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MAY 1 - 1905

(4-683.)

Mineral Survey No. 2057

Lot No. \_\_\_\_\_

Gila Land District.

### FIELD NOTES

OF THE SURVEY OF THE MINING CLAIM OF

Duquesne Mining & Reduction Co.

KNOWN AS THE

Pluto - Pluto No 2 - Duquesne of Virginia  
Patagonia Mining District,

Santa Cruz County, Arizona

Section \_\_\_\_\_ Township 24 S., Range 16 E. (unsurveyed)

Surveyed under instructions dated April 3, 1905  
by Philip Contzger  
U. S. Deputy Mineral Surveyor.

Claim located (see location notices)

Survey commenced April 8<sup>th</sup>, 1905

Survey completed April 10<sup>th</sup>, 1905

U. S. G. 160

*Files OK - see report  
Answers "  
Ledges "*

*Harford & Hazzard Atty's for Claimants.  
Tucson, Ariz.*

## Plata lode

Survey No 2057  
Beginning at Cor. No 1,  
Identical with the location,  
which is a pine post in mound  
of stone.

Set a pine post 4 x 6 ins. square,  
3 1/2 ft long, set 18 ins. in the ground  
with mound of stone, scribed  
P. 1-2057, whence

U. S. Mineral Monument No 1  
bears S 51° 58' W 2713.4 ft.  
An oak, 24 ins. diam., blazed  
and scribed 1-4-2057 B.T.,  
bears N 62° 30' E, 62 ft.

An oak, 8 ins. diam., blazed  
and scribed 1-4-2057 B.T.,  
bears N 52° 15' W, 43 ft.

Thence S 60° 9' E

47.32 <sup>intersect line 3-4</sup> <sup>N 12° 15' E</sup> <sup>at a point from</sup>  
300 <sup>which</sup> <sup>Cor. 4</sup> <sup>bears</sup> <sup>S 2° 54' W</sup> <sup>246.41 ft.</sup>  
S. end center monument,

Identical with the location,  
which is a pine post in mound  
of stone.

598.3 To Cor. No 2,

Identical with the location,  
and cor. No 6 - Bonanza lode,  
Sur. No 855 and Cor. No 5 -  
Illinois lode, Sur. No 856  
which is an oak post 6 x 6 ins  
square, firmly set in the  
ground and surrounded by  
a mound of stone, scribed  
B. No 11 and 1 No 11. - I mark same  
P. 2-2057, whence

An Oak, 12 ins. diam., blazed and  
scribed 2-3-2057 B.T., bears  
S 49° E 38.5 ft.

An Oak, 12 ins. diam., blazed and  
scribed 2-3-2057 B.T., bears  
S 54° W, 10 ft.

Thence N 18° 37' E

N 12° 15' E

- 50 Duquesne Gulch, course Easterly  
 200 Gulch, course S. E  
 670 Road, bears E. and W  
 780 Ridge, bears E. and W  
 1330 Gulch, course N. E.  
 1474.2 Cor. 1105 - Bonanza lode, Sur.  
 1105.55  
 1479 To Cor. 1103,  
 Identical with the location,  
 which is a pine post in mound  
 of stone.  
 Set a pine post 11 ins. square,  
 3 1/2 ft long, set 18 ins. in  
 the ground, with mound of  
 stone, scribed P-3-2057,  
 whence  
 A cross (x) and B. R. - 3-2057  
 chiseled on a lime stone <sup>showing</sup> 2 x 2 x 1 ft  
 above the ground, bears 113° 15' W  
 4.4 ft.  
 Morita peak, bears 279° E.  
 Thence 1160° 9' W  
 1/4 12° 05' E
- 298.3 North end center monument  
 identical with the location,  
 which is a mound of stone  
 2 1/2 ft. base, 2 1/2 ft. high
- 340 Gulch, course S. S. E.  
 598.3 To Cor. 1104,  
 Identical with the location,  
 which is a mound of stone  
 2 1/2 ft. base, 2 1/2 ft. high  
 A pine post 4 x 6 ins., 3 1/2 ft  
 long, set 18 ins. in the  
 ground with mound of  
 stone, scribed P-4-2057,  
 whence  
 A cross (x) and B. R. - 4-2057  
 chiseled on a lime stone 3 x 2 x 1 ft  
 showing above the ground, bears  
 114° 15' E - 13.7 ft

A cross (X) and B. R - 4 - 2057  
chiseled on a limestone, showing  
4 x 3 x 1 ft. above the ground,  
bears  $N61^{\circ}30'W$ , 12.4 ft.  
Thence  $N18^{\circ}37'W$   
 $N9$   $12^{\circ}05'E$

120 Gulch, course S. E.  
650 Gulch, course Easterly  
860 Road, bears N. W and S. E.  
890 Ridge, bears E. and W.  
1323.26 Intersect line 3-4 of the  
Texas lode, Sur. No 1402  
at a point  $N2^{\circ}54'E$  417.77 from  
Cor. No 4

1359 Duquesne gulch, course S. E.  
1479 To Cor. No 61, the place of  
beginning.  
Pluto No 2

Beginning at Cor. No 1,  
Identical with the location  
and Cor. No 4 of the Grasshopper  
lode, Sur. No 2038, which is  
a pine post 4 x 6 ins., firmly  
set in the ground with a  
mound of stone, scribed  
G. 4 - 2038, I mark the same

P. II - 1 - 2057 where  
N. S. Mineral Monument No 1 - bears  $S56^{\circ}28'W$  2402.9 ft  
An oak 12 ins. diam., blazed  
and scribed 1-2057 B. T., bears  
 $N89^{\circ}E$ , 75.6 ft  
An oak, 10 ins. diam., blazed and  
scribed 1-2057 B. T., bears  
 $N50^{\circ}30'W$ , 58.6 ft  
Thence  $N60^{\circ}9'E$

