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Public Survey Office  
Salt Lake City, Utah

BOOK A-519

Book "A"

# FIELD NOTES

DEPENDENT RESURVEY OF THE BOUNDARIES, AND SURVEY OF THE  
SUBDIVISION-OF-SECTION LINES SECTIONS 4 AND 10, AND  
SURVEY OF THE NO. 1, 2, 3, AND 4 MINES OF THE INDEPENDENT  
COAL AND COKE COMPANY, ALL IN

T.13 S., R.10 E.

Of the Salt Lake Meridian,

In the State of Utah

EXECUTED BY

Howard W. Miller, ~~U.S.~~ Cadastral Engineer

and

Andrew Nelson and Elliot Bird, ~~U.S.~~ Surveyors

Under special instructions dated August 26, 1930, which provided  
for the surveys included under Group No. 234, bearing the approval of the

Commissioner of the General Land Office under date of September 11, 1930  
supplemental  
and/assignment instructions dated May 18, 1931; June 15, 1933, and Sept. 14, 1935

Survey commenced July 14, 1931

Survey completed December 20, 1935

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T. 13 S., R. 10 E.

This survey was executed with Buff and Buff transits Nos. 16726 and 18003, property of the General Land Office. Each transit is equipped with Smith solar attachment and full vertical circle; the horizontal limbs are provided with two double verniers, placed opposite to each other and reading to single minutes of arc, which is also the least count of the verniers of the latitude and declination arcs and vertical circles. The instruments were in good adjustment and, having been placed in satisfactory adjustment prior to beginning the survey and tested and found free from any appreciable error were approved by the district cadastral engineer for Utah on May 18, 1931, June 15, 1933, and September 14, 1935. Transit No. 16726 was used by Howard W. Miller, C. C. Cadastral Engineer, and Andrew Nelson, C. C. Surveyor on the surface surveys, in sec. 4 and all underground surveys, and transit No. 18003 was used by Elliot Bird, C. C. Surveyor on the surface surveys in sec. 10.

This survey involves the reestablishment (dependent resurvey) of the boundaries of secs. 4 and 10, the survey of subdivision-of-section lines in these secs., and the carrying underground and marking the surface position of the east and west center line SW $\frac{1}{4}$  sec. 4, the lines bet. secs. 4 and 9 and the line bet. secs. 9 and 10, the north and south center line SW $\frac{1}{4}$  sec. 10, and the east and west center line sec. 10, in the No. 1, 2, 3, and 4 Mines of the Independent Coal and Coke Company, in cooperation with the U. S. Geological Survey under authority from the Commissioner of the General Land Office dated June 11, 1930.

The solar attachments were not used in these surveys; all controlling meridians of the surface surveys were established by observations on Polaris as shown in the field notes. The bearings of the lines were deflected from these true meridians, by repetition of angles, and carried forward by transit line, taking the mean of direct and reversed sights. In the underground surveys the lines were run by traverse methods, and where it was impossible or impracticable to close a figure by survey, the traverse line was carried into the various entries and a check survey using the same transit stations and continuing the azimuth of the original traverse in the opposite direction back to the entry of the mine or to such other point as was necessary to check the work. All azimuths in this record of mine surveys and surface tie lines to mine entries are referred to controlling meridians by the method of deflection angles and calculated courses. These controlling meridians are extended from reference points of the surface surveys to the mine entry where they are again checked by an independent observation on Polaris, and then projected underground. The mean calculated courses of the azimuths between stations only appear in these notes.

The measurements were made with Lallie steel ribbon tapes 5 and 8 chs. in length, and one Lufkin steel tape 200 ft. long. The 5 and 8 chain tapes are graduated every link for the first 100 lks. and thereafter at intervals of 10 lks.; the 200 ft. tape used exclusively in the mine work is graduated to feet, tenths, and hundredths in its entire length. All the tapes were tested, comparison being made with a Lufkin steel tape 66 ft. long which was compared with a similar tape tested by the U. S. Bureau of Standards. The measurements were made on the slope, the vertical angle determined with the transit, and the slope measurements properly reduced to true horizontal distances. In those instances in the mine surveys where a figure was not closed by survey, all distances were double chained,

## DEPENDENT RESURVEY OF SUBDIVISION OF T.13 S., R.10 E.

Chains

and the mean distances between stations are recorded in these notes.

## DEPENDENT RESURVEY OF SUBDIVISION OF T.13 S., R.10 E.

REESTABLISHMENT OF SURVEYS EXECUTED BY  
A.D. FERRON, U.S. DEPUTY SURVEYOR IN 1901

July 14, 1931; at the cor. of secs. 9, 10, 15, and 16, in approximate latitude  $39^{\circ} 41'$  North, longitude  $110^{\circ} 50'$  West, at 7h. 11.1m. a.m., l.m.t., I make an hour angle observation on Polaris, west of the meridian, making four observations, two each with the telescope in direct and reversed positions, reading the horizontal deflection angle from a flag pole about 30 chs. distant to the east in the direction N.-W. to Polaris.

To

Watch time of observation (105th Meridian  
Standard Time) ----- 7h. 34.4m. a.m.

Watch fast of l.m.t. ----- 23.3m.

Mean horizontal angle, pole to Polaris  $90^{\circ} 21.9'$

True bearing of flag pole ----- East

From the cor. of secs. 9, 10, 15, and 16 hereinafter described.

East, bet. secs. 10 and 15.

40.69 Fall 43.8 lks. N. of the  $\frac{1}{4}$  sec. cor. hereinafter described

The bearing of this half mile therefore is S.  $89^{\circ} 23'$  E., and the distance is 40.69 chs.

From the  $\frac{1}{4}$  sec. cor., East with new measurement

40.25 Fall 91.3 lks. S. of the cor. of secs. 10, 11, 14, and 15 hereinafter described.

The bearing of this half mile therefore is N.  $88^{\circ} 42'$  E., and the distance is 40.26 chs.

From the cor. of secs. 10, 11, 14, and 15.

North, bet. secs. 10 and 11.

39.88 Fall 48.8 lks. W. of the  $\frac{1}{4}$  sec. cor. hereinafter described.

The bearing of this half mile therefore is N.  $0^{\circ} 42'$  E., and the distance is 39.88 chs.

From the  $\frac{1}{4}$  sec. cor., North, with continuous measurement

79.96 Fall 26.8 lks. W. of the cor. of secs. 2, 3, 10, and 11 hereinafter described.

The bearing of this half mile therefore is N.  $0^{\circ} 23'$  E., and the distance is 40.08 chs.

DEPARTMENT RESURVEY OF SUBDIVISION OF T.13 S., R.10 E.

Chains

From the cor. of secs. 2,3 10, and 11.

West, bet. secs. 3 and 10.

40.35 Fall 32 lks. S. of the  $\frac{1}{4}$  sec. cor. hereinafter described.

The bearing of this half mile therefore is N.89°33'W., and the distance is 40.35 chs.

From the  $\frac{1}{4}$  sec. cor., West, with new measurement

41.74 Fall 119 lks. N. of the cor. of secs. 3,4,9, and 10 hereinafter described.

The bearing of this half mile therefore is S.88°22'W., and the distance is 41.76 chs.

From the cor. of secs. 3,4,9, and 10

South, bet. secs. 9 and 10

39.76 Fall 23 lks. W. of the  $\frac{1}{4}$  sec. cor. hereinafter described.

The bearing of this half mile therefore is S.0° 20' E., and the distance is 39.76 chs.

From the  $\frac{1}{4}$  sec. cor., South, new measurement

39.80 Fall 17 lks. W. of the cor. of secs. 9,10,15 and 16 hereinafter described.

The bearing of this half mile therefore is S. 0°15' E., and the distance is 39.80 chs.

From the true point for the cor. of secs. 3,4,33, and 34 on the N. bdy. of the Tp. hereinafter described.

South, bet. secs. 3 and 4

40.40 No trace of the  $\frac{1}{4}$  sec. cor. can be found.

81.83 Fall 220 lks. E. of the cor. of secs. 3,4,9, and 10 hereinafter described.

The bearing of this mile therefore is S.1° 32'W., and the proportionate length of each half mile is 41.14 and 40.72 chs.

From the cor. of secs. 3,4,9, and 10

West, bet. secs. 4 and 9

40.19 No trace of the  $\frac{1}{4}$  sec. cor. can be found.

78.08 Fall 16 lks. S. of the cor. of secs. 4,5,8, and 9 hereinafter described.

The bearing of this mile therefore is N.89°53'W., and the proportionate length of each half mile is 39.04 chs.

DEPENDENT PRESERVATION OF SUBDIVISION OF SALES S. E. 10 E.

Chains

From the cor. of secs. 4,5,8, and 9

North, bet. secs. 4 and 5

.62

October 11, 1935: at this station in approximate latitude 39°42'N., longitude 110°51'W., at 10h. 12m. 54s. a.m. by my watch which is 10s. fast of correct 105th Meridian standard time as compared with radio time signals on Oct. 10, I make an hour angle observation on Polaris, west of the meridian, two each with the telescope in direct and reversed positions, reading the horizontal deflection angle from Polaris in the direction N-E to a flag on my retracement line bet. secs. 4 and 5 about 1/4 mile north.

Watch time of observation -----	10h 12m 54s am
Watch fast of l.m.t. -----	25s 25s ✓
Local mean time of observation -----	9h 49m 29s am ✓
Upper culmination Polaris, Oct. 11-----	25m 24s am ✓
Hour angle of Polaris at observation	9h 24m 05s

Azimuth of Polaris at observation. 0° 50' W. ✓

Mean horizontal angle Polaris to flag 0° 50' ✓

True bearing of flag North 0°

This bearing checks the bearing of the retracement line bet. secs. 4 and 5 as carried forward bet. secs. 4 and 9.

40.00

No trace of the 1/4 sec. cor. can be found.

82.94

Fall 38 lks. W. of the cor. of secs. 4,5,32 and 33<sup>e</sup> on the N. bdy. of the Tp. hereinafter described.

The bearing of this mile therefore is N.0°16'E., and the proportionate length of each half mile is 41.31 and 41.63 chs.

True lines

The cor. of secs. 10,11,14 and 15 is a sandstone, 10x8x6 ins. above ground, firmly set, and marked with 2 notches on E. and 4 notches on S. edge; from which

A pinon, 12 ins. diam., bears N.9°15'E., 91 lks. dist., marked T13S R10E S11 BT

A mahogany, 8 ins. diam., bears S.27°14'W., 37 lks. dist., marked T13S R10E S15 BT

At the cor. point

Set an iron post, 3 ft. long, 2 ins. in dia., 27 ins. into the ground with the original cor. monument deposited alongside, for the cor. of secs. 10,11,14, and 15, with brass cap marked

T13S R10E	91.04
S10   S11	
S15   S14	30.37
1931	

No other suitable accessories available.

Cor. stands on an abrupt E. slope at top of ledge 100 ft. high facing SE. and bearing N.20°E. and S.20°W.

Thence

**Chains**

S. 88°42'W., bet. secs. 10 and 15.

Ascend abrupt E. slope of rocky point over rough mountainous land through a medium growth of timber and scattered undergrowth.

2.15 Rocky point on spur, 30 ft. above sec. cor., projects S.; descend abruptly over rocky W. slope.

9.05 Fan Hollow, 320 ft. below spur, drains S.; ascend abruptly over rocky E. slope.

26.55 Spur, 650 ft. above Fan Hollow, projects S.; descend abruptly 535 ft. over W. slope through dense timber and scattered undergrowth.

40.26 The  $\frac{1}{4}$  sec. cor., which is a sandstone, 12x8x4 ins. above ground, firmly set, and marked  $\frac{1}{4}$  on N. face; from which

A juniper, 20 ins. diam., bears S. 34°15'E., 18 lks. dist., marked  $\frac{1}{4}$  S 15 B T

A pinon, 18 ins. diam., bears N. 13°W., 41 lks. dist., marked  $\frac{1}{4}$  S 10 B T

At the exact cor. point,

Set an iron post, 3 ft. long, 1 in. in dia., 27 ins. into the ground, with the original cor. monument deposited alongside for  $\frac{1}{4}$  sec. cor., with brass cap marked

$\frac{1}{4}$   $\frac{S10}{S15}$   
1931

Thence

N. 89°23'W., with continuous measurement

Continue abrupt descent over W. slope

42.55 West Fork of Cordingly Canyon, 75 ft. below  $\frac{1}{4}$  sec. cor., drains S. 15°W.; ascend an abrupt and rocky E. slope.

42.80 Abandoned wagon road, bears N. 10°E. to coal mine and S. 10°W., to Price, Utah.

59.95 From this point an old entry to one of the mines of the Independent Coal and Coke Co., bears N. 53°32'E.

60.60 Proportionate point.

Set an iron post, 3 ft. long, 1 in. in dia., 12 ins. into the ground to solid rock and in a mound of stone to top, for the  $W \frac{1}{16}$  sec. cor., with brass cap marked

$W \frac{1}{16}$   $\frac{S10}{S15}$   
1931

from which

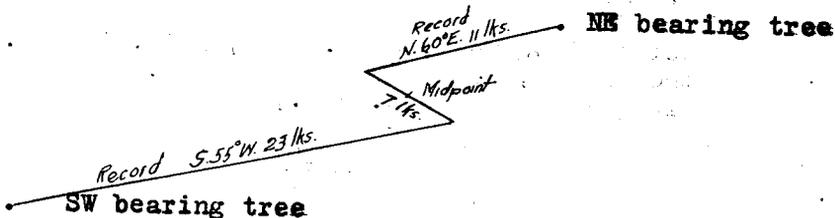
A juniper, 10 ins. diam., bears S. 78°30'E., 28 lks. dist., marked  $W \frac{1}{16}$  S 15 B T

A pinon, 12 ins. diam., bears N. 22°30'W., 47 lks. dist., marked  $W \frac{1}{16}$  S 10 B T

INDEPENDENT RESURVEY OF SUBDIVISION OF T.13S., R.10 E.

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- Chains**
- Cor. stands on an abrupt E. slope, 740 ft. above canyon; continue ascent of 20 ft. to
  - 61.70 Sharp ridge, bears N.10°W., and S.10°E.; descend abruptly over W. slope.
  - 64.55 Top of red sandstone ledge, 40 ft. high, bears N.10°W. and S.10°E.
  - 76.05 Electric power line, bears N.5°W. and S.5°E.
  - 77.10 Abandoned haulage road, bears N.10°W. to entry of the No.2 Mine of the Independent Coal and Coke Co., and S.10°E. about 10 chs. thence southwesterly to Kenilworth, Utah.
  - 77.60 Bull Canyon, 800 ft. below ridge, drains S.; canyon is rimmed on the W. by a vertical sandstone ledge about 30 ft. high. Ascend abruptly 175 ft. over E. slope to sec. cor.
  - 78.30 An abandoned haulage road from the No.2 Mine of the Independent Coal and Coke Co., bears N.25°E. and S.25°W.
  - 80.95 The cor. of secs. 9,10,15, and 16 (cor.monument missing) which I restore from the northeast and southwest bearing trees as indicated by the following diagram:



At the restored cor. point

Set an iron post, 3 ft. long, 2 ins. in dia., 10 ins. in the ground to solid rock and in a mound of stone to top, for the cor. of secs. 9,10,15, and 16, with brass cap marked

T13S	R10E
S9	S10
SE6	S15
1931	

from which

A dead pinon, 16 ins. diam., bears N.43°30'E., 9 lks. dist., marked T13S R10E S10 BT (original bearing tree)

A pinon, 8 ins. diam., bears S.47°W., 20 lks. dist. marked T13 S R10E S16 BT (original bearing tree)

The SE. bearing tree, a spruce, 16 ins. diam., marked T13S R10E S15 BT, is dead and fallen and has rolled from its original position which could not be determined.

I mark new bearing trees as follows:

A pinon, 14 ins. diam., bears N.82°30'E., 77 lks. dist., marked T13S R10 E S 10 BT

A pinon, 10 ins. diam., bears S.71°30'E., 92 lks. dist., marked T13S R10E S15 BT

DEPARTMENT RESURVEY OF SUBDIVISION OF T.13 S. R.10 E.

Chains

A spruce, 6 ins.diam., bears S.67°W., 22 lks. dist., marked T13S R10E S16 BT

A pinon, 9 ins.diam., bears N.39°45'W., 22 lks. dist., marked T13S R10E S9 BT

Cor. stands at the base of a sandstone ledge 4 ft.high bearing N. and S.

From this cor., the entry of a rock tunnel of the No.2 mine of the Independent Coal and Coke Co., bears N.41°38' E., 4.628 chs. distant.

Land, rough mountainous; abrupt E. and W. slopes, and general S. exposure and drainage.

Soil, shallow clay and sand mixed with rock of sandstone formation; 4th. rate.

Timber, juniper, pinon, and fir.

Undergrowth, sage, silver leaf, Brigham tea, serviceberry and shadeleaf.

Fair grazing land.

From the cor. of secs. 10,11,14, and 15

N.0°42'E., bet. secs. 10 and 11.

Ascend abrupt and broken SE. slope of mountainous land, near top of spur, through a medium dense growth of timber and scattered undergrowth.

9.30 Spur, 200 ft. above sec. cor., projects S.10°W.; continue ascent over an abrupt W. slope near top of spur.

27.40 Base of nearly inaccessible limestone reef, 200 ft.high, bears NW. and SE.

31.60 Top of reef and same spur as noted at 9.30 chs., 700 ft. above sec. cor., projects S.10°E. and bears NW. Timber becomes scattered, bears with spur; descend abruptly 300 ft. over NE. slope to 1/4 sec. cor.

36.00 Enter dense timber, bears NW. and SE.

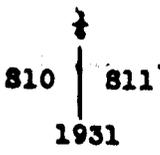
39.68 The 1/4 sec. cor., which is a sandstone, 8x6x5 ins. above ground, firmly set, marked 1/4 on W. face; from which

A yellow pine, 24 ins. diam., bears N.49°30'E., 94 lks. dist., marked 1/4 S 11 B T

A spruce, 10 ins.diam., bears S.17°W., 5 lks. dist., marked 1/4 S 10 B T

At the exact cor. point

Set an iron post, 3 ft.long, 1 in. in dia., 27 ins. into the ground with the original cor. monument deposited alongside for 1/4 sec. cor., with brass cap marked



DEPARTMENT OF RESOURCES OF SUBDIVISION OF T. 36 S., R. 10 E.

Chains

enlaro

from which

A Douglas fir, 12 ins.diam., bears S.86°45'W., 30 lks. dist., marked  $\frac{1}{4}$  S 10 B T

Thence

N.0°23'E., with continuous measurement

Continue abrupt descent of 260 ft. over NE. slope to

61.80 Gulch, drains N.75°E.; ascend abrupt SE. slope.

53.10 Spur, 30 ft. above gulch, projects E. about 3 chs. distant to end; descend abrupt NE. slope.

62.60 Fork of Cordingly Canyon, 150 ft. below spur, drains SE.; gradually ascend along broken rocky SW. slope.

79.96 On an abrupt rocky SW. slope, 280 ft. above canyon.

The cor. of secs. 2,3,10 and 11, which is a sandstone boulder, 5x4x3 ft. showing, and marked with a cross (+) and 2 grooves to the E. and 5 grooves to the S. of same; from which

A mahogany, 5 ins. diam., bears N.82°E., 13 lks. dist., marked T13S R10E S2 BT

A mahogany, 6 ins.diam., bears S.64°E., 14 lks. dist., marked T13S R10E S11 BT

A pinon, 20 ins.diam., bears N.7°30'W., 33 lks. dist., marked T13S R10E S3 BT

At the cor. point on top of boulder

Set an iron post, 3 ft.-long, 2 ins. in dia., 30 ins. in a mound of stone for cor. of secs. 2,3,10, and 11, with brass cap marked

T13S	R10E
S3	S2
S10	S11
1931	

additional bearing trees

from which

A juniper, 10 ins.diam., bears N.42°E., 52 lks. dist., marked T13S R10E S2 BT

A juniper, 8 ins.diam., bears S.24°30'E., 52 lks. dist., marked T13S R10E S11 BT

A juniper, 12 ins.diam., bears S.67°W., 70 lks. dist., marked T13S R10 E S 10 BT

Land, rough and broken mountains, with a general west and northeast exposure and drainage.

Soil, shallow clay, sand, and rocky of sandstone and limestone formation; 4th. rate.

Timber, juniper, pinon, mahogany, spruce, and fir.

Undergrowth, sage, oak, service berry, silver leaf and mountain rush.

INDEPENDENT SURVEY OF SUBDIVISION OF T.23S., R.10 E.

Chains

Thin grazing land.

From the cor. of secs. 9,10,15, and 16.

N.0°15'W., bet. secs. 9 and 10

Ascend abruptly over rocky SE. slope, over rough mountainous land through medium growth of timber and scattered undergrowth.

3.15 Spur, 45 ft. above sec. cor., projects E.; descend abruptly over NE. slope 50 ft. to

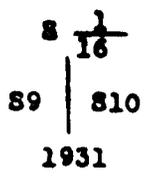
5.70 Gulch, drains S.70°E.; ascend abruptly over SE. slope

6.95 Top of red sandstone ledge, 100 ft. high, bears NE. and SW.; continue ascent.

17.70 Spur, 420 ft. above gulch, projects E.; descend 30 ft. over NE. slope to

19.90<sup>3</sup>/<sub>4</sub> Proportionate point

Set an iron post, 3 ft. long, 1 in. in dia., 27 ins. into the ground for the S.1/16 sec. cor., with brass cap mkd.



from which

A pison, 10 ins. diam., bears S.8°E., 41 lks. dist., marked S 1/16 S 10 BT

A Douglas fir, 8 ins. diam., bears N.61°30'W., 57 lks dist., marked S 1/16 S9 BT

From this cor., a fan at the No.2 Mine of the Independent Coal and Coke Co., bears N.39°30'E.; a water tank, about 40 lks. in diam., bears N.30°E.

Continue descent of 150 ft. over NE. slope to

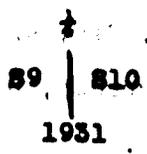
24.25 Gulch, drains S.75°E.; ascend abruptly 285 ft. over rocky SE. slope to the 1/4 sec. cor.

26.15 A large water tank, bears East, 2.31 chs. distant.

39.88<sup>4</sup>/<sub>4</sub> The 1/4 sec. cor., which is a sandstone boulder, 3 1/2 x 3 x 2 ft. showing, marked 1/4+ on SW. face; no accessories to cor.

Over the + on cor. monument

Set an iron post, 3 ft. long, 1 in. in dia., in a large mound of stone to top for 1/4 sec. cor., with brass cap marked



from which

A Douglas fir, 16 ins. diam., bears N.83°30'E., 41 lks. dist., marked 1/4 S 10 BT

DEPENDENT RESURVEY OF SUBDIVISION OF T. 12 N., R. 10 E.

enied 40

Chains

A balsam, 10 ins. diam., bears S. 50° 30' W., 26 lks. dist., marked  $\frac{1}{4}$  S 9 B T

Thence

N. 0° 20' W., with continuous measurement

Continue abrupt ascent over SE. slope over nearly inaccessible ledges.

46.60 Top of nearly vertical sandstone ledge, 150 ft. high, bears NE. and SW.

68.05 Divide bet. Willow Creek and Bull Canyon, 970 ft. above  $\frac{1}{4}$  sec. cor., bears W. and E. about 5 chs. to a low saddle at the head of Bull Canyon which drains S.; descend gradually 150 ft. to sec. cor., over NE. slope through dense sagebrush undergrowth, and scattered timber.

75.50 Leave timber, bears E. and W.

79.56 The cor. of secs. 3, 4, 9, and 10, which is a sandstone, 20x8x4 ins., loosely set in a mound of stone, and marked with 5 notches on S. and 3 notches on E. edge; from which

A Douglas fir, 12 ins. diam., bears S. 61° 15' W., 195 lks. dist., poorly marked T13S R10E S9 BT.  
I remark the tree T13S R10E S9 BT

At the exact cor. point

Set an iron post, 3 ft. long, 2 ins. in dia., 16 ins. into the ground to solid rock and in a mound of stone to top for cor. of secs. 3, 4, 9, and 10, with brass cap marked

T13S	R10E
S4	S3
S9	S10
1931	

from which

A yellow pine, 20 ins. diam., bears N. 51° 30' E., 677 lks. dist., marked T13S R10E S3 BT

A yellow pine, 20 ins. diam., bears S. 70° E., 700 lks. dist., marked T13S R10E S 10 BT

A Douglas fir, 14 ins. diam., bears N. 19° W., 424 lks. dist., marked T13S R10 E S4 BT

Note: The original cor. monument is buried alongside the iron post.

Land, rough broken mountains; general N. and S. exposure and drainage from divide.

Soil, gravelly and clay loam mixed with rock of sandstone and limestone formation; 4th. rate.

Timber, mahogany, fir, aspen, Douglas fir and yellow pine.

Undergrowth, sagebrush, oak, service berry and buck brush.

Fair grazing land.

DEPARTMENT RESURVEY OF SUBDIVISION OF T.13 S., R.10 E.

Chains

From the cor. of secs. 2,3,10, and 11  
N.89°33'W., bet. secs. 3 and 10

Descend abrupt W. slope, over broken mountainous land,  
through dense timber and scattered undergrowth.

6.45 Fork of Cordingly Canyon, 200 ft. below sec. cor., drains  
S.25°E.; ascend abrupt NE. slope through scattered fir  
and yellow pine timber and medium dense undergrowth.

15.50 Top of abrupt ascent, thence gradually ascend along N.  
slope through dense fir and balsam timber.

30.20 Begin abrupt ascent over NE. slope.

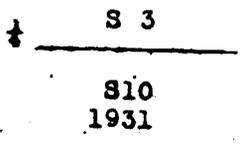
40.35 On abrupt NE. slope, 630 ft. above Cordingly Canyon.

The  $\frac{1}{4}$  sec. cor., which is a sandstone, 20x8x4 ins. above  
ground, firmly set, marked  $\frac{1}{4}$  on N. face; from which

A balsam, 8 ins. diam., bears N.62°30'W., 62 lks.  
dist., marked  $\frac{1}{4}$  S3 BT

At the exact cor. point

Set an iron post, 3 ft. long, 1 in. in dia., 20 ins. into  
the ground to solid rock and supported by a mound of stone  
to top, with the original cor. monument deposited alongside  
for  $\frac{1}{4}$  sec. cor., with brass cap marked



from which

A balsam, 8 ins. diam., bears S.50°15'W., 100 lks.  
dist., marked  $\frac{1}{4}$  S10 BT

Thence

S.88°22'W., with continuous measurement

45.00 Head of draw, 50 ft. above  $\frac{1}{4}$  sec. cor., drains N.30°E.;  
continue abrupt ascent over NE. slope through medium  
dense timber and undergrowth.

63.30 Divide bet. Willow Creek to the N. and Cordingly and Bull  
Canyons to the S., 580 ft. above  $\frac{1}{4}$  sec. cor., bears N.  
about 5 chs. thence NE. and S. about 5 chs. thence W.;  
descend gradual SW. slope through dense timber.

74.80 Leave timber, enter sagebrush opening, bears N. and S.

78.70 Bottom of open draw, near head, 245 ft. below divide,  
drains NW.; ascend gradual NE. slope.

82.11 The cor. of secs. 3,4,9, and 10, 10 ft. above draw.

Land, high, rough, broken mountains; general N. and S.  
exposure and drainage from divide at 63.30 chs.

Soil, deep gravelly clay loam mixed with rock of sandstone  
and limestone formation; 3rd. rate.

## DEPARTMENT RESURVEY OF SUBDIVISION OF T.14 S., R.10 E.

## Chains

Timber, mahogany, fir, balsam, aspen and yellow pine.

Undergrowth, sage, oak, service berry and buck brush.

Good grazing land.

The cor. of secs. 3, 4, 33, and 34 on the N. hdy. of the Tp. is a cross (+) on sloping sandstone outcrop, from which the witness cor. to the sec. cor. which is an iron post, 2 ins. in diam., firmly set and marked and witnessed as described in the official record, bears N.89°08'W., 23 lks. distant.

Thence from the true point for the sec. cor.,

S.1°32'W., bet. secs. 3 and 4.

Descend steep S. slope broken by series of sandstone ledges, over rough mountainous land, through a medium dense growth of mahogany, juniper, pimon, and red pine timber, and scattered undergrowth of oak, service berry and sagebrush.

- 4.35 Draw, 165 ft. below sec. cor., drains SW.; gradually ascend along W. slope, entering scattered timber.
- 9.10 Top of ascent on W. slope, slopes W., 15 ft. above draw; abrupt descent of 265 ft. over S. slope to
- 15.90 Wash, 20 lks. wide, 10 ft. deep, in canyon, 415 ft. below sec. cor., drains N.80°W.
- 16.70 Old drag road, bears N.80°W. and S.60°E.; ascend abrupt NE. and N. slopes through dense red pine and fir timber.
- 32.50 Spur, 455 ft. above canyon; projects N.30°W.; leave dense, enter scattered timber and dense oak and service berry brush, bears NW. and SE.; gradually ascend along W. slope.
- 39.00 Reenter dense fir timber and begin steeper ascent over W. and NW. slopes, bears SE. and NW.
- 41.14 Proportionate point
- Set an iron post, 3 ft. long, 1 in. in dia., 30 ins. into the ground for  $\frac{1}{4}$  sec. cor., with brass cap marked
- †  
84 | 83
- 1935
- from which
- A red pine, 36 ins. diam., bears S.56°W., 14 lks. dist., marked  $\frac{1}{4}$  S 4 B T
- A red pine, 16 ins. diam., bears N.64°E., 55 $\frac{1}{2}$  lks. dist., marked  $\frac{1}{4}$  S 3 B T
- Cor. stands on NW. slope in dense timber, 500 ft. above canyon.
- Ascend steep general N. slope through very dense timber; surface strewn with large boulders.
- 60.00 Base of broken sandstone ledge on N. face of rim of

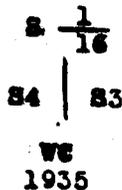
DEPARTMENT OF SURVEY OF SUBDIVISION OF T.13 S., R.10E.

Chains

mountain, bears E. and W.; ascend abruptly 155 ft. to top

60.45

Set an iron post, 3 ft. long, 1 in. in dia., 14 ins. into the ground to solid rock and in a mound of stone to top for the witness cor. to the south sixteenth section cor., with brass cap marked



from which

A red pine, 16 ins. diam., bears N.17½°E., 14 lks. dist., marked WC S 1/16 S3 BT

A red pine, 20 ins. diam., bears S.25°30'W., 11 lks. dist., marked WC S 1/16 S4 BT

A cross, 14 ins. diam., on a sandstone boulder, 30 ft. E and W., 8 ft. N. and S., and 6 ft. high, marked 2 ft. above ground, bears S.1°32'W., 24 lks. distant.

61.50 Proportionate point for south sixteenth section cor. falls on face of ledge; no cor. set.

63.90 Top of ledges and rim, 500 ft. above ¼ sec. cor., bears E. and W.; gradually ascend over gentle W. slope, through very scattered timber and dense sagebrush and scattered oak and service berry brush.

67.05 Top of ascent, 20 ft. above rim, bears NW. and E.; gradually descend over SW. slope 85 ft. to

76.00 Wash, 20 lks. wide, 6 ft. deep, in open draw, drains N.30°W.; gradually ascend over NE. slope 40 ft. to

81.86 The cor. of secs. 3, 4, 9, and 10.

Land, rough mountains; general N. exposure and drainage.

Soil, gravelly, clay loam and rocky of sandstone formation; 3rd. rate.

Timber, red pine, balsam fir, mahogany, and aspen.

Undergrowth, oak, service berry, sagebrush, and buck brush.

Fair grazing land.

N.89°53'W., bet. secs. 4 and 9

Gradually ascend over rolling mountain top facing generally to the N., through dense sagebrush undergrowth.

9.00 Top of ascent, 100 ft. above sec. cor., slopes N.; gradually descend over N. slope 40 ft. to

15.00 Swale, drains N.30°E.; gradually ascend 20 ft. over NE. slope entering fir and pine timber bearing NE. and S.

19.52 Proportionate point

Set an iron post, 3 ft. long, 1 in. in dia., 28 ins. in

## DEPENDENT RESURVEY OF SUBDIVISION OF T. 24 N., R. 12 E.

aniam10

## Chains

the ground and surrounded by a mound of stone to top for east sixteenth section cor., with brass cap marked

$$\frac{E \frac{1}{16}}{S 4}$$

S 9  
1935

from which

A red pine, 16 ins. diam., bears N. 22 $\frac{1}{2}$ ° E., 51 lks. dist., marked E 1/16 S 4 BT

A red pine, 12 ins. diam., bears S. 1 $\frac{1}{2}$ ° E., 98 $\frac{1}{2}$  lks. dist., marked E 1/16 S 9 BT

Corner stands on ridge of high mountain top dividing Panther Canyon and tributaries of Willow Creek, bears N. and S.

Descend steep rocky W. slope, through scattered fir and pine timber and medium dense undergrowth of sage, oak, and service berry brush.

## 39.04 Proportionate point

Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. into the ground for  $\frac{1}{4}$  sec. cor., with brass cap marked

$$\frac{\frac{1}{4}}{S 4}$$

S 9  
1935

from which

A red pine, 12 ins. diam., bears N. 67° E., 48 lks. dist., marked  $\frac{1}{4}$  S 4 B T

A red pine, 16 ins. diam., bears S. 64° W., 78 lks. dist., marked  $\frac{1}{4}$  S 9 B T

Cor. stands on steep W. slope, 560 ft. below ridge.

Continue descent over W. and NW. slopes 130 ft. to

## 44.15 Deep draw, near head, drains NW.; enter very dense fir timber, bears NW. and SE.; ascend along a steep general N. slope.

## 56.50 Spur, 195 ft, above draw, slopes N.; leave dense timber, descend steep NW. slope.

## 58.56 Proportionate point

Set an iron post, 3 ft. long, 1 in. in dia., 28 ins. into the ground for west sixteenth sec. cor., with brass cap marked

$$\frac{W \frac{1}{16}}{S 4}$$

S 9  
1935

from which

A red pine, 18 ins. diam., bears S. 39 $\frac{1}{2}$ ° E., 88 lks. dist., marked W 1/16 S 9 B T

A fir., 12 ins. diam., bears N. 88 $\frac{1}{2}$ ° W., 100 lks. dist., marked W 1/16 S 4 B T

DEPENDENT RESURVEY OF SUBDIVISION OF T.13 S., R.10 E.

Chains

Cor. stands on steep NW. slope, 50 ft. below spur; continue descent.

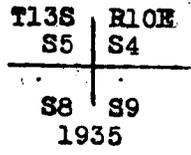
61.40 Small draw, on steep N. slope, 75 ft. below  $\frac{1}{4}$  sec. cor., drains N.; a dense clump of fir timber in draw. Ascend steep N. slope 100 ft. to

66.40 High sharp spur, slopes NW.; descend steep rocky NW. slope leaving nearly all timber.

78.68 The cor. of secs. 4, 5, 8, and 9 which is a sandstone outcrop, 2x2x4 ft. showing, marked with a cross (+) on top and 4 grooves to the N. and 5 grooves to the S.; no accessories to cor.

Alongside N. edge of outcrop

Set an iron post, 3 ft. long, 2 ins. in dia., 12 ins. in the ground to solid rock and in a mound of stone to top for cor. of secs. 4, 5, 8, and 9, with brass cap marked



outcrop at exact cor. point from cross on

A cross  $\frac{B}{O}$  on W. face of sandstone ledge, 3 ft. above ground, bears N.70°E., 20 lks. distant.

No other suitable accessories available.

Cor. stands on steep W. slope at W. base of a 10 ft. sandstone outcrop.

Land, N. 20 chs. rolling mountain top; general N. exposure and drainage; remainder of mile is rough mountainous, draining into a canyon about  $\frac{1}{4}$  mile N.

Soil, dark clay loam and rocky of sandstone formation; 3rd. and 4th. rate.

Timber, scattered to dense red pine and fir with a few scattered aspen.

Undergrowth, oak, service berry and sagebrush.

Good grazing land.

From the cor. of secs. 4, 5, 32 and 33 on the N. bdy. of the Tp. which is an iron post, 2 ins. in diam., firmly set, and marked and witnessed as described in the official record.

S.0°16°W., bet. secs. 4 and 5.

Ascend steep N. slope over rough mountainous land through scattered mahogany and fir timber and undergrowth of service berry and sagebrush.

9.50 High ridge, 230 ft. above sec. cor., bears N.50°W. and S.50°E.; gradually descend along general W. slope.

13.00 Enter heavier growth of timber, bears NE. and SW.

DEPENDENT RESERVE OF SUBDIVISION OF T.15 S., R.10E.

Chains

- 17.00 Gross head of depression, drains SW.
- 23.70 High spur, projects SW.; gradually descend 120 ft. along E. and SE. slopes to  $\frac{1}{4}$  sec. cor.
- 26.00 Leave medium dense mahogany timber.
- 41.63 Proportionate point.  
Set an iron post, 3 ft. long, 1 in. in dia., 10 ins. into the ground to solid rock and in a large mound of stone to top for  $\frac{1}{4}$  sec. cor., with brass cap marked



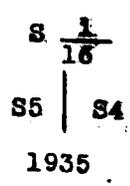
from which

- A red cedar, 8 ins.diam., bears S.7 $\frac{1}{2}$ °E., 83 lks. dist., marked  $\frac{1}{4}$  S 4 B T
- A pinon, 12 ins.diam., bears S.32°W., 133 lks. dist., marked  $\frac{1}{4}$  S 5 B T

Cor. stands on SE. slope 375 ft. below ridge at 9.50 chs.  
Continue descent over broken easterly slope through dense juniper and pinon timber.

- 44.70 Sandstone ledge, 35 ft. high, bears NE. and S.20°W.
- 58.10 Top of cliff, 250 ft. high, bears NE. and W.; descend abruptly over S. slope.
- 59.20 Base of same cliff, bears NE. and W.
- 62.28 Proportionate point

Set an iron post, 3 ft. long, 1 in. in dia., 12 ins. into the ground to solid rock and in a mound of stone to top for south sixteenth sec. cor., with brass cap marked



from which

- A red cedar, 3 ins.diam., bears S.34 $\frac{1}{2}$ °E., 80 lks. dist., marked BT
- A pinon, 7 ins.diam., bears S.9 $\frac{1}{2}$ °W., 141 lks. dist., marked S 1/16 S 5 B T

Cor. stands on steep rocky S. slope 675 ft. below  $\frac{1}{4}$  sec. cor.  
Continue descent of 55 ft. to

- 65.45 Panther Canyon, 1100 ft. below ridge at 9.50 chs., drains S.60°W.; ascend over NW. slope.
- 79.80 Small ravine drains NW.; continue ascent.
- 82.30 Top of ascent, 300 ft. above Panther Canyon, bears NW. and SE.; thence along W. slope over sandstone outcrop.

SUBDIVISION-OF-SECTION SURVEYS, T.13 S.,R.10 E.

Chains

82.94 The cor. of secs. 4,5,8, and 9.  
 Land, high, rough, broken mountains; general W. exposure and drainage.  
 Soil, sandy clay loam and rocky of sandstone formation; 3rd.rate.  
 Timber, juniper, pinon mahogany, and fir.  
 Undergrowth, sage, oak, and service berry brush.  
 Fair grazing land.

SUBDIVISION-OF-SECTION SURVEYS, T.13 S.,R.10 E.

Section 10

From the  $\frac{1}{4}$  sec. cor. bet. secs. 10 and 11, heretofore described.

S.89° 38'W., on random E. and W. center line sec.10

40.38 Set temp. center  $\frac{1}{4}$  sec. cor. sec.10

81.60 Fall 2.5 lks. N. of the  $\frac{1}{4}$  sec. cor. bet. secs. 9 and 10 heretofore described.

The bearing of this line therefore is S.89°37'W., and the distance is 81.60 chs.

From the  $\frac{1}{4}$  sec. cor. bet. secs. 10 and 15, heretofore described.

N.0°28'E., on random N. and S. center line sec.10

40.53 Fall 3 lks. W. of the temp. center  $\frac{1}{4}$  sec. cor.

81.19 Intersect the  $\frac{1}{4}$  sec. cor. bet. secs. 3 and 10, heretofore described.

The bearing of this line therefore is N.0°28'E., and the distance is 81.19 chs.

From the  $\frac{1}{4}$  sec. cor. bet. secs. 10 and 11

S.89°37'W., on true E. and W. center line sec. 10.

Ascend abrupt NE. slope over broken mountainous land, through dense timber and scattered undergrowth.

9.65 Spur, 450 ft. above  $\frac{1}{4}$  sec. cor., projects SE.; descend abrupt SW. slope over ledges.

21.20 Head of Fan Hollow, 150 ft. below spur, drains S.; ascend abrupt SE. slope over ledges.

25.90 Rocky point on top of ledgy spur, 180 ft. above Fan Hollow, projects S.; descend abrupt W. slope over ledges.

SUBDIVISION OF SECTION SURVEYS, T.13 S., R.10 E.

Chains

511110

40.41 Set an iron post, 3 ft. long, 1 in. in dia., 10 ins. into the ground to solid rock and in a mound of stone to top for center  $\frac{1}{4}$  sec. cor. sec. 10, with brass cap marked

C  $\frac{1}{4}$  S10

1931

from which

A red cedar, 8 ins. diam., bears S. 89° W., 111 lks. dist., marked C  $\frac{1}{4}$  S10 BT

A pinon, 6 ins. diam., bears N. 20° W., 51 lks. dist., marked C  $\frac{1}{4}$  S10 BT

Cor. stands on N. side of small gulch, drains SW., 745 ft. below spur.

42.70 West Fork of Cordingly Canyon, 60 ft. below center  $\frac{1}{4}$  sec. cor., drains S.; ascend abrupt E. slope over ledges.

59.64 Sandstone ridge, 830 ft. above canyon, bears N. 10° W. and S. 10° E.; 40 lks. N. is the base of a sandstone ledge, 150 ft. high, bears N. 30° W. and N. 30° E.; descend abrupt W. slope over nearly inaccessible sandstone ledges.

61.00 On abrupt SW. slope 70 ft. below ridge.

03.

Set an iron post, 3 ft. long, 1 in. in dia., 12 ins. into the ground to solid rock and in a mound of stone to top for center west sixteenth sec. cor. sec. 10, with brass cap marked

C.  $\frac{W}{16}$  C

S10  
1931

from which

A juniper, 10 ins. diam., bears N. 30° E., 49 lks. dist., marked CW 1/16 S10 BT

A juniper, 14 ins. diam., bears S. 57  $\frac{1}{2}$ ° E., 45  $\frac{1}{4}$  lks. dist., marked CW 1/16 S10 BT

Continue abrupt descent over ledges.

74.10 Bull Canyon, 650 ft. below CW 1/16 sec. cor., drains S.; gradually ascend 50 ft. over E. slope and large sandstone boulders.

81.60 The  $\frac{1}{4}$  sec. cor. bet. secs. 9 and 10.

Land, rough mountainous; general S. exposure and drainage.

Soil, shallow sand, clay and rocky of sandstone formation; 4th. rate.

Timber, juniper, pinon, and spruce.

Undergrowth, sage, silver leaf, and mountain rush.

Poor grazing land.

SUBDIVISION OF SECTION SURVEYS, T.13 S., R.10 E.

Chains

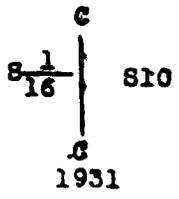
From the  $\frac{1}{4}$  sec. cor., bet. secs. 10 and 15, heretofore described.

N.0°28'E., on true N. and S. center line sec.10

Gradually ascend along an abrupt W. slope, over rough mountainous land, through dense timber and scattered undergrowth.

- 3.30 Gulch, 60 ft. deep, drains W.; 2.50 chs. distant into West Fork of Cordingly Canyon which drains S.
- 9.79 Gulch, 35 ft. deep drains W. about 3.20 chs. distant to junction with West Fork of Cordingly Canyon.
- 17.00 Gulch, 60 ft. deep, drains W. about 2.50 chs. distant to junction with West Fork of Cordingly Canyon.
- 20.26 On an abrupt W. slope, 130 ft. above  $\frac{1}{4}$  sec. cor.

Set an iron post, 3 ft. long, 1 in. in dia., 12 ins. in the ground to solid rock and in a mound of stone to top for center south sixteenth section cor., sec.10, with brasscap marked



from which

A red pine, 16 ins. diam., bears S.85 $\frac{1}{2}$ °W., 305 lks. dist., marked CS 1/16 S10 BT

A red pine, 16 ins. diam., bears N.85°45'W., 304 lks. dist., marked CS 1/16 S10 BT

Continue gradual ascent along abrupt and broken W. slope.

- 23.00 Gulch, 30 ft. deep, drains SW. about 3.50 chs. distant to junction with West Fork of Cordingly Canyon.
- 40.45 Small gulch, 30 ft. deep, drains SW. about 2.50 chs. dist. to junction with West Fork of Cordingly Canyon.
- 40.52 The center  $\frac{1}{4}$  sec. cor. sec.10, heretofore described, 130 ft. above the center south sixteenth section cor.
- 47.60 Base of abrupt ascent over broken SW. slope, bears NW. and SE.
- 55.90 Top of sandstone ledge, 130 ft. high, faces SW. and bears NW. and SE.
- 71.20 Divide bet. Main Fork and West Fork of Cordingly Canyon, 830 ft. above center  $\frac{1}{4}$  sec. cor., bears N.75°E. and S.75°W.; descend abrupt N. slope through dense service berry brush.
- 81.19 The  $\frac{1}{4}$  sec. cor. bet. secs. 3 and 10, heretofore described, 200 ft. below divide.

Land, rough mountainous, with general W. and E. exposure and drainage.

Soil, shallow sand, clay and rock of sandstone formation; 4th. rate.

SUBDIVISION OF SECTION SURVEYS, T.13 S., R.18 E.

amf:10

Chains

Timber, juniper, pinon, spruce and fir.  
 Undergrowth, sage, oak, service berry, silver leaf and mountain rush.  
 Fair grazing land.

From the south sixteenth sec. cor. bet. secs. 9 and 10, heretofore described.

S.89°54'E., on random E. and W. center line SW $\frac{1}{4}$  sec.10

20.49 Set temp. SW 1/16 sec. cor. sec. 10

40.94 Fall .6 lk. N. of the center south sixteenth sec. cor. sec. 10 heretofore described.

The bearing of this line therefore is S.89°53'E., and the distance is 40.94 chs.

From the west sixteenth sec. cor. bet. secs. 10 and 15, heretofore described.

N.0°06'30"E., on random N. and S. center line SW $\frac{1}{4}$  sec.10.

20.08 Fall 2.6 lks. W. of the temp. SW 1/16 sec. cor.

40.16 Intersect the center west sixteenth sec. cor. sec.10, heretofore described.

The bearing of this line therefore is N.0°06'30"E., and the distance is 40.16 chs.

From the south sixteenth sec. cor. bet. secs. 9 and 10

S.89°53'E., on true E. and W. center line SW $\frac{1}{4}$  sec.10

Descend abrupt ledgy NE. slope over rough mountainous land, through a medium dense growth of timber and scattered undergrowth.

7.04 Tunnel to Coal Mine of the Independent Coal and Coke Co., bears S.2°30'W.

7.50 Bull Canyon, 340 ft. below sixteenth sec. cor., drains S.; ascend abruptly over broken W. slope.

8.49 Electric power line, bears N. and S.

8.64 Tunnel to Coal Mine as noted at 7.04 chs., bears S.23°W.; water tank noted on line bet. secs. 9 and 10, bears N.48°W.; fan to No.2 Mine of the Independent Coal and Coke Co., also mentioned on line bet. secs. 9 and 10, bears N.12°45'W.

18.50 Spur, 415 ft. above Bull Canyon, projects SW., gradually descend.

20.47. In head of small gulch, 15 ft. below spur, drains SW.

Set an iron post, 3 ft. long, 1 in. in dia., 10 ins. in the ground to solid rock and in a mound of stone to top for southwest sixteenth sec. cor. sec.10, with brass cap marked

31

SURDIVISION-OF-SECTION SURVEYS, T.13 S., R.10 E.

Chains

SW  $\frac{1}{16}$  S10

1931

from which

A pinon, 12 ins. diam., bears N.58°W., 49 lks.  
dist., marked SW 1/16 S10 BT

A pinon, 10 ins. diam., bears S.16°E., 78 lks.  
dist., marked SW 1/16 S10 BT

Ascend abrupt W. slope.

- 23.85 Divide bet. Bull Canyon and West Fork of Cordingly Canyon, 535 ft. above Bull Canyon, bears N.30°W. and S.30°E.; descend abrupt E. slope through dense timber.
- 36.95 Entry to Coal Mine of the Independent Coal and Coke Co., as noted at 21.00 chs. bet. secs. 10 and 15, bears S.15°E.
- 38.00 West Fork of Cordingly Canyon, 550 ft. below ridge, drains S.; ascend abrupt W. slope.
- 40.95 The center south sixteenth section cor. sec.10, heretofore described, 65 ft. above canyon.

Land, broken mountainous, with abrupt E. and W. slopes and southerly drainage.

Soil, shallow clay, sand, and rocky of sandstone formation; 4th. rate.

Timber, juniper, pinon, mahogany, fir, and spruce.

Undergrowth, sage, oak, service berry and mountain rush.

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From the W.1/16 sec. cor. bet. secs. 10 and 15 heretofore described.

N.0°06'30"E on N. and S. center line SW  $\frac{1}{4}$  sec. 10.

Descend gradually along abrupt E. slope of divide bet. Bull Canyon and West Fork of Cordingly Canyon, through dense timber and scattered undergrowth.

- 8.80 Divide bet. Bull Canyon and West Fork of Cordingly Canyon, 85 ft. above cor., bears NE., and SW. 2 $\frac{1}{2}$  chs. thence S.; descend abruptly over NW. slope of divide.
- 15.70 Head of gulch, 170 ft. below divide, drains W.; ascend abruptly over broken SW. slope.
- 20.08 The SW 1/16 sec. cor. sec.10 heretofore described, in small gulch, drains SW.; ascend abrupt SW. slope over nearly inaccessible ledges.
- 40.16 The center W.1/16 sec. cor., sec.10 heretofore described, 790 ft. above gulch at 15.70 chs. point.
- Land, broken mountains; general E. and W. exposure and southerly drainage.
- Soil, shallow clay, sand, and rocky of sandstone formation; 4th. rate.
- Timber, juniper, pinon, fir, spruce, and mahogany.

SUBDIVISION OF SECTION SURVEYS, T.13 S., R.10 E.

amisho

Chains

Undergrowth, sage, oak, service berry, silver leaf, and mountain rush.

SECTION 4

From the 1/4 sec. cor. bet. secs. 4 and 9 heretofore described.

N.1°00'E., on random N. and S. center line sec. 4

40.89 Set temp. center 1/4 sec. cor.

82.34 Fall 18.4 lks. E. of the 1/4 sec. cor. bet. secs. 4 and 33 on the N. bdy. of the Tp. hereinafter described.

The bearing of this line therefore is N.0°54'E., and the distance is 82.34 chs.

From a point 9.3 lks. S. of the 1/4 sec. cor. bet. secs. 4 and 5, heretofore described.

S.89°25'E., on random E. and W. center line sec. 4

39.58 Intersect temp. center 1/4 sec. cor.

78.99 Fall 14.3 lks. S. of the true point for the 1/4 sec. cor. bet. secs. 3 and 4 heretofore described.

The bearing of this line therefore is S:89°27'E., and the distance is 78.99 chs.

From the 1/4 sec. cor., bet. secs. 4 and 9 heretofore described.

N.0°54'E., on true N. and S. center line sec. 4

Along steep and broken W. slope over rough mountainous land, through medium dense juniper, pinon, fir, and mahogany timber, and oak, service berry, and sagebrush undergrowth.

5.00 Depression on W. slope, 40 ft. below sec. cor., drains W.; gradually ascend.

8.30 Rocky point, 25 ft. above depression, projects W. 20 lks. distant to ledge; descend abruptly 210 ft. over N. slope through dense fir timber.

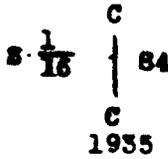
12.90 Panther Canyon, drains W.; leave dense timber, ascend brushy SW. slope.

17.60 Enter medium dense mahogany timber, continue ascent over W. and SW. slopes.

20.50 Set an iron post, 3 ft. long, 1 in. in dia., 25 ins. in the ground to solid rock and in a mound of stone to top for center south sixteenth sec. cor., with brass cap marked

SUBDIVISION-OF-SECTION SURVEYS, T.13 S., R.10 E.

Chains



from which

A red cedar, 8 ins.diam., bears N.81°E., 83 lks. dist., marked C S1/16 S4 BT

A mahogany, 6 ins.diam., bears S.80°45'W., 64 lks. dist., marked BT

A 12 in. cross (+), on SW. face of sandstone boulder, 4x3x3 ft. showing, bears N.43°E., 3½ lks. distant.

Cor. stands on general SW. slope, 85 ft. above draw; continue ascent over general SW. slope through medium dense mahogany timber.

41.01 Set an iron post, 3 ft.long, 1 in. in dia., 27 ins.in the ground and in a mound of stone to top for center ¼ sec. cor., with brass cap marked



1935

from which

A red pine, 8 ins.diam., bears N.24½°W., 125 lks. dist., marked C ¼ S4 BT

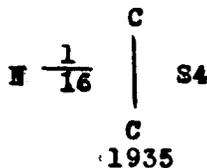
A mahogany, 3 ins.diam., bears N.88°E., 46½ lks. dist., marked BT

Cor. stands on steep S. slope 415 ft. above center south sixteenth sec. cor.; ascend abrupt S. and SW. slopes, 50 ft. over outcrops to

42.20 High ridge, bears N.56°W. and S.56°E.; descend steep N. slope, entering dense fir timber and a few scattered aspen.

45.00 Stock trail, bears E. and W.

61.49 Set an iron post, 3 ft.long, 1 in. in dia., 30 ins in the ground for center north sixteenth sec. cor., with brass cap marked



from which

A red pine, 16 ins.diam., bears S.83°45'E., 25½ lks. dist., marked C N 1/16 S4 BT

A red pine, 20 ins.diam., bears N.80½°W., 30 lks. dist., marked C N 1/16 S4 BT

Continue abrupt descent over N. slope.

82.34 The ¼ sec. cor. bet. secs. 4 and 33 on the N. bdy. of the Tp. which is an iron post, 1 in. in dia., firmly set, properly marked, and witnessed by one bearing tree in sec. 4 as described in the official record. The bearing tree in sec. 33 has been cut down and I mark a new tree as follows:

## SUBDIVISION-OF-SECTION SURVEYS, T.15 S., R.10 E.

## Chains

A red pine, 16 ins.diam., bears N.74°45'E.,  
dist., marked  $\frac{1}{16}$  S33 BT

Land, rough mountainous; general N. and S. slopes into  
deep canyons and draws draining W.

Soil, brown clay loam, gravelly and rocky of sandstone  
formation; 4th.rate.

Timber, juniper, pinon, mahogany, fir, and pine.

Undergrowth, sage, service berry, oak and buck brush.

Fair grazing land.

From the  $\frac{1}{16}$  sec. cor. bet. secs. 4 and 5 heretofore  
described.

S.89°27'E., on true E. and W. center line sec. 4.

Over rough mountainous land with a general southerly  
slope towards head of Panther Canyon, through scattered  
juniper, pinon, and mahogany timber, and scattered to  
medium growth of sage, service berry and oak brush.

Descend E. and SE. slopes 30 ft. to

- 3.40 Top of nearly vertical sandstone rim, 30 ft. high, bears  
NE. and SW.; descend abruptly over rocky E. slope  
through dense timber and undergrowth.
- 9.15 Gulch, near head, 315 ft. below  $\frac{1}{16}$  sec. cor., drains  
S.20°W.; ascend abruptly over SW. slope.
- 15.30 Top of broken sandstone rim, 25 ft. high, 220 ft. above  
gulch, bears NW. and S.; ascend more gradually over W.  
slope 130 ft. to
- 19.74 Set an iron post, 3 ft. long, 1 in. in dia., 27 ins. in  
the ground and in a mound of stone to top for center W.  
 $\frac{1}{16}$  sec. cor., with brass cap marked

$$\begin{array}{c} W \frac{1}{16} \\ \hline C \quad \quad \quad C \\ S \ 4 \\ 1935 \end{array}$$

from which

A mahogany, 6 ins.diam., bears N.19 $\frac{1}{2}$ °E., 38 lks.  
dist., marked C W $\frac{1}{16}$  S4 BT

Deposit a sandstone, 8x6x3 ins. marked with a cross (+)  
on one face at base of monument.

Continue ascent over W. slope.

- 21.50 Low flat spur, 40 ft. above  $\frac{1}{16}$  sec. cor., projects SW.;  
gradually ascend along rolling S. slope entering heavier  
juniper and pinon timber.
- 29.00 Slight depression, drains SW.
- 39.49 The center  $\frac{1}{16}$  sec. cor. sec. 4, on S. slope 320 ft. above  
center west sixteenth sec. cor.
- 41.50 High ridge, 80 ft. above center  $\frac{1}{16}$  sec. cor., bears  
N.56°W. and S.56°E.; enter dense fir, pine, and aspen

## SUBDIVISION-OF-SECTION SURVEYS, T.13 S., R.10 E

## Chains

timber, bears with ridge; descend N. and NE. slopes.

59.24 Set an iron post, 3 ft. long, 1 in. in dia., 30 ins. in the ground for center east sixteenth section cor., with brass cap marked

$$C \frac{E \frac{1}{16}}{S 4} C$$

1935

from which

A red pine, 16 ins. diam., bears N.6½°W., 22 lks. dist., marked C E 1/16 S4 BT

A red pine, 25 ins. diam., bears S.14°W., 56 lks. dist., marked C E 1/16 S4 BT

Cor. stands on gentle NE. slope of bench and in dense timber, 195 ft. below ridge.

73.50 Gulch, 300 ft. below center east sixteenth section cor., drains N.; gradually ascend along N. slope through dense timber.

74.80 Old drag road or trail, bears N. and S.

78.99 The ¼ sec. cor. bet. secs. 3 and 4 heretofore described, 80 ft. above gulch.

Land, rough mountainous; general SW. and N. exposure and drainage from ridge at 41.50 chs.

Soil, brown clay loam and rocky of sandstone formation 4th. rate.

Timber, juniper, pinon, mahogany, fir and pine.

Undergrowth, sagebrush, oak and service berry brush.

Fair grazing land.

From the E. 1/16 sec. cor. bet. secs. 4 and 9 heretofore described.

N.1°12'E., on random N. and S. center line SE¼ sec. 4.

20.44 Set temp. SE 1/16 sec. cor. sec. 4

40.87 Intersect the center east sixteenth sec. cor. sec. 4.

From the W. 1/16 sec. cor. bet. secs. 4 and 9, heretofore described, the center west sixteenth sec. cor. sec. 4 is visible, I run for said cor.,

N.0°35'E., on random N. and S. center line SW¼ sec. 4.

20.58 Set temp. SW.1/16 sec. cor. sec. 4

41.16 Intersect the center west sixteenth sec. cor. sec. 4.

56

BOOK A-519

SUBDIVISION-OF-SECTION SURVEYS, T.13 S., R.10 E.

Chains

From the south sixteenth sec. cor. bet. sects. 4 and 5 heretofore described.

S.89°40'E., on random E. and W. center line  $SE\frac{1}{16}$  sec. 4

19.63 Intersect temp. SW. 1/16 sec. cor.

39.27 Intersect the center south sixteenth sec. cor. sec. 4 heretofore described.

From the center south sixteenth sec. cor. sec. 4

S.89°40'E., on random E. and W. center line  $SE\frac{1}{16}$  sec. 4

19.63 Intersect temp. SE 1/16 sec. cor.

39.27 Intersect true point for the south sixteenth sec. cor. bet. secs. 3 and 4 heretofore described.

From the east sixteenth sec. cor. bet. secs. 4 and 9 heretofore described.

N.1°12'E., on true N. and S. center line  $SE\frac{1}{16}$  sec. 4.

Along W. slope of high ridge, over mountainous land through dense fir and mahogany timber and undergrowth of oak; sage, and service berry brush.

12.00 Slight depression drains W.; leave dense fir timber, bears E. and W.

20.44 Set an iron post, 3 ft. long, 1 in. in dia., 12 ins. in the ground to solid rock and in a mound of stone to top, for southeast sixteenth sec. cor., sec. 4, with brass cap marked

SE  $\frac{1}{16}$  S4

+  
1935

from which

A mahogany, 6 ins. diam., bears N.20½°E., 132 lks. dist., marked SE 1/16 S4 BT

A mahogany, 4 ins. diam., bears N.9°45'W., 91 lks. dist., marked SE 1/16 S4 BT

Cor. stands on W. slope of top of high ridge bearing N. and S.10°E.

24.30 High mountain ridge, bears N.42°W. and S.; descend over NE. slope through dense timber and undergrowth.

39.87 Stock trail, bears N.60°W. and S.70°E.

40.87 The center east sixteenth sec. cor., 305 ft. below ridge.

Land, mountainous; W. and NE. exposure and drainage from high mountain ridge.

Soil, brown clay loam and rocky of sandstone formation; 4th. rate.

Timber, mahogany, fir, pine and a few aspen.

7. OF SUBDIVISION-OF-SECTION SURVEYS, T.13 S., R.10 E.

Chains

Undergrowth, sage, oak, and service berry brush.

From the west sixteenth sec. cor. bet. secs. 4 and 9, heretofore described.

N.0°35'E., on true N. and S. center line SW $\frac{1}{4}$  sec. 4.

Descend general N. slope along E. side of draw draining N., over mountainous land through scattered mahogany, juniper and pinon timber and scattered undergrowth of sagebrush.

16.30 Panther Canyon, 650 ft. below 1/16 sec. cor., drains W.; ascend abruptly 100 ft. to

20.58 On steep general W. slope.

Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground and surrounded by a mound of stone for southwest sixteenth sec. cor., sec. 4; with brass cap marked

SW  $\frac{1}{16}$  S4

+  
1935

from which

A pinon 12 ins. diam., bears N.55°E., 50 lks. dist., marked SW 1/16 S4 BT

Deposit a sandstone, 8x6x4 ins. marked with a cross (+) on one face at base of monument.

Thence along general W. slope.

23.60 Draw, drains SW.; ascend abruptly over S. and SW. slopes.

35.00 Top of steep ascent, bears NE. and SW.; ascend more gradually over general W. slope.

41.16 The center west sixteenth sec. cor. sec. 4; 630 ft. above southwest sixteenth sec. cor.

Land, mountainous; general N. and S. exposure and drainage into Panther Canyon which drains W.

Soil, brown clay loam and rocky of sandstone formation; 4th. rate.

Timber, scattered mahogany, juniper and pinon.

Undergrowth, scattered sagebrush, oak, and service berry brush.

From the south sixteenth sec. cor. bet. secs. 4 and 5 heretofore described.

S.89°40'E., on true E. and W. center line SW $\frac{1}{4}$  sec. 4

Ascend rocky SW. slope of canyon, over mountainous land through a medium growth of mahogany, juniper and pinon timber and sagebrush undergrowth.

4.05 Draw, drains SW.; ascend more general S. slope.

SUBDIVISION-OF-SECTION SURVEYS, T.13 S., R.10 E.

Chains

301140

12.20 Top of ascent on S. slope, 105 ft. above sixteenth sec. cor., slopes S.; descend 30 ft. to

16.75 Small draw, drains SW.; ascend abruptly 100 ft. over W. slope to

19.63 The SW. 1/16 sec. cor. sec. 4 heretofore described.

Continue ascent over W. slope.

27.05 Spur, 250 ft. above SW. sixteenth sec. cor., projects S.; descend over rocky general S. slope through dense mahogany, pinon, and juniper timber.

33.30 Draw, 85 ft. below spur, drains S. 60° W.; ascend 190 ft. to

39.27 The center south sixteenth sec. cor. sec. 4 heretofore described.

Land, mountainous; general S. exposure and drainage into Panther Canyon which drains W.

Soil, brown clay loam and rocky of sandstone formation; 4th. rate.

Timber, mahogany, pinon, and juniper.

Undergrowth, scattered sage, service berry and oak brush.

From the center south sixteenth sec. cor. sec. 4

S. 89° 40' E., on true E. and W. center line SE 1/4 sec. 4.

Ascend abruptly SW. and W. slopes, over mountainous land through mahogany, pinon, and juniper timber and undergrowth of oak, sage, and service berry brush.

19.63 The SE. 1/16 sec. cor. sec. 4 heretofore described on high ridge, 620 ft. above center south sixteenth sec. cor., bears N. and S. 5° E.

Descend abruptly 280 ft. to

31.25 Draw, drains N.; thence along steep rugged north slope entering sandstone ledges and outcrops bearing nearly E. and W.

39.27 The true point for the south sixteenth sec. cor. bet. secs. 3 and 4 heretofore described.

Land, mountainous; general SW. and NE. exposure from high ridge.

Soil, brown clay loam and rocky; sandstone formation; 4th. rate.

Timber, mahogany, juniper, and pinon.

Undergrowth, sage, service berry, and oak brush.

GUA TAO SURVEY OF THE No. 1, 2, 3, AND 4 MINES, OF THE INDEPENDENT COAL AND COKE COMPANY IN SECS. 4, 9, AND 10, T. 12 S., R. 10 E., S. L. M., UTAH

These sub-surface surveys are made for the purpose of marking the surface position of the east and west center line of the SW $\frac{1}{4}$  sec. 4 in the No. 1 Mine, the line bet. secs. 9 and 10, the north and south center line of the SW $\frac{1}{4}$  and the east and west center line sec. 10 in the No. 2 Mine, the east and west center line of the SW $\frac{1}{4}$  sec. 4 and the line bet. secs. 4 and 9 in the No. 3 Mine, and the line bet. secs. 2 and 10 and the east and west center line of sec. 10 in the No. 4 Mine of the Independent Coal and Coke Company.

As heretofore stated all measurements in these mines are made in the foot unit, and the measurements so made are converted into the chain unit as shown in parenthesis in these notes.

I begin at the cor. of secs. 9, 10, 15, and 16 heretofore described.

Thence

S. 88° 45' E., 266.53 ft. ( 4.038 chs. )

October 21, 1935; at this station in approximate latitude 39° 41' 30" N., longitude 110° 49' 30" W., at 5h. 38m. 45s. pm. by my watch which is 23m. 18s. fast of local mean time as compared with radio time signals October 20, I make an hour angle observation on Polaris, east of the meridian, making four observations, two each with the telescope in direct and reversed positions, reading the horizontal deflection angle from a flag pole about 70 chs. northerly in the direction of N.-E. to Polaris.

Local mean time of observation 5h. 15.5m. pm.  
Upper Culmination of Polaris Oct. 21 11h. 42.2m. pm

Hour angle of Polaris at obsn. 6h. 26.7m.

Azimuth of Polaris at observation 1° 20.4' E.

Horizontal deflection angle flag pole to Polaris 1° 57.4' E.

True bearing of flag pole N. 3° 17.8' E.

Thence

N. 15° 11' W., 242.57 ft. ( 3.675 chs. ) to station O, identical with mine station 1439 at entry to rock tunnel and air course to mine. From this station, the cor. of secs. 9, 10, 15, and 16 bears S. 41° 38' W., 305.44 ft. ( 4.628 chs. ).

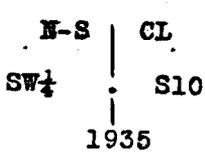
Station

- |     |  |  |
|-----|--|--|
| 0   | At entry to mine.                        |  |
| 0-1 | N. 0° 58' W., 852.92 ft. ( 12.923 chs. ) | Through rock tunnel and air course, to mine station 1438.  |
| 1-2 | N. 0° 26' W., 930.72 ft. ( 14.102 chs. ) | To mine station 1436 at junction with air course extending N. into No. 4 Mine and old main entry, now 1st E. entry to No. 2 Mine |
| 2-3 | N. 86° 39' E., 443.88 ft. ( 6.725 chs. ) | In 1st E. entry No. 2 Mine to mine station 1437.   |

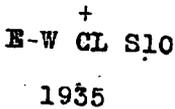
SURVEY OF THE NO. 1, 2, 3, AND 4 MINES OF THE HINDENBERG COAL AND COKE COMPANY IN SECS. 4, 9, AND 10, T. 13 S., R. 10 E., DIST. 11th

Station	
3-4	S.80°38'E., 147.54 ft. (2.235 chs.)
4-5	N.86°32'E., 235.53 ft. (3.567 chs.)
5-6	S.85°55'E., 243.77 ft. (3.693 chs.)
6-6½	N.82°28'E., 99.13 ft. (1.502 chs.) Intersect the N. and S.

center line SW¼ sec. 10, S.0°06'30"W., 612.65 ft. (9.283 chs.) from the center west sixteenth sec., cor. At point of intersection, set an iron post, 12 ins. long, 1 in. in dia., 10 ins. into a slate roof, 8 ft. high, with brass cap marked



6½-7	N.82°28'E., 68.09 ft. (1.032 chs.)
7-8	S.65°24'E., 102.34 ft. (1.551 chs.) In 2nd. West Entry No. 2 Mine.
8-9	S.65°36'E., 79.82 ft. (1.209 chs.)
9-10	N.87°53'E., 151.88 ft. (2.301 chs.)
10-11	N.72°35'E., 115.71 ft. (1.753 chs.)
11-12	S.87°47'E., 180.89 ft. (2.741 chs.)
12-13	N.75°19'E., 121.20 ft. (1.836 chs.)
13-14	S.69°05'E., 136.00 ft. (2.061 chs.)
14-15	S.89°39'E., 219.95 ft. (3.332 chs.)
15-16	S.84°47'E., 308.30 ft. (4.686 chs.) To point in N. slope.
16-17	N.6°46'E., 298.89 ft. (4.544 chs.) Down east slope, coal dips northerly.
17-18	N.6°29'E., 368.47 ft. (5.583 chs.) To mine station 1381, opposite 4th. West entry.
18-18½	N.6°27'E., 40.92 ft. (0.620 chs.) Intersect E. and W. center line sec. 10, N.89°37'E., 169.45 ft. (2.568 chs.) distant from the center ¼ sec. cor. sec. 10. At point of intersection, set an iron post, 1 in. in dia., 20 ins. long, 20 ins. in coal roof, with brass cap marked



18½-19	N.6°27'E., 742.37 ft. (11.248 chs.) To mine station 1379 at 6th. West entry.
19-20	N.6°04'E., 466.45 ft. (7.067 chs.)
20-21	N.24°30'W., 90.28 ft. (1.368 chs.) To mine station 1344 on curve into Main East Entry.

**SURVEY OF THE NO. 1, 2, 3, AND 4 MINES OF THE INDEPENDENT COAL AND  
 COKE COMPANY IN SECS. 4, 9, AND 10, T. 13 S., R. 10 E., S. L. M., UTAH**

Station	
21-22	N. 54° 31' W., 91.02 ft. (1.379 chs.) To point in Main East Entry of the No. 2 Coal mine.
22-23	N. 89° 53' W., 356.20 ft. (5.397 chs.) Along Main East Entry.
23-24	N. 89° 04' W., 501.60 ft. (7.600 chs.)
24-25	N. 89° 58' W., 848.53 ft. (12.856 chs.)
25-26	N. 89° 57' W., 898.61 ft. (13.615 chs.)
26-26½	S. 89° 50' W., 312.17 ft. ( 4.730 chs.) Intersect line bet. secs. 9 and 10, N. 0° 20' W., 1354.47 ft. (20.674 chs.) distant from the quarter-section corner heretofore described. At point of intersection, set an iron post, 18 ins. long, 1 in. in dia., 18 ins. in roof, 10 ft. high, with brass cap marked
26½-27	S. 89° 50' W., 138.58 ft. (2.100 chs.) To mine station 1255 in Main East Entry and junction with West Slope Entry No. 2 Mine.
27-28	S. 43° 54' E., 130.97 ft. (1.984 chs.) Into W. slope.
28-29	S. 1° 36' E., 312.68 ft. (4.737 chs.) Up W. slope.
29-30	S. 1° 18' E., 169.83 ft. (2.573 chs.) To mine station 891
30-31	S. 1° 12' E., 650.53 ft. (9.856 chs.) To Mine station BM
31-32	S. 1° 10' 30" E., 724.84 ft. (10.982 chs.) To mine station 24 in W. Slope at junction with 1st. East Entry. Hoist about 100 ft. S.
32-32½	N. 72° 44' E., 17.99 ft. ( 0.273 chs.) Intersect line bet. secs. 9 and 10, S. 0° 15' E., 581.73 ft. (8.814 chs.) distant from the ¼ sec. cor. bet. secs. 9 and 10. At point of intersection, set an iron post, 1 in. in dia., 20 ins. long, 20 ins. into coal roof, with brass cap marked
32½-33	N. 72° 44' E., 79.61 ft. (1.206 chs.) To mine station 34 near N. rib of 1st. E. entry.
33-2	S. 63° 24' 30" E., 127.90 ft. ( 1.938 chs.)
Thence from station 27, continue in the Main East Entry of the No. 2 Mine, in haulage connection bet: No. 1 and No. 2 Mine (8.803 chs.)	
27-34	N. 89° 54' W., 892.75 ft. (13.526 chs.) At 581 ft. / is the junction of No. 1 and No. 2 Mines at west end of parting. Thence in Main East Entry of the No. 1 Mine.

SURVEY OF THE NO. 1, 2, 3, AND 4 MINES OF THE ... AND COKE COMPANY IN SECS. 4, 9, AND 10, T. 14 N., R. 22 E., S. 23 N.

Station		
34-35	N. 89° 55' W., 1006.06 ft. (15.243 chs.)	
35-36	N. 75° 16' W., 196.52 ft. (2.978 chs.)	
36-37	N. 77° 25' W., 304.55 ft. (4.614 chs.)	
37-38	N. 85° 20' W., 306.77 ft. (4.648 chs.)	To mine station 1687B.
38-39	N. 89° 57' 45" W., 1095.44 ft. (16.598 chs.)	
39-40	N. 45° 51' 30" W., 48.10 ft. (0.729 chs.)	To N. side of Main East Entry to No. 1 Mine at junction with main haulage tunnel to No. 3 and 4 Mines, and parting for W. panel slopes to No. 1 Mine.
40-41	S. 73° 23' W., 262.08 ft. (3.971 chs.)	To W. slope entry No. 1 Mine.
41-42	N. 31° 06' E., 285.11 ft. (4.320 chs.)	
42-43	N. 28° 30' E., 167.06 ft. (2.531 chs.)	
43-44	N. 2° 00' E., 187.62 ft. (2.843 chs.)	In Main W. slope, dips to the N.
44-45	N. 0° 07' W., 528.59 ft. (8.009 chs.)	
45-46	N. 0° 04' E., 259.51 ft. (3.932 chs.)	
46-47	N. 0° 06' 30" E., 411.29 ft. (6.232 chs.)	
47-48	N. 0° 10' E., 352.17 ft. (5.336 chs.)	To mine station 2098.
48-49	N. 0° 12' E., 394.33 ft. (5.975 chs.)	Intersect E. and W. center line SW 1/4 sec. 4, N. 89° 40' W., 116.34 ft. (1.752 chs.) distant from the SW 1/16 sec. cor. sec. 4 heretofore described. At point of intersection, set an iron post, 20 ins. long, 1 in. in dia., 20 ins. into a coal reef about 6 1/2 ft. high, with brass cap marked
<p>E-W CL SW 1/4 . S4 1935.</p>		
Thence from station No. 40, in No. 3 Mine.		
40-50	N. 1° 41' W., 1131.14 ft. (17.138 chs.)	
50-51	N. 15° 16' 30" E., 53.73 ft. (0.814 chs.)	To mine station 521
51-52	N. 37° 07' 30" E., 85.45 ft. (1.295 chs.)	Along Main East Entry No. 3 Mine
52-53	S. 89° 37' E., 594.45 ft. (9.007 chs.)	To mine station 811
53-54	N. 0° 09' E., 356.58 ft. (5.403 chs.)	Down West slope, coal dips to the N.
54-55	N. 0° 08' E., 249.41 ft. (3.779 chs.)	To mine station 1018
55-55 1/2	N. 0° 05' 30" E., 582.97 ft. (8.984 chs.)	Intersect E. and W. center line SW 1/4 sec. 4, N. 89° 40' W., 767.45 ft. (11.628 chs.) distant from the center south sixteenth sec. cor.

SURVEY OF THE No. 1, 2, 3, AND 4 MINES OF THE INDEPENDENT COAL AND  
IRON COMPANY IN SECS. 4, 9, AND 10, T. 13 S., R. 10 E., S. L. M., Utah

Station

sec. 4 heretofore described. At point of intersection, set an iron post, 18 ins. long, 1 in. in dia., 18 ins. into a coal roof, with brass cap marked

E-W CL  
SW 1/4 +84

1935

Roof is about 7 ft. high at this point.

55 1/2-56 N. 0° 05' 30" E., 87.09 ft. ( 1.319 chs. ) To mine station 1126

56-57 N. 0° 07' E., 97.27 ft. ( 1.474 chs. ) To mine station 1146.  
Face of slope about 200 ft. N.

Thence from station 53, continue in Main East Entry of the No. 3 Mine.

53-58 S. 89° 46' E., 687.65 ft. ( 10.419 chs. )

58-59 S. 89° 44' E., 521.52 ft. ( 7.902 chs. ) Point about 30 ft. W. of door and at junction with curve into the E. Slope Entry of the No. 3 Mine.

59-60 S. 89° 56' 30" E., 691.09 ft. ( 10.471 chs. ) Continuing in the Main East Entry of the No. 3 Mine.

60-61 S. 89° 58' E., 256.93 ft. ( 3.893 chs. )

61-62 S. 89° 41' E., 557.23 ft. ( 8.443 chs. )

62-63 N. 88° 37' E., 123.74 ft. ( 1.875 chs. )

63-64 S. 25° 34' 30" E., 96.13 ft. ( 1.456 chs. )

64-65 S. 89° 59' E., 435.92 ft. ( 6.805 chs. )

65-65 1/2 S. 0° 30' E., 71.16 ft. ( 1.078 chs. ) Intersect line bet. secs. 4 and 9, N. 89° 53' W., 8.98 ft. ( 0.136 chs. ) distant from the cor. of secs. 3, 4, 9, and 10 heretofore described. At point of intersection, set an iron post, 18 ins. long, 1 in. in dia., 18 ins. into a coal roof, 9 ft. high, with brass cap marked

T13SR10E  
84

S9  
1935

65 1/2-66 S. 0° 30' E., 89.95 ft. ( 1.363 chs. )

Thence from station 59, on curve into East Slope Entry of the No. 3 Mine.

59-67 S. 41° 34' E., 125.39 ft. ( 1.900 chs. )

67-68 S. 13° 24' E., 90.51 ft. ( 1.371 chs. ) To station in East Slope Entry.

68-69 S. 36° 38' W., 505.88 ft. ( 7.665 chs. ) Up East Slope Entry

SURVEY OF THE NO. 1, 2, 3, AND 4 MINES OF THE LITTLETON COAL AND  
 COKE COMPANY IN SECS. 4, 9, AND 10, T. 15 S., R. 16 W., CO. 27, WYO.

Station	
69-70	S.36°42'W., 203.72 ft. (3.087 chs.)
70-71	S.36°43'W., 288.42 ft. (4.370 chs.)
71-72	S.36°37'W., 406.11 ft. (6.153 chs.) To old company station at 5th. East Entry.
72-73	N.89°53'30"E., 477.17 ft. (7.230 chs.) In 5th. East Entry
73-74	S.89°44'30"E., 447.79 ft. (6.785 chs.)
74-75	S.89°41'E., 557.15 ft. (8.442 chs.)
75-76	N.89°36'E., 236.10 ft. (3.577 chs.)
76-77	S.89°13'E., 444.51 ft. (6.735 chs.) To mine station 993
77-78	S.89°41'30"E., 376.76 ft. (5.708 chs.) To mine station 1080
78-79	S.89°03'E., 232.26 ft. (3.519 chs.) To mine station 1118
79-80	S.0°29'E., 472.18 ft. (7.154 chs.) Up West Slope Entry to mine station 537 painted. This is also the apparent junction bet. the No. 3 and No. 4 Mines.
80-81	S.0°26'30"E., 209.06 ft. (3.167 chs.) Up West Slope Entry No. 4 Mine to point opposite the 3rd. West and 3rd. East entries.
81-81½	N.85°41'E., 82.98 ft. (1.257 chs.) In 3rd. East Entry. Intersect the line bet. secs. 9 and 10, N.0°20'W., 784.84 ft. (11.892 chs.) dist. from the 1 sec. cor. bet. secs. 9 and 10. heretofore described. Set an iron post, 18 ins. long, 1 in. in dia., 18 ins. into roof, 6 ft. high, with brass cap marked
T13SR10E S9 + S10 1935	
81½-82	N.85°41'E., 186.02 ft. (2.818 chs.) To mine station 840 at end of rock tunnel to the south into the No. 4 Mine.
82-2	S.0°29'E., 1414.98 ft. (21.439 chs.) Through rock tunnel to station 2 heretofore described.
Thence from station 81, continue up West Slope Entry of the No. 4 Mine.	
81-83	S.0°31'E., 320.51 ft. (4.856 chs.) To point opposite the 2nd. East and 2nd. West Entries.
83-84	N.52°41'E., 165.62 ft. (2.509 chs.) In 2nd. East Entry.
84-85	S.77°44'E., 110.81 ft. (1.679 chs.)
85-86	S.62°35'E., 155.43 ft. (2.355 chs.)
86-87	N.88°07'E., 366.10 ft. (5.547 chs.)

GENERAL DESCRIPTION OF THE NO. 1, 2, 3, AND 4 MINES OF THE INDEPENDENT COAL AND  
HAYU, COOK COMPANY, IN SECS. 4, 9, AND 10, T. 13 S., R. 10 E., S. L. M., UTAH

Station

- 88-88  $S. 89^{\circ} 22' E.$ , 721.72 ft. (10.935 chs.)
- 88-89  $S. 57^{\circ} 36' E.$ , 66.85 chs. (1.013 chs.) On curve into East Slope Entry.
- 89-89  $S. 0^{\circ} 54' E.$ , 422.65 ft. (6.404 chs.) Up East Slope Entry. Intersect N. and W. center line sec. 10,  $N. 89^{\circ} 37' E.$ , 84.95 ft. (1.287 chs.) distant from the center west sixteenth sec. near heretofore described. At point of intersection, set an iron post, 18 ins. long, 1 in. in dia., 18 ins. into a coal roof, with brass cap marked
- E-W CL  
+  
S10  
1935
- 89-90  $S. 0^{\circ} 54' E.$ , 7.65 ft. (0.116 chs.)

GENERAL DESCRIPTION

Sections 4 and 10 are very rough and mountainous and are situated on the breaks of the Book Cliff Mountains which extend for many miles in the east central part of Utah.

With the exception of a small area in the  $NW\frac{1}{4}NW\frac{1}{4}$  which drains in a northerly direction, sec. 10 lies on the S. face of these Book Cliffs and has a general S. exposure and drainage. A high, nearly inaccessible sandstone reef bears in an easterly and westerly direction through the northern portion of the section, and from this reef the country rises abruptly to the mountain top or ridge divide which separates Willow Creek to the north and drainage into Price River to the south. Bull Canyon heads in the northwest part of the section and drains in a southerly direction, and the West Fork of Cordingly Canyon heads in north central portion and drains the central portion.

Section 4 lies north of the mountain top or divide which bears in an easterly and westerly direction through the north portion of sec. 9, thence northeast through the northwest corner of sec. 10 and into sec. 3. From this divide a high ridge extends northwesterly through sec. 4, dividing the drainage into Willow Creek to the northeast and the headwaters of Panther Canyon in the southwest portion of the section.

The soil varies from a blue and brown clay in sec. 10 to brown mountain loam in the higher portions of sec. 4. It contains much rock of sandstone or limestone formation and may be classed as 4th. rate. In sec. 4, the soil supports a medium to dense growth of oak, sagebrush and service berry brush, while in sec. 10, it is a short scrubby growth of desert shrubs. Considerable Douglas fir, spruce, mahogany, and aspen timber is found on the

101342

higher and sheltered slopes, while scrub juniper and pinon are found over the entire area. Indications are that much of the larger timber has already been harvested from this portion of the country.

The Independent Coal and Coke Company are now mining coal in secs. 4 and 10, and have spent vast funds in the development of their property. The old main entrance to the mines is located immediately northeast of the cor. of secs. 9, 10, 15, and 16, from which the coal was conveyed by motor road to the tippie at Kenilworth, Utah, in sec. 15 of this township. This entrance has been abandoned in favor of a new rock tunnel in secs. 9 and 16, and is now used as an air course. These mines include two seams of coal which dip to the N.; the lower seam comprises the No. 1 and 2 Mines, and the upper seam the No. 3 and 4 Mines. Numerous outcroppings of coal were noted in secs. 10, and only slight traces in sec. 4 which is probably due to the great covering in the latter sec.

A small spring of water was found in the SE  $\frac{1}{4}$  SE  $\frac{1}{4}$  sec. 4 but was not visible from the line of survey.

No settlers were living in these secs. at the time of survey.

Section 4 and a small portion of the north part of sec. 10 affords fair grazing for stock.

The mean magnetic decl. was found to be 16°30' E.





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# FIELD NOTES

OF THE SURVEY OF THE

~~DEPENDENT RESURVEY OF SECTIONS 8 AND 17, SUBDIVISION OF SECTION~~  
~~SURVEYS IN SECTIONS 8 AND 17, AND SURVEY OF PORTIONS OF THE NO. 1~~  
~~AND NO. 2 COAL MINES OF THE LION COAL COMPANY, ALL IN~~

T. 15 S., R. 9 E.

Of the SALT LAKE Meridian.

the State of UTAH

### EXECUTED BY

Howard W. Miller, Cadastral Engineer

Elliot Bird, Cadastral Engineer

~~the capacity of U. S. Surveyor~~, under Special Instructions dated August 26, .  
No. . issued by the District Cadastral Engineer to govern surveys included in Group  
234, Utah ., which were approved by the Commissioner of the General Land  
Nos. September 11, 19 30, and Assignment Instructions dated May 18 1931.  
April 8, 1932, and June 20, 1936.

Survey commenced August 7 ., 19 31

Survey completed June 28 ., 19 36

# INDEX DIAGRAM.

Township 15 South ..... Range 8 East

6	5	4	3	2	1
	6				
7	4	8	7	9	10
	2				
16	12	17	9	16	15
	11				
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

- Subdivision of sec. 8, page 13
- Subdivision of sec. 17, page 17
- Survey of the No. 1 coal mine of the Lion Coal Company, page 21
- Survey of the No. 2 coal mine of the Lion Coal Company, page 22

This survey was executed with Buff and Buff transits Nos. 16726 and 18003, property of the General Land Office. Each transit is equipt with a Smith solar attachment and a full vertical circle. The horizontal limbs are provided with two double verniers placed opposite to each other and reading to single minutes of arc, which is also the least count of the verniers of the latitude and declination arcs and vertical circles. The instruments having been tested and found free from any appreciable error prior to the beginning of this survey, were approved by the district cadastral engineer for Utah, on May 18, 1931, April 8, 1932, and June 20, 1938. Transit No. 18003 was used by Elliot Bird, Cadastral Engineer, and transit No. 16726 was used by Howard W. Miller, Cadastral Engineer. The surface surveys were executed by Elliot Bird, and the underground surveys were executed by Elliot Bird and Howard W. Miller.

This survey involves the reestablishment (dependent resurvey) of the boundaries of secs. 8 and 17, the subdivision of section surveys in the above sections, and carrying underground and marking the line bet. secs. 16 and 17, the east and west center line NE $\frac{1}{4}$  sec. 17, in the Third South Main Entry, the east and west center line SE $\frac{1}{4}$  sec. 8, in the Third North Main Entry, and the east and west center line sec. 8, in the Fifth North Main Entry, of the No. 2 mine of the Lion Coal Company, and the east and west center line SE $\frac{1}{4}$  sec. 8, in the No. 1 mine of the Lion Coal Company. The above surveys were made in cooperation with the U.S. Geological Survey, under authority of the Commissioner of the General Land Office, in letter dated June 11, 1930.

The solar attachments were not used in these surveys, and all controlling meridians of the surface surveys were established by observations on Polaris as shown in this record. The bearings of the lines were deflected from these true meridians, by repetition of angles, and carried forward by transit lines, taking the mean of direct and reversed sights. In the under ground surveys, the lines were run by traverse methods, and where it was impossible to close a figure of the survey, the traverse line was carried into various entries and a check survey using the same transit stations and continuing the azimuth of the original traverse in the opposite direction back to the entry of the mine or to such other points as was necessary to check the work. All azimuths in this record of the mine surveys and surface tie lines to mine entries, are referred to controlling meridians by the method of deflection angles and calculated courses. These controlling meridians are extended from reference points of the surface surveys to the mine entry, where they are again checked by an independent observation on Polaris, and then projected underground. The mean calculated courses of the azimuths between stations only appear in these notes. In order to simplify this record, the true line courses of the surface surveys only are given.

The measurements were made with Lallie steel ribbon tapes 5 chains in length and Lufkin steel tapes 200 ft. in length. The 5 chain tapes are graduated every link for the first 100 lks. and thereafter at intervals of 10 lks. The 200 ft. tapes used exclusively in the mine work, are graduated to feet, tenths, and hundredths in its entire length. All the tapes were tested, comparison being made with a Lufkin standard steel tape 66 ft. long, which was compared with a similar tape tested by the U.S. Bureau of Standards. The measurements were made on the slope, the vertical angle determined with the transits, and the slope measurements properly reduced to true horizontal distances. In those instances in the mine surveys where the figure was not closed by survey, all distances were double chained and the mean distances between stations are recorded in this record.

DEPENDENT RESURVEY OF SUBDIVISION, T. 15 S., R. 8 E.

Chains

Reestablishment of surveys executed by  
James C. Dick, U.S. Deputy Surveyor,  
in 1900.

August 7, 1931: Stationed at the cor. of secs. 8, 9, 16, and 17, T. 15 S., R. 8 E., Salt Lake Meridian, Utah, in approximate latitude  $39^{\circ}31' N.$ , longitude  $111^{\circ}04'30'' W.$ , at 8h 16.8m a.m. local mean time, I make an hour angle observation on Polaris west of the meridian, making four observations, two each with the telescope in direct and reversed positions, reading the horizontal deflection angle from a flag pole about 10 chs. west of my station, in a clockwise direction to the star.

Watch time of observation (105th Meridian Standard Time).....8h 41.1m a.m.

Watch fast of local mean time.....0h 24.3m ✓

Mean horizontal angle, flag pole to star.. $85^{\circ}07'$

Azimuth of Polaris.....  $1^{\circ}08'$  ✓

True bearing to flag pole.....N.  $86^{\circ}15'$  W. ✓

At apparent noon, with the instrument in a true north and south meridian, I make a meridian observation of the sun for latitude, observing simultaneously, the altitude of the sun's lower limb and the transit of the sun's west limb, reversing the telescope and observing simultaneously the altitude of the sun's upper limb and the transit of the sun's east limb.

Mean observed altitude  $67^{\circ}02'$

Reduced latitude  $39^{\circ}31' N.$

The cor. of secs. 8, 9, 16, and 17, is a sandstone, 12 x 10 x 6 ins. above the ground and mound of stone, firmly set, marked 4 notches on east and south edges. Cor. has no accessories.

At the cor. point:

Set an iron post, 3 ft. long, 2 ins. diam., 12 ins. in the ground to solid rock and in a large mound of stone, with the original cor. monument deposited at the base of the post, for cor. secs. 8, 9, 16, and 17, with brass cap marked

T15S	R8E
S8	S9
S17	S16

1931

sandstone, 20 x 12 x 4 ins., at base of post, deposit a  
marked X.

Thence, from the above cor.

N.  $86^{\circ}15'$  W., bet. secs. 8 and 17.

Ascend abrupt SE. slope of high rough mountainous land, through dense undergrowth.

- 3.15 Trail, bears NE. to top of mountain and SW. to Wattis, Utah.
- 13.00 Ridge, 430 ft. above cor., bears NE. and SW. Trail on top of ridge, bears with same; continue abrupt ascent along steep NE. slope, through very dense timber.
- 19.75 Proportionate point, on NE. slope, 140 ft. above ridge.

DEPENDENT RESURVEY OF SUBDIVISION, T. 15 S., R. 8 E.

Chains

Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, for the E. 1/16 sec. cor. secs. 8 and 17, with brass cap marked

E  $\frac{1}{16}$   $\frac{S8}{S17}$

1931

from which

A balsam, 16 ins. diam., bears N. 15° E., 34 lks. dist., marked E 1/16 S8 BT.

A balsam, 16 ins. diam., bears S. 75° E., 12 lks. dist., marked E 1/16 S17 BT.

Thence ascend abrupt N. slope through very dense timber.

27.50 The N. point of a rocky spur from the S., 830 ft. above sec. cor.; thence along N. face of broken ledges bearing E. and W.

38.00 Head of draw, 80 ft. below point of spur, drains N. 30° E.; ascend abrupt NE. slope.

38.60 Leave timber, bears N. and S.; thence through scattered undergrowth.

39.50 The  $\frac{1}{4}$  sec. cor. secs. 8 and 17, a white sandstone, 8 x 6 x 6 ins. above ground, firmly set, marked  $\frac{1}{4}$  on N. face. Cor. has no accessories.

At the cor. point, on gradual E. slope, 280 ft. above head of draw.

Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, with the original cor. monument deposited at the base of the post, for  $\frac{1}{4}$  sec. cor. secs. 8 and 17, with brass cap marked

$\frac{1}{4}$   $\frac{S8}{S17}$

1931

from which

An aspen, 8 ins. diam., bears S. 21°45' E., 164 lks. dist., marked  $\frac{1}{4}$  S17 BT.

An aspen, 8 ins. diam., bears N. 59° W., 108 lks. dist., marked  $\frac{1}{4}$  S8 BT.

Thence:

N. 87°57' W., with continuous measurement.

44.00 Top of ridge, 150 ft. above the  $\frac{1}{4}$  sec. cor., bears N. 10° W. and S. 10° E.; descend gradual SW. slope.

51.15 Trail, bears N. 60° W. and S. 60° E.

59.55 Pipe line which carries water from a spring on top of mountain to Wattis, bears N. 60° W. to spring and S. 60° E. to Wattis.

61.50 Head of draw, 150 ft. below ridge, drains SW.; thence along face of ledge near top.

DEPENDENT RESURVEY OF SUBDIVISION, T. 15 S., R. 8 E.

Chains

79.24 The cor. of secs. 7, 8, 17, and 18, a sandstone, 16 x 12 x 4 ins., firmly set in a mound of stone, marked 5 notches on E. edge, 4 notches on S. edge, and WC on S. face. Cor. has no accessories and the original record of this survey does not report this as a witness cor.

At the cor. point, on surface rock, mark a cross (X) over which.

Set an iron post, 3 ft. long, 2 ins. diam., in a large mound of stone, with the original cor. monument deposited at the base of the post, for cor. secs. 7, 8, 17, and 18, with brass cap marked

T15S, R8E	
S7	S8
S18	S17

1931

from which

A spruce, 30 ins. diam., bears N. 35°30' E.; 86 lks. dist., marked T15S R8E S8 BT.

A spruce, 6 ins. diam., bears N. 25° W.; 33 lks. dist., marked T15S R8E S7 BT.

No other suitable bearing trees available.

Cor. set on top of sandstone ledge, 150 ft. high, faces S. and bears E. and W.

Land, broken and mountainous, with a general northeasterly and southwesterly exposure and drainage.

Soil, deep clay and gravelly loam; 3rd rate.

Undergrowth, sage and service berry brush and dwarf timber.

Timber, spruce, aspen, and balsam.

Good grazing land.

N. 1°31' W., bet. secs. 7 and 8.

Ascend abrupt S. slope of high mountainous land, through dense timber and undergrowth.

1.70 Pipe line which carries water to the town of Wattis, bears N. 75° W. to spring and S. 75° E. to Wattis.

8.50 Ridge, 120 ft. above cor., bears E. and N. 70° W.; descend gradual N. slope.

9.50 Trail, bears N. 60° W. to top of mountain and S. 60° E. to Wattis.

13.00 Begin abrupt descent over NE. slope, through dense timber, bears NW. and SE.

38.20 Small draw, 900 ft. below ridge, drains NE.; thence descend gradual NE. slope through dense timber.

38.44 The  $\frac{1}{4}$  sec. cor. secs. 7 and 8, a sandstone, 16 x 12 x 5 ins., lying on the ground, marked  $\frac{1}{4}$  on top face. Cor. is witnessed by a bearing tree as follows.

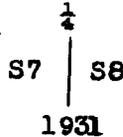
DEPENDENT RESURVEY OF SUBDIVISION, T. 15 S., R. 8 E.

Chains

An aspen, 6 ins. diam., bears S. 72°30' W., 5½ lks. dist., marked ¼ S7 BT.

At the cor. point, on NE.slope, 30 ft. below draw.

Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, with the original cor. monument deposited at the base of the post, for ¼ sec. cor. secs. 7 and 8, with brass cap marked



I mark additional bearing trees to cor. as follows.

A Douglas fir, 18 ins. diam., bears N. 29° E., 34 lks. dist., marked ¼ S8 BT.

A balsam, 8 ins. diam., bears S. 51°30' W., 12 lks. dist., marked ¼ S7 BT.

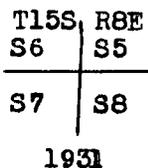
Thence:

N. 1°22' E., with continuous measurement.

- 41.30 Small draw, 50 ft. below the ¼ sec. cor., drains N. 70° E.; ascend gradually.
- 42.40 Spur, 20 ft. above draw, projects NE.; descend gradually over steep NE. slope.
- 49.00 Descent becomes abrupt, bears E. and W.
- 52.50 Draw, 240 ft. below spur, drains NE.; ascend gradually along steep E. slope.
- 60.00 Leave timber and enter dense undergrowth, bears NE. and SW.
- 70.00 Spur, 30 ft. above draw, bears SW. and projects NE.; descend abrupt NW. slope.
- 70.60 Enter dense aspen timber, bears NE. and SW.
- 78.32 The cor. of secs. 5, 6, 7, and 8, a sandstone, 8 x 6 x 5 ins. above ground, firmly set, marked 5 notches on E. and S. edge. Cor. has no accessories.

At the cor. point, on steep NW. slope, 300 ft. below spur.

Set an iron post, 3 ft. long, 2 ins. diam., 20 ins. in the ground to solid rock and in a large mound of stone, with the original cor. monument deposited at the base of the post, for cor. secs. 5, 6, 7, and 8, with brass cap marked



from which

An aspen, 3 ins. diam., bears N. 48°30' E., 10 lks. dist., marked BT.

An aspen, 3 ins. diam., bears S. 15° E., 20 lks. dist., marked BT.

DEPENDENT RESURVEY OF SUBDIVISION, T. 15 S., R. 8 E.

Chains

an 1210

An aspen, 3 ins. diam., bears S. 23° W., 11 lks. dist., marked BT.

An aspen, 3 ins. diam., bears N. 9° W., 24 lks. dist., marked BT.

No larger bearing trees available.

Land, high and mountainous, with a general southerly and northeasterly exposure and drainage.

Soil, shallow gravel, clay, and rock; 3rd rate.

Undergrowth, sagebrush, gooseberry, choke cherry, and dwarf timber.

Timber, aspen, spruce, balsam, and Douglas fir.

Good grazing land.

S. 84°43' E., bet. secs. 5 and 8.

Ascend abrupt NW. slope of high mountainous land, through dense timber and medium dense undergrowth.

- 3.50 Spur, 70 ft. above cor., projects NE.; descend abrupt SE. slope.
  - 10.30 Small spring branch in bottom of draw, 240 ft. below spur, flows N.; ascend abrupt W. slope.
  - 12.90 Spur, 110 ft. above draw, projects N. 15° E.; descend abrupt E. slope.
  - 15.00 Draw, 80 ft. below spur, drains N.; ascend abrupt W. slope.
  - 24.80 Spur, 270 ft. above draw, projects N.; descend abrupt NE. slope through dense balsam and Douglas fir timber.
  - 30.80 Draw, 160 ft. below spur, drains N.; ascend abrupt NW. slope.
  - 34.00 Timber becomes scattered, bears NE. and SE.
  - 39.36 The  $\frac{1}{4}$  sec. cor. secs. 5 and 8, cor. monument is missing but point for the cor. is established at record course and distance from its bearing tree, which is a limber pine, 18 ins. diam., bearing N. 26°30' E., 111 lks. dist., marked  $\frac{1}{4}$  S5 BT.
- At the established point for cor., on abrupt W. slope, 360 ft. above draw.
- Set an iron post, 3 ft. long, 1 in. diam., 12 ins. in the ground to solid rock and in a large mound of stone, for the restored  $\frac{1}{4}$  sec. cor. secs. 5 and 8, with brass cap marked

S5  
 $\frac{1}{4}$  ———  
 S8

1931

I mark an additional bearing tree to cor. as follows.

A Douglas fir, 10 ins. diam., bears S. 80° W., 248 lks. dist., marked  $\frac{1}{4}$  S8 BT.

DEPARTMENT OF AGRICULTURE  
 FOREST SERVICE  
 FOREST RESURVEY OF SUBDIVISION, T. 15 S., R. 8 E.

Chains

Thence:

N. 89°49' E., with continuous measurement.

- 40.70 Spur, 30 ft. above the  $\frac{1}{2}$  sec. cor., projects N.; descend abrupt E. slope through dense timber and scattered undergrowth.
- 53.50 Draw, 520 ft. below spur, drains N.; ascend abrupt W. slope.
- 54.90 Timber becomes scattered and undergrowth dense, bears N. and S.
- 66.30 Spur, 450 ft. above draw, projects N. 20° W.; descend gradually.
- 66.60 Timber becomes scattered, bears NW. and SE.
- 69.40 Head of draw, 20 ft. below spur, drains N.; ascend gradually.
- 71.50 Leave timber, bears N. and S.
- 76.50 Ridge, 100 ft. above head of draw, bears N. and S.; descend abrupt E. slope through dense undergrowth.
- 79.30 The cor. of secs. 4, 5, 8, and 9, a sandstone, 12 x 10 x 6 ins. above ground, firmly set, marked 4 notches on E. edge and 5 notches on S. edge. Cor. has no accessories.

At the cor. point, on steep E. slope in dense undergrowth, 60 ft. below ridge.

Set an iron post, 3 ft. long, 2 ins. diam., 30 ins. in the ground, with the original cor. monument deposited at the base of the post, for cor. secs. 4, 5, 8, and 9, with brass cap marked

T15S	R8E
S5	S4
S8	S9

1931

from which

A limber pine, 10 ins. diam., bears S. 70° W., 153 lks. dist., marked T15S R8E S8 BT.

No other bearing trees available.

Land, broken and mountainous with steep E. and W. slopes and a northerly drainage.

Soil, shallow clay, gravel, and rock; 3rd rate.

Undergrowth, sage, service berry, weeds, and grass.

Timber, balsam, spruce, Douglas fir, limber pine, and aspen.

Good grazing land.

S. 0°07' E., bet. secs. 8 and 9.

DEPENDENT RESURVEY OF SUBDIVISION, T. 18 S., R. 6 E.

Chains

oriented

Descend gradually over broken SE. slope of mountainous land, through dense undergrowth and scattered timber.

17.80 Gulch, 520 ft. below cor., drains S. 60° E.; ascend gradually.

19.70 Spur, 20 ft. above gulch, projects S. 75° E., 2.00 chs. to end; descend gradually.

20.80 Draw, 20 ft. below spur, drains E., 2.50 chs. dist. to junction with gulch drains N. 85° E.

25.30 Spur, 70 ft. above draw, projects E.; descend abruptly.

37.80 Top of sandstone ledge, 40 ft. high, faces SE. and bears N. 60° E. and S. 60° W.

38.70 Enter dense aspen timber, bears NE. and SW.

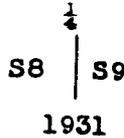
39.65 The 1/4 sec. cor. secs. 8 and 9, a sandstone, 8 x 8 x 6 ins. above ground, firmly set, marked 1/4 on W. face. Cor. is witnessed by two bearing trees as follows.

A dead aspen, 6 ins. diam., bears N. 77°30' E., 14 lks. dist., marked 1/4 S9 BT.

A Douglas fir, 15 ins. diam., bears N. 79°15' W., 8 lks. dist., marked 1/4 S8 BT. Tree marked on the bark.

At the cor. point; near bottom of canyon, 370 ft. below spur.

Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, with the original cor. monument deposited at the base of the post, for 1/4 sec. cor. secs. 8 and 9, with brass cap marked



I blaze and mark the bearing tree in sec. 8, 1/4 S8 BT, and mark an additional bearing tree in sec. 9 as follows.

A Douglas fir, 12 ins. diam., bears S. 6°30' E., 35 lks. dist., marked 1/4 S9 BT.

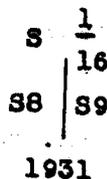
Thence:

S. 0°02' W., with continuous measurement.

40.50. Bottom of canyon, 15 ft. below cor., drains NE.; ascend abrupt NW. slope through dense timber.

59.20 Proportionate point, on abrupt NW. slope, 540 ft. above bottom of canyon.

Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, for the S. 1/16 sec. cor. secs. 8 and 9, with brass cap marked



from which

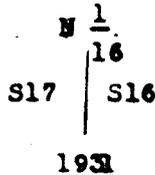
## DEPENDENT RESURVEY OF SUBDIVISION, T. 15 S., R. 8 E.

Chains	
	A balsam, 10 ins. diam., bears S. 39°45' E., 43 lks. dist., marked S 1/16 S9 BT.
	A balsam, 10 ins. diam., bears N. 87°15' W., 97 lks. dist., marked S 1/16 S8 BT.
69.50	Ridge, 920 ft. above canyon, bears NE. and SW. Trail on top of ridge bears with same. Leave timber, bears N. and S.; descend abrupt SE. slope.
78.75	The cor. of secs. 8, 9, 16, and 17, 270 ft. below top of ridge.  Land, broken and mountainous, with a general northwesterly exposure and drainage.  Soil, shallow gravel and clay loam, mixed with rock; 3rd rate.  Undergrowth, sage, service, and buck brush.  Timber, spruce, Douglas fir, balsam, and aspen on portions of mile.  Good grazing land.
	S. 0°03' E., bet. secs. 16 and 17.  Descend gradually along abrupt SE. slope of high mountainous land, through medium dense timber.
1.60	From this point, the SW. cor. of an outlet fan at the No. 2 mine of the Lion Coal Company, bears East, 47 lks. dist. Fan is at the end of an electric power line from the NE. From same point, the motor road or main entrance to the No. 2 mine of the Lion Coal Company, bears N. 87°42' E., 3.48 chs. dist.
1.84	From this point, the manway entrance to the No. 2 mine of the Lion Coal Company, bears East, 2.80 chs. dist.
3.55	Center of tramway of the Lion Coal Company, bears S. 60° W. to hoist in the No. 1 mine of the Lion Coal Company, and N. 60° E. to the entrance of the No. 2 mine, thence northeasterly to the tippie at Wattis.
4.30	Point from which the tramway entrance to the No. 1 mine of the Lion Coal Company, bears West, 1.95 chs. dist.
5.80	Point from which the manway entrance to the No. 1 mine bears West, 2.00 chs. dist. Thence descend gradually.
5.90	Draw, 160 ft. below cor., drains N. 60° E.; ascend abrupt NE. slope through scattered timber.
6.00	Point from which the NE. cor. of a red barn belonging to the Lion Coal Company, bears West, 1.15 chs. dist.
7.30	Trail, bears N. 60° W. and S. 60° E.
7.65	Pipe line which carries water to the town of Wattis, bears N. 60° W. and S. 60° E.
8.70	Same trail, bears SE. and N. 60° W.
9.15	Pipe line which carries water to the town of Wattis, bears NW. and SE.

DEPENDENT RESURVEY OF SUBDIVISION, T. 15 S., R. 8 E.

Chains

- 12.60 Draw, 30 ft. deep, drains N. 60° E.  
 19.96 Proportionate point, on abrupt NE. slope, 500 ft. above draw.  
 Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, for the N. 1/16 sec. cor. secs. 16 and 17, with brass cap marked



from which

- A Douglas fir, 8 ins. diam., bears S. 82° E., 83 lks. dist., marked N 1/16 S16 BT.  
 A Douglas fir, 10 ins. diam., bears N. 7° W., 379 lks. dist., marked N 1/16 S17 BT.  
 26.40 Ridge, 220 ft. above cor., bears N. 60° W. and S. 60° E.; descend abrupt SW. slope through dense undergrowth and scattered timber.  
 39.93 Proportionate point, find no trace of the 1/2 sec. cor. secs. 16 and 17.  
 On steep SW. slope, 370 ft. below ridge.

Set an iron post, 3 ft. long, 1 in. diam., 20 ins. in the ground to solid rock and in a large mound of stone, for the restored 1/2 sec. cor. secs. 16 and 17, with brass cap marked



from which

- A Juniper, 12 ins. diam., bears S. 37° E., 103 lks. dist., marked 1/2 S16 BT.  
 A balsam, 15 ins. diam., bears S. 5°15' W., 187 lks. dist., marked 1/2 S17 BT.  
 52.40 Draw, 30 ft. below the 1/2 sec. cor., drains S. 30° E.; ascend gradually along steep E. slope.  
 56.50 Top of ascent on E. slope, 20 ft. above draw, bears W. and slopes E.; descend gradually along steep E. slope.  
 79.06 The cor. of secs. 16, 17, 20, and 21, a sandstone, 14 x 12 x 6 ins. above ground, firmly set, marked 4 notches on N. edge and 3 notches on S. edge. Cor. is witnessed by a mound of stone to the S. of the cor. monument and two bearing trees as follows.  
 A mahogany, 5 ins. diam., bears S. 3° E., 77 lks. dist., marked T158 R8E S21 BT.  
 A Douglas fir, 14 ins. diam., bears S. 35°30' W., 123 lks. dist., upon which I find dim scribe marks. I blaze and mark this tree T158 R8E S20 BT.

Chains

At the cor. point, on abrupt E. slope, 200 ft. below top of ascent.

Set an iron post, 3 ft. long, 2 ins. diam., 20 ins. in the ground to solid rock and in a large mound of stone, with the original cor. monument deposited at the base of the post, for cor. secs. 16, 17, 20, and 21, with brass cap marked

T15S	R8E
S17	S16
S20	S21

1931

No other suitable bearing trees available.

Land, rough and mountainous, with a general northeasterly and southwesterly exposure and drainage.

Soil, shallow gravelly clay loam, with a rocky surface; 3rd rate.

Undergrowth, sage, service berry, mahogany, and buck brush.

Timber, Douglas fir, spruce, balsam, juniper, aspen, and pinon.

Good grazing land.

N. 89°46' W., bet. secs. 17 and 20.

Ascend abrupt E. slope of broken mountainous land, through dense timber and undergrowth.

13.50 Ridge, 480 ft. above cor., bears N. 10° W. and S. 10° E.; descend abrupt W. slope.

28.50 Draw, 490 ft. below ridge, drains SW.; ascend abrupt SE. slope.

38.20 Spur, 150 ft. above draw, projects S. 15° W.; descend abrupt W. slope.

39.54 The  $\frac{1}{4}$  sec. cor. secs. 17 and 20, a sandstone, 14 x 12 x 6 ins. above ground, firmly set, marked  $\frac{1}{4}$  on N. face. Cor. is witnessed by a mound of stone, 2 $\frac{1}{2}$  ft. base, 2 ft. high, to the N. of the cor. monument.

At the cor. point, on steep W. slope, 30 ft. below spur.

Set an iron post, 3 ft. long, 1 in. diam., 20 ins. in the ground to solid rock and in a large mound of stone to top, with the original cor. monument deposited at the base of the post, for  $\frac{1}{4}$  sec. cor. secs. 17 and 20, with brass cap marked

$\frac{1}{4}$	S17
	S20

1931

No suitable bearing trees available.

Thence:

DEPENDENT RESURVEY OF SUBDIVISION, T. 15 S., R. 8 E.

Chains

N. 89°34' W., with continuous measurement.

49.30 Old logging road, bears N. 35° W. and S. 35° E.

50.60 The North Fork of Miller Creek, stream of good clear water, 3 lks. wide, 2 ins. deep, in bottom of deep canyon, 460 ft. below the 1/4 sec. cor., flows SE.; ascend abrupt E. slope.

62.40 Slope changes from an abrupt E. slope to an abrupt NE. slope.

77.30 Top of ascent, 850 ft. above creek, slopes N. and bears S.; descend gradually along steep N. slope.

79.20 The cor. of secs. 17, 18, 19, and 20, a sandstone, 18 x 14 x 6 ins., lying on the ground, marked 5 notches on one edge. The other marks on the cor. monument had been broken off. Cor. is witnessed by two bearing trees as follows.

A balsam, 10 ins. diam., bears S. 58° W., 81 lks. dist., upon which I find dim scribe marks.

