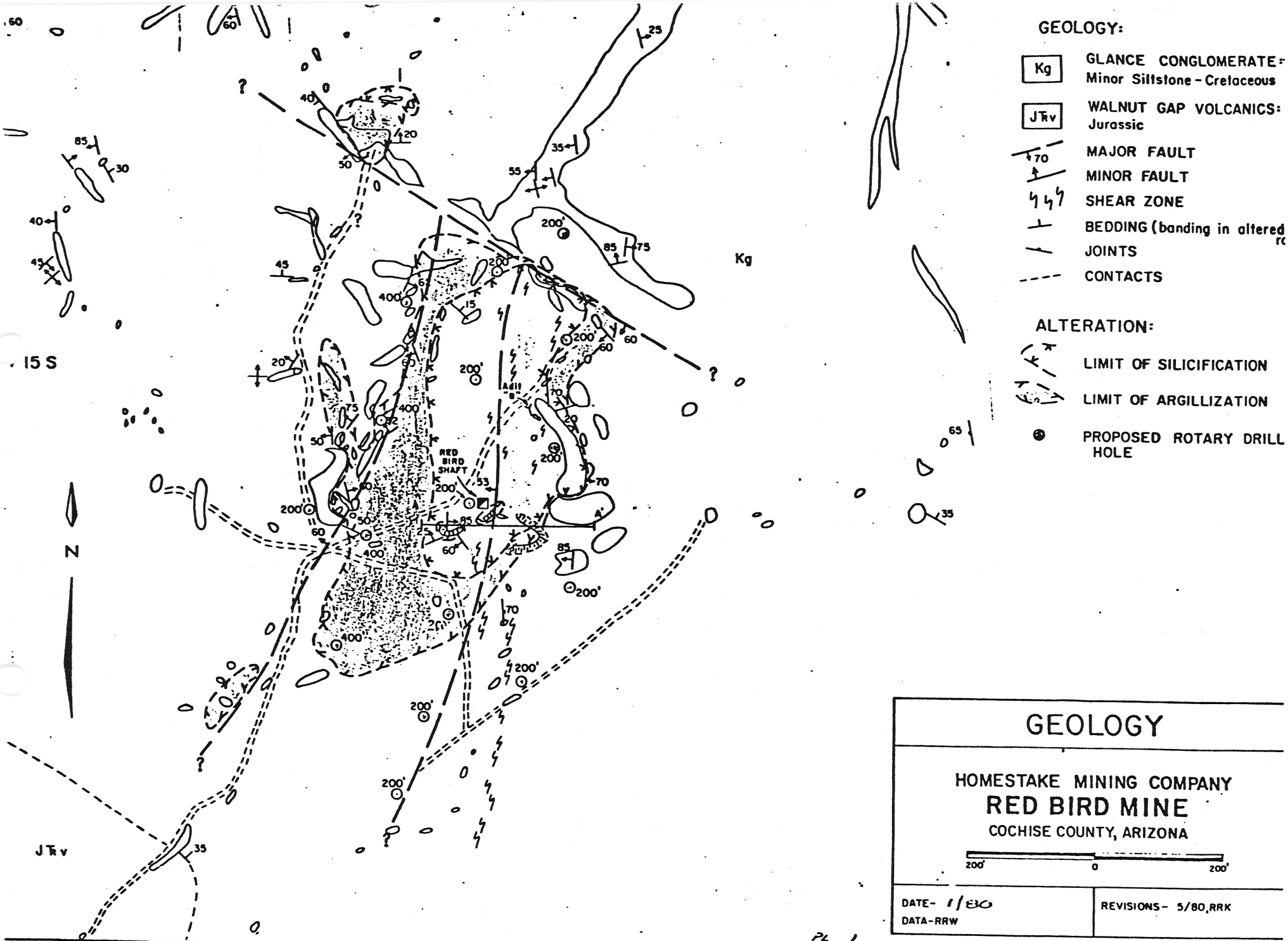
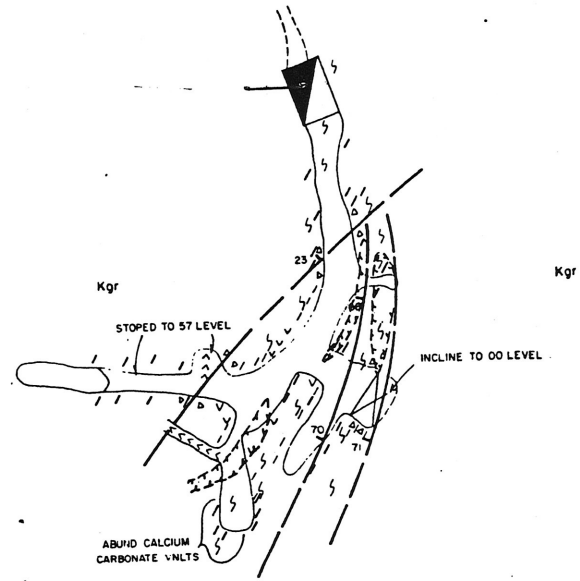
* Gold at $20.00 per oz., silver at old values


GEOLOGY:
Kg
GLANCE CONGLOMERATE: Minor Siltstone - Cretaceous
JTRv
WALNUT GAP VOLCANICS: Jurassic
MAJOR FAULT
MINOR FAULT
SHEAR ZONE
BEDDING (banding in altered rc
JOINTS
CONTACTS
ALTERATION:
LIMIT OF SILICIFICATION
LIMIT OF ARGILLIZATION
PROPOSED ROTARY DRILL HOLE
RED BIRD SHAFT
Kg
JTRv
15 S
N
GEOLOGY
HOMESTAKE MINING COMPANY
RED BIRD MINE
COCHISE COUNTY, ARIZONA
200' 0 200'
DATE- 1/80
DATA-RRW
REVISIONS- 5/80, RRK
PL 1



Explanation

Kgp	GLANCE CONGLOMERATE: PEBBLE POOR
Kgr	GLANCE CONGLOMERATE: PEBBLE RICH

ALTERATION

- HEAVY SILICIFICATION
- WEAK SILICIFICATION
- HEAVY ARGILLIC ALTERATION
- WEAK ARGILLIC ALTERATION
- FeOx: PRINCIPALLY HEMATITE, GOETHITE
- CONTACT
- MAJOR STRUCTURE
- SHEARING
- BRECCIATION

