Volume

# #

R0238

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BOOK A-238

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Preliminary Oaths of Assistants.

WE, _____ and _____ do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain upon even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; that we will report the true distances to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey of _____

_____, *Chainman.*

_____, *Chainman.*

Subscribed and sworn to before me this _____ day of _____, 189

SEAL

WE, _____ and _____ do solemnly swear that we will well and truly perform the duties of moundmen in the establishment of corners, according to the instructions given us, to the best of our skill and ability, in the survey of _____

_____, *Moundman.*

_____, *Moundman.*

Subscribed and sworn to before me this _____ day of _____, 189

SEAL

WE, _____ and _____ do solemnly swear that we will well and truly perform the duties of axmen in the establishment of corners and other duties, according to instructions given us, to the best of our skill and ability, in the survey of _____

_____, *Axman.*

_____, *Axman.*

Subscribed and sworn to before me this _____ day of _____, 189

SEAL

I, _____, do solemnly swear that I will well and truly perform the duties of flagman according to instructions given me, to the best of my skill and ability, in the survey of _____

_____, *Flagman.*

Subscribed and sworn to before me this _____ day of _____, 189

SEAL

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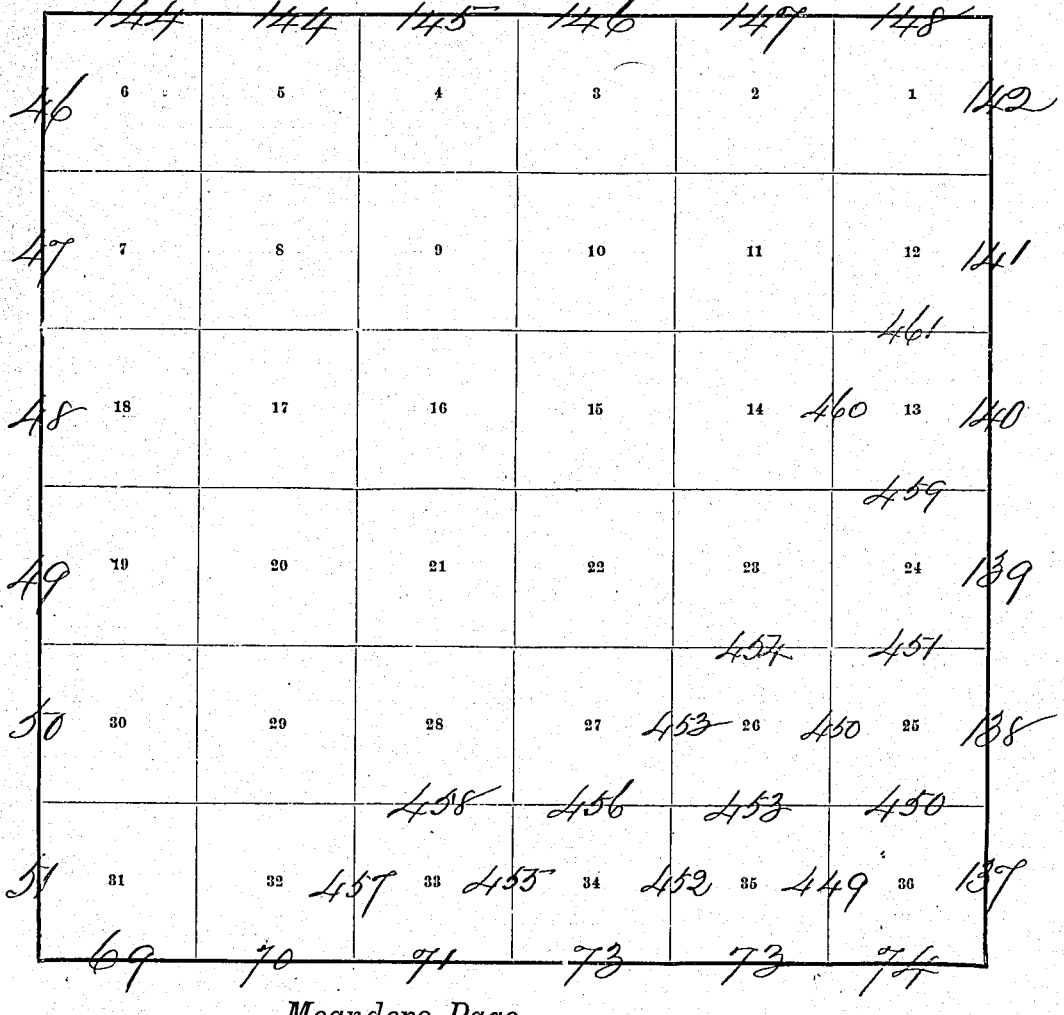
Township 35 S, Range 1 E



Meanders Page.....

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_____, *Chainman.*

Subscribed and sworn to before me this _____ day of _____, 189

SEAL

WE, _____ and _____ do solemnly swear that we will well and truly perform the duties of moundmen in the establishment of corners, according to the instructions given us, to the best of our skill and ability, in the survey of _____

_____, *Moundman.*

_____, *Moundman.*

Subscribed and sworn to before me this _____ day of _____, 189

SEAL

WE, _____ and _____ do solemnly swear that we will well and truly perform the duties of axmen in the establishment of corners and other duties, according to instructions given us, to the best of our skill and ability, in the survey of _____

_____, *Axman.*

_____, *Axman.*

Subscribed and sworn to before me this _____ day of _____, 189

SEAL

I, _____, do solemnly swear that I will well and truly perform the duties of flagman according to instructions given me, to the best of my skill and ability, in the survey of _____

_____, *Flagman.*

Subscribed and sworn to before me this _____ day of _____, 189

SEAL

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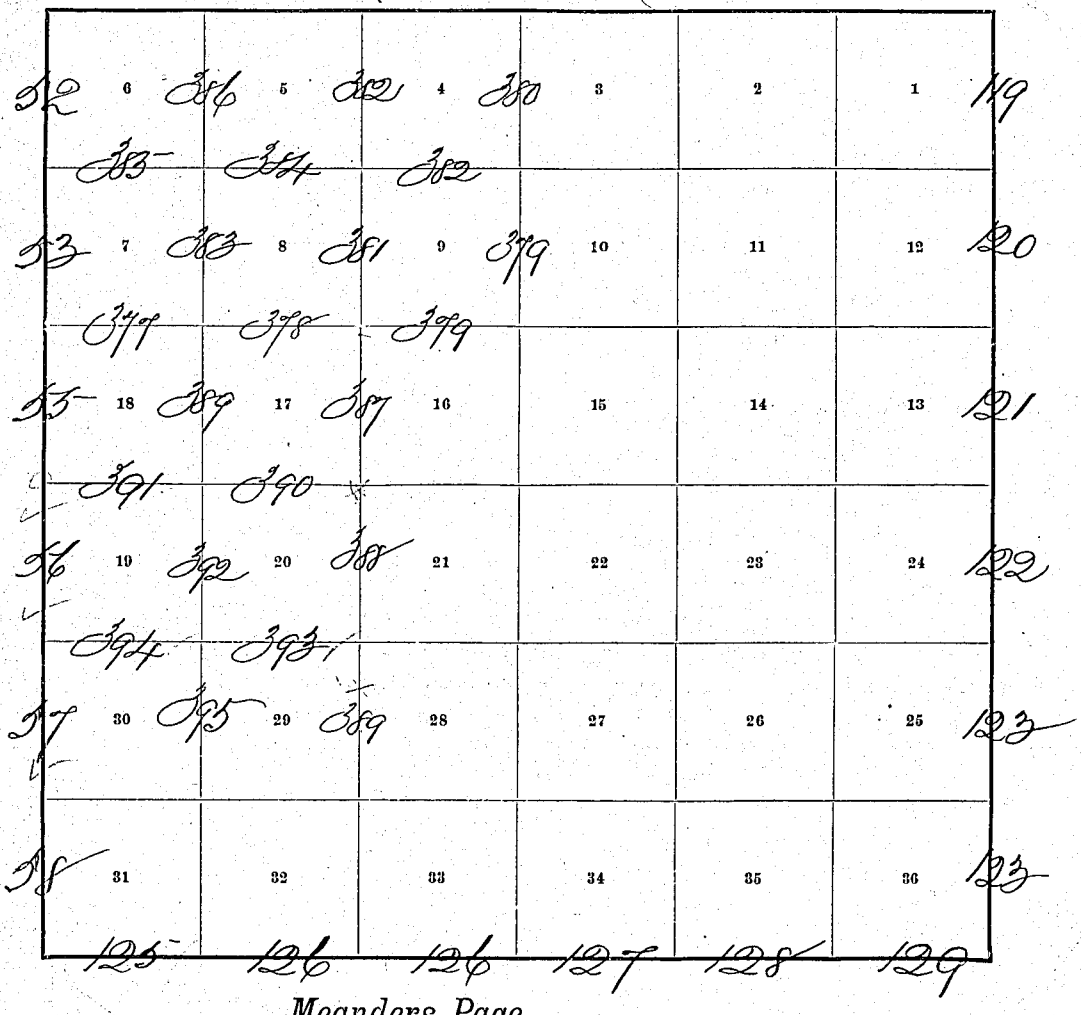
Township 36 S, *Range* 16 E



Meanders Page.....

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_____, *Chainman.*

Subscribed and sworn to before me this _____ day of _____, 189

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We, _____ and _____ do solemnly swear that we will well and truly perform the duties of moundmen in the establishment of corners, according to the instructions given us, to the best of our skill and ability, in the survey of _____

_____, *Moundman.*

_____, *Moundman.*

Subscribed and sworn to before me this _____ day of _____, 189

SEAL

We, _____ and _____ do solemnly swear that we will well and truly perform the duties of axmen in the establishment of corners and other duties, according to instructions given us, to the best of our skill and ability, in the survey of _____

_____, *Axman.*

_____, *Axman.*

Subscribed and sworn to before me this _____ day of _____, 189

SEAL

I, _____, do solemnly swear that I will well and truly perform the duties of flagman according to instructions given me, to the best of my skill and ability, in the survey of _____

_____, *Flagman.*

Subscribed and sworn to before me this _____ day of _____, 189

SEAL

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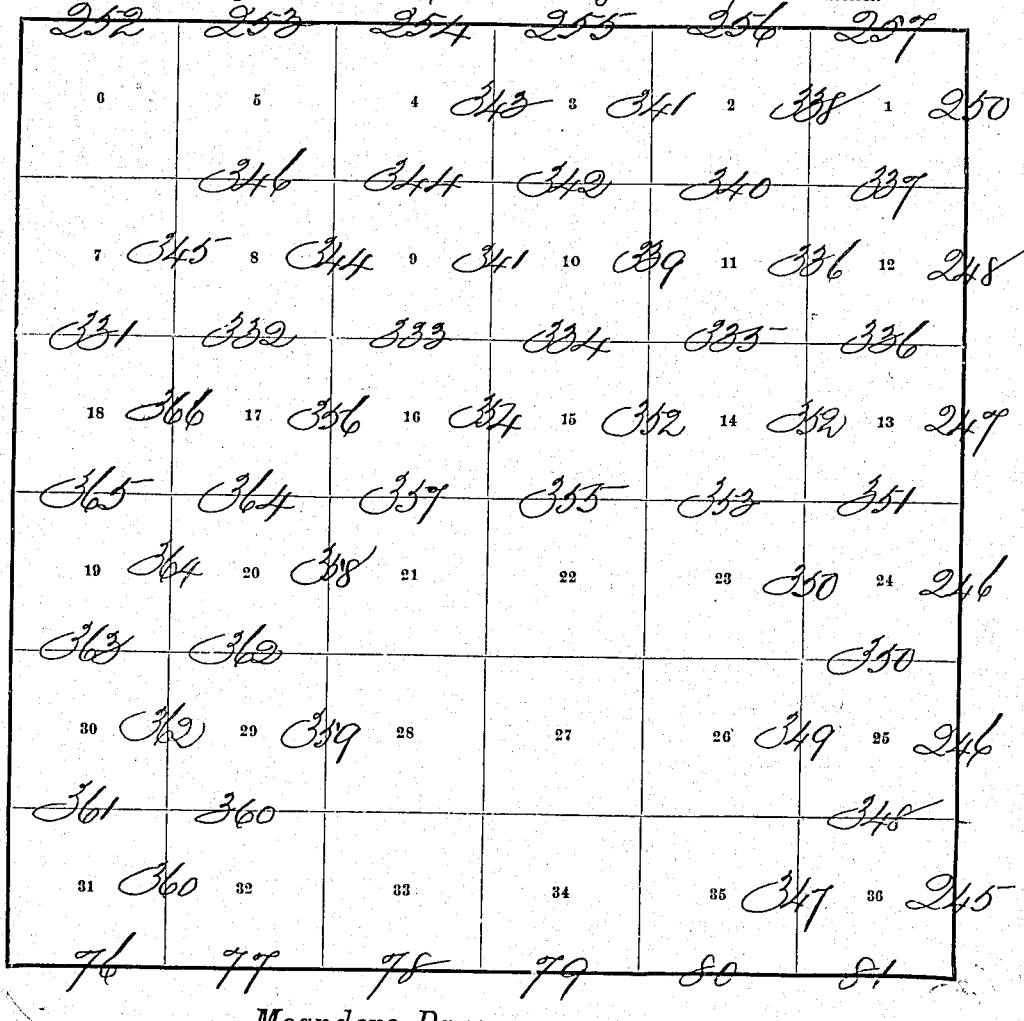
Township 35 S, *Range* 2 E



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Preliminary Oaths of Assistants.

WE, _____ and _____ do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain upon even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; that we will report the true distances to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey of

_____

_____, *Chainman.*

_____, *Chainman.*

Subscribed and sworn to before me this _____ day of _____, 189

SEAL

WE, _____ and _____ do solemnly swear that we will well and truly perform the duties of moundmen in the establishment of corners, according to the instructions given us, to the best of our skill and ability, in the survey of _____

_____

_____, *Moundman.*

_____, *Moundman.*

Subscribed and sworn to before me this _____ day of _____, 189

SEAL

WE, _____ and _____ do solemnly swear that we will well and truly perform the duties of axmen in the establishment of corners and other duties, according to instructions given us, to the best of our skill and ability, in the survey of

_____

_____, *Axman.*

_____, *Axman.*

Subscribed and sworn to before me this _____ day of _____, 189

SEAL

I, _____, do solemnly swear that I will well and truly perform the duties of flagman according to instructions given me, to the best of my skill and ability, in the survey of _____

_____, *Flagman.*

Subscribed and sworn to before me this _____ day of _____, 189

SEAL

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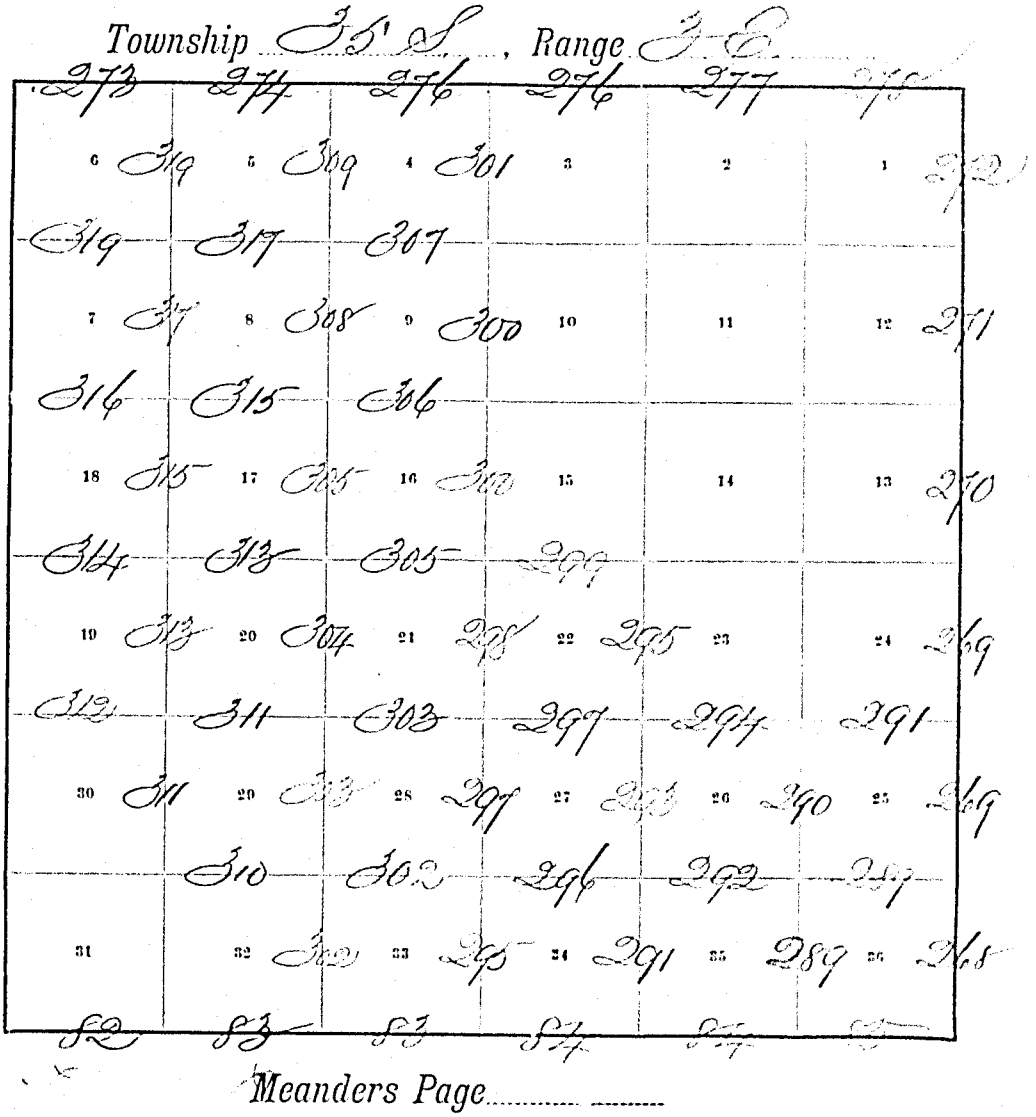
Township 35 S., Range 3 E.



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Preliminary Oaths of Assistants.

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_____, *Chainman.*

_____, *Chainman.*

Subscribed and sworn to before me this _____ day of _____, 189

SEAL

WE, _____ and _____ do solemnly swear that we will well and truly perform the duties of moundmen in the establishment of corners, according to the instructions given us, to the best of our skill and ability, in the survey of _____

_____, *Moundman.*

_____, *Moundman.*

Subscribed and sworn to before me this _____ day of _____, 189

SEAL

WE, _____ and _____ do solemnly swear that we will well and truly perform the duties of axmen in the establishment of corners and other duties, according to instructions given us, to the best of our skill and ability, in the survey of _____

_____, *Axman.*

_____, *Axman.*

Subscribed and sworn to before me this _____ day of _____, 189

SEAL

I, _____, do solemnly swear that I will well and truly perform the duties of flagman according to instructions given me, to the best of my skill and ability, in the survey of _____

_____, *Flagman.*

Subscribed and sworn to before me this _____ day of _____, 189

SEAL

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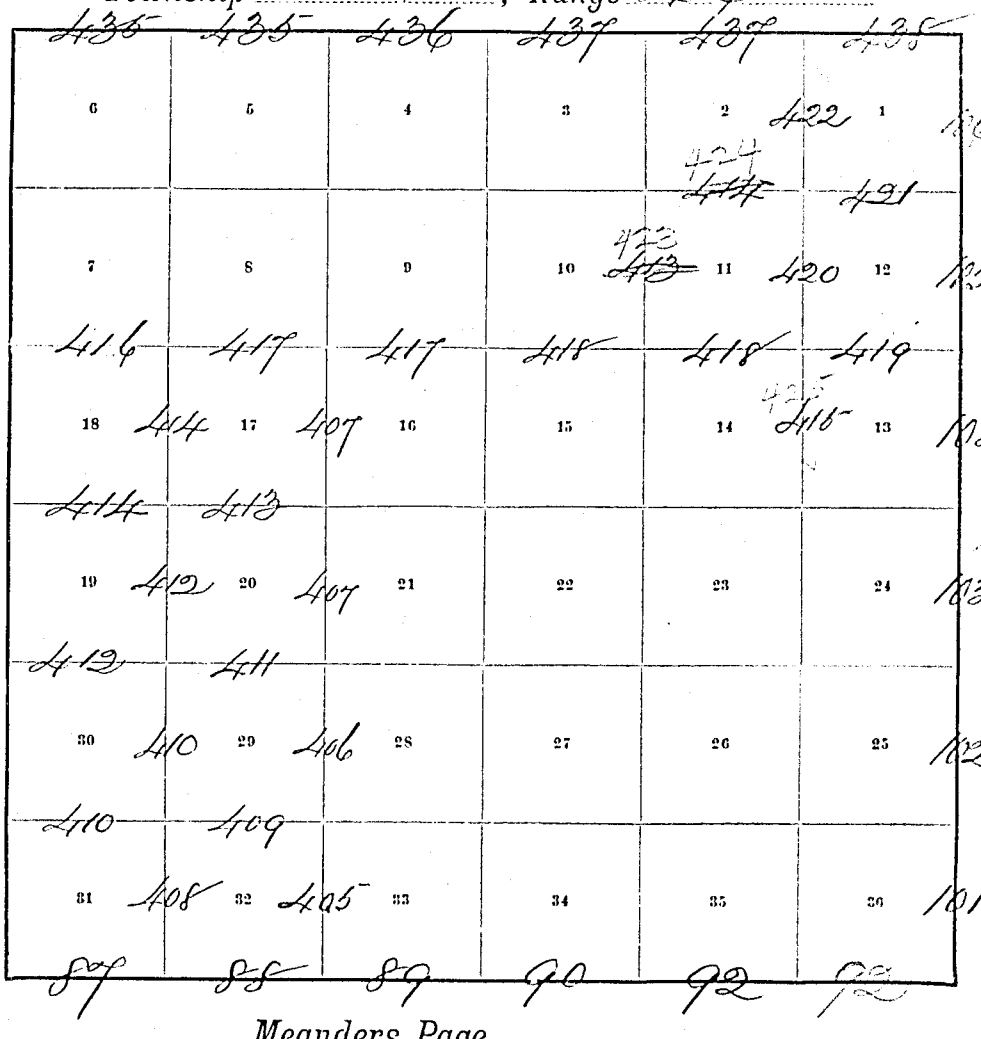
Township 35 S., Range 4 E



Meanders Page

T. St. Paul South

Preliminary Oaths of Assistants.

WE, _____ and _____ do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain upon even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; that we will report the true distances to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey of _____

_____, *Chainman.*

_____, *Chainman.*

Subscribed and sworn to before me this _____ day of _____, 189

SEAL

WE, _____ and _____ do solemnly swear that we will well and truly perform the duties of moundmen in the establishment of corners, according to the instructions given us, to the best of our skill and ability, in the survey of _____

_____, *Moundman.*

_____, *Moundman.*

Subscribed and sworn to before me this _____ day of _____, 189

SEAL

WE, _____ and _____ do solemnly swear that we will well and truly perform the duties of axmen in the establishment of corners and other duties, according to instructions given us, to the best of our skill and ability, in the survey of _____

_____, *Axman.*

_____, *Axman.*

Subscribed and sworn to before me this _____ day of _____, 189

SEAL

I, _____, do solemnly swear that I will well and truly perform the duties of flagman according to instructions given me, to the best of my skill and ability, in the survey of _____

_____, *Flagman.*

Subscribed and sworn to before me this _____ day of _____, 189

SEAL

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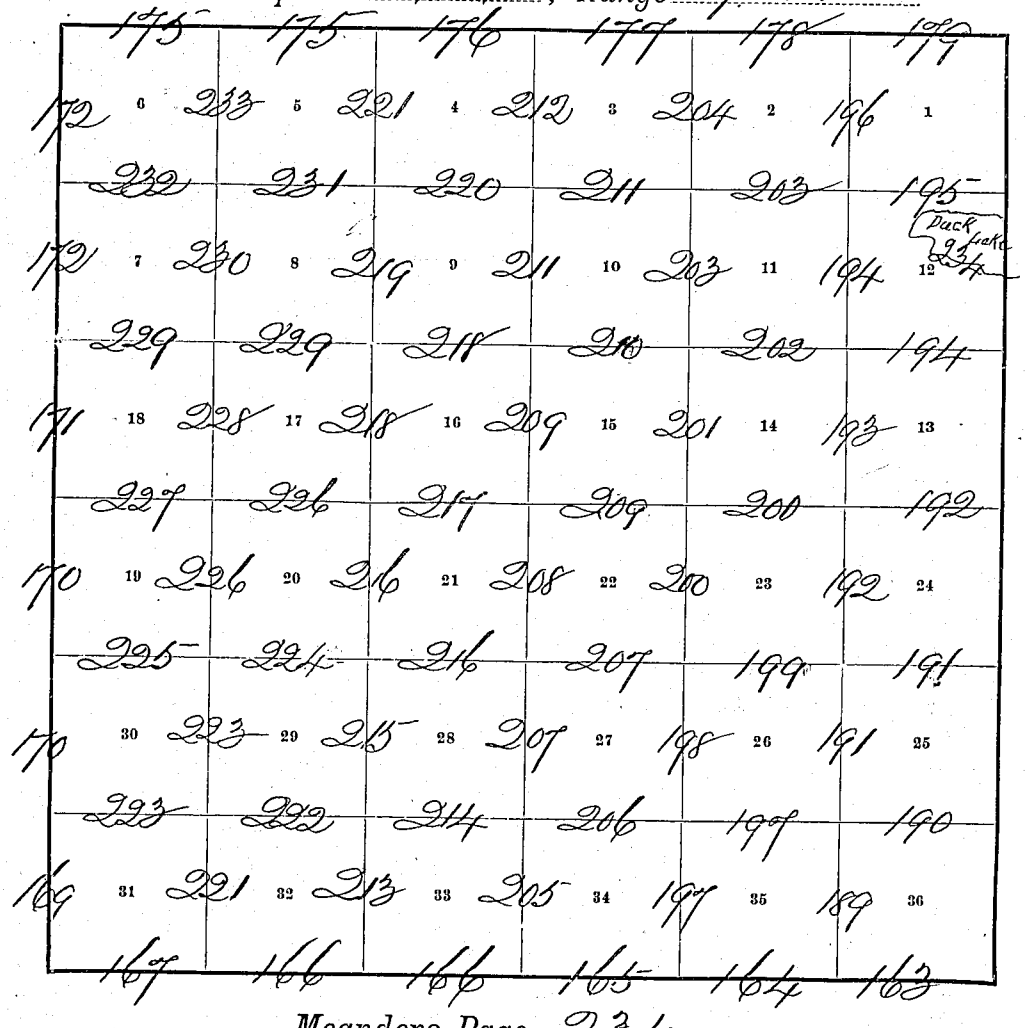

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Preliminary Oaths of Assistants.

We, _____ and _____ do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain upon even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; that we will report the true distances to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey of _____

_____, *Chainman.*

_____, *Chainman.*

Subscribed and sworn to before me this _____ day of _____, 189

SEAL

We, _____ and _____ do solemnly swear that we will well and truly perform the duties of moundmen in the establishment of corners, according to the instructions given us, to the best of our skill and ability, in the survey of _____

_____, *Moundman.*

_____, *Moundman.*

Subscribed and sworn to before me this _____ day of _____, 189

SEAL

We, _____ and _____ do solemnly swear that we will well and truly perform the duties of axmen in the establishment of corners and other duties, according to instructions given us, to the best of our skill and ability, in the survey of _____

_____, *Axman.*

_____, *Axman.*

Subscribed and sworn to before me this _____ day of _____, 189

SEAL

I, _____, do solemnly swear that I will well and truly perform the duties of flagman according to instructions given me, to the best of my skill and ability, in the survey of _____

_____, *Flagman.*

Subscribed and sworn to before me this _____ day of _____, 189

SEAL

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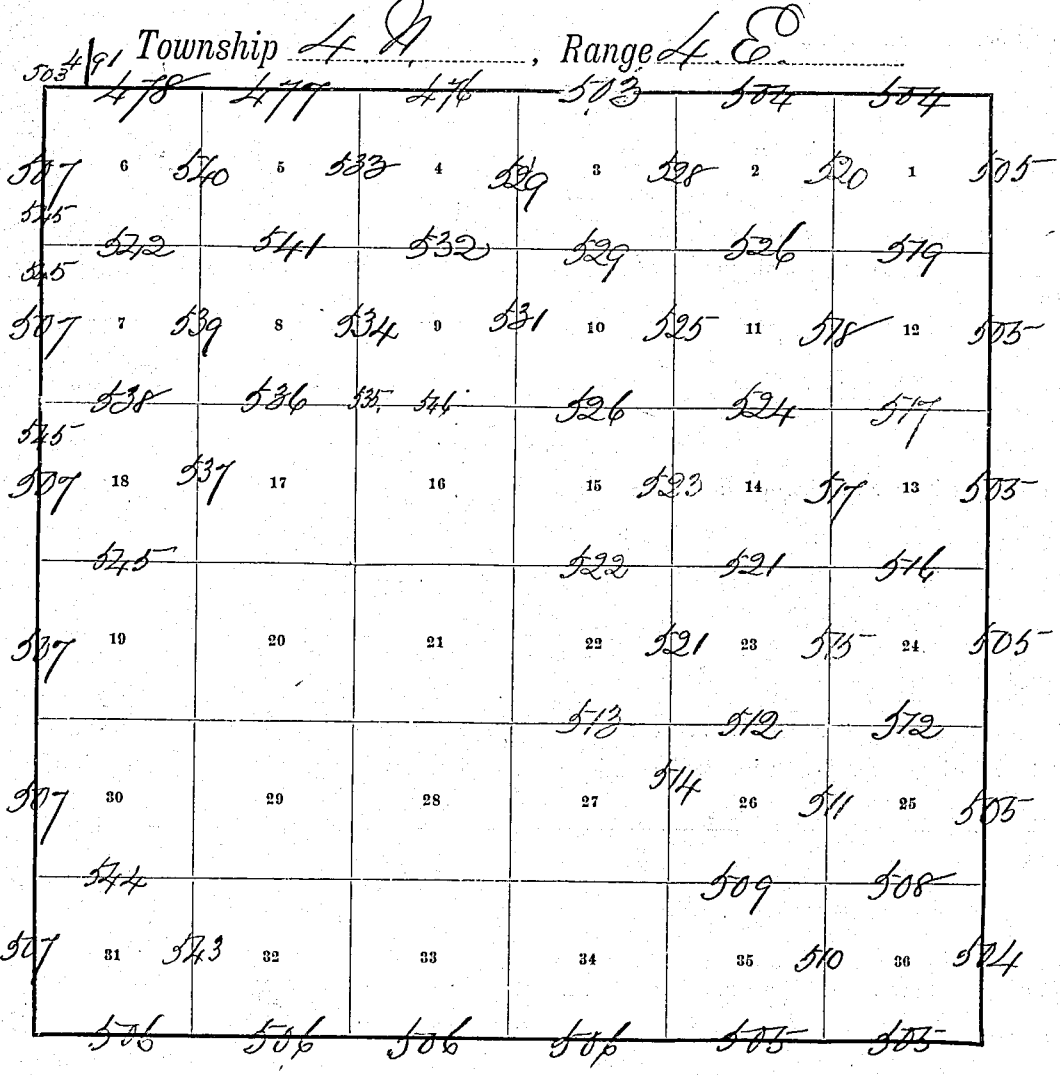
Township 4 N., Range 4 E.



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" " Hopkins " " 551-554

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BOOK A-238

FIELD NOTES

OF THE SURVEY OF

The North boundary T. 34 S. R. 1 W.

Of the Salt Lake Base and Meridian,

Territory of Utah

AS SURVEYED BY

William Lawman, U. S. Deputy Surveyor,

Under his Contract No. 191, dated March 2nd, 1893.

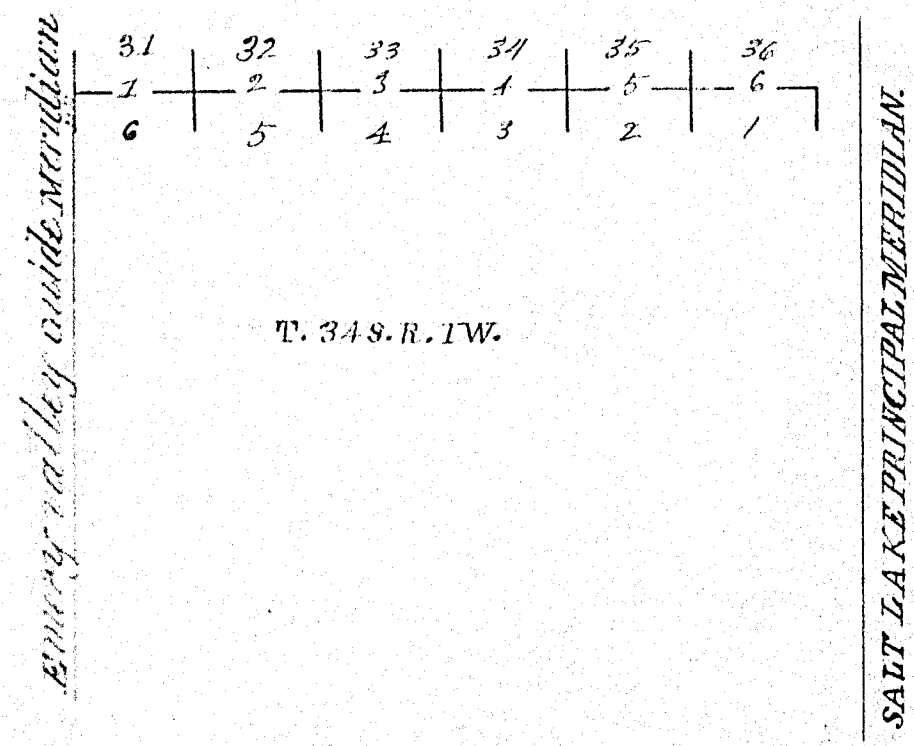
Survey commenced May 20th, 1893.

Survey completed May 22nd, 1893.

(12503—2,000.)

Names and Duties of Assistants.

Thomas E. King	Chainman
Ephraim Hawkes	Chainman
Monroe Twitchell	Chainman
Charles Hall	Chainman
A. Franklin McEwen	Axeman
Sixtus Johnson	Axeman
Walter Wayland	Flagman



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[I.—PRELIMINARY OATH OF CHAINMEN.]

We Thomas E. King, Ephraim Hawks, Charles Hall and Monroe Twitchell do solemnly swear that we will well and faithfully execute the duties of chain carriers; that we will level the chain upon even and uneven ground and plum the tally pins, either by sticking or dropping the same; that we will report the true distance to all notable objects, and the true length of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey of the First Guide Meridian E. Salt Lake meridian through Tps. 34.35 & 36 S. the 7th standard parallel S. through Rs. 1.2.3 & 4 E. bet. Tps. 35 & 36 S. and the subdivision and exterior boundaries of T. 34 S. Rs. 2 & 3 E. of Tp. 35 S. Rs. 1.2.3 & 4 E. of 36 S. R. 1 E. and the N. boundary of T. 34 S. R. 1 W. of the Salt Lake base and meridian in the Territory of Utah.

Thomas E. King, Chainman.
Ephraim Hawks, Chainman.
Charles Hall, Chainman.
Monroe Twitchell, Chainman.

Subscribed and sworn to before me this 20th day of May 1893

William Lewman
United States Deputy Surveyor

(20A) A-298

[2.—PRELIMINARY OATH OF AXEMEN.]

We, Franklin A. McEwen

and Sixtus E. Johnson

do solemnly swear that we will well and truly perform the duties of Axemen, in the establishment of corners and other duties, according to instructions given us, and to the best of our skill and ability, in the survey of Salt Lake Meridian through Tps. 34. 35 & 36 S. The 7th Standard parallel S. through Rs. 1. 2. 3 & 4 E. bet. Tps. 35 & 36 S. The 7th Guide meridian E. bet. Rs. 4 & 5 E. through Tps 35 S. and the exterior boundaries and subdivision of Tps. 35 S. Rs. 1. 2. 3 & 4 E. of 36 S. R. 1 E. of 34 S. Rs. 2 & 3 E. & 34 S. R. 1 W.

of the Salt Lake base and meridian in the Territory of Utah.

Franklin A. McEwen, *Axeman.*

Sixtus E Johnson *Axeman*

Subscribed and sworn to before me this 20th

day of May 1893

Wm. Leeuman

United States Deputy Surveyor

(208)

A-238

[2.—PRELIMINARY OATH OF ~~AXEMEN~~ Flagman.]

~~We~~, I Walter B. Wayland

and .....

do solemnly swear that we will well and truly perform the duties of Axemen, in the establishment of corners and other duties, according to instructions given us, and to the best of our skill and ability, in the survey of the Salt Lake meridian through Tps. 34. 35 & 36 S. the 7th Standard parallel S. through Rs. 1. 2. 3 & 4 E. Set. Tps. 35 & 36 S. the 1st Guide meridian E. bet. Rs. 4 & 5 E. the Tp & R. lines and subdivision of Tp. 34 S. Rs. 2 & 3 E. of Tp. 35 S. Rs. 1. 2. 3 & 4 E. & the N. boundary T. 34 S. R. 1 W.

.....

of the Salt Lake base and meridian in the Territory of Utah.

Walter B. Wayland, ~~Axeman~~ Flagman.

....., ~~Axeman~~ Flagman

Subscribed and sworn to before me this 20th day of May 1893

William Leeman

U. S. Deputy Surveyor.

I administered the oath to Thos. E. King, Ephraim Oaks, Charles Hall, Monroe Twitchell, Franklin A. McEwen, Sifftus E. Johnson and Walter B. Wayland, because they met me at the corner to Tps. 33 and 34 S. Rs. 1 and 2 W. They having come from different places, I was well satisfied they were honest, faithful men, and was satisfied they would perform their duty as well as if they had taken the oath before any other person. There was no officer with the authority to administer oathes nearer than Panguitch which is about 30 miles away.

William Leeman
U. S. Deputy Surveyor.

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PAGE

North boundary T. 34 S. R. 1 W.

chains

Survey commenced May 20th 1893. with a W. and L. E. Gurley engineer's transit, provided with a solar attachment and variation plate.

At the corner to Tps. 33 and 34 S. Rs. 1 and 2 W. on the Emery valley Guide Meridian in approximate latitude 37° 53' 50" N. long. 112° 00" 21" W. on the night of May 19th I take an observation on Polaris at 8h 9m P. M. in accordance with instruction in the Manual. My watch is correct astron. l. m. t. Magnetic bearing of star N. 16° 3' W. I drive a picket on the line thus determined 9 chains N. of the cor.

	h	m
Astron. l. m. t. of obs.	8	9
W. L. Polaris May 15	21	40.6
Reduction to May 18		7.8
W. L. Polaris May 18	21	32.8
Subtract from time of obs.		
Hour angle	10	36.2

Azimuth of Polaris lat 37° 53'	0°	33' west.
North end of needle	16°	3 east.
The difference is the var.	15°	30' east.
Mean declination	15°	26' east.

I lay off the azimuth 0° 33' to the east and drive a picket on the true meridian so determined 9 chains N. of corner

---

The stone at the cor. to Tps. 33 and 34 S. Rs. 1 and 2 W. is a trachyte rock firmly set in the ground and witnessed as described in the field notes furnished by the Surveyor General.

Thence I run
East between Secs. 6 and 31.
Var: 15° 30' E.
Through scattering timber and dense brush
4.90 A pine 20 ins. diam. on line, marked with 2 notches on E and

North boundary T. 34 S. R. 1 W. continued.

chains	
24.50	Birch creek 4 lks. wide, course N. 89° W. water-pine
38.88	Allowing for convergency of meridians 1.12 chs.
	Set a sandstone 24 X 15 X 4 ins. 18 ins. in the ground for 1/4
	sec. cor. marked 1/4 on N. face; from which
	A pine 10 ins. diam., bears
	N. 32° W. 139 lks. dist., marked 1/4 S. B. T.
	A birch 2 ins. diam., bears
	S. 25° W. 121 lks. dist., marked 1/4 S. B. T.
59.88	Birch creek 2 lks. wide, course S. 88° W.
65.23	Same creek 3 lks. wide, course N. 87° W.
69.88	Same creek 5 lks. wide, course S. 87° W.
72.41	Pine 24 ins. diam. on line, marked with 2 notches on E. and W. sides
73.00	Ascend about 40 ft. through heavy timber and leave dense brush
74.50	Top of ridge, course N. and S. and descend about 30 ft.
78.88	Set a sandstone 28 X 12 X 4 ins. 22 ins. in the ground for
	corner to secs. 5, 6, 31 and 32, marked with 1 notch on
	W. and 5 notches on E. edges, from which
	A fir 20 ins. diam., bears
	S. 29° E. 127 lks. dist., marked T. 34 S. R. 1 W. S. 5, B. T.
	A fir 10 ins. diam., bears
	S. 83° W. 99 lks. dist., marked T. 34 S. R. 1 W. S. 6, B. T.
	No more trees within the limits. Dug pits 18 X 18
	X 12 ins., secs. 31 and 32 5½ ft. dist., and raised a
	mound of stones and earth 2½ ft. high, 3½ ft. base
	alongside.
	Land, rough and hilly 7 chs.
	Soil, sandy loam and gravel 2nd rate.
	Timber, heavy pine, fir, and quaking asp 7 chs.
	Undergrowth same with dense oak, sage and birch
	along creek, 73.00 chs. May 20 1893.
	Heavily timbered land or covered with dense undergrowth 78.88 lks.
	East between secs. 5 and 32
	Var. 15° 26' E.
	Lance timber, course N. and S.
10.00	Enter heavy timber, course N. E. and S. W. and
	ascend the west side of Escalante mountain
	abruptly, about 100 ft.
15.10	Top of hill, course N. 20 E. and S.
16.30	Descend abruptly about 75 ft.
18.00	Birch creek 3 lks. wide, course N. W.

North boundary T. 34 S. R. 1 W. continued.

Chains	
	sides, and ascend about 50 ft.
21.50	Top of point, course N.W.
31.50	Birch creek 3 lks. wide, course S.W.
32.00	Ascend abruptly about 250 ft.
35.87	A fir 12 ins. diam. on line, marked with 2 notches on E. and W. sides.
40.00	Set a sandstone 20 x 10 x 6 ins. 15 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face; from which A fir 10 ins. diam. bears S. 75° E. 70 lks. dist. marked 1/4 S. B. T. A fir 12 ins. diam. bears N. 13° W. 71 lks. dist. marked 1/4 S. B. T.
62.00	Top of point, course N.W. and S.E. and descend abruptly about 80 ft.
63.61	Birch creek 3 lks. wide, course N. 85° W.
65.00	Leave timber and enter park, course N.W. & S. 80° E.
80.00	Set a sandstone 24 x 10 x 8 ins. 18 ins. in the ground for cor. to secs. 4, 5, 32 and 33, marked with 2 notches on W. and 4 notches on E. edges from which A pine 30 ins. diam. bears N. 11° E. 280 lks. dist. marked T. 33 S. R. 1 W. S. 33. B. T. No more trees within the limits. Raised a mound of stones covered with earth 2½ ft. high, 3½ ft. base alongside. Pits impracticable.
55.00 / 5.00	Land, rolling and rough 80 chs. Soil, gravel and rocky 4th rate. Timber, heavy pine, fir, spruce and quaking asp 55 chs. Undergrowth same with sage, birch and whortleberry 80 chs. Heavily timbered land 55 chs. May 20 1893.

East between secs. 4 and 33.

Var. 15° 44' E.

	Change of var. caused by croppings of magnetic iron
5.40	Enter heavy timber and leave park, course N.E. & S.W.
10.03	A fir 10 ins. diam. on line, marked with 2 notches on E. & W. sides.
25.09	Birch creek 3 lks. wide, course S.W.
30.20	Ascend very abruptly about 800 ft.
40.00	Set a sandstone 22 x 10 x 6 ins. 16 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face; from which A quaking asp 6 ins. diam. bears

North boundary T. 34 S. R. 1 W. continued.

chains	
	A fir 24 ins. diam. bears N. 35° E. 72 lks. dist. marked 1/4 S. B. T.
45.50	Top of Escalante mountain about 1500 ft. above S. Con. Course N. 10° W. and S. 10° E.
48.00	Leave timber and enter park, course N. and S.
55.50	Leave park and enter very heavy timber, course N. E. and S. W. and ascend abruptly about 150 ft.
59.25	Top of ridge, course N. 25° W. and S. 25° E. and descend abruptly about 150 ft.
62.50	Ascend abruptly about 150 ft.
75.60	Leave timber, course N. E. and S. W.
80.00	Set a sandstone 24 X 10 X 6 ins. 18 ins. in the ground for cor. to secs. 3, 4, 33 and 34 marked with 3 notches on E. and W. edges. dug pits 18 X 18 X 12 ins. in each sec. 5½ ft. dist. and raised a mound of stones covered with earth 2½ ft. high, 3½ ft. base alongside.
	Land, rolling and mountainous 80 acs.
	Soil, sandy and gravel 4th rate.
	Timber, heavy pine, fir, and quaking asp 62.70 acs.
	Undergrowth same with scattering sage brush 80 acs.
	Mountainous land heavily timbered 80 acs. May 20th 1893.

East between secs. 3 and 34.

Va. 15° 28' E.

2.50	Ravine about 50 ft. deep, course S.
3.60	Ascend abruptly about 50 ft.
6.50	Top of ridge, course N. E. and S. W. and enter heavy timber.
38.50	Leave timber and enter park, course N. and S.
40.00	Set a black porphyry rock 32 X 17 X 12 ins. 24 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face; from which A quaking asp 6 ins. diam. bears S. 12° W. 46 lks. dist. marked 1/4 S. B. T. A quaking asp 7 ins. diam. bears N. 64° W. 20 lks. dist. marked 1/4 S. B. T.
40.50	Enter heavy timber, course N. and S. and ascend abruptly about 20 ft.
70.50	Top of plateau, course N. and S.
80.00	Set a basaltic rock 30 X 12 X 5 ins. 24 ins. in the ground for cor. to secs. 2, 3, 34 and 35 marked

1.50
1.50

North boundary T. 34 S. R. 1 W. continued.

chains	
	from which A spruce 6 ins. diam. bears N. 64° W. 28 lks. dist. marked T. 35 S. R. 1 W. S. 34. B. T. A quaking asp 12 ins. diam. bears S. 10° W. 23 lks. dist. marked T. 34 S. R. 1 W. S. 3. B. T. A spruce 7 ins. diam. bears S. 4° E. 20 lks. dist. marked T. 34 S. R. 1 W. S. 2. B. T. A quaking asp 7 ins. diam. bears N. 67° E. 9 lks. dist. marked T. 35 S. R. 1 W. S. 35. B. T. Land, hilly and mountainous 70.50 chs. Soil, sandy loam 1st rate. Timber, heavy fir, spruce, quaking asp and redwood 71.50 chs. Undergrowth same 71.50 chs. Mountainous heavily timbered land 71.50 chs. May 22 1893.

East between secs. 2 and 35.

Va. 15° 26' E.

Through heavy timber

36.30 Leave timber and enter park, course N. and S.

40.00 Set a basaltic rock 20 x 10 x 6 ins. 15 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face Raised a mound of stone covered with earth 2½ ft. high, 3½ ft. base alongside. Pits impracticable.

45.50 Leave park and enter heavy timber, course N. E. and S. W. and ascend about 50 ft.

80.00 Set a porphyry rock 22 x 10 x 6 ins. 16 ins. in the ground for cor. to secs. 1, 2, 35 and 36 marked with 5 notches on W. and 1 notch on E. edges.

from which

A fir 20 ins. diam. bears
N. 32° W. 34 lks. dist. marked T. 35 S. R. 1 W. S. 35. B. T.
A fir 15 ins. diam. bears
N. 45° E. 37 lks. dist. marked T. 35 S. R. 1 W. S. 36. B. T.
A spruce 13 ins. diam. bears
S. 61° E. 52 lks. dist. marked T. 34 S. R. 1 W. S. 1. B. T.
A fir 12 ins. diam. bears
S. 1° W. 48 lks. dist. marked T. 34 S. R. 1 W. S. 2. B. T.
Land nearly level 80 chs.
Soil, black loam 1st rate.
Timber, heavy fir, spruce and quaking asp 70.80 chs.
Undergrowth same 70.80 chs. May 22 1893.

North boundary T. 34 S. R. 1 W. continued.

Chains	
	East between secs. 1 and 36.
	Va. 1 15° 28' E.
	Through heavy timber.
11.50	A fir 12 ins. diam. on line marked with 2 notches on E and W (sides)
12.00	Leave timber and enter Spark, course N. 10° E. & S. 10° W.
18.00	Leave Spark and enter heavy timber course N. & S.
25.32	A fir 20 ins. diam. on line, marked with 2 notches on W. & E. (sides)
37.81	A fir 10 ins. diam. on line, marked with 2 notches on W. & E. (sides)
40.00	Set a Porphyry rock 24 x 10 x 6 ins. 18 ins. in the ground for 1/4 Sec. Cor. marked 1/4 on N. face from which
	A fir 24 ins. diam. bears
	N. 2° E. 67 lks. dist. marked 1/4 S. B. T.
	A fir 20 ins. diam. bears
	S. 16° W. 46 lks. dist. marked 1/4 S. B. T.
55.43	A fir 18 ins. diam. on line, marked with 2 notches on E & W. (sides)
58.10	Enter Spark and leave timber, course N. W. and S. E.
65.40	Leave Spark and enter heavy timber, course N. and S.
71.18	A Quaking asp 12 ins. diam. on line, marked with 2 notches on E and W. sides,
78.50	A Spruce 18 ins. diam. on line marked with 2 notches on E. and W. sides.
80.00	Set a Porphyry rock 24 x 10 x 5 ins. 18 ins. in the ground for Cor. to Sps. 33 and 34. Rs. 1 E and 1 W. on Salt Lake Principal Meridian, marked with 6 notches on N. E. S. and W. edges; from which
	A Spruce 15 ins. diam. bears
	S. 65° E. 31 lks. dist. marked T. 34 S. R. 1 E. S. 6. B. T.
	A Spruce 12 ins. diam. bears
	S. 32° W. 20 lks. dist. marked T. 34 S. R. 1 W. S. 1. B. T.
	A fir 15 ins. diam. bears
	N. 48° E. 52 lks. dist. marked T. 33 S. R. 1 E. S. 31. B. T.
	A quaking asp 10 ins. diam. bears
	N. 20° W. 37 lks. dist. marked T. 33 S. R. 1 W. S. 36. B. T.
	Land level 80 chs.
	Soil, black loam 1st rate.
	Timber, heavy fir, spruce, redwood and quaking asp 66.70 chs. Undergrowth Same 66.70 chs.
	Heavily timbered land 66.70 chs. May 22 1893.

North boundary T. 34 S. R. 1 W. concluded.

Shasta

General description.

Township 34 S. R. 1 W. is very rough and broken along its North boundary from the N. W. corner to the top of Escalante mountain which has an altitude of about 10,000 ft. There are many little parks without timber on the mountains, and the balance is very heavily timbered. The South slope of the mountains is extremely rough and cut with deep gulches. It is also heavy timbered. This Township has very little water in it. What there is is of good pure water. The Geological formation is Sandstone limestone and porphyry. There are no indications of coal or minerals

William Leyman
U. S. Deputy Surveyor.

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List of Names.

A list of the names of the individuals employed by .....

....., U. S. Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of the .....

.....Meridian, in ....., showing the respective capacities in which they acted:

Final Oath of Assistants:

We hereby certify that we assisted .....

....., U. S. Deputy Surveyor, in surveying all those parts or portions of the .....

..... Meridian, ..., as are represented in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the U. S. Surveyor General for .....

Subscribed and sworn to before me this .....
day of ....., 18 .

SEAL

.....

.....

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Final Oath of U. S. Deputy Surveyor.

I, _____, U. S. Deputy Surveyor, do solemnly swear that, in pursuance of instructions received from _____, U. S. Surveyor General for _____, bearing date of the _____ day of _____, 18 , I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the U. S. Surveyor General for _____, the surveying manual, and the laws of the United States, surveyed all those parts or portions of _____

_____

_____

_____

_____

_____ Meridian, in the _____, as are represented in the foregoing field notes as having been surveyed by me, and under my directions; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the surveying manual, printed instructions, the special written instructions of the U. S. Surveyor General for _____ and in the specific manner described in the field notes, and that the foregoing are the true field notes of such survey; and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

_____

U. S. Deputy Surveyor.

Subscribed and sworn to before me this _____ day of _____, 18 .

SEAL

_____

_____

Approval.

Office of the U. S. Surveyor General,

Salt Lake City, Utah, Nov 4th, 1896

The foregoing field notes of the survey of the North Boundary of T. 34 S. R. 1 W. of the Salt Lake Base and Meridian in the Territory of Utah

_____

_____

_____

_____

_____ executed by William Lewman U. S. Deputy Surveyor under his Contract No. 191, dated March 2d, 1893, having been critically examined, the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

George W. Sawers

U. S. Surveyor General.

I certify that the foregoing transcript of the field notes of the above-described surveys in _____, has been correctly copied from the original notes on file in this office.

_____

U. S. Surveyor General.

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(4—679.)

No. 3. B.

BOOK A-238

FIELD NOTES

OF THE SURVEY OF the

Salt Lake Principal Meridian Through Tps. 34. 35 and 36 S.

Of the ..... Meridian,

Territory of Utah

AS SURVEYED BY

William Leuman, U. S. Deputy Surveyor,

under his Contract No. 191, dated March 2nd 1893.

Survey commenced May 23rd, 1893.

Survey completed May 30th, 1893.

(12503—2,000.)

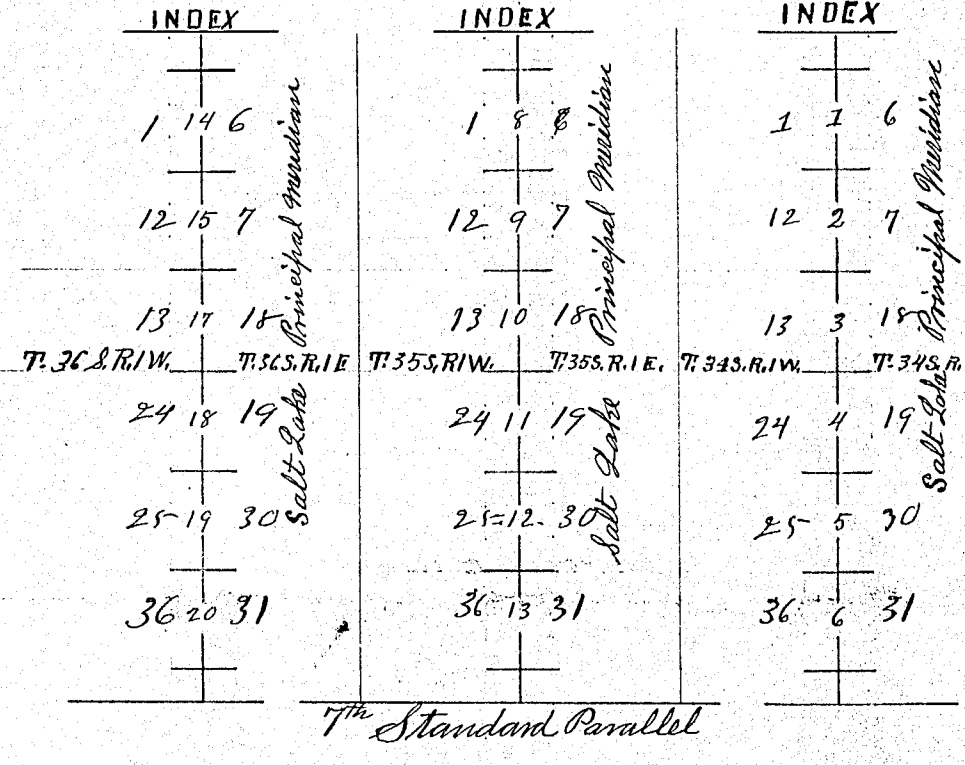
Salt Lake Meridian

		M. Chs. Lks.
T 34 S.	high	5-25-30 ✓
"	low	54-70 ✓
T 35 S.	high	6-00-00 ✓
T 36 S.	high	5-62-90 ✓
"	low	17-10 ✓

BOOK A-238

Names and Duties of Assistants.

Thomas E. King	Chainman
Ephraim Hawkes	Chainman
Monroe Twitchell	Chainman
Charles Hall	Chainman
A. Franklin McEwen	Axeman
Siptus Johnson	Axeman
Walter B. Wayland	Flagman



BOOK A-238

INDEX DIAGRAM.

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19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

Meanders Page.....

Preliminary Oaths of Assistants.

We, _____

_____

_____

do solemnly swear that we will well and faithfully execute the duties of chain carriers; that we will level the chain over even and uneven ground, and plumb the tally-pins either by sticking or dropping the same; that we will report the true distance to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us in the survey of the _____

_____

_____

_____

_____

_____, *Chainman.*

_____, *Chainman.*

_____, *Chainman.*

_____, *Chainman.*

Subscribed and sworn to before me this _____ day of _____, 18 .

_____

_____

We, _____

_____

do solemnly swear that we will well and truly perform the duties of axemen in the establishment of corners and other duties, according to instructions given us, and to the best of our skill and ability, in the survey of the _____

_____

_____

_____

_____

Subscribed and sworn to before me this _____ day of _____, 18 .

_____, *Axeman.*

_____, *Axeman.*

_____

_____

_____

Salt Lake P. Meridian through Township 34 S.

chains

Survey commenced May 23rd 1893, with a W. and L. E. Gurley engineer's transit provided with a Solar attachment and variation plate.

At the corner to Sps. 33 and 34 S. Rs. 1 E. and 1 W. in approximate latitude 37° 53' 50" N. longitude 111° 53' 47" W. on the night of May 22nd at h. m. 8 56 astronomical l. m. t. by my watch, which is correct. I take an observation on Polaris, and find the bearing of the star to be N. 15° 33' W. I drive a picket on the line so determined 3 chs. N. of the corner.

	h.	m.
Astronomical l. m. t. of obs. May 22nd	8	56.
W. C. Polaris May 15th	21	40.6
Reduction 5 days, subtract		19.6
Astron. l. m. t. W. C. Polaris May 21.	21	21.0
Subtract from time of obs. leaves hour angle of Polaris	11	35
Azimuth of Polaris lat. 38° n.	0°	9' west.
North end of needle	15°	33' east.
The difference is the var.	15°	24' east.

I lay off the azimuth 9' to the east and drive a picket on the true meridian so determined 5 chs. north of corner.

At 7 A. M. May 23rd I take the magnetic bearing of the true meridian established last night and find it to be 15° 28' E. and the mean declination 15° 24' E.

Thence I run
South between secs. 1 and 6.
Va. 15° 28' E.
Through heavy timber.

20.00 Enter Park and leave timber, course S & W.

40.00 Set a basaltic rock 18 x 10 x 6 ins. 12 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face; from which
A quaking asp 6 ins. diam. bears
S. 11° E. 107 lks. dist. marked 1/4 S. B. T.
A quaking asp 5 ins. diam. bears
S. 56' W. 8 lks. dist. marked 1/4 S. B. T.
Raised a mound of stones and earth 3 ft. high

Salt Lake P. Meridian through Tp. 34 S. continued.

chains	
41.00	Leave park and enter heavy timber, course S. 80° W. and N. 60° East.
69.50	Leave timber and enter park, course E. and W.
80.00	Set a basaltic rock 24 x 15 x 10 ins. 18 ins. in the ground, for cor. to secs. 1. 6. 7 and 12 marked with one notch on N. and 5 notches on S. edges, from which A fir 28 ins. diam bears. N. 39° E. 37 lks. dist. marked T. 34 S. R. 16 E. Sec. 6, B. T. A fir 15 ins. diam. bears N. 55° W. 110 lks. dist. marked T. 34 S. R. 1 W. S. 1. B. T. No more trees within the limits. Raised a mound of stones 3 ft. high, 3½ ft. base alongside. Pits impracticable Land, level. Soil, gravel and black loam 2nd and 1st rate. Timber, heavy fir, spruce and quaking asp to 48.50 chs. Undergrowth same. May 23 1893. Heavily timbered 48.50 chs.
	South between Secs. 7 and 12. Va. 15° 24' E.
15.00	Leave park and enter heavy timber, course E. & S. W.
36.00	Leave timber and enter park, course N. E and S. W.
39.00	Enter scattering timber.
40.00	Set a basaltic rock 18 x 10 x 8 ins. 12 ins. in in the ground for 1/4 sec. cor: marked 1/4 on W. face, from which A spruce 6 ins. diam. bears N. 89° W. 144 lks. dist. marked 1/4 S. B. T. A fir 20 ins. diam. bears N. 74° E. 279 lks. dist. marked 1/4 S. B. T. and Raised a mound of stones 3 ft. high 4 ft. base alongside. Pits impracticable.
44.20	Leave park and enter heavy timber, course E & W.
55.30	Ascend abruptly about 150 ft.
59.10	Top of Escalante mountain, course E. and W.
60.00	Descend abruptly down the south slope of Escalante mountain, over rocks and through dense brush.
80.00	Set a porphyry rock 20 x 10 x 4 ins. 15 ins. in the ground for cor. to secs. 7. 12. 13 and 18 marked

Salt Lake P. Meridian through Tp. 34 S. continued.

Chains	
	edges, from which
	A redwood 24 ins. diam. bears
	N. 5° E. 24 lks. dist. marked T. 34 S. R. 1 E. S. 7, B. T.
	A spruce 10 ins. diam. bears
	N. 56° W. 55 lks. dist. marked T. 34 S. R. 1 W. S. 12. B. T.
	A fir 13 ins. diam. bears
	S. 66° W. 83 lks. dist. marked T. 34 S. R. 1 W. S. 13. B. T.
	A redwood 24 ins. diam. bears
	S. 14° E. 42 lks. dist. marked T. 34 S. R. 1 E. S. 18. B. T.
	Land, hilly and mountainous 24.70 chs.
	Soil, gravel and sandy loam 2nd rate.
	Timber, heavy fir, quakingasp, spruce and redwood 56.80 chs.
	Undergrowth same with dense oak brush 20 chs.
	Mountainous land or heavily timbered or covered with dense undergrowth 56.80 chs.
	South between secs. 13 and 18.
	Va. 15° 24' E.
	Descend abruptly through heavy timber and dense brush.
33.40	Ravine about 50 ft. deep, course S. E.
40.00	Set a porphyry rock 24 X 10 X 6 ins. 18 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face, from which
	A quakingasp 4 ins. diam. bears
	S. 56° E. 48 lks. dist. marked 1/4 S. B. T.
	A quakingasp 6 ins. diam. bears
	N. 38° W. 27 lks. dist. marked 1/4 S. B. T.
	and raised a mound of stones and earth 2 1/2 ft. high, 3 1/2 ft. base alongside Pits impracticable
40.50	Descend very abruptly about 150 ft.
65.75	Dry wash 30 lks. wide, course S. E.
66.10	Ascend abruptly about 100 ft.
72.25	Top of ridge, course S. E and N. W.
75.40	Descend abruptly about 50 ft.
80.00	Set a porphyry rock 24 X 12 X 8 ins. 18 ins. in the ground for cor. to secs. 13. 18. 19 and 24 marked with 3 notches on N. and S. edges from which
	A pine 24 ins. diam. bears
	N. 53° E. 90 lks. dist. marked T. 34 S. R. 1 E. S. 18 B. T.

Salt Lake P. Meridian through T. 34 S. continued.

chains A pine 16 ins. diam. bears
N. 36° W. 10 lks. dist. marked T. 34 S. R. 1 W. S. 13. B.T.
A pine 24 ins. diam. bears
S. 58° W. 34 lks. dist. marked T. 34 S. R. 1 W. S. 24. B.T.
A pine 20 ins. diam. bears
S. 65° E. 147 lks. dist. marked T. 34 S. R. 1 E. S. 19. B.T.
and raised a mound of stones 3 ft. high, 3½ ft.
base alongside. Pits impracticable.
Land, hilly and mountainous 80 chs.
Soil, gravel and rocky 4th rate.
Timber, heavy cedar, pinon, pine and quaking-asp. 80 chs. Undergrowth dense with dense oak brush 80 chs. May 23 1893.
Mountainous land or heavily timbered or covered with dense undergrowth 80 chs.

South between Secs. 19 and 24.
On. 15° 27' E.
Descend abruptly through heavy timber and brush.
33.16 Ravine about 40 ft. deep. Course S. W., Snow turns nearly south.
40.00 Set a sandstone rock 48 X 12 X 4 ins. in a stone pile on top of a cropping rock for ¼ sec. cor. marked ¼ on W. face. from which
A cedar 4 ins. diam. bears
S. 62° E. 11 lks. dist. marked ¼ S. B. T.
A pine 16 ins. diam. bears
S. 61° W. 67 lks. dist. marked ¼ S. B. T. and
Raised a mound of stones 2½ ft. high, 3½ ft. base alongside. Pits impracticable.
Descend along west side of hill.
51.20 Descend abruptly about 60 ft.
55.50 Ascend along east side of ridge.
61.00 Descend abruptly down south point of ridge.
80.00 Set a sandstone rock 30 X 12 X 6 ins. 24 ins. in the ground for cor. to Secs. 19. 24. 25 and 30 marked with 4 notches on N. and 2 notches on S. edges. from which
A cedar 6 ins. diam. bears
S. 49° E. 11 lks. dist. marked T. 34 S. R. 1 E. S. 30. B.T.
A cedar 12 ins. diam. bears
N. 56° E. 24 lks. dist. marked T. 34 S. R. 1 E. S. 19. B.T.

Salt Lake P. Meridian through T. 34 S. continued.

chains	
	A pinon 5 ins. diam. bears
	N. 12° W. 25 lks. dist. marked T. 34 S. R. 1 W. S. 24. B.T.
	A pinon 5 ins. diam. bears
	S. 72° W. 9 lks. dist. marked T. 34 S. R. 1 W. S. 25. B.T.
	and raised a mound of stones 2½ ft. high, 3½
	ft. base alongside. Pits impracticable.
	Land, rough and mountainous 80 chs.
	Soil, grand 4th rate.
	Timber, heavy pine, fir, cedar and pinon 80 chs.
	Undergrowth, same with dense oak 80 chs.
	Mountainous land or scanty timber. May 24 1893.
	or covered with dense undergrowth 80 chs.
	South between Secs. 25 and 30.
	Va. 15° 21' E.
	Through heavy timber and dense brush.
31.94	Mill creek 10 lks. wide, course S.E.
32.10	Ascend abruptly about 150 ft.
35.00	Top of ridge, course S.E. and N.W.
39.00	Descend abruptly about 150 ft.
40.00	A point about 80 ft. above bottom.
	Set a porphyry rock 24 x 10 x 8 ins. 18 ins. in the
	ground for 1/4 Sec. Cor. marked 1/4 on W. face; from
	which
	A pine 14 ins. diam. bears
	S. 21° W. 38 lks. dist. marked 1/4 S. B.T.
	A pine 18 ins. diam. bears
	S. 16° E. 90 lks. dist. marked 1/4 S. B.T. and
	raised a mound of stones 3 ft. high, 4 ft. base
	alongside. Pits impracticable.
	Took an observation on Polaris at this Cor.
	to test the adjustments of my transit and
	found them correct. Watch correct.
	Astron. l. m. t. May 24. $8^{h}\ 34^{m}$
	Hour angle of Polaris 11 24.8.
	Azimuth of Polaris Lat. 38° 0° 14' west.
	I continued my survey north with fore and
	back sights without any change of course.
41.20	Bottom, and leave Timber, course S. 63° E. 8 N. 68° W.
42.30	Wagon road to Escalante, course S. 67° E. and N. 65° W.
47.50	Brook 3 lks. wide, course S. 68° E.
47.73	Brook 3 lks. wide, course S. 60° E.

Salt Lake P. Meridian through T. 34 S. continued.

chains	
48.57	Leave bottom and ascend abruptly about 150 ft. course S.E. and N.55° W.
50.04	Top of bench, course S.E. and N.W. and enter heavy timber.
59.30	Descend abruptly about 200 ft.
62.25	Bottom, course S.70° E. and N.70° W.
76.50	Dry wash 21 lks. wide, course S.75° E.
78.80	Leave bottom and ascend abruptly about 300 ft. course of bottom S.70° E. and N.70° W.
80.00	A point about 80 ft. above bottom. Set a limestone 18X10X3 ins. 12 ins. in the ground for cor. to secs. 25. 30. 31 and 36. marked with 5 notches on N. and 1 notch on S. edges from which A pine 18 ins. diam. bears S. 47° W. 44 lks. dist. marked T. 34 S. R. 1 W. S. 36. B.T. A pine 16 ins. diam. bears N. 46° W. 104 lks. dist. marked T. 34 S. R. 1 W. S. 25. B.T. No more trees within the limits. Raised a mound of stones and earth 3 ft. high, 3½ ft. base alongside. Pits impracticable. Land, rough and mountainous 71.16 chs. Soil, gravel and clay loam 4th and 2nd rate. Timber, heavy cedar, pine and pinon 71.16 chs. Undergrowth same with dense oak, sage, willow and mahogany 80 chs. Mountainous land or covered with dense undergrowth and heavily timbered 80 chs.

South between secs. 31 and 36.

Var. 15° 24' E.

Ascend through dense brush and scattering timber about 220 ft.

6.50	Top of bench, course E. and W.
6.80	Enter heavy timber, course E. and W.
26.10	Descend abruptly about 300 ft.
30.75	Enter rocky flat, course N.65 W. and S.65 E.
38.51	Dry wash 30 lks. wide, course S.60° E.
40.00	Set a sandstone 28X12X6 ins. 22 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face; from which

Salt Lake P. Meridian through T. 34 S. Continued

chains	A pine 16 ins. diam. bears
	S. 20 W. 41½ lks. dist. marked 1/4 S. B. T.
	A pine 20 ins. diam. bears
	N. 23° E. 67 lks. dist. marked 1/4 S. B. T. and raised a mound of stones 3 ft. high, 3½ ft. base alongside.
	Ascend about 700 ft. along west side of peak
49.50	Descend abruptly about 700 ft.
70.30	Descend very abruptly.
76.50	Descend gradually.
80.00	Set a limestone 20×10×4 ins. 15 ins. in the ground for corner to Tps. 34 and 35 S. Rs. 1 E. and 1 W. marked with 6 notches on N. E. S. and W. edges, from which
	A pine 28 ins. diam. bears
	N. 34° W. 27 lks. dist. marked T. 34 S. R. 1 W. S. 36. B. T.
	A pine 18 ins. diam. bears
	N. 28° E. 127 lks. dist. marked T. 34 S. R. 1 E. S. 31. B. T.
	A pine 20 ins. diam. bears
	S. 48° E. 225 lks. dist. marked T. 35 S. R. 1 E. S. 6. B. T.
	No more trees within the limits, and raised a mound of stones 4 ft. high, 5 ft. base alongside.
	Land, hilly, mountainous and very rough 80 chs. Pits impractically
	Soil, gravel and rocky 4th rate.
	Timber, heavy cedar, pinon and pine 73.20 chs.
	Undergrowth same with dense oak, mahogany and whortleberry 80 chs.
	Mountainous land and covered with dense undergrowth or heavily timbered 80 chs.
	May 25, 1893.

Salt Lake P. Meridian through T. 35 S.

chains	
	May 25 1893. At the corner to Tps. 34 and 35 S. Rs. 1 E. and 1 W.
	Thence I run
	South between secs. 1 and 6.
	Va. 15° 28' E.
	Through scattering timber and dense undergrowth.
6.20	Water creek 5 lks. wide, course S. 85° E. A deep stream full of trout.
6.90	Ascend abruptly about 400 ft. through dense undergrowth
16.00	Top of ridge, course E and W.
24.00	Descend abruptly about 300 ft.
28.86	Spring run 2 lks. wide, course E.
28.90	Ascend abruptly about 300 ft.
39.00	Top of plateau, course E and W.
39.30	Enter heavy timber, course E and west.
40.00	Set a limestone 18 x 8 x 4 ins. 12 ins. in the ground for 1/4 Sec. Cor. marked 1/4 on W. face from which
	A pine 18 ins. diam. bears
	S. 10° W. 17 lks. dist. marked 1/4 S. B. T.
	A pine 8 ins. diam. bears
	N. 26° E. 69 lks. dist. marked 1/4 S. B. T. and raised a mound of stones 3 ft. high, 4 ft. base alongside. Pits impracticable.
42.50	Dry wash 10 lks. wide, course N. E.
49.50	Ravine about 100 ft. deep, course N. E.
56.00	Ravine about 15 ft. deep, course N. E.
58.80	Dry wash 9 lks. wide, course N. 48° E.
75.01	Ravine about 30 ft. deep, course E.
79.91	Dry wash 10 lks. wide, course N. E.
80.00	Set a trachyte rock 30 x 18 x 12 ins. in a stone pile for cor. to secs. 1. 6. 7 and 12. (Set in stone pile because on shell rock) marked with 1 notch on N. and 5 notches on sedges, from which
	A pine 22 ins. diam. bears
	S. 84° W. 68 lks. dist. marked T. 35 S. R. 1 W. S. 12. B. T.
	A pine 28 ins. diam. bears
	N. 4° W. 77 lks. dist. marked T. 35 S. R. 1 W. S. 1. B. T.
	A pine 18 ins. diam. bears
	N. 42° E. 174 lks. dist. marked T. 35 S. R. 1 E. S. 6. B. T.

Salt Lake P. Meridian through T. 35 S. continued.

Chains	
	A pine 20 ins diam. bears
	S. 51° E. 35 lks. dist. marked T. 35 S. R. 1 E. S. 7. B. T. and
	raised a mound of stones 3 ft. high, 4 ft. base alongside
	Pits impracticable.
	Land, rough and mountainous 80 chs.
	Soil, Limestone gravel 2nd rate.
	Timber, heavy pine 40.70 chs. Undergrowth same
	with dense oaks 80 chs May 25 1893.
	Mountainous land or heavily timbered and covered with dense undergrowth of oaks.
	South bet. secs. 7 and 12.
	Va. 15° 24' E.
4.75	Descend abruptly about 200 ft.
14.80	Enter bottom and scattering timber, course E & W.
16.44	Spring run 10 lks. wide, course E.
21.16	Spring run 3 lks. wide, course S. 80° E.
38.50	Ascend abruptly about 1200 ft.
40.00	A point about 100 ft. above bottom.
	Set a sandstone 28 X 16 X 6 ins. 22 ins. in the ground
	for 1/4 sec. cor. marked 1/4 on W. face; from which
	A pine 20 ins. diam. bears
	N. 15° E. 78 lks. dist. marked 1/4 S. B. T.
	A pine 15 ins. diam. bears
	N. 26° W. 41 lks. dist. marked 1/4 S. B. T. and mound
	a mound of stones 3 ft. high, 3½ ft. base alongside.
	Pits impracticable.
74.00	Top of mountain, course E and W. and enter
	heavy timber and descend abruptly about 150 ft.
75.20	Ravine about 30 ft. deep, course N. E.
80.00	Set a trachyte rock 24 X 12 X 10 ins. 18 ins. in the
	ground for cor. to secs. 7, 12, 13 and 18 marked
	with 2 notches on N. and 4 notches on S. edges
	from which
	A pine 10 ins. diam. bears
	N. 15° E. 33 lks. dist. marked T. 35 S. R. 1 E. S. 7. B. T.
	A pine 10 ins. diam. bears
	N. 32° W. 48 lks. dist. marked T. 35 S. R. 1 W. S. 12. B. T.
	A pine 14 ins. diam. bears
	S. 40° W. 130 lks. dist. marked T. 35 S. R. 1 W. S. 13. B. T.
	No other tree within the limits.
	Raised a mound of stones 3 ft. high, 4
	ft. base alongside. Pits impracticable.

Salt Lake P. Meridian through T. 35 S. continued.

chains	
	Land, mountainous 51.45 chs.
	Soil, gravel 4th rate.
	Timber, heavy pine, fir, and spruce 20.80 chs.
	Undergrowth same with dense oak, quakingasp mahogany and whortleberry 80 chs.
	Mountainous land or covered with dense undergrowth or heavily timbered 80 chs.
	South bet. secs. 13 and 18.
	Var. 15° 26' E.
	through Heavy timber & dense brush
1.00	Ravine about 30 ft. deep, course N. E.
4.00	Descend abruptly about 40 ft.
40.00	Set a trachyte rock 18 x 8 x 4 ins. 12 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face; from which
	A pine 20 ins. diam. bears
	S. 79° W. 5 lks. dist. marked 1/4 S. B. T.
	A pine 18 ins. diam. bears
	S. 67° E. 115 lks. dist. marked 1/4 S. B. T.
	Raised a mound of stones 3 ft. high 3 1/2 ft base alongside, Pits impracticable.
43.05	Ravine about 30 ft. deep, course N. 85° E.
49.50	Ascend abruptly about 150 ft.
58.00	Top of ridge; course N. E.
61.50	Descend into head of ravine about 20 ft. deep, course N. E.
73.25	Head of ravine, course N. E. and ascend.
80.00	Set a limestone 18 x 8 x 5 ins. 12 ins. in the ground for cor. to secs. 13. 18. 19 and 24. marked with 3 notches on N. and S. edges; from which
	A pine 8 ins. diam. bears
	N. 5° E. 8 lks. dist. marked T. 35 S. R. 1 E. S. 18. B. T.
	A pine 30 ins. diam. bears
	S. 89° E. 110 lks. dist. marked T. 35 S. R. 1 E. S. 19. B. T.
	A pine 18 ins. diam. bears
	N. 66° W. 42 lks. dist. marked T. 35 S. R. 1 W. S. 13. B. T.
	A pine 12 ins. diam. bears
	S. 56° W. 186 lks. dist. marked T. 35 S. R. 1 W. S. 24. B. T.
	Raised a mound of stone 3 ft. high 4 ft. base alongside. Pits impracticable.
	Land, broken and mountainous 80 chs.
	Soil, gravel 4th rate.

Salt Lake P. Meridian through T. 35 S. continued.

chains	
	Timber, heavy pine 80 chs.
	Undergrowth dense with dense oak, scrub tabby mahogany and bitter brush 80 chs.
	Mountainous land or heavily timbered and covered with dense undergrowth 80 chs. May 26 1898.
	South bet. Secs. 19 and 24.
	Var. 15° 27' E.
	Ascend abruptly about 500 ft. through heavy timber
4.50	Ravine about 30 ft. deep, course N. E.
9.25	Top of mountain, course S. E. and N. and descend abruptly about 700 ft.
33.58	Ravine about 40 ft. deep, course E.
36.30	Leave timber, course E. and N.
40.00	Set a sandstone 20 x 8 x 4 ins. in a stone pile in rocky place for 1/4 sec. cor. marked 1/4 on N. face; Raised a mound of stones covered with earth 3 ft. high, 3½ ft. base alongside.
44.10	Ravine about 20 ft. deep, course S. W.
44.30	Enter heavy timber, course E. and N.
47.60	Foot of hill, course N. W. and S. 40° E. and ascend about 100 ft.
51.50	Ravine about 25 ft. deep, course E.
80.00	Set a sandstone 20 x 10 x 6 ins. 15 ins. in the ground for cor. to Secs. 19, 24, 25 and 30, marked with 4 notches on N. and 2 notches on E. edges; from which A pine 5 ins. diam. bears N. 88° W. 5 lks. dist. marked T. 35 S. R. 1 W. S. 24 B. T. A pine 30 ins. diam. bears N. 19° E. 102 lks. dist. marked T. 35 S. R. 1 E. S. 19. B. T. A spruce 12 ins. diam. bears S. 6° E. 77 lks. dist. marked T. 35 S. R. 1 E. S. 30. B. T. A spruce 12 ins. diam. bears S. 32° W. 64 lks. dist. marked T. 35 S. R. 1 W. S. 25. B. T. Raised a mound of stones 3 ft. high. 3½ ft. base alongside Pits impracticable.
	Land, very rough and mountainous 80 chs.
	Soil, gravel and clay 2nd rate.
	Timber, very heavy pine, fir, and

Salt Lake P. Meridian through T. 35 S. continued.

chains

Spruce 72 chs.
Undergrowth same with dense oak and whortleberry 80 chs. May 27 1893.
Mountainous land & heavily timbered & covered with dense undergrowth 80 chs.

South bet. secs. 25 and 30.
Va. 15° 23' E.
Through heavy timber & dense brush

2.00 Ravine about 12 ft. deep, course S. E.
6.00 Ravine about 25 ft. deep, course N. E.
6.60 Ascend abruptly about 600 ft.
24.64 Top of plateau, course E and N. W.
31.07 Dry wash 20 lks. wide, course S. W.
40.00 Set a trachyte stone 18×12×4 ins. 12 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face from which
A pine 20 ins. diam bears
S. 73° E. 24 lks. dist. marked 1/4 S. B. T.
A pine 8 ins. diam. bears
N. 71° W. 57 lks. dist. marked 1/4 S. B. T. and raised a mound of stones 3 ft. high, 3 1/2 ft. base alongside. Pits impracticable.
40.75 Dry wash 10 lks. wide, course S. 10° E.
48.00 Descend abruptly about 200 ft.
72.50 Gulch about 150 ft. deep, course S. 80° E.
76.85 South side of gulch, course E.
80.00 Set a limestone 20×8×5 ins, 15 ins. in the ground for cor. to secs. 25, 30, 31 and 36. marked with 5 notches on N. and 1 notch on S. edges; from which
A pine 12 ins. diam. bears
S. 56° E. 52 lks. dist. marked T. 35 S. R. 1 E. S. 31. B. T.
A pine 8 ins. diam. bears
S. 20° W. 36 lks. dist. marked T. 35 S. R. 1 W. S. 36. B. T.
A pine 10 ins. diam. bears
N. 34° E. 21 lks. dist. marked T. 35 S. R. 1 E. S. 30. B. T.
A pine 14 ins. diam. bears
N. 31° W. 19 lks. dist. marked T. 35 S. R. 1 W. S. 25. B. T.

And raised a mound of stones 3 ft. high, 3 1/2 ft. base alongside.
Pits impracticable.

Salt Lake P. Meridian through T. 35 S. continued.

chains.	
	Land, mountainous and broken 80 chs.
	Soil, gravel 4th rate
	Timber, heavy pine 80 chs. Undergrowth same with dense oak, mahogany and whortleberry 80 chs. Mountainous land, or heavily timbered and covered with dense undergrowth 80 chs.
	South between secs. 31 and 36.
	Va. 15° 28' E.
	Through heavy timber and dense brush.
4.75	Dry wash 10 lks. wide, course E.
6.00	Ravine about 30 ft. deep, course E.
9.30	Dry wash 50 lks. wide, course E.
10.96	Dry wash 40 lks. wide, course N. 80° E.
13.10	Dry wash 40 lks. wide, course E.
14.00	Ascend abruptly about 400 ft.
21.50	Top of ridge, course E and W. and descend abruptly about 400 ft.
27.63	Gulch about 250 ft. deep, course S. 80° E.
29.35	South side of gulch, course S. 80° E. and and ascend about 200 ft.
32.00	Top of ridge, course E and W.
36.55	Ravine about 20 ft. deep, course E.
40.00	Set a quartzite rock 18 X 8 X 4 ins. 12 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face, from which
	A pine 15 ins. diam. bears
	S. 18° E. 55 lks. dist. marked 1/4 S. B. T.
	A pine 8 ins. diam. bears
	S. 46° W. 13 lks. dist. marked 1/4 S. B. T.
	and raised a mound of earth 3 ft. high, 3 1/2 ft. base alongside. dug pits 24 X 30 X 12 ins N and S. of stone 5 1/2 ft dist. ascend
41.50	Ravine about 40 ft. deep, course N. E.
50.20	Gulch about 120 ft. deep, course E.
56.30	Ravine about 30 ft. deep, course N. E.
64.40	Ravine about 20 ft. deep, course E.
67.50	Head of ravine, course E.
72.50	Top of ridge, course S. 80° E. and N. 80° W.
73.50	Descend abruptly about 350 ft.
80.00	A point about 40 ft. below top of ridge.
	Set a sandstone 20 X 10 X 4 ins. 15 ins. in

Salt Lake P. Meridian through T. 35 S. continued.

chains in the ground for cor. to Tps. 35 and 36 S. Rs. 1 E and 1 W. marked S. C. with 6 grooves on N. E. W. and S. faces, from which
A pinon 10 ins. diam. bears S. 53° E. 26 lks. distant, marked S. C. / T. 36 S. R. 1 E. S. 6. B. T.
A pinon 10 ins. diam. bears S. 74° W. 36 lks. dist. marked S. C. / T. 36 S. R. 1 W. S. 1. B. T.
A pinon 13 ins. diam. bears N. 57° W. 91 lks. dist. marked S. C. / T. 35 S. R. 1 W. S. 36. B. T.
A pine 12 ins. diam. bears N. 60° E. 85 lks. dist. marked S. C. / T. 35 S. R. 1 E. S. 31. B. T.
and raised a mound of stones and earth 4½ ft. high, 5 ft. base alongside. dug pits 24 X 30 X 12 ins. E. and W. 4 ft. dist. and 8 ft. S. of.
Land, hilly and mountainous 80 chs.
Soil, gravel and sandy 4th rate.
Timber, heavy pine, fir, cedar and pinon 80 chs. Undergrowth same with dense oak, whortleberry, and mahogany 80 chs.
Mountainous land and heavily timbered and covered with dense undergrowth 80 chs. May 27 1893.

At the Standard Cor. to Tps. 35 and 36 S. Rs. 1 E and 1 W. in approximate latitude 37° 43' 23" N. longitude 111° 53' 47" W.
I take an observation on Polaris on the night of May 27 at 8h 26m P. M.

Astron. l. m. t. W. C. Polaris May 15 –	21h	40m.6
Reduction for 11 days, subtract		.43.1
W. C. Polaris May 26	20 –	57.5
Subtract from time of obs.		
leaves hour angle of Polaris	11 –	28.5
Azimuth Polaris lat. 38	0°	12' west.
North end of needle	15°	36' east.
The difference is the var.	15°	24' east.

At 7 a. m. May 28 1893.
I take the magnetic bearing of the true meridian established last night, and find it to be 15° 28' E. and the mean declination 15° 24' E.
Thence I run
South between secs. 1 and 6.

Salt Lake P. Meridian through T. 36. S.

chains	
	Va.: 15° 28' E.
	Descend abruptly through timber and dense oak brush about 300 ft.
3.00	Leave timber, course S. 60° E and N. W.
28.50	Dry wash 10 lks. wide, course S. 40° E.
40.00	Set a limestone 24 X 10 X 3 ins. 18 ins. in the ground for 1/4 sec. Cor. marked 1/4 on W. face from which
	A pine 10 ins. diam. bears
	S. 17° W. 167 lks. dist. marked 1/4 S. B. T.
	A pine 18 ins. diam. bears
	N. 26° E. 228 lks. dist. marked 1/4 S. B. T.
	and raised a mound of earth and stones 3 ft. high, 3½ ft. base alongside.
59.90	Leave dense oak brush and enter bottom. course E. and W.
60.36	Spring run 2 lks. wide, course E.
63.17	Spring run 5 lks. wide, course N. E.
63.39	Ditch 4 lks. wide, course S. 75° E.
68.60	Marsh, course E and W., contains about 1 acre.
72.60	Leave marsh, course N. 80° E and W.
72.80	Spring run 3 lks. wide, course E.
77.00	Leave bottom, enter dense brush and ascend abruptly about 100 ft.
80.00	Set a limestone 20 X 10 X 3 ins. 15 ins. in the ground for Cor. to Secs. 1. 6. 7 and 12 marked with 1 notch on N. and 5 notches on S. edges from which a
62.90 17.10	A pine 30 ins. diam. bears
	S. 26° W. 209 lks. dist. marked T. 36 S. R. 1 W. S. 12. B. T.
	No more trees within the limits.
	Raised a mound of stones covered with earth 3 ft. high, 3½ ft. base alongside.
	Land, hilly 62.90 chs.
	Soil, gravel and sandy loam. 4th. and 2nd rate.
	Timber a few scattering cedars, pinons, and pines. Brush, dense oak 62.90 chs.
	Land covered with dense undergrowth 62.90 Chs. May 28 1893.