A balsam, 10 ins. diam., bears N. 73° W., 57 lks. dist., upon which I find dim scribe marks. I blaze and mark this tree T15S R8E S18 BT.

At the cor. point, on steep N. slope, 40 ft. below top of ascent.

Set an iron post, 3 ft. long, 2 ins. diam., 20 ins. in the ground to solid rock and in a large mound of stone, with the original cor. monument deposited at the base of the post, for cor. secs. 17; 18, 19, and 20, with brass cap marked

T15S	R8E
S18	S17
S19	S20

1931

I mark additional bearing trees to cor. as follows.

A spruce, 15 ins. diam., bears N. 14°15' E., 241 lks. dist., marked T15S R8E S17 BT.

A Douglas fir, 12 ins. diam., bears S. 76°15' E., 117 lks. dist., marked T15S R8E S20 BT.

A Douglas fir, 8 ins. diam., bears S. 33°30' W., 11 lks. dist., marked T15S R8E S19 BT.

Land, rough and mountainous, with a general northerly and southerly exposure and drainage.

Soil, shallow gravelly clay loam with rock; 3rd rate.

Undergrowth, sage, service berry, and buck brush.

Timber, spruce, Douglas fir, balsam, aspen, juniper and pinon.

Good grazing land.

N. 0°03' E., bet. secs. 17 and 18.

DEPENDENT RESURVEY OF THE SUBDIVISION, T. 15 S., R. 8 E.

CHAINS

Descend abrupt NW. slope of broken mountainous land, through dense timber and undergrowth.

13.50 Draw, 520 ft. below cor., drains N. 60° E.; ascend abrupt S. slope.

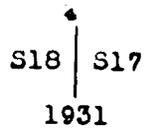
21.70 Spur, 260 ft. above draw, projects E.; descend abrupt NE. slope.

34.90 North Fork of Miller Creek, stream of good water, 3 lks. wide, 2 ins. deep, in bottom of deep canyon, 300 ft. below spur, flows S. 30° E.; ascend abrupt SW. slope.

41.70 Proportionate point, find no trace of the 1/4 sec. cor. secs. 17 and 18.

On abrupt SW. slope, 230 ft. above stream.

Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, for the restored 1/4 sec. cor. secs. 17 and 18, with brass cap marked



from which

A Douglas fir, 15 ins. diam., bears S. 7°15' E., 99 lks. dist., marked 1/4 S17 BT.

A Douglas fir, 16 ins. diam., bears N. 77°30' W., 14 lks. dist., marked 1/4 S18 BT.

Continue abrupt ascent over SW. slope.

65.80 Junction of draws from the N. and NE., draining S. 30° W., 540 ft. above the 1/4 sec. cor.; ascend abrupt S. slope.

79.00 Base of sandstone ledge facing S., bears E. and W.; thence ascend ledge.

83.41 The cor. of secs. 7, 8, 17, and 18, 800 ft. above junction of draws.

Land, broken and mountainous, with a general southerly exposure and drainage.

Soil, shallow gravelly clay loam with rock; 3rd rate.

Undergrowth, sage, service berry, and buck brush.

Timber, aspen, balsam, Douglas fir, and spruce.

Good grazing land.

SUBDIVISION OF SECTION SURVEYS, T. 15 S., R. 8 E.

Section 8.

From the 1/4 sec. cor. secs. 8 and 17.

N. 0°26' W., on N. and S. center line sec. 8.

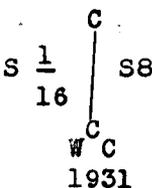
Ascend gradually over steep E. slope of mountainous land, through medium dense undergrowth.

14  
SUBDIVISION OF SECTION SURVEYS, T. 15 S., R. 8 E.

Chains

- 10.10 Enter dense timber, bears NW. and E.
- 11.30 Top of ascent 40 ft. above cor., bears W. and slopes E.; descend gradually over broken NE. slope.
- 18.40 Ridge, 60 ft. below top of ascent, bears N. 30° E. and S. 30° W.; descend abrupt N. slope over sandstone ledges.
- 19.08 True point for the center S. 1/16 sec. cor. sec. 8, falls on face of sandstone ledge, 35 ft. high, bearing E. and W., where it is impossible to set a cor.
- 19.14 At base of ledge, bears E. and W.

Set an iron post, 3 ft. long, 1 in. diam., 20 ins. in the ground to solid rock and in a large mound of stone, for witness cor. to the center S. 1/16 sec. cor. sec. 8, with brass cap marked



from which

A Douglas fir, 16 ins. diam., bears S. 60° E., 62 lks. dist., marked WC CS 1/16 S8 BT.

A Douglas fir, 10 ins. diam., bears N. 47° W., 55 lks. dist., marked WC CS 1/16 S8 BT.

Continue abrupt descent over N. slope through dense timber.

- 27.90 Draw, 450 ft. below ridge, drains NE.; thence along steep E. slope through dense aspen timber.

- 38.17 On steep E. slope, 50 ft. below draw, in dense aspen timber.

Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, for the center 1/4 sec. cor. sec. 8, with brass cap marked

C 1/4 S8

1931

from which

An aspen, 6 ins. diam., bears N. 28° E., 23 lks. dist., marked C 1/4 S8 BT.

An aspen, 6 ins. diam., bears S. 35°30' W., 11 lks. dist., marked C 1/4 S8 BT.

Continue gradual descent along E. slope through dense aspen timber.

- 51.50 Leave aspen timber and enter scattered Douglas fir, bears E, and W.

- 70.50 Spur, 200 ft. below cor., projects N. 30° E.; descend gradually along abrupt NW. slope.

- 76.08 The 1/4 sec. cor. secs. 5 and 8, 50 ft. below spur.

Land, broken and mountainous, with a general northeasterly exposure and drainage.

SUBDIVISION OF SECTION SURVEYS, T. 15 S., R. 8 E.

chains

Soil, shallow gravel and rock; 5th rate.  
 Undergrowth, sage, service berry, and buck brush.  
 Timber, aspen, Douglas fir, and spruce, on N. portion of  
 mile.  
 Good grazing land.

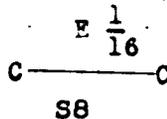
From the  $\frac{1}{4}$  sec. cor. secs. 7 and 8.

S.  $87^{\circ}39'$  E., on E. and  $\frac{1}{4}$  center line sec. 8.

Descend abrupt NE. slope of high mountainous land, through  
 dense timber and undergrowth.

- 0.70 Draw, 40 ft. below cor., drains NE.; continue abrupt  
 descent over NE. slope.
- 12.10 Bottom of canyon, 320 ft. below cor., drains N.; ascend  
 abrupt NW. slope.
- 23.10 Spur, 410 ft. above canyon, projects N.  $15^{\circ}$  W.; descend  
 gradually over abrupt NE. slope.
- 25.70 Draw, 60 ft. below spur, drains N.  $10^{\circ}$  W.; ascend abrupt  
 W. slope.
- 29.50 Timber becomes scattered, bears N. and S.
- 33.80 Spur, 290 ft. above draw, projects N.  $15^{\circ}$  E.; descend  
 abrupt E. slope through dense timber and undergrowth.
- 40.46 The center  $\frac{1}{4}$  sec. cor. sec. 8, 300 ft. below spur.
- 47.30 Bottom of canyon, 280 ft. below cor., drains N.  $30^{\circ}$  E.;  
 ascend abrupt N. slope.
- 54.10 Ridge, 230 ft. above canyon, bears NE. and SW.; descend  
 abrupt E. slope through dense undergrowth.
- 60.34 Proportionate point, on abrupt E. slope, 260 ft. below  
 ridge.

Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the  
 ground, for the center  $\frac{1}{16}$  sec. cor. sec. 8, with brass  
 cap marked



1931

from which

A Douglas fir, 18 ins. diam., bears N.  $16^{\circ}$  E., 86 lks.  
 dist., marked CE  $\frac{1}{16}$  S8 BT.

A Douglas fir, 20 ins. diam., bears N.  $16^{\circ}30'$  W., 164  
 lks. dist., marked CE  $\frac{1}{16}$  S8 BT.

No suitable bearing tree to the S. of cor. available.

- 78.10 Top of sandstone ledge, 25 ft. high, bears NE. and SW.
- 80.22 The  $\frac{1}{4}$  sec. cor. secs. 8 and 9, 940 ft. below ridge.

SUBDIVISION OF SECTION SURVEYS, T. 16 S., R. 6 E.

Chains

Land, broken and mountainous with steep E. and W. slopes.  
 Soil, shallow gravel, clay, and rock; 3rd rate.  
 Undergrowth, sage, service berry, and buck brush.  
 Timber, aspen, spruce, balsam, and Douglas fir.  
 Good grazing land.

From the E. 1/16 sec. cor. secs. 8 and 17.

N. 0°10' W., on N. and S. center line of the SE. 1/4 sec. 8.

Descend abrupt E. slope of broken mountainous land,  
 through very dense timber and undergrowth.

- 9.00 Sandstone ledge, 40 ft. high, faces N. and bears E. and W.  
 11.40 Bottom of ravine, 580 ft. below cor., drains N. 60° E.;  
 ascend abrupt SE. slope, through dense undergrowth and  
 scattered timber.  
 19.31 On steep SE. slope, 80 ft. above draw.

Set an iron post, 3 ft. long, 1 in. diam., 10 ins. in the  
 ground to solid rock and in a large mound of stone, for  
 the SE. 1/16 sec. cor. sec. 8, with brass cap marked

SE 1/16 S8

1931

from which

A Douglas fir, 15 ins. diam., bears N. 5° E., 195 lks.  
 dist., marked SE 1/16 S8 BT.

A balsam, 12 ins. diam., bears S. 63°30' W., 150 lks.  
 dist., marked SE 1/16 S8 BT.

- 19.90 Top of ascent, 10 ft. above cor., bears E. and W.; descend  
 gradual NE. slope.  
 21.00 Spur, 30 ft. below top of ascent, projects NE.; descend  
 abrupt N. slope.  
 23.10 Draw, 150 ft. below spur, drains NE.; ascend gradually  
 along steep E. slope.  
 38.64 The center E. 1/16 sec. cor. sec. 8, 150 ft. above draw.  
 Land, broken and mountainous, with a general northeasterly  
 exposure and drainage.  
 Soil, shallow gravel and clay, with a rocky surface; 3rd  
 rate.  
 Undergrowth, sage, service berry, rose, and buck brush.  
 Timber, Douglas fir, aspen, spruce, and balsam.  
 Good grazing land.

From the true point for the center S. 1/16 sec. cor. sec.  
 8, which is S. 0°26' E., 6 lks. dist. from the witness

U. S. G. S. SUBDIVISION OF SECTION SURVEYS, T. 15 S., R. 8 E.

Chains

cor. to the cor. of said  $1/16$  sec. cor.

S.  $86^{\circ}55'$  E., on E. and W. center line SE.  $\frac{1}{4}$  sec. 8.

Descend gradual SE. slope of broken mountainous land, through dense timber and undergrowth.

1.20 Ridge, 10 ft. below cor., bears N.  $30^{\circ}$  E. and SW.; descend abrupt E. slope through very dense timber.

12.80 Draw, 640 ft. below ridge, drains NE.; continue descent.

16.20 Spur, 80 ft. below draw, projects NE.; descend abrupt E. slope.

19.80 The SE.  $1/16$  sec. cor. sec. 8, 80 ft. below spur.

26.90 Bottom of canyon, 420 ft. below cor., drains N.  $30^{\circ}$  E.; ascend abrupt NW. slope.

33.60 Spur, 230 ft. above canyon, projects N.; descend gradually along steep NE. slope.

37.80 Draw, 100 ft. below spur, drains N.; ascend abrupt NW. slope.

39.61 The S.  $1/16$  sec. cor. secs. 8 and 9, 70 ft. above draw.

Land, broken and mountainous, with a general easterly exposure and drainage.

Soil, shallow gravel and clay loam, mixed with rock; 3rd rate.

Undergrowth, sage, service berry, goose berry, choke-cherry, and buck brush.

Timber, aspen, Douglas fir, and balsam.

Good grazing land.

SECTION 17.

From the  $\frac{1}{4}$  sec. cor. secs. 17 and 20.

N.  $0^{\circ}04'$  E., on N. and S. center line sec. 17.

Ascend abrupt SW. slope of broken mountainous land, through scattered groves of dense timber and undergrowth.

9.80 Top of ascent, 120 ft. above cor., bears E. and slopes W.; descend gradually along W. slope.

33.30 Draw, 220 ft. below top of ascent, drains SW.; ascend abrupt SE. slope.

40.91 On abrupt SE. slope, 300 ft. above draw.

Set an iron post, 3 ft. long,  $\frac{1}{2}$  in. diam., 12 ins. in the ground to solid rock and in a large mound of stone, for the center  $\frac{1}{4}$  sec. cor. sec. 17, with brass cap marked

C  $\frac{1}{4}$  S17

1931

from which



SUBDIVISION OF SECTION SURVEYS, T. 15 S., R. 8 E.

Chains

- 39.67 The center  $\frac{1}{4}$  sec. cor. sec. 17, 20 ft. below spur.
- 41.50 Descent becomes abrupt, bears N. and S.
- 45.30 Draw, 170 ft. below spur, drains S.  $15^{\circ}$  W.; ascend abrupt W. slope.
- 59.41 Proportionate point, on steep W. slope, 550 ft. above draw.  
Set an iron post, 3 ft. long, 1 in. diam., 10 ins. in the ground to solid rock and in a large mound of stone, for the center E.  $\frac{1}{16}$  sec. cor. sec. 17, with brass cap marked.

E  $\frac{1}{16}$   
C ——— C  
S17  
1931

from which

A limber pine, 12 ins. diam., bears S.  $36^{\circ}$  E., 71 lks. dist., marked CE  $\frac{1}{16}$  S17 BT.

No other suitable bearing tree available.

- 61.50 Ridge, 60 ft. above cor., bears N. and S.; descend abrupt E. slope through dense undergrowth.
- 72.50 Draw, 340 ft. below ridge, drains SE., and heads NW., about 3.00 chs. dist.; ascend gradual SW. slope.
- 79.16 The  $\frac{1}{4}$  sec. cor. secs. 16 and 17, 60 ft. above draw.  
Land, broken and mountainous, with a general easterly and westerly exposure and drainage.  
Soil, shallow loose gravel, clay, and rock; 3rd rate.  
Undergrowth, sage, service berry, and buck brush.  
Timber, spruce, balsam, aspen, juniper and pinon.  
Good grazing land.

From the center N.  $\frac{1}{16}$  sec. cor. sec. 17.  
S.  $87^{\circ}17'$  E., on E. and W. center line NE.  $\frac{1}{4}$  sec. 17.  
Descend abrupt SE. slope of broken mountainous land, through dense undergrowth and scattered timber.

- 7.10 Draw near head, 260 ft. below cor., drains S.; ascend abrupt SW. slope.
- 19.74 On abrupt SW. slope, 290 ft. above draw, at base of sandstone ledge, bears NW. and SE.  
Set an iron post, 3 ft. long, 1 in. diam., 12 ins. in the ground to solid rock and in a large mound of stone, for NE.  $\frac{1}{16}$  sec. cor. sec. 17, with brass cap marked

NE  $\frac{1}{16}$  S17  
1931

from which

SUBDIVISION OF SECTION SURVEYS, T. 15 S., R. 8 E.

Chains

A Douglas fir, 16 ins. diam.; bears S. 5° E., 18 lks. dist., marked NE 1/16 S17 BT.

A balsam, 18 ins. diam., bears N. 20° W., 56 lks. dist., marked NE 1/16 S17 BT.

Thence ascend abruptly over ledges.

- 20.60 Top of ledges, 75 ft. high, bears NW. and SE.
- 23.30 Top of rocky ridge, 160 ft. above cor., bears NW. and SE.; descend abrupt ledgy NE. slope through dense timber.
- 28.00 Base of ledges, bears NW. and SE.; continue abrupt descent.
- 39.48 The N. 1/16 sec. cor. secs. 16 and 17, 580 ft. below ridge.

Land, broken and mountainous, with a general southeasterly exposure and drainage.

Soil, gravel, clay, and rock; 3rd rate.

Undergrowth, sage, service berry, mahogany, and buck brush.

Timber, balsam, spruce, Douglas fir, aspen, juniper, and pinon.

Good grazing land.

From the E. 1/16 sec. cor. secs. 8 and 17.

S. 0°03' E., on N. and S. center line NE. 1/4 sec. 17.

Ascend abrupt N. slope of broken mountainous land, through very dense timber and undergrowth.

- 4.00 Ridge, 190 ft. above cor., bears NE. and SW. At this point is base of sandstone ledge, 40 ft. high, bearing SW. and S. 20° W.; thence along base of ledge at head of small draw draining E.
- 9.50 Pipe line which carries water to the town of Wattis, bears E. and W.
- 11.20 Trail, bears N. 30° W. to top of mountain and S. 30° E. to Wattis.
- 13.30 Top of same ledge as at the 4:00 chs. point, bears N. 20° W. and S. 20° E.
- 15.50 Top of E. point of ledge on ridge, 400 ft. above cor., bears N. 30° W. and S. 30° E.; descend abrupt ledgy SW. slope.
- 20.33 The NE. 1/16 sec. cor. sec. 17, 170 ft. below ridge.
- 31.00 Begin gradual descent along W. slope, bears NW. and SE.
- 40.68 The center E. 1/16 sec. cor. sec. 17, 470 ft. below ridge.

Land, broken and mountainous, with a general northeasterly and southwesterly exposure and drainage.

Soil, shallow gravel, clay, and rock; 3rd rate.

Undergrowth, sage, service berry, mahogany, and buck brush.

## SUBDIVISION OF SECTION SURVEYS, T. 15 S., R. 8 E.

Station

Timber, spruce, balsam, Douglas fir, aspen, juniper, and pinon.

Good grazing land.

## GENERAL DESCRIPTION OF SECTIONS 8 AND 17, T. 15 S., R. 8 E.

The land within the boundaries of these two sections, is high and mountainous, and has a general northerly and southerly exposure and drainage.

The soil consists of a shallow gravelly and rocky clay loam, and may be classified as third rate.

Scattered groves of dense aspen, balsam, spruce, Douglas fir, mahogany, juniper, and pinon timber, are found throughout both sections.

The entrances to the No. 1 mine of the Lion Coal Company, are located in the NE $\frac{1}{4}$  NE $\frac{1}{4}$  sec. 17, and the entrances to the No. 2 mine of said company, are located in the NW $\frac{1}{4}$  NW $\frac{1}{4}$  sec. 16. At the time of this survey, the No. 2 mine was the only mine of the two that was being worked. The coal from this mine was hauled over a tram to the tippie at Wattis, located in the SW $\frac{1}{4}$  sec. 10.

The North Fork of Miller Creek, a stream of good clear water, flows through the SW. portion of sec. 17. A small spring of good water was found in the NE $\frac{1}{4}$  NW $\frac{1}{4}$  sec. 17. The water from this spring, was piped to the town of Wattis. A small spring branch is located in the NW $\frac{1}{4}$  NW $\frac{1}{4}$  sec. 8.

A winding trail bears in a northwesterly direction from the town of Wattis, to the top of the mountain range, through the northeast portion of sec. 17 and the south portion of sec. 8.

No portions of the two sections are suitable for farming and the surface was being used for a summer grazing range.

## SURVEY OF A PORTION, NO. 1 MINE, OF THE LION COAL COMPANY.

From the cor. of secs. 8, 9, 16, and 17, station 00, which is a spad in a cross beam in the tramway and main entry to the No. 1 mine of the Lion Coal Company, bears S. 31°12' W., 359.75 ft. (5.451 chs.) distant, as determined by the following traverse.

West, 0.060 chs.  
 South, 4.135 chs.  
 S. 71°15' W., 1.178 chs.  
~~.....~~  
 S. 84°51' W., 1.655 chs.

Thence with the survey of the No. 1 coal mine.

- |      |  |
|------|--|
| 00-1 | S. 68°39' W., 204.79 ft. (3.103 chs.) to company station in Main Entry in front of hoist room.                       |
| 1-2  | N. 56°20' W., 120.65 ft. (1.828 chs.)  |
| 2-3  | N. 39°17' W., 188.66 ft. (2.859 chs.)  |
| 3-4  | N. 89°06' W., 342.51 ft. (5.189 chs.)  |
| 4-5  | N. 89°46' W., 736.58 ft. (11.160 chs.) to point in Main Entry opposite Fifth South Main Entry. Thence in Fifth South |

SURVEY OF A PORTION, NO. 1 MINE, OF THE LION COAL COMPANY.

Station	Main Entry.
5-6	S. 30°04' W., 118.09 ft., (1.789 chs.)
6-7	S. 14°26' W., 173.06 ft., (2.622 chs.)
7-8	S. 45°04' W., 573.35 ft., (8.687 chs.)
8-9	S. 45°23' W., 264.97 ft., (4.015 chs.)
9-10	S. 44°29' W., 182.95 ft., (2.772 chs.) to company station No. 13.
10-10½	S. 16°15' E., 51.10 ft., (0.774 chs.) intersect the E. and W. center line NE¼ sec. 17, at a point, S. 87°17' E., 115.55 ft., (1.751 chs.) distant from the center N. 1/16 sec. cor. Note: This mine has been abandoned and the ceiling is very unsafe, therefore the point of intersection is not marked.
10-11	S. 16°53' E., 156.09 ft., (2.365 chs.) to company station No. 4.
10-12	S. 16°15' E., 67.72 ft., (1.026 chs.)
12-13	S. 47°29' E., 191.41 ft., (2.900 chs.) to company station No. 3. The face of this entry bears S. 47°29' E., 12 ft. distant.

SURVEY OF A PORTION, NO. 2 MINE, OF THE LION COAL COMPANY.

From the cor. of secs. 8, 9, 16, and 17, U.S. station 00 at the right side of the motor road entrance to the coal mine, which is a spad in a cross beam, bears S. 69°05' E., 251.03 ft., (3.803 chs.) distant, as determined by the following traverse.

- West, 0.060 chs.
- South, 4.135 chs.
- N. 54°46' E., 3.797 chs.
- N. 41°08' E., 0.778 chs.

Thence with the survey of the No. 2 mine, along the Motor Road Entry.

00-1	N. 58°14' W., 129.42 ft., (1.961 chs.)
1-2	S. 89°12' W., 654.10 ft., (9.911 chs.) at 124.45 ft. (1.886 chs.) intersect line bet. secs. 16 and 17, S. 0°03' E., 23.21 ft., (0.352 chs.) distant from the cor. secs. 8, 9, 16, and 17.

At point of intersection:

Set an iron post, 12 ins. long, 1 in. diam., 12 ins. in a hole drilled in the roof, with brass cap marked

T15S R8E

S17 S16

1933

SURVEY OF A PORTION NO. 2 MINE OF THE LION COAL COMPANY

Station	To
2-3	N. 81°20' W., 210.34 ft., (3.187 chs.)
3-4	N. 65°35' W., 149.06 ft., (2.258 chs.) From station No. 4, S. 65°35' E., 15.41 ft., (0.233 chs.) intersect line bet. secs. 8 and 17, S. 86°15' E., 441.75 ft., (6.693 chs.) distant from the E. 1/16 sec. cor., also from station No. 4, S. 81°54' W., 26.48 ft., (0.401 chs.) intersect line bet. secs. 8 and 17, S. 86°15' E., 401.41 ft., (6.082 chs.) distant from the E. 1/16 sec. cor.
4-5	S. 81°54' W., 161.78 ft., (2.451 chs.) to point opposite Third South Main Entry. Thence in Third South Main Entry.
5-6	S. 27°35' W., 158.62 ft., (2.403 chs.)
6-9	S. 38°43' W., 83.65 ft., (1.267 chs.)
9-10	S. 1°58' W., 426.26 ft., (6.458 chs.)
10-11	S. 1°57' W., 224.57 ft., (3.403 chs.)
11-12	S. 1°56' W., 402.26 ft., (6.095 chs.) From station No. 12, S. 1°56' W., 43.44 ft., (0.658 chs.) intersect the E. and W. center line NE. 1/4 sec. 17, S. 87°17' E., 103.81 ft., (1.573 chs.) distant from the NE. 1/16 sec. cor.

At point of intersection:

Set an iron post, 12 ins. long, 1 in. diam., 12 ins. in a hole drilled in the rock roof of the mine, with brass cap marked

T15S R8E  
 NE 1/4 S17  
 -----  
 NE 1/4 S17  
 1933

5-7	S. 82°50' W., 219.30 ft., (3.323 chs.) in Motor Road Entry.
7-8	N. 64°31' W., 525.09 ft., (7.956 chs.)
8-12a	N. 64°42' W., 265.31 ft., (4.020 chs.) to point opposite Third North Main Entry. Thence in Third North Main Entry.
12a-13	N. 0°52' E., 110.25 ft., (1.671 chs.)
13-14	N. 10°32' W., 109.51 ft., (1.659 chs.)
14-15	N. 17°19' W., 192.22 ft., (2.913 chs.)
15-16	N. 5°09' W., 178.47 ft., (2.704 chs.)
16-17	N. 4°47' E., 194.90 ft., (2.953 chs.)
17-18	N. 33°00' E., 180.72 ft., (2.738 chs.)
18-19	N. 37°24' W., 139.86 ft., (2.119 chs.) From station No. 19 North, 11.02 ft. (0.167 chs.) distant, intersect the E. and W.

SURVEY OF A PORTION NO. 2 MINE OF THE LION COAL COMPANY.

Station

SE $\frac{1}{4}$  of  
center line of/sec. 8, at a point  
S. 86°55' E., 584.86 ft., (8.862  
chs.) distant from the center  
S. 1/16 sec. cor.

At point of intersection:

Set an iron post, 12 ins. long, 1 in. diam., 12 ins. in a  
hole drilled in the rock roof of the mine, with brass cap  
marked

T15S R8E

SE $\frac{1}{4}$  S8

SE $\frac{1}{4}$  S8

1933

- 12a-20 N. 60°35' W., 283.78 ft., (4.300 chs.) continuing in Motor  
Road Entry.
- 20-21 N. 62°43' W., 198.23 ft., (3.004 chs.)
- 21-22 N. 66°36' W., 241.31 ft., (3.656 chs.) to sharp turn to  
the N. into the Fifth North  
Entry. A rock barrier to the W.
- 22-23 N. 2°32' W., 139.12 ft., (2.108 chs.)
- 23-24 N. 15°18' W., 220.56 ft., (3.342 chs.)
- 24-25 N. 6°53' W., 73.38 ft., (1.112 chs.)
- 25-26 N. 1°32' W., 219.83 ft., (3.331 chs.)
- 26-27 N. 1°04' W., 344.47 ft., (5.219 chs.)
- 27-28 N. 2°45' W., 483.00 ft., (7.318 chs.) to company station  
opposite room 17.
- 28-29 N. 1°48' W., 508.48 ft., (7.704 chs.) to company station  
opposite the Second East Main  
Entry.
- 29-29 $\frac{1}{2}$  N. 1°32' W., 35.01 ft., (0.530 chs.) intersect the E. and  
W. center line sec. 8, N.87°39' W.,  
114.16 ft., (1.730 chs.) distant  
from the center  $\frac{1}{4}$  sec. cor.

At point of intersection:

Set an iron post, 12 ins. long, 1 in. diam., 12 ins. in a  
hole drilled in the rock roof of the mine, with brass cap  
marked

T15S R8E

NW $\frac{1}{4}$  S8

SW $\frac{1}{4}$  S8

1933

- 29 $\frac{1}{2}$ -30 N. 1°32' W., 34.56 ft., (0.524 chs.) to company station  
opposite Second East Back Entry.
- 30-31 N. 1°32' W., 331.52 ft., (5.023 chs.) to point opposite  
Third East Main Entry.

SURVEY OF A PORTION NO. 2 MINE OF THE LION COAL COMPANY.

STATION	
31-32	N. 1°32' W., 412.42 ft., (6.249 chs.) at 75.00 ft. (1.136 chs.) is First Aid Room; at end of course is point opposite Fourth Back Entry.
32-33	N. 20°35' W., 311.93 ft., (4.726 chs.) at 130.00 ft., (1.970 chs.) is point opposite Fifth East Entry.
33-34	N. 20°03' W., 351.64 ft., (5.328 chs.) at 224.00 ft., (3.394 chs.) is point opposite Sixth East Entry.
34-35	N. 20°15' W., 372.05 ft., (5.637 chs.)
35-36	N. 37°12' E., 169.42 ft., (2.567 chs.) up Seventh East air course off Fifth North Entry. At end of course is room 7.
36-37	N. 22°25' E., 304.48 ft., (4.613 chs.)
37-38	N. 31°09' W., 343.73 ft., (5.208 chs.) to portal of mine.
38-39	N. 84°26' E., 438.96 ft., (6.651 chs.) to the $\frac{1}{4}$ sec. cor. secs. 5 and 8, heretofore described.

The course and distance from station 38 to 39, was determined from the following traverse from station 38.

- N. 52°14' E., 98.47 ft., (1.492 chs.)
- N. 83°51' E., 72.80 ft., (1.103 chs.)
- S. 85°45' E., 118.76 ft., (1.799 chs.)
- S. 84°19' E., 169.07 ft., (2.562 chs.)

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BOOK A-519

4-680  
(Revised May 1934)

**FIELD ASSISTANTS**

NAMES	CAPACITY
Edward Eliason	Chainman
Milton Hall	Chainman
Ethen Torgerson	Chainman
Jake Davis	Chainman
O.V. Anderson, Jr.	Chainman
Vernon Morgan	Chainman

CERTIFICATE OF UNITED STATES SURVEYOR

I, **Elliot Bird, Cadastral Engineer** ....., HEREBY CERTIFY upon honor that

pursuance of special instructions bearing date of the **26th** day of **August** 19**30**

received from the district cadastral engineer for **Utah** ....., with assignments dated **May 18, 1931, April 8, 1932, and June 20, 1938**

instructions dated **May 18, 1931, April 8, 1932, and June 20, 1938** I have surveyed **dependent resurvey of sections 8 and 17, subdivision of section surveys in sections 8 and 17 and survey of portions of the No. 1 and No. 2 coal mines of the Lion Coal Company, all in T. 15 S., R. 8 E.,**

of the **Salt Lake** Meridian, in the State of **Utah** ....., which are

represented in the foregoing field notes as having been executed by ~~me~~ <sup>us</sup> and under ~~my~~ <sup>our</sup> direction, and that said survey has been made in strict conformity with said instructions, the Manual of Instructions for the Survey

of the Public Lands of the United States, and in the specific manner described in the foregoing field notes. **Howard W. Miller is totally disabled and unable to sign this certificate. I certify that the foregoing field notes, are a true record, obtained from the data in his field tablets and of the surveys executed by myself.**

Salt Lake City, Utah.  
January 24, 1939

*Elliot Bird*  
Cadastral Engineer.

CERTIFICATE OF APPROVAL

OFFICE OF ~~U.S.~~ SUPERVISOR OF SURVEYS,  
Denver, Colorado. JAN 22 1940, 19**39**

The foregoing field notes of the survey of **dependent resurvey of sections 8 and 17, subdivision of section surveys in sections 8 and 17, and survey of portions of the No. 1 and No. 2 coal mines of the Lion Coal Company, all in T. 15 S., R. 8 E., Salt Lake Meridian, Utah.**

executed by **Elliot Bird and Howard W. Miller, Cadastral Engineers.**

under special instructions dated **August 26, 1930** ....., and assignment instructions dated **May 18, 1931, April 8, 1932, and June 20, 1938**

having been critically examined, and the necessary corrections made prior to their certification by the engineer, the said field notes, and the survey therein described, are hereby approved.

*Wm. H. Johnson*  
U.S. Supervisor of Surveys.

CERTIFICATE OF TRANSCRIPT

I certify that the foregoing transcript of the field notes of the above described surveys is

in a true copy of the original field notes on file in the public survey office.

U.S. Supervisor of Surveys.

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**Page**



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4-679  
(April 1933)

FEB 2 1937

Department of the Interior  
Public Survey  
Salt Lake City, Utah

BOOK A-519

"C"

# FIELD NOTES

OF THE

SURVEY OF PORTIONS OF THE NO. 2 MINE OF THE ROYAL COAL

CO. AND A TIE TO THE NEW MINE OF THE PEERLESS COAL CO.,

IN T. 12 S., R. 9 E.

Of the SALT LAKE Meridian,

in the State of UTAH

EXECUTED BY

Howard W. Miller, Cadastral Engineer

Elliot Bird, Surveyor

under special instructions dated August 26, 1930, which provided

for the surveys included under Group No. 234, bearing the approval of the

Commissioner of the General Land Office under date of September 11, 1930

and assignment instructions dated May 18, 1931, April 8, 1932,  
and June 15, 1933, xx

Survey commenced July 1, 1931

Survey completed June 5, 1933

# INDEX DIAGRAM.

Township 12 S, Range 9 E

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
20	29	28	27	26	25
31	30	28	24	25	26

6-151

Survey of the No. 2 Mine of the Royal Coal Co., pages 1 to 6.  
Tie to the new mine of the Peerless Coal Co., page 7.

SURVEY OF A PORTION OF THE NO. 2 MINE OF THE

ROYAL COAL CO., T. 12 S., R. 9 E.

This survey was executed with Buff and Buff transits Nos. 16726 and 18003, property of the General Land Office. For complete description and approval of these instruments, and the method of projecting the surface and sub-surface surveys, both as to instrumental work and measurement, see the survey of subdivision of section lines, and a survey of a portion of the Spring Canyon No. 1 Coal Mine, and the Peerless Sales Co. No. 3 Coal Mine in T. 13 S., R. 9 E., Book G of this group.

Transit No. 16726 was used by Howard W. Miller, Cadastral Engineer, in the sub-surface surveys, and transit No. 18003 was used by Elliot Bird, Surveyor, in making the surface tie lines to the mine entries.

Sections 35 and 36, T. 12 S., R. 9 E., were surveyed by A. D. Ferron, U. S. Deputy Surveyor, in 1881, and subsequently resurveyed under Group No. 123, Utah. The remaining portion of T. 12 S., R. 9 E. was surveyed under Group No. 13, Utah, in 1912. In addition to the surface tie lines to the new Peerless and No. 2 Mine of the Royal Coal Co. this survey involves sub-surface surveys in the No. 2 Mine of the Royal Coal Co., in order to mark the surface position of the line between sections 34 and 35 in the 4th West Entry, the West Main Entry, the 8th Right Entry and the line between sections 3 and 34, on the S. boundary of the township in the 1st Raise Entry, and a point on the same section line near the corner of sections 2, 3, 34, and 35, in a room off the 1st Raise Entry.

July 13, 1931, at the  $\frac{1}{4}$  sec. cor. between secs. 26 and 35, T. 12 S., R. 9 E., which is an iron post, 1 in. in diam., firmly set in a concrete form, and marked and witnessed as described in the official record.

At this corner, in approximate latitude  $39^{\circ}44'N.$ , and longitude  $110^{\circ}54'W.$ , at 8h 6m 28s a.m., by my watch, which carries 105th Meridian Standard time, I make an hour angle observation on Polaris W. of the meridian, making four observations, two each with the telescope in direct and reversed position, and reading the horizontal deflection angle from a tree on the skyline in the direction W. to Polaris.

Watch time of observation	8h 30m a.m.
Watch fast of local mean time	23m 32s
Local mean time of observation	8h 6m 28s
Hour angle of Polaris at observation	1h 51.3m
Azimuth of Polaris at observation	$0^{\circ}39'7''W.$
Mean horizontal deflection angle reference point to Polaris	$0^{\circ}40'$
True bearing of reference point	$N.0^{\circ}0.3'E.$

Deflecting from this true meridian I find that my station 00 at the Main Haulage Entry of the No. 2 Mine of the Royal Coal Co., which is a spad in a cross beam at the entry of the mine bears  $S.34^{\circ}28'W.$ , 1069.40 ft. (16.203 chs.) distant as determined by the following traverse.

$S.19^{\circ}06'W.$ , 744.28 ft. (11.277 chs.).

SURVEY OF A PORTION OF THE NO. 2 MINE OF THE

ROYAL COAL CO., T. 12 S., R. 9 E.

station

S.77°09'W., 271.33 ft. (4.111 chs.).

S.39°28'W., 152.92 ft. (2.317 chs.). to station 00 at the Main Entry of the Royal Coal Co. Mine (No.2). From this station a flagpole on the historic Castle Gate Rock bears N.6°59'E.

November 18, 1932, at station 00, at the Main Entry of the No. 2 Mine of the Royal Coal Co. at 1h 33m p.m., by my watch, which is 24m 39s fast of local mean time, I make an hour angle observation on Polaris E. of the meridian, making four observations, two each with the telescope in direct and reversed position, reading the horizontal deflection angle from Polaris in the direction of E. to the flag pole on Castle Gate Rock.

Local mean time of observation 1h 8m 21s p.m.

Azimuth of Polaris at observation 1°03'E.

Horizontal deflection angle 5°56'E.

True bearing of flag pole N.6°59'E.

Thence with the sub-surface surveys in the No.2 Mine of the Royal Coal Co.

- 00-1 S.3°22'30"W., 392.15 ft. (5.942 chs.) down Main Haulage Slope which dips about 21° to the S.
- 1-2 S.3°25'30"W., 341.84 ft. (5.179 chs.).
- 2-3 S.3°15'30"W., 108.99 ft. (1.651 chs.).
- 3-4 S.4°20'W., 62.43 ft. (.946 chs.), to foot of slope and Company station near S. rib of the Main Entry.
- 4-5 N.88°43'30"E., 196.94 ft. (2.984 chs.), to station in First Left Entry.
- 4-6 S.89°15'30"W., 132.43 ft. (2.007 chs.), to station at junction of the Main West Entry and the Main Raise Entry. Continue in West Main Entry.
- 6-7 N.76°09'W., 184.07 ft. (2.789 chs.).
- 7-8 N.52°35'W., 112.92 ft. (1.711 chs.).
- 8-9 N.79°41'30"W., 75.66 ft. (1.146 chs.).
- 9-10 N.88°50'W., 364.06 ft. (5.516 chs.).
- 10-11 N.88°43'30"W., 131.92 ft. (1.999 chs.).
- 11-12 S.80°41'W., 97.83 ft. (1.482 chs.).
- 12-13 S.84°57'W., 115.69 ft. (1.753 chs.).
- 13-14 S.71°44'W., 94.39 ft. (1.430 chs.).
- 14-15 S.85°04'W., 155.24 ft. (2.352 chs.).
- 15-16 S.74°50'30"W., 109.44 ft. (1.658 chs.).
- 16-17 N.80°13'W., 105.83 ft. (1.603 chs.).

SURVEY OF A PORTION OF THE NO. 2 MINE OF THE  
ROYAL COAL CO., T. 12 S., R. 9 E.

station	
17-18	S.84°57'W., 62.05 ft. (.940 chs.), to Parting in West Main Entry.
18-19	N.83°46'W., 198.90 ft. (3.014 chs.), thence N.82°36'W., 95.29 ft. (1.444 chs.).
	Intersect line between secs. 34 and 35, S.0°06'W., 1686.40 ft. (25.552 chs.) distant from the cor. of secs. 26, 27, 34 and 35, which is an iron post, 2 ins. diam., firmly set, and marked and witnessed as described in the official record of the resurvey of this township.
	At point of intersection
	Set an iron post, 10 ins. long, 1 in. in diam., 10 ins. in a hole drilled in solid rock roof, with brass cap marked
	T12S R9E S34 S35 1933
	Paint a stripe on the sec. line N. and S. of post, with the letters U. S. W. of same.
6-20	S.68°22'W., 118.11 ft. (1.789 chs.) up Main Raise Entry.
20-21	S.30°59'W., 287.27 ft. (4.353 chs.).
21-22	S.31°06'30"W., 252.73 ft. (3.829 chs.).
22-23	S.31°45'W., 312.12 ft. (4.729 chs.).
23-24	S.15°51'W., 181.85 ft. (2.755 chs.), to station at the junction of the Main Raise Entry and Third Right Entry. Thence in Third Right Entry.
24-25	N.85°40'30"W., 88.67 ft. (1.344 chs.).
25-26	S.88°21'30"W., 94.50 ft. (1.432 ft.).
26-27	N.89°04'W., 263.81 ft. (3.997 chs.), to station opposite Room 6.
27-28	S.87°02'W., 104.29 ft. (1.580 chs.).
28-29	S.80°11'30"W., 54.66 ft. (.828 chs.), to Company station marked 5.
29-30	N.83°38'30"W., 49.78 ft. (.754 chs.).
30-31	S.78°36'W., 75.27 ft. (1.140 chs.).
31-32	N.79°44'W., 80.43 ft. (1.219 chs.).
32-33	S.86°35'W., 58.60 ft. (.888 chs.), to top of a large cave-in.
33-34	S.89°26'W., 52.81 ft. (.800 chs.).
34-35	S.89°33'30"W., 236.52 ft. (3.584 chs.).
35-36	N.81°22'W., 48.90 ft. (.741 chs.), to Company station at the junction of the Third Right Entry with the W. Raise Entry. Thence in W. Raise Entry.

SURVEY OF A PORTION OF THE NO. 2 MINE OF THE

ROYAL COAL CO., T. 12 S., R. 9 E.

station	
36-37	N.5°22'W., 106.88 ft. (1.619 chs.), to new station in cross beam in W. Raise Entry. This point is 33.23 ft. S. and 44.91 ft. E. of the $\frac{1}{4}$ sec. cor. between secs. 34 and 35. This portion of the mine apparently has not been worked for sometime, and the ribs and roof, which appear to be very unsafe, are heavily rock-dusted. I do not attempt to reach the point for the $\frac{1}{4}$ sec. cor.
5-38	S.54°35'E., 119.79 ft. (1.815 chs.), to point in E. Dip Entry.
38-39	N.1°27'W., 279.88 ft. (4.241 chs.).
39-40	N.1°19'30"W., 398.77 ft. (6.042 chs.), to Company station No. 4.
40-41	N.1°23'W., 352.55 ft. (5.342 chs.).
41-42	N.1°15'20"W., 323.13 ft. (4.896 chs.).
42-43	N.1°44'W., 188.52 ft. (2.856 chs.).
43-44	N.0°48'30"W., 154.31 ft. (2.338 chs.), to point of curve at the 4th W. Entry.
44-45	N.2°16'W., 96.17 ft. (1.457 chs.). From this station N.2°16'W., 4.75 ft. (.072 chs.) distant and mark a cross in a concrete pump room in the E. Dip Entry.
44-46	N.22°50'30"W., 58.73 ft. (.890 chs.) in 4th W. Entry.
46-47	N.77°00'W., 114.62 ft. (1.736 chs.).
47-48	S.88°46'W., 260.53 ft. (3.947 chs.).
48-49	N.82°36'30"W., 151.79 ft. (2.300 chs.).
49-50	S.77°23'30"W., 136.02 ft. (2.060 chs.).
50-51	S.80°52'W., 83.30 ft. (1.262 chs.).
51-52	S.54°09'30"W., 128.16 ft. (1.942 chs.).
52-53	S.88°35'W., 369.42 ft. (5.597 chs.).
53-54	S.89°20'W., 261.63 ft. (3.964 chs.), to Company station opposite Room 11.
54-55	S.89°21'W., 381.60 ft. (5.782 chs.), to Company station opposite Room 15.
55-56	S.89°31'W., 246.97 ft. (3.742 chs.), to Company station opposite Room 18.
56-56 $\frac{1}{2}$	S.89°36'W., 119.47 ft. (1.810 chs.), intersect line between secs. 34 and 35, S.0°06'W., 181.92 ft. (2.756 chs.) distant from the cor. of secs. 26, 27, 34 and 35,

At point of intersection

Set an iron post, 12 ins. long, 1 in. diam., 12 ins. in a hole drilled in coal roof, with brass cap marked

T12S R9E

S34 | S35

1933

SURVEY OF A PORTION OF THE NO. 2 MINE OF THE  
ROYAL COAL CO., T. 12 S., R. 9 E.

station	Paint a stripe along the sec. line, across the roof of the mine, with the letters U S to the W. of same.
56½-57	S. 89°36' W., 187.83 ft. (2.846 chs.). From this station the face of the 4th W. Entry bears S. 89°36' W., 214.00 ft. (3.242 chs.) distant.
24-58	S. 7°09'30" E., 67.85 ft. (1.028 chs.), to new station in Main Raise Entry.
58-59	S. 1°01'30" E., 617.05 ft. (9.349 chs.), to station opposite 5th Right Back Entry.
59-60	S. 0°26'30" E., 394.08 ft. (5.971 chs.), to station opposite 6th Right Front Entry.
60-61	S. 0°28'30" E., 382.22 ft. (5.791 chs.), to station opposite 7th Right Front Entry.
61-62	S. 0°18'30" E., 127.87 ft. (1.938 chs.).
62-73	S. 0°49'30" E., 120.02 ft. (1.819 chs.).
63-64	S. 0°24'30" E., 153.60 ft. (2.327 chs.), to station opposite 8th Right Main Entry. Thence in 8th Right Main Entry.
64-65	N. 72°15'30" W., 95.25 ft. (1.443 chs.).
65-66	N. 83°14'30" W., 72.90 ft. (1.104 chs.).
66-67	N. 63°48'30" W., 227.81 ft. (3.452 chs.), to Company station opposite Room 6.
67-68	N. 79°37' W., 289.28 ft. (4.383 chs.), to Company station opposite Room 10.
68-69	S. 88°23' W., 224.01 ft. (3.394 chs.).
69-70	N. 84°12' W., 257.11 ft. (3.896 chs.), to Company station opposite Room 16 with concrete stoping.
70-70½	S. 86°24' W., 166.41 ft. (2.521 chs.), intersect line between secs. 34 and 35, N. 0°20' E., 859.23 ft. (13.019 chs.) distant from the cor. of secs. 2, 3, 34 and 35 on the S. boundary of the township, which is an iron post, 3 ins. in diam., firmly, set, and marked and witnessed as described in the official record.
At point of intersection	
Set an iron post, 10 ins. long, 1 in. diam., 10 ins. in a hole drilled in solid rock roof, with brass cap marked	
T12SR9E	
S34 S35	
1933	
Paint a stripe across roof on sec. line with the letters U S W. of same.	
70½-71	S. 86°24' W., 4.63 ft. (.070 chs.).
71-72	N. 81°22' W., 151.52 ft. (2.296 chs.).

SURVEY OF A PORTION OF THE NO. 2 RIBE OF THE

ROYAL COAL CO. T. 12 S., R. 9 E.

station		
72-73	S. 69°26' W., 129.44 ft. (1.901 chs.).	
73-74	S. 82°04' W., 86.99 ft. (1.318 chs.), to station opposite 1st Rise Main Entry. Thence up 1st Rise Main Entry.	
74-75	S. 0°24' E., 262.92 ft. (3.984 chs.).	
75-76	S. 0°09' W., 183.42 ft. (2.779 chs.).	
76-76½	S. 0°31'30" E., 383.79 ft. (5.815 chs.), intersect S. boundary of the township, S. 89°05' W., 351.82 ft. (5.331 chs.) distant from the cor. of secs. 2, 3, 34 and 35, heretofore described.	
	At point of intersection	
	Set an iron post, 10 ins. long, 1 in. diam., 10 ins. in a hole drilled in solid rock roof, with brass cap marked	
	T12SR9E S34 <del>S3</del> T13SR9E	
	1933	
76½-77	S. 0°31'30" E., 14.57 ft. (.221 chs.), to Company spad about 5 ft. distant from Company station No. 50.	
77-78	N. 70°59' E., 78.48 ft. (1.189 chs.).	
78-79	N. 10°49'30" E., 69.91 ft. (1.059 chs.).	
79-80	N. 81°00' E., 107.38 ft. (1.627 chs.).	
80-81	N. 67°18' E., 90.03 ft. (1.364 chs.).	
81-82	S. 2°19' W., 111.17 ft. (1.684 chs.).	
82-83	S. 38°44' E., 69.32 ft. (1.050 chs.).	
83-85	N. 13°00' E., 40.03 ft. (.607 chs.), intersect S. boundary of the township, S. 89°05' W., 27.44 ft. (.416 chs.) distant from the cor. of secs. 2, 3, 34 and 35, heretofore described.	
	At point of intersection	
	Set a wooden plug, with spad driven in the same, and a painted circle around same, and with the letters U. S. 85. I am unable to reach the true point for the cor. of secs. 2, 3, 34 and 35, as it falls in the rib of the mine.	

## TIE TO THE MAIN ENTRANCE OF THE NEW MINE OF THE PEERLESS COAL CO.

station

July 13, 1931, the  $\frac{1}{4}$  sec. cor. between secs. 26 and 27 is an iron post, 1 in. in diam., firmly set, and marked and witnessed as described in the official record,

At this cor., in approximate latitude  $39^{\circ}54'$  N., longitude  $110^{\circ}54'$  W., at 1h51m32s p. m. by my watch, which carries 105th Meridian standard time, I make an hour angle observation on Polaris W. of the meridian, making four observations, two each with the telescope in direct and reversed position, and reading the horizontal deflection angle from a reference point to the N. in the direction W. to Polaris.

Watch time of observation 1h 51m 32s p. m.

Watch fast 23m 32s

Local mean time of observation 1h 28m p. m.

Hour angle of Polaris at observation 7h 12.8m

Azimuth of Polaris at observation  $1^{\circ}18'$  W.

Mean horizontal deflection angle  $1^{\circ}18'$

Reference point bears North.

From this  $\frac{1}{4}$  sec. a reference point, which is a spad in a cross beam near an insulator at the Main Entry of the new mine of the Peerless Coal Co. bears N.  $44^{\circ}47'$  E., 720.19 ft., (10.912 chs.) distant as determined by the following traverse.

N.  $51^{\circ}33'$  E., 737.95 ft. (11.181 chs.).

N.  $54^{\circ}14'$  W., 87.12 ft. (1.320 chs.), to reference point at the entry of the mine.





CERTIFICATE OF UNITED STATES SURVEYOR

W. Edward V. Miller, U.S. Cadastral Engineer,  
and Elliot Bird, U.S. Surveyor

survey carried upon lower that, in

graduations of special instructions bearing date of the 26th day of August, 1930

issued from the District Cadastral Engineer for Utah, with assignment

dated May 10, 1931 ~~terminated~~ April 8, 1932, and June 15, 1933

we have surveyed all those portions of the No. 2 Mine of the Royal Coal Co. and made a tie to the new mine of the Peerless Coal Co., in T. 12 S., R. 9 E.,

in the Salt Lake Meridian, in the State of Utah, which are

representations of the foregoing and to be as having been executed by me and under my direction; and that said survey has been made in accordance with said instructions, the Manual of Instructions for the Survey of the United States and the General Orders, and in the specific manner described in the foregoing field notes.

Certified to at Salt Lake City, Utah, February 2, 1937

*W. Edward V. Miller*  
U.S. Cadastral Engineer  
*Elliot Bird*  
U.S. Surveyor

CERTIFICATE OF APPROVAL

OFFICE OF THE SUPERVISOR OF SURVEYS,

Denver, Colo. August 26, 1937

These portions of the No. 2 Mine of the Royal Coal Co. and the tie to the new mine of the Peerless Coal Co. in T. 12 S., R. 9 E., Salt Lake Meridian, Utah,

Edward V. Miller, U.S. Cadastral Engineer & Elliot Bird, U.S. Surveyor

August 26, 1930  
May 10, 1931, April 8, 1932,  
and June 15, 1933

having been critically examined, and

*John H. Brown*  
State Supervisor of Surveys

CERTIFICATE OF TRANSCRIPT

I certify that the foregoing transcript is the true and correct copy of the above-described survey notes

and that same are the property of the public survey office

*John H. Brown*  
State Supervisor of Surveys

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BOOK A-519

FOR SPAD RECORD BY NO. NORTH

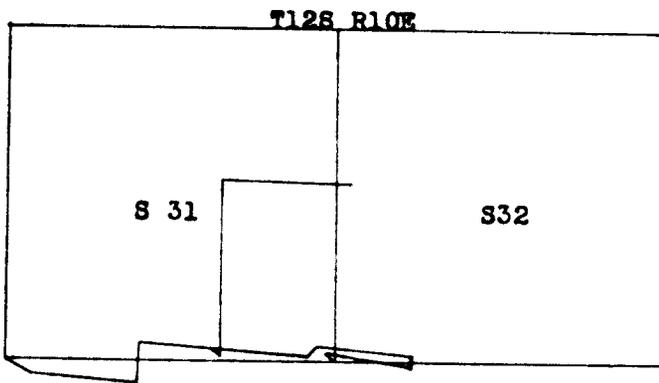
INDEX DIAGRAM.

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INDEX DIAGRAM



- = section lines
- = subsurface surveys, pages 2 to 4

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1

SURVEY OF A PORTION OF THE CASTLE GATE NO. 2 COAL MINE  
IN SECS. 31 AND 32, T. 12 S., R. 10 E., SALT LAKE MERIDIAN

This survey was commenced April 14, 1932, and executed with Buff and Buff transit No. 16726, property of the General Land Office. The transit is equipped with the Smith solar attachment and full vertical circle; the horizontal limb is provided with two double verniers, placed opposite to each other and reading to single minutes of arc, which is also the least count of the verniers of the latitude and declination arcs and vertical circle. The instrument was in good adjustment and, having been placed in satisfactory adjustment prior to beginning the survey and tested and found free from any appreciable error, was approved by the district cadastral engineer for Utah in supplemental assignment instructions dated April 8, 1932.

T. 12 S., R. 10 E. was resurveyed under Group 123, Utah, in 1923, and the surface position of these surveys have been definitely and accurately established. The sub-surface work involves the projection underground and marking of the line between secs. 31 and 32, in the Fifth Right Main Entry, the position of the cor. of secs. 5, 6, 31 and 32, on the S. boundary of the Tp. in the Third Main Entry, and the line between secs. 5 and 32, on the S. boundary of the Tp., in the Second Main Entry of the Castle Gate No. 2 coal mine, in cooperation with the U. S. Geological Survey under authority from the Commissioner of the General Land Office, dated June 11, 1930.

The solar attachment was not used in this survey; the controlling meridian was established by observations on Polaris as shown in the field notes. The bearings of the lines were deflected from the true meridian by repetition of angles, and carried forward by transit line, taking the mean of direct and reversed sights. In the underground surveys the lines were run by traverse methods, and where it was impossible or impracticable to close a figure by survey, the traverse line was carried into the various entries, and a check survey using the same transit stations and continuing the azimuth of the original traverse in the opposite direction back to the entry of the mine or to such other point as was necessary to check the work. All azimuths in this record of the mine survey and the surface tie line to the mine entry are referred to the controlling meridian by the method of deflection angles and calculated courses. The mean calculated courses of the azimuths between stations only appear in these notes.

The measurements were made with a Lufkin steel tape, 200 ft. long, graduated to ft., tenths, and hundredths of ft. in its entire length. The tape was tested, comparison being made with a Lufkin steel tape 66 ft. long which was compared by a similar tape tested by the U. S. Bureau of Standards and found correct. The measurements were made on the slope, the vertical angle determined with the transit, and the slope measurements properly reduced to true horizontal distances. In those instances in the mine surveys where a figure was not closed by survey, and the distance was double chained, the mean distance between stations are recorded in these notes. Also, as all measurements have been made in the ft. unit, their conversion into the chain unit is shown in parenthesis in these notes.

I begin at the cor. of Tps. 12 and 13 S., Rs. 9 and 10 E., in approximate latitude  $39^{\circ}43'$  N., longitude  $110^{\circ}53'$  W., which is an iron post, 3 ins. diam., extending 12 ins. above ground, firmly set, and marked and witness-

SURVEY OF A PORTION OF THE CASTLE GATE NO. 2 COAL MINE  
IN SECS. 31 AND 32, T. 12 S., R. 10 E., SALT LAKE MERIDIAN

station

ed as described in the official record of the resurvey of T. 12 S., R. 10 E. Alongside this cor. is the original Tp. cor., which is a sandstone marked and witnessed as described in the official record.

April 14, 1932, at this station, at 6 hrs. 7 m. 44s. p.m. my watch, which is 23m. 6s. fast of correct local mean time, as determined by comparison with a Western Union telegraph clock, at Helper, Utah on this date, I make an hour angle observation on Polaris, W. of the meridian, making four observations, two each with the telescope in direct and reversed position, and reading the horizontal deflection angle from a tree on the sky line about a half mile distant to the N. in the direction N-W to Polaris.

Watch time of observation	6h 7m 44s p.m.
Watch fast of l.m.t.	23m 6s
L.m.t. of observation	5h 44m 38s p.m.
Upper culmination of Polaris	12h 5m 30s p.m.
Hour angle of Polaris at observation	5h 39m 08s
Horizontal angle tree to Polaris	1° 22' 30" W.
Azimuth Polaris at observation	1° 22' 30" W.
True bearing of tree	North

Thence on tie line from the cor. of Tps. 12 and 13 S., Rs. 9 and 10 E., to the main entry of the Castle Gate No. 2 Coal Mine.

- 1 S. 56°31' 45" E., 585.98 ft. (8.878 chs.) to Station in crossbeam and the motor road in the Main Entry of the Castle Gate No. 2 mine.
- 1-2 S. 84°30' E., 806.31 ft. (12.216 chs.).
- 2-3 S. 84°15' E., 862.55 ft. (13.069 chs.).
- 3-4 N. 61°05' E., 123.03 ft. (1.864 chs.), on curve.
- 4-5 N. 31°20' E., 110.00 ft. (1.667 chs.).
- 5-6 N. 5°00'30" E., 120.44 ft. (1.825 chs.) to end of curve.
- 6-7 N. 0°20'30" W., 333.67 ft. (5.056 chs.).
- 7-8 N. 29°15' E., 87.37 ft. (1.323 chs.).
- 8-9 N. 75°35' E., 308.57 ft. (4.675 chs.).
- 9-10 S. 84°44' E., 489.53 ft. (7.417 chs.) to point just E. of first aid station and turnoff to the right.
- 10-11 S. 82°59'30" E., 699.56 ft. (10.599 chs.), at 198.24 ft. is the W. edge of the First Dip Entry; trestle or bridge overhead. At 213.24 ft. is the E. edge of the First Dip Entry.
- 11-12 S. 83°04' E., 893.18 ft. (13.533 chs.) to company station

ENGINEERING SURVEY OF A PORTION OF THE CASTLE GATE NO. 2 COAL MINE  
MARKING THE SECS. 13 AND 32, T. 12 S., R. 10 E., SALT LAKE MERIDIAN

station	
	No. 680.
12-13	S. 86°19' E., 95.95 ft. (1.454 chs.).
13-14	N. 62°02' E., 226.88 ft. (3.437 chs.).
14-15	S. 87°09' E., 176.18 ft. (2.669 chs.) to Co. station No. 672.
15-16	S. 82°43' E., 143.62 ft. (2.176 chs.) to Co. station No. 681.
16-17	S. 81°58' E., 145.49 ft. (2.204 chs.).
17-18	S. 45°39' W., 83.85 ft. (1.270 chs.) to Co. station No. 665.
18-19	S. 82°40' E., 343.70 ft. (5.207 chs.).
19-20	S. 82°39' E., 235.12 ft. (3.562 chs.) to Co. station No. 874.
20-20½	S. 82°41' E., 245.11 ft. (3.714 chs.) intersect line between secs. 5 and 32, on the S. boundary of the Tp. at a point S. 89°08' E., 895.29 ft. (13.565 chs.) distant from the cor. of secs. 5, 6, 31 and 32, described in the field notes of the resurvey of T. 12 S., R. 10 E.
At point of intersection	
Set an iron post, 2 ft long, 2 ins. diam., 12 ins. into a hole drilled in solid rock and surrounded by a cylindrical concrete form, with brass cap marked	
T12SR10E S32	
S5 T13S 1932	
It is impracticable to set post in the ceiling of the mine.	
Cor. stands in the center of the Second Main Entry.	
20½-21	S. 82°41' E., 1798 ft. (0.272 chs.) to Co. station No. 1005.
21-22	S. 81°46' E., 177.82 ft. (2.694 chs.)
22-23	N. 18°46' W., 73.19 ft. (1.109 chs.) through cross cut to Co. station No. 1064 in First Main Entry.
23-24	N. 82°36' W., 301.13 ft. (4.562 chs.) to Co. station No. 917
24-25	N. 82°37' W., 200.42 ft. (3.037 chs.).
25-26	N. 82°41' W., 254.17 ft. (3.851 chs.).
26-17	N. 81°58' W., 179.67 ft. (2.722 chs.).
18-27	N. 82°06' W., 270.36 ft. (4.096 chs.), in Second Main Entry
27-28	S. 53°27' E., 197.14 ft. (2.987 chs.) to Co. station No. 643 in Third Main Entry.

SURVEY OF A PORTION OF THE CASTLE GATE NO. 2 COAL MINE  
IN SECS. 31 AND 32, T. 12 S., R. 10 E., SALT LAKE MERIDIAN

Station

28-29 S. 82°44' E., 87.35 ft. (1.323 chs.) to Co. station No. 649.

29-  
sec.cor. S. 89°39' W., 55.22 ft. (.8367 chs.) to point for the cor. of secs. 5, 6, 31 and 32, on the S. boundary of T. 12 S., R. 10 E., flush with the S. rib in the Third Main Entry.

Set an iron post, 2 ft. long, 2 ins. diam., 12 ins. in a hole drilled in the solid rock floor of the mine and surrounded by a cylindrical concrete form, with brass cap marked

T12S R10E  
S31 | S32

S6 | S5  
T13S  
1932

10-10a S. 72°45' E., 137.50 ft. (2.083 chs.), upturnoff to the right.

10a-30 S. 40°43' E., 107.34 ft. (1.626 chs.) to point in First Dip, Main Entry.

30-31 N. 0°50'30" E., 935.13 ft. (14.169 chs.), down First Dip Main Entry. Dips about 6°50' to the N

31-32 N. 0°53'30" E., 760.66 ft. (11.525 chs.).

32-33 N. 0°43' E., 426.28 ft. (6.459 chs.).

33-34 N. 64°21' E., 84.97 ft. (1.287 chs.) on curve into Fifth Right Main Entry.

34-35 S. 84°39' E., 550.76 ft. (8.345 chs.) in Fifth Right Main Entry.

35-36 S. 83°12' E., 491.91 ft. (7.453 chs.).

36-37 S. 84°01' E., 448.91 ft. (6.802 chs.).

37-37½ S. 83°52' E., 268.24 ft. (4.064 chs.) intersect line between secs. 31 and 32, N. 3°44' W., 2139.52 ft. (~~32.277~~ chs.) distant from the cor. of secs. 5, 6, 31 and 32, on the S. boundary of the Tp. It is impracticable to set a permanent monument in the roof of the floor of the mine at this point; therefore, at a point N. 3°44' W., 12.31 ft. (.186 chs.) or 2151.83 ft. (32.603 chs.) from the cor of secs. 5, 6, 31 and 32

Set an iron post, 3 ft. long, 1 ins. diam., 26 ins. in a drilled hole filled with concrete, with brass cap marked

T12S R10E  
S31 | S32

1932

37½-38 S. 83°52' E., 64.28 ft., (.974 chs.).

Survey completed April 16, 1932.



CERTIFICATE OF ~~UNITED STATES~~ SURVEYOR

I, Howard W. Miller, Cadastral Engineer, HEREBY CERTIFY upon honor that  
pursuance of special instructions bearing date of the 26th day of August,  
received from the district cadastral engineer for Utah, with assigned  
instructions dated April 8, 1932, I have surveyed a portion of the Castle  
Gate No. 2 coal mine, in secs. 31 and 32, T. 12 S., R. 10 E.,

of the Salt Lake Meridian, in the State of Utah, which are  
represented in the foregoing field notes as having been executed by me and under my direction; and that said  
survey has been made in strict conformity with said instructions, the Manual of Instructions for the Survey  
of the Public Lands of the United States, and in the specific manner described in the foregoing field notes.

Certified to in Howard W. Miller  
Salt Lake City, Utah, Jan. 7, 1937. H. W. Cadastral Engineer

CERTIFICATE OF APPROVAL

OFFICE OF U.S. SUPERVISOR OF SURVEYS,  
DENVER, COLORADO JAN 22 1940, 19

The foregoing field notes of the survey of a portion of the Castle Gate No. 2  
Coal mine, in secs. 31 and 32, T. 12 S., R. 10 E., Salt Lake  
Meridian, Utah.

executed by Howard W. Miller, U. S. Cadastral Engineer  
under special instructions dated August 26, 1930, and assignment  
instructions dated May 18, 1931, having been critically examined, and  
the necessary corrections made prior to their certification by the engineer, the said field notes, and the survey  
therein described, are hereby approved.

Charles H. Hanson  
U.S. Supervisor of Surveys.

CERTIFICATE OF TRANSCRIPT

I certify that the foregoing transcript of the field notes of the above described surveys in  
is a true copy of the original field notes on file in the public survey office.

U.S. Supervisor of Surveys.

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JAN 6 1937

Department of The Interior  
Public Survey Office  
Salt Lake City, Utah

BOOK A 519

Book "E"

# FIELD NOTES

DEPENDENT RESURVEY OF THE BOUNDARIES, SURVEY OF THE  
 SUBDIVISION-OF-SECTION LINES, AND SURVEY OF A PORTION  
 OF THE NO. 2 MINE OF THE CHESTERFIELD COAL COMPANY,  
 ALL IN  
 SEC. 28, T.20 S., R.20 E.

Of the Salt Lake Meridian,

in the State of Utah

EXECUTED BY

Howard W. Miller, Cadastral Engineer

supplemental  
 Under special instructions dated October 5, 1932, which provided  
 for the surveys included under Group No. 234, bearing the approval of the  
 Commissioner of the General Land Office under date of November 4, 1932

supplemental  
 and assignment instructions dated April 8, 1932 and June 15, 1933

Survey commenced October 10, 1932

Survey completed November 25, 1933

# INDEX DIAGRAM.

Township 20 South, Range 20 East

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		7	11 28 13 2		
31	32	3-6		34	35
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6-151

Subsurface surveys pages 17 and 18

## T.20 S.,R.20 E.

This survey was commenced October 10,1932 and executed with Buff and Buff transit No.16726, property of the General Land Office. The instrument is equipped with Smith solar attachment and full vertical circle; the horizontal limb is provided with two double verniers, placed opposite to each other and reading to single minutes of arc, which is also the least count of the verniers of the latitude and declination arcs, and vertical circle. The instrument was in good condition and, having been placed in satisfactory adjustment prior to beginning the survey and tested and found free from appreciable error, was approved by the district cadastral engineer for Utah in supplemental assignment instructions dated April 8, 1932 and June 15,1933.

This survey involves the reestablishment ( dependent resurvey ) of the boundaries of sec.28, T.20 S.,R.20 E., S.L.M., the survey of subdivision-of-section lines in this section, and the carrying underground and marking the surface position of north and south center line of sec.28, and survey of the Seventh South Entry of the No.2 Mine of the Chesterfield Coal Company, in cooperation with the U.S.Geological Survey under authority from the Commissioner of the General Land Office dated June 11,1930.

The solar attachment was not used in this survey; all controlling meridians of the surface surveys were established by observations on Polaris as shown in these notes. The bearings of the lines were deflected from these true meridians, by repetition of angles, and carried forward by transit lines, taking the mean of direct and reversed sights. In the underground surveys the lines were run by traverse methods; the traverse line was carried into the various entries of the mine, and a check survey using the same transit stations and continuing the azimuth of the original traverse in the opposite direction back to the entry of the mine. All azimuths in this record of mine surveys and surface tie lines to the mine entries are referred to controlling meridians by the method of deflection angles and calculated courses. These controlling meridians are extended from reference points of the surface surveys to the mine entry where they are again checked by an independent observation on Polaris, and then projected underground. The mean calculated courses of the azimuths between stations only appear in these notes.

The measurements were made with a Lallie steel ribbon tape 8 chs. in length and a Lufkin steel tape 200 ft. long. The 8 ch. tape is graduated every link for the first 100 lks. and thereafter at intervals of 10 lks.; the 200 ft. tape, used exclusively in the mine work, is graduated to feet, tenths, and hundredths, in its entire length. The tapes were tested, comparison being made with a Lufkin steel tape 66 ft. in length, which was compared with a similar tape tested by the U. S. Bureau Of Standards, and found correct. The measurements were made on the slope, the vertical angle determined with the transit, and the slope measurements properly reduced to true horizontal distances. In the mine surveys and the tie lines, all distances were double chained, and the mean distances recorded in these notes.

DEPENDENT RESURVEY OF SUBDIVISION OF T.20 S.,R.20 E.

Chains

DEPENDENT RESURVEY OF SUBDIVISION OF T.20 S.,R.20 E.

REESTABLISHMENT OF SURVEYS EXECUTED BY JOHN T. BRECKON, U. S. DEPUTY SURVEYOR IN 1907.

3

I begin at the cor. of secs. ~~27, 28, 33~~, and ~~34~~ hereinafter described, in approximate latitude 39°02'N., longitude 109°42'W.

Thence

North, bet. secs. 27 and 28.

39.96 Intersect the 1/4 sec. cor. hereinafter described.

The bearing of this half mile therefore is North and the distance is 39.96 chs.

November 5, 1933; at this 1/4 sec. cor., in approximate latitude 39°02'N., longitude 109°42'W., at 2h.10m.p.m. by my watch which is 18m.48s. fast of local mean time as compared with radio time signals of Nov.4, I make an hour angle observation on Polaris, east of the meridian, two each with the telescope in direct and reversed positions, reading the horizontal deflection angle from a flag left on line about 10 chs. south of the 1/4 sec. cor. in the direction of E-N-E. to Polaris.

Upper culmination Polaris Nov. 5	10h.39.8 m.p.m.
Local mean time observation Nov.5	1h.51.2 m.p.m.
Hour angle of Polaris	8h.48m.

Mean horizontal deflection angle flag to Polaris	179° 00' 42"
Azimuth of Polaris at observation	0° 59' 18"

True bearing of flag South

From the 1/4 sec. cor.,

North, with new measurement

40.25 Fall .6 links. E. of the cor. of secs. 21, 22, 27, and 28 hereinafter described.

The bearing of this half mile therefore is N.0°05'W., and the distance is 40.25 chs.

From the cor. of secs. 27, 28, 33, and 34

West, bet. secs. 28 and 33

40.01 Fall 17.5 lks. N. of the 1/4 sec. cor. hereinafter described.

The bearing of this half mile therefore is S.89°45'W., and the distance is 40.01 chs.

From the 1/4 sec. cor.,

West, with new measurement.

DEPENDENT RESURVEY OF SUBDIVISION OF T. 20 S., R. 20 E.

Chains

40.18 Fall 7 lks. N. of the cor. of secs. 28, 29, 32, and 33 hereinafter described.

The bearing of this half mile therefore is S. 89° 54' W., and the distance is 40.18 chs.

From the cor. of secs. 28, 29, 32, and 33

North, bet. secs. 28 and 29

1.94 November 7, 1933: at this station in approximate latitude 39° 03' N., longitude 109° 43' W., at 3h. 07m. p.m. by my watch which is 19m. fast of local mean time as recently compared with radio time signals, I make an hour angle observation on Polaris, east of the meridian, two each with the telescope in direct and reversed positions, reading the horizontal deflection angle from a flag set on line to the north, in the direction of N-E to Polaris.

Upper culmination Polaris Nov. 7	10h. 31.9m. p.m.
Local mean time of observation Nov. 7	2h. 48.0m. p.m.
Hour angle of Polaris	7h. 44.9m.

Mean horizontal deflection angle, flag to Polaris	1° 12' 15"
Azimuth of Polaris at observation	1° 12' 15"

True bearing of flag North

40.11 Fall 3.5 lks. E. of the 1/4 sec. cor. hereinafter described.

The bearing of this half mile therefore is N. 0° 03' W., and the distance is 40.11 chs.

From the 1/4 sec. cor.,

North, with new measurement.

39.72 Fall 3.5 lks. E. of the cor. of secs. 20, 21, 28, and 29 hereinafter described.

The bearing of this half mile therefore is N. 0° 03' W., and the distance is 39.72 chs.

From the cor. of secs. 20, 21, 28, and 29

East, bet. secs. 21 and 28

30.25 Fall 14.1 lks. N. of the witness 1/4 sec. cor., hereinafter described.

The bearing of this line therefore is S. 89° 44' E., and the distance is 30.25 chs.

Continue on same line with continuous measurement

80.20 Fall 62.7 lks. S. of the cor. of secs. 21, 22, 27, and 28 hereinafter described.

The bearing of the line bet. the witness 1/4 sec. cor. and the cor. of secs. 21, 22, 27, and 28 therefore is N. 89° 07' E., and the distance is 49.96 chs.

DEPENDENT RESURVEY OF SUBDIVISION OF T.20 S. R.20 E.

Chains

True lines

The cor. of secs. 27, 28, 33, and 34, is a sandstone, 14x 16x6 ins., lying on the ground and marked with 3 notches on one and one notch on cornering edge; from which

A juniper, 12 ins.diam., bears N.67 $\frac{1}{2}$ °E., 53 lks. dist., marked T20S R20E S27 BT

A juniper, 12 ins.diam., bears S.42°E., 58 lks. dist., marked T20S R20E S34 BT

A juniper, 12 ins.diam., bears S.81°W., 33 lks. dist., marked T20S R20E S33 BT

A juniper, 12 ins.diam., bears N.49 $\frac{1}{2}$ °W., 69 lks. dist., marked T20S R20E S28 BT

At the cor. point,

Set an iron post, 3 ft. long, 2 ins. diam., 28 ins. into the ground with the original cor. monument buried alongside, for cor. of secs. 27, 28, 33, and 34, with brass cap marked

T20S	R20E
S28	S27
S33	S34
1933	

Thence

North, bet. secs. 27 and 28

Descend NE. slope over mountainous land along W. breaks of Thompson Canyon, through scrub juniper timber and short undergrowth.

1.65 Gulch, 75 ft. below sec. cor., drains E. about 5 chs. to junction with East Fork of Thompson Canyon which drains S.; ascend abruptly over ledges.

6.00 Spur, 60 ft. above gulch, projects E.; gradually descend along general E. slope; land breaks off abruptly to the E., and line is about 7 chs. W. of the bottom of the East Fork of Thompson Canyon.

20.40 Rocky gulch, 95 ft. below spur, drains SE.; ascend abruptly over ledges.

27.16 Rocky point, projects SE.; from this point, U.S. Postoffice at Sego, Utah, bears S.46°30'E.; chimney on school house bears S.20°15'E., and south edge of tipple for the Chesterfield Coal Company's mine, bears N.53°15'E.

Descend 110 ft. over broken NE. slope

31.75 Draw, drains N.50°E.; ascend 60 ft. to

36.80 Spur, projects E.; descend abruptly.

38.60 Steep draw, 60 ft. below spur, drains E.; ascend abruptly 40 ft. over rocky S. slope to

39.96 The  $\frac{1}{4}$  sec. cor., which is a sandstone, 10x8x6 ins. above ground, firmly set and marked  $\frac{1}{4}$  on W. face. No accessories

**Chains**

begin to corner

Alongside N. edge of corner monument

Set an iron post, 3 ft. long, 1 in. in dia., 28 ins into the ground for  $\frac{1}{4}$  sec. cor., with brass cap marked



1933

raise a mound of stone, 3 ft. base, 2 ft. high, W. of cor.

From this  $\frac{1}{4}$  sec. cor. the main haulage entry of the No. 2 Mine of the Chesterfield Coal Company, bears N. 16° 59' 36" E., 1543.60 ft. (23.388 chs.) distant; the main haulage entry of the No. 3 Mine (now abandoned) bears S. 86° 44' E., 1762.75 ft. (26.702 chs.) distant; the S. edge of tipple heretofore mentioned bears S. 84° E.

Thence

N. 0° 05' W., with continuous measurement

Continue ascent over rocky S. slope

- 40.60 Rocky spur, projects E.; descend.
- 42.05 Rocky ravine, 35 ft. deep, drains E.; ascend rough and broken S. slope.
- 45.35 Ledge, 25 ft. high, bears SW., NE. about 1 ch. distant thence N.
- 46.65 Spur, 135 ft. above ravine, slopes E.; thence along rough and broken E. slope.
- 50.00 Top of ascent on E. slope, gradually descend.
- 56.00 Begin gradual descent over NE. slope through dense scrub timber.
- 59.65 Leave dense timber and begin abrupt descent over ledges, bears E. and W.
- 64.50 Steep ravine, 300 ft. below spur, drains E.; ascend abruptly over ledges.
- 72.25 Spur, 325 ft. above ravine, projects E.; descend 100 ft. over NE. slope to
- 80.21<sup>8</sup> The cor. of secs. 21, 22, 27, and 28 which now refers to secs. 27 and 28 only, which is a sandstone, 14x6x6 ins. above ground, loosely set, and marked with 3 notches on E. and 2 notches on S. edge; from which

A pinon, 6 ins. diam., bears S. 30° E., 5 lks. dist., marked T20S R20E S27 BT

and witnessed by a mound of stone, 2 ft. base, 1 $\frac{1}{2}$  ft. high, W. of cor.

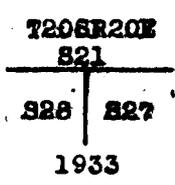
At the cor. point

Set an iron post, 3 ft. long, 2 ins. in dia., 28 ins. into the ground with the original cor. monument alongside

DEPENDENT RESURVEY OF SUBDIVISION OF T.29 S., R.29 E.

Chains

for cor. of secs. 27 and 28, with brass cap marked



Land, rough, broken mountains with general E. exposure and drainage into East Fork of Thompson Canyon which drains S. immediately E. of line.

Soil, shallow brown and blue clay and rocky of sandstone formation; 4th.rate.

Timber, scattered to medium growth of scrub juniper and pinon.

Undergrowth, sagebrush and shadscale.

Fair grazing land..

From the cor. of secs.27,28,33, and 34

S.89°45'W., bet. secs. 28 and 33.

Ascend abrupt ledgy NE. slope over rough mountainous land through medium growth of juniper and pinon timber and sagebrush undergrowth.

7.80 Spur, 150 ft. above sec. cor., projects SE.; descend over rocky S. and SW. slopes.

15.35 Begin abrupt descent over ledges, bears NW. and SE..

18.65 Steep ravine, 125 ft. below spur, drains SE.; ascend steep NE. slope 265 ft. to

30.45 Ridge and divide bet. East and West Forks of Thompson Canyon, bears N. and S.; descend over general W. slope.

39.50 Head of rocky gulch, 150 ft. below ridge, drains N.70°W.

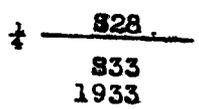
40.01 In S. edge of rocky gulch. The point for the 1/4 sec. cor., which is the center of an old mound of stone, corner monument missing; from which

A dead juniper, 14 ins.diam., bears N.46°E., 19 lks. dist., marked 1/4 S 28 BT

A pinon, 6 ins.diam., bears S.41°30'W., 27 lks. dist., marked 1/4 S33 BT

At the corner point

Set an iron post, 3 ft. long, 1 in. in dia., 36 ins. in a large mound of stone for 1/4 sec. cor., with brass cap marked



Thence

U. S. GOVERNMENT SURVEY OF SUBDIVISION OF T. 20 S., R. 20 E

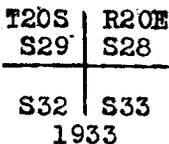
Chains

S. 89° 54' W., with continuous measurement

- 43.90 Same gulch, drains S.; gradually ascend.
- 46.70 Spur, 30 ft. above gulch, projects S.; descend S. and SW slopes over ledges.
- 57.18 Vertical sandstone ledge, about 100 ft. high, bears NW. and SE.; descend into canyon.
- 59.75 Road, bears NW. and SE. in east edge of bottom of West Fork of Thompson Canyon; thence across canyon.
- 61.90 Wash, 1 ch. wide with small stream of water in same in bottom of West Fork of Thompson Canyon, 300 ft. below spur, course SE.; continue across canyon bottom.
- 64.38 Barbed wire fence and enter cultivated land, bears N. 20° W. and S. 20° E.
- 68.20 Leave cultivated land, bears S., N. about 3 chs. then SE. also leave canyon bottom bears N. and S.; ascend abruptly over general E. slope broken by ledges 450 ft. to
- 80.19 The cor. of secs. 28, 29, 32, and 33, which is a sandstone, 8x6x4 ins. above ground, firmly set, marked with 4 notches on E. and 1 notch on S. edge, and witnessed by a mound of stone, 2 ft. base, 1 1/2 ft. high, W. of cor.

At the cor. point

Set an iron post, 3 ft. long, 2 ins. in dia., 18 ins. into the ground to solid rock and in a mound of stone to top with the original cor. monument alongside for cor. of secs 28, 29, 32 and 33, with brass cap marked



Cor. stands on general E. slope.

Land, rough mountainous; general E. and W. exposure and drainage into East and West Forks of Thompson Canyon which drain S.

Soil, brown clay loam and rocky of sandstone formation, 4th. rate, with some fine sandy loam in Thompson Canyon.

Timber, scattered to medium growth of scrub juniper and pinon.

Undergrowth, sagebrush and some greasewood.

Fair grazing land.

N. 0° 03' W., bet. secs. 28 and 29.

Descend over E. and NE. slopes of rough mountainous land through scrub juniper and pinon timber and sagebrush and yellow top undergrowth.

- 12.75 Rocky gulch, 170 ft. below sec. cor., drains S. 80° E., about 6 chs. distant to junction with West Fork of

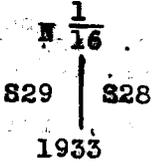
DEPENDENT RESURVEY OF SUBDIVISION OF T. 36 S., R. 30 E.

Chains	
	Thompson Canyon; ascend S. slope over ledge.
16.35	Leave timber, bears E. and W.
18.00	Spur, 130 ft. above gulch, projects SE. about 5 chs. distant to end; descend abruptly.
19.45	Top of perpendicular ledge, bears E. and W.
20.45	Reenter timber, bears E. and W.
29.00	Enter west side of bottom of West Fork of Thompson Canyon, 225 ft. below spur, bears NW. and SE.
35.25	Wash, from canyon to the west, drains S.20°E.; leave West Fork of Thompson Canyon, bears N.20°W. and S.20°E.; ascend.
36.60	Old road, bears NW. and SE.
37.50	Base of ledges, bear NW. and SE.
38.65	Top of ledges, bear SE. and NW. about 1.50 chs. distant to end; gradually ascend.
40.11	The $\frac{1}{4}$ sec. cor., which is a sandstone, 10x12x6 ins. above ground, firmly set, and marked $\frac{1}{4}$ on W. face; from which <div style="margin-left: 40px;"> <p>A juniper, 12 ins.diam., bears S.9°E., 39 lks. dist., marked <math>\frac{1}{4}</math> S28 BT</p> <p>A pinon, 8 ins.diam., bears S.46<math>\frac{1}{4}</math>°W., 54 lks. dist., marked <math>\frac{1}{4}</math> S29 BT</p> </div> <p>Alongside N. edge of cor. monument</p> <p>Set an iron post, 3 ft.long, 1 in.in dia., 28 ins.into the ground for <math>\frac{1}{4}</math> sec. cor., with brass cap marked</p> <div style="text-align: center; margin: 10px 0;"> <math>\frac{1}{4}</math>              S29   S28              1933         </div> <p>Corner stands on low spur projecting S.20°E.; from this <math>\frac{1}{4}</math> sec. cor., a tunnel and coal prospect, bears S.81°08'W. about 30 chs. distant.</p> <p>Continue</p> <p>N.0°03'W., with continuous measurement</p> <p>Gradually ascend.</p>
42.60	Point of spur from the NW., 30 ft. above $\frac{1}{4}$ sec. cor.; descend over N. slope.
46.65	Canyon, 100 ft. below spur, drains SE.; ascend.
50.95	Spur, 100 ft. above canyon, projects S.80°E.; descend.
54.30	Road, bears NW. and S.20°E. in S. edge of bottom of West Fork of Thompson Canyon; thence in canyon through dense undergrowth.
56.90	Wash, 40 lks. wide, 20 ft. deep, drains E.
59.97	Proportionate point

DEPENDENT RESERVE OF SUBDIVISION OF T.20 S., R.20 E.

Chains

Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. into the ground for north sixteenth sec. cor., with brass cap marked.



raise a mound of stone, 2 ft. base, 1 1/2 ft. high, W. of cor.

66.60

Wash, 1 ch. wide, 30 ft. deep, with small stream of water in same, in bottom of West Fork of Thompson Canyon, course S.80°E.; ascend over low point projecting W.

68.80

Same wash and stream in bottom of canyon, course SW.

74.70

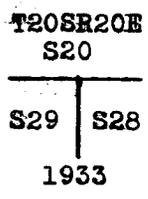
Road, bears NE. and SW. at base of W. slope of canyon; leave canyon bottom, thence along E. slope.

79.83

The cor. of secs. 20, 21, 28, and 29 which now refers to secs. 28 and 29 only, which is a sandstone, 19x10x6 ins. lying in a mound of stone and marked with 4 notches on one and 2 notches on cornering edge.

True point for cor. falls on surfacerock, mark a cross (+) at corner point, over which

Set an iron post, 3 ft. long, 2 ins. in dia., 30 ins. in a large mound of stone with the original corner monument buried alongside for cor. of secs. 28 and 29, with brass cap marked



Land, rough mountainous and nearly level canyon bottom; general E. exposure and S. drainage.

Soil, brown clay loam and rocky of sandstone formation on the mountainous land and sandy clay loam in the canyon bottom; 2nd. to 4th. rate.

Timber, scattered to medium growth of scrub juniper and pinon.

Undergrowth, sagebrush, greasewood, and yellow top.

Fair grazing land.

From the cor. of secs. 27 and 28

S.89°07'W., on true line bet. secs. 21 and 28

Ascend E. slope broken by ledges towards high ridge dividing E. and W. Forks of Thompson Canyon, over rough mountainous land, through scrub juniper and pinon timber and sagebrush and yellow top undergrowth.

22.20

Ledge, 100 ft. high, bears N. and S.; continue ascent.

## DEPENDENT RESURVEY OF SUBDIVISION OF T. 20 S., R. 20 E.

Chains	
25.55	Ridge and divide bet. E; and W. Forks of Thompson Canyon, 860 ft. above sec. cor., bears N. and S.; descend abruptly over W. slope over series of ledges.
39.99	Point for $\frac{1}{4}$ sec. cor. <sup>sec. 28</sup> falls on precipitous W. slope in ledges where cor. cannot be set.
48.00	Steep ledgy gulch, drains N.60°W.; thence along general N. slope.
49.96	The witness cor. to the $\frac{1}{4}$ sec. cor. secs. 21 and 28 which is a sandstone, 12x10x4 ins. above ground, firmly set and marked WC $\frac{1}{4}$ on N. face; from which <p data-bbox="313 611 1083 666">A juniper 18 ins. diam., bears N.82<math>\frac{1}{2}</math>°W., 12 lks. dist., marked WC<math>\frac{1}{4}</math> S28 BT</p> <p data-bbox="313 687 1071 753">A juniper 20 ins. diam., bears S.32<math>\frac{1}{2}</math>°W., 25 lks. dist., marked WC<math>\frac{1}{4}</math> S28 BT</p> <p data-bbox="240 775 1119 840">Cor. stands on cut bank of steep wash in gulch and is liable to cave at anytime.</p> <p data-bbox="240 851 337 884">Thence</p> <p data-bbox="240 906 878 950">N.89°44'W., with continuous measurement</p> <p data-bbox="240 960 758 1004">Continue along general N. slope.</p>
50.06	Set an iron post, 3 ft. long, 1 in. in dia., 28 ins. into the ground for an additional witness cor. to the $\frac{1}{4}$ sec. cors. secs. 21 and 28, with brass cap marked <p data-bbox="553 1135 746 1255" style="text-align: center;"> <math>\frac{1}{4}</math> <math>\frac{S21}{WC}</math>  S28  1933 </p>
60.10	Proportionate point <p data-bbox="222 1321 1155 1430">Set an iron post, 3 ft. long, 1 in. in dia., 18 ins. into the ground to solid rock and in a mound of stone to top for west sixteenth sec. cor. sec. 28, with brass cap marked</p> <p data-bbox="481 1463 782 1583" style="text-align: center;"> W <math>\frac{1}{16}</math> <math>\frac{S28}{1933}</math> </p> <p data-bbox="878 1605 1047 1648" style="text-align: right;">from which</p> <p data-bbox="276 1648 1011 1714">A pinon, 14 ins. diam., bears S.75°E., 49 lks. dist., marked W <math>\frac{1}{16}</math> S28 BT</p>
60.85	Spur, projects NW.; descend abruptly 300 ft. over W. slope broken by sandstone ledges to
71.00	East edge of bottom of Thompson Canyon (West Fork) and enter cultivated land, bears N. and S.; thence across canyon.
74.80	Wash, drains SW.
76.30	Wash, drains S.
76.50	Barbed wire fence, bears N. and S.

DEPARTMENT RESERVE OF SUBDIVISION OF T.20 S., R.20 E.

Chains

- 75.25 Barbed wire fence and leave cultivated land and enter dense sagebrush undergrowth, bears N. and S.
- 75.62 The closing cor. of secs. 20 and 21, which is an iron post, 2 ins. in diam., lying on the ground south of a dilapidated mound of stone, and marked as described in the official record.  
At the cor. point, reset the iron post, 28 ins. into the ground and raise a mound of stone, 3 ft. base, 2 ft. high, N. of cor.
- 79.30 Wash, 1 ch. wide, 30 ft. deep, in bottom of West Fork of Thompson Canyon, small stream of water in same, course SE.; wagon road in wash, bears NW. and SE. Ascend 30 ft. to
- 80.21 The cor. of secs. 28 and 29.  
Land, rough mountainous with the exception of a small strip which is nearly level in the bottom of the West Fork of Thompson Canyon. General E. and W. exposure and S. drainage.  
Soil, brown clay loam and rocky in the mountains and sandy loam in the canyon; 2nd. to 4th. rate.  
Timber, scrub juniper and pinon.  
Undergrowth, sagebrush, yellow top and scattered clusters of service berry brush.  
Fair grazing land.

SUBDIVISION-OF-SECTION SURVEYS

Subdivision of section 28

From the  $\frac{1}{4}$  sec. cor. bet. secs. 28 and 33 heretofore described:

North, on random N. and S. center line sec. 28

40.10 Set temp. center  $\frac{1}{4}$  sec. cor.

79.77 Fall 2 lks. E. of the true point for the  $\frac{1}{4}$  sec. cor. on the N. bdy. of sec. 28 or 9.97 chs. N.89°07'E. of the witness  $\frac{1}{4}$  sec. cor.

The bearing of this line therefore is N.0°01'W., and the distance is 79.77 chs.

From the  $\frac{1}{4}$  sec. cor. bet. secs. 28 and 29 heretofore described:

N.89°56'E., on random E. and W. center line sec. 28

40.21 Fall 1 link S. of the temp center  $\frac{1}{4}$  sec. cor.

80.22 Intersect the  $\frac{1}{4}$  sec. cor. bet. secs. 27 and 28 heretofore described.

The bearing of this line therefore is N.89°56'E., and

## SUBDIVISION-OF-SECTION SURVEYS, T.20 S., R.20 E.

## Chains

the distance is 80.22<sup>1</sup> chs.

From the  $\frac{1}{4}$  sec. cor. bet. secs. 28 and 33

N.0°01'W., on true N. and S. center line sec. 28

Over mountainous land through juniper and pinon timber and scattered sagebrush and yellow top undergrowth.

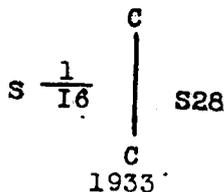
.15 Gulch, near head, drains N.60°W.; ascend 15 ft. to

3.50 Wash; drains SW.; leave nearly all timber, bears E. and W.; ascend 105 ft. to

8.10 Spur, projects SW.; descend 100 ft. over NW. slope to

12.20 Rocky ravine, drains N.80°W. about 6 chs. distant, thence SW.; ascend abruptly 150 ft. over rocky S. and SW. slopes to

20.04 Set an iron post, 3 ft. long, 1 in. in dia., 28 ins. into the ground for center south sixteenth sec. cor., with brass cap marked



from which

A juniper, 12 ins. diam., bears N.82°45'E., 107 lks. dist., marked CS 1/16 S28 BT

No other suitable bearing trees available.

20.75 Spur, projects W.; descend abruptly 215 ft. over N. slope through dense timber.

17.60 Draw, drains SW.; leave dense timber, bears with draw; ascend SW. slope 70 ft. to

32.80 Spur, projects W.; descend 115 ft. over NW. slope through medium growth of timber.

37.10 Junction of ravines from the NE. and SE., drain S.60°W.; leave timber and ascend steep clay slope 75 ft. to

40.09 Set an iron post, 3 ft. long, 1 in. in dia., 28 ins. into the ground for center  $\frac{1}{4}$  sec. cor., with brass cap marked

C $\frac{1}{4}$ S28

1933

from which

A pinon, 6 ins. diam., bears S.  $\frac{1}{2}$  E., 354 lks. dist., marked C $\frac{1}{4}$  S28 BT

No other suitable bearing trees available.

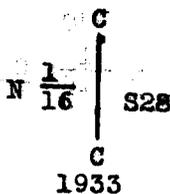
Ascend abruptly over rocky clay slopes and series of sandstone ledges bearing E. and W. to

13  
MI

SUBDIVISION OF SECTION SURVEYS, T.20 S., R.20 E.

Chains

009.938  
109.383 Set an iron post, 3 ft. long, 1 in. in dia., 28 ins. in a large mound of stone on solid rock for center north sixteenth sec. cor., with brass cap marked



from which

A pinon, 16 ins.diam., bears S.19°45'E., 162 lks. dist., marked CN 1/16 S28 BT

A pinon, 16 ins.diam., bears N.60½°W., 97 lks. dist., marked CN 1/16 S28 BT

Continue abrupt ascent over S. slope.

63.00 High point, 600 ft. above center ¼ sec. cor., projects W.; descend abruptly N. and NW. slopes broken by ledges and through medium growth of timber to

79.77 The true point for the ¼ sec. cor. N. bdy. sec. 28 heretofore described.

Land, rough, broken mountainous; general W. exposure and drainage into W. Fork of Thompson Canyon.

Soil, brown and blue clay and rocky of sandstone formation; 4th. rate.

Timber, scattered to medium growth of scrub juniper and pinon.

Undergrowth, sagebrush and yellow top.

Poor grazing land.

From the ¼ sec. cor. bet. secs. 28 and 29.

N.89°56'E., on true E. and W. center line sec. 28.

Descend east slope over rough mountainous land through juniper and pinon timber and sagebrush undergrowth.

6.00 Leave timber, bears N. and S.

7.70 Thompson Canyon ( West Fork) and wash, 75 lks. wide, 15 ft. deep, 115 ft. below ¼ sec. cor., drains S. for about 3 chs., then SW.; road in wash, bears N. and S.; ascend W. slope 170 ft. to

15.17 Top of ledge, 20 ft.high, and sharp ledge point, projects S. 50 lks. to end; descend.

19.25 Ravine, drains SW.; ascend NW. and N. slopes along S. side of ravine through medium growth of timber.

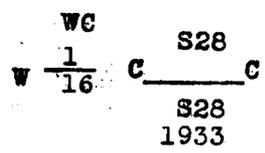
20.10 Point for center west sixteenth sec. cor. falls on a sandstone outcrop or break of ravine where cor. cannot be set.

20.37 Set an iron post, 3 ft. long, 1 in. in dia., 12 ins. into

SUBDIVISION-OF-SECTION SURVEYS T. 20 S., R. 20 E.

Chains

the ground to solid rock and in a mound of stone to top for witness cor. to the center west sixteenth sec. cor., with brass cap marked



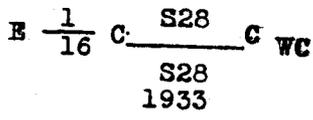
from which

A pinon, 6 ins. diam., bears N. 11 1/2° E., 48 lks. dist., marked WC CW 1/16 S28 BT

A pinon, 6 ins. diam., bears S. 31 1/2° W., 60 lks. dist. marked WC CW 1/16 S28 BT

- 22.30 Wash, drains NW.; ascend abruptly over W. slope.
- 30.70 Spur, 200 ft. above wash, projects S. about 1.50 chs., then SW.; descend abruptly over SE. and S. slopes broken by ledges.
- 40.20 The center 1/4 sec. cor., 245 ft. below spur.
- 41.30 Ravine, drains SW.; ascend general W. slope through scattered timber.
- 58.50 Begin ascent over ledges, bears N. and S.
- 60.02 Top of high ledge and ridge divide bet. E. and W. Forks of Thompson Canyon, 525 ft. above ravine, bears N. and S.

Set an iron post, 3 ft. long, 1 in. in dia., 30 ins. in a large mound of stone on solid rock for witness cor. to the center east sixteenth sec. cor., with brass cap marked



Impracticable to build accessories to cor. and no suitable bearing trees are available.

Descend precipitous E. slope over large boulders and broken by sandstone ledges through a medium growth of scrub juniper and pinon timber.

- 60.21 Point for the center east sixteenth sec. cor. falls on inaccessible ledge where cor. cannot be set.

- 80.22 The 1/4 sec. cor. bet. secs. 27 and 28 heretofore described.

Land rough mountainous on slopes of E. and W. Forks of Thompson Canyon; general E. and W. exposure and S. drainage.

Soil, brown clay loam, blue clay and rocky of sandstone formation; 3rd. and 4th. rate.

Timber, scattered to medium growth of scrub juniper and pinon timber.

Undergrowth, sagebrush and yellow top.

Fair grazing land.

## SUBDIVISION-OF-SECTION SURVEYS, T.20 S., R.20 E.

## Chains

From the true point for the center west sixteenth sec. cor. sec. 28.

North, on a random line on N. and S. center line NW $\frac{1}{4}$  sec. 28.

19.85 Set temp. NW 1/16 sec. cor.

39.60 Fall 2.6 lks. E. of the west sixteenth sec. cor. N. bdy. sec. 28.

The bearing of this line therefore is N.0°02'W., and the distance is 39.60 chs.

From the center north sixteenth sec. cor. sec. 28

S.89°58'W., on random E. and W. center line NW $\frac{1}{4}$  sec. 28

20.09 Intersect temp NW $\frac{1}{16}$  sec. cor.

40.21 Intersect north sixteenth sec. cor. bet. secs. 28 and 29 heretofore described.

The bearing of this line therefore is S.89°58'W., and the distance is 40.21 chs.

From the true point for the center west sixteenth sec. cor. sec. 28.

N.0°02'W., on true N. and S. center line NW $\frac{1}{4}$  sec. 28

Descend over rough mountainous land through a medium growth of scrub juniper and pinon timber and shadscale and sagebrush undergrowth.

.80 Ravine, 30 ft. below cor. point, drains W.; ascend abruptly over S. slope broken by ledges and boulders.

15.90 Spur, on W. slope of mountain, 475 ft. above ravine, projects N.80°W., descend abruptly over N. slope 185 ft.

19.85 Set an iron post, 3 ft. long, 1 in. in dia., 18 ins. into the ground to solid rock and in a mound of stone to top for northwest sixteenth sec. cor., with brass cap marked

NW 1/16 S28  
+

1933

from which

A pinon, 16 ins. diam., bears N.25 $\frac{1}{2}$ °E., 52 lks. dist., marked NW 1/16 S28 BT

A pinon, 9 ins. diam., bears N.36°W., 13 lks. dist., marked NW 1/16 S28 BT

Descend 55 ft. to

21.90 Ravine, drains W.; ascend SW. slope broken by ledges.

26.85 Top of ascent, 70 ft. above ravine, bears E. and W.; thence along general W. slope.

## SUBDIVISION-OF-SECTION SURVEYS, T.20 S., R.20 E.

## Chains

S11510

35.10 Spur, projects NW.; descend NE. slope 50 ft. to

39.60 The west sixteenth sec. cor. N. bdy. sec. 28.

Land, rough mountainous; W. exposure and drainage.

Soil, brown and blue clay and rocky of sandstone formation; 4th. rate.

Timber, scattered to medium growth of scrub juniper and pinon.

Undergrowth, shadscale and sagebrush.

Poor grazing land.

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From the center north sixteenth sec. cor. sec. 28

S.89°58'W., on true E. and W. center line NW $\frac{1}{4}$  sec. 28

Over high, rough and broken mountainous land, through scattered growth of juniper and pinon timber and short shadscale undergrowth. Along general S. slope.

4.75 High, broken ledge, bears NW. and SE.; descend abruptly.

9.00 Spur, projects SW.; continue abrupt descent over NW. and N. slopes through dense timber.

20.10. The northwest sixteenth sec. cor. sec. 28, 600 ft. below center north sixteenth sec. cor.

Continue along N. slope.

32.30 Spur, projects NW.; leave timber and begin abrupt descent over W. slope.

38.00 Wash, 1 ch. wide, 30 ft. deep, small stream of water in same and bottom of West Fork of Thompson Canyon, 400 ft. below northwest sixteenth sec. cor., course S.; ascend 30 ft. to

40.21 The north sixteenth sec. cor. bet. secs. 27 and 28.

Land, rough mountainous; general W. exposure and drainage into West Fork of Thompson Canyon.

Soil, brown and blue clay and rocky of sandstone formation; 4th. rate.

Timber, scattered to medium growth of scrub juniper and pinon.

Undergrowth, shadscale, sagebrush, and yellow top.

Poor grazing land.

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SURVEY OF A PORTION OF THE NO. 2 MINE OF THE CHESTERFIELD  
COAL COMPANY IN SEC. 28, T. 20 S., R. 23 E.

Station	
9-10	S.82°49'W., 254.91 ft. (3.862 chs.)
10-11	S.81°31'W., 269.90 ft. (4.089 chs.)
11-11½	S.73°52'W., 39.16 ft. (0.593 chs.) To junction with the 10th. South Back Entry and Main Haulage Entry; intersect N. and S. center line sec. 28, S.0°01'E., 245.85 ft. (3.725 chs.) distant from the center north sixteenth sec. cor. Set an iron post, 10 ins. long, 1 in. dia., 10 ins. into a slate roof, 4 ft. high, with brass cap marked
<p>T20SR20E</p>	
11½-12	S.73°52'W., 41.18 ft. (0.624 chs.)
12-13	S.63°07'W., 137.13 ft. (2.078 chs.) From station 13 the the 1st West Main Entry extends S.89°28'W.
Thence from station 11	
11-14	N.81°31'E., 38.06 ft. (0.577 chs.) To station on line 10-11
14-15	N.73°48'W., 252.40 ft. (3.824 chs.)
15-16	N.77°58'W., 188.45 ft. (2.855 chs.)
16-17	N.75°09'W., 190.81 ft. (2.891 chs.)
16-18	N.75°02'E., 83.39 ft. (1.263 chs.) I am unable to reach the east and west center line NW¼ sec. 28.
Thence from station No. 7	
7-19	S.23°50'30"E., 86.68 ft. (1.263 chs.) To point in 7th. Right Main Entry.
19-20	S.0°38'30"E., 506.64 ft. (7.676 chs.) Up entry; roof 3 to 4 ft. high.
20-21	S.1°15'30"E., 358.07 ft. (5.425 chs.)
21-22	S.1°42'30"E., 197.79 ft. (2.997 chs.)
22-23	S.16°51'30"E., 87.83 ft. (1.331 chs.)
23-24	S.24°40'E., 96.56 ft. (1.463 chs.)
24-25	S.14°52'E., 106.24 ft. (1.610 chs.)
25-26	S.20°49'30"E., 96.33 ft. (1.459 chs.)
26-27	S.1°01'W., 256.86 ft. (3.892 chs.)
27-28	S.3°08'E., 226.39 ft. (3.430 chs.) To the end of the 7th. Right Main Entry and caving.

## GENERAL DESCRIPTION

Section 28 lies on the east and west slopes of a high ridge dividing the east and west forks of Thompson Canyon, which drain in a southerly direction, and is rough and mountainous in its entirety.

The soil is principally rocky of sandstone formation, the slopes are broken by many sandstone ledges, and the surface is strewn with sandstone rock, varying in size from a few inches to large boulders. A scattered to a medium growth of scrub juniper and pinon timber, of little or no commercial value, covers the entire section as does also a short growth of desert shrubs.

Indications are that the entire section is underlain with coal. The Chesterfield Coal Company is now operating their No. 2 Mine in this section, have already extracted vast quantities of coal and also have spent much money to facilitate their operations. Their tipple, mining camp with about 150 inhabitants, railroad, school, and shops, and the postoffice of Segoe, Utah, are situated in the east Fork of Thompson Canyon, near the west boundary of section 27.

Small strips of land, in fact all that can be utilized, are now under cultivation in the west fork of Thompson Canyon, and the owner is residing in sec. 21.

Small streams of water flow in both the east and west forks of Thompson Canyon, and all appears to be appropriated for either culinary or irrigation purposes.

No magnetic declination was taken on account of a defective needle.

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CERTIFICATE OF UNITED STATES SURVEYOR

Cadastral Engineer

I, Howard W. Miller, ~~U.S. Surveyor~~, hereby certify upon honor that, in pursu-

of special instructions received from the District Cadastral Engineer for Utah

bearing date of the 5th. day of October, 1932, I have well, faithfully, and

in my own proper person, and in strict conformity with said instructions, the Manual of Surveying Instru-

tions, and the laws of the United States, surveyed all those parts or portions of dependent resurvey

of the boundaries, survey of the subdivision-of-section lines,

and survey of a portion of the No. 2 Mine of the Chesterfield

Coal Company, all in sec. 28, T.20 S., R.20 E.,

of the Salt Lake

Meridian, in the State of Utah, which are represented in

the foregoing field notes as having been executed by me, and under my direction; and that all the corners of

said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instruc-

tions, and the special written instructions of the District Cadastral Engineer for Utah

and in the specific manner described in the field notes, and that the foregoing are the original field notes of

such survey. Certified to at:

Salt Lake City, Utah

April 17, 1936

Howard W. Miller  
~~U.S. Surveyor~~

U.S. Cadastral Engineer

APPROVAL

OFFICE OF U. S. SUPERVISOR OF SURVEYS,

Denver, Colo. APR 22 1940, 19

The foregoing field notes of the survey of dependent resurvey of the boundaries,

survey of the subdivision-of-section lines, and survey of a

portion of the No. 2 Mine of the Chesterfield Coal Company,

all in sec. 28, T.20 S., R.20 E., Salt Lake Meridian, Utah

executed by Howard W. Miller, U.S. Cadastral Engineer

under his special instructions dated October 5, 1932, having been

critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys

they describe, are hereby approved.

Wm. H. Cannon  
~~U.S. Surveyor~~

U.S. Supervisor of Surveys

I certify that the foregoing transcript of the field notes of the above described surveys in Utah

has been correctly copied from the original notes on file in this office.

U.S. Supervisor of Surveys

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**RECEIVED**  
FEB 17 1936  
Department of the Interior  
Public Survey Office  
Salt Lake City, Utah

4-979  
(April 1933)

BOOK A-519 : "F"

# FIELD NOTES

OF THE

INDEPENDENT RESURVEY OF THE BOUNDARIES; SUBDIVISION-OF-SECTION

SURVEYS, SECTION 28, AND SURVEY OF A PORTION OF THE COLUMBIA

STEEL COMPANY COAL MINE, ALL IN T. 15 S., R. 14 E.

Of the SALT LAKE Meridian,

in the State of UTAH

EXECUTED BY

Andrew Nelson, Surveyor

Under special instructions dated September 28, 1933, which provided

for the surveys included under Group No. 234, bearing the approval of the

Commissioner of the General Land Office under date of October 13, 1933

and assignment instructions dated September 14, 1935

Survey commenced September 17, 1935

Survey completed October 4, 1935

# INDEX DIAGRAM.

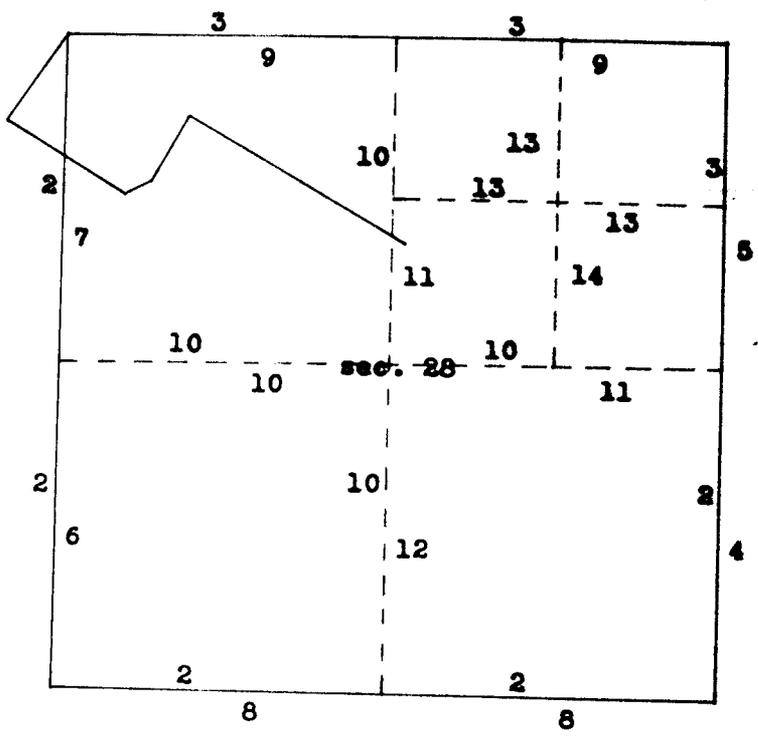
Township \_\_\_\_\_, Range \_\_\_\_\_

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36



INDEX DIAGRAM

T. 15 S., R. 14 E.



Survey of the Columbia Steel Co. Coal Mine, pages 14 to 15

1

DEPENDENT RESURVEY OF SECTION 28, T. 15 S., R. 14 E.

This survey was executed with Buff & Buff transit No. 16726, property of the General Land Office. The transit is equipped with the Smith solar attachment and full vertical circle; the horizontal limb is provided with two double verniers placed opposite to each other and reading to single minutes of arc, which is also the least count of the verniers of the latitude and declination arcs and vertical circle. The instrument was in good condition, and, having been placed in satisfactory adjustment prior to beginning the survey and tested and found free from any instrumental error, was approved by the district cadastral engineer for Utah on September 14, 1935.

This survey involves the reestablishment (dependent resurvey) of the boundaries, and the survey of the subdivision-of-section surveys, sec. 28, and the projection underground and marking the surface position of the N. and S. center line of sec. 28 in the 9th East Dip in the Columbia Steel Company Coal Mine, in cooperation with the U. S. Geological Survey under authority from the Commissioner of the General Land Office, dated June 11, 1930.

The solar attachment was not used in these surveys; all controlling meridians of the surface surveys were established by observations on Polaris as shown in the field notes. The bearings of the lines were deflected from these true meridians by repetition of angles, and carried forward by transit line, taking the mean of direct and reversed sights. In the underground survey the lines were run by traverse methods, and a check survey using the same transit stations and continuing the azimuth of the original traverse in the opposite direction back to the entry of the mine was run. All azimuths in this record of mine survey and the surface tie line to the mine entry are referred to a controlling meridian by the method of deflection angles and calculated courses. This controlling meridian is extended from a reference point of the surface survey to the mine entry, where it is again checked by an independent observation on Polaris, and then projected underground. The mean calculated courses of the azimuths between stations only appear in these notes.

The measurements were made with a Lallie steel ribbon tape 8 chs. in length, and a Lufkin steel tape 200 ft. long. The 8 chain tape is graduated every link for the first 10 lks. and thereafter at intervals of 10 lks.; the 200 ft. tape used exclusively in the mine work is graduated to feet, tenths and hundredths in its entire length. Both tapes were tested, comparison being made with a Lufkin steel tape 66 ft. long, which was compared with a similar tape tested by the U. S. Bureau of Standards. The measurements were made on the slope, the vertical angle determined with the transit, and the slope measurements properly reduced to true horizontal distances. All distances in the mine survey were double chained and the mean distances between stations are recorded in these notes.

DEPENDENT RESURVEY OF SECTION 28, T. 15 S., R. 14 E.

Reestablishment of surveys executed by

R. E. L. Collier, U. S. Deputy Surveyor,

in 1902

DEPENDENT RESURVEY OF SECTION 28, T. 16 S., R. 14 W.

chains

September 17, 1935, at the cor. of secs. 20, 21, 28 and 29, hereinafter described, in approximate latitude 39°30' N., longitude 110°22' W., at 4h 55m p. m. local mean time, I make an hour angle observation on Polaris E. of the meridian, making four observations, two each with the telescope in direct and reversed position, reading the horizontal deflection angle from a hub near the escape-way entry off Room 13, off the 9th West Entry, of the Columbia Steel Company Coal Mine, in a clockwise direction to the star.

Watch time of observation (correct 105th meridian standard time) 4h 55m p. m.  
Mean horizontal angle, hub to star 137°35'40"  
Azimuth of Polaris at observation 0°50.5' E.  
True bearing of hub S. 43°15' W.

From the cor. of secs. 20, 21, 28 and 29.  
South, between secs. 28 and 29.

40.20 Fall 9 lks. E. of the 1/4 sec. cor., hereinafter described.

The bearing of this half mile therefore is S. 0°08' W., and the distance is 40.20 chs.

