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PD Badger claims D. 217 P. 105

Sec 28, T. 5 S. R. 26 E.

Sec 29, ~~Sec 20~~

Mardi Gras D. 217, P. 116

Sec 20, T. 5 S., R. 26 E.

Sec 17, Sec 21

HOLEDEPTH

A-11	265
A-13	410
A-18	429
A-27	632
A-28	1750
A-30	436
A-31	281
A-32	200
A-33	200
A-34	200
A-35	1175
A-36	200
A-37	200
A-38	355
A-39	200
A-40	200
A-41	530
A-42	100
A-43	100
A-44	100
A-45	770
A-46	100
A-47	100
A-48	100
A-49	110
A-50	2833
A-52	100

HOLE	DEPTH	HOLE	DEPTH
A-53	100	RL-3	2522
A-54	100	RL-4	2621
A-55	100	RL-5	2548
A-56	100	RL-6	2564
A-57	100	RL-7	2512
A-58	200	RL-8	2605
A-59	200	RL-9	2536
A-60	100	RL-10	2561
A-61	100	RL-11	2512
A-62	100	RL-12	1982
A-64	2712	RL-13	1335
A-65	1945	RL-14	2501
A-66	2074	RL-15	3066
A-69	2298	RL-16	20
A-70	1600	RL-19	2052
A-71	1200	RL-20	1040
A-72	1350	RL-21	1474
A-73	2099	RL-22	1602
A-74	1508	RL-23	2000'
A-75	2201	RL-24	2000'
A-76	1735	RL-25	2600'
A-78	941	RL-26	2549
A-79	1150		
A-80	600		
A-81	1000'		
A-82	300		
RL-1	2483		
RL-2	2775		

RL-1

Das Pobres #5

2483'

oxidation to minimum 1000'

oxide assays to 1.27% Cu

sulfide assays to 1.68%

RL-2

Das Pobres #1

2775'

shallow oxidation - sulfides at 95'

extensive sulfide mineralization - ^{10 foot} assays up to 1.08% Cu

RL-3

Das Pobres #3

2522'

oxidation to minimum of 1000'

oxide mineralization 7' to 10' assays to 2.08% Cu

sulfide assays to 1.94% Cu

RL-4

Das Pobres #6

2621'

penetrated Foothill Fault at 1300'

first sulfides at 1500'

oxide assays to 0.64% Cu

sulfide assays to 1.12% Cu

RL-5

Das Pobres #4

2548'

oxidation to minimum 1000'

oxide assays to 0.71% Cu

sulfide assays to 2.11% Cu

RL-6

Das Pobres #9

2564'

oxidation to 912'

oxide assays to 1.02% Cu

sulfide assays to 1.17% Cu

significant Mo at depth

RL-7

Das Pobres #7

2512'

penetrated Foothill Fault at 675'

first sulfides at 1022'

oxide assays to 2.02% Cu

sulfide assays to 3.01% Cu

RL-8

Das Pobres #10

2605'

oxidation to 1041'

oxide assays to 2.31%

sulfide assays to 1.35%

RL-9

Das Pobres #8

2536'

penetrated Foothill Fault at 256'

first sulfides at 866'

oxide assays to 0.70% Cu

sulfide assays to 0.66% Cu

RL-10

Das Pobres #2

2561'

oxidation to 1045'

extensive column of sulfide mineralization.

10' assays up to 0.76% Cu

RL-11

Das Pobres #7

penetrated fault at 1833'

first sulfides 2296

oxide assays to 0.71% Cu

sulfide assays to 1.57% Cu

*

RL-12

Das Pobres #23

1982'

penetrated Foothill Fault at 1751'

sulfides immediately below fault

sulfide assays to 1.02% Cu

significant Ma at depth

abandoned due to caving at 1977', (in ore?)

RL-13

~~Das Pobres~~ Pasoford #10

1335'

younger series basalt, etc. to 1133'

did not penetrate fault

native copper and sulfides 927-1002

assays to 0.08% Cu

RL-14

Das Pobres #24

2501'

pyritic capping in footwall

first sulfides at 551'

sulfide assays to 1.55% Cu

RL-15

Birthday #3

3066'

older andesite both sides of fault,

fault zone 2208 - 2440

first sulfides 2456'

sulfide assays to 1.45% Cu

RL-16

Das Pobres #10

20'

(?)

RL-19

Hades #2

2052'

penetrated Foothill Fault at 1440'
weak sulfide mineralization at 1535'
sulfide assays to 0.06% Cu

RL-20

Pasoford #4

1040'

younger series gravel to 420'
bottomed in hanging wall
assays up to 0.09% Cu

RL-21

Birthday #1

1474'

younger series basalt, etc to 1240'
abandoned in andesite at 1470' because
of extreme brecciation

RL-22

Pasoford #2

1602

penetrated Foothill Fault (no depth given)
first sulfides at 1188'
sulfide assays to 0.09% Cu
abandoned due to caving at 1602'

RL-23

Birthday #10

RL-24

Chino #1A

RL-25

Pasoford #9

RL-26

Das Pobres #4

2549'

oxidation to minimum 1000'

oxide assays to 1.05% Cu

sulfide assays to 6.12% Cu

A-13

Lucky Strike #4

979'

first sulfides 40'

material of assays to 0.50% Cu

A-28

Gold Hill #1

1750'

first sulfides 1420' ; relict sulfides 670'
material 7 assays to 0.52% Cu

A-35

Hades #1

1175'

penetrated fault 360'
oxidation to minimum 1000'
assays in oxidized zone to 0.17% Cu

A-41

Pasoford #3

530'

penetrated Foothill Fault 180'
no sulfides encountered
assays up to 0.29%

	ST SF	FAULT / PD	DEPTH	COL EL	DIS FROM FAULT
RL-4	1500'(63°)	1300'(59°)	2621	4140	760'
RL-7	1022'(67°)	675'(58°)	2512		420'
RL-9	866'	256'	2536		
RL-11	2296(63°)	1833(57°) ^{NO WAY}	2572		1130'
RL-12	1751'(63°)	1751'(63°)	1982		900' (SIGN MO)
RL-13	DID NOT PENETRATE FAULT		1535		1520'
RL-14	551(70°)	?	2501		200'
RL-15	2456'(60°)	2208'(57°)	3066		1420'
RL-20	DID NOT PENETRATE FAULT		1040		1050'
RL-22	1188(49°)	?	1602		1250'
RL-25	DID NOT PENETRATE FAULT		2600		2400
A-18	240'(79°)	?	429'		30'
A-27	DID NOT PENETRATE FAULT		632'		1500
A-41	CLMS NO SULFIDES	180'(32°)	530'		300
A-45	CLMS NO SULFIDES DID NOT PENETRATE FAULT		770'		1350'
A-50	2500'(58°)	?	2833		1550'
A-64	2180(47°)		2712		2000'
A-65	NO SULFIDES - DID NOT PENETRATE FAULT		1945		2200
A-66	DID NOT PENETRATE FAULT		2074		1800
A-80	DID NOT PENETRATE FAULT		600'		
A-81	SULFIDES @ 911'	DID NOT PENETRATE FAULT	1000		1500'
A-82	DID NOT PENETRATE FAULT		300'		

~~Drilling Cost~~ ES-31
 DRILLING INFO & COST -

RIG MOVED IN 11/12/74 - SPENT 5 DAYS
 CLEANING OUT AND REAMING HOLE TO PREVIOUS DEPTH
 OF 1800' - ROTARY STARTED 11/19/74 - DRILLED TO
 2105'. DUE TO CONDITION OF HOLE, CASING WAS PUT
 IN TO 2105' AND CORING COMMENCED ON 11/29/74

DRILLING COSTS TO 11/30/74, WAS : 18,802.34
 Depth : 2158

DRILLING CONTINUED IN DECEMBER. Depth AT
 END OF DRILLING FOR DECEMBER IS 2623. DUE TO
 BAD GROUND AND POOR DRILLING, FOOTAGE OF HOLE
 WAS NOT UP TO STANDARDS. APPROX COST TO END
 OF DECEMBER INCLUDING ALL DRILLING AND EXTRANOUS
 COSTS, IS : 12,298

TOTAL COST OF HOLE, END OF DEC. \$ 31,100
1,724
30
 11/4/74 \$ 32,854

2735
 2623

 112

1540
 112

 13080
 1540
 1540

 172480

A 11

P. D.

SCALE: 1" = 500'

Col. el. 3820

Tb
Mag

Basalt

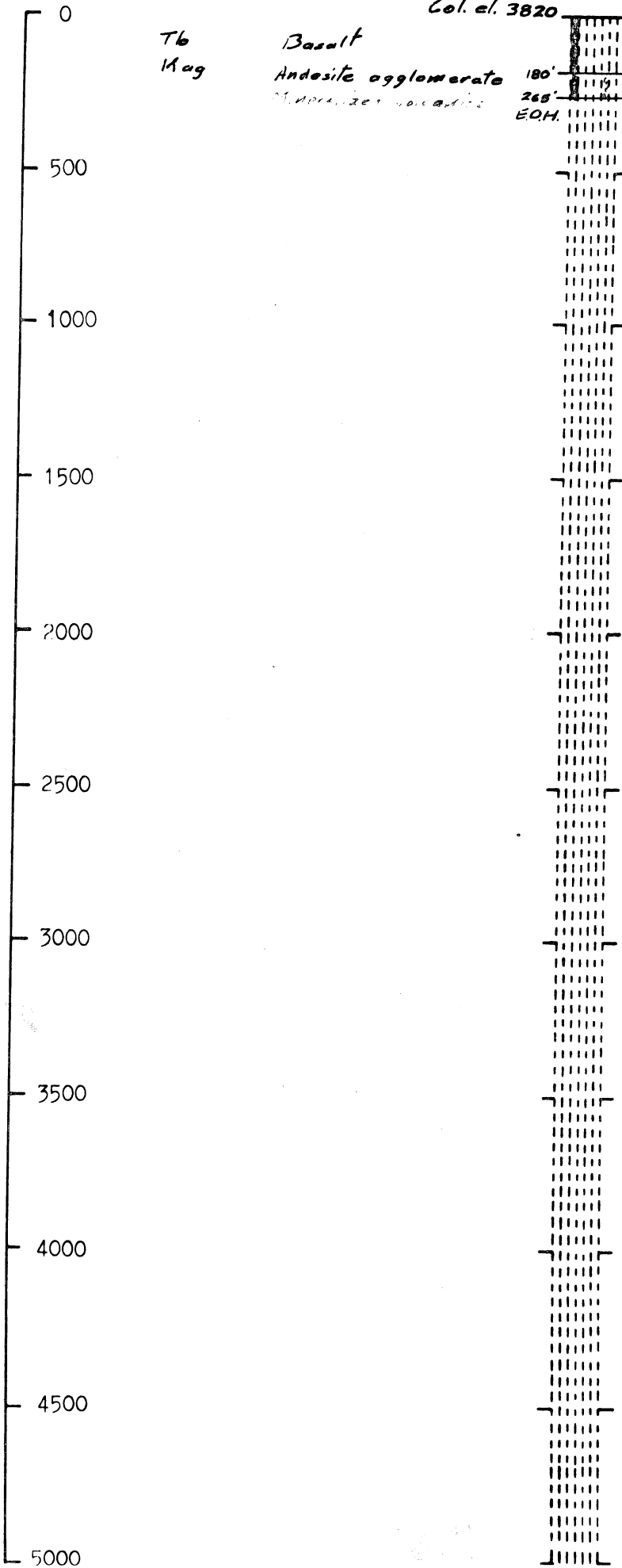
Andesite agglomerate
of andesite volcanics

180'

265'

EQH.

Limonite + Hematite

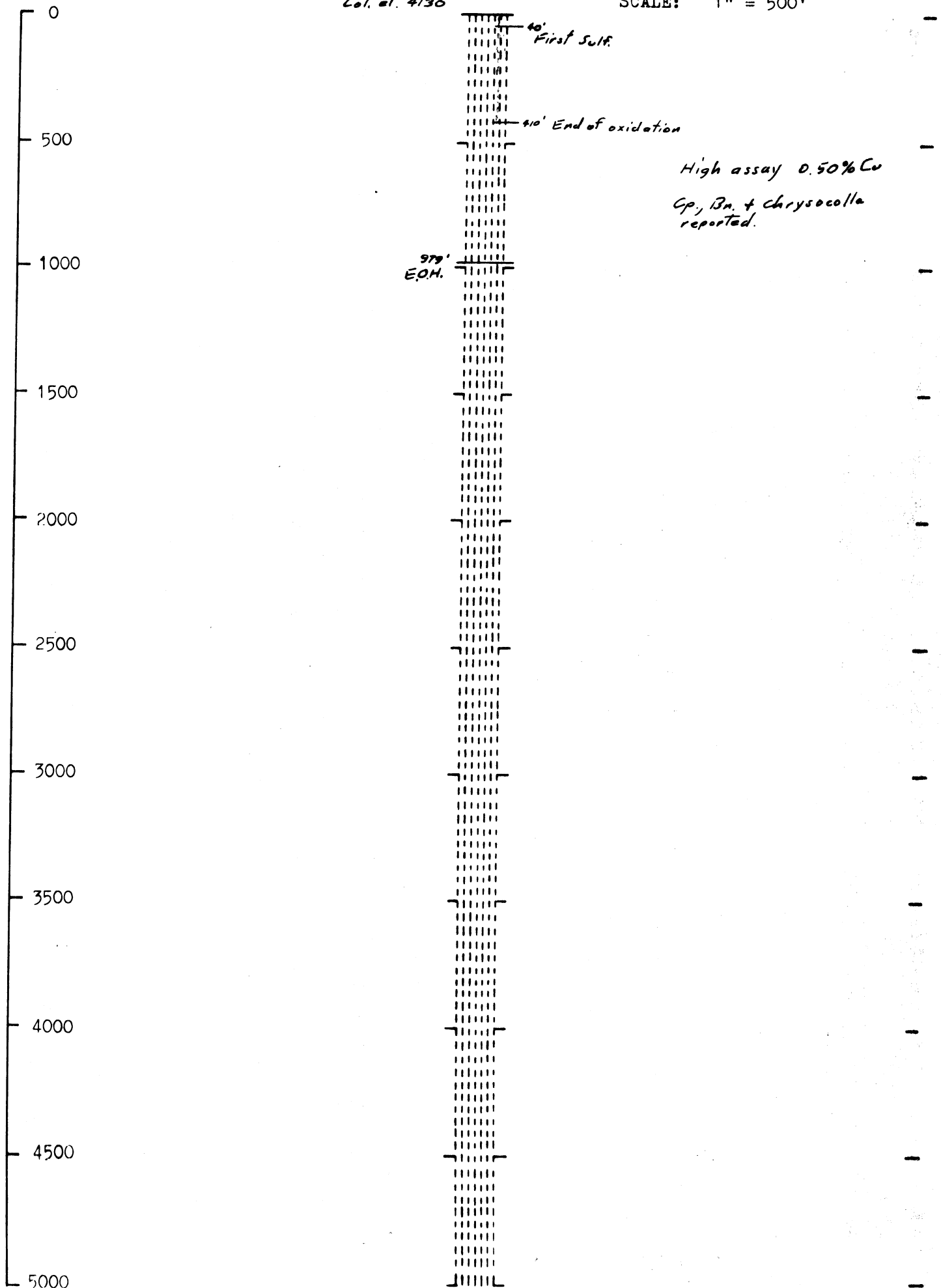


A 13

P.D.

Col. el. 4130

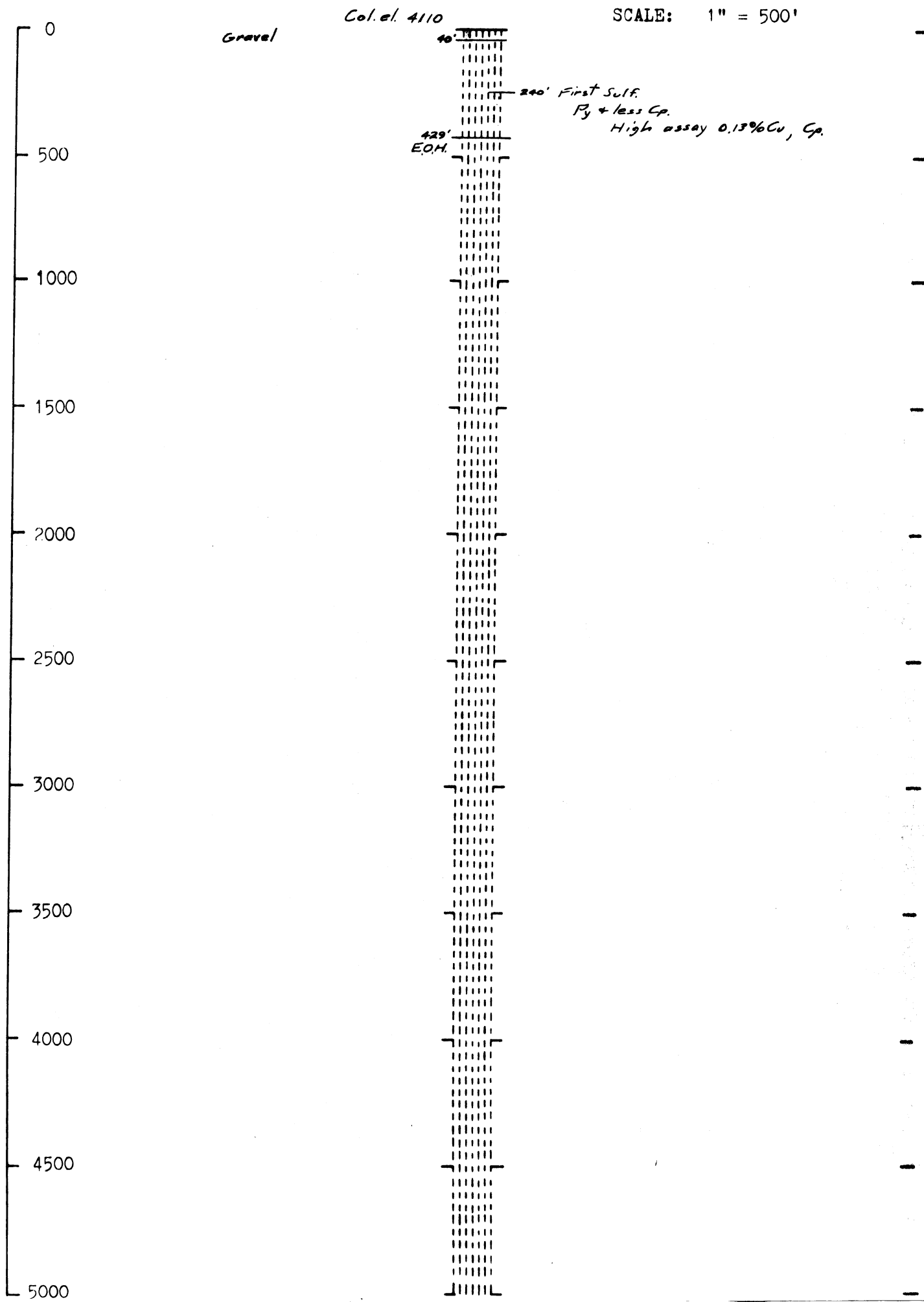
SCALE: 1" = 500'



A 18

P.D.

SCALE: 1" = 500'

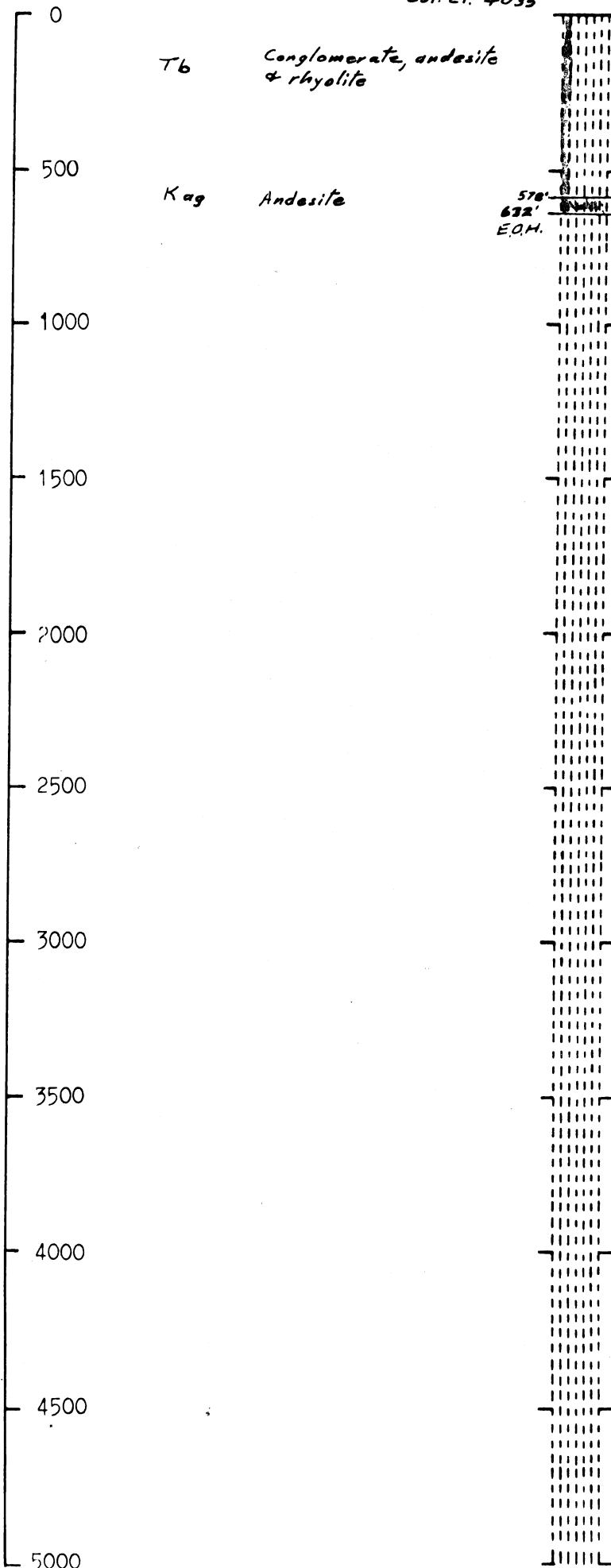


A 27

P.D.

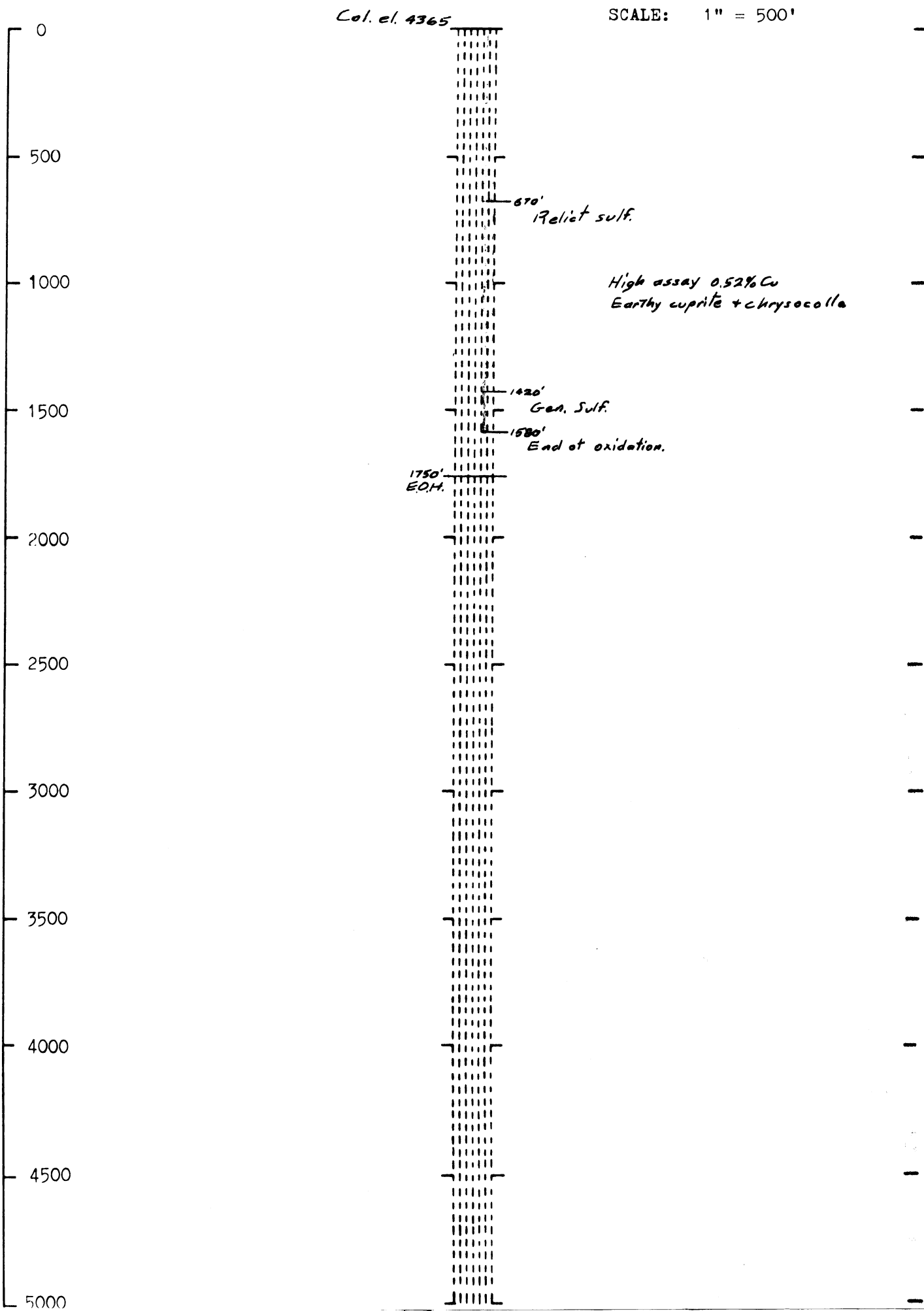
Col. el. 4035

SCALE: 1" = 500'



High assay 0.13 % Cu, earthy cuprite.
No sulf.

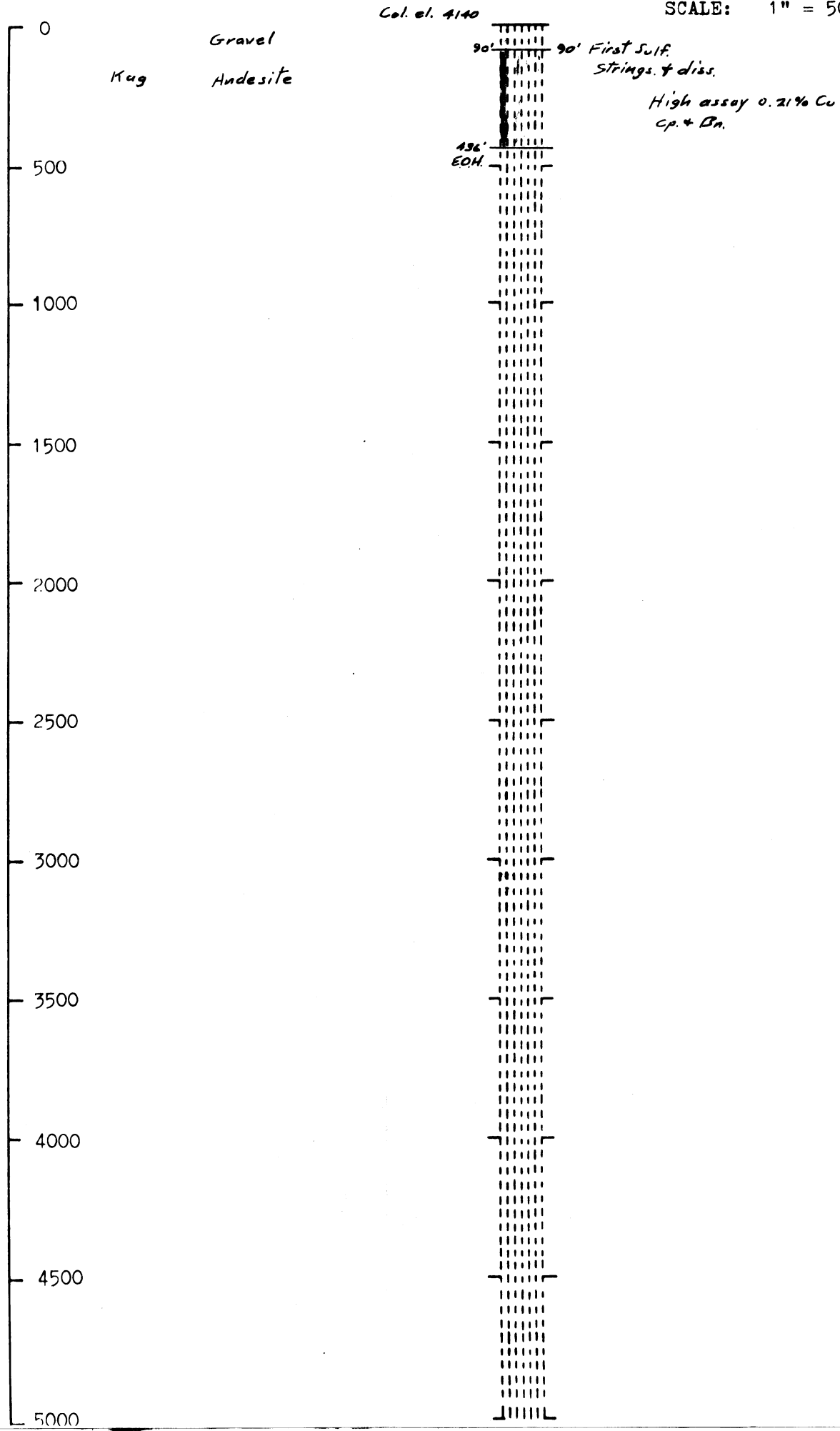
SCALE: 1" = 500'



A 30

P.D.

SCALE: 1" = 500'



A 31

P. D.

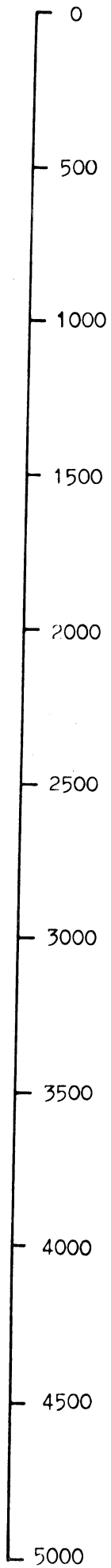
SCALE: 1" = 500'

Col. el. 4160

70' First Sulf.

High assay 0.33% Cu
Py. & Cp. strings.

28' EQH.



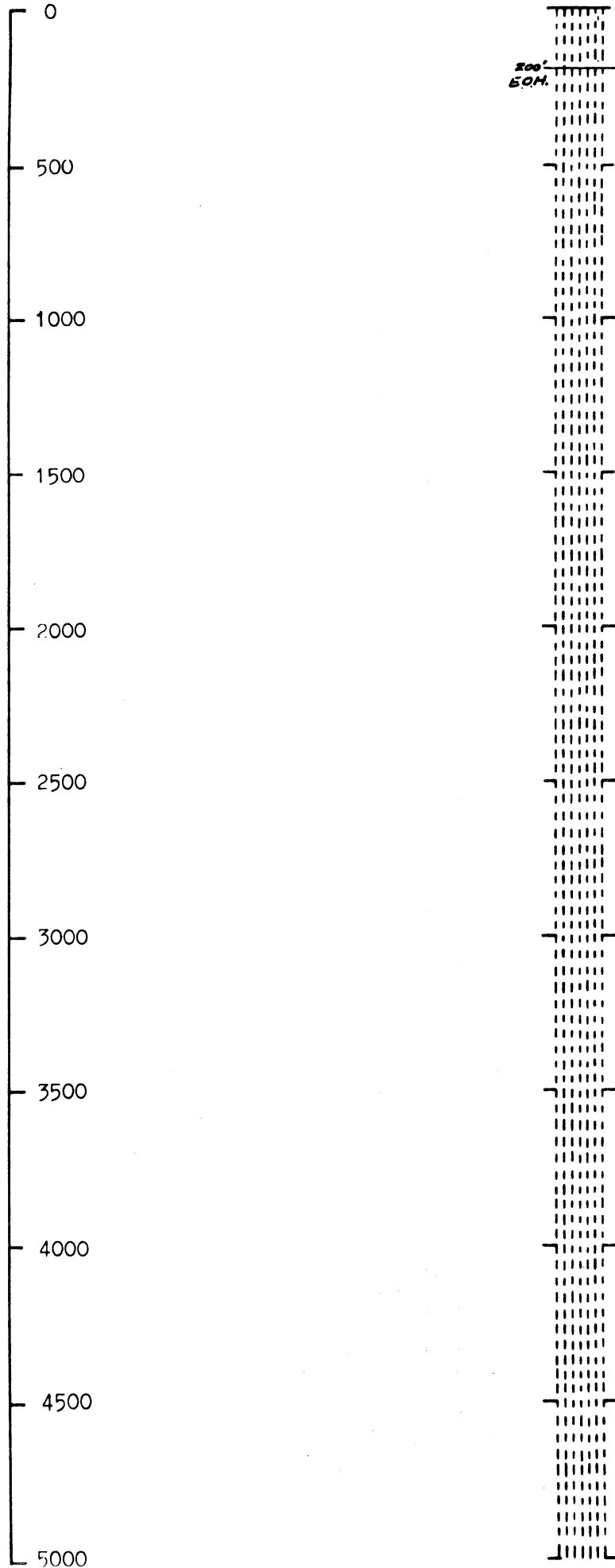
A 32

P.D.

Col el. 3990

SCALE: 1" = 500'

High assay 0.19% Cu
Earthy cuprite



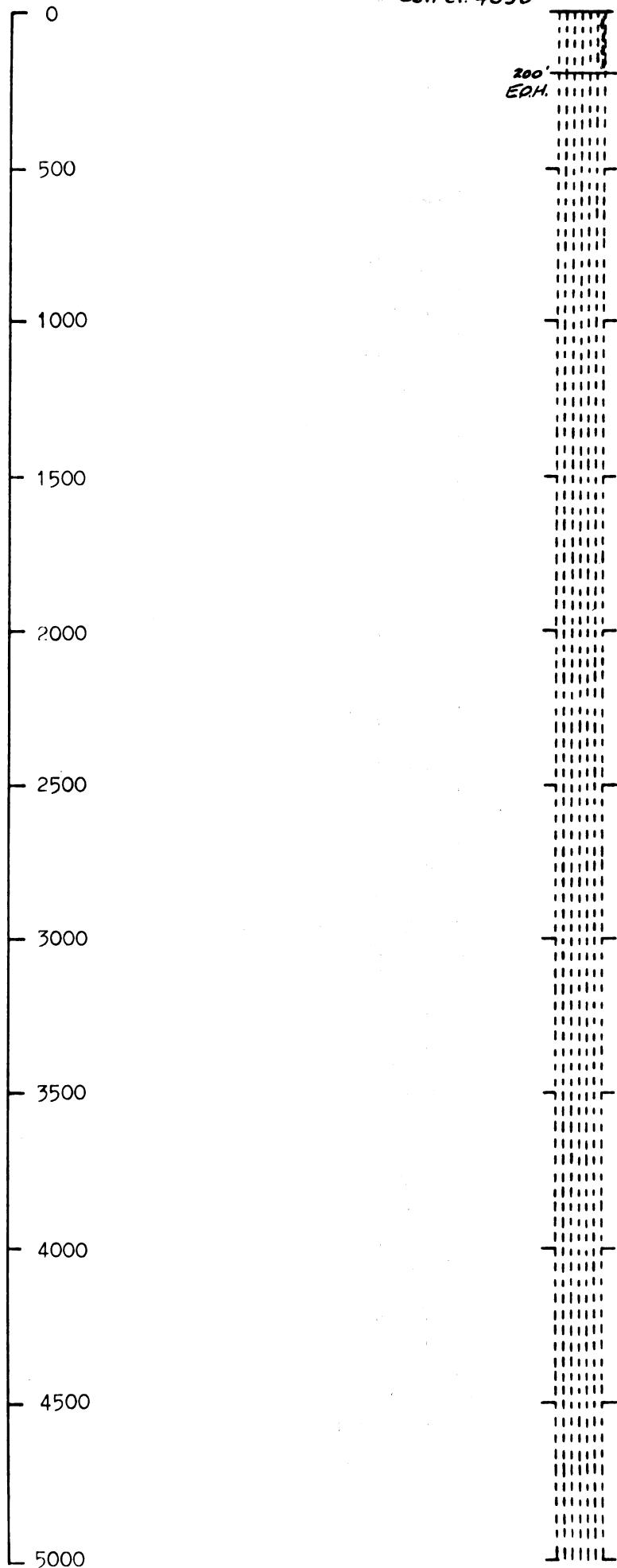
A 33

P.D.

Col. el. 4050

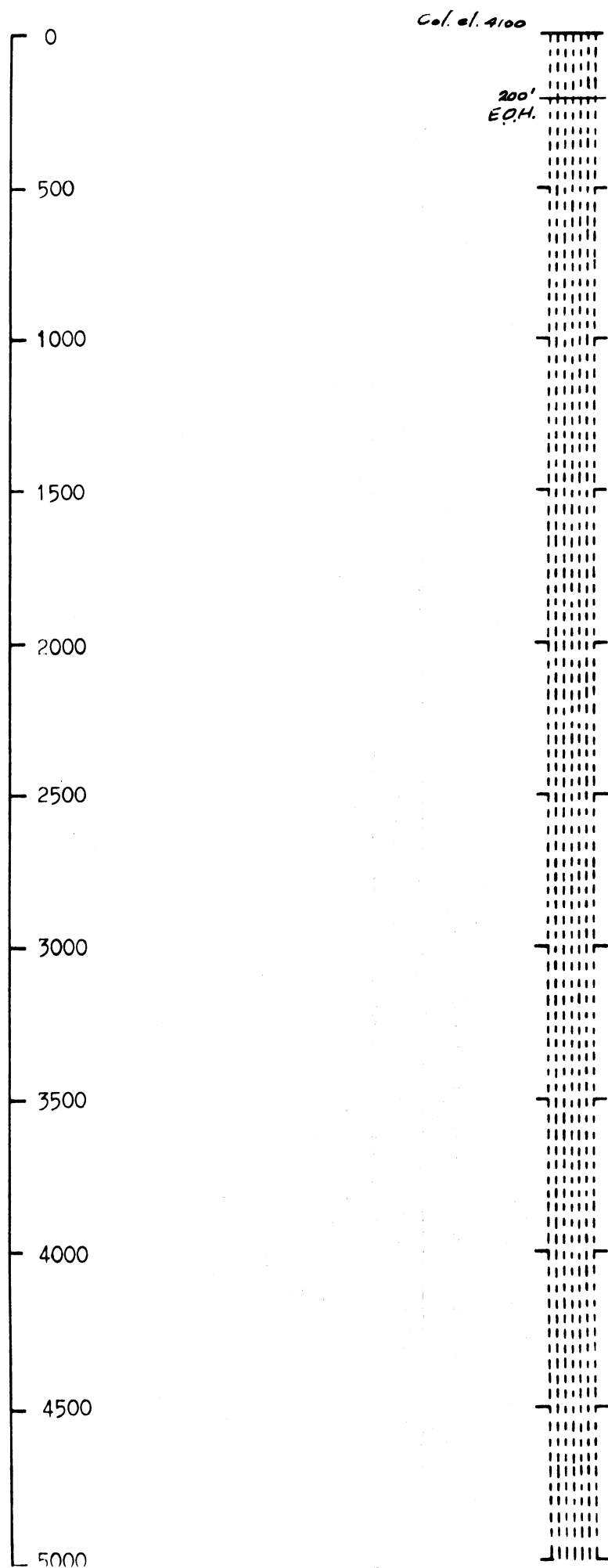
SCALE: 1" = 500'

High assay 0.44% Cu
Earthy cuprite.



SCALE: 1" = 500'

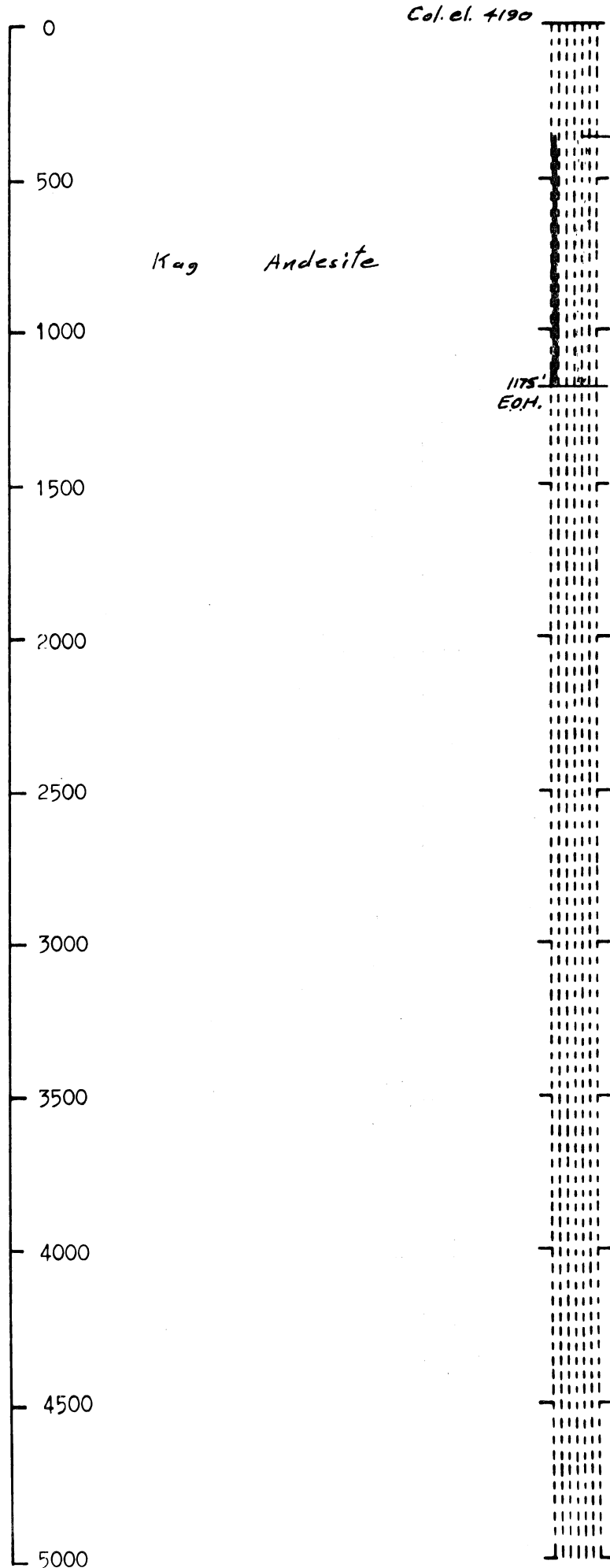
High assay 0.10% Cu.
Earthy cuprite.



A 35

P. D.

SCALE: 1" = 500'

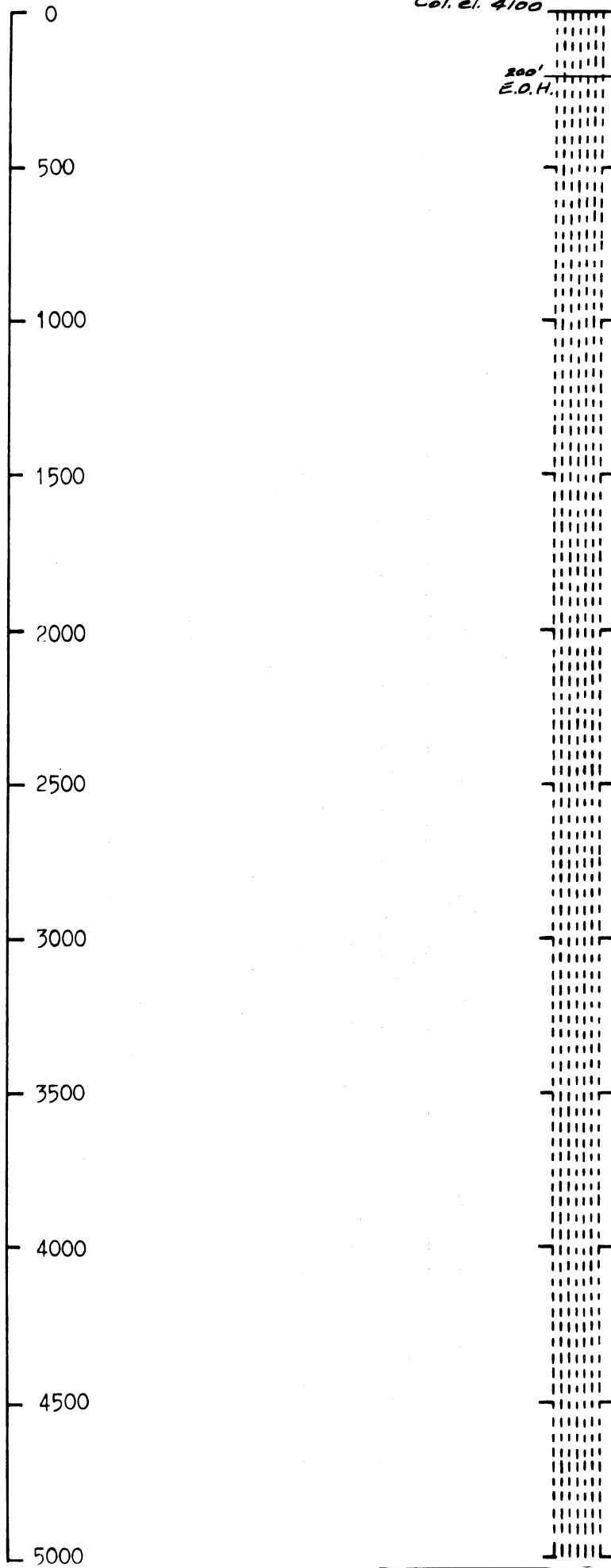


High assay 0.17% Cu
Tenorite or earthy cuprite.

A 36

P.D.

SCALE: 1" = 500'



A 37

P. D.

Col. el. 4170

SCALE: 1" = 500'

High assay 0.12% Cu.
Earthy cuprite.

200'
EPH.

0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000



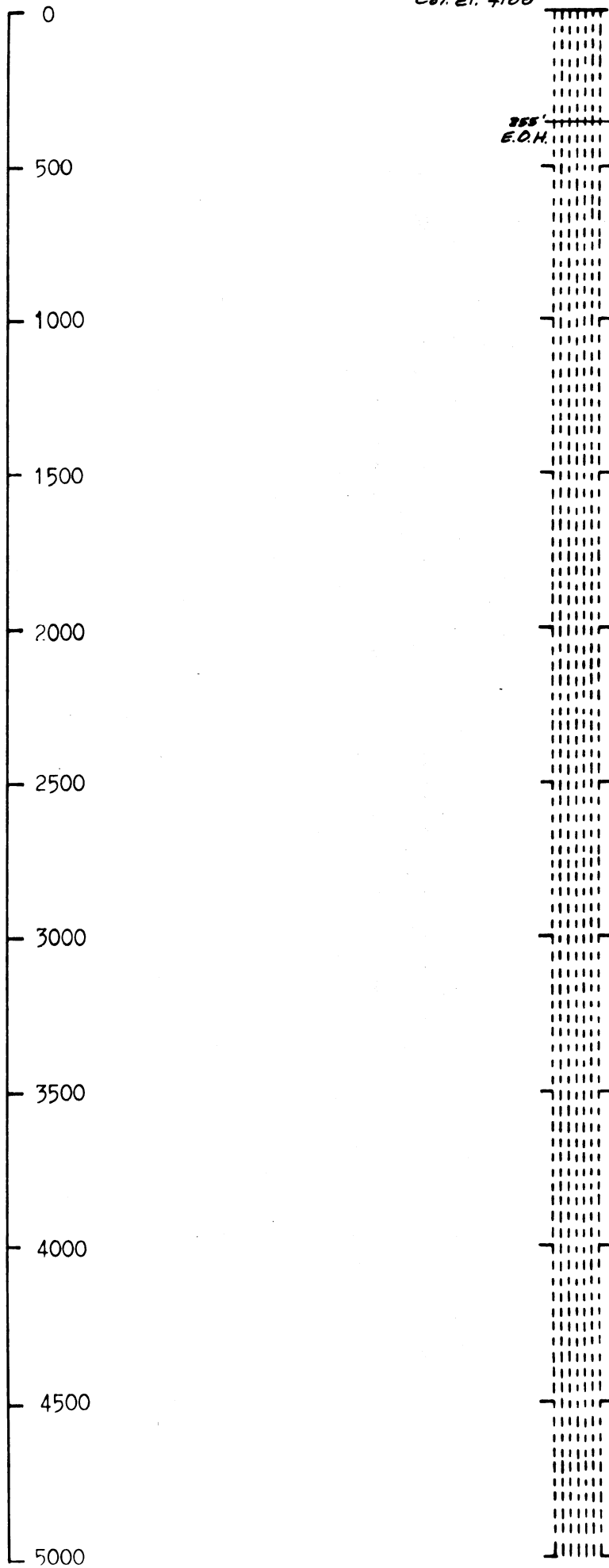
A 38

P.D.

Col. el. 4100

SCALE: 1" = 500'

High assay 0.12% Cu.



A 39

P.D.

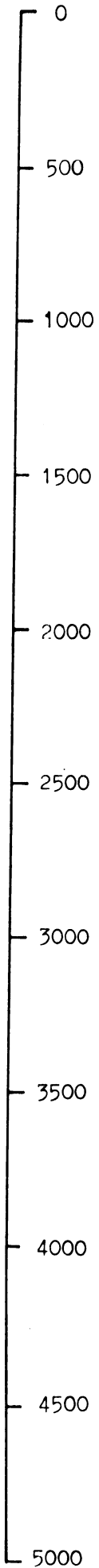
Col. el. 4180

SCALE: 1" = 500'

High assay 0.04% Cu

170' Bottom of faint to strong min.

200'
E.P.H.

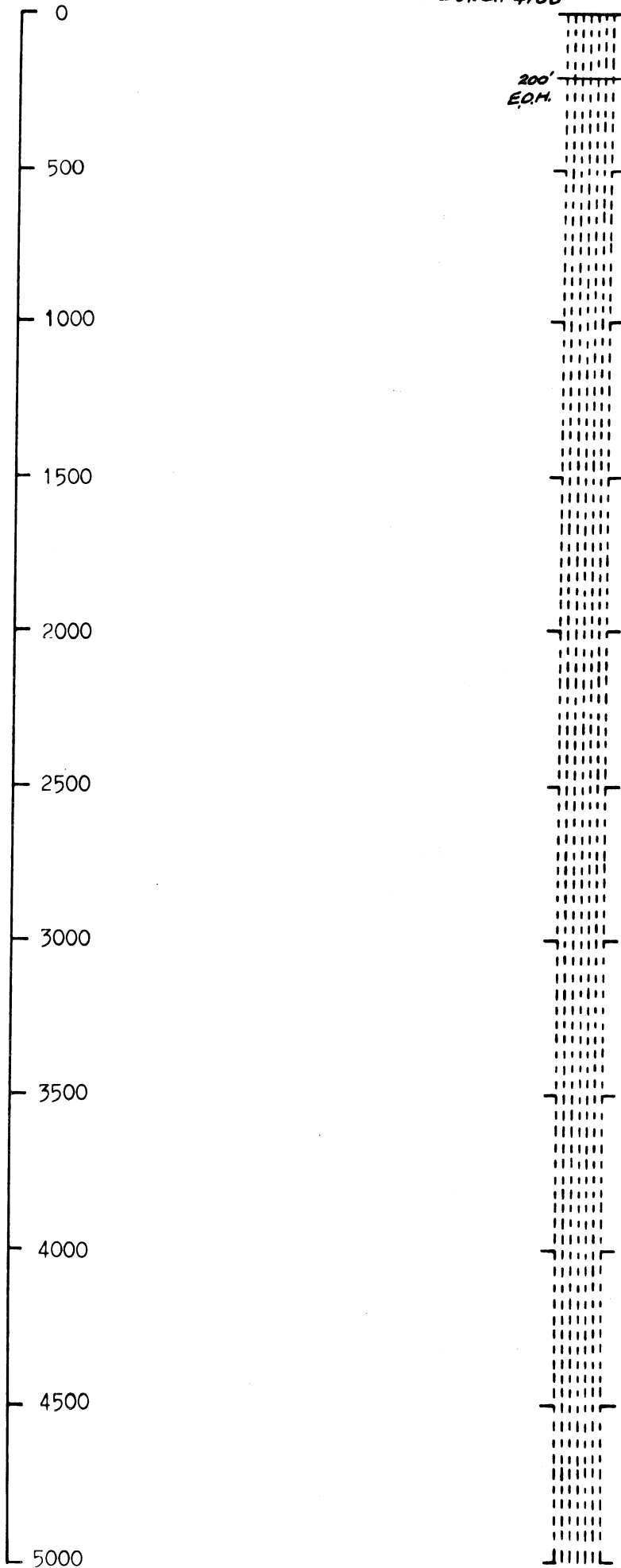


A 40

P. D.

Col. el. 4100

SCALE: 1" = 500'

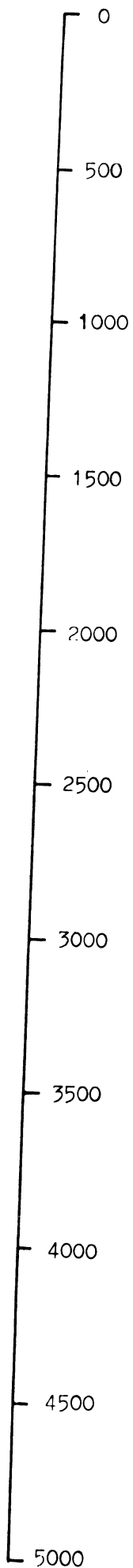


A 41

P. D.

SCALE: 1" = 500'

Col. el. 4000



Kan Andesite



Foothill fault.

High assay 0.29% Cu.
Earthy cuprite.

A 42

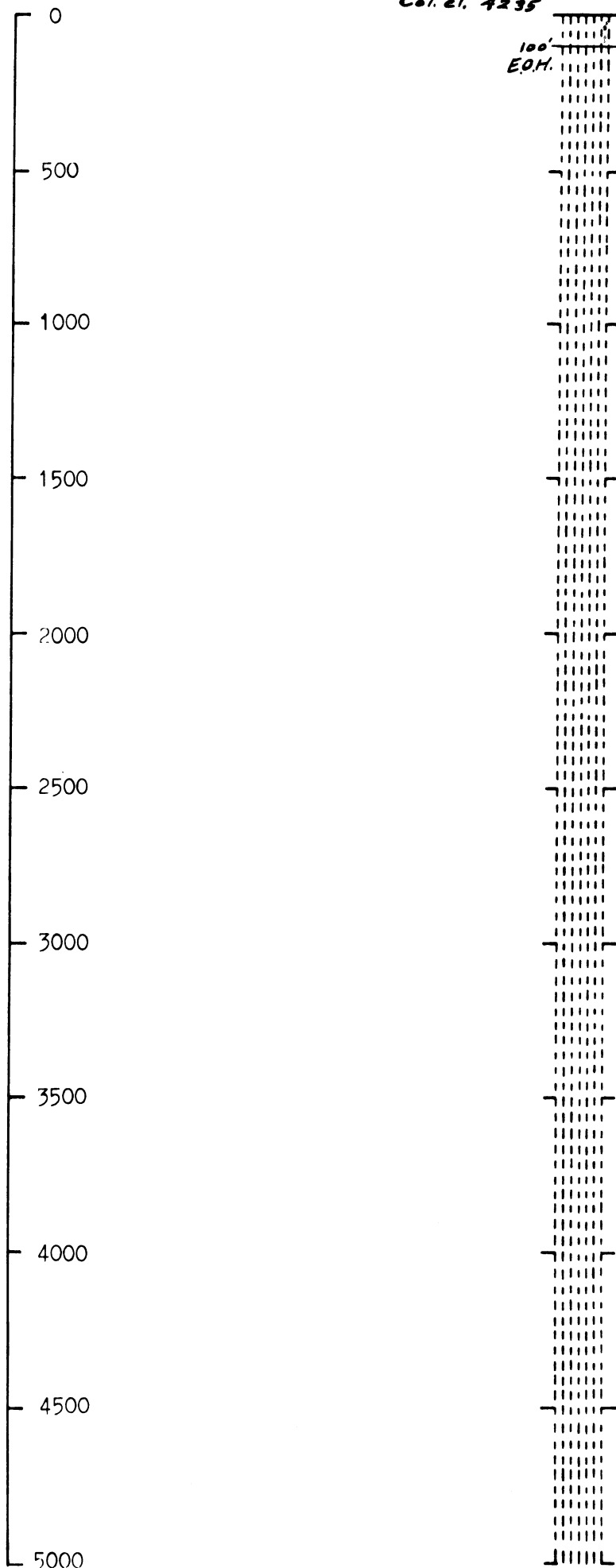
P.D.

Col. el. 4235

SCALE: 1" = 500'

High assay 0.07% Cu.

Tenorite, thin films on fract.



A 43

P. D.

SCALE: 1" = 500'

Col. el. 4240

100' E.O.H.

High assay 0.07% Cu.
Earthy cuprite.

0

500

1000

1500

2000

2500

3000

3500

4000

4500

5000

A 44

P. D.

SCALE: 1" = 500'

Col. el. 4180

High assay 0.13% Cu.
Earthy cuprite.

100'
E.O.H.

0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000

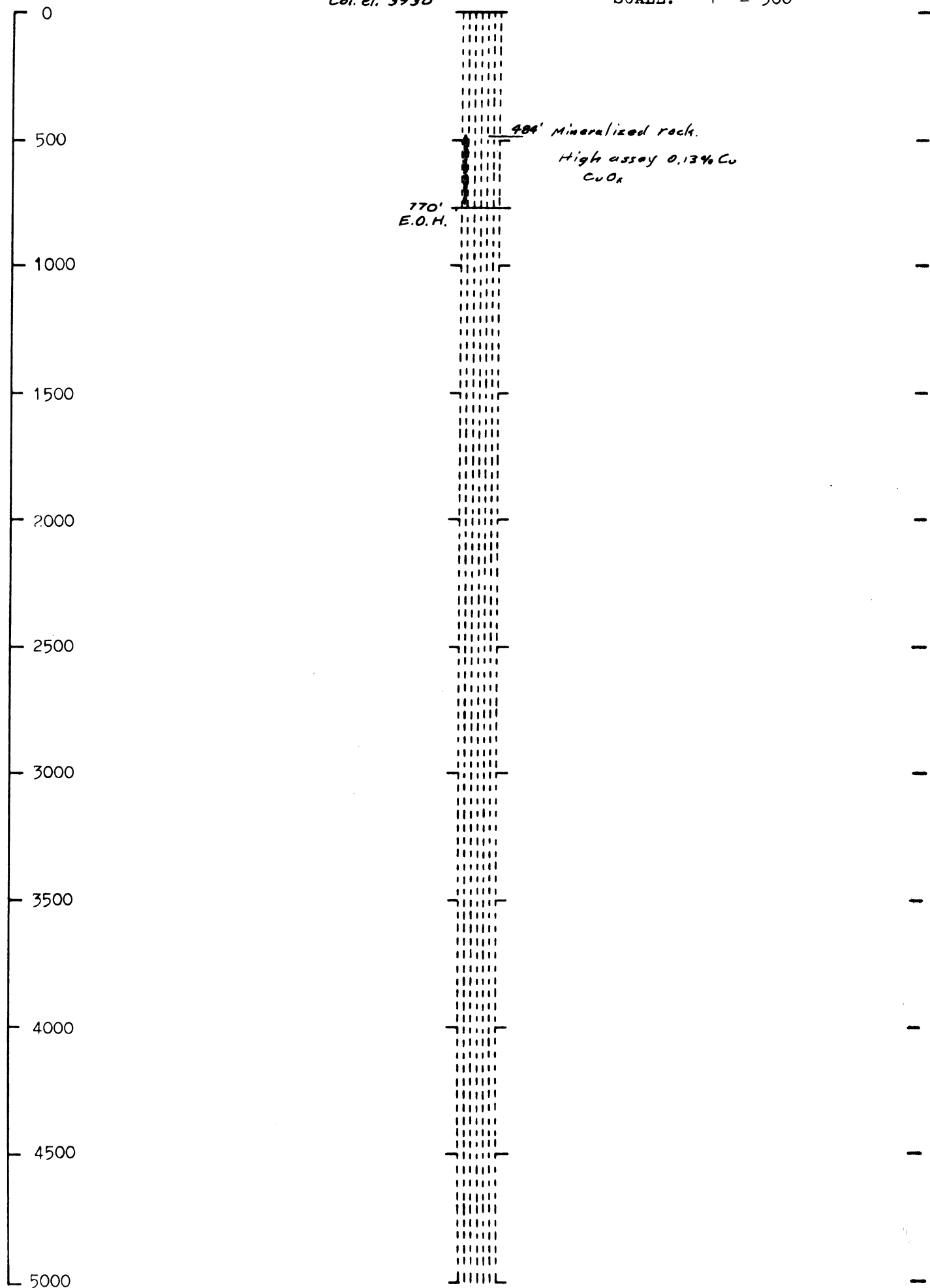


A45

P.D.

Col. el. 3930

SCALE: 1" = 500'



A 46

P.D.

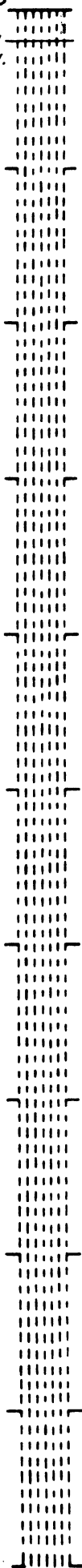
Col. el. 4360

SCALE: 1" = 500'

100'
E.O.H.

High assay 0.09% Cu.
Earthy cuprite.

0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000



A 47

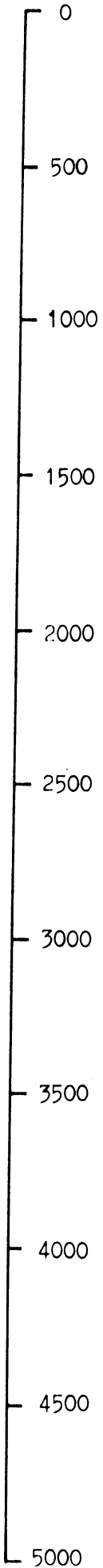
P.D.

Col. el. 4190

SCALE: 1" = 500'

High assay 0.10% Cu.
Earthy cuprite.

100'
E.O.H.



A 48

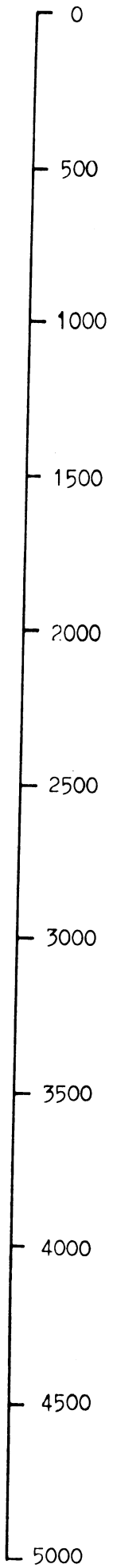
P.D.

Col. el. 4240

SCALE: 1" = 500'

High assay 0.07% Cu
Earthy cuprite.

100'
E.O.H.



A 49

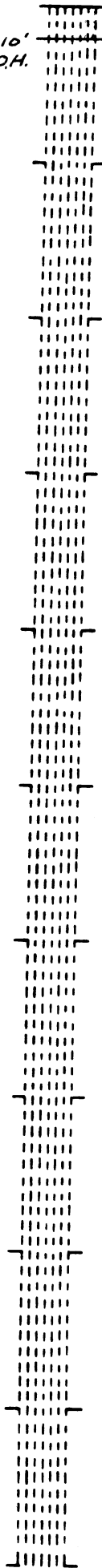
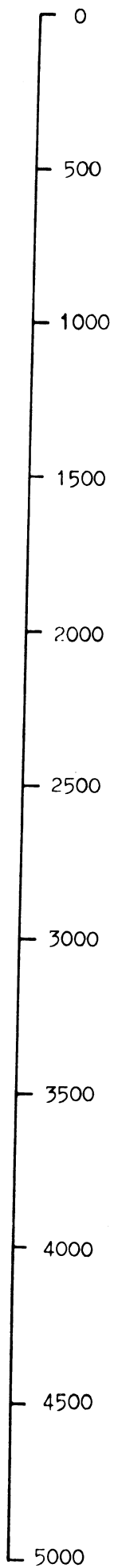
P.D.

Col. cl. 4330

SCALE: 1" = 500'

110'
EQH.

High assay 0.12% Cu.
Earthy cuprite.

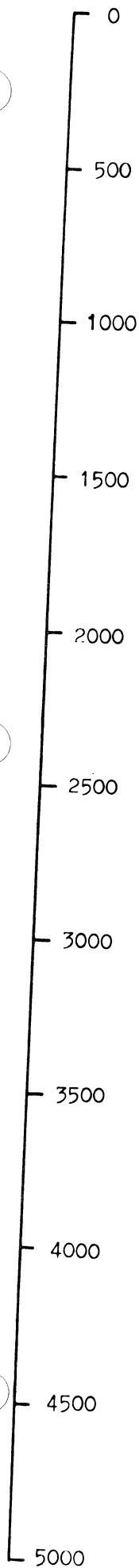


A 50

P.D.

SCALE: 1" = 500'

Col. el. 3910



600' Mineralized flows.

2500' First Sulf.

High assay 0.36% Cu

2893' E.O.H.

A 52

P.D.

Col. el. 4250

SCALE: 1" = 500'

100'
EQM.

High assay 0.06% Cu.
Earthy cuprite.

0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000



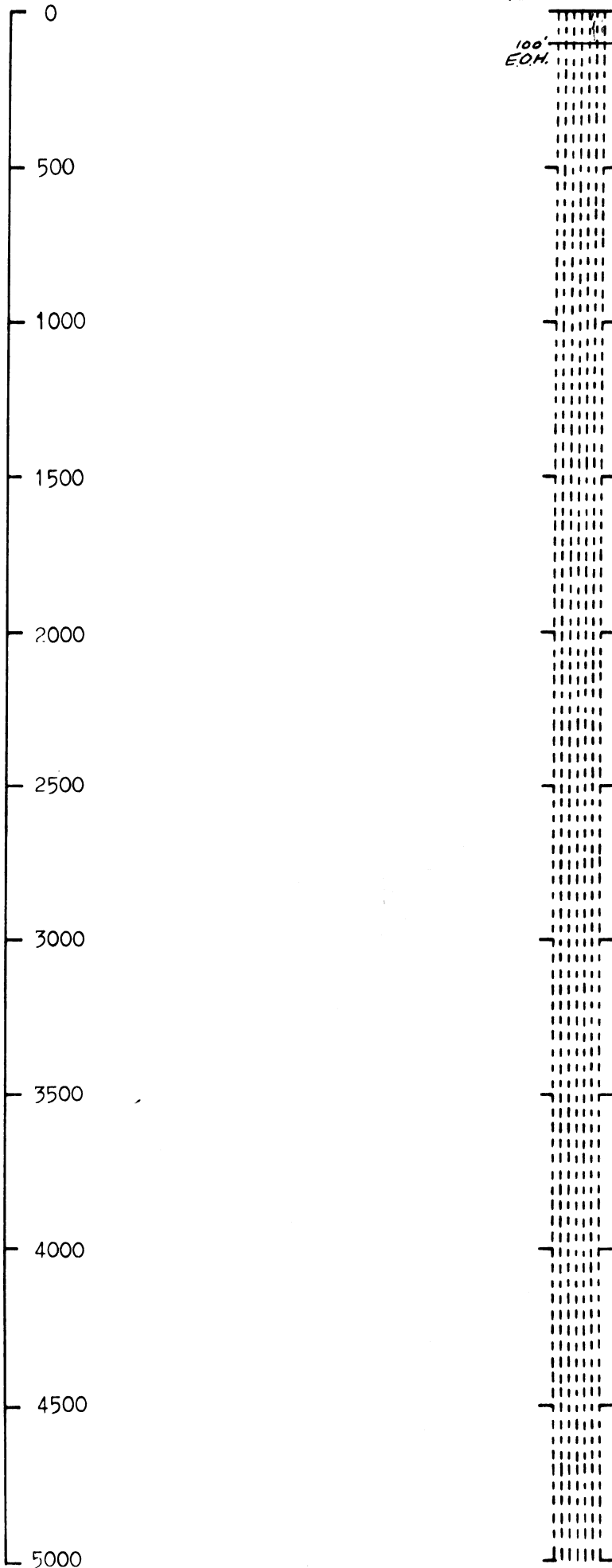
A 53

P.D.

Col. el. 4240

SCALE: 1" = 500'

High assay 0.08% Cu.
Earthy cuprite & pos. Tenorite.



100'
E.O.H.

A 54

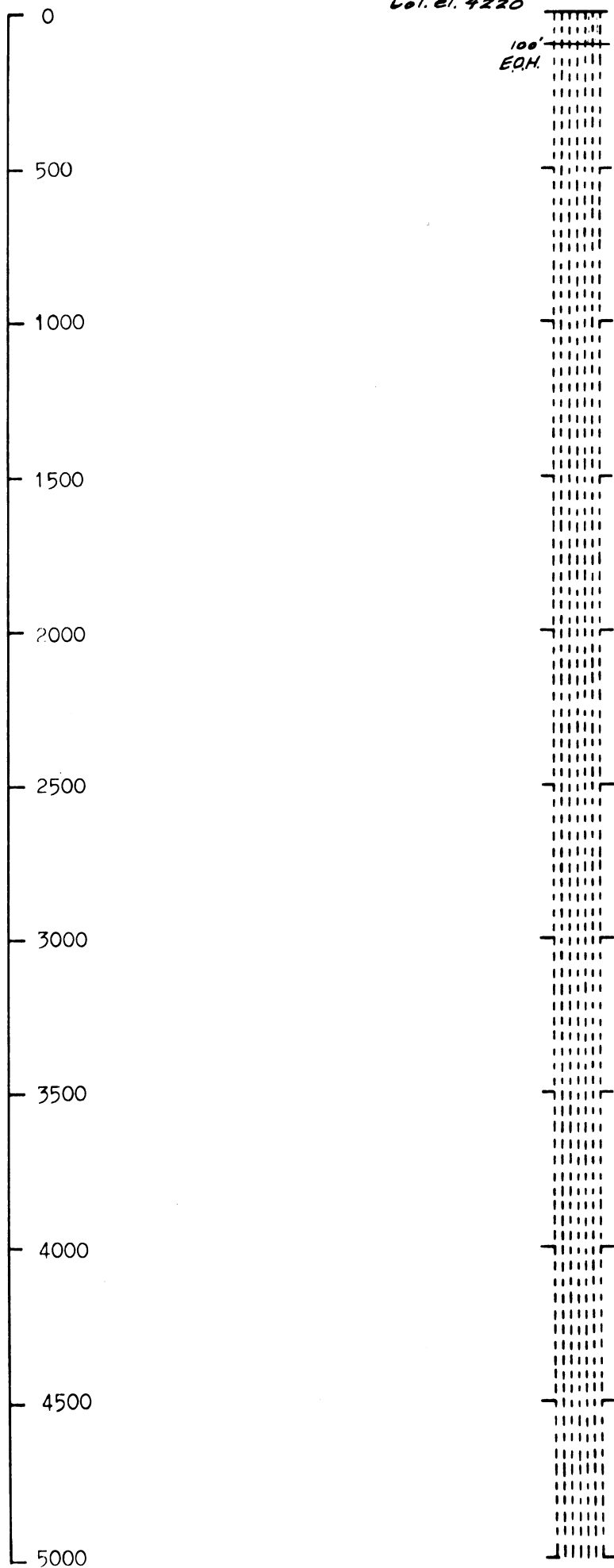
P.D.

Col. el. 4220

SCALE: 1" = 500'

High assay 0.04% Cu.
Earthy cuprite.

100'
EQM.

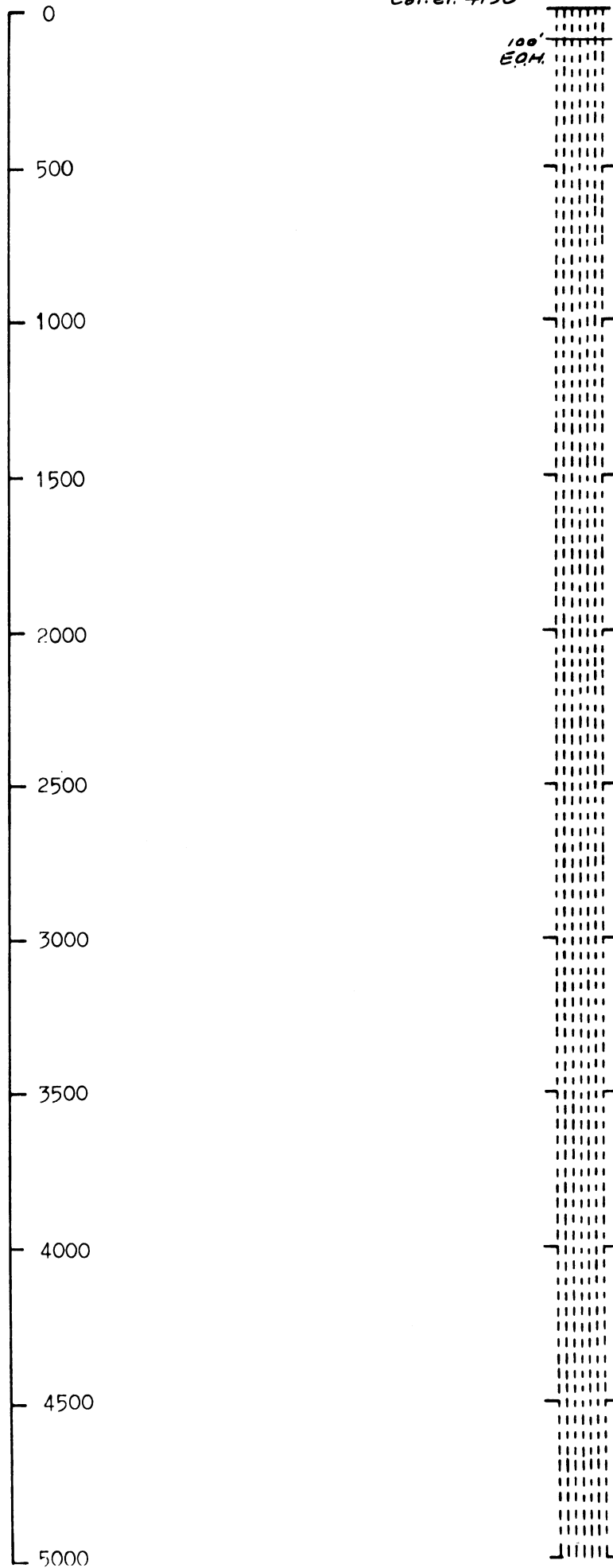


A 55

P. D.

Cal. el. 4190

SCALE: 1" = 500'



A 56

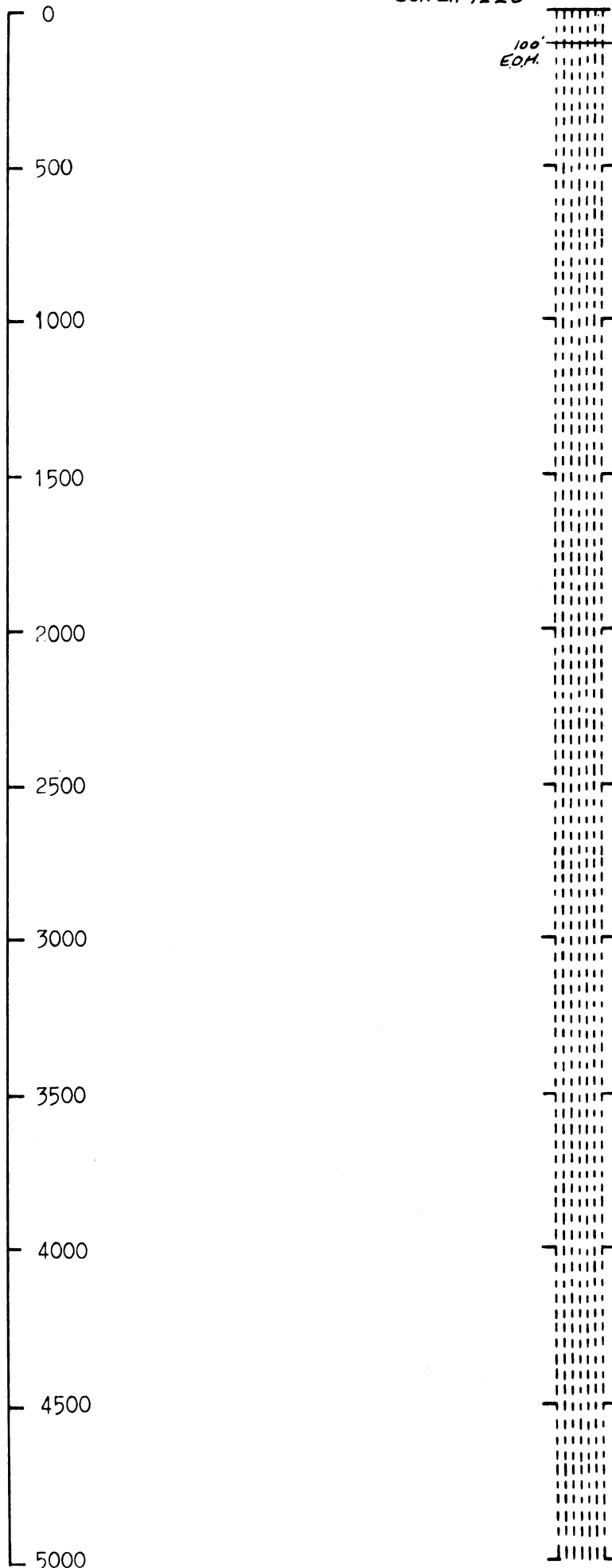
P. D.

Col. el. 4220

SCALE: 1" = 500'

High assay 0.13% Cu.
Tenorite, films on fractures.

100'
E.O.M.



A 57

P.D.

Col. el. 4270

SCALE: 1" = 500'

High assay 0.04% Cu.
Earthy cuprite.

100'
EPM.

0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000



A 58

P.D.

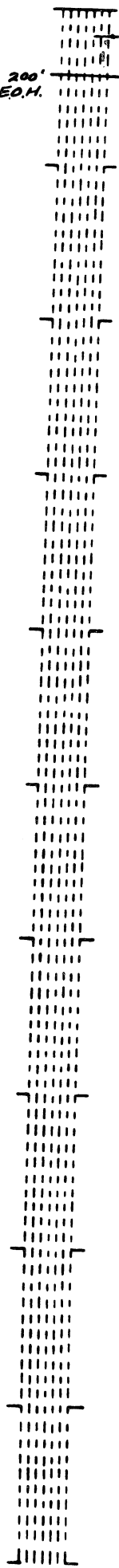
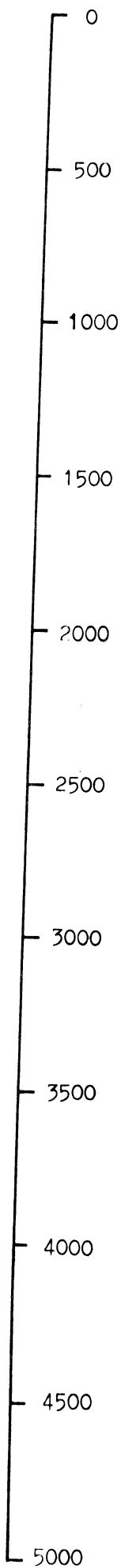
Cal. el. 4150

SCALE: 1" = 500'

80' First Sulf.

High assay 0.17% Cu.
Cc + Cp

200'
E.O.M.



A 59

P.D.

SCALE: 1" = 500'

Col. el. 4185

40' First Sulf.

200'
E.O.H.

Co films on Py + small amount
diss. Cp.
No assay reported.

0

500

1000

1500

2000

2500

3000

3500

4000

4500

5000

A 60

P.D.

Col. el. 4310

SCALE: 1" = 500'

High assay 0.18 % Cu
Earthy cuprite

100'
E.O.M.

0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000



AGI

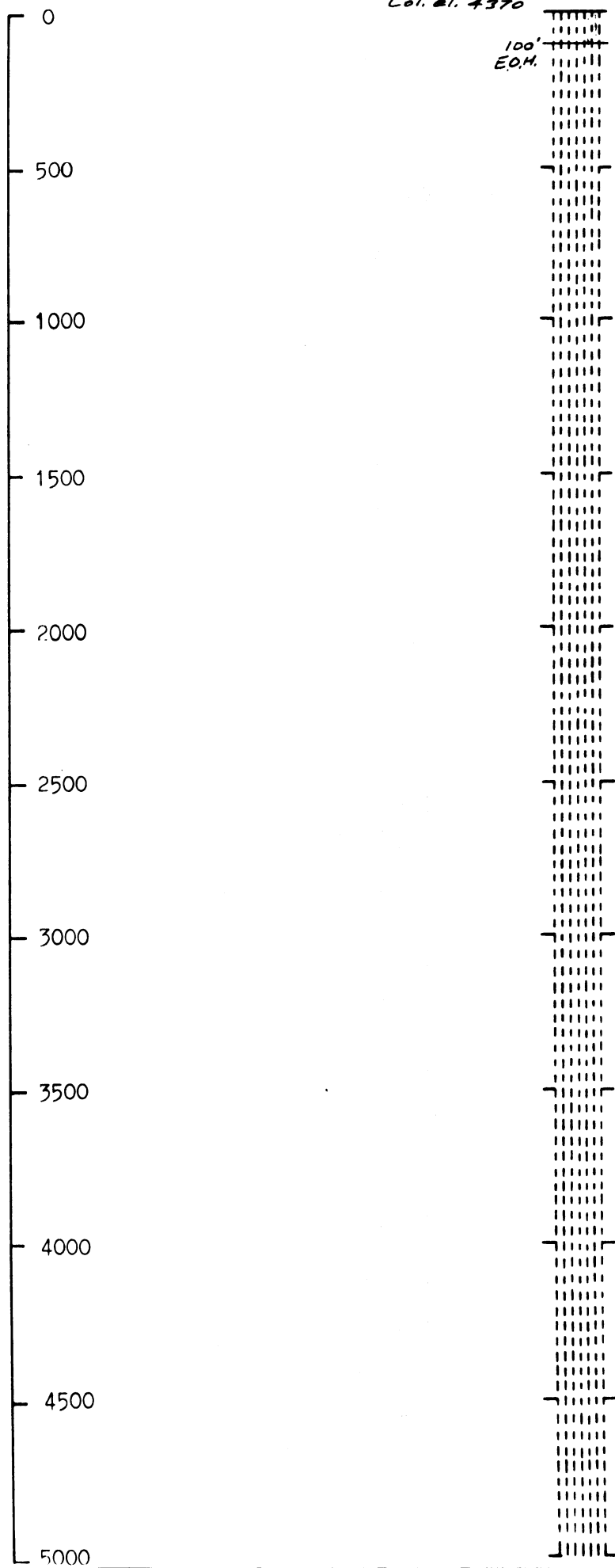
P.D.

SCALE: 1" = 500'

Col. el. 4370

High assay 0.48% Cu.
Tenorite + tr. Chrysocolla in films.

100'
E.Q.M.