South between Secs. 7 and 12.

Va.: 15° 24' E.

Salt Lake P. Meridian through T. 36 S. continued.

chains	
	Ascend through timber and dense brush about 20 ft.
2.00	Top of ridge, course N.W. and S.E.
9.32	Ravine about 20 ft. deep; course S.E.
10.20	Ravine about 15 ft. deep, course E.
12.80	Ravine about 50 ft. deep, course N. 80° E.
24.10	Descend abruptly about 150 ft.
26.00	Foot of ridge, course N.E. and S.W. and ascend about 150 ft.
28.40	Top of ridge, course N.E. and S.W. enter timber and descend abruptly about 150 ft.
31.60	Bottom and leave timber, course N.E.
38.50	Leave bottom, enter heavy timber and ascend about 100 ft.
40.00	Set a sandstone 22 X 12 X 10 ins. 16 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face. from which A pine 24 ins. diam. bears S. 11° W. 59 lks. dist. marked 1/4 S.B.T. A pine 20 ins. diam. bears N. 9° E. 51 lks. dist. marked 1/4 S.B.T.
41.00	Leave timber, course N.E. and S.W.
41.20	Descend abruptly about 120 ft.
41.60	Enter heavy timber, course N.W. and S.E.
42.50	Dry wash 10 lks. wide, course E.
47.10	Dry wash 50 lks. wide, course N. 80° E.
48.00	Foot of slope, course E. and ascend abruptly about 100 ft.
50.20	Top of ridge, course S. 80° E.
58.00	Descend abruptly about 100 ft.
61.40	Foot of ridge, course S.E.
68.10	Road, course S.E. and N.W.
69.22	Dry wash 33 lks. wide, course E.
75.50	Dry wash 41 lks. wide, course S. 75° E.
80.00	Set a sandstone 20 X 10 X 10 ins. 15 ins. in the ground for cor. to secs. 7. 12. 13 and 18 marked with 2 notches on N. and 4 notches on S. edges. from which A pine 24 ins. diam. bears S. 86° W. 21 lks. dist. marked T. 36 S. R. 1 W. S. 13. B.T. A pine 18 ins. diam. bears N. 88° W. 16 lks. dist. marked T. 36 S R. 1 W. S. 12. B.T.

Salt Lake P. Meridian through T. 36 S. continued.

chains	
	A pine 24 ins. diam. bears
	S. 86° E. 48 lks. dist. marked T. 36 S. R. 18 E. S. 18. B. T.
	A cottonwood 10 ins. diam. bears
	N. 59° E. 139 lks. dist. marked T. 36 S. R. 18 E. S. 7. B. T.
	Land, hilly and ~~mountainous~~ 80 chs.
	Soil, gravel 4th. rate.
	Timber, heavy pine and cottonwood 44.20 chs.
	Undergrowth same with dense oak, whortleberry and sage 80 chs. Mountainous land or heavily timbered and covered with dense undergrowth 80 chs. May 28. 1893
	South between secs. 13 and 18.
	Va. 15° 28' E.
	Through heavy timber and dense undergrowth.
0.80	Dry wash 2 lks. wide, course S. E.
1.60	Ascend abruptly about 200 ft.
8.00	Top of ridge, course, S. 75° E. and descend abruptly about 200 ft.
16.25	Ravine about 40 ft. deep, course S. 60° E.
20.10	Leave timber and enter flat, course E. and N.
20.40	Enter dense sage brush.
35.95	Leave bottom and ascend abruptly about 150 ft. course of bottom N. 85° E.
38.00	Top of long ridge, course S. 80° E.
38.25	Enter heavy timber and descend abruptly about 150 ft.
40.00	A point about 75 ft. above bottom. Set a sandstone 20 x 9 x 4 ins. 15 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face, from which
	A pinon 5 ins. diam. bears
	S. 72° W. 18 lks. dist. marked 1/4 S. B. T.
	A cedar 8 ins. diam. bears
	N. 51° E. 46 lks. dist. marked 1/4 S. B. T.
	and raised a mound of stones 3 ft. high 3½ ft. base alongside. Pits impracticable.
44.20	Leave timber and enter bottom course E. through dense sage brush.
80.00	Set a sandstone 20 x 10 x 4 ins. 15 ins. in the ground for cor. to secs. 13. 18. 19 and 24 marked with 3 notches on N. and S. edges and raised a mound earth and stones

Salt Lake P. Meridian through T. 36 S. continued

Chains	3 ft. high, 3½ ft. base alongside. No pits (Hay was rock in)
	Land, broken and hilly 28.35 chs.
	Soil, sandy loam and gravel 2" rate.
	Timber, heavy cedar and pinon 26 chs.
	Undergrowth, same with dense oak, sage and whortleberry 80 chs. May 29 1893.
	Heavily timbered land or covered with dense undergrowth 80 chs.
	South between secs. 19 and 24
	Var. 15° 25' E.
	Through dense sage brush.
10.00	Leave bottom, enter heavy timber and ascend abruptly about 300 ft. Through dense oak brush. Course of bottom N. E. and N. W.
23.00	Top of ridge, course E and W.
24.65	Descend abruptly about 300 ft.
28.05	Foot of ridge, leave timber and enter dense sage brush, course E and W.
34.30	Leave bottom, enter heavy timber and dense oak brush and ascend very abruptly about 350 ft. Course of bottom E and W.
40.00	Set a sandstone 20×10×2 ins. 15 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face. from which a
	A pine 8 ins. diam. bears
	S. 85° E. 70 lks. dist. marked 1/4 S. B. T.
	A pine 6 ins. diam. bears
	S. 81° W. 21 lks. dist. marked 1/4 S. B. T. and
	Raised a mound of stones 3 ft. high, 3½ ft. base alongside. Pits impracticable.
50.50	Dry wash 50 lks. wide, course N. E.
53.08	Dry wash 28 lks. wide, course N. 10° E.
64.25	Ravine about 30 ft. deep, course E.
66.29	Descend abruptly about 400 ft.
77.20	Foot of mountain, course N. E. and S. W. and enter dense sage brush. Leave timber.
80.00	Set a sandstone 20×10×4 ins. 15 ins. in the ground for cor. to secs. 19. 24. 25 and 30 marked with 4 notches on N. and 2 notches on S. edge dug pits 24×20×15 ins. in each section 5½ ft. dist. and raised a mound of earth

Salt Lake P. Meridian through T. 36 S. Continued.

chains	3 ft. high, 3½ ft. base alongside.
	Land, rough and mountainous 63.75 chs.
	Soil, gravel and sandy loam 4th and 2nd rate.
	Timber, heavy cedar, pinon and pine 63.75 chs.
	Undergrowth Same with dense oak 63.75 chs.
	Sage 16.25 chs. May 29 1893.
	Mountainous land and covered with dense undergrowth and heavy timber 80.00 chs.
	South between secs. 25 and 30.
	Va. 15° 27' E.
	Through dense sage brush.
25.25	Cannonville road, course N.E and S.W.
27.35	Foot of hill, course S.W. and N.E. and ascend about 300 ft, leave sage brush and enter oak brush.
31.70	Top of hill and enter heavy timber, course N.E and S.W. and descend abruptly about 300 ft.
35.50	Foot of hill, leave timber and enter dense sage brush
40.00	Set a sandstone 18X10X8 ins. 12 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face. dug pits 24X20X15 ins. N. and S. of Stone 5½ ft. dist, and raised a mound of earth 3 ft. high, 3½ ft. base alongside.
59.50	Enter heavy timber, course N.E and S.W.
69.00	Leave timber and enter dense brush, course N.E. (N.W.
72.50	Ascend about 50 ft. enter dense oak brush.
78.85	Top of ridge, course E and W. and descend abruptly about 700 ft.
79.00	Enter heavy timber, course E. and W.
80.00	Set a sandstone 20X10X4 ins. 15 ins. in the ground for cor. to secs. 25, 30, 31 and 36 marked with 5 notches on N. and 1 notch on S. edges, from which
	A pinon 14 ins. diam. bears
	N. 81° W. 13 lks. dist. marked T. 36 S. R. 1 W. S. 25. B. T.
	A pinon 8 ins. diam. bears
	S. 54° W. 74 lks. dist. marked T. 36 S. R. 1 W. S. 36 B. T.
	A pinon 4 ins. diam. bears
	N. 49° E. 39 lks. dist. marked T. 36 S. R. 1 E. S. 30. B. T.
	A pinon 10 ins. diam. bears
	S. 84° E. 70 lks. dist. marked T. 36 S. R. 1 E. S. 31. B. T.
	Land, hilly 15.65 chs.
	Soil, sandy loam 2nd rate.
	Timber, heavy cedar and pinon 14.30 chs.

Salt Lake P. Meridian through T. 36 S. continued.

chains	
	Undergrowth same with dense oak 15.65 chs. dense sage brush 54.85 chs. 9.50 chs. scattering oak brush. 80 chs. Heavily timbered land and covered with dense undergrowth. May 30 1893.
	South between Secs. 31 and 36. Va. 15° 25' E.
	Descend abruptly through heavy timber and dense brush.
10.60	Gulch about 300 ft. deep, course S.W.
15.90	South side of gulch, course S.W.
19.50	Descend abruptly about 300 ft. through dense brush and heavy timber.
34.60	Bottom of gulch, course S.W. and ascend abruptly about 300 ft. and leave timber.
40.00	A point about 200 ft. above bottom of gulch Set a sandstone 24 x 10 x 8 ins. 18 ins. in the ground for 1/4 Sec. Cor. marked 1/4 on W. face. Raised a mound of earth and stones 2 ft. high, 3½ ft. base alongside. Pits impracticable owing to the steep slope and loose nature of the ground.
48.60	South side of gulch, course S.W. and descend abruptly about 500 ft.
50.20	Bottom of gulch, course W. and ascend about 700 ft.
63.56	South side of gulch, course S. 60° W.
68.83	Descend abruptly about 800 ft. into gulch.
75.00	Bottom of gulch, course S.W.
75.20	Dry channel 30 lks. wide, course S.W.
76.90	Ascend abruptly about 800 ft.
80.00	Set a sandstone 30 x 16 x 8 ins. in a stone pile on rock for Cor. to Tps. 36 and 37 S. Rs. 1 E and 1 W. marked with 6 notches on N. E. S. and W. edges, from which A pinon 6 ins. diam. bears N. 25° E. 10 lks. dist. marked T. 36 S. R. 1 E. S. 31. B. T. A pinon 18 ins. diam. bears S. 82° E. 45 lks. dist. marked T. 37 S. R. 1 E. S. 6. B. T. No more trees within the limits. Raised a mound of stones 4 ft. high, 5 ft. base alongside. Pits impracticable owing to rocky ground.
X	Land, mountainous; with deep gulches 80 chs. the ~~most difficult to measure in my contract~~

Salt Lake P. Meridian T. 36 S.

Land, extremely rough and mountainous 80 chs.
Soil, rocky gravel 4th rate.
Timber, heavy cedar, pinon and pine 34.60 chs.
Undergrowth same with dense oak, 34.60 chs. dense oak, mahogany and whortleberry 45.40 chs.
Mountainous land or heavily timbered and covered with dense undergrowth 80 chs.

May 30 1893.

General Description.

Townships 34. 35 and 36 S. are generally mountainous, and cut with deep gulches and ravines. The mountains are generally covered dense growth of pine, fir, spruce, quakingasp, cedar and pinon, and a dense growth of oak brush. water is scarce along this line. The rock on Escalante mountain is mostly porphyry or black basalt; along the line in townships 35 and 36 south Sandstone, limestone and in one place in township 35 S. a little porphyry, all of the agricultural land along this line is in township 36 S. in the west end of Upper Potato valley.

William Lewman
U. S. Deputy Surveyor

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List of Names.

A list of the names of the individuals employed by .....

....., U. S. Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of the .....

.....

.....

.....

.....

.....

.....

.....Meridian, in ...., showing the respective capacities in which they acted:

.....

.....

.....

.....

.....

.....

.....

.....

Final Oath of Assistants:

We hereby certify that we assisted .....

....., U. S. Deputy Surveyor, in surveying all those parts or portions of the.....

.....

.....

.....

.....

.....

.....

.....Meridian, ..., as are represented in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the U. S. Surveyor General for .....

.....

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.....

Subscribed and sworn to before me this .....

day of ...., 18 .

SEAL

.....

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6—161

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BOOK A-238

Final Oath of U. S. Deputy Surveyor.

I, ..., U. S. Deputy Surveyor, do solemnly swear that, in pursuance of instructions received from ....., U. S. Surveyor General for ....., bearing date of the ..... day of ....., 18 , I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the U. S. Surveyor General for ....., the surveying manual, and the laws of the United States, surveyed all those parts or portions of .....

.....Meridian, in the ....., as are represented in the foregoing field notes as having been surveyed by me, and under my directions; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the surveying manual printed instructions, the special written instructions of the U. S. Surveyor General for ..... and in the specific manner described in the field notes, and that the foregoing are the true field notes of such survey, and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

.....

U. S. Deputy Surveyor.

Subscribed and sworn to before me this .....
day of ....., 18 .

SEAL

.....

.....

Approval.

Office of the U. S. Surveyor General,

Salt Lake City Utah Nov 4th, 1896

The foregoing field notes of the survey of the Salt Lake Principal Meridian in Townships 34, 35 & 36 South Ranges 1 E & 1 West

..... executed by William Lewman under his Contract No. 191, dated March 2d, 1893 having been critically examined, the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

George W. Snow

U. S. Surveyor General.

I certify that the foregoing transcript of the field notes of the above-described surveys in ....., has been correctly copied from the original notes on file in this office.

.....

U. S. Surveyor General.

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(4—679.)

6

K.J.B.

BOOK A-238

FIELD NOTES

OF THE SURVEY OF the

Seventh Standard Parallel South bet. Tps 35 & 36 S

Through

Ranges Nos. 1-2-3 and 4 East.

Of the Salt Lake P. Base and Meridian,

Territory of Utah

AS SURVEYED BY

William Lewman, U. S. Deputy Surveyor,

Under his Contract No. 191, dated March 2nd 1893.

Survey commenced June 1st, 1893.

Survey completed June 11th, 1893.

(12503—2,000.)

Standard (high) 18-40-70

" (low) 5-39-30

BOOK A-238

Names and Duties of Assistants.

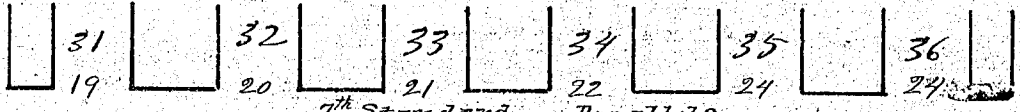
Thomas E. King	Chainman
Ephraim Hawkes	Chainman
Monroe Twitchell	Chainman
Charles Hall	Chainman
A. Franklin McEwen	Axeman
Sixtus Johnson	Axeman
Walter B. Wayland	Flagman

T. 35 S. R. 1 E.

T. 35 S. R. 2 E.

T. 35 S. R. 3 E.

T. 35 S. R. 4 E.



BOOK A-238

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

Meanders Page .....

Preliminary Oaths of Assistants.

We, _____

_____

_____

do solemnly swear that we will well and faithfully execute the duties of chain carriers; that we will level the chai over even and uneven ground, and plumb the tally-pins either by sticking or dropping the same; that we will repor the true distance to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of ou skill and ability, and in accordance with instructions given us in the survey of the _____

_____

_____

_____

_____

_____, *Chainman.*

_____, *Chainman.*

_____, *Chainman.*

_____, *Chainman.*

Subscribed and sworn to before me this _____ day of _____, 18 .

_____

_____

We, _____

_____

do solemnly swear that we will well and truly perform the duties of axemen in the establishment of corners and oth duties, according to instructions given us, and to the best of our skill and ability, in the survey of the _____

_____

_____

_____

_____

Subscribed and sworn to before me this _____ day of _____, 18 .

_____, *Axeman*

_____, *Axeman*

_____

_____

_____

BOOK A-238

Seventh Standard parallel S. through R. 1 E.

Chains	
	Survey commenced June 1st 1893: with a W. & L. E. Gurley engineer's transit, provided with a solar attachment and variation plate; with all the attachments in perfect working order.
	At the Standard cor. to Tps. 35 and 36 S. Rs. 1 E. and 1 W. as hereinbefore described; I take an obs. on Polaris at 8h 45m P. M. May 31, correct local mean astronomical t. by my watch which is correct, and find the bearing of the star to be N. 15° 30' W. & drive a picket on the line thus determined 3 chs. N. of the corner. Lat. 37° 43' 23" N. Lon. 111° 53' 47" W.
	Correct l. m. t. of obs. May 31. 8h 45m P. M.
	Tabular t. W. C. Polaris May 15 21h 40m. 6
	Reduction 14 days, Subtract 5 44
	W. C. Polaris May 30 20 45 7
	Which taken from time of obs.
	Leaves hour angle of Polaris 11. 59. 3
	Therefore the star is practically on the meridian at L. C.
	At 7 A. M. June 1st. I take the magnetic bearing of the true meridian established last night, and find it to be N. 15° 30' W. and the var. to be 15° 30' E. The mean declination is 15° 24' E.
	Thence I run
	East on S. boundary of sec. 31.
	Va. 15° 30' E.
	Ascend about 40 ft. through heavy timber and brush.
1.30	Top of ridge course S. 50° E. and N. 50° W.
14.80	Ravine about 60 ft. deep, course S. E. and ascend abruptly about 50 ft.
17.50	Top of ridge, course N. E. and S. W.
20.45	Ravine about 50 ft. deep, course S. E.
24.13	Ravine about 20 ft. deep, course S.
32.25	Ravine about 40 ft. deep, course S. 10° E.
33.30	Ravine about 10 ft. deep, course S. W.
40.00	Set a sandstone 20 x 8 x 4 ins. 15 ins. in the ground for Standard 1/4 Sec. Cor. marked S. 1/4 on N. face. from which A pine 24 ins. diam. bears

Seventh standard parallel S. through R. 1 E. continued.

chains	
	A cedar 18 ins. diam. bears S. 77° E. 192 lks dist: marked S.C. 1/4 S. B.T. Raised a mound of stones 3 ft. high 3½ ft. base alongside.
43.50	Ascend about 20 ft.
44.00	Top of ridge, course N. and S. and descend about 40 ft.
49.20	Ravine about 30 ft. deep, course N.E.
60.35	Ravine about 100 ft. deep, course N.E.
64.40	Ravine about 40 ft. deep, course N.E.
80.00	Set a sandstone 18 x 6 x 4 ins. 12 ins. in the ground for Standard corner to secs. 31 and 32 marked S.C. on N. with 1 groove on W. and 5 grooves on E. faces, from which A pine 12 ins. diam. bears N. 14° W. 183 lks. dist. marked T. 35 S. R. 1 E. S. 31. B.T. A pine 24 ins. diam. bears N. 45° E. 321 lks. dist. marked T. 35 S. R. 1 E. S. 32. B.T. A pine 18 ins. diam. bears S. 16° W. 133 lks. dist. marked T. 35 S. R. 1 E. S.C. S. 31 & 32. B.T. Raised a mound of earth 3 ft. high, 3½ ft. base alongside Land, rolling and broken 80 chs. Soil, gravel 4th rate. Timber, heavy pine, cedar and pinon 80 chs. Undergrowth same with dense oak and (80 chs.) Heavily timbered land and covered with dense undergrowth

East on S. boundary of sec. 32.
Var. 15° 26' E.
Through heavy timber and dense oak brush.

25.20	Ravine about 10 ft. deep, course N.E.
30.80	Descend abruptly about 80 ft.
36.50	Leave timber, course N.W. and S.E.
40.00	Set a sandstone 18 x 10 x 5 ins. 12 ins. in the ground for standard 1/4 sec. Cor. marked S.C. 1/4 on N. face; dug pits 24 x 18 x 12 ins. & and. av. of stone 5½ ft. dist; and raised a mound of earth and stones 2½ ft. high, 3½ ft. base alongside.
40.50	Ravine about 100 ft. deep, course N.E. and descend along N. side of ridge about 50 ft.
44.20	Top of point of ridge, course N.E.

Seventh Standard parallel S. through R. 1 E. continued.

chains	
59.61	Bottom of wash; S. spring run 3 lks. wide, course N.E. water alkaline.
71.64	S. spring run 3 lks. wide, course S.E. and ascend through heavy timber. water alkaline.
80.00	Set a sandstone 20X10X8 ins. 15 ins. in the ground for standard cor. to secs. 32 and 33 marked S.C. on N. with 2 grooves on W. and 4 grooves on E. faces; from which A cedar 12 ins. diam. bears N.60° W. 21 lks. dist. marked T.35 S.R.1E. S.32. B.T. A pinon 10 ins. diam. bears N.63° E. 53 lks. dist. marked T.35 S.R.1E. S.33 B.T. A pinon 10 ins. diam. bears S.61° W. 63 lks. dist. marked T.35 S.R.1E. S.C.S.32 and 33. B.T. and raised a mound of stones 3 ft. high, 3½ ft. base alongside. Pits impracticable. Land, broken and rolling 54.80 chs. Soil, quartz gravel 4th rate. Timber, heavy cedar and pinon 44.86 chs. Brush and undergrowth dense oak, sage and whortleberry 30 chs. ~~Heavily timbered land or covered with dense undergrowth 30 chs.~~
	East on S. boundary of sec. 33. Va. 15° 20' E.
	Ascend along S. slope of hill through heavy timber and dense brush.
25.00	Ravine about 50 ft. deep, course S.
28.60	Descend abruptly about 75 ft.
37.00	Leave timber and enter bottom and sage brush course N.E. and S.W.
40.00	Set a sandstone 20X12X6 ins. 15 ins. in the ground for standard 1/4 sec. cor. marked S.C. 1/4 on N. face. from which A pine 15 ins. diam. bears N. 22° W. 285 lks. dist. marked S.C. 1/4 S.B.T. No other tree within the limits. dug pits 24X18X12 ins. E. and W. of stone 5½ ft. dist. and raised a mound of stones and earth 2½ ft. high, 3½ ft. base alongside.
47.41	Road, course N. 80° E. and S. 80° W.
49.51	Same road, course S. 75° E. and N. 75° W.

Seventh Standard parallel S. through R. 1 E. continued.

chains	
	Field contains about 10 acres of level land.
76.80	Same fence, course N. 80° E. and S. 80° W.
79.15	Escalante and Cannonville road course N.E and S.W.
80.00	Set a sandstone 18x10x6 ins. 12 ins. in the ground for Standard Cor. to secs. 33 and 34 marked S.C. on N. with 3 grooves on E and W. faces; dug. pits 2-4 x18x12 ins. 3 ft. N. and E and W. 3½ ft. dist. and raised a mound of earth 2½ ft. high 3½ ft. base alongside Phils Allen's house bears N. 11° E. 18.20 chs. from this corner.
	Land hilly 37 chs.
	Soil, gravel 37 chs. and sandy loam 43 chs. 2nd and 4th rates.
	Timber, heavy cedar, and pinon 37 chs. Undergrowth same with dense oak 37 chs. June 1 1893.
	Heavily timbered land or covered with dense undergrowth 37 chs.

At the Standard Cor. to secs. 33 and 34. Observe Polaris at 8h 33m P. M June 1- 1893 and find the Magnetic bearing of the star to be N. 15° 26' W. & drive a picket on the line so determined 13.50 chs N. of the cor.. Watch correct.

	h	m
Astron. l. m. t. of obs.	8	33 P. M.
W. C. Polaris May 15	21	40
Reduction 15 days, subtract.		58.8
W. C. Polaris May 31	20	41.8
Subtract from time of obs		
leaves hour angle of Polaris	10	51.2
Azimuth of Polaris, lat. 37° 43'	0°	2' west.
North end of needle	15°	26' east.
The difference is the var.	15°	24' east.

At 7 A. M. the var. is 15° 30' E. and the mean declination 15° 24' E. My obs. last night coincides with my observation taken the night before. My transit is also in perfect adjustment

---

East on the S. boundary of sec. 34.

Var. 15° 30' E.

0.50	Descend through dense willow brush about 30 ft.
4.01	Creek 20 lks. wide, course N. E.
4.82	Escalante creek 30 lks. wide, course N.
5.37	Enter heavy timber and ascend abruptly up mountain about 1000 ft. course N. 20 E and S. 20 W.

Seventh Standard parallel S. through R. 1 E. continued.

chains	
40.00	Set a sandstone 20X8X6 ins. 15 ins. in the ground for standard 1/4 sec. cor. marked S.C. 1/4 on N. face from which A cedar 8 ins. diam. bears S. 6° W. 36 lks. dist. marked S.C. 1/4 S. B.T. A pinon 12 ins. diam. bears N. 2° E. 74 lks. dist. marked S.C. 1/4 S. B.T. Raised a mound of stone 2½ ft. high, 3½ ft. base alongside. Pits impracticable.
45.10	Top of mountain, course N. 30° E. and S. 30° W.
45.40	Descend abruptly about 200 ft.
51.60	Ascend abruptly about 200 ft. course of depression between ridges on top of mountain N. and S.
55.24	Top of ridge, course N. and S.
75.50	Descend abruptly about 100 ft.
80.00	Set a sandstone 22X12X10 ins. 16 ins. in the ground for standard cor. to secs. 34 and 35. marked S.C. on N. with 4 grooves on W. and 2 grooves on E. faces, from which A pinon 18 ins. diam. bears N. 21° W. 58 lks. dist. marked T. 35 S. R. 1 E. S. 34. B.T. A pinon 16 ins. diam. bears N. 57° E. 30 lks. dist. marked T. 36 S. R. 1 E. S. 35. B.T. A pinon 12 ins. diam. bears S. 44° W. 14 lks. dist. marked T. 35 S. R. 1 E. S.C. S. 34 and 35. B.T. Land, mountainous 74.63 chs. Soil, rocky gravel and sandy 4th and 2nd rate. Timber, heavy cedar and pinon 74.63 chs. Undergrowth same with dense oaks, sage mahogany and whortleberry 80 chs. Mountainous land heavily timbered and covered with dense undergrowth 8.00 chs. June 27 1893
	East on S. boundary sec. 35. Var. 15° 26' E.
	Descend abruptly through heavy timber and dense brush.
4.85	Ravine about 50 ft. deep, course N. 10° E.
5.20	Ascend abruptly about 250 ft.
40.00	Set a sandstone 24X12X7 ins. 18 ins. in the ground for standard 1/4 sec. cor. marked S.C.

Seventh Standard parallel S. through R. 1 E. continued.

Chains A cedar 20 ins. diam. bears
N. 42° E. 25 lks. dist. marked S. C. 1/4 S. B. T.
A pine 10 ins. diam. bears
S. 5° W. 28 lks. dist. marked S. C. 1/4 S. B. T.
Raised a mound of stones 3 ft. high, 3½ ft. base alongside. Pits impracticable.
40.40 Ravine about 10 ft. deep, course N. W.
48.80 Top of ridge, course N. and S.
53.46 Descend abruptly about 800 ft.
75.50 Perpendicular cliff about 200 ft. high, course N. E. and S. W. I measure a base of 3 chs. N. and set a flag pole on N. end of base, also one on the line at south end of base and one on the line below cliff.
From flag pole on bottom below cliff, flag pole at N. end of base bears N. 55° 39' W. I next align my transit on flag pole at S. end of base, undamp and turn on pole at north end of base, and find the angle 34° 21'. Cot. 1.463 × 3 = 4.389 + 75.50 = 79.89. I now measure back to cliff at the foot.
79.04 Foot of cliff, course N. E. and S. W.
80.00 Set a sandstone 20 × 8 × 6 ins. 15 ins. in the ground for standard cor. to secs. 35 and 36, marked S. P. on N. with 5 grooves on W. and 1 groove on E. faces, from which
A cedar 18 ins. diam. bears
N. 56° E. 54 lks. dist. marked T. 35 S. R. 1 E. S. 36. B. T.
A pinon 6 ins. diam. bears
N. 43° W. 59 lks. dist. marked T. 35 S. R. 1 E. S. 35. B. T.
A pinon 10 ins. diam. bears
S. 40° E. 49 lks. dist. marked T. 35 S. R. 1 E. S. C. S. 35 and 36 B. T.
Land rough and mountainous 80 chs.
Soil, rocky gravel 4th rate.
Timber heavy cedar, pinon, and pine 80 chs.
Undergrowth same with oak and bitter brush 80 chs.
Mountainous land heavily timbered and covered with dense undergrowth 80 chs.
June 2d 1893

East on S. boundary sec. 36.
Va. 15° 30' E.
Descend over broken ground through heavy timber and brush.

Seventh Standard parallel S. through R. 1 E. Continued.

Chains	
20.40	Dry wash 3 lks. wide, course S. and descend about 10 ft.
25.80	Mouth of Gulch about 6 ft. deep, course N. E.
26.50	Leave timber and descend about 4 ft.
30.45	Bottom, course N. 45° E. and S. 25° E.
31.22	Dry channel 5 lks. wide, course N. E.
34.19	Measure a base N. 11.63 chs. triangulate to top of cliffs East, set a flag pole at N. and one at S. end of base and one on line on top of cliffs.
34.20	Dry wash 6 lks. wide, course N. and ascend through heavy timber about 80 ft.
40.00	Set a sandstone 18 X 14 X 6 ins. 12 ins. in the ground for Standard 1/4 sec. Cor. marked S. C. 1/4 on N. face; from which. A pinon 4 ins. diam. bears S. 65° E. 18 lks. dist. marked S. C. 1/4 S. B. T. A pinon 6 ins. diam. bears N. 18° W. 17 lks. dist. marked S. C. 1/4 S. B. T. Raised a mound of stones 3 ft. high 3½ ft. base alongside. Pits impracticable.
42.25	Ravine about 40 ft. deep, course N. W.
50.30	Foot of cliffs, course N. and S.
	I set my transit on the line on top of cliffs Flag pole on N. end of base bears N. 61° W. Subtract from 90° = 29°; Log tang. 1.80 X 11.83 = 21.29 chs. + 4.19 chs = 50.48 chs
55.45	Top of cliffs, course N. 5° E. and S. 5° W.
55.48	Point of triangulation. enter heavy timber.
56.50	Descend about 100 ft.
67.65	Dry wash 38 lks. wide, course N. E. and ascend.
80.00	Set a sandstone 36 X 18 X 12 ins. 27 ins. in the ground for Standard Cor. to Tps. 35 and 36 S. Rs. 1 and 2 E. marked S. C. on N. with 6 grooves on N. E and W. faces; from which A pinon 18 ins. diam. bears N. 20° W. 44 lks. dist. marked T. 35 S. R. 1 E. S. 36 B. T. A pinon 10 ins. diam. bears N. 1° E. 61 lks. dist. marked T. 35 S. R. 2 E. S. 31. B. T. A pinon 8 ins. diam. bears S. 52° E. 10 lks. dist. marked S. C. Tps. 35 S. Rs. 1 and 2 E. B. T. Raised a mound of stones 5 ft. high, 5 ft. base alongside. Pits impracticable.

Seventh Standard parallel S. through R. 2 E.

chains Soil, gravel and sandy 4th and 2d rate.
Timber, heavy cedar, pinon and pine 70.00 chs.
Undergrowth scrub with dense oak, sage, whortleberry, currant and mahogany 80 chs. June 2. 1893.
Mountainous land heavily timbered & covered with dense undergrowth 80 chs.

June 2d. 1893. at the Standard Corner to Tps. 35 & Rs. 1 and 2 E. in approximate lat. 37° 43' 23" N. long. 111° 40' 39" W. I take an obs. on Polaris at 8h 22m P.M. correct astron. l. m. t. by my watch, and find the bearing of the star to be N. 16° 41' W. I drive a picket on the line thus determined 2 chs. S. of the corner.

	h	m.
Correct l. m. t. of obs. June 2	8	22.
W. C. Polaris June 1	20	34.0
Reduction 1 day		3.9
W. C. Polaris June 2	20	30.1
Subtract from time of obs.		
leaves hour angle of Polaris	11	51.9
Azimuth of Polaris. lat 37° 43'	0°	2' west
North end of needle	16°	41' east.
The difference is the var.	16°	39' east

This change in declination is caused by the presence of ferruginous sandstone in the vicinity of the corner.

At 7 a. m. June 3. I take the magnetic bearing of the true meridian established last night and find the var. to be 16° 45' E.
The mean declination is 16° 39' east.
Thence I run
East on S. boundary sec. 31
Var.: 16° 45' E.
Through heavy timber and brush.

5.30 Dry wash 20 lks. wide, course N. 30° E.
22.30 Dry wash 40 lks. wide, course N. E.
39.60 Dry wash 35 lks. wide, course N. E.
46.00 Set a sandstone 20 X 16 X 4 ins. 15 ins. in the ground for Standard 1/4 sec. Cor. marked S. C. 1/4. on N. face; from which
A pinon 6 ins. diam. bears
N. 40° W. 11 lks. dist. marked S. C. 1/4 S. B. & T.

Seventh Standard parallel S. through R. 2 E. continued.

Chains	S. 7° E. 48 lks. dist. marked S. P. 1/4 S. B. T.
42.20	Ascend abruptly about 200 ft.
47.00	Top of ridge; Course N. 20° E. and S. 20 W.
47.50	Descend abruptly about 250 ft.
80.00	A point about 200 ft. below top of ridge.
	Set a sandstone 37 X 6 X 4 ins. 28 ins. in the ground for stan-
	-dard corner to secs. 31 and 32. marked S. P. on N. with
	1 groove on W. and 5 grooves on E. faces from which
	A pinon 8 ins. diam. bears
	N. 63° E. 20 lks. dist. marked T. 35 S. R. 2 E. S. 32. B. T.
	A pinon 10 ins. diam. bears
	N. 65° W. 24 lks. dist. marked T. 35 S. R. 2 E. S. 31. B. T.
	A pinon 12 ins. diam. bears
	S. 50° E. 43 lks. dist. marked T. 35 S. R. 2 E. S. P. S. 31 and 32 B. T.
	Raised a mound of stones 3 ft. high, 3½ ft. base alongside
	Land, hilly and broken 37.80 chs.
	Soil, sandy gravel 3rd rate.
	Timber, heavy cedar and pinon 80 chs.
	Undergrowth same with dense oak and wheat berry 80 chs.
	Heavily timbered land and covered with dense undergrowth 80 chs.
	June 3rd 1893
	East on S. boundary Sec. 32.
	Var. 16° 17' E.
	There is ferruginous sandstone near this cor. indica-
	-tions of coal 40 lks. S. of this corner.
	Through heavy timber and brush.
14.50	Dry wash 50 lks. wide, course S. E.
17.20	Ledge of sandstone 10 ft. high, course S. E. and N. W.
40.00	Set a sandstone 36 X 10 X 6 ins. 27 ins. in the ground
	for Standard 1/4 sec. Cor. marked S. P. 1/4 on N. face.
	from which
	A cedar 10 ins. diam. bears
	S. 25° W. 8 lks. dist. marked S. P. 1/4 S. B. T.
	A cedar 6 ins. diam. bears
	N. 45° E. 10 lks. dist. marked S. P. 1/4 S. B. T.
43.20	Ledge of sandstone 10 ft. high, course N. W. and S. E.
45.08	Dry channel 52 lks. wide course S.
45.58	Ascend abruptly about 300 ft.
50.00	Top of ridge, Course N. and S. and descend abruptly about (300 ft.
65.00	Indications of coal.
67.50	Ravine about 50 ft. deep; course N. 85° E. along N. side

Seventh Standard parallel S. through R. 2 E. continued

chains	
68.50	Descend abruptly about 100 ft.
77.10	Gulch about 250 ft. deep, course N. 80° E.
79.08	Bottom of gulch and ascend about 250 ft.
80.00	A point about 100 ft. above bottom of gulch, Set a sandstone 20 x 8 x 6 ins. 15 ins. in the ground for standard cor. to secs. 32 and 33 marked S.C. on N. with 2 grooves on W. and 4 grooves on E. faces from which A pinon 12 ins. diam. bears N. 56° E. 59 lks. dist. marked T. 35 S. R. 2 E. S. 33. B.T. A pinon 12 ins. diam. bears N. 27° W. 47 lks. dist. marked T. 35 S. R. 2 E. S. 32. B.T. A pinon 10 ins. diam. bears S. 56° W. 28 lks. dist. marked T. 35 S. R. 2 E. S.C. S. 32 and 33. B.T. Raised a mound of stones 3 ft. high, 4 ft. base alongside. Land, mountainous and broken 80 chs. Soil, sandy gravel 4th rate. Timber, heavy cedar and pinon 80 chs. Undergrowth same 80 chs. June 5th 1893. Mountainous land and heavily timbered 80 chs.
	East on S. boundary Sec. 33. Va. 15° 50' E. Ferruginous sandstone cause of change of var. Ascend abruptly through heavy timber & brush.
1.80	Top of point, course N. 80° E. and descend.
4.50	Same gulch about 200 ft. deep, course S. E.
5.30	Mouth of ravine, comes in from N. E.
5.60	Ascend abruptly about 300 ft.
13.80	Top of Ridge, course N. E. and S. W.
23.80	Gulch about 200 ft. deep, course S. E.
29.80	East side of gulch, course S. E. and ascend over rocks about 400 ft.
40.00	Set a sandstone 36 x 14 x 12 ins. on solid rock with a stone pile around it for standard 1/4 sec. cor. marked S.C. 1/4 on N. face. No trees accessible on account of large boulders Cut a large cross on S. face of Ledge of rock in place, 4 lks. N. of cor. and raised a mound of stones 3 ft. base, and 2½ ft. high alongside.
45.10	Top of hill, course S. E. and N. W.

Seventh Standard parallel S. through R. 2 E. continued

chains	
60.20	Dry channel 60 lks. wide, course S.
61.10	Ascend very abruptly about 800 ft.
74.15	Top of mountain, course S. W. and E.
	Along N. slope of mountain.
80.00	Cor. falls on N. face of ledge of rocks in place
	Set a large cross at exact spot where corner
	falls. Cut 3 grooves on E and W. sides of cross, and
	S.C. above for Standard cor. to secs. 33 and 34 from
	which
	A pinon 6 ins. diam. bears
	N. 5° W. 8 lks. dist. marked T. 35 S. R. 2 E. S. 33, B.T.
	A pinon 12 ins. diam. bears
	S. 48° W. 32 lks. dist. marked T. 35 S. R. 2 E. S.C. S. 33 and 34. B.T.
	Land, mountainous, hilly and very rough 80 chs.
	Soil, rocky grand 4th rate.
	Timber heavy cedar and pinon 80 chs.
	Undergrowth same 80 chs. June 4 1893.
	Mountainous land and heavily timbered 80 chs.

East on S. boundary sec. 34.
Var. 16° 52' E.
Ferruginous sandstone at this corner
Descend along N. slope of mountain through heavy timber and brush.

37.70	Ascend about 140 ft.
40.00	Set a sandstone 25 X 10 X 6 ins. 19 ins. in the ground for Standard 1/4 sec. cor. marked S.C. 1/4 on N. face, from which
	A pinon 6 ins. diam. bears
	N. 84° W. 38 lks. dist. marked S.C. 1/4 S. B. T.
	A pinon 10 ins. diam. bears
	S. 78° E. 33 lks. dist. marked S.C. 1/4 S. B. T.
	Raised a mound of stones 3 ft. high, 4 ft. base alongside. Pits impracticable
44.20	Top of ridge, course S. 70° W. and N. 70° E.
45.00	Descend abruptly about 200 ft.
80.00	Set a sandstone 24 X 10 X 2 ins. in a stone pile on bed rock for Standard cor. to secs. 34 and 35 marked S.C. on N. with 4 grooves on W. and 2 grooves on E. faces, from which
	A pinon 12 ins. diam. bears

Seventh Standard parallel S. through Range 2 E. continued.

chains	
	A cedar 10 ins. diam. bears
	N. 32° E. 43 lks. dist. marked T. 35 S. R. 2 E. S. 35. B. T.
	A pinon 14 ins diam. bears
	S. 33° W. 88 lks. dist. marked T. 35 S. R. 2 E. S. C. S. 34 and 35. B. T.
	Raised a mound of stones 3 ft. high, 4 ft. base alongside.
	Land, mountainous. 80 chs.
	Soil, sandy gravel 4th rate.
	Timber heavy cedar and pinon 80 chs.
	Undergrowth some 80 chs. June 4 1893.
	Mountainous land heavily timbered 80 chs.
	East on S. boundary Sec. 35.
	Va. 15° 20' E.
	Descend through heavy timber and undergrowth.
19.63	Cliff about 50 ft. high, course N. E. and S. 40° W.
19.66	Foot of cliff and descend abruptly about 100 ft.
21.36	Cliff about 35 ft. high, course N. E and S. 40° W.
21.40	Foot of cliff, course N. E. and S. W. and descend abruptly about 200 ft.
22.20	Old road, course N. W. and S. E.
25.20	Dry wash 40 lks. wide, course N. E.
26.05	Ascend about 100 ft.
28.45	Ascend abruptly
40.00	A point about 500 ft. above dry wash.
	Set a sandstone 20 x 10 x 4 ins. 15 ins. in the ground for standard 1/4 Sec. cor. marked S. C. 1/4 on N. face from which
	A pinon 10 ins. diam. bears
	N. 33° W. 13 lks. dist. marked S. C. 1/4 S. B. T.
	A cedar 6 ins. diam. bears
	S. 10° E. 20 lks. dist. marked S. C. 1/4 S. B. T.
	Raised a mound of stones 3 ft. high, 4 ft. base alongside. Pits impracticable.
53.50	Top of point of mountain and leave timber, course N. E. and S. W. and descend about 500 ft.
80.00	A point about 400 ft. below top of point.
	Set a sandstone 24 x 10 x 6 ins. in a stone pile on solid rock for Standard cor. to Secs. 35 and 36.
	marked S. C. on N. with 5 grooves on W. and 1 groove on E. faces. Owing to the extremely large bowlders around this cor. there are no trees visible or accessible from the cor. Raised a mound of stones 3 ft. high, 3 ft. base along-

Seventh standard parallel S. through R. 2 E. Continued.

Chains	
	Land, broken and mountainous 80 chs.
	Soil gravel and sandy 4th rate.
	Timber, heavy cedar and pinon 53.50 chs.
	Undergrowth same 80 chs.
	There is a vein of good coal in the canon 30 chs.
	north of this corner.
	Mountainous land or heavily timbered 80 chs. June 5 1894
	East on S. boundary Sec. 36.
	Va. 15° 21' E.
	Descend abruptly about 100 ft.
1.20	Ravine about 20 ft. deep, course N.E. and ascend about 40 ft.
26.00	Top of hill, course N.E. and S.W. and descend abruptly about 100 ft. through heavy timber
40.00	Set a sandstone 24 X 12 X 10 ins. 18 ins. in the ground for standard 1/4 Sec. cor. marked S.C. 1/4 on N. face; from which
	A pinon 10 ins. diam. bears
	S. 57° W. 40 lks. dist. marked S.C. 1/4 S.B.T.
	A pinon 13 ins. diam. bears
	N. 33° E. 29 lks. dist. marked S.C. 1/4 S.B.T. Raised a mound of stones 3 ft. high, 4 ft. base alongside.
40.82	Perpendicular cliffs about 900 ft. high, course N and S. The chain measurements were made by dropping a stone about the size of a large marble, from the top of one cliff to foot of same, and continued to foot of mountain. Set a flag pole on line on top of cliffs and one on line in canon below and measured a base 7.87 chs. N. to pole at right angle to line, from which flag pole on top of cliffs bears S. 61° 30' W. subtract from 90° 00' = 28° 30' = angle; cot. 1.8417 X 7.87 = 14.495 + 40.82 = 55.315 & measure back to foot of mountain
50.60	Foot of mountain and heavy timber, course N. & S. Through heavy sage brush.
53.11	Wagon road, course N and S.
55.70	Head wash 105 lks. wide, course N.
58.84	Ascend Head to mountain abruptly about 600 ft. through heavy timber, course N and S.
80.00	Set a sandstone 30 X 20 X 10 ins. in a stone pile on solid rock south of east and W. ledge, for standard cor. to Tps. 35 S. Rs. 2 and 3 E. marked S.C. on N. with

Seventh Standard parallel S. through R. 2 E. concluded.

chains	
	A cedar 15 ins. diam. bears S. 88° E. 28 lks. dist. marked S. C. T. Ps. 35 S. Rs. 2 and 3 E. B. T. No more trees accessible on account of very large boulders and a high ledge N. of cor. Cut a large and deep cross on S. face of ledge of rock in place, with S. C. above and B.C. 6 grooves on N. E and W. sides; cross N. 39 W. 11 lks. dist. from corner. Ledge 20 ft. high, course W. and N. 80° E.
	Land mountainous and broken. 71.76 chs.
	Soil, gravel and sandy 3rd. and 4th rate.
	Timber, heavy cedar and pinon 71.76 chs.
	Undergrowth same with oak and sage brush 80 chs.
	Cor. about 600 ft. above bottom of canon. June 5 1893.
	Mountainous land and heavily timbered 71.76 chs.
	June 6 1893. From the Standard Cor. to Ts. 35 S. Rs. 2 and 3 E. in approximate lat. 37° 43' 23" N. long. 111° 40' 39" W.
	Run
	East on S. boundary sec. 31.
	Va. 15° 45' E.
	Change of var. caused by ferruginous sandstone near cor.
	A very good coal burned under ledge N. of cor. causing it to break and fall. It is yet burning about 1 mile N. E.
	Ascend among large boulders and through heavy timber.
30.00	Gulch about 200 ft. deep, course S. W.
34.23	Bottom of gulch, course S. W. and ascend abruptly and leave timber
38.20	East side of gulch, course S. W.
40.00	A point about 400 ft. below top of mountain. Set a sandstone 30 x 12 x 5 ins. in a stone pile on rock for standard 1/4 sec. cor. marked S. C. 1/4 on N. face. No trees. Raised a mound of stones 3 ft. high, 4 ft. base alongside. Pits impracticable.
70.00	Scattering timber.
73.61	Top of Heaps mountain about 1150 ft. above desert east. (height measured) course N. and S. The E. side of this mountain is a succession of perpendicular cliffs totally inaccessible, beginning with one at the top about 80 ft. high. Standard cor. inaccessible & at
73.61	Set a witness cor. a sandstone 24 x 10 x 6 ins. in a stone pile on solid rock, for witness cor. to Standard cor. to Secs. 31 and 32, marked W. C. S. C. on N. with 1 groove on W. and 5 grooves on E. faces; Raised a mound of

Seventh Standard parallel S. through R. 3 E. continued.

80.00 Standard Corner Eam 81.32 inaccessible not set
Land, mountainous 80 chs.
Soil, gravel and very rocky 4" rate.
Timber, heavy cedar and pinon 34.23 chs. scattering 45.77 chs. Undergrowth same 80 chs. June 6 1893.
Mountainous land or heavily timbered 80 chs.

Before leaving the top of the mountain I set a flag pole on the line on the desert east.

East on S. boundary sec. 32.
Va. 15° 30' E.
I measure a base 40.43 chs. N. from flag pole on line in bottom E. of montain. The bearing to flag pole at W. C. on top of mountain is S. 58° 10' W. Subtract from 90° 00' = 31° 50'; I find the angle the same by clamping my transit at 0° setting on flag at S. end of base, unclamping and turning on flag pole at W. C. Angle 31° 50'. Cot. 1.6107 × 40.43 = 65.12 − 6.39 = 58.73 − 40.00 = 18.73 chs. I measure back 18.73 chs.

40.00 Set a sandstone 20 × 10 × 4 ins. in a stone pile for standard 1/4 sec. cor. marked S. C. 1/4 on N. face from which
A cedar 10 ins. diam. bears
N. 22° W. 46 lks. dist. marked S. C. 1/4 S. B. T.
A rock 3½ ft. high, 3 × 2½ ft. above ground bears
S. 12° E. 51½ lks. dist. marked S. C. 1/4 S. B. O.

40.48 Leave timber and enter desert; course of timber N. & S.
43.07 Dry wash 175 lks. wide, course N. 20° E.
48.96 Road, course N. E and S. W.
68.17 Road, course N. 5° E and S. 5° W.
80.00 Set a sandstone 22 × 10 × 4 ins. 16 ins. in the ground for standard cor. to secs. 32 and 33, marked S. C. on N. with 2 grooves on W. and 4 grooves on E. faces. dug pits 30 × 24 × 18 ins. crosswise E and W. of stone 3½ ft. dist. and N. of stone 7½ ft. dist. and raised a mound of earth 3 ft. high, 3½ ft. base alongside.
Land, mountainous 40.48 chs.
Soil, gravel and clay loam 4th and 1st rate.
Timber, heavy cedar and pinon 40.48 chs.
Undergrowth same with sage 80 chs. June 7 1893
Mountainous land or heavily timbered 40.48 chs.

Lo48
39.53

East on S. boundary sec. 33.

Seventh Standard parallel S. through R. 3 E. continued.

chains	
	Through dense sage brush.
40.00	Set a sandstone 26X12X6 ins. 20 ins. in the ground for Standard 1/4 sec. cor. marked S.C. 1/4 on N. face. dug pits 30X24X18 ins. E and W. of stone 5½ ft. dist. and raised a mound of earth 3 ft. high, 3½ ft. base alongside.
68.92	Old Indian trail, course N.W. and S.E.
80.00	Set a sandstone 20X12X8 ins. 15 ins. in the ground for standard cor. to secs. 33 and 34, marked S.C. on N. with 3 grooves on E and W. faces. dug pits 30X24X18 ins. crosswise E and W 3½ ft. and N. 7½ ft. dist. and raised a mound of earth 3 ft. high, 3½ ft. base alongside.
	Land, level.
	Soil, sandy and clay loam 1st rate.
	No. timber
	Brush, heavy sage and greasewood. 30 chs.
	June 7 1896.

East on S. boundary sec. 34.

Va. 15° 25' E.

	Through scattering sage and grease wood.
40.00	Set a sandstone 22X10X5 ins. 16 ins. in the ground for standard 1/4 sec. cor. marked S.C. 1/4 on N. face. dug pits 30X24X12 ins. E and W. of stone 5½ ft. dist. and raised a mound of earth 3 ft. high, 3½ ft. base alongside
43.92	Road, course N and S.
77.76	Road, course N. and S. The two roads come together N. of line.
80.00	Set a sandstone 22X10X5 ins. 16 ins. in the ground for standard cor. to secs. 34 and 35, marked S.C. on N. with 4 grooves on W. and 2 grooves on E faces. dug pits 30X24X18 ins. crosswise on line E and W 3½ ft. and N. 7½ ft. dist. and raised a mound of earth 3 ft. high, 4 ft. base alongside.
	Land, level.
	Soil, sandy and clay loam 1st rate.
	No. timber.
	Brush, scattering sage, rabbit and grease wood 80 chs.
	June 7 1893.

East on S. boundary sec. 35.

Va. 15° 22' E.

Seventh Standard parallel S. through R. 3 E. Continued.

Chains	
15.93	Road, course N. and S.
37.94	Road to settlement on Boulder creek, course N. 75° W. S. 75° E.
40.00	Set a sandstone 20 x 10 x 5 ins. 15 ins. in the ground for standard 1/4 sec. cor. marked S. 1/4 on N. face. Dug pits 24 x 18 x 20 ins. E and W. of stone 5 1/2 ft. dist. and raised a mound of earth 3 ft. high, 3 1/2 ft. base alongside.
45.26	Descend about 20 ft.
47.48	South end of small knoll, course N.
47.98	Dry wash 5 lks. wide, course S. and ascend about 20 ft.
48.78	Top of ridge, course N. and S. and descend about 20 ft.
50.17	Road to Boulder, course N. 85° E. and S. W.
50.36	Same road, course S. W. and N. E.
51.48	Dry wash 45 lks. wide, course S.
53.55	Same road course, N. W. and S. E.
54.28	Ascend abruptly about 75 ft.
54.98	Top of bench, course N. and S.
65.73	Descend abruptly about 60 ft.
66.18	Foot of ridge, course N. 60° E. and S.
70.78	Dry wash 21 lks. wide, course S. and ascend about 30 ft.
80.00	Set a limestone 20 x 14 x 4 ins. 15 ins. in the ground for standard cor. to secs. 35 and 36 marked S. C. on N. with 5 grooves on W. and 1 groove on E. faces, from which A cedar 8 ins. diam. bears N. 39° E. 44 lks. dist. marked T. 35 S. R. 38 E. S. 36 B. T. No more trees within the limits. Dug pits 28 x 20 x 16 ins. Crosses on each line E and W. 3 1/2 ft. and N. of stone 7 1/2 ft. dist. and raised a mound of earth 2 1/2 ft. high, 3 1/2 ft. base alongside. Land, rolling and rough 34.74 chs. Soil, sandy and clay loam 1st rate. No timber, scattering sage brush. 80 chs. June 8 1893.

East on S. boundary sec. 36.

Va. 15° 26' E.

	Ascend
5.25	Top of ridge, course N. and S. and descend.
7.18	Foot of ridge, course N and S.
8.48	Ascend about 15 ft.
8.73	Top of knoll, course N and S. and descend about 3 ft.
10.58	Foot of knoll, course N. and S. W.

Seventh standard parallel S. through R. 3 E. continued.

Chains	
32.48	Dry wash 30 lks. wide, course S. 10° E. and ascend about 20 ft.
38.18	Top of ridge, course S. E. and N. W. and descend about 20 ft.
39.08	Dry wash 20 lks. wide, course S. E.
40.00	Set a limestone 24 x 10 x 4 ins. 18 ins. in the ground for stand- and 1/4 sec. cor. marked S. P. 1/4 on N. face; dug pits 30 x 24 x 18 ins. E and W. of stone 5 1/2 ft. dist. and raised a mound of stone and earth 3 ft. high, 3 1/2 ft. base alongside.
41.78	Ascend about 20 ft.
42.08	Top of ridge, course N. W. and S. E. and descend about 20 ft.
42.58	Foot of ridge, course N. and S. E.
44.78	Ascend about 15 ft.
45.98	Top of point, course S. 1 chs. and N.
60.98	Enter scattering timber.
70.38	Road to Boulder, course S. E. and N. W.
74.68	Leave timber, course N. and S.
80.00	Set a limestone 34 x 12 x 2 1/2 ins. 26 ins. in the ground for Standard cor. to 2 ps. 35 S. Rs. 3 and 4 E. marked S. P. on N. with 6 grooves on N. E. and W. faces; dug pits 30 x 30 x 18 ins. E (crossing on each line) and W. 4 ft. and N. of stone 8 ft. dist. and raised a mound of earth 4 ft. high, 5 1/2 ft. base alongside N. of stone.

Land, rough and broken 45.98 chs.
Soil, sandy and clay loam 1st rate.
Timber, scattering cedar and pinon 13.70 chs.
Brush, scattering sage and rabbit brush.

June 8 1873.

Seventh Standard parallel S. through R 4 E.

chains	
	June 8 1893. At the Standard corner to Sps. 35 S. Rs. 3 and 4 E. in approximate Lat. 37° 43' 23" N. Long. 111° 34' 05" W. at 8h 31m P. M. correct l. m. astronl. by my watch which is correct. I observe Polaris and find the star to be N. 15° 15' W.
	I drive a picket on the line thus found 6 chs. N. of the corner.
	Astron. l. m. t of obs. June 8. 8h 31m
	U. C. Polaris June 7th 20 34.0
	Reduction 6 days, subtract 23.5
	U. C. Polaris June 7 20 10.5
	Subtract from time of obs. leaves hour angle of Polaris 12 20.5
	Subtract from 23 56.1
	Argument Table II. 11 35.6
	Azimuth of Polaris, lat. 37° 43 0° 9' east.
	North end of needle 15° 15' east.
	The sun is the va. 15° 24' east.
	I drive a picket on the true meridian thus determined 6 chs. N. of the corner.

At 7 A. M. June 9th the va. is 15° 30' E. and the mean declination 15° 24' E.

Easton S. boundary sec. 31.
va. 15° 30' E.
Over smooth bottom.

7.02	Road to Boulder, course N. E. and S. W.
13.09	Old Indian trail, course N. 1° E and S. 5° W.
17.98	Leave bottom and ascend about 50 ft. through dead timber, course N and S.
35.48	Leave dead timber and descend about 50 ft. course N. E. and S. W.
36 78	Enter heavy timber and ascend about 30 ft. course N. E.
40.00	Set a limestone 36 X 9 X 3 ins. 27 ins. in the ground

Seventh Standard parallel S. through R. 4 E. continued.

chains	
	from which
	A cedar 8 ins. diam. bears
	N. 79° E. 86 lks. distant, marked S. C. 1/4 S. B. T.
	A cedar 10 ins. diam. bears
	S. 28° E. 39 lks. dist. marked S. C. 1/4 S. B. T.
43.48	Head of ravine, course S. 10° E.
45.98	Gulch about 120 ft. deep, course S.
47.28	Dry wash in gulch 61 lks. wide, course S.
61.78	East side of gulch and ascend.
73.50	Top of point of hill, course N and S. and descend about 30 ft.
75.48	Ascend along N. side of hill 50 ft.
80.00	Set a limestone 21 x 8 x 4 ins. 16 ins. in the ground for Standard Cor. to Secs. 31 and 32, marked S. C. on N. with 1 groove on W. and 5 grooves on E. faces
	from which
	A cedar 12 ins. diam. bears
	N. 70° W. 17 lks. dist. marked T. 36 S. R. 4 E. S. 31. B. T.
	A cedar 12 ins. diam. bears
	N. 54° E. 52 lks. dist. marked T. 35 S. R. 4 E. S. 32. B. T.
	A cedar 10 ins. diam. bears
	S. 70° W. 10 a lks. dist. marked T. 36 S. R. 4 E. S. C. S. 31 and 32. B. T.
	Land, rolling and broken with deep gulches 62 chs.
	Soil, limestone gravel 2nd rate.
	Timber, heavy cedar and pinon 43.22 chs.
	Undergrowth same June 9 1893.
	Heavily timbered land 43.22 chs.
	East on S. boundary Sec. 32.
	Va. 15° 22' E.
	Through heavy timber and brush.
2.78	Top of hill, course N and S. and descend abruptly about 150 ft.
8.18	Ravine about 70 ft. deep, course S. 30° E.
8.88	Ascend abruptly about 250 ft.
18.18	Top of hill, course N. E and S. W.
22.42	Descend abruptly about 150 ft.
24.52	Gulch about 150 ft. deep, course S.
26.05	Bottom of gulch and ascend abruptly.
27.98	East side of gulch
40.00	Set a limestone 20 x 10 x 5 ins. 15 ins. in the ground for Standard 1/4 Sec. Cor. marked S. C. 1/4 on N. face
	from which
	A pinon 12 ins. diam. bears

Seventh Standard parallel S. through R. 4 E. continued.

chains	
	A cedar 6 ins. diam. bears
	S. 15° W. 60 lks. dist. marked S. C. 1/4 S. B. T.
44.98	Descend about 40 ft.
45.98	Dry wash 20 lks. wide, course S.
49.28	Ascend abruptly about 50 ft.
50.06	Top of point, course N. and S. and descend about 40 ft.
59.08	Ravine about 30 ft. deep, course S.
60.08	Ascend abruptly about 50 ft.
64.48	Top of hill, course N. and S. and descend about 50 ft.
66.58	Dry wash 15 lks. wide, course S. E.
66.78	Ascend about 40 ft.
69.98	Top of ridge, course N. and S. and descend about 40 ft.
72.18	Dry wash 20 lks. wide, course S. and ascend about 40 ft.
77.48	Top of point; course N. E. and S. W. and descend about 50 ft.
78.18	Dry wash 60 lks. wide, course S.
80.00	Set a sandstone 20×7×4 ins. 15 ins. in the ground for standard cor. to secs. 32 and 33, marked S. C. on N. with 2 grooves on W. and 4 grooves on E. faces, from which
	A pinon 12 ins. diam. bears
	S. 65° E. 26 lks. dist. marked T. 35 S. R. 4 E. S. C. S. 32 and 33 B. T.
	A pinon 10 ins. diam. bears
	N. 52° E. 52 lks. dist. marked T. 35 S. R. 4 E. S. 33. B. T.
	No other tree within the limits. Raised a mound of stones and earth 3 ft. high, 3 ft. base alongside.
	Land, Mountainous and broken 80 chs.
	Soil, limestone gravel 2nd rate.
	Timber, heavy cedar and pinon 80 chs.
	Undergrowth, same 80 chs. June 9 1893.
	Mountainous land and heavily timbered 80 chs.
	East on S. boundary sec. 33.
	Va. 15° 26' E.
	Descend very abruptly about 200 ft.
12.53	Cliffs about 30 ft. high, course N. and S.
15.28	Dry wash 48 lks. wide, course S. and ascend abruptly about 100 ft.
26.29	Top of point at junction of gulches course S. about 2 chs. and N. and descend abruptly into gulch about 100 ft.
33.30	Dry wash 80 lks. wide, course S. W.
35.18	Ascend abruptly up mountain through heavy timber and dense brush about 500 ft.

Seventh Standard parallel S. through R. 4 E. continued.

chains	
	Set a sandstone 24 X 6 X 2 ins. 18 ins. in the ground for Standard 1/4 sec. Cor. marked S.P. 1/4 on N. face from which
	A pinon 8 ins. diam. bears
	S. 78° W. 19 lks. dist. marked S.P. 1/4 S.B.T.
	A pinon 9 ins. diam. bears
	S. 60° E. 34 lks. dist. marked S.P. 1/4 S.B.T.
41.23	Top of plateau or mountain, course N.E. and S.W.
51.98	Head of ravine, course N.W.
80.00	Set a sandstone 24 X 6 X 2 ins. 18 ins. in the ground for Standard Cor. to secs. 33 and 34 marked S.P. on N. with 3 grooves on W. and E. faces, from which
	A cedar 8 ins. diam. bears
	N. 64° E. 22 lks. dist. marked T. 35 S. R. 4 E. S. 34. B.T.
	A pinon 18 ins. diam. bears
	N. 66° W. 21 lks. dist. marked T. 35 S. R. 4 E. S. 33. B.T.
	A cedar 8 ins. diam. bears
	S. 33° W. 65 lks. dist. marked T. 35 S. R. 4 E. S.C. S. 33 and 34 B.T.
	Land, hilly and rough and mountainous 80 chs.
	Soil, gravel and sandy 3rd rate.
	Timber, heavy cedar and pinon 80 chs.
	Undergrowth same with oak, sage and mahogany
	Mountainous land or heavily timbered 80 chs.
	June 1st 1893.

	East on S. boundary sec. 34.
	Var. 15° 55' E.
	Change in var. caused by ferruginous sandstone
2.50	Enter very heavy timber
3.78	Dry wash 1 alks. wide, course S.
5.03	Dry wash 15 lks. wide, course S.
14.68	Ravine about 30 ft. deep, course S.
21.94	Canon about 150 ft. deep, course S.
22.70	Dry wash in bottom of canon 32 lks. wide, course S. and ascend abruptly about 150 ft.
23.36	East side of canon and ascend abruptly about 200 ft. through scattering timber.
28.75	Top of ridge, course N. and S.
36.98	Head of dry wash, course S.E.
40.00	Set a sandstone 24 X 10 X 8 ins. 18 ins. in the ground for Standard 1/4 sec. Cor. marked S.P. 1/4 on N. face, from which
	A pinon

Seventh Standard parallel S. through R. 4 E. continued.

chains	
	S. 77° E. 61 lks. dist. marked S. C. 1/4 S. B. T.
	A cedar 12 ins. diam. bears
	N. 60° E. 3 pks. dist. marked S. C. 1/4 S. B. T.
50.18	Descend abruptly about 150 ft.
51.78	Foot of bench, course N. and S.
56.06	Perpendicular cliffs about 100 ft. high, course N. and S.
	Owing to the great difficulty of getting on the ridges
	between the canons, I measured all together as one the
	first time, & thought such a course would not do so that
	I thought it expedient to measure it again, measuring
	each canon separately, which I did with great difficulty.
	I measure a base 11 chs. S. and set a tall flag pole at
	S. end of base, and on the line on E. side of canon, also one
	on the line at N. end of base.
	From point at flag pole on E. side of canon flag pole
	at S. end of base bears S. 44° 31' W. Subtract from 90° 00' =
	45° 29'. Angle 45° 29'. Cotang. .9832 X 11 = 10.815 + 56.06 = 66.875
66.87	Top of cliffs on E. side of canon, course S. and N.
68.64	Perpendicular cliffs about 200 ft. high, course S.
	10° W. and N. I set a flag pole on line at this point
	and one in line on E. side of canon, from which
	point I can see flag poles on W. side of first canon
	which I will use in my second triangulation
	From flag point on E. side of second canon, flag
	pole at South end of base, bears S. 62° 22' W. Subtract
	from 90° 00' leaves 27° 38'. Cotang. 1.91 X 11 = 21.01 + 56.06 =
	77.07 chs.
77.07	East side of canon course S. and leave timber course S.
80.00	Set a sandstone 24 X 9 X 5 ins. 18 ins. in the ground
	for stand cor. to secs. 34 and 35, marked S. C. on
	N. with 4 grooves on W. and 2 grooves on E. faces.
	dug pits 30 X 24 X 18 ins., cross-wise E. and W. 3½ ft. and
	N. of stone 7½ ft. dist. raised a mound of stones and
	earth 3 ft. high, 3½ ft. base alongside.
	Land, extremely rough and cut with deep canons,
	gulches and ravines 80 chs.
	Soil, sandy gravel and worthless.
	Timber, heavy cedar and pinon 77.07 chs.
	Undergrowth same.
	The canons are timbered from cliff to cliff.
	Mountainous land or heavily timbered 80 chs. June 12 1894

Seventh Standard parallel S. through R. 4 E. continued.

chains	
	East on S. boundary sec. 35.
	Va. 16° 07' E.
	Ferruginous sandstone continues to attract the needle.
	Through timber and brush.
18.50	Canon on about 200 ft. deep, course S. W.
22.28	Bottom of canon, course S. W.
26.60	East side of canon.
30.26	Canon about 150 ft. deep, course S. 40° E.
31.94	Bottom of canon, course S. 40° E.
33.75	East side of canon.
40.00	Set a sandstone 22 x 8 x 5 ins. 16 ins. in the ground for Standard 1/4 sec. cor. marked S. P. 1/4 on N. face. from which
	A pinon 18 ins. diam. bears
	N. 28° E. 58 lks. dist. marked S. P. 1/4 S. B. T.
	A pinon 8 ins. diam. bears
	S. 27° W. 108 lks. dist. marked S. P. 1/4 S. B. T.
43.98	South side of sandstone butte
48.95	Enter dense sage brush and descend about 50 ft. and leave timber, course N. and S.
52.08	Enter heavy timber, course N. and S.
73.48	Head of ravine, course S.
75.37	Head of dry wash, course S. E.
80.00	Set a sandstone 24 x 10 x 10 ins. 18 ins. in the ground for Standard cor. to secs. 35 and 36 marked S. C. on N. with 5 grooves on W. and 1 groove on E. faces, from which
	A cedar 12 ins. diam. bears
	N. 57° E. 71 lks. dist. marked T. 35 S. R. 4 E. S. 36. B. T.
	A cedar 12 ins. diam. bears
	N. 37° W. 139 lks. dist. marked T. 35 S. R. 4 E. S. 35. B. T.
	A pinon 10 ins. diam. bears
	S. 6° W. 218 lks. dist. marked T. 35 S. R. 4 E. S. C. S. 35 & 36. B. T.
	Land, rough mountainous 80 chs.
	Soil, sandy and rocky 3rd rate.
	Timber, heavy cedar and pinon 27.92 chs.
	Undergrowth same with sage and rabbit brush 80 chs. June 11 1893.
	Mountainous land or heavily timbered 80.00 chs.
	East on S. boundary sec. 36.
	Va. 15° 55' E.

Seventh standard parallel S. through R. 4 E. continued.

chains	
	Over rolling ground through timber.
33.10	Ascend very abruptly along N. end high ridge course N. E and S. W.
40.00	Set a sandstone 24×18×4 ins. in a stone pile on solid rock for standard 1/4 sec. cor. marked S. C. 1/4 on N. face. from which A cedar 6 ins. diam. bears S. 9° W. 42 lks. dist. marked S. C. 1/4 S. B. T. A cedar 8 ins. diam. bears N. 87° E. 44 lks. dist. marked S. C. 1/4 S. B. T.
71.00	North end of butte, about 100 ft. high, course S.
80.00	Set a sandstone 24×10×6 ins. 18 ins. in the ground for standard cor. to Tps. 35 S. Rs. 4 and 5 E. marked S. C. on N. with 6 grooves on N. E. and W. faces from which A pinon 8 ins. diam. bears N. 73° E. 63 lks. dist. marked T. 35 S. R. 5 E. S. 31 B. T. A pinon 10 ins. diam. bears N. 35° W. 193 lks. dist. marked T. 35 S. R. 4 E. S. 36. B. T. A cedar 10 ins. diam. bears S. 15° E. 56 lks. dist. marked S. C. T. 35 S. Rs. 4 and 5 E. B. T. Land, rough and rolling 80 chs. Soil, Sandy 3rd rate. Timber, scattering cedar and pinon 80 chs. Undergrowth same with sage and rabbit brush 80 chs. June 11 1893.

General description.

This line runs over a very rough, mountainous country, much of it covered with a dense growth of sprangled cedar and pinon the most difficult of timber to run lines through, and dense growth of post oak brush. There is very little water on this line. The water in Rs. 1 and 2 is generally quite pure, further east the quality of the water is bad. The geological formation is sandstone and lime, in Rs. 2 and 4 there is considerable iron, much of it in balls

Seventh Standard parallel S. through R. 4 E. continued.

Chains	all of the balls or geodes contain gold. There are indications of coal in many places and generally of a worthless quality. There are many fossils of Inoceramus Meek ins secs. 1. 6. 31 & 3. Tp. 35 and 36 S. Rs. 2 and 3 E. These shells are very large many of them would hold about 1½ gallons.

William Lewman
U. S. Deputy Surveyor.

List of Names.

A list of the names of the individuals employed by .....
....., U. S. Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of the .....
.....
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.....
.....Meridian, in ....., showing the respective capacities in which they acted:
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Final Oath of Assistants:

We hereby certify that we assisted .....
....., U. S. Deputy Surveyor, in surveying all those parts or portions of the .....
.....
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.....
.....Meridian, ..., as are represented in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the U. S. Surveyor General for .....
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.....
.....
.....

Subscribed and sworn to before me this .....
day of ....., 18 .

SEAL

.....

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BOOK A-738

Final Oath of U. S. Deputy Surveyor.

I, _____, U. S. Deputy Surveyor, do solemnly swear that, in pursuance of instructions received from _____, U. S. Surveyor General for _____, bearing date of the _____ day of _____, 18 , I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the U. S. Surveyor General for _____, the surveying manual, and the laws of the United States, surveyed all those parts or portions of _____

_____

_____

_____

_____

_____ Meridian, in the _____, as are represented in the foregoing field notes as having been surveyed by me, and under my directions; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the surveying manual, printed instructions, the special written instructions of the U. S. Surveyor General for _____ and in the specific manner described in the field notes, and that the foregoing are the true field notes of such survey; and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

_____

U. S. Deputy Surveyor.

Subscribed and sworn to before me this _____ day of _____, 18 .

SEAL

_____

_____

Approval.

Office of the U. S. Surveyor General,

Salt Lake City Utah Nov 4, 1896

The foregoing field notes of the survey of The Seventh Standard Parallel South through Tps 35 & 36 South Ranges 1 2 3 & 4 East of the Salt Lake Base & Meridian Utah

_____

_____

_____

_____

_____ executed by

William Newman

under his Contract No. 191, dated March 9 _____, 1895, having been critically examined, the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

George W. Sumner

U. S. Surveyor General.

I certify that the foregoing transcript of the field notes of the above-described surveys in _____, has been correctly copied from the original notes on file in this office.

_____

U. S. Surveyor General.

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(4—679.)

BOOK A-238

FIELD NOTES

OF THE SURVEY OF the

First Guide Meridian E. bet. Rs. 4 and 5 E. Tps 35 S

Of the Salt Lake Base and Meridian,

Territory of Utah

AS SURVEYED BY

William Lewman, U. S. Deputy Surveyor,

Under his Contract No. 191, dated March 2nd 1893.

Survey commenced June 12th, 1893.

Survey completed June 15th, 1893.

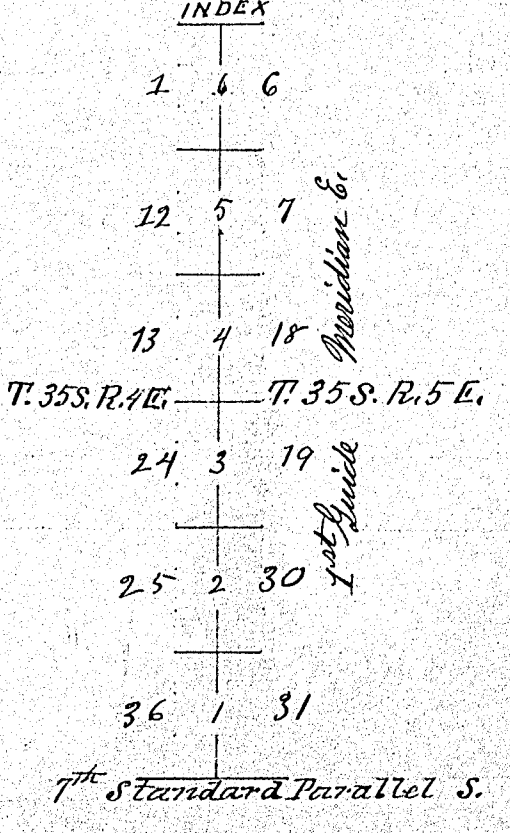
(12703—7,000.)

1st Guide Meridian E. (Tangle) M. Ch. Ch. 4-00-00
" " (Low) 2-00-00

BOOK A-2

Names and Duties of Assistants.

Thomas E. King	Chainman
Ephraim Hawkes	Chainman
Monroe Twitchell	Chainman
Charles Hall	Chainman
A. Franklin McEwen	Axeman
Sipius Johnson	Axeman
Walter B. Wayland	Flagman



First Guide meridian E. T. 35 S., Rs. 4 and 5 E.

Chains	Survey commenced June 12 1893 with a W. & L. E. Gunby engineer's transit, hereinbefore described.
	In Lat. 37° 43' 23" N. Long. 111° 27' 31" W. on the night of June 11. 1893 I take an obs. on Polaris at 8 hr 41 m P. M. my watch being correct, & find the magnetic bearing of the star to be N. 15° 06' W.
	I drive a picket on the line thus established 3 chs. N. of the Standard cor. to Tps 35 & 36 S. R. 4 & 5 E. hereinbefore described
	Astron. l. m. t. of obs. June 11 — 8 hr 41 m P. M.
	U. C. Polaris June 1 — 20 — 34.0.
	Reduction 9 days subtract — 35.3
	Long. correction — 2
	U. C. Polaris June 10 — 19 — 58.5
	which taken from Time of obs. leaves hour angle of Polaris — 12 — 42.5
	Subtract from — 23 — 56.1
	Argument Table II. — 11 — 13.6
	Azimuth of Polaris lat. 37° 43 — 0° — 18' east.
	North end of needle — 15° — 06' east.
	The sum is the var. — 15° — 24' east.
	Verified the obs. taken at 8 hr 41 m P. M. by taking another obs. at 9 hr 13 m P. M. same evening.
	At 7 a. m. June 12 1893 I take the magnetic bearing of the true meridian established last night, and find it to be 15° 30' E. at the corner above mentioned.
	North between secs. 31 and 36.
	Var. 15° 30' E.
	Descend gradually through scattering timber and brush.
5.10	South end of cliff about 75 ft. high, course N. turns E.
11.64	Cliff turns N. E.
19.90	Ascend abruptly about 50 ft.
40.00	Set a sandstone 22x8x5 ins. in a stone pile on a

First Guide meridian E. T. 35 S. bet. Rs. 4 and 5 E. continued.

chains	
	for 1/4 sec. cor. [illegible] marked 1/4 on W. face, from which
	A pinon 6 ins. diam. bears
	N. 15° E. 6 lks. dist. marked 1/4 S. B. T.
	No more trees within the limits. Raised a mound of stone
	3 ft. high, 3½ ft. base alongside. Pits impracticable.
46.60	Top of ridge, course N.E. and S.W. and descend abruptly about 80 ft.
80.00	Set a sandstone 23×10×4 ins. 15 ins. in the ground for cor. to
	secs. 25. 30. 31 and 36. marked with 1 notch on S. and 5 notches
	on N. edges, from which
	A cedar 8 ins. diam. bears
	S. 37½ E. 47 lks. dist. marked T. 35 S. R. 5 E. S. 31. B. T.
	A pinon 18 ins. diam. bears
	S. 11½ W. 132 lks. dist. marked T. 35 S. R. 4 E. S. 36. B. T.
	A cedar 8 ins. diam. bears
	N. 80½ W. 118 lks. dist. marked T. 35 S. R. 4 E. S. 25. B. T.
	No more trees within the limits. Raised a mound of
	stones 3 ft. high, 3½ ft. base alongside. Pits impracticable
	Land, rolling and rough sloping to the N.
	Soil, sandy and rocky 4th rate.
	Timber, scattering cedar and pinon 80 chs
	Undergrowth same with scattering sage brush 80 chs.
	June 12 1893.

North between secs. 25 and 30.

Va. 15° 26' E.

	Over rolling ground through scattering timber.
39.53	Dry wash 56 lks. wide, course S.W.
40.00	Set a sandstone 24×10×5 ins. 18 ins. in the
	ground for 1/4 sec. cor. marked 1/4 on W. face
	from which
	A pinon 14 ins. diam. bears
	N. 77° E. 28 lks. dist. marked 1/4 S. B. T.
	A pinon 18 ins. diam. bears
	S. 51° W. 82 lks. dist. marked 1/4 S. B. T.
46.10	Dry wash 30 lks. wide, course W.
57.84	Dry wash 20 lks. wide, course S.W.
68.20	Ravine about 20 ft. deep, course S.E.
80.00	Set a sandstone 24×12×6 ins. 18 ins. in the ground
	for cor. to secs. 19. 24. 25 and 30 marked with 2
	notches on S. and 4 notches on N. edges from which
	A pinon 6 ins. diam. bears
	[illegible]

First Guide meridian E. T. 35 S. Rs. 4 and 5 E. continued.

chains	
	no more trees within the limits, dug pits 24x18x12 ins. in each sec. 5½ ft. dist; and raised a mound of stone and earth 3 ft. high, 3½ ft. base alongside.
	Land, rough and rocky socks.
	Soil, sandy and rocky 4th rate.
	Timber scattering cedar and pinon 80 chs.
	Undergrowth same with Page 80 chs. June 12 1893.

	North between secs. 19 and 24.
	Va. 15° 18' E.
	Descend through scattering timber and brush.
37.50	Enter heavy timber, course N.E and S.W. descend
40.00	Set a sandstone 26x10x3 ins. 20 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face; from which
	A cedar 10 ins. diam. bears
	N. 78° E. 46 lks. dist. marked 1/4 S. B. T.
	A pinon 10 inches diam. bears
	S. 73° W. 78 lks. dist. marked 1/4 S. B. T.
73.42	Gulch about 100 ft. deep, course S. W.
75.44	Dry wash 20 lks. wide, course S. W. and ascend.
80.00	Set a sandstone 20x10x4 ins. 15 ins. in the ground for cor. to secs. 13. 18. 19 and 24 marked with 3 notches on N. and S. edges; from which
	A pinon 10 ins. diam. bears
	S. 70° E. 109 lks. dist. marked T. 35 S. R. 5 E. S. 19. B. T.
	A cedar 20 ins. diam. bears
	N. 62° E. 105 lks. dist. marked T. 35 S. R. 5 E. S. 18. B. T.
	A cedar 20 ins. diam. bears
	N. 72° W. 78 lks. dist. marked T. 35 S. R. 4 E. S. 13. B. T.
	A cedar 12 ins. diam. bears
	S. 34° W. 117 lks. dist. marked T. 35 S. R. 4 E. S. 24. B. T.
	Land, rough and mountainous 80 chs
	Soil, sandy and rocky 4th rate.
	Timber, heavy cedar and pinon 42.50 chs.
	Scattering 37.50 chs. Undergrowth same with Page (Sods),
	Mountainous land or heavy timber 80 chs. June 13 1893.

	North between Secs. 13 and 18.
	Va. 15° 25' E.
	Through heavy timber.
22.60	Canon about 600 ft. deep, course N.E.

First Guide meridian E. T. 35 N., Rs. 4 and 5 E. continued.

chains	Sgo. Lacheee, Cor. and measure a base 30 chs. E. and set a flag pole also one on line at the cor. and set the flag pole on line N. of canon, from which point the flag pole at east end of base bears S. 33° 20' E.
	Angle 33° 20. Cotang. 1.52 X 30 = 115.60 : measure back to 1/4 sec. cor. also to canon.
32.60	North side of canon, course N. E and S. W.
33.80	Sloping ledge of sandstone, course E and W.
38.90	Top of ledge, course E and W.
110.00	Set a sandstone 24 X 14 X 4 ins. in a stone pile on top of ledge of rocks, about 6 ft. above bottom of canon for 1/4 sec. cor. marked 1/4 on W. face; from which A pinon 6 ins. diam. bears S. 78° W. 7 lks. dist. marked 1/4 S. B. T. A cedar 10 ins. diam. bears S. 1° E. 13 lks. dist. marked 1/4 S. B. T. and raised a mound of stone 3 ft. high, 3 1/2 ft. base alongside.
111.60	Ravine about 40 ft. deep, course N. 60° E.
115.60	Point of Triangulation and top of ridge, course N. 38° W. & S. 38° E. and descend abruptly about 1000 ft. Set a pole on the line on top of ridge, also one on bottom N. of ridge from which point I measure a base 10 chs. W. from west end of base flag pole on top of ridge, bears S. 21° E.
	Angle 21° Cotang. 2.605 X 10 = 26.05 chs + 45.60 = 71.65 chs.
116.00	Leave timber, course E and W. Pinon-juniper land
51.60	Ravine about 40 ft. deep, course N. 60° E.
63.76	Cliff about 50 ft. high, course E and W.
63.82	Escalante Creek 41 lks. wide, course S. 85° E.
71.65	Point of triangulation
72.62	Road course S. 88° E. and N. 52° W.
73.10	Foot of cliffs, course S. 87° E. and N. 54° W.
	Leave same base to measure cliffs on N. side of canon. Set flag pole on top of cliff N. from which flag pole at W. end of base bears S. 72° 15' W. angle 72° 15' Cotang. .32 X 10 = 3.20 + 71.65 = 74.85
74.10	Top of cliffs about 2 50 ft. high, course N. W. and E.
74.85	Point of triangulation.
75.28	Enter heavy timber, and ascend abruptly about 40 ft. course of timber E and W.
79.10	Top of hill, course N. 20° E. and S.
80.00	Set a sandstone 24 X 12 X 4 ins. in a stone stone pile on

First Guide Meridian E. S. 35 S. bet. Rs. 4 and 5 E. continued.

chains	with 4 notches on S. and 2 notches on E edges from which
	A pinon 6 ins. diam. bears
	N. 75° E. 16½ lks. dist., marked T. 35 S. R. 5 E. S. 7. B. T.
	No more trees within the limits; Raised a mound
	of stones 2½ ft. high, 3½ ft. base alongside.
	Pits impracticable.
	Land, extremely rough and mountainous 80.00 chs.
	Soil, rocky, sandy and sandy loam 4th and 2nd rate.
	Timber, heavy cedar and pinon 50.75 chs. Scattering
	cottonwood on creek bottom 9.25 chs. Undergrowth same
	with sage, rabbit and willow brush 20 chs. June 13 1893.
	Mountainous land or heavily timbered 80.00 chs.
	North between secs. 7 and 12.
	Va. 15° 30' E.
	Through heavy timber and brush.
0.50	Descend over ledge about 15 ft. Course E and N.
1.80	Ascend abruptly about 150 ft.
2.25	Top of hill, course N.W. and S.E. and descend abruptly about (Course)
5.40	Head of ravine, course W. and ascend abruptly; about 450 ft.
38.50	Knoll about 40 ft. high, course E and W.
39.45	North side of knoll
40.00	Set a sandstone 20 X 12 X 3 ins. on rock in place with stone pile around it, for ¼ sec. cor. marked ¼ on W. face, from which
	A cedar 10 ins. diam. bears
	N. 63° E. 37 lks. dist. marked ¼ S. B. T.
	A pinon 6 ins. diam. bears
	S. 12° W. 90 lks. dist. marked ¼ S. B. T.
40.10	Round knoll about 30 ft. high.
41.12	North side of knoll.
45.50	Dry wash 30 lks. wide, course S.W.
45.80	Ascend abruptly about 300 ft.
56.36	Top of bench or mountain about 100 ft. above Escalante creek, course N.W. and E.
80.00	Set a sandstone 20 X 10 X 2 ins. 15 ins. in the ground for cor. to secs. 1, 6, 7 and 12 marked with 5 notches on S. and 1 notch on N. edge, from which
	A cedar 12 ins. diam. bears
	N. 55° E. 239 lks. dist. marked T. 35 S. R. 5 E. S. 6. B. T.
	A cedar 14 ins. diam. bears

First Guide Meridian E. T. 35 S. Int. Rs. 4 and 5 E. continued.

chains

A cedar 11 ins. diam., bears
S. 36° W. 66 lks. dist., marked T. 35 S. R. 4 E. S. 12. B. T.
A cedar 10 ins. diam. bears
N. 64° W. 45 lks. dist., marked T. 35 S. R. 4 E. S. 1. B. T.
Land, hilly and mountainous 56.35 chs.
Soil, sandy and rocky 4th rate.
Timber, heavy cedar, pinon and pine 80 chs.
Undergrowth, same with sage and rabbit brush 80 chs.
Mountainous land or heavily timbered 80 chs. June 14th, 1873.

North between secs. 1 and 6.
Va. 15° 27' E.

Ascend through heavy timber about 200 ft.

21.00 As it is impossible to measure on true line & offset exactly E. 25 chs.
Thence I run due N.

40.00 Offset 90° in azimuth due W. and carefully measure 25 chs. to cor.
Set a sandstone 26 x 10 x 5 ins. in a stone pile on rock for 1/4 sec. cor. marked 1/4 on W. face, from which
A pinon 8 ins. diam. bears
S. 9° W. 50 lks. dist. marked 1/4 S. B. T.
A cedar 10 ins. diam. bears
S. 29° E. 32 lks. dist. marked 1/4 S. B. T. Raised a mound of stones 3 1/2 ft. high, 4 ft. base alongside.
I now return to offset line and measure N.

80.00 Offset 90° in azimuth to the west, to establish the corner on the true line, & go to the top of the hill about 30 chs. N. where I previously set a pole on the true line. From this point I can see poles along the line to Sp. cor. on the Standard line.
At the intersection of this line with the offset line I establish the Sp. corner.
Set a sandstone 30 x 14 x 8 ins. in a stone pile on rock for cor. to Sps. 34 and 35 S. Rs. 4 and 5 E. marked with 6 notches on N. E. S. and W. edges and raised a mound of stones 4 ft. high 5 ft. base alongside. Pit impracticable.
Land, hilly and mountainous 80 chs.
Soil, sandy and rocky 4th rate
Timber, heavy cedar [illegible] 50 chs.

First Guide Meridian E. bet. Rs. 4 and 5 E. concluded.

chains	
	Mountainous land or heavily timbered 80 chs. June 15 1893.

General Description.

Township 35 S. R. 4 E. is mountainous with some table producing an abundant growth of nutritious grass. There is some good land along Escalante creek. There is a dense growth of oak and sage brush in this township.

William Lewman
U. S. Deputy Surveyor.