GEOLOGY-LEVEL 42

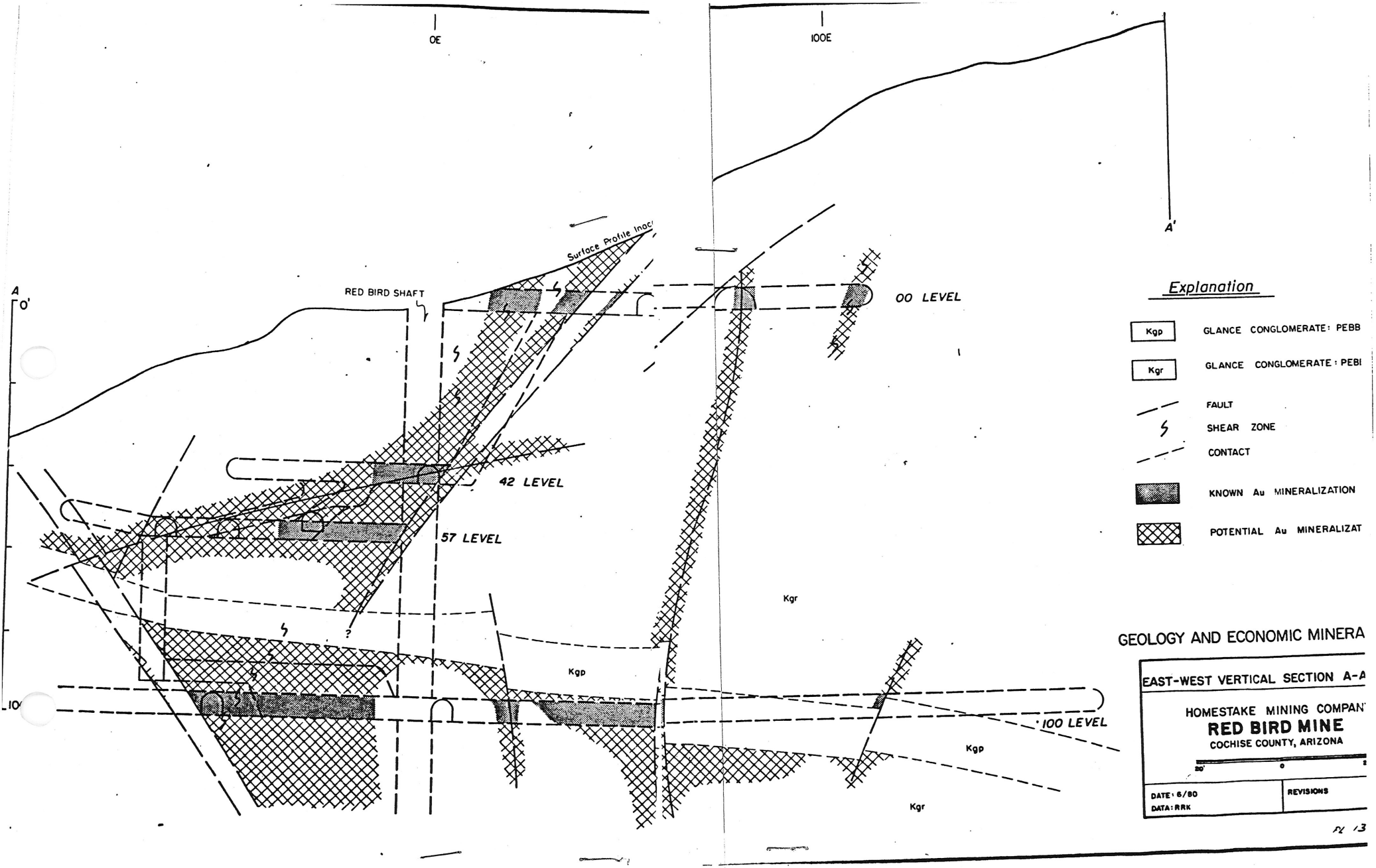
HOMESTAKE MINING COMPANY
RED BIRD MINE
COCHISE COUNTY, ARIZONA

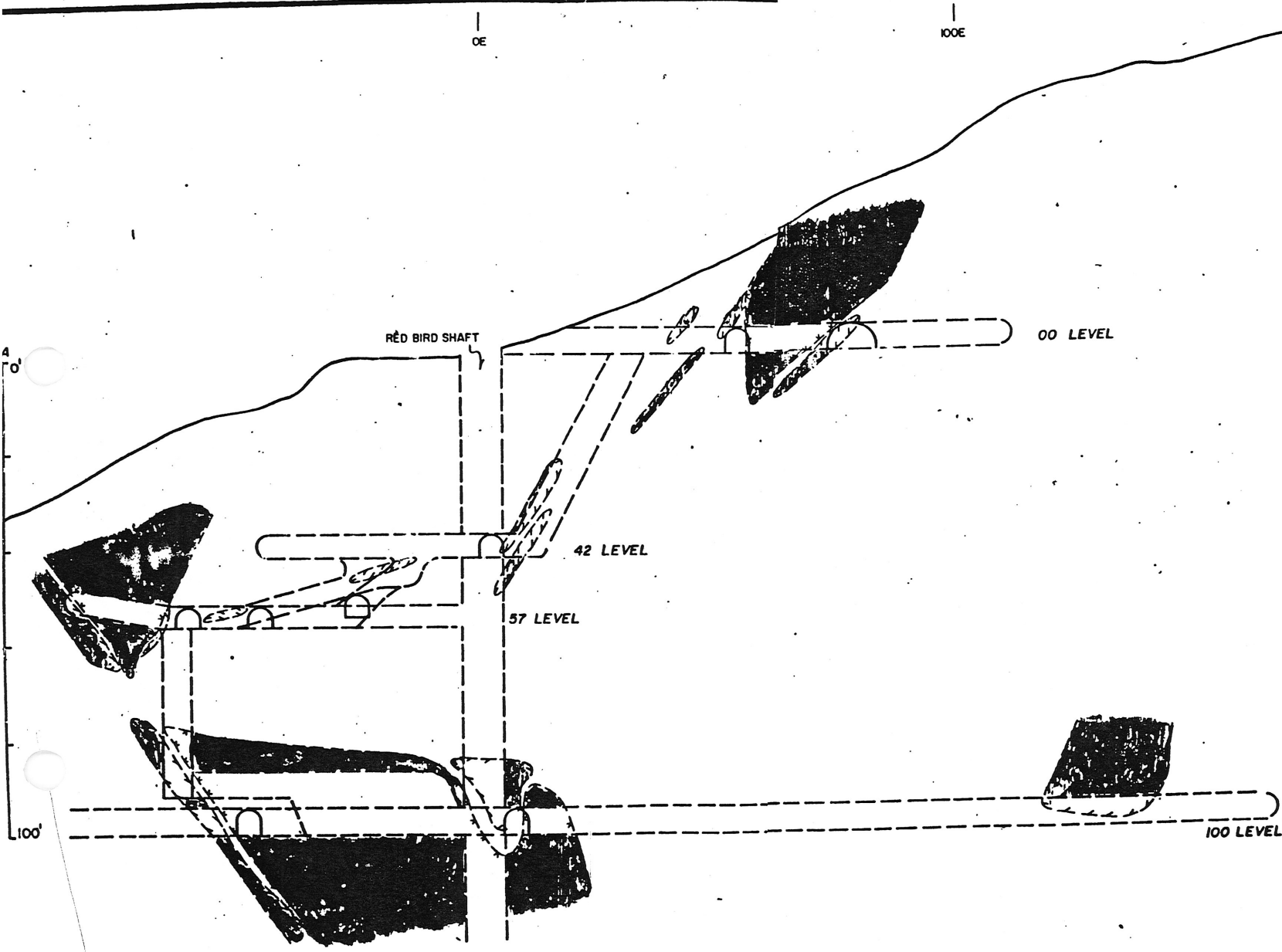
20' 0 20'