A 62

P. D.

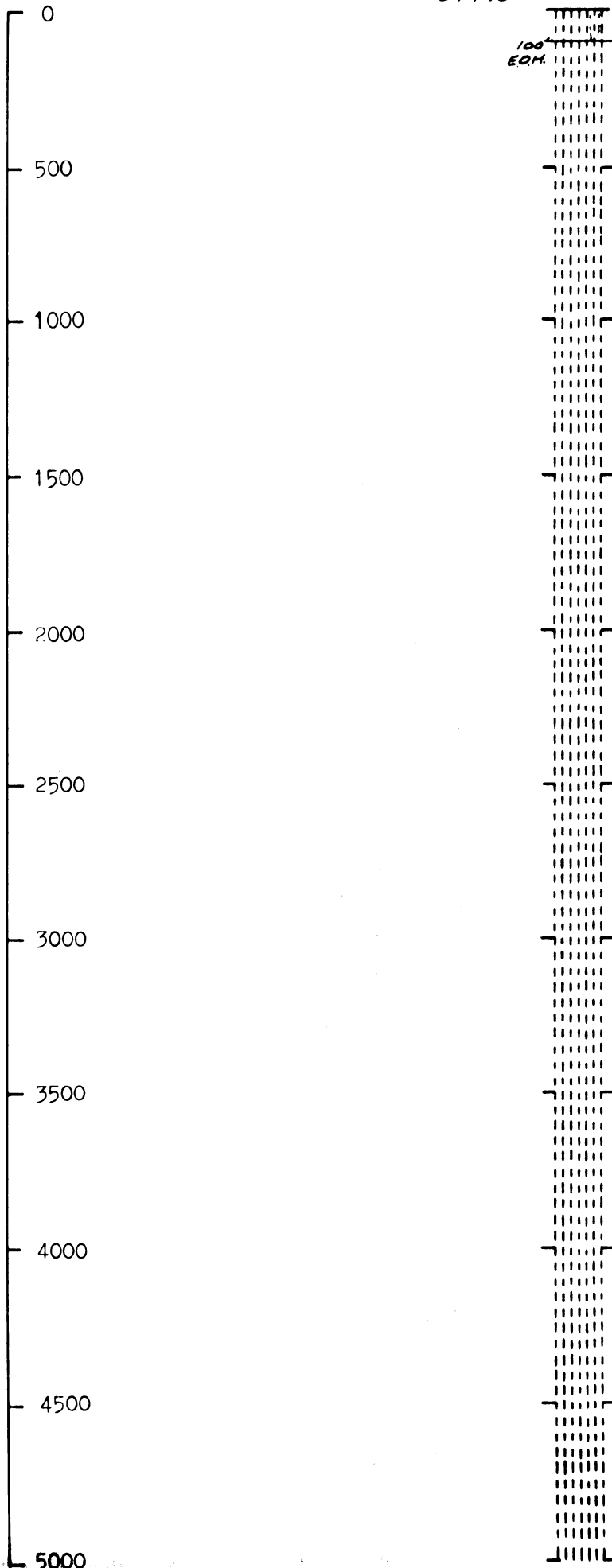
Col. el. 4400

SCALE: 1" = 500'

High assay 0.39% Cu.

Thin Films, chrysocolla + some earthy cuprite.

EQM.

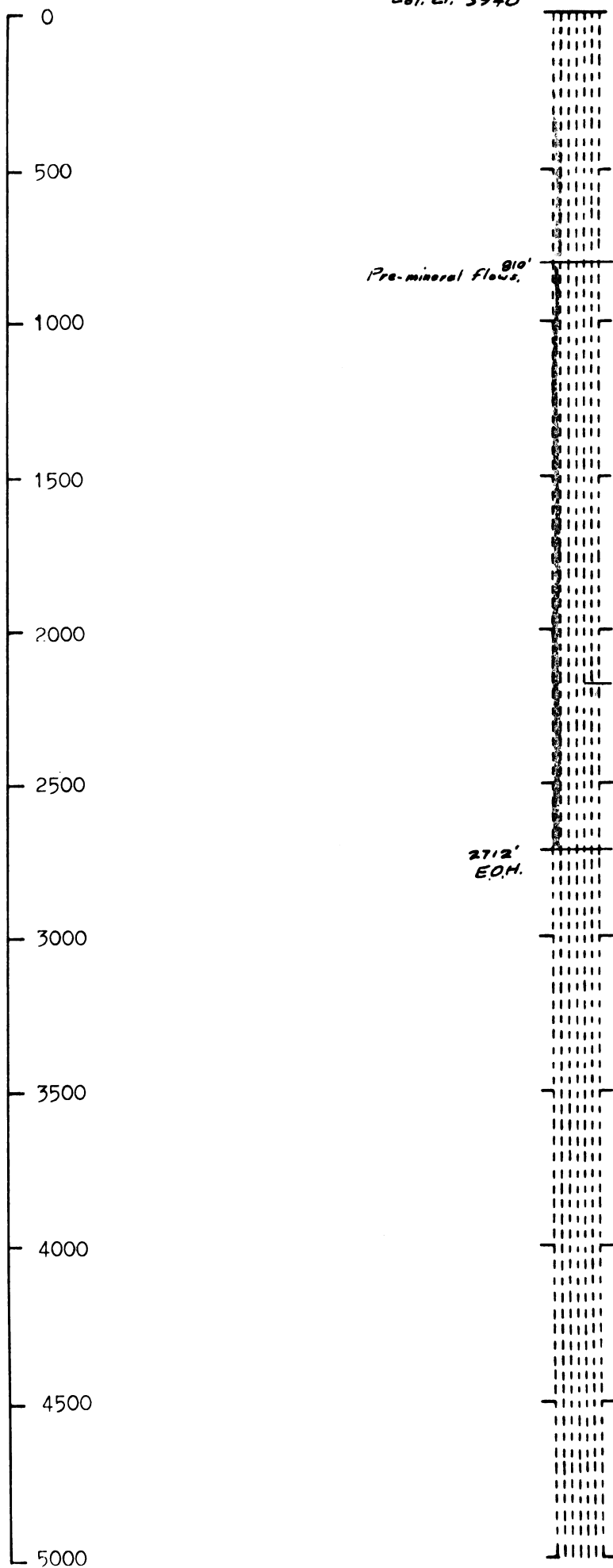


A64

P.D.

Col. el. 3940

SCALE: 1" = 500'



810'
Pre-mineral flows.

2100' First Sulf.
High assay 0.31% Cu.

532' of 0.13% Cu.
Ave. of Sulf. zone.

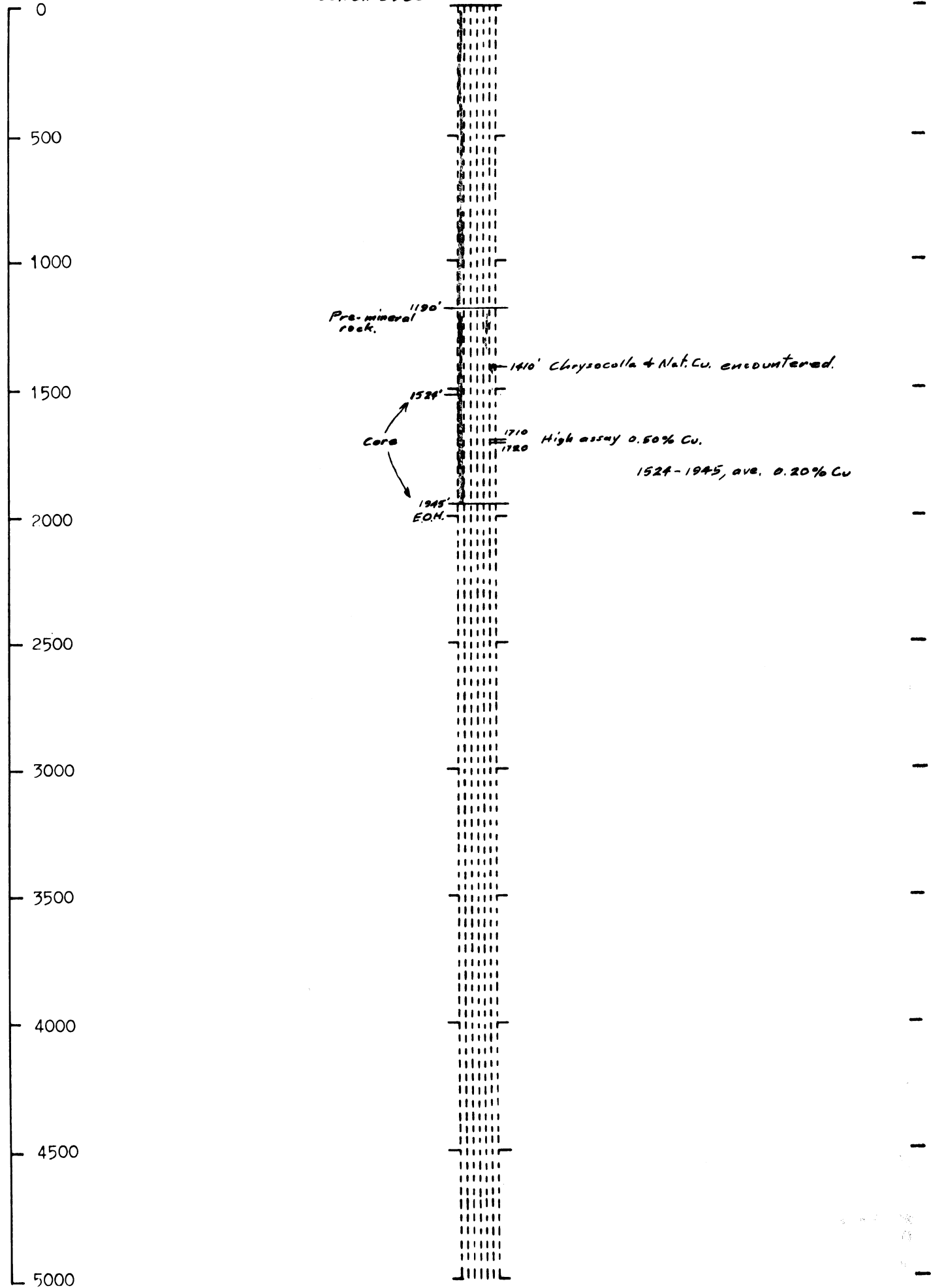
2712'
E.O.H.

A 65

P. D.

Col. el. 3960

SCALE: 1" = 500'

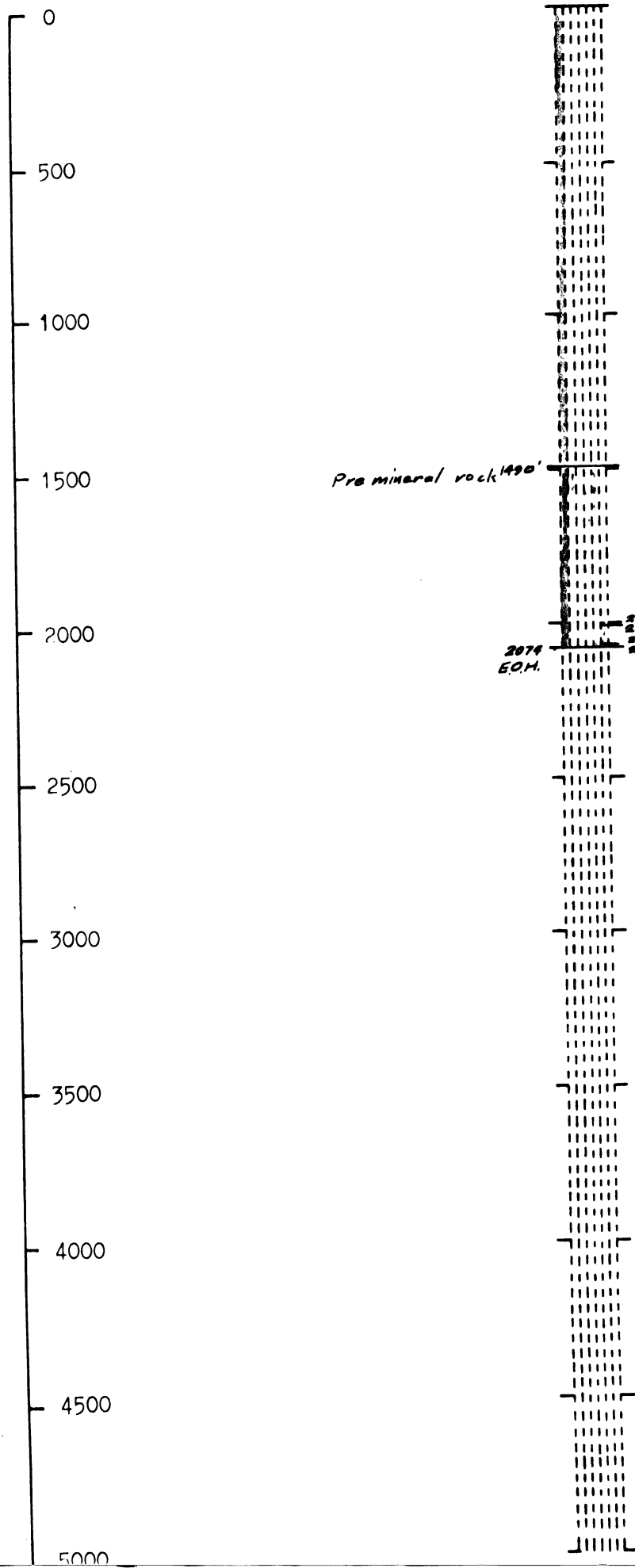


A 66

P.D.

Col. el. 4000

SCALE: 1" = 500'



Pre mineral rock 1490'

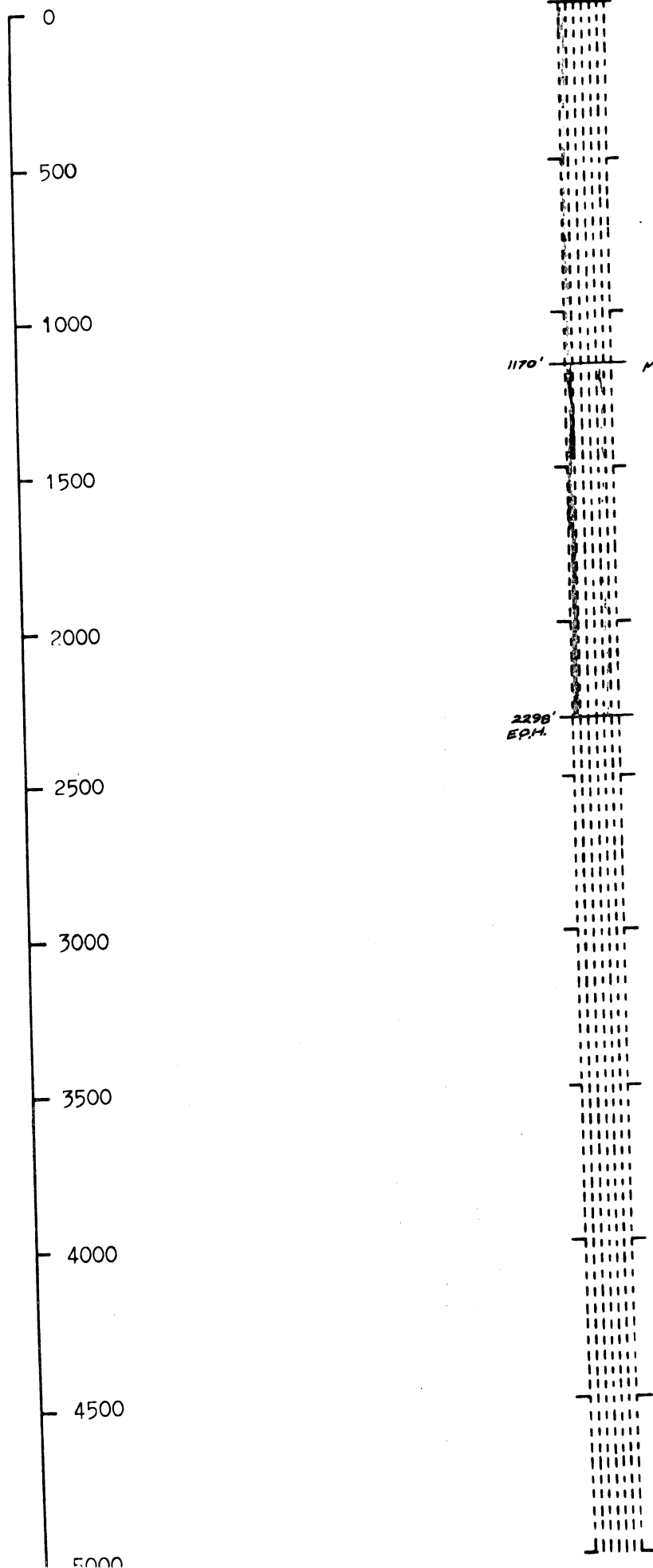
2000 0.21% Cu.
2070 Some chrysocolla.
2074
E.O.H.

A 69

P.D.

Col. el. 3920

SCALE: 1" = 500'



1170' Mineralized rock.

Limonite + Hematite

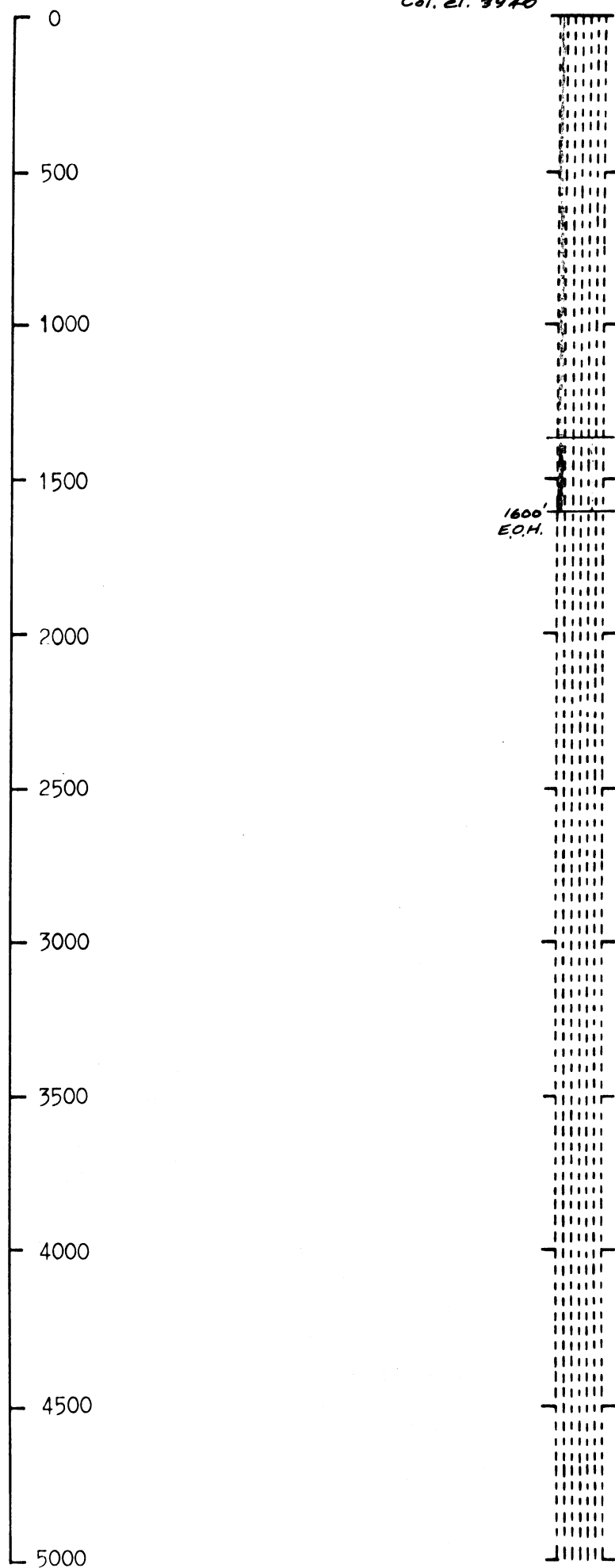
No assay reported

A 70

P.D.

Col. cl. 3940

SCALE: 1" = 500'



1370' Mineralized rock.
Limonite, goethite + hematite.

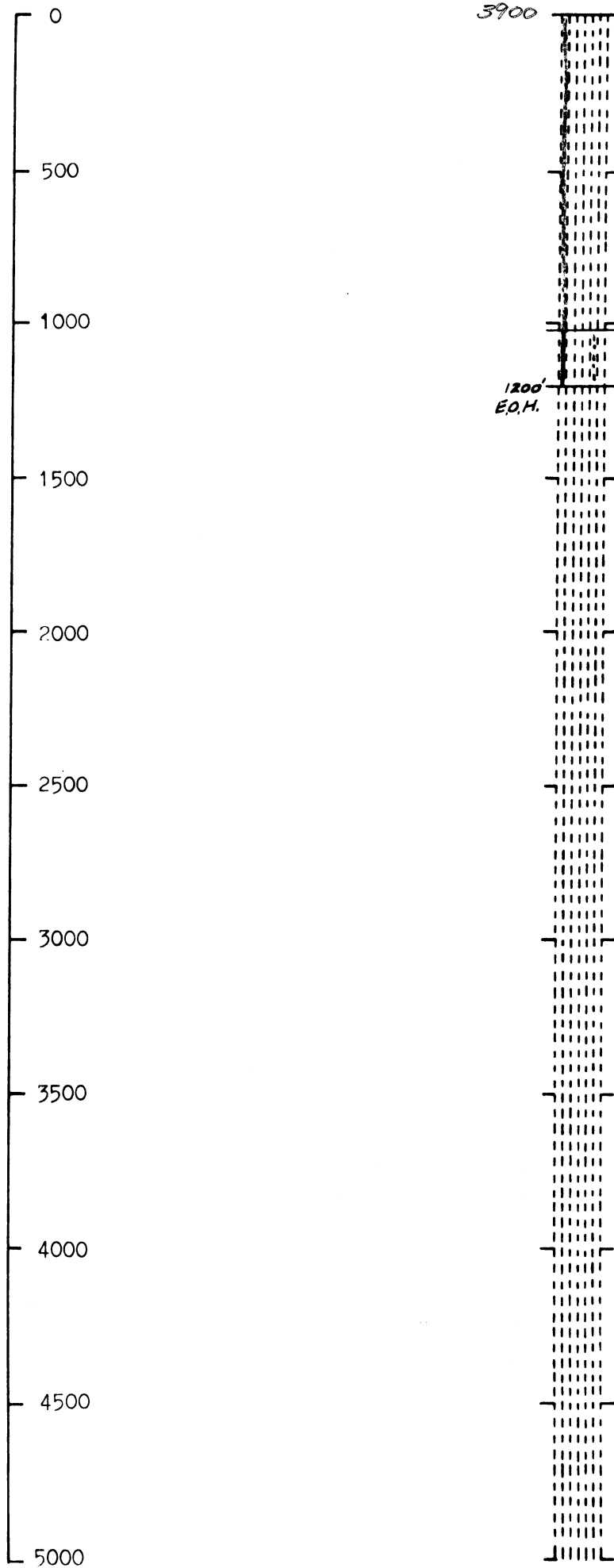
No assay reported.

1600'
E.O.H.

A 71

P.D.

SCALE: 1" = 500'

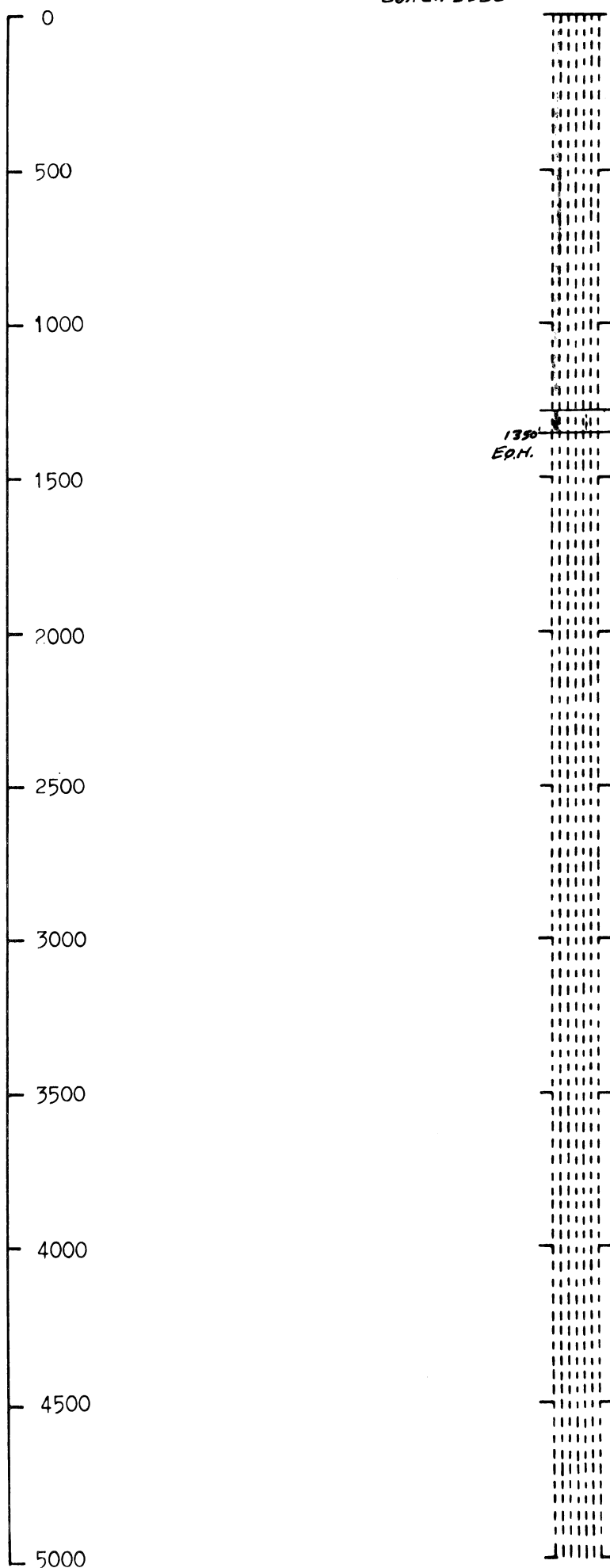


A 72

P.D.

Col. al. 9950

SCALE: 1" = 500'



1274' Mineralized rock.
Limonite
No assay reported.

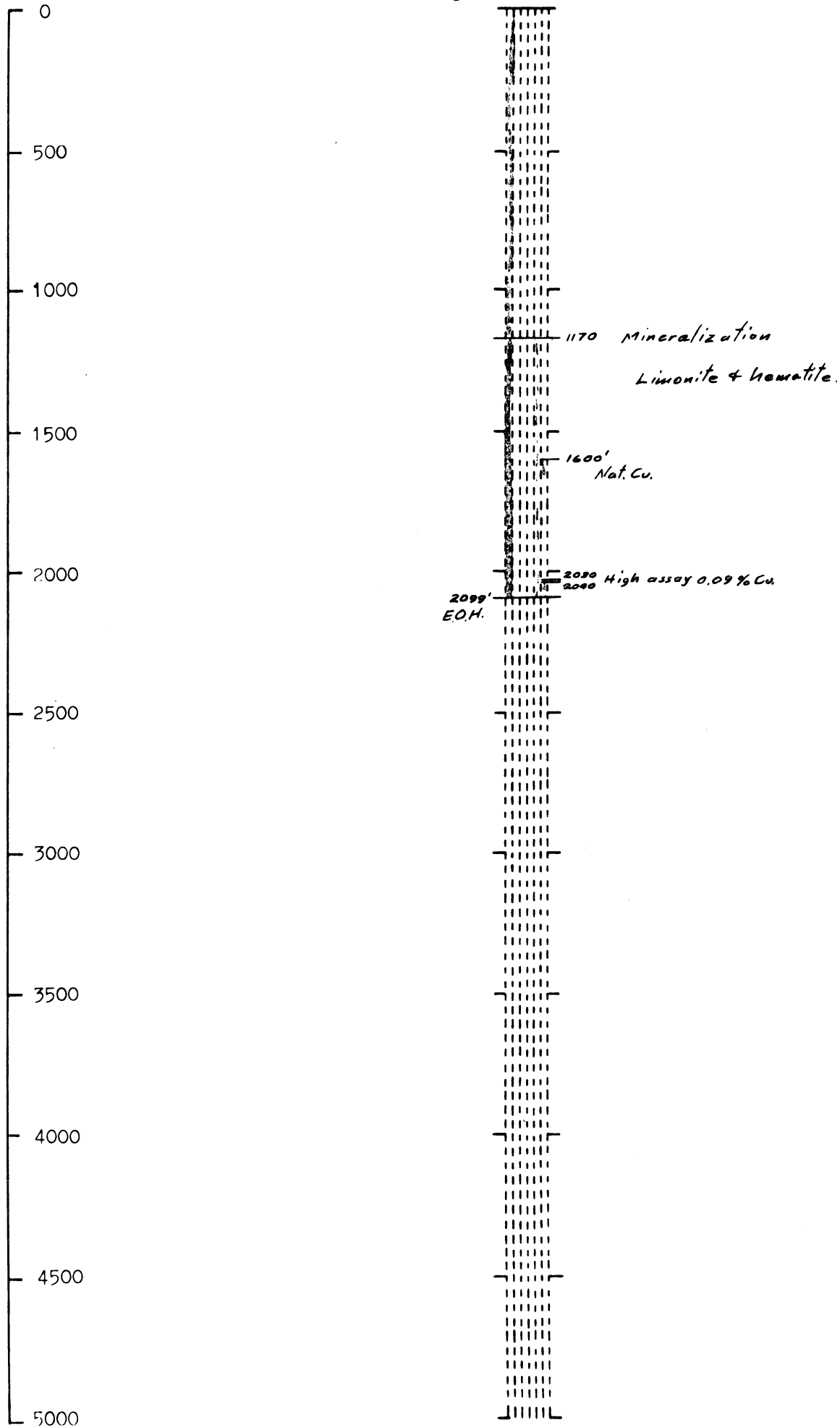
1350'
E.P.H.

A 73

P. D.

Col. el. 3980

SCALE: 1" = 500'

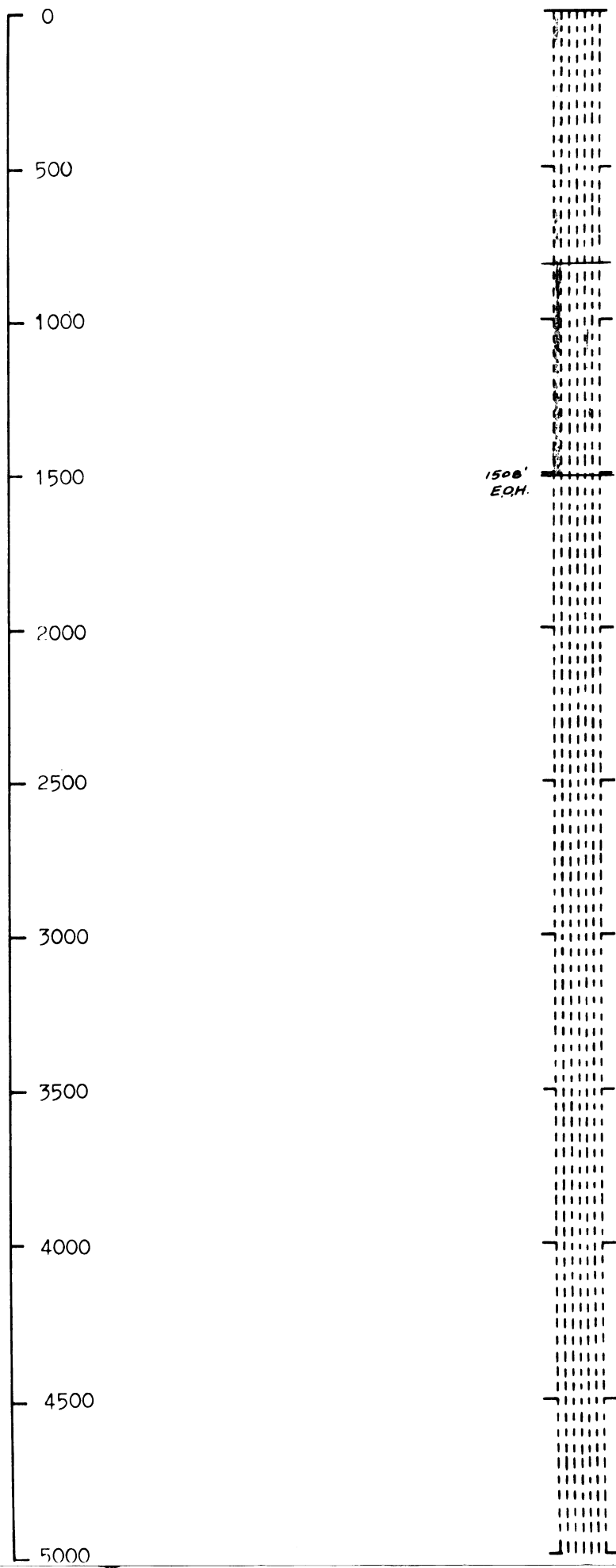


A 74

P. D.

col. el. 3860

SCALE: 1" = 500'



820' Mineralized rock.

Py. near top.

High assay 0.23% Cu.

Limonite + hematite below.

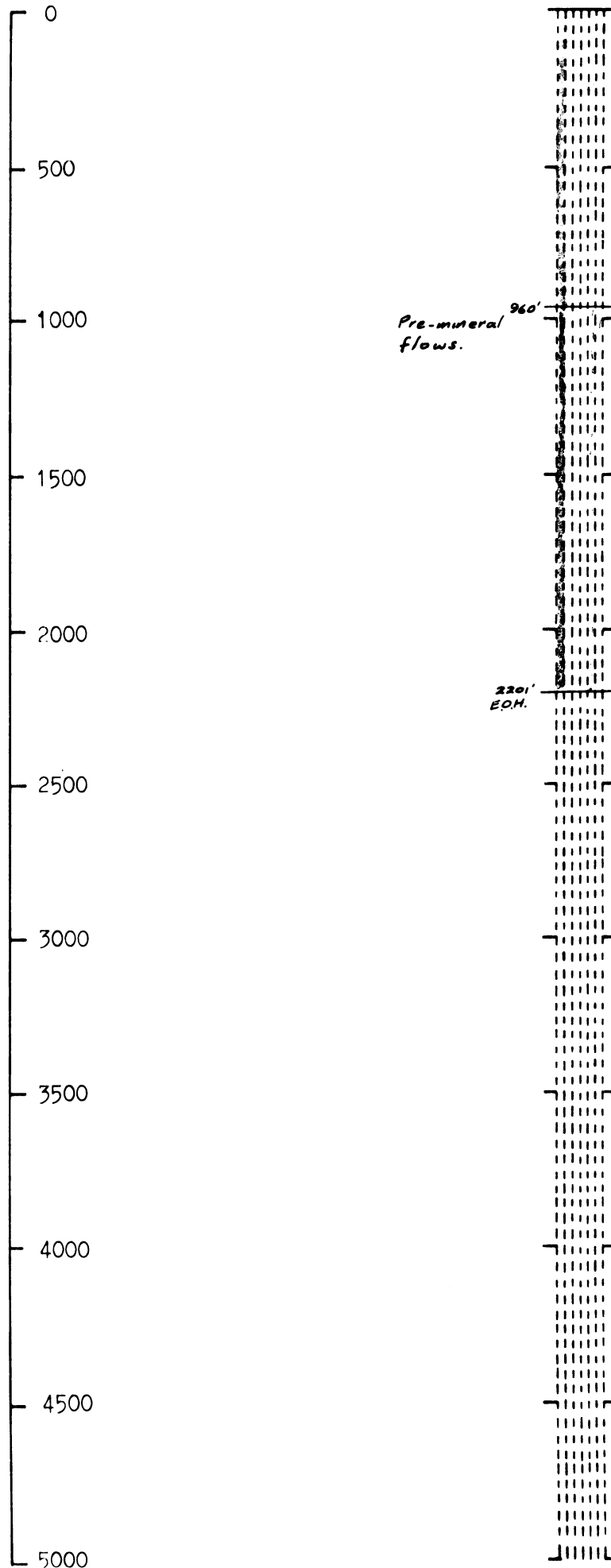
1500'
EQH.

A 75

P.D.

Col. el. 3900

SCALE: 1" = 500'



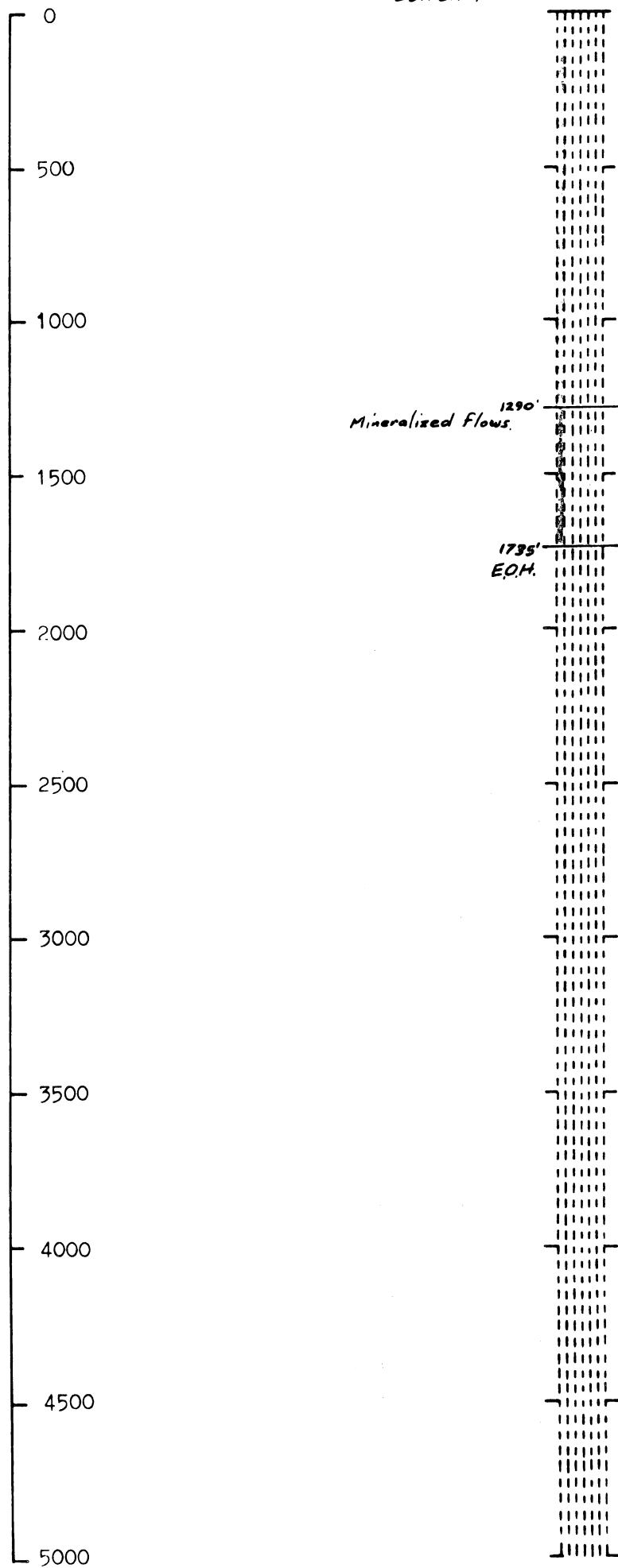
High assay 0.13% Cu.
Chrysocolla
Limonite + hematite.

A 76

P.D.

Col. el. 4000

SCALE: 1" = 500'



1290'
Mineralized Flows.

1735'
E.O.H.

High assay, 0.14% Cu.
CuOx
FeOx

A 78

P.D.

Col. el. 3940

SCALE: 1" = 500'

0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000

Pre-mineral flows.

928'
941'
E.O.H.

?

998'
Mineralization
FeOx stains.
No assay reported.

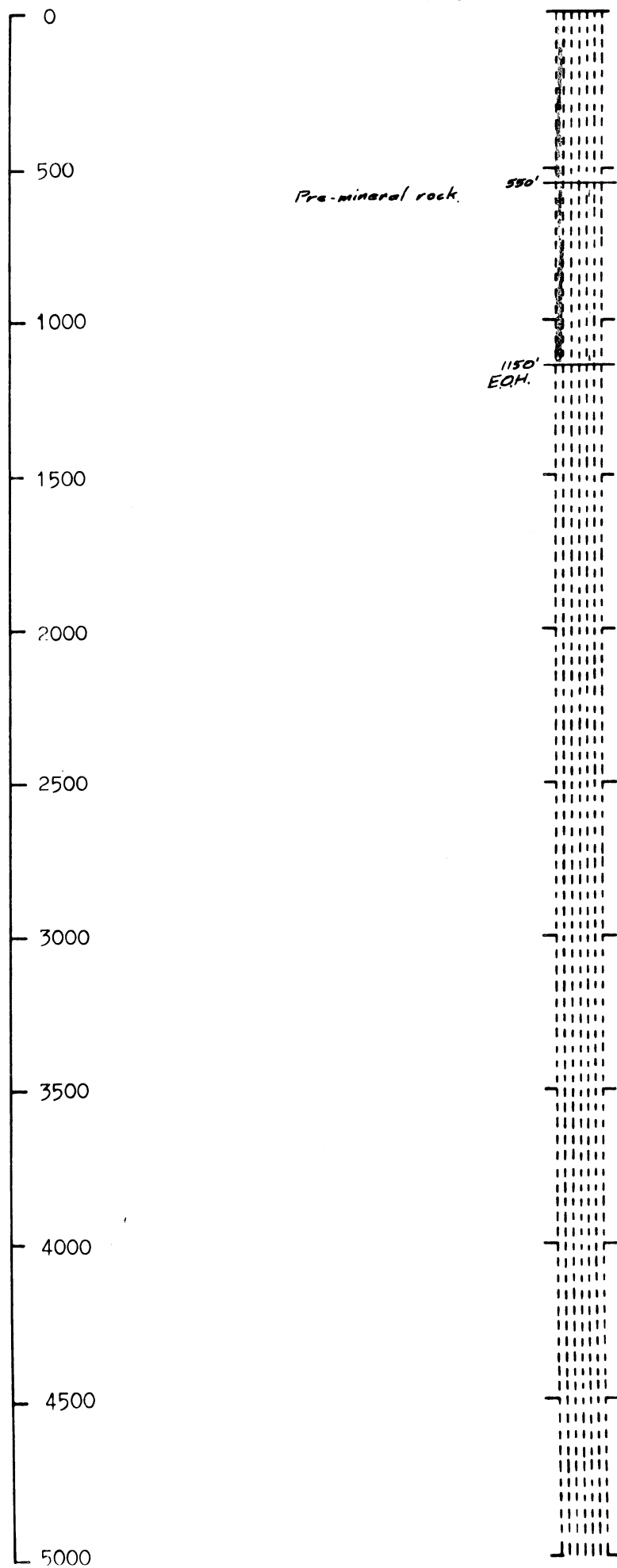


A 79

P. D.

Col. el. 3840

SCALE: 1" = 500'



Pre-mineral rock.

550'

1150'
EQH.

Limonite & hematite.
No assay reported.

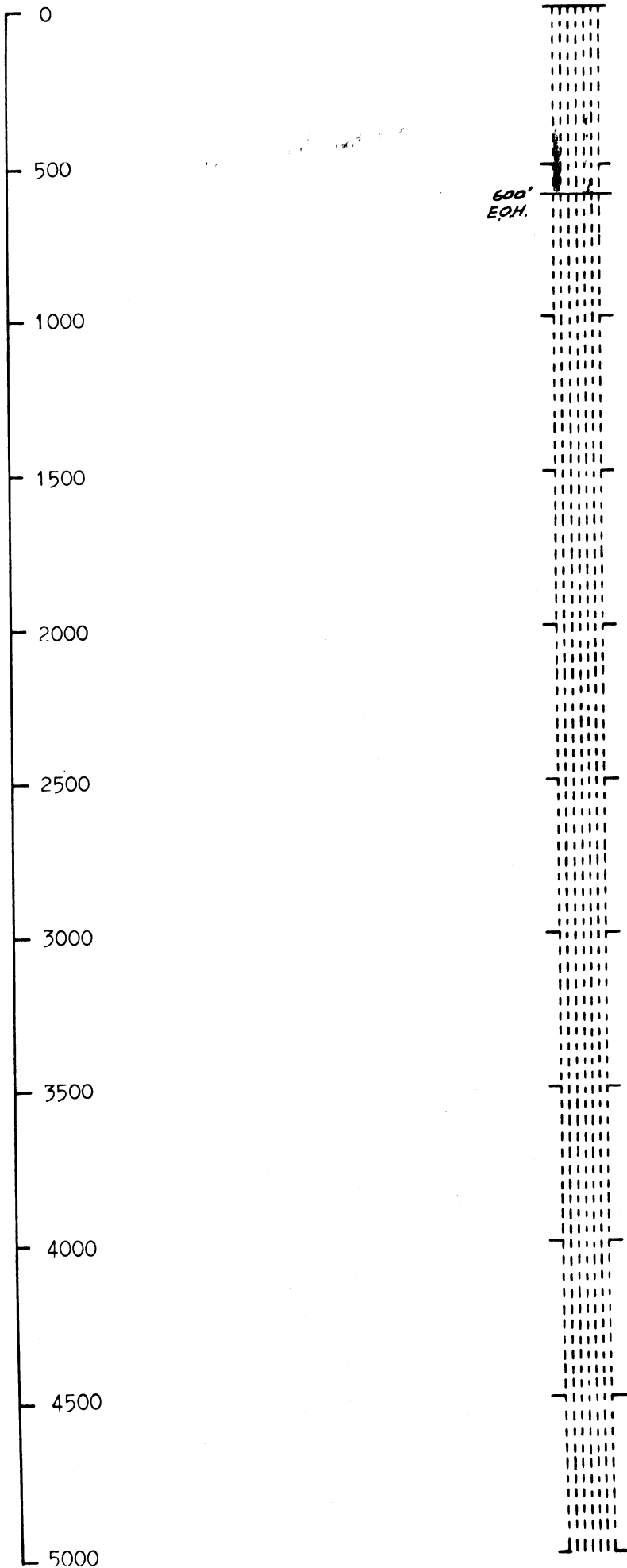
A 80

P. D.

Col. el. 3900

SCALE: 1" = 500'

Limonite + hematite.

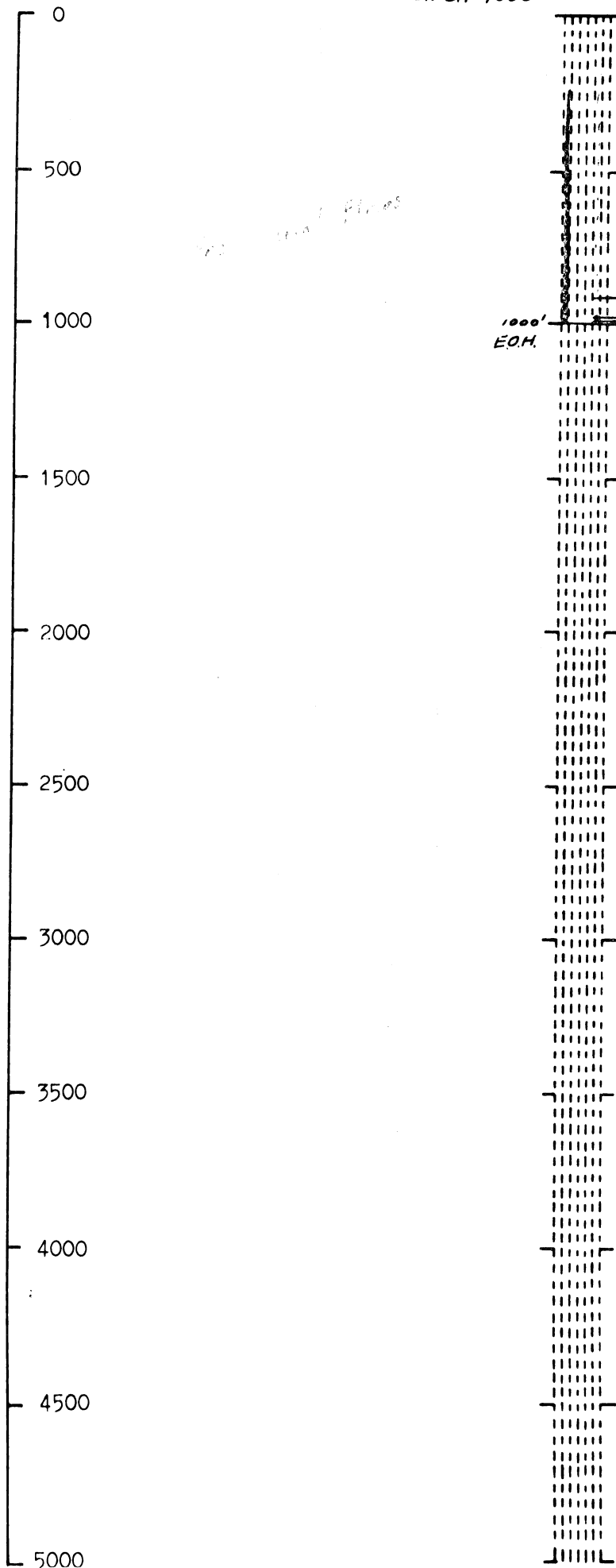


A 81

P. D.

Col. el. 4000

SCALE: 1" = 500'



1000' 1000' 1000'

Limonite + hematite

EQM.

911'
912'
913'

900'-990', 5% Py
990'-1000', 8% Py

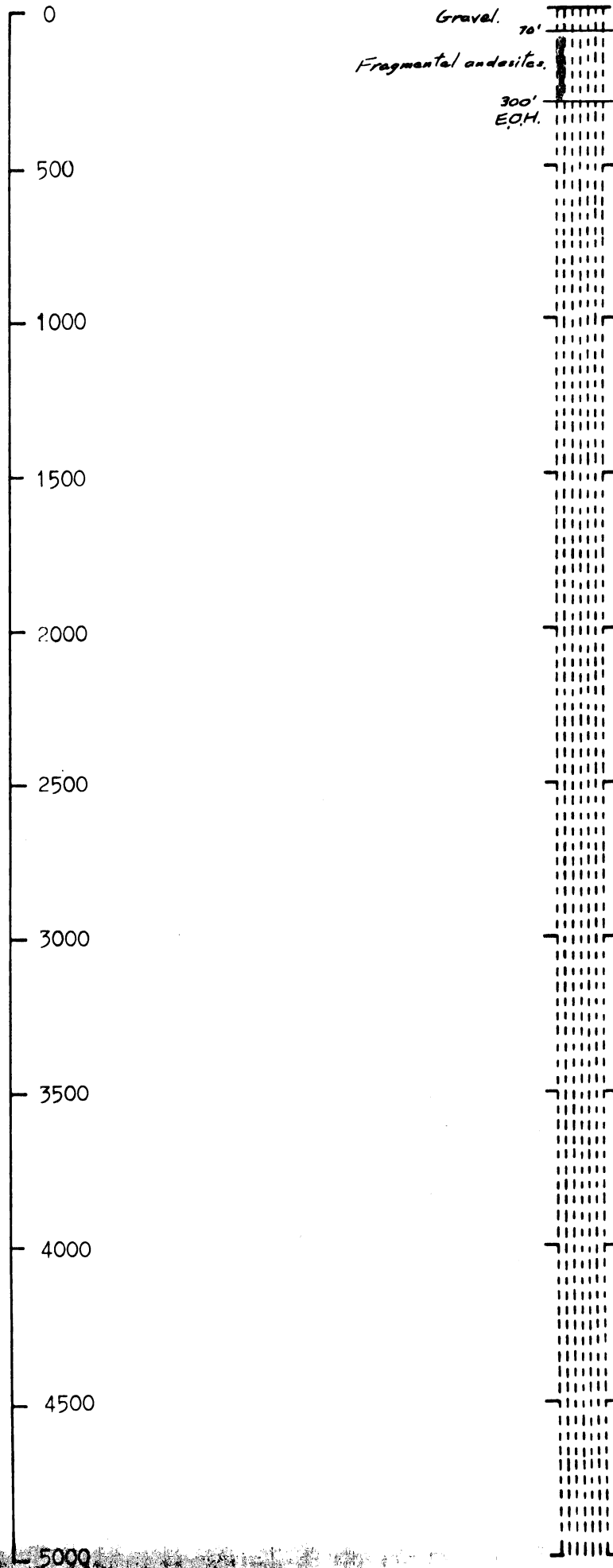
No assay reported.

A 82

P. D.

Col. el. 3920

SCALE: 1" = 500'



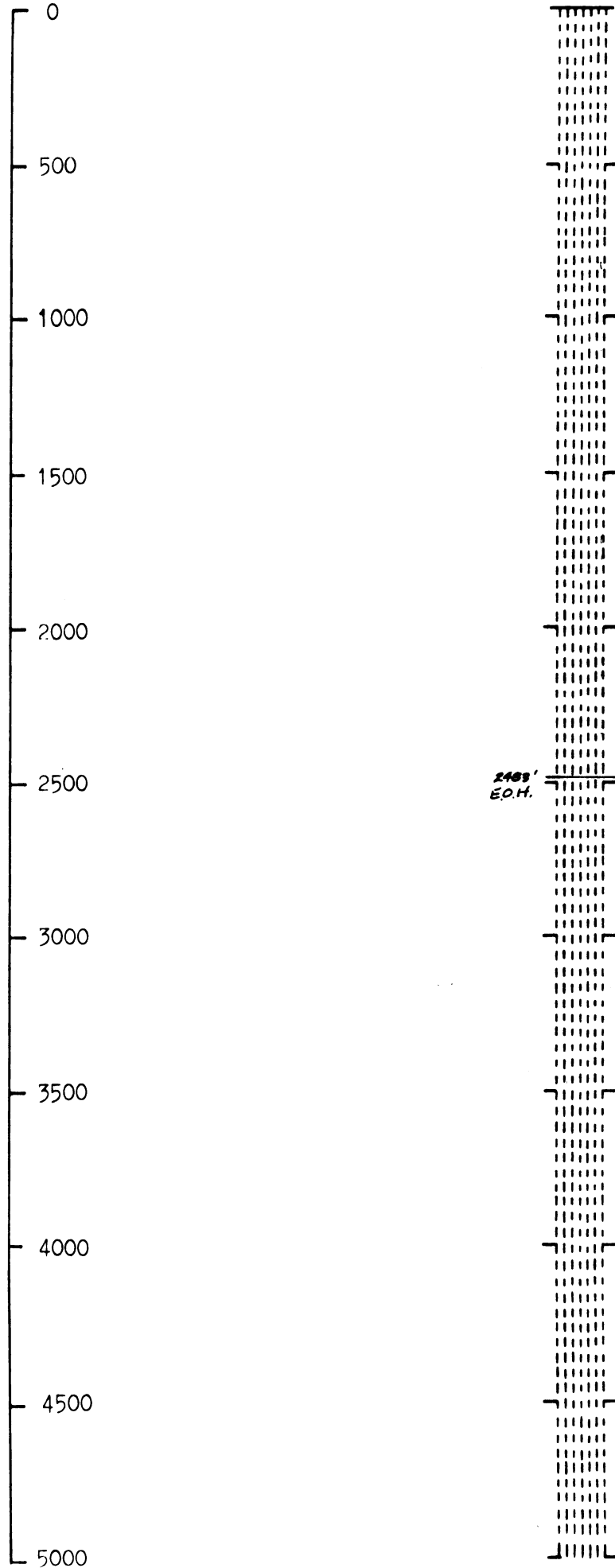
Remnants of diss. sulf.
No assay reported.

RL 1

P. D.

Col. el. 4080

SCALE: 1" = 500'



High assay, 1.27% Cu
oxide

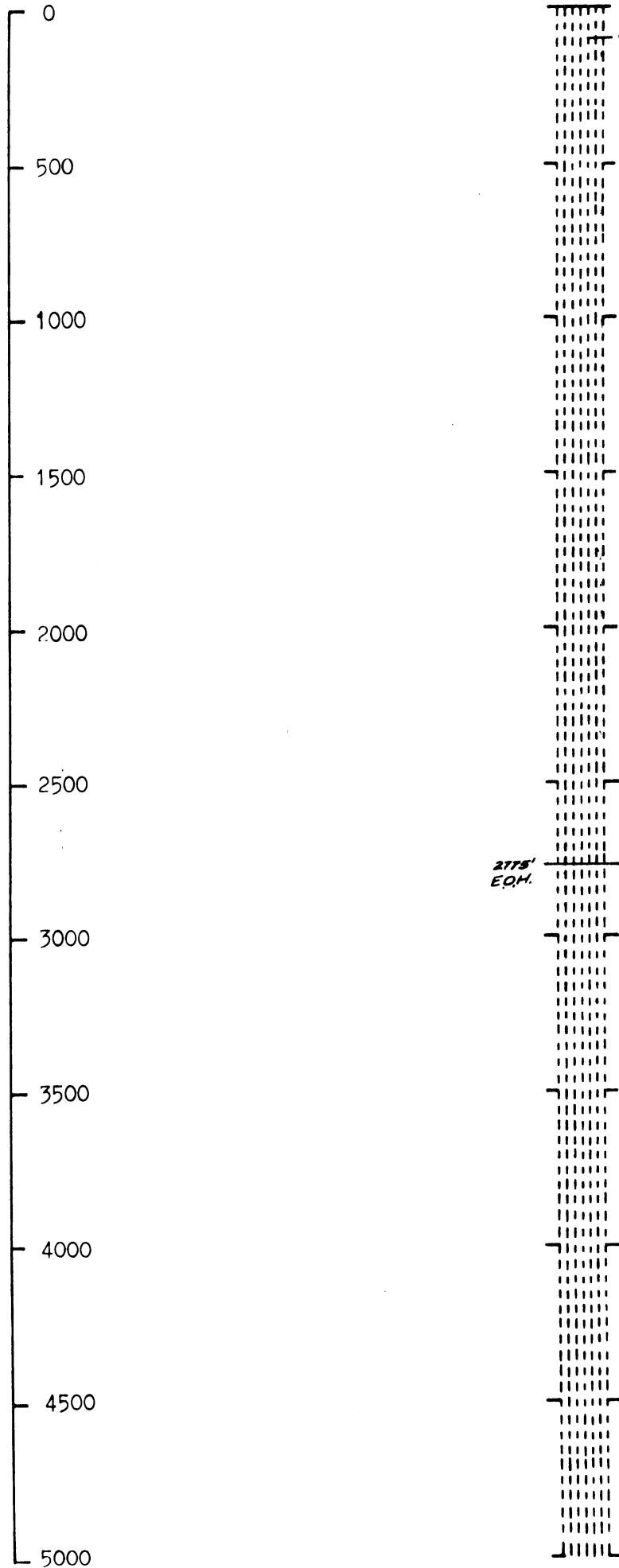
High assay, 1.68 %Cu
Sulf.

RL 2

P. D.

Col. el. 4030

SCALE: 1" = 500'



95'
First Sulf.

High assay, 1.08% Cu.
Sulf.

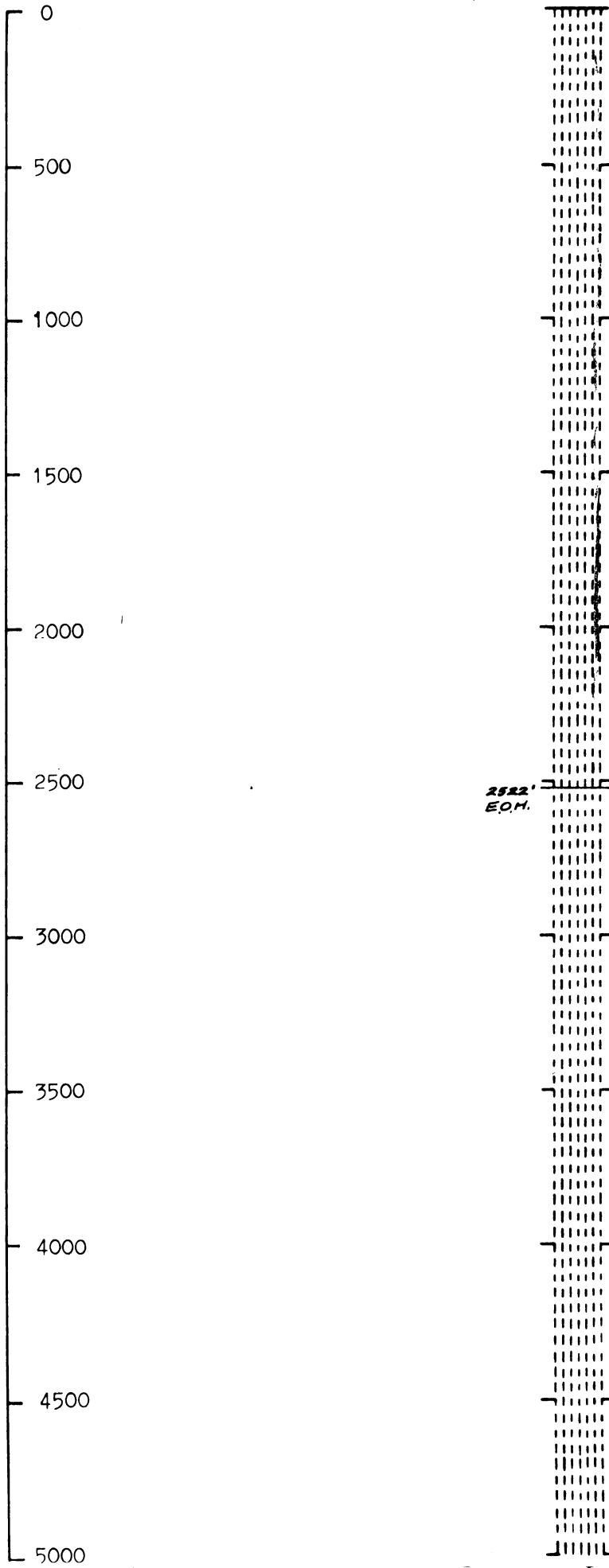
2775'
EQM.

RL 3

P.D.

Col. el. 4035

SCALE: 1" = 500'



High assay, 2.08% Cu.
Oxide

High assay, 1.94% Cu
Sulf.

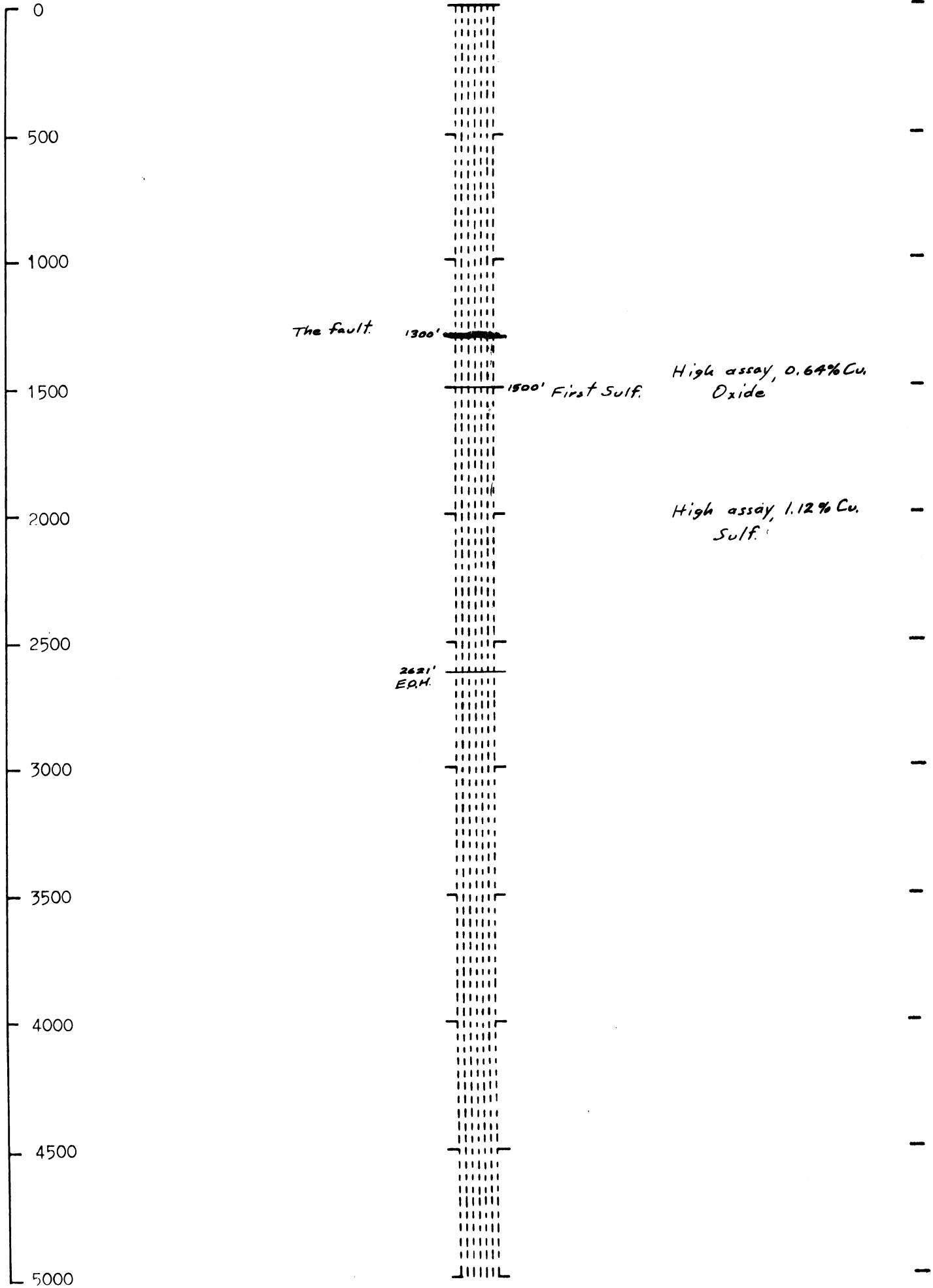
2522'
E.O.M.

RL 4

P. D.

Col. el. 4140

SCALE: 1" = 500'

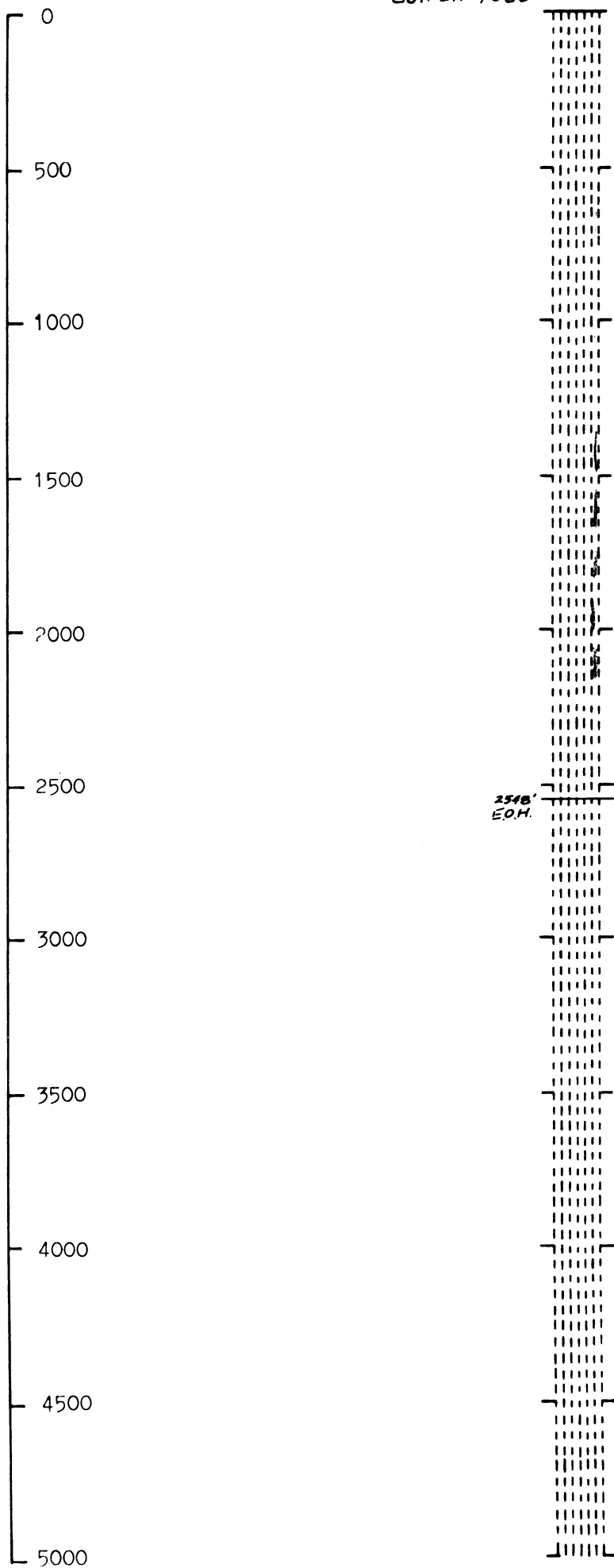


RL 5

P. D.

Col. al. 4060

SCALE: 1" = 500'



High assay, 0.71% Cu
Oxide

High assay, 2.11% Cu.
Sulf.

RL 6

P.D.

col. el. 4080

SCALE: 1" = 500'

0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000



High assay, 1.02% Cu.
Oxide.

912' First Sulf.

High assay, 1.17% Cu
Sulf.

significant MoS at depth

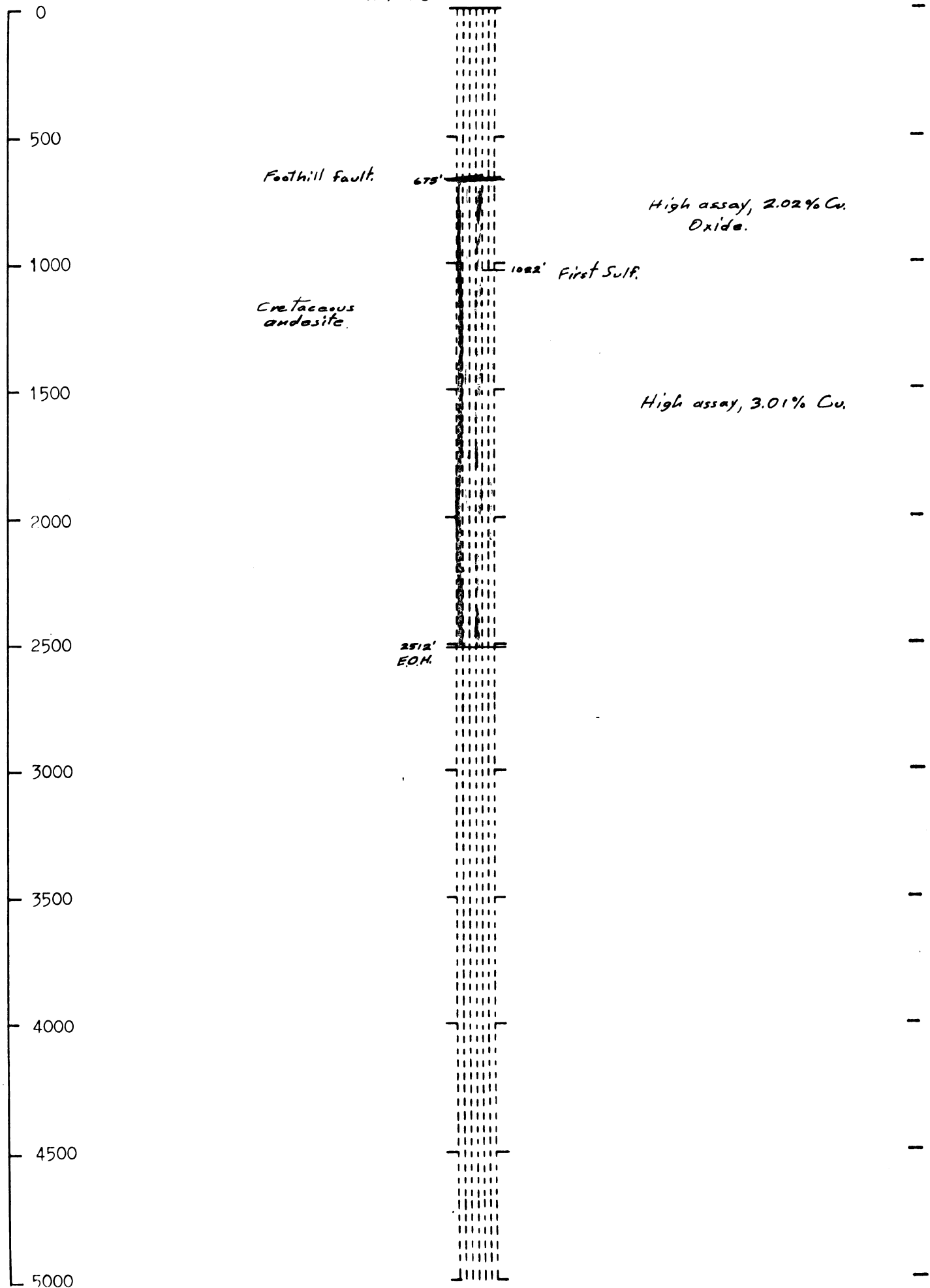
2564'
E.O.H.

RL 7

P.D.

Col. el. 4000

SCALE: 1" = 500'



RL 8

P. D.

Col. el. 4140

SCALE: 1" = 500'

0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000



1041' First Sulf.

High assay, 2.31% Cu
Oxide.

High assay, 1.35% Cu
Sulf.

2605'
ERH.

RL 9

P.D.

Col. el. 4035

SCALE: 1" = 500'

0

The fault.

256'

500

High assay, 0.70 % Cu.
Oxide.

1000

866' First sulf.

1500

High assay, 0.66 % Cu.
Sulf.

2000

2500

2696'
E.O.H.

3000

3500

4000

4500

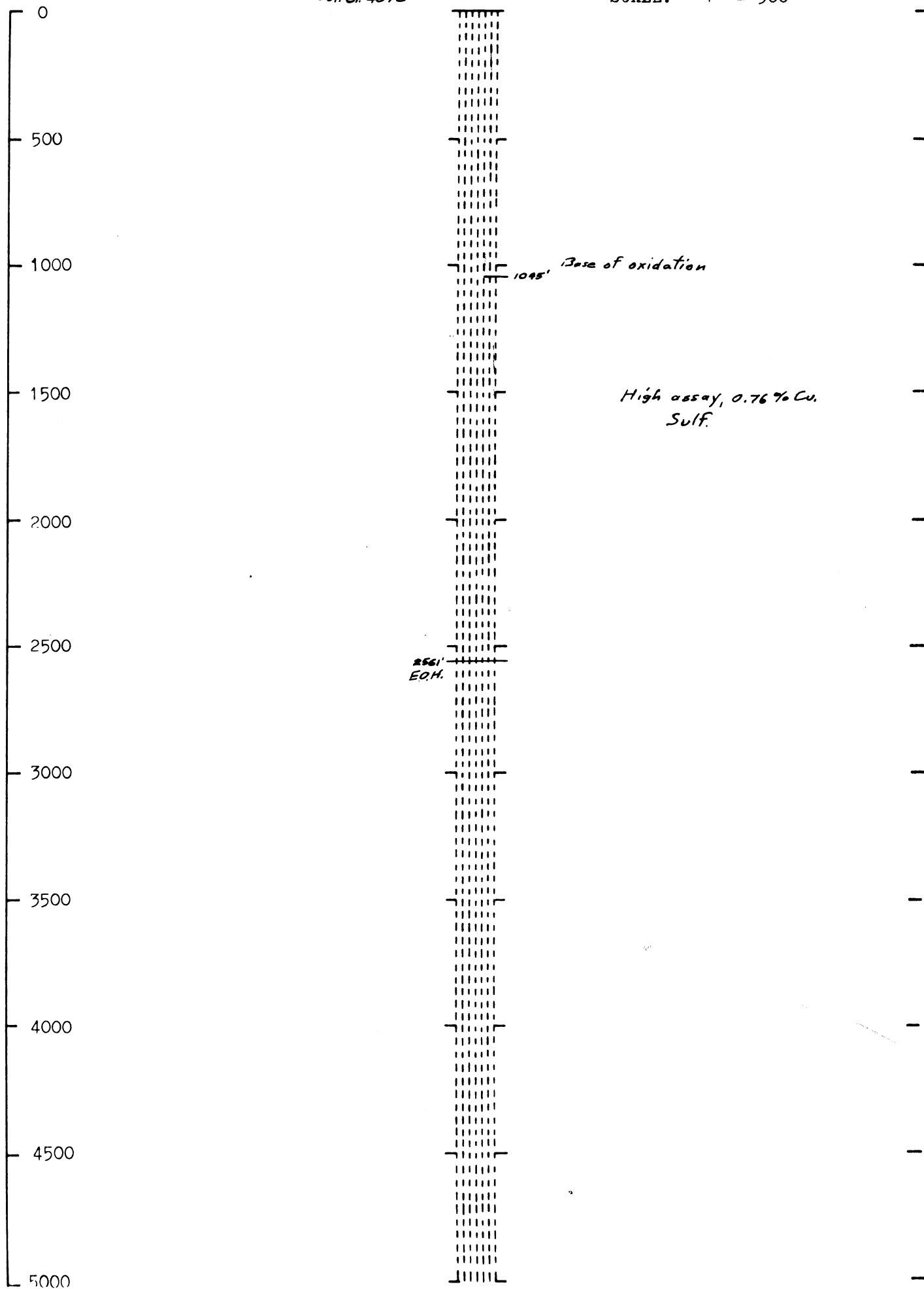
5000

RL 10

P.D.

Col. el. 4070

SCALE: 1" = 500'



RL 11

P.D.

Col. el. 4075

SCALE: 1" = 500'

0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000

Foothill fault.

1893'

Cretaceous andesite.

High assay, 0.71% Cu.
Oxide.

2296'

First sulf.

High assay, 1.57% Cu.
Sulf.

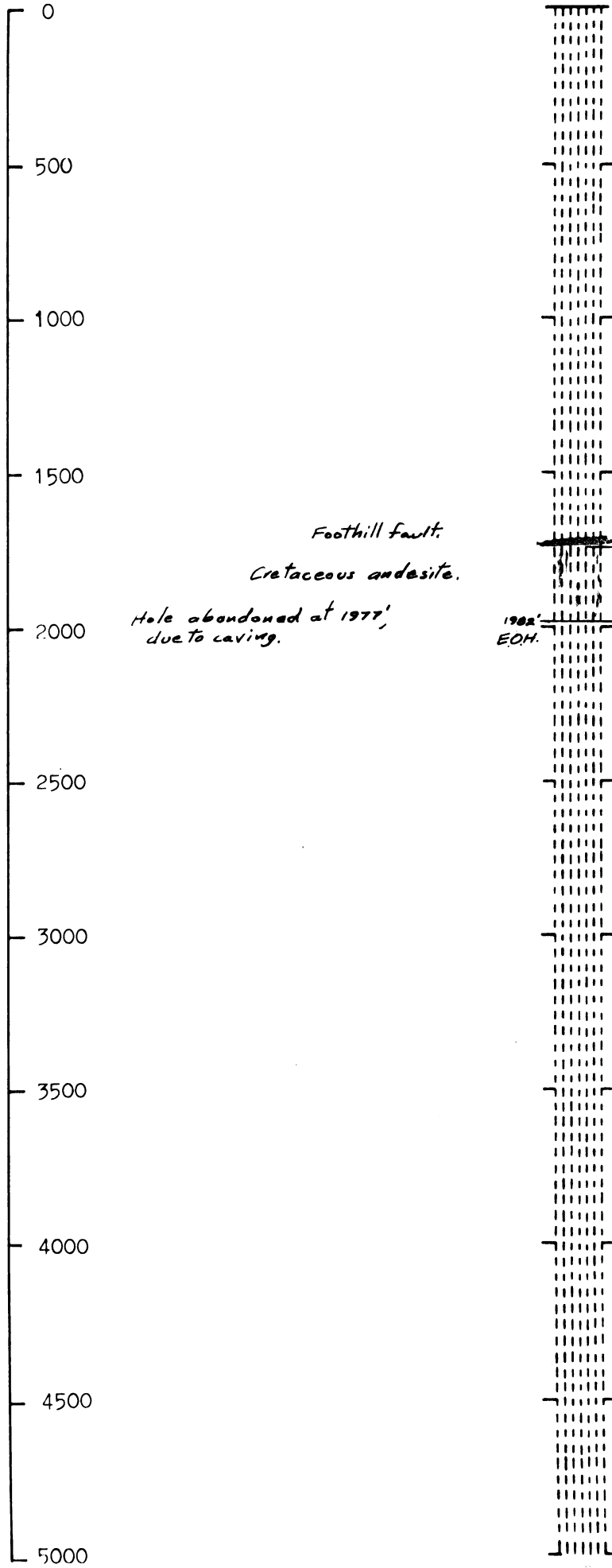
2512'
E.O.H.

RL 12

P.D.

Col. el. 4090

SCALE: 1" = 500'



Foothill fault.
Cretaceous andesite.

Hole abandoned at 1977'
due to caving.

1982'
E.O.H.

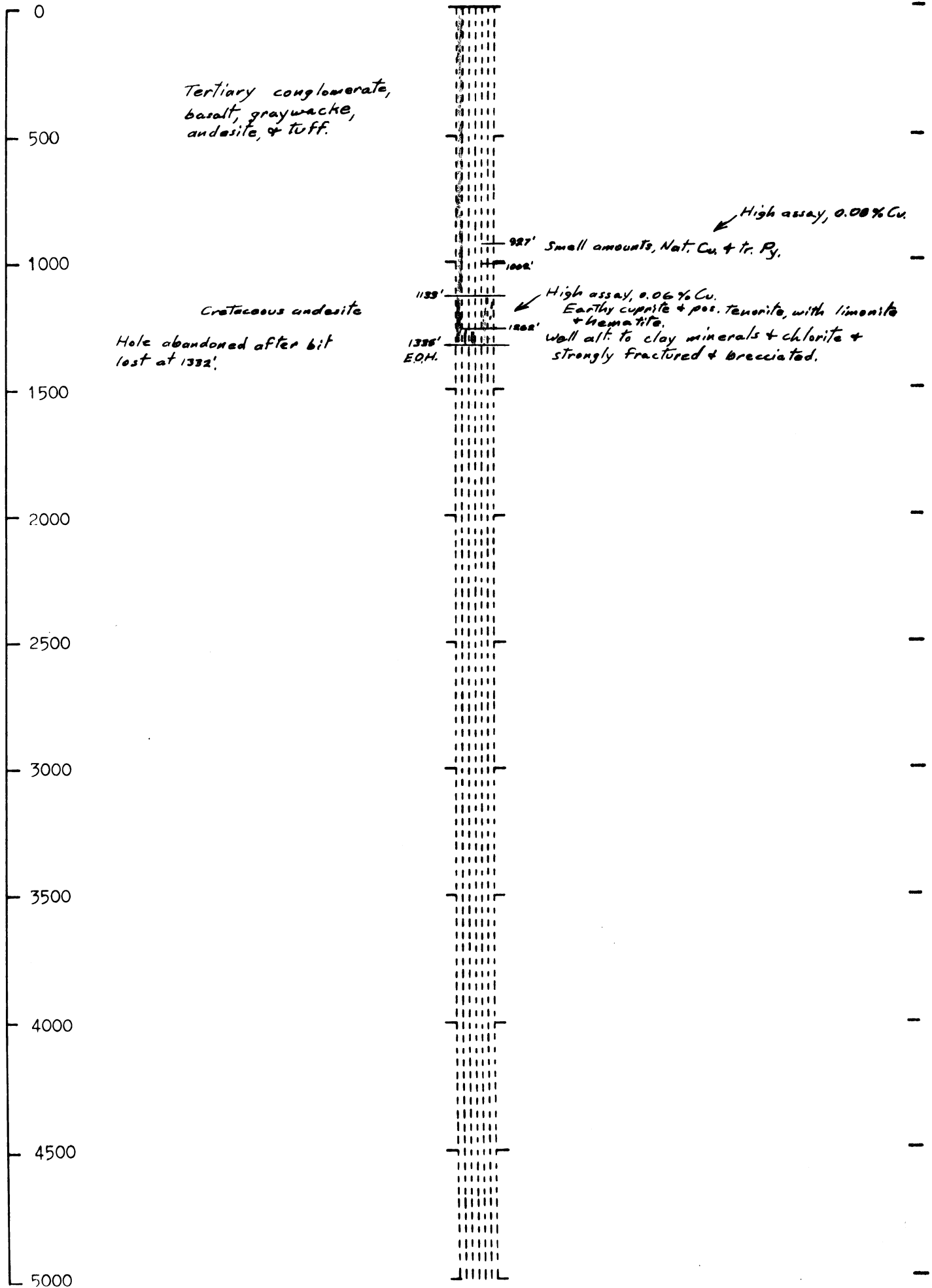
1751' First Sulf.