From a point 9 lks. E. of the 1/4 sec. cor.  
South, with continuous measurement.

80.02 Fall 15 lks. E. of the cor. of secs. 28, 29, 32 and 33, hereinafter described.

The bearing of this half mile therefore is S. 0°05' W., and the distance is 39.82 chs.

From the cor. of secs. 28, 29, 32 and 33.  
East, between secs. 28 and 33.

40.17 Fall 1 lk. S. of the 1/4 sec. cor., hereinafter described.

The bearing of this half mile therefore is N. 89°59' E., and the distance is 40.17 chs.

From a point 1 lk. S. of the 1/4 sec. cor.  
East, with continuous measurement.

80.98 Intersect the cor. of secs. 27, 28, 33 and 34, hereinafter described.

The bearing of this half mile therefore is S. 89°59' E., and the distance is 40.81 chs.

From the cor. of secs. 27, 28, 33 and 34.  
North, between secs. 27 and 28.

40.06 Fall 9 lks. E. of the 1/4 sec. cor., hereinafter described.

DEPENDENT RESURVEY OF SECTION 28, T. 15 S., R. 14 E.

chains

The bearing of this half mile therefore is N. 0°08' W., and the distance is 40.06 chs.

Continue on same line with continuous measurement.

79.88 Fall 18 lks. E. of the cor. of secs. 21, 22, 27 and 28, hereinafter described.

The bearing of this half mile therefore is N. 0°08' W., and the distance is 39.82 chs.

From the cor. of secs. 21, 22, 27 and 28.

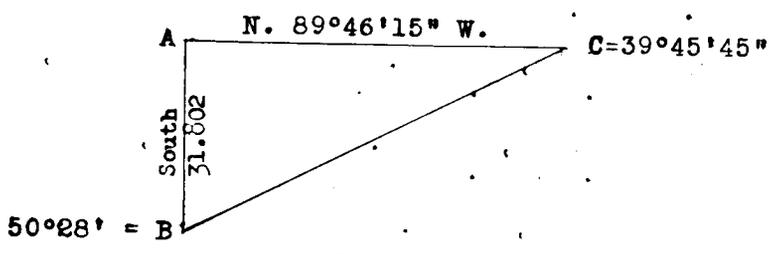
West, between secs. 21 and 28.

39.67 Fall 3 lks. S. of the  $\frac{1}{4}$  sec. cor., hereinafter described.

The bearing of this half mile therefore is N. 89°57' W., and the distance is 39.67 chs.

Continue on same line with continuous measurement.

42.30 Precipitous descent, down which it is impracticable to chain; therefore, I triangulate as follows. The cor. of secs. 20, 21, 28 and 29 is visible, and bears N. 89°46'15" W. I designate this cor. A, and a point 31.802 chs. South of this cor., B, and my point at 42.30 chs., C. From C, AB subtends an angle of 39°45'45"; from B, AC subtends an angle of 50°28'. All angles checked by repetition, and the base line is double chained.



Distance on line	42.30 chs.
Distance by triangulation	<u>38.35 chs.</u>
	80.65 chs.

80.65 Intersect the cor. of secs. 20, 21, 28 and 29, hereinafter described.

The bearing of this half mile therefore is N. 89°50' W., and the distance is 40.98 chs.

True Lines

The cor. of secs. 27, 28, 33 and 34 is a sandstone, 20x10x10 ins., firmly set, and marked with 3 notches on the E. and 1 notch on S. edge, from which

A dead juniper, 6 ins. diam., bears S. 85° E., 5.5 lks. dist., marked T. 15 S R 14 E S 34 B T.

A juniper, 10 ins. diam., bears S. 15° E., 39 lks. dist., marked T 15 S R 14 E S 34 B T.

DEPENDENT RESURVEY OF SECTION 28, T. 15 S., R. 14 E.

chains

A pinon, 14 ins. diam., bears S. 10° W., 100 lks. dist., marked T 15 S R 14 E S 33 B T.

A pinon, 12 ins. diam., bears N. 51° W., 33 lks. dist., marked T 15 S R 14 E S 28 B T.

At the cor. point

Set an iron post, 3 ft. long, 2 ins. diam., 6 ins. in the ground to solid rock, and surrounded to top by a large mound of stone, with the original cor. monument alongside for the cor. of secs. 27, 28, 33 and 34, with brass cap marked

T15S	R14E
S28	S27
S33	S34

1935

Thence

N. 0°08' W., between secs. 27 and 28.

Ascend SW. slope over broken mountainous land, through scattering to medium dense timber and undergrowth.

- .50 Top of ascent slopes W.; descend broken NW. slope.
- 1:70 Ravine, 40 ft. below top of ascent, drains W.; ascend S. slope over sandstone ledges.
- 5.20 Top of ascent, 160 ft. above ravine, slopes W.; descend NW. slope.
- 19.40 Horse Canyon, 190 ft. below top of ascent, drains SW.; ascend S. to SE. slope.
- 28.80 Top of ascent, 140 ft. above canyon, slopes SE.; descend steep NE. slope.
- 31.30 Horse Canyon, 80 ft. below top of ascent, drains SE.; Ascend S. slope, 175 ft. to
- 40.06 The  $\frac{1}{4}$  sec. cor., which is a sandstone 30x10x5 ins., firmly set, marked  $\frac{1}{4}$  on W. face, from which

A pinon, 14 ins. diam., bears N. 59°15' E., 63 lks. dist., marked  $\frac{1}{4}$  S 27 B T.

A pinon, 8 ins. diam., bears N. 9° W., 35.5 lks. dist., marked  $\frac{1}{4}$  S 28 B T.

At the corner point

Set an iron post, 1 in. diam., 3 ft. long, 27 ins. in the ground, with the original cor. monument alongside, with brass cap marked for the  $\frac{1}{4}$  sec. cor.,

$\frac{1}{4}$	
S28	S27

1935

Continue N. 0°08' W., with continuous measurement.

- 41.10 Top of ascent, 10 ft. above the  $\frac{1}{4}$  sec. cor., slopes W.; descend broken NW. slope over ledges 130 ft. to

DEPARTMENT RESURVEY OF SECTION 28, T. 15 S., R. 14 E.

chains

47.50 Horse Canyon drains W.; ascend broken SE. and E. slopes.

59.97 Set an iron post, 3 ft. long, 1 in. diam., 18 ins. in the ground to solid rock, and in a mound of stone to top, for the N. 1/16 sec. cor., with brass cap marked

N 1/16

S28	S27
-----	-----

1935

from which

A red pine, 18 ins. diam., bears N. 58°30' E., 39 lks. dist., marked N 1/16 S 27 B T.

A pinon, 10 ins. diam., bears N. 42° W., 15 lks. dist., marked N 1/16 S 28 B T.

A cross(X) on a sandstone outcrop, bears N. 7°30' E., 15.5 lks. dist.,

Cor. stands on E. slope, 100 ft. above Horse Canyon; Continue ascent

78.50 Top of ascent, 130 ft. above 1/16 sec. cor.; descend NE. slopes E slope 15 ft. to

79.88 The cor. of secs. 21, 22, 27 and 28, which is a sandstone, 16x7 ins., firmly set, and marked with 3 notches on the E. and 2 notches on the S. edge, from which

A pinon, 8 ins. diam., bears N. 45° E., 287 lks. dist., marked T 15 S R 14 E S 22 B T,

A juniper, 14 ins. diam., bears S. 14°45' E., 135 lks. dist., marked T 15 S R 14 E S 27 B T,

A juniper, 12 ins. diam., bears S. 32°15' W., 155 lks. dist., marked T 15 S R 14 E S 28 B T,

and witnessed by a mound of stone, 2 ft. high, 2 ft. base, W. of cor.

At the cor. point

Set an iron post, 3 ft. long, 2 ins. diam., 18 ins. in the ground to solid rock, and in a mound of stone to top, with the original cor. monument alongside, for the cor. of secs. 21, 22, 27 and 28, with brass cap marked

T15SR14E

S21	S22
-----	-----

S28	S27
-----	-----

1935

from which

A pinon, 12 ins. diam., bears N. 41° W., 256 lks. dist., marked T 15 S R 14 E S 21 B T.

Land, rough mountainous, with steep slopes into Horse Canyon, which drains S.

Soil, rocky clay loam, of sandstone formation; 3rd rate.

Timber, pinon, juniper and red pine.

DEPENDENT RESURVEY OF SECTION 28, T. 15 S., R. 14 E.

chains

Undergrowth, scattered service berry, mahogany and sage brush.

Fair grazing land:

The cor. of secs. 28, 29, 32 and 33 is a sandstone, 12x 9x5 ins. above the ground, firmly set, and marked with 4 notches on the E., and 1 notch on S. edge, from which

A pinon, 8 ins. diam., bears S. 80°45' E., 51 lks. dist., marked T 15 S R 14 E S 33 B T.

A pinon, 8 ins. diam., bears N. 24° W., 57 lks. dist., marked T 15 S R 14 E S 29 B T.

At the cor. point

Set an iron post, 3 ft. long, 2 ins. diam., 30 ins. in the ground, with the original cor. monument alongside, for the cor. of secs. 28, 29, 32 and 33, with brass cap marked

T15S	R14E
S29	S28
S32	S33

1935

from which

A pinon, 6 ins. diam., bears N. 59° E., 31.5 lks. dist., marked T 15 S R 14 E S 28 B T.

A pinon, 7 ins. diam., bears S. 42° W., 35 lks. dist., marked T 15 S R 14 E S 32 B T.

Thence

N. 0°05' E., between secs. 28 and 29.

Over rough, mountainous land, through medium growth of timber and undergrowth.

.30 Spur, projects SW.; descend 100 ft. over NW. and W. slopes to

10.50 Ravine, drains S. 75° W.; ascend over SE. slope.

15.40 Top of ascent, 75 ft. above ravine, slopes W.; descend NW. slope.

20.50 Canyon, 60 ft. below ascent, drains SW.; ascend over S. and SE. slopes.

20.80 Seam of coal, about 7 ft. thick, extends E. and W.

39.82 The  $\frac{1}{4}$  sec. cor., which is a sandstone, 12x12x5 ins., firmly set, and marked  $\frac{1}{4}$  on W. face, from which

A pinon, 14 ins. diam., bears N. 33°30' E., 44 lks. dist., marked  $\frac{1}{4}$  S 28 B T.

A pinon, 16 ins. diam., bears N. 63° W., 40 lks. dist., marked  $\frac{1}{4}$  S 29 B T.

At the cor. point

REPERIMENT RESURVEY OF SECTION 28, T. 15 S., R. 14 E.

chains

Set an iron post, 3 ft. long, 1 in. diam., 24 ins. in the ground to solid rock, and in a mound or stone to top, with the original cor. monument alongside, for the  $\frac{1}{4}$  sec. cor., with brass cap marked

S29 | S28

1935

Cor. stands on a steep S. slope, 530 ft. above canyon; continue ascent.

46.00 High spur, 210 ft. above the  $\frac{1}{4}$  sec. cor., projects S. 60° W.; thence along general W. slope.

50.00 High spur projects N. 75° W.; descend over steep N. and NW. slopes, broken by sandstone ledges, 1280 ft. to

80.00 The cor. of secs. 20, 21, 28 and 29, which is a sandstone, 22x14x4 ins. firmly set, marked with 4 notches on the E. and 2 notches on S. edge, from which

A pinon, 9 ins. diam., bears N. 1° E., 18 lks. dist., marked T 15 S R 14 E S 21 B T.

A juniper, 8 ins. diam., bears S. 35°30' E., 35.5 lks. dist., marked T 15 S R 14 E S 28 B T.

A pinon, 7 ins. diam., bears S. 89° W., 13 lks. dist., marked T 15 S R 14 E S 29 B T.

At the cor. point

Set an iron post, 3 ft. long, 2 ins. diam., 28 ins. in the ground, with the original cor. monument alongside, for the cor. of secs. 20, 21, 28 and 29, with brass cap marked

T15SR14E

S20 | S21

S29 | S28

1935

Land, rough, broken mountains, sandstone ledges and outcrops, general western exposure and drainage.

Soil, rocky clay loam; 3rd rate.

Timber, pinon, juniper and red pine.

Undergrowth, scattered service berry brush and mahogany.

Fair grazing land.

From the cor. of secs. 27, 28, 33 and 34.

N. 89°59' W., between secs. 28 and 33.

Descend west and southwest slopes, over rough, mountainous land, through scattered to medium dense growth of timber and undergrowth.

1.40 Top of sandstone ledge, 40 ft. high, bears E. and S.

DEPENDENT RESURVEY OF SECTION 28, T. 15 S., R. 24 E.

chains

- 3.60 Horse Canyon, 120 ft. below section corner, chains S.; thence along a general N. slope.
- 8.30 Draw, drains N. 70° E.; ascend abruptly over N. and SE. slopes, 710 ft. to 1/4 sec. cor.
- 17.10 Sandstone ledge, 20 ft. high, bears N. and S.
- 40.81 The 1/4 sec. cor., which is a limestone, 16x11x6 ins., firmly set, marked 1/4 on N. face, from which

A pinon, 6 ins. diam., bears N. 45°30' E., 75 lks. dist., marked 1/4 S 28 B T.

A pinon, 10 ins. diam., bears S. 50° W., 13 lks. dist., marked 1/4 S 33 B T.

At the cor. point:

Set an iron post, 3 ft. long, 1 in. diam., 24 ins. in the ground to solid rock, and in a mound of stone to top, with original cor. monument alongside, for the 1/4 sec. cor., with brass cap marked.

328

333

1935

Thence, S. 89°59' W., with continuous measurement.

Continue ascent of 80 ft. to

- 44.80 Ridge, bears N. and S. 10° E.; descend over W. slope.
- 57.70 Top of sandstone ledge, 20 ft. high, bears NE. and SW.
- 59.50 Ravine, 320 ft. below ridge, drains SW.; thence along S. to SW. slope.
- 63.60 Ravine, 25 ft. below last ravine, drains S.; ascend SE. slope.
- 70.60 Top of ascent, 90 ft. above ravine, slopes S.; descend 40 ft. to
- 80.98 The cor. of secs. 28, 29, 32 and 33.

Land, rough mountainous, of broken sandstone formation.

Soil, rocky clay loam, 3rd rate.

Timber, pinon, juniper and red pine.

Undergrowth, scattered buck brush, service berry, and sage brush.

Fair grazing land.

From the cor. of secs. 21, 22, 27 and 28.

N. 89°57' W., between secs. 21 and 28.

Ascend broken NE. to E. slopes, over rough mountainous

DEPARTMENT RESURVEY OF SECTION 28, T. 15 S., R. 14 E.

chains

Land, through scattered timber and undergrowth.

19. 836 Set an iron post, 3 ft. long, 1 in. diam., 28 ins. in the ground, for the 1/16 sec. cor., with brass cap marked

E 1/16  $\frac{S21}{S28}$

1935

from which

A pinon, 18 ins. diam., bears N. 40°30' E., 78 lks. dist., marked E 1/16 S 21 B T.

A pinon, 8 ins. diam., bears S. 35° E., 71 lks. dist., marked E 1/16 S 28 B T.

Cor. stands on flat bench, 300 ft. above sec. cor. Continue ascent.

39.67

The 1/4 sec. cor., which is a sandstone, 18x10x2 ins., lying on the ground and marked 1/4 on 1 face, from which

A pinon, 30 ins. diam., bears N. 33°30' E., 34 lks. dist., marked 1/4 S 21 B T.

A juniper, 12 ins. diam., bears S. 78°30' E., 31 lks. dist., marked 1/4 S 28 B T.

At the cor. point

Set an iron post, 3 ft. long, 1 in. diam., 24 ins. in the ground to solid rock, and in a mound of stone to top, with the original cor. monument alongside, for the 1/4 sec. cor., with brass cap marked

1/4  $\frac{S21}{S28}$

1935

Cor. stands on an E. slope, 330 ft. above the 1/16 sec. cor.; continue ascent.

Thence

N. 89°50' W., with continuous measurements.

42.00

Ridge; 60 ft. above the 1/4 sec. cor.; bears N. and S.; precipitous descent of 1275 ft. over W. and NW. slopes broken by sandstone ledges to

80.65

The cor. of secs. 20, 21, 28 and 29, on steep N. slope.

Land, rough mountainous, general E. and W. exposure from high ridge.

Soil, rocky clay loam, of sandstone formation; 3rd rate.

Timber, juniper, pinon and red pine.

Undergrowth; scattered service berry, mahogany and sage brush.

Fair grazing land.

## SURVEY OF SUBDIVISION OF SECTION LINES, SECTION 28,

T. 15 S., R. 14 E.

chains	
	<p style="text-align: center;">SURVEY OF SUBDIVISION OF SECTION LINES, SECTION 28, T. 15 S., R. 14 E.</p> <p>From the <math>\frac{1}{4}</math> sec. cor. between secs. 28 and 29 N. <math>89^{\circ}50'</math> E., on random E. and W. center line, sec. 28.</p>
20.25	Set temporary center W. $1/16$ sec. cor.
40.59	Set temp. center $\frac{1}{4}$ sec. cor.
60.70	Set temp. center E. $1/16$ sec. cor.
80.83	Intersect the $\frac{1}{4}$ sec. cor. between secs. 27 and 28.
	<p>From the <math>\frac{1}{4}</math> sec. cor. between secs. 21 and 28. South, on random N. and S. center line, sec. 28.</p>
20.00	Set temp. center N. $1/16$ sec. cor.
39.97	Fall 48 lks. E. of the temp. center $\frac{1}{4}$ sec. cor.
60.00	Set temp. center S. $1/16$ sec. cor.
79.90	Fall 96 lks. E. of the $\frac{1}{4}$ sec. cor. between secs. 28 and 33. The bearing of this line therefore is S. $0^{\circ}41'$ W., and the distance is 79.90 chs.
	<p>From the <math>\frac{1}{4}</math> sec. cor. between secs. 28 and 29. N. <math>89^{\circ}50'</math> E., on true E. and W. center line, sec. 28. Descend broken E. slope, over rough, mountainous land, through scattering timber and undergrowth.</p>
15.00	Draw, drains S. $30^{\circ}$ W.; ascend abruptly over SW. slope.
20.295	Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, for center W. $1/16$ sec. cor., with brass cap marked
	$C \frac{W \ 1/16}{S \ 28} C$
	1935
	from which
	A pinon, 8 ins. diam., bears N. $0^{\circ}30'$ E., 50 lks. dist., marked C W $1/16$ S 28 B T.
	A red pine, 12 ins. diam., bears S. $26^{\circ}45'$ W., 11.5 lks. dist., marked C W $1/16$ S 28 B T.
	Cor. stands on steep SW. slope, 250 ft. above $\frac{1}{4}$ sec. cor. between secs. 28 and 29.
21.80	Sandstone ledge, 15 ft. high, bears N. and S.

RECORD OF SURVEY OF SECTION LINES, SECTION 28,

T. 15 S., R. 14 E.

chains

28.40

Ridge, 150 ft. above 1/16 sec. cor., bears N. and S.; descend steep and broken general E. slope.

40.59

Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground for center 1/4 sec. cor., with brass cap marked

C 1/4 S 28

+

1935

from which

A pinon, 10 ins. diam., bears S. 10° E., 21 lks. dist., marked C 1/4 S 28 B T.

A pinon, 10 ins. diam., bears N. 31°30' W., 19 lks. dist., marked C 1/4 S 28 B T.

Cor. stands on a SE. slope, 400 ft. below ridge; continue descent.

60.71

Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground for center E. 1/16 sec. cor., with brass cap marked

E 1/16  
C ————— C  
828

1935

from which

A pinon, 14 ins. diam., bears S. 18° W., 50.5 lks. dist., marked C E 1/16 S 28 B T.

A juniper, 24 ins. diam., bears N. 51°45' W., 24.5 lks. dist., marked C E 1/16 S 28 B T.

Cor. stands on E. slope, 360 ft. below center 1/4 sec. cor.; continue to descend.

76.50

Horse Canyon, 420 ft. below 1/16 sec. cor., drains S.; ascend broken SW. and S. slopes, 120 ft. to

80.83

The 1/4 sec. cor. between secs. 27 and 28.

Land, rough and broken mountainous, of sandstone formation.

Soil, rocky, clay loam; 3rd rate.

Timber, scattered juniper, pinon and red pine.

Undergrowth, scattered service berry, sage brush and mahogany.

From the 1/4 sec. cor. between secs. 21 and 28.

S. 0°41' W., on true N. and S. center line, sec. 28.

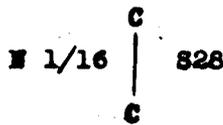
Ascend NE. slope, over broken mountainous land, through scattered timber and undergrowth.

## SURVEY OF SUBDIVISION OF SECTION LINES, SECTION 28,

T. 15 S., R. 14 E.

chains

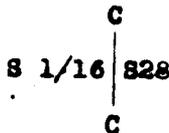
- 11.60 Top of ascent, 160 ft. above  $\frac{1}{4}$  sec. cor., slopes E.; descend broken SE. slope.
- 19.985 Set an iron post, 3 ft. long, 1 in. diam., 28 ins. in the ground, for center N.  $\frac{1}{16}$  sec. cor., with brass cap marked



1935

from which

- A pinon, 10 ins. diam., bears S.  $77^{\circ}45'$  E., 34.5 lks. dist. marked C N  $\frac{1}{16}$  S. 28 B T.
- A red pine, 22 ins. diam., bears S.  $62^{\circ}15'$  W., 35.5 lks. dist., marked C N  $\frac{1}{16}$  S. 28 B T.
- Cor. stands on a SE. slope, 50 ft. below top of ascent; continue descent.
- 39.97 The center  $\frac{1}{4}$  sec. cor., 320 ft. below center N.  $\frac{1}{16}$  sec. cor.
- 59.935 Set an iron post, 3 ft. long, 1 in. diam., 27 ins. in the ground, for center S.  $\frac{1}{16}$  sec. cor., with brass cap marked



1935

from which

- A red pine, 12 ins. diam., bears S.  $22^{\circ}$  E., 23 lks. dist. marked C S  $\frac{1}{16}$  S. 28 B T.
- A pinon, 7 ins. diam., bears S.  $57^{\circ}$  W., 89 lks. dist., marked C S  $\frac{1}{16}$  S. 28 B T.
- Cor. stands on SE. slope, 130 ft. below center  $\frac{1}{4}$  sec. cor.; continue descent.
- 68.30 Hollow, 90 ft. below  $\frac{1}{16}$  sec. cor., drains SE.; ascend NE. slope.
- 77.30 Top of ascent, 60 ft. above hollow, slopes SE.; descend S. to S. slopes 35 ft. to
- 79.90 The  $\frac{1}{4}$  sec. cor. between secs. 28 and 33.
- Land, rough mountainous; general SE. exposure and drainage.
- Soil, rocky clay loam, of sandstone formation; 3rd rate.
- Timber, scattered juniper, pinon and red pine.
- Undergrowth, scattered service berry, mahogany, and sage brush.

## SURVEY OF SUBDIVISION OF SECTION LINES, SECTION 28,

T. 15 S., R. 14 E.

station	
	From the center N. 1/16 sec. cor., sec. 28.
85.00	N. 89°56' E., on random N. and W. center line, NE. $\frac{1}{4}$ , sec. 28.
20.00	Set temp. NE. 1/16 sec. cor.
39.95	Intersect the N. 1/16 sec. cor., between secs. 27 and 28.
<hr/>	
	From the N. 1/16 sec. cor. between secs. 21 and 28.
	S. 0°17' E., on random N. and S. center line, NE. $\frac{1}{4}$ , sec. 28.
19.945	Fall 2.50 lks. W. of the temp. NE. 1/16 sec. cor.
39.89	Intersect the center N. 1/16 sec. cor., sec. 28.
<hr/>	
	From the center N. 1/16 sec. cor., sec. 28.
	N. 89°56' E., on true N. and W. center line, NE. $\frac{1}{4}$ , sec. 28.
	Descend broken SE. to E. slopes, over rough, mountainous land, through medium dense timber and scattered undergrowth.
1.70	Top of broken sandstone ledge, 60 ft. high, bears N. and S.
19.70	Ravine, 670 ft. below 1/16 sec. cor., drains SE.; ascend steep SW. slope.
19.975	Set an iron post, 3 ft. long, 1 in. diam., 24 ins. in the ground to solid rock, and in a mound of stone to top, for NE. 1/16 sec. cor., sec. 28, with brass cap marked.
NE 1/16 S 28 +	
1935	
	from which
	A red pine, 14 ins. diam., bears S. 52°15' E., 80 lks. dist., marked NE 1/16 S 28 B T.
	A pinon, 8 ins. diam., bears N. 40° W., 20 lks. dist., marked NE 1/16 S 28 B T.
21.80	Top of ascent, 50 ft. above 1/16 sec. cor., slopes SE.; descend E. slope.
35.00	Slope becomes steeper.
39.95	The N. 1/16 sec. cor. between secs. 27 and 28.
	Land, mountainous, of sandstone formation.
	Soil, rocky clay loam; 3rd rate.
	Timber, juniper, pinon and red pine.
78.00	Undergrowth, service berry, mahogany and sage brush.

SURVEY OF SUBDIVISION-OF-SECTION LINES, SECTION 28,

T. 15 S., R. 14 E.

chains	
	From the E. 1/16 sec. cor. between secs. 21 and 28.
	S. 0°17' W., on true N. and S. center line, NE. 1/4, sec. 28.
	Over broken mountainous land, along a narrow, grassy bench, through scattered timber and undergrowth.
17.80	Leave bench and descend steep SW. slope 70 ft. to
19.945	The NE. 1/16 sec. cor., sec. 28.
20.40	Ravine, 15 ft. below the 1/16 sec. cor., drains SE.; ascend steep NE. slope through heavier timber.
24.00	Top of ascent, 40 ft. above ravine, slopes E.; descend SE. slope.
27.30	Ravine, 75 ft. below top of ascent, drains E.; ascend abruptly over NE. slope.
33.20	Top of ascent, 60 ft. above ravine, slopes E.; descend steep SE. slope.
36.80	Ravine, 190 ft. below top of ascent, drains E.; ascend steep NE. slope.
38.50	Top of ascent, 85 ft. above ravine, slopes E.; descend 20 ft. over SE. slope to
39.89	The center E. 1/16 sec. cor., sec. 28.
	Land, rough mountainous, sandstone formation.
	Soil, rocky clay loam; 3rd rate.
	Timber, juniper, pinon and red pine.
	Undergrowth, service berry, mahogany and sage brush.

SURVEY OF A PORTION OF THE COLUMBIA STEEL  
COMPANY COAL MINE

station	
	I begin at the cor. of secs. 20, 21, 28 and 29.
	Thence
0-1	S. 43°15' W., 660.40 ft. (10.006 chs.).
1-2	S. 28°09' W., 305.95 ft. (4.636 chs.), at 17.3 ft./is the portal of the escapeway of Room 13, off the 9th West Entry. Thence with the subsurface surveys.
2-3	S. 64°39' E., 102.11 ft. (1.547 chs.), down the 9th West Main Entry.
3-4	S. 62°40' E., 598.80 ft. (9.073 chs.).
4-5	S. 62°44' E., 593.26 ft. (8.989 chs.).
5-6	N. 51°02' E., 194.52 ft. (2.947 chs.), to a point in Main Haulage Entry extending N.
6-7	N. 27°07' E., 534.10/(8.092 chs.), to junction with a Main Haulage Entry and the 9th

SURVEY OF A PORTION OF THE COLUMBIA COAL AND COKE COMPANY COAL MINE

station	Notes
	East Main Entry, Thence in the 9th East Main Entry.
7-8 ✓	S. 63°11' E., 515.97 ft. (7.818 chs.).
8-9 ✓	S. 62°42'30" E., 713.55 ft. (10.811 chs.), to station opposite Room 10.
9-10 ✓	S. 62°40' E., 701.67 ft. (10.631 chs.).
10-10½	S. 62°37' E., 20.10 ft. (0.305 chs.), intersect N. and S. center line, sec. 28, S. 0°41' W., 308.14 ft. (4.669 chs.) distant from the center N. 1/16 sec. cor.
	At point of intersection
	Set an iron post, 18 ins. long, 1 in. diam., 18 ins. in a hole drilled in coal roof, with brass cap marked
	N-S C L + S 28
	1935
10½-11	S. 62°37' E., 716.64 ft. (10.858 chs.).
11-12	S. 62°37' E., 222.22 ft. (3.367 chs.), to Company station at the present end of the 7th East Haulage and connection with the 9th East Main Entry.

GENERAL LAND OFFICE

Station

Great Salt Lake, Utah  
4th Twp. 36th Range

S. 36-37-38 T. 36N. R. 36E. S. 1-4

3-7

S. 36-37-38 T. 36N. R. 36E. S. 5-8

3-8

S. 36-37-38 T. 36N. R. 36E. S. 9-10

3-10

S. 36-37-38 T. 36N. R. 36E. S. 11-12  
center line, sec. 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100

10-10

at corner of section 12

Set on 12-1-1878, by J. H. ...

1878

1878

S. 36-37-38 T. 36N. R. 36E. S. 11-12

11-11

S. 36-37-38 T. 36N. R. 36E. S. 11-12

11-12



CERTIFICATE OF ~~UNITED STATES~~ SURVEYOR

I, Andrew Nelson, ~~U. S.~~ Surveyor, HEREBY CERTIFY upon honor that, pursuant of special instructions bearing date of the 28th day of September, 1933 received from the district cadastral engineer for Utah, with assignment instructions dated September 14, 1935 have surveyed the dependent resurvey of the boundaries; subdivision-of-section surveys, section 28, and survey of a portion of the Columbia Steel Company Coal Mine, all in T. 15 S., R. 14 E. of the Salt Lake Meridian, in the State of Utah, which are represented in the foregoing field notes as having been executed by me and under my direction; and that said survey has been made in strict conformity with said instructions, the Manual of Instructions for the Survey of the Public Lands of the United States, and in the specific manner described in the foregoing field notes.

Certified to at Salt Lake City, Utah, February 17, 1937.

Andrew Nelson  
~~U. S.~~ Surveyor

CERTIFICATE OF APPROVAL

OFFICE OF ~~U. S.~~ SUPERVISOR OF SURVEYS,  
Denver, Colo. JAN 22 1940, 1940

The foregoing field notes of the survey of the dependent resurvey of the boundaries; subdivision-of-section surveys, section 28, and survey of a portion of the Columbia Steel Company Coal Mine, all in T. 15 S., R. 14 E., S. L. M., Utah. executed by Andrew Nelson, ~~U. S.~~ Surveyor under special instructions dated September 28, 1933, and assignment instructions dated September 14, 1935, having been critically examined, and the necessary corrections made prior to their certification by the engineer, the said field notes, and the survey therein described, are hereby approved.

Donald A. Johnson  
U. S. Supervisor of Surveys.

CERTIFICATE OF TRANSCRIPT

I certify that the foregoing transcript of the field notes of the above described surveys in Utah, is a true copy of the original field notes on file in the public survey office.

Donald A. Johnson  
U. S. Supervisor of Surveys.

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Department Of The Interior  
Public Survey Office  
Salt Lake City, Utah

4-979  
(April 1933)

BOOK A-519

G

# FIELD NOTES

OF THE

SURVEY OF THE SUBDIVISION OF SECTION LINES, SECS. 4 AND 18,  
AND A SURVEY OF A PORTION OF THE SPRING CANYON NO. 1 COAL MINE  
AND THE PEERLESS SALES CO. NO. 3 COAL MINE, ALL IN T. 13 S.,  
R. 9 E.

Of the SALT LAKE Meridian,

in the State of UTAH

EXECUTED BY

Howard W. Miller, U. S. Cadastral Engineer

Elliot Bird, U. S. Surveyor

Andrew Nelson, U. S. Surveyor

Under special instructions dated August 26, 1930,  
and January 23, 1936, which provided

for the surveys included under Group No. 234, bearing the approval of the  
Commissioner of the General Land Office under date of September 11, 1930, and  
February 3, 1936,

and assignment instructions dated May 18, 1931, April 8, 1932,  
June 15, 1933, and March 21, 1936.

Survey commenced June 28, 19 31

Survey completed March 28, 19 36

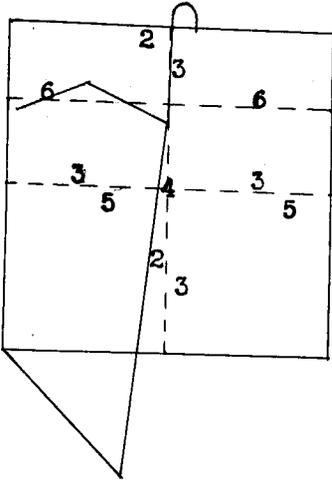
BOOK A 519

# INDEX DIAGRAM.

Township \_\_\_\_\_, Range \_\_\_\_\_

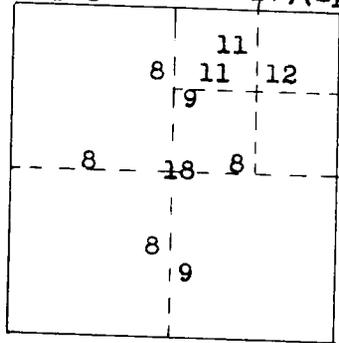
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INDEX DIAGRAM

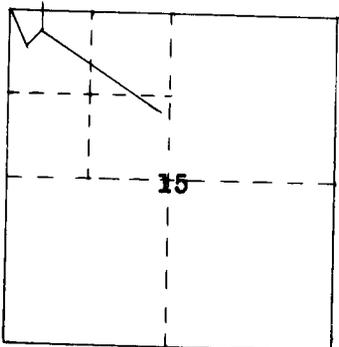


Subdivision-of-sec. lines executed by Elliot Bird, U. S. Surveyor.

Mine surveys executed by Howard W. Miller, U. S. Cadastral Engineer, pages 13 to 17, (Spring Canyon No.1 Mine)



Subdivision-of-sec. surveys, sec. 18, executed by Elliot Bird, U. S. Surveyor.



Survey of Peerless Sales Co. No. 3 Coal Mine, executed by Andrew Nelson, U. S. Surveyor, pages 17 to 19.

Surface surveys, sec. 15, surveyed under Group 123, Utah.

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1. The first part of the survey was conducted in the month of January, 1950.

2. The second part of the survey was conducted in the month of February, 1950.

3. The third part of the survey was conducted in the month of March, 1950.

11

4. The fourth part of the survey was conducted in the month of April, 1950.

5. The fifth part of the survey was conducted in the month of May, 1950.

This survey was executed with Buff and Buff transits No. 16726 and 18003, property of the General Land Office. Each transit is equipped with Smith solar attachment and full vertical circle; the horizontal limbs are provided with two double verniers, placed opposite to each other and reading to single minutes of arc, which is also the least count of the verniers of the latitude and declination arcs and vertical circles. The instruments were in good condition and, having been placed in satisfactory adjustment prior to beginning the survey, and tested and found free from any appreciable error, were approved by the district cadastral engineer for Utah on May 18, 1931, April 8, 1932, June 15, 1933, and March 21, 1936. Transit No. 16726 was used by Howard W. Miller, Cadastral Engineer, and Andrew Nelson, Surveyor, in the mine surveys and in making ties to the mines; and transit No. 18003 was used by Elliot Bird, Surveyor, in the subdivision of section surveys.

This survey involves the subdivision of section surveys in sections 4 and 18, and the carrying underground and marking of the E. and W. center line  $NE\frac{1}{4}$  in the Main Slope Entry, the N. boundary of sec. 4 in the Main Slope Entry, and the E. and W. center line  $NW\frac{1}{4}$  sec. 4 in the Seventeenth Left Main Entry of the Spring Canyon No. 1 Coal Mine, and the line between secs. 10 and 15 in the First Dip Main Entry, the N. and S. center line,  $NW\frac{1}{4}$  sec. 15, and the E. and W. center line,  $NW\frac{1}{4}$  sec. 15 in the Main Entry of the Peerless Sales Co. No. 3 Mine in cooperation with the U. S. Geological Survey, under authority from the Commissioner of the General Land Office, dated June 11, 1930.

The solar attachments were not used in these surveys; all controlling meridians of the surface surveys were established by observations on Polaris, as shown in the field notes. The bearings of the lines were deflected from these true meridians by repetition of angles, and carried forward by transit line, taking the mean of direct and reversed sights. In the underground surveys the lines were run by traverse methods, and where it was impossible or impracticable to close a figure by survey, the traverse line was carried into the various entries, and a check survey, using the same transit stations and continuing the azimuth of the original traverse in the opposite direction back to the entry of the mine or to such other point as was necessary to check the work. All azimuths in this record of mine surveys and surface tie lines to mine entries are referred to controlling meridians by the method of deflection angles and calculated courses. These controlling meridians are extended from reference points of the surface surveys to the mine entry, where they are again checked by an independent observation on Polaris, and then projected underground. The mean calculated courses of the azimuths between stations only appear in these notes.

The measurements were made with Lallie steel ribbon tapes, 5 and 8 chains in length, and one Lufkin steel tape 200 feet long. The 5 and 8 chain tapes are graduated every link for the first 100 links, and thereafter at intervals of 10 links; the 200 ft. tape, used exclusively in the mine work, is graduated to feet, tenths and hundredths in its entire length. All the tapes were tested, comparison being made with a Lufkin steel tape, 66 feet long, which was compared with a similar tape tested by the U. S. Bureau of Standards. The measurements were made on the slope, the vertical angle determined with the transit, and the slope measurements properly reduced to true horizontal distances. In those instances in the mine surveys, where a figure was not closed by survey, all distances were double chained, and the mean distances between stations are recorded in these notes.

SUBDIVISION OF SECTION 4, T. 13 S., R. 9 E.

Chains

June 29, 1931, at the  $\frac{1}{4}$  sec. cor. between secs. 4 and 9, T. 13 S., R. 9 E., S. L. M., in approximate latitude  $39^{\circ}42'N.$ , longitude  $110^{\circ}57'W.$ , at 8h 55.6m a.m., by my watch, which carries correct 105th meridian standard time, I make an hour angle observation on Polaris W. of the meridian, making four observations, two each with the telescope in direct and reversed positions, and reading the horizontal deflection angle from a flagpole about 1 mile W. in the direction NE. to Polaris.

Watch time of observation,	8h 55.6m a. m.
Watch fast of local mean time,	0h 23.8m
Local mean time of observation,	8h 09.8m a. m.
Horizontal angle, flag to Polaris,	$89^{\circ} 38'$
Azimuth of Polaris,	$0^{\circ} 22' W.$
True bearing of flag pole,	West.

Numerous hour angle observations were made on Polaris during the progress of this work, and all lines of the surveys were checked by the true meridian, thus determined.

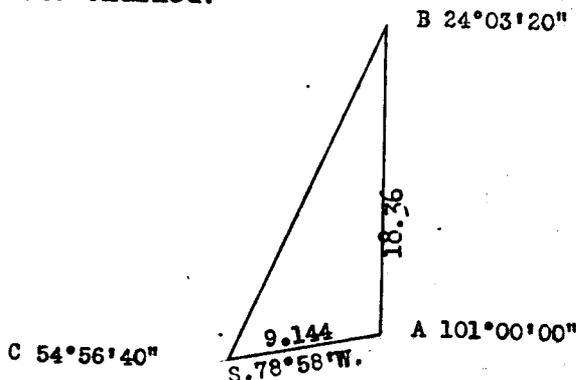
From the  $\frac{1}{4}$  sec. cor. between secs. 4 and 9, I deflect an angle of  $89^{\circ}58'$  to the right from the flag pole.

Thence

$N.0^{\circ}02'W.$ , on random N. and S. center line sec. 4.

23.62

Vertical ledge ahead on line makes chaining impracticable. I, therefore, determine the distance by triangulation as follows: Erect flag A at this point, and flag B on line to the N. From A, survey base line AC,  $S.78^{\circ}58'W.$ , 9.144 chs. distant to point from which line AB subtends an angle of  $54^{\circ}56'40''$ . From B flags AC subtend an angle of  $24^{\circ}03'20''$ . All angles checked by repetition and base line double chained.



Distance on line,	23.62 chs.
Distance by triangulation,	<u>18.36 chs.</u>
	41.98 chs.

SUBDIVISION OF SEC. 4, T. 13 S., R. 9 E.

chains

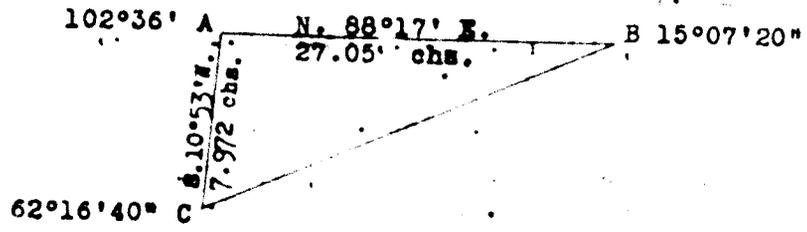
41.98 To point B of triangulation. Set temp. center  $\frac{1}{4}$  sec. cor.  
 62.40 Set temp. center north  $\frac{1}{16}$  sec. cor.  
 83.07 Fall 19.4 lks. W. of the  $\frac{1}{4}$  sec. cor., N. boundary of sec. 4, hereinafter described.  
 The course of this line therefore is N.  $0^{\circ}06'$  E., and the distance is 83.07 chs.

From the  $\frac{1}{4}$  sec. cor. of secs. 4 and 5, hereinafter described.

N.  $88^{\circ}17'$  E., on random N. and W. center line sec. 4.

13.45 Leave flag for triangulation point.

18.45 Broken ledges to the E. of this point make chaining impracticable; I therefore determine the distance by triangulation as follows. Erect flag A at the 13.45 ch. point, and flag B on line to the E. From A, survey base line AC, S.  $10^{\circ}53'$  W., 7.972 chs. to point from which line AB subtends an angle of  $62^{\circ}16'40''$ . From B flags AC subtend an angle of  $15^{\circ}07'20''$ . All angles checked by repetition and base line double chained.



Distance by triangulation	27.05' chs.
Distance on line	13.45 chs.
	<u>40.50 chs.</u>

40.50 To point B of triangulation.

40.75 Intersect the temp. center  $\frac{1}{4}$  sec. cor.

81.73 Fall 24 lks. S. of the true point for the  $\frac{1}{4}$  sec. cor. of secs. 3 and 4, which is S.  $0^{\circ}06'$  E., 30 lks. distant from witness cor. to the cor. of said secs., hereinafter described.

The course of this line therefore is N.  $88^{\circ}07'$  E., and the distance is 81.73 chs.

From the  $\frac{1}{4}$  sec. cor. of secs. 4 and 9, which is an iron post, 1 in. diam., firmly set, and marked and witnessed as described in the official records of the resurvey of this township.

N.  $0^{\circ}06'$  E., on true N. and S. center line sec. 4.

Ascend abrupt S. slope of broken mountainous land, through medium dense timber and undergrowth.

5.20 Spur, 160 ft. above cor., projects S.  $10^{\circ}$  W.; descend abrupt NW. slope.

SUBDIVISION OF SEC. 4, T. 13 N., R. 9 E.

en1210

chains

22.00 Draw, 370 ft. below spur, drains N. 50° W. about 3.00 chs. to junction with main draw which drains SW.; ascend gradual SW. slope.

24.30 Approximate distance; spur, 30 ft. above draw, projects W.; descend abrupt NW. slope.

26.40 Approximate distance; bottom of main draw, 50 ft. below spur, drains SW.; ascend abrupt broken S. slope.

36.50 Approximate distance; base of sandstone ledge, 200 ft. high, faces S. and bears N. 20° E. and S. 20° W.

42.10 At top of ledge and rocky spur, 820 ft. above main draw; bears N. 60° E. and projects S. 60° W.

Set an iron post, 3 ft. long, 1 in. diam., 27 ins. in the ground, for center  $\frac{1}{4}$  sec. cor. sec. 4, with brass cap marked

C  $\frac{1}{4}$  S4

1931

from which;

A mahogany, 5 ins. in diam., bears N. 52° E., 12 lks. dist., marked C  $\frac{1}{4}$  S 4 B T.

A pinon, 12 ins. diam., bears N. 64° W., 22 lks. dist., marked C  $\frac{1}{4}$  S 4 B T.

Descend abrupt N. slope.

62.30 Bottom of deep rocky gulch, 770 ft. below spur, drains W.; ascend abrupt S. slope of ledges.

62.50 On N. side of bottom of gulch:

Set an iron post, 3 ft. long, 1 in. diam., 27 ins. in the ground, for center N. 1/16 sec. cor., with brass cap marked

C

N  $\frac{1}{16}$  | S4

C

1931

from which:

A balsam, 8 ins. in diam., bears N. 62° E., 10 lks. dist., marked C N 1/16 S 4 B T.

A balsam, 8 ins. in diam., bears N. 33°30' W., 28 lks. dist., marked C N 1/16 S 4 B T.

65.30 Sharp rocky spur, 150 ft. above gulch, projects W., about 7.50 chs. dist. to end. Descend abrupt ledge N. slope.

69.10 Gulch, 75 ft. below spur, drains S. 80° W.; ascend abrupt S. slope.

78.80 Rocky spur, 220 ft. above gulch, projects SW.; thence along abrupt W. slope.

## SUBDIVISION OF SEC. 4, T. 13 S., R. 9 E.

chains	
83.07	<p>The <math>\frac{1}{4}</math> sec. cor. N. boundary of sec. 4, which is an iron post, 1 in. diam., firmly set, and marked and witnessed as described in the official record.</p> <p>Land, broken and mountainous, with abrupt N. and S. slopes and a general southwesterly drainage.</p> <p>Soil, shallow clay and sand loam; sandstone and limestone formation; 4th rate.</p> <p>Undergrowth, sage, oak, service, buck and mountain rush.</p> <p>Timber, juniper, pinon, spruce and fir.</p> <p>Good grazing land.</p>
	<p>From the <math>\frac{1}{4}</math> sec. cor. of secs. 4 and 5, which is an iron post, 1 ins. diam., firmly set, and marked and witnessed as described in the official record of the resurvey of this township.</p> <p>N. <math>88^{\circ}07'</math> E., on true E. and W. center line sec. 4.</p> <p>Descend abrupt NE. slope of broken mountainous land, through dense undergrowth and scattered timber.</p>
5.85	<p>Bottom of Sowbelly Gulch, 170 ft. below the <math>\frac{1}{4}</math> sec. cor., drains SE.; ascend abrupt broken SW. slope.</p>
13.45	<p>Spur, 140 ft. above gulch, projects S.; descend abrupt SE. slope.</p>
19.45	<p>Gulch, 150 ft. below spur, drains SW. about 6.50 chs. to junction with Sowbelly Gulch. Ascend abrupt NW. slope over broken ledges.</p>
40.84	<p>The center <math>\frac{1}{4}</math> sec. cor. of sec. 4, on top of high rocky spur, 635 ft. above gulch, projects S. <math>60^{\circ}</math> W.; descend gradually along ledgy S. slope through dense timber.</p>
50.00	<p>Head of gulch, 250 ft. below spur, drains SW.; ascend abrupt W. slope.</p>
62.55	<p>Top of divide ridge between Sowbelly Gulch and Hardscrabble Canyon, 280 ft. above head of gulch, bears S. <math>30^{\circ}</math> W. and N. <math>30^{\circ}</math> E.; descend gradually along ledgy S. slope.</p>
81.73	<p>The true point for the <math>\frac{1}{4}</math> sec. cor. of secs. 3 and 4, which is <math>S. 0^{\circ}06'</math> E., 30-lks. dist. from the witness cor. Witness cor. is an iron post, 1 in. in diam., firmly set, and marked and witnessed as described in the official record of the resurvey of this township.</p> <p>Land, broken and mountainous with a general southwesterly and southeasterly exposure and drainage.</p> <p>Soil, shallow clay and sand; rocky, of sandstone formation; 4th rate.</p> <p>Undergrowth, sage, oak, service, silver leaf and buck brush.</p> <p>Timber, juniper, pinon, mahogany, spruce and fir.</p>

SUBDIVISION OF SEC. 4, T. 13 S., R. 10 E.

chains	description
	Pair grazing land.
	From the center N. 1/16 sec. cor. of sec. 4
	N. 88°49' E., on random E. and W. center line NE. 1/4 sec. 4.
40.75	Fall 3.5 lks. S. of the N. 1/16 sec. cor. of secs. 3 and 4, which is an iron post, 1 in. diam., firmly set, and marked and witnessed as described in the official record of the resurvey of this township.
	The course of this line therefore is N. 88°46' E., and the distance is 40.75 chs.
	Thence:
	From the center N. 1/16 sec. cor.
	N. 88°46' E., on true E. and W. center line NE. 1/4 sec. 4.
	Ascend abrupt SW. slope of broken mountainous land, through dense timber and undergrowth.
23.00	Top of divide ridge between Sowbelly Gulch and Hard-scrabble Canyon, 625 ft. above cor., bears N. and S.; descend abrupt NE. slope, through dense undergrowth.
37.10	Draw, 450 ft. below ridge, drains N. 20° E.; ascend gradual NW. slope.
40.75	The N. 1/16 sec. cor. of secs. 3 and 4, 60 ft. above draw.
	Land, broken and mountainous, with a general westerly exposure and drainage.
	Soil, shallow, clay and sand; rocky, of sandstone formation; 4th rate.
	Undergrowth; service, oak, manzanita, sage and buck brush.
	Timber, spruce, fir, juniper and pinon.
	Good grazing land.
	From the center N. 1/16 sec. cor. of sec. 4; the line to the W. passes over broken ledges which make it impossible to run on true line, therefore to determine the course and distance of the E. and W. center line of the NW. 1/4 sec. 4, I run on traverse line as follows.
	West, 0.140 chs.
	South, 0.655 chs.
	S. 85°10' W., 14.923 chs.
	S. 40°45' W., 19.237 chs.
	N. 43°00' W., 2.388 chs.
	N. 52°00' W., 13.596 chs.

SUBDIVISION OF SEC. 4, T. 13 S., R. 9 E.

chains

N. 11°07' W., 4.230 chs. to the witness cor. to the N. 1/16 sec. cor. of secs. 4 and 5, which is S. 0°02' W., 1.30 chs. from its true position.

The true bearing of the line from the center N. 1/16 sec. cor. of sec. 4, to the true point for the 1/4 sec. cor. of secs. 4 and 5, therefore is S. 88°43' W. and the distance is 40.74 chs.

Thence:

From the center N. 1/16 sec. cor.

S. 88°43' W., on true E. and W. center line NW. 1/4 sec. 4, giving approximate distances to topography on true line.

Descend abruptly along general W. slope on N. side of bottom of gulch draining W., through dense timber and scattered undergrowth.

2.50 Leave bottom of gulch, drains N. 80° W. about 6.60 chs. distant to junction with large gulch draining S. 30° W.; continue descent along general W. slope.

6.70 Spur, 90 ft. below cor., projects NW.; descend abrupt SW. slope.

9.70 Bottom of large gulch, 210 ft. below cor., drains S. 30° W.; ascend abrupt ledgy SE. slope.

14.90 Base of sandstone ledge and reef, about 200 ft. high, bears N. 30° E. and S. 30° W.; ascend abruptly over inaccessible ledges.

31.40 Top of ledges and spur, 750 ft. above gulch, projects S. about 16.00 chs. to end. Descend abruptly over inaccessible ledges.

40.74 The true point for the N. 1/16 sec. cor. of secs. 4 and 5, 600 ft. below top of spur, which is N. 0°02' E., 1.30 chs. distant from the witness cor. to the cor. of said secs. Cor. is an iron post, 1 in. diam., firmly set, marked and witnessed as described in the official record of the resurvey of this township.

SUBDIVISION OF SEC. 18, T. 13 S., R. 9 E.

June 22, 1931, at the 1/4 sec. cor. between secs. 17 and 18, T. 13 S., R. 9 E., in approximate latitude 39°41' N., longitude 110°59' W., at 9h 17.1m a. m. local mean time I make an hour angle observation on Polaris, W. of the meridian, making four observations, two each with the telescope in direct and reversed positions and reading the horizontal deflection angle from a flag pole about 20 chs. W. in the direction N-E to Polaris.

Watch time of observation (correct. 105th Meridian standard time) 9h 41 m a. m.

Mean horizontal angle, flag to Polaris 89°21.3'

Azimuth of Polaris 0°35.7' W.

True bearing of flag pole N. 89°57' W.

The 1/4 sec. cor. between secs. 17 and 18 is an iron post 1 in. in diam., firmly set, and marked and witnessed as described in the official record of the resurvey of

SUBDIVISION OF SECS. 18, T. 13 S., R. 9 E.

chains

chains

T. 13 S., R. 9 E.  
 From this  $\frac{1}{4}$  sec. cor. a spad in the cross beam at the Main Entry and Motor Road of the No. 4 Mine of the Maple Creek Coal Co. bears N. 68°30' W., 14.04 chs. distant. From the spad at the entrance of the mine a reference point which is a spad set in a sandstone outcropping sloping SE. bears N. 50°32' E., 5.859 chs. distant.

Thence from the  $\frac{1}{4}$  sec. cor., N. 89°57' W., on random E. and W. center line sec. 18.

21.44 Set temp. center E. 1/16 sec. cor. sec. 18.

42.86 Set temp. center  $\frac{1}{4}$  sec. cor. sec. 18.

85.62 Fall 12.4 lks. S. of the  $\frac{1}{4}$  sec. cor. of secs. 13 and 18, on the W. boundary of the township, which is an iron post, 1 in. diam., firmly set, and marked and witnessed as described in the official record of the resurvey of T. 13 S., R. 9 E..

The course of this line therefore is N. 89°58' W., and the distance is 85.62 chs.

From the  $\frac{1}{4}$  sec. cor. of secs. 18 and 19, which is an iron post, 1 in. diam., firmly set, and marked and witnessed as described in the official record, T. 13 S., R. 9 E..

N. 1°55' W., on random N. and S. center line sec. 18.

39.42 Fall 2.6 lks. E. of the temp. center  $\frac{1}{4}$  sec. cor. sec. 18.

59.63 Set temp. center N. 1/16 sec. cor. sec. 18.

79.81 Fall 2.3 lks. E. of the  $\frac{1}{4}$  sec. cor. of secs. 7 and 18, which is an iron post, 1 in. diam., firmly set, and marked and witnessed as described in the official record of the resurvey of T. 13 S., R. 9 E.

The course of this line therefore is N. 1°56' W., and the distance is 79.81 chs.

From the  $\frac{1}{4}$  sec. cor. of secs. 17 and 18.

N. 89°52' W., on true E. and W. center line sec. 18.

Descend abrupt W. slope of mountainous land, through clumps of dense timber and undergrowth.

6.75 Gulch, 280 ft. below cor., drains E.; ascend abrupt E. slope through dense undergrowth.

21.435 On abrupt E. slope, 725 ft. above gulch, at E. edge of clump of dense timber, bears N. and S.

Set an iron post, 3 ft. long, 1 in. diam., 20 ins. in the ground to solid rock and in a mound of stone to top, for center E. 1/16 sec. cor. sec. 18, with brass cap marked

E 1/16

1931

SUBDIVISION OF SEC. 218, T. 13 S., R. 9 E.

chains

from which:

A balsam, 6 ins. diam., bears N. 31°30' E., 26 lks. distant, marked C E 1/16 S 18 B T.

A balsam, 8 ins. diam., bears S. 53° E., 15 lks. distant, marked C E 1/16 S 18 B T.

Continue abrupt ascent over E. slope through very dense timber.

23.50 Leave timber and undergrowth, bears N. and S.; thence over grassy E. slope.

25.90 Spur, 80 ft. above last cor., projects N. 30° E.; thence descend gradually along grassy N. slope.

34.50 Spur, 25 ft. below last spur, projects N. 10° W.; descend abrupt W. slope.

36.25 Enter scattered timber and dense undergrowth, bears N. and S.

42.87 On abrupt NW. slope, 320 ft. below spur.

Set an iron post, 3 ft. long, 1 in. diam., 20 ins. in the ground to solid rock and in a mound of stone to top, for center 1/4 sec. cor. sec. 18, with brass cap marked

C 1/4 S18

1931

from which:

A red pine, 16 ins. diam., bears N. 21°45' E., 116 lks. distant, marked C 1/4 S18 B T.

A balsam, 10 ins. diam., bears S. 27° W., 160 lks. distant, marked C 1/4 S18 B T.

46.40 Bottom of gulch, 145 ft. below cor., drains N. 20° E.; ascend abrupt broken E. slope.

64.20 Spur, 620 ft. above bottom of gulch, projects N.; leave timber, bears N. and S.; descend abrupt NW. slope.

79.20 Bottom of draw or hollow, 325 ft. below spur, drains N. 20° E.; ascend abrupt E. slope through dense undergrowth.

85.62 The 1/4 sec. cor. of secs. 13 and 18, on the W. boundary of the township, 265 ft. above draw:

Land, broken and mountainous with abrupt slopes; general NE. and NW. exposures and drainage.

Soil, shallow gravelly clay loam and rock; sandstone formation; 3rd rate.

Undergrowth, oak, sage, service and mahogany.

Timber, spruce, fir, juniper and piñon.

Good grazing land.

From the 1/4 sec. cor. of secs. 18 and 19.

SUBDIVISION OF SEC. 28, T. 13 S., R. 9 E.

chains	N. 1°56' W., on true N. and S. center line sec. 18.	18.
	Ascend abrupt S. slope of high mountainous land, through dense timber and scattered undergrowth.	
7.70	Ridge, 360 ft. above cor., bears E. and N. leave timber, bears with ridge; descend abrupt E. slope.	
16.20	Enter medium dense timber,, bears E. and W.	
24.00	Draw, near head, 440 ft. below ridge, drains NW.; ascend abrupt SW. slope.	
28.75	Top of ascent, 45 ft. above draw, bears N. 70° E. and S. 70° W.; descend abrupt NW. slope.	
39.48	The center 1/4 sec. cor. of sec. 18, on abrupt NW. slope, 150 ft. below top of ascent.	
41.20	Small steep draw, 45 ft. deep, drains W.; continue descent	
59.645	On abrupt NW. slope, 260 ft. below the center 1/4 sec. cor. Set an iron post, 3 ft. long, 1 in. diam., 20 ins. in the ground to solid rock and in a mound of stone to top, for center N. 1/16 sec. cor., with brass cap marked	
	from which:	
	A balsam, 8 ins. diam., bears N. 34°30' E., 143 lks. distant, marked C N 1/16 S18 B T	
	No other bearing trees available.	
61.80	Bottom of hollow, 100 ft. below cor., drains N. 70° E.; junction of draw from the S. with hollow, bears S. 70° W., 1.10 chs. distant. Ascend abrupt SE. slope over broken sandstone ledges, through medium dense timber.	
73.50	Spur, 330 ft. above hollow, projects SE.; descend gradual NE. slope.	
77.80	Draw, 10 ft. below spur, drains S. 30° E.; ascend abrupt SW. slope.	
79.81	The 1/4 sec. cor. of secs. 7 and 18, on abrupt S. slope, 60 ft. above draw.	
	Land, broken and mountainous, with a general westerly and southerly exposure and drainage.	
	Soil, shallow, gravelly, clay and rock; sandstone formation; 3rd rate.	
	Undergrowth, sage, oak and service brush.	
	Timber, juniper, pinon, fir; spruce and mahogany.	
	Good grazing land.	

## SUBDIVISION OF SEC. 18, T. 13 S., R. 9 E.

## chains

From the center N. 1/16 sec. cor. of sec. 18.

S. 89°15' E., on random E. and W. center line, NE.  $\frac{1}{4}$  sec. 18.

21.25 Set temp. NE. 1/16 sec. cor. sec. 18.

42.57 Fall 6.2 lks. S. of the N. 1/16 sec. cor. of sections 17 and 18, which is an iron post, 1 in. diam., firmly set, and marked and witnessed as described in the official record of the resurvey of T. 13 S., R. 9 E.

The course of this line therefore is S. 89°20' E., and the distance is 42.57 chs.

From the center E. 1/16 sec. cor. of secs. 18.

N. 2°20' W., on random N. and S. center line NE.  $\frac{1}{4}$  sec. 18.

19.90 Fall 3 lks. W. of the temp. center NE. 1/16 sec. cor. of sec. 18.

39.93 Intersect the E. 1/16 sec. cor. of secs. 7 and 18, which is an iron post, 1 in. in diam., firmly set, and marked and witnessed as described in the official record of the resurvey of T. 13 S., R. 9 E.

The course of this line therefore is N. 2°20' E., and the distance is 39.93 chs.

From the center N. 1/16 sec. cor. sec. 18.

S. 89°20' E., on true E. and W. center line NE.  $\frac{1}{4}$  sec. 18.

Ascend abruptly over broken NW. slope of mountainous land, through medium dense timber and undergrowth.

5.20 Spur, 100 ft. above cor., projects N.; descend gradual NE. slope.

5.80 The center of dense clump of undergrowth and timber.

11.70 Descent becomes abrupt, bears N. and S.

15.00 Draw, 250 ft. below spur, drains N.; ascend abrupt NW. slope.

21.28 On abrupt N. slope, 250 ft. above draw.

Set an iron post, 3 ft. long, 1 in. diam., 20 ins. in the ground to solid rock and in a mound of stone to top, for NE. 1/16 sec. cor. sec. 18, with brass cap marked

NE  $\frac{1}{16}$  S18

1931

from which:

## SUBDIVISION OF SEC. 18, T. 13 S., R. 9 E.

chains

meters

A red pine, 6 ins. diam., bears S. 80° E., 79 lks. distant marked N E. 1/16 S18 B.T.

A red pine, 14 ins. diam., bears S. 1° W., 92 lks. distant marked N E. 1/16 S18 B.T.

25.70 Spur, 80 ft. above cor., projects N.; descend gradual NE. slope.

37.70 Begin abrupt descent over E. slope, bears NE. and SW.

42.57 The N. 1/16 sec. cor. of secs. 17 and 18, 429 ft. below spur.

Land, broken and mountainous, with a general northerly exposure and drainage.

Soil, shallow gravelly clay and rock; sandstone formation; 3rd rate.

Undergrowth, oak, sage and service berry brush.

Timber, spruce, fir, juniper, pinon and mahogany.

Good grazing land.

From the center E. 1/16 sec. cor. sec. 18.

N. 2°20' W., on true N. and S. center line NE.  $\frac{1}{4}$  sec. 18.

Descend abrupt NE. slope of high mountainous land, through dense timber and undergrowth.

7.50 Spur, 100 ft. below cor., projects NE.; descend abrupt NW. slope through scattered timber and undergrowth.

19.93 The NE. 1/16 sec. cor. sec. 18, 412 ft. below the center E. 1/16 sec. cor. sec. 18.

28.10 Bottom of hollow, 360 ft. below last cor., drains NE.; dense timber and brush along bottom of hollow. Ascend abrupt broken SE. slope, through dense timber and undergrowth.

39.93 The E. 1/16 sec. cor. of secs. 7 and 18, 420 ft. above bottom of hollow.

Land, broken and mountainous, with a general NE. and S. exposure and drainage.

Soil, shallow gravelly clay and rock; sandstone formation; 3rd rate.

Undergrowth, oak, service and sage brush.

Timber, spruce, fir, juniper, pinon and mahogany.

Good grazing land.

## GENERAL DESCRIPTION

The land in sec. 4 is very rough and mountainous, and

SURVEY OF A PORTION OF THE SPRING CANYON NO. 1 COAL MINE

chains

a general southwesterly exposure and drainage, into Sowbally Gulch, and and easterly exposure and drainage into Hardscrabble Canyon.

The section is covered with a medium dense growth of juniper, pinon, mahogany, fir and spruce timber, and an undergrowth of sage, oak, service and buck brush.

The soil consists of a shallow clay, sand and rock, of sandstone formation.

No water was found in this section and no portion of it is suitable for farming.

Section 18 comprises high, mountainous land, with a general northeasterly exposure and drainage. It is covered in most places with a medium dense growth of fir, spruce, juniper, pinon and mahogany timber, and an undergrowth of oak, sage and service brush. The only <sup>water</sup> in this section is a small seep in the NW. quarter of the section. At one time the water from this seep was piped to the camp of the Maple Creek Coal Co., which is located in the SW.  $\frac{1}{4}$  NW.  $\frac{1}{4}$  of this section.

The soil consists of a shallow, gravelly clay loam of sandstone formation and supports a good growth of grass.

SURVEY OF A PORTION OF THE SPRING CANYON NO. 1 COAL MINE

September 15, 1932, at the cor. of secs. 4, 5, 8 and 9, which is an iron post, 2 ins. diam., firmly set in the ground and in a mound of stone, and with the original cor. monument alongside, and marked and witnessed as described in the official record of the resurvey of this township, in approximate latitude  $39^{\circ}42'$  N., longitude  $110^{\circ}57'$  W., at 9h 36m a. m. by my watch which is 40s slow of correct 105th Meridian standard time, I make an hour angle observation on Polaris, W. of the meridian, making four observations, two each with the telescope in direct and reversed position, and reading the horizontal deflection angle from a rock about  $\frac{1}{2}$  mile distant to the N. in the direction W. to Polaris.

Watch time of observation	9h. 36 m a. -m.
Local mean time of observation	9h 13m 52s a. m.
Mean horizontal deflection angle, rock to Polaris	$1^{\circ}18'$
Azimuth of Polaris at observation	$1^{\circ}18'$
True bearing of rock	North.

From this sec. cor. which I designate station 00, I deflect an angle from the true meridian and note that a cross on a concrete form at the Manway Entrance of the Spring Canyon No. 1 Coal Mine bears S.  $26^{\circ}36'$  E., I also find that the same concrete form bears S.  $26^{\circ}36'$  East, 2725.73 ft. (41.299 chs.). distant as determined by the following traverse.

## SURVEY OF A PORTION OF THE SPRING CANYON NO. 1 COAL MINE

station	azimuth
00-1	S. 69°24'30" E., 203.07 ft. (3.088 chs.).
1-2	S. 75°19' E., 308.26 ft., (4.671 chs.).
2-3	S. 64°44'30" E., 168.55 ft. (2.554 chs.).
3-4	S. 19°39' E., 459.91 ft. (6.968 chs.).
4-5	S. 8°03'30" E., 694.61 ft. (10.524 chs.).
5-6	S. 11°25' E., 144.86 ft. (2.195 chs.).
6-7	S. 22°30' E., 310.71 ft. (4.708 chs.).
7-8	S. 18°56'30" E., 511.23 ft. (7.746 chs.).
8-9	S. 4°16'30" E., 182.59 ft. (2.766 chs.). to cross in concrete form at the Manway Entrance to the Spring Canyon No. 1 Coal Mine.
<p>September 15, 1932, at this station, in approximate latitude 39°42' N., longitude 110°57' W., at 3 hours 00 m by my watch, which is 40s slow of correct 105th Meridian standard time, I make an hour angle observation on Polaris E. of the meridian, making four observations, two each with the telescope in direct and reversed positions, and reading the horizontal deflection angle from the trunk of a dead tree on the sky line about a mile distant to the N. in the direction E. to Polaris.</p>	
Watch time of observation	3h 20m p. m.
Local mean time of observation	2h 58m p. m.
Azimuth of Polaris	0°20' E.
Horizontal angle, tree to Polaris	9°50' E.
True bearing of tree	N.9°30' W.
<p>From this station, the cor. of secs. 4, 5, 8 and 9, which is visible, bears N. 26°36' W.</p>	
<p>Thence with surveys in the Spring Canyon No. 1 Coal Mine.</p>	
9-10	N. 83°30' E., 156.38 ft. (2.369 chs.) through Manway Entry to Main Slope. Thence down Main Slope and Haulage Road.
10-11	N. 18°21' E., 436.90 ft. (6.620 chs.).
11-12	N. 18°22' E., 697.57 ft. (10.569 chs.).
12-13	N. 18°22' E., 542.68 ft. (8.222 chs.).
13-14	N. 18°21' E., 725.45 ft. (10.992 chs.).
14-15	N. 18°15'30" E., 815.86 ft. (10.846 chs.) to 9th Left Back Entry and transformer room.
15-16	N. 18°15' E., 379.98 ft. (5.757 chs.).
16-17	N. 18°09'30" E., 560.89 ft. (8.498 chs.).
17-18	N. 8°47' E., 92.77 ft. (1.406 chs.).
18-19	N. 0°08'30" W., 473.14 ft. (7.169 chs.).

## SURVEY OF A PORTION OF THE SPRING CANYON NO. 1 COAL MINE.

station	
19-20	N.0°18'45"W., 610.82 ft. (9.255 chs.).
20-21	N.0°07'45"W., 505.85 ft. (7.664 chs.).
21-22	N.0°18'50"W., 423.69 ft. (6.420 chs.).
22-23	N.0°56'50"W., 242.61 ft. (3.675 chs.), to point in Main Slope Entry opposite the Seventeenth Left Main Entry. Thence in Seventeenth Left Main Entry.
23-24	N.49°51'50"W., 57.16 ft. (.866 chs.).
24-25	N.79°29'W., 190.23 ft. (2.882 chs.).
25-26	N.80°49'W., 229.59 ft. (3.479 chs.).
26-27	N.80°08'W., 247.23 ft. (3.746 chs.).
27-28	N.80°11'45"W., 198.76 ft. (3.012 chs.).
28-29	N.80°08'W., 336.14 ft. (5.093 chs.).
29-29½	N.79°58'W., 214.76 ft. (3.254 chs.), intersect E. and W. center line NW½ sec. 4, S.88°43'W., 1275.57 ft. (19.327 chs.) from the center N. 1/16 sec. cor. sec. 4.

At point of intersection.

Set an iron post, 15 ins. long, 1 in. diam., 15 ins. in the roof of the mine, with brass cap marked

T13CR9E  
NW ½ S4  
C  
NW ½ S4  
1933

29½-30	N.79°58'W., 120.62 ft. (1.828 chs.).
30-31	N.79°48'W., 316.80 ft. (4.800 chs.).
31-32	N.80°27'W., 258.83 ft. (3.922 chs.).
32-33	N.80°21'W., 357.00 ft. (5.409 chs.).
33-34	N.80°07'W., 200.02 ft. (3.031 chs.).
34-35	S.52°21'W., 72.77 ft. (1.103 chs.).
35-36	S.10°01'W., 142.47 ft. (2.159 chs.), to station opposite Room 28.

From station 36, S.10°01'W., 60.65 ft. (.919 chs.), intersect E. and W. center line, NW½ sec. 4, N.88°43'E. 81.96 ft. (1.242 chs.) distant from the point for the N. 1/16 sec. cor. between secs. 4 and 5. This point falls in cross beam with very bad roof, and is subject to cave-ins at any time. Set a spad in cross beam.

36-36a	S.35°02'E., 71.55 ft. (1.084 chs.), intersect E. and W. center line, NW ½ sec. 4, N.88°43'E., 133.67 ft. (2.025 chs.) distant from point for the N. 1/16 sec. cor. between secs. 4 and 5.
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At point of intersection

SURVEY OF A PORTION OF THE SPRING CANYON NO. 1 COAL MINE

station

Set an iron post, 12 ins. long, 1 in. diam., 12 ins. in a hole drilled in the roof of the mine, with brass cap marked

T13SR9E  
NW  $\frac{1}{4}$  S4  
C  
NW  $\frac{1}{4}$  S4  
1933

36a-46 S.35°02'E., .30 ft. (0.005 chs.) to company station at junction with Room 28 and the Seventeenth Left Sub-raise Entry. This point falls in bad roof which is liable to cave at any time.

23-23a N.0°05'30"E., 312.51 ft. (4.735 chs.), at 199.00 ft., (3.015 chs.), First Aid station and generator room immediately to the W.

Intersect E. and W. center line, NE.  $\frac{1}{4}$  sec. 4, N.88°46'E. 164.52 ft., (2.493 chs.) distant from the center N. 1/16 sec. cor. sec. 4, heretofore described.

At point of intersection.

Set an iron post, 10 ins. long, 1 in. diam., 10 ins. in a hole drilled in the roof, with brass cap marked

T13SR9E  
S4  
C  
S4  
1933

23a-37 N.0°05'30"E., 48.66 ft. (.737 chs.). This station is about 25 ft. S. of the S. prop at the Sixteenth Right Entry. There is evidence of a large cave-in ahead in the entry.

37-38 N.0°09'30"W., 285.85 ft. (4.331 chs.), to Fuel Co. station at Eighteenth Left Entry.

38-39 N.0°09'W., 429.96 ft. (6.515 chs.).

39-40 N.0°10'W., 385.03 ft. (5.834 chs.).

40-40 $\frac{1}{2}$  N.0°12'W., 211.70 ft. (3.208 chs.), intersect N.bdy. of sec. 4, T. 13 S., R. 9 E., N.89°17'E., 159.68 ft., (2.419 chs.) distant from the  $\frac{1}{4}$  sec. cor., N. bdy. sec. 4, heretofore described.

At point of intersection.

Set an iron post, 10 ins. long, 1 in. diam., 10 ins. in a hole drilled in the roof of the mine, with brass cap marked

T12SR9E  
S33  
S4  
T13SR9E  
1933

SURVEY OF A PORTION OF THE SPRING CANYON NO. 1 COAL MINE

station	
	Thence in T. 12 S., R. 9 E.
40 $\frac{1}{2}$ -41	N.0°12'W., 14.47 ft. (.219 chs.), to station in Fourth Cross Beam at the Eighteenth Right Main Entry. Thence in Eighteenth Right Main Entry.
41-42	N.40°45'E., 93.40 ft. (1.415 chs.).
42-43	S.82°57'E., 131.32 ft. (1.990 chs.).
43-44	S.72°49'E., 137.85 ft. (2.089 chs.), to Company station No.2202. From this point S.72°49'E. 79.19 ft. (1.200 chs.) intersect N. boundary sec. 4, N.89°17'E. 558.32 ft. (8.459 chs.) distant from the $\frac{1}{4}$ sec. cor., N. boundary sec. 4.

SURVEY OF A PORTION OF THE PEERLESS SALES CO. NO. 3 COAL MINE.

March 26, 1936, at the cor. of secs. 9, 10, 15, and 16, which is an iron post, 2 ins. in diam., extending 4 ins. above the ground, firmly set, and marked and witnessed as described in the official field notes of the resurvey of T. 13 S., R. 9 E., in approximate latitude 39°42'N., longitude 110°56'W., I make an hour angle observation on Polaris W. of the meridian, making 4 observations, two each with the telescope in direct and reversed positions, reading the horizontal deflection angle from a reference point to the E. in the direction NW. to Polaris.

Mean watch time of observation (105th Meridian standard time)	6h 14m 10s p.m.
Watch fast of local mean time	23m 44s
Local mean time of observation	5h 50m 26s p.m.
Hour angle of Polaris at observation	4h 27 $\frac{1}{2}$ m
Mean horizontal deflection angle, reference point to star	91°27'
Azimuth of Polaris at observation	1°15'W.
True bearing of reference point	S.89°48'E.

I designate the cor. of secs. 9, 10, 15, and 16 station 00, and deflecting from the true meridian, proceed with the mine survey as follows.

00-1	S.10°47'E., 414.12 ft. (6.274 chs.).
1-2	S.61°00'E., 32.53 ft. (.493 chs.), to old Company station in the first cross beam at the Main Entry and Haulage Road of the Peerless Sales Co. No. 3 Coal Mine. From this station the cor. of secs. 9, 10, 15, and 16 bears N.14°04' W., 435.65 ft. (6.601 chs.) distant as determined from the above traverse.
2-3	S.61°14'E., 186.76 ft. (2.830 chs.), through Main Entry.
3-4	N.66°07'E., 274.48 ft. (4.159 chs.).
4-5	N.65°53'E., 127.62 ft. (1.934 chs.), to point in Main

SURVEY OF A PORTION OF THE PEERLESS SALES CO.  
NO. 3 COAL MINE

station	Dip Entry. Thence in Main Dip Entry.
5-7	N.1°11'E., 302.21 ft. (4.579 chs.).
7-7½	N.1°15'E., 45.53 ft. (.690 chs.), intersect line between secs. 10 and 15, S.89°52'E., 644.33 ft. (9.763 chs.) distant from the cor. of secs. 9, 10, 15, and 16, heretofore described.
	At point of intersection.
	Set an iron post, 7 ins. long, 1 in. diam., 7 ins. in a hole drilled in solid rock about 5 ft. high, with brass cap marked
	S10 ----- S15 1936
7½-8	N.1°15'E., 101.35 ft. (1.536 chs.).
5-6	N.67°10'E., 75.31 ft. (1.141 chs.), to point in Main Haulage Entry. Thence in Main Haulage Entry.
6-10	S.67°40'E., 102.65 ft. (1.555 chs.).
10-11	S.50°17'E., 196.29 ft. (2.974 chs.).
11-12	S.59°48'E., 200.90 ft. (3.044 chs.).
12-13	S.59°17'E., 207.82 ft. (3.149 chs.).
13-13½	S.57°23'E., 20.45 ft. (.310 chs.), intersect N. and S. center line, NW¼ sec. 15, N.0°10'E., 615.87 ft. (9.331 chs.) distant from the NW. 1/16 sec. cor., sec. 15, described in the field notes of the resurvey of T. 13 S., R. 9 E.
	At point of intersection.
	Set an iron post, 7 ins. long, 1 in. diam., 7 ins. in a hole drilled in the rock roof, with brass cap marked
	N-S C NW ¼ S15 1936
13½-14	S.57°23'E., 30.94 ft. (.469 chs.).
14-15	S.43°14'E., 159.15 ft. (2.411 chs.).
15-16	S.57°06'E., 185.74 ft. (2.814 chs.), to Company station No. 12.
16-17	S.46°46'E., 387.87 ft. (5.877 chs.), to Company station No. 14.
17-17½	S.59°25'E., 218.92 ft. (3.317 chs.), intersect E. and W. center line, NW¼ sec. 15, S.89°37'W., 558.22 ft. (8.458 chs.) distant from the center N. 1/16 sec. cor., sec. 15, described in the field notes of the resurvey of this township.
	At point of intersection.
	Set an iron post, 7 ins. long, 1 in. diam., 7 ins. in a

SURVEY OF A PORTION OF THE PIERCELESS SALEM CO.

NO. 3 COAL MINE

station

hole drilled in a solid rock reef, with brass cap marked

E-W Q  
NW  $\frac{1}{4}$  S15

1936

17 $\frac{1}{2}$ -18 S. 59°25' E., 72.73 ft. (1.102 chs.).

18-19 S. 69°46' E., 167.31 ft. (2.535 chs.).

19-20 S. 65°41' E., 98.00 ft. (1.485 chs.), to Company station No. 18

Station

hole drilled in a solid rock roof, with brass cap marked

D-W-D

NW 1/4

1028

17-18 S. 89°25' E., 75.75 ft. (1.101 sta.)

18-19 S. 89°46' E., 127.31 ft. (1.325 sta.)

19-20 S. 89°41' E., 128.00 ft. (1.448 sta.) to roadway station

1028



CERTIFICATE OF UNITED STATES SURVEYOR

Howard W. Miller, U. S. Cadastral Engineer,  
We Elliot Bird, U. S. Surveyor,  
/ Andrew Nelson, U. S. Surveyor

HEREBY CERTIFY upon honor that  
August 26, 1930 and January 23, 1931

pursuance of special instructions bearing date of ~~the~~ May 18, 1931, April 8, 1932,

received from the district cadastral engineer for Utah, with assignment

instructions dated June 15, 1933, we I have surveyed the subdivision of Section

lines, secs. 4 and 18, and a survey of a portion of the Spring Canyon

No. 1 Coal Mine, and the Peerless Sales Co. No. 3 Coal Mine, all in

T. 13 S., R. 9 E.

of the Salt Lake Meridian, in the State of Utah, which is

represented in the foregoing field notes as having been executed by ~~me~~ us and under ~~my~~ our direction; and that said

survey has been made in strict conformity with said instructions, the Manual of Instructions for the Survey

of the Public Lands of the United States, and in the specific manner described in the foregoing field notes.

Certified to at

Salt Lake City, Utah,

January 30, 1937.

Howard W. Miller  
U. S. Cadastral Engineer

Andrew Nelson  
U. S. Surveyor  
Elliot Bird  
U. S. Surveyor

CERTIFICATE OF APPROVAL

OFFICE OF U.S. SUPERVISOR OF SURVEYS,

DENVER, COLORADO MAR 25 1940, 19

The foregoing field notes of the survey of the subdivision of section lines, secs.

4 and 18, and a survey of a portion of the Spring Canyon No. 1 Coal

Mine, and the Peerless Sales Co. No. 3 Coal Mine, all in T. 13 S.,

R. 9 E.

executed by Howard W. Miller, U. S. Cadastral Engineer,  
Andrew Nelson, U. S. Surveyor, and Elliot Bird, U. S. Surveyor

under special instructions dated August 26, 1930 and January 23, 1936, and assignment

instructions dated May 18, 1931, April 8, 1932,

June 15, 1933 and March 21, 1936, having been critically examined, and

the necessary corrections made prior to their certification by the engineer, the said field notes, and the survey

therein described, are hereby approved.

Charles J. Johnson  
U. S. Supervisor of Surveys

CERTIFICATE OF TRANSCRIPT

I certify that the foregoing transcript of the field notes of the above described surveys in

is a true copy of the original field notes on file in the public survey office.

U. S. Supervisor of Surveys

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WASHINGTON, D. C.

BOOK 1519

H

# FIELD NOTES

OF THE

SURVEY OF THE SUBDIVISION OF SECTION LINES IN SECS. 17 AND 18

AND SURVEY OF A PORTION OF THE SWEET COAL CO. COAL MINE, THE

NO. 3 MINE OF THE BLUE BLAZE COAL CO., THE NO. 1 MINE OF THE

NATIONAL COAL CO., THE NO. 3 MINE OF THE MUTUAL COAL CO.,

AND THE LIBERTY FUEL CO. COAL MINE. ALL IN T. 13 S., R. 8 E.

Of the Salt Lake Meridian,

in the State of Utah

EXECUTED BY

Howard W. Miller, U./S. Cadastral Engineer,

and

Elliot Bird, U./S. Surveyor

Under special instructions dated August 26, 1930, which provided

for the surveys included under Group No. 234, bearing the approval of the

Commissioner of the General Land Office under date of September 11, 1930.

and assignment instructions dated May 18, 1931, and supple-  
mental assignments instructions dated April 8, 1932 and June 15, 1933.

Survey commenced May 28, 1931

Survey completed June 29, 1933

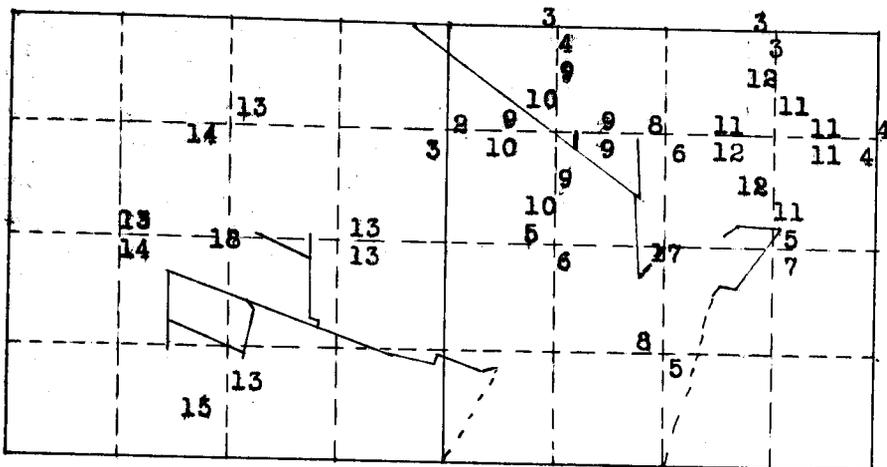
# INDEX DIAGRAM.

Township \_\_\_\_\_, Range \_\_\_\_\_

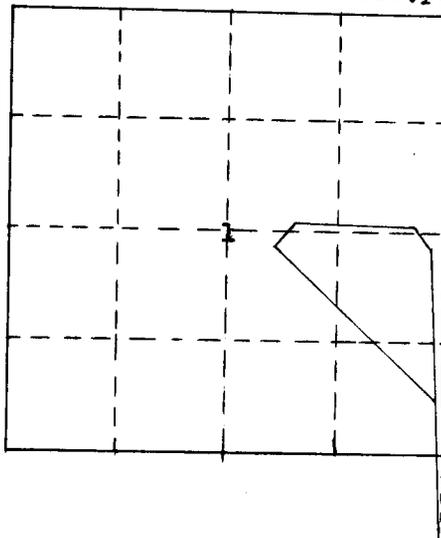
6	5	4	3	2	1
7	8	9	10	11	12
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31	32	33	34	35	36

INDEX DIAGRAM

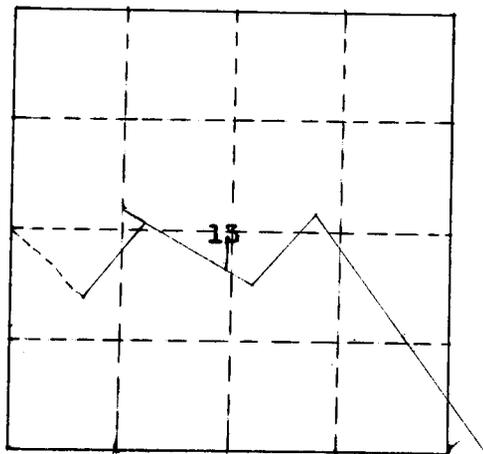
T. 13 S., R. 8 E.



- = Sweet Coal Co. Mine, pages 15 to 18.
- - - - = No. 3 Mine of the Blue Blaze Coal Co., pages 18 to 21.
- · - · = No. 1 Mine, National Coal Co., pages 21 to 23.



- = No. 3 Mine of the Mutual Coal Co., pages 23 to 26



- = Liberty Fuel Co. Coal Mine, pages 26 to 30.

Surface surveys executed by Elliot Bird, U. S. Surveyor.

Subsurface surveys executed by Howard W. Miller, U. S. Cadastral Engineer.



T. 13 S., R. 8 E.

This survey was commenced May 28, 1931, and executed with Buff and Buff transits Nos. 16726 and 18003, property of the General Land Office. Each transit is equipped with Smith solar attachment and full vertical circle; the horizontal limbs are provided with two double verniers, placed opposite to each other, and reading to single minutes of arc, which is also the least count of the verniers of the latitude and declination arcs and vertical circles. The instruments were in good condition and, having been placed in satisfactory adjustment prior to beginning the survey and tested and found free from any appreciable error, were approved by the district cadastral engineer for Utah, on May 18, 1931, April 8, 1932, and June 15, 1933. Transit No. 16726 was used by Howard W. Miller, Cadastral Engineer, in all the underground surveys and a portion of the surface tie lines, and transit No. 18003 was used by Elliot Bird, Surveyor, in the subdivision-of-section surveys and in making surface ties.

This survey involves the surface subdivision-of-section surveys in sections 17 and 18, T. 13 S., R. 8 E., and the projection underground and marking the surface position of E. and W. center line of section 18 in the Third Dip Main slope, the E. and W. center line in the Second Left Entry off the Third Dip Main slope, and the N. and S. center line of the section in the Main Haulage Entry, and in the Second West Entry off the Fourth Raise in the Sweet Mine of the Sweet Coal Company, the line between sections 7 and 18 in the main entries at the junction with the Third Dip Entry, the line between sections 8 and 17 in the Second Dip Entries, the E. and W. center line of the NW $\frac{1}{4}$  section 17 in the Main Entries, and the E. and W. center line NW $\frac{1}{4}$  section 17 in the First Dip Entries of the No. 3 Mine of the Blue Blaze Coal Company, the N. and S. center line NE $\frac{1}{4}$  section 17 in the Third Left Entry of the National Coal Company's No. 1 Mine, the line between sections 1 and 12 in the Main Slopes, the E. and W. center line section 1 in the Seventh Left Entry, and the Inside Raise Entry, and the N. and S. center line NE $\frac{1}{4}$  section 1 in the Seventh Left Entry of the No. 2 Mine of the Mutual Coal Company, two points on N. and S. center line NW $\frac{1}{4}$ , witness corner to the center  $\frac{1}{4}$  section corner, center West  $\frac{1}{16}$  section corner in section 13, T. 13 S., R. 8 E., and a point on line between sections 18 and 19, T. 13 S., R. 9 E., in the Twelfth Left Entry in the Liberty Fuel Company Mine, in cooperation with the U. S. Geological Survey, under authority from the Commissioner of the General Land Office, dated June 11, 1930.

The solar attachments were not used in these surveys; all controlling meridians of the surface surveys were established by observations on Polaris, as shown in the field notes. The bearings of the lines were deflected from these true meridians by repetition of angles, and carried forward by transit line, taking the mean of direct and reversed sights. In the underground surveys the lines were run by transit methods, and where it was impossible or impracticable to close a figure by survey, the traverse line was carried into the various entries and a check survey, using the same transit stations and continuing the azimuth of the original traverse in the opposite direction back to the entry of the mine or to such other point as was necessary to check the work. All azimuths in this record of mine surveys and surface tie lines to mine entries are referred to controlling meridians by the method of deflection angles and calculated courses. These controlling meridians are extended from reference points of the surface surveys to the mine entry where they are again checked by an independent observation on Polaris, and then projected underground. The mean calculated courses of the azimuth between stations appear in these notes.

SUBDIVISION-OF-SECTION SURVEYS, T. 13 S., R. 8 E.

Chains

The measurements were made with Lallie steel ribbon tapes 5 and 8 chains in length, and 1 Lufkin steel tape 200 feet long. The 5 and 8 chain tapes are graduated every link for the first 100 links, and thereafter at intervals of 10 links; the 200 foot tape used exclusively in the mine work is graduated to feet, tenths and hundredths in its entire length. All the tapes were tested, comparison being made with a Lufkin steel tape 66 feet long, which was compared with a similar steel tape tested by the United States Bureau of Standards. The measurements were made on the slope, the vertical angle determined with the transit, and the slope measurements properly reduced to true horizontal distances. In those instances in the mine survey, where a figure was not closed by survey, the distances were double chained, and the mean distance between stations are recorded in these notes.

SUBDIVISION-OF-SECTION SURVEYS

Subdivision of Section 17, T. 13 S., R. 8 E.

May 28, 1931, at the corner of secs. 7, 8, 17, and 18, T. 13 S., R. 8 E., S. L. M., in approximate latitude 39°42'N., and longitude 111°06'W., at 8h 5.5m a.m., l.m.t., I make an hour angle observation on Polaris, E. of the meridian, making four observations, two each with the telescope in direct and reversed position, reading the horizontal deflection angle from the  $\frac{1}{4}$  section corner, between sections 17 and 18, in a clockwise direction to the star.

Watch time of observation (correct 105th Meridian standard time), 8h 29.9m a.m.

Mean horizontal angle from the  $\frac{1}{4}$  sec. corner to the star, 179° 54'

Azimuth of Polaris at observation 0° 25'E.

True bearing of the line between the corner of sections 7, 8, 17, and 18, and the  $\frac{1}{4}$  section corner between sections 17 and 18 S.0° 31'W.

From the cor. of secs. 7, 8, 17, and 18, which is an iron post, 2 ins. diam., firmly set, and marked and witnessed as described in the official record of the resurvey of T. 13 S., R. 8 E.

S.0°31'W., on a retracement line, between secs. 17 and 18.

19.94 Set temp. N.1/16 sec. cor.

39.89 Intersect the  $\frac{1}{4}$  sec. cor., which is an iron post, 1 in. diam., firmly set, and marked and witnessed as described in the official record of the resurvey of T.13 S.,R.8 E.

The bearing of this half mile therefore is S.0°31'W., and the proportionate distance for each quarter mile is 19.945 chains.

## SUBDIVISION-OF-SECTION SURVEYS

T. 13 S., R. 8 E.

chains	<p>Thence:</p> <p>N. 0°31' E., on true line, bet. secs. 17 and 18.</p>
19.94	<p>Set an iron post, 3 ft. long, 1 ins. diam., 27 ins. in the ground, for W. 1/16 sec. cor. of secs. 17 and 18, with brass cap marked</p>
	<p style="text-align: center;">N <math>\frac{1}{16}</math></p> <p style="text-align: center;">S18   S17</p> <p style="text-align: center;">1931</p>
	<p style="text-align: right;">from which</p>
	<p>A maple, 10 ins. in diam., bears N. 50° E., 8 lks. dist., marked N. 1/16 S17 B T.</p>
	<p>An aspen, 5 ins. in diam., bears N. 55°15' W., 7 lks. dist., marked N 1/16 S 18 B T.</p>
	<p>Cor. set on E. bank of small stream, drains S. 30° E.</p>
39.89	<p>The cor. of secs. 7, 8, 17 and 18.</p>
	<p>No change in the original topography on this half mile.</p>
	<p>From the cor. of secs. 7, 8, 17 and 18.</p>
	<p>S. 89°09' E., on retracement line, bet. secs. 8 and 17.</p>
20.51	<p>Set temp. W. 1/16 sec. cor.</p>
41.02	<p>Fall 7.2 lks. S. of the <math>\frac{1}{4}</math> sec. cor. of secs. 8 and 17 which is an iron post, 1 in. in diam., firmly set, and marked and witnessed as described in the official records of the resurvey of this township.</p>
	<p>The bearing of this half mile therefore is S. 89°15' E., and the proportionate distance for each quarter mile is 20.51 chs.</p>
	<p>Offset to the <math>\frac{1}{4}</math> sec. cor. and continue S. 89°09' E., with continuous measurement.</p>
61.53	<p>Set temp. E. 1/16 sec. cor.</p>
82.05	<p>Fall 2.4 lks. N. of the cor. of secs. 8, 9, 16 and 17, which is an iron post, 2 ins. diam., firmly set, and marked and witnessed as described in the official records of the resurvey of this township.</p>
	<p>The bearing of this half mile therefore is S. 89°07' E., and the proportionate distance for each quarter mile is 20.515 chs.</p>
	<p>Thence</p>
	<p>From the cor. of secs. 8, 9, 16 and 17.</p>
	<p>N. 89°07' W., on true line, bet. secs. 8 and 17.</p>
20.515	<p>Set an iron post, 3 ft. long, 1 in. diam., 20 ins. in the ground to solid rock and in a mound of stone to top, for</p>

SUBDIVISION OF SECTION SURVEYS.

T. 13-S., R. 8-E.

chains	E. 1/16 sec. cor. of secs. 8 and 17, with brass cap marked
	<p>1931</p> <p>raise a mound of stone, 3 ft. base, 2 ft. high, N. of cor.</p> <p>Cor. set on abrupt SW. slope, near top of small spur, projecting S.</p>
41.03	<p>The 1/4 sec. cor. of secs. 8 and 17.</p> <p>Thence; N. 89°15' W., with continuous measurement.</p>
61.54	<p>Set an iron post, 3 ft. long, 1 in. in diam., 20 ins. in the ground to solid rock and in a mound of stone to top, for W. 1/16 sec. cor. of secs. 8 and 17, with brass cap marked</p> <p>1931</p> <p>deposit a sandstone, 10x10x8 ins., at base of post, marked (X)</p> <p>Cor. set on abrupt E. slope in dense undergrowth.</p>
82.05	<p>The cor. of secs. 7, 8, 17 and 18.</p> <p>No change in the original topography on this half mile.</p>
	<p>From the 1/4 sec. cor. of secs. 16 and 17, which is an iron post, 1 in. in diam., firmly set, and marked and witnessed as described in the official records of the resurvey of this township.</p>
	<p>N. 0°03' E., on retracement line, bet. secs. 16 and 17.</p>
19.85	<p>Set temp. N. 1/16 sec. cor.</p>
39.68	<p>Fall 1.1 lks. W. of the cor. of secs. 8, 9, 16 and 17.</p>
	<p>The course of this half mile therefore is N. 0°04' E., and the proportionate distance for each quarter mile is 19.815 chs.</p>
	<p>Thence:</p>
	<p>From the cor. of secs. 8, 9, 16 and 17.</p>
	<p>S. 0°04' W., on true line, bet. secs. 16 and 17.</p>
19.815	<p>Set an iron post, 3 ft. long, 1 in. diam., 12 ins. in the ground to solid rock and in a mound of stone to top, for N. 1/16 sec. cor., with brass cap marked.</p>
	<p>1931</p>

SUBDIVISION OF SECTION SURVEYS  
T. 13 S., R. 8 E.

chains

deposit a sandstone 10x8x6 ins., at base of post, marked X.

Cor. set on steep W. slope.

39.63

The  $\frac{1}{4}$  sec. cor. of secs. 16 and 17.

No change in the original topography on this half mile.

From the  $\frac{1}{4}$  sec. cor. of secs. 17 and 18.

S. 89°21' E., on the random line, on E. and W. center line, sec. 17.

20.83

Set temp. center west 1/16 sec. cor.

41.66

Set temp. center  $\frac{1}{4}$  sec. cor.

62.00

Set temp. center east 1/16 sec. cor.

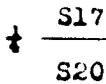
82.35

Intersect the  $\frac{1}{4}$  sec. cor. of secs. 16 and 17.

The course of this line therefore is S. 89°21' E., and the distance is 82.35 chs.

The  $\frac{1}{4}$  sec. cor. of secs. 17 and 20 is missing; I restore the cor. from the two original bearing trees as follows.

Set an iron post, 3 ft. long, 1 in. in diam., 34 ins. in the ground, with a concrete block 16 ins. square around post, for the restored  $\frac{1}{4}$  sec. cor. of secs. 17 and 20, with brass cap marked



1931

from which

A spruce, 12 ins. diam., bears S. 83° W., 5.42 chs. dist., (record course and distance) marked  $\frac{1}{4}$  S 20 B T.

A spruce, 20 ins. diam., bears N. 81°45' W., 5.02 chs. dist., (record course and distance) marked  $\frac{1}{4}$  S 17 B T.

Thence

From the restored  $\frac{1}{4}$  sec. cor. of secs. 17 and 20.

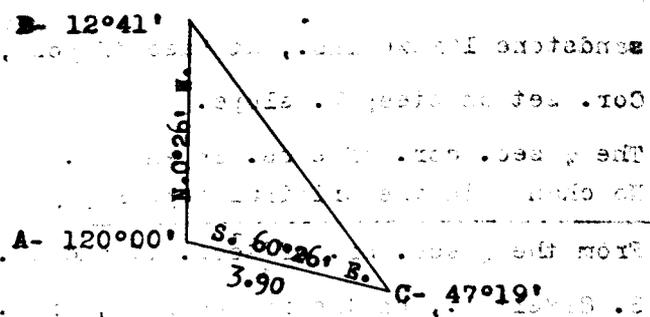
N. 0°26' W., on random line, on N. and S. center line, sec. 17.

The line to the N. of this cor. passes over the tipple and tramways of the National Coal Company, over which chaining is impracticable; I therefore determine the distance by triangulation as follows. Erect flag A at the  $\frac{1}{4}$  sec. cor. and flag B. on line to the N. From A, survey base line AC, S. 60°26' E., 3.90 chs. to point from which line AB subtends an angle of 47°19'. All angles checked by repetition and base line double chained.

SUBDIVISION OF LAND SURVEYS  
T. 13 S., R. 8 E.

chains

angles



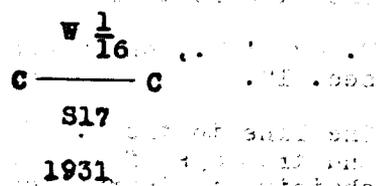
Distance by triangulation- 13.058 chs.

- 13.058 To point B. of triangulation.
- 37.660 Fall 3 lks. W. of the temp. center  $\frac{1}{4}$  sec. cor.
- 57.57 Set temp. north center  $\frac{1}{16}$  sec. cor.
- 77.49 Fall 6 lks. W. of the  $\frac{1}{4}$  sec. cor. of secs. 8 and 17.

The course of this line therefore is N. 0°23' W., and the distance is 77.49 chs.

From the  $\frac{1}{4}$  sec. cor. of secs. 17 and 18.  
 S. 89°21' E., on true E. and W. center line sec. 17.  
 Descend abrupt NE. slope of mountainous land, through dense undergrowth.

- 0.40 Old wagon road brs. N. 80° W. and S. 60° E.
- 9.00 Enter dense aspen and maple, bears N. and S.
- 16.04 Electric power line bears SE. and NW., 35 lks. dist. to transformer, thence N.
- 18.80 Road in bottom of fork of Gordon Creek bears NW. and SE.
- 20.00 Stream of good water, 2 lks. wide, 1 in. deep, in bottom of fork of Gordon Creek, flows S. 30° E., 440 ft. below cor. The Consumer's Mutual Coal Camp extends up the canyon at this point about 10.00 chs. dist.
- 20.83 Set an iron post, 3 ft. long, 1 in. in diam., 34 ins. in the ground, for center west  $\frac{1}{16}$  sec. cor. of sec. 17, with brass cap marked



deposit a quart beer bottle at the base of post.  
 From this cor., the NW. cor. of a frame school house bears N. 23°33' E., 50 lks. dist.  
 The NE. cor. of another frame school house bears S. 55° 27' W., 153 lks. dist.

- 22.80 Small spring branch in bottom of shallow draw drains S.

SUBDIVISION-OF-SECTION SURVEYS

T. 13 S., R. 8 E.

Chains	about 3.50 chs. dist., to junction with fork of Gordon Creek. Ascend abrupt W. slope.
24.00	Leave timber, and undergrowth becomes scattered, bears N. and S.
33.25	Spur, 260 ft. above bottom of fork of Gordon Creek, projects S.20°W.; descend abrupt SE. slope through dense undergrowth.
41.66	On abrupt S. slope, 175 ft. below spur. Set an iron post, 3 ft. long, 1 in. diam., 27 ins. in the ground, for center $\frac{1}{2}$ sec. cor., with brass cap marked
	C $\frac{1}{2}$ S17 1931
	raise a mound of stone, 3 ft. base, 2 ft. high, W. of cor.
42.50	The N. edge of a large water tank, bears S. 1.00 chs. dist.
44.17	Electric power line bears NE. and SW. 1.00 chs. dist., thence S.
45.45	Entrance to tunnel of coal mine, bears S., 75 lks. dist.
46.65	An abandoned grade of tramway, bears NE. and SW.
47.70	Draw, 120 ft. below last corner, drains SW.
51.30	Undergrowth becomes scattered, bears NE. and SW.
51.60	Telephone line, bears NE. and SW.
53.90	Spur, 140 ft. above draw, projects S.30°W. Trail on top of spur bears N.30°E. and S.30°W. Descend abrupt SE. slope through dense undergrowth.
59.50	Draw, 145 ft. below spur, drains SW.; ascend abrupt NW. slope.
62.005	On NW. slope, 70 ft. above draw. Set an iron post, 3 ft. long, 1 in. diam., 27 ins. in the ground, for center east $\frac{1}{16}$ sec. cor., with brass cap marked
	E $\frac{1}{16}$ C ————— C S 17 1931
	from which
	A red pine, 14 ins. diam., bears N.45°E., 158 lks. dist., marked C E $\frac{1}{16}$ S 17 BT
	No suitable bearing trees to the S. of cor. available.
66.00	Bottom of small draw, drains N.60°W. Dense fir timber along bottom of draw. Ascend abrupt SW. slope through dense undergrowth.
73.10	Undergrowth becomes scattered, bears S. and N.85°W..

SUBDIVISION-OF-SECTION SURVEYS

T. 13 S., R. 8 E.

Chains	
80.80	Spur ridge, 485 ft. above last cor., projects SW. and bears NE.; descend gradual NE. slope, through scattered undergrowth.
82.35	The 1/4 sec. cor. of secs. 16 and 17, 20 ft. below spur. Land, mountainous, with a general southwesterly exposure and drainage. Soil, deep gravelly clay loam; 3rd rate. Undergrowth, oak, sage and service brush. Timber, aspen, fir, and pinon on portions of mile. Good grazing land.
	From the 1/4 sec. cor. of secs. 8 and 17. S.0°23'E., on true N. and S. center line sec. 17. Descend gradually over W. slope of mountainous land, through dense undergrowth.
2.70	Spur, 25 ft. below cor., projects S.35°W.; thence descend gradually along broken E. slope, through dense undergrowth.
19.915	On abrupt E. slope, 230 ft. below the 1/4 sec. cor. Set an iron post, 3 ft. long, 1 in. diam., 18 ins. in the ground to solid rock, and in a mound of stone to top, for center N. 1/16 sec. cor., with brass cap marked $N \frac{1}{16} \begin{array}{c} C \\   \\ C \end{array} S17$ 1931 deposit a sandstone, 8x4x3 ins., at base of post, marked X. Continue gradual descent over E. slope.
31.40	Top of abrupt descent over S. slope, bears N.70°W. and S.70°E.
39.83	The center of 1/4 sec. cor., of sec. 17, 360 ft. below last cor.
43.15	An abandoned grade of tramway, bears N.70°E. and S.70°W.
45.05	Bottom of draw, 130 ft. below last cor., drains S.80°W.; ascend abrupt N slope.
46.72	Electric power line, bears N.80°W. and S.80°E. 1.30 chs. to junction with power line, bearing NE. and S.
55.00	Top of ascent, on W. slope, 210 ft. above draw, bears E. and W.; descend abrupt SW. slope.
55.20	Telephone line, bears N.35°E. and S.35°W. 1.20 chains, thence W. and S.30°E.
57.00	Power line, bears N.80°E. and S.80°W.
57.65	Telephone line, bears N.30°W. and S.30°E.

SUBDIVISION-OF-SECTION SURVEYS

T. 13 S., R. 8 E.

chains	
54.70	<p>Approximate distance; spur 190 ft. below top of ascent, projects S. 30° W.; descend abrupt SE. slope. The line to the S. of this point crossed over the top of the tipple of the National Coal Company, and numerous tracks and electric power lines.</p>
75.00	<p>Approximate distance; main highway bears S. 30° E. to Price and Helper, and N. 30° W., about 3.00 chs. to forks which bear N. 30° W. to camp of the Blue Blaze Coal Company, and S. 80° W. to camp of the Sweet Coal Company.</p>
77.30	<p>Main line on a curve of the Utah Railway bears S. 26° E. to Helper, and in a westerly direction to mines of the Sweet Coal Company.</p>
77.49	<p>The restored <math>\frac{1}{4}</math> sec. cor. of secs. 17 and 20.</p> <p>Land, broken and mountainous, with a general southerly exposure and drainage.</p> <p>Soil, shallow clay, gravel and rock; 3rd rate.</p> <p>Undergrowth, oak, sage and service brush.</p> <p>No timber.</p> <p>Good grazing land.</p>
	<p>From the center north <math>\frac{1}{16}</math> sec. cor. of sec. 17.</p> <p>N. 89°18' W., on random line, on E. and W. center line, NW. <math>\frac{1}{4}</math> sec. 17.</p>
20.67	<p>Set temp. NW. <math>\frac{1}{16}</math> sec. cor.</p>
41.35	<p>Intersect the N. <math>\frac{1}{16}</math> sec. cor. of secs. 17 and 18.</p> <p>The course of this line, therefore, is N. 89°18' W., and the distance is 41.35 chs.</p>
	<p>From the W. <math>\frac{1}{16}</math> sec. cor. of secs. 8 and 17.</p> <p>S. 0°03' W., on random line, on N. and S. center line, NW. <math>\frac{1}{4}</math> sec. 17.</p>
19.91	<p>Fall .8 of a lk. W. of the temp. NW. <math>\frac{1}{16}</math> sec. cor. of sec. 17.</p>
39.85	<p>Fall 1.2 lks. W. of the center west <math>\frac{1}{16}</math> sec. cor. of sec. 17.</p> <p>The course of this line therefore is S. 0°02' W., and the distance is 39.85 chs.</p>
	<p>From the center north <math>\frac{1}{16}</math> sec. cor. sec. 17.</p> <p>N. 89°18' W., on true E. and W. center line NW. <math>\frac{1}{4}</math> sec. 17.</p> <p>Ascend abrupt E. slope of mountainous land, through dense undergrowth.</p>

SUBDIVISION-OF-SECTION SURVEYS  
T. 13 S., R. 8 E.

chains	
1.30	Spur, 45 ft. above cor., projects S.; descend abrupt W. slope.
11.20	Draw, 310 ft. below spur, drains S. 20° W.; ascend gradually.
13.35	Trail bears N. 15° E. and S. 15° W.
14.10	Ascent becomes abrupt, bears N. 15° E. and S. 15° W.
20.675	On abrupt SE. slope, 240 ft. above draw.  Set an iron post, 3 ft. long, 1 in. in diam., 20 ins. in the ground to solid rock and in a mound of stone to top, for NW. 1/16 sec. cor. sec. 17, with brass cap marked
	NW $\frac{1}{16}$ S17
	1931
	deposit a sandstone 10x4x4 ins., at base of post, marked with a cross (X).
24.80	Spur, 85 ft. above cor., projects S.; descend abruptly.
31.50	Draw, 180 ft. below spur, drains SW.; ascend gradually along abrupt S. slope.
35.00	Spur, 20 ft. above draw, projects S.; descend abrupt SW. slope.
41.35	The N. 1/16 sec. cor. of secs. 17 and 18, 120 ft. below spur.  Land, broken and mountainous with a general southerly exposure and drainage.  Soil, shallow clay, gravel and rock; 3rd rate.  Undergrowth, oak, sage and service brush.  No timber.  Good grazing land.
	From the W. 1/16 sec. cor. of secs. 8 and 17. S. 0°02' W., on true N. and S. center line NW. $\frac{1}{4}$ sec. 17. Ascend gradually along abrupt E. slope of mountainous land, through dense undergrowth.
16.00	Top of ascent on E. slope, 60 ft. above cor., bears E. and W.; descend gradually along abrupt SE. slope.
19.91	The NW. 1/16 sec. cor. of sec. 17, 80 ft. below top of ascent; continue descent along abrupt SE. slope.
39.85	The center west 1/16 sec. cor. of sec. 17, 385 ft. below last cor.  Land, mountainous, with a general SE. exposure and drainage.

SUBDIVISION OF SECTION SURVEYS  
T. 13 S., R. 8 E.

chains

Soil, gravel, clay and rock; 3rd rate.  
Undergrowth, sage, oak and service brush.  
Timber, a few scattered aspen.  
Good grazing land.

From the N. 1/16 sec. cor. of secs. 16 and 17.  
N. 89°14' W., on random E. and W. center line NE. 1/4 sec. 17.

20.43 Set temp. NE. 1/16 sec. cor.

40.84 Intersect the center N. 1/16 sec. cor. sec. 17.

The course of this line therefore is N. 89°14' W., and the distance is 40.840 chs.

From the E. 1/16 sec. cor. secs. 8 and 17.

S. 0°10' E., on random N. and S. center line NE. 1/4 sec. 17.

19.87 Fall .9 of a link E. of the temp. NE. 1/16 sec. cor.

39.74 Fall 2 lks. E. of the center east 1/16 sec. cor. sec. 17.

The course of this line therefore is S. 0°08' E., and the distance is 39.74 chs.

From the N. 1/16 sec. cor. of secs. 16 and 17.

N. 89°14' W., on true E. and W. center line NE. 1/4 sec. 17.

Descend abrupt SW. slope of mountainous land, through dense undergrowth.

4.70 Draw, 170 ft. below cor., drains SW.; ascend abrupt SE. slope.

13.65 Spur, 185 ft. above draw, projects SW. Trail on spur, bears NE. and SW.; descend abrupt SW. slope.

17.90 Telephone line bears N. 30° E. and S. 30° W.

20.44 On abrupt W. slope, 180 ft. below spur.

Set an iron post, 3 ft. long, 1 in. in diam., 20 ins. in the ground to solid rock and in a mound of stone to top, for NE. 1/16 sec. cor. sec. 17, with brass cap marked

NE 1/16 S17

1931

deposit a

SUBDIVISION OF SECTION SURVEYS  
T. 13 S., R. 8 E.

chains	sandstone, 10x10x8 ins., at base of post, marked X.
25.81	Draw, 173 ft. below last cor., drains S. 20° W.; small seep of good water in bottom of draw at this point.
29.80	Spur, 104 ft. above draw, projects S.; descend abrupt SW. slope.
32.95	Draw, 100 ft. below spur, drains S.; ascend abrupt E. slope through dense undergrowth.
40.84	The center N. 1/16 sec. cor. of sec. 17, 165 ft. above draw. Land, mountainous, with abrupt E. and W. slopes and south- erly drainage. Soil, gravel, clay and rock; 3rd rate. Undergrowth, oak, sage and service brush. No timber. Good grazing land.
	From the E. 1/16 sec. cor. of secs. 8 and 17. S. 0°08' E., on true N. and S. center line NE. 1/4 sec. 17. Descend abrupt SW. slope of mountainous land, through dense undergrowth.
4.00	Draw, 130 ft. below cor., drains S. 10° E.; continue abrupt descent along W. side of draw, through dense aspen and scattered balsam timber.
9.00	Recross draw, 265 ft. below cor., drains S. 15° W.; ascend gradually over steep W. slope.
16.40	Leave dense undergrowth and timber, bears E. and W.; ascend gradually along steep W. slope.
19.87	The NE. 1/16 sec. cor. of sec. 17; 20 ft. above draw.
23.85	Telephone line, bears N. 30° E. and S. 30° W.
26.70	Spur, 50 ft. above cor., projects SW.; trail on top of spur, bears NE. and SW.; descend abrupt SE. slope.
37.70	Junction of draws from N. 30° E. and S. 80° E., 284 ft. below spur, drains S. 25° W.; dense fir timber along bottoms of draws; ascend abrupt NW. slope.
39.74	The center E. 1/16 sec. cor. of sec. 17, 40 ft. above junction of draws. Land, mountainous, with a general southwesterly exposure and drainage. Soil, shallow gravel, clay and rock; 3rd rate. Undergrowth, oak, maple, sage and service brush. Timber, aspen, and fir on portions of line. Good grazing land.

