



# **A SURVEY OF ONE HUNDRED STONES – PART 2**

**SWEET HOME MINE, ALMA, COLORADO**

**A CASE HISTORY**

**FEBRUARY 25, 2022**

Presented by  
**C. Eugene Kooper, PLS, PG, CFedS**

# Unnamed Rhodochrosite

Rhodochrosite on  
Quartz, Pyrite and  
Tetrahedrite  
(11.5 x 9.3 x 4 cm)

Sweet Home Mine  
Alma, Colorado

Photograph by  
James Elliott





# The Garden

Rhodochrosite  
with Fluorite and  
Huebnerite on  
Quartz  
(21.8 cm tall)

Clay Pocket  
Main Stope Ext.  
Sweet Home Mine  
Alma, Colorado

Photograph by  
Harold and Erica  
Van Pelt



Photo by Harold and Erica Van Pelt

# Have These Monuments REALLY Moved

In mountainous terrain, the geologic mass wasting processes of frost heave and soil creep are in play. While a geologist knows that stones in sloping terrain must have moved, that conclusion is only qualitative with respect to the amount of movement. In other words, the geologist cannot accurately predict when and by how much the stones have moved.

As a land surveyor the mere fact that stone monuments and their accessories do not match record does not prove movement. Repeated measurements at sufficient time intervals is the only way to quantify that movement. One question is what level of proof is appropriate. Should it be substantial evidence, preponderance of the evidence, or clear and convincing evidence? I subscribe to the clear and convincing standard in this situation.





































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2

































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# LOT CONSOLIDATION PLAT

CONSOLIDATION OF SEVEN (7) PATENTED AND CONTIGUOUS LODE MINING CLAIMS  
THOSE BEING THE PULASKI, DETROIT CITY, ENTERPRISE, BLUE BIRD,  
SWEET HOME FRACTION, NIAGARA AND BUSHWHACKER LODE CLAIMS  
ALL LOCATED IN THE NORTHERN ONE-HALF OF SECTION 33, TOWNSHIP 8 SOUTH,  
RANGE 78 WEST, SIXTH PRINCIPAL MERIDIAN, PARK COUNTY, COLORADO

SHEET 6 OF 13

## MINERAL SURVEY CORNER DESCRIPTIONS:

**Corner No. 1, Enterprise Lode Claim, U.S. Mineral Survey No. 8413.**  
Found original stone monument, a granite stone 25 x 15 x 4 ins. with mound of stone. Stone has been pushed over due to tree root disturbance. Restored original stone monument to a vertical position in center of mound of stone. Corner location is the high point of stone. South face is chiseled with "1-8413". Original call is for a porphyry stone 27 x 14 x 6 ins., set 18 ins. in the ground with mound of stones. Found remnants of both original bearing trees. The first is a south stump 2.3 ft. above ground (spruce 12 ins. dia.), which bears S36°30'W, 6.6 ft. (record is S36°W, 8.6 ft.) and the second is a spruce 20 ins. dia. that has rotted to the ground surface. The original call of N77°E, 2.1 ft. falls within the rotted remains.

**Corner No. 2, Enterprise Lode Claim, U.S. Mineral Survey No. 8413.**  
Found original stone monument, a banded-granitic gneiss stone 12 x 10 ins. and protruding 10 ins. above the ground surface. Mound of stone (if present) is buried by soil. Corner location is a chiseled "+" in east sloping rock. North face is chiseled with "2-8413". Monument is in good condition. Original call is for a schist rock 26 x 10 x 5 ins., set 16 ins. in the ground with mound of stones. The stone monument may have moved downhill due to soil creep and/or frost heave, but there is no clear and convincing evidence of the movement, only the discrepancy between the measured and record positions of the stone to the bearing rock.

Found original bearing rock, a banded-granitic gneiss boulder 8 x 4 ft. and protruding 3.5 ft. above the ground surface. East face is chiseled with "4", BR-2-8413 and "2-2-17480". Bearing rock bears S86°38'16"W, 42.60 ft. (record is S86°41'W, 41.8 ft.). The bearing rock is in good condition.

**Corner No. 2, Sunflower No. 1 and Corner No. 2, Sunflower No. 2 Lode Claims, U.S. Mineral Survey No. 17480.**  
Found original stone monument, a banded-granitic gneiss stone 18 x 12 ins. and protruding 12 ins. above the ground surface. Mound of stone (if present) is buried by soil. Corner location is a chiseled "+" in top of stone. South face is chiseled with "2-2-17480". Monument in good condition. Original call is for a schist stone 25 x 10 x 8 ins., set 16 ins. in ground with mound of stone. The stone monument may have moved downhill due to soil creep and/or frost heave, but there is no clear and convincing evidence of the movement, only the discrepancy between the measured and record position of the stone to the bearing rock. Same bearing rock as for Cor. No. 2 Enterprise Lode. East face is chiseled with "4", BR-2-8413 and "2-2-17480". Bearing rock bears S86°01'41"W, 82.37 ft. (record is S86°W, 61.2 ft.).

**Corner No. 1, Sweet Home Fraction Lode Claim, U.S. Mineral Survey No. 20507-A.**  
Found original stone monument, a granite stone 8 x 6 ins. and protruding 12 ins. above the ground surface, with small mound of stone. Corner location is the high point of stone. East face is chiseled with "1-SHF-20504-A". Monument is in good condition. Original call is for a granite stone 24 x 8 x 7 ins., 12 ins. in the ground, with a mound of stone. No evidence found for the original bearing tree, an 8 ins. diam. spruce tree.

Note: This lode claim was originally included in U.S. Mineral Survey 20504, but later removed & included in U.S. Mineral Survey 20507-A. This lode claim was originally connected to the S. 1/4 Cor. of Sec. 33 when it was part of Sur. No. 20504 and later connected to the NW Cor. of Sec. 33. The corner number was changed from a "2" to a "1", which is evident on the east face. The chiseling on the monument does not show the correction to the U.S. Mineral Survey number. There is faint evidence that the "-" became the top part of a "7"; however there is no evidence that the "4" was crossed out or defaced.

**Corner No. 1, Bushwhacker Lode Claim, U.S. Mineral Survey No. 20591.**  
Found original stone monument, a granite stone 14 x 7 ins. and protruding 14 ins. above the ground surface with no visible mound of stone. Corner location is the high point of stone as no chiseled "+" was found. East face is chiseled with "1-B-20591". Monument in good condition. Original call is for a granite stone 24 x 14 x 7 ins., 12 ins. in the ground with a mound of stones. Built a mound of stone.

**Corner No. 2, Bushwhacker Lode Claim, U.S. Mineral Survey No. 20591.**  
Found original stone monument, a diorite stone 18 x 8 ins. and protruding 10 ins. above the ground surface, with small mound of stone. Corner location is a chiseled "+" on the top of the stone. Northwest face is chiseled with "2-B-20591". Monument in good condition with no explicit signs of movement. Original call is for a granite stone 24 x 18 x 9 ins., 12 ins. in the ground surrounded with a mound of stones. The original bearing tree is present and the blaze has completely healed over (record is for a spruce tree, 8 ins. diam. bearing S51°E, 4 ft.). This stone does not match record connections to other nearby corners. The best available evidence is to hold the existing stone.

**Corner No. 2, Niagara Lode Claim, U.S. Mineral Survey No. 20591.**  
Found original stone monument, a schist stone 16 x 8 ins. and protruding 8 ins. above the ground with no visible mound of stone. Corner location is a chiseled "+" on top of stone. Northeast face is chiseled with "2-N-20591". Monument in good condition. Original call is for a schist stone 24 x 18 x 8 ins., 12 ins. in the ground surrounded with a mound of stones in dense willows.

Note: According to Colorado law, you must commence any legal action based upon any defect in this survey within three years after you first discover such defect. In no event may any action based upon any defect in this survey be commenced more than ten years from the date of the certification shown hereon.

## SURVEYOR'S CERTIFICATE:

I, C. Eugene Kooper, a Professional Land Surveyor in the State of Colorado, hereby certify that the survey and plat of the real property shown and described hereon was performed solely by me in strict compliance with Section 38-51-106, Colorado Revised Statutes, and that both survey and plat are true, accurate and complete.



C. Eugene Kooper, P.L.S. 23046

Note: This sheet shows four mineral survey corners with three original accessory bearing rocks. Due to their large size and weight, the bearing rocks are not as susceptible to downhill movement by soil creep or frost heave as are the associated stone corner monuments. This is supported by a comparison of actual vs. record measurements between the bearing rocks and between the associated stone corners.

For example, from the bearing rock for Cor. No. 4, Highland Mary Lode to the bearing rock for Cor. No. 2, Enterprise Lode is S15°33'29"E, 435.92' (as measured) and S15°32'48"E, 436.0' (record). The measurement between the two corners is S20°32'27"E, 459.44' (AM) and S20°25'57"E, 459.3' (Rec.). Another example is the bearing rocks for Cor. Nos. 2 and 3 of the Sun Flower No. 1 Lode. The measurement between the bearing rocks is S72°00'29"W, 259.57' (AM) and S71°58'22"W, 259.59' (Rec.). See Detail 2.

While the discrepancies between the as-measured and record dimensions of the mineral survey corners and their original accessories may be indicative of movement there is no clear and convincing evidence to support this conclusion. The found monument positions are held as the best available evidence as to marking the original established corners. In the future, a surveyor may conclude that the positions of the bearing rocks should be held as the controlling monuments for the original surveys.

### Detail 3

Connections between Cor. No. 2, Bushwhacker Lode and (1) Cor. No. 1 Enterprise Lode, (2) Cor. No. 1, Sweet Home Fraction Lode, and (3) Cor. No. 4 Highland Mary Lode.

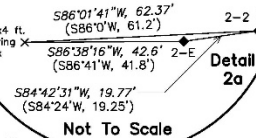
- (1) N23°59'52"E, 74.57' (N25°05'E, 71.17')
- (2) N2°51'28"W, 285.26' (N3°06'W, 280.69')
- (3) N26°49'54"W, 223.73' (N27°30'W, 220.3')

**Sur. No. 8411, "Highland Mary" Lode**  
Corner No. 4, Highland Mary Lode Claim, U.S. Mineral Survey No. 8411. Found original stone monument, a granite stone 25 x 15 x 4 ins. with mound of stone. Stone has been pushed over due to tree root disturbance. Restored original stone monument to a vertical position in center of mound of stone. Corner location is the high point of stone. South face is chiseled with "1-8411". Original call is for a porphyry stone 27 x 14 x 6 ins., set 18 ins. in the ground with mound of stones.

**Corner No. 4, Highland Mary Lode Claim, U.S. Mineral Survey No. 8411.**  
Found original stone monument, a granite stone 25 x 15 x 4 ins. with mound of stone. Stone has been pushed over due to tree root disturbance. Restored original stone monument to a vertical position in center of mound of stone. Corner location is the high point of stone. South face is chiseled with "1-8411". Original call is for a porphyry stone 27 x 14 x 6 ins., set 18 ins. in the ground with mound of stones.

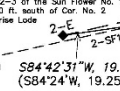
### Detail 2

The discrepancies between the as-measured connections between Cor. No. 2 of the Enterprise Lode, Cor. Nos. 2 of the Sun Flower Nos. 1 and 2 Lodes and their common bearing rock indicate downhill movement of the stones via soil creep and/or frost heave of 0.8 and 1.2 ft. respectively.



### Detail 2a

Not to Scale

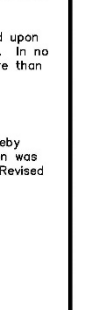
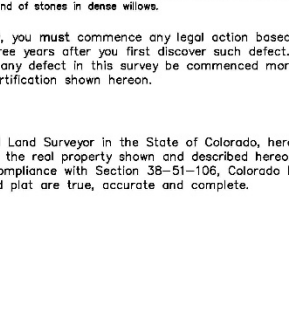
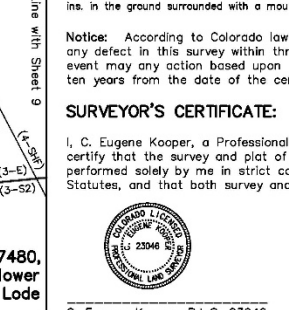
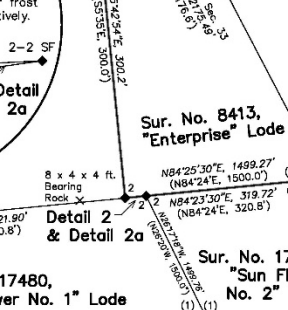
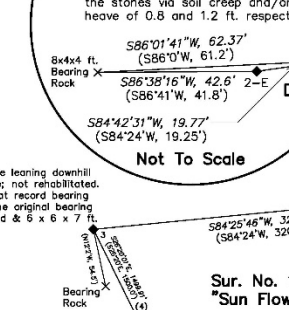
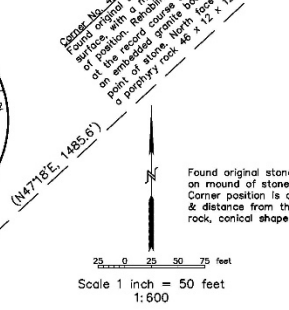
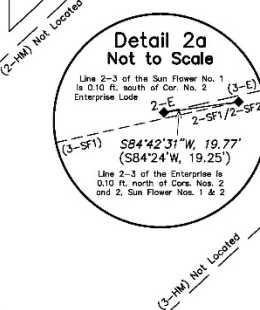


Found original stone leaning downhill on mound of stone; not rehabilitated. Corner position is at record bearing & distance from the original bearing rock, conical shaped & 6 x 6 x 7 ft.

Scale 1 inch = 50 feet  
1:600

Sur. No. 17480,  
"Sun Flower No. 1" Lode

Sur. No. 17480,  
"Sun Flower No. 2" Lode





**Note:** This sheet shows four mineral survey corners with three original accessory bearing rocks. Due to their large size and weight, the bearing rocks are not as susceptible to downhill movement by soil creep or frost heave as are the associated stone corner monuments. This is supported by a comparison of actual vs. record measurements between the bearing rocks and between the associated stone corners.

For example, from the bearing rock for Cor. No. 4, Highland Mary Lode to the bearing rock for Cor. No. 2, Enterprise Lode is  $S15^{\circ}33'29''E$ , 435.92' (as measured) and  $S15^{\circ}32'48''E$ , 436.0' (record). The measurement between the two corners is  $S20^{\circ}32'27''E$ , 459.44' (AM) and  $S20^{\circ}25'57''E$ , 459.3' (Rec.). Another example is the bearing rocks for Cors. Nos. 2 and 3 of the Sun Flower No. 1 Lode. The measurement between the bearing rocks is  $S72^{\circ}00'29''W$ , 259.57' (AM) and  $S71^{\circ}58'22''W$ , 259.59' (Rec.). See Detail 2.

While the discrepancies between the as-measured and record dimensions of the mineral survey corners and their original accessories may be indicative of movement there is no clear and convincing evidence to support this conclusion. The found monument positions are held as the best available evidence as to marking the original established corners. In the future, a surveyor may conclude that the positions of the bearing rocks should be held as the controlling monuments for the original surveys.

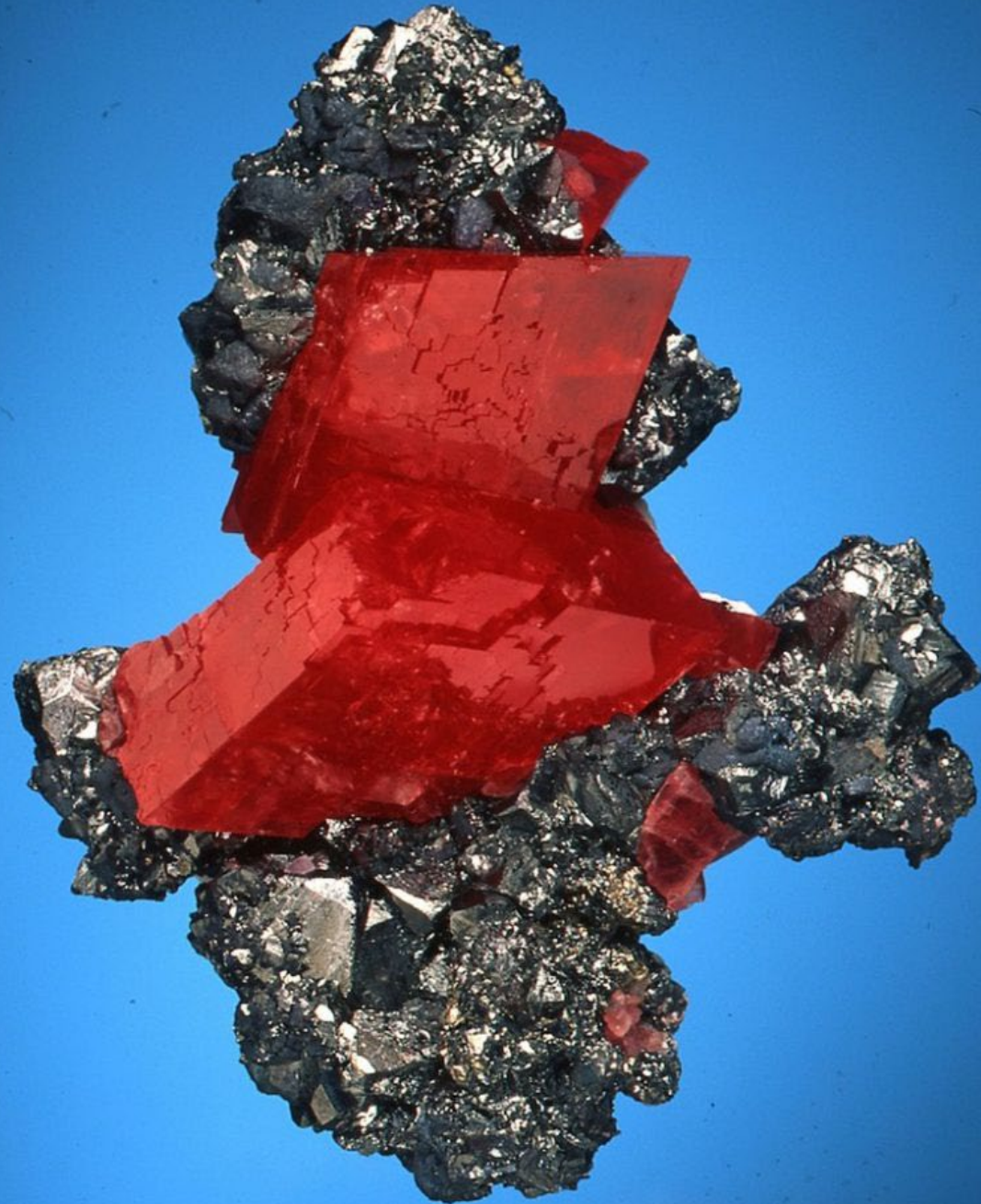


## Unnamed Rhodochrosite

Rhodochrosite  
with Tetrahedrite  
(17.1 cm tall)

Graham's Pocket  
Fluorite Drift  
Sweet Home Mine  
Alma, Colorado

Photograph  
Courtesy of  
Bryan Lees





Amount of Deposit \$131.00  
Cost of Office Work \$131.00  
Amount to be Refunded \$ 0.00

Mineral Survey No. 20507 A. and B.