290 Road, bears  $N$   $12^{\circ}15'E$   
300 H. end center monument  
Identical with the location  
and Cor. No 3 - Grasshopper  
lode, Sur. No 2038, which is  
a pine post 4 x 6 ins., firmly  
set in the ground, surrounded  
by a mound of stone

scribed P.I. S.E.C.T. No. 43-2035

598.3

To Cor. No. 2,  
 Identical with the location  
 and Cor. No. 6 of the Illinois  
 lode, Sur. No. 556, which is  
 an oak post 6 ins. square,  
 firmly set in the ground,  
 with mound of stone, scribed  
 1-No. 11. I mark same post  
 P.I. 2-2057, whence

An oak, 6 ins. diam., blazed  
 and scribed, 2-2057 B.F. bears  
 $79^{\circ}W - 21.6$  ft.  
 An oak, 6 ins. diam., blazed and  
 scribed 2-2057 B.F., bears  
 $453^{\circ}E - 26.6$  ft.

Thence  $N20^{\circ}46'E$   
 $N9 12^{\circ}15'E$ .

235

Road, bears E. and W.

371.8

To Cor. No. 3,  
 Identical with the location  
 and Cor. No. 2 of the Pluto lode,  
 of this survey, I mark  
 post P.I. - 3-2057

Thence  $N60^{\circ}9'W$   
 $N9 12^{\circ}15'E$

298.3

N. end center monument  
 Identical with the location  
 and the S. end center monument

550.98

598.3

of the Pluto lode of this survey  
 intersect line 3-4 of the  
 Texas lode, Sur. No. 1402, at a point  
 106.48 ft from Cor. No. 4

Identical with the location  
 and Cor. No. 1, of the Pluto lode,  
 of this survey, I mark  
 post P.I. 4-2057

Thence  $S20^{\circ}46'W$   
 $N9 12^{\circ}15'E$

354.4

Intersect line 1-4, of the  
 Texas lode, Sur. No. 1402,  
 at a point  $S68^{\circ}4'W$  106.48 ft  
 from Cor. No. 4

371.8

To Cor. No. 1, the place of beginning

## Duguesne lode

Beginning at Cor. No 1,  
A pine post, 4 ins. square,  $3\frac{1}{2}$  ft long  
set 18 ins in the ground with  
mound of stone, scribed D-1-2057,  
whence

U. S. Mineral Monument No 1, bears  
S  $56^{\circ}43'W$ , 2113.2 ft.

An oak, 4 ins. diam., blazed and  
scribed 1-2057 B.T., bears S  $41^{\circ}45'W$   
56 ft.

A cross(x) and B.R 1-2057, chiseled  
on a limestone, showing  $2 \times 2 \times 1$  ft,  
above the ground, bears N  $61^{\circ}W$ , 9.4 ft  
Location Cor., which is a mound  
of stone  $2\frac{1}{2}$  ft. base,  $2\frac{1}{2}$  ft. high,  
bears N  $60^{\circ}9'W$ , 250 ft.

Thence S  $60^{\circ}9'E$

0.2 S. End center monument  
0.4 To Cor. No 2

A pine post, 4 ins. square,  $3\frac{1}{2}$   
ft. long, set 18 ins., in the ground  
with mound of stone, scribed  
D-2-2057

No bearings available

Location Corner, which is a mound  
of stone  $2\frac{1}{2}$  ft. base,  $2\frac{1}{2}$  ft. high,  
bears S  $60^{\circ}9'E$ , 260 ft.

Thence N  $40^{\circ}5'E$

N  $12^{\circ}15'E$

356 Empire gulch, course S.E.  
949 To Cor. No 3.

Identical with Cor. No 2 of  
the San Antonio lode, Lot  
No 39 A, which is an oak post  
in mound of stone. The  
same being decayed and the  
marks obliterated. I therefore  
set a limestone,  $24 \times 12 \times 10$  ins  
12 ins. in the ground with  
mound of stone, chiseled  
3-2057 and S.A II, 5, whence

An oak, 10 ins. diam., blazed and scribed 1-3-2057 B.T., bears  $N65^{\circ}E$  14.5 ft

An oak, 8 ins. diam., blazed and scribed 1-3-2057 B.T., bears  $S13^{\circ}W$  - 23 ft.

Thence  $N59^{\circ}15'E$

$N_{12}^{\circ}15'E$

68.2 To Cor. 1104

Identical with the location which is a mound of stone  $2\frac{1}{2}$  ft. base  $2\frac{1}{2}$  ft high

An oak post 5 ins. square,  $3\frac{1}{2}$  ft long, set 18 ins. in the ground, with mound of stone, scribed D. 4-2057, whence

An oak 20 ins. diam., blazed and scribed 4-2057 B.T., bears  $S75^{\circ}W$  - 26 ft.

Cameron's ranch house, bears  $S74^{\circ}15'E$ .

Thence  $N60^{\circ}9'W$

297.5 Cor. 1102 -  <sup>$N_{12}^{\circ}15'E$</sup>  Pluto <sup>2</sup> 1102 lode of this survey, and <sup>identical</sup> with N. end center monument of the location

595.8 To Cor. 1105

Identical with the location, and south end center monument of the Pluto lode of this Survey and Cor. 1103 - Grasshopper lode, Sur. 1102038., I mark post D-5-2057, whence

An oak, 24 ins. diam., blazed and scribed 5-2057 B.T. bears  $N94^{\circ}5'E$  43 ft

An oak, 30 ins. diam., blazed and scribed 5-2057 B.T., bears  $S55^{\circ}E$  66 ft

Thence  $S20^{\circ}12'W$

$N_{12}^{\circ}15'E$

665.7 To Cor. 1106,

Identical with Cor. 1102, of the Grasshopper lode, Sur. 1102038 and Cor. 1103 of the California lode, Sur. 1101403, which is a juniper post, 5 ins. square, set firmly in the ground, with mound of stone - I mark post D-6-2057



whence

A cross (X) and B. R. 6-2057,  
chiseled on a limestone <sup>showing</sup> 2 x 1 x 1 ft.  
above the ground, bears  $S6^{\circ}30'W$   
12.5 ft.

