

Location is the Red Amphitheater above Buckskin Gulch and at timberline looking to the northwest at Mt. Democrat.

ADVANCED TOPICS AND CASE HISTORIES IN MINERAL SURVEY RESURVEYS

Discrepancies in the official record

- 1. Retracement vs. dependent resurvey
 - a. Once a patent is issued, the General Land Office no longer had authority over the disposed land, therefore the Land Office was not able to instruct the mineral surveyor to reestablish lost, missing or destroyed corners of prior official surveys
 - b. Prior official surveys were only retraced by the mineral surveyor
 - c. Recognizing when the record positions of prior surveys were shown on the plat
 - i. Before 1899 (no formal instructions or circulars)
 - ii. 1899-1904 (patent descriptions hold over found monuments)

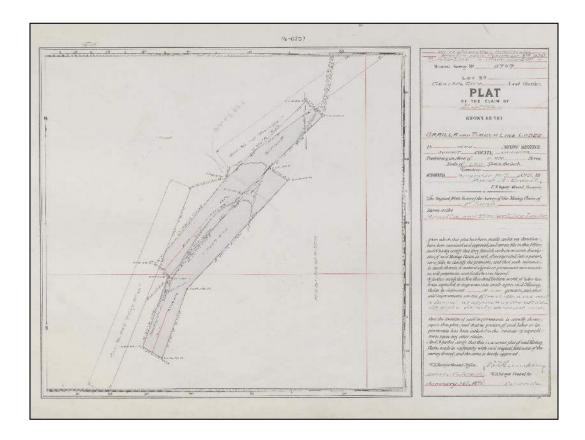
iii.After 1904 (Report or Other Corner Descriptions)

Cor. No. 3, Privateer Lode, Sur. No. 2541 looking to the east-northeast at Mt. Silverheels.

MINERAL LANDS PATENT EXAMPLES

Normally there are two sources for U.S. patents of mineral lands. The Register of the General Land Office in Washington, D.C. had a copy transcribed prior to sending the patent to the U.S. Surveyor General. The state BLM public rooms have aperture cards and the GLO Records web site has scanned images of this transcribed GLO copy for selected states.

The patent was sent to the U.S. Surveyor General who forwarded it to the patentee. The patentee often recorded the patent at the county clerk and recorder office. Therefore, two transcribed copies of the patent are usually available to the land surveyor. Because these are transcribed, there can be scrivener's errors. The patent application includes a transcribed copy of the field notes. The Land Entry Case File can be obtained from the National Archives to check if the error is in the original patent or if the error occurs in the transcriptions by the GLO or county clerk and recorder.



The plat of the Brailla and Timber Line lodes, Sur. No. 6797 shows that the two lode claims overlap each other. The Brailla Lode is senior in right based on the dates of location (September 18, 1890 for the Brailla and November 24, 1890 for the Timber Line).

Total area Brailla lade 5,165 acres

area ni conflict with

Lus. No. 462 0.355

John area Brailla lade 5.165 acres

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Sur No. 462 0.044 acre

"471 0.355 "= 0.379

Netrarea Brailla lade 4.766 acres

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Less area in conflict with

Brailla lade 5.165 acres

Less area in conflict with

Brailla lade 5.165 acres

Met area Jimber Luie lade 5.165 acres

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Brailla lode 0.130 "

Met area of blockaine 4.766"

Met area of blockaine 4.766"

Met area of blockaine 9.801 acres

The "Area" section of the official field notes lists the Brailla Lode in conflict with the Flag Staff Lode, Sur. No. 462, Savage Lode, Sur. No. 471, and the Timber Line Lode. Since the Brailla Lode is senior to the Timber Line Lode, the area of conflict (0.130 acres) is deducted from the total area of the Timber Line Lode. The net area of the two lode claims is 9.801 acres.

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Patent for the Brailla and Timber Line lode claims, Sur. No. 6797. The Mineral Entry No. is 3845 - date June 18, 1891 and the Patent No. is 22680 - date April 5, 1893.

The next five images show the original patent on the left side and the General Land Office transcribed copy on the right side of the images. The handwriting indicates that both were written by the same person. There are often three versions of a patent: one is the original that was sent to the patentee, second is the transcribed GLO copy that was kept in Washington D.C., and third the patentee would often have a transcribed copy recorded at the county clerk and recorder's office.

Information related to the patent is available on the GLO Records web site under "Land Patents" and scanned copies of patents issued prior to July 1, 1908 are under "Control Document Index Records." If the patent is not available online, scanned copies can be obtained at the BLM state public room.

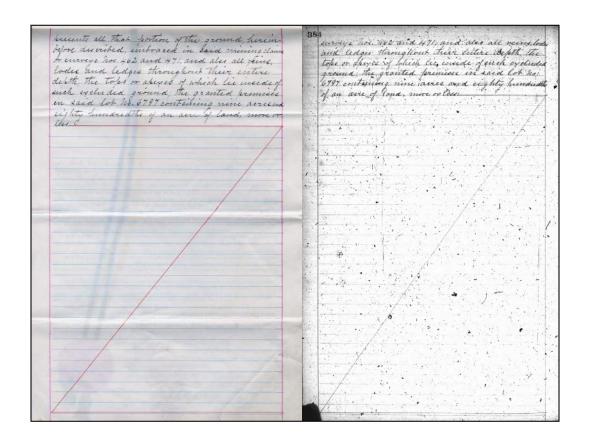
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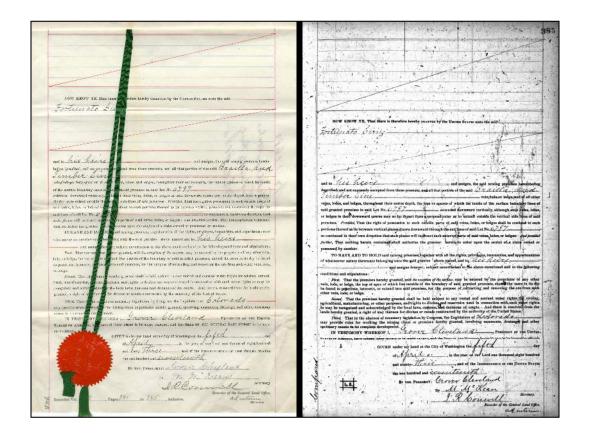
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The lower left of the original patent lists that the patent was "Recorded Vol. 225, Pages 381 to 385 inclusive." This refers to the General Land Office volume housed in Washington D.C.

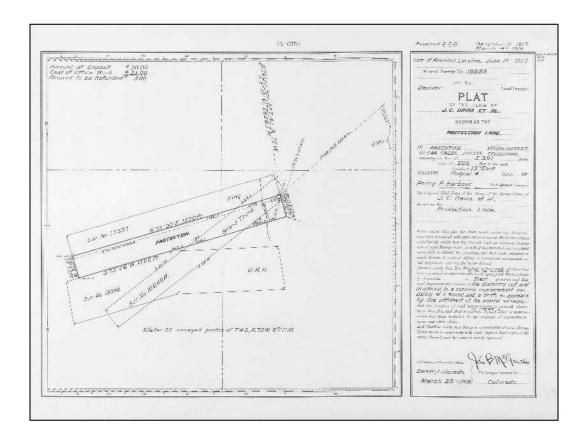
Note: The page numbers 381 through 385 match the page numbering of the GLO transcribed copy of the patent shown above.

Therek, eight course, magnitic variation thutun degrees and forty minutes east, north twenty degrees east five hundred feet to writer ho. If the place of beginning; the survey of the lode as above described extending one Thousand five hundred feet in length along a said I winder beine vein or lode. Expressly excepting and excluding from these breunts all that portion of the ground, hereind defore described, embraced in Said mining claims or enveys hos. 462 and 471, and also all vins, lodes and ledges throughout their entire debth, the tops or apeyes of which his inside of such excluded ground; the granted premises in said lot ho. 6797 containing nine arrivant eighty hundredths of an acre of land, more or less.

Since lode mining claims are designed to obtain rights to the subsurface mineral estate, the staked locations often overlap with other lode claims. This is the rule rather than the exception. For mineral surveys with lode claims that are junior in right to prior official surveys the patent will contain a unique clause that is after the metes-and-bounds description. This is the, "expressly excepting and excluding" clause which lists all conflicts that are *not* to be included in the patent.

For the patent of the Brailla and Timber Line lode claims, the expressly excepting and excluding clause lists Surs. Nos. 462 and 471. The above excerpt from the patent is from the bottom of Page 3 and top of Page 4 of the patent.

Note: The area conveyed in the patent is 9.80 acres and agrees with the net acreage listed in the Areas section of the official field notes (9.801 acres).



The plat of the Protection lode, Sur. No. 19888 showing two adjoining lode claims that share common side lines and an overlap with the Grand Trunk Lode Claim, Sur. No. 16640A.

As near as can be determined from present developments the Protection lode extends N. 73° 30' E. 6ft. and S. 73° 30' W. 1494 ft. from face of discovery cut.

AREA.

Total area Protection lode 5.391 acres
Area in conflict with

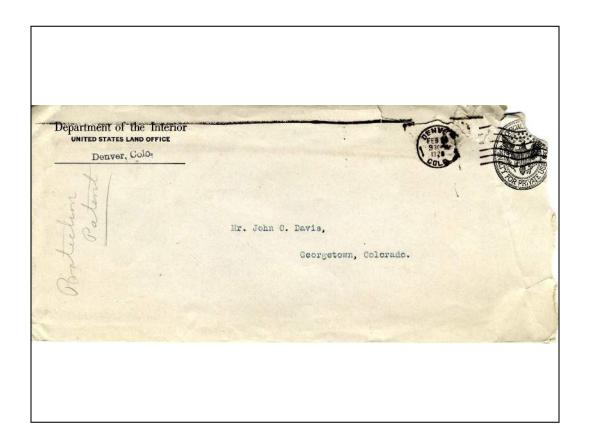
Sur. No. 16640 A, Grand Trunk lode 1.427 "

The survey of the Protection lode is identical with the amended location as staked on the ground.

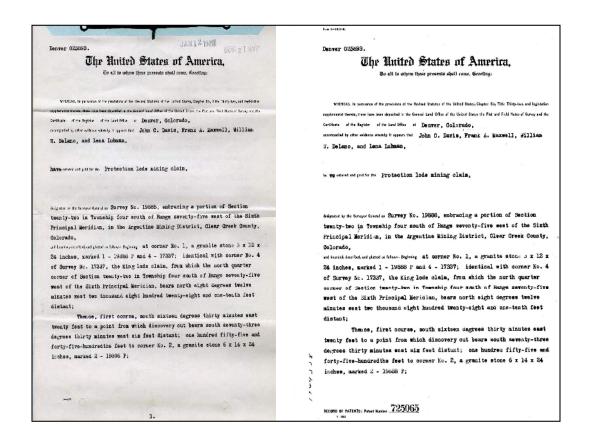
LOCATION.

This survey is located in the S. 1/2 of Sec. 22 surveyed portion of T. 4 S., R. 75 W. of 6th. P. M.

The "Area" section of the official field notes lists a total area of 5.391 acres for the Protection Lode with an area in conflict with the Grand Trunk Lode of 1.427 acres. No net area of the Protection Lode is given.

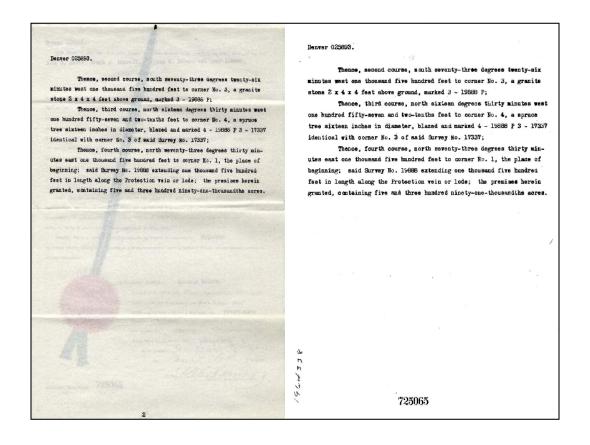


Envelope containing the original patent mailed from the Dept. of the Interior, United States Land Office, Denver, Colo. to the patentee, Mr. John C. Davis, Georgetown, Colorado. Patents were sent from the Washington D.C. General Land Office to the local Land Office and then mailed to the patentee.



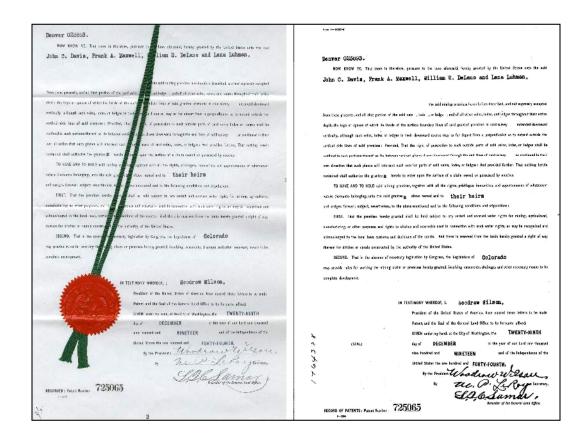
Patent for the Protection lode claim, Sur. No. 19888, Mineral Entry No. 025893 (no date of mineral entry listed in patent), and Patent No. 725065 - date December 29, 1919. The next three images show the original patent on the left side and the General Land Office transcribed copy on the right side of the images. The stamped date on the original patent of Jan 12, 1920 likely indicates the date that the patent was mailed to or received by the Denver, Colorado Land Office.

Scanned copies of the patents issued after July 1, 1908 are available on the GLO Records web site under "Land Patents." If the patent is not available online, scanned copies can be obtained at the BLM state public room.



Note: Despite the plat and official field notes showing a conflict with the Grand Trunk Lode, Sur. No. 16640A, the patent does not include an "expressly excepting and excluding" clause after the metes-and-bounds description. The acreage granted in the patent is 5.391 acres which is the same as the total acreage of the Protection Lode listed on the plat and in the field notes.

The Grand Trunk Lode was abandoned sometime between the date its mineral survey was approved (9/19/1903) and the amended location date of the Protection Lode (6/14/1917). The reason that the official field notes lists the area in conflict with the Grand Trunk is that the mineral surveyor was instructed to show all conflicts with prior official surveys whether they went to patent or were abandoned.



