

UNITED STATES
DEPARTMENT OF THE INTERIOR
~~GENERAL LAND OFFICE~~
BUREAU OF LAND MANAGEMENT

MINERAL SURVEY NO. 4342

Arizona Land District.

FIELD NOTES

Of The Survey Of The Mining Claim Of

St Anthony Mining & Development Company, Ltd

Known As The

TORNADO

Old Hat Mining District,

Pinal County, Arizona

Section 27, Township 8 S., Range 16 E.

Surveyed under instructions dated August 19 19 1949

by *H. A. Twitty*
U. S. Mineral Surveyor.

Claim located February 2nd, 1901

Survey commenced August 24, 1949

Survey completed August 29, 1949

Address of claimant Howard A. Twitty, its Attorney, Phoenix, Ariz

DATES OF AMENDED LOCATIONS

July 22, 1949

UNITED STATES
DEPARTMENT OF THE INTERIOR
GENERAL LAND OFFICE
BUREAU OF LAND MANAGEMENT

MINERAL SURVEY NO. 4523

Arizona

FIELD NOTES

On the survey of the Mining Claim of
St. Anthony Mining & Development Company, Inc.

Known as the

TOWARD

Old Hat

Arizona

Final

Surveyed under instructions dated August 15, 1925

U. S. Mineral Surveyor

Classified February 22, 1925

Survey completed August 24, 1925

Survey completed August 24, 1925

Address of U. S. Mineral Surveyor, U. S. Geological Survey, Washington, D. C.

DATE OF MINERAL LOCATION

July 11, 1925

Survey No. 4342

1.

This survey was made with a Buff & Buff Transit No. 25780 with horizontal limb 5 ins. diam., having two opposite verniers and full vertical circle 4 ins. diam., having one double vernier; the verniers read to one minute of arc. The instrument was in good condition at the time of the survey and all adjustments were in good order.

All azimuths in this record were determined by the method of deflection angles referred to the meridian determined by the following observation.

August 24, 1949 at Cor. No. 1 of the Tornado lode in latitude $32^{\circ}42'28''$ and longitude $110^{\circ}41'30''$, I make a series of six altitude observations upon the sun for azimuth at approximately equal time intervals, three each with the telescope in direct and reversed positions, bisecting the sun and reading the horizontal angle from the reference point SW. to the sun.

Mean time of observation, 105th meridian Standard time	2 ^h 50 ^m p.m.
Apparent time	2 ^h 27 ^m p.m.
Declination of sun at mean time of observation	10° 59' 32"
Mean observed vertical angle to sun's center	51° 04' 00"
Mean horizontal angle from reference point to sun's center	35° 12' 40"
True bearing of reference point	S. 29° 04' W.

The lines were measured with a Lufkin steel tape 500 feet in length, graduated every foot, with the last foot graduated to tenths and hundredths and a 100 foot steel tape graduated to feet, tenths and hundredths; both tapes were compared with a standard and were correct at the time of the survey.

All lines and connections of this survey were run by direct methods.

The magnetic variation observed at each corner of the survey gave a uniform value of 15° E.

TORNADO LODE

Feet

Cor. No. 1 of the Tornado lode, identical with Cor. No. 5, Sur. No. 698 Hackney lode, on line 4-5 Sur. No. 806 Mars lode, both belonging to claimant herein, is monumented by a pine post, 4 ins. sq., firmly set and properly marked; being badly decayed, I remove the post and in its place

Set an iron post, $3\frac{1}{2}$ ft. long, 2 ins. diam., 18 ins. in the ground, surrounded by a mound of stone to top with leaden cap mkd. 1 T-4342, 5 H-698; from which

The $\frac{1}{4}$ sec. cor. of Secs. 26 and 27, T. 8 S., R. 16 E., bears S. $67^{\circ}16'$ E., 852.08 ft. dist.; a very old weathered post, 4 ins. sq., 4 ft. high, firmly set in mound of stone mkd. XXVII on W. face and XXVI on E. face.

Cor. No. 3, Sur. No. 698 Hackney lode, bears S. $30^{\circ}40'$ W., 593.83 ft. dist.

Point for Cor. No. 4, Sur. No. 806 Mars lode, as determined from the record, bears N. 60° W., 95 ft. dist. Find no evidence of corner.