A cross (X) and B. R. - 6 - 2057,  
chiseled on a limestone, showing  
6 x 3 x 1 ft. above the ground, bears  
 $N64^{\circ}W$  13.3 ft.

Thence  $S10^{\circ}2'E$

<sup>20</sup> 439.2 Empire gold mine <sup>12^{\circ}30'E</sup>  
To Cor.  $N^{\circ}1$ , the place of beginning  
Virginia lode

Beginning at Cor.  $N^{\circ}1$ .  
Identical with the location and  
cor.  $N^{\circ}2$  San Antonio lode, Lot  
 $N^{\circ}39A$ , and Cor.  $N^{\circ}3$  of the  
Duquesne lode, I mark  
same stone 1-2057, whence  
U. S. M. M.  $N^{\circ}1$ , bears  $S72^{\circ}43'W$   
2849.8 ft.

Thence  $S50^{\circ}9'E$

To  $12^{\circ}30'E$

36.4 S. center monument  
Identical with the location,  
which is a mound of stone  
 $2\frac{1}{2}$  ft. base,  $2\frac{1}{2}$  ft. high

72.8 To Cor.  $N^{\circ}2$ ,  
Identical with the location,  
which is a mound of stone,  
 $2\frac{1}{2}$  ft. base,  $2\frac{1}{2}$  ft. high  
A limestone, 24 x 12 x 12 ins., set  
12 ins. in the ground, with  
mound of stone, chiseled  
2-2057, whence

An oak, 14 ins. diam., blazed  
and scribed 2-2057 B. T., bears  
 $S79^{\circ}45'E$ , 81 ft.

An oak, 8 ins. diam., blazed and  
scribed 2-2057 B. T., bears  $S66^{\circ}E$   
71 ft.

Thence  $N 2^{\circ} 30' E$   
 $N 12^{\circ} 15' E$

82

To Cor. No 3,

Identical with Cor. No 6 of the Estelle and Puisse lode, Sur. No 894, which is an oak post 5 ins. square, set firmly in the ground, with mound of stone scribed E. No 11. I mark the post V-3-2057, whence

An oak, 18 ins. diam. blazed and scribed, 3-2057 B.T., bears  $N 60^{\circ} 45' E$  42.2 ft.

An oak, 18 ins. diam. blazed and scribed, 3-2057 B.T., bears

$S 88^{\circ} W$  36.5 ft. - Loc. cor. which is a mound of stone  $2\frac{1}{2}$  ft. base,  $2\frac{1}{2}$  ft. high, bears  $N 50^{\circ} E$  40 ft.

Thence  $N 50^{\circ} 9' W$

$N 12^{\circ} 15' E$

0.2

To Cor. No 4, also N. end center of location

An oak post 5 ins diam.,  $3\frac{1}{2}$  ft long, set 18 in. in the ground, along side of Cor. post No 3 of this survey, whence

Cameron's ranch house bears  $S 75^{\circ} W$

An oak 20 ins. diam., blazed and scribed 4-2057 B.T., bears

$S 75^{\circ} W$  27.4 ft. - Loc. Cor. which is a mound of stone  $2\frac{1}{2}$  ft. base,  $2\frac{1}{2}$  ft. high, bears  $N 50^{\circ} 09' W$  40 ft.

Thence  $S 90^{\circ} 15' W$

1.00 Cor. No 4 Duguesne lode of this survey  
 69.2 To Cor. No 1, the place of beginning.

Area

Pluto lode	19.925	Acres
Less conflict with		
Texas lode Sur. No 1402	0.083	
Net area Pluto lode	19.842	
Pluto No 2 lode	5.043	
Less conflict with Texas lode Sur. No 1402	0.618	
Net area Pluto No 2 lode	4.425	
Duguesne lode	8.243	
Net area Duguesne lode	8.243	

Virginia lode -----	0.055
Net area Virginia lode	0.055
Total and net area	<u>32.565</u>

### Location

This claim is located in T. 24 S. R. 16 E (unsurveyed) Patagonia Mining District, Santa Cruz Co. Arizona.

### Adjoining claims

The Pluto lode is bounded on the North by the Divide lode unsurveyed, on the East by the Bonanza lode, Sur. No 855 on the West by the 'Imperial' lode (unsurveyed). The Pluto

No 2 lode is bounded by the Illinois lode, Sur. No 856 on the East, and by the Texas lode, Sur. No 1402 on the West

The Duquesne lode is bounded on the East by the San Antonio lode, Lot No 39 A. and on the West by the California lode Sur. No 1403 and the Grasshopper lode, Sur. No 2038

The Virginia lode is bounded on the North by the Illinois lode, Sur. No 856, on the East by the Estelle and Louise lode, Sur. No 894 and on the South by the San Antonio lode, Lot No 39 A.

### Course of Veins

Pluto N. 18° 37' E. 1479.

Pluto No 2 N. 20° 46' E. 371. 8

Duquesne N. 24° 23' E. 997. 87

Virginia N. 28° 13' E. 66, 62.