This page contains the standard language of a mineral lands patent along with the standard conditions and stipulations.

Note: The last condition and stipulation states, "That in the absence of necessary legislation by Congress, the Legislature of Colorado may provide rules for working the mining claim or premises hereby granted, involving easements, drainage, and other necessary means to its complete development." The Colorado General Assembly has enacted such rules.



Close-up view of official seal of the United States General Land Office affixed to last page of the patent.

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Simin winder sunghand, at the leity of Mashington, the twenty eighthology Esptember in the year of our doct one thousand eight handred and eighty, and of the Independence of the builted State the one hundred and eighty.

By the President: B. B. Hoayes

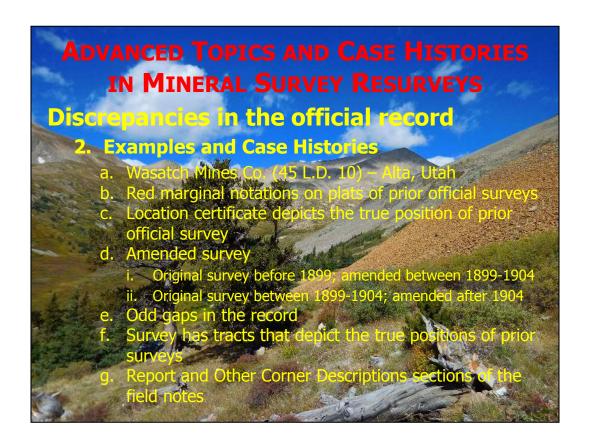
By Mar Ho. Corook Secretary.

S. W. Clark Recorder of the General Sand Office.

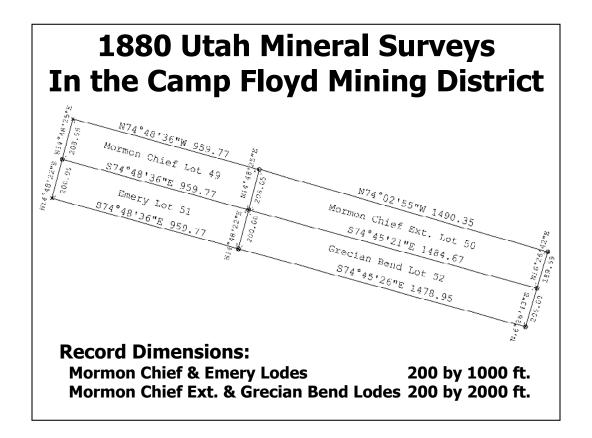
Recorded Vol. 53 Pages 184 to 189 inclusion.

Carriered.

Example of the last page of the GLO transcribed copy of the patent where the volume and page numbers of a patent were listed. This notation was ended sometime in 1885.



Location is the Red Amphitheater above Buckskin Gulch and at timberline looking to the northwest at Mt. Democrat.



Because of terrain and other field conditions some mineral surveyors resorted to triangulation and other indirect methods to measure the lines of their surveys. This would occasionally result in large survey blunders.

The surveys of these four mineral surveys were done in one day by running the common side lines resulting in a blunder of over 550 ft. in what was supposed to be a line of 3000 ft. These blunders would then be perpetuated by subsequent surveyors who showed the record positions because they were unable to find the corners in their retracement of those senior claims.

Note: This first example of a discrepancy in the record is caused by a blunder in the use of an indirect measurement method such as triangulation. This blunder shows that the four claims were surveyed by indirectly running one of the side lines and stubbing out the end lines. Another example of where blunders often occur is when the mineral surveyor makes a tie to a nearby prior official survey and then computes the connection to the PLSS corner or U.S. Location Monument.

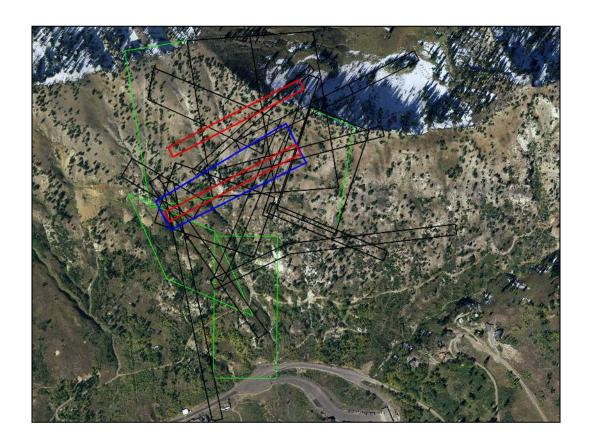
WASATCH MINING Co. DOI 45 L.D. 10 – March 15, 1916

Where exclusions are made from mining claims of supposed conflicts with a prior patented claim, and the position of the prior patented claim as actually marked, defined and established upon the ground is not identical with its position as represented upon the plat and described in the field notes of survey, and the supposed conflicts have no existence in fact, the areas represented by such theoretical exclusions pass under the patents to the claims and are therefore not subject to appropriation by subsequent location.

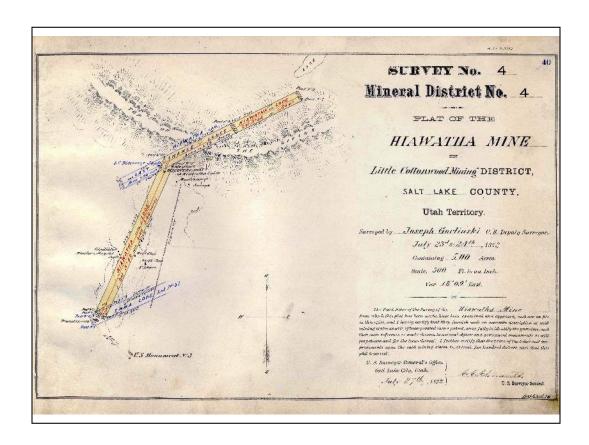
The Wasatch Mining Co. DOI Land Decision was issued in 1916. However, it dealt with an issue that began with a blundered connection to a U.S. Mineral Monument in a mineral survey conducted in 1876. U.S. Deputy Mineral Surveyors were required to retrace the lines of prior official surveys that were in conflict with their survey. If the mineral surveyor was unable to locate the corners of those prior official surveys, he was instructed to show their record positions on his survey. Official field notes approved prior to June 1899 do not usually state whether the record or monumented position of the prior official survey is shown.

Note:

https://www.doi.gov/sites/doi.opengov.ibmcloud.com/files/upload s/doi_decisions_045.pdf (Page 35 of PDF file)

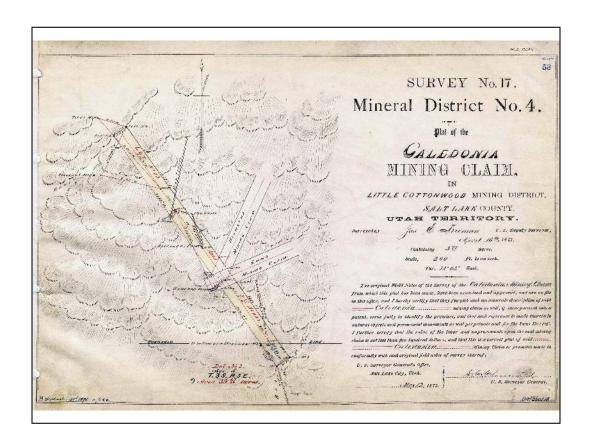


An aerial photograph showing several lode mining claims on a mountainside to the north of Alta, Utah. The green lines represent approved mineral surveys that never went to patent. The black lines are patented lode mining claims. The red lines show both the monumented position (top) and the record position (bottom) of the same claim, the Highland Chief. The blue lines are the outline of the Emma Nevada lode claim that was staked to claim the theoretical position of the Highland Chief that had been expressly excepted and excluded from several adjoining claims shown in black.

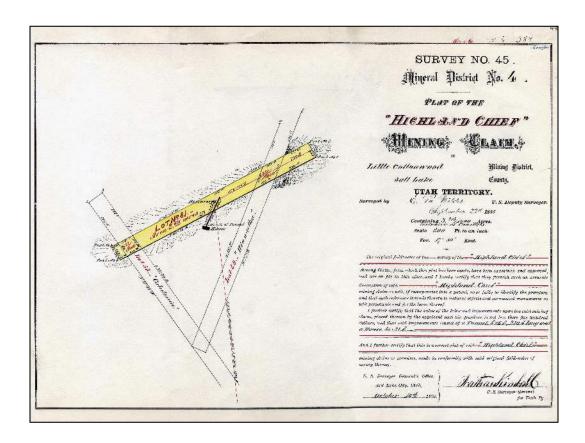


Plat of the Hiawatha Lode, Sur. No. 4, Lot No. 40 showing conflicts with the Emma Lode, Sur. No. 1, Lot No. 37 (first mineral survey in the Little Cottonwood Mining District), and the Last Chance Lode, Sur. No. 3, Lot 39. The plat indicates an area of 1.79 acres is shared by the Hiawatha and Last Chance lodes.

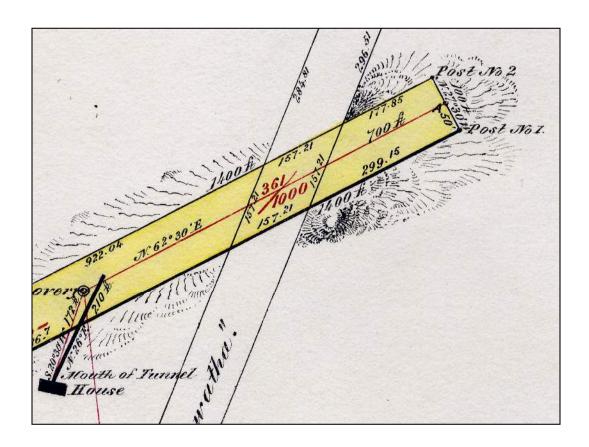
Note the topographic call to the top of the divide and where it intersects the Hiawatha Lode and the connection to U.S. Monument No. 3 that was established during the survey of the Emma Lode, Sur. No. 1, Lot No. 37.



Plat of the Caledonia Lode, Sur. No. 17, Lot No. 53. Note the conflicts with the Emma and Hiawatha lodes and the connection to U.S Mineral Monument No. 3.

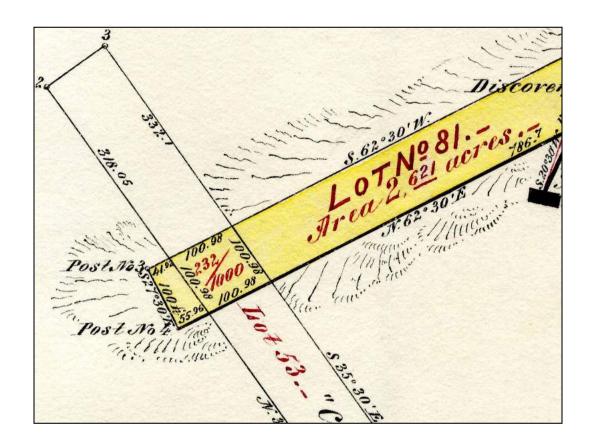


Plat of the Highland Chief Lode, Sur. No. 45, Lot No. 81. This survey was conducted by E.B. Wilder and approved on October 16, 1876. The connection to U.S. Mineral Monument No. 3 was apparently made by indirect means, most likely by triangulation. The tie is in error by approx. 600 feet and places the Highland Chief Lode's theoretical position downhill from its monumented position.



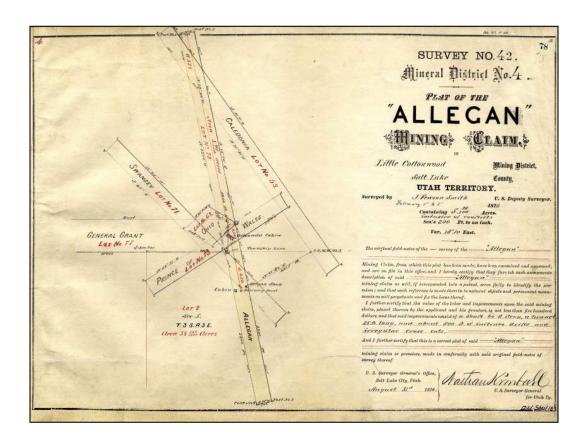
Close-up view of the Highland Chief Lode showing the conflict of 0.361 acres with the Hiawatha Lode. Since the Highland Chief is 600 feet up the mountainside, it does not actually conflict with the Hiawatha Lode.

Note: The topographic divide depicted on the Highland Chief plat does not match the topographic call as shown on the plat of the Hiawatha Lode. Also, the intersections between the two claims are shown to the nearest 0.01 foot and match exactly the intersections plotted from the record positions as computed through the connections to U.S. Mineral Monument No. 3.

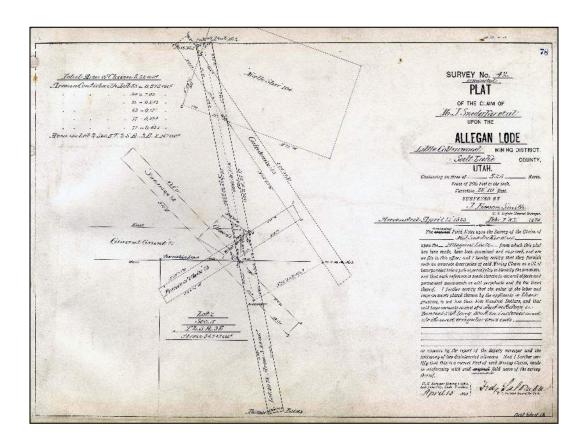


Close-up view of the Highland Chief Lode showing the conflict of 0.232 acres with the Caledonia Lode. Since the Highland Chief is 600 feet up the mountainside, it does not actually conflict with the Caledonia Lode.

Note: The intersections between the two claims are shown to the nearest 0.01 foot and match exactly the intersections plotted from the record positions as computed through the connections to U.S. Mineral Monument No. 3.



Plat of the original survey of the Allegan Lode, Sur. No. 42, Lot No. 78 showing conflicts with five lode claims.