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PAGE

BOOK A-238

INDEX DIAGRAM.

Township ..... . *Range* .....

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30	29	28	27	26	25
31	32	33	34	35	36

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Preliminary Oaths of Assistants.

WE, ...

.....

.....

do solemnly swear that we will well and faithfully execute the duties of chain carriers; that we will level the chai over even and uneven ground, and plumb the tally-pins either by sticking or dropping the same; that we will repor the true distance to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of ou skill and ability, and in accordance with instructions given us in the survey of the .....

.....

.....

.....

.....

....., *Chainman.*

....., *Chainman.*

....., *Chainman.*

....., *Chainman.*

Subscribed and sworn to before me this .....
day of ....., 18 .

.....

.....

WE, ...

.....

do solemnly swear that we will well and truly perform the duties of axemen in the establishment of corners and othe duties, according to instructions given us, and to the best of our skill and ability, in the survey of the .....

.....

.....

.....

.....

Subscribed and sworn to before me this .....
day of ....., 18 .

....., *Axeman.*

....., *Axeman.*

.....

.....

.....

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[redacted]K A-238

List of Names.

A list of the names of the individuals employed by William Lewman, U. S. Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of the North Boundary of Township 34 South Range 1 West, The Salt Lake Meridian through Tps 34 & 35 & 36 & the 7th Standard Parallel South through Ranges 1, 2, 3 & 4 East & the 1st Guide Meridian East of the Salt Lake Base &

Meridian, in the Territory of Utah, showing the respective capacities in which they acted:

Thomas E. King Chainman
Ephraim Hanks "
Monroe Fretchel "
A. F. McEwen Axeman
Sylvester Johnson Axeman
Charles Hall Chainman
W. B. Wayland Flagman

Final Oath of Assistants:

We hereby certify that we assisted ....., U. S. Deputy Surveyor, in surveying all those parts or portions of the .....

..... Meridian, ..., as are represented in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the U. S. Surveyor General for .....

Subscribed and sworn to before me this .....
day of ....., 18 .

SEAL

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BOOK A-238

Final Oath of U. S. Deputy Surveyor.

I, _____, U. S. Deputy Surveyor, do solemnly swear that, in pursuance of instructions received from _____, U. S. Surveyor General for _____, bearing date of the _____ day of _____, 18 , I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the U. S. Surveyor General for _____, the surveying manual, and the laws of the United States, surveyed all those parts or portions of _____

_____

_____

_____

_____

_____ Meridian, in the _____, as are represented in the foregoing field notes as having been surveyed by me, and under my directions; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the surveying manual, printed instructions, the special written instructions of the U. S. Surveyor General for _____ and in the specific manner described in the field notes, and that the foregoing are the true field notes of such survey; and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

_____

U. S. Deputy Surveyor.

Subscribed and sworn to before me this _____ day of _____, 18 .

SEAL

_____

_____

Approval.

Office of the U. S. Surveyor General,

Salt Lake City, Utah, March 4, 1896

The foregoing field notes of the survey of The First Guide Meridian East from the 35 South Between Ranges 4 & 5 E. of the Salt Lake Base & Meridian, Utah

_____

_____

_____

_____

_____ executed by

William Newman

under his Contract No. 191, dated March 2d, 1893 having been critically examined, the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

George W. Smoot

U. S. Surveyor General.

I certify that the foregoing transcript of the field notes of the above-described surveys in _____, has been correctly copied from the original notes on file in this office.

_____

U. S. Surveyor General.

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(4—679.)

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K.J.B.

BOOK A-238

FIELD NOTES

OF THE SURVEY OF

the East and South boundaries of Tp. 36 S. R. 1 E.

Of the Salt Lake Base and Meridian,

Territory of Utah

AS SURVEYED BY

William Lewman, U. S. Deputy Surveyor,

Under his Contract No. 191, dated March 2nd 1893.

Survey commenced June 16th, 1893.

Survey completed June 26th, 1893.

(12503—2,000.)

Township (Legal) M. Chs. Lks. 11-77-99

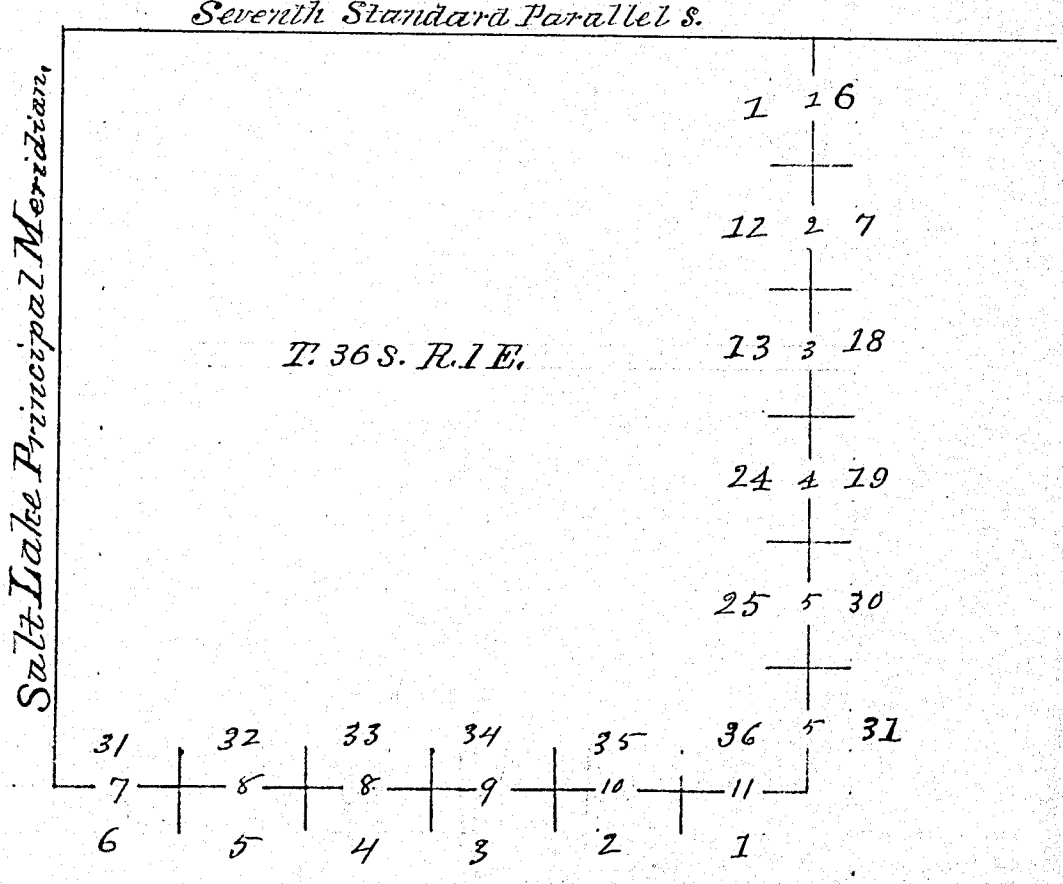
Names and Duties of Assistants.

Ephraim Hawkes — Chainman

Charles Hall — Chainman

Sifton Johnson — Axeman

Walter B. Wayland — Flagman



BOOK A-238

INDEX DIAGRAM.

Township ....., *Range* .....

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Meanders Page.....

Preliminary Oaths of Assistants.

We, _____

_____

_____

do solemnly swear that we will well and faithfully execute the duties of chain carriers; that we will level the chain over even and uneven ground, and plumb the tally-pins either by sticking or dropping the same; that we will report the true distance to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us in the survey of the _____

_____

_____

_____

_____

_____, *Chainman.*

_____, *Chainman.*

_____, *Chainman.*

_____, *Chainman.*

Subscribed and sworn to before me this _____ day of _____, 18 .

_____

_____

We, _____

_____

do solemnly swear that we will well and truly perform the duties of axemen in the establishment of corners and other duties, according to instructions given us, and to the best of our skill and ability, in the survey of the _____

_____

_____

_____

_____

Subscribed and sworn to before me this _____ day of _____, 18 .

_____, *Axeman.*

_____, *Axeman.*

_____

_____

_____

East boundary T. 36 S. R. 1 E.

chains

Survey commenced June 16th 1893
Reestablished the closing closing corner to Tps. 36 S. Rs. 1 and 2 E. by measuring 2 78 lks. W. from the Standard Cor. to Tps. 35 S. Rs. 1 and 2 E. hereinbefore described, and set a sandstone 30 x 6 x 6 ins. 24 ins. in the ground for closing cor. to Tps 36 S. Rs. 1 and 2 E. marked C. C. on S. with 6 grooves on S. E. and W. faces; from which
A pinon 12 ins. diam. bears
S. 37° E. 14 lks. dist. marked T. 36 S. R. 2 E. S. 6. B. T.
A pinon 6 ins. diam. bears
S. 62° W. 89 lks. dist. marked T. 36 S. R. 1 E. S. 1, B. T.
A pinon 6 ins. diam. bears
N. 50° W. 39 lks. dist. marked C. C. T. 36 S. Rs. 1 & 2 E. B. T.

At the above corner, I take an observation on Polaris at 8h 30m P. M. Astron. l. m. t. by my watch which is correct; June 15th, and find the Star to be N. 16° 05' W.

W. C. Polaris June 1	20	34.0
Reduction to June 14		51.0
W. C. Polaris June 14	19	43.0
Hour angle of Polaris at time of obs.	12	47.0
Subtract from	23	56.1
Argument Table 2	11	09.1
Azimuth of Polaris Lat. 37° 43'	0°	20' E.
North end of needle	16°	05' E.
The sum is the va.	16°	25' E.

At 7 A. M. June 16th, I find the magnetic bearing of the true meridian to be N. 16° 31' W. The var. is 16° 31' E. and the mean declination is 16° 25' E. I examine the adjustments of my transit and find them correct. I drive a picket on the true meridian 3 chs. N. of cor. for future reference.

South bet. secs. 1 and 6.

va. 16° 31' E.

Change of va. caused by ferruginous sandstone in vicinity of cor.
Ascend through heavy timber about 50 ft.

East boundary T. 36 S. R. 1 E. continued.

chains	
22.50	Descend abruptly about 75 ft. through dense oak brush and heavy timber
26.89	Dry wash 3 lks. wide, course N. 86° E.
27.10	Ascend along E. side of hill.
40.00	Set a sandstone 25×10×3 ins. in a stone pile on rocky ledge for 1/4 sec. cor. marked 1/4 on W. face; from which A pinon 6 ins. diam. bears S. 45° W. 24 lks. dist. marked 1/4 S. B. T. A pinon 4 ins. diam. bears N. 43° E. 13 lks. dist. marked 1/4 S. B. T.
53.20	Top of ridge, course N. 80° E. and S. 80° W. and descend abruptly about 350 ft.
74.10	Bottom of gulch, course E. and ascend abruptly about 600 ft.
80.00	Set a sandstone 22×8×4 ins. in a stone pile on rock for cor. to secs. 1. 6. 7 and 12 marked with 1 notch on N. and 5 notches on S. edges; This corner is among rocks about 300 ft. above bottom of gulch, and witness trees are not accessible. Raised a mound of stones 3 ft. high 3½ ft. base alongside, Pits impracticable. Land, rough and mountainous 80 chs. Soil, sandy and rocky 4th rate. Timber, heavy cedar, pinon and pine 80 chs. Undergrowth same with dense oak 80 chs. Mountainous land or heavily timbered and covered with dense undergrowth 80 chs.

South bet. secs. 7 and 12.
Va. 15° 47' E.
Magnetic iron continues in the sandstone.

	Ascend abruptly about 400 ft. through heavy timber and brush
36.30	Top of mountain, course N. E. and S. W.
37.20	Descend abruptly about 80 ft.
37.50	Leave heavy timber, course E and N.
40.00	Set a sandstone 20×8×4 ins. in a stone pile on a rocky ledge for 1/4 sec. cor. marked 1/4 on W. face; dug pits 18×18×12 ins. N. and S. of stone 5½ ft. dist. and raised a mound of stones and earth 2½ ft. high, 3½ ft. base alongside,
50.20	Gulch about 100 ft. deep, course N. E. and ascend abruptly about 300 ft.

East boundary T. 36 S. R. 1 E. continued.

chains	
66.50	Descend abruptly about 400ft.
80.00	A point about 50ft. above gulch. Set a sandstone 20×8×4 ins. in a stone pile on rock for cor. to secs. 7, 12, 13 and 18, marked with 2 notches on N. and 4 notches on S. edges; from which A pinon 4 ins. diam. bears N. 86 E. 15 lks. dist. marked T. 36 S. R. 2 E. S. 7. B. T. A pinon 10 ins. diam. bears S. 84 E. 16 lks. dist. marked T. 36. S. R. 2 E. S. 18. B. T. A pinon 16 ins. diam. bears N. 82 W. 29 lks. dist. marked T. 36 S. R. 1 E. sec 12. B. T. A pinon 18 ins. diam. bears S. 71 W. 66 lks. dist. marked T. 36 S. R. 1 E. S. 13. B. T. Land, very rough and mountainous 80 chs. Soil, sandy and rocky 4th rate. Timber, heavy cedar and pinon 57.00 chs. Mountainous land or heavily timbered 80 chs. June 16 1893.

South bet. secs. 13 and 18.

Descend abruptly about 750ft. through heavy timber
Var. 15° 30' E.

4.80	Dry wash 3½ lks. wide, course E.
5.15	Ascend very abruptly about 600ft.
40.00	Set a sandstone 23×10×5 ins. in a stone pile on rock for 1/4 sec. cor. marked 1/4 on W. face; from which A pinon 10 ins. diam. bears N. 61 W. 39 lks. dist. marked 1/4 S. B. T. A cedar 12 ins. diam. bears S. 17 W. 57 lks. dist. marked 1/4 S. B. T.
42.50	Top of ridge, course E and W. and descend abruptly about 600ft.
61.20	Dry wash 43 lks. wide, course E.
61.72	Ascend abruptly about 450ft.
69.50	West side of hill, and descend about 200ft.
75.90	Ascend abruptly about 200ft.
80.00	Set a sandstone 42×5×5 ins. in a stone pile on rock for cor. to secs. 13. 18. 19 and 24 marked with 3 notches on N. and S. edges; from which A pinon 6 ins. diam. bears

East boundary T. 36 S. R. 1 E. continued.

chains	
	A pinon 10 ins. diam. bears
	N. 25° E. 10½ lks. dist. marked T. 36 S. R. 2 E. S. 18. B. T.
	A pine 6 ins. diam. bears
	N. 44° W. 18 lks. dist. marked T. 36 S. R. 1 E. S. 13. B. T.
	A pine 10 ins. diam. bears
	S. 72° W. 20 lks. dist. marked T. 36 S. R. 1 E. S. 24. B. T.
	Land, rough and mountains 80 chs.
	Soil, sandy and gravel 4th rate.
	Timber, heavy cedar, pinon and pine 80 chs.
	Undergrowth same 80 chs.
	Mountainous land and heavily timbered 80 chs.
	South bet. secs. 19 and 24.
	Va. 15° 20' E.
	Ascend through heavy timber
1.00	Top of hill, course E and W. and descend abruptly about 400 ft.
16.50	Gulch about 100 ft. deep, course E.
19.20	Ascend abruptly about 500 ft.
33.00	Top of ridge, course E and W. and descend very abruptly about 500 ft.
36.00	Leave heavy timber, course E and W.
40.00	Set a sandstone 20'×10×8 ins. in a stone pile on rock for ¼ sec. cor. marked ¼ on W. face; and raised a mound of stones 2½ ft. high, 3½ ft. base alongside. Pits impracticable.
64.50	Gulch about 500 ft. deep, course N. 80° E. and enter heavy timber.
68.20	Ascend very abruptly about 500 ft.
71.30	Top of bench, course N. 80° E. and S. 80° W.
80.00	Set a sandstone 36×16×4 ins. in a stone pile on rock for cor. to secs. 19. 24. 25 and 30 marked with 4 notches on N. and 2 notches on S edges; from which
	A pinon 12 ins. diam. bears
	S. 43° E. 16½ lks. dist. marked T. 36 S. R. 2 E. S. 30. B. T.
	A pinon 12 ins. diam. bears
	N. 71° E. 29 lks. dist. marked T. 36 S. R. 2 E. S. 19. B. T.
	A pinon 14 ins. diam. bears
	N. 25° W. 5 lks. dist. marked T. 36 S. R. 1 E. S. 24. B. T.
	A pinon 20 ins. diam. bears
	S. 84° W. 11 lks. dist. marked T. 36 S. R. 1 E. S. 25. B. T.
	Land, very rough and mountainous 80 chs.

...et. boundary T. 36 S. R. 1 E. continued.

chains	
	Timber, heavy cedar and pinon 51.50 chs.
	Undergrowth same 80 chs. June 17 1893.
	Mountainous or heavily timbered land 80 chs.
	South between secs. 25 and 30.
	Va.: 15° 30' E.
3.50	Descend through heavy timber and dense brush.
13.50	Descend abruptly about 300 ft.
19.84	Dry wash 33 lks. wide, course N. E.
20.25	Ascend very abruptly about 500 ft.
40.00	Set a sandstone 18 x 10 x 3 ins. in a stone pile on rock for 1/4 sec. cor. marked 1/4 on W. face from which A pinon 18 ins. diam. bears N. 89° W. 18 lks. dist. marked 1/4 S. B. T. A pinon 13 ins. diam. bears N. 80° W. 25 lks. dist., marked 1/4 S. B. T.
80.00	Set a sandstone 23 x 6 x 5 ins. on rock for cor. to secs. 25, 30, 31 and 36, marked with 5 notches on E. and 1 notch on S. edges, from which A pinon 10 ins. diam. bears S. 5° E. 49 1/2 lks. dist., marked T. 36 S. R. 2 E. S. 31. B. T. A cedar 12 ins. diam. bears N. 28 E. 20 lks. dist. marked T. 36 S. R. 2 E. S. 30. B. T. A pinon 16 1/2 ins. diam. bears N. 10° W. 24 lks. dist. marked T. 36 S. R. 1 E. S. 25. B. T. A pinon 8 ins. diam. bears S. 76° W. 40 lks. dist. marked T. 36 S. R. 1 E. S. 36. B. T.
	Land, rough and mountainous 80 chs.
	Soil, sandy and rocky 4th rate.
	Timber, heavy cedar and pinon 80.00 chs.
	Undergrowth same 80 chs. June 18 1893.
	Mountainous land heavily timbered 80 chs.
	South between secs. 31 and 36.
	Va.: 15° 23' E.
30.50	Through heavy timber Ascend about 30 ft. and cut in dense brush.
36.40	Top of ridge, course N. E. & S. W. and descend about 50 ft.
40.00	Set a sandstone 22 x 10 x 3 ins. 17 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face, from which A pinon 4 ins. diam. bears S. 84° E. 13 lks. dist. marked 1/4 S. B. T. A pinon 18 ins. diam. bears N. 85° W. 24 lks. dist. marked 1/4 S. B. T.

East boundary T. 35 S. R. 1 E.

chains	
55.35	Bottom of canon about 150 ft. deep, course S.E. and ascend abruptly about 250 ft.
58.20	South side of canon, course S.E. and ascend about 100 ft.
69.50	Top of ridge, course E. & W. and descend about 200 ft.
71.50	Leave timber, course E and W.
75.28	Canaan Spring run 10 lks. wide, course E. water pure.
75.80	Ascend abruptly about 200 ft.
80.00	Set a sandstone 24 X 16 X 8 ins. 18 ins. in the ground for cor. to Sps. 36 and 37 S. Rs. 1 and 2 E. marked with 6 notches on N. E. S. and W. edges; from which A black pine 28 ins. diam. bears S. 72° W. 21 lks. dist. marked T. 37 S. R. 1 E. S. 1. B. 3. No more trees within the limits. Dug pits 24 X 18 X 12 ins. lengthwise on each line N. S. E. and W. of stone 6½ ft. dist. and raised a mound of stones covered with earth 4 ft. high, 5 ft. base alongside. Land, rough and mountainous 80 chs. Soil, sandy and gravel 4th rate. Timber, heavy cedar and pinon 71.50 chs. Undergrowth sparse with dense oak and sage 80 chs. Mountainous land or heavily timber and covered with dense undergrowth 80 chs. June 18 1893

South boundary T. 36 S. R. 1 E.

chains	
	June 19th. 1893. At the corner to Tps. 36 and 37 S. R. 1 E. I find the magnetic bearing to be 15° 30' E. Thence I run West on a random line between said Tps. Va. 15° 30' E. I set temporary half mile and mile corners at each 40 and 80 chs. and find the line to be 5 miles 77 chs. and 99 links long and the falling 63 lks. S. of the cor. to Tps. 36 and 37 on the Salt Lake Principal Meridian. The corrections for the true line will therefore be 10½ lks. N. per mile, and its true course S. 89° 56' east
	From the cor. to Tps. 36 and 37 S. on Salt Lake P. Meridian R. 1 E. I run S. 89° 56' E. on a true line between secs. 6 and 31. Va. 15° 30' E. Along top of ridge through dense brush.
4.00	Top of point course N. and S. and descend abruptly about 100 ft.
37.99	Set a sandstone 19 X 10 X 5 ins. 13 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face, dug pits 24 X 18 X 12 ins. E. and W. of stone 5½ ft. dist. and raised a mound of stones and earth 2½ ft. high, 3½ ft. base alongside.
61.50	Top of ridge, course N. and S. and descend very abruptly about 300 ft. into gulch.
63.30	Bottom of gulch, course N. and S. and ascend very abruptly about 500 ft.
69.00	Top of hill, course N. and S. and descend very abruptly about 350 ft.
77.99	Set a sandstone 20 X 8 X 4 ins. 15 ins. in the ground, for cor. to secs. 5, 6, 31 and 32, marked with 1 notch on W. and 5 notches on E. edges. Dug pits 24 X 18 X 12 ins. in each sec. 5½ ft. dist. and raised a mound of stones and earth 2½ ft. high, 3½ ft. base alongside. Land, hilly and mountainous 77.99 chs. Soil, sandy and gravel 4th rate. Timber, very scattering cedar and pinon 77.99 chs. Brush dense oak 77.99 chs. June 24 1893. Mountainous land covered with dense undergrowth 77.99 chs.

South boundary T.36S.R.1E. continued.

chains	
	S.89°56'E. on a true line between secs. 5 and 32.
	Va. 15°20'E.
	Descend abruptly about 20 ft. through dense oak brush.
0.40	Bottom of gulch, course N. and ascend about 75 ft.
37.50	Top of slope, course N. and S. and descend through dense brush and scattering timber.
40.00	Set a quartzite stone 18X6X5 ins. 12 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face; from which A Spruce 10 ins. diam. bears S.79° W. 266 lks. dist. marked 1/4 S.B.T. No other tree within the limits. dug pits 18X18X12 ins. E and W. of stone 5½ ft. dist. and raised a mound of stones and earth 2½ ft. high, 3½ ft. base alongside.
58.50	Ascend abruptly through dense brush and heavy timber about 60 ft.
80.00	Set a sandstone 36X12X3 ins. 27 ins. in the ground for cor. to secs. 4, 5, 32 and 33 marked with 2 notches on W. and 4 notches on E. edges; from which A pine 20 ins. diam. bears N.82° W. 12 lks. dist. marked T.36S.R.1E.S.32.B.T. A pine 22 ins. diam. bears S.7° W. 50½ lks. dist. marked T.37S.R.1E.S.5.B.T. A pinon 10 ins. diam. bears S.44° E. 35½ lks. dist. marked T.36S.R.1E.S.4.B.T. A pine 20 ins. diam. bears N.68° E. 48½ lks. dist. marked T.36S.R.1E.Sec.33.B.T.
	Land, rough foothills of Caparowitz peak 80 chs.
	Soil, sandy and gravel 4th rate.
	Timber, heavy cedar, pinon and pine 21.50 chs.
	Undergrowth, same 21.50 chs. with dense oak 58 chs. 80 chs.
	Mountainous land or covered with dense undergrowth or heavily timbered 80 chs. June 24 1893
	S.89°56'E. on a true line between secs. 4 and 33.
	Va. 15°30'E.
14.80	Ascend abruptly about 30 ft. through heavy timber & brush Top of mountain about 1000 ft. above Top. cor. and dense timber, course N.30° W. and S.20° E.
18.50	Descend through dense oak brush about 100 ft.
34.20	Spring run 2 lks. wide, course N.15° E. enter scattering timber, and ascend abruptly about 50 ft.
40.00	Set a limestone 20X10X7 ins. 15 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face; from which

South boundary T. 36 S. R. 1 E. continued.

chains	
	N. 27° E. 5 lks. dist. marked 1/4 S. B. T.
	A quaking asp 6 ins. diam. bears
	S. 38° W. 13 lks. dist. marked 1/4 S. B. T.
58.00	Top of bench, course N. and S.
64.00	Descend abruptly about 50 ft.
75.00	Mouth of ravine about 10 ft. deep, course N. and enter heavy timber.
80.00	Set a sandstone 18 x 10 x 5 ins. 12 ins. in the ground for cor. to secs. 3. 4. 33 and 34 marked with 3 notches on W. and E. edges; from which
	A pine 24 ins diam. bears
	S. 85° E. 38 lks. dist. marked T. 37 S. R. 1 E. S. 3. B. T.
	A pine 36 ins. diam. bears
	N. 15° W. 123 lks. dist. marked T. 36 S. R. 1 E. S. 33. B. T.
	A pine 28 ins. diam. bears
	N. 51° E. 109 lks. dist. marked T. 36 S. R. 1 E. S. 34. B. T.
	A pine 18 ins. diam. bears
	S. 55° W. 99½ lks. dist. marked T. 37 S. R. 1 E. S. 4. B. T.
	Land, rough and mountainous 80 chs.
	Soil, gravel and sandy 4th rate
	Timber, heavy fir, pine and quaking asp 14.80 chs.
	Undergrowth same with dense oak brush 80 chs.
	Mountainous land or heavily timbered and covered with dense undergrowth 80 chs. June 28 1893.

S. 89° 56' E. on a true line between secs. 3 and 34.

Va. 15° 30' E.

	Ascend through heavy timber and dense brush.
20.20	Ravine about 40 ft. deep, course S. 80° E.
21.35	Ascend about 50 ft.
32.45	Ravine about 50 ft. deep, course S.
40.00	Set a sandstone 18 x 10 x 3 ins. in a stone pile on rock for 1/4 sec. cor. marked 1/4 on N. face, from which
	A pine 20 ins. diam. bears
	N. 40° W. 32 lks. dist. marked 1/4 S. B. T.
	A pine 10 ins. diam. bears
	S. 55° W. 73 lks. dist. marked 1/4 S. B. T.
42.60	Ravine about 40 ft. deep, course S.
43.20	Ascend about 50 ft. through heavy timber.
45.80	Top of ridge, course S. 80° E. and N. 80° W. & descend about 50 ft.
49.80	Gulch about 100 ft. deep, course S. and ascend about 150 ft.

South boundary T. 36 S. R. 1 E. continued.

Chains	
60.00	Descend abruptly about 200 ft.
63.89	Gulch about 180 ft. deep, course N. and ascend abruptly about 100 ft.
65.70	Top of ridge, course N and S. and descend abruptly about 100 ft.
67.40	Gulch about 100 ft. deep, course N. and ascend abruptly about 150 ft.
70.20	Top of ridge, course N. and S. and descend abruptly about 150 ft. and leave heavy timber.
80.00	Set a sandstone 18 x 8 x 3 ins. 12 ins. in the ground for cor. to secs. 2, 3, 34, and 35 marked with 4 notches on W. and 2 notches on E. edges, from which A pine 40 ins. diam. bears N. 65° W. 223 lks. dist. marked T. 36 S. R. 1 E. S. 34, B. T. A pine 40 ins. diam. bears N. 38° E. 407 lks. dist. marked T. 36 S. R. 1 E. S. 35, B. T. No more trees within the limits. Raised a mound of stones 3 ft. high, 3½ ft. base alongside, Pits impracticable. Land, hilly and mountainous 80 chs. Soil, sandy and gravel 4th rate. Timber heavy cedar, pinon and pine 80 chs. Undergrowth same with dense oak brush 80 chs. Mountainous land, heavily timbered and covered with dense undergrowth 80 chs. June 25 1893.

S. 89° 56' E. on a true line between secs. 2 and 35.

Var. 15° 30' E.

Leave timber.

1.00	Enter bottom, course N.E. and W.
7.44	Canaan Spring run 6 lks. wide, course N. 80° E. and enter heavy timber
40.00	Set a limestone 18 x 5 x 4 ins. 12 ins. in the ground for ¼ sec. cor. marked 1/4 on N. face, from which A pine 36 ins. diam. bears N. 10° E. 204 lks. dist. marked 1/4 S. B. T. A pine 28 ins. diam. bears S. 27° W. 95 lks. dist. marked 1/4 S. B. T.
44.46	Canaan Spring run 4 lks. wide, course S.E. and ascend abruptly about 150 ft.
61.86	Top of spur, course N.W. and S.E.
62.35	Gulch, course N.W. and S.E. and descend abruptly about 100 ft.

South boundary T.36 S. R.1 E. continued.

chains	
66.20	East side of gulch and descend abruptly about 100 ft.
73.40	Top of point of mountain, course N.W. and S.E. and descend.
80.00	Set a sandstone 20x8x6 ins. 15 ins. in the ground for cor. to secs. 1, 2, 35 and 36, marked with 5 notches on W. and 1 notch on E. edge, from which A pinon 12 ins. diam. bears S.22° E. 24 lks. dist. marked T.37 S. R.1 E. S.1. B.T. 1 A pinon 6 ins. diam. bears N.54° E. 14½ lks. dist. marked T.36 S. R.1 E. S.36. B.T. 1 A pinon 10 ins. diam. bears S.71° W. 26 lks. dist. marked T.37 S. R.1 E. S.2, B.T. 1 No other tree within the limits. Raised a mound of stones 2½ ft. high, 3½ ft. base alongside. Pits impracticable. Land, broken and mountainous 80 chs. Soil, sandy and rocky 4th rate. Timber, heavy cedar, pinon and pine. 72.56 chs. Undergrowth same with dense oak brush 80 chs. Mountainous land heavily timbered and covered with dense undergrowth 80 chs. June 26/1893
	S. 89° 56' E. on a true line between secs. 1 and 36. Var. 15° 23' E.
	Descend over rocks, about 2 ft.
35.42	Canaan Spring run 10 lks. wide, course N. 80° E. and ascend abruptly about 150 ft.
40.00	Set a sandstone 20x7x3 ins. 15 ins. in the ground for ¼ sec. cor. marked 1/4 on N. face; from which A black pine 20 ins. diam. bears S.23° W. 6 lks. dist. marked 1/4 S.B. T. A pine 24 ins. diam. bears N.68° E. 140 lks. dist. marked 1/4 S.B. T. Ascend gradually along N. side of mountain.
76.50	Descend abruptly along N. side of mountain.
77.60	Gulch about 100 ft. deep, course N.E.
78.44	Dry wash in bottom of gulch 45 lks. wide, course N.E. and ascend abruptly about 200 ft.
80.00	The cor. to Tps. 36 and 37 S. Rs. 1 and 2 E. Land, very rough mountainous 80 chs. Soil, sandy and rocky 4th rate. Timber, scattering cedar, pinon and pine 80 chs. 80 chs.

South boundary T. 36 S. Range 1 E. concluded.

chains. Mountainous land covered with dense undergrowth 80 chs. June 26 1893.

General Description

This township is mountainous, broken, and cut with numerous canons, gulches and ravines.
There is a dense growth of cedar, pinon, pine and aspen on the mountains,
There is very little bottom land in the township.
There is a dense growth oak brush over a very large portion of all parts of the township
The geological formation is sand and limestone on the East line there is a continuation of rocks and large boulders along nearly the entire line, and indications of Coal in Sec 31

William Lewman
U. S. Deputy Surveyor.

List of Names.

A list of the names of the individuals employed by .....

....., U. S. Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of the .....

..... Meridian, in ....., showing the respective capacities in which they acted:

Final Oath of Assistants:

We hereby certify that we assisted .....

....., U. S. Deputy Surveyor, in surveying all those parts or portions of the .....

..... Meridian, ..., as are represented in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the U. S. Surveyor General for .....

Subscribed and sworn to before me this .....
day of ....., 18 .

SEAL

.....

.....

Final Oath of U. S. Deputy Surveyor.

I, ..., U. S. Deputy Surveyor, do solemnly swear that, in pursuance of instructions received from ....., U. S. Surveyor General for ....., bearing date of the ..... day of ....., 18 , I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the U. S. Surveyor General for ....., the surveying manual, and the laws of the United States, surveyed all those parts or portions of .....

.....

.....

.....

.....

..... Meridian, in the ....., as are represented in the foregoing field notes as having been surveyed by me, and under my directions; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the surveying manual, printed instructions, the special written instructions of the U. S. Surveyor General for ..... and in the specific manner described in the field notes, and that the foregoing are the true field notes of such survey; and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

.....

U. S. Deputy Surveyor.

Subscribed and sworn to before me this .....
day of ....., 18 .

SEAL

.....

.....

Approval.

Office of the U. S. Surveyor General,

Salt Lake City, Utah, Nov 4, 1896.

The foregoing field notes of the survey of East & South Boundaries of Township 36 South Range 1 East of the Salt Lake Base & Meridian, Utah

.....

.....

.....

.....

..... executed by

William Lewman

under his Contract No. 191, dated March 2d, 1893 having been critically examined, the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

George W. Snow

U. S. Surveyor General.

I certify that the foregoing transcript of the field notes of the above-described surveys in ...., has been correctly copied from the original notes on file in this office.

.....

U. S. Surveyor General.

6—151

(4—679.)

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K. F. B.

BOOK A-238

FIELD NOTES

OF THE SURVEY OF

the North and East boundaries of T. 35 S. R. 1 E.

Of the Salt Lake Base and Meridian,

Territory of Utah

AS SURVEYED BY

William Lewman, U. S. Deputy Surveyor,

Under his Contract No. 191, dated March 2nd 1893.

Survey commenced June 28th, 1893.

Survey completed August 22nd, 1893.

(12503—2,000.)

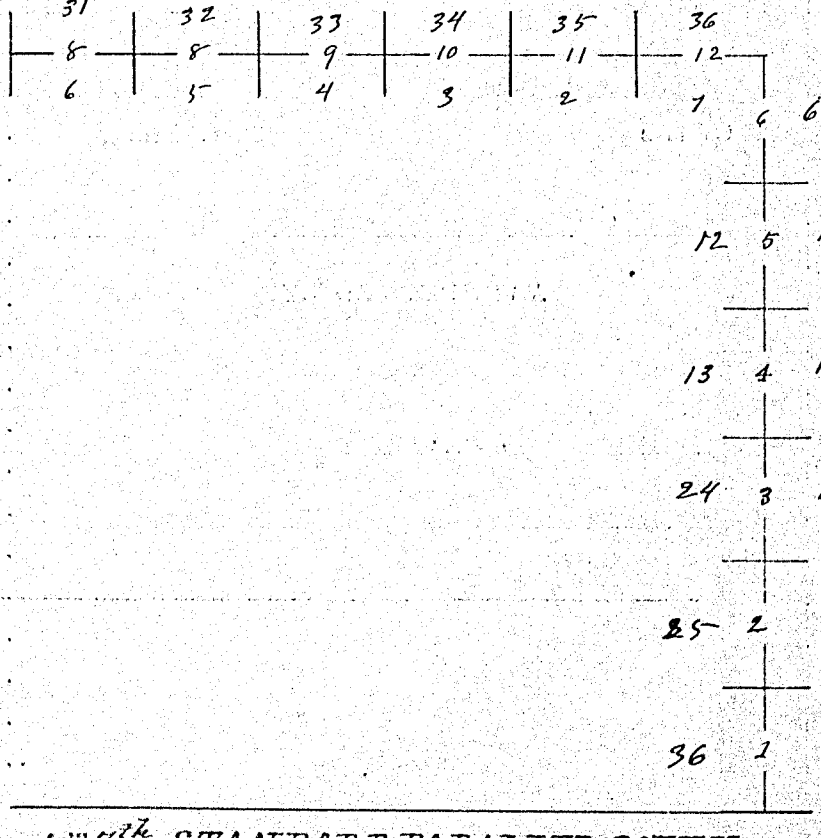
Township (Eight) M. [illegible] 11-61-38

" (Lines) 18-30

BOOK A-250

Names and Duties of Assistants.

Peter Barker	Chainman
Ephraim Facett	"
Orris Wilcox	Chainman
Charles Hall	"
David Hadley	Axeman
Silas Johnson	Axeman
Jacob Hamaker	Flagman
Walter B Wayland	Flagman



BOOK A-238

INDEX DIAGRAM.

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Meanders Page.....

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A-238

[1.—PRELIMINARY OATH OF CHAINMEN.]

We Orris Wilcox and David Woolsey ~~and~~ Peter Barker, and Jacob Hamaker, do solemnly swear that we will well and faithfully execute the duties of chain carriers; that we will level the chain upon even and uneven ground and plum the tally pins, either by sticking or dropping the same; that we will report the true distance to all notable objects, and the true length of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey of the Subdivision T.35 S. Rs. 1.2.3 & 4 E. and T.6 S. R. 1 E. and the N. & E. Bdys. T. 35 S. Rs. 1.2 & 3 E. & N. Bdy. T. 35 S. R. 4 E. ~~and the S. & E. Bdys. T. 36 S. R. 1 E.~~ of the Salt Lake base and meridian in the Territory of Utah.

Orris Wilcox, Chainman.
David M. Woolsey, Axeman ~~Chainman.~~
Peter Barker, Chainman.
Jacob Hamaker, Flagman ~~Chainman.~~

Subscribed and sworn to before me this 20th day of August 1893.

William Lewman
United States Deputy Surveyor

East boundary T. 35 S. R. 1 E.

chains	June 27 1893. At the Standard corner to Tps. 35 S. Rs. 1 and 2 E as hereinbefore described, I take an observation on Polaris at 8h 35m P.M. June 27 1893 correct local mean time by my watch and find the magnetic bearing of the star to be N. 16° 3' W. in appx Lat 37°43'23" N Long 111°47'13" W.

	h	m
Time of obs.	8	35
W. C. Polaris June 15	19	39.1
Reduction 10 days		39.2
W. C. Polaris June 26	18	59.9
Subtract from time of obs leaves hour angle of Polaris	13	35.1
Subtract from	23	56.1
Argument Table 2	10	21.[illegible]
Azimuth Polaris, lat. 37° 43'	0°	39' east.
North end of needle	16°	3'
The sum is the variation	16°	42' east.

I lay off the azimuth 39' to the west and drive a picket on the true meridian 2 chs. S. of the cor.

At 7 a. m. June 28. I find the magnetic bearing of the true meridian to be 16° 45' E. and the mean declination 16° 39' E.
The change of declination is caused by ferruginous sandstone in the vicinity of the corner.

Thence I run
North between secs. 31 and 36.
Va. 16° 45' E.
Through heavy timber and brush.

1.50	Descend abruptly about 200 ft.
5.50	Ledge about 70 ft. high, course N.E. and S.W.
19.43	Ledge about 10 ft. high, course E and W.
20.10	Dry wash 33 lks. wide, course E. and ascend abruptly about 75 ft.
27.50	Top of ridge, course E and W. and descend abruptly about 100 ft.
31.80	Head of ravine, course S.E. and ascend abruptly about 100 ft.
40.00	Set a sandstone 20×10×6 ins. in a stone pile on rock for 1/4 sec. cor. marked 1/4 on W. face, from which A pine 20 ins. diam. bears

East boundary T. 35 S. R. 1 E. continued.

Chains	
	A pine 20 ins. diam. bears
	N. 6° W. 28 lks. dist. marked 1/4 S. B. T.
40.50	Top of ridge, course E. and W. and descend.
41.50	Head of ravine, course E.
61.60	Perpendicular cliff, about 350 ft. high, course N. E. & S. cor.
	D measure 9.49 chs. E. for a base to measure distance
	across canon, and set a flag pole at E. end of base
	also on true line at W. end of base and one on line on
	N. side of canon; from which flag pole at E. end of
	of base bears S. 26° 20' E. cotang. 2.02 X 9.49 = 19.17 + 61.60 =
	80.77 chs. D now measure back to canon
79.23	North side of Gulch, course N. E.
— 80.00	Set a sandstone 26 X 10 X 6 ins. in a stone pile on rocky
	ground for cor. to secs. 25, 30, 31 and 36 marked with
	1 notch on S. and 5 notches on N. edges; from which
	A pinon 12 ins. diam. bears
	N. 24° W. 34 lks. dist. marked T. 35 S. R. 1 E. S. 25. B. T.
	No more trees within the limits, and raised a mound
	of Stones and earth 3 ft. high, 3½ ft. base alongside
	could not dig pits at proper distance from corner.
	Land, rough and mountainous 80 chs
	Soil, gravel and sandy 4th rate.
	Timber, heavy cedar, pinon, and pine 80 chs.
	Undergrowth same with dense oak 80 chs.
	Mountainous land, heavily timbered and covered with
	dense undergrowth 80 chs. June 28. 1893

North between secs. 25 and 30.

Va. 15° 22' E.

2.50	Ravine about 4 ft. deep, course E.
3.50	Enter heavy timber, course E. and W.
6.00	Top of bench, course N. E. and S. W. and descend gradually
40.00	Set a sandstone 28 X 10 X 8 ins. 22 ins. in the ground
	for 1/4 sec. cor. marked 1/4 on W. face; from which
	A pine 15 ins. diam. bears
	S. 83° W. 29 lks. dist. marked 1/4 S. B. T. No more trees
	within the limits Raised a mound of Stones and earth
	2½ ft. high, 3 ft. base alongside, dug pits 24 X 20 X 18 ins. N. &
	S. of cor. 5½ ft. dist.
43.20	Dry channel 40 lks. wide, course N. 10° E.
50.20	Descend abruptly about 150 ft.
57.95	Leave timber and enter bottom, course E. and W.

East boundary T. 35 S. R. 1 E. Continued.

chains	
	Cliffs on N. side of canon. Set a flag pole at E. and one on line at W. end of base. also one on top of cliffs
62.76	Escalante creek 20 lks. wide, course N. 85° E.
64.30	Cannonville and Escalante road, course N. 80° E. & S. 80° W.
65.50	Enter heavy timber, course E and W. and ascend abruptly
66.35	Foot of cliffs about 500 ft. high, course N. 75° W. & S. 75° W. I now take the angle from flag point on mountain to flag pole at E. end of base. Pole at E. end of base bears S. 27° 45' E. Cotang. 1.89677 X 10 = 18.97 + 60.62 =
79.59	Top of cliffs, course E and W.
80.00	Set a sandstone. 30 X 20 X 10 ins. in a stone pile on the solid rock among boulders; for cor. to secs. 19. 24. 25 & 30 marked with 2 notches on S. and 4 notches on E. edges from which A pinon 12 ins. diam. bears S. 35° W. 48 lks. dist. marked T. 35 S. R. 1 E. S. 25. B. T. A pinon 18 ins. diam. bears N. 75½° E. 45 lks. dist. marked T. 35 S. R. 2 E. S. 19. B. T. A cedar 12 ins. diam. bears N. 58° W. 54 lks. dist. marked T. 35 S. R. 1 E. S. 24. B. T. No other tree within the limits. Raised a mound of stones 2½ ft. high, 3 ft. base alongside. Pits impracticable Land, hilly and mountainous 72.45 chs. Soil, sandy and rocky 4th and 1st rate. Timber, heavy cedar and pinon 68.95 chs. Undergrowth same with dense cedar and sage 80 chs. Mountainous or heavily timbered and covered with dense undergrowth 80 chs. June 28 1893.

North between secs. 19 and 24.
Var. = 15° 24' E.

	Ascend through heavy timber.
22.00	Top of mountain, course S. W. and N. E. and descend.
32.00	Descend very abruptly about 600 ft.
40.00	Set a sandstone 26 X 10 X 5 ins. in a stone pile for 1/4 sec. cor. marked 1/4 on N. face. The slope at this cor. is so steep that it is almost impossible to stand without sliding down the mountain. Therefore it is impossible to set the instrument to take the bearings of any trees. Raised a mound of stones 2 ft. high, 3 ft. base alongside. above corner. It will all slide down the mountain.
44.80	Bottom of gulch, course S. 80° E.

East boundary T. 35 S. R. 1 E. continued.

chains	
70.70	Top of mountain, course E and N.
71.70	Descend abruptly about 9 ft. and leave heavy timber.
80.00	Set a sandstone 30x10x8 ins. in a stone pile on rock for cor. to secs. 13, 18, 19 and 24, marked with 3 notches on N. and S. edges, from which A cedar 20 ins. diam. bears S. 45° E. 4 lks. dist. marked T. 35 S. R. 2 E. S. 19. B. T. No more trees within the limits. Raised a mound of stones 3 ft. high, 3½ ft. base alongside, Pits inspectable. Land, extremely rough and mountainous 80 chs. Soil, sandy and rocky 4th rate. Timber, heavy cedar and pinon 71.70 chs. Undergrowth, same with dense oak, mahogany and whortleberry 80 chs. Mountainous, heavily timbered and covered with dense undergrowth 80 chs. July 1 1893.

North between secs. 13 and 18.

Var. 15° 30' E.

3.20	Descend very abruptly about 9 or 10 ft. through heavy timber
5.08	Perpendicular cliffs, about 20 ft. high, course E and N. Set a flag pole on the line on top of cliffs and one on the line on bottom below. From flag pole on bottom D measure 10 chs. east for a base to triangulate the distance to top of cliffs. From E. end of base the flag pole on top of cliffs bears S. 18° 9' W. Cotang. 3.05 X 10 = 30.50 + 5.08 = 35.58 chs. & measure back to foot of cliffs
9.20	Foot of cliffs, course E and N. and descend abruptly about 60 ft.
27.20	Bottom and leave timber, course E and N.
31.01	Birch Creek 20 lks. wide, course E.
33.16	Escalante road, course N. 80° E. and S. 70° W.
35.58	Enter heavy timber and ascend abruptly about 50 ft. course of timber E and N. Foot hill same.
40.00	Set a sandstone 24x12x10 ins. in a stone pile on rock, for 1/4 sec. cor. marked 1/4 on W. face, from which A cedar 8 ins. diam. bears N. 3° E. 8 lks. dist. marked 1/4 S. B. T. A cedar 20 ins. diam. bears S. 20° W. 54 lks. dist. marked 1/4 S. B. T.
51.20	Perpendicular cliffs about 20 ft. high, course N. 80° W.

East boundary T. 35 S. R. 1 E. continued.

chains	
	and used the same base I used for the other triangulation.
	The pole at E. end of base bears S. 24° 31' E. correct.
	2.192 X 10 = 21.92 + 35.58 = 57.50 chs.
57.50	Top of cliffs, course N. 80° W. and S. 85° E.
60.50	Head of ravine; course E.
68.75	Head of ravine, course E.
77.64	Ledge 20 ft. high, course N. and S. ave.
80.00	Set a sandstone 22 X 5 X 4 ins. in a stone pile on rocky spot for cor. to secs. 7, 12, 13 and 18 marked with 4 notches on S. and 2 notches on N. edges, from which A pinon 14 ins. diam. bears S. 10° E. 62 lks. dist. marked T. 35 S. R. 2 E. S. 18. B. T. A pinon 12 ins. diam. bears N. 15° E. 62 lks. dist. marked T. 35 S. R. 2 E. S. 7. B. T. No more trees within the limits. Raised a mound of stones 3 ft. high, 3½ ft. base alongside. Pits impracticable. Land rough and mountainous 80.00 chs. Soil, sandy and rocky 4th rate. Timber, heavy cedar and pinon, 71.42 chs. Undergrowth same with oak and sage. Mountainous land, heavily timbered 8.00 chs. July 3. 1893.

North between secs. 7 and 12.
Va. 15° 22' E.

	Ascend through heavy timber and dense brush.
5.90	Ravine about 20 ft. deep, course S. E.
10.00	Top of ridge about 100 ft. above Birch creek, course N. E. and S. W.
13.00	Descend abruptly about 400 ft.
20.90	Bottom of gulch, course E. and W.
21.20	Ascend abruptly about 50 ft.
38.10	Top of mountain about 900 ft. above Birch creek course S. 70° E. and N. 70° W.
40.00	Set a sandstone 20 X 10 X 5 ins. 15 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face from which A pinon 12 ins. diam. bears S. 10° W. 26 lks. dist. marked 1/4 S. B. T. A pinon 9 ins. diam. bears N. 87° E. 49 lks. dist. marked 1/4 S. B. T.
44.50	Measure a base 11.90 chs. W. to measure across

East boundary T. 35 S. R. 1 E. continued.

chains	
	I measure down into canon and up to cliffs on N. side, as I do in all similar cases.
45.00	Descend very abruptly about 60 ft.
60.00	Dry wash 50 lks. wide, course S. 80° E.
61.30	Ascend very abruptly about 60 ft.
66.45	Perpendicular cliffs The pole at W. End of base bears S. 28° 8' W. Cotang. 1.87 X 11.90 = 22.25 + 44.50 = 66.75
66.75	Top of cliffs, course E and N. and ascend about 200 ft.
79.90	Ledge 30 ft. high, course E and N.
80.00	Set a sandstone 24 X 10 X 3 ins. in a stone pile on rock for cor to secs. 1, 6, 7 and 12 marked with 5 notches on S. and 1 notch on N edge, from which A pinon 10 ins. diam. bears N. 85° W. 35 lks. dist. marked T. 35 S. R. 1 E. S. 1. B. T. A pinon 12 ins. diam. bears N. 17° E. 36 lks. dist. marked T. 35 S. R. 2 E. S. 6. B. T. No more trees within the limits. Raised a mound of stones 3 ft. high, 3½ ft. base alongside. Pits impracticable. Land, mountainous 80 chs. Soil, gravel and rocky 4th rate. Timber, heavy cedar and pinon 80 chs. Undergrowth same 80 chs. July 4 1893. Mountainous land heavily timbered 80 chs.

North between secs. 1 and 6.

Var. 15° 30' E.

	Ascend through heavy timber and brush.
2.32	Top of ridge, course E and N.
2.40	Descend abruptly about 100 ft.
12.28	Dry wash 38 lks. wide, course S. W.
23.00	Ascend abruptly about 100 ft.
34.51	Foot of ledge about 45 ft. high, course E and S. 84° W.
36.10	Top of ledge, course E and N.
36.25	Descend abruptly about 150 ft.
40.00	Set a sandstone 22 X 8 X 2 ins. 16 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face, from which A pine 8 ins. diam. bears S. 85° W. 22 lks. dist. marked 1/4 S. B. T. A pinon 10 ins. diam. bears N. 17° E. 22 lks. dist. marked 1/4 S. B. T.
42.20	Dry wash 21 lks. wide, course S. E.
43.20	Ascend abruptly about 75 ft.

East boundary T. 35 S. R. 1 E. concluded.

chains	
44.65	Descend abruptly about 150 ft.
52.75	Ravine about 10 ft. deep, course S. E.
56.22	Gulch about 50 ft. deep, course S. E.
60.38	Dry wash 25 lks. wide, course S. E.
64.32	North side of gulch, course S. E.
65.20	Ledge 25 ft. high, course S. and N. W.
75.90	Ledge 4 ft. high, course W. and S. 80° E.
80.00	Set a sandstone 30 x 12 x 2 ins. 24 ins. in the ground for cor. to Fps. 34 and 35 S. Rs. 1 and 2 E. marked with 6 notches on N. E. S. and W. edges from which A pinon 10 ins. diam. bears N. 73° W. 10 lks. dist. marked T. 34 S. R. 1 E. S. 36 B. T. A pinon 6 ins. diam. bears S. 53 W. 37 lks. dist. marked T. 35 S. R. 1 E. S. 1 B. T. A pinon 8 ins. diam. bears N. 79° E. 34 lks. dist. marked T. 34 S. R. 2 E. S. 31 B. T. A cedar 12 ins. diam. bears S. 58° E. 57 lks. dist. marked T. 35 S. R. 2 E. S. 6 B. T. Land, mountainous 80 chs. Soil, gravel and rocky 4th rate. Timber, heavy cedar and pinon 80 chs. Undergrowth same 80 chs. July 5 1893. Mountainous land, heavily timbered 80 chs.

N. Boundary T. 35 S. R. 1 E.

From the cor. to Fps. 34 and 35 S. Rs. 1 and 2 E. in approximate lat. 37° 48' 37" ½ N. long. 111° 47' 13" W. I run W. on a random line between said Fps. the var. of my transit being 15° 30' E. Set temporary half mile and mile corners at each 40 and 80 chs. and find the distance to be 5 miles 79 chs. and 68 links long and the Falling to be 12 lks. S. of the cor. to Fps. 34 and 35 S. Rs. 1 E and 1 W. on the Salt Lake Principal meridian. hereinbefore described, The correction for the true line, will therefore be 2 lks. per mile N. and its true course S. 89° 59' E. Aug. 15 1893.

North boundary T. 35 S. R. 16 E. continued.

chains	
	Aug. 20 1893. From the cor. to Tps. 34 and 35 S. on the Salt Lake P. Meridian, hereinbefore described
	& run
	S. 89° 59' E. on a true between Secs. 6 and 31.
	Va. 15° 27' E.
	Descend gradually through scattering timber and dense brush.
18.32	Water creek 10 lks. wide, course N. 28° E.
19.10	Ascend along N. side of hill about 150 ft.
39.68	Set a sandstone 18 X 10 X 3 ins. 12 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face, from which
	A pine 26 ins. diam. bears
	N. 41° W. 108 lks. dist. marked 1/4 S. B. T.
	A pine 24 ins. diam. bears
	S. 52° E. 140 lks. dist. marked 1/4 S. B. T.
42.33	Top of point, course N. E. and S. W. and descend abruptly about 80 ft.
44.10	Spring run 3 lks. wide, course N. E. water pure,
44.30	Ascend abruptly along N. side of ridge,
58.00	Ravine about 20 ft. deep, course N.
69.80	Ravine about 30 ft. deep, course N.
79.68	Set a trachyte stone 18 X 10 X 4 ins. 12 ins. in the ground for cor. to Secs. 5. 6. 31 and 32. marked with 1 notch on W. and 5 notches on E. edges, from which
	A pinon 10 ins. diam. bears
	N. 63° W. 38 lks. dist. marked T. 34 S. R. 16 E. S. 31. B. T. no more trees within the limits. Raised a mound of stones 3 ft. high, 3 1/2 ft. base alongside, Pits impracticable.
	Land, broken and mountainous 79.68 chs.
	Soil, sandy and gravel 4th rate.
	Timber, scattering cedar, pinon and pine 79.68 (chs.)
	Brush dense oak, sage and rabbit 79.68 chs.
	Mountainous land, covered with dense undergrowth 79.68 chs

	S. 89° 59' E. on a true line between Secs. 5 and 32.
	Va. 15° 28' E.
	Ascend about 50 ft. through dense brush and scattering timber.
6.20	Top of ridge, course S. W. and N. E. and descend abruptly through heavy timber and dense brush 150 ft. to a small flat (through)

North boundary T. 35 S. R. 1 E. continued.

chains	
8.80	Ravine about 4 oft. deep, course N.E.
40.00	Set a sandstone 18x10x2 ins. 12 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face, from which A pinon 10 ins. diam. bears N. 61° E. 30 lks. dist. marked 1/4 S.B.T. A pinon 8 ins. diam. bears S. 38° W. 15 lks. dist. marked 1/4 S. B. T.
52.20	Descend abruptly about 150 ft.
62.10	Road, course N.W. and S.E. and leave timber.
62.24	Christian Moosman's fence course N.W. and S.E. and enter dense brush.
67.88	Birch creek 10 lks. wide, course S.E.
75.90	Enter heavy timber, course N.W. and S.E. and around
80.00	Set a sandstone 26x10x5 ins. 20 ins. in the ground for cor. to secs. 4, 5, 32 and 33 marked with 2 notches on W. and 4 notches on E. edges from which A pinon 12 ins. diam. bears S. 86° W. 52 lks. dist. marked T. 35 S. R. 1 E. S. 5. B. T. A pinon 20 ins. diam. bears N. 45° W. 65 lks. dist. marked T. 34 S. R. 1 E. S. 32. B. T. A pinon 11 ins. diam. bears S. 8° E. 61 lks. dist. marked T. 35 S. R. 1 E. S. 4. B. T. A pinon 10 ins. diam. bears N. 11° E. 83 lks. dist. marked T. 34 S. R. 1 E. S. 33. B. T.

Land, rolling and broken 66.20 chs.
Soil, gravel and sandy loam 4th and 2nd rate.
Timber, heavy cedar and pinon 60 chs. Undergrowth same 60 chs. with dense oak, sage and brush 20 chs.
Heavily timbered land or covered with dense undergrowth 80 chs.

aug. 20 1893.

S. 89° 59' E. on a true line between secs. 4 and 33.
Va. 15° 30' E.

Ascend abruptly through heavy timber and dense brush about 200 ft.

5.00	Top of point, course N. 10° W. and S. 10° E. and descend abruptly about 200 ft.
7.26	Ravine about 100 ft. deep, course N.
9.80	Ascend abruptly about 200 ft.
28.76	Top of point, course N. and S. and descend abruptly

North boundary T.35 S.R.1 E. continued.

chains	
38.20	Foot of point of ridge, course N.60°W. and S.60°E. and leave timber.
40.00	Set a sandstone 22X8X4 ins. in a stone pile on rock for 1/4 sec. cor. marked 1/4 on N. face, dug pits 18X18X12 ins. E and W. of stone 5½ ft. dist. and raised a mound of stones and earth 3 ft. high, 3½ ft. base alongside.
56.50	Enter heavy timber and ascend abruptly about 500 ft., course N.W. (& S.E.
77.00	Top of mountain, course S.86°E. and N.30°W. and leave timber. The sides of this mountain are covered with cinders from a burnt coal mine.
80.00	Set a sandstone 22X10X3 ins. in a stone pile for cor. to secs. 3. 4. 33 and 34 marked with 3 notches on E & W. edges, (could not dig more than one inch at stone.) dug pits 20X20X12 ins. in each sec. 5½ ft. dist and raised a mound of stones and earth 3 ft. high, 3½ feet base alongside,
	Land, hilly and mountainous 61.70 chs.
	Soil, gravel and sandy loam 4th and 2" rate.
	Timber, heavy cedar, pinon and pine 58.70 chs.
	Undergrowth same 66.20 chs. Aug. 21 1893.
	Mountainous land or heavily timbered 61.70 chs.
	S.89°59'E. on a true line between secs. 3 and 34.
	Va. 15°26'E.
	Through scattering brush,
2.00	Ravine about 10 ft. deep, course N.
19.60	Descend along N. side of mountain through dense brush.
40.00	Set a sandstone 24X12X5 ins. 18 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face, dug pits 24X20X12 ins. E and W. of stone 5½ ft. dist. and raised a mound of earth and stones 3 ft. high 3½ ft. base alongside.
52.28	Perpendicular cliffs on W. fork of canon, about 300 ft. deep, course N.W. and S.E.
	I measure 15 chs. S. and set flag pole, also one on line at N. end of base, and set flag pole on line, on E. side of east Fork of canon; flag pole at S. end of base bears S.46°W.
	Subtract from 90°.1 = 44°01'. Cotang. 1.0349X15=15.52
67.80	East side of E. Fork of canon, course of E. Fork of

North boundary T. 35 S. R. 1 E. continued.

chains

80.00 abruptly about 300 ft. through heavy timber.
Set a sandstone 20 x 6 x 3 ins. in a stone pile on rock for cor. to secs. 2, 3, 34 and 35 marked with 4 notches on W. and 2 notches on E. edges, from which
A pinon 12 ins. diam., bears
N. 19° W. 38 lks. dist. marked T. 34 S. R. 1 E. S. 34, B. T.
A pinon 12 ins. diam. bears
N. 65° E. 33 lks. dist. marked T. 34 S. R. 1 E. S. 35. B. T.
A pinon 10 ins. diam., bears
S. 24° W. 20 lks. dist. marked T. 35 S. R. 1 E. S. 3, B. T.
A pinon 10 ins. diam., bears
S. 23° E. 50 lks. dist. marked T. 35 S. R. 1 E. S. 2. B. T.
Land extremely broken, rough and mountainous 80 chs.
Soil, rocky gravel 4th rate.
Timber, heavy cedar, pinon and pine 12, 19 chs. and scattering 67, 81 chs. undergrowth mountain mahogany, oak and sage 80 chs. August 21, 1893.
Mountainous land or heavily timbered 80 chs.

S. 89° 59' E. on a true line between secs. 2 and 35.
Va. 15° 30' E.
Ascend abruptly through heavy timber and brush about 50 ft.

14.20 Top of ridge, course N. and descend abruptly about 100 ft.

35.50 Ravine about 40 ft. deep, course S. 86° W. and ascend;

40.00 Set a sandstone 24 x 10 x 6 ins. 18 ins. in the ground with stones piled around it for 1/4 sec. cor. marked 1/4 on N. face, from which
A cedar 12 ins. diam. bears
S. 64° E. 27 lks. dist. marked 1/4 S. B. T.
A pinon 4 ins. diam. bears
N. 53° W. 27 lks. dist. marked 1/4 S. B. T.

48.00 Ascend abruptly about 700 ft.

80.00 Set a sandstone 20 x 10 x 3 ins. 15 ins. in the ground for cor. to secs. 1, 2, 35 and 36 marked with 5 notches on W. [illegible], and 1 notch on E. edges, from which
A pinon 12 ins. diam. bears
S. 40° W. 26 lks. dist. marked T. 35 S. R. 1 E. S. 2, B. T.
A pinon 8 ins. diam. bears
S. 12° E. [illegible] lks. dist. [illegible]

North boundary T. 35 S. R. 1 E. included.

chains	
	A pinon, 12 ins. diam., bears
	N. 80° E. 68 lks. dist., marked T. 34 S. R. 1 E. S. 36, B. T.
	A pinon 7 ins. diam., bears
	N. 10° W. 96 lks. dist., marked T. 34 S. R. 1 E. S. 35 B. T.
	Land, rough and mountainous 80 chs.
	Soil, gravel and rocky 4th rate.
	Timber, heavy cedar and pinon 80 chains.
	Undergrowth same 80 chs. Aug. 22 1893.
	Mountainous land, heavily timbered 80 chs.
	S. 89° 59' E. on a true line between secs. 1 and 36.
	Va. 15° 23' E.
	Through heavy timber and brush.
38.82	Top of mountain, course N.W. and S.E. and descend abruptly about 600 ft.
40.00	Foot of bench, course N. and S.
	Set a sandstone 18 x 8 x 2 ins. 12 ins. in the ground for 1/4
	Sec. cor. marked 1/4 on N. face, from which
	A pinon 16 ins. diam., bears
	N. 5° E. 36 lks. dist. marked 1/4, S. B. T.
	A pinon 12 ins. diam., bears
	S. 30° W. 39 lks. dist. marked 1/4 S. B. T.
56.70	Dry wash 20 lks. wide course N. 10° W. and descend about 100 ft.
80.00	The cor. to Tps. 34 and 35 S. Rs. 1 and 2 E.
	Land not rough
	Soil, gravel 3rd rate,
	Timber, heavy cedar and pinon 80 chs.
	Undergrowth same with dense oak, and mahogany 80 chs.
	Heavily timbered land, covered with dense undergrowth 80. Aug. 22 1893.

General description

The northern portion of this township is cut with deep canons, gulches and ravines. It is rough broken and mountainous throughout nearly the whole township. There is a small amount of agricultural land along Escalante and Birch creeks.

William Lewman
U. S. Deputy Surveyor.

BOOK A-238

This 20th day of August & discharge Monroe Switchell and Charles Hall Chairmen and Sifius Johnson and Frank McEwen aldermen and Walter B. Wayland Flagman and employ Orris Wilcox and Peter Barker for Chairmen, and David Woolsey for aferman and Jacob Hamaker Flagman. No other officer than myself authorized to administer oaths being available without great inconvenience, delay and expense & administer the required preliminary oaths Wm Leeman United States Deputy Surveyor

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List of Names.

A list of the names of the individuals employed by William Lewman, U. S. Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of the North Boundary T34 S R1 W. the Salt Lake Meridian through Tps 34 35 & 36 S, the 7th Standard parallel South through Ranges 1 2 3 & 4 E the 1st Guide Meridian East E & S Boundaries T36 S R1 E and E Bdy T35 S R1 E of the Salt Lake Base &

Meridian, in the Territory of Utah, showing the respective capacities in which they acted:

Thomas E King Chainman
Ephraim Hacek "
Charles Hall "
Monroe Twitchell "
A. F. McEwen Axeman
Sixtus Johnson "
W. B. Wayland Flagman

[4.—FINAL OATHS OF ASSISTANTS.]

We hereby certify that we assisted William Lewman, *United States Deputy Surveyor, in surveying all those parts or portions of the* North boundary T.34 S.R.1 W. the Salt Lake Meridian through Tps. 34.35 & 36 S & the 7th Standard parallel S through Rs. 1.2.3 & 4 E. the 1st Guide meridian E & E & S Bdy T 36 S R1 E & E Bdy T 35 S R1 E *of the Salt Lake base and meridian in the Territory of Utah, as are represented in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established according to the instructions furnished by the United States Surveyor-General for Utah.*

Thomas E. King, *Chainman.*
Ephram Hacek, *Chainman.*
Charles Hall, *Chainman.*
Monroe Twitchell, *Chainman.*
A. F. McEwen, *Axeman.*
Sixtus Johnson, *Axeman.*
W. B. Wayland, *Flagman.*

Subscribed and sworn to before me this 10th *day of* October 1894

John F. Chidester
County Clerk

or, in surveying all

represented in the
ey has been in all
uments established,

Final Oath of U. S. Deputy Surveyor.

I, _____, U. S. Deputy Surveyor,

solemnly swear that, in pursuance of instructions received from _____, U.

Surveyor General for _____, bearing date of the _____day

_____, 18 , I have well, faithfully, and truly, in my own proper person, and in str

conformity with the instructions furnished by the U. S. Surveyor General for _____, t

surveying manual, and the laws of the United States, surveyed all those parts or portions of _____

_____

_____

_____

_____

_____Meridian, in the_____, as are represented in the fo

going field notes as having been surveyed by me, and under my directions; and I do further solemnly swear that

the corners of said survey have been established and perpetuated in strict accordance with the surveying manu

printed instructions, the special written instructions of the U. S. Surveyor General for_____

and in the specific manner described in the field notes, and that the foregoing are the true field notes of such surv

and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congr

approved August 8, 1846.

_____

U. S. Deputy Surveyor

Subscribed and sworn to before me this _____

day of _____, 18 .

SEAL

_____

_____

Approval.

Office of the U. S. Surveyor General,

Salt Lake City, Utah, March 4, 1896

The foregoing field notes of the survey of the North and East Boundaries of Township 25 South Range 1 East of the Salt Lake Base & Meridian, Utah

_____

_____

_____

_____

_____

_____ executed

_____

under his Contract No. 191, dated March 2d, 1893, having been critical

examined, the necessary corrections and explanations made, the said field notes, and the surveys they describe, a

hereby approved.

_____

U. S. Surveyor General.

I certify that the foregoing transcript of the field notes of the above-described surveys in _____

_____, has been correctly copied from the original notes on file in this office.

_____

U. S. Surveyor General.

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(4—679.)

15

K.J.B.

BOOK A-238

FIELD NOTES

OF THE SURVEY OF

the North, West and South boundaries of T. 38 S. R. 9 W.

Of the Salt Lake Base and Meridian,

Territory of Utah

AS SURVEYED BY

William Leuman, U. S. Deputy Surveyor,

Under his Contract No. 191, dated March 2nd 1893.

Survey commenced July 10th, 1893.

Survey completed July 18th, 1893.

(12503—2,000.)

Township (high) 17-06-62 ✓

" (low) 71-00 ✓

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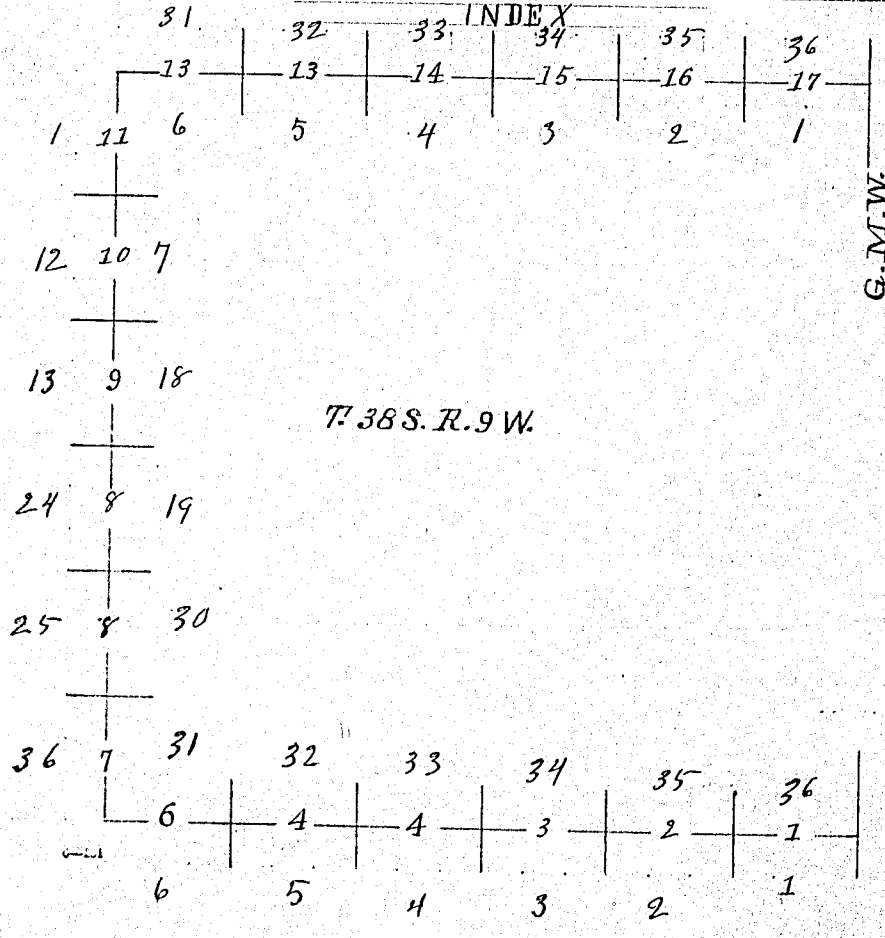
Names and Duties of Assistants.

Heber Dalley	Chainman
Joseph Armstrong	Chainman
Thomas Williams	Axeman
David Dix	Flagman



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INDEX DIAGRAM.

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31	32	33	34	35	36

Meanders Page.....

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[2.—PRELIMINARY OATH OF AXEMEN.]

We Thomas Williams
and David Dix

do solemnly swear that we will well and truly perform the duties of Axemen, in the establishment of corners and other duties, according to instructions given us, and to the best of our skill and ability, in the survey of North, West and South boundaries and the Subdivision of T. No. 38 S., R. No. 9 W

of the Salt Lake base and meridian in the Territory of Utah.

Thomas Williams Axeman.
David Dix, ~~Axeman~~ Flagman

Subscribed and sworn to before me this Tenth
day of July 1893

Wm Lewman
U. S. Deputy Surveyor

BOOK A-238

1598

[1.—PRELIMINARY OATH OF CHAINMEN.]

We Heber Daly, Joseph Armstrong and ~~Thomas Williams and David Dix~~ do solemnly swear that we will well and faithfully execute the duties of chain carriers; that we will level the chain upon even and uneven ground and plum the tally pins, either by sticking or dropping the same; that we will report the true distance to all notable objects, and the true length of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey of the Exterior boundaries and Subdivision of township No. 38 S. R. 9 W. of the Salt Lake base and meridian,

of the Salt Lake base and meridian in the Territory of Utah.

Heber Daly, Chainman.

Joseph Armstrong, Chainman.

Thomas Williams, ~~Chainman.~~ Flagman

~~David Dix~~, ~~Chainman.~~ Flagman

Subscribed and sworn to before me this tenth day of July 1893

William Lewman

United States Deputy Surveyor

I administered the oath to Heber Dalley
Joseph A Armstrong, Thomas Williams
and David Dix, because they met me
at the place where we commenced work
and it would have been very inconvenient
for me to have got an officer, qualified
to administer oathes, and they were
all recommended to me by good and
reliable men, so I thought it safe for
me to administer the oathes.

William Leyman
U. S. Deputy Surveyor.

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PAGE

I commenced surveying at the S.E. Cor. of T. 38 S. R. 9 W. because the ground was much easier to measure correct as it was much more level and more convenient to get to. I thought it would be much better to train the men on smooth ground than to do it on very rough hill sides. I found before I got through that the lines were all very rough, but I supposed the South line much better than the north line.

William Leeman
U. S. Deputy Surveyor.

Pass
G.W.S.

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PAGE

South boundary T. 38 S. R. 9 W.

chains

July 9th 1893. Owing to the difficulty passed to the cor. to Tps. 38 and 39 S. Rs. 8 and 9 W. I took an observation on Polaris at my camp west of cor. at 8h 3m P.M. watch correct.

Astron. l. m. t of obs. July 9	8h	3m P.M.
W. C. Polaris July 1	18	36.5
Reduction to July 8		27.4
W. C. Polaris July 8	18	09.1
Subtract from time of obs leaves hour angle of Polaris	13	53.9
Subtract from	23	56.1
Argument table 2	10	02.2
Azimuth Polaris Lat. 37° 27'	0°	45' E.
North end of needle	14	21 E.
The sum is the va.	15°	06' E.

At 7 A. M. July 10th I examine the adjustments of my transit and find them correct. I take the magnetic bearing of the true meridian established last night and find the va. to be 15° 12' E. and the mean declination to be 15° 06' E.

At the cor. to Tps. 38 and 39 S. Rs. 8 and 9 W. in approximate Lat. 37° 27' 44.2" N. Long. 112° 46' 03" W.
The corner is a sandstone 30 x 10 x 10 ins. firmly set in the ground and marked with 6 notches on N. E. S. and W. edges; from which
A yellow pine 24 ins. diam. bears
N. 2° E. 72 lks. dist. marked T. 38 S. R. 8 W. S. 31. B. T.
A cedar 12 ins. diam. bears
N. 42° W. 45 lks. dist. marked T. 38 S. R. 9 W. S. 36. B. T.
A cedar 15 ins. diam. bears
S. 14° W. 15 lks. dist. marked T. 39 S. R. 9 W. S. 1. B. T.
No more trees within the limits. A mound of stones 5 ft. base, 4½ ft. high alongside No. pits.

From the cor. to Tps. 38 and 39 S. Rs. 8 and 9 W. above described. I run W. bet. secs. 1 and 36

Va. 15° 11' E.

Ascend abruptly about 600 ft. through dense oak brush and timber.

12.50 Top of ridge, course N. and S. and descend

South boundary T. 38 S. R. 9 W. continued.

chains	
26.50	Foot of ridge and enter bottom, course N. 20° W. & S. 20° E.
30.75	Leave bottom, course N. and S. and ascend abruptly (200 ft) about
37.70	Top of ridge, course N. W & S. E. and descend about 200 ft.
40.00	Set a sandstone 18 X 10 X 4 ins. 12 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face; from which A pine 6 ins. diam. bears N. 16° W. 19 lks. dist; marked 1/4 S. B. T. dug pits 18 X 18 X 12 ins. E and W. of Stone 5½ ft. dist. and raised a mound of stones, covered with earth 2½ ft. high, 3½ ft. base alongside.
44.00	Gulch about 200 ft. deep, course S. E.
45.84	Dry wash 64 lks. wide, course S. E.
47.51	West side of gulch and ascend abruptly about 300 ft.
50.38	Top of ridge, course N. and S. and descend abruptly about 200 ft.
80.00	Set a sandstone 30 X 10 X 7 ins. 24 ins. in the ground for cor. to secs. 1. 2. 35 and 36, marked with 1 notch on E. and 5 notches on W. edges; from which A pine 50 ins. diam., bears S. 10° W. 145 lks. dist; marked T. 39 S. R. 9 W. S. 2. B. T. No more trees within the limits. Raised a mound of stones covered with earth 3 ft. high, 3 ft. base alongside. Pits impracticable. Land Mountainous 75.75 chs. Soil, sandy loam 2nd rate. Timber, a few cedars, pinons and pines 80 chs. Brush dense oak and sage 80 chs. Mountainous land or covered with dense undergrowth 80 chs. July 10th 1893
	West bet. secs. 2 and 35. Va. 15° 09' E.
1.70	Straight Canon creek, 18 lks. wide, course S. 25° E.
4.50	Ascend abruptly about 500 ft. through dense oak brush & timber.
23.25	Top of ridge, course N. & S. and descend abruptly about 500 ft.
23.60	Enter heavy timber, course N. and S.
40.00	Set a sandstone 20 X 10 X 6 ins. 15 ins. in the ground for 1/4 sec. Cor. marked 1/4 on N. face from which A pine 36 ins. diam. bears N. 8 W. 217 lks. dist. marked 1/4 S. B. T. No other tree within the limits. Raised a mound

South boundary T. 38 S. R. 9 W. Continued.

Chains	
	with earth 2½ ft. high, 3 ft. base alongside. Pits impracticable.
40.45	Foot of hill, course N. W. and S. E.
45.55	Spring run 6 lks. wide, course S. 36° E.
50.00	Ascend abruptly about 200 ft.
78.55	Ravine about 25 ft. deep, course S. E.
80.00	Set a sandstone 30 x 10 x 7 ins. 24 ins. in the ground for cor. to secs. 2. 3. 34 and 35 marked with 2 notches on E. and 4 notches on W. edges; from which A pine 20 ins. diam. bears N. 76° E. 23 lks. dist. marked T. 38 S. R. 9 W. S. 35. B. T. No more trees within the limits. Raised a mound of stones covered with earth 3 ft. high, 3 ft. base alongside. Pits impracticable.
	Land, ~~Mountainous~~ 75.50 chs.
	Soil, gravel and stony 4th rate.
	Timber, a few scattering pines. Spruce and pines 80 chs.
	Brush dense oak 80 chs. July 10 1893.
	~~Mountainous~~ land or covered with dense undergrowth 80 chs.
	West bet. secs. 3 and 34.
	Va. 15° 06' E.
	Ascend through dense brush.
15.00	Top of ridge, course N. and S. and descend abruptly about 400 ft.
22.65	Dry wash 27 lks. wide, course S.
35.50	Ascend abruptly about 100 ft.
40.00	Set a sandstone 30 x 12 x 5 ins. 24 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face; dug pits 18 x 18 x 12 ins. E. and W. of stone 5½ ft. dist. and raised a mound of stones covered with earth 2½ ft. high, 3½ ft. base alongside.
41.08	Ravine about 10 ft. deep, course S.
55.10	Ravine about 40 ft. deep, course S.
67.50	Enter heavy quaking asp timber, course N. and S.
72.00	Descend abruptly about 180 ft.
77.20	Leave timber and ascend
80.00	Set a sandstone 20 x 8 x 5 ins. 15 ins. in the ground for cor. to secs. 3. 4. 33 and 34 marked with 3 notches on E. and W. edges; from which A quaking asp 6 ins. diam. bears N. 62° E. 47 lks. dist. marked T. 38 S. R. 9 W. S. 34. B. T. A quaking asp 5 ins. diam. bears

South boundary T. 38 S. R. 4 W. continued.

plains A quaking ash 6 ins. diam., bears
S. 1 gen. W. 4 lks. dist. marked T. 39 S. R. 4 W. and S. 4. B. T.
A quaking ash 6 ins. diam., bears
N. 52° W. 34 lks. dist. marked T. 38 S. R. 4 W. and S. 33. B. T.
Land, Mountainous and broken & cks.
Soil, sandy loam and gravel 1st and 4th rate.
Timber, heavy quaking ash, & & cks. Brush, dense oak
and quaking ash 80 cks. July 10 1893.
Mountainous, underbrushed, timbered and covered with dense undergrowth & rocks.

West bet. secs. 4 and 33.

Va. 15° 03' E.

Ground abruptly about 1 mile through dense brush and timber.
10.00 Top of knoll, course N.E. and S.W.
30.00 Ground abruptly over rocks about 1 mile.
37.40 Bottom, course N.E. and S.W. and leave timber.
45.00 Set a black basaltic rock 20 X 12 X 8 ins. 15 ins. in the
ground for 1/4 sec. cor. marked 1/4 on N. face; from which
A pine 24 ins. diam. bears
S. gen. E. 4 lks. dist. marked 1/4 S. B. T.
A quaking ash 5 ins. diam. bears
N. 44° W. 202 lks. dist. marked 1/4 S. B. T.
44.00 Center timber, course N. and S.
51.00 Leave timber, course N. and S. E.
63.40 Ground abruptly about 30 ft.
80.00 Set a basaltic rock 24 X 12 X 10 ins. 18 ins. in the ground
for sec. to secs. 4. 5. 32 and 33 marked with 4 notches
on S. and 2 notches on W. edges; Raised a mound of
stone covered with earth 3 ft. high, 3 1/2 ft. base alongside
Land, rough and mountainous & cks.
Soil, clay loam and gravel 1st and 2nd rate,
Timber, a few scattering pines and quaking ash.
Brush, dense oak, quaking ash and wild plum scrub.
Mountainous and covered with dense undergrowth & rocks. July 10 1893.

West bet. secs. 5 and 32.

Va. 15° 12' E.

2.00 Chaparral, course N. and E. and N.W.
32.00 Ground abruptly about 6 ft.
36.25 Top of knoll, course N. 70° W. and N. 70° E.
48.00 Set a basaltic rock 20 X 12 X 6 ins. 15 ins. in the ground
for sec. cor. marked 1/4 on N. face; from which

South boundary T. 38 S. R. 9 W. continued.

chains	
	N. 56° W. 95 lks. dist. marked 1/4 S. B. T. No other tree within the limits. Raised a mound of stones covered with earth 3 ft. high 3½ ft. base alongside.
50.60	Descend abruptly about 50 ft.
51.64	Robert Bullock's fence, course S. 6° E. and N. 11° W.
60.58	Descend abruptly about 50 ft.
62.50	Dry wash 50 lks. wide, course S. 30° W.
63.10	Ascend abruptly about 50 ft.
63.90	Top of ridge, course N. 25° E. and S. 25° W. from this point Robert Bullock's house bears N. 36° E. 15.23 chs.
66.17	Ravine about 10 ft. deep, course S. 30° W.
80.00	Set a sandstone 24 X 10 X 4 ins. 18 ins. in the ground for cor. to secs. 5. 6. 31 and 32 marked with 5 notches on E. and 1 notch on W. edge; dug pits 18 X 18 X 12 ins. in each sec. 5½ ft. dist. and raised a mound of stones covered with earth 3 ft. high, 3½ ft. base alongside.
	Land, rocky and rough 47.15 chs.
	Soil, clay loam and rocky 1st and 4th rate.
	Timber, a few scattering pines.
	Brush, dense oak and sage 80 chs. July 11 1893.
	Land covered with dense brush 80 chs.

West bet. secs. 6 and 31.

Va.: 15° 7' E.

	Ascend about 60 ft.
12.50	Top of ridge, course N. and S.
19.30	Descend abruptly about 50 ft.
20.45	Foot of ridge, course S. 22° W. and N. 12° E.
21.50	Ascend abruptly about 50 ft.
24.00	Top of point, course N. and S. and descend about 50 ft.
27.75	Foot of point, course S. 39° E. and N. 39° W.
30.50	Ascend abruptly about 140 ft.
40.00	Set a limestone 20 X 12 X 3 ins. 15 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face; Raised a mound of stones covered with earth 2½ ft. high, 3½ ft. base alongside.
55.58	Top of ridge and E. side of Three creeks canon course N. and S. Set a tall post on line and measured a base 9 chs. S. set a flag pole at S. end of base, also one on the line in bottom of canon about 150 ft. below. From point on line in bottom of

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South boundary T. 38 S. R. 9 W. concluded.

chains	
	Subtract from 90° 00' = 21° 02'. Cotang. 2.60 × 9 = 23.40
	+ 55.58 = 78.98 chs. I measure back 9 links
	Adgang for Convergency of Meridians
78.89	Set a sandstone 28 × 10 × 10 ins. 21 ins. in the ground for Cor. to Tps. 38 and 39 S. Rs. 9 and 10 W. marked with 6 notches on N. E. S. and W. edges; from which
	A pine 24 ins. diam. bears
	N. 10° W. 26 lks. dist. marked T. 38 S. R. 10 W. S. 36. B. T.
	A pine 4 ins. diam. bears
	S. 68° W. 42 lks. dist. marked T. 39 S. R. 10 W. S. 1. B. T.
	No more trees within the limits. Raised a mound of stone covered with earth 4½ ft. high, 5 ft. base alongside.
	Land, rough and hilly 55.58 chs. Mountainous 23.31 chs
	Soil, sandy and rocky 2nd. and 4th rate.
	Timber a few scattering pines. Brush dense oak, wild cherry, sage and whortleberry 78.89 chs.
	Mountainous land or covered with dense underg~~rowth~~ 78.89 chs.
	July 11 1893

West boundary T. 38 S. R. 9 W.

chains	
	I took an obs. on Polaris last night at my camp. July 11th; tested the adjustments of my transit at 7 a. m. July 12th. and found them correct.
	At the cor. to Tps. 38 and 39 S. Rs. 9 and 10 W. in approximate lat. 34° 24' 44⅔" N. long. 112° 52' 35" W. I find the var. to be 15° 12' E. and the mean declination to be 15° 6' E.
	North bet. secs. 31 and 36. Var. 15° 12' E.
	Ascend through dense brush and heavy timber. up Slate Creek canon
23.80	Ravine about 100 ft. deep, course N. W.
25.90	Ravine about 100 ft. deep, course W.
40.00	Set a sandstone 20 x 12 x 4 ins. 15 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face; from which A pine 10 ins. diam. bears S. 64° W. 134 lks. dist. marked 1/4, S. B. T. A pine 15 ins. diam. bears S. 17° E. 185 lks. dist. marked 1/4 S. B. T.
53.78	Creek 11 lks. wide, course W.
60.20	Ravine about 10 ft. deep, course S. 80° W.
68.26	Creek 3 lks. wide, course S. 75° W.
73.56	Creek 3 lks. wide, course W.
79.50	Creek 5 lks. wide, course S. 80° W.
80.00	Set a sandstone 20 x 12 x 6 ins. 15 ins. in the ground for cor. to secs. 25. 30. 31 and 36, marked with 1 notch on S. and 5 notches on N. edge; from which A cedar 8 ins. diam. bears S. 45° W. 3 lks. dist. marked T. 38 S. R. 10 W. S. 36. B. T. No more trees within the limits. Raised a mound of stones covered with earth 3 ft. high, 3 ft. base alongside. Land, very rough and broken 80 chs. Soil, rocky 4th rate, Timber, heavy pine, spruce, fir, and quaking asp 80 chs. Undergrowth same with dense oak, willow birch, and quaking asp 80 chs. July 12 1893.

West boundary T. 38 S. R. 9 W. continued.

Chains	
	North bet. Secs. 25 and 30.
	Course of canon Var. 15° 9' E.
9.00	Top of point, course W. and descend abruptly about 100 ft.
30.98	Three creeks. 25 lks. wide, course S. 20° W.
40.00	Set a sandstone 24 x 10 x 8 ins. 18 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face; from which A pine 12 ins. diam. bears N. 54° W. 36 lks. dist.; marked 1/4 S. B. T. No other tree within the limits: Raised a mound of stone covered with earth 3 ft. high, 3½ ft. base alongside.
80.00	Set a sandstone 20 x 10 x 8 ins. 15 ins. in the ground for cor. to secs. 19. 24. 25 and 30 marked with 2 notches on S. and 4 notches on N. edges; from which A pine 12 ins. diam. bears S. 21° E. 38 lks. dist.; marked T. 38 S. R. 9 W. S. 30. B. T. A pine 24 ins. diam. bears S. 55° W. 110 lks. dist.; marked T. 38 S. R. 10 W. S. 25. B. T. A pine 36 ins. diam. bears N. 79° W. 59 lks. dist.; marked T. 38 S. R. 10 W. S. 24 B. T. A pine 28 ins. diam. bears N. 73° E. 75 lks. dist.; marked T. 38 S. R. 9 W. S. 19 B. T. Land very rough and rocky 80 chs.
	Soil, rocky — 4th, rate.
	Timber, medium heavy pine and fir 80 chs.
	Brush, very dense oak, willow, shiny maple and quaking asp 80 chs. July 12 1893.
	Land covered with dense undergrowth 80 chs.