Denver Land District.

# PLAT

OF THE CLAIM OF  
**EDWIN C. SPRAY,**

KNOWN AS THE

**BLUE BIRD, SWEET HOME FRACTION  
AND DANIEL LODES AND SWEET  
HOME MILL SITE,**

IN BUCKSKIN AND CONSOLIDATED MONTGOMERY MINING DISTRICTS,  
PARK COUNTY, COLORADO.

Containing an Area of \_\_\_\_\_ Acres.

Scale of 300 Feet to the inch.

Variation 14°18' East.

SURVEYED February 25- 1933, BY

Gerald F. Galloway, U.S. Mineral Surveyor,

The Original Field Notes of the Survey of the Mining Claim from which this plat has been made under my direction, have been examined and approved, and are on file in this Office, and I hereby certify that they 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.

I further certify that Five Hundred Dollars worth of labor has been expended or improvements made upon, or for the benefit of, each location embraced in said mining claim by claimant,

Edwin C. Spray,

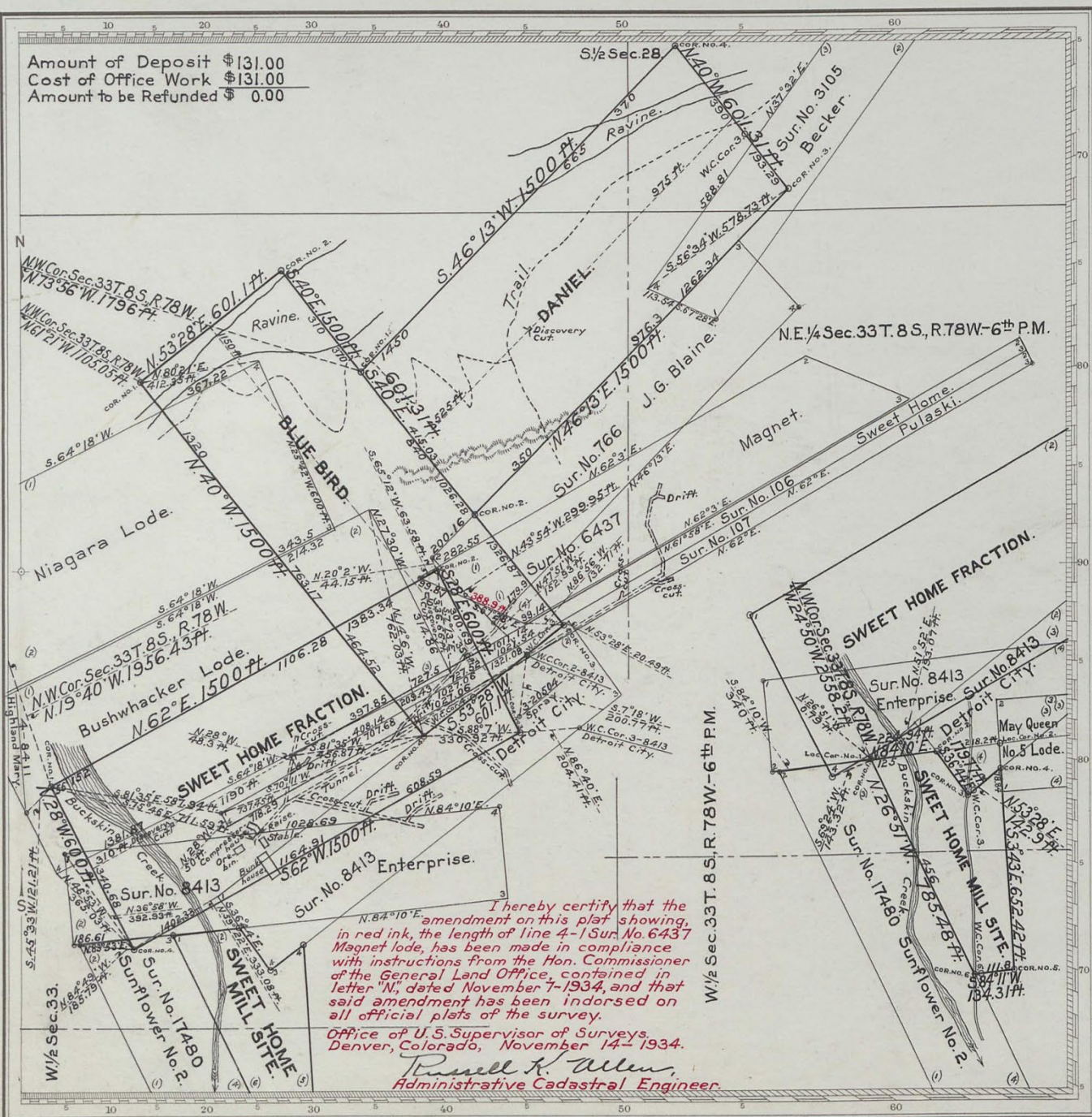
or his grantors and an interest in a common improvement, value, \$12809.38

that the location of said improvements is correctly shown upon this plat, and that no portion of or interest in said labor or improvements has been included in the estimate of expenditures upon any other claim. And I further certify that this is a correct plat of said Mining Claim made in conformity with said original field notes of the survey thereof, and the same is hereby approved.

Office of U.S. Supervisor of Surveys.

Denver, Colorado, June 10- 1933.

Russell K. Allen,  
Administrative Cadastral Engineer.

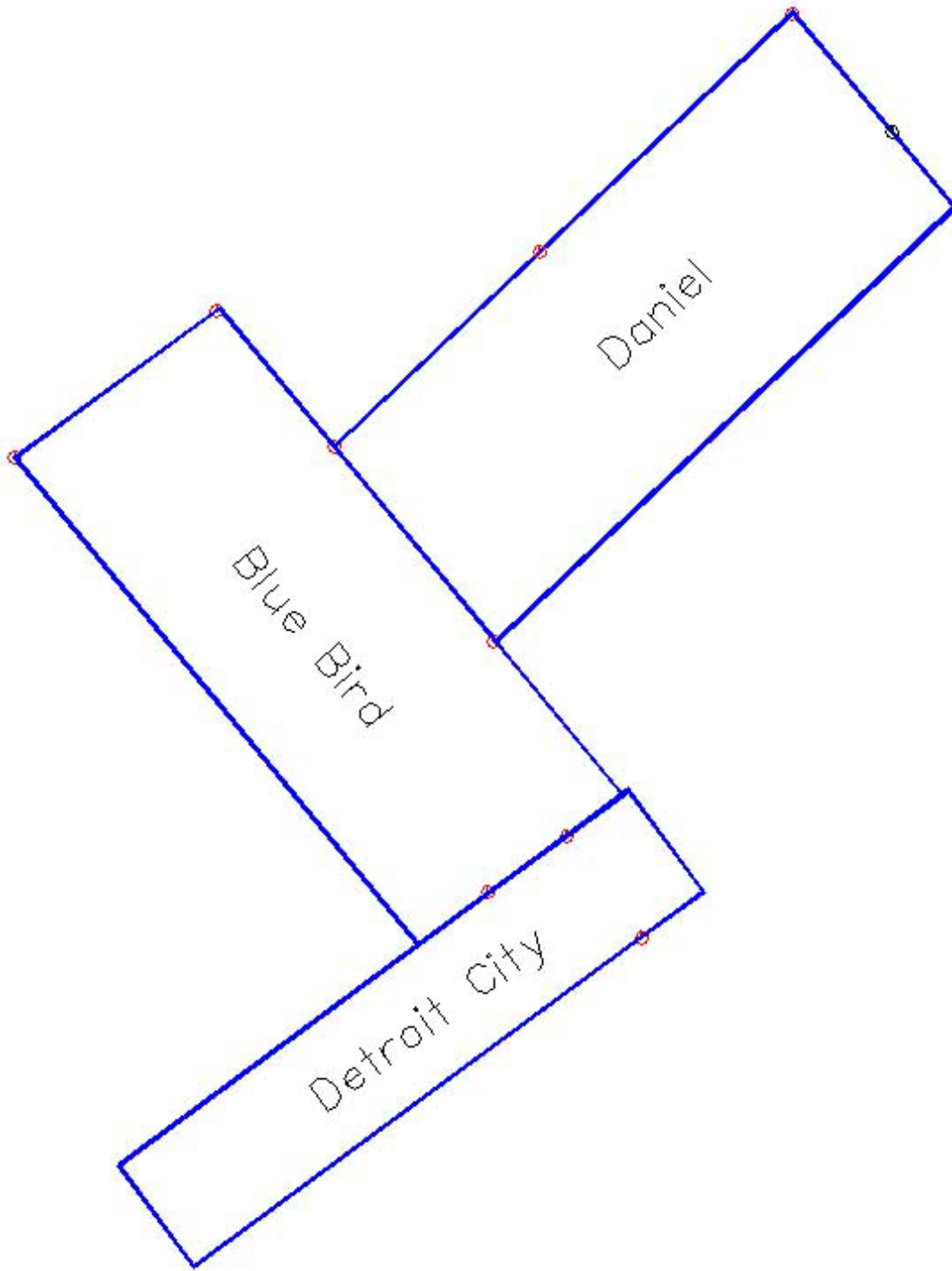


I hereby certify that the amendment on this plat showing, in red ink, the length of line 4-1 (Sur. No. 6437 Magnet lode, has been made in compliance with instructions from the Hon. Commissioner of the General Land Office, contained in letter 'N', dated November 7-1934, and that said amendment has been indorsed on all official plats of the survey.

Office of U.S. Supervisor of Surveys,  
Denver, Colorado, November 14- 1934.

Russell K. Allen,  
Administrative Cadastral Engineer.



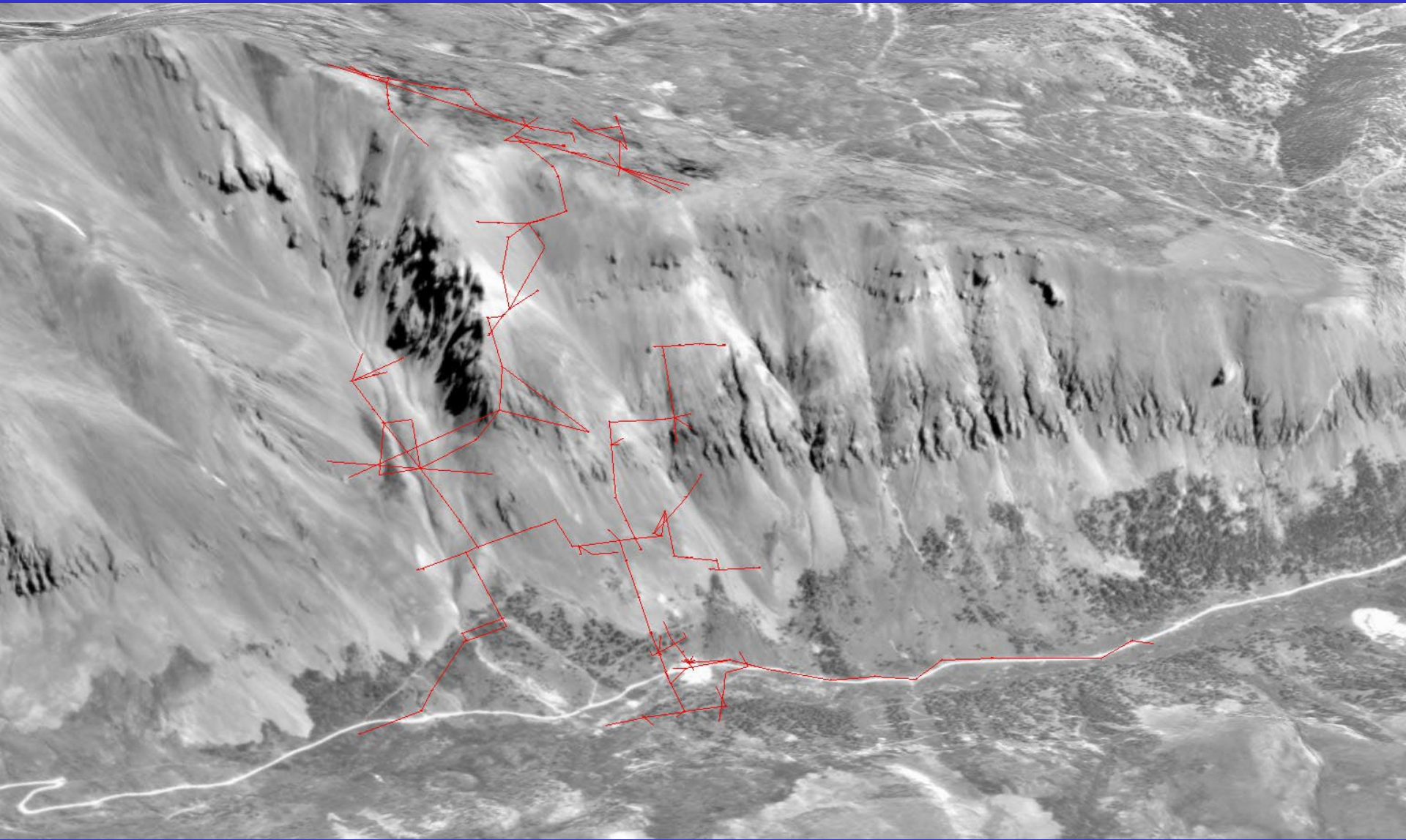


Blue Bird

Daniel

Detroit City























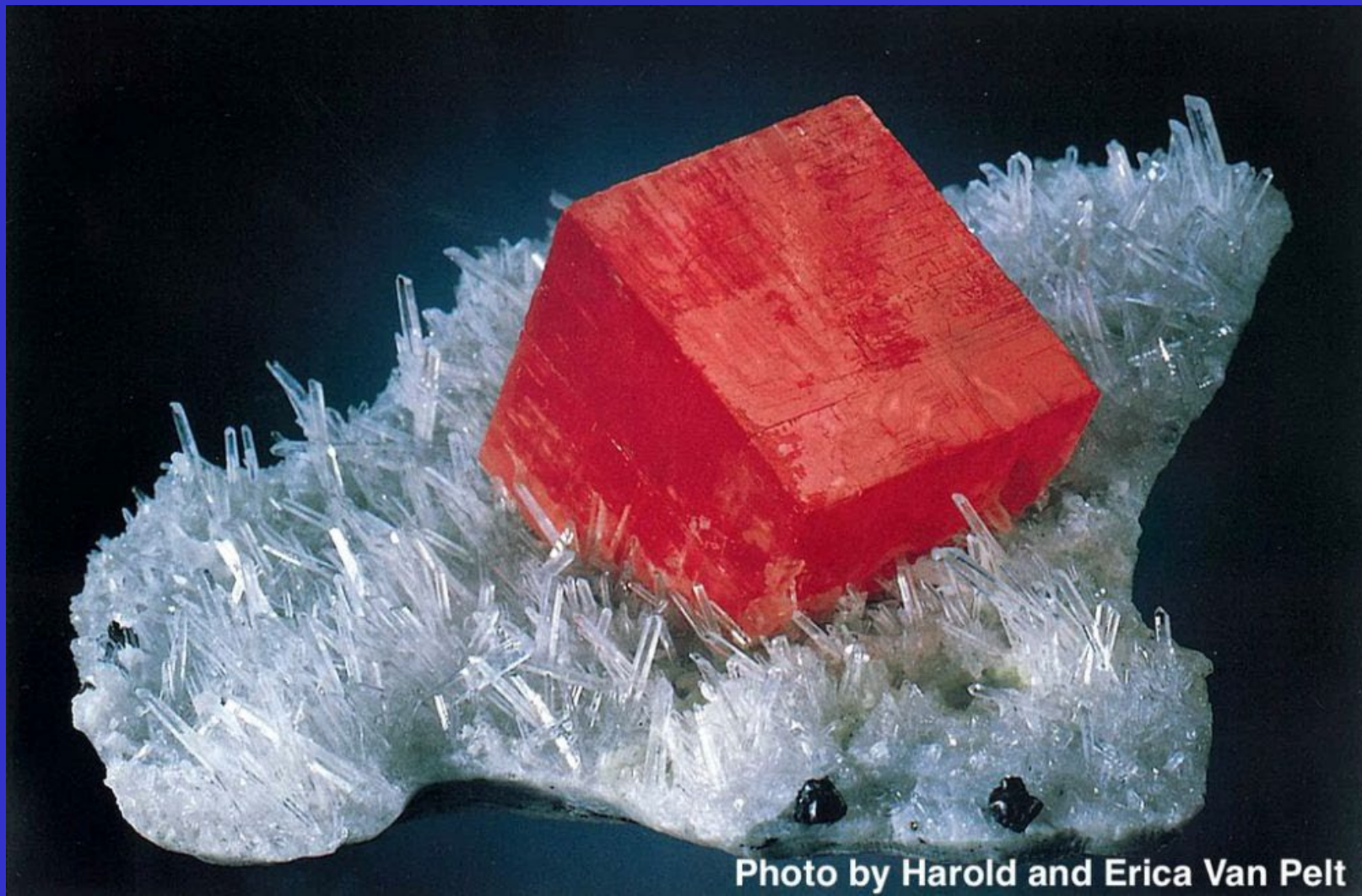




# Unnamed Rhodochrosite

Rhodochrosite on Quartz and Tetrahedrite (10 cm)