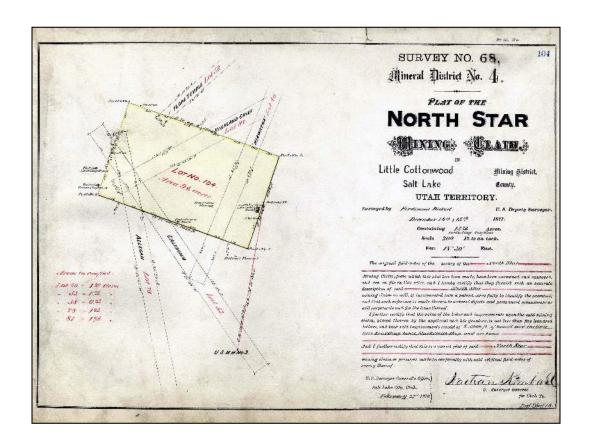
Plat of the amended survey of the Allegan Lode, Sur. No. 42 Amended, Lot No. 78 showing conflicts with six lode claims. The Highland Chief's record position is not shown on the plat.

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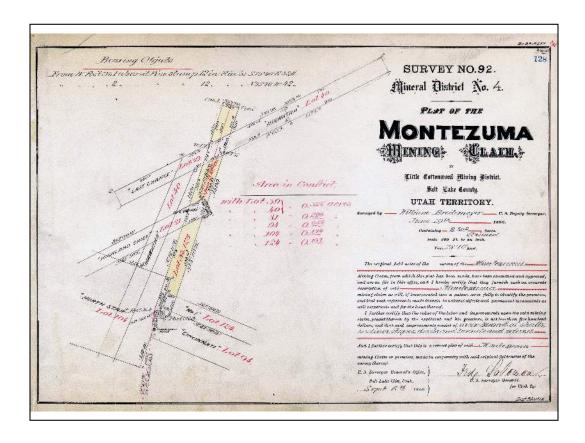
Close-up of the area computation table of the Allegan Lode amended survey. The patent description position of the Highland Chief is not listed as it is junior in right to the Allegan Lode.

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	SURVEY NO.59. 95
	Mineral District No. 4.
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	Mining CLAIN.
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milma of Page Committee	UTAH TERRITORY.
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See	Mining Claim, from which this piet has been made, have been examined and approved, and are so if is this sillers and I hereby existly that they furnish such an accurate description of mid. **THE CLAY CLEAN** mining daim as will, if incorporated into systems, every chily to identify the premiers and that such reference is made therein to noticed adjects and permanent manusaries will perjectuate and if the lower liversy. I parther certify that the reals of the lower and improvements upon the sold whising claim, placed thereing to be applicant and his greaters, is not too then for handred dallars, and that will improvement on the sold adults. And that wild improvement on the sold adults, and that wild improvement on the sold adults.
	and I further certify that this is a correct plat of said Netter Section
	mining claim or premises, made in conformity with anil original field rates of survey thereof. U. S. Surveyor General's Office.
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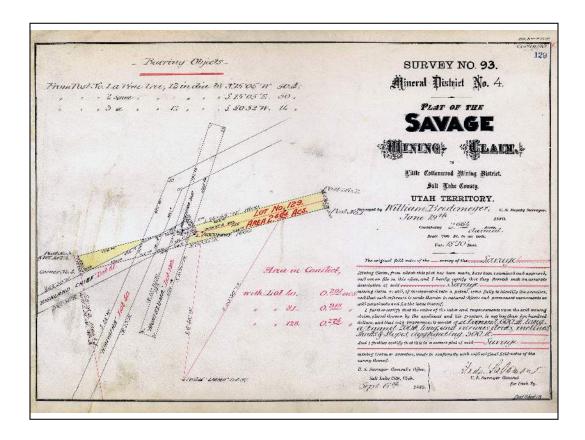
Plat of the South Star Lode, Sur. No. 59, Lot No. 95 showing conflicts with the Caledonia, Allegan, and North Star lodes and the theoretical position of the Highland Chief Lode.



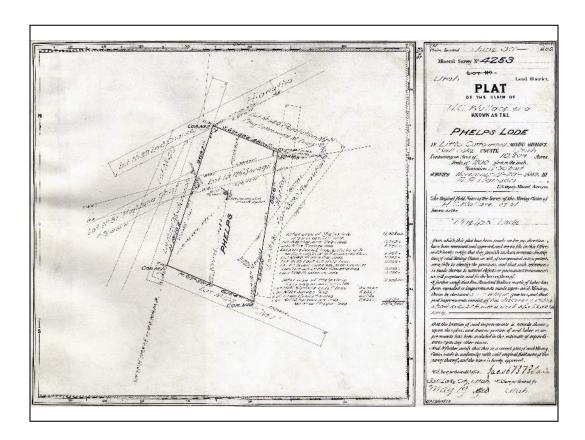
Plat of the North Star Lode, Sur. No. 68, Lot No. 104 showing conflicts with the Hiawatha, Caledonia, Flora Temple, and Allegan lodes and the theoretical position of the Highland Chief Lode.



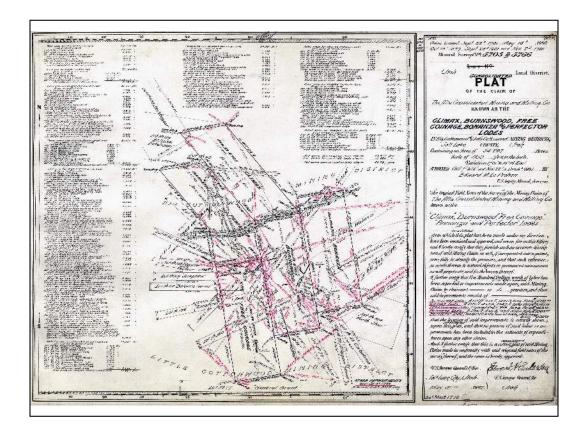
Plat of the Montezuma Lode, Sur. No. 92, Lot No. 128 showing conflicts with the Last Chance and Hiawatha, North Star, and Cincinnati lodes and the theoretical position of the Highland Chief Lode.



Plat of the Savage Lode, Sur. No. 93, Lot No. 129 showing conflicts with the Hiawatha, and Montezuma lodes and the theoretical position of the Highland Chief Lode.

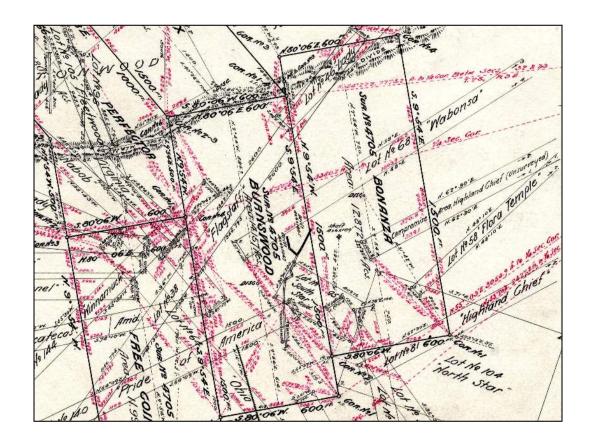


Plat of the Phelps Lode, Sur. 4253 showing that it adjoins and is bound on three sides by three lode claims, has conflicts with another four lode claims, and a conflict with the theoretical position of the Highland Chief Lode.



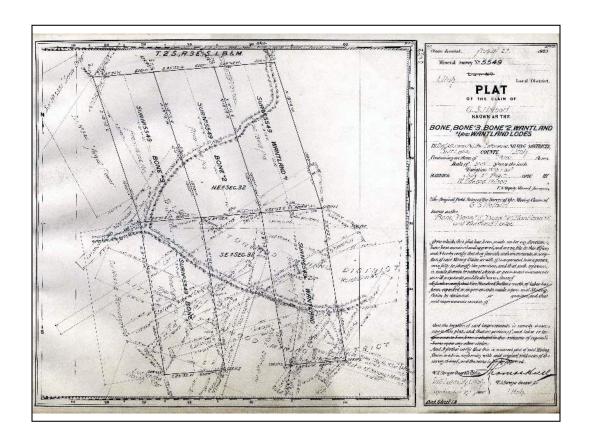
Plat of the Climax, Burnswood, Free Coinage, Bonanza, and Perfector lodes, Surs. Nos. 4705 and 4766 showing numerous conflicts with prior official surveys (as highlighted by the extensive area computations on the plat).

Note: For whatever reason, two or more mineral surveys are occasionally combined onto a single plat sheet in Utah.



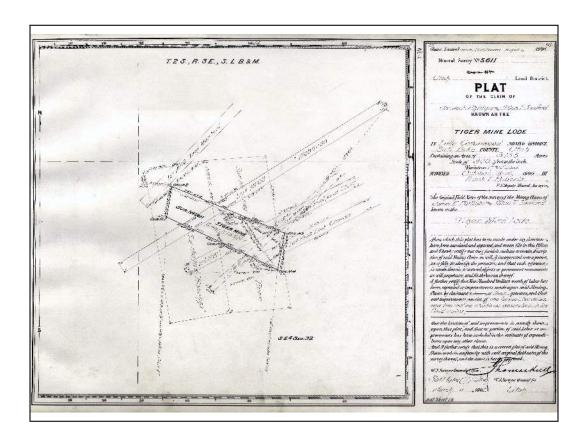
Close-up of a portion of the plat for Surs. Nos. 4705 and 4766. This is the first plat to show both the theoretical position of the Highland Chief Lode based on its connection to U.S. Mineral Monument No. 3 (bottom position labeled "Lot No. 81 Highland Chief") and its monumented position (labeled "Compromise Area, Highland Chief (unsurveyed)").

Note: The area computation for the Bonanza Lode excludes both positions of the Highland Chief Lode!

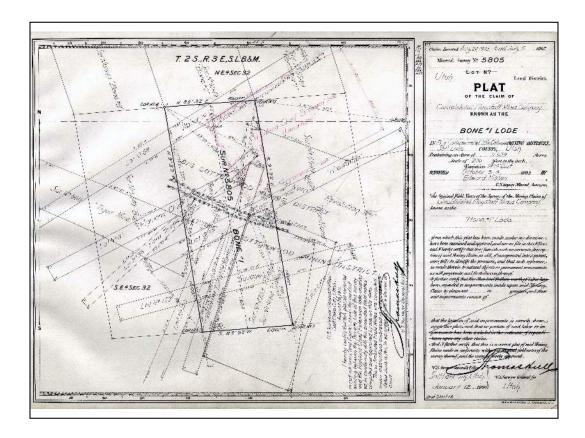


Plat of the Bone, Bone #3, Bone #2, Wantland #1, and Wantland lodes, Sur. No. 5549 showing numerous conflicts with prior official surveys. This survey was approved on September 7, 1907 and is the first mineral survey in the area to depict only the monumented position of the Highland Chief Lode.

Note: The position of the Highland Chief Lode matches the topographic call in its survey to the top of the divide.

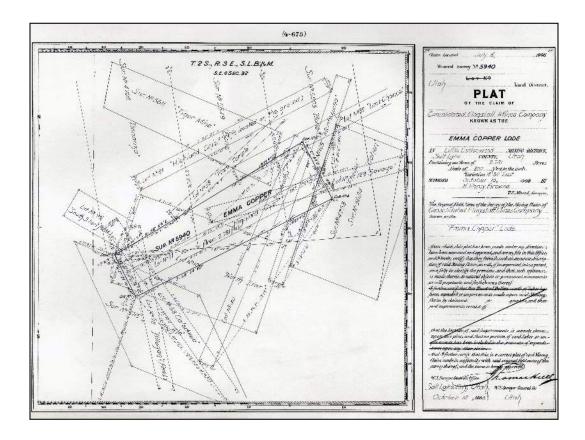


Plat of the Tiger Mine Lode, Sur. No. 5611 showing numerous conflicts with prior official surveys. This survey was approved on March 11, 1908 and only depicts the monumented position of the Highland Chief Lode.



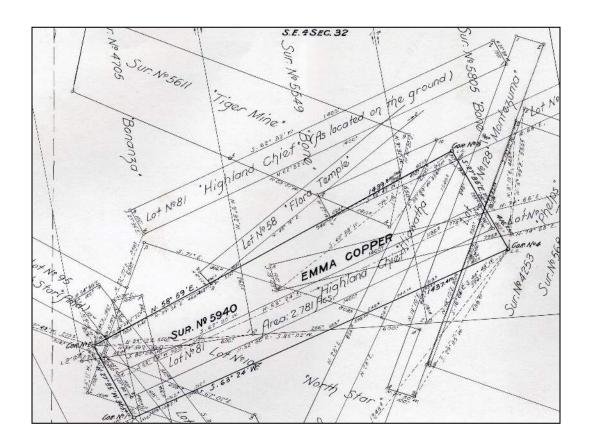
Plat of the Bone #1 Lode, Sur. No. 5805 showing numerous conflicts with prior official surveys. This survey was approved on March 11, 1908 and only depicts the monumented position of the Highland Chief Lode.

Note: The position of the Highland Chief Lode matches the topographic call in its survey to the top of the divide.



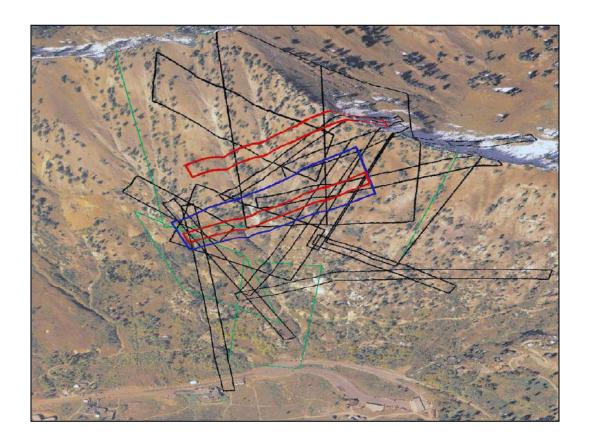
Plat of the Emma Copper Lode, Sur. No. 5940 showing numerous conflicts with prior official surveys. The Emma Copper Lode was located to claim the areas excluded in several lode claim patents that were in conflict with the theoretical position of the Highland Chief Lode. This survey was approved on October 18, 1909.