High assay, 1.02% Cu.
Sulf.

Significant MoS at depth.

Col. el. 3960

SCALE: 1" = 500'



RL 14

P. D.

Col. el. 4015

SCALE: 1" = 500'

0

500

1000

1500

2000

2500

3000

3500

4000

4500

5000

551' First sulf.

Cp., Py. & minor Bn.

High assay, 1.55% Cu.
Sulf.

2501'
E.O.H.

Limonite + hematite with minor
amounts of earthy cuprite.

RL 15

P.D.

Col. el. 3990

SCALE: 1" = 500'

0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000

Cretaceous andesite.

Foothill fault.

Cretaceous andesite.

2208'

2440'

2456' First sulf.

High assay, 1.45% Cu.
Sulf.

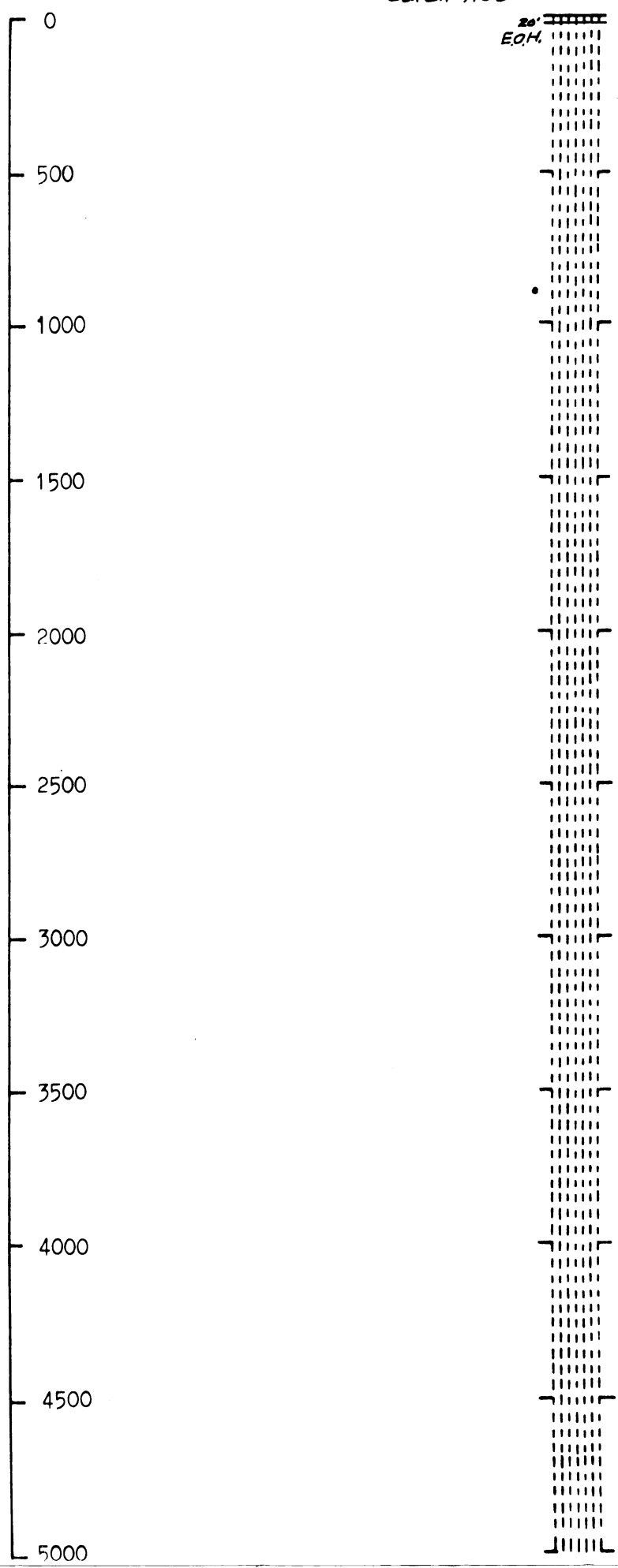
3066'
EQM.

RL 16

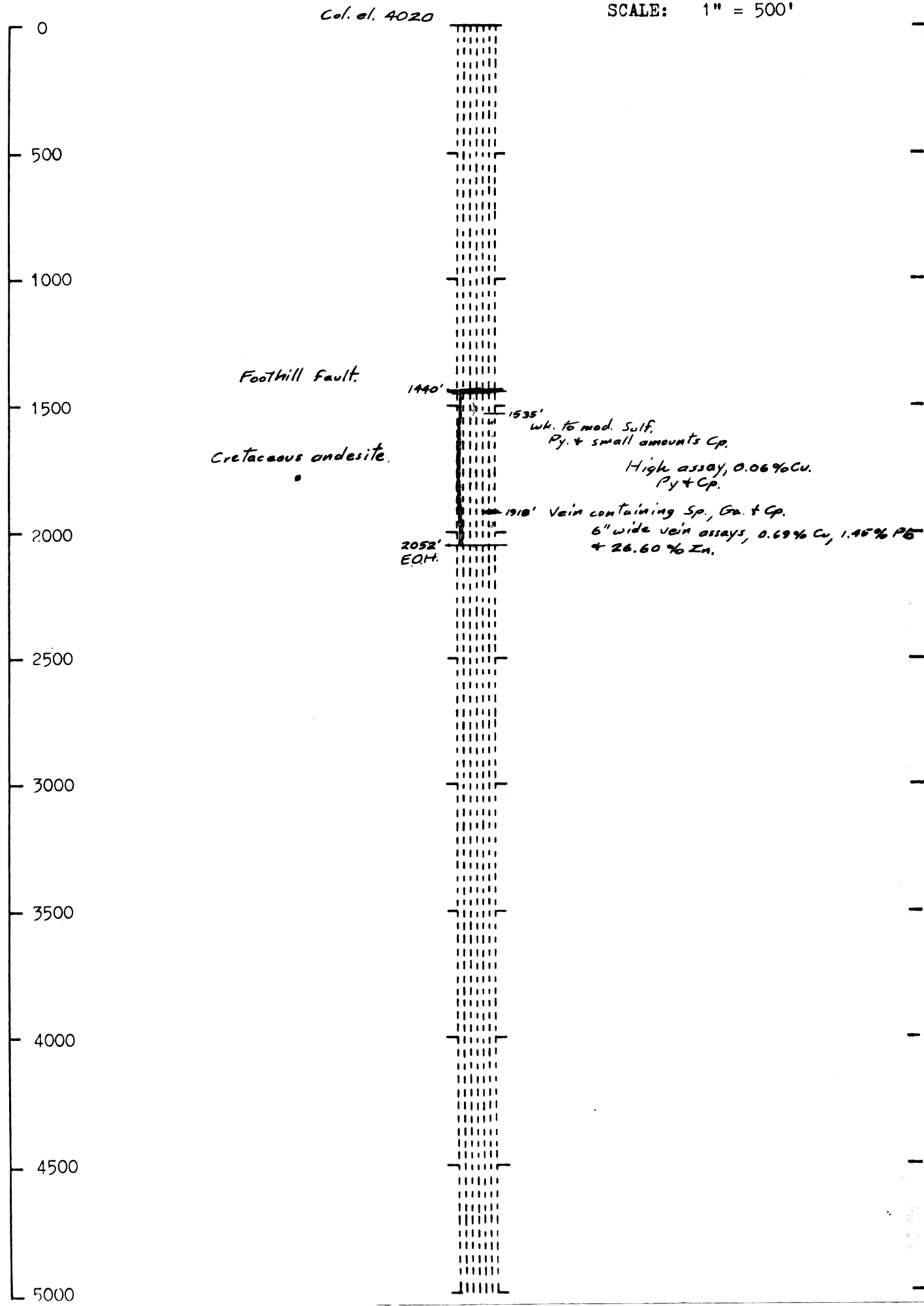
P.D.

cd. el. 4100

SCALE: 1" = 500'



SCALE: 1" = 500'

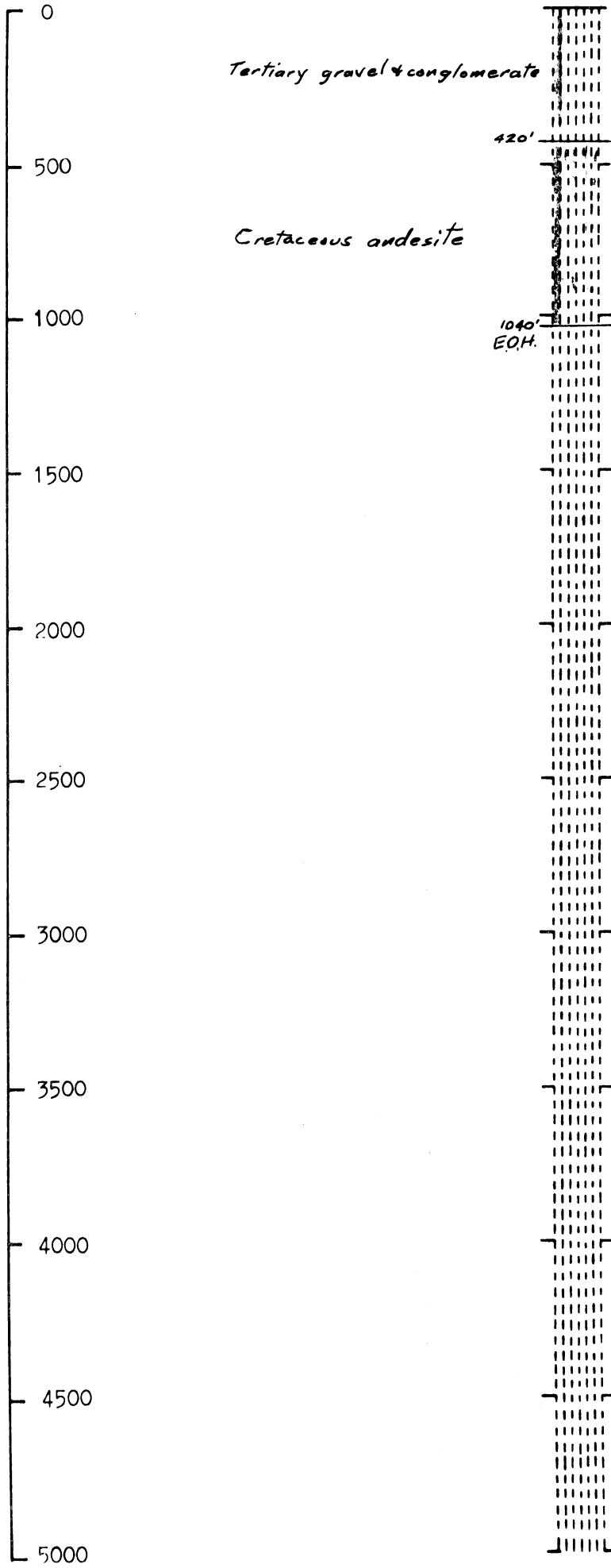


RL 20

P.D.

Col. el. 4015

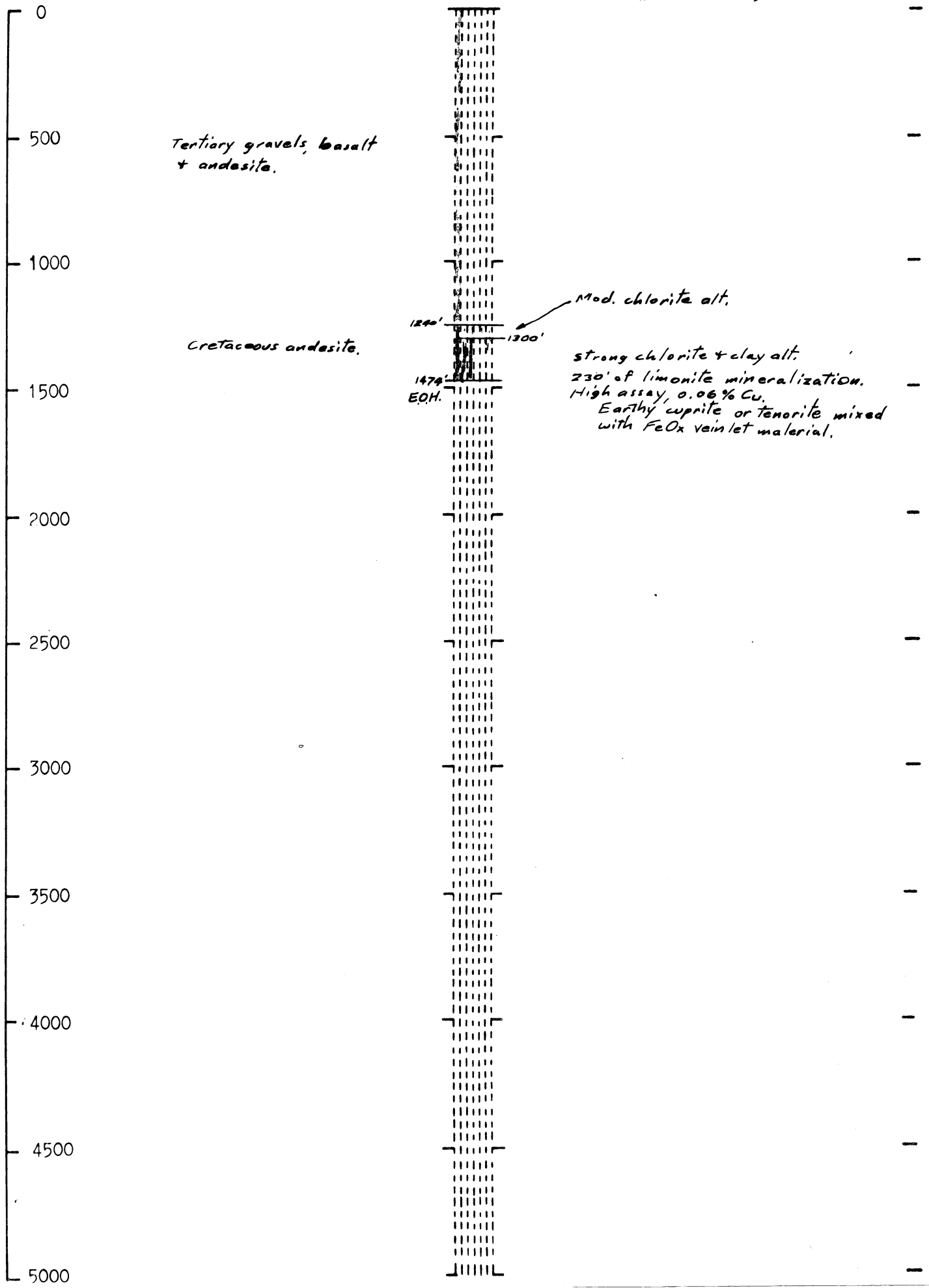
SCALE: 1" = 500'



High assay, 0.09% Cu.
Earthy cuprite & pos. tenorite
with limonite & hematite
in veinlets.

Col. el. 4120

SCALE: 1" = 500'



RL 22

P.D.

Col. el. 4035

SCALE: 1" = 500'

0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000

Cretaceous andesite

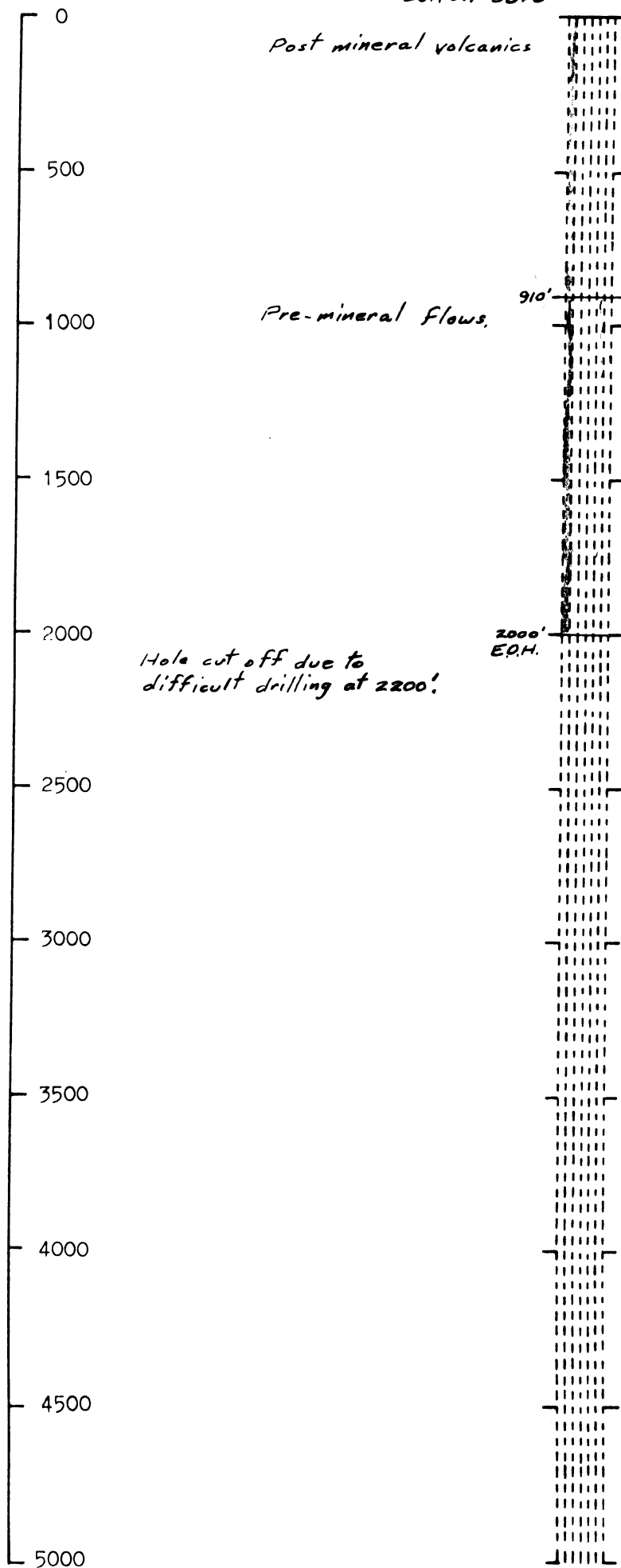
1188' First sulf.
Py + small amounts Cp.

High assay, 0.09% Cu.
Cp. with Py. in veinlets + diss.
within a very broken, brecciated zone.

1602'
E.O.H.

Col. el. 3870

SCALE: 1" = 500'



Limonite + hematite.

Variable min, weak to quite strong.

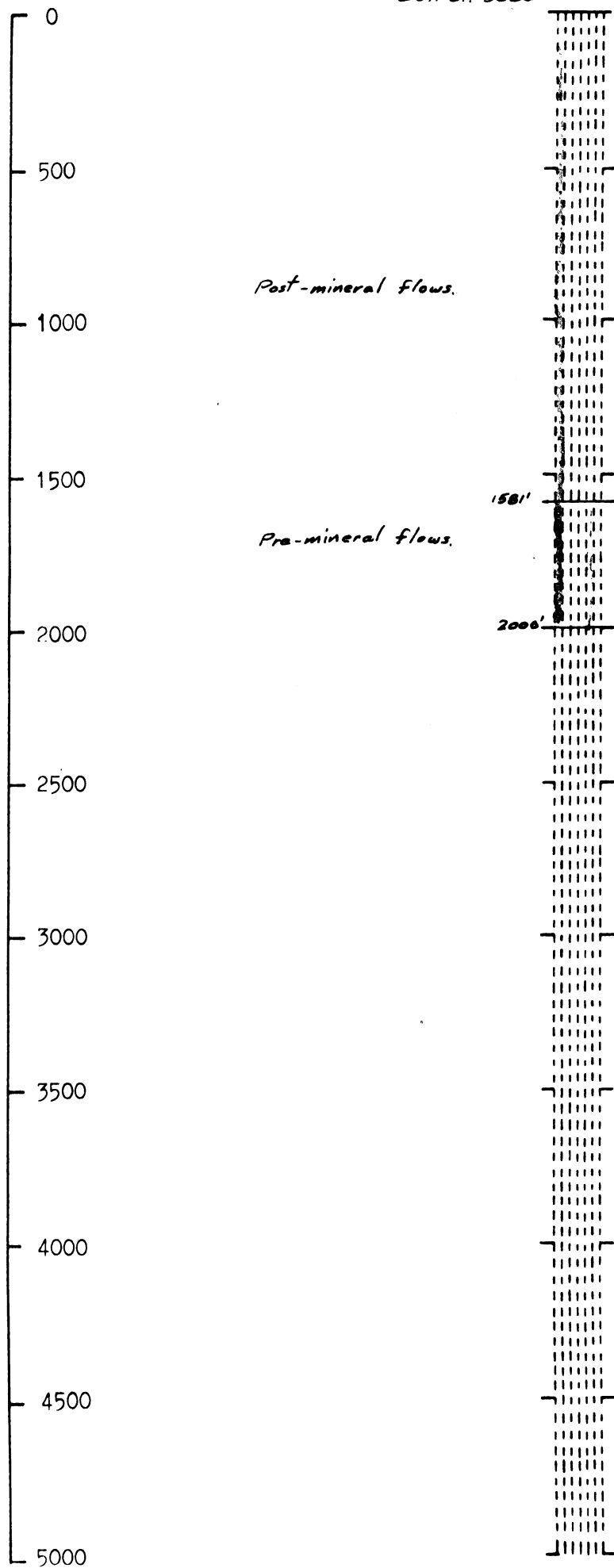
High assay, 0.11% Cu.

RL 24

P.D.

Col. el. 3880

SCALE: 1" = 500'



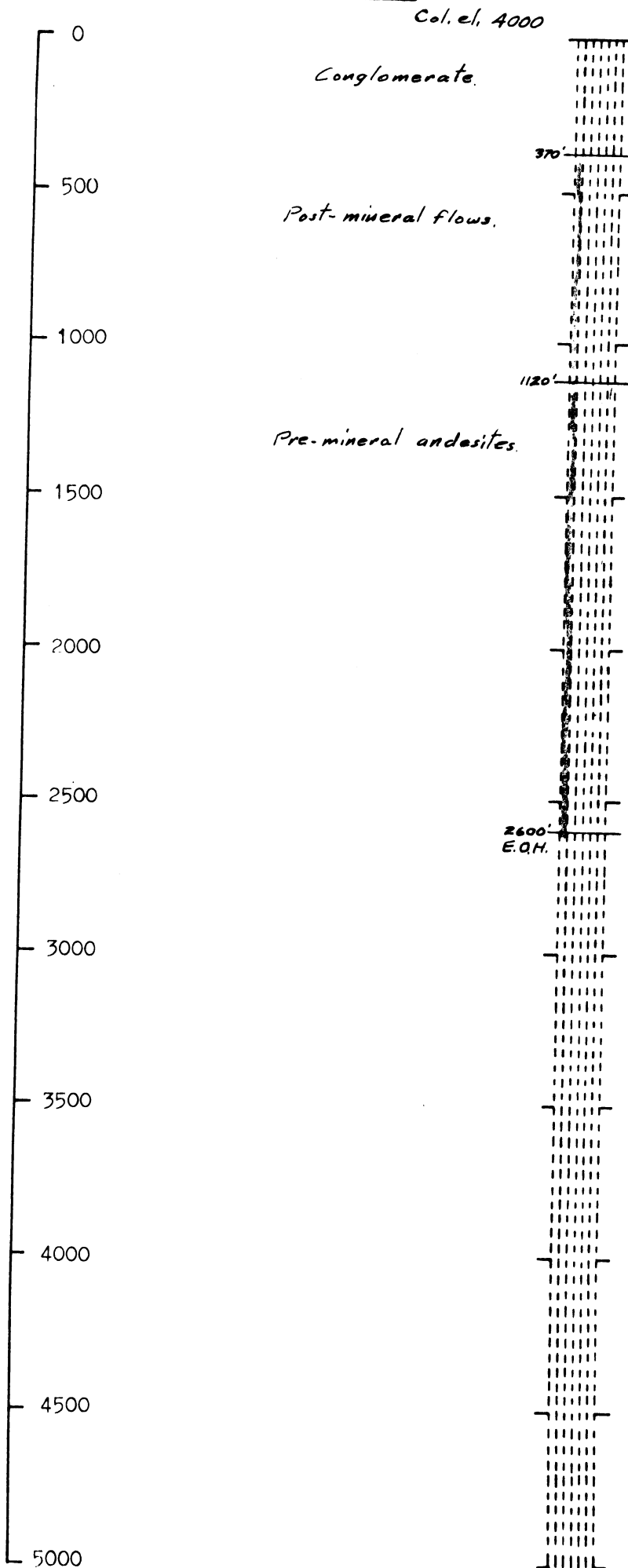
Post-mineral flows.

Pre-mineral flows.

1581'

2000'

Spotty FeOx largely in
fracts. & fract. zones.
No assay reported.



SCALE: 1" = 500'

FeOx, chrysocolla, & lesser amounts of Nat. Cu + cuprite

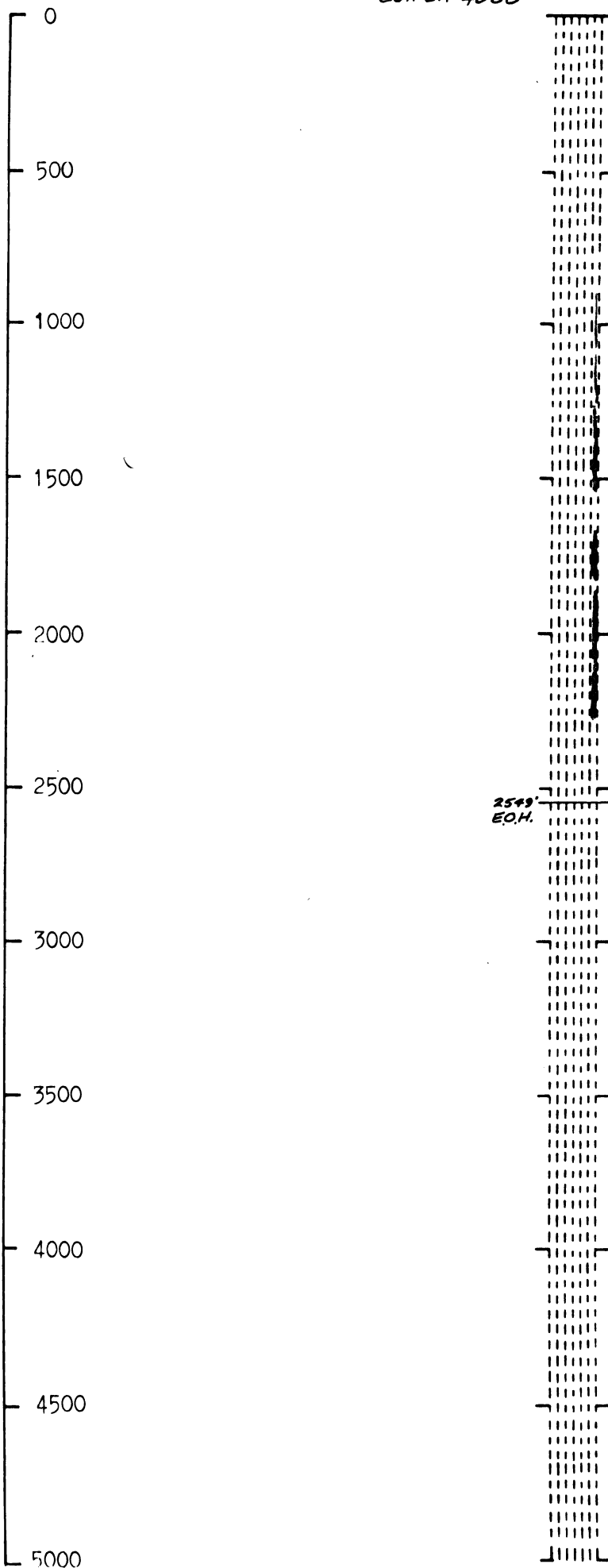
10' high assay, 0.62% Cu.
 100' composite high assay, 0.33% Cu.
 Ave. assay of 1400', 0.17% Cu.

RL 26

P. D.

Col. el. 4060

SCALE: 1" = 500'



High assay, 1.05% Cu
Oxide.

High assay, 6.12% Cu,
Sulf.

2549'
E.O.H.

A-11

No. 3. Drill hole A-11, 2 1/3 in. diam. 265 ft. deep,
bears S. 84°50' W., 511.03 ft. from Cor. No. 2 of
Foothill 35 Lode.
Value, \$1,060.00.

Foothill 35

Geology. The Foothill 35 claim is traversed longitudinally by the Valley fault. The area south of the fault is pre-mineral fragmental andesite which is virtually unaltered and unmineralized. The north side of the fault is covered with gravel except near the west end of the claim where post-mineral flows are exposed.

Mineralization. Mineralized samples obtained from diamond drill hole A-11 which is located on the northeastern portion of the claim. The hole was 265 feet deep, and the top of the mineralized volcanics was intersected at 180 feet. It contained limonitic and hematitic mineralization.

A-13

A-13 drill hole, bears S. 78° 50' E., 588 ft. from
Cor. No. 1 of Lucky Strike #4 Lode, 979 ft. deep.
Value, \$5,810.15.

The A-13 drill hole encountered traces of sulfides at 40 feet, but partial oxidation continued to 410 feet.

A-13 drill hole encountered material returning 10 foot sample assays as high as 0.50% Cu. Copper minerals in the zone included chalcopyrite, bornite, and chrysocolla.

A-18

A-18 drill hole, bears S. 3° 31' W., 266 ft. from
Cor. No. 1 of Pasoford #1 Lode, 429 ft. deep.
Value, \$2,804.80.

The Cretaceous andesite both in the Northern part of the lode and as exposed by the A-18 drill hole is strongly altered to chlorite, biotite, and clay minerals. Due in part to the influence of the Foothill Fault, the Cretaceous andesite on the lode is intensely fractured and brecciated.

Mineralization

Weak iron oxide mineralization in Northwesterly and Easterly trending veinlets is exposed on the surface in the extreme Northern portion of the lode and weak, but locally strong, mineralization was encountered in the A-18 drill hole under 40 feet of cemented gravels. Oxidation in the area is shallow and sulfides consisting of pyrite and small amounts of chalcopyrite, appeared in the drill hole at 240 feet. The chalcopyrite content gradually increased near the end of the hole. Mineralization on the lode appears to be related to both the area of general mineralization to the North on the Dos Pobres #27 and 28 Lodes and to an area of strong, general mineralization occurring on the Blue Bird lodes to the Northeast.

The A-18 drill hole encountered material with 10-foot sample assays up to 0.13% Cu. The copper mineral was chalcopyrite which occurred with pyrite in veinlets and disseminations.

A-27

A-27 drill hole, bears S. 0° 29' E., 553 ft. from
Cor. No. 1 of Pasoford #5 Lode, 632 ft. deep.
Value, \$2,882.95.

The Cretaceous andesite was, however, encountered in the A-27 drill hole in the hanging wall of the Foothill Fault below 578 feet of younger series (Tertiary) conglomerate, andesite, and rhyolite. The older andesites, which included hornblende andesite porphyry, were generally altered to chlorite and epidote and were weakly to moderately fractured. The hole bottomed at 632 feet before passing through the Foothill Fault.

Mineralization

There are no mineralized surface exposures on the lode but limonite-hematite mineralization was encountered in the Cretaceous andesites in the A-27 drill hole. The strength of mineralization ranged from very weak in the hornblende andesite porphyry to moderate in the andesite and the capping indicated pyrite-chalcopyrite mineralization at depth although strong leaching, caused by the excess of pyrite, has removed most of the copper from the oxidized zone. The depth of oxidation in the area is in part dependent on the Foothill Fault but is estimated to extend a minimum of 1,000 feet.

The A-27 drill hole encountered material with 10-foot sample assays as high as 0.13% Cu. The copper minerals were earthy cuprite and possibly tenorite mixed with limonite and hematite in veinlets and irregular flooded patches. No sulfides were encountered in the drill hole.

A-28

A-28 drill hole, bears N. 29° 32' W., 498 ft. from
Cor. No. 3 of Gold Hill #1 Lode, 1750 ft. deep.
Value, \$12,026.85.

Although the A-28 drill hole encountered relict sulfides from 670 feet, no general sulfide mineralization was present until 1,420 feet and partial oxidation did not end until 1,580 feet.

The A-28 drill hole encountered material with assays up to 0.52% Cu. The copper minerals were earthy cuprite and chrysocolla which occurred with hematite in veinlets.

A-30

A-30 drill hole, bears N. 18° 05' E., 662 ft. from
Cor. No. 4 of Foothill #53 Lode, 436 ft. deep.
Value, \$2,315.20.

Oxidation in the Southern portion of the lode is shallow with sulfides appearing at 90 feet in the A-30 drill hole.

Although there are no outcrops of the older rocks on the lode, the Cretaceous andesite is exposed in the A-30 drill hole in the central portion of the lode below 90 feet of alluvium. The andesite flows encountered in the drill hole were moderately fractured and altered in part to chlorite and biotite.

Mineralization

There are no mineralized surface exposures on the lode but weak, general mineralization was encountered in the A-30 drill hole. The mineralization consisted of pyrite and chalcopyrite accompanied by traces of bornite and occurred in veinlets and disseminations. Oxidation on the lode appears to be quite shallow as sulfides were present just below the alluvium at 90 feet in the drill hole.

The A-30 drill hole, located in the central portion of the lode, encountered material which assayed up to 0.21% Cu. The copper minerals were chalcopyrite and traces of bornite.

A-31

A-31 drill hole, bears N. 38° 20' W., 400 ft. from
Cor. No. 3 of Lucky Strike #2 Lode, 281 ft. deep.
Value, \$2,013.20.

Oxidation in the area is shallow, with sulfides being encountered in the A-31 drill hole at 70 feet, and probably does not extend below 200 feet.

The A-31 drill hole encountered material returning assays up to 0.33% Cu. The hole penetrated andesite containing pyrite-chalcopyrite mineralization in veinlets.

A-32

No. 3. A-32 drill hole, bears S. 48° 47' E., 317 ft.
from Cor. No. 3 of Dos Pobres #25 Lode, 200 ft.
deep.
Value, \$1,032.50.

The A-32 drill hole encountered material assaying
up to 0.19% Cu. The copper mineral was earthy cuprite mixed
with hematite and limonite in veinlets within the zone of
general mineralization.

A-33

No. 4. A-33 drill hole, bears S. 20° 10' W., 375 ft.
from Cor. No. 3 of Dos Pobres #26 Lode, 200 ft.
deep.
Value, \$1,005.75.

The A-33 drill hole encountered material assaying
up to 0.44% Cu. The copper mineral was apparently earthy
cuprite mixed with hematite in a weak veinlet zone immediately
underlying a strong iron oxide vein.

A-34

No. 3. A-34 drill hole, bears N. 1° 55' E., 545 ft.
from Cor. No. 4 of Dos Pobres #15 Lode, 200 ft.
deep.
Value, \$977.50.

The A-34 drill hole encountered material assaying
up to 0.10% Cu. The copper mineral was apparently earthy
cuprite mixed with the iron oxide, hematite, in a portion of
a 10-foot wide veinlet zone located immediately below a 10-
foot wide hematite vein.

A-35

No. 3. A-35 drill hole, bears S. 42° 09' W., 111 ft. from Cor. No. 4 of Hades #1 Lode, 1175 ft. deep. (Drilled after survey completed.) Value, \$4,841.00.

The Cretaceous andesite encountered in the footwall of the Foothill Fault in the A-35 drill hole was moderately altered to chlorite and weakly fractured.

The A-35 drill hole encountered limonite-hematite mineralization below 360 feet and assays up to 0.17% Cu. The copper mineral was probably tenorite or earthy cuprite mixed with limonite and hematite.

A-36

No. 3. A-36 drill hole, bears S. 8° 38' E., 643 ft. from Cor. No. 1 of Dos Pobres #16 Lode, 200 ft. deep. Value, \$1,032.50.

A-37

The A-37 drill hole encountered vein material assaying up to 0.12% Cu. The copper mineral was apparently earthy cuprite mixed with hematite in veinlets just above a 2-foot wide iron oxide vein and just below a well mineralized veinlet zone.

A-38

No. 4. A-38 drill hole, bears N. 32° 15' E., 355 ft.
from Cor. No. 1 of Dos Pobres #13 Lode, 100 ft.
deep. (Drilled after survey completed.)
Value, \$588.00.

Assays up to
0.12% Cu were obtained from the A-38 drill hole.

A-39

No. 3. A-39 drill hole, bears S. 42° 30' W., 295 ft.
from Cor. No. 2 of Dos Pobres #19 Lode, 200 ft.
deep. (Drilled after survey completed.)
Value, \$964.00.

Although fair to strong vein mineralization was
encountered in the A-39 drill hole to a depth of 170 feet,
the highest assay obtained was 0.04% Cu. It is felt that
the extremely strong leaching in the area accounts for the
low copper content of the explored vein material.

A-40

No. 4. A-40 drill hole, bears S. 37° 30' W., 260 ft.
from Cor. No. 4 of Dos Pobres #18 Lode, 200 ft.
deep. (Drilled after survey completed.)
Value, \$1,059.00.

A-41

No. 3. A-41 drill hole, bears S. 72° 33' W., 194 ft. from Cor. No. 4 of Pasoford #3 Lode, 530 ft. deep. Value, \$2,171.40.

The Foothill Fault was penetrated by the A-41 drill hole at 180 feet and the Cretaceous andesite below was strongly altered to chlorite and clay minerals. The andesite was strongly fractured, brecciated, and sheared, partly due to the proximity of the Foothill Fault.

The A-41 drill hole encountered material returning 10-foot sample assays as high as 0.29% Cu. The copper mineral was earthy cuprite mixed with hematite in veinlets, disseminations, and shears. No sulfides were encountered in the hole which bottomed at 530 feet.

A-42

No. 5. A-42 drill hole, bears S. 21° 20' E., 52 ft. from Cor. No. 1 of Sunset #2 Lode, 100 ft. deep. Value, \$514.50.

The A-42 drill hole located on the Sunset vein in the Northwest corner of the lode encountered material with assays up to 0.07% Cu. The copper mineral was as thin films coating fractures, filling s, and in irregular pods with hematite and limonite.

A-43

No. 5. A-43 drill hole, bears S. 20° 08' W., 658 ft. from North center end of Gold Hill #25 Lode, 100 ft. deep.
Value, \$488.75.

The A-43 drill hole encountered material assaying up to 0.07% Cu. The copper mineral was earthy cuprite which occurred with hematite in veins and associated veinlets.

A-44

No. 4. A-44 drill hole, bears N. 77° 22' W., 440 ft. from Cor. No. 2 of Dos Pobres #21 Lode, 100 ft. deep.
Value, \$506.75.

The A-44 drill hole encountered material which assayed up to 0.13% Cu. The copper mineral was earthy cuprite which occurred with hematite and minor amounts of limonite in a well mineralized veinlet zone underlying a strong hematite vein.

A-45

No. 3. Drill hole A-45, 2 1/3 in. diam., 770 ft. deep, bears S. 61° 30' W., 369.05 ft. from Cor. No. 1 of Pasoford 6 Lode.
Value, \$4,113.00.

Pasoford 6

Geology. This claim is completely gravel covered. The nearest outcrop is post-mineral andesite which lies a few feet from the west side line of the claim near its southern end.

Mineralization. Diamond drill hole A-45, located on the north end of the claim, encountered mineralized rock at 484 feet. The rock contained iron oxide and minor copper oxides. The highest 10-foot assay was 0.13% Cu. The hole was lost at 770 feet before any sulfides

A-46

No. 5. A-46 drill hole, bears S. 3° 11' W., 305 ft.
from North center end of Gold Hill #6 Lode, 100
ft. deep.

Value, \$560.75.

Core from A-46 drill hole assayed up to 0.09% Cu.
The copper mineral was earthy cuprite which was mixed with
hematite in 3 to 6 inch steeply dipping shear zones immedi-
ately underlying a strong hematite vein.

A-47

No. 5. A-47 drill hole, bears S. 25° 25' E., 245 ft. from West center end of Gold Hill #15 Lode, 100 ft. deep.
Value, \$569.75.

The A-47 drill hole located in the Southwestern portion of the lode, encountered material assaying up to 0.10% Cu. Mineralization in the drill hole was hematite and limonite in veinlets and pods and the copper mineral was earthy cuprite.

A-48

No. 6. A-48 drill hole, bears N. 38° 50' E., 342 ft. from Cor. No. 3 of Gold Hill #13 Lode, 100 ft. deep.
Value, \$610.50.

The A-48 drill hole, located in the Southern portion of the lode near Cut 4, encountered material assaying up to 0.07% Cu. The copper mineral was earthy cuprite intimately mixed with hematite in a strongly mineralized vein.

A-49

No. 5. A-49 drill hole, bears S. 33° 21' W., 110 ft. from North center end of Gold Hill #7 Lode, 100 ft. deep.

Value, \$488.75.

Core from the A-49 drill hole assayed up to 0.12% Cu. The copper mineral was earthy cuprite mixed with hematite in a 4-foot vein.

A-50

No. 3. Drill hole A-50, 2 1/3 in. diam., 2833 ft. deep,
bears S. 57°40' W., 80.05 ft. from Cor. No. 3 of
Pasoford 7 Lode.
Value, \$22,887.00.

Pasoford 7

Geology. There are two outcrops on Pasoford 7, one near the north end and one near the south end of the claim. Both are exposures of post-mineral flows. The remainder of the claim is covered with gravel to a thickness of several hundred feet.

Mineralization. Diamond drill hole A-50, near the north end line of the claim, encountered mineralized flows below 600 feet. Mineralization in the oxidized zone consisted of idigenous iron oxide with small amounts of copper oxides which became more abundant with depth. Sulfides were encountered below 2,500 feet. The highest individual 10-foot assay was 0.36% copper. The hole was lost at 2,840 feet.

A-51

No. 5. A-51 drill hole, bears N. 2° 06' E., 118 ft.
from South center end of Gold Hill #31 Lode,
100 ft. deep.
Value, \$488.75.

A-52

No. 6. A-52 drill hole, bears S. 76° 37' E., 66 ft.,
from Cor. No. 1 of Sunset #7 Lode, 100 ft. deep.
Value, \$488.75.

The A-52 drill hole encountered material returning
assays up to 0.06% Cu. The copper mineral was earthy cuprite
which occurred with hematite in veinlets and permeations within
the Sunset vein.

A-53

No. 6. A-53 drill hole, bears N. 27° 59' W., 38 ft.,
from Cor. No. 4 of Sunset #6 Lode, 100 ft. deep.
Value, \$572.75.

The A-53 drill hole encountered material returning
10-foot sample assays up to 0.08% Cu. The copper mineral was
earthy cuprite and possibly tenorite which occurred with lim-
onite and hematite in weakly mineralized veins below a
strong iron oxide vein.

A-54

No. 5. A-54 drill hole, bears S. 17° 29' W., 191 ft.,
from North center end of Sunset #3 Lode, 100 ft.
deep.
Value, \$536.75.

The A-54 drill hole encountered material assaying up
to 0.04% Cu. The copper mineral was small amounts of earthy
cuprite which occurred with hematite in veins and dissemi-
nations.

A-55

No. 7. A-55 drill hole, bears S. 37° 40' W., 258 ft.
from Cor. No. 1 of Red Dyke #15 Lode, 100 ft. deep.
Value, \$646.75.

A-56

No. 6. A-56 drill hole, bears S. 26° 10' W., 598 ft. from Cor. No. 1 of Red Dyke #8 Lode, 100 ft. deep. Value, \$500.75.

The A-56 drill hole encountered material returning assays up to 0.13% Cu. The copper mineral was tenorite which occurred as films coating fractures just above a strong vein.

A-57

No. 6. A-57 drill hole, bears S. 66° 43' E., 507 ft. from Cor. No. 1 of Lucky Strike #18 Lode, 100 ft. deep. Value, \$488.75.

The A-57 drill hole encountered assays up to 0.04% Cu. The copper mineral was earthy cuprite which was intimately mixed with hematite in the thoroughly leached vein material.

A-58

No. 7. A-58 drill hole, bears N. 04° 13' W., 401 ft. from Cor. No. 1 of Arrowhead #1 Lode, 200 ft. deep. Value, \$1,065.75.

A sample from drill hole A-58 assayed 0.17% Cu and contained chalcocite and pyrite with finely disseminated chalcopyrite.

the lode is shallow with sulfides appearing in the A-58 drill hole at 80 feet.

A-59

No. 6. A-59 drill hole, bears N. 08° 18' E., 525 ft.
from Cor. No. 4 of Arrowhead #4 Lode, 200 ft. deep.
Value, \$963.75.

Oxidation on the lode is shallow with sulfides
occurring in drill hole A-59 at 40 feet.

A sample from drill hole A-59 contained thin films
of chalcocite on pyrite with a small amount of disseminated
chalcopyrite.

A-60

No. 9. A-60 drill hole, bears S. 65° 48' E., 314 ft.
from Cor. No. 2 of Gold Hill #8 Lode, 100 ft.
deep.
Value, \$488.75.

The A-60 drill hole encountered material assaying
up to 0.18% Cu. The copper mineral was earthy cuprite which
occurred with hematite in a strong vein.

A-61

No. 8. A-61 drill hole, bears N. 1° 15' W., 508 ft.
from Cor. No. 2 of Gold Hill #10 Lode, 100 ft.
deep.
Value, \$500.75.

The A-61 drill hole encountered material assaying
up to 0.48% Cu. The copper minerals were tenorite and traces
of chrysocolla which occurred in thin films with limonite in
veinlets.

A-62

No. 8. A-62 drill hole, bears N. 12° 40' E., 683 ft. from Cor. No. 3 of Gold Hill #2 Lode, 100 ft. deep.
Value, \$524.75.

The A-62 drill hole encountered material with assays up to 0.39% Cu. The rock contained thin films of chrysocolla and some earthy cuprite which were mixed with hematite.

An area of general limonite mineralization is exposed on the Western border which extends Easterly until covered by the gravels and alluvium in the center of the lode. Mineralization in the zone, which is part of the area of general mineralization exposed on the Gold Hill #1 Lode to the West, consists of limonite and hematite accompanied by small amounts of chrysocolla, earthy cuprite, and tenorite. The A-62 drill hole which was drilled in the central portion of the zone encountered similar, but somewhat stronger mineralization at depth.

A-64

No. 3. Drill hole A-64, 2 1/3 in. diam., 2712 ft. deep,
bears S. 52°15' W., 35 ft. from Cor. No. 4 of
Pasoford #8 Lode.
Value, \$18,539.00.

Pasoford #8

Geology. About half of the Pasoford #8 claim is gravel covered. Post-mineral flows are exposed on the other half due to erosion along a deep canyon which cuts the claim diagonally from northeast to southwest. This canyon also exposes the Valley fault where it crosses the southern part of the claim. There are no rock exposures south of the fault.

Mineralization. Pre-mineral flows were encountered below 810 feet in diamond drill hole A-64 located near the northeast corner of the claim. These flows contained hematite and traces of magnetite. Sulfides were first encountered at 2,180 feet. The hole was lost at 2,712 feet. The highest individual 10-foot assay was 0.31% copper. An average of all core samples in the sulfide zone (532 feet) was 0.13% copper.

A-65

No. 3. Drill hole A-65, 2 1/3 in. diam., 1945 ft. deep,
bears N. 15°10' W., 298.07 ft. from Cor. No. 3 of
Birthday #5 Lode.
Value, \$18,273.00.

Birthday #5

Geology. The Birthday #5 claim is completely covered with gravel. The nearest outcrop is an exposure of post-mineral andesite which lies just west of the west end line.

Mineralization. The pre-mineral rock was encountered at 1190 feet in diamond drill hole A-65, located 130 feet west of the east center end of the claim. The uppermost flows contained weak iron oxide staining in fractures. At 1410 feet, chrysocolla and native copper were encountered. The best 10-foot sample was from 1710 to 1720 feet and assayed 0.50% copper. The average of all core samples obtained (1524-1945) is 0.20% copper.

1724
1724
1724

A-66

No. 3. Drill hole A-66, 2 1/3 in. diam., 2074 ft. deep, bears N. 13°50' W., 226.08 ft. from Cor. No. 4 of Birthday #4 Lode.
Value, \$14,389.00.

Birthday #4

Geology. The Birthday #4 claim is completely covered by gravel. The nearest outcrop is an exposure of post-mineral andesite a few hundred feet to the west.

Mineralization. Mineralization on this claim was encountered in a diamond drill hole A-66 which is located approximately 130 feet west of the east center end. The pre-mineral rock was encountered at 1490 feet and contained limonite films along the fractures

associated with chlorite-sericite alteration and was bleached. The best 10-foot sample was from 2000 to 2010 feet and assayed 0.21% copper. Some chrysocolla was noted between 2060 and 2070 feet. The hole caved and was lost at 2074 feet.

A-69

No. 3. Drill hole A-69, 2 1/3 in. diam., 2298 ft. deep,
bears N. 77°30' W., 450.05 ft. from Cor. No. 2 of
Birthday #7 Lode.
Value, \$15,361.00.

Birthday #7

Geology. The claim is located in the northwest corner of the group. Its western end is in Watson Wash and its eastern end lies on the ridge east of Hackberry Spring Wash. Post mineral andesites crop out in both washes.

Mineralization. Mineralized rock was intersected in diamond drill hole A-69 at 1170 feet. The rock contained weak to locally strong limonite in fractures and bleached zones containing square box works partially filled with hematite.

A-70

- No. 3. Drill hole A-70, 2 1/3 in. diam., 1600 ft. deep, bears N. 64°15' W., 540.02 ft. from Cor. No. 3 of Birthday #8 Lode.
Value \$7,754.00.

Birthday #8

Geology. Birthday #8 straddles Hackberry Spring Wash where the only outcrop on the claim is located. The outcrop is an exposure of dark gray post-mineral andesite.

Mineralization. Mineralized rock was encountered at 1370 feet in diamond drill hole A-70 which is located near the center of the claim. The rock contained weak to fairly strong limonite and goethite in fractures. Strong hematite with associated bleaching occurred locally.

A-71

No. 3. Drill hole A-71, 2 1/3 in. diam., 1200 ft. deep,
bears N. 33°30' E., 449.05 ft. from Cor. No. 1 of
Birthday #6 Lode.
Value, \$7,399.00.

Birthday #6

Geology. The entire claim is covered by gravel, and the nearest outcrops are 400 feet away. One outcrop lies directly east of the claim; another lies due west. Both are post-mineral andesites.

Mineralization. Mineralized flows were intersected at 1026 feet in diamond drill hole A-71 located on the northwest corner of the claim. They contained yellow-brown limonite stains in the fractures and a few iron oxide speckles derived from the oxidation of pyrite. The hole was cut off due to difficult drilling conditions at 1200 feet.

A-72

No. 3. Drill hole A-72, 2 1/3 in. diam., 1350 ft. deep,
bears S. 35°15' W., 284 ft. from Cor. No. 3 of
Birthday #9 Lode.
Value, \$6,600.00.

Birthday #9

Geology. A large outcrop of post-mineral volcanic flow is exposed in the center of the Birthday #9 claim where it is cut by Hackberry Spring Wash. Both the east and the west ends of the claim are covered with gravel.

Mineralization. Diamond drill hole A-72, located on the north-east corner of the claim, encountered mineralized rock at 1274 feet. The mineralization consisted of limonite stains on fractures. The hole was cut off due to difficult drilling conditions at 1350 feet.

A-73

No. 3. Drill hole A-73, 2 1/3 in. diam., 2099 ft. deep,
bears N. 61°30' W., 451 ft. from Cor. No. 4 of
Birthday #2 Lode.
Value, \$12,621.00.

Claim Descriptions

Birthday #2

Geology. The Birthday #2 claim is at the northeast corner of the group. The claim is completely covered with gravel, and the nearest outcrop is the mineralized andesite north of the Foothill fault approximately 300 feet northeast of the claim.

Mineralization. Mineralization on this claim was encountered in diamond drill hole A-73 below 1170 feet. The rock contained weak to fair limonite staining, hematite blebs usually associated with strong bleaching that increased in strength with depth, and minor native copper below 1600 feet which is typical of the oxidized top of the ore zone. The hole caved and was lost at 2099 feet. The highest 10-foot assay was 0.09% copper which was obtained from 2030 to 2040 feet.

A-74

No. 3. Drill hole A-74, 2 1/3 in. diam., 1508 ft. deep,
bears S. 57° W., 281.06 ft. from Cor. No. 4 of
Birthday #11 Lode.
Value \$8,725.00.

Birthday #11

Geology. Post-mineral volcanics are exposed in the western and central parts of the claim. The remainder is covered by gravel which varies from a few feet to 50 feet thick.

Mineralization. Mineralized rock was encountered at 820 feet in diamond drill hole A-74, which is located on the northeastern part of the claim. Pyrite occurred near the top of the pre-mineral flows, but limonite and hematite were encountered below it. The highest 10-foot assay was 0.23% copper.

A-75

No. 3. Drill hole A-75, 2 1/3 in. diam., 2201 ft. deep, bears S. 27°30' W., 199.05 ft. from Cor. No. 3 of Foothill 34 Lode.
Value, \$13,062.00.

Foothill 34

Geology. Although there are no outcrops on the claims, pre-mineral rock is exposed south of the claim on the footwall side of

the Valley fault which lies about 100 feet south of the south end line of the claim. The rock is greenish gray fragmental andesite and is unmineralized. The Foothill 34 claim, itself, is completely covered by a blanket of gravel up to several hundred feet thick.

Mineralization. Diamond drill hole A-75 intersected the pre-mineral flows at 960 feet. Limonite was observed in fractures and hematite appeared as speckles, blotches, and also as a locally pervasive stain due to flooding. Traces of chrysocolla were also noted. The best 10-foot sample assayed 0.13% copper.

A-76

No. 3. Drill hole A-76, 2 1/3 in. diam., 1735 ft. deep, bears N. 71°50' E., 432 ft. from Cor. No. 2 of Pasoford #9 Lode.
Value, \$9,557.00.

Pasoford #9

Geology. The Pasoford #9 claim is completely covered by gravel. The nearest rock outcrop is just south of the claim and is post-mineral basalt. Drilling indicated that the gravel covering varies from 10 to 150 feet or more.

Mineralization. Mineralized flows were first encountered at 1,290 feet in diamond drill hole A-76. The top of the zone contained weak iron oxide but the mineralization became stronger with depth and included some copper oxide minerals. The best assay obtained in the oxidized zone was 0.14% copper. The hole was lost in a fault zone at 1,735 feet prior to encountering sulfides.

A-78

No. 3. Drill hole A-78, 2 1/3 in. diam., 941 ft. deep,
bears S. 44°30' E., 496 ft. from Cor. No. 1 of
Foothill 46 Lode.
Value, \$4,701.00.

Foothill 46

Geology. This claim is located on the western edge of the Birthday Group between the Birthday claims and State Sec. 32. Post-mineral basalt, which is dark brown and vesicular, is exposed on the southern half of the claim. The northern half is covered with gravel.

Mineralization. Pre-mineral flows were encountered below 925 feet in drill hole A-78 and mineralization was encountered at about 998 feet. The rock below 998 feet is bleached and has iron oxide stains in fractures.

A-79

No. 3. Drill hole A-79, 2 1/3 in. diam., 1150 ft. deep,
bears N. 19°05' E., 320.02 ft. from Cor. No. 1 of
Foothill 33 Lode.
Value, \$4,655.00.

Foothill 33

Geology. Outcrops of post-mineral rock occur on the west end of the claim and near the eastern end where it is cut by Watson Wash. The remainder of the claim is covered by a thick gravel mantle.

Mineralization. Pre-mineral rock was encountered at 550 feet in A-79, located about 50 feet west of the east center end of the claim. The mineralization consisted of limonite staining in fractures or as a general stain, and hematite occurring as speckles usually associated with strong bleaching of sheared or strongly fractured rock.

A-80

No. 3. Drill hole A-80, 2 1/3 in. diam., 600 ft. deep,
bears N. 55°15' E., 420.06 ft. from Cor. No. 3 of
Foothill #44 Lode.
Value, \$2,553.00.

Foothill #44

Geology. This claim covers a narrow fraction along the southern edge of the Birthday Group and is completely covered by gravel. Drilling indicated that the gravel covering is 190 feet thick and that the underlying rocks are pre-mineral andesites.

Mineralization. The 600-foot diamond drill hole A-80 was drilled in the northwestern part of the claim. The pre-mineral rocks encountered were locally bleached and contained limonite in fractures and hematite speckles which resulted from the oxidation of sulfides.

A-81

No. 3. Drill hole A-81, 2 1/3 in. diam., 1000 ft. deep,
bears S. 64°30' E., 419.06 ft. from Cor. No. 1 of
Foothill #45 Lode.
Value, \$5,394.00.

Foothill #45

Geology. This claim lies along the southern edge of the Dos Pobres Group of patented claims owned by applicant and covers a narrow fraction. Post-mineral basalt exposed in a canyon which cuts across the center of the claim, is the only outcrop on the claim. Gravel covers most of the claim, and it varies from only a few feet to more than 100 feet thick.

Mineralization. Mineralization was encountered in diamond drill hole A-81. Pre-mineral flows contained limonite and hematite to 911 feet. Pyrite was encountered below 911 feet, and mineralization became progressively stronger with depth. Drilling was terminated at 1000 feet. The last two 10-foot samples contained 5% and 8% sulfides, respectively.

A-82

No. 3. Drill hole A-82, 2 1/3 in. diam., 300 ft. deep, bears N. 69°50' E., 371 ft. from Cor. No. 3 of Foothill #43 Lode.
Value, \$2,000.00.

Foothill #43

Geology. This claim covers a small fraction along the southern edge of the Birthday Group. Pre-mineral flows are exposed south of the southeasterly-trending Valley fault on the central part of the claim in a deep canyon. The area north of the fault

and the remainder of the claim south of the fault are covered with gravel.

Mineralization. The gravel covering south of the Valley fault was penetrated by diamond drill hole A-82 at 70 feet. The underlying flows were chloritized and bleached fragmental andesites containing remnants of disseminated sulfides.

RL-1

RL-1 drill hole, bears N. 36° 10' E., 257 ft. from
Cor. No. 4 of Dos Pobres #5 Lode, 2483 ft. deep.
Value, \$22,443.57.

The RL-1 drill hole on the Dos Pobres #5 Lode encountered a column of oxide copper mineralization with 10 foot sample assays up to 1.27% Cu and sulfide mineralization with 10 foot sample assays up to 1.68% Cu.

RL-2

RL-2 drill hole, bears N. 22° 25' E., 150 ft. from
Cor. No. 2 of Dos Pobres #1 Lode, 2775 ft. deep.
Value, \$22,975.74.

The RL-2 drill hole encountered an extensive column of sulfide mineralization with 10 foot sample assays up to 1.08% Cu.

Oxidation in the Southern portion of the lode is quite shallow and sulfides first appeared in the RL-2 drill hole at 95 feet.

RL-3

RL-3 drill hole, bears N. 39° 28' E., 155 ft. from
Cor. No. 2 of Dos Pobres #3 Lode, 2522 ft. deep.
Value, \$19,961.47.

Oxidation in the area extends to a minimum of 1,000 feet and nearly all of the copper values are retained in the oxide zone in the form of earthy cuprite and chrysocolla. Retention of the copper values in the oxide zone is due to the low pyrite content of the ore and the basic character of the host rock. All capping on the lode indicates chalcopyrite-bornite mineralization at depth.

The RL-3 drill hole on the lode encountered a column of oxide copper mineralization with 10 foot sample assays up to 2.08% Cu, and sulfide mineralization with 10 foot sample assays up to 1.94% Cu.

RL-4

RL-4 drill hole, bears S. 69° 50' E., 478 ft. from
Cor. No. 3 of Dos Pobres #6 Lode, 2621 ft. deep.
Value, \$26,659.16.

The RL-4 drill hole penetrated the fault at 1,300 feet and the first sulfides appeared at 1,500 feet. The exposed capping on the claim indicates chalcopyrite-bornite mineralization at depth.

The RL-4 drill hole encountered a column of oxide copper mineralization with 10 foot sample assays up to 0.64% Cu and sulfide mineralization with 10 foot sample assays up to 1.12% Cu.

RL-5

RL-5 drill hole, bears S. 18° 00' W., 310 ft. from
Cor. No. 4 of Dos Pobres #4 Lode, 2548 ft. deep.
Value, \$20,058.26.

The RL-5 drill hole encountered a column of oxide copper mineralization with 10 foot sample assays up to 0.71% Cu and sulfide mineralization with 10 foot sample assays up to 2.11% Cu.

RL-6

RL-6 drill hole, bears N. 37° 15' E., 254 ft. from
Cor. No. 2 of Dos Pobres #9 Lode, 2564 ft. deep.
Value, \$20,006.02.

Mineralization

The rocks in the Southern one-quarter to one-third of the lode contain general limonite-cuprite-chrysocolla mineralization in disseminations and Easterly and North-Northwest-erly trending veinlets and, although the rocks in the more Northerly portions of the lode do not contain general mineralization, a strong fault-vein system is exposed 400 to 500 feet South of the North end of the lode. This fault vein, which attains widths to 20 feet, trends Easterly and dips Southward 73°.

Oxidation in the area is deep and probably extends to a minimum of 900 to 1,000 feet as sulfides first appeared in the RL-6 drill hole at 912 feet. Capping on the lode indicates chalcopyrite-pyrite mineralization at depth. Significant amounts of molybdenite were encountered at depth in the RL-6 drill hole.

The RL-6 drill hole encountered a column of oxide copper mineralization with 10 foot sample assays up to 1.02% Cu and sulfide mineralization with 10 foot sample assays up to 1.17% Cu.

RL-7

value, \$7,170.10.

✓RL-7 drill hole, bears S. 52° 13' W., 87 ft. from
Cor. No. 1 of Dos Pobres #7 Lode, 2512 ft. deep.
Value, \$20,573.18.

Geology

The Dos Pobres #7 Lode is located in the Southwestern corner of the group and lies entirely Southwest of the Foothill Fault. The nearest surface exposure of the older Cretaceous andesite is approximately 130 feet Northeast of the Northeast corner of the lode and the only rocks exposed are Tertiary conglomerate and cemented gravels. The Cretaceous andesite on the footwall side of the Foothill Fault penetrated by the RL-7 and RL-11 drill holes is typically altered to biotite, chlorite, and locally, to clay minerals and sericite. Considerable amounts of monzonite porphyry in the form of dikes and sills intruding the andesite were also encountered in the drill holes. Both the andesite and the porphyry were well fractured.

Mineralization

There are no mineralized surface exposures on the lode but the typical oxidized limonite-cuprite-chrysocolla mineralization was encountered in both drill holes in the oxide zone with chalcopyrite-bornite mineralization in the

sulfide zone below. The depth of oxidation is in part dependent on the Foothill Fault but is thought to be everywhere in excess of 1,000 feet. The RL-7 drill hole penetrated the fault at 675 feet and the first sulfides appeared at 1,022 feet. The RL-11 drill hole penetrated the fault at 1,833 feet and the first sulfides appeared at 2,296 feet.

The RL-7 drill hole encountered a column of oxide copper mineralization with 10 foot sample assays up to 2.02% Cu and sulfide mineralization with 10 foot sample assays up to 3.01% Cu. The RL-11 drill hole encountered a column of oxide copper mineralization with 10 foot sample assays up to 0.71% Cu and sulfide mineralization with 10 foot sample assays up to 1.57% Cu.

RL-8

- RL-8 drill hole, bears N. 9° 00' W., 540 ft. from Cor. No. 4 of Dos Pobres #10 Lode, 2605 ft. deep. Value, \$21,503.63.

Oxidation in the area is deep with the first sulfides in the RL-8 drill hole appearing at 1,041 feet. Capping in the areas of general mineralization and in the veins to the North indicates pyrite-chalcopryrite mineralization at depth.

The RL-8 drill hole encountered a column of oxide copper mineralization with 10 foot sample assays up to 2.31% Cu and sulfide mineralization with 10 foot sample assays up to 1.35% Cu.

RL-9

- RL-9 drill hole, bears N. 59° 30' W., 520 ft. from Cor. No. 2 of Dos Pobres #8 Lode, 2536 ft. deep. Value, \$23,228.75.

The RL-9 drill hole penetrated the fault at 256 feet and the first sulfides appeared at 866 feet.

The RL-9 drill hole encountered a column of oxide copper mineralization with 10 foot sample assays up to 0.70% Cu and sulfide mineralization with 10 foot sample assays up to 0.66% Cu.

RL-10

- RL-10 drill hole, bears S. 36° 45' W., 338 ft. from Cor. No. 1 of Dos Pobres #2 Lode, 2561 ft. deep. Value, \$20,694.45.

Oxidation in the Northern and Western portions of the lode is deep, extending to 1,045 feet in the RL-10 drill hole, while it is quite shallow in the Southeastern portion near the RL-2 drill hole. Capping on the Western one-half of the lode indicates chalcopryrite-bornite mineralization at depth while that on the Eastern one-half indicates pyrite-chalcopryrite mineralization. The excess of pyrite in the Eastern portion accounts for the intense leaching and lack of copper in the oxide zone.

A surface sample, assaying 0.17% Cu, was taken from Cut 4.

The RL-10 drill hole on the lode encountered an extensive column of sulfide mineralization with 10 foot sample assays up to 0.76% Cu.

RL-11

✓ RL-11 drill hole, bears S. 57° 35' E., 690 ft. from
Cor. No. 2 of Dos Pobres #7 Lode, 2512 ft. deep.
Value, \$20,533.92.

Geology

The Dos Pobres #7 Lode is located in the Southwestern corner of the group and lies entirely Southwest of the Foothill Fault. The nearest surface exposure of the older Cretaceous andesite is approximately 130 feet Northeast of the Northeast corner of the lode and the only rocks exposed are Tertiary conglomerate and cemented gravels. The Cretaceous andesite on the footwall side of the Foothill Fault penetrated by the RL-7 and RL-11 drill holes is typically altered to biotite, chlorite, and locally, to clay minerals and sericite. Considerable amounts of monzonite porphyry in the form of dikes and sills intruding the andesite were also encountered in the drill holes. Both the andesite and the porphyry were well fractured.

Mineralization

There are no mineralized surface exposures on the lode but the typical oxidized limonite-cuprite-chrysocolla mineralization was encountered in both drill holes in the oxide zone with chalcopyrite-bornite mineralization in the

sulfide zone below. The depth of oxidation is in part dependent on the Foothill Fault but is thought to be everywhere in excess of 1,000 feet. The RL-7 drill hole penetrated the fault at 675 feet and the first sulfides appeared at 1,022 feet. The RL-11 drill hole penetrated the fault at 1,833 feet and the first sulfides appeared at 2,296 feet.

The RL-7 drill hole encountered a column of oxide copper mineralization with 10 foot sample assays up to 2.02% Cu and sulfide mineralization with 10 foot sample assays up to 3.01% Cu. The RL-11 drill hole encountered a column of oxide copper mineralization with 10 foot sample assays up to 0.71% Cu and sulfide mineralization with 10 foot sample assays up to 1.57% Cu.

RL-12

RL-12 drill hole, bears N. 21° 30' E., 660 ft. from
Cor. No. 4 of Dos Pobres #23 Lode, 1982 ft. deep.
Value, \$18,632.41.

Geology

The Dos Pobres #23 Lode is located in the extreme Southwestern portion of the group and lies largely Southwest of the Foothill Fault. The fault crosses the Northeastern corner of the lode and because of the accumulation of recent alluvium and rubble on the Northeast side of the fault, there are no exposures of the Cretaceous andesite on the lode. Tertiary conglomerate and cemented gravels are exposed on the Southwest side of the fault. The actual displacement on the Foothill Fault is unknown but is estimated in this area to be in excess of 2,000 feet. The well fractured Cretaceous andesite penetrated by the RL-12 drill hole is typically altered to biotite, chlorite, epidote, sericite, and clay minerals.

Mineralization

There are no mineralized surface exposures on the lode but in the RL-12 drill hole general limonite mineralization was encountered in the Cretaceous andesite in the hanging wall of the Foothill Fault and general chalcopryite-bornite mineralization was encountered in the footwall side. Significant amounts of molybdenite were also noted at depth in the drill hole.

Oxidation in this area is probably deep, extending to a minimum of 1,000 feet, although no direct evidence is available. Sulfides were encountered immediately below the Foothill Fault in the RL-12 drill hole at a depth of 1,751 feet.

The RL-12 drill hole encountered a column of sulfide mineralization with 10 foot sample assays up to 1.02% Cu before being abandoned due to caving at 1,977 feet.

RL-13

RL-13 drill hole, bears N. 59° 13' W., 721 ft. from
Cor. No. 1 of Pasoford #10 Lode, 1335 ft. deep.

The nearest surface exposure of the Cretaceous andesite is approximately 825 feet Northeast of the Northeast corner of the lode and the only rocks exposed are Tertiary conglomerate and cemented gravels. The Cretaceous andesite, however, was encountered in the RL-13 drill hole in the hanging wall of the Foothill Fault below 1,133 feet of younger series (Tertiary) conglomerate, basalt, graywacke, andesite, and tuff. The strongly bleached older series andesite was well altered to clay minerals and chlorite and was strongly fractured and brecciated below 1,262 feet. The hole was abandoned in a fault zone after the bit was lost at 1,332 feet.

Mineralization

There are no mineralized surface exposures on the lode but limonite-hematite mineralization was encountered in the Cretaceous andesite in the RL-13 drill hole. The strength of mineralization was very weak at the top of the older series but increased to fairly strong by the end of the hole. The capping indicated pyrite-chalcopryrite mineralization at depth although strong leaching, caused by the excess of pyrite, has removed most of the copper from the oxidized zone. In addition, a zone containing small amounts of native copper and traces of pyrite was encountered in the younger series andesite porphyry at 927 to 1,002 feet. The mineralization was apparently associated with a steeply dipping fault zone. The depth of oxidation is in part dependent on the Foothill

Fault, but is estimated in this area to extend a minimum of 1,000 feet.

The RL-13 drill hole encountered material in the native copper zone with 10-foot sample assays up to 0.08% Cu. Material encountered in the iron oxide zone below returned 10-foot sample assays up to 0.06% Cu. The copper minerals in the lower zone were earthy cuprite and possibly tenorite mixed with limonite and hematite in veinlets and disseminations.

RL-14

RL-14 drill hole, bears S. 12° 25' W., 670 ft. from Cor. No. 3 of Dos Pobres #24 Lode, 2501 ft. deep, Value, \$19,326.32.

Geology

The fractional Dos Pobres #24 Lode is located in the Southwestern portion of the group and lies largely Southwest of the Foothill Fault. The North-Northwesterly trending fault crosses the Northern portion of the lode, and because of the accumulation of recent alluvium and rubble on the footwall side, there are no exposures of the Cretaceous andesite flows on the lode. The only rocks exposed on the Southwest side of the fault are Tertiary conglomerate and cemented gravels. The actual displacement on the Foothill fault is unknown but is estimated in this area to be in excess of 2,000 feet. The well fractured Cretaceous andesite on the footwall side of the fault, penetrated by the RL-14 drill hole, is typically altered to biotite, chlorite, epidote, sericite, and clay minerals.

There are no mineralized surface exposures on the lode but strong, rather pyritic capping was penetrated by the RL-14 drill hole on the footwall side of the fault. The mineralization was limonite and hematite with minor amounts of earthy cuprite in disseminations and veinlets while sulfides, in the form of chalcopyrite, pyrite, and minor amounts of bornite, were encountered at 551 feet. Oxidation is more shallow in the area than to the West and North and may reflect the same influences encountered in the RL-2 drill hole on the Dos Pobres #1 Lode.

The RL-14 drill hole encountered a column of sulfide mineralization with 10 foot sample assays up to 1.55% Cu.

RL-15

RL-15 drill hole, bears S. 69° 35' W., 338 ft. from
Cor. No. 4 of Birthday #3 Lode, 3066 ft. deep.
Value, \$26,118.10.

Geology

The Birthday #3 Lode is located on the Southwestern edge of the group and lies entirely Southwest of the Foothill Fault. The nearest surface exposure of the older Cretaceous andesite is approximately 1,000 feet Northeast of the Northeast corner of the lode and the only rocks exposed are Tertiary conglomerate and cemented gravels. The Cretaceous andesite was encountered on both sides of the Foothill Fault in the RL-15 drill hole and contained general chloritic alteration above the fault and both chloritic and argillic alteration below. The fault was encountered from 2,208 to 2,440 feet in the drill hole.

Mineralization

There are no mineralized surface exposures on the lode but limonite mineralization was encountered in the Cretaceous andesite in the hanging wall of the Foothill Fault and both iron oxide and sulfide mineralization were encountered in the footwall. Oxidation extended to just below the fault and sulfides appeared at 2,456 feet. The capping on both sides of the fault indicated pyrite-chalcopyrite mineralization at depth although more copper was indicated on the footwall side.

The RL-15 drill hole encountered a column of sulfide mineralization with 10 foot sample assays up to 1.45% Cu.

RL-16

RL-16 drill hole, bears N. 78° 28' E., 91 ft. from
Cor. No. 1 of Dos Pobres #10 Lode, 20 ft. deep.
Value, \$184.65.

RL-19

RL-19 drill hole, bears S. 74° 10' E., 62 ft. from
West center end of Hades #2 Lode, 2052 ft. deep.
Value, \$14,301.45.

Geology

The Hades #2 Lode is located on the Western edge of the group and lies almost entirely on the Southwest side of the Foothill Fault. The Northwesterly trending fault crosses the Northeastern corner of the lode and the Cretaceous andesite is exposed in the small area to the Northeast of the fault. Rocks exposed to the Southwest include Tertiary conglomerate, cemented gravels, andesitic mud flows, and a platy-appearing younger andesite dike. The Cretaceous andesite both in the Northeast corner of the lode and as exposed by the RL-19 drill hole is altered largely to chlorite with lesser amounts of epidote and clay minerals. The rocks are moderately broken by Easterly and North-Northwesterly trending fractures.

Mineralization

There is no mineralization exposed on the surface in the Northeastern corner of the lode but considerable amounts of weakly to moderately mineralized material were encountered in the RL-19 hole. The drill hole, which is located near the West end line of the lode, penetrated the Foothill Fault at approximately 1,440 feet, and weak iron oxide capping in the Cretaceous andesite gave way to weak to moderate sulfide mineralization at 1,535 feet. The sulfides included pyrite and small amounts of chalcopyrite. A vein containing sphalerite, galena, and chalcopyrite was encountered at 1,918 feet.

The RL-19 drill hole encountered pyrite-chalcopyrite mineralization assaying up to 0.06% Cu. In addition, a sphalerite-chalcopyrite-galena vein at least 6 inches wide, was encountered at 1,918 feet and assayed 0.69% Cu, 1.45% Pb, 26.60% Zn.

RL-20

RL-20 drill hole, bears S. 11° 15' E., 312 ft. from
Cor. No. 2 of Pasoford #1 Lode, 1040 ft. deep.
Value, \$5,969.44.

The nearest surface exposure of the Cretaceous andesite is approximately 420 feet East of the Northeast corner of the lode and the only rocks exposed are Tertiary conglomerate and cemented gravels. The Cretaceous andesite was encountered in the RL-20 drill hole in the hanging wall of the Foothill Fault below 420 feet of younger series (Tertiary) gravel and conglomerate. The older andesite was moderately altered to epidote, clay minerals, and chlorite and was moderately fractured. The hole bottomed at 1,040 feet before passing through the Foothill Fault.

Mineralization

There are no mineralized surface exposures on the lode but weak to moderate limonite-hematite mineralization was encountered in the Cretaceous andesite penetrated by the RL-20 drill hole. The capping indicated pyrite-chalcopyrite mineralization at depth although intense leaching, caused by the excess of pyrite, has removed most of the copper from the oxidized zone. The depth of oxidation in the area is in part dependent on the Foothill Fault but is estimated to extend a minimum of 1,000 feet.

The RL-20 drill hole encountered material returning 10-foot sample assays up to 0.09% Cu. The copper minerals were earthy cuprite and possibly tenorite mixed with limonite and hematite in veinlets. No sulfides were encountered in the drill hole.

RL-21

RL-21 drill hole, bears S. 62° 00' W., 300 ft. from
Cor. No. 1 of Birthday #1 Lode, 1474 ft. deep.
Value, \$9,528.85.

The Cretaceous andesite was encountered in the RL-21 drill hole in the hanging wall of the Foothill Fault below 1,240 feet of younger series (Tertiary) gravels, basalt, and andesite. The older andesite was moderately altered to chlorite to 1,300 feet and was strongly altered to chlorite and clay minerals below. Extreme brecciation forced abandonment of the hole at 1,470 feet before the fault was penetrated.

Mineralization

There are no mineralized surface exposures on the lode but limonite mineralization ranging from very weak to fairly strong was encountered in the Cretaceous andesite penetrated by the RL-21 drill hole. The capping indicated pyrite-chalcopyrite mineralization at depth although intense leaching, caused by the excess of pyrite, has removed most of the copper from the oxidized zone. The depth of oxidation in the area is in part dependent on the Foothill Fault.

The RL-21 drill hole encountered approximately 230 feet of limonite mineralization in the older series Cretaceous andesite. Assays up to 0.06% Cu were obtained from this drilling. The copper mineral apparently was earthy cuprite or tenorite mixed with the iron oxide veinlet material.

RL-22

RL-22 drill hole, bears N. 47° 56' E., 312 ft. from
Cor. No. 3 of Pasoford #2 Lode, 1602 ft. deep.
Value, \$8,966.70.

The
Cretaceous andesite both in the Northeastern corner of the lode and as exposed in the RL-22 drill hole is strongly altered to chlorite, clay minerals, and biotite and is strongly shattered by Northwesterly, Northerly, and Easterly trending fractures. Intense brecciation was noted in the lower portions of the drill hole.

Mineralization

Moderate iron oxide mineralization in North-Northwesterly and Easterly trending veinlets is exposed on the surface in the Northeastern corner of the lode and fair to strong mineralization was encountered in the RL-22 drill hole below the Foothill Fault. Oxidation in the vicinity of the drill hole is much deeper than to the East on the Pasoford #1 Lode and sulfides consisting of pyrite and small amounts of chalcopyrite, appeared at 1,188 feet. The capping on the lode indicates pyrite mineralization accompanied by some chalcopyrite at depth and although the strength of mineralization indicated by the surface capping in the Northeast corner is weaker than that found further South in the drill hole, more chalcopyrite is indicated.

A surface sample assaying 0.11% Cu was taken from Cut 2 on the lode. The sample was a 1-foot wide chip sample across a veinlet zone and the copper mineral was earthy cuprite mixed with hematite.

The RL-22 drill hole encountered material returning 10-foot sample assays up to 0.09% Cu. The copper mineral was chalcopyrite which occurred with pyrite in veinlets and disseminations within a very broken, brecciated zone. The drill hole was abandoned at 1,602 feet due to excessive caving.

RL - 23

No. 3. Drill hole RL-23, 3½ in. diam., 2000 ft. deep,
bears S. 88°30' W., 461.06 ft. from Cor. No. 2 of
Birthday #10 Lode.
Value \$13,211.00.

Birthday #10

Geology. Post-mineral volcanics are exposed on the central part and on the west end of the claim. The remainder of the claim is covered with gravel.

Mineralization. Mineralized rock occurs in diamond drill hole RL-23 which is located near the center of the claim. The pre-mineral flows were first encountered at 910 feet and contained limonite in the fractures. Hematite speckling associated with strong bleaching occurred locally. The strength of mineralization varies from weak to quite strong. The highest assay obtained is 0.11% copper. The hole was cut off due to difficult drilling conditions at 2,200 feet.

RL-24

No. 3. Drill hole RL-24, 3½ in. diam., 2000 ft. deep,
bears S. 77° W., 105 ft. from Cor. No. 3 of
Chino #1A Lode.
Value, \$13,174.00.

Chino #1A

Geology. The claim occupies the northwest corner of the claim group. Post-mineral flows are exposed in Watson Wash where it crosses the northern part of the claim. Most of the claim is covered with gravel.

Mineralization. Diamond drill hole RL-24 was drilled on the northern edge of the claim where the post-mineral flows were found to be 1581 feet thick. The pre-mineral flows contained spotty iron oxide largely in fractures and fracture zones. The hole was cut off due to difficult drilling conditions at 2,000 feet.

RL-25

No. 3. Drill hole RL-25, 3½ in. diam., 2600 ft. deep,
bears N. 83°15' W., 241.03 ft. from Cor. No. 1 of
Foothill #37 Lode.
Value, \$21,108.00.

Foothill #37

Geology. There are no surface exposures of rock on the claim but there are outcrops only a few feet from the eastern side line of the claim where a deep wash has exposed post-mineral flows and the Valley fault which runs southeasterly across the southern part of the claim. The pre-mineral flows which lie south of the Valley fault are covered by gravels which are at least 50 feet thick.

Mineralization. Evidence of mineralization was obtained from diamond drill hole RL-25 located near the north center end of the claim. The conglomerate was 370 feet thick, and the post-mineral flows were 750 feet thick. The underlying pre-mineral andesites contained iron oxide, chrysocolla, and lesser amounts of native copper and cuprite. Ten-foot assays ran as high as 0.62% copper and 100-foot composites as high as 0.33% copper. The average assay of the 1480 feet of pre-mineral rock intersected was 0.17% copper.

RL-25

Mineralization. Evidence of mineralization was obtained from diamond drill hole RL-25 located near the north end of the claim. The conglomerate was 370 feet thick, and the post-mineral flows were 750 feet thick. The underlying pre-mineral andesites contained iron oxide, chrysocolla, and lesser amounts of native copper and cuprite. Ten-foot assays ran as high as 0.62% copper and 100-foot composites as high as 0.33% copper. The average assay of the 1480 feet of pre-mineral rock intersected was 0.17% copper.

RL-26

RL-26 drill hole, bears N. 41° 35' E., 520 ft. from
Cor. No. 2 of Dos Pobres #4 Lode, 2549 ft. deep.
Value, \$20,357.40.

The RL-26 drill hole encountered a column of oxide copper mineralization with 10 foot sample assays up to 1.05% Cu and sulfide mineralization with 10 foot sample assays up to 6.12% Cu.

PHELPS - DODGE
PATENT APPLICATION AND
CORROBORATIVE REPORT
SAFFORD, ARIZONA 1965

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Land Office
Phoenix, Arizona

AR- 032595

1416804

IN THE MATTER OF THE APPLICATION)
OF PHELPS DODGE CORPORATION FOR)
PATENT TO THE DOS POBRES GROUP)
OF LODE MINING CLAIMS)

APPLICATION FOR PATENT
AND CORROBORATIVE REPORT

PHELPS DODGE CORPORATION, a corporation organized under the laws of the State of New York and duly authorized to conduct its corporate affairs in the State of Arizona, whose post office address for the purpose of this application for patent is Morenci, Arizona, hereby applies for patent to that certain group of one hundred eighteen (118) contiguous lode mining claims known and referred to herein as the Dos Pobres Group and consisting of the Dos Pobres #s 1 through 28, Gold Hill #s 1, 2, 3, 6 through 19, 25 through 31, Lucky Strike #s 1 through 11, 18, Larivel Nos. 1 through 6, Foothill #s 52, 53, Birthday #s 1, 3, Elevator #s 26, 27, Elevator Nos. 28, 29, Red Dyke Nos. 1 through 5, Red Dyke #s 6 through 12, 15, Red Ribbon #s 1, 2, 6, Hades #s 1, 2, Sunset #s 1 through 9, Arrowhead #s 1 through 6, Pasoford #s 1 through 5, 10, and Last Effort Lode Mining Claims, and in support of such application shows:

1. Description of Claims According to Mineral Survey

→ No. 4579. The lode mining claims for which patent is applied herein are situate upon and comprise portions of the surveyed public lands in Sections 20, 22, 26, 27, 28, 29, 33, 34, and 35, Township 5 South, Range 26 East, G. & S. R. M., in the Lone Star Mining District, Graham County, Arizona, as shown on the plat of Mineral Survey No. 4579 (two copies of which are attached hereto as Exhibit 1 and by reference made a part hereof), and as described with particularity in the Field Notes of Mineral Survey No. 4579 (two copies of which are attached hereto as

Exhibit 2 and by reference made a part hereof).