DATE 5/80
DATA: RRW

REVISIONS · R R K , F.S.H

Pl. 7


0E
100E
A
A'
0'
100
RED BIRD SHAFT
Surface Profile Inac
00 LEVEL
42 LEVEL
57 LEVEL
100 LEVEL
Kgr
Kgp
Kgp
Kgr
Explanation
Kgp GLANCE CONGLOMERATE: PEBB
Kgr GLANCE CONGLOMERATE: PEBI
FAULT
SHEAR ZONE
CONTACT
KNOWN Au MINERALIZATION
POTENTIAL Au MINERALIZAT
GEOLOGY AND ECONOMIC MINERA
EAST-WEST VERTICAL SECTION A-A
HOMESTAKE MINING COMPAN
RED BIRD MINE
COCHISE COUNTY, ARIZONA
DATE: 6/80
DATA: RRK
REVISIONS
PL 13



ALTERATION OVER

EAST-WEST VERTICAL SECTION

HOMESTAKE MINING CO

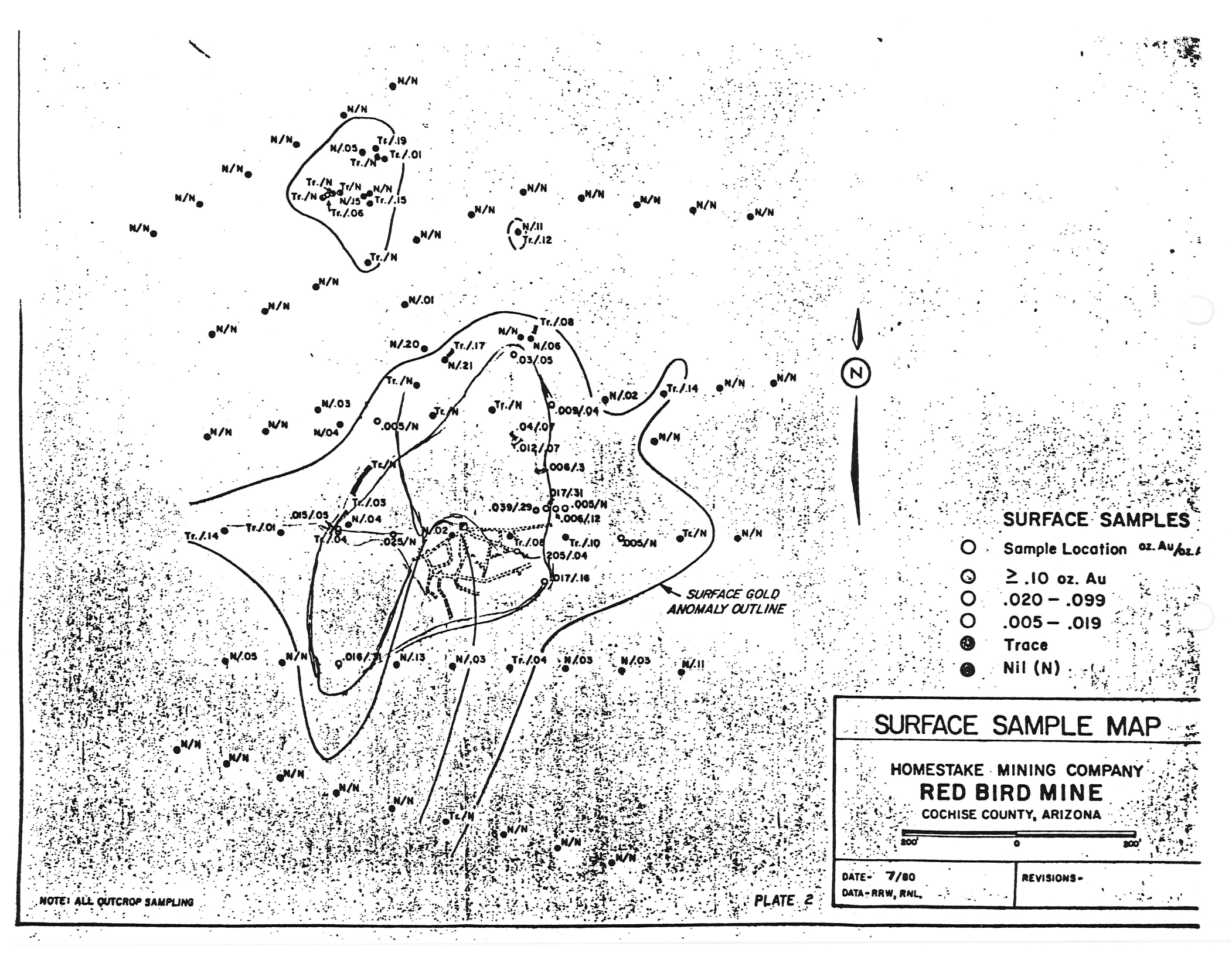
RED BIRD MIN

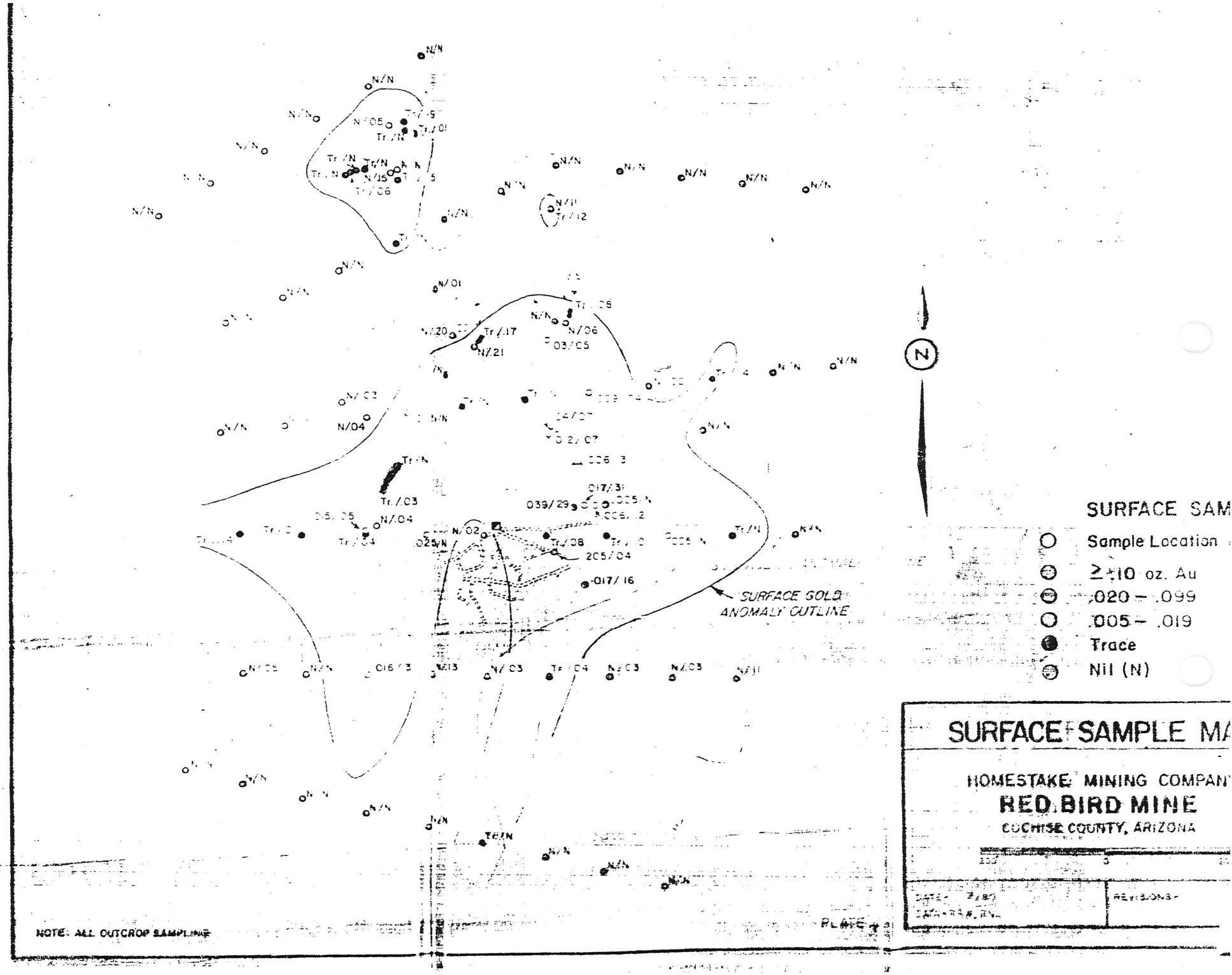
COCHISE COUNTY, ARIZO

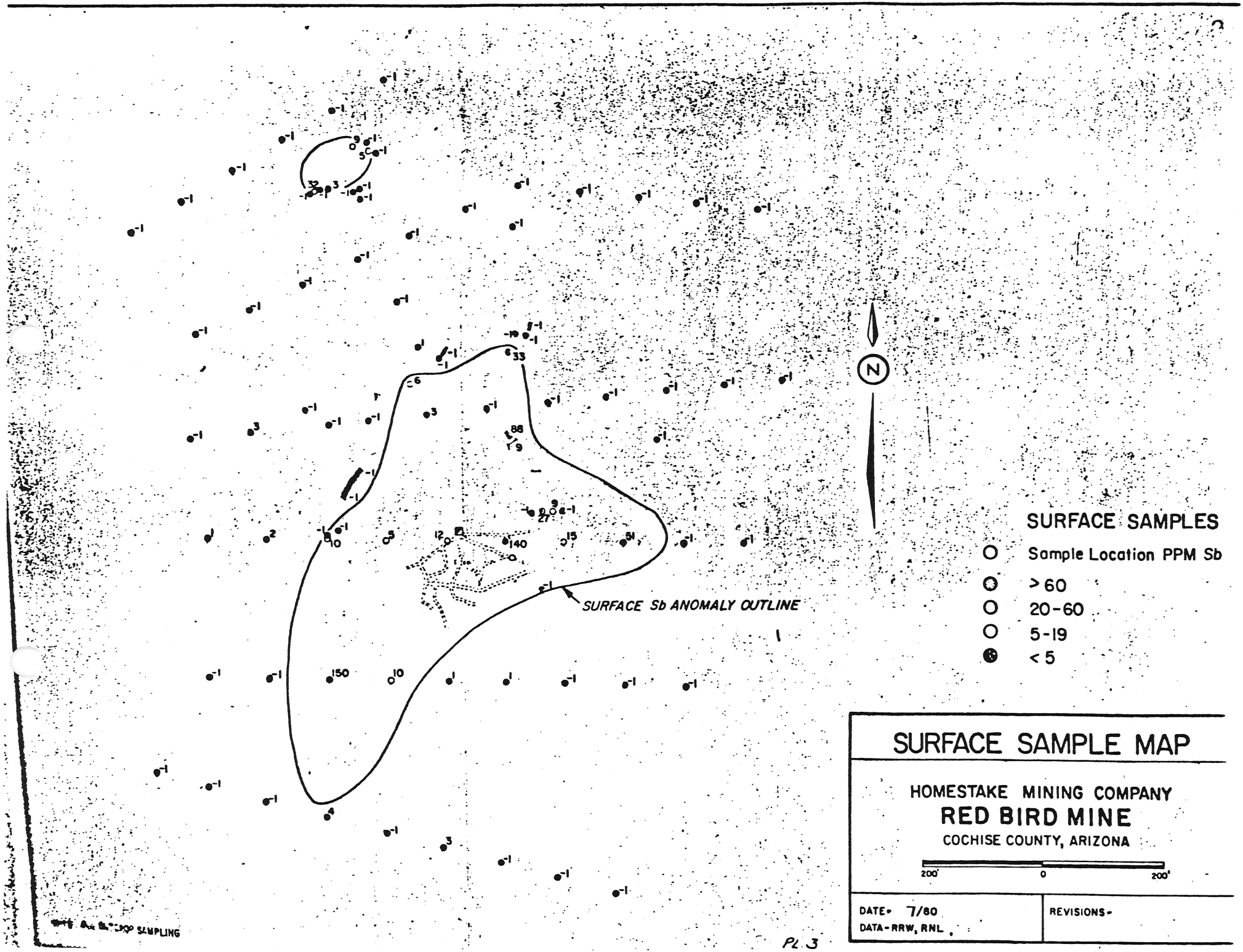
DATE: 6/90

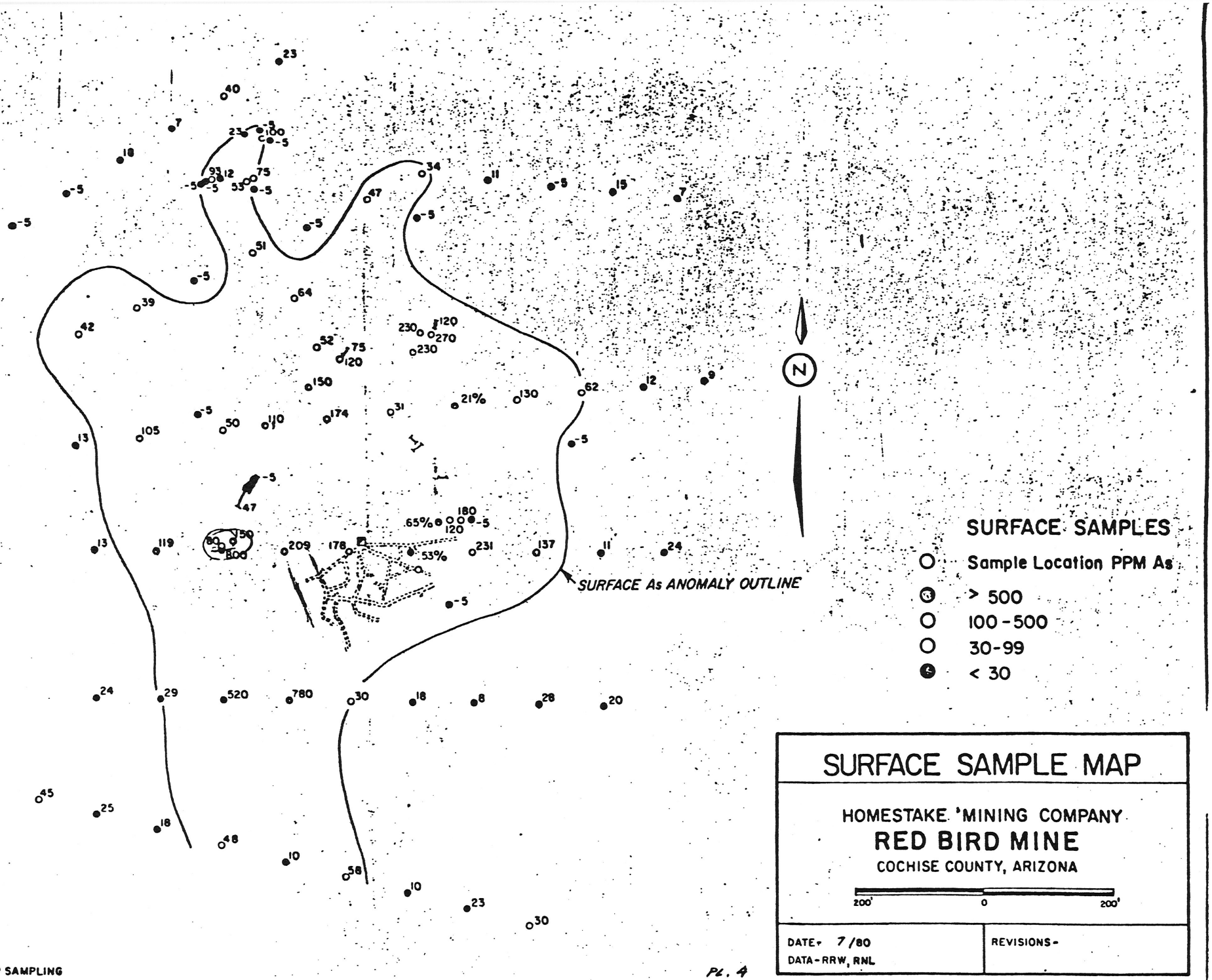