Blueberry Pocket, GPR Drift, Sweet Home Mine - Alma, CO





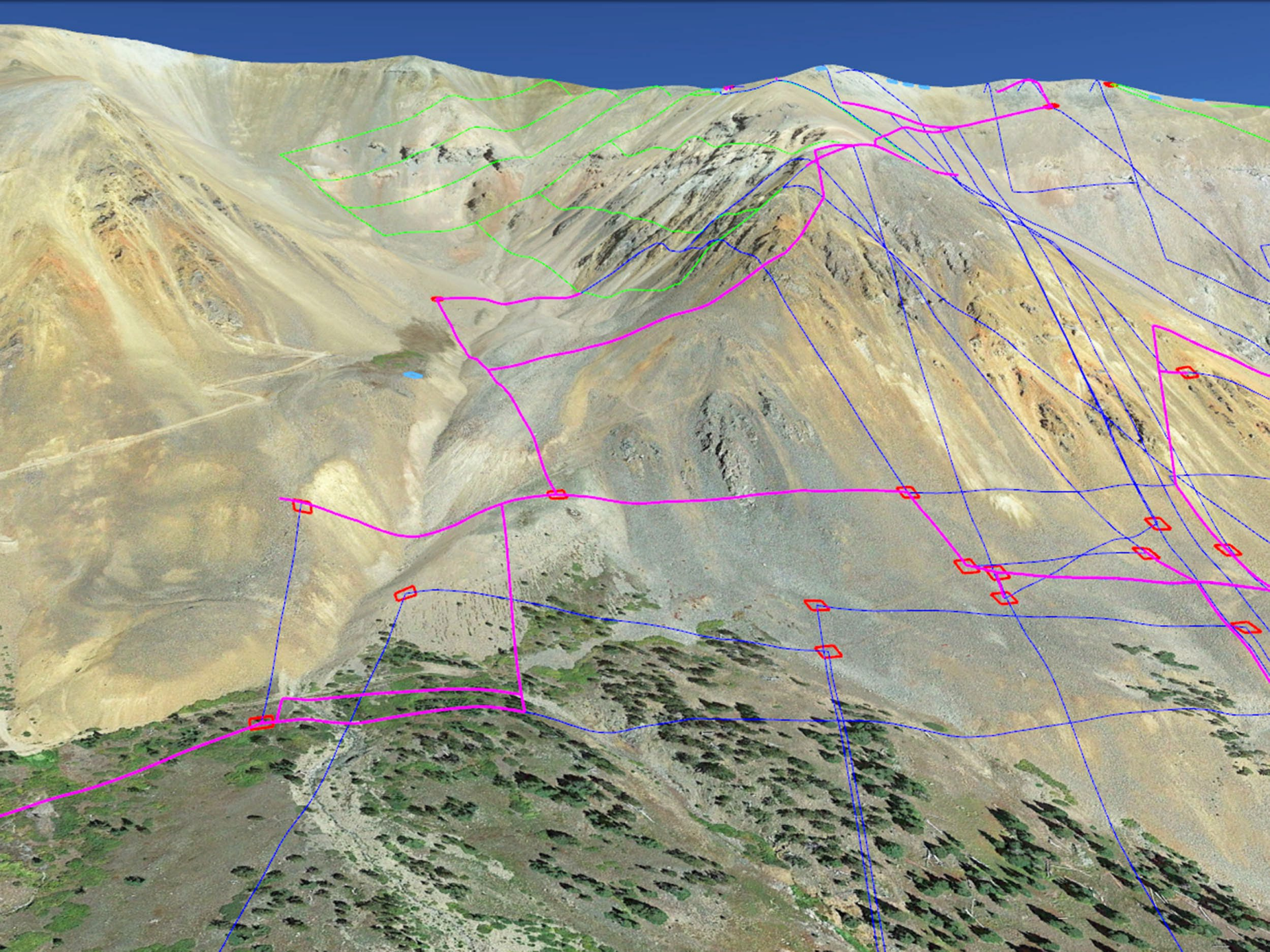
## Example of a Naturally Moving Stone

In Colorado, it is not permitted to reference virtual corners. A monument must be set at the corner, or a witness corner on one of the survey lines (or extension) or two reference monuments that are to be set as close as practicable.

Not only is the corner moving, but the two steel fence posts and the wooden traverse stake are moving at approximately the same horizontal velocity; that being 0.16 ft./yr. The movement is due to a geologic mass wasting process; specifically talus creep.

Any suggestions on what to name or how to adequately describe this naturally moving stone? If not, I coined a term that seems appropriate for this situation.









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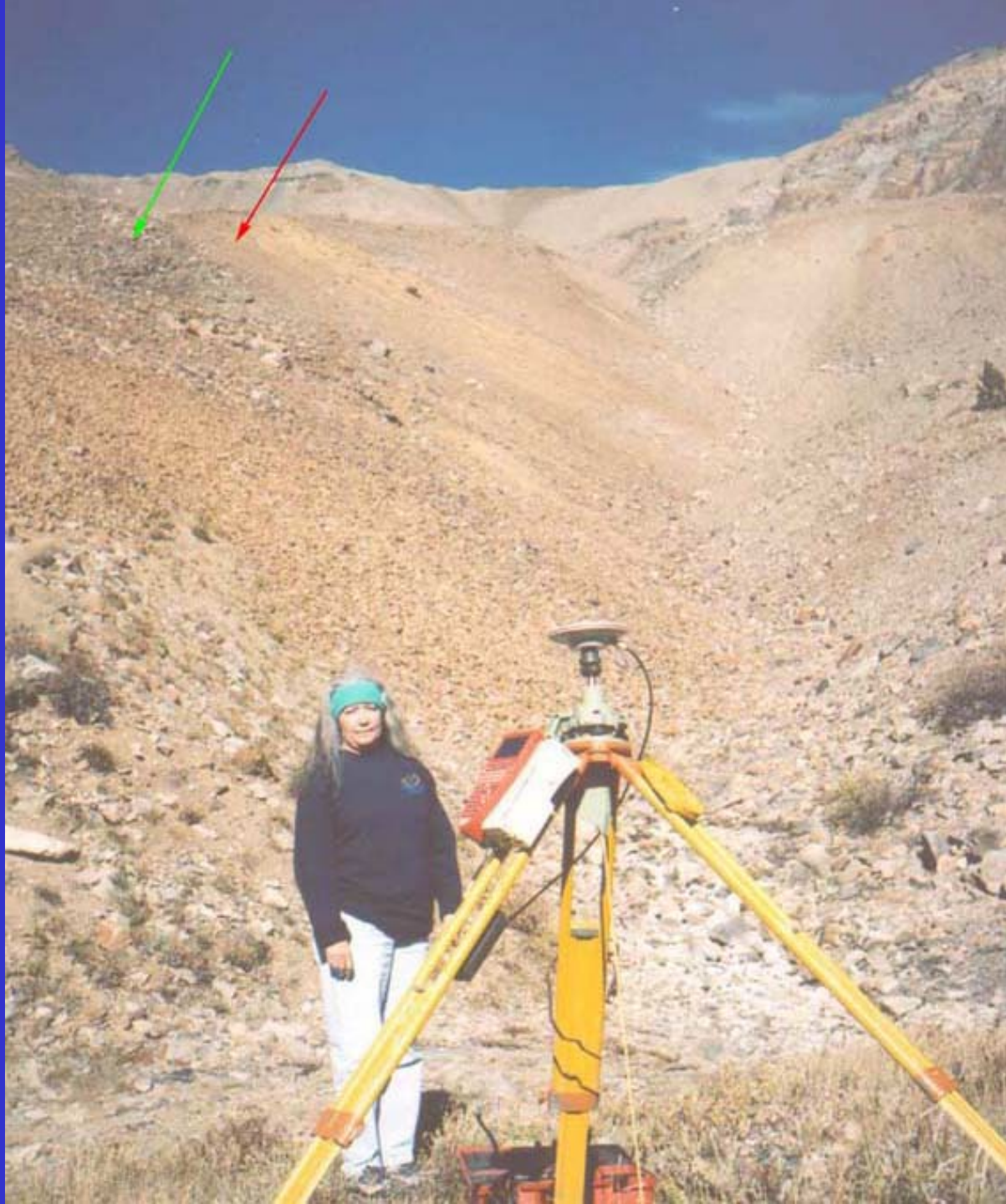
4

48

48









① 225.5 " N 46 13 E 21° 15' up 45

210.17

T 45

~~257.4~~

277.4

16° 32' up 46

265.93 = 680.38

leaving this line

T 43

369.1

N 40° W

0° 10' up

① 47

15 38.15

369.0

1' = 38.15' too far

10' beyond north

edge of ravine

4

136.85

86° 19' LFS S 53° 41' W

20° 47' D

① 48

127.94

T 48

457.1

"

"

27° 55' D

① 49

403.9 = 531.84

69.40 to go

thence N. 40° W 330.85' to C. 1

Quit:



Oct 5, 1934

Set corner stones on Swt Home group as follows:

1- <del>B</del>	20504A	Porphyry	<sup>5'30</sup> 9" x 12" x 24"	Depth 6"
2- <del>B</del>	20504A	Diorite Porphyry	12" x 14" x 30"	10"
3 S.W.F.	20504A	Diorite Porphyry	12" x 21" x 24"	10"
NG. 2	K.	20504A	mica schist	6" x 18" x 27" 1'-0"
2	S.W.F.	20504A	Diorite Porphyry	9" x 12" x 22" 6"







































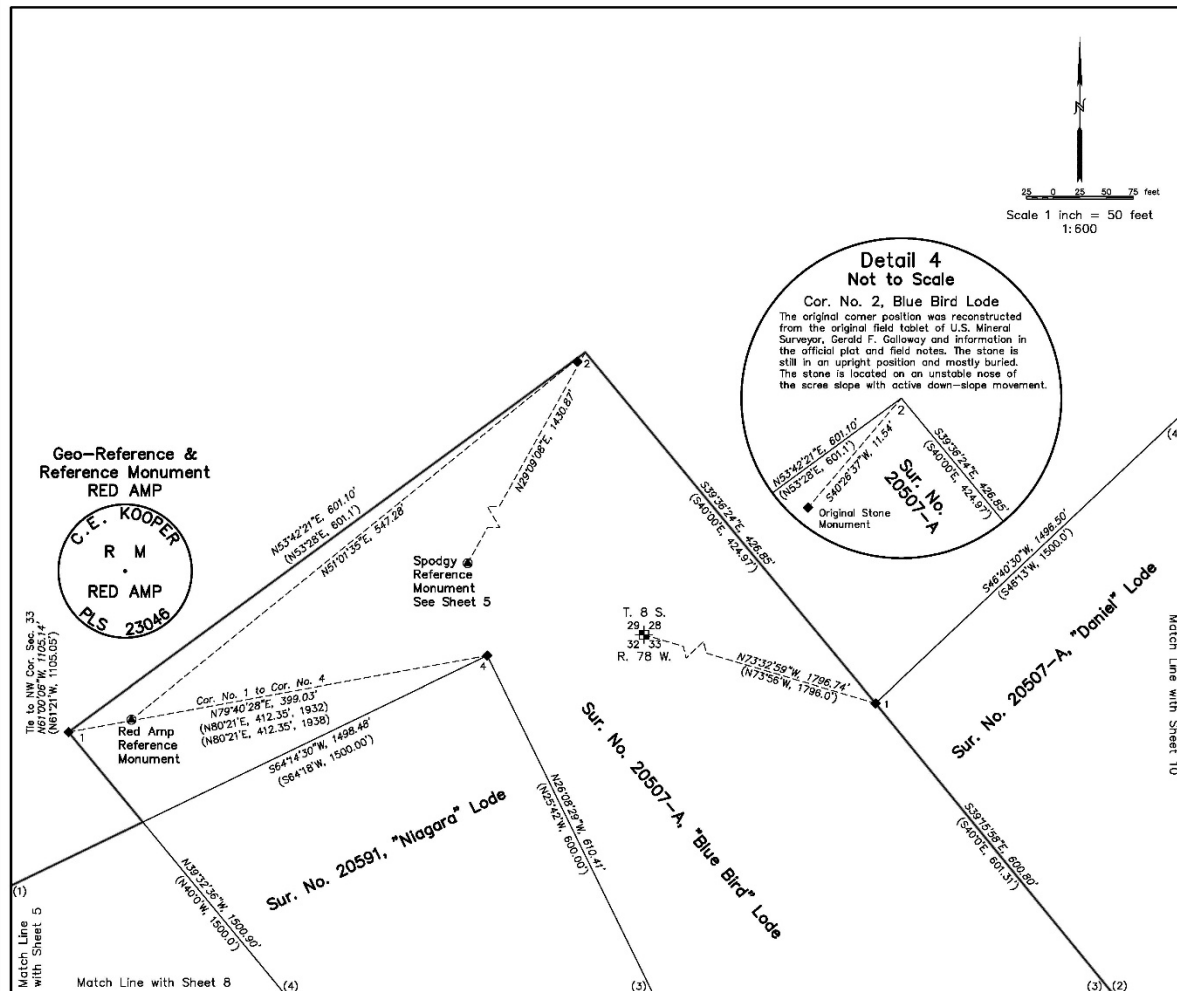




# LOT CONSOLIDATION PLAT

CONSOLIDATION OF SEVEN (7) PATENTED AND CONTIGUOUS LODE MINING CLAIMS  
THOSE BEING THE PULASKI, DETROIT CITY, ENTERPRISE, BLUE BIRD,  
SWEET HOME FRACTION, NIAGARA AND BUSHWHACKER LODE CLAIMS  
ALL LOCATED IN THE NORTHERN ONE-HALF OF SECTION 33, TOWNSHIP 8 SOUTH,  
RANGE 78 WEST, SIXTH PRINCIPAL MERIDIAN, PARK COUNTY, COLORADO

SHEET 7 OF 13



## MINERAL SURVEY CORNER & REFERENCE MONUMENT DESCRIPTIONS:

**Corner No. 1, Blue Bird Lode Claim, U.S. Mineral Survey No. 20507-A.**  
Found original stone monument, a quartz monzonite porphyry stone 12 x 9 ins. and protruding 13 ins. above the ground surface with mound of stone. Corner location is a chiseled "+" on top of stone. South face is chiseled with "1-B-20507-A". Monument in good condition. Original call is for a porphyry stone 24 x 12 x 9 ins., 12 ins. in the ground, with a mound of stone. Original bearing tree is a 14 ins. dia. Bristlecone pine with the blaze nearly closed. From the corner, the face of the blaze is N73°30'E, 7.9 ft. (record is a spruce tree, 8 ins. diam., bears N74°10'E, 7.2 ft.).

**Note:** This lode claim was originally included in U.S. Mineral Survey 20504, but later removed and included in U.S. Mineral Survey 20507-A. The chiseling on the monument shows the correction to the U.S. Mineral Survey number by a "7" being deeply chiseled over the "4". The stone was disturbed by vandals and reestablished in its original position by using the accessories established on August 6, 2001 and included in a monument record filed on January 18, 2002 with the Board of Registration for Professional Engineers and Professional Land Surveyors.

**Corner No. 2, Blue Bird Lode Claim, U.S. Mineral Survey No. 20507-A.**  
Found original stone monument, a quartz monzonite porphyry stone approx. 12 x 10 ins. and protruding 2 to 14 ins. above the ground surface with no discernable mound of stone (buried in scree). Corner location is a chiseled "+" on top of stone. South face is chiseled with "2-B-20504-A".

**Note:** This lode claim was originally included in U.S. Mineral Survey 20504, but later removed and included in U.S. Mineral Survey 20507-A. The monument was not rechiseled to show the correct U.S. Mineral Survey number. Monument in good condition, however the stone has moved downhill from where it had originally been established in 1932. Original call is for a diorite porphyry stone 30 x 14 x 12 ins., 10 ins. in the ground, with a mound of stone. The stone has moved 11.5 ft. downhill from its officially established position in 1932 (0.14 ft./yr.). The stone was surveyed in 2005 and 2016, which shows a velocity down the fall line of (0.16 ft./yr.). Accessories set in 2002 show similar downhill movement. No monument was set at the corner due to slope instability. Two connections from reference monuments Red Amp and Spodgy are N51°01'35"E, 547.28 ft. and N29°09'08"E, 1430.87 ft., respectively.

**Corner No. 1, Daniel Lode Claim, U.S. Mineral Survey No. 20507-A.**  
Found original stone monument, a banded granitic gneiss stone 18 x 10 ins. protruding 14 ins. above the ground surface in a mound of stone. Corner location is a chiseled "+" on top of the stone. South face is chiseled with "1-D-20504-A". Monument is in good condition. Original call is for a granite stone 30 x 18 x 10 ins., 16 ins. in the rock slide, with a mound of stone.

**Note:** This lode claim was originally included in U.S. Mineral Survey 20504, but later removed and included in U.S. Mineral Survey 20507-A. The chiseling on the monument shows the correction to the U.S. Mineral Survey number by an "x" over the "4" and the "-" becoming the top of a "7". Angle Point on Line 2-3 of the Blue Bird Lode.