The <sup>presumed</sup> course of veins of the respective claims of this survey is from the S. end center monuments to the N. end center monuments as follows:

### Improvements

I certify that the value of the labor and improvements upon

this claim, placed thereon by the claimants and its grantors is not less than five hundred dollars, and that said improvements consist of:

Pluto lode

From Cor. No 3:

Discovery Shaft No 1, 4 x 6 ft, 10 ft deep, bears S 42° W - 655 ft

Value \$ 100.00

Shaft No 2, 4 x 6 ft, 10 ft deep, bears S 42° W - 555 ft.

Value \$ 100.00

Tunnel No 3, 4 x 6 ft, 45 ft long course S., bears S 39° 30' W, 520 ft.

Value \$ 400.00

Pluto No 2 lode

From Cor. No 4

Discovery Tunnel No 1, 4 x 6 ft, 25 ft long, course S., bears S 47° E 425 ft

Value \$ 250.00

Tunnel No 2, 4 x 6 ft, 25 ft long, course S., bears S 53° E 100 ft.

Value \$ 250.00

Duquesne lode

From Cor. No 6

Discovery Shaft <sup>701</sup> 4 x 6 ft, 10 ft deep bears N 73° E, 350 ft

Value \$ 100.00

Tunnel <sup>702</sup> 4 x 6 ft, 25 ft long, course N.E., bears N 68° 45' E, 245 ft

Value \$ 100.00

Shaft <sup>703</sup> 4 x 6 ft, 10 ft deep, bears N 65° 15' E, 350 ft.

Value \$ 100.00

Shaft No 4 4 x 6 ft, 10 ft deep, bears N 58° E, 345 ft.

Value \$ 100.00

Shaft No 5, 4 x 6 ft, 10 ft deep, bears N 63° 15' E, 555 ft.

Value \$ 100.00

Shaft No 6, 4 x 6 ft., 10 ft. deep,  
bears N 60° E, 565 ft.

Value \$100.00

Shaft No 7, 4 x 6 ft., 10 ft. deep,  
bears N 55° E, 580 ft.

Value \$100.00

Shaft No 8, 4 x 6 ft., 10 ft. deep,  
bears N 51° 30' E, 550 ft.

Value \$100.00

### Virginia lode

From Cor. No 1

Discovery Shaft, No 1, 4 x 6 ft.  
10 ft. deep, bears S 73° E 17 ft

Value \$100.00

From Cor. No 3. Pluto lode No 2

Main Shaft of the Duquesne Mining  
and Reduction Co. bears N 72° 15' E  
473 ft. This shaft is 600 ft deep  
and is being worked for the benefit  
of the claims owned by the  
Duquesne Mining and Reduction Co.  
50 ft. of this shaft are credited  
to the development of the  
Virginia lode

Value \$500.00

### Instrument

This survey was made with  
a Young & Sons Light Mountain  
Transit. The courses were deflected  
from the true meridian as  
determined by direct solar  
observations. The distances  
were measured with 50 ft  
and 100 ft steel tapes.

Note: Solar observations were  
checked with lines of the  
Grasshopper lode Sur. No 2038  
and the California lode Sur.  
No 1403, which agreed within  
a minute.

The disagreement with the lines  
of the San Antonio lode, Lot No 38A

and Estelle and Louise, by de. sur. no 894 and the  
 connecting line in the survey by de. sur. no 1402  
 are due to error in the old  
 survey.

Philip Contzen  
 U. S. & cfs. Mineral Surveyor

# FINAL OATHS FOR SURVEYS.

## LIST OF NAMES.

A list of the names of the individuals employed by Philip Coutzen  
 United States Deputy Mineral Surveyor, to assist in running, measuring, and marking the lines  
 corners and boundaries described in the foregoing field notes of the survey of the mining claim  
 of Duquesne Mining and Reduction Co.  
 known as the Duquesne - Virginia - Plats and Plats No. 2  
 and showing the respective capacities in which they acted.

Henry W. Huggins ..... , Chairman.  
W. S. Kengla ..... , Chairman.  
Leon Wood ..... , Axman.  
Leon Wood ..... , Flagman.

## FINAL OATHS OF ASSISTANTS.

We, Henry W. Huggins and W. S. Kengla  
 and Leon Wood ..... , do solemnly swear that we assisted Philip  
Coutzen ..... , United States Deputy Mineral Surveyor, in marking the corners and  
 surveying the boundaries of the mining claim of the Duquesne Mining  
and Reduction Co. .....  
 ..... , known as the Duquesne - Virginia  
Plats and Plats No. 2 ..... , represented  
 in the foregoing field notes as having been surveyed by said deputy mineral surveyor and under  
 his direction; and that said survey has been in all respects, to the best of our knowledge and  
 belief, faithfully and correctly executed, and the corner and boundary monuments established  
 according to law and the instructions furnished by the United States Surveyor-General for  
Arizona .....

Henry W. Huggins ..... , Chairman.  
W. S. Kengla ..... , Chairman.  
Leon Wood ..... , Axman .  
Leon Wood ..... , Flagman.

Subscribed and sworn to by the above-named persons before me

this 15<sup>th</sup> day of April, 1905

W. G. Power .....

Notary Public .....

my Commission Expires

April 27<sup>th</sup> 1908

(4-686.)