DATA: RRK

REVISIONS

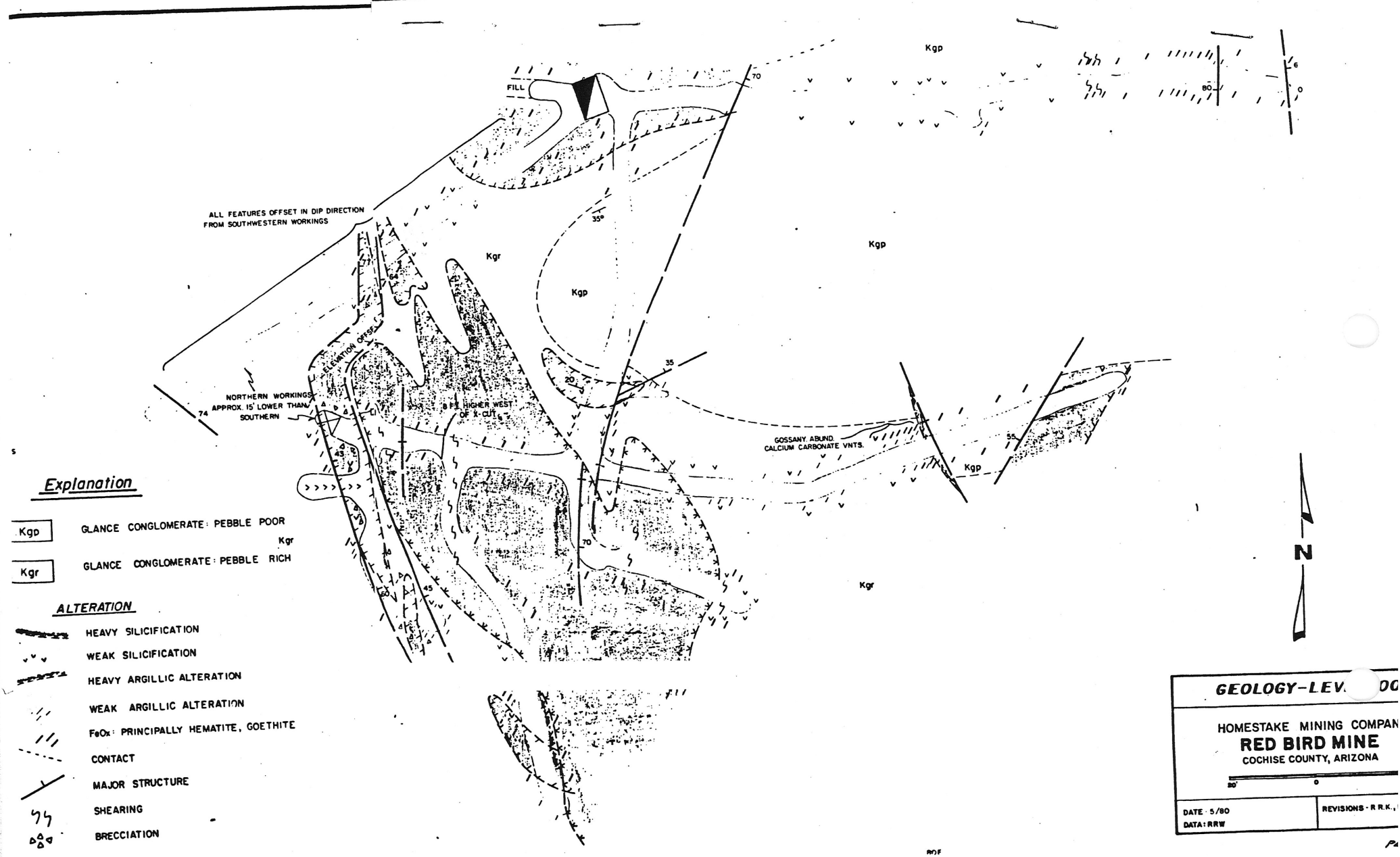

SURFACE SAMPLES
Sample Location oz. Au/oz. Ag
≥ .10 oz. Au
.020 – .099
.005 – .019
Trace
Nil (N)
SURFACE GOLD ANOMALY OUTLINE
N
SURFACE SAMPLE MAP
HOMESTAKE MINING COMPANY
RED BIRD MINE
COCHISE COUNTY, ARIZONA
200' 0 200'
DATE- 7/80
DATA-RRW, RNL.
REVISIONS-
NOTE: ALL OUTCROP SAMPLING
PLATE 2