	North bet. Secs. 19 and 24.
	Course of canon Var. 15° 05' E.
10.00	Ascend abruptly through dense growth of timber about 800 ft.
32.80	Descend abruptly along W. side of canon.
40.00	Set a sandstone 20 x 10 x 6 ins. in a stone pile on rock for 1/4 sec. cor. marked 1/4 on W. face; and raised mound of stones covered with earth 2½ ft. high 3 ft. base alongside. Pits impracticable.
80.00	Set a sandstone 20 x 10 x 8 ins. in a stone pile on rock for cor. to secs. 13. 18. 19 and 24 marked with 3 notches on N. and S. edges; from which A pine 10 ins. diam. bears N. 10° W. 25 lks. dist.; marked T. 38 S. R. 10 W. S. 13. B. T. A pine ... ins. diam. bears

West boundary T. 38 S. R. 9 W. continued.

chains	N. 54° E. 87 lks. dist. marked T. 38 S. R. 9 W. S. 18. B. T.
	A fir 10 ins. diam. bears
	S. 18° E. 56 lks. dist. marked T. 38 S. R. 9 W. S. 19. B. T.
	A spruce 8 ins. diam. bears
	S. 24° W. 24 lks. dist. marked T. 38 S. R. 10 W. S. 24. B. T.
	Land, very rough and rocky 80 chs.
	Soil, covered with bowlders, sandy 4th rate.
	Timber, scattering pine, spruce and fir, 80 chs.
	Brush, dense oak, willow and birch 80 chs. July 12 1893.
	Land covered with dense undergrowth 80 chs.
	North bet. secs. 13 and 18.
	Through dense brush and scattering timber va. 15° 3' E.
9.23	Three creeks. 27 lks. wide, course S. 15° E.
10.50	Ascend abruptly about 700 ft. set flag pole on the line here,
23.05	Perpendicular cliffs, about 300 ft. high
	Set flag pole on line on top of cliffs.
	Measure 5 chs. E. for a base; flag pole on line in canon bears
	S. 18° 12' W. from E. end of base. Cotang. 3.041 × 5 = 15.205 + 10.50 = 25.705
25.70	Top of cliffs, course N. W. and S. E. and leave timber, ascend
29.50	Top of plateau, course S. 30° E. and N. W.
40.00	Set a sandstone 22 × 10 × 5 ins. 16 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face; from which
	An oak 12 ins. diam. bears
	N. 49° W. 138 lks. dist. marked 1/4 S. B. T. No other tree within the limits; dug pits 18 × 18 × 12 ins. N. and S. of cor. stone 5½ ft. dist. and raised a mound of earth 2½ ft. high, 3½ ft. base alongside.
	Ascend gradually about 100 ft.
49.50	Top of ridge, course E. and W. and descend.
80.00	Set a sandstone 24 × 6 × 5 ins. 18 ins. in the ground for cor. to secs. 7. 12. 13 and 18 marked with 4 notches on S. and 2 notches on N. edges; from which
	An oak 8 ins. diam. bears
	N. 42° W. 190 lks. dist. marked T. 38 S. R. 10 W. S. 12. B. T.
	No more trees within the limits; dug pits 18 × 18 × 12 ins in each sec. 5½ ft. dist. and raised a mound of earth 2½ ft. high, 3½ ft. base alongside.
	Land, Mountainous 19 chs. rough and rolling 61 chs.
	Soil, sandy loam and rocky 2nd and 4th rate.
	Timber, scattering pine, spruce and fir 25.70 chs.
	Brush, dense oak, willow and birch 80 chs. July 12 1893
	Mountainous land covered with dense [illegible]

West boundary T. 38 S. R. 9 W. continued.

Chains	
	North bet. secs. 7 and 12.
	Va.: 15° 12' E.
	Through scattering timber and dense brush.
22.50	Leave dense brush.
24.47	Gulch about 150 ft. deep, course S. 80 E.
27.59	Dry wash 30 lks. wide, course W. and descend.
30.00	Enter dense brush, course S. W. and N. E. and ascend abruptly.
38.00	Top of ridge, about 300 ft. high, course S. W. and descend abruptly.
40.00	Set a sandstone 18 x 10 x 4 ins. 12 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face; from which
	An oak 8 ins. diam. bears
	N. 65° W. 56 lks. dist. marked 1/4 S. B. T.
	No other tree within the limits; dug pits 18 x 18 x 12 ins. N. and S. of stone 5 1/2 ft. dist. and raised a mound of stone and earth 3 ft. high, 3 1/2 ft. base alongside.
45.50	Ascend abruptly about 100 ft. Leave dense brush
47.90	Road, course S. 80° E. and N. 80° W.
53.51	Creek 17 lks. wide, course N. W. and ascend abruptly about 300 ft.
71.48	Top of spur of ridge, course S. W. and descend.
80.00	Set a sandstone 24 x 10 x 4 ins. 18 ins. in the ground for cor. to secs. 1. 6. 7 and 12, marked with 5 notches on S. and 1 notch on N. edge; dug pits 18 x 18 x 12 ins. in each sec. 5 1/2 ft. dist. and raised a mound of earth 2 1/2 ft. high, 3 1/2 ft. base alongside.
	Land, rolling and hilly 80 chs.
	Soil, sandloam 2" rate.
	Timber, scattering spruce, fir, spruce and quaking asp. 80 chs.
	Dense oak, quaking asp and cherry 38.00 chs. July 13 1893.
	Land covered with dense brush 38 chs.
	North bet. secs. 1 and 6.
	Va.: 15° 10' E.
18.00	Enter dense brush.
20.00	Descend abruptly about 50 ft.
26.50	Leave dense brush and enter spurs, course S. W. and N. E. and leave timber
40.00	Set a sandstone 24 x 8 x 6 ins. 18 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face; dug pits 18 x 18 x 12 ins. N. and S. of stone 5 1/2 ft. dist. and raised a mound of earth 2 1/2 ft. high, 3 1/2 ft. base alongside.
45.00	Ascend abruptly about 100 ft.
55.50	Top of ridge, course N. E. and S. W. and enter heavy timber

West boundary T. 38 S. R. 9 W. Concluded.

chains	
58.34	Creek 12 lks. wide, course S. 20° W.
61.20	Trail, course S. W. and N. E.
63.90	Lava bed, course S. W. and N. E.
80.00	Set a baraltic rock 24×10×6 ins. in stone a pile on Lava bed, for cor. to Tps. 37 and 38 S. Rs. 9 and 10 W. marked with 6 notches on N. E. S. and W. edges; from which
51.00	A quaking asp 6 ins. diam. bears
39.00	N. 41° W. 13 lks. dist. marked T. 37 S. R. 10 W. S. 36. B. T.
	A quaking asp 6 ins. diam. bears
	N. 78° E. 26 lks. dist. marked T. 37 S. R. 9 W. S. 31. B. T.
	A quaking asp 6 ins. diam. bears
	S. 63° E. 14 lks. dist. marked T. 38 S. R. 9 W. S. 6. B. T.
	A quaking asp 5 ins. diam. bears
	S. 10° W. 44½ lks. dist. marked T. 38 S. R. 10 W. S. 1. B. T.
	Land, rough and rolling and mountainous 57 chs
	Soil, black loam and rocky 1st and 4th rate.
	Timber, heavy fir, pine, spruce and quaking asp 24.50 chs.
	Undergrowth same with dense oak, cherry, sage and quaking asp 33 chs. Mountainous land or heavily timbered, or covered with dense undergrowth 51 chs. July 13 1893

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North boundary T. 38 S. R. 9 W.

chains

July 13th 1893, At the corner to Tps. 37 and 38 S. Rs. 8 and 9 W. in approximate Lat. 37° 32' 52½" N. Long. 112° 46' 03" W. described as follows; to wit;
A Limestone 24 x 10 x 8 ins. 16 ins. in the ground for cor. to Tps. 37 and 38 S. Rs. 8 and 9 W, marked with 6 notches on N. E. S. and W. edges; from which
A fir 24 ins. diam., bears
S. 36° E. 338 lks. dist. marked T. 38 S. R. 8 W. S. 6. B. S.
A fir 20 ins. diam., bears
N. 68° E. 247 lks. dist. marked T. 37 S. R. 8 W. S. 31. B. T.
No more trees within the limits. A mound of stones 4½ ft. high, 5 ft. base alongside.
I take an obs. on Polaris at the above named cor. on the nigh of July 13th at 9h. 22m. and find the bearing of the star to be N. 13° 57' W. I drive a picket on the line so determined 3.50 chs N. of the cor.

Astron. l. m. t of obs. July 13	9h.	22m. P. M.
Astron. time of W. C. Polaris July 1	18	36.5
Reduction to July 12 subtract.		43.1
Astron. time W. C. Polaris July 12	17	53.4
Hour angle of Polaris at obs.	15	28.6
Subtract from	23	56.1
Time argument for Table II.	8	27.5
Azimuth of Polaris Lat. 37° 33'	1°	15 east.
North end of needle	13°	57' east.
The sum is the var.	15°	12' east.

At 7 A. M. July 14. The var. is 15° 12' east.
Mean declination Table; Page 55 of Manual 15° 0' east.

West bet. above named Tps. on a random line
Var. 15° 12' E.
I set temporary half mile and mile corners at each 40 and 80 chs. and find the line to be 5 miles 78 chs. and 75 links long, and the falling 47 lks. North. of the cor. to Tps. 37 and 38 S. Rs 9 and 10 W.
The correction for the true line will be 7½ lks. S. per mile and its true course N. 89° 57' E.

North boundary T. 38 S. R. 9 W. continued.

chains	
	From the cor. to Tps. 37 and 38 S. Rs. 9 and 10 W.
	Drum
	North 89° 54' E. on a true line bet. Sec. 6 and 31.
	Va. 15° 12' E.
	Through timber and dense oak brush.
8.92	Creek 11 lks. wide, course S.
10.38	Ascend abruptly about 40 ft.
16.80	Plateau, course N. and S.
31.77	Old road, course S. 10° E. and N.
38.75	Set a sandstone 24 x 8 x 3 ins. 18 ins. in the ground for 1/4 Sec. cor. marked 1/4 on N. face; dug pits 18 x 18 x 12 ins. E. and W. of stone 5½ ft. dist. and raised a mound of stones covered with earth 2½ ft. high, 3½ ft. base alongside
44.60	Descend abruptly about 80 ft.
45.80	Dry wash 28 lks. wide, course S.
49.90	Ascend abruptly about 80 ft.
52.10	Top of plateau, course N. and S.
58.80	Gulch about 200 ft. deep, course S.
61.70	Dry wash 33 lks. wide, course S.
69.10	Ascend abruptly about 200 ft.
69.50	East side of gulch and descend abruptly about 200 ft.
69.95	Bottom, course S. and leave timber.
73.15	Creek 13 lks. wide, course S. W.
73.95	Ascend abruptly about 200 ft.
78.70	Top of Plateau, course N. and S.
78.75	Set a sandstone 40 x 15 x 4 ins. 24 ins. in the ground for cor. to Secs. 5. 6. 31 and 32 marked with 1 notch on W. and 5 notches on E. edge; dug pits 18 x 18 x 12 ins. in each Sec. 5½ ft. dist. and raised a mound of earth 3½ ft. base, 2½ ft. high alongside.
	Land, mountainous, cut with deep gulches 78.75 chs.
	Soil, sandy loam 2nd rate.
	Timber, pine, fir and spruce 69.95 chs.
	Brush, dense oak, sage and quaking asp 78.75 chs.
	Mountainous land covered with dense undergrowth 78.75 chs.
	July 17 1893.

	N. 89° 57 E. on a true line bet. Secs. 5 and 32.
	Va. 15° 10' E.
	Through dense brush & timber
8.88	Road, course N. and S.
9.78	Descend abruptly about 100 ft.
11.20	Bottom, course N. and S.
	Creek 11 lks. wide, course N.

North boundary T. 38 S. R. 9 W. continued.

chains

13.50 Ente to the west, course N. 10° W.
13.90 Ascend abruptly, about 30 ft.
20.00 Top of knoll, course N. and S.
29.00 Top of ridge, course N. and S.
33.90 Descend abruptly about 100 ft.
34.60 Foot of ridge, course N. and S. and ascend.
38.40 Ascend abruptly about 100 ft.
40.00 Top of point and bear timber, course N. and S.
40.00 Set a sandstone 20 x 10 x 8 ins. 15 ins. in the ground for 40 chs. on marked W. on W. face; dug pits 18 x 18 x 12 ins. and on E. of stone 5½ ft. dist. and raised a mound of stone pointed with earth 2½ ft. high, 3½ ft. base alongside.
47.10 Old road, course N. and S. and enter timber course N. and S.
47.45 Ente other side, course S. and ascend abruptly about 150 ft.
60.45 Top of ridge, course S. and descend abruptly about 450 ft.
80.00 Set a sandstone 36 x 24 x 8 ins. 27 ins. in the ground for cor. to secs. 4, 5, 32 and 33 marked with 2 notches on W. and 4 notches on E. edges; from which
A quaking asp 6 ins. diam. bears
S. 60° W. 17 links dist. marked T. 38 S. R. 9 W. S. 5. B. T.
A quaking asp 6 ins. diam. bears
N. 75° E. 14 links dist. marked T. 37 S. R. 9 W. S. 32. B. T.
A quaking asp 6 ins. diam. bears
S. 89° E. 12 links dist. marked T. 38 S. R. 9 W. S. 4. B. T.
A quaking asp 6 ins. diam. bears
N. 85° W. 18 links dist. marked T. 37 S. R. 9 W. S. 32. B. T.
Land mountainous and set with quaking asp 80 chs.
Soil, sandy loam 3rd rate.
Timber, a few pines, fir, spruce, and quaking asp 80 chs.
Brush, dense scrub and quaking asp 80 chs.
Mountainous and covered with dense undergrowth and ledges 17 1893.

N. [illegible] E. [illegible] dist. [illegible] S. 4 and 33.

Course [illegible] Branch
[illegible] about 30 ft. deep, course E.
[illegible] about 40 ft. deep, course due W.
[illegible] about 150 ft. deep, course W.
[illegible] about 20 ft.
[illegible] Ridge, course N. and S.

North boundary T. 38 S. R. 9 W. continued.

chains	
40.00	Set a sandstone 20×8×4 ins. 15 in the ground for 1/4 sec. cor. marked 1/4 on N. face; from which
	A spruce 6 ins. diam. bears
	S. 67° E. 19 lks. dist. marked 1/4 S. B. T.
	A spruce 6 ins. diam. bears
	N. 24° W. 20 lks. dist. marked 1/4 S. B. T.
53.80	Ascend gradually about 200 ft.
73.50	Top of ridge, course N. and S.
80.00	Set a sandstone 24×10×4 ins. 18 ins. in the ground for cor. to secs. 3. 4. 33 and 34. marked with 3 notches on E. and W. faces; from which
	A quakingasp 3 ins. diam. bears
	N. 60° E. 5 lks. dist. marked T. 37 S. R. 9 W. S. 34. B. T.
	A quakingasp 3 ins. diam. bears
	S. 85° W. 8 1/2 lks. dist. marked T. 38 S. R. 9 W. S. 4. B. T.
	A quakingasp 4 ins. diam. bears
	S. 34° E. 23 lks. dist. marked T. 38 S. R. 9 W. S. 3. B. T.
	A quakingasp 3 ins. diam. bears
	N. 39° W. 52 lks. dist. marked T. 37 S. R. 9 W. S. 33. B. T.
	Land, mountainous & cut with gulches 80 chs.
	Soil, sandy loam and gravel 2nd and 4th rate.
	Timber, scattering pine, fir, spruce and quakingasp 80 chs.
	Brush, dense oak, quakingasp and cherry 80 chs. July 17 1893.
	Mountainous land or covered with dense undergrowth 80 chs.
	N. 89° 57' E. on a true line bet. secs. 3 and 34.
	Va. 15° 12' E.
	Ascend about 75 ft. through dense brush and timber
7.65	Wood road, course S. E. and N. 20° W.
9.40	Spring run 3 lks. wide, course S. 40° E.
10.80	Spring run 3 lks. wide, course S. E.
16.00	Top of ridge, course N. and S. and descend abruptly about 50 ft.
18.66	Foot of bench, course N. and S.
21.00	Dry wash 20 lks. wide course S. W.
31.50	Dry wash 20 lks. wide, course S. W.
38.50	Ravine about 50 ft. deep, course S. W.
40.00	Set a sandstone 20×16×8 ins. 15 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face; from which
	A red pine 20 ins. diam. bears
	S. 59° E. 39 lks. dist. marked 1/4 S. B. T.
	A red pine 10 ins. diam. bears
	[illegible]

North boundary T. 38 S. R. 9 W. Continued.

chains	
62.03	Ravine about 10 ft. deep, course S. W.
80.00	Set a sandstone 26 X 12 X 8 ins. 20 ins. in the ground for cor. to secs. 2. 3. 34 and 35 marked with 4 notches on W. and 2 notches on E. edges; from which A red pine 20 ins. diam. bears N. 10° E. 19 lks. dist. marked T. 37 S. R. 9 W. S. 35. B. T. A red pine 18 ins. diam. bears N. 84° W. 50 lks. dist. marked T. 37 S. R. 9 W. S. 34. B. T. A red pine 18 ins. diam. bears S. 71° W. 35½ lks. dist. marked T. 38 S. R. 9 W. S. 3. B. T. A red pine 24 ins. diam. bears S. 54° E. 69 lks. dist. marked T. 38 S. R. 9 W. S. 2. B. T. Land, rough and mountainous 80 chs. Soil, sandy and gravel 4th rate, Timber, scattering pine, fir, quaking asp and red pine 80 chs. Brush, dense oak, quaking asp and sherry 80 chs. Mountainous land covered with dense underbrush 80 chs. July 1st 1893.
	N. 89° 57' E. on true line bet. secs. 2 and 35. Var. 15° 9' E.
	Ascend abruptly through heavy timber and dense brush up the S. side of Cedar mountain about 1000 ft.
21.50	Top of mountain, course N. W. and S. 70° E.
40.00	Set a sandstone 25 X 10 X 6 ins. 19 ins. in the ground for ¼ sec. cor. marked 1/4 on N. face; from which A spruce 10 ins. diam. bears S. 20° W. 64½ lks. dist. marked 1/4 S. B. T. A spruce 12 ins. diam. bears N. 49° E. 35 lks. dist. marked 1/4 S. B. T.
80.00	Set a sandstone 18 X 10 X 5 ins. 12 ins. in the ground for cor. to secs. 1. 2. 35 and 36 marked with 5 notches on W. and 1 notch on S. edges; from which A spruce 12 ins. diam. bears N. 62° W. 56½ lks. dist. marked T. 37 S. R. 9 W. S. 35. B. T. A spruce 15 ins. diam. bears N. 45° E. 80½ lks. dist. marked T. 37 S. R. 9 W. S. 36. B. T. A spruce 12 ins. diam. bears S. 37° E. 58 lks. dist. marked T. 38 S. R. 9 W. S. 1. B. T. A spruce 14 ins. diam. bears S. 12° W. 43 lks. dist. marked T. 38 S. R. 9 W. S. 2. B. T.

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North boundary T. 58 S. R. 9 W.

chains	
	Land, very rough and mountainous 80 chs
	Soil, sandy and rocky 4th rate.
	Timber, heavy fir, spruce, red pine and quaking asp 80 chs.
	Undergrowth dense with dense oak 80 chs.
	Mountainous and heavily timbered and covered with dense undergrowth 80 chs. July 18. 1893
	N. 89° 57' E. on a true line bet. Secs. 1 and 36.
	Through heavy timber & brush
14.00	Ravine about 20 ft. deep course N.E.
40.00	Set a limestone 20x10x8 ins. 15 ins. in the ground for ¼ sec. cor. marked ¼ on N. face; from which
	A quaking ash 6 ins. diam. bears
	N. 14° E. 9 lks. dist. marked ¼ S. B. T.
	A quaking ash 4 ins. diam. bears
	N. 36° W. 11 lks. dist. marked ¼ S. B. T.
50.90	Descend abruptly about 150 ft.
56.50	Bottom, course S. 70° E. and N. 70° W. and heavy timber.
60.08	Dry creek 20 lks. wide, course S. 70° E.
64.00	Enter heavy timber, course S. 70° E. and N. 70° W. and ascend about 50 ft.
75.00	Top of spur, course N.W. and S.E.
79.00	Leave timber, course W. and S.W. and descend.
80.00	The cor. to Secs. 37 and 38 S. R. 8 and 9 W.
	Land, rough and rolling 21.90 chs.
	Soil, sandy loam 2nd rate.
	Timber, heavy pine, fir, spruce and quaking asp 21.40 chs.
	Undergrowth same with dense oak 80 chs.
	Heavily timbered land or covered with dense undergrowth 80 chs. July 18 1893.

General Description.

This township lies on the south slope of Cedar mountain, the north east corner of which is on top of the mountain. The soil on this mountain is good but the altitude is too great for successful farming. There is a dense growth of pine, fir, red wood, spruce and aspen in the northern and eastern portions of this township. It is the most densely covered with oak brush of any place I have ever seen. The water in this township is of the best quality.

William Lewman
U. S. Deputy Surveyor

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PAGE

List of Names.

A list of the names of the individuals employed by .....

....., U. S. Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of the .....

.....

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.....

.....

.....

.....

.....Meridian, in ...., showing the respective capacities in which they acted:

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Final Oath of Assistants:

We hereby certify that we assisted .....

....., U. S. Deputy Surveyor, in surveying all those parts or portions of the.....

.....

.....

.....

.....

.....

.....

..... Meridian, ..., as are represented in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the U. S. Surveyor General for .....

.....

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.....

Subscribed and sworn to before me this .....
day of ....., 18 .

SEAL

.....

.....

6—161

180-1 Bear

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Final Oath of U. S. Deputy Surveyor.

I, _____, U. S. Deputy Surveyor, do solemnly swear that, in pursuance of instructions received from _____, U. S. Surveyor General for _____, bearing date of the _____ day of _____, 18 , I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the U. S. Surveyor General for _____, the surveying manual, and the laws of the United States, surveyed all those parts or portions of _____

_____

_____

_____

_____

_____ Meridian, in the _____, as are represented in the foregoing field notes as having been surveyed by me, and under my directions; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the surveying manual, printed instructions, the special written instructions of the U. S. Surveyor General for _____ and in the specific manner described in the field notes, and that the foregoing are the true field notes of such survey; and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

_____

U. S. Deputy Surveyor.

Subscribed and sworn to before me this _____ day of _____, 18 .

SEAL

_____

_____

Approval.

Office of the U. S. Surveyor General,

Salt Lake City, Utah Jan 4, 1896.

The foregoing field notes of the survey of the North, South & West Boundaries of Township 3 South Range 2 West of the Salt Lake Base & Meridian, Utah

_____

_____

_____

_____

_____

_____ executed by

_____

Williams Newman

under his Contract No. 191, dated March 2nd, 1895, having been critically examined, the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

_____

U. S. Surveyor General.

I certify that the foregoing transcript of the field notes of the above-described surveys in _____, has been correctly copied from the original notes on file in this office.

_____

U. S. Surveyor General.

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(4—679.)

BOOK A-238

FIELD NOTES

OF THE SURVEY OF

The subdivision of Township No. 38 S. Range No. 9 west of

Of the Salt Lake Base and Meridian,

Territory of Utah

AS SURVEYED BY

William Leesman, U. S. Deputy Surveyor,

Under his Contract No. 191, dated March 2nd, 1893.

Survey commenced July 18th, 1893.

Survey completed August 9th, 1893.

(12503—2,000.)

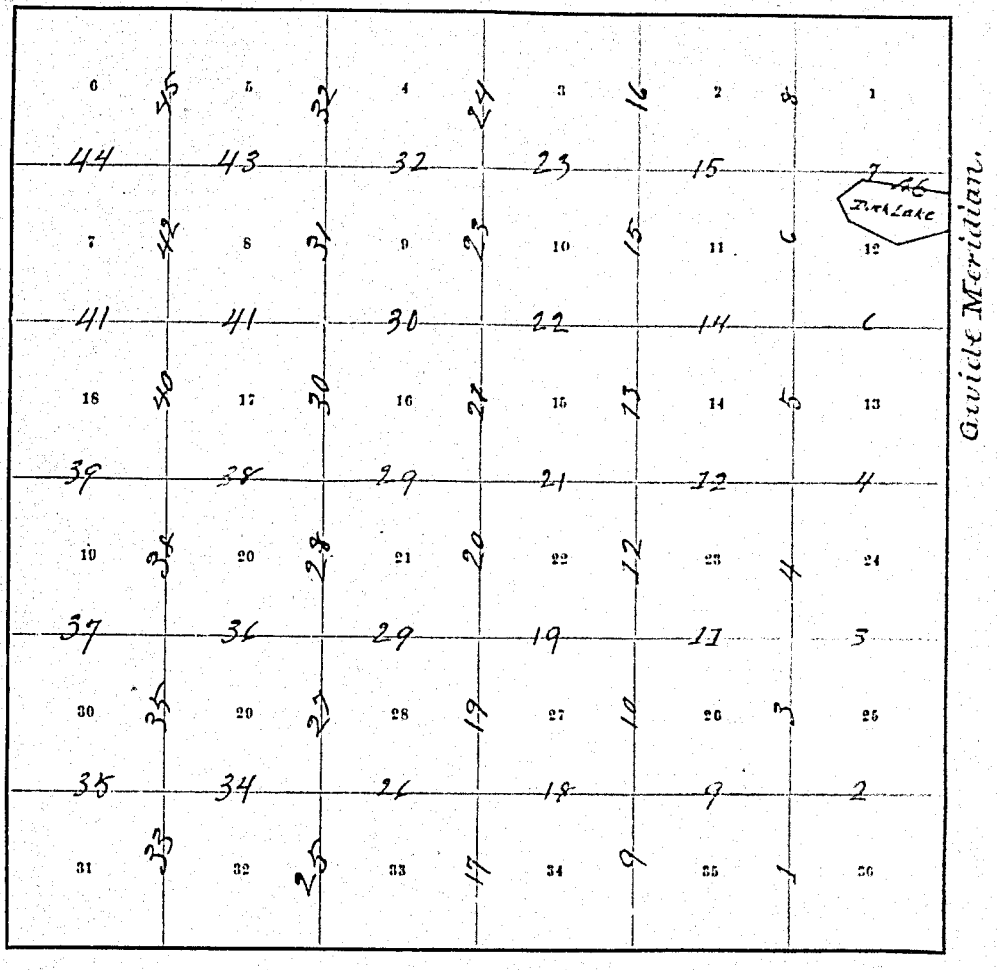
Names and Duties of Assistants.

Heber Dalley	Chainman
Joseph Armstrong	Chainman
Thomas Williams	Axeman
David Dix	Flagman

BOOK A-238

INDEX DIAGRAM.

Township No. 38 S. . *Range No. 9 W.*



Guide Meridian.

Meanders Page 46 & 47.

Preliminary Oaths of Assistants.

We, _____

_____

_____

do solemnly swear that we will well and faithfully execute the duties of chain carriers; that we will level the chain over even and uneven ground, and plumb the tally-pins either by sticking or dropping the same; that we will report the true distance to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us in the survey of the _____

_____

_____

_____

_____

_____, *Chainman.*

_____, *Chainman.*

_____, *Chainman.*

_____, *Chainman.*

Subscribed and sworn to before me this _____ day of _____, 18 .

_____

_____

We, _____

_____

do solemnly swear that we will well and truly perform the duties of axemen in the establishment of corners and other duties, according to instructions given us, and to the best of our skill and ability, in the survey of the _____

_____

_____

_____

_____

Subscribed and sworn to before me this _____ day of _____, 18 .

_____, *Axeman.*

_____, *Axeman.*

_____

_____

_____

Subdivision T. 38 S. 9 W.

Chains	
	July 18th 1893. I took an observation on Polaris at 9h 3m P.M. correct l. m. astron. t. by my watch which is correct; at the cor. to secs. 35 and 36. T. 38 S. R. 9 W. as hereinbefore described; and find the magnetic bearing of the Star to be N. 1° 58' W.

	h.	m.
Astron. l. m. t. of obs. July 18	9	3 P.M.
W. C. Polaris July 15	17	41.6
Reduction to July 17 Subtract.		3.9
W. C. Polaris July 17. Subtract from time of obs.	17	37.7
Equation Hour angle of Polaris	15	25.3
Subtract from	23	56.1
Sine argument Table II.	8	30.8
Azimuth of Polaris Lat. 37° 28'	1°	14 east.
North end of needle	15	58 east.
The sum is the var.	15°	12' east.

Stay off the azimuth 1° 14' to the W. and drive a picket on the true meridian so determined 5 chs. N. of the corner.

At 7 A. M. July 19, the magnetic bearing of the true meridian established last night is 15° 12' E. and the mean declination 15° 6' E.

Hence I run

N. 0° 0' W. bet. secs. 35 and 36.

Va. 15° 12' E.

Ascend gradually up canon, through dense brush and timber, over rolling ground.

20.20 Spring run 2 lks. wide, course S. W.

40.00 Set a sandstone 30 x 10 x 3 ins. 24 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face; from which

A pine 30 ins. diam. bears

S. 10° E. 15 lks. dist. marked 1/4 S. B. T.

A pine 24 ins. diam. bears

S. 69° W. 202 lks. dist. marked 1/4 S. B. T.

46.00 Descend about 50 ft.

63.07 Ditch 3 lks. wide, course S. 10° E.

80.00 Set a sandstone 20 x 10 x 5 ins. 15 ins. in the ground for cor. to secs. 25. 26. 35 and 36. marked with 1 notch on S. and E. edges; from which

A pine 24 ins. diam. bears

Subdivision T. 38 S. R 9 W. continued.

chains	
	No other tree within the limits; dug pits 18×18×12 ins. in each sec. 5½ ft. dist. and raised a mound of stone covered with earth 3 ft. high, 3½ ft. base alongside.
	Land, rolling 46 chs.
	Soil, sandy loam 2nd rate.
	Timber a few scattering pines.
	Brush, dense oak, quaking asp, willow and birch 80 chs.
	Land covered with dense undergrowth July 19. 1893.
	80 ch.
	East on a random line bet. secs. 25 and 36.
	Va. 15° 07' E.
40.00	Set temporary 1/4 sec. cor.
80.32	Intersect the east boundary of Tp. 30 lks. S. of the cor. to secs. 25 30. 31 and 36.
	Thence I run
	S. 89° 47' W. bet. secs. 25 and 36. on a true line.
	Va. 15° 05' E.
	Ascend abruptly about 600 ft. through dense brush and timber.
10.40	Top of ridge, course N. and S. and descend abruptly about 400 ft.
21.20	Foot of ridge, course N. 10° E. and S. 20° W.
22.10	Leave dense brush.
38.80	Enter dense brush and ascend abruptly about 500 ft.
40.16	Set a sandstone 24×10×6 ins. 18 ins in the ground for 1/4 sec. cor. marked 1/4 on N. face; dug pits 18×18×12 ins. E. and W. of stone 5½ ft. distant, and raised a mound of earth 2½ ft. high, 3½ ft. base alongside.
51.30	Top of ridge, course S. 60° E. and N. 60° W.
52.80	Descend into head of ravine about 50 ft.
56.10	Ascend abruptly about 600 ft.
59.40	Top of ridge, course N. and S. and descend abruptly about 400 ft.
77.20	Foot of ridge, course N. 40° E. and S. 40° W.
78.10	Spring run 2 lks. wide, course S. water pure.
80.32	The cor. to secs. 25. 26. 35 and 36.
	Land, very rough and hilly 63.62 chs.
	Soil, sandy loam and gravel 1st and 4th rate.
	Timber, a few scattering pines. Brush, dense oak, willow and whortleberry 63.62 chs. July 19 1893.
	Mountainous land or covered with dense undergrowth 80.32 chs.

Subdivision T. 38 S. R. 9 W. continued.

chains	
	North 0° 01' W. bet. secs. 25 and 26.
	Var. 15° 05' E.
	Ascend through dense brush.
40.00	Set a black Porphyry rock 24 X 10 X 4 ins. 18 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face; dug pits 18 X 18 X 12 ins. N. and S. of stone 5½ ft. dist. and raised a mound of stones covered with earth 2½ ft. high, 3½ ft. base alongside.
80.00	Set a Porphyry rock 24 X 10 X 7 ins. 18 ins. in the ground for cor. to secs. 23. 24. 25 and 26. marked with 2 notches on S. and one notch on E. edge; dug pits 18 X 18 X 12 ins. in each sec. 5½ ft. dist. and raised a mound of earth 2½ ft. high, 3½ ft. base alongside.
	Land, slopes to the South 80 chs.
	Soil, Sandy loam 2nd rate.
	No timber. Brush, dense oak, quakingasp, birch, willow and whortleberry 80 chs. July 19 1893.
	Land, covered with dense undergrowth 80 chs.
	North 89° 47' E. on a random line bet. secs. 24 and 25.
	Var. 15° 12' E.
40.00	Set temporary 1/4 sec. cor.
80.10	Intersect E. boundary of Tp. 9 Nes. S. of cor. to secs. 19. 24. 25 and 30.
	Thence Drun
	S. 89° 44' W. bet. secs. 24 and 25. on a true line.
	Var. 15° 10' E.
	Ascend abruptly about 500 ft. through dense brush and very scattering timber.
29.80	Top of ridge, course S. 9° E. and N. 9° W. and descend abruptly about 500 ft.
40.05	Set a Sandstone 24 X 10 X 8 ins. 18 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face; dug pits 18 X 18 X 12 ins. E. and W. of stone 5½ ft. dist. and raised a mound of stones covered with earth 2½ ft. high, 3½ ft. base alongside.
43.50	Foot of ridge, course S. 18° W. and N. 20° E.
47.63	Spring branch 2 lks. wide, course S. W. water pure
61.43	Spring branch 3 lks. wide, course S. 30° W. " "
64.80	Spring branch 2 lks. wide, course S. " "
74.68	Spring branch 2 lks. wide, course S. E. " "

Subdivision T. 38 S. R. 9 W. continued.

chains Land, rough and mountainous 43.50 chs.
Soil sandy loam 2nd rate.
Timber scattering pine and quakingasp. Brush dense oak, cherry, quakingasp and willow 80 chs. July 20 1893.
Mountainous land or covered with dense undergrowth 80.00 chs

North 0°01' W. bet. Secs. 23 and 24.
Va. 15° 09' E.
Ascend abruptly about 700 ft. through dense brush.
37.50 Top of ridge, course E. and W. and enter heavy timber.
40.00 Set a porphyry rock 18x10x6 ins. 12 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face; from which
A fir 14 ins. diam. bears
N. 47° W. 19 lks. dist. marked 1/4 S. B. T. No other tree within the limits; dug pits 18x18x12 ins. N. and S. of stone 5½ ft. dist. and raised a mound of stones covered with earth 2½ ft. high, 3½ ft. base alongside.
79.75 Road, course S. 70° W. and N. 70° E.
80.00 Set a sandstone 20x14x5 ins. 15 ins. in the ground for cor. to secs. 13. 14. 23 and 24 marked with 3 notches on S. and 1 notch on E. edges; from which
A quakingasp 10 ins. diam. bears
S. 52° E. 112½ lks. dist. marked T. 38 S. R. 9 W. S. 24. B. T.
A quakingasp 6 ins. diam. bears
S. 88° W. 72½ lks. dist. marked T. 38 S. R. 9 W. S. 23 B. T.
A quakingasp 6 ins. diam. bears
N. 73° W. 49 lks. dist. marked T. 38 S. R. 9 W. S. 14. B. T.
A quakingasp 6 ins. diam. bears
N. 7° E. 64 lks. dist. marked T. 38 S. R. 9 W. S. 13. B. T.
Land, slopes to the S. 37.50 chs. and to the N. 42.50 chs.
Soil, sandy loam and gravel 2nd and 4th rate.
Timber heavy pine, fir, and quakingasp 42.50 chs.
Undergrowth same 42.50 chs. with dense oak, quakingasp, cherry and whortleberry 80 chs. July 20 1893.
Mountainous land or covered with dense undergrowth or heavily timbered 80 chs

N. 89° 44' E. on a random line bet. secs. 13 and 24.
Va. 15° 06' E.
40.00 Set temporary 1/4 sec. cor.
80.00 Intersect the E. boundary of the Tp. at the cor. to secs. 13. 18. 19 and 24.
Thence Town
S. 89° 44' W. on a true line bet. secs. 13 and 24.

Subdivision T. 38 S. R. 9 W. continued.

chains	
	Through heavy timber and dense brush.
2.28	Fir 24 ins. diam. on line, marked 2 notches on E. and W. sides.
4.60	Road, course S.E. and N.W.
6.61	Spring run 3 lks. wide, course S.E. and ascend abruptly about 150 ft.
40.00	Set a limestone 20×10×8 ins. 15 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face; from which A pine 36 ins. diam. bears S. 32° E. 101 lks. dist. marked 1/4 S. B. T. A fir 2 ins. diam. bears N. 20° W. 58 lks. dist. marked 1/4 S. B. T.
42.00	Top of ridge, course S.W. and N.E. and descend abruptly about 100 ft.
46.20	Foot of ridge, course N.E. and S.W. and ascend abruptly about 200 ft.
61.50	Top of ridge, course N. and S. and descend about 100 ft.
71.60	Foot of ridge, course N. and S.
79.48	Road, course S. 70° W. and N. 70° E.
80.00	The cor. to secs. 13. 14. 23 and 24. Land, rough and mountainous 71.60 chs. Soil, sandy loam 1st rate. Timber, heavy fir, quaking asp, pine and spruce 80 chs. Brush and undergrowth same with dense oak 80 chs. Mountainous land or heavily timbered or covered with dense undergrowth rocks July 20 1893.
	North 0°01' W. bet. secs. 13 and 14. Va. 15°01' E. Ascend gradually about 100 ft.
10.80	Redwood tree 18 ins. diam. on line, marked with 2 notches on N. and S. sides.
40.00	Set a limestone 20×8×5 ins. 15 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face; from which A fir 10 ins. diam. bears N. 48° W. 61 lks. dist. marked 1/4 S. B. T. A pine 18 ins. diam. bears N. 63° E. 47½ lks. dist. marked 1/4 S. B. T.
45.83	A fir 14 ins. diam. in line, marked with 2 notches on N. & S. sides.
67.77	A redwood tree 24 ins. diam. in line, marked with 2 notches on N. and S. sides.
68.00	Top of point of mountain, course N. 70° W. and S. 70° E. and descend abruptly about 800 ft.
80.00	Set a limestone 18×8×5 ins. 12 ins. in the ground for

Subdivision T. 38 S. R. 9 W. continued.

chains and notch on E edge; from which
A fir 20 ins. diam. bears
N. 61° W. 24 lks. dist. marked T. 38 S. R. 9 W. S. 11. B. T.
A spruce 14 ins. diam. bears
S. 84° W. 29 lks. dist. marked T. 38 S. R. 9 W. S. 14. B. T.
A spruce 24 ins. diam. bears
N. 74° E. 44 lks. dist. marked T. 38 S. R. 9 W. S. 12. B. T.
A spruce 14 ins. diam. bears
S. 78° E. 30 lks. dist. marked T. 38 S. R. 9 W. S. 13. B. T.
Land, mountainous 80 chs.
Soil, black loam 1st rate.
Timber, heavy fir, spruce, quaking asp and red pine 80 chs.
Undergrowth same with dense oak, 80 chs. July 20 1893.
Mountainous land or heavily timbered or covered with dense undergrowth 80 chs.

N. 89° 44' E. on a random line bet. secs. 12 and 13.
Va. 15° 12' E.
40.00 Set temporary 1/4 sec. cor.
80.31 Intersect the East boundary of Tp. 28 lks. N. of the cor. to secs. 7. 12. 13 and 18.
Thence I run
S. 89° 56' W. on a true line bet. secs. 12 and 13.
Va. 15° 09' E.
Ascend about 100 ft. through heavy timber
40.155 Set a limestone 18 x 18 x 6 ins. 12 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face; from which
A spruce 6 ins. diam. bears
N. 14° W. 3 lks. dist. marked 1/4 S. B. T.
A fir 20 ins. diam. bears
S. 35° E. 34 lks. dist. marked 1/4 S. B. T.
80.31 The cor. to secs. 11. 12. 13 and 14.
Land, smooth 80 chs.
Soil, limestone gravel 2nd rate.
Timber, heavy fir, spruce and quaking asp 80.31 chs.
Undergrowth same 80.31 chs. July 22nd 1893.
Heavily timbered land 80.31 chs.

North 0° 01' W. bet. secs. 11 and 12.
Va. 15° 06' E.
Descend through heavy timber
1.66 A fir 20 ins. diam. in line, marked with 2 notches on N. & S. sides
4.00 A fir 20 ins. diam. in line, marked with 2 notch on N. & S. sides
20.00 Ascend abruptly about 100 ft.

Subdivision T. 38 S. R. 9 W. continued.

chains	Isaac C. Higbee's house bears N. 66° E.
33.30	Descend abruptly about 200 ft.
40.00	Set a sandstone 22×18×10 ins. 16 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face; from which
	A red wood tree 20 ins. diam. bears
	S. 22° W. 27 lks. dist. marked 1/4 S. B. T.
	A red wood tree 18 ins. diam. bears
	N. 30° E. 28 lks. dist. marked 1/4 S. B. T.
55.00	Leave timber and enter bottom, course E. and W. leave brush.
62.52	Road, course N. W. and S. E.
80.00	Set a sandstone 24×10×8 ins. 18 ins. in the ground for cor. to secs. 1. 2. 11 and 12 marked with 5 notches on S. and 1 notch on E. edges; dug pits 18×18×12 ins in each sec. 5 1/2 ft. dist. and raised a mound of earth 2 1/2 ft. high 3 1/2 ft. base alongside.
	Isaac C. Higbee's house bears S. 42° E.
	Land, mountainous and rough 55 chs.
	Soil, gravel and black loam 4th and 1st rate.
	Timber, heavy quakingasp, fir, spruce & pine 55 chs.
	Undergrowth same 55 chs. July 22 1893.
	Mountainous land covered with dense undergrowth or heavily timbered 55 chs.
	North 89° 56' E. on a random line bet. secs. 1 and 12.
	Va. 15° 04' E.
40.00	Set temporary 1/4 sec. cor.
80.21	Intersect E. boundary of Tp. 26 lks. N. of cor. to secs. 1. 6. 7 and 12.
	Thence I run
	N. 89° 53' W. on a true line bet. secs. 1 and 12.
	Va. 15° 12' E.
	Along S. side of mountain through heavy timber.
33.80	Ravine about 20 ft. deep, course S.
40.10 1/2	Set a sandstone 18×13×3 ins. 12 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face; from which
	A quakingasp 6 ins. diam. bears
	N. 43° E. 65 lks. dist. marked 1/4 S. B. T.
	A quakingasp 5 ins. diam. bears
	S. 89° W. 48 lks. dist. marked 1/4 S. B. T.
52.80	Ravine 5 ft. deep, course S. 10° E.
63.68	Jose Lucero's house bears S. 30 lks. dist.
64.25	Leave timber, course S. 70° E. and N. 70° W.
67.48	Spring run 7 lks. wide, course S. Spring 30 lks. N.

9

Subdivision T. 38 S. R. 9 W. continued.

chains	
	Land, rough & mountainous 52.80 chs.
	Soil, gravel and black loam, 4th and 1st rate.
	Timber, heavy pine, fir, spruce and quakingasp 64.25 chs.
	Undergrowth same 64.25 chs. July 23 1893.
	Mountainous land or heavily timbered 64.25 chs.
	North 0° 01' W. on a random line bet. secs. 1 and 2.
	Var. 15° 10' E.
40.00	Set temporary 1/4 sec. cor.
80.36	Intersect N. boundary of of the Sp. at the cor. to secs. 1. 2. 35 and 36.
	Thence Drum
	South 0° 01' E. on a true line bet. secs. 1 and 2.
	Var. 15° 08' E.
	Through heavy timber and dense brush
37.80	Descend abruptly about 600 ft.
40.36	Set a limestone 18 x 10 x 8 ins. 12 ins. in the ground for 1/4 Sec. cor. marked 1/4 on W. face, from which A quakingasp 4 ins. diam. bears N. 45° E. 0.5 lks. dist. marked 1/4 S.B.T. A quakingasp 4 ins. diam. bears S. 67° W. 15 lks. dist. marked 1/4 S.B.T.
48.84	Ravine about 40 ft. deep, course S. 10° W.
67.30	Leave timber and enter bottom, course S. E. and W.
69.60	Dry wash 10 lks. wide, course S. 30° W.
80.36	The cor. to secs. 1. 2. 11 and 12.
	Land, rough & mountainous 29.30 chs.
	Soil, gravel and black loam 4th and 1st rate
	Timber, heavy fir, spruce, pine and quakingasp 67.30 chs.
	Undergrowth, same with dense oak, 67.30 chs. July 23rd 1893.
	Mountainous land or heavily timbered land or covered with dense undergrowth 67.30 chs.
	July 24th 1893, I took an observation on Polaris at 9h 34m P. M. at my camp last night for the purpose of testing the adjustments of my transit. I test the correctness of my watch every day that the weather will permit.
	Magnetic bearing of star N. 13° 42' W.

Astronomical l. m. t of obs. July 23	9h	34m
W. C. Polaris July 1st	17	41.6.
Reduction 6 days, subtract.		23.5
W. C. Polaris July 22. as taken from time of obs.	17	18.1
Hour angle at time of obs.	16	15.9
Subtract from	23	56.1
4.		

Subdivision T. 38 S. R. 9 W. continued.

chains			
	Azimuth of Polaris, Lat 37°30'	1°	24' east.
	North end of needle	13°	42' east.
	The sum is the va.	15°	06' east.

At 7 A. M. July 24th The magnetic bearing of the true meridian established last night is 15° 12' W. The va. is 15° 12' E. and mean declination 15° 06' E.

From the cor. to secs. 2. 3. 34 & 35 on S. boundary of township hereinbefore described Run
North 0° 01' W. bet. secs. 34 and 35.
Va. 15° 12' E.

	Ascend abruptly about 150 lks. through dense brush.
28.50	Top of point, course E. and W. & descend abruptly about 200 lks.
34.00	Foot of point, course N.E. and S.W.
35.10	Enter timber, course N.E. and S.W.
40.00	Set a sandstone 21 x 8 x 5 ins. 15 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face; from which A quaking asp 4 ins. diam. bears S. 34° E. 50 lks. dist. marked 1/4 S. B. T. A quaking asp 4 ins. diam. bears S. 31 W. 90 lks. dist. marked 1/4 S. B. T.
40.80	Ascend about 20 lks. and dense timber.
42.65	Top of point, course E. and W. and descend about 30 lks.
49.33	Spring run 2 lks. wide, course S. 40° E.
56.25	Ascend abruptly about 200 lks.
60.50	Top of bench, course N.E. and S.W.
62.40	Ascend abruptly about 300 lks.
74.46	Top of plateau course S. 80° E. and N. 80° W.
80.00	Set a porphyry rock 22 x 10 x 8 ins. 16 ins. in the ground for cor. to secs. 26. 27. 34 and 35 marked with 1 notch on S. and 2 notches on E. edge; and raised a mound of stones covered with earth 2½ ft. high, 8½ ft. base alongside. Pits impracticable.

Land rough and mountainous 67.90 chs.
Soil, gravel and rocky 3rd rate.
Timber, scattering pine and quaking asp 5.80 chs.
Undergrowth dense oak, quaking asp & whortleberry 80 chs.
Mountainous land or covered with dense undergrowth 80 chs.

E. on a random line bet. secs. 26 and 35.

Subdivision T. 38 S. R. 9 W. continued.

Chains	
40.00	Set temporary 1/4 sec. cor.
80.24	Intersect N. and S. line 24 lks. South of cor. to secs. 25. 26. 35 and 36.
	Thence Drun
	S. 89° 50' W. on a true line bet. secs. 26 and 35.
	Var. 15° 05' E.
	Harvey Moncurs house bear S. 16 W. 10.50 chs. dist. from cor.
2.30	Ascend abruptly about 100 ft. through dense brush.
40.12	Set a porphyry rock 22 x 10 x 5 ins. 16 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face; from which A quaking asp 6 ins. diam. bears S. 9 lks. dist. marked 1/4 S. B. T. no more trees within the limits. Raised a mound of stone covered with earth 2½ ft. high, 3½ ft. base alongside. Pits impracticable.
48.72	Top of plateau on S. slope of mountain, course S. 20° W. and N. 20° E.
80.24	The cor. to secs. 26. 27. 34 and 35.
	Land, rough and mountainous 80.24 chs.
	Soil, rocky gravel and sandy loam 1st & 4th rate.
	No timber.
	Undergrowth, dense oak, quaking asp and whortleberry 77.94 chs.
	Mountainous land or covered with dense undergrowth 80.24 chs.
	North 0° 01' W. bet. secs. 26 and 27.
	Var. 15° 01' E.
5.00	Leave dense brush.
19.00	Enter dense brush.
35.25	Leave dense brush.
40.00	Set a porphyry rock 20 x 15 x 8 ins. 15 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face; from which A quaking asp 12 ins. diam. bears S. 74° E. 81 lks. dist. marked 1/4 S. B. T. A quaking asp 4 ins. diam. bears N. 84° W. 154 lks. dist. marked 1/4 S. B. T.
41.06	Enter dense brush
53.91	Spring run 4 lks. wide, course S. 80° W.
60.50	Spring run 5 lks. wide, course S. E.
75.51	Spring run 4 lks. wide, course S. W.
75.40	Leave dense brush
77.55	Road, course N. E. and S. W.
80.00	Set a sandstone 22 x 10 x 5 ins. 16 ins. in the ground for

Subdivision S. 38 S. R. 9 W. continued.

Chains	
	E. edges from which
	A quakingasp 10 ins. diam. bears
	N. 78° E. 73½ lks. dist. marked S. 38 S. R. 9 W. S. 23. B. T.
	A quakingasp 10 ins. diam. bears
	S. 24° W. 83 lks. dist. marked S. 38 S. R. 9 W. S. 27. B. T.
	A quakingasp 4 ins. diam. bears
	N. 57° W. 15 lks. dist. marked S. 38 S. R. 9 W. S. 22. B. T.
	No other tree within the limits. Raised a mound of
	earth 2½ ft. high, 3½ ft. base alongside. Pits impracticable.
	Land, nearly level 80 chs.
	Soil, black loam 1st rate.
	Timber, a few scattering pines, firs, and quakingasps.
	Brush, dense oak, quakingasp, cherry and willow 55.59 chs.
	Land covered with dense undergrowth 55.59 chs. July 24 1893.
	North 89° 50' E. on a random line bet. secs. 23 and 26.
	Var. 15° 05' E.
40.00	Set temporary 1/4 sec. cor.
80.40	Intersect N. and S. line 14 lks. N. of cor. to secs. 23. 24. 25 and 26.
	Thence S. run
	S. 89° 56' W. on a true line bet. secs. 23 and 26.
	Var. 15° 12' E.
	Ascend abruptly about 800 ft. through dense brush and timber.
27.60	Top of plateau, course N. E. and S. W.
40.20	Set a basaltic rock 20 x 10 x 4 ins. 15 ins. in the ground for
	1/4 sec. cor. marked 1/4 on N. face; from which
	A pine 20 ins. diam. bears
	S. 40° W. 96½ lks. dist. marked 1/4 S. B. T.
	A pine 24 ins. diam. bears
	E. 268 lks. dist. marked 1/4 S. B. T.
62.62	Ascend about 130 ft.
64.70	Top of ridge, course N. and S.
72.60	Descend abruptly about 100 ft.
73.20	Bottom and leave timber, course S. W. and N. E.
74.22	Spring run 3 lks. wide, course S. W.
76.60	Leave dense brush, course N. E. and S. W.
78.09	Road, course N. E. and S. W.
80.40	The cor. to secs. 22, 23, 26 and 27.
	James Smith B. Spruce S. 41° W. 13.90 chs. dist.
	Land rough, rolling and mountainous 45.38 chs.

Subdivision T. 38 S. R. 9 W. continued

Chains

Timber, pine, fir, and quakingasp 75.20 chs.
Brush and undergrowth dense oak, quakingasp, and
shrub 76.60 chs. July 25 1893.
Intersections land or covered with dense undergrowth 80 lks.

North 0°01' W. bet. secs. 22 and 23.

Va. 15° 09' E.

Pines Smith's Forest bears S. 41° W. 13.90 chs. dist. from cor.
Accepted alike
3.55 Enter dense oak brush and timber.
11.60 Top of point of hill, course N. 40° W. and W. along E. side of hill
40.00 Set a sandstone 23X10X4 ins. 17 ins. in the ground for 1/4 sec.
cor. marked 1/4 on W. face; from which
A quakingasp 4 ins. diam. bears
N. 47° W. 67½ lks. dist. marked 1/4 S. B. T.
A pine 13 ins. diam. bears
N. 35° E. 137 lks. dist. marked 1/4 S. B. T.
80.00 Set a porphyry rock 23X9X6 ins. 17 ins. in the ground
for cor. to secs. 14. 15. 22 and 23 marked with 3 notches on
S. and 2 notches on E. edges; from which
A quakingasp 8 ins. diam. bears
S. 40° E. 25 lks. dist. marked T. 38 S. R. 9 W. S. 23. B. T.
A quakingasp 6 ins. diam. bears
S. 3° W. 45½ lks. dist. marked T. 38 S. R. 9 W. S. 22. B. T.
A quakingasp 8 ins. diam. bears
N. 62° W. 90½ lks. dist. marked T. 38 S. R. 9 W. S. 15. B. T.
A quakingasp 8 ins. diam. bears
N. 53° E. 45 lks. dist. marked T. 38 S. R. 9 W. S. 14. B. T.
Land rocky and rough 76.45 chs.
Soil, gravel and rocky 4th rate.
Timber, pine, fir, and spruce and quakingasp 76.45 chs.
Undergrowth same with dense oak 76.45 chs.
Intersections land or covered with dense July 25 1893.
undergrowth 76.45 chs.

N. 89° 56' E. on a random line between secs. 14 and 23.

Va. 15° 04' E.

40.00 Set temporary 1/4 sec. cor.
80.20 Intersect N. and S. line 42 lks. N. of the cor. to secs.
15. 14. 23 and 24.
Flume Drum
N. 89° 46' W. on a true line bet. secs. 14 and 23.

Va. 15° 12' E.

Ascend about 150 ft. through dense brush and

Subdivision S. 38 S. R. 9 W. continued.

Chains	
31.30	Top of ridge; course N. and S. and leave timber and descend abruptly about 150 ft.
40.10	Set a sandstone 28×10×6 ins. 17 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face; dug pits 18×18×12 ins. E. and W. of stone 5 1/2 ft. dist. and raised a mound of stones covered with earth 2 1/2 ft. high, 3 1/2 ft. base alongside.
49.63	Spring run 3 lks. wide, course S. W.
62.32	Spring run 2 lks. wide, course S. E.
66.23	Road, course N. 30° W. and S. 23° E.
67.30	Enter heavy timber, course N. W. and S. E.
80.20	Fly cor. to secs. 14. 15. 22 and 23.
	Land, nearly level 48.70 chs. rough and rocky 31.30 chs.
	Soil, gravel and sandy 2nd rate.
	Timber, heavy pine, fir, spruce and quaking asp 12 90 chs.
	Undergrowth same with dense oak, and quaking asp 80.20 chs.
	Mountainous land or covered with dense undergrowth 80.20 chs. July 26 1893.
	North 0° 01' W. bet. secs. 14 and 15.
	Var. 15° 10' E.
3.50	Leave heavy timber, course E. and W.
14.20	Enter dense willow brush and leave timber, course N. W. & S. E.
15.70	Spring run 3 lks. wide, course S. E.
25.58	Spring run 2 lks. wide, course S. W.
26.50	Rafael Ortega's house bears E. 7.63 chs.
28.27	Same spring run 2 lks. wide, course S. E.
30.01	Same spring run 2 lks. wide, course S. W.
32.20	Enter heavy timber, course N. W. and S. E.
40.00	Set a sandstone 20×15×9 ins. 15 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face; from which A fir 20 ins. diam. bears N. 51° W. 43 lks. dist. marked 1/4 S. B. T. A fir 24 ins. diam. bears N. 85° E. 47 lks. dist. marked 1/4 S. B. T.
44.40	Spring run 5 lks. wide, course S. 5° E.
45.02	Same spring run 2 lks. wide, course S. W.
45.51	Same spring run 12 lks. wide, course E.
46.00	Ascend abruptly about 150 ft.
50.00	Leave dense brush
51.60	Road, course N. 30° W. and S. 30° E.

Subdivision T. 38 S. R. 9 W. continued.

chains	
66.20	Descend abruptly over rocks, about 150 ft.
75.50	Descend gradually,
— 80.00	Set a limestone 20 x 10 x 8 ins. 15 ins. in the ground for cor. to secs. 10. 11. 14 and 15 marked with 4 notches on S. and 2 notches on E. edge; from which A quaking asp 14 ins. diam. bears S. 83° W. 33 lks. dist. marked T. 38 S. R. 9 W. S. 15. B. T. A quaking asp 10 ins. diam. bears N. 50° W. 36 lks. dist. marked T. 38 S. R. 9 W. S. 10. B. T. A quaking asp 12 ins. diam. bears N. 54° E. 78 lks. dist. marked T. 38 S. R. 9 W. S. 11. B. T. A quaking asp 15 ins. diam. bears S. 66° E. 67 lks. dist. marked T. 38 S. R. 9 W. S. 14. B. T. Land, rough and rocky 34 chs. Soil, lime gravel and black loam 1st and 2nd rate. Timber, heavy pine, fir, spruce and quaking asp 51.30 chs. Undergrowth same 51.30 chs., with dense oak, willow and whortleberry 28.70 chs. July 20 1893. Mountainous or heavily timbered or covered with dense undergrowth 80 chs.
	S. 89° 46' E. on a random line, set. secs. 11. and 14. Va. 15° 08' E.
40.00	Set temporary 1/4 sec. cor.
80.40	Intersect N. and S. line 20 lks. S. of the cor. to secs. 11. 12. 13 and 14. Thence S. run N. 89° 55' W. on a true line between secs. 11 and 14. Va. 15° 04' E. Ascend through heavy timber
24.50	Top of ridge, course N. and S. and descend about 200 ft.
39.20	Ravine about 30 ft. deep, course N.
40.20	Set a limestone 20 x 18 x 8 ins. 15 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face; from which, A pine 18 ins. diam. bears S. 19° W. 53 lks. dist. marked 1/4 S. B. T. A pine 8 ins. diam. bears N. 14 W. 11 lks. dist. marked 1/4 S. B. T.
45.00	Descend abruptly about 200 ft.
— 80.40	The cor. to secs. 10. 11. 14 and 15. Land, mountainous 80 40/100 ch. Soil, lime gravel 2nd rate.

Subdivision T. 38 S. R. 9 W. continued.

chains	
	Undergrowth same with dense oak 80 chs.
	Mountainous land or heavily timbered July 26 1893. and covered with dense undergrowth 80.40 chs.
	North 0° 01' W. bet. secs. 10 and 11.
	Va. 15° 04' E.
	Descend through heavy timber & dense brush
40.00	Set a limestone 18 x 8 x 4 ins. 12 ins. in the ground for 1/4
	Sec. cor. marked 1/4 on W. face; from which
	A quaking asp 6 ins. diam. bears
	S. 12° E. 23 lks. dist.; marked 1/4 S. B. T.
	A quaking asp 6 ins. diam. bears
	S. 15° W. 15 lks. dist. marked 1/4 S. B. T.
	Jens Anderson Sen.'s house bears W. 13 chs. dist.
48.50	Leave timber, course E. and W. and ascend about 200 ft.;
60.00	Top of ridge, course N. and S. and enter heavy timber and
	descend about 100 ft.;
67.10	Lava bed, course E. and W.
80.00	Set a black basaltic rock 20 x 10 x 10 ins. in a stone pile
	on Lava bed for cor. to secs. 2, 3, 10 and 11. marked
	with 5 notches on S. and 2 notches on E. edges. from which
	A quaking asp 10 ins. diam. bears
	S. 55° E. 26 lks. dist. marked T. 38 S. R. 9 W. S. 11, B. T.
	A quaking asp 10 ins. diam. bears
	S. 24° W. 18 lks. dist. marked T. 38 S. R. 9 W. S. 10, B. T.
	A quaking asp 8 ins. diam. bears
	N. 2° E. 12 lks. dist. marked T. 38 S. R. 9 W. S. 2. B. T.
	A quaking asp 6 ins. diam. bears
	N. 7° W. 19 lks. dist. marked T. 38 S. R. 9 W. S. 3. B. T.
	Land, rough & mountainous chs.
	Soil, sandy and rocky 4th rate.
	Timber heavy quaking asp, pine, fir and spruce 68.50 chs.
	Undergrowth same with dense oak 80 chs. July 26 1893.
	Mountainous land and heavily timbered and covered with dense undergrowth 80 chs.
	S. 89° 55' E. on a random line bet. secs. 2 and 11.
	Va. 15° 12' E.
40.00	Set temporary 1/4 sec. cor.
80.08	Intersect N. and S. line 26 lks. N. of the cor. to secs. 1,
	2, 11 and 12.
	Thence Drum
	N. 89° 44' W. on a true line bet. secs. 2 and 11.
	Va. 15° 08' E.
9.20	Road, course N. W. and S. E.

Subdivision T. 38 S. R. 2 W. continued.

Chains	
34.90	Top of ridge, course N. and S.
40.04	Set a sandstone 20x10x4 ins. 15 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face; from which A pine 18 ins. diam. bears N. 76° W. 132 lks. dist. marked 1/4 S. B. T. A spruce 5 ins. diam. bears S. 88° E. 66 lks. dist. marked 1/4 S. B. T.
46.96	Descend abruptly about 100 ft.
52.40	Ravine about 20 ft. deep, course N.
63.20	Ascend gradually about 80 ft.
68.40	Top of spur, course N. and S.
80.08	The cor. to secs. 2. 3. 10 and 11.
	Land, rough, rolling and mountainous 69.58 chs.
16	Soil, black loam, limestone gravel and clay 1st and 3rd rate.
	Timber, heavy quaking asp, pine, spruce and fir 69.58 chs.
	Undergrowth, same with dense oak 69.58 chs.
	The entire tract is heavily timbered and covered with dense undergrowth 69.58 chs. July 26 1883.

North 0° 01' W. on a random line bet. secs. 2 and 3.

Var. 15° 12' E.

40.00	Set temporary 1/4 sec. cor.
79.73	Intersect N. boundary of Tp. 32 N. R. 2 E. of the 6th P. M. at the cor. to secs. 2, 3, 34 and 35.
	Fence E. & W.
	S. 0° 15' E. on a true line between secs. 2 and 3.
	Var. 15° 07' E.
	Through dense growth of heavy timber
2.80	Descend abruptly about 100 ft.
15.40	Ravine about 30 ft. deep, course W.
20.70	Gulch about 60 ft. deep, course S. 80° W.
21.00	Bottom of gulch, course S. 80° W.
21.98	South side of gulch, and ascend about 50 ft.
29.90	Top of ridge, course S. W. and N. E. and descend abruptly about 300 ft.
32.00	Dense heavy timber and dense brush.
39.73	Set a sandstone 20x10x6 ins. 15 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face; from which A red pine 18 ins. diam. bears S. 81° W. 112 lks. dist. marked 1/4 S. B. T. A pine 6 ins. diam. bears N. 64° E. 102 lks. dist. marked 1/4 S. B. T.

Subdivision J. 38 S. R. 9 W. continued.

chains	
46.00	Descend about 50 ft. and leave dense brush.
52.12	Road to Duck lake, course S. 80° W. and N. 80° E.
54.00	Enter heavy timber and dense brush
67.00	Leave heavy timber, but not brush.
67.70	Spring branch 2 lks. wide, course S. 75° W.
68.00	Enter Lava bed and heavy timber and brush and and ascend abruptly about 150 ft.
77.20	Top of spur about 100 ft. above spring branch, course N. E. and S. W.
79.73	The cor. to secs. 2. 3. 10 and 11.

Land, rough and hilly 79.73 chs.
Soil, sandy and gravel 2nd rate.
Timber, heavy pine, fir, spruce and quaking asp 73.70 chs.
Undergrowth same with dense oak and quaking asp 67.23 chs.
Heavily timbered land, mountainous or covered July 26 1893.
with dense undergrowth 79.73 chs.

Took an observation on Polaris July 26th at my camp. At 4 a. m. I tested the adjustments of my transit and found all correct.

At 9 a. m. July 27th At the cor. to secs. 3-4-33 and 34 on S. Boundary of T. 38 as hereinbefore described I find the var. to be 15° 10' E.
Mean declination 15° 06' E.
Thence Prun
North 0° 2' W. bet. secs. 33 and 34.
Var. 15° 10' E.

	Ascend abruptly about 100 ft. through scattering timber and dense brush.
14.50	Top of ridge, course E. and W. and descend abruptly about 80 ft.
20.10	Bottom and leave timber, and dense brush course E. and W.
20.85	Road, course S. 70° W. and N. 60° E.
30.50	Ledge of sandstone 10 ft. high, course N. E. and S. W.
40.00	Set a porphyry rock 24 x 12 x 5 ins. 18 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face; dug pits 18 x 18 x 12 ins. N. and S. of stone 5 1/2 ft. dist. and raised a mound of earth 2 1/2 ft. high, 3 1/2 ft. base alongside
	Set a [illegible]

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Subdivision T. 38 S., R. 2 W., continued.

chains	
	ground for cor. to secs. 27. 28. 33 and 34 marked with 1 notch on S. and 3 notches on E. sides from which
	A quaking asp 12 ins. diam., bears N. 25° E. 18 lks. dist., marked T. 38 S. R. 2 W. S. 27. B. T.
	A quaking asp 8 ins. diam., bears N. 15° W. 25 lks. dist., marked T. 38 S. R. 2 W. S. 28. B. T.
	No mon. trees within the limits; dug pits 18 X 18 X 12 ins. in secs. 33 and 34 5½ ft. dist. and raised a mound of earth 3½ ft. base 2½ ft. high alongside
	Land, rough and mountainous 20.10 chs., nearly level 59.90 chs.
	Soil, sandy and gravel 1st and 5th rate.
	Timber, scattering, pine and quaking asp 80 chs.
	Brush, dense oak and quaking asp 20.10 chs. July 27 1893.
	Mountainous land or covered with dense undergrowth 20.10 chs.
	East on a random line between secs. 27 and 34.
	Va. 15° 06' E.
40.00	Set temporary 1/4 sec. cor.
80.04	Intersect N. and S. line 1 lk. S. of the cor. to secs. 26. 27. 34 and 35.
	Thence N.
	N. on a true line bet. secs. 27 and 34.
	Va. 15° 01' E.
	Descend gradually through dense brush and scattering timber.
19.84	Ledge of basaltic rock about 30 ft. high, course N. W. and S. E.
23.54	Head of ravine, course S.
25.60	Ledge of basaltic rock, about 30 ft. high, course N. E. and S. W.
31.94	Dry wash 110 lks. wide, course S. 40° W.
40.02	Set a basaltic rock 20 X 15 X 6 ins. 15 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face; dug pits 18 X 18 X 12 ins. E. and W. of stone 5½ ft. dist. and raised a mound of earth 2½ ft. high, 3½ ft. base alongside.
73.05	Dry wash 20 lks. wide, course S. 20° W.
80.04	The cor. to secs. 27. 28. 33 and 34.
	Land, nearly level.
	Soil, black loam 1st rate.
	Timber, very scattering
	Brush, dense [illegible]

Subdivision T. 38 S. R. 9 W. Continued.

Chains	Land covered with dense undergrowth (scrub oak) July 24 1893.
	North 0°02' W. bet. secs. 27 and 28.
	Va. 15° 04' E.
	Through dense brush.
38.50	Leave brush.
40.00	Set a basaltic rock 24x13x4 ins. 18 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face; from which A quaking asp 12 ins. diam. bears S. 86° W. 10 1/2 lks. dist. marked 1/4 S. B.T. A quaking asp 12 ins. diam. bears N. 31° E. 195 lks. dist. marked 1/4 S. B.T.
55.40	Enter dense brush and ascend abruptly about 600 ft.
75.83	Wagon road, course S.E. and N.W.
80.00	Set a basaltic rock 26x14x10 ins. 20 ins. in the ground for cor. to secs. 21. 22. 27 and 28. marked with 2 notches on S. and 3 notches on E. edges; dug pits 18x18x12 ins. in each sec. 5 1/2 ft. dist. and raised a mound of stones covered with earth 3 1/2 ft. base, 2 1/2 ft. high alongside.
	Land, poor, and mountainous 25.60 chs.
	Soil, black loam 1st rate.
	Timber, scattering quaking asp
	Brush, dense oak, sherry and quaking asp 63.10 chs. (63.10 chs.)
	Mountainous land or covered with dense undergrowth July 24 1893.
	East on a random line bet. secs. 22 and 27.
	Va. 16° 09' E.
	Change of var. caused by magnetic iron in vicinity of cor.
40.00	Set temporary 1/4 sec. cor.
80.00	Intersect N. and S. line 10 lks. S. of the cor. to secs. 22. 23. 26 and 27.
	Thence Drum
	S. 89° 56' W. on a true line bet. secs. 22 and 27.
	Va. 15° 10' E.
	Ascend abruptly through dense brush and scattering timber about 150 ft.
9.00	Top of spur, course N. and S.
9.50	Descend abruptly about 100 ft.
16.50	Foot of hill, course N. and S.
19.86	Dry wash 25 lks. wide, course S.
	Ascend abruptly

Subdivision 38 S. R. 9 w. continued

chains	
38.00	Top of plateau, course S. 20° W. and N. 20° E.
40.00	Set a basaltic rock 20x10x5 ins. 15 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face; from which A quaking asp 6 ins. diam. bears S. 24° W. 22 lks. dist. marked 1/4 S. B. T. A quaking asp 4 ins. diam. bears N. 46° E. 95 lks. dist. marked 1/4 S. B. T.
40.20	Ledge of rock 8 ft. high, course N. E. and S. W.
47.70	Dry wash, 10 lks. wide, course S. W.
51.52	Road, course N. E. and S. W.
57.00	Ascend a bluff, about 300 ft.
80.00	The cor. to secs. 21-22-27 and 28. Land, rough and rocky 80 chs. Soil, rocky and sandy loam 3rd and 1st rate. Timber, scattering pine and fir. 80 chs. Brush, dense oak, cherry and quaking asp. 80 chs. Land covered with dense undergrowth 80 chs. July 29 1893.

North 0° 02 W. bet. secs. 21 and 22.
Var. 16° 06' E.
Ascend through dense brush and timber.

40.00	Set a basaltic rock 20x10x6 ins. 15 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face; from which A quaking asp 12 ins. diam. bears N. 34° W. 94 lks. dist. marked 1/4 S. B. T. A quaking asp 10 ins. diam. bears S. 32° E. 72 lks. dist. marked 1/4 S. B. T.
73.60	Top of hill, about 100 ft. high, course N. 20° E. & S. W.
80.00	Set a basaltic rock 22x14x8 ins. 16 ins. in the ground for cor. to secs. 15. 16. 21 and 22 marked with 3 notches on S. and E. edges; from which A spruce 12 ins. diam. bears S. 30° W. 31 lks. dist. marked T. 38 S. R. 9 W. S. 21. B. T. A fir 18 ins. diam. bears S. 17° E. 16 lks. dist. marked T. 38 S. R. 9 W. S. 22. B. T. A fir 14 ins. diam. bears N. 47° E. 54 lks. dist. marked T. 38 S. R. 9 W. S. 15. B. T. A fir 15 ins. diam. bears N. 6° W. 52½ lks. dist. marked T. 38 S. R. 9 W. S. 16. B. T. Land, slopes to the South 73.60 chs. Soil, [illegible] 1st rate

Subdivision S. 38 S. R. 9 W. continued.

Chains	
	Timber, medium heavy pine, fir, spruce and quakingasp 80 chs. Brush dense oak, chery and quakingasp 80 chs. July 29 1893. Land covered with dense undergrowth and sods.
	N. 89° 56' E. on a random line bet. secs. 15 and 22. Va. 16° 15' E. Change in var. caused by magnetic iron.
40.00	Set temporary 1/4 sec. cor.
80.10	Intersect N. and S. line 20 lks. S. of the cor. to secs. 14, 15, 22 and 23. Thence S. 89° 47' W. on a true line bet. secs. 15 and 22. Va. 15° 02' E. Through heavy timber and dense undergrowth.
14.60	Lava bed, course generally.
37.40	Leave timber, course E. and W.
40.05	Set a basaltic rock 20x12x6 ins. in a stone pile on rock for 1/4 sec. cor. marked 1/4 on N. face; Raised a mound of stones 3 ft. high, 3 ft. base alongside. Pits impracticable.
44.50	Enter heavy timber, course N. E. and S. W.
65.50	Ascend abruptly and leave timber, course N. E. and S. W.
68.60	Top of ridge, about 150 ft. high, course N. E. and S. W. Enter timber, course N. E. and S. W.
177.60	Descend abruptly about 200 ft.
80.10	The cor. to secs. 15, 16, 21 and 22. Land, rough and rolling 14.60 chs. Soil, rocky and black loam 1st and 4th rate. Timber, heavy pine, fir, quakingasp and spruce 56.40 chs. Undergrowth same with dense reproduction chs. July 29 1893. Heavily timbered land or covered with dense undergrowth 80.10 chs.
	North 0° 02' W. bet. secs. 15 and 16. Through heavy timber & dense brush Va. 16° 10' E.
5.75	Lava bed, course N. W. and S. E.
28.50	Leave lava bed, course N. E. and S. W.
40.00	Set a basaltic rock 18x8x6 ins. 12 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face; from which A quakingasp 5 ins. diam. bears N. 21° E. 7 lks. dist. marked 1/4 S. B. T. A quakingasp 8 ins. diam. bears N. 41° W. 22 lks. dist. marked 1/4 S. B. T.
56.10	Lava bed, course N. E. and S. W. and ascend

Subdivision T. 38 S. R. 9 W. continued.

Chains	
80.00	Set a basaltic rock 18 x 10 x 8 ins. 12 ins. in the ground for cor. to secs. 9. 10. 15 and 16 marked with 4 notches on S. and 3 notches on E. edges; from which A quaking asp 14 ins. diam. bears S. 49° E. 65½ lks. dist. marked T. 38 S. R. 9 W. S. 15. B. T. A quaking asp 8 ins. diam. bears S. 19° W. 19 lks. dist. marked T. 38 S. R. 9 W. S. 16. B. T. A quaking asp 6 ins. diam. bears N. 68° W. 24 lks. dist. marked T. 38 S. R. 9 W. S. 9. B. T. A quaking asp 8 ins. diam. bears N. 46° E. 54 lks. dist. marked T. 38 S. R. 9 W. S. 10. B. T. Land, rolling and very rough 80 chs. Soil, black loam, 1st rate. Timber, heavy pine, quaking asp, fir, and spruce 80 chs. Dense undergrowth same 80 chs. July 29 1893. Heavily timbered land or covered with dense undergrowth 80 chs.
	N. 89° 47' E. on a random line bet. secs. 10 and 15. Var. Var. 17° 35' E. Magnetic iron continues in black basalt here.
40.00	Set temporary 1/4 sec. cor.
80.40	Intersect N. and S. line 30 lks. north of the cor. to secs. 10. 11. 14 and 15. Thence Run W. on a true line bet. secs. 10 and 15. Through heavy timber & dense brush Var. 15° 12' E.
3.00	Ascend abruptly about 300 ft.
4.67	Road, course N. E. and S. W.
13.15	Top of ridge, course N. E. and S. W. (abruptly about 150 ft.) and descend
26.50	Foot of ridge, course N. E. and S. W. and ascend about 10 ft.
30.00	Plateau, course N. E. and S. W.
40.20	Set a basaltic rock 18 x 12 x 6 ins. 12 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face; from which A quaking asp 10 ins. diam. bears N. 37° E. 21 lks. dist. marked 1/4 S. B. T. A quaking asp 18 ins. diam. bears S. 24° W. 19 lks. dist. marked 1/4 S. B. T.
80.40	The cor. to secs. 9. 10. 15 and 16. Land, very rough and mountainous 80 chs. Soil, black loam. 1st rate.
	Timber [illegible]

Subdivision T. 38 S. R. 9 W. continued.

Chains	Spruce 80.40chs. Undergrowth same 80.40chs. Mountainous or heavy timbered land. Surveyed July 30 1893.
	North 0° 02' W. bet. secs. 9 and 10. Var. 17° 32' E.
4.50	Land level, course E. and W.
6.20	Leave lava bed, course E. and W.
10.00	Ascend abruptly about 40 ft.
15.50	Top of ridge, course E. and W. and descend abruptly about 50 ft.
21.10	Bench, 45 ft. below top of ridge, course E. and W.
40.00	Set a sandstone 20 x 12 x 10 ins. 10 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face; from which A quaking asp 10 ins. diam. bears S. 71° E. 7 lks. dist. marked 1/4 S. B. T. A quaking asp 8 ins. diam. bears N. 35° W. 19 lks. dist. marked 1/4 S. B. T.
62.37	Spring 1 m. 3 lks. wide, course S. 80° E.
62.40	Ascend gradually.
80.00	Set a sandstone 18 x 10 x 3 ins. 12 ins. in the ground for cor. to secs. 3. 4. 9 and 10 marked with 5 notches on E. and 3 notches on E. edge; from which A red pine 20 ins. diam. bears N. 31° E. 12 lks. dist. marked T. 38 S. R. 9 W. sec. 3. S. B. T. A quaking asp 4 ins. diam. bears S. 3° E. 8 1/2 lks. dist. marked T. 38 S. R. 9 W. sec. 10. B. T. A quaking asp 6 ins. diam. bears S. 70° W. 19 lks. dist. marked T. 38 S. R. 9 W. sec. 9. B. T. A red pine 18 ins. diam. bears N. 17° W. 27 lks. dist. marked T. 38 S. R. 9 W. sec. 4. B. T. Land, mountainous, rough 62.37 chs. Soil, gravel and sandy 2nd rate. Timber, heavy quaking asp, fir, pine, spruce and red pine 80 chs. Undergrowth same with dense oats and willow 80 chs. July 30 1893. Mountainous land or heavily timbered, covered with dense undergrowth &c.
	East on a random line bet. secs. 3 and 10. Var. 15° 10' E.
40.00	Set temporary 1/4 sec. cor.
80.12	Intersect N. and S. line at the cor. to secs. 2. 3. 10 and 11

Thence East

Subdivision T. 38 S. R. 9 W. continued.

chains	
	W. on a true line bet. secs. 3 and 10.
	Va. 15° 07' E.
	Descend 100 ft. through heavy timber & dense brush
12.25	Leave basaltic rock and bottom, course N. 10° E & S.
18.05	Rivulet 2 lks. wide, course S. W.
30.30	Road, course N. 70° E. and S. 75° W.
35.00	Leave timber, course N. and S. Richard Palmer's house bears N. 45° E. 7.48 chs.
40.06	Set a sandstone 20×10×8 ins. 15 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face; dug pits 18×18×12 ins. E. and W. of stone 5½ ft. dist. and raised a mound of stones covered with earth 2½ ft. high, 3½ ft. base alongside.
66.85	Ravine about 20 ft. deep, course S.
67.40	Christian Andersen's house bears S. 11.83 chs. dist.
67.50	Enter heavy timber, course N. E. and S.
72.47	Road to Duck Lake, course S. E. and N. W.
80.12	The cor. to secs. 3.4.9 and 10.
	Land, rough and rocky 12.25 chs.
	Soil, sandy loam and rocky 1st and 4th rate.
	Timber, heavy pine, fir and quaking asp 47.62 chs.
	Undergrowth same with dense oak 80.12 chs.
	Heavily timbed land or covered with dense undergrowth 80.12 chs. July 30 1893.
	North 0° 02' W. on a random line bet. secs. 3 and 4.
	Va. 15° 04' E.
40.00	Set temporary 1/4 sec. cor.
80.12	Intersect N. boundary of Tp. 30 lks. East of cor. to secs. 3.4.33 and 34.
	Thence I run
	S. 0° 15' E. on a true line bet. secs. 3 and 4.
	Va. 15° 01' E.
	Descend abruptly 150 ft. through heavy timber & dense brush
40.12	Set a sandstone 20×8×5 ins. 15 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face; from which
	A quaking asp 14 ins. diam. bears
	N. 10° E. 24 lks. dist. marked 1/4 S. B. T.
	A quaking asp 12 ins. diam. bears
	S. 46° W. 19 lks. dist. marked 1/4 S. B. T.
44.82	Thomas Walker's house bears E. 5.20 chs. dist.
54.52	Leave timber and ascend abruptly about 20 ft. course E. & W.
54.60	Old road, course S. 20° W. and N. 20° E.
57.68	Spring run 2 lks. wide, course S. 10° W. pure water.
[illegible]	[illegible]

Subdivision T. 38 S. R. 9 W. continued.

chains	
63.22	S. Spring branch 2 lks. wide, course S. 33° W. good water.
66.92	Mill creek 10 lks. wide, course S. W. good water.
67.12	Enter heavy timber and ascend abruptly about 100 ft.
70.20	Top of bench, course N. 20° E. and S. 30° W.
72.25	Road to Duck lake, course E. and W.
80.12	The cor. to secs. 3. 4. 9 and 10.

Land, rough and rolling 66.52 chs.
Soil, clay loam and gravel 1st. and 2nd rate.
Timber, heavy quaking asp, pine, and fir 66.52 chs.
Undergrowth same with dense oak and willow 80.12 chs.
Heavily timbered land or covered with dense undergrowth 80.12 chs.

July 30 1893

July 30th 1893, At the cor. to secs. 4. 5. 32 and 33 on S. Bdy. T. 38 S., hereinbefore described, I took an observation on Polaris at 9h 17m P. M. correct l. m. astron. t. by my watch which is correct. and find the magnetic bearing of the star to be N. 20° 34' W.

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	h	m
Astron. l. m. t of obs. July 30	9	17
W. C. Polaris July 15	17	41.6
Reduction to July 29		50.8
W. C. Polaris July 29	16	50.8
Hour angle of Polaris at time of obs.	16	26.2
Subtract from	23	56.1
Time argument Table II.	7	29.9
Azimuth of Polaris. lat. 37° 30'	1°	26' east.
North end of needle	20°	34' east.
The sum is the var.	22°	00 east.

I lay off the azimuth 1° 26' to the west and drive a picket on the true meredian 4 chs. N. of cor. Mean declination 21° 54' E.

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7 A. M. July 31st All calculations made and bearings taken this morning.

The great change in declination of needle noted is caused by magnetite among the volcanic rocks in the vicinity of the cor. on S. Bdy. of T. hereinbefore described

Drum

North 0° 03' W. bet. secs. 32 and 33.

Subdivision T. 38 S. R. 9 W. continued.

chains	
	Ascend through dense brush.
6.80	Road, course E. and W. and ascend abruptly about 60 ft.
25.40	Top of ridge, course E. and W.
28.00	Descend gradually
28.50	Leave dense brush.
31.10	Dry wash. 5 lks. wide, course S. W.
40.00	Set a basaltic rock 24 X 10 X 8 ins. 18 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face; dug pits 18 X 18 X 12 ins. N. and S. of stone 5½ ft. dist. and raised a mound of earth 2½ ft. high, 3½ ft. base alongside.
58.00	Enter dense brush and ascend about 100 ft.
62.50	Top of plateau, course E. and W. and leave brush
72.00	John Sheratt's house bears E. 1.50 chs.
72.10	Enter swampy flat, course N.E. and S.W.
78.20	Leave swamp, course E. and W. and enter dense brush.
80.00	Set a basaltic rock 18 X 14 X 12 ins. 12 ins. in the ground for cor. to secs. 28. 29. 32 and 33. marked with 1 notch on S. and 4 notches on E. edges; dug pits 18 X 18 X 12 ins. in each sec. 5½ ft. dist. and raised a mound of stones covered with earth 2½ ft. high 3½ ft. base alongside.
	Land, rolling.
	Soil, sandy and clay loam 1st rate.
	No timber.
	Brush, dense oak, quaking asp, and cherry 34.50 chs.
	Land, covered with dense undergr. Aug. 1 1893.
	ow the 34.50 chs.

E. on a random line bet. secs. 28 and 33.

Var. 21° 55' E.

Magnetite continues to affect the needle.

40.00	Set a temporary 1/4 sec. cor.
80.00	Intersect the N. and S. line 14 lks. S. of the cor. to secs. 27. 28. 33. and 34.
	Thence Drum
	S. 89° 54' W. on a true line bet. secs. 28 and 33.
	Var. 15° 05' E.
	Through dense brush
15.00	Descend gradually about 90 ft.
20.10	Bottom, course N. and S. and leave dense brush.
40.00	Set a basaltic rock 20 X 10 X 8 ins. 15 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face; dug pits 18 X 18 X 12 ins. E. and W. of stone 5½ ft. dist. and

Subdivision T. 38 S. R. 9 W. continued.

chains	alongside.
53.50	Enter swamp, course N. 30° E. and S. 70° W.
56.40	Leave swamp, course N. and S. W.
61.00	Ascend abruptly through dense brush about 40 ft.
64.40	Top of ridge, course N. 30° E. and S. 30° W. and descend gradually about 50 ft.
72.50	Bottom, course N. E. and S. W. and leave dense brush.
76.80	Leave bottom and ascend through scattering quakingasp and dense brush
80.00	The cor. to secs. 28. 29. 32 and 33.
	Land, level and rolling.
34.80 / 15.20	Soil, black loam 1st rate.
	Timber a few scattering quakingasps.
	Brush, dense oak, cherry and quakingasp. 34.80 chs.
	Land, covered with dense undergrowth 34.80 chs. Aug. 1st 1893.

North 0° 03' W. bet. secs. 28 and 29.
Va. 21° 52' E.