## FINAL OATH OF U. S. DEPUTY MINERAL SURVEYOR

I, Philip Coutzen, U. S. Deputy Mineral Surveyor, do solemnly swear that, in pursuance of instructions received from the United States Surveyor General for Arizona, dated April 3 1905, I have, in strict conformity to the laws of the United States, the official regulations and instructions thereunder, and the instructions of said Surveyor General, faithfully and correctly executed the survey of the Mining Claim of the Luquesne Mining and Reduction Co., known as the Pluto, Pluto No 2 - Luquesne and Virginia situate in Patagonia Mining District, Santa Cruz County, Arizona, in Section \_\_\_\_\_, Township No. 24 S., Range No. 16 E (unsurveyed) and designated as Survey No. 2057, as represented in the foregoing field notes, which accurately show the boundaries of said mining claim as distinctly marked by monuments on the ground, and described in the attached copy of the location certificate, which was received by me from the Surveyor General with said instructions, and that all the corners of said survey have been established and perpetuated in strict accordance with the law, official regulations and instructions thereunder; and I do further solemnly swear that the foregoing are the true and original field notes of said survey and my report therein, and that the labor expended and improvements made upon said mining claim by claimant or its grantors are as therein fully stated, and that the character, extent, location and itemized value thereof are specified therein with particularity and full detail, and that no portion of said labor or improvements so credited to this claim has been included in the estimate of expenditures upon any other claim.

Philip Coutzen  
U. S. Deputy Mineral Surveyor.

Subscribed and sworn to by the said Philip Coutzen  
U. S. Deputy Mineral Surveyor, before me \_\_\_\_\_  
this 15<sup>th</sup>  
day of April 1905.

H. G. Power

Notary Public

My Commission Expires April 27<sup>th</sup> 1908



Affidavit of Five Hundred Dollars Improvements.

We, W. S. Keugla and Leon Wood

of lawful age, being first duly sworn according to law, depose and say: That we are acquainted with the

Pluto-Pluto No. 2 - Duquesne of Virginia mining claim, situate in Patagonia

mining district, Santa Cruz County, Arizona Territory, for which the

Duquesne Mining and Reduction Co.

has made application for survey prior to application for patent under the provisions of the Act of Congress

approved May 10, 1872; and that the labor done and improvements made thereon by the applicant and

to grantor S. exceed five hundred dollars in value <sup>for each location</sup> and further that we are not personally interested in said mine.

W. S. Keugla  
Leon Wood

TERRITORY OF ARIZONA,  
COUNTY OF Pima } ss:

Sworn to and subscribed before me this 15<sup>th</sup> day

[SEAL.]

of April, 1905

W. G. Power  
Notary Public

My Commission Expires April 27<sup>th</sup> 1908

JUL 12 1905

DEPARTMENT OF THE INTERIOR  
GENERAL LAND OFFICE.

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In re Mineral Entry No. 89,  
Made December 19, 1905, for  
the Pluto, Pluto No. 2, Du-  
quesne and Virginia lode claims,  
of the Duquesne Mining and Re-  
duction Company.

CERTIFICATE OF IMPROVE-  
MENTS:

-----

I, Philip Contzen, United States Deputy Mineral Sur-  
veyor, do hereby certify that I am the identical Philip Contzen  
who, as deputy mineral surveyor, made the official survey of the  
above named lode mining claims, and who examined the improvements  
on the said claims and placed the valuations thereon as shown in  
the original return.

I further certify that the shafts and tunnels as return-  
ed in said original survey, are all sunk or driven in a solid,  
hard limestone rock, in some instances leaving the limestone and  
running into a solid porphyry. None of these improvements are  
sunk in earth or any kind of rock that is intermingled or strata-  
fied with earth.

The smaller improvements, such as shafts which are but  
ten feet deep are not timbered throughout, although some of them  
have had some timber used in them, such as stulls where it is  
necessary to keep the loose rock in place. The tunnels which

are twenty five feet long, and greater in length, are not thoroughly timbered, but it has been necessary to expend some money in timbering them to a certain extent, as in some instances the roof has become heavy and timbering for short distances rendered necessary. The cost of making the improvements that are 4 x 6 ft., is not less than ten dollars per foot, when the shafts or tunnels are driven to a distance of from ten to twenty feet. A considerable portion of the work, as done, was done under contract, and the actual contract price was \$10.00 per foot in depth. That portion of the work which was done by days labor, and not let by contract, cost approximately that amount. Those tunnels and shafts which are 4 x 6 ft., and greater than 20 ft. in length, in nearly every instance, cost considerably more than \$10.00 per foot in depth, because after a depth of 20 ft. is reached, it necessitates more labor in removing broken rock from the face of the tunnel or the bottom of the shaft, than when the workings are shallower. The main shaft of the Duquesne Mining and Reduction Company, which is situate from Corner No. 2 of the Pluto No. 2, N. 72° 15' E., 473 ft., is a thoroughly timbered, double compartment shaft, in first class order, and will be used as the main working shaft for working the claims owned by the Duquesne Mining and Reduction Company, which claims are now approximately forty in number. This shaft, which had attained a depth of 600 ft. at the time of the survey cannot be sunk and timbered as it is to a depth of 600 ft. for less than \$45.00 per foot throughout. True, the first 100 ft. could be constructed for less per foot than this, but the last 100 ft. and all continuations will cost not less than \$50.00 per foot. In the improvements returned at the time of the original

survey, 50 ft. of this shaft were accredited to the development of the Virginia lode, at a valuation of \$500.00. This valuation was placed because only \$500.00 was needed for the Virginia claim, and it was thought there could be absolutely no question raised by anyone as to 50 ft. of a double compartment, well timbered, working shaft being worth \$500.00.

These lode claims are situated approximately twenty miles from Patagonia in Santa Cruz County, Arizona. This is a station on a branch line of the Southern Pacific Railroad, and from Patagonia, it is necessary to transport supplies by freight teams to the camp over a rough mountainous road cut in many places by deep arroyos and gulches. The result of this is that the transportation charges are exceedingly high, thus making not only mining tools and timber higher than in ordinary places, but also rendering ordinary supplies, such as merchandise, of greater value, and this has a natural tendency to increase the value of the work done, since it renders the performance of this work more expensive.