**Corner No. 4, Niagara Lode Claim, U.S. Mineral Survey No. 20591.**  
Found original stone monument, a limestone rock 12 x 6 ins. protruding 12 ins. above the ground surface in a mound of stone covered by soil. Corner location is a chiseled "+" on top of stone. West face is chiseled with "4-N-20591". Monument in good condition. Original call is for a limestone rock 24 x 12 x 6 ins., 12 ins. in the ground and surrounded with a mound of stone.

**Survey Control Station and Reference Monument, "Red Amp"**  
The Red Amp survey control station was established in 2005 as a base station for a real-time kinematic (RTK) GPS survey. The monument was upgraded from a bare 18" long No. 5 rebar to a 2-1/2" aluminum cap affixed to a 30" long No. 6 rebar. The cap is positioned as shown in the cap detail on this plat sheet.

**Notice:** According to Colorado law, you must commence any legal action based upon any defect in this survey within three years after you first discover such defect. In no event may any action based upon any defect in this survey be commenced more than ten years from the date of the certification shown hereon.

## SURVEYOR'S CERTIFICATE:

I, C. Eugene Kooper, a Professional Land Surveyor in the State of Colorado, hereby certify that the survey and plat of the real property shown and described hereon was performed solely by me in strict compliance with Section 38-51-106, Colorado Revised Statutes, and that both survey and plat are true, accurate and complete.



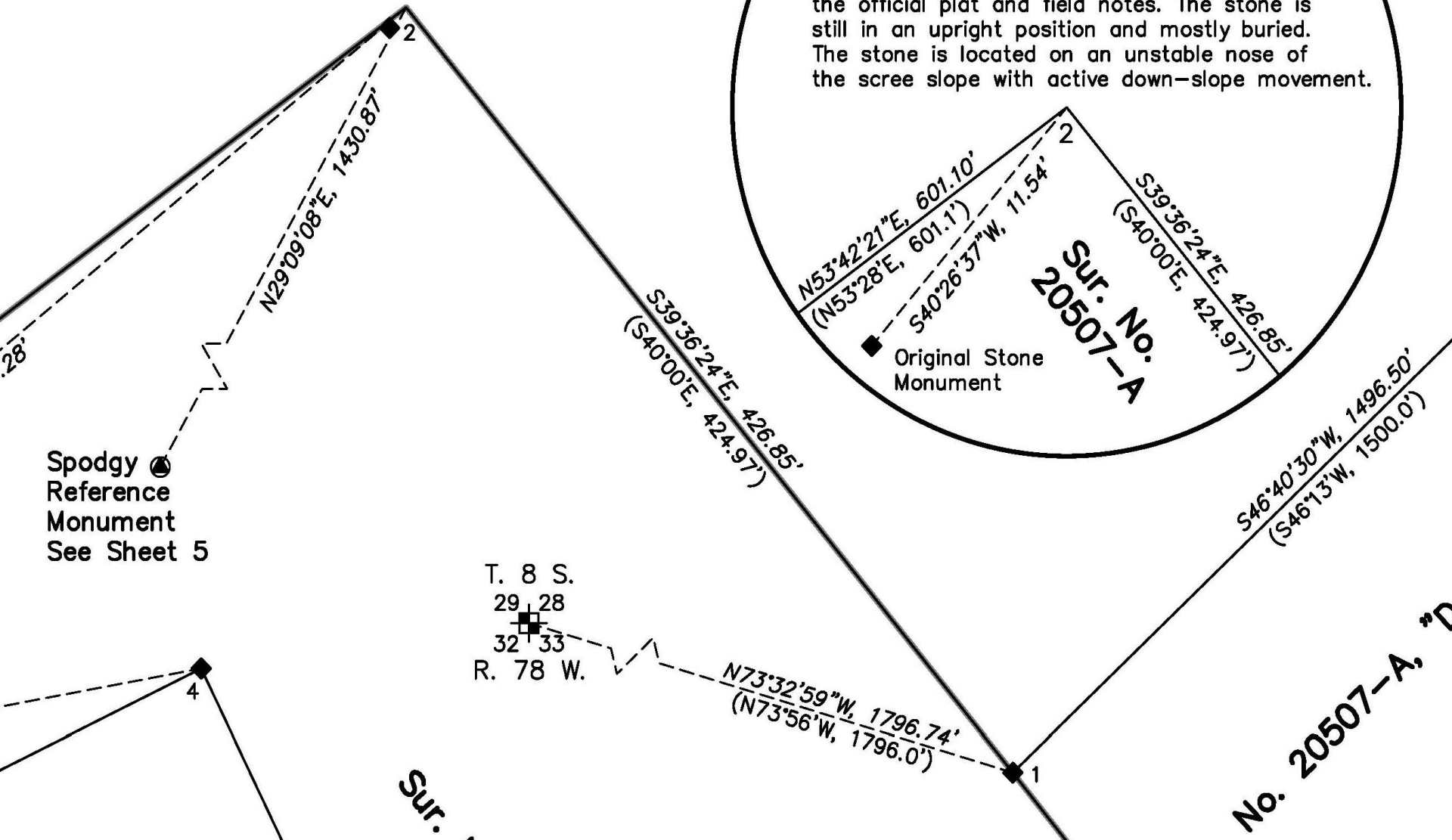
C. Eugene Kooper, P.L.S. 23046



# Detail 4 Not to Scale

## Cor. No. 2, Blue Bird Lode

The original corner position was reconstructed from the original field tablet of U.S. Mineral Surveyor, Gerald F. Galloway and information in the official plat and field notes. The stone is still in an upright position and mostly buried. The stone is located on an unstable nose of the scree slope with active down-slope movement.





Corner No. 2, Blue Bird Lode Claim, U.S. Mineral Survey No. 20507-A.

Found original stone monument, a quartz monzonite porphyry stone approx. 12 x 10 ins. and protruding 2 to 14 ins. above the ground surface with no discernable mound of stone (buried in scree). Corner location is a chiseled "+" on top of stone. South face is chiseled with "2-B-20504-A".

**Note:** This lode claim was originally included in U.S. Mineral Survey 20504, but later removed and included in U.S. Mineral Survey 20507-A. The monument was not rechiseled to show the correct U.S. Mineral Survey number. Monument in good condition, however the stone has moved downhill from where it had originally been established in 1932. Original call is for a diorite porphyry stone 30 x 14 x 12 ins., 10 ins. in the ground, with a mound of stone. The stone has moved 11.5 ft. downhill from its officially established position in 1932 (0.14 ft./yr.). The stone was surveyed in 2005 and 2016, which shows a velocity down the fall line of (0.16 ft./yr.). Accessories set in 2002 show similar downhill movement. No monument was set at the corner due to slope instability. Two connections from reference monuments Red Amp and Spodgy are N51°01'35"E, 547.28 ft. and N29°09'08"E, 1430.87 ft., respectively.



# Unnamed Rhodochrosite

Rhodochrosite  
(9 x 7.5 x 7 cm)

Good Luck Pocket  
Sweet Home Mine  
Alma, Colorado

Photograph by  
Joe Budd





# Unnamed Rhodochrosite

Rhodochrosite on  
Tetrahedrite  
(9 x 13 x 7.5 cm)

Sweet Home Mine  
Alma, Colorado

Photograph by  
Stuart Wilensky





# **Another Example of a Moving Stone**

**Cor. No. 4, Enterprise Lode, Sur. No. 8413**









843

























(1)

(2)

4

3





8413



















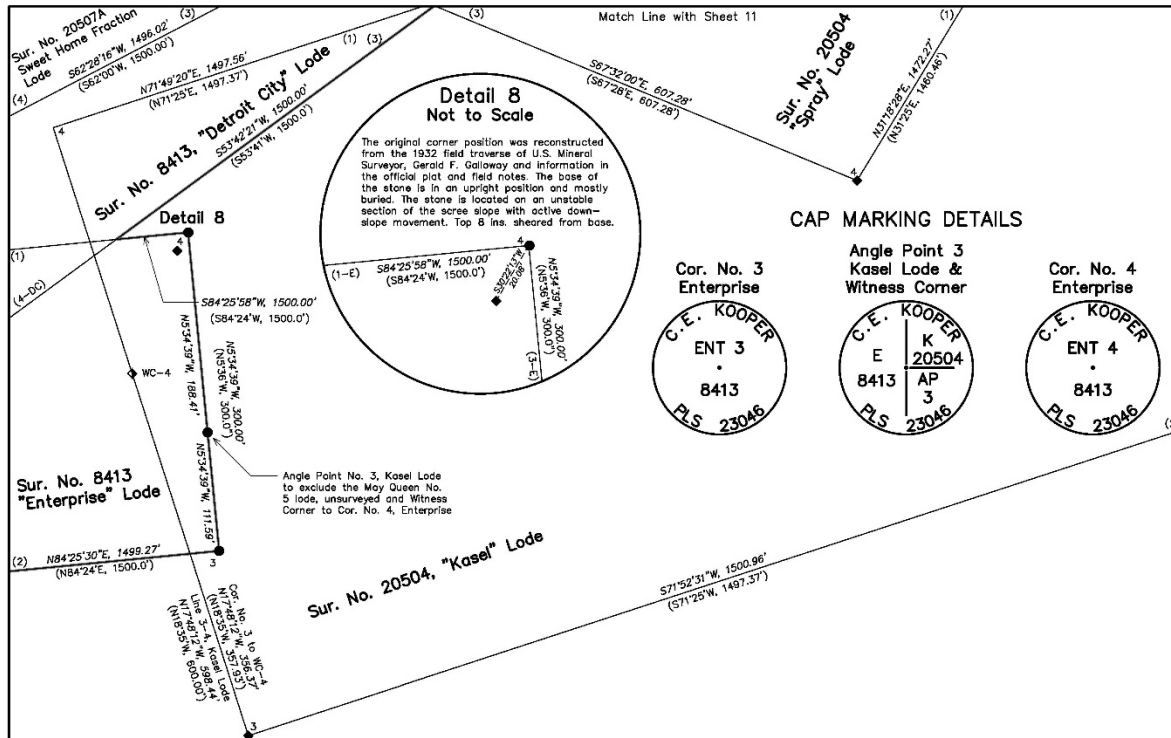




# LOT CONSOLIDATION PLAT

CONSOLIDATION OF SEVEN (7) PATENTED AND CONTIGUOUS LODE MINING CLAIMS  
THOSE BEING THE PULASKI, DETROIT CITY, ENTERPRISE, BLUE BIRD,  
SWEET HOME FRACTION, NIAGARA AND BUSHWHACKER LODE CLAIMS  
ALL LOCATED IN THE NORTHERN ONE-HALF OF SECTION 33, TOWNSHIP 8 SOUTH,  
RANGE 78 WEST, SIXTH PRINCIPAL MERIDIAN, PARK COUNTY, COLORADO

SHEET 12 OF 13



## SET MINERAL SURVEY CORNER DESCRIPTIONS:

### Set Cor. No. 3, Enterprise Lode, U.S. Mineral Survey No. 8413.

A 2- $\frac{1}{2}$ " aluminum cap affixed to a 30" No. 6 rebar was set at the corner position. See cap markings this sheet.

### Set Angle Point No. 3 and Witness Corner to Cor. No. 4, Enterprise Lode.

A 2- $\frac{1}{2}$ " aluminum cap affixed to a 30" No. 6 rebar was set at the corner position and as a witness to the movement of the monument at Cor. No. 4 of the Enterprise Lode. See cap markings this sheet.

### Set Cor. No. 4, Enterprise Lode, U.S. Mineral Survey No. 8413.

A 2- $\frac{1}{2}$ " aluminum cap affixed to a 30" No. 6 rebar was set at the corner position. See cap markings this sheet. Due to slope instability this is an ambulatory witness to the true corner position.

## MINERAL SURVEY CORNER DESCRIPTIONS:

### Corner No. 4, Enterprise Lode Claim, U.S. Mineral Survey No. 8413.

Found original stone monument, a granitic gneiss stone 16 x 7 ins. with the top 8 ins. of stone cleaved from the base. Monument base is partially fractured but the core is stable and in large mound of stone. The top 8 ins. of monument and the remaining base fit each other very well. The monument lies within a debris flow in the scree slope and has been moving down slope at an average velocity of 0.15 ft. per year since it was officially established on June 27, 1893 by U.S. Deputy Mineral Surveyor, W.H. Powers. Corner location is the high point of repaired stone. Southwest face is chiseled with "4-8413". Original call is for a porphyry rock 29 x 12 x 7 ins.

A 30 ins. long No. 6 rebar with 2- $\frac{1}{2}$ " aluminum cap stamped ENT-4-8413 was set at the original corner position as determined by the record courses and distances. The original stone bears  $S30^{\circ}22'13''W$ , 20.08 ft. The modern monument is also moving downslope at a rate of 0.15 ft. per year. The original and modern monuments have moved downslope en masse with the surrounding rocks so that the monuments are still in upright positions. Therefore, the true corner position is based on connections from the two reference monuments Main ( $N70^{\circ}02'58''E$ , 824.40') and Spodgy ( $S71^{\circ}04'58''E$ , 1507.94'), which are located below the scree slope in stable ground.

### Corner No. 3, Kasel Lode Claim, U.S. Mineral Survey No. 20504.

Found original stone monument, a granite porphyry stone 18 x 10 ins. and protruding 18 ins. above the ground surface. Stone is leaning slightly downhill in a prominent mound of stone. Corner location is a chiseled "+" on top of the stone. The northeast face is chiseled with "1-3-K-20504-A". Original call is for a porphyry stone 24 x 18 x 10 ins., 13 ins. in the ground, with a mound of stone.

Note: U.S. Mineral Survey 20504 originally included a mill site that was later removed from the survey. The chiseling on the northeast face of the stone includes an "A" below the survey number "20504". This lode claim was originally connected to the S.  $\frac{1}{4}$  Cor. of Sec. 33, but later required to be connected to the NE Cor. of Sec. 33, thus requiring the claim corners to be renumbered. The new corner number "3" is chiseled below the original corner number "1".

### Witness Corner to Corner No. 4, Kasel Lode Claim, U.S. Mineral Survey No. 20504.

Found original stone monument, a dark gray schist stone 18 x 5 ins. protruding 15 ins. out of the ground in a small mound of stone. Corner location is a chiseled "X" in the top of the stone. The south face is chiseled "WC-4-K-20504". Monument is in good condition. Original call is for a schist stone 27 x 18 x 6 ins., 12 ins. in the ground.

Note: The chiseling on the south face of the stone includes a defaced "A" to the right of the survey number "20504". This lode claim was originally connected to the S.  $\frac{1}{4}$  Cor. of Sec. 33, but later required to be connected to the NE Cor. of Sec. 33, thus requiring the claim corners to be renumbered. The new corner number "4" is chiseled above the crossed-out corner number "2".

### Corner No. 4, Spray Lode Claim, U.S. Mineral Survey No. 20504.

Found original stone monument, a banded gneiss stone 10 x 7 ins. protruding 18 ins. above the ground surface. Stone is leaning slightly downhill. Evidence of a mound only apparent on the uphill side of stone. Reestablished the stone to an upright position. Rebuilt mound of stone. Corner location is a chiseled slot on top of the stone. The north face is chiseled with "4-S-20504". Original call is for a porphyry stone 27 x 10 x 6 ins., set 15 ins. in the rock slide, with a mound of stone.

Note: U.S. Mineral Survey 20504 originally included a mill site that was later removed from the survey. The chiseling on the north face of the stone includes an "A" below the survey number "20504". This lode claim was originally connected to the S.  $\frac{1}{4}$  Cor. of Sec. 33 and later required to be connected to the Northeast Cor. of Sec. 33. The new corner number "4" is chiseled over the original corner number "1".

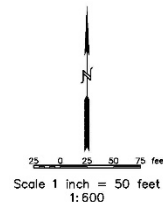
Notice: According to Colorado law, you must commence any legal action based upon any defect in this survey within three years after you first discover such defect. In no event may any action based upon any defect in this survey be commenced more than ten years from the date of the certification shown hereon.

## SURVEYOR'S CERTIFICATE:

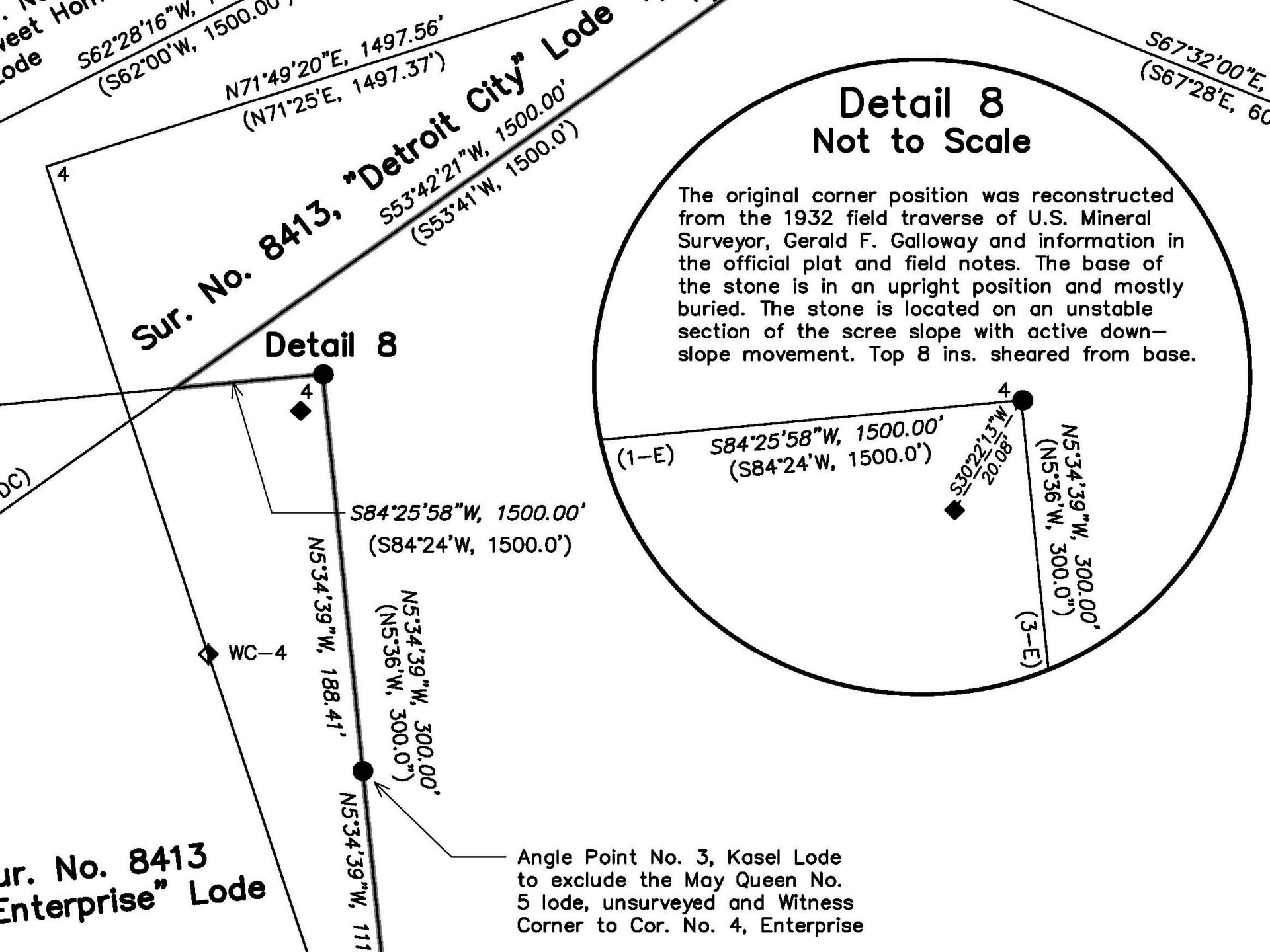
I, C. Eugene Kooper, a Professional Land Surveyor in the State of Colorado, hereby certify that the survey and plat of the real property shown and described hereon was performed solely by me in strict compliance with Section 38-51-106, Colorado Revised Statutes, and that both survey and plat are true, accurate and complete.