The Wasatch Mining Co. decision (DOI 45 L.D. 10) explicitly states that the, "supposed conflicts with the Highland Chief claim, which conflicts it now appears have no existence in fact, it must be held that the areas represented by these theoretical exclusions passed under the patents to the claims referred to and that there now remains no area subject to appropriation within survey No. 5940 of the Emma Copper claim." This is the only General Land Office decision that uses the term "theoretical exclusions" in reference to mineral lands patents.

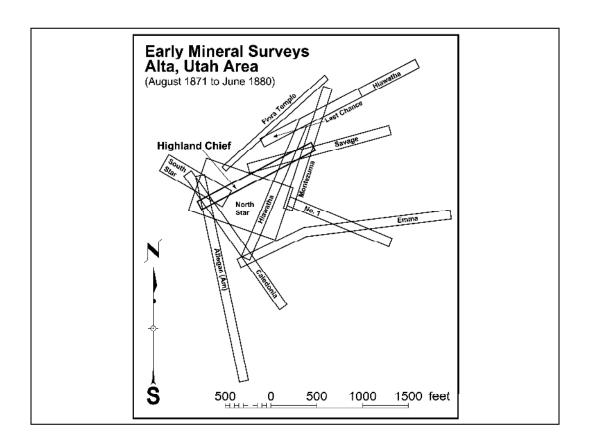


Close-up showing the Emma Copper Lode's claim to the theoretical exclusions of the Highland Chief. See the discovery and lode line within the boundary of the theoretical position of the Highland Chief Lode.

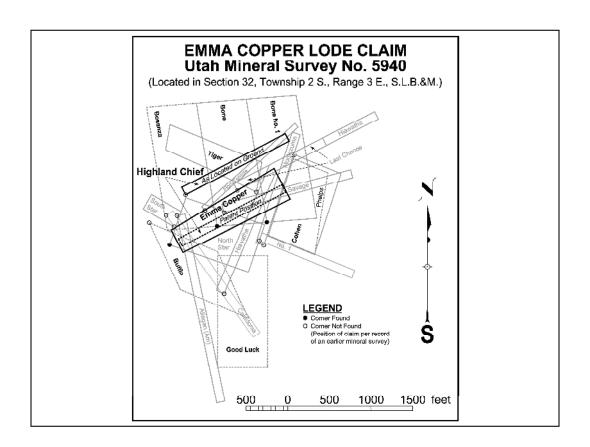
Note: The second location of the Highland Chief on the Emma Copper plat is its position as monumented on the ground and is labeled as such, "Lot No. 81 'Highland Chief' (As located on the ground)."



A three-dimensional depiction of Highland Chief and Emma Copper lodes and associated mining claims on the mountainside to the north of Alta, Utah. The green lines represent approved mineral surveys that never went to patent. The black lines are patented lode mining claims. The red lines show both the record position (bottom) and the monumented position (top) of the Highland Chief. The blue lines are the Emma Nevada lode claim that was staked to claim the theoretical position of the Highland Chief that had been expressly excepted and excluded from the nearby claims (in black).



Sketch diagram showing the early mineral surveys (1871 – 1880) in the Alta, Utah area. The position of the Highland Chief Lode is its record position which is approx. 600 down the hill from the monumented position that was created by a blundered connection to U.S. Mineral Monument No. 3.



Sketch diagram showing the Emma Copper Lode, Sur. No. 5940 and nearby lode claims. This sketch shows both positions for the Highland Chief Lode. The Wasatch Mining Co. decision voided the Emma Copper location.

Note: This is an example of the undocumented GLO policy (prior to June 1899) of using record positions of prior official surveys whenever the corners of those prior surveys could not be found. The field notes did not distinguish nor flag those conflicts as being record or actual positions, which can be problematic when trying to reestablish lost corners based on record information.

COLORADO SURVEYORS GENERAL AND THE MANUALS OF INSTRUCTIONS TO U.S. DEPUTY MINERAL SURVEYORS FOR THE DISTRICT OF COLORADO, 1873 THROUGH 1893 • William H. Lessig – October 20, 1873 (Source – Morrison's Mining Rights, 1875) • Thomas B. Searight – 8 Circulars – Sept. 29, 1874 to Sept. 27, 1875 (Source – Morrison's Mining Rights, 1875) • William L. Campbell – July 1, 1878 (Source – Morrison's Mining Rights, 1879) • Albert Johnson – June 1, 1880 (Source – Elements of Surveying and Leveling, Davies) 1883) • Norman H. Meldrum – October 1, 1883 (Source – Original) • James A. Dawson – June 2, 1886 (Source – Original) • Oney Carstarphen – May 1, 1889 (Source – Original) • Enery C. Humphrey – March 15, 1893 (Source – Original)

A list of the eight U.S. Surveyors General for the District of Colorado from the enactment of the May 10, 1872 Mining Law and the issuance of the first federal manual of instructions to U.S. Deputy Mineral Surveyors on October 25, 1895.

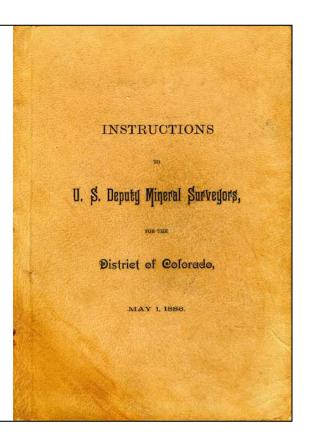
Note: Of the eight Surveyors General, seven issued their own set of instructions to U.S. Deputy Mineral Surveyors and the eighth (Thomas B. Searight) issued eight circulars that modified the instructions of his predecessor.

Photograph of a witness corner set on the extended line of several mineral survey corners that had been destroyed by landslide activity (to the left of the photo). The mountain in the background is Loveland Mountain.

Example Two of how to delineate discrepancies in the official record

Marginal notations in red ink on plats of prior official surveys

Situations prior to June 17, 1899



On May 1, 1886, U.S. Surveyor General James A. Dawson issued, "Instructions to U. S. Deputy Mineral Surveyors for the District of Colorado" that also included sample field notes, circular instructions to applicants for Mineral Survey Orders in the District of Colorado, and miscellaneous circular instructions.

FIRST INSTRUCTIONS (1886, CO) SPECIFYING A SEPARATE REPORT (f) The use or adaptability of the claim for placer mining, field notes. You will also submit your calculations of areas of and whether water has been brought upon it in sufficient quan placer and mill-site claims or other irregular tracts, tity to mine the same, or whether it can be procured for that 49. You will mention in your report the discovery of any material errors in prior official surveys, giving the extent of (g) What works or expenditures have been made by the the same. claimant or his grantors for the development of the claim, and their situation and location with respect to the same as ap-plied for. 50. Whenever a survey has been reported in error, the dep-uty surveyor who made it will be required to promptly make a thorough examination, upon the premises, and report the re-(b) The (rue situation of all mines, salt licks, salt springs, and mill seats, which come to your knowledge, or report that none exist on the claim, as the facts may warrant. sult under eath to this office. In case he finds his survey in error, he will report in detail all discrepances with the original survey, and submit any explanation he may have to offer as to (i) Said report must be made under oath, and duly corroborated by one or more disinterested persons the cause. If, on the contrary, he should report his survey correct, a joint survey will be ordered to settle the differences 44. Descriptive reports upon placer claims taken by legal subdivisions are authorized only by special order, and must contain a description of the claim in addition to the foregoing with the surveyor who reported the error. requirements. A joint survey must be made within ten days after the date of order, unless satisfactory reasons are submitted, under oath, for a postponement. 45. You will file with your field notes a preliminary plat on 52. The field work must in every sense of the term be a drawing paper or tracing muslin, protracted on a scale of two hundred feet to an inch, on which you will note accurately all the topographical features and details of the survey in conjoint and not a separate survey, and the observations and measurements taken with the same instrument and chain, previously tested and agreed upon. formity with the specimen plat herewith. Pencil sketches will not be accepted. 53. The deputy surveyor found in error, or if both are in error, the one who reported the same will make out the field notes of the joint survey, which, after being duly signed and sworn to by both parties, must be transmitted to this office. 46. You will also submit with your return of survey a report upon the following matters incident to the survey, but not re-quired to be embraced in the field notes. 54. The surveyor found in error will be required to pay all expenses of the joint survey and preliminary examinations incident thereto, including ten dollars per day to the surveyor whose work is proved to be substantially correct. 47. If the meridian from which your courses were deflected was established by other means than by the solar apparatus attached to your transit, you will state in detail your observa-tions and calculations for the establishment of such meridian 55. Your field work must be accurately and properly performed, and your returns made in conformity with the foregoing instructions. Errors in the survey must be corrected at 48. If any of the lines of the survey were determined by triangulation or traverse, you will give in full detail the calculations whereby you arrived at the results reported in your your own expense, and if the time required in the examina-tion of your returns is increased by reason of your neglect or

The 1886 instructions were the first to include a requirement that the mineral surveyor submit a separate letter report in addition to the preliminary plat and field notes. The report included, "matters incident to the survey, but not required to be embraced in the field notes." The March 15, 1893 instructions appended this clause, "....stating how the lines of the survey and all connections were determined;"

Note: The separate letter reports for mineral surveys conducted in Colorado do not appear to have been preserved with the official mineral survey records. Beginning in September 1904 a "Report" section was appended to and made a part of the official field notes. It contained the bulk of what was in the separate letter report. Circa 1932, this section was renamed to "Other Corner Descriptions."

field notes. You will also submit your calculations of areas of placer and mill-site claims or other irregular tracts.

49. You will mention in your report the discovery of any material errors in prior official surveys, giving the extent of the same.

ERRORS.

50. Whenever a survey has been reported in error, the deputy surveyor who made it will be required to promptly make a thorough examination, upon the premises, and report the result under eath to this office. In case he finds his survey in error, he will report in detail all discrepances with the original survey, and submit any explanation he may have to offer as to the cause. If, on the contrary, he should report his survey correct, a joint survey will be ordered to settle the differences with the surveyor who reported the error.

The last element of the letter report was to include any material errors of prior official surveys that had conflicts with the survey being conducted by the deputy.

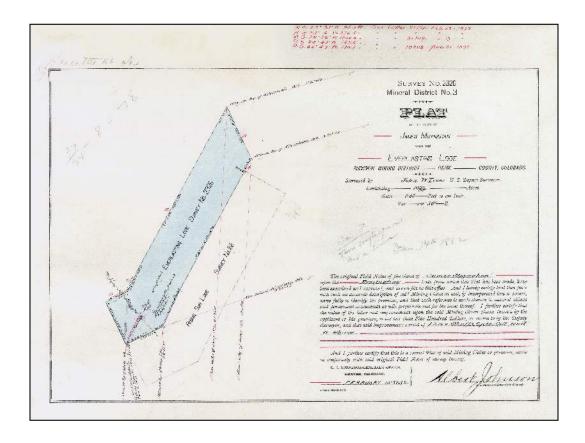
For situations where material errors were found in the prior survey, the deputy surveyor who made it was required to make a prompt examination and report the result. Should he report his survey to be correct, a joint survey will be conducted to settle the differences between the two mineral surveyors.

JOINT SURVEY.

- 51. A joint survey must be made within ten days after the date of order, unless satisfactory reasons are submitted, under oath, for a postponement.
- 52. The field work must in every sense of the term be a joint and not a separate survey, and the observations and measurements taken with the same instrument and chain, previously tested and agreed upon.
- 53. The deputy surveyor found in error, or if both are in error, the one who reported the same will make out the field notes of the joint survey, which, after being duly signed and sworn to by both parties, must be transmitted to this office.
- 54. The surveyor found in error will be required to pay all expenses of the joint survey and preliminary examinations incident thereto, including ten dollars per day to the surveyor whose work is proved to be substantially correct.

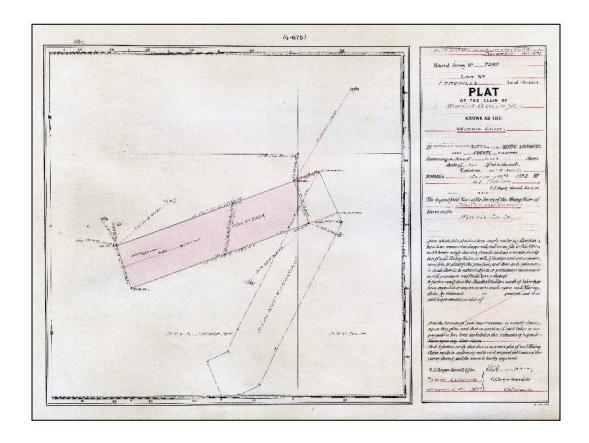
Joint surveys are conducted under the authority of a survey order issued by the U.S. Surveyor General. The U.S. Deputy Mineral Surveyors conduct the survey together and whomever is found to be in error, must pay all the expenses of the survey, which includes \$10 per day to the surveyor whose initial work is proved to be correct.

Note: If this practice of joint surveys to correct errors and/or discrepancies between two mineral surveys was adopted today, it would likely reduce the number of pin-cushioned corners!



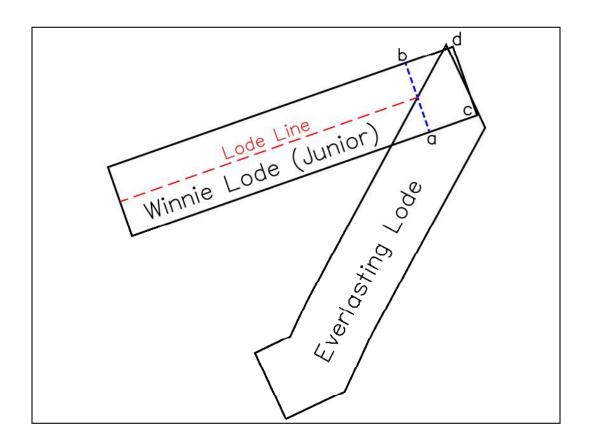
Plat of the Everlasting Lode, Sur. No. 2326 that shows it adjoining the Rising Sun Lode, Sur. No. 166. The two claims share three corners along their common side line. The top margin of the plat lists five material errors in red ink. The errors are referenced to three serialized letters dated: February 3, 1892; February 13, 1892; and August 21, 1897.