0.25	Ascend through dense brush.
18.50	Leave brush, course N. E. and S. W.
26.70	Enter dense brush, course N. E. and S. W.
40.00	Set a porphyry rock 18×10×5 ins. 12 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face; from which
	An oak 15 ins. diam. bears
	S. 5° E. 258 lks. dist. marked 1/4 S. B. T.
	An oak 18 ins. diam. bears
	S. 2° W. 251 lks. dist. marked 1/4 S. B. T.
41.50	Descend abruptly about 20 ft. and leave brush course N. E. & S. W.
48.50	Spring run 10 lks. wide, course S. W. and ascend abruptly about 50 ft.
50.80	Enter dense brush and timber, course N. E. and S. W.
80.00	Set a basaltic rock 22×10×8 ins. 16 ins. in the ground for cor. to secs. 20. 21. 28 and 29 marked with 2 notches on S. and 4 notches on E. edges; from which
63.95 / 17.75	A pine 36 ins. diam. bears
	N. 75° W. 257 lks. dist. marked T. 38 S. R. 9 W. S. 20. B. T.
	A pine 5 ins. diam. bears
	S. 72° W. 84 lks. dist. marked T. 38 S. R. 9 W. S. 29. B. T.
	A pine 20 ins. diam. bears
	S. 74° E. 307 lks. dist. marked T. 38 S. R. 9 W. S. 28. B. T.
	No other tree within the limits. Raised a mound of [illegible]

Subdivision T. 38 S. R. 9 W. continued.

chains	
	Land, rolling.
	Soil, black loam 1st rate.
	Timber, scattering pine and quaking asp.
	Brush, dense oak, cherry, and quaking asp 62.25 chs.
	Land covered with dense undergrowth 62.25 chs. Aug. 1 1893.
	N. 89° 54' E. on a random line bet. secs. 21 and 28.
	Var. 16° 26' E.
	Change of var. caused by iron.
40.00	Set temporary 1/4 sec. cor.
80.20	Intersect N. and S. line 40 lks. North of the cor. to secs. 21. 22. 27 and 28.
	Thence Prun
	N. 89° 49' W. on a true line bet. secs. 21 and 28.
	Var. 15° 05' E.
	Ascend. about 50 ft. through dense brush
39.00	Anson Root's house, bears S. 66½ W. 16.23 chs.
39.70	Descend abruptly about 50 ft.
40.10	Set a basaltic rock 20×10×8 ins. 15 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face; from which
	A fir 10 ins. diam. bears
	N. 18° E. 21 lks. dist. marked 1/4 S. B. T.
	A pine 14 ins. diam. bears
	S. 26° E. 22 lks. dist. marked 1/4 S. B. T.
45.20	Dry wash 20 lks. wide, course S. W.
78.90	Leave dense brush
80.20	The cor. to secs. 20. 21. 28 and 29.
	Land, rolling.
	Soil. black loam. 1st rate.
	Timber, pine, fir, and quaking asp 80.20 chs.
	Brush, dense oak, cherry and quaking asp 78.90 chs.
	Land covered with dense undergrowth 78.90 chs. Aug 1 1893.
	North 0° 03' W. bet. secs. 20 and 21.
	Var. 16° 33' E.
	Through timber and dense brush
25.00	Ascend abruptly about 75 ft.
37.00	Top of ridge, course E. and W.
40.00	Set a sandstone 20×10×4 ins. 15 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face; dug pits 18×18×12 ins N. and S. of stone 5½ ft. dist. and raised a mound of earth 2½ ft. high, 3½ ft. base alongside
40.10	Smith's house bears [illegible] chs. dist.

Subdivision T. 38 S. R. 9 W. continued.

Chains	
47.50	Ravine about 40 ft. deep, course S. W.
48.80	Ascend abruptly about 250 ft.
58.50	Top of ridge, course E. and W. and descend abruptly about 500 ft.
72.50	Ravine about 25 ft. deep, course N. W.
80.00	Set a basaltic rock 20 x 8 x 7 ins. 15 ins. in the ground for cor. to secs. 16. 17. 20 and 21. marked with 3 notches on S. and 4 notches on E. edges; Raised a mound of stones covered with earth 2½ ft. high, 3½ ft. base alongside.
	Pits impracticable
	Land, mountainous 80 chs.
	Soil, black loam 1st rate.
	Timber, very scattering pine, fir, and quakingasp.
	Brush, dense oak, cherry, whortleberry and quakingasp.
	Mountainous land covered with dense brush 80 chs. Aug. 2 1893.

S. 89° 49' E. on a random line bet. secs. 16 and 21.

Var. 15° 09' E.

40.00	Set temporary 1/4 sec. cor.
80.20	Intersect N. and S. line 2 chs. South of the cor. to secs. 15. 16. 21 and 22.
	Thence Drum
	N. on a true line bet. secs. 16. and 21.
	Var. 15° 26' E.
	Ascend about 100 ft. through timber and dense brush
16.90	Top of ridge, course N. and S. and descend about 60 ft.
21.70	Bottom, course N. and S.
40.10	Set a basaltic rock 20 x 10 x 4 ins. 15 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face; from which
	A quakingasp 12 ins. diam. bears
	N. 21° W. 9 lks. dist. marked 1/4 S. B. T.
	A quakingasp 16 ins. diam. bears
	S. 65° E. 51 lks. dist. marked 1/4 S. B. T.
73.30	Leave dense brush.
79.95	Descend abruptly about 150 ft.
80.20	The cor. to secs. 16. 17. 20 and 21.
	Land, rolling and rough 80 chs.
	Soil, rich black loam 1st rate.
	Timber, scattering pine and quakingasp.
	Brush, dense oak, quakingasp and cherry 73.30 chs.
	Land covered with dense undergrowth Aug. 2 1893.
	W. 73.30 chs.

Subdivision S. 38 S. R. 9 W. continued.

chains	
	North 0° 03' W. bet. secs. 16 and 17.
	Var. 15° E.
	Through timber and dense brush
5.50	Descend along W. side of hill about 100 ft.
40.00	Set a basaltic rock 20x8x7 ins. 15 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face; from which
	A pine 36 ins. diam. bears
	N. 48° E. 100 lks. dist., marked 1/4 S. B. T. No other tree
	within the limits; dug pits 18x18x12 ins. N. and S. of
	stone 5 1/2 ft. dist. and raised a mound of earth 2 1/2
	ft. high, 3 1/2 ft. base alongside.
57.08	Log road, course N. 60° W. and S. 60° E.
62.30	Descend abruptly about 500 ft.
73.30	Bottom, course N. 80° E. and S. 80° W.
73.60	Leave timber and ascend
74.15	Dry wash 24 lks. wide, course W.
76.15	Ascend abruptly about 500 ft.
80.00	A spring about 300 ft. above bottom.
	Set a sandstone 20x10x8 ins. - 15 ins. in the ground for cor. to Secs. 8. 9. 16 and 17 marked with 4 notches
	on S. and E. edges; Raised a mound of stones covered
	with earth 2 1/2 ft. high, 3 1/2 ft. base alongside Pits impracticable.
	Land, mountainous 80 chs.
	Soil, rich blackloam 1st rate.
	Timber, very scattering pine and quaking asp. 73.60 chs.
	Brush dense oak quaking asp and cherry 80 chs.
	Mountainous land and covered with dense undergrowth 80 chs. Aug. 2 1893.

E. on a random line bet. secs. 9 and 16.

Var. 15° 04' E.

40.00	Set temporary 1/4 sec. cor.
80.40	Intersect N. and S. line 40 lks. N. of the cor. to secs. 9. 10. 15 and 16.

Thence Run

N. 89° 43' W. on a true line bet. secs. 9 and 16.

Var. 15° 07' E.

	Ascend about 500 ft. through heavy timber & dense brush
15.60	Top of ridge, course N. and S. leave timber and descend abruptly about 400 ft.
36.60	Enter very scattering timber.
40.20	Set a basaltic rock 24x18x4 ins. 18 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face; from which
	Quaking asp 4 ins. diam. [illegible]

Subdivision T. 38 S. R. 9 W. continued.

chains	
	N. 45° W. 10 lks. dist. marked 1/4 S. B. T.
	A quakingasp 3 ins. diam. bears
	S. 60° E. 12 lks. dist. marked 1/4 S. B. T.
45.50	Enter Lava bed, course E and W.
59.90	Leave Lava bed, course N. W. and S. E.
64.20	Dry wash 21 lks. wide, course S. W. and ascend abruptly about 300 ft.
80.40	The cor. to secs. 8. 9. 16 and 17.
	Land, very rough and mountainous 80.40 chs.
	Soil, black loam and rocky 1st and 4th rate.
	Timber, heavy pine, quakingasp, & spruce 15.60 chs.
	Brush, dense oak, quakingasp, willow, cherry and whortleberry 80.40 chs. Aug 3 1893.
	Mountainous land or heavily timbered and covered with dense undergrowth 80.40 chs
	N. 0° 03' W. bet. secs. 8 and 9.
	Va. 15° 10' E.
	Ascend abruptly about 300 ft. through dense brush
5.00	Top of ridge, course N. 80° E. and S. 80° W.
6.00	Descend abruptly about 600 ft.
19.00	Bottom, course N. 80° W. and S. 80° E.
22.50	Dry wash 45 lks. wide, course W and ascend
36.50	Top of ridge, course E. and W.
40.00	Set a sandstone 18 X 10 X 4 ins. 12 ins. in the ground for for 1/4 sec. cor. marked 1/4 on W. face; dug pits 18 X 18 X 12 ins. N. and S. of stone 5½ ft. dist. and raised a mound of earth 2½ ft. high, 3½ ft. base alongside.
42.17	Coxe's house bears S. 40° W. 24 chs. dist.
42.17	John V. Adam's house bears S. 79° 15' W.
46.11	Descend abruptly about 600 ft.
48.17	Old road, course W. and N. 80° E.
57.03	East Fork of Three creeks 20 lks. wide, course S. 85° W.
71.30	Road to Duck Lake, course N. E. and S. W. and leave brush.
80.00	Set a sandstone 18 X 8 X 6 ins. 12 ins. in the ground for cor. to secs. 4. 5. 8 and 9 marked with 5 notches on S. and 4 notches on E. edges; dug pits 18 X 18 X 12 ins. in each sec. 5½ ft. dist. and raised a mound of stones covered with earth 2½ ft. high, 3½ ft. base alongside.
	Land, very rough and mountainous 80 chs.
	Soil, sandy and black loam 1st rate.
	Timber, scattering pine, fir, and quakingasp. Brush dense oak, cherry, willow and quakingasp 71.30 chs. Aug. 3 1893.
	Mountainous land and covered with dense wooden growth 80 chs.

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Subdivision S. 38 S. R. 9 w. continued.

chains	
	S. 89° 43' E. on a random line bet. secs. 4 and 9.
	Va. 15° 05' E.
40.00	Set Temporary 1/4 Sec. Cor.
80.10	Intersect N. and S. line 14 lks. South of the cor. to secs. 3. 4. 9 and 10.
	Thence Drun
	N. 89° 49' W. on a true line bet. secs. 4 and 9.
	Va. 15° 01' E.
8.10	Ascend about 150 ft. in dense brush Top of hill, course N.E. and S.W. and descend about 120 ft.
16.60	Bottom, course S.E. and N.W.
17.60	Leave dense brush.
17.93	Creek 4 lks. wide, course S.W. Water pure
18.08	George Walkers fence, course N.W. and S.E.
25.98	George Walkers fence, course N.W. and S.E.
30.14	George Walkers fence, course N. and S.
30.50	George Walkers house bears S. 0.60 lks. dist.
30.56	Ditch 4 lks. wide, course S. 80° W.
30.65	Corral fence, course N. and S.
31.10	Road to Duck Lake, course N. and S.
31.55	Enter dense brush, and timber, course E. and W.
38.55	Ditch 4 lks. wide, course N. 10° W.
40.05	Set a basaltic rock 20 x 10 x 4 ins. 15 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face; from which A quaking asp 4 ins. diam. bears N. 26° W. 14 lks. dist. marked 1/4 S. B. T. A quaking asp 4 ins. diam. bears S. 5° W. 6 lks. dist. marked 1/4 S. B. T.
42.30	Spring run 2 lks. wide, course S.W water pure.
46.18	Old road, course N.W. and S.E. and ascend about 50 ft.
56.60	Top of ridge, course N. and S. and descend about 30 ft.
66.08	Ditch, 4 lks. wide, course S. 30° W. and ascend about 50 ft.
67.58	Top of ridge, course N. and S. and descend about 40 ft.
78.55	Ditch 4 lks. wide, course N. and ascend about 40 ft.
80.10	The cor. to secs. 4. 5. 8 and 9.
	Land, rolling and rough 49.82 chs.
	Soil, black loam 1st rate.
	Timber, scattering pine, quaking asp and fir 66.15 chs.
	Brush, dense oak, cherry, currant and quaking asp 66.15 chs.
	Land covered with dense undergrowth 66.15 chs. Aug. 3 1893.

N. 0.03' W. on a random line bet. secs. 4 and 5.

Va. 15° 24' E.

Subdivision T. 38 S. R. 9 W. continued.

Chains	
40.00	Set temporary 1/4 sec. cor.
80.33	Intersect north boundary of Tp. at the cor. to secs. 4. 5. 32 and 33.
	Thence S. run
	S. 0° 03' E. on a true line bet. secs. 4 and 5.
	Va. : 15° 12' E.
	Descend through dense brush and timber.
20.60	Road, course N. 10° W. and S. 10° E.
29.94	Dry wash 26 lks. wide, course S. 10° E.
40.33	Set a limestone 20 x 10 x 4 ins. 15 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face; from which A quaking asp 4 ins. diam. bears S. 68° W. 5 lks. dist. marked 1/4 S. B. T. A quaking asp 4 ins. diam. bears S. 72° E. 15 lks. dist. marked 1/4 S. B. T.
42.16	Ditch 3 lks. wide, course S. 80° W. and leave timber, brush, and
54.50	Uriah Goodfellow's house bears W. 14.65 chs. dist.
55.57	Spring run 2 lks. wide, course S. water spare.
59.70	Ascend about 40 ft.
63.52	Christian Mackelprang's fence, course N. 78° W. and E.
69.60	Christian Mackelprang's fence, course S. 30° W. and N. 36° E.
72.75	Ascend in dense oak brush about 30 ft.
73.80	Top of bench, course E. and W.
77.00	John R. Chaffin's house bears E. 3.93 chs. dist.
80.33	The cor. to secs. 4. 5. 8 and 9.
	Land. rolling.
	Soil, sandy loam 1st rate.
	Timber, a few scattering quaking asp 42.16 chs.
	Brush, dense oak, mahogany, willow and cherry 49.74 chs.
	Land covered with dense undergrowth Aug. 3 1893.
	The 49.74 chs.

	From the cor. to secs. 5. 6. 31. 32. on S. Bdry of Tp. herein before described
	Thence N. run
	N. 0° 03' W. bet. secs. 31 and 32.
	Va. : 15° 04' E.
	Descend through dense brush
11.00	Bullock's hollow bears E. 11.84 chs. dist.
34.60	Leave dense brush.
39.50	Enter dense brush.
40.00	Set a sandstone 24 x 10 x 4 ins. 18 ins. in the ground

Subdivision T. 38 S. R. 9 W. continued

Chains	
	ins. N. and S. of stone 5½ ft. dist. and raised a mound of stones and earth 2½ ft. high, 3½ ft. base alongside.
41.50	Leave dense brush and descend about 30 ft.
58.84	David Bullock's N. fence, course N. 89° E. and S. 84° W. & ascend.
80.00	Set a sandstone 24×16×4 ins. 18 ins. in the ground for cor. to secs. 29. 30. 31 and 32 marked with 1 notch on S. and 5 notches on E. edges; dug pits 18×18×12 ins. in each sec. 5½ ft. dist. and raised a mound of earth 2½ ft. high and, 3½ ft. base alongside.
36.60 / 43.40	Land, nearly level.
	Soil, sandy loam 1st rate.
	No timber.
	Brush, dense oak quaking asp and cherry 36.60 chs.
	Land covered with dense underg- Aug. 3 1893. -owth 36.60 chs.
	E. on a random line bet. secs. 29 and 32.
	Va. 15° 07' E.
40.00	Set temporary 1/4 sec. cor.
80.08	Intersect N. and S. line 1 lk. N. of cor. to secs. 28. 29. 32 and 33.
	Thence I run
	W. on a true line bet. secs. 29 and 32.
	Magnetite in rock Va. 21° 58' E. courses change vac.
23.01	David Bullock's fence, course S. W. and N. 70° E.
36.50	Leave dense brush.
40.04	Set a basaltic rock 22×10×7 ins. 16 ins. ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face; from which
	An Oak 6 ins. diam. bears
	S. 55° E. 238 lks. dist. marked 1/4 S. B. T.
	No other tree within the limits; Raised a mound of stones covered with earth 2½ ft. high, 3½ ft. base alongside. Pits impracticable
47.80	Ledge of basaltic rock 4 ft. high, course S. 30° W. and N. 30° E. and enter dense brush.
58.00	Descend abruptly about 40 ft.
60.10	Foot of bench, course N. and S.
64.97	Road, course N. W. and S. E.
65.10	Spring run 6 lks. wide, course S. 10° E.
68.23	Fence, course N. E. and S. W. and leave brush.
72.50	Leave flat, course N. E. and S. and ascend.
73.51	David Bullock's fence, course S. E.
[illegible]	[illegible]

Subdivision of Sec. 38 T. 8 S. R. 9 W. continued.

chains	Land, nearly level.
	Soil, sandy loam 1st rate.
	No. timber,
	Brush, dense oak, quakingasp, cherry, and currant
	56.93 chs. Aug. 4 1893.
	Land covered with dense undergrowth 56.93 chs.
	Aug. 4 1893. I took an observation on Polaris last night at my camp, established a meridian, tested the adjustments of my transit and found them correct.
	W. on a random line bet. secs. 30 and 31.
	Var. 15° 07' E.
40.00	Set temporary 1/4 sec. cor.
79.09	Intersect W. boundary of T. 22 N. S. of the com. to secs. 25. 30. 31 and 36.
	Thence N.
	S. 89° 51' E. on a true line bet. secs. 30 and 31.
	Var. 15° 03' E.
	Ascend very abruptly about 1500 ft. through heavy timber and dense brush.
27.59	East side of Canon and leave timber, course N. 10° W. and S. 10° E.
29.40	Ascend abruptly about 150 ft.
34.50	Top of ridge, course N. and S.
39.09	Set a sandstone 30 X 10 X 4 ins. 24 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face; dug pits 18 X 18 X 12 ins. E and W. of stone 5 1/2 ft. dist. and raised a mound of earth 2 1/2 ft. high, 3 1/2 ft. base alongside.
40.20	Descend gradually.
62.59	Head of ravine, course S. E.
67.40	Descend about 100 ft.
79.09	The cor. to secs. 29. 30. 31 and 32.
	Land, very rough 34.50 chs.
	Soil, sandy loam and rock 1st, 2d and 4th rate.
	Timber, heavy pine, spruce, fir and quakingasp 27.59 chs. Undergrowth dense with dense oak, cherry and sage 79.09 chs. Aug. 4 1893.
	Mountainous land and heavily timbered or covered with dense undergrowth 79.09 chs.
	N. 0° 03' W. bet. secs. 29 and 30.
	Var. 15° and E.

Subdivision T. 38 S. R. 9 W. continued

chains	
	Ascend through dense brush.
2.70	Sarah A. Higbee's fence, course N.W. and S.E. and ascend abruptly about 100 ft.
5.10	Sarah A. Higbee's house bears W. 4.22 chs. dist.
12.40	Daniel Bullock's house bears 30.40 chs. dist. East
17.40	Top of ridge, course N.W. and S.E. and descend abruptly about 100 ft.
32.95	Road, course N. 40° W. and S. 40° E.
33.20	Bottom, course N.W. and S.E. and leave dense brush.
35.10	Ascend abruptly about 50 ft.
40.00	Set a sandstone 20×10×6 ins. 15 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face; from which A quaking asp 8 ins. diam. bears N. 1° E. 54 lks. dist. marked 1/4 S.B.T. No other tree within the limits; dug pits 18×18×12 ins. N. and S. of stone 5½ ft. dist. and raised a mound of earth 2½ ft. high, 3½ ft. base alongside.
41.46	Daniel Bullock's fence, course N. 70° E. and S. 75° W.
41.80	Enter dense brush.
44.50	Top of ridge, course N. 20° E. and S. 20° W.
47.78	Road, course N. 70° E. and S. 70° W.
59.50	Mouth of ravine, course N.
74.00	Head of ravine and top of ridge, course N. 80° E. and S. 80° W. and descend abruptly about 150 ft.
80.00	Set a sandstone 24×10×6 ins. 18 ins. in the ground for cor. to secs. 19. 20. 29 and 30 marked with 2 notches on S. and 5 notches on E. edges; dug pits 18×18×12 ins. in each sec. 5½ ft. dist. and raised a mound of earth 2½ ft. high, 3½ ft. base alongside.
	Land, rolling and rough 78.10 chs.
	Soil, sandy and clay loam 1st rate.
	No timber. Brush, dense oak, quaking asp, cherry, whortleberry and maple 71.40 chs. Aug. 4 1893.
	Land covered with dense undergrowth 71.40 chs.
	E. on a random line bet. secs. 20 and 29
	Va. 15° 04' E.
40.00	Set temporary 1/4 sec. cor.
80.22	Intersect N. and S. line 27 lks. North of cor. to secs. 20. 21. 28 and 29.
	Thence I run
	N. 89° 49' W. on a true line bet. secs. 20 and 29.
	Va. 15° 32' E.

Subdivision S. 38 S. R. 9 W. continued.

chains	
	Through dense brush.
4.80	Ledge of basaltic rock 8 ft. high, course N.W. & S.E.
11.27	Bill Spring creek 8 lks. wide, course S.E. & ascend about 2 ft.
12.68	Road, course N. 10° E. and S. 6° W.
22.50	Top of point; course S. 10° E. & N. 16° W. and descend abruptly about 150 ft.
30.80	Foot of ridge, course S. 10° E. & N. 10° W. and ascend abruptly about 150 ft.
35.50	Top of ridge, course S. 10° W. & N. 20° E. & descend abruptly about 30 ft.
40.11	Set a sandstone 24 X 8 X 4 ins. 18 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face; dug pits 18 X 18 X 12 ins. E. & W. of stone 5½ ft. dist. and raised a mound of earth 2½ ft. high 3½ ft. base alongside.
46.24	David Bullocks fence S. 35½ E. & 35° 31' W.
47.50	Foot of ridge, course N.W. & S.E. and leave dense brush, and ascend abruptly about 200 ft.
58.50	Top of point, course S.E. & N.W. and descend abruptly about (40 ft.)
80.22	The cor. to secs. 19. 20. 29 and 30.
	Land, rough and mountainous 78.73 chs.
	Soil, rocky and gravel 3rd rate.
	No. timber, Undergrowth dense oak, quaking asp cherry and whortleberry 47.50 chs.
	Mountainous land or covered with dense undergrowth 80.22 chs.
	Aug 4 1893

N. 89° 51' W. on a random line bet. secs. 19 & 30.
Var. 15° 12' E.

40.00	Set temporary 1/4 sec. cor.
78.97	Intersect W. boundary of Tp. 26 lks. North of the cor. to secs. 19. 24. 25 and 30.
	Thence Drun
	N. 89° 58' E. on a true line bet. secs. 19 and 30.
	Var. 15° 10' E.
	Descend abruptly about 100 ft. in heavy timber
4.84	Three creeks 2 lks. wide, course S.
5.12	Ascend abruptly about 140 ft. in heavy timber & dense brush
32.27	Leave timber.
38.97	Set a sandstone 24 X 8 X 4 ins 18 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face; dug pits 18 X 18 X 12 ins. E. and W. of stone 5½ ft. dist. and raised a mound of earth 2½ ft. high 3½ ft. base alongside.
57.40	Top of ridge, course S. 10° W. and N. 20° E.
	and descend about [illegible]

Subdivision T. 38 S. R. 9 W. continued

chains	
62.40	Ravine 3 ft. deep, course S. W.
64.79	Road, course S. 10° W. and N. E.
78.97	The cor. to secs. 19. 20. 29 and 30.
	Land, mountainous 57.40 chs.
	Soil, rocky and sandy loam 4th & 1st rate.
	Timber heavy pine, fir. spruce and quaking-asp 32.27 chs.
	Undergrowth dense oak, quaking asp bitter bitter brush, cherry and whortleberry 78.97 chs.
	Mountainous land or heavily timbered or covered with dense undergrowth 78.97 chs.
	North 0° 03' W. bet. secs. 19 and 20.
	Va. 15° 07' E.
	Descend abruptly 50 ft through dense brush
8.90	Head of ravine, course S. W. and ascend abruptly about 600 ft.
12.00	Top of ridge, course N. 70° W. and S. 70° E.
14.50	Descend abruptly about 100 ft.
22.00	Thomas S. Bladen's house bears W. 5.20 chs.
29.90	Bullock's fence, course S. E. & N. W. and ascend abruptly about 50 ft.
39.50	Top of point, course N. W. and S. E.
40.00	Set a sandstone 24 X 14 X 3 ins. 18 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face; dug pits 18 X 18 X 12 ins. N. & S. of stone 5 1/2 ft. dist. and raised a mound of stones covered with earth 2 1/2 ft. high, 3 1/2 ft. base alongside
40.77	Thomas S. Bladen's fence course N. 80° E. & S. 80° W. and leave dense brush
51.10	Dry wash 10 lks. wide, course W. and enter dense brush and ascend abruptly about 300 ft.
68.90	Top of ridge, course N. W. & S. E. and descend abruptly about 200 ft.
80.00	Set a sandstone 24 X 10 X 5 ins. 18 ins. in the ground for cor. to secs. 17. 18. 19 and 20 marked with 3 notches on S. and 5 notches on E. edges; dug pits 18 X 18 X 12 ins. in each sec. 5 1/2 ft. dist. and raised a mound of earth 2 1/2 ft. high 3 1/2 ft. base alongside.
	Land mountainous 80 chs.
	Soil, sandy loam 2nd rate.
	Timber, a few scattering pines.
	Undergrowth dense oak quaking asp and cherry 69.67 chs.
	Mountainous land or covered with dense undergrowth 80 chs
	Aug 5th 1893.
	S. 89° 46' E. on a random line bet. secs. 17 and 20.

Subdivision of Sec. 38 T. 8 S. R. 9 W. continued.

chains	
	Va. 15° 04' E.
40.00	Set temporary 1/4 sec. cor.
80.20	Intersect N. and S. line 28 lks. South of the cor. to secs. 16. 17. 20 and 21.
	Thence Drum
	S. 89° 59' W. on a true line bet. secs. 17 and 20.
	Va. 15° 01' E.
	Descend abruptly about 300 ft. through heavy timber & dense brush (South)
22.00	Enter timbered flat, course N. and S. and leave dense
38.00	Enter dense brush and ascend abruptly about 100 ft.
40.10	Set a sandstone 24 x 10 x 8 ins. 18 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face; from which A quaking asp 10 ins. diam. bears S. 11° W. 27 lks. dist. marked 1/4 S. B. S. A quaking asp 10 ins. diam. bears N. 28° W. 49 lks. dist. marked 1/4 S. B. S.
42.68	Ledge of sandstone 10 ft. high, course N. and S.
56.79	Top of point, course N. and S. and descend about 150 ft.
65.77	Road, course N. 55° E. and S. 17° W. and ascend, leave timber
80.20	The cor. to secs. 17. 18. 19 and 20.
	Land, rough and mountainous 64.20 chs.
	Soil, sandy loam and gravel 2" mate.
	Timber, very heavy pine, fir, spruce and quaking asp (64.20 chs.)
	65.77 chs. Undergrowth same with dense under 64.20
	Mountainous land or heavily timbered Aug. 5 1893.
	or covered with dense undergrowth 80.20 chs.
	S. 89° 58' W. on a random line bet. secs. 18 and 19.
	Va. 15° 05' E.
40.00	Set temporary 1/4 sec. cor.
79.08	Intersect W. boundary of Tp. 33 lks. South of the cor. to secs. 13. 18. 19 and 24.
	Thence Drum
	S. 89° 48' E. on a true line bet. secs. 18 and 19.
	Va. 15° 07' E.
	Descend abruptly about 150 ft. through heavy timber and dense brush.
5.32	Three creeks 25 lks. wide, course S.
5.74	Ascend abruptly about 1200 ft. through heavy timber and dense brush.
20.35	Top of bench and leave timber, course S. E. and N. W.
35.30	Ledge of sandstone about 50 ft. high, course N. E. and S. W.

Subdivision T. 38 S. R. 9 W. continued.

chains	
	1/4 sec. cor. marked 1/4 on W. face; dug pits 18X18X12 ins. E. and W. of stone 5½ ft. dist. and raised a mound of earth 2½ ft. high, 3½ ft. base alongside.
40.10	Deep creek 10 lks. wide, course S. W. and ascend.
45.00	Top of ledge, course S. W. and N. E.
51.20	Top of bench, course N. 13° E. and S. 10° W.
59.85	Log road, course N. 13° E. and S. 10° W. and ascend abruptly about 100 ft.
79.08	The cor. to secs. 17. 18. 19 and 20.
	Land, rough and rolling 79.08 chs.
	Soil, sandy loam and gravel 1st and 3rd rate.
	Timber, heavy pine, fir, spruce and quaking asp 20.35 chs.
	Undergrowth same with dense oak 79.08 chs. Aug. 5 1893. (chs.
	Mountainous land or heavily timbered or covered with dense undergrowth 79.08
	North 0° 08' W. bet. secs. 17 and 18.
	Deposed through dense brush & timber Var. 15° 12' E.
12.08	Log road, course S. W. and N. E.
13.00	Dry wash 10 lks. wide, course N. W. into scattering timber and ascend about 40 ft.
18.63	Ledge of black basaltic rock 4 ft. high, course E. and W.
22.80	Log road, ~~course~~ S. 80° W. and N. 80° E.
24.52	Ledge of basaltic rock 5 ft. high, course E. and W.
40.00	Set a basaltic rock 24X8X7 ins. 18 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face; dug pits 18X18X12 ins. N. and S. of stone 5½ ft. dist. and raised a mound of stones covered with earth 2½ ft. high, 3½ ft. base alongside.
43.30	Leave scattering timber,
45.00	Road, course N. E. and S. W. leave dense brush.
54.50	Creek 3 lks. wide, course S. W. and ascend abruptly about 100 ft.
56.50	Smith's fence bears W. 4.50 chs. dist.
59.07	Fence, course N. E. and S. W. enter dense brush.
63.20	Road, course N. 80° W. and S. 80° E.
71.50	Top of point, course E. and W. and descend abruptly about 150 ft.
80.00	Set a basaltic rock 18X12X6 ins. 12 ins. in the ground for cor. to secs. 7. 8. 17. and 18. marked with 4 notches on S. and 5 notches on E. edge; from which A quaking asp 14 ins. diam. bears S. 24° E. 36 lks. dist. marked T. 38 S. R. 9 W. S. 17. B. T. A quaking asp 7 ins. diam. bears S. 18° W. 99 lks. dist. marked T. 38 S. R. 9 W. S. 18. B. T.

Subdivision T. 38 S. R. 9 W. continued.

Chains	
	N. 39° W. 51 lks. dist. marked T. 38 S. R. 9 W. S. 7. B. T.
	No other tree within the limits. Raised a mound of stones 2½ ft. high, 3½ ft. base alongside. Pits impracticable.
	Land, rough and rolling rocks.
	Soil, sand and clay loam 2nd and 4th rate.
	Timber scattering pine and quaking asp 30.30 chs.
	Brush, dense oak, sherry, willow, whortleberry and quaking asp 65.80 chs. Aug. 5 1893.
	N. 89° 59' E. on a random line bet. secs. 8 and 17.
	Var. 15° 11' E.
40.00	Set temporary 1/4 sec. cor.
80.10	Intersect N. and S. line 21 lks. South of the cor. to secs. 8. 9. 16 and 17.
	Hazel Drum
	S. 89° 50' W. on a true line bet. secs. 8 and 17.
	Var. 15° 08' E.
	Hazy timber and dense brush.
29.50	Descend abruptly about 300 ft.
38.50	Bottom, course N. and S. and bear timber
39.48	Creek 6 lks. wide, course S. 10° W.
40.05	Eli Schoffman's house bears S. 53° E. 12.90 chs. dist.
	Co-op. Sawmill bears S. 54° 28' W.
	Set a sandstone 20 x 12 x 5 ins. 15 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face; dug pits 18 x 18 x 12 ins. E. and W. of stone 5½ ft. dist. and raised a mound of stones covered with earth 2½ ft. high 3½ ft. base alongside.
44.50	Enter timber and ascend about 100 ft.
75.00	Co-op. Sawmill bears S.
78.30	Descend abruptly about 150 ft.
80.10	The cor. to secs. 7. 8. 17 and 18.
	Land mountainous 74 chs.
	Soil, sandy and clay loam and gravel 1st and 4th rate.
	Timber, scattering quaking asp 74.10 chs. Brush, dense oak quaking asp and willow, 80.00 chs. Aug. 6 1893.
	Mountainous land covered with dense underbrush 80.10 chs.
	N. 89° 48' W. on a random line bet. secs. 7 and 18.
	Var. 15° 10' E.
40.00	Set temporary 1/4 sec. cor.
78.89	Intersect W. boundary of Sp. 36 lks. North of the cor.

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Subdivision T. 38 S. R. 9 W. Continued.

chains	
	Thence Drun
	N. 89° 57' E. on a true line bet. Secs. 7 and 18.
	Va. 15° 06' E.
	Ascend through dense brush about 20 ft.
0.89	Top of ridge, course S. 10° E. and N. 5° W. and descend abruptly about 40 ft.
11.30	Bottom, course N. 10° W. and S. 12° E.
14.80	Ascend about 30 ft.
22.80	Top of bench, course S. 20° E. and N. 30° W.
38.89	Set a sandstone 24 x 10 x 6 ins. 18 ins. in the ground for 1/4 Sec. Cor. marked 1/4 on N face; dug pits 18 x 18 x 12 ins. E. and W. of stone 5½ ft. dist. and raised a mound of earth 2½ ft. high, 3½ ft. base alongside.
40.31	Enter heavy timber and descend into deep creek canon about 30 ft.
49.33	Deep creek 10 lks. wide, course S. 10° W.
61.20	East side of canon, course N. and S.
69.57	Road, course S. 10° E. and N. 20° W.
70.90	Descend abruptly about 250 ft.
71.31	East fork of Three creeks 10 lks. wide, course S. W. and ascend abruptly over rocks.
78.89	A point about 100 ft. above creek.
	The Cor. to Secs. 7. 8. 17 and 18.
	Land, mountainous: 74.39 chs.
	Soil, black loam and rocky 1st and 4th rate.
	Timber, heavy pine, fir and quaking asp 38.58 chs.
	Undergrowth, same with dense oak, quaking asp and wild huckleberry 78.89 chs. Aug. 7 1893.
	Mountainous land or heavily timbered or covered with dense undergrowth 78.89 chs.
	North 0° 03' W. bet. Secs. 7 and 8.
	Va. 15° 03' E.
	Through heavy timber and dense brush. Descend
2.58	East fork of Three creeks, 10 lks. wide, course S. 35° W. water pass.
2.60	Ascend abruptly about 200 ft.
4.37	Top of bench, course N. E. and S. W.
10.60	Descend about 100 ft.
22.50	Leave timber and ascend abruptly about 150 ft.
35.40	Top of ridge, course E. and W. and enter heavy timber and ascend along W. side of ridge
37.00	Leave timber, course N. E. and S. W.
40.00	Henry McConnell's house bears N. 45° W. 8.10 chs. dist.

Subdivision T. 38 S. R. 9 W. continued.

chains	1/4 sec. cor. marked 1/4 on W. face; from which A quakingasp 6 ins. diam. bears S. 52° E. 45 lks. dist. marked 1/4 S.B.T. No other tree within the limits. Raised a mound of stones covered with earth 2½ ft. high 3½ ft. base alongside. Pits impracticable.
40.88	Road, course E and W.
42.50	Enter heavy timber, course E. and W.
56.28	Spring run 2 lks. wide, course W. water good.
63.60	Ascend abruptly about 150 ft.
65.00	Top of bench, course N and S.
65.50	Leave timber, course N.W. and N.E.
80.00	Set a conglomerate rock 20×9×6 ins. 15 ins. in the ground for cor. to secs. 5.6.7 and 8. marked with 5 notches on S. and 5 notches on E. edges; dug pits 18×18×12 ins. in each sec. 5½ ft. dist. and raised a mound of stones covered with earth 2½ ft. high, 3½ ft. base alongside. Land mountainous and rough 80 chs. Soil, sandy loam and gravel 2nd rate. Timber, heavy pine, fir, and quakingasp 47.10 chs. Undergrowth same with dense oak, quakingasp and whortleberry 80 chs. Aug. 6 1893. Mountainous land or heavily timbered and covered with dense undergrowth 80 chs.
	N. 89° 50' E. on a random line bet. secs. 5 and 8. Var. 15° 12' E.
40.00	Set temporary 1/4 sec. cor.
80.10	Intersect N. and S. line 15 lks. South of the cor. to secs. 4.5.8 and 9. Thence I run S. 89° 44' W. on a true line bet. secs. 5 and 8. Var. 15° 09' E. Ascend about 10 ft. through dense brush
6.50	Top of ridge, course S. 40° W. and N. 40° E. and descend about 60 ft.
11.33	Christian Mackelprang's fence, course N. 20° E. and S. 45° W. and leave brush and enter field of about 40 A.
28.47	Spring run 3 lks. wide, course S. 30° W.
31.60	C. Mackelprang's house bears N. 6.54 chs. dist.
32.60	Fence, course N. 35° E. and S. 35° W.
32.92	Road, course N. 35° E. and S. 35° W. and ascend abruptly about 300 ft. through dense brush.

Subdivision S. 38 S., R. 9 W., continued.

chains	
	John D. Adams house bears S. 16° 30' E.
40.05	Top of ridge, course N. 11° E. and S. 11° W.
	Set a sandstone 22 x 10 x 8 ins. 16 ins. in the ground for 1/4 sec. cor.
	marked 1/4 on N. face; from which
	A mahogany 6 ins. diam. bears
	S. 13° W. 14 lks. dist.: marked 1/4 S. B. T.
	No other tree within the limits.
	Raised a mound of stones covered with earth 2½ ft.
	high. 3½ ft. base alongside. Pits impracticable
40.20	Descend abruptly about 400 ft.
49.38	Foot of ridge, course S. 5° W. and N. 10° E.
49.46	Road, course S. 6° W. and N. 8° E.
49.50	Spring run 3 lks. wide, course S. 5° W.
52.10	Ascend abruptly about 500 ft.
58.92	Top of ridge, course S. 20° W. and N. 8° E. and descend about 400 ft.
60.02	N. W. Cor. Mary E. Bladen's homestead, bur. house bears S. 44° 33' E.
74.00	Dry gulch about 40 ft. deep, course S. 15° W.
76.22	West side of gulch.
80.10	Tree cor. to secs. 5, 6, 7 and 8.
	Land, mountainous 58.51 chs.
	Soil, sandy loam and gravel 2nd rate.
	No timber.
	Brush, dense oak, quaking asp, cherry and willow. 58.51 chs.
	Mountainous land covered with dense undergrowth 58.51 chs. Aug. 8 1893

S. 89° 57' W. on a random line bet. secs. 6 and 7.

Va., 15° 07' E.

40.00	Set temporary 1/4 sec. cor.
78.85	Intersect W. boundary of Tp. 16 lks. South of cor. to secs. 1, 6, 7 and 12.
	Town Drum
	S. 89° 56' E. on a true line bet. secs. 6 and 7.
	Va., 15° 06' E.
	Ascend abruptly about 300 ft. Timber & dense brush
41.60	Top of ridge, course N. E. and S. W.
9.85	Ravine about 100 ft., course S. W.
10.40	Ascend abruptly about 100 ft.
11.00	Top of ridge, course N. and S. and descend.
38.85	Set a sandstone 18 x 14 x 3 ins. 12 ins. in the ground
	for 1/4 sec. cor. marked 1/4 on N. face; from which
	[illegible]

Subdivision T. 38 S. R. 9 W. continued.

Chains	
	S. 13° W. 35 lks. dist. marked 1/4 S. B. T.
	A quaking ash 10 ins. diam. bears
	N. 25° E. 97 lks. dist. marked 1/4 S. B. T.
61.35	Descend abruptly about 40 ft.
63.80	Enter bottom, course N. and S.
66.55	Ditch 3 lks. wide, course S.
66.80	Old road, course N. and S.
67.70	Creek 8 lks. wide, course S. E.
68.74	Road, course S. 15° W. and N. 15° E.
71.09	Spring run 10 lks. wide, course S.
72.39	Spring run 1 lk. wide, course S. W.
73.09	Leave bottom, course N. and S.
74.50	Ascend abruptly about 200 ft.
78.20	Top of plateau, course N. and S.
78.85	The cor. to secs. 5. 6. 7 and 8.
	Land, mountainous 68.15 chs.
	Soil, Sandy loam and gravel 1st and 4th rate.
	Timber, quaking ash, pine and fir. Brush, dense oak, quaking ash, cherry, willow and whortleberry, 78.85 chs. Aug. 8 1893.
	Mountainous land or covered with dense underbrush 78.85 chs.

North 0° 03' W. on a random line bet. secs. 5 and 6.
Var. 15° 02' E.

40.00	Set temporary 1/4 sec. cor.
79.88	Intersect N. boundary of Tp. 30 lks. west of the cor. to secs. 5. 6. 31 and 32.
	Thence S run
	S. 0° 16' W. on a true line bet. secs. 5 and 6.
	Var. 15° 03' E.
	Through dense brush and heavy timber along east side of gulch through Horace T. Gowers homestead
	House not in sight
25.00	Road N. E. & S. W.
25.60	Ravine about 50 ft. deep course S. 30° W.
39.88	Set a sandstone 23 x 10 x 3 ins. 17 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face; from which
	A quaking ash 12 ins. diam. bears
	S. 15° E. 62½ lks. dist. marked 1/4 S. B. T.
	A quaking ash 4 ins. diam. bears
	N. 24° E. 62 lks. dist. marked 1/4 S. B. T.
46.13	Road, course N. 42° E. and S. 44° W.
48.00	Martha A. Gowers house bears E. 48 lks. dist.

46

Subdivision T. 38 S. R. 9 W. continued.

chains	
56.56	Top of bench, course N. 25° W. and S. and leave timber
79.88	The cor. to secs. 5. 6. 7 and 8.
	Land, rough and slopes W.
	Soil, sandy loam 2nd rate.
	Timber, heavy quakingasp, fir, pine and spruce 56.56 chs. Brush, dense oak, quakingasp, cherry and currant 79.88 chs. Aug. 8 1893.
	Heavily timbered land or covered with dense undergrowth 79.88 chs.

Meanders of the west end of Duck Lake in sec. 12.

This Lake is partly in this township and partly in T. 38 S. R. 8 W.

I commence at the meander cor. to fractional sec. 12. on the E. boundary of the T. which is a sandstone 20×12×8 ins. 15 ins. in the ground marked M. C. on S. side and firmly set in the ground. 66.92 chs. N. of the cor. to secs. 7. 12. 13 and 18. and fully described in the field Notes of the survey of the Guide Meridian.

Thence I run with meanders in sec. 12.

Var. 15° 12' E.

Through scattering timber along foot of mountain.

1 N. 79° W. 45.00 chs. Leave timber.

2 S. 56° W. 13.00 chs. at 8.53 chs. spring run 3 lks. wide, course S. E.

3 S. 36° E. 10.00 chs.

4 S. 55° E. 28.00 chs. Enter heavy timber

5 N. 87° 30' E. 26.00 chs. to meander cor. to fractional Sec. 12. on Guide Meridian on S. side of Lake At 13.67 chs. spring run 5 lks. wide, course N. 44° W.

Cor. a sandstone 20×12×8 ins. 5 ins. above ground and M. C. on N. face; from which

A fir 20 ins. diam. bears

S. 51° E. 63 lks. dist. marked M. C. B. T.

A fir 24 ins. diam. bears

S. 32° W. 46 lks. dist. marked M. C. B. T.

This cor. is 44.67 ch. N. of the cor. to secs. 7. 12. 13 & 18.

This line runs along the foot of the mountain 45 chs. on N. side of Lake. Thence across wet bottom at W. end of Lake 23 chs. Thence

Subdivision T. 38 S. R. 9 W. concluded.

Claims	along foot of mountain on S. side of Lake 52.00 chs. Soil, black loam and sandy 2nd and 1st matt. Timber, heavy quakingasp, fir, spruce and pine 52.00 chs. and scattering 45 chs. Heavily timbered land 52.00 chs. Aug. 9 1893.

General Description.

This township contains nearly every variety of land from plains to mountains and the soil ranges from sandy to rich black loam, but the climate is not suited to agriculture.

This township is well suited to grazing as it is covered with an abundant growth of rich and nutritious grasses among the dense oak brush that covers nearly all of the township.

This township is supplied with good pure water sufficient in quantity to water it.

The northern and north eastern portion of the township is covered with pine, fir, spruce and quaking asp timber of good ~~good~~ quality.

The geological formation is black basalt, sandstone and limestone intermingled throughout the township.

The mean declination for the plat the average of several obs. is 15° 06' E.

There are no indications of coal, minerals or salines in this township.

There are 16 settlers in this township engaged mostly dairying, there is no farming done in the township except raising grass and but few acres in grass.

William Lewman
U. S. Deputy Surveyor.

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BOOK A-238

List of Names.

A list of the names of the individuals employed by William Lawrence, U. S. Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of the North West and South Boundaries & the Subdivisions of Township No 38 South Range 9 West of the Salt Lake Base & Meridian, in the Territory of Utah, showing the respective capacities in which they acted:

Heber Dalley Chainman
Joseph Crompton "
Thomas Williams Axeman
David Dix Flagman

[4.—FINAL OATHS OF ASSISTANTS.]

We hereby certify that we assisted William Lawrence, *United States Deputy Surveyor, in surveying all those parts or portions of the* North, West, and S. boundaries and the subdivision of T. No. 38 S. R. Nine W. *of the Salt Lake base and meridian in the Territory of Utah, as are represented in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established according to the instructions furnished by the United States Surveyor-General for Utah.*

Heber Dalley, Chainman.
Joseph Crompton, Chainman.
, Chainman.
, Chainman.
Thomas Williams, Axeman.
, Axeman.
David Dix, Flagman.

Subscribed and sworn to before me this 15th *day of* August *A. D.* 1893

Mayhew H. Dalley
Notary Public

My Commission expires Dec 5, 1893.

BOOK A 250

Final Oath of U. S. Deputy Surveyor.

I, _____, U. S. Deputy Surveyor, do solemnly swear that, in pursuance of instructions received from _____, U. S. Surveyor General for _____, bearing date of the _____ day of _____, 18 , I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the U. S. Surveyor General for _____, the surveying manual, and the laws of the United States, surveyed all those parts or portions of _____

_____

_____

_____

_____

_____ Meridian, in the _____, as are represented in the foregoing field notes as having been surveyed by me, and under my directions; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the surveying manual, printed instructions, the special written instructions of the U. S. Surveyor General for _____ and in the specific manner described in the field notes, and that the foregoing are the true field notes of such survey; and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

_____

U. S. Deputy Surveyor.

Subscribed and sworn to before me this _____ day of _____, 18 .

SEAL

_____

_____

Approval.

Office of the U. S. Surveyor General,

Salt Lake City Utah Nov 4, 1896

The foregoing field notes of the survey of The Subdivisions of Townships 3 S North Range 9 West of the Salt Lake Base & Meridian Utah Territory

_____

_____

_____

_____

_____

_____ executed by

_____

William Newman

under his Contract No. 191, dated March 2d, 1895, having been critically examined, the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

_____

Ingram Snow

U. S. Surveyor General.

I certify that the foregoing transcript of the field notes of the above-described surveys in _____, has been correctly copied from the original notes on file in this office.

_____

U. S. Surveyor General.

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(4—679.)

No. 3. B.

BOOK A-238

FIELD NOTES

OF THE SURVEY OF

The North and East boundaries of T. 35 S. R. 2 E.

Of the Salt Lake Base and Meridian,

Territory of Utah

AS SURVEYED BY

William Lewman, U. S. Deputy Surveyor,

under his Contract No. 191, dated March 2nd, 1893.

Survey commenced August 23rd, 1893.

Survey completed August 29th, 1893.

(12503—2,000.)

Corrected Copy

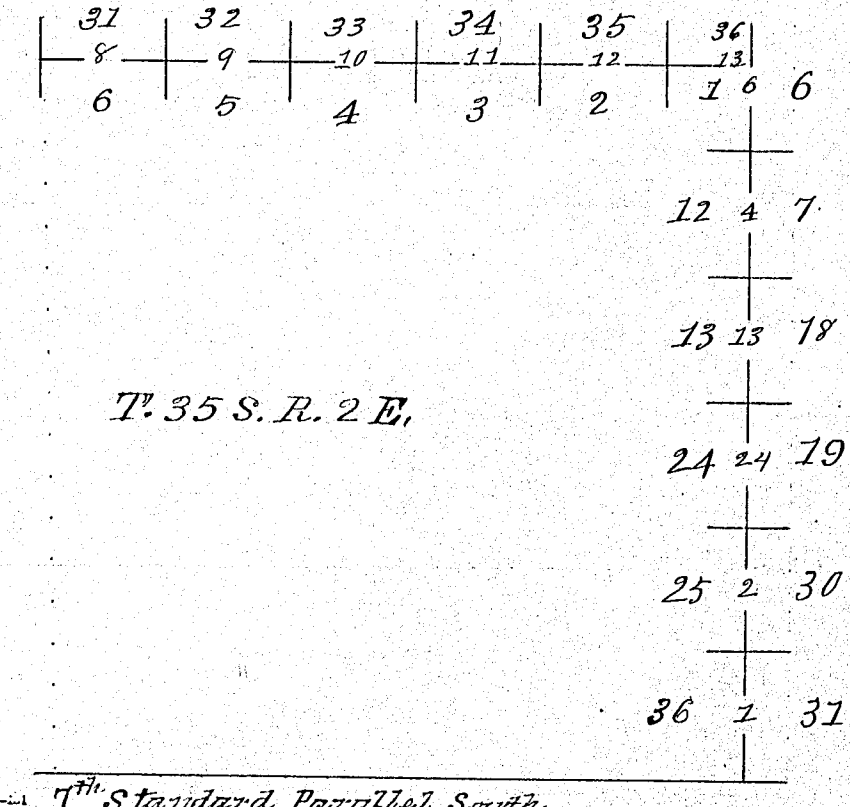
Names and Duties of Assistants.

Peter Barker — Chainman

Orris Wilcox — Chainman

David Woolsey — Axeman

Jacob Hamaker — Flagman



BOOKA-238

INDEX DIAGRAM.

Township ..... . *Range* .....

6	5	4	3	2	1
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18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

Meanders Page.....

Preliminary Oaths of Assistants.

We, _____

_____

_____

do solemnly swear that we will well and faithfully execute the duties of chain carriers; that we will level the chain over even and uneven ground, and plumb the tally-pins either by sticking or dropping the same; that we will report the true distance to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us in the survey of the _____

_____

_____

_____

_____

_____, *Chainman.*

_____, *Chainman.*

_____, *Chainman.*

_____, *Chainman.*

Subscribed and sworn to before me this _____ day of _____, 18 .

_____

_____

We, _____

_____

do solemnly swear that we will well and truly perform the duties of axemen in the establishment of corners and other duties, according to instructions given us, and to the best of our skill and ability, in the survey of the _____

_____

_____

_____

_____

Subscribed and sworn to before me this _____ day of _____, 18 .

_____, *Axeman.*

_____, *Axeman.*

_____

_____

_____

East boundary T. 35 S. R. 2 E.

chains

From the standard cor. to Tps. 35 S. Rs. 2 and 3 E as hereinbefore described, I took an observation on Polaris at my camp last night to test the adjustments of my transit. I found them correct. The reason I did not take the obs. at the cor. is because of the great difficulty of getting to and from it in the night.

At 8 A. M. Aug. 23 1893, I find the var. to be 15° 27' E. by my transit.

Thence I run N. between secs. 31 and 36.

Var. 15° 27' E.

Ascend abruptly through heavy timber, about 150 ft.

12.13 Top of first ridge, course N. E. and S. W.

23.20 Descend abruptly about 350 ft.

33.60 Dry wash 40 lks. wide, course N. W. and ascend

40.00 Set a sandstone 24 x 10 x 8 ins. 18 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face, & raised a mound of stone and earth 3 ft. high 3 ft. base alongside. Pits impracticable, owing to the extreme roughness of the ground I cannot get at any witness trees.

58.70 Top of mountain. I cannot measure on the line any further owing to cliffs. I go to standard line and measure from a point 24.69 chs. W. of the cor. on the standard line; to a point 80 chs. N. and offset east over not very rough ground to Range line. I measure east 24.69 chs. I also check on offset measurement by getting in line with 2 objects on the line N. I measured over level ground in running N. on offset from standard line.

80.00 Set a sandstone 24 x 10 x 6 ins. in a stone pile for cor. to secs. 25, 30, 31 and 36, marked with 1 notch on S. and 5 notches on N. edges from which A pinon 12 ins. diam. bears S. 75° E. 36 lks. dist. marked T. 35 S. R. 3 E. S. 31. B. T. No more trees accessible within the limits. Dug pits 18 x 18 x 12 ins. in secs. 25, 30 and 36. 5 1/2 ft. dist. and raised a mound of stones and earth 3 ft. high, 3 ft. base alongside.

East boundary T. 35 S. R. 2 E. continued.

chains	
	Soil, rocky 4th rate.
	Timber, heavy cedar and pinon 77 chs. scattering 3 chs.
	Undergrowth same 80 chs. Aug. 23 1893.
	Mountainous land or heavily timbered 80 chs.
	North between secs. 25 and 30.
	Var. 15° 28' E.
2.00	Descend abruptly through timber about 150 ft.
2.20	Ravine about 50 ft. deep, course W. and enter heavy timber
35.41	Perpendicular cliff about 50 ft. high, course E. and W.
40.00	Set a sandstone 22 x 10 x 4 ins. 16 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face; from which A cedar 10 ins. diam. bears S. 10° W. 6 lks. dist. marked 1/4 S. B. T. A pinon 6 ins. diam. bears N. 15° E. 20 lks. dist. marked 1/4 S. B. T.
43.50	Leave heavy timber and descend gradually course S. & W.
52.30	Dry wash 10 lks. wide, course N. W.
64.36	Dry wash 10 lks. wide, course W.
67.50	Dry wash 20 lks. wide, course N. W.
73.10	Dry wash 10 lks. wide, course W.
77.73	Descend about 8 ft.
80.00	Set a sandstone 23 x 10 x 4 ins. 17 ins. in the ground for cor. to secs. 19. 24. 25 and 30 marked with 2 notches on S. and 4 notches on N. edges from which A cedar 10 ins. diam. bears S. 65° E. 162 lks. dist. marked T. 35 S. R. 3 E. S. 30. B. T. A cedar 12 ins. diam. bears S. 24° W. 154 lks. dist. marked T. 35 S. R. 2 E. S. 25. B. T. No more trees within the limits. Dug pits 24 x 24 x 18 ins. in each sec. 5 1/2 ft. dist. and raised a mound of earth 3 ft. high, 3 ft. base alongside.
	Land, rough and mountainous 43.50 chs.
	Soil, gravel, sandy and clay loam 1st and 4th rate.
	Timber, heavy cedar and pinon 41.20 chs.
	Undergrowth same with scattering sage and greasewood 80 chs. Aug. 24 1893.
	Mountainous land or heavily timbered 43.50 chs.
	North between secs. 19 and 24.
	Var. 15° 22' E.
1.28	Heavily wash 25 lks. wide, course N. E.

East boundary T. 35 S. R. 2 E. continued

chains	
10.46	Trail, course N. E. and S. W.
13.13	Dry wash 15 lks. wide, course E.
22.68	Dry wash 30 lks. wide, course E.
26.19	Road, course S. 80° W. and N. 15° E.
27.73	Along E. side of hill at foot of same.
40.00	Set a sandstone 21x12x7 ins. 16 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face from which
	A cedar 8 ins. diam. bears
	S. 69½ W. 112 lks. dist. marked 1/4 S. B. T.
	No more trees within the limits. Dug pits 24x24x18 ins. N. and S. of stone 5½ ft. dist. and raised a mound of earth 3 ft. high 3 ft. base alongside.
41.00	Enter dense brush
46.63	Road, course E and W.
48.78	Dry wash 50 lks wide, course S. 60° E.
52.25	Road, course S. E. and N. W.
57.73	Enter heavy timber, course S. E. and S. W.
61.73	Point of hill, 30 lks. W. course N.
72.93	Dry wash 10 lks. wide, course S. E.
77.03	Dry wash 20 lks. wide, course S. E.
80.00	Set a sandstone 20x10x6 ins. 15 ins. in the ground for cor. to secs. 13. 18. 19 and 24 marked with 3 notches on S. and N. edges from which
	A pine 14 ins. diam. bears
	S. 1½ W. 268 lks. dist. marked T. 35 S. R. 2 E. S. 24 B. T.
	A cedar 12 ins. diam. bears
	N. 80° E. 71 lks. dist. marked T. 35 S. R. 3 E. S. 18. B. T.
	A pine 15 ins. diam. bears
	S. 49½ E. 146 lks. dist. marked T. 35 S. R. 3 E. S. 19. B. T.
	A cedar 8 ins. diam. bears
	N. 15° W. 3 lks. dist. marked T. 35 S. R. 2 E. S. 13. B. T.
	Land, rolling 40 chs.
	Soil, sandy and clay loam 1st rate.
	Timber, heavy cedar, pinon and pine 20.50 chs.
	Undergrowth same with dense sage brush 39 chs.
	Heavily timbered land 20.50 chs. Aug. 24 1893.

North between secs. 13 and 18.

Var 15° 27' E

East
North boundary T. 35 S. R. 2 E. continued

Chains	
	Through heavy timber and dense brush.
0.23	Ascend
16.23	Ascend abruptly about 150 ft.
21.00	Top of hill, course E. and W.
21.23	Descend abruptly about 150 ft.
25.73	Ledge of sandstone about 25 ft. high, course E. and W.
26.53	Dry channel 10 lks. wide course E.
28.23	Dry wash 10 lks. wide, course E.
40.00	Set a sandstone 30 x 10 x 8 ins. 23 ins. in the ground for 1/4 sec. cor., marked 1/4 on W. face; from which A cedar 10 ins. diam. bears S. 28° W. 43½ lks. dist. marked 1/4 S. B. T. A cedar 10 ins. diam. bears S. 16½ E. 56 lks. dist. marked 1/4 S. B. T.
42.20	Old road, course N. 80° E. and S. 80° W. and ascend (50 ft. about
52.43	Top of ridge, course N. E. and S. W.
54.73	Descend abruptly about 150 ft.
57.73	Dry wash 15 lks. wide, course N. W.
67.24	Dry wash 30 lks. wide, course N.
69.23	Leave wash, course N. E.
75.23	Same wash 30 lks. wide, course N. 25° W.
80.00	Set a sandstone 24 x 10 x 8 ins. 18 ins. in the ground for cor. to secs. 7, 12, 13 and 18 marked with 4 notches on S. and 2 notches on N. edge. from which A pine 20 ins. diam. bears S. 32° W. 61 lks. dist. marked T. 35 S. R. 2 E. S. 13. B. T. A pinon 10 ins. diam. bears N. 6° W. 30½ lks. dist. marked T. 35 S. R. 2 E. S. 12. B. T. A pinon 10 ins. diam. bears N. 58½ E. 28 lks. dist. marked T. 35 S. R. 3 E. S. 7. B. T. A pinon 8 ins. diam. bears S. 40° E. 29 lks. dist. marked T. 35 S. R. 3 S. 18. B. T.

Land rolling, rough and hilly 80 chs.
Soil, sandy 2nd rate.
Timber, heavy cedar, pinon and pine 80 chs.
Undergrowth, same 80 chs. Aug. 24 1893.
Heavily timbered land 80 chs.

North between secs. 7 and 12.
Va. 15° 27' E.
Descend abruptly through heavy timber.

A-238

CHAINS

248A

9-11-64:

The cor. secs. 7,12,13, & 18, on E. bdy. T.35S.,R.2 E., is reestablished (cor. stone missing) in its orig. position from the 4 orig. bearing trees:

A pinon, 12 ins.diam.,bears N.58½°E., 28lks. dist., mks. partially overgrown, scribe mks. visible.

A pinon,8 ins.diam.,bears S.40½°E., 29 lks. dist., mks.xpartially overgrown, scribe mks. visible.

A pinon stump, 18 ins. diam., bears S.32°W., 61 lks. dist., dim scribe mks. visible.

A pinon, 10 ins.diam.,bears N.6°W., 30½ lks. dist., properly mkd.

At reestablished cor. point

Set an iron post, 30 ins.long, 2½ ins.diam., 24 ins. in the ground, with brass cap mkd.

T35S

R2E	R3E
S12	S7
S13	S18

1964

Raise a mound of stone around cor.

248A

East boundary T. 35 S. R. 2 E. continued

Chains	
7.50	Dry wash 45 lks. wide, course N. 20° E.
15.88	Ascend abruptly about 100 ft.
23.32	Top of cliffs, course N. 35° E.
23.60	Enter heavy timber, course N. E. and S. W. and ascend about 50 ft.
26.37	Top of ridge, course N. 80° E. and S. 80° W. and descend abruptly about 200 ft.
30.53	Leave timber
33.74	Foot of ridge, course E. and W.
33.82	Ditch 13 lks. wide, course E. and W.
34.63	Road, course N. 80° E. and S. 85° W.
35.63	Old lane fence, course E. and W. and enter dense oak brush.
35.85	Andrew P. Schow's fence, course E. and W.
36.52	Leave brush.
36.54	Ditch 4 lks. wide, course E. and W. on south side of lucerne.
40.00	Set a sandstone 28×9×3 ins. 21 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face, Dug pits 20×20×12 ins. N. and S. of stone 5½ ft. and raised a mound of earth and stones 3 ft. high 3½ ft. base alongside. I measure a base 13.20 chs. E. from this cor. to triangulate to top of cliffs. Angle 24°14' cotang. 2.221×13.20 = 29.31 chs. + 40.00 = 69.31
51.55	Escalante creek 32 lks. wide, course N. 75° E. and leave lucerne
51.87	Enter dense brush.
65.54	Ditch, course E.
66.33	Ascend abruptly about 300 ft.
66.40	Enter timber
67.18	Foot of cliffs, course N. 80° E. and W.
69.31	Top of cliffs, course N. 75° E. and W.
80.00	Set a sandstone 24×10×5 ins. 18 ins. in the ground for cor. to secs. 1. 6. 7 and 12. marked with 5 notches on S. and 1 notch on N. edges from which A pinon 12 ins. diam. bears S. 42½° E. 56 lks. dist. marked T. 35 S. R. 3 E. S. 7 (B. T.) A pion 10 ins. diam. bears N. 58° [illegible] lks. dist. [illegible]

East boundary T. 35 S. R. 2 E. Continued.

chains A cedar 14 ins. diam. bears
N. 78½ E. 20 lks. dist. marked T. 35 S. R. 3 E. S. 6. B. T.
A pinon 6 ins. diam. bears
S. 76¾ W. 29 lks. dist. marked T. 35 S. R. 2 E. S. 12. B. T.
Land, rough and hilly 26.76 chs. Mountainous 30.68 chs.
Soil, sandy, and sandy loam 1st rate.
Timber, heavy cedar and pinon 12.50 chs.
Undergrowth sand 12.50 chs. Dense oak, sage, rabbit and willow 29.02 chs. Aug. 25 1893.
Mountainous land or heavily timbered or covered with dense undergrowth 60.70 chs.

North between secs. 1 and 6.
Va. 15° 22' E.
Ascend abruptly through heavy timber and dense brush about 150 ft.
12.23 Top of bench, course N.W. and S.E.
22.43 Ascend about 50 ft.
25.93 Ravine about 200 ft. deep, course N.E.
28.60 Bottom of ravine and ascend very abruptly.
34.63 Top of ridge and descend abruptly about 500 ft. course N.E. and S.W.
40.00 Set a sandstone 18 x 10 x 3 ins. 12 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face from which
A pinon 6 ins. diam.
S. 65½ E. 52 lks. dist. marked 1/4 S. B. T.
A 14 ins. diam. bears
S. 76½ W. 25 lks. dist. marked 1/4 S. B. T.
46.79 Gulch about 50 ft. deep, course E.
49.55 North side of gulch.
52.74 Gulch about 50 ft. deep, course E.
54.63 North side of gulch.
60.33 Gulch about 50 ft. deep, course S. 80° E.
62.60 North side of gulch.
73.76 Mouth of gulch about 50 ft. deep, course S. 30° E.
74.53 Main gulch about 100 ft. deep, course S. 20° E. and ascend up gulch.
76.80 Leave main gulch and ascend up small gulch
80.00 Set a sandstone 24 x 10 x 8 ins. 18 ins. in the ground for cor. to Tps. 34 and 35 S. Rs. 2 and 3 E. marked with 6 notches on N.E. [illegible]

East boundary T. 35 S. R. 2 E. con.

chains A pinon 10 ins. diam. bears
N. 29° W. 41 lks. dist. marked T. 34 S. R. 2 E. S. 36. B.T.
A pinon 14 ins. diam. bears
N. 62° E. 149 lks. dist. marked T. 34 S. R. 3 E. S. 31. B.T.
A pinon 10 ins. diam. bears
S. 17° E. 17 lks. dist. marked T. 35 S. R. 3 E. S. 6. B.T.
No other tree within the limits, Dug pits 24 x 24 x 14 ins. lengthwise on each line N. S. E. and w. of stone 6 ft. dist. and raised a mound of stones and earth 4 ft. high, 5 ft. base alongside.
Land, mountainous and rough 80 chs.
Soil, sandy 4th rate.
Timber, heavy cedar and pinon 80 chs.
Undergrowth same 80 chs. Aug. 25 1893.
Mountainous land and heavily timbered 80 chs.

At the cor. to Tps. 34 and 35 S. Rs. 2 and 3 E. in approximate lat. 37° 43' 37" N. Long. 111° 40' 39" W. on the night of Aug. 25th
I take an obs. on Polaris at 8h 23m P.M. correct time by my watch, and find the magnetic bearing of the star to be N. 13° 50' W. I drive a picket on the line thus determined 3 chs. N. for future reference.

	h.	m.
Astron. l. m. t. of obs.	8	23
W. C. Polaris Aug. 15	15	40.2
Reduction to Aug. 24		31.4
W. C. Polaris Aug. 24	15	08.8
Hour angle of Polaris at time of obs.	17	14.2
Subtract from	23	56.[illegible]
Argument Table II.	6	41.9
Azimuth of Polaris, at obs. lat 37°47'	1°	34' east.
North end of needle	13°	50' east.
The sum is the var.	15°	24' east.

At 7 A. M. Aug. 26th, the magnetic bearing of the true meridian is 15° 30' W. and the
Var. Dec. 15° 30' E
[illegible] declination is [illegible]

North boundary T. 35 S. R. 1 E.

Chains	
	Thence Prun
	West on a random line between the above named Tps.
	Var. 15° 30' E.
	I set temporary half mile and mile corners at each 40 and 80 chs. and find the line to be 5 miles 79 chains and 58 links long and the falling 28 lks. N. of the cor. to Tps. 34 and 35 S. Rs. 1 and 2 E. The corrections for the true line will be 4 2/3 lks. S. per mile, and the true course N. 89° 58' E.

	From the cor. to Tps. 34 and 35 S. Rs. 1 and 2 E. as hereinbefore described
	Prun
	North 89° 58' E. on a true line between Secs. 6 and 31.
	Var. 15° 30' E.
	Ascend about 50 ft through heavy timber and dense brush
9.00	Top of ridge, course S. E. and N. W.
9.20	Descend abruptly about 600 ft;
29.17	West Fork of North creek 18 lks. wide, course S. 48° E. water pure.
32.20	Ascend abruptly about 80 ft;
35.55	Top of point, course N. and S. and descend abruptly about 80 ft;
35.45	North creek 23 lks. wide, course S. 10° E. and ascend.
37.46	Road, course N. 10° W. and S. 10° E.
	I set a flag pole on line at this point, and measure 7 chs. S. for base to measure to top of cliffs E. set flag at S. end of base and another on top of cliffs on line. I measure to cliffs.
37.50	Ascend abruptly about 600 ft;
39.58	Set a sandstone 24 X 6 X 4 ins. 18 ins. in the ground for 1/4 sec. I cor. marked 1/4 on N. face; from which A pinon 10 ins. diam. bears S. 3° E. 2 lks. dist; marked 1/4 S. B. T. I A pinon 12 ins. diam. bears N. 10° E. 34 lks. dist. marked 1/4 S. B. T.
48.50	Perpendicular cliffs, course N. 10° W. and S. 10° E. From flag pole on top of cliffs, flag at S. end of base bears S. 59° 02' W. Subtract from 90 co = 30° 58' co-sec. 1.6664 X 7 = 11.66 + 37.46 = 49.12 chs.
46.12	E. b. of cliffs [illegible]

North boundary T. 35 S., R. 2 E. continued.

chains	
65.60	Top of ridge of mountain, course N. and S. and descend abruptly about 150 ft.
70.36	Ledge of sandstone about 10 ft. high, course N. & S. and descend
71.22	Foot of ledge,
79.58	Set a sandstone 28 x 12 x 2 ins. 22 ins. in the ground for cor. to secs. 5, 6, 31 and 32, marked with 1 notch on W. and 5 notches on E. edges; from which A pinon 12 ins. diam. bears N. 83° E. 65 lks. dist. marked T. 34 S. R. 2 E. S. 32. B. T. A cedar 15 ins. diam. bears S. 68° E. 68½ lks. dist. marked T. 35 S. R. 2 E. S. 5, B. T. A pinon 8 ins. diam. bears S. 61° W. 58 lks. dist. marked T. 35 S. R. 2 E. S. 6. B. T. A pinon 18 ins. diam bears N. 3½ W. 53 lks. dist. marked T. 34 S. R. 2 E. S. 31. B. T. Land, very rough and mountainous 79.58 chs. Soil, gravel and sandy loam 1st and 4th rate. Timber, heavy cedar and pinon 79.58 chs. Undergrowth same, with dense oak, willow, sage, and whortleberry 79.58 chs. Aug. 26 1893. Mountainous land heavily timbered and covered with dense undergrowth 79.58 chs.
	N. 89° 58' E. on a true line between secs. 5 and 32 Var. 15° 23' E.
	Descend abruptly about 600 ft. through heavy timber and dense brush.
38.40	Foot of ridge, course S. 30 E. and N. 30° W.
40.00	Set a sandstone 24 x 8 x 4 ins. 18 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face from which A cottonwood 22 ins. diam. bears N. 75° W. 45½ lks. dist. marked 1/4 S. B. T. A pinon 20 ins. diam. bears S. 17° E. 79½ lks. dist. marked 1/4 S. B. T.
41.42	Dry wash 20 lks. wide, course S. 35° E. and ascend very abruptly about 600 ft.
45.49	Ledge of sandstone 20 ft. high, course N. and S.
53.93	Ledge of sandstone 20 ft. high course N. and S.
55.37	Ledge of sandstone 20 ft. high, course N. 28° W. & 28° E.
59.00	Top of mountain, course S. 20° E. and N. 20° W.

North boundary T. 35 S. R. 2 E. continued.

Chains	
80.00	Set a sandstone 20x11x4 ins. 15 ins. in the ground for cor. to secs. 4-5, 32, and 33 marked with 2 notches on W. and 4 notches on E. edges from which A pinon 12 ins. diam. bears S. 1° E. 42 lks. dist. marked T. 35 S. R. 2 E. S. 4. B. T. A pinon 10 ins. diam. bears S. 34° W. 216 lks. dist. marked T. 35 S. R. 2 E. S. 5, B. T. A pinon 6 ins. diam. bears N. 18° W. 50 lks. dist. marked T. 34 S. R. 2 E. S. 32, B. T. pinon 8 ins. diam. bears N. 50° E. 55½ lks. dist. marked T. 34 S. R. 2 E. S. 33 B. T. Land, broken and mountainous 80 chs. Soil, sandy and gravel 4th rate. Timber, heavy cedar and pinon 80 chs. Undergrowth same, with oak and whortleberry 80 chs. Mountainous land heavily timbered 80 chs. Aug. 26 1893.
	N. 89° 58' E. on a true line between secs. 4 and 33. Var. 15° 21' E. Through heavy timber and dense brush.
17.30	Dry wash 20 lks. wide, course S. E.
35.53	Gulch about 150 ft. deep, course S. 10° E.
38.80	East fork of North creek, 25 lks. wide, course S. 8° W.
40.00	Set a sandstone 28x10x4 ins. 22 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face; from which A pinon 18 ins. diam. bears S. 69° E. 56 lks. dist. marked 1/4 S. B. T. A pinon 12 ins. diam. bears N. 5° W. 37 lks. dist. marked 1/4 S. B. T.
43.75	East side of gulch, course S. 10° E.
47.00	Ledge 10 ft. high, course S. W. and N.
47.32	Ascend about 20 ft.
74.80	Top of mountain, course N. 10° E. and S. 20° W. and descend about 50 ft.
80.00	Set a sandstone 22x8x6 ins. 16 ins. in the ground for cor. to secs. 3, 4, 33 and 34 marked with 3 notches on E. and W. edges; from which A pinon 12 ins. diam. bears S. 76° E. 8 lks. dist. marked T. 35 S. R. 2 E. S. 3. B. T. A pinon 14 ins. diam. bears [illegible]

North boundary T. 35 S. R. 2 E. continued.

chains	
	A pinon 13 ins. diam. bears
	N. 23° W. 105 lks. dist. marked T. 34 S. R. 2 E. S. 33 B. T.
	A pinon 10 ins. diam. bears
	N. 87° E. 21 lks. dist. marked T. 34 S. R. 2 E. S. 34. B. T.
	Land, broken mountainous and rough 80 chs.
	Soil, sandy and gravel 4th rate.
	Timber, heavy cedar and pinon 80 chs.
	Undergrowth same with oak and willow 80 chs.
	Mountainous land heavily timbered 80 chs.
	Aug 28. 1893
	N. 89° 58' E. on a true line line between secs. 3 & 34.
	Va. 15° 19' E.
	Ascend through heavy timber.
1.10	Descend abruptly over rocks about 650 ft. course N. & S.
26.00	Foot of mountain, course N. and S.
31.00	Leave timber, course S. E. and N.
40.00	Set a sandstone 24 x 8 x 4 ins. 18 ins. in the ground for 1/4 sec. Cor. marked 1/4 on N. face; Dug pits 20 x 20 x 15 ins. E. and W. of Stone 5 1/2 ft. dist. and raised a mound of earth 2 1/2 ft. high 3 1/2 ft. base alongside.
44.20	Enter timber and ascend gradually about 50 ft. course N. and S.
45.16	Top of ridge, course N. and S.
45.30	Descend about 50 ft;
47.80	Bottom, course N. and S.
48.02	Road, course N. 10° W. and S. 6° E. along N. side of slope.
56.20	Descend gradually.
59.80	Dry wash 10 lks. wide, course S. 20° E.
62.00	Leave timber, course N. E. and S. W.
70.00	Descend about 40 ft;
73.20	Ascend about 20 ft. and enter timber, course N. & S.
74.70	Top of ridge, course N. and S.
76.00	Ascend about 10 ft.
80.00	Set a sandstone 23 x 8 x 4 ins. 17 ins. in the ground for Cor. to secs. 2. 3. 34 and 35 marked with 4 notches on W. and 2 notches on S. edges from which
31.10 / 49.00 / 49.	A cedar 14 ins. diam. bears
	N. 27° W. 80 1/2 lks. dist. marked T. 34 S. R. 2 E. S. 34. B. T.
	A cedar 5 ins. diam. bears
	N. 15° E. 16 lks. dist. marked T. 34 S. R. 2 E. S. 35 B. T.

North boundary T. 35 S. R. 2 E. Continued.

chains	
	A cedar 4 ins. diam. bears
	S. 85° E. 43 lks. dist. marked T. 35 S. R. 2 E. S. 2. B. T.
	A cedar 8 ins. diam. bears
	S. 50° W. 21 lks. dist. marked T. 35 S. R. 2 E. S. 3. B. T.
	Land, rolling and hilly 54 chs. mountainous 26 chs.
	Soil, sandy loam and gravel 1st and 4th rate,
	Timber, heavy cedar and pinon 31 chs. scattering 21.80 chs.
	Undergrowth same with scattering sage 80 chs. Aug. 28 1893.
	Mountainous land heavily timbered 31 chs.
	N. 89° 58' E. on a true line between Sec. 2 and 35.
	Va. 15° 29' E.
	Descend about 30 ft. in timber and brush.
10.25	Ascend about 25 ft.
17.92	Road, course S. 10° E. and N. 10° W.
30.36	Top of ridge, course N. E. and S. W. and descend about (50 ft.
38.70	Dry wash 20 lks. wide, course S. 10° E.
39.58	Ledge 30 ft. high, course N. W. and S. E.
40.00	Set a sandstone 20 x 7 x 3 ins. 15 ins. in the ground for 1/4 Sec. Cor. marked 1/4 on N. face; from which
	A pinon 12 ins. diam. bears
	N. 1° E. 35 lks. dist. marked 1/4 S. B. T.
	A pinon 4 ins. diam. bears
	S. 13° W. 45 lks. dist. marked 1/4 S. B. T.
69.22	Ridge of sandstone 20 ft. high, course S. E. and N. W.
69.60	Top of ledge, course S. E. and N. W.
71.68	Enter heavy timber, and descend gradually.
80.00	Set a porphyry rock 24 x 14 x 12 ins. in a stone pile on rock for Cor. to Secs. 1, 2, 35 and 36 marked with 5 notches on W. and 1 notch on E. edge; from which
	A pinon 8 ins. diam. bears
	S. 75° W. 25 lks. dist. marked T. 35 S. R. 2 E. S. 2. B. T.
	A pinon 7 ins. diam. bears
	N. 39° W. 31 lks. dist. marked T. 34 S. R. 2 E. S. 35. B. T.
	A pinon 10 ins. diam. bears
	N. 11° E. 50 lks. dist. marked T. 34 S. R. 2 E. S. 36. B. T.
	A cedar 12 ins. diam. bears
	S. 28° E. 36 lks. dist. marked T. 35 S. R. 2 E. S. 1 B. T.
	Land, rolling and hilly 80 chs.
	Soil, sandy loam and gravel 1st and 4th rate, (chs.
	Timber, heavy cedar and pinon 8.32 chs. scattering 71.68
	Undergrowth same with sage 80 chs. Aug. 29. 1893.
	Heavily timbered land 8.32 chs.

North boundary T. 35 S. R. 2 E. cor

Chains	
	N. 89° 58' E. on a true line bet. secs. 1 and 36.
	Var. 15° 21' E.
	Descend through heavy timber and brush.
21.00	Ascend about 50 ft.
22.60	Ravine about 50 ft. deep, course N. 70° E.
40.00	Set a porphyry rock 20 X 12 X 9 ins. 15 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face; from which A cedar 8 ins. diam. bears N. 86° E. 21 lks. dist.; marked 1/4 S. B. S.
	No other tree within the limits. Raised a mound of stones 2½ ft. high 5½ ft. base alongside. Pits impracticable.
40.80	Gulch about 150 ft. deep, course S. 20° E. Measure a base 2 chs. S. and set a flag post also one on the line on both sides of gulch. From the post on E. side of gulch the post at S. end of base bears S. 72.38 W. Subtract from 90° or = 17° 22' Natang. 3.197 X 2 = 6.39 + 40 80 = 47.19 chs.
47.10	East side of gulch.
70.12	Descend gradually about 125 ft.
77.52	Dry gulch about 75 ft. deep, course S. 40° E.
78.22	East side of gulch and descend about 50 ft.
80.00	Fine cor. to Spo. 34 and 35 S. Rs. 2 and 3 E.
	Land, rough and mountainous 80 chs.
	Soil, gravel 4th rate.
	Timber, heavy cedar and pinon 80 chs.
	Undergrowth same with sage 80 chs.
	Mountainous land heavily timbered 80 chs.

Aug. 29 1893.

General Description.

The portions of this township lying North and South of Escalante creek are very rough and mountainous except the narrow bottom along North creek. There is dense growth of cedar and pinon timber and in many places the land is covered with a dense growth of oak brush.

William Lewman
U. S. Deputy Surveyor.

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List of Names.

A list of the names of the individuals employed by _____, U. S. Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of the _____ Meridian, in _____, showing the respective capacities in which they acted:

Final Oath of Assistants:

We hereby certify that we assisted _____, U. S. Deputy Surveyor, in surveying all those parts or portions of the _____ Meridian, _____, as are represented in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the U. S. Surveyor General for _____

Subscribed and sworn to before me this _____ day of _____, 18 .

SEAL

_____

_____

258-259 Blank

Final Oath of U. S. Deputy Surveyor.

I, ..., U. S. Deputy Surveyor, d
solemnly swear that, in pursuance of instructions received from ....., U. S
Surveyor General for ....., bearing date of the .....day o
....., 18 , I have well, faithfully, and truly, in my own proper person, and in strict
conformity with the instructions furnished by the U. S. Surveyor General for ....., th
surveying manual, and the laws of the United States, surveyed all those parts or portions of .....
.....
.....
.....
.....Meridian, in the....., as are represented in the fore
going field notes as having been surveyed by me, and under my directions; and I do further solemnly swear that al
the corners of said survey have been established and perpetuated in strict accordance with the surveying manual
printed instructions, the special written instructions of the U. S. Surveyor General for.....
and in the specific manner described in the field notes, and that the foregoing are the true field notes of such survey
and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congres
approved August 8, 1846.

.....
U. S. Deputy Surveyor.

Subscribed and sworn to before me this .....
day of ....., 18 .

SEAL

.....

.....

Approval.

Office of the U. S. Surveyor General,

Salt Lake City, Utah, April 4th, 1896.

The foregoing field notes of the survey of the Sixth Guide East Boundaries
of Township 3 South, Range 2 East of the Salt
Lake Base & Meridian,
.....
.....
.....
.....
.....
.....
.....executed by
William Newman
under his Contract No. 191, dated March 2d, 1893, having been critically
examined, the necessary corrections and explanations made, the said field notes, and the surveys they describe, are
hereby approved.

George W. Snow
U. S. Surveyor General.

I certify that the foregoing transcript of the field notes of the above-described surveys in .....
....., has been correctly copied from the original notes on file in this office.

.....
U. S. Surveyor General.

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(4—679.)

N.Z.O.
R.E.L.C.

K. J. B.

BOOKA-238

FIELD NOTES

OF THE SURVEY OF

the North and East boundary of T. 35 S. R. 3 E.

Of the Salt Lake Base and Meridian,

Territory of Utah

AS SURVEYED BY

William Lewman, U. S. Deputy Surveyor,

Under his Contract No. 191, dated March 2nd 1893.

Survey commenced September 2nd, 1893.

Survey completed September 16th, 1893.

(12703—2,000.)

Township (high) M. Ch. Lks. 10.44-39
(low) 1-35-28

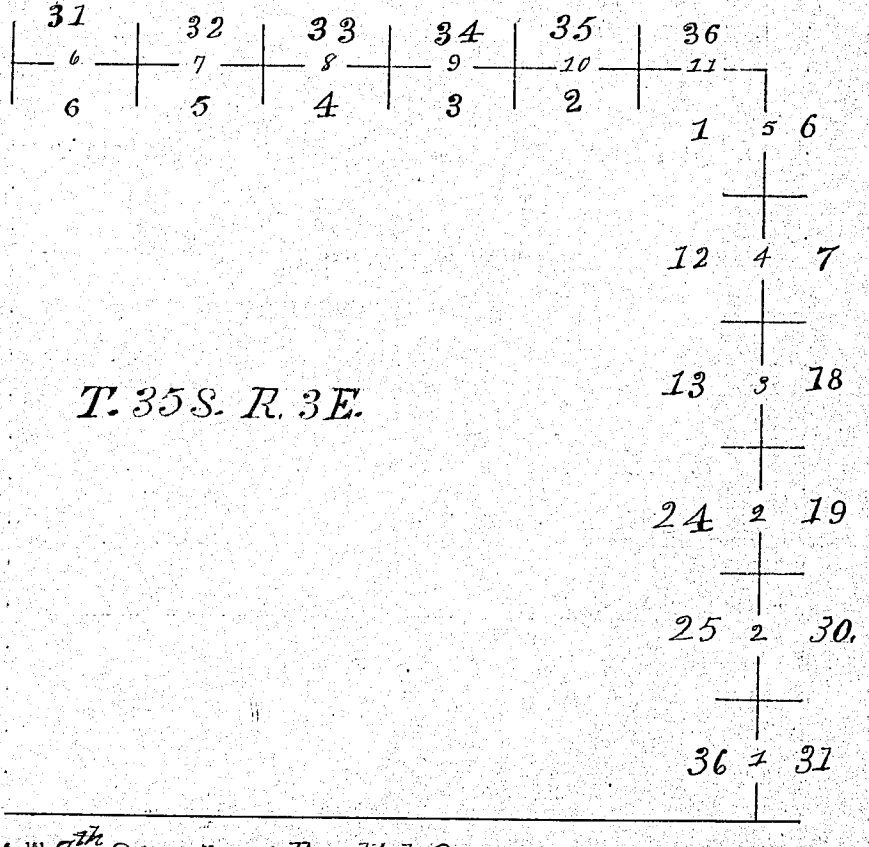
Names and Duties of Assistants.

Peter Barker — Chairman.

Orris Wilcox — Chairman

David Woolsey — Aleman

Jacob Hamaker — Flagman



BOOKA-238

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31	32	33	34	35	36

Meanders Page .....

Preliminary Oaths of Assistants.

We, _____

_____

_____

do solemnly swear that we will well and faithfully execute the duties of chain carriers; that we will level the ch
over even and uneven ground, and plumb the tally-pins either by sticking or dropping the same; that we will rep
the true distance to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of
skill and ability, and in accordance with instructions given us in the survey of the _____

_____

_____

_____

_____

_____, *Chainman*

_____, *Chainman*

_____, *Chainman*

_____, *Chainman*

Subscribed and sworn to before me this _____
day of _____, 18 .

_____

_____

We, _____

_____

do solemnly swear that we will well and truly perform the duties of axemen in the establishment of corners and oth
duties, according to instructions given us, and to the best of our skill and ability, in the survey of the _____

_____

_____

_____

_____

Subscribed and sworn to before me this _____
day of _____, 18 .

_____, *Axeman*

_____, *Axeman*

_____

_____

_____

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PAGE

East boundary T. 35 S. R. 3 E.

chains	
	September 2nd 1893, At the Standard cor. to Tps. 35 S. Rs. 3 and 4 E. on S. Bdy. of Tp. hereinbefore described. Observe Polaris at 2h 34m P. M. astron. l. m. t. by my watch, which is correct and find the magnetic bearing of the Star to be N. 15° 24' W. which is practically on the true meridian, Lat 37° 43' 28" N Long 111° 34' 05" W
	At 8 A. M. September 2nd I find the Magnetic bearing of the true meridian established this morning to be N 5° 27' W.
	The Va. is 15° 27' E.
	Mean declination 15° 24' E.
	Thence N.
	North bet. Secs. 31 and 36.
	Va. 15° 27' E.
	Ascend
26.50	Enter heavy timber, course N. E. and S. W.
29.08	Ravine about 30 ft. deep, course S. 70° E.
30.80	Ascend abruptly about 50 ft.
36.33	Top of bench, course E. and W.
40.00	Set a limestone 24 X 10 X 3 ins. 18 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face; from which A cedar 18 ins. diam. bears N. 53° W. 53 lks. dist. marked 1/4 S. B. T. A cedar 12 ins. diam. bears S. 58° E. 43 lks. dist. marked 1/4 S. B. T.
53.02	Road, course S. 80° W. and E.
80.00	Set a limestone 22 X 9 X 3 ins. 16 ins. in the ground for cor. to secs. 25. 30. 31 and 36, marked with 1 notch on S. and 5 notches on N. edges; from which A cedar 15 ins. diam. bears N. 49° E. 47 lks. dist. marked T. 35 S. R. 4 E. S. 30. B. T. A cedar 6 ins. diam. bears N. 77° W. 46 lks. dist. marked T. 35 S. R. 3 E. S. 25 B. T.
	A cedar 7 ins. diam. bears S. 72° W. 37 lks. dist. marked T. 35 S. R. 3 E. S. 36. B. T.
	A pinon 6 ins. diam. bears

East boundary T. 35 S. R. 3 E. continued.

chains	
	S. 4° E. 20 lks. distant marked T. 35 S. R. 4 E. S. 31, B. T.
	Land, slopes to the S. and E.
	Soil, gravel 1st rate.
	Timber, heavy cedar and pinon 53.50 chs.
	Undergrowth same with mountain rush & sage 80 chs.
	Heavily timbered land 53.50 chs. Sept. 2 1893.

North bet. Secs. 25 and 30.

Va. 15° 25' E.