C. Eugene Kooper, P.L.S. 23046







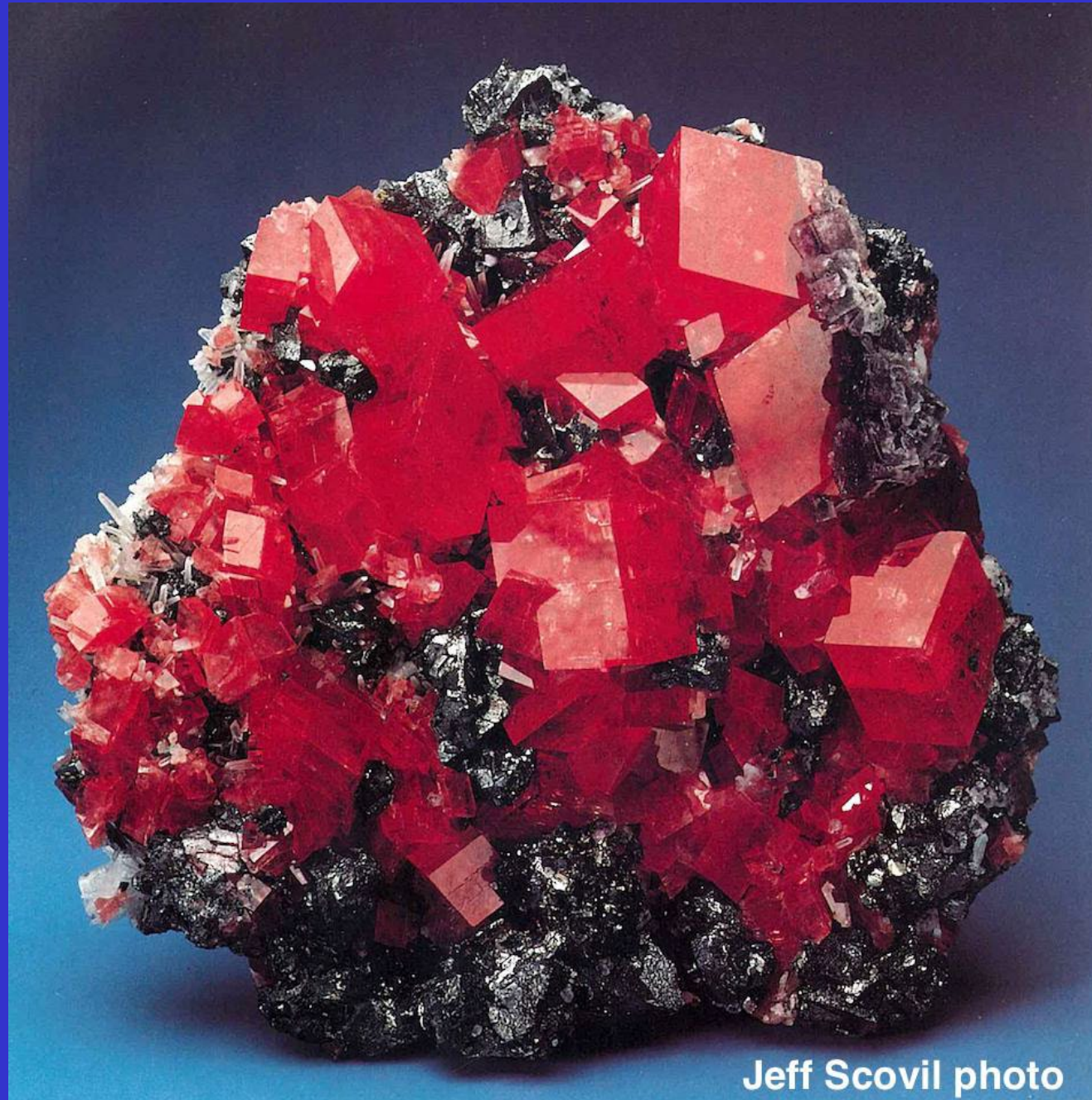


# Unnamed Rhodochrosite

Rhodochrosite with  
Fluorite on  
Tetrahedrite  
(13.2 cm)

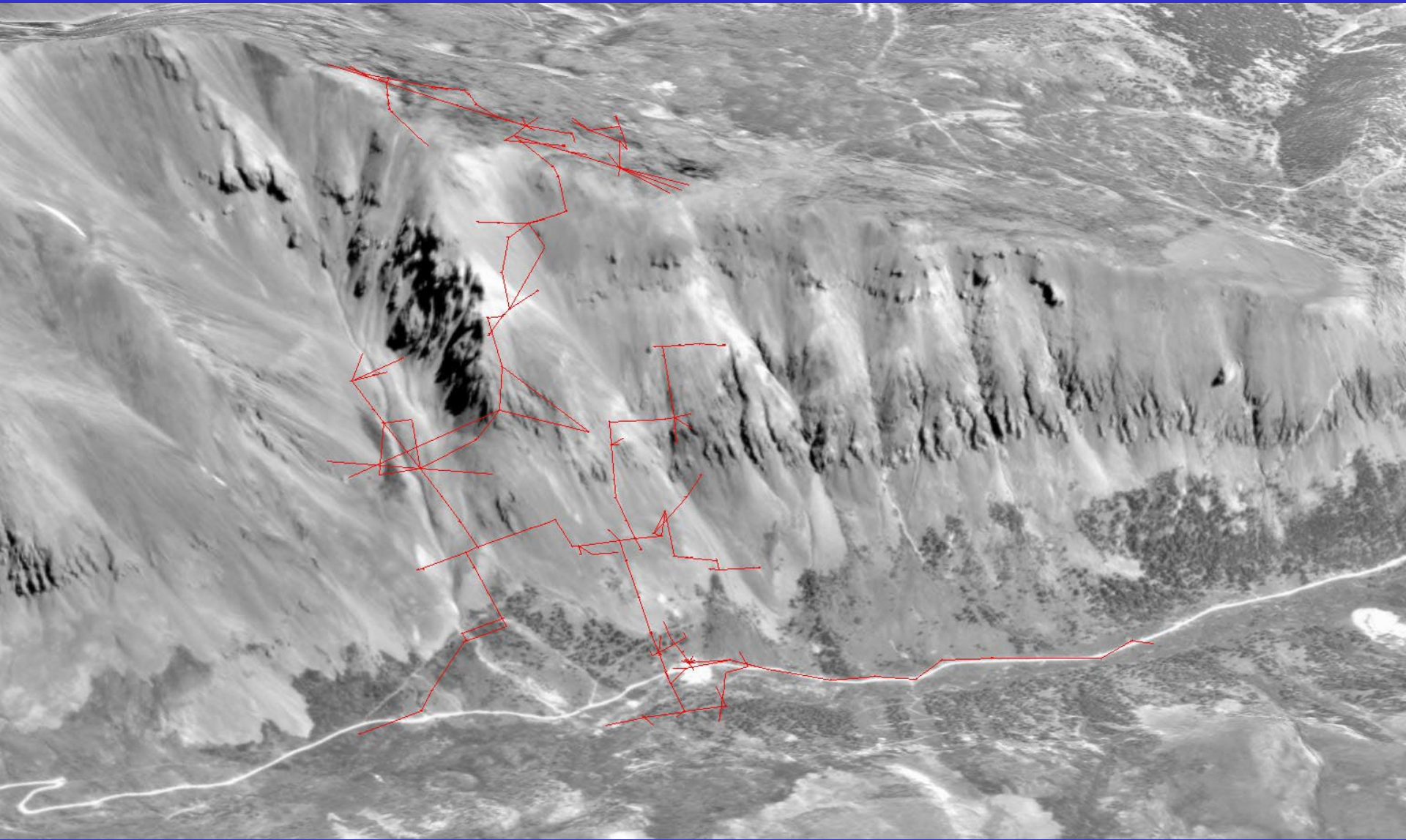
Corner Pocket  
Watercourse Raise  
Sweet Home Mine  
Alma, Colorado

Photograph by  
Jeff Scovil



Jeff Scovil photo













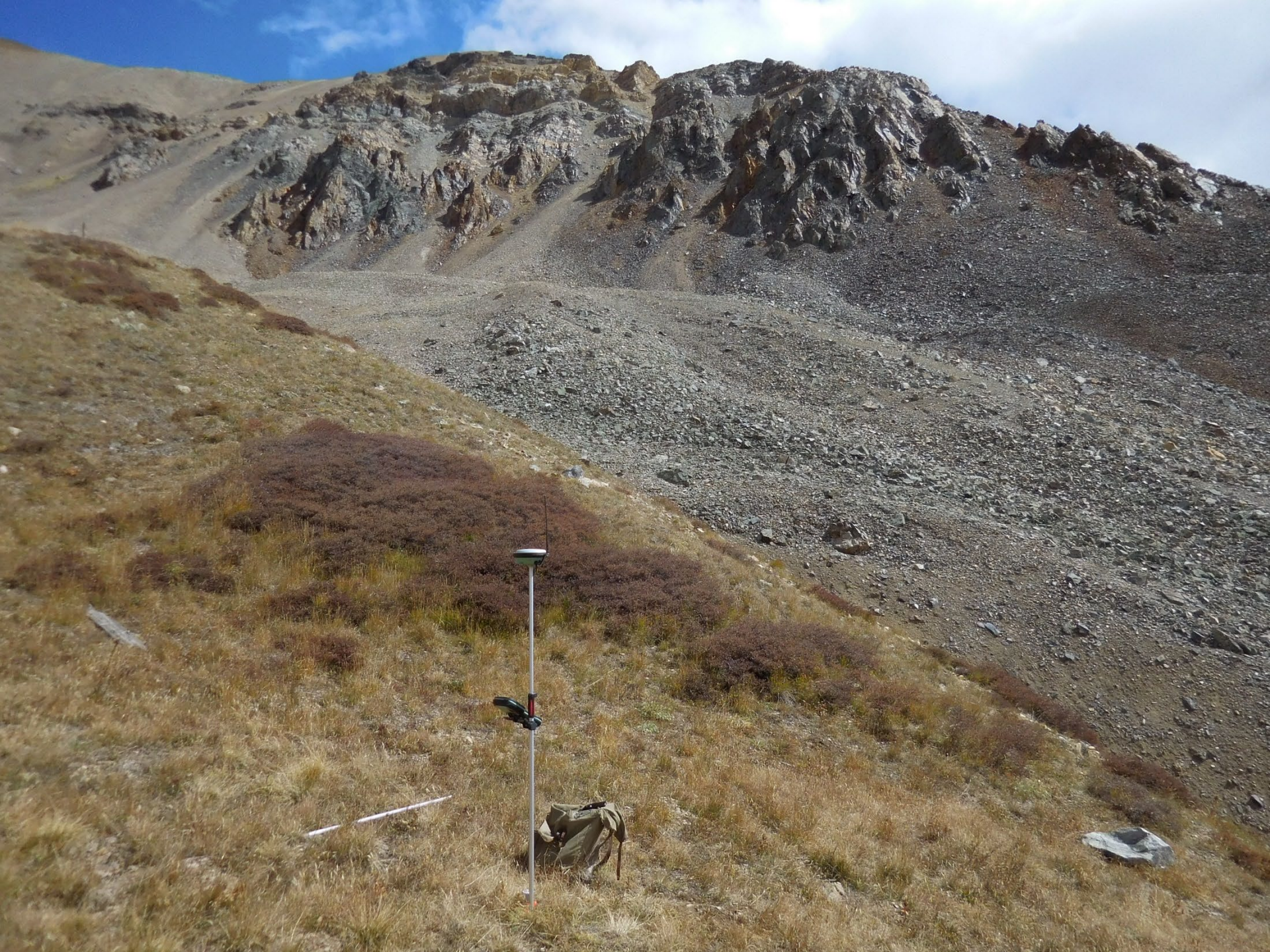
















G.E. KOOPER

WC - 2S

205046

PLS 23046









C. E. KOOPER

W C

1 - S

20504

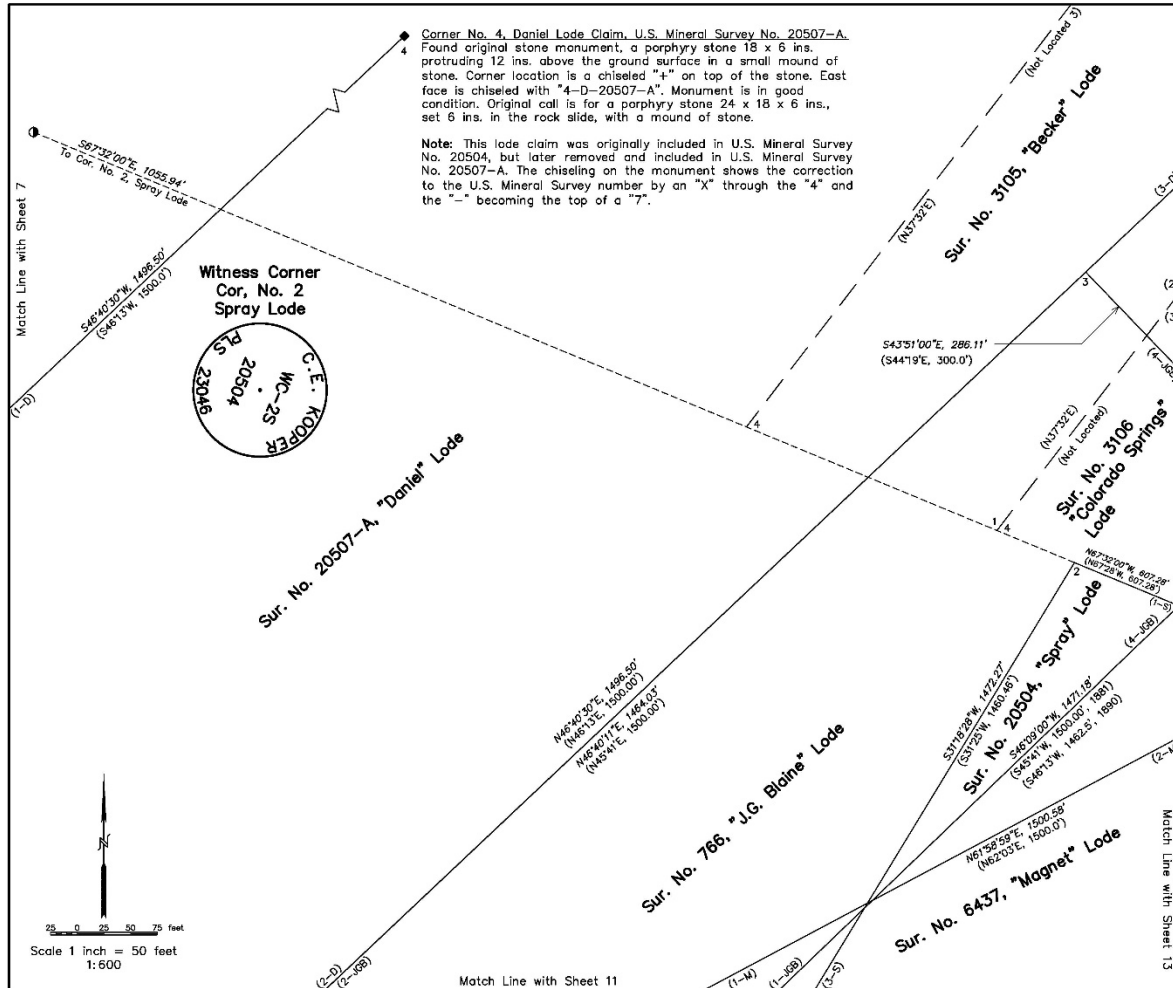
PLS 23046



# LOT CONSOLIDATION PLAT

CONSOLIDATION OF SEVEN (7) PATENTED AND CONTIGUOUS LODE MINING CLAIMS  
THOSE BEING THE PULASKI, DETROIT CITY, ENTERPRISE, BLUE BIRD,  
SWEET HOME FRACTION, NIAGARA AND BUSHWHACKER LODE CLAIMS  
ALL LOCATED IN THE NORTHERN ONE-HALF OF SECTION 33, TOWNSHIP 8 SOUTH,  
RANGE 78 WEST, SIXTH PRINCIPAL MERIDIAN, PARK COUNTY, COLORADO

SHEET 10 OF 13



## MINERAL SURVEY CORNER DESCRIPTIONS:

**Corner No. 1, Sweet Home Mill Site, U.S. Mineral Survey No. 20507-B.**  
Found original stone monument, a granitic gneiss stone 13 x 5 ins. and protruding 12 ins. above the ground surface with mound of stone. Corner location is a chiseled "+" on top of stone. South face is chiseled with "1-SHMS-20507-B" and the north face with "3-17480". Monument is in good condition. Original call is for a schist stone 26 x 10 x 4 ins. set 16 ins. in the ground. Note: The mill site's original field notes place the position of Corner 3, Sunflower 2 lode claim as being N26°51'W, a distance of 0.79 ft. which does not fall on the stone.