Note: The serialized letters are the separate letter reports first required in the 1886 instructions to be submitted by the U.S. Deputy Mineral Surveyor along with the preliminary plat and draft field notes.

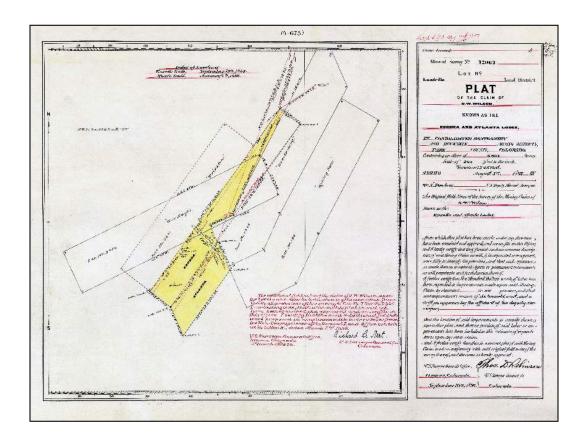


Plat of the Winnie Lode, Sur. No. 7288, which was surveyed when a GLO circular instruction required junior lodes to be truncated where their lode line intersected a senior lode claim's side line.

Note: The bearing of Line 5-6 of the Everlasting Lode, Sur. No. 2326 as shown on the plat of the Winnie Lode is S $28^{\circ}28'$ W; identical with the bearing of the material error of Line "B" as listed on the top margin of the Everlasting Lode's plat ("See Letter 21709 - Feb. 3 - 1892").



The Winnie Lode was surveyed in 1892 when the General Land Office had a circular instruction restricting the length of junior lode claims that intersected a senior lode claim. The circular required the U.S. Deputy Mineral Surveyor to move an end line wholly within the boundaries of a senior conflicting claim to a point where the lode line intersected the side line of the senior claim. Line c-d is the easterly end line of the amended location of the Winnie Lode. During the mineral survey of the Winnie Lode, the U.S. Deputy Mineral Surveyor moved the easterly end line to be coincident with a point that marks the intersection between the Winnie lode line and the side line of the Everlasting Lode (Line a-b).



Plat of the Eureka and Atlanta lodes, Sur. No. 12063 showing their conflict with the Everlasting Lode, Sur. No. 2326 and the War Eagle Lode, Sur. No. 3406 (abandoned).

Note: By 1897, the Colorado Surveyor's General office noted the date(s) that they received draft returns from the U.S. Deputy Mineral Surveyor on the approved plat. The mineral surveyor submitted two sets of draft returns for this mineral survey, those being received by the S.G.O. on August 10, 1897 and August 21, 1897.

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SURVEY No. 2326

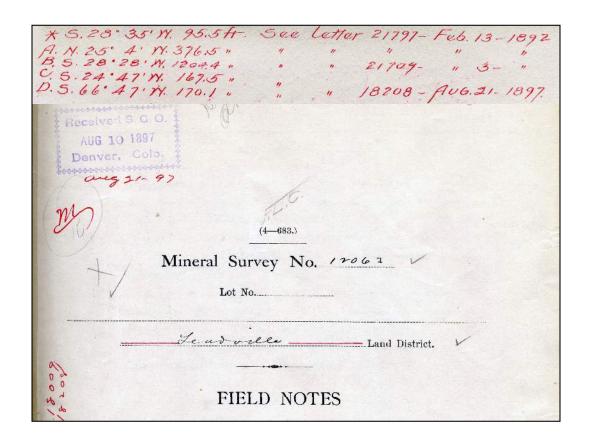
Mineral District No. 3

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Close-up of the five material errors in Survey No. 2326 (top half) and the upper portion of the cover page of the official field notes of Mineral Survey No. 7288 (bottom half) stamped with, "RECEIVED S.G.O., Feb 3 1892 DENVER – COLO." Below the stamp is a date of "Feb. 13 ——" which is the date that the second set of field notes were received by the S.G.O.

Below the dates are two five-digit numbers in red ink, "21709" and "21797" which are the serial numbers assigned by the SGO to the separate letter reports submitted with the preliminary plat and draft field notes by the mineral surveyor.

Matching the serial numbers and dates together, show that the mineral survey of the Winnie Lode discovered three material errors in the prior official survey of the Everlasting Lode, those being errors in course and distance between Cor. No. 6, Rising Sun Lode, Sur. No. 166 and Cor. No. 4, Everlasting Lode (line marked with a red "*"), and Lines 4-5 and 5-6 of the Everlasting Lode (lines marked "A" and "B").



Close-up of the five material errors in Survey No. 2326 (top portion) and the upper part of the cover page of the official field notes of Mineral Survey No. 12063 (bottom half) stamped with, "RECEIVED S.G.O., Aug 10 1897 Denver, Colo." Below the stamp is a date of "Aug 21 - 97" which is the date that the field notes were resubmitted to the S.G.O.

Below the dates are two five-digit numbers in red ink, "18009" and "18208" which are the serial numbers assigned by the SGO to the separate letter reports submitted with the preliminary plat and draft field notes by the mineral surveyor.

Matching the second serial number and date together, show that Sur. No. 12063 discovered two material errors in the prior official survey of the Everlasting Lode, those being errors in Lines 6-7 and 7-8 of the Everlasting Lode (lines marked "C" and "D" on the plat).



Photographs of stone monuments from lower right, counterclockwise:

Cor. No. 6, Rising Sun Lode, Sur. No. 166

Cor. No. 4, Everlasting Lode, Sur. No. 2326

Cor. No. 5, Everlasting Lode, Sur. No. 2326

Cor. No. 6, Everlasting Lode, Sur. No. 2326

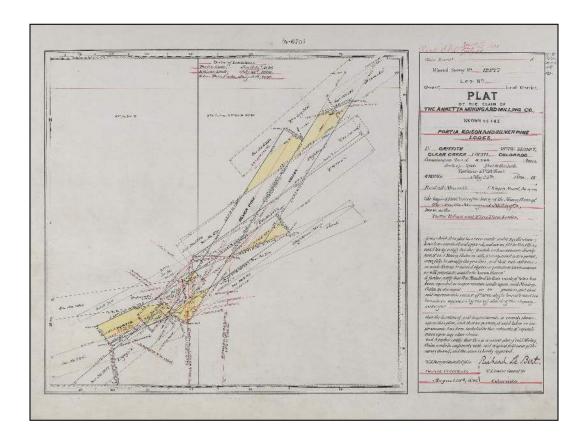
Note: The separate letter reports for mineral surveys conducted in Colorado do not appear to have been preserved with the official mineral survey records since they were regarded as auxiliary to the official field notes of the mineral survey. In September 1904, a "Report" section was added to the end of the field notes for mineral surveys.

JUNE 17, 1899 TO AUGUST 10, 1904

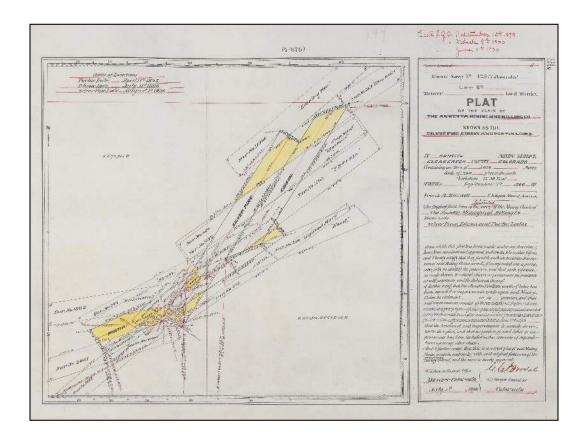
Between June 17, 1899 and August 10, 1904 the General Land Office adopted an absurd policy that required U.S. Deputy Mineral Surveyors to depict the patent description positions of prior official surveys when conducting mineral surveys. This was true regardless of whether the mineral surveyor was able to find the monumented positions of those prior official surveys.

The five examples below illustrate how a resurveyor can deal with the resultant discrepancies in the record during that time period.

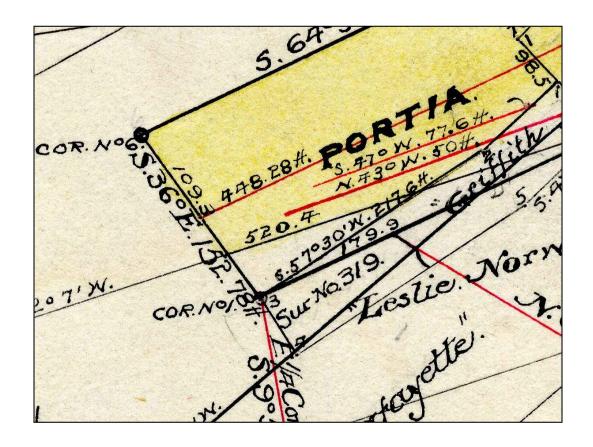
- 1. Original survey conducted before June 17, 1899 and an amended survey conducted during the five-year time period;
- 2. The location certificate shows the true position of past surveys;
- 3. Odd-shaped gaps between current and past surveys;
- 4. The use of tracts to exclude true conflicts from the patent; and
- 5. Original survey conducted during the five-year time period and an amended survey conducted after August 10, 1904.



Plat of the original survey of the Portia, Edison, and Silver Pine lodes, Sur. No. 12577. The field survey was conducted by Frank A. Maxwell on May 26-27, 1898 and approved on August 13, 1898.

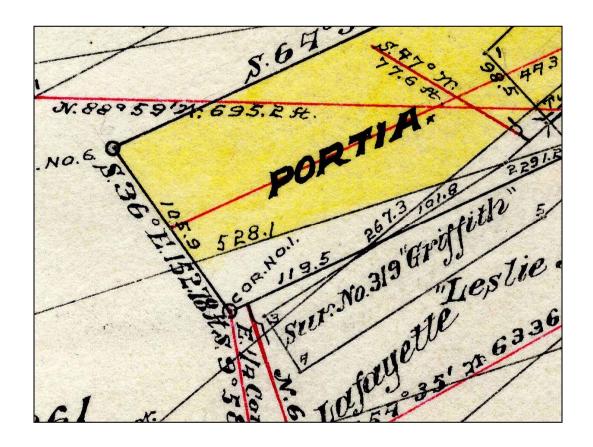


Plat of the amended survey of the Portia, Edison, and Silver Pine lodes, Sur. No. 12577. The field survey was conducted by Frank A. Maxwell on September 7, 1899 after U.S. Deputy Mineral Surveyors were required to show the patent description position of all prior official surveys rather than their monumented positions. The amended survey was approved on July 7, 1900.



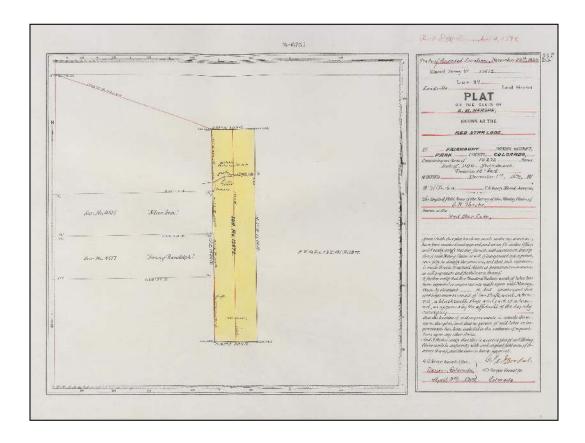
Close-up of the original plat of Sur. No. 12577 indicating that Cor. No. 1 of the Portia is common with Cor. No. 3, Griffith Lode, Sur. No. 319. The original field notes for the Portia Lode state, "Beginning at Cor. No. 1, Identical with Cor. No. 3 Sur. No. 319 Griffith lode, claimant unknown a cross (x) at corner point and 1-319 (typographical error, should be "3-319) – 1-12577 chiseled on ledge 10 x 20 ft. above the general surface."

Note: The official field notes for the Griffith Lode, Sur. No. 319 states, "Corner No. 3. Post in mound of stones, from which 3x319 chiseled on rock in place bears N. 32°30′ W at the distance of 7 feet...." Deputy Maxwell mistakenly accepted the bearing accessory 7 ft. from the corner as being the corner. In the separate letter report (index number 22845) submitted with the original survey plat and field notes of Sur. No. 12577 Deputy Maxwell reported a material error in Line 2-3 of the Griffith Lode, Sur. No. 319. The patented course and distance of Line 2-3 of the Griffith is S 57°30′ W, 217.6 ft. The top margin of the Griffith Lode plat states in red ink, "* S. 57° W. 203.4 ft. See Letter 22845 – June 15 – 1898."



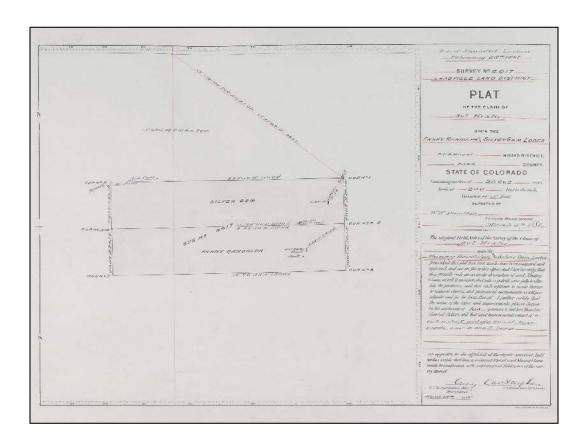
Close-up of the amended plat of Sur. No. 12577 indicating that Cor. No. 1 of the Portia Lode is approx. 30 feet from Cor. No. 3, Griffith Lode, Sur. No. 319. Deputy Maxwell computed the patent description position of Cor. No. 3, Griffith Lode to be S 85°39′ E, 30.47 ft. from Cor. No. 1 of the Portia Lode.

Note: The amended survey ignored the material error described in the previous slide and showed the patent description course and distance for Line 2-3 of the Griffith Lode.



Plat of the Red Star Lode, Sur. No. 13672 surveyed on December 1, 1899 and approved on April 9, 1900 showing a conflict with the Silver Gem and Fanny Randolph lodes, Sur. No. 4617.