1.00	Leave timber, course N. E. and W.
8.35	Enter heavy timber, course E. and W.
31.50	Leave timber, course E. and W.
38.00	Enter heavy timber, course N. E. and S. W.
40.00	Set a limestone 24 x 10 x 3 ins. 18 ins. in the ground for pos. cor. marked 1/4 on surface; from which
	A cedar 8 ins. diam. bears
	N. 10° W. 37 lks. dist. marked 1/4 S. B. T.
	A cedar 6 ins. diam. bears
	S. 60° W. 54 lks. dist. marked 1/4 S. B. T.
53.02	Road, course S. 39° W. and N. E.
80.00	Set a limestone 22 x 9 x 3 ins. 16 ins. in the ground for cor. to Secs. 19, 24, 25 and 30, marked with 2 notches on E. and 4 notches on N. edge; from which
	A cedar 15 ins. dia. bears
	S. 64° E. 24 lks. dist. marked T. 35 S. R. 4 E. S. 30 B. T.
	A cedar 7 ins. diam. bears
	N. 19° E. 39 lks. dist. marked T. 35 S. R. 4 E. S. 19, B. T.
	A cedar 8 ins. diam. bears
	N. 21° W. 104 lks. dist. marked T. 35 S. R. 3 E. S. 24, B. T.
	A cedar 12 ins. diam. bears
	S. 63° W. 100 lks. dist. marked T. 35 S. R. 3 E. S. 25, B. T.
	Land, nearly level.
	Soil, sandy loam and gravel 1st rate.
	Timber, heavy cedar and pinon 66.15 chs.
	Undergrowth same with mountain rush 80 chs.
	Heavily timbered land 66.15 chs. Sept. 2 1893.

North bet. Secs. 19 and 24.

Va. 15° 21' E.

	Descend about 20 ft. through heavy timber & brush
4.50	Ascend gradually about 25 ft.
	Enter heavy timber, course E. and W.

East boundary T. 35 S. R. 3 E. continued.

Chains	
30.00	Enter heavy timber, course N.E. and W.
40.00	Set a limestone 24 X 7 X 3 ins. 18 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face; from which. A cedar 4 ins. diam. bears S. 58° W. 38 lks. dist.; marked 1/4 S. B. T. A pinon 10 ins. diam. bears N. 45° E. 51 lks. dist.; marked 1/4 S. B. T.
43.75	Leave timber, course S.W. and N.E.
49.00	Enter heavy timber, course N.E. and S.W.
52.75	Descend about 10 ft.
54.25	Leave timber, course N. 80° E. and W.
63.10	Enter heavy timber, course S.E. and W.
71.50	Descend abruptly about 80 ft.
80.00	Set a Sandstone 19 X 10 X 8 ins. 13 ins. in the ground for cor. to secs. 13, 18, 19 and 24 marked with 3 notches on N. and S. edges; from which A cedar 10 ins. diam. bears N. 76° E. 90 lks. dist.; marked T. 35 S. R. 4 E. S. 13 B. T. A cedar 8 ins. diam. bears N. 32° W. 84 lks. dist. marked T. 35 S. R. 3 E. S. 13. B. T. A pinon 10 ins. diam. bears S. 52° E. 63 lks. dist. marked T. 35 S. R. 4 E. S. 19. B. T. A pinon 10 ins. diam. bears S. 47° W. 19 lks. dist.; marked T. 35 S. R. 3 E. S. 24. B. T. Land, rough and rocky 7.50 chs. Soil, limestone gravel 1st rate. Timber, heavy cedar and pinon 43.40 chs. Undergrowth same with scattering sage 80 chs. Heavily timbered land 43.40 chs. Sept. 2 1893.

North bet. secs. 13 and 18.
Va. 15° 27' E.

0.30	Leave timber and enter bottom course E and W.
5.18	Old Bowington trail, course N.E. and S.W.
18.25	Leave bottom and enter heavy timber, course N.E and S.W. and ascend abruptly about 150 ft.
23.40	Highest point of line on W. side of ridge, course N.E. and descend abruptly about 1 ch.
28.90	Head of ravine, course N.E.
35.63	Dry wash 54 lks. wide, course E.
[illegible]	Set a Sandstone 20 X 12 X 3 ins. 15 ins. in the ground

East boundary T. 35 S. R. 3 E. continued.

Chains	for 1/4 sec. cor. marked 1/4 on w. face; from which
	A cedar 5 ins. diam. bears
	S. 84° E. 41 lks. dist. marked 1/4 S. B. T.
	A cedar 5 ins. diam. bears
	N. 17° W. 15 lks. dist. marked 1/4 S. B. T.
46.50	Ascend about 5 ft.
74.80	Head of ravine, course E.
80.00	Set a Sandstone 22 x 10 x 2½ ins. 16 ins. in the ground for cor. to secs. 7. 12. 13 and 18 marked with 4 notches on S. and 2 notches on N. edges; from which
	A cedar 6 ins. diam. bears
	S. 78° W. 23 lks. dist. marked T. 35 S. R. 3 E. S. 13. B. T.
	A cedar 7 ins. diam. bears
	S. 69° E. 21 lks. dist. marked T. 35 S. R. 4 E. S. 18. B. T.
	A pinon 7 ins. diam. bears
	N. 74° E. 42½ lks. dist. marked T. 35 S. R. 4 E. S. 7. B. T.
	A pinon 8 ins. diam. bears
	N. 29° W. 30 lks. dist. marked T. 35 S. R. 3 E. S. 12. B. T.
	Land, rough and broken 62.05 chs.
	Soil, gravel and sandy 2nd rate
	Timber, heavy cedar and pinon 62.05 chs.
	Undergrowth sand with sage 80 chs.
	Heavily timbered land 62.05 chs. Sept. 3 1893.

North bet. secs. 7 and 12.

Va. 15° 23' E.

	Ascend about 50 ft. through heavy timber.
5.10	Top of ridge, course E and W. and descend abruptly about 60 ft.
19.60	Canon of Escalante creek, and heavy timber course E. and about 500 ft. deep, and inaccessible. Measure a base 38.84 chs. E. to bare ground for triangulation and set a tall flag pole, and one at W. end of base on the range line. From a point on N. side of canon, flag pole at E. end of base bears S. 52° 41' E. Cotang. .7622 x 38.84 = 29.60 + 19.60 = 49.20 chs. Cor. falls in canon and cannot be put in its proper place; consequently I set a witness cor. on top of cliffs.
49.10	North side of canon.
49.20	Set a Sandstone 24 x 12 x 8 ins. in a stone pile

East boundary T. 35 S. R. 3 E. continued.

chains	
	W. face and 1/4 below it. Raised a mound of stones 3 ft. high, 3 1/2 ft. base alongside.
70.81	Canon about 200 ft. deep, course S. 23° E. From a point on line on N. side of canon, flag pole at east end of base bears S. 33° 20' E. Cotang. 1.52 X 38.84 = 59.04 + 19.60 = 78.64 chs.
78.64	North side of canon, and enter bare sandstone rock.
80.00	Set a sandstone 24 X 10 X 6 ins. in a stone pile on bare rock for cor. to secs. 1, 6, 7 and 12, marked with 5 notches on S. and 1 notch on N. edges; and raised a mound of stones 3 ft. high 3 1/2 ft. base alongside. Pits impracticable.
	Land, rough, mountainous and cut with deep canons 80 chs.
	Soil, sandy 19.60 chs. bare rock 60.40 chs.
	Timber, heavy cedar and pinon 19.60 chs.
	Mountainous land or heavily timbered 80 chs.
	Sept. 5 1893.

North bet. secs. 1 and 6.
Va. 15° 26' E.

11.25	Ascend abruptly about 150 ft.
12.36	Top of bench; course E. and W. and leave bare rock
12.55	Enter scattering timber, course E. and W.
40.00	Set a sandstone 26 X 10 X 7 ins. in a stone pile for 1/4 sec. cor. marked 1/4 on W. face; and raised a mound of stones 3 ft. high, 3 1/2 ft. base alongside Pits impracticable.
55.54	Dead man's gulch about 350 ft. deep, course S. 15° E. totally inaccessible at this point. I set a Witness cor. at this point because I can see the cor. will fall in the canon. Walls of canon overhanging. I set a sandstone 24 X 11 X 6 ins. in a stone pile on rock for Witness cor. to Fps. 34 and 35 S. Rs. 3 and 4 E. marked with W. C. on S. and 6 notches on N. E. S. and W. edges; and raised a mound of stones 4 ft. high, 5 ft. base alongside Pits impracticable. I measure a base 10 chs. S. and set a flag pole, & also set a flag pole at Witness cor. and set one 5 chs. west of Cor. and offset due E. From a

East boundary T. 35 S. R. 3 E. included.

chains

bears S. 65° 41' W. Subtract from 90° 00' = 24° 19' cotang. 2.213 × 10 = 22.13 chs. Thence N. run N. 24.46 chs.
Offset 1.29 chs. W. to Dead Man Gulch
As it is impossible to measure any further W. I set a sandstone 24 × 10 × 5 ins. due E. of the cor. to Tps. 34 and 35 S. Rs. 3 and 4 E. 20.84 chs.
for witness cor. to Tps. 34 and 35 S. Rs. 3 and 4 E.
marked W. C. with 6 notches on N. E. S. and W. edges; and raised a mound of stone 4 ft. high, 5 ft. base alongside, Pits impracticable.

80.00 Cor. to Tps. 34 & 35 S. R. 3 & 4 E. in Canyon not set
I now measure N. 14.40 chs. and set a flag pole, also I set one at W. C. and another 15 chs. E. to give me the line from W. side of gulch. all are distinctly visible from the line on W. side of gulch.
Land, rough mountainous and cut with deep gulches 80 chs.
Soil, sandy and bare rocks 4th rate.
No timber worth notice. Sept. 6 1893.
Mountainous land 80 chs.

Sept. 7th 1893, From the W. C. to Tps. 34 and 35 S. Rs. 3 and 4 E. run W. on a random line bet. said Tps. the va. of my transit being 15° 26' E. I set temporary half mile and mile corners at each 40 and 80 chs. and find the line to be 5 miles 79 chains and 67 links long, and the falling 47 lks. N. of the corner to Tps. 34 and 35 S. Rs. 2 and 3 East hereinbefore described. The correction for the true line will therefore be 7 5/6 lks. S. per. mile and its true course N. 89° 57' E. Sept. 11 1893.

From the cor. to Tps. 34 and 35 S. Rs. 2 and 3 E.
I run hereinbefore described.
N. 89° 57' E. on a true line bet. Secs. 6 and 31.
Va. 15° 27' E.
Descend about 15 ft. through heavy timber.
0.40 Dry wash 32 lks. wide, course S.
0.70 Ascend abruptly about 700 ft.
9.60 Top of first bench, course N. and S.
19.75 Ascend abruptly about 200 ft.
22.68 Top of ridge, course N. and S.
37.36 Perpendicular cliffs about 4 0 ft. high, course N. W. &

North boundary of T. 35 S. R. 3 E. continued.

chains	
37.42	Foot of cliffs, course N. 30° W. and S. 35° E.
39.67	Set a sandstone 24×12×10 ins. in a stone pile on rock for 1/4 sec. cor. marked 1/4 on N. face; from which A cedar 6 ins. diam. bears S. 2° W. 43 lks. dist. marked 1/4 S. B. T. A pinon 6 ins. diam. bears N. 89° E. 67 lks. dist. marked 1/4 S. B. T.
68.08	Wood road, course N. 10° E. and S. 10° W.
73.20	Dry wash 22 lks. wide, course S. and descend along S. side of hill,
79.67	Set a sandstone 30×11×3 ins. in a stone pile on rocky place for cor. to secs. 5. 6. 31 and 32. marked with 1 notch on W. and 5 notches on E. edges; from which A cedar 10 ins. diam. bears S. 42° W. 15 lks. dist. marked T. 35 S. R. 3 E. S. 6. B. T. A pinon 4 ins. diam. bears S. 21° E. 51 lks. dist. marked T. 35 S. R. 3 E. S. 5. B. T. A cedar 10 ins. diam. bears N. 25° W. 36 lks. dist. marked T. 34 S. R. 3 E. S. 31. B. T. A pinon 8 ins. diam. bears N. 2° E. 19 lks. dist. marked T. 34 S. R. 3 E. S. 32. B. T. Land, rough and mountainous 79.67 chs. Soil, sandy and gravel 4th rate. Timber, heavy cedar and pinon 79.67 chs. Undergrowth same with oak, sage and mahogany 79.67 chs. Mountainous land heavily timbered 79.67 chs. Sept. 11 1893.
	N. 89° 57' E. on a true line bet. secs. 5 and 32. Va. 15° 22' E.
	Descend abruptly about 80 ft. through heavy timber and dense brush.
2.68	Dry wash 31 lks. wide, course S. 28° E. soon turns E.
2.99	Ascend abruptly about 100 ft.
10.25	Top of point course N. and S. and descend abruptly about 100 ft.
13.29	Ditch 4 lks. wide, course S. 20° E.
13.45	Foot of point, course N. & S. and ascend abruptly about 40 ft.
16.82	Spring run 2 lks. wide, course S. water sparse.
23.20	Ravine about 30 ft. deep, course S.
27.97	Road, course N. 70° W. and S. 70° E. and leave timber & brush

North boundary T. 35 S. R. 3 E. continued.

chains	
31.10	Descend about 40 ft.
31.90	Bottom, course S.E. and N.W.
37.55	Road, course S.E. and N.W.
37.95	Ditch 4 lks. wide, course S.E.
38.01	Enter Lucerne, course S.E. and N.W.
40.00	Set a basaltic rock 22X10X5 ins. 16 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face; from which A pinon 10 ins. diam. bears N. 65° W. 200 lks. dist.; marked 1/4 S.B. & T. and raised a mound of stone and earth 2½ ft. high, 3½ ft. base alongside dug pits 24X20X12 ins. E. and W. of stone 5½ ft. dist. I measure 9.13 chs. N. for a base to measure distance to top of mountain set pole at N. end of base also one at 1/4 sec. cor. and one on mountain.
44.98	Leave Lucerne, course N.W. and S.E. about 20 acres of it.
46.52	Pine creek 42 lks. wide, course S.E. water pure.
48.35	Ascend abruptly about 40 ft.
50.50	Top of ridge, course S.E. and N.W. and descend about 40 ft.
54.10	Foot of ridge and ascend about 40 ft.
54.80	Top of narrow ridge, course S.E. and N.W.
55.20	Foot of mountain, course N.W. and S.E. and enter heavy timber and ascend abruptly about 1000 ft.
80.00	Set a sandstone 30X7X6 ins. in a stone pile on a rocky place for cor. to secs. 4-5-32 and 33, marked with 2 notches on W. and 4 notches on E. edge; from which A pinon 8 ins. diam. bears S. 78° W. 33 lks. dist.; marked T. 35 S. R. 3 E. S. 5. B. T. A pinon 8 ins. diam. bears S. 2° E. 26 lks. dist. marked T. 35 S. R. 3 E. S. 4. B. T. A pinon 4 ins. diam. bears N. 63° E. 17 lks. dist.; marked T. 34 S. R. 3 E. S. 33. B. T. A cedar 6 ins. diam. bears N. 30° W. 17 lks. dist.; marked T. 34 S. R. 3 E. S. 32. B. T.

Land, rough and mountainous 59.62 chs.
Soil, rocky gravel and sandy loam 4th & 1st rate.
Timber, heavy cedar, pinon and pine 52.77 chs.
Undergrowth same with sage, oak, and willow 63.03 chs.
Mountainous land or heavily timbered 59.62 chs.

Sept. 12 — 1893.

North boundary T. 35 S. R. 3 E. continued.

chains Va. 15° 27' E.

Ascend abruptly through heavy timber and brush.

18.20 Foot of cliffs about 50 ft. high, course N.E. and S.W.
From flag on Top of cliffs flag pole at N. end of base bears N. 81° 08' W. subtract from 90°00' = 8° 52' cotang.
6.41 × 9.13 = 58.52 − 40 = 18.52 chs.

18.52 Top of cliffs about 900 ft. above Pine creek, course N.E. and S.W. and ascend about 100 ft.

32.10 Ravine about 10 ft. deep course S.W.

38.81 Ascend about 40 ft.

40.00 Set a sandstone 30 × 18 × 10 ins. in a stone pile on rock for 1/4 sec. cor. marked 1/4 on N. face; from which
A pine 8 ins. diam. bears
N. 47° E. 43 lks. dist. marked 1/4 S. B. T.
A pine 12 ins. diam. bears
S. 52° W. 13 lks. dist. marked 1/4 S. B. T.

71.70 Top of mountain, course N. and S. and enter scattering timber and descend gradually

80.00 Set a sandstone 40 × 14 × 6 ins. in a stone pile on rock with about 2 ins. of ground for cor. to secs. 3, 4, 33 and 34 marked with 3 notches on E. and W. edges; from which
A pine 10 ins. diam. bears
N. 12° E. 79 lks. dist. marked T. 34 S. R. 3 E. S. 34 B. T.
A pine 8 ins. diam. bears
S. 69° W. 121 lks. dist. marked T. 35 S. R. 3 E. S. 4 B. T.
No more trees within the limits. Raised a mound of stones 2½ ft. high, 3½ ft. base alongside. Pits impracticable
Land, rough and mountainous 80 chs.
Soil, rocky gravel 4th rate.
Timber, heavy cedar, pinon and pine 71.70 chs.
undergrowth same with scattering oak & sage 80 chs.
Mountainous land or heavily timbered 80 chs.

Sept. 13 1893.

N. 89° 57' E. on a true line bet. secs. 3 and 34.

Va. 15° 26' E.

Over base rocks through scattering timber.

9.75 Descend abruptly about 200 ft.

13.40 Foot of ridge, course N. and S. enter heavy timber and

North boundary T. 35 S. R. 3 E. continued.

chains	
40.00	Set a sandstone 24x6x5 ins. in a stone pile for 1/4 sec. cor. marked 1/4 on N. face; from which A pinon 6 ins. diam. bears N. 18° W. 35 lks. dist., marked 1/4 S. B. T. A pinon 8 ins. diam. bears S. 20° E. 15 lks. dist., marked 1/4 S. B. T.
45.50	Leave heavy timber, course N. E. and S. W. and descend over bare rocks, about 10 ft.
80.00	Set a sandstone 22x8x4 ins. in a stone pile for cor. to secs. 2, 3, 34 and 35 marked with 4 notches on W. and 2 notches on E. edge; from which A pinon 18 ins. diam. bears N. 10° E. 110 lks. dist., marked T. 34 S. R. 3 E. S. 35. B. T. A pinon 5 ins. diam. bears N. 69° W. 120 lks. dist., marked T. 34 S. R. 3 E. S. 34. B. T. No more trees within the limits. Raised a mound of stones 2½ ft. high, 3½ ft. base alongside, Pits impracticable.
	Land, mountainous, rocky and rough 80 chs.
	Soil, sandy and rocky 4th rate.
	Timber, heavy cedar and pinon and pine 32.10 chs. scattering 47.90 chs. undergrowth same with sage 80 chs.
	Mountainous or heavily timbered land 80 chs. Sept. 14, 1893.

N. 89° 57' E. on a true line bet. secs. 2 and 35.

Var. 15° 26' E.

3.10	Ascend through heavy timber.
3.70	Top of ridge, course N. and S. and descend gradually about 50 ft.
40.00	Set a sandstone 20x8x4 ins. in a stone pile on rock for 1/4 sec. cor. marked 1/4 on N. face; from which A pinon 8 ins. diam. bears N. 66° E. 14 lks. dist. marked 1/4 S. B. T. A pinon 5 ins. diam. bears S. 13° E. 45 lks. dist. marked 1/4 S. B. T.
80.00	Set a sandstone 22x12x3 ins., 16 ins. in the ground for cor. to secs. 1, 2, 35 and 36, marked with 5 notches on W. and 1 notch on E. edge; from which A pinon 14 ins. diam. bears S. 60° W. 32 lks. dist., marked T. 35 S. R. 3 E. S. 2, B. T. A pinon 15 ins. diam. bears

North boundary T. 35 S. R. 3 E. continued.

chains	
	S. 77° E. 20 lks. dist. marked T. 35 S. R. 3 E. S. 1. B. T.
	A pinon 13 ins. diam. bears
	N. 34° W. 64 lks. dist. marked T. 34 S. R. 3 E. S. 35. B. T.
	A pinon 13 ins. diam. bears
	N. 24° E. 114 lks. dist. marked T. 34 S. R. 3 E. S. 36. B. T.
	Land, rough and rolling 80 chs.
	Soil, sandy and rocky 3rd and 4th rate.
	Timber, heavy cedar and pinon 80 chs. dense oak and sage brush 3170 chs, scattering 7630 chs.
	Heavily timbered land or covered with dense undergrowth 80 chs. Sept. 15 1893.
	N. 89° 57' E. on a true line bet. secs. 1 and 36. Var. 15° 26' E.
	Through heavy timber.
18.00	Leave heavy timber and descend over bare rocks course of timber N. W. and S. E.
21.46	Gulch about 100 ft. deep, course S. E.
26.10	Dry wash 61 lks. wide, course S. E. and ascend about 200 ft. over bare rocks.
31.60	East side of gulch and ascend. about 200 ft.
40.00	Top of ridge, course N. and S.
	Set a sandstone 30 x 10 x 6 ins. in a stone pile on bare rock for 1/4 sec. cor. marked 1/4 on N. face; and raised a mound of stones 2½ ft. high, 3½ ft. base alongside. Pits impracticable. Ascend abruptly about 100 ft.
48.84	Dry wash 54 lks. wide, course S. E. and ascend abruptly about 100 ft.
52.60	Top of ridge, and enter timber course S. E.
57.18	Leave timber and descend.
	Dead man's Gulch about 500 ft. deep, course S. The 1/4 cor. falls in this gulch & measured a base of 14.40 chs. on E. side of gulch.
	The pole at N. end of base bears N. 71° 45' E. 3 angs. 3.032 x 14.40 = 43.66 chs.
60.66	Set a sandstone 24 x 10 x 7 ins. in a stone pile on rock for witness cor. to Tps. 34 and 35 S. Rs. 3 and 4 E. marked W. C. with 6 notches on N. E. S. and W. edges: and raised a mound of stones 4 ft. high, 5 ft. base alongside. Pits impracticable.
80.00	Fd. cor. to Tps. 34 & 35 S. R. 3 & 4 E. in canon, and set

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North boundary T. 35 S. R. 3 E. included.

chains | Soil, sandy 4th rate.
Timber, heavy cedar and spruce 180 chs. scattering 4.50 chs.
Mountainous land or heavily timbered 80 chs.

Sept. 16 1893.

General Description.

The Northern and central portions of this township are very rough and mountainous.
The southern part called the desert, is excellent land. The water is generally of poor quality.
The mountains are densely timbered with cedar spruce and pines. where there is soil on the rocks.

William Leuman
U. S. Deputy Surveyor.

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List of Names.

A list of the names of the individuals employed by _____, U. S. Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of the _____ _____ _____ _____ _____ _____ _____ _____ _____ Meridian, in _____, showing the respective capacities in which they acted:

_____ _____ _____ _____ _____ _____ _____ _____ _____

Final Oath of Assistants:

We hereby certify that we assisted _____, U. S. Deputy Surveyor, in surveying all those parts or portions of the _____ _____ _____ _____ _____ _____ _____ Meridian, _____, as are represented in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the U. S. Surveyor General for _____ _____ _____ _____ _____ _____ _____ _____ _____

Subscribed and sworn to before me this _____ day of _____, 18 .

SEAL

_____

_____

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Final Oath of U. S. Deputy Surveyor.

I, _____, U. S. Deputy Surveyor, do solemnly swear that, in pursuance of instructions received from _____, U. S. Surveyor General for _____, bearing date of the _____ day of _____, 18 , I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the U. S. Surveyor General for _____, the surveying manual, and the laws of the United States, surveyed all those parts or portions of _____

_____

_____

_____

_____ Meridian, in the _____, as are represented in the foregoing field notes as having been surveyed by me, and under my directions; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the surveying manual, printed instructions, the special written instructions of the U. S. Surveyor General for _____ and in the specific manner described in the field notes, and that the foregoing are the true field notes of such survey; and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

_____

U. S. Deputy Surveyor.

Subscribed and sworn to before me this _____ day of _____, 18 .

SEAL

_____

_____

Approval.

Office of the U. S. Surveyor General,

Salt Lake City, Utah, March 4, 1896

The foregoing field notes of the survey of the North and East Boundaries of Township 35 South, Range 3 East of the Salt Lake Base & Meridian, Utah

_____

_____

_____

_____

_____ executed by William Newman

under his Contract No. 191, dated March 2, 1893, having been critically examined, the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

_____

U. S. Surveyor General.

I certify that the foregoing transcript of the field notes of the above-described surveys in _____, has been correctly copied from the original notes on file in this office.

_____

U. S. Surveyor General.

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(4—679.)

K.J.B.

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FIELD NOTES

OF THE SURVEY OF

Subdivision of T. No. 35 S. Range No. 3 E.

Of the Salt Lake Base & Meridian,

Territory of Utah

AS SURVEYED BY

William Leuman, U. S. Deputy Surveyor,

under his Contract No. 191, dated March 2nd, 1893.

Survey commenced February 1st, 1894.

Survey completed April 11th, 1894.

(12503—2,000.)

Sect. (Hills) 16-60-86

" (Low) 26-19-93

Names and Duties of Assistants.

Peter Barker	Chainman.
Orris Wilcox	Chainman.
David Woolsey	Axeman.
Jacob Hamaker	Flagman.

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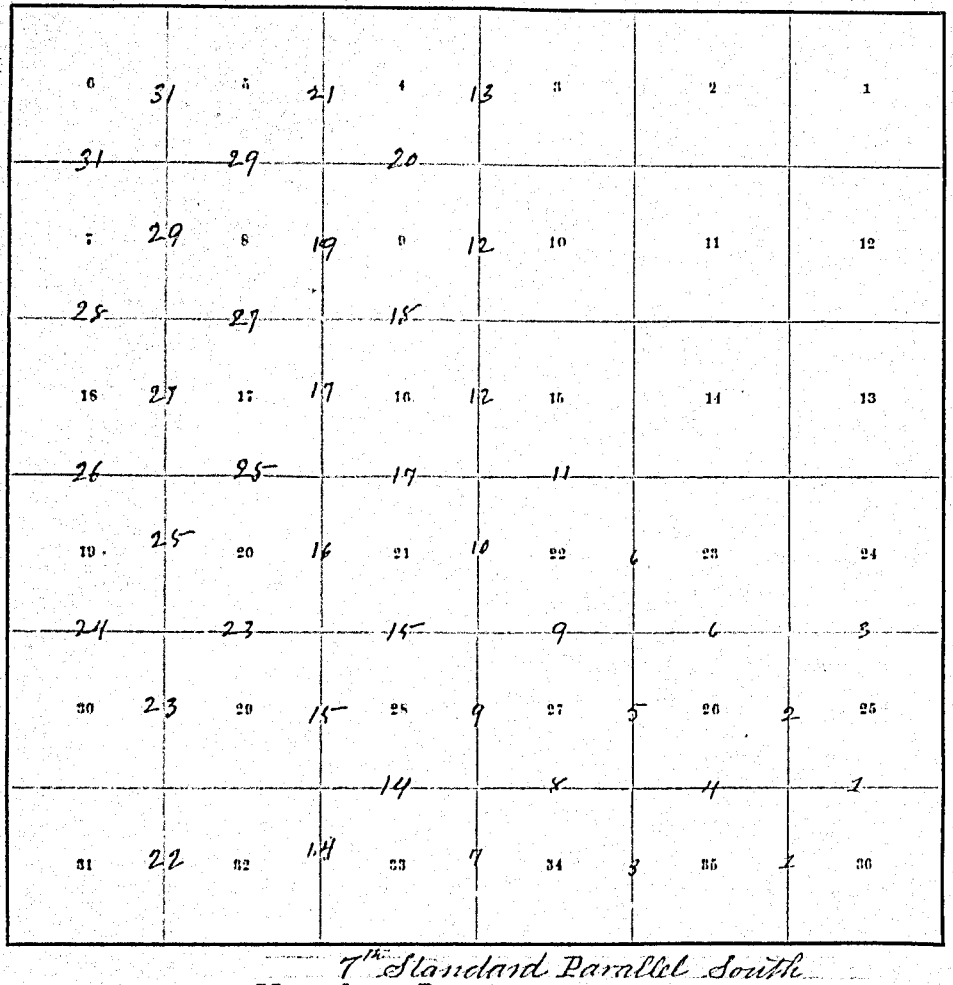
INDEX DIAGRAM.

Township No. 35 S. , Range No. 3 E.



7th Standard Parallel South

Meanders Page.....

Preliminary Oaths of Assistants.

We, _____

_____

_____

do solemnly swear that we will well and faithfully execute the duties of chain carriers; that we will level the chain over even and uneven ground, and plumb the tally-pins either by sticking or dropping the same; that we will report the true distance to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us in the survey of the _____

_____

_____

_____

_____

_____, *Chainman.*

_____, *Chainman.*

_____, *Chainman.*

_____, *Chainman.*

Subscribed and sworn to before me this _____ day of _____, 18 .

_____

_____

We, _____

_____

do solemnly swear that we will well and truly perform the duties of axemen in the establishment of corners and other duties, according to instructions given us, and to the best of our skill and ability, in the survey of the _____

_____

_____

_____

_____

Subscribed and sworn to before me this _____ day of _____, 18 .

_____, *Axeman.*

_____, *Axeman.*

_____

_____

_____

Subdivision T. 35 S. R. 3 E.

Chains	Survey commenced Feby 1 1864
	Having established a true Meridian at the Standard cor. to Tps. 35 S. Rs. 3 and 4 E. by two observations. I verify the adjustments of my transit and find them correct.
	I now go to the Standard cor. to secs. 35 and 36 on S. boundary of Tp. hereinbefore described.
	Thence I run
	North 0° 01' W. bet. secs. 35 and 36.
	Va. 15° 25' E.
	Through scattering timber over rolling ground
16. 84	Road, leads N. E. and S. W.
40. 00	Set a limestone 32 X 10 X 2½ ins. 24 ins. in the ground for ¼ sec. cor. marked ¼ on W. face; from which
	A pinon 18 ins. diam. bears
	S. 5½° W. 9½ lks. dist. marked ¼ S. B. T.
	A cedar 10 ins. diam. bears
	N. 17° E. 110½ lks. dist. marked ¼ S. B. T.
40. 72	Dry wash 43 lks. wide, course S. W.
57. 50	Enter heavy timber, course E and W.
80. 00	Set a limestone 26 X 10 X 2 ins. 20 ins. in the ground for cor. to secs. 25. 26. 35 and 36 marked with 1 notch on S. and E. edges; from which
	A pinon 12 ins. diam. bears
	S. 9° E. 14 lks. dist. marked T. 35 S. Range 3 E. S. 36. B. T.
	A pinon 10 ins. diam. bears
	N. 34° W. 24 lks. dist. marked T. 35 S. R. 3 E. S. 26. B. T.
	A cedar 8 ins. diam. bears
	S. 42° W. 21½ lks. dist. marked T. 35 S. R. 3 E. S. 35. B. T.
	A cedar 14 ins. diam. bears
	N. 80° E. 60 lks. dist. marked T. 35 S. R. 3 E. S. 25. B. T.
	Land, gently rolling 80 chs.
	Soil, Sandy loam 2nd rate.
	Timber, heavy cedar and pinon 22.50 chs.
	Undergrouth the same with scattering sage and grass-wood 80 chs.
	Heavily timbered land 22.50 chs.

	E. on a random line bet. secs. 25 and 36.
	Va. 15° 24' E.
40. 00	Set temporary ¼ sec. cor.
80. 08	Intersect E. boundary of Tp. at cor. of secs. 25. 30.

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Subdivision T. 35 S. R. 3 E. continued.

chains	
	Thence N run
	N. on a true line bet. secs. 25 and 36.
	Va. 15° 23' E.
	Through scattering timber and brush.
40.04	Set a limestone 24x9x3 ins. 18 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face; from which A pinon 13 ins. diam. bears S. 45° W. 38 lks. dist. marked 1/4 S. B. T. A pinon 8 ins. diam. bears N. 35° E. 30 lks. dist. marked 1/4 S. B. T.
53.00	Descend abruptly about 100 ft.
54.82	Dry wash 5 lks. wide, course S. 20° W.
60.80	Ascend abruptly about 100 ft.
62.90	Top of plateau, course S. 20° E. and N. 20° W.
80.08	The cor. to secs. 25, 26, 35 and 36
	Land, rough and mountainous 9.90 chs.
	Soil, sandy and clay loam 2nd rate.
	Timber, scattering cedar and pinon 80.08 chs.
	Undergrowth same 80 chs.
	Mountainous land 9.90 chs.

	North 0° 01' W. bet. secs. 25 and 26.
	Va. 15° 22' E.
	Ascend through heavy timber.
40.00	Set a limestone 22x8x4 ins. 16 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face; from which A pinon 3 ins. diam. bears S. 60° E. 27 lks. dist. marked 1/4 S. B. T. A cedar 12 ins. diam. bears N. 14° W. 35 lks. dist. marked 1/4 S. B. T.
80.00	Set a limestone 22x6x4 ins. 16 ins. in the ground for cor. to secs. 23, 24, 25 and 26 marked with 2 notches on S. and 1 notch on E. edges; from which - A pine 8 ins. diam. bears S. 47° E. 30 lks. dist. marked T. 35 S. R. 3 E. S. 25. B. T. A pinon 6 ins. diam. bears S. 46° W. 41 lks. dist. marked T. 35 S. R. 3 E. S. 26. B. T. A pinon 5 ins. diam. bears N. 51° W. 45½ lks. dist. marked T. 35 S. R. 3 E. S. 23. B. T. A pinon 10 ins. diam. bears N. 86° E. 35½ lks. dist. marked T. 35 S. R. 3 E. S. 24. B. T.
	Land, plateau and hill to the South

Subdivision T. 35 S. R. 3 E. continued.

chains	Timber, heavy cedar and pinon 80 chs.
	Undergrowth same 80 chs.
	Soil, sandy and clay loam 2nd rate.
	Heavily timbered land 80 chs. July 1 1874.
	E. on a random line bet. secs. 24 and 25.
	Va. 15° 2' E.
40.00	Set temporary 1/4 sec. cor.
80.10	Intersect E. bdy. of Tp. 12 lks. North of cor of secs. 19. 24. 25 and 30.
	Thence Prun
	N. 89° 55' W. on a true line bet. secs. 24 and 25.
	Va. 15° 25' E.
9.10	Enter heavy timber and brush.
40.05	Set a limestone 30 x 12 x 3 ins. 24 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face; from which
	A pinon 8 ins. diam. bears
	N. 33° W. 36 lks. dist. marked 1/4 S. B. T.
	A pinon 6 ins. diam. bears
	S. 74° E. 4 lks. dist. marked 1/4 S. B. T.
52.52	Gulch about 250 ft. deep, course S.
55.80	West side of gulch, and S. point of mountain.
66.12	Gulch about 300 ft. deep, course S. 20° W. sometimes S. then sometimes Southeasterly.
68.96	West side of gulch, and S. spur of mountain.
80.10	The cor. to secs. 23. 24. 25 and 26.
	Land, broken, rough and mountainous 16.44 chs.
	Soil, sandy loam 2nd rate.
	Timber, heavy cedar and pinon 7.10 chs. light g. chs.
	Undergrowth scattering sage and grass wood 80 chs.
	Mountainous land or heavily timbered 7.10 chs.
	Detour at above corner because of high mountains
	From the Standard Corner to secs. 34 and 35 on S. bdy. of Tp. hereinbefore described
	Prun
	North 0° 01' W. bet. secs. 34 and 35.
	Va. 15° 23' E.
6.38	Road, course N.W. and S.E.
13.68	Dry wash 147 lks. wide, course E.
27.45	Road, course N.W. and S.E.

Subdivision T. 35 S. R. 3 E. continued.

chains	
28.78	Ascend gradually, about 100 ft.
40.00	Set a limestone 20x12x4 ins. 15 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face; dug pits 18x18x12 ins. N. and S. of stone 5½ ft. dist. and raised a mound of earth 2½ ft. high, 3½ ft. base alongside
80.00	Set a limestone 20x12x4 ins. 15 ins. in the ground for cor. to secs. 26. 27. 34 and 35 marked with 1 notch on S. and 2 notches on E. edges; dug pits 18x20x15 ins. in each sec. 5½ ft. dist. and raised a mound of earth 2½ ft. high, 3½ ft. base alongside.
	Land, nearly level.
	Soil, sandy 2nd rate.
	No Timber.
	Undergrowth scattering sage and greasewood 80 chs.

E. on a random line bet. secs. 26 and 35.
Va. 15° 24' E.

40.00	Set temporary 1/4 sec. cor.
80.08	Intersect N. and S. line at the cor. to secs. 25. 26. 35 and 36.
	Thence Prun
	W. on a true line bet. secs. 26 and 35.
	Va. 15° 23' E.
9.50	Leave timber, course N. and S.
29.60	Enter timber and descend about 30 ft.
35.10	Ascend about 25 ft. course of depression N. and S.
39.30	Top of point, course N. and S.
40.04	Set a limestone 18x13x3½ ins. 12 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face; from which A pinon 9 ins. diam. bears S. 23° E. 26 lks. dist. marked 1/4 S. B. T. A pinon 6 ins. diam. bears N. 4° W. 52½ lks. dist. marked 1/4 S. B. T.
44.92	Dry wash 50 lks. wide, course S. W.
49.77	Dry wash 20 lks. wide, course S. W. and ascend about 30 ft.
52.50	Top of point, course S. 10° W.
53.00	Descend abruptly about 40 ft.

Subdivision T. 35 S. R. 3 E. continued.

Chains	
54.30	Bottom, course N. and S.
54 80	Dry wash 35 lks. wide, course S.
58. 82	Ascend abruptly about 50 ft.
60.07	Top of point, course N. and S. and descend about 50 ft.
62. 09	Dry wash 30 lks. wide, course S.
66.50	Leave timber, course N. and S.
80. 08	The cor. to secs. 26. 27. 34 and 35,
	Land, rough and broken 46.40 chs.
	Soil, sandy 2nd rate.
	Timber, cedar and pinon 46.40 chs.
	Undergrowth same with scattering greasewood 80.08 chs.
	Dec. 2 1894.

North 0° 01' W. bet. secs. 26 and 27.

Va. 15° 22' E.

33.00	Enter scalloping timber
40.00	Set a limestone 18 x 10 x 4 ins. 12 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. faid; from which A pinon 4 ins. diam., bears N. 41° W. 55 lks. dist. marked 1/4 S. B. T. A cedar 4 ins. diam., bears S. 76° W. 52 lks. dist. marked 1/4 S. B. T.
45.82	Road, course N. 42½ and S. 46° W.
48.60	Enter heavy timber, course N.E. and S.W. and ascend.
70.40	Dry wash 20 lks. wide, course S. 85° W.
70.75	Ascend abruptly about 40 ft.
80.00	Set a limestone 24 x 6 x 4 ins. 18 ins. in the ground for cor. to secs. 22. 23. 26 and 27, marked with 2 notches on S. and east edges; from which A pinon 7 ins. diam., bears S. 15 E. 13 lks. dist. marked T. 35 S. R. 3 E. S. 26. B. T. A pinon 12 ins. diam., bears S. 50° W. 108 lks. dist., marked T. 35 S. R. 3 E. S. 27. B. T. A pinon 8 ins. diam., bears N. 49° W. 48 lks. dist., marked T. 35 S. R. 3 E. S. 22. B. T. A pinon 10 ins. diam., bears N. 9° E. 52 lks. dist., marked T. 35 S. R. 3 E. S. 23. B. T.
	Land, sloped to the S. 31.40 chs.
	Soil, sandy and limestone gravel 2nd rate.
	Timber, heavy cedar and pinon 31.40 chs.
	Undergrowth the same with scattering [illegible] Dec. 1894

Subdivision J. 35 S. R. 3 E. continued.

chains	
	E. on a random line bet. secs. 23 and 26.
	Va. 15° 26' E.
40.00	Set temporary 1/4 sec. cor.
80.12	Intersect N. and S. line 13 lks North of the cor. to secs. 23. 24. 25 and 26.
	Hand Drum
	N. 89° 55' W. on a true line bet. secs. 23 and 26.
	Va. 15° 24' E.
	Ascend & through heavy timber & brush
21.50	Descend gradually about 50 ft.
26.50	Ascend abruptly about 150 ft.
31.80	Top of ridge, course N. and S. and descend abruptly about 300 ft.
40.06	Set a limestone 20 X 10 X 6 ins. 15 ins. in the ground for 1/4 sec. cor. marked 1/4 S on N. face; from which A pinon 8 ins. diam. bears S. 86° E. 24 lks. dist. marked 1/4 S. B. T. A cedar 10 ins. diam. bears N. 46° E. 60 lks. dist.; marked 1/4 S. B. T.
40.05	Dry wash 62 lks. wide, course S.
41.30	Ascend abruptly about 300 ft.
45.90	Top of ridge, course N. and S.
46.10	Descend abruptly about 200 ft.
49.63	Dry wash 20 lks. wide, course S. E.
49.80	Ascend abruptly about 200 ft.
57.90	Top of ridge, course S. E. and N. W. and descend
56.60	Foot of ridge, course N. W. and S. E.
60.00	Ascend gradually
80.12	The cor. to secs. 22. 23. 26 and 27.
	Land, rough and cut with gulches 58.62 ch.
	Soil, gravel and sandy 2nd rate.
	Timber, heavy cedar and pinon 80 lks.
	Undergrowth same 80.12 ch. Feb. 3 1894.
	Mountainous land or heavily timbered 80.12 chs.
	North 0° 01' W. bet. secs. 22 and 23.
	Va. 15° 22' E.
	Ascend gradually about 500 ft.
33.50	Leave timber and enter dense brush, course E. & W.
37.80	Head of ravine, course S. 20° W.
40.00	Set a Sandstone 24 X 12 X 6 ins. 18 ins. in the ground for 1/4 Sec. cor. marked 1/4 on W. face; raised a mound of stones 3 ft. high, 4 ft. base alongside. Pits impracticable.
	Trend along ravine, bed rock sides, thick brush

Subdivision T. 35 S. R. 3 E. continued.

chains

58.00 Top of bench, course E. and W.

66.80 Enter very scattering timber.

80.00 Set a sandstone 24×8×5 ins. 18 ins. in the ground for cor. to secs. 14. 15. 22 and 23. marked with 3 notches on S. and 2 on E. edges; from which
A pinon 12 ins. diam. bears
N. 23° E. 41 lks. dist. marked T. 35 S. R. 3. E. S. 14. B. T.
A cedar 10 ins. diam. bears
S. 39° E. 280 lks. dist. marked T. 35 S. R. 3 E. S. 23. B. T.
No more trees within the limits. Raised a mound of stones 3 ft. high, 4 ft. base alongside. Pits unpracticable.
Land, rises on nearly an even grade 58 chs.
Soil, sandy and rocky 3rd rate.
Timber, heavy cedar and pinon 33.50 chs.
Undergrowth 33.50 chs. with dense oak, sage mountain rush and whortleberry 46.50 chs. Feb. 6. 1894.
Heavily timbered land or covered with dense undergrowth 80 chs.

I do not run North and east of this cor. because of high mountains. I take in all the land that ever can be utilized for agricultural puposes.

At the Standard cor. to secs. 33 and 34 I observe Polaris at 7h 29m P.M. correct l. m. astron. time by my watch which is correct.

	h	m
Astron. l. m. t. of obs. Feb. 4	7	29 P.M.
W. C. of Polaris Feb. 1	4	30.9
Reduction 3 days		11.8
W. C. Polaris Feb. 4	4	19.1
Hour Angle of Polaris	3	09.8
Azimuth of Polaris, Lat. 37° 30'	1°	12' W.
North end of needle	16°	36' east
The difference is the var.	15°	24 east

Which is also the the mean declination

At 7 A. M. the variation is 15° 25' E.
From the cor. to secs. 33 and 34 on S. Bdry. of Tp. hereinbefore described.
I run
North 0° 02' W. bet. secs. 33 and 34.
Var. 15° 25' E.

30.01 Dry wash 21 lks. wide course N. 89° E.

Subdivision T. 35 S. R. 3 E. continued.

chains	
40.00	Set a limestone 24X8X3 ins. 18 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face; dug pits 20X20X15 ins. N. & S. of stone 5½ ft. dist. and raised a mound of earth 2½ ft. high, 3½ ft. base alongside.
80.00	Set a limestone 24X12X4 ins. 18 ins. in the ground for cor. to secs. 27. 28. 33 and 34 marked with 1 notch on S. and 3 notches on E. edges; dug pits 20X20X15 ins. in each sec. 5½ ft. dist. and raised a mound of earth 2½ ft. high, 3½ ft. base alongside.
	Land, level
	Soil, sandy and clay loam 1st rate.
	No timber, brush sage, rabbit and greasewood
	80 chs. Feb. 6 1894.

	East on a random line bet. secs. 27 and 34.
	Va. 15° 26' E.
40.00	Set temporary 1/4 sec. cor.
80.06	Intersect N. and S. line at the cor. to secs. 26. 27. 34 & 35.
	Thence run
	West on a true line bet. secs. 27 and 34.
	Va. 15° 25' E.
	Descend gradually about 50 ft.
23.66	Wash 8 or 10 lks. wide, course S. 30° W.
32.87	Road, course S. E. and N. 10° W.
34.54	Ascend about 50 ft.
40.03	Set a limestone 24X8X3 ins. 18 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face; dug pits 20X20X15 ins. E. and W. of stone 5½ ft. dist. and raised a mound of earth 2½ ft. high, 3½ ft. base alongside.
40.48	Dry wash 12 lks. wide, course S. 20° E.
43.04	Dry wash 10 lks. wide, course S. 10° E.
47.47	Road, course S. 30° E. and N. 35° W. and ascend about 10 ft.
55.98	Top of bench, course S. 35° E. and N. 30° W.
66.08	Old Indian trail, course S. 10° E. and N. 10° W.
80.06	The cor. to secs. 27. 28. 33 and 34.
	Land rolling.
	Soil, sandy and clay loam 1st rate.
	No timber. Brush sage and rabbit 80.06 chs.
	Feb. 6 1894.

Subdivision T. 35 S. R. 3 E. continued.

Chains	
	North 0° 02' W. bet. secs. 27 and 28.
	Va. 15° 22' E.
	Through scattering brush.
14.28	Dry wash 20 lks. wide, course S. 60° E.
16.32	Road, course N. 40° W. and S. 38° E.
23.39	Dry wash 25 lks. wide, course E.
28.02	Road, course N. 42° W. and S. 43° E.
37.10	Heaped wash 56 lks. wide, course S. E.
40.00	Set a limestone 30 X 10 X 2 ins. 24 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face; dug pits 20 x 20 x 15 ins. N. and S. of stone 5½ ft. dist. and raised a mound of earth 2½ ft. high, 3½ ft. base alongside.
40.62	Heaped wash 90 lks. wide, course S. 76° W.
44.57	Sance wash, 65 lks. wide, course S. 66° E.
80.00	Set a limestone 32 X 11 X 3 ins. 24 ins. in the ground for cor. to secs. 21. 22. 27 and 28, marked with 2 notches on S. and 3 notches on E. edge; dug pits 20 x 20 x 15 ins. in each sec. 5½ ft. dist. and raised a mound of earth 2½ ft. high, 3½ ft. base alongside.
	Land, level.
	Soil, sandy loam 1st rate.
	No. timber. Brush scattering sage, rabbit and greasewood 80 chs. Feb. 6 1941

	E. on a random line bet. secs. 22 and 27.
	Va. 15° 26' E.
40.00	Set temporary 1/4 sec. cor.
80.04	Intersect N. and S. line 12 lks. North of cor. to secs. 22, 23, 26, and 27.
	Thence Drun
	N. 89° 55' W. on a true line bet. secs. 22 and 27
	Va. 15° 25' E.
	Descend about 150 ft. through heavy timber,
21.72	Dry wash 51 lks. wide, course S. 10° E.
22.50	Ascend about 75 ft.
30.56	Top of ridge, course N. and S.
32.50	Descend about 75 ft.
40.02	Set a sandstone 24 X 12 X 2 ins. 18 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face; from which A pinon 20 ins. diam. bears S. 43° W. 505 lks. dist. marked 1/4 S. B. T.
	No other tree within the limits

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Subdivision T. 35 S. R. 3 E. continued.

chains	dug pits 18x18x12 ins. E and W. of stone 5½ ft. dist. and raised a mound of earth 3½ ft. base 2½ ft. high alongside.
52.94	Dry wash 25 lks. wide, course S.E.
55.44	Ascend gradually about 50 ft.
59.10	Road, course S. 10° E. and N. 10° W.
62.01	Dry wash 40 lks. wide, course S. and ascend abruptly about 40 ft.
63.64	Ascend gradually about 6 ft.
64.54	Top of plateau, course S.E. and N.W. and leave timber.
74.65	Descend gradually about 35 ft.
80.04	The cor. to secs. 21. 22. 27 and 28.
	Land mountainous 64.54 chs.
	Soil, sandy and clay loam 1st rate.
	Timber, heavy cedar and pinon 64.54 chs.
	Undergrowth same with sage and rabbit brush 80.04 chs.
	Mountainous land and heavily timbered 64.54 chs.
	Surveyed July 7. 1894
	North 0° 02' W. Dec. secs. 21 and 22.
	Var. 15° 24' E.
28.40	Road, course N.W. and S. 70° E. and enter timber
40.00	Set a limestone 24x8x2 ins. 18 ins. in the ground for ¼ sec. cor. marked ¼ on W. face; from which A cedar 6 ins. diam. bears N. 78° W. 18 lks. dist. marked ¼ S. B. T. A cedar 10 ins. diam. bears N. 78° E. 117 lks. dist. marked ¼ S. B. T.
76.90	Road, course N.W. and S. 70° E.
77.10	Enter heavy timber, course N. E. and S. W. and ascend abruptly about 200 ft.
79.80	Top of ridge, course S. 80° W. and N. E.
80.00	Set a limestone 24x10x3½ ins. 18 ins. in the ground for cor. to secs. 15. 16. 21 and 22. marked with 3 notches on S. and E. faces; from which A pinon 6 ins. diam. bears S. 48° E. 23 lks. dist. marked T. 35 S. R. 3 E. S. 22. B. T. A pinon 10 ins. diam. bears N. 58° E. 86 lks. dist. marked T. 35 S. R. 3 E. S. 15. B. T. A pinon 12 ins. diam. bears S. 38° W. 78 lks. dist. marked T. 35 S. R. 3 E. S. 21. B. T. No other tree within the limits. Dug pit in sec. 16. 5½ ft. dist. and raised a mound of earth 2 ft.

Subdivision 2 35 S. R. 3 E. continued.

chains	
	Land, rough and mountainous 2.90 chs.
	Soil, sandy loam 2nd rate.
	Timber, heavy cedar and pinon 2.90 chs, and scattering 77.10 chs.
	Brush, sage and greasewood 80 chs. Feb. 7 1894
	Mountainous land and heavily timbered 2.90 chs.
	S. 89 55' E. on a random line bet. secs. 15 and 22.
	Va. 15° 22' E.
40.00	Set temporary 1/4 sec. cor.
80.30	Intersect N. and S. line 20 lks. South of cor. to secs. 15. 14. 22. and 23.
	Thence S run
	S. 89 56' W. on a true line bet. secs. 15 and 22.
	Va. 15° 22' E.
	Descend through heavy timber.
11.22	Dry wash 40 lks. wide, course S. 40° W.
11.75	Ascend abruptly about 300 ft.
19.37	Top of ridge, course N. and S. and descend abruptly about 300 ft.
27.82	Dry channel 50 lks. wide, course S.
28.20	Ascend abruptly about 300 ft.
35.80	Top of ridge, course S. 10° W. and N. 10° E. Leave timber course N. and S. and descend abruptly about 150 ft.
40.15	Set a sandstone 20 X 12 X 6 ins. in a stone pile on solid rock for 1/4 sec. cor. marked 1/4 on W. face; from which A pinon 3 ins. diam., bears N. 28 W. 10 lks. dist. marked 1/4 S. B. S. No other tree within the limits. Raised a mound of stones covered with earth 3 ft. high. 3 1/2 ft. base alongside Pits impracticable.
40 33	Dry wash 38 lks. wide, course S. 20° W.
40.50	Ascend abruptly about 350 ft. along W. side of mountain (400 ft)
48.42	Top of ridge, course N. and S. and descend abruptly about
76.58	Dry wash 48 lks. wide, course S.
77.52	Ascend very abruptly about 200 ft.
79.45	Top of ridge, course N. and S.
80.30	The cor. to secs. 15. 16. 21 and 22.
	Land, mountainous 80.30 chs,
	Soil, sandy and rocky 4th rate.
	Timber, heavy cedar and pinon 35.80 chs.
	Undergrowth same 80.80 chs.
	Mountainous land or heavily timbered 80.30 chs. Feb. 9 1894

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Subdivision T. 35 S. R. 3 E. continued.

Chains	
	North 0° 02' W. bet. secs. 15 and 16.
	Va. 15° 26' E.
	Descend very abruptly about 250 ft. in heavy timber
6.30	Dry wash 55 lks. wide, course S. W.
6.90	Ascend abruptly about 300 ft.
40.00	Set a sandstone 30 X 12 X 3 ins. 24 ins. in the ground for 1/4 Sec. Cor. marked 1/4 on W. face; from which A pinon 10 ins. diam. bears S. 24° W. 24 lks. dist. marked 1/4 S. B. T. A pinon 6 ins. diam. bears N. 85° E. 33 lks. dist. marked 1/4 S. B. T.
62.30	Top of ridge, course E. and W. and descend about 50 ft.
67.84	Dry wash 24 lks. wide, course S. 68° W. and ascend abruptly about 200 ft.
78.65	Top of ridge, course S. 84° W. and N. 84° E.
80.00	Set a sandstone 32 X 6 X 5 ins. in a stone pile on rocky ground for Cor. to secs. 9, 10, 15 and 16 marked with 4 notches on S. and 3 notches on E. edges; from which A pinon 4 ins. diam. bears S. 82° W. 47 lks. dist. marked T. 35 S. R. 3 E. S. 16. B. T. A pinon 6 ins. diam. bears S. 80° E. 13½ lks. dist. marked T. 35 S. R. 3 E. S. 15. B. T. A pinon 6 ins. diam. bears N. 40° W. 12 lks. dist. marked T. 35 S. R. 3 E. S. 9. B. T. A pinon 7 ins. diam. bears N. 27° E. 12 lks. dist. marked T. 35 S. R. 3 E. S. 10. B. T. Land, rough and mountainous 80 chs. Soil, very rocky and of no value. Timber, heavy pine, cedar and pinon 80 chs. Undergrowth same 80 chs. Mountainous and heavily timbered land 80 chs. July 8 1894.
	North 0° 02' W. bet. secs. 9 and 10.
	Va. 15° 25' E.
	Descend down rocky side of mountain course N. 6° E.
2.00	Descend very abruptly about 300 ft.
4.92	Dry wash 20 lks. wide, course W.
5.00	Ascend very abruptly about 300 ft.
11.90	Ascend gradually about 40 ft.
31.20	Top of point of ridge, course E and W. and descend abruptly about 550 ft.
41.00	Point about 3 and 4 chs. E. of set corner

Subdivision T. 35 S. R. 2 E. concluded.

chains	
	Set a sandstone 20x10x4 ins. in a stone pile on bare rock for 1/4 sec. cor. marked 1/4 on W. face; & cut a large cross on W. side of ledge which bears E. 6 lks. dist. This ledge is about 40 ft. high, course N. and S. Raised a mound of stones 3 ft. high 4 ft. base alongside.
73.44	Escalante creek 24 lks. wide, course N. 73° E. and leave timber.
74.10	Ascend very abruptly about 800 ft.
80.00	A point about 350 ft. above creek Set a sandstone 18x6x3 ins. in a stone pile on bare rock for cor. to secs. 3. 4. 9 and 10 marked with 5 notches on S. and 3 notches on E. edges; from which A pine 18 ins. diam. bears N. 74° W. 48 lks. dist.; marked T. 35 S. R. 3 E. S. 4. B. T. No more trees within the limits. Raised a mound of stones 2½ ft. high, 3 ft. base alongside Pits impracticable Land, extremely rough and mountainous 80 chs. Soil, sandy and rocky 4th rate. Timber, scattering cedar, pinon and pine 80 chs. Undergrowth mountain mush. Mountainous land 80 chs. Feb. 8 1894.

I dont run east from this corner on account of high mountain, This line runs along west side of mountain.

N. 0° 02' W. on a random line, bet. secs. 3 and 4.
Va. 15° 25' E.

40.00	Set temporary 1/4 sec. cor.
80.56	Intersect N. bdy. of T. 10 lks. East of cor. of secs. 3. 4. 33 and 34.

Thence Drun
S. 0° 06' E. on a true line bet. secs. 3 and 4.
Va. 15° 23' E.

Descend through scattering timber

5.50	Enter heavy timber, course N. W. and S. E.
40.56	Set a sandstone 30x10x4 ins. 24 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face; from which

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Subdivision T. 35 S. R. 2 E.

chains	
	S. 66° E. 99 lks. dist. marked 1/4 S. B. T.
	A pinon 12 ins. diam. bears
	S. 15° W. 30 lks. dist. marked 1/4 S. B. T.
46.10	Ascend abruptly about 100 ft.
49.90	Top of ridge, course E and W.
54.95	Descend abruptly about 250 ft. and leave timber.
80.56	The cor. to secs. 3. 4. 9 and 10.
	Land, rough and mountainous 80.56 chs.
	Soil, sandy and rocky 4th rate
	Timber, heavy cedar, pinon and pine 49.45 chs. scattering 5.50 chs. undergrowth same with mountain mah. 80.56 chs.
	Mountainous land or heavily timbered 80.56 chs. T. E. D. 8 1894.

April 3rd 1894, Took an observation at my camp last night tested the adjustments of my instrument this morning and found them correct. From the standard cor. to secs. 32 and 33 on S. bdy of Tp. hereinbefore described. Prun

North 0° 03' W. bet. secs. 32 and 33.

Var. 15° 28' E.

35.00	East end of point, course W.
40.00	Set a sandstone 22X10X5 ins. 16 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face; dug pits 20X20X15 ins. N. and S. of stone 5½ ft. dist. and raised a mound of stones and earth 2 ft. high, 3½ ft. base alongside
73.05	Dry wash 8 lks. wide, course E.
80.00	Set a sandstone 23X10X4 ins. 17 ins. in the ground for cor. to secs. 28. 29. 32 and 33. marked with 1 notch on S. and 4 notches on E. edges; dug pits 20X20X15 ins. in each sec. 5½ ft. dist. and raised a mound of earth 2½ ft. high, 3½ ft. base alongside
	Land, level.
	Soil, sandy loam 1st rate.
	No timber. brush, scattering sage and greasewood 80 chs.

April 3. 1894

East on a random line bet. secs. 28 and 33.

Va. 15° 27' E.

40.00	Set temporary 1/4 sec. cor.
80.05	Intersect N. and S. line 10 lks. South of cor. of secs. 27. 28. 33 & 34.
	Thence Prun
	S. 89° 56' W. on a true line bet. secs. 28 and 32.
	Va. 15° 24' E.
	Through scattering [illegible]

Subdivision T. 35 S. R. 3 E. continued.

chains	
11.25	Dry wash 8 lks. wide, course N. 65° E.
40.02½	Set a sandstone 20×12×6 ins. 15 ins. in the ground for ¼ sec. cor. marked ¼ on N. face; dug pits 18×20×15 ins. N. & E. and W. of stone 5½ ft. dist, and raised a mound of earth 2½ ft. high, 3½ ft. base alongside.
80.05	The cor. to secs. 28, 29, 32 and 33.
	Land, level.
	Soil, sandy loam, 1st rate.
	No timber, brush scattering sage, rabbit and greasewood 80.05 chs.
	Apl 3, 1894
	North 6.03 chs. bet. secs. 28 and 29.
	Va. 15° 25' E.
1.85	Dry wash 25 lks. wide, course S. E.
17.97	Dry wash 15 lks. wide, course N. 70° E.
22.20	Dry wash 10 lks. wide, course S. 80° E.
26.41	Dry wash 20 lks. wide, course E.
27.55	Dry wash 10 lks. wide, course S. E.
28.28	South field fence, course N. 80° E. and S. 80° W.
30.52	Ditch 5 lks. wide, course N. 80° E.
33.95	Ditch 4 lks. wide, course N. E.
38.90	Ploughed land, course S. 36° 10' W. and N. 36° 10' E.
40.00	Set a sandstone 22×10×3 ins. 16 ins. in the ground for ¼ sec. cor. marked ¼ on W. face; dug pits 20×20×15 ins. N. and S. of stone 5½ ft. dist. and raised a mound of earth 2 ft. high, 3 ft. base alongside.
62.15	Leave ploughed land, course E. and W.
63.90	Descend about 10 ft. into dry wash.
64.20	Foot of bench, course S. 35° E. and N. 35° W.
78.90	Dry wash 65 lks. wide, course E.
80.00	Set a sandstone 23×8×4 ins. 17 ins. in the ground for cor. to secs. 20, 21, 28 and 29 marked with 2 notches on S. and 4 notches on E. sides; dug pits 24×24×15 ins. in each sec. 5½ ft. dist, and raised a mound of earth 2½ ft. high, 3½ ft. base alongside
	Land, nearly level.
	Soil, sandy loam 1st rate.
	No timber, scattering sage and greasewood brush
	Apl 3rd 1894
	N. 89° 56' E. on a random line bet. secs. 21 and 28.
	Va. 15° 24' E.
40.00	Set [illegible]

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Subdivision T. 35 S. R. 3 E. continued.

Chains	
80.09	Intersect N. and S. line at the cor. to secs. 21. 22. 27 and 28.
	Thence Drum
	S. 89° 56' W. on a true line bet. secs. 21 and 28.
	Va. 15° 23' E.
25.33	Heaps wash 55 lks. wide, course S. 25° E.
27.76	Road, course N. 35° W. and S. 25° E.
28.17	South field fence, course N. 33° 20' W. and S. 33° 20' E.
33.48	Old road, course N. W. and S. E.
40.04½	Set a limestone 20x10x8 ins. 15 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face; dug pits 20x18x12 ins. E. and W. of stone 5½ ft. dist., and raised a mound of earth 2 ft. high, 3½ ft. base alongside
80.09	The cor. to secs. 20. 21. 28 and 29.
	Land, nearly level.
	Soil, sandy loam 1st rate.
	No timber.
	Apl 3rd 1894

	North 0° 03' W. bet. secs. 20 and 21.
	Va. 15° 23' E.
	Descend about 4 ft.
4.35	Dry wash 12 lks. wide, course S. 80° E.
25.23	Ploughed field, course S. 80° E. and N. 80° W.
28.19	Leave ploughed field, course E. and W.
38.39	Enter B. Woolsey's field, course N. 70° 10' W. & S. 34° E. contains about 20 acres.
40.00	Set a sandstone 23x10x4 ins. 17 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face; dug pits 18x18x12 ins. N. and E. of stone 5½ ft. dist. and raised a mound of earth 2 ft. high, 3 ft. base alongside.
49.00	Leave B. Woolsey's ploughed field, course N. 74½ W. & S. 74½ E.
58.85	Enter ploughed field, course S. E. and N. W.
66.10	Leave ploughed field, course N. 40° W. and S. 40° E.
67.21	Ditch 4 lks. wide, course S. 40° E. and N. 40° W.
68.01	North fence of S. field, course N. 84° W. and S. 84° E.
77.32	Heaps & wash 64 lks. wide, course S. 80° E.
80.00	Set a sandstone 30x12x7 ins. 24 ins. in the ground for cor. to secs. 16. 17. 20 and 21 marked with 3 notches on S. and 4 notches on E. edges; dug pits 22x24x15 ins. in each sec. 5½ ft. dist. and raised a mound of earth 2½ ft. high 3½ ft. base alongside.
	Land, nearly level.
	Soil, sandy loam 1st rate.
	No timber. Apl 3rd 1894

Subdivision T. 35 S. R. 3 E. continued.

chains	
	N. 89°56' E. on a random line bet. secs. 16 and 21.
	Va. 15° 28' E.
40.00	Set temporary 1/4 sec. cor.
80.00	Intersect N & S. line 15 lks. N. of cor. of secs. 15. 16. 21 and 22.
	Thence Prun
	N. 89°58' W. on a true line bet. secs. 16 and 21.
	Va. 15° 26' E.
	Descend abruptly about 200 ft. through heavy timber.
6.40	Dry wash 55 lks. wide, course S. 22° W.
7.02	Ascend about 50 ft.
10.62	Leave timber, course N. and S.
12.22	Wood, road, course S. E. and N. W.
15.50	Top of ridge, course N. and S. and descend.
18.91	Road, course S. 20° W. and N. 25° W.
40.00	Set a sandstone 20×10×6 ins. 15 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face; dug pits 18×18×12 ins. E. and W. of stone 5½ ft. dist. and raised a mound of earth 2 ft. high, 3½ ft. base alongside.
61.70	Road, course N. 25° W. and S. 20° E.
75.12	Old road, course N. W. and S. E.
80.00	The cor. to secs. 16. 17. 20 and 21.
	Land, broken and mountainous 15.50 chs.
	Soil, sandy loam and rocky 1st and 4th rate.
	Timber, heavy cedar and pinon 10.62 chs.
	Undergrowth same with sage and oak brush 80 chs.
	Mountainous land or heavily timbered 15.50 chs.
	April 4. 1894
	North 0° 03' W. bet. secs. 16 and 17.
	Va. 15° 24' E.
9.61	Don Carlos Shirts wire fence, course N. W. and S. E.
12.00	Ascend about 40 ft.
34.43	North side Don C. Shirts field fence, course N. 48° W. and S. 50° E.
34.48	Ditch 3 lks. wide, course S. 48° E.
34.64	Road, course N. 48° W. and S. 50° E. and ascend about 40 ft.
40.00	Set a sandstone 20×10×4 ins. 15 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face; dug pits 18×18×12 ins. N. and S. of stone 5½ ft. dist. and raised a mound of earth 2 ft. high, 3½ ft. base alongside.
42.50	Top of ridge, course E. and W. and descend gradually
55.62	Road course S. 88° W. and N. 88° E.
58.45	Fence, course S. 78½ E. and N. 78½ W.
58.80	[illegible]

Subdivision T. 35 S. R. 3 E. continued.

chains	
	E. all in cultivation.
58.87	Ditch 3 lks. wide, course N. E.
72.40	Ditch 4 lks. wide, course E.
78.00	Ditch 4 lks. wide, course E.
80.00	Set a Sandstone 30 X 12 X 10 ins. 24 ins. in the ground for cor. to secs. 8. 9. 16 and 17 marked with 4 notches on S. and E. edges; dug pits 24 X 24 X 15 ins. in each sec. 5½ ft. dist. and raised a mound of stones and earth 3 ft. high 3½ ft. base alongside
	Land, slopes to the S. 42.50 chs. and to the N. 37.50 chs.
	Soil, sandy and sandy loam 1st and 2nd rate
	No timber, brush sage and rabbit
	Apl 4. 1894
	S. 89° 58' E. on a random line bet. secs. 9 and 16.
	Va. 15° 22' E.
40.00	Set temporary 1/4 sec. cor.
80.20	Intersect N. & S. line 22 lks. South of cor. to secs. 9. 10. 15 & 16.
	Thence Run
	S. 89° 53' W. on a true line bet. secs. 9 and 16.
	Va. 15° 21' E.
	Descend very abruptly through heavy timber about 600 ft.
33.80	Dry gulch about 100 ft. deep, course N. W.
37.65	West side of gulch and leave heavy timber, course N. & S.
37.88	Dry gulch about 50 ft. deep, course N.
40.10	Set a limestone 28 X 10 X 6 ins. in a stone pile on bare rock for 1/4 sec. cor. marked 1/4 on N. face; from which A pinon 12 ins. diam. bears S. 44° W. 27 lks. dist. marked 1/4 S. B. T. A pinon 4 ins. diam. bears N. 35° E. 48 lks. dist. marked 1/4 S. B. T.
41.10	West side of gulch and leave timber, course N. & S. descend 50 ft.
43.51	Dry wash 20 lks. wide, course N. and ascend abruptly about 50 ft.
46.26	Top of ridge, course N. and S. and descend about 100 ft.
48.73	Dry wash 10 lks. wide, course N.
48.83	Ascend about 20 ft.
51.00	Top of ridge, course N. and S. and descend about 20 ft.
54.36	Dry wash 10 lks. wide, course N. and ascend about 20 ft.
55.20	Top of ridge, course N. and S. and descend about 20 ft.

Subdivision T. 35 S. R. 3 E. continued.

chains	
80.00	Set a porphyry rock 32×10×8 ins. 24 ins. in the ground for cor. to secs. 4. 5. 8 and 9. marked with 5 notches on S. and 4 notches on E. edges; from which A cedar 10 ins. diam. bears S. 41° W. 45 lks. dist. marked T. 35 S. R. 3 E. S. 8. B. T. A cedar 12 ins. diam. bears N. 33° W. 29 lks. dist. marked T. 35 S. R. 3 E. S. 5. B. T. A cedar 12 ins. diam. bears S. 40° E. 51 lks. dist. marked T. 35 S. R. 3 E. S. 9. B. T. A pinon 8 ins. diam. bears N. 41° E. 81 lks. dist. marked T. 35 S. R. 3 E. S. 4. B. T. Land, rough and rolling 29.50 chs. Soil, sandy loam 1st rate. Timber, scattering cedar and pinon 1.60 chs. April 5 1894.
	N. 89° 53' E. on a random line bet. secs. 4 and 9. Va. 15° 26' E.
40.00	Set temporary 1/4 sec. cor.
80.40	Intersect N. and S. line at the cor. to secs. 3. 4. 9 and 10. Thence I run S. 89° 53' W. on a true line bet. secs. 4 and 9. Va. 15° 24' E. Ascend abruptly about 250 ft.
13.00	Top of point, course N. and S. and descend abruptly about 300 ft. through heavy timber.
40.20	Set a sandstone 26×24×12 ins. in a stone on rock for 1/4 sec. cor. marked 1/4 on N. face; from which A pine 12 ins. diam. bears N. 50° W. 15 lks. dist. marked 1/4 S. B. T. A pine 18 ins. diam. bears S. 37° W. 7 lks. dist. marked 1/4 S. B. T.
40.30	Dry wash 22 lks. wide, course S. 50° W.
43.64	Dry wash 34 lks. wide, course S. E. and ascend abruptly about 200 ft.
44.50	Dry wash 36 lks. wide, course S. E. and ascend abruptly about 200 ft.
59.60	[illegible]

Subdivision T. 35 S. R. 3 E. continued.

chains

57.80 Trail, course N. and S.
67.50 Road, course N. and S.
68.25 Dry wash 30 lks. wide, course N. E.
74.47 Road, course N. and S.
75.63 Napoleon B. Roundy's east fence, course N. 20° W. & S. 20° E.
80.20 The cor. to secs. 8. 9. 16 and 17.
Napoleon B. Roundy's house bears N. 75 15' W. 30.38 chs. dist.
Land, rough hilly and mountainous 41.10 chs.
Soil, sandy loam and gravel 1st and 4th rate.
Timber, heavy cedar, pinon and pine 37.65 chs.
Undergrowth same with sage and rabbit brush 75.63 chs.
Mountainous land and heavily timbered 41.10 chs Apr. 4 1894.

North 0° 03' W. bet. secs. 8 and 9.
Va. 15° 28' E.

4.23 Fence on N. side, N. B. Roundy's farm, course E & W.
4.30 Lane, course E and W.
4.81 Fence on S. side Josiah Barker's farm, course E & W.
5.02 A point 4 ft. E. of the W. side Josiah Barker's barn.
5.42 North J. Barker's barn.
7.60 Swamp, course E. and W.
8.68 Leave swamp, course E and W.
15.36 Escalante creek 31 lks. wide, course S. 85° E.
16.10 Enter cultivated land, course S. 80° E. and N. 80° W.
36.37 Fence, course E and W.
36.40 Ditch 4 lks. wide, course E.
40.00 Set a porphyry rock 30x15x11 ins. 24 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face; dug pits 20x20x15 ins. N. and S. of stone 5½ ft. dist. and raised a mound of stones and earth 2 ft. high, 3 ft. base alongside.
50.04 Fence on N. side J. Barker's farm, course N. W. & S. E.
50.30 Foot of bench, course N. W. and S. E.
53.00 Top of bench, course N. W. and S. E. and ascend about 80 ft. gradually.
58.80 Road, course N. E. and S. W.
65.50 Descend about 50 ft.
69.79 Road, course N. W. and S. E.
78.40 Dry wash 10 lks. wide, course S. 35° E. and enter scattering [illegible]

Subdivision T. 35 S. R. 3 E. continued.

chains	
	about 300 ft. and leave timber.
70.76	Pine creek 22 lks. wide, course S. 12° E. and ascend about 20 ft.
71.45	Road, course N. and S.
72.41	Mouth of ravine about 5 ft. deep, course S. E.
76.08	Top of spur course S. E. and N. W. and descend.
80.40	The corner to secs. 4, 5, 8 and 9.
	Land, very rough, hilly and mountainous 80.40 chs.
	Soil, rocky and gravel 3rd and 4th rate.
	Timber a few scattering pines, with heavy cedar, pinon and cottonwood 46.60 chs.
	Mountainous land or heavily timbered 70.76 chs.

North 0° 08' W. on a random line bet. secs. 4 and 5.
Va. 15° 22' E.

40.00	Set temporary 1/4 sec. cor.
80.22	Intersect N. bdry. Tp. 21 lks. East of the cor. to secs. 4-5, 32 and 33.
	Thence Drum
	S. 0° 12' E. on a true line bet. secs. 4 and 5,
	Va. 15° 23' E.
	Ascend abruptly about 100 ft.
2.57	Top of spur of mountain, course E. & W. and descend abruptly about 60 ft.
40.22	Set a sandstone 24 X 10 X 6 ins. in a stone pile on rock for 1/4 sec. cor. marked 1/4 on N. face, from which
	A pine 18 ins. diam. bears
	S. 80° E. 61 lks. dist. marked 1/4 S. B. T.
	No more trees within the limits. Raised a mound of stones 2 ft. high, 3 ft. base alongside. Pits impracticable.
55.92	Top of mountain, course S. 20° E. & N. 20° W.
56.72	Pine creek 27 lks. wide, course S. 40° E.
57.64	Ascend abruptly about 50 ft.
58.62	Top of bench, course S. 30° E. and N. 30° W. and leave timber.
75.08	Enter scattering timber and descend about 40 ft.
80.22	The cor. to secs. 4-5-8 and 9.
	Land, mountainous and rolling 62.30 chs.
	Soil, sandy and rocky 2nd and 4th rate.
	Timber, scattering cedar, pinon and pine, cottonwood

77 Subdivision T. 35 S. R. 3 E. continued.

Chains Undergrowth same with scattering and (wood) greasewood
Mountainous land 55.92 chs. April 5th 1894.

As it is impossible to get to the cor. to secs. 31 and 32 on the standard line, owing to a succession of perpendicular cliffs rising to the height of nearly 1200 ft. by actual measurement, and the line also runs along the E. side of the cliffs about one half mile, thus making it utterly impossible for any man to climb along them, I commence at the cor. to secs. 28. 29. 32 and 33.

Thence I run

West on a true line line between secs. 29 and 32.

Va. 15° 28' E.

29.48 Road, course S. 20° E. and N. 20° W.

40.00 Set a sandstone 22×8×5 ins. 16 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face; dug pits 20×20×15 ins. E and W. of stone 5 1/2 ft. dist. and raised a mound of earth 2 ft. high, 3 ft. base alongside.

69.84 Foot of mountain, course N.W. and S.E. and enter timber and ascend abruptly about 200 ft.

80.00 A point about 200 ft. above valley.

Set a sandstone 30×10×6 ins. in a stone pile on solid rock for cor. to secs. 29. 30. 31 and 32 marked with one notch on S. and 5 notches on E. edges; from which

A pinon 8 ins. diam. bears

N. 64° E. 81 1/2 lks. dist. marked T. 35 S. R. 3 E. S. 29. B. T.

A pinon 6 ins. diam. bears

N. 27° W. 76 lks. dist. marked T. 35 S. R. 3 E. S. 30. B. T.

No more trees within the limits. Raised a mound of earth and stones 2 1/2 ft. high, 3 1/2 ft. base alongside and dug pits 20×20×15 ins. in secs. 31 and 32, 5 1/2 ft. dist.

Land, mountainous 10.16 chs.

Soil, sandy and clay loam and rocky 1st and 4th rate.

Timber, a few scattering pinons and cedars 10.16 chs.

sage and rabbit brush 80 chs. April 6 1894.

Mountainous land 10.16 chs.

I do not run to W. bdry. because of a succession of perpendicular cliffs. I traveled 2 miles along the top of this mountain hunting a place to get down without success when I run the standard line.

Subdivision T. 35 S. R. 3 E. Continued,

Chains	
	North 0° 03' W. bet. Secs. 29 and 30.
	Va. 15° 26' E.
	There is a vein of good coal 4 lks. W. of above named cor.
	Descend abruptly about 20 ft.
3.25	Bottom and leave timber, course S. E. & N. W.
7.86	Dry wash about 3 ft. deep, course S. 70° E.
9.98	North side of wash.
26.08	Dry wash 92 lks. wide, course S. 76° E.
38.60	Enter scattering timber
40.00	Set a sandstone 24 X 10 X 4 ins. 18 ins. in the ground for 1/4 Sec. cor. marked 1/4 on W. face; from which
	A cedar 8 ins. diam. bears
	S. 51° W. 295 lks. dist. marked 1/4 S. B. T.
	Not another tree within the limits; dug pits 18 X 18 X 12 ins. N. and S. of stone 5 1/2 ft. dist. and raised a mound of stones and earth 2 ft. high, 3 ft. base alongside.
58.08	Dry wash 24 lks. wide, course E.
60.20	Leave timber and ascend about 30 ft.
71.50	Top of ridge, course E. and W. and descend about 30 ft.
80.00	Set a sandstone 22 X 10 X 8 ins. 16 ins. in the ground for cor. to Secs. 19. 20. 29 and 30 marked with 2 notches on S. and 5 notches on E. edges; dug pits 24 X 24 X 15 ins. in each sec. 5 1/2 ft. dist. and raised a mound of earth 3 ft. high and 3 ft. base alongside.
	Land, mountainous 3.25 chs. rolling and level 76.75 chs.
	Soil, Sandy and clay loam and rocky 1st and 4th rate.
	Timber, cedar and pinon 24.85 chs. Sage and Rabbit brush 80 chs.
	Mountainous land 3.25 chs.

Dec 6 1894

	E. on a random line bet. Secs. 20 and 29.
	Va. 15° 23' E.
40.00	Set temporary 1/4 Sec. cor.
80.01	Intersect N. and S. line 3 lks. North of the cor. to Secs. 20. 21. 28 and 29.
	Thence S run
	N. 89° 59' W. on a true line bet. Secs. 20 and 29.
	Va. 15° 22' E.
	Ascend about 5 ft.
22.47	Descend about 10 ft.
40.00	Set a sandstone 28 X 12 X 10 ins. 22 ins. in the ground

Subdivision T.35 S. R.3 E. continued.

chains	
	E and w. of stone 5½ ft. dist. and raised a mound of earth 2 ft. high, 3 ft. base alongside.
57.50	Ditch 4 lks. wide, course S.23½ E.
57.85	Fence on w. side of field, course S.30½ E. and N.30½ w.
58.04	Road, course S.30° E. and N.30° w. and ascend about 30 ft.
64.97	Top of ridge, course E and w.
72.90	Descend about 30 ft.
80.01	The cor. to secs. 19.20.29 and 30.
	Land, gently rolling.
	Soil, sandy and clay loam. 1st rate.
	Timber a few scattering cedars and pinons, scattering sage
	April 6 1894.
	W. on a random line bet. secs. 19 and 30.
	va. 15° 28' E.
40.00	Set temporary 1/4 sec. cor.
79.58	Intersect W. bdy. of Tp. at the cor. to secs. 19.24.25 and 30.
	Thence Prun
	E. on a true line bet. secs. 19 and 30.
	va. 15° 26' E.
	Ascend about 175 ft. up point of mountain
14.75	Dry wash 90 lks. wide, course N.8° w.
21.90	Road, course N.w. and S.E.
22.80	Dry wash 20 lks. wide, course N.w.
23.00	Enter heavy timber, course N.W. and S.E.
39.58	Set a sandstone 20×10×3 ins. 15 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face; from which
	A pinon 12 ins. diam. bears
	S.9° w. 32 lks. dist. marked 1/4 S.B.T.
	A cedar 15 ins. diam. bears
	N.21° E. 23 lks. dist. marked 1/4 S.B.T.
43.98	Top of point, course N. and S. and descend abruptly about 100 ft.
48.49	Descend very abruptly about 80 ft.
52.80	Leave timber and enter bottom course N.80° E. and S.E.
79.58	The cor. to secs. 19.20.29 and 30.
	Land, rough and broken and mountainous 42.80 chs.
	Soil sandy loam and gravel 1st and 2nd rate.
	Timber, heavy cedar and pinon 29.80 chs.
	Undergrowth same with sage 29.80 chs.: dense sage 49.70 chs.
	Mountainous land and heavily timbered 42.80 chs.

Subdivision T. 35 S. R. 36 E. continued.

Chains	
	North 0° 03' W. bet. Secs. 19 and 20.
	Va.: 15° 25' E.
20.60	Ascend about 25 ft. through scattering timber.
25.80	Top of ridge, course E. and W.
26.50	Descend about 40 ft.
32.50	Bottom, course E and W.
40.00	Set a sandstone 22 X 10 X 5 ins., 16 ins. in the ground for 1/4 Sec. Cor. marked 1/4 on W. face; dug pits 20 X 20 X 15 ins. N. and S. of stone 5 1/2 ft. dist. and raised a mound of earth 2 ft. high, 3 ft. base alongside.
43.00	Ascend about 25 ft.
46.00	Top of ridge, course E. and W.
48.00	Descend about 8 ft.
49.98	Dry wash 5 lks. wide, course E.
58.00	Ascend about 20 ft.
65.40	Top of ridge, course E and W.
65.55	Descend about 150 ft.
80.00	Set a sandstone 22 X 10 X 3 ins., 16 ins. in the ground for Cor. to Secs. 17, 18, 19 and 20 marked with 3 notches on S. and 5 notches on E. edges; dug pits 24 X 24 X 15 ins. in each Sec. 5 1/2 ft. dist. and raised a mound of earth 2 1/2 ft. high, 3 1/2 ft. base alongside.
	Land: Rolling.
	Soil, Sandy loam 1st rate.
	Timber, a few scattering Cedars and Pinons
	Brush, Sage, rabbit and greasewood 80 chs.
	April 7 1894.

	S. 89° 59' E. on a random line bet. Secs. 17 and 20.
	Va.: 15° 23' E.
40.00	Set temporary 1/4 Sec. Cor.
80.08	Intersect N. and S. line 10 lks. South of Cor. to Secs. 16, 17, 20 and 21.
	Thence Prun
	S. 89° 57' W. on a true line bet. Secs. 17 and 20.
	Va.: 15° 22' E.
8.80	Wash 6 lks. wide, course S. E.
17.39	Fence, course N. 78 1/2 W. and S. 78 1/2 E.
22.40	Ditch 4 lks. wide; course S. 78 1/2 E.
22.94	Ploughed land, course S. 10° E. and N. 10 W.
32.30	Ditch 5 lks. wide, course S.
	Set a sandstone 22 X 10 X 3 ins., 16 ins. in the ground

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Subdivision T. 35 S. R. 36 E. continued.

Chains	
	1/4 sec. cor. marked 1/4 on N. face; dug pits 24X24X15 ins. E and W. of stone 5 ft. dist. and raised a mound of earth 2 ft. high, 3 ft. base alongside.
44.27	Ditch 6 lks. wide, course S.
52.53	West side of ploughed field, course S. 13° W. and N. 13° E. It contains about 50 acres and belongs to Brigham Woolley.
52.58	Ditch 5 lks. wide, course S. 13° W.
52.76	Fence on W. side of field, course S. 13° W. and N. 13° E.
52.96	Road, course S. 13° W. and N. 13° E.
62.10	Ditch 4 lks. wide, course N. 80° E.
62.50	Road, course N. 10° W. and S. 10° E.
72.90	Ditch 7 lks. wide, course S. E.
80.08	Cor. to secs. 17, 18, 19 and 20.
	Land, level.
	Soil, sandy loam. 1st rate.
	No timber.
	Brush, scattering sage and greasewood Apr. 7 1894.

	N. on a random line bet. secs. 18 and 19.
	Va. 15° 28' E.
40.00	Set temporary 1/4 sec. cor.
79.56	Intersect N. Bdry of Tp. 16 lks. North of the cor. to secs. 13, 18, 19 and 24.
	Thence Drum
	N. 89° 53' E. on a true line bet. secs. 18 and 19.
	Va. 15° 24' E.
	Ascend through heavy timber and dense brush.
1.40	Dry wash 15 lks. wide, course S.
2.70	Old road, course N. 10° W. and S. 5° E.
17.20	Top of ridge, about 1 rod high, course N. W. and S. E. and descend abruptly about 100 ft.
23.00	Foot of ridge, course N. E. and S. W.
39.56	Set a sandstone 20 X 12 X 3 ins. 15 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face; dug pits 20 X 20 X 15 ins. E and W. of stone 5 ft. dist. and raised a mound of earth 2 ft. high, 3 ft. base alongside.
44.07	Road, course N. E. and S. W.
54.02	Road, course S. 28° E. and N. 10° W.
54.35	Ditch 13 lks. wide, course S. 28° E.
55.37	Old ditch 8 lks. wide, course S. 10° E.
57.55	Descend about 10 ft.
58.85	Dry wash 10 lks. wide, course S. 45° E.

Subdivision T. 35 S. R. 3 E. continued.

chains	
65.48	Heap S. wash 142 lks. wide, course N. E.
67.50	Ditch 13 lks. wide, course N. E.
79.56	Hee. cor. to secs. 17, 18, 19 and 20.
	Land, hilly 23.00 chs.
2300	Soil, sandy and sandy loam 1st and 2nd rate.
56.35	Timber, heavy cedar and pinon 23 chs.
	Brush sage, rabbit and greasewood 99.56 chs.
	Heavily timbered land 23 chs. April 9 1894.

North 0° 03' W. bet. secs. 17 and 18.

Va. 15° 26' E.

Descend about 30 ft.

2.44	Ditch 12 lks. wide, course S. E.
6.55	Heap S. wash 145 lks. wide, course N. E.
20.46	Ephraim Hawke's fence, course N. 73° W. and S. 73° E.
40.00	Set a sandstone 30 x 10 x 7 ins. 24 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face; dug pits 24 x 24 x 15 ins. N. and S. of stone 5½ ft. dist, and raised a mound of earth, 2 ft. high, 3½ ft. base alongside.
40.30	Ditch 5 lks. wide, course E.
40.42	Fence on S. line Wm Butters Lot, course S. 84½ W. and N. 84½ E. Enter town of Escalante
48.51	Center of St. course E. and W.
56.98	Center of St. course E and W.
65.43	Center of St, course S. 89½ E. and N. 89½ W.
73.86	Centre of St, course S. 89° E. and N. 89 W.
80.00	Cor. falls in Wm Cottam's Lot.
	Set a trachyte rock 20 x 12 x 8 ins. 15 ins. in the ground for cor. to secs. 7, 8, 17 and 18, marked with 4 notches on S. and 5 notches E. edges; dug pits 24 x 24 x 15 ins. in each sec. 5½ ft. dist. and raised a mound of earth 2½ ft. high, 4 ft. base alongside.
	Land, nearly level.
	Soil, sandy loam 1st rate.
	No timber. April 9 1894.

N. 89° 57' E. on a random line bet. secs. 8 and 17.

Va. 15° 24' E.