~~SUBDIVISION OF SECTION SURVEYS~~  
T. 13 S., R. 8 E.

SUBDIVISION OF SECTION 18

From the  $\frac{1}{4}$  sec. cor. of sections 17 and 18, heretofore described.

Thence:

N. 89°20' W., on random line, on E. and W. center line sec. 18.

39.40 Set temp. center  $\frac{1}{4}$  sec. cor.

78.16 Fall 1.5 lks. S. of the  $\frac{1}{4}$  sec. cor. of sec. 18, on the W. bdy. of the township, which is an iron post, 1 in. in diam., firmly set, and marked and witnessed as described in the official records.

The course of this line therefore is N. 89°19' W., and the distance is 78.16 chs.

From the  $\frac{1}{4}$  sec. cor. of secs. 7 and 18, which is an iron post, 1 in. in diam., firmly set, and marked and witnessed as described in the official records of the resurvey of this township.

S. 1°36' E., on random line, on N. and S. center line sec. 18.

39.17 Fall 3 lks. W. of the temp. center  $\frac{1}{4}$  sec. cor.

77.74 Intersect the  $\frac{1}{4}$  sec. cor. of secs. 18 and 19, which is an iron post, 1 in. in diam., firmly set, and marked and witnessed as described in the official records of the resurvey of this township.

The course of this line therefore is S. 1°36' E., and the distance is 77.74 chs.

From the  $\frac{1}{4}$  sec. cor. of secs. 17 and 18.

N. 89°19' W., on true E. and W. center line sec. 18.

Ascend abrupt NE. slope of mountainous land, through dense undergrowth.

1.60 Spur, 20 ft. above cor., projects S. 80° E.; continue gradual ascent along steep S. slope.

5.70 Top of ascent on S. slope, 25 ft. above spur, bears N. and S.; descend abrupt SW. slope.

18.30 Draw, 245 ft. below top of ascent, drains S.; dense aspen timber along bottom of draw; ascend abrupt E. slope.

29.70 Spur, 420 ft. above draw, projects SE.; thence descend gradually along abrupt S. slope.

33.80 Descent becomes abrupt, bears N. and S.

37.00 Head of draw, 80 ft. below spur, drains S.; ascend abrupt SE. slope.

SUBDIVISION-OF-SECTION SURVEYS  
T. 13 S., R. 8 E.

chains	
39.43	On abrupt SE. slope, 60 ft. above head of draw. Set an iron post, 3 ft. long, 1 in. in diam., 27 ins. in the ground, for center $\frac{1}{4}$ sec. cor., with brass cap marked  C $\frac{1}{4}$ S18 1931 raise a mound of stone, 3 ft. base, 2 ft. high, W. of cor.
44.00	Spur, 105 ft. above cor., projects S.; descend abrupt W. slope.
53.50	Draw, 300 ft. below spur, drains S. 20° W.; ascend gradual E. slope through dense undergrowth.
55.90	The S. point of low spur, 20 ft. above draw; descend abrupt W. slope.
57.20	Draw, 50 ft. below point of spur, drains S.; dense aspen timber along bottom of draw; ascend abrupt SE. slope.
60.00	The S. edge of a grove of dense aspen timber.
63.50	Enter dense aspen timber, bears N. 20° W. and S. 20° E.
68.00	Leave timber; bears NE. and SW. Thence through dense undergrowth.
75.80	Ascent becomes more gradual, bears NW. and SE.
78.16	The $\frac{1}{4}$ sec. cor. of sec. 18, on the W. bdy. of the township, 535 ft. above draw.  Land, mountainous, with a general southerly exposure and drainage.  Soil, deep clay, gravel and rock; 3rd rate.  Undergrowth, oak, sage and service brush.  Timber, aspen on portions of mile.  Good grazing land.
	From the $\frac{1}{4}$ sec. cor. of secs. 7 and 18. S. 1°36' E., on true N. and S. center line, sec. 18, Ascend abrupt NE. slope of mountainous land, through dense timber and scattered undergrowth.
1.80	Ascent becomes gradual, bears NE. and SW.
22.90	Center of a sheep corral; leave timber, bears NE. and SW.
26.10	Top of divide ridge, 150 ft. above cor., bears NE. and SW.; descend abrupt SW. slope.
34.05	Spur, 105 ft. below ridge, projects SW.; descend abrupt S. slope through dense undergrowth.
39.17	The center $\frac{1}{4}$ sec. cor. of sec. 18, 345 ft. below ridge.

## SUBDIVISION-OF-SECTION SURVEYS

T. 13 S., R. 8 E.

chains

- 49.00 Begin gradual descent over E. slope, bears E. and W.
- 54.70 Descent becomes abrupt, bears NW. and SE.
- 60.20 Enter dense aspen timber, bears E. and W.
- 61.00 Bottom of Bryner Canyon, 445 ft. below cor., drains E.; ascend abrupt N. slope.
- 76.50 Leave timber, bears E. and W.
- 77.74 The  $\frac{1}{4}$  sec. cor. of secs. 18 and 19, 440 ft. above canyon.
- Land, mountainous, with a general southerly and northerly exposure and drainage.
- Soil, shallow gravel, clay and rock; 3rd rate.
- Undergrowth, oak, sage and service brush.
- Timber, aspen on portions of mile.
- Good grazing land.

## SURVEY OF A PORTION OF THE SWEET COAL MINE

From the cor. of secs. 17, 18, 19 and 20, which is a 2 in. iron post, firmly set, and marked and witnessed as described in the official record. A point left at the main entrance of the Sweet Coal Company's mine bears N.  $52^{\circ}28'$  E., 9.209 chs. dist., as determined by the following traverse.

N.  $68^{\circ}52'$  E., 1.747 chs.

N.  $55^{\circ}58'$  E., 4.841 chs.

N.  $43^{\circ}58'$  E., 1.700 chs.

N.  $24^{\circ}41'$  E., 1.154 chs. to point at the main entrance and motor road of the Sweet Coal Company's mine.

From the cor. of secs. 17, 18, 19 and 20, a point left at the manway entrance of the same mine bears N.  $28^{\circ}32'$  E., 19.767 chs. dist., as determined by the following traverse:

N.  $52^{\circ}39'$  E., 16.060 chs.

N.  $15^{\circ}00'$  W., 7.789 chs.

N.  $85^{\circ}41'$  W., 1.310 chs, to a spad designated station O, in cross beam at the manway entrance to the Sweet Coal Company Mine.

From this point an insulator on a power line pole about 20.00 chs. distant bears N.  $84^{\circ}50'$  E.

October 25, 1932, in order to check the bearing of this reference line, at this station (at the manway entrance of the mine) in approximate latitude  $39^{\circ}41'$  N., longitude  $111^{\circ}05'$  W., I make an hour angle observation on Polaris east of the meridian, two each, with the telescope in direct and reversed position, reading the horizontal deflection angle from the star in the direction N-E to the reference point.

SURVEY OF A PORTION OF THE SWEET COAL MINE

station	
	Watch time of observation (105th Meridian Standard Time) 13m 30s p.m.
	L. m. t. of observation 49m 10s p.m.
	Azimuth of Polaris at observation 9° 48' E.
	Mean horizontal deflection angle 84° 02'
	True bearing of reference point N. 84° 50' E.
	Thence with the subsurface surveys in the Sweet Coal Company Mine
0-1	S. 64° 43' W., 181.33 ft. (2.747 chs.), in manway entry.
1-2	N. 62° 02' 30" W., 163.58 ft., (2.478 chs.).
2-3	N. 57° 09' 30" W., 156.16 ft. (2.366 chs.).
3-4	N. 67° 43' W., 273.30 ft. (4.141 chs.).
4-5	S. 15° 53' W., 130.61 ft. (1.979 chs.), to company station in Main Entry.
5-6	N. 72° 28' W., 233.68 ft. (3.541 chs.) in Main Entry.
6-7	N. 80° 54' W., 484.02 ft., (7.334 chs.).
7-8	N. 80° 29' W., 279.81 ft. (4.239 chs.).
8-9	N. 69° 58' W., 543.28 ft. (8.232 chs.).
9-10	N. 69° 58' W., 790.93 ft. (11.984 chs.).
9-11	N. 11° 33' 30" E., 72.64 ft. (1.101 chs.) through door to back entry.
11-12	N. 70° 40' W., 104.93 ft. (1.590 chs.) through back entry to junction with Third Dip Main slope just North of generator room.
12-13	N. 0° 05' W., 451.60 ft. (6.842 chs.) in Third Dip Main slope past hoist.
13-14	North, 235.08 ft. (3.562 chs.) under fault to junction with Second Left Main Entry and Third Dip Main slope.
14-14½	N. 0° 01' E., 217.69 ft. (3.298 chs.) intersect E. and W. center line, sec. 18, S. 89° 19' 1036.68 ft. (15.707 chs.) dist. from the center ¼ sec. cor. sec. 18, heretofore described.

At point of intersection

Set an iron post, 12 ins. long, 1 in. diam., in a hole drilled in coal and rock roof, with brass cap marked

T13SRSE  
NE ¼ S18

18  
18  
1933

SURVEY OF A PORTION OF THE SWEET COAL MINE.

station

This point is 2 ft. south of the coal company's partition line between the NE.  $\frac{1}{4}$  and SE.  $\frac{1}{4}$  of section 18, which is a painted stripe across roof of mine, with the letters US near west rib.

14 $\frac{1}{2}$ -15 N.0°01'E., 101.42 ft. (1.537 chs.).

14-16 N.69°57'30"W., 374.11 ft. (5.668 chs.) in Second Left Main Entry off of Third Dip Main slope to station opposite room 4.

16-17 N.69°58'30"W., 325.14 ft. (4.926 chs.) to station opposite room 7.

From this station S.69°58'30"E., 42.33 ft. (.641 chs.) distant, intersect E. and W. center line sec. 18 at a point S.89°19'E., 419.65 ft. (6.358 chs.) distant from the center  $\frac{1}{4}$  sec. cor. sec. 18. This point falls in very bad roof; paint a stripe at point of intersection with the letters US N. of same.

At a point S.69°58'30"E., 12.33 ft. (.187 chs.) distant from station 17.

Set an iron post, 12 ins. long, 1 in. diam., in a hole drilled in solid rock roof, with brass cap marked

T13SR8E

NE  $\frac{1}{4}$  S18

1933

10-18 N.69°56'W., 336.36 ft. (5.096 chs.) in Main Entry to Company station No.23.

From station 18, N.69°47'W., 48.68 ft. (.737 chs.), intersect N. and S. center line sec. 18, S.1°36'E., 619.70 ft. (9.389 chs.) distant from the center  $\frac{1}{4}$  sec. cor., which point falls in the center of the Main Entry, which is propped at this point and has a bad roof. Thence from the point of intersection on the center line of the section S.1°36'E., 9.19 ft. (.139 chs.) or N.80°28'W., 46.05 ft. (.698 chs.) intersect N. and S. center line sec. 18, S.1°36'E., 628.89 ft. (9.529 chs.) distant from the center  $\frac{1}{4}$  sec. cor.

This point falls in the S. rib, 3 ft. above the floor at N. edge of an old painted "S".

Set an iron post, 18 ins. long, 1 in. diam., 18 ins. in a hole drilled in coal rib, with brass cap marked

T13SR8E

W  $\frac{1}{2}$  S18  $\begin{matrix} C \\ | \\ C \end{matrix}$  E  $\frac{1}{2}$  S18

1933

Paint a stripe on the S. rib and roof of the mine, and the letters US W. of post.

18-19 N.69°47'W., 692.95 ft. (10.499 chs.)

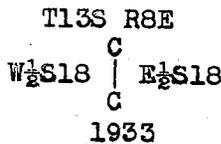
19-20 S.22°14'W., 72.78 ft. (1.103 chs.) into Fifth Raise Entry.

SURVEY OF A PORTION OF THE SWEET COAL MINE.

station	
20-21	S.0°28'E., 222.62 ft. (3.373 chs.) up Fifth Raise Entry.
21-22	S.0°13'W., 315.69 ft. (4.783 chs.) to point opposite Second Raise Entry.
22-23	S.69°59'30"E., 312.43 ft. (4.734 chs.) into Second West Entry.
22-24	S.0°13'W., 260.10 ft. (3.941 chs.) to Third West Back Entry.
24-25	S.0°05'W., 52.76 ft. (.799 chs.) to Third West Front Entry at junction with Fifth Raise Entry.
10-26	S.18°52'E., 122.24 ft. (1.852 chs.) into Fourth Raise Entry.
26-27	S.20°41'W., 255.66 ft. (3.874 chs.) up Fourth Raise Entry.
27-28	S.20°10'W., 225.68 ft. (3.419 chs.) to junction with Fourth Raise Entry and Second Raise Entry.

From this station N.72°02'W., 226.52 ft. (3.432 chs.) intersect N. and S. center line sec. 18, N. 1°36'W., 1296.23 ft. (19.641 chs.) distant from the 1/4 sec. cor., between secs. 18 and 19, heretofore described.

Set an iron post, 12 ins. long, 1 in. diam., 12 ins. in a hole drilled in solid rock roof, with brass cap marked



This point falls 1 ft. N. of the S. rib of the Second West Entry at junction with the E. side of room 3.

28-29	N.69°41'W., 307.23 ft. (4.655 chs.).
29-23	N.70°06'W., 300.87 ft. (4.559 chs.).

SURVEY OF A PORTION OF THE NO. 3 MINE OF THE

BLUE BLAZE COAL CO.

From the main entrance of rock tunnel and motor road entry to the No. 3 Mine of the Blue Blaze Coal Company, the center 1/4 sec. cor. sec. 17, T. 13 S., R. 8 E., bears N.39°19'30"E. 640.05 ft. (9.698 chs.) distant, as determined by the following traverse

From my station 00 at the mine entry.

SURVEY OF A PORTION OF THE NO. 3 MINE OF  
THE BLUE BLAZE COAL CO.

station	S. 22°38' E., 18.04 ft. (.273 chs.)
	October 28, 1932, at this station in approximate latitude 39°41' N., longitude 111°05' W., at 12h 57m p. m., by my watch, which is 24m 30s fast of correct local mean time, I make an hour angle observation on Polaris, E. of the meridian, making four observations two each with the telescope in direct and reversed positions, and reading the horizontal deflection angle from a large rock on the skyline to the N. in the direction N-E to Polaris.
	Watch time of observation . . . . . 12h 57m . . . p.m.
	L. m. t. of observation . . . . . 12h 32m 40s p.m.
	Hour angle of Polaris . . . . . 10h 36m 56 s
	Azimuth of Polaris at observation . . . . . 0° 28.4'
	Mean horizontal angle, rock to Polaris . . . . . 0° 23' E.
	True bearing of rock . . . . . N. 0° 05.4' E.
	Deflecting from this true meridian I continue on my traverse line,
	N. 38°00' E., 500.11 ft. (7.577 chs.) . . . . .
	N. 37°38'30" E., 148.61 ft. (2.252 chs.) to the center $\frac{1}{4}$ sec. cor. sec. 17.
	From this cor. the N. and S. center line sec. 17 bears N. 0°23' W., and S. 0°23' E.
	Thence from station 00
00-1	N. 2°14' W., 1259.18 ft. (19.078 chs. ) to Co. station No. 2 at junction of Haulage Entry and Main Entries.
1-2	N. 54°52' W., 553.24 ft. (8.382 chs.) in Main Entries.
2-2 $\frac{1}{2}$	N. 54°50'30" W., 430.78 ft. (6.527 chs.) intersect E. and W. center line NW $\frac{1}{4}$ sec. 17, S. 89°18' E., 113.65 ft. (1.722 chs.) distant from the NW. 1/16 sec. cor.
	At point of intersection
	Set an iron post, 12 ins. long, 1 in. diam., 12 ins. in a drilled hole, with brass cap marked
	T13SR8E NW $\frac{1}{4}$ S17. C ————— C NW $\frac{1}{4}$ S17.
	1933
	Cor. is set in ceiling of mine with a painted stripe along the subdivision-of-section line, and with the letters US to the N.
2 $\frac{1}{2}$ -3	N. 54°50'30" W., 96.43 ft. (1.461 chs.) to Co. station No. 101, opposite generator room to S.

## SURVEY OF A PORTION OF THE NO. 3 MINE OF THE

BLUE BLAZE COAL CO.

station	
3-4	N. 54°07' W., 182.62 ft. (2.767 chs.).
4-5	N. 55°20'30" W., 295.62 ft. (4.479 chs.) continuing in Main Entries to Co. station No. 138.
5-6	N. 54°54'30" W., 470.21 ft. (7.124 chs.) to Co. station No. 176.
6-7	N. 54°55' W., 486.58 ft. (7.372 chs.) to Co. station No. 296.
7-8	N. 54°55' W., 509.34 ft. (7.717 chs.) to Co. station No. 357.
8-8½	N. 54°45' W., 273.21 ft. (4.139 chs.) intersect line between secs. 7 and 18, S. 89°33' W., 426.84 ft. (6.467 chs.) distant from the cor. of secs. 7, 8, 17 and 18, heretofore described. Impossible to mark a permanent station at this point on account of bad roof, therefore I run N. 89°33' E., 12.19 ft. (.185 chs.), Intersect line between secs. 7 and 18, S. 89°33' W., 414.65 ft. (6.282 chs.) distant from the cor. of secs. 7, 8, 17 and 18. This point falls at the junction of the N. rib and ceiling of the Main Entry, and is about 6 ft. N. of the E. rib of the Third Dip Entry. At point of intersection Set an iron post, 15 ins. long, 1 in. diam., 15 ins. in a hole drilled in coal rib, with brass cap marked
	T13S R8E S7. ----- S18  1933
8½-9	N. 54°45' W., 16.81 ft. (.255 chs.) to new station in cross beam opposite Third Dip Main Entry and hoist.
4-10	N. 0° 09'30" W., 162.45 ft. (2.461 chs.) into Second Dip Main Entry, past hoist to Company station No. 133.
10-11	N. 45°05'30" E., 146.21 ft. (2.215 chs.) to Co. station No. 153 in Second Dip Back Entry.
11-12	N. 0°05' E., 354.43 ft. (5.370 chs.).
12-13	N. 0°05' E., 363.02 ft. (5.500 chs.) to Co. station No. 343.
13-14	N. 0°03' E., 166.49 ft. (2.523 chs.).
14-14a	N. 0°03' E., 4.69 ft. (.071 chs.) intersect line between secs. 8 and 17, N. 89°15' W., 10.42 ft. (.158 chs.)

SURVEY OF A PORTION OF THE NO. 3 MINE OF THE  
BLUE BLAZE COAL CO.

station

distant from the W. 1/16 sec. cor.

At point of intersection.

Set an iron post, 12 ins. long, 1 in. diam., 12 ins. in a hole drilled in the roof of the mine, with brass cap marked

T13SR8E  
S8  
-----  
S17  
1933

Paint a stripe across roof of mine on the sec. line.

1-15 S. 65°18'E. 61.85 ft., (.937 chs.) to point in Main Entry opposite First Dip Entry.

15-16 N. 0°10'E., 554.90 ft. (8.408 chs.) down First Dip Entry.

From station 16, North 26.85 ft. (.407 chs.) intersect E. and W. center line NW. quarter sec. 17, N. 89°18'W., 388.11 ft. (5.880 chs.) distant from the center N. 1/16 sec. cor. This point falls in an unsafe roof, at S. edge of a cave-in, and cannot be marked, therefore

At a point North 1.85 ft. (.028 chs.).

Set an iron post, 15 ins. long, 1 in. diam., 15 ins. in a hole drilled in coal roof, with brass cap marked

T13SR8E  
WC  
S17  
C ----- C  
S17  
1933

SURVEY OF A PORTION OF THE NO. 1 MINE OF THE  
NATIONAL COAL CO.

October 28, 1932, at the 1/4 sec. cor. between secs. 17 and 20, T. 13 S., R. 8 E., in approximate latitude 39°41'N. and longitude 111°05'W., I make an hour angle observation on Polaris E. of the meridian, making four observations, two each with the telescope in direct and reversed positions, reading the horizontal deflection angle from a pipe on a hill about 20.00 chains distant to the N. in the direction NW. to Polaris.

Watch time of observation (105 Meridian Standard Time)	1h 53m 30s p m
Watch fast of local mean time	24m 20s
Local mean time of observation	1h 29m 10s
Hour angle of Polaris at observation	9h 40m 26s

SURVEY OF A PORTION OF THE NO. 1 MINE OF THE  
NATIONAL COAL CO.

station

Horizontal deflection angle, pipe  
to Polaris 1° 37' W.  
Azimuth of Polaris at observation 0° 46' E.  
True bearing of reference point N.2° 23' E.

I deflect an angle of 2°46' to the left of this reference point and note that the N. and S. center line sec. 17 bears N.0°23'W.

From this  $\frac{1}{4}$  sec. cor., a point in the Main Entry of the No. 1 Mine of the National Coal Co. bears N.22°49'45"E., 1217.36 ft. (18.445 chs.) distant, and station 00, in the Manway Entry of the same mine bears N.19°21'E., 1945.49 ft. (29.477 chs.) distant as determined by the following traverse.

N.30°32'E. 213.68 ft. (3.238 chs.).

N.0°08'W. 534.98 ft. (8.108 chs.).

N.40°10'E., 466.96 ft. (7.075 chs.) from this station the Main Entry of the No. 1 Mine of the National Coal Co. bears N.54°11'E. 78.78 ft. (1.193 chs.) distant.

N.30°01'E., 198.32 ft. (3.005 chs.).

N.19°28'E., 198.09 ft. (3.001 chs.).

N.2°29'E., 259.98 ft. (3.939 chs.).

N.22°56'E., 153.63 ft. (2.328 chs.). to station 00 on sill of doorway at Manway Entrance to the No. 1 Mine of the National Coal Co.

Thence with the mine survey.

00-1 N.32°15'E., 149.66 ft. (2.267 chs.) in Manway Entry.

1-2 S.76°27'E., 198.58 ft. (3.009 chs.).

2-3 N.30°20'E., 233.17 ft. (3.533 chs.).

3-4 N.34°24'E., 44.99 ft. (.682 chs.).

4-4 $\frac{1}{2}$  N.30°31'E., 368.53 ft. (5.584 chs.) intersect E. and W. center line sec. 17, N.89°21'W. 77.86 ft. (1.180 chs.) distant from the center E. 1/16 sec. cor. heretofore described.

At point of intersection.

Set an iron post, 12 ins. long, 1 in. diam., 12 ins. in a hole drilled in the roof of the mine, with brass cap marked

T13SR8E

S17

C ————— C

S17

1933

4 $\frac{1}{2}$ -5 N.30°31'E. 87.93 ft. (1.332 chs.).

SURVEY OF A PORTION OF THE NO. 1 MINE OF THE NATIONAL COAL CO.

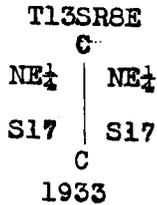
station

5-6 N.31°15'30"E., 141.36 ft. (2.142 chs.) to Co. station No.5 at junction with the Third Left Main Entry.

6-6½ N.89°58'W., 40.60 ft. (.615 chs.) intersect N. and S. center line sec. 17, N.0°08'W., 197.50 ft. (2.992 chs.) distant from the center E. 1/16 sec. cor.

At point of intersection.

Set an iron post, 14 ins. long, 1 in. diam., 14 ins. in a hole drilled in good rock roof, with brass cap marked



This point is at the W. edge of a cross beam in mine, and 2.95 ft. W. of a painted partition line.

6½-7 N.89°58'W., 418.48 ft., (6.341 chs.) in Third Left Main Entry to Co. station No. 9 opposite room 6.

SURVEY OF A PORTION OF THE NO. 3 MINE OF THE MUTUAL COAL CO.

August 29, 1932, at the cor. of secs. 1, 6, 7 and 12, on the E. boundary of the Tp., in approximate latitude 39°42'N., longitude 111°00'W., which is an iron post, 2 ins. diam., firmly set in the ground, and a mound of stone, with the original cor. monument alongside, and marked and witnessed as described in the official record; at 9h 28m 20s a.m., by my watch, which is 24m 20s fast of local mean time as compared with a Western Union Telegraph clock at Price, Utah, on this date, I observe Polaris at western elongation, making four observations, two each with the telescope in direct and reversed position, and reading the horizontal deflection angle from the star in the direction NE. to a peg in the ground about 10 chs. N.

Watch time of observation	9h 28m 20s a.m.
Watch fast	24m 20s
Local mean time of observation	9h 04m a.m.
Mean horizontal deflection angle, star to peg	1°23'E.
Azimuth of Polaris	1°23'W.
True bearing of peg	North.

From this cor. I deflect from the true meridian and find that station 00 at the entry of the Main Slope of the No. 3 Mine of the Mutual Coal Co. bears S.1°51'W. 1091.89 ft. (16.544 chs.) distant as determined by the

SURVEY OF A PORTION OF THE NO. 5 MINE OF THE  
MUTUAL COAL CO.

Station

distance

following traverse.

S.3°31'W., 441.50 ft. (6.686 chs.).

S.1°56'E., 523.74 ft. (7.935 chs.).

S.1°56'E., 4.76 ft. (.072 chs.).

S.1°56'E., 205.44 ft. (3.113 chs.).

N.21°40'W., 88.95 ft. (1.348 chs.) to station 00 at the Main Haulage Entry of the Main Slope of the No. 5 Mine of the Mutual Coal Co.

Thence with the sub-surface surveys in the No. 3 Mine of the Mutual Coal Co.

00-1 N.0°18'30"W., 512.88 ft. (7.771 chs.) down the Main Slope and Haulage Entry.

1-2 N.0°14'W., 327.94 ft. (4.969 chs.).

2-2½ N.0°09'30"W., 250.19 ft. (3.791 chs.) intersect line between secs. 1 and 12, T. 13 S., R. 8 E., S.89°32'W., 40.17 ft. (.609 chs.), distant from the cor. of secs. 1, 6, 7 and 12.

At point of intersection.

Set an iron post, 18 ins. long, 1 in. diam., 18 ins. in a hole drilled in solid rock roof, with brass cap marked

TRaverse

S1

S12

1932

2½-3 N.0°09'30"W., 86.79 ft., (1.315 chs.) to spad in cross beam at the Second Left Manway Entry.

3-4 N.0°32'W., 274.40 ft. (4.157 chs.)

4-5 N.0°03'W., 330.90 ft. (5.014 chs.), to point opposite Third Left Front Entry and motor road.

5-6 N.0°06'W., 548.98 ft. (8.318 chs.).

6-7 N.0°16'30"W., 546.54 ft. (8.281 chs.).

7-8 N.0°09'30"W., 552.28 ft. (8.368 chs.).

8-9 N.1°06'30"W., 267.76 ft., (4.057 chs.).

9-9½ N.27°10'W., 39.88 ft., (.604 chs.) into Seventh Left Main Entry.

Intersect E. and W. center line sect. 1, S.89°17'W., 268.00 ft. (4.082 chs.) distant from the ½ sec. cor. between secs. 1 and 6 on the E. boundary of the Tp., described in the official resurvey of T. 13 S., R. 8 E.

At point of intersection.

230

SURVEY OF A PORTION OF THE NO. 3 MINE OF THE  
MUTUAL COAL CO.

station	
	<p>Set an iron post, 12 ins. long, 1 in. diam., 12 ins. in a hole drilled in solid rock roof, with brass cap marked</p> <p style="text-align: center;">T13SR8E S1 C ——— C S1 1932</p>
9½-10	N. 27°10' W., 23.82 ft. (.361 chs.) to station in N. edge of Seventh Left Entry. Thence in Seventh Left Entry.
10-11	N. 58°42' W., 63.71 ft. (.965 chs. ).
11-12	S. 87°56'30" W., 115.09 ft. (1.744 chs.).
12-13	N. 73°46' W., 112.78 ft. (1.709 chs.).
13-14	S. 83°38' W., 214.50 ft. (3.250 chs.).
14-15	S. 86°11'30" W., 190.73 ft. (2.890 chs.).
15-16	<p>N. 89°20' W., 350.12 ft. (5.305 chs.). From this station N. 87°03' E., 11.97 ft. (.181 chs.) distant to point which is N. 2°51' E., 62.62 ft. (.949 chs.) distant from the center E. 1/16 sec. cor. sec. 1, described in the field notes of the survey of T. 13 S., R. 8 E. It being impossible to reach the true point for this cor., therefore at this point:</p> <p>Set an iron post, 18 ins. long, 1 in. diam., 12 ins. in a hole drilled in the floor, and surrounded by a concrete form, with brass cap marked</p> <p style="text-align: center;">T13SR8E WC CE 1/16 S1 1932</p> <p>This point falls in a fault area which is heavily propped and the post cannot be set in the roof of the mine.</p>
16-17	N. 89°57' W., 336.02 ft. (5.091 chs.).
17-18	N. 88°34' W., 153.76 ft. (2.330 chs.) to junction with the Seventh Left Main Entry and the Inside Raise Entry. Thence up the Inside Raise Entry.
18-18½	<p>S. 40°37'30" W., 96.07 ft. (1.456 chs.) to a point on the E. and W. center line, sec. 1. This station falls in an area with bad roof and cannot be marked. Therefore at a point N. 89°17' E., 7.52 ft. (.114 chs.)</p> <p>Intersect the E. and W. center line sec. 1, N. 89°17' E., 749.12 ft. (11.300 chs.) distant from the center ¼ sec. cor. sec. 1:</p> <p>At point of intersection</p> <p>Set an iron post 18 ins. long, 1 in. diam., 6 ins. in a hole drilled in solid rock floor, and surrounded by a solid concrete form, with brass cap marked</p>

SURVEY OF A PORTION OF THE NO. 3 MINE OF THE  
MUTUAL COAL CO.

Station	
	S1 C ————— C S1  1932
18½-19	S. 40°37'30" W., 92.07 ft. (1.395 chs.).
19-20	S. 40°48'30" W., 209.02 ft. (3.167 chs.) to junction of Inside Raise Entry and Third Left Entry and motor road. Then ce in Third Left Entry.
20-21	S. 48°38' E., 211.66 ft. (3.207 chs.).
21-22	S. 48°38'30" E., 250.81 ft. (3.800 chs.).
22-23	S. 48°26'30" E., 126.33 ft. (1.914 chs.).
23-24	S. 48°27'30" E., 214.06 ft. (3.243 chs.).
24-25	S. 49°35'30" E., 309.91 ft. (4.696 chs.).
25-26	S. 47°07'30" E., 103.69 ft. (1.571 chs.).
26-27	S. 50°17' E., 144.42 ft. (2.188 chs.).
27-28	S. 39°26' E., 197.95 ft. (2.999 chs.).
28-29	S. 38°13' E., 244.78 ft. (3.709 chs.).
29-30	S. 48°36' E., 195.09 ft. (2.956 chs.).
30-31	S. 50°12' E., 275.57 ft. (4.175 chs.).
31-32	S. 51°51' E., 126.01 ft. (1.909 chs.).
32-5	S. 37°04' E., 99.65 ft. (1.510 chs.).

SURVEY OF A PORTION OF THE LIBERTY FUEL CO. MINE.

April 26, 1932, at the ¼ sec. cor. between secs. 13 and 14, T. 13 S., R. 8 E., in approximate latitude 39°41' N.; longitude 111°01' W., which is an iron post, 1 in. diam., firmly set, marked and witnessed as described in the official record of the survey of T. 13 S., R. 8 E.

At this station at 9h 22.7m a.m. by my watch, which is 24.3m fast of local mean time, I make an hour angle observation on Polaris E. of the meridian, making four observations, two each with the telescope in direct and reversed positions, and reading the horizontal deflection angle from a peg to the N. in the direction N-E to Polaris.

SURVEY OF A PORTION OF THE LIBERTY FUEL CO. MINE

station	Watch time of observation	9h 22.7m a.m.
	Watch fast of local mean time	24.3m
	Local mean time of observation	8h 58.4m a.m.
	Hour angle of Polaris	2h 20m
	Azimuth of Polaris at observation	0° 48' E.
	Mean horizontal deflection angle, peg to Polaris	0° 48'
	Peg bears	North
	Deflecting from this peg, I find that the center W. 1/16 sec. cor. sec 13 bears S.88°50'E., which agrees with the official record.	
	From this cor. a cross on a sandstone boulder at the entry of an air course to the Liberty Fuel Co. Mine bears S.36°52'30"E., 1157.39 ft. (17.536 chs.) distant, as determined by the following traverse.	
	Designate the $\frac{1}{4}$ sec. cor. between secs. 13 and 14 station 00; thence	
00-1	S.0°08'30"W., 143.39 ft. (2.172 chs.).	
1-2	S.18°15'30" E., 568.02 ft. (8.606 chs.)	
2-3	S.56°51'E., 341.05 ft. (5.167 chs.).	
3-4	S.68°07'E., 108.81 ft. (1.649 chs.).	
4-5	S.83°01'E., 131.40 ft. (1.991 chs.), to cross on sandstone boulder at entrance to air course of the Liberty Fuel Co. Mine. Thence through air course in mine.	
5-6	N.3°32'W., 50.12 ft. (.759 chs.).	
6-7	N.37°18'30"E., 59.49 ft. (.901 chs.).	
7-8	N.77°02'E., 117.68 ft. (1.783 chs.) to point in First Left Entry off the Fifteenth Right Entry. Thence in First Left Entry.	
8-9	N.44°46'E., 212.56 ft. (3.221 chs.).	
9-10	N.35°25'30"E., 201.20 ft. (3.048 chs.).	
10-11	N.37°33'E., 359.76 ft. (5.451 chs.), to Co. station opposite room 8.	
11-12	N.37°33'30"E., 179.73 ft. (2.723 chs.) to Co. station opposite room 5.	
12-13	S.52°26'30"E., 59.91 ft. (.908 chs.).	
13-14	N.40°54'30"E., 179.94 ft. (2.726 chs.) to Co. station in Fifteenth Right Entry and motor road. Thence in Fifteenth Right Entry	
14-15	N.52°24'W., 387.84 ft. (5.876 chs.).	

SURVEY OF A PORTION OF THE LIBERTY FUEL CO. MINE

station	
	From station 15, an old Fuel Co. station, bears N.52°24'W. 3.92 ft. (.059 chs.)
	From station 15, N.52°24'W., 11.19 ft. (.169 chs.), intersect N. and S. center line NW $\frac{1}{4}$ sec. 13, N. 1°58'E., 312.16 ft. (4.730 chs.) distant from the center W. 1/16 sec. cor. sec. 13. Set a wooden plug with spad in same in roof of mine.
	From this station, I set another wooden plug with spad in same on the N. and S. center line of the NW $\frac{1}{4}$ section 13, S.1°58'W., 10.52 ft., (.159 chs.) distant.
14-16	S.52°24'30"E., 312.65 ft. (4.737 chs.) at 125.10 ft. (1.895 chs.) intersect the E. and W. center line sec. 13.
16-17	S.52°23'30"E., 484.23 ft. (7.337 chs.).
17-18	S.52°04'30"E., 658.67 ft. (9.980 chs.) at 362.79 ft. (5.497 chs.) intersect N. and S. center line, sec. 13. Station 18 is at the junction of the Main Slope and Fifteenth Right Entry. Thence in Main Slope.
18-19	N.37°40'30"E., 444.11 ft. (6.729 chs.) to station at Main Slope and Fourteenth Right Entry.
19-20	N.51°02'30"W., 221.78 ft. (3.360 chs.) to station in Fourteenth Right Entry.
19-21	N.37°46'30"E., 246.24 ft. (3.731 chs.) in Main Slope past hoist.
21-22	N.37°50'30"E., 477.31 ft. (7.232 chs.) to point in Main Slope opposite Twelfth Left Main Entry.
22-23	S.74°03'E., 57.89 ft. (.877 chs.) to point in Twelfth Left Main Entry.
23-24	S.32°46'E., 562.43 ft. (8.522 chs.) in Twelfth Left Main Entry.
24-25	S.32°15'E., 455.20 ft. (6.897 chs.).
25-26	S.32°15'E., 459.82 ft. (6.967 chs.).
26-27	S.32°17'E., 426.99 ft. (6.470 chs.).
27-28	S.32°17'30"E., 197.88 ft. (2.998 chs.).
28-29	S.32°43'E., 193.91 ft. (2.938 chs.).
29-30	S.64°23'E., 122.92 ft. (1.862 chs.).
30-31	S.32°48'E., 376.64 ft. (5.707 chs.).
31-32	S.33°03'E., 286.62 ft. (4.345 chs.).
32-33	S.30°26'E., 185.57 ft. (2.812 chs.).
33-33 $\frac{1}{2}$	S.33°02'E., 59.87 ft. (.907 chs.), intersect line between secs. 18 and 19, T. 13 S., R. 9 E., E.461.97 ft. (7.00 chs.) distant from the cor. of secs. 13, 18, 19, and 24, on the W. bdy. of the Tp., which is an iron post.

SURVEY OF A PORTION OF THE LIBERTY FUEL CO. MINE.

Station

2 ins. diam., firmly set, and marked and witnessed as described in the official record.

At point of intersection.

Set an iron post, 14 ins. long, 1 in. diam., 14 ins. in a hole drilled in solid rock floor, with brass cap marked

T138R9E

S18

S19

1932

33½-34 S.33°02'E., 77.80 ft. (1.179 chs.) from this station, the face of the Twelfth Left Entry bears S.33°00'E., 80 ft. (1.212 chs.) distant.

20-35 S.86°51'W., 106.92 ft. (1.620 chs.) continue from station 20 in Fourteenth Right Entry.

35-36 N.65°39'W., 143.70 ft. (2.177 chs.).

36-37 N.20°58'W., 206.63 ft. (3.131 chs.).

37-38 N.05°54'30"W., 104.63 ft. (1.585 chs.). This point is N. of the E. and W. center line sec. 13; therefore I return to station 37, thence

North, 61.85 ft. (.937 chs.).

East, 8.41 ft. (.127 chs.) to point at the E. rib of the Fourteenth Right Entry. It is impossible to reach the true point for the center ¼ sec. cor. sec. 13, therefore, at this point, which is 2 ft. (0.030 chs.) W. of the true cor. point.

Set an iron post, 18 ins. long, 1 in. diam., 6 ins. in a hole drilled in solid rock floor and surrounded by a concrete form for witness center ¼ sec. cor. sec. 13, with brass cap marked

WC

•

C ¼ S13

1932

In order to locate the point for the center W. 1/16 cor. sec. 13, I return to station 12; thence

12-39 S.37°33'30"W., 59.94 ft. (.908 chs.).

39-40 N.54°39'W., 135.15 ft. (2.048 chs.) in room 7,

40-41 N.88°57'W., 14.77 ft. (.224 chs.) to point for the center W. 1/16 sec. cor. sec. 13.

Set an iron post, 15 ins. long, 1 in. diam., 15 ins. into a hole drilled in the floor of the mine, with brass cap marked

W 1/16

C ————— C

S13

1932

SURVEY OF A PORTION OF THE LIBERTY FUEL CO. MINE

This cor. stands 6 ft. E. of the left or W. rib of room  
From the cor. I set a wooden plug with spad in same near  
the right or E. rib of the room, on the E. and W. center  
sec. line, S.88°50'E., 27.60 ft. (.418 chs.) distant.

GENERAL DESCRIPTION, SECS. 17 AND 18, T. 13 S., R. 8 E.

The land within the boundaries of these two sections is high and mountainous, and has a general southerly exposure and drainage.

In most places they are covered with a dense undergrowth of oak, sage and service brush. Groves of dense aspen timber were found throughout the west portion of section 18, and the northwest portion of section 17.

The soil consists of a shallow gravelly clay mountain loam, with sandstone outcroppings.

Small seeps of good water were found in the bottom of Bryner Canyon in the SE.  $\frac{1}{4}$  of section 18. Two small springs are located in the NE.  $\frac{1}{4}$  of section 18, and the water from these springs is piped to the mining camps located in the southwest portion of section 17.

The National Coal Company, the Blue Blaze Coal Company, and the Sweet Coal Company have extensive improvements in both these sections.

Numerous outcroppings of coal were found in both sections

No portions of the two sections are suitable for farming.

At the time of survey, nearly all parts of the sections were being grazed by sheep.

No magnetic declination was taken on account of defective needle.

## FIELD ASSISTANTS

NAMES	CAPACITY
Edward Eliason	Chairman
Ethan Torgerson	Chairman
Milton Hall	Chairman
Jake Davis	Chairman
Frank Taylor	Chairman
Talmage Maxfield	Axeman

CERTIFICATE OF ~~UNITED STATES~~ SURVEYOR

We, Howard W. Miller, U. S. Cadastral Engineer,

I, and Elliot Bird, U. S. Surveyor, HEREBY CERTIFY upon honor that,

pursuance of special instructions bearing date of the 26th day of August, 1930,

received from the district cadastral engineer for Utah, with assignment

instructions dated May 18, 1931, ~~known as~~ and supplemental assignment

instructions dated April 8, 1932 and June 15, 1933, we have surveyed

the surface and subsurface surveys in T. 13 S., R. 8 E.,

of the Salt Lake Meridian, in the State of Utah, which

represented in the foregoing field notes as having been executed by us and under our direction; and that

survey has been made in strict conformity with said instructions, the Manual of Instructions for the Survey

of the Public Lands of the United States, and in the specific manner described in the foregoing field notes.

Certified to at Salt Lake City, Utah, January 23, 1937.

Howard W. Miller  
U. S. Cadastral Engineer  
Elliot Bird  
U. S. Surveyor

CERTIFICATE OF APPROVAL

OFFICE OF U.S. SUPERVISOR OF SURVEYS,  
DENVER, COLORADO MAR 25 1940, 19...

The foregoing field notes of the survey of the subdivision of section lines, sections 17 and 18, and the survey of a portion of the Sweet Coal Co. Mine, the No. 3 Mine of the Blue Blaze Coal Co., the No. 1 Mine of the National Coal Co., the No. 3 Mine of the Mutual Coal Co., and the Liberty Fuel Co. mine, in T. 13 S., R. 8 E., S. L. M., Utah.

executed by Howard W. Miller, U. S. Cadastral Engineer and Elliot Bird, U. S. Surveyor, under special instructions dated August 26, 1930, and assignment instructions dated May 18, 1931, and supp. assign. instructions dated April 8, 1932 and June 15, 1933, having been critically examined, and

the necessary corrections made prior to their certification by the engineer, the said field notes, and the survey therein described, are hereby approved.

Quinn H. Dorman  
U. S. Supervisor of Surveys.

CERTIFICATE OF TRANSCRIPT

I certify that the foregoing transcript of the field notes of the above described surveys in Utah, is a true copy of the original field notes on file in the public survey office.

U. S. Supervisor of Surveys.

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BOOK A-519

I

FEB 17 1936  
Department Of The Int.  
Public Survey Office  
Salt Lake City, Utah

# FIELD NOTES

OF THE

DEPENDENT RESURVEY OF A PORTION OF THE 3RD STANDARD PARALLEL SOUTH  
THROUGH R. 8 E AND A PORTION OF THE SUBDIVISION OF T. 16 S., R. 8 E.,  
ALSO THE SURVEY OF THE SUBDIVISION-OF-SECTION LINES, SECTION 8, and  
A SURVEY OF A PORTION OF THE KING NO. 1 AND NO. 2 COAL MINES OF THE  
UNITED STATES FUEL CO., IN T. 16 S., R. 8 E.

Of the Salt Lake Meridian,

In the State of Utah

EXECUTED BY

Howard W. Miller, U.S. Cadastral Engineer

Elliot Bird, U.S. Surveyor

Under special instructions dated August 26, 1930, which provided  
for the surveys included under Group No. 234, bearing the approval of the  
Commissioner of the General Land Office under date of September 11, 1930  
May 18, 1931, April 8, 1932,  
and assignment instructions dated and June 15, 1933, xx

Survey commenced September 8, 1931

Survey completed November 20, 1933

BOOK 10519

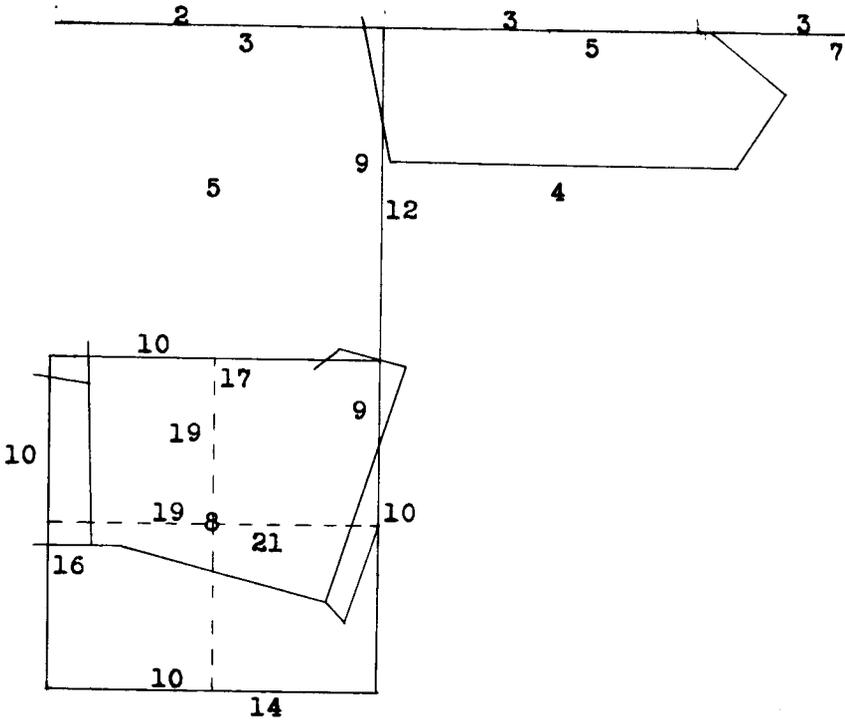
# INDEX DIAGRAM.

Township \_\_\_\_\_, Range \_\_\_\_\_

6	5	4	3	2	1
7	8	9	10	11	12
13	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

**INDEX DIAGRAM**

T. 16 S., R. 8 E.



Lines colored in red were surveyed by Elliot Bird, U. S. Surveyor.

Lines colored in black were surveyed by Howard W. Miller, U. S. Cadastral Engineer.

Survey of the King No. 1 Coal Mine, pages 23 to 24.

Survey of the King No. 2 Coal Mine, pages 24 to 28.

INDEX DIAGRAM

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201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300

## T. 16 S., R. 8 E.

This survey was executed with Buff & Buff transits Nos. 16726 and 18003, property of the General Land Office. Each transit is equipped with the Smith solar attachment and full vertical circle; the horizontal limbs are provided with two double verniers placed opposite to each other and reading to single minutes of arc, which is also the least count of the verniers of the latitude and declination arcs and vertical circles. The instruments were in good condition, and, having been placed in satisfactory adjustment prior to beginning the survey and tested and found free from any instrumental error, were approved by the district cadastral engineer for Utah on May 18, 1931, April 8, 1932, and June 15, 1933. Transit No. 16726 was used by Howard W. Miller, Cadastral Engineer, in a portion of the surface surveys and all underground surveys, and transit No. 18003 was used by Elliot Bird on a portion of the surface surveys.

This survey involves the reestablishment (dependent resurvey) of a portion of the 3rd Standard Parallel South along the S. boundary of T. 15 S. through R. 8 E.; a reestablishment of the boundaries of sec. 8; and the resurvey of the line between secs. 4 and 5, subdivision-of-section surveys, sec. 8; and the projection underground and marking the surface position of the line between secs. 4 and 5 in the 2nd West Entry and the S. boundary of sec. 32 in the 12th North Main Entry in the King No. 1 Mine of the United States Fuel Co.; also projecting underground and marking the surface positions of the line between secs. 4 and 5 in the 3rd West Main Entry off the 1st Channel Slope; the line between secs. 5 and 8 in the 1st South Main Entry off the 3rd West Entry; the line between secs. 5 and 8 in the 3rd North Main Entry; also the line between secs. 5 and 8 in the 6th West Main Entry off the 3rd North Entry, and the line between secs. 7 and 8 in the Main West Entry in the King No. 2 Coal Mine of The U. S. Fuel Co., in cooperation with the U. S. Geological Survey under authority from the Commissioner of the General Land Office, dated June 11, 1930.

The solar attachments were not used in these surveys; all controlling meridians of the surface surveys were established by observations on Polaris as shown in the field notes. The bearings of the lines were deflected from these true meridians by repetition of angles, and carried forward by transit line, taking the mean of direct and reversed sights. In the underground surveys the lines were run by traverse methods, and where it was impossible or impracticable to close a figure by survey, the traverse line was carried into the various entries and a check survey using the same transit stations and continuing the azimuth of the original traverse in the opposite direction back to the entry of the mine or to such other point as was necessary to check the work. All azimuths in this record of mine surveys and surface tie lines to mine entries are referred to controlling meridians by the method of deflection angles and calculated courses. These controlling meridians are extended from reference points of the surface surveys to the mine entry, where they are again checked by an independent observation on Polaris, and they projected underground. The mean calculated courses of the azimuths between stations only appear in these notes.

The measurements were made with Lallie steel ribbon tapes 5 and 8 chs. in length, and one Lufkin steel tape 200 ft. long. The 5 and 8 chain tapes are graduated every link for the first 10 lks. and thereafter at intervals of 10 lks.; the 200 ft. tape used exclusively in the mine work is graduated to feet, tenths and hundredths in its entire

2

DEPENDENT RESURVEY OF A PORTION OF THE 3RD STANDARD PARALLEL  
SOUTH THROUGH R. 8 E.

chains

length. All the tapes were tested, comparison being made with a Luffkin steel tape 66 ft. long which was compared with a similar tape tested by the U. S. Bureau of Standards. The measurements were made on the slope, the vertical angle determined with the transit, and the slope measurements properly reduced to true horizontal distance. In those instances in the mine surveys where a figure was not closed by survey, all distances were double chained and the mean distances between stations are recorded in these notes.

DEPENDENT RESURVEY OF A PORTION OF THE 3RD STANDARD  
PARALLEL SOUTH THROUGH R. 8 E.

Reestablishment of surveys executed by James  
C. Dick, J. D. Deputy Surveyor in 1900:

Random lines

September 10, 1931, at the standard cor. of secs. 32 and 33, hereinafter described, in approximate latitude  $39^{\circ} 28' N.$ , longitude  $111^{\circ} 05' W.$ , at 9h 33.1m a. m. local mean time, I make an hour angle observation on Polaris W. of the meridian, making four observations, two each with the telescope in direct and reversed position, reading the horizontal deflection angle from a flag pole about 20 chs. distant to the W. in a clockwise direction to the star.

Watch time of observation (correct  
105th meridian standard time) 9h 57.4m a.

Mean horizontal angle, flag pole to star. 88°41'

Azimuth of Polaris at observation 1°19' W.

True bearing of flag pole West.

Note: all of the lines of the resurvey of this standard parallel were double chained by the same set of chainmen and the mean of the two measurements are recorded in the notes.

From the standard cor. of secs. 32 and 33.

West, along the S. boundary of sec. 32, T. 15 S., R. 8 E.

40.21 Fall 3.5 lks. N. of the standard  $\frac{1}{4}$  sec. cor., hereinafter described,

The bearing of this half mile therefore is  $N. 89^{\circ} 57' W.$  and the distance is 40.21 chs.

From the standard  $\frac{1}{4}$  sec. cor., West.

35.05 Fall 9 lks. S. of the closing cor. of secs. 5 and 6, T. 16 S., R. 8 E., hereinafter described.

39.37 Fall 10.3 lks. S. of the standard cor. of secs. 31 and 32 hereinafter described.

The bearing of this half mile therefore is  $N. 89^{\circ} 51' W.$  and the distance is 39.37 chs.

DEPARTMENT RESURVEY OF A PORTION OF THE 3RD STANDARD

PARALLEL SOUTH THROUGH R. 8 E.

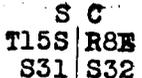
- station From the standard cor. of secs. 32 and 33. East; along the S. boundary of sec. 33, T. 15 S., R. 8 E, No trace of the closing cor. of secs. 33 and 34 can be found. No trace of the closing cor. of secs. 33 and 34 can be found.
- 39.44 Fall 9 lks. S. of the standard  $\frac{1}{4}$  sec. cor. S. boundary of sec. 33, hereinafter described. The bearing of this half mile therefore is N. 89°52' E., and the distance is 39.54 chs. From the  $\frac{1}{4}$  sec. cor., East.
- 40.00 No trace of the standard cor. of secs. 33 and 34 can be found, therefore, I continue my line East and at
- 80.46 Fall 9 lks. S. of the standard  $\frac{1}{4}$  sec. cor., S. boundary sec. 34, hereinafter described. The bearing of the line connecting the standard  $\frac{1}{4}$  sec. cor., S. boundary sec. 33 and the standard  $\frac{1}{4}$  sec. cor., S. boundary sec. 34 therefore is N. 89°56' E., and the proportionate distance for each half mile is 40.22 chs.

True lines

The standard cor. of secs. 31 and 32 is a sandstone 12x8x6 ins. above ground, firmly set, marked with 5 notches on the E. and 1 notch on W. edge, and S C on N. face, and witnessed by a mound of stone, 2 ft. base, 1 1/2 ft. high N. of cor.

At the cor. point

Set an iron post, 3 ft. long, 2 ins. in diam., 27 ins. in the ground with the original cor. monument alongside for the standard cor. of secs. 31 and 32, with brass cap marked



1931

from which

A Douglas fir, 20 ins. diam., bears N. 6° E., 332 lks. dist., marked T 15 S R 8 E S 32 S C B T.

A Douglas fir, 36 ins. diam., bears N. 5° W., 380 lks. dist., marked T 15 S R 8 E S 31 S C B T.

This cor. stands on a gradual S. slope at the N. edge of a dense aspen thicket bearing N. 80° W. and S. 80° E.

Thence

S. 89°51' E., along the S. boundary of sec. 32.

Over mountainous land, ascending gradual SW. slope, through dense aspen timber and scattering undergrowth.

2.60 Leave timber, bears N. 80° W. and S. 80° E.

DEPENDENT RECOVERY OF A PORTION OF THE S&S STANDARD

PARALLEL SOUTH THROUGH R. 8 E.

station

4.32 The closing cor. of secs. 5 and 6, T. 16 S., R. 8 E., which is a sandstone 12x6x6 ins. above ground, firmly set, marked with 1 notch on W. and 5 notches on E. edge, and C C, on S. face, and witnessed by a mound of stone 2 ft. base, 1 1/4 ft. high, S. of cor.

At the cor. point

Set an iron post, 3 ft. long, 2 ins. in diam., 27 ins. in the ground with the original cor. monument alongside for the closing cor. of secs. 5 and 6, with brass cap marked

T 15 S. R 8 E  
S 32

S 6 | S 5  
T 16 S | R 8 E  
C C

1931

from which:

An aspen, 5 ins. diam., bears S. 14°15' E., 143 lks. distant, marked T 16 S R 8 E S 5 C C B T.

An aspen, 6 ins. diam., bears S. 11°30' W., 159 lks. distant, marked T 16 S R 8 E S 6 C C B T.

6.00 High ridge divide, 40 ft. above sec. cor. bears NW. and SE.; descend abruptly over NE. slope.

6.70 Enter dense timber and undergrowth bears NW. and SE.

16.60 Leave dense timber and undergrowth.

26.90 Small, steep draw, 740 ft. below divide, drains N.; ascend gradually over broken N. slope.

30.60 Spur projects N. 30° E.; descend abruptly over steep E. slope, 300 ft. to

39.37 The standard 1/4 sec. cor., which is a sandstone 16x12x6 ins. above the ground; loosely set, marked 1/4 on N. face, and witnessed by a small mound of stone N. of the Cor.

At the cor. point

Set an iron post, 3 ft. long, 1 in. diam., 27 ins. in the ground with the original cor. alongside, for standard 1/4 sec. cor., with brass cap marked

S C  
1/4 S 32

1931

from which:

An aspen, 5 ins. diam., bears N. 49° E., 10 lks. distant, marked 1/4 S 32 S C B T.

A Douglas Fir, 8 ins. diam., bears N. 48° W., 34 lks. distant, marked 1/4 S 32 S C B T.

Thence

N. 89°57' E., with continuous measurement.

39.70 Draw, 20 ft. below 1/4 sec. cor. drains N.; ascend abruptly over S. slope.

**RESERVE OF A PORTION OF THE 3RD STANDARD**

**. PARALLEL SOUTH THROUGH R. S E.**

- station 42.50 Leave timber, enter dense undergrowth, bears N. and S.;
- 43.93 Pipe line bears NW. and SE.
- 49.10 Spur, 360 ft. above draw, projects N.; enter timber, and descend abruptly over E. slope.
- 55.10 Draw, 230 ft. below spur, drains N.; ascend abruptly over NW. slope.
- 59.40 Spur, 135 ft. above draw, projects N.; descend gradually over abrupt N. slope.
- 62.80 Gulch, 50 ft. below spur, drains NW.; ascend abruptly over NW. slope.
- 70.20 Top of a sandstone ledge, 75 ft. high, faces W. and bears N. and S.;
- 73.80 Spur, 520 ft. above gulch, projects N. 15° E.; descend abruptly 215 ft. over E. slope to
- 79.58 The standard cor. of secs. 32 and 33, which is a sandstone 16x16x6 ins. above ground, firmly set, marked with 4 notches on the E. and 2 notches on W. edge, and S C on N. face, with a small mound around cor.

At the cor. point,

Set an iron post, 3 ft. long, 2 ins. diam., 20 ins. in the ground to solid rock, and in a mound of stone to top, with the original cor. monument alongside, for the standard cor. of secs. 32 and 33, with brass cap marked

S	C
T15S	R8E
S32	S33

1931

from which:

A balsam, 8 ins. diam., bears N. 49°30' E., 38 lks. distant, marked T 15 S R 8 E S 33 S C B T.

A balsam, 10 ins. diam., bears N. 21°45' W., 55 lks. distant, marked T 15 S R 8 E S 32 S C B T.

Cor. stands on a steep NE. slope in dense timber.

Land, broken and mountainous, with a general NE. and SW. exposure and drainage from divide.

Soil, shallow, rocky and gravelly clay loam, 3rd rate.

Timber, aspen, Douglas Fir, spruce and balsam.

Undergrowth, sage, service berry, chokecherry, and dwarfed timber.

Good grazing land.

N. 89°52' E., along the S. boundary of sec. 33.

Descend abruptly NE. slope over rough, mountainous land through dense timber and undergrowth.

DEPARTMENT RESERVE OF A PORTION OF THE OLD STANBARD

. PARALLEL SOUTH THROUGH T15 S E.

station	notes
3.00	Draw, 65 ft. below sec. cor., drains N.; ascend abruptly over NW. slope.
3.25	Leave timber, bears N. and S.
3.855	Proportionate point
	Set an iron post, 3 ft. long, 2 ins. diam., 15 ins. in the ground to solid rock, and in a mound of stone to top, for the closing cor. of secs. 4 and 5, T. 16 S., R. 8 E., with brass cap marked
	T15 S R8 E
	833
	S5 S4
	T16 S R8 E
	66
	1931
	from which
	A Douglas Fir, 12 ins. diam., bears S, 74° W., 60 lks. distant. This tree is blazed and dimly marked. I reblaze tree and mark same T 16 S R 8 E S 5 C C B T.
	The original record does not mention this tree as an accessory to the closing cor.
5.70	Spur project N. 10° E.; descend steep E. slope.
6.80	Enter timber, bears N. and S.
8.50	Draw, 70 ft. below spur, drains N.; ascend abrupt NW. slope.
12.50	Leave timber, bears NW. and SE.
14.00	Spur, 110 ft. above draw, projects N. 15° E.; descend abrupt E. slope.
29.00	Enter timber, bears N. and SW.
30.90	Draw, 760 ft. below spur, drains N. 30° E.; ascend abrupt NW. slope.
32.30	Timber becomes scattered, bears NE. and SW.
34.00	Spur, 100 ft. above draw, projects N. 15° E.; descend abrupt E. slope.
37.00	Timber becomes dense, bears N. and S.
37.80	Draw, 85 ft. below spur, drains N.; ascend over abrupt W. slope to,
39.54	The standard $\frac{1}{4}$ sec. cor., which is a sandstone 16x14x4 ins., loosely set in ground, and marked S C $\frac{1}{4}$ S 4 B T, from which
	A balsam, 20 ins. diam., bears N. 27° E., 75 lks. distant, marked S C $\frac{1}{4}$ S 33 B T.
	A balsam, 18 ins. diam., bears S. 19° E., 95 lks. distant, marked S C $\frac{1}{4}$ S 4 B T.
	At the cor. point
	Set an iron post, 3 ft. long, 1 1/2 ins. diam., 10 ins. in the ground to solid rock and in a mound of stone to top

DEPENDENT RESURVEY OF A PORTION OF THE 3RD STANDARD

PARALLEL SOUTH THROUGH R. 8 E.

Chains

and with the original cor. monument alongside, for the standard  $\frac{1}{4}$  sec. cor., with brass cap marked

SC  
 $\frac{1}{4}$  S33

1931

from which

A balsam, 18 ins. diam., bears N. 38° W., 30 lks. distant marked  $\frac{1}{4}$  S 33 S C B T.

Cor. stands on steep, broken W. slope, in dense timber.

Thence

N. 89°56' E., with continuous measurement.

Ascend gradually over W. slope of high mountain spur.

43.00 Leave timber, bears N. and S.; thence ascend grassy slope.

59.20 High ridge spur, slopes E.; descend abruptly over E. slope.

76.50 Steep draw, drains N. 20° W.; ascend abruptly over W. slope through scattered timber.

79.77 Proportionate point.

Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground to solid rock and in a large mound of stone, for the restored standard cor. of secs. 33 and 34, with brass cap marked

S	C
T15S	R8E
S33	S34

1931

from which

A spruce, 12 ins. diam., bears N. 40° E., 28 lks. distant, marked S C T 15 S R 8 E S 34 B T.

A spruce, 6 ins. diam., bears N. 86° W., 150 lks. distant, marked SC T 15 S R 8 E S33 B T.

Cor. stands at base of white sandstone ledge, 20 ft. high, bearing NE. and SW.

Land, broken and mountainous, with a general northeasterly exposure and drainage.

Soil, shallow gravel with a rocky surface; 4th rate.

Timber, Douglas fir, spruce, and balsam.

Undergrowth, sage, service berry, chokecherry, and deer brush.

Good grazing land.

N. 89°56' E., along the S. boundary of sec. 34.

Ascend abrupt NW. slope of broken mountainous land, through scattered timber and medium dense undergrowth.

3.00 Leave timber, bears NE. and SW.

DEPENDENT RESURVEY OF A PORTION OF THE 3RD STANDARD

PARALLEL SOUTH, THROUGH R. 8 E.

Chains

011610

3.57 From this point the closing cor. of secs. 3 and 4, T. 16 S., R. 8 E., bears South, 1.35 chs. distant, which is a white sandstone, 24 x 10 x 4 ins., firmly set in a mound of stone marked 3 grooves on E. and W. faces, 60 on S. face, and 60 on N. face. I mark the top face of this cor. monument with a cross for witness point.

At a point 1.35 chs. N. of the witness point, on sandstone surface rock, mark a cross (X), over which:

Set an iron post, 3 ft. long, 2 ins. diam., in a large mound of stone to top, for closing cor. secs. 3 and 4, T. 16 S., R. 8 E., with brass cap marked

T15S R8E  
S34  
S4 | S3  
T16S R8E  
C C  
1931

No suitable bearing tree available.

Cor. stands on steep NW. slope, 140 ft. above the standard cor. secs. 33 and 34.

- 7.50 Ridge, 120 ft. above closing cor., slopes N. 22° E. and ascends S. 22° W.; descend steep ledgy NE. slope.
- 15.70 Telephone line, bears N. 22° E. and S. 22° W.
- 17.35 Center of a two track tram, bears S. 22° W. to the King No. 1 Coal Mine, and N. 22° E., to the tippie.
- 17.80 Electric power line, bears N. 22° E. and S. 22° W.
- 18.90 Gulch, 415 ft. below ridge, drains N. 20° E.; ascend steep NW. slope through scattered timber.
- 40.23 The standard 1/4 sec. cor. sec. 34, which is a white sandstone, 18 x 12 x 10 ins., firmly set in a mound of stone, marked 1/4 on N. face. Cor. has no accessories.

At the cor. point:

Set an iron post, 3 ft. long, 1 in. diam., 15 ins. in the ground to solid rock and in a large mound of stone, with the original cor. monument alongside, for standard 1/4 sec. cor., with brass cap marked

SC  
1/4 S34

1931

from which

A spruce, 10 ins. diam., bears N. 75° W., 249 lks. distant, marked SC 1/4 S 34 B T.

No other suitable bearing tree available.

Land, rough and mountainous, with a general northwesterly exposure and drainage.

Shallow gravel with a rocky surface; 4th rate.

Timber, scattered spruce and balsam on portion of mile.

Undergrowth, sage, oak, service berry, chokecherry, and deer brush.

Good grazing land.

DEPENDENT RESURVEY OF A PORTION OF THE SUBDIVISION  
OF T. 16 S., R. 8 E.

Chains

Reestablishment of surveys executed by J. C.  
Dick, Deputy Surveyor, in 1900.

Random lines

From the cor. of secs. 8, 9, 16 and 17, hereinafter described, the  $\frac{1}{2}$  sec. cor. between secs. 8 and 9 is visible.

I run for said corner

N.0°15'W., between secs. 8 and 9.

39.80 Intersect the  $\frac{1}{2}$  sec. cor. hereinafter described.

The bearing of this half mile therefore is N.0°15'W., and the distance is 39.80 chs.

September 8, 1931, at this  $\frac{1}{2}$  sec. cor., in approximate latitude 39°27'N., longitude 111°05'W., at 8h 11mm a.m., local mean time, I make an hour angle observation on Polaris W. of the meridian, making four observations, two each with the telescope in direct and reversed position, reading the horizontal deflection angle from a flag pole about 15 chs. N. in the direction W. to Polaris.

Watch time of observation (correct  
105th Meridian standard time ..... 9h 5.3m a.m.

Horizontal deflection angle,  
flag to Polaris..... 1°23'W.

Azimuth of Polaris..... 1°23'W.

True bearing of flag pole..... North.

From the  $\frac{1}{2}$  sec. cor North.

40.01 Fall 9 lks. W. of the cor. of secs. 4, 5, 8 and 9, hereinafter described.

The bearing of this half mile therefore is N.0°08'E., and the distance is 40.01 chs.

North, between secs. 4 and 5.

39.07 Fall 11 lks. E. of the  $\frac{1}{2}$  sec. corner, hereinafter described.

The bearing of this half mile therefore is N.0°10'W., and the distance is 39.07 chs.

From the  $\frac{1}{2}$  sec. corner North, with continuous measurement.

90.13 Fall 40 lks. E. of the reestablished closing cor. of secs. 4 and 5, on the N. bdy. of the township heretofore described.

The bearing of this half mile therefore is N.0°27'W., and the distance is 51.06 chs.

DEPENDENT RESURVEY OF A PORTION OF THE SUBDIVISION  
OF T. 16 S., R. 8 E.

Chains

From the cor. of secs. 8, 9, 16 and 17.

West between secs. 8 and 17.

39.33 Fall 2 lks. N. of the  $\frac{1}{4}$  sec. cor., hereinafter described.

The bearing of this half mile therefore is S.89°59'W.,  
and the distance is 39.33 chs.

From the  $\frac{1}{4}$  sec. cor., West, with new measurement.

40.21 Fall 16 lks. S. of the cor. of secs. 7, 8, 17 and 18,  
hereinafter described.

The bearing of this half mile therefore is N.89°46'W.,  
and the distance is 40.21 chs.

North, between secs. 7 and 8.

39.92 Fall 7 lks. W. of the  $\frac{1}{4}$  sec. cor., hereinafter described.

The bearing of this half mile therefore is N.0°06'E.,  
and the distance is 39.92 chs.

From the  $\frac{1}{4}$  sec. cor., North, with new measurement.

39.81 Fall 1 lk. E. of the cor. of secs. 5, 6, 7 and 8,  
hereinafter described.

The bearing of this half mile therefore is N.0°01'W.,  
and the distance is 39.81 chs.

East, between secs. 5 and 8.

39.87 Fall 17 lks. N. of the  $\frac{1}{4}$  sec. cor., hereinafter  
described.

The bearing of this half mile therefore is N.89°45'W.,  
and the distance is 39.87 chs.

From the  $\frac{1}{4}$  sec. cor., East, with new measurement.

39.54 Fall 9 lks. S. of the cor. of secs. 4, 5, 8 and 9,  
hereinafter described.

The bearing of this half mile therefore is S.89°52'W.,  
and the distance is 39.54 chs.

True lines

The cor. of secs. 8, 9, 16 and 17 is a sandstone, 10x10x8  
ins. above the ground, firmly set, and marked and wit-  
nessed as described in the official record.

At the cor. point.

Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in  
the ground to solid rock, and surrounded to the top by a  
mound of stone, with the original corner deposited along-  
side, for the cor. of secs. 8, 9, 16 and 17, with brass  
cap marked

REPERIMENT RESURVEY OF A PORTION OF THE SUBDIVISION

OF T. 16. S., R. 8 E.

station

T16S R8E

88 | 89

817 | 816

1933

from which

A sandstone boulder, 20x8x5 ft., marked X B O S 17 on E. face bears S. 22°15' W., 33 lks. distant.

A balsam, 14 ins. diam., bears N. 27°15' W., 71 lks. distant, marked T 16 S R 8 E S 8 B T.

This cor. stands on a spur projecting N. 30° E.

Thence

N. 0°15' W., between secs. 8 and 9.

Descend NW. slope, over rough mountainous land, through scattered timber and dense undergrowth.

- 8.00 Draw, 250 ft. below cor., drains N. 30° E.; ascend.
- 12.00 Point of spur projects E.; descend abruptly over NE. slope.
- 17.50 Bottom of Mohrland Canyon and stream, 6 lks. wide, 3 ins. deep, course S. 60° E.; telephone line bears N. 70° W. and S. 70° E.,
- 20.00 Canyon road to the King No. 2 Mine, which bears northwesterly, and to Mohrland, Utah, which bears in an easterly direction; ascend abruptly.
- 21.00 Enter tracks and numerous other improvements adjacent to the King No. 2 Coal Mine, which is immediately west.
- 28.00 Begin precipitous ascent over S. and SW. slopes through medium dense timber and scattering undergrowth.
- 37.00 The  $\frac{1}{4}$  sec. cor., which is a sandstone 20x10x4 ins., lying on the ground, marked  $\frac{1}{4}$  on upper face and unwitnessed.

at the cor. point

Set an iron post, 3 ft. long, 1 in. diam., 15 ins. in the ground to solid rock, and in a mound of stone to top, with the original cor. monument alongside, for the  $\frac{1}{4}$  sec. cor., with brass cap marked

$\frac{1}{4}$   
88 | 89

1931

from which

A juniper, 8 ins. diam., bears S. 25°30' E. 37 lks. distant, marked  $\frac{1}{4}$  S 9 B T.

A juniper 14 ins. in diam., bears N. 50°30' W., 60 lks. distant, marked  $\frac{1}{4}$  S 8 B T.

Cor. stands on steep SW. slope 540 ft. above Mohrland Canyon.

Thence

DEPENDENT RESURVEY OF A PORTION OF THE SUBDIVISION  
OF T. 16 S., R. 8 E.

chains

ultrata

N. 0°08' E., with continuous measurement.

Continue abrupt ascent over S. and SW. slopes.

51.40 Top of sandstone ledge, 75 ft. high, faces S. and bears N. 70° W. and S. 70° E.

56.70 A small seep of good water bears E., 35 lks. distant.

59.80 High mountain spur, 800 ft. above  $\frac{1}{2}$  sec. cor. bears NW. and SE.; descend NE. slope through dense undergrowth and groves of dense spruce timber.

61.60 Enter dense fir timber, bears E. and W.

69.80 Head of draw, 200 ft. below spur, drains E.; ascend abruptly SE. slope.

78.60 Spur, 70 ft. above draw, projects E.; descend.

79.81 The cor. of secs. 4, 5, 8 and 9, which is a sandstone, 18x10x6 ins., firmly set in a mound of stone, marked with four notches on the N. and five notches on S. edge. Cor. is unwitnessed.

At the cor. point

Set an iron post, 3 ft. long, 2 ins. diam., 10 ins. in the ground to solid rock, and in a mound of stone to top, with the original cor. monument alongside, for the cor. of secs. 4, 5, 8 and 9, with brass cap marked

T16S R8E

85 84

88 89

1931

from which

A Douglas fir, 18 ins. diam., bears N. 51° E., 83 lks. distant, marked T 16 S R 8 E S 4 B T.

A Douglas fir, 8 ins. diam., bears S. 26° E., 34 lks. distant, marked T 16 S R 8 E S 5 B T.

A Douglas fir, 10 ins. diam., bears S. 15° W., 148 lks. distant, marked T 16 S R 8 E S 8 B T.

A balsam, 8 ins. diam., bears N. 8°30' W., 254 lks. distant, marked T 16 S R 8 E S 5 B T.

Cor. stands on steep NE. slope, 20 ft. below top of spur.

Land, rough and broken mountains, with general N. and S. exposure and easterly drainage.

Soil, shallow clay loam and rocky, of sandstone formation

Timber, juniper, pines, balsam, mahogany, Douglas fir and spruce.

Good grazing land.

N. 0°10' W., between secs. 4 and 5.

Descend gradually over broken NE. slope of mountainous land

**DEPARTMENT RESURVEY OF A PORTION OF THE SUBDIVISION**

**OF T. 16. S., R. 8 E.**

chains	through medium dense timber and undergrowth.									
6.60	Descent becomes abrupt, bears E. and W.									
9.50	Sandstone ledge 80 ft. high, bears E. and W.									
13.00	Draw, 400 ft. below sec. cor., drains N. 80° E.; ascend an abrupt and broken SE. slope.									
14.80	Timber becomes scattered, bears E. and W.									
20.40	Spur, 100 ft. above draw, projects E.; descend gradually over broken NE. slope.									
25.40	Draw, 80 ft. below spur, drains E.; ascend abrupt SE. slope.									
29.75	Small steep bears NW., 25 lks. distant.									
33.50	Base of a sandstone ledge, 70 ft. high, bears N. and W.; thence along base of ledge.									
39.07	The $\frac{1}{4}$ sec. cor., which is a sandstone 15x12x5 ins. above the ground, firmly set, and marked and witnessed as described in the official record.									
	At the cor. point									
	Set an iron post, 3 ft. long, 1 in. diam., 18 ins. in the ground to solid rock, and in a mound of stone to top, with the original cor. monument alongside, for the $\frac{1}{4}$ sec. cor., with brass cap marked									
	<table border="0"> <tr> <td></td> <td align="center">†</td> <td></td> </tr> <tr> <td></td> <td align="center">S5</td> <td align="center">S4</td> </tr> <tr> <td></td> <td align="center">1931</td> <td></td> </tr> </table>		†			S5	S4		1931	
	†									
	S5	S4								
	1931									
	from which									
	A mahogany, 5 ins. diam., bears N. 3°30' E., 172 lks. distant, marked $\frac{1}{4}$ S 4 B T.									
	A Douglas fir, 12 ins. diam., bears N. 2°30' W., 274 lks. distant, marked $\frac{1}{4}$ S 5 B T.									
	Cor. stands on steep E. slope, 300ft. above draw, and at the base of a ledge bearing N. and S.									
	Thence									
	N. 0°27' W., with continuous measurement.									
	Continue along base of ledge.									
44.10	Top of sandstone ledge, 50 ft. high, bears N. 75° E. and S.									
55.60	Enter dense aspen, fir, balsam and mahogany timber, bears NE. and SW.									
61.50	High ridge, 570 ft. above the $\frac{1}{4}$ sec. cor., bears E. and W.; descend gradually over NE. slope through very dense timber and undergrowth.									
73.10	Leave timber, bears E. and W.									
78.10	Spur, 230 ft. below ridge, projects NE.; descend abruptly over N. slope.									
81.80	Enter dense timber, bears E. and W.									

## DEPENDENT RESURVEY OF A PORTION OF THE SUBDIVISION

OF T. 16, S., R. 8 E.

chains	
86.60	Leave timber at top of ledge, 75 ft. high, bears E. and W.
90.13	The reestablished closing cor. of secs. 4 and 5, heretofore described, 400 ft. below spur. Land, rough and broken mountains, with a general southerly and northerly exposure and drainage from ridge. Soil, shallow clay loam and rocky, of sandstone formation 3rd rate. Timber, Douglas fir, spruce, balsam, aspen, juniper and pinon. Undergrowth, sage, serviceberry, buck brush and dwarfed timber. Good grazing land.
	From the cor. of secs. 8, 9, 16 and 17. S. 89°59' W., between secs. 8 and 17. Descend NW. slope, over rough, mountainous land, through scattering timber and dense undergrowth.
9.50	Draw, 100ft. below sec. cor., drains N. 40° E.; ascend precipitous E. slope, through dense undergrowth, and leave timber.
21.30	Top of ledge, about 60 ft. high, bears N. and S. Continue ascent.
29.30	Spur, 870 ft. above draw, projects N. 60° E.; descend NW. slope, entering timber.
37.75	Ledge, 50 ft. high, bears NE. and SW.; descend abruptly.
39.33	The $\frac{1}{4}$ sec. cor., which is a sandstone 22x20x6 ins. set in a mound of stone, marked $\frac{1}{4}$ on N. face, from which A balsam stump, 3 ft. high, 6 ins. diam., bears N. 39°15' E., 17 lks. distant, marked B T. A balsam stump, 4 ft. high, 20 ins. diam., bears S. 25°45' W., 23 lks. distant, marked B T. At the cor. point. Set an iron post, 3 ft. long, 1 in. diam., 27 ins. in the ground, and with the original cor. monument alongside, for the $\frac{1}{4}$ sec. cor., with brass cap marked S8 $\frac{1}{4}$ S17 1935 From which A balsam, 7 ins. in diam., bears N. 66°30' E., 17 lks. distant, marked $\frac{1}{4}$ S 8 B T. A balsam, 4 ins. in diam., bears S. 89°15' W., 13 lks. distant, marked $\frac{1}{4}$ S 17 B T.

REPERIMENT RESERVED OBLA PORTION OF THE SUBDIVISION

OF T. 16 S., R. 8 E.

station	Thence
	N. 89°46' W., with continuation measurement.
39.80	Head of draw, drains N. 20° E.; ascend abruptly over E. slope, through dense timber.
47.90	Spur and leave timber, 400 ft. above draw, bears N. 30° E. and S. 30° W.; thence along N. slope, gradually ascending.
50.00	Enter dense scrub aspen timber, bears NE. and S.
59.43	Set an iron post, 3 ft. long, 1 in. diam., 6 ins. in the ground to solid rock, and surrounded by a large mound of stone to top, for W. 1/16 sec. cor., with brass cap marked
	S 8 W. 1/16 S 17
	1933
	This cor. stands in the head of a draw draining NE.; ascend abruptly over E. slope.
70.65	Top of ledge, and brink of mountain top, 800 ft. above draw, bears N. 20° W. and S. 47° E.; thence over mountain top.
74.25	Leave mountain-top, and enter dense timber, bears NW. and S.; descend over SW. slope, 75 ft. to
79.54	The cor. of secs. 7, 8, 17 and 18, which is a limestone, 14x8x8 ins. above ground, firmly set, marked with 5 notches on the E. and four notches on the S. edge, from which
	A pine, 30 ins. diam., bears N. 38°15' E., 28 lks. distant, The marks are partly grown over. I blaze tree on E. side of old marks, and mark same T 16 S R 8 E S 8 B T.
	A pine, 24 ins. in diam., bears S. 38° W., 90 lks. distant, This is an original bearing tree which I remark T. 16 S R 8 E S 18 B T.
	A fir, 34 ins. diam., bears N. 73° W., 32 lks. distant, marked T 16 S R 8 E S 7 B T.
	The bearing tree in sec. 17 has been cut down.
	At the cor. point
	Set an iron post, 3 ft. long, 2 ins. diam., 27 ins. in the ground, with the original cor. monument alongside, for the cor. of secs. 7, 8, 17 and 18, with brass cap marked
	T16S R8E S7   S8 S18   S17
	1933
	from which
	A fir, 10 ins. diam., bears S. 32°30' E., 17 lks. dist., marked T 16 S R 8 E S 17 B T.
	Land, rough and broken mountainous,; general NE. exposure and drainage.

DEPARTMENT RESURVEY OF A PORTION OF THE SUBDIVISION

OF T. 16. S. 3. R. 3 E.

station

notes

Soil, sandy clay loam, gravelly and rocky, of sandstone and limestone formation; 3rd rate.

Timber, aspen, pine, fir, spruce and mahogany;

Undergrowth, sage brush, service berry, oak and buck brush

Good grazing land.

N. 0°06' E., between secs. 7 and 8.

Ascend SW. slope, over mountainous land, through dense timber and scattering undergrowth.

9.00 Rim of mountain top bears NW. and SE.; leave dense timber thence over rolling mountain top.

19.96 Set an iron post, 3 ft. long, 1 in. diam., 20 ins. in ground to solid rock and in a mound of stone to top, for the S. 1/16 sec. cor., with brass cap marked.

S 1/16

S7 | S8

1933

from which

An aspen, 8 ins. diam., bears N. 89°30' E., 81 lks. distant, marked S 1/16 S 8 B T.

An aspen, 5 ins. diam., bears N. 11°15' W., 38 lks. distant, marked S 1/16 S 7 B T.

27.15 N. rim of mountain top bears NW. and SE.; descend abruptly over NE. slope, through dense aspen timber.

32.00 Base of abrupt descent bears NW. and SE.; thence along general E. slope.

39.92 The 1/4 sec. cor., which is a red sandstone, 14x12x6 ins. above the ground, firmly set, and marked 1/4 on W. face. The bearing trees at this cor. are dead and fallen.

At the cor. point

Set an iron post, 3 ft. long, 1 in. diam., 27 ins. in ground, with original cor. monument alongside, for the 1/4 sec. cor., with brass cap marked

S7 | S8

1933

from which

An aspen 4 ins. diam., bears S. 70°30' E., 13 lks. distant marked 1/4 S 8 B T on bark.

An aspen, 4 ins. diam., bears S. 77° W., 19 lks. distant, marked 1/4 S 7 B T on bark.

Thence

N. 0°01' W., with continuous measurement.

INDEPENDENT RESURVEY OF A PORTION OF THE SUBDIVISION

OF T. 16, S. 8, R. 8 E.

station

- 41.50 A spring of good water, on line; descend abruptly over general NE. slope.
- 72.00 Mohrland Canyon, with small stream of water in same, 750 ft. below sec. cor., course S. 70° E.; ascend abruptly over S. slope, through dense timber and undergrowth.
- 79.25 The cor. of secs. 5, 6, 7 and 8, which is a sandstone, 6x10x4 ins. above ground, firmly set, and marked with 5 notches on the E. and S. edges, from which
- A pine, 8 ins. diam., bears N. 68° E., 180 lks. distant, marked T 16 S R 8 E S 5 B T.
- A pine, 8 ins. diam., bears S. 20° E., 100 lks. distant, marks illegible; I remark tree T 16 S R 8 E S 8 B T.
- A mahogany, 5 ins. diam., bears S. 89°15' W., 13 lks. distant marked T 16 S R 8 E S 7 B T.
- A pine, 10 ins. diam., bears N. 35°45' W., 240 lks. distant, marks illegible. I remark tree T 16 S R 8 E S 6 B T.
- At the cor. point

Set an iron post, 3 ft. long, 2 ins. diam., 27 ins. in the ground, with the original cor. alongside, with brass cap marked

T16S R8E	
S6	S5
S7	S8

1933

This cor. stands on a steep S. slope, 200 ft. above canyon.

Land, rough and mountainous; general N. and S. exposure, and E. drainage.

Soil, clay loam, gravelly and rocky, of sandstone formation.; 3rd rate.

Timber, aspen, pine, fir, and mahogany.

Undergrowth, sage brush, service berry and buck brush.

Good grazing land.

From the cor. of secs. 4, 5, 8 and 9.

S. 89°52' W., between secs. 5 and 8.

Ascend abruptly over E. slope of mountainous land through very scattering timber and dense, short undergrowth.

7.60 Enter dense timber, bears N. and S.

11.00 High ridge spur, 275 ft. above sec. cor., bears N, 30° E. and S. 30° W.; descend over general W. slope.

14.00 Leave timber, bears N. and S.

22.00 Reenter timber at top of steep descent, bears N. and S.

DEPENDENT RESURVEY OF A PORTION OF THE SUBDIVISION

OF T. 16 S., R. 8 E.

chains	
27.25	Top of broken ledges bears N. and S. 03.11
30.50	Base of ledges bears N. and S. 30.37
34.75	Leave heavy timber, bears N. and S. 35.00
35.00	Bottom of ravine with small trickle of water in same 600 ft. below spur, course S.; ascend abruptly over rocky E. slope.
36.60	Old drag road and leave timber, bears N. and S.
39.54	The $\frac{1}{4}$ sec. cor., which is a sandstone, 10x10x8 ins. above ground, firmly set, and marked and witnessed as described in the official records. At the corner point Set an iron post, 3 ft. long, 1 in. diam.; 27 ins. in the ground, with original cor. alongside, for the $\frac{1}{4}$ sec. cor. with brass cap marked $\frac{1}{4}$ $\frac{85}{88}$ 1933 from which An aspen, 5 ins. diam., bears S. 67°15' W., 18 lks. distant, marked $\frac{1}{4}$ S 8 B T. An aspen, 6 ins. diam., bears N. 72°15' W., 47 lks. distant, marked $\frac{1}{4}$ S 5 B T. Raise a mound of stone, 3 ft. base, 3 ft. high, N. of cor. Thence N. 89°45' W., with continuous measurement. Continue ascent over E. slope through dense aspen thicket 40.75 Leave thicket, bears SW. and NE. 1 ch., thence SE. 42.50 Ascend abruptly over ledge 75 ft. high, bears N. and S. 44.10 Top of ledge which extends N. and S. along mountainside. 53.50 High spur, 425 ft. above $\frac{1}{4}$ sec. cor., projects S. 15° E.; descend over grassy W. slope. 62.70 Enter timber, bears N. and S. 68.20 Ravine, 200 ft. below spur, drains S.; ascend. 75.50 Spur, 175 ft. above ravine, projects S.; thence along S. slope. 79.41 The cor. of secs. 5, 6, 7 and 8, Land, rough mountainous; general S. exposure and drainage Soil, clay loam, gravelly and rocky, of sandstone and limestone formation; third rate. Timber, aspen, pine, fir, spruce and mahogany. Undergrowth, sage brush and scattered service berry brush Good grazing land.

SUBDIVISION-OF-SECTION SURVEYS OF

T. 16 S., R. 8 E.

chains

SUBDIVISION-OF-SECTION SURVEYS OF

T. 16 S., R. 8 E.

From the 1/4 sec. cor. between secs. 8 and 17, the 1/4 sec. cor. between secs. 5 and 8 is visible. I run for said cor.

N. 0°13' W., on random N. and S. center line, sec. 8.

20.00 Set temp. 1/16 sec. cor.

40.00 Set temp. center 1/4 sec. cor.

60.00 Set temp. 1/16 sec. cor.

79.71 Intersect the 1/4 sec. cor. between secs. 5 and 8.

The bearing of this line therefore is N. 0°13' W., and the distance is 79.71 chs.

From the 1/4 sec. cor. between secs. 8 and 9.

N. 89°47' W., on random E. and W. center line, sec. 8

20.00 Set temp. 1/16 sec. cor.

39.30 Fall 6 lks. S. of the temp. center 1/4 sec. cor.

59.00 Set temporary 1/16 sec. cor.

79.31 Intersect the 1/4 sec. cor. between secs. 7 and 8.

The bearing of this line therefore is N. 89°47' W., and the distance is 79.31 chs.

From the 1/4 sec. cor. between secs. 8 and 17,

N. 0°13' W., on true N. and S. center line, sec. 8.

Descend NW. slope over rough mountainous land, through dense timber and undergrowth.

13.30 Draw, 145 ft. below 1/4 sec. cor. drains N. 25° E.; Thence along N. slope.

13.85 Spur, 330 ft. below 1/4 sec. cor., projects N. 40° E.; descend steep N. slope.

15.70 Small stream of good water, near S. edge of ravine, 430 ft. below 1/4 sec. cor., course E. Thence across steep ravine sloping E.

19.20 Ravine, drains E.; ascend steep SE. slope through dense undergrowth., and leaving timber.

19.97 Set an iron post, 3 ft. long, 1 in. diam., 28 ins. in the ground for center S. 1/16 sec. cor., with brass cap marked

C  
S 1/16 S8

C  
1933

SUBDIVISION OF SECTION SUBMERGE

T. 16 S., R. 8 E.

chains	from which
	A fir, 12 ins. diam., bears N. 62°45' E., 42 lks. distant, marked C S 1/16 S 8 B T.
	A spruce, 6 ins. diam., bears E. 17°15' W., 120 lks. distant, marked C S 1/16 S 8 B T.
	Continue ascent over S N. slope.
29.65	Spur, 125 ft. above ravine, projects E.; descend NE. through heavy timber and dense undergrowth.
39.94	Set an iron post, 3 ft. long, 1 in. diam., 6 ins. in the ground to solid rock, and in a mound of stone to top, for the center $\frac{1}{4}$ sec. cor., with brass cap marked C $\frac{1}{4}$ S 8 1933
	from which
	A yellow pine, 12 ins. diam., bears N. 9°15' W., 92 lks. distant, marked C $\frac{1}{4}$ S 8 B T.
	A spruce, 8 ins. diam., bears S. 35°15' W., 41 lks. distant, marked C $\frac{1}{4}$ S 8 B T.
	This cor. stands on a steep NE. slope in medium dense timber.
47.35	Old drag road and S. side of bottom of Mohrland Canyon, bears NW. and SE.
48.65	Bottom of Mohrland Canyon and stream, 3 lks. wide, 2 fms. deep, course SE., 175 ft. below center $\frac{1}{4}$ sec. cor.
50.50	Old road and N. side of bottom of canyon, bears NW. and SE.; ascend SW. slope, leaving nearly all timber.
52.85	Point of spur projects SW.; thence along W. slope.
58.00	Rocky ravine and small stream drains S. 20° W.; ascend SW. slope.
59.82	Point for center N. 1/16 sec. cor. falls on E. edge of a sloping sandstone outcrop, 25 lks. W. of ravine. I chisel a groove in the outcrop at the cor. point, and set an iron post, 3 ft. long, 1 in. diam., 20 ins. in the ground and bend same to cover the cor. point, and build a mound of stone around cor., for the center N. 1/16 sec. cor. sec. 8, with brass cap marked C N 1/16 S 8 1933
	from which
	A spruce, 24 ins. in diam., bears S. 78° E., 18 lks. distant, marked C N 1/16 S 8 B T.
	A fir, 10 ins. diam., bears S. 39°30' W., 31 lks. distant, marked C N 1/16 S 8 B T.

SURVEY DIVISION - OFF-SUBSISTENCE SURVEY OF

T. 16 S., R. 8 E.

chains	
64.00	Drag road bears N. 10° E. and S. 10° W.; enter heavier mahogany timber.
73.00	Leave timber, bears E. and W.
75.00	Enter aspen thicket, bears E. and W.
78.50	Leave thicket, bears E. and W.
79.71	The $\frac{1}{2}$ sec. cor. between secs. 5 and 8. Land, rough mountainous; general N. and S. exposure and drainage. Soils, clay loam and rocky, of sandstone formation; 3rd rate. Timber, aspen, pine, fir, spruce and mahogany. Undergrowth, sage brush, service berry, and willow. Good grazing land.

From the  $\frac{1}{2}$  sec. cor. between secs. 8 and 9.

N. 89°47' W., on true E. and W. center line, sec. 8.

Over rough mountainous land, along ledgy S. break of ridge, through medium dense timber and scattering undergrowth.

- .30 Rocky wash, drains S., in depression on S. slope.
- 1.95 Top of ledge, 20 ft. high, bears N. 60° E. and S. 60° W.
- 5.59 Low spur projects S.; gradually descend.
- 6.25 Descend abruptly.
- 9.75 Steep draw drains S.; ascend ledgy SE. slope.
- 12.85 Low spur projects S.; descend rocky general S. slope.
- 19.65 Set an iron post, 3 ft. long, 1 in. diam., 28 ins. in the ground for the center E. 1/16 sec. cor., with brass cap marked

$$C \frac{E \ 1/16}{88} C$$

1933

from which

A pinon, 14 ins. diam., bears S. 70°15' W., 75 lks. distant, marked C E 1/16 S 8 B T.

A spruce, 10 ins. diam., bears N. 81° W., 64 lks. distant, marked C E 1/16 S 8 B T.

Continue along broken S. slope.

- 31.15 Old road, in E. edge of bottom of Mohrland Canyon, bears N. 50° W., and S. 50° E.,.
- 31.25 Bottom of Mohrland Canyon and stream, 3 lks. wide, 2 ins. deep, course S. 50° E.; leave pinon and mahogany timber, enter dense spruce and fir timber; ascend abruptly over

SUBDIVISION-OF-SECTION SURVEY OF

T. 16 S., R. 8 E.

chains

- steep E. and NE. slopes.
- 39.30 The center  $\frac{1}{4}$  sec. cor. sec. 8,  
Continue ascent.
- 45.90 Spur, projects and descends rapidly to the N.; descend slope.
- 46.50 Enter dense timber, bears N. and S.
- 51.00 Draw, 65 ft. below spur, drains N.; ascend precipitous slope.
- 56.25 Top of high ledgy point, 200 ft. above draw, projects ledge breaks off 50 lks. N. of line; descend over NW. slope.
- 56.97 Point for the W.  $\frac{1}{16}$  sec. cor. will fall on ledges, where cor. cannot be set; therefore, at this point  
  
Set an iron post, 3 ft. long, 1 in. diam., 6 ins. in ground to solid rock, and 24 ins. in a large mound of stone to top, for witness cor, to the center W.  $\frac{1}{16}$  sec. cor., with brass cap marked  
  

$$C \frac{WC \ W \ \frac{1}{16}}{S8} C$$

1933

from which

A spruce, 16 ins. diam., bears S.  $52^{\circ}15'$  W., 289 lks. distant, marked W C C W  $\frac{1}{16}$  S 8 B T.

Continue descent over NW. slope, broken by ledges.
- 59.30 Point for center W.  $\frac{1}{16}$  sec. cor. falls on ledges, impracticable to set a corner.
- 65.00 Draw drains N.  $30^{\circ}$  E.; ascend abruptly over E. and NE. slopes 450 ft. to
- 79.31 The  $\frac{1}{4}$  sec. cor. between secs. 7 and 8.  
  
Land, rough mountainous; general N. and S. exposure into Mohrland Canyon, which drains E.  
  
Soil, clay loam and rocky, of sandstone formation; 3rd rate.  
  
Timber, aspen, fir, spruce, pinon, juniper and mahogany  
  
Good grazing land.  
  
Undergrowth, sage, service berry and buck brush.

SURVEY OF A PORTION OF THE KING NO. 1 COAL MINE

Station	
	<p>From the standard cor. of secs. 33 and 34 on the S. bdy. of T. 15 S., R. 8 E., heretofore described.</p> <p>S.77°04'E., 1055.87 ft. (15.998 chs.) distant to my station 00 at the Main Entry of the King No. 1 Coal Mine.</p> <p>From this station I run</p> <p>N.45°49'E., 103.04 ft. (1.561 chs.) to Company station A X 29 in a concrete pier.</p> <p>Nov. 1, 1932, at this station, in approximate latitude 39°28'N., longitude 111°04'W. at 9h 21m a.m. by my watch, which is 24m fast of local mean time, I make an hour angle observation on Polaris W. of the meridian, making four observations, two each with the telescope in direct and reversed position, and reading the horizontal deflection angle from a high flag pole at Hiawatha, Utah, about 1 mile distant to the N. in the direction of W. to Polaris.</p> <p>Watch time of observation..... 9h 21m a.m.</p> <p>Watch fast of local mean time..... 24m</p> <p>Local mean time of observation..... 8h 57m a.m.</p> <p>Mean horizontal deflection angle, flag pole to star..... 18°45'</p> <p>Azimuth of Polaris at observation..... 40'</p> <p>True bearing of flag pole..... N18°05'E.</p> <p>Deflecting from this true meridian, I note that my Station 00 bears S.45°49'W.</p> <p>Thence with the subsurface surveys in the King No.1 Coal Mine.</p>
00-1	S.23°47'40"W., 124.99 ft. (1.894 chs.), in Main Entry and motor road to Company Station No. 250.
1-2	S.39°01'W., 105.71 ft. (1.602 chs.), to Company Station No. 251.
2-3	S.13°10'W., 131.63 ft. (1.994 chs.), to Company Station No. 252.
3-4	S.4°28'E., 157.19 ft. (2.382 chs.), to Company Station No. 253.
4-5	S.11°33'W., 208.61 ft. (3.161 chs.), to Company Station No. 257, in Main Slope and 1st West Entry.
5-6	S.42°28'W., 729.95 ft. (11.060 chs.), to Company Station No.170 in Main Slope Entry at the junction with 2nd West Entry; thence in 2nd West Entry.
6-7	N.79°46'W., 1078.03 ft. (16.334 chs.), to Company Station No. 180.
7-8	West, 871.32 ft. (13.202 chs.), to Company Station No.183.
8-9	West, 881.71 ft. (13.359 chs.), to Company Station No.187.

SURVEY OF A PORTION OF THE KING NO. 1 COAL MINE.

Station

9-10 S.89°58'W., 1016.99 ft. (15.409 chs.), to Company Station No. 190,

10-11 S.89°55'W., 760.09 ft. (11.517 chs.),

11-12 S.89°56'W., 742.92 ft. (11.256 chs.), to Company Station No. 193,

From this station, West, 26.28 ft. (.598 chs.), intersect line between secs. 4 and 5, T. 16 S., R. 8 E., S.0°27'E. 1262.83 ft. (19.134 chs.) distant from the closing corner of secs. 4 and 5, heretofore described.

At point of intersection.

Set an iron post, 12 ins. long, 1 in. diam., 12 ins. in a hole drilled in solid rock roof, with brass cap marked

T16S R8E

S5|S4

1933

12-13 N.39°45'W., 71.38 ft. (1.082 chs.), to Company Station No. 205, in 12th Right Main Entry.

13-14 N.18°03'W., 383.85 ft. (5.816 chs.), to Company Station No. 259.

14-15 N.18°06'W., 876.76 ft. (13.284 chs.), From this station N.18°06'W., 9.31 ft. (.141 chs.) distant, intersect the line between secs. 5 and 32, on the N. boundary of T. 16 S., R. 8 E., S.89°57'W. 149.23 ft., (2.261 chs.), distant from the standard cor. of secs. 32 and 33, heretofore described.

At point of intersection.

Set an iron post, 12 ins. long, 1 in. diam., 12 ins. in a hole drilled in solid rock roof, with brass cap marked

T15S R8E

S32

S5

T16S R8E

1933

SURVEY OF A PORTION OF THE KING NO. 2 COAL MINE.

From the sec. cor. between secs. 8 and 9, T. 16 S., R. 8 E., heretofore described, station 00, at the Main Entry and Motor Road of the King No. 2 Mine, bears S. 6°40'W., 1140.16 ft. (17.275 chs.), distant, as determined by the following traverse.

West, 2.97 ft. (0.045 chs.).

South, 1183.12 ft. (17.926 chs.).

N.86°03'W., 161.70 ft. (2.45 chs.).

## SURVEY OF A PORTION OF THE KING NO. 2 COAL MINE

station

N. 38°51' E., 50.56 ft. (0.766 chs.), to Company station and my station 00 at the Main Entry of the King No. 2 Coal Mine. From this station I set a reference point, a nail in a stake driven firmly in the ground, S. 56°40' W., about 6 chs. distant.

November 17, 1932, at this reference point, in approximate latitude 39°26' N., longitude 111°05' W., I make an hour angle observation on Polaris W. of the meridian, making four observations, two each with the telescope in direct and reversed position, and reading the horizontal deflection angle from my station 00 in the direction N-W to Polaris.

Watch time of observation	9h 44m a. m.
Watch fast of local mean time	24m 20s
Local mean time of observation	9h 19m 40s a. m.
Azimuth of Polaris	0°12' W.
Mean horizontal angle,	56°32'
True bearing of station 00	N. 56°20' E.

Thence with the survey of the King No. 2 Coal Mine.

- 00-1 N. 20°47' E., 62.08 ft. (.941 chs.), to Company station No. 222, in Main Haulage Entry.
- 1-2 N. 37°21' E., 121.04 ft. (1.834 chs.), to Company station No. 410.
- 2-3 N. 27°36' W., 217.99 ft. (3.303 chs.), to Company station No. 225 in Main West Entry at junction with the first Channel Entry.
- 3-4 N. 0°12' E., 131.17 ft. (1.987 chs.), to Company station No. 411 in the 1st Channel Entry.
- 3-5 N. 72°55' W., 874.96 ft. (13.257 chs.), in Main West Entry to Company station No. 412.
- 5-6 N. 72°51' W., 892.27 ft. (13.519 chs.), to Company station No. 235.
- 6-7 S. 82°08' W., 740.61 ft. (11.221 chs.).
- 7-8 S. 82°10' W., 1325.73 ft. (20.087 chs.), to Company station No. 279 at junction of the 3rd North and Main West Entry.
- 8-9 N. 44°38' W., 81.92 ft. (1.241 chs.), to Company station No. 271 in 3rd North Entry.
- 9-10 N. 0°01'45" E., 1033.66 ft. (15.662 chs.), to Company station No. 284.
- 10-11 North, 858.34 ft. (13.005 chs.), to Company station No. 286.
- 11-12 N. 0°01' W., 843.64 ft. (12.782 chs.), to Company station 171, opposite 6th West Entry.
- 12-13 N. 44°24' W., 118.97 ft. (1.803 chs.), to Company station No. 413, in 6th West Entry.

## SURVEY OF A PORTION OF THE KING NO. 2 COAL MINE.

station

12-14 North, 340.37 ft. (5.157 chs.), to Company station No. 290 in 3rd North Main Entry.

From this station I run N.  $0^{\circ}05'$  W., 52.82 ft. (0.800 chs.) intersect line between secs. 5 and 8, N.  $89^{\circ}45'$  W., 1327.77 ft. (20.118 chs.) distant from the  $\frac{1}{4}$  sec. cor. between secs. 5 and 8, heretofore described.

At point of intersection

Set an iron post, 14 ins. long, 1 in. diam., 14 ins. in a hole drilled in coal roof, with brass cap marked

T16SR8E

S5

S8

1933

13-15 N.  $68^{\circ}33'$  W., 836.00 ft. (12.667 chs.), to Company station No. 306.

From this station I run North, 6.17 ft. (0.093 chs.) distant, and intersect the line between secs. 5 and 8, S.  $89^{\circ}45'$  E., 442.43 ft. (6.703 chs.) distant from the cor. between secs. 5, 6, 7 and 8, heretofore described.

At point of intersection

Set an iron post, 12 ins. long, 1 in. diam., 12 ins. in a hole drilled in the roof of the mine, with brass cap marked

T16SR8E

S5

S8

1933

This cor. is set near the N. rib of the entry.

8-16 S.  $82^{\circ}09'$  W., 546.54 ft. (8.281 chs.), in Main West Entry to Company station No. 141.

16-17 N.  $71^{\circ}55'$  W., 403.27 ft. (6.110 chs.), to Company station No. 336.

17-17 $\frac{1}{2}$  N.  $71^{\circ}05'$  W., 481.29 ft. (6.033 chs.), intersect the line between secs. 7 and 8, S.  $0^{\circ}06'$  W., 365.51 ft. (5.538 chs.) distant from the  $\frac{1}{4}$  sec. cor. between secs. 7 and 8, heretofore described.

At point of intersection

Set an iron post, 12 ins. long, 1 in. diam., 12 ins. in a hole drilled in the roof of the mine, with brass cap marked

T16SR8E

S7 | S8

1933

17 $\frac{1}{2}$ -18 N.  $71^{\circ}05'$  W., 105.59 ft. (1.823 chs.), to Company station No. 308.

27  
SURVEY OF A PORTION OF THE KING NO. 2 COAL MINE

station	
4-19	N. 36°45'30" E., 175.57 ft. (2.660 chs.), to Company station No. 415.
19-20	N. 41°04' E., 143.13 ft. (2.169 chs.), to Company station No. 416.
20-21	N. 17°27' E., 693.78 ft. (10.512 chs.), to Company station No. 417.
21-22	N. 16°42' E., 502.49 ft. (7.613 chs.), to Company station No. 418.
22-23	N. 0°50' E., 108.05 ft. (1.637 chs.), to Company station No. 419.
23-24	N. 18°39' E., 835.39 ft. (12.657 chs.), to Company station No. 420.
24-25	N. 17°01' E., 791.13 ft. (11.987 chs.), to Company station No. 421, at the 3rd West Main Entry. Thence in the 3rd West Main Entry.
25-26	N. 32°03' W., 70.15 ft. (1.063 chs.), to Company station No. 422.
26-27	N. 72°16'45" W., 635.62 ft. (9.631 chs.), to Company station No. 423.
27-28	N. 72°56'30" W., 258.97 ft. (3.924 chs.), to Company station No. 151, opposite Room 13 in the 3rd West Main Entry.
28-28½	N. 72°41' W., 19.18 ft. (0.291 chs.), intersect the line between secs. 4 and 5, N. 0°10' W., 87.77 ft. (1.350 chs.) distant from the cor. of secs. 4, 5, 8 and 9, heretofore described.

At point of intersection

Set an iron post, 12 ins. long, 1 in. diam., 12 ins. in a hole drilled in coal roof, with brass cap marked

T16SR8E  
S5 | S4

1933

28½-29	N. 72°41' W., 376.61 ft. (5.706 chs.), to Company station No. 250, at the 1st South Main Entry off the 3rd West Main Entry. Thence in the 1st South Main Entry.
29-30	S. 62°20' W., 258.24 ft. (3.913 chs.), to Company station No. 251.
30-30½	S. 62°58' W., 179.75 ft. (2.723 chs.), intersect the line between secs. 5 and 8, S. 89°52' W., 748.70 ft. (11.344 chs.) distant from the cor. of secs. 4, 5, 8 and 9, heretofore described.

At point of intersection

Set an iron post, 12 ins. long, 1 in. diam., 12 ins. in a hole drilled in the roof of the mine, with brass cap marked





CERTIFICATE OF ~~UNITED STATES~~ SURVEYER

Howard W. Miller, ~~U. S.~~ Cadastral Engineer  
x, We. and Elliot Bird, ~~U. S.~~ Surveyor

HEREBY CERTIFY upon honor that,

pursuance of special instructions bearing date of the 11th day of June, 1933

received from the district cadastral engineer for Utah, with assignment

instructions dated May 18, 1931, April 8, 1932, and June 15, 1933, ~~we~~ ~~have~~ ~~resurveyed~~ those parts

and portions of the North boundary and subdivision, and surveyed the

subdivision-of-section lines, sec. 8. and a portion of the King No.

and No. 2 Coal Mines of the U. S. Fuel Co., in T. 16 S., R. 8 E.

of the Salt Lake Meridian, in the State of Utah, which

represented in the foregoing field notes as having been executed by ~~me~~ <sup>us</sup> and under ~~my~~ <sup>our</sup> direction; and that

survey has been made in strict conformity with said instructions, the Manual of Instructions for the Survey

of the Public Lands of the United States, and in the specific manner described in the foregoing field notes.

Certified to at Salt Lake

City, Utah, February 11, 1937.

*Howard W. Miller*  
U. S. Cadastral Engineer  
*Elliot Bird*  
U. S. Surveyor

CERTIFICATE OF APPROVAL

OFFICE OF ~~U. S.~~ SUPERVISOR OF SURVEYS,

Denver, Colorado 1937

The foregoing field notes of the ~~survey~~ ~~of~~ ~~the~~ ~~resurvey~~ of those parts and portions

of the North boundary and subdivision, and the survey of the subdivi

-of-section lines, sec. 8, and a portion of the King No. 1 and No. 2

Coal Mines of the U. S. Fuel Co., in T. 16 S., R. 8 E., S. 1. M., Utah

executed by Howard W. Miller, ~~U. S.~~ Cadastral Engineer and Elliot Bird, ~~U. S.~~ Surveyor

under special instructions dated August 26, 1930, and assignment

instructions dated May 18, 1931, April 8, 1932, and June 15, 1933, having been critically examined, and

the necessary corrections made prior to their certification by the engineer, the said field notes, and the survey

therein described, are hereby approved.

*Wm. H. P. Mason*  
U. S. Supervisor of Surveys.

CERTIFICATE OF TRANSCRIPT

I CERTIFY that the foregoing transcript of the field notes of the above-described surveys in

is a true copy of the original field notes on file in the public survey office.

U. S. Supervisor of Surveys.

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BOOK A-519

J

# FIELD NOTES



DEPENDENT RESURVEY OF THE BOUNDARIES, SURVEY OF THE

SUBDIVISION OF SECTION LINES, AND SURVEY OF COAL

MINE OF RALPH M. KELS, ALL IN

SECTION 4, T. 2 N., R. 5 E.,

Of the Salt Lake Meridian,

in the State of Utah

### EXECUTED BY

Ralph Gentry, Cadastral Engineer

Under special instructions dated March 31, 1937, which provided

for the surveys included under Group No. 234, bearing the approval of the

Commissioner of the General Land Office under date of April 22, 1937

and assignment instructions dated December 10, 1937

Survey commenced December 14, 1937

Survey completed December 23, 1937

BOOK A-519

# INDEX DIAGRAM.

Township \_\_\_\_\_, Range \_\_\_\_\_

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

The following field notes are of a dependent resurvey of the boundaries of section 4, T. 2 N., R. 5 E., Salt Lake Meridian, the official survey of which is shown upon township plat approved December 31, 1873; the subdivision of this section, and the carrying underground and marking the surface position of the west boundary of the SW $\frac{1}{4}$ SE $\frac{1}{4}$ , section 4, in the main slope of the coal mine of Ralph M. Rees, of Coalville, Utah.

The resurvey is a complete restoration of the original boundaries of section 4, T. 2 N., R. 5 E., in the true original positions as adjusted to the identified evidence.

The rules of proportionate measurement were applied in order to ascertain the position of each lost corner, after completing the necessary retracements.

The retracement data were submitted for office examination and verification. In order to simplify the record, the true line notes only are supplied here, which refer to the completed resurvey.

Survey commenced December 14, 1937, and executed with Buff and Buff transit No. 23466, property of the General Land Office. The instrument is equipped with the Smith solar attachment and full vertical circle; the horizontal limb is provided with two double verniers placed opposite to each other, and read to single minutes of arc, which is also the least count of the verniers of the vertical circle, and of the latitude and declination arcs. The instrument was approved for use on this survey by the District Cadastral Engineer for Utah, conditional upon satisfactory field tests. The instrument was in good condition at the commencement of this survey, and was tested and found free from any appreciable error.

All meridians were established by observations on Polaris; the bearings of the lines were deflected from these meridians, by repetitions of angles, and the lines carried forward by fore and back sights. In the underground survey the lines were run by traverse methods, the traverse line was carried into the mine, and a check survey using the same transit stations and continuing the azimuth of the original traverse in the opposite directions back to the entry of the mine.

The measurements were made with a Lallie steel ribbon tape 5 chains in length, and a Lufkin steel tape 200 feet long. The 5 chain tape is graduated every link for the first 100 links, and thereafter at intervals of 10 links; the 200 ft. tape, used in the mine work, is graduated to feet, tenths, and hundredths, in its entire length. The tapes were tested, comparison being made with a Lufkin steel tape 66 feet in length, and found correct. The measurements were made on the slope, the vertical angle of each interval determined with the transit. The horizontal equivalents are entered in the field note record.

#### DEPENDENT RESURVEY OF

#### BOUNDARIES OF SECTION 4, T. 2 N., R. 5 E.

Reestablishment of surveys executed by Julien Bausman, Deputy Surveyor, in 1873.

December 14, 1937, at the corner of sections 4, 5, 8, and 9, T. 2 N., R. 5 E., approximate latitude 40°56'N., and longitude 111°24'W., at 4h 49m 48s p.m., l.m.t., or 5h 15m 24s p.m., by my watch, which carries correct 105th meridian standard time, as determined by radio signals, I make an hour angle on Polaris east of the meridian, two each with the telescope in direct and reversed positions, reading the horizontal deflection angle from well

DEPENDENT RESURVEY OF  
BOUNDARIES OF SECTION 4, T. 2 N., R. 5 E.