2. Location of Claims. The lode claims, for which patent application is hereby made, were located, amended, and conveyed as shown below.

First, there is shown, in the table below, the names of the claims, the dates of location or amendment, the dates of recording the original or amended location notices, and the dockets and pages of the recording of the original or amended notices. The data on the line with the name of the claim relates to the original location notice. The data immediately below, without repeating the name of the claim or inserting the word "amended", relates to the amended notices which are shown in their chronological order. All recording data relate to records in the office of the County Recorder of Graham County, Arizona.

Following the table, in separate paragraphs headed by the names of the individual groups of claims, appear the names of the locators, persons making amended locations, and data relating to conveyances. All recording data in these paragraphs relate to records in the office of the County Recorder of Graham County, Arizona.

<u>Name of Claim</u>	<u>Date of Location or Amendment</u>	<u>Date of Recording</u>	<u>Docket</u>	<u>Page</u>
RL-2 2775' Dos Pobres #1	1/15/56	1/21/56	36	453
	3/26/58	3/31/58	55	279
RL-10 2561' Dos Pobres #2	1/15/56	1/21/56	36	454
	3/26/58	3/31/58	55	280
RL-3 2522' Dos Pobres #3	1/15/56	1/21/56	36	455
	3/26/58	3/31/58	55	281
RL-26 2549' Dos Pobres #4	6/29/62	7/9/62	83	556
RL-5 2548' Dos Pobres #4	1/17/56	1/21/56	36	456
	3/26/58	3/31/58	55	282
RL-1 2483' Dos Pobres #5	1/17/56	1/21/56	36	457
	3/19/58	3/26/58	55	180
RL-4 2621' Dos Pobres #6	1/17/56	1/21/56	36	458
	3/19/58	3/26/58	55	181
RL-7 2512' Dos Pobres #7	1/17/56	1/21/56	36	459
RL-11 2512' Dos Pobres #7	3/19/58	3/26/58	55	182
RL-9 2506' Dos Pobres #8	1/17/56	1/21/56	36	460
RL-6 2504' Dos Pobres #9	4/9/58	4/16/58	56	5
310' Dos Pobres #9	1/17/56	1/21/56	36	461
	4/9/58	4/16/58	56	6

RL-8 2605'
RL-16 20'

Dos Pobres #10
Dos Pobres #11
Dos Pobres #12

A-38 100'

Dos Pobres #13

A-37 200'

Dos Pobres #14

A-34 200'

Dos Pobres #15

A-36 200'

Dos Pobres #16

Dos Pobres #17

A-40 200'

Dos Pobres #18

A-39 200'

Dos Pobres #19

Dos Pobres #20

A-44 100'

Dos Pobres #21

Dos Pobres #22

RL-12 1902'

Dos Pobres #23

RL-14 2201'

Dos Pobres #24

A-32 200'

Dos Pobres #25

A-33 200'

Dos Pobres #26

Rene M. 510'

Dos Pobres #27

Dos Pobres #28

A-28 1750'

Gold Hill #1

A-62 100'

Gold Hill #2

Gold Hill #3

A-46 100'

Gold Hill #6

A-49 100'

Gold Hill #7

A-60 100'

Gold Hill #8

1/17/56	1/21/56	36	462
4/9/58	4/16/58	56	7
1/17/56	1/21/56	36	463
4/9/58	4/16/58	56	8
1/29/56	4/14/56	38	386
4/14/58	4/16/58	56	9
6/29/62	7/9/62	83	557
3/17/56	4/14/56	38	387
4/14/58	4/16/58	56	10
6/29/62	7/9/62	83	558
3/17/56	4/14/56	38	388
4/10/58	4/16/58	56	11
6/29/62	7/9/62	83	559
3/17/56	4/14/56	38	390
3/26/58	3/31/58	55	283
3/17/56	4/14/56	38	391
3/26/58	3/31/58	55	284
3/17/56	4/14/56	38	389
4/10/58	4/16/58	56	12
6/29/62	7/9/62	83	560
3/17/56	4/27/56	39	21
4/10/58	4/16/58	56	13
3/17/56	4/27/56	39	22
4/10/58	4/16/58	56	14
3/17/56	4/27/56	39	23
5/14/58	6/30/58	57	265
4/15/56	4/27/56	39	24
5/14/58	6/30/58	57	266
4/15/56	4/27/56	39	25
6/30/58	7/9/58	57	429
6/29/62	7/9/62	83	561
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4/15/56	4/27/56	39	29
3/25/58	3/31/58	55	288
4/24/56	4/27/56	39	30
3/25/58	3/31/58	55	289
4/24/56	4/27/56	39	31
3/25/58	3/31/58	55	290
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7/1/58	7/9/58	57	436
6/29/62	7/9/62	83	528
3/5/56	4/14/56	38	373
7/1/58	7/9/58	57	437
6/29/62	7/9/62	83	529
3/5/56	4/14/56	38	374
7/1/58	7/9/58	57	438
6/29/62	7/9/62	83	530
3/5/56	4/14/56	38	377
7/1/58	7/9/58	57	439
6/29/62	7/9/62	83	533
3/5/56	4/14/56	38	378
7/1/58	7/9/58	57	440
6/29/62	7/9/62	83	534
3/5/56	4/14/56	38	379
7/1/58	7/9/58	57	441

	Gold Hill #9	3/5/56	4/14/56	38	380
		7/1/58	7/9/58	57	442
A-61 100'	Gold Hill #10	3/5/56	4/14/56	38	381
		7/1/58	7/9/58	57	443
	Gold Hill #11	3/5/56	4/14/56	38	382
		4/10/58	4/16/58	56	15
	Gold Hill #12	3/14/56	4/14/56	38	383
		4/9/58	4/16/58	56	16
A-49 100'	Gold Hill #13	3/14/56	4/14/56	38	384
		4/9/58	4/16/58	56	17
	Gold Hill #14	3/14/56	4/14/56	38	385
		4/8/58	4/16/58	56	18
A-47 100'	Gold Hill #15	4/15/56	4/27/56	39	32
		4/8/58	4/16/58	56	19
	Gold Hill #16	4/15/56	4/27/56	39	33
		4/11/58	4/16/58	56	20
	Gold Hill #17	4/15/56	4/27/56	39	34
		4/11/58	4/16/58	56	21
	Gold Hill #18	4/15/56	4/27/56	39	35
		4/11/58	4/16/58	56	22
	Gold Hill #19	4/15/56	4/27/56	39	36
		7/2/58	7/9/58	57	444
		6/29/62	7/9/62	83	535
A-43 100'	Gold Hill #25	4/15/56	4/27/56	39	42
		7/1/58	7/9/58	57	445
	Gold Hill #26	4/15/56	4/27/56	39	43
		7/1/58	7/9/58	57	446
	Gold Hill #27	4/15/56	4/27/56	39	44
		7/28/58	8/18/58	58	202
		6/29/62	7/9/62	83	539
	Gold Hill #28	4/21/56	4/27/56	39	45
		7/24/58	8/18/58	58	203
		6/29/62	7/9/62	83	540
	Gold Hill #29	4/21/56	4/27/56	39	46
		7/24/58	8/18/58	58	204
		6/29/62	7/9/62	83	541
	Gold Hill #30	4/21/56	4/27/56	39	47
		7/24/58	8/18/58	58	205
		6/29/62	7/9/62	83	542
A-51 100'	Gold Hill #31	4/21/56	4/27/56	39	48
		7/24/58	8/18/58	58	206
		6/29/62	7/9/62	83	543
	Lucky Strike #1	12/23/52	2/27/53	21	445
		6/3/58	6/30/58	57	270
Zone Metals 650'	Lucky Strike #2	12/23/52	2/27/53	21	446
A-31 281'		6/3/58	6/30/58	57	271
	Lucky Strike #3	12/27/55	12/27/55	36	87
		6/3/58	6/30/58	57	272
A-13 979'	Lucky Strike #4	3/29/52	6/24/52	19	207
		6/3/58	6/30/58	57	273
	Lucky Strike #5	3/10/56	4/21/56	38	519
		6/3/58	6/30/58	57	274
		6/29/62	7/9/62	83	525
	Lucky Strike #6	3/10/56	4/21/56	38	520
		6/3/58	6/30/58	57	275
		6/29/62	7/9/62	83	526
	Lucky Strike #7	3/10/56	4/21/56	38	521
		6/5/58	6/30/58	57	276
	Lucky Strike #8	3/10/56	4/21/56	38	522
		6/5/58	6/30/58	57	277

Lucky Strike #9	3/10/56	4/21/56	38	523
	6/5/58	6/30/58	57	278
Lucky Strike #10	3/10/56	4/21/56	38	524
	6/5/58	6/30/58	57	279
Lucky Strike #11	3/20/56	4/21/56	38	525
	6/4/58	6/30/58	57	280
	6/29/62	7/9/62	83	527
Lucky Strike #18	3/28/56	4/21/56	38	532
	6/5/58	6/30/58	57	283
Larivel No. 1	1/22/57	3/11/57	45	346
	5/23/61	5/23/61	77	77
Larivel No. 2	1/22/57	3/11/57	45	347
	5/23/61	5/23/61	77	78
Larivel No. 3	1/22/57	3/11/57	45	348
	5/23/61	5/23/61	77	79
Larivel No. 4	1/22/57	3/11/57	45	349
	5/23/61	5/23/61	77	80
Larivel No. 5	1/22/57	3/11/57	45	350
	5/23/61	5/23/61	77	81
Larivel No. 6	1/22/57	3/11/57	45	351
	5/23/61	5/23/61	77	82
Foothill #52	6/3/58	6/30/58	57	262
Foothill #53	6/3/58	6/30/58	57	263
	6/29/62	7/9/62	83	562
Birthday #1	7/20/57	9/6/57	50	37
	4/15/58	4/24/58	56	255
Birthday #3	7/20/57	9/6/57	50	39
	3/19/58	3/26/58	55	183
Elevator #26	9/11/56	12/10/56	43	477
	5/23/61	5/23/61	77	91
Elevator #27	9/11/56	12/10/56	43	478
	5/23/61	5/23/61	77	92
Elevator No. 28	9/11/56	12/10/56	43	479
	5/23/61	5/23/61	77	93
Elevator No. 29	9/11/56	12/10/56	43	430
	5/23/61	5/23/61	77	94
Red Dyke No. 1	1/6/57	3/11/57	45	356
	7/22/58	8/18/58	58	214
	5/23/61	5/23/61	77	84
	6/29/62	7/9/62	83	548
	9/10/62	9/17/62	84	684
Red Dyke No. 2	1/6/57	3/11/57	45	357
	7/22/58	8/18/58	58	215
	5/23/61	5/23/61	77	85
	6/29/62	7/9/62	83	549
	9/10/62	9/17/62	84	685
Red Dyke No. 3	1/6/57	3/11/57	45	358
	6/30/58	8/18/58	58	216
	5/23/61	5/23/61	77	86
	6/29/62	7/9/62	83	550
	9/10/62	9/17/62	84	686
Red Dyke No. 4	1/6/57	3/11/57	45	359
	5/29/58	6/30/58	57	298
	6/29/62	7/9/62	83	551
Red Dyke No. 5	1/6/57	3/11/57	45	360
	5/29/58	6/30/58	57	299
	6/29/62	7/9/62	83	552
Red Dyke #6	1/16/57	3/11/57	45	361
	5/29/58	6/30/58	57	300

	Red Dyke #7	9/4/57	9/23/57	50	401
		5/29/58	6/30/58	57	301
A-56 100'	Red Dyke #8	9/4/57	9/23/57	50	402
		5/29/58	6/30/58	57	302
	Red Dyke #9	9/4/57	9/23/57	50	403
		5/27/58	6/30/58	57	303
	Red Dyke #10	9/4/57	9/23/57	50	404
		5/27/58	6/30/58	57	304
	Red Dyke #11	9/4/57	9/23/57	50	405
		6/16/58	6/30/58	57	305
	Red Dyke #12	9/4/57	9/23/57	50	406
		5/27/58	6/30/58	57	306
A-55 100'	Red Dyke #15	9/4/57	9/23/57	50	409
		5/27/58	6/30/58	57	309
	Red Ribbon #1	7/23/56	7/28/56	41	578
		5/27/58	6/30/58	57	310
	Red Ribbon #2	7/23/56	7/28/56	41	579
		5/27/58	6/30/58	57	311
	Red Ribbon #6	7/24/56	7/28/56	41	583
		4/21/58	4/24/58	56	252
A-35 1175'	Hades #1	6/8/57	7/2/57	48	574
		4/17/58	4/24/58	56	253
2L-19 2052'	Hades #2	6/8/57	7/2/57	48	575
		4/17/58	4/24/58	56	254
	Sunset #1	4/21/56	4/21/56	38	510
		6/30/58	7/9/58	57	421
A-42 100'	Sunset #2	4/21/56	4/21/56	38	511
		6/30/58	7/9/58	57	422
A-54 100'	Sunset #3	4/21/56	4/21/56	38	512
		6/30/58	7/9/58	57	423
		6/29/62	7/9/62	83	553
	Sunset #4	4/21/56	4/21/56	38	513
		6/30/58	7/9/58	57	424
		6/29/62	7/9/62	83	554
	Sunset #5	4/21/56	4/21/56	38	514
		6/30/58	7/9/58	57	425
A-53 100'	Sunset #6	4/21/56	4/21/56	38	515
		6/30/58	7/9/58	57	426
A-52 100'	Sunset #7	4/21/56	4/21/56	38	516
		6/30/58	7/9/58	57	427
	Sunset #8	4/21/56	4/21/56	38	517
		6/30/58	7/9/58	57	428
	Sunset #9	4/21/56	4/21/56	38	518
		7/30/58	8/18/58	58	200
		6/29/62	7/9/62	83	555
A-58 200'	Arrowhead #1	9/29/55	12/14/55	36	21
		4/7/58	4/16/58	55	599
		6/29/62	7/9/62	83	519
	Arrowhead #2	9/29/55	12/14/55	36	22
		4/7/58	4/16/58	55	600
		6/29/62	7/9/62	83	520
	Arrowhead #3	2/5/56	4/14/56	33	395
		4/7/58	4/16/58	55	1
		6/29/62	7/9/62	83	521
A-59 200'	Arrowhead #4	2/5/56	4/14/56	33	396
		4/7/58	4/16/58	55	2
		6/29/62	7/9/62	83	522

Arrowhead #5	2/5/56	4/14/56	38	397
	4/7/58	4/16/58	56	3
	6/29/62	7/9/62	83	523
Arrowhead #6	2/5/56	4/14/56	38	398
	4/7/58	4/16/58	56	4
	6/29/62	7/9/62	83	524
Pasoford #1	7/1/56	7/3/56	41	285
	3/25/58	3/31/58	55	291
Pasoford #2	7/1/56	7/3/56	41	286
	3/25/58	3/31/58	55	292
Pasoford #3	7/1/56	7/3/56	41	287
	3/25/58	3/31/58	55	293
Pasoford #4	7/1/56	7/3/56	41	288
	3/25/58	3/31/58	55	294
Pasoford #5	7/1/56	7/3/56	41	289
	3/25/58	3/31/58	55	295
Pasoford #10	7/1/56	7/3/56	41	294
	3/19/58	3/26/58	55	189
Last Effort	7/15/57	9/23/57	50	400
	5/14/58	6/30/58	57	267

Dos Pobres #s 1 through 28, Gold Hill #s 1 through 3, 6 through 19, 25 through 31, Lucky Strike #s 1 through 11, 18, Sunset #s 1 through 9, and Arrowhead #s 1 through 6 Claims.

Dos Pobres #s 1 through 28 Claims were located by W. D. Roper and Richard L. (or R. L.) Himebaugh in 1956 and amended by them in 1958.

Gold Hill #s 1 through 3, 6 through 19, 25 through 31 Claims were located by W. D. Roper and A. E. Roper in 1956 and amended by them in 1958.

Lucky Strike #s 1 through 4 Claims were located in 1952 and 1955 by Dave Bryce, amended by him in 1958, and leased by him to Earl Himebaugh and Richard Himebaugh by Mining Lease dated January 12, 1956, recorded May 14, 1956, in Docket 39, pages 567 to 569. Earl Himebaugh and Richard Himebaugh assigned a 3/4ths interest in the lease to W. D. Roper by Assignment dated January 16, 1956, recorded December 17, 1956, in Docket 43, page 554. Lucky Strike #s 5 through 10 Claims were located by R. L. Himebaugh and Grant Godfrey in 1956 and amended by them in 1958. Lucky Strike #s 11, 18 Claims were located by R. L. Himebaugh and Raymond Godfrey in 1956 and amended by them in 1958.

Sunset #s 1 through 9 Claims were located by Marie Roper in 1956, and conveyed by her by Quit-Claim Deed dated May 11, 1956, recorded May 16, 1958, in Docket 40, page 62, to Richard Himebaugh, Grant Godfrey, Raymond Godfrey, W. D. Roper, and A. E. Roper. These grantees amended the claims in 1958.

Arrowhead #s 1 through 6 Claims were located by W. D. Roper and A. E. Roper in 1955 and 1956, and amended by them in 1958.

By Memorandum of Agreement dated April 30, 1956, recorded March 7, 1957, in Docket 45, pages 276 to 279, Richard Himebaugh, Earl Himebaugh, Mattie L. Bittick, Grant Godfrey, Raymond Godfrey, W. D. Roper, and A. E. Roper agreed to the joint development and promotion of the Bryce lease on Lucky Strike #s 1 through 4 Claims, the other Lucky Strike Claims, and the Dos Pobres, Gold Hill, and Arrowhead Claims. They agreed that Richard L. Himebaugh, Earl Himebaugh, and Mattie L. Bittick shall have an undivided 1/5th interest in the lease and claims and that W. D. Roper, A. E. Roper, Grant Godfrey, and Raymond Godfrey each shall have an undivided 1/5th interest in the lease and claims; and they conveyed to each other interests in the lease and claims owned by them.

Thereafter, Richard L. Himebaugh, Earl O. Himebaugh, and Mattie L. Freeman, formerly Mattie L. Bittick, having a 20% interest in said Bryce lease on the Lucky Strike #s 1 through 4 Claims, the other Lucky Strike Claims, and the Dos Pobres, Gold Hill, Arrowhead, and Sunset Claims, conveyed various interests therein to various persons, as follows: To Navor Proctor 1/4th of their interest in the claims by Quit-Claim Deed dated March 6, 1959, recorded May 15, 1959, in Docket 62, pages 316 to 318. To R. F. McFate an undivided 2.025% interest in the claims by Quit-Claim Deed dated April 3, 1959,

recorded April 3, 1959, in Docket 61, pages 501 and 502. To Paul I. Powers and Donald I. Welker an undivided 2.925% interest in the claims by Quit-Claim Deed dated April 24, 1959, recorded April 24, 1959, in Docket 62, pages 110 and 111. To G. D. Pittman and Helen Pittman, his wife, an undivided 1.350% interest in the claims by Quit-Claim Deed dated May 6, 1959, recorded May 7, 1959, in Docket 62, pages 249 and 250. To Ted Ferguson an undivided 1.8% interest in the claims by Quit-Claim Deed dated June 25, 1959, recorded June 25, 1959, in Docket 63, pages 160 and 161. To Ruskin Lines an undivided 1.0% interest in the claims by Quit-Claim Deed dated June 25, 1959, recorded June 25, 1959, in Docket 63, pages 167 and 168. To Gila Investors, Inc., an Arizona corporation, an undivided .9% interest in the claims by Quit-Claim Deed dated August 21, 1959, recorded August 29, 1959, in Docket 64, pages 244 and 245. To Gila Investors, Inc., an Arizona corporation, an undivided .9% interest in the claims by Quit-Claim Deed dated September 4, 1959, recorded September 15, 1959, in Docket 64, pages 453 and 454. To Charles M. Smith, an undivided .9% interest in the claims by Quit-Claim Deed dated September 16, 1959, recorded September 16, 1959, in Docket 64, pages 472 and 473. To Spencer P. Hoopes and Rodolfo Gabaldon an undivided .9% interest in the claims by Quit-Claim Deed dated September 16, 1959, recorded September 16, 1959, in Docket 64, pages 476 and 477. To Rodolfo Gabaldon an undivided .9% interest in the claims by Quit-Claim Deed dated October 6, 1959, recorded October 6, 1959, in Docket 65, pages 74 and 75. To Spencer P. Hoopes and Rodolfo Gabaldon an undivided .9% interest in the claims by Quit-Claim Deed dated November 20, 1959, recorded November 23, 1959, in Docket 65, pages 419 and 420.

By Quit-Claim Deed dated July 31, 1959, recorded March 31, 1960, in Docket 68, page 177, Grant Godfrey, Raymond Godfrey, W. D. Roper, A. E. Roper, Richard L. Himbaugh, Earl O. Himebaugh,

and Mattie L. Freeman conveyed an undivided 5% interest in the Arrowhead, Gold Hill, Dos Pobres, Lucky Strike, and Sunset Claims to Ruskin Lines. By Quit-Claim Deed dated October 5, 1959, recorded November 30, 1960, in Docket 72, pages 324 to 327, Richard Himebaugh, Earl Himebaugh, Mattie L. Bittick, W. D. Roper, A. E. Roper, Grant Godfrey, and Raymond Godfrey conveyed an undivided 5% interest in the Arrowhead, Gold Hill, Dos Pobres, Lucky Strike, and Sunset Claims to Navor Proctor. By Quit-Claim Deed dated February 23, 1960, recorded March 2, 1960, in Docket 67, page 521, R. F. McFate conveyed his 2.025% interest in these claims to Rosa R. Ybarra, a single woman, and she re-conveyed the interest to R. F. McFate and Alverda H. McFate, his wife, by Joint Tenancy Deed dated March 2, 1960, recorded March 2, 1960, in Docket 67, page 522. By Quit-Claim Deed dated December 21, 1960, recorded December 30, 1960, in Docket 72, page 579, Dave Bryce conveyed all his interest in Lucky Strike #s 1 through 4 claims to Grant Godfrey, Raymond Godfrey, A. E. Roper, Richard Himebaugh, Mattie L. Freeman, Earl O. Himebaugh, Ruskin Lines, and Navor H. Proctor.

Thereafter the owners of these Dos Pobres, Gold Hill, Lucky Strike, Sunset, and Arrowhead Claims conveyed all of their interests therein to Phelps Dodge Corporation, the applicant herein, by the following: Quit-Claim Deed dated January 10, 1961, recorded February 1, 1961, in Docket 73, pages 477 to 479, from Richard L. Himebaugh, Earl O. Himebaugh, and Mattie L. Freeman, formerly Mattie L. Bittick. Mining Deed dated January 31, 1961, recorded February 1, 1961, in Docket 73, pages 480 to 483, from Ruskin Lines, Navor Proctor, Grant Godfrey, Raymond Godfrey, W. D. Roper, and A. E. Roper. Mining Deed dated January 31, 1961, recorded February 1, 1961, in Docket 73, pages 484 to 489, from Gila Investors, Inc., Paul Powers, Donald I. Welker, Rodolfo Gabaldon, Spencer Hoopes, G. D. Pittman and Helen Pittman, his wife, R. F. McFate and

Alverda H. McFate, his wife, Charles Smith, and Ted Ferguson.

After Phelps Dodge Corporation obtained title to the claims on February 1, 1961, it amended the locations of Dos Pobres #s 3, 12, 13, 14, 17, and 22 Claims in 1962; amended the locations of Gold Hill #s 1, 2, 3, 6, 7, 19, 27, 28, 29, 30, and 31 Claims in 1962; amended the locations of Lucky Strike #s 5, 6, and 11 Claims in 1962; amended the locations of Sunset #s 3, 4, and 9 Claims in 1962; and amended the locations of Arrowhead #s 1 through 6 in 1962.

Larivel Nos. 1 through 6 Claims. These claims were located by Jules Larios in 1957. By Quit-Claim Deed dated June 17, 1957, recorded June 24, 1957, in Docket 48, pages 423 and 424, Jules Larios and Velma Larios, his wife, conveyed an undivided $\frac{1}{2}$ interest in them to Oral Clark. By Quit-Claim Deed dated October 5, 1959, recorded March 31, 1960, in Docket 68, page 189, Jules Larios and Oral Clark conveyed an undivided 5% interest to Ruskin Lines. By Mining Deed dated January 28, 1961, recorded February 1, 1961, in Docket 73, pages 502 and 503, they were conveyed to Phelps Dodge Corporation, the applicant herein, by Ruskin Lines, Jules Larios, and Oral Clark. The locations of the claims were amended in 1961 by applicant.

Foothill #s 52. 53 Claims. These claims were located by Phelps Dodge Corporation, the applicant herein, in 1958, and the location of Foothill #53 Claim was amended in 1962.

Birthday #s 1. 3 Claims. These claims were located by W. D. Roper in 1957, and the locations amended by him in 1958. By Quit-Claim Deed dated October 1, 1959, recorded March 31, 1960, in Docket 68, page 185, W. D. Roper conveyed an undivided 5% interest therein to Ruskin Lines. They were conveyed to Phelps Dodge Corporation, the applicant herein, by Mining Deed dated January 31, 1961, recorded February 1,

1961, in Docket 73, pages 506 and 507, by Ruskin Lines and W. D. Roper.

Elevator #s 26, 27, Nos. 28, 29 Claims. These claims were located by W. D. Roper in 1956. By Quit-Claim Deed dated October 1, 1959, recorded March 31, 1960, in Docket 68, page 185, W. D. Roper conveyed an undivided 5% interest therein to Ruskin Lines. They were conveyed to Phelps Dodge Corporation, the applicant herein, by Mining Deed dated January 31, 1961, recorded February 1, 1961, in Docket 73, pages 506 and 507, by Ruskin Lines and W. D. Roper. Thereafter in 1961 the locations were amended by applicant.

Red Dyke Nos. 1 through 5, #s 6 through 12, 15 Claims.

Red Dyke Nos. 1 through 5 and #6 Claims were located by W. D. Roper and Marie Roper in 1957, and the locations amended by them in 1958. Red Dyke #s 7 through 12, 15 Claims were located by W. D. Roper in 1957, and the locations amended by him in 1958. By Quit-Claim Deed dated October 2, 1957, recorded April 3, 1958, in Docket 55, page 451, W. D. Roper conveyed all his interest in Red Dyke #s 7 through 12, 15 Claims to Ruskin Lines. By Quit-Claim Deed dated October 1, 1959, recorded March 31, 1960, in Docket 68, page 188, W. D. Roper and Marie Roper conveyed an undivided 5% interest in Red Dyke Nos. 1 through 5 and #6 Claims to Ruskin Lines. By Mining Deed dated January 31, 1961, recorded February 1, 1961, in Docket 73, pages 504 and 505, Ruskin Lines, W. D. Roper, and Marie Roper conveyed Red Dyke Nos. 1 through 5 and #6 Claims to Phelps Dodge Corporation, the applicant herein. By Mining Deed dated January 31, 1961, recorded February 1, 1961, in Docket 73, pages 524 and 525, Ruskin Lines conveyed Red Dyke #s 7 through 12, 15 Claims to Phelps Dodge Corporation, the applicant herein. Thereafter in 1961 and 1962, applicant amended the locations of Red Dyke Nos. 1 through 5 Claims.

Red Ribbon #s 1, 2, 6 Claims. These claims were located by W. D. Roper and A. E. Roper in 1956, and the locations were amended by them in 1958. By Quit-Claim Deed dated October 1, 1959, recorded March 31, 1960, in Docket 68, page 182, W. D. Roper and A. E. Roper conveyed an undivided 5% interest to Ruskin Lines. By Mining Deed dated January 31, 1961, recorded February 1, 1961, in Docket 73, pages 517 to 519, Ruskin Lines, W. D. Roper, and A. E. Roper conveyed the claims to Phelps Dodge Corporation, the applicant herein.

Hades #s 1, 2 Claims. These claims were located by Charles W. Radcliff and Ramona M. Radcliff in 1957, and the locations amended by them in 1958. By Quit-Claim Deed dated October 1, 1959, recorded March 31, 1960, in Docket 68, page 183, Charles W. Radcliff and Ramona M. Radcliff conveyed an undivided 5% interest to Ruskin Lines. By Quit-Claim Deed dated April 18, 1960, recorded April 22, 1960, in Docket 68, page 425, C. W. Radcliff and Ramona M. Radcliff conveyed all their interest to Ruskin Lines. By Mining Deed dated January 31, 1961, recorded February 1, 1961, in Docket 73, pages 496 and 497, Ruskin Lines conveyed the claims to Phelps Dodge Corporation, the applicant.

Pasoford #s 1 through 5, 10 Claims. These claims were located by W. D. Roper and A. E. Roper in 1956, and amended by them in 1958. By Quit-Claim Deed dated October 1, 1959, recorded March 31, 1960, in Docket 68, page 182, W. D. Roper and A. E. Roper conveyed an undivided 5% interest to Ruskin Lines. By Mining Deed dated January 31, 1961, recorded February 1, 1961, in Docket 73, pages 517 to 519, they were conveyed by Ruskin Lines, W. D. Roper, and A. E. Roper to Phelps Dodge Corporation, the applicant herein.

Last Effort Claim. This claim was located by Ray Talley in 1957, and amended by him in 1958. By Quit-Claim Deed dated October 5, 1959, recorded March 31, 1960, in Docket 68, page 187, Ray Talley conveyed an undivided 5% interest to Ruskin Lines. By Mining Deed dated January 31, 1961, recorded February 1, 1961, in Docket 73, pages 508 and 509, Ruskin Lines and Ray Talley conveyed the claim to Phelps Dodge Corporation, the applicant herein.

All of the claims were located and amended locations were made in full compliance with all local laws and regulations, and the laws of the State of Arizona and of the United States, and Phelps Dodge Corporation is now the sole owner thereof, as will more fully appear by reference to the certified copies of Notice of Mining Location - Lode Claim and Amended Notice of Lode Location and the Abstract of Title filed herewith.

3. Value and Nature of Labor and Improvements.

The labor and improvements made upon and for the benefit of each of the claims by or on behalf of the applicant are of a value in excess of Fifty-nine Thousand Dollars (\$59,000.00), to-wit, Five Hundred Thousand Three Hundred Eighty and 59/100ths Dollars (\$500,380.59), and are particularly described as follows:

Dos Pobres #1 Lode:

- No. 1. The discovery point of Dos Pobres #1 Lode is on the lode line 60 ft. from North center end.
No value.

- No. 2. A cut, the face of which bears S. 55° 03' E., 140 ft. from North center end of Dos Pobres #1 Lode, 7 ft. wide, 11 ft. face, running S.E. 7 ft. to face.
Value, \$200.00.

- No. 3. A cut, the face of which bears S. 2° 20' W., 520 ft. from Cor. No. 1 of Dos Pobres #1 Lode, 12 ft. wide, 9 ft. face, running N.W. 17 ft. to face.
Value, \$300.00.

- No. 4. A cut, the face of which bears N. $81^{\circ} 39'$ E.,
193 ft. from South center end of Dos Pobres #1
Lode, 6 ft. wide, 10 ft. face, running East 12
ft. to face.
Value, \$100.00.

Dos Pobres #2 Lode:

- No. 1. The discovery point of Dos Pobres #2 Lode is
on the lode line, 400 ft. from North center end.
No value.

- No. 2. A cut, the face of which bears S. $12^{\circ} 00'$ E.,
440 ft. from Cor. No. 2 of Dos Pobres #2 Lode,
7 ft. wide, 10 ft. face, running N.E. 7 ft. to
face.
Value, \$140.00.

- No. 3. A shaft, the center of which bears S. $41^{\circ} 00'$ W.,
465 ft. from Cor. No. 1 of Dos Pobres #2 Lode,
5 x 5 ft., 8 ft. deep.
Value, \$150.00.

- No. 4. A shaft, the center of which bears N. $1^{\circ} 50'$ W.,
465 ft. from Cor. No. 4 of Dos Pobres #2 Lode,
4 x 6 ft., 8 ft. deep.
Value, \$150.00.

- No. 5. Drill site, bears N. $27^{\circ} 00'$ E., 650 ft. from
Cor. No. 3 of Dos Pobres #2 Lode.
No value.

Dos Pobres #3 Lode:

- No. 1. The discovery point of Dos Pobres #3 Lode is
on the lode line, 550 ft. from South center end.
No value.

- No. 2. A cut, the face of which bears N. $16^{\circ} 05'$ E.,
555 ft. from Cor. No. 2 of Dos Pobres #3 Lode,
5 ft. wide, 10 ft. face, running N.E. 28 ft. to
face.
Value, \$200.00.

- No. 3. A cut, the face of which bears N. $37^{\circ} 55'$ E.,
272 ft. from Cor. No. 2 of Dos Pobres #3 Lode,
17 ft. wide, 10 ft. face, running S.W. 6 ft. to
face.
Value, \$150.00.

- No. 4. A shaft, the center of which bears N. $12^{\circ} 52'$ W.,
174 ft. from Cor. No. 3 of Dos Pobres #3 Lode,
6 x 8 ft., 10 ft. deep.
Value, \$140.00.

Dos Pobres #4 Lode:

- No. 1. The discovery point of Dos Pobres #4 Lode is
on the lode line, 360 ft. from North center end.
No value.

No. 2. A cut, the face of which bears S. $15^{\circ} 25'$ E.,
395 ft. from Cor. No. 1 of Dos Pobres #4 Lode,
4 ft. wide, 11 ft. face, running South 11 ft. to
face.

Value, \$150.00.

No. 3. A cut, the face of which bears S. $3^{\circ} 45'$ E.,
370 ft. from Cor. No. 1 of Dos Pobres #4 Lode,
6 ft. wide, 10 ft. face, running S.E. 18 ft. to
face.

Value, \$200.00.

No. 4. A shaft, the center of which bears N. $39^{\circ} 25'$ E.,
535 ft. from Cor. No. 2 of Dos Pobres #4 Lode,
8 x 8 ft., 10 ft. deep.

Value, \$150.00.

No. 5. A shaft, the center of which bears N. $8^{\circ} 45'$ E.,
510 ft. from Cor. No. 3 of Dos Pobres #4 Lode,
6 x 8 ft., 10 ft. deep.

Value, \$150.00.

No. 6. A shaft, the center of which bears S. $32^{\circ} 00'$ W.,
495 ft. from Cor. No. 4 of Dos Pobres #4 Lode,
6 x 8 ft., 12 ft. deep.

Value, \$150.00.

Dos Pobres #5 Lode:

No. 1. The discovery point of Dos Pobres #5 Lode is
on the lode line, 370 feet from East center end.
No value.

No. 2. A cut, the face of which bears S. $60^{\circ} 10'$ W.,
442 ft. from Cor. No. 1 of Dos Pobres #5 Lode,
7 ft. wide, 10 ft. face, running N.W. 12 ft. to
face.

Value, \$150.00.

No. 3. A shaft, the center of which bears N. $48^{\circ} 00'$ W.,
360 ft. from Cor. No. 4 of Dos Pobres #5 Lode,
5 x 6 ft., 9 ft. deep.

Value, \$140.00.

Dos Pobres #6 Lode:

No. 1. The discovery point of Dos Pobres #6 Lode is
on the lode line, 195 ft. from East center end.
No value.

No. 2. A cut, the face of which bears N. $70^{\circ} 32'$ W.,
239 ft. from East center end of Dos Pobres #6
Lode, 5 ft. wide, 10 ft. face, running N.W. 8 ft.
to face.

Value, \$150.00.

No. 3. A cut, the face of which bears N. $86^{\circ} 10'$ W.,
348 ft. from East center end of Dos Pobres #6
Lode, 4 ft. wide, 10 ft. face, running N.W. 7 ft.
to face.

Value, \$100.00.

Dos Pobres #7 Lode:

- No. 1. The discovery point of Dos Pobres #7 Lode is on the lode line, 170 ft. from East center end.
No value.
- No. 2. A cut, the face of which bears S. $45^{\circ} 55'$ W., 292 ft. from Cor. No. 1 of Dos Pobres #7 Lode, 5 ft. wide, 12 ft. face, running East 10 ft. to face.
Value, \$150.00.
- No. 3. Drill site, bears N. $59^{\circ} 40'$ W., 388 ft. from Cor. No. 4 of Dos Pobres #7 Lode.
No value.

Dos Pobres #8 Lode:

- No. 1. The discovery point of Dos Pobres #8 Lode is on the lode line, 405 ft. from East center end.
No value.
- No. 2. A cut, the face of which bears N. $41^{\circ} 05'$ W., 440 ft. from Cor. No. 2 of Dos Pobres #8 Lode, 9 ft. wide, 10 ft. face, running S.E. 15 ft. to face.
Value, \$150.00.
- No. 3. Drill site, bears N. $24^{\circ} 43'$ W., 158 ft. from Cor. No. 2 of Dos Pobres #8 Lode.
No value.

Dos Pobres #9 Lode:

- No. 1. The discovery point of Dos Pobres #9 Lode is on the lode line, 230 ft. from South center end.
No value.
- No. 2. A cut, the face of which bears N. $58^{\circ} 49'$ E., 341 ft. from Cor. No. 2 of Dos Pobres #9 Lode, 8 ft. wide, 10 ft. face, running South 15 ft. to face.
Value, \$300.00.
- No. 3. A cut, the face of which bears N. $18^{\circ} 42'$ E., 220 ft. from Cor. No. 2 of Dos Pobres #9 Lode, 8 ft. wide, 6 ft. face, running West 14 ft. to face.
Value, \$150.00.
- No. 4. A cut, the face of which bears N. $26^{\circ} 30'$ W., 365 ft. to Cor. No. 1 of Dos Pobres #9 Lode, 5 ft. wide, 10 ft. face, running South 5 ft. to face.
Value, \$140.00.
- No. 5. Drill site, bears N. $46^{\circ} 42'$ E., 43 ft. from South center end of Dos Pobres #9 Lode.
No value.

- No. 6. Drill hole, Moab Drilling Corporation, bears N. $49^{\circ} 50'$ W., 170 ft. from Cor. No. 1 of Dos Pobres #9 Lode, 310 ft. deep.
Value, \$1,550.00.

Dos Pobres #10 Lode:

- No. 1. The discovery point of Dos Pobres #10 Lode is on the lode line, 395 ft. from South center end.
No value.

- No. 2. A cut, the face of which bears N. $33^{\circ} 10'$ E., 422 ft. from Cor. No. 1 of Dos Pobres #10 Lode, 8 ft. wide, 10 ft. face, running N.W. 13 ft. to face.
Value, \$150.00.

- No. 3. A shaft, the center of which bears N. $16^{\circ} 10'$ E., 345 ft. from Cor. No. 1 of Dos Pobres #10 Lode, 6' x 6 ft., 5 ft. deep.
Value, \$100.00.

Dos Pobres #11 Lode:

- No. 1. The discovery point of Dos Pobres #11 Lode is on the lode line, 155 ft. from South center end.
No value.

- No. 2. A cut, the face of which bears N. $23^{\circ} 00'$ E., 157 ft. from South center end of Dos Pobres #11 Lode, 12 ft. wide, 10 ft. face, running N.W. 15 ft. to face.
Value, \$300.00.

- No. 3. Drill site, bears N. $5^{\circ} 30'$ E., 200 ft. from Cor. No. 4 of Dos Pobres #11 Lode.
No value.

- No. 4. Drill site, bears N. $26^{\circ} 00'$ E., 520 ft. from Cor. No. 1 of Dos Pobres #11 Lode.
No value.

- No. 5. A bulldozer cut, the South end of which bears N. $25^{\circ} 46'$ E., 504 ft. from Cor. No. 1 of Dos Pobres #11 Lode, 14 ft. wide, 8 ft. deep, running North 75 ft. to face.
Value, \$85.00.

- No. 6. A bulldozer cut, the South end of which bears N. $17^{\circ} 11'$ E., 387 ft. from Cor. No. 1 of Dos Pobres #11 Lode, 14 ft. wide, 1 ft. deep, running N.E. 110 ft. to face.
Value, \$85.00.

Dos Pobres #12 Lode:

- No. 1. The discovery point of Dos Pobres #12 Lode is on the lode line, 125 ft. from South center end.
No value.

No. 2. A cut, the face of which bears N. $32^{\circ} 01'$ W., 176 ft. from Cor. No. 1 of Dos Pobres #12 Lode, 8 ft. wide, 12 ft. face, running East 6 ft. to face.

Value, \$150.00.

No. 3. A cut, the face of which bears N. $67^{\circ} 51'$ W., 289 ft. from Cor. No. 1 of Dos Pobres #12 Lode, 8 ft. wide, 12 ft. face, running West 6 ft. to face.

Value, \$150.00.

Dos Pobres #13 Lode:

No. 1. The discovery point of Dos Pobres #13 Lode is on the lode line, 430 ft. from South center end.
No value.

No. 2. A cut, the face of which bears N. $31^{\circ} 25'$ E., 448 ft. from Cor. No. 1 of Dos Pobres #13 Lode, 5 ft. wide, 10 ft. face, running East 16 ft. to face.

Value, \$150.00.

No. 3. A cut, the face of which bears N. $32^{\circ} 15'$ E., 355 ft. from Cor. No. 1 of Dos Pobres #13 Lode 20 ft. wide, 5 ft. face, running South 30 ft. to face.

Value, \$90.00.

No. 4. A-38 drill hole, bears N. $32^{\circ} 15'$ E., 355 ft. from Cor. No. 1 of Dos Pobres #13 Lode, 100 ft. deep. (Drilled after survey completed.)

Value, \$588.00.

Dos Pobres #14 Lode:

No. 1. The discovery point of Dos Pobres #14 Lode is on the lode line, 195 ft. from South center end.
No value.

No. 2. A cut, the face of which bears N. $52^{\circ} 40'$ E., 254 ft. from South center end of Dos Pobres #14 Lode, 6 ft. wide, 10 ft. face, running S.E. 10 ft. to face.

Value, \$150.00.

No. 3. A-37 drill hole, bears N. $37^{\circ} 57'$ E., 498 ft. from Cor. No. 2 of Dos Pobres #14 Lode, 200 ft. deep.

Value, \$977.50.

No. 4. A cut, the face of which bears S. $38^{\circ} 20'$ W., 255 ft. from Cor. No. 4 of Dos Pobres #14 Lode, 8 ft. wide, 10 ft. face, running East 6 ft. to face.

Value, \$140.00.

No. 5. A bulldozer cut, the South end of which bears N. $76^{\circ} 25'$ E., 296 ft. from Cor. No. 2 of Dos Pobres #14 Lode, 14 ft. wide, 3 ft. deep, running N.W. 130 ft. to face.

Value, \$100.00.

- No. 6. A trench, the South end of which bears N. 40° 50' E., 465 ft. from Cor. No. 2 of Dos Pobres #14 Lode, 15 ft. wide, 5 ft. deep, running North 30 ft. to face.
Value, \$85.00.

Dos Pobres #15 Lode:

- No. 1. The discovery point of Dos Pobres #15 Lode is on the lode line, 70 ft. from South center end.
No value.

- No. 2. A cut, the face of which bears N. 78° 40' E., 155 ft. from South center end of Dos Pobres #15 Lode, 5 ft. wide, 10 ft. face, running East 8 ft. to face.
Value, \$140.00.

- No. 3. A-34 drill hole, bears N. 1° 55' E., 545 ft. from Cor. No. 4 of Dos Pobres #15 Lode, 200 ft. deep.
Value, \$977.50.

Dos Pobres #16 Lode:

- No. 1. The discovery point of Dos Pobres #16 Lode is on the lode line, 450 ft. from North center end.
No value.

- No. 2. A cut, the face of which bears S. 33° 00' W., 480 ft. from Cor. No. 4 of Dos Pobres #16 Lode, 6 ft. wide, 10 ft. face, running North 14 ft. to face.
Value, \$250.00.

- No. 3. A-36 drill hole, bears S. 8° 38' E., 643 ft. from Cor. No. 1 of Dos Pobres #16 Lode, 200 ft. deep.
Value, \$1,032.50.

- No. 4. A cut, the face of which bears N. 7° 35' W., 167 ft. from South center end of Dos Pobres #16 Lode, 8 ft. wide, 8 ft. face, running North 12 ft. to face.
Value, \$140.00.

- No. 5. A bulldozer cut, the North end of which bears S. 26° 55' W., 417 ft. from Cor. No. 4 of Dos Pobres #16 Lode, 14 ft. wide, 10 ft. deep, running S.W. 70 ft. to face.
Value, \$58.00.

- No. 6. A bulldozer cut, the North end of which bears S. 73° 15' E., 432 ft. from Cor. No. 1 of Dos Pobres #16 Lode, 14 ft. wide, 8 ft. deep, running S.E. 100 ft. to face.
Value, \$58.00.

Dos Pobres #17 Lode:

No. 1. The discovery point of Dos Pobres #17 Lode is on the lode line, 500 ft. from North center end.
No value.

No. 2. A cut, the face of which bears S. $35^{\circ} 32'$ W., 570 ft. from Cor. No. 3 of Dos Pobres #17 Lode, 6 ft. wide, 10 ft. face, running S.W. 8 ft. to face.
Value, \$150.00.

No. 3. A shaft, the center of which bears N. $30^{\circ} 00'$ W., 15 ft. from Cor. No. 4 of Dos Pobres #17 Lode, 9 x 4 ft., 8 ft. deep.
Value, \$250.00.

Dos Pobres #18 Lode:

No. 1. The discovery point of Dos Pobres #18 Lode is on the lode line, 135 ft. from East center end.
No value.

No. 2. A cut, the face of which bears N. $21^{\circ} 15'$ W., 270 ft. from Cor. No. 1 of Dos Pobres #18 Lode, 7 ft. wide, 12 ft. face, running South 10 ft. to face.
Value, \$150.00.

No. 3. A cut, the face of which bears N. $55^{\circ} 45'$ W., 725 ft. from Cor. No. 1 of Dos Pobres #18 Lode, 8 ft. wide, 7 ft. face, running North 6 ft. to face.
Value, \$100.00.

No. 4. A-40 drill hole, bears S. $37^{\circ} 30'$ W., 260 ft. from Cor. No. 4 of Dos Pobres #18 Lode, 200 ft. deep. (Drilled after survey completed.)
Value, \$1,059.00.

No. 5. A trench, the N.E. end of which bears S. $21^{\circ} 30'$ E., 215 ft. from Cor. No. 4 of Dos Pobres #18 Lode, 15 ft. wide, 5 ft. deep, running S.W. 100 ft. to face.
Value, \$340.00.

Dos Pobres #19 Lode:

No. 1. The discovery point of Dos Pobres #19 Lode is on the lode line, 620 ft. from East center end.
No value.

No. 2. A cut, the face of which bears S. $80^{\circ} 15'$ W., 700 ft. from Cor. No. 2 of Dos Pobres #19 Lode, 7 ft. wide, 10 ft. face, running West 7 ft. to face.
Value, \$150.00.

No. 3. A-39 drill hole, bears S. $42^{\circ} 30'$ W., 295 ft. from Cor. No. 2 of Dos Pobres #19 Lode, 200 ft. deep. (Drilled after survey completed.)
Value, \$964.00.

No. 4. A trench, the North end of which bears S. 50° 00' W., 290 ft. from Cor. No. 2 of Dos Pobres #19 Lode, 15 ft. wide, 4 ft. deep, running South 90 ft. to face.

Value, \$90.00.

No. 5. A trench, the North end of which bears S. 43° 25' W., 250 ft. from Cor. No. 2 of Dos Pobres #19 Lode, 15 ft. wide, 2 ft. deep, running South 60 ft. to face.

Value, \$80.00.

Dos Pobres #20 Lode:

No. 1. The discovery point of Dos Pobres #20 Lode is on the lode line, 330 ft. from East center end.
No value.

No. 2. A cut, the face of which bears S. 49° 10' W., 405 ft. from Cor. No. 1 of Dos Pobres #20 Lode, 7 ft. wide, 10 ft. face, running South 7 ft. to face.

Value, \$150.00.

No. 3. A bulldozer cut, the South end of which bears S. 80° 21' W., 415 ft. from Cor. No. 1 of Dos Pobres #20 Lode, 14 ft. wide, 10 ft. deep, running S.W. 60 ft. to face.

Value, \$127.00.

Dos Pobres #21 Lode:

No. 1. The discovery point of Dos Pobres #21 Lode is on the lode line, 512 ft. from East center end.
No value.

No. 2. A cut, the face of which bears S. 63° 25' W., 555 ft. from Cor. No. 1 of Dos Pobres #21 Lode, 7 ft. wide, 10 ft. face, running S.W. 5 ft. to face.

Value, \$140.00.

No. 3. A bulldozer cut, the South end of which bears N. 80° 40' W., 433 ft. from Cor. No. 2 of Dos Pobres #21 Lode, 14 ft. wide, 8 ft. deep, running N.W. 95 ft. to face.

Value, \$95.00.

No. 4. A-44 drill hole, bears N. 77° 22' W., 440 ft. from Cor. No. 2 of Dos Pobres #21 Lode, 100 ft. deep.

Value, \$506.75.

Dos Pobres #22 Lode:

No. 1. The discovery point of Dos Pobres #22 Lode is on the lode line, 440 ft. from North center end.
No value.

No. 2. A cut, the face of which bears S. 17° 00' W., 475 ft. from Cor. No. 4 of Dos Pobres #22 Lode, 7 ft. wide, 10 ft. face, running West 7 ft. to face.

Value, \$140.00.

Dos Pobres #23 Lode:

No. 1. The discovery point of Dos Pobres #23 Lode is on the lode line, 60 ft. from South center end.
No value.

No. 2. A cut, the face of which bears N. 84° 12' E., 192 ft. from South center end of Dos Pobres #23 Lode, 5 ft. wide, 10 ft. face, running N.E. 15 ft. to face.

Value, \$150.00.

Dos Pobres #24 Lode:

No. 1. The discovery point of Dos Pobres #24 Lode is on the lode line, 140 ft. from North center end.
No value.

No. 2. A cut, the face of which bears S. 26° 35' W., 159 ft. from Cor. No. 3 of Dos Pobres #24 Lode, 5 ft. wide, 10 ft. face, running West 20 ft. to face.

Value, \$200.00.

No. 3. A cut, the face of which bears S. 18° 00' W., 250 ft. from Cor. No. 3 of Dos Pobres #24 Lode, 6 ft. wide, 10 ft. face, running South 24 ft. to face.

Value, \$250.00.

Dos Pobres #25 Lode:

No. 1. The discovery point of Dos Pobres #25 Lode is on the lode line, 270 ft. from North center end.
No value.

No. 2. A cut, the face of which bears S. 22° 25' W., 280 ft. from Cor. No. 2 of Dos Pobres #25 Lode, 8 ft. wide, 10 ft. face, running West 10 ft. to face.

Value, \$150.00.

No. 3. A-32 drill hole, bears S. 48° 47' E., 317 ft. from Cor. No. 3 of Dos Pobres #25 Lode, 200 ft. deep.

Value, \$1,032.50.

Dos Pobres #26 Lode:

No. 1. The discovery point of Dos Pobres #26 Lode is on the lode line, 385 ft. from North center end.
No value.

No. 2. A shaft, the center of which bears S. 31° 30' W., 425 ft. from Cor. No. 3 of Dos Pobres #26 Lode, 6 x 8 ft., 20 ft. deep.

Value, \$400.00.

No. 3. A cut, the face of which bears S. $11^{\circ} 55'$ W., 710 ft. from North center end of Dos Pobres #26 Lode, 8 ft. wide, 10 ft. face, running North 14 ft. to face.

Value, \$250.00.

No. 4. A-33 drill hole, bears S. $20^{\circ} 10'$ W., 375 ft. from Cor. No. 3 of Dos Pobres #26 Lode, 200 ft. deep.

Value, \$1,005.75.

No. 5. A trench, the East end of which bears S. $15^{\circ} 40'$ W., 405 ft. from Cor. No. 3 of Dos Pobres #26 Lode, 15 ft. wide, 5 ft. deep, running West 150 ft. to face.

Value, \$276.00.

No. 6. A trench, the East end of which bears S. $26^{\circ} 45'$ W., 380 ft. from Cor. No. 3 of Dos Pobres #26 Lode, 15 ft. wide, 2 ft. deep, running N.W. 75 ft. to face.

Value, \$60.00.

Dos Pobres #27 Lode:

No. 1. The discovery point of Dos Pobres #27 Lode is on the lode line, 670 ft. from South center end.

No value.

No. 2. A cut, the face of which bears N. $1^{\circ} 55'$ W., 730 ft. from Cor. No. 1 of Dos Pobres #27 Lode, 8 ft. wide, 10 ft. face, running S.E. 15 ft. to face.

Value, \$200.00.

No. 3. A cut, the face of which bears N. $10^{\circ} 25'$ W., 695 ft. from Cor. No. 1 of Dos Pobres #27 Lode, 4 ft. wide, 7 ft. face, running N.W. 6 ft. to face.

Value, \$100.00.

No. 4. A cut, the face of which bears S. $45^{\circ} 20'$ W., 90 ft. from North center end of Dos Pobres #27 Lode, 5 ft. wide, 7 ft. face, running S.W. 11 ft. to face.

Value, \$140.00.

No. 5. Drill hole, Rare Metals Corporation, bears N. $8^{\circ} 40'$ W., 803 ft. from Cor. No. 1 of Dos Pobres #27 Lode, 510 ft. deep.

Value, \$2,550.00.

Dos Pobres #28 Lode:

No. 1. The discovery point of Dos Pobres #28 Lode is on the lode line, 550 ft. from North center end.

No value.

No. 2. A cut, the face of which bears S. $37^{\circ} 55'$ W., 635 ft. from Cor. No. 3 of Dos Pobres #28 Lode, 6 ft. wide, 11 ft. face, running South 10 ft. to face.

Value, \$250.00.

No. 3. A cut, the face of which bears N. 27° 00' E.,
425 ft. from Cor. No. 1 of Dos Pobres #28 Lode,
12 ft. wide, 12 ft. face, running S.E. 15 ft. to
face.

Value, \$250.00.

Gold Hill #1 Lode:

No. 1. The discovery point of Gold Hill #1 Lode is on
the lode line, 140 ft. from South center end.

No value.

No. 2. A cut, the face of which bears N. 30° 40' W.,
255 ft. from South center end of Gold Hill #1
Lode, 6 ft. wide, 11 ft. face, running West 11
ft. to face.

Value, \$150.00.

No. 3. A cut, the face of which bears N. 8° 20' E.,
370 ft. from South center end of Gold Hill #1
Lode, 10 ft. wide, 6 ft. face, running North
12 ft. to face.

Value, \$250.00.

No. 4. A cut, the face of which bears N. 14° 28' E.,
255 ft. from Cor. No. 4 of Gold Hill #1 Lode,
5 ft. wide, 4 ft. face, running North 23 ft.
to face.

Value, \$100.00.

Gold Hill #2 Lode:

No. 1. The discovery point of Gold Hill #2 Lode is
on the lode line, 100 ft. from South center end.

No value.

No. 2. A cut, the face of which bears N. 40° 43' W.,
127 ft. from South center end of Gold Hill #2
Lode, 6 ft. wide, 10 ft. face, running N.E. 12
ft. to face.

Value, \$140.00.

No. 3. A cut, the face of which bears S. 23° 26' E.,
65 ft. from Cor. No. 4 of Gold Hill #2 Lode, 8
ft. wide, 10 ft. face, running N.W. 10 ft. to
face.

Value, \$140.00.

No. 4. A bulldozer cut, the West end of which bears
N. 7° 56' E., 730 ft. from Cor. No. 3 of Gold
Hill #2 Lode, 14 ft. wide, 1 ft. deep, running
West 40 ft. to face.

Value, \$26.00.

No. 5. A bulldozer cut, the West end of which bears
N. 8° 31' E., 700 ft. from Cor. No. 3 of Gold
Hill #2 Lode, 14 ft. wide, 2 ft. deep, running
West 40 ft. to face.

Value, \$26.00.

No. 6. A bulldozer cut, the West end of which bears N. 8° 00' E., 675 ft. from Cor. No. 3 of Gold Hill #2 Lode, 14 ft. wide, 1 ft. deep, running West 40 ft. to face.
Value, \$26.00.

No. 7. A bulldozer cut, the West end of which bears N. 9° 11' E., 645 ft. from Cor. No. 3 of Gold Hill #2 Lode, 14 ft. wide, 2 ft. deep, running West 40 ft. to face.
Value, \$26.00.

No. 8. A-62 drill hole, bears N. 12° 40' E., 683 ft. from Cor. No. 3 of Gold Hill #2 Lode, 100 ft. deep.
Value, \$524.75.

Gold Hill #3 Lode:

No. 1. The discovery point of Gold Hill #3 Lode is on the lode line, 50 ft. from South center end.
No value.

No. 2. A cut, the face of which bears N. 51° 32' E., 80 ft. from South center end of Gold Hill #3 Lode, 8 ft. wide, 10 ft. face, running East 8 ft. to face.
Value, \$140.00.

No. 3. A bulldozer cut, the East end of which bears S. 25° 50' W., 580 ft. from Cor. No. 2 of Gold Hill #3 Lode, 14 ft. wide, 10 ft. deep, running West 100 ft. to face.
Value, \$64.00.

Gold Hill #6 Lode:

No. 1. The discovery point of Gold Hill #6 Lode is on the lode line, 295 ft. from North center end.
No value.

No. 2. A cut, the face of which bears S. 31° 10' E., 355 ft. from Cor. No. 2 of Gold Hill #6 Lode, 8 ft. wide, 10 ft. face, running S.E. 10 ft. to face.
Value, \$140.00.

No. 3. A bulldozer cut, the South end of which bears S. 3° 11' W., 305 ft. from North center end of Gold Hill #6 Lode, 14 ft. wide, 8 ft. deep, running North 65 ft. to face.
Value, \$106.00.

No. 4. A bulldozer cut, the South end of which bears S. 14° 00' W., 332 ft. from North center end of Gold Hill #6 Lode, 14 ft. wide, 6 ft. deep, running North 110 ft. to face.
Value, \$169.00.

No. 5. A-46 drill hole, bears S. 3° 11' W., 305 ft. from North center end of Gold Hill #6 Lode, 100 ft. deep.
Value, \$560.75.

Gold Hill #7 Lode:

- No. 1. The discovery point of Gold Hill #7 Lode is on the lode line, 20 ft. from North center end.
No value.
- No. 2. A cut, the face of which bears S. 65° 29' W., 52 ft. from North center end of Gold Hill #7 Lode, 7 ft. wide, 11 ft. face, running S.E. 7 ft. to face.
Value, \$150.00.
- No. 3. A cut, the face of which bears S. 85° 10' W., 25 ft. from North center end of Gold Hill #7 Lode, 6 ft. wide, 12 ft. face, running S.E. 6 ft. to face.
Value, \$100.00.
- No. 4. A bulldozer cut, the South end of which bears S. 33° 21' W., 110 ft. from North center end of Gold Hill #7 Lode, 14 ft. wide, 5 ft. deep, running North 90 ft. to face.
Value, \$127.00.
- No. 5. A-49 drill hole, bears S. 33° 21' W., 110 ft. from North center end of Gold Hill #7 Lode, 100 ft. deep.
Value, \$488.75.

Gold Hill #8 Lode:

- No. 1. The discovery point of Gold Hill #8 Lode is on the lode line, 100 ft. from North center end.
No value.
- No. 2. A cut, the face of which bears S. 11° 55' E., 572 ft. from Cor. No. 2 of Gold Hill #8 Lode, 6 ft. wide, 10 ft. face, running S.E. 13 ft. to face.
Value, \$250.00.
- No. 3. A bulldozer cut, the West end of which bears S. 69° 34' E., 320 ft. from Cor. No. 2 of Gold Hill #8 Lode, 14 ft. wide, 3 ft. deep, running East 45 ft. to face.
Value, \$21.00.
- No. 4. A bulldozer cut, the West end of which bears S. 63° 04' E., 330 ft. from Cor. No. 2 of Gold Hill #8 Lode, 14 ft. wide, 3 ft. deep, running East 50 ft. to face.
Value, \$21.00.
- No. 5. A bulldozer cut, the West end of which bears S. 59° 19' E., 340 ft. from Cor. No. 2 of Gold Hill #8 Lode, 14 ft. wide, 2 ft. deep, running East 60 ft. to face.
Value, \$21.00.

No. 6. A bulldozer cut, the West end of which bears S. 55° 29' E., 350 ft. from Cor. No. 2 of Gold Hill #8 Lode, 14 ft. wide, 2 ft. deep, running East 55 ft. to face.

Value, \$21.00.

No. 7. A bulldozer cut, the West end of which bears S. 51° 59' E., 360 ft. from Cor. No. 2 of Gold Hill #8 Lode, 14 ft. wide, 2 ft. deep, running East 60 ft. to face.

Value, \$21.00.

No. 8. A bulldozer cut, the West end of which bears S. 48° 29' E., 380 ft. from Cor. No. 2 of Gold Hill #8 Lode, 14 ft. wide, 2 ft. deep, running East 60 ft. to face.

Value, \$21.00.

No. 9. A-60 drill hole, bears S. 65° 48' E., 314 ft. from Cor. No. 2 of Gold Hill #8 Lode, 100 ft. deep.

Value, \$488.75.

Gold Hill #9 Lode:

No. 1. The discovery point of Gold Hill #9 Lode is on the lode line, 95 ft. from North center end.
No value.

No. 2. A shaft, the center of which bears S. 27° 21' W., 126 ft. from North center end of Gold Hill #9 Lode, 9 x 6 ft., 8 ft. deep.

Value, \$240.00.

Gold Hill #10 Lode:

No. 1. The discovery point of Gold Hill #10 Lode is on the lode line, 170 ft. from South center end.
No value.

No. 2. A shaft, the center of which bears N. 2° 08' E., 160 ft. from South center end of Gold Hill #10 Lode, 6 x 4 ft., 8 ft. deep.

Value, \$140.00.

No. 3. A bulldozer cut, the East end of which bears N. 00° 20' W., 570 ft. from Cor. No. 2 of Gold Hill #10 Lode, 14 ft. wide, 3 ft. deep, running West 65 ft. to face.

Value, \$29.00.

No. 4. A bulldozer cut, the East end of which bears N. 00° 10' W., 540 ft. from Cor. No. 2 of Gold Hill #10 Lode, 14 ft. wide, 2 ft. deep, running West 65 ft. to face.

Value, \$29.00.

No. 5. A bulldozer cut, the East end of which bears N. 1° 00' E., 510 ft. from Cor. No. 2 of Gold Hill #10 Lode, 14 ft. wide, 3 ft. deep, running West 55 ft. to face.

Value, \$29.00.

No. 6. A bulldozer cut, the East end of which bears N. $00^{\circ} 10'$ E., 480 ft. from Cor. No. 2 of Gold Hill #10 Lode, 14 ft. wide, 2 ft. deep, running West 60 ft. to face.

Value, \$29.00.

No. 7. A bulldozer cut, the East end of which bears N. $1^{\circ} 00'$ W., 450 ft. from Cor. No. 2 of Gold Hill #10 Lode, 14 ft. wide, 2 ft. deep, running West 55 ft. to face.

Value, \$29.00.

No. 8. A-61 drill hole, bears N. $1^{\circ} 15'$ W., 508 ft. from Cor. No. 2 of Gold Hill #10 Lode, 100 ft. deep.

Value, \$500.75.

Gold Hill #11 Lode:

No. 1. The discovery point of Gold Hill #11 Lode is on the lode line, 410 ft. from North center end.
No value.

No. 2. A cut, the face of which bears S. $23^{\circ} 50'$ W., 422 ft. from Cor. No. 1 of Gold Hill #11 Lode, 5 ft. wide, 10 ft. face, running West 10 ft. to face.

Value, \$150.00.

Gold Hill #12 Lode:

No. 1. The discovery point of Gold Hill #12 Lode is on the lode line, 341 ft. from South center end.
No value.

No. 2. A cut, the face of which bears N. $39^{\circ} 20'$ E., 428 ft. from South center end of Gold Hill #12 Lode, 6 ft. wide, 10 ft. face, running East 8 ft. to face.

Value, \$150.00.

No. 3. A cut, the face of which bears N. $44^{\circ} 51'$ E., 277 ft. from South center end of Gold Hill #12 Lode, 7 ft. wide, 6 ft. face, running West 10 ft. to face.

Value, \$150.00.

No. 4. A shaft, the center of which bears S. $43^{\circ} 05'$ W., 475 ft. from Cor. No. 2 of Gold Hill #12 Lode, 7 x 7 ft., 6 ft. deep.

Value, \$140.00.

No. 5. A bulldozer cut, the South end of which bears N. $25^{\circ} 49'$ W., 211 ft. from South center end of Gold Hill #12 Lode, 14 ft. wide, 8 ft. deep, running North 90 ft. to face.

Value, \$120.00.

Gold Hill #13 Lode:

- No. 1. The discovery point of Gold Hill #13 Lode is on the lode line, 612 ft. from South center end.
No value.
- No. 2. A cut, the face of which bears N. 13° 30' E., 620 ft. from South center end of Gold Hill #13 Lode, 5 ft. wide, 10 ft. face, running S.E. 8 ft. to face.
Value, \$140.00.
- No. 3. A bulldozer cut, the South end of which bears N. 23° 40' E., 255 ft. from Cor. No. 3 of Gold Hill #13 Lode, 14 ft. wide, 5 ft. deep, running North 110 ft. to face.
Value, \$106.00.
- No. 4. A bulldozer cut, the South end of which bears N. 48° 50' E., 300 ft. from Cor. No. 3 of Gold Hill #13 Lode, 14 ft. wide, 5 ft. deep, running South 70 ft. to face.
Value, \$80.00.
- No. 5. A bulldozer cut, the South end of which bears N. 70° 55' E., 550 ft. from Cor. No. 3 of Gold Hill #13 Lode, 14 ft. wide, 6 ft. deep, running North 105 ft. to face.
Value, \$160.00.
- No. 6. A-48 drill hole, bears N. 38° 50' E., 342 ft. from Cor. No. 3 of Gold Hill #13 Lode, 100 ft. deep.
Value, \$610.50.

Gold Hill #14 Lode:

- No. 1. The discovery point of Gold Hill #14 Lode is on the lode line, 155 ft. from East center end.
No value.
- No. 2. A cut, the face of which bears N. 73° 35' W., 92 ft. from East center end of Gold Hill #14 Lode, 8 ft. wide, 10 ft. face, running S.E. 8 ft. to face.
Value, \$140.00.

Gold Hill #15 Lode:

- No. 1. The discovery point of Gold Hill #15 Lode is on the lode line, 200 ft. from West center end.
No value.
- No. 2. A cut, the face of which bears S. 44° 20' E., 255 ft. from Cor. No. 1 of Gold Hill #15 Lode, 8 ft. wide, 10 ft. face, running South 8 ft. to face.
Value, \$140.00.

- No. 3. A cut, the face of which bears N. 0° 55' W.,
45 ft. from Cor. No. 3 of Gold Hill #15 Lode,
5 ft. wide, 11 ft. face, running N.E. 8 ft.
to face.

Value, \$140.00.

- No. 4. A bulldozer cut, the North end of which bears
S. 29° 20' E., 205 ft. from West center end of
Gold Hill #15 Lode, 14 ft. wide, 8 ft. deep,
running South 85 ft. to face.

Value, \$50.00.

- No. 5. A-47 drill hole, bears S. 25° 25' E., 245
ft. from West center end of Gold Hill #15 Lode,
100 ft. deep.

Value, \$569.75.

Gold Hill #16 Lode:

- No. 1. The discovery point of Gold Hill #16 Lode is
on the lode line, 700 ft. from North center end.

No value.

- No. 2. A shaft, the center of which bears S. 11°
00' W., 595 ft. from North center end of Gold
Hill #16 Lode, 6 x 6 ft., 10 ft. deep.

Value, \$140.00.

Gold Hill #17 Lode:

- No. 1. The discovery point of Gold Hill #17 Lode is
on the lode line, 45 ft. from North center end.

No value.

- No. 2. A cut, the face of which bears S. 55° 31' W.,
91 ft. from Cor. No. 1 of Gold Hill #17 Lode,
8 ft. wide, 11 ft. face, running N.W. 5 ft. to
face.

Value, \$150.00.

- No. 4. A bulldozer cut, the South end of which bears
N. 6° 56' E., 463 ft. from Cor. No. 2 of Gold
Hill #17 Lode, 14 ft. wide, 8 ft. deep, running
N.W. 60 ft. to face.

Value, \$74.00.

- No. 5. A bulldozer cut, the South end of which bears
N. 1° 34' W., 458 ft. from Cor. No. 2 of Gold
Hill #17 Lode, 14 ft. wide, 4 ft. deep, running
North 85 ft. to face.

Value, \$84.00.

Gold Hill #18 Lode:

- No. 1. The discovery point of Gold Hill #18 Lode is
on the lode line, 430 ft. from North center end.

No value.

- No. 2. A cut, the face of which bears S. 8° 25' W.,
444 ft. from North center end of Gold Hill #18
Lode, 10 ft. wide, 12 ft. face, running S.W.
10 ft. to face.
Value, \$150.00.

Gold Hill #19 Lode:

- No. 1. The discovery point of Gold Hill #19 Lode is
on the lode line, 155 ft. from South center end.
No value.

- No. 2. A cut, the face of which bears N. 32° 24' E.,
195 ft. from South center end of Gold Hill #19
Lode, 6 ft. wide, 10 ft. face, running N.E. 7
ft. to face.
Value, \$140.00.

- No. 3. A shaft, the center of which bears N. 10°
31' W., 746 ft. from South center end of Gold
Hill #19 Lode, 7 x 5 ft., 6 ft. deep.
Value, \$100.00.

Gold Hill #25 Lode:

- No. 1. The discovery point of Gold Hill #25 Lode is
on the lode line, 250 ft. from North center end.
No value.

- No. 2. A cut, the face of which bears S. 15° 53' W.,
263 ft. from Cor. No. 3 of Gold Hill #25 Lode,
8 ft. wide, 10 ft. face, running South 8 ft.
to face.
Value, \$200.00.

- No. 3. A bulldozer cut, the North end of which bears
S. 19° 59' W., 612 ft. from North center end of
Gold Hill #25 Lode, 30 ft. wide, 5 ft. deep,
running S.W. 115 ft. to face.
Value, \$140.00.

- No. 4. A bulldozer cut, the North end of which bears
S. 14° 09' E., 513 ft. from North center end of
Gold Hill #25 Lode, 14 ft. wide, 6 ft. deep,
running S.W. 105 ft. to face.
Value, \$95.00.

- No. 5. A-43 drill hole, bears S. 20° 08' W., 658
ft. from North center end of Gold Hill #25 Lode,
100 ft. deep.
Value, \$488.75.

Gold Hill #26 Lode:

- No. 1. The discovery point of Gold Hill #26 Lode is
on the lode line, 85 ft. from South center end.
No value.

- No. 2. A shaft, the center of which bears N. 4°
33' W., 75 ft. from Cor. No. 3 of Gold Hill #26
Lode, 5 x 12 ft., 10 ft. deep.
Value, \$200 00.

No. 3. A cut, the face of which bears S. 68° 20' W.,
40 ft. from North center end of Gold Hill #26
Lode, 5 ft. wide, 10 ft. face, running West
10 ft. to face.

Value, \$140.00.

No. 4. A bulldozer cut, the West end of which bears
S. 63° 40' E., 260 ft. from Cor. No. 1 of Gold
Hill #26 Lode, 14 ft. wide, 5 ft. deep, running
East 90 ft. to face.

Value, \$106.00.

No. 5. A bulldozer cut, the South end of which bears
S. 89° 16' E., 161 ft. from South center end of
Gold Hill #26 Lode, 14 ft. wide, 4 ft. deep,
running North 95 ft. to face.

Value, \$44.00.

Gold Hill #27 Lode:

No. 1. The discovery point of Gold Hill #27 Lode is
on the lode line, 260 ft. from South center end.
No value.

No. 2. A shaft, the center of which bears N. 24°
00' E., 238 ft. from South center end of Gold
Hill #27 Lode, 6 x 7 ft., 10 ft. deep.

Value, \$140.00.

No. 3. A cut, the face of which bears S. 31° 50' W.,
405 ft. from Cor. No. 3 of Gold Hill #27 Lode,
6 ft. wide, 12 ft. face, running N.E. 12 ft.
to face.

Value, \$200.00.

No. 4. A cut, the face of which bears S. 5° 30' E.,
645 ft. from Cor. No. 2 of Gold Hill #27 Lode,
5 ft. wide, 12 ft. face, running N.E. 25 ft.
to face.

Value, \$300.00.

Gold Hill #28 Lode:

No. 1. The discovery point of Gold Hill #28 Lode is
on the lode line, 470 ft. from North center end.
No value.

No. 2. A cut, the face of which bears S. 7° 45' W.,
455 ft. from Cor. No. 4 of Gold Hill #28 Lode,
7 ft. wide, 11 ft. face, running East 6 ft.
to face.

Value, \$150.00.

No. 3. A cut, the face of which bears N. 38° 30' W.,
435 ft. from Cor. No. 1 of Gold Hill #28 Lode,
7 ft. wide, 8 ft. face, running S.W. 10 ft. to
face.

Value, \$100.00.

- No. 4. A cut, the face of which bears S. $83^{\circ} 45'$ W.,
60 ft. from North center end of Gold Hill #28
Lode, 5 ft. wide, 10 ft. face, running S.E.
8 ft. to face.
Value, \$150.00.

Gold Hill #29 Lode:

- No. 1.. The discovery point of Gold Hill #29 Lode is
on the lode line, 125 ft. from South center end.
No value.

- No. 2. A cut, the face of which bears N. $0^{\circ} 50'$ E.,
113 ft. from Cor. No. 4 of Gold Hill #29 Lode,
7 ft. wide, 10 ft. face, running West 10 ft.
to face.
Value, \$150.00.

- No. 3. A bulldozer cut, the West end of which bears
N. $20^{\circ} 15'$ W., 26 ft. from South center end of
Gold Hill #29 Lode, 14 ft. wide, 3 ft. deep,
running East 80 ft. to face.
Value, \$85.00.

- No. 4. A bulldozer cut, the West end of which bears
S. $26^{\circ} 55'$ W., 575 ft. from Cor. No. 3 of Gold
Hill #29 Lode, 14 ft. wide, 6 ft. deep, running
N.W. 75 ft. to face.
Value, \$106.00.

Gold Hill #30 Lode:

- No. 1. The discovery point of Gold Hill #30 Lode is
on the lode line, 160 ft. from South center end.
No value.

- No. 2. A cut, the face of which bears N. $23^{\circ} 20'$ E.,
165 ft. from Cor. No. 2 of Gold Hill #30 Lode,
6 ft. wide, 10 ft. face, running S.E. 7 ft. to
face.
Value, \$150.00.

- No. 3. A cut, the face of which bears N. $10^{\circ} 20'$ E.,
113 ft. from Cor. No. 2 of Gold Hill #30 Lode,
7 ft. wide, 12 ft. face, running S.W. 7 ft. to
face.
Value, \$140.00.

- No. 4. A shaft, the center of which bears S. 15°
 $46'$ E., 116 ft. from Cor. No. 3 of Gold Hill
#30 Lode, 7 x 6 ft., 8 ft. deep.
Value, \$225.00.

Gold Hill #31 Lode:

- No. 1. The discovery point of Gold Hill #31 Lode is
on the lode line, 115 ft. from South center end.
No value.

No. 2. A cut, the face of which bears N. $8^{\circ} 55'$ E.,
76 ft. from South center end of Gold Hill #31
Lode, 10 ft. wide, 10 ft. face, running N.E.
8 ft. to face.

Value, \$250.00.

No. 3. A cut, the face of which bears S. $22^{\circ} 20'$ W.,
495 ft. from Cor. No. 3 of Gold Hill #31 Lode,
5 ft. wide, 10 ft. face, running N.E. 10 ft.
to face.

Value, \$140.00.

No. 4. A bulldozer cut, the West end of which bears
S. $27^{\circ} 42'$ W., 499 ft. from Cor. No. 3 of Gold
Hill #31 Lode, 14 ft. wide, 5 ft. deep, running
East 75 ft. to face.

Value, \$138.00.

No. 5. A-51 drill hole, bears N. $2^{\circ} 06'$ E., 118 ft.
from South center end of Gold Hill #31 Lode,
100 ft. deep.

Value, \$488.75.

Lucky Strike #1 Lode:

No. 1. The discovery point of Lucky Strike #1 Lode is
on the lode line, 630 ft. from West center end.

No value.

No. 2. A cut, the face of which bears S. $58^{\circ} 10'$ E.,
642 ft. from Cor. No. 1 of Lucky Strike #1 Lode,
6 ft. wide, 10 ft. face, running N.E. 15 ft. to
face.

Value, \$250.00.

No. 3. A shaft, the center of which bears S. 58°
 $10'$ E., 765 ft. from Cor. No. 1 of Lucky Strike
#1 Lode, 6 x 6 ft., 8 ft. deep.

Value, \$140.00.

No. 4. A shaft, the center of which bears N. 47°
 $30'$ W., 550 ft. from Cor. No. 3 of Lucky Strike
#1 Lode, 6 x 4 ft., 7 ft. deep.

Value, \$100.00.

No. 5. A cut, the face of which bears N. $49^{\circ} 30'$ W.,
545 ft. from Cor. No. 3 of Lucky Strike #1 Lode,
4 ft. wide, 4 ft. face, running North 5 ft. to
face.

Value, \$75.00.

No. 6. A cut, the face of which bears N. $44^{\circ} 50'$ W.,
387 ft. from Cor. No. 3 of Lucky Strike #1 Lode,
5 ft. wide, 8 ft. face, running N.E. 30 ft. to
face.

Value, \$300.00.

No. 7. A cut, the face of which bears S. $83^{\circ} 45'$ E.,
140 ft. from Cor. No. 4 of Lucky Strike #1 Lode,
8 ft. wide, 8 ft. face, running S.W. 14 ft. to
face.

Value, \$140.00.

No. 8. Drill hole; Rare Metals Corporation, bears
S. 74° 35' W., 518 ft. from Cor. No. 2 of Lucky
Strike #1 Lode, 650 ft. deep.
Value, \$3,250.00.

No. 9. A bulldozer cut, the South end of which bears
N. 83° 52' E., 257 ft. from Cor. No. 4 of Lucky
Strike #1 Lode, 14 ft. wide, 4 ft. deep, running
North 115 ft. to face.
Value, \$106.00.

No. 10. A bulldozer cut, the Southwest end of which
bears S. 65° 10' E., 690 ft. from Cor. No. 1 of
Lucky Strike #1 Lode, 14 ft. wide, 5 ft. deep,
running East 155 ft. to face.
Value, \$158.00.

No. 11. A bulldozer cut, the North end of which bears
S. 89° 50' W., 510 ft. from Cor. No. 2 of Lucky
Strike #1 Lode, 14 ft. wide, 3 ft. deep, running
S.W. 135 ft. to face.
Value, \$106.00.

Lucky Strike #2 Lode:

No. 1. The discovery point of Lucky Strike #2 Lode is
on the lode line, 620 ft. from East center end.
No value.

No. 2. A shaft, the center of which bears N. 72° 15' W.,
640 ft. from Cor. No. 3 of Lucky Strike #2 Lode,
7 x 7 ft., 8 ft. deep.
Value, \$140.00.

No. 3. A shaft, the center of which bears N. 44° 05' W.,
435 ft. from Cor. No. 3 of Lucky Strike #2 Lode,
10 x 8 ft., 15 ft. deep.
Value, \$250.00.

No. 4. A bulldozer cut, the South end of which bears
N. 67° 22' W., 630 ft. from Cor. No. 3 of Lucky
Strike #2 Lode, 14 ft. wide, 5 ft. deep, running
North 130 ft. to face.
Value, \$158.00.

Lucky Strike #3 Lode:

No. 1. The discovery point of Lucky Strike #3 Lode is
on the lode line, 290 ft. from West center end.
No value.

No. 2. A cut, the face of which bears S. 24° 20' E.,
370 ft. from Cor. No. 2 of Lucky Strike #3 Lode,
6 ft. wide, 14 ft. face, running S.E. 13 ft. to
face.
Value, \$180.00.

No. 3. A cut, the face of which bears N. 75° 05' W.,
320 ft. from Cor. No. 4 of Lucky Strike #3 Lode,
9 ft. wide, 7 ft. face, running East 14 ft. to face.
Value, \$150.00.

- No. 4. A bulldozer cut, the South end of which bears N. $48^{\circ} 12'$ W., 652 ft. from Cor. No. 4 of Lucky Strike #3 Lode, 14 ft. wide, 10 ft. deep, running N.W. 65 ft. to face.
Value, \$95.00.

Lucky Strike #4 Lode:

- No. 1. The discovery point of Lucky Strike #4 Lode is on the lode line, 645 ft. from West center end.
No value.
- No. 2. A shaft, the center of which bears S. $86^{\circ} 05'$ E., 650 ft. from Cor. No. 1 of Lucky Strike #4 Lode, 6 x 5 ft., 8 ft. deep.
Value, \$150.00.
- No. 3. A shaft, the center of which bears S. $81^{\circ} 05'$ E., 342 ft. from Cor. No. 1 of Lucky Strike #4 Lode, 5 x 8 ft., 8 ft. deep.
Value, \$140.00.
- No. 4. A shaft, the center of which bears N. $43^{\circ} 00'$ W., 100 ft. from Cor. No. 4 of Lucky Strike #4 Lode, 6 x 8 ft., 10 ft. deep.
Value, \$150.00.
- No. 5. A bulldozer cut, the North end of which bears N. $47^{\circ} 28'$ W., 532 ft. from Cor. No. 4 of Lucky Strike #4 Lode, 14 ft. wide, 2 ft. deep, running S.W. 130 ft. to face.
Value, \$53.00.
- No. 6. A bulldozer cut, the North end of which bears N. $79^{\circ} 11'$ E., 233 ft. from Cor. No. 1 of Lucky Strike #4 Lode, 14 ft. wide, 5 ft. deep, running East 110 ft. to face.
Value, \$95.00.

Lucky Strike #5 Lode:

- No. 1. The discovery point of Lucky Strike #5 Lode is on the lode line, 240 ft. from West center end.
No value.
- No. 2. A cut, the face of which bears S. $78^{\circ} 00'$ E., 362 ft. from Cor. No. 2 of Lucky Strike #5 Lode, 7 ft. wide, 12 ft. face, running N.W. 15 ft. to face.
Value, \$140.00.
- No. 3. A cut, the face of which bears S. $35^{\circ} 00'$ E., 327 ft. from Cor. No. 2 of Lucky Strike #5 Lode, 4 ft. wide, 10 ft. face, running N.W. 10 ft. to face.
Value, \$100.00.
- No. 4. A cut, the face of which bears N. $58^{\circ} 25'$ W., 155 ft. from Cor. No. 4 of Lucky Strike #5 Lode, 6 ft. wide, 10 ft. face, running N.E. 13 ft. to face.
Value, \$150.00.

No. 5. A bulldozer cut, the East end of which bears S. $39^{\circ} 56'$ W., 219 ft. from East center end of Lucky Strike #5 Lode, 14 ft. wide, 12 ft. deep, running West 80 ft. to face.
Value, \$95.00.

No. 6. A bulldozer cut, the North end of which bears N. $0^{\circ} 12'$ E., 39 ft. from East center end of Lucky Strike #5 Lode, 14 ft. wide, 5 ft. deep, running S.W. 80 ft. to face.
Value, \$127.00.

Lucky Strike #6 Lode:

No. 1. The discovery point of Lucky Strike #6 Lode is on the lode line, 430 ft. from West center end.
No value.

No. 2. A cut, the face of which bears S. $81^{\circ} 00'$ E., 431 ft. from Cor. No. 3 of Lucky Strike #6 Lode, 6 ft. wide, 10 ft. face, running N.W. 10 ft. to face.
Value, \$100.00.

No. 3. A cut, the face of which bears N. $72^{\circ} 57'$ E., 163 ft. from West center end of Lucky Strike #6 Lode, 5 ft. wide, 10 ft. face, running N.E. 8 ft. to face.
Value, \$140.00.