The main shaft on the Bonanza is an improvement and development of the Virginia location, for the following reasons, and benefits the Virginia lode claim in the following manner:

The lode claims embraced within this survey, while containing copper, gold and silver, are principally valuable for the copper contained in them, and for the purpose of working a large copper property, such as this, it is more advantageous and economical to work the same through one deep shaft than to have a number of shallow shafts scattered over the entire ground; for that reason the main working shaft referred to in the original

return of survey and in the letter of the Acting Commissioner, is an improvement and development, not only of the claim upon which it is situate, but of all of the claims of the same company which can be advantageously and economically worked through the same. The shaft is a development and improvement of the Virginia lode, of this survey, for the reason that the deeper and richer ore bodies can be more advantageously reached and developed by a deep shaft sunk at an advantageous point, such as the point where this shaft is located, and from that shaft cross cuts and drifts, supplemented by raises and winzes run to the various claims; thus locating and developing the various ore bodies on each of them. This is the acknowledged system now followed by all of the larger companies operating copper mines throughout the Southeastern part of Arizona. This shaft not only develops the Virginia lode as thus indicated, but further develops the same for the reason that the lode on the Virginia claim is practically a continuation of the main lode on the Bonanza, on which the main working shaft is sunk, and all of the cross cutting or drifting necessary to reach the ore bodies on the Virginia can be run through the copper ore of greater or less value, so there will be practically no dead work in order to enable the claimant to extract the ore from the Virginia claim through the main working shaft on the Bonanza. Said shaft on the Bonanza claim, from which the \$500.00 is accredited to the Virginia, was sunk subsequent to the application for patent for the Bonanza claim, and was completed to a depth of 600 feet at the time of the official survey herein. Not less than 200 feet of the same was completed after the location of

the Virginia lode, which was located January 19, 1900.

*Philip Contzen*  
United States Deputy Mineral Sur-  
veyor.

Dated, Tucson, Arizona, July 5, 1906.

Subscribed and sworn to before me, this 5th day of  
July, 1906.

My commission expires \_ May 31, 1908.

*Frank D. [Signature]*  
Notary Public.

## OFFICE OF U. S. SURVEYOR-GENERAL,

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Phoenix, Arizona, July 17, 1906.

I, Frank S. Ingalls, United States Surveyor-General for the District of Arizona, hereby certify that the estimate of the value of the improvements upon the Pluto, Pluto No. 2, Duquesne and Virginia Lodes, included in Mineral Survey No. 2057 is not excessive, owing to the remoteness of the Patagonia Mining District from the center of trade, and the general formation throughout the Patagonia District, as more particularly set forth in the affidavit of Philip Contzen, United States deputy mineral surveyor, hereto attached.

Mining in the Patagonia Mining District, Santa Cruz County has developed the ore deposits to be of similar character to those of Bisbee and the other great copper camps in this Territory, where it has been demonstrated that the only practical and economical method of developing a group of such claims is by a central working shaft, extending to great depth, from which drifts and levels are run to the outlying ground.

The main shaft on the Bonanza Lode of survey No. 1585, claimed by the Duquesne Mining and Reduction Company, is to be the main working shaft for the development of the claims owned by the said Duquesne Mining and Reduction Company, and as the last two hundred feet of this shaft was sunk after the Virginia Lode had been located, and became a part of the group of claims belonging to the Duquesne Mining and Reduction Company, a portion of the value of said shaft on the Bonanza Lode is properly chargeable to the development of

-2-

the said Virginia Lode; and I therefore further certify that the fifty feet of the last two hundred feet in said main shaft of the Bonanza Lode has been properly credited to the Virginia Lode, and that said shaft does tend to develop said Virginia Lode.

And I further certify that the value of this fifty feet so credited to the Virginia Lode is much in excess of Five hundred (\$500.00) dollars.

A handwritten signature in cursive script, reading "Frank S. Seelye", written over a horizontal line.

U. S. Surveyor- General.



## PLUTO MINE.

## LOCATION NOTICE.

NOTICE IS HEREBY GIVEN that the undersigned, in compliance with the requirements of the Mining Act of Congress, approved May 10, 1872, has this day located and claims fifteen (1500) hundred linear feet along the course of this lead, lode or vein of mineral-bearing quartz and three hundred 300 feet in width on each side of the middle of said lead, lode or vein, situate in the Patagonia mining district, county of Pima, Arizona, and more particularly described as follows, to-wit:

COMMENCING at this monument of stones, being the center of the southern end of claim, and upon which this notice is posted, thence west three hundred 300 feet to a monument of stones; thence north fifteen hundred 1500 feet to a monyment of stones; thence east three hundred 300 feet to a monument of st nes, being the center of the northern end of claim; thence east three hundred 300 feet to a monument of stones; thence south fifteen hundred 1500 feet to a monume t of stones; thence west three hundred 300 feet to the place of beginning.

THIS CLAIM is situated about  $3/4$  of a mile south east of Washington Camp and immediately west of the Bonanza mining claim which it adjoins and to which it is parallel, and shall be known as the Pluto mine.

Located August 5th, 1889.

Witness.

Geo. Frazer.

Sam W. Cheyney,

Locator.

Filed and recorded at request of S. W. Cheyney, August 10th, A. D. 1889, at 9 a. m.

Charles A. Shibell,

County Recorder.

Book AA, Record of Mines, page 511.