Chains

defined reference point about 2 miles northerly, in direction NE. to Polaris.

Mean horizontal angle, reference point NE. to Polaris, - - - - - 0° 06'  
Azimuth of Polaris, - - - - - 1° 03' E.  
True bearing of reference point, - - N.0° 57' E.

The cor. of secs. 4, 5, 8, and 9, is a sandstone, 24x8x6 ins., set 24 ins. in the ground, in alfalfa field, and marked 5 notches on S., and 4 notches on E. edge, and unwitnessed.

At point for corner.

Set an iron post, 3 ft. long, 2 ins. diam., 36 ins. in the ground, with original cor. monument deposited at the base, and deposit rock around post, for cor. of secs. 4, 5, 8, and 9, with brass cap marked

T2N	R5E
S5	S4
<hr/>	
S8	S9
1937	

Thence

S.89°39'E., between secs. 4 and 9.

Ascend gentle NW. slope, through cultivated land, over rolling hills.

- 4.50 Leave cultivated land, entering medium dense undergrowth, bears N.25°E. and S.25°W.; ascend rocky NW. slope.
- 8.90 Barbed wire fence, 6 strand, bears N.20°E. and S.20°W.
- 18.50 Rocky spur, 370 ft. above sec. cor.; projects S.25°W.; abrupt descent.
- 23.00 Foot of abrupt descent, bears N.25°E. and S.25°W.; descend gentle SE. slope.
- 28.60 Power transmission line, bears N.40°E. and S.40°W.; enter cultivated land.
- 34.20 Wash, 100 lks. wide, 10 ft. deep, in draw, 210 ft. below spur, course S.; ascend gentle W. slope, leaving cultivated land.
- 35.90 Road, unimproved, bears N. and S.
- 40.53 On edge of old coal mine dump.

Proportionate distance; no evidence of  $\frac{1}{4}$  sec. cor. found.

Set an iron post, 3 ft. long, 1 in. diam., 27 ins. in the ground, for  $\frac{1}{4}$  sec. cor., with brass cap marked

$\frac{1}{4}$	S 4
	S 9
	1937

raise a mound of stone, 3 ft. base, 2 ft. high; N. of cor., and deposit a sandstone, 8x6x5 ins., marked with a cross, at base of post.

- 45.00 Enter scattered timber, bears NE. and SW.

DEPENDENT RESURVEY OF  
BOUNDARIES OF SECTION 4, T. 2 N., R. 5 E.

- Chains
- 55.00 Spur, 130 ft. above  $\frac{1}{4}$  sec. cor., projects SW.; descend SE. slope.
  - 60.90 Barbed wire fence, 4 strand, bears N.10°E. and S.10°W.
  - 61.90 Small draw, 100 ft. below spur, course SW.; ascend.
  - 66.00 Spur, 40 ft. above draw, projects SW.; descend.
  - 69.00 Swale, 20 ft. below spur, course SW.; ascend
  - 73.00 Spur, 30 ft. above swale, projects S.20°W.; descend E. slope.
  - 78.20 Railroad tracks, on curve, bears northeasterly to coal mine, and southwesterly.
  - 81.06 At cor. of fences, bearing S. and E.; true point for cor. of secs. 3, 4, 9, and 10, as identified to me by settlers.

Set an iron post, 3 ft. long, 2 ins. diam., 27 ins. in the ground, for cor. of secs. 3, 4, 9, and 10, with brass cap marked

T2N R5E

S4 | S3

S9 | S10

1937

raise a mound  
of stone, 3 ft. base, 2 ft. high, W. of cor.

The position of this cor. was identified to me by William H. Chappell and Thomas Chappell, of Coalville, Utah, and former owners of the land, to the NE. and by William Robinson, of Coalville, Utah. All three stated that they had seen the original cor. monument, a sandstone, at the position pointed to me on the ground on numerous occasions.

From this cor. the  $\frac{1}{4}$  sec. cor. bet. secs. 3 and 10, bears N.89°13'E. 39.62 chs. dist., a sandstone, 14x10x6 ins., marked  $\frac{1}{4}$  on N. face, and set in cor. of fences, bearing E. and W. and S.; also a sandstone, 30x14x8 ins. marked  $\frac{1}{4}$  on one face was lying on ground.

At point for cor.

Set an iron post, 3 ft. long, 1 in. diam., 27 ins. in the ground, with both old corner monuments deposited at base, for  $\frac{1}{4}$  sec. cor. secs. 3 and 10, with brass cap marked

$\frac{1}{4}$  S 3

S 10

1937

The cor. of secs. 9, 10, 15, and 16, bears S.0°32'E., 80.02 chs. dist.; a sandstone, marked 3 notches on E. and 4 notches on S. edge, in field of William Robinson, and buried 12 inches below the surface of the ground.

No evidence of the  $\frac{1}{4}$  sec. cor. between secs. 9 and 10 was found.

Land, rolling hills.

Soil, sandy loam; rocky on portion of mile; 1st to 3rd rate.

Undergrowth, sagebrush; medium growth of weeds and grass. Timber, scattered juniper on portion of mile.

DEPENDENT RESURVEY OF  
BOUNDARIES OF SECTION 4, T. 2 N., R. 5 E.

Chains

N.0°34'W., between secs. 3 and 4.

Ascend over broken hills, through medium dense undergrowth

21.00 Spur, 360 ft. above sec. cor., projects S.20°W.;  
thence along gentle W. slope.

26.20 Head of draw, course S.70°W.; ascend.

32.00 Top of ascent, 60 ft. above draw, slopes W.; descend.

39.86 The  $\frac{1}{4}$  sec. cor., which is a sandstone, 28x10x4 ins.;  
firmly set and marked  $\frac{1}{4}$  on W. face.

At point for cor.

Set an iron post, 3 ft. long, 1 in. diam., 27 ins. in  
the ground, with original cor. monument deposited at  
base, for  $\frac{1}{4}$  sec. cor., with brass cap marked

$\frac{1}{4}$   
S4 | S3  
1937

of stone, 3 ft. base, 2 $\frac{1}{2}$  ft. high, W. of cor. raise a mound

Thence

N.1°02'W., with continuous measurement.

42.00 Small draw, course S.60°W.; ascend.

47.00 Top of ascent, 20 ft. above draw, slopes W.; descend.

61.00 Power transmission line, bears N.40°E. and S.40°W.

61.20 Draw, 20 ft. below top of ascent, course SW.; ascend.

65.00 Spur, 60 ft. above draw, projects SW.; descend N. slope.

81.14 The cor. of secs. 3, 4, 33, and 34, on N. bdy. of Tp.,  
which is a quartzite, 15x10x7 ins., firmly set, and marked  
3 notches on E. and W. edges.

At point for cor.

Set an iron post, 3 ft. long, 2 ins. diam., 27 ins. in  
the ground, with original cor. monument deposited at base,  
for cor. of secs. 3, 4, 33, and 34, with brass cap marked

T3N | R5E  
S33 | S34  
-----  
S4 | S3  
T2N  
1937

of stone, 3 ft. base, 2 $\frac{1}{2}$  ft. high, W. of cor. raise a mound

Land, rolling and broken hills.

Soil, sandy loam; rocky, 2nd to 3rd rate.

Undergrowth, sagebrush; medium growth of weeds and grass.

No timber.

From the cor. of secs. 4, 5, 8, and 9.

N.1°00'E., between sections 4 and 5.

Over gently rolling cultivated land.

DEPENDENT RESURVEY OF  
BOUNDARIES OF SECTION 4, T. 2 N., R. 5 E.

- | Chains |  |
|--------|--|
| 20.60  | Barbed wire fence, 5 strand, bears N.22°E. and S.22°W.; leave cultivated land                                      |
| 22.10  | Improved oiled road, State Highway No. 530, bears N.22°E. and S.22°W.  |
| 23.50  | Barbed wire fence, 4 strand, bears N.22°E. and S.22°W.; enter medium dense undergrowth.                            |
| 25.60  | Telegraph line, bears N.23°E. and S.23°W.  |
| 25.40  | Railroad, branch line of Union Pacific, bears N.23°E. and S.23°W.  |
| 29.00  | Highwater line of the Echo Reservoir, bears NE. and SW.  |
| 39.96  | The $\frac{1}{4}$ sec. cor., which is a cobblestone, 16x6x6 ins., firmly set, and marked $\frac{1}{4}$ on W. face. |

At point for cor.

Set an iron post, 3 ft. long, 1 in. diam., 27 ins. in the ground, with the original cor. monument deposited at base, for  $\frac{1}{4}$  sec. cor., with brass cap marked

$\frac{1}{4}$   
 S5 | S4  
 1937

raise a mound of stone, 3 ft. base, 2 $\frac{1}{2}$  ft. high, W. of cor.

Thence

N.0°07'E., with continuous measurement.

- |       |   |
|-------|---|
| 52.00 | Highwater line of the Echo Reservoir, bears S.30°E. and N.20°W.             |
| 53.40 | Railroad, branch of Union Pacific, bears N.20°30'W. and S.20°30'E.          |
| 54.20 | Wash, 1 chain wide, 10 ft. deep, course W.                                  |
| 55.20 | Telegraph line, bears with railroad.  |
| 55.60 | Barbed wire fence, 4 strand, bears with railroad.                           |
| 55.75 | Improved oiled road, State Highway No. 530, bears N.20°30'W. and S.20°30'E. |
| 61.25 | Unimproved road, bears E. and W.; ascend broken S. slope of spur.           |
| 66.50 | Point of spur, 140 ft. above wash, slopes S.40°W.; descend NW. slope.       |
| 80.99 | On NW. slope, 120 ft. below spur.   |

The cor. of secs. 4, 5, 32, and 33, on N. bdy. of Tp., which is a sandstone, 24x12x8 ins., marked 4 notches on E. and 2 notches on W. edge, and set in old mound of stone.

At point for cor.

Set an iron post, 3 ft. long, 2 ins. diam., 6 ins. in the ground to solid rock, and in a mound of stone to top, with original cor. monument deposited at base, for the cor. of secs. 4, 5, 32, and 33, with brass cap marked

DEPARTMENT REVENUE OF  
 BOUNDARIES OF SECTION 4, T. 2 N., R. 5 E.

Chains

T3N R5E  
 S32 | S33  
 S5 | S4  
 1937

Land, gently rolling and broken hills.  
 Soil, rich sandy loam; rocky on N. portion;  
 1st to 3rd rate.  
 Undergrowth, sagebrush, medium growth of weeds and grass.  
 No timber.

S.89°34'E., between secs. 4 and 33, along N. bdy. of Tp.

Ascend NW. slope, over broken hills, through medium  
 dense undergrowth and scattered juniper timber.

- 11.00 Spur, 270 ft. above sec. cor., projects S.40°W.;  
 descend abrupt SE. slope.
- 22.40 Unimproved road, bears S.40°W. and N.40°E.;  
 foot of descent, thence over rolling bottom of draw.
- 23.00 Barbed wire fence, bears N.40°E. and S.40°W.; and E.;  
 enter cultivated land.
- 33.00 Wash, 80 lks. wide, 20 ft. deep, course S.40°W.;  
 leave cultivated land; ascend NW. slope.
- 39.55 The  $\frac{1}{2}$  sec. cor., which is a quartzite, 18x9x5 ins.,  
 firmly set, and marked  $\frac{1}{2}$  on N. face.

At point for cor.

Set an iron post, 3 ft. long, 1 in. diam., 27 ins. in  
 the ground, with the original cor. monument deposited  
 at base, for  $\frac{1}{2}$  sec. cor., with brass cap marked

$\frac{1}{2}$   $\frac{S\ 33}{S\ 4}$   
 1937

of stone, 3 ft. base, 2 $\frac{1}{2}$  ft. high, N. of cor. raise a mound

Cor. stands in fence line, bearing E. and W.

Thence S.89°55'E., with continuous measurement.

- 79.13 The cor. of secs. 3, 4, 33, and 34, 430 ft. above  $\frac{1}{2}$   
 sec. cor. Cor. stands in fence line, bearing E. and W.

Land, broken hills.

Soil, sandy loam in draw; 1st rate, and rocky sandy  
 loam on slopes; 3rd rate.

Undergrowth, sagebrush; medium growth of weeds and grass.  
 Timber, a few scattered juniper.

SUBDIVISION OF SECTION 4, T. 2 N., R. 5 E.

From the  $\frac{1}{2}$  section cor. between secs. 4 and 9

N.0°08'E., on N. and S. center line, sec. 4.

Along gentle E. slope, over broken hills, through  
 medium dense undergrowth.

SUBDIVISION OF SECTION 4, T. 2 N., R. 5 E.

Chains

- 7.90 Unimproved road, bears N.20°E. and S.20°W.
- 13.00 Power transmission line, bears N.40°E. and S.40°W.
- 13.30 Wash, 80 lks. wide, 20 ft. deep, in draw, course S.20°W.; ascend SE. slope, entering cultivated land.
- 19.95 Set an iron post, 3 ft. long, 1 in. diam., 27 ins. in the ground, for center south 1/16 sec. cor., with brass cap marked
- $$\begin{array}{c} C \\ S\ 1/16\ | \ S4 \\ C \\ 1937 \end{array}$$
- raise a mound of stone, 3 ft. base, 2½ ft. high, W. of cor., and deposit a sandstone, 6x6x4 ins., marked with a cross at base of post.
- 25.70 Leave cultivated land, bears NE. and SW.
- 37.50 Spur, 270 ft. above draw, projects S.30°W.; descend NW. slope.
- 39.91 Point of intersection of E. and W. center line.
- Set an iron post, 3 ft. long, 1 in. diam., 20 ins. in the ground to solid rock, and in a mound of stone to top, for center ¼ sec. cor., with brass cap marked
- $$\begin{array}{c} C\ \frac{1}{4}\ S4 \\ 1937 \end{array}$$
- deposit a sandstone, 8x8x6 ins., marked with a cross, at base of post.
- 80.95 The ¼ sec. cor. between secs. 4 and 33, on N. bdy. of Tp., 460 ft. below C¼ sec. cor.
- Land, broken hills.  
Soil, sandy loam; rocky; 2nd to 3rd rate.  
Undergrowth, sagebrush, medium growth of weeds and grass.  
Timber, a few scattered juniper.

From the ¼ sec. cor. between secs. 4 and 5.

S.89°34'E., on E. and W. center line, sec. 4.

Ascend NW. slope, over rolling hills, through medium dense undergrowth.

- 1.90 Highwater line of Echo Reservoir, bears N. and S.
- 3.15 Railroad, branch line of Union Pacific, bears N. and S.
- 4.20 Telegraph line, bears N. and S.
- 5.00 Improved, oiled road, State Highway No. 530, bears N. and S.
- 5.50 Barbed wire fence, 4 strand, bears N. and S.; enter cultivated land.
- 10.60 Barbed wire fence, bears N. and S.; leave cultivated land.
- 39.74 The center ¼ sec. cor., 510 ft. above ¼ sec. cor.
- 41.00 Spur, 20 ft. above C¼ sec. cor., projects S.30°W.; descend SE. slope.

**SUBDIVISION OF SECTION 4, T. 2 N., R. 5 E.**

**Chains**

- 59.60 Wash, 50 lbs. wide, 10 ft. deep, in draw, 160 ft. below spur, course SW.; ascend.
  - 63.00 Power transmission line, bears N.40°E. and S.40°W.
  - 79.97 The  $\frac{1}{2}$  sec. cor. between secs. 3 and 4, 240 ft. above draw
- Land, rolling and broken hills.  
 Soil, sandy loam; rocky on slopes; 2nd to 3rd rate.  
 Undergrowth, sagebrush, medium growth of weeds and grass.  
 Timber, a few scattered juniper.

**UNDERGROUND SURVEY OF COAL MINE OF RALPH M. REES, IN SECTION 4, T. 2 N., R. 5 E.**

**Station**

This subsurface survey is made to mark the surface position of the west boundary of the SW $\frac{1}{4}$ SE $\frac{1}{4}$ , sec. 4, T. 2 N., R. 5 E., in the main slope of the coal mine of Ralph M. Rees. All measurements in the mine, and the surface tie to the entry of the mine are made in the foot unit, and the measurements are converted into the chain unit.

From the center south  $\frac{1}{16}$  sec. cor., sec. 4,

Thence on a traverse and surface tie to entry of mine.

S.33°22'E., 7.80 chs. (514.77 ft.) to

0 Knuckle, main entry.

0-1 N.40°09'W., 5.34 chs. (352.32 ft.) Along main slope to 1st right entry.

1-2 N.46°10'W., 1.17 chs. ( 77.22 ft.) Intersect N. and S. center line, or W. bdy. SW $\frac{1}{4}$ SE $\frac{1}{4}$ , Sec. 4, S.0°08'E. 1.622 chs. or 107.14 ft of the CS  $\frac{1}{16}$  sec. cor. sec. 4.

Thence

S.0°08'E., 0.102 chs. (6.72 ft), along N. and S. center line, to point S.0°08'E. 1.724 chs. or 113.86 ft of the CS  $\frac{1}{16}$  sec. cor., on floor at left rib in main slope.

Set an iron post, 12 ins. long, 1 in. diam., 12 ins. in floor, with brass cap marked



**GENERAL DESCRIPTION, SECTION 4, T. 2 N., R. 5 E.**

The land of section 4 consists of low rolling and broken hills, of sandstone formation, draining south-westerly.

The soil is a rich sandy loam along the draws, and on the slopes contains considerable rock. The soil supports a medium growth of sagebrush, weeds and grass. A few scattered juniper of no commercial value is found along the spurs.

Indications are that the major portion of the section

GENERAL DESCRIPTION, SECTION 4, T. 2 N., R. 5 E.

Chains

is underlain with coal. The coal mine of Ralph M. Rees was operating at time of this survey.

A branch railroad of the Union Pacific, from Echo, Utah, to Park City, Utah, and also State Highway No. 530, passes through the west side of section 4.

Small strips of land along the foot of a spur in west portion, and a small strip in draw in south central portion of the section are under cultivation. The remaining portion of the section is too broken for cultivation.

The magnetic declination was found to be  $17\frac{1}{4}^{\circ}$  E.

China

is underlain with coal. The coal is of the bituminous type and is of high quality. It is being mined in the vicinity of the city of Peking and is being transported to Peking City, then, and thence to other parts of the country. The coal is used for domestic consumption and for export to other parts of the world.

China

The coal is of the bituminous type and is of high quality. It is being mined in the vicinity of the city of Peking and is being transported to Peking City, then, and thence to other parts of the country. The coal is used for domestic consumption and for export to other parts of the world.

China

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China



CERTIFICATE OF UNITED STATES SURVEYOR

I, Ralph Gentry, Cadastral Engineer, HEREBY CERTIFY upon honor that, pursuant of special instructions bearing date of the 31st day of March, 1937, received from the district cadastral engineer for Utah, with assignment instructions dated December 10, 1937, I have ~~surveyed~~ Dependently resurveyed the boundaries, surveyed the subdivision of section lines, and surveyed the coal mine of Ralph W. Rees, all in section 4, T. 2 N., R. 5 E., of the Salt Lake Meridian, in the State of Utah, which is represented in the foregoing field notes as having been executed by me and under my direction; and that a survey has been made in strict conformity with said instructions, the Manual of Instructions for the Survey of the Public Lands of the United States, and in the specific manner described in the foregoing field notes. Salt Lake City, Utah, Feb. 14, 1940 Ralph Gentry Cadastral Engineer

CERTIFICATE OF APPROVAL

OFFICE OF U.S. SUPERVISOR OF SURVEYS,

Denver, Colo., MAR 25 1940, 1940

The foregoing field notes of the ~~survey of~~ dependent resurvey of the boundaries, the survey of the subdivision of section lines, and the survey of the coal mine of Ralph W. Rees, all in section 4, T. 2 N., R. 5 E., on the Salt Lake Meridian, Utah executed by Ralph Gentry, Cadastral Engineer under special instructions dated March 31, 1937, and assignment instructions dated December 10, 1937, having been critically examined, and the necessary corrections made prior to their certification by the engineer, the said field notes, and the survey therein described, are hereby approved.

Wm. H. Hanson  
U.S. Supervisor of Surveys.

CERTIFICATE OF TRANSCRIPT

I CERTIFY that the foregoing transcript of the field notes of the above-described surveys in \_\_\_\_\_, is a true copy of the original field notes on file in the public survey office.

\_\_\_\_\_  
U.S. Supervisor of Surveys.

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BOOK A-519

# FIELD NOTES

SURVEY AND RESURVEY OF PORTION OF EAST BOUNDARY AND SUBDIVISION

RESURVEY OF PORTION SEVENTH STANDARD PARALLEL SOUTH, R. 3 W.,

AND PORTION OF THE SOUTH BOUNDARY

SUBDIVISION OF SECTIONS ADJACENT TO THE EASTERN BOUNDARY

OF BRYCE CANYON NATIONAL PARK,

ALL IN

T. 36 S., R. 3 W.

Of the Salt Lake Meridian,

In the State of Utah

EXECUTED BY

Elliot Bird, Surveyor

Under special instructions dated April 12, 1932, which provided for the surveys included under Group No. 238, bearing the approval of the Commissioner of the General Land Office under date of July 22, 1932. and assignment instructions dated June 1, 1933

Survey commenced June 4, 1933.

Survey completed July 12, 1933.



## T. 36 S., R. 3 W.

The special instructions for group 238, Utah, dated April 12, 1932, provide for the survey of the unsurveyed lands in T. 36 S., R. 3 W., Salt Lake Meridian, Utah, east of the east boundary of Bryce Canyon National Park, and to establish sixteenth-section corners where required, in order to define the boundary of said park in this township.

The survey of T. 36 S., R. 3 W., S.L. M., Utah, was commenced June 4, 1933, and executed with Buff and Buff transit No. 18003.

The instrument was approved for use on this survey by the district cadastral engineer, for Utah, conditional upon satisfactory field tests, in assignment instructions dated June 1, 1933.

The instrument was equipped with Smith solar attachment and full vertical circle. The horizontal limb is provided with two double verniers placed opposite to each other and reading to single minutes of arc, which is also the least count of the verniers of the latitude and declination arcs and vertical circle.

All lines of this survey were projected by fore and back sights from meridians determined by hour angle observations made upon Polaris, three of which appear in these notes.

June 5, 1933: At the cor. of secs. 3, 4, 33, and 34, on the south boundary of T. 36 S., R. 3 W., in approximate latitude  $37^{\circ}39' N.$ , longitude  $112^{\circ}00'30'' W.$ ; at 12h 50.6m p.m. by my watch which carries correct 105th meridian time, I make an hour angle observation on Polaris west of the meridian, making four observations, two each with the telescope in direct and reversed positions, reading the horizontal deflection angle from a flag about  $\frac{1}{2}$  mile north of my station, in the direction west to Polaris.

Mean l. m. t. of observation	-----	12h 22.6m p.m.
Mean horizontal deflection angle from		
flag to Polaris	-----	$1^{\circ}06' W.$
Mean hour angle of Polaris	-----	2h 22.4m
True bearing of flag	-----	North

At apparent noon at this station, I make a meridian observation of the sun for time and latitude, observing simultaneously the altitude of the sun's upper limb and the transit of the sun's west limb, reversing the telescope and observing simultaneously the altitude of the sun's lower limb and the transit of the sun's east limb.

Mean observed altitude		$75^{\circ}07.5'$
Reduced latitude		$37^{\circ}39' N.$
Mean watch time of observation		12h 23.1m p.m.
Watch fast of local mean time		0h 22m 00s

June 28, 1933: At the cor. of secs. 19, 24, 25, and 30, on the east boundary of T. 36 S., R. 3 W., in approximate latitude  $37^{\circ}41' N.$ , longitude  $111^{\circ}57' W.$ ; at 7h 04.5m a.m. by my watch which carries correct 105th meridian time, I make an hour angle observation of Polaris **east** of the meridian, making four observations, two each with the telescope in direct and reversed position, reading the horizontal deflection angle from a point on a ledge about two miles north of my station, in the direction east to Polaris.

Mean l. m. t. of observation	-----	6h 36.7m a.m.
Mean horizontal deflection angle from		
point on ledge to Polaris	-----	$0^{\circ}12.7' E.$
Mean hour angle of Polaris	-----	0h 36.5m
True bearing to point on ledge	-----	North.

T. 36 S., R. 3 W.

July 10, 1933: At the standard cor. of secs. 35 and 36, T. 35 S., R. 3 W.; in approximate latitude  $37^{\circ}44'$  N., longitude  $111^{\circ}59'$  W., at 12h 43.1m p.m. by my watch which carries correct 105th meridian time, I make an hour angle observation of Polaris west of the meridian, making four observations, two each with the telescope in direct and reversed positions, reading the horizontal deflection angle from a flag pole about 20 chains west, in the direction north to Polaris.

Mean l. m. t. of observation -----	12h 15.2m p.m.
Mean horizontal deflection angle from flag pole to Polaris -----	$89^{\circ} 40' N.$
Mean hour angle of Polaris -----	5h 49m ✓
True bearing to flag pole -----	West

The instrument was kept in good adjustment throughout the progress of this survey, and numerous hour angle observations were taken on Polaris to determine true meridians from which the lines of the survey were deflected. The mean magnetic declination of the township, was found to be  $16^{\circ}30'$  E.

#### MEASUREMENTS.

Unless otherwise specified all measurements were made with a Lallie steel tape, 5 chains in length compared with a Lufkin standard steel tape one chain in length and found correct. The measurements were made on the slope, the vertical angle determined with two large improved clinometers, and the slope measurements properly reduced to true horizontal distances.

#### DEPENDENT RESURVEY OF A PORTION S. BDY., T. 36 S., R. 3 W.

Reestablishment of surveys executed by  
Alfred B. Lewis, U.S. Deputy  
Surveyor in 1897.

#### Random Lines.

From the cor. of secs. 3, 4, 33, and 34, on the S. bdy. of the township, hereinafter described.

East, bet. secs. 3 and 34.

49.00 Find no trace of the original  $\frac{1}{4}$  sec. cor. of secs. 3 and 34.

Continue East on same line with continuous measurement.

79.83 Fall 14 lks. S. of the true point for the cor. of secs. 2, 3, 34, and 35.

The course of this line therefore is, S.  $89^{\circ}54'$  W., and the proportionate distance for each half mile is 39.94 chs.

#### True Lines.

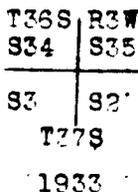
The cor. monument to the cor. of secs. 2, 3, 34, and 35, is missing and the true point for cor. is at the intersection of fence lines from the N. and S., and E. and W. Joe Nelson, of Tropic, Utah, who is the owner of the property upon which this cor. point falls, informed me that in about 1923, he saw the cor. monument which was a sandstone, in place, and that it had been removed by

CHAINS

some of the settlers of Tropic during the construction of an irrigation ditch.

At the exact cor. point; at intersection of fences:

Set an iron post, 3 ft. long, 2 ins. diam., 27 ins. in the ground, for the reestablished cor. of secs. 2, 3, 34, and 35, with brass cap marked.



from which

A cottonwood, 24 ins. diam., bears S. 32°45' W., 222 lks. dist., marked BT.

No other suitable accessories available and tree was only marked BT as it was a shade tree to the home of the settler.

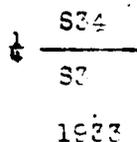
Thence:

S. 89°54' W., on true line, bet. secs. 3 and 34.

Along E. and W. fence line, over cultivated land in the town of Tropic, Utah.

- 3.63 Fence on E. side of street at the W. side of the town of Tropic, bears N. and S.; thence across street.
- 4.10 Center of street at the W. side of the town of Tropic, bears N., and S., 75 lks. dist., thence N.
- 4.70 The SE. cor. of fences from the W. and N.; thence along fence line bearing W., along the N. side of a lane.
- 13.05 Wash, 45 lks. wide, 4 ft. deep, drains N. 75° E.
- 20.95 Junction of fence line from the N. with E. and W. fence.
- 21.35 Canal, 20 lks. wide, 4 ft. deep, drains S. 10° W. from N. 10° E.; enter medium dense undergrowth of sage, rabbit, and oak brush, and scrub juniper and pinon timber, bears N. and S.
- 39.94 Proportionate point;

Set an iron post, 3 ft. long, 1 in. diam., 27 ins. in the ground, for the reestablished cor. sec. cor. secs. 2 and 34, with brass cap marked



from which

A juniper, 8 ins. diam., bears N. 27°30' E., 222 lks. dist., marked  $\frac{1}{4}$  S34 BT.

A pinon, 6 ins. diam., bears S. 49°45' W., 121 lks. dist., marked  $\frac{1}{4}$  S3 BT.

Cor. set at the junction of fence line from the N. with

DEPENDENT RESURVEY OF A PORTION S. BDY., T. 36 S., R. 3 W.

- Chains
- fence bearing E. and W.
  - 40.07 Irrigation ditch, 8 lks. wide, 1 ft. deep, drains N. 30° from S. 30° W.
  - 41.40 The SE. cor. of a small corral; thence ascend gradually through medium dense undergrowth and timber, along N. side of fence line which bears E. and about S. 87° W.
  - 37.50 Wash, 20 lks. wide, 3 ft. deep, drains NE.; thence ascend gradual E. slope of broken blue clay hills, bears N. 30° and S. 30° W.
  - 70.20 Blue clay spur, 115 ft. above the 1/4 sec. cor., projects S., 4.00 chs. dist. to end; thence ascend gradually along broken S. slope.
  - 77.50 Clay spur, 25 ft. above last spur, projects SW.; descend gradual SW. slope.
  - 79.88 The original cor. of secs. 3, 4, 33, and 34, which is a white sandstone, 10 x 10 x 7 ins. above ground, firmly set, plainly marked 3 notches on E. and W. edges. Cor. has no accessories.

At the cor. point; on SW. slope, 10 ft. below spur.

Set an iron post, 3 ft. long, 2 ins. diam., 27 ins. in the ground, with the original cor. monument alongside, for the cor. of secs. 3, 4, and 34, and boundary monument on the eastern boundary of the Bryce Canyon National Park, with brass cap marked

T36S	R3W
BCNP	S34

S4	S3
----	----

T37S

1933

from which

A pinon, 14 ins. diam., bears N. 71°30' E., 256 lks. dist., marked T36S R3W S34 BT.

A juniper, 12 ins. diam., bears S. 85°15' E., 139 lks. dist., marked T37S R3W S3 BT.

A pinon, 8 ins. diam., bears S. 32°15' W., 245 lks. dist., marked T37S R3W:S4 BT.

From this cor., the SE. cor. of a one room log cabin, bears N. 52°30' W., 495 lks. dist.

Along the N. side of the cor. monument is a pine post, 6 ins. square, 6 ft. high, upon which is a metal boundary poster of the Bryce Canyon National Park.

Land, east 67.50 chains is rolling with a general easterly exposure and drainage; remainder of mile is broken clay hills with a southeasterly exposure and drainage.

Soil, deep white and blue clay; 2nd rate; sandstone and limestone formation.

Undergrowth, sage, rabbit, and oak brush.

Timber, scrub juniper and pinon on W. portion of mile.

Fair grazing land.

Reestablishment of surveys executed by  
 Bailey and Burrill, U.S. Deputy  
 Surveyors, in 1876.

From the standard cor. of secs. 34 and 35, T. 35 S.,  
 R. 3 W., hereinafter described.

East, on random line, along the S. bdy. of sec. 35.

39.94 Fall 31 lks. N. of the original standard cor. sec.  
 35, hereinafter described.

The course of this half mile therefore is, S. 89°33' E.,  
 and the distance is 39.94 chs.

Continue East, on same line with continuous measurement.

79.75 Fall 63 lks. N. of the original standard cor. of secs.  
 35 and 36, hereinafter described.

The course of this half mile therefore is S. 89°33' E.,  
 and the distance is 39.81 chs.

True Lines.

The standard cor. of secs. 34 and 35 is a white limestone,  
 10 x 8 x 6 ins. above ground, firmly set, dimly marked  
 4 notches on W. edge and 2 notches on E. edge. Cor. has  
 no accessories.

At the cor. point:

Set an iron post, 3 ft. long, 2 ins. diam., 27 ins. in the  
 ground, with the original cor. monument along side, for the  
 standard cor. of secs. 34 and 35, T. 35 S., R. 3 W., with  
 brass cap marked

S C	
T35S	R3W
S34	S35

1933

No other suitable accessories available.

Thence:

S. 89°33' E., on true line, along the S. bdy. of sec. 35.

Ascend gradually over rolling W. slope of mountainous  
 land, through dense short undergrowth of sagebrush.

3.22 The closing cor. of secs. 2 and 3, T. 33 S., R. 3 W.,  
 hereinafter described.

14.50 Top of ascent on S. point of spur, 65 ft. above cor.;  
 descend gradual S.W. slope.

17.00 Base of descent, 30 ft. below point of spur, bears N.  
 and S.; ascend gradual S.W. slope.

31.30 Top of divide ridge which forms the rim of the Great  
 Salt Lake Basin, 105 ft. above base of ascent, bears  
 N. 20° E. and S. 80° W.; descend abruptly over broken SE.  
 slope through medium dense undergrowth of manzanita,  
 oak, and bitter brush, and juniper, pinon, and yellow  
 pine timber.

DEPENDENT RESURVEY  
OF A PORTION 7TH STAN. PAR. S., THROUGH R. 3 W.

Chains

- 39.00 Draw, 100 ft. below divide, drains S.; ascend abrupt W. slope.
- 39.94 The original standard  $\frac{1}{4}$  sec. cor. sec. 35, which is a white sandstone, 14 x 10 x 6 ins., loosely set, plainly marked  $\frac{1}{4}$  on N. face. Cor. is witnessed by a bearing tree as follows.
- A yellow pine, 24 ins. diam., bears S. 76°45' E., 125 lks. dist., plainly marked  $\frac{1}{4}$  S BT. I efface the marks on this bearing tree.
- At the cor. point; I set the cor. stone 10 ins. in the ground, with the  $\frac{1}{4}$  on the N. face and take a bearing tree in sec. 35 as follows.
- A yellow pine, 10 ins. diam., bears N. 55° E., 49 lks. dist., marked  $\frac{1}{4}$  S35 SC BT.
- No suitable bearing tree to the NW. available.
- Cor. set on steep W. slope, 20 ft. above draw.
- Continue on same line with continuous measurement.
- 42.50 Spur, 35 ft. above the  $\frac{1}{4}$  sec. cor., projects S.; descend gradual SE. slope.
- 43.22 Point which is an easting of 40.00 chs. from the closing cor. of secs. 2 and 3.
- Set a sandstone, 14 x 9 x 6 ins., 10 ins. in the ground, for  $\frac{1}{4}$  sec. cor. sec. 2, marked  $\frac{1}{4}$  on S. face.
- from which,
- A pinon limb, 8 ins. diam., bears S. 80°30' W., 59 lks. dist., marked  $\frac{1}{4}$  S2 BT.
- A red cedar, 8 ins. diam., bears S. 59°30' E., 49 lks. dist., marked  $\frac{1}{4}$  S2 PT.
- No 1 in. iron post is available for cor.
- Cor. set on steep SE. slope, 20 ft. below spur.
- 48.00 Draw, 70 ft. below spur, drains S. 30° W. and heads N. 30° E., about 12.00 chs. dist., ascend abruptly over broken SW. slope.
- 50.30 The S. base of a limestone and shale butte, 50 ft. high.
- 52.60 Top of ascent on steep S. slope of S. breaks of high mountain top to the N., 325 ft. above draw, bears N. and S.; descend gradually over broken SE. slope.
- 75.40 Descent becomes more abrupt, bears N. and S.
- 79.75 On steep N. slope, 1.00 chs. N. of small sharp spur which projects SE., 170 ft. below top of ascent:
- The standard cor. of secs. 35 and 36, T. 35 S., R. 3 W., which is an iron post, 2 ins. diam., firmly set, extending 10 ins. above ground, with brass cap marked

S C  
T35S | R3W  
S35 | S36

DEPENDENT RESURVEY  
OF A PORTION 7TH STAN. PAR. S., THROUGH R. 3 W.

Chains

from which

A red pine, 16 ins. diam., bears N. 25° E., 54 lks. dist., plainly marked SC T35S R3W S36 BT.

A red pine, 10 ins. diam., bears N. 85°30' W., 63 lks. dist., plainly marked SC T35S R3W S35 BT.

This cor. was established at its true point by Andrew Nelson, U.S. Transitman, in 1918, by record course and distance (South, 7.80 chs.) from the witness cor. to the standard cor. of secs. 35 and 36, set by Bailey and Burrill, U.S. Deputy Surveyors, in 1876.

Land, rough and mountainous on E. portion of mile, with a general southerly exposure and drainage. West portion is rolling and mountainous, with a general westerly exposure and drainage.

Soil, shallow gravelly shale and clay; 4th rate. Limestone and red shale formation.

Undergrowth, short sagebrush.

Timber, medium dense juniper, pinon, red and yellow pine.

Fair grazing land.

DEPENDENT RESURVEY OF A PORTION EAST BOUNDARY, T. 36S., R. 3W.

Reestablishment of surveys executed by Alfred B. Lewis, U.S. Deputy Surveyor, in 1897.

Random Lines

From the cor. of secs. 25, 30, 31, and 36, on the E. bdy. of the township, hereinafter described.

North, on random line, bet. secs. 25 and 30.

39.89 Fall 6 lks. E. of the original  $\frac{1}{4}$  sec. cor. secs. 25 and 30, hereinafter described.

The course of this half mile therefore is, N. 0°05' W., and the distance is 39.89 chs.

From the  $\frac{1}{4}$  sec. cor.

North, with continuous measurement.

79.89 Find no trace of the original cor. of secs. 19, 24, 25, and 30.

Continue on same line with continuous measurement.

119.71 Fall 7 lks. W. of the original  $\frac{1}{4}$  sec. cor. secs. 19 and 24, hereinafter described.

The course of the N. half mile bet. secs. 25 and 30, therefore is N. 0°03' E., and the distance is 39.91 chs.

The course of the S. half mile bet. secs. 19 and 24, therefore is N. 0°03' E., and the distance is 39.91 chs.

Chains

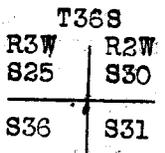
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True Lines.

The original cor. of secs. 25, 30, 31, and 36, is a sandstone, 15 x 10 x 8 ins. above ground, plainly marked 1 notch on S. edge and 5 notches on N. edge. Cor. is witnessed by a mound of stone, 2 ft. base, 1 1/2 ft. high, to the W. of the cor. monument.

At the cor. point:

Set an iron post, 3 ft. long, 2 ins. diam., 27 ins. in the ground, with the original cor. monument alongside, for the cor. of secs. 25, 30, 31, and 36, with brass cap marked



1933

Cor. is set at the NE. cor. of fence line from the W. and S.

Thence:

N. 0°05' W., on true line, bet. secs. 25 and 30.

Ascend gradually over rolling blue clay hills, through scattered undergrowth of shadscale and greasewood.

19.94 The SW. cor. of fences from the N. and E.; thence along fence bearing N.

24.50 Top of blue clay ridge, 110 ft. above sec. cor., bears NW. and SE.; descend abrupt NE. slope.

30.00 Descent becomes more gradual, bears NW. and SE.; thence along gradual E. slope.

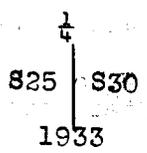
35.75 Wash, 30 lks. wide, 5 ft. deep, drains E.

39.89 On rolling E. slope, in fence line bearing N. and S., 70 ft. below ridge.

The original 1/4 sec. cor. secs. 25 and 30, which is a white sandstone, 14 x 14 x 5 ins., loosely set, plainly marked 1/4 on W. face. Cor. has no accessories.

At the cor. point.

Set an iron post, 3 ft. long, 1 in. diam., 27 ins. in the ground, with the original cor. monument alongside, for 1/4 sec. cor. secs. 25 and 30, with brass cap marked



No additional accessories available.

Thence:

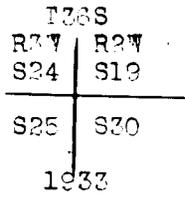
N. 0°03' E., with continuous measurement.

DEPENDENT RESURVEY OF A PORTION EAST BOUNDARY, T. 36 S., R. 3 W.

Chains

- Continue over rolling blue clay hills.
- 46.40 Bottom of small blue clay draw, 15 ft. below the  $\frac{1}{4}$  sec. cor., drains S. 70° E.; ascend gradually along rolling E. slope.
- 59.25 The W. end of a frame house belonging to George Wilson, of Tropic, Utah, bears E., 2.30 chs. dist.
- 59.50 The SW. cor. of a frame work shop, bears E., 78 lks. dist.
- 60.45 Irrigation ditch, 10 lks. wide, 2 ft. deep, drains NE. from the SW.
- 60.50 The junction of fence from the W. with fence bearing N. and S.
- 70.90 Wash, 10 lks. wide, 4 ft. deep, drains SE.
- 79.80 Proportionate point:

Set an iron post, 3 ft. long, 2 ins. diam., 37 ins. in the ground, for the reestablished cor. of secs. 19, 24, 25, and 30, with brass cap marked



Deposit a sandstone 12 x 10 x 3 ins., at base of post, marked with a cross (X).

No other suitable accessories available.

Cor. set on gradual E. slope in line of fence bearing E. and W. and at end of fence from the S.

Land, rolling blue clay hills with a general easterly and southwesterly exposure and drainage.

Soil, deep blue clay; 4th rate. Blue shale formation.

Undergrowth, scattered short shadscale and greasewood.

No timber.

Poor grazing.

N. 0°03' E., bet. secs. 19 and 24.

Over rolling blue clay hills, through scattered short undergrowth.

- 5.00 Spur, 25 ft. above cor., projects SE., 3.50 chs. dist. to end.
- 8.70 Small draw, 20 ft. below spur, drains SE.; ascend gradual SW. slope.
- 16.40 Top of blue clay ridge, 50 ft. above draw, bears E. and W.; descend gradual N. slope.
- 25.85 Wash, 50 lks. wide, 6 ft. deep, drains NE.

DEPENDENT RESURVEY OF A PORTION EAST BOUNDARY, T. 35 S., R. 3 W.

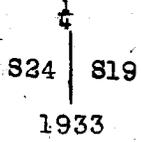
Chains

33.40 Wash, 15 lks. wide, 5 ft. deep, in main draw, 40 ft. bet. ridge, drains SE.; ascend gradual S. slope.

39.91 The original  $\frac{1}{4}$  sec. cor. secs. 19 and 24, which is a sandstone, 18 x 7 x 7 ins., loosely set, plainly marked  $\frac{1}{4}$  on W. face, and witnessed by a mound of stone, 3 ft. base, 1 $\frac{1}{2}$  ft. high, W. of cor.

At the cor. point:

Set an iron post, 3 ft. long, 1 in. diam., 27 ins. in the ground, with the original cor. monument alongside, for  $\frac{1}{4}$  sec. cor. secs. 19 and 24, with brass cap marked



Land, rolling blue clay hills with a general southeasterly exposure and drainage.

Soil, deep blue clay; 4th rate. Blue shale formation.

Undergrowth, scattered short shadscale and greasewood.

No timber.

Poor grazing land.

SURVEY OF A PORTION EAST BOUNDARY, T. 35 S., R. 3 W.

From the  $\frac{1}{4}$  sec. cor. secs. 19 and 24, on the E. bdy. of the township, heretofore described.

North, bet. secs. 19 and 24.

Ascend gradual S. slope over rolling blue clay hills, through scattered undergrowth of shadscale and greasewood.

17.50 Base of abrupt ascent over broken S. slope of rough and broken mountainous land, bears E. and W.

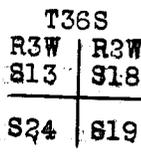
29.90 Top of broken sandstone ledge, 80 ft. high, and 500 ft. above the  $\frac{1}{4}$  sec. cor., bears N. 30° W. and S. 60° E. Enter dense scrub juniper and pinon timber and undergrowth of shadscale, mountain rush, bitter brush, oose, and silver leaf.

31.70 Rim of same ledge, bears NE. and SW.

32.65 Rim of same ledge, bears NW. and SE.; ascend gradual S. slope of white sandstone point.

40.00 On top of white sandstone point, 80 ft. above ledge, projects W., 50 lks. dist. to rim of ledge.

Set an iron post, 3 ft. long, 2 ins. diam., 27 ins. in the ground, for cor. of secs. 13, 18, 19, and 24, with brass cap marked



1933

Chains

from which

A pinon, 10 ins. diam., bears S. 46° E., 25 lks. dist., marked BT.

A juniper, 10 ins. diam., bears N. 33° E., 91 lks. dist., marked BT.

Trees too gnarled for full markings and no other suitable bearing trees available.

Land, south portion of mile is rolling blue clay hills with a general southerly exposure and drainage; north portion is broken and mountainous with a general southerly exposure and drainage.

Soil, deep blue clay and sandstone; 4th rate. Shale and sandstone formation.

Undergrowth, scattered shadscale, mountain rush, bitter brush, oose, and silver leaf.

Timber, dense scrub juniper and pinon on N. portion of mile. No timber on S. portion.

Poor grazing land.

North, bet. secs. 13 and 18.

Ascend gradually over broken SW. slope of rough mountainous land, through medium dense scrub juniper and pinon timber, and scattered undergrowth of shadscale, bitter brush, greasewood, oose, and silver leaf.

2:60 Top of spur, 10 ft. above cor., projects S. 20° E. from the N.; thence descend along top of spur to saddle.

7:00 Base of descent in low saddle in spur, 40 ft. below point of entering top of spur; thence ascend gradually along top of spur.

13:70 Top of ascent from saddle in spur, 50 ft. above saddle; thence descend gradually over broken NE. slope of spur, which at this point projects S. from N. 10° W.

17:60 Head of draw, 60 ft. below spur, drains E.; ascend abrupt SE. slope.

20:30 Spur, 40 ft. above head of draw, projects E.; descend gradually over broken N. slope.

30:00 Base of descent, 160 ft. below spur, bears E. and W.

34:20 Top of sandstone ledge, 150 ft. high, faces S. and bears E., and W. 2.00 chs. dist. to end.

39:00 Top of sandstone ledge, 150 ft. high, faces NW. and bears NE. and SW.

39:28 Leave flag point.

40:00 On steep N. slope, 20 ft. below base of ledge.

Set an iron post, 3 ft. long, 1 in. diam., 27 ins. in the ground, for  $\frac{1}{4}$  sec. cor., with brass cap marked

S13 | S18

1933

SURVEY OF A PORTION EAST BOUNDARY, T. 36 S. R. 13 W.

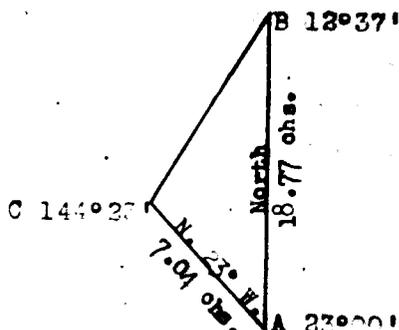
Chains

from which

A pinon, 12 ins. diam., bears N.  $71^{\circ}30'$  E., 24 lks. dist., marked  $\dagger$  S18 BT.

A pinon, 12 ins. diam., bears S.  $74^{\circ}$  W., 44 lks. dist., marked  $\dagger$  S13 BT.

41.00 Top of vertical sandstone ledge, 150 ft. high, bears SE. and N.  $20^{\circ}$  W., which forms the S. breaks of deep gulch over which I am unable to chain, I therefore return to the 39.28 chs. point and determine the distance across breaks of gulch by triangulation as follows. Erect flag A at the 39.28 chs. point and flag B on line N. from A, survey base line AC, N.  $23^{\circ}00'$  W., 7.04 chs. dist. and erect flag C. From C, AB subtends an angle of  $144^{\circ}23'$ . From B, AC subtends an angle of  $12^{\circ}37'$ . No more suitable base line could be obtained on account of ledges. All angles checked by repetition and base line double chained



Distance on line	39.28 chs.
Distance by triangulation	18.77 chs.
	<hr/>
	58.05 chs.
Distance by return measurement	8.05 chs.
	<hr/>
	50.00 chs.

45.00 Approximate distance; bottom of deep gulch, 250 ft. below the  $\dagger$  sec. cor., drains SE., and boxes about 7.00 chs. to the NW.; ascend abruptly over inaccessible N. breaks of gulch.

50.00 Top of N. rim of gulch, 250 ft. above bottom, bears NW. and SE.; ascend gradually over broken S. slope.

58.05 To point E. of triangulation, on top of spur, 70 ft. above rim of gulch, projects E.; descend abrupt N. slope.

62.00 Gulch, 110 ft. below spur, drains N.  $70^{\circ}$  E., ascend abrupt S. slope.

64.80 Spur, 40 ft. above gulch; projects E., 3.00 chs. dist. to end; descend abrupt N. slope.

66.90 Draw, 50 ft. below spur, drains E.; ascend gradual S. slope.

71.30 Spur, 40 ft. above draw, projects N.  $75^{\circ}$  E.; descend abrupt broken N. slope.

77.70 On steep N. slope, 165 ft. below spur, near S. rim of head of gulch.

Set an iron post, 3 ft. long, 2 ins. diam., 27 ins. in the ground, for witness cor. to the cor. of secs. 7, 12, 13, and 18, with brass cap marked

SURVEY OF A PORTION EAST BOUNDARY, T. 36 S., R. 3 W.

WC T36S	
R3W S12	R2W S7
S13	S18

1933

from which

A pinon, 14 ins. diam., bears N. 29° E., 24 lks. dist., marked WC T36S R3W S18 BT.

A red pine, 6 ins. diam., bears S. 27° E., 133 lks. dist., marked WC T36S R2W S18 BT.

A pinon, 8 ins. diam., bears S. 63° 30' W., 69 lks. dist., marked WC T36S R3W S13 PT.

A red pine, 16 ins. diam., bears N. 51° W., 71 lks. dist., marked WC T36S R3W S13 BT.

78.40 Top of S. rim of gulch, 150 ft. high, bears N. 70° W. and S. 70° E.; descend abruptly over breaks of gulch.

80.00 True point for the cor. of secs. 7, 12, 13, and 18, falls in bottom of gulch, 150 ft. deep, drains E., where it is impracticable to set a permanent cor.

Land, broken and mountainous, with a general southeasterly exposure and drainage.

Soil, shallow blue clay and rock; 4th rate. Sandstone and shale formation.

Undergrowth, medium dense shadscale, greasewood, mountain rush, oose, and silver leaf.

Timber, medium dense juniper and pinon and scattered red pine.

Poor grazing land.

From the true point for the cor. of secs. 7, 12, 13, and 18.

North, bet. secs. 7 and 12.

Ascend abruptly over broken N. breaks of gulch, through medium dense juniper and pinon timber and scattered undergrowth of shadscale, bitter brush, and silver leaf.

2.50 Top of N. rim of gulch, 150 ft. high, bears NE. and SW.; continue abrupt ascent.

3.60 Spur, 190 ft. above rim, projects E.; descend abrupt broken NE. slope.

16.20 Draw, 130 ft. below spur, drains E.; ascend abrupt S. slope.

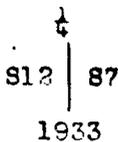
18.70 Spur, 100 ft. above draw, projects E.; descend abrupt N. slope.

24.00 Draw, 110 ft. below spur, drains E.; ascend abrupt S. slope.

SURVEY OF A PORTION EAST BOUNDARY, TO 33<sup>1</sup>/<sub>2</sub> SEC. R. 3 W.

- Chains
- 26.10 Spur, 70 ft. above draw, projects S. 80° E.; descend gradually over broken NE. slope.
- 35.60 Draw, 90 ft. below spur, drains NE., 30 lks. dist. to head of gulch which drains N. 30° E.; ascend abruptly.
- 35.90 Top of sandstone ledge, 30 ft. high, bears W., and E. 35 lks. dist., thence N.; thence across E. point of ledge.
- 39.20 Leave flag on E. point of ledge which at this point bears N. 30° W.
- 40.00 At base of ledge, 30 ft. high, bears N. 20° W. and S. 10°

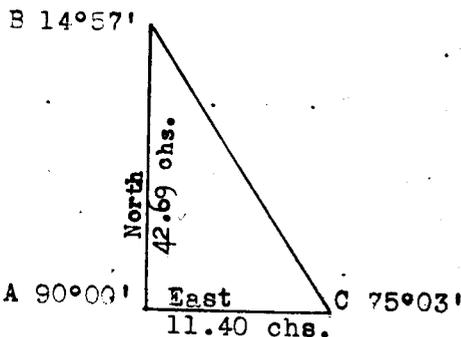
Set an iron post, 3 ft. long, 1 in. diam., 20 ins. in the ground to solid rock and in a mound of stone to top, for  $\frac{1}{4}$  sec. cor., with brass cap marked



from which

- A pinon, 10 ins. diam., bears S. 43° E., 148 lks. dist., marked  $\frac{1}{4}$  37 ft.
- A pinon, 10 ins. diam., bears N. 30° W., 39 lks. dist., marked  $\frac{1}{4}$  512 ft.

- 45.20 Wash, 30 lks. wide, 8 ft. deep, in bottom of canyon, 50 ft. below the  $\frac{1}{4}$  sec. cor., drains S. 20° E. The line to the N. of this point ascends the abrupt SW. slope of a high ridge to the N. and passes over broken sandstone ledges and shale breaks over which I am unable to chain, I therefore determine the distance by triangulation as follows. Return to the 39.20 chs. point and erect flag A, also erect flag B on line N. From A, survey base line AC, East, 11.40 chs. dist. and erect flag C. From C, AB subtends an angle of 75°03'. From B, AC subtends an angle of 14°57'. Vertical angle from A to B is plus 10°30'. All angles checked by repetition and base line double chained.



Distance on line	39.20 chs.
Distance by triangulation	<u>42.69 chs.</u>
Distance by return measurement	81.89 chs.
	<u>1.89 chs.</u>
	80.00 chs.

- 80.00 On steep broken S. slope, 550 ft. above canyon, at the W. base of sandstone ledge, 20 ft. high. Set an iron post, 3 ft. long, 2 ins. diam., 18 ins. in the ground to solid rock and in a mound of stone to top, for cor. secs. 1, 6, 7, and 12, with brass cap marked

SURVEY OF A PORTION EAST BOUNDARY, T. 36 S., R. 3 W.

Chains

T36S  
R3W | R2W  
S1 | S6  
S12 | S7  
1933

from which

A pinon, 6 ins. diam., bears S.2°30'E., 34 lks.  
dist., marked T36S R2W S7 BT

A pinon, 16 ins. diam., bears S.43°W., 95 lks.  
dist., marked T36S R3W S12 BT

A pinon, 6 ins. diam., bears N.81°W., 43 lks.  
dist., marked T36S R3W S1 BT

No suitable bearing tree in section 6 available.

Land, broken and mountainous, with a general southwest-  
erly and easterly exposure and drainage.

Soil, shallow blue clay and rock; 4th rate.

Undergrowth, scattered shadscale, greasewood, bitter  
brush, oose, silver leaf, and mountain rush.

Timber, medium dense juniper and pinon.

Poor grazing land.

North, between sections 1 and 6.

Ascend abruptly over broken SW. slope of mountainous  
land, through medium dense juniper and pinon, and scatter-  
ed red pine timber, and scattered undergrowth of shadscale,  
greasewood, mountain rush, silver leaf, and bitter brush.

1.89 To point B of triangulation as shown on line between secs.  
7 and 12, at top of spur, 50 feet above corner, projects  
S.60°W.; continue ascent over steep broken ledgy W. slope.

12.80 Top of sandstone ledge, 30 feet high, bears N.40°W. and  
S.20°E.

17.10 Ridge, 260 feet above section corner, bears NW. and S.30°E.;  
descend abruptly over broken NE. slope of ridge.

40.00 On steep broken E. slope, 200 feet below ridge.

Set an iron post, 3 ft. long, 1 in. diam., 27 ins. in the  
ground, for  $\frac{1}{4}$  section corner, with brass cap marked

$\frac{1}{4}$   
S1 | S6  
1933

from which

A pinon, 8 ins. diam., bears S.44°E., 28 lks.  
dist., marked  $\frac{1}{4}$  S6 BT

A pinon, 8 ins. diam., bears N.71°W., 44 lks.  
dist., marked  $\frac{1}{4}$  S1 BT

67.30 Draw, 150 feet below the  $\frac{1}{4}$  section corner, drains E.  
2.50 chains distant to main gulch, which drains S.30°E.;  
ascend gradually over broken E. slope.

79.00 Top of ascent on E. slope, 140 feet above draw, bears E.  
and W.; descend gradually over broken E. slope.

82.21 On broken E. slope, 30 feet above draw.

Intersect the 7th Standard Parallel South, through R.2 W.

SURVEY OF A PORTION EAST BOUNDARY, T. 36 S., R. 3 W.

Chains

Set an iron post, 3 ft. long, 3 ins. diam., 15 ins. in the ground to solid rock, and in a mound of stone to top, for closing corner of Tps. 36 S., Rs. 2 and 3 W., with brass cap marked

T35S R2W

S31

S1 S6

R3W R2W

T36S

CC

1933

from which

A pinon, 5 ins. diam., bears S.12°15'E., 47 lks. dist., marked T36S R2W S6 CC BT

A pinon, 6 ins. diam., bears S.15°30'W., 27 lks. dist., marked T36S R3W S1 CC BT

From this corner the original standard corner of Tps. 35 S., Rs. 2 and 3 W. bears W. 7.22 chains distant, which is an iron post, 3 ins. diam., firmly set, marked and witnessed as described in the official records.

Land, broken and mountainous, with a general easterly and southwesterly exposure and drainage.

Soil, shallow blue clay and rock; 4th rate. Sandstone and shale formation.

Undergrowth, scattered shadscale, greasewood, mountain rush, silver leaf, and bitter brush.

Timber, medium dense juniper and pinon, and scattered red pine and fir.

Poor grazing land.

The following field notes of the dependent resurvey of subdivisional lines are the record of the true line. courses and distances of the restoration of the original subdivisional lines in the true original positions as adjusted to the identified evidence.

Before reconstructing or restoring the corners, the lines of the original survey were retraced, and search was made for evidence of the original corner monuments or other calls of the field notes. When duly identified or restored, the positions were remonumented.

The retracement data were submitted for office examination and verification. In order to simplify the record, the true line notes only are supplied here, which refer to the completed resurveys.

DEPENDENT RESURVEY OF A PORTION OF SUBDIVISION, T. 36 S., R. 3 W.

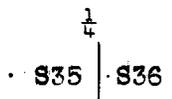
Reestablishment of surveys executed by  
Alfred B. Lewis, U. S. Deputy  
Surveyor, in 1897.

The original  $\frac{1}{4}$  section corner of sections 35 and 36 is a white sandstone, 10x6x8 ins., above ground, firmly set, dimly marked  $\frac{1}{4}$  on W. face, and has no accessories.

At the corner point

Chains

Set an iron post, 3 ft. long, 1 in. diam., 27 ins. in the ground, with the original cor. monument alongside, for  $\frac{1}{4}$  sec. cor. secs. 35 and 36, with brass cap marked



1933

No other accessories available.

Cor. set at the intersection of fences bearing E. and W., and N. and S.

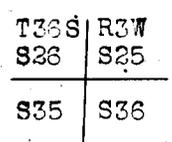
Thence,

N. 0° 03' W., on true line, bet. secs. 35 and 36.

Ascend gradual S. slope of blue clay bench land, through scattered short shadscale and greasewood undergrowth, along fence bearing N. and S.

- 7.40 Base of rolling blue clay hills, bears N. 80° E. and S. 30° W.
- 9.90 Intersection of fences bearing E. and W., and N. and S.
- 14.40 Top of blue clay knoll on spur, 90 ft. above the  $\frac{1}{4}$  sec. cor., projects S. 20° W., and bears N. 20° W.; descend gradual NE. slope.
- 19.30 Draw near head, 40 ft. below spur, drains SE.; ascend gradual SW. slope.
- 22.00 Spur, 50 ft. above draw, projects S. 60° E., 5.50 chs. dist. to end; descend gradual NE. slope.
- 33.40 Fence at base of rolling blue clay hills, 30 ft. below spur, bears NW. and SE.
- 34.85 Top of W. bank of channel of the Paria River, 10 ft. high, bears NW. and SE.; thence across dry channel of river.
- 38.40 Center of dry channel of the Paria River, drains SE.
- 40.04 Proportionate point; on E. bank of the channel of the Paria River, bears NW. and SE.

Set an iron post, 3 ft. long, 2 ins. diam., 27 ins. in the ground, for the reestablished cor. of secs. 25, 26, 35, and 36, with brass cap marked



1933

of stone, 2 ft. base, 1 1/2 ft. high, W. of cor. raise a mound

Land, rolling, with a general southerly and easterly exposure and drainage.

Soil, deep clay; 3rd rate.

Undergrowth, scattered short shadscale and greasewood.

DEPENDENT RESURVEY OF A PORTION SUBDIVISION T. 28 S., R. 3 W.

Chains

Timber, a few scattered scrub juniper on central portion of half mile.

Poor grazing land.

S. 33°52' E., bet. secs. 25 and 36.

Over cultivated land, along fence line bearing E. and W.

1.70 Small frame shed, bears North, 50 lks. dist.

2.30 Clay bank, 10 ft. high, bears NW. and SE.

5.20 The SE. cor. of fences bearing N. and W.

11.80 Leave cultivated land, bears N. and S. 60° E.; thence through scattered short undergrowth of greasewood and shadscale.

20.80 Junction of fence from the E. with fence bearing N. and S.; thence along fence bearing E.

24.60 Wash, 10 lks. wide, 4 ft. deep, drains S.; undergrowth becomes more scattered, bears N. and S.

39.40 The NE. cor. of fences bearing S. and W.

39.90 Proportionate point; on gradual W. slope, 55 ft. above sec. cor.

Set an iron post, 3 ft. long, 1 in. diam., 27 ins. in the ground, for the reestablished  $\frac{1}{4}$  sec. cor. secs. 25 and 36, with brass cap marked.

$\frac{1}{4}$  S25

S36

1933

Deposit a sandstone, 8 x 6 x 3 ins., at base of post, marked with a cross (X).

No other suitable accessories available.

42.20 Small clay spur, 15 ft. above the  $\frac{1}{4}$  sec. cor., projects S. 30° W.; descend gradual SE. slope.

49.00 Small draw, 30 ft. below spur, drains SW.; ascend gradual NW. slope.

50.30 Trail, bears N. 30° E. and S. 30° W.

52.63 The NW. cor. of fences bearing E. and S.; thence along fence line bearing E.

52.30 Top of low clay ridge, 30 ft. above draw, bears N. and S. 15° W.; descend gradual E. slope.

53.30 Wash, 10 lks. wide, 4 ft. deep, in draw, 70 ft. below ridge, drains S.; ascend gradual W. slope.

73.00 Spur, 20 ft. above draw, projects S., 8.00 chs. dist. to end; descend gradual E. slope.

75.20 Wash, 10 lks. wide, 3 ft. deep, in draw, 10 ft. below spur, drains S. 15° W.; ascend gradual SW. slope.

DEPENDENT RESURVEY OF A PORTION SUBDIVISION, T.36S., R. 3 W.

Chains

- 79.80 The cor. of secs. 25, 30, 31, and 36, on the E. bdy. of the township, heretofore described, 20 ft. above draw.
- Land, rolling, with a general southerly exposure and drainage.
- Soil, deep blue and red clay; 3rd rate. Shale and sand formation.
- Undergrowth, scattered short shadscale, greasewood, and weeds.
- No timber.
- Poor grazing land on portion of mile not under cultivation.
- From the cor. of secs. 25, 26, 35, and 36.
- N. 0°17' E., bet. secs. 25 and 26.
- Over nearly level cultivated land.
- 0.70 Clay bank, 10 ft. high, bears N. 60° W. and SE.
- 17.80 Wash, 10 lks. wide, 3 ft. deep, drains S. 20° W.
- 19.65 Junction of fence from the N. with fence bearing E. and W.; thence along fence bearing N.
- 24.70 Ditch, 5 lks. wide, 1 ft. deep, drains E., 1.00 chs. dist., thence S.; leave cultivated land at base of gradual ascent over SE. slope of bare knoll, bears NE. and SW.
- 27.30 Top of ascent on E. slope of knoll, 50 ft. above sec. cor., bears E. and W.; descend gradual NE. slope through scattered undergrowth of greasewood and shadscale.
- 40.04 The original  $\frac{1}{4}$  sec. cor. of secs. 25 and 26, which is a sandstone, 12 x 12 x 6 ins., loosely set, plainly marked  $\frac{1}{4}$  on W. face. Cor. has no accessories.
- At the cor. point:
- Set an iron post, 3 ft. long, 1 in. diam., 27 ins. in the ground, with the original cor. monument alongside, for the  $\frac{1}{4}$  sec. cor. secs. 25 and 26, with brass cap marked
- $\frac{1}{4}$   
 S26 | S25  
 1933.
- No other suitable accessories available.
- Cor. set at the junction of fence from the W. with fence bearing N. and S.
- Thence:
- N. 0°04' E., with continuous measurement.
- Ascend gradually along E. slope of rolling clay hills to the W.
- 53.20 Top of ascent on E. slope, 50 ft. above the  $\frac{1}{4}$  sec. cor., bears E. and W.; descend gradual NE. slope.

DEPENDENT RESURVEY OF A PORTION OF SECTION 24, T. 18 N., R. 3 E., S. 10 W.

Chains

- 59.30 Base of descent, 10 ft. below top of ascent on T. 18 N., R. 3 E., S. 10 W. bears NW. and S. 30° E.; thence over nearly level land.
- 60.50 Junction of fence from the W. with fence bearing N. and S.
- 66.75 The NW. cor. of fences bearing S. and E.; enter cultivated land, bears E. and W.
- 79.92 Proportionate point; in cultivated land.

Set an iron post, 3 ft. long, 3 ins. diam., 27 ins. in the ground, for the reestablished cor. of secs. 23, 24, 25, and 26, with brass cap marked

T368	R3W
S23	S24
S26	S25

1933

Deposit 4 pieces of cast iron at the base of post.

No other suitable accessories available.

Land, rolling, with a general southeasterly exposure and drainage.

Soil, shallow and deep clay loam; 2nd rate.

Undergrowth, scattered short greasewood and shadscale on central portion of mile.

No timber.

Fair grazing land on uncultivated portion of mile.

S. 89°45' E., bet. secs. 24 and 25.

Over nearly level cultivated land.

- 9.00 Leave cultivated land and enter scattered short undergrowth of shadscale and greasewood at base of rolling clay hills, bears N. and S.; ascend gradual SW. slope.
- 12.50 Fence, bears N. and S.
- 15.80 Irrigation canal, 10 lks. wide, 2 ft. deep, drains SE. from the N.
- 19.80 Top of ascent on S. point of spur which bears NE., 80 ft. above sec. cor.; descend gradual E. slope.
- 22.00 Draw, 30 ft. below point of spur, drains S.; ascend abrupt SW. slope.
- 25.80 The S. point of spur which bears N. 25° E.; 70 ft. above draw; descend abruptly over broken SE. slope.
- 33.80 Draw, 70 ft. below point of spur, drains S. 15° W.; ascend abrupt broken W. slope.
- 39.81 Proportionate point; on abrupt W. slope, 120 ft. above draw.

Set an iron post, 3 ft. long, 1 in. diam., 27 ins. in the ground, for the reestablished cor. of secs. 24 and 25, with brass cap marked

W. E. DEPENDENT RESURVEY OF A PORTION SUBDIVISION, T. 38S., R. 3 W.

Chains

S24

S25

1933

from which

A pinon, 14 ins. diam., bears N. 80° E., 184 lks. dist., marked  $\frac{1}{4}$  S24 ET.

No other suitable bearing trees or accessories available.

44.40 Fence, bears NE. and SW.

46.50 Top of divide ridge, 150 ft. above the  $\frac{1}{4}$  sec. cor., bears N. 20° W. and S. 20° E.; descend abruptly over broken E. slope.

59.50 The NW. cor. of fences bearing E. and S., at base of abrupt descent, bears N. 30° E. and S. 70° W.; thence descend gradually over E. slope.

79.62 The reestablished cor. of secs. 12, 24, 25, and 30, on the E. bdy. of the township, 395 ft. below top of divide ridge heretofore described.

Land, rolling and broken, with a general easterly and westerly exposure and drainage.

Soil, deep blue and red clay; 2nd rate.

Undergrowth, scattered short shadscale and greasewood, on uncultivated portion of mile.

Timber, a few scattered scrub juniper on central portion of mile.

Poor grazing land on uncultivated portion of mile.

From the reestablished cor. of secs. 22, 24, 25, and 26.

N. 0°15' E., bet. secs. 25 and 24.

Over nearly level cultivated land.

9.42 Fence, bears E. and W.; junction of fence bearing N. 30° E., with E. and W. fence; at the SW. cor. of an apple orchard, bears West, 25 lks. dist.; thence through SW. cor. of apple orchard.

10.02 Fence at NW. side of apple orchard, bears N. 30° E. and S. 30° W.; continue over cultivated land.

21.30 Irrigation ditch, 10 lks. wide, 1 $\frac{1}{2}$  ft. deep, at N. side of cultivated land; drains S. 70° E. and bears N. 70° W.; enter scattered short undergrowth of shadscale, greasewood, and Russian thistle.

21.65 Barbed wire fence, bears N. 60° W., and S. 60° E., 3.10 chs. dist. to the NW. cor. of orchard.

24.10 Junction of fence bearing NE., with the NE. cor. of a corral.

25.10 Enter scattered scrub juniper and pinon timber, at base of gradual ascent over rolling S. slope of blue clay hills, bears N. 30° E. and S. 40° W.

DEPENDENT RESURVEY OF A PORTION SUBDIVISION, T. 33 S., R. 3 E.

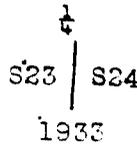
Chains

- 28.30 The S. point of spur which bears N. 20° E.; continue gradual ascent along W. slope of spur near top.
- 39.40 Spur, 130 ft. above sec. cor., projects W.; descend abruptly N. slope.
- 39.38 On abrupt N. slope, 10 ft. below spur; the original  $\frac{1}{4}$  sec. cor. of secs. 23 and 24, which is a sandstone, 12 x 10 x 3 ins. above ground, firmly set, plainly marked  $\frac{1}{4}$  on W. face, witnessed by one bearing tree as follows.

A pinon, 14 ins. diam., bears N. 27° W., 43 lks. dist., plainly marked  $\frac{1}{4}$  S 3T. I remark this tree  $\frac{1}{4}$  S 33 ET.

At the cor. point:

Set an iron post, 3 ft. long, 1 in. diam., 27 ins. in the ground, with the original cor. monument alongside, for the  $\frac{1}{4}$  sec. cor. secs. 23 and 24, with brass cap marked



I take an additional bearing tree to cor. as follows.

A pinon, 14 ins. diam., bears N. 52°30' E., 332 lks. dist., marked  $\frac{1}{4}$  S 24 ET.

Land, rolling and broken, with a general southerly exposure and drainage.

Soil, deep red and blue clay; 2nd rate.

Undergrowth, scattered short shadscale, greasewood, and Russian thistle.

Timber, scattered scrub juniper and pinon on N. portion of half mile.

Poor grazing on uncultivated portion of half mile.

From the reestablished cor. of secs. 23, 24, 25, and 26.

N. 89°34' W., bet. secs. 23 and 26.

Over nearly level cultivated land.

29.35 Leave cultivated land and enter dense undergrowth of greasewood and sagebrush, and scattered scrub juniper and pinon timber, bears N. 30° W. and S. 30° E.

10.05 The NE. cor. of fences bearing S. and W., bears S., 40 lks. dist.

10.32 The SE. cor. of hay shed and stable, bears N., 93 lks. dist.

13.35 Fence, bears NW. and SE.

16.35 Small seep of good water in channel of the Paria River, 4.00 chs. wide, 3 ft. deep, drains S. 20° E. Junction of draw draining from the N., with channel of Paria River, bears N., 1.30 chs. dist.

CHAINS

- 20.00 Junction of fence from the S. with fence bearing W. and S. 85° E.; thence along fence line bearing W.
- 31.80 Dry wash, 2.00 chs. wide, 5 ft. deep, drains SE.
- 35.35 Junction of fence from the E. with fences bearing N. 30° W. and S. 30° E.
- 35.65 State Highway, bears N. 30° W., to Panguitch, Ut. and S. 30° E. to Tropic, Ut.
- 36.25 Canal, drains S. 30° E. from N. 30° W.: ascend gradual E. slope of rolling foot hills of mountains to the W., bears with canal.
- 36.50 One wire telephone line, bears N. 30° W. and S. 30° E.
- 39.76 The original  $\frac{1}{4}$  sec. cor. of secs. 23 and 26, which is a decayed pinon stump, 12 ins. diam, extending 2 ft. above ground, upon which I find trace of a dim blaze. Cor. is witnessed by two bearing trees as follows.

- A pinon stump, 12 ins. diam., extending 2 ft. above ground, upon which I find dim scribe marks, bears N. 46° E., 77 lks. dist. (Record course and dist.)
- A pinon stump, 16 ins. diam., extending 2 ft. above ground, plainly marked  $\frac{1}{4}$  S BT, bears S. 72° W., 61 lks. dist. (Record course and dist.)

At the cor. point:

Set an iron post, 3 ft. long, 1 in. diam., 27 ins. in the ground, for the  $\frac{1}{4}$  sec. cor. secs. 23 and 26, with brass cap marked

$$\begin{array}{r} 823 \\ \frac{1}{4} \\ \hline 826 \end{array}$$

1933

I take bearing trees to cor. as follows.

- A juniper, 12 ins. diam., bears N. 71° E., 5 lks. dist., marked  $\frac{1}{4}$  S23 BT.
- A juniper, 8 ins. diam., bears S. 36° E., 50 lks. dist., marked  $\frac{1}{4}$  S26 BT.

Cor. set on gradual E. slope, 30 ft. above base of mountains.

Land, rolling, with a general easterly exposure and drainage.

Soil, deep clay, gravel, and sand; 3rd rate.

Undergrowth, scattered short greasewood and sagebrush.

Timber, scattered scrub juniper and pinon on W. portion of half mile.

Fair grazing land.

From the cor. of secs. 2, 3, 34, and 35, on the S. bdy. of the township, heretofore described.

N. 0°04' W., bet. secs. 34 and 35.

DEPENDENT RESURVEY OF A PORTION SUBDIVISION, TROPIC, R. 3W.

Chains	
	Over cultivated land in the town of Tropic, Utah.
1.40	Wash, 40 lks. wide, 10 ft. deep, drains E.
4.55	Fence on S. side of street, bears E. and W.; thence across street which bears E. and W.
5.74	Fence on N. side of street, bears E. and W.; thence through orchard.
12.90	Fence on S. side of street, bears E. and W.; thence across street bearing E. and W.
14.29	Fence on N. side of street, bears E. and W.; thence through orchard.
22.47	Fence on N. side of town of Tropic, Utah, bears E., and W., 35 lks. dist. to junction with fence from the S.; continue through orchard.
24.46	Fence, bears E., and W., 80 lks. dist. to junction with fence from the S.
25.95	Fence at N. side of orchard and at base of rolling clay hills, bears N. 20° E. and S. 20° W.; thence ascend gradual SE. slope of rolling clay hills.
29.80	Irrigation canal, 15 lks. wide, 2 ft. deep, flows S. 20° W. from N. 20° E.
30.85	Clay spur, 40 ft. high, projects E.; descend gradual NE. slope.
31.75	Recross canal, drains S. 30° E. from NW.
35.15	Wash at S. edge of cultivated land, 50 lks. wide, 10 ft. deep, drains SE. from the NW.
36.77	Net wire fence, bears E., and W., 2.20 chs. dist., thence NW.
39.31	Proportionate point; in cultivated land. Set an iron post, 3 ft. long, 1 in. diam., 27 ins. in the ground, for the reestablished $\frac{1}{4}$ sec. cor. secs. 34 and 35, with brass cap marked.
	$\frac{1}{4}$ S34   S35 1933
	Deposit a sandstone, 18 x 10 x 6 ins., at base of post, marked with a cross (X).
	No other suitable accessories available.
40.40	Irrigation ditch, 5 lks. wide, 1 ft. deep, drains E.
40.55	The SW. cor. of fences bearing N. and E.; thence along fence line bearing N.
49.00	Irrigation ditch, 5 lks. wide, 1 ft. deep, drains E., 10 lks. dist., thence S.
49.65	Wash, 10 lks. wide, 6 ft. deep, drains E.
53.90	Irrigation canal, 20 lks. wide, 2 ft. deep, flows S. 30° W., from N. 30° E.

## DEPENDENT RESURVEY OF A PORTION SUBDIVISION, T.36S., R.3W.

## Chains

- 54.90 Junction of fence from the E. with fence bearing N. and S.
- 57.85 Junction of fence from the W. with fence bearing N. and S.  
Fence from the W., bears W., 3.50 chs. dist., thence  
S. 20° W.
- 58.80 Leave cultivated land at base of rolling clay hills, bears  
E. and W.; ascend gradual S. slope.
- 61.80 Top of blue clay spur, 50 ft. above the  $\frac{1}{4}$  sec. cor.,  
projects S. 60° E. from the W.; descend gradual NE. slope.
- 69.43 Enter bottom lands of wide draw which drains from the W.,  
bears SE. and N. 75° W.; thence across bottom lands of  
draw, through scattered short undergrowth of shadscale  
and greasewood.
- 70.20 Junction of fence from the E. with fence bearing N. and S.
- 72.55 Wash, 20 lbs. wide, 10 ft. deep, in mouth of draw, 40 ft.  
below sour, drains SE. from the W.; continue over bottom  
lands of draw.
- 78.85 Leave bottom lands of draw, bears S. 60° E. and W.; ascend  
gradual S. slope.
- 79.63 The original cor. of secs. 26, 27, 34, and 35, which is a  
sandstone, 18 x 15 x 5 ins., loosely set in a mound of  
stone, plainly marked 2 notches on E. edge and 1 notch  
on S. edge. Cor. has no accessories.

At the cor. point.

Set an iron post, 3 ft. long, 2 ins. diam., 27 ins. in the  
ground, for the cor. of secs. 26, 27, 34, and 35, with  
brass cap marked

T33S	R3W
S27	S26
S34	S35

1933

Deposit the original cor. monument alongside the iron post.

No other suitable accessories available.

Cor. set on gradual S. slope, 40 ft. above draw, in fence  
line bearing N. and S.

Land, uncultivated portion of mile is rolling blue clay  
hills with a general easterly exposure and drainage.  
Cultivated portion of mile is nearly level land.

Soil, deep blue and red clay; 3rd rate.

Undergrowth, scattered shadscale and greasewood on  
uncultivated portion of mile.

No timber.

Poor grazing land on uncultivated portion of mile.

N. 89°39' E., bet. secs. 26 and 35.

Ascend gradually along S. slope of blue clay spur, through  
scattered undergrowth of shadscale and greasewood.

DEPENDENT RESURVEY OF A PORTION SUBDIVISION, T. 36S., R. 35E., S. 36

Chains	Description
2.90	Top of blue clay spur, 20 ft. above cor.; projects S. 60° E.; descend gradual NE. slope.
7.56	Fence at base of rolling clay hills and at the W. edge of cultivated land, bears NW. and SE.; thence over cultivated land.
10.86	Fence, bears N. 35° E. and S. 35° W.
11.85	Irrigation canal, 15 lks. wide, 1½ ft. deep, flows S. 20° W. from N. 35° E.
13.18	Cor. of fence, bears S. and N. 35° E.
25.18	Fence, bears S., and N., 73 lks. dist., thence E.
35.16	Fence, bears N. and S. Junction of fence line from the W. with N. and S. fence, bears N., 60 lks. dist.
39.88	Proportionate point; in alfalfa field.
	Set an iron post, 3 ft. long, 1 in. diam., 27 ins. in the ground, for the reestablished ¼ sec. cor. secs. 26 and 35 with brass cap marked.
	$\frac{1}{4} \frac{S26}{S35}$ <p>1933.</p>
	Deposit a sandstone, 14 x 10 x 10 ins., at base of post, marked with a cross (X).
	No other suitable accessories available.
45.31	Fence, bears N. and S. at the W. side of State highway.
45.90	State Highway, bears N. to Panguitch, Ut. and S. to Tropic, Ut.
48.10	One wire telephone line, bears N. and S.
48.39	Intersection of fence from the E. with fence bearing N. and S., at the E. side of State Highway; thence along fence line bearing E.
59.65	Intersection of fences bearing N. and S. and E. and W.
62.00	Leave cultivated land at base of rolling blue clay hills, bears N. and S.
67.70	Intersection of fence from the S. with fence bearing E. and W.
68.60	Top of low clay ridge, 30 ft. high, bears SE. and NW; descend gradual NE. slope through scattered short undergrowth of shadscale and greasewood.
74.93	Intersection of fence bearing NW. and SE., with fence bearing E. and W.
75.30	Top of W. bank of channel of Paria River, 15 ft. high, bears SE. and NW.; thence across dry channel of the Paria River.
77.20	Bottom of channel of the Paria River, drains SE.
79.77	The reestablished cor. of secs. 25, 26, 35, and 36.
	Land, rolling blue clay hills on uncultivated portion of mile.

## DEPENDENT RESURVEY OF A PORTION SUBDIVISION, T. 36S., R. 3W.

Chains

Soil, deep blue clay; 3rd rate.

Undergrowth, scattered shadscale and greasewood on uncultivated portion of mile.

No timber.

Poor grazing land on uncultivated portion of mile.

From the cor. of secs. 25, 27, 34, and 35.

N. 0°01' W., bet. secs. 26 and 27.

Ascend gradually along general E. slope of broken blue clay hills, through medium dense short undergrowth of shadscale, greasewood, and rabbit brush, along fence line bearing N.

3.40 Top of blue clay spur, 40 ft. above cor., projects S. 35° E.; continue gradual ascent over general E. slope.

11.53 The NW. cor. of fence, bears S. and W. 31° E.

17.89 Fence, bears N. 30° W. and S. 60° E.

26.15 Spur, 210 ft. above sec. cor., projects E.; descend abrupt NE. slope.

32.75 Bottom of draw, 30 ft. below spur, drains S. 70° E., 7.50 chs. dist., thence S. 25° E.; ascend abrupt S. slope.

33.40 Sandstone ledge, 25 ft. high, faces S. and bears E. and W.

40.00 On abrupt broken S. slope, 275 ft. above draw.

Set an iron post, 3 ft. long, 1 in. diam., 27 ins. in the ground, for the  $\frac{1}{4}$  sec. cor. secs. 26 and 27, with brass cap marked
$$\begin{array}{c} \frac{1}{4} \\ | \\ S27 \quad | \quad S26 \end{array}$$

1933

From which

A pinon, 8 ins. diam., bears N. 41°30' E., 49 lks. dist., marked  $\frac{1}{4}$  S23 ET.A pinon, 10 ins. diam., bears S. 63°30' W., 12 lks. dist., marked  $\frac{1}{4}$  S27 ET.

Land, broken and mountainous, with a general southeasterly exposure and drainage.

Soil, deep blue clay and shale; 3rd rate. Shale and sandstone formation.

Undergrowth, scattered shadscale, greasewood and rabbit brush.

Timber, scrub juniper and pinon on extreme N. portion of half mile.

Poor grazing land.

DEPENDENT RESURVEY OF A PORTION SUBDIVISION, T. 36S., R. 3W.

Chains

From the cor. of secs. 26, 27, 34, and 35.

West, bet. secs. 27 and 34.

Ascend gradual S. slope of broken blue clay foot hills of mountainous land, through medium dense undergrowth of shadscale, greasewood, and rabbit brush.

3.70 Spur, 50 ft. above cor., projects S., 4.00 chs. dist. to end; descend gradual SW. slope.

11.15 Draw, 35 ft. below spur, drains S. 30° E., 4.50 chs. dist. to junction with main draw which drains E.; ascend gradually over broken SE. slope.

30.00 Ascent becomes more abrupt, bears N. and S.; enter scattered scrub juniper and pinon timber, bears N. and S.

32.70 Timber becomes dense and ascent gradual, bears N. and S.

33.30 Spur, 270 ft. above draw, projects S., 2.00 chs. dist. to end; descend gradual SW. slope.

34.90 Gulch, 40 ft. below spur, drains SE.; ascend abrupt NE. slope.

36.50 Spur, 70 ft. above gulch, projects N., 30 lks. dist. to end; descend gradual NW. slope.

38.50 Same gulch as last, 20 ft. below spur, drains N. 60° E.; ascend abrupt SE. slope.

40.00 On top of spur, 20 ft. above gulch, projects S., 50 lks. dist. to end.

Set an iron post, 3 ft. long, 1 in. diam., 27 ins. in the ground, for  $\frac{1}{4}$  sec. cor. secs. 27 and 34, and boundary monument on the eastern boundary of the Bryce Canyon National Park, with brass cap marked

BONP  
+  
S27  
+  
S34  
1933

from which

A pinon, 6 ins. diam., bears N. 63°45' E., 71 lks. dist., marked  $\frac{1}{4}$  S27 FT.

A pinon, 6 ins. diam., bears S. 66°15' E., 170 lks. dist., marked  $\frac{1}{4}$  S34 FT.

Land, broken and mountainous, with a general easterly exposure and drainage.

Soil, deep blue clay; 3rd rate. Shale and sandstone formation.

Undergrowth, medium dense short shadscale, greasewood, and rabbit brush.

Timber, scrub juniper and pinon on W. portion of half mile.

Poor grazing land.

**Chains**

From the corner of sections 3, 4, and 34, on the South boundary of the township, which is also a corner monument on the eastern boundary of the Bryce Canyon National Park, heretofore described.

N.0°05'W., along the W. bdy. of sec. 34, and the eastern boundary of the Bryce Canyon National Park.

Ascend gradual S. slope of broken mountainous land, through dense scrub juniper and pinon timber, and undergrowth of sagebrush, shadscale, and greasewood.

- 14.90 Top of ascent on S. slope, 90 feet above corner, bears E. and W.; descend gradual NW. slope.
- 18.60 Wash, 30 lks. wide, 15 feet deep, in, draw, 20 feet below top of ascent, drains S.30°W.; ascend gradual SE. slope.
- 21.50 Ascent becomes abrupt, bears E. and W.
- 24.75 Spur, 70 feet above draw, projects SW.; continue ascent over large boulders and sandstone outcroppings on SW. slope.
- 33.30 Fence, bears N.60°E. and S.60°W.
- 34.00 Spur, 80 feet, above last spur, projects SW.; descend gradually along steep W. slope.
- 34.80 The original witness corner to the  $\frac{1}{4}$  section corner of sections 33 and 34, which is a sandstone, 24x10x5 ins., firmly set, in mound of stone, plainly marked  $\frac{1}{4}$  on W. face. Corner is witnessed by two bearing trees as follows:
  - A pinon, 10 ins. diam., bears S.69°30'E., 23 lks. dist., plainly marked WC  $\frac{1}{4}$  S34 BT. I remark this tree AP  $\frac{1}{4}$  S34 BT
  - A pinon, 16 ins. diam., bears N.59°W., 22 lks. dist., plainly marked WC  $\frac{1}{4}$  S33 BT. I efface the marks on this bearing tree.

As this corner will only function as an angle point, I mark the corner monument AP on its E. face.

DEPENDENT RESURVEY OF A PORTION OF SUBDIVISION, T. 36 S., R.

Chains

Thence

201011

N.0°02'W., with continuous measurement.

36.10 Gulch, 40 feet below spur, drains W.; ascend abruptly over broken SW. slope.

39.80 On abrupt broken SW. slope, 90 feet above gulch.

Set an iron post, 3 ft. long, 1 in. diam., 27 ins. in the ground, for  $\frac{1}{4}$  section corner of section 34, and corner monument on the eastern boundary of the Bryce Canyon National Park, with brass cap marked

$\frac{1}{4}$   
 BCNP | S34  
 1933

from which

A pinon, 8 ins. diam., bears N.47°45'E., 141 lks. dist., marked  $\frac{1}{4}$  S34 BT.

No other suitable bearing trees available.

Land, broken and mountainous, with a general south-westerly exposure and drainage.

Soil, deep blue clay; 3rd rate. Sandstone and shale formation.

Undergrowth, shadscale, greasewood, and rabbit brush.

Timber, scrub juniper and pinon.

Fair grazing land.

Reestablishment of surveys executed by  
 T. C. Bailey, U. S. Deputy Surveyor,  
 in 1876.

The established point for the corner of sections 9, 10, 15, and 16, is S.0°12'W., 80.00 chains distant from the

**Chains**

corner of sections 3, 4, 9, and 10, and S.89°13'E., 80.00 chains distant, from the true point for the corner of sections 8, 9, 16, and 17, which is South, 16.00 chains distant from the witness corner to the corner of said sections. Witness corner is a limestone, 18x14x4 ins., firmly set, in a mound of stone, plainly marked 4 grooves on S. face, and 4 grooves on E. face. Corner is witnessed by two bearing trees, as follows:

A dead yellow pine, 18 ins. diam., bears N.65°30'E., 44 lks. dist., upon which I find dim overgrown scribe marks.

A dead yellow pine, 20 ins. diam., bears N.42°15'W., 90 lks. dist., upon which I find dim overgrown scribe marks.

I take additional bearing trees to corner, as follows:

A yellow pine, 18 ins. diam., bears N.35°E., 279 lks. dist., marked WC T36S R3W S9 BT

A pinon, 10 ins. diam., bears S.87°45'E., 30 lks. dist., marked WC BT. Tree top gnarled for other marks.

A pinon, 6 ins. diam., bears S.71°W., 72 lks. dist., marked WC BT. Tree too gnarled for other marks.

A yellow pine, 8 ins. diam., bears N.72°30'W., 27 lks. dist., marked WC T36S R3W S8 BT.

At the established point for the corner of sections 9, 10, 15, and 16, set an iron post, 3 ft. long, 2 ins. diam., 27 ins. in the ground, for the reestablished

Chains

201280

corner of sections 9, 10, 15, and 16, with brass cap marked

T36S R3W

S9 | S10

S16 | S15

1933

from which

A red cedar, 11 ins. diam., bears N.51°45'E., 47 lks. dist., marked T36S R3W S10 BT.

A pinon, 12 ins. diam., bears S.41°E., 170 lks. dist., marked T36S R3W S15 BT

A pinon, 10 ins. diam., bears S.43°30'W., 138 lks. dist., marked T36S R3W S16 BT

A yellow pine, 11 ins. diam., bears N.57°30'W., 37 lks. dist., marked T36S R3W S9 BT

Thence

N.0°12'E., between sections 9 and 10.

Ascend gradually along E. slope of spur, over broken mountainous land, through medium dense forstail, and yellow pine, and red cedar and pinon timber, and scattered undergrowth of manzanita and sagebrush.

2.70 Low spur, 30 feet above corner, projects S.10°W.; continue gradual ascent over NW. slope.

33.50 Junction of two draws, drains SW. from N.30°W. and N.30°E.; continue gradual ascent.

40.00 Proportionate distance.

Set an iron post, 3 ft. long, 1 in. diam., 27 ins. in the ground, for the reestablished  $\frac{1}{2}$  section corner of sections 9 and 10, with brass cap marked

DEPENDENT RESURVEY OF A PORTION SUBDIVISION, T.36S., R.3W.

Chains

$\frac{1}{4}$   
S9 | S10  
1933

from which

A yellow pine, 20 ins. diam., bears N. 74°30' E., 106 lks. dist., marked  $\frac{1}{4}$  S10 BT.

A yellow pine, 18 ins. diam., bears S. 79° W., 219 lks. dist., marked  $\frac{1}{4}$  S9 BT.

Cor. set on W. bank of wash in draw which drains S. from the N., 140 ft. above sec. cor.

45.70 Small seep of good water, in draw which drains S., bears N. 45° E., 70 lks. dist.

58.30 Draw; drains SE., 50 lks. dist. to junction with draw which drains S. 15° E. from N. 10° E.; ascend abruptly over broken sandstone outcroppings.

65.10 Sandstone ledge, 30 ft. high, on top of spur, 270 ft. above the  $\frac{1}{4}$  sec. cor., projects S. 30° E.; continue ascent along broken E. slope.

73.70 Spur, 130 ft. above last spur, projects S. 30° E.; descend gradually along broken NE. slope.

80.00 True point for the cor. of secs. 3, 4, 9, and 10, cor. stone missing, which is established by record course and distance from bearing tree as follows.

A foxtail pine, 24 ins. diam., bears S. 80° W., 45 lks. dist., dimly marked S9 T36S R3W BT. I blaze and mark this tree, T36S R3W S9 BT.

At the established point for cor.

Set an iron post, 3 ft. long, 3 ins. diam., 6 ins. in the ground to solid rock and in a mound of stone, for cor. of secs. 3, 4, 9, and 10, with brass cap marked

T36S | R3W  
S4 | S3  
-----  
S9 | S10  
1933

I take additional bearing trees to cor. as follows.

A foxtail pine, 16 ins. diam., bears N. 25°30' E., 69 lks. dist., marked T36S R3W S3 BT.

A foxtail pine, 12 ins. diam., bears S. 33°30' E., 134 lks. dist., marked T36S R3W S10 BT.

A foxtail pine, 16 ins. diam., bears N. 40°30' W., 148 lks. dist., marked T36S R3W S4 BT.

Cor. set on abrupt SE. slope, 30 ft. below spur.

Land, broken and mountainous, with a general southerly exposure and drainage.

Soil, shallow clay and red shale; 4th rate. Sandstone and shale formation.

34

DEPENDENT RESURVEY OF A PORTION SUBDIVISION, T. 36S., R. 3W.

Chains

Undergrowth, manzanita and sagebrush.

Timber, foxtail and yellow pine, and red cedar and pinon.

Fair grazing land.

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N. 89°31' E., bet. secs. 3 and 10.

Descend gradually over broken SE. slope of mountainous land, through medium dense foxtail, limber, and yellow pine timber, and undergrowth of manzanita, sage, oak, and bitter brush.

8.30 Draw, 100 ft. below cor., drains S.; ascend abrupt W. slope.

14.40 Ridge, 130 ft. above draw, bears N. 20° W. and S. 20° E.; descend gradually over broken SE. slope.

25.00 Draw, 150 ft. below ridge, drains S. 10° E.; ascend abrupt broken SW. slope.

29.30 Spur, 30 ft. above draw, projects S.; descend abrupt E. slope.

31.70 Draw, 50 ft. below spur, drains S.; ascend abrupt broken SW. slope.

32.50 Top of rim of the Great Salt Lake Basin, 130 ft. above draw, bears NW. and SE.; timber becomes scattered, bears with rim; thence over rolling land.

42.45 The original  $\frac{1}{4}$  sec. cor. secs. 3 and 10, which is a sandstone, 10 x 3 x 5 ins. above ground, firmly set, plainly marked  $\frac{1}{4}$  on N. face. Cor. is in a good state of preservation. The bearing trees to cor. have been destroyed by fire.

I take bearing trees to cor. as follows.

A red cedar, 5 ins. diam., bears S. 3°30' E., 29 lks. dist., marked  $\frac{1}{4}$  S10 BT.

A yellow pine, 13 ins. diam., bears N. 71°30' W., 229 lks. dist., marked  $\frac{1}{4}$  S3 BT.

Thence:

N. 89°51' E., with continuous measurement.

41.40 Rim of the Great Salt Lake Basin, bears N. 60° E. and SW.; thence along broken S. breaks of rim.

45.00 Rim of the Great Salt Lake Basin, bears NW. and SE.; thence over broken top of rim.

56.50 Rim of the Great Salt Lake Basin, bears NW. and SE.; thence across small break in rim.

58.00 Rim of the Great Salt Lake Basin, bears NW. and SE.; descend gradual NE. slope

63.00 Junction of draws draining NW. from S. 20° E. and S. 75° E., 30 ft. below rim of basin; ascend gradual SW. slope.

64.50 Timber becomes medium dense, bears N. 15° W. and S. 15° E.

DEPENDENT RESURVEY OF A PORTION SUBDIVISION, T.36S., R.3W.

Chains

80.44

The true point for the original cor. of secs. 2, 3, 10, and 11, which is a small embedded mound of stone, which I take for the true point for cor. No trace of the original cor. monument could be found. Cor. point is witnessed by two bearing trees as follows.

A yellow pine, 36 ins. diam., bears N. 6°45' E., 108 lks. dist., upon which I find a blaze and overgrown scribe marks. I blaze and mark this tree, T36S R3W S2 PT.

A yellow pine, 34 ins. diam., bears S. 34°30' W., 40 lks. dist., upon which I find a blaze and overgrown scribe marks. I blaze and mark this tree, T36S R3W S10 PT.

At the true point for cor.

Set an iron post, 3 ft. long, 2 ins. diam., 27 ins. in the ground, for the cor. of secs. 2, 3, 10, and 11, with brass cap marked

T36S	R3W
S3	S2

S10	S11
-----	-----

1933

I take additional bearing trees to cor. as follows.

A yellow pine, 18 ins. diam., bears S. 63° E., 180 lks. dist., marked T36S R3W S11 PT.

A yellow pine, 24 ins. diam., bears N. 48° W., 125 lks. dist., marked T36S R3W S8 PT.

Cor. set on gradual SW. slope, 90 ft. above draw.

Land, rolling and broken, with a general southwesterly exposure and drainage.

Soil, shallow clay and shale; 3rd rate. Slate and sandstone formation.

Undergrowth, manzanita, sage, and bitter brush.

Timber, foxtail and yellow pine, and red cedar and juniper.

Fair grazing land.

South, bet. secs. 10 and 11.

Descend gradual SW. slope of rolling mountainous land, through medium dense yellow pine and red cedar timber, and scattered undergrowth of short sagebrush, manzanita, and bitter brush.

3.10 Draw, 40 ft. below cor., drains W.; ascend gradual N. slope.

6.00 Spur, 40 ft. above draw, projects N. 70° W.; descend gradual S. slope.

10.10 Draw, 30 ft. below spur, drains W.; ascend gradual N. slope.

19.10 Rim of the Great Salt Lake Basin, 70 ft. above draw, bears N. 70° W. and S. 70° E.; descend gradual SW. slope.

22.40 Draw, 40 ft. below rim of basin, drains N. 70° W.; ascend gradual NW. slope.

DEPENDENT RESURVEY OF A PORTION SUBDIVISION, T. 39S., R. 3W.

Chains

31.60 Spur, 70 ft. above draw, projects W.; enter scattered  
foxtail pine timber, bears E. and W.; descend abrupt S.  
slope over broken limestone and shale ledges.

32.50 On top of broken limestone ledge, 200 ft. high, faces S.  
and bears E. and W.; no iron post being available.

Set a hard limestone, 18 x 12 x 12 ins., 12 ins. in the  
ground and mound of stone, marked  $\frac{1}{4}$  on W. face, and WC on  
S. face, for witness cor. to the  $\frac{1}{4}$  sec. cor. secs. 10 and  
11,

from which

A yellow pine, 10 ins. diam., bears S. 59° E., 53 lks.  
dist., marked WC  $\frac{1}{4}$  S11 BT.

A foxtail pine, 10 ins. diam., bears N. 77° W., 30 lks.  
dist., marked WC  $\frac{1}{4}$  S10 BT.

40.00 True point for the  $\frac{1}{4}$  sec. cor. secs. 10 and 11, falls on  
S. face of broken limestone and shale breaks, where it is  
impracticable to set a cor.

Land, N. portion of half mile is rolling top of mountainous  
land, with a general westerly exposure and drainage; S.  
portion of half mile is broken limestone and shale breaks  
with a general southerly exposure and drainage.

Soil, shallow clay and red shale; 3rd rate. Shale and  
limestone formation.

Undergrowth, manzanita, sagebrush, and bitter brush.

Timber, yellow and foxtail pine, and red cedar.

Fair grazing land.

From the cor. of secs. 2, 3, 10, and 11.

East, bet. secs. 2 and 11.

Ascend gradual W. slope of rolling top of mountainous  
land, through medium dense yellow pine and red cedar  
timber, and undergrowth of sagebrush, manzanita, and  
bitter brush.

3.95 Rim of the Great Salt Lake Basin, 40 ft. above cor., bears  
N. 20° E. and S. 30° W.; descend abrupt E. slope over  
red shale and limestone breaks, through dense cedar, pinon,  
and yellow pine timber, and dense undergrowth of sage,  
service, oak, and buck brush.

39.00 Gulch, 520 ft. below rim of basin, drains N. 80° E.;  
ascend gradually along steep N. slope.

40.00 On steep N. slope, 20 ft. above gulch; no iron post being  
available.

Set a hard limestone, 20 x 12 x 6 ins., 15 ins. in the  
ground, marked  $\frac{1}{4}$  on W. face, and BOMP on W. face, for  
 $\frac{1}{4}$  sec. cor. secs. 2 and 11, and cor. monument on the  
eastern boundary of the Bryce Canyon National Park.

from which

A pinon, 6 ins. diam., bears S. 11° E., 18 lks. dist.,  
marked  $\frac{1}{4}$  S11 BT.

DEPENDENT RESURVEY OF A PORTION SUBDIVISION, T. 36 S., R. 3 W.

Chains

A red cedar, 10 ins. diam., bears N. 10° E., 10 lks. dist. marked  $\frac{1}{4}$  S2 BT.

7.50

Land, W. 8.95 chs. is rolling and mountainous with a general westerly exposure and drainage; remainder of half mile is broken E. breaks of rim of the Great Salt Lake Basin.

11.20

Soil, shallow clay and red shale; 3rd rate. Shale and limestone formation.

Undergrowth, sage, service, oak, and bitter brush.

Timber, yellow pine, red cedar, juniper, and pinon.

Fair grazing land.

From the cor. of secs. 2, 3, 10, and 11.

North, bet. secs. 2 and 3.

Ascend gradual SW. slope of rolling top of mountainous land, through medium dense yellow pine and red cedar timber, and undergrowth of sagebrush, manzanita, and bitter brush.

19.00

Rolling top of spur, 10 ft. above cor., projects W.; descend gradual N. slope.

20.00

Draw, 1.00 chs. wide, 30 ft. deep, drains N. 70° W.; continue gradual descent.

20.00

Timber becomes scattered, bears W., and E., 3.00 chs. dist., thence N.

20.00

On gradual NW. slope, 30 ft. below spur.

Set an iron post, 3 ft. long, 1 in. diam., 27 ins. in the ground, for S. 1/16 sec. cor. secs. 2 and 3, and cor. monument on the northern boundary of the Bryce Canyon National Park, with brass cap marked

S 1/16

S3 | S2

BCNP

1933

from which

A yellow pine, 34 ins. diam., bears N. 60° E., 271 lks. dist., marked S 1/16 S2 BT.

A yellow pine, 30 ins. diam., bears N. 55° 30' W., 321 lks. dist., marked S 1/16 S3 BT.

30.00

Leave timber, bears E. and NW.

35.00

Draw, 60 ft. below the S. 1/16 sec. cor., drains NW.; ascend gradual SE. slope.

40.00

The original  $\frac{1}{4}$  sec. cor. secs. 2 and 3, which is a sandstone, 15 x 12 x 5 ins. above ground, firmly set, plainly marked  $\frac{1}{4}$  on W. face. Cor. is in a good state of preservation, and has no accessories. I raise a mound of stone, 2 ft. base, 1 1/2 ft. high, W. of cor.

Thence:

Chains

- 42.10 Spur, 10 ft. above the 1/2 sec. cor., projects N. 30° W.; descend gradual N. slope.
- 52.80 Wash, 10 lks. wide, 2 ft. deep, drains N. 30° W.; then along rolling W. slope.
- 59.10 Draw, 1.50 chs. wide, 10 ft. deep, drains N. 70° W.
- 74.10 Small rise, 20 ft. above draw, bears N. 70° W. and S. 70° E.; descend gradual NW. slope.
- 79.60 Wash, 7 lks. wide, 2 ft. deep, in draw, 30 ft. below rise, drains N. 70° W.; ascend gradually along W. slope.
- 80.28 The original closing cor. of secs. 2 and 3, T. 38 S., R. 3 W., on the seventh standard parallel south, which is a limestone, 14 x 10 x 8 ins., loosely set, plainly marked 4 notches on W. edge, 2 notches on E. edge, and 6 notches on S. edge. Cor. has no accessories.

At the cor. point:

Set an iron post, 3 ft. long, 2 ins. diam., 27 ins. in the ground, with the original cor. monument alongside, for closing cor. of secs. 2 and 3, T. 38 S., R. 3 W., with brass cap marked

T358 R3W  
35

83 82  
T369 R3W

1933

No other suitable accessories available.

From this cor., the standard cor. of secs. 34 and 35, T. 38 S., R. 3 W., heretofore described, bears N. 99°33' W. 3.22 chs. dist.

Land, rolling and mountainous, with a general northwesterly exposure and drainage.

Soil, deep clay and gravel; 3rd rate.

Undergrowth, sagebrush, manzanita, and bitter brush.

Timber, yellow pine and red cedar on S. portion of mile.

Fair grazing land.

SUBDIVISION OF, T. 38 S., R. 3 W.

From the 1/2 sec. cor. secs. 23 and 24, heretofore described

N. 0°01' W., bet. secs. 23 and 24.

Descend gradual N. slope of rolling mountainous land, through scattered juniper and piñon timber, and dense undergrowth of sagebrush, greasewood, and chadsale.

## SUBDIVISION OF, T. 36 S., R. 3 W.

## Chains

- 2.80 Wash, 10 lks. wide, 2 ft. deep, in draw, 20 ft. below  $\frac{1}{4}$  sec. cor., drains S. 70° W.; ascend gradually.
- 3.10 The SE. cor. of fences bearing N. and W.; thence along fence line bearing N.
- 9.40 Wash, 20 lks. wide, 5 ft. deep, drains S. 60° W.
- 13.90 Wash, 40 lks. wide, 15 ft. deep, drains S. 60° W.
- 15.30 Wash, 20 lks. wide, 10 ft. deep, drains SW.
- 16.72 Junction of fence from the S. with fence bearing N. 30° E. and W.
- 17.20 Base of abrupt ascent over steep broken S. slope, bears W., and E., 2.00 chs. dist., thence S. 20° E.
- 25.60 Top of sandstone butte, 30 ft. high, bears E. and W. 2.00 chs. dist., and N. and S. 80 lks. dist., on top of spur, 265 ft. above draw, projects W.; descend abrupt N. slope.
- 32.75 Draw, 220 ft. below top of butte, drains W.; ascend abrupt S. slope.
- 38.60 Spur, 185 ft. above draw, projects S. 65° W.; descend abrupt broken NW. slope.
- 40.00 On abrupt broken NW. slope, 30 ft. below spur.

Set an iron post, 3 ft. long, 2 ins. diam., 27 ins. in the ground, for cor. of secs. 13, 14, 23, and 24, with brass cap marked

T33S	R3W
S14	S13
S23	S24

1233

from which

A pinon, 8 ins. diam., bears N. 53° E., 93 lks. dist., marked T33S R3W S13 BT.

A pinon, 5 ins. diam., bears S. 81° E., 9 lks. dist., marked T33S R3W S24 BT.

A pinon, 6 ins. diam., bears S. 69° W., 104 lks. dist., marked T33S R3W S23 BT.

A pinon, 6 ins. diam., bears W. 21°15' W., 59 lks. dist., marked T33S R3W S14 BT.

Land, rolling and broken, and mountainous, with a general westerly exposure and drainage.

Soil, deep blue clay; 3rd rate. Shale and sandstone formation.

Undergrowth, dense sagebrush, greasewood, and shadscale.

Timber, scattered scrub juniper and pinon.

Fair grazing land.

S. 89°45' E., on random line, bet. secs. 13 and 24.

SUBDIVISION OF T. 36 S. 13 E. W.

Chains

- 40.00 Set temp.  $\frac{1}{4}$  sec. cor.
- 79.52 Intersect the E. bdy. of the township, 7 lks. S. of the cor. secs. 13, 18, 19, and 24, heretofore described.
- Thence:
- N. 89°49' W., on true line, bet. secs. 13 and 24.
- Descend abrupt W. slope of rough mountainous land over sandstone ledges and shale breaks; through scattered scrub juniper and pinon timber, and scattered undergrowth of shadscale and greasewood.
- 13.50 Gulch, 290 ft. below cor., drains S.; ascend abruptly over broken W. breaks of gulch.
- 16.50 Sandstone rim, 50 ft. high, faces SE. and bears N. 30° E. and S. 20° W.; continue abrupt ascent.
- 36.50 Spur, 320 ft. above gulch, projects S.; descend abruptly over broken SW. slope.
- 39.50 Draw, 200 ft. below spur, drains S., 50 lks. dist. to point where it drops over sandstone rim, bears S. 30° W. and S. 30° E.; ascend abrupt S. slope.
- 39.76 On steep S. slope, 20 ft. above draw.
- Set an iron post, 7 ft. long, 1 in. diam., 27 ins. in the ground, for  $\frac{1}{4}$  sec. cor.; with brass cap marked
- $$\frac{1}{4} \begin{array}{l} S13 \\ \hline S24 \end{array}$$

1933
- from which
- A pinon, 10 ins. diam., bears N. 32° E., 88 lks. dist., marked  $\frac{1}{4}$  S13 BT.
- A pinon, 10 ins. diam., bears S. 83° W., 143 lks. dist., marked  $\frac{1}{4}$  S24 BT.
- 47.40 Top of main ridge, 185 ft. above the  $\frac{1}{4}$  sec. cor., bears N. and S.; descend abrupt broken W. slope.
- 54.00 Head of draw, 130 ft. below ridge, drains S. 60° W.; ascend gradually over broken SE. slope.
- 57.80 Spur, 75 ft. above head of draw, projects SW.; descend gradually along broken S. slope.
- 73.60 Spur, 195 ft. below last spur, projects S. 60° W.; continue descent over S. slope.
- 79.52 The cor. of secs. 13, 14, 23, and 24, 115 ft. below spur.
- Land, broken and mountainous, with a general southerly exposure and drainage.
- Soil, shallow blue clay and shale; 3rd rate. Sandstone and shale formation.
- Undergrowth, shadscale and greasewood.
- Timber, scrub juniper and pinon.
- Poor grazing land.

SUBDIVISION OF, T. 36 S., R. 3 W.

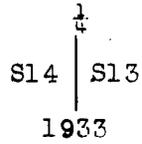
Chains

N. 0° 01' W.; bet. secs. 13 and 14.

Descend abrupt NW. slope of broken mountainous land, over sandstone ledge and shale breaks, through dense scrub juniper and pinon timber, and scattered undergrowth of greasewood, shadscale, and silver leaf.

- 6.00 Draw, 200 ft. below cor., drains S. 75° W.; ascend abrupt SE. slope of sandstone ledges and shale breaks.
- 10.00 Top of W. point of sandstone ledge, 40 ft. high, on top of spur, 250 ft. above draw, projects W.; descend abrupt N. slope over ledges.
- 32.00 Gulch, 300 ft. below spur, drains SW.; ascend abrupt SE. slope over broken sandstone ledges.
- 40.00 On steep SE. slope, 360 ft. above draw.

Set an iron post, 3 ft. long, 1 in. diam., 27 ins. in the ground, for  $\frac{1}{4}$  sec. cor., with brass cap marked



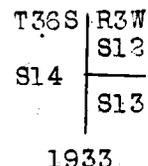
from which

A pinon, 8 ins. diam., bears S. 45° 30' E., 107 lks. dist., marked  $\frac{1}{4}$  S13 BT.

A pinon, 14 ins. diam., bears S. 84° W., 139 lks. dist., marked  $\frac{1}{4}$  S14 BT.

- 40.30 Spur, 10 ft. above the  $\frac{1}{4}$  sec. cor., projects SW.; descend gradually over broken NW. slope.
- 53.00 Draw, 120 ft. below spur, drains W.; ascend gradually over broken SW. slope.
- 67.30 Spur, 140 ft. above draw, projects S. 70° W.; descend abrupt N. slope.
- 71.00 Top of S. rim of boxed canyon near head, 200 ft. high, bears NE. and SW.
- 72.20 Bottom of boxed canyon, 300 ft. below spur, drains SW., and heads NE., 3.00 chs. dist.; ascend abrupt NW. breaks of canyon.
- 74.00 Top of NW. rim of canyon, bears N. 75° E. and S. 75° W.; thence ascend abrupt S. slope.
- 80.00 On abrupt S. slope, 360 ft. above bottom of canyon.

Set an iron post, 3 ft. long, 3 ins. diam., 27 ins. in the ground, for cor. of secs. 12 and 13, with brass cap marked



from which

A pinon, 12 ins. diam., bears N. 67° 30' E., 111 lks. dist., marked T36S R3W S12 BT.

SUBDIVISION OF, T. 36 S., R. 3 W.

Chains

A pinon, 3 ins. diam., bears S. 83° E., 34 lks. dist., marked BT.

Land, broken and mountainous, with a general southwestern exposure and drainage.

Soil, shallow blue clay and sand; 3rd rate. Sandstone and blue shale formation.

Undergrowth, scattered shadscale, greasewood, and silver leaf,

Timber, dense scrub juniper and pinon.

Fair grazing land.

S. 89°48' E., on random line, bet. secs. 12 and 13.

40.00 Set temp.  $\frac{1}{4}$  sec. cor.

79.38 Intersect the true point for the cor. of secs. 7, 12, 13, and 18, which is North, 2.30 chs. dist. from the witness cor. to the cor. of said secs.