Feet	
	<p>No local bearing objects are available.</p> <p>Thence S. 29° 04' W.</p>
200	Enter Tucson Wash, 50 ft. wide, course northerly. Power line bears northwesterly.
250	Leave Tucson Wash.
300.0	<p>Lode line; discovery point bears N. 60° 56' W., 50 ft. dist.</p> <p>Set a 2 inch open pipe, 4 ft. long, firmly in the ground and surrounded by a mound of stone, mkd. E. Cr. Tor.</p>
594.11	Intersect line 2-3, Sur. No. 698 Hackney lode at a point from which Cor. No. 3 bears N. 59° 07' 30" W., 16.59 ft. dist.
600.0	<p>Cor. No. 2.</p> <p>Set an iron post, 3½ ft. long, 2 ins. diam., 18 ins. in the ground, surrounded by a mound of stone to top, with leaden cap mkd. 2 T-4342; from which</p> <p>Cor. No. 3 Sur. No. 698 Hackney lode bears N. 39° 48' W., 17.78 ft. dist.</p> <p>Thence N. 60° 56' W.</p>
1459.03	<p>Cor. No. 3 on line 1-2, Sur. No. 4343 Ben Hur lode, claimant herein.</p> <p>Set an iron post, 3½ ft. long, 2 ins. diam., 18 ins. in the ground to bed rock, surrounded by a mound of stone to top with leaden cap mkd. 3 T-4342.</p> <p>Cor. No. 2 Sur. No. 4343 Ben Hur lode, bears S. 61° 09' W., 118.4 ft. dist., and Cor. No. 1 bears N. 61° 09' E., 481.6 ft. dist.</p> <p>No local bearing objects are available.</p> <p>Thence N. 29° 04' E.</p>
300.0	<p>Lode line; discovery point bears S. 60° 56' E., 1409.03 ft. dist.</p> <p>Set a pine post, 4 ins. sq. by 4 ft. long, firmly in the ground and surrounded by a mound of stone mkd. W. Cr. Tor.</p>
568.41	Intersect line 4-1 Sur. No. 4343 Ben Hur lode at a point from which Cor. No. 1 bears S. 28° 51' E., 301.92 ft. dist.
600.0	<p>Cor. No. 4.</p> <p>Set an iron post, 3½ ft. long, 2 ins. diam., 18 ins. in the ground, surrounded by a mound of stone to top with leaden cap mkd. 4 T-4342; from which</p> <p>Cor. No. 1 Sur. No. 4343 Ben Hur lode, bears S. 24° 03' E., 319.82 ft. dist.</p> <p>No local bearing objects are available.</p>

Survey No. 4342

Feet	
	Thence S. 60° 56' E.
385	Enter wash; 50 ft. wide, course south 60° E.
880	Power line bears N. 74° W.
1070	Power line bears N. 34° 40' W.
1320	Leave channel Tucson Wash.
1459.03	Cor. No: 1 and place of beginning.

AREAS

	Acres
Total area Tornado lode	20.097
Area in conflict with:	
Sur. No. 698 Hackney lode	0.113
Sur. No. 4343 Ben Hur lode	1.669

LOCATION

This survey is located in the NE $\frac{1}{4}$ and SE $\frac{1}{4}$ Sec. 27,
T. 8 S., R. 16 E., G. & S.R.Mer.

The survey of the Tornado lode is identical with the
location as marked on the ground.

EXPENDITURES

The improvements and the value of the labor and
improvements made upon or for the benefit of the lode
location embraced in said mining claim by the claimant
or its grantors are as follows:

- No. 1 The discovery shaft of the Tornado lode, the center of
which being the discovery point is on the center line,
50 ft. from the center of line 1-2, 10 x 10 ft., 12 ft.
deep, at the collar of which is a cut 4 ft. wide, 10
ft. face, running S. 30° W., 12 ft. to face. At the
bottom of shaft, is a tunnel 4 x 6 ft. in size running
N. 57° E., 30 ft. to daylight (mouth).
Value shaft, cut and tunnel, \$1080.0
- No. 2 A cut, the mouth of which bears from Cor. No. 1 Tornado
lode, S. 48° 34' W., 320 ft., 5 ft. wide, 7 ft. face,
running S. 57° W., 10 ft. to face. At face is a tun-
nel 4 x 6 ft. in size running S. 57° W., 3 ft. to
caved face.
Value, \$130.0
- No. 3 A tunnel, 4 x 6 ft. in size, the portal of which bears
from Cor. No. 4 Tornado lode, S. 1° 56' E., 390 ft.
dist. running S. 55° W., 6 ft. to breast.
Value, \$120.0
- No. 4 A tunnel, 4 x 6 ft. in size, the portal of which bears
from Cor. No. 4 Tornado lode S. 23° 26' E., 340 ft.
dist. and runs west 6 ft. to breast.
Value, \$120.0
- No. 5 A cut, the mouth of which bears from Cor. No. 4 Tornado
lode, S. 20° 34' W., 360.0 ft. dist., 12 ft. wide, 12
ft. face, running S. 75° W., 12 ft. to face. At the

Feet	
	<p>SW. corner of cut is a tunnel 4 x 6 ft. in size running S. 45° W., 12 ft. to breast, and at the NW. corner of cut is a tunnel 4 x 6 ft. in size running N. 70° W., 10 ft. to breast. Value, cut and tunnels, \$640.0</p>
No. 6	<p>A tunnel, 5 x 7 ft. in size, the portal of which bears from Cor. No. 4 Tornado lode S. 48° 11' E., 432.0 ft. dist. and runs S. 66° W., 89.3 ft. to Sta. 1; thence S. 29° 50' W., 220.5 ft. to Sta. 2; thence S. 19° 40' W., 72.5 ft.; thence S. 31° 00' W., 95.0 ft. to breast. Value, \$954.60</p>
No. 7	<p>A 10 inch drill hole (cased) the center of which bears from Cor. No. 4 Tornado lode S. 49° 26' E., 450.0 ft. dist., 435.0 ft. deep and connecting with the 800 ft. level of Mammoth lode, Sur. No. 802. Value, \$4,350.00</p>
No. 8	<p>A drift 5 x 7 ft. in size on 800 ft. level of Mammoth mine, Sur. No. 802 at a point on line 1-2 Tornado lode, 255.22 ft. from Cor. No. 1, running N. 53° 50' W., 142.3 ft. to Sta. 802; thence S. 82° 10' W., 148.27 ft. to Sta. 803; thence N. 55° 42' W., 62.48 ft. to Sta. 804; thence N. 70° 54' W., 52.30 ft. to Sta. 805; thence N. 37° 52' W., 57.32 ft. to Sta. 806; thence N. 38° 55' W., 42.93 ft. to Sta. 807; thence N. 56° 15' W., 187.2 ft. to Sta. 808; thence N. 63° 37' W., 96.15 ft. to Sta. 809; thence N. 67° 47' W., 106.43 ft. to Sta. 810; thence N. 60° 05' W., 99.80 ft. to Sta. 811; thence S. 87° 21' W., 81.16 ft. to Sta. 812; thence S. 41° 48' W., 98.22 ft. to Sta. 813; thence N. 87° 25' W., 145.95 ft. to Sta. 814; thence N. 41° 53' W., 69.22 ft. to Sta. 815; thence N. 39° 06' W., 235.86 ft. to Sta. 816 on line 3-4 Tornado. From Sta. 811 a cross-cut 5 x 7 ft. in size running N. 7° 20' E., 59.60 ft. to Sta. 817; thence N. 17° 50' E., 168.0 ft. to breast, connecting with improvement No. 7 (drill hole). Total value, \$74,127.20</p>
No. 9	<p>A drift 5 x 7 ft. in size on 900 ft. level of Mammoth mine, Sur. No. 802 at a point on line 1-2 Tornado lode 402.6 ft. from Cor. No. 1 running N. 43° 50' W., 25.62 ft. to Sta. 902. From Sta. 902 is a cross-cut 5 x 7 ft. in size running S. 43° 40' W., 112.3 ft. to Sta. 903; thence N. 79° 00' W., 20 ft. to breast. From Sta. 902, a drift 5 x 7 ft. in size running N. 43° 50' W., 80.58 ft. to Sta. 904; thence N. 11° 40' W., 43.14 ft. to Sta. 905; thence N. 56° 10' W., 134.92 ft. to Sta. 906; thence N. 65° 50' W., 48.86 ft. to Sta. 907; thence S. 83° 33' W., 35.36 ft. to Sta. 909 at junction. From Sta. 906 is a drift 5 x 7 ft. in size running S. 81° 50' W., 49.52 ft. to Sta. 908; thence N. 53° 05' W., 38.40 ft. to Sta. 909 at junction, thence N. 51° 10' W., 64.55 ft. to Sta. 910; thence N. 84° 30' W., 40.52 ft. to Sta. 911; thence N. 30° 58' W., 96.50 ft. to Sta. 912; thence N. 87° 00' W., 30 ft. to breast. Total value, \$32,785.20</p>