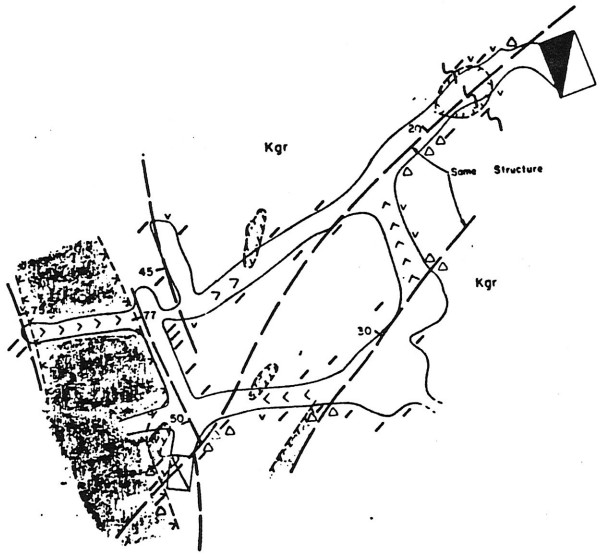

SURFACE SAM
Sample Location
≥ .10 oz. Au
.020 – .099
.005 – .019
Trace
Nil (N)
SURFACE GOLD ANOMALY OUTLINE
N
SURFACE SAMPLE MA
HOMESTAKE MINING COMPAN
RED BIRD MINE
COCHISE COUNTY, ARIZONA
NOTE: ALL OUTCROP SAMPLING


SURFACE SAMPLES
Sample Location PPM Sb
> 60
20-60
5-19
< 5
SURFACE Sb ANOMALY OUTLINE
N
SURFACE SAMPLE MAP
HOMESTAKE MINING COMPANY
RED BIRD MINE
COCHISE COUNTY, ARIZONA
200'
0
200'
DATE- 7/80
DATA-RRW, RNL
REVISIONS-
PL 3



TE: ALL OUTCROP SAMPLING


FILL
ALL FEATURES OFFSET IN DIP DIRECTION FROM SOUTHWESTERN WORKINGS
ELEVATION OFFSET
NORTHERN WORKINGS APPROX. 15' LOWER THAN SOUTHERN
8 FT. HIGHER WEST OF X-CUT
GOSSANY, ABUND. CALCIUM CARBONATE VNTS.
Kgp
Kgr
N
Explanation
Kgp GLANCE CONGLOMERATE: PEBBLE POOR
Kgr GLANCE CONGLOMERATE: PEBBLE RICH
ALTERATION
HEAVY SILICIFICATION
WEAK SILICIFICATION
HEAVY ARGILLIC ALTERATION
WEAK ARGILLIC ALTERATION
FeOx: PRINCIPALLY HEMATITE, GOETHITE
CONTACT
MAJOR STRUCTURE
SHEARING
BRECCIATION
GEOLOGY-LEV
HOMESTAKE MINING COMPAN
RED BIRD MINE
COCHISE COUNTY, ARIZONA
DATE: 5/80
DATA: RRW
REVISIONS - R.R.K.,



ɜnation

ELANCE CONGLOMERATE: PEBBLE POOR

ELANCE CONGLOMERATE: PEBBLE RICH

RATION

HEAVY SILICIFICATION

WEAK SILICIFICATION

HEAVY ARGILLIC ALTERATION.