40.00	Set temporary 1/4 sec. cor.
80.18	Intersect N. and S. line 10 lks. South of the cor. to secs.

24

Subdivision S. 35 S. R. 3 E. continued.

chains	
	Thence S run
	S. 89° 53' W. on a true line bet. secs. 8 and 17.
	Va. 15° 22' E.
24.10	Ditch 10 lks. wide, course S. 85° E.
25.86	Same ditch 5 lks. wide, course N.E.
29.80	Same ditch 5 lks. wide, course S. 88 E.
31.00	Fence on N. side of Napoleon B. Roundy 5 land, course N 88 E.
31.75	Center of St. course N. 0° 0' E. and S. 0° 0' W.
40.09	Set a trachyte rock 28 X 12 X 8 ins. 22 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face; from which
	A cottonwood 12 ins. diam. bears
	N. 31° W. 133 lks. dist. marked 1/4 S. B. T.
	No other tree within the limits. Pits are useless here.
40.27	Center of St. course N. and S.
48.87	Center of St. course N. 0° 31' E. and S. 0° 30' W.
57.42	Center of St. course N. 0° 45' E and S. 0° 45' W.
58.08	Northwest corner of Schmidt house bears S. 12 lks. dist.
66.03	Center of St. course N. 1° 10' E. and S. 1° 10' W.
74.48	Center of St. course N. and S.
80.18	The cor. to Secs. 7, 8, 17 and 18.
	Land, level.
	Soil, sandy and clay loam 1st rate.
	No timber. April 9 1894.

	S. 89° 53' W. on a random line bet. Secs. 7 and 18.
	Va. 15° 28' E.
40.00	Set temporary 1/4 Sec. cor.
79.41	Intersect W. B dry. Fk. 9 lks. N. of the cor. to secs. 7, 12, 13 and 18
	Thence S run
	N. 89° 49' E. on a true line bet. Secs. 7 and 18.
	Va. 15° 26' E.
	Ascend abruptly about 250 ft. through heavy timber.
19.60	Top of ridge, course N. and S.
20.20	Descend abruptly about 250 ft.
29.80	Foot of hill, course N. and S.
33.60	Enter scattering timber and dense brush.
39.41	Set a sandstone 20 X 10 X 6 ins. 15 ins. in the ground for 1/4 Sec. cor. marked 1/4 on N. face; from which
	A pinion 10 ins. diam. bears
	S. 24° W. 43 lks. dist. marked 1/4 S. B. T.
	A pinion 12 ins. diam. [illegible]

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316A

9-11-1964.

At the $\frac{1}{4}$ sec. cor. of secs. 7 and 18, T.35S.,R.3E., monumented by a sandstone, 21x10x8 ins., firmly set and mkd. $\frac{1}{4}$ on N. face; from which

A pinon stump, 12 ins.diam., bears N.87°E.,131 lks. dist. No. marks.

No evidence of the SW. bearing tree.

At cor. point

Set an iron post, 30 ins.diam., 24 ins. in the ground, over broken glass, orig. stone buried alongside; brass cap mkd.

$$\frac{1}{4}\ \frac{S7}{S18}$$
1964

from which I mark

A juniper,14 ins.diam.,bears N.11°W., 75 lks. dist., mkd. only BT

A juniper, 8 ins.diam., bears S.11°E., 129 lks. dist., mkd. $\frac{1}{4}$ S18 BT

Subdivision 2. 35 S. R. 3 E. continued.

Chains	
	N. 87° E. 131 lks. dist. marked 1/4 S.B.T.
74.15	Leave timber, course N. and S.
74.15	Leave brush.
74.19	Ditch 18 lks. wide, course S. 25° E.
76.03	Center of St, course N. and S.
79.41	The cor. to secs. 7. 8. 17 and 18.
	Land, mountainous 29.80 chs.
	Soil, sandy loam and rocky 2nd and 4th rate.
	Timber, heavy cedar and pinon 33.60 chs.
	Scattering timber and dense sage brush 40.55 chs.
	Mountainous or heavily timbered 33.60 chs. Apr. 10 1894.

North 0° 03' W. bet. secs. 7 and 8.

Va. 15° 24' E.

1.92	Center of St. course S. 87 1/4 W. and N. 89 1/4 E.
10.98	Center of St. course S. 89 1/2 W. and N. 89 1/2 E.
19.55	Center of St. course S. 89 1/2 W. and N. 89 1/2 E.
28.16	Center of St, course S. 89 3/4 W. and N. 89 3/4 E. leave town
38.50	Escalante creek 33 lks. wide, course E.
39.80	Enter ploughed field, course E. and W.
40.00	Set a sandstone 26 x 10 x 4 in. 20 in. in the ground for 1/4 Sec. cor. marked 1/4 on W. face; dug pits 24 x 24 x 15 in. N. and S. of stone 5 1/2 ft. dist. and raised a mound of earth 2 1/2 ft. high, 3 1/2 ft. base alongside.
53.25	Ditch 5 lks. wide, course E.
53.80	Road, course E. and W.
73.30	Ditch 8 lks. wide, course S. 80° W. and leave cultivated land.
75.00	Ledge of sandstone 3 ft. high, course N.E. and S.W.
75.50	Ascend abruptly about 250 ft.
80.00	Set a sandstone 24 x 12 x 4 ins. in a stone pile on shell rock for cor. to secs. 5. 6. 7 and 8, marked with 5 notches on S. and E. edges; raised a mound of stones 2 1/2 ft. high, 3 1/2 ft. base alongside. Pits impracticable.
	Land, mountainous 5 chs.
	Soil, sandy and clay loam and rocky 1st and 4th rate.
	No timber. April 10 1894.
	Mountainous land 5 chs.

N. 89° 53' E. on a random line bet. secs. 5 and 8.

Va. 15° 22' E.

40.00	Set temporary 1/4 sec. cor.
80.14	Intersect N. and S. line 12 lks. South of the cor. to secs. 4.

Subdivision S. 35 S. R. 3 E. continued.

chains	
	Thence Drun
	S. 89° 48' W. on a true line bet. secs. 5 and 8.
	Va. - 15° 21' E.
	Ascend abruptly
1.20	Dry wash 18 lks. wide, course S. E.
1.40	Road, course S. 10° E. and N.
10.19	Ditch 6 lks. wide, course S. 20° E.
40.07	Set a sandstone 22 X 10 X 8 ins. 16 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face; from which.
	A pinon 10 ins. diam. bears
	S. 46° E. 31 lks. dist. marked 1/4 S. B. T.
	No other tree within the limits; dug pits 20 X 20 X 15 ins. E and W. of stone 5 1/2 ft. dist. and raised a mound of earth 2 1/2 ft. high; 3 1/2 ft. base alongside.
	Ascend. about 50 ft. through scattering timber
42.00	Top of point, course N. and S. and descend about 100 ft.
54.80	Enter cove, course N. 10° W. and S. 10° E. and leave timber course N. E. & S. W.
56.60	Leave cove and ascend about 200 ft. course N. E. & S. W.
57.90	Top of point, course N. 20° E. and S. 20° W. and descend abruptly about 150 ft.
58.80	Ascend abruptly about 150 ft.
67.70	Top of point, course N. and S. and descend abruptly about 150 ft.
73.50	Leave timber and enter cove, course S. E. and N. W.
77.20	Leave cove, course N. E. and S. W. enter timber and ascend abruptly about 100 ft.
80.14	The corner to secs. 5, 6, 7 and 8.
	Land, rough and mountainous 80.14 chs.
	Soil, sandy and rocky 4th rate.
	Timber scattering cedar and pinon 74.74 chs.
	Mountainous land 80.14 chs. Apr. 10 1894.

The line between secs. 6 and 7 runs over inaccessible ledges and breaks on south face of mountain, therefore S. measure due South 10 chs.

Thence S. Drun

N. 85° W.

Va. - 15° 22' E.

8.50	John Bailey's house bears N. 6.44 chs. dist.
40.30	Pinon offset North 0° 03' W. 5.09 chs. and set temporary 1/4 sec. cor. in mouth of canon.

Subdivision T. 35 S. R. 3 E. continued.

chains	
	Thence I run
	S. 89° 49' W. bet. secs. 6 and 7.
	Va. 15° 23' E.
79.44	Intersect W. Bdry. of Tp. 18 lks. South of the cor. to Secs. 1. 6. 7 and 12.
	Supposing the temporary 1/4 sec. cor. to be : due W. of the cor. to secs. 5. 6. 7 and 8 the falling if the line had been extended to the Range line would be 5 lks. S. of the cor. to secs. 1. 6. 7 and 12. The return course will therefore be
	S. 89° 56' E. on a true line bet. secs. 6 and 7.
	Va. 15° 23' E.
	Through heavy timber
27.56	Descend abruptly about 300 ft.
36.44	Foot of hill, course N. and S. and leave timber.
39.44	Set a sandstone 20×10×3 ins. 15 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face; from which A pinon 12 ins. diam. bears
	S. 71° W. 109 lks. dist. marked 1/4 S. B. T.
	No other tree within the limits. Dug pits 20×20×15 ins. E and W. of stone 5½ ft. dist. and raised a mound of earth 2 ft. high, 3½ ft. base alongside.
43.80	Dry wash 45 lks. wide, course S. E.
46.95	Foot of inaccessible cliffs about 500 ft. high course S. E. and N. W. As the line is totally inaccessible I will stop here.
79.44	The cor. to secs. 5. 6. 7 and 8.
	Land, very rough and broken 68.93 chs.
	Soil, rocky and sandy 4th and 2nd rate.
	Timber, heavy cedar and pinon 36.44 chs.
	Undergrowth same with dense sage in bottom. 10.51 chs.
	There is a large amount of Hydraulic limestone near the middle of sec. 6. April 10 1894.
	Mountainous land or heavily timbered 79.44 chs.
	North 0° 03' W. on a random line bet. secs. 5 & 6.
	Va. 15° 28' E.
40.00	Set temporary 1/4 sec. cor.
80.09	Intersect N. Bdry of Tp at the cor. to secs. 5. 6. 31 and 32.
	Thence I run
	S. 0° 03' E. on a true line bet. secs. 5 and 6.
	Va. 15° 25' E.
	Descend over rough ground through heavy

Subdivision S. 35 S. R. 3 E. concluded.

chains.	
	Timber and brush
31.78	Descend abruptly about 100 ft.
33.78	Dry wash 22 lks. wide, course N.W. and ascend abruptly about 100 ft.
36.48	Top of ridge, course N.W. and S.E. and descend about 50 ft.
40.09	Set a sandstone 24×12×4 ins. 18 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face; from which A pinon 10 ins. diam. bears S. 42° E. 8 lks. dist. marked 1/4 S. B. T. A pinon 10 ins. diam. bears S. 8° W. 21 lks. dist. marked 1/4 S. B. T.
53.00	Descend abruptly about 400 ft.
55.10	Ledge about 10 ft. high, course N.E. and S.W.
68.98	Ledge about 35 ft. high, course N. 80° E. and S. 80° W.
70.20	Enter scattering timber.
80.09	The cor. to secs. 5. 6. 7 and 8. Land, rough and mountainous 80.09 chs. Soil, sandy and rocky 4th rate. Timber, heavy cedar and pinon 70.20 chs. brush same. There are a number of small houses in the canon ~~mountainous land or desert~~ timbered 80.09 chs. in sec. 6 also in the cliffs on S. Bdry sec. 6. and a large amount of beautiful agatized wood in sec. 6. April 11 1894.

General Description.

This township contains nearly every variety of land from plains to mountains, and the soil ranges from sand to rich loam, The soil on the bottom along Escalante produces fine crops of the cereals, corn, the grasses, potatoes &c. The mountains produce very little grass, The mountains are heavily timbered with cedar, pinon, and some pine and fir.
There is a large amount of hydraulic lime in sec. 6. and coal of fair quality in secs. 30 and 31.
The mean declination for the Plat is 15° 24' E.
The water in this township is poor in quality, and contains, magnesia, iron sulphur and a large per centage of lime, The town of Escalante had an estimated population of about 1100. and contains one church, one hotel, two stores, and about 140 dwelling houses, There is one settler in sec. 18 and 2 in sec. 17

Subdivision T. 35 S. R. 5 E. concluded.

chains

Sections all lying in Town.
There are several cliff houses in secs. 7 and 18.
There are no minerals, or salines in this township.

William Leuman
U.S. Deputy Surveyor.

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PAGE

List of Names.

A list of the names of the individuals employed by _____

_____, U. S. Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of the _____

_____

_____

_____

_____

_____

_____

_____ Meridian, in _____, showing the respective capacities in which they acted:

_____

_____

_____

_____

_____

_____

_____

_____

_____

Final Oath of Assistants:

We hereby certify that we assisted _____

_____, U. S. Deputy Surveyor, in surveying all those parts or portions of the _____

_____

_____

_____

_____

_____

_____

_____ Meridian, _____, as are represented in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the U. S. Surveyor General for _____

_____

_____

_____

_____

_____

_____

_____

_____

Subscribed and sworn to before me this _____

day of _____, 18 .

SEAL

_____

_____

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BOOK A-238

Final Oath of U. S. Deputy Surveyor.

I, _____, U. S. Deputy Surveyor, do solemnly swear that, in pursuance of instructions received from _____, U. S. Surveyor General for _____, bearing date of the _____ day of _____, 18 , I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the U. S. Surveyor General for _____, the surveying manual, and the laws of the United States, surveyed all those parts or portions of _____

_____

_____

_____

_____

_____ Meridian, in the _____, as are represented in the foregoing field notes as having been surveyed by me, and under my directions; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the surveying manual, printed instructions, the special written instructions of the U. S. Surveyor General for _____ and in the specific manner described in the field notes, and that the foregoing are the true field notes of such survey; and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

_____

U. S. Deputy Surveyor.

Subscribed and sworn to before me this _____ day of _____, 18 .

SEAL

_____

_____

Approval.

Office of the U. S. Surveyor General,

Salt Lake City, Utah, Nov 4, 1896

The foregoing field notes of the survey of the Subdivisions of Township 3 South, Range 2 East of the Salt Lake Base & Meridian, Utah

_____

_____

_____

_____

_____

_____ executed by

William Newman

_____

under his Contract No. 191, dated March 2nd, 1893, having been critically examined, the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

George Snow

U. S. Surveyor General.

I certify that the foregoing transcript of the field notes of the above-described surveys in _____, has been correctly copied from the original notes on file in this office.

_____

U. S. Surveyor General.

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(4—679.)

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K. J. B.

FIELD NOTES

OF THE SURVEY OF

Subdivision of Township No. 35 S. R. No. 2 E.

Of the Salt Lake Base & Meridian,

Territory of Utah

AS SURVEYED BY

William Lewman, U. S. Deputy Surveyor,

under his Contract No. 191, dated March 2nd 1893.

Survey commenced April 11th, 1894.

Survey completed May 7th, 1894.

(12503—2,000.)

M. Chr. Ltr.

Sect. (high) 36-73-82

(low) 7-08-70

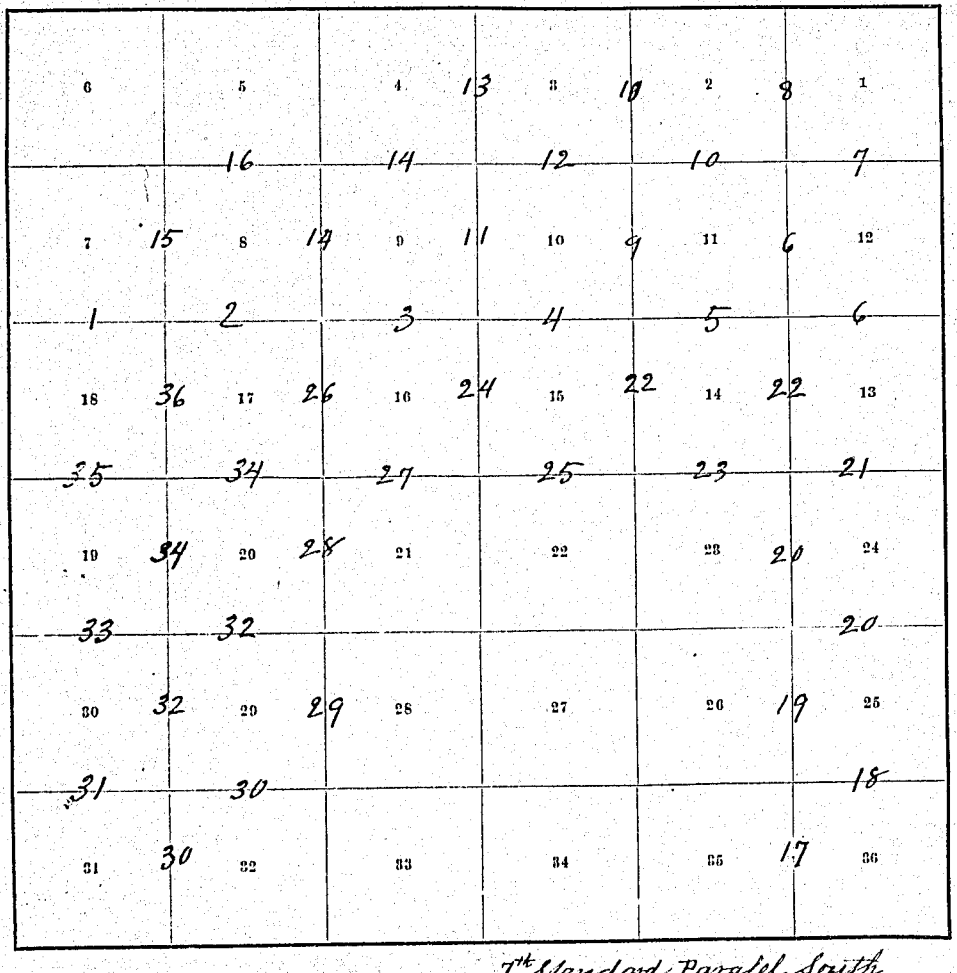
Names and Duties of Assistants.

Peter Barker	Chainman.
Orris Wilcox.	Chainman.
David Woolsey	Axeman.
Jacob Hamaker	Flagman.

BOOKA-238

INDEX DIAGRAM.

Township 35 S., *Range* 2 E.



Meanders Page

7th Standard Parallel South

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Preliminary Oaths of Assistants.

We, _____

_____

_____

do solemnly swear that we will well and faithfully execute the duties of chain carriers; that we will level the chain over even and uneven ground, and plumb the tally-pins either by sticking or dropping the same; that we will report the true distance to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us in the survey of the _____

_____

_____

_____

_____

_____, *Chainman.*

_____, *Chainman.*

_____, *Chainman.*

_____, *Chainman.*

Subscribed and sworn to before me this _____ day of _____, 18 .

_____

_____

We, _____

_____

do solemnly swear that we will well and truly perform the duties of axemen in the establishment of corners and other duties, according to instructions given us, and to the best of our skill and ability, in the survey of the _____

_____

_____

_____

_____

Subscribed and sworn to before me this _____ day of _____, 18 .

_____, *Axeman.*

_____, *Axeman.*

_____

_____

chains

On the night of April 9th 1894, at my stopping place in Escalante I took an obs. on Polaris at 8h 48m P. M. correct Astron. l. m. t. by my watch which is correct.

Astron. l. m. t. of obs. Apr. 9	8h	48m P. M.
W. C. Polaris April 1	0.	38.4
Add	23	56.11
Sum	24	34.5
Reduction to April 9		31.4
	24	03.1
Subtract	23	56.11
W. C. Polaris April 9		7.0
Subtract from time of obs.		
Time argument Table 2	8	41
Azimuth Polaris lat. 37° 45'	1°	11' W.
North end of needle	16°	35' E.
The difference is the var.	15°	24' E.

At 7 A. M. April 10th the var is 15° 28' E.
I run a supplementary Base line W. from the cor. to secs. 7. 12. 13 and 18. Rs. 2 and 3 E. (sec. 9 Page 39 Manual.) because of the mountains and high hills, and nonagricultural character of the land in south side of Tp.
From the cor. to secs. 7. 12. 13 and 18 on East Bdry. of Tp. as hereinbefore described
I run
W. on a random line 2 miles S. of N. Bdry.
Var. 15° 27' E.
I set temporary half mile and mile corners at each 40 and 80 chs. and find the line to be 5 miles 79 chains, and 52 lks. long. and the falling to be 39 lks. North of the cor. to secs. 7. 12. 13 and 18 bet. Rs. 1 and 2 E. as hereinbefore described.
The correction for the true line will be 6½ links S. per mile and its true course N. 89° 57' E.

April 13 1894.

From the cor. to secs. 7. 12. 13 and 18 on W Bdy of Tp
I run
N. 89° 57' E. on a true line bet. secs. 7 and 18.
Var 15° 27' E

Subdivision T. 35 S. R. 2 E. continued.

Chains	
	Descend through heavy timber and brush.
0.90	Head of ravine, course S. E.
1.50	Ascend abruptly about 100 ft.
4.80	Top of ridge, course N. and S. and descend.
10.50	Descend abruptly about 200 ft.
15.80	Ascend gradually.
39.52	Set a sandstone 28 X 6 X 6 ins. in a stone pile in rocky place for 1/4 sec. cor. marked 1/4 on N. face; from which A pinon 16 ins. diam. bears N. 36° E. 17 lks. dist. marked 1/4 S. B. T. A cedar 8 ins. diam. bears S. 39° W. 21 lks. dist. marked 1/4 S. B. T.
46.50	Ravine about 50 ft. deep, course S. 25° E.
60.00	Top of ridge, course N. 18° W. and S. 18° E.
79.52	Set a sandstone 24 X 8 X 6 ins. in a stone pile (not sufficient ground to hold rock) for cor. to secs. 7, 8, 17 and 18 marked with 4 notches on S. and 5 notches on E. edges; from which A pinon 8 ins. diam. bears S. 65° W. 7 lks. dist. marked T. 35 S. R. 2 E. S. 18. B. T. A pinon 6 ins. diam. bears N. 27° W. 11 lks. dist. marked T. 35 S. R. 2 E. S. 7. B. T. A pinon 7 ins. diam. bears N. 5° E. 12 lks. dist. marked T. 35 S. R. 2 E. S. 8. B. T. A pinon 4 ins. diam. bears S. 40° E. 14 lks. dist. marked T. 35 S. R. 2 E. S. 17. B. T.
	Land, rough and mountainous 79.52 chs.
	Soil, sandy gravel 4th rate.
	Timber, heavy cedar and pinon 79.52 chs.
	Undergrowth same with oak 79.52 chs.
	Mountainous land or heavily timbered (79.52 chs.) April 13 1894.

N. 89° 57' E. on a true line bet. secs. 8 and 17.
Var. 15° 28' E.

	Through heavy timber & brush
4.80	Dry wash 20 lks. wide, course S.
5.10	Ascend about 150 ft.
20.50	Top of ridge, course N. and S. and descend abruptly about 100 ft.
24.90	Dry wash 20 lks. wide, course S. and ascend about 100 ft.
36.50	Top of point, course N. and S. and descend about 50 ft.
40.00	Set a sandstone 28 X 10 X 5 ins. in a stone pile for 1/4 sec. cor. marked 1/4 on N. face; from which A pinon 16 ins. ins. diam. bears N. 25° W. [illegible] S. B. T.

Subdivision T.35 S. R.2 E. continued.

chains	
	A cedar 11 ins. diam. bears
	S.5° E. 27 lks. dist. marked 1/4 S.B.T.
43.66	Dry wash 21 lks. wide, course S.E. and ascend abruptly about 100 ft.
73.60	Along N. side of hill
80.00	Set a sandstone 20x10x3 ins. in a stone pile on rocky place for cor. to secs. 8, 9, 16 and 17 marked with 4 notches on S. and E. edges: from which
	A pinon 12 ins. diam. bears
	S.37° W. 14 lks. dist. marked T.35 S. R.2 E. S.17. B.T.
	A pinon 12 ins. diam. bears
	S.66° E. 18 lks. dist. marked T.35 S. R.2 E. S.16. B.T.
	A pinon 6 ins. diam. bears
	N.64° E. 13 lks. dist. marked T.35 S. R.2 E. S.9. B.T.
	A pinon 3 ins. diam. bears
	N.37° W. 47 lks. dist. marked T.35 S. R.2 E. S.8. B.T.
	Land, very rough and mountainous 80 chs.
	Soil, sandy gravel 4th rate.
	Timber, heavy cedar and pinon 80 chs.
	Undergrowth same with oak 80 chs. Apr. 14 1894.
	Mountainous land and heavily timbered 80 chs.
	N.89° 57' E. on a true line bet. secs. 9 and 16.
	Through heavy timber & brush Var. 15° 23' E.
22.50	Descend abruptly over ledges and cliffs about 600 ft.
40.00	Set a sandstone 36x15x8 ins. in a stone pile among large bowlders for 1/4 sec. cor. marked 1/4 on N. face from which
	A pinon 10 ins. diam. bears
	S.53° E. 15 lks. dist. marked 1/4 S.B.T.
	A pinon 14 ins. diam. bears
	N.45° E. 12 lks. dist. marked 1/4 S.B.T.
48.80	Foot of mountain and leave heavy timber, course S.10° E. and N.35° W.
49.56	Road, course S.35. E. and N.30° W.
49.94	North creek 31 lks. wide, course S.E.
53.90	Foot of point and enter heavy timber, course S.10° E. and N.10° W. and ascend about 80 ft.
60.68	Ledge about 30 ft. high, course S.70° E and N.70° W.
61.60	Ascend ledge about 40 ft. course S.70° E. and N.70° W.
65.62	Descend about 50 ft. course N.70° E. and S.70° W. and leave heavy timber,
[illegible]	Descend about [illegible]

4

Subdivision T.35 S. R.2 E. continued.

chains	
80.00	Set a sandstone 20x8x5 ins. 15 ins. in the ground (about 80 ft. above bottom) for cor. to secs. 9.10.15 and 16 marked with 4 notches on S. and 3 notches on E. edges; from which A pinon 8 ins. diam. bears S. 87° W. 82 lks. dist. marked T.35 S. R.2 E. S. 16. B.T. No more trees within the limits. Raised a mound of stones and earth 2½ ft. high, 3½ ft. base alongside. Pits impracticable. Land, rough and mountainous 74.90 chs. Soil, gravel, rocky and sandy loam 4th and 1st rate. Timber, heavy cedar and pinon 60.52 chs. Undergrowth same 60.52 chs. with dense oak and willow on bottom 5.10 chs. April 14 1894. Mountainous land or heavily timbered 80 chs.
	N. 89° 57' E. on a true line bet. secs. 10 and 15. Descend abruptly Var. 15° 28' E.
5.00	Foot of point, course S. 50° W. and N. 50° E.
9.47	Isaac J. Riddle's fence, course S. 54° W. and N. 54° E.
10.62	Isaac J. Riddle's fence, course S. 80° E and N. 80° W.
10.80	Road, course N. 52° E. and S. 53° W.
14.86	Ditch, 6 lks. wide, course N. E.
36.40	Enter dense brush
37.80	Escalante creek 37 lks. wide, course E.
40.00	Corner falls in creek.. Therefore 4 Olk N of line on top of bank Set a sandstone 20x10x5 ins. 15 ins. in the ground for 1/4 Sec. cor. marked W.C. 1/4 on N. face; from which A cottonwood 3 ins. diam. bears S. 70° W. 12 lks. dist. marked W.C. 1/4 S. B. T. No other tree within the limits; dug pits 18x18x12 ins. E and W. of stone 5½ ft. dist. and raised a mound of earth 2½ ft. high, 3 ft. base alongside.
42.55	Leave creek, course N. 80° E.
43.20	Leave brush and enter Marias Hall's lucerne field, course N. 80° E. and S. 80° W.
67.04	Fence and leave lucerne field, course N. 17° E. and S. 17° W.
68.00	N.W. cor. Marias Hall's house bears S. 25 lks. dist.
70.30	Dry wash 70 lks. wide, course N. 26° E.
80.00	Set a sandstone 25x10x4 ins. 19 ins. in the ground for cor. to secs. 10.11.14 and 15 marked with 4 notches on S. and 2 notches on E. edges; dug pits 24x24x15 ins. in each sec. 5½ ft. dist. and raised a mound

Subdivision T. 35 S. R. 2 E. continued.

chains	
	of stones and earth 3 ft. high, 4 ft. base alongside.
	Land, level 75 chs. mountainous 5 chs.
	Soil, sandy and clay loam 1st rate,
	No timber, Undergrowth dense oak and willow 6.80 chs.
	Land covered with dense undergrowth 6.80 chs.
	N. 89° 57' E. on a true line bet. secs. 11 and 14,
	9 a. 15° 25' E.
1.40	E. scalante road, course S. 70° W. and N. 70° E.
4.00	Enter heavy timber, course N. 80° E. and S. 80° W.
	and ascend about 80 ft. along N. side of mountain.
11.00	Top of point, course N. and S. and descend.
12.18	Ravine about 30 ft. deep, course N.
12.80	Ascend about 50 ft.
15.00	Top of point, course N. and S. and descend.
16.47	Dry wash 8 lks. wide, course N.
17.25	Ascend abruptly about 60 ft.
23.70	Top of point, course N. and S. and descend.
23.88	Dry wash 7 lks. wide, course N.
24.25	Ascend about 40 ft.
32.50	Top of point, course N. & S. and descend about 40 ft.
40.00	Set a sandstone 23 X 10 X 4 ins. in a stone pile for
	1/4 sec. cor. marked 1/4 on N. face; from which
	A pinion 12 ins. diam. bears
	N. 45° E. 74 lks. dist. marked 1/4 S. B. T.
	A pinon 14 ins. diam. bears
	S. 22° E. 73 lks. dist. marked 1/4 S. B. T.
54.50	Dry wash 2.05 lks. wide, course N. 16° W. & leave timber.
57.60	Enter heavy timber, course E. & W.
61.70	Leave timber, course N. and S. and ascend.
66.89	Dry wash 20 lks. wide, course N. W.
67.20	Enter timber and ascend abruptly about 350 ft. Course S. E. & N. W.
80.00	Set a sandstone 20 X 9 X 5 ins. 15 ins. in the ground
26.00 / 40.00	for cor. to secs. 11. 12. 13 and 14 marked with 4
	notches on S. and 1 notch on E. edges; from which
	A pinon 7 ins. diam. bears
	S. 1° E. 29 lks. dist. marked T. 35 S. R. 2 E. S. 13. B. T.
	A pinion 12 ins. diam. bears
	N. 84° E. 15 lks. dist. marked T. 35 S. R. 2 E. S. 12. B. T.
	A pinon 12 ins. diam. bears
	N. 57° W. 88 lks. dist. marked T. 35 S. R. 2 E. S. 14. B. T.
	No other trees within the limits required.

6

Subdivision T. 35 S. R. 2 E. continued.

chains	mound of stones 2 ft. high, 3 ft. base alongside.
	Pits impracticable
	Land, rough and mountainous 76 chs.
	Soil, clay and gravel 2nd rate.
	Timber, heavy cedar and pinon 58.10 chs.
	Undergrowth oak, willow and sage 80 chs.
	Mountainous or heavily timbered land 76 chs.
	April 14 1894
	N. 89° 57' E. on a true line bet. secs. 12 and 13.
	Descend through timber Va. 15° 28' E.
4.50	Ascend about 100 ft. along N. slope of mountain
28.70	Top of point, course N. & S. and descend about 150 ft.
32.50	Dry wash 10 lks. wide course N. and ascend about 20 ft.
33.00	Top of point, course N. 20 W. & S. 20° E. and ascend about 20 ft.
36.05	Dry wash 10 lks. wide, course N. W. and ascend.
37.45	Top of point, course N. 20° W. & S. 20° E. and descend about 25 ft.
38.70	Dry wash 15 lks. wide, course N. W. and ascend
40.00	Set a sandstone 20×12×4 ins. 15 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face; from which
	A cedar 5 ins. diam. bears
	N. 39° E. 41 lks. dist. marked 1/4 S. B. T.
	A pinon 14 ins. diam. bears
	S. 50° W. 36 lks. dist. marked 1/4 S. B. T.
46.60	Top of ridge, course N. 10° E. and S. 10° W.
48.70	Ravine about 30 ft. deep, course N. E.
56.00	Ascend about 40 ft.
60.10	Top of point, course N. E. and S. W.
66.15	Dry wash 10 lks. wide, course N. W.
76.34	Descend abruptly about 80 ft.
77.37	Dry wash 50 lks. wide, course N.
80.00	Cor. to secs. 7. 12. 13 and 18, on E. bdy. of Tp. hereinbefore described.
	Land, mountainous 80 chs.
	Soil, clay and gravel 2nd rate.
	Timber, scattering cedar and pinon 80 chs.
	Undergrowth same with oak and sage 80 chs.
	Mountainous land 80 chs.
	I now return to the cor. to secs. 11. 12. 13 and 14 and run
	North 0° 01' W. bet. secs. 11 and 12.
	Va. 15° 25' E.

Subdivision T. 35 S. R. 2 E. continued.

Chains	Var. 15° 25' E.
	Descend about 15 ft.
15.00	Foot of mountain and leave timber, course S.E. & N.W.
20.10	Road, course N.80° E. and S.80° W.
21.64	Wm. Butters fence, course N.84° E. and S.84° W.
21.80	Ditch 10 lks. wide, course N.E.
22.90	Escalante creek 32 lks. wide, course N.E.
24.42	Ploughed field, course S.E. and N.W.
26.95	Ditch 15 lks. wide wide, course N.80° E.
31.10	Escalante creek 35 lks. wide, course E. The line here just touches W. side of creek at bend.
39.10	Enter dense oak brush, course E. and W.
40.00	Set a sandstone 18 X 10 X 4 ins. 12 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face; dug pits 18 X 18 X 12 ins. N. and S. of stone 5½ ft. dist. and raised a mound of stone and earth 2 ft. high, 3 ft. base alongside.
51.00	Leave ploughed land, course E. and W.
52.30	Road, course S.65° E. and N.60° W.
53.26	Ditch 6 lks. wide, course S.71° E.
53.35	Ascend about 60 ft.
54.50	Enter scattering timber.
56.50	Top of ridge, course E. and W.
57.00	Descend about 50 ft.
76.00	Foot of ridge, course E. and W. and leave timber.
80.00	Set a porphyry rock 20 X 10 X 7 ins. 15 ins. in the ground for cor. to secs. 1, 2, 11 and 12 marked with 5 notches on S. and 1 notch on E. edges; dug pits 24 X 24 X 15 ins. in each sec. 5½ ft. dist. and raised a mound of earth 3 ft. high, 4 ft. base alongside.
	Land, rough and rolling 34.65 chs.
	Soil, sandy and clay loam 1st and 2nd rate.
	Timber, scattering cedar and pinon 32.50 chs.
	Brush and undergrowth same with willows and oak along creek and ditches. Apr. 15 1894.
	N. 89° 57' E. on a random line bet. secs. 1 and 12.
	Var. 15° 23' E.
40.00	Set temporary 1/4 Sec. cor.
80.26	Intersect E. Bdry of Tp. 12 lks. North of the cor. to secs.

Subdivision S. 35 S. R. 2 E. continued.

chains	
	Thence Run
	N. 89° 58' W. on a true line bet. secs. 1 and 12.
	Va. 15° 28' E.
	Ascend very abruptly about 150 ft. through heavy timber.
10.60	Top of ridge, course N. and S.
11.50	Descend very abruptly about 350 ft.
26.40	Dry wash 30 lks. wide, course S. and leave timber.
26.80	Ascend about 50 ft.
31.50	Top of ridge, course N. and S. and descend abruptly about 50 ft.
32.50	Bottom, course N. and S.
40.13	Set a sandstone 24 x 10 x 4 ins. 18 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face; dug pits 24 x 24 x 15 ins. E. and W. of stone 5 1/2 ft. dist. and raised a mound of earth 2 1/2 ft. high, 3 1/2 ft. base alongside.
40.87	Road, course S. E. and N. 20° W.
41.90	Enter Perry M. Listen's ploughed land, course N. 20° W. & S. 20° E.
58.70	Ditch 10 lks. wide, course S. 30° W.
61.70	Fence on W. side P. M. Listen's field, course N. 19° 21' W. and S. 19° 21' E.
	This field contains about 160 acres.
80.26	The cor. to secs. 1, 2, 11 and 12.
	Land, mountainous. 32.50 chs.
	Soil, sandy loam with clay and gravel, 1st and 4th rate.
	Timber, heavy cedar and pine 26.40 chs.
	Undergrowth same with sage and oak. Apr. 16 1894.
	Mountainous land or heavily timbered 32.50 chs.
	N. 0° 01' W. on a random line bet. secs. 1 and 2
	Va. 15° 25' E.
40.00	Set temporary 1/4 sec. cor.
80.32	Intersect N. Bdry. of Tp. 10 lks. East of the cor. to secs. 1, 2, 35 and 36.
	Thence Run
	S. 0° 05' E. on true line bet. secs. 1 and 2,
	Va. 15° 23' E.
30.56	Perpendicular ledge about 30 ft. high, course E. and W. and leave timber.
30.58	Foot of ledge.
40.32	Set a sandstone 20 x 10 x 3 ins. 15 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face; dug pits 24 x 24 x 15 ins. N. and S. of stone 5 1/2 ft. dist. and raised a mound of stone and earth 2 1/2 ft. high, 3 1/2 ft. base alongside.

Subdivision T. 35 S. R. 2 E. continued.

chains	
57.48	Road, course N.W. and S.E.
61.80	Dry wash 20 lks. wide, course S.E.
66.64	Old road, course N.W. and S.E.
80.32	The cor. to secs. 1 · 2 · 11 and 12.
30.56 / 49.76	Land, rough and mountainous 30.56 chs.
	Soil, sandy and clay loam and rocky 1st and 4th rate.
	Timber, scattering cedar and pinon 30.56 chs.
	Undergrowth and brush same with sage and rabbit brush 80.32 chs. Apr. 16 1894.
	Mountainous land 30.56 chs
	I now return to cor. to secs 10.11.14 and 15. and run
	North 0° 01' W. bet. secs. 10 and 11.
	Va. 15° 23' E.
3.00	Fence, course N. 85° E. and S. 85° W.
3.50	Enter dense brush,
5.86	Escalante creek, 47 lks. wide, course E.
7.10	Escalante creek 50 lks. wide, course N.W.
9.50	Escalante creek 35 lks. wide, course S.E.
10.20	Leave dense brush.
10.55	Ploughed land, course S. 78° W. and N. 60° E.
22.30	Leave ploughed land, course S. 80° W. and N. 80° E.
22.73	Fence on N. side Mary E. Hall T farm, course N. 81° E. and S. 81° W. Her house bears S. 78½ W. 11.63 chs. dist.
23.34	Ditch 5 lks. wide, course E. soon curves N.E.
23.40	Ascend abruptly through scattering timber about 100 ft.
29.50	Top of ridge, course E and W.
30.00	Descend about 30 ft.
40.00	Set a sandstone 28×9×5 ins. 22 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face; dug pits 20×20×15 ins. N. and S. of stone 5½ ft. dist. and raised a mound of earth 2 ft. high, 3 ft. base alongside. and ascend gradually
77.70	Top of ridge, course S. 66° W. soon turns S. and then E.
80.00	Set a sandstone 40×18×10 ins. in a stone stone pile or ledge of rock, for cor. to secs. 2. 3. 10 and 11 marked with 5 notches on S. and 2 notches on E. edges; from which
67.62 / 12.18	A cedar 10 ins. diam. bears
	S. 84° W. 127 lks. dist. marked T. 35 S. R. 2 E. S. 10. B. T.
	[illegible]

Subdivision 2. 35 S. R. 2 E. continued.

chains	
	Raised a mound of stone 5 ft. high, 5 ft. base alongside.
	Land, rough and mountainous 56.26 chs.
	Soil, sandy and clay loam 1st and 2nd rate.
	Timber a few scattering cedars and pinons 56.60 chs.
	Brush, dense oak, nigger and sage 10.20 chs.
	Mountainous land covered with dense undergrowth 67.82 chs. April 16 1894
	N. 89° 57' E. on a random line bet. secs. 2 and 11.
	Va. 15° 24' E.
40.00	Set temporary 1/4 sec. cor.
80.04	Intersect N. and S. line 13 lks. South of the com. to secs. 1. 2. 11 and 12.
	Thence S. run
	S. 89° 52' W. on a true line bet. secs. 2 and 11.
	Va. 15° 24' E.
2.04	Road, course N. and S.
7.00	Enter scattering timber and ascend about 30 ft. Course mostly S.E.
9.60	Top of ridge, course N.W. and S.E. and descend.
40.02	Set a sandstone 18 x 8 x 4 ins. 12 ins. in the ground for 1/4 sec. marked 1/4 on N. face; from which
	A pinon 12 ins. diam. bears
	S. 60° W. 16 lks. dist. marked 1/4 S. B. T.
	No other tree within the limits; dug pits 18 x 18 x 12 ins. E and W. of stone 5 1/2 ft. dist. and raised a mound of earth 2 ft. high, 3 ft. base alongside.
68.40	Foot of ridge, course N. and S. and ascend abruptly about 300 ft.
78.85	Top of ridge, course S. 56° W. and N. 50° E.
80.04	The com. to secs. 2. 3. 10 and 11.
	Land, rough and mountainous 11.64 chs.
	Soil, sandy and clay loam and gravel 1st and 4th rate.
	Timber, scattering cedar and pinon 7.3 chs.
	Brush, sage, rabbit and greasewood 80.04 chs.
	Mountainous land 11.64 chs. April 17 1894.
	N. 0° 01' W. on a random line bet. secs. 2 and 3.
	Va. 15° 24' E.
40.00	Set temporary 1/4 sec. cor.
80.22	Intersect N. Bdry. of Tp. 6 lks. E. of the com. to secs. 2. 3. 34 and 35.
	Thence S.

Subdivision T. 35 S. R. 2 E. continued.

chains	
	S. 0° 04' E. on a true line bet. secs. 2 and 3.
	Va. 15° 22' E.
	Descend about 40 ft. through timber
4.50	Leave timber, course E and W.
7.34	Road, course E. and W.
8.22	Dry wash 5 lks. wide, course E.
12.20	Enter heavy timber, course S. 80° E and N. 85° W. and ascend along E. side of ridge abruptly about 100 ft.
34.60	Top of point, course E and W. and descend abruptly about 100 ft.
40.22	Set a sandstone 18×10×3 ins. 12 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face; from which
	A cedar 12 ins. diam. bears
	W. 15 lks. dist. marked 1/4 S. B. T.
	A pinon 8 ins. diam. bears
	N. 40° E. 32 lks. dist. marked 1/4 S. B. T.
42.35	Dry wash 11 lks. wide, course N. E.
50.60	Top of ridge, course S. W. and N. 10° E.
52.40	Descend abruptly about 100 ft.
74.60	Dry wash 16 lks. wide, course N. E. and ascend.
80.22	The cor. to secs. 2, 3, 10 and 11.
	Land, rough and mountainous 72.52 chs.
	Soil, gravel and sandy loam 4th and 1st rate.
	Timber, heavy cedar and pinon 67.80 chs.
	Undergrowth same April 17 1894.
	Mountainous land or heavily timbered 80.22 chs.

I now return to corner to secs. 9, 10, 15 and 16.

Thence I run

North 0° 02' W. bet. secs. 9 and 10.

Va. 15° 28' E.

	Ascend abruptly about 100 ft.
1.80	Top of point, course N. E. and S. W. and enter and enter heavy timber and ascend up mountain.
4.80	Ravine about 15 ft. deep, course S. W.
20.60	Ravine about 25 ft. deep, course S. W.
40.00	Set a sandstone 30×12×8 ins. 24 ins. in the ground and stone pile for 1/4 sec. cor. marked 1/4 on W. face; from which
	A pinon 15 ins. diam. bears
	N. 82° E. 39 lks. dist. marked 1/4 S. B. T.
	A pinon 6 ins. diam. bears

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Subdivision 2. 35 S. R. 2 E. continued.

chains	
	S. 83° W. 72 lks. dist, marked 1/4 S. B. 2.
74.20	Ascend ledge of sandstone about 100 ft, course S. 60° W. and N. 65° E.
74.48	Top of ledge.
80.00	Set a sandstone 28 x 11 x 5 ins. in a stone pile for cor. to secs. 3. 4. 9 and 10, marked with 5 notches on S. and 3 notches on E. edge; from which A pinon 18 ins. diam. bears N. 81° E. 70 lks. dist, marked 2. 35 S. R. 2 E. S. 3. B. 8. A pine 13 ins. diam. bears N. 57° W. 105 lks. dist. marked 2. 35 S. R. 2 E. S. 4. B. 2. A pine 14 ins. diam. bears S. 41° W. 102 lks. dist, marked 2. 35 S. R. 2 E. S. 9. B. 2. A pine 16 ins. diam. bears S. 42° E. 104 lks. dist, marked 2. 35 S. R. 2 E. S. 10. B. 2.
	Land rough and mountainous 80 chs.
	Soil, rocky gravel 4th rate.
	Timber heavy, cedar, pinon and pine 78.20 chs.
	Undergrowth same with whortleberry 80 chs.
	Mountainous land and heavily timbered 80 chs.

	N. 89° 57' E. on a random line bet. secs. 3 and 10.
	Var. 15° 24' E.
40.00	Set temporary 1/4 sec. cor.
80.08	Intersect the N. and S. line at the cor. to secs. 2. 3. 10 and 11
	Thence I run
	S. 89° 57' W. on a true line bet. secs. 3 and 10.
	Var. 15° 22' E.
	Ascend about 20 ft Thence I Timber
2.90	Top of ridge, course S. 60° W. and N.
3.00	Descend gradually about 100 ft
13.40	Enter heavy timber, course N. and S.
24.90	Leave timber and enter bottom, course S. and N. 10° E.
31.48	Road, course S. 27° W. and N. 25° E.
40.04	Set a sandstone 18 x 10 x 3 ins. 12 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face; from which A pinon 14 ins diam. bears N. 89 1/2° W. 136 chs. dist. marked 1/4 S. B. 2; dug pits 20 x 20 x 15 ins. E and W. of stone 5 1/2 ft. dist. and raised a mound of earth 3 ft. high 4 ft. base alongside.
53.60	Enter heavy timber, course S. E. and N. W. and ascend

Subdivision T. 35 S. R. 2 E. continued.

Chains	
58.60	Foot of mountain, and ascend about 600 ft abruptly over large rocks, course N. 5° E. and S. 5° W.
72.30	Perpendicular cliffs about 300 ft. high, I go back to 1/4 sec. cor. and measure a base 15 chs. N. and set a flag pole at N. end of base and one at 1/4 sec. cor. and one on top of cliffs on the line. From a point on the line on top of cliffs the flag at N. End of base bears N. 66° 36' E. subtract from 90° = 23° 24'; cotang 2.31 × 15 = 34.65 + 40.04 = 74.69 chs.
74.69	Top of cliffs, course S. 6° W. and N. 4° E.
80.08	The corner to secs. 3. 4. 9 and 10.
	Land, rough and mountainous 21.48 chs. rolling 26.30 chs. and level 32.30 chs.
	Soil, sandy loam and rocky 2nd and 4th rate.
	Timber, heavy cedar, pinion and pine 30.17 chs.
	Undergrowth same with scattering sage 80.08 chs. mountainous and heavily timbered land 37.98 chs. Apr. 18. 1894.

N. 0° 02' W. on a random line bet. secs. 3 and 4.

Va. 15° 28' E.

40.00	Set temporary 1/4 sec. cor.
80.16	Intersect N. Bdry of Tp. 8 lks. East of cor. to secs. 3. 4. 33 and 34.
	Thence Prun
	S. 0° 05' E. on a true line bet. secs. 3 and 4.
	Va. 15° 24' E.
	Through heavy timber.
40.16	Set a sandstone 24 × 12 × 4 ins. in a stone pile on rocky place for 1/4 sec. cor. marked 1/4 on W. face; from which
	A pinion 10 ins. diam. bears
	S. 28° W. 41 lks. dist. marked 1/4 S. B. T.
	A cedar 8 ins. diam. bears
	N. 49° E. 23 lks. dist. marked 1/4 S. B. T.
80.16	The cor. to secs. 3. 4. 9 and 10.
	Land, nearly level along line.
	Soil, rough and rocky of no account.
	Timber, heavy cedar, pinion and pine 80.16 chs.
	Undergrowth same with oak and mahogany 80.16 chs.
	Heavily timbered land [illegible] April 19 [illegible]

Subdivision T. 35 S. R. 2 E. continued.

Chains	
	Thence return to the cor. to secs. 8. 9. 16 and 17.
	Thence N.
	North 0° 03' W. bet. secs. 8 and 9.
	Va. 15° 23' E.
	Descend through very heavy timber.
4.25	Descend abruptly about 600 ft.
22.50	Foot of mountain, course N. W. and S. E.
23.00	Enter dense brush and heavy timber.
27.84	North creek 28 lks. wide, course E.
29.89	Road, course S. 80° E. & N. 80° W.
39.10	Enter scattering timber, course E. and W.
40.00	Set a sandstone 24 X 13 X 3 ins. 18 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face; from which A pinon 12 ins. diam. bears S. 4° W. 17 lks. dist. marked 1/4 S. B. T. A cedar 12 ins. diam. bears N. 57° E. 11 lks. dist. marked 1/4 S. B. T.
43.80	Foot of mountain, course S. 70° E. & N. 60° W.
44.50	Ascend very abruptly about 500 ft.
50.80	Top of plateau, course N. E. and N. 65° W.
80.00	Set a sandstone 20 X 8 X 4 ins. in a stone pile for cor. to secs. 4. 5. 8 and 9. marked with 5 notches on S. and 4 notches on E. edges; dug pits 24 X 24 X 15 ins. in each sec. 5 1/2 ft. dist. and raised a mound of earth and stones 3 ft. high, 4 ft. base alongside (The cor. stone is in a rocky place) Land very rough and mountainous 58 chs. Soil, sandy loam and rocky gravel 4th & 1st rates. Timber, heavy cedar and pinon 23. chs. Undergrowth same, with dense oak and willow 20.80 chs. on bottom. April 19 1894.
	Mountainous land or covered with dense undergrowth and heavy timber 58 chs.
	N. 89° 57' E. on a random line bet. secs. 4 and 9.
	Va. 15° 28' E.
40.00	Set temporary 1/4 sec. cor.
80.20	Intersect N. and S. line 29 lks. North of the cor. to secs. 3. 4. 9 and 10.
	Thence N.
	N. 89° 51' W. on true line bet. secs. 4 and 9.
	Va. 15° 24' E.
	Heavy & heavy timber.

Subdivision T. 35 S. R. 2 E. continued

chains	
6.00	Descend gradually.
18.80	Ascend abruptly about 100 ft.
22.60	Top of ridge, course N. and S. W.
25.44	Descend abruptly about 300 ft.
40.10	Set a sandstone 24×10×4 ins. in a stone pile for 1/4 sec. cor. marked 1/4 on N. face; from which A pinon 6 ins. diam. bears S. 32° W. 21 lks. dist. marked 1/4 S. B. T. A cedar 5 ins. diam. bears N. 10° W. 15 lks. dist. marked 1/4 S. B. T.
43.50	Canon of the East Fork of North creek, course N. and S. and descend abruptly about 200 ft. and leave timber
45.20	Bottom, course N. and S. and enter dense brush
46.12	East Fork of North creek 5 lks. wide, course S.
47.18	Ascend abruptly about 200 ft. course N. & S. 10° W.
49.84	Top of bench, course N. and S. 5° W. and enter heavy timber.
54.20	Canon about 300 ft. deep, course S. 10° E. and Descend abruptly.
57.36	Bottom of canon, course S. 10° E.
57.84	Spring run 3 lks. wide, course S. 18° E.
58.10	Ascend abruptly about 300 ft.
63.48	Top of bench, course S. 12° E. and N. 10° W. and enter very scattering timber.
80.20	The cor. to secs. 4. 5. 8 and 9. Land very rocky, rough and mountainous 80.20 chs. Soil, rocky gravel and sandy 4th and 2nd rate. Timber, heavy cedar and pinon 49.84 chs. Undergrowth same with dense oak: willow and sage along creeks. 35.00 chs. Apr. 20 1894. Mountainous land or heavily timbered or covered with dense undergrowth 80.20 chs.

I stop at the above cor. because of high mountains and the nonagricultural character of the land.

I now return to the cor. to secs. 7. 8. 17 and 18. on supplementary base line.
Thence I run
North 8° 40' W. bet. secs. 7 and 8

Subdivision T. 35 S. R. 2 E. continued.

chains	
	Va. 15° 24' E.
	Through heavy timber and dense brush over rough mountainous land.
30.85	Descend abruptly about 500ft.
40.00	Set a sandstone 22 x 9 x 3½ ins. 16 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face; from which
	A pinon 5 ins. diam. bears
	S. 57° W. 81 lks. dist. marked 1/4 S. B. S.
	A pinon 7 ins. diam. bears
	S. 1° E. 176 lks. dist. marked 1/4 S. B. S.
41.22	Dry wash 4.7 lks. wide, course S. 70° E.
41.85	Ascend abruptly about 500ft.
48.75	Top of bench, course E. and W.
72.60	Descend abruptly about 400ft.
80.00	Set a sandstone 20 x 15 x 3 ins. 15 ins. in the ground for cor. to secs. 5. 6. 7 and 8, marked with 5 notches on S. and E. edges; from which
	A pinon 10 ins. diam. bears
	S. 74° W. 45 lks. dist. marked T. 35 S. R. 2 E. S. 7. B. S.
	A pinon 5 ins. diam. bears
	S. 33° E. 56 lks. dist. marked T. 35 S. R. 2 E. S. 8. B. S.
	A pinon 14 ins. diam. bears
	N. 75° W. 67 lks. dist. marked T. 35 S. R. 2 E. S. 6. B. S.
	A pinon 8 ins. diam. bears
	N. 8° E. 53 lks. dist. marked T. 35 S. R. 2 E. S. 5. B. S.
	Land, mountainous 80 chs.
	Soil, gravel and rocky 4th rate.
	Timber, heavy cedar, pinon and pine 80 chs.
	Undergrowth same with oak and sage 80 chs.
	Mountainous land or heavily timbered or covered with dense undergrowth 80 chs.

April 20 1894.

N. 89° 57' E. on a random line bet. secs. 5 and 8.

Va. 15° 28' E.

40.00	Set temporary 1/4 sec. cor.
80.40	Intersect N. and S. line 40 lks. North of the cor. to secs. 4. 5. 8 and 9.
	Hence Drum
	N. 89° 46' W. on a true line bet. secs. 5 and 8.
	Va. 15° 24' E.
	Through heavy timber and brush.
34.00	Ascending timber

Subdivision of T. 35 S. R. 2 E. continued,

chains	
40.20	Set a sandstone 24 x 10 x 3 ins. in a stone pile in rocky place for 1/4 sec. cor. marked 1/4 on N. face; from which A pinon 3 ins. diam. bears S. 26° W. 47 lks. dist. marked 1/4 S. B. T. No other tree within the limits; dug pits 18 x 18 x 12 ins. E. and W. of stone 5½ ft. dist; and raised a mound of stones 2 ft. high, 3 ft. base, alongside
52.20	Ravine about 30 ft. deep, course N. W.
67.80	Descend abruptly about 600 ft.
73.10	Bottom of gulch, course N. 10° W. and S. 10° E.
73.72	Road, course S. E. and N. W.
74.28	North creek 27 lks. wide, course S. 12° E.
76.80	Ascend and enter heavy timber
80.40	The cor. to secs. 5. 6. 7 and 8. Land, mountainous 80.40 chs. Soil, gravel and sandy loam 2nd and 4th rate Timber, heavy cedar, pinon and pine 37.20 chs. Undergrowth Same with dense oak & willow 80.40 chs. Mountainous, heavily timbered or covered with dense undergrowth 80.40 chs. Apr. 21 1894

I stop at above cor. because of high mountains and the worthless character of the land. There is not any agricultural land north of this corner.

I now go to the cor. to secs. 1. . . 35 and 36 on S. boundary of Tp. hereinbefore described. Having established a true meridian in the town of Escalante and set posts at both ends of it exactly on the line. I tested the adjustments of my transit this morning at 7 a. m. and found them correct. See particulars on page 1 of these notes. I now run

North 0° 01' W. bet. secs. 35 and 36.

Var. 15° 27' E.

	Descend very abruptly about 600 ft. through heavy timber. Coal shaft bears N. 66° W.
15.64	Foot of mountain and leave timber, course E. & W.
18.27	Road, course E. and W. Coal shaft bears N. 82° W.
19.88	Alvey's wash 5 lks. wide, course N. 80° E.
22.40	[illegible]

18 Subdivision T. 35 S. R. 2 E. continued.

chains	Ascend.
35.92	Ascend ledge of sandstone about 40 ft. high, course E. and S. 10° W.
40.00	Set a sandstone 23×8×4 ins. 16 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face; from which
	A pinon 6 ins. diam. bears
	S. 81° E. 19.6 lks. dist. marked 1/4 S. B. T.
	A pinon 6 ins. diam. bears
	N. 23° W. 35 lks. dist. marked 1/4 S. B. T.
71.65	Top of mountain course E. and W.
80.00	Set a sandstone 23×9×7 ins. 17 ins. in the ground for cor. to secs. 25-26-35 and 36 marked with 1 notch on S. and E. edges; from which
	A pinon 10 ins. diam. bears
	N. 73° W. 27 lks. dist. marked T. 35 S. R. 2 E. S. 26. B. T.
	A pinon 12 ins. diam. bears
	S. 4° W. 42 lks. dist. marked T. 35 S. R. 2 E. S. 35. B. T.
	A cedar 12 ins. diam. bears
	S. 83° E. 23 lks. dist. marked T. 35 S. R. 2 E. S. 36. B. T.
	A cedar 12 ins. diam. bears
	N. 46° E. 45 lks. dist. marked T. 35 S. R. 2 E. S. 25. B. T.
	Land, rough and mountainous 71.65 chs.
	Soil, sandy and gravel 3rd and 4th rate.
	Timber, heavy cedar and pinon 73.24 chs.
	Undergrowth same with sage 80 chs.
	Mountainous land and heavily timbered 73.24 chs. April 23 1894.

East on a random line bet. secs. 25 and 36.

Va. 15° 24' E.

40.00	Set temporary 1/4 sec. cor.
80.20	Intersect E. Bdry. of Tp. at the cor. to secs. 25-30-31 and 36.
	Thence I run
	W. on a true line bet. secs. 25 and 36.
	Va. 15° 21' E.
	Descend about 300 ft. through heavy timber.
31.70	Perpendicular ledge about 30 ft. high, course S. 60° E. & N. W.
31.90	Bottom, course S. 60° E. and N. W. leave timber, enter dense brush
38.12	Road, course S. and N. 10° E.
38.52	Heap's wash 57 lks. wide, course N. W.
39.60	Leave bottom and ascend abruptly about 800 ft.
40.10	A point about 50 ft. above wash.
	Set a sandstone 23×[illegible] ins. 17 ins. in the ground

Subdivision T. 35 S. R. 2 E. continued.

Chains	
	for 1/4 sec. cor. marked 1/4 on N. face; from which
	A pinon 12 ins. diam., bears
	S. 81° W. 196 lks. dist., marked 1/4 S. B. T.
	no other tree within the limits. Raised a mound
	of stones and earth 2 ft. high, 3½ ft. base alongside.
	Pits impracticable.
45.64	Enter heavy timber and ascend very abruptly.
77.80	Top of mountain, course S. E. and N. W.
80.20	The cor. to secs. 25. 26. 35 and 36.
	Land, mountainous 72.30 chs.
72.30 / 7.90	Soil, sandy and rocky 4th rate.
	Timber, heavy cedar and pinon 66.26 chs.
	Undergrowth same with sage 80.20 chs. Apr. 23 1894.
	Mountainous land and heavily timbered 72.30 chs.
	North 0° 01' W. bet. secs. 25 and 26.
	Descend through heavy timber Va. 15°. 28' E.
3.20	Ravine about 40 ft. deep, course S. E.
29.40	Descend very abruptly about 400 ft. over rocks.
	course N. W. and S. E.
40.00	Set a sandstone 30 X 10 X 8 ins. 24 ins. in the ground
	and stone pile (Soil 1 ft. deep) for 1/4 sec. cor. marked
	1/4 on W. face; from which
	A pinon 10 ins. diam., bears
	N. 67° W. 17½ lks. dist., marked 1/4 S. B. T.
	A pinon 6 ins. diam., bears
	N. 86° E. 12 lks. dist., marked 1/4 S. B. T.
45.60	Ravine about 100 ft. deep, course S. E.
60.80	Ascend about 200 ft.
80.00	Set a sandstone 24 X 12 X 4 ins. in a stone pile on
	rock, for cor. to secs. 23. 24. 25 and 26, marked with 2
	notches on S. and 1 notch on E. edges; from which
	A pinon 10 ins. diam., bears
	S. 59° W. 32 lks. dist., marked T. 35 S. R. 2 E. S. 26. B. T.
	A pinon 10 ins. diam., bears
	S. 23° E. 25 lks. dist., marked T. 35 S. R. 2 E. S. 25. B. T.
	A cedar 8 ins. diam., bears
	N. 27° W. 15 lks. dist., marked T. 35 S. R. 2 E. S. 23. B. T.
	A pinon 14 ins. diam., bears
	N. 37° E. 82 lks. dist., marked T. 35 S. R. 2 E. S. 24. B. T.
	Land, very rough and mountainous 80 chs.
	Soil, sandy and rocky 4th rate.
	Timber, heavy cedar and pinon 80 chs.

Subdivision T. 35 S. R. 2 E. continued.

chains	
	Undergrowth same 80 chs. April 24 1894. Mountainous land heavily timbered 80 chs.
	E. on a random line bet. secs. 24 and 25. Va. 15° 23' E.
40.00	Set temporary 1/4 sec. cor.
80.16	Intersect E. Bdry. of Hp. 22 lks. North of cor. to secs. 19. 24. 25 and 30.
	Thence S run N. 89° 51' W. on a true line bet. secs. 24 and 25. Va. 15° 22' E.
2.90	Head to wash 123 lks. wide, course N.E.
6.90	Same wash 163 lks. wide, course S.E.
12.70	Same wash 131 lks. wide, course N. 17° E.
18.06	Road, course N. and S.
25.83	Enter timber and ascend abruptly about 150 ft. (near S.) course
40.08	Set a sandstone 22 x 10 x 5 ins. 16 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face; from which A pinon 10 ins. diam., bears S. 7° W. 10 lks. dist. marked 1/4 S. B. T. No other tree within the limits: Raised a mound of stones and earth 2 ft. high 3 1/2 ft. base alongside Pits impracticable (large rocks in the way)
57.84	Ledge about 50 ft. high, course S. 10° E. and N. 25° W.
58.11	Top of ledge, course S. 10° E. and N. 25° W. and leave timber.
73.55	Enter heavy timber, course N. and S. and descend about 50 ft.
77.23	Ravine about 50 ft. deep, course S. 10° E.
80.16	The cor. to secs. 23 . 24 . 25 and 26.
	Land, mountainous 54.33 chs.
	Soil, sandy and clay loam and gravel 1st & 4th rates
	Timber, heavy cedar and pinon 6.61 chs.
	Undergrowth same with sage and rabbit brush 80.16 chs.
	Mountainous land and heavily timbered chs. 54.33 April 24 1894.
	North 0° 01' W. bet. secs. 23 and 24. Va. 15° 22' E.
	Ascend about 100 ft through heavy Cedar & pinon
12.50	Top of ridge, course E. and W. leave timber and descend about 50 ft.
40.00	Set a sandstone 20 x 10 x 3 ins. 15 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face; dug pits 18 x 18 x 12 ins. N. and S. of stone 5 1/2 ft. dist, and raised a mound of stones & earth 2 1/2 ft. high 3 ft. base alongside

Subdivision T. 35 S. R. 2 E. continued. 21

chains.	
52.50	Enter heavy timber, course N. 10° W. and S. 10° E.
80.00	Set a sandstone 20×12×12 ins. 15 ins. in the ground for cor. to secs. 13. 14. 23 and 24 marked with 3 notches on S. and 1 notch on E. edges; from which
	A pinon 10 ins. diam. bears
	N. 30° E. 40 lks. dist. marked T. 35 S. R. 2 E. S. 13. B. T.
	A pinon 8 ins. diam. bears
	N. 51° W. 46 lks. dist. marked T. 35 S. R. 2 E. S. 14. B. T.
	A cedar 6 ins. diam. bears
	S. 17° E. 39 lks. dist. marked T. 35 S. R. 2 E. S. 24. B. T.
	A cedar 6 ins. diam. bears
	S. 77° W. 27 lks. dist. marked T. 35 S. R. 2 E. S. 23. B. T.
	Land, rolling.
	Soil, sandy loam 2nd rate.
	Timber, heavy cedar and pinon 40 chs.
	Undergrowth same with sage 80 chs. Apr. 25 1894.
	Land heavily timbered 40 chs.
	S. 89° 51' E. on a random line bet. secs. 13 and 24.
	Va. 15° 22' E.
40.00	Set temporary 1/4 sec. cor.
80.00	Intersect E. Bdry. of Tp. at the cor. to sec. 13. 18. 19 & 24.
	Thence I run
	N. 89° 51' W. on a true line bet. secs. 13 and 24.
	Va. 15° 28' E.
	Descend through heavy timber
2.10	Dry wash 22 lks. wide, course S. 60° E.
13.10	Ascend about 40 ft.
14.00	Top of point, course N. & S. There are indication of coal 2 chs. N.
17.00	Indications of coal.
20.33	Top of plateau, course N. and S. and leave timber.
29.65	Road, course N. and S.
33.00	Enter heavy timber, course S. W. and N.
40.00	Set a sandstone 20×10×3 ins. 15 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face; from which
	A pinon 7 ins. diam. bears
	S. 60° E. 48 lks. dist. marked 1/4 S. B. T.
	A pinon 10 ins. diam. bears
	N. 36° W. 43 lks. dist. marked 1/4 S. B. T.
50.01	Dry wash 12 lks. wide, course S.
50.43	Wood road, course S. E. and N. W.
52.52	Dry wash 21 lks. wide, course S. 20° E.
[illegible]	Trail, course S. E. [illegible]

Subdivision T. 35 S. R. 2 E. Continued.

chains	
59.70	Dry wash 22 lks. wide, course S. E.
80.00	The cor. to secs. 13 - 14 - 23 and 24.
	Land, rolling 80 chs.
	Soil, sandy and clay loam 1st rate.
	Timber, heavy cedar and pinon 67.33 chs.
	Undergrowth same with sage 80 chs. April 25 1894
	Heavily timbered land 67.33 chs.
	North 0° 01' W. bet. secs. 13 and 14.
	Va. 15° 28' E.
	Descend very rocky ridge, heavy timber
5.10	Dry wash 10 lks. wide, course E.
6.30	Dry wash 15 lks. wide, course S. E. leave timber and ascend about 50 ft.
11.00	Top of ridge, course N. 80° E. and S. 80° W. and descend.
12.96	Dry wash 10 lks. wide, course E.
24.58	Old Indian trail, course S. E and N. W.
28.70	Dry wash 21 lks. wide, course S. 72° E.
40.00	Set a sandstone 23 X 13 X 3 ins. 17 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face; from which
	A cedar 12 ins. diam. bears
	N. 79° E. 164 lks. dist. marked 1/4 S. B. T.
	A pinon 8 ins. diam. bears
	N. 87° W. 217 lks. dist. marked 1/4 S. B. T. ascend gradually
76.71	Ledge about 40 ft. high, course E. and W. and descend abruptly about 50 ft.
80.00	The cor. to secs. 11 - 12 - 13 and 14.
	Land rough and hilly 80 chs.
	Soil, sandy and clay loam 1st rate.
	Timber, heavy cedar and pinon 6.30 chs.
	Undergrowth same with dense sage, rabbit and oak brush 80 chs. April 26 1894
	Land heavily timbered and covered with dense undergrowth 80 chs.
	I do not return to S. Bdry. because of the high mountain and precipitous character of the land. It is not agricultural and is not good for anything else, except for the coal on S. Bdry.
	From cor. to secs. 10 - 11 - 14 and 15
	I run
	S. 0° 01' E. bet. secs. 14 and 15.
	Va. 15° 24' E.
	Ascend to E. [illegible]

Subdivision T. 35 S. R. 2 E. continued.

Chains	
1.40	Enter timber and brush.
3.10	Ascend point about 100 ft.
8.69	Ledge of sandstone about 8 ft. high, course E and W. and enter heavy timber.
10.50	Top of point, course E and W. and descend gradually about 100 ft.
19.04	Wood road, course NW. and S.E.
22.40	Dry wash 29 lks. wide, course N. W.
23.54	Old Indian trail, course N.W. and S.E.
40.00	Set a sandstone 28 X 14 X 5 ins. in a stone pile on rock for 1/4 Sec. cor. marked 1/4 on W. face; from which A pinon 12 ins. diam. bears S. 79° W. 69 lks. dist. marked 1/4 S.B.T. A pinon 9 ins. diam. bears S. 60° E. 34 lks. dist. marked 1/4 S. B. T.
47.60	Ascend abruptly about 150 ft.
68.70	Top of ridge, course N.E. and S.W. and descend gradually about 150 ft.
76.80	Ascend about 40 ft. and enter scattering timber.
80.00	Set a sandstone 24 X 8 X 7 ins. in a stone pile for cor. to secs. 14. 15. 22 and 23 marked with 3 notches on S. and 2 notches on E. edge; raised a mound of stones and earth 3 ft. high, 3½ ft. base alongside. Pits impracticable. Land, mountainous 80.00 chs. ... Soil, gravel and clay 2nd and 3rd rate. Timber, heavy cedar and pinon 68.11 chs. Undergrowth same with oak 80 chs. Apr. 26. 1894. Mountainous land and heavily timbered 80.00 chs.
	N. 89° 57' E. on a random line bet. secs. 14 and 23. Va.: 15° 28' E.
40.00	Set temporary 1/4 sec. cor.
80.43	Intersect N. and S. line 34 lks. South of the cor. to secs. 13. 14. 23 and 24. Thence Drum S. 89° 42' W. on a true line bet. secs. 14 and 23. Va.: 15° 23' E.
	Descend about 30 ft. through heavy timber
1.11	Dry wash 18 lks. wide, course N. 5° E.
1.33	Ascend abruptly about 550 ft.
26.40	Ravine about 40 ft. deep, course N.
28.60	Ravine about 30 ft. deep, course N. 45° E.

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Subdivision S. 35 S. R. 2 E. continued.

chains	
29.92	Ravine about 12 ft. deep, course N. 40° E.
40.21½	Set a sandstone 20×12×4 ins. in a stone pile (no at rocky place) for 1/4 sec. cor. marked 1/4 on N. face; from which A cedar 14 ins. diam. bears N. 16° E. 40 lks. dist. marked 1/4 S. B. T. No other tree within the limits. Raised a mound of stones 2 ft. high, 3 ft. base alongside. Pits impracticable.
40.20	Ravine about 25 ft. deep, course N. 16° E.
50.30	Ravine about 100 ft. deep, course N. 20° E.
57.80	Descend abruptly about 150 ft.
64.85	Leave timber and descend about 100 ft.
80.43	The cor. to secs. 14 - 15 - 22 and 23. Land, extremely rough, ~~mountainous and~~ covered with large boulders 80.43. Soil, sandy and covered with large boulders 4th note. Timber, heavy cedar and pinon 64.85 chs. Undergrowth same 80 chs. April 27 1894. Mountainous land or heavy timbered 80.43 chs. Quit at above cor. on account of high mountains.
	From the cor. to secs. 9. 10. 15 and 16, hereinbefore described Run South 0° 02' E. bet. secs. 15 and 16. Va 15° 26' E Descend abruptly about 60 ft.
3.40	Foot of hill, course N. 50° E. and S. 50° W.
9.65	Isaac J. Riddle's fence, course N. 50° E. and S. 50° W.
9.75	Ditch 5 lks. wide, course N. 53° E.
12.40	Ploughed land, course N. 60° E. and S. 50° W.
14.20	Leave ploughed land and enter dense brush, course N. 80° E. and S. 80° W.
20.00	Isaac J. Riddle's house bears W. 7.30 chs. and his Roller mill bears N. 77° W. 7.37 chs. dist.
20.90	Escalante creek 40 lks. wide, course E.
30.48	Fence S. side of field, course S. 80° W. and N. 80° E. and leave dense brush.
32.33	Road, course E. and W.
36.05	Dry wash 5 lks. wide, course N. E.
38.60	Leave wash and enter dense brush
40.00	Set a sandstone 20×10×3 ins. 15 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face. Raised a mound of stone and earth 2½ ft. high, 3½ ft. base alongside

Subdivision J. 35 S. R. 2 E. continued.

chains	Pits impracticable.
47.50	Foot of ledges, about 100 ft. high, course N.E. & N.W.
48.80	Top of ledges, same course and ascend up mountain along E. side of gulch through heavy timber and oak brush.
80.00	Set a sandstone 24X8X6 ins. in a stone pile on rocky ground for cor. to Secs. 15, 16, 21 and 22 marked with 3 notches on S. and E. edges; from which A pinon 12 ins. diam. bears S. 26° W. 32 lks. dist., marked T. 35 S. R. 2 E. S. 21. B. T. A cedar 20 ins. diam. bears N. 72° W. 38 lks. dist., marked J. 35 S. R. 2 E. S. 16. B. T. A pinon 8 ins. diam. bears N. 20° E. 13 lks. dist. marked J. 35 S. R. 2 E. S. 15. B. T. A pinon 10 ins. diam. bears S. 79° E. 12 lks. dist. marked J. 35 S. R. 2 E. S. 22. B. T. Land, mountainous 37.50 chs. Soil, sandy and clay loam on bottom and rocky gravel on mountain 1st and 4th rate. Timber, heavy cedar and pinon 31.20 chs. Undergrowth same with dense sage, oak and willow 57.68 chs. April 27 1894. Mountainous land and heavily timbered cedar covered with dense undergrowth 57.68 chs.
	N. 89° 57' E. on a random line bet. Secs. 15 and 22. Va. 15° 22' E.
40.00	Set temporary 1/4 sec. cor.
80.16	Intersect N. and S. line 41 lks. North of the cor. to secs. 14 . 15 . 22 and 23. Thence S. run N. 89° 46' W. on a true line bet. Secs. 15 and 22. Va. 15° 28' E. Ascend through heavy timber and brush about 400 ft.
22.60	Top of plateau, course N. 30° W. and S.E. and enter scattering timber
40.08	Set a sandstone 24X8X6 ins. in a stone pile for 1/4 sec. cor. marked 1/4 on N. face; Raised a mound of stones and earth 2 ft. high, 3 ft. base alongside. Pits impracticable on account of rocky surroundings.
64.40	Enter heavy timber, course N. 10° W. and S.E. and ascend about 200 ft.
76.80	Top of ridge, course N. and S. descend and gradually about 50 ft.

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Subdivision T. 35 S. R. 2 E. continued.

chains Land, mountainous 80.16 chs.
Soil, gravel and rocky 4th rate.
Timber, heavy cedar and pinon 38.36 chs.
Undergrowth same with oak 80.16 chs.
Mountainous land or heavily timbered 80.16 hs. April 28 1894.

I quit this line at above corner because of very high mountains and nonagricultural character of land.

From cor to secs. 8. 9. 16 and 17 I run
S. 0° 03' E. bet. secs. 16 and 17.
Va. 15° 22' E.
Ascend about 150 ft. through heavy timber
6.80 Top of ridge, course E. & W. and descend abruptly about 600 ft.
21.40 Bottom, course N.W. and S.E. leave timber and enter dense brush.
24.63 Road, course N.W. and S.E.
39.20 Birch creek 30 lks. wide, course E.
39.60 Road, course S. 65° E. and N. 65° W.
40.00 Set a sandstone 30×14×10 ins. 24 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face; from which a cottonwood 10 ins. diam. bears N. 68° W. 300 lks. dist. marked 1/4 S. B. T. Pits and mound of no account here, too near the house.
43.85 Willard Heaps house bears N. 50½ W. 3.63 chs. dist. I measure a base 8.98 chs. west from this point and set a flag pole at W. end of base also one on the line and one on line at top of mountain S. I measure to base of mountain.
47.64 Escalante creek 36 lks. wide, course E.
51.61 Escalante road, course, [illegible] N. 81° E. and S. 77° W.
53.10 Foot of bench, enter timber and ascend about 40 ft.
54.21 Top of bench, course N. 78° W. and S. 70° E.
62.80 Foot of mountain about 500 ft. high, course E. and W.
From a point on line on top of mountain the flag pole at W. end of base bears N. 16° 54' W.
Cotang. 3.291 × 8.98 = 29.55 + 43.85 = 73.40 chs.
73.40 Top of cliffs, course S.W. and N.E.
80.00 Set a sandstone 25×8×6 ins. in a stone pile on rock for cor. to secs. 16. 17. 20 and 21 marked with 3 notches [illegible]

Subdivision T. 35 S. R. 2 E. continued.

chains	
	A pinon 18 ins. diam. bears
	S. 37° W. 20 lks. dist. marked T. 35 S. R. 2 E. S. 20. B. T.
	A pinon 14 ins. diam. bears
	N. 83° W. 15 lks. dist. marked T. 35 S. R. 2 E. S. 17. B. T.
	A pinon 10 ins. diam. bears
	N. 22° E. 42 lks. dist. marked T. 35 S. R. 2 E. S. 16. B. T.
	A pinon 8 ins. diam. bears
	S. 62° E. 86 lks. dist. marked T. 35 S. R. 2 E. S. 21. B. T.
	Land, rough and mountainous 48.30 chs.
	Soil, sandy loam and rocky grand 1st and 4th rate
	Timber, heavy cedar and pinon 48.30 chs.
	Undergrowth same with dense sage, rabbit, rock,
	and greasewood brush 58.60 chs. April 28 1894.
	Mountainous land or heavily timbered or covered with dense sage with 58.60 chs.
	N. 89° 57' E. on a random line bet. Secs. 16 and 21.
	Va. 15° 28' E.
40.00	Set temporary 1/4 Sec. cor.
80.10	Intersect N. and S. line 29 lks. North of the cor. to secs.
	15, 16, 21 and 22
	Thence Prun
	N. 89° 51' W. on a true line bet. Secs. 16 and 21
	Va. 15° 25' E.
	Descend about 35 ft through heavy timber & brush
5.18	Bottom of gulch, course N. and ascend abruptly about 30 ft.
35.60	Top of ridge, course N. and S. and descend about 30 ft.
38.90	Dry wash 22 lks. wide, course S. and ascend abruptly
	about 100 ft.
40.04	Set a sandstone 28 X 16 X 3 ins. in a stone pile for
	1/4 Sec. cor. marked 1/4 on N. face; from which
	A pinon 10 ins. diam. bears
	N. 35° E. 25 lks. dist. marked 1/4 S. B. T.
	A pinon 12 ins. diam. bear
	S. 19° W. 43 lks. dist. marked 1/4 S. B. T.
50.90	Top of ridge, course N & S. and descend
56.10	Dry wash 21 lks. wide, Course S.
61.22	Dry wash 12 lks. wide, Course S. and ascend abruptly
	about 100 ft.
63.30	Top of ridge, course N. and S. and descend gradually
	about 100 ft.
79.50	Dry wash 18 lks. wide, course S.
80.10	The cor. to secs. 16. 17. 20 and 21.
	[illegible]

29

Subdivision T. 35 S. R. 2 E. continued.

chains

Soil, gravel 4th rate.
Timber heavy cedar and spruce 80.10 chs.
Undergrowth same 80.10 chs. April 28 1894.
Mountainous and heavily timbered land 80.10 chs.

South 0° 03' E. bet. Secs. 20 and 21.
Va. 15° 27' E.

22.00 Ascend abruptly about 75 ft.
25.20 Top of ridge, course E. and W. and descend.
26.82 Dry wash 12 lks. wide, course S. 10° E.
28.00 Ascend abruptly about 50 ft.
35.50 Top of ridge course E and W. and descend abruptly about 80 ft.
38.00 Dry wash 21 lks. wide, course S.
38.65 Leave dry wash, course S. 20° E.
40.60 Set a sandstone 22x10x8 ins. 16 ins. in the ground for 1/4 Sec. Cor. marked 1/4 on W. face, from which
A spruce 12 ins. diam. bears
S. 23° E. 42 lks. dist. marked 1/4 S. B. T.
A spruce 10 ins. diam. bears
S. 77° W. 40 lks. dist. marked 1/4 S. B. T.
41.02 Dry wash 25 lks. wide, course S. E.
43.46 Dry wash 30 lks. wide, course E. and ascend abruptly about 250 ft.
68.50 Top of ridge, course N. E. and S. W.
80.00 Set a sandstone 24x10x4 ins. 18 ins. in the ground for cor. to Secs. 20. 21. 28 and 29, marked with 2 notches on S. and 4 notches on E. edge, from which
A cedar 12 ins. diam. bears
S. 23° W. 30 lks. dist. marked T. 35 S. R. 2 E. S. 29. B. T.
A cedar 12 ins. diam. bears
N. 30° W. 12 lks. dist. marked T. 35 S. R. 2 E. S. 20. B. T.
A spruce 5 ins. diam. bears
N. 10° E. 28 lks. dist. marked T. 35 S. R. 2 E. S. 21. B. T.
A spruce 4 ins. diam. bears
S. 19° E. 24 lks. dist. marked T. 35 S. R. 2 E. S. 28. B. T.
Land, rough and mountainous 80 chs.
Soil, sandy and gravel 4th rate.
Timber, heavy cedar and spruce 80 chs.
Undergrowth same with oak 80 chs.
Mountainous land and heavily April 30 1894.
timbered 80 chs.

Adjust to true line & land above

Subdivision T. 35 S. R. 22 E. continued.

Chains	on account of high mountains. The land is useless for agricultural purposes.
	South 0° 03' E. bet. Secs. 28 and 29.
	Through heavy timber & brush Var. 15° 23' E.
16.36	Descend abruptly about 350 ft.
21.64	Dry wash 4 lks. wide, course S.E.
22.23	Ascend abruptly about 300 ft.
27.30	Top of point, course S.E. and N.W. and descend abruptly about 300 ft.
40.00	A point about 50 ft. above wash among large boulders Set a sandstone 24 x 10 x 8 ins. in a stone pile for 1/4 sec. cor. marked 1/4 on W. face; No trees within the limits. Raised a mound of stones 2 ft. high 3 ft. base alongside. Pits impracticable.
41.50	Foot of point, course S.E and N.W.
57.23	Dry wash 40 lks. wide, course S.E.
70.40	Ascend abruptly about 200 ft.
80.00	Set a sandstone 24 x 8 x 6 ins. in a stone pile for cor. to Secs. 28. 29. 32 and 33, marked with 1 notch on S. and 4 notches on E. edges; from which A cedar 12 ins. diam. bears N. 68° W. 23 lks. dist. marked T. 35 S. R. 22 E. S. 29. B.T. A pinon 3 ins. diam. bears N. 2° E. 34 lks. dist. marked T. 35 S. R. 22 E. S. 28. B.T. A pinon 6 ins. diam. bears S. 37° W. 15 lks. dist. marked T. 35 S. R. 22 E. S. 32. B.T. A pinon 6 ins. diam. bears S. 35° E. 48 lks. dist. marked T. 35 S. R. 22 E. S. 33. B.T. Land, mountainous 80 chs. Soil, rocky and gravel 4th rate. Timber, heavy cedar and pinon 80 chs. Undergrowth, same with oaks 80 chs. Apr. 30. 1894 Mountainous land and heavily timbered 80 chs.
	I stop at above corner, bear of high mountains, deep gulches, and the non agricultural character of the ground.
	From the Standard corner to secs. 31 & 32 on S. Bdry. of Tp. hereinbefore described I run

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Subdivision T. 35 S. R. 2 E. continued.

Chains	
	North 0° 03' W. bet. Secs. 31 and 32.
	Va: 15° 27' E.
	Ascend about 50 ft. through heavy timber & brush
1.80	Top of ridge, course E. and W. and descend abruptly about 50 ft.
5.90	Dry wash 20 lks. wide, course N. E. & S. W. and ascend about 50 ft.
10.10	Top of ridge, course E. and W. and descend gradually
36.50	Enter park and leave timber, course N. W. & S. E.
40.00	Set a sandstone 24 x 10 x 6 ins. in a stone pile on rock for 1/4 sec. cor. marked 1/4 on W. face; dug pits 18 x 18 x 12 ins. N. and S. of stone 5 lks. dist. and raised a mound of earth 2 ft. high, 3 ft. base alongside
46.70	Ascend gradually.
48.50	Enter timber and ascend abruptly about 100 ft.
51.60	Top of bench, course N. W. and S. E.
80.00	Set a sandstone 28 x 10 x 3½ ins. 22 ins. in the ground with stone around it for cor. to secs. 29. 30. 31 and 32 marked with 1 notch on S. and 5 notches on E. edges; from which A cedar 13 ins. diam. bears N. 46° W. 52 lks. dist. marked T. 35 S. R. 2 E. S. 30 B. T. A pinon 7 ins. diam. bears S. 52° W. 34 lks. dist. marked T. 35 S. R. 2 E. S. 31. B. T. A cedar 6 ins. diam. bears S. 55° E. 21 lks. dist. marked T. 35 S. R. 2 E. S. 32. B. T. A cedar 12 ins. diam. bears N. 61° E. 12 lks. dist. marked T. 35 S. R. 2 E. S. 29. B. T.
	Land, mountainous 68 chs.
	Soil, sandy loam and gravel 2nd quality,
	Timber, heavy cedar and pinon 36.50 chs.
	Undergrowth same with sage in Park 30 chs.
	Mountainous or heavily timbered land May 1st 1894. 68 chs.
	E. on a random line between secs. 29 and 32.
	Va: 15° 26' E.
40.50	Set temporary 1/4 sec. cor.
80.29	Intersect N. and S. line 10 lks. South of the cor. to secs. 28. 29. 32 and 33.
	Thence N.
	S. 89° 56' W. on a true line bet. secs. 29 and 32.
	Va: 15° 23' E.

Subdivision T. 35 S. R. 2 E. continued.

Chains	Descend through heavy timber and brush.
11.20	Dry wash 33 lks. wide, course N. and ascend up point.
40.14½	Set a sandstone 22x8x4 ins. in a stone pile on rocky place for ¼ sec. cor. marked ¼ on N. face; from which A pinon 10 ins. diam. bears S. 10° E. 21 lks. dist. marked ¼ S. B. T. A cedar 4 ins. diam. bears N. 17° W. 27 lks. dist. marked ¼ S. B. T.
55.70	Top of ridge, course N. and S. about 200 ft. high.
75.20	Descend about 400 ft.
80.29	The cor. to secs. 28, 29, 32 and 33. Land, mountainous 80.29 chs. Soil, sandy loam 2nd rate. Timber, heavy cedar and pinon 80.29 chs. Undergrowth same 80.29 chs. Mountainous and heavily timbered land 80.29 chs. May 1 1894.

N. on a random line bet. secs. 30 and 31.
Var. 15° 27' E.

40.00	Set temporary ¼ sec. cor.
79.94	Intersect W. bdy. of Tp. 33 lks. South of cor. to secs. 25, 30, 31 and 36, hereinafter described Thence N. S. 89° 46' E. on a true line bet. secs. 30 and 31. Var. 15° 28' E. Descend abruptly about 200 ft.
12.20	Dry wash 56 lks. wide, course N. 40° E.
13.90	Ascend abruptly about 500 ft.
26.55	Top of ridge, course N. 10° E. and S. 10° W. and descend about 500 ft. in heavy timber.
39.94	Set a sandstone 24x10x8 ins. in a stone pile on rock for ¼ sec. cor. marked ¼ on N. face; from which A pinon 6 ins. diam. bears S. 6° W. 8 lks. dist. marked ¼ S. B. T. A pinon 8 ins. diam. bears N. 28° E. 17 lks. dist. marked ¼ S. B. T.
46.45	Gulch about 250 ft. deep, course N. 3° E.
55.65	East side of gulch, course N. 10° E.
79.94	The cor. to secs. 29, 30, 31 and 32.