Thence, from true point for cor.

N. 39°48' W., on true line, bet. secs. 12 and 13.

Ascend abruptly over sandstone ledges which form the head of boxed gulch which drains E., through scattered juniper and pinon timber, and scattered undergrowth of shadscale, greasewood, silver leaf, and bitter brush.

3.40 Top of sandstone breaks at head of gulch, 80 ft. above point for cor., bears N. 50° E. and S. 60° E.; ascend abrupt NE. slope of spur.

31.70 Top of high spur, 320 ft. above rim at head of gulch, projects S. 38°30' E. from N. 36°30' W.; thence ascend gradually along broken S. slope of spur.

39.84 On broken S. slope, 230 ft. above spur.

Set an iron post, 3 ft. long, 1 in. diam., 20 ins. in the ground to solid rock, and in a mound of stone to top, for  $\frac{1}{4}$  sec. cor., with brass cap marked

$\frac{1}{4}$  S12

S13

1933

from which

A pinon, 12 ins. diam., bears S. 71°30' W., 88 lks. dist., marked  $\frac{1}{4}$  S13 BT.

A pinon, 10 ins. diam., bears N. 60°30' W., 122 lks. dist., marked  $\frac{1}{4}$  S12 BT.

Thence ascend abruptly over broken SE. slope.

47.00 Top of main ridge, 200 ft. above the  $\frac{1}{4}$  sec. cor., bears N. and S.; descend abrupt W. slope.

51.50 Head of draw, 50 ft. below ridge, drains S. 20° W.; ascend gradually over broken E. slope.

SUBDIVISION OF, T. 36 S., R. 3 W.

Chains

- 50.40 Spur, 90 ft. above head of draw, projects SW.; descend abrupt SW. slope.
- 69.00 Sandstone ledge, 50 ft. high, faces SW. and bears N. and S. 20° E.
- 79.68 The cor. of secs. 12 and 13, 535 ft. below spur.
- Land, broken and mountainous, with a general southeasterly and southwesterly exposure and drainage.
- Soil, shallow clay and sand; 3rd rate. Sandstone and shale formation.
- Undergrowth, scattered shadscale, greasewood, silver leaf, and bitter brush.
- Timber, scattered scrub juniper and pinon.
- Fair grazing land.
- 
- N. 0°01' W., along the W. bdy. sec. 12.
- Ascend abrupt SE. slope of broken mountainous land, through dense scrub juniper and pinon timber and undergrowth of silver leaf, and buck brush.
- 2.00 Point for the closing cor. of secs. 11 and 14, subsequently set at this point.
- 2.30 Spur, 120 ft. above the cor. of secs. 12 and 13, projects SW.; thence ascend gradually along abrupt broken SW. slope.
- 20.90 Top of W. point of sandstone ledge, 40 ft. high, on spur, 430 ft. above cor. of secs. 12 and 13, projects SW.; descend gradually over broken ledgy W. slope.
- 31.80 Head of draw, 50 ft. below spur, drains SW.; ascend gradual S. slope.
- 36.60 Top of main ridge, 70 ft. above head of draw, bears S. 20° E. and N. 20° W.; descend gradually over steep ledgy E. slope.
- 40.00 On steep E. slope of ridge, 35 ft. below top.
- Set an iron post, 3 ft. long, 1 in. diam., 27 ins. in the ground, for  $\frac{1}{4}$  sec. cor. sec. 12, with brass cap marked
- |  $\frac{1}{4}$  S12
- 1933
- from which
- A pinon, 10 ins. diam., bears N. 33°30' E., 31 lbs. dist., marked  $\frac{1}{4}$  S12 ET.
- A pinon, 12 ins. diam., bears S. 14°15' E., 59 lbs. dist., marked  $\frac{1}{4}$  S12 ET.
- 41.20 Top of same ridge; 35 ft. above the  $\frac{1}{4}$  sec. cor., bears N. and S. 20° W.; thence ascend gradually along top of ridge.
- 42.22 Point which is midway bet. the closing cors. of secs. 12 and 13, and secs. 11 and 14.



SUBDIVISION OF, T. 36 S., R. 3 W.

Chains

- 19.80 Spur, 100 ft. above gulch, projects S.; descend abrupt SW. slope.
- 26.80 Bottom of canyon, 330 ft. below spur, drains S. 20° E.; ascend abrupt broken NE. slope.
- 39.89 On abrupt NE. slope, 580 ft. above bottom of canyon.  
Set an iron post, 3 ft. long, 1 in. diam., 20 ins. in the ground to solid rock and in a mound of stone to top, for  $\frac{1}{4}$  sec. cor., with brass cap marked  

S1  


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 S12  
 1933

from which

A juniper, 10 ins. diam., bears N. 17°30' E., 36 lks. dist., marked  $\frac{1}{4}$  S1 PT.

A pinon, 8 ins. diam., bears South, 31 lks. dist., marked  $\frac{1}{4}$  S12 PT.

Continue abrupt ascent over abrupt broken NE. slope.
- 47.30 Ridge, 130 ft. above the  $\frac{1}{4}$  sec. cor., bears N. 20° W. and S. 30° E.; descend abrupt broken W. slope.
- 57.30 Bottom of fork of last canyon; 700 ft. below spur, drains S. 30° E.; ascend abrupt broken NE. slope.
- 79.80 Spur, 700 ft. above bottom of canyon, projects S. 30° E.; descend gradually over S. slope.
- 79.76 The cor. of secs. 1, and 12, 5 ft. below spur.  
Land, very broken and mountainous, with a general southeasterly exposure and drainage.  
Soil, shallow clay, sand, and rock; 4th rate. Sandstone formation.  
Undergrowth, silver leaf, buck, and oak brush.  
Timber, dense juniper and pinon and scattered fir.  
Fair grazing land.  

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N. 0°01' W., along the W. bdy. sec. 1.  
Ascend gradual S. slope of broken mountainous land through dense juniper, pinon, fir, red, and yellow pine timber, and medium dense undergrowth of silver leaf, greasewood, bitter, and buck brush.
- 1.70 Spur, 20 ft. above cor., projects S. 20° E.; descend gradually along broken E. slope.
- 3.44 Point for the closing cor. of secs. 3 and 11, subsequently set at this point.
- 12.50 Draw, 300 ft. below spur, drains SE.; ascend abrupt broken SW. slope.
- 29.80 Spur, 250 ft. above draw, projects SE.; descend gradual NE. slope.

SUBDIVISION OF T. 35 S., R. 3 W.

Chains	Description	Mileage
39.60	Draw, 100 ft. below spur, drains SE.; ascend abrupt broken SW. slope.	
40.00	On abrupt SW. slope, 15 ft. above draw; no iron post being available.  Set a sandstone, 20 x 12 x 8 ins., 12 ins. in the ground and in a mound of stone, marked $\frac{1}{4}$ on E. face, for $\frac{1}{4}$ sec. cor. sec. 1.  from which A juniper, 8 ins. diam., bears N. 36°15' E., 39 lks. dist., marked $\frac{1}{4}$ S1 BT. A pinon, 8 ins. diam., bears S. 20° E., 37 lks. dist., marked $\frac{1}{4}$ S1 BT.  Continue abrupt ascent over broken SW. slope.	
42.08	Proportionate to record of W. bdy. sec. 2; on abrupt SW. slope, 50 ft. above the $\frac{1}{4}$ sec. cor. sec. 1, no iron post being available.  Set a sandstone, 18 x 14 x 8 ins., 10 ins. in the ground and in a mound of stone, marked $\frac{1}{4}$ on W. face, for $\frac{1}{4}$ sec. cor. sec. 2.  from which A pinon, 6 ins. diam., bears S. 53°15' W., 36 lks. dist., marked $\frac{1}{4}$ S2 BT. A pinon, 6 ins. diam., bears N. 49°15' W., 22 lks. dist., marked $\frac{1}{4}$ S2 BT.  Continue abrupt ascent over broken SW. slope.	
53.00	Ridge, 300 ft. above the $\frac{1}{4}$ sec. cor. sec. 2, bears SE. and NW.; descend abrupt broken NE. slope.	
53.50	Draw, 200 ft. below ridge, drains SE.; ascend abrupt broken SW. slope.	
72.00	Spur, 300 ft. above draw, projects S. 60° E.; descend abrupt NE. slope.	
77.50	Draw, 110 ft. below spur, drains S. 60° E.; ascend abrupt SE. slope.	
81.96	On abrupt SE. slope, 50 ft. above draw.  Intersect the 7th standard parallel south on S. bdy. sec. 36. T. 35 S., R. 3 W. No iron post being available.  Set a sandstone, 15 x 12 x 9 ins., 10 ins. in the ground and in a mound of stone, marked CC on S. face, 1 groove on E. face, and 5 grooves on W. face.  from which A juniper, 18 ins. diam., bears S. 55°30' E., 14 lks. dist., marked T36S R3W S1 CC BT. A pinon, 5 ins. diam., bears S. 30° E., 23 lks. dist., marked T36S R3W S2 CC BT.	

SUBDIVISION OF T. 35 S., R. 3 W.

Chains

70.00  
80.00

From this cor., the standard cor. of secs. 35 and 36, T. 35 S., R. 3 W.; heretofore described, bears West, 7.92 chs. dist.

80.00

Land, broken and mountainous, with a general southeasterly exposure and drainage.

80.00

Soil, shallow clay and sand, mixed with loose rock; 4th rate. Sandstone formation.

Undergrowth, silver leaf, greasewood, bitter, and buck brush.

Timber, juniper, pinon, fir, red and yellow pine.

Fair grazing land.

The cor. of secs. 22, 23, 26, and 27, is set at the intersection of a line projected N. 0°01' W. from the  $\frac{1}{4}$  sec. cor. of secs. 26 and 27, with a line projected W. from the  $\frac{1}{4}$  sec. cor. secs. 23 and 26,

Therefore, from the  $\frac{1}{4}$  sec. cor. secs. 23 and 26, heretofore described.

West, on random line, bet. secs. 23 and 26.

40.00

Set temp. cor. of secs. 22, 23, 26, and 27.

Thence:

S. 0°01' E., on random line, bet. secs. 23 and 27.

40.47

Fall 25 lks. E. of the  $\frac{1}{4}$  sec. cor. secs. 23 and 27, heretofore described.

Thence:

From the  $\frac{1}{4}$  sec. cor. secs. 23 and 27.

N. 0°01' W., on true line, bet. secs. 23 and 27.

Ascend abrupt S. slope of broken mountainous land, through dense juniper and pinon timber and medium dense undergrowth of silver leaf, Brigham tea, sage, and buck brush.

1.70

Spur, 50 ft. above cor., projects E.; descend abrupt broken NE. slope.

9.70

Draw, 90 ft. below spur, drains NE.; ascend gradual SE. slope.

10.80

Spur, 10 ft. above draw, projects W. 60° E.; descend gradual N. slope.

13.00

Draw, 30 ft. below spur, drains E.; ascend gradual S. slope.

15.10

Spur, 30 ft. above draw, projects E.; descend abrupt N. slope.

16.60

Draw, 40 ft. below spur, drains E.; ascend gradual broken S. slope.

19.10

Spur, 50 ft. above draw, projects E.; descend abrupt N. slope.

SUBDIVISION OF T36S R3W S23

Chains

- 27.30 Gulch rimmed with perpendicular ledges, 320 ft. below spur, drains E., and heads W., 8.50 chs. dist.; ascend gradual S. slope.
- 36.70 Spur, 280 ft. above gulch, projects N. 60° E.; descend gradual N. slope.
- 37.70 Small draw, 20 ft. deep, drains NE.; continue descent.
- 40.47 Fall 25 lks. W. of the 40.00 chs. point from the E.  
On N. side of draw, 60 ft. below spur.

Set an iron post, 3 ft. long, 2 ins. diam., 6 ins. in the ground to solid rock and in a mound of stone to top, for cor. of secs. 22, 23, 26, and 27, with brass cap marked

T36S	R3W
S22	S23
S27	S26

1933

from which

A pinon, 16 ins. diam., bears N. 74°15' E., 68 lks. dist., marked T36S R3W S23 BT.

A juniper, 16 ins. diam., bears S. 88° E., 71 lks. dist., marked T36S R3W S26 BT.

A pinon, 14 ins. diam., bears S. 37° W., 20 lks. dist., marked T36S R3W S27 BT.

A juniper, 8 ins. diam., bears N. 48°30' W., 29 lks. dist., marked T36S R3W S22 BT.

From this cor., a sandstone, 10 x 10 x 10 ins. above ground firmly set, plainly marked 3 notches on S. and E. edges, bears N. 95°13' E., 1.68 chs. dist.

The stone is witnessed by 4 bearing trees as follows.

A pinon, 10 ins. diam., bears N. 79° E., 62 lks. dist., marked S23 BT.

A juniper, 16 ins. diam., bears S. 14°30' E., 17 lks. dist., marked T36S R3W S27 BT.

A pinon, 8 ins. diam., bears S. 30°30' W., 44 lks. dist., marked T36S R3W S26 BT.

A pinon, 16 ins. diam., bears N. 12° W., 5 lks. dist., marked T36S R3W S22 BT.

As there is no official record of this cor. and bearing trees, I deposit the cor. monument alongside the iron post and efface the marks on the bearing trees.

Land, broken and mountainous, with a general easterly exposure and drainage.

Soil, shallow clay, sand, rock, and shale; 4th rate.  
Sandstone and shale formation.

Undergrowth, silver leaf, Brigham tea, sage, and buck brush.

Timber, juniper and pinon.

Fair grazing land.

1/4 SUBDIVISION OF, T. 3618N, R. 73 W.

Chains

- From the  $\frac{1}{4}$  sec. cor. secs. 23 and 26.  
 West, on true line, bet. secs. 23 and 26.  
 Ascend gradually over broken E. slope of mountainous land, through medium dense juniper and pinon timber, and undergrowth of greasewood, sage, and bitter brush.
- 7.00 Spur, 40 ft. above cor., projects N.; descend gradual W. slope.
- 10.10 Draw, 50 ft. below spur, drains N. 15° E.; ascend gradually over broken SE. slope.
- 20.00 Spur, 110 ft. above draw, projects N. 30° E.; descend gradual NW. slope.
- 21.00 Draw, 15 ft. below spur, drains N. 15° E.; ascend abrupt broken E. slope.
- 32.40 Spur, 150 ft. above draw, projects NE.; thence ascend gradually along abrupt N. slope.
- 36.00 Top of ascent on N. slope, 20 ft. above spur, bears N. and S.; descend gradual NW. slope.
- 37.00 Draw, 20 ft. below top of ascent, drains NE.; ascend gradually along N. side of draw.
- 40.25 The cor. of secs. 22, 23, 24, and 27, 30 ft. above draw.  
 Land, broken and mountainous, with a general northeasterly exposure and drainage.  
 Soil, shallow clay, sand, shale, and rock; 4th rate. Sandstone and shale formation.  
 Undergrowth, greasewood, sage, and bitter brush.  
 Timber, juniper and pinon.  
 Fair grazing land.
- 
- N. 0°01' W., bet. secs. 22 and 23.  
 Ascend gradually over broken SE. slope of rough mountainous land, through dense juniper and pinon timber, and medium dense undergrowth of buck brush and scattered bitter brush and silver leaf.
- 10.50 Spur, 40 ft. above cor., projects E.; descend abrupt N. slope.
- 11.70 Begin abrupt descent over broken NE. slope, bears NW. and SE.
- 14.60 Sandstone ledge, 20 ft. high, faces NE. and bears N. 35° W. and S. 35° E.
- 22.50 Draw, 220 ft. below spur, drains N. 75° E.; ascend gradual S. slope.
- 25.50 Flat top of spur, 10 ft. above draw, projects NE., 5.00 chs. dist. to end; descend gradual NW. slope.

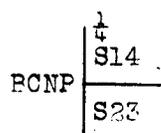
SUBDIVISION OF, TO BEI8IYR8US W.

Chains		S2123						
32.85	State Highway, bears SE. to Tropic, Utah, 328.85 below Panguitch, Utah.	NW 10						
35.20	Small intermittent stream of water, in channel of the Paria River, 240 lks. wide, 8 ft. deep, 403.20 below spur, flows SE.; ascend gradual S. slope of bottom land of the Paria River, through dense undergrowth of oak, rose, and squaw brush.							
36.00	One wire telephone line, bears NW. and SE. 00.00							
37.90	Irrigation canal, 30 lks. wide, 15 ft. deep, with stream 10 lks. wide, 5 ins. deep, flows SE. from the NW. 01.01							
40.00	On gradual S. slope, in dense oak, rose, and squaw brush.							
	Set an iron post, 3 ft. long, 1 in. diam., 27 ins. in the ground, for $\frac{1}{4}$ sec. cor., with brass cap marked							
	<table border="1"> <tr> <td>S22</td> <td>S23</td> </tr> </table>	S22	S23					
S22	S23							
	1933							
	from which							
	A pinon, 3 ins. diam., bears N. $61^{\circ}15'$ E., 290 lks. dist., marked $\frac{1}{4}$ S23 BT.							
	No other suitable bearing tree available.							
	Continue gradual ascent over S. slope through dense undergrowth of oak, rose, and squaw brush.							
44.80	Small seep of good water, bears East, 30 lks. dist.							
48.40	Enter medium dense growth of juniper and pinon timber, and scattered undergrowth of sage and bitter brush.							
50.00	Ascent over S. slope becomes abrupt, bears E. and W.							
51.20	Top of broken sandstone ledge, 20 ft. high, bears S. $30^{\circ}$ E., and N., 3.00 chs. dist., thence W.							
60.00	On steep broken S. slope, 220 ft. above the $\frac{1}{4}$ sec. cor.							
	Set an iron post, 3 ft. long, 1 in. diam., 27 ins. in the ground, for the N. $\frac{1}{16}$ sec. cor. secs. 22 and 23, and cor. monument on the eastern boundary of the Bryce Canyon National Park; with brass cap marked							
	<table border="1"> <tr> <td colspan="2">BCNP</td> </tr> <tr> <td>N</td> <td><math>\frac{1}{16}</math></td> </tr> <tr> <td>S22</td> <td>S23</td> </tr> </table>	BCNP		N	$\frac{1}{16}$	S22	S23	
BCNP								
N	$\frac{1}{16}$							
S22	S23							
	1933							
	from which							
	A juniper, 13 ins. diam., bears S. $51^{\circ}15'$ E., 16 lks. dist., marked N $\frac{1}{16}$ S23 BT.							
	A pinon, 3 ins. diam.; bears S. $51^{\circ}$ W., 35 lks. dist., marked N $\frac{1}{16}$ S23 BT.							
	Land, broken and mountainous; with a general northerly and southerly exposure and drainage.							
	Soil, shallow clay, sand, gravel and rock; 3rd rate. Sandstone and volcanic formation.							

SUBDIVISION OF, T. 36 S., R. 3 W.

Onains

- A x 7 Undergrowth, silver leaf, buck, bitter, oak, rose, and squaw brush.
- Intersect Timber, juniper and pinon.
- Fair grazing land.
- Thence, from the N. 1/16 sec. cor.
- N. 0°01' W., with continuous measurement through the Bryce Canyon National Park on a blank line.
- 80.00 Set temp. cor. of secs. 14, 15, 23, and 23.
- From the temp. cor. secs. 14, 15, 23, and 23.
- East, on random line,
- 40.00 Set temp.  $\frac{1}{4}$  sec. cor. secs. 14 and 23.
- 30.11 Intersect the N. and S. line 23 lks. N. of the cor. secs. 13, 14, 23, and 24.
- Thence:
- N. 89°48' W., on true line, bet. 14 and 23.
- Descend abrupt NW. slope of rolling mountainous land, through scattered juniper and pinon timber, and medium dense undergrowth of sagebrush, greasewood, and rabbit brush.
- 13.00 Wash, 15 lks. wide, 5 ft. deep, in draw, 135 ft. below cor., drains SW.; ascend gradual E. slope.
- 24.50 Spur, 100 ft. above wash, projects S.; descend gradual SW. slope.
- 33.30 Timber becomes dense and undergrowth scattered, bears N. and S.
- 35.20 Wash, 50 lks. wide, 5 ft. deep, in bottom of canyon, 50 ft. below spur, drains SE.; ascend gradual NE. slope.
- 33.10 Gulch, 10 ft. above wash, drains S. 70° E.; ascend steep NE. slope.
- 40.05 On steep SE. slope; 40 ft. above gulch.
- Set an iron post, 7 ft. long, 1 in. diam., 30 ins. in the ground to solid rock and in a mound of stone to top, for  $\frac{1}{4}$  sec. cor. secs. 14 and 23 and cor. monument on the eastern boundary of the Bryce Canyon National Park, with brass cap marked



1933

from which

A pinon, 6 ins. diam., bears N. 59° E., 43 lks. dist., marked  $\frac{1}{4}$  S14 BT.

A pinon, 8 ins. diam., bears S. 53°30' E., 43 lks. dist., marked  $\frac{1}{4}$  S23 BT.

SUBDIVISION OF T. 36 S., R. 3 W.

Chains

Cor. set on the NE. side of a sandstone boulder, 8 x 4 x 3 ft. high.

Land, rolling and mountainous, with a general southeasterly and westerly exposure and drainage.

Soil, deep loose sand and gravel; 3rd rate. Sandstone formation.

Undergrowth, sagebrush, greasewood, and rabbit brush.

Timber, juniper and pinon.

Fair grazing land.

Thence, from the  $\frac{1}{4}$  sec. cor.:

N. 89°42' W., with continuous measurement, on a blank line through the Bryce Canyon National Park

30.11 The temp. cor. of secs. 14, 15, 22, and 23.

The temp. cor. of secs. 10, 11, 14, and 15, is established at the intersection of line projected S. from the true point for the  $\frac{1}{4}$  sec. cor. secs. 10 and 11, with a line projected E. from the cor. of secs. 9, 10, 15, and 16, which courses and distances are South, 40.45 chs., and East 80.36 chs.

Thence:

From the temp. cor. of secs. 10, 11, 14, and 15.

East, on a blank line through the Bryce Canyon National Park, to determine the positions for the  $\frac{1}{4}$  sec. cor. sec. 11, and the  $\frac{1}{4}$  sec. cor. sec. 14.

40.00 Set temp.  $\frac{1}{4}$  sec. cor. sec. 11.

43.63 Set temp.  $\frac{1}{4}$  sec. cor. sec. 14.

83.63 Intersect the W. bdy. sec. 12.

At point of intersection, on steep S. slope.

Set an iron post, 3 ft. long, 3 ins. diam., 27 ins. in the ground, for closing cor. of secs. 11 and 14, with brass cap marked

T36S R3W	
C S11	S12
C S14	

1933

from which

A pinon, 6 ins. diam., bears S. 19° W., 58 lks. dist., marked T36S R3W S14 CC BT.

A pinon, 10 ins. diam., bears N. 50° W., 48 lks. dist., marked T36S R3W S11 CC BT.

From this cor., the cor. of secs. 12 and 13, heretofore described, bears S. 0°01' E., 2.00 chs. dist.

Thence:

Chains

From the closing cor. of secs. 11 and 14.

West, on true line, bet. secs. 11 and 14.

Descend gradually over broken ledges on S. slope of rough mountainous land, through medium dense juniper, pinon, and fir timber, and undergrowth of sage, oak, service berry and buck brush.

2.10 Spur, 20 ft. above cor., projects SW.; descend abrupt ledgy W. slope.

19.10 Gulch, 460 ft. below spur, drains S., 10.00 chs. dist., thence SW.; ascend abrupt E. slope over broken ledges.

39.50 Ridge, 490 ft. above gulch, bears N. 20° E. and S. 20° W.; descend abrupt W. slope.

40.00 On abrupt W. slope, 10 ft. below top of ridge.

Set an iron post, 3 ft. long, 1 in. diam., 27 ins. in the ground, for  $\frac{1}{4}$  sec. cor. sec. 14, and cor. monument on the eastern boundary of the Bryce Canyon National Park, with brass cap marked



1933

from which

A juniper limb, 5 ins. diam., bears S. 69°30' E., 30 lks. dist., marked  $\frac{1}{4}$  S14 FT.

No other suitable bearing tree available.

Thence along the S. bdy. sec. 11.

43.63 On broken W. slope, 50 ft. below top of ridge.

Set an iron post, 3 ft. long, 1 in. diam., 27 ins. in the ground, for  $\frac{1}{4}$  sec. cor. sec. 11, and cor. monument on the eastern boundary of the Bryce Canyon Nation Park, with brass cap marked



1933

from which

A pinon, 6 ins. diam., bears N. 27° E., 102 lks. dist., marked  $\frac{1}{4}$  S11 FT.

No other suitable accessories available.

Land, broken and mountainous, with a general easterly and westerly exposure and drainage.

Soil, shallow sand, clay, and rock; 4th rate. Sandstone and red shale formation.

**SUBDIVISION OF LAND**

Chains		Meters
	Undergrowth, sage, oak, service berry, and buck brush.	
	Timber, juniper, pinon, and fir, with no grass	
	Poor grazing land.	
	Thence, from the $\frac{1}{4}$ sec. cor. sec. 11, north	
	West, on a blank line with continuous measurement through	
	the Bryce Canyon National Park.	
33.63	The temp. cor. of secs. 10, 11, 14, and 15.	01.91
	From the $\frac{1}{4}$ sec. cor. secs. 2 and 11, heretofore described.	03.93
	East, on random line, bet. secs. 2 and 11.	00.04
43.62	Intersect the W. bdy. sec. 1.	
	At point of intersection, on broken E. slope, no iron post being available.	
	Set a sandstone, 20 x 10 x 8 ins., 12 ins. in the ground, and mound of stone, marked CC on W. face, 5 grooves on S. face, and 1 groove on E. face, for closing cor. secs. 2 and 11.	
	From this cor., the cor. of secs. 1 and 12, heretofore described, bears S. 0°01' E., 2.44 chs. dist.	
	Thence:	
	From the closing cor. secs. 2 and 11.	
	West, on true line, bet. secs. 2 and 11.	
	Ascend gradual E. slope of broken mountainous land, through dense juniper, pinon, fir, and yellow pine timber and undergrowth of silver leaf, manzanita, service berry and buck brush.	
0.20	Spur, 5 ft. above cor., projects S.; thence ascend gradually over broken SE. slope of ridge.	
13.60	Top of main ridge, 230 ft. above spur, bears N. 30° W. and S. 30° E.; descend abruptly over broken W. slope.	
23.60	Bottom of deep canyon, 420 ft. below ridge, drains S.; ascend gradually along broken N. slope.	
43.63	The $\frac{1}{4}$ sec. cor. secs. 2 and 11, 120 ft. above bottom of canyon.	
	Land broken and mountainous, with a general easterly and westerly exposure and drainage, into deep canyons draining S.	
	Soil, shallow clay, shale, and rock; 4th rate, Sandstone and shale formation.	
	Undergrowth, silver leaf, manzanita, service berry, and buck brush.	

SUBDIVISION OF, T. 36 S., R. 3 W.

Chains

Timber, juniper, pinon, fir, and yellow pine.

Fair grazing land.

The temp. point for the cor. of secs. 27, 28, 33, and 34, is established at the intersection of a line projected West, from the  $\frac{1}{4}$  sec. cor. secs. 27 and 34, with a line projected N. 0°02' W., from the  $\frac{1}{4}$  sec. cor. on W. bdy. sec. 34.

Thence:

From the  $\frac{1}{4}$  sec. cor. secs. 27 and 34, heretofore described West, on random line, through the Bryce Canyon National Park.

40.00 Set temp. cor. secs. 27, 28, 33, and 34.

Thence, from the temp. cor. secs. 27, 28, 33, and 34.

S. 0°02' E., on random line, through the Bryce Canyon National Park.

20.00 Set temp. N. 1/16 sec. cor. sec. 34.

39.94 Fall 15 lks. W. of the  $\frac{1}{4}$  sec. cor. W. bdy. sec. 34, heretofore described.

Thence, from the  $\frac{1}{4}$  sec. cor. W. bdy. sec. 34.

N. 0°02' W., on true line, along the W. bdy. sec. 34, and the eastern boundary of the Bryce Canyon National Park.

Ascend abrupt SW. slope of broken mountainous land, through scattered juniper and pinon timber, and medium dense undergrowth of shadscale and yellow top.

5.30 Top of brown sandstone ledge, 30 ft. high, faces SW. and bears NW. and S. 20° E. Timber becomes dense, bears with ledge.

9.80 Top of broken sandstone ledge, 30 ft. high, faces SW. and bears NW. and SE.

12.40 Ridge, 370 ft. above the  $\frac{1}{4}$  sec. cor., bears NW. and SE.; descend gradually along broken E. slope.

12.97 On gradual E. slope, near top of ridge:

Set an iron post, 3 ft. long, 1 in. diam., 27 ins. in the ground, for the N. 1/16 sec. cor. W. bdy. sec. 34, and cor. monument on the eastern boundary of the Bryce Canyon National Park, with brass cap marked

BCNF  
N 1/16  
S34

1935

from which

A pinon, 10 ins. diam., bears N. 11°30' E., 40 lks. dist., marked N 1/16 S34 BT.

A pinon, 8 ins. diam., bears S. 60° E., 38 lks. dist., marked N 1/16 S34 PT.

SUBDIVISION OF, T. 36 S., R. 3 W.

Chains

Land, broken and mountainous, with a general southwestern exposure and drainage.

Soil, shallow blue clay, shale, and rock; 4th rate. Shale and sandstone formation.

Undergrowth, shadscale and yellow top.

Timber, juniper and pinon.

Fair grazing land.

Thence, from the N. 1/13 sec. cor. on W. bdy. sec. 34.

N. 0°02' W., with continuous measurement, on a blank line through the Bryce Canyon National Park.

32.34 Set temp. cor. of secs. 27, 28, 33, and 34.

From the  $\frac{1}{4}$  sec. cor. secs. 27 and 34.

West, on a blank line, through the Bryce Canyon National Park.

33.35 Intersect the temp. cor. secs. 27, 28, 33, and 34.

From the temp. cor. secs. 27, 28, 33, and 34.

N. 0°02' W., on a blank line through the Bryce Canyon National Park, to determine the positions for the temp.  $\frac{1}{4}$  sec. cor. secs. 27 and 28, and the temp. cor. of secs. 21, 22, 27, and 28.

40.00 Set temp.  $\frac{1}{4}$  sec. cor.

39.00 Set temp. cor. of secs. 21, 22, 27, and 28.

Thence, from the temp. cor. secs. 21, 22, 27, and 28.

East, on a blank line through the Bryce Canyon National Park.

40.00 Set temp.  $\frac{1}{4}$  sec. cor. for N. bdy. sec. 27.

39.00 Set temp. E. 1/13 sec. cor. of secs. 22 and 27.

70.33 Intersect the N. and S. line, 37 lks. S. of the cor. secs. 22, 27, 28, and 27.

Thence:

S. 82°44' W., on true line, bet. secs. 22 and 27.

Ascend abrupt E. slope of broken mountainous land, through dense juniper and pinon timber, and scattered undergrowth of shadscale, bitter, service berry, and buck brush.

13.27 On broken E. slope, 215 ft. above sec. cor.

Set an iron post, 3 ft. long, 1 in. diam., 13 ins. in the round to solid rock and in a mound of stone to top, for the E. 1/13 sec. cor. secs. 22 and 27, and cor. monument on the eastern boundary of the Bryce Canyon National Park, with brass cap marked

BCNP | E 1/16  
822

327

1933

SUBDIVISION OF, T. 36 S., R. 3 W.

Chains

from which

A pinon, 10 ins. diam., bears N. 84°30' E., 34 lks. dist., marked E 1/16 S22 BT.

A pinon, 10 ins. diam., bears S. 26° W., 41 lks. dist., marked E 1/16 S27 BT.

Thence along the N. bdy. of sec. 27, and the eastern boundary of the Bryce Canyon National Park.

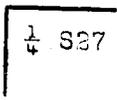
24.00 Spur, 30 ft. above cor., projects N. 15° E.; descend gradual W. slope.

26.50 Draw, 15 ft. below spur, drains N. 15° E.; ascend gradual E. slope.

39.94 On gradual E. slope, 70 ft. above draw.

Set an iron post, 3 ft. long, 1 in. diam., 27 ins. in the ground, for  $\frac{1}{4}$  sec. cor. sec. 27, and cor. monument on the eastern boundary of the Bryce Canyon National Park; with brass cap marked

BCNP



1933

from which

A pinon, 8 ins. diam., bears S. 41° E., 71 lks. dist., marked  $\frac{1}{4}$  S27 BT.

No other suitable bearing tree available.

Land, broken and mountainous, with a general northeasterly exposure and drainage.

Soil, shallow clay, sand, shale, and rock; 4th rate. Shale and sandstone formation.

Timber, juniper and pinon.

Undergrowth, shadscale, bitter, service berry, and buck brush.

Fair grazing land.

Thence, from the  $\frac{1}{4}$  sec. cor., S. 82°45' W., with continuous measurement on a blank line through the Bryce Canyon National Park

79.88 The temp. cor. of secs. 21, 22, 27, and 28.

From the temp. cor. secs. 21, 22, 27, and 28.

N. 0°02' W., on a blank line through the Bryce Canyon National Park, to determine the positions for the temp.  $\frac{1}{4}$  sec. cor. secs. 21 and 22, and the temp. cor. secs. 15, 16, 21, and 22.

40.00 Set temp.  $\frac{1}{4}$  sec. cor. secs. 21 and 22.

80.00 Set temp. cor. secs. 15, 16, 21, and 22.

SUBDIVISION OF, T. 36 S., R. 3 W.

Chains

- From the temp. cor. secs. 15, 16, 21, and 22.  
 N. 89°44' E., on a blank line through the Bryce Canyon National Park, to determine the positions for the temp.  $\frac{1}{4}$  sec. cor. secs. 15 and 22, and the E.  $\frac{1}{16}$  sec. cor. secs. 15 and 22.
- 40.00 Set temp.  $\frac{1}{4}$  sec. cor. secs. 15 and 22.
- 60.00 Set temp. E.  $\frac{1}{16}$  sec. cor. secs. 15 and 22.
- 79.92 Intersect the temp. cor. of secs. 14, 15, 23, and 23.  
 Thence, from the temp. cor. secs. 14, 15, 23, and 23.  
 S. 99°44' W., on a blank line through the Bryce Canyon National Park.
- 19.93 Set temp. E.  $\frac{1}{16}$  sec. cor. secs. 15 and 22.
- 39.96 Set temp.  $\frac{1}{4}$  sec. cor. secs. 15 and 22.
- 79.92 Intersect the temp. cor. of secs. 15, 16, 21, and 22.

SUBDIVISION OF SECTIONS, T. 36 S., R. 3 W.

SUBDIVISION OF SEC. 23, T. 36 S., R. 3 W.

- From the  $\frac{1}{4}$  sec. cor. secs. 23 and 26, heretofore described  
 N. 0°05' W., on random line, on N. and S. center line sec. 23.
- 40.00 Set temp. center  $\frac{1}{4}$  sec. cor. sec. 23.
- 60.00 Set temp. center north  $\frac{1}{16}$  sec. cor. sec. 23.
- 79.89 Intersect the  $\frac{1}{4}$  sec. cor. secs. 14 and 23.  
 The course of this line therefore is N. 0°05' W., and the distance is 79.89 chs.

- From the  $\frac{1}{4}$  sec. cor. secs. 22 and 23, heretofore described  
 S. 89°43' E., on random line, on E. and W. center line sec. 23.
- 40.16 Fall 7 lks. S. of the temp. center  $\frac{1}{4}$  sec. cor.
- 80.14 Intersect the  $\frac{1}{4}$  sec. cor. secs. 23 and 24, heretofore described.  
 The bearing of this line therefore is, S. 89°43' E., and the distance is 80.14 chs.

- From the  $\frac{1}{4}$  sec. cor. secs. 23 and 26.  
 N. 0°05' W., on true line, on N. and S. center line sec. 23.

Descend gradual N. slope of rolling mountainous land, through scattered juniper and pinon timber, and undergrowth of sage, oak, service berry, buck, and rabbit brush.

SUBDIVISION OF SECTIONS, T. 36 S., R. 3 W.

Chains	
3.53	One wire telephone line, bears NW. and SE.
4.10	Irrigation canal, drains SE. from the NW., 30 lks. wide, 2 ft. deep.
4.25	Point from which the E. gable of Frank Riding's barn, bears N. 30° 08' W.
	The E. gable of Frank Riding's house, bears N. 24° 33' W.
	The E. gable, Dee Imaly's house, bears N. 13° 18' W.
5.40	Wash, 50 lks. wide, 8 ft. deep, drains E., 3.50 chs. dist. to the channel of the Paria River.
7.30	State Highway, bears NW. to Panguitch, Utah, and SE. to Tropic, Utah.
7.70	The SW. cor. of fences bearing N. and SE.; thence along fence line.
8.80	Road, bears NE. to a ranch, and SW., 1.00 chs. dist. to State Highway.
9.10	Junction of fence from the NW. with the fence bearing N. and S.
10.70	Junction of fences bearing E., W., and NW., with fence bearing N. and S. Also top of right bank of dry channel of the Paria River, 3 ft. high, bears NW. and SE.
12.50	Bottom of dry channel of the Paria River, 70 ft. below the $\frac{1}{4}$ sec. cor., drains SE.
16.00	Top of left bank of the Paria River, 3 ft. high, bears N. 30° W. and S. 60° E.
16.10	Junction of fences bearing N. 30° W. and S. 60° E., with fence bearing N. and S.
16.45	The NW. cor. of frame house, bears East, 2.00 chs. dist.; thence through orchard belonging to Frank Riding.
20.00	Junction of fence from the W., with fence bearing N. and S. at the N. side of orchard, bears E. and W.
25.45	Irrigation canal, 10 lks. wide, 2 ft. deep, drains E. from the W.
25.70	Junction of fence from the W. with fence bearing N. and S.
31.60	The NE. cor. of an irregular piece of cultivated land to the SW.
32.00	The E. gable of Frank Riding's barn, bears S. 43° 35' W.
	The E. gable of Frank Riding's house, bears S. 43° 14' W.
	The E. gable of Dee Imaly's house, bears S. 72° 41' W.
33.00	Timber becomes dense juniper and pinon, bears E. and W.
39.93	On gradual E. slope, 150 ft. above channel of the Paria River.
	Set an iron post, 3 ft. long, 1 in. diam., 27 ins. in the ground, for the center $\frac{1}{4}$ sec. cor. sec. 23, with brass cap marked

C  $\frac{1}{4}$  S23

SUBDIVISION OF SECTIONS, T11S36S, R. 3 W.

Chains

A pinon, 16 ins. diam., bears S. 36°30' E., 57 lks. dist., marked C † S23 BT. from which

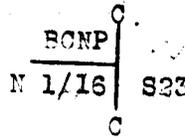
A pinon, 10 ins. diam., bears N. 74° W., 31 lks. dist., marked C † S23 BT.

Cor. set at the NE. cor. of fences bearing S. and W.

60.60 Draw, 40 ft. below cor., drains E.; ascend gradually along steep E. slope.

60.91 On abrupt E. slope, 110 ft. above draw.

Set an iron post, 3 ft. long, 1 in. diam., 37 ins. in the ground, for the N. center 1/16 sec. cor. sec. 23, and corner monument on the eastern boundary of the Bryce Canyon National Park, with brass cap marked



1333

A pinon, 10 ins. diam., bears N. 52°30' E., 55 lks. dist., marked NC 1/16 S23 BT. from which

A pinon, 3 ins. diam., bears S. 76° W., 73 lks. dist., marked NC 1/16 S23 BT.

Thence along the eastern boundary of the Bryce Canyon National Park, and the W. boundary of the N $\frac{1}{2}$  NE $\frac{1}{4}$  sec. 23.

60.45 Intersect a metal sign marking the eastern boundary of the Bryce Canyon National Park.

60.53 Two strand barbed wire fence, bears E. and W.

67.10 Spur, 40 ft. above last cor., projects E.; descend abrupt NE. slope.

70.20 Gulch, 20 ft. below spur, drains E.; ascend abrupt S. slope.

70.10 Spur, 70 ft. above gulch, projects E.; descend abrupt broken NE. slope.

70.89 The  $\frac{1}{4}$  sec. cor. secs. 14 and 23, 50 ft. below spur.

Land, rolling and broken and mountainous, with a general southeasterly exposure and drainage.

Soil, deep clay and sand, mixed with rock; 2nd and 3rd rates. Sandstone and shale formation.

Undergrowth, sage, oak, service berry, buck, and rabbit brush.

Tiher, juniper and pinon.

Fair grazing land.

SUBDIVISION OF SECTIONS, T. 36 S., R. 3 W.

Chains

From the  $\frac{1}{4}$  sec. cor. secs. 22 and 23.

S.  $89^{\circ}46'$  E., on true line, on east and west center line sec. 23.

Along gradual S. slope of rolling mountainous land, through very scattered juniper and pinon timber, and dense undergrowth of oak, sage, and rabbit brush.

4.60 Wash, 30 lks. wide, 15 ft. deep, drains S.  $20^{\circ}$  E.

6.22 Fence, bears N. and S.; enter dense juniper and pinon timber, bears N. and S.

23.00 Base of gradual ascent over broken SW. slope, bears N. and S.  $30^{\circ}$  E.

31.22 Fence, bears N. and S. The junction of fence from N.  $3^{\circ}$  E. with N. and S. fence, bears South, 70 lks. dist.

35.60 Spur, 40 ft. above draw, projects S.; second gradual E. slope.

38.63 Fence, bears N.  $38^{\circ}$  E. and S.  $38^{\circ}$  W.

40.16 The center  $\frac{1}{4}$  sec. cor. sec. 23.

48.90 Old road, bears N.  $15^{\circ}$  E. and S.  $15^{\circ}$  W.

48.30 Irrigation canal, 15 lks. wide, 2 ft. deep, drains N.  $15^{\circ}$  E. from S.  $15^{\circ}$  W.

50.40 Fence at the W. side of cultivated land, bears N. and S.; thence across cultivated land.

54.50 Wash, 30 lks. wide, 4 ft. deep, in draw, 90 ft. below spur, drains SE., 5.00 chs. dist., thence S.  $37^{\circ}$  E.; leave cultivated land, bears N. and S.; second gradual W. slope through dense undergrowth of sage and rabbit brush and greasewood.

60.45 Irrigation canal, 15 lks. wide, 2 ft. deep, drains SE. from NW.

71.45 Wash, 40 lks. wide, 30 ft. deep, drains S.  $37^{\circ}$  W.; also fence, bears N.  $30^{\circ}$  E. and S.  $30^{\circ}$  W.

80.14 The  $\frac{1}{4}$  sec. cor. secs. 23 and 24, 20 ft. above draw.

Land, rolling, broken, and mountainous, with a general southerly exposure and drainage.

Soil, deep clay and sand; 2nd rate. Sandstone formation.

Undergrowth, sage, oak, greasewood, and rabbit brush.

Timber, juniper and pinon.

Good grazing land.

From the N.  $1/16$  sec. cor. secs. 22 and 23, and cor. monument on the eastern boundary of the Bryce Canyon National Park.

S.  $89^{\circ}46'$  E., on random line, on E. and W. center line of the NW  $\frac{1}{4}$  sec. 23.

40.14 Fall 3 lks. S. of the center N.  $1/16$  sec. cor. sec. 23.

Thence:

SUBDIVISION OF SECTIONS, T. 36 S., R. 3 W.

chains

N. 88°43' W., on true line; on E. and W. center line of the  $\frac{1}{4}$  sec. 22, and along the eastern boundary of the Bryce Canyon National Park.

Ascend abrupt broken E. slope of rough mountainous land, through dense juniper and pinon timber, and scattered undergrowth of shadscale, silver leaf, sage, and bitter brush.

10.40 Spur; 330 ft. above cor., projects SE.; descend gradually over steep SW. slope.

13.75 Draw, 50 ft. below spur; drains S. 60° E.; ascend abrupt broken NE. slope.

21.10 Spur, 130 ft. above draw, projects SE.; descend abrupt SW. slope.

22.00 Head of draw, 60 ft. below spur, drains S.; ascend abrupt broken SE. slope.

27.50 Spur, 150 ft. above draw, projects S.; 1.50 chs. dist. to end; descend gradual SW. slope.

31.00 Top of sandstone ledge, 40 ft. high faces SW. and bears N. and S. 60° E.; descend SW. slope.

34.00 Steep gulch near head, 120 ft. below spur, drains S.; ascend gradually along S. slope.

40.14 The N.  $\frac{1}{16}$  sec. cor. secs. 22 and 23, and cor. monument on the eastern boundary of the Bryce Canyon National Park, 10 ft. above gulch.

Land, broken and mountainous, with a general northeasterly and southwesterly exposure and drainage.

Soil, shallow clay and sand, mixed with rock and gravel; 4th rate. Sandstone formation.

Undergrowth, shadscale, silver leaf, sage, and bitter brush.

Timber, juniper and pinon.

Poor grazing land.

**Subdivision, section 14**

From the  $\frac{1}{4}$  sec. cor. secs. 14 and 23, and cor. monument on the eastern boundary of the Bryce Canyon National Park

North, on random line on N. and S. center line, sec. 14, and eastern boundary of the Bryce Canyon National Park.

49.00 Leave temp. point.

51.70 Fall 5 lks. W. of the  $\frac{1}{4}$  sec. cor. on W. bdy. sec. 14.

Thence:

From the  $\frac{1}{4}$  sec. cor. secs. 14 and 23, and cor. monument on the eastern boundary of the Bryce Canyon National Park.

N. 90°01' E., on true line, on N. and S. center line sec. 14, and along the eastern boundary of the Bryce Canyon National Park.

SUBDIVISION OF SECTIONS, T. 36 S., R. 3 W.

Chains

- Descend gradual NE. slope of broken mountainous land, through dense juniper and pinon timber and undergrowth of oak, silver leaf, and bitter brush.
- 1.50 Wash, 15 lks. wide, 4 ft. deep, in bottom of Canyon, 20 ft. below cor., drains SE.; thence along bottom lands of canyon to the E.
- 8.60 Wash, 40 lks. wide, 6 ft. deep, in bottom of canyon, drains SE. from the N.; thence along bottom of canyon.
- 11.50 Leave bottom of canyon, drains S. from the NE.; ascend abrupt SE. slope over ledges.
- 17.10 Spur, 40 ft. above canyon, projects E.; 1.00 chs. dist. to end, thence descend gradually along broken E. slope near bottom of canyon.
- 19.60 Base of descent, 20 ft. below spur, bears E. and W.; ascend gradually along broken E. slope.
- 25.20 Begin abrupt ascent over broken SE. slope, bears N. 30° E. and S. 30° W.
- 32.50 Top of sandstone ledge, 20 ft. high, faces SE. and bears NE. and SW.; thence along abrupt E. slope.
- 40.00 On abrupt E. slope, 240 ft. above bottom of canyon.
- No iron post being available.
- Set a sandstone, 20 x 14 x 6 ins., 12 ins. in the ground and in a mound of stone, for cor. monument on the eastern boundary of the Bryce Canyon National Park, marked BCMP on the W. face and S14 on the E. face.
- from which
- A pinon, 6 ins. diam., bears N. 1°45' E., 50 lks. dist., marked S14 PT.
- 40.40 Spur, 10 ft. above cor., projects E.; descend abrupt N. slope.
- 43.40 Draw, 110 ft. below spur, drains S. 70° E.; ascend abrupt SE. slope.
- 49.80 Ascent becomes gradual; bears NE. and SW.
- 56.00 Spur, 200 ft. above draw, projects E.; descend gradual NE. slope.
- 64.80 Draw near head, 30 ft. below spur, drains SE.; ascend abrupt S. slope.
- 67.80 Begin gradual ascent over steep broken SE. slope, bears SW. and N. 80° E.
- 81.40 Ridge, 260 ft. above draw, bears N. 70° E. and S. 30° W.; descend gradual NW. slope.
- 81.79 The  $\frac{1}{4}$  sec. cor. on N. bdy. sec. 14, which is East, 3.83 chs. dist. from the  $\frac{1}{4}$  sec. cor. on S. bdy. sec. 11, and corner monument on the eastern boundary of the Bryce Canyon National Park.

Land, broken and mountainous, with a general easterly exposure and drainage into canyon draining southerly.

SUBDIVISION OF SECTIONS, BEYCE CANYON, R. 3 W.

Chains

Soil, shallow loose sand, clay, and rock; 3rd rate.  
 Sandstone formation.

Undergrowth, oak, silver leaf, and bitter brush.

Timber, juniper and pinon.

Fair grazing land.

Subdivision of section 11.

From the  $\frac{1}{4}$  sec. cor. on S. bdy. sec. 11, and cor. monument on the eastern boundary of the Bryce Canyon National Park

North, on random line on N. and S. center line sec. 11.21.

40.00 Leave temp. point.

30.44 Intersect the  $\frac{1}{4}$  sec. cor. secs. 2 and 11, and cor. monument on the eastern boundary of the Bryce Canyon National Park.

Thence:

From the  $\frac{1}{4}$  sec. cor. on S. bdy. sec. 11, and cor. monument of the eastern boundary of the Bryce Canyon National Park.

North, on true line, on the N. and S. center line sec. 11, and along the eastern boundary of the Bryce Canyon National Park.

Descend gradually over broken NW. slope of rough mountainous land, through dense juniper and pinon timber and undergrowth of silver leaf, greasewood, sage, oak, and bitter brush.

23.00 Bottom of canyon, 200 ft. below cor., drains S. 20° W.; small seep of good water in bottom of canyon; ascend gradual SE. slope.

30.70 Small seep of good water, in wash 37 lks. wide, 10 ft. deep, in draw, drains S. 30° E., 1.20 chs. dist. to junction with canyon draining S. from N. 20° E.; ascend gradually along steep broken W. slope.

40.22 On steep broken W. slope, 90 ft. above canyon.

No iron post being available.

Set a sandstone, 24 x 8 x 6 ins., 8 ins. in the ground to solid rock and in a mound of stone to top, for cor. monument on the eastern boundary of the Bryce Canyon National Park, marked BCNP on W. face and S11 on E. face.

from which

A pinon, 12 ins. diam., bears S. 87°15' E., 57 lks. dist., marked S11 BT.

A yellow pine, 24 ins. diam., bears S. 56°30' W., 45 lks. dist., marked BCNP.

62.30 Spur, 380 ft. above cor., projects E., 15.00 chs. dist. to end; descend abrupt N. slope.

80.44 The  $\frac{1}{4}$  sec. cor. sets. 2 and 11, and cor. monument on the eastern boundary of the Bryce Canyon National Park, 370 ft. below spur.

SUBDIVISION OF SECTIONS, T. 36 S., R. 3 W.

Chains

Land, broken and mountainous with a general southerly and northeasterly exposure and drainage.

Soil, shallow sand, clay, and rock; 3rd rate. Sandstone formation.

Undergrowth, silver leaf, greasewood, sage, oak, and bitter brush.

Timber, juniper, pinon, and a few scattered yellow pine.

Fair grazing land.

SUBDIVISION OF SEC. 2.

From the  $\frac{1}{4}$  sec. cor. secs. 2 and 11, and cor. monument on the eastern boundary of the Bryce Canyon National Park.

N.  $0^{\circ}41'$  W., on random line on N. and S. center line sec. 2.

20.00 Set temp. center S.  $\frac{1}{16}$  sec. cor. sec. 2.

40.00 Set temp. center  $\frac{1}{4}$  sec. cor. sec. 2.

79.95 Intersect the seventh standard parallel south through R. 3 W., at the  $\frac{1}{4}$  sec. cor. on N. bdy. sec. 2, heretofore described.

The course of this line therefore is, N.  $0^{\circ}41'$  W., and the distance is 79.95 chs.

From the  $\frac{1}{4}$  sec. cor. secs. 2 and 3, heretofore described.

S.  $99^{\circ}43'$  E., on random line, on E. and W. center line sec. 2.

39.52 Fall 18 lks. S. of the <sup>temporary</sup> center  $\frac{1}{4}$  sec. cor. sec. 2.

83.60 Intersect the  $\frac{1}{4}$  sec. cor. for sec. 2, heretofore described.

The course of this line therefore is, S.  $99^{\circ}43'$  E., and the distance is 83.60 chs.

From the  $\frac{1}{4}$  sec. cor. secs. 2 and 11, and cor. monument on the eastern boundary of the Bryce Canyon National Park.

N.  $0^{\circ}41'$  W., on true line, on N. and S. center line sec. 2, and along the eastern boundary of the Bryce Canyon National Park.

Descend abrupt N. slope of broken mountainous land, through medium dense juniper, pinon, and yellow pine timber and undergrowth of manzanita, oak, service berry, and bitter brush.

0.75 Gulch, 30 ft. below cor., drains E., 12.00 chs. dist. to junction with canyon draining S.; ascend abrupt S. slope.

7.00 Spur, 140-ft. above gulch, projects E., about 15.00 chs. dist. to end; descend abrupt N. slope.

11.50 Gulch, 150 ft. below spur, drains E., 10.00 chs. dist. thence S.  $20^{\circ}$  E.; ascend abrupt S. slope.

SUBDIVISION OF SECTIONS, T. 36 S., R. 3 W.

Chains

15.10 Spur, 130 ft. above gulch, projects E., about 18.00 chs. dist. to end; descend gradual N. slope.

19.91 On gradual N. slope, 60 ft. below spur.

Set an iron post, 3 ft. long, 1 in. diam., 27 ins. in the ground, for center S. 1/16 sec. cor. sec. 2, and for cor. monument for the NE. cor. of the Bryce Canyon National Park, with brass cap marked.

CS 1/16  
BCNP | S2

1933

from which

A pinon, 6 ins. diam., bears N. 38°30' E., 70 lks. dist., marked CS 1/16 S2 BT.

Continue descent over gradual N. slope.

24.20 Draw, 110 ft. below cor., drains E., 5.00 chs. dist., thence SE.; ascend abrupt S. slope.

33.60 Top of main ridge, 130 ft. above draw, bears N. 60° W. and S. 30° E.; descend gradual NE. slope.

39.33 On gradual NE. slope, 30 ft. below ridge.

No iron post being available.

Set a limestone, 13 x 10 x 8 ins., 12 ins. in the ground, marked C 1/4 S2 on W. face, for center 1/4 sec. cor. sec. 2.

from which

A yellow pine, 14 ins. diam., bears N. 31°30' E., 65 lks. dist., marked C 1/4 S2 BT.

A yellow pine, 13 ins. diam., bears S. 35°30' W., 105 lks. dist., marked C 1/4 S2 BT.

Continue gradual descent over NE. slope.

75.50 Bottom of canyon near head, 110 ft. below cor., drains SE.; ascend gradual S. slope.

79.35 The 1/4 sec. cor. sec. 2, 75 ft. above bottom of canyon.

Land, broken and mountainous, with a general easterly exposure and drainage.

Soil, shallow red clay, shale, and rock; 4th rate. Shale, sandstone, and limestone formation.

Undergrowth, manzanita, oak, service berry and bitter brush.

Timber, juniper, pinon, and yellow pine.

Fair grazing land.

From the 1/4 sec. cor. secs. 2 and 3.

S. 89°46' E., on true line on E. and W. center line sec. 2.

SUBDIVISION OF SECTIONS, T. 36 S., R. 3 W.

Chains

- Ascend gradual SW. slope of rolling mountainous land through scattered yellow pine timber and undergrowth of manzanita, sage, and bitter brush.
- 1.10 Top of low spur, 20 ft. above cor., projects N. 30° W.; descend gradual NE. slope.
- 3.10 Bottom of main draw near head, 20 ft. below spur, drains N. 30° W.; ascend gradual NW. slope.
- 5.00 Enter scattered red cedar timber, bears N. and S.
- 9.20 Draw, 10 ft. deep, 1.50 chs. wide, drains NW.; continue ascent.
- 20.80 Top of rim of the Great Salt Lake Basin, 140 ft. above main draw, bears N. 30° E. and S. 30° W.; descend abruptly over broken SE. slope through dense juniper, pinon, yellow pine, and red cedar timber, bears with rim of basin.
- 32.00 Top of main ridge, 180 ft. below rim of basin, bears N. 60° W. and S. 60° E.; descend gradually along abrupt N. slope.
- 39.52 The center  $\frac{1}{4}$  sec. cor. sec. 2, 120 ft. below ridge.
- 65.00 Bottom of canyon, 165 ft. below cor., drains SE., and heads NW., about 60.00 chs. dist. at low pass in rim of the Great Salt Lake Basin; ascend abrupt SW. slope.
- 72.00 Spur, 30 ft. above gulch, projects SE.; descend abrupt SE. slope.
- 83.60 The  $\frac{1}{4}$  sec. cor. E. bdy. sec. 2, 110 ft. below spur.
- Land, W. 21.00 chs. is rolling and mountainous, with a general northwesterly exposure and drainage; remainder of mile is broken and mountainous with a general easterly exposure and drainage.
- Soil, shallow clay, shale, and gravel; 4th rate. Shale and limestone formation.
- Undergrowth, manzanita, sage, and bitter brush.
- Timber, juniper, pinon, yellow pine, and red cedar.
- Fair grazing land.
- 
- From the S.  $\frac{1}{16}$  sec. cor. secs: 2 and 3, and cor. monument on the northern boundary of the Bryce Canyon National Park.
- S. 89°53' E., on random line on E. and W. center line of the SW  $\frac{1}{4}$  sec. 2.
- 39.77 Fall 1 lk. N. of the S. center  $\frac{1}{16}$  sec. cor. sec. 2, which is also the corner monument for the NE. cor. of the Bryce Canyon National Park.
- Thence:
- N. 89°53' W., on true line on E. and W. center line of the SW  $\frac{1}{4}$  sec. 2, and along the northern boundary of the Bryce Canyon National Park.
- Descend abruptly over broken NW. slope of mountainous land, through dense juniper, pinon, and yellow pine timber,

Chains

and undergrowth of manzanita, sage, oak, bitter, and service berry brush.

4.50 Bend in draw, 80 ft. below cor., drains NE. from the W. ascend gradual NE. slope.

6.50 The NE. point of small spur, 20 ft. above bend in draw ascend abruptly over general E. break of the rim of the Great Salt Lake Basin.

21.30 Top of rim of the Great Salt Lake Basin, 220 ft. above point of spur, bears N. 30° E. and S. 30° W.; descend gradual W. slope over rolling mountainous land.

39.77 The S. 1/16 sec. cor. secs. 2 and 3, and cor. monument on the northern boundary of the Bryce Canyon National Park, 150 ft. below rim of basin.

Land, W. portion is rolling and mountainous, with a general westerly exposure and drainage, east portion is broken and mountainous with a general easterly exposure and drainage.

Soil, shallow clay, gravel, and shale; 4th rate. Shale and limestone formation.

Undergrowth, manzanita, sage, oak, bitter, and service berry brush.

Timber, juniper, iron, and yellow pine.

Fair grazing land.

SUBDIVISION OF SECTION 34.

From the 1/4 sec. cor. secs. 3 and 34, on the S. bdy. of the township, heretofore described.

N. 9°04' W., on random line, on N. and S. center line sec. 34.

49.00 Set temp. center 1/4 sec. cor. sec. 34.

60.00 Set temp. N. center 1/16 sec. cor. sec. 34.

72.90 Intersect the 1/4 sec. cor. secs. 37 and 34.

The course of this line therefore is N. 9°04' W., and the distance is 72.93 chs.

From the 1/4 sec. cor. on W. bdy. sec. 34, and cor. monument on the eastern boundary of the Bryce Canyon National Park.

N. 82°54' E., on random line, on E. and W. center line sec. 34.

37.71 Fall 3 1/2 lks. S. of the temp. center 1/4 sec. cor. sec. 34.

70.80 Fall 3 lks. S. of the 1/4 sec. cor. secs. 34 and 35.

The course of this line therefore is, N. 82°53' E., and the distance is 79.90 chs.

From the 1/4 sec. cor. secs. 3 and 34, on the S. bdy. of the township.

SUBDIVISION OF SECTIONS, T. 36 S., R. 3 W.

Chains

N. 0°04' W., on true line, on N. and S. center line sec. 34.

- 3.00 Over rolling land, through scattered undergrowth of greasewood, shadscale, sage, and rabbit brush, along fence bearing N. and S.
- 8.20 Wash, 10 lks. wide, 2 ft. deep, drains E.
- 13.20 Base of rolling blue clay hills, bears W. and S. 70° E.
- 18.30 Low blue clay spur, 20 ft. high, projects S. 30° E.
- 25.10 Junction of fence from the SE: with fence bearing N. and S.; thence along the W. edge of cultivated land, bearing N. and SE.
- 29.34 Wash, 10 lks. wide, 2 ft. deep, drains S. 70° E.
- 39.90 Junction of fence from the E. with fence bearing N. and S.
- At the NW. cor. of cultivated land.

Set an iron post, 3 ft. long, 1 in. diam., 27 ins. in the ground, for the center  $\frac{1}{16}$  sec. cor. sec. 34, with brass cap marked

C  $\frac{1}{16}$  S34

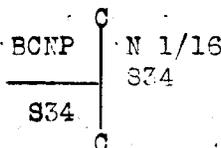
1933

raise a mound of stone 2 ft. base, 1½ ft. high, W. of cor.

From this cor., the junction of fence from the E. with fence bearing N. and S., bears N. 87°34' W., 33 lks. dist.

- 40.06 Fence, bears E.; and W., 34 lks. dist. to junction of fence bearing N. and S.
- 47.70 Wash, 25 lks. wide, 10 ft. deep, in draw, drains SE.; ascend gradual SW. slope of rolling blue clay hills.
- 51.40 Spur, 30 ft. above draw, projects E., 3.00 chs. dist. to end; descend abrupt N. slope.
- 53.13 The NE. cor. of fences bearing S. and W., bears W., 27 lks. dist.
- 54.90 Draw, 20 ft. below spur, drains E., 3.00 chs. dist. to junction with main draw draining S. 30° E.; ascend abrupt broken SE. slope.
- 59.74 On broken SE. slope, 40 ft. above draw.

Set an iron post, 3 ft. long, 1 in. diam., 27 ins. in the ground, for center N. 1/16 sec. cor. sec. 34, and cor. monument on the eastern boundary of the Bryce Canyon National Park; with brass cap marked



1933.

SUBDIVISION OF SECTIONS, T. 36 S., R. 3 W.

Chains

BLISS

of stone, 2 ft. base, 1½ ft. high; E. of cor. raise a mound

62.20 Spur, 40 ft. above cor., projects S. 60° E., 7.50 chs. dist. to end; descend abrupt NE. slope.

65.50 Bottom of main draw, 60 ft. below spur, drains E., 3.00 chs. dist., thence SE.; enter medium dense juniper and pinon timber, bears with draw; ascend abrupt broken S. slope of rough mountainous land.

73.50 Ridge, 230 ft. above draw, bears NW. and SE.; descend abrupt NE. slope.

79.20 Bend in draw, 50 ft. below ridge, drains N. 60° E. from NW.; ascend abrupt S. slope.

79.68 The ¼ sec. cor. secs. 27 and 34 and cor. monument on the eastern boundary of the Bryce Canyon National Park, 10 ft. above draw.

Land, N. portion of mile is broken and mountainous with a general southeasterly exposure and drainage; S. portion is rolling with a general southeasterly exposure and drainage.

Soil, deep blue clay and shale; 3rd rate. Shale and sandstone formation.

Undergrowth, greasewood, shadscale, sage, and bitter brush

Timber, juniper and pinon on N. portion of mile.

Poor grazing land.

From the ¼ sec. cor. on W. bdy. sec. 34 and cor. monument on the eastern boundary of the Bryce Canyon National Park.

N. 89°53' E., on true line, on E. and W. center line sec. 34.

Ascend abrupt SW. slope of broken mountainous land, through dense juniper and pinon timber and scattered undergrowth of bitter brush, shadscale, silver leaf, and rabbit brush.

3.00 Top of sandstone ledge at the W. rim of ridge, 20 ft. high, faces SW. and bears NW. and SE.; ascend gradually over broken SW. slope.

7.20 Ridge, 140 ft. above cor., bears N. and S.; descend abrupt broken E. slope.

8.50 Top of sandstone ledge at E. rim of ridge, 20 ft. high, faces E. and bears N. and S. Leave timber, bears N. and S.

18.00 Wash, 30 lks. wide, 15 ft. deep, drains SE.; thence descend gradually over SE. slope.

21.75 Wash, 30 lks. wide, 15 ft. deep, in draw, 420 ft. below ridge, drains S. 30° E.; ascend gradually along broken S. slope.

23.30 Top of blue clay spur, 45 ft. above draw, projects S. 75° E.; descend abrupt NE. slope.

29.27 Fence, bears N. and S.; the junction of fence from the E. and the fence bearing N. and S., bears N. 26 lks. dist.; thence through cultivated land and along S. side

SUBDIVISION OF SECTIONS, T. 33 S., R. 7 W.

Chains

of fence.

39.91 The center  $\frac{1}{4}$  sec. cor. sec. 34,

46.60 Wash, 60 lks. wide, 5 ft. deep, in draw, 160 ft. below spur, drains S.  $30^{\circ}$  E.; continue along the N. side of cultivated land.

54.02 The NE. cor. of fences bearing SE. and W., at the NE. cor. of cultivated land; ascend abrupt SW. slope of broken mountainous land; bears NW. and SE.

60.70 Top of sharp spur, 100 ft. above draw, projects S., 3.50 chs. dist. to end; descend gradually along broken SE. slope.

65.18 The NE. cor. of fences bearing S.  $30^{\circ}$  E. and S.  $75^{\circ}$  W., bears S., 88 lks. dist.

68.40 Blue shale spur, 30 ft. below last spur, projects SE.; descend abrupt NE. slope.

71.63 The SW. cor. of fences bearing N. and E., bears N., 74 lks. dist.

75.25 Irrigation canal, 20 lks. wide, 2 ft. deep, drains S.  $30^{\circ}$  E. from the N.

76.13 Fence, bears S.  $30^{\circ}$  E., and N.  $70^{\circ}$  W., 65 lks. dist. to cor. thence W., at base of hills and at the W. side of cultivated land.

79.90 The  $\frac{1}{4}$  sec. cor. secs. 34 and 35, 135 ft. below last spur.

Land, broken and mountainous with a general southerly exposure and drainage.

Soil, deep blue clay and shale; 3rd rate. Shale and sandstone formation.

Undergrowth, bitter brush, shedscale, silver leaf, and rabbit brush.

Timber, juniper and pinon on W. portion of mile.

Fair grazing land.

From the N.  $\frac{1}{16}$  sec. cor. on the W. bdy. sec. 34, and cor. monument on the eastern boundary of the Bryce Canyon National Park.

N.  $89^{\circ}57'$  E., on random line, on E. and W. center line of the NW $\frac{1}{4}$  sec. 34.

39.83 Intersect the center N.  $\frac{1}{16}$  sec. cor. sec. 34, and cor. monument on the eastern boundary of the Bryce Canyon National Park.

The course of this line therefore is N.  $89^{\circ}57'$  E., and the distance is 39.83 chs.

Thence:

From the N.  $\frac{1}{16}$  sec. cor. on the W. bdy. sec. 34, and cor. monument on the eastern boundary of the Bryce Canyon National Park.

N.  $89^{\circ}57'$  E., on true line, on east and west center line of the NW $\frac{1}{4}$  sec. 34, and along the eastern boundary of the

SUBDIVISION OF SECTIONS T. 36 N. R. 3 W.

Chains

Bryce Canyon National Park.

Descend abrupt E. slope of broken mountainous land; through medium dense juniper and pinon timber and undergrowth of buck and bitter brush and silver leaf.

3.70 Begin abrupt descent over steep SE. slope, bears NE. and S7.

10.20 Top of sandstone ledge, 75 ft. high, faces E. and bears N. and S.; thence descend abruptly over E. slope.

29.88 The center N. 1/16 sec. cor. sec. 34 and cor. monument on the eastern boundary of the Bryce Canyon National Park, 480 ft. below place of beginning.

Land, broken and mountainous, with a general easterly exposure and drainage.

Soil, shallow blue clay and shale; 3rd rate. Shale and sandstone formation.

Undergrowth, buck and bitter brush and silver leaf:

Timber, juniper and pinon.

Fair grazing land.

SUBDIVISION OF SEC. 27.

From the 1/4 sec. cor. secs. 27 and 34 and cor. monument on the eastern boundary of the Bryce Canyon National Park.

N. 0°31' W., on random line on N. and S. center line sec. 27.

30.20 Set temp. center 1/4 sec. cor.

30.24 Fall 7 lks. W. of the 1/4 sec. cor. N. bdy. sec. 27, and cor. monument on eastern boundary of the Bryce Canyon National Park.

The course of this line therefore is N. 0°03' E., and the distance is 30.24 chs.

From the point for the 1/4 sec. cor. secs. 27 and 28.

East, on random line on E. and W. center line sec. 27.

39.84 Fall 4 1/2 lks. N. of the temp. center 1/4 sec. cor. sec. 27.

39.81 Fall 3 lks. N. of the 1/4 sec. cor. secs. 28 and 27.

The course of this line therefore is S. 39°59' E., and the distance is 79.81 chs.

From the 1/4 sec. cor. secs. 27 and 34, and cor. monument on the eastern boundary of the Bryce Canyon National Park.

N. 0°03' E., on true line on N. and S. center line sec. 27 and along the eastern boundary of the Bryce Canyon National Park.

Ascend abruptly over rough mountainous land along top of spur, through dense juniper and pinon timber and undergrowth of bitter and buck brush and silver leaf.

On the

and

- 5.00 Leave top of spur, projects S. and bears NE.; continue abrupt ascent over S. slope.
- 21.60 Ascent becomes gradual, bears E. and W.
- 38.00 Ridge, 400 ft. above cor., bears N. 20° W. and S. 75° E.; thence ascend gradually along broken E. slope.
- 40.03 On broken E. slope, 5 ft. above ridge.

Set an iron post, 3 ft. long, 1 in. diam., 27 ins. in the ground, for center  $\frac{1}{4}$  sec. cor. sec. 37 and corner monument on the eastern boundary of the Bryce Canyon National Park, with brass cap marked

~~BNP~~  
C  $\frac{1}{4}$  S27

1933

from which

- A juniper, 10 ins. diam., bears N. 48° E., 8 lks. dist., marked C  $\frac{1}{4}$  S27 ET.
- A pinon, 13 ins. diam., bears S. 12° E., 50 lks. dist., marked C  $\frac{1}{4}$  S27 ET.

- 45.50 Begin abrupt descent over broken NE. slope, bears NW. and SE.
- 49.50 Gulch, 95 ft. below cor.; drains N. 75° E.; ascend abruptly over broken S. slope.
- 53.50 Spur, 100 ft. above gulch, projects E.; descend gradually over broken NE. slope.
- 80.24 The  $\frac{1}{4}$  sec. cor. N. bdy. sec. 37 and cor. monument on the eastern boundary of the Bryce Canyon National Park, 20 ft. below spur.

Land, broken and mountainous, with a general southerly and northeasterly exposure and drainage.

Soil, shallow clay, shale, and rock; 4th rate. Sandstone and shale formation.

Undergrowth, bitter and buck brush and silver leaf.

Timber, juniper and pinon.

Poor grazing land.

From the point or the  $\frac{1}{4}$  sec. cor. secs. 37 and 38, which is within the boundaries of the Bryce Canyon National Park.

S. 89°59' E., on a blank line, through the Bryce Canyon National Park.

- 39.84 The center  $\frac{1}{4}$  sec. cor. sec. 37 and cor. monument on the eastern boundary of the Bryce Canyon National Park.
- Continue on same line with continuous measurement, on true E. and W. center line sec. 37.
- Descend abrupt E. slope of broken mountainous land, through dense juniper and pinon timber and scattered undergrowth of silver leaf, buck and bitter brush.

SUBDIVISION OF SECTIONS, T. 36 S., R. 3 W.

Chains		chains
42.40	Draw, 40 ft. below cor., drains N. 60° E.; ascend gradually along broken N. slope.	60.00
51.40	Spur, 59 ft. above draw, projects N. 25° E.; descend gradually along broken NE. slope.	
61.25	Draw, 100 ft. below spur, drains N. 20° E.; ascend gradually along broken N. slope.	
70.50	Ridge, 80 ft. above draw, bears N. 80° E. and SW.; descend abruptly over broken SE. slope.	
79.81	The 1/4 sec. cor. secs. 26 and 27, 160 ft. below ridge.	
	Land, broken and mountainous, with a general northeasterly and southeas early exposure and drainage.	
	Soil, shallow clay, shale, and rock; 3rd rate. Sandstone and shale formation.	
	Undergrowth, silver leaf, buck and bitter brush.	
	Timber, juniper and pinon.	
	Fair grazing land.	

SUBDIVISION OF SEC. 22.

From the 1/4 sec. cor. N. bdy. sec. 27 and cor. monument on the eastern boundary of the Bryce Canyon National Park.

North, on random line on N. and S. center line sec. 22.

40.00	Set temp. point the the center 1/4 sec. cor. sec. 22.
60.00	Set temp. point for the center N. 1/16 sec. cor. sec. 22.
80.04	Intersect the temp. 1/4 sec. cor. secs. 15 and 22.

The course of this line therefore is N. and the distance is 80.04 chs.

From the temp. 1/4 sec. cor. secs. 21 and 22.

N. 30°44' E., on random line on E. and W. center line sec. 22.

39.95	Intersect the temp. center 1/4 sec. cor. sec. 22.
60.00	Set temp. center E. 1/16 sec. cor. sec. 22.
79.87	Intersect the 1/4 sec. cor. secs. 22 and 23.

The course of this line therefore is N. 89°44' E., and the distance is 79.87 chs.

From the temp. 1/4 sec. cor. secs. 21 and 22, which is within the boundaries of the Bryce Canyon National Park.

N. 93°44' E., on a blank line through the Bryce Canyon National Park.

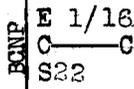
39.95	Intersect the temp. center 1/4 sec. cor. sec. 22.
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SUBDIVISION OF SECTIONS, T. 36 S., R. 3 W.

Chains

59.91

On steep NE. slope. . . . .  
 Set an iron post, 3 ft. long, 1 in. diam., 27 ins. in the ground, for center E. 1/16 sec. cor. sec. 22 and cor. monument on the eastern boundary of the Bryce Canyon National Park, with brass cap marked .



1933

from which

A pinon, 10 ins. diam., bears S. 67° E., 30 lks. dist., marked CE 1/16 S22 BT.

A pinon, 6 ins. diam., bears S. 38° E., 47 lks. dist., marked CE 1/16 S22 BT.

No bearing tree to the NE. available.

Continue on same line with continuous measurement on true E. and W. center line sec. 22.

Descend abrupt NE. slope of broken mountainous land, through dense juniper and pinon timber and scattered undergrowth of oak, buck, and bitter brush.

60.40 Timber becomes scattered and enter dense undergrowth of oak and squaw brush, bears SE. and NW.

65.65 State Highway, bears SE. to Tropic, Utah, and NW. to Panguitch, Utah.

71.65 Top of the S. bank of the channel of the Paria River. 3 ft. high, bears N. 70° W. and S. 70° E.; thence across channel of the Paria River.

74.20 Stream of good water, 10 lks. wide, 2 ins. deep, in channel of the Paria River, flows SE, 100 ft. below cor.; ascend gradually.

77.20 Top of the NE. bank of the Paria River, 3 ft. high, bears NW. and SE.

78.10 Stream of good water, 15 lks. wide, 5 ins. deep, in wash, 40 lks. wide, 15 ft. deep, drains SE.; thence through dense undergrowth of oak brush.

78.48 One wire telephone line, bears SE. to Tropic, Utah, and NW. to Panguitch, Utah.

79.87 The 1/4 sec. cor. secs. 22 and 23 . . . . .

Land, broken and mountainous, with a general southeasterly exposure and drainage.

Soil, deep clay and sand; 2nd rate. Sandstone and shale formation.

Undergrowth, oak, buck, bitter, and squaw brush.

Timber, juniper and pinon.

Fair grazing land.

SUBDIVISION OF SECTIONS, T. 36 S., R. 3 W.

Chains	
	<p>From the E. 1/13 sec. cor. secs. 22 and 27 and cor. monument on the eastern boundary of the Bryce Canyon National Park.</p> <p>North, on random line on N. and S. center line of the SE<math>\frac{1}{4}</math> sec. 22.</p>
40.00	<p>Intersect the center E. 1/13 sec. cor. sec. 22 and cor. monument on the eastern boundary of the Bryce Canyon National Park.</p> <p>The course of this line therefore is North, and the dist. is 40.00 chs.</p> <p>Thence:</p> <p>From the E. 1/13 sec. cor. secs. 22 and 27 and cor. monument on the eastern boundary of the Bryce Canyon National Park.</p> <p>North, on true line on N. and S. center line of the SE<math>\frac{1}{4}</math> sec. 22 and along the eastern boundary of the Bryce Canyon National Park.</p> <p>Descend gradually over broken NE. slope of mountainous land, through dense juniper and pinon timber and scattered undergrowth of silver leaf, buck and bitter brush.</p>
5.50	Draw, 35 ft. deep, drains N. 70° E.; continue descent.
13.00	Draw, 90 ft. below cor., drains E.; ascend gradual S. slope.
21.30	Spur, 30 ft. above draw, projects E.; descend gradual N. slope.
28.30	Draw, 110 ft. below spur, drains N. 70° E.; ascend gradual S. slope.
32.00	Spur, 35 ft. above draw, projects NE.; descend abrupt N. slope.
39.70	Top of sandstone ledge, 10 ft. high, bears NW. and SE.; leave timber and enter dense undergrowth of oak and sage brush, bears NW. and SE.
40.00	<p>The center E. 1/13 sec. cor. sec. 22, 170 ft. below spur.</p> <p>Land, broken and mountainous, with a general northeasterly exposure and drainage.</p> <p>Soil, shallow clay and sand, mixed with gravel and rock; 4th rate. Sandstone formation.</p> <p>Undergrowth, silver leaf, buck, bitter, sage, and oak brush.</p> <p>Timber, juniper and pinon.</p> <p>Fair grazing land.</p>
	<p>From the center E. 1/13 sec. cor. sec. 22.</p> <p>North on random line on N. and S. center line of the NE<math>\frac{1}{4}</math> sec. 22.</p>
20.00	Set temp. NE. 1/13 sec. cor. sec. 22.

SUBDIVISION OF SECTIONS, T. 36 S., R. 3 W.

Chains

40.02 Intersect the temp. E. 1/16 sec. cor. secs. 15 and 22.

The course of this line therefore is North, and the distance is 40.02 chs.

From the N. 1/16 sec. cor. secs. 22 and 23 and cor. monument on the eastern boundary of the Bryce Canyon National Park.

S. 89°44' W., on random line on E. and W. center line of the NE 1/4 sec. 22.

19.97 Fall 1 lk. N. of the temp. NE. 1/16 sec. cor. sec. 22.

39.94 Intersect the true point for the center N. 1/16 sec. cor. sec. 22, which is 2 lks. N. of the temp. cor. left at the 60.00 chs. point on the N. and S. center line of sec. 22.

The course of this line therefore is S. 89°44' W., and the distance is 39.94 chs.

From the center E. 1/16 sec. cor. sec. 22 and cor. monument on the eastern boundary of the Bryce Canyon National Park.

North, on true line on N. and S. center line of the NE 1/4 sec. 22, and along the eastern boundary of the Bryce Canyon National Park.

Across bottom lands of a wide canyon, through dense undergrowth of oak and squaw brush.

3.35 State Highway, bears S. 30° E. to Tropic, Utah, and N. 30° W. to Panguitch, Utah.

4.14 From this point, a metal post on the eastern boundary of the Bryce Canyon National Park, bears S. 78°40' E., 1.65 chs. dist.

7.35 Road, bears NE. to flour mill and SW. to the State Highway.

10.25 Small stream of good water, in bottom of the channel of the Paria River, 3.00 chs. wide, 10 ft. deep, flows S. 30° E.

12.92 From this point, the smoke stack on flour mill belonging to Frank Riding, bears East, 4.12 chs. dist.

16.24 A one wire telephone line, bears N. 30° W. to Panguitch, Utah, and S. 30° E. to Tropic, Utah; begin gradual ascent over broken SW. slope of mountainous land, through dense juniper and piñon timber and scattered undergrowth of sage and bitter brush, bears NW. and SE.

13.35 Irrigation canal, 30 lks. wide, 3 ft. deep, drains SE. from the NW.

20.01 On broken SW. slope, 100 ft. above the channel of the Paria River; mark a cross (X) on the surface rock, over which:

Set an iron post, 3 ft. long, 1 in. diam., in a mound of stone to top, for the NE 1/4 sec. cor. sec. 22, and cor. monument on the eastern boundary of the Bryce Canyon National Park, with brass cap marked

Chains

The Bryce Canyon National Monument, Utah, is situated on the eastern boundary of the Bryce Canyon National Park. The center line of the

1933

A pinon, 14 ins. diam., bears S. 16° 30' E., 12 1/2 lks. dist., marked NE 1/16 S22 ET.

A pinon, 18 ins. diam., bears S. 71° 30' E., 1 1/4 lks. dist., marked NE 1/16 S22 ET.

Land, rolling and mountainous, with a general southeasterly exposure and drainage.

Soil, deep sand and clay; 3rd rate. Sandstone formation.

Undergrowth, oak, squaw, sage, and bitter brush.

Timber, juniper and pinon on N. portion of line.

Good grazing land.

Thence, from the above cor., North, with continuous measurement on a blank line through the Bryce Canyon National Park.

40.02 Intersect the point for the E. 1/16 sec. cor. secs. 15 and 22.

From the N. 1/16 sec. cor. secs. 28 and 29, and cor. monument on the eastern boundary of the Bryce Canyon National Park.

S. 39° 45' W.; on true line, on E. and W. center line of the NE 1/4 sec. 22, and along the eastern boundary of the Bryce Canyon National Park.

Descend gradually over broken SW. slope of rough mountainous land, through dense juniper and pinon timber and scattered undergrowth of silver leaf, sage, and bitter brush.

18.97 The NE 1/16 sec. cor. sec. 22 and cor. monument on the eastern boundary of the Bryce Canyon National Park, 170 ft. below last cor.

Land, broken and mountainous, with a general southwesterly exposure and drainage.

Soil, shallow sand, clay, and rock; 4th rate. Sandstone formation.

Undergrowth, silver leaf, sage, and bitter brush.

Timber, juniper and pinon

Fair grazing land.

Thence, from the above cor., S. 39° 45' W., with continuous measurement through the Bryce Canyon National Park.

39.94 Intersect the point for the center N. 1/16 sec. cor. sec. 22.

The land surveyed in T. 36 S., R. 3 W., Salt Lake Mountain, Utah, lies to the east of the eastern boundary of the Bryce Canyon National Park, and consists of the east breaks and foot hills of the rim of the Great Salt Lake Basin.

Sections 1, 2, 11, and 12, of the fractional township, are within the boundaries of the Powell National Forest. The portion of the fractional township surveyed, is very rough and broken, being cut by numerous draws, canyons, and gulches, which in most places are rimmed with sandstone ledges and blue shale breaks, which have a general south-easterly exposure and drainage into the channel of the Paria River. The main draws, canyons, and gulches, head near the rim of the Great Salt Lake Basin, and form the drainage of the head waters of the Paria River.

The formation near the top of the breaks of the Great Salt Lake Basin, consists mostly of limestone colored in numerous shades of pink and red. The limestone is in ledge and shale formation, and the coloring is due to the calcium in the small veins of clay in the limestone formation, dissolving by weather conditions and coloring the surface of the limestone.

The soil on the slopes of the spurs and ridges, consists of a shallow blue clay, mixed with shale and rock, and may be classified as 3rd and 4th rates, while that in the bottom lands of the wide draws and canyons, consists of a deep blue clay and sand, and may be classified as 2nd rate.

The timber consists of a medium dense growth of scrub juniper and pinon, and is found mostly on the steep slopes of the spurs and ridges. It has no commercial value except for fire wood and fencing. A few scattered yellow pine is found in the west portions of sections 2 and 11.

The undergrowth on the mountainous land, consists of a scattered short growth of silver leaf, shadscale, greasewood, buck, and bitter brush. In the bottom lands of the wide draws and canyons, patches of dense oak and squaw brush is found.

The State Highway from Panguitch, Utah, bears in a southerly direction through sections 22, 23, 26, and 35, to the town of Tropic, Utah, which is located mostly in the S $\frac{1}{2}$  section 35 and the SE $\frac{1}{4}$  section 34.

A one wire telephone line runs parallel to the State Highway, from Panguitch to Tropic.

The only settlers living on the portion of the fractional township surveyed, are Frank Riding and Dee Imlay.

Dee Imlay has a small frame house located in the NE $\frac{1}{4}$ , SW $\frac{1}{4}$  section 23, and at the time of the survey, he was living at this place.

Frank Riding has a frame house, barn, corrals, sheds, and about 20 acres of cultivated land, located in the NE $\frac{1}{4}$  of SW $\frac{1}{4}$  section 23, and at the time of the survey, he was making this place his home.

A flour mill which is owned by Frank Riding, is located in the SE $\frac{1}{4}$  NE $\frac{1}{4}$  section 22.

Austin Cope of Tropic, Utah, has about 5 acres of cultivated land located in the SW $\frac{1}{4}$  NE $\frac{1}{4}$  section 23. This tract of land forms the north portion of a farm containing about 15 acres, located in the NW $\frac{1}{4}$  SE $\frac{1}{4}$  section 23.

About 2 miles of fencing were found in sec. 23.

The lands that were being farmed, were irrigated from water diverted from the East Fork Sevier River. The water is diverted from this river in the western portion of T. 36 S., R. 4 W., and flows through canals and natural channels to the farming land, most of which adjoins the town of Tropic.

Numerous small tracts of land in the bottoms of the wide draws and canyons, are suitable for farming if water

GENERAL DESCRIPTION, T. 36 S., R. 3 W.

Chains

could be obtained, but at the time of the survey, no water was available for irrigation except what was being used on the lands under cultivation.

The western boundary of this survey, forms a portion of the eastern boundary of the Bryce Canyon National Park. The most scenic portions of this park, are located in the SW. portion of T. 36 S., R. 3 W., the NW. portion of T. 37 S., R. 3 W., and the NE. portion of T. 37 S., R. 4 W.

The mountainous portion of the fractional township, is suitable only for grazing, but it is so broken and the browse so scattered, it has very little commercial value for this purpose.

No indications of mineral, coal, oil, or oil shale were found.



CERTIFICATE OF UNITED STATES SURVEYER

I, Elliot Bird, HEREBY CERTIFY upon honor that, in pursuance of special instructions bearing date of the 12th day of April, 1932, received from the district cadastral engineer for Utah, with assignment instructions dated June 1, 1933, I have surveyed and resurveyed a portion of the east boundary and subdivision, and surveyed subdivision of sections adjacent to the eastern boundary of the Bryce Canyon National Park, and dependently resurveyed a portion of the seventh standard parallel south through range 3 west, and a portion of the south boundary of T. 36 S., R. 3 W., of the Salt Lake Meridian, in the State of Utah, which are represented in the foregoing field notes as having been executed by me and under my direction; and that said survey has been made in strict conformity with said instructions, the Manual of Instructions for the Survey of the Public Lands of the United States, and in the specific manner described in the foregoing field notes.

Certified to at Salt Lake City, Utah. December 10, 1934.

Elliot Bird U.S. Surveyor

CERTIFICATE OF APPROVAL

OFFICE OF U.S. SUPERVISOR OF SURVEYS,

Denver Colorado. JUN 26 1939, 19

The foregoing field notes of the survey of T. 36 S., R. 3 W., Salt Lake Meridian, Utah

executed by Elliot Bird, U.S. Surveyor, under special instructions dated April 12, 1932, and assignment instructions dated June 1, 1933, having been critically examined, and the necessary corrections made prior to their certification by the engineer, the said field notes, and the survey therein described, are hereby approved.

U.S. Supervisor of Surveys.

CERTIFICATE OF TRANSCRIPT

I certify that the foregoing transcript of the field notes of the above described surveys in is a true copy of the original field notes on file in the public survey office.

U.S. Supervisor of Surveys.

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BOOK A-519

BOOK "A"

# FIELD NOTES

OF THE

INDEPENDENT RESURVEY OF THE

THIRD STANDARD PARALLEL SOUTH THROUGH RANGE 12 WEST,

AND THE NORTH AND WEST BOUNDARIES OF

TOWNSHIP 15 SOUTH, RANGE 12 WEST:

AND THE SURVEY OF THE

SUBDIVISIONAL LINES OF

TOWNSHIP 15 SOUTH, RANGE 12 WEST.

Of the SALT LAKE Meridian,

In the State of UTAH

EXECUTED BY

Sidney R. Reese and Ervine F. Smith, Transitmen.

*Under special instructions dated July 30, 1936, which provided  
for the surveys included under Group No. 273, Utah, bearing the approval of the  
Commissioner of the General Land Office under date of September 12, 1936  
and assignment instructions dated October 7, 1936.*

Survey commenced October 17, 1936

Survey completed October 30, 1936.

# INDEX DIAGRAM.

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TOWNSHIP 15 SOUTH, RANGE 12 WEST

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	20	28	27	26	25
31	32	33	34	35	36

Lines surveyed by Sidney R. Reese

Lines surveyed by Ervine F. Smith



TOWNSHIP 15 SOUTH, RANGE 12 WEST

The survey of township 15 south, range 12 west, was commenced October 17, 1936, and executed with Buff and Buff light mountain transit No. 8028, and Young and Sons light mountain transit No. 8395, used by Sidney R. Reese and Ervine F. Smith, transitmen, respectively; each instrument is equipped with a full vertical circle and Smith solar attachment, the horizontal limbs are provided with two double verniers placed opposite to each other and read to single minutes of arc, which is also the least count of the verniers of the vertical circle and the latitude and declination arcs.

These instruments were approved by the district cadastral engineer for Utah in assignment instructions dated October 7, 1936, conditional upon satisfactory field tests.

The instruments were in good condition at the beginning of this survey, and tested and found free from any appreciable error.

The country over which the lines were extended being all open desert, the solar attachments were not used. All azimuths in this record are referred to true meridians determined by observations made upon Polaris during the progress of the survey; the bearings were determined by deflection angles, and the lines carried forward by fore and back sights.

The measurements were made by two Lallie steel tapes, five chains in length, each graduated every link for the first 100 links, and thereafter at intervals of 10 links. The tapes were tested by comparison with a Lufkin steel standard tape, 1 chain long, and found to be correct.

The measurements were made on the slope, and the vertical angles were determined by clinometers in good adjustment; the field notes show the horizontal equivalents.

October 17, 1936, at the standard corner of T. 15 S., Rs. 11 and 12 W., in approximate latitude  $39^{\circ}28'N.$ , and longitude  $113^{\circ}08'W.$ , at 5h 55m a. m., l. m. t., or 6h 27m 30s a. m. by my watch which carries 105th meridian standard time, we make an observation on Polaris at western elongation, three each with the telescope in direct and reversed positions, reading the horizontal deflection angles from Polaris in the direction west to a well defined point on the mountains approximately ten miles west.

Mean horizontal angle, Polaris W. to reference point -----	88°39.'5
Azimuth of Polaris-----	1°20.'5 W
True bearing of reference point -----	West

To verify the latitude of this station, October 17, 1936, I make a meridian observation of the sun for time and latitude, observing simultaneously the altitude of the sun's lower limb and transit of the sun's west limb, reversing the telescope and observing simultaneously the altitude of the sun's upper limb and the transit of the sun's east limb.

Mean observed altitude -----	41° 09'
Reduced latitude -----	39° 28'
Mean watch time of observation -----	12h 17m 50s
Watch fast of local mean time -----	32m 30s

INDEPENDENT RESURVEY, THIRD STANDARD PARALLEL SOUTH  
TOWNSHIP 15 SOUTH, RANGE 12 WEST

Chains

INDEPENDENT RESURVEY, THIRD STANDARD PARALLEL SOUTH,  
SOUTH BOUNDARY T. 15 S., R. 12 W.,

INDEPENDENT RESURVEY SUPERSEDING THE SURVEY EXECUTED BY  
JOSEPH GORLINSKI, U. S. DEPUTY SURVEYOR, IN 1880.

From the standard corner of T. 15 S., Rs. 11 and 12 W.,  
which is an iron post, 3 feet long, 3 ins. diameter, set,  
marked and witnessed as described in the official record  
of the survey of T. 16 S., R. 11 W.

West, along the south boundary of sec. 36 on a transit  
line describing the tangent.

Over rolling desert land through medium dense undergrowth.

30.88

Intersect the closing corner of T. 16 S., Rs. 11 and 12 W.  
which is an iron post 3 ins. in diameter firmly set, mkd.  
and witnessed as described in the official record.

40.00

Set an iron post, 3 feet long, 1 in. diam., 30 ins. in the  
ground, for standard  $\frac{1}{4}$  sec. corner, with brass cap marked

S C  
 $\frac{1}{4}$  S 36

1936

raise a mound

of stone, 3 feet base, 2 feet high, N. of corner.

From this corner the original standard  $\frac{1}{4}$  sec. corner,  
which is a volcanic rock, 12x10x6 ins., marked  $\frac{1}{4}$  on N.  
face, bears S.6°15'W., 10.82 chains distant, and the  
original  $\frac{1}{4}$  sec. corner of sections 31 and 36, T. 15 S., Rs.  
11 and 12 W., which is a volcanic rock, 12x12x4 ins., mkd.  
 $\frac{1}{4}$  on W. face, bears N.27°29'E., 24.08 chains distant. I  
destroy all evidence of these  $\frac{1}{4}$  sec. corners.

80.00

North 1 link from the tangent.

Set an iron post, 3 feet long, 2 ins. diam., 30 ins. in  
the ground, for standard corner of secs. 35 and 36, with  
brass cap mkd.

S C  
T15S | R12W  
S35 | S36

1936

raise a mound

of stone, 2 $\frac{1}{2}$  ft. base, 2 feet high, N. of corner.

From this corner the original standard corner of secs. 35  
and 36, which is a volcanic stone, 12x8x6 ins., lying in a  
wash, marked 1 notch on E., and 5 notches on W. edge, bears  
S. 8°00'W., 13.14 chains distant. I deposit this stone  
alongside of iron post.

Land, rolling desert.

Soil, coarse sandy clay; scattered volcanic surface rock;  
2nd rate.

Undergrowth, medium dense shadscale, kerosene brush,  
mountain rush, and yellowtop.

Scattered growth of grass.

No timber.

Good winter grazing land.

INDEPENDENT SURVEY, THIRD STANDARD PARALLEL SOUTH

TOWNSHIP 15 SOUTH, RANGE 12 WEST

Chains

West along the S. boundary of sec. 35, on a tangent line, describing the tangent, which starts at a point 1 link S. of the sec. corner, and bears S.89° 59' 3" W.

Over rolling desert through medium dense shadscale, kerosene brush, mountain rush, yellow top and grass.

40.00 2 links N of the tangent.

Set an iron post, 3 feet long, 1 inch diam., 30 ins. in the ground, for standard  $\frac{1}{4}$  sec. corner, with brass cap marked

S C  
 $\frac{1}{4}$  S 35  
-----  
1936

raise a mound of stone, 2 $\frac{1}{2}$  feet base, 2 feet high, N. of corner.

The original standard  $\frac{1}{4}$  sec. corner, which is a volcanic stone, 10x6x3 ins., lying on the ground, marked  $\frac{1}{4}$  on one face, bears S.10° 30' W. 12.00 chains distant. I deposit this stone alongside of iron post and destroy all evidence of old  $\frac{1}{4}$  sec. corner accessories.

43.80 Leave rolling desert land, enter gently rolling heavy clay bottom land, cut by numerous small washes, draining S., bears N.30° W., and S.30° W., thence through scattered salt weed.

62.00 Wash, 15 links wide and 4 feet deep, drains S.30° E.

80.00 3 links N. of the tangent.

Set iron post, 3 ft. long, 2 ins. diam., 30 ins. in the ground for the standard corner of secs. 34 and 35, with brass cap marked

S C  
T 15 S | R 12 W  
S 34 | S 35  
-----  
1936

raise a mound of stone, 2 $\frac{1}{2}$  feet base, 2 feet high, N. of corner.

The original standard corner, which is a volcanic stone, 8x8x6 ins, marked 2 notches on E, and 4 notches on W. edges, bears S.10° 15' W., 12.57 chains distant. I deposit this stone alongside the iron post, and destroy all evidence of old corner accessories.

Land, east half mile, rolling desert, west exposure; west half mile, gently rolling desert.  
Soil, east half mile, coarse sandy clay, scattered surface rock, 2nd rate; west half mile, heavy sandy clay; 3rd rate.  
Undergrowth, medium dense shadscale, kerosene brush, mountain rush; yellow top; east half mile, scattered salt weed; west half mile, scattered growth of grass.

No timber.  
Good winter grazing land.

West along the S. boundary of sec. 34, on a transit line, describing the tangent which starts at a point 3 links S. of the sec. corner, and bears S.89° 58' 6" W.

INDEPENDENT RESURVEY, THIRD STANDARD PARALLEL SOUTH,  
TOWNSHIP 15 SOUTH, RANGE 12 WEST.

Chains

20.40 Over heavy clay bottom land, through scattered salt weed  
Old road, bears S.20°E. and N.20°W.

Leave heavy clay bottom land, bears N.30°W. and S.30°E.;  
enter rolling desert land; medium dense kerosene brush,  
shadscale and grass.

Ascend gentle E. slope.

40.00 5 links N. of the tangent.

Set an iron post, 3 feet long, 1 in. diam., 30 ins. in  
the ground, for standard  $\frac{1}{4}$  sec. corner, with brass cap  
marked

S C
$\frac{1}{4}$ S 34
-----
1936

high, raise a mound  
of stone, 2 $\frac{1}{2}$  foot base, 2 feet/N. of corner.

No trace of the original standard  $\frac{1}{4}$  sec. corner could  
be found.

67.50 Wash, 90 links wide, 1 ft. deep, drains N.6°E.

80.00 7 links N. of the tangent.

Set an iron post, 3 ft. long, 2 ins. diam., 30<sup>ins.</sup> in the  
ground, for the standard corner of secs. 33 and 34,  
with brass cap marked

S C
T 15 S   R 12 W
S 33   S 34
-----
1936

raise a mound  
of stone, 3 ft. base, 3 ft. high, N. of corner.

The original standard sec. corner, which is a limestone,  
14x12x8 ins., firmly set, marked 3 notches on the E. and  
W. edges, bears S.13°45'W. 13.66 chains distant.  
I deposit this stone alongside of the iron post, and  
destroy all evidence of old corner.accessories.

Land, east  $\frac{1}{4}$  mile, clay flat; W.  $\frac{3}{4}$  in gently rolling  
desert; E. exposure.

Soil, east  $\frac{1}{4}$  mile, heavy sandy clay, 3rd rate; W.  $\frac{3}{4}$   
mile, coarse sandy clay with patches of volcanic  
surface rock, 2nd rate.

Undergrowth, east  $\frac{1}{4}$  mile, salt weed; west  $\frac{3}{4}$  mile,  
kerosene brush and shadscale; scattered growth of grass.  
No timber.

Good winter grazing land.

West along the S. boundary of sec. 33, on a transit line,  
describing the tangent, which starts at a point 7 links  
S. of the sec. corner, and bears S.89° 57'.9W.

Over rolling desert land, through medium dense undergrowth.

Ascend gentle SE. slope.

3.00 Top of ascent, 10 feet above sec. corner, bears NW. and  
SE.; descend gradual NW. slope.

**Chains**

- 8.40 Wash, 3 links wide, 1 ft. deep, 10 ft. below top of ascent; drains NE. Ascend gentle E. slope.
  - 31.10 Wash, 9 links wide, 2 ft. deep, drains N.70°E.
  - 37.10 Road, under construction, brs. N.34°E. to Joy, Utah, and S.34°W. to Swasey Spring.
  - 40.00 10 links N. of the tangent on gentle E. slope, 50 feet above wash, at 8.40 chains point.
- Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, for the standard  $\frac{1}{4}$  sec. corner, with brass cap marked.

S C  
 $\frac{1}{4}$  S 33

1936

raise a mound

of stone, 3 ft. base, 3 ft. high, N. of corner.

From this corner the original standard  $\frac{1}{4}$  sec. corner, which is a limestone, 14x9x4 ins. lying on the ground, marked  $\frac{1}{4}$  on one face, bears S.15°W. 14.10 chs. dist. I deposit this stone alongside the iron post, and destroy all evidence of old corner accessories.

- 40.56 Old road, bears N.34°E. to Joy, Utah, and S.34°W. to Swasey Springs.
- 73.40 Wash, 9 links wide, 1 ft. deep, drains N.55°E.
- 80.06 13 links N. of the tangent, on gentle E. slope, 50 ft. above  $\frac{1}{4}$  sec. corner.

Set an iron post, 3 ft. long, 2 ins. diam., 30 ins. in the ground, for the standard section corner of secs. 32 and 33, with brass cap marked

S C  
T 15 S | R 12 W  
S 32 | S 33

1936

raise a mound

of stone, 4 ft. base, 3 ft. high, N. of corner.

From this corner the original standard section corner, which is a limestone, 20x15x12 ins. firmly set, marked 4 notches on E. and 2 notches on W. edges, bears S.15°W. 14.91 chains distant. I destroy all evidence of this corner's accessories.

Land, rolling desert; general NE drainage and exposure. Soil, coarse sandy clay, with scattered limestone surface rock; 2nd rate.

Undergrowth, medium dense shadscale, kerosene brush, bud sage, mountain rush, yellow top; scattered growth of grass.

No timber.

Good winter grazing land.

West along the S. boundary of sec. 32, on a transit line, describing the tangent, which starts at a point 13 links

Chains

S. of the section corner, and bears S. 89° 57' .25. 04.8  
 Over rolling desert land, through medium dense under-  
 growth; ascend gradual E. slope.

16.10 Wash, 9 links wide; 1 ft. deep, drains N. 55° E.

32.40 Wash, 15 links wide, 4 ft. deep, drains N. 50° E.

40.00 17 links north of the tangent, on gradual E. slope.

Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in  
 the ground, for standard  $\frac{1}{4}$  sec. corner, with brass cap  
 marked

S C  
 $\frac{1}{4}$  S 32

1936

raise a mound

of stone,  $3\frac{1}{2}$  ft. base, 3 ft. high, N. of corner.

No trace of the original standard  $\frac{1}{4}$  sec. corner could  
 be found.

48.70 Wash, 9 links wide, 2 ft. deep, drains N. 70° E.

69.80 Wash, 9 links wide, 1 ft. deep, drains NE.

80.00 20 links N. of the tangent, on gradual E. slope, 50  
 ft. above  $\frac{1}{4}$  sec. corner.

Set an iron post, 3 ft. long, 2 ins. diam., 27 ins. in  
 the ground, for the standard sec. corner of secs. 31  
 and 32, with brass cap marked

S C  
 T 15 S | R 12 W  
 S 31 | S 32

1936

raise a mound

of stone,  $3\frac{1}{2}$  ft. base,  $3\frac{1}{2}$  ft. high, N. of corner.

From this corner the original standard sec. corner,  
 which is a limestone, 12x10x8 ins., firmly set, marked  
 1 notch on E. and 5 notches on W. edges, bears S. 14°  
 45' W. 15.22 chains distant. I deposit this corner  
 monument alongside the iron post, and destroy all  
 evidence of old corner accessories.

Land, rolling desert; general NE. drainage.

Soil, coarse sandy clay, with patches of scattered  
 limestone surface rock; 2nd rate.

Undergrowth, medium dense kerosene brush, bud sage,  
 shadscale, mountain rush, yellow top; scattered growth  
 of grass.

No timber.

Good winter grazing land.

West along the S. boundary of sec. 31, on a transit line,  
 describing the tangent, which starts from a point 20  
 links S. of the sec. corner, and bears S. 89° 56' .5W.  
 Over rolling desert, through medium dense undergrowth.

Chains

6.50 Wash, 15 links wide, 3 ft. deep, drains NE.

40.00 25 links N. of the tangent.

Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, for the standard  $\frac{1}{4}$  sec. corner, with brass cap marked

S C  
 $\frac{1}{4}$  S 31  
-----  
1936

raise a mound of stone, 3 ft. base, 2 ft. high, N. of corner.

From this corner the original standard  $\frac{1}{4}$  sec. corner, which is a limestone, 18x8x8 ins., firmly set, and marked  $\frac{1}{4}$  on N. face, bears S.14° 45'W., 16.27 chains distant. I deposit this stone alongside the iron post and destroy all evidence of old  $\frac{1}{4}$  sec. corner accessories

41.10 Wash, 9 links wide, 3 ft. deep, drains N.60°E.

58.70 Junction of wash, 30 links wide, 2 ft. deep, from W. with wash 45 links wide, 4 ft. deep, from S.80°W, drains N.70°E., thence along wash.

65.00 Leave wash, drains E., from the SW.

78.50 29 links N. of the tangent, at point E. 1.50 chains distant from true point for standard corner of T. 15 S., Rs. 12 and 13 W.

Set an iron post, 3 ft. long, 3 ins. diam., 30 ins. in the ground, for a witness corner to the standard corner of T. 15 S., Rs. 12 and 13 W., with brass cap marked

S C  
T 15 S  
R 13 W | R 12 W  
W C S 36 | S 31  
-----  
1936

raise a mound of stone, 5 ft. base, 4 ft. high, N. of corner.

80.00 29 links N. of the tangent.

True point for standard township corner falls in large wash, 60 links wide, 4 ft. deep, drains N.80°E., where it is impracticable to establish a permanent corner. Corner not set.

From true point for standard township corner the original standard township corner, which is a limestone, 12x12x6 ins., firmly set, marked 6 notches on N. S. E. and W. edges, bears S.14° 45'W. 16.91 chains dist. I destroy all evidence of this corner.

Land, rolling desert; general NE. drainage. Soil, coarse sandy clay, with patches of limestone. surface rock; 2nd rate.

Undergrowth, medium dense shadscale, kerosene brush, bud sage, yellow top, mountain rush, white sage, scattered growth of grass.

No timber.

Good winter grazing land.

INDEPENDENT RESURVEY, OF THE WEST BOUNDARY OF

TOWNSHIP 15 SOUTH, RANGE 12 WEST

Chains

Independent resurvey, superseding the surveys executed by Ferdinand Dickert, U.S. Deputy Surveyor, in 1882.

From the true point for the standard corner of T. 15 S., Rs. 12 and 13 W., which is W. 1.50 chains distant from the standard witness township corner heretofore described.

North between sections 31 and 36.

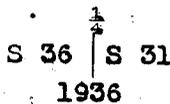
Over rolling desert, through medium dense undergrowth.

7.90. Old road, bears N.70°E., and S.70°W.

14.90 Wash, 9 links wide, 3 ft. deep, drains N.70°E.

27.30 Wash, 9 links wide, 1 ft. deep, drains N.60°E.

40.00 Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, for 1/4 sec. corner, with brass cap marked



raise a mound

of stone, 4 ft. base, 3 ft. high, W. of corner.

No trace of the original 1/4 sec. corner could be found.

Descend gradual N. slope.

43.00 Small draw, 10 ft. below 1/4 sec. corner, drains E.

Ascend gradual S. slope.

49.00 Low spur, 15 ft. above draw, projects E.

Descend gradual N. slope.

55.70 Draw, 15 ft. below spur, drains N.60°E.; ascend gradual SE. slope.

57.00 Low spur, 10 ft. above draw, projects E.; descend gradual N. slope.

60.00 Small draw, 15 ft. below spur, drains E.; ascend gradual S. slope.

63.80 Low spur, 10 ft. above draw, projects S.80°E.; descend gradual N. slope.

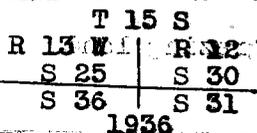
65.40 Small draw, 10 ft. below spur, drains S.80°E.; ascend gradual S. slope.

69.10 Low wide spur, 15 ft. above draw, projects E.; descend gradual N. slope.

75.40 Small draw, 15 ft. below spur, drains E.; Ascend gradual S. slope.

80.00 On low spur, 10 ft. above draw, slopes E.

Set an iron post, 3 ft. long, 2 ins. diam., 30 ins. in the ground, for the corner of secs. 25, 30, 31 and 36, with brass cap marked



Chains

raise a mound of stone, 3 ft. base, 2 ft. high, W. of corner.

No trace of the original sec. corner could be found.

Land, rolling desert; surface broken by small draws; general easterly drainage.

Soil, coarse sandy clay with patches of scattered limestone surface rock; 2nd rate.

Undergrowth, medium dense shadeless, bad sage, kerosene brush, mountain rush, yellowtop; scattered growth of grass.

No timber.

Good winter grazing land.

North between sections 25 and 30.

Over rolling desert, through medium dense undergrowth; descend N. slope.

10.30 Wash, in draw, 75 links wide, 2 ft. deep, 10 ft. below sec. corner, drains N.80°E.; ascend gradual SE. slope.

25.00 Spur, 15 ft. above wash, projects N.75°E.; descend gradual NW. slope.

36.20 Wash, 15 links wide, 3 ft. deep, 15 ft. below spur, drains N.70°E.; ascend gradual SE. slope.

40.00 On gradual SE. slope, 5 ft. above wash.

Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, for 1/2 sec. corner, with brass cap marked



raise a mound of stone, 3 ft. base, 2 ft. high, W. of corner.

No trace of original 1/2 sec. corner could be found.

46.30 Old road, bears N.80°E and S.80°W. on

Spur, 10 feet above 1/2 sec. corner, projects N.80°E.; descend gradual N. slope.

55.60 Small draw, 10 ft. below spur, drains E.; ascend gradual S. slope.

62.80 Low spur, 10 ft. above draw, projects E.; descend gradual N. slope.

70.00 Small draw, 15 ft. below spur, drains N.80°E.; ascend gradual SE. slope.

73.70 Spur, 10 ft. above draw, projects E.; descend gradual N. slope.

77.40 Wash, 12 links wide, 4 ft. deep, in draw, 15 ft. below spur, drains S.80°E.; ascend SE. slope.

80.00 On gradual SE. slope, 10 ft. above wash.

Set an iron post, 3 feet long, 3 ins. diam., 30 ins. in the ground, for corner of secs. 19, 24, 25 and 30,

Chains

am180

with brass cap marked

T 15 S	
R 13 W	R 12 W
S 24	S 19
S 25	S 30

1936

raise a mound

of stone, 2½ feet base, 2 feet high, W. of corner.

No trace of the original sec. corner could be found.

Land, rolling desert, broken by small draws, with general easterly drainage.

Soil, coarse sandy clay, with patches of scattered limestone surface rock; 2nd grade.

Undergrowth, medium dense shadscale, bud sage, kerosene brush, mountain rush, yellowtop, white sage; scattered growth of grass.

No timber.

Good winter grazing land.

North between sections 19 and 24.

Over rolling desert, through medium dense undergrowth.

- 9.10 Wash, 9 links wide, 2 feet deep, drains E.
- 30.00 Wash, 9 links wide, 1 ft. deep, drains E.
- 37.50 Wash, 9 links wide, 2 ft. deep, drains E.
- 40.00 On gradual E. slope.

Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, for ¼ sec. corner, with brass cap marked

¼	
S 24	S 19
1936	

raise a mound.

of stone, 3 ft. base, 2 ft. high, W. of corner.

No trace of the original ¼ sec. corner could be found.

- 59.30 Old road, bears N.80°E. and S.80°W.
- 62.00 Wash, 15 links wide, 4 ft. deep, drains N.80°E.
- 63.50 Old road, bears N.80°E. and S. 80°W.
- 74.50 Wash, 15 links wide, 6 ft. deep, drains N.70°E.
- 80.00 On gradual E. slope.

Set an iron post, 3 ft. long, 2 ins. diam., 30 ins. in the ground, with a broken bottle deposited alongside, for corner of secs. 15, 18, 19 and 24, with brass cap marked

T 15 S	
R 13 W	R 12 W
S 15	S 18
S 24	S 19

1936

**Chains**

raise a mound  
of stone, 2½ ft. base, 2 ft. high, W. of corner.

No trace of the original sec. corner could be found.

Land, rolling, desert, general E. drainage.

Soil, coarse sandy clay, with patches of limestone surface rock; 2nd rate.

Undergrowth, medium dense shadscale, bud sage, kerosene brush, mountain rush, yellowtop, white sage; scattered growth of grass.

No timber.

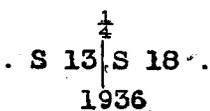
Good winter grazing land.

North between sections 13 and 18.

Over rolling desert, through medium dense undergrowth.

39.10 Wash, 9 links wide, 3 ft. deep, drains N.65°E.

40.00 Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, for ¼ sec. corner, with brass cap marked.



raise a mound

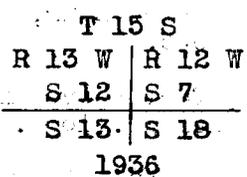
of stone, 2 ft. base; 2 ft. high, W. of corner.

No trace of the original ¼ sec. corner could be found.