The evidence indicates that the stone was rotated 180° and moved 0.79 ft. along Line 3-4 of the Sunflower No. 2 Lode so that it would also be on the calculated position of Line 2-3 of the Enterprise Lode Claim, Sur. No. 6413 during the field survey of Sur. No. 20507-B (from its originally set position as described in Sur. No. 17480). This movement is verified by the tie to the bearing rock for Cor. No. 3 of the Sunflower No. 2 Lode Claim, Sur. No. 17480 (N16°56'W, 1.09 ft.). This mill site was originally included in U.S. Mineral Survey 20504, but later removed and included in U.S. Mineral Survey 20507-B. The chiseling on the monument shows a "7" deeply chiseled over the "4" to make the correction to the U.S. Mineral Survey number.

**Corner No. 2, Sweet Home Mill Site, U.S. Mineral Survey No. 20507-B.**  
Found original stone monument, a banded-granitic gneiss 16 x 6 ins. protruding 3 ins. above the ground surface with mound of stone. Corner location is a chiseled "+" at north end of stone. West face is chiseled with "2-SHMS-20507-B". Monument is in good condition. Original call is for a limestone 26 x 18 x 4 ins. set 16 ins. in the ground. However the original call for Cor. No. 2 was a stone that became Cor. No. 4. The General Land Office required the mill site to go around the Detroit City Lode and the mill site went from four corners to six corners. See note on Plat Sheet 9.

**Witness Corner to Cor. No. 3, Sweet Home Mill Site, U.S. Mineral Survey No. 20507-B.**  
Found original stone monument, a granitic gneiss stone 29 x 16 x 8 ins. lying flat on ground surface. No mound of stone found at the surface. Corner location is a chiseled "X" in top of stone. West face is chiseled with "WC-3-SHMS-20507-B". Original call is for a granite stone 29 x 16 x 8 ins. in ground with mound of stone. Excavated one foot below the stone and found a small scotch bottle left as a memorial. Found a small ring of stones at same level as the bottle. Re-established original stone monument above bottle memorial and rebuilt mound of stone.

**Corner No. 4, Sweet Home Mill Site, U.S. Mineral Survey No. 20507-B.**  
Found original stone monument, a limestone 30 x 18 x 4 ins. and protruding 20 ins. above the ground surface with mound of stone. Corner location is a chiseled "+" on top of stone. West face is chiseled with "4-SHMS-20507-B". Monument leans downhill. Restored original stone monument to a vertical position in the center of the mound of stone. Rebuilt mound of stone. Original call is for a granite stone 25 x 10 x 9 ins. (Corner 2 of this survey calls for a limestone 31 x 18 x 4 ins.).

Restored original stone monument to a vertical position in the center of the mound of stone. Rebuilt mound of stone. This stone was originally Cor. No. 2 of the mill site. It was changed to Cor. No. 4 so as to exclude the area in conflict with the Detroit City Lode, Sur. No. 8413. The number "4" is chiseled over the "2" as originally numbered.

**Set Witness Corner to Cor. No. 2, Spray Lode, U.S. Mineral Survey No. 20504.**  
A 2-1/2" aluminum cap affixed to a 30" No. 6 rebar was set as a witness corner. See cap markings this sheet and sheet 13. The witness corners were established on the reconstruction of the common boundary line of the Tiger Lode, Sur. No. 3103, Colorado Springs Lode, Sur. No. 3106, Magnet Lode, Sur. No. 6437, and the Spray Lode, Sur. No. 20504 as defined by the 1932 tie to Cors. No. 3 and 1, Tiger and Colorado Springs lodes. The bearing of Line 2-1, Spray is S67°32'00"E. The distances from WC-2, Spray are: 1282.62' to Cors. Nos. 3, Tiger and 1, Colorado Springs; 1302.84' to Cor. No. 2, Magnet; 1663.22' to Cor. No. 1, Spray; and 1890.75' to Cors. No. 3, Magnet.

**Notice:** According to Colorado law, you must commence any legal action based upon any defect in this survey within three years after you first discover such defect. In no event may any action based upon any defect in this survey be commenced more than ten years from the date of the certification shown hereon.

## SURVEYOR'S CERTIFICATE:

I, C. Eugene Kooper, a Professional Land Surveyor in the State of Colorado, hereby certify that the survey and plat of the real property shown and described hereon was performed solely by me in strict compliance with Section 38-51-106, Colorado Revised Statutes, and that both survey and plat are true, accurate and complete.

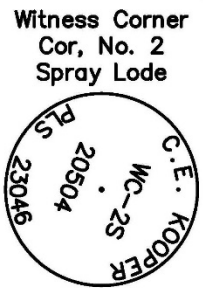


C. Eugene Kooper, P.L.S. 23046



**Corner No. 4, Daniel Lode Claim, U.S. Mineral Survey No. 20507-A.**  
 Found original stone monument, a porphyry stone 18 x 6 ins. protruding 12 ins. above the ground surface in a small mound of stone. Corner location is a chiseled "+" on top of the stone. East face is chiseled with "4-D-20507-A". Monument is in good condition. Original call is for a porphyry stone 24 x 18 x 6 ins., set 6 ins. in the rock slide, with a mound of stone.

**Note:** This lode claim was originally included in U.S. Mineral Survey No. 20504, but later removed and included in U.S. Mineral Survey No. 20507-A. The chiseling on the monument shows the correction to the U.S. Mineral Survey number by an "X" through the "4" and the "-" becoming the top of a "7".



Sur. No. 20507-A, "Daniel" Lode

Sur. No. 3105, "Becker" Lode

Sur. No. 3106 "Colorado Springs" Lode

Sur. No. 766, "J.G. Blaine" Lode

Sur. No. 20504, "Spray" Lode

Sur. No. 6437, "Magnet" Lode

S67°32'00"E, 1055.94'  
 To Cor. No. 2, Spray Lode

S46°40'30"W, 1496.50'  
 (S46°13'W, 1500.0')

S43°51'00"E, 286.11'  
 (S44°19'E, 300.0')

N46°40'30"E, 1496.50'  
 (N46°13'E, 1500.00')  
 N46°40'1"E, 1464.03'  
 (N45°41'E, 1500.00')

S31°18'28"W, 1472.27'  
 (S31°23'W, 1480.46')  
 S46°09'00"W, 1471.18'  
 (S45°41'W, 1500.00', 1881)  
 (S46°13'W, 1482.5', 1890)

N61°58'59"E, 1500.58'  
 (N62°03'E, 1500.0')

Match Line with Sheet 7

Match Line with Sheet 13

Match Line with Sheet 11



25 0 25 50 75 feet

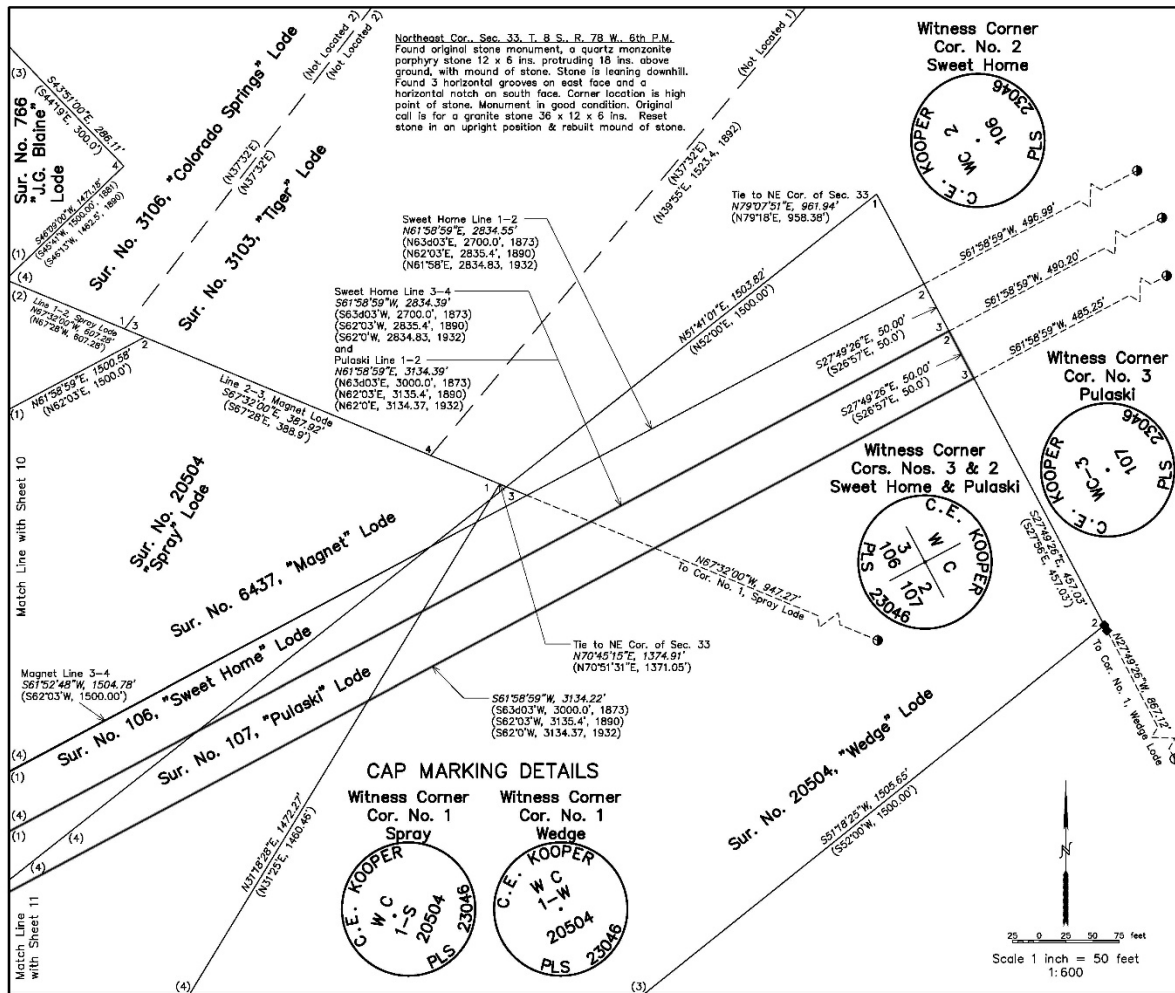
Scale 1 inch = 50 feet  
 1:600



# LOT CONSOLIDATION PLAT

CONSOLIDATION OF SEVEN (7) PATENTED AND CONTIGUOUS LODE MINING CLAIMS  
 THOSE BEING THE PULASKI, DETROIT CITY, ENTERPRISE, BLUE BIRD,  
 SWEET HOME FRACTION, NIAGARA AND BUSHWHACKER LODE CLAIMS  
 ALL LOCATED IN THE NORTHERN ONE-HALF OF SECTION 33, TOWNSHIP 8 SOUTH,  
 RANGE 78 WEST, SIXTH PRINCIPAL MERIDIAN, PARK COUNTY, COLORADO

SHEET 13 OF 13



## MINERAL SURVEY CORNER DESCRIPTIONS:

**Witness Corner Cor. No. 1, Wedge Lode, U.S. Mineral Survey No. 20504.**  
 Found original stone monument, a weathered quartz monzonite porphyry stone 30 x 12 x 8 ins. fallen over below a small mound of stone. Reestablished the stone in the small mound of stone using the tie of N27°49'W, 5.75 ft. from Cor. No. 1 of the Social Fund Lode Claim, same survey, which was determined to be the best available evidence of the original corner position. Rebuilt the mound of stone. Corner location is a chiseled "+" on top of stone. West face is chiseled with "2-W-20504-A". Original call is for a porphyry stone 27 x 8 x 8 ins., 15 ins. in the ground, with a mound of stone.

Note: U.S. Mineral Survey 20504 originally included a mill site that was later removed from the survey. The chiseling on the west face of the stone includes a faint "A" adjacent to the survey number "20504".

**Witness Corner Cor. No. 1, Wedge Lode, U.S. Mineral Survey No. 20504.**  
 A 2-1/2" aluminum cap affixed to a 30" No. 6 rebar was set as a witness corner. See cap markings this sheet. A witness corner was established on the reconstruction of the common boundary line of the Sweet Home Lode, Sur. No. 106, Pulaski Lode, Sur. No. 107, and the Social Fund and the Wedge Lodes, Sur. No. 20504. The bearing of Line 2-1, Wedge is N27°49'26"W. The distances from WC-1, Wedge are: 404.34' to Cor. No. 1, Social Fund; 410.09' to Cor. No. 2, Wedge; 671.92' to Cor. No. 3, Pulaski; 721.92' to Cors. Nos. 3, Sweet Home and 2, Pulaski; 771.92' to Cor. No. 2, Sweet Home; and 1008.25' to Cor. No. 2, Social Fund.

**Witness Corner Cor. No. 1, Spray Lode, U.S. Mineral Survey No. 20504.**  
 A 2-1/2" aluminum cap affixed to a 30" No. 6 rebar was set as a witness corner. See cap markings this sheet. A witness corner was established on the reconstruction of the common boundary line of the Tiger Lode, Sur. No. 3103, Colorado Springs Lode, Sur. No. 3106, Magnet Lode, Sur. No. 6437, and the Spray Lode, Sur. No. 20504 as defined by the 1932 tie to Cors. No. 3 and 1, Tiger and Colorado Springs lodes. The bearing of Line 1-2, Spray is N67°32'00"W. The distances from WC-1, Spray are: 919.74' to Cor. No. 3, Magnet; 1307.65' to Cor. No. 2, Magnet; 1327.87' to Cors. Nos. 3, Tiger and 1, Colorado Springs; and 1554.55' to Cor. No. 2, Spray.

**Witness Corner Cor. No. 2, Sweet Home Lode, U.S. Mineral Survey No. 106.**  
 A 2-1/2" aluminum cap affixed to a 30" No. 6 rebar was set as a witness corner. See cap markings this sheet. A witness corner was established on the extension of the reconstruction of Line 1-2 of the Sweet Home Lode, Sur. No. 106.

**Witness Corner Cor. No. 3, Sweet Home Lode, U.S. Mineral Survey No. 106; and Witness Corner Cor. No. 2, Pulaski Lode, U.S. Mineral Survey No. 107.**  
 A 2-1/2" aluminum cap affixed to a 30" No. 6 rebar was set as a witness corner. See cap markings this sheet. A witness corner was established on the extension of the common lines, Line 3-4 of the Sweet Home Lode and Line 1-2 of the Pulaski Lode.

**Witness Corner Cor. No. 3, Pulaski Lode, U.S. Mineral Survey No. 107.**  
 A 2-1/2" aluminum cap affixed to a 30" No. 6 rebar was set as a witness corner. See cap markings this sheet. A witness corner was established on the extension of the reconstruction of Line 3-4 of the Pulaski Lode, Sur. No. 107.

**Note:** The reconstruction of the boundaries of the Sweet Home and Pulaski lodes is based upon the found Cor. No. 1 of the Sweet Home and a connection to Cor. No. 3 of the Pulaski Lode made in 1932. Cor. No. 1 of the Social Fund Lode, Sur. No. 20504 was found and the record distance of 267.58 ft. along Line 1-2 of the Social Fund to Cor. No. 3 of the Pulaski was held. The orientation of Line 1-2 of the Social Fund and Line 2-1 of the Wedge Lode is N27°49'26"W, the mean bearing of Line 3-4 of the Wedge (N27°49'43"W) and Line 4-5 of the Social Fund (S27°49'08"E). The bearing of Line 1-2 of the Sweet Home (N61°59'E) is verified by adjustment of the surveys of the Magnet Lode, Sur. No. 6437 and the Grover Cleveland Lode, Sur. No. 7287. The adjustment rotated the lines of the Magnet & Grover Cleveland by 4 arc-minutes.