WEAK ARGILLIC ALTERATION

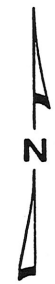
eOx: PRINCIPALLY HEMATITE, GOETHITE

CONTACT

MAJOR STRUCTURE

SHEARING

BRECCIATION



GEOLOGY - LEVEL 57

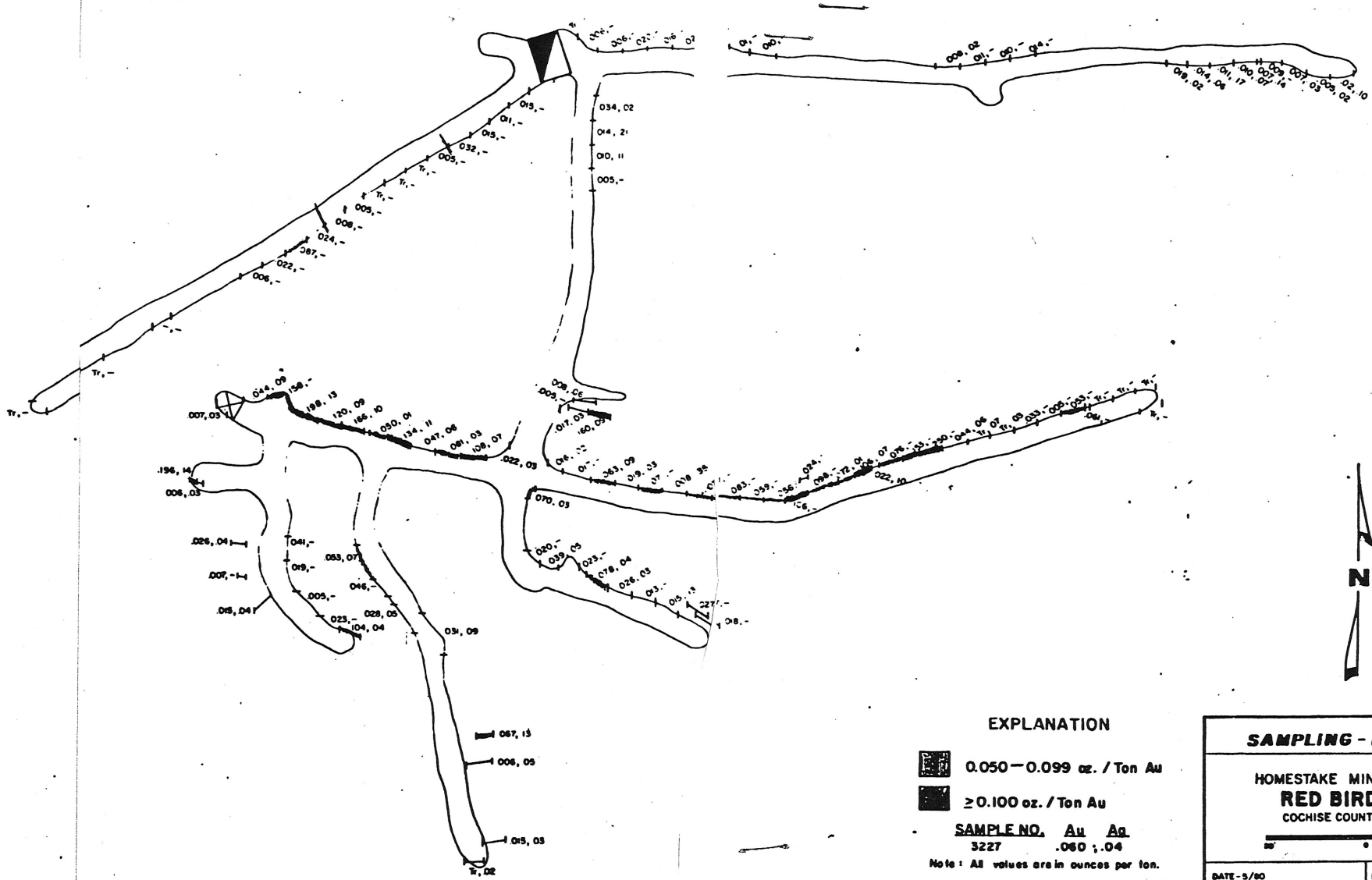
HOMESTAKE MINING COMPANY

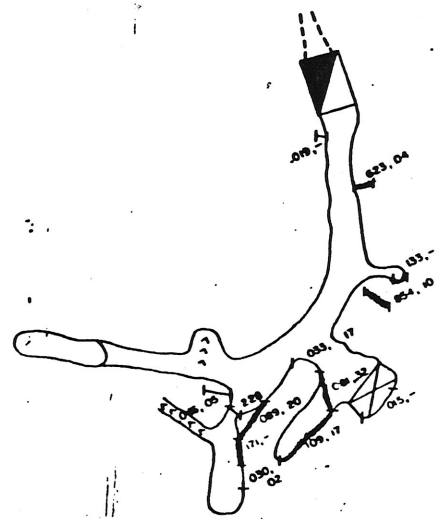
RED BIRD MINE

COCHISE COUNTY, ARIZONA

20 0 20

DATE 5/80 DATA: RRW	REVISIONS: RRK, FSH


N
EXPLANATION
0.050 — 0.099 oz. / Ton Au
≥ 0.100 oz. / Ton Au
SAMPLE NO. Au Ag
3227 .060 ; .04
Note : All values are in ounces per ton.
SAMPLING - LEVEL 10
HOMESTAKE MINING COMPANY
RED BIRD MINE
COCHISE COUNTY, ARIZONA
DATE - 5/80
DATA: RRW
REVISIONS - R.R.K., F
Pl.



EXPLANATION

0.050—0.099 oz. / Ton Au

≥0.100 oz. / Ton Au

SAMPLE NO.	Au	Ag
3227	.060	.04

Note: All values are in ounces per ton.