Note: This example of a discrepancy in the official record depicts a situation where the mineral surveyor showed the true position of the prior official survey in the amended location certificate. In fact, the east end lines of the Silver Gem and Fanny Randolph lodes are located on Line 1-2 of the Red Star Lode. The metesand-bounds description in the official field notes show the same two end lines being 3.0 ft. inside the boundary of the Red Star Lode.



Plat of the Fanny Randolph and Silver Gem lodes, Sur. No. 4617, surveyed on March 5, 1887 and approved on March 25, 1887. The same mineral surveyor, W.H. Powless surveyed both mineral surveys in this example.

434.3	Intersect line 1-2 suc. no. 4617 silver
	lsem lode, at s. 88058'w. 2.7 fr. from
	Cor. no.1.
734.3	Intersect lines 3-4 and 5-6 Dur. 20. 4617.
	Dilver been and Fanny Randolph lodes
	at 5.88.88'W. 2.8 ft. from Crr. 200. 4f5
1034,3	Intersect line 7-8 sur. no. 4617 Fanny
	Randolph lode, at 5.88.58'w. 3 ft.
	from Cor. no. 8
1500	· 20 Car. 20.2
	a limestone 24 × 10 × 5 in set 15 ins.
A STATE	in the ground with mound of stone
	Christed 13672, whence
	Cor. no. 8 Rus. no. 4617 Fanny Randocph
THE REPORT OF	lode, bears n. 0°38'w. 465.7 ft.
	a dead spruce 24 ins. dia. blazed and
	scribed B. J. 13672, bears n. 15010'E.
#	35,5 ft.
	nix. Delverheels bean n. 17° 22' E.
	Thirty nine mile net. bean 5.490,5'E.

Excerpt from the Red Star Lode, Sur. No. 13672 field notes showing the intersections of Line 1-2 of the Red Star Lode with Line 1-2 and Line 3-4 of the Silver Gem Lode and Line 5-6 and Line 7-8 of the Fanny Randolph Lode. The conflict shown is with respect to the patent description position of the prior official survey.

and State of Colorado, described by metes and bounds as follows, to wit:

Beginning at Corner No. 1 There & o o o 7 & faces ing el. leveling side

State at 150 ft. 1500 ft to Cox Ha & therein 189°3' & 3 as ft.

to cot no 3 There no o o ft to Cox Hose there & 89°3' co.

State at 150 ft. 1500 ft to Cox Hose there & 89°3' co.

Sao ft to Cox No 1 Way Var 13°50 &

From Cox No 2 Cox No 8 af sur No +617 Farmy Raw

dolph lade hase no o o 1 w. 470 3 ft.

This Claim line in n & 12 af sec 23 510 DR, 78 w.

af the 62 om

Field survey measurement between Cor. No. 2, Red Star Lode, Sur. No. 13672 to Cor. No. 8, Fanny Randolph Lode, Sur. No. 4617 (after rehabilitation) is **N 1°01'46" E, 470.01 ft.**

Excerpt from the amended location certificate included in the official field notes of the Red Star Lode. The metes-and-bounds section of the field notes state that Cor. No. 8 of the Fanny Randolph Lode is N. 0°38′ W. 465.7 ft. from Cor. No. 2 of the Red Star Lode. However, the amended location certificate prepared by Dep. Powless shows the course and distance to be N. 0°57′ W. 470.3 ft.

Note: During a resurvey completed in 2009, the course and distance between the found Cor. No. 2 of the Red Star Lode and the reestablished Cor. No. 8 of the Fanny Randolph is N. 1°01′46″ E., 470.01 ft.



Photograph of Cor. No. 2, Red Star Lode, Sur. No. 13672. Found original stone monument, a gray limestone 5×10 ins. protruding 12 ins. above ground surface, in a mound of stone. A 2×2 ins. section is missing from the south end of the top of the stone where the Cor. No. "2" should be. No chiseled "X" found. Used the high point as the corner. East face is chiseled 13672.



Photograph taken in the vicinity of Cor. No. 8, Fanny Randolph Lode, Sur. No. 4617. The original call is for a 4 x 4 in. wood post scribed 8-4617.



Close-up photograph of what appears to be the remnants of a mound of stone surrounding a bare patch between the fallen pine tree and Aspen sapling. Beneath the pine tree is some rotted wood (to the left of the mound of stone).



Photograph of rotted wood post after moving the dead pine tree to the left.



Photograph of rotted remnants of the original wood post set on March 5, 1887 to monument Cor. No. 8 of the Fanny Randolph Lode.



Close-up photograph of the top of the wood post showing faint scribing of "8-4617." The wood post had rotted and fallen with the scribed face down and preserved after the pine tree fell.



Cor. No. 8 of the Fanny Randolph was remonumented after excavating the center of the original mound of stone to expose the remnants of the original 4×4 in. wood post. A 30 in. long, No. 6 rebar was driven to refusal through the center of the post remnants and a $2 \frac{1}{2}$ in. diameter aluminum cap affixed.



Photograph of set monument and rebuilt mound of stone.

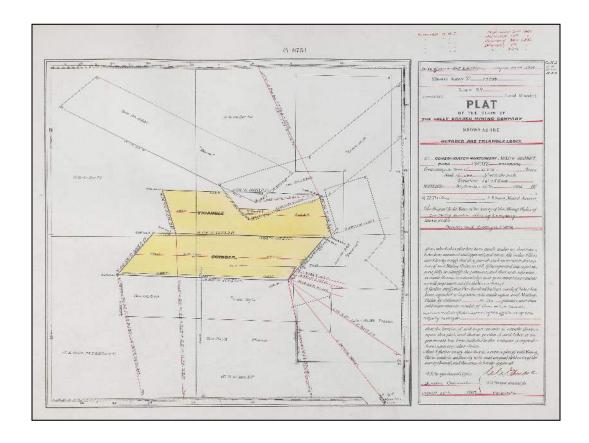
ADDITIONAL NOTES:

1. The official field notes, plat and patent of the Red Star lode describe and show a conflict with the Silver Gem and Fanny Randolph lode claims. However, the conflict is theoretical in nature. At the time of the survey of the Red Star lode (December 1, 1899), the General Land Office's (GLO) policy was to accept the record position rather than the monumented position of the prior patented claims. The Act of April 28, 1904 overturned the General Land Office policy. The act unequivocally states that the long—established legal principle of monuments controlling over course and distance also applies to mineral surveys. Several Dept. of Interior Land Decisions dealt with the aftermath of this erroneous policy.

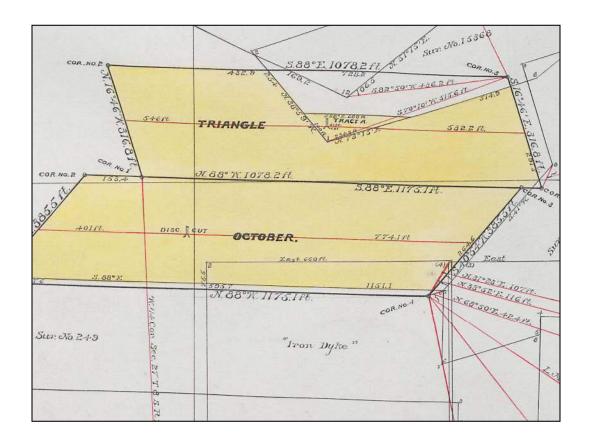
In the Wasatch Mines Company Dept. of Interior Land Decision (45 L.D. 10) this type of conflict was defined as a theoretical conflict. The Wasatch Mines decision stated that, "Where exclusions are made from mining claims of supposed conflicts with a prior patented claim, and the position of the prior patented claim as actually marked, defined and established upon the ground is not identical with its position as represented upon the plat and described in the field notes of survey, and the supposed conflicts have no existence in fact, the areas represented by such theoretical exclusions pass under the patents to the claims..." While conducting the field survey of the three claims it was determined that Line 1-2 of the Red Star lode is coincident with Line 4-1 of the Silver Gem lode and Line 8-5 of the Fanny Randolph lode. The theoretical positions of the Silver Gem and Fanny Randolph bear \$30°9'E, a distance of 6.0 feet from their true, monumented positions. The amended location certificate in the official field notes of the Red Star lode states that Cor. No. 8 of the Fanny Randolph bears N00°57'W a distance of 470.3 feet from Cor. No. 2 of the Red Star lode. This survey determined the tie to be N01°01'46"W a distance of 470.01 feet. Therefore, the actual conflict between the Red Star lode and the Silver Gem and Fanny Randolph lode claims is 0.000 acres and the area of the Red Star lode as determined by this field survey is 10.328 acres, more or less.

Additional Note 1 on the Land Survey Plat describes the discrepancy in the official record and how it was addressed. The note describes the theoretical exclusion in the patent of the Red Star Lode, Sur. No. 13672, Mineral Entry No. 4546, Patent No. 33255, Date of Patent – December 3, 1900.

Note: The Wasatch Mining Co., Department of the Interior Land Decision (45 L.D. 10) is discussed earlier in this part on discrepancies in the official records.

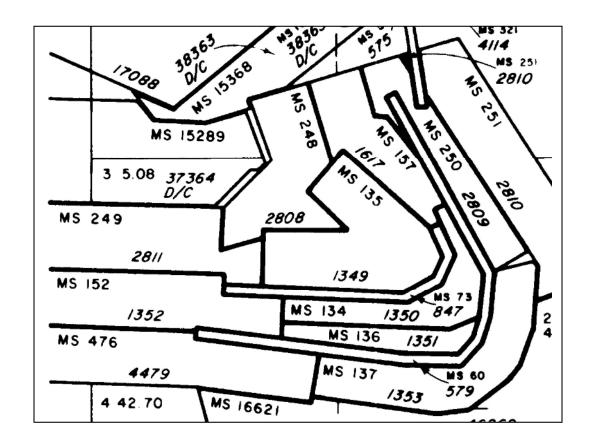


Plat of the October and Triangle lodes, Sur. No. 15289 showing two odd-shaped gaps between the two end lines and the westerly side line of the Polaris Lode, Sur. No. 248.

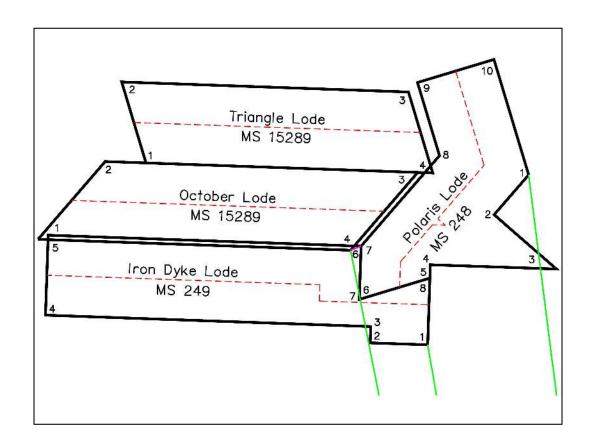


Close-up view of the plat of Sur. No. 15289.

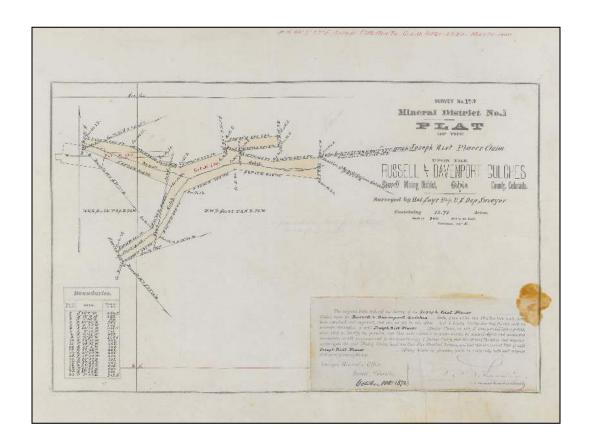
Note: The lengths of the October and Triangle lodes along the lode line are 1175.1 ft. and 1078.2 ft., well short of the statutory maximum length of 1500 ft. authorized by the 1872 Mining Law. There is no rationale given as to why the October and Triangle lodes did not claim the gaps between the three claims, esp. since both end lines are parallel to the respective segments of the westerly side line of the Polaris Lode.



Supplemental Master Title Plat of a portion of Sec. 27, T. 8 S., R. 78 W., 6th P.M. showing the gaps between Surs. Nos. 248 and 15289 as being Federal Interest Lands open for mineral entry.

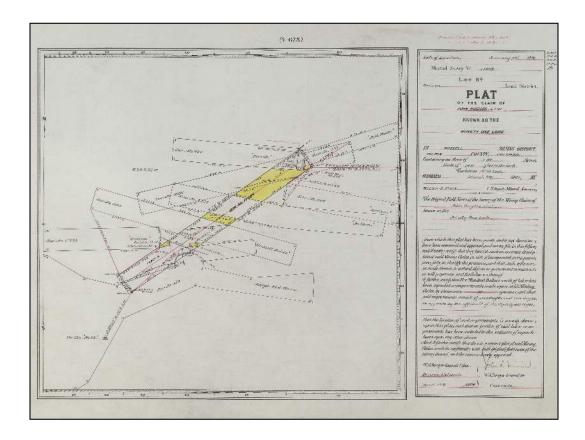


Sketch diagram showing the patent description positions of Surs. Nos. 248 and 249 with respect to the October and Triangle lodes of Sur. No. 15289. The green lines represent the connections to the N¼ Cor. of Sec. 3, T. 9 S., R. 78 W., 6th P.M. that the two patent description positions of the Polaris and Iron Dyke lodes are based upon.



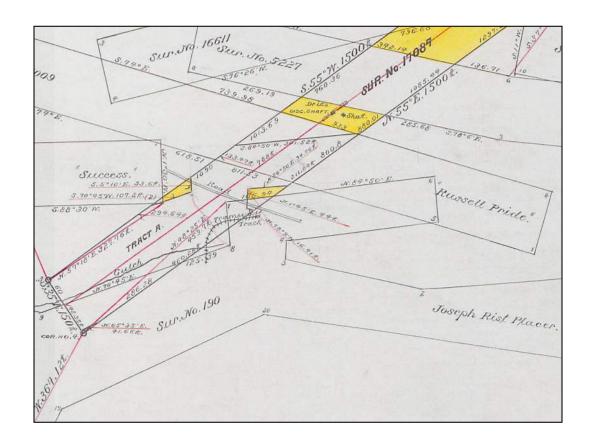
Plat of the Joseph Rist Placer Claim, Sur. No. 190, a gulch placer located southwest of Central City, Colorado.