OTHER IMPROVEMENTS

None

Survey No. 4342

5

CORNER DESCRIPTIONS AND SUPPLEMENTAL DATA

Sur. No. 806 Mars lode, Cor. No. 4 falls in a position which is subject to floods in the Tucson Wash and has been completely obliterated; its position was therefore calculated from the records.

Sur. No. 698 Hackney lode, Cor. Nos. 3, 4 and 5 are posts, 4 ins. sq., firmly set in stone monuments and marked with the number of the Corner and the survey. I find line 3-5 to be N. 30° 40' E., 593.83 ft. instead of N. 30° 00' E., 600 ft.

A diligent search was made for all corners of Section 27, T. 8 S., R. 16 E. including all $\frac{1}{4}$ sec. corners. No evidence of same could be found or identified, except the $\frac{1}{4}$ sec. cor. of Secs. 26 and 27.

ADJOINING CLAIMS

On the north by Cloudburst lode, unsurveyed, and Sur. No. 806 Mars lode.

On the east by Sur. No. 698 Hackney lode.

On the south by Whirlwind lode, unsurveyed.

On the west by current Sur. No. 4343, Ben Hur lode, all belonging to claimant herein.

Field Assistants

Name	Capacity
E.H.Jenkins	Chainman

GENERAL DESCRIPTION AND DISCUSSION OF THE
 SURVEY. The survey was conducted in a
 field which is subject to floods in the
 and has been completely obliterated; its position was
 therefore ascertained from the records.
 The survey was conducted in a field which is
 subject to floods in the and has been completely
 obliterated; its position was therefore ascertained
 from the records.
 A different section was made for all corners of
 the section. The section was made in a field
 which is subject to floods in the and has been
 completely obliterated; its position was therefore
 ascertained from the records.

ADJUSTING DATA

On the north by Johnston's field, measured, and
 on the east by Johnston's field, measured,
 on the south by Johnston's field, measured,
 on the west by Johnston's field, measured,
 belonging to Johnston's field.

FIELD DATA

Station	Angle	Distance
1	90° 00' 00"	100.00
2	90° 00' 00"	100.00
3	90° 00' 00"	100.00
4	90° 00' 00"	100.00
5	90° 00' 00"	100.00
6	90° 00' 00"	100.00
7	90° 00' 00"	100.00
8	90° 00' 00"	100.00
9	90° 00' 00"	100.00
10	90° 00' 00"	100.00
11	90° 00' 00"	100.00
12	90° 00' 00"	100.00
13	90° 00' 00"	100.00
14	90° 00' 00"	100.00
15	90° 00' 00"	100.00
16	90° 00' 00"	100.00
17	90° 00' 00"	100.00
18	90° 00' 00"	100.00
19	90° 00' 00"	100.00
20	90° 00' 00"	100.00
21	90° 00' 00"	100.00
22	90° 00' 00"	100.00
23	90° 00' 00"	100.00
24	90° 00' 00"	100.00
25	90° 00' 00"	100.00
26	90° 00' 00"	100.00
27	90° 00' 00"	100.00
28	90° 00' 00"	100.00
29	90° 00' 00"	100.00
30	90° 00' 00"	100.00
31	90° 00' 00"	100.00
32	90° 00' 00"	100.00
33	90° 00' 00"	100.00
34	90° 00' 00"	100.00
35	90° 00' 00"	100.00
36	90° 00' 00"	100.00
37	90° 00' 00"	100.00
38	90° 00' 00"	100.00
39	90° 00' 00"	100.00
40	90° 00' 00"	100.00
41	90° 00' 00"	100.00
42	90° 00' 00"	100.00
43	90° 00' 00"	100.00
44	90° 00' 00"	100.00
45	90° 00' 00"	100.00
46	90° 00' 00"	100.00
47	90° 00' 00"	100.00
48	90° 00' 00"	100.00
49	90° 00' 00"	100.00
50	90° 00' 00"	100.00
51	90° 00' 00"	100.00
52	90° 00' 00"	100.00
53	90° 00' 00"	100.00
54	90° 00' 00"	100.00
55	90° 00' 00"	100.00
56	90° 00' 00"	100.00
57	90° 00' 00"	100.00
58	90° 00' 00"	100.00
59	90° 00' 00"	100.00
60	90° 00' 00"	100.00
61	90° 00' 00"	100.00
62	90° 00' 00"	100.00
63	90° 00' 00"	100.00
64	90° 00' 00"	100.00
65	90° 00' 00"	100.00
66	90° 00' 00"	100.00
67	90° 00' 00"	100.00
68	90° 00' 00"	100.00
69	90° 00' 00"	100.00
70	90° 00' 00"	100.00
71	90° 00' 00"	100.00
72	90° 00' 00"	100.00
73	90° 00' 00"	100.00
74	90° 00' 00"	100.00
75	90° 00' 00"	100.00
76	90° 00' 00"	100.00
77	90° 00' 00"	100.00
78	90° 00' 00"	100.00
79	90° 00' 00"	100.00
80	90° 00' 00"	100.00
81	90° 00' 00"	100.00
82	90° 00' 00"	100.00
83	90° 00' 00"	100.00
84	90° 00' 00"	100.00
85	90° 00' 00"	100.00
86	90° 00' 00"	100.00
87	90° 00' 00"	100.00
88	90° 00' 00"	100.00
89	90° 00' 00"	100.00
90	90° 00' 00"	100.00