No. 4. A shaft, the center of which bears East, 250 ft. from West center end of Lucky Strike #6 Lode, 4 x 6 ft., 8 ft. deep.
Value, \$140.00.

Lucky Strike #7 Lode:

No. 1. The discovery point of Lucky Strike #7 Lode is on the lode line, 240 ft. from East center end.
No value.

No. 2. A cut, the face of which bears N. $71^{\circ} 00'$ W., 237 ft. from Cor. No. 2 of Lucky Strike #7 Lode, 6 ft. wide, 12 ft. face, running South 13 ft. to face.
Value, \$180.00.

No. 3. A bulldozer cut, the North end of which bears S. $37^{\circ} 04'$ E., 590 ft. from Cor. No. 4 of Lucky Strike #7 Lode, 14 ft. wide, 10 ft. deep, running South 90 ft. to face.
Value, \$84.00.

Lucky Strike #8 Lode:

No. 1. The discovery point of Lucky Strike #8 Lode is on the lode line, 485 ft. from East center end.
No value.

No. 2. A cut, the face of which bears N. $51^{\circ} 15'$ W.,
495 ft. from Cor. No. 1 of Lucky Strike #8 Lode,
6 ft. wide, 10 ft. face, running West 12 ft. to
face.

Value, \$140.00.

No. 3. A cut, the face of which bears N. $84^{\circ} 35'$ E.,
700 ft. from Cor. No. 2 of Lucky Strike #8 Lode,
7 ft. wide, 6 ft. face, running N.W. 12 ft. to face.

Value, \$140.00.

No. 4. A shaft, the center of which bears N. $88^{\circ} 05'$ E.,
628 ft. from Cor. No. 2 of Lucky Strike #8 Lode,
13 x 9 ft., 5 ft. deep.

Value, \$100.00.

No. 5. A cut, the face of which bears S. $83^{\circ} 45'$ W.,
355 ft. from Cor. No. 4 of Lucky Strike #8 Lode,
6 ft. wide, 6 ft. face, running East 10 ft. to face.

Value, \$140.00.

No. 6. A bulldozer cut, the South end of which bears
S. $87^{\circ} 50'$ E., 242 ft. from Cor. No. 2 of Lucky
Strike #8 Lode, 14 ft. wide, 8 ft. deep, running
North 90 ft. to face.

Value, \$84.00.

Lucky Strike #9 Lode:

No. 1. The discovery point of Lucky Strike #9 Lode is
on the lode line, 470 ft. from East center end.
No value.

No. 2. A cut, the face of which bears N. $86^{\circ} 30'$ W.,
440 ft. from Cor. No. 4 of Lucky Strike #9 Lode,
8 ft. wide, 10 ft. face, running N.E. 8 ft. to face.

Value, \$150.00.

No. 3. A cut, the face of which bears S. $61^{\circ} 45'$ W.,
405 ft. from Cor. No. 4 of Lucky Strike #9 Lode,
8 ft. wide, 12 ft. face, running East 4 ft. to face.

Value, \$140.00.

Lucky Strike #10 Lode:

No. 1. The discovery point of Lucky Strike #10 Lode is
on the lode line, 640 ft. from West center end.
No value.

No. 2. A cut, the face of which bears N. $86^{\circ} 45'$ E.,
675 ft. from Cor. No. 1 of Lucky Strike #10 Lode,
5 ft. wide, 12 ft. face, running S.E. 9 ft. to face.

Value, \$200.00.

No. 3. A bulldozer cut, the South end of which bears
N. $77^{\circ} 19'$ W., 570 ft. from Cor. No. 4 of Lucky
Strike #10 Lode, 14 ft. wide, 8 ft. deep, running
North 65 ft. to face.

Value, \$85.00.

Lucky Strike #11 Lode:

No. 1. The discovery point of Lucky Strike #11 Lode is on the lode line, 547 ft. from West center end.
No value.

No. 2. A cut, the face of which bears N. 74° 30' W., 515 ft. from East center end of Lucky Strike #11 Lode, 5 ft. wide, 10 ft. face, running North 10 ft. to face.
Value, \$150.00.

No. 3. A cut, the face of which bears N. 88° 40' W., 220 ft. from East center end of Lucky Strike #11 Lode, 4 ft. wide, 10 ft. face, running North 10 ft. to face.
Value, \$140.00.

No. 4. A cut, the face of which bears S. 59° 45' E., 45 ft. from Cor. No. 1 of Lucky Strike #11 Lode, 6 ft. wide, 10 ft. face, running South 8 ft. to face.
Value, \$100.00.

No. 5. A bulldozer cut, the East end of which bears S. 86° 15' W., 125 ft. from East center end of Lucky Strike #11 Lode, 14 ft. wide, 5 ft. deep, running East 130 ft. to face.
Value, \$106.00.

No. 6. A bulldozer cut, the East end of which bears N. 70° 25' E., 168 ft. from East center end of Lucky Strike #11 Lode, 14 ft. wide, 2 ft. deep, running East 105 ft. to face.
Value, \$85.00.

No. 7. A bulldozer cut, the East end of which bears S. 57° 55' W., 267 ft. from East center end of Lucky Strike #11 Lode, 14 ft. wide, 2 ft. deep, running S.E. 130 ft. to face.
Value, \$45.00.

Lucky Strike #18 Lode:

No. 1. The discovery point of Lucky Strike #18 Lode is on the lode line, 480 ft. from West center end.
No value.

No. 2. A cut, the face of which bears S. 72° 45' E., 500 ft. from Cor. No. 1 of Lucky Strike #18 Lode, 5 ft. wide, 10 ft. face, running East 8 ft. to face.
Value, \$140.00.

No. 3. A bulldozer cut, the North end of which bears S. 70° 17' E., 447 ft. from Cor. No. 1 of Lucky Strike #18 Lode. 14 ft. wide, 14 ft. deep, running S.E. 90 ft. to face.
Value, \$95.00.

No. 4. A bulldozer cut, the North end of which bears S. $76^{\circ} 18'$ E., 505 ft. from Cor. No. 1 of Lucky Strike #18 Lode, 14 ft. wide, 3 ft. deep, running S.E. 80 ft. to face.
Value, \$25.00.

No. 5. A bulldozer cut, the North end of which bears S. $83^{\circ} 55'$ E., 565 ft. from Cor. No. 1 of Lucky Strike #18 Lode, 14 ft. wide, 7 ft. deep, running S.E. 165 ft. to face.
Value, \$95.00.

No. 6. A-57 drill hole, bears S. $66^{\circ} 43'$ E., 507 ft. from Cor. No. 1 of Lucky Strike #18 Lode, 100 ft. deep.
Value, \$488.75.

Larivel No. 1 Lode:

No. 1. The discovery point of Larivel No. 1 Lode is on the lode line, 25 ft. from North center end.
No value.

No. 2. A cut, the face of which bears S. $10^{\circ} 15'$ E., 685 ft. from Cor. No. 4 of Larivel No. 1 Lode, 12 ft. wide, 10 ft. face, running East 40 ft. to face.
Value, \$800.00.

No. 3. A cut, the face of which bears N. $3^{\circ} 10'$ W., 735 ft. from Cor. No. 2 of Larivel No. 1 Lode, 5 ft. wide, 10 ft. face, running N.W. 10 ft. to face.
Value, \$140.00.

No. 4. A cut, the face of which bears N. $11^{\circ} 50'$ W., 140 ft. from Cor. No. 2 of Larivel No. 1 Lode, 6 ft. wide, 15 ft. face, running East 20 ft. to face.
Value, \$400.00.

Larivel No. 2 Lode:

No. 1. The discovery point of Larivel No. 2 Lode is on the lode line, 25 ft. from North center end.
No value.

No. 2. A cut, the face of which bears N. $40^{\circ} 00'$ W., 435 ft. from Cor. No. 3 of Larivel No. 2 Lode, 10 ft. wide, 10 ft. face, running East 12 ft. to face.
Value, \$200.00.

No. 3. A cut, the face of which bears N. $22^{\circ} 30'$ W., 490 ft. from Cor. No. 3 of Larivel No. 2 Lode, 12 ft. wide, 10 ft. face, running North 15 ft. to face.
Value, \$300.00.

No. 4. A cut, the face of which bears N. $55^{\circ} 20'$ W.,
110 ft. from Cor. No. 3 of Larivel No. 2 Lode,
7 ft. wide, 10 ft. face, running North 11 ft.
to face.

Value, \$140.00.

Larivel No. 3 Lode:

No. 1. The discovery point of Larivel No. 3 Lode is
on the lode line, 25 ft. from North center end.
No value.

No. 2. A cut, the face of which bears N. $10^{\circ} 00'$ W.,
470 ft. from Cor. No. 2 of Larivel No. 3 Lode,
5 ft. wide, 10 ft. face, running West 9 ft. to
face.

Value, \$150.00.

No. 3. A cut, the face of which bears S. $37^{\circ} 19'$ E.,
190 ft. from Cor. No. 4 of Larivel No. 3 Lode,
7 ft. wide, 10 ft. face, running East 7 ft. to
face.

Value, \$100.00.

Larivel No. 4 Lode:

No. 1. The discovery point of Larivel No. 4 Lode is
on the lode line, 25 ft. from South center end.
No value.

No. 2. A shaft, the center of which bears N. 41°
 $05'$ E., 250 ft. from South center end of Larivel
No. 4 Lode, 8 x 10 ft., 12 ft. deep.

Value, \$250.00.

No. 3. A cut, the face of which bears N. $16^{\circ} 26'$ W.,
286 ft. from South center end of Larivel No. 4
Lode, 7 ft. wide, 12 ft. face, running N.W. 7
ft. to face.

Value, \$100.00.

Larivel No. 5 Lode:

No. 1. The discovery point of Larivel No. 5 Lode is
on the lode line, 25 ft. from South center end.
No value.

No. 2. A shaft, the center of which bears N. 16°
 $35'$ W., 175 ft. from Cor. No. 4 of Larivel No. 5
Lode, 6 x 6 ft., 10 ft. deep.

Value, \$150.00.

Larivel No. 6 Lode:

No. 1. The discovery point of Larivel No. 6 Lode is
on the lode line, 25 ft. from South center end.
No value.

No. 2. A shaft, the center of which bears N. 8°
 $30'$ W., 568 ft. from Cor. No. 1 of Larivel No.
6 Lode, 10 x 5 ft., 20 ft. deep.

Value, \$500.00.

No. 3. A cut, the face of which bears N. $80^{\circ} 05'$ W.,
135 ft. from Cor. No. 1 of Larivel No. 6 Lode,
5 ft. wide, 8 ft. face, running West 5 ft. to
face.

Value, \$100.00.

No. 4. A cut, the face of which bears N. $10^{\circ} 15'$ E.,
760 ft. from Cor. No. 2 of Larivel No. 6 Lode,
8 ft. wide, 10 ft. face, running S.E. 8 ft. to
face.

Value, \$140.00.

Foothill #52 Lode:

No. 1. The discovery point of Foothill #52 Lode is
on the lode line, 100 ft. from East center end.
No value.

No. 2. A cut, the face of which bears S. $82^{\circ} 50'$ W.,
132 ft. from East center end of Foothill #52 Lode,
10 ft. wide, 10 ft. face, running N.E. 20 ft. to
face.

Value, \$500.00.

No. 3. A shaft, the center of which bears S. 56°
 $00'$ W., 190 ft. from Cor. No. 2 of Foothill #52
Lode, 4 x 6 ft., 8 ft. deep.

Value, \$140.00.

Foothill #53 Lode:

No. 1. The discovery point of Foothill #53 Lode is
on the lode line, 100 ft. from North center end.
No value.

No. 2. A shaft, the center of which bears S. 38°
 $30'$ E., 146 ft. from Cor. No. 1 of Foothill #53
Lode, 15 x 10 ft., 15 ft. deep.

Value, \$250.00.

No. 3. A shaft, the center of which bears S. 38°
 $30'$ E., 28 ft. from Cor. No. 1 of Foothill #53
Lode, 8 x 5 ft., 7 ft. deep.

Value, \$100.00.

Birthday #1 Lode:

No. 1. The discovery point of Birthday #1 Lode is
on the lode line, 490 ft. from West center end.
No value.

No. 2. A cut, the face of which bears S. $66^{\circ} 55'$ E.,
475 ft. from Cor. No. 4 of Birthday #1 Lode, 4 ft.
wide, 10 ft. face, running N.W. 12 ft. to face.

Value, \$140.00.

Birthday #3 Lode:

No. 1. The discovery point of Birthday #3 Lode is
on the lode line, 680 ft. from East center end.
No value.

- No. 2. A cut, the face of which bears S. $86^{\circ} 10'$ W.,
738 ft. from Cor. No. 4 of Birthday #3 Lode, 6 ft.
wide, 13 ft. face, running North 6 ft. to face.
Value, \$200.00.

Elevator #26 Lode:

- No. 1. The discovery point of Elevator #26 Lode is
on the lode line, 25 ft. from North center end.
No value.
- No. 2. A cut, the face of which bears S. $10^{\circ} 40'$ E.,
655 ft. from Cor. No. 1 of Elevator #26 Lode, 7
ft., wide, 10 ft. face, running West 9 ft. to face.
Value, \$150.00.
- No. 3. A bulldozer cut, the East end of which bears
S. $14^{\circ} 34'$ E., 710 ft. from Cor. No. 1 of Elevator
#26 Lode, 14 ft. wide, 8 ft. deep, running S.W.
50 ft. to face.
Value, \$116.00.

Elevator #27 Lode:

- No. 1. The discovery point of Elevator #27 Lode is
on the lode line, 25 ft. from North center end.
No value.
- No. 2. A cut, the face of which bears S. $2^{\circ} 45'$ W.,
665 ft. from Cor. No. 1 of Elevator #27 Lode,
5 ft. wide, 14 ft. face, running North 8 ft.
to face.
Value, \$150.00.

Elevator No. 28 Lode:

- No. 1. The discovery point of Elevator No. 28 Lode is
on the lode line, 25 ft. from North center end.
No value.
- No. 2. A cut, the face of which bears S. $9^{\circ} 55'$ W.,
670 ft. from Cor. No. 1 of Elevator No. 28 Lode,
20 ft. wide, 10 ft. face, running N.E. 11 ft.
to face.
Value, \$400.00.
- No. 3. A cut, the face of which bears N. $22^{\circ} 21'$ E.,
753 ft. from Cor. No. 3 of Elevator No. 28 Lode,
13 ft. wide, 11 ft. face, running N.E. 17 ft.
to face.
Value, \$200.00.
- No. 4. A cut, the face of which bears N. $26^{\circ} 39'$ E.,
725 ft. from Cor. No. 3 of Elevator No. 28 Lode,
5 ft. wide, 10 ft. face, running N.E. 10 ft.
to face.
Value, \$140.00.
- No. 5. A bulldozer cut, the North end of which bears
S. $78^{\circ} 11'$ W., 255 ft. from North center end of
Elevator No. 28 Lode, 14 ft. wide, 4 ft. deep,
running South 80 ft. to face.
Value, \$127.00.

Elevator No. 29 Lode:

No. 1. The discovery point of Elevator No. 29 Lode is on the lode line, 25 ft. from North center end.
No value.

No. 2. A cut, the face of which bears N. $78^{\circ} 55'$ E., 155 ft. from Cor. No. 4 of Elevator No. 29 Lode, 5 ft. wide, 12 ft. face, running East 8 ft. to face.
Value, \$150.00.

Red Dyke No. 1 Lode:

No. 1. The discovery point of Red Dyke No. 1 Lode is on the lode line, 55 ft. from North center end.
No value.

No. 2. A cut, the face of which bears S. $74^{\circ} 30'$ W., 115 ft. from Cor. No. 2 of Red Dyke No. 1 Lode, 7 ft. wide, 10 ft. face, running East 8 ft. to face.
Value, \$140.00.

No. 3. A cut, the face of which bears S. $13^{\circ} 50'$ W., 155 ft. from Cor. No. 2 of Red Dyke No. 1 Lode, 5 ft. wide, 6 ft. face, running North 10 ft. to face.
Value, \$100.00.

No. 4. A bulldozer cut, the South end of which bears N. $28^{\circ} 56'$ E., 495 ft. from Cor. No. 4 of Red Dyke No. 1 Lode, 14 ft. wide, 10 ft. deep, running North 80 ft. to face.
Value, \$106.00.

Red Dyke No. 2 Lode:

No. 1. The discovery point of Red Dyke No. 2 Lode is on the lode line 40 ft. from North center end.
No value.

No. 2. A cut, the face of which bears S. $87^{\circ} 01'$ W., 137 ft. from North center end of Red Dyke No. 2 Lode, 6 ft. wide, 10 ft. face, running N. E. 6 ft. to face.
Value, \$150.00.

No. 3. A cut, the face of which bears S. $21^{\circ} 20'$ E., 530 ft. from Cor. No. 4 of Red Dyke No. 2 Lode, 6 ft. wide, 10 ft. face, running North 12 ft. to face.
Value, \$150.00.

No. 4. A bulldozer cut, the South end of which bears N. $19^{\circ} 19'$ W., 1004 ft. from Cor. No. 2 of Red Dyke No. 2 Lode, 14 ft. wide, 5 ft. deep, running N.W. 50 ft. to face.
Value, \$63.00.

Red Dyke No. 3 Lode:

- No. 1. The discovery point of Red Dyke No. 3 Lode is on the lode line, 530 ft. from South center end.
No value.
- No. 2. A cut, the face of which bears N. $5^{\circ} 35'$ W., 565 ft. from South center end of Red Dyke No. 3 Lode, 4 ft. wide, 11 ft. face, running N.W. 9 ft. to face.
Value, \$150.00.
- No. 3. A cut, the face of which bears N. $13^{\circ} 35'$ W., 515 ft. from South center end of Red Dyke No. 3 Lode, 10 ft. wide, 12 ft. face, running N.E. 10 ft. to face.
Value, \$200.00.
- No. 4. A cut, the face of which bears S. $29^{\circ} 15'$ W., 640 ft. from Cor. No. 2 of Red Dyke No. 3 Lode, 8 ft. wide, 12 ft. face, running North 15 ft. to face.
Value, \$250.00.
- No. 5. A cut, the face of which bears S. $22^{\circ} 12'$ E., 150 ft. from Cor. No. 1 of Red Dyke No. 3 Lode, 4 ft. wide, 10 ft. face, running North 8 ft. to face.
Value, \$140.00.
- No. 6. A bulldozer cut, the South end of which bears N. $06^{\circ} 34'$ W., 560 ft. from South center end of Red Dyke No. 3 Lode, 14 ft. wide, 5 ft. deep, running N.W. 55 ft. to face.
Value, \$63.00.

Red Dyke No. 4 Lode:

- No. 1. The discovery point of Red Dyke No. 4 Lode is on the lode line, 395 ft. from North center end.
No value.
- No. 2. A cut, the face of which bears S. $18^{\circ} 50'$ W., 401 ft. from Cor. No. 1 of Red Dyke No. 4 Lode, 6 ft. wide, 11 ft. face, running N.E. 11 ft. to face.
Value, \$140.00.
- No. 3. A bulldozer cut, the North end of which bears S. $19^{\circ} 22'$ E., 579 ft. from Cor. No. 4 of Red Dyke No. 4 Lode, 14 ft. wide, 8 ft. deep, running South 75 ft. to face.
Value, \$127.00.

Red Dyke No. 5 Lode:

- No. 1. The discovery point of Red Dyke No. 5 Lode is on the lode line, 460 ft. from South center end.
No value.
- No. 2. A cut, the face of which bears N. $36^{\circ} 00'$ W., 500 ft. from Cor. No. 2 of Red Dyke No. 5 Lode, 4 ft. wide, 11 ft. face, running S.E. 15 ft. to face.
Value, \$150.00.

No. 3. A cut, the face of which bears S. 12° 55' E.,
755 ft. from Cor. No. 4 of Red Dyke No. 5 Lode, 8
ft. wide, 9 ft. face, running South 8 ft. to face.
Value, \$100.00.

No. 4. A bulldozer cut, the North end of which bears
S. 09° 25' E., 630 ft. from North center end of
Red Dyke No. 5 Lode, 14 ft. wide, 8 ft. deep,
running arcuate S.W. 120 ft. to face.
Value, \$127.00.

Red Dyke #6 Lode:

No. 1. The discovery point of Red Dyke #6 Lode is
on the lode line, 605 ft. from South center end.
No value.

No. 2. A cut, the face of which bears N. 1° 20' W.,
585 ft. from South center end of Red Dyke #6 Lode,
7 ft. wide, 10 ft. face, running West 5 ft. to face.
Value, \$150.00.

No. 3. A cut, the face of which bears N. 3° 25' E.,
630 ft. from South center end of Red Dyke #6 Lode,
10 ft. wide, 10 ft. face, running N.W. 11 ft. to
face.
Value, \$200.00.

No. 4. A cut, the face of which bears S. 28° 55' W.,
365 ft. from Cor. No. 2 of Red Dyke #6 Lode, 12 ft.
wide, 6 ft. face, running N.E. 30 ft. to face.
Value, \$500.00.

Red Dyke #7 Lode:

No. 1. The discovery point of Red Dyke #7 Lode is
on the lode line, 20 ft. from North center end.
No value.

No. 2. A shaft, the center of which bears S. 60°
46' E., 68 ft. from Cor. No. 1 of Red Dyke #7
Lode, 9 x 5 ft., 8 ft. deep.
Value, \$200.00.

No. 3. A cut, the face of which bears N. 14° 20' E.,
380 ft. from Cor. No. 4 of Red Dyke #7 Lode, 7
ft. wide, 8 ft. face, running N.W. 7 ft. to face.
Value, \$100.00.

No. 4. A bulldozer cut, the South end of which bears
N. 33° 47' E., 627 ft. from Cor. No. 4 of Red Dyke
#7 Lode, 14 ft. wide, 12 ft. deep, running East
75 ft. to face.
Value, \$84.00.

No. 5. A bulldozer cut, the North end of which bears
S. 16° 20' E., 678 ft. from Cor. No. 1 of Red Dyke
#7 Lode, 14 ft. wide, 8 ft. deep, running South
80 ft. to face.
Value, \$116.00.

- No. 6. A bulldozer cut, the North end of which bears S. $30^{\circ} 50'$ E., 531 ft. from Cor. No. 1 of Red Dyke #7 Lode, 14 ft. wide, 8 ft. deep, running S.E. 95 ft. to face.
Value, \$74.00.

Red Dyke #8 Lode:

- No. 1. The discovery point of Red Dyke #8 Lode is on the lode line, 465 ft. from North center end.
No value.
- No. 2. A shaft, the center of which bears S. $03^{\circ} 17'$ E., 520 ft. from North center end of Red Dyke #8 Lode, 9 x 5 ft., 8 ft. deep.
Value, \$150.00.
- No. 3. A bulldozer cut, the South end of which bears N. $38^{\circ} 14'$ W., 410 ft. from South center end of Red Dyke #8 Lode, 14 ft. wide, 9 ft. deep, running North 95 ft. to face.
Value, \$158.00.
- No. 4. A bulldozer cut, the North end of which bears S. $30^{\circ} 10'$ W., 575 ft. from Cor. No. 1 of Red Dyke #8 Lode, 14 ft. wide, 7 ft. deep, running South 145 ft. to face.
Value, \$147.00.
- No. 5. A bulldozer cut, the North end of which bears S. $41^{\circ} 10'$ W., 710 ft. from Cor. No. 1 of Red Dyke #8 Lode, 14 ft. wide, 8 ft. deep, running South 60 ft. to face.
Value, \$84.00.
- No. 6. A-56 drill hole, bears S. $26^{\circ} 10'$ W., 598 ft. from Cor. No. 1 of Red Dyke #8 Lode, 100 ft. deep.
Value, \$500.75.

Red Dyke #9 Lode:

- No. 1. The discovery point of Red Dyke #9 Lode is on the lode line, 650 ft. from South center end.
No value.
- No. 2. A shaft, the center of which bears N. $1^{\circ} 25'$ E., 643 ft. from South center end of Red Dyke #9 Lode, 9 x 5 ft., 8 ft. deep.
Value, \$150.00.
- No. 3. A shaft, the center of which bears N. $32^{\circ} 17'$ E., 60 ft. from Cor. No. 3 of Red Dyke #9 Lode, 7 x 7 ft., 12 ft. deep.
Value, \$200.00.
- No. 4. A cut, the face of which bears S. $33^{\circ} 45'$ E., 515 ft. from Cor. No. 4 of Red Dyke #9 Lode, 8 ft. wide, 10 ft. face, running West 5 ft. to face.
Value, \$150.00.

No. 5. A bulldozer cut, the North end of which bears S. 20° 25' W., 480 ft. from North center end of Red Dyke #9 Lode, 14 ft. wide, 8 ft. deep, running South 80 ft. to face.

Value, \$127.00.

No. 6. A bulldozer cut, the South end of which bears N. 18° 25' E., 201 ft. from Cor. No. 3 of Red Dyke #9 Lode, 14 ft. wide, 9 ft. deep, running North 110 ft. to face.

Value, \$95.00.

No. 7. A bulldozer cut, the South end of which bears N. 23° 10' E., 212 ft. from Cor. No. 3 of Red Dyke #9 Lode, 14 ft. wide, 3 ft. deep, running North 65 ft. to face.

Value, \$35.00.

Red Dyke #10 Lode:

No. 1. The discovery point of Red Dyke #10 Lode is on the lode line, 705 ft. from North center end.
No value.

No. 2. A shaft, the center of which bears S. 0° 03' W., 700 ft. from North center end of Red Dyke #10 Lode, 10 x 6 ft., 8 ft. deep.

Value, \$150.00.

No. 3. A cut, the face of which bears S. 13° 48' E., 412 ft. from Cor. No. 4 of Red Dyke #10 Lode, 4 ft. wide, 10 ft. face, running West 25 ft. to face.

Value, \$200.00.

No. 4. A bulldozer cut, the North end of which bears S. 46° 24' E., 556 ft. from Cor. No. 4 of Red Dyke #10 Lode, 14 ft. wide, 8 ft. deep, running S.E. 90 ft. to face.

Value, \$106.00.

Red Dyke #11 Lode:

No. 1. The discovery point of Red Dyke #11 Lode is on the lode line, 520 ft. from South center end.
No value.

No. 2. A shaft, the center of which bears N. 25° 58' W., 576 ft. from Cor. No. 3 of Red Dyke #11 Lode, 10 x 6 ft., 10 ft. deep.

Value, \$150.00.

No. 3. A bulldozer cut, the South end of which bears N. 15° 23' E., 899 ft. from Cor. No. 4 of Red Dyke #11 Lode, 14 ft. wide, 10 ft. deep, running N.E. 110 ft. to face.

Value, \$116.00.

No. 4. A bulldozer cut, the South end of which bears N. 07° 50' E., 459 ft. from Cor. No. 4 of Red Dyke #11 Lode, 14 ft. wide, 7 ft. deep, running N.E. 80 ft. to face.

Value, \$127.00.

Red Dyke #12 Lode:

- No. 1. The discovery point of Red Dyke #12 Lode is on the lode line, 55 ft. from South center end.
No value.
- No. 2. A shaft, the center of which bears N. 75° 10' E., 245 ft. from Cor. No. 4 of Red Dyke #12 Lode, 10 x 5 ft., 8 ft. deep.
Value, \$150.00.
- No. 3. A cut, the face of which bears S. 60° 25' E., 380 ft. from Cor. No. 1 of Red Dyke #12 Lode, 6 ft. wide, 10 ft. face, running N.E. 10 ft. to face.
Value, \$150.00.
- No. 4. A bulldozer cut, the North end of which bears S. 63° 40' E., 311 ft. from Cor. No. 1 of Red Dyke #12 Lode, 14 ft. wide, 14 ft. deep, running S.E. 135 ft. to face.
Value, \$137.00.
- No. 5. A bulldozer cut, the North end of which bears S. 82° 30' E., 416 ft. from Cor. No. 1 of Red Dyke #12 Lode, 14 ft. wide, 8 ft. deep, running South 55 ft. to face.
Value, \$106.00.

Red Dyke #15 Lode:

- No. 1. The discovery point of Red Dyke #15 Lode is on the lode line, 100 ft. from North center end.
No value.
- No. 2. A shaft, the center of which bears S. 1° 10' W., 97 ft. from North center end of Red Dyke #15 Lode, 7 x 7 ft., 9 ft. deep.
Value, \$150.00.
- No. 3. A cut, the face of which bears S. 24° 50' E., 205 ft. from North center end of Red Dyke #15 Lode, 12 ft. wide, 10 ft. face, running West 30 ft. to face.
Value, \$300.00.
- No. 4. A bulldozer cut, the North end of which bears S. 43° 38' W., 205 ft. from Cor. No. 1 of Red Dyke #15 Lode, 14 ft. wide, 10 ft. deep, running S.W. 110 ft. to face.
Value, \$106.00.
- No. 5. A bulldozer cut, the North end of which bears S. 04° 31' W., 214 ft. from Cor. No. 1 of Red Dyke #15 Lode, 14 ft. wide, 3 ft. deep, running South 70 ft. to face.
Value, \$84.00.
- No. 6. A bulldozer cut, the North end of which bears S. 04° 17' W., 60 ft. from Cor. No. 1 of Red Dyke #15 Lode, 14 ft. wide, 6 ft. deep, running South 55 ft. to face.
Value, \$147.00.

- No. 7. A-55 drill hole, bears S. $37^{\circ} 40'$ W., 258 ft. from Cor. No. 1 of Red Dyke #15 Lode, 100 ft. deep.
Value, \$646.75.

Red Ribbon #1 Lode:

- No. 1. The discovery point of Red Ribbon #1 Lode is on the lode line, 595 ft. from North center end.
No value.
- No. 2. A cut, the face of which bears S. $17^{\circ} 08'$ E., 618 ft. from Cor. No. 4 of Red Ribbon #1 Lode, 5 ft. wide, 10 ft. face, running East 10 ft. to face.
Value, \$140.00.
- No. 3. A bulldozer cut, the North end of which bears S. $24^{\circ} 23'$ E., 107 ft. from Cor. No. 4 of Red Ribbon #1 Lode, 14 ft. wide, 8 ft. deep, running South 50 ft. to face.
Value, \$53.00.
- No. 4. A bulldozer cut, the North end of which bears S. $22^{\circ} 40'$ W., 648 ft. from Cor. No. 1 of Red Ribbon #1 Lode, 14 ft. wide, 9 ft. deep, running South 80 ft. to face.
Value, \$106.00.
- No. 5. A bulldozer cut, the North end of which bears S. $08^{\circ} 40'$ W., 765 ft. from Cor. No. 1 of Red Ribbon #1 Lode, 14 ft. wide, 8 ft. deep, running S.E. 80 ft. to face.
Value, \$58.00.

Red Ribbon #2 Lode:

- No. 1. The discovery point of Red Ribbon #2 Lode is on the lode line, 40 ft. from North center end.
No value.
- No. 2. A cut, the face of which bears S. $78^{\circ} 25'$ W., 168 ft. from Cor. No. 2 of Red Ribbon #2 Lode, 5 ft. wide, 10 ft. face, running N.W. 12 ft. to face.
Value, \$140.00.
- No. 3. A bulldozer cut, the North end of which bears S. $58^{\circ} 04'$ E., 222 ft. from Cor. No. 1 of Red Ribbon #2 Lode, 14 ft. wide, 9 ft. deep, running S.W. 90 ft. to face.
Value, \$116.00.

Red Ribbon #6 Lode:

- No. 1. The discovery point of Red Ribbon #6 Lode is on the lode line, 180 ft. from South center end.
No value.
- No. 2. A cut, the face of which bears N. $20^{\circ} 00'$ W., 212 ft. from South center end of Red Ribbon #6 Lode, 6 ft. wide, 11 ft. face, running North 10 ft. to face.
Value, \$150.00.

Hades #1 Lode:

- No. 1. The discovery point of Hades #1 Lode is on the lode line, 285 ft. from West center end.
No value.
- No. 2. A cut, the face of which bears S. 50° 00' E., 300 ft. from Cor. No. 3 of Hades #1 Lode, 4 ft. wide, 11 ft. face, running East 11 ft. to face.
Value, \$140.00.
- No. 3. A-35 drill hole, bears S. 42° 09' W., 111 ft. from Cor. No. 4 of Hades #1 Lode, 1175 ft. deep.
(Drilled after survey completed.)
Value, \$4,841.00.

Hades #2 Lode:

- No. 1. The discovery point of Hades #2 Lode is on the lode line, 575 ft. from East center end.
No value.
- No. 2. A cut, the face of which bears S. 83° 30' W., 590 ft. from Cor. No. 1 of Hades #2 Lode, 6 ft. wide, 10 ft. face, running S.E. 10 ft. to face.
Value, \$140.00.
- No. 3. A cut, the face of which bears S. 76° 55' W., 540 ft. from Cor. No. 1 of Hades #2 Lode, 10 ft. wide, 12 ft. face, running South 5 ft. to face.
Value, \$200.00.

Sunset #1 Lode:

- No. 1. The discovery point of Sunset #1 Lode is on the lode line, 320 ft. from North center end.
No value.
- No. 2. A cut, the face of which bears S. 3° 19' W., 353 ft. from Cor. No. 3 of Sunset #1 Lode, 5 ft. wide, 12 ft. face, running S.E. 6 ft. to face.
Value, \$150.00.
- No. 3. A shaft, the center of which bears S. 42° 33' W., 262 ft. from Cor. No. 4 of Sunset #1 Lode .8 x 5 ft., 8 ft. deep.
Value, \$240.00.

Sunset #2 Lode:

- No. 1. The discovery point of Sunset #2 Lode is on the lode line, 30 ft. from North center end.
No value.
- No. 2. A cut, the face of which bears S. 76° 29' E., 45 ft. from Cor. No. 1 of Sunset #2 Lode, 8 ft. wide, 10 ft. face, running N.E. 15 ft. to face.
Value, \$250.00.
- No. 3. A bulldozer cut, the South end of which bears S. 21° 20' E., 52 ft. from Cor. No. 1 of Sunset #2 Lode, 14 ft. wide, 9 ft. deep, running North 55 ft. to face.
Value, \$95.00.

No. 4. A bulldozer cut, the North end of which bears N. $07^{\circ} 06'$ E., 75 ft. from South center end of Sunset #2 Lode, 14 ft. wide, 9 ft. deep, running N.W. 115 ft. to face.
Value, \$44.00.

No. 5. A-42 drill hole, bears S. $21^{\circ} 20'$ E., 52 ft. from Cor. No. 1 of Sunset #2 Lode, 100 ft. deep.
Value, \$514.50.

Sunset #3 Lode:

No. 1. The discovery point of Sunset #3 Lode is on the lode line, 200 ft. from North center end.
No value.

No. 2. A cut, the face of which bears S. $64^{\circ} 29'$ W., 330 ft. from Cor. No. 2 of Sunset #3 Lode, 4 ft. wide, 12 ft. face, running N.W. 11 ft. to face.
Value, \$300.00.

No. 3. A bulldozer cut, the South end of which bears S. $17^{\circ} 29'$ W., 191 ft. from North center end of Sunset #3 Lode, 14 ft. wide, 9 ft. deep, running North 85 ft. to face.
Value, \$106.00.

No. 4. A bulldozer cut, the North end of which bears S. $28^{\circ} 05'$ W., 641 ft. from North center end of Sunset #3 Lode, 14 ft. wide, 10 ft. deep, running South 95 ft. to face.
Value, \$60.00.

No. 5. A-54 drill hole, bears S. $17^{\circ} 29'$ W., 191 ft. from North center end of Sunset #3 Lode, 100 ft. deep.
Value, \$536.75.

Sunset #4 Lode:

No. 1. The discovery point of Sunset #4 Lode is on the lode line, 340 ft. from North center end.
No value.

No. 2. A cut, the face of which bears S. $46^{\circ} 15'$ W., 430 ft. from Cor. No. 1 of Sunset #4 Lode, 8 ft. wide, 10 ft. face, running N.W. 8 ft. to face.
Value, \$140.00.

No. 3. A bulldozer cut, the South end of which bears N. $32^{\circ} 49'$ W., 320 ft. from Cor. No. 2 of Sunset #4 Lode, 14 ft. wide, 8 ft. deep, running South 70 ft. to face.
Value, \$85.00.

No. 4. A bulldozer cut, the South end of which bears N. $14^{\circ} 39'$ W., 192 ft. from Cor. No. 2 of Sunset #4 Lode, 14 ft. wide, 3 ft. deep, running S.W. 70 ft. to face.
Value, \$53.00.

Sunset #5 Lode:

- No. 1. The discovery point of Sunset #5 Lode is on the lode line, 630 ft. from South center end.
No value.
- No. 2. A cut, the face of which bears N. $04^{\circ} 30'$ W., 665 ft. from South center end of Sunset #5 Lode, 6 ft. wide, 12 ft. face, running N.E. 7 ft. to face.
Value, \$140.00.

Sunset #6 Lode:

- No. 1. The discovery point of Sunset #6 Lode is on the lode line, 20 ft. from South center end.
No value.
- No. 2. A shaft, the center of which bears N. $26^{\circ} 19'$ W., 32 ft. from Cor. No. 4 of Sunset #6 Lode, 6 x 4 ft., 8 ft. deep.
Value, \$150.00.
- No. 3. A bulldozer cut, the South end of which bears N. $27^{\circ} 59'$ W., 38 ft. from Cor. No. 4 of Sunset #6 Lode, 14 ft. wide, 6 ft. deep, running N.E. 50 ft. to face.
Value, \$30.00.
- No. 4. A bulldozer cut, the North end of which bears N. $49^{\circ} 48'$ W., 136 ft. from Cor. No. 4 of Sunset #6 Lode, 14 ft. wide, 5 ft. deep, running North 80 ft. to face.
Value, \$30.00.
- No. 5. A bulldozer cut, the South end of which bears N. $52^{\circ} 49'$ W., 240 ft. from Cor. No. 4 of Sunset #6 Lode, 14 ft. wide, 8 ft. deep, running N.E. 100 ft. to face.
Value, \$74.00.
- No. 6. A-53 drill hole, bears N. $27^{\circ} 59'$ W., 38 ft. from Cor. No. 4 of Sunset #6 Lode, 100 ft. deep.
Value, \$572.75.

Sunset #7 Lode:

- No. 1. The discovery point of Sunset #7 Lode is on the lode line, 20 ft. from South center end.
No value.
- No. 2. A cut, the face of which bears N. $36^{\circ} 00'$ E., 35 ft. from Cor. No. 1 of Sunset #7 Lode, 6 ft. wide, 10 ft. face, running N.W. 12 ft. to face.
Value, \$200.00.
- No. 3. A bulldozer cut, the South end of which bears S. $76^{\circ} 37'$ E., 68 ft. from Cor. No. 1 of Sunset #7 Lode, 14 ft. wide, 9 ft. deep, running North 80 ft. to face.
Value, \$53.00.

No. 4. A bulldozer cut, the South end of which bears N. $08^{\circ} 10'$ E., 210 ft. from Cor. No. 1 of Sunset #7 Lode, 14 ft. wide, 3 ft. deep, running North 135 ft. to face.

Value, \$21.00.

No. 5. A bulldozer cut, the East end of which bears N. $22^{\circ} 50'$ E., 280 ft. from Cor. No. 1 of Sunset #7 Lode, 14 ft. wide, 3 ft. deep, running N.W. 40 ft. to face.

Value, \$21.00.

No. 6. A-52 drill hole, bears S. $76^{\circ} 37'$ E., 68 ft. from Cor. No. 1 of Sunset #7 Lode, 100 ft. deep.

Value, \$488.75.

Sunset #8 Lode:

No. 1. The discovery point of Sunset #8 Lode is on the lode line, 20 ft. from South center end.

No value.

No. 2. A shaft, the center of which bears N. $56^{\circ} 40'$ E., 12 ft. from Cor. No. 3 of Sunset #8 Lode, 6 x 6 ft., 8 ft. deep.

Value, \$140.00.

No. 3. A cut, the face of which bears N. $19^{\circ} 00'$ W., 430 ft. from Cor. No. 2 of Sunset #8 Lode, 4 ft. wide, 13 ft. face, running West 10 ft. to face.

Value, \$100.00.

Sunset #9 Lode:

No. 1. The discovery point of Sunset #9 Lode is on the lode line, 685 ft. from North center end.

No value.

No. 2. A cut, the face of which bears S. $2^{\circ} 35'$ E., 695 ft. from North center end of Sunset #9 Lode, 4 ft. wide, 10 ft. face, running East 10 ft. to face.

Value, \$150.00.

Arrowhead #1 Lode:

No. 1. The discovery point of Arrowhead #1 Lode is on the lode line, 115 ft. from South center end.

No value.

No. 2. A shaft, the center of which bears N. $09^{\circ} 28'$ W., 140 ft. from South center end of Arrowhead #1 Lode, 5 x 7 ft., 10 ft. deep.

No value.

No. 3. A cut, the face of which bears N. $09^{\circ} 58'$ W., 370 ft. from Cor. No. 1 of Arrowhead #1 Lode, 6 ft. wide, 7 ft. face, running West 4 ft. to face.

No value.

No. 4. A shaft, the center of which bears N. 21° 35' W., 450 ft. from Cor. No. 1 of Arrowhead #1 Lode, 10 x 7 ft., 8 ft. deep.
No value.

No. 5. A bulldozer cut, the South end of which bears N. 17° 56' E., 216 ft. from South center end of Arrowhead #1 Lode, 14 ft. wide, 8 ft. deep, running N.E. 85 ft. to face.
Value, \$53.00.

No. 6. A bulldozer cut, the South end of which bears N. 11° 41' W., 314 ft. from Cor. No. 1 of Arrowhead #1 Lode, 14 ft. wide, 3 ft. deep, running N.E. 230 ft. to face.
Value, \$85.00.

No. 7. A-58 drill hole, bears N. 04° 13' W., 401 ft. from Cor. No. 1 of Arrowhead #1 Lode, 200 ft. deep.
Value, \$1,065.75.

Arrowhead #2 Lode:

No. 1. The discovery point of Arrowhead #2 Lode is on the lode line, 170 ft. from South center end.
No value.

No. 2. A cut, the face of which bears N. 8° 15' E., 170 ft. from South center end of Arrowhead #2 Lode, 6 ft. wide, 10 ft. face, running S.W. 10 ft. to face.
Value, \$150.00.

No. 3. A cut, the face of which bears S. 27° 00' E., 405 ft. from Cor. No. 2 of Arrowhead #2 Lode, 6 ft. wide, 10 ft. face, running N.W. 10 ft. to face.
Value, \$150.00.

Arrowhead #3 Lode:

No. 1. The discovery point of Arrowhead #3 Lode is on the lode line, 315 ft. from South center end.
No value.

No. 2. A shaft, the center of which bears N. 52° 55' W., 400 ft. from Cor. No. 1 of Arrowhead #3 Lode, 6 x 5 ft., 8 ft. deep.
No value.

No. 3. A cut, the face of which bears N. 32° 10' W., 232 ft. from Cor. No. 1 of Arrowhead #3 Lode, 5 ft. wide, 11 ft. face, running N.W. 8 ft. to face.
No value.

No. 4. A cut, the face of which bears N. 57° 55' W., 125 ft. from Cor. No. 1 of Arrowhead #3 Lode, 8 ft. wide, 10 ft. face, running N.W. 4 ft. to face.
No value.

- No. 5. A bulldozer cut, the South end of which bears N. $19^{\circ} 16'$ W., 113 ft. from Cor. No. 1 of Arrowhead #3 Lode, 14 ft. wide, 8 ft. deep, running N.E. 110 ft. to face.

Value, \$115.00.

Arrowhead #4 Lode:

- No. 1. The discovery point of Arrowhead #4 Lode is on the lode line, 355 ft. from South center end.
No value.

- No. 2. A shaft, the center of which bears N. $61^{\circ} 35'$ W., 472 ft. from Cor. No. 4 of Arrowhead #4 Lode, 10 x 8 ft., 10 ft. deep.
No value.

- No. 3. A bulldozer cut, the North end of which bears N. $10^{\circ} 18'$ E., 525 ft. from Cor. No. 4 of Arrowhead #4 Lode, 14 ft. wide, 4 ft. deep, running North 90 ft. to face.
Value, \$84.00.

- No. 4. A bulldozer cut, the South end of which bears N. $14^{\circ} 21'$ E., 475 ft. from South center end of Arrowhead #4 Lode, 14 ft. wide, 3 ft. deep, running N.E. 95 ft. to face.
Value, \$55.00.

- No. 5. A bulldozer cut, the South end of which bears N. $09^{\circ} 10'$ W., 448 ft. from South center end of Arrowhead #4 Lode, 14 ft. wide, 6 ft. deep, running N.E. 90 ft. to face.
Value, \$64.00.

- No. 6. A-59 drill hole, bears N. $08^{\circ} 18'$ E., 525 ft. from Cor. No. 4 of Arrowhead #4 Lode, 200 ft. deep.
Value, \$963.75.

- No. 7. A drill site bears N. $04^{\circ} 19'$ E., 505 ft. from South center end of Arrowhead #4 Lode.
No value.

Arrowhead #5 Lode:

- No. 1. The discovery point of Arrowhead #5 Lode is on the lode line, 440 ft. from South center end.
No value.

- No. 2. A shaft, the center of which bears N. $17^{\circ} 15'$ E., 483 ft. from Cor. No. 2 of Arrowhead #5 Lode, 9 x 8 ft., 9 ft. deep.
Value, \$140.00.

- No. 3. A shaft, the center of which bears S. $6^{\circ} 10'$ W., 325 ft. from Cor. No. 3 of Arrowhead #5 Lode, 7 x 7 ft., 8 ft. deep.
Value, \$140.00.

Arrowhead #6 Lode:

- No. 1. The discovery point of Arrowhead #6 Lode is on the lode line, 245 ft. from South center end.
No value.
- No. 2. A cut, the face of which bears N. $21^{\circ} 40'$ W., 317 ft. from Cor. No. 4 of Arrowhead #6 Lode, 7 ft. wide, 10 ft. face, running West 7 ft. to face.
Value, \$100.00.
- No. 3. A cut, the face of which bears N. $75^{\circ} 55'$ W., 282 ft. from Cor. No. 4 of Arrowhead #6 Lode, 5 ft. wide, 10 ft. face, running N.W. 7 ft. to face.
Value, \$100.00.
- No. 4. A cut, the face of which bears S. $17^{\circ} 40'$ W., 90 ft. from North center end of Arrowhead #6 Lode, 6 ft. wide, 10 ft. face, running N.E. 16 ft. to face.
Value, \$150.00.

Pasoford #1 Lode:

- No. 1. The discovery point of Pasoford #1 Lode is on the lode line, 380 ft. from North center end.
No value.
- No. 2. A shaft, the center of which bears S. $38^{\circ} 55'$ W., 388 ft. from Cor. No. 4 of Pasoford #1 Lode, 6 x 6 ft., 10 ft. deep.
Value, \$150.00.

Pasoford #2 Lode:

- No. 1. The discovery point of Pasoford #2 Lode is on the lode line, 30 ft. from North center end.
No value.
- No. 2. A cut, the face of which bears N. $82^{\circ} 45'$ W., 70 ft. from Cor. No. 1 of Pasoford #2 Lode, 5 ft. wide, 10 ft. face, running South 15 ft. to face.
Value, \$250.00.

Pasoford #3 Lode:

- No. 1. The discovery point of Pasoford #3 Lode is on the lode line, 240 ft. from North center end.
No value.
- No. 2. A cut, the face of which bears S. $37^{\circ} 53'$ W., 249 ft. from Cor. No. 4 of Pasoford #3 Lode, 5 ft. wide, 12 ft. face, running S.E. 12 ft. to face.
Value, \$150.00.
- No. 3. A-41 drill hole, bears S. $72^{\circ} 33'$ W., 194 ft. from Cor. No. 4 of Pasoford #3 Lode, 530 ft. deep.
Value, \$2,171.40.

Pasoford #4 Lode:

- No. 1. The discovery point of Pasoford #4 Lode is on the lode line, 150 ft. from South center end.
No value.
- No. 2. A cut, the face of which bears N. 69° 55' E., 296 ft. from Cor. No. 3 of Pasoford #4 Lode, 4 ft. wide, 12 ft. face, running N.E. 9 ft. to face.
Value, \$150.00.

Pasoford #5 Lode:

- No. 1. The discovery point of Pasoford #5 Lode is on the lode line, 50 ft. from North center end.
No value.
- No. 2. A cut, the face of which bears S. 65° 40' E., 135 ft. from Cor. No. 1 of Pasoford #5 Lode, 4 ft. wide, 11 ft. face, running S.W. 8 ft. to face.
Value, \$140.00.

Pasoford #10 Lode:

- No. 1. The discovery point of Pasoford #10 Lode is on the lode line, 765 ft. from East center end.
No value.
- No. 2. A cut, the face of which bears N. 60° 40' W., 795 ft. from Cor. No. 1 of Pasoford #10 Lode, 5 ft. wide, 10 ft. face, running West 15 ft. to face.
Value, \$150.00.

Last Effort Lode:

- No. 1. The discovery point of Last Effort Lode is on the lode line, 60 ft. from East center end.
No value.
- No. 2. A cut, the face of which bears N. 23° 22' W., 188 ft. from East center end of Last Effort Lode, 7 ft. wide, 10 ft. face, running N.W. 12 ft. to face.
Value, \$150.00.
- No. 3. A cut, the face of which bears N. 85° 04' E., 707 ft. from West center end of Last Effort Lode, 12 ft. wide, 12 ft. face, running N.E. 4 ft. to face.
No value.

Total value of improvements allocated to individual claims, \$73,574.90.

Common Improvements

Drill Holes:

- A-13 drill hole, bears S. 78° 50' E., 588 ft. from Cor. No. 1 of Lucky Strike #4 Lode, 979 ft. deep.
Value, \$5,810.15.

- ✓ A-31 drill hole, bears N. 38° 20' W., 400 ft. from
Cor. No. 3 of Lucky Strike #2 Lode, 281 ft. deep.
Value, \$2,013.20.
- ✓ A-30 drill hole, bears N. 18° 05' E., 662 ft. from
Cor. No. 4 of Foothill #53 Lode, 436 ft. deep.
Value, \$2,315.20.
- A-28 drill hole, bears N. 29° 32' W., 498 ft. from
Cor. No. 3 of Gold Hill #1 Lode, 1750 ft. deep.
Value, \$12,026.85.
- ✓ RL-16 drill hole, bears N. 78° 28' E., 91 ft. from
Cor. No. 1 of Dos Pobres #10 Lode, 20 ft. deep.
Value, \$184.65.
- RL-8 drill hole, bears N. 9° 00' W., 540 ft. from
Cor. No. 4 of Dos Pobres #10 Lode, 2605 ft. deep.
Value, \$21,503.63.
- RL-6 drill hole, bears N. 37° 15' E., 254 ft. from
Cor. No. 2 of Dos Pobres #9 Lode, 2564 ft. deep.
Value, \$20,006.02.
- ✓ RL-2 drill hole, bears N. 22° 25' E., 150 ft. from
Cor. No. 2 of Dos Pobres #1 Lode, 2775 ft. deep.
Value, \$22,975.74.
- ✓ RL-10 drill hole, bears S. 36° 45' W., 338 ft. from
Cor. No. 1 of Dos Pobres #2 Lode, 2561 ft. deep.
Value, \$20,694.45.
- ✓ RL-3 drill hole, bears N. 39° 28' E., 155 ft. from
Cor. No. 2 of Dos Pobres #3 Lode, 2522 ft. deep.
Value, \$19,961.47.
- ✓ RL-26 drill hole, bears N. 41° 35' E., 520 ft. from
Cor. No. 2 of Dos Pobres #4 Lode, 2549 ft. deep.
Value, \$20,357.40.
- ✓ RL-5 drill hole, bears S. 18° 00' W., 310 ft. from
Cor. No. 4 of Dos Pobres #4 Lode, 2548 ft. deep.
Value, \$20,058.26.
- ✓ RL-12 drill hole, bears N. 21° 30' E., 660 ft. from
Cor. No. 4 of Dos Pobres #23 Lode, 1982 ft. deep.
Value, \$18,632.41.
- ✓ RL-14 drill hole, bears S. 12° 25' W., 670 ft. from
Cor. No. 3 of Dos Pobres #24 Lode, 2501 ft. deep.
Value, \$19,326.32.
- ✓ A-18 drill hole, bears S. 3° 31' W., 266 ft. from
Cor. No. 1 of Pasoford #1 Lode, 429 ft. deep.
Value, \$2,804.80.
- ✓ RL-22 drill hole, bears N. 47° 56' E., 312 ft. from
Cor. No. 3 of Pasoford #2 Lode, 1602 ft. deep.
Value, \$8,966.70.
- ✓ RL-20 drill hole, bears S. 11° 15' E., 312 ft. from
Cor. No. 2 of Pasoford #4 Lode, 1040 ft. deep.
Value, \$5,969.44.

- ✓ A-27 drill hole, bears S. 0° 29' E., 553 ft. from
Cor. No. 1 of Pasoford #5 Lode, 632 ft. deep.
Value, \$2,882.95.
- ✓ RL-13 drill hole, bears N. 59° 13' W., 721 ft. from
Cor. No. 1 of Pasoford #10 Lode, 1335 ft. deep.
Value, \$9,148.18.
- ✓ RL-7 drill hole, bears S. 52° 13' W., 87 ft. from
Cor. No. 1 of Dos Pobres #7 Lode, 2512 ft. deep.
Value, \$20,573.18.
- ✓ RL-11 drill hole, bears S. 57° 35' E., 690 ft. from
Cor. No. 2 of Dos Pobres #7 Lode, 2512 ft. deep.
Value, \$20,533.92.
- ✓ RL-4 drill hole, bears S. 69° 50' E., 478 ft. from
Cor. No. 3 of Dos Pobres #6 Lode, 2621 ft. deep.
Value, \$26,659.16.
- ✓ RL-1 drill hole, bears N. 36° 10' E., 257 ft. from
Cor. No. 4 of Dos Pobres #5 Lode, 2483 ft. deep.
Value, \$22,443.57.
- ✓ RL-15 drill hole, bears S. 69° 35' W., 338 ft. from
Cor. No. 4 of Birthday #3 Lode, 3066 ft. deep.
Value, \$26,118.10.
- RL-9 drill hole, bears N. 59° 30' W., 520 ft. from
Cor. No. 2 of Dos Pobres #8 Lode, 2536 ft. deep.
Value, \$23,228.75.
- RL-21 drill hole, bears S. 62° 00' W., 300 ft. from
Cor. No. 1 of Birthday #1 Lode, 1474 ft. deep.
Value, \$9,528.85.
- RL-19 drill hole, bears S. 74° 10' E., 62 ft. from
West center end of Hades #2 Lode, 2052 ft. deep.
Value, \$14,301.45.

Total value of drill holes, \$412,022.95.

Access Roads:

17.1 miles of access roads.

Total value of access roads, \$9,782.74.

Total value of common improvements, \$421,805.69.

Value of 1/118th interest, \$3,574.62.

These roads and these drill holes are in the course of development of the lodes included in this application for patent and are owned in common by them.

Five hundred dollars or more has been expended in these improvements in such a manner as tends to the development of each lode included in this application for patent subsequent to its location and to the time since which common ownership and contiguity have prevailed; therefore an undivided 1/118th interest in their value is hereby credited to each of said lodes.

Except as stated above, no portion of or interest in these common improvements has been credited heretofore as patent expenditure to any lode claim.

4. Description of Veins and Lodes. The geology and mineralization of the area covered by the claims for which application for patent is made are so complex that general and detailed descriptions are necessary to fairly present and establish the character and value of the mineral deposits.

General Geology

Geologic History

The Dos Pobres Group lies in the foothills South of the Gila Mountains between the Tertiary volcanics comprising the mountains and the conglomerate of the Gila Valley. The oldest rocks exposed on the claims are a series of Cretaceous andesite flows which may be separated into four distinct units. The oldest unit appears to be a thick section of non-fragmental andesite which is overlain by porphyritic, tuffaceous, and fragmental units. The andesites were sheared and fractured along Easterly and Northeasterly trending faults and shear zones and were then intruded by plugs and stocks of monzonite porphyry and by Easterly and Northwesterly trending hornblende andesite porphyry dikes. The relative ages of the intrusives are not known but both are closely related to mineralization.

The shearing and fracturing continued after intrusion and, following this, the area was hydrothermally altered and mineralized with iron and copper bearing sulfides. Oxidation of the mineralization probably followed and the area was subsequently covered by a thick series of Tertiary volcanics, including tuff, basalt, and andesite. Northwest block faulting occurred after the Tertiary volcanics were extruded and resulted in the uplift of the Gila Mountains. The conglomerate which covers the Tertiary flows along the Western border of the Dos Pobres Group is probably associated with the general uplift. Several faults are known to parallel the trend of the Gila Mountains but the only one which occurs on the claim group is the Foothill Fault, which trends along the Western border and offsets the general mineralization. Based on the difference in elevation of the base of the basalt on each side of the fault the displacement appears to be at least 2,000 feet.

Following the general uplift, erosion removed the Tertiary rocks on the Northeast side of the Foothill Fault. Oxidation was resumed and continued to the present time.

Structure

The dominant structures on the Dos Pobres Group are a series of East-Northeasterly faults and shear zones which trend across the exposed Cretaceous volcanics. These shears may be divided into three main groups: the wide fault zone which crosses the Southern claims, the Sunset system which extends across the central portion, and the Red Dyke system

which crosses the Northern tier of claims. All three zones contain vein mineralization which is exposed for as much as 8,000 feet along their trend.

The fault zones are responsible for the localization of most of the Easterly trending hornblende andesite porphyry dikes and, at least in part, guided emplacement of the monzonite plugs and dikes.

Several pipe-like zones of intense fracturing also occur on the claims and are probably related to the major faults or to associated parallel faulting. The largest and most prominent of these is centered about the Dos Pobres #4 Lode but others are known near the Lucky Strike #4 and the Gold Hill #1 Lodes. All three of these zones are mineralized.

Alteration and Mineralization

Four types of alteration are recognized in the exposed Cretaceous andesites: sericite-quartz alteration, biotitic alteration, chloritic alteration, propylitic alteration.

The sericite-quartz alteration is the most intense and is restricted to the central portion of some veins and to veinlets within the pipe-like areas of mineralization. The biotitic alteration is dominant in the pipe-like areas while strong chloritic alteration predominates in the strong veins. Weak, but general, propylitic alteration is found in the unmineralized areas between veins.

Four areas of widespread, general mineralization occur on the claims. The largest of these is in the Southwestern portion of the group and is exposed along the Foothill Fault. The other zones are centered about Gold Hill #1, Lucky Strike #4, and Arrowhead #2 Lodes.

Three strongly mineralized vein systems and numerous associated veins also occur on the Dos Pobres Group. The vein systems are localized by the three major fault zones which trend Easterly across the group and the mineralized portions of the shears often attain widths of 50 feet or more. Smaller but strongly mineralized veins occur in the areas between the wide vein systems and these appear to be localized by shearing associated with movements along the large faults.

The surface mineralization exposed on the claims consists largely of hematite, limonite, and small amounts of earthy cuprite and tenorite. Chrysocolla is abundant in the three pipe-like zones of general fracturing and mineralization and also in some of the smaller veins. The capping in the zones containing chrysocolla indicates chalcopyrite-bornite-pyrite mineralization at depth while that in the vein systems and those portions of the generally mineralized zones which contain no chrysocolla indicates pyrite-chalcopyrite mineralization.

Claim Descriptions

Dos Pobres #1 Lode:

Geology

The Dos Pobres #1 Lode is located in the Southwestern portion of the group in an area of strongly altered Cretaceous andesite. Recent alluvium and cemented stream gravels conceal the older andesite on about one-half of the lode. The andesite flows, which are altered in part to chlorite, biotite, clay minerals, and epidote, are strongly broken by North-Northwest-erly trending fractures and to a lesser extent by Northeasterly trending fractures.

Mineralization

The rocks in the Western one-half of the lode contain general limonite mineralization with unusually strong capping being localized in the Southwestern one-quarter of the lode near the RL-2 drill hole. In addition, a strong, Easterly trending fault-vein, varying from 5 to 30 feet in width, is exposed in the central portion of the lode.

The capping on the lode indicates pyrite-chalcopyrite mineralization at depth although the intense leaching, caused by the excess of pyrite, leaves little copper in the oxidized zone. Oxidation in the Southern portion of the lode is quite shallow and sulfides first appeared in the RL-2 drill hole at 95 feet.

Surface samples, from Cuts 2 and 3, assayed 0.05% and 0.06% Cu respectively.

The RL-2 drill hole encountered an extensive column of sulfide mineralization with 10 foot sample assays up to 1.08% Cu.

Dos Pobres #2 Lode:

Geology

The Dos Pobres #2 Lode is located in the Southwestern portion of the group in an area of strongly altered Cretaceous andesite flows. The rocks are well exposed except on the extreme Southern end of the lode where the andesite is covered by recent alluvium. The flows, which are well altered to chlorite, biotite, and sericite, are strongly broken by Easterly and North-Northwesterly trending fracture sets. A small outcrop of intrusive monzonite porphyry is exposed in the Southwestern portion of the lode.

Mineralization

All rocks exposed on the lode, except those in the extreme Northeastern corner, contain general limonite mineralization in disseminations and Easterly and North-Northwesterly trending veinlets. Most of the mineralized exposures in the Western one-half of the lode also contain earthy cuprite and considerable amounts of chrysocolla.

Oxidation in the Northern and Western portions of the lode is deep, extending to 1,045 feet in the RL-10 drill hole, while it is quite shallow in the Southeastern portion near the RL-2 drill hole. Capping on the Western one-half of the lode indicates chalcopyrite-bornite mineralization at depth while that on the Eastern one-half indicates pyrite-chalcopyrite mineralization. The excess of pyrite in the Eastern portion accounts for the intense leaching and lack of copper in the oxide zone.

A surface sample, assaying 0.17% Cu, was taken from Cut 4.

The RL-10 drill hole on the lode encountered an extensive column of sulfide mineralization with 10 foot sample assays up to 0.76% Cu.

Dos Pobres #3 Lode:

Geology

The fractional Dos Pobres #3 Lode is located in the Southwestern portion of the group in an area of strongly altered, Cretaceous andesite flows. The rocks are well exposed except at the extreme Southern end of the lode where the andesite is covered by recent alluvium. The flows, which are well altered to biotite, chlorite, and locally, to sericite and clay minerals, are strongly broken by Easterly and North-Northwesterly trending fracture sets. A small outcrop of intrusive monzonite porphyry, which extends onto the Dos Pobres #2 Lode is exposed in the Southern portion of the lode.

Mineralization

All exposures of the Cretaceous andesite and monzonite porphyry on the lode contain general limonite-cuprite mineralization with considerable amounts of chrysocolla in disseminations and numerous Easterly and North-Northwesterly trending veinlets. In addition, several Easterly trending vein zones, up to 15 feet wide, containing hematite, earthy cuprite, and chrysocolla are exposed on the lode.

Oxidation in the area extends to a minimum of 1,000 feet and nearly all of the copper values are retained in the oxide zone in the form of earthy cuprite and chrysocolla. Retention of the copper values in the oxide zone is due to the low pyrite content of the ore and the basic character of the host rock. All capping on the lode indicates chalcopyrite-bornite mineralization at depth.

The RL-3 drill hole on the lode encountered a column of oxide copper mineralization with 10 foot sample assays up to 2.08% Cu, and sulfide mineralization with 10 foot sample assays up to 1.94% Cu.

Dos Pobres #4 Lode:

Geology

The Dos Pobres #4 Lode is located in the Southwestern portion of the group and covers areas on both sides of the

Foothill Fault. The fault crosses the Southwestern portion of the lode and Cretaceous andesite, partly covered by recent alluvium, is exposed on the Northeast side while Tertiary conglomerate and cemented gravels are exposed to the Southwest. Actual displacement on the Foothill Fault is unknown but is estimated in this area to be in excess of 2,000 feet. The andesite is altered in part to biotite, chlorite, and epidote and is strongly broken by Easterly and North-Northwesterly trending fractures.

Mineralization

All exposures of the Cretaceous andesite on the lode contain general limonite-cuprite mineralization with considerable amounts of chrysocolla in disseminations and numerous Easterly and North-Northwesterly trending veinlets. In addition, several Easterly trending vein zones, up to 10 feet in width and containing hematite, earthy cuprite, and chrysocolla, are exposed on the lode.

Oxidation in the area extends to a minimum of 1,000 feet and a portion of the copper values is retained in the oxide zone in the form of earthy cuprite and chrysocolla. Retention of a portion of the copper in the oxide zone is due to the rather low pyrite content of the ore and the basic character of the host rock. Capping on the lode indicates chalcopyrite-bornite-pyrite mineralization at depth.

The RL-5 drill hole encountered a column of oxide copper mineralization with 10 foot sample assays up to 0.71% Cu and sulfide mineralization with 10 foot sample assays up to 2.11% Cu. The RL-26 drill hole encountered a column of oxide copper mineralization with 10 foot sample assays up to 1.05% Cu and sulfide mineralization with 10 foot sample assays up to 6.12% Cu.

Dos Pobres #5 Lode:

Geology

The Dos Pobres #5 Lode is located in the Southwestern portion of the group and straddles the Foothill Fault. Cretaceous andesite, largely covered by recent alluvium, is exposed on the Northeast side of the fault and Tertiary conglomerate and cemented gravels are exposed to the Southwest. Actual displacement on the Foothill Fault is unknown but is estimated in this area to be in excess of 2,000 feet. The andesite is altered in part to biotite, chlorite, and epidote and is strongly broken by Northeasterly and Northwesterly trending fractures.

Mineralization

All exposures of the Cretaceous andesite on the lode contain general limonite-cuprite mineralization with considerable amounts of chrysocolla in numerous Northeasterly and Northwesterly trending veinlets. Oxidation in the area extends to a minimum of 1,000 feet and nearly all of the copper values are retained in the oxide zone in the form of earthy cuprite and chrysocolla. Retention of copper values in the oxide zone is due to the low pyrite content of the ore and the basic character of the host rock.

The RL-1 drill hole on the Dos Pobres #5 Lode encountered a column of oxide copper mineralization with 10 foot sample assays up to 1.27% Cu and sulfide mineralization with 10 foot sample assays up to 1.68% Cu.

Dos Pobres #6 Lode:

Geology

The Dos Pobres #6 Lode is located in the Southwestern portion of the group and lies largely Southwest of the Foothill Fault. The fault crosses the Northeastern corner of the lode and, except for a small outcrop of Cretaceous andesite on the Northeast side of the fault, the only rocks exposed are Tertiary conglomerate and cemented gravels. The actual displacement on the Foothill Fault is unknown but is estimated in this area to be in excess of 2,000 feet. The exposed andesite is strongly broken by movement along the Foothill Fault and is altered to biotite, chlorite, and clay minerals.

Mineralization

The small amount of exposed Cretaceous andesite contains limonite-cuprite-chrysocolla mineralization in disseminations and Northeasterly and Northwesterly trending veinlets. The depth of oxidation is in part dependent on the Foothill Fault but is thought to be everywhere in excess of 1,000 feet. The RL-4 drill hole penetrated the fault at 1,300 feet and the first sulfides appeared at 1,500 feet. The exposed capping on the claim indicates chalcopyrite-bornite mineralization at depth.

The RL-4 drill hole encountered a column of oxide copper mineralization with 10 foot sample assays up to 0.64% Cu and sulfide mineralization with 10 foot sample assays up to 1.12% Cu.

Dos Pobres #7 Lode:

Geology

The Dos Pobres #7 Lode is located in the Southwestern corner of the group and lies entirely Southwest of the Foothill Fault. The nearest surface exposure of the older Cretaceous andesite is approximately 130 feet Northeast of the Northeast corner of the lode and the only rocks exposed are Tertiary conglomerate and cemented gravels. The Cretaceous andesite on the footwall side of the Foothill Fault penetrated by the RL-7 and RL-11 drill holes is typically altered to biotite, chlorite, and locally, to clay minerals and sericite. Considerable amounts of monzonite porphyry in the form of dikes and sills intruding the andesite were also encountered in the drill holes. Both the andesite and the porphyry were well fractured.

Mineralization

There are no mineralized surface exposures on the lode but the typical oxidized limonite-cuprite-chrysocolla mineralization was encountered in both drill holes in the oxide zone with chalcopyrite-bornite mineralization in the

sulfide zone below. The depth of oxidation is in part dependent on the Foothill Fault but is thought to be everywhere in excess of 1,000 feet. The RL-7 drill hole penetrated the fault at 675 feet and the first sulfides appeared at 1,022 feet. The RL-11 drill hole penetrated the fault at 1,833 feet and the first sulfides appeared at 2,296 feet.

The RL-7 drill hole encountered a column of oxide copper mineralization with 10 foot sample assays up to 2.02% Cu and sulfide mineralization with 10 foot sample assays up to 3.01% Cu. The RL-11 drill hole encountered a column of oxide copper mineralization with 10 foot sample assays up to 0.71% Cu and sulfide mineralization with 10 foot sample assays up to 1.57% Cu.

Dos Pobres #8 Lode:

Geology

The Dos Pobres #8 Lode is located in the Western portion of the group and straddles the Foothill Fault. Cretaceous andesite is exposed on the one-third of the claim which lies Northeast of the fault and some recent alluvium is found in washes near the fault. Tertiary conglomerate and cemented gravels are the only rocks exposed to the Southwest, although a dike of intrusive basalt is exposed at several locations in the fault. The Cretaceous andesite is altered to chlorite and epidote and is moderately shattered by Northeasterly and Northwesterly trending fractures.

Mineralization

About one-half of the exposed andesite contains general, although weak, limonite-cuprite mineralization with minor amounts of chrysocolla in disseminations and Northeasterly and Northwesterly trending veinlets. Mineralization in the rest of the lode is in the form of scattered iron oxide veinlets.

Oxidation in this area appears to be somewhat more shallow than in the area to the Southeast, although it undoubtedly is affected by the presence of the Foothill Fault. The RL-9 drill hole penetrated the fault at 256 feet and the first sulfides appeared at 866 feet.

The RL-9 drill hole encountered a column of oxide copper mineralization with 10 foot sample assays up to 0.70% Cu and sulfide mineralization with 10 foot sample assays up to 0.66% Cu.

Dos Pobres #9 Lode:

Geology

The Dos Pobres #9 Lode is located just East of the Foothill Fault in the Western portion of the group. Cretaceous andesite is exposed on the lode. The andesite is generally altered to chlorite, biotite, epidote, and locally, to sericite and clay minerals. The andesite in the Southern portion of the lode is strongly broken by Easterly and North-Northwesterly trending fractures while the andesite to the North is less strongly shattered by Easterly, Northeasterly and Northwesterly trending fractures.

Mineralization

The rocks in the Southern one-quarter to one-third of the lode contain general limonite-cuprite-chrysocolla mineralization in disseminations and Easterly and North-Northwesterly trending veinlets and, although the rocks in the more Northerly portions of the lode do not contain general mineralization, a strong fault-vein system is exposed 400 to 500 feet South of the North end of the lode. This fault vein, which attains widths to 20 feet, trends Easterly and dips Southward 73°.

Oxidation in the area is deep and probably extends to a minimum of 900 to 1,000 feet as sulfides first appeared in the RL-6 drill hole at 912 feet. Capping on the lode indicates chalcopyrite-pyrite mineralization at depth. Significant amounts of molybdenite were encountered at depth in the RL-6 drill hole.

The RL-6 drill hole encountered a column of oxide copper mineralization with 10 foot sample assays up to 1.02% Cu and sulfide mineralization with 10 foot sample assays up to 1.17% Cu.

Dos Pobres #10 Lode:

Geology

The Dos Pobres #10 Lode is located in the Western portion of the group in an area of altered Cretaceous andesite. Recent alluvium covers much of the andesite in the Southwestern and Southern portions of the lode but exposures are excellent elsewhere. The andesite is well altered to chlorite, biotite, epidote, and, locally, sericite. The rocks are strongly broken by Easterly and North-Northwesterly trending fractures.

Mineralization

Rocks in the Southern one-third to one-half of the lode contain general limonite-cuprite-chrysocolla mineralization in disseminations and Easterly and Northwesterly trending veinlets. Rocks on the rest of the lode do not contain general mineralization but a strong, Easterly trending fault-vein, extending from the Dos Pobres #9 Lode to the West, is exposed in the Northern portion.

Oxidation in the area is deep with the first sulfides in the RL-8 drill hole appearing at 1,041 feet. Capping in the areas of general mineralization and in the veins to the North indicates pyrite-chalcopyrite mineralization at depth.

The RL-8 drill hole encountered a column of oxide copper mineralization with 10 foot sample assays up to 2.31% Cu and sulfide mineralization with 10 foot sample assays up to 1.35% Cu.

Dos Pobres #11 Lode:

Geology

The fractional Dos Pobres #11 Lode is located in the Western portion of the group in an area of strongly altered

Cretaceous andesite. There is little recent alluvium on the lode and exposures, in general, are excellent. The andesite flows, which are altered to biotite, chlorite, and epidote, are thoroughly shattered by Easterly, Northeasterly, and Northwesterly trending fractures, especially in the Southern portion of the lode.

Mineralization

The flows in the Southern one-half of the lode contain general limonite-cuprite mineralization and, locally, some chrysocolla in disseminations and in Easterly and Northwesterly trending veinlets. Rocks on the rest of the lode contain little general mineralization but a strong Easterly trending fault-vein is present in the central portion and two Northwest trending veins are exposed near the North end of the lode.

Capping on the lode indicates the probability of pyrite-chalcopyrite mineralization at depth although the intense leaching, caused by the excess of pyrite, has removed most of the copper from the oxide zone. Oxidation is deep as sulfides do not appear in nearby drill holes until depths of at least 1,000 feet.

Samples from Cut 5 assayed up to 0.15% Cu. The highest assay was obtained from a 1-foot channel sample taken from the center of an 18-foot wide iron oxide vein. The copper mineral in this sample was apparently earthy cuprite intimately mixed with the hematite in the vein.

Dos Pobres #12 Lode:

Geology

The Dos Pobres #12 Lode is located in the South-central portion of the group in an area of altered Cretaceous andesite. There is little recent alluvium on the lode but many of the outcrops, especially in the Southern portion, are partially concealed by a thin cover of weathered rubble. Several hornblende andesite porphyry dikes intrude the andesite flows in the Northern portion of the lode. The flows, especially those in the Southern portion of the lode, are moderately altered to chlorite, epidote, and locally, to sericite and clay minerals. Shattering in the Southern one-half of the lode is intense and gradually decreases to the North. Fractures trend Northerly, Northeasterly, and Northwesterly.

Mineralization

There is a small area of general iron oxide mineralization in the Southwestern corner of the lode but the dominant mineralization is in the three East-Northeasterly trending veins in the Southern two-thirds of the lode. These veins, which extend Eastward from the large area of general mineralization to the West-Southwest, vary from 5 to 20 feet in width and contain hematite with small amounts of admixed earthy cuprite. The vein capping indicates pyrite-chalcopyrite mineralization at depth although the intense leaching, caused by the excess of pyrite, has removed most of the copper from the oxide zone. Oxidation probably extends to a minimum of 1,000 feet in the area.

A surface sample, assaying 0.13% Cu, was taken from Cut 3 on the Dos Pobres #12 Lode. This cut is located in the central portion of a wide mineralized shear zone and the copper mineral is apparently earthy cuprite mixed with hematite.

Dos Pobres #13 Lode:

Geology

The Dos Pobres #13 Lode is located in the South-central portion of the group in an area of moderately altered Cretaceous andesite. There is little recent alluvium on the lode but outcrops in much of the area are obscured by a thin cover of weathered rubble. A small amount of andesite is exposed in the extreme Northwestern and Northeastern corners of the lode. The flows, especially in the Southern portion of the lode, are moderately altered to chlorite and epidote with increased amounts of chlorite together with sericite and clay minerals prominent in and near veins. The rocks are moderately broken by North-Northwesterly and East-Northeasterly trending fractures.

Mineralization

A small, East-Northeasterly trending vein is exposed in the Southwestern corner but the dominant mineralization on the lode is a strong, East-Northeasterly trending fault vein exposed on the West side line of the lode 310 feet North of the Southwest corner. This vein extends onto the lode from the large area of general mineralization to the Southwest and is exposed further to the East by a shallow shaft and a large bulldozer cut (Cut 3). It is characterized by strong hematite mineralization up to 15 feet in width. Although the vein is covered Northeast of Cut 3, it can be traced several hundred feet by vein float in the weathered rubble. Numerous, narrow hematite-limonite veinlets in strongly chloritized andesite are also exposed just North of the large fault vein in Cut 2.

The vein capping on the lode indicates pyrite-chalcocopyrite mineralization at depth and earthy cuprite is present, mixed with the hematite in the large fault vein. Thin films of chrysocolla occur in Cut 3 just North of the vein. Oxidation probably extends to a minimum of 1,000 feet in the area.

Samples from Cuts 2, 3, and a shaft West of Cut 3 assayed up to 0.21% Cu with the highest assay being obtained from an 8-inch wide chip sample across the wall rock immediately North of the main vein in Cut 3. The copper mineral was chrysocolla in films coating fractures. Assays up to 0.12% Cu were obtained from the A-38 drill hole.

Dos Pobres #14 Lode:

Geology

The Dos Pobres #14 Lode is located in the South-central portion of the group in an area of weakly to moderately altered Cretaceous andesite. There is a belt of recent stream alluvium extending the length of the Eastern portion of the lode and outcrops in much of the area are concealed by a thin cover of weathered rubble. A small amount of andesite is exposed in the extreme Northwestern corner of the lode. The

flows in the Northern portion of the lode are weakly altered to chlorite and epidote, while those in the Southern portion are more strongly altered to chlorite and, near veins, to sericite and clay minerals. Strong fracturing is limited to areas near Northeasterly and East-Northeasterly trending fault vein zones.

Mineralization

Although exposures are limited on the lode, vein-type mineralization appears to be fairly extensive. Several Northeasterly trending sheeted zones, up to 25 feet wide, with 4 to 6-inch hematite veinlets approximately 1 foot apart, outcrop in the area near the South end of Cut 4. In addition, an Easterly trending fault zone, ranging up to 50 feet in width and containing hematite and some earthy cuprite mineralization in disseminations and veinlets, is exposed in Cut 6. The fault-vein is probably an extension of the vein exposed in the Southeastern corner of the Dos Pobres #12 Lode and the Southwestern corner of the Dos Pobres #13 Lode.

The vein capping, in particular that exposed in Cut 6, indicates pyrite-chalcopyrite mineralization at depth although the intense leaching, caused by the excess of pyrite, has removed most of the copper from the oxide zone. Oxidation in this area probably extends to a minimum of 1,000 feet.

Samples from Cuts 4, 6, and a shaft in the Northern part of the lode, assayed up to 0.08% Cu with the highest assays being obtained from 1-foot wide channel samples across a 3 to 5 foot wide vein exposed in the Southern portion of Cut 6.

The A-37 drill hole encountered vein material assaying up to 0.12% Cu. The copper mineral was apparently earthy cuprite mixed with hematite in veinlets just above a 2-foot wide iron oxide vein and just below a well mineralized veinlet zone.

Dos Pobres #15 Lode:

Geology

The Dos Pobres #15 Lode is located in the South-central portion of the group in an area of altered Cretaceous andesite flows. A belt of alluvium and stream gravels trends North-Northeasterly across the lode and the only exposures of the older flows are in the Southeastern and Northwestern corners near gulches. The flows, in general, are strongly altered to chlorite, clay minerals, and epidote and are moderately to strongly broken by Northeasterly, Northwesterly, and Easterly trending fractures and shears. Monzonite porphyry intrudes the flows on the extreme Southern edge of the lode.

Mineralization

There is a small area of general hematite mineralization in Northeasterly and Northwesterly trending shears and veinlets in the extreme South end but the dominant mineralization on the lode is in two, strong East-Northeasterly trending fault zones outcropping on either side of the alluvium in the central portion of the lode. Mineralization associated with these fault zones is often from 30 to 50 feet wide and consists of hematite veins, pods, disseminations, and veinlets

in intensely sheared, argillized andesite. Both fault zones appear to be directly connected with extensive areas of general mineralization to the West-Southwest although exposures are limited due to the alluvium lying West of the lode.

The capping in the fault-vein zones indicates pyrite-chalcopyrite mineralization at depth although the extremely intense leaching, caused by the excess of pyrite and the broken nature of the zones, has removed most of the copper from the oxidized zone. Oxidation in this area probably extends to a minimum of 1,000 feet.

Samples from outcrops near the cuts in the West-central portion of the lode, from outcrop near the A-34 drill hole, and from Cut 2 assayed up to 0.04% Cu with the highest values being obtained from the outcrop near the cuts in the West-central portion of the lode.

The A-34 drill hole encountered material assaying up to 0.10% Cu. The copper mineral was apparently earthy cuprite mixed with the iron oxide, hematite, in a portion of a 10-foot wide veinlet zone located immediately below a 10-foot wide hematite vein.

Dos Pobres #16 Lode:

Geology

The Dos Pobres #16 Lode is located in the South-central portion of the group in an area of altered Cretaceous andesite flows. There is little recent alluvium on the lode but rock exposures are good only along gulches as the hill slopes are generally covered by a thin veneer of weathered rubble. The flows, in general, are moderately altered to chlorite, epidote, and clay minerals. They are moderately broken by fractures trending East-Northeast and North-Northwest in the Northern part of the lode and trending East-West and North-South in the Southern part.

Mineralization

There is a poorly defined area of general limonite mineralization in the Southern portion but the dominant mineralization on the lode is in two strong East-Northeasterly trending fault zones exposed in the central and Northern portions of the lode. These zones, which are Eastward extensions of the two strong fault zones exposed on the Dos Pobres #15 Lode, have associated mineralization in the form of hematite veins, pods, disseminations, and veinlets that reaches a width of 55 feet in the more Southerly vein near the West side line of the lode. Average width of mineralization in the two zones is probably 20 to 25 feet, although the more Northerly zone appears to split into two narrow veins near the Northeast corner of the lode.

Capping in the fault-vein zones indicates pyrite-chalcopyrite mineralization at depth although the extremely intense leaching, caused by the excess of pyrite and the broken nature of the zones, has removed nearly all of the copper from the near surface portion of the oxidized zone. Oxidation in this area probably extends to a minimum of 1,000 feet.

Assays from Cuts 2, 5, and 6 ranged up to 0.17% Cu with the highest assay being obtained from a chip sample across a 10-inch hematite-limonite vein in Cut 6. The sample, which was taken from the more Northerly of two vein zones exposed in the trench, contained earthy cuprite and, possibly, the black copper oxide, tenorite, intimately mixed with hematite and limonite.

Assays up to 0.07% Cu were obtained from the A-36 drill hole.

Dos Pobres #17 Lode:

Geology

The Dos Pobres #17 Lode is located in the South-central portion of the group in an area of Cretaceous andesite flows. The andesite is intruded by small plugs of monzonite porphyry in the North-central and extreme Northern portions. The flows, in general, are weakly altered to epidote and chlorite except in the Southeastern corner of the lode where they are strongly epidotized. The fracturing is weak except near the Northernmost porphyry intrusive.

Mineralization

Two mineralized zones occur on the lode. The more Southerly zone, which is an extension of the fault which crosses the Dos Pobres #16 Lode, contains strong hematite and is exposed in Cut 3. The more Northerly zone is exposed in a shaft near the North end line of the lode between the two exposures of monzonite porphyry and contains two shear zones, one trending North-Northwest and the other East-Northeast. Both shears contain hematite, limonite, and some chrysocolla. The capping in the mineralized zones indicates pyrite-chalcopryrite mineralization at depth although strong leaching, caused by the excess of pyrite, has removed most of the copper from the oxidized zone in the more Southerly of the two. Oxidation in the area probably extends to a minimum of 1,000 feet.

A surface sample, assaying 7.05% Cu, was taken from the shaft near the North end line of the lode. This shaft is located at the intersection of the two shear zones and contains chrysocolla which occurs in veinlets and films in the sheared rock.