Note: The top margin has in red ink a notation reiterating the patent tie to the east Range Line of T. 3 S., R. 73 W., 6th P.M.



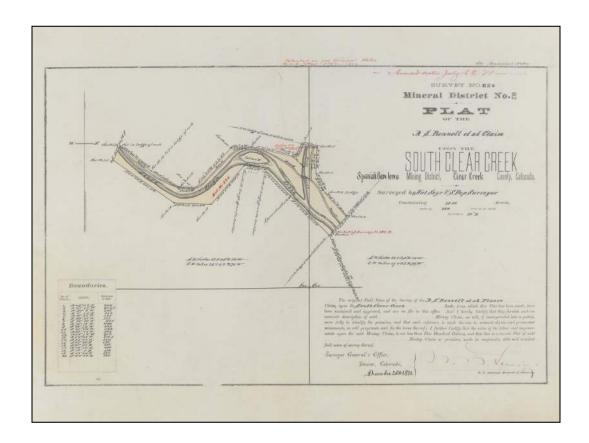
Plat of the Ninety One Lode, Sur. No. 17084 that was approved one day before the Act of April 28, 1904 that rescinded the five-year policy that patent description positions of prior official surveys be depicted rather than the monumented positions of those senior claims.

This is an example of the use of tracting to exclude the area of true conflict with a prior official survey from the patent (in this example, Tract A).



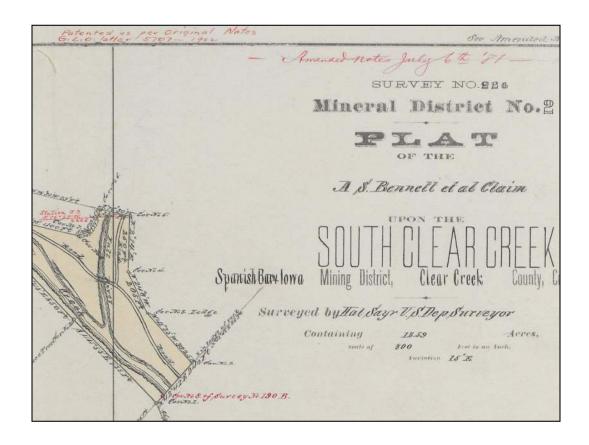
Close-up view of the Ninety One Lode plat showing the outline of Tract A.

Note: There are red pencil lines that start at Cors. Nos. 4 and 8 of the Joseph Rist Placer Claim and end at angle points in the boundaries of two yellow-shaded areas. An unknown person altered the Colorado Surveyor's General original plat to show where the true positions of Cors. Nos. 4 and 8 of the Joseph Rist Placer Claim are located in addition to the placer's officially recognized patent description position.



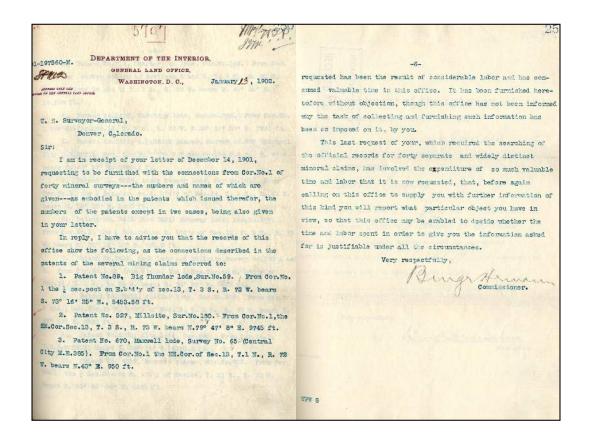
Plat of the gulch placer claim of A.S. Bennett, *et al.*, Sur. No. 226, which is located at the confluence of South Clear Creek and Fall River.

Note: The placer claim fully encompasses both South Clear Creek and Fall River within its boundaries.



Close-up of plat highlighting five notations added to the official plat after its approval on December 26, 1872. A black ink notation states, "See Amended notes" that are dated April 28, 1873. A notation in red ink shows the position of Cor. No. 8 of Sur. No. 190-B. The plat also has two notations in red ink regarding amended notes of July 6, 1881 and an associated connection to Station 39 of the Idaho Springs Triangulation Survey that was completed in early May 1881.

Note: The remaining notation in red ink states, "Patented as per Original Notes G.L.O. letter 5707 - 1902." The next slide contains the first and last page of the referenced Departmental letter followed with a second slide showing the information for the A.S. Bennett Placer Claim.

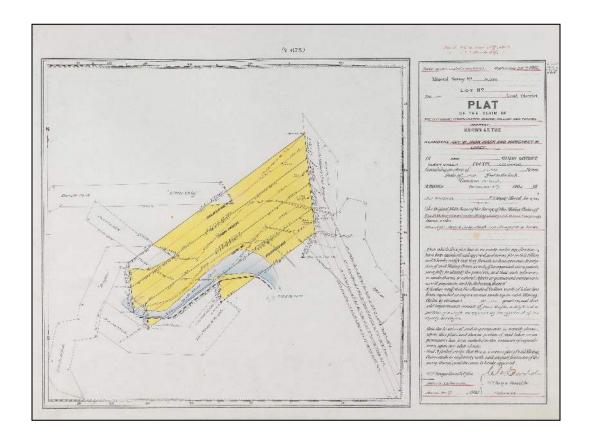


General Land Office Departmental Letter "N" dated January 13, 1902. The top of the first page has "5707" in red ink. This is an index number assigned by the SGO to track the incoming G.L.O. Commissioner's correspondence to the U.S. Surveyor General for the District of Colorado. The letter from the GLO Commissioner's office is in reply to a request from the Colorado Surveyor General to provide the connections to PLSS corners from Cor. No. 1 of 40 mineral surveys.

The last page of the Commissioner's letter requests the reason for these requests due to the great effort to provide the information. The requests had been made to verify which connection to be used when showing the patent description positions of prior official surveys in situations where amended notes and/or surveys have been done to correct a material error in the connection.