69.40 Wash, 12 links wide, 4 ft. deep, drains N.60°E.

79.10 Old road, bears N.75°E. and S.75°W.

80.00 Set an iron post, 3 ft. long, 2 ins. diam., 30 ins. in the ground, for corner of sections 7, 12, 13, and 18, with brass cap marked.



raise a mound

of stone, 2 ft. base, 2 ft. high, W. of corner.

No trace of original sec. corner could be found.

Land, rolling desert; general NE. drainage.

Soil, coarse sandy clay, with patches of limestone surface rock; 2nd rate.

Undergrowth, medium dense shadscale, bud sage, kerosene brush, mountain rush, yellowtop, and white sage; scattered growth of grass.

No timber.

Good winter grazing land.

North between secs. 7 and 12.

Over rolling desert, through medium dense undergrowth; descend gradual NW. slope.

INDEPENDENT RESURVEY OF THE WEST BOUNDARY OF

TOWNSHIP 15 SOUTH, RANGE 12 WEST

amienD

Chains											
6.70	Draw, 15 links below sec. corner, drains N.70°E.; ascend gradual SE. slope.										
12.50	Spur, 15 feet above draw, projects N.70°E.; descend gradual NW. slope.										
18.30	Draw, 10 feet below spur, drains E.; ascend gradual S. slope.										
21.50	Low spur, 10 feet above draw, projects E.; descend gradual N. slope.										
25.10	Draw, 20 feet below spur, drains S.80°E.; ascend gradual SW. slope.										
32.50	Top of ascent, 15 feet above draw, bears E. and W., thence over rolling land.										
40.00	Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, for $\frac{1}{4}$ sec. corner, with brass cap marked										
	<table border="1"> <tr> <td></td> <td><math>\frac{1}{4}</math></td> <td></td> </tr> <tr> <td>S 12.</td> <td> </td> <td>S 7.</td> </tr> <tr> <td></td> <td></td> <td>1936</td> </tr> </table>		$\frac{1}{4}$		S 12.		S 7.			1936	
	$\frac{1}{4}$										
S 12.		S 7.									
		1936									
	raise a mound										
	of stone, 2 ft. base, 2 ft. high, W. of corner.										
	No trace of the original $\frac{1}{4}$ sec. corner could be found.										
	Descend gradual NW. slope, bears NE. and SW.										
55.10	Wash, 20 links wide, 4 ft. deep, in draw, 30 ft. below $\frac{1}{4}$ sec. corner, drains N.60°E.; ascend gradual SE. slope.										
58.50	Old road, bears N.60°E. and S.60°W.										
66.30	Spur, 15 feet above draw, projects N.70°E.; descend gradual NW. slope.										
67.30	Old road, bears N.65°E., and S.65°W.										
70.00	Draw, 15 feet below spur, drains N.80°E.; ascend gradual S. slope.										
75.00	Wide spur, 20 feet above draw, projects N.70°E.; descend gradual NW. slope.										
80.00	On gradual NW. slope, 10 feet below spur.										
	Set an iron post, 3 feet long, 2 ins. diam., 30 ins. in ground, for corner of secs. 1, 6, 7 and 12, with brass cap marked										
	<table border="1"> <tr> <td colspan="2">T 15 S</td> </tr> <tr> <td>R 13 W</td> <td>R 12 W</td> </tr> <tr> <td>S 1</td> <td>S 6</td> </tr> <tr> <td>S 12</td> <td>S 7</td> </tr> <tr> <td colspan="2">1936</td> </tr> </table>	T 15 S		R 13 W	R 12 W	S 1	S 6	S 12	S 7	1936	
T 15 S											
R 13 W	R 12 W										
S 1	S 6										
S 12	S 7										
1936											
	raise a mound										
	of stone, 3 feet. base, 3 feet high, west of corner.										
	No trace of the original sec. corner could be found.										
	Land, rolling desert, broken by small draws, with general NE. drainage.										
	Soil, coarse sandy clay, with patches of scattered limestone surface rock; 2nd rate.										

INDEPENDENT RESURVEY OF THE WEST BOUNDARY OF

TOWNSHIP 15 SOUTH, RANGE 12 WEST

Chains

Undergrowth, medium dense shadesale, bud sage, kerosene brush, mountain rush, yellowtop and white sage; scattered growth of grass.  
No timber.  
Good winter grazing land.

North between sections 1 and 6.

Over rolling desert, through medium dense undergrowth.

Descend gradual NW. slope.

7.00 Draw, 10 ft. below sec. corner, drains N.70°E.; ascend gradual SE. slope.

11.80 Top of ascent, 20 feet above draw, bears E. and W.; thence over rolling land.

18.50 Old road, bears S.45°E. and N.45°W.

19.30 Old road, bears S.80°E. and N.80°W. 50 links to junction.

40.00 Set an iron post, 3 feet long, 1 in. diam., 30 ins. in the ground, for  $\frac{1}{4}$  sec. corner, with brass cap marked

$\frac{1}{4}$   
 S 1 | S 6  
 1936

raise a mound

of stone, 3 ft. base, 2 ft. high, W. of corner.

82.13 Intersect a line projected W. from the corner of Tps. 14 and 15 S., Rs. 11 and 12 W.

Set an iron post, 3 ft. long, 3 ins. diam., 30 ins. in the ground, for corner of Ts. 14 and 15 S., Rs. 12 and 13 W., with brass cap marked

T 14 S  

R 13 W	R 12 W
S 36	S 31
S 1	S 6
R 13 W	R 12 W

 T 15 S  
 1936

raise a mound

of stone, 5 ft. base, 4 ft. high; S. of corner.

From this corner the original  $\frac{1}{4}$  sec. corner of secs. 6 and 31 on the N. boundary of T. 15 S., R. 12 W., which is a limestone, 12x10x6 ins., firmly set in mound of stone, marked  $\frac{1}{4}$  on N. face, bears S.15° 50'E., 19.63 chains distant. I mark W. P. on N, face of this corner monument for witness point.

The original corner of Ts. 14 and 15 S., Rs. 12 and 13 W., which is a limestone, 15x8x6 ins., firmly set in a mound of stone, marked 6 notches on N. S. E. and W. edges, bears S. 61° 21'W. 39.62 chains distant. I mark

INDEPENDENT RESURVEY OF THE WEST BOUNDARY OF

TOWNSHIP 15 SOUTH, RANGE 12 WEST

Chains

W.P. on E. face of this corner monument for witness point.

E. 3 links distant from this witness point is an iron post, 2 ins. diam., firmly set in ground, with a brass cap marked

Juab  
Millard

Land, rolling desert, general NE. drainage.  
Soil, coarse sandy clay, with patches of very scattered limestone surface rock; 2nd rate.  
Undergrowth, medium dense shadscale, kerosene brush, bud sage, white sage and yellowtop; scattered growth of grass.  
No timber.  
Good winter grazing land.

INDEPENDENT RESURVEY OF THE NORTH BOUNDARY OF  
TOWNSHIP 15 SOUTH, RANGE 12 WEST.

Independent resurvey superseding surveys executed by Ferdinand Dickert, U. S. Deputy Surveyor, in 1882.

October 27, 1936, at the corner of Ts. 14 and 15 S., Rs. 11 and 12 W., which is an iron post, 3 ft. long, 3 ins. diam., set, marked and witnessed as described in the official record, in approximate latitude 39° 33' N. longitude, 113° 08' W. at 5h, 48m. p.m., by my watch, which carries 105th meridian standard time as determined by a Western Union clock at Delta, Utah, October 26, 1936, I make an hour angle observation on Polaris east of the meridian, two each with the telescope in direct and reverse position, reading the horizontal deflection angles from Polaris in the direction west to a well defined reference point on the mountains approximately 14 miles west.

Watch fast of l.m.t. - - - - -	32.5 m
L.m.t. of observation - - - - -	5h 15.5m. p.m.
Mean horizontal angle, Polaris W. to reference point - - - - -	91° 19'
Azimuth of Polaris - - - - -	1° 19'
True bearing of reference point - - - - -	West

Thence West between sections 1 and 36 on a transit line describing the tangent.

Over rolling desert land, through medium dense undergrowth; descend over rolling SW. slope.

33.00 Slope changes from SW. to W.; continue descent.

40.00 On gradual W. slope, 70 ft. below the township corner.

Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in ground, for  $\frac{1}{4}$  sec. corner, with brass cap marked

$\frac{1}{4}$  S 36  
S 1  
1936

raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$  ft. high, N. of corner.

Descend gradual W. slope.

40.50 Rim of draw, bears N.65°W. and S.65°E.

INDEPENDENT RESURVEY OF THE NORTH BOUNDARY OF

TOWNSHIP 15 SOUTH, RANGE 12 WEST.

Chains

54.50 Wash, 100 links wide, 3 ft. deep, in draw, 25 feet below  $\frac{1}{4}$  sec. corner, drains N.60°W.; thence along gentle N. slope.

80.00 N. 1 link from the tangent.

Set an iron post, 3 ft. long, 2 ins. diam., 30 ins. in the ground, for corner of secs. 1, 2, 35 and 36, with brass cap marked

T 14	S	R 12	W
S 35		S 36	✓
S 2		S 1	
T 15 S			
1936			

raise a mound

of stone, 3 ft. base, 2 $\frac{1}{2}$  ft. high, W. of corner.

From this corner the original  $\frac{1}{4}$  sec. corner of secs. 1 and 36, which is a limestone, 14x8x8 ins., firmly set, marked  $\frac{1}{4}$  on S. face, bears S. 23°55'E., 19.41 chains distant, I mark W.P. on S. face for witness point.

Land, rolling desert.

Soil, coarse sandy clay; 2nd rate.

Undergrowth, medium dense shadscale, mountain rush, kerosene brush, bud sage, yellowtop, scattered growth of grass.

No timber.

Good winter grazing land.

West between sections 2 and 35, on a transit line describing the tangent, which starts at a point 1 link S. of the section corner, and bears S.89° 59.'3W.

Over rolling desert, through medium dense undergrowth; descend gradual N. slope.

17.50 Small draw, 20 ft. below sec. corner, drains NW. ; ascend gradual NE. slope.

20.00 Spur, 15 ft. above draw, projects N.55°W.; descend SW. slope.

28.90 Draw, 35 ft. below spur, drains NW., thence along rolling N. slope.

40.00 2 links N. of tangent.

Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, for  $\frac{1}{4}$  sec. corner, with brass cap marked

$\frac{1}{4}$	S 35
	✓
	S 2
1936	

raise a mound

of stone, 2 ft. base, 2 ft. high, N. of corner.

From this corner the original corner of secs. 1, 2, 35 and 36, which is a limestone, 12x6x3 ins., firmly set, in ground, marked 5 notches on W. and 1 notch on E. edges, bears S.22° 51'E. 19.57. chains distant. I mark W.P. on E. face of this corner monument for witness point.

E. 3 links distant from this witness point is an iron

INDEPENDENT RESURVEY OF THE NORTH BOUNDARY OF

TOWNSHIP 15 SOUTH, RANGE 12 WEST

Chains

min 101

post, 2 ins. diam., firmly set in the ground, with brass cap marked

Juab

Millard

55.00 Wash, 110 links wide, 4 ft. deep, drains S.60°W. approximately 3 chains, thence N.60°W.

64.50 Recross wash, drains N.60°W.

80.00 3 links N. of tangent.

Set an iron post, 3 feet long, 2 ins. diam., 30 ins. in the ground, for corner of secs. 2, 3, 34 and 35, with brass cap marked

T 14 S R 12 W

S 34 | S 35

S 3 | S 2

T 15 S

1936

raise a mound

of stone, 2 ft. base, 1½ ft. high, W. of corner.

From this corner the original ¼ sec. corner of secs. 2 and 35, which is a limestone, 10x8x6 ins., firmly set in the ground, marked ¼ on N. face, bears S.22° 13'E. 19.66 chains distant. I mark W.P. on E. face of this corner monument for witness point.

Land, rolling desert; drainage westerly.

Soil, coarse sandy clay; 2nd rate.

Undergrowth, medium dense shadscale, mountain rush, kerosene brush, bud sage, yellowtop; scattered growth of grass.

No timber.

Good winter grazing land.

West between sections 3 and 34, on a transit line describing the tangent, which starts at a point 3 links S. of the section corner, and bears S.89° 58'.6W.

Over rolling desert, through medium dense undergrowth, along rolling N. slope.

31.20 Wash, 60 links wide, 3 ft. deep, drains SW., thence along rolling S. slope.

40.00 5 links N. of tangent.

Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, for ¼ sec. corner, with brass cap marked

S 34

¼

S 3

1936

raise a mound

of stone, 4 ft. base, .3 ft. high, N. of corner.

No trace of the original corner of secs. 2, 3, 34 and 35, could be found. From this ¼ sec. corner S.22° 45'E.

INDEPENDENT RESURVEY OF THE NORTH BOUNDARY OF

TOWNSHIP 15 SOUTH, RANGE 12 WEST

Chains

19.60 chains is an iron post, 2 ins. diam., firmly set in the ground, with brass cap marked

Juab

Millard

89.00 7 links N. of tangent.

89.00 Set an iron post, 3 ft. long, 2 ins. diam., 30 ins. in the ground, for corner of secs. 3, 4, 33 and 34, with brass cap marked

T 14 S R 12 W

S 33 | S 34

S 4 | S 3

T 15 S

1936

raise a mound

of stone, 2 ft. base, 1½ ft. high, W. of corner.

From this section corner the original ¼ sec. corner of secs. 3 and 34, which is a limestone, 12x8x6 ins., firmly set in ground, marked ¼ on N. face, bears S.22° 00'E., 18.96 chains distant. I mark W. P. on N. face of this corner monument for witness point.

Land, rolling desert; drainage westerly.

Soil, coarse sandy clay; 2nd rate.

Undergrowth, medium dense, mountain rush, kerosene brush, shadscale, bud sage and yellowtop; scattered growth of grass.

No timber.

Good winter grazing land.

West between sections 4 and 33, on a transit line describing the tangent, which starts at a point 7 links S. of the sec. corner, and bears S.89° 57'.9 W.

Over rolling desert, through medium dense undergrowth; ascend gradual SE. slope.

5,00 Top of ascent, 10 feet above sec. corner, bears SW. and NE.; descend over gentle NW. slope.

40.00 10 links N. of the tangent.

Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, for ¼ sec. corner, with brass cap marked

S 33

¼

S 4

1936

raise a mound

of stone, 3 ft. base, 2 ft. N. of corner.

From this ¼ sec. corner the original corner of secs. 3, 4, 33 and 34, which is a limestone, 8x4x1 ins., lying on the ground, marked with 3 notches on one edge, 3 notches on opposite edge, bears S.22° 16'E., 19.15 chains distant. I mark W.P. on E. face of old corner monument for witness point.

From this ¼ sec. corner S.22° 16'E. 19.99 chains distant is an iron post, 2 ins. diam., firmly set in the ground, with brass cap marked

**INDEPENDENT RESURVEY OF THE NORTH BOUNDARY OF  
TOWNSHIP 15 SOUTH, RANGE 12 WEST**

Chains

Juab

Millard

30.00 13 links N. of tangent.

Set an iron post, 3 ft. long, 2 ins. diam., 30 ins. in the ground, for corner of secs. 4, 5, 32 and 33, with brass cap marked

T 15 S R 12 W
S 32   S 33
S 5   S 4
T 15 S
1936

raise a mound

of stone, 3 ft. base, 3 ft. high, W. of corner.

From this sec. corner the original  $\frac{1}{4}$  sec. corner of secs. 4 and 33, which is a limestone, 14x8x4 ins., firmly set in ground, marked  $\frac{1}{4}$  on N. face, bears S. 21° 23'E. 19.01 chains distant. I mark W.P. on S. face of old corner monument for witness point.

Land; rolling desert; W. exposure.  
Soil, coarse sandy clay; 2nd rate.  
Undergrowth, medium dense kerosene brush, shadscale, mountain rush, bud sage, scattered white sage and yellowtop; scattered growth of grass.  
No timber.  
Good winter grazing land.

West between sections 5 and 32 on a transit line describing the tangent, which starts at a point 13 links S. of the section corner and bears S. 89° 57' 2W.

Over rolling desert, through medium dense undergrowth.

25.60 Wash, 30 links wide, 5 ft. deep, in bottom of valley, drains N. 20° W.

48.00 17 links N. of tangent.

Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, for  $\frac{1}{4}$  sec. corner, with brass cap marked

$\frac{1}{4}$ S 32
S 5
1936

raise a mound

of stone, 2 ft. base, 1 $\frac{1}{2}$  ft. high, N. of corner.

From this corner the original sec. corner of secs. 4, 5, 32 and 33, which is a limestone, 6x5x4 ins., firmly set in ground, marked 4 notches on E. and 2 on W. edges, bears S. 20° 40'E., 19.17 chains distant. I mark W.P. on S. face for witness point.

East 2 links distant from this witness point is an iron post, 2 ins. diam., firmly set in ground, with brass cap marked

Juab

Millard

INDEPENDENT RESURVEY OF THE NORTH BOUNDARY OF  
TOWNSHIP 15 SOUTH, RANGE 12 WEST

**Chains**

- Ascend gradual SE. slope.
- 61.00 Low spur, 15 ft. above  $\frac{1}{4}$  sec. corner, projects N.20°E.; descend gradual NW. slope.
- 62.40 Small draw, 10 ft. below spur, drains N.20°E.; ascend gradual E. slope.
- 72.00 Spur, 20 ft. above draw, projects N.; descend gradual W. slope.
- 80.00 On gradual W. slope, 5 ft. below spur.
- 20 links N. of tangent.

Set an iron post, 3 ft. long, 2 ins. diam., 30 ins. in the ground, for corner of secs. 5, 6, 31 and 32, with brass cap marked

T 14	S	R 12	W
S 31		S 32	
S 6		S 5	

T 15 S

1936

raise a mound

of stone, 2 ft. base,  $1\frac{1}{2}$  ft. high, W. of corner.

From this corner the original  $\frac{1}{4}$  section corner of secs. 5 and 32, which is a limestone, 10x8x6 ins., marked  $\frac{1}{4}$  on N. face, bears S.20° 00'E., 19.36 chains distant. I mark W. P. on N. face of corner monument for witness point.

Land, rolling desert; drainage northerly.

Soil, coarse sandy clay; 2nd rate.

Undergrowth, medium dense shadscale, kerosene brush, bud sage, white sage and yellowtop; scattered growth of grass.

No timber.

Good winter grazing land.

West between sections 6 and 31 on a transit line describing the tangent, which starts at a point 20 links S. of the section corner, and bears S.89° 56'5 W.

Over rolling desert, through medium dense undergrowth; descend gradual W. slope.

- 9.40 Small draw, 20 ft. below section corner; drains N. Ascend gradual E. slope.
- 12.50 Spur, 15 ft. above draw, projects N.10°E.; descend gradual NW. slope.
- 31.20 Wash, 30 chains wide, 3 ft. deep, in draw, 30 ft. below spur, drains N.15°E.; ascend gradual E. slope.
- 37.50 Spur, 20 ft. above draw, projects N.15°E.; descend gradual NW. slope.
- 40.00 25 links N. of tangent, on gradual NW. slope, 5 ft. below spur.

INDEPENDENT RESURVEY OF THE NORTH BOUNDARY OF

TOWNSHIP 15 SOUTH, RANGE 12 WEST

Chains

Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, for  $\frac{1}{4}$  sec. corner, with brass cap marked.

S 31

$\frac{1}{4}$

S 6

1936

raise a mound

of stone, 2 ft. base,  $1\frac{1}{2}$  ft. high, N. of corner.

From this  $\frac{1}{4}$  sec. corner the original corner of secs. 5, 6, 31 and 32, which is a limestone, 14x6x6 ins. firmly set in ground, marked 5 notches on E. and 1 notch on W. edges, bears S.19° 06'E. 19.73 chains distant. I mark W. P. on S. face of this corner monument for witness point.

63.60 Wash, 9 links wide, 3 ft. deep, drains N.20°W.

79.08 29 links N. of tangent.

The corner of Ts. 14 and 15 S., Rs. 12 and 13 W. heretofore described.

Land, rolling desert; drainage N.  
Soil, coarse sandy clay; 2nd rate.  
Undergrowth, medium dense shadscale, kerosene brush, bud sage, white sage, and yellowtop; scattered growth of grass.  
No timber.  
Good winter grazing land.

To verify the alinement of the north and west boundaries, I sight the transit on a flag south of the  $\frac{1}{4}$  section corner between sections 6 and 31, on the tangent, which bears N.89°55'.7E. and deflect an angle of 90° 04' to the south to a flag on the west boundary, which agrees within less than 0° 01'.

SUBDIVISION OF T.15 S., R. 12 W.

From the standard corner of sections 35 and 36 on the south boundary of the township heretofore described

N.0° 02'W. between sections 35 and 36.

Over rolling desert, through medium dense undergrowth.

40.00 Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, with a volcanic rock, 5x4x2 ins. marked X, deposited at the base, for  $\frac{1}{4}$  sec. corner, with brass cap marked

S 35 | S 36

1936

No other suitable accessories available.

80.00 Set an iron post, 3 ft. long, 2 ins. diam., 30 ins. in the ground, for corner of secs. 25, 26, 35 and 36, with brass cap marked

SUBDIVISION OF TOWNSHIP 15 SOUTH, RANGE 12 WEST

Chains

T 15 S R 12 W	
S 26	S 25
S 35	S 36
1936	

raise a mound

of stone, 3 ft. base, 3 ft. high, W. of corner.

Land, rolling desert; general SW. drainage.  
 Soil, coarse sandy clay; 2nd rate.  
 Undergrowth, scattered shadscale, mountain rush,  
 yellowtop and kerosene brush; scattering growth  
 of grass.  
 No timber.  
 Good winter grazing land.

East on a random line between sections 25 and 36.

40.00 Set temporary  $\frac{1}{4}$  sec. corner.

80.00 Intersect the E. boundary of the township 2 links N.  
 of the corner of sections 25, 30, 31 and 36, as des-  
 cribed in the field notes of T. 15 S., R. 12 W.

Thence N.89°59'W. on true line between secs. 25 and 36.

Over rolling desert, through medium dense undergrowth.

40.00 Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in  
 the ground, with a volcanic stone, 6x4x2 ins., marked  
 X, deposited at the base, for  $\frac{1}{4}$  sec. corner, with  
 brass cap marked

$\frac{1}{4}$	S 25
	S 36
	1936.

No other suitable accessories available.

From this  $\frac{1}{4}$  sec. corner the original  $\frac{1}{4}$  corner of secs.  
 25 and 30, which is a volcanic stone, 12x6x6 ins.,  
 marked  $\frac{1}{4}$  on one face, bears N.26° 46'E. 24.60 chains  
 dist. I deposit this stone alongside of the  $\frac{1}{4}$  sec. cor.  
 bet. secs. 25 and 36.

The original corner of secs. 25, 30, 31 and 36, which  
 is a volcanic stone, 16x12x10 ins., marked 5 notches  
 on N. and 1 notch on S. edges, bears S.30°53'E. 21.32  
 chains distant. I destroy all evidence of this corner.

52.60 Wash, 20 links wide, 3 ft. deep, drains S.50°W.

80.00 The corner of secs. 25, 26, 35 and 36.

Land, rolling desert; SW. exposure.  
 Soil, coarse sandy clay; 2nd rate.  
 Undergrowth, scattered shadscale, mountain rush,  
 yellowtop and kerosene brush; scattered growth of  
 grass.  
 No timber.  
 Good winter grazing land.

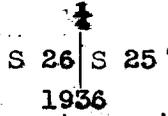
N.0° 02'W. between sections 25 and 26.

Over gently rolling desert, through medium dense under-  
 growth.

SUBDIVISION OF T 15 S., R. 12 W.

Chains

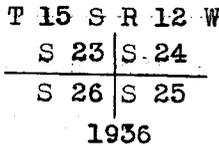
40.00 Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, for  $\frac{1}{4}$  sec. corner, with brass cap marked



raise a mound of stone, 3 ft. base, 3 ft. high, W. of corner.

56.70 Road, bears N.80°E and W.

80.00 Set an iron post, 3 ft. long, 2 ins. diam., 30 ins. in the ground, for corner of secs. 23, 24, 25 and 26, with brass cap marked



raise a mound of stone, 3 ft. base, 3 ft. high, W. of corner.

Land, rolling desert; SW. exposure.  
Soil, coarse sandy clay; 2nd rate.  
Undergrowth, shadscale, mountain rush, yellowtop, and kerosene brush.  
No timber.  
Good winter grazing land.

S.89° 59'E. on random line between sections 24 and 25.

40.00 Set temporary  $\frac{1}{4}$  sec. corner.

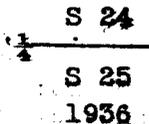
80.00 Intersect the E. boundary of the township, 4 links N. of the corner of secs. 19, 24, 25 and 30, as described in the field notes of T. 15 S., R. 11 W.

Thence

N.89° 57'W. on true line, between sections 24 and 25.

Over gently rolling desert, through medium dense undergrowth.

40.00 Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, for  $\frac{1}{4}$  sec. corner, with brass cap marked



raise a mound of stone, 2 $\frac{1}{2}$  ft. base, 2 $\frac{1}{2}$  ft. high, N. of corner.

From this corner the original  $\frac{1}{4}$  sec. corner between secs. 24 and 19, which is a volcanic stone, 12x10x8 ins., marked  $\frac{1}{4}$  on one face, bears N.23° 39'E., 24.65 chains distant, and the original corner of secs. 19, 24, 25 and 30, which is a volcanic stone, 12x10x10 ins., marked  $\frac{1}{4}$  notches on N., and 2 notches on S. edges, bears S.30° 17'E. 20.56 chains distant; I deposit these corner monuments alongside the iron post, and destroy all evi-

**Chains**

80.00 The corner of secs. 23, 24, 25 and 26.  
 Land, gently rolling desert; SW. exposure and drainage.  
 Soil, coarse sandy clay; 2nd rate.  
 Undergrowth, shadscale, mountain rush, yellowtop and  
 kerosene brush; scattered growth of grass.  
 No timber.  
 Good winter grazing land.

N.0° 02'W. between sections 23 and 24.

Over gently rolling desert, through medium dense under-  
 growth.

12.60 Wash, 50 links wide, 4 ft. deep, drains S.70°W.

40.00 Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in  
 the ground, for  $\frac{1}{4}$  sec. corner, with brass cap marked

$\frac{1}{4}$   
 S 23 | S 24  
 1936

raise a mound

of stone, 3 ft. base, 3 ft. high, W. of corner.

62.70 Wash, 10 links wide, 1 ft. deep; drains S.70°W.

75.30 Wash, 30 links wide, 8 ft. deep, drains S.70°W.

80.00 Set an iron post, 3 ft. long, 2 ins. diam., 30 ins. in  
 the ground, for corner of secs. 13, 14, 23 and 24,  
 with brass cap marked

T 15 S R 12 W  
 S 14 | S 13  
 S 23 | S 24  
 1936

raise a mound

of stone, 3 ft. base, 3 ft. high, W. of corner.

Land, gently rolling desert; general SW. exposure  
 and drainage.

Soil, coarse sandy clay; 2nd rate.  
 Undergrowth, medium dense shadscale, mountain rush,  
 yellowtop and kerosene brush; scattering growth of  
 grass.

No timber.  
 Good winter grazing land.

S.89°57'E. on random line, between secs. 13 and 24.

40.00 Set temporary  $\frac{1}{4}$  sec. corner.

80.00 Intersect the E. boundary of the township, 3 links S.  
 of the corner of secs. 13, 18, 19 and 24, as described  
 in the field notes of T. 15 S., R. 11 W.

Thence

N.89°58'W. on true line between sections 13 and 24.

SUBDIVISION OF TOWNSHIP 15 SOUTH, RANGE 12 WEST

Chains

Over rolling desert, through medium dense undergrowth.

- 7.40 Wash, 12 links wide, 1 ft. deep; drains S.60°W.
- 16.60 Wash, 10 links wide, 3 ft. deep; drains S.50°W.
- 40.00 Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, for  $\frac{1}{4}$  sec. corner, with brass cap marked

$\frac{1}{4}$  S 13  


---

S 24  
1936

raise a mound

of stone, 3 ft. base, 3 ft. high, N. of corner.

From this corner the original  $\frac{1}{4}$  sec. corner of secs. 13 and 18, which is a volcanic stone, 16x12x8 ins. marked  $\frac{1}{4}$  on W. face, and witnessed by a small mound of stone W. of corner, bears N.21° 02'E. 24.93 chains distant, and the original corner of secs. 13, 18, 19, and 24, which is a volcanic stone, 12x6x5 ins., marked 3 notches on N. and S. edges, and witnessed by a small mound of stone W. of corner, bears S.29° 18'E. 19.54 chains distant. I destroy all evidence of these corners.

- 65.70 Wash 8 links wide, 1 ft. deep, drains S.70°W.
- 75.50 Wash, 30 links wide, 1 ft. deep, drains S.50°W.
- 80.00 The corner of secs. 13, 14, 23 and 24.

Land, rolling desert; general SW. exposure and drainage. Soil, coarse sandy clay; 2nd rate. Undergrowth, medium dense shade scale, mountain rush, kerosene brush and yellowtop; scattering growth of grass. No timber. Good winter grazing land.

N.0° 02'W. between sections 13 and 14.

Over gently rolling desert, through medium dense undergrowth.

- 38.80 Road, bears S.50°W. to Swasey Spring, and N.50°E. to Joy, Utah.
- 40.00 Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, for  $\frac{1}{4}$  sec. corner, with brass cap marked,

$\frac{1}{4}$   
S 14 | S 13  
1936

raise a mound

of stone, 3 ft. base, 3 ft. high, W. of corner.

- 41.70 Wash, 50 links wide, 4 ft. deep, drains S.60°W.
- 58.90 Wash, 12 links wide, 4 ft. deep, drains S.60°W.
- 75.50 Old road, bears N.50°E. and S.50°W.
- 80.00 Set an iron post, 3 ft. long, 2 ins. diam., 30 ins. in

SUBDIVISION OF TOWNSHIP 15 SOUTH, RANGE 12 WEST.

Chains

the ground, for corner of secs. 11, 12, 13 and 14, with brass cap marked

T 15 S R 12 W	
S 11	S 12
S 14	S 13
1936	

raise a mound of stone, 3 ft. base, 3 ft. high, W. of corner.

Land, gently rolling desert; general SW. exposure and drainage.

Soil, coarse sandy clay; 2nd rate.

Undergrowth, medium dense shadscale, mountain rush, yellowtop, and kerosene brush; scattering growth of grass.

No timber.

Good winter grazing land.

S. 89° 58' E. on random line between sections 12 and 13.

40.00 Set temporary  $\frac{1}{4}$  sec. corner.

80.00 Intersect the corner of secs. 7, 12, 13 and 18 as described in the field notes of T. 15 S., R. 11 W.

Thence

N. 89° 58' W. on true line between secs. 12 and 13.

Over rolling desert, through medium dense undergrowth.

40.00 Set an iron post, 3 ft. long, 1" diam., 30 ins. in the ground, for  $\frac{1}{4}$  sec. corner, with brass cap marked

S 12
$\frac{1}{4}$ —————
S 13
1936

raise a mound

of stone, 3 ft. base, 3 ft. high, N. of corner.

From this corner the original  $\frac{1}{4}$  sec. corner sections 7 and 12, which is a volcanic stone, 8x2x1 ins., marked  $\frac{1}{4}$  on W. face, bears N. 18° 46' E. 25.18 chains distant. I destroy all evidence of this corner.

The original corner of secs. 7, 12, 13 and 18, which is a volcanic stone, 10x10x6 ins., marked 4 notches on S. and 2 notches on N. edges, witnessed by a small mound of stone E. of corner, bears S. 27° 10' E., 18.50 chains distant. I deposit this corner monument alongside of the iron post, and destroy all evidence of the old corner.

51.80 Road, bears S. 40° W. to Swasey Spring, and N. 40° E. to Joy, Utah.

71.40 Wash, 15 links wide, 2 ft. deep; drains S. 70° W.

75.90 Old road, bears N. 50° E. and S. 50° W.

80.00 The corner of sections 11, 12, 13 and 14.

SUBDIVISION OF TOWNSHIP 15 SOUTH, RANGE 12 W.

Chains

Land, rolling desert, general SW. exposure and drainage.  
 Soil, coarse sandy clay; 2nd rate.  
 Undergrowth, medium dense shadscale, mountain rush,  
 yellowtop and kerosene brush; scattering growth of  
 grass.  
 No timber.  
 Good winter grazing land.

N.0° 02'W. between sections 11 and 12.

Over gently rolling desert, through medium dense under-  
 growth.

30.40 Wash, 8 links wide, 1 ft. deep; drains SW.

40.00 Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in  
 the ground, for  $\frac{1}{4}$  sec. corner, with brass cap marked

$\frac{1}{4}$   
 S 11 | S 12  
 1936

raise a mound

of stone, 3 ft. base, 3 ft. high, W. of corner.

64.70 Wash, 8 links wide, 1 ft. deep; drains W.

80.00 Set an iron post, 3 ft. long, 2 ins. diam., 30 ins. in  
 the ground, for corner of secs. 1, 2, 11, and 12, with  
 brass cap marked

T 15 S R 12 W  
 S 2 | S 1  
 S 11 | S 12  
 1936

Raise a mound

of stone, 3 ft. base, 3 ft. high, W. of corner.

Land, rolling desert; general SW. exposure and drainage.  
 Soil, coarse sandy clay; 2nd rate.  
 Undergrowth, shadscale, kerosene brush, mountain rush,  
 and yellow top; scattering growth of grass.  
 No timber.  
 Good winter grazing land.

S.89° 58'E. on random line between sections 1 and 12.

40.00 Set temporary  $\frac{1}{4}$  sec. corner.

79.98 Intersect the E. boundary of the township, 5 links N.  
 of the corner of secs. 1, 6, 7, and 12, as described  
 in the field notes of T. 15 S., R. 11 W.

Thence N.89° 56'W. on true line between sections 10 and  
 12.

Over rolling desert, through medium dense undergrowth.

39.99 Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in  
 the ground, for  $\frac{1}{4}$  sec. corner, with brass cap marked

$\frac{1}{4}$   
 S 1  
 S 12  
 1936

SUBDIVISION OF TOWNSHIP 15 SOUTH, RANGE 12 WEST.

Chains

raise a mound  
of stone, 3 ft. base, 3 ft. high, N. of corner.

From this corner the original  $\frac{1}{4}$  section corner of secs. 1 and 6, which is a volcanic stone, 6x5x2 ins. marked  $\frac{1}{4}$  on one face, bears N.18° 33'E. 25.69 chains distant, and the original corner of secs. 1, 6, 7, and 12, which is a volcanic stone, 8x8x6 ins. marked 5 notches on S. and 1 notch on N. edges, bears S.26° 55'E. 17.90 chains distant. I deposit these corner monuments alongside of the iron post.

79.98 The corner of secs. 1, 2, 11 and 12.

Land, rolling desert; general SW. exposure and drainage. Soil, coarse sandy clay; 2nd rate. Undergrowth, medium dense shadscale, mountain rush, yellowtop, kerosene brush and Russian thistle; scattering growth of grass. No timber. Good winter grazing land.

N.0° 02'W. between sections 1 and 2, on random line.

40.00 Set temporary  $\frac{1}{4}$  sec. corner.

82.14 Intersect the N. boundary of the township, 7 links W. of the corner of secs. 1, 2, 35 and 36, heretofore described.

Thence

S.0° 01'W on true line between secs. 1 and 2.

Over rolling desert, through medium dense undergrowth.

16.90 Wash, 40 links wide, 2 ft. deep, drains N.70°W.

42.14 Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, for  $\frac{1}{4}$  sec. corner, with brass cap marked

$\frac{1}{4}$   
S 2 | S 1  
1936

raise a mound

of stone, 2 ft. base, 1 $\frac{1}{2}$  ft. high, W. of corner.

76.10 Wash, 30 links wide, 2 ft. deep, drains N.80°W.

82.14 The corner of secs. 1, 2, 11 and 12.

Land, rolling desert; general W. exposure and drainage. Soil, coarse sandy clay; 2nd rate. Undergrowth, medium dense shadscale, mountain rush, kerosene brush and white sage; scattering growth of grass. No timber. Good winter grazing land.

From the standard corner of sections 34 and 35 on the S. boundary of the township heretofore described.

N.0° 02'W. between sections 34 and 35.

Over heavy clay bottom land, surface cut by numerous

SUBDIVISION OF TOWNSHIP 15 SOUTH, RANGE 12 WEST

Chains

small washes, draining S.; through scattered salt weed, Russian thistle and shadscale.

40.00 Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, with a volcanic stone, 3x3x2 ins. marked X deposited at the base, for the  $\frac{1}{4}$  sec. corner, with brass cap marked

$\frac{1}{4}$   
 S 34 | S 35  
 1936

No other suitable accessories available.

60.10 Wash, 9 links wide, 2 ft. deep, drains S.30°E.

75.00 Leave heavy clay bottom land and washes, bears S.30°E. and N.30°W., thence over gently rolling desert, through dense undergrowth of shadscale, mountain rush, kerosene brush, yellowtop and grass.

80.00 Set an iron post, 3 ft. long, 2 ins. diam., 30 ins. in the ground, for corner of secs. 26, 27, 34 and 35, with brass cap marked

T 15 S R 12 W  
 S 27 | S 26  
 ---  
 S 34 | S 35  
 1936

raise a mound.

of stone, 3 ft. base, 2 ft. high, W. of corner.

Land, nearly level; surface cut by small washes, and gently rolling.

Soil, heavy, coarse sandy clay; 2nd and 3rd rates. Undergrowth, scattered salt weed, Russian thistle, shadscale, mountain rush, kerosene brush and yellowtop; scattered growth of grass.

No timber.

Fair winter grazing land.

East on random line between sections 26 and 35.

40.00 Set temporary  $\frac{1}{4}$  sec. corner.

80.02 Intersect N. and S. line, 2 links N. of corner of secs. 25, 26, 35 and 36.

Thence

N.89°59'W. on true line between secs. 26 and 35.

Over gently rolling desert, through medium dense undergrowth.

40.01 Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, for  $\frac{1}{2}$  sec. corner, with brass cap marked

S 26  
 $\frac{1}{2}$   
 ---  
 S 35  
 1936

raise a mound

of stone, 3 ft. base,  $2\frac{1}{2}$  ft. high, N. of corner.

80.02 The corner of sections 26, 27, 34 and 35.

SUBDIVISION OF TOWNSHIP 15 SOUTH, RANGE 12 WEST

Chains

Land, gently rolling desert; SW. exposure.  
Soil, coarse sand on E. 60 chains, and sandy clay loam on W. 20 chains; 2nd rate.  
Undergrowth, shadscale, greasewood, yellowtop, kerosene brush, and mountain rush; scattering growth of grass.  
No timber.  
Good winter grazing land.

N.0°02'W. between sections 26 and 27.

40.00

Over gently rolling desert, through medium dense undergrowth.  
Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, for  $\frac{1}{4}$  sec. corner, with brass cap marked

S27  $\frac{1}{4}$  S 26  
1936

raise a mound of stone, 3 ft. base, 2 ft. high, W. of corner.

48.00

Old road, bears E. and W.

80.00

Set an iron post, 3 ft. long, 2 ins. diam., 30 ins. in the ground, for corner of sections 22, 23, 36 and 27, with brass cap marked

T13S R12W  
S22 S23  
S27 S26  
1936

raise a mound of stone, 3 ft. base, 2 ft. high, W. of corner.

From this corner a U. S. Geological Survey bench mark, bears N.26°59'E. 31.19 chains distant, which is an iron post, 3 ins. diam., extending 14 ins. above ground, firmly set, with brass cap marked.

Above Sea  
Datum  
1908  
8M

The NE. end of earth dam 30 lks. wide and 5 ft. high, bears S.44°57'W.; from the NE. end the dam bears S.15°34'W. 2.91 chains; thence S.42°11'W. 12.45 chains, across a wash draining SE.

Land, gently rolling desert; SW. exposure and drainage.  
Soil, sandy clay loam on S. 30 chains; coarse sandy clay, with scattered volcanic surface rock on N. 50 chains; 2nd rate.  
Undergrowth, medium dense shadscale, kerosene brush, mountain rush and yellowtop; scattering growth of grass.  
No timber.  
Good winter grazing land.

S.89°59'E. on random line, between sections 23 and 26.

40.00

Set temporary  $\frac{1}{4}$  sec. corner.

80.06

Intersect the corner of sections 23, 24, 25 and 26.

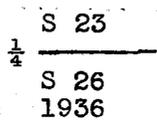
Thence

SUBDIVISION OF TOWNSHIP 15 SOUTH, RANGE 12 WEST

Chains

N.89°59'W. on true line between sections 23 and 26.  
Over gently rolling desert, through medium dense undergrowth

- 13.70 Wash, 20 links wide, 1 ft. deep, drains SW.
- 40.03 Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, for  $\frac{1}{4}$  sec. corner, with brass cap marked

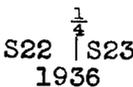


raise a mound of stone, 2 ft. base, 2 ft. high, N. of corner.

- 80.06 The corner of sections 22, 23, 26 and 27.  
Land, gently rolling desert; general SW. drainage.  
Soil, coarse sandy clay with scattered volcanic and limestone surface rock; 2nd rate.  
Undergrowth, medium dense shadscale, kerosene brush, mountain rush, and yellowtop; scattering growth of grass.  
No timber.  
Good winter grazing land.

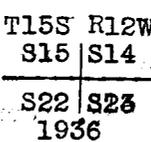
N.0°02'W. between sections 22 and 23.  
Over gently rolling desert; through medium dense undergrowth.

- 8.60 Road, bears S.40°W. to Swasey Spring, and N.40°E. to Joy, Utah.
- 24.20 Wash, 9 links wide, and 1 ft. deep, drains S.30°W.
- 40.00 Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, for  $\frac{1}{4}$  sec. corner, with brass cap marked



raise a mound of stone, 3 ft. base, 2 ft. high, W. of corner.

- Enter rolling desert; bears N.30°W. and S.30°E.
- 70.30 Wash, 9 links wide, 3 ft. deep, drains S.70°W.
- 74.50 Wash, 9 links wide, 2 ft. deep, drains S.60°W.
- 80.00 Set an iron post, 3 ft. long, 2 ins. diam., 30 ins. in the ground, for corner of secs. 14, 15, 22, and 23, with brass cap marked.



raise a mound of stone, 3 ft. base, 2 ft. high, W. of corner.

Chains	
40.00 80.06	<p>Land, S. half mile gently rolling desert; N. half mile rolling desert. Soil, coarse sandy clay, with patches of scattered volcanic and limestone surface rock; 2nd rate. Undergrowth, medium dense shadscale, kerosene brush, mountain rush and yellowtop; scattering growth of grass. No timber. Good winter grazing land.</p>
40.00 80.06 28.20 40.03	<p>S. 89° 59' E. on random line between secs. 14 and 23. Set temporary <math>\frac{1}{4}</math> section corner. Intersect the corner of sections 13, 14, 23 and 24. Thence N. 89° 59' W. on true line, between secs. 14 and 23. Over rolling desert, through medium dense undergrowth. Road, bears S. 40° W. and N. 40° E. to Joy, Utah. Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, for <math>\frac{1}{4}</math> sec. corner, with brass cap marked</p>
64.60 80.06	<p style="text-align: center;"> <math display="block">\begin{array}{r} S\ 14 \\ \frac{1}{4} \\ \hline S\ 23 \\ 1936 \end{array}</math> </p> <p style="text-align: right;">raise a mound</p> <p>of stone, 3 ft. base, 2<math>\frac{1}{2}</math> ft. high, W. of corner. Wash, 9 links wide, 1 ft. deep, drains S. 60° W. The corner of sections 14, 15, 22 and 23.</p>
21.40 40.00 80.00	<p>Land, rolling desert. Soil, coarse sandy clay, with patches of scattered volcanic and limestone surface rock; 2nd rate. Undergrowth, medium dense shadscale, kerosene brush, mountain rush and yellowtop; scattering growth of grass. No timber. Good winter grazing land.</p> <p>N. 0° 02' W. between sections 14 and 15. Over rolling desert, through medium dense undergrowth. Old road, bears N. 60° E. and S. 60° W. Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, for <math>\frac{1}{4}</math> section corner, with brass cap marked</p> <p style="text-align: center;"> <math display="block">\begin{array}{r} \frac{1}{4} \\ S\ 15\   \ S\ 14 \\ \hline 1936 \end{array}</math> </p> <p style="text-align: right;">raise a mound</p> <p>of stone, 3 ft. base, 2<math>\frac{1}{2}</math> ft. high, W. of corner. Set an iron post, 3 ft. long, 2 ins. diam., 30 ins.</p>

## SUBDIVISION OF TOWNSHIP 15 SOUTH, RANGE 12 WEST.

## Chains

in ground, for corner of secs. 10, 11, 14 and 15, with brass cap marked

T 15 S R 12 W

S 10	S 11
S 13	S 14

1936

raise a mound

of stone, 3 ft. base, 2 ft. high, W. of corner.

Land, rolling desert, general W. drainage.  
Soil, sandy clay with patches of scattered volcanic and limestone surface rock; 2nd rate.  
Undergrowth, medium dense shadscale, kerosene brush, bud sage, yellowtop, and mountain rush; scattering growth of grass.  
No timber.  
Good winter grazing land.

S. 89° 59' E. on random line between sections 11 and 14.

40.00 Set temporary  $\frac{1}{4}$  section corner.

80.06 Intersect the N. and S. line, 3 links S. of the corner of sections 11, 12, 13 and 14.

Thence

West on true line between sections 11 and 14.

Over rolling desert, through medium dense undergrowth.

40.03 Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, for  $\frac{1}{4}$  section corner, with brass cap marked

$\frac{1}{4}$	S 11
	S 14

1936

raise a mound

of stone, 3 ft. base, 2 ft. high, N. of corner.

80.06 The corner of sections 10, 11, 14 and 15.

Land, rolling desert; general westerly drainage.  
Soil, coarse sandy clay, with patches of scattered volcanic and limestone surface rock; 2nd rate.  
Undergrowth, shadscale, kerosene brush, bud sage, yellowtop, and mountain rush; scattering growth of grass.  
No timber.  
Good winter grazing land.

N. 0° 02' W. between sections 10 and 11.

Over rolling desert, through medium dense undergrowth.

40.00 Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, for  $\frac{1}{4}$  section corner, with brass cap marked

$\frac{1}{4}$	S 10	S 11
---------------	------	------

1936

## SUBDIVISION OF TOWNSHIP 15 SOUTH, RANGE 12 WEST.

## Chains

- raise a mound  
of stone, 3 ft. base, 2 ft. high, W. of corner.
- 80.00 Set an iron post, 3 ft. long, 2 ins. diam., 30 ins. in the ground, for corner of sections 2, 3, 10 and 11, with brass cap marked
- T 15 S R 12 W  
S 3 | S 2  
S 10 | S 11  
1936
- raise a mound
- of stone, 3½ ft. base, 2½ ft. high, W. of corner.
- Land, rolling desert; general westerly drainage.  
Soil, coarse sandy clay, with patches of volcanic and limestone surface rock; 2nd rate.  
Undergrowth, medium dense shadscale, kerosene brush, budsage, mountain rush, and yellowtop; scattering growth of grass.  
No timber.  
Good winter grazing land.
- 
- East, on random line, between sections 2 and 11.
- 40.00 Set temporary ¼ section corner.
- 80.06 Intersect the N. and S. line, 5 links north of the corner of sections 1, 2, 11, and 12.
- Thence
- N. 89° 58' W. on true line between sections 2 and 11.
- Over rolling desert, through medium dense undergrowth.
- 40.03 Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, for ¼ section corner, with brass cap marked
- S 2  
¼  
S 11  
1936
- raise a mound
- of stone, 3 ft. base, 2 ft. high, N. of corner.
- 73.60 Wash, 3 links wide, 3 ft. deep, drains NW.
- 80.06 The corner of sections 2, 3, 10 and 11.
- Land, rolling desert; W. exposure.  
Soil, coarse sandy clay, with patches of scattered volcanic and limestone surface rock; 2nd rate.  
Undergrowth, kerosene brush, bud sage, shadscale, yellowtop and mountain rush; scattered growth of grass. No timber.  
Good winter grazing land.
- 
- N. 0° 01' E. on a random line between sections 2 and 3.
- 40.00 Set temporary ¼ section corner.
- 82.10 Intersect the N. boundary of the township, 9 links

## SUBDIVISION OF TOWNSHIP 15 SOUTH, RANGE 12 WEST.

## Chains

E. of the corner of sections 2, 3, 34 and 35, heretofore described.

Thence

S. 3° 03' E. on a true line between sections 2 and 3.

Over rolling desert, through medium dense undergrowth.

42.10 Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, for  $\frac{1}{4}$  sec. corner, with brass cap marked

$\frac{1}{4}$   
S 3 | S 2  
1936

raise a mound

of stone, 3 ft. base, 3 ft. high, W. of corner.

75.40 Wash, 30 links wide, 1 in. deep, drains S. 70° W.

82.10 The corner of sections 2, 3, 10 and 11.

Land, rolling desert.

Soil, coarse sandy clay; 2nd rate.

Undergrowth, shadscale, kerosene brush, bud sage, yellowtop and mountain rush; scattering growth of grass.

No timber.

Good winter grazing land.

From the standard corner of sections 33 and 34 on the S. boundary of the township, heretofore described.

N. 0° 03' W. between sections 33 and 34.

Over rolling desert, through medium dense undergrowth.

5.00 Rim of wash, bears NE. and SW.; descend NW. slope.

15.30 Wash, 10 links wide, 2 ft. deep, 10 ft. below rim; drains NE.

20.60 Wash, 10 links wide, 2 ft. deep, drains S. 70° E.

40.00 Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, with a volcanic stone, 7x4x3 ins., marked X, deposited at the base, for  $\frac{1}{4}$  sec. corner, with brass cap marked

$\frac{1}{4}$   
S 33 | S 34  
1936

No other suitable accessories available.

56.60 Road, under construction, bears N. 80° E. to Joy, Utah, and S. 50° W. to Swasey Spring.

57.70 Wash, 15 links wide, 1 $\frac{1}{2}$  ft. deep; drains N. 50° E.

71.00 Enter heavy clay bottom land, cut by small washes, draining SE.; bears NW. and SE.

80.00 Set an iron post, 3 ft. long, 2 ins. diam., 30 ins. in the ground, with a volcanic rock, 4x4x2 ins. marked X, deposited at the base, for corner of sec. 27, 28, 35 and 34, with brass cap marked

SUBDIVISION OF TOWNSHIP 15 SOUTH, RANGE 12 WEST.

Chains

T 15 S R 12 W

S 28 | S 27 ✓

S 33 | S 34

1936

No other suitable accessories available.

Land, rolling desert; general NE. drainage.  
Soil, coarse sandy clay, and heavy clay; 2nd and 3rd rates.

Undergrowth, medium dense shadscale, yellowtop and keposee brush; scattered growth of grass.

No timber.

Good winter grazing land.

East on random line between sections 27 and 34.

40.00 Set temporary  $\frac{1}{4}$  section corner.

80.02 Intersect the corner of sections 26, 27, 34 and 35.

Thence

West on true line, between sections 27 and 34.

Over rolling desert, through scattered undergrowth.

4.50 Enter heavy clay bottom land, cut by small washes, draining SE., bears N.10°W. and S.40°E.

5.50 Wash, 15 links wide, 3 ft. deep, drains S.

40.01 Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, with a broken white bottle deposited at the base, for  $\frac{1}{4}$  section corner, with brass cap marked

S 27

$\frac{1}{4}$  ———

S 34

1936

No other suitable accessories available.

62.90 Old road between Swasey Spring and Joy, Utah, bears N.60°E. and S. 60°W.

63.00 Wash, 12 links wide, 2 ft. deep, drains N.60°E.

65.00 Road, under construction, bears N.50°E. to Joy, Utah, and S.50°W. to Swasey Spring.

80.02 The corner of sections 27, 28, 33 and 34.

Land, nearly level clay bottom.  
Soil, heavy sandy clay; 3rd rate  
Undergrowth, shadscale and Russian thistle.  
No timber.  
Fair winter grazing land.

N.0° 03'W. between sections 27 and 28.

Over heavy clay bottom land, through scattered undergrowth.

30.00 Old road, bears N.80°E. and S.80°W.

SUBDIVISION OF TOWNSHIP 15 SOUTH, RANGE 12 WEST.

Chains

40.00 Set an iron post, 3 ft. long, 1 ins. diam., 30 ins. in the ground, with a volcanic rock, 4x2 1/2 x 1 1/2 ins., marked X, deposited at the base, for 1/4 sec. corner, with brass cap marked

1/4  
S 28 | S 27  
1936

No other suitable accessories available.

80.00 Set an iron post, 3 ft. long, 2 ins. diam., 30 ins. in the ground, with a volcanic rock, 5x2 1/2 x 2 1/2 ins., marked X, deposited at the base, for corner of sections 21, 22, 27 and 28, with brass cap marked

T 15 S R 12 W  
S 21 | S 22    ✓  
S 28 | S 27  
1936

No other suitable accessories available.

From the corner the NE. end of an earth dyke, or dam, across wash, bears S.56° 05'E. (See notes of line between sections 26 and 27).

Land, heavy clay bottom, draining SE.  
Soil, heavy sandy clay; 3rd rate.  
Undergrowth, scattered shadscale and Russian thistle.  
No timber.  
Fair winter grazing land.

East on a random line between sections 22 and 27.

40.00 Set temporary 1/4 section corner.

80.02 Intersect the N. and S. line, 3 links S. of the corner of sections 22, 23, 26 and 27.

Thence

S.89° 59'W. on a true line between sections 22 and 27.

Over rolling desert, through medium dense shadscale, yellowtop, kerosene brush, Russian thistle and grass.

6.10 Road, bears NE. to Joy, Utah, and SW. to Swasey Spring.

12.60 Wash, 12 links wide, 1 ft. deep, drains S.40°W.

32.30 Wash, 12 links wide, 1 1/2 ft. deep, drains S.

40.01 Set an iron post, 3 ft. long, 1 in. diam.; 30 ins. in the ground, with a broken white pint bottle, deposited at the base, for 1/4 section corner, with brass cap marked

S 22

1/4 ——— /

S 27

1936

No other suitable accessories available.

57.50 Enter heavy clay bottom, cut by small washes, draining SE. bears S.50°E. and N.50°W. through scattered salt

**Chains**

58.00 Weeds and shadscale.

58.10 Wash, 8 links wide, 2 ft. deep, drains S.50°E.

60.02 The corner of sections 21, 22, 27 and 28.

Land, rolling desert on E. portion, with a general southerly drainage; heavy clay bottom on the W. portion; general SE. drainage.

Soil, coarse sandy clay, E. 58 chains; 2nd rate; heavy sandy clay on W. 22 chains; 3rd rate.

Undergrowth, medium dense shadscale, yellowtop, kerosene brush and Russian thistle; scattered growth of grass on the E. 58 chains; salt weeds and shadscale on the W. 22 chains.

No timber.

Good winter grazing land.

N.0° 03'W. between sections 21 and 22.

Over heavy clay bottom land, cut by numerous small washes, draining SE.; through scattered shadscale and Russian thistle.

40.00 Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, with a volcanic rock, 5x2½x2 ins., marked X, deposited at the base, for ¼ section corner, with brass cap marked.

¼  
S 21 | S 22  
1936

No other suitable accessories available.

65.00 Leave bottom land, bears N.30°W. and S.30°E.

Thence

Over rolling desert, through medium dense undergrowth of shadscale, mountain rush, yellowtop and kerosene brush.

67.10 Old road, bears E. and W.

80.00 Set an iron post, 3 ft. long, 2 ins. diam., 30 ins. in the ground, for corner of sections 15, 16, 21 and 22, with brass cap marked

T 15 S R 12 W  
S 16 | S 15  
S 21 | S 22  
1936

raise a mound

of stone, 2½ ft. base, 2½ ft. high, W. of corner.

Land, heavy clay bottom land on S.65 chains, rolling desert land on N. 15 chains; general southeasterly drainage.

Soil, heavy sandy clay, on south 65 chains; 3rd rate; coarse sandy clay on N. 15 chains; 2nd rate.

Undergrowth, scattered shadscale and Russian thistle on S. 65 chains; medium dense kerosene brush, shadscale, mountain rush and yellowtop on N.15 chains; scattered growth of grass. No timber.

Fair winter grazing land.

SUBDIVISION OF TOWNSHIP 15 SOUTH, RANGE 12 WEST

Chains

N. 89° 59' E. on random line between sections 15 and 22.

40.00 Set temporary  $\frac{1}{4}$  section corner.

80.06 Intersect N. and S. line, 4 links S. of the corner of sections 14, 15, 22 and 23.

Thence

S. 89° 57' W. on true line between sections 15 and 22.

Over rolling desert, through medium dense undergrowth.

28.70 Old road, bears N. 70° E. and S. 60° W.

40.03 Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, for  $\frac{1}{4}$  section corner, with brass cap marked

S 15

$\frac{1}{4}$  ———

S 22

1936

raise a mound

of stone, 2 $\frac{1}{2}$  ft. base, 2 ft. high, N. of corner.

80.06 The corner of sections 15, 16, 21 and 22.

Land, rolling desert; general SW. drainage.  
Soil, coarse sandy clay; 2nd rate  
Undergrowth, medium dense shadscale, mountain rush, kerosene brush, yellowtop, sagebrush and white sage; scattered growth of grass.  
No timber.  
Good winter grazing land.

N. 0° 03' W. between sections 15 and 16.

Over rolling desert, through medium dense undergrowth.

40.00 Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, for  $\frac{1}{4}$  section corner, with brass cap marked

$\frac{1}{4}$

S 16 | S 15

1936

raise a mound

of stone, 2 $\frac{1}{2}$  ft. base, 2 $\frac{1}{2}$  ft. high, W. of corner.

80.00 Set an iron post, 3 ft. long, 2 ins. diam., 30 ins. in the ground, for corner of sections 9, 10, 15 and 16, with brass cap marked

T 15 S R 12 W

S 9 | S 10

S 16 | S 15

1936

raise a mound

of stone, 3 ft. base, 3 ft. high, W. of corner.

Land, rolling desert; general westerly drainage.

Soil, coarse sandy clay; 2nd rate.

**Chains**

Undergrowth, medium dense shadscale, mountain rush, white sage, kerosene brush; scattered growth of grass. No timber. Good winter grazing land.

N. 89° 57' E. on random line between sections 10 and 15.

40.00 Set temporary  $\frac{1}{4}$  section corner.

80.06 Intersect N. and S. line, 5 links S. of the corner of sections 10, 11, 14 and 15.

Thence

S. 89° 55' W. on a true line between sections 10 and 15.

Over rolling desert, through medium dense undergrowth.

40.03 Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, for  $\frac{1}{4}$  section corner with brass cap marked

$\frac{1}{4}$   $\frac{S\ 10}{S\ 15}$   
 1936

raise a mound

of stone, 2 $\frac{1}{2}$  ft. base, 2 $\frac{1}{2}$  ft. high, N. of corner.

42.40 Wash, 12 links wide, 1 $\frac{1}{2}$  ft. deep, drains N. 80° W.

80.06 The corner of sections 9, 10, 15 and 16.

Land, rolling desert; general westerly drainage. Soil, coarse sandy clay; 2nd rate. Undergrowth, medium dense shadscale, mountain rush, kerosene brush, white sage and yellowtop; scattered growth of grass. No timber. Good winter grazing land.

N. 0° 03' W. between sections 9 and 10.

Over rolling desert, through medium dense undergrowth.

8.10 Wash, 10 links wide, 1 $\frac{1}{2}$  ft. deep, drains N. 80° W.

40.00 Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, for  $\frac{1}{4}$  section corner, with brass cap marked

$\frac{1}{4}$   $\frac{S\ 9\ S\ 10}{1936}$

raise a mound

of stone, 2 $\frac{1}{2}$  ft. base, 2 $\frac{1}{2}$  ft. high, W. of corner.

80.00 Set an iron post, 3 ft. long, 2 ins. diam., 30 ins. in the ground, for corner of sections 3, 4, 9 and 10, with brass cap marked

T 15 S R 12 W  
 $\frac{S\ 4\ S\ 3}{S\ 9\ S\ 10}$   
 1936

SUBDIVISION OF TOWNSHIP 15 SOUTH, RANGE 12 WEST

Chains

raise a mound  
of stone, 2½ ft. base, 2½ ft. high, W. of corner.

Land, rolling desert; general westerly drainage.  
Soil, coarse sandy clay; 2nd rate.  
Undergrowth, medium dense shadscale, mountain rush,  
white sage, and kerosene brush; scattered growth of  
grass.  
No timber.  
Good winter grazing land.

N.89° 55'E. on random line, between sections 3 and 10.

40.00 Set temporary ¼ section corner.

80.08 Intersect the N. and S. line, 2 links N. of the corner  
of sections 2, 3, 10 and 11.

Thence

S.89° 56'W. on true line between sections 3 and 10.

Over rolling desert, through medium dense undergrowth.

26.10 Wash, 25 links wide, 1 ft. deep, drains S.65°W.

39.50 Recross wash, 8 links wide, 1½ ft. deep, drains N.70°W.

40.04 Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in  
the ground, for ¼ section corner, with brass cap marked

S 3  
¼ ———  
S 10  
1936

raise a mound

of stone, 2½ ft. base, 2½ ft. high, N. of corner.

49.20 Wash, 8 links wide, 1½ ft. deep, drains N.70°W.

80.08 The corner of sections 3, 4, 9 and 10.

Land, rolling desert; general westerly drainage.  
Soil, coarse sandy clay; 2nd rate.  
Undergrowth, medium dense, shadscale, kerosene brush,  
white sage, yellowtop and Russian thistle; scattered  
growth of grass.  
No timber.  
Good winter grazing land.

N.0° 03'W. on random line between sections 3 and 4.

40.00 Set temporary ¼ section corner.

82.18 Intersect the N. boundary of township, 10 links W. of  
the corner of sections 3, 4, 53 and 54, heretofore descr

Thence

S.0° 01'W. on true line between sections 3 and 4.

Over rolling desert, through medium dense undergrowth.

Descend S. slope.

SUBDIVISION OF TOWNSHIP 15 SOUTH, RANGE 12 WEST

Chains

- 5.10 Draw, 30 ft. below section corner; drains SE.
- 10.10 Spur, 20 ft. above draw, projects E. Descend.
- 14.50 Wash, 90 links wide, 4 ft. deep, 45 ft. below spur; drains S.70°W.
- 38.20 Wash, 12 links wide, 2 ft. deep, drains S.80°W.
- 42.18 Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, with a volcanic rock, 5x3x1 1/2 ins., marked X, deposited at the base, for the 1/4 section corner, with brass cap marked

1/4  
S 4 | S 3  
1936

No other suitable accessories available.

- 82.18 The corner of sections 3, 4, 9 and 10.  
Land, rolling; general SW. drainage.  
Soil, coarse, sandy clay; 2nd rate.  
Undergrowth, medium dense, shadeless, kerosene brush, bud sage; scattered growth of grass.  
No timber.  
Good winter grazing land.

From the standard corner of sections 32 and 33, on the S. boundary of the township heretofore described.

N.0° 04'W. between sections 32 and 33.

Over rolling desert, through medium dense undergrowth.

- 15.60 Wash, 9 links wide, 2 ft. deep, drains N.70°E.
- 27.40 Wash, 9 links wide, 3 ft. deep, drains E.
- 34.80 Wash, 12 links wide, 3 ft. deep, drains E.
- 40.00 Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, for 1/4 section corner, with brass cap marked

1/4  
S 32 | S 33  
1936

raise a mound

of stone, 2 ft. base, 2 ft. high, W. of corner.

- 66.60 Wash, 9 links wide, 2 ft. deep, drains NE.
- 80.00 Set an iron post, 3 ft. long, 2 ins. diam., 27 ins. in the ground, for corner of sections 28, 29, 32 and 33, with brass cap marked

T 15 S R 12 W  
S 29 | S 28  
S 32 | S 33  
1936

raise a mound

of stone, 3 ft. base, 2 1/2 ft. high, W. of corner.

Land, rolling desert; general easterly drainage.

SUBDIVISION OF TOWNSHIP 15 SOUTH, RANGE 12 WEST.

Chains	
	<p>Soil, coarse sandy clay; 2nd rate. Undergrowth, medium dense, shadscale, kerosene brush, bud sage, white sage, yellowtop; scattered growth of grass. No timber. Good winter grazing land.</p>
	<p>East on random line between sections 28 and 33.</p>
40.00	Set temporary $\frac{1}{4}$ section corner.
79.96	Intersect the N. and S. line, 5 links N. of the corner of sections 27, 28, 33 and 34.
	Thence
	N.89° 58'W. on true line between sections 28 and 33.
	Over heavy clay bottom land, cut by small washes, draining SE.; through scattering shadscale and Russian thistle.
8.00	Leave heavy clay bottom land, bears N. and SE., thence over rolling desert; through medium dense shadscale, kerosene brush, bud sage, white sage, yellowtop and grass.
39.98	Set an iron post, 5 ft. long, 1 in. diam., 30 ins. in the ground, for $\frac{1}{4}$ section corner, with brass cap marked
	<p>S 28  <math>\frac{1}{4}</math> ——— /  S 33  1936</p>
	raise a mound
	of stone, 3 ft. base, 2 ft. high, N. of corner.
41.30	Wash, 9 links wide, 2 ft. deep, drains N.60°E. from the W., thence along wash.
42.70	Leave wash, drains E. from SW.
48.10	Wash, 9 links wide, 1 ft. deep, drains N.60°E.
66.90	Wash, 9 links wide, 2 ft. deep, drains N.60°E.
79.96	The corner of sections 28, 29, 32 and 33.
	Land, rolling desert; general NE. drainage. Soil, coarse sandy clay; 2nd rate. Undergrowth, medium dense shadscale, kerosene brush, bud sage, white sage, yellowtop and Russian thistle; scattering growth of grass. No timber. Good winter grazing land.
	N.0° 04'W. between sections 28 and 29.
	Over rolling desert, through medium dense undergrowth.
1.50	Wash, 15 links wide, 3 ft. deep, drains S.80°E., approximately 14 chains, thence NE.
14.40	Old road, bears E. and W.

## SUBDIVISION OF TOWNSHIP 15 SOUTH, RANGE 12 WEST.

## Chains

- 40.00 Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, for  $\frac{1}{4}$  section corner, with brass cap marked
- $\frac{1}{4}$   
 S 29 | S 28  
 1936
- raise a mound of stone, 3 ft. base, 2 ft. high, W. of corner.
- 47.80 Wash, 9 links wide, 2 ft. deep, drains E.
- 65.20 Wash, 6 links wide, 4 ft. deep, drains E.
- 80.00 Set an iron post, 3 ft. long, 2 ins. diam., 30 ins. in the ground, for corner of sections 20, 21, 28 and 29, with brass cap marked
- T 15 S R 12 W  
 S 20 | S 21  
 S 29 | S 28  
 1936
- raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$  ft. high, W. of corner.
- Land, rolling desert; general E. drainage.  
 Soil, coarse sandy clay; 2nd rate.  
 Undergrowth, medium dense shadscale, kerosene brush, bud sage, white sage and yellowtop; scattered growth of grass.  
 No timber.  
 Good winter grazing land.
- 
- S.89° 58'E. on random line between sections 21 and 28.
- 40.00 Set temporary  $\frac{1}{4}$  section corner.
- 79.92 Intersect the corner of sections 21, 22, 27 and 28:
- Thence
- N.89° 58'W. on true line between sections 21 and 28.
- Over heavy clay bottom land, broken by numerous small washes, draining SE., through scattered shadscale and salt weeds.
- 10.00 Leave bottom land, bears N.30°W. and 30°E., thence over rolling desert, through medium dense undergrowth of shadscale, kerosene brush, bud sage, mountain rush, white sage and yellowtop:
- 39.96 Set an iron post, 3 ft. long, 1 in. diam.; 30 ins. in the ground; for  $\frac{1}{4}$  section corner, with brass cap marked
- S 21 /  
 $\frac{1}{4}$  ———  
 S 28  
 1936
- raise a mound of stone, 2 ft. base, 2 ft. high, N. of corner.
- 46.90 Wash, 9 links wide, 2 ft. deep, drains N.60°E.
- 79.92 The corner of sections 20, 21, 28 and 29.

SUBDIVISION OF TOWNSHIP 15 SOUTH, RANGE 13 WEST.

Chains

chains

Land, heavy clay bottom. Land E. 10 chains, surface broken by numerous small washes; rolling desert E. 70 chains; general NE. drainage.

Soil, heavy sandy clay E. 10 chains; 2nd rate; coarse sandy clay W. 70 chains; 2nd rate.

Undergrowth, medium dense, shadscale, kerosene brush, bud sage, mountain rush, white sage, salt weed and yellowtop; scattering growth of grass.

No timber.

Good winter grazing land.

N.0° 04'W. between sections 20 and 21.

Over rolling desert, through medium dense undergrowth,

11.80 Wash, 9 links wide, 2 ft. deep, drains N.70°E.

29.00 Old road, bears N.70°E. and S.70°W.

40.00 Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, for 1/4 section corner, with brass cap marked



raise a mound

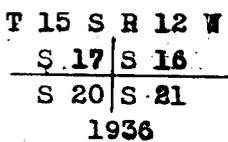
of stone, 2 ft. base, 1 1/2 ft. high, W. of corner.

50.50 Wash, 9 links wide, 3 ft. deep, drains N.70°E.

54.40 Old road, bears NW. and SE.

79.20 Wash, 12 links wide, 3 ft. deep, drains N.80°E.

80.00 Set an iron post, 3 ft. long, 2 ins. diam., 30 ins. in the ground, for corner of sections 16, 17, 20 and 21, with brass cap marked



raise a mound

of stone, 2 ft. base, 1 1/2 ft. high, W. of corner.

Land, rolling desert; general NE. drainage.  
 Soil; coarse sandy clay; 2nd rate.  
 Undergrowth, shadscale, kerosene brush, bud sage, white sage and yellowtop; scattered growth of grass.  
 No timber.  
 Good winter grazing land.

S.89° 58'E. on random line between sections 16 and 21.

40.00 Set temporary 1/4 section corner.

79.92 Intersect N. and S. line, 5 links N. of the corner of sections 15, 16, 20 and 21.

## SUBDIVISION OF TOWNSHIP 15 SOUTH, RANGE 12 WEST

## Chains

Thence

N. 89° 56' W. on true line between sections 16 and 21.

Over rolling desert, through medium dense shadscale, kerosene brush, bud sage, yellowtop and grass.

10.00 Enter heavy clay bottom land, bears N. 30° W. and S. 30° E. cut by numerous small washes, drains SE., thence through scattered shadscale and salt weeds.

39.96 Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, with a volcanic rock, 6x6x4 ins. marked X, deposited at the base, for  $\frac{1}{4}$  section corner, with brass cap marked
$$\begin{array}{r} \frac{1}{4} \text{ S } 16 \\ \hline \text{S } 21 \\ 1936 \end{array}$$

No other suitable accessories available.

55.00 Leave bottom land, bears N. 30° W. and S. 30° E., thence over rolling desert, through medium dense undergrowth of shadscale, kerosene brush, bud sage, yellow top and grass.

61.40 Wash, 9 links wide, 1 ft. deep, drains N. 60° E.

74.70 Wash, 9 links wide, 2 ft. deep, drains N. 70° E.

79.92 The corner of sections 16, 17, 20 and 21.

Land, rolling desert on E. 10 chains, and on W. 25 chains; heavy clay bottom land the remainder of mile; general SE. drainage.

Soil, coarse sandy clay E. 10 chains, and W. 25 chains; 2nd rate; heavy sandy clay remainder of mile; 3rd rate. Undergrowth, shadscale, kerosene brush, bud sage, yellowtop on E. 10 chains, and W. 25 chains; shadscale and salt weeds on remainder of mile; scattered growth of grass.

No timber.

Good winter grazing land.

N. 0° 04' W. between sections 16 and 17.

Over rolling desert, through medium dense undergrowth; ascend gradual slope.

20.00 Low wide spur, 20 ft. above sec. corner, projects E.; descend gradual N. slope.

27.00 Base of spur, 25 ft. below top, bears E. and W., thence over rolling desert.

40.00 Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, with a limestone, 4x4x4 ins., marked X, deposited at the base, for the  $\frac{1}{4}$  section corner, with brass cap marked
$$\begin{array}{r} \frac{1}{4} \\ \text{S } 17 \quad \text{S } 16 \\ 1936 \end{array}$$

No other suitable accessories available.

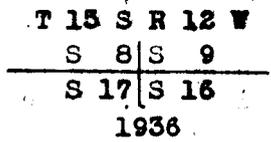
57.30 Wash, 9 links wide, 1 ft. deep, drains N. 60° E.

SUBDIVISION OF TOWNSHIP 15 SOUTH, RANGE 12 WEST.

Chains

80.00

Set an iron post, 3 ft. long, 2 ins. diam., 30 ins. in the ground, for corner of sections 8, 9, 16 and 17, with brass cap marked



raise a mound

of stone, 2 ft. base, 1 1/2 ft. high, W. of corner.

Land, rolling desert; general NE. drainage.  
Soil, coarse sandy clay; 2nd rate.  
Underground, kerosene brush, shadscale, bud sage, and yellowtop; scattering growth of grass.  
No timber.  
Good winter grazing land.

40.00

S. 89° 56' E. on random line between sections 9 and 16.  
Set temporary 1/4 section corner.

79.90

Intersect the corner of sections 9, 10, 15 and 16.

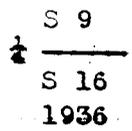
79.90

~~N. 89° 56' W. on true line between sections 9 and 16.~~

Over rolling desert, through medium dense shadscale, kerosene brush, bud sage, yellowtop, mountain rush and grass.

39.95

Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, with a volcanic rock, 6x4x4 ins., marked X, deposited at the base, for 1/4 section corner, with brass cap marked



No other suitable accessories available.

44.00

Enter bottom land, bears N. 15° W. and S. 15° E., thence through scattered shadscale and salt weeds.

46.10

Wash, 12 links wide, 6 ft. deep, in bottom of valley, drains N. 20° W.

50.00

Leave bottom land, bears N. 20° W., and S. 20° E., thence over rolling desert, through medium dense undergrowth.

79.90

The corner of sections 8, 9, 16 and 17.

Land, rolling desert; general N. drainage.  
Soil, coarse sandy clay; 2nd rate.  
Undergrowth, medium dense shadscale, kerosene brush, budsage, mountain rush, white sage, yellowtop and salt weeds; scattering growth of grass.  
No timber.  
Good winter grazing land.

SUBDIVISION OF TOWNSHIP 15 SOUTH, RANGE 12 WEST

Chains

N.0°04'W, between sections 8 and 9.

Over rolling desert, through medium dense undergrowth.

40.00 Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, for  $\frac{1}{4}$  section corner, with brass cap marked

$\frac{1}{4}$   
S8 | S9  
1936

raise a mound of stone, 2 ft. base,  $1\frac{1}{2}$  ft. high, W. of corner.

51.10 Wash, 9 links wide, 2 ft. deep, drains E.

80.00 Set an iron post, 3 ft. long, 2 ins. diam., 30 ins. in the ground, for corner of sections 4, 5, 8, and 9, with brass cap marked.

T15S R12W /  
S5 | S4  
-----  
S8 | S9  
1936

raise a mound of stone, 2 ft. base,  $1\frac{1}{2}$  ft. high, W. of corner.

Land, rolling desert; general NE. drainage.

Soil, coarse sandy clay; 2nd rate.

Undergrowth, shadscale, kerosene brush, bud sage, white sage, and yellowtop; scattered growth of grass.

No timber.

Good winter grazing land.

S.89°56'E. on random line between sections 4 and 9.

40.00 Set temporary  $\frac{1}{4}$  section corner.

79.88 Intersect the N. and E. line, 9 links N. of the corner of sections 3, 4, 9, and 10.

Thence

N.89°52'W. on true line between sections 4 and 9.

Over rolling desert, through medium dense undergrowth.

39.94 Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, with a volcanic rock, 6x6x3 ins., marked N., deposited at the base, for  $\frac{1}{4}$  section corner, with brass cap marked

$\frac{1}{4}$  S 4 /  
-----  
S 9  
1936

No other suitable accessories available.

61.70 Wash, 17 links wide, and 6 ft. deep, drains N.30°W.

79.88 The corner of sections 4, 5, 8, and 9.

Land, rolling desert; general NW. drainage.

Soil, coarse sandy clay; 2nd rate.

## SUBDIVISION OF TOWNSHIP 15 SOUTH, RANGE 12 WEST.

Chains

Undergrowth, medium dense, shadscale, kerosene brush, bud sage, mountain rush and white sage; scattered growth of grass.

No timber.

Good winter grazing land.

N.0°01'E. on random line between sections 4 and 5.

40.00 Set temporary  $\frac{1}{4}$  section corner.

82.06 Intersect the N. boundary of the township, 21 links E. of the corner of sections 4, 5, 32 and 33, heretofore described.

Thence

S.0°08'E. on true line between sections 4 and 5.

Over rolling desert, through medium dense undergrowth.

24.00 Wash, 80 links wide, 3 ft. deep, drains W.

31.40 Old road, bears E. and W.

42.06 Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, for  $\frac{1}{4}$  section corner, with brass cap marked

$\frac{1}{4}$   
S5 | S4  
1936

raise a mound

of stone, 2 ft. base, 2 ft. high, W. of corner.

58.20 Wash, 30 links wide, 8 ft. deep, in bottom of valley, drains N.30°W.

82.06 The corner of sections 4, 5, 8, and 9.

Land, rolling desert; general NW. drainage.

Soil, coarse sandy clay; 2nd rate.

Undergrowth, medium dense, shadscale, kerosene brush, bud sage, white sage, and yellowtop; scattered growth of grass.

No timber.

Good winter grazing land.

From the standard corner of sections 31 and 32, on the S. boundary of the township heretofore described.

N.0°04'W. between sections 31 and 32.

Over rolling desert, through medium dense shadscale.

8.30 Wash, 22 links wide, 3 ft. deep, drains N.70°E.

14.40 Wash, 90 links wide,  $3\frac{1}{2}$  ft. deep, drains N.70°E.

34.00 Wash, 8 links wide, 2 ft. deep, drains N.60°E.

40.00 Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, for  $\frac{1}{4}$  section corner, with brass cap marked.

$\frac{1}{4}$   
S31 | S32  
1936

SUBDIVISION OF TOWNSHIP 15 SOUTH, RANGE 12 WEST.

Chains

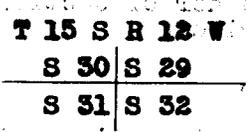
raise a mound of stone, 2 1/2 ft. base, 1 1/2 ft. high, W. of cor.

50.00 Wash, 16 links, wide, 3 ft. deep, drains E.

55.50 Old road, bears N.70°E. and SW.

77.80 Wash, 10 links wide, 4 ft. deep, drains E.

80.00 Set an iron post, 3 ft. long, 2 ins. diam., 30 ins. in the ground, for corner of secs. 29, 30, 31 and 32, with brass cap marked



1936

raise a mound of stone, 2 1/2 ft. base, 2 1/2 ft. high, W. of corner.

Land, rolling desert, general easterly drainage.

Soil, coarse sandy clay; 2nd rate.

Undergrowth, medium dense shadeless, bud sage, yellowtop, and white sage; scattered growth of grass.

No timber.

Good winter grazing land.

East on random line between sections 29 and 32.

40.00 Set temporary 1/4 section corner.

80.00 Intersect the corner of sections 28, 29, 32 and 33.

Thence

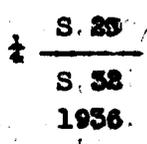
West on true line, between sections 29 and 32.

Over rolling desert, through medium dense undergrowth.

21.90 Wash, 15 links wide, 5 ft. deep, drains N.60°E.

36.90 Old road, bears N.70°E. and S.70°W.

40.00 Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, for 1/4 section corner, with brass cap marked



1936

raise a mound of stone, 2 1/2 ft. base, 2 1/2 ft. high, N. of corner.

71.10 Wash, 18 links wide, 3 ft. deep, drains N.70°E.

80.00 The corner of sections 29, 30, 31 and 32.

Land, rolling desert, general easterly drainage.

Soil, coarse sandy clay; 2nd rate.

SUBDIVISION OF TOWNSHIP 15 SOUTH, RANGE 12 WEST.

Chains	<p>Undergrowth, medium dense shadscale, kerosene brush, yellowtop, bud sage, white sage; scattered growth of grass.          No timber.          Good winter grazing land.</p>
	<p>West on random line between sections 30 and 31.</p>
40.00	<p>Set temporary <math>\frac{1}{4}</math> section corner.</p>
79.90	<p>Intersect the west boundary of the township, 3 links S. of the corner of sections 25, 30, 31 and 36, heretofore described.</p>
	<p>Thence          S. 89° 59' E. on true line between sections 30 and 31.</p>
12.80	<p>Over rolling desert, through medium dense undergrowth. Desc. from spur, projecting E.          Wash, 15 links wide, 6 ft. deep, drains N. 80° E.</p>
14.90	<p>Same wash, 15 links wide, 3 ft. deep, drains S. 80° E.</p>
19.50	<p>Same wash, 10 links wide, 1 ft. deep, drains N. 80° E.</p>
35.20	<p>Same wash, 10 links wide, 1 <math>\frac{1}{2}</math> ft. deep, drains S. 80° E.</p>
39.90	<p>Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, for <math>\frac{1}{4}</math> section corner, with brass cap marked</p>
	<p style="text-align: center;"> <math>\frac{1}{4}</math> <math>\frac{S \ 30}{S \ 31}</math>              1936           </p>
	<p style="text-align: right;">raise a mound</p>
	<p>of stone, 2 <math>\frac{1}{2}</math> ft. base, 2 <math>\frac{1}{2}</math> ft. high, N. of corner.</p>
79.90	<p>The corner of sections 29, 30, 31 and 32.</p>
	<p>Land, rolling desert; general easterly drainage. Soil, coarse sandy, clay; 2nd rate. Undergrowth, medium dense shadscale, kerosene brush, bud sage, yellowtop, white sage; scattered growth of grass.          No timber.          Good grazing land.</p>
	<p>N 0° 04' W. between sections 29 and 30.</p>
	<p>Over rolling desert, through medium dense undergrowth.</p>
24.70	<p>Wash, 10 links wide, 1 ft. deep, drains E.</p>
34.20	<p>Wash, 20 links wide, 4 ft. deep, drains E.</p>
36.30	<p>Wash, 30 links wide, 4 ft. deep, drains N. 70° E.</p>
37.30	<p>Wash, 30 links wide, 4 ft. deep, drains E. 1 chain to junction with wash at 38.30 chains.</p>
40.00	<p>Set an iron post, 3 ft. long, 1 inch diameter, 30 ins. in the ground, for <math>\frac{1}{4}</math> section corner, with brass cap marked</p>

SUBDIVISION OF TOWNSHIP 15 SOUTH, RANGE 12 WEST.

Chains

S 30 S 29  
1936

raise a mound  
of stone, 2½ ft. base, 2½ ft. high, W. of corner.

70.50 Wash 10 links wide, 3 ft. deep, drains N.80°E.

79.80 Old road, bears N.70°E. and S.80°W.

80.00 Set an iron post, 3 ft. long, 2 ins. diam., 30 ins. in the ground, for corner of sections 19, 20, 29 and 30, with brass cap marked

T 15	S R 12	W
S 19	S 20	
S 30	S 29	

1936.

raise a mound  
of stone, 2½ ft. base, 2½ ft. high, W. of corner.

Land, rolling desert; general easterly drainage.  
Soil, coarse sandy clay; 2nd rate.  
Undergrowth, medium dense shadscale, bud sage, kerosene brush, yellowtop and white sage; scattered growth of grass.  
No timber.  
Good winter grazing land.

East on a random line between sections 20 and 29.

40.00 Set temporary ¼ section corner.

80.02 Intersect the N. and S. line, 6 links S. of the corner of sections 20, 21, 28 and 29.

Thence

S.89° 57'W. on true line between sections 20 and 29.  
Over rolling desert, through medium dense undergrowth.

40.81 Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, for ¼ section corner, with brass cap marked

S 20
¼
S 29

1936

raise a mound

of stone, 2½ ft. base, 2½ ft. high, N. of corner.

44.00 Wash, 12 links wide, 1½ ft. deep, drains N.70°E.

79.30 Road, bears N.70°E. and S.70°W.

80.02 The corner of sections 19, 20, 29 and 30.

Land, rolling desert; general easterly drainage.  
Soil, coarse sandy clay; 2nd rate  
Undergrowth, medium dense, shadscale, kerosene brush, yellowtop, bud sage, white sage, and Russian thistle.  
No timber.  
Good winter grazing land.

SUBDIVISION OF TOWNSHIP 15 SOUTH, RANGE 12 WEST.

Chains

N.89° 59'W. on random line between sections 19 and 30.

40.00 Set temporary 1/2 section corner.

79.80 Intersect the W. boundary of the township, 5 links S. of the corner of sections 19, 24, 25 and 30, heretofore described.

Thence

S.89° 57'E. on true line between sections 19 and 30.

Over rolling desert, through medium dense undergrowth.

39.80 Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, for 1/2 section corner, with brass cap marked

1/2 S 19 /  
S 30  
1936

raise a mound

of stone, 2 ft. base, 1 1/2 ft. high, N. of corner.

59.10 Wash, 10 links wide, 3 ft. deep, drains N.80°E.

59.80 Wash, 8 links wide, 1 1/2 ft. deep, drains N.70°E.

63.50 Old road, bears N.80°E. and S.80°W.

79.80 The corner of sections 19, 20, 29 and 30.

Land, rolling desert; general easterly drainage.  
Soil, coarse sandy clay; 2nd rate.  
Undergrowth, medium dense, shadeless, bud sage, kerosene brush, white sage and yellowtop.  
No timber.  
Good winter grazing land.

N.0° 04'W. between sections 19 and 20.

Over rolling desert, through medium dense undergrowth.

8.80 Old road, bears N.80°E. and S.80°W.

15.50 Wash, 12 links wide, 4 ft. deep, drains N.80°E.

40.00 Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, for 1/2 section corner, with brass cap marked

1/2 S 19 | S 20 /  
1936

raise a mound

of stone, 2 ft. base, 1 1/2 ft. high, W. of corner.

68.10 Old road, bears E. and W.

80.00 Set an iron post, 3 ft. long, 2 ins. diam., 30 ins. in the ground, for corner of sections 17, 18, 19 and 20, with brass cap marked

T 15 S 18 12 W  
S 18 S 17  
S 19 S 20  
1936

SUBDIVISION OF TOWNSHIP 15 SOUTH, RANGE 12 WEST.

Chains

raise a mound

of stone, 2½ ft. base, 2½ ft. high, W. of corner.

Land, rolling desert.  
Soil, coarse sandy clay; 2nd rate.  
Undergrowth, medium dense shadscale, bud sage, kerosene brush, yellowtop and white sage.  
No timber.  
Good winter grazing land.

N. 89° 57' E. on random line between sections 17 and 20.

40.00 Set temporary ¼ section corner.

79.98 Intersect the corner of sections 16, 17, 20 and 21.

Thence

S. 89° 57' W. on true line between sections 17 and 20.

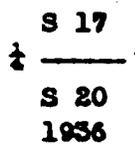
Over rolling desert, through medium dense undergrowth.

16.40 Old road, bears N. and S.

16.80 Wash, 20 links wide, 2 ft. deep, drains SE.

25.00 Wash, 15 links wide, 2 ft. deep, drains N. 70° E.

59.99 Set an iron post, 3 ft. long; 1 in. diam., 30 ins. in the ground, for ¼ section corner, with brass cap marked



raise a mound

of stone, 2½ ft. base, 3 ft. high, N. of corner.

79.98 The corner of sections 17, 18, 19 and 20.

Land, rolling desert; general easterly drainage.  
Soil, coarse sandy clay; 2nd rate.  
Undergrowth, shadscale, bud sage, kerosene brush, white sage and yellowtop.  
No timber.  
Good winter grazing land.

N. 89° 57' W. on random line between sections 18 and 19.

40.00 Set temporary ¼ section corner.

79.68 Intersect the W. boundary of township, 2 links N. of the corner of sections 13, 18, 19, and 24, heretofore described.

Thence

S. 89° 58' E. on true line between sections 18 and 19.

Over rolling desert, through medium dense undergrowth.

5.10 Wash, 15 links wide, 4 ft. deep, drains N. 70° E.

31.70 Old road, bears N. 70° E. and S. 70° W.

Chains

on 15nd 0

39.68 Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, for  $\frac{1}{4}$  section corner, with brass cap marked

$\frac{1}{4}$   
 S 18  
 S 19  
 1936

raise a mound

of stone, 2 ft. base,  $1\frac{1}{2}$  ft. high, N. of corner.

64.20 Wash, 12 links wide, 5 ft. deep, drains N.70°E.

79.68 The corner of sections 17, 18, 19 and 20.

Land, rolling desert; general easterly drainage.  
 Soil, coarse sandy clay; 2nd rate.  
 Undergrowth, medium dense, shadscale, kerosene brush, bud sage, yellowtop and white sage.  
 No timber.  
 Good winter grazing land.

N.0° 04'W. between sections 17 and 18.

Over rolling desert, through medium dense undergrowth.

5.00 Wash, 10 links wide, 2ft. deep; drains N.70°E.

10.00 Old road, bears N.80°E. and S.80°W.

40.00 Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, for  $\frac{1}{4}$  section corner, with brass cap marked

$\frac{1}{4}$   
 S 18 | S 17  
 1936

raise a mound

of stone,  $2\frac{1}{2}$  ft. base, 2 ft. high, W. of corner.

64.60 Wash, 15 links wide,  $4\frac{1}{2}$  ft. deep, drains N.60°E.

65.00 Wash, 14 links wide, 4 ft. deep, drains N.70°E.

68.00 Old road, bears SE. and NW.

80.00 Set an iron post, 3 ft. long, 2 ins. diam., 30 ins. in the ground, for corner of sections 7, 8, 17 and 18, with brass cap marked

T 15 S R 12 W  
 S 7 | S 8  
 S 18 | S 17  
 1936

raise a mound

of stone,  $2\frac{1}{2}$  ft. base,  $2\frac{1}{2}$  ft. high, W. of corner.

Land, rolling desert; general easterly drainage.  
 Soil, coarse sandy clay; 2nd rate.  
 Undergrowth, medium dense shadscale, sagebrush, bud sage, kerosene brush, yellowtop, white sage and Russian thistle.  
 No timber.  
 Good winter grazing land.

Chains

N.89° 57'E. on random line between sections 8 and 17.

40.00 Set temporary  $\frac{1}{2}$  section corner.

80.00 Intersect the N. and S. line, 7 links N. of the corner of sections 8, 9, 16 and 17.

Thence

West on true line between sections 8 and 17.

Over rolling desert, through medium dense, undergrowth.

83.00 Base of ascent, bears N. and S.

84.00 Top of ascent, 10 ft. high, bears N. and S.; thence over rolling land.

40.00 Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, for  $\frac{1}{2}$  section corner, with brass cap marked

$\frac{1}{2}$   $\frac{S\ 8}{S\ 17}$   
 1936

raise a mound

of stone, 2 ft. base, 1 $\frac{1}{2}$  ft. high, N. of corner.

46.00 Wash, 12 links wide, 2 $\frac{1}{2}$  ft. deep, drains N.10°E.

63.80 Wash, 12 links wide, 3 ft. deep, drains N.10°E. 5 chains, thence N.70°E.

80.00 The corner of sections 7, 8, 17 and 18.

Land, rolling desert; general NE. drainage.

Soil, coarse sandy clay; 2nd rate.

Undergrowth, medium dense shadscale, kerosene brush, bud sage, yellowtop, white sage and sagebrush.

No timber.

Good winter grazing land.

N.89° 58'W. on a random line between sections 7 and 18.

40.00 Set temporary  $\frac{1}{2}$  section corner.

79.52 Intersect the W. boundary of township, 5 links N. of the corner of sections 7, 12, 13 and 18, heretofore described.

Thence

E. on true line between sections 7 and 18.

Over rolling desert, through medium dense undergrowth.

0.60 Old road, bears N.65°E. and S.65°W.

10.20 Wash, 15 links wide, 4 $\frac{1}{2}$  ft. deep, drains N.20°E.

39.52 Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, for  $\frac{1}{2}$  section corner, with brass cap marked

$\frac{1}{2}$   $\frac{S\ 7}{S\ 18}$   
 1936

**Chains**

adlar00

of stone, 2½ ft. base, 2 ft. high, N. of corner.

74.50 Old road, bears N. 50° W. and S. 30° E.

79.52 The corner of sections 7, 8, 17 and 18.

Land, rolling desert, general NE. drainage.  
 Soil, coarse sandy clay; 2nd rate.  
 Undergrowth, medium dense shadeless, kerosene brush,  
 bud sage, white sage, yellowtop, and sage brush.  
 No timber.  
 Good winter grazing land.

N. 0° 04' W. between sections 7 and 8.  
 Over rolling desert, through medium dense undergrowth.

11.50 Descend N. slope, bears N. 50° W. and S. 50° E.

13.00 Base of descent, 10 ft. below top, bears N. 50° W. and S. 50° E., thence over rolling land.

40.00 Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, for ¼ section corner, with brass cap marked



raise a mound.

of stone, 2½ ft. base, 2 ft. high, W. of corner.

45.50 Old road, bears N. 65° E. and S. 65° W.

56.40 Wash, 6 links wide, 2 ft. deep, drains N. 70° E.

61.60 Wash, 15 links wide, 3½ ft. deep, drains N. 80° E.

80.00 Set an iron post, 3 ft. long, 2 ins. diam., 30 ins. in the ground, for corner of sections 5, 6, 7 and 8, with brass cap marked



raise a mound

of stone, 3 ft. base, 3 ft. high, W. of corner.

Land, rolling desert; general easterly drainage.  
 Soil, coarse, sandy clay; 2nd rate.  
 Undergrowth, medium dense shadeless, kerosene brush,  
 bud sage, sagebrush, yellowtop, and white sage.  
 No timber.  
 Good winter grazing land.

East on random line between sections 5 and 8.

40.00 Set temporary ¼ section corner.

80.00 Intersect the corner of sections 4, 5, 8 and 9.

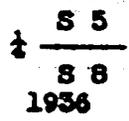
SUBDIVISION OF TOWNSHIP 15 SOUTH, RANGE 12 WEST.

Chains

Thence

West on true line between sections 5 and 8.  
Over rolling desert, through medium dense undergrowth.

- 6.00 Ascend gradual E. slope, bears N. and S.
- 17.60 Top of ascent, 40 ft. above section corner, bears N. and S.; thence over rolling land.
- 49.00 Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, with a volcanic rock, 6x3x1 ins., marked X, deposited at the base, for  $\frac{1}{4}$  section corner, with brass cap marked



No other suitable accessories available.

- 65.10 Old road, bears N.30°E. and S.30°W.
- 64.10 Wash, 10 links wide, 6 ft. deep, in draw, drains N.30°E.
- 80.00 The corner of sections 5, 6, 7 and 8.

Land, rolling desert; general NE. drainage.  
Soil, coarse sandy clay; 2nd rate.  
Undergrowth, medium dense shadscale, kerosene brush, bud sage, and yellowtop.  
No timber.  
Good winter grazing land.

West on a random line between sections 6 and 7.

- 40.00 Set temporary  $\frac{1}{4}$  section corner.
- 79.38 Intersect the W. boundary of township 2 links S. of the corner of sections 1, 6, 7 and 12, heretofore described.

Thence

S.89° 59'E. on true line between sections 6 and 7.  
Over rolling desert, through medium dense undergrowth.

- 9.40 Small knoll, about 5 chains wide E. and W., 20 ft. high, bears N.70°E. about 5 chains, and S.70°W. about 3 chs.
- 12.60 Old road, bears S.70°W. and N.65°E.
- 13.60 Wash, 15 links wide, 3 ft. deep, drains N.70°E.
- 14.10 Old road, bears N.30°W. and S.30°E.
- 16.50 Old road, bears N.30°E. and S.30°W.

- 59.38 Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, for  $\frac{1}{4}$  section corner, with brass cap marked



raise a mound

SUBDIVISION OF TOWNSHIP 15 SOUTH, RANGE 12 WEST

Chains	<p>of stone, 2½ ft. base, 2 ft. high, N. of corner.</p> <p>61.20 Old road, bears NE. and SW.</p> <p>76.20 Wash, in draw, drains NE.</p> <p>79.38 The corner of sections 5, 6, 7 and 8.</p> <p>Land, rolling desert; general NE. drainage.        Soil, coarse sandy clay; 2nd rate.        Undergrowth, medium dense shadscale, kerosene brush,        bud sage, yellowtop, and white sage; scattered growth        of grass.        No timber.        Good winter grazing land.</p>
<p>40.00</p> <p>82.08</p> <p>42.08</p> <p>44.10</p> <p>64.00</p> <p>78.50</p> <p>82.08</p>	<p>N.0° 08'W. on random line between sections 5 and 6.</p> <p>Set temporary ¼ section corner.</p> <p>Intersect the N. boundary of the township, 5 links        E. of the corner of sections 5, 6, 31 and 32, here-        tofore described.</p> <p>Thence</p> <p>S.0° 10'E. on true line between sections 5 and 6.</p> <p>Over rolling desert, through medium dense undergrowth.</p> <p>Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the        ground, with volcanic rock, 6x6x3 ins. marked X, deposit-        ed at the base, for ¼ section corner, with brass cap        marked</p> <p style="text-align: center;">¼        S 6   S 5        1936</p> <p>No other suitable accessories available.</p> <p>Old road, bears N.80°E. and S.70°W.</p> <p>Old road, bears NE. and SW.</p> <p>Wash, 12 links wide, 3 ft. deep, drains NE.</p> <p>The corner of sections 5, 6, 7 and 8.</p> <p>Land, rolling desert; general NE. drainage.        Soil, coarse sandy clay; 2nd rate.        Undergrowth, medium dense, shadscale, kerosene brush,        and bud sage.        No timber.        Good winter grazing land.</p>

GENERAL DESCRIPTION

The land embraced in T. 15 S., R. 12 W. is rolling desert, broken by low spurs and draws in the north and west portions. The township ranges in elevation from about 5100 feet to 5200 feet above sea level. The main drainage of the south portion of the township is formed by washes heading in section 16, and draining in a south and southeasterly direction, leav-

## GENERAL DESCRIPTION

ing the township in section 35. These washes flow through a bottom land, about a half mile wide, the surface of which is cut by numerous small washes. The southeast corner of the township drains in a southwesterly direction, and the southwest portion of the township drains northeasterly and easterly into the main wash, draining south. The drainage of the northeast corner of the township is westerly, and of the northwest corner of the township is northeasterly into a main wash, draining northerly through sections 9, 4, and 5, leaving the township in section 5.

Located near the center of section 27 is a small reservoir, formed by an earth dam constructed across the main wash draining south, which is used for the watering of stock.

The soil in the bottom land along the main drainage is a deep, heavy, stiff, sandy clay, and may be classed as third rate. The soil of the remaining portion of the township is a deep, coarse, sandy clay, with scattered patches of volcanic surface rock on the eastern portion, and limestone on the western portion of the township, and may be classed as second rate.

There is a medium growth of shadscale, kerosene brush, yellowtop, and grass, with scattering mountain rush, white sage and bud sage throughout the entire township. This affords good grazing for livestock during the months when snow is available. Numerous sheep are grazed in this township during the late fall, winter and early spring months.

The road from Joy, Utah, located in section 26, T. 14 S., R. 11 W., to Swasey Spring, in township 16 S., R. 13 W., enters the township on the east boundary near the corner of sections 1, 6, 7, and 12, and bears southwesterly through the township, leaving near the standard quarter section corner of section 33. There are numerous old roads in the township used by sheepmen during the grazing season.

No evidence of mineral, coal, oil, or oilshale, was noted during the survey.

Due to the scarcity of water, this township is unsuited for farming, but is valuable for grazing sheep and cattle during the winter months. Numerous sheep were being grazed on this township at the time of the survey. No water was noted in the township, neither were there any settlers located in this township at the time of the survey.

The mean magnetic declination was found to be 17°E.





CERTIFICATE OF UNITED STATES SURVEYOR

We, Sidney R. Reese, Transitman, and Ervine F. Smith, Transitman, HEREBY CERTIFY upon honor that,

pursuance of special instructions bearing date of the 30th day of July, 1936, received from the district cadastral engineer for Utah, we executed the independent instructions dated Oct. 7, 1936, ~~we have surveyed~~ resurvey of the third stand parallel south through R. 12 W., and the north and west boundaries of 15 S., R. 12 W., and the survey of the subdivision of T. 15 S., R. 12

of the Salt Lake Meridian, in the State of Utah, which are represented in the foregoing field notes as having been executed by me and under my direction; and that said survey has been made in strict conformity with said instructions, the Manual of Instructions for the Survey of the Public Lands of the United States, and in the specific manner described in the foregoing field notes.

Salt Lake City, Utah, March 24, 1937

Sidney R. Reese, Transitman Ervine F. Smith, Transitman

CERTIFICATE OF APPROVAL

OFFICE OF U.S. SUPERVISOR OF SURVEYS,

Denver, Colorado MAR 30 1937, 19

The foregoing field notes of the ~~survey of~~ Independent resurvey of the third stand parallel south through R. 12 W., and the north and west boundaries of T. 15 S., R. 12 W., and the survey of the subdivision of T. 15 S., R. 12 W.

executed by Sidney R. Reese, Transitman, and Ervine F. Smith, Transitman, under special instructions dated July 30, 1936, and assignment instructions dated Oct. 7, 1936, having been critically examined, and the necessary corrections made prior to their certification by the engineer, the said field notes, and the survey therein described, are hereby approved.

U.S. Supervisor of Surveys.

CERTIFICATE OF TRANSCRIPT

I CERTIFY that the foregoing transcript of the field notes of the above described surveys in, is a true copy of the original field notes on file in the public survey office.

U.S. Supervisor of Surveys.

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4-979  
(April 1933)

BOOK A-519

BOOK "B"

# FIELD NOTES

INDEPENDENT RESURVEY OF THE WEST AND NORTH BOUNDARIES

AND SURVEY OF SUBDIVISIONAL LINES, T.14 S.,

R.12 W.

Of the Salt Lake Meridian,

In the State of Utah

### EXECUTED BY

Sidney R. Reaso, Transitman

and

Ervine F. Smith, Transitman

Under special instructions dated July 30, 1936, which provided for the surveys included under Group No. 273, bearing the approval of the Commissioner of the General Land Office under date of September 12, 1936 and assignment instructions dated October 7, 1936.

Survey commenced October 31, 1936

Survey completed November 19, 1936

**INDEX DIAGRAM.**

*Township* 14 SOUTH, *Range* 12 WEST

	13	12	11	10	9	7
6	6 63	64 5 62	51 4 50	41 3 41	33 2 32	24 1 23
5	7 61	62 8 60	49 9 48	40 10 39	31 11 30	21 12 20
4	18 59	59 17 58	47 16 46	38 15 37	30 14 29	19 13 18
3	19 56	57 20 55	45 21 45	37 22 36	28 23 27	17 24 17
2	20 53	54 29 52	44 28 43	35 27 34	26 26 25	16 25 15
1	31	51 32	42 33	34 34	24 35	14 36

## TOWNSHIP 14 SOUTH, RANGE 12 WEST

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

Black lines were surveyed by Ervino P. Smith, U. S. Transitman.

Red lines were surveyed by Sidney K. Reese, U. S. Transitman.



T. 15 S., R. 12 W. TOWNSHIP 14 SOUTH, RANGE 12 WEST

Chains

Survey commenced October 31, 1936, and executed with Buff and Buff light mountain transit No. 8028, and Young and Sons light mountain transit No. 8395, used by Sidney R. Reese and Ervine F. Smith, Transitmen, respectively under supervision of Ralph Gentry, U. S. Cadastral Engineer.

Each instrument is equipped with Smith solar attachment and full vertical circle; the horizontal limb of each instrument is provided with two double verniers, placed opposite to each other and reading to single minutes of arc, which is also the least count of the verniers of the latitude and declination arcs and vertical circles. The instruments were approved for use on this survey by the district cadastral engineer for Utah, conditional upon satisfactory field tests as stated in the assignment instructions dated October 7, 1936.

The instruments were in good condition at the time of this survey, and all adjustments were in good order. The country over which the lines were extended is all open desert, therefore, the solar attachments were not used, and all bearings in this record are referred to true meridians determined by observations made upon Polaris during the progress of the survey, by the method of deflection angles and calculated courses, and the lines were carried forward by double fore and back sights.

The measurements were made with Lallie steel ribbon tapes 5 chs. in length; each tape is graduated every link for the first 100 links and thereafter at intervals of 10 links. The tapes were tested by comparison with a Lufkin steel standard tape 1 chain long, and found correct. The measurements were made on the slope; the vertical angles were determined by clinometers in good adjustment; the field notes show the horizontal equivalents.

The data furnished with the special instructions gives the approximate geographic position of the southeast corner of the township, as latitude 39°33'N., longitude 113°08'W.

October 31, 1936: At the corner of Tps. 14 and 15 South R's. 12 and 13 West, approximate latitude 39°33'N., and longitude 113°15'W., at 5h 05m P.M. Lat., I observe Polaris at eastern elongation, making two sights each with the telescope in direct and reversed positions reading the horizontal deflection angle from Polaris west to a flag, about 1/2 mile distant to the north.

Mean horizontal angle, Polaris to reference flag -----	1° 20' W.
Azimuth of Polaris at eastern elongation -----	1° 20' E.
True bearing of reference flag -----	NORTH

INDEPENDENT RESURVEY OF THE WEST BOUNDARY, T. 14 S., R. 12 W.

Independent resurvey superseding the survey executed by Ferdinand Dickert, U.S. Deputy Surveyor in 1882.

From the cor. of Tps. 14 and 15 S., R's. 12 and 13 W., which is an iron post, 3 ins. diam., set, marked, and witnessed as described in the official notes of T. 15 S., R. 12 W.

INDEPENDENT RESURVEY OF THE WEST BOUNDARY T.14 S., R.12 W.

Chains

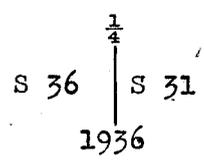
North, along west boundary T.14 S., R.12 W., bet. secs. 31 and 36.

Over rolling desert land, through medium dense undergrowth.

1.00 Old road, bears N.80°E. and S.80°W.

31.30 Wash, 15 lks. wide, 1 ft. deep, drains NE.

40.00 Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, with a limestone, 5x4x3 ins. marked X, deposited alongside; for 1/4 sec. cor., with brass cap marked



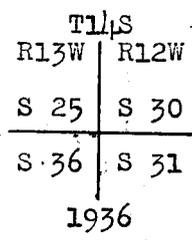
raise a mound

of stone, 2 ft. base, 2 ft. high, W. of cor.

From this 1/4 sec. cor., S.61°45'W., 39.79 chs. dist., is the original 1/4 sec. cor., which is a limestone, 18x7x7 ins., firmly set and dimly marked 1/4 on W. face. I destroy this cor.

47.90 Wash, 6 lks. wide, 3 ft. deep, drains NE.

80.00 Set an iron post, 3 ft. long, 2 ins. diam., over a cross (X) cut in bedrock and in a mound of stone, 8 ft. base, top, for cor. of secs. 25, 30, 31 and 36, with brass cap marked



From this sec. cor., S.61°21'W., 40.08 chs. dist., is the original cor. of secs. 25, 30, 31 and 36, which is a limestone rock 16x10x8 ins. firmly set, and marked 1 notch on S., and 5 notches on N. edges, I destroy this cor.

Land, rolling desert; general NE. exposure.

Soil, sandy clay with patches of limestone surface rock, 2nd to 3rd rate.

Undergrowth, medium dense shadscale, greasewood, bud sage and yellow top, and white sage. Fair growth of grass.

No timber.

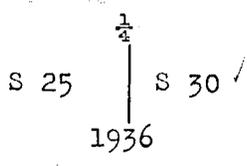
Fair winter grazing land.

North bet. secs. 25 and 30.

INDEPENDENT RESURVEY OF THE WEST BOUNDARY OF T.14 S., R.12 W.

Chains

40.00 Over rolling desert land through medium dense undergrowth.  
Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, with a limestone rock 5x6x2 ins. marked X, deposited alongside, for  $\frac{1}{4}$  sec. cor., with brass cap marked



raise a mound

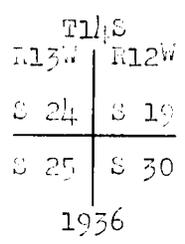
of stone, 3 ft. base, 3 ft. high, W. of cor.

Note: No trace of the original  $\frac{1}{4}$  sec. cor. could be found.

74.90 Wash, 6 lks. wide, 1 ft. deep, drains N.70°E.

75.00 Old road, bears N.70°E. and S.70°W.

80.00 Set an iron post, 3 ft. long, 2 ins. diam., 30 ins. in the ground, with a limestone rock, 8x4x4 ins., marked with  $\frac{1}{4}$  notches on one; and 2 notches on opposite edge, deposited alongside, for cor. of secs. 19, 24, 25 and 30, with brass cap marked



raise a mound

of stone, 3 ft. base, 3 ft. high, W. of cor.

From this sec. cor., S.62°30'W., 41.14 chs. dist., is the original cor. of secs. 19, 24, 25 and 30, which is a limestone rock 20x8x3 ins. firmly set, and marked 2 notches on S., and  $\frac{1}{4}$  notches on W. edge; I destroy this cor.

Land, rolling desert.

Soil, sandy clay, with patches of limestone surface rock, 2nd to 3rd rate.

Undergrowth, medium dense shadscale, greasewood, bud sage, and mountain rush. Fair growth of grass.

No timber.

Fair winter grazing land.

North, bet. secs. 19 and 24.

Over rolling desert land, through medium dense undergrowth.

## INDEPENDENT RESURVEY OF THE WEST BOUNDARY OF T. 14 S., R. 12 W.

Chains

811.710

8.70 Wash, 6 lks. wide, 2 ft. deep, drains N.70°E.

19.40 Wash, 20 lks. wide, 4 ft. deep, drains E.

40.00 Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, with a limestone rock 6x4x3 ins., marked X, deposited alongside, for  $\frac{1}{4}$  sec. cor., with brass cap marked
$$\begin{array}{c} \frac{1}{4} \\ \text{S } 24 \quad | \quad \text{S } 19 \\ \hline 1936 \end{array}$$

raise a mound

of stone, 3 ft. base, 3 ft. high, W. of cor.

From this  $\frac{1}{4}$  sec. cor., S62°45'W., 41.16 chs. is the original  $\frac{1}{4}$  sec. cor., which is a limestone rock, 12x8x8 ins., firmly set, and marked  $\frac{1}{4}$  on W. face. I destroy this cor.

52.00 Wash, 65 lks. wide, 5 ft. deep, drains N.60°W.

80.00 Set an iron post, 3 ft. long, 2 ins. diam., 30 ins. in the ground, for cor. of secs. 13, 18, 19 and 24, with brass cap marked

$$\begin{array}{c} T14S \\ \text{R13W} \quad | \quad \text{R12W} \\ \hline \text{S } 13 \quad | \quad \text{S } 18 \\ \hline \text{S } 24 \quad | \quad \text{S } 19 \\ \hline 1936 \end{array}$$

raise a mound

of stone, 2 ft. base, 2 ft. high, W. of cor.

From this sec. cor., S.63°11'W., 41.11 chs. dist., is the original cor. of secs. 13, 18, 19 and 24, which is a limestone, 20x6x6 ins., firmly set, and marked 3 notches on S. and N. edges. I destroy this cor.

Land, rolling desert.

Soil, sandy clay with patches of limestone surface rock, 2nd to 3rd rate.

Undergrowth, medium dense shadscale, greasewood, mountain rush and white sage. Fair growth of grass.

No timber.

Fair winter grazing land.

North, bet. secs. 13 and 18.

Over rolling desert land, through medium dense undergrowth. Ascend gradual SW. slope.

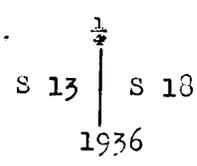
INDEPENDENT RESURVEY OF THE WEST BOUNDARY OF T.14 S., R.12 W.

Chains

25.00 Low rocky rise, 40 ft. above sec. cor., bears S.70°E. and N.70°W.; descend NE. slope.

39.50 Small draw, 45 ft. below rise, drains N.70°W.; ascend SW. slope.

40.00 On gradual SW. slope, 5 ft. above draw.  
Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, with a limestone rock, 6x4x4 ins. marked X, deposited alongside, for 1/4 sec. cor., with brass cap marked



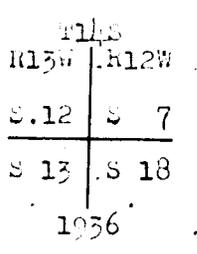
raise a mound

of stone, 4 ft. base, 3 ft. high, W. of cor.

Note: No trace of the original 1/4 sec. cor. could be found

60.00 Spur, 25 ft. above 1/4 sec. cor., projects N.80°W.; descend NE. slope.

80.00 Set an iron post, 3 ft. long, 2 ins. diam., 30 ins. in the ground, with a limestone rock, 5x4x3 ins., marked X, deposited alongside, for cor. of secs. 7, 12, 13 and 18, with brass cap marked



raise a mound

of stone, 3 ft. base, 3 ft. high, W. of cor.