Dos Pobres #18 Lode:

Geology

The Dos Pobres #18 Lode is located in the West-central portion of the group and lies largely East of the Foothill Fault. The North-Northwesterly trending fault crosses the Western portion and Cretaceous andesite flows are extensively exposed on the three-fourths of the lode lying East of the fault. Tertiary conglomerate and cemented gravels are exposed to the West and the only other rock unit exposed on the lode is a dike of platy-appearing Tertiary andesite which is intruded along the fault. The Cretaceous andesite is altered to epidote and chlorite and is moderately broken by Northwesterly, Easterly, and Northeast-erly trending fractures.

Mineralization

A large easterly trending fault vein, which extends parallel to the Northern edge of the large area of general mineralization to the South, is exposed on the Eastern one-half of the lode. Mineralization in this zone ranges up to 25 feet in width and consists of hematite and lesser amounts of limonite and earthy cuprite in massive veins to 1-foot in width, disseminations, veinlets, pods, and irregular permeations. Capping in the veins, which is exposed over a strike length of nearly 1,600 feet, indicates pyrite-chalcopyrite mineralization at depth although strong leaching, caused by the excess of pyrite and the very broken nature of the zone, has removed most of the copper from the oxidized zone. Oxidation in the area probably extends to a minimum of 1,000 feet.

Samples from Cut 5 assayed up to 0.13% Cu with the highest assay being obtained from a 1-foot wide sample across the North contact of the vein. The copper minerals were earthy cuprite and possibly, tenorite mixed with hematite and limonite. The A-40 drill hole encountered material assaying up to 0.17% Cu. The copper minerals were earthy cuprite mixed with hematite in veinlets and strong disseminations.

Dos Pobres #19 Lode:

Geology

The Dos Pobres #19 Lode is located in the West central portion of the group and lies just East of the Foothill Fault. The North-Northwesterly trending fault crosses the extreme Southwestern corner of the lode and Cretaceous andesite flows are extensively exposed on the Northeastern footwall side of the fault. The best exposures occur in gulches and many of the outcrops on hill slopes are obscured by a thin cover of weathered rubble. The andesite is intruded by a long, Easterly trending, hornblende andesite porphyry dike in the Northern and Western portions of the lode. The only other rocks exposed are Tertiary conglomerate and a dike of platy-appearing Tertiary andesite which is intruded along the fault. The Cretaceous andesites are altered in part to chlorite and epidote and are moderately broken by Easterly and Northwesterly trending fractures.

Mineralization

Several Easterly trending veins are exposed on the lode. One in the Western part occurs along the andesite porphyry dike while the others appear to be localized along fault zones and shears. An Easterly trending zone containing two veins is exposed in several workings in the extreme Eastern end of the lode. These veins, which range from 4 to 15 feet wide, contain strong mineralization consisting of hematite and lesser amounts of limonite and earthy cuprite in veinlets, disseminations, and irregular pods. Capping in the veins indicates pyrite-chalcopyrite mineralization at depth although the extremely intense leaching, due to the excess of pyrite and the very broken nature of the zones, has removed most of the copper from the oxidized portion. Oxidation in the area probably extends to a minimum of 1,000 feet.

Samples from Cuts 4 and 5 and vein outcrops in the Western part of the lode assayed up to 0.07% Cu with the highest assay being obtained from a sample across the most strongly mineralized portions of the most Southern vein in Cut 5. The copper mineral was earthy cuprite which occurred intimately mixed with the hematite vein material.

Although fair to strong vein mineralization was encountered in the A-39 drill hole to a depth of 170 feet, the highest assay obtained was 0.04% Cu. It is felt that the extremely strong leaching in the area accounts for the low copper content of the explored vein material.

Dos Pobres #20 Lode:

Geology

The Dos Pobres #20 Lode is located in the West-central portion of the group and lies just East of the Foothill Fault in an area of Cretaceous andesite flows. The andesite on the lode is intruded by three Easterly trending hornblende andesite porphyry dikes which vary in width from a few inches to 20 feet. The best exposures of the rocks are in and along gulches. The hill slopes and ridges are covered by a thin veneer of weathered rubble. The Cretaceous andesites are weakly to moderately altered to epidote and chlorite while greater amounts of chlorite together with sericite and clay minerals appear in and near veins.

Mineralization

A 13-foot wide, Easterly trending vein is exposed in the large trench (Cut 3) located in the Northeastern portion of the lode. This vein, which is covered to both the East and West by alluvium and rubble, contains strong mineralization consisting of limonite and lesser amounts of hematite and tenorite in shears, veinlets, and pods. The capping in the vein indicates pyrite-chalcopryrite mineralization at depth although strong leaching, caused by the excess of pyrite, has removed most of the copper from the oxide zone.

Samples from Cut 3 and outcrops near Cut 3 assayed up to 0.13% Cu with the highest assay being obtained from a 3½-foot channel sample taken across a shear zone containing strong limonite and occurring in the bleached Southern portion of the vein exposed in the trench. The copper mineral was presumably earthy cuprite mixed with the limonite or tenorite.

Dos Pobres #21 Lode:

Geology

The Dos Pobres #21 Lode is located in the West-central portion of the group in an area of altered Cretaceous andesite flows. The central and Southern portions of the lode are covered by cemented gravels and rubble and the older rocks are well exposed only in the large gulch which trends North-easterly across the lode and along the Eastern, Northern and Western borders. Irregular patches of intrusive andesite outcrop in the Eastern and Northwestern portions of the lode and an Easterly trending hornblende andesite porphyry dike

is exposed along the North side line. The rocks are moderately altered to epidote and chlorite except in and near the vein zone in the Southern portion where they are intensely altered to chlorite and clay minerals.

Mineralization

The Western extension of the Easterly trending Sunset vein is intermittently exposed in the Southern portion of the Eastern half of the lode. Mineralization in the vein ranges up to 20 feet wide in Cut 2 and consists of hematite and small amounts of limonite and earthy cuprite. The mineralization appears to be localized in a strong fault structure and the wall rocks are intensely bleached and altered. The zone is concealed by the gravels and rubble in the central portion of the lode.

In addition, a 4-foot wide, Easterly trending vein and a 10-foot wide, Northwesterly trending vein are exposed on the Western edge of the lode. Both veins which are concealed Eastward by thin rubble cover, contain strong hematite and small amounts of limonite and earthy cuprite similar to that in the Sunset vein. Capping in the veins indicates pyrite-chalcopyrite mineralization at depth although leaching, caused by the excess of pyrite and the broken nature of the zones, has removed most of the copper from the oxidized portion. Oxidation in the area probably extends to a minimum of 1,000 feet.

Samples were collected from the shaft in the Western portion of the lode, an outcrop on the Western border, an outcrop near Cut 3, and in Cut 3. Assays from the samples ranged up to 0.06% Cu with the highest assay from samples of Sunset vein outcrop at Cut 3.

The A-44 drill hole encountered material which assayed up to 0.13% Cu. The copper mineral was earthy cuprite which occurred with hematite and minor amounts of limonite in a well mineralized veinlet zone underlying a strong hematite vein.

Dos Pobres #22 Lode:

Geology

The fractional Dos Pobres #22 Lode is located in the West-central portion of the group in an area of altered Cretaceous andesite flows. The flows are intruded by an andesitic material in the Southwestern portion. In addition, two 10 to 30-foot wide hornblende andesite porphyry dikes extend across the central portion. The andesites are weakly to moderately altered to chlorite and epidote.

Mineralization

Weak, but general, limonite mineralization occurs in the North-central portion of the lode in the form of thin hematite coatings on Northerly trending fracture surfaces. Very small amounts of earthy cuprite and possibly tenorite occur with the hematite although strong leaching has removed most of the copper from the oxidized zone. Capping in the area indicates very weak pyrite-chalcopyrite mineralization at depth and oxidation probably extends to a minimum of 1,000 feet.

A surface sample, assaying 0.02% Cu, was taken across a width of several feet from the outcrop of a part of the zone of weak, general mineralization in the North-central portion of the lode. The copper mineral was earthy cuprite which occurred in very small amounts with hematite in thin films coating fracture surfaces.

Dos Pobres #23 Lode:

Geology

The Dos Pobres #23 Lode is located in the extreme Southwestern portion of the group and lies largely Southwest of the Foothill Fault. The fault crosses the Northeastern corner of the lode and because of the accumulation of recent alluvium and rubble on the Northeast side of the fault, there are no exposures of the Cretaceous andesite on the lode. Tertiary conglomerate and cemented gravels are exposed on the Southwest side of the fault. The actual displacement on the Foothill Fault is unknown but is estimated in this area to be in excess of 2,000 feet. The well fractured Cretaceous andesite penetrated by the RL-12 drill hole is typically altered to biotite, chlorite, epidote, sericite, and clay minerals.

Mineralization

There are no mineralized surface exposures on the lode but in the RL-12 drill hole general limonite mineralization was encountered in the Cretaceous andesite in the hanging wall of the Foothill Fault and general chalcopryrite-bornite mineralization was encountered in the footwall side. Significant amounts of molybdenite were also noted at depth in the drill hole.

Oxidation in this area is probably deep, extending to a minimum of 1,000 feet, although no direct evidence is available. Sulfides were encountered immediately below the Foothill Fault in the RL-12 drill hole at a depth of 1,751 feet.

The RL-12 drill hole encountered a column of sulfide mineralization with 10 foot sample assays up to 1.02% Cu before being abandoned due to caving at 1,977 feet.

Dos Pobres #24 Lode:

Geology

The fractional Dos Pobres #24 Lode is located in the Southwestern portion of the group and lies largely Southwest of the Foothill Fault. The North-Northwesterly trending fault crosses the Northern portion of the lode, and because of the accumulation of recent alluvium and rubble on the footwall side, there are no exposures of the Cretaceous andesite flows on the lode. The only rocks exposed on the Southwest side of the fault are Tertiary conglomerate and cemented gravels. The actual displacement on the Foothill fault is unknown but is estimated in this area to be in excess of 2,000 feet. The well fractured Cretaceous andesite on the footwall side of the fault, penetrated by the RL-14 drill hole, is typically altered to biotite, chlorite, epidote, sericite, and clay minerals.

Mineralization

There are no mineralized surface exposures on the lode but strong, rather pyritic capping was penetrated by the RL-14 drill hole on the footwall side of the fault. The mineralization was limonite and hematite with minor amounts of earthy cuprite in disseminations and veinlets while sulfides, in the form of chalcopyrite, pyrite, and minor amounts of bornite, were encountered at 551 feet. Oxidation is more shallow in the area than to the West and North and may reflect the same influences encountered in the RL-2 drill hole on the Dos Pobres #1 Lode.

The RL-14 drill hole encountered a column of sulfide mineralization with 10 foot sample assays up to 1.55% Cu.

Dos Pobres #25 Lode:

Geology

The Dos Pobres #25 Lode is located in the Southwestern portion of the group and covers areas on both sides of the Foothill Fault. Cretaceous andesite flows largely covered by recent alluvium are exposed on the Northeast side of the fault and Tertiary conglomerate and cemented gravels are exposed to the Southwest. Actual displacement on the Foothill Fault is unknown but is estimated to be in excess of 2,000 feet. The Cretaceous andesite is intensely altered to clay minerals, chlorite, biotite, and sericite and is strongly broken by Northwesterly, Northerly, and Northeasterly trending fractures.

Mineralization

The exposed Cretaceous andesite on the lode contains strong hematite-limonite mineralization in disseminations and Northwesterly, Northerly, and Northeasterly trending veinlets. Oxidation in the area appears to be more shallow than that to the Northwest but probably is in excess of 500 feet. The capping in the exposed andesite indicates pyrite-chalcopyrite mineralization at depth.

One surface sample, assaying 0.08% Cu was taken from Cut 2.

The A-32 drill hole encountered material assaying up to 0.19% Cu. The copper mineral was earthy cuprite mixed with hematite and limonite in veinlets within the zone of general mineralization.

Dos Pobres #26 Lode:

Geology

The Dos Pobres #26 Lode is located in the Southwestern portion of the group and lies largely Northeast of the Foothill Fault. The North-Northwesterly trending fault crosses the Southwestern portion of the lode and Cretaceous andesite, intruded by monzonite porphyry and largely covered by recent alluvium, is exposed in the Northeast side of the

fault. Tertiary conglomerate and cemented gravels are exposed on the Southwest side and although actual displacement on the fault is unknown, it is estimated in this area to be in excess of 2,000 feet. The Cretaceous andesite is strongly altered to chlorite, biotite, and epidote, while the monzonite porphyry is altered largely to sericite and clay minerals. The older rocks are strongly broken by West-Northwesterly, Northwesterly, and to a lesser extent, by Northeasterly trending fracture sets.

Mineralization

The exposed andesite and monzonite porphyry contain moderate general limonite mineralization in disseminations and veinlets and several strong Northwesterly trending veins outcrop in the central portion of the lode. The capping indicates general pyrite-chalcopryrite mineralization at depth although strong leaching, caused by the excess of pyrite, has removed most of the copper from the oxidized zone. Oxidation in this area probably extends to a minimum of 800 to 1,000 feet.

A surface sample, assaying 0.09% Cu, was taken from Cut 2 in the East-central portion of the lode.

The A-33 drill hole encountered material assaying up to 0.44% Cu. The copper mineral was apparently earthy cuprite mixed with hematite in a weak veinlet zone immediately underlying a strong iron oxide vein.

Dos Pobres #27 Lode:

Geology

The Dos Pobres #27 Lode is located in the South-central portion of the group and lies Northeast of the Foothill Fault. Both Cretaceous andesite and monzonite porphyry are extensively exposed on the lode although nearly the entire West side of the lode and a small portion of the East side are obscured by recent alluvium and cemented gravels. The andesite is strongly altered to chlorite and biotite in the central part of the lode and the intrusive porphyry is altered to sericite and clay. The alteration decreases somewhat both Northward and Southward from the central part of the lode. The rocks are strongly broken by Northwesterly, Northeasterly and Easterly trending fractures.

Mineralization

A triangular shaped zone of general limonite mineralization containing some admixed earthy cuprite in veinlets and disseminations extends from the central portion to the Northwest corner on the Western side of the lode and narrows to a 200-foot wide tongue on the Eastern side. Two Easterly trending veins are also present in the zone of general mineralization while mineralization on the rest of the lode is limited to occasional veinlets.

Capping on the lode indicates pyrite-chalcopryrite mineralization at depth although strong leaching, caused by the excess of pyrite, has removed most of the copper from the

oxidized zone. Oxidation in this area probably extends to a minimum of 800 to 1,000 feet.

A surface sample, assaying 0.11% Cu, was taken from Cut 2 in the East-central portion of the lode within the zone of general mineralization. The copper mineral was earthy cuprite which occurred with hematite in a 1-foot wide vein.

Dos Pobres #28 Lode:

Geology

The Dos Pobres #28 Lode is located in the South-central portion of the group in an area of altered Cretaceous andesite flows. Recent cemented gravels and stream alluvium cover the older rocks on about two-thirds of the lode but a small amount of intrusive monzonite porphyry is exposed in the West-central portion. The Cretaceous andesite is altered to chlorite and epidote and the intrusive porphyry is altered largely to sericite and clay minerals. Shattering is strongest in the Western portion of the lode where the rocks are broken by Northerly, Northeasterly and Easterly trending fractures.

Mineralization

A wedge-shaped zone of general limonite mineralization in veinlets and disseminations is exposed on the lode and extends from the Western border nearly to the center of the lode. This zone represents the Easternmost continuous extension of the large area of general mineralization exposed along the footwall side of the Foothill Fault. Capping in the zone of general mineralization indicates pyrite-chalcopryrite mineralization at depth although strong leaching, caused by the excess of pyrite, has removed most of the copper from the oxidized zone. Exposed mineralization elsewhere on the lode is largely confined to the Southwest corner where Easterly and North-Northwesterly trending veinlets and an Easterly trending fault zone are exposed. Oxidation in this area probably extends to a minimum of 800 to 1,000 feet.

A surface sample, assaying 0.13% Cu, was taken from Cut 3 in the Southwestern portion of the lode. The copper mineral was earthy cuprite mixed with hematite in well mineralized fault rubble.

Gold Hill #1 Lode:

Geology

The Gold Hill #1 Lode is located in the North-central portion of the group in an area of Cretaceous andesite flows and intrusive monzonite porphyry. Recent alluvium and cemented gravels cover the older rocks in a 100 to 300-foot wide band along the Eastern border and also in the Southwestern corner. An irregular stock of monzonite porphyry intrudes the flow in the central portion. The intrusive porphyry also occurs in irregular, Northeasterly, Northerly, and Northwesterly trending dikes. The andesite, in general, is altered to chlorite, biotite, clay minerals, and, locally, epidote although the intrusive porphyry is altered to sericite and clay. All the rocks are strongly shattered by Northeasterly and Northwesterly trending fractures.

Mineralization

Most of the exposures of older rock in the Southern three-fourths of the lode contain general limonite mineralization in veinlets and disseminations. The zone, which appears to trend Northeasterly, extends Southward onto the Gold Hill #8 Lode, Westward onto the Gold Hill #10 Lode, and Eastward onto the Gold Hill #2 Lode. In addition, weak chrysocolla mineralization accompanies the iron oxide in a band, varying from 300 to 700 feet wide, which trends Easterly across the lode. The iron oxide mineralization consisting of both hematite and limonite and, in addition to chrysocolla, is accompanied by small amounts of earthy cuprite and tenorite. Due to the rather low pyrite content of much of the mineralization and the basic character of the rock, a considerable portion of the copper is retained in the oxide zone.

The capping on the lode indicates pyrite-chalcopyrite, and, possibly, bornite at depth. Oxidation appears to be very deep in the area. Although the A-28 drill hole encountered relict sulfides from 670 feet, no general sulfide mineralization was present until 1,420 feet and partial oxidation did not end until 1,580 feet.

A surface sample, assaying 0.87% Cu, was taken from outcrops just West of the A-28 drill hole. The sample consisted of chips across a 2-foot wide portion of the outcrop and the copper mineral was chrysocolla which was mixed with hematite in veinlets. Numerous exposures of chrysocolla occur on the lode.

The A-28 drill hole encountered material with assays up to 0.52% Cu. The copper minerals were earthy cuprite and chrysocolla which occurred with hematite in veinlets.

Gold Hill #2 Lode:

Geology

The Gold Hill #2 Lode is located in the North-central portion of the group in an area largely covered by recent alluvium and cemented gravels. The only exposures of the Cretaceous rocks are in a band which averages 150 feet in width along the Southern portion of the Western border and in scattered outcrops along gulches in the Northern portion. A dike of intrusive monzonite porphyry outcrops on the Western border. The andesite is generally broken by Northeasterly and North-Northwesterly trending fractures and is moderately altered to chlorite, epidote, and clay minerals.

Mineralization

An area of general limonite mineralization is exposed on the Western border which extends Easterly until covered by the gravels and alluvium in the center of the lode. Mineralization in the zone, which is part of the area of general mineralization exposed on the Gold Hill #1 Lode to the West, consists of limonite and hematite accompanied by small amounts of chrysocolla, earthy cuprite, and tenorite. The A-62 drill hole which was drilled in the central portion of the zone encountered similar, but somewhat stronger mineralization at depth.

In addition to the zone of general mineralization, two East-Northeasterly trending, 5 to 10-foot wide veins are exposed in the Southwestern portion and contain hematite and chrysocolla. Capping in the zone of general mineralization and in the veins to the South indicates pyrite, chalcopyrite, and, possibly, bornite in the sulfide zone. Due to the rather low pyrite content of much of the sulfide material, a considerable portion of the copper is retained in the oxidized zone. Oxidation appears to be very deep in the area and probably extends to a minimum of 1,200 to 1,500 feet.

A surface sample, assaying 0.12% Cu, was taken from Cut 2 in the Southwestern portion of the lode. The sample consisted of a 3-foot portion of a 10-foot hematite vein and the copper mineral was earthy cuprite.

The A-62 drill hole encountered material with assays up to 0.39% Cu. The rock contained thin films of chrysocolla and some earthy cuprite which were mixed with hematite.

Gold Hill #3 Lode:

Geology

The Gold Hill #3 Lode is located in the North-central portion of the group in an area of altered Cretaceous andesite flows. The Northern and Western portions and the Southwestern corner of the lode are covered by recent alluvium and cemented gravels and exposures of the older rocks are limited to the East-central portion and the Southeastern corner. An Easterly trending hornblende andesite porphyry dike extends across the central portion of the lode. The andesite is, in general, weakly altered to chlorite and epidote except near veins where more intense alteration to chlorite, clay minerals, and sericite is found.

Mineralization

A zone of weak limonite mineralization occurs in the Southern part of the lode but the dominant mineralization is a Northeasterly trending shear zone exposed in and near Cut 3 and the short drift in the North-central portion. Several 5-foot veins and a 25-foot zone of general mineralization are exposed in Cut 3 while a strong 10-foot wide limonite vein is exposed in the short drift. Mineralization in the zone consists of limonite and hematite accompanied by small amounts of tenorite and earthy cuprite. Capping in the shear zone indicates pyrite-chalcopyrite mineralization at depth although strong leaching caused by the excess of pyrite and the intensely broken nature of the zone, has removed most of the copper from the oxidized portion. Oxidation in the area probably extends to a minimum of 1,000 feet.

Samples from Cuts 2 and 3 and a drift in the Northern part of the lode assayed up to 0.10% Cu. The highest assay was from a 1.4-foot wide channel sample across a sheared bleached zone in Cut 3. The zone contained strong hematite permeations and tenorite fracture coatings.

Gold Hill #6 Lode:

Geology

The Gold Hill #6 Lode is located in the central portion of the group in an area of altered Cretaceous andesite flows. An Easterly trending hornblende andesite porphyry dike, ranging up to 30 feet in width, is exposed across the Northern portion. This dike is a part of a 2-1/2-mile dike system, possibly intruded along a fault, which crosses the Dos Pobres Group. The andesite is, in general, weakly altered to chlorite and epidote except near veins where more intense alteration to chlorite, clay minerals, and sericite is found. Fracturing on the lode trends Northeasterly and North-North-westerly.

Mineralization

Dominant mineralization on the Gold Hill #6 Lode is in and near a wide shear zone next to the hornblende andesite porphyry dike in the Northern portion. Irregular mineralization is exposed in the zone across a width of 50 feet in Cut 4 and three strong veins, averaging 4 feet in width, are exposed in Cut 3. The mineralization consists of hematite and small amounts of limonite, tenorite, and earthy cuprite. The capping in the shear zone indicates pyrite-chalcopryrite mineralization at depth although strong leaching, caused by the excess of pyrite and the broken nature of the rocks, has removed most of the copper from the oxidized zone. Oxidation in the area probably extends a minimum of 1,000 feet.

Assays of samples from Cuts 2, 3, and 4 ranged up to 0.12% Cu with the highest assay being recovered from a 1-foot wide channel sample taken across the South contact of a 5.8-foot wide hematite vein in Cut 4. The copper mineral was tenorite which occurred in thin films and black specks coating fractures in the chloritic wall rock.

Core from A-46 drill hole assayed up to 0.09% Cu. The copper mineral was earthy cuprite which was mixed with hematite in 3 to 6 inch steeply dipping shear zones immediately underlying a strong hematite vein.

Gold Hill #7 Lode:

Geology

The Gold Hill #7 Lode is located in the central portion of the group in an area of altered Cretaceous andesite flows. An Easterly trending hornblende andesite porphyry dike intrudes the andesite and extends across the Northern portion. The dike is part of a 2-1/2-mile dike system, possibly intruded along a fault, which extends across the Dos Pobres Group. The andesite, in general, is weakly altered to chlorite and epidote except near veins where it is more strongly altered to chlorite, clay minerals, and sericite. Cemented gravels partially obscure the older rocks in the Northern and central portions of the lode.

Mineralization

Dominant mineralization on the Gold Hill #7 Lode is centered near the gulch in the Northern portion of the lode. A 20-foot zone containing numerous Northeasterly trending hematite veinlets is exposed in Cuts 2 and 3 and a wide zone of general mineralization is exposed in Cut 4. The mineralization exposed in Cut 4 consists of hematite and lesser amounts of limonite and earthy cuprite in numerous intersecting Northeasterly and Northwesterly trending veinlets, pods, disseminations, and permeations.

The A-49 drill hole which probed the mineralization exposed in Cut 4 encountered similar material at depth. Capping in the area of general mineralization indicates pyrite-chalcopryrite mineralization at depth although strong leaching, caused by the excess of pyrite, has removed most of the copper from the oxidized zone. Oxidation in the area probably extends to a minimum of 1,000 feet.

Assays from samples taken from Cuts 2 and 4 ranged up to 0.08% Cu with the highest assay being obtained from a sample across the portion of a 20-foot wide hematite veinlet zone exposed in Cut 2. The copper mineral was earthy cuprite mixed with the hematite veinlet material. Core from the A-49 drill hole assayed up to 0.12% Cu. The copper mineral was earthy cuprite mixed with hematite in a 4-foot vein.

Gold Hill #8 Lode:

Geology

The Gold Hill #8 Lode is located in the central portion of the group in an area of altered Cretaceous andesite flows. A Northeasterly trending hornblende andesite porphyry dike intrudes the andesite in the Southern portion and a small outcrop of monzonite porphyry is present straddling the Southern border. The Northern portion of the lode is covered by recent cemented gravels and alluvium and the only exposures of the andesite are along gulches. The andesite in the Northern portion is well altered to chlorite, biotite, epidote, and clay minerals while those to the South are more weakly altered to chlorite and epidote.

Mineralization

Several Easterly and Northerly trending veins are exposed in and near the hornblende andesite porphyry dike in the Southern and central portions but dominant mineralization on the lode is in the Northern area. A zone of general mineralization extends Southward onto the lode from the Gold Hill #1 Lode to the North and is exposed in Cuts 3 through 8 along the nearby gulch. Mineralization in the zone consists of hematite and limonite accompanied by lesser amounts of earthy cuprite and tenorite. Some chrysocolla was exposed in the bulldozer cuts near the A-60 drill hole. Capping in the veins indicates pyrite-chalcopryrite mineralization at depth and that in the Northern portion indicates pyrite-chalcopryrite mineralization accompanied by some bornite although strong leaching, caused by the excess of pyrite, has removed most of the copper from the oxidized zone. Oxidation appears to be very deep in the area. Although the A-28 drill

hole on the Gold Hill #1 Lode to the North encountered relict sulfides from 670 feet; no general sulfide mineralization was present until 1,420 feet and partial oxidation did not end until 1,580 feet.

Samples taken from Cut 2 and one of the shallow trenches South of the A-60 drill hole, assayed up to 0.75% Cu and the highest assay was obtained from a channel sample across a 6-inch wide hematite-limonite-chrysocolla vein in Cut 7.

The A-60 drill hole encountered material assaying up to 0.18% Cu. The copper mineral was earthy cuprite which occurred with hematite in a strong vein.

Gold Hill #9 Lode:

Geology

The Gold Hill #9 Lode is located in the central portion of the group in an area of altered Cretaceous andesite flows. Recent alluvium and cemented gravels cover the older rocks in bands along gulches in the Northern half of the lode. The andesite in the Northern portion is moderately altered to chlorite, clay minerals, and epidote while to the South it is more weakly altered to epidote and chlorite.

Two East-Northeasterly trending veins outcrop in the South-central portion of the lode. The veins, which vary from 5 to 10 feet in width, contain hematite and small amounts of earthy cuprite in veinlets, shears, disseminations, and irregular pods. In addition, a strong, Easterly trending iron oxide veinlet zone that ranges up to 20 feet in width is exposed along a hornblende andesite porphyry dike in Cut 2 in the Northern portion of the lode. Mineralization in the zone consists of hematite and small amounts of limonite and earthy cuprite in veins, veinlets, disseminations, and permeations. Capping in the veins indicates pyrite-chalcopryrite mineralization at depth although strong leaching, caused by the excess of pyrite and the very broken nature of the zones, has removed most of the copper from the oxidized portions. Oxidation in the area probably exceeds 1,000 feet in depth.

A 2-foot wide channel sample taken across a vein exposed in Cut 2 assayed 0.10% Cu. The copper mineral was earthy cuprite which was intimately mixed with the hematite vein material.

Gold Hill #10 Lode:

Geology

The Gold Hill #10 Lode is located in the North-central portion of the group in an area largely covered by recent alluvium and cemented gravels. The Cretaceous rocks which include andesite and monzonite porphyry are exposed only in the Northeastern corner and in a narrow band along the Eastern side line of the lode. The monzonite porphyry is confined to a small, oblong area surrounded by alluvium in the East-central portion. The older rocks in the central and Southern areas are moderately to strongly altered to chlorite, biotite, sericite, and clay

minerals while those in the Northeastern portion are more weakly altered to chlorite and epidote.

Mineralization

An area of weak to fair general mineralization is exposed along the Eastern border of the lode. The mineralization consists of hematite and lesser amounts of limonite, earthy cuprite, tenorite, and chrysocolla which occur in narrow veinlets and fine grained disseminations. The zone represents the Western extension of the area of general mineralization exposed on the Gold Hill #1 Lode and is presumed to extend under the gravels to the West. The A-61 drill hole, which was drilled in approximately the center of the zone, encountered similar material at depth. The capping indicates pyrite, chalcopryite, and, possibly, bornite mineralization at depth and, due to the rather low pyrite content of the mineralization, much of the copper is retained in the oxidized zone. Oxidation appears to be very deep in the area as the A-28 drill hole on the Gold Hill #1 Lode to the East did not encounter completely unoxidized mineralization until it reached a depth of 1,580 feet.

Sample assays ranged up to 0.41% Cu and the highest assay was obtained from a 2-foot wide chip sample across the outcrop at the site of the cut on the East side line. The copper mineral was chrysocolla which occurred with hematite in veinlets.

The A-61 drill hole encountered material assaying up to 0.48% Cu. The copper minerals were tenorite and traces of chrysocolla which occurred in thin films with limonite in veinlets.

Gold Hill #11 Lode:

Geology

The Gold Hill #11 Lode is located in the South-central portion of the group in an area of altered Cretaceous andesite flows. Recent cemented gravels and alluvium cover the Southern and Southeastern portions of the lode and the older rocks are well exposed only along washes and gullies due to a thin cover of weathered rubble. The Cretaceous andesite is moderately altered to epidote and chlorite and is weakly broken by Northeasterly and Northwesterly trending fractures. Two Easterly trending, mineralized fault zones are exposed on the lode, one near the South end line and the other approximately 400 feet South of the North end.

Mineralization

There are several zones containing weak limonite veinlets but the dominant mineralization on the lode is in the two Easterly trending faults. The more Southerly structure is exposed at the Southwest corner of the lode and again near the East side line before extending onto the Gold Hill #12 Lode. The fault vein, which is exposed intermittently along its strike for over 5,400 feet, ranges up to 10 feet in width on the lode and contains hematite and lesser amounts of limonite and earthy cuprite, in veinlets, pods and disseminations.

The more Northerly vein extends from the center of the Gold Hill #11 Lode Eastward onto the Gold Hill #12 Lode and ranges from 5 to 10 feet in width. The mineralization consists of hematite and lesser amounts of limonite and earthy cuprite as in the South fault-vein. Capping in the veins indicates pyrite-chalcopyrite mineralization at depth although strong leaching, caused by the excess of pyrite and the broken nature of the zones, has removed most of the copper from the oxidized zone. Oxidation in the area probably extends a minimum of 1,000 feet.

A sample, assaying 0.17% Cu, was taken from the 7-foot wide fault vein exposed in Cut 2 in the Northern portion of the lode. The copper mineral was earthy cuprite which was intimately mixed with the hematite vein material.

Gold Hill #12 Lode:

Geology

The Gold Hill #12 Lode is located in the South-central portion of the group in an area of altered Cretaceous andesite flows. Recent cemented gravels cover the Southwestern corner of the lode and exposures of the older andesite elsewhere are good only along washes and gulches due to a thin cover of weathered rubble.

Two mineralized fault zones are exposed on the lode, one 270 feet North of the South end line and the other approximately 350 feet South of the North end line. The andesite is moderately to strongly altered to chlorite, epidote, and clay minerals. The rocks in the Southern one-half of the lode are moderately shattered by Easterly, Northeasterly, and Northwest-erly trending fractures while those to the North are more weakly broken.

Mineralization

Dominant mineralization on the lode is in the two Easterly trending faults. The more Southerly structure is exposed in several workings across the width of the lode and extends Eastward and Westward onto the adjoining lodes. The fault-vein, which begins in the large zone of general mineralization in the Southwestern portion of the group and is exposed intermittently along its strike for over 5,400 feet, ranges up to 20 feet wide on the lode. Mineralization in the zone consists of hematite and limonite with lesser amounts of earthy cuprite and tenorite in veinlets, pods, and disseminations.

The more Northerly vein extends across the lode and is lost in the andesite on the Eastern border. The zone, which ranges from 5 to 15 feet in width, contains hematite and lesser amounts of limonite and earthy cuprite in veinlets, disseminations, and permeations. Capping in the two veins indicates pyrite-chalcopyrite mineralization at depth although strong leaching, caused by the excess of pyrite and the very broken nature of the rocks, has removed most of the copper from the oxidized zone. Oxidation in the area probably extends a minimum of 1,000 feet.

Samples from the fault-vein in the Southern portion of the lode assayed up to 0.22% Cu with the highest assay being

recovered from a 1-foot channel sample across the Southern border of the wide fault vein exposed in Cut 5. The copper mineral in this sample was tenorite which occurred as thin films and pods in the chloritic sheared andesite.

Gold Hill #13 Lode:

Geology

The Gold Hill #13 Lode is located in the Eastern portion of the group in an area of altered Cretaceous andesite flows. Three major mineralized faults outcrop on the lode. Two of the faults trend Northeasterly and are exposed in the extreme Southeastern corner and in the central portion of the lode respectively, while the third trends Easterly and is exposed 250 to 300 feet North of the Southern end. A large, Easterly trending hornblende andesite porphyry dike is intruded into the andesite along the strong fault zone in the Southern portion of the lode. Hornblende andesite porphyry is also intruded along the faults exposed in the extreme Southeastern corner and in the central portion of the lode. Fracturing, except near the faults, is rather weak and the rocks are weakly to moderately altered to epidote, chlorite, and, near fault zones, clay minerals.

Mineralization

Dominant mineralization on the lode is in the three fault zones. The Easterly trending structure is exposed in the three large trenches in the Southern portion of the lode and extends Eastward and Westward onto the adjoining lodes. This fault-vein, which begins in the large zone of general mineralization in the Southwestern portion of the group and is exposed intermittently along its strike for over 5,400 feet, ranges up to 40 feet in width on the lode. Mineralization in the zone consists of hematite and limonite with lesser amounts of earthy cuprite and tenorite in veinlets, pods and disseminations. The other two fault-veins are less well exposed, but contain similar mineralization. Capping in the veins indicates pyrite-chalcopryite mineralization at depth although strong leaching, caused by excess pyrite and the extremely broken nature of the zones, has removed most of the copper from the oxidized zone. Oxidation in the area probably extends to a minimum of 1,000 feet.

Samples from Cuts 2, 3, 4, and 5 assayed up to 0.13% Cu and the highest assay was obtained from a 1-foot wide channel sample across strong limonite mineralization on the Southern border of the wide fault zone in Cut 3. The copper mineral was either earthy cuprite or fine grained specks of tenorite.

The A-48 drill hole, located in the Southern portion of the lode near Cut 4, encountered material assaying up to 0.07% Cu. The copper mineral was earthy cuprite intimately mixed with hematite in a strongly mineralized vein.

Gold Hill #14 Lode:

Geology

The Gold Hill #14 Lode is located in the South-central portion of the group in an area of altered Cretaceous andesite

flows. Recent cemented gravels and alluvium cover the central and Northern portions and the exposures of the older rocks are limited to the Eastern, Southern, and Western portions of the lode. The Cretaceous andesite is generally altered to chlorite, epidote, and clay minerals and is moderately shattered by Easterly and Northerly trending fractures. In addition, an Easterly trending fault zone extends the length of the lode and merges with a strong Northeasterly trending fault zone near the East center end.

Mineralization

A zone of general mineralization related to the intersecting fault zones is exposed in the Eastern portion of the lode. Mineralization in the zone is in the form of Northeasterly trending shears and veinlets filled with hematite and separated by strongly fractured zones containing weak hematite disseminations. The Easterly trending fault zone, which runs the length of the lode, varies from 5 to 30 feet in width and contains strong hematite mineralization and some associated earthy cuprite in veinlets, disseminations, pods, and permeations. The wide, Northeasterly trending fault zone crossing the Southeastern corner of the lode contains hematite and some earthy cuprite filling numerous narrow shears.

The capping, both in the zone of general mineralization in the Eastern portions of the lode and in the fault-veins, indicates pyrite-chalcopryite mineralization at depth although strong leaching, caused by the excess of pyrite and the very broken nature of the zones, has removed most of the copper from the oxidized zone. Oxidation in the area appears to be deep and probably extends to a minimum of 1,000 feet.

Assays ranged up to 0.54% Cu with the highest assay being recovered from the dump next to the shaft in the Northeastern portion of the lode. The sampled material came from a 4-foot wide iron oxide vein and the mineralization consisted of hematite, limonite, and earthy cuprite.

Gold Hill #15 Lode:

Geology

The Gold Hill #15 Lode is located in the East-central portion of the group in an area of altered Cretaceous andesite flows. Several curving, Northerly and Northeasterly trending hornblende andesite porphyry dikes intrude the andesite. The andesite is well altered to chlorite, clay minerals, and epidote while the hornblende andesite porphyry dikes are more weakly altered to epidote and chlorite. Large Easterly and Northeasterly trending fault zones intersect near the West center end of the lode and the resulting zone extends East-Northeasterly from the Southwestern corner to the North-central portion of the lode. Fracturing within the wide fault zone is intense while that in the Eastern and Southern portions of the lode is much weaker.

Mineralization

The zone of general mineralization exposed along the Eastern border of the Gold Hill #14 Lode extends across the Western border of the Gold Hill #15 Lode and onto the lode

approximately 400 feet. Mineralization in the zone is in the form of East-Northeasterly trending shears containing hematite and small amounts of earthy cuprite separated by strongly fractured zones containing weak hematite disseminations. The mineralization in the fault veins extending Eastward from the zone of general mineralization is similar to that in the zone.

The capping, both in the East-Northeasterly trending fault veins and in the zone of general mineralization, indicates pyrite-chalcopyrite mineralization at depth although strong leaching, caused by the excess of pyrite and the very broken nature of the zones, has removed most of the copper from the oxidized zone. Oxidation in this area is believed to be deep, probably extending to a minimum of 1,000 feet.

Surface samples, assaying up to 0.04% Cu, were taken from Cut 4 in the Southwestern corner of the lode. The samples were taken from a strong shear zone containing hematite in veinlets, sheeting, and disseminations.

The A-47 drill hole located in the Southwestern portion of the lode, encountered material assaying up to 0.10% Cu. Mineralization in the drill hole was hematite and limonite in veinlets and pods and the copper mineral was earthy cuprite.

Gold Hill #16 Lode:

Geology

The Gold Hill #16 Lode is located in the Eastern portion of the group in an area of weakly altered Cretaceous andesite. Three large, Easterly and Northeasterly trending, mineralized fault zones and two smaller vein structures are exposed on the lode. Cretaceous hornblende andesite porphyry dikes are intruded along two of the major structures in the Southern portion and in addition, intrude the andesite in Northerly trending dikes in both the Southern and Northern portions of the lode. The Cretaceous rocks are weakly to moderately altered to epidote, chlorite, and, near fault zones, clay minerals. Fracturing on the lode, except near the faults, is generally weak with the dominant orientations being North-erly, Northeasterly, and Easterly.

Mineralization

Dominant mineralization on the lode is in the three fault zones and the two smaller veins. The most promising structures are two Easterly and Northeasterly trending fault veins which intersect near the Southeastern corner and a 10-foot wide strong hematite vein which is exposed in the central portion. The Easterly trending fault-vein is part of the strong fault which extends 5,400 feet from the area of general mineralization in the Southwestern portion of the Dos Pobres Group. Mineralization in the zone consists of hematite and lesser amounts of limonite and earthy cuprite in veinlets, disseminations, pods, and permeations. Mineralization in the Northern vein is especially strong and veinlets containing massive hematite often reach widths of several inches.

Capping in the veins indicates pyrite-chalcopyrite mineralization at depth although strong leaching, caused by the excess of pyrite and the broken nature of the zones, has

removed most of the copper from the oxidized portion. Oxidation in the area probably extends to a minimum of 1,000 feet.

A sample from Cut 2 assayed 0.11% Cu and was a 5-foot chip sample across a portion of a 10-foot hematite vein. The copper mineral was earthy cuprite which occurred intimately mixed with the hematite vein material.

Gold Hill #17 Lode:

Geology

The Gold Hill #17 Lode is located in the Eastern portion of the group in an area of weakly altered Cretaceous andesite flows. A complex of hornblende andesite dikes, largely intruded along fault zones, is exposed in the Southern one-half of the lode. Exposures of the older series rocks in the Northern and Northeastern portions are poor due to a general cover of weathered rubble and talus. Two faults, one trending Easterly and the other Northeasterly, are exposed in the Southern portion of the lode near the West side line which merge in the central portion. The andesite is weakly altered to epidote and chlorite except near the faults where clay minerals and increased amounts of chlorite are prominent.

Mineralization

The dominant mineralization on the Gold Hill #17 Lode is in the fault zones exposed in the Southern portion of the lode. The Easterly and Northeasterly trending structures merge in the central portion and continue Eastward to the adjoining lode. The Easterly trending fault is a part of the strong fault structure that extends more than one mile Easterly from the area of general mineralization in the Southwestern portion of the Dos Pobres Group. Mineralization in the faults consists of hematite and limonite with small amounts of tenorite and earthy cuprite in massive veins, veinlets, pods, and disseminations. The capping indicates pyrite-chalcopyrite mineralization at depth although strong leaching, caused by the excess of pyrite and the broken nature of the zones, has removed most of the copper from the oxidized portion. Oxidation in the area probably extends to a minimum of 1,000 feet.

Assays from Cut 5 ranged up to 0.15% Cu. The highest assay was from a 1.3-foot wide channel sample across a bleached zone containing tenorite and limonite in thin films and veinlets.

Gold Hill #18 Lode:

Geology

The Gold Hill #18 Lode is located in the Eastern portion of the group in an area of altered Cretaceous andesite flows. A complex swarm of Easterly and Northerly trending hornblende andesite porphyry dikes intrude the flows in all parts of the lode except in the Northwest corner. The location of the dikes is at least in part, controlled by faulting. In general, the Cretaceous rocks are weakly to moderately altered to chlorite and epidote and are weakly fractured. However, in and near fault zones the rocks are strongly sheared and intensely altered to chlorite, clay minerals, and sericite.

Mineralization

The dominant mineralization on the lode is in a strong, Easterly trending fault zone which extends across the central portion. The zone, which is part of the strong fault structure extending more than a mile Easterly from the area of general mineralization in the Southwestern portion of the group, averages about 10 feet in width. Mineralization in the fault consists of hematite and limonite with lesser amounts of earthy cuprite and chrysocolla. Capping in the fault zone indicates pyrite-chalcopryrite mineralization at depth although strong leaching, caused by the excess of pyrite and the broken character of the rock, has removed most of the copper from the oxidized zone. Oxidation in the area probably extends a minimum of 1,000 feet.

A sample from the 20-foot shaft located in the central portion of the lode was taken from a 2-1/2-foot wide portion of a 5-foot vein and assayed 6.03% Cu. The copper minerals were chrysocolla and earthy cuprite.

Gold Hill #19 Lode:

Geology

The Gold Hill #19 Lode is located in the Eastern portion of the group in an area of altered Cretaceous andesite. A thick, massive, hornblende andesite porphyry sill intrudes the andesite in the Northern one-half of the lode while the contact in the Southern one-half is obscured by extensive talus, rubble, and alluvium. The andesite and the intrusive hornblende andesite are weakly to moderately altered to chlorite, clay minerals, and locally epidote.

Mineralization

Weak hematite mineralization occurs in the hornblende andesite porphyry sill at the Western border but the strongest mineralization exposed on the lode is a Northerly trending, 5-foot wide, strongly fractured zone in the andesite just below the lower contact of the sill. This zone, which contains considerable amounts of chrysocolla in veinlets and pods, is covered to the South by extensive talus and rubble. Oxidation in the area probably extends to between 500 to 1,000 feet.

A surface sample, assaying 3.20% Cu, was taken from Cut 3 in the West-central portion of the lode. The sample consisted of chips taken across a 5-foot wide, strong fractured zone containing considerable amounts of chrysocolla in veinlets and pods.

Gold Hill #25 Lode:

Geology

The Gold Hill #25 Lode is located in the central portion of the group in an area of altered Cretaceous andesite flows. A cover of recent alluvium and cemented gravels occupies the Northern one-fourth of the lode but the older rocks are fairly well exposed elsewhere. The andesite is moderately altered to chlorite, epidote, and clay minerals and is well broken by Northerly and Northwesterly trending fractures.

Mineralization

Dominant mineralization on the lode is in a wide, Easterly trending shear zone which extends across the central portion of the lode. Vein mineralization, which varies from 15 to 25 feet in width, occupies the central part of the zone and subsidiary mineralization in veinlets and disseminations often accompanies the veins to widths of 20 to 25 feet on the edges of the shear. The veins contain strong hematite and small amounts of limonite, tenorite and earthy cuprite while the outlying veinlets contain hematite and increased amounts of limonite. The zone is well exposed in Cuts 3 and 4.

In addition, a zone of intersecting, Easterly and Northerly trending veinlets is exposed in Cut 2 although the extent of the zone is not clear due to the rather extensive rubble cover in the area. Capping in the mineralized areas indicates pyrite-chalcopyrite mineralization at depth although very strong leaching, caused by the excess of pyrite and the very broken nature of the rocks, has removed nearly all of the copper from the oxidized zone. Oxidation in the area probably extends to a minimum of 1,000 feet.

Samples from Cuts 2, 3, and 4 assayed up to 0.07% Cu with the highest assay being obtained from a channel sample across a 2-foot wide breccia zone on the North edge of the main vein in Cut 3.

The A-43 drill hole encountered material assaying up to 0.07% Cu. The copper mineral was earthy cuprite which occurred with hematite in veins and associated veinlets.

Gold Hill #26 Lode:

Geology

The Gold Hill #26 Lode is located in the North-central portion of the group in an area almost completely covered by recent alluvium and cemented gravels. The only exposure of the older rocks on the lode is in the extreme Northwestern corner where the Cretaceous andesite flows outcrop in a triangular shaped area approximately 350 feet on a side. The depth of alluvium and gravels on the lode is unknown but probably varies from a few feet to 100 feet or more. The andesite is weakly to moderately altered to chlorite, epidote, and clay minerals. A North-Northwesterly trending, 3 to 5-foot wide shear zone extends through Cut 4 to the vicinity of Cut 3 but, in general, the rocks are only moderately fractured.

Mineralization

The only mineralized surface exposures on the lode are in the Northwestern corner. The Northwesterly trending shear zone exposed in Cut 4 contains a 10 to 12-inch wide vein containing strong hematite and limonite accompanied by small amounts of earthy cuprite. In addition, the walls of the veins, which are strongly sheared and altered to chlorite, contain thin films and pods of tenorite. The mineralization in Cut 3 consists of hematite veinlets and limonite-filled gougy steaks which appear to be related to the shear zone exposed in Cut 4. Capping in the two zones indicates pyrite-chalcopyrite mineralization at depth although strong leaching, caused by the excess

of pyrite, has removed most of the copper from the oxidized zone. Oxidation on the lode probably extends to a minimum of 1,000 feet.

The samples from Cuts 3 and 4 assayed up to 0.11% Cu and the highest assay was obtained from a 8-inch wide channel sample across the vein in the floor of Cut 4. The copper minerals were earthy cuprite and, possibly, tenorite mixed with strong limonite.

Gold Hill #27 Lode:

Geology

The Gold Hill #27 Lode is located in the North-central portion of the group in an area of altered Cretaceous andesite flows. Recent alluvium covers the Southeastern corner but, except for a thin layer of weathered rubble on the hill slopes, exposures of the older rocks elsewhere on the lode are excellent. An Easterly trending hornblende andesite porphyry dike extends from the Western border to the central portion. The dike may be associated with a fault structure. The rocks in the Northern and Southern portions of the lode are weakly to moderately broken by North-Northwesterly trending fractures and are weakly altered to chlorite and epidote. Those in the wide zone of fault-vein mineralization in the central portion are strongly sheared and fractured and are altered to chlorite, sericite, quartz, and clay minerals.

Mineralization

A wide zone of Northeasterly and Easterly trending veins is exposed in the central portion of the lode on the South side of a low saddle. The veins range from 5 to 20 feet in width and contain limonite, hematite, chrysocolla, earthy cuprite, tenorite, and some quartz. The chrysocolla usually occurs in blebs and narrow veinlets up to 2 inches wide. The zone has been well exposed by a number of cuts and shafts. In addition, a 4-foot wide iron oxide vein has been exposed in Cut 2 in the Southern portion and the Easterly extension of the Red Dyke vein system probably crosses the gravel covered Northwestern corner of the lode.

The capping in the wide vein zone indicates pyrite, chalcopryite, and, possibly, bornite mineralization at depth and, due to the rather low pyrite content of the mineralization, much of the copper has been retained in the oxidized zone. Oxidation on the lode probably extends to a minimum of 1,000 feet.

A sample, assaying 2.76% Cu, was taken from the dump next to the shaft North of Cut 3. The sample contained hematite, limonite, and chrysocolla and was obtained from the 5-foot vein exposed in the shaft.

Gold Hill #28 Lode:

Geology

The Gold Hill #28 Lode is located in the North-central portion of the group in an area of altered Cretaceous andesite flows. A band of recent gravel and alluvium covers the Cretaceous rocks in a 500-foot wide band which trends Northeasterly

across the Southern portion of the lode from the Southwestern corner to the East-central edge. In addition, a thin layer of weathered rubble obscures the outcrops on some of the hill slopes but, in general, exposures of the older rocks on the rest of the lode are fairly good. The andesite is moderately broken by North-Northwesterly and Northeasterly trending fractures and, except near veins, is weakly to moderately altered to chlorite and epidote. The rocks are more intensely altered in and near veins to sericite, chlorite, quartz, and clay minerals.

Mineralization

Several weak limonite veinlet zones are exposed in the Northern half of the lode but the dominant mineralization is in a wide zone which contains several North-Northeasterly trending shears containing narrow veins. The vein exposed in Cut 3 ranges from 7 inches to 1 foot in width and contains hematite, limonite, and quartz. The vein is exposed for about 100 feet on the surface, crossing the Northern end of the lode and disappearing under rubble and talus to the South. The capping in the veins indicates pyrite-chalcopryrite mineralization at depth although strong leaching, caused by the excess of pyrite, has removed most of the copper from the oxidized zone. Oxidation in the area probably extends to a minimum of 1,000 feet.

A sample, assaying 0.13% Cu, was taken from Cut 3 and consisted of a 10-inch channel across a limonite-hematite-quartz vein which contained earthy cuprite.

Gold Hill #29 Lode:

Geology

The Gold Hill #29 Lode is located in the North-central portion of the group in an area of altered Cretaceous andesite flows. A band of recent cemented gravels and alluvium, averaging 300 feet in width, trends Northwesterly across the lode from the Southeastern corner to the West-central portion but the Cretaceous rocks are fairly well exposed elsewhere on the lode. The rocks are generally shattered, especially in the Southern half of the lode, by Northerly and Northwesterly trending fractures. Alteration in the Southern and Eastern portions of the lode is rather intense with end products of sericite, clay minerals, and chlorite while on the remainder of the lode it is weaker with end products of chlorite and epidote.

Mineralization

A zone of general limonite mineralization occurs in the Southeastern portion of the lode which is part of a larger zone exposed on the Gold Hill #1 Lode to the South. The zone is quite narrow in the Southeastern corner but expands gradually until it is covered by the gravels in the central portion. Mineralization consists of limonite and small amounts of hematite, earthy cuprite, and tenorite in narrow veinlets and disseminations. In addition, a 9-foot wide, Northeasterly trending fault vein is exposed in Cut 4 in the East-central portion which contains strong limonite and hematite with small amounts of tenorite and earthy cuprite in pods, breccia fillings, and veins. The

vein zone is lost under rubble to the Southwest of the exposure but can be traced to the Western border of the Gold Hill #30 Lode to the East.

The capping in the zone of general mineralization and in the vein to the North indicates pyrite-chalcopyrite mineralization at depth although strong leaching, caused by the excess of pyrite and the broken nature of the zones, has removed most of the copper from the oxidized portion. Oxidation on the lode probably extends to a minimum of 1,000 feet.

A sample taken across a 1.5-foot shear zone exposed in the floor of Cut 3 assayed 0.10% Cu. The copper minerals were tenorite and, possibly, earthy cuprite which occurred with limonite in veinlets and disseminations.

Gold Hill #30 Lode:

Geology

The Gold Hill #30 Lode is located in the North-central portion of the group in an area of altered Cretaceous andesite flows. The Southern one-third of the lode is covered by recent alluvium, talus, and cemented gravels but the older rocks are fairly well exposed in the areas to the North. The andesite, in general, is weakly altered to chlorite and epidote except near veins where it is strongly altered to chlorite, sericite, and clay minerals.

Mineralization

A Northeasterly trending 25 to 50-foot wide mineralized shear zone is exposed in the extreme Southwestern portion of the lode in and near Cut 3. Mineralization in the zone consists of hematite and small amounts of earthy cuprite in veinlets and rather coarse grained disseminations. In addition, a 5 to 10 foot wide, Northeasterly trending vein is exposed in Cut 4 which cuts across the Northwestern corner and is exposed for approximately 500 feet on the lode. Strong hematite and limonite occur in the vein accompanied by very small amounts of tenorite. The capping in the zones indicates pyrite-chalcopyrite mineralization at depth although strong leaching, caused by the excess of pyrite and the broken nature of the zones, has removed most of the copper from the oxidized portion. Oxidation on the lode probably extends to a minimum of 1,000 feet.

A sample from Cut 3 assayed 0.12% Cu and consisted of chips across a 3-foot wide portion of a mineralized shear zone. The copper mineral was earthy cuprite which occurred with hematite in veinlets and disseminations.

Gold Hill #31 Lode:

Geology

The Gold Hill #31 Lode is located in the North-central portion of the group in an area of altered Cretaceous andesite flows. Recent alluvium and cemented gravels cover most of the Southern three-fourths of the lode and the exposures of the older rocks in these areas are in bands, ranging from 50 to 200 feet in width, along gulches. In addition, a thin cover

of weathered rubble and talus limits exposures in the Northern portion. The andesite occurring on the lode is generally bleached and altered to clay minerals, chlorite, and sericite and is thoroughly shattered by Northeasterly and East-Northeasterly trending fractures.

Mineralization

Although exposures are limited, most of the exposed rocks on the lode contain weak to fair limonite mineralization in disseminations and in Northeasterly and East-Northeasterly trending veinlets. A strong, Northeasterly trending shear zone occurs in and near Cut 2 which contains numerous limonite veinlets up to 2 inches in width, accompanied by very small amounts of tenorite. Another wide, Northeasterly trending shear zone occurs in the North-central portion and is exposed in Cuts 3 and 4. This zone contains limonite and small amounts of hematite, earthy cuprite, and tenorite in veins, pods, disseminations, and films. Capping on the lode indicates general pyrite mineralization at depth accompanied by varying amounts of chalcopyrite although strong leaching, caused by the large excess of pyrite, has removed nearly all of the copper from the oxidized zone. Oxidation on the lode appears to be more shallow than on nearby lodes but probably extends at least 500 feet.

The samples from Cuts 2, 3, and 4 assayed up to 0.12% Cu with the highest assay being recovered from a 10-inch wide channel sample across a hematite veinlet zone in Cut 4. The copper mineral was earthy cuprite which was intimately mixed with the hematite veinlet material.

Lucky Strike #1 Lode:

Geology

The Lucky Strike #1 Lode is located in the extreme Southeastern corner of the group in an area of altered Cretaceous andesite flows. The Western and Eastern borders of the lode are covered by recent alluvium and cemented gravels but the older rocks are well exposed on most of the lode. There are no outcrops of the intrusive monzonite porphyry on the lode but a pipe-like, well mineralized, breccia is exposed in the extreme Southwestern corner. The andesite is thoroughly shattered by Easterly and Northeasterly trending fractures, especially in the central and Western portions, and is moderately to strongly altered to chlorite, biotite, sericite, quartz, and clay minerals.

Mineralization

Nearly all of the Cretaceous rocks on the lode contain weak, but general, mineralization in the form of hematite and limonite with small but varying amounts of chrysocolla, earthy cuprite, and tenorite. The mineralization occurs in veinlets and to a lesser extent in disseminations and irregular pods. In addition, two strong, Easterly trending veins are exposed which contain hematite, limonite, and considerable amounts of chrysocolla. The more Northerly of the veins ranges from 5 to 15 feet wide and extends nearly the length of the lode while the more Southerly one is exposed only in the Eastern portion. Capping the veins indicates chalcopyrite-bornite

mineralization at depth while that in the areas of general mineralization indicates pyrite-chalcopyrite mineralization possibly accompanied by small amounts of bornite. Sulfides in the area are quite shallow but partial oxidation probably extends from 50 to 500 feet.

Assays of samples from Cuts 2, 9, 10, and 11 assayed up to 6.79% Cu with the highest assay being recovered from a 1.2-foot wide chip sample across a zone containing chrysocolla-jasper veinlets and thin films of chrysocolla on fractures in Cut 9.

Lucky Strike #2 Lode:

Geology

The Lucky Strike #2 Lode is located in the Southeastern corner of the group in an area of altered Cretaceous andesite flows. Extensive alluvium and cemented gravels cover the Western one-half and the Eastern border of the lode and exposures of the older rocks are limited to the hills situated between two gulches in the Eastern portion. Monzonite porphyry intruding the andesite is exposed at three locations in the East-central portion. The exposures are small but appear to have an East-Northeasterly trend. The older rocks are thoroughly shattered by Easterly and Northeasterly trending fractures especially in the Southeast-central portion. The andesite is moderately to strongly altered to chlorite, biotite, clay minerals, and sericite while the intrusive porphyry is altered to sericite and clay minerals.

Mineralization

Nearly all of the exposed Cretaceous rocks on the lode contain general mineralization in the form of hematite and limonite with small and varying amounts of chrysocolla, earthy cuprite, and tenorite. The mineralization occurs in veinlets and to a lesser extent in disseminations and irregular pods. In addition, two strong Easterly trending veins are exposed from the central portion of the South side line to the cemented gravels in the Northeastern corner. The veins contain hematite, limonite, and considerable chrysocolla. The capping in the veins indicates chalcopyrite-bornite mineralization at depth while that in the area of general mineralization indicates pyrite-chalcopyrite mineralization possibly accompanied by small amounts of bornite. Oxidation in the area is shallow, with sulfides being encountered in the A-31 drill hole at 70 feet, and probably does not extend below 200 feet.

A total of five surface samples were taken from the lode, one from the drift in the Eastern portion and four from Cut 4. Assays from the samples ranged up to 3.82% Cu with the highest assay being recovered from the hematite-limonite-chrysocolla vein exposed in the drift in the Eastern portion of the lode. The highest assay recovered from Cut 4 was 1.65% Cu from a 2.2-foot wide chip sample across an 8-inch quartz-hematite-chrysocolla vein and the surrounding wall rocks.

The A-31 drill hole encountered material returning assays up to 0.33% Cu. The hole penetrated andesite containing pyrite-chalcopyrite mineralization in veinlets.

Lucky Strike #3 Lode:

Geology

The Lucky Strike #3 Lode is located on the Eastern edge of the group in an area almost entirely covered by recent alluvium and cemented gravels. The only exposures of the older, Cretaceous flows occur in two Northerly trending prongs along a gulch and a road in the Eastern portion. A small hornblende andesite porphyry dike intrudes the flows on the Northern border. The rocks are well shattered by Easterly and Northeasterly trending fractures and are moderately to strongly altered to chlorite, clay minerals, and epidote.

Mineralization

Two veins and associated zones of general veinlet mineralization are exposed on the lode. A 5-foot wide, Northeasterly trending limonite vein outcrops just North of Cut 3 in the Southeastern corner and associated limonite veinlets are exposed in the cut itself. In addition, a Northeasterly trending, 4-foot wide limonite vein zone is exposed in Cut 4 and several 8-inch to 1-foot wide limonite veins are exposed in Cut 5. Weak, general limonite and hematite mineralization in veinlets, shears, and disseminations is associated with both of the veins. The capping exposed on the lode indicates general pyrite-chalcopryite mineralization at depth although strong leaching caused by the excess of pyrite, has removed most of the copper from the oxidized zone. Oxidation in the area is probably rather shallow, extending from 200 to 500 feet in depth.

Assays of samples collected in or near Cuts 3, 4, and 5 ranged up to 0.18% Cu with the highest assay being obtained from the outcrop of a Northeasterly trending vein near Cut 4. The next highest assay was obtained from a channel sample across a 1.5-foot wide shear zone containing strong limonite and small amounts of tenorite in veinlets in Cut 4.

Lucky Strike #4 Lode:

Geology

The Lucky Strike #4 Lode is located in the Southeastern corner of the group in an area of altered Cretaceous andesite flows. Extensive alluvium and cemented gravels cover the Western one-quarter and the Eastern border of the lode and exposures of the older rocks are limited to the central portions. Monzonite porphyry intruding the andesite is exposed at several locations in the South-central portion. The exposures trend Easterly and may be localized along fault zones. The older rocks are thoroughly shattered by Easterly and North-Northeasterly trending fractures especially in the South-central portion. The andesite is moderately to strongly altered to chlorite, biotite, sericite, quartz, and clay minerals while the monzonite porphyry is altered to sericite, quartz, and clay.

Mineralization

Nearly all of the exposed rocks on the lode contain weak, but general, mineralization in the form of hematite and

limonite with small and varying amounts of chrysocolla, earthy cuprite, and tenorite. The mineralization occurs in veinlets and to a lesser extent in disseminations and irregular pods. In addition, two strong, Easterly trending veins are exposed in the central portion which contain hematite, limonite, and considerable amounts of chrysocolla. The veins and associated zones of strong general mineralization range from 10 to 30 feet wide. The capping in the veins indicates chalcopyrite-bornite mineralization at depth while that in the area of general mineralization indicates pyrite-chalcopyrite mineralization, possibly accompanied by small amounts of bornite. Oxidation in the area is rather shallow and irregular. The A-13 drill hole encountered traces of sulfides at 40 feet, but partial oxidation continued to 410 feet.

Assays of samples from Cuts 3, 5, and 6 ranged up to 9.58% Cu with the highest assay being obtained from the 5-foot wide hematite-limonite-chrysocolla vein in Cut 2.

A-13 drill hole encountered material returning 10 foot sample assays as high as 0.50% Cu. Copper minerals in the zone included chalcopyrite, bornite, and chrysocolla.

Lucky Strike #5 Lode:

Geology

The Lucky Strike #5 Lode is located on the Eastern border of the group in an area almost entirely covered by recent alluvium, cemented gravels, and weathered rubble. The only exposures of the Cretaceous flows occur in the extreme Western portion of the lode and in a narrow band along a gulch in the Eastern portion. A narrow, Northerly trending dike of hornblende andesite porphyry also occurs in the Eastern exposure. The andesite rocks are moderately to strongly altered to chlorite, clay minerals, and epidote.

Mineralization

A zone of general hematite mineralization is exposed in and near Cuts 4 and 5 in the Southeastern portion of the lode. The hematite occurs with small amounts of earthy cuprite and tenorite in veinlets, pods, and disseminations within the zone which appears to trend North-Northeast. In addition, a zone containing three Northwesterly trending, 6-inch to 2-foot wide hematite veins is exposed in the large trench (Cut 6) next to the East center end. Capping in the zone of general mineralization indicates pyrite-chalcopyrite mineralization at depth while that in the vein zone indicates pyrite accompanied by small amounts of chalcopyrite. Strong leaching, caused by the excess of pyrite and the broken nature of the rocks, has removed nearly all of the copper from the oxidized zone. Oxidation in the area probably extends from 500 to 1,000 feet.

Assays of samples from Cuts 4, 5, and 6 ranged up to 0.05% Cu. The two highest assays were obtained from a 1-1/2-foot wide vein containing hematite and small amounts of tenorite and earthy cuprite in Cut 5.

Lucky Strike #6 Lode:

Geology

The Lucky Strike #6 Lode is located in the Eastern portion of the group in an area of altered Cretaceous andesite flows. Approximately two-thirds of the lode is covered by recent alluvium and cemented gravels and the only exposures of the Cretaceous rocks are in the Northwestern portion. The andesite is moderately altered to epidote, chlorite, and clay minerals and is weakly shattered by Northwesterly and North-easterly trending fractures. The andesite is generally greenish gray in color except near veins where it is bleached white.

Mineralization

Dominant mineralization on the lode is in several Easterly trending veins outcropping in the Western portion. Vein outcrops in this area are difficult to trace due to a thin cover of weathered rubble but two of the veins are well exposed in Cuts 3 and 4. The structure in Cut 3 is 10 feet wide and trends North-Northeasterly while that in Cut 4 varies from 5 to 10 feet wide and trends Easterly. The mineralization consists of strong hematite and limonite with lesser amounts of earthy cuprite and tenorite. The enclosing wall rocks are, in general, strongly bleached. Capping in the veins indicates strong pyrite-chalcopyrite mineralization at depth although leaching, caused by the excess of pyrite, has removed most of the copper from the oxidized portion. Oxidation in the area probably extends to a minimum of 1,000 feet.

A surface sample, assaying 0.10% Cu, was taken from Cut 3 in the Western portion of the lode. The sample consisted of chips across a 10-foot wide iron oxide vein and the copper mineral was earthy cuprite.

Lucky Strike #7 Lode:

Geology

The Lucky Strike #7 Lode is located in the Eastern portion of the group within an area of altered Cretaceous andesite flows. The Eastern half of the lode is covered by recent alluvium and cemented gravels and the only exposures of the older rocks are on the hill slopes in the Western portion. Several Easterly trending hornblende andesite porphyry dikes intrude the andesite and are also exposed in the Western portion. The dikes are, at least in part, intruded along Easterly trending faults. The faulting appears to be related to the major fault which extends across the Lucky Strike #8 Lode to the North. The andesite is moderately altered to chlorite, epidote, and clay minerals while the hornblende andesite porphyry is more weakly altered to epidote and chlorite.

Mineralization

Dominant mineralization on the lode is in two Easterly trending veins exposed in the Western portion. The veins are developed by several workings although exposures of the zones are rather poor due to a general thin cover of weathered rubble. The more Southerly of the two structures ranges up to 20 feet wide and three separate veins are exposed within the

zone in Cut 3. Mineralization in the veins consists of limonite and hematite with small amounts of irregularly distributed earthy cuprite and tenorite. Capping in the veins indicates pyrite-chalcopryrite mineralization at depth although strong leaching, caused by the excess of pyrite, has removed most of the copper from the oxidized zone. Oxidation in the area probably extends from 500 to 1,000 feet.

Samples were collected from Cut 3 and from the dump next to the 200-foot deep shaft just East of Cut 3. The sample assays ranged up to 0.12% Cu with the highest assay being recovered from an 8-inch wide channel sample across a hard, bleached zone containing tenorite films and pods. The sample was taken from the North edge of the wide fault-vein zone exposed in Cut 3.

Lucky Strike #8 Lode:

Geology

The Lucky Strike #8 Lode is located in the Eastern portion of the group in an area of altered Cretaceous andesite flows. The Eastern three-fifths of the lode is covered by extensive alluvium and cemented gravels and the only exposures of the older rocks are on the hill slopes in the Western portion. A strong, Easterly trending fault zone, which extends more than a mile from the area of general mineralization in the Southwestern portion of the Dos Pobres Group, is exposed in the Southwestern corner and extends the length of the lode until it is lost under alluvium. An Easterly trending hornblende andesite porphyry dike is intruded in the fault along its exposed length and several smaller dikes are exposed nearby which are probably related to the structure. The andesite is moderately altered to chlorite, epidote, and clay minerals while the dike material is less strongly altered to epidote and chlorite. The older rocks are moderately broken by Easterly, Northeasterly, and North-Northwesterly trending fractures.

Mineralization

Dominant mineralization on the lode is in the large, Easterly trending fault which extends from the Southwestern corner to the central portion where it is covered by recent alluvium. Mineralization in the fault consists of limonite and lesser amounts of hematite, earthy cuprite, and tenorite and the mineralized portions range up to 30 feet wide. Capping in the zone indicates pyrite-chalcopryrite mineralization at depth although strong leaching, caused by the excess of pyrite, has removed most of the copper from the oxidized zone. Oxidation in the area probably extends from 500 to 1,000 feet.

Samples were taken from Cut 6 and from the 6-foot deep shaft just West of Cut 6. The highest assay, 0.13% Cu, was obtained from a 1.3-foot wide channel sample across a 2-inch limonite veinlet and the surrounding chloritic wall rock. The sampled zone is near the center of the fault exposed in Cut 6.

Lucky Strike #9 Lode:

Geology

The Lucky Strike #9 Lode is located on the Eastern border of the Dos Pobres Group in an area of altered Cretaceous andesite flows. Most of the lode is covered by extensive alluvium and the only exposures of the older rocks are on hill slopes and along gulches near the Eastern and Western borders of the lode. The Northern termination of a long hornblende andesite porphyry dike is exposed in the extreme Southwestern corner.

The andesite is moderately altered to chlorite, epidote, and clay minerals and hornblende andesite porphyry is more weakly altered to epidote and chlorite. The flows are moderately broken by North-Northeasterly and Northeasterly trending fractures.

Mineralization

Moderate amounts of hematite and limonite occur in Northeasterly trending veinlets along the Western border of the lode and in a 5-foot wide iron oxide veinlet zone exposed in Cut 4 in the East-central portion. Mineralization in the latter zone consists of hematite and limonite accompanied by smaller amounts of chrysocolla and earthy cuprite. The capping in these areas indicates pyrite-chalcopryite mineralization at depth although strong leaching, caused by the excess of pyrite, has removed much of the copper from the oxidized zone. Oxidation in the area probably extends from 500 to 1,000 feet.

A sample taken across the 5-foot wide veinlet zone exposed in Cut 4 assayed 0.88% Cu. The copper minerals were chrysocolla and, possibly, earthy cuprite which occurred with hematite and limonite in the veinlets.

Lucky Strike #10 Lode:

Geology

The Lucky Strike #10 Lode is located on the Eastern edge of the group in an area of altered Cretaceous andesite flows. Approximately three-fourths of the lode is covered by recent alluvium and cemented gravels and the only exposures of the Cretaceous rocks are on the hill slopes in the Southeastern corner. A hornblende andesite porphyry dike which averages 40 feet wide is intruded into the andesite. The andesite is moderately altered to chlorite, epidote, and clay minerals.

Mineralization

The dominant mineralization on the lode is in an Easterly trending fault-vein zone exposed along the Southern border in the wide hornblende andesite porphyry dike. The zone, which is 25 feet wide and contains several separate veins in Cut 3, probably averages 10 to 15 feet wide over its exposed length. Mineralization in the veins is strong hematite, limonite, and quartz with lesser amounts of tenorite and earthy cuprite. Capping in the zone indicates pyrite-chalcopryite

mineralization at depth although strong leaching, caused by the excess of pyrite and the very broken nature of the zone, has removed most of the copper from the oxidized zone. Oxidation in the area probably extends from 500 to 1,000 feet.

Samples were taken from Cut 3 and one each from shafts to the East and West of Cut 3. The highest assay, 0.17% Cu, was obtained from a 2.1-foot wide channel sample taken across a hard, bleached zone containing tenorite in thin films and pods. The sample was taken from the central portion of the wide fault-vein zone exposed in Cut 3.

Lucky Strike #11 Lode:

Geology

The Lucky Strike #11 Lode is located on the Eastern edge of the group in an area almost completely covered by recent alluvium, cemented gravels, and talus. The only exposures of the older Cretaceous flows are along gulches in the Eastern portion of the lode. The flows are strongly broken by Northeasterly trending fractures and are well altered to chlorite, clay minerals, and epidote.

Mineralization

Moderate amounts of hematite and limonite occur in numerous veinlets in the andesite on the extreme Eastern border but the strongest mineralization exposed on the lode is in the vicinity of Cuts 3, 5, and 6 in the East-central portion. An 8-foot wide, Northeasterly trending vein is exposed in Cut 3 and the two trenches contain general mineralization in numerous veinlets, pods, and disseminations. Mineralization in the area consists of hematite and limonite with lesser amounts of tenorite and earthy cuprite. The capping indicates pyrite-chalcopyrite mineralization at depth although strong leaching, caused by the excess of pyrite and the broken nature of the zones, has removed most of the copper from the oxidized zone. Oxidation in the area probably extends to a minimum of 500 to 1,000 feet.

Assays of the samples from Cuts 3, 5, and 6 ranged up to 0.13% Cu with the highest assay being obtained from an 11-inch wide channel sample taken across the Eastern edge of a 3-foot wide hematite vein exposed in Cut 5. The copper mineral was tenorite which occurred in thin films coating fractures and shears in the chloritic wall rock.

Lucky Strike #18 Lode:

Geology

The Lucky Strike #18 Lode is located on the Eastern edge of the group in an area of altered Cretaceous andesite flows. Approximately two-fifths of the lode is covered by recent alluvium and cemented gravels and exposures of the older flows are limited to the Eastern portion of the lode. A curving, yoke-shaped hornblende andesite porphyry dike intrudes the andesite. Another of the intrusive dikes trends Northeasterly across the Southeastern corner of the lode. The andesite is moderately altered to chlorite, epidote, and clay minerals, while the hornblende andesite dike material is weakly altered to epidote and chlorite.

Mineralization

The strongest mineralization exposed on the lode is in a 7-1/2-foot wide, Easterly trending, strong hematite-limonite-quartz-jasperoid fault-vein which outcrops in a gully in the North-central portion. The vein is developed by a 30-foot shaft and a large trench but is covered to both the East and West of the exposures by thick alluvium and cemented gravels. The zone may possibly be the Westerly extension of the strong fault vein exposed in the Southeastern portion of the Lucky Strike #10 Lode. The vein capping indicates strong pyrite-chalcopryite mineralization at depth although strong leaching, caused by the excess of pyrite and the extremely broken nature of the zone, has removed most of the copper from the oxidized portion. Oxidation in the area probably extends from 500 to 1,000 feet.

Samples were taken from Cut 3 and from the 30-foot deep shaft just East of Cut 3. The sample assays ranged up to 0.05% Cu with the highest assay being recovered from a 1.8-foot wide channel sample across a shear zone on the Northwest contact of the fault vein exposed in Cut 3. The copper mineral was tenorite which occurred as thin films and pods coating shears.

The A-57 drill hole encountered assays up to 0.04% Cu. The copper mineral was earthy cuprite which was intimately mixed with hematite in the thoroughly leached vein material.

Larivel No. 1 Lode:

Geology

The Larivel No. 1 Lode is located in the Northern portion of the group in an area of altered Cretaceous andesite flows. Except for a 25 to 100 foot wide band of alluvium and stream gravels along gulches in the Northern portion, exposures of the Cretaceous rocks are fairly good on the lode. The andesite exposed on the lode is, in general, moderately fractured and weakly altered to chlorite and epidote. However, in and near the portion of the Red Dyke fault-vein system that crosses the central part of the lode, the rocks are intensely sheared and strongly altered to chlorite, clay minerals, and sericite.

Mineralization

The East-Northeasterly trending, Northern branch of the strong Red Dyke fault-vein system outcrops on the Eastern border of the lode and is intermittently exposed along the gulch in the central portion. The structure is quite wide, possibly up to 100 feet, although rubble and stream gravels usually cover the borders of the zone. The Northern portion of the structure is exposed in Cut 3 where a strong 12-foot wide vein occurs in a strongly sheared zone. Another vein is exposed in Cut 2 in the West-central portion of the lode which may dip into the Red Dyke structure at depth. The vein is 3-1/2 feet wide and the strongly sheared wall rocks contain some tenorite and weak hematite in films coating fractures. Mineralization in the veins consists of hematite and limonite accompanied by small amounts of tenorite and earthy cuprite. The capping indicates pyrite-chalcopryite mineralization at depth although strong leaching, caused by the excess of pyrite and the broken

nature of the zones, has removed most of the copper from the oxidized portion. Oxidation in the area probably extends to a minimum of 1,000 feet.

Samples from Cuts 2 and 3 assayed up to 0.17% Cu and the highest assay was obtained from a 8-1/2-inch wide channel sample across a massive limonite vein in Cut 3. The copper mineral was probably tenorite.

Larivel No. 2 Lode:

Geology

The Larivel No. 2 Lode is located in the North-central portion of the group in an area of altered Cretaceous andesite flows. Except for 25 to 100-foot wide bands of alluvium and gravel along gulches and a thin layer of rubble on some hill slopes, exposures of the Cretaceous rocks are fairly good on the lode. The andesite is, in general, moderately fractured and weakly altered to chlorite and epidote. However, in and near the portion of the Red Dyke system that crosses the South-central portion of the lode, the rocks are intensely sheared and altered to chlorite, clay minerals, and sericite.

Mineralization

The East-Northeasterly trending, Northern branch of the strong Red Dyke fault-vein system outcrops in the central portion and is intermittently exposed along the gulch to both the East and West. The structure is probably quite wide, possibly up to 100 feet, although rubble and stream gravels usually cover the borders of the zone. The Northern portion of the structure is exposed in Cut 3 in the South-central portion of the lode where numerous hematite and limonite veinlets occur in the strongly sheared andesite. A strong, 5-foot wide vein and associated hematite-limonite veinlets are exposed in Cut 2 on the Southern border of the zone. The mineralization in the veins consists of hematite and limonite accompanied by small amounts of earthy cuprite and tenorite. The capping in the veins indicates pyrite-chalcopryrite mineralization at depth although strong leaching, caused by the excess of pyrite and the broken nature of the rocks, has removed most of the copper from the oxidized zone. Oxidation in the area probably extends to a minimum of 1,000 feet.

A surface sample assaying 0.18% Cu was taken from Cut 2 in the Southern portion of the lode. The sample consisted of chips across a 5-foot wide vein and the copper minerals were tenorite and earthy cuprite which occurred with the strong hematite-limonite vein material.

Larivel No. 3 Lode:

Geology

The Larivel No. 3 Lode is located in the North-central portion of the group in an area of Cretaceous andesite flows. Exposures of Cretaceous rocks are good except in the South-central portion and in the Southeastern corner where bands of alluvium and stream gravels up to 100 feet wide occur along gulches. The andesite is, in general, moderately fractured and weakly altered to chlorite and epidote. However, the rocks

in and near the Red Dyke fault-vein, which crosses the Southeastern portion, are almost certainly sheared and strongly altered to chlorite, clay minerals, and sericite although the zone is covered by stream gravels and is not exposed on the lode. The rocks are also sheared and altered to chlorite and clay minerals near a Northeasterly trending shear zone in the extreme Northern portion.

Mineralization

The East-Northeasterly trending, Northern branch of the strong Red Dyke fault-vein system crosses the Southeastern portion but is covered by stream gravels and is not exposed on the lode. However, a mineralized, 10 to 15-foot wide, Northeasterly trending shear zone is exposed near the road in the Northern portion. The zone outcrops only in and near the shaft located 60 feet South-Southwest of the North center end and is covered by rubble to the South although it does appear to extend onto the Larivel No. 4 Lode to the North. The mineralization exposed in the shaft is confined to a 2-foot wide limonite vein containing tenorite and, possibly, earthy cuprite. The capping indicates pyrite-chalcopryrite mineralization at depth although strong leaching has removed most of the copper from the oxidized zone. Oxidation in the area probably extends to a minimum of 1,000 feet.

A surface sample, assaying 0.25% Cu, was taken from the 5-foot deep shaft located 60 feet Southwest of the North center end. The sample was a channel across a 2-foot wide limonite vein and the copper mineral was tenorite which occurred as thin films coating fractures and shears.

Larivel No. 4 Lode:

Geology

The Larivel No. 4 Lode is located in the extreme Northern portion of the group in an area of Cretaceous andesite flows. The Cretaceous rocks are poorly exposed due to bands of alluvium and cemented gravels in gulches and extensive, but thin layers of weathered rubble and talus on hill slopes and ridges. The andesite is, in general, moderately fractured and weakly to moderately altered to chlorite and epidote. However, in and near the North-Northeasterly trending shear zone in the Southeastern corner of the lode, the rocks are sheared and strongly altered to chlorite, clay minerals, and sericite.

Mineralization

A mineralized, 10 to 15-foot wide shear zone is exposed in Cut 2 in the Southeastern portion of the lode which contains a 1-foot wide limonite-chrysocolla vein and some associated iron oxide veinlets. Although the zone trends North-Northeasterly and the zone in the Northern portion of the Larivel No. 3 Lode trends Northeasterly, the two zones both seem to be part of the same major structure. Exposures in the area are poor but another vein is exposed in the shallow shaft just Northeast of the South center end. Mineralization in the veins consists of limonite and lesser hematite accompanied by small amounts of chrysocolla, tenorite, and earthy cuprite. The capping in the zones indicates pyrite-chalcopryrite mineralization at depth although strong leaching, caused by

the excess of pyrite, has removed most of the copper from the oxidized portions. Oxidation in the area probably extends to a minimum of 1,000 feet.

A surface sample, assaying 0.17% Cu, was taken from Cut 2 in the Southern portion of the lode. The sample was a 2-foot wide channel cut across a limonite-hematite-chrysocolla vein.

Larivel No. 5 Lode:

Geology

The Larivel No. 5 Lode is located in the extreme Northern portion of the group in an area of Cretaceous andesite flows and Tertiary basalt tuffs. The younger Tertiary tuffs occupy the Northeastern portion and overlie the Cretaceous andesites which are exposed elsewhere on the lode. The Cretaceous rocks are poorly exposed due to bands of alluvium and gravels in gulches and extensive, but thin, layers of weathered rubble and talus on high slopes and ridges. The andesite is, in general, moderately fractured and weakly to moderately altered to chlorite and epidote. However, in and near the Northeasterly trending shear zone in the Southeastern corner of the lode, the rocks are sheared and strongly altered to chlorite, clay minerals, and sericite.

Mineralization

A mineralized, 10 to 20-foot wide fault zone is exposed in Cut 2 in the Southeastern portion of the lode. The Northeasterly trending zone contains a 3-foot wide vein and some associated iron oxide veinlet mineralization. The rather poorly exposed fault is covered to the Southwest but can be traced Northeasterly to Cut 2 on the Larivel No. 6 Lode. Mineralization in the vein consists of hematite and limonite accompanied by lesser amounts of quartz and chrysocolla. The capping indicates pyrite, chalcopyrite, and, possibly, bornite at depth and, due to the relatively low pyrite content of the mineralization, a portion of the copper is retained in the oxidized zone. Oxidation in the area probably extends to a minimum of 1,000 feet.

Two surface samples, assaying 0.71 and 0.60% Cu, were taken from Cut 2 in the Southeastern corner of the lode. The samples were chips taken across a 3-foot wide vein and the copper mineral was chrysocolla which occurred in veinlets and films within the strong hematite-quartz-limonite vein material.

Larivel No. 6 Lode:

Geology

The Larivel No. 6 Lode is located in the extreme Northern portion of the group in an area of Cretaceous andesite flows and Tertiary basalt tuffs. The younger tuffs occupy the Northern one-third of the lode and overlie the Cretaceous andesites which are exposed elsewhere. The older rocks are poorly exposed due to bands of alluvium and gravels in gulches and extensive, but thin, layers of weathered rubble and talus

on hill slopes and ridges. The andesite is, in general, weakly fractured and moderately altered to chlorite and epidote. However, in and near the Northeasterly trending fault zone in the Southern portion, the rocks are sheared and strongly altered to chlorite, clay minerals, and sericite.