## PLUTO NO. 2 MINE.

## LOCATION NOTICE.

NOTICE IS HEREBY GIVEN that the undersigned, in compliance with the requirements of the Mining Act of Congress, Approved May 10, 1872, has this day located and claims fifteen (1500) hundred linear feet along the course of this lead, lode or vein of mineral-bearing quartz and three hundred (300) feet in width on each side of the middle of said lead, lode or vein, situate in the Patagonia mining district, county of Pima, Arizona, and more particularly described as follows, to-wit:

COMMENCING at this monument of stones, being the center of the northern end of claim, and upon which this notice is posted; thence west three hundred 300 feet to a monument of stones; thence south fifteen hundred 1500 feet to a monument of stones; thence east three hundred 300 feet to a monument of stones, being the center of the southern end of claim; thence east three hundred 300 feet to a monument of stones; thence north fifteen hundred 1500 feet to a monument of stones; thence west three hundred 300 feet to the place of beginning.

This claim is situated about  $\frac{3}{4}$  of a mile south east of Washington Camp and immediately west of the Illinois mining claim, which it adjoins throughout a part of its length and to which it is parallel, and shall be known as the pluto No. 2 mine.

Located August 5th 1889.

Witness:

Sam W. Cheyney, Locator.

Geo Frazer.

Filed and recorded at request of S. W. Cheyney, August 10th, A. D. 1889, at 9 a. m.

Charles A. Shibell,

County Recorder.

Book AA, Record of Mines, page 512.

## DUQUESNE MINE.

## LOCATION NOTICE.

NOTICE IS HEREBY GIVEN that the undersigned, in compliance with the requirements of the Mining Act of Congress, approved May 10, 1892, have this day located and claim fifteen hundred linear feet along the course of this lead, load or vein of mineral-bearing quartz, and three hundred feet in width on each side of the middle of said lead, load or vein, situate in the Patagonia Mts. mining district, county of Pima, territory Arizona, and more particularly described as follows, to-wit:

COMMENCING at this monument of stones, being the centre of the northeasterly end of claim, and upon which this notice is posted; thence easterly 300 feet to a monument of stones; thence southwesterly 1500 feet to a monument of stones; thence westerly 300 feet to a monument of stones, being the center of the southwesterly end of claim; thence westerly 300 feet to a monument of stones; thence northeasterly 1500 feet to a monument of stones; thence easterly 300 feet to place of beginning.

THIS CLAIM is situate in southeasterly end of Patagonia mountains about one mile south of old Washington Camp & about 1/8 from Duquesne Camp, is bounded on the north by the Illinois & Pluto mines, the San Antonio on the east, the Grasshopper on the south & laps over the Josie C. on the west. Said claim was formerly known as the Old Mac, and shall be known as the Duquesne Mine.

Located May 13th, 1892.

Locators:           G. H. Brooks,  
                          F. Olsen.

Filed and recorded at request of G. H. Brooks, June 23rd, A. D. 1892, at 9 a. m.

Chas. A. Shibell,  
County Recorder.

Book CC, Record of Mines, page 593.

## L O C A T I O N   N O T I C E .

NOTICE IS HEREBY GIVEN, That the undersigned citizen of the United States having complied with requirements of Chapter Six, Title 32, of the Revised Statutes of the United States, and the local Customs, Laws and Regulations, have this day located and claim eighty linear feet along the course of this lead, lode or vein of mineral bearing quartz, and forty feet in width on each side of the middle of said lead, lode or vein, together with all dips, spurs and angles, situated in the Patagonia Mining District, County of Santa Cruz, Territory of Arizona, and more particularly described as follows, to-wit:

This notice is posted at monument No. 1 of the Illinois Mining Claim, beginning at the north end center, it is forty feet west to a corner monument (or post); thence eighty feet south to a corner monument (or post); thence forty feet east to a monument (or post), being the south end center; thence forty feet east to a corner monument (or post); thence eighty feet north to a corner monument (or post); thence forty feet west to place of beginning.

This claim is situated between the Illinois, the Estelle & Louise, the San Antonio, and the Old Mac Mining Claims.

And shall be known as the VIRGINIA Mine.

Discovered Jan. 19th., 1900.

Located Jan. 20th, 1900.

J . F. Tener.    Locator.

Witness:

Geo. J. Troop, Jr.,

J. S. Tebbets.

Filed for record by J. F. Tener, Jan. 22nd, 1900 at 12 o'clock M.

W. N. Cummings, Recorder,

By Louis Hudgin, Deputy.

1-384

4-687.

**SURVEYOR-GENERAL'S CERTIFICATE OF APPROVAL OF FIELD  
NOTES AND SURVEY OF MINING CLAIM.**

**Department of the Interior,**

*Office of U. S. Surveyor-General,*

Phoenix, Arizona.

*June 17*, 1905.

I, U. S. Surveyor-General for..... the district of Arizona.

do hereby certify that the foregoing and hereto attached Field Notes and Return of the Survey of the  
Mining Claim of..... Duquesne Mining & Reduction Co.,

....., known as the  
Pluto, Pluto No. 2, Duquesne & Virginia,

situate in..... Patagonia,..... Mining District,  
Santa Cruz,..... County, Arizona.

in Section....., Township No. 24 S., Range No. 16 E. unsurveyed  
....., designated as Survey No. 2057

executed by..... Philip Contzen,....., U. S. Deputy Mineral  
Surveyor,..... April 8th-10th 1905., 190., under my instructions dated

..... April 3, 1905., 190., have been critically examined and the necessary cor-  
rections and explanations made, and the said Field Notes and Return, and the Survey they describe,  
are hereby approved. A true copy of the copy of the location certificate filed by the applicant. for  
survey is included in the field notes.

*Frank S. Ingalls*

U. S. Surveyor-General for..... Arizona.

4-688.

## U. S. SURVEYOR-GENERAL'S FINAL CERTIFICATE ON FIELD NOTES.

## Department of the Interior,

OFFICE OF U. S. SURVEYOR-GENERAL,

Phoenix, Arizona.