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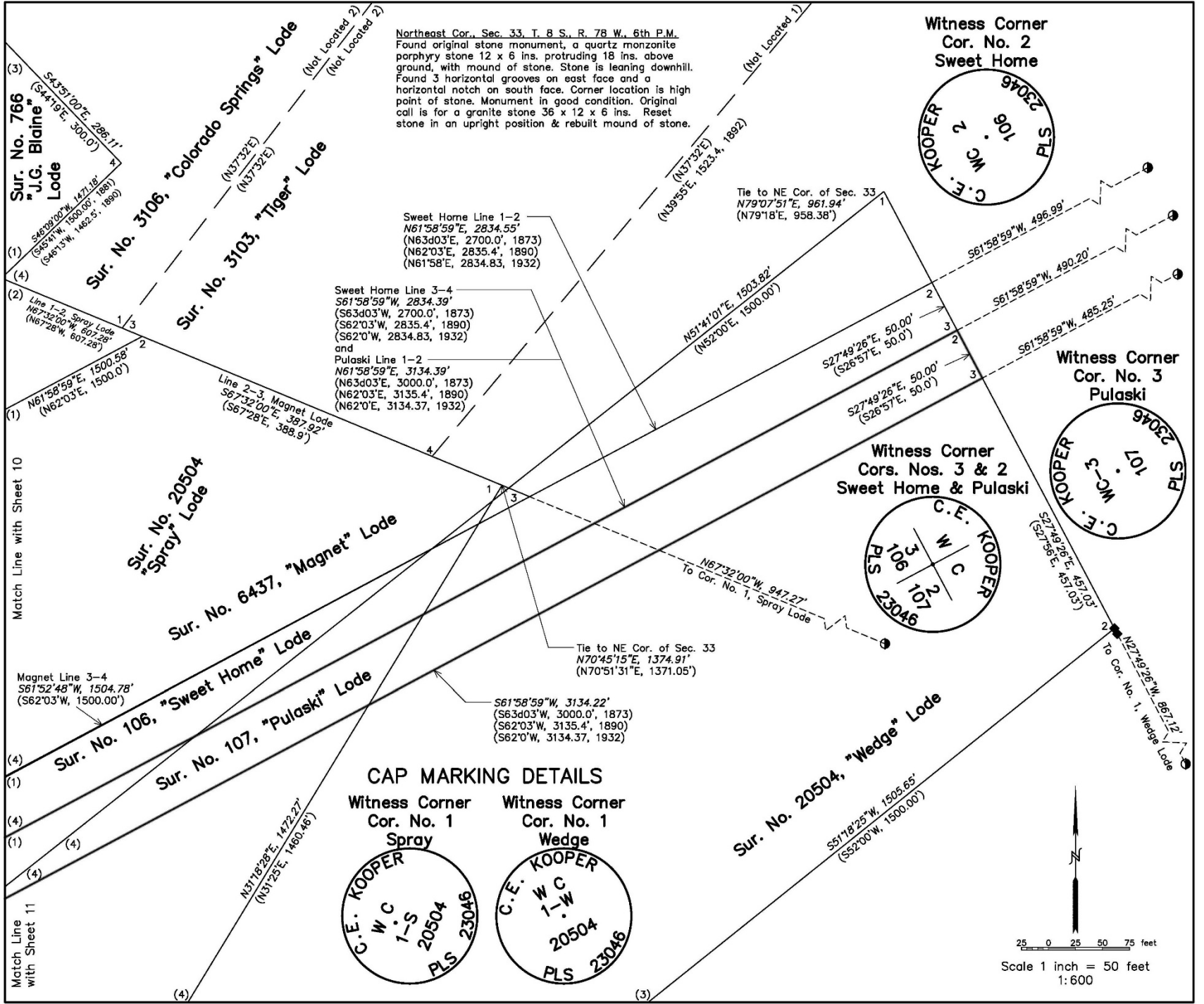
## SURVEYOR'S CERTIFICATE:

I, C. Eugene Kooper, a Professional Land Surveyor in the State of Colorado, hereby certify that the survey and plat of the real property shown and described hereon was performed solely by me in strict compliance with Section 38-51-106, Colorado Revised Statutes, and that both survey and plat are true, accurate and complete.

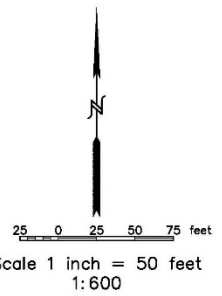
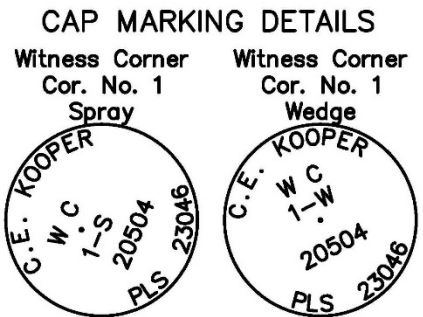
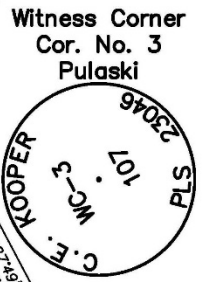


C. Eugene Kooper, P.L.S. 23046





Northeast Cor., Sec. 33, T. 8 S., R. 78 W., 6th P.M.  
 Found original stone monument, a quartz monzonite porphyry stone 12 x 6 ins. protruding 18 ins. above ground, with mound of stone. Stone is leaning downhill. Found 3 horizontal grooves on east face and a horizontal notch on south face. Corner location is high point of stone. Monument in good condition. Original call is for a granite stone 36 x 12 x 6 ins. Reset stone in an upright position & rebuilt mound of stone.











G.E. KOOPER

W C  
I-W

20504

PLS 23046







# Unnamed Rhodochrosite

Rhodochrosite  
with Quartz  
(4.9 cm high)

Porcelain Pocket  
Fluorite Raise  
Sweet Home Mine  
Alma, Colorado

Photograph by  
Jeff Scovil



Jeff Scovil photo























**Survey Number:** 20504  
**Lode Claim Name:** Wedge  
**Claim Holder:** Edwin C. Spray  
**Location:** Sec. 33, T 8 S, R 78 W  
**Mining District:** Buckskin Mining District

**Mineral Entry Number:** 045975

**Date of Discovery:** May 20, 1913  
**Date of Location:** June 4, 1913  
**Filed for Record:** June 6, 1913  
**Date of Amended Location:** July 1, 1926  
**Filed for Record:** July 2, 1926

**Date of Survey Instructions:** September 29, 1932  
**Dates of Survey:** October 1, 1932 - November 15, 1932  
**U.S. Mineral Surveyor:** Gerald F. Galloway  
**Date of Survey Approval:** June 7, 1933

**Patent Number:** 1074568  
**Patented Acreage:** 9.325 acres  
**Date of Payment for Land:** November 7, 1933  
**Date of Patent:** February 20, 1935  
**Recorded by Park County:** March 6, 1935

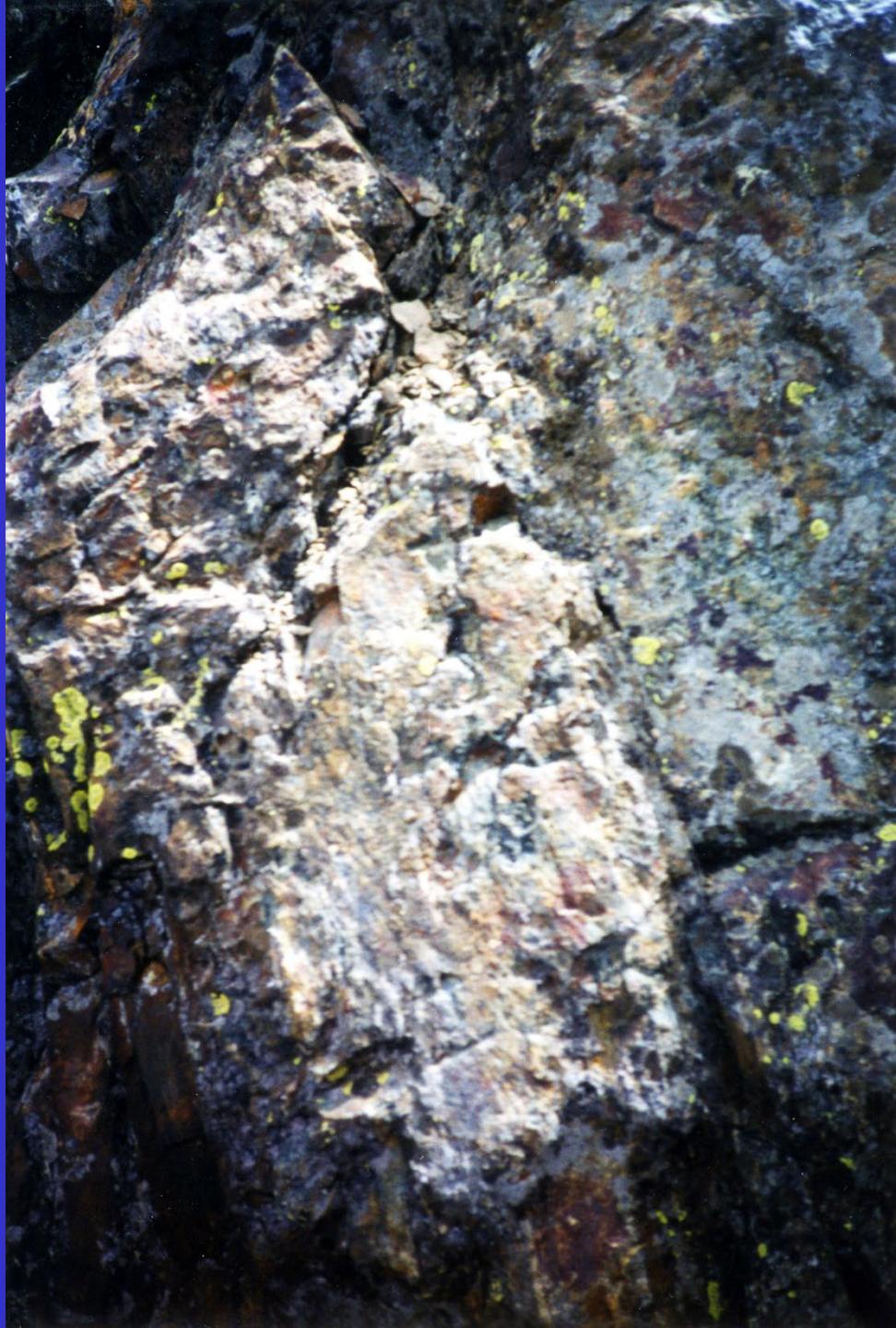
#### List of Corners

Corner 2 and Witness Corners to Corners 3 and 4 were found. Corner 1 is situated in a slide area and destroyed. Monument Records for Corner 2 and Witness Corners to Corners 3 and 4 were filed with the State of Colorado Board of Registration for Professional Engineers and Professional Land Surveyors.

#### Notes

Lode claims Blue Bird, Sweet Home Fraction, and Daniel; and mill site Sweet Home Mill Site were dropped from this survey on January 25, 1933 at the claimant's request. Same reservation for ditches and canals as stated for previous lode claims.











+

WC

4 - W

20504-A











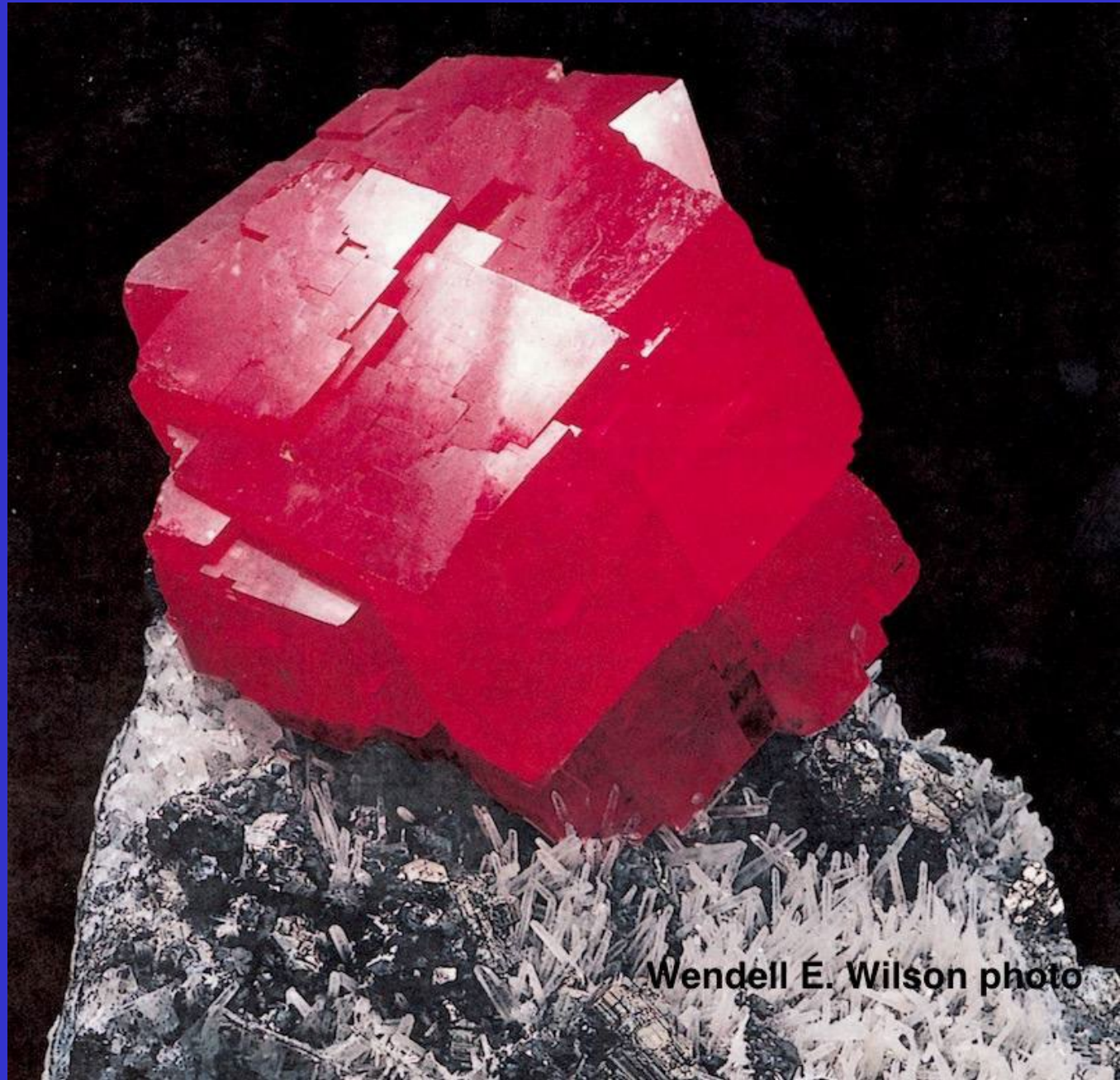
# Alma Queen

Rhodochrosite  
with Quartz and  
Tetrahedrite  
(15 cm)

Sweet Home Mine  
Alma, Colorado

Houston Museum  
of Natural History

Photograph by  
Wendell E. Wilson



Wendell E. Wilson photo



**ARRRRGGGGHHH!!!!**













































# Alma Rose

Rhodochrosite  
On Matrix of Quartz,  
Calcite, Sphalerite, &  
Tetrahedrite  
(45 cm tall)

Sweet Home Mine  
Alma, Colorado

Photograph by  
Jeff Scovil





UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GENERAL LAND OFFICE  
OFFICE OF THE SUPERVISOR OF SURVEYS  
DENVER, COLORADO

January 26, 1933.

Mr. Gerald F. Galloway,  
U. S. Mineral Surveyor,  
Alma, Colorado.

Dear Sir:

I enclose order for Mineral Survey No. 20507 embracing the locations eliminated from Survey No. 20504.

Your assistants' oath in Survey No. 20504 will be corrected in this office. A new assistants' affidavit will be required for the new survey, and if your assistant Kinney is not available the signature of one assistant will be sufficient. You should prepare new affidavit of your own, however, for Survey No. 20504.

In regard to Surveys Nos. 3103, 3105 and 3106, you should report that "Cor. 1 of Sur. No. 3106 was found standing and that the corners of the other surveys were fixed as approved in relation to this corner."

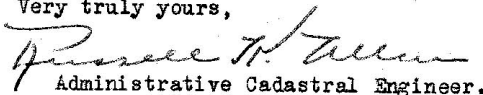
If the original position of Cor. 4 of Survey No. 766 can be determined, you should report that "the original corner stone was replaced in the mound of rocks where it originally stood."

Your explanation as to the old Enterprise tunnel is satisfactory and the marginal notation in the returned field notes should be ignored.

Owing to the uncertainty of the ties and relative positions in Survey No. 20504, the intersections and areas were not checked.

I hope you will be able to return these field notes in acceptable form.

Very truly yours,

  
Administrative Cadastral Engineer.

Enclosure  
JF



20504

CLAIMANT

Edwin C. Spray.

Mineral Surveyor

Sur. No. ~~A. & B.~~

G. F. Galloway.

		FLAT	NOTES
<del>Sweet Home Fraction</del>	Silent Friend.	<del>267</del>	704
<del>Blue Bird.</del>	Social Fund.		
<del>Daniel.</del>	Crackerjack.		
Spray.	<del>Sweet Home M.S.</del>		
Kasel.			
Wedge.	* See Sur No. 20507 AB. Dropped 1/25-33 at claimants request		

M.  
Location: Sec. 27-28-33&34, T. 8 S., R. 78 W.

County: Park.

Mng. Dist. Buckskin and Consolidated Montgomery (3)

Land. Dist. Denver, M. E. No. 045975

Date of Patent Feb. 20 1935, No. 1074568

DATES ORDER	RETURNS FILED	RET'D. FOR CORRECTION	SURVEY APPROVED: 6-7-33.
9-29-32.	1-4-33	1-18-33	ORIGINAL SURVEY
	3-1-33 4-16-33	3-13-33	Plat. Bk. No.
AM ORDERS			Field Bk. No.
			AM.
			Plat. Bk. No.
			Field Bk. No.
Misc.			



## CLAIMANT

*Edwin C. Spray*

Mineral Surveyor

*G. F. Galloway*

20507

Sur. No.

*A. & B.*

PLAT

NUMBER

~~267~~

704

*Sweet Home Fraction.**Blue Bird.**Daniel.**Sweet Home Mill Site Unpat.*M.  
Location: Sec. *28 & 33*, T. *8 S.*, R. *78 W.*DATES  
ORDERRETURNS  
FILEDRET'D. FOR  
CORRECTIONSURVEY  
APPROVED: *6-10-33.**1-25-33.**3-1-33*  
*4-25-33**3-22-33*

ORIGINAL SURVEY

Plat. Bk. No.

County: *Park.*

AM. ORDERS

Field Bk. No.

Mng. Dist. *Mosquito. (3)*

AM,

Plat. Bk. No.

Land. Dist. *Denver.*, M. E. No. *045976*

Field Bk. No.