Mineralization

A mineralized, 10 to 20-foot wide fault zone is exposed in Cut 2 in the East-central portion of the lode. The zone, which is intermittently exposed from Cut 2 on the Larivel No. 5 Lode to Cut 2 on the Larivel No. 6 Lode, contains a 5-foot wide vein and some associated iron oxide veinlet mineralization. Mineralization in the vein consists of hematite, limonite, and lesser amounts of chrysocolla. The capping indicates pyrite, chalcopyrite, and, possibly, bornite at depth and, due to the rather low pyrite content of the mineralization, much of the copper is retained in the oxidized zone. Oxidation in the area probably extends to a minimum of 1,000 feet.

A surface sample, assaying 3.30% Cu, was taken from the dump next to Cut 2 in the West-central portion of the lode. The copper mineral was chrysocolla which occurred with hematite and limonite in a 5-foot wide vein.

Foothill #52 Lode:

Geology

The Foothill #52 Lode is located in the East-central portion of the group in an area of moderately altered Cretaceous andesite flows. The only other older rock exposed is a North-Northeasterly trending hornblende andesite porphyry dike which intrudes the flows and extends the width of the lode. Recent alluvium covers the Southeastern corner of the lode and a thin layer of weathered rubble limits exposures in the Eastern and Western portions. The older rocks are moderately altered to chlorite, epidote, and clay minerals. Two East-Northeasterly trending mineralized faults are exposed in the central and Northwestern portions but, except in the areas near the faults, the fracturing on the lode is rather weak.

Mineralization

The large, East-Northeasterly trending fault vein exposed in the central portion ranges up to 15 feet in width and extends nearly the length of the lode. Mineralization in the fault vein consists of hematite and lesser amounts of limonite and earthy cuprite in veinlets, pods, and disseminations. The curving, Easterly trending, 10-foot wide fault vein exposed in the Northwestern portion of the lode appears to be rather discontinuous and projections of the vein West of the exposures is uncertain due to rubble and talus. The vein ranges up to 10 feet in width and mineralization consists of hematite, limonite, and chrysocolla. The capping in the veins indicates pyrite-chalcopyrite mineralization at depth in the more Southerly vein and pyrite, chalcopyrite, and, possibly, bornite in the vein to the North. Oxidation in this area is probably deep and may extend to as much as 1,000 feet.

A sample from the dump next to the 20-foot deep shaft in the Northwestern portion of the lode assayed 0.17% Cu. Mineralization consisted of hematite, limonite, and chrysocolla.

Foothill #53 Lode:

Geology

The fractional Foothill #53 Lode is located in the Southeastern portion of the group in an area entirely covered by recent alluvium and cemented gravels. Although there are no outcrops of the older rocks on the lode, the Cretaceous andesite is exposed in the A-30 drill hole in the central portion of the lode below 90 feet of alluvium. The andesite flows encountered in the drill hole were moderately fractured and altered in part to chlorite and biotite.

Mineralization

There are no mineralized surface exposures on the lode but weak, general mineralization was encountered in the A-30 drill hole. The mineralization consisted of pyrite and chalcopyrite accompanied by traces of bornite and occurred in veinlets and disseminations. Oxidation on the lode appears to be quite shallow as sulfides were present just below the alluvium at 90 feet in the drill hole.

The A-30 drill hole, located in the central portion of the lode, encountered material which assayed up to 0.21% Cu. The copper minerals were chalcopyrite and traces of bornite.

Birthday #1 Lode:

Geology

The Birthday #1 Lode is located on the Western edge of the group and lies entirely Southwest of the Foothill Fault. The nearest surface exposure of the older Cretaceous andesite is approximately 520 feet Northeast of the Northeast corner of the lode and the only rocks exposed are Tertiary conglomerate and cemented gravels. The Cretaceous andesite was encountered in the RL-21 drill hole in the hanging wall of the Foothill Fault below 1,240 feet of younger series (Tertiary) gravels, basalt, and andesite. The older andesite was moderately altered to chlorite to 1,300 feet and was strongly altered to chlorite and clay minerals below. Extreme brecciation forced abandonment of the hole at 1,470 feet before the fault was penetrated.

Mineralization

There are no mineralized surface exposures on the lode but limonite mineralization ranging from very weak to fairly strong was encountered in the Cretaceous andesite penetrated by the RL-21 drill hole. The capping indicated pyrite-chalcopyrite mineralization at depth although intense leaching, caused by the excess of pyrite, has removed most of the copper from the oxidized zone. The depth of oxidation in the area is in part dependent on the Foothill Fault.

The RL-21 drill hole encountered approximately 230 feet of limonite mineralization in the older series Cretaceous andesite. Assays up to 0.06% Cu were obtained from this drilling. The copper mineral apparently was earthy cuprite or tenorite mixed with the iron oxide veinlet material.

Birthday #3 Lode:

Geology

The Birthday #3 Lode is located on the Southwestern edge of the group and lies entirely Southwest of the Foothill Fault. The nearest surface exposure of the older Cretaceous andesite is approximately 1,000 feet Northeast of the Northeast corner of the lode and the only rocks exposed are Tertiary conglomerate and cemented gravels. The Cretaceous andesite was encountered on both sides of the Foothill Fault in the RL-15 drill hole and contained general chloritic alteration above the fault and both chloritic and argillic alteration below. The fault was encountered from 2,208 to 2,440 feet in the drill hole.

Mineralization

There are no mineralized surface exposures on the lode but limonite mineralization was encountered in the Cretaceous andesite in the hanging wall of the Foothill Fault and both iron oxide and sulfide mineralization were encountered in the footwall. Oxidation extended to just below the fault and sulfides appeared at 2,456 feet. The capping on both sides of the fault indicated pyrite-chalcopyrite mineralization at depth although more copper was indicated on the footwall side.

The RL-15 drill hole encountered a column of sulfide mineralization with 10 foot sample assays up to 1.45% Cu.

Elevator #26 Lode:

Geology

The Elevator #26 Lode is located in the Northern portion of the group in an area of altered Cretaceous andesite flows. Extensive rubble and talus in a 200 to 300-foot wide band extends down the Eastern border of the lode and curves across the central portion. In addition, stream gravels cover the Southeastern corner but the Cretaceous rocks are fairly well exposed elsewhere on the lode. The andesite is in general, moderately fractured and weakly altered to chlorite and epidote. However, in and near the portion of the Red Dyke fault-vein system that crosses the central part of the lode the rocks are intensely sheared and strongly altered to chlorite, clay minerals, and sericite.

Mineralization

The East-Northeasterly trending Northern branch of the strong Red Dyke fault-vein system outcrops on the Western border of the lode and extends to the central portion where it is covered by rubble and talus. The zone appears to average approximately 100 feet in width on the lode and the Northern and Southern borders are well exposed in Cuts 2 and 3. The portion of the strongly sheared zone exposed in Cut 3 is approximately 20 feet wide and contains general mineralization in veinlets and disseminations in the areas between several strong veins. The Northern border of the zone is exposed in Cut 2 where a 2-foot wide vein occurs which is bordered by

weak hematite veinlets.. The veins contain strong hematite and lesser limonite associated with small amounts of tenorite and earthy cuprite. The capping indicates pyrite-chalcopryrite mineralization at depth although strong leaching, caused by the excess of pyrite and the broken nature of the zones, has removed most of the copper from the oxidized portion. Oxidation in the area probably extends to a minimum of 1,000 feet.

Samples from Cuts 2 and 3 assayed up to 0.15% Cu. The highest assay was from a 1-foot wide channel sample across a 10-inch hematite vein in Cut 3. The copper mineral was earthy cuprite which was mixed with the hematite vein material.

Elevator #27 Lode:

Geology

The Elevator #27 Lode is located in the Northern portion of the group in an area of altered Cretaceous andesite flows. An extensive layer of weathered rubble, alluvium, and stream gravels covers the Northern one-third of the lode and extends in a 100 to 150-foot wide band along the gulch on the Western border. The Southern one-fourth of the lode is also largely covered by alluvium and stream gravels and the best exposure of the Cretaceous rocks is in the East-central portion. The exposed Cretaceous rocks, in general, are moderately fractured and weakly altered to chlorite and epidote.

Mineralization

The East-Northeasterly trending Northern branch of the Red Dyke fault-vein system appears to cross the Northern portion of the lode but is concealed by the extensive alluvial cover. The Southern branch of the Red Dyke system may also extend onto the Southern portion of the lode but again extensive gravels cover the Cretaceous rocks along the trend of the vein. An East-Northeasterly trending, 5-foot wide, weakly sheared zone occurs in Cut 2. The zone contains sporadic veinlets containing hematite, chrysocolla, earthy cuprite, and tenorite. The areas between the veinlets contain limonite, manganese oxide, and tenorite in the coatings on fractures. The veinlet zone is well exposed only in the cut and its extent on the lode is not known. The capping in the zone indicates chalcopryrite-bornite mineralization and oxidation probably extends to a minimum of 1,000 feet.

A surface sample, assaying 4.88% Cu, was taken from Cut 2 on the lode. The sample was from veinlets occurring in the 5-foot wide, weakly sheared zone. The copper minerals were chrysocolla, tenorite, and earthy cuprite.

Elevator No. 28 Lode:

Geology

The Elevator No. 28 Lode is located in the Northern portion of the group in an area of altered Cretaceous andesite flows. A 100-foot wide band of stream gravels occurs in the North-Northeasterly trending gulch along the Eastern border and the Cretaceous rocks are also covered by a thin layer of rubble and cemented gravels in the South-central portion of

the lode. The Cretaceous rocks are weakly fractured and moderately altered to chlorite and epidote except near veins where they are sheared and strongly altered to chlorite, clay minerals, and sericite.

Mineralization

A 35-foot wide, East-Northeasterly trending shear zone is exposed in Cut 5 in the Northwestern portion of the lode. Mineralization within the zone is in a 3-1/2 foot wide strong vein on the Northern edge and in a 6-foot wide veinlet zone on the Southern border. The area between the veins contains weak to very weak limonite flooding and veinlets. Mineralization in the stronger zones consists of limonite and lesser amounts of hematite accompanied by small amounts of tenorite and earthy cuprite. The shear zone probably represents the Easternmost extension of the Northern branch of the Red Dyke fault-vein system exposed on the Elevator #26, Larivel No. 1, and Larivel No. 2 Lodes to the West. Capping in the zone indicates pyrite-chalcopryrite mineralization at depth although strong leaching, caused by the excess of pyrite and the broken nature of the zone, has removed most of the copper from the oxidized portion. Oxidation in the area probably extends to a minimum of 1,000 feet.

Samples from Cut 5 and a shaft in the Northwestern corner of the lode assayed up to 0.11% Cu with the highest assay being recovered from a 1.3-foot wide channel across a portion of the vein exposed in Cut 5. The copper mineral was earthy cuprite which was intimately mixed with the strong hematite-limonite vein material.

Elevator No. 29 Lode:

Geology

The Elevator No. 29 Lode is located in the Northern portion of the group in an area of Cretaceous andesite flows. A 50 to 100-foot wide band of alluvium and stream gravels covers the Cretaceous rocks in the long, North-Northeasterly trending gulch which extends the length of the lode and a thin layer of weathered rubble covers the central portion West of the gulch. The andesite outcrops most prominently in the Southeastern and Northeastern portions and, in general, is moderately fractured and weakly altered to chlorite and epidote. Near veins in the Southern portion, however, the rocks are sheared and strongly altered to chlorite, clay minerals, quartz, and sericite.

Mineralization

A 10-foot wide Northeasterly trending shear zone containing several 6-inch to 1-foot wide veins and some associated veinlet mineralization is exposed in a cut approximately 175 feet Northeast of the South center end. The zone is well exposed, however, only in the cut and, because of rubble and talus, is difficult to trace along its strike to either the Northeast or Southwest. The capping in the zone indicates pyrite-chalcopryrite mineralization at depth although leaching, due to the excess of pyrite, has removed much of the copper from the oxidized zone. Oxidation in the area probably extends to a minimum of 1,000 feet.

Samples from an unsurveyed cut 175 feet Northeast of the South center end assayed up to 0.21% Cu with the highest assay being obtained from a 1-foot wide sample across the outcrop of the vein exposed in the cut. The copper mineral was earthy cuprite which occurred with hematite and quartz. The next highest assay (0.13% Cu) was obtained from a channel sample cut across the 1-foot wide vein in the cut.

Red Dyke No. 1 Lode:

Geology

The Red Dyke No. 1 Lode is located in the North-central portion of the group in an area of altered Cretaceous andesite flows. An Easterly trending, several hundred-foot wide band of recent alluvium and stream gravels occurs in the gulch extending across the Northern portion but the Cretaceous rocks are fairly well exposed elsewhere on the lode. Two Easterly trending hornblende andesite dikes, which are probably localized in fault structures, intrude the flows and extend across the Southern and central portions of the lode. The older rocks are moderately fractured and weakly altered to chlorite and epidote except in the Northeastern corner where the strong, Easterly trending Red Dyke fault-vein system is exposed. The rocks in and near this zone are intensely sheared and altered to clay minerals, chlorite, and sericite.

Mineralization

The only outcrop of the strong Red Dyke fault-vein system on the lode is next to the gulch in the Northeastern corner. The Southern portion of the zone is covered by stream gravels but a 5-foot wide, Easterly trending vein is exposed in Cut 3 which contains strong hematite and small amounts of limonite, earthy cuprite, and tenorite. In addition a North-easterly trending, mineralized shear zone outcrops in the central portion of the lode in the vicinity of Cut 4. The shear zone, which appears to be a part of the fault zone along which the nearby hornblende andesite porphyry dike was intruded, contains a 3-foot wide limonite-chrysocolla vein. Capping in the veins exposed on the lode indicates pyrite-chalcopryrite mineralization at depth although strong leaching, caused by the excess of pyrite, has removed most of the copper from the oxidized portion of the Red Dyke vein. Oxidation in the area probably extends from 800 to 1,000 feet in depth.

Samples from Cuts 3 and 4 and Northeast of Cut 4 assayed up to 0.64% Cu with the highest assay being recovered from a channel sample taken across a 6-inch wide portion of a 3-foot wide vein in the cut 35 feet Northeast of Cut 4. The copper mineral was chrysocolla which occurred with limonite in blebs and veinlets.

Red Dyke No. 2 Lode:

Geology

The Red Dyke No. 2 Lode is located in the North-central portion of the group in an area of altered Cretaceous andesite flows and intrusives. A 75 to 200-foot wide band of alluvium and stream gravels covers the older rocks along a Northeasterly trending gulch in the central portion of the lode but, except

for a thin layer of weathered rubble on hill slopes, exposures of the Cretaceous rocks are good elsewhere on the lode. The flow units are extensively intruded by Northwesterly and Northeasterly trending hornblende andesite dikes, especially in the Southern portion. The Northwesterly trending dikes are rather irregular, range up to 300 feet wide, and are intruded by the narrower, Northeasterly trending dike. The latter dike is intruded along the Red Dyke fault and is closely associated, at least in space, with the Red Dyke vein system. Except in and near the fault-vein system in the center of the lode, the rocks are weakly fractured and weakly to moderately altered to chlorite and epidote. Shearing is intense in the fault-vein zone and the rocks are strongly altered to chlorite, clay minerals, and sericite.

Mineralization

The dominant mineralization on the lode is in the East-Northeasterly trending Red Dyke fault-vein system which crosses the central portion of the lode. The zone, which extends along a gulch, is largely covered by alluvium but is possibly 150 feet wide. The portion exposed in Cut 3 contains a strong hematite vein which ranges from 5 to 7 feet wide and, in addition, another 5 to 8 foot vein is exposed in a bulldozer scrape on the South side of the gulch. The veins contain strong hematite and small amounts of limonite, tenorite, and earthy cuprite. The capping indicates pyrite-chalcopyrite mineralization at depth although strong leaching, caused by the excess of pyrite and the broken nature of the zone, has removed most of the copper from the oxidized portion. Oxidation in the area probably extends up to a minimum of 1,000 feet.

Samples from Cuts 3 and 4 assayed up to 0.13% Cu with the highest assay being recovered from the outcrop sample at the site of Cut 4. The sample consisted of vein material and the copper mineral was tenorite which occurred as films and veinlets in the strong hematite vein material. The highest assay recovered from Cut 4 was 0.10% Cu, obtained in two separate samples. The samples were across 1.4 and 0.9-foot sections of wall rock next to veins which contained thin films of tenorite.

Red Dyke No. 3 Lode:

Geology

The Red Dyke No. 3 Lode is located in the Northern portion of the group in an area of altered Cretaceous andesite flows and intrusives. A band of alluvium and cemented gravels, averaging 100 feet wide, occurs along gulches in the Southern portion and in the Northwestern corner but exposures of the Cretaceous rocks are good elsewhere on the lode. The flow units are extensively intruded by Northwesterly and East-Northeasterly trending hornblende andesite porphyry dikes, especially in the Southern portion. The irregular, Northwesterly trending dikes range up to 150 feet wide and are in turn intruded by a 30-foot wide, East-Northeasterly trending dike. The latter dike is intruded along the Red Dyke fault and is closely associated, at least in space, with the Red Dyke vein system. Except in and near the fault-vein system in the central portion, the rocks are weakly fractured and weakly to moderately altered to chlorite and epidote. Shearing is intense in the fault-vein zone and the rocks are strongly altered to chlorite, clay minerals, and sericite.

Mineralization

The dominant mineralization on the lode is in three veins, two in the central portion and one in the Northwest corner. The East-Northeasterly trending vein exposed in Cut 5 in the Northwestern corner ranges from 10 to 15 feet wide and appears to be a Northern branch of the Red Dyke fault-vein system. The main portion of the Red Dyke vein system is largely covered by alluvium on the lode but a part is exposed in Cuts 2, 3, and 6. The veins range from 5 to 10 feet wide, and are accompanied by veinlet mineralization in the more weakly mineralized wall rocks. In addition, a 10 to 15-foot wide vein, which occurs in the Northern part of the zone, is exposed on the Western border just East of Cut 2 on the Red Dyke No. 4 Lode. The veins contain strong hematite and small amounts of limonite, tenorite, and earthy cuprite. The capping indicates pyrite-chalcopryrite mineralization at depth although strong leaching, caused by the excess of pyrite and the very broken nature of the zone, has removed most of the copper from the oxidized portion.

Samples from Cuts 2, 3, 5 and 6 assayed up to 0.09% Cu with the highest assay being recovered from a 2-foot wide channel sample across a strongly sheared zone in Cut 6. The copper mineral was tenorite, the black copper oxide, which occurred in numerous thin films coating fractures in the sheared, chloritic andesite.

Red Dyke No. 4 Lode:

Geology

The Red Dyke No. 4 Lode is located in the Northwestern portion of the group in an area of altered Cretaceous andesite flows and intrusives. A band of alluvium and stream gravels, averaging 50 to 100 feet wide, occurs along gulches in the North-central portion and cemented gravels and rubble cover the Northwestern corner but exposures of the Cretaceous rocks are good elsewhere on the lode. A 60-foot wide, Easterly trending hornblende andesite porphyry dike intrudes the flows and extends across the South-central portion. The dike is intruded along the Red Dyke fault and is closely associated, at least in space, with the Red Dyke vein system. Except in and near the fault-vein system in the South-central area, the rocks are weakly fractured and weakly to moderately altered to chlorite and epidote. Shearing is intense in the fault-vein zone and the rocks are strongly altered to chlorite, clay minerals, and sericite.

Mineralization

The Red Dyke fault-vein system is largely covered by alluvium and rubble on the lode but two East-Northeasterly trending veins are exposed within the zone. The vein occupying Cut 2 is 15 feet wide and occurs in the Northern part of the wide zone while the vein occupying Cut 3 is 9 feet wide and represents the Southern border. Both veins contain strong hematite and small amounts of limonite, tenorite, and earthy cuprite. The capping indicates pyrite-chalcopryrite mineralization at depth although strong leaching, caused by the excess of pyrite and the strongly broken nature of the zone, has removed most of the copper from the oxidized portion. Oxidation on the lode probably extends to a minimum of 1,000 feet.

Samples from Cuts 2 and 3 assayed up to 0.12% Cu with the highest assay being recovered from a 1.7-foot wide channel sample across the Southern edge of the vein exposed in Cut 3. The copper mineral was tenorite which occurred in thin films coating fractures in the strong hematite vein material.

Red Dyke No. 5 Lode:

Geology

The Red Dyke No. 5 Lode is located in the Northwestern portion of the group in an area of Cretaceous andesite flows and intrusives. A thin cover of weathered rubble partially obscures outcrops of the older rocks in the central and Northern portions of the lode and exposures are best along ridges and in small gullies. In the Southeastern corner there is an andesite stock exposed. A 60-foot wide, Easterly trending hornblende andesite porphyry dike intrudes the flows and extends across the South-central portion. The dike is intruded along the Red Dyke fault and is closely associated, at least in space, with the Red Dyke vein system. Except in and near the fault-vein system in the South-central area, the rocks are weakly fractured and weakly to moderately altered to chlorite and epidote. Shearing is intense in the fault-vein zone and the rocks are strongly altered to chlorite, clay, and sericite.

Mineralization

The Red Dyke fault-vein system is largely covered by alluvium and rubble but is well exposed in Cut 4 and the 60-foot deep shaft to the West. There appears to be only one vein in the zone over most of the lode and it trends Easterly and ranges from 15 to 20 feet wide. However, an Easterly trending, 5 to 10-foot wide vein is exposed near the Northern edge of the lode which is possibly a branch from the main system. Both veins contain strong hematite and small amounts of limonite, tenorite, and earthy cuprite. The capping indicates pyrite-chalcopyrite mineralization at depth although strong leaching, caused by the excess of pyrite and the broken nature of the zone, has removed most of the copper from the oxidized portion. Oxidation in the area probably extends to a minimum of 1,000 feet.

Samples from Cut 4 and the dump near the 60-foot shaft assayed up to 0.11% Cu with the highest assay being recovered from two 3-foot wide channel samples along the Southern border of the mineralized zone exposed in Cut 4. The copper mineral was tenorite which occurred with hematite in thin films coating fractures.

Red Dyke #6 Lode:

Geology

The Red Dyke #6 Lode is located in the Northwestern portion of the group in an area of Cretaceous andesite flows and intrusives. A thin layer of weathered rubble partially obscures outcrops of the older rocks in the central and Northern portions of the lode and exposures in these areas are best along ridges and in small gullies. An Easterly trending hornblende andesite porphyry dike, ranging from 40 to 80 feet wide, appears to occupy a portion of the Red Dyke fault. The dike is also closely associated, at least in space, with the Red Dyke vein system. Except in and near

veins in the Southern and central areas, the rocks are weakly fractured and weakly to moderately altered to chlorite and epidote. Shearing is intense in the Red Dyke fault zone and the rocks are strongly altered to chlorite, clay minerals, and sericite.

Mineralization

The Red Dyke fault-vein system occupies the gulch crossing the central portion of the lode but is largely covered by alluvium and rubble except where exposed by Cuts 2 and 3. The portion of the East-Northeasterly trending zone exposed in the Cuts is 10 to 15 feet wide and contains strong hematite and small amounts of limonite, tenorite, and earthy cuprite. The capping indicates pyrite-chalcopryite mineralization although strong leaching has removed most of the copper from the oxidized zone.

Another East-Northeasterly trending vein is exposed in Cut 4 which may be a branch of the main vein zone. The vein is 6 feet wide and contains limonite and hematite accompanied by chrysocolla which occurs in narrow veinlets and blebs. The vein is poorly exposed except in the cut but capping indicates pyrite-chalcopryite mineralization and the pyrite-chalcopryite ratio is low enough, at least in part of the zone, that much of the copper is retained in the oxidized zone. Oxidation in the area probably extends to a minimum of 1,000 feet.

A surface sample, assaying 1.30% Cu, was taken from Cut 4 in the Northern portion of the lode. The sample consisted of chips taken across a 3-foot portion of the vein exposed in the cut and the copper mineral was chrysocolla which occurred in narrow veinlets and blebs.

Red Dyke #7 Lode:

Geology

The Red Dyke #7 Lode is located in the Northwestern portion of the group in an area of Cretaceous andesite flows and intrusives. A 30 to 50-foot wide band of alluvium and stream gravels occurs along gulches in the Northern and Northwestern portions and a thin cover of weathered rubble and talus partially obscures outcrops over much of the rest of the lode. The Cretaceous rocks are best exposed along ridges and in small gullies. An Easterly trending hornblende andesite porphyry dike, ranging from 55 to 80 feet wide, appears to occupy a portion of the Red Dyke fault. The dike is also closely associated, at least in space, with the Red Dyke vein system. Except in and near veins, the Cretaceous rocks on the lode are weakly fractured and weakly to moderately altered to chlorite and epidote. Shearing is intense in the Red Dyke and associated fault zones and the rocks are strongly altered to chlorite, clay minerals, and sericite.

Mineralization

Six veins and vein systems are exposed on the lode. The main Red Dyke vein system is exposed in Cut 3 in the Southern portion but other parallel fault structures appear on the lode to the North. Veins ranging from 5 to 20 feet wide are exposed in Cuts 2, 4, 5, and 6 and another outcrops just North of Cut 6. The main

Red Dyke Vein occupies the gulch crossing the central portion of the lode but is largely covered by alluvium and rubble except where exposed by Cut 3. The portion occupying the cut is 10 to 15 feet wide and trends East-Northeasterly. The veins all contain strong hematite and varying amounts of limonite accompanied by small amounts of tenorite and earthy cuprite and the capping indicates pyrite-chalcopyrite mineralization at depth although strong leaching, caused by the excess of pyrite and the intensely broken nature of the zones, has removed most of the copper from the oxidized portions. Oxidation in the area probably extends to a minimum of 1,000 feet.

The assays of samples from Cuts 2, 4, and 5 ranged up to 0.11% Cu with the highest assay being recovered from 0.9-foot wide channel sample across the Northern border of a 3-foot wide vein exposed in Cut 5. The copper mineral was tenorite which occurred as films coating fractures in both the wall rocks and in the vein.

Red Dyke #8 Lode:

Geology

The Red Dyke #8 Lode is located in the Northwestern portion of the group in an area of Cretaceous andesite flows and intrusives. A 50 to 100-foot wide band of alluvium occurs along gulches in the Northern, central, and Southern portions and a thin cover of weathered rubble and talus obscures outcrops over much of the intervening areas. The Cretaceous rocks are best exposed along ridges and on the sides of the larger gullies. A 60-foot wide, Easterly trending hornblende andesite porphyry dike appears to occupy a portion of the Red Dyke fault. The dike is also closely associated, at least in space, with the Red Dyke vein system. Except in and near veins the Cretaceous rocks on the lode are weakly fractured and weakly to moderately altered to chlorite and epidote. Shearing is intense in the Red Dyke and associated fault zones and the rocks are strongly altered to chlorite, clay minerals, and sericite.

Mineralization

The main Red Dyke fault-vein zone is intermittently exposed across the Southern portion of the lode and is well exposed in Cut 3. The mineralized zone in the cut is 70 feet wide and contains three distinct veins averaging 10 feet across. In addition, a strong fault-vein zone which parallels the main structure outcrops in the central portion. The zone increases in strength to the West and appears to be an expression of the same type structure as the one in which the main Red Dyke system is localized. The more Northerly vein zone is exposed in Cuts 2, 4, and 5 and the strongest mineralization is localized in a 25-foot wide shear zone which contains two 4-foot veins. The veins in both areas contain strong hematite accompanied by some limonite and small amounts of tenorite and earthy cuprite. The capping indicates pyrite-chalcopyrite mineralization at depth although intense leaching, caused by the excess of pyrite and the broken nature of the zones, has removed most of the copper from the oxidized portions. Oxidation in the area probably extends to a minimum of 1,000 feet.

The assays of samples from Cuts 2, 3, 4, and 5 ranged up to 0.07% Cu with the highest assay being recovered from 1-foot wide channel sample across the Southern portion of a vein exposed in Cut 2. The copper mineral was tenorite which occurred as thin films coating fractures in the vein material.

The A-56 drill hole encountered material returning assays up to 0.13% Cu. The copper mineral was tenorite which occurred as films coating fractures just above a strong vein.

Red Dyke #9 Lode:

Geology

The Red Dyke #9 Lode is located in the Northwestern portion of the group in an area of andesite flows and intrusives. A 150 to 300-foot wide band of cemented gravels and alluvium occurs along the Western border and in the South-central portion and a thin cover of weathered rubble obscures outcrops on much of the rest of the lode. The Cretaceous rocks are best exposed along the deeper gullies in the Northern portion. A hornblende andesite porphyry dike, ranging from 75 to 120 feet wide, appears to occupy a portion of the Red Dyke fault. The dike is also closely associated, at least in space, with the Red Dyke vein system. Except in and near veins, the rocks on the lode are weakly fractured and weakly to moderately altered to chlorite and epidote. Shearing is intense in the fault-vein zones and the rocks are strongly altered to chlorite, clay minerals, and sericite.

Mineralization

The main Red Dyke fault-vein zone is covered by rubble over most of its length on the lode but is well exposed in Cuts 6 and 7. The mineralized zone in the Cut is 65 feet wide and contains several veins. In addition, a strong fault-vein zone which parallels the main structure outcrops in the central portion. The structure, which is exposed in Cut 5, contains a mineralized zone with several strong veins up to 5 feet wide. The veins in both structures contain strong hematite and small amounts of limonite, tenorite, and earthy cuprite. The capping indicates pyrite-chalcocopyrite mineralization at depth although intense leaching, caused by the excess of pyrite and the intensely broken nature of the zones, has removed most of the copper from the oxidized portions. Oxidation in the area probably extends to a minimum of 1,000 feet.

Samples from Cuts 4, 5, 6, and 7 assayed up to 0.12% Cu with the highest assay being recovered from a 7-inch wide channel sample across a chloritic pod located between veins in Cut 6. The copper mineral was tenorite which occurred as thin films coating fractures and shears.

Red Dyke #10 Lode:

Geology

The Red Dyke #10 Lode is located in the Northwestern portion of the group and lies just Northeast of the Foothill Fault in an area of Cretaceous flows and intrusives. Displacement on the Northwesterly trending post-ore fault, which crosses the Southwestern corner of the lode, is unknown but is estimated to be in excess of

2,000 feet. A 600-foot wide band of recent alluvium crosses the Southeastern portion and a thin cover of weathered rubble obscures outcrops on much of the rest of the lode. An East-Northeasterly trending hornblende andesite prophyry dike, ranging from 30 to 60 feet wide, is exposed along the Southern border of the alluvial band. The dike probably occupies a portion of the Red Dyke fault. The rocks in and near fault zones and veins are strongly sheared and altered to chlorite, clay minerals, and sericite while those exposed elsewhere are weakly altered to chlorite and epidote.

Mineralization

The main Red Dyke fault-vein zone crosses the Southern portion but is covered by rubble and talus and is not developed on the lode. The strong, Easterly trending fault-vein system which parallels the main Red Dyke zone to the North is also covered across most of the central portion of the lode but a Northeasterly trending branch of the zone is well exposed in Cut 4. The mineralization is localized in an 8-foot wide, strongly sheared zone in the form of veins, veinlets, pods, and disseminations. The vein minerals include strong hematite and limonite accompanied by small amounts of tenorite and earthy cuprite. In addition, a 5-foot wide, Easterly trending vein is exposed in Cut 3 which contains mineralization similar to that in the vein to the East. The capping in the veins indicates pyrite-chalcopryrite mineralization at depth although strong leaching, caused by the excess of pyrite and the broken nature of the rocks, has removed most of the copper from the oxidized portions. Oxidation on the lode probably extends to a minimum of 1,000 feet.

Several samples from Cut 4 assayed up to 0.15% Cu with the highest assay being recovered from a 9.6-inch wide channel sample across a chloritic zone on the Northwest border of the vein exposed in Cut 4. The copper mineral was tenorite which occurred in thin films coating fractures and shears.

Red Dyke #11 Lode:

Geology

The Red Dyke #11 Lode is located in the Northwestern portion of the group and lies largely Northeast of the Foothill Fault in an area of Cretaceous andesite flows and intrusives. The trace of the Northwesterly trending Foothill Fault passes through the Southeastern corner and crosses the West side line of the lode approximately 575 feet North of the Southwestern corner. Actual displacement on the fault is unknown but is estimated in this area to be in excess of 2,000 feet. Tertiary conglomerate and cemented gravels are exposed to the Southwest of the fault and a 400-foot wide band of recent alluvium covers the Southeastern portion of the lode to a point of 750 feet North of the Southeastern corner. An irregular, Northwesterly trending mass of Tertiary andesite is intruded into the Cretaceous rocks in the South-central portions which was presumably localized in the intersection of the Foothill and Red Dyke faults. Hornblende andesite dikes are intruded into the Cretaceous rocks along the Red Dyke fault and the strong, Easterly trending fault in the center of the lode. The rocks in and near fault zones are strongly sheared and altered to clay minerals and chlorite while those exposed elsewhere are weakly altered to chlorite and epidote.

Mineralization

The main Red Dyke fault-vein system intersects the Foothill Fault in the Southeastern corner and is not developed on the lode. However, the strong fault-vein paralleling the Red Dyke system to the North outcrops through the center of the lode and is well exposed in Cut 3. The mineralization is localized in a 70-foot wide zone which contains numerous 1-foot wide veins. The vein minerals are strong hematite and lesser amounts of limonite accompanied by small amounts of tenorite and earthy cuprite. The capping indicates pyrite-chalcopryite mineralization at depth although strong leaching, caused by the excess of pyrite, has removed most of the copper from the oxidized zone. In addition, strong hematite mineralization in irregular zones and patches occurs within the Foothill Fault zone and is exposed in Cut 4. The capping in this zone, however, indicates only pyrite at depth. Oxidation in the area probably extends to a minimum of 1,000 feet.

Samples from Cuts 3 and 4 assayed up to 0.09% Cu with the highest assay being recovered from a 1.3-foot wide channel sample across a soft, bleached, chloritic zone located between veins in Cut 3. The copper mineral was tenorite which occurred in thin films coating shears and fractures.

Red Dyke #12 Lode:

Geology

The Red Dyke #12 Lode is located in the extreme West-Northwestern corner of the group and lies largely Southwest of the Foothill Fault. The trace of the Northwesterly trending fault crosses the East side line 650 feet North of the Southeastern corner and crosses the West side line 1,300 feet North of the Southwestern corner. The actual displacement on the fault is unknown but is estimated in the area to be in excess of 2,000 feet. Tertiary conglomerate and cemented gravels are exposed to the Southwest of the fault. Some irregular hornblende andesite porphyry dike material outcrops in the Eastern portion but due to a thin cover of weathered rubble its configuration is unknown. The rocks on the lode are moderately to intensely fractured and except in fault zones and veins are moderately altered to chlorite and epidote. The andesite in the veins and faults is strongly altered to chlorite, clay minerals, and sericite.

Mineralization

The main Red Dyke fault-vein system lies Southwest of the Foothill Fault and is not exposed on the lode. The strong parallel vein system to the North of the Red Dyke veins is covered by rubble in the central portion but two strong vein zones are exposed in the Northern portion of the lode in Cuts 4 and 5. The structure which occurs in Cut 4 is mineralized across a width of 35 feet and contains a 16-foot wide zone of strong vein and veinlet mineralization. The more Northerly structure is exposed in Cut 5 and contains a 20-foot wide mineralized zone which contains several 6-inch to 3-foot wide veins. The vein minerals are strong hematite and lesser amounts of limonite accompanied by small amounts of earthy cuprite. The capping indicates pyrite-chalcopryite mineralization although strong leaching, caused by the excess of pyrite

and the broken nature of the zones has removed most of the copper from the oxidized portions. Oxidation in the area probably extends to a minimum of 1,000 feet.

Samples from Cuts 3, 4, and 5 assayed up to 0.10% Cu with the highest assay being recovered from 0.5-foot wide channel sample across a narrow hematite-limonite vein exposed in Cut 5. The copper mineral was earthy cuprite (and, possibly, tenorite) which occurred intimately mixed with the iron oxide vein material.

Red Dyke #15 Lode:

Geology

The Red Dyke #15 Lode is located on the Western edge of the group and lies largely Southwest of the Foothill Fault. The Northwesterly trending fault crosses the East side line of the lode 400 feet South of the Northeast corner and passes through the Northwest corner. The actual displacement on the fault is unknown but is estimated in this area to be in excess of 2,000 feet. Tertiary conglomerate and cemented gravels are exposed to the Southwest of the fault. Cretaceous rocks are strongly fractured and sheared parallel to the Foothill Fault and are generally altered to chlorite, clay minerals, and sericite.

Mineralization

Two East-Northeasterly trending veins, which appear to be the Western extension of the wide vein system occupying the Northern portions of the Red Ribbon #1 and #2 Lodes, are exposed in the Northern part of the lode. The mineralized zone exposed in Cut 4 is 35 feet wide and contains numerous 1 to 2-foot wide veins with general mineralization in veinlets and disseminations between. The zone exposed in Cut 6 is 25 feet wide and contains veinlets and disseminations. The vein minerals are hematite and limonite associated with small amounts of earthy cuprite and tenorite. The capping indicates pyrite-chalcopyrite mineralization at depth although strong leaching, caused by the excess of pyrite and the extremely broken nature of the zones, has removed most of the copper from the oxidized portions. Oxidation in the area probably extends to a minimum of 1,000 feet.

Samples from Cuts 2, 3, 4, and 6 assayed up to 0.07% Cu with the highest assay being recovered from a 3.5-foot wide channel sample across the Southern portion of the vein exposed in Cut 6. The copper mineral was probably tenorite which occurred mixed with limonite in pods, films and veinlets.

The A-55 drill hole encountered material assaying up to 0.06% Cu. The copper mineral was tenorite which occurred with limonite in cuts and fractures in a weakly mineralized zone between two veins.

Red Ribbon #1 Lode:

Geology

The Red Ribbon #1 Lode is located in the Western portion of the group and straddles the Foothill Fault. The Northwesterly trending fault divides the claim approximately in half with Tertiary

conglomerate, cemented gravels, and mudflows exposed on the Southwest side and Cretaceous flows and intrusives on the Northeast. Actual displacement on the fault is unknown but is estimated in the area to be in excess of 2,000 feet. The andesite is cut by an elongated, Easterly trending andesite intrusive, averaging 125 feet wide, in the center of the lode. The andesites are intensely sheared and strongly altered to chlorite and clay minerals along the Foothill Fault and near the vein structures. However, the rocks are only moderately fractured and weakly altered to epidote and chlorite elsewhere.

Mineralization

A strong, East-Northeasterly trending, 100-foot wide fault-vein zone extends across the Northern border of the lode. The portion of the zone exposed in Cut 3 contains several 1 to 2-foot wide, hematite filled shears accompanied by strong disseminations and numerous veinlets. In addition, an Easterly trending vein occurs in Cut 4 which contains three distinct veins in a mineralized zone nearly 30 feet wide. Mineralization in the veins, as well as in the 3-foot wide vein exposed in Cut 5, consists of hematite and lesser amounts of limonite accompanied by small amounts of earthy cuprite and tenorite. The capping in the veins indicates pyrite-chalcopyrite mineralization at depth although strong leaching, caused by the excess of pyrite and the broken nature of the zones, has removed most of the copper from the oxidized portions. Oxidation in the area probably extends to a minimum of 1,000 feet.

Samples from Cuts 2, 3, 4, and 5 assayed up to 0.08% Cu with the highest assay being recovered from a 6-inch wide channel across a chloritic zone on the Northwest border of the vein exposed in Cut 5. The copper mineral was tenorite which occurred in films coating fractures and shears.

Red Ribbon #2 Lode:

Geology

The Red Ribbon #2 Lode is located in the Western portion of the group and lies on both sides of the Foothill Fault. Actual displacement on the fault is unknown but is estimated in the area to be in excess of 2,000 feet. The Northwesterly trending fault crosses the Northern portion and approximately three-fourths of the lode lies Southwest of the fault in an area of Tertiary conglomerate, cemented gravels, basalt, platy andesite, and mudflows. The andesite is strongly sheared and altered to chlorite and clay in a 300-foot wide band bordering the fault. The rocks elsewhere on the lode are strongly broken by Northeasterly and Northwesterly trending fractures and are moderately altered to chlorite and epidote.

Mineralization

The dominant mineralization on the lode is in the wide, East-Northeasterly trending fault-vein zone exposed in the Northeast corner and in Cut 3. The zone is 60 feet wide and contains at least four veins while the areas between veins contain disseminations and numerous veinlets. The mineralization in the zone consists of hematite and lesser amounts of limonite accompanied by earthy cuprite and tenorite. The capping indicates

pyrite-chalcopryrite mineralization at depth although strong leaching has removed much of the copper from the oxidized zone. Oxidation in the area extends to a minimum of 1,000 feet.

Samples from Cut 3 and outcrop in the Northeastern corner of the lode assayed up to 0.29% Cu with the highest assay being recovered from a 2.2-foot wide channel across a sheared, chloritic zone on the Northern border of the wide fault vein exposed in Cut 3. The copper minerals were a copper sulfate (possibly chalcantite) and tenorite which occurred in films coating fractures and shears.

Red Ribbon #6 Lode:

Geology

The Red Ribbon #6 Lode is located in the Northwestern part of the group and lies just Northeast of the Foothill Fault. The Northwestern trending fault crosses the Southwestern corner of the lode and the area to the Northeast is occupied by Cretaceous andesite flows and intrusives. Actual displacement on the fault is unknown but is estimated in the area to be in excess of 2,000 feet. The andesite is intruded by an Easterly trending hornblende andesite dike in the central portion and by a 300-foot wide, Easterly trending, elongated andesite intrusive in the Northern portion. The Cretaceous rocks located along the fault and in and near veins are strongly sheared and altered to chlorite and clay minerals while those exposed elsewhere are weakly altered to chlorite and epidote.

Mineralization

Two 5-foot wide veins are exposed in shallow shafts in the central portion of the lode. The strongly sheared zone which occurs in the 4-foot deep shaft in the Western portion trends East-Northeasterly and contains hematite and considerable amounts of chrysocolla. The zone is not well exposed, except in the shaft, and is difficult to trace more than 50 feet along the strike. The hematite vein in the 6-foot deep shaft in the Eastern portion is also largely covered but is presumed to be the Western extension of the vein exposed in the Western portion of the Dos Pobres #21 Lode. The capping in the more Westerly vein indicates pyrite-chalcopryrite mineralization at depth and the pyrite-chalcopryrite ratio is low enough, at least in the exposed part of the zone, that much of the copper is retained in the oxidized zone. The capping in the Easterly vein also indicates pyrite-chalcopryrite mineralization at depth but in this case an excess of pyrite is indicated. Oxidation in the area probably extends to a minimum of 1,000 feet.

A surface sample, assaying 0.45% Cu, was taken from the dump next to the 4-foot deep shaft in the West-central portion of the lode. The sample, which was randomly collected from the dumps, contained chrysocolla which was accompanied by hematite in veinlets and shears.

Hades #1 Lode:

Geology

The Hades #1 Lode is located on the Western edge of the group and lies entirely Southwest of the Foothill Fault. The nearest surface exposure of the Cretaceous andesite is approximately

170 feet Northeast of the Northeast corner of the lode and the only rocks exposed are Tertiary conglomerate and cemented gravels. The Cretaceous andesite encountered in the footwall of the Foothill Fault in the A-35 drill hole was moderately altered to chlorite and weakly fractured.

Mineralization

There are no mineralized surface exposures on the lode but weak to moderate, oxidized limonite-hematite mineralization was encountered in the Cretaceous andesite penetrated by the A-35 drill hole in the footwall of the Foothill Fault. The capping in the hole, which passed through the fault at approximately 360 feet, indicates weak pyrite-chalcopryrite mineralization at depth although the strong leaching, caused by the excess of pyrite, has removed most of the copper from the oxidized zone. The depth of oxidation in the area is in part dependent on the fault but is thought to extend to a minimum of 1,000 feet.

The A-35 drill hole encountered oxidized limonite-hematite mineralization below 360 feet and assays up to 0.17% Cu. The copper mineral was probably tenorite or earthy cuprite mixed with limonite and hematite.

Hades #2 Lode:

Geology

The Hades #2 Lode is located on the Western edge of the group and lies almost entirely on the Southwest side of the Foothill Fault. The Northwesterly trending fault crosses the Northeastern corner of the lode and the Cretaceous andesite is exposed in the small area to the Northeast of the fault. Rocks exposed to the Southwest include Tertiary conglomerate, cemented gravels, andesitic mud flows, and a platy-appearing younger andesite dike. The Cretaceous andesite both in the Northeast corner of the lode and as exposed by the RL-19 drill hole is altered largely to chlorite with lesser amounts of epidote and clay minerals. The rocks are moderately broken by Easterly and North-Northwesterly trending fractures.

Mineralization

There is no mineralization exposed on the surface in the Northeastern corner of the lode but considerable amounts of weakly to moderately mineralized material were encountered in the RL-19 hole. The drill hole, which is located near the West end line of the lode, penetrated the Foothill Fault at approximately 1,440 feet, and weak iron oxide capping in the Cretaceous andesite gave way to weak to moderate sulfide mineralization at 1,535 feet. The sulfides included pyrite and small amounts of chalcopryrite. A vein containing sphalerite, galena, and chalcopryrite was encountered at 1,918 feet.

The RL-19 drill hole encountered pyrite-chalcopryrite mineralization assaying up to 0.06% Cu. In addition, a sphalerite-chalcopryrite-galena vein at least 6 inches wide, was encountered at 1,918 feet and assayed 0.69% Cu, 1.45% Pb, 26.60% Zn.

Sunset #1 Lode:

Geology

The Sunset #1 Lode is located in the central portion of the group in an area of altered, Cretaceous andesite flows. In addition, an Easterly trending hornblende andesite porphyry dike intrudes the flows in the North-central portion. The dike appears to be part of the 2½-mile long dike complex which extends across the Dos Pobres Group although outcrops in the area are intermittent. Recent alluvium and cemented gravels cover the older rocks in the Northern one-fourth of the lode except along gulches. The andesite is weakly to moderately altered to chlorite, epidote, and clay minerals and rocks are generally shattered, especially in the Northern portion, by Easterly and Northwesterly trending fractures.

Mineralization

The strong, easterly trending Sunset vein system is exposed briefly in the gulch in the extreme Northern end of the lode. The strongly leached vein varies in width from 10 to 20 feet and is covered both to the East and West by cemented gravels. A 3-foot wide, West-Northwesterly trending hematite vein is also exposed in Cut 3 in the Northeastern portion which may be a branch of the Sunset structure. Mineralization in the veins consists of hematite and small amounts of limonite and earthy cuprite and appears to have been emplaced along shears.

Another Easterly trending hematite vein occurs in a shallow cut on the Eastern border in the Southern portion of the lode. Mineralization in the zone, which averages 10 feet wide, is similar to that in the other veins. Capping in the veins indicates pyrite-chalcopyrite mineralization at depth although strong leaching, caused by the excess of pyrite and the broken nature of the zones, has removed most of the copper from the oxidized portions. Oxidation in the area probably extends to a minimum of 1,000 feet.

A sample, assaying 0.10% Cu, was taken from Cut 3 in the Northeastern portion of the lode. The sample consisted of chips taken across a 3-foot wide vein and the copper mineral was earthy cuprite intimately mixed with the strong hematite.

Sunset #2 Lode:

Geology

The Sunset #2 Lode is located in the West-central portion of the group in an area of altered, Cretaceous andesite flows. A wide band of recent alluvium and cemented gravels covers the older rocks in the Northern and central portions but they are well exposed elsewhere on the lode. The andesite is weakly to moderately altered to chlorite, epidote, and clay minerals and is strongly fractured only along the Northern border.

Mineralization

Dominant mineralization on the lode is in the Sunset vein system which outcrops along the Northern border. The portion of the vein which occurs on the lode attains a maximum width of 27 feet in the extreme Northwestern corner near Cuts 2 and 3. The mineralization appears to be localized in a strong fault structure

and the wall rocks are intensely bleached and sheared. The vein minerals are hematite and small amounts of limonite, earthy cuprite, and tenorite.

Another wide, mineralized fault-vein is exposed in Cut 4. The zone, which appears to be approximately 15 feet wide, trends Northeasterly and contains mineralization similar to that in the Sunset vein. Capping in the veins indicates pyrite-chalcopryite mineralization at depth although strong leaching, caused by the excess of pyrite and the extremely broken nature of the zones, has removed most of the copper from the oxidized portions. Oxidation in the area probably extends to a minimum of 1,000 feet.

Samples from Cuts 2, 3, and 4 assayed up to 0.07% Cu with the highest value being obtained from a 2.2-foot wide channel taken across the central portion of the main vein exposed in Cut 4. The copper mineral was earthy cuprite which occurred with hematite in permeations and veinlets.

The A-42 drill hole located on the Sunset vein in the Northwest corner of the lode encountered material with assays up to 0.07% Cu. The copper mineral was tenorite which occurred as thin films coating fractures, filling gashes, and in irregular pods with hematite and limonite.

Sunset #3 Lode:

Geology

The Sunset #3 Lode is located in the West-central portion of the group in an area of altered Cretaceous andesite flows. A 300-foot wide, Northeasterly trending band of recent alluvium and cemented gravels covers the older rocks in the central portion but the andesite is well exposed elsewhere on the lode. A 20-foot wide, Easterly trending hornblende andesite porphyry dike, part of a 2½ mile long dike complex which crosses the Dos Pobres Group, intrudes the material in the central portion. The andesite is, in general, weakly altered to chlorite and epidote but in and near the vein zones in the Northern and Southern ends of the lode it is intensely altered to clay minerals and chlorite.

Mineralization

Three vein structures outcrop on the lode but the dominant mineralization is in the Easterly trending Sunset vein system which crosses the Northern portion. The vein splits in the North-central portion and a zone of general mineralization approximately 200 feet wide is exposed near Cut 3. The mineralization appears to be localized in a strong fault structure and the wall rocks are intensely bleached and sheared. Vein minerals are hematite and small amounts of limonite and earthy cuprite.

The two other Easterly trending veins are exposed in the central and Southern portions of the lode. The central vein is approximately 20 feet wide and contains mineralization in the form of limonite and small amounts of hematite while the Southern vein is approximately 10 feet wide and contains hematite. Capping in the veins indicates pyrite-chalcopryite mineralization at depth although extremely strong leaching, caused by the excess of pyrite and the very broken nature of the zones, has removed

most of the copper from the oxidized portions. Oxidation in the area probably extends to a minimum of 1,000 feet.

Samples from Cuts 2, 3, and 4 assayed up to 0.08% Cu with the highest assay being obtained from a 3-foot wide chip sample across a portion of the Sunset vein exposed in Cut 2. The copper mineral was earthy cuprite which occurred with hematite in veins, veinlets, and pods.

The A-54 drill hole encountered material assaying up to 0.04% Cu. The copper mineral was small amounts of earthy cuprite which occurred with hematite in veinlets and disseminations.

Sunset #4 Lode:

Geology

The Sunset #4 Lode is located in the West-central portion of the group in an area of altered, Cretaceous andesite flows. A narrow strip of alluvium covers the older rocks along the road in the Northern portion but, in general, exposures are good on the lode. Two Easterly trending hornblende andesite porphyry dikes intrude the andesite in the Northern portion. The dikes, which may be localized along a fault, are part of the 2½ mile long dike complex which crosses the central portion of the Dos Pobres Group. The andesite is, in general, weakly altered to chlorite and epidote but in and near vein zones it is intensely altered to chlorite and clay minerals.

Mineralization

Six Easterly trending veins are known to outcrop on the lode. The strong Sunset vein crosses the Northern portion but is covered by alluvium and rubble except for a small exposure on the East side line. Other veins, ranging from 3 to 15 feet in width, occur in Cut 2 in the Northern portion, in the two shafts in the Southern portion, and at two undeveloped locations in the central portion. Mineralization in the veins, except the one in Cut 2 consists of strong hematite with small amounts of limonite and earthy cuprite in veins, veinlets, disseminations, pods, and permeations. The mineralization exposed in Cut 2 consists of limonite veinlets and disseminations bordered by tenorite-manganese oxide films.

Capping in the veins indicates pyrite-chalcopyrite mineralization at depth although strong leaching, caused by the excess of pyrite and the broken nature of the zones, has removed nearly all of the copper from the oxidized portions. Leaching does not appear to be as intense in the zone exposed in Cut 2, however, as thin films of tenorite are present. Oxidation in the area probably exceeds 1,000 feet in depth.

Samples from Cuts 2, 3, 4, and a shaft in the Southern part of the lode assayed up to 0.18% Cu with the highest assay being recovered from a chip sample across a 2-foot wide vein and associated mineralization in Cut 2. The copper mineral was tenorite which occurred with manganese oxide in thin films coating fractures.

Sunset #5 Lode:

Geology

The Sunset #5 Lode is located in the West-central portion of the group in an area of altered Cretaceous andesite flows. Two arcuate, Easterly trending hornblende andesite porphyry dikes intrude the flows and extend across the central and South-central portions of the lode. The rocks, in general, are weakly fractured except for a strong North-Northwesterly trending shear zone which occurs in the gulch on the Western border of the lode. Alteration is weak to moderate in the andesites and alteration products are largely epidote and chlorite.

Mineralization

An area of weak, but general, iron oxide mineralization occurs in the Southeastern portion of the lode beginning at the more Southerly of the hornblende andesite porphyry dikes and extending Southward nearly to the Southern end line. The mineralization consists of orange limonite and very small amounts of earthy cuprite and tenorite which occurs as thin coatings and films on Northerly and Northeasterly trending fracture surfaces. Weak iron oxide mineralization is also present in a Northeasterly trending breccia zone several hundred feet to the West. Capping in the two areas indicates very weak pyrite-chalcopyrite mineralization at depth although strong leaching has removed most of the copper from the oxidized zone. Oxidation in the area probably extends to a minimum of 1,000 feet.

Two surface samples were taken from the lode, one from the area of general mineralization in the Southeastern portion and one from the breccia zone exposed several hundred feet to the West. Both samples assayed 0.02% Cu and the copper minerals were earthy cuprite and possibly tenorite which occur in very small amounts with hematite in fracture coatings.

Sunset #6 Lode:

Geology

The Sunset #6 Lode is located in the West-central portion of the group in an area of altered Cretaceous andesite flows. Rock exposures on the lode are generally good although a thin cover of weathered rubble obscures the outcrops on many of the hill slopes. A Northwesterly trending hornblende andesite porphyry dike complex intrudes the flows in the Northern half of the lode. The dike complex contains at least four separate dikes which range up to 80-feet wide. In addition, Easterly trending hornblende andesite dikes are exposed in both the central and Southern portions. The rocks are weakly to moderately altered to chlorite and epidote and, except in the extreme Southern portion, are weakly fractured.

Mineralization

The dominant mineralization on the lode is in the Sunset vein system which outcrops along a portion of the Southern border. The portion of the vein system which outcrops on the

lode reaches a maximum width of 16 feet in the extreme Southeastern corner near Cuts 2 and 3. The mineralization appears to be localized in a strong fault structure and the wall rocks are intensely bleached and altered. The vein minerals are hematite and small amounts of limonite, earthy cuprite, and tenorite.

Another Northerly trending vein zone is exposed in Cut 5. The zone contains three shallow-dipping veins, ranging from 6 inches to 2 feet wide, which contain mineralization similar to that in the Sunset vein. Capping in the veins indicates pyrite-chalcopryite mineralization at depth although strong leaching, caused by the excess of pyrite and the extremely broken nature of the zones, has removed nearly all of the copper from the oxidized portions. Oxidation in the area probably extends to a minimum of 1,000 feet.

Samples from Cuts 2, 3, 4, and 5 assayed up to 0.05% Cu with the highest assay being obtained from a channel sample across a 5-inch wide vein containing hematite, limonite, and small amounts of earthy cuprite.

The A-53 drill hole encountered material returning 10-foot sample assays up to 0.08% Cu. The copper mineral was earthy cuprite and possibly tenorite which occurred with limonite and hematite in weakly mineralized veinlets below a strong iron oxide vein.

Sunset #7 Lode:

Geology

The Sunset #7 Lode is located in the West-central portion of the group in an area of altered Cretaceous andesite flows. A hornblende andesite porphyry dike complex containing both Northeasterly and Northwesterly trending dikes intrudes the flows in the Northern third of the lode. Except in the extreme Southern portion of the lode, the rocks are weakly altered to epidote and chlorite. The rocks which occur along the Sunset vein on the Southern border are intensely bleached and altered to clay minerals, chlorite, and sericite.

Mineralization

The dominant mineralization on the lode is in the Sunset vein system which is exposed along the extreme Southern border. The portion of the system which outcrops on the lode attains a maximum width of 25 feet in the extreme Southwestern corner in and near Cuts 2 and 3. The mineralization appears to be localized in a strong fault structure and the wall rocks are intensely sheared. The vein minerals are hematite and small amounts of limonite, earthy cuprite, and tenorite.

Another mineralized zone is exposed in Cuts 4 and 5. The zone, which appears to be about 60 feet wide, includes Northwesterly trending veins ranging from 5 to 10 feet wide and areas containing hematite veinlets and disseminations between the veins. Mineralization in the veins is predominantly hematite and is similar to that in the Sunset vein system. The capping in the mineralized zones indicates pyrite-chalcopryite mineralization at depth although strong leaching, caused by the excess

of pyrite and the extremely broken nature of the zones, has removed most of the copper from the oxidized portions. Oxidation in the area probably exceeds 1,000 feet.

Samples from Cuts 2, 3, 4, and 5 assayed up to 0.04% Cu with the highest assay being recovered from a channel sample across a 6-inch wide zone containing hard hematite pods and soft limonite veinlet material in Cut 4. The copper mineral was earthy cuprite.

The A-52 drill hole encountered material returning assays up to 0.06% Cu. The copper mineral was earthy cuprite which occurred with hematite in veinlets and permeations within the Sunset vein.

Sunset #8 Lode:

Geology

The Sunset #8 Lode is located in the West central portion of the group in an area of altered Cretaceous andesite flows. The flows are obscured in the Eastern portion of the lode by extensive alluvium and cemented gravels except along gulch bottoms. Several irregular, Northeasterly and Northwesterly trending hornblende andesite porphyry dikes intrude the flows in the Western portion of the lode. Except in the extreme Southern portion, the rocks are weakly altered to chlorite and epidote. The rocks which occur along the Sunset vein on the Southern border are intensely bleached and altered to clay minerals, chlorite and epidote.

Mineralization

The dominant mineralization on the lode is in the Sunset vein system which outcrops along the extreme Southwestern border. The portion of the vein which is exposed on the lode appears to attain a maximum width of 10 to 12 feet. The mineralization appears to be localized along a strong fault structure and the wall rocks are intensely sheared. The vein minerals are hematite, lesser amounts of limonite, and small amounts of earthy cuprite. Most of the structure swings Southward off the lode near the South center end and is covered by alluvium and gravels to the East.

The capping in the vein indicates pyrite-chalcopyrite mineralization at depth although strong leaching, caused by the excess of pyrite and the broken nature of the rocks in the zone, has removed most of the copper from the oxidized portion. Oxidation in the area probably extends to a minimum of 1,000 feet.

A surface sample, assaying 0.10% Cu, was taken from Cut 2 on the lode. The copper mineral was earthy cuprite which occurred with hematite in the 5-foot wide portion of the Sunset vein exposed in the working. The sample consisted of chips across the exposed width of the vein.

Sunset #9 Lode:

Geology

The Sunset #9 Lode is located in the North-central

portion of the group in an area of altered Cretaceous andesite flows. An Easterly trending, 300-foot wide band of alluvium and stream gravels extends across the extreme Northern portion but the Cretaceous rocks are fairly well exposed elsewhere on the lode. A strong, 20 to 35-foot wide hornblende andesite porphyry dike, which is probably localized in a fault structure, intrudes the andesite and crosses the Southern portion of the lode. The older rocks are weakly to moderately fractured except in the Northwestern corner of the lode where a portion of the strong, Easterly trending Red Dyke fault-vein system is exposed. The rocks, in general, are weakly altered to chlorite and epidote.

Mineralization

The dominant mineralization on the lode is in the portion of the strong Red Dyke fault-vein system exposed in the 30-foot deep shaft in the Northwestern portion. A 10-foot wide, Easterly trending vein is exposed in the shaft and several other parallel veins, largely covered by rubble, occur within the zone to the North. The rocks in the zone are strongly sheared and bleached and the veins contain strong hematite accompanied by lesser amounts of limonite, earthy cuprite, and tenorite. Capping in the zone indicates pyrite-chalcopryite mineralization at depth although strong leaching, caused by the excess of pyrite and the extensive shearing, has removed most of the copper from the oxidized portion. Oxidation in the area probably extends to a minimum of 1,000 feet.

A sample, assaying 0.11% Cu, was taken from the dump next to the 30-foot deep shaft in the Northwestern portion of the lode. The sample contained strong hematite and small amounts of limonite, earthy cuprite, and, possibly, tenorite.

Arrowhead #1 Lode:

Geology

The Arrowhead #1 Lode is located on the South-central edge of the group in an area of Cretaceous andesites and monzonite porphyry. Several hornblende andesite porphyry dikes occur in the Northern portion of the lode, and the monzonite porphyry occurs in the Southern portion. The monzonite porphyry occurs in irregular, East-Northeasterly trending dikes but the contacts are partially concealed by the rather extensive alluvial cover in the Southern portion of the lode. The andesite is extensively altered to chlorite, clay minerals, and epidote; the hornblende andesite porphyry is more weakly altered to chlorite and epidote. The Monzonite porphyry is generally bleached and altered largely to clay minerals and sericite. All outcrops in the Southern two-thirds of the lode are shattered by North-easterly and North-Northwesterly trending fractures.

Mineralization

Limonite mineralization is exposed on the Southern two-thirds of the lode. The strongest mineralization is along dikes and Northeasterly trending shear zones while the areas between the stronger zones contain weak, general limonite in veinlets and disseminations. The limonite is accompanied by small amounts of hematite, earthy cuprite, and tenorite and the capping in the area indicates pyrite mineralization at depth accompanied by varying amounts of chalcopryite. Oxidation on

the lode is shallow with sulfides appearing in the A-58 drill hole at 80 feet.

Samples from Cuts 4, 5, and 6 assayed up to 0.14% Cu. The highest assays were from Cut 5 and an unnumbered cut east of Cut 5. Both samples contained massive limonite with tenorite or cuprite.

A sample from drill hole A-58 assayed 0.17% Cu and contained chalcocite and pyrite with finely disseminated chalcopyrite.

Arrowhead #2 Lode:

Geology

The Arrowhead #2 Lode is located on the South-central edge of the group in an area of altered, Cretaceous andesite flows. Monzonite porphyry is extensively exposed in the Southern portion. A 350-foot wide tongue of recent alluvium and cemented gravel conceals the older rocks in a band extending from the Southeast corner to the Northern edge of the lode. The andesite in the Southern two-thirds of the lode is strongly altered to chlorite, clay minerals, and, locally, epidote; the intrusive porphyry is altered to sericite and clay. The rocks are strongly broken by Easterly, Northeasterly, and Northerly trending fractures.

Mineralization

An irregular zone of general limonite mineralization is exposed in the Southern one-half of the lode and extends Eastward and Westward onto the adjoining lodes. The limonite, with lesser amounts of hematite, earthy cuprite, and tenorite occurs in Easterly and Northeasterly trending veinlets and in fine disseminations. Capping in the zone indicates pyrite at depth accompanied by varying amounts of chalcopyrite although strong leaching, caused by the excess of pyrite, has removed most of the copper from the oxidized zone. In addition, a 1-foot wide shear zone is exposed in Cut 3 in the Northwestern portion of the lode which contains two limonite-chrysocolla veins 3 to 4 inches wide. Rubble obscures the shear zone elsewhere.

A 4-inch wide channel sample across the more Southerly of two exposed limonite-chrysocolla veins in Cut 3 assayed 1.86% Cu. The sample from the cut located just South of Cut 2 was a channel sample across a 1-foot wide limonite-quartz vein and assayed 0.11% Cu. The copper mineral was tenorite or possibly earthy cuprite mixed with limonite.

Arrowhead #3 Lode:

Geology

The Arrowhead #3 Lode is located on the South-central edge of the group in an area of altered, Cretaceous andesite flows. Recent cemented gravels cover the flows in the central two-thirds of the lode but the andesite is well exposed on the Northern, Eastern, and Southern portions, especially in and near

gulches. The andesite which is exposed in the Northeastern portion of the lode is altered extensively to chlorite, clay minerals, sericite, and, locally, epidote. Shattering is strongest in the Southeastern portion where the rocks are broken by Easterly and Northwesterly trending fractures.

Mineralization

An irregular zone of general limonite mineralization is exposed in the Southern and Southeastern portions of the lode. The limonite, with lesser amounts of hematite and tenorite, occurs in Northeasterly trending veins, in disseminations, and in intersecting Easterly and Northwesterly trending veinlets. This zone represents an extension of the areas of general mineralization to the South and East and the capping indicates pyrite mineralization at depth accompanied by varying amounts of chalcopyrite although strong leaching, caused by the excess of pyrite, has removed most of the copper from the oxidized zone.

Samples from Cuts 3, 4, and 5 assayed up to 0.17% Cu. The highest assay was from a sample taken across a zone of limonite veinlets and pods exposed in Cut 5. The copper mineral was apparently tenorite which was mixed with limonite.

Arrowhead #4 Lode:

Geology

The Arrowhead #4 Lode is located near the South-central edge of the group in an area of altered Cretaceous andesites and monzonite porphyry. Several arcuate, Easterly and Northerly trending hornblende andesite porphyry dikes occur in the Northern portion of the lode and monzonite porphyry occurs in the Southern portion. The Monzonite porphyry occurs in irregular, discontinuous, East-Northeasterly trending dikes but the contacts are partially concealed by extensive alluvial cover in the Southern one-half of the lode. The andesite is altered to chlorite, clay minerals, and epidote. The monzonite porphyry is generally bleached and altered largely to clay minerals, sericite, and chlorite. All rocks in the Southern three-fourths of the lode are shattered by Easterly, Northeasterly, and Northwesterly trending fractures.

Mineralization

Limonite mineralization is exposed on the Southern three-fourths of the lode. The strongest mineralization is along dikes and Easterly trending shear zones and the areas between contain weak general limonite in veinlets and disseminations. The limonite is accompanied by small amounts of hematite, earthy cuprite, and tenorite and the capping indicates pyrite is present at depth accompanied by varying amounts of chalcopyrite. Oxidation on the lode is shallow with sulfides occurring in drill hole A-59 at 40 feet.

Samples from Cuts 2, 3, and 5 assayed up to 0.11% Cu. The highest assay was from limonite veinlets exposed in Cut 2. The copper mineral is probably tenorite intimately mixed with limonite.

A sample from drill hole A-59 contained thin films of chalcocite on pyrite with a small amount of disseminated chalcopyrite.

Arrowhead #5 Lode:

Geology

The Arrowhead #5 Lode is located on the Southeastern edge of the group in an area of altered, Cretaceous andesite. Approximately three-fourths of the lode is covered by recent cemented gravels and alluvium and the only exposures of the older rocks are on the Northern and Western portions of the lode. An Easterly trending monzonite porphyry dike intrudes the andesite on the West-central edge of the lode but is concealed by alluvium to the East. The andesite is generally altered to chlorite and minor amounts of epidote. The monzonite porphyry is altered to clay minerals, chlorite, and sericite. The exposed Cretaceous rocks are broken by Easterly and Northerly trending veinlets.

Mineralization

A small area of general mineralization containing several Easterly trending veins is exposed on the Western portion of the lode. The zone represents the Easternmost extension of the mineralized area exposed on the lodes to the West. In addition, a zone of Northeasterly and Northerly trending veinlets is exposed in Cut 3. This zone is largely covered by weathered rubble but appears to trend Northeasterly toward the North center end of the lode where a wide zone of hematite-filled shears is exposed. These two mineralized areas may represent the Southwestern extension of a large vein exposed on the Foothill #52 Lode. Capping in the zone of general mineralization indicates pyrite mineralization at depth accompanied by varying amounts of chalcopyrite, while that in the vein areas indicates a lower pyrite-chalcopyrite ratio.

A sample from Cut 3, in a zone of intersecting hematite veinlets, assayed 0.19% Cu. It contained earthy cuprite mixed with hematite.

Arrowhead #6 Lode:

Geology

The Arrowhead #6 Lode is located on the Southeastern border of the group in an area of weakly altered, Cretaceous andesite intruded by a hornblende andesite porphyry dike. Approximately nine-tenths of the lode is covered by recent cemented gravels and alluvium and the only exposures of the older series of rocks is in the Northwestern corner of the lode. The older series, Cretaceous andesite is exposed, however, near the Southeastern corner of the lode in the A-30 drill hole on the Foothill #53 Lode below 90 feet of alluvium. The andesite exposed in the A-30 drill hole is altered to chlorite and biotite. The older rocks exposed on the lode are moderately broken by East-Northeasterly and Northerly trending fractures.

Mineralization

A small area of general limonite mineralization is exposed near the North center end of the lode. The limonite occurs in narrow veinlets and contains some admixed earthy cuprite. Mineralization in the Southern part of the lode under

the alluvium is presumed to be similar to that encountered in the A-30 drill hole located on the Foothill #53 Lode to the East. The drill hole encountered weak pyrite-chalcopyrite mineralization accompanied by traces of bornite in veinlets and weak disseminations.

Oxidation in the Southern portion of the lode is shallow with sulfides appearing at 90 feet in the A-30 drill hole.

Samples from Cut 4 and outcrops near Cut 4 assayed up to 0.11% Cu with the highest assay being obtained from the zone of hematite veinlets exposed in Cut 4. The copper mineral was earthy cuprite intimately mixed with the hematite veinlet material.

The A-30 drill hole, located just east of the Arrowhead #6 Lode encountered samples which assayed 0.21% Cu. The copper minerals were chalcopyrite accompanied by traces of bornite.

Pasoford #1 Lode:

Geology

The Pasoford #1 Lode is located on the South-central edge of the group and lies on both sides of the Foothill Fault. Although the Northwesterly trending fault crosses the central portion of the lode only a very small area of the Cretaceous andesite flows is exposed on the Northeast side due to extensive cover by recent alluvium, cemented gravels, and rubble. The only rocks exposed on the Southwest side of the fault are Tertiary conglomerate and cemented gravels. The actual displacement on the Foothill Fault is unknown but is estimated in the area to be in excess of 2,000 feet. The Cretaceous andesite both in the Northern part of the lode and as exposed by the A-18 drill hole is strongly altered to chlorite, biotite, and clay minerals. Due in part to the influence of the Foothill Fault, the Cretaceous andesite on the lode is intensely fractured and brecciated.

Mineralization

Weak iron oxide mineralization in Northwesterly and Easterly trending veinlets is exposed on the surface in the extreme Northern portion of the lode and weak, but locally strong, mineralization was encountered in the A-18 drill hole under 40 feet of cemented gravels. Oxidation in the area is shallow and sulfides consisting of pyrite and small amounts of chalcopyrite, appeared in the drill hole at 240 feet. The chalcopyrite content gradually increased near the end of the hole. Mineralization on the lode appears to be related to both the area of general mineralization to the North on the Dos Pobres #27 and 28 Lodes and to an area of strong, general mineralization occurring on the Blue Bird lodes to the Northeast.

The A-18 drill hole encountered material with 10-foot sample assays up to 0.13% Cu. The copper mineral was chalcopyrite which occurred with pyrite in veinlets and disseminations.

Pasoford #2 Lode:

Geology

The Pasoford #2 Lode is located on the South-central edge of the group and lies on both sides of the Foothill Fault.

The Northwesterly trending, post-ore fault crosses the North-central portion of the lode but the exact location is obscured by the accumulation of conglomerate and rubble in the area. The Cretaceous andesite flows on the Northeast side of the fault are almost completely obscured by extensive cemented gravels, alluvium, and rubble and the only exposure of the older rocks is in the extreme Northeastern corner. The only rocks exposed on the Southwest side of the fault are Tertiary conglomerate and cemented gravels. The actual displacement on the Foothill Fault is unknown but is estimated in this area to be in excess of 2,000 feet. The Cretaceous andesite both in the Northeastern corner of the lode and as exposed in the RL-22 drill hole is strongly altered to chlorite, clay minerals, and biotite and is strongly shattered by Northwesterly, Northerly, and Easterly trending fractures. Intense brecciation was noted in the lower portions of the drill hole.

Mineralization

Moderate iron oxide mineralization in North-Northwesterly and Easterly trending veinlets is exposed on the surface in the Northeastern corner of the lode and fair to strong mineralization was encountered in the RL-22 drill hole below the Foothill Fault. Oxidation in the vicinity of the drill hole is much deeper than to the East on the Pasoford #1 Lode and sulfides consisting of pyrite and small amounts of chalcopyrite, appeared at 1,188 feet. The capping on the lode indicates pyrite mineralization accompanied by some chalcopyrite at depth and although the strength of mineralization indicated by the surface capping in the Northeast corner is weaker than that found further South in the drill hole, more chalcopyrite is indicated.

A surface sample assaying 0.11% Cu was taken from Cut 2 on the lode. The sample was a 1-foot wide chip sample across a veinlet zone and the copper mineral was earthy cuprite mixed with hematite.

The RL-22 drill hole encountered material returning 10-foot sample assays up to 0.09% Cu. The copper mineral was chalcopyrite which occurred with pyrite in veinlets and disseminations within a very broken, brecciated zone. The drill hole was abandoned at 1,602 feet due to excessive caving.

Pasoford #3 Lode:

Geology

The Pasoford #3 Lode is located on the South-central edge of the group and lies almost entirely Southwest of the Foothill Fault. The Northwesterly trending fault crosses the Northeastern corner and, because of the accumulation of recent cemented gravels, alluvium, and rubble on the Northeast side of the fault, there are no exposures of the older Cretaceous andesite on the lode. The only rocks exposed on the Southwest side of the fault are Tertiary conglomerate and cemented gravels and recent alluvium. The actual displacement on the Foothill Fault is unknown but is estimated in this area to be in excess of 2,000 feet. The Foothill Fault was penetrated by the A-41 drill hole at 130 feet and the Cretaceous andesite below was strongly altered to chlorite and clay minerals. The andesite was strongly fractured, brecciated, and sheared partly due to the proximity of the Foothill Fault.

Mineralization

There are no mineralized surface exposures on the lode but weak to strong hematite mineralization was encountered in the Cretaceous andesite in the footwall of the fault from 180 to 530 feet. There was some admixed earthy cuprite with the hematite and the capping indicates pyrite-chalcopryite mineralization at depth although very strong leaching, caused by the excess of pyrite and the very broken nature of the rock, has removed most of the copper from the oxidized zone. Oxidation in the area is probably deep, extending to a minimum of 1,000 feet.

The A-41 drill hole encountered material returning 10-foot sample assays as high as 0.29% Cu. The copper mineral was earthy cuprite mixed with hematite in veinlets, disseminations, and shears. No sulfides were encountered in the hole which bottomed at 530 feet.

Pasoford #4 Lode:

Geology

The Pasoford #4 Lode is located on the South-central edge of the group and lies entirely Southwest of the Foothill Fault. The nearest surface exposure of the Cretaceous andesite is approximately 420 feet East of the Northeast corner of the lode and the only rocks exposed are Tertiary conglomerate and cemented gravels. The Cretaceous andesite was encountered in the RL-20 drill hole in the hanging wall of the Foothill Fault below 420 feet of younger series (Tertiary) gravel and conglomerate. The older andesite was moderately altered to epidote, clay minerals, and chlorite and was moderately fractured. The hole bottomed at 1,040 feet before passing through the Foothill Fault.

Mineralization

There are no mineralized surface exposures on the lode but weak to moderate limonite-hematite mineralization was encountered in the Cretaceous andesite penetrated by the RL-20 drill hole. The capping indicated pyrite-chalcopryite mineralization at depth although intense leaching, caused by the excess of pyrite, has removed most of the copper from the oxidized zone. The depth of oxidation in the area is in part dependent on the Foothill Fault but is estimated to extend a minimum of 1,000 feet.

The RL-20 drill hole encountered material returning 10-foot sample assays up to 0.09% Cu. The copper minerals were earthy cuprite and possibly tenorite mixed with limonite and hematite in veinlets. No sulfides were encountered in the drill hole.

Pasoford #5 Lode:

Geology

The Pasoford #5 Lode is located on the Southwest corner of the group and lies entirely Southwest of the Foothill Fault. The nearest surface exposure of the Cretaceous andesite is approximately 500 feet Northeast of the Northeast corner of the lode and

the only rocks exposed are Tertiary conglomerate and cemented gravels and recent alluvium. The Cretaceous andesite was, however, encountered in the A-27 drill hole in the hanging wall of the Foothill Fault below 578 feet of younger series (Tertiary) conglomerate, andesite, and rhyolite. The older andesites, which included hornblende andesite porphyry, were generally altered to chlorite and epidote and were weakly to moderately fractured. The hole bottomed at 632 feet before passing through the Foothill Fault.

Mineralization

There are no mineralized surface exposures on the lode but limonite-hematite mineralization was encountered in the Cretaceous andesites in the A-27 drill hole. The strength of mineralization ranged from very weak in the hornblende andesite porphyry to moderate in the andesite and the capping indicated pyrite-chalcopryite mineralization at depth although strong leaching, caused by the excess of pyrite, has removed most of the copper from the oxidized zone. The depth of oxidation in the area is in part dependent on the Foothill Fault but is estimated to extend a minimum of 1,000 feet.

The A-27 drill hole encountered material with 10-foot sample assays as high as 0.13% Cu. The copper minerals were earthy cuprite and possibly tenorite mixed with limonite and hematite in veinlets and irregular flooded patches. No sulfides were encountered in the drill hole.

Pasoford #10 Lode:

Geology

The Pasoford #10 Lode is located in the Southwestern corner of the group and lies entirely Southwest of the Foothill Fault. The nearest surface exposure of the Cretaceous andesite is approximately 825 feet Northeast of the Northeast corner of the lode and the only rocks exposed are Tertiary conglomerate and cemented gravels. The Cretaceous andesite, however, was encountered in the RL-13 drill hole in the hanging wall of the Foothill Fault below 1,133 feet of younger series (Tertiary) conglomerate, basalt, graywacke, andesite, and tuff. The strongly bleached older series andesite was well altered to clay minerals and chlorite and was strongly fractured and brecciated below 1,262 feet. The hole was abandoned in a fault zone after the bit was lost at 1,332 feet.

Mineralization

There are no mineralized surface exposures on the lode but limonite-hematite mineralization was encountered in the Cretaceous andesite in the RL-13 drill hole. The strength of mineralization was very weak at the top of the older series but increased to fairly strong by the end of the hole. The capping indicated pyrite-chalcopryite mineralization at depth although strong leaching, caused by the excess of pyrite, has removed most of the copper from the oxidized zone. In addition, a zone containing small amounts of native copper and traces of pyrite was encountered in the younger series andesite porphyry at 927 to 1,002 feet. The mineralization was apparently associated with a steeply dipping fault zone. The depth of oxidation is in part dependent on the Foothill

Fault, but is estimated in this area to extend a minimum of 1,000 feet.

The RL-13 drill hole encountered material in the native copper zone with 10-foot sample assays up to 0.08% Cu. Material encountered in the iron oxide zone below returned 10-foot sample assays up to 0.06% Cu. The copper minerals in the lower zone were earthy cuprite and possibly tenorite mixed with limonite and hematite in veinlets and disseminations.

Last Effort Lode:

Geology

The Last Effort Lode is located in the West-central portion of the group in an area of Cretaceous andesite flows and intrusive andesite. The intrusive andesite occurs in an Easterly trending, 300-foot wide band from the Southwestern corner to the central portion of the lode. An Easterly trending hornblende andesite porphyry dike intrudes the flow material and is exposed in the Southeastern corner but curves Southward onto the adjoining lode approximately 500 feet to the West. The rocks appear quite fresh but in reality are weakly to moderately altered to chlorite and epidote.

Mineralization

Mineralization on the lode is limited to the vicinity of Cut 3 in the North-central portion. Orange limonite accompanied by earthy cuprite and tenorite occurs in the area as thin coatings on fracture surfaces. A Northeasterly trending shear zone extends across the area in and near Cut 3 and the mineralization is probably localized by the structure. Capping in the area indicates very weak pyrite-chalcopyrite mineralization at depth and oxidation probably extends to a minimum of 1,000 feet.

A sample, assaying 0.10% Cu, was taken from Cut 3 in the North-central portion of the lode. The copper mineral was earthy cuprite and possibly tenorite which occurred in very small amounts with hematite as thin coatings on fracture faces.

5. Conflicts and Adjoining Claims and Land. As more particularly appears from the Plat of Mineral Survey No. 4579 and the Field Notes thereof, which are attached hereto as Exhibits 1 and 2, respectively, there are no patented or unpatented mining claims or other patented lands in conflict with the Dos Pobres #s 1 through 28, Gold Hill #s 1, 2, 3, 6 through 19, 25 through 31, Lucky Strike #s 1 through 11, 18, Larivel Nos. 1 through 6, Foothill #s 52, 53, Birthday #s 1, 3, Elevator #s 26, 27, Elevator Nos. 28, 29, Red Dyke Nos. 1 through 5, Red Dyke #s 6 through 12, 15, Red Ribbon #s 1, 2,

6, Hades #s 1, 2, Sunset #s 1 through 9, Arrowhead #s 1 through 6, Pasoford #s 1 through 5, 10, and Last Effort Lodes, except the following:

A. The following lodes of this Survey No. 4579, owned and being patented by Phelps Dodge Corporation under this application for patent:

(1) Dos Pobres #2 Lode. Conflicts with Dos Pobres #11 Lode.

(2) Dos Pobres #11 Lode. Conflicts with Dos Pobres #12 and Sunset #2 Lodes.

(3) Gold Hill #9 Lode. Conflicts with Dos Pobres #s 13, 14, and 17 Lodes.

(4) Gold Hill #8 Lode. Conflicts with Dos Pobres #s 14 and 17 and Gold Hill #s 9, 10, and 11 Lodes.

(5) Dos Pobres #19 Lode. Conflicts with Dos Pobres #20 and Sunset #4 Lodes.

(6) Dos Pobres #21 Lode. Conflicts with Dos Pobres #22 and Sunset #4 Lodes.

(7) Arrowhead #2 Lode. Conflicts with Gold Hill #14 Lode.

(8) Arrowhead #3 Lode. Conflicts with Gold Hill #14 Lode.

(9) Arrowhead #1 Lode. Conflicts with Gold Hill #15 Lode.

(10) Arrowhead #4 Lode. Conflicts with Gold Hill #15 Lode.

(11) Arrowhead #5 Lode. Conflicts with Gold Hill #15 and Foothill #52 Lodes.

(12) Lucky Strike #6 Lode. Conflicts with Gold Hill #18 Lode.

(13) Lucky Strike #7 Lode. Conflicts with Gold Hill #18 Lode.

(14) Lucky Strike #8 Lode. Conflicts with Gold Hill #18 Lode.

(15) Lucky Strike #9 Lode. Conflicts with Gold Hill #s 18 and 19 Lodes.

(16) Dos Pobres #12 Lode. Conflicts with Gold Hill #25 and Sunset #s 1 and 2 Lodes.

(17) Dos Pobres #13 Lode. Conflicts with Gold Hill #25 and Sunset #1 Lodes.

(18) Dos Pobres #14 Lode. Conflicts with Gold Hill #25 Lode.

(19) Arrowhead #6 Lode. Conflicts with Foothill #52 Lode.

(20) Lucky Strike #2 Lode. Conflicts with Foothill #53 Lode.

(21) Lucky Strike #3 Lode. Conflicts with Foothill #53 Lode.

(22) Lucky Strike #4 Lode. Conflicts with Foothill #53 Lode.

(23) Red Dyke No. 3 Lode. Conflicts with Red Dyke No. 4 Lode.

(24) Sunset #5 Lode. Conflicts with Red Dyke No. 4 Lode.

(25) Red Ribbon #1 Lode. Conflicts with Hades #2 Lode.

(26) Red Ribbon #6 Lode. Conflicts with Hades #2 Lode.

(27) Dos Pobres #20 Lode. Conflicts with Hades #2 and Sunset #4 Lodes.

(28) Sunset #1 Lode. Conflicts with Sunset #s 2 and 7 Lodes.

(29) Dos Pobres #10 Lode. Conflicts with Sunset #s 2, 3 Lodes.