June 17, 1905

I, U. S. Surveyor-General for the district of Arizona, do hereby certify that the foregoing transcript of the Field Notes, return and approval of the survey of the mining claim of Duquesne Mining & Reduction Co., known as the Pluto, Pluto No. 2, Duquesne & Virginia, situate in Patagonia, Mining District, Santa Cruz, County, Arizona, in Section -----, Township No. 24 S., Range No. 16 E. unsurveyed, and designated as Survey No. 2057, has been correctly copied from the originals on file in this office; that said Field Notes furnish such an accurate description of said mining claim as will, if incorporated into a patent, serve fully to identify the premises, and that such reference is made therein to natural objects or permanent monuments as will perpetuate and fix the *locus* thereof.

And I further certify that five hundred dollars' worth of labor has been expended or improvements made upon said mining claim by claimant or <sup>or for each of</sup> its grantors, and that said improvements consist of *at time of survey, 10 shafts and 4 tunnels and \$400 of the value of the main working shaft on Bonanza lode Sur No. 855, total value \$2500.00*

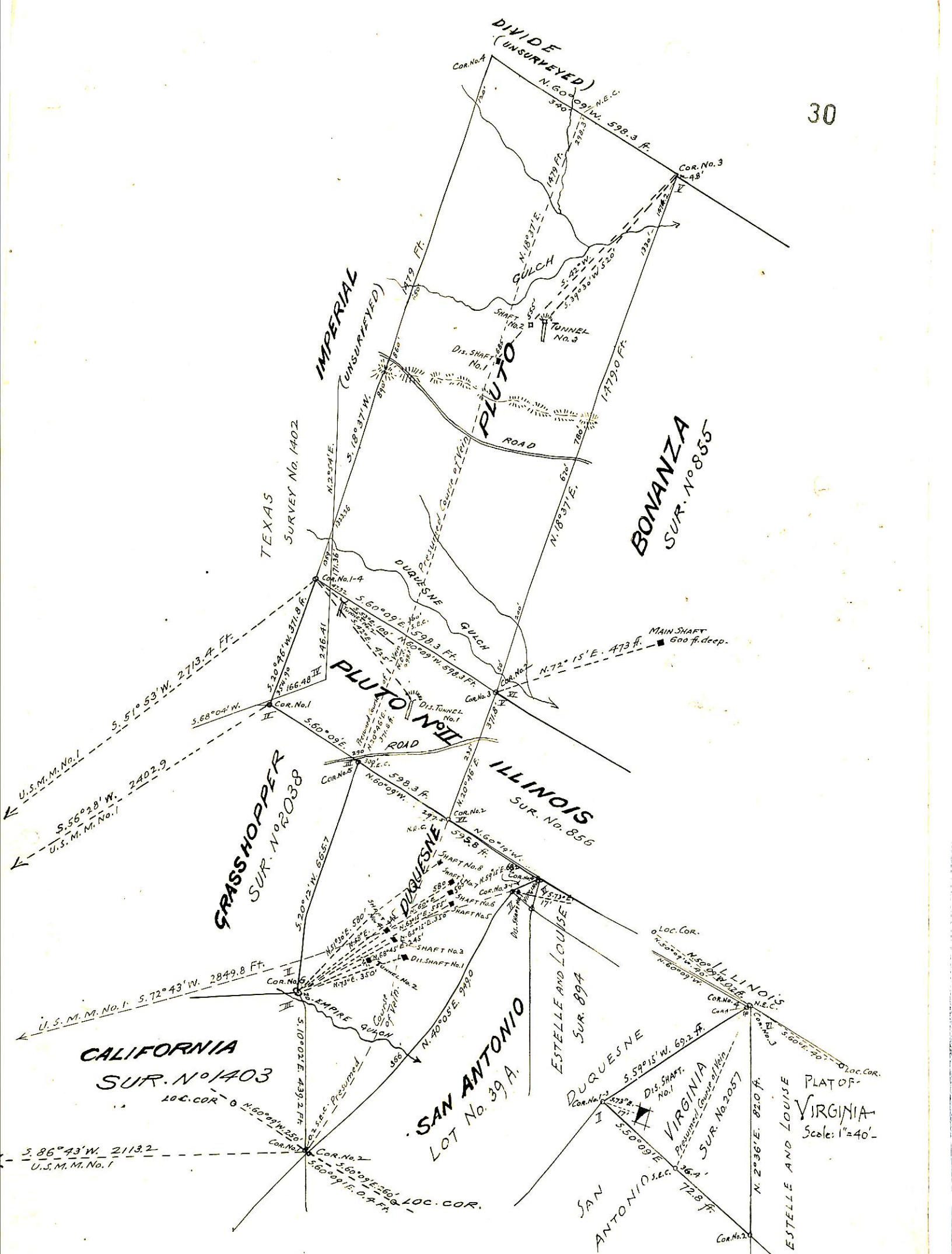
and that no portion of said labor or improvements has been included in the estimate of expenditures upon any other claim.

I further certify that the plat thereof, filed in the U. S. Land Office at Tucson, Arizona,

is correct and in conformity with the foregoing Field Notes.

( Signed ) Frank S. Ingalls,

United States Surveyor-General for Arizona.



**BONANZA**  
SUR. No. 855

**GRASSHOPPER**  
SUR. No. 2038

**CALIFORNIA**  
SUR. No. 1403

**SAN ANTONIO**  
LOT No. 39 A.

**SURVEY No. 2057**

GILA LAND DISTRICT

SURVEYED

APRIL 8-9 '05

by *Philip Conzen*  
U.S. DEPARTMENT OF MINERAL SURVEYOR

PLAT OF  
**VIRGINIA**  
Scale: 1"=40'