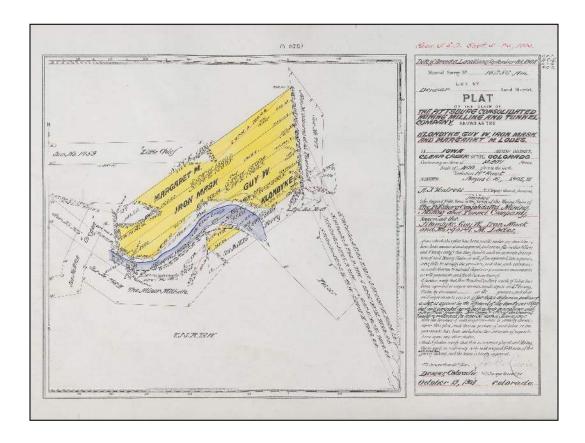
```
7. Patent No. 2029, Anoka County lode, Sur. No. 191. From
Cor.No.1, the & Sec.Cor. on S. b'd'y of Sec.34, T. 3 S., R. 73 W.
bears S. 25° 30' E. 5900 ft.
 8. Patent No. 2418 (not 2421) Notaway lode, Sur. No. 407.
From Cor.No.1, the 1 Sec.Cor.on E. b'd'y of Sec.13, T. 3 S., R. 73
W. bears N. 81° 16' 53" E. 690.8 ft.
9. Patent No. 2430, Cook lode am Millsite, Survey No. 190 A and
B. From Cor.No.1 of lode claim, the & Sec.Cor.on S. b'd'y of
Sec.34, T. 3 S., R. 73 W. bears S. 24° 37' E. 5543 ft.
    10. Patent No. 2601, Cissler lode, Sur. No. 309. From Cor. No.
1 the 1 Sec. Cor. in E. b'd'y of Sec. 13, T. 3 S., R. 73 W. bears N.
67° 57' E. 5823 ft.
11. Patent No. 4300, Alta lode, Sur. 295. From Cor. No. 1,
U.S.L.M.No.13 bears S. 24° 16' W. 4370.8 ft.
12. Patent No. 4362, Bennett placer, Sur. No. 226. From Cor.
No.1, the 1 Sec.Cor.on S. b'd'y of Sec.34, T. 31 S., R. 73 W.
bears S. 22° 46' 50" E. 6281 ft.
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Excerpt from Page 3 of the above Letter "N" (5707). Item 12 lists the connection to use for Patent No. 4362, Bennett placer, Sur. No. 226 when showing its patent position on the plat of the junior survey that has a conflict with the Bennett Placer.



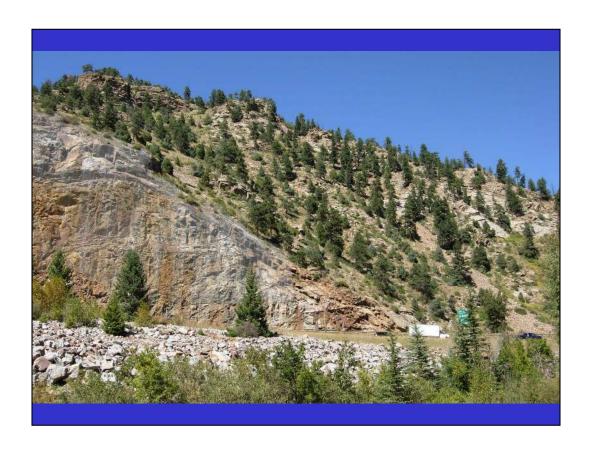
Plat of the original survey of the Klondyke, Guy W., Iron Mask and Margaret M. lodes, Sur. No. 16256 that was surveyed December 5-9, 1902 and approved on March 24, 1903.

Note: The plat of the Bennett Placer, Sur. No. 226 shows that South Clear Creek is wholly within the boundary of the Bennett Placer. Because this survey was conducted during the time period where the patent description position was required to be shown, only a small portion of the stream is within the placer's boundary. In fact, the patent description position is N. 33°36′ E., 386.4 ft. from the monumented position of the Bennett Placer.

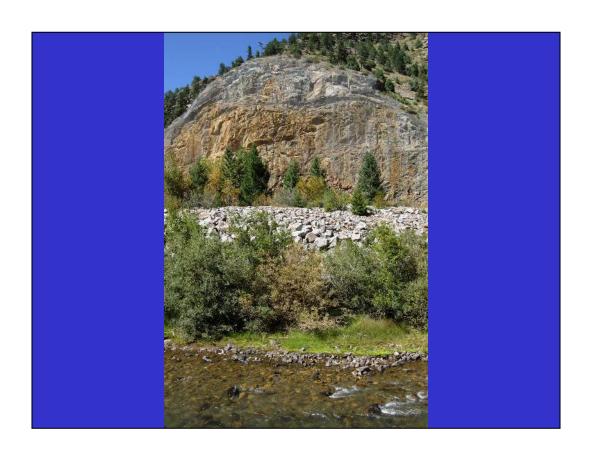


Plat of the amended survey of the Klondyke, Guy W., Iron Mask and Margaret M. lodes, Sur. No. 16256 that was surveyed August 14-16, 1905 and approved October 19, 1905. Both the original survey and the amended survey were conducted by A.J. Ventress.

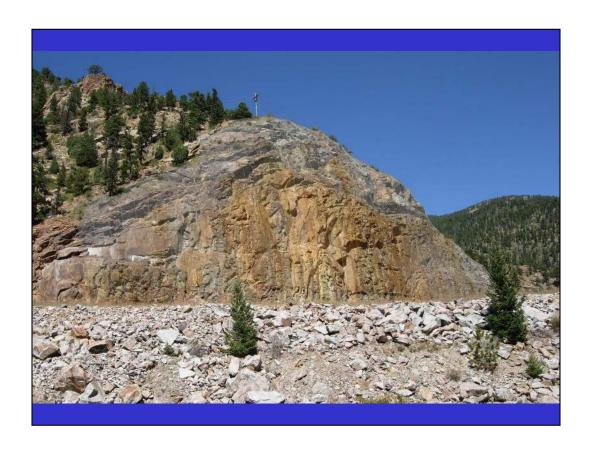
Note: The position of the Bennett Placer on the amended survey plat was determined by locating three corners of the survey. Those being Cors. Nos. 6, 7 and 17 as described in the "Report" section of the official field notes.



Photograph of the mountainside that the four lode claims of Sur. No. 16256 are draped over. The patent description position of the Bennett Placer, Sur. No. 226 as depicted on the original plat of Sur. No. 16256 would be on the rock face.



Another photograph of the area showing South Clear Creek in the foreground. I-70 is between the creek and rock face.



Photograph looking to the north-northeast of the same rock face that the Bennett Placer's patent description position is draped across.

	Report.
	1st This servey was made by running
HABSEN	zud lines of both claims and line 1-2
	of Cenator Patterson lode.
	Connections to corners of conflicting
	or adjacent surveys were made directly
	on the ground.
	Dies to section corner were computed
	through cor. no. 1 of sur. no. 15889 mater
	lode, made by myself.
10	2 m The see core of sec. 7 is a granite seme
	10 x 5 ins., projecting 12 ins. out of the
	ground with mound of stone, clusied
	IIIII on Es face, Il on n. face and IIII on 5 face.
1	3rd Com. no. 2 Run. no. 205 Paris lode being
	also cor. no. 1 sur. no. 206 London lode, is
	a granité stone chisèles 205 on 52 face
	and ios on new face: Cor. no. 4 km. no.
	2091 actua lode is a granite stone, chis-
	eled 2091; Cor. no. 1 Lu. no. 1997 ameri-
	can lode is a granite stone chiseled

There is no evidence that the separate letter reports submitted by the U.S. Deputy Mineral Surveyor along with the preliminary plat and draft field notes were preserved with the official mineral survey records. In September 1904, John F. Vivian, the U.S. Surveyor General for the District of Colorado issued circular instructions that required a "Report" section be included in the official field notes. The Report section contains information similar to the earlier separate letter report.

The next four slides contain the "Report" section from the official field notes of the Senator Patterson and Towne lodes, Sur. No. 17327 that was approved on April 19, 1905.

The Report section describes what lines of the survey were run (Line 1-2 of the Senator Patterson and the end lines of both claims) and lists all corners (including how they were marked) that were found during the retracement of the prior official surveys that adjoin or conflict with the two lodes of Sur. No. 17327.

1997: Cor. no. 1 Den. no. 4348 Emma nevada lode is a granite stone chiefled 4348; Cor. no. 2 lu. no. 6223 Ida lade is a granite serve chiseled tirs; Cor. no. 3 Run. no. 6223 Ida lode is a grande stone chieled tirs; Cor no. 1 Pur. no. 6223 Ida lode is a granite severe chiseled tiro; Cor, no. 4 Rur. no. 6223 Ida lode is a grande stone chisiled this: Cor. no 2-3 Rue, no 14297 Philemon and Expansion lodes, is a conglomerate stone chesited 14197: Cr. no 2-3 per. 20, 14297 Wina and Philemon lodos is an imbedded grande boulder, cheseled 14297 : Cor. no. 0 Rue, no. 14297 mina lode is a schist stone chieled 14297; cor. no. 2 Dies. no. 14297 Expansion lode is a conglomerate alone cheseled 14297: Cor. nos. 4-1 Due. 20.14297 Expansion and Phile. mon lodes is a conglamerate sever chiseled 14297 ! Cor. 200. 4-1 Dur. 20. 14297 Philemon and nina lodes is a peoply my stone

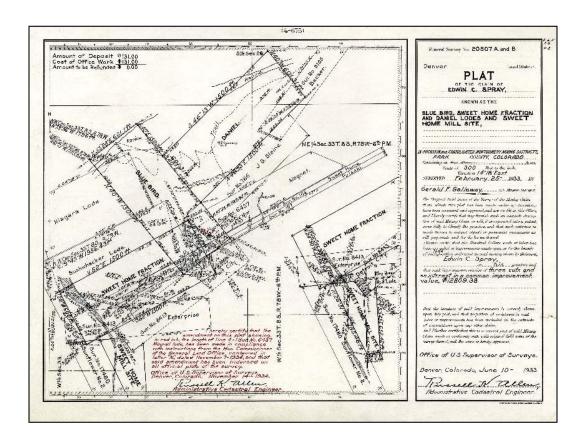
Continuation of the "Report" section describing the found stone monuments of prior official surveys.

chiseled Turgy: Cor. & Ren. no. 14297 nena lode is a prophyry serve chiciled 4d: The courses and lengths of the intersecting boundary lines of conflicting surveys were determined on the ground It! The common corners of Rue, no. 204 moch er lode and Sur. 20, 201 Paris lode are missing having been carried away by slides. The position of cor. no. 2 of the former which is cor, no. 1 of the latter was determined by the bearing rock for it found on the ground. Crr. no. 4 of Run. no. 204 mocher lode is in position 300 fr. northeasterly of cor. no. 1 of said lode as described above. It is a green stone chiseled 204. Cor. no. 3 Run. no. 205 Paris lode, also Cor. no. 6 am. no. 206 London lode is in position about 300 fs. northeasterly of cor. noo. 2-1 of said am verys as stated and as described above: It is a quarte stone chiefled 205 on SE

Continuation of the "Report" section describing the found stone monuments of prior official surveys and how a corner that was "carried away by slides....was determined by the bearing rock for it found on the ground."

face and too on n. 2 face: Cor, no. 4 7 Ren. 120, 4348 Emma nevada lode is in posetton about 300 ft. witheatterly from Cor. no. 1 as classed and as described above. It is a granite stone chisched 4548. Coro. nos. 2 and 3 of said Run. no. 4548 Emma herada lode have been carried away by seides. Die Cor. no. 1 Rur. no. 204 mother lode to Sw. Cor. Sec. 7 is 5.42059 45"w. 2175.1 ft. as stakes. Die Cor. no. 1 Der. no. 4348 Emma nevada lade to Sw. cor. Rec. 7 is S. 51.35' W 2425.2 ft., as staked. Line 4-1 Rue. 20, 2091 action tode was determined on the ground and is N. 340 15'40"w. 1518.5 ft. Line 1-2 Rur. no. 205 Paris lode was determined on the ground and is 4.33021'W. 1504.5 ft. Line 1-2 lur. no 204 mother lode was determined on the fround and in n. 3408'W. 1624 ft.

Continuation of the "Report" section, which describes the connections from Cors. Nos. 1 of the Mother Lode, Sur. No. 204 and the Emma Nevada Lode, Sur. No. 4348 to SW Cor. Sec. 7. The connections include statements that the measurements were made between the corners, "as staked." This term was included in Vivian's instructions to denote that the mineral surveyor actually measured the lines rather than substituting record measurements of the prior official surveys.



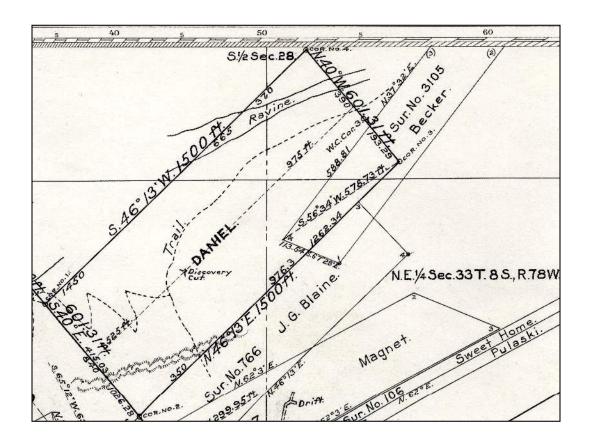
Plat of the Blue Bird, Sweet Home Fraction and Daniel lodes, and the Sweet Home Mill Site, Sur. No. 20507 A and B that was approved on June 10, 1933. The plat has an additional certification in red ink to validate the insertion of a missed dimension on the plat.

Sur. No. 106 Sweet Home Lode: Cor. No. 1 was found in place and properly marked. Cors. Nos. 2 and 3 were destroyed. Cor. No. 4 had fallen over into an old ditch and about 5 ft. out of true position. Line 2-3 is shown 50 ft. long as approved and on line 2-3 Sur. No. 107 Fulaski lode projected; as thus fixed line 2-3 is s. 28° 00' E. instead of S. 26° 57' E. as approved, and line 1-2 is N. 61° 58' E. 2834.83 ft. instead of N. 63° 03' E. 2700 ft. as approved. Cor. No. 4 is shown on line 1-2 Sur. No. 107 Fulaski lode at S. 28° 00' E. from Cor. No. 1; as thus fixed line 5-4 is S. 62° 00' W. 2634.83 ft. instead of S. 65° 03' W. 2700. ft. as approved, and line 4-1 is N. 28° 00' W. 48.3 ft. instead of N. 26° 57' W. 50 ft. as approved.

Sur. No. 766 J. G. Blaine Lode: Cor. No. 1 was found properly marked but slightly fallen over in the rock slide, and was set in its original position. Cor. No. 2 was found in place and properly marked. Cor. No. 3 was destroyed. Cor. No. 4 had fallen out of place down a cliff and was replaced in the mound of stones where it was originally. Line 1-2 bears N. 43° 54' W. 299.95 ft. instead of N. 44° 19' W. 300 ft. as approved. Line 4-1 was found to be S. 46° 13' W. 1462.5 ft. instead of S.45° 41' W. 1500 ft. as approved. Line 2-3 is shown parallel with, and same length as, line 4-1.

Sur. No. 3105 Becker Lode: Cors. Nos. 2, 3 and 4 could not be found. Cor. No. 1 is identical with Cor. No. 4 Sur. No. 3106 Colorado Springs lode, which was found fallen over but was reset in its original position. Lines shown as approved.

Circa 1932, the "Report" section of mineral survey field notes was renamed to "Other Corner Descriptions." This example is from the field notes of Sur. No. 20507 A and B.

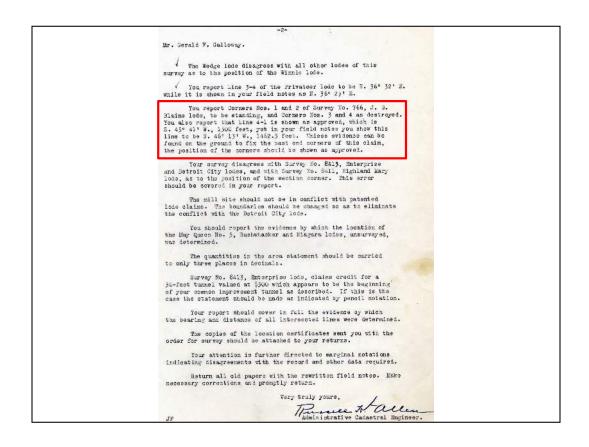


Close-up view of the plat showing the conflict between the Daniel Lode and the Becker Lode, Sur. No. 3105. The third paragraph of the Other Corner Descriptions in the previous slide states that only Cor. No. 1 of the Becker Lode was found, that Cors. Nos. 2, 3, and 4 were not found, and, therefore the lines of the Becker Lode were shown as approved.

Note: Since Cor. No. 4 of the Becker Lode was shown in its approved position, the connection shown on the plat from Cor. No. 3 of the Daniel Lode to Cor. No. 4 of the Becker Lode cannot be relied upon to reestablish the Becker corner. Boundary evidence collected during a dependent resurvey of the Becker Lode must be fully evaluated to reestablish its boundary.

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UNITED STATES
                                    DEPARTMENT OF THE INTERIOR
                                            GENERAL LAND OFFICE
                                          OFFICE OF THE SUPERVISOR OF SURVEYS
                                                        DENVER, COLORADO
                                                                                                        January 18, 1933.
                 Mr. Gerald F. Galloway,
U. S. Mineral Surveyor,
Alma, Colorado.
                Dear Sir:
                               Field notes of Survey No. 20504 are herewith returned.
                               Paragraphs 695 and 697 of the Manual provide that only
                 contiguous lodes can be embraced in a single survey. The Blue Bird, Daniel and Sweet Home Fraction lodes are not contiguous to the other six lodes of the survey, and the claimant should designate which group he desires approved under Survey No. 20504 and file an amended application for the balance. Upon receipt of the application, new number will be assigned to the balance of the lodes.
                In rewriting your field notes, wide spaces between paragraphs and at the bottoms of pages should not be left.
                 In marking the corners, sufficient initials of the name of the lods should be used to distinguish the Social Pund from the Stlent Friend lodes of this survey.
The Spray and Kasel lodes should be fied to the same corner as the other four lodes of the survey (see paragraphs 706 and 707 of the Manual).
            The Wedge and Grackerjack lodes disagree with the Social Fund lode as to the position of the section corner.
            Silent Friend and Kasel lodes are in conflict with Survey \sqrt{\, No. 3406, War Eagle lode, not shown by your returns.
            The Kasel lode disagrees with the Social Pund and Winnie lodes as to the relative position of the Wedge and Silent Friend
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The remaining four slides include three letters between the General Land Office Supervisor of Surveys and the mineral surveyor of Sur. No. 20507 A and B regarding issues to be addressed prior to approval of the mineral survey. This correspondence is normally not available to the modern surveyor, but does provide information about the continued policy of showing the approved positions of prior official surveys whenever the mineral surveyor is unable to find them during his retracement of conflicting senior lines.



Page 2 of the January 18, 1933 correspondence from GLO Supervisor of Surveys, Russell Allen to U.S. Mineral Surveyor, Gerald F. Galloway. The paragraph highlighted in red queries the mineral surveyor about the evidence found for the J.G. Blaine Lode, Sur. No. 766 and, "Unless evidence can be found on the ground to fix the east end corners of this claim, the position of the corners should be shown as approved."

January 21st. 1933. Mr. Russel K. Allen Administrative Cadastral Engineer Office of the Supervisor of Surveys Denver, Colorado. My dear Sir:-Your letter of January 18th, received with the field notes of Survey No. 20504. I had the idea that these claims would be considered as one group because they are tied together in a group of common ownership. However, the claimant ,no doubt, will make an amended application for survey as you suggest. Cor.l of Sur.No.3106 Colorado Springs lode was found fallen over but in a large mound of stones.So I took it as being the correct corner. And Cor.4 of Sur.No.766 J.G.Blaine had fallen off the edge of a cliff down onto a ledge six feet below. The original mound of stones remained fairly intact. So I placed the corner stone back in the mound of stones. However I will report more fully, - only I don't want to get too tedious. The old Enterprise tunnel caved in and a new tunnel was started just above it. The newly broken rock was filled into the old tunnel. The portal is still visible a little to one side and below the new tunnel. Thank you so much for your helpful criticizms. In the new arrangement of surveys, will you require new final oaths to be made for Sur. No. 20504? The one helper Kinney has left the country. Very truly yours.

Letter from Deputy Galloway dated January 21, 1933 that answered questions in the January 18 letter from Mr. Allen. The paragraph highlighted in red, discusses what evidence had been found for Cor. No. 1, Becker Lode, Sur. No. 3105 and Cor. No. 4, J.G. Blaine Lode, Sur. No. 766.

UNITED STATES DEPARTMENT OF THE INTERIOR GENERAL LAND OFFICE OFFICE OF THE SUPERVISOR OF SURVEYS DENVER, COLORADO January 26, 1933. Wr. Gerald F. Galloway, U. S. Mineral Surveyor, Alma, Colorado. Dear Sir: 1 enclose order for Mineral Survey No. 20507 embracing the locations eliminated from Survey No. 20504. Your assistants' oath in Survey No. 20564 will be corrected in this office. A new assistants' affidati 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 comestone 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 asceptable form. Very truly yours, Penne II Teleman Administrative Cadastral Engineer. Enclosure JF

Reply from Mr. Allen authorizing a new survey number for the Blue Bird, Sweet Home Fraction and Daniel lodes, and the Sweet Home Mill Site, Sur. No. 20507 A and B. The paragraph highlighted in red suggests what Mr. Galloway should include in the "Other Corner Descriptions" section of the field notes (See the third paragraph of the earlier referenced slide labeled "Other Corner Descriptions).