(30) Dos Pobres #9 Lode. Conflicts with Sunset #s 3 and 4 Lodes.

(31) Dos Pobres #22 Lode. Conflicts with Sunset #s 4 and 5 and Last Effort Lodes.

B. The following lodes of this Survey No. 4579, owned by Phelps Dodge Corporation but not being patented by this application for patent:

(1) Lucky Strike #12 Lode. Conflicts with Gold Hill #19 Lode.

(2) Lucky Strike #13 Lode. Conflicts with Gold Hill #19 Lode.

C. The following unsurveyed lode mining claims and surveyed land:

(1) Bluebird No. 32, owned by Guy Anderson.
Conflicts with Dos Pobres #28 Lode.

(2) Bluebird No. 33, owned by Guy Anderson.
Conflicts with Dos Pobres #28 and Pasoford #1 Lodes.

(3) Walnut No. 4, owned by Ruskin Lines.
Conflicts with Lucky Strike #s 10 and 18 Lodes.

(4) Walnut No. 5, owned by Ruskin Lines.
Conflicts with Lucky Strike #10 Lode.

(5) Sec. 21, T. 5 S., R. 26 E., G&SRM, land owned
by the State of Arizona. Conflicts with Larivel Nos. 3
and 4, Red Dyke No. 3, Red Dyke #s 8, 9, 10, 11, and
12 Lodes.

(6) Blue Bird No. 24, owned by Guy Anderson et al.
Conflicts with Pasoford #1 Lode.

(7) Blue Bird No. 27, owned by Guy Anderson et al.
Conflicts with Pasoford #1 Lode.

(8) Blue Bird No. 28, owned by Guy Anderson et al.
Conflicts with Pasoford #1 Lode.

(9) Moon No. 1, owned by Guy Anderson et al.
Conflicts with Pasoford #1 Lode.

The claims and land adjoining the group of lodes included in this application, including the surveyed lodes, the unsurveyed lode mining claims, and surveyed land previously mentioned as conflicting with the surveyed lodes included in this application, beginning with the claim adjoining Larivel No. 4 Lode, the most Northerly lode included in this application, and running clockwise around the group of lodes included in this application, are as follows: Elevator #s 21, 22, 23, Tomahawk 31 Lodes, unsurveyed, owned by applicant; Larivel No. 7, Elevator Nos. 8, 9, 10, 30, Elevator #31, Gold Hill #s 32, 4, 5, 21, 20, 23, 24, Foothill #56, Lucky Strike #s 13, 12 Lodes, all in Survey No. 4579 but not included in this application, owned by applicant; Gish Lode, unsurveyed, owned by Corbett Talley; Lula Belle No. 6 Lode, unsurveyed, owned by Corbett Talley et al.; Walnut Nos. 4, 5 Lodes, unsurveyed, owned by Ruskin Lines; Key Nos. 5, 8, 1 Lodes, unsurveyed,

owned by L. L. Maloy; Blue Bird No. 35 Lode, unsurveyed, owned by Guy Anderson, et al.; Lawyer and Beggerman Lodes, Survey No. 3299, owned by Guy Anderson Family Holding Co., Inc.; Blue Bird Nos. 34, 37, 47, Moon 3, Bluebird Nos. 32, 33, 28, Moon No. 1, Blue Bird Nos. 27, 24 Lodes, unsurveyed, owned by Guy Anderson et al.; Foothill #s 45, 44, Pasoford #s 6, 9, Birthday #s 5, 4, 8, 7, 2, Foothill #50, Easter #s 61, 60, Red Dyke #s 14, 13, Easter #11 Lodes, unsurveyed, owned by applicant; and Apache #s 8, 7, 6, 5, 4, 3, 2, 1 Lodes, unsurveyed, on State lands in Section 21, T. 5 S., R. 26 E., G&SRM, owned by applicant.

6. Application for Patent. Phelps Dodge Corporation by this application seeks a patent to Dos Pobres #s 1 through 28, Gold Hill #s 1, 2, 3, 6 through 19, 25 through 31, Lucky Strike #s 1 through 11, 18, Larivel Nos. 1 through 6, Foothill #s 52, 53, Birthday #s 1, 3, Elevator #s 26, 27, Elevator Nos. 28, 29, Red Dyke Nos. 1 through 5, Red Dyke #s 6 through 12, 15, Red Ribbon #s 1, 2, 6, Hades #s 1, 2, Sunset #s 1 through 9, Arrowhead #s 1 through 6, Pasoford #s 1 through 5, 10, and Last Effort Lodes, exclusive of areas in conflict with the surveyed lodes, unsurveyed lode mining claims, and surveyed land particularly set forth and described in paragraphs A, B, and C of Section 5 of this application, which paragraphs are hereby incorporated herein by reference.

7. Miscellaneous. Applicant desires title to said lodes in said Dos Pobres Group because of the mineral contained therein. Applicant has had no part, direct or indirect, in the atomic bomb project.

PHELPS DODGE CORPORATION

By

007
Its Attorney in Fact

State of Arizona,)
) ss.
County of Greenlee.)

J. A. LENTZ, being first duly sworn, on his oath deposes and says: That he is the duly appointed Attorney in Fact for Phelps Dodge Corporation, the applicant in the foregoing application for patent, and makes this affidavit for and on its behalf.

That he has read and examined the foregoing application for patent, and knows the contents thereof; and that the same is true and correct.

J. A. Lentz
J. A. Lentz

Subscribed and sworn to before me this 5 day of July, 1963, and I hereby certify that the foregoing affidavit was read and examined by the affiant before his signature was affixed thereto and the oath made by him.

My Commission expires:

[Signature]
Notary Public

CORROBORATIVE REPORT

[illegible]

O. B. Willis and Clifford Willis,

being first duly sworn, each for himself and not one for the other, on his oath deposes and says: That he is personally and well acquainted with the lode mining claims of Phelps Dodge Corporation known as the Dos Pobres #s 1 through 28, Gold Hill #s 1, 2, 3, 6 through 19, 25 through 31, Lucky Strike #s 1 through 11, 18, Larivel Nos. 1 through 6, Foothill #s 52, 53, Birthday #s 1, 3, Elevator #s 26, 27, Elevator Nos. 28, 29, Red Dyke Nos. 1 through 5, Red Dyke #s 6 through 12, 15, Red Ribbon #s 1, 2, 6, Hades #s 1, 2, Sunset #s 1 through 9, Arrowhead #s 1 through 6, Pasoford #s 1 through 5, 10, and Last Effort Lode Mining Claims, and also with the character of all the land included in said claims, and the work and improvements performed on the claims or for the benefit thereof; that his knowledge of said claims, work, and improvements is derived from personal observation and is such as to enable him to testify understandingly thereto; that he has read and examined the application for patent to which this affidavit is attached, which application was subscribed and sworn to by J. A. Lentz, as Attorney in Fact for Phelps Dodge Corporation, on the 25 day of May, 1963, and that to his personal knowledge the statements made in said application for patent are true and correct.

Buchholz

B. Sh.

Subscribed and sworn to by the above-named persons
before me this 22nd day of February, 1963.

LAW OFFICES

Evans, Kitchel & Jenckes

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WILLIAM A. EVANS
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APR 5 PM 3 51 .4

April 3, 1967

LAND OFFICE
PHOENIX, ARIZONA

United States Department of the Interior
Bureau of Land Management
Land Office
3022 Federal Building
Phoenix, Arizona 85025

Re: Application of Phelps Dodge Corporation
for patent to Birthday Group of lode
mining claims

Gentlemen:

On behalf of Phelps Dodge Corporation we transmit herewith the following instruments, the first set of patent papers in connection with its application for patent to the Birthday Group of lode mining claims, situate in the Lone Star Mining District, Graham County, Arizona:

- ✓ 1. Application for patent, in duplicate, which has been duly executed, and to which there is attached a duly executed corroborative report.
- ✓ 2. Certificate of John E. Masten, Secretary of Phelps Dodge Corporation, of adoption of resolution of Board of Directors authorizing the appointment of Walter C. Lawson, J. A. Lentz, and J. E. O'Neill as attorneys in fact.
- ✓ 3. Power of attorney to Walter C. Lawson, J. E. Lentz, and J. E. O'Neill.
- ✓ 4. Proof of Posting Notice of Application for United States Patent and Plats of Survey, with a duly executed copy of the notice of application attached.
- ✓ 5. Proof of Citizenship of J. E. O'Neill.
- ✓ 6. Publisher's Agreement of Gila Printing and Publishing Company.
- ✓ 7. Certified copies of Notices of Mining Locations of claims in Birthday Group.

United States Department of the Interior
Bureau of Land Management
April 3, 1967
Page Two

✓ 8. Two (2) copies of Plats of Mineral Survey
No. 4632.

9. Two (2) copies of Field Notes.

✓ 10. Original and three (3) copies of form of
Notice for Publication of Application for United
States Patent.

✓ 11. Our firm check for \$25.00 for filing fee.

We are ordering an abstract of title to the claims, to
be dated after the date of filing this application, which we will
deliver to you in due course.

If any further data in support of the application is
required, kindly advise us.

Yours very truly,

Alfred B. Carr

Alfred B. Carr
For EVANS, KITCHEL & JENCKES

ABC:kh
Enclosures

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UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Land Office
Phoenix, Arizona
LAND OFFICE
PHOENIX, ARIZONA

1209435

IN THE MATTER OF THE APPLICATION)
OF PHELPS DODGE CORPORATION FOR)
PATENT TO THE BIRTHDAY GROUP OF)
LODE MINING CLAIMS)

APPLICATION FOR PATENT
AND CORROBORATIVE REPORT

PHELPS DODGE CORPORATION, a corporation organized under the laws of the State of New York and duly authorized to conduct its corporate affairs in the State of Arizona, whose post office address for the purpose of this application for patent is Morenci, Arizona 85540, hereby applies for patent to that certain group of twenty-three (23) contiguous lode mining claims known and referred to herein as the Birthday Group and consisting of the Birthday #s 2, 4, 5, 6, 7, 8, 9, 10, 11, Chino #1A, Foothill 33, 34, 35, #37, 42, #43, #44, #45, 46, and Pasoford 6, 7, #8, #9 Lode Mining Claims, and in support of such application shows:

1. Description of Claims According to Mineral Survey

No. 4632. The lode mining claims for which patent is applied herein are situated upon and comprise portions of the surveyed public lands in Sections 28, 32, 33, and 34, Township 5 South, Range 26 East, and Section 3, Township 6 South, Range 26 East, G. & S. R. B. & Meridian, in the Lone Star Mining District, Graham County, State of Arizona, as shown on the plats of Mineral Survey No. 4632, two copies of which are filed herewith as Exhibit 1 and by reference made a part hereof, and as described with particularity in the Field Notes of Mineral Survey No. 4632, two copies of which are filed herewith as Exhibit 2 and by reference made a part hereof.

2. Location of Claims. The lode claims, for which patent application is hereby made, were located, amended, and conveyed as

shown below.

First, there is shown, in the table below, the names of the claims, the dates of location or amendment, the dates of recording the original or amended location notices, and the docket and pages of the record of the original or amended notices. All recording data relate to records in the office of the County Recorder of Graham County, Arizona.

Following the table, in separate paragraphs headed by the names of the various name groups of claims, appear the names of the locators, persons making amended locations, and data relating to conveyances. All recording data in these paragraphs relate to records in the office of the County Recorder of Graham County, Arizona.

<u>Name of Claim</u>	<u>Date of Location or Amendment</u>	<u>Date of Recording</u>	<u>Docket</u>	<u>Page</u>
Birthday #2	7/20/57	9/6/57	50	38
Amended	3/19/58	3/26/58	55	184
Birthday #4	7/20/57	9/6/57	50	40
Amended	3/19/58	3/26/58	55	185
Birthday #5	7/20/57	9/6/57	50	41
Amended	3/19/58	3/26/58	55	186
Birthday #6	8/12/57	9/6/57	50	42
Amended	3/19/58	3/26/58	55	187
2nd Amended	7/7/65	7/7/65	103	538
Birthday #7	11/6/57	11/22/57	51	370
Amended	7/3/58	7/9/58	57	430
2nd Amended	7/7/65	7/7/65	103	529
Birthday #8	11/6/57	11/22/57	51	371
Amended	7/3/58	7/9/58	57	431
2nd Amended	7/7/65	7/7/65	103	531
Birthday #9	11/6/57	11/22/57	51	372
Amended	7/3/58	7/9/58	57	432
2nd Amended	7/7/65	7/7/65	103	532
Birthday #10	11/6/57	11/22/57	51	373
Amended	7/3/58	7/9/58	57	433
2nd Amended	7/7/65	7/7/65	103	534
Birthday #11	11/6/57	11/22/57	51	374
Amended	7/3/58	7/9/58	57	434
2nd Amended	7/7/65	7/7/65	103	533
Chino #1A	11/15/57	1/17/58	52	527
Amended	7/17/58	8/18/58	58	217
2nd Amended	7/7/65	7/7/65	103	530

<u>Name of Claim</u>	<u>Date of Location or Amendment</u>	<u>Date of Recording</u>	<u>Docket</u>	<u>Page</u>
Foothill 33	2/3/58	4/22/58	56	212
Amended	7/7/65	7/7/65	103	536
2nd Amended	7/7/65	7/15/65	103	630
3rd Amended	9/29/65	9/29/65	105	192
4th Amended	11/1/65	11/1/65	105	590
Foothill 34	2/3/58	4/22/58	56	213
Amended	11/28/58	11/28/58	59	493
2nd Amended	7/7/65	7/7/65	103	537
Foothill 35	2/3/58	4/22/58	56	214
Amended	2/17/58	3/4/58	54	327
2nd Amended	7/7/65	7/7/65	103	543
Foothill #37	2/3/58	4/22/58	56	216
Amended	7/7/65	7/7/65	103	542
2nd Amended	9/29/65	9/29/65	105	193
Foothill 42	2/17/58	3/4/58	54	333
Amended	7/7/65	7/7/65	103	528
2nd Amended	9/29/65	9/29/65	105	194
Foothill #43	2/17/58	3/4/58	54	334
Foothill #44	2/17/58	3/4/58	54	335
Foothill #45	2/17/58	3/4/58	54	336
Foothill 46	2/22/58	3/4/58	54	337
Amended	7/7/65	7/7/65	103	535
Pasoford 6	7/1/56	7/3/56	41	290
Amended	3/25/58	3/31/58	55	296
2nd Amended	7/7/65	7/7/65	103	540
Pasoford 7	7/1/56	7/3/56	41	291
Amended	3/25/58	3/31/58	55	297
2nd Amended	7/7/65	7/7/65	103	541
Pasoford #8	7/1/56	7/3/56	41	292
Amended	3/25/58	3/31/58	55	298
2nd Amended	4/10/58	4/12/58	55	555
3rd Amended	7/7/65	7/7/65	103	539
Pasoford #9	7/1/56	7/3/56	41	293
Amended	3/19/58	3/26/58	55	188
2nd Amended	7/9/65	7/9/65	103	580

Birthday #s 2, 4, 5, 6

These claims were located by W. D. Roper in July and August, 1957, and were amended by him in March, 1958. The locator conveyed an undivided 5% interest in the claims to Ruskin Lines by Quit-Claim Deed dated October 1, 1959, and recorded March 31, 1960, in Docket 68, page 185. Thereafter the owners conveyed all their interests in the claims to applicant by Quit-Claim Deed dated January 31, 1961, and recorded on February 1, 1961, in Docket 73, pages 506 and 507. Birthday #6 again was amended by applicant in July, 1965.

Birthday #s 7, 8, 9, 10, 11, and Chino #1A

These Birthday claims were located by W. D. Roper and

Ervin D. Cheney in November, 1957, and the Chino #1A claim was located by Ervin D. Cheney in November, 1957, and these claims were amended by their locators in July, 1958. The locators conveyed an undivided 5% interest in the claims to Ruskin Lines by Quit-Claim Deed dated October 1, 1959, and recorded March 31, 1960, in Docket 68, pages 192 and 193. Thereafter the owners conveyed all of their interests in the claims to applicant by Quit-Claim Deed dated January 31, 1961, and recorded on February 1, 1961, in Docket 73, pages 530 to 532. The claims again were amended by applicant in July, 1965.

Foothill 33, 34, 35, #37, 42, #43, #44, #45, and 46

These claims were located by applicant in February, 1958. Foothill 33 was amended by applicant twice in July, 1965, and in September and November, 1965. Foothill 34 was amended by applicant in November, 1958, and July, 1965. Foothill 35 was amended by applicant in February, 1958, and July, 1965. Foothill #37 was amended by applicant in July and September, 1965. Foothill 42 was amended by applicant in July and September, 1965. Foothill 46 was amended by applicant in July, 1965.

Pasoford 6, 7, #8, and #9

These claims were located by W. D. Roper and A. E. Roper in July, 1956, and were amended by them in March, 1958. The Pasoford #8 again was amended by the locators in April, 1958. The locators then conveyed an undivided 5% interest in the claims to Ruskin Lines by Quit-Claim Deed dated October 1, 1959, and recorded on March 31, 1960, in Docket 68, page 182. Thereafter the owners conveyed all of their interests in the claims to applicant by Quit-Claim Deed dated January 31, 1961, and recorded on February 1, 1961, in Docket 73, pages 517 to 519. All of the claims again were amended by applicant in July, 1965.

3. Value and Nature of Labor and Improvements. The labor and improvements made upon and for the benefit of each of

the claims by or on behalf of the applicant are of a value in excess of Eleven Thousand Five Hundred Dollars (\$11,500.00), i. e., Five Hundred Dollars (\$500.00) for each of the twenty-three (23) claims for which application for patent is hereby made, to-wit, Two Hundred Thirty-four Thousand Seven Hundred Eighty-six Dollars (\$234,786.00), and are particularly described as follows:

Birthday #2 Lode:

- No. 1. The discovery point of Birthday #2 Lode is on the lode line 590 ft. from a point on Line 3-4, 300 ft. from Cor. No. 3.
No value.
- No. 2. An adit, the portal of which bears S. 89°30' E., 839 ft. from Cor. No. 1 of Birthday #2 Lode, 4x8 ft. in size, runs N. 60° W., 9 ft. to the base.
Value, \$225.00
- No. 3. Drill hole A-73, 2 1/3 in. diam., 2099 ft. deep, bears N. 61°30' W., 451 ft. from Cor. No. 4 of Birthday #2 Lode.
Value, \$12,621.00.

Birthday #4 Lode:

- No. 1. The discovery point of Birthday #4 Lode is on the lode line 490 ft. from a point on Line 1-2, 300 ft. from Cor. No. 1.
No value.
- No. 2. A cut, the East end of which bears N. 69° E., 374 ft. from Cor. No. 1 of Birthday #4 Lode, 16 ft. wide, 14 ft. long, and 10 ft. face, runs N. 15° W.
Value, \$500.00.
- No. 3. Drill hole A-66, 2 1/3 in. diam., 2074 ft. deep, bears N. 13°50' W., 226.08 ft. from Cor. No. 4 of Birthday #4 Lode.
Value, \$14,389.00.

Birthday #5 Lode:

- No. 1. The discovery point of Birthday #5 Lode is on the lode line 170 ft. from a point on Line 1-2, 299.50 ft. from Cor. No. 1.
No value
- No. 2. A shaft, the center of which bears N. 54°15' E., 216 ft. from Cor. No. 2 of Birthday #5 Lode, 6x6 ft. in size, 10 ft. deep.
Value, \$400.00.
- No. 3. Drill hole A-65, 2 1/3 in. diam., 1945 ft. deep, bears N. 15°10' W., 298.07 ft. from Cor. No. 3 of Birthday #5 Lode.
Value, \$18,273.00.

Birthday #6 Lode:

- No. 1. The discovery point of Birthday #6 Lode is on the lode line 395 ft. from a point on Line 4-1, 281.05 ft. from Cor. No. 4.
No value.
- No. 2. A shaft, the center of which bears N. 76°50' E., 451 ft. from Cor. No. 1 of Birthday #6 Lode, 4x8 ft. in size, 9 ft. deep.
Value, \$325.00.
- No. 3. Drill hole A-71, 2 1/3 in. diam., 1200 ft. deep, bears N. 33°30' E., 449.05 ft. from Cor. No. 1 of Birthday #6 Lode.
Value, \$7,399.00.

Birthday #7 Lode:

- No. 1. The discovery point of Birthday #7 Lode is on the lode line 540 ft. from a point on Line 2-3, 300 ft. from Cor. No. 2.
No value.
- No. 2. A cut, the West end of which bears N. 77°30' W., 431 ft. from Cor. No. 2 of Birthday #7 Lode, 5 ft. wide, 10 ft. long, 10 ft. face, running S. 77° E.
Value, \$250.00.
- No. 3. Drill hole A-69, 2 1/3 in. diam., 2298 ft. deep, bears N. 77°30' W., 450.05 ft. from Cor. No. 2 of Birthday #7 Lode.
Value, \$15,361.00.

Birthday #8 Lode:

- No. 1. The discovery point of Birthday #8 Lode is on the lode line 465 ft. from a point on Line 2-3, 300 ft. from Cor. No. 2.
No value.
- No. 2. A cut, the center of which bears N. 55°30' W., 482 ft. from Cor. No. 3 of Birthday #8 Lode, 5 ft. wide, 10 ft. long, 10 ft. face, runs S. 40° E.
Value, \$250.00.
- No. 3. Drill hole A-70, 2 1/3 in. diam., 1600 ft. deep, bears N. 64°15' W., 540.02 ft. from Cor. No. 3 of Birthday #8 Lode.
Value \$7,754.00.
- No. 4. A cut, the center of which bears N. 63° W., 491 ft. from Cor. No. 3 of Birthday #8 Lode, 5 ft. wide, 10 ft. long, 6 ft. face, runs S. 40° E.
Value, \$200.00

Birthday #9 Lode:

- No. 1. The discovery point of Birthday #9 Lode is on the lode line 460 ft. from a point on Line 2-3, 299.84 ft. from Cor. No. 2.
No value.

No. 2. A cut, the West end of which bears N. $54^{\circ}30'$ W., 429 ft. from Cor. No. 2 of Birthday #9 Lode, 6 ft. wide, 12 ft. long, 10 ft. face, runs S. 75° E.
Value, \$275.00.

No. 3. Drill hole A-72, $2\frac{1}{3}$ in. diam., 1350 ft. deep, bears S. $35^{\circ}15'$ W., 284 ft. from Cor. No. 3 of Birthday #9 Lode.
Value, \$6,600.00.

Birthday #10 Lode:

No. 1 The discovery point of Birthday #10 Lode is on the lode line 540 ft. from a point on Line 2-3, 220 ft. from Cor. No. 2.
No value.

No. 2. A shaft, the center of which bears S. $84^{\circ}50'$ W., 562.05 ft. from Cor. No. 2 of Birthday #10 Lode, 8 ft. wide, 8 ft. long, 7 ft. deep.
Value, \$275.00.

No. 3. Drill hole RL-23, $3\frac{1}{2}$ in. diam., 2000 ft. deep, bears S. $88^{\circ}30'$ W., 461.06 ft. from Cor. No. 2 of Birthday #10 Lode.
Value \$13,211.00.

Birthday #11 Lode:

No. 1. The discovery point of Birthday #11 Lode is on the lode line 335 ft. from a point on Line 4-1, 281.05 ft. from Cor. No. 4.
No value.

No. 2. A shaft, the center of which bears S. $79^{\circ}15'$ W., 352.05 ft. from Cor. No. 4 of Birthday #11 Lode, 6x9 ft. in size, 8 ft. deep.
Value, \$300.00.

No. 3. Drill hole A-74, $2\frac{1}{3}$ in. diam., 1508 ft. deep, bears S. 57° W., 281.06 ft. from Cor. No. 4 of Birthday #11 Lode.
Value \$8,725.00.

Chino #1A Lode:

No. 1. The discovery point of Chino #1A Lode is on the lode line 840 ft. from a point on Line 4-1, 299.25 ft. from Cor. No. 4.
No value.

No. 2. A cut, the S.E. Cor. of which bears N. $40^{\circ}30'$ E., 860.05 ft. from Cor. No. 1 of Chino #1A Lode, 7 ft. wide, 10 ft. long, 11 ft. face, runs N. 50° W.
Value, \$250.00.

No. 3. Drill hole RL-24, $3\frac{1}{2}$ in. diam., 2000 ft. deep, bears S. 77° W., 105 ft. from Cor. No. 3 of Chino #1A Lode.
Value, \$13,174.00.

- No. 4. A shaft, the center of which bears S. $51^{\circ}31'$ W., 311 ft. from Cor. No. 3 of Chino #1A Lode, 5x6 ft. in size, 4 ft. deep.
Value, \$150.00.

Foothill 33 Lode:

- No. 1. The discovery point of Foothill 33 Lode is on the lode line 20 ft. from a point on Line 1-2, 300 ft. from Cor. No. 1.
No value.
- No. 2. A cut, the East end of which bears N. $18^{\circ}10'$ W., 394.06 ft. from Cor. No. 1 of Foothill 33 Lode, 4 ft. wide, 13 ft. long, 10 ft. face, runs N. 50° W.
Value, \$250.00.
- No. 3. Drill hole A-79, 2 1/3 in. diam., 1150 ft. deep, bears N. $19^{\circ}05'$ E., 320.02 ft. from Cor. No. 1 of Foothill 33 Lode.
Value, \$4,655.00.

Foothill 34 Lode:

- No. 1. The discovery point of Foothill 34 Lode is on the lode line 635 ft. from a point on Line 1-2, 300 ft. from Cor. No. 1.
No value.
- No. 2. A shaft, the center of which bears N. $77^{\circ}30'$ E., 851.2 ft. from Cor. No. 1 of Foothill 34 Lode, 6x8 ft. in size, 8 ft. deep.
Value, \$300.00.
- No. 3. Drill hole A-75, 2 1/3 in. diam., 2201 ft. deep, bears S. $27^{\circ}30'$ W., 199.05 ft. from Cor. No. 3 of Foothill 34 Lode.
Value, \$13,062.00.
- No. 4. A shaft, the center of which bears N. $37^{\circ}30'$ E., 320 ft. from Cor. No. 1 of Foothill 34 Lode, 5x9 ft. in size, 7 ft. deep.
Value, \$275.00.

Foothill 35 Lode:

- No. 1. The discovery point of Foothill 35 Lode is on the lode line 130 ft. from a point on Line 2-3, 300 ft. from Cor. No. 2.
No value.
- No. 2. A cut, the East center of which bears S. $52^{\circ}50'$ W., 283.08 ft. from Cor. No. 2 of Foothill 35 Lode, 8 ft. wide, 8 ft. long, 8 ft. face, runs S. 10° W.
Value, \$225.00.
- No. 3. Drill hole A-11, 2 1/3 in. diam. 265 ft. deep, bears S. $84^{\circ}50'$ W., 511.03 ft. from Cor. No. 2 of Foothill 35 Lode.
Value, \$1,060.00.

- No. 4. A cut, the East end of which bears S. $87^{\circ}30'$ W.,
851 ft. from Cor. No. 2 of Foothill 35 Lode, 8 ft.
wide, 15 ft. long, 7 ft. face, runs N. 60° W.
Value, \$275.00.

Foothill #37 Lode:

- No. 1. The discovery point of Foothill #37 Lode is on
the lode line 490 ft. from a point on Line 1-2,
307 ft. from Cor. No. 1.
No value.
- No. 2. A cut, the West end of which bears S. $60^{\circ}30'$ W.,
861 ft. from Cor. No. 1 of Foothill #37 Lode, 5 ft.
wide, 8 ft. long, 8 ft. face, runs S. 85° E.
Value, \$200.00.

- No. 3. Drill hole RL-25, $3\frac{1}{2}$ in. diam., 2600 ft. deep,
bears N. $83^{\circ}15'$ W., 241.03 ft. from Cor. No. 1 of
Foothill #37 Lode.
Value, \$21,108.00.

Foothill 42 Lode:

- No. 1. The discovery point of Foothill 42 Lode is on the
lode line 100 ft. from a point on Line 1-2, 150 ft.
from Cor. No. 1.
No value.
- No. 2. A cut, the West end of which bears S. $48^{\circ}30'$ E.,
139.05 ft. from Cor. No. 1 of Foothill 42 Lode,
5 ft. wide, 9 ft. long, 10 ft. face, runs S. 20° E.
Value, \$250.00.

Foothill #43 Lode:

- No. 1. The discovery point of Foothill #43 Lode is on
the lode line 300 ft. from a point on Line 3-4,
300 ft. from Cor. No. 3.
No value.
- No. 2. A shaft, the center of which bears N. $57^{\circ}30'$ E.,
449 ft. from Cor. No. 3 of Foothill #43 Lode,
6x8 ft. in size, 8 ft. deep.
Value, \$300.00.
- No. 3. Drill hole A-82, $2\frac{1}{3}$ in. diam., 300 ft. deep,
bears N. $69^{\circ}50'$ E., 371 ft. from Cor. No. 3 of
Foothill #43 Lode.
Value, \$2,000.00.
- No. 4. A cut, the East end of which bears S. $46^{\circ}30'$ W.,
421 ft. from Cor. No. 1 of Foothill #43 Lode,
20 ft. wide, 15 ft. long, 7 ft. face, runs N. 65° W.
Value, \$300.00.

Foothill #44 Lode:

- No. 1. The discovery point of Foothill #44 Lode is on
the lode line 100 ft. from a point on Line 1-2,
300 ft. from Cor. No. 1.
No value.

No. 2. A shaft, the center of which bears S. 28°30' W.,
291 ft. from Cor. No. 1 of Foothill #44 Lode,
5x9 ft. in size, 9 ft. deep, runs N. 70° W.
Value, \$300.00.

No. 3. Drill hole A-80, 2 1/3 in. diam., 600 ft. deep,
bears N. 55°15' E., 420.06 ft. from Cor. No. 3 of
Foothill #44 Lode.
Value, \$2,553.00.

Foothill #45 Lode:

No. 1. The discovery point of Foothill #45 Lode is on
the lode line 100 ft. from a point on Line 1-2,
300 ft. from Cor. No. 1.
No value.

No. 2. A shaft, the center of which bears S. 7°30' E.,
290 ft. from Cor. No. 1 of Foothill #45 Lode,
5x7 ft. in size, 7 ft. deep.
Value, \$275.00.

No. 3. Drill hole A-81, 2 1/3 in. diam., 1000 ft. deep,
bears S. 64°30' E., 419.06 ft. from Cor. No. 1 of
Foothill #45 Lode.
Value, \$5,394.00.

Foothill 46 Lode:

No. 1. The discovery point of Foothill 46 Lode is on the
lode line 435 ft. from a point on Line 1-2, 300 ft.
from Cor. No. 1.
No value.

No. 2. A shaft, the center of which bears S. 24°30' E.,
531 ft. from Cor. No. 1 of Foothill 46 Lode, 5x9 ft.
in size, 8 ft. deep.
Value, \$300.00.

No. 3. Drill hole A-78, 2 1/3 in. diam., 941 ft. deep,
bears S. 44°30' E., 496 ft. from Cor. No. 1 of
Foothill 46 Lode.
Value, \$4,701.00.

Pasoford 6 Lode:

No. 1. The discovery point of Pasoford 6 Lode is on the
lode line 327.71 ft. from a point on Line 4-1,
235.58 ft. from Cor. No. 4.
No value.

No. 2. A cut, the West end of which bears S. 50°45' W.,
353.5 ft. from Cor. No. 1 of Pasoford 6 Lode, 6 ft.
wide, 15 ft. long, 9 ft. face, runs S. 25° E.
Value, \$250.00.

No. 3. Drill hole A-45, 2 1/3 in. diam., 770 ft. deep,
bears S. 61°30' W., 369.05 ft. from Cor. No. 1 of
Pasoford 6 Lode.
Value, \$4,113.00.

Pasoford 7 Lode:

- No. 1. The discovery point of Pasoford 7 Lode is on the lode line 380 ft. from a point on Line 3-4, 307 ft. from Cor. No. 3.
No value.
- No. 2. A cut, the East end of which bears S. 1° E., 308 ft. from Cor. No. 4 of Pasoford 7 Lode, 6 ft. wide, 9 ft. long, 12 ft. face, runs S. 35° W.
Value, \$275.00.
- No. 3. Drill hole A-50, 2 1/3 in. diam., 2833 ft. deep, bears S. 57°40' W., 80.05 ft. from Cor. No. 3 of Pasoford 7 Lode.
Value, \$22,887.00.

Pasoford #8 Lode:

- No. 1. The discovery point of Pasoford #8 Lode is on the lode line 625 ft. from a point on Line 3-4, 307 ft. from Cor. No. 3.
No value.
- No. 2. A cut, the East end of which bears N. 5°30' E., 887.09 ft. from Cor. No. 1 of Pasoford #8 Lode, 12 ft. wide, 8 ft. long, 14 ft. face, runs N. 50° W.
Value, \$275.00.
- No. 3. Drill hole A-64, 2 1/3 in. diam., 2712 ft. deep, bears S. 52°15' W., 35 ft. from Cor. No. 4 of Pasoford #8 Lode.
Value, \$18,539.00.

Pasoford #9 Lode:

- No. 1. The discovery point of Pasoford #9 Lode is on the lode line 420 ft. from a point on Line 4-1, 165.03 ft. from Cor. No. 4.
No value.
- No. 2. A cut, the West end of which bears N. 56°45' W., 541.05 ft. from Cor. No. 1 of Pasoford #9 Lode, 5 ft. wide, 8 ft. long, 6 ft. face, runs N. 45° E.
Value, \$200.00.
- No. 3. Drill hole A-76, 2 1/3 in. diam., 1735 ft. deep, bears N. 71°50' E., 432 ft. from Cor. No. 2 of Pasoford #9 Lode.
Value, \$9,557.00.

Interest in a Common Improvement

Drill hole A-78, 2 1/3 in. diam., 941 ft. deep, bears S. 44°30' E., 496 ft. from Cor. No. 1 of Foothill 46 Lode and S. 22°30' E., 720 ft. from Cor. No. 2 of Foothill 42 Lode.

Total value of drill hole,	\$4,701.00
Value of one-half interest,	\$2,350.50

This drill hole is situated on the Foothill 46 Lode and is located within 280 ft. of the East side line of

Foothill 42 Lode; therefore, it benefits or improves the value of both lodes.

\$500, or over, has been expended in such a manner as tends to the development of each of the stated lodes subsequent to its location and to the times since which common ownership and contiguity have prevailed; therefore, an undivided one-half interest is hereby credited to each of the stated lodes. No portion of, or interest in this improvement has been credited heretofore as past expenditure to any lode claim.

4. Description of Veins and Lodes. A general description and the geology and mineralization of the area and of each of claims for which application for patent is made are given to show the kind and character of the veins or lodes. No ore has been extracted from the claims.

General Geology

General Location

The lode claims of the Birthday Group are located in the Lone Star Mining District and are largely within the bounds of Section 33, Township 5 South, Range 26 East, which is about eight and one-half miles north of the center of Safford, Graham County, Arizona. The claims are near the southwestern edge of the Dos Pobres Group of patented claims owned by applicant, and they are accessible by several roads constructed by applicant.

Topography and Vegetation

The claims lie on the partially gravel-covered pediment of the Gila Mountains about a mile southwest of the mountain front. The gravel covering is irregular in thickness, ranging from a few feet to hundreds of feet, and the area has been eroded in a series of gently sloping southwesterly-trending ridges between dry washes.

There are no springs or perennial streams on the claims, and the vegetation consists of desert varieties such as greasewood, quinine bush, clump grasses, ocotillo, and the smaller varieties of cacti.

The ground is under grazing lease at the present time, but there are no feed troughs, sheds, corrals, or other cultural improvements.

Geologic History

The oldest rocks found on or near these claims are part of a series of andesitic flows which are divisible into four units. The oldest of these is a gray andesite which is overlain by a porphyritic unit, tuffaceous beds, and by fragmental andesite. All of these units were sheared and fractured along an eastern to northeastern trend. They were first intruded by plugs of monzonite porphyry and dacite porphyry and later by dikes of hornblende andesite.

Following the period of fracturing and faulting, this area was hydrothermally mineralized and altered by copper-bearing and iron-bearing solutions. After an extensive period of oxidation, the area was covered by a series of tuff, andesite, and basalt.

Northwesterly block faulting then raised the Gila Mountains and caused the Dos Pobres orebody to be transected. The southern part, over which the Birthday Group is located, contains the down-dropped portion of that orebody, and the deep mineralization that extends westward below the fault.

Finally, the area was partly covered by gravel derived from the receding Gila Mountain front.

Structure

The claims cover a dropped fault block lying between two major faults. These faults are Basin and Range type structures and are northwesterly trending and parallel the axis of the Gila Mountains. The fault lying along the northeastern border of the group, named the Foothill fault, has been traced approximately 1-1/2 miles northwest and at least 4 miles southwest of the claims. It is a normal fault dipping approximately 62 degrees to the southwest, and its displacement is 2,000 feet or more. The second fault, named the Valley fault, lies along the southwestern edge of the claim group and is also a normal fault, but its vertical displacement is unknown. Laterally, it has been traced for about 1-1/2 miles.

The graben between these two faults, which are 1,000 to 2,200 feet apart near the surface, has been sheared and broken into several smaller blocks. Diamond drilling has indicated that the top of the pre-mineral volcanic flows have been tilted or step-faulted toward the northwest with an average slope of approximately 20 degrees.

Surface Geology

Outcrops are not abundant on these claims. The tops of the highest hills are uncovered but the lower hills, ridges, and valleys are concealed under recent alluvium which varies from only a few feet to several hundred feet in thickness.

All of the exposed rocks between the Foothill and Valley faults are post-mineralization. Tertiary volcanic flows consist of brown to gray vesicular basalt, dense gray andesite, and rhyolitic to dacitic tuff agglomerates. The vesicular basalt is the most abundant unit at outcrop.

South of the Valley fault, the outcrops are all fragmental andesite. They are medium greenish gray with subangular inclusions of older flows. They are unmineralized and virtually unaltered.

All of the exposed rock north of the Foothill fault is strongly mineralized and is the oxidized part of the Dos Pobres orebody.

Mineralization and Alteration

The lode claims of the Birthday group are covered by

post-mineralization volcanic flows and gravel. Their character has been determined by deep drilling on individual claims to depths sufficient to confirm the continuity of mineralization, and by projections based on drilling and geological mapping of the exposed northeastern part of the orebody where bornite and chalcopyrite were oxidized to a depth of 1,000 feet but are present to below the explored depth of 3,000 feet.

The mineralization underlying the Birthday claims is both the laterally faulted upper portion of the oxidized mineralization exposed to the northeast, and the very deep mineralization that is continuous in the footwall below the fault. This mineralization is an integral part of the better exposed zone northeast of the fault, and it must be incorporated in any orderly plan for extraction of ore.

The mineralized zone can be divided into three indistinct zones. Mineralization in the upper zone consists of limonite, hematite, goethite, chrysocolla, native copper, and cuprite. Mineralization in the intermediate zone consists of all of the above minerals plus some relict sulfides, mostly pyrite. Mineralization in the lower zone consists of pyrite, chalcopyrite, and bornite. Oxidized minerals in the latter zone are present only in wide fractures or in fault zones.

The alteration associated with the mineralization can also be divided into zones. In the central area quartz-sericite was formed and the rock was partially bleached, especially along the fractures and shears. In addition, some secondary biotite was formed. Peripheral to this zone is a zone of less intense alteration characterized by weak bleaching and the formation of chlorite.

Claim Descriptions

Birthday #2

Geology. The Birthday #2 claim is at the northeast corner of the group. The claim is completely covered with gravel, and the nearest outcrop is the mineralized andesite north of the Foothill fault approximately 300 feet northeast of the claim.

Mineralization. Mineralization on this claim was encountered in diamond drill hole A-73 below 1170 feet. The rock contained weak to fair limonite staining, hematite blebs usually associated with strong bleaching that increased in strength with depth, and minor native copper below 1600 feet which is typical of the oxidized top of the ore zone. The hole caved and was lost at 2099 feet. The highest 10-foot assay was 0.09% copper which was obtained from 2030 to 2040 feet.

Birthday #4

Geology. The Birthday #4 claim is completely covered by gravel. The nearest outcrop is an exposure of post-mineral andesite a few hundred feet to the west.

Mineralization. Mineralization on this claim was encountered in a diamond drill hole A-66 which is located approximately 130 feet west of the east center end. The pre-mineral rock was encountered at 1490 feet and contained limonite films along the fractures

associated with chlorite-sericite alteration and was bleached. The best 10-foot sample was from 2000 to 2010 feet and assayed 0.21% copper. Some chrysocolla was noted between 2060 and 2070 feet. The hole caved and was lost at 2074 feet.

Birthday #5

Geology. The Birthday #5 claim is completely covered with gravel. The nearest outcrop is an exposure of post-mineral andesite which lies just west of the west end line.

Mineralization. The pre-mineral rock was encountered at 1190 feet in diamond drill hole A-65, located 130 feet west of the east center end of the claim. The uppermost flows contained weak iron oxide staining in fractures. At 1410 feet, chrysocolla and native copper were encountered. The best 10-foot sample was from 1710 to 1720 feet and assayed 0.50% copper. The average of all core samples obtained (1524-1945) is 0.20% copper.

Birthday #6

Geology. The entire claim is covered by gravel, and the nearest outcrops are 400 feet away. One outcrop lies directly east of the claim; another lies due west. Both are post-mineral andesites.

Mineralization. Mineralized flows were intersected at 1026 feet in diamond drill hole A-71 located on the northwest corner of the claim. They contained yellow-brown limonite stains in the fractures and a few iron oxide speckles derived from the oxidation of pyrite. The hole was cut off due to difficult drilling conditions at 1200 feet.

Birthday #7

Geology. The claim is located in the northwest corner of the group. Its western end is in Watson Wash and its eastern end lies on the ridge east of Hackberry Spring Wash. Post mineral andesites crop out in both washes.

Mineralization. Mineralized rock was intersected in diamond drill hole A-69 at 1170 feet. The rock contained weak to locally strong limonite in fractures and bleached zones containing square box works partially filled with hematite.

Birthday #8

Geology. Birthday #8 straddles Hackberry Spring Wash where the only outcrop on the claim is located. The outcrop is an exposure of dark gray post-mineral andesite.

Mineralization. Mineralized rock was encountered at 1370 feet in diamond drill hole A-70 which is located near the center of the claim. The rock contained weak to fairly strong limonite and goethite in fractures. Strong hematite with associated bleaching occurred locally.

Birthday #9

Geology. A large outcrop of post-mineral volcanic flow is exposed in the center of the Birthday #9 claim where it is cut by Hackberry Spring Wash. Both the east and the west ends of the claim are covered with gravel.

Mineralization. Diamond drill hole A-72, located on the north-east corner of the claim, encountered mineralized rock at 1274 feet. The mineralization consisted of limonite stains on fractures. The hole was cut off due to difficult drilling conditions at 1350 feet.

Birthday #10

Geology. Post-mineral volcanics are exposed on the central part and on the west end of the claim. The remainder of the claim is covered with gravel.

Mineralization. Mineralized rock occurs in diamond drill hole RL-23 which is located near the center of the claim. The pre-mineral flows were first encountered at 910 feet and contained limonite in the fractures. Hematite speckling associated with strong bleaching occurred locally. The strength of mineralization varies from weak to quite strong. The highest assay obtained is 0.11% copper. The hole was cut off due to difficult drilling conditions at 2,200 feet.

Birthday #11

Geology. Post-mineral volcanics are exposed in the western and central parts of the claim. The remainder is covered by gravel which varies from a few feet to 50 feet thick.

Mineralization. Mineralized rock was encountered at 820 feet in diamond drill hole A-74, which is located on the northeastern part of the claim. Pyrite occurred near the top of the pre-mineral flows, but limonite and hematite were encountered below it. The highest 10-foot assay was 0.23% copper.

Chino #1A

Geology. The claim occupies the northwest corner of the claim group. Post-mineral flows are exposed in Watson Wash where it crosses the northern part of the claim. Most of the claim is covered with gravel.

Mineralization. Diamond drill hole RL-24 was drilled on the northern edge of the claim where the post-mineral flows were found to be 1581 feet thick. The pre-mineral flows contained spotty iron oxide largely in fractures and fracture zones. The hole was cut off due to difficult drilling conditions at 2,000 feet.

Foothill 33

Geology. Outcrops of post-mineral rock occur on the west end of the claim and near the eastern end where it is cut by Watson Wash. The remainder of the claim is covered by a thick gravel mantle.

Mineralization. Pre-mineral rock was encountered at 550 feet in A-79, located about 50 feet west of the east center end of the claim. The mineralization consisted of limonite staining in fractures or as a general stain, and hematite occurring as speckles usually associated with strong bleaching of sheared or strongly fractured rock.

Foothill 34

Geology. Although there are no outcrops on the claims, pre-mineral rock is exposed south of the claim on the footwall side of

the Valley fault which lies about 100 feet south of the south end line of the claim. The rock is greenish gray fragmental andesite and is unmineralized. The Foothill 34 claim, itself, is completely covered by a blanket of gravel up to several hundred feet thick.

Mineralization. Diamond drill hole A-75 intersected the pre-mineral flows at 960 feet. Limonite was observed in fractures and hematite appeared as speckles, blotches, and also as a locally pervasive stain due to flooding. Traces of chrysocolla were also noted. The best 10-foot sample assayed 0.13% copper.

Foothill 35

Geology. The Foothill 35 claim is traversed longitudinally by the Valley fault. The area south of the fault is pre-mineral fragmental andesite which is virtually unaltered and unmineralized. The north side of the fault is covered with gravel except near the west end of the claim where post-mineral flows are exposed.

Mineralization. Mineralized samples obtained from diamond drill hole A-11 which is located on the northeastern portion of the claim. The hole was 265 feet deep, and the top of the mineralized volcanics was intersected at 180 feet. It contained limonitic and hematitic mineralization.

Foothill #37

Geology. There are no surface exposures of rock on the claim but there are outcrops only a few feet from the eastern side line of the claim where a deep wash has exposed post-mineral flows and the Valley fault which runs southeasterly across the southern part of the claim. The pre-mineral flows which lie south of the Valley fault are covered by gravels which are at least 50 feet thick.

Mineralization. Evidence of mineralization was obtained from diamond drill hole RL-25 located near the north center end of the claim. The conglomerate was 370 feet thick, and the post-mineral flows were 750 feet thick. The underlying pre-mineral andesites contained iron oxide, chrysocolla, and lesser amounts of native copper and cuprite. Ten-foot assays ran as high as 0.62% copper and 100-foot composites as high as 0.33% copper. The average assay of the 1480 feet of pre-mineral rock intersected was 0.17% copper.

Foothill 42

Geology. Foothill 42 is located on the western edge of the group and covers a small fraction separating the main body of claims from State Sec. 32. The claim is completely covered by gravel except for post-mineral andesite exposed in a wash on the western edge of the claim.

Mineralization. Because the claim covers a fraction and because there are drill holes on adjacent claims, no hole was drilled on this claim. Thin iron oxide films occur in fractures of basalt outcrop.

Foothill #43

Geology. This claim covers a small fraction along the southern edge of the Birthday Group. Pre-mineral flows are exposed south of the southeasterly-trending Valley fault on the central part of the claim in a deep canyon. The area north of the fault

and the remainder of the claim south of the fault are covered with gravel.

Mineralization. The gravel covering south of the Valley fault was penetrated by diamond drill hole A-82 at 70 feet. The underlying flows were chloritized and bleached fragmental andesites containing remnants of disseminated sulfides.

Foothill #44

Geology. This claim covers a narrow fraction along the southern edge of the Birthday Group and is completely covered by gravel. Drilling indicated that the gravel covering is 190 feet thick and that the underlying rocks are pre-mineral andesites.

Mineralization. The 600-foot diamond drill hole A-80 was drilled in the northwestern part of the claim. The pre-mineral rocks encountered were locally bleached and contained limonite in fractures and hematite speckles which resulted from the oxidation of sulfides.

Foothill #45

Geology. This claim lies along the southern edge of the Dos Pobres Group of patented claims owned by applicant and covers a narrow fraction. Post-mineral basalt exposed in a canyon which cuts across the center of the claim, is the only outcrop on the claim. Gravel covers most of the claim, and it varies from only a few feet to more than 100 feet thick.

Mineralization. Mineralization was encountered in diamond drill hole A-81. Pre-mineral flows contained limonite and hematite to 911 feet. Pyrite was encountered below 911 feet, and mineralization became progressively stronger with depth. Drilling was terminated at 1000 feet. The last two 10-foot samples contained 5% and 8% sulfides, respectively.

Foothill 46

Geology. This claim is located on the western edge of the Birthday Group between the Birthday claims and State Sec. 32. Post-mineral basalt, which is dark brown and vesicular, is exposed on the southern half of the claim. The northern half is covered with gravel.

Mineralization. Pre-mineral flows were encountered below 925 feet in drill hole A-78 and mineralization was encountered at about 998 feet. The rock below 998 feet is bleached and has iron oxide stains in fractures.

Pasoford 6

Geology. This claim is completely gravel covered. The nearest outcrop is post-mineral andesite which lies a few feet from the west side line of the claim near its southern end.

Mineralization. Diamond drill hole A-45, located on the north end of the claim, encountered mineralized rock at 484 feet. The rock contained iron oxide and minor copper oxides. The highest 10-foot assay was 0.13% Cu. The hole was lost at 770 feet before any sulfides were encountered.

Pasoford 7

Geology. There are two outcrops on Pasoford 7, one near the north end and one near the south end of the claim. Both are exposures of post-mineral flows. The remainder of the claim is covered with gravel to a thickness of several hundred feet.

Mineralization. Diamond drill hole A-50, near the north end line of the claim, encountered mineralized flows below 600 feet. Mineralization in the oxidized zone consisted of indigenous iron oxide with small amounts of copper oxides which became more abundant with depth. Sulfides were encountered below 2,500 feet. The highest individual 10-foot assay was 0.36% copper. The hole was lost at 2,840 feet.

Pasoford #8

Geology. About half of the Pasoford #8 claim is gravel covered. Post-mineral flows are exposed on the other half due to erosion along a deep canyon which cuts the claim diagonally from northeast to southwest. This canyon also exposes the Valley fault where it crosses the southern part of the claim. There are no rock exposures south of the fault.

Mineralization. Pre-mineral flows were encountered below 810 feet in diamond drill hole A-64 located near the northeast corner of the claim. These flows contained hematite and traces of magnetite. Sulfides were first encountered at 2,180 feet. The hole was lost at 2,712 feet. The highest individual 10-foot assay was 0.31% copper. An average of all core samples in the sulfide zone (532 feet) was 0.13% copper.

Pasoford #9

Geology. The Pasoford #9 claim is completely covered by gravel. The nearest rock outcrop is just south of the claim and is post-mineral basalt. Drilling indicated that the gravel covering varies from 10 to 150 feet or more.

Mineralization. Mineralized flows were first encountered at 1,290 feet in diamond drill hole A-76. The top of the zone contained weak iron oxide but the mineralization became stronger with depth and included some copper oxide minerals. The best assay obtained in the oxidized zone was 0.14% copper. The hole was lost in a fault zone at 1,735 feet prior to encountering sulfides.

5. Conflicts and Adjoining Claims and Land. As more particularly appears from the Plat of Mineral Survey No. 4632 and the Field Notes thereof, which are attached hereto as Exhibit 1 and Exhibit 2, respectively, there are no patented or unpatented mining claims or other patented lands in conflict with the Birthday #2, #4, #5, #6, #7, #8, #9, #10, #11, Chino #1A, Foothill 33, 34, 35, #37, 42, #43, #44, #45, 46, and Pasoford 6, 7, #8, #9 Lodes, except as follows:

A. The following lodes of this Survey No. 4632, owned and being patented by application under this application for patent:

1. Pasoford #9 and Birthday #6 Lodes: Conflict with Foothill #37 Lode.
2. Chino #1A Lode: Conflicts with Foothill 42 Lode.
3. Pasoford 7 Lode: Conflicts with Foothill #43 Lode.
4. Foothill 33 and Foothill 42 Lodes: Conflict with Foothill 46 Lode.
5. Pasoford 6 Lode: Conflicts with Pasoford #9 Lode.

B. The following lodes, owned by applicant, patented under Survey No. 4579:

1. Birthday #1 Lode: Conflicts with Birthday #2 Lode, and Birthday #7 Lode.
2. Pasoford #3, Pasoford #4, and Pasoford #5 Lodes: Conflict with Foothill #44 Lode.
3. Pasoford #1, Pasoford #2, and Pasoford #3 Lodes: Conflict with Foothill #45 Lode.

C. The following unsurveyed lode mining claims and surveyed lands:

1. NE $\frac{1}{4}$ of Sec. 32, T. 5 S., R. 26 E., G&SRB&M, owned by applicant: Conflicts with Foothill 33 Lode.
2. Pickup 1 Lode, unsurveyed, owned by Roy Galladay and Bob Howard; and Bohemia 9 Lode, unsurveyed, owned by C. L. Hopkins, Farrel Craig, and Bill Palmer: Conflict with Foothill 34 Lode.
3. NE $\frac{1}{4}$ and SE $\frac{1}{4}$ of Sec. 32, T. 5 S., R. 26 E., G&SRB&M, owned by applicant; Pickup 1 Lode, unsurveyed, owned by Roy Galladay and Bob Howard; and Bohemia 9 Lode, unsurveyed, owned by C. L. Hopkins, Farrel Craig, and Bill Palmer: Conflict with Foothill 35 Lode.
4. Pickup 1 Lode, unsurveyed, owned by Roy Galladay and Bob Howard; and Bohemia 9 and Bohemia 3 Lodes, unsurveyed, owned by C. L. Hopkins, Farrel Craig, and Bill Palmer: Conflict with Foothill #37 Lode.
5. Nail Keg 20 and Nail Keg 21 Lodes, unsurveyed, owned by Cliff Bryce; and Bohemia 1 Lode, unsurveyed, owned by C. L. Hopkins, Farrel Craig, and Bill Palmer: Conflict with Foothill #43 Lode.

6. Nail Keg 21 and Nail Keg 3 Lodes, unsurveyed, owned by Cliff Bryce: Conflict with Foothill #44 Lode.

7. Nail Keg 3 Lode, unsurveyed, owned by Cliff Bryce: Conflicts with Foothill #45 Lode.

8. NE $\frac{1}{4}$ of Sec. 32, T. 5 S., R. 26 E., G&SRB&M, owned by applicant: Conflicts with Foothill 46 Lode.

9. Bohemia 1 and Bohemia 2 Lodes, unsurveyed, owned by C. L. Hopkins, Farrel Craig, and Bill Palmer: Conflict with Pasoford 7 Lode.

10. Bohemia 2 and Bohemia 3 Lodes, unsurveyed, owned by C. L. Hopkins, Farrel Craig, and Bill Palmer: Conflict with Pasoford #8 Lode.

The claims and lands adjoining the group of lodes included in this application, including the surveyed lands and surveyed and unsurveyed lodes previously mentioned as conflicting with the lodes included in this application, beginning with the land adjoining Chino #1A and Birthday #7 Lodes, two of the most Northerly lodes included in this application, and running clockwise around the group of lodes included in this application, are as follows: SW $\frac{1}{4}$ of Sec. 28, T. 5 S., R. 26 E., G&SRB&M, owned by applicant; Birthday #1, Dos Pobres #8, Dos Pobres #5, Birthday #3, Dos Pobres #7, Pasoford #10, Dos Pobres #23, Pasoford #5, Pasoford #4, Pasoford #3, Pasoford #2, and Pasoford #1 Lodes, all of Survey No. 4579, owned by applicant; SW $\frac{1}{4}$ of Sec. 34, T. 5 S., R. 26 E., G&SRB&M, owned by Guy Anderson; Nail Keg 3, Nail Keg 21, and Nail Keg 20 Lodes, all unsurveyed, owned by Cliff Bryce; NW $\frac{1}{4}$ of Sec. 3, T. 6 S., R. 26 E., G&SRB&M, owned by Farrel Craig and Dave Bryce; Bohemia 1, Bohemia 2, Bohemia 3, all unsurveyed, owned by C. L. Hopkins, Farrel Craig, and Bill Palmer; Pickup 1, unsurveyed, owned by Roy Galladay and Bob Howard; Bohemia 9, Bohemia 10, all unsurveyed, owned by C. L. Hopkins, Farrel Craig, and Bill Palmer; Sandwash 2, unsurveyed, owned by Don Hawkins; and SE $\frac{1}{4}$ and NE $\frac{1}{4}$ of Sec. 32, T. 5 S., R. 26 E., G&SRB&M, owned by applicant.

6. Application for Patent. Phelps Dodge Corporation by this application seeks a patent to the Birthday #2, #4, #5, #6, #7,

#8, #9, #10, #11, Chino #1A, Foothill 33, 34, 35, #37, 42, #43, #44, #45, 46, and Pasoford 6, 7, #8, #9 Lodes, exclusive of the areas in conflict with the surveyed lodes, unsurveyed lode mining claims, and surveyed land particularly set forth and described in paragraphs A, B, and C of Section 5 of this application, which paragraphs are hereby incorporated herein by reference.

7. Miscellaneous. Applicant desires title to said lodes in said Birthday Group because of the mineral contained therein. Applicant has had no part, direct or indirect, in the atomic bomb project.

PHELPS DODGE CORPORATION

By

J. E. O'Neill

Its Attorney in Fact

State of Arizona,)
County of Greenlee.) ss.

J. E. O'NEILL, being first duly sworn, on his oath deposes and says: That he is a duly appointed Attorney in Fact for Phelps Dodge Corporation, the applicant in the foregoing application for patent, and makes this affidavit for and on its behalf.

That he has read and examined the foregoing application for patent, and knows the contents thereof; and that the same is true and correct.

J. E. O'Neill
J. E. O'Neill

Subscribed and sworn to before me this 3rd day of March, 1967, and I hereby certify that the foregoing affidavit was read and examined by the affiant before his signature was affixed thereto and the oath made by him.

My Commission expires:

My Commission expires March 3, 1969

M. J. M.
Notary Public

CORROBORATIVE REPORT

State of Arizona,)
County of Greenlee.) ss.

and

Joseph S. Durkin and William C. Connor,

being first duly sworn, each for himself and not one for the other, on his oath deposes and says: That he is personally and well acquainted with the lode mining claims of Phelps Dodge Corporation known as the Birthday #2, #4, #5, #6, #7, #8, #9, #10, #11, Chino #1A, Foothill 33, 34, 35, #37, 42, #43, #44, #45, 46 and Pasoford 6, 7, #8, #9 Lode Mining Claims, and also with the character of all the land included in said claims, and the work and improvements performed on the claims or for the benefitment thereof; that his knowledge of said claims, work, and improvements is derived from personal observation and is such as to enable him to testify understandingly thereto; that he has read and examined the application for patents to which this affidavit is attached, which application was subscribed and sworn to by J. E. O'Neill, as Attorney in Fact for Phelps Dodge Corporation, on the 3rd day of March, 1967, and that for his personal knowledge the statements made in said application for patent are true and correct.

Joseph S. Durkin
Joseph S. Durkin
William C. Connor

and sworn to by the above-named persons

Subscribed and sworn to by the above-named persons
before me this 3rd day of March, 1967.

My Commission expires:

My Commission Expires March 3, 1969

Notary Public
Notary Public



United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Land Office
3022 Federal Building
Phoenix, Arizona 85025

IN REPLY REFER TO

A-4591
(LO/Mins)

BUREAU OF LAND
MANAGEMENT
SAFFORD DISTRICT

JUL 24 1970

July 22, 1970

Memorandum

To: District Manager, Safford District

From: R. A. McColly, Mining Engineer

Subject: Mineral Character of Selected Lands in Proposed Private Exchange A-4591, Phelps Dodge Corporation.

Record Data:

On March 30, 1970, the Phelps Dodge Corporation submitted an informal exchange proposal for those lands in Secs. 28, 32, 33 and 34, T. 5 S., R. 26 E.; Sec. 3, T. 6 S., R. 26 E.; and Secs. 2 and 3, T. 4 S., R. 29 E., G&SRM embraced in Mineral Surveys No. 4631 and No. 4632, Arizona.

- These lands are currently within Mineral Patent Applications A-827 and A-828, likewise submitted by the Phelps Dodge Corporation. A preliminary field examination, and evaluation of available information, including that submitted with the patent applications, did not establish the presence of valuable mineral deposits on the lands as required by law.

The subject exchange proposal is thus an alternative method for the applicant to obtain lands they feel are needed for the mineral development of ore-bodies on adjacent lands.

The purpose of this report is to determine the mineral or nonmineral character of these lands, and the method of resolving the mineral conflicts.

Location, Access and Identification

The bulk of the subject lands, comprising just over 366 acres, are located nine miles north of Safford, Arizona on the lower slopes of the Gila Mountains. The remaining 0.467 acre tract is located approximately five miles northwest of Clifton, Arizona at the east edge of the projected pit perimeter of the Morenci open-pit mine.

Similar access is available to both areas along graded roads and jeep trails built by the applicant for mineral exploration.

Identification of the lands is made possible by the presence of "brass cap" corners monumenting the mineral surveys.

Geology and Mineralization

(Safford Area) The geologic history of this area is complex. Basically, however, a series of probable Cretaceous-age andesite flows serves as host rock for Larimide intrusives of various compositions, and for copper mineralization which accompanied one or more of these intrusives.

The mineralized zones were subjected to varying degrees of oxidation, before being covered by several hundred feet of post-mineral tuff and basalt. Normal faulting followed, resulting in vertical displacements of 1200 to 2000 feet. Erosion of the elevated blocks, and burial of the down-faulted blocks occurred next, locally exposing portions of the mineralized zones. These areas served as targets for exploration drilling which proved the existence of commercial ore on claims adjacent to the subject lands. The subject lands lie over one of the down-faulted blocks in which valuable mineralization, if it occurs at all, lies buried under a considerable depth of post-mineral volcanics and recent alluvium.

The values described in the following paragraphs, taken from Mineral Patent Application A-828, are typical of those found on the subject lands:

Birthday #2

Mineralization. Mineralization on this claim was encountered in diamond drill hole A-73 below 1170 feet. The rock contained weak to fair limonite staining, hematite blebs usually associated with strong bleaching that increased in strength with depth, and minor native copper below 1600 feet which is typical of the oxidized top of the ore zone. The hole caved and was lost at 2099 feet. The highest 10-foot assay was 0.09% copper which was obtained from 2030 to 2040 feet.

Birthday #4

Mineralization. Mineralization on this claim was encountered in a diamond drill hole A-66 which is located approximately 130 feet west of the east center end. The pre-mineral rock was encountered at 1490 feet and contained limonite films along the fractures associated with chlorite-sericite alteration and was bleached. The best 10-foot sample was from 2000 to 2010 feet and assayed 0.21% copper. Some chrysocolla was noted between 2060 and 2070 feet. The hole caved and was lost at 2074 feet.

Foothill #37

Mineralization. Evidence of mineralization was obtained from diamond drill hole RL-25 located near the north end of the claim. The conglomerate was 370 feet thick, and the post-mineral flows were 750 feet thick. The underlying pre-mineral andesites contained iron oxide, chrysocolla, and lesser amounts of native copper and cuprite. Ten-foot assays ran as high as 0.62% copper and 100-foot composites as high as 0.33% copper. The average assay of the 1480 feet of pre-mineral rock intersected was 0.17% copper.

Foothill #45

Geology. This claim lies along the southern edge of the Dos Pobres Group of patented claims owned by applicant and covers a narrow fraction. Post-mineral basalt exposed in a canyon which cuts across the center of the claim, is the only outcrop on the claim. Gravel covers most of the claim, and it varies from only a few feet to more than 100 feet thick.

Mineralization. Mineralization was encountered in diamond drill hole A-S1. Pre-mineral flows contained limonite and hematite to 911 feet. Pyrite was encountered below 911 feet, and mineralization became progressively stronger with depth. Drilling was terminated at 1000 feet. The last two 10-foot samples contained 5% and 8% sulfides, respectively."

(Morenci Area)

The narrative in Mineral Patent Application A-827 adequately describes the lands in the Morenci area:

General Geology

"The Nevada Fraction lode mining claim lies approximately 1200 feet north of the summit of Markeen Mountain, and extends across the crest and down the western slope of a ridge that trends northwesterly from Markeen Mountain. This ridge forms the divide between Chase Creek and San Francisco River drainage. It is composed of Precambrian granite containing irregular masses of Precambrian aplite, Tertiary monzonite and granite porphyry dikes that were intruded along northeasterly fractures and faults. The porphyry dikes are associated with the large mineralized porphyry mass in the central part of the district.

Structure

The Copper King fault vein is the most prominent structure exposed on the claim. It strikes N. 75° E., and dips steeply to the north. The breccia zone along the fault is about a foot wide where it crosses the claim, but there is considerable fracturing parallel to the main structure which makes the zone appear to be much wider. The Copper King vein can be traced northeastward for at least three miles across Copper King Mountain where it was exploited for copper and gold.

Other northeasterly features included several narrow dikes, fractures, and small faults. Northwestern fractures are discontinuous and, for the most part, contain no porphyry but may form wide breccia zones.

Alteration and Mineralization

Alteration minerals associated with dikes and fractures consist largely of silica, sericite, and kaolin. The silica and sericite occur in narrow bands along fractures and dike contacts. The kaolin occurs locally in or near porphyry masses.

Mineralization on the surface of the claim consists of pervasive disseminations and veinlets of iron oxide. Surface samples and samples from cuts, described in Section 3 of this application, contain as much as 0.10% copper. Sulfide copper minerals were encountered in nearby drill holes."

Conclusions and Recommendations:

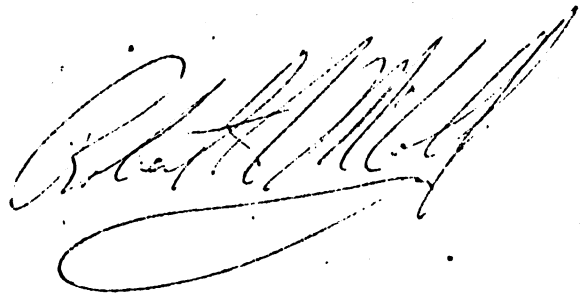
No ore has been extracted from any of the mining claims which cover the subjected lands.

The mineralization discovered thus far has been scanty, though difficult drilling conditions have added to the problem of making mineral discoveries.

The information available indicates that either a halo of sub-economic minerals surrounds the proven orebody and extends into the subject lands, or that similar grade mineralization is present, but very deeply buried. In any event, the presence of valuable mineral deposits on the claims has not been shown. Neither can the presence of valuable mineral deposits be inferred, particularly if realistic economic criteria are applied to the known data.

Generally, mineral lands should be transferred from Federal ownership only under provisions of the Mining Laws. In this case, however, there is insufficient information available to allow this. As the applicant intends to use the lands for mining purposes, there is no reason to insist that they be called mineral in character on theoretical grounds and thus be denied to the applicant, when available information and common sense indicate otherwise. It is, therefore, recommended that the lands be considered nonmineral in character and classified as suitable for exchange to the applicant.

The applicant is the owner of the mining claims now covering the lands, and no difficulty is anticipated in clearing them of mineral conflicts. On receipt of a proper relinquishment, the Mineral Surveys involved can be cancelled on request, and the land made available for exchange. Withdrawal of the pending Mineral Patent Applications can be made at the same time.

A handwritten signature in dark ink, appearing to read "Robert H. Miller", is written in a cursive style. The signature is located on the right side of the page, below the main body of text.

Private Exchange , cont.	Page 1-A Serial Number A 4591
DATE OF ACTION	ACTION TAKEN
	<p><u>SELECTED LANDS:</u> <u>T. 5 S., R. 26 E. & T. 6 S., R. 26 E.</u></p> <p>Beginning at the corner of secs. 28, 29, 32, and 33, T. 5 S., R. 26 E., G.S.R.B.M., said point of beginning being Corner No. 1 of Foothill 42, thence S. 89°49' E. for a distance of 299.45 feet, thence N. 11°55' E. for a distance of 1,187.22 feet, thence S. 78°05' E. for a distance of 599.25 feet, thence S. 11°55' W. for a distance of 160.00 feet, thence S. 78°05' E. for a distance of 1,103.34 feet, thence S. 12°26' W. for a distance of 120.70 feet, thence N. 88°34' E. for a distance of 1,215.60 feet, thence S. 78°05' E. for a distance of 600.00 feet, thence S. 11°55' W. for a distance of 600.00 feet, thence N. 78°05' W. for a distance of 1,390.00 feet, thence S. 11°55' W. for a distance of 600.00 feet, thence S. 78°05' E. for a distance of 1,390.00 feet, thence S. 11°55' W. for a distance of 1,199.75 feet, thence S. 78°02' E. for a distance of 1,500.00 feet, thence S. 11°55' W. for a distance of 273.89 feet, thence S. 78°05' E. for a distance of 449.50 feet to Corner No. 1 of Pasoford 6, from which point the 1/4 corner between secs. 33 and 34, T. 5 S., R. 26 E., bears S: 21°30' W. a distance of 85.40 feet.</p> <p>Continuing from Corner No. 1 of Pasoford 6, S. 23°22' W. for a distance of 1,500.16 feet, thence S. 78°05' E. for a distance of 2,840.00 feet, thence S. 11°55' W. for a distance of 94.50 feet, thence N. 89°07' W. for a distance of 1,537.21 feet, thence N. 75°45' W. for a distance of 1,457.70 feet, thence S. 20°30' W. for a distance of 610.00 feet, thence S. 37°55' W. for a distance of 620.55 feet, thence N. 78°05' W. for a distance of 104.40 feet, thence N. 20°30' E. for a distance of 1,450.69 feet, thence N. 75°33' W. for a distance of 1,351.40 feet, thence N. 24°26' E. for a distance of 9.05 feet, thence N. 78°05' W. for a distance of 100.13 feet, thence N. 72°56' W. for a distance of 352.93 feet, thence N. 24°50' E. for a distance of 667.50 feet, thence N. 66°33' W. for a distance of 1,489.50 feet, thence S. 24°50' W. for a distance of 682.50 feet, thence N. 78°52' W. for a distance of 1,259.80 feet, thence N. 0°13' E. for a distance of 2,641.55 feet to the point of beginning. <u>366.288 acres.</u></p> <p>Cont. on page 2-A.</p>

Private Exchange, cont.		Page 2-A	Serial Number A 4591
DATE OF ACTION	ACTION TAKEN		
	<p><u>SELECTED LANDS, cont.:</u></p> <p><u>T. 4 S., R. 29 E.</u> Beginning at a point due N. 417.64 feet from the SE Corner of sec. 3, T. 4 S., R. 29 E., G.&S.R.B.& M., thence S. 44°29' W. for a distance of 151.47 feet, thence N. 51°55' W. for a distance of 138.68 feet, thence N. 61°56' E. for a distance of 243.99 feet, thence due S. for a distance of 92.27 feet to the point of beginning. <u>0.467 acres.</u></p> <p>Total: 366.755 acres.</p>		

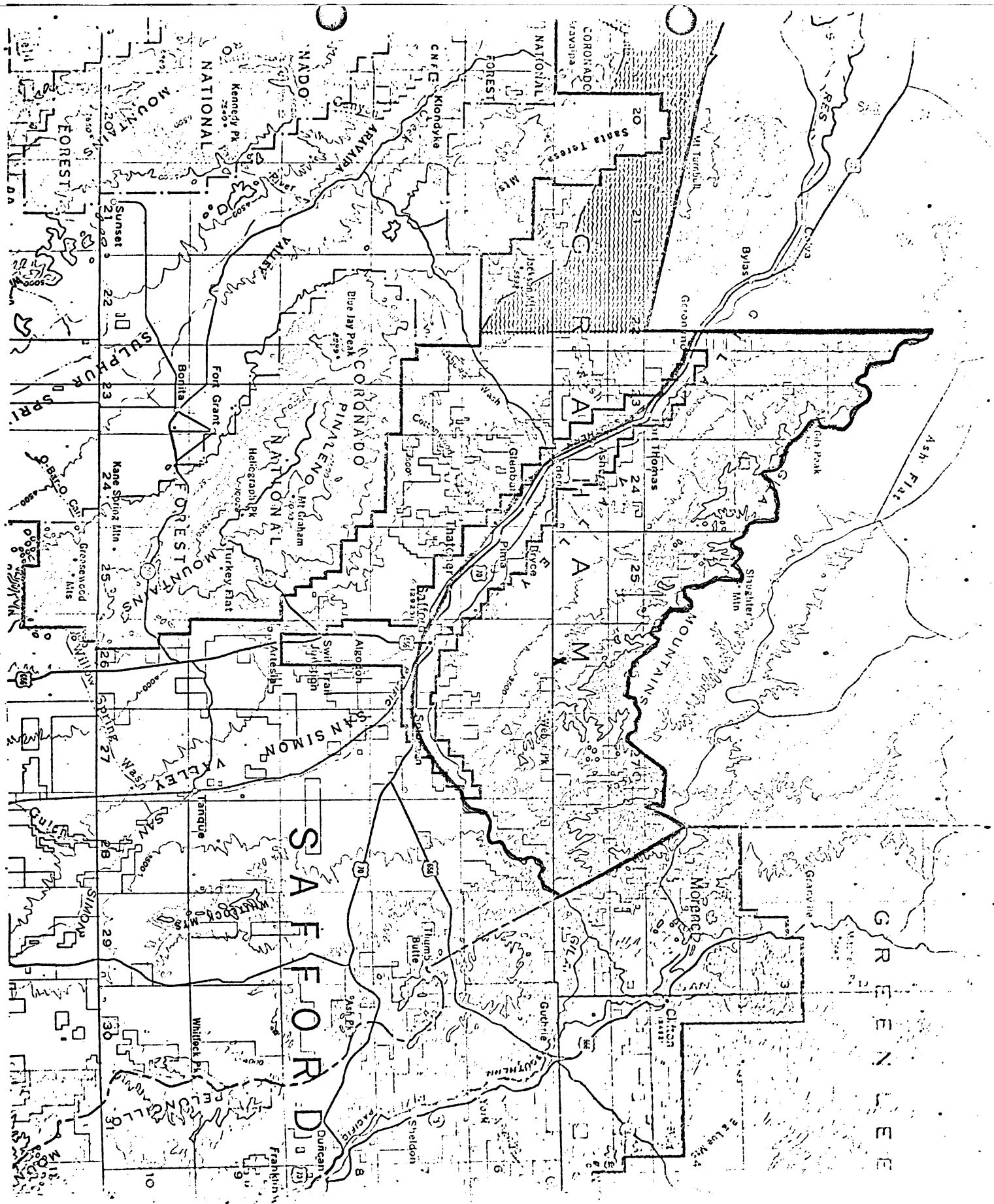


Exhibit I

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

LAND REPORT TITLE PAGE

State Arizona	District Safford		
County Parcel A - Graham Parcel B - Greenlee	Resource area Gila San Simon	Planning Unit 03 31	
Type of Action Private Exchange		Serial Number A 4591	
Applicant's name Bureau Motion		Address (include zip code) Safford District Office	
Date(s) of examination August 13, 1970			

LANDS INVOLVED

TOWNSHIP	RANGE	MERIDIAN	SECTION	SUBDIVISION	ACRES
Parcel A					
5 S.	26 E.	G&SR	28, 32, 33		366.288
6 S.	26 E.		3		
Parcel B					
4 S.	29 E.		3		.467
Total					366.755
Subject lands within, but not all inclusive, Mineral Surveys #4631 & 4632. Refer to Exhibit III of the report for metes and bounds description					

Purpose of report

To consider the appropriate classification of the subject land.

Prepared by <i>Michael J. Smith</i>	Title Realty Specialist	Date of report 8/17/70
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I. BACKGROUND AND GENERAL DATA

A. Land Office Status

The subject lands are embraced in Mineral Patent Applications A 828 and A 827 and are within Mineral Survey No.'s 4632 and 4631 depicted on Bureau of Land Management MTP's for T. 5 S., R. 26 E., T. 6 S., R. 26 E. and T. 4 S., R. 29 E. There have been no rights granted on the land by the Bureau of Land Management which would preclude disposal of this acreage under Section 8 of the Act of June 28, 1934, as amended (private exchange).

The subject lands in T. 5 & 6 S., R. 26 E. were classified for multiple use management on April 19, 1967 by Federal Register Notice A 467, but were not segregated from disposal through private exchange. The .467 acre parcel lying in Sections 2 and 3, T. 4 S., R. 29 E. was not previously classified.

B. Planning Recommendations and Other Considerations

The Phelps Dodge Corporation has made an informal offer to exchange privately-owned acreage within the Sitgreaves National Forest for title to the subject land. The Forest Service apparently desires acquisition of the offered land, and will make a formal statement to that effect subsequent to a favorable classification decision.

The subject land adjoins acreage owned by Phelps Dodge and is reported to be needed for future development of an ore body underlying the patented mining claims. Unpatented mining claims encumbering the subject lands will be relinquished by Phelps Dodge subsequent to a favorable classification decision and acceptance of their formal application by the Land Office. There is no other known interest in the acquisition of this acreage.

With the exception of the BLM's program to administer land under the multiple use management concept, there are no other Federal, State or local government programs known to have an effect on the classification decision.

The land in the vicinity of the subject acreage in Graham County has been zoned into a general classification, one which will allow almost any type of development, subject to the granting of a permit by the County Board of Supervisors. Greenlee County has no zoning regulations affecting the .467 acre parcel in T. 4 S., R. 29 E.

C. Area Analysis

The "area" under consideration in this report is identified on Exhibit I,

and may be described as east central Graham County, bounded on the north and west by the San Carlos Apache Indian Reservation, on the south by the Gila River Valley, and the Graham-Greenlee County line on the east. Due to the size of the .467 acre parcel in Sec. 3, T. 4 S., R. 20 E. and its relative insignificance from a land management standpoint, this report is prepared almost exclusively in consideration of the 366.288 acre parcel lying in T's 5 and 6 S., R. 26 E.

All of the accessible acreage lying north of the agricultural land in the Gila River Valley is used for livestock grazing. Terrain is gentle near the valley floor, but rises sharply near the base of the Gila Mountains to an average elevation of around 5,000 ft. along the ridge crest. Vegetative cover varies with elevation and exposure, but is generally of the southern desert shrub vegetative type.

Several of the State's larger copper producers have rather recently acquired large holdings (State mineral leases, unpatented and patented mining claims) in the area, most of which are on the south slopes of the Gila Mountains. With the exception of one relatively small producer, very little copper or other mineral ore has been mined in recent years. Most work to date has been exploratory in nature, and the future impact on employment and the local economy is difficult to assess. Local Gila Valley residents appear optimistic, based on the considerable interest shown in the area by such companies as the Kennecott Copper Corporation, Phelps-Dodge Corporation, and Inspiration Copper Corporation.

Approximately 9,000 persons reside in the area, most of which live in the Gila Valley communities of Safford, Thatcher and Pima. Land lying north of the valley is almost totally uninhabited at this time, but lands lying near to the valley and the mining properties may have value for future residential development and other uses in connection with copper mining and processing.

The unimproved desert land has value for wildlife habitat, principally deer, javelina and small game birds and animals, and the rugged character of the Gila Mountains adds to the scenic and aesthetic quality of the area.

Vehicular access onto lands lying north of the Gila Valley is generally poor, limited to a few county and privately maintained dirt roads.

Reference to Exhibit II illustrates land ownership in the vicinity of the subject. Livestock grazing, mineral prospecting and preliminary stages of mineral development on a few relatively small localized areas are the principal land uses.

II. SITE DATA

A. Location and Identification

The lands herein being considered for classification are legally described by metes and bounds description, found in the appendix of this report as Exhibit III. The land lies within, but does not include, all of Mineral Survey No's 4632 and 4631 illustrated on the Master Title Plats contained in the official case file.

Parcel A: Comprises 366.288 acres in Sections 28, 32, 33 and 34, T. 5 S., R. 26 E. and Section 3, T. 6 S., R. 26 E. and lies approximately 9 linear miles north of the City of Safford in the foothills of the Gila Mountains.

Parcel B: Comprises .467 acres in Section 3, T. 4 S., R. 29 E., and is located approximately 5 miles northwest of Clifton, Arizona on the projected east perimeter of the Morenci open pit mine.

The lands were identified by use of U.S.G.S. topographical maps, aerial photographs and reference to found survey corners.

B. Access

Vehicular access to both Parcel A and B is available along graded roads and jeep trails constructed and maintained by mineral interests for the most part.

C. Physical Characteristics

1. Parcel A

Topography

Topography is moderate to steeply rolling, coursed by numerous, normally dry drainage courses, some deeply incised. Average elevation is 4,000' above MSL.

Soils

Shallow to moderately deep calcareous soils. Surface texture is a loam, and very cobbly.

Vegetation

Vegetation is of the southern desert shrub type, a brush and grass aspect on the better, more productive sites. The more prevalent grasses are tobosa, curley mesquite, grama grass species and fluff-grass. Creosote bush, ocotillo, palo verde, bursage and desert zinnia and prickly pear cactus are the dominant shrub type plants.

Water

There is no developed or natural water on the land.

Environmental Considerations

Excellent views of the Gila Mountains to the north and the Safford Valley and Pinaleno Mountains to the south are available from the hilltops.

Mining interests have located numerous mining claims on the land. Much of the exploratory work has been by use of bulldozers, thus affecting the landscape.

2. Parcel B

This .467 acre tract lies on a steep mountain slope at an elevation of 6400' above MSL. Soil is rocky and shallow, supporting chaparral vegetation. There is no natural or developed water on the land. Much mining and mineral exploration has and is occurring on lands surrounding this isolated tract.

D. Improvements

One 4-strand barbed wire allotment boundary fence, constructed under Cooperative Agreement #6115 is the only range improvement of record on Parcel A. Other improvements include roads, mineral prospects and a pipeline developed by Phelps Dodge, the mining claimant.

Parcel B is unimproved.

III. LAND USE CAPABILITIES OF THE SUBJECT LAND

A. Historical Uses

Both properties have been used historically for livestock grazing, mineral prospecting and perhaps light use by game hunters.

B. Present Uses

Approximately 80 acres of Parcel A is within the Bryce Brothers Cattle Company Federal Grazing Allotment, c/o A. J. Bryce, Box 97, Pima, Arizona. The remainder is within the H. O. & Leland Stevens Federal Grazing Allotment, c/o H. O. Stevens, Thatcher, Arizona. Mining claims are reported to encumber all of Parcel A, and mining claim monuments and mineral prospects are much in evidence.

There is no authorized range user of Parcel B. This tract is adjacent to the projected perimeter of the Morenci open pit copper mine, and is covered by mining claims.

C. Potential Uses

Parcel A

1. Domestic Livestock Grazing

The land surface will undoubtedly continue to be used for livestock grazing, regardless of land ownership, at least until such time as it would be needed for intensive mining activity.

2. Wildlife Habitat

Deer, javelina, dove, quail and other small birds and animals inhabit the land; however, with increased activity in the area associated with mining, the land will have increasingly less value as wildlife habitat.

3. Mineral Production

Reference should be made to the report on the mineral character of selected lands in proposed Private Exchange A 4591, prepared by BLM Mining Engineer, contained in the official case file.

The lands do not meet requirements for patent under the mining laws, and may therefore be considered to be nonmineral in character. The land adjoins a patented mining claim, however, and may be used for purposes incident to a mining operation. Future exploratory work may reveal an ore body underlying the land, as it is in close proximity to known copper ore concentrations.

4. Occupancy

The land may have future value for use in the mining or processing of mineral known to occur on adjacent patented mining claims.

5. The lands are not considered to have any significant future potential for these uses: outdoor recreation, timber production, watershed production, wilderness preservation, public purposes or agricultural uses.

Parcel B

This tract has little or no other potential than for use in development of the mineral resource on adjoining lands.

IV. LAND USE ANALYSIS AND CONCLUSIONS

As stated in the Mining Engineer's report, "A preliminary field examination

and evaluation of available information did not establish the presence of valuable mineral deposits on the lands as required by law." The lands do adjoin patented mining claims, and may very well be used for mining purposes, legally provided for under the mining laws.

The lands are not needed for any known Federal, State or local government program or project and multiple use values are jeopardized by nearby mining and mineral prospecting activity. Classification for exchange and eventual Federal acquisition of other more desirable acreage would be in the public interest.