Date of Patent *Jan. 2* 1935, No. *1073753*Misc  
*Loose Only*



4  
W/C 2  
K  
20504-4





205047A























# Unnamed Rhodochrosite

Rhodochrosite on  
Tetrahedrite and  
Quartz  
(8.3 x 8 x 6.5 cm)

Strawberry Pocket  
Fluorite Raise  
Sweet Home Mine  
Alma, Colorado

Photograph by  
Jeff Scovil





# Unnamed Rhodochrosite

Rhodochrosite Twins in Tetrahedrite (3.2 cm)

Pincushion Pocket, Sweet Home Mine - Alma, Colorado



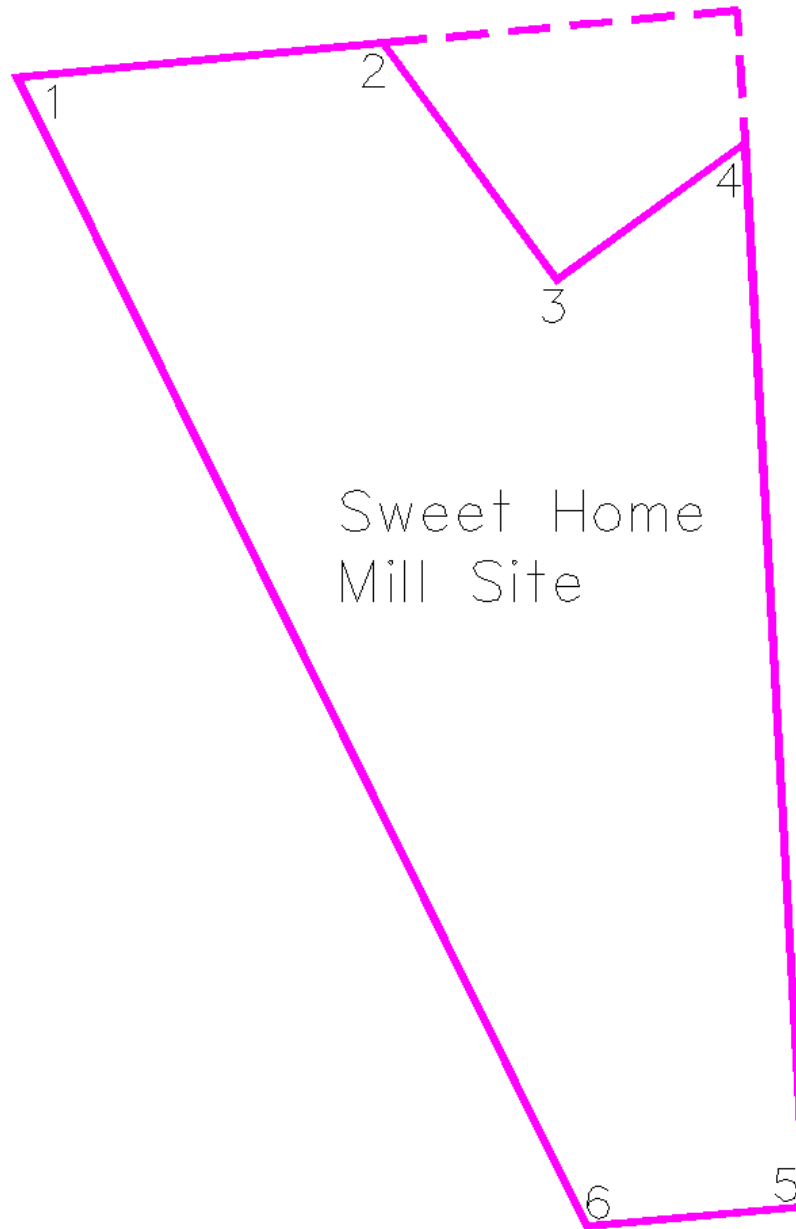
Jeff Scovil photo



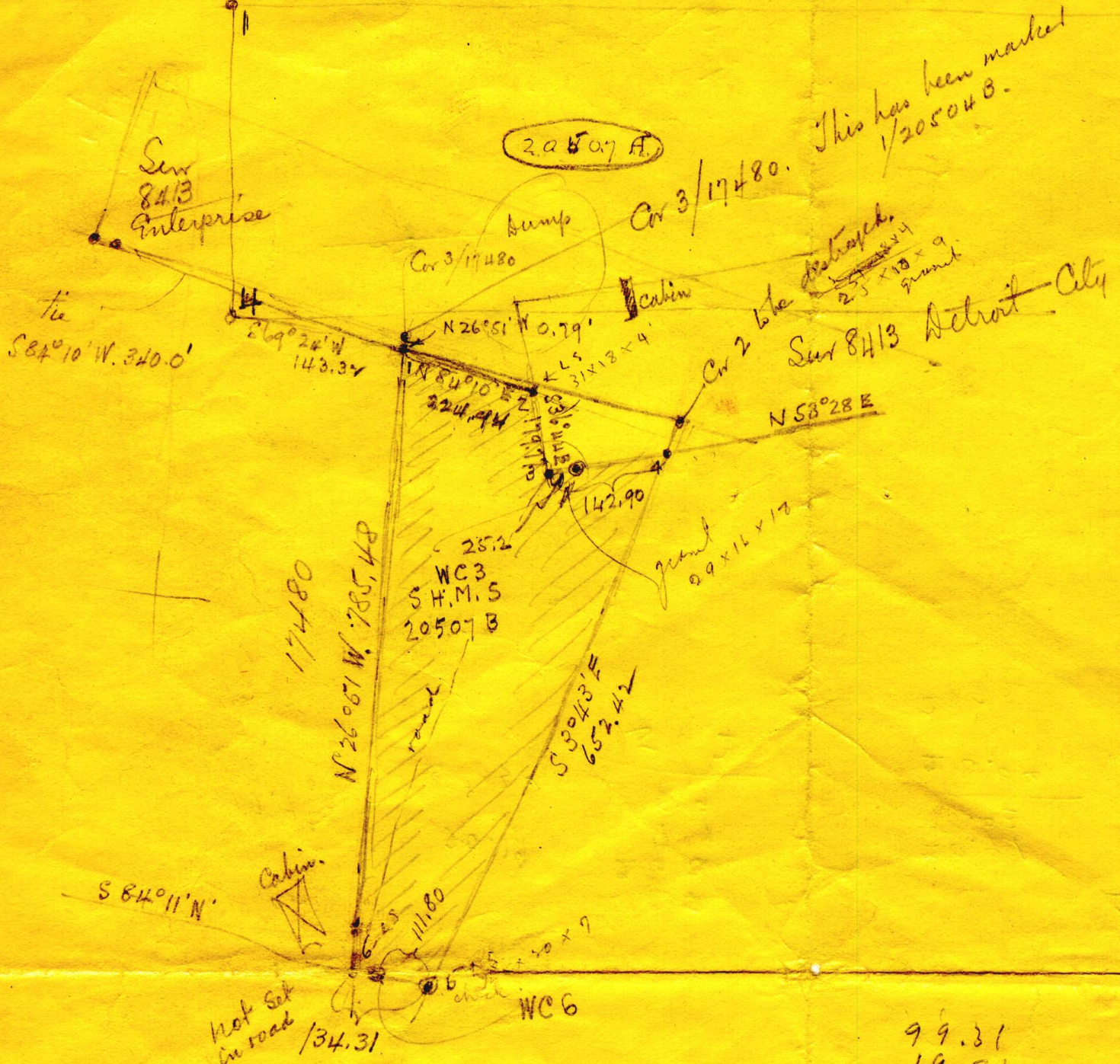
# Who the Heck MOVED These Stones

@#@%#\$\$%^\$%^









99.31  
 19.86



SWEET HOME MILL SITE.

Beginning at Cor. No. 1 of the Sweet Home Mill Site.

On line 2-3 Sur. No. 8413 Enterprise lode, and

On line 3-4 Sur. No. 17480 Sunflower No. 2 lode, where I-

Set a schist stone, 26x10x4 ins., 16 ins. in the ground, with a mound of stone, for Cor. No. 1, mkd. 1-SHMS-20507 B., from which

The NW. cor. sec. 33 T. 8 S., R. 78 W., 6th Prin. Mer., bears N.  $24^{\circ} 50'$  W. 2558.2 ft. dist., previously described.

Cor. No. 1 of the location, identical with Cor. No. 3 Sur. No. 17480 Sunflower No. 2 lode, bears N.  $26^{\circ} 51'$  W. 0.79 ft. dist.

Cor. No. 4 Sweet Home Fraction lode, of this survey, bears S.  $69^{\circ} 24'$  W. 143.32 ft. dist.

Cor. No. 1 Sur. No. 8413 Detroit City lode bears N.  $51^{\circ} 52'$  E. 193.07 ft. dist.

Cor. No. 2 Sur. No. 8413 Enterprise lode bears S.  $84^{\circ} 10'$  W. 340.0 ft. dist.







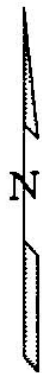




1. TYPE OF MONUMENT:  SECTION CORNER  QUARTER CORNER  BENCH MARK  OTHER Mineral Survey
2. DESCRIPTION OF MONUMENT FOUND:  
 Corner # 1, Sweet Home Mill Site, US Mineral Survey No. 20507-B  
 Found original stone monument, a granitic gneiss stone 13"x5" protruding 12" out of the ground with mound of stone. Corner location is a chiseled "X" on top of stone. East face is chiseled with "1-SHMS-20507B"; West face with "3-17480". Monument is in good condition. Original call is for a schist stone 26"x10"x4" set 16" in the ground.  
 Note: The mill site's original field notes place the position of Corner 3, Sunflower 2 lode claim as being N26°51'W, a distance of 0.79 feet which is not on the stone.
3. DESCRIPTION OF MONUMENT ESTABLISHED BY YOU TO PERPETUATE THE LOCATION OF THIS POINT:  
 Kept original stone monument. It appears that the stone was moved during the survey of USMS 20507-B from its originally set position as described in USMS 17480.
4. SKETCH SHOWING RELATIVE LOCATION OF MONUMENT, ACCESSORIES AND REFERENCE POINTS STATING WHETHER FOUND OR SET, SHOW SUPPORTING AND/OR CONTRADICTIONARY EVIDENCE WHERE APPLICABLE:

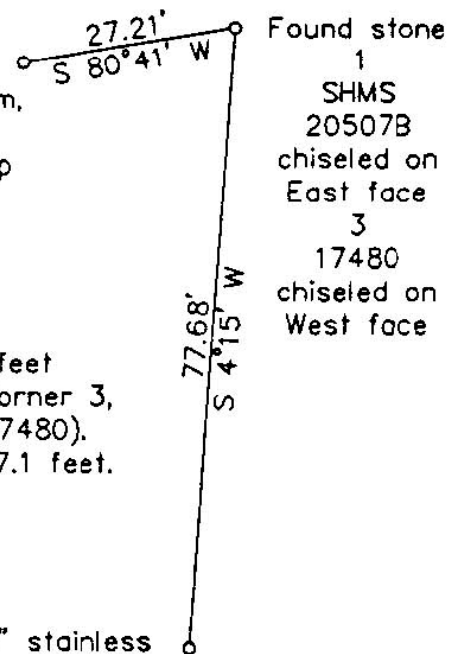
BASIS OF BEARING:

Centimeter-level GPS  
 Measurements with solar  
 Observations as check



Scale 1" = 30'

Found original bearing rock to  
 Corner 3, Sunflower 2 lode claim,  
 a granitic gneiss boulder, 4'x4'  
 protruding 1' out of ground. Top  
 of boulder is marked  
 +  
 BR  
 3  
 17480  
 Chiseled "X" is S79°5'W, 26.98 feet  
 from the projected corner of Corner 3,  
 Sunflower 2 lode claim (USMS 17480).  
 The platted tie is S78°27' W, 27.1 feet.



Set 16d nail with 1 1/2" stainless  
 steel washer (stamped "C.E. Kooper  
 PLS 23046") 4.5' above ground on  
 West side of a 24" pine tree

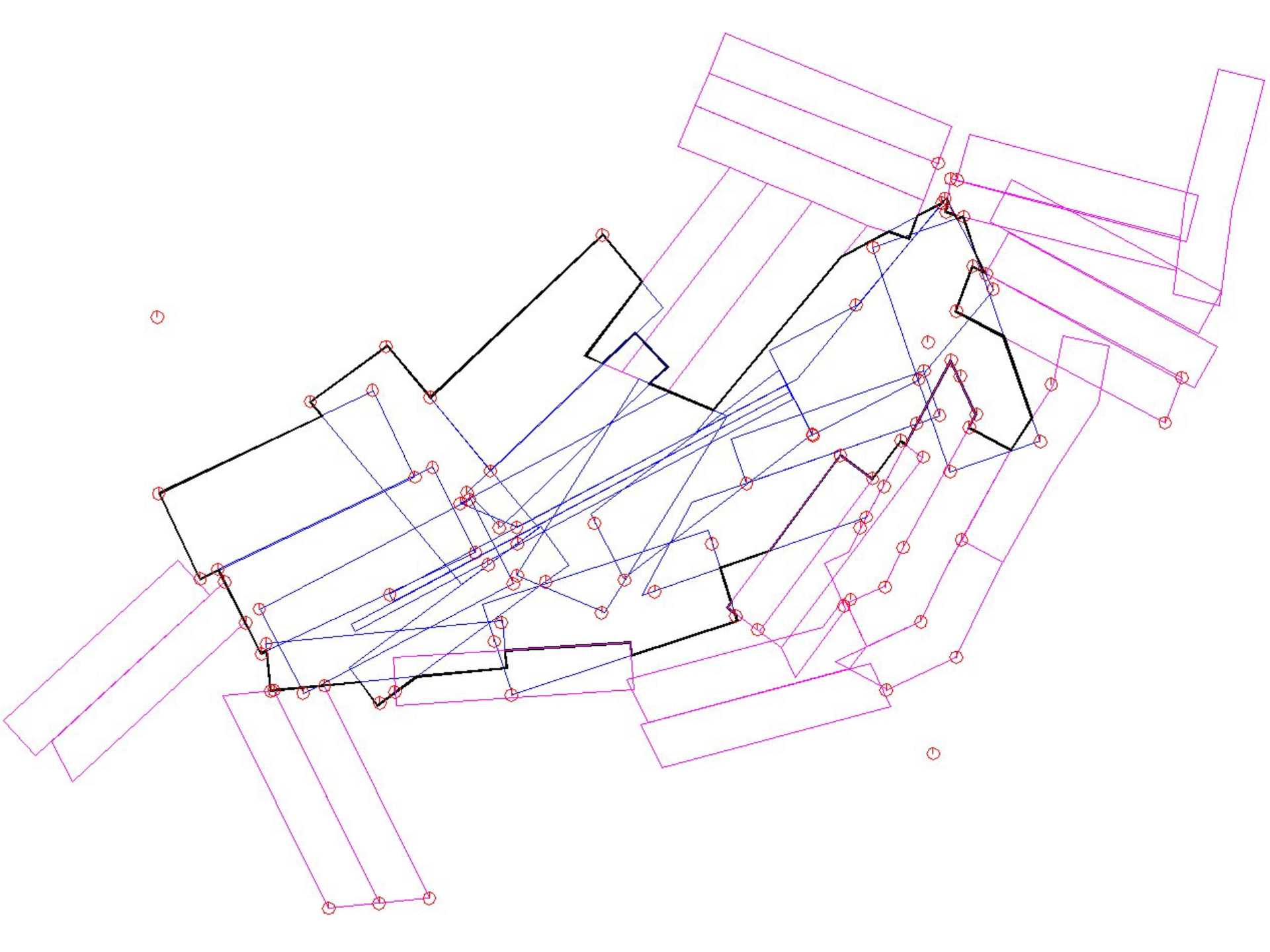


Corner No. 1, Sweet Home Mill Site, U.S. Mineral Survey No. 20507-B.

Found original stone monument, a granitic gneiss stone 13 x 5 ins. and protruding 12 ins. above the ground surface with mound of stone. Corner location is a chiseled "+" on top of stone. South face is chiseled with "1-SHMS-20507-B" and the north face with "3-17480". Monument is in good condition. Original call is for a schist stone 26 x 10 x 4 ins. set 16 ins. in the ground. Note: The mill site's original field notes place the position of Corner 3, Sunflower 2 lode claim as being N26°51'W, a distance of 0.79 ft. which does not fall on the stone.

The evidence indicates that the stone was rotated 180° and moved 0.79 ft. along Line 3-4 of the Sunflower No. 2 Lode so that it would also be on the calculated position of Line 2-3 of the Enterprise Lode Claim, Sur. No. 8413 during the field survey of Sur. No. 20507-B (from its originally set position as described in Sur. No. 17480). This movement is verified by the tie to the bearing rock for Cor. No. 3 of the Sunflower No. 2 Lode Claim, Sur. No. 17480 (N16°56'W, 1.09 ft.). This mill site was originally included in U.S. Mineral Survey 20504, but later removed and included in U.S. Mineral Survey 20507-B. The chiseling on the monument shows a "7" deeply chiseled over the "4" to make the correction to the U.S. Mineral Survey number.

























5471  
2050





2050

+

11







































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GENERAL LAND OFFICE  
1875  
*[Faded printed form with handwritten entries]*

Thompson, 1875  
Loring, 1875  
  
E. W. Hinkley  
L. B. Morgan  
James H. Hinkley  
  
Val. 2c P. 156  
Pat. June 25, 1875

Thompson, 1875  
Loring, 1875  
  
C. W. Hinkley  
L. B. Morgan  
James H. Hinkley  
  
Val. 15 P. 186  
Pat. June 12, 1875

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Fairplay. Col<sup>do</sup>  
Entry No 39

E. W. Henderson  
S. B. Morgan

Sweet Home Lodge

no call on first trial  
After directing accordingly, note of  
the property

✓ AM June 4, 75

Vol. 24 P. 139  
Pat Nov. 28, 1876

Admission 1885