N

SAMPLING - LEVEL 42

HOMESTAKE MINING COMPANY

RED BIRD MINE

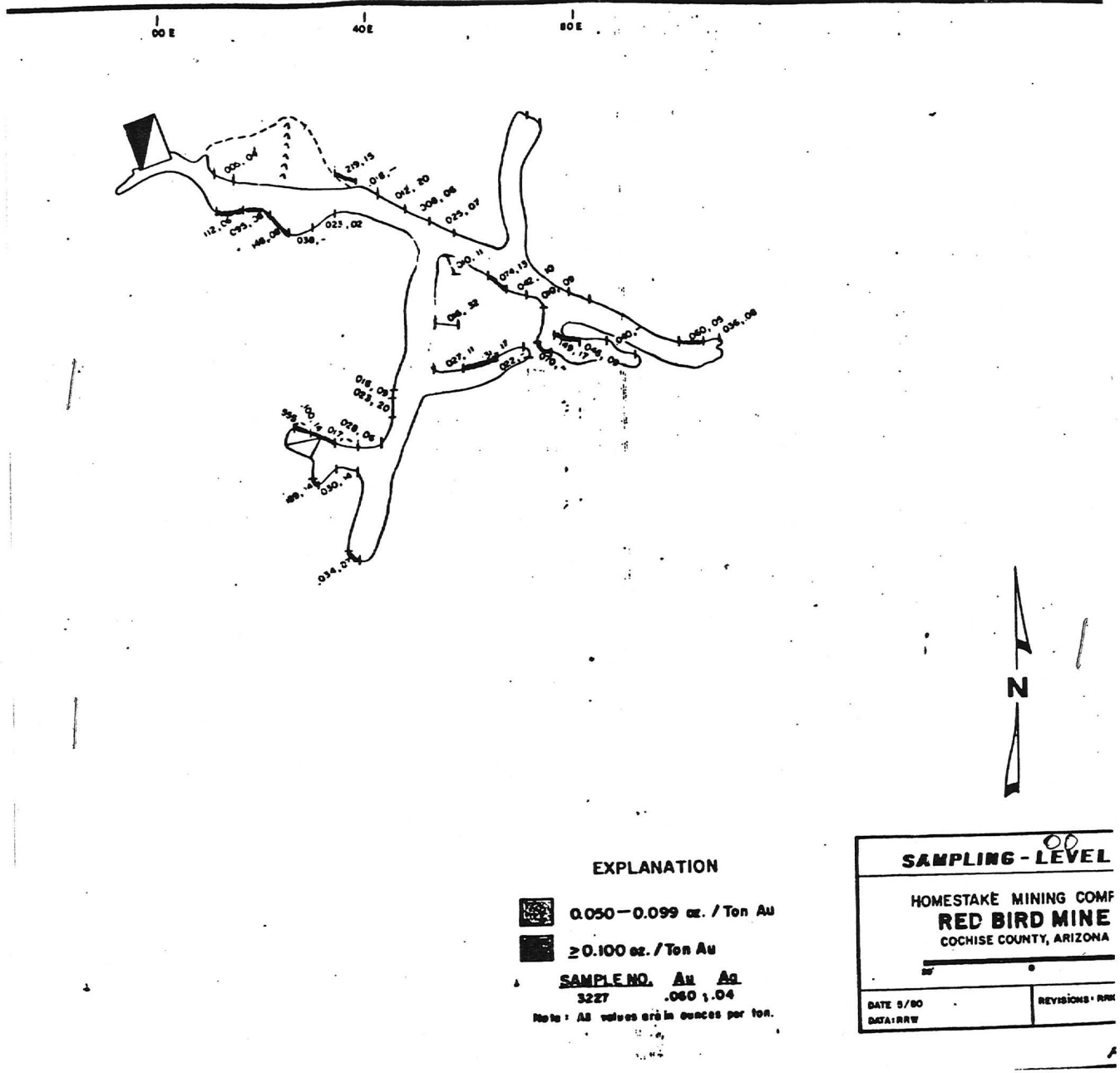
COCHISE COUNTY, ARIZONA

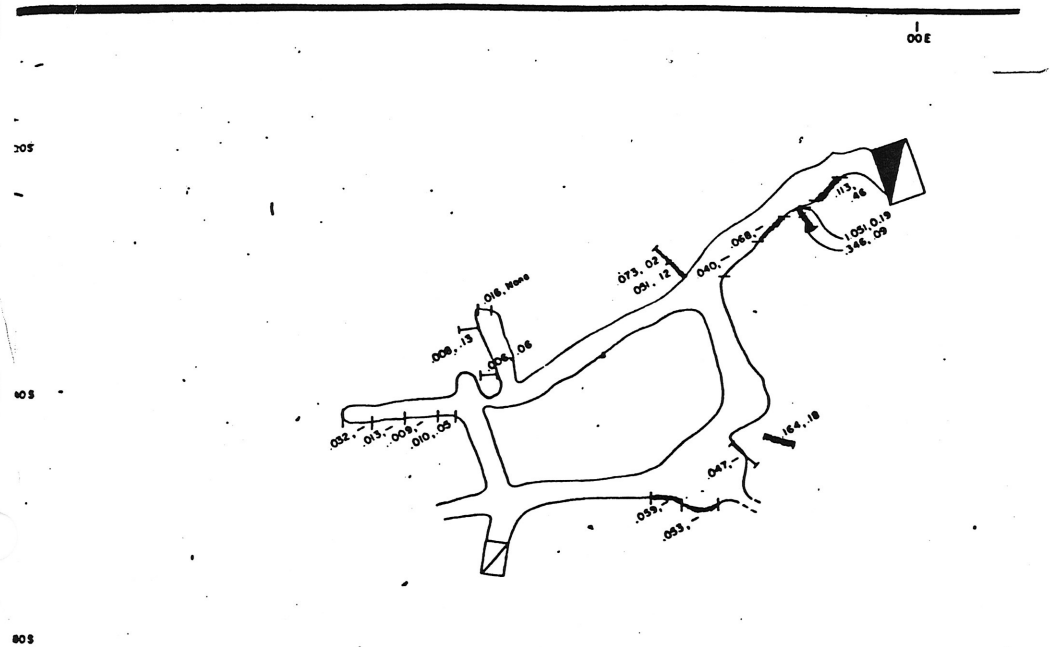
50' 0 50'

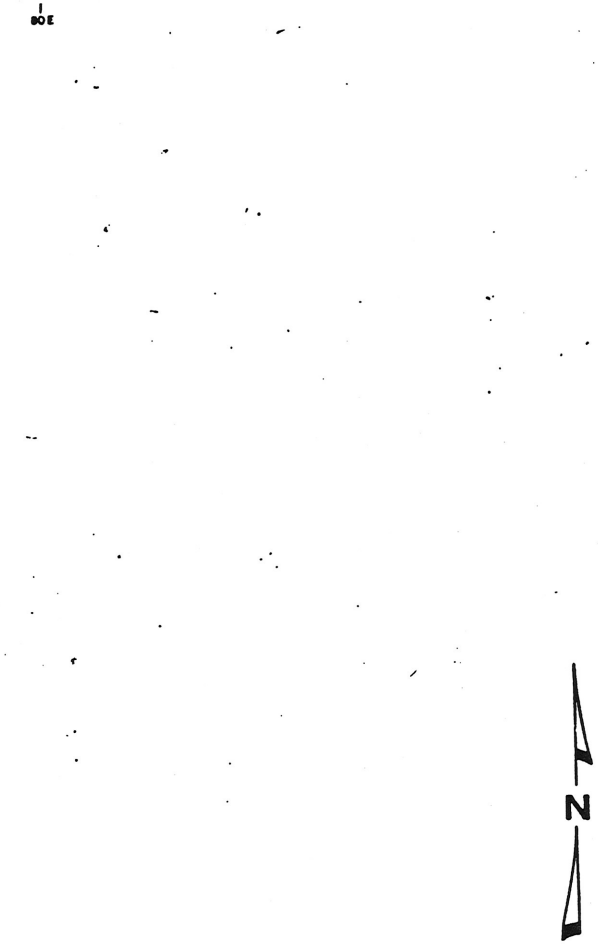
DATE 5/80
DATA: RRW

REVISIONS - R.R.K., F.S.H.

Ex. 8


00 E
40 E
80 E
N
EXPLANATION
0.050—0.099 oz. / Ton Au
≥0.100 oz. / Ton Au
SAMPLE NO. Au Ag
3227 .060 1.04
Note: All values are in ounces per ton.
SAMPLING - LEVEL
HOMESTAKE MINING COMP
RED BIRD MINE
COCHISE COUNTY, ARIZONA
DATE 5/80
DATA: RRW
REVISIONS: RRW





EXPLANATION

0.050 — 0.099 oz. / Ton Au

≥ 0.100 oz. / Ton Au

SAMPLE NO.	Au	Ag
3227	.060	.04

Note: All values are in ounces per ton.

SAMPLING - LEVEL 57

HOMESTAKE MINING COMPANY

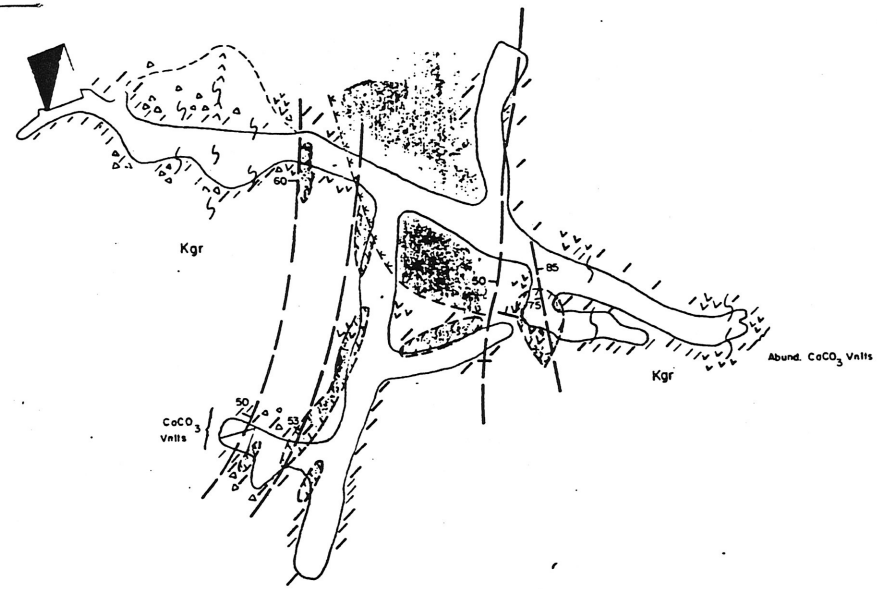
RED BIRD MINE

COCHISE COUNTY, ARIZONA

50' 0 50'

DATE	REVISIONS 5/80
DATA: RRW, R.N.L.	

PL. 10



Explanation

GLANCE CONGLOMERATE: PEBBLE POOR

GLANCE CONGLOMERATE: PEBBLE RICH

ALTERATION

HEAVY SILICIFICATION

WEAK SILICIFICATION

HEAVY ARGILLIC ALTERATION

WEAK ARGILLIC ALTERATION

FeOx: PRINCIPALLY HEMATITE, GOETHITE

CONTACT

MAJOR STRUCTURE

SHEARING

BRECCIATION

N

GEOLOGY – LEVEL 00

HOMESTAKE MINING COMPANY

RED BIRD MINE

COCHISE COUNTY, ARIZONA

20' 0 20'

DATE 5/80
DATA: RRW

REVISIONS: RRK, FSH

Pl. 5