UNITED STATES
DEPARTMENT OF THE INTERIOR
~~GENERAL LAND OFFICE~~
Bureau of Land Management

FINAL OATH OF MINERAL SURVEYOR

I, T.N. Stevens, Mineral Surveyor,
do solemnly swear that, in pursuance of instructions received from the Office Cadastral
Engineer, at Phoenix, Arizona, dated August 19, 1949,
I have, in strict conformity to the laws of the United States, the official regulations
and instructions thereunder, and the instructions of said Office Cadastral Engineer,
faithfully and correctly executed the survey of the mining claim of
St Anthony Mining & Development Company, Ltd., known as the
Tornado Mining claim,
situate in Old Hat Mining District,
Pinal County County, Arizona, in Section
27, Township No. 8 south, Range No. 16 East
and designated as Survey No. 4342, 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 Office Cadastral Engineer
with said instructions, and that all 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 im-
provements 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.

T.N. Stevens
(Mineral Surveyor)

Subscribed and sworn to by the said T.N. Stevens
Mineral Surveyor, before me Jean C. Slouagan, Notary
Public, Pima County, Arizona this 7th
day of October, 1949

Jean C. Slouagan

Commission expires July 1-1951

CERTIFICATE OF APPROVAL OF FIELD NOTES AND SURVEY OF
MINING CLAIM

UNITED STATES
DEPARTMENT OF THE INTERIOR

~~GENERAL LAND OFFICE~~
~~FEDERAL SURVEY OFFICE~~

Bureau of Land Management
Division of Engineering

At Albuquerque, New Mexico

February 16, 19 50

I, Office Cadastral Engineer at Albuquerque, New Mexico

do hereby certify that the foregoing and hereto attached Field Notes and Return of the Survey of the
Mining Claim of St. Anthony Mining & Development Company, Ltd.

....., known as the

TORNADO

situate in Old Hat mining district,

Pinal County, Arizona

in Section 27, Township No. 8 South, Range No. 16 East

G. & S. R. M., designated as Survey No. 4342

executed by T. N. Stevens, Mineral

Surveyor, August 24 to August 29, 19 49 under ~~my~~ instructions dated

August 19, 19 49, have been critically examined and the necessary

corrections and explanations made, and the said Field Notes and Return, and the Survey they describe,

are hereby approved. The certified copy of the location certificate filed by the applicant for survey is

included and made a part of these field notes.

Geo. Powell
Office Cadastral Engineer.

CERTIFICATE OF ADEQUACY OF KIND, MOUNT AND SURVEY OF
MINING CLAIM

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
DIVISION OF REVENUE

At Washington, D.C. this _____ day of _____ 19__