Note: No trace of the original cor. of secs. 7, 12, 13 and 18 could be found.

Land, rolling desert.

Soil, sandy clay, 2nd to 3rd rate.

Undergrowth, medium dense shadscale, greasewood, white sage, mountain rush and yellow top. Fair growth of grass.

No timber.

Fair winter grazing land.

North, bet. secs. 7 and 12.

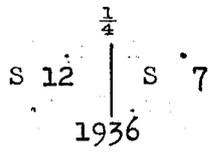
Over rolling desert land through medium dense shadscale.

INDEPENDENT RESURVEY OF THE WEST BOUNDARY OF T. 34 S., R. 12

Chains

40.00

Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, with a trachyte rock, 1 1/2 x 8 x 6 ins., marked 1/4 deposited alongside, for 1/4 sec. cor., with brass cap marked.



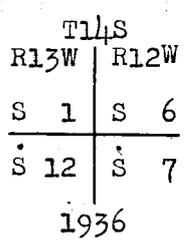
raise a mound

of stone, 3 ft. base, 2 1/2 ft. high, W. of cor.

Note: No trace of the original 1/4 sec. cor. could be found.

80.00

Set an iron post, 3 ft. long, 2 ins. in diam., 30 ins. in the ground with a trachyte rock 4 x 3 x 2 ins., marked X, deposited alongside, for the cor. of secs. 1, 6, 7 and 12, with brass cap marked.



raise a mound

of stone, 3 ft. base, 3 ft. high, W. of cor.

From this sec. cor., S. 64° 30' W., 40.83 chs. dist., is the original cor. of secs. 1, 6, 7 and 12, which is a trachyte stone, 12 x 6 x 3 ins., firmly set and marked 5 notches on S. face, and one notch on N. face. I destroy this cor.

Land, rolling desert.

Soil, sandy clay with patches of trachyte surface rock; 3d rate.

Undergrowth, medium dense shadscale, greasewood, mountain rush and yellow top. Fair growth of grass.

No timber.

Fair winter grazing land.

North bet. secs. 1 and 6.

Over rolling desert land through medium dense undergrowth

1.60

Wash, 10 lks. wide, 1 ft. deep, drains NW.

35.20

Wash, 6 ft. wide, 1 ft. deep, drains NW.

37.20

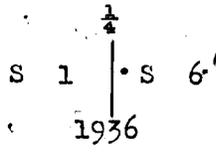
Old road, bears N. 56° W. and S. 56° E.

INDEPENDENT RESURVEY OF THE WEST BOUNDARY OF T.14 S., R.12 W.

Chains

40.00

Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, with a trachyte stone ~~10x8x4~~ ins., marked X, deposited alongside, for  $\frac{1}{4}$  sec. cor., with brass cap marked



raise a mound of stone, 3 ft. base, 2 ft. high, W. of cor.

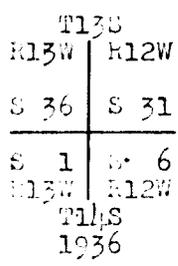
From this  $\frac{1}{4}$  sec. cor., S.64°46'W., 40.89 chs. dist., is the original  $\frac{1}{4}$  sec. cor., which is a trachyte stone, 16x6x5 ins., lying on top of ground, and dimly marked  $\frac{1}{4}$ . I destroy this cor.

62.40

Old road, bears N.70°W. and S.70°E.

80.00

Set an iron post, 3 ft. long, 3 ins. diam., 30 ins. in the ground, with a limestone rock, 6x4x4 ins., marked 6 notches on N., S., E. and W., faces, deposited alongside, for the cor. of Tps. 13 and 14 S., Rs. 12 and 13 W. with brass cap marked



raise a mound of stone, 3 ft. base, 3 ft. high, S. of cor.

From this cor., S.65°10'W., 40.77 chs. dist., is the original cor. of Tps. 13 and 14 S., Rs. 12 and 13 W., which is a trachyte stone, 11x8x4 ins., firmly set in a small mound of stone, and marked 6 notches on N., S., E., and W. faces. I destroy this cor.

Land, rolling desert.

Soil, sandy clay, 2nd rate.

Undergrowth, medium dense shadscale, greasewood, and yellow top. Fair growth of grass.

No timber.

Fair winter grazing land.

INDEPENDENT RESURVEY OF THE NORTH BOUNDARY, T.14 S., R. 12 W.

INDEPENDENT RESURVEY OF THE NORTH BOUNDARY, T.14 S., R.12 W.

Chains

Independent resurvey superseding the survey executed by Ferdinand Dickert, U.S. Deputy Surveyor, in 1882.

From the cor. of Tps. 13 and 14 S., Rs. 11 and 12 W., which is an iron post, 3 ins. diam., set, marked, and witnessed as described in the official field notes of T.14 S., R.11 W.

West, on a random line, making proper offsets to the north from the tangent to the parallel at intervals of 40.00 ch setting temporary 1/4 sec. and sec. cors. along the line bet. Tps. 13 and 14 S., R.12 W. At 473.60 chs. the parallel intersects the cor. of Tps. 13 and 14 S., Rs. 12 and 13 W., heretofore described.

Thence from the cor. of Tps. 13 and 14 S., Rs. 11 and 12 W.

West on true line bet. secs. 1 and 36.

Over rolling desert land through medium dense undergrowth.

14.00 Wash, 15 lks. wide, 2 ft. deep, drains N.10°W.

15.30 Road, along base of mountainous land, bears N.20°W. and S.20°E. Ascend steep NE. slope.

34.30 Ridge, 170 ft. above road, bears N.20°W. and S.20°E.; descend steep SW. slope.

38.50 Head of small draw, 60 ft. below ridge, drains S.70°W.; thence descend over rolling SW. slope broken by small limestone ledges and outcroppings.

40.00 On rolling SW. slope, 90 ft. below ridge.

Set an iron post, 3 ft. long, 1 in. diam., 5 ins. in the ground to solid rock, with a limestone rock 6x6x4 ins., marked 1/4, deposited at base, and in a mound of stone, 7 ft. base, to top, for 1/4 sec. cor., with brass cap marked

1/4 S 36  
S 1  
1936

Descend rolling SW. slope.

80.00 On gradual W. slope, 250 ft. below 1/4 sec. cor., and at base of mountainous land, which bears NE. and SE.

Set an iron post, 3 ft. long, 2 ins. diam., 20 ins. in the ground to solid rock, with a limestone rock 8x6x4 ins. marked 1 notch on one face, and 5 notches on opposite face, deposited at base, and in a mound of stone, 3 ft. base to top, for cor. of secs. 1, 2, 35 and 36, with brass cap marked

T13S | R12W  
S 35 | S 36  
-----  
S 2 | S 1  
T14S  
1936

raise a mound

W. 31. INDEPENDENT RESURVEY OF THE NORTH BOUNDARY, T.14 S., R.12 W.

Chains

of stone, 3 ft. base, 2 ft. high, W. of cor.

From this sec. cor., S.23°00'E., 20.42 chs. dist. is the original  $\frac{1}{4}$  sec. cor., secs. 1 and 36, which is a limestone rock 15x10x5 ins., firmly set with a small mound of stone S., and marked  $\frac{1}{4}$  on N. face. I destroy this cor.

Land, east 14 chs. rolling desert; west 66 chs. mountainous land.

Soil, shallow sandy clay broken by small limestone ledges and outcroppings, 2nd to 3rd rate.

Undergrowth, medium dense shadscale, kerosene brush, white sage, and yellow top. Fair growth of grass.

No timber.

Fair winter grazing land.

West, bet. secs. 2 and 35.

Over rolling desert land, through medium dense undergrowth.

- 7.10 Wash, 10 lks. wide, 1 ft. deep, drains NW.
- 10.00 Same wash, drains SW.
- 25.10 Old road, bears NE. and SW.
- 32.20 Wash, 15 lks. wide, 1 ft. deep, drains NW.
- 35.00 Low rise, bears N.80°W. and SE.
- 40.00 Set an iron post, 3 ft. long, 1 in. diam., 27 ins. in the ground, with a limestone rock, 10x6x4 ins., marked  $\frac{1}{4}$ , deposited alongside, for  $\frac{1}{4}$  sec. cor., with brass cap marked

$\frac{1}{4}$  S 35  
 S 2  
 1936

raise a mound

of stone, 3 ft. base, 3 ft. high, N. of cor.

From this  $\frac{1}{4}$  sec. cor., S.22°50'E., 20.23 chs. dist., is the original cor. of secs. 1, 2, 35 and 36, which is a limestone rock, 12x8x4 ins., firmly set, and marked one notch on east face, and 5 notches on west face. I destroy this corner.

- 49.50 Low rise, bears SW. and N.80°E.
- 70.60 Old road, bears N.60°E. and S.60°W.
- 80.00 Set an iron post, 3 ft. long, 2 ins. diam., 30 ins. in the ground, with a limestone rock, 12x12x4 ins., marked 2 notches on E. face and 4 notches on W. face, deposited

INDEPENDENT RESURVEY OF THE NORTH BOUNDARY, T13S, R12W, S. 12

Chains

alongside, for cor. of secs. 2, 3, 34 and 35, with brass cap marked

T13S	R12W
S 34	S 35
S 3	S 2
T14S	
1936	

raise a mound

of stone, 3 ft. base, 2 ft. high, W. of cor.

From this sec. cor., S.21°55'E., 20.17 chs. dist., is the original 1/4 sec. cor., secs. 2, and 35, which is a limestone rock 18x12x12 ins., firmly set, and marked 1/4 on N. face. I destroy this cor.

Land, rolling desert.

Soil, sandy clay, with patches of limestone surface rock and outcroppings; 3rd rate.

Undergrowth, medium dense, shadscale, kerosene, brush, bud sage and yellow top. Fair growth of grass.

No timber.

Fair winter grazing land.

West, bet. secs. 3 and 34.

Over rolling desert land through medium dense undergrowth.

3.60 Old road, bears N.30°E..and S.30°W.

5.00 Wash, 8 lks. wide, 1 ft. deep, drains SW.

20.00 Low rise, bears NE. and SW.

40.00 Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, with a trachyte stone, 12x10x3 ins., marked 1/4, deposited alongside, for 1/4 sec. cor., with brass cap marked

1/4	S 34
	S 3
	1936

raise a mound

of stone, 3 ft. base, 3 ft. high, N. of cor.

Find no trace of the original cor. of secs. 2, 3, 34 and 35.

56.00 Wash, 10 lks. wide, 1 ft. deep, drains SW.

69.60 Wash, 8 lks. wide, 1 ft. deep, drains S.30°W.

30.00 Set an iron post, 3 ft. long, 2 ins. diam., 30 ins. in

INDEPENDENT RESURVEY OF THE NORTH BOUNDARY, T14 S., R.12 W.

Chain

the ground, with a trachyte stone 14x8x6 ins., marked 3 notches on E. and W. faces, deposited alongside, for cor. of secs. 3, 4, 33 and 34, with brass cap marked

T13S	R12W
S 33	S 34
S 4	S 3
T14S	
1936	

raise a mound

of stone, 3 ft. base, 3 ft. high, W. of cor.

From this sec. cor., S.20°20'E., 19.73 chs. dist., is the original  $\frac{1}{4}$  sec. cor., secs. 3 and 34, which is a limestone rock, 12x10x4 ins., lying on ground, and marked  $\frac{1}{4}$ . I destroy this cor.

Land, rolling desert.

Soil, sandy clay, with scattered trachyte surface rock, 2nd to 3rd rate.

Undergrowth, medium dense shadscale, kerosene brush, mountain rush and yellow top. Fair growth of grass.

No timber.

Fair winter grazing land.

West, bet. secs. 4 and 33.

Over rolling desert land, through medium dense undergrowth.

3.00 Wash, 10 lks. wide, 1 ft. deep, drains SW.

40.00 Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, with a limestone rock, 12x8x4 ins., marked  $\frac{1}{4}$ , deposited alongside, for  $\frac{1}{4}$  sec. cor., with brass cap marked

$\frac{1}{4}$	S 33
	S 4
	1936

raise a mound

of stone, 3 ft. base, 2 ft. high, N. of cor.

From this  $\frac{1}{4}$  sec. cor., S.19°25'E., 19.59 chs. dist., is the original cor. of secs. 3, 4, 33 and 34, which is a limestone rock, 14x10x3 ins., firmly set, and marked 3 notches on E. and W. faces. I destroy this cor.

66.30 Old road; bears N.20°E. and S.20°W.

80.00 Set an iron post, 3 ft. long, 2 ins. diam., 30 ins. in the ground, with a limestone rock, 12x8x3 ins., marked 4.

INDEPENDENT RESURVEY OF THE NORTH BOUNDARY OF T. 14. S. R. 31

Chains

Bricks

notches on E. face and two notches on W. face, deposited alongside, for cor. of secs. 4, 5, 32, and 33, with brass cap marked

T13S	R12W
S 32	S 33
S 5	S 4
T14S	
1936	

raise a mound

of stone, 2 ft. base, 2 ft. high, W. of cor.

From this sec. cor., S. 18° 40' E., 19.44 chs. dist., is the original 1/4 sec. cor., secs. 4 and 33, which is a limestone rock, 11x12x4 ins., firmly set and marked 1/4 on N. face. I destroy this cor.

Land, rolling desert.

Soil, sandy clay with scattered trachyte surface rock, 2nd to 3rd rate.

Undergrowth, medium dense shadscale, kerosene brush, mountain rush, and yellow top. Fair growth of grass.

No timber.

Fair winter grazing land.

West, bet. secs. 5 and 32.

Over rolling desert land, through medium dense undergrowth

11.90 Wash, .8 lks. wide, 1 ft. deep, drains S. 20° W.

29.30 Old road, Fish Springs to Joy, bears N. 38° W. and S. 38° E.

40.00 Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, with a limestone rock, 16x6x4 ins., marked 1/4 deposited alongside, for 1/4 sec. cor., with brass cap marked

1/4	S 32
	S 5
	1936

raise a mound

of stone, .3 ft. base, 3 ft. high, N. of cor.

From this 1/4 sec. cor., S. 18° 05' E., 19.04 chs. dist., is the original cor. of secs. 4, 5, 32 and 33, which is a limestone rock, 24x10x6 ins., firmly set and marked 1/4 notches on E. face, and 2 notches on W. face. I destroy this cor.

71.50 Wash, .90 lks. wide, 4 ft. deep, drains NW. 00.00

INDEPENDENT RESURVEY OF THE NORTH BOUNDARY, T.14 S., R.12 W.

Chains

80.00

Set an iron post, 3 ft. long, 2 ins. diam., 30 ins. in the ground, with a limestone, rock 8x8x8 ins., marked 5 notches on E. face and one notch on W. face; deposited alongside, for cor. of secs. 5, 6, 31 and 32, with brass cap marked

T13S	R12W
S 31	S 32
S 6	S 5
T14S	
1936	

raise a mound

of stone, 3 ft. base, 3 ft. high, W. of cor.

From this sec. cor. S.17°10'W., 18.58 chs. dist., is the original 1/4 sec. cor., secs. 5 and 32, which is a limestone rock, 14x10x6 ins., firmly set, and marked 5 on N. face. I destroy this cor.

Land, rolling desert.

Soil, sandy clay, 2nd rate.

Undergrowth, medium dense shadscale, kerosene brush, mountain rush; bud sage and yellow top. Fair growth of grass.

No timber.

Fair winter grazing land.

West, bet. secs. 6 and 31.

Over rolling desert land, through medium dense undergrowth

40.00

Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, with a limestone rock, 10x6x4 ins., marked 1, deposited alongside, for 1/4 sec. cor., with brass cap marked

S 31
1/4
S 6
1936

raise a mound

of stone, 3 ft. base, 2 ft. high, N. of cor.

From this 1/4 sec. cor., S.16°30'W., 18.62 chs. dist., is the original cor. of secs. 5, 6, 31 and 32, which is a limestone rock, 12x8x8 ins., firmly set and marked 5 notches on E. face; and one notch on W. face. I destroy this cor.

44.90

Wash, 15 lks. wide, 5 ft. deep, drains NW.

INDEPENDENT RESURVEY OF THE NORTH BOUNDARY, T. 14 S., R. 12 W.

Chains

62.60 Wash, 15 lks. wide, 5 ft. deep, drains NW.

78.60 Intersect the cor. of Tps. 13 and 14 S., Rs. 12 and 13 W., heretofore described.

No trace could be found of the original  $\frac{1}{4}$  sec. cor., secs 6 and 31.

Land, rolling desert.

Soil, sandy clay, 2nd to 3rd rate.

Undergrowth, medium dense shadscale, mountain rush, greasewood, and yellow top. Fair growth of grass.

No timber.

Fair winter grazing land.

SUBDIVISION OF T. 14 S., R. 12 W.

October 31, 1936: At the cor. of secs. 1, 2, 35 and 36, on S. boundary of Tp., approximate latitude  $39^{\circ}33'N.$ , and longitude  $113^{\circ}09'W.$ ; at 7h 37.9m a.m. l.m.t., I make an hour angle observation on Polaris, W. of the meridian, two each with the telescope in direct and reversed positions, reading the horizontal deflection angle from a well defined reference point on the skyline about 2 miles N., in the direction W. to Polaris.

Watch fast of l.m.t. -----	32.6 m
Mean horizontal angle from reference point	
W. to Polaris -----	$0^{\circ} 64'$
Azimuth of Polaris -----	$62^{\circ} 1' W.$
True bearing of reference point -----	$N. 0^{\circ} 02' E.$

Thence

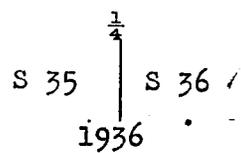
N.  $0^{\circ} 01' W.$  bet. secs. 35 and 36.

Over rolling desert land through medium dense undergrowth

13.10 Wash, 140 lks. wide, 3 ft. deep, drains W.

37.80 Old road, bears N.  $70^{\circ} E.$  and S.  $70^{\circ} W.$

40.00 Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, for  $\frac{1}{4}$  sec. cor., with brass cap marked



raise a mound

of stone, 2 ft. base, 2 ft. high, W. of cor.

61.70 Wash, 30 lks. wide, 3 ft. deep, drains W.

80.00 Set an iron post, 3 ft. long, 2 ins. diam., on bedrock

## SUBDIVISION OF T.14 S., R.12 W.

Chains

with a limestone rock, 3x6x5 ins., marked X, deposited at base, and in a mound of stone, 6 ft. base, to top, for cor. of secs. 25, 26, 35 and 36, with brass cap marked

T14S	R12W
S 26	S 25
S 35	S 36
1936	

Land, rolling desert; general W. exposure.

Soil, sandy, rocky clay, 2nd to 3rd rate.

Undergrowth, medium dense shadscale, greasewood, bud sage, Russian thistle, mountain rush, and yellow top. Fair growth of grass.

No timber.

Fair winter grazing land.

East on a random line bet. secs. 25 and 36.

40.00 Set temporary  $\frac{1}{4}$  sec. cor.

80.02 Intersect the cor. of secs. 25, 30, 31 and 36, on E. bdy. of Tp. described in the field notes of the survey of T.14 S., R.11 W.

Thence

West, on true line bet. secs. 25 and 36.

Over rolling desert land, through medium dense undergrowth.

40.01 Set an iron post, 3 ft. long, 1 in. diam., 12 ins. in the ground to solid rock, with a volcanic stone 6x5x4 ins. marked X, deposited at base, and in a mound of stone, 6 ft. base, to top, for  $\frac{1}{4}$  sec. cor., with brass cap marked

$\frac{1}{4}$	S 25
	-----
	S 36
	1936

80.02 The cor. of secs. 25, 26, 35 and 36.

Land, rolling desert.

Soil, sandy clay, 2nd to 3rd rate.

Undergrowth, scattered shadscale, greasewood, bud sage, yellow top and mountain rush. Fair winter grazing land.

No timber.

Fair winter grazing land.

SUBDIVISION OF T.14 S., R.12 W.

Chains

N.0°01'W., bet. secs. 25 and 26.

Over rolling desert hills, through medium dense undergrowth; ascend SE. slope.

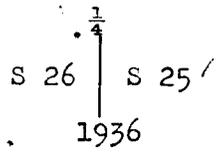
9.30 Spur, 85 ft. above sec. cor., projects E.; descend N. slope.

21.10 Draw, 110 ft. below spur, drains N.60°W.; ascend SW. slope.

30.20 Draw, drains W.

40.00 On gradual N. slope.

Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, for  $\frac{1}{4}$  sec. cor., with brass cap marked



raise a mound

of stone, 3 ft. base, 3 ft. high, W. of cor.

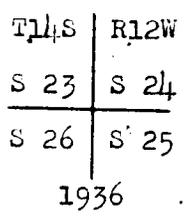
40.35 Small draw, 5 ft. below  $\frac{1}{4}$  sec. cor., drains W.

65.10 Wash, 200 lks. wide, 3 ft. deep, drains S.80°W.; ascend S. slope.

72.50 Spur, 55 ft. above wash, projects S.80°W.; descend NW. slope.

80.00 On NW. slope, 20 ft. below spur.

Set an iron post, 3 ft. long, 2 ins. diam., 27 ins. in the ground, with a limestone rock, 10x10x6 ins., marked X, deposited alongside, for cor. of secs. 23, 24, 25 and 26, with brass cap marked



Land, rolling desert hills.

Soil, sandy clay, 2nd to 3rd rate.

Undergrowth, scattered shadscale, greasewood, bud sage, and mountain rush. Fair growth of grass.

No timber.

Fair winter grazing land.

## SUBDIVISION OF T.14 S., R.12 W.

Chains

- East, on random line bet. secs. 24 and 25.
- 40.00 Set temp.  $\frac{1}{4}$  sec. cor.
- 80.08 Intersect E. bdy. of Tp., 5 lks. N. of the cor. of secs. 19, 24, 25 and 30, described in the field notes of the survey of T.14 S., R. 11 W.
- Thence
- N.89°58'W. on true line bet. secs. 24 and 25.
- Over rolling desert hills through medium dense undergrowth; ascend SE. slope.
- 8.00 Spur, 10 ft. above sec. cor., projects S.; descend SW. slope.
- 26.40 Wash, 50 ft. below spur, 8 lks. wide, 1 ft. deep, drains SW.
- 32.10 Wash, 20 lks. wide, 3 ft. deep, drains S.20°W.
- 39.30 Wash, 20 lks. wide, 5 ft. deep, drains S.
- 40.04 Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, with a limestone rock, 12x10x4 ins., marked  $\frac{1}{4}$  deposited alongside, for  $\frac{1}{4}$  sec. cor., with brass cap marked
- |               |      |
|---------------|------|
| $\frac{1}{4}$ | S 24 |
|               | S 25 |
|               | 1936 |
- raise a mound of stone, 3 ft. base, 2 $\frac{1}{2}$ -ft. high, N. of cor.
- 51.20 Old road, Joy to Fish Springs, bears N.60°W. and S.60°E.
- 62.10 Wash, 8 lks. wide, 1 ft. deep, drains SW.
- 68.10 Spur, 35 ft. above wash, projects S.60°W.
- 80.08 The cor. of secs. 23, 24, 25 and 26, 20 ft. below spur.
- Land, rolling desert hills.
- Soil, sandy clay, 2nd to 3rd rate.
- Undergrowth, scattered shadscale, greasewood, bud sage, Russian thistle, and yellow top.
- No timber.
- Fair winter grazing land.
- 
- N.0°01'W. bet. secs. 23 and 24.
- Over rolling desert land through medium dense undergrowth.
- 4.70 Wash, 8 lks. wide, 1 ft. deep, drains N.80°W.

SUBDIVISION OF T.14 S., R.12 W.

Chains	
8.00	Small knoll, 20 ft. high, 5 chs. wide and 8 chs. long, bears E. and W.
13.30	Old road, Fish Springs to Joy, bears NW. and SE.
18.30	Wash, 15 lks. wide, 2 ft. deep, drains N.70°W.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 29 ins. in the ground, with a limestone rock, 11x9x3 ins., marked $\frac{1}{4}$ deposited alongside, for $\frac{1}{4}$ sec. cor., with brass cap marked
$\frac{1}{4}$ S 23   S 24 1936	
	raise a mound of stone, 2 $\frac{1}{2}$ ft. base, 2 ft. high, W. of cor.
44.00	Wash, 15 lks. wide, 3 ft. deep, drains NW.
45.00	Old road, bears NE. and SW.
46.10	Wash, 15 lks. wide, 3 ft. deep, drains SW., also base of knoll, bears N.60°E. and N.60°W.; ascend steep SE. slope.
65.40	Top of high rocky knoll, 280 ft. above wash, bears N.70°W. and S.70°E.; descend steep NE. slope.
30.00	On NE. slope, 230 ft. below top of knoll.
	Set an iron post, 3 ft. long, 2 ins. diam., 28 ins. in the ground, with a limestone rock, 8x8x4 ins., marked one notch on E. face and 3 notches on S. face, deposited alongside, for cor. of secs. 13, 14, 23 and 24, with brass cap marked
T14S R12W S 14   S 13 S 23   S 24 1936	
	raise a mound of stone, 3 ft. base, 3 ft. high, W. of cor.
	Land, rolling desert hills.
	Soil, rocky sandy clay, 2nd and 3rd rate.
	Undergrowth, scattered shadscale, kerosene brush, bud sage, and mountain rush. Fair growth of grass.
	No timber.
	Fair winter grazing land.
40.00	Set temporary $\frac{1}{4}$ sec. cor. S.89°58'E., on a random line bet. secs. 13 and 24.

SUBDIVISION OF T. 14 S., R. 12 W.

Chains

- 80.06 Intersect E. bdy. of Tp., 2 lks. S. of the cor. of secs. 13, 18, 19 and 24, described in the field notes of the survey of T. 14 S., R. 11 W.  
Thence  
N. 89° 59' W., bet. secs. 13 and 24.  
Over rolling desert hills, through medium dense undergrowth; descend NW. slope.
  - 11.20 Wash, 30 lks. wide, 5 ft. deep, 150 ft. below sec. cor., drains S. 60° W.; ascend SE. slope.
  - 14.00 Spur, 10 ft. above wash, projects SW.; descend NW. slope.
  - 21.70 Wash, 15 lks. wide, 3 ft. deep, 80 ft. below spur, drains NW.; thence over rolling desert land.
  - 30.10 Wash, 6 lks. wide, 1 ft. deep, drains NW.
  - 40.03 On NW. slope, 150 ft. below spur:  
Set an iron post, 3 ft. long, 1 in. diam., 10 ins. in the ground to bedrock, with a limestone rock 8x6x6 ins., marked  $\frac{1}{4}$ , deposited alongside, and in a mound of stone, 5 ft. base, to top, for  $\frac{1}{4}$  sec. cor., with brass cap marked  
$$\begin{array}{r} S\ 13 \\ \frac{1}{4} \text{---} \\ S\ 24 \\ 1936 \end{array}$$
  
Descend gradual NW. slope.
  - 68.00 Old road, bears N. and S.
  - 77:80 Wash; 10 lks. wide, 2 ft. deep, 140 ft. below  $\frac{1}{4}$  sec. cor. drains NW.; also base of knoll which bears NW. and SE. Ascend NE. slope.
  - 80.06 The cor. of secs. 13, 14, 23 and 24, 15 ft. above wash.  
Land, rolling desert land and hills.  
Soil, rocky, sandy clay, 2nd to 3rd rate.  
Undergrowth, scattered shadscale, kerosene brush, white sage, bud sage and yellow top. Fair growth of grass.  
No timber.  
Fair winter grazing land.
- 
- N. 0° 01' W. bet. secs. 13 and 14.  
Over rolling desert land, through medium dense undergrowth; descend NE. slope.
  - 3.60 Wash, 10 lks. wide, 3 ft. deep, 25 ft. below sec. cor., drains NW.; also base of knoll bears NW. and SE.
  - 8.90 Wash, 20 lks. wide, 6 ft. deep, drains W.

SUBDIVISION OF T. 14 S., R. 12 W.

Chains

30.50 Wash, 30 lks. wide, 4 ft. deep, drains W.

33.50 Wash, 20 lks. wide, 4 ft. deep, drains W.

40.00 Set an iron post, 3 ft. long, 1 in. diam., 28 ins. in the ground, with a limestone rock, 10x8x4 ins., marked X deposited alongside, for sec. cor., with brass cap marked

S 14 | S 13

1936

raise a mound

of stone, 3 ft. base, 3 ft. high, W. of cor.

49.50 Wash, 30 lks. wide, 4 ft. deep, drains W.; road in wash, bears W. and E., 5 chs. thence S. 20° E.

53.20 Base of rolling mountainous land, bears NW. and SE.; ascend SW. slope.

61.20 Spur, 100 ft. above base of mountains, projects NW.; descend NE. slope.

70.80 Wash, 20 lks. wide, 3 ft. deep, drains W. 80° W.

73.80 Wash, 40 ft. below spur, 30 lks. wide, 4 ft. deep, drains S. 60° W.; ascend SE. slope.

80.00 On SE. slope, 100 ft. above wash.

Set an iron post, 3 ft. long, 2 ins. diam., on limestone bedrock, with a limestone rock 6x4x2 ins. marked X, deposited at base, and in a mound of stone, 6 ft. base, to top, for cor. of secs. 11, 12, 13 and 14, with brass cap marked

T14S | R12W

S 11 | S 12

S 14 | S 13

1936

Land, rolling desert first 50 chs.; rolling mountainous, last 30 chs.

Soil, rocky, sandy clay, 2nd to 3rd rate.

Undergrowth, medium dense shadscale, kerosene brush, mountain rush and yellow top. Fair growth of grass.

No timber.

Fair winter grazing land.

S. 89° 59' E. on a random line bet. secs. 12 and 13.

## SUBDIVISION OF T. 14 S., R. 12 W.

Chains	
40.00	Set temporary $\frac{1}{4}$ sec. cor.
80.04	Intersect E. bdy. of Tp. $\frac{1}{4}$ lks. S. of the cor. of secs. 7, 12, 13 and 18, described in the field notes of the survey of T. 14 S., R. 11 W.
	Thence S. 89° 59' W., on true line bet. secs. 12 and 13.
	Over mountainous land through medium dense undergrowth; ascend E. slope of ridge.
1.20	Ridge, 20 ft. above sec. cor., bears N. and S., also head of long spur, projects S. 80° W.; descend abrupt rocky NW. slope.
37.50	Draw, 730 ft. below ridge, drains SW.; ascend steep rocky SE. slope.
40.02	On steep E. slope of spur, 150 ft. above draw, Set an iron post, 3 ft. long, 1 in. diam., on bedrock with a limestone rock, 12x6x6 ins., marked K, deposited at base, and in a mound of stone, 5 ft. base, to top, for $\frac{1}{4}$ sec. cor., with brass cap marked
	$\begin{array}{r} S\ 12 \\ \hline S\ 13 \\ 1936 \end{array}$
	Ascend steep E. slope.
45.70	Rocky spur, 170 ft. above $\frac{1}{4}$ sec. cor., projects S. 20° W.; thence along S. slope.
54.00	Small spur; on S. slope, projects SW.; descend abrupt NW. slope.
70.80	Wash, 580 ft. below spur, 35 lks. wide and $\frac{1}{4}$ ft. deep, drains SW.; ascend SE. slope.
73.10	Wash, 15 lks. wide, 3 ft. deep, drains S. 30° W.
80.04	The cor. of secs. 11, 12, 13 and 14, 70 ft. above wash. Land, rough, mountainous. Soil, shallow, rocky, sandy clay, 3rd to 4th rate. Undergrowth, medium dense shadscale, greasewood, mountain rush, and yellow top. Fair growth of grass. No timber. Fair winter grazing land.
	N. 0° 01' W. bet. secs. 11 and 12. Over rough mountainous land through medium dense undergrowth.

SUBDIVISION OF T.14 S., R.12 W.

Chains

angle

Ascend over S. slope of spur from N.

10.50

A spur, projects S.20°E.; ascend SE. slope of spur.

19.30

A spur, projects S.30°W.; ascend SW. slope of spur from N.10°E.

23.40

Spur, 390 ft. above sec. cor., projects S.80°W.; descend N. slope.

30.70

Draw, 115 ft. below spur, drains W.; ascend SW. slope.

34.00

Spur, 45 ft. above draw, projects W.; descend NW. slope.

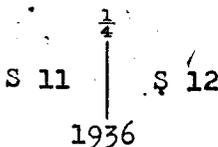
36.30

Draw, 50 ft. below spur, drains NW.; ascend SW. slope.

40.00

On SW. slope, 55 ft. above draw.

Set an iron post, 3 ft. long, 1 in. diam.; on bedrock with a limestone rock, 6x3x2 ins., marked X, deposited at base and in a mound of stone to top, for 1/4 sec. cor., with brass cap marked



42.70

Spur, 60 ft. above 1/4 sec. cor., projects N.70°W.; descend N. slope.

49.10

Draw, 190 ft. below spur, drains N.70°W.; ascend S. slope

53.90

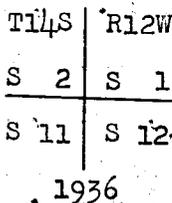
Spur, 25 ft. above draw, projects N.70°W.; descend abrupt NW. slope.

73.00

Draw, 370 ft. below spur, drains N.60°W., also base of mountains, bears NE. and SW.; thence over rolling desert hills.

80.00

Set an iron post, 3 ft. long, 2 ins. diam., 29 ins. in the ground, for cor. of secs. 1, 2, 11 and 12, with brass cap marked



raise a mound

of stone, 3 ft. base, 3 ft. high, W. of cor.

Land, rough mountainous.

Soil, rocky, sandy clay, 2nd to 3rd rate.

Undergrowth, medium dense shade, kerosene brush, mountain rush, and yellow top.

No timber.

SUBDIVISION OF T. 14 S., R. 12 W.

Chains

Fair winter grazing land.

N. 89° 59' E., on random line bet. secs. 1 and 12.

40.00 Set temporary 1/4 sec. cor.

80.02 Intersect E. bdy. of Tp. 2 lks. S. of the cor. of secs. 1, 6, 7 and 12, described in the field notes of the survey of T. 14 S., R. 11 W.

Thence

S. 89° 58' W. on true line bet. secs. 1 and 12.

Over rolling mountainous land through medium dense undergrowth; descend steep W. slope.

2.50 Draw, 60 ft. below sec. cor.; drains N. 10° W.; ascend abrupt E. slope.

16.30 Ridge, 420 ft. above draw, bears N. 10° W. and S. 10° E.; descend W. slope.

33.60 Draw, 560 ft. below ridge, drains N. 20° W.; ascend steep NE. slope.

40.01 On steep NE. slope, 150 ft. above draw.

Set an iron post, 3 ft. long, 1 in. diam., on bedrock, with a lava stone, 7x7x3, marked X, deposited at base, and in a mound of stone, 6 ft. base to top, for 1/4 sec. cor., with brass cap marked

S 1  
1/4  
S 12  
1936

42.40 Spur, 65 ft. above 1/4 sec. cor., projects N. 20° W.; descend SW. slope.

49.20 Draw, near head, drains NW.; descend NW. slope.

72.80 Wash, 20 lks. wide, 3 ft. deep, 515 ft. below spur, drains N. 20° W., also base of mountainous land, bears NE. and SW.; thence over rolling desert land.

80.02 The cor. of secs. 1, 2, 11, and 12.

Land, rough mountainous and rolling desert.

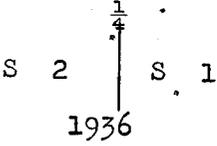
Soil, rocky, sandy clay, 3rd to 4th rate.

Undergrowth, medium dense shadscale, kerosene brush, white sage and yellow top. Fair growth of grass.

No timber.

Fair winter grazing land.

## SUBDIVISION OF T. 11 S., R. 12 W.

Chains	
	N.0°01'W. on a random line bet. secs. 1 and 2.
40.00	Set temporary $\frac{1}{4}$ sec. cor.
80.06	Intersect N. bdy. of Tp., 5 lks. W. of the cor. of secs. 1, 2, 35 and 36, heretofore described.
	Thence
	S.0°01'W. on true line bet. secs. 1 and 2.
	Over rolling desert land, through medium dense undergrowth.
6.20	Wash, 30 lks. wide, 2 ft. deep, drains N.60°W.
25.10	Low rise, bears N.70°W. and S.70°E.
33.70	Wash, 15 lks. wide, 2 ft. deep, drains N.80°W.
40.06	Set an iron post, 3 ft. long, 1 in. diam., 27 ins. in the ground; for $\frac{1}{4}$ sec. cor., with brass cap marked
	
	raise a mound
	of stone, 3 ft. base, 3 ft. high, W. of cor.
42.10	Low rise, bears E. and W.
48.40	Wash, 30 lks. wide, 6 ft. deep, drains S.80°W.
64.00	Wash, 20 lks. wide, 2 ft. deep, drains N.70°W.
66.20	Low rise, bears N.70°W. and S.70°E.
70.00	Wash, 20 lks. wide, 3 ft. deep, drains S.80°W.
80.06	The cor. of secs. 1, 2, 11 and 12.
	Land, rolling desert.
	Soil, sandy clay, 2nd to 3rd rate.
	Undergrowth, medium dense shadscale, kerosene brush, and yellow top. Fair growth of grass.
	No timber.
	Fair winter grazing land.

From the cor. of secs. 2, 3, 34 and 35, on S. bdy. of Tp., which is an iron post, 2 ins. diam., set, marked, and witnessed as described in the official notes of T. 15 S., R. 12 W.

N.0°01'W. bet. secs. 34 and 35.

SUBDIVISION OF T.14 S., R.12 W.

Chains

Over rolling desert land through medium dense undergrowth.

5.00

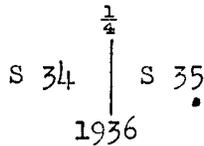
Wash, 100 lks. wide, 5 ft. deep, drains S.80°W.

12.40

Old road; bears NE. and SW.

40.00

Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, with a limestone rock, 1 1/4 x 1 0 x 2 ins., marked 1/4 deposited alongside, for 1/4 sec. cor., with brass cap marked

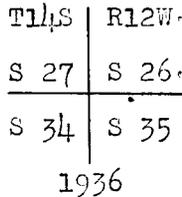


raise a mound

of stone, 2 ft. base, 1 1/2 ft. high, W. of cor.

80.00

Set an iron post, 3 ft. long, 2 ins. diam., 30 ins. in the ground, with a limestone rock, 8x6x4 ins., marked 1 notch on S. edge and 2 notches on E. edge, deposited alongside for cor. of secs. 26, 27, 34 and 35, with brass cap marked



raise a mound

of stone, 2 ft. base, 2 ft. high, W. of cor.

Land, rolling desert; general W. exposure.

Soil, coarse sandy clay, 2nd to 3rd rate.

Undergrowth, medium dense shadscale, yellow top and mountain rush. Fair growth of grass.

No timber.

Fair winter grazing land.

East on a random line bet. secs. 26 and 35.

40.00

Set temporary 1/4 sec. cor.

80.06

Intersect the cor. of secs. 25, 26, 35 and 36.

Thence

West, on true line bet. secs. 26 and 35.

Over rolling desert hills through medium dense undergrowth.

SUBDIVISION OF T. 14 S., R. 12 W.

Chains

Ascend gradual E. slope.

- 2.10 Base of knoll, bears N. and S.; ascend SE. slope.
- 18.60 Top of ascent on rocky, broken knoll, 120 ft. above sec. cor., slopes NE. and SW.; descend SW. slope.
- 40.03 On SW. slope, 240 ft. below top of ascent.  
Set an iron post, 3 ft. long, 1 in. diam., on bedrock, with a limestone rock 12x8x4 ins., marked  $\frac{1}{4}$  deposited at base, and in a mound of stone, 6 ft. base, to top, for  $\frac{1}{4}$  sec. cor., with brass cap marked

$\frac{1}{4}$   $\frac{S\ 26}{S\ 35}$   
 1936

- 49.50 Small draw, 30 ft. below  $\frac{1}{4}$  sec. cor.; drains N.20°W., also base of knoll bears N.20°W. and S.20°E.; thence over rolling desert land.

- 80.06 The cor. of secs. 26, 27, 34 and 35.

Land, rolling to mountainous.

Soil, rocky, sandy clay, 2nd to 3rd rate.

Undergrowth, medium dense shadscale, mountain rush, and yellow top.

No timber.

Fair winter grazing land.

N.0°01'W., bet. secs. 26 and 27.

Over rolling desert land through medium dense undergrowth

- 11.30 Old road, bears NE. and SW.

- 27.80 Wash, 30 lks. wide, 4 ft. deep, drains N.80°W.

- 40.00 Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, with a limestone rock 10x6x4 ins., marked  $\frac{1}{4}$ , deposited alongside, for  $\frac{1}{4}$  sec. cor., with brass cap marked

$\frac{1}{4}$   
 S 27 | S 26  
 1936

raise a mound

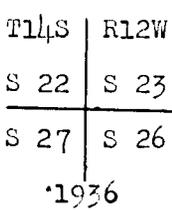
of stone, 1½ ft. base, 1 ft. high, W. of cor.

- 46.00 Wash, 10 lks. wide, 2 ft. deep, drains W.

SUBDIVISION OF T.14 S., R.12 W.

Chains

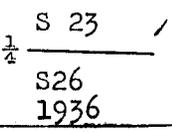
- 52.60 Wash, 25 lks. wide, 1 ft. deep, drains N.80°W.
- 57.40 Wash, 60 lks. wide, 3 ft. deep, drains W.
- 80.00 Set an iron post, 3 ft. long; 2 ins. diam., 30 ins. in the ground, with a limestone rock, 11x10x6 ins., marked 2 notches on S. edge and 2 notches on E. edge, deposited alongside for cor. of secs. 22, 23, 26 and 27, with brass cap marked



raise a mound

of stone, 2 ft. base, 1½ ft. high, W. of cor.  
 Land, rolling desert.  
 Soil, sandy clay, 2nd to 3rd rate.  
 Undergrowth, medium dense shadscale; bud sage and yellow top. Fair growth of grass.  
 No timber.  
 Fair winter grazing land.

- 40.00 East on a random line bet. secs. 23 and 26.  
Set temporary sec. cor.
- 80.06 Intersect N. and S. line, 9 lks. W. of the cor. of secs. 23, 24, 25 and 26.  
Thence  
N.89°56'W. on true line bet. secs. 23 and 26.  
Over rolling desert land, through medium dense undergrowth; ascend gradual E. slope.
- 10.10 Low spur, 20 ft. above sec. cor., projects N.70°W.; descend W. slope.
- 30.10 Draw, 90 ft. below spur, drains N.70°W.; ascend along NE. slope.
- 40.03 On NE. slope, 5 ft. above draw.  
Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, with a limestone rock, 12x6x4 ins., marked ¼ deposited alongside, for ¼ sec. cor., with brass cap marked



SUBDIVISION OF T.14 S. R.12 W.

Chains

raise a mound

of stone, 2 ft. base, 1 1/2 ft. high, N. of cor.

62.40

Low rise, 30 ft. above 1/4 sec. cor., bears NW. and SE.; descend gradual W. slope.

70.10

Base of low rolling hills, bears N. and S.; thence over rolling desert land.

80.06

The cor. of secs. 22, 23, 26 and 27, 30 ft. below rise.

Land, low rolling desert hills; general NW. exposure.

Soil, sandy clay, 2nd to 3rd rate.

Undergrowth, medium dense shadscale, bud sage, mountain rush and yellow top.

No timber.

Fair winter grazing land.

N.0°01'W. bet. secs. 22 and 23.

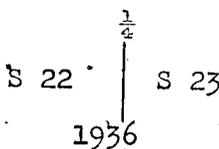
Over rolling desert land through medium dense undergrowth

15.00

Low rise, bears W. and SE.

40.00

Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, with a limestone rock, 7x6x4 ins., marked 1/4, deposited alongside, for 1/4 sec. cor., with brass cap marked



raise a mound

of stone, 2 ft. base, 1 1/2 ft. high, W. of cor.

40.80

Wash, 8 lks. wide, 2 ft. deep, drains N.70°W.

44.00

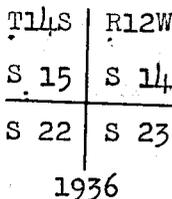
Wash, 8 lks. wide, 1 ft. deep, drains W.

76.30

Old road, Fish Springs to Joy, bears NW. and SE.

80.00

Set an iron post, 3 ft. long, 2 ins. diam., 30 ins. in the ground, for cor. of secs. 14, 15, 22 and 23, with brass cap marked



## SUBDIVISION OF T. 14 S., R. 12 W.

Chains

raise a mound

of stone, 4 ft. base, 4 ft. high, W. of cor.

Land, rolling desert; general W. exposure.

Soil, sandy clay, 2nd to 3rd rate.

Undergrowth, medium dense shadscale, kerosene brush, bud sage, and yellow top.

No timber.

Fair winter grazing land.

S. 89°56'E. on random line, bet. secs. 14 and 23.

40.00 Set temporary  $\frac{1}{4}$  sec. cor.

80.10 Intersect N. and S. line, 2 lks. N. of the cor. of secs. 13, 14, 23 and 24.

Thence

N. 89°55'W. on true line bet. secs. 14 and 23.

Ascend over steep E. slope of high rocky knoll, through medium dense undergrowth.

18.90 Top of ascent, 390 ft. above sec. cor., bears N. and SE. thence descend along steep W. slope.

25.60 Head of draw, drains N. 20°W.

28.60 Rocky, broken spur, projects NW.; descend steep W. slope.

40.05 On steep W. slope, 240 ft. below spur.

Set an iron post, 3 ft. long, 1 in. diam., on bedrock, with a limestone rock, 8x6x4 ins., marked  $\frac{1}{4}$ , deposited at base, and in a mound of stone, 8 ft. base to top, for  $\frac{1}{4}$  sec. cor., with brass cap marked
$$\frac{1}{4} \frac{S \ 14}{S \ 23}$$

1936

66.10 Base of knoll, 240 ft. below  $\frac{1}{4}$  sec. cor., bears N. and S. 20°E.; thence over rolling land.

68.10 Wash, 50 lks. wide, 4 ft. deep, drains NW.

80.10 The cor. of secs. 14, 15, 22 and 23.

Land, hilly.

Soil, rocky sandy clay, 3rd to 4th rate.

Undergrowth, medium dense shadscale, kerosene brush, mountain rush and yellow top. Fair growth of grass.

SUBDIVISION OF T.14 S., R.12 W.

Chains

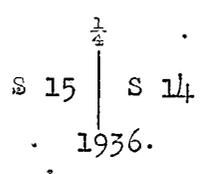
No timber  
Fair winter grazing land.

N.0°01'W. bet. secs. 14 and 15.

Over rolling desert land through medium dense undergrowth.

18.60 Wash, 100 lks. wide, 8 ft. deep, drains N.80°W.

40.00 Set an iron post, 3 ft. long, 1 in. diam., 5 ins. in the ground to solid rock, with a limestone rock, 16x6x4 ins., marked  $\frac{1}{4}$  deposited alongside, and in a mound of stone, 5 ft. base to top, for  $\frac{1}{4}$  sec. cor., with brass cap marked

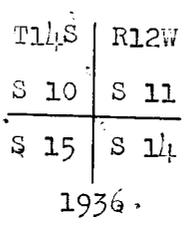


raise a mound

of stone, 4 ft. base, 3 ft. high, W. of cor.

40.30 Wash, 50 lks. wide, 8 ft. deep, drains SW.

80.00 Set an iron post, 3 ft. long, 2 ins. diam., 8 ins. in the ground, to solid rock, with a limestone rock, 12x9x3 ins. marked 4 notches on S. face and 2 notches on E. face, deposited alongside, and in a mound of stone, 5 ft. base to top, for cor. of secs. 10, 11, 14 and 15, with brass cap marked



Land, rolling desert, general W. exposure.

Soil, rocky, sandy clay, 2nd to 3rd rate.

Undergrowth, medium dense shadscale, kerosene brush, bud sage, and yellow top.

No timber.

Fair growth of grass.

S.89°55'E. on a random line bet. secs. 11 and 14.

40.00 Set temporary  $\frac{1}{4}$  sec. cor.

80.10 Intersect the cor. of secs. 11, 12, 13 and 14.

SUBDIVISION OF T.14 S., R.12 W.

Chains

Thence

N.89°55'W. on true line bet. secs. 11 and 14.

Over rolling desert hills through medium dense undergrowth descend W. slope.

7.50 Draw, 55 ft. below sec. cor., drains S.; ascend E. slope.

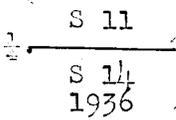
12.10 Low spur, 15 ft. above draw, projects S.; descend W. slope.

30.00 Base of rolling hills, 120 ft. below spur, bears N.10°W. and SE.; thence over rolling desert land.

33.90 Wash, 80 lks. wide, 8 ft. deep, drains N.20°W.

35.20 Old road, bears N.10°W. and S.10°E.

40.05 Set an iron post, 3 ft. long, 1 in. diam., on bedrock, with a limestone rock 10x10x2 ins., marked 1/4, deposited at base and in a mound of stone, 6 ft. base, to top, for 1/4 sec. cor., with brass cap marked



Descend gradual W. slope.

80.10 The cor. of secs. 10, 11, 14 and 15, 90 ft. below 1/4 sec. cor.

Land, rolling to hilly desert; general W. exposure.

Soil, shallow, rocky, sandy clay, 2nd to 3rd rate.

Undergrowth, medium dense shadscale, kerosene brush, and yellow top. Fair growth of grass.

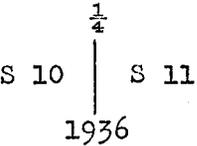
No timber.

Fair winter grazing land.

N.0°01'W. bet. secs. 10 and 11.

Over rolling desert land, through medium dense undergrowth.

40.00 Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, with a limestone rock, 16x8x5 ins., marked 1/4, deposited alongside, for 1/4 sec. cor., with brass cap marked



raise a mound

SUBDIVISION OF T.14 S., R.12 W.

Chains

of stone, 3 ft. base, 2 ft. high, W. of cor.

50.90 Wash, 100 lks. wide, 3 ft. deep, drains W.

60.90 Low rise, bears N.70°W. and S.70°E.

72.20 Wash, 30 lks. wide, 1 ft. deep, drains W.

80.00 Set an iron post, 3 ft. long, 2 ins. diam., 30 ins. in the ground, with a limestone rock, 10x6x4 ins., marked 5 notches on S. and 2 notches on E., deposited alongside, for cor. of secs. 2, 3, 10 and 11, with brass cap marked

T14S | R12W

S 3 | S 2

S 10 | S 11

1936

raise a mound

of stone, 3 ft. base, 2 1/2 ft. high, W. of cor.

Land, rolling desert.

Soil, rocky, sandy clay, 2nd to 3rd rate.

Undergrowth, medium dense shadscale, kerosene brush, white sage, mountain rush and yellow top.

No timber.

Fair winter grazing land.

S.89°55'E., on a random line bet. secs. 2 and 11.

40.00 Set temporary 1/4 sec. cor.

30.10 Intersect N. and S. line, 6 lks. S. of the cor. of secs. 1, 2, 11 and 12.

Thence

N.39°53'W. on true line bet. secs. 2 and 11.

Over rolling desert land through medium dense undergrowth.

40.05 Set an iron post, 3 ft. long, 1 in. diam., 8 ins. in the ground to solid rock, with a limestone rock, 12x4x4 ins., marked 2 deposited alongside, and in a mound of stone, 3 ft. base to top, for 1/4 sec. cor., with brass cap marked

1/4 S 2 /

S 11

1936

52.00 Old road, bears N.10°W. and S.20°E.

## SUBDIVISION OF T. 11 S., R. 12 W.

Chains	
56.00	Wash, 30 lks. wide, 2 ft. deep, at junction with wash from N. 80° E. drains NW.
62.60	Low rise, bears NW. and SE.
80.10	<p>The cor. of secs. 2, 3, 10 and 11.</p> <p>Land, rolling desert.</p> <p>Soil, rocky, sandy clay, 2nd to 3rd rate.</p> <p>Undergrowth, medium dense shadscale, kerosene brush, bud sage, white sage, mountain rush and yellow top. Fair growth of grass.</p> <p>No timber.</p> <p>Fair winter grazing land.</p>
40.00	<p>N. 0° 01' E. on a random line bet. secs. 2 and 3.</p> <p>Set temporary <math>\frac{1}{4}</math> sec. cor.</p>
79.96	<p>Intersect N. bdy. of Tp., 4 lks. W. of the cor. of secs. 2, 3, 34 and 35, heretofore described.</p> <p>Thence</p>
6.40	<p>S. 0° 03' W. on true line bet. secs. 2 and 3.</p>
12.50	<p>Old road, bears N. 60° E. and S. 60° W.</p>
33.80	<p>Wash, 20 lks. wide, 1 ft. deep, drains S. 80° W.</p>
36.10	<p>Low rise, bears N. 80° W. and S. 80° E.</p>
39.96	<p>Wash, 20 lks. wide, 1 ft. deep, drains W.</p>
39.96	<p>Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, with a limestone rock, 12x8x 6 ins., marked <math>\frac{1}{4}</math> deposited alongside, for <math>\frac{1}{4}</math> sec. cor., with brass cap marked</p> <div style="text-align: center;"> <math>\frac{1}{4}</math>        S 3   S 2        1936     </div> <p style="text-align: right;">raise a mound</p>
45.00	<p>of stone, 3 ft. base, 2<math>\frac{1}{2}</math> ft. high, W. of cor.</p>
50.90	<p>Low rise, bears N. 70° W. and S. 70° E.</p>
70.00	<p>Wash, 30 lks. wide, 2 ft. deep, drains NW.</p>
79.96	<p>Low rise, bears N. 60° W. and S. 60° E.</p>
79.96	<p>The cor. of secs. 2, 3, 10 and 11.</p> <p>Land, rolling desert.</p>

SUBDIVISION OF T.14 S., R.12 W.

Chains

Soil, rocky, sandy clay, 2nd to 3rd rate.  
 Undergrowth, medium dense shadscale, kerosene brush, white sage, and yellow top. Fair growth of grass.  
 No timber.  
 Fair winter grazing land.

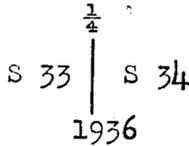
From the cor. of secs. 3, 4, 33 and 34, on S. bdy. of Tp. which is an iron post, 2 ins. diam., set, marked and witnessed as described on the official record of T.15 S., R.12 W.

N.0°02'W. bet. secs. 33 and 34.

Over rolling desert land through medium dense undergrowth.

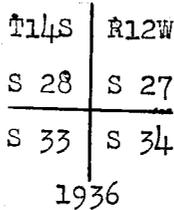
1.30 Old road, bears N.70°E. and S.70°W.

40.00 Set an iron post, 3 ft. long, 1 in. diam., 27 ins. in the ground, with a lava rock, 12x6x5 ins., marked  $\frac{1}{4}$  deposited alongside, for  $\frac{1}{4}$  sec. cor., with brass cap marked



78.80 Old road, bears E. and W.

80.00 Set an iron post, 3 ft. long, 2 ins. diam., 30 ins. in the ground, with a lava rock, 7x7x6 ins., marked 1 notch on S. and 3 notches on E. edge deposited alongside, for cor. of secs. 27, 28, 33 and 34, with brass cap marked



Land, rolling desert.

Soil, sandy clay, 2nd rate.

Undergrowth, medium dense kerosene brush and yellow top. Fair growth of grass.

No timber.

Fair winter grazing land.

East on a random line bet. secs. 27 and 34.

SUBDIVISION OF T.14 S., R.12 W.

Chains

40.00 Set temporary 1/4 sec. cor.  
80.04 Intersect N. and S. line, 2 lks. N. of the cor. of secs. 26, 27, 34 and 35.

Thence

N.89°59'W. on true line bet. secs. 27 and 34.

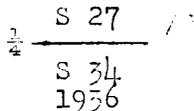
Over rolling desert land through medium dense undergrowth.

8.70 Old road, bears N.10°E. and S.10°W.

11.10 Old road, bears NE. and S.60°W.

23.00 Some road, bears N.70°W. and S.70°E.

40.02 Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, with a limestone rock, 8x6x5 ins. marked 1/4 deposited alongside, for 1/4 sec. cor., with brass cap marked



53.00 Wash, 10 lks. wide, 1 ft. deep, drains NW., also old road bears NE. and S.60°W.

80.04 The cor. of secs. 27, 28, 33 and 34.

Land, rolling desert.

Soil, sandy clay, 2nd rate.

Undergrowth, medium dense shadscale, kerosene brush, and mountain rush. Fair growth of grass.

No timber.

Fair winter grazing land.

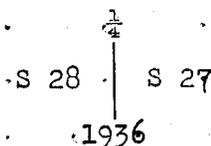
N.0°02'W. bet. secs. 27 and 28.

Over rolling desert land, through medium dense undergrowth

12.50 Wash, 12 lks. wide, 1 ft. deep, drains N.60°W.

27.40 Low rise, bears E. and N.70°W.

40.00 Set an iron post, 3 ft. long, 1 in. diam., 27 ins. in the ground, with a limestone rock, 6x4x2 ins., marked 1/4, deposited alongside for 1/4 sec. cor., with brass cap marked.



63.40 Wash, 10 lks. wide, 1 ft. deep, drains NW.

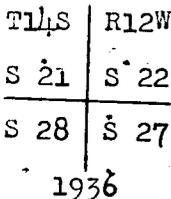
. SUBDIVISION OF T.14 S., R.12 W.

Chains

67.10 Same wash, drains N.10°E.

68.00 Same wash, drains N.20°W.

30.00 Set an iron post, 3 ft. long, 2 ins. diam., 27 ins. in the ground, with a limestone rock, 12x7x3 ins., marked 3 notches on E. edge, and 2 notches on S. edge, deposited alongside, for cor. of secs. 21, 22, 27 and 28, with brass cap marked



Land, rolling desert, general NW. exposure.

Soil, sandy clay, 2nd rate.

Undergrowth, medium dense kerosene brush and bud sage, Fair growth of grass.

No timber.

Fair winter grazing land.

S.89°59'E. on random line bet. secs. 22 and 27.

40.00 Set temporary 1/4 sec. cor.

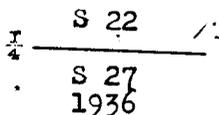
30.06 Intersect N. and S. line, 2 lks. S. of the cor. of secs. 22, 23, 26 and 27.

Thence

West on true line bet. secs. 22 and 27.

Over rolling desert land through medium dense undergrowth.

40.03 Set an iron post, 3 ft. long, 1 in. diam., 27 ins. in the ground, with a limestone rock 18x7x3 ins., marked 1/4, deposited alongside, for 1/4 sec. cor., with brass cap marked



raise a mound

of stone, 3 ft. base, 3 ft. high, N. of cor.

46.60 Wash, 15 lks. wide, 2 ft. deep, drains NW.

65.80 Wash, 30 lks. wide, 2 ft. deep, drains N.30°W.

80.06 The cor. of secs. 21, 22, 27 and 23.

Land, rolling desert.

SUBDIVISION OF T.14 S., R.12 W.

Chains

Soil, sandy clay, 2nd rate.

Undergrowth, medium dense kerosene brush, shadscale, bud sage, yellow top and mountain rush, Fair growth of grass.

No timber.

Fair winter grazing land.

N.0°02'W. bet. secs. 21 and 22.

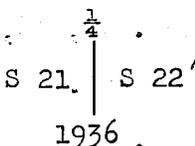
Over rolling desert land through medium dense undergrowth.

17.80

Wash, 50 lks. wide, 1½ ft. deep, drains N.80°W.

40.00

Set an iron post, 3 ft. long, 1 in. diam., 27 ins. in the ground, with a limestone rock 9x7x2 ins., deposited alongside, for ¼ sec. cor., with brass cap marked

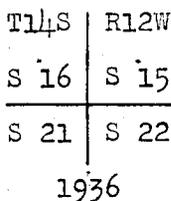


59.60

Wash, 20 lks. wide, 1 ft. deep, drains W.

80.00

Set an iron post, 3 ft. long, 2 ins. diam., 6 ins. in the ground to bed rock, with a limestone rock, 14x10x2, marked 3 notches on S. and 3 notches on E., edge deposited alongside, and in a mound of stone, 6 ft. base to top, for cor. of secs. 15, 16, 21 and 22, with brass cap marked



Land, rolling desert.

Soil, sandy clay, 2nd rate.

Undergrowth, medium dense shadscale, kerosene brush, and bud sage. Fair growth of grass.

No timber.

Fair winter grazing land.

East on random line bet. secs. 15 and 22.

40.00

Set temporary ¼ sec. cor.

## SUBDIVISION OF T.14 S., R.12 W.

Chains	
80.06	Intersect the cor. of secs. 14, 15, 22 and 23.
	Thence
	West on true line bet. secs. 15 and 22.
	Over rolling desert land, through medium dense undergrowth
3.60	Old road, Fish Springs to Joy, bears NW. and SE.
40.03	Set an iron post, 3 ft. long, 1 in. diam., 6 ins. in the ground to solid rock, with a limestone rock, 7x6x2 ins., marked $\frac{1}{4}$ , deposited alongside, and in a mound of stone, 5 ft. base, to top, for $\frac{1}{4}$ sec. cor., with brass cap marked
	$\frac{1}{4} \begin{array}{c} \text{S } 15 \\ \hline \text{S } 22 \\ 1936 \end{array}$
61.10	Low rise, bears NW. and SE.
71.10	Same low rise, bears NE. and SW.
80.06	The cor. of secs. 15, 16, 21 and 22.
	Land, rolling desert.
	Soil, sandy clay, 2nd rate.
	Undergrowth, medium dense shadscale, kerosene brush, and bud sage. Fair growth of grass.
	No timber.
	Fair winter grazing land.
40.00	N.0°02'W. bet. secs. 15 and 16.
	Over rolling desert land through medium dense undergrowth.
	Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, with a limestone rock, 7x6x5 ins., marked $\frac{1}{4}$ , deposited alongside, for $\frac{1}{4}$ sec. cor., with brass cap marked
	$\frac{1}{4} \begin{array}{c} \text{S } 16 \\   \\ \text{S } 15 \\ 1936 \end{array}$
	raise a mound of stone, 2 $\frac{1}{2}$ ft. base, 2 $\frac{1}{2}$ ft. high, W. of cor.
41.50	Wash, 7 lks. wide, 1 ft. deep, drains N.60°W.
52.00	Wash, 50 lks. wide, 4 ft. deep, drains NW.
80.60	Set an iron post, 3 ft. long, 2 ins. diam., 30 ins. in the ground, with a limestone rock 9x5x3 ins., marked 4 notches

SUBDIVISION OF T. 11 S., R. 12 W.

Chains

on S., and 3 notches on E. edge, deposited alongside for cor. of secs. 9, 10, 15 and 16, with brass cap marked

T14S	R12W
S 9	S 10
S 16	S 15

1936

raise a mound

of stone, 3 ft. base,  $2\frac{1}{2}$  ft. high, W. of cor.

Land, rolling desert.

Soil, sandy clay, 2nd rate.

Undergrowth, medium dense shadscale, kerosene brush, bud sage, and yellow top. Fair growth of grass.

No timber.

Fair winter grazing land.

East on random line bet. secs. 10 and 15.

40.00 Set temporary  $\frac{1}{4}$  sec. cor.

80.00 Intersect N. and S. line, 2 lks. S. of the cor. of secs. 10, 11, 14 and 15.

Thence

S.  $89^{\circ}59'$  W. on true line bet. secs. 10 and 15.

40.00 Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, with a limestone rock,  $2\frac{1}{2} \times 7\frac{1}{4}$  ins., marked  $\frac{1}{4}$ , deposited alongside, for  $\frac{1}{4}$  sec. cor., with brass cap marked

$\frac{1}{4}$	S 10
	S 15
	1936

raise a mound

of stone, 3 ft. base,  $2\frac{1}{2}$  ft. high, N. of cor.

From this  $\frac{1}{4}$  sec. cor., S.  $18^{\circ}50'$  W., 38.36 chs. dist., is a U. S. Coast and Geodetic Survey bench mark, which is a brass cap, cemented in a round pillar of concrete, 12 ins. diam., extending 12 ins. above the ground, and marked

X 7 8

1934

66.70 Old road, Fish Springs to Joy, bears NW. and SE.

SUBDIVISION OF T. 14 S., R. 12 W.

EXHIBIT

Chains

80.00

The cor. of secs. 9, 10, 15 and 16.

Land, rolling desert.

Soil, sandy clay, 2nd rate.

Undergrowth, medium dense shadscale, kerosene brush, and bud sage. Fair growth of grass.

No timber.

Fair winter grazing land.

N.0°02'W. bet. secs. 9 and 10.

Over rolling desert land through medium dense undergrowth

18.50

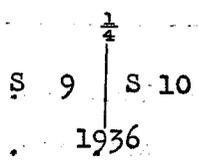
Old road, Fish Springs to Joy, bears NW. and SE.

30.60

Wash, 10 lks. wide, 1 ft. deep, drains NW.

40.00

Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, with a limestone rock, 10x7x1 ins., marked  $\frac{1}{4}$ , deposited alongside for  $\frac{1}{4}$  sec. cor., with brass cap marked



raise a mound

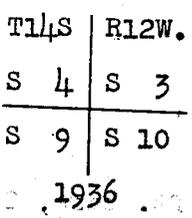
of stone, 2 $\frac{1}{2}$  ft. base, 2 ft. high, W. of cor.

70.00

Wash, 50 lks. wide, 3 ft. deep, drains N.60°W.

80.00

Set an iron post, 3 ft. long, 2 ins. diam., 30 ins. in the ground, with a limestone rock, 12x8x2 ins., marked 5, notches on S. and 3 notches on E. edge, deposited alongside, for cor. of secs. 3, 4, 9 and 10, with brass cap marked



raise a mound

of stone, 2 $\frac{1}{2}$  ft. base, 2 $\frac{1}{2}$  ft. high, W. of cor.

Land, rolling desert.

Soil, sandy clay, 2nd rate.

Undergrowth, medium dense shadscale, kerosene brush, bud sage and mountain rush.

No timber.

SUBDIVISION OF T. 14 S. R. 12 W.

Chains

Fair winter grazing land.

40.00 N. 89° 59' E. on random line bet. secs. 3 and 10.  
 Set temporary  $\frac{1}{4}$  sec. cor.  
 80.10 Intersect N. and S. line, 4 lks. N. of the cor. of secs. 2, 3, 10 and 11.  
 Thence  
 N. 89° 59' W. on a true line bet. secs. 3 and 10.  
 Over rolling desert land through medium dense undergrowth.  
 6.90 Wash, 10 lks. wide, 1 ft. deep, drains NW.  
 21.20 Wash, 20 lks. wide, 2 ft. deep, drains NW.  
 24.70 Rise, bears N. and S.  
 33.50 Wash, 12 lks. wide; 1 ft. deep, drains NW.  
 40.05 Set an iron post, 3 ft. long; 1 in. diam., 30 ins. in the ground, with a limestone rock, 10x9x3 ins., marked  $\frac{1}{4}$ , deposited alongside, for  $\frac{1}{4}$  sec. cor., with brass cap marked

S 3  
 $\frac{1}{4}$  ————— /  
 S 10  
 1936

raise a mound

of stone, 3 ft. base, 2 $\frac{1}{2}$  ft. high, N. of cor.  
 80.10 The cor. of secs. 3, 4, 9 and 10.  
 Land, rolling desert; general NW. exposure.  
 Soil, sandy clay, 2nd rate.  
 Undergrowth, medium dense shadscale, kerosene brush, yellow top, bud sage and mountain rush. Fair growth of grass.  
 No timber.  
 Fair winter grazing land.

40.00 N. 0° 03' E. on random line bet. secs. 3 and 4.  
 Set temporary  $\frac{1}{4}$  sec. cor.  
 79.96 Intersect N. bdy. of Tp. 14 lks. W. of the cor. of secs. 3, 4, 33 and 34, heretofore described.  
 Thence

SUBDIVISION OF T. 14 S., R. 12 W.

Chains

am 200

S. 0°09'W. on true line bet. secs. 3 and 4.  
Over rolling desert land through medium dense undergrowth

12.90

Wash, 12 lks. wide, 2 ft. deep, drains W.

21.50

Wash, 30 lks. wide, 4 ft. deep, drains N. 80°W.

23.50

Wash, 20 lks. wide, 3 ft. deep, drains N. 70°W.

36.70

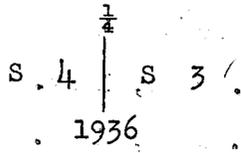
Old road, bears N. 80°E. and S. 80°W.

39.10

Wash, 20 lks. wide, 4 ft. deep, drains NW.

39.96

Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, with a limestone rock, 12x6x4 ins., marked  $\frac{1}{4}$  deposited alongside, for  $\frac{1}{4}$  sec. cor., with brass cap marked.



raise a mound

of stone, 3 ft. base, 2 1/2 ft. high, W. of cor.

79.96

The cor. of secs. 3, 4, 9 and 10.

Land, rolling desert; general NW. exposure.

Soil, sandy clay, 2nd rate.

Undergrowth, medium dense shadscale, kerosene brush, bud sage and mountain rush. Fair growth of grass.

No timber.

Fair winter grazing land.

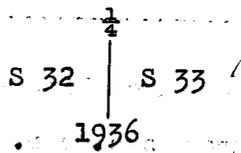
From the cor. of secs. 4, 5, 32 and 33, on S. bdy. of Tp. which is an iron post, 2 ins. diam., set; marked and witnessed as described in the official record of T. 15 S., R. 12 W.

N. 0°03'W. bet. secs. 32 and 33.

Over rolling desert land through medium dense undergrowth

40.00

Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, with a limestone rock 10x6x6 ins. marked  $\frac{1}{4}$  deposited alongside, for  $\frac{1}{4}$  sec. cor., with brass cap marked



raise a mound

of stone, 2 1/2 ft. base, 2 ft. high, W. of cor.

SUBDIVISION OF T.14 S., R.12 W.

Chains

50.10 Old road, bears N.60°E. and S.60°W.

60.00 Wide swale, drains N.80°W.

80.00 Set an iron post, 3 ft. long, 2 ins. diam., 30 ins. in the ground, with a trachyte rock, 8x5x5 ins., marked 1 notch on S. edge, and 4 notches on E. edge, deposited alongside, for cor. of secs. 28, 29, 32 and 33, with brass cap marked

T14S | R12W

S 29 | S 28

S 32 | S 33

1936

raise a mound

of stone, 2 ft. base, 2 ft. high, W. of cor.

Land, rolling desert.

Soil, sandy clay, 2nd rate.

Undergrowth, medium dense shadscale and kerosene brush. Fair growth of grass.

No timber.

Fair winter grazing land.

East on random line bet. secs. 28 and 33.

40.00 Set temporary 1/4 sec. cor.

80.02 Intersect N. and S. line, 4 lks. N. of the cor. of secs. 27, 28, 33 and 34.

Thence

N.89°58'W. on true line bet. secs. 28 and 33.

Over rolling desert, through short undergrowth.

40.01 Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, with a trachyte stone 5x5x3 ins., marked 1/4 deposited alongside, for 1/4 sec. cor., with brass cap marked

S 28

1/4

S 33

1936

raise a mound

of stone, 2 ft. base, 2 ft. high, N. of cor.

80.02 The cor. of secs. 28, 29, 32 and 33.

Land, rolling desert.

Soil, sandy clay, 2nd rate.

SUBDIVISION OF T.14 S., R.12 W.

Chains

acres

Undergrowth, medium dense shadscale, kerosene brush, bud sage, yellow top and mountain rush. Fair growth of grass.

No timber.

Fair winter grazing land.

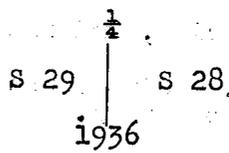
00.00  
00.00

N.0°03'W. bet. secs. 28 and 29.

Over rolling desert land through medium dense undergrowth.

6.50 Wash, 6 ft. wide, 2 ft. deep, drains S.70°W.

40.00 Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, with a limestone rock, 6x4x2 ins., marked 1/4 deposited alongside, for 1/4 sec. cor., with brass cap marked



raise a mound

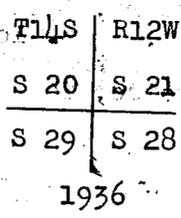
of stone, 2 ft. base, 2 ft. high, W. of cor.

44.40 Wash, 10 lks. wide, 1 ft. deep, drains S.70°W.

75.00 Base of low rolling hills, bears N.80°E. and S.80°W.; ascend SE. slope.

80.00 On SE. slope, 50 ft. above base of hills.

Set an iron post, 3 ft. long, 2 ins. diam., over X, marked on bedrock, with a limestone rock, 6x4x4 ins., marked 2 notches on S. face and 4 notches on E. face, deposited at base and in a mound of stone, 6 ft. base, to top, for cor. of secs. 20, 21, 28 and 29, with brass cap marked



Land, rolling desert.

Soil, sandy clay, 2nd rate.

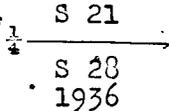
Undergrowth, medium dense shadscale, kerosene brush, and yellow top. Fair growth of grass.

No timber.

Fair winter grazing land.

00.00

## SUBDIVISION OF T.14 S., R.12 W.

Chains	
	S.89°58'E. on a random line bet. secs. 21 and 28.
40.00	Set temporary $\frac{1}{4}$ sec. cor.
80.00	Intersect the cor. of secs. 21, 22, 27, and 28.
	Thence
	N.89°58'W. on true line bet. secs. 21 and 28.
	Over rolling desert land, through medium dense undergrowth.
10.10	Wash, 10 lks. wide, 1 ft. deep, at base of hills which bears NW. and S.20°E., drains N.30°W.; ascend NE. slope.
40.00	On rolling NE. slope, 105 ft. above base of hills.
	Set an iron post, 3 ft. long, 1 in. diam., 6 ins. in the ground to solid rock, with a limestone rock, 6x4x4 ins., marked $\frac{1}{4}$ , deposited alongside and in a mound of stone, 5 ft. base to top, for $\frac{1}{4}$ sec. cor., with brass cap marked
	
44.30	Low ridge, bears S.60°E. and W.; thence along ridge.
59.00	Leave ridge, bears NW. and E., 30 ft. above $\frac{1}{4}$ sec. cor.; descend gradual SW. slope.
72.10	Small draw, 30 ft. below ridge, drains S.; ascend gradual SE. slope.
80.00	The cor. of secs. 20, 21, 28 and 29, 25 ft. above draw.
	Land, low rolling desert hills.
	Soil, sandy clay with patches of small ledges and outcroppings and surface rock, 2nd to 3rd rate.
	Undergrowth, medium dense shadscale, kerosene brush, bud sage and yellow top.
	No timber.
	Fair winter grazing land.
	N.0°03'W. bet. secs. 20 and 21.
	Over rolling desert hills, through medium dense undergrowth; ascend SE. slope.
9.00	Spur, 100 ft. above sec. cor., projects SW.; descend gradual NW. slope.
19.00	Low saddle in ridge, which bears NW. and SE., 90 ft. below spur; ascend gradual SE. slope.
25.00	Top of ascent, 50 ft. above ridge, bears E. and W.; descent NE. slope.

SUBDIVISION OF T.14 S., R.12 W.

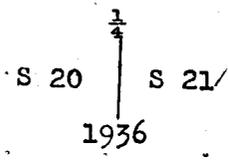
Chains

arls10

40.00

On NE. slope, 105 ft. below top of ascent.

Set an iron post, 3 ft. long, 1 in. diam., 2 ins. in the ground to bedrock, with a limestone rock, 10x8x4 ins., marked  $\frac{1}{4}$  deposited at base and in a mound of stone, 6 ft. base to top, for  $\frac{1}{4}$  sec. cor., with brass cap marked



53.00

Wide draw, 85 ft. below  $\frac{1}{4}$  sec. cor., drains NE.; ascend SE. slope.

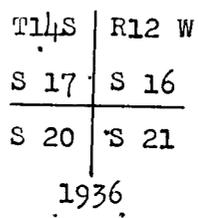
70.00

Top of ascent, 20 ft. above draw, bears E. and W.; descend NE. slope.

80.00

At base of hills bearing N.70°W. and SE., 40 ft. below top of ascent.

Set an iron post, 3 ft. long, 2 ins. diam., 30 ins. in the ground, with a limestone rock, 14x8x6 ins. marked 3 notches on S. edge and 4 notches on E. edge, deposited alongside, for cor. of secs. 16, 17, 20 and 21, with brass cap marked



raise a mound

of stone, 3 ft. base, 2 ft. high, W. of cor.

Land, rolling hills, broken by small limestone ledges and outcroppings.

Soil, shallow rocky, sandy clay, 3rd to 4th rate.

Undergrowth, medium dense shadscale, kerosene brush, bud sage, mountain rush and yellow top. Fair growth of grass

No timber.

Fair winter grazing land.

40.00

S.39°58'E. on random line bet. secs. 16 and 21.

79.98

Set temporary  $\frac{1}{4}$  sec. cor.

Intersect the cor. of secs. 15, 16, 21 and 22.

thence

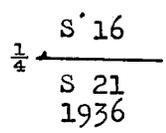
N.39°58'W. on true line bet. sets. 16 and 21.

SUBDIVISION OF T.14 S., R.12 W.

Chains

Over rolling desert hills, through medium dense undergrowth.

39.99 Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, with a limestone rock, 8x6x4 ins., marked 1/4 deposited alongside, for 1/4 sec. cor., with brass cap marked



raise a mound

of stone, 2 ft. base, 2 ft. high, W. of cor.

45.00 Wash, 15 lks. wide, 2 ft. deep, drains NW.

63.50 Wash, 70 lks. wide, 1 ft. deep, drains N.30°W.

79.98 The cor. of secs. 16, 17, 20 and 21.

Land, rolling desert.

Soil, sandy clay with patches of limestone surface rock, 2nd to 3rd rate.

Undergrowth, medium dense shadscale, kerosene brush, bud sage, mountain rush and yellow top.

No timber.

Fair winter grazing land.

N.0°03'W. bet. secs. 16 and 17.

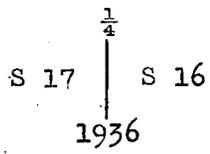
Over rolling desert land through medium dense undergrowth; descend NE. slope.

19.10 Wash, 70 lks. wide, 3 ft. deep, 30 ft. below sec. cor., drains N.70°W.; ascend gradual SW. slope.

39.80 Top of ascent, 120 ft. above wash, bears E. and W.; descend gradual NW. slope.

40.00 On gradual NW. slope, 5 ft. below top of ascent.

Set an iron post, 3 ft. long, 1 in. diam., over X, marked on limestone bedrock, with a limestone rock, 12x6x4 ins. marked 1/4, deposited alongside, and in a mound of stone, 6 ft. base, to top, for 1/4 sec. cor., with brass cap marked



45.00 Head of small draw, 30 ft. below 1/4 sec. cor., drains S.80°W.; ascend gradual SE. slope.

SUBDIVISION OF T.14 S., R.12 W.

Chains

48.50

Top of ascent, 10 ft. above draw, bears E. and W.; descent gradual NW. slope.

80.00

On NW. slope, 140 ft. below top of ascent.

Set an iron post, 3 ft. long, 2 ins. diam., 30 ins. in the ground with a limestone rock, 10x6x3 ins., marked 4 notches on the S. and 4 notches on the E. edge deposited alongside, for cor. of secs. 8, 9, 16 and 17, with brass cap marked

T14S	R12W
------	------

S 8	S 9
-----	-----

S 17	S 16
------	------

1936

raise a mound

of stone, 2½ ft. base, 2 ft. high, W. of cor.

Land, rolling desert.

Soil, sandy, rocky clay, 2nd to 3rd rate.

Undergrowth, medium dense shadscale, kerosene brush, bud sage, and mountain rush. Fair growth of grass.

No timber.

Fair winter grazing land.

S.89°58'E. on random line bet. secs. 9 and 16.

40.00

Set temporary ¼ sec. cor.

80.00

Intersect N. and S. line, 2 lks. S. of the cor. of secs. 9, 10, 15 and 16.

Thence

N.89°59'W. on true line bet. secs. 9 and 16.

Over rolling desert land through medium dense undergrowth.

24.20

Wash, 20 lks. wide, 3 ft. deep, drains NW.

40.00

Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, with a limestone rock, 12x8x6 ins., marked ¼, deposited alongside, for ¼ sec. cor., with brass cap marked

¼	S 9
---	-----

S 16
------

1936

raise a mound

of stone, 3 ft. base, 2 ft. high, N. of cor.

SUBDIVISION OF T.14 S., R.12 W.

Chains

55.00 Wash, 10 lks. wide, 1 ft. deep, drains N.20°W.

80.00 The cor. of secs. 8, 9, 16 and 17.

Land, rolling desert.

Soil, sandy clay, 2nd rate.

Undergrowth, medium dense shadscale, kerosene brush, bud sage, mountain rush and yellow top. Fair growth of grass.

No timber.

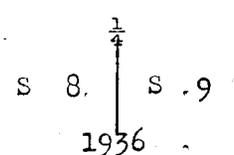
Fair winter grazing land.

N.0°03'W. bet. secs. 8 and 9.

Over rolling desert land through medium dense undergrowth.

23.50 Wash, 20 lks. wide, 1 ft. deep, drains N.70°W.

40.00 Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, with a limestone rock, 6x6x6 ins., marked  $\frac{1}{4}$ , deposited alongside, for  $\frac{1}{4}$  sec. cor., with brass cap marked

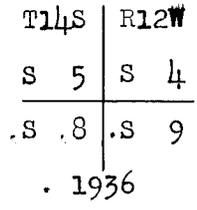


raise a mound

of stone, 3 ft. base, 2 ft. high, W. of cor.

40.60 Wash, 6 lks. wide, 2 ft. deep, drains N.70°W.

80.00 Set an iron post, 3 ft. long, 2 ins. diam., 30 ins. in the ground, with a limestone rock, 10x5x3 ins., marked 5 notches on S. and 4 notches on E. edge, deposited alongside, for cor. of secs. 4, 5, 8 and 9, with brass cap marked



raise a mound

of stone, 3 ft. base, 2 ft. high, W. of cor.

From this sec. cor., N.20°35'E., 25.19 chs. dist., is a pump house and well, tank and iron trough, established by the E.C.W. of the Division of Grazing. The water pumped from this well is alkaline in nature.

From this cor. N.34°51'E. 26.27 chs. dist., is a U.S. Coast and Geodetic Survey B.M., which is a brass cap set in top of a pillar of concrete, 12 ins. diam., marked

SUBDIVISION OF T. 14 S., R. 12 W.

Chains

Y 7.8

1934.

Land, rolling desert.

Soil, sandy clay, 2nd rate.

Undergrowth, medium dense shadscale, kerosene brush, bud sage, mountain rush, and yellow top. Fair growth of grass.

No timber.

Fair winter grazing land.

S. 89°59'E. on random line bet. secs. 4 and 9.

40.00 Set temporary 1/4 sec. cor.

80.00 Intersect N. and S. line, 2 lks. S. of the cor. of secs. 3, 4, 9 and 10.

Thence

West, on true line bet. secs. 4 and 9.

Over rolling desert land, through medium dense undergrowth

22.20 Wash, 15 lks. wide, 2 ft. deep, drains N.60°W.

25.40 Wash, 12 lks. wide, 1 1/2 ft. deep, drains N.30°W.

40.00 Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, with a limestone rock, 10x10x2 ins., marked 1/4 deposited alongside, for 1/4 sec. cor., with brass cap marked

1/4 S 4 / S 9 1936.

raise a mound

of stone, 2 ft. base, 1 1/2 ft. high, N. of cor.

46.70 Old road, Fish Springs to Joy, bears NW. and SE.

80.00 The cor. of secs. 4, 5, 8 and 9.

Land, rolling desert.

Soil, sandy clay, 2nd rate.

Undergrowth, medium dense shadscale, kerosene brush, mountain rush, and white sage. Fair growth of grass.

No timber.

Fair winter grazing land.

## SUBDIVISION OF T.14 S., R.12 W.

Chains

- N.0°09'E. on random line bet. secs. 4 and 5.
- 40.00 Set temporary  $\frac{1}{4}$  sec. cor.
- 79.96 Intersect N. bdy. of Tp., 2 lks. E. of the cor. of secs. 4, 5, 32 and 33, heretofore described.
- Thence
- S.0°08'W. on true line bet. secs. 4 and 5.
- Over rolling desert land, through medium dense undergrowth
- 11.60 Wash, 50 lks. wide, 1 ft. deep drains S.70°W.
- 36.80 Old road, Fish Springs to Joy, bears N.38°W. and S.38°E.
- 39.96 Set an iron post, 3-ft. long, 1 in. diam., 30 ins. in the ground, with a limestone rock 12x8x3 ins., marked  $\frac{1}{4}$ , deposited alongside, for  $\frac{1}{4}$  sec. cor., with brass cap-marked
- $\frac{1}{4}$

S 5 | S 4

1936
- raise a mound of stone, 2 $\frac{1}{2}$  ft. base, 2 $\frac{1}{2}$  ft. high, W. of cor.
- 53.90 Old road, bears N.80°W. and S.80°E.
- 63.40 Old road, bears N.60°E. and S.60°W.
- 76.80 Old road, bears NE. and SW.
- 79.96 The cor. of secs. 4, 5, 8 and 9.
- Land, rolling desert.
- Soil, rocky, sandy clay, 2nd to 3rd rate.
- Undergrowth, medium dense shadscale, kerosene brush, mountain rush and yellow-top. Fair growth of grass.
- No timber.
- Fair winter grazing land.
- 
- From the cor. of secs. 5, 6, 31 and 32, on S. bdy. of Tp. which is an iron post, 2 ins. diam., set, marked, and witnessed as described in the official notes of T.15S., R.12 W.
- N.0°03'W. bet. secs. 31 and 32.
- Over rolling desert land, through medium dense undergrowth.
- 23.60 Old road, bears N.60°E. and S.60°W.
- 34.80 Wash, 10 lks. wide, 1 ft. deep, drains N.60°W.; begin

SUBDIVISION OF T.14 S., R.12 W.

Chains

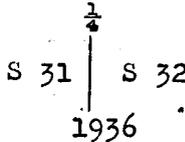
SECTION

ascent of S. slope of hill. . . . . 180°0.W

40.00

On SE. slope, 20 ft. above wash. . . . . 00.01

Set an iron post, 3 ft. long, 1 in. diam., 6 ins. in the ground to bedrock, with a limestone rock, 14x12x4 ins., marked 1/4, deposited alongside and in a mound of stone, 6 ft. base, to top, for 1/4 sec. cor., with brass cap marked



54.50

Low hill, 40 ft. above 1/4 sec. cor., bears N.60°E. and S.60°W.; descend N. slope.

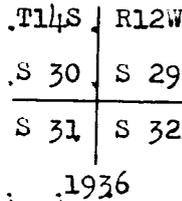
73.80

Wash, 30 lks. wide, 5 ft. deep, 115 ft. below hill, drains W.; ascend SE. slope.

80.00

On SE. slope, 25 ft. above wash.

Set an iron post, 3 ft. long, 2 ins. diam., 12 ins. in the ground to solid rock, with a limestone rock, 10x10x4 ins., marked 1 notch on S. and 5 notches on E. edge, deposited alongside, and in a mound of stone, 6 ft. base, to top, for cor. of secs. 29, 30, 31 and 32, with brass cap marked



Land, rolling desert.

Soil, rocky, sandy clay, 3rd rate.

Undergrowth, medium dense shadscale, kerosene brush, bud sage, and yellow top. Fair growth of grass.

No timber.

Fair winter grazing land.

40.00

East on random line bet. secs. 29 and 32.

Set temporary 1/4 sec. cor.

80.00

Intersect the cor. of secs. 28, 29, 32 and 33.

Thence

West, on true line bet. secs. 29 and 32.

Over rolling desert land through medium dense undergrowth.

## SUBDIVISION OF T. 14 S., R. 12 W.

## Chains

- 16.20 Wash, 12 lks. wide,  $1\frac{1}{2}$  ft. deep, drains S.60°W.
- 40.00 Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, with a limestone rock, 10x5x4 ins., marked  $\frac{1}{4}$  deposited alongside, for  $\frac{1}{4}$  sec. cor., with brass cap marked
- $\frac{1}{4}$  S 29  
S.32  
1936
- 47.90 Wash, 35 lks. wide, 6 ft. deep, drains N.30°W.; enter low rolling hills bearing N. and S.; ascend NE. slope.
- 59.30 Rise, 50 ft. above wash, slopes E., 4 chs. to end; descend NW. slope.
- 64.10 Wash, 30 lks. wide, 5 ft. deep, 55 ft. below spur, drains S.60°W.; ascend E. slope.
- 70.00 Small knoll, 5 chs. diam., 20 ft. above wash; descend W. slope.
- 77.20 Wash, 35 lks. wide, 4 ft. deep, 30 ft. below knoll, drains W. about 1 ch. thence southerly.
- 80.00 The cor. of secs. 29, 30, 31 and 32.  
Land, rolling to low rolling hills.  
Soil, sandy clay, 2nd rate.  
Undergrowth, medium dense shadscale, kerosene brush, bud sage and yellow top. Fair growth of grass.  
No timber.  
Fair winter grazing land.
- 
- West on random line bet. secs. 30 and 31.
- 40.00 Set temporary  $\frac{1}{4}$  sec. cor.
- 79.90 Intersect the cor. of secs. 25, 30, 31 and 36, on W. bdy. of Tp., heretofore described.  
Thence  
East on true line bet. secs. 30 and 31.  
Over rolling desert land through medium dense undergrowth.
- 20.40 Wash, 18 lks. wide, 4 ft. deep, drains N.20°E.
- 31.20 Wash, 20 lks. wide, 5 ft. deep, drains N.20°E.
- 34.80 Wash, 15 lks. wide, 3 ft. deep, drains N.
- 39.00 Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, with a limestone rock, 13x6x3 ins., marked  $\frac{1}{4}$ , deposited alongside, for  $\frac{1}{4}$  sec. cor., with brass cap marked

## SUBDIVISION OF T. 14 S., R. 12 W.

Chains		Meters
	$\frac{1}{4}$ S 30	00.01
	$\frac{1}{4}$ S 31 1936	00.01
48.90	Wash, 25 lks. wide, 4 ft. deep, drains NW.; enter low rolling hills, bearing NW. and SE.; ascend gradual SW. slope.	
61.20	Low rise, 40 ft. above wash, slopes SW.; descend SE. slope.	
69.00	Small draw, 15 ft. below rise, drains SW.; ascend SW. slope.	
73.70	Spur, 100 ft. above wash, projects S.10°W.; descend SE. slope.	
79.00	The cor. of secs. 29, 30, 31 and 32, 75 ft. below spur. Land, rolling to rolling hills. Soil, rocky sandy clay, 2nd to 3rd rate. Undergrowth, medium dense shadscale, kerosene brush, bud sage, and mountain rush. Fair growth of grass. No timber. Fair winter grazing land.	
	N.0°03'W. bet. secs. 29 and 30.	
	Over rolling hills, through medium dense undergrowth; ascend SE. slope.	
6.20	Top of ascent, 105 ft. above sec. cor., slopes E.; descend NE. slope.	
19.20	Small draw, 55 ft. below top of ascent, drains S.30°E.; ascend SE. slope.	
40.00	On SE. slope, 100 ft. above draw. Set an iron post, 3 ft. long, 1 in. diam., 8 ins. in the ground to solid rock, with a limestone rock, 12x8x5 ins. marked $\frac{1}{4}$ , deposited alongside, and in a mound of stone, 5 ft. base to top, for $\frac{1}{4}$ sec. cor., with brass cap marked	
	$\frac{1}{4}$ S 30   S 29 1936	
66.80	Junction of spurs, from S.80°W. 300 ft. above $\frac{1}{4}$ sec. cor. projects N.80°E. and S.30°E.; descend N. slope.	
80.00	On NE. slope, 280 ft. below junction of spurs. Set an iron post, 3 ft. long, 2 ins. diam., 30 ins. in	

SUBDIVISION OF T.14 S., R.12 W.

Chains

the ground, with a limestone rock, 14x6x3 ins., marked 2 notches on S. and 5 notches on E. edges, deposited alongside, for cor. of secs. 19, 20, 29 and 30, with brass cap marked

T14S	R12W
S 19	S 20
S 30	S 29
1936	

raise a mound

of stone, 3 ft. base, 2 1/2 ft. high, W. of cor.

Land, rolling hills.

Soil, rocky sandy clay, 3rd rate.

Undergrowth, medium dense shadscale, kerosene brush, bud sage, mountain rush and yellow top.

No timber.

Fair winter grazing land.

East on random line bet. secs. 20 and 29.

40.00 Set temporary 1/4 sec. cor.

79.96 Intersect N. and S. line, 6 lks. N. of the cor. of secs. 20, 21, 28 and 29.

Thence

N. 9°57' W. on true line bet. secs. 20 and 29.

Over low rolling hills through medium dense undergrowth; ascend SE. slope.

2.10 Low spur, 10 ft. above sec. cor., projects SW.; descend SW. slope.

12.90 Wash, 7 lks. wide, 1 ft. deep, 70 ft. below spur, drains S.; ascend along S. slope.

39.98 On S. slope, 25 ft. above wash.

Set an iron post, 3 ft. long, 1 in. diam., 12 ins. in the ground to solid rock, with a limestone rock 6x6x5 ins., marked 1/4, deposited alongside, and in a mound of stone, 5 ft. base, to top, for 1/4 sec. cor., with brass cap marked

1/4	S 20
	S 29
	1936

53.80 Spur, 25 ft. above 1/4 sec. cor., projects SW.; descend SW. slope.

SUBDIVISION OF T.14 S., R.12 W.

Chains

marked

56.99 Intersection of washes from N.85°W. and N., 25 ft. below spur, drains SE.; ascend NE. slope.

79.36 The cor. of secs. 19, 20, 29 and 30, 80 ft. above wash. Land, low rolling hills.

Soil, rocky, sandy clay, 3rd rate.

Undergrowth, medium dense shadscale, kerosene brush, bad sage, and yellow top. Fair growth of grass.

No timber.

Fair winter grazing land.

Rest on random line bet. secs. 19 and 30.

10.00 Set temporary 1/4 sec. cor.

11.51 Intersect n. bdy. of Tp., 2 lks. S. of the cor. of secs. 19, 20, 29 and 30, heretofore described.

Thence

S.59°59'E. on true line bet. secs. 19 and 30.

Over rolling desert hills through medium dense undergrowth; descend gradual E. slope.

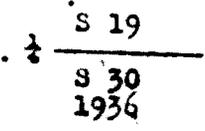
14.40 Old road, bears NE. and S.60°W.

17.20 Wash, 45 lks. wide, 4 ft. deep, 10 ft. below sec. cor., drains N.30°W.; ascend gradual NW. slope.

18.10 Top of ascent, 15 ft. above wash, slopes S.; descend SE. slope.

19.30 Small draw, 15 ft. below top of ascent, drains S.30°W. ascend rocky SW. slope.

37.20 Limestone outcropping, 175 ft. above draw, bears N.20°E. and S.20°W.; thence along north slope. On rocky N. slope, 10 ft. below outcroppings. Set an iron post, 3 ft. long, 1 in. diam., 6 ins. in the ground, to bedrock, with a limestone rock, 10x8x2 ins., marked 1/4, deposited alongside, and in a mound of stone, 6 ft. base, to top, for 1/4 sec. cor., with brass cap marked



Ascend along NW. slope.

41.90 Spur, 30 ft. above 1/4 sec. cor., projects S.70°W.

52.30 Draw, drains S.60°W.; ascend steep W. slope.

63.70 Ridge, 225 ft. above draw, bears N. and S.; descend NE. slope.

70.01 The cor. of secs. 19, 20, 29 and 30, 185 ft. below ridge.

## SUBDIVISION OF T. 14 S., R. 12 W.

Chains

Land, rolling hills.

Soil, rocky sandy clay, 3rd rate.

Undergrowth, medium dense shadscale, kerosene brush, bud sage, mountain rush and yellow top.

No timber.

Fair growth of grass.

N. 0° 03' W. bet. secs. 19 and 20

Over rolling desert hills through medium dense undergrowth; descend gradual N. slope.

- 2.20 Small draw, 10 ft. below sec. cor., drains E.; ascend SE. slope.
- 13.30 Spur, 150 ft. above draw, projects S. 70° E.; descend NE. slope.
- 21.50 Small draw, 25 ft. below spur, drains S. 60° E.; ascend SE. slope.
- 26.50 Ridge, 30 ft. above draw, bears E. and SW.; descend abrupt rocky, N. slope.
- 38.20 Draw, 300 ft. below ridge, drains NW.; ascend.
- 40.00 On SW. slope of low spur.
- Set an iron post, 3 ft. long, 1 in. diam., over X, marked on bedrock, with a limestone rock 11x7x7 ins., marked  $\frac{1}{4}$ , deposited at base, and in a mound of stone, 6 ft. base, to top, for sec. cor., with brass cap marked
- $\frac{1}{4}$   
 S 19 | S 20  
 1936
- 42.70 Low spur, 15 ft. above  $\frac{1}{4}$  sec. cor., projects NW.; descend NW. slope.
- 49.60 Small draw, 55 ft. below spur, drains W., 5 chs.; thence NW., ascend SW. slope.
- 52.60 Spur, 15 ft. above draw, projects N. 30° W.; descend NE. slope.
- 65.70 Draw, 110 ft. below spur, drains N. 20° W.
- 80.00 At base of rolling hills, bearing N. 60° E. and S. 80° W., 30 ft. below draw.

Set an iron post, 3 ft. long, 2 ins. diam., 30 ins. in the ground, with a limestone rock, 6x5x3 ins., marked 3 notches on S., and 5 notches on E., edges, deposited alongside, for cor. of secs. 17, 18, 19, and 20, with brass cap marked

SUBDIVISION OF T.14 S., R.12 W.

Chains

anlad0

T14S	R12W	SECTION	AREA
S 18	S 17	1/4	1.0000
S 19	S 20	1/4	1.0000
1936			

raise a mound

of stone, 3 ft. base, 2 1/2 ft. high, W. of cor.

Land, rolling hills.

Soil, rocky, sandy clay, 3rd rate.

Undergrowth, medium dense shadscale, kerosene brush, bud sage, white sage and mountain rush. Fair growth of grass

No timber.

Fair winter grazing land.

S.89°57'E. on random line bet. secs. 17 and 20.

40.00 Set temporary 1/4 sec. cor.

79.98 Intersect N. and S. line, 4 lks. N. of the cor. of secs. 16, 17, 20 and 21.

Thence

N.89°55'W. on true line bet. secs. 17 and 20

Over rolling land, through medium dense undergrowth, ascend gradual NE. slope.

5.00 Spur, 10 ft. above sec. cor., projects N.; descend gradual W. slope.

29.40 Wash, 8 lks. wide, 1 ft. deep, 40 ft. below spur, drains N.; ascend gradual E. slope.

39.99 Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, with a limestone rock, 8x5x3 ins., marked 1/4, deposited alongside, for 1/4 sec. cor., with brass cap marked

1/4	S 17	/
	S 20	
1936		

raise a mound

of stone, 3 ft. base, 2 1/2 ft. high, N. of cor.

57.90 Spur, 85 ft. above 1/4 sec. cor., projects N.; descend W. slope.

79.98 The cor. of secs. 17, 18, 19 and 20, 130 ft. below spur.

## SUBDIVISION OF T. 14 S., R. 12 W.

Chains

Land; low rolling hills.

Soil, rocky, sandy clay, 3rd rate.

Undergrowth, medium dense shadscale, kerosene brush, and bud sage. Fair growth of grass.

No timber.

Fair winter grazing land.

N. 89° 59' W. on random line bet. secs. 18 and 19.

40.00 Set temporary  $\frac{1}{4}$  sec. cor.78.74 Intersect W. bdy. of Tp.,  $\frac{1}{4}$  lks. N. of the cor. of secs. 13, 18, 19 and 24, heretofore described.

Thence

N. 89° 59' E. on true line bet. secs. 18 and 19.

Over rolling desert land through medium dense undergrowth.

13.70 Low rise, slopes N. 30° W.

38.74 Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, with a limestone rock, 6x7x1 ins., marked  $\frac{1}{4}$ , deposited alongside, for  $\frac{1}{4}$  sec. cor., with brass cap marked

S 13

S 19

195

69.60 Old road, bears NE. and SW.

74.74 The cor. of secs. 17, 18, 19 and 20.

Land, rolling desert.

Soil, sandy clay, 2nd rate.

Undergrowth, medium dense shadscale, kerosene brush, bud sage, white sage, mountain rush and yellow top. Fair growth of grass.

No timber.

Fair winter grazing land.

N. 0° 03' W. bet. secs. 17 and 18.

Over gently rolling land through medium dense undergrowth.

12.60 Old road, bears NE. and SW.

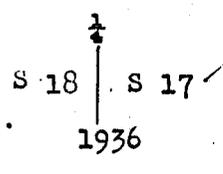
SUBDIVISION OF T.11 S., R.12 W.

Chains

acres

40.00

Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in ground, with a limestone rock, 8x6x3 ins., marked  $\frac{1}{4}$ , deposited alongside, for  $\frac{1}{4}$  sec. cor., with brass cap marked



56.80

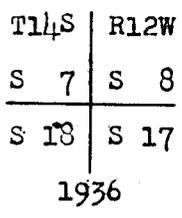
Wash, 25 lks. wide, 3 ft. deep, drains N.60°W. raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.

60.60

Wash, 30 lks. wide, 3 ft. deep, drains N.70°W.

80.00

Set an iron post, 3 ft. long, 2 ins. diam., 30 ins. in the ground, with a limestone rock, 9x7x4 ins., marked 4 notches on S., and 5 notches on E., edge, deposited alongside, for cor. of secs. 7, 8, 17 and 18, with brass cap marked



raise a mound of stone, 3 ft. base, 2½ ft. high, W. of cor.

Land, rolling desert.

Soil, sandy clay, 2nd rate.

Undergrowth, medium dense shadscale, kerosene brush and yellow top. Fair growth of grass.

No timber.

Fair winter grazing land.

40.00

S.89°55'E. on random line bet. secs. 8 and 17.

79.98

Set temporary  $\frac{1}{4}$  sec. cor.

Intersect N. and S. line, 2 lks. N. of the cor. of secs. 8, 9, 16 and 17.

Thence

N.89°54'W. on true line bet. secs. 8 and 17.

Over rolling desert land through medium dense undergrowth.

23.90

Old road, bears N.20°E. and S.20°W.

39.99

Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the

ground, with a limestone rock, 9x8x6 ins., marked  $\frac{1}{4}$ , deposited alongside, for  $\frac{1}{4}$  sec. cor., with brass cap marked

S 8  
 $\frac{1}{4}$  —————  
S 17  
1936

79.98

The cor. of secs. 7, 8, 17 and 18.

Land, rolling desert.

Soil, sandy clay, 2nd rate.

Undergrowth, medium dense shadscale, kerosene brush, mountain rush and yellow top. Fair growth of grass.

No timber.

Fair winter grazing land.

40.00

S. 89° 59' W. on random line bet. secs. 7 and 18.

Set temporary  $\frac{1}{4}$  sec. cor.

78.64

Intersect w. bdy. of Twp., 2 lks. S. of the cor. of secs. 7, 12, 13 and 18, heretofore described.

Thence

East on true line bet. secs. 7 and 18.

Over rolling desert land through medium dense undergrowth.

38.61

Set an iron post, 3 ft. long, 1 in. diam., 20 ins. in the ground, with a limestone rock, 8x8x4 ins., marked  $\frac{1}{4}$ , deposited alongside, for  $\frac{1}{4}$  sec. cor., with brass cap marked

S 7  
 $\frac{1}{4}$  —————  
S 18  
1936

raise a mound

of stone, 3 ft. base, 2  $\frac{1}{2}$  ft. high, N. of cor.

44.20

Low rise, 20 ft. high, bears N. 70° E. and S. 70° W.

53.60

Wash, 15 lks. wide, 3 ft. deep, drains N. 30° E.

65.00

Wash, 30 lks. wide, 5 ft. deep, drains N. 10° E.

78.64

The cor. of secs. 7, 8, 17 and 18.

Land, rolling desert.

Soil, sandy clay, 2nd rate.

Undergrowth, medium dense shadscale, kerosene brush, bud sage, white sage, and yellow top. Fair growth of grass.

SUBDIVISION OF T.14 S., R.12 W.

Chains

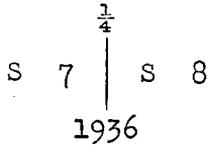
211.34

No timber.  
Fair winter grazing land.

10.00  
40.00

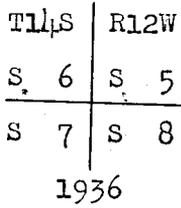
N.0°03'W. bet. secs. 7 and 8.  
Over rolling desert land through medium dense shadscale.  
Low rise, bears N.70°E. and S.70°W.

Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, with a limestone rock, 7x5x2 ins., marked  $\frac{1}{4}$ , deposited alongside, for  $\frac{1}{4}$  sec. cor., with brass cap marked



75.80  
77.10  
80.00

Old road, bears E. and W.  
Wash, 12 lks. wide, 3 ft. deep, drains NW.  
Set an iron post, 3 ft. long, 2 ins. diam., 30 ins. in the ground, with a limestone rock, 10x5x2 ins., marked 5 notches on S. and 5 notches on E. edges, deposited alongside, for cor. of secs. 5, 6, 7 and 8, with brass cap marked



raise a mound of stone, 2 $\frac{1}{2}$  ft. base, 2 ft. high, W. of cor.  
Land, rolling desert.  
Soil, sandy clay, 2nd rate.  
Undergrowth, medium dense shadscale, kerosene brush, bud sage, white sage, and yellow top.  
No timber.  
Fair winter grazing land.

40.00

S.89°54'E. on random line bet. secs. 5 and 8.  
Set temporary  $\frac{1}{4}$  sec. cor.

SUBDIVISION OF T. 11 N. R. 112 W.

85.00 Intersect N. and S. line, 7 lks. S. of the cor. of secs. 4, 5, 8 and 9.

Thence

N. 89° 57' W. on true line bet. secs. 5 and 8.

Over rolling desert land, through medium dense undergrowth.

2.30 Old road, bears NE. and SW.

40.00 Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, with a limestone rock, 1 1/2 x 12 x 8 ins., marked 1/4, deposited alongside; for 1/4 sec. cor., with brass cap marked

1/4 — S 5 /  
S 8  
1936

raise a mound

of stone, 3 ft. base, 2 1/2 ft. high, N. of cor.

53.50 Old road, bears N. 60° E. and S. 60° W.

58.00 Wash, 20 lks. wide, 5 ft. deep, drains NW.

71.90 Wash, 10 lks. wide, 1 ft. deep, drains NW.

80.00 The cor. of secs. 5, 6, 7 and 8.

Land, rolling desert.

Soil, sandy clay, 2nd rate.

Undergrowth, medium dense shade-scale, kerosene brush, yellow top, white sage and mountain rush.

No timber.

Fair winter grazing land.

West, on random line bet. secs. 6 and 7.

40.00 Set temporary 1/4 sec. cor.

78.48 Intersect the cor. of secs. 1, 6, 7 and 12 on W. bdy. of Tp., heretofore described

Thence

East on true line bet. secs. 6 and 7.

Over rolling desert land through medium dense undergrowth.

1.00 Wash, 20 lks. wide, 2 1/2 ft. deep, drains N. 30° W.

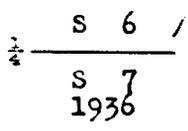
38.48 Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, with a limestone rock 6 x 6 x 4 ins., marked 1/4

SUBDIVISION OF T. 14 S., R. 12 W.

Chains

311.10

deposited alongside, for 1/4 sec. cor., with brass cap marked



raise a mound

of stone, 2 1/2 ft. base, 2 ft. high, N. of cor.

55.50 Old road, bears NW. and SE.

77.10 Wash, 12 lks. wide, 2 ft. deep, drains NW.

78.48 The cor. of secs. 5, 6, 7 and 8.

Land, rolling desert.

Soil, sandy clay, 2nd rate.

Undergrowth, medium dense shadscale, kerosene brush, mountain rush, bud sage and yellow top. Fair growth of grass.

No timber.

Fair winter grazing land.

N. 0° 08' E. on random line bet. secs. 5 and 6.

80.00 Set temporary 1/4 sec. cor.

79.93 Intersect N. bdy. of Tp. 4 lks. W. of the cor. of secs. 5, 6, 31 and 32, heretofore described.

thence

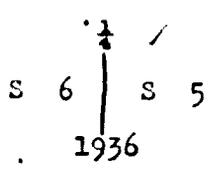
N. 1° 10' W. on true line bet. secs. 5 and 6.

Over rolling desert land, through medium dense undergrowth.

81.00 Wash, 10 lks. wide, 3 1/2 ft. deep, drains NW.

82.70 Old road, bears N. 80° W. and E.

82.93 Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, with a limestone rock, 7x5x2 ins., marked 3, deposited along side, for 1/4 sec. cor., with brass cap marked



raise a mound

of stone, 2 1/2 ft. base, 2 ft. high, W. of cor.

87.50 Wash, 15 lks. wide, 4 ft. deep, drains N. 60° W.

79.93 The cor. of secs. 5, 6, 7 and 8.

## SUBDIVISION OF T.14 S., R.12 W.

Chains

Land, rolling desert.

Soil, sandy clay, 2nd rate.

Undergrowth, medium dense shadscale, kerosene brush, mountain rush, yellow top, and white sage.

No timber.

Fair winter grazing land.

## GENERAL DESCRIPTION

The land embraced in Township 14 South, Range 12 West, is desert in character, ranging from gently rolling to rough mountainous, with elevations of approximately 4700 ft. to 6400 ft. above sea level. The northeast portion of the township is rough mountainous and the southwest portion is hilly. The remainder is rolling land.

The soil in the mountainous and hilly regions is very rocky, in the form of exposed bedrock, outcrops and small ledges, with a shallow covering of sandy clay and maybe classed as 3rd to 4th rate. In parts of the hilly, and all of the rolling land the soil is a sandy clay, mixed with rocks on clay subsoil and maybe classed 2nd to 3rd rate. The rock formation is chiefly blue limestone.

There is no timber, but the soil supports a medium growth of shadscale, kerosene brush, bud sage, yellow top, mountain rush and white sage, which affords fair grazing for stock in the winter months.

There is a well, pump and trough, established by the U.S.W. of the Grazing Division, located in the NW $\frac{1}{4}$ , SW $\frac{1}{4}$  of section 4. The water pumped from this well is alkaline and its use is limited to stock. There is no other water in the township.

There are numerous unimproved roads extending through this township. The main road is from Fish Springs to Joy and bears in a northwesterly and southeasterly direction through the township.

The only real value of the township is for winter grazing, and was being used for such at the time of the survey.

There were no indications of coal, oil, oilshale, or minerals noted.

The mean declination is 17°E.

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BOOK A-519

4-680  
(Revised May 1984)

FIELD ASSISTANTS

NAMES	CAPACITY
Eugene J. Holmes	Chairman
Clark Bird	"
Burton Anderson	"
Edward Reid	"
Nels Rust	Cornerman
Theodore Lamb	"
Bill Fotheringham	Arman
Carvel Albrecht	"
Wayne Loveland	"
Everett Harrison	Flagman
George Peterson	"
Edgar Pitcher	Arman

CERTIFICATE OF UNITED STATES SURVEYOR

We Sidney R. Reese, Transitman and Ervine F. Smith, Transitman, HEREBY CERTIFY upon honor that, in

puruance of special instructions bearing date of the 30th day of July, 1936,

received from the district cadastral engineer for UTAH, with assignment

instructions dated October 7, 1936, I have ~~surveyed~~ We ~~surveyed~~ independently resurveyed the

west and north boundaries and surveyed the subdivision lines of T.14 S., R.12 W.

of the Salt Lake Meridian, in the State of Utah, which are

represented in the foregoing field notes as having been executed by me and under ~~my~~ <sup>our</sup> direction; and that said

survey has been made in strict conformity with said instructions, the Manual of Instructions for the Survey

of the Public Lands of the United States, and in the specific manner described in the foregoing field notes.

Certified to at Salt Lake City, Utah March 26th, 1937

Sidney R. Reese, Transitman Ervine F. Smith, Transitman

CERTIFICATE OF APPROVAL

OFFICE OF U.S. SUPERVISOR OF SURVEYS,

Denver, Colorado APR 8 - 1937

The foregoing field notes of the ~~survey~~ <sup>surveys</sup> independently resurveyed the west and north boundaries and surveyed the subdivision lines of T.14 S., R.12 W.

executed by Sidney R. Reese, Transitman, and Ervine F. Smith, Transitman,

under special instructions dated July 30, 1936, and assignment

instructions dated October 7, 1936, having been critically examined, and

the necessary corrections made prior to their certification by the engineer, the said field notes, and the survey herein described, are hereby approved.

[Signature] U.S. Supervisor of Surveys.

CERTIFICATE OF TRANSCRIPT

I certify that the foregoing transcript of the field notes of the above described surveys in is a true copy of the original field notes on file in the public survey office.

U.S. Supervisor of Surveys.