Subdivision T. 35 S. R. 2 E. continued.

chains	
	Soil, rocky gravel 4th rate.
	Timber, heavy cedar and pinon 79.94 chs.
	Undergrowth same 79.94 chs.
	Mountainous and heavily timbered land 79.94 chs.
	North 0° 03' W. bet. secs. 29 and 30.
	Through heavy timber & brush Va. 15° 23' E.
40.00	Set a sandstone 36X17X4½ ins. in a stone pile on rock for ¼ sec. cor. marked ¼ on W. face; from which A pinon 14 ins. diam. bears N. 40' W. 44 lks. dist. marked ¼ S. B. T. A pinon 13 ins. diam. bears S. 17° E. 22 lks. dist. marked ¼ S. B. T.
50.00	Descend abruptly about 50 ft.
58.40	Leave timber and enter bottom, course E. & N.
67.03	Escalante creek 72 lks. wide, course E.
68.74	Escalante & Panguitch road course E. & N.
73.80	Enter heavy timber, course E. & N.
80.00	Set a sandstone 20X16X10 ins. in a stone pile on rocks for cor. to secs. 19, 20, 29 and 30; marked with 2 notches on S. and 5 notches on E. edges; from which A cedar 12 ins. diam. bears N. 19° W. 10 lks. dist. marked T. 35 S. R. 2 E. S. 19. B. T. A cedar 12 ins. diam. bears N. 60° E. 17 lks. dist. marked T. 35 S. R. 2 E. S. 20. B. T. A cedar 8 ins. diam. bears S. 23° E. 6 lks. dist. marked T. 35 S. R. 2 E. S. 29. B. T. A pinon 8 ins. diam. bears S. 48° W. 27 lks. dist. marked T. 35 S. R. 2 E. S. 30. B. T.
	Land, mountainous 64.60 chs.
	Soil, gravel and sandy loam 1st and 4th rate
	Timber, heavy cedar and pinon 64.60 chs
	Undergrowth same with gaps on bottom 80 chs.
	Mountainous land or heavily timbered 64.60 chs.
	May 2 1894.
	N. 89° 56' E. on a random line bet. secs. 20 & 29. Va. 15° 28' E.
40.00	Set temporary ¼ sec. cor.
80.00	Intersect N. and S. line 24 lks. N. of cor. to secs. 20, 21, 28 & 29.
	Land, pine

Subdivision T. 35 S. R. 2 E. continued.

Chains.	
	N. 89° 54' W. on a true line bet. secs. 20 and 29.
	Var. 15° 25' E.
	Through heavy timber & underbrush
22.50	Descend over large boulders about 150 ft.
40.00	Set a sandstone 20 x 11 x 6 ins. in a stone pile for 1/4 sec. cor. marked 1/4 on N. face; from which
	A cedar 14 ins. diam. bears
	N. 28° E. 8 lks. dist. marked 1/4 S. B. T.
	A pinon 15 ins. diam. bears
	S. 75° E. 24 lks. dist. marked 1/4 S. B. T.
55.60	Leave timber and descend abruptly about 100 ft.
57.80	Bottom, course S. 24 W. and N. 24° E.
69.62	Escalante Creek 28 lks. wide, course N. E.
70.78	Escalante and Cannonville road, course N. E and S. W.
71.62	Enter heavy timber, course N. and S. and ascend
80.00	the same to secs. 19. 20. 29 and 30.
	Land, broken and mountainous 63.98 chs.
	Soil, sandy loam and gravel 1st and 4th rate
	Timber heavy cedar and pinon 63.98 chs
	Undergrowth same 63.98 chs. Sage on bottom 16.02 chs.
	Mountainous land and heavily timbered 63.98 chs
	May 3 1894

N. 89° 46' W. on a random line bet. secs. 19 and 30.

Var. 15° 23' E.

40.00	Set temporary 1/4 sec. cor.
79.88	Intersect W. boundary of T. 28 S. North of cor. to secs. 19. 24. 25 and 30. as heretofore described
	Thence Drum
	S. 89° 58' E. on a true line bet. secs. 19 and 30.
	Var. 15° 28' E.
	Through heavy timber and brush
5.25	Descend abruptly about 60 ft.
34.95	Foot of mountain and leave timber, bears S. 74° W. and N. 75° E.
39.88	Set a sandstone 20 x 14 x 9 ins. 15 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face; from which
	A pinon 14 ins. diam. bears
	N. 20° E. 285 lks. dist. marked 1/4 S. B. T.
	No other tree within the limits; dug pits 18 x 18 x 12 ins. E. and W. of stone 5 ft. dist. and raised a mound of earth 2 ft. high, 3 ft. base alongside.
	Alva Pratt's house bears S. 23° 30' E. 19.88 chs. dist.
	Enter heavy timber, course N. and S. and ascend

Subdivision T. 35 S. R. 2 E. continued.

chains	
	ascend gradually among very large boulders.
79.88	The cor. to secs. 19. 20. 29 and 30.
	Land, mountainous 34.95 chs.
	Soil, rocky ground and clay loam 4th and 1st rate.
	Timber, heavy cedar and pinon 63.83 chs.
	Undergrowth same with oak and sage 79.88 chs.
	Mountainous land or heavily timbered 63.83 chs.

North 0° 03 W. bet. secs. 19 and 20.
Va. 15° 23' E.

Ascend among large boulders through heavy timber and brush about 660 ft

28.25	Top of spoint, bears N. 32° E. and S. 32° W.
40.00	Set a sandstone 24 x 10 x 4 ins. in a stone pile on rocky place for 1/4 sec. cor. marked 1/4 on W. face; from which A pinon 10 ins. diam. bears N. 73° W. 44 lks. dist. marked 1/4 S. B. T. A pinon 14 ins. diam. bears S. 62° E. 21 lks. dist. marked 1/4 S. B. T.
69.56	Gulch about 350 ft. deep, course N. 70° E.
74.15	North side of gulch.
80.00	Set a sandstone 24 x 10 x 3 ins. in a stone pile on rocky ground for cor. to secs. 17. 18. 19 and 20 marked with 3 notches on S. and 5 notches on E. edges; from which A pinon 15 ins. diam. bears N. 2° E. 46 lks. dist. marked T. 35 S. R. 2 E. S. 17. B. T. A pinon 14 ins. diam. bears N. 77° W. 61 lks. dist. marked T. 35 S. R. 2 E. S. 18. B. T. A pinon 6 ins. diam. bears S. 39° E. 33 lks. dist. marked T. 35 S. R. 2 E. S. 20. B. T. A cedar 12 ins. diam. bears S. 50° W. 54 lks. dist. marked T. 35 S. R. 2 E. S. 19. B. T.
	Land, broken and mountainous 80 chs.
	Soil, rocky gravel 4th rate
	Timber, heavy cedar and pinon 80 chs.
	Undergrowth same 80 chs.
	Mountainous land & heavily timbered 80 chs

May 4 1894.

S. 89° 54' E. on a random line bet. secs. 17 and 20.
Va. 15° 28' E.

40.00 Set [illegible]

Subdivision T. 35 S. R. 2 E. continued.

Chains	
80.30	Intersect N. and S. line 16 lks. South of the cor. to secs. 16, 17, 20 and 21.
	Thence I run
	S. 89° 58' W. on a true line bet. secs. 17 and 20.
	Va. 15° 23' E.
	through heavy timber and brush.
4.03	Set a flag pole on line on top of cliffs and one on line in bottom w.
4.23	Perpendicular cliffs about 500 ft. high, bear N.E. & S.W. I go to flag pole on bottom below and measure a base 10.48 chs. S. from which point flag pole on top of cliffs bears N. 69° 02½' + 1' = 69° 03' subtract from 90° 00' = 20° 57' Natang. 2.6119 × 10.48 = 27.37 + 4.03 = 31.40 I now measure back to mountain.
4.41	Foot of cliffs, bear N.E. and S. 51° W and descend abruptly.
15.68	Bottom, course N.E. and S. 20° W. and leave timber and enter oak and sage brush.
20.50	Road, course N.E. and S.W.
34.06	Escalante creek, 25 lks. wide, and bears N.E.
37.90	Road, course N.E. and S.W.
40.15	Set a sandstone 40 × 20 × 12 ins. in a stone pile on a very rocky place, for 1/4 sec. cor. marked 1/4 on N. face; from which A pinon 18 ins. diam. bears S. 21° W. 57 lks. dist. marked 1/4 S. B. T. A cedar 13 ins. diam. bears N. 30° E. 49 lks. dist. marked 1/4 S. B. T.
41.00	Enter heavy timber, bears N.E. and S. 10° W. ascend
66.50	Top of bench about 50 ft. above cor. bears N. 26° E. & S. 25° W.
80.30	The cor. to secs. 17, 18, 19 and 20. Land, broken and mountainous 54.98 chs. Soil, rocky gravel and sandy loam 4th and 2nd rates. Timber, heavy cedar and pinon 54.98 chs. Undergrowth same with dense sage, rabbit, oak and greasewood 80.30 chs. Mountainous land and heavily timbered or covered with dense undergrowth 80.30 chs. May 6. 1894
	N. 89° 58' W. on a random line bet. secs. 18 and 19.
	Va. 15° 27' E.
40.00	Set temporary 1/4 sec. cor.

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Subdivision T. 35 S. R. 2 E. continued.

chains	
79.91	Intersect w. boundary of Tp. 22 lks. North of cor. to secs. 13. 18. 19 and 24. as hereinbefore described
	Thence Prun
	N. 89° 53' E. on a true line bet. secs. 18 and 19.
	Var. 15° 23' E.
	Through scattering timber and dense brush along top of mountain along south margin of plateau.
39.91	Set a sandstone 24X12X4 ins. 18 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face; from which A cedar 2½ ins. diam. bears
	S. 10° w. 6 lks. dist. marked 1/4 S. B. T.
	No other tree within the limits, Raised a mound of stones and earth 2 ft. high, 3 ft. base alongside Pits impracticable.
43.80	Enter heavy timber, course N. and S.
79.91	The cor. to secs. 17. 18. 19 and 20.
	Land, Mountainous 79.91 chs.
	Soil, gravel and sandy 2" rate,
	Timber, heavy cedar and pinon 36.11 chs. scattering 43.80 chs
	Undergrowth same with dense oak and sage 79.91 chs
	Mountainous land and heavily timbered and covered with dense undergrowth 79.91 chs. May 5. 1894.
	North 0° 03' w. bet. secs. 17 and 18.
	Var. 15° 27' E.
	Ascend about 100 ft. through heavy timber
10.50	Top of ridge, bears E and w. and descend about 100 ft.
33.60	Descend abruptly about 350 ft. and leave timber,
40.00	Set a sandstone 32X10X10 ins. 24 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face; from which A pinon 10 ins. diam. bears
	S. 30° w. 280 lks. dist. marked 1/4 S. B. T.
	No other tree within the limits, Raised a mound of earth and stones 2½ ft. high, 3 ft. base alongside, Pits impracticable.
44.30	Birch creek 27 lks. wide course N. 80° E.
46.32	Road, course E and w.
47.10	Ascend abruptly about 400 ft. and enter timber
66.47	Top of plateau, course E. and w.
80.00	The [illegible]

Subdivision S. 35 S. R. 2 E. continued.

Chains	
	Land, mountainous and broken 80 chs.
	Soil, sandy and gravel 3rd rate.
	Timber, heavy cedar and pinon 3.360 chs.
	Undergrowth 6650 chs. dense oak, sage and willow 1.350 chs.
	Mountainous land, heavily timbered or covered with dense undergrowth 80 chs. May 7 1894.

General Description.

This township contains nearly every variety of land, from rich bottom land to mountains and the soil ranges from alkali to rich loam. The soil of the bottom land along Escalante creek north of the central part of the township except the mountainous land can nearly all be classed as first and second rate. It produces excellent crops of the cereals, grasses and vegetables. The quality of the soil in the southwestern part of the township is good second rate soil, but has no water to irrigate it. Cedar, pinon and scattering pine are found in great abundance on the mountains. There is on the mountains and around the margins of the parks and creek bottoms a rank growth of oak sage, and willow brush. The township is not well watered and what there is of poor quality. Mean declination 15° 22' E.

There are settlers occupying all of the Agricultural land along the streams.

There are indications of coal in secs. 13, 14, 15 and 16, 35 and 36 and there is a shaft in the N.E. ¼ of S.W. ¼ of Sec. 35 near road and that is worked and it is used for fuel by nearly all of the people of Escalante, the coal is of good quality. There are no indications of minerals or salines in this township.

There are many marine shells in the south western part of the township, the most interesting of which is Inoceramus Cripsi. I dont know whether they are

Subdivision T. 35 S. R. 2 E. concluded.

chains | some of the shells would hold nearly two gallons. There also many cliff houses north Escalante creek and very few of them accessible.

William Leuman
U. S. Deputy Surveyor.

The coal land in the sections named in the above description should be set apart and reserved as coal land as it is of a good quality

William Leuman
U. S. Deputy Surveyor.

List of Names.

A list of the names of the individuals employed by .....

....., U. S. Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of the .....

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..... Meridian, in ....., showing the respective capacities in which they acted:

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Final Oath of Assistants:

We hereby certify that we assisted .....

....., U. S. Deputy Surveyor, in surveying all those parts or portions of the .....

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.....

.....

..... Meridian, ..., as are represented in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the U. S. Surveyor General for .....

.....

.....

.....

.....

.....

.....

.....

.....

Subscribed and sworn to before me this .....
day of ....., 18 .

SEAL

.....

.....

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Final Oath of U. S. Deputy Surveyor.

I, ..., U. S. Deputy Surveyor, do solemnly swear that, in pursuance of instructions received from ....., U. S. Surveyor General for ....., bearing date of the ..... day of ....., 18 , I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the U. S. Surveyor General for ....., the surveying manual, and the laws of the United States, surveyed all those parts or portions of .....

.....Meridian, in the ....., as are represented in the foregoing field notes as having been surveyed by me, and under my directions; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the surveying manual, printed instructions, the special written instructions of the U. S. Surveyor General for ..... and in the specific manner described in the field notes, and that the foregoing are the true field notes of such survey; and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

.....
U. S. Deputy Surveyor.

Subscribed and sworn to before me this .....
day of ....., 18 .

SEAL

.....

.....

Approval.

Office of the U. S. Surveyor General,
Salt Lake City Utah Nov 4th, 1896.

The foregoing field notes of the survey of the Subdivisions of Tp 35 South Range 2 East of the Salt Lake Base & Meridian Utah

..... executed by William Newman under his Contract No. 191, dated March 2d, 1893 having been critically examined, the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

George W. Snow
U. S. Surveyor General.

I certify that the foregoing transcript of the field notes of the above-described surveys in ....., has been correctly copied from the original notes on file in this office.

.....
U. S. Surveyor General.

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(4—679.)

K.3.B.

BOOK A-238

FIELD NOTES

OF THE SURVEY OF

Subdivision of T.56 S.R.1 E.

Of the Salt Lake Base & Meridian,

Territory of Utah

AS SURVEYED BY

William Lewman, U. S. Deputy Surveyor,

under his Contract No. 191, dated March 2nd, 1893:

Survey commenced May 14th, 1894.

Survey completed May 24th, 1894.

(1270—2,000.)

BOOK A-238

Names and Duties of Assistants.

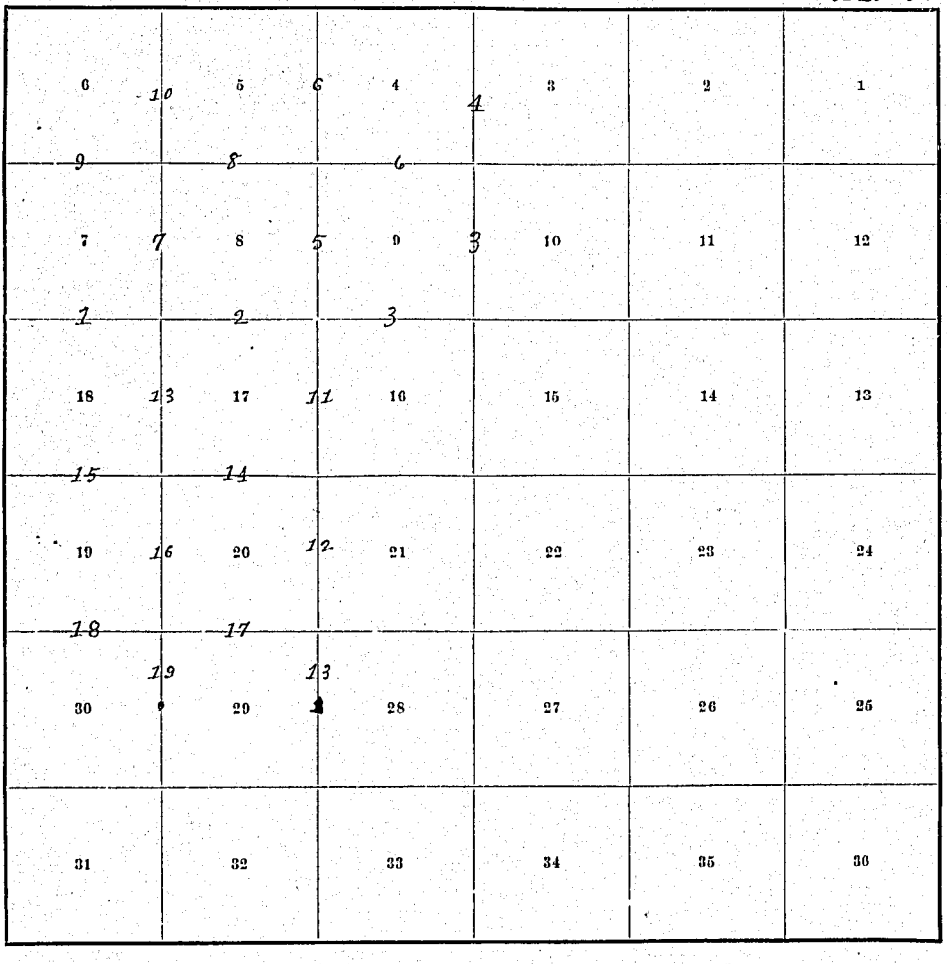
Peter Basker	Chainman
Orris Wilcox	Chainman
David Woolsey	Axeman
Jacob Hamaker	Flagman

BOOK A-238

INDEX DIAGRAM.

Township 36 S. Range 1 E. 7th Standard Parallel S.

Salt Lake P. M.



Meanders Page.....

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Preliminary Oaths of Assistants.

We, _____

_____

_____

do solemnly swear that we will well and faithfully execute the duties of chain carriers; that we will level the chain over even and uneven ground, and plumb the tally-pins either by sticking or dropping the same; that we will report the true distance to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us in the survey of the _____

_____

_____

_____

_____

_____, *Chainman.*

_____, *Chainman.*

_____, *Chainman.*

_____, *Chainman.*

Subscribed and sworn to before me this _____ day of _____, 18 .

_____

_____

We, _____

_____

do solemnly swear that we will well and truly perform the duties of axemen in the establishment of corners and other duties, according to instructions given us, and to the best of our skill and ability, in the survey of the _____

_____

_____

_____

_____

Subscribed and sworn to before me this _____ day of _____, 18 .

_____, *Axeman.*

_____, *Axeman.*

_____

_____

_____

Subdivision T. 36 S. R. 1 E.

Chains	
	Survey commenced May 14th 1894.
	Preliminary to commencing the subdivision of the township I go to the Standard corner to Secs. 33 and 34 as hereinbefore described; with observation on Polaris. The picket which I drove in ground 13.50 chs N. of cor. is in its proper place also the exact spot on corner stone is marked with a small cross. at this corner I verify the adjustments of my transit and find the same correct.
	As Cajon ridge mountain lies bet. this valley and the S. Boudy. of this Tp. I run a random line W. from the cor. to Secs. 7, 12, 13 and 18 on E. bdy. of Tp. as hereinbefore described. The va. of my transit being 15° 46' E. I set temporary half mile and mile corners at each 40 and 80 chs. and find the line to be 5 miles, 77 chains and 45 lks. long, and the falling 42 lks. north of the corner to Secs. 7, 12, 13 and 18 on the S. L. P. M. on W. bdy. of Tp. The correction for the true line will be 7 lks. S. per mile and its true course N. 89° 57' E.
	From the corner to Secs. 7, 12, 13 and 18 on the S. L. P. M. hereinbefore described I run N. 89° 57' E. on a true line bet. secs. 7 and 18.
	Va. 15° 26' E.
	Through heavy timber and dense brush.
11.60	Road, course N.W. and S. 70° E.
14.44	Dry wash 20 lks. wide, course S. 44° E.
19.46	Dry wash 30 lks. wide, course S. E.
31.24	Dry wash 50 lks. wide, course S. 39° E.
31.84	Ascend about 20 ft.
37.45	Set a sandstone 18 x 10 x 8 ins. 12 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face; from which A pine 10 ins. diam. bears S. 57° W. 36 lks. dist, marked 1/4 S. B. T. A pine 5 ins. diam. bears N. 88° E. 11 lks. dist. marked 1/4 S. B. T.
44.56	Ravine about 30 ft. deep, course S. 58° E.
68.46	Ravine about 40 ft. deep, course S. 80° E.
77.45	Set a sandstone 18 x 10 x 8 ins. 12 ins. in the ground for cor. to Secs. 7, 8, 17 and 18 marked with 4 notches on S. and 5 notches on E. edges; from which A pine 14 ins. diam. bears

Subdivision T. 36 S. R. 1 E. continued.

chains	A pine 28 ins. diam. bears
	S. 45 W. 31 lks. dist., marked T. 36 S. R. 1 E. S. 18. B. T.
	A pine 12 ins. diam. bears
	S. 83° E. 224 lks. dist. marked T. 36 S. R. 1 E. S. 17. B. T.
	A pine 12 ins. diam. bears
	N. 50° E. 257 lks. dist. marked T. 36 S. R. 1 E. S. 8. B. T.
	Land, nearly level 77.45 chs.
	Soil, sandy loam and grand 2nd rate.
	Timber heavy pine 77.45 chs. Brush same with oak 77.45 chs.
	Land, heavily timbered or covered with dense brush 77.45 chs.
	N. 89° 57' E. on a true line bet. secs. 8 and 17.
	Va. 15° 24' E.
	Through heavy timber and dense brush
9.77	Road, course N. 70° E. and S. and enter scattering timber.
22.40	Leave timber, course S. E and N. W. and enter sage brush.
40.00	Set a limestone 18 X 10 X 4 ins. 12 ins. in the ground for 1/4. sec. cor. marked 1/4 on N. face; dug pits 24 X 24 X 16 ins. E & W. of stone 5 ft. dist. and raised a mound of stones and earth 2 1/2 ft. high, 3 1/2 ft. base alongside.
	Thomas Heaps house bears N. 31° E. 36.66 chs. dist.
	Andrew P. Schow's house bears N. 27° W. 26.50 chs. dist.
65.14	Escalante Creek 30 lks. wide, course N. 60° E.
70.85	Foot of hill, course N. 40° E. and S. 40° W. enter heavy timber and ascend abruptly about 150 ft.
80.00	Set a sandstone 18 X 10 X 10 ins. 12 ins. in the ground for cor. to secs. 8. 9. 16 and 17, marked with 4 notches on S. and E. edges from which
	A pinion 16 ins. diam. bears
	S. 7° E. 59 lks. dist. marked T. 36 S. R. 1 E. S. 16. B. T.
	A cedar 12 ins. diam. bears
	S. 5° W. 70 lks. dist. marked T. 36 S. R. 1 E. S. 17. B. T.
	A pine 13 ins. diam. bears
	N. 42° E. 200 lks. dist. marked T. 36 S. R. 1 E. S. 9. B. T.
	A pine 20 ins. diam. bears
	N. 70° W. 313 lks. dist. marked T. 36 S. R. 1 E. S. 8. B. T.
	Land, rough and mountainous 9.15 chs.
	Soil, sandy and clay 2nd rate.
	Timber, heavy cedar, pinion and pine 31.55 chs.
	Undergrowth same with oak and greasewood 80 chs.
	Land, mountainous or heavily timbered or covered with dense brush. (31.55 chs)

Subdivision T. 36 S. R. 18 E. continued.

chains	
	N. 89° 57' E. on a true line bet. secs. 9. and 16.
	Var. 15° 23' E.
	Through heavy timber and dense brush.
17.80	Leave timber course N. and S.
21.60	Enter heavy timber, course N. and S. and ascend very abruptly about 300 ft.
38.96	Top of ridge, course N.E. and S.W. and descend abruptly about 300 ft.
40.00	Set a limestone 24 x 9 x 4 ins. 18 ins. in the ground for 1/4 sec. Cor. marked 1/4 on N. face; from which A pine 24 ins. diam. bears S. 37° W. 162 lks. dist. marked 1/4 S. B. T. A pine 30 ins. diam. bears N. 32° W. 131 lks. dist. marked 1/4 S. B. T.
70.00	Ravine about 50 ft. deep, course N.
72.20	Leave timber and enter flat and sage brush, course N. & S.
74.23	Dry wash 70 lks. wide course N.
80.00	Set a sandstone 20 x 10 x 5 ins. 15 ins. in the ground for cor. to secs. 9. 10. 15 and 16. marked with 4 notches on S. and 3 notches on E. edges; from which A pine 22 ins. diam. bears S. 55° W. 15 lks. dist. marked T. 36 S. R. 18 E. S. 16. B. T. A pine 28 ins. diam. bears S. 18° E. 130 lks. dist. marked T. 36 S. R. 18 E. S. 15. B. T. dug pits 20 x 20 x 12 ins. in secs. 9 and 10 5 ft. dist. and raised a mound of earth 2 ft. high, 3 ft. base alongside.
	Land, mountainous 58.40 chs
	Soil, sandy and gravel 2nd rate.
	Timber, heavy cedar, pinon and pine 68.40 chs.
	Undergrowth same with oak, sage and greasewood 80 chs.
	Mountainous or heavily timbered land or covered with dense undergrowth 72.20 chs.
	The land east of above corner is worthless for agricultural purposes, being mountainous and very rough consequently I will run N. from this corner.
	From the corner to secs. 9. 10. 15 and 16. I run
	North 0° 02' W. bet. secs. 9 and 10.
	Var. 15° 27' E.
1.10	Descend about 10 ft.
21.28	Dry wash 22 lks. wide, course W.
29.99	Old trail, course N. 48° W. and S. 41° E.

Subdivision T. 36 S. R. 1 E. continued.

chains

40.00 Set a sandstone 24x6x4 ins. 18 ins. in the ground for 1/4 sec. cor. marked 1/4 on w. face; dug pits 20x20x15 ins. N. and S. of stone 5 1/2 ft. dist. and raised a mound of earth 2 1/2 ft. high, 3 1/2 ft. base alongside

67.07 Escalante creek 21 lks. wide, course N. 10° E.

71.21 Escalante creek 22 lks. wide, course N. 25° W.

80.00 Set a sandstone 20x8x4 ins. 15 ins. in the ground for cor. to secs. 3-4-9 and 10 marked with 5 notches on S. and 3 notches on E. edges; dug pits 24x24x15 ins. in each sec. 5 1/2 ft. dist. and raised a mound of earth 2 1/2 ft. high, 3 1/2 ft. base alongside.

Land, cut up with deep washes, otherwise nearly level.

Soil, sandy and clay loam and alkaline 2° rate.

No timber. Undergrowth sage and greasewood rocks.

May 16 1894.

North 0° 02' W. bet. secs. 3 and 4.

Va. 15° 27' E.

5.50 Escalante creek 25 lks. wide, course N. 30° E.

12.11 Rufus Listen's fence, course S. 80° E. and N. 80° W.

19.90 Bend of same creek 25 lks. wide, course N. 25° E.

40.00 Set a sandstone 30x10x4 ins. 24 ins. in the ground for 1/4 sec. cor. marked 1/4 on w. face; dug pits 20x24x15 ins. N. and S. of stone 5 1/2 ft. dist. and raised a mound of earth 2 1/2 ft. high, 3 1/2 ft. base alongside. R. Listen's house leaves S. 83 W. 24.50 ch.

76.14 Alkali creek 25 lks. wide, course N. 80° E.

78.13 Road, course N. 50° E. and S. 50° W.

78.40 Fence, course S. 80° E. and N. 80° W.

79.66 Creek 10 lks. wide, course N. 85° E.

80.05 Intersect N. bdy. Tp. 278 lks. W. of the standard cor. to secs. 33 and 34. Set a sandstone 24x12x3 ins. 18 ins. in the ground for closing cor. to secs. 3 and 4 marked C. C. on S. face with 3 grooves on E. and W. faces; dug pits 24x20x12 ins. E. and W. of stone 3 1/2 ft. dist. and S. 7 1/2 ft. dist. and raised a mound of earth 3 ft. high 5 ft. base alongside.

Land, cut with washes otherwise nearly level, 80.05 chs.

Soil, alkaline, sandy and clay loam 2° rate.

No timber.

Undergrowth, sage 80.05 chs.

Subdivision T. 36 S. R. 18 E. continued.

chains	
	From cor. to secs. 8. 9. 16 & 17. Drum
	North 0° 03' W. bet. secs. 8 and 9.
	Va. 15° 25' E.
	Descend abruptly through heavy timber and dense oak brush
12.80	Leave timber and enter bottom and sage brush.
	course E and S. W.
14.27	Escalante creek 24 lks. wide, course N. 43° E.
16.18	Spring run 5 lks. wide, course N. 70° E. water good
23.27	Spring run 4 lks. wide, course N. 80° E. " "
28.48	Thomas Heaps log fence, course S. 59° W. and N. 65° E.
28.52	Leave brush and enter meadow same course of fence.
40.00	Set a sandstone 18x8x4 ins. 12 ins. in the ground for 1/4
	Sec. Cor. marked 1/4 on W. face; dug pits 20x20x15 ins.
	N. and S. of stone 5½ ft. dist. and raised a mound of
	stones and earth 2½ ft. high, 3½ ft. base alongside.
46.62	Ditch 3 lks. wide, course N. 46° E.
46.95	Fence, course N. 47° E. and S. 47° W.
47.05	Escalante road, course, course N. 70° E. and S. 70° W. and
	ascend through dense sage
47.20	Foot of hill, course N.E. and S. W.
50.34	Enter heavy timber, course N.E. and S. W. and ascend
	abruptly about 200 ft.
55.90	Top of ridge, course N. 80° E. and S. 80° W. and descend abrupt
	tly about 125 ft.
59.90	Ascend abruptly about 150 ft.
65.68	Top of ridge, course N. 80° E. and S. 80° W. and descend
	abruptly about 200 ft.
76.40	Leave timber and enter park, course E. and W.
80.00	Set a limestone 22x10x8 ins. 16 ins. in the ground for cor.
	to secs. 4. 5. 8 and 9. marked with 5 notches on S. and
	4 notches on E. edges; from which
	A cedar 10 ins. diam. bears
	S. 59° W. 29 lks. dist. marked T. 36 S. R. 18 E. S. 8. B. T.
	A pine 24 ins. diam. bears
	N. 11° E. 204 lks. dist. marked T. 36 S. R. 18 E. S. 4. B. T.
	A cedar 8 ins. diam. bears
	S. 72° E. 95 lks. dist. marked T. 36 S. R. 18 E. S. 9. B. T.
	No other tree within the limits. dug pits 20x20x18 ins.
	in each sec. 5½ ft. dist. and raised a mound of
	earth 2½ ft. high, 3½ ft. base alongside.
	Land, mountainous 46.60 chs.

6

Subdivision To 36 S. R. 1 E. continued.

chains	
	Timber, heavy cedar, pinon and pine 38.86 chs.
	Undergrowth same with dense oak and sage 61.47 chs.
	Mountainous land, heavily timbered and covered with dense undergrowth 61.47 chs.
	N. 89°57' E. on a random line bet. secs. 4 and 9.
	Va. 15° 22' E.
40.00	Set temporary 1/4 sec. cor.
80.10	Intersect N. and S. line 22 lks. North of the cor. to secs. 3.4.9.&10.
	Thence I run
	N. 89°54' W. on a true line bet. secs. 4 and 9.
	Va. 15° 23' E.
0.94	Escalante creek 22 lks. wide, course N. E.
13.77	Escalante road, course S. 42° W. and N. 41° E.
22.76	Enter timber and ascend about 40 ft. enter dense oak and leave sage
40.05	Set a limestone 18x8x6 ins. 12 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face; from which
	A cedar 4 ins. diam. bears
	S. 61° W. 26 lks. dist. marked 1/4 S. B. T.
	A pinon 7 ins. diam. bears
	N. 75° E. 179 lks. dist. marked 1/4 S. B. T.
40.50	Leave timber and descend about 50 ft.
42.64	Bottom about 5 chs. wide, course N and S.
80.10	The cor. to secs. 4.5.8 and 9.
	Land, rolling 19.88 chs.
	Soil, sandy and gravel 3rd rate.
	Timber, scattering cedar, pinon and pine 17.74 chs.
	Undergrowth same with dense oak 57.34 chs. and sage 22.76 chs. on bottom.
	Land, covered with dense oak brush 57.34 chs.
	May 17 1894.
	North 0° 03' W. bet. secs. 4 and 5.
	Va. 15° 27' E.
	Ascend about 40 ft.
2.50	Enter heavy timber and brush, course S. W. and S. E.
3.10	Ascend abruptly about 100 ft.
7.64	Ravine about 20 ft. deep, course S. 80° E.
11.45	Ravine about 30 ft. deep, course S. 75° E.
16.54	Top of ridge, course S. 60° E. and N. 70° W. and descend abruptly about 200 ft.
23.84	Foot of ridge, course S. 65° E. and N. 65° W.

Subdivision T. 36 S. R. 1 E. continued.

chains	
26.63	Ascend abruptly about 200 ft.
39.46	Top of ridge, course N.E and S.W. and descend abruptly about 200 ft.
40.00	Set a limestone 20 x 10 x 8 ins. 15 ins. in the ground for 1/4 Sec. Cor. marked 1/4 on W. face; from which A cedar 4 ins. diam., bears N. 61° W. 62 lks. dist., marked 1/4 S. B. T. A cedar 8 ins. diam., bears S. 44° E. 16 lks. dist., marked 1/4 S. B. T.
47.68	Dry wash 60 lks. wide, course S. 60° E.
48.20	Ascend abruptly about 200 ft.
54.58	Top of ridge, course N. 65° E. and S. 65° W.
55.20	Descend abruptly about 200 ft.
58.36	Gulch about 200 ft. deep, course N. 60° E.
73.20	Spring run 8 lks. wide, course E., water alkaline
76.60	North side of gulch, course E. and W. and ascend abruptly about 100 ft.
80.17	Intersect N. bdy. of Tp. 2 S. 86 lks. W. of the Standard cor. to secs. 32 and 33.
77.67 / 2.50	Set a sandstone 20 x 10 x 8 ins. 15 ins. in the ground for closing cor. to secs. 4 and 5 marked C. C. on S. with 2 grooves on W. and 4 grooves on E. faces; from which A pinon 10 ins. diam., bears S. 61° W. 63 lks. dist. marked T. 36 S. R. 1 E. S. 5 B. T. A pinon 10 ins. diam., bears S. 63° E. 52½ lks. dist. marked T. 36 S. R. 1 E. S. 4 B. T. A cedar 12 ins. diam., bears N. 60° W. 21 lks. dist. marked T. 36 S. R. 1 E. C. C. S. 4 & 5 B. T.
	Land, rough and mountainous 77.67 chs.
	Soil, sandy grand 4th rate.
	Timber, heavy cedar, pinon and pine 77.67 chs.
	Undergrowth same, with oak and sage 80.17 chs.
	Mountainous or heavily timbered land 77.67 chs

From cor. to secs. 7-8-17 and 18. Drun
North 0° 03' W. bet. secs. 7 and 8.
Va. 15° 24' E.

0.78	Descend abruptly about 50 ft.
3.69	Ravine about 30 ft. deep, course S.E.
4.75	North side of ravine, course S.E.

9

Subdivision S. 36 S. R. 1 E. continued.

Chains	
5.20	Descend about 50 ft. through brush.
7.64	Enter bottom and leave heavy timber, course N.W. & S.E.
12.67	Dry wash 40 lks. wide, course S. 40° E.
20.94	Old road, course S.E. and N.W.
24.18	Road to Garden Springs, course N.W. and S.E.
33.36	Ravine about 6 ft. deep, course E.
35.54	Enter heavy cedar and pinon timber and ascend abruptly about 100 ft.
40.00	Set a sandstone 18 X 10 X 5 ins. 12 ins. in the ground for 1/4 Sec. Cor. marked 1/4 on W. face; from which A pine 24 ins. diam. bears S. 58° W. 118 lks. dist. marked 1/4 S.B.T. A pine 18 ins. diam. bears N. 3° E. 76 lks. dist. marked 1/4 S.B.T.
53.20	Top of bench, course E. and N.W.
80.00	Set a limestone 18 X 10 X 6 ins. 12 ins. in the ground for cor. to secs. 5. 6. 7 and 8 marked with 5 notches on S. and E. edges; from which A pine 14 ins. diam. bears N. 82° E. 21 lks. dist. marked T. 36 S. R. 1 E. S. 5. B.T. A pine 12 ins. diam. bears N. 89° W. 50 lks. dist. marked T. 36 S. R. 1 E. S. C. B.T. No more trees within the limits. dug pits 18 X 18 X 12 ins. in secs. 7 and 8 3½ ft. dist. and raised a mound of earth 2½ ft. high, 3½ ft. base alongside.

Land, mountainous 53.20 Chains.
Soil, clay and sandy loam 2nd rate.
Timber, heavy cedar, Pinon and Pine 53.20 chs.
Undergrowth same with oak, sage and wheatberry 74.80 chs.
Mountainous and heavily timbered land 53.20 chs.

N. 89 57' E. on a random line bet. Secs. 5 and 8;
Var. 15° 21' E.

40.00	Set temporary 1/4 Sec. Cor.
80.20	Intersect N. and S. line 14 lks. North of the Cor. to secs. 4. 5. 8 and 9.

Thence Run
N. 89 57' W. on a true line bet. Secs. 5 and 8.
Var. 15° 25' E.

	Ascend
0.05	Enter heavy timber
40.40	Set a sandstone 18 X 8 X 4 ins. 12 ins. in the ground

Subdivision T. 36 S. R. 1 E. Continued.

chains	for 1/4 sec. cor. marked 1/4 on N. face; from which
	A pine 22 ins. diam. bears
	N. 49° W. 50 lks. dist. marked 1/4 S. B. T.
	A pine 20 ins. diam. bears
	S. 25° E. 132 lks. dist. marked 1/4 S. B. T.
80.20	The corner to secs. 5. 6. 7 and 8.
80.20	Land, rocky and sloping to the S. 80.20 chs.
80.15/.05	Soil, quartz gravel, 4th rate
	Timber, heavy, cedar, pinon and pine 80.15 chs.
	Undergrowth same with oak and whortleberry 80.20 chs.
	Land, heavily timbered 80.15 chs. May 18 1894.

S. 89° 57' W. on a random line bet. secs. 6 and 7.

Va. 15° 24' E.

40.00	Set temporary 1/4 sec. Cor.
77.33	Intersect W. bdy. of Sp. 7 lks. South of cor. to secs. 1. 6. 7 & 12.
	Thence Drun
	East on a true line bet. Secs. 6 and 7.
	Va. 15° 27' E.
	Descend abruptly through dense oak brush about 150 ft.
36.44	Spring run 6 lks. wide, course S. water pure
37.33	Set a limestone 18 x 8 x 6 ins. 12 ins. in the ground for 1/4
	sec. cor. marked 1/4 on N. face; from which
	A pine 40 ins. diam. bears
	N. 27° E. 118 lks. dist. marked 1/4 S. B. T.
	No other tree within the limits. dug pits 18 x 18 x 12 ins.
	E. and W. of stone 5½ ft. dist. and raised a mound
	of stones and earth 2½ ft. high, 3½ ft. base alongside.
	John Heap's house bears N. 7° E. 19.23 chs.
40.91	Road to Garden Springs, course N. and S.
42.87	Spring run 4 lks. wide, course S. 40° E. water pure
43.44	Enter scattering timber, course N. & S. and ascend
	abruptly about 200 ft.
61.80	Top of plateau and enter heavy timber and leave
	dense brush, course N. and S.
77.33	The cor. to secs. 5. 6. 7 and 8.
	Land, mountainous 77.33 chs.
	Soil, sandy and gravel 2nd rate.
	Timber, heavy, cedar, pinon and pine 15.53 chs. scattering
	18.36 chs.
	Undergrowth same in heavy timber, in scattering

Subdivision T. 36 S. R. 16 E. continued.

chains	
	birch, 46.27 chs.
	Mountainous land or covered with dense brush or heavily timbered 77.33 chs.
	May 19, 1894
	North 0° 03' W. bet. Secs. 5 and 6.
	Var. 15° 24' E.
20.60	Ravine about 100 ft. deep, course S. E.
36.45	Ravine about 50 ft. deep, course S. 70 E.
40.00	Set a limestone 18 x 8 x 4 ins. 12 ins. in the ground for 1/4 Sec. cor. marked 1/4 on W. face; from which A pine 14 ins. diam. bears S. 5° E. 65 lks. dist.; marked 1/4 S. B. T. A pine 20 ins. diam. bears N. 5° W. 41 lks. dist. marked 1/4 S. B. T.
46.78	Ravine about 100 ft. deep, course S. 80° E.
71.64	Ravine about 35 ft. deep, course E.
71.80	Leave timber, course E. and W.
79.10	Enter heavy timber, course E. and W.
80.00	Intersect N. bdy. of T. 278 lks. W. of Standard cor. to secs. 31 and 32.
	Set a limestone 18 x 6 x 5 ins. 12 ins. in the ground for closing cor. to Secs. 5 and 6 marked C. C. one S. with 1 groove on W. and 5 grooves on E. faces; from which A pine 28 ins. diam. bears S. 4° E. 6 lks. dist.; marked T. 36 S. R. 16 E. S. 5. B. T. A pine 24 ins. diam. bears S. 78° W. 11 lks. dist. marked T. 36 S. R. 16 E. S. 6. B. T. A pine 20 ins. diam. bears N. 18° W. 120 lks. dist. marked T. 36 S. R. 16 E. C. C. S. 5 & 6. B. T.
	Land, mountainous 59.64 chs.
	Soil, rocky gravel 4th rate.
	Timber, heavy pine, cedar, and spruce 72.94 chs.
	Undergrowth same with dense oak and whortleberry 80 chains.
	Mountainous land or covered with dense undergrowth or heavily timbered 80 chs.

Now go to the Standard 1/4 Sec. cor. to Sec. 31 and measure W. 278 lks. and set a limestone 18 x 6 x 5 ins. 12 ins. in the ground for closing 1/4 Sec. cor. marked C. C. 1/4 on S. face; from which

Subdivision T. 36 S. R. 1 E. Continued.

chains

A pine 20 ins. diam. bears
N. 52° W. 125 lks. dist. marked C. C. 1/4 S. B. T.
A pine 8 ins. diam. bears
S. 8° W. 177 lks. dist. marked C. C. 1/4 S. B. T.

I now go to the Standard 1/4 Sec. Cor. to Sec. 32 and measure W. 282 lks. and set a sandstone 18 x 10 x 6 ins. 12 ins. in the ground for closing 1/4 Sec. Cor. marked C. C. 1/4 on S. face; from which
A cedar 10 ins. diam. bears
S. 86° W. 282 lks. dist. marked C. C. 1/4 S. B. T.
No other tree within the limits. dug pits 24 x 18 x 12 ins. E and W. of stone 5½ ft. dist. and raised a mound of earth 2½ ft. high, 3½ ft. base alongside.

I now go to the Standard 1/4 Sec. Cor. to Sec. 33 and measure W. 282 lks. and set a sandstone 18 x 10 x 5 ins. 12 ins. in the ground for closing 1/4 Sec. Cor. marked C. C. 1/4 on S. face; from which
A cedar 5 ins. diam. bears
N. 39° W. 72 lks. dist. marked C. C. 1/4 S. B. T.
A cedar 4 ins. diam. bears
S. 15° W. 62 lks. dist. marked C. C. 1/4 S. B. T.

From the Cor. to Secs. 8. 9. 16 and 17 I run
S. 0° 03' E. bet. secs. 16 and 17.
Va. 15° 27' E.
Ascend abruptly through heavy timber and dense brush about 200 ft.
8.16 Top of hill, course E and W.
8.66 Descend abruptly about 200 ft.
15.90 Foot of hill and leave timber, course E and W.
21.66 Frm Alvey's fence, course N. 20° W & S. 20° E.
22.96 Dry wash 20 lks. wide, course N. 80° W.
28.50 Enter timber and ascend
29.80 Top of hill, course E and W. leave timber and descend abruptly 150 ft.
34.60 Flat, course E and W. and enter dense Sage brush.
40.00 Set a sandstone 24 x 12 x 8 ins. 18 ins. in the

ground for 1/4 sec. cor. marked 1/4 on w face;
dug pits 18x18x12 ins. N. and S. of stone 5 1/2 ft dist.
and raised a mound of earth 2 ft. high 3 1/2
ft. base alongside.
Wm Abeyta's house bears N. 71° W. 37.10 chs.
57.10 Enter point of heavy timber, course S.W. & S.E.
64.86 Dry wash 40 lks. wide, course N.W.
80.00 Set a limestone 18x10x7 ins. 12 ins. in the ground
for cor. to secs. 16. 17. 20 and 21 marked with 3 notches
on S. and 4 notches on E. edges; from which
A pine 16 ins. diam. bears
S. 76° E. 59 lks. dist. marked T. 36 S. R. 1 E. S. 21. B. T.
A cedar 12 ins. diam. bears
S. 5° W. 7 a lks. dist. marked T. 36 S. R. 1 E. S. 20. B. T.
A pine 13 ins. diam. bears
N. 42° E. 200 lks. dist. marked T. 36 S. R. 1 E. S. 16. B. T.
A pine 20 ins. diam. bears
N. 70° W. 313 lks. dist. marked T. 36 S. R. 1 E. S. 17. B. T.
Land, mountainous 22 chs.
Soil, gravel and clay loam 2" rate.
Timber, heavy cedar pinon and pine 17.20 chs.
Undergrowth same in timber with dense oak
and sage on flat 80 chs.
Mountainous land or heavily timbered or covered with
dense undergrowth 80 chs. May 19 1894.

I dont run E. here because Caparazo to speak lies east
the foot of it not being more than 3 chains from above cor.
South 0° 03' E. bet. secs. 20 and 21.

Var. 15° 27' E.

Through heavy timber and dense oak brush.
2.50 Leave timber and enter dense oak and rabbit brush
40.00 Set a sandstone 18x8x3 ins. 12 ins. in the ground
for 1/4 sec. cor. marked 1/4 on W. face; from which
A pinon 10 ins. diam. bears
S. 17° E. 7 lks. dist. marked 1/4 S. B. T.
A pinon 8 ins. diam. bears
N. 31° W. 141 lks. dist. marked 1/4 S. B. T.
80.00 Set a sandstone 18x12x4 ins. 12 ins. in the ground
for cor. to secs. 20. 21. 28 and 29 marked with 2 notches
on S. and 4 notches on E. edges; from which
A pine 12 ins. diam. bears

Subdivision T. 36 S. R. 1 E. continued

chains	S. 45° W. 266 lks. dist. marked T. 36 S. R. 1 E. S. 29. B. T.
	A pine - 30 ins. diam. bears
	N. 31° W. 141 lks. dist. marked T. 36 S. R. 1 E. S. 20. B. T.
	No more trees within the limits. dug pits 18x20x15 ins. in each sec. 5½ ft. dist. and raised a mound of earth 2½ ft. high, 3½ ft. base alongside.
	Joseph Spencer's house bears S 21° 30' W. 21.65 ch.
	Land, level.
	Soil, sandy loam 1st rate
	Timber heavy cedar and pinon 2.50 chs. Undergrowth same 2.50 chs. Dense oak and rabbit brush 77.50 chs.
	Heavily timbered land or covered with dense undergrowth 80 chs.
	South 0° 03' E. bet secs. 28 and 29.
	Va. 15° 23' E.
	Through dense oak brush and scattering timber.
40.00	Set a limestone 18x10x6 ins. 12 ins. in the ground for 1/4 sec. cor. marked 1/4 on w. face; dug pits 18x18x12 ins. N. and S. of stone 5½ ft. dist. and raised a mound of stones and earth 2½ ft. high 3½ ft. base alongside.
	Land nearly level.
	Soil, sandy loam 1st rate.
	Timber, scattering pine, cedar and pinon.
	Undergrowth dense oak and rabbit brush 40 chs.
	Land, covered with dense undergrowth 40 chs.
	Owing to high mountains (Caparowits peak) I quit at the above corner. Land S. of no account.
	From the cor. to secs. 7. 8. 17 and 18. I run
	South 0° 03' E. bet. secs. 17 and 18.
	Va. 15° 22' E.
	Descend about 20 ft. in dense brush and timber
0.80	Cannonville and Escalante road, course N. 74° E. and S. 60° W.
5.90	Dry wash 22 lks. wide, course S. 84° E. and ascend about (40 ft.
8.25	Descend abruptly about 30 ft.
29.84	Ascend about 30 ft.
30.20	Leave timber and enter flat, course S. 30° E. & N. W.
32.36	Road, course S. 35° E. and N. 28° W.
[illegible]	Set a limestone [illegible] ins. 17 ins. in the [illegible]

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Subdivision T. 36 S. R. 16 E. continued.

chains	
	for 1/4 sec. cor. marked 1/4 on w. face; dug pits 20x20 x15 ins. N. and S. of stone 5½ ft. dist. and raised a mound of earth 2½ ft. high, 3½ ft. base alongside. Onesimus F. Laramies house bears N. 62° E. 3.49 chs. dist.
53.80	Escalante creek 21 lks. wide, course E.
56.20	Enter timber and ascend abruptly about 100 ft. through dense oak brush.
65.80	Top of point, course E and W.
66.84	Ravine about 25 ft. deep, course N. E.
73.60	Ascend abruptly about 200 ft.
80.00	Set a sandstone 18x10x6 ins. 12 ins. in the ground for cor. to Secs. 17, 18, 19 and 20, marked with 3 notches on S. and 5 notches on E. edges; from which A pine 14 ins. diam. bears N. 47° W. 130 lks. dist. marked T. 36 S. R. 16 E. Sec. 16. B. T. A pine 28 ins. diam. bears S. 45° W. 31 lks. dist. marked T. 36 S. R. 16 E. S. 19. B. T. A pine 12 ins. diam. bears S. 83° E. 234 lks. dist. marked T. 36 S. R. 16 E. S. 20. B. T. A pine 16 ins. diam. bears N. 50° E. 257 lks. dist. marked T. 36 S. R. 16 E. S. 17. B. T.
	Land, rough and rolling 56.16 chs.
	Soil, clay loam and gravel 1st and 4th rate.
	Timber, pine, cedar and pinon 54 chs.
	Undergrowth dense oak 23.80 chs. Sage and greasewood 56.20 chs.
	Land, covered with dense undergrowth 23.80 chs
	May 20 1894.

	N. 89° 57' E. on a random line bet. Secs. 17 and 20.
	Var. 15° 27' E.
40.00	Set temporary 1/4 sec. cor.
80.20	Intersect N. and S. line 18 lks. South of cor. to Secs. 16. 17. 20 and 21.
	Thence Drum
	S. 89° 49' W. on a true line bet. Secs. 17 and 20.
	Var. 15° 25' E.
12.46	Dry wash 70 lks. wide, course N. 15° W.
24.98	Road, course N. and S.
31.20	Enter heavy timber and ascend about 200 ft. course N. and S.
	Set [illegible]

Subdivision S. 36 L. R. 1 E., continued.

Same	for 1/4 sec. cor. marked 1/4 on N. face; from which
	A pine 16 ins. diam., bears
	S. 62° E. 152 lks. dist; marked 1/4 S. B. T.
	A pine 26 ins. diam., bears
	N. 54' W. 128 lks. dist; marked 1/4 S. B. T.
43.32	Ravine about 20 ft. deep, course N. E.
53.50	Top of ridge, course N. 10° E. and S. 10° W.
66.10	Ravine about 15 ft. deep, course N. 20° E.
67.56	Ravine about 40 ft. deep, course N. 10° E.
69.63	Ravine about 20 ft. deep, course N
73.50	Descend about 150 ft.
80.20	Fine cor. to secs. 17, 18, 19 and 20.
	Land, rough and mountainous 48.80 chs.
	Soil, clay, loam and gravel 2nd and 4th rate.
	Timber, heavy cedar, pinon and pine 49 chs.
	Undergrowth same with dense oak and mountain berry 49 chs. sage and greasewood 31.20 chs.
	Mountainous Land or covered with dense undergrowth or heavily timbered 49 chs.

S. 89° 57' W. on a random line bet. secs. 18 and 19.

Va. 15° 22' E.

40.00	Set temporary 1/4 sec cor.
78.42	Intersect W. bdy. of Sp. 22 lks. South of cor. to secs. 13, 18, 19 and 24, hereinafter described
	Stone Drum
	S. 89° 54' E. on a true bet. secs. 18 and 19
	Va. 15° 21' E.
	Through dense sage brush.
12.80	Ascend abruptly about 100 ft. through dense oak brush
16.70	Enter heavy timber, course N. and S.
21.22	Ravine about 25 ft. deep, course N. E.
33.40	Leave timber, course N. E. and S. W. and descend about 50 ft.
36.80	Bottom, course N. E. and S. W.
38.42	Set a sandstone 30x10x6 ins. 24 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face; from which
	A pine 20 ins. diam. bears
	S. 79° E. 402 lks. dist. marked 1/4 S. B. T.
	No other tree within the limits. dug pits 20x20x15 ins. E and W. of stone 5 ft. dist. and raised a mound

Subdivision T. 36 S. R. 1 E. continued

Chains	
49.20	Road, course N. 14° E. and S. 14° W.
59.30	Escalante creek 21 lks. wide (dry here) course N. E.
63.20	Enter timber and ascend abruptly about 150 ft. Course N. E. and S. W.
65.85	Ravine about 40 ft. deep, course N. W.
74.97	Ravine about 25 ft. deep, course N. W.
78.42	The cor. to secs. 17. 18. 19 and 20.
	Land, rough and mountainous 37.92 chs.
	Soil, sandy and clay loam 2" rate.
	Timber, heavy cedar, pinon and pine 16.70 chs. scattering 15.22 chs.
	Undergrowth same with dense oak and whortleberry 31.92 chs. Sage 46.50 chs.
	Mountainous land or heavily timbered or covered with dense undergrowth 78.42 chs. May 21 1894.
	South 0° 03' E. bet. secs. 19 and 20
	Va. 15° 26' E.
	Ascend through scattering timber and dense brush.
15.46	Ravine about 20 ft. deep, course N. 70° W.
17.25	Ravine about 25 ft. deep, course N. 60° W.
24.10	Leave timber and descend about 100 ft. course E. & W.
29.40	Bottom, course E. and W.
32.65	Ascend very abruptly about 150 ft.
35.40	Top of point, course E. and W. and descend very abruptly about 150 ft.
37.50	Ascend very abruptly about 400 ft.
39.10	Top of point, course E. and W. and descend very abruptly about 200 ft.
40.00	Set a sandstone 18 X 10 X 3 ins. 12 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face; from which
	A pinon 14 ins. diam. bears
	S. 12° E. 62 lks. dist. marked 1/4 S. B. T.
	No other tree within the limits, dug pits 18 X 18 X 12 ins.
	N. and S. of stone 5 1/2 ft. dist. and raised a mound of earth 2 1/2 ft. high, 3 1/2 ft. base alongside.
41.60	Bottom course E. and W.
47.80	Ascend abruptly about 550 ft. through dense oak
48.30	Enter heavy timber, course N. W. and E.
50.96	Ravine about 20 ft. deep, course N. W.
66.60	Top of plateau course E. and W.

Subdivision T. 36 S. R. 1 E. continued.

chains	
73.10	Ravine about 20 ft. deep, course N. E.
75.10	Ravine about 20 ft. deep, course N. W.
80.00 +	Set a sandstone 18×10×8 ins. 12 ins. in the ground for cor. to secs. 19. 20. 29 and 30 marked with 2 notches on S. and 5 notches on E. edges; from which
	A pine 14 ins. diam. bears
	N. 19° E. 12 lks. dist. marked T. 36 S. R. 1 E. S. 20. B. T.
	A pine 20 ins. diam. bears
	N. 4° W. 28 lks. dist. marked T. 36 S. R. 1 E. S. 19. B. T.
	A pine 12 ins. diam. bears
	S. 20° W. 18 lks. dist. marked T. 36 S. R. 1 E. S. 30. B. T.
	A pine 16 ins. diam. bears
	S. 79° E. 35 lks. dist. marked T. 36 S. R. 1 E. S. 29. B. T. ×
	Land, rough and mountainous 70.55 chs.
	Soil, clay and gravel 2nd rate.
	Timber heavy. pine, cedar and pinon 31.70 chs. scattering 24.10 chs.
	Undergrowth same with dense oak and whortleberry 73.80 chs. Sage and oak 6.20 chs.
	Mountainous land or heavily timbered or covered with dense undergrowth 80.00 chs.
	N. 89° 49' E. on a random line bet. secs. 20 and 29.
	Va. 15° 24' E.
40.00	Set temporary 1/4 sec. cor.
80.40	Intersect N. and S. line at the cor. to secs. 20. 21. 28 and 29. ○ to page 378
	Thence Prun
	S. 89° 49' W. on a true line bet. secs. 20 and 29.
	Va. 15° 21' E.
	Through dense oak brush.
6.28	Dry wash 28 lks. wide, course N.
7.65	Road, course N and S.
10.00	Ascend abruptly about 150 ft.
15.60	Top of bench, course N. and S. W. and enter heavy timber
26.30	Ravine about 25 ft. deep, course N.
29.87	Ravine about 100 ft. deep, course N. E.
32.65	Ravine about 100 ft. deep, course N. 10° E.
35.32	Ravine about 125 ft. deep, course N. W.
[illegible]	Set a [illegible]

Subdivision S. 36 S. R. 1 E. Continued.

chains	
	for 1/4 sec. cor. marked 1/4 on N. face; from which
	A pine 24 ins. diam. bears
	S. 58° E. 28 lks. dist. marked 1/4 S. B. T.
	A pine 12 ins. diam. bears N. 73° W. 54 lks. dist. marked 1/4 S. B. T.
43.70	Ravine about 100 ft. deep, course N. 40° E.
61.10	Ravine about 40 ft. deep, course N. 20° E.
66.05	Ravine about 20 ft. deep, course N. E.
69.10	Ravine about 20 ft. deep, course N. E.
73.45	Ravine about 10 ft. deep, course N. E.
80.40	The cor. to secs. 19. 20. 29 and 30.
	Land, mountainous and cut with deep Ravines 70.40 chs.
	Soil, gravel and clay loam 4th and 2nd rate.
	Timber, heavy pine, cedar and pinon 64.80 chs
	Undergrowth same with oak 64.80. Dense oak and
	some sage 15.60 chs.
	Mountainous land or covered with dense undergrowth or
	heavily timbered 80.40 chs. May 23 1894.

	N. 89° 54' W. on a random line bet. secs. 19. and 30
	Va. 15° 22' E.
40.00	Set temporary 1/4 sec. cor.
77.90	Intersect W. bdy. T. 32 lks. North of cor. to secs. 19.
	24. 25 and 30.
	Thence Drun
	N. 89° 52' E. on a true line bet. secs. 19 and 30.
	Va. 15° 26' E.
	Through dense sagebrush.
10.91	Escalante and Canonville road, course N. E & S. W.
14.10	Dry wash 21 lks. wide, course N. E.
24.25	Enter heavy timber and ascend abruptly about 500 ft.
	course N. E. and S. W.
28.84	Ravine about 25 ft. deep, cours N. W.
37.90	Set a sandstone 20 x 10 x 8 ins. 15 ins. in the ground for
	1/4 sec. cor. marked 1/4 on N. face 3 from which
	A cedar 12 ins. diam, bears
	S. 47° E. 30 lks. dist. marked 1/4 S. B. T.
	A pine 20 ins. diam. bears
	S. 84 lks. dist. marked 1/4 S. B. T.
64.50	Top of plateau, course N. E. and S. 20° W.
77.90	The cor. to secs. 19. 20. 29 and 30. X
	Land, mountainous and rough 53.65 chs.
	Soil, [illegible]

Subdivision T. 36 S. R. 1 E. continued.

Chains	Timber, heavy cedar, pinon and pine 53.65 chs. Undergrowth same with dense sage on bottom 77.90 chs. Mountainous land or heavily timbered 53.65 chs.
	South 03 E. Let. secs. 29 and 30. Va. 15° 23 E. Through heavy timber and brush
40.00	Set a sandstone 22 X 10 X 6 ins. 16 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face; from which A pine 20 ins. diam. bears N. 80° W. 25 lks. dist. marked 1/4 S. B. T. A pine 15 ins. diam. bears S. 88° E. 34 lks. dist. marked 1/4 S. B. T.
	Land, level, yet way up on Caparowits mountain. Soil, gravel 2nd rate. Timber, heavy pine 40 chs. Undergrowth same with dense oak 40 chs. Heavily timbered land and cursed with dense undergrowth 40 chs. The heaviest and best timber in the township lies in this section. May 24 1894.

General Description.

This township contains one valley which is known as upper Potato valley the balance of the township is mountainous the most notable of which is Caparowits mountain, which lies partly in this T. S. and partly in township 37 S.

The soil in upper Potato valley ranges from alkaline to rich black loam, It produces good crops of the cereals, potatoes and grass. It is watered by a few small springs of pure water.

Pine, fir, spruce, cedar, pinon and aspen are plentiful in all parts of this township.

The geological formation is sandstone and lime.

There are no indications of coal, mineral or salines.

The mean declination for the plat is 15 24 E.

There are six settlers in this township

William Leeman

U. S. Deputy Surveyor.

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PAGE

List of Names.

A list of the names of the individuals employed by .....

....., U. S. Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of the .....

.....

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.....

.....

.....

.....

.....

.....Meridian, in ...., showing the respective capacities in which they acted:

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.....

.....

.....

.....

.....

.....

.....

Final Oath of Assistants:

We hereby certify that we assisted .....

....., U. S. Deputy Surveyor, in surveying all those parts or portions of the .....

.....

.....

.....

.....

.....

.....

.....Meridian, ..., as are represented in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the U. S. Surveyor General for .....

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.....

Subscribed and sworn to before me this .....

day of ...., 18 .

SEAL

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396-397 Blank

BOOK A-238

Final Oath of U. S. Deputy Surveyor.

I, ..., U. S. Deputy Surveyor, do solemnly swear that, in pursuance of instructions received from ....., U. S. Surveyor General for ....., bearing date of the ..... day of ....., 18 , I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the U. S. Surveyor General for ....., the surveying manual, and the laws of the United States, surveyed all those parts or portions of .....

.....

.....

.....

.....

..... Meridian, in the ....., as are represented in the foregoing field notes as having been surveyed by me, and under my directions; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the surveying manual, printed instructions, the special written instructions of the U. S. Surveyor General for ..... and in the specific manner described in the field notes, and that the foregoing are the true field notes of such survey, and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

.....

U. S. Deputy Surveyor.

Subscribed and sworn to before me this .....
day of ....., 18 .

SEAL

.....

.....

Approval.

Office of the U. S. Surveyor General,

Salt Lake City Utah Nov 4th, 1896

The foregoing field notes of the survey of The Subdivisions of Township 36 South Range 1 East of the Salt Lake Base & Meridian, Utah

.....

.....

.....

.....

..... executed by

William Newman

under his Contract No. 191, dated March 2d, 1893 having been critically examined, the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

George W. Snow

U. S. Surveyor General.

I certify that the foregoing transcript of the field notes of the above-described surveys in ...., has been correctly copied from the original notes on file in this office.

.....

U. S. Surveyor General.

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(4—679.)

BOOK A-238

FIELD NOTES

OF THE SURVEY OF

Subdivision of T. 35 S. R. 4 E.

Of the Salt Lake P. Meridian,

Territory of Utah

AS SURVEYED BY

William Leeman, U. S. Deputy Surveyor,

under his Contract No. 191, dated March 2nd, 1893.

Survey commenced July 5th, 1894.

Survey completed August 21st, 1894.

(12503—2,000.)

Names and Duties of Assistants.

Peter Barker Chairman.

Orris Wiley Chairman.

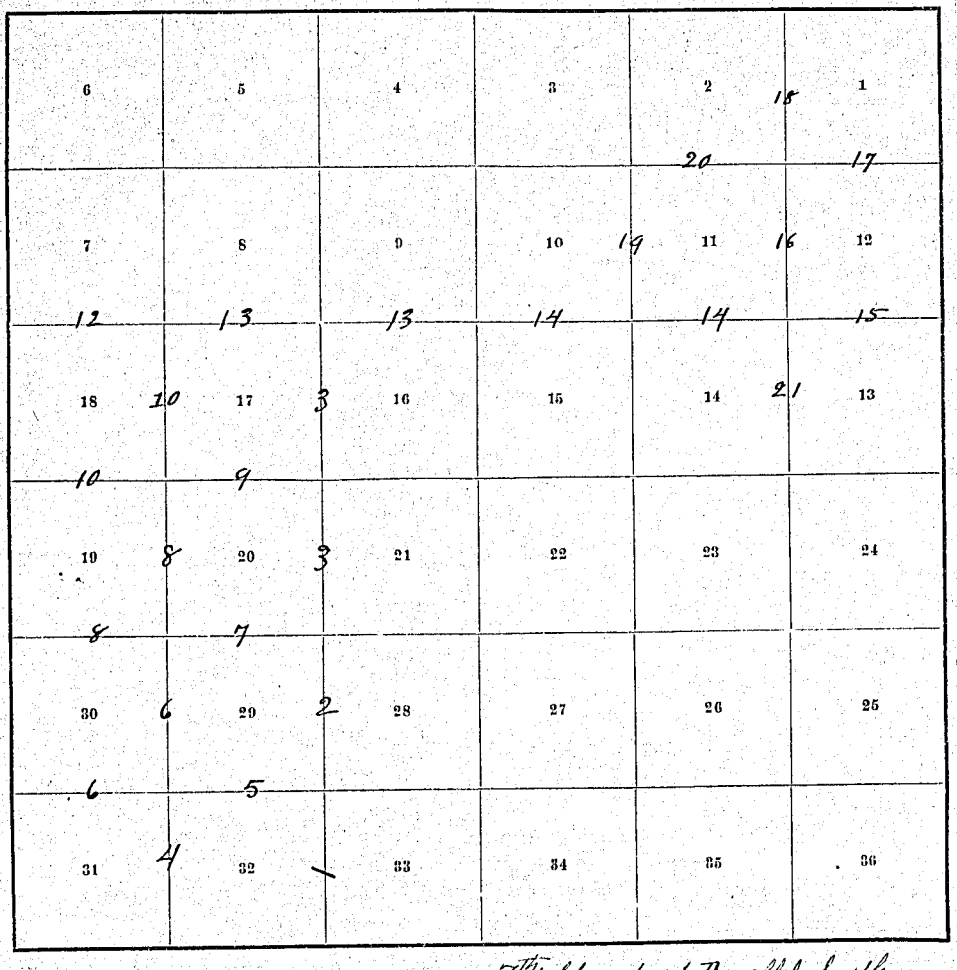
David Woolsey Akeman.

Jacob Hamaker Flagman.

BOOK A-238

INDEX DIAGRAM.

Township 35 S. , *Range* 4 E.



First Guide Meridian E.

7th Standard Parallel South

Meanders Page

Preliminary Oaths of Assistants.

We, _____

_____

_____

do solemnly swear that we will well and faithfully execute the duties of chain carriers; that we will level the chain over even and uneven ground, and plumb the tally-pins either by sticking or dropping the same; that we will report the true distance to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us in the survey of the _____

_____

_____

_____

_____

_____, *Chainman.*

_____, *Chainman.*

_____, *Chainman.*

_____, *Chainman.*

Subscribed and sworn to before me this _____ day of _____, 18 . .

_____

_____

We, _____

_____

do solemnly swear that we will well and truly perform the duties of axemen in the establishment of corners and other duties, according to instructions given us, and to the best of our skill and ability, in the survey of the _____

_____

_____

_____

_____

Subscribed and sworn to before me this _____ day of _____, 18 .

_____, *Axeman.*

_____, *Axeman.*

_____

_____

_____

Subdivision T. 35 S. R. 4 E.

Chains

July 5th 1894. I tested the adjustments of my Transit on the true Meridian which I established June 8th 1893. at the Standard Cor. to Tps. 35 S. Rs. 3 & 4 E. At 7 A. M. July 5th I examined the adjustments and found them correct.

I commence the subdivision of this Tp. at the Standard cor. to secs. 32 and 33 because all the land east of this cor. is high mountains and cut with very deep and inaccessible canons and gulches

---

From the Standard cor. to Secs. 32 and 33 on S. Bdy. of Tp. as hereinbefore described I run

North 0° 03 W. bet. secs. 32 and 33.

Va. 15° 20' E.

Ascend abruptly about 30 ft. through heavy timber & brush.

31.50 Ravine about 5 ft. deep, course S. E.

39.50 Along west side of ridge.

40.00 Set a sandstone 22 X 6 X 4 ins. 16 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face; from which A pinion 9 ins. diam. bears N. 38° W. 113 lks. dist. marked 1/4 S. B. T.
A cedar 10 ins. diam. bears S. 89° E. 17 lks. dist. marked 1/4 S. B. T.

76.50 Leave timber and enter level park. course N. 70° E. and S. 70° W.

80.00 Set a limestone 23 X 8 X 3 ins. 17 ins. in the ground for cor. to secs. 28. 29. 32 and 33. marked with 1 notch on S. and 4 notches on E. edge; from which A cedar 7 ins. diam. bears N. 68° W. 140 lks. dist. marked T. 35 S. R. 4 E. S. 29. B. T.
No more trees within the limits. Dug pits 18 X 18 X 12 ins. in each sec. 5½ ft. dist. and raised a mound of earth 2 ft. high, 3 ft. base alongside.
Land, nearly level.
Soil, sandy loam 2nd rate.
Timber, heavy cedar and pinon 76.50 chs.
Undergrowth same 76.50 chs. Sage and rabbit brush

Subdivision T. 35 S. R. 4 E. continued.

chains	
	Heavily timbered land 76.50 chs.
	I did not run E. from above cor. because of high mountains.
	North 0° 3' W. bet. secs. 28 and 29.
	Va. 15° 23' E.
25.46	Road, course N.E. and S.W.
28.02	Road, course E. and W.
32.00	Enter heavy timber, course N.W. and E.
33.40	Dry wash 35 lks. wide, course S.W.
35.95	Same wash 30 lks. wide, course S.E.
40.00	Set a limestone 23X14X6 ins. 17 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face; from which A cedar 11 ins. diam. bears S. 84° E. 50 lks. dist. marked 1/4 S. B. T. A cedar 12 ins. diam. bears S. 55° W. 65 lks. dist. marked 1/4 S. B. T.
54.00	Leave timber, course N. 40 E and S. 40° W.
59.80	Enter heavy timber, course N. 40° E. and S. 40° W.
80.00	Set a limestone 22X8X4 ins. 16 ins. in the ground for cor. to secs. 20. 21. 28 and 29 marked with 2 notches on S. and 4 notches on E. edges; from which A cedar 12 ins. diam. bears S. 82° W. 56 lks. dist. marked T. 35 S. R. 4 E. S. 29. B. T. A pinon 10 ins. diam. bears S. 57° E. 46 lks. dist. marked T. 35 S. R. 4 E. S. 28. B. T. A pinon 6 ins. diam. bears N. 41° E. 88 lks. dist. marked T. 35 S. R. 4 E. S. 21. B. T. A pinon 14 ins. diam. bears N. 59° W. 100 lks. dist. marked T. 35 S. R. 4 E. S. 20. B. T.
	Land, nearly level.
	Soil, sandy loam and gravel 2nd rate.
	Timber, heavy cedar and pinon 42.20 chs.
	Undergrowth same with oak 42.20 chs. and sage, rabbit and oak 37.80 chs.
	Heavily timbered land 42.20 chs. July 5 1894.
	I do not run E. from above corner owing to high mountains and worthless land.

Subdivision T. 35 S. R. 46 E. continued.

chains	
	North 0° 03' w. bet. secs. 20 and 21.
	Through heavy timber Var. 15° 28' E. and brush
4.72	Dry wash 5 lks. wide, course S. w.
5.60	Ascend about 40 ft.
16.80	Top of ridge, course E. and w. and descend about 50 ft.
20.40	Foot of ridge, course E. and w. and ascend about 50 ft.
32.45	Top of ridge, course E. and w.
40.00	Set a limestone 18 x 9 x 3 ins. 12 ins. in the ground for 1/4 sec. cor. marked 1/4 on w. face; from which A cedar 10 ins. diam. bears S. 8° 5° w. 210 lks. dist. marked 1/4 S. B. T. A cedar 10 ins. diam. bears S. 34° E. 53 lks. dist. marked 1/4 S. B. T.
48.90	Descend abruptly about 140 ft.
54.23	Dry wash 42 lks. wide, course w.
54.60	Ascend abruptly about 200 ft.
78.27	Top of ridge, course N. w. and S. E.
80.00	Set a limestone 23 x 10 x 2½ ins. 17 ins. in the ground for cor. to secs. 16. 17. 20 and 21. marked with 3 notches on S. and 4 notches on E. ridge; from which A pinon 10 ins. diam. bears N. 64° E. 76 lks. dist. marked T. 35 S. R. 46 E. S. 16 B. T. A pinon 12 ins. diam. bears N. 50° w. 58 lks. dist. marked T. 35 S. R. 46 E. S. 17. B. T. A pinon 7 ins. diam. bears S. 35° E. 58 lks. dist. marked T. 35 S. R. 46 E. S. 21. B. T. A cedar 8 ins. diam. bears S. 56° w. 108 lks. dist. marked T. 35 S. R. 46 E. S. 20. B. T.
	Land, rolling and mountainous 80 chs.
	Soil, limestone gravel and sand 4th rate, west of line the soil good.
	Timber, heavy cedar and pinon 80 chs.
	Undergrowth same with oak and Johnthberry 80 chs.
	Mountainous or heavily timbered land 80 chs.
	Owing to high mountains I do not not run E. July 6th 1894.

North 0° 03' w. on a random line bet. secs. 16 and 17.
Var. 15° 30' E.

40.00	Set temporary 1/4 sec. cor.
80.40	Intersect auxiliary base 32 lks. East of the cor. to secs. 8. 9. 16 and 17.

Thence S. run

Subdivision T. 35 S. R. 4 E. continued.

chains	
	S. 0° 17' E. on a true line bet. secs. 16 and 17.
	Va. 15° 26' E.
	Ascend abruptly about 350 ft.
33.00	Enter heavy timber, course E and W.
40.20	Set a sandstone 24X10X3 ins. in a stone pile on solid rock for 1/4 sec. cor. marked 1/4 on W. face; from which
	A cedar 10 ins. diam. bears
	S. 24° W. 42 lks. dist. marked 1/4 S. B. T.
	A pinon 14 ins. diam. bears
	S. 53° E. 40 lks. dist. marked 1/4 S. B. T.
48.50	Descend abruptly about 150 ft.
57.63	Dry wash 68 lks. wide, course N. W. and ascend abruptly about 200 ft.
78.70	Top of plateau, course E and W.
80.40	The cor. to secs. 16. 17. 20 and 21.
	Land, rough and mountainous 80.40 chs.
	Soil, limestone gravel and sandy 4th rate
	Timber, heavy cedar and pinon 47.40 chs.
	Undergrowth same with oak and whortleberry 80.40 chs.
	Mountainous or heavily timbered land 80.40 chs.
	Aug. 14 1894.
	This line was run after the second mile on [illegible] base was run.
	From the standard cor. to secs. 31 and 32 on S. Bdy of Tp. as herembefore described
	Drum
	North 0° 03' W. bet. secs. 31 and 32.
	Va. 15° 30' E.
	Ascend about 30 ft. through timber.
1.50	Top of plateau, course S. E and N. W.
13.20	Ravine about 30 ft. deep, course S. E.
27.20	Ravine about 10 ft. deep, course W.
31.27	Ravine about 75 ft. deep, course S. 80° W.
40.00	Set a limestone 24X10X2 ins. 18 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face; from which
	A cedar 10 ins. diam. bears
	S. 60° E. 52 lks. dist. marked 1/4 S. B. T.
	A pinon 6 ins. diam. bears
	N. 64° W. 116 lks. dist. marked 1/4 S. B. T.
47.62	Dry wash 10 lks. wide, course W.
60.30	Mouth of ravine about 50 ft. deep, course W.

Subdivision T. 35 S. R. 4 E. continued.

chains	
64.14	Road, course E and W.
68.75	Ravine about 50 ft. deep, course S. 40° E.
80.00	Set a limestone 22X10X4 ins. 16 ins. in the ground for cor. to secs. 29, 30, 31 and 32, marked with 1 notch on S. and 5 notches on E. edges; from which A pine 12 ins. diam. bears S. 41° E. 116 lks. dist. marked T. 35 S. R. 4 E. S. 32. B. T. A cedar 10 ins. diam. bears S. 5° W. 91 lks. dist. marked T. 35 S. R. 4 E. S. 31. B. T. A pinon 12 ins. diam. bears N. 15° W. 84 lks. dist. marked T. 35 S. R. 4 E. S. 30. B. T. A cedar 14 ins. diam. bears N. 45° E. 175 lks. dist. marked T. 35 S. R. 4 E. S. 29. B. T. Land, rolling and broken 80 chs. Soil, sandy and lime gravel 80 chs. Timber, cedar and pinon 80 chs. No undergrowth.

E. on a random line bet. secs. 29 and 32.
Va. 15° 25' E.

40.00	Set temporary 1/4 sec. cor.
80.00	Intersect N. and S. line 10 lks. N. of cor. to secs. 28, 29, 32 and 33. Thence S. run N. 89° 56' W. on a true line bet. secs. 29 and 32. Va. 15° 23' E.
3.20	Ravine about 50 ft. deep, course S. W.
15.70	Ravine about 50 ft. deep, course S. W.
20.80	Leave green timber and enter dry timber, course N. 8° W.
30.70	Road, course N. 70° E. and S. 76° W.
40.00	Set a limestone 23X10X2½ ins. 17 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face; from which A cedar 6 ins. diam. bears South 76° W. 52 lks. dist. marked 1/4 S. B. T. No other tree within the limits; dug pits 18X18X12 ins. E. & W. of stone 5½ ft. dist. and raised a mound of earth 2 ft. high 3½ ft. base alongside.
49.65	Dry wash 2 lks. wide, course S. 40° E.
80.00	Cor. to secs. 29, 30, 31 and 32. Land, nearly level. Soil, sandy loam and gravel 9" [illegible]

Subdivision T. 35 S. R. 4 E. continued.

chains	
	Timber, scattering cedar and pinon 80 chs.
	Undergrowth sand with sage, rabbit, greasewood & mountain mah. 80 chs
	N. on a random line bet. secs. 30 and 31.
	Var. 15° 21' E.
40.00	Set temporary 1/4 Sec. cor.
79.98	Intersect W. bdy of T. 2 S. lks. South of cor. to secs. 25-30-31 & 36.
	Thence Drum
	S. 89° 48' E. on a true line bet. secs. 30 and 31.
	Var. 15° 30' E.
28.48	Enter heavy timber, course N. E. & S.
33.98	Leave timber, course N. 30° E. and S. E.
39.98	Set a limestone 20x10x4 ins. 15 ins. in the ground for 1/4 sec. cor. mar- ked 1/4 on N. face; from which
	A cedar 10 ins. diam. bears
	S. 62° E. 116 lks. dist; marked 1/4 S. B. T.
	A cedar 18 ins. diam. bears
	N. 65° W. 285 lks. dist; marked 1/4 S. B. T.
50.68	Enter timber, course N. 10° E. & S. 20° W.
66.60	Ravine about 4 ft. deep, course S. E.
67.76	Descend about 4 ft.
70.41	Dry wash 70 lks. wide, course S. 27° E.
75.98	Ascend about 4 ft.
79.98	The cor. to secs. 29, 30, 31 and 32.
	Land, rolling and rough 15.22 chs.
	Soil, sandy loam and gravel 2nd rate.
	Timber, heavy cedar & pinon 55 chs. scattering 24.30 chs. under- growth sage, greasewood and rabbit brush 80 chs.
	Heavily timbered land 5.50 chs. July 6 1894.
	North 0° 03' W. bet. secs. 29 and 30.
	Through heavy timber Var. 15° 25' E. & brush
14.00	Head of ravine, course S. 5° W.
15.00	Leave timber, course N. E. and S. W.
28.10	Ravine about 4 ft. deep, course S. W.
40.00	Set a lime stone 23x10x2 ins. 17 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face; from which.
	A cedar 6 ins. diam. bears
	S. 48° E. 83 lks. dist; marked 1/4 S. B. T.
	A cedar 18 ins. diam. bears
	S. 23° W. 73 lks. dist; marked 1/4 S. B. T.

Subdivision T. 35 S. R. 4 E. continued.

chains	
60.20	Enter timber and ascend about 25 ft. course E & N.
63.50	Top of ridge, course E and W.
65.00	Descend about 25 ft.
66.60	Leave timber and enter bottom, course S. W. & E.
80.00	Set a limestone 23X13X3 ins. 17 ins. in the ground for cor. to secs. 19. 20. 29 and 30 marked with 2 notches on S. and 5 notches on E. edges; from which A cedar 12 ins. diam. bears S. 87° W. 17 lks. dist; marked T. 35 S. R. 4 E. S. 30. B. T. A cedar 8 ins. diam. bears S. 45° E. 119 lks. dist. marked T. 35 S. R. 4 E. S. 29. B. T. A cedar 6 ins. diam. bears N. 77° E. 86 lks. dist. marked T. 35 S. R. 4 E. S. 20. B. T. No more trees within the limits; dug pit in sec. 19. 18X18X12 ins. 5½ ft. dist. and raised a mound of stone and earth 2½ ft. high, 3½ ft. base alongside.
15.00 / 65.50	
	Land, rolling 66.60 chs.
	Soil, sandy loam 2nd rate.
	Timber, heavy cedar and pinon 15. chs; scattering 6 chs.
	Undergrowth same with sage, oak and greasewood 8 chs.
	Heavily timbered land 15 chs. July 7 1894.

S. 89° 56' E. on a random line bet. secs. 20 and 29.

Va. 15° 22' E.

40.00	Set temporary 1/4 sec. cor.
80.18	Intersect N. and S. line 32 lks. South of the cor. to secs. 20. 21. 28 and 29.

Thence I run

S. 89° 30' W. on a true line bet. secs. 20 and 29.

Va. 15° 30' E.

Through heavy timber and brush.

5.10	Dry wash 33 lks. wide, course S.
15.50	Leave timber, course N. 80° E. and S.
40.09	Set a limestone 20X10X3 ins. 15 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face; dug pit 18 X18X12 ins. E and W. of stone 5½ ft. dist. and raised a mound of earth 2½ ft. high, 3½ ft. base alongside
40.20	Trail, course S. 80° E. and N. 80° W.
63.52	Ascend about 20 ft; and enter timber, course N. & S.
80.18	The cor. to secs. 19. 20. 29 and 30.
15.50	Land, rolling 66.60 chs.

Subdivision T. 35 S. R. 4 E. continued.

chains	
	Soil, sandy loam 2nd rate.
	Timber, heavy cedar and pinon 15.50 chs. scattering 16.66.
	Undergrowth same with oak 32.16 chs. Sage oak, rabbit and greasewood 48.02 chs.
	Heavily timbered land 15.50 chs.
	N. 89° 48' W. on a random line bet. secs. 19 and 30.
	Var. 15° 25' E.
40.00	Set temporary 1/4 sec. cor.
79.80	Intersect W. bdy. of Tp. 44 lks. North of the cor. to secs. 19. 24. 25 and 30.
	Thence Prun
	N. 89° 53' E. on a true line bet. secs. 19 and 30.
	Va. 15° 23' E.
1.50	Leave timber, course E and W.
8.80	Enter scattering timber
15.50	Leave timber, course N.W. and S.
35.78	Old road, course S. 10° E. and N.
39.80	Set a limestone 30×6×4 ins. 24 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face; from which
	A cedar 12 ins. diam. bears
	N. 83° E. 314 lks. dist. marked 1/4 S. B. T.
	No other tree within the limits. dug pits 18×18×12 ins. E and W. of stone 5½ ft. dist. and raised a mound of earth and stones 2 ft. high, 3 ft. base alongside.
59.00	Enter heavy timber, course N.E. and S.W.
62.00	Leave timber, course S.W. and N.E.
79.80	The cor. to secs. 19. 20. 29 and 30.
	Land, level. 79.80 chs.
	Soil, sandy loam 2nd rate.
	Timber, heavy cedar and pinon 4.50 chs. scattering 6.70 chs.
	Heavily timbered land 4.50 chs. July 9 1894.
	North 0° 03' W. bet. secs. 19 and 20.
	Va. 15° 28' E.
9.20	Enter heavy timber and brush, course E. and W.
40.00	Set a limestone 19×8×3½ ins. 14 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face; from which
	A cedar 6 ins. diam. bears
	S. 85° W. 72 lks. dist. marked 1/4 S. B. T.
	A cedar 10 ins. diam. bears
	N. 43° E. 107 lks. dist. marked 1/4 S. B. T.

Subdivision T. 35 S. R. 4 E. continued.

Chains	
79.65	Descend abruptly about 150 ft.
80.00	Set a limestone 22 x 12 x 4 ins. 16 ins. in the ground for cor. to secs. 17. 18. 19 and 20 marked with 3 notches on S. and 5 notches on E. edges; from which A cedar 20 ins. diam. bears S. 5° W. 11 lks. dist. marked T. 35 S. R. 4 E. S. 19. B. T. A cedar 8 ins. diam. bears S. 84° E. 64 lks. dist. marked T. 35 S. R. 4 E. S. 20. B. T. A pinon 12 ins. diam. bears N. 19° E. 102 lks. dist. marked T. 35 S. R. 4 E. S. 17. B. T. A cedar 8 ins. diam. bears N. 24° W. 111 lks. dist. marked T. 35 S. R. 4 E. S. 18. B. T.
	Land, nearly level 79.65 chs.
	Soil, sandy loam 2" rate.
	Timber, heavy cedar and pinon 70.80 chs.
	Undergrowth same with sage and oak 80 chs.
	Heavily timbered land 70.80 chs.
	N. 89° 50' E. on a random line bet. secs. 17 and 20. Va. 15° 24' E.
40.00	Set temporary 1/4 sec. cor.
80.12	Intersect N. and S. line 36 lks. North of cor. to secs. 16. 17. 20 and 21.
	Thence N.
	N. 89° 55' W. on a true line bet. secs. 17 and 20. Va. 15° 22' E.
	Through heavy timber and brush
2.80	Descend abruptly about 100 ft.
40.06	Set a sandstone 28 x 10 x 5 ins. in a stone pile on rocky place for 1/4 sec. cor. marked 1/4 on N. face; from which A pinon 12 ins. diam. bears N. 63° W. 52 lks. dist. marked 1/4 S. B. T. A pinon 6 ins. diam. bears S. 24° E. 22 lks. dist. marked 1/4 S. B. T.
48.80	Leave timber course N. W. and S. E.
54.70	Dry wash 4 lks. wide, course N. W.
55.30	Enter timber and descend abruptly about 150 ft. course S. E. and N. W.
68.73	Top of ridge, course S. E. and N. 31° W.
80.12	The cor. to secs. 17. 18. 19 and 20.

Subdivision T. 35 S. R. 4 E. continued.

chains	
	Soil, sandy and rocky 4th rate.
	Timber, heavy cedar and pinon 48.80 chs. scattering 24.82 chs. Undergrowth same with sage and greasewood 80.12 chs.
	Mountainous and heavily timbered land 80.12 chs.
	S. 89° 53' W. on a random line bet. secs. 18 and 19.
	Va. 15° 23' E.
40.00	Set temporary 1/4 sec. cor.
79.68	Intersect W. bdy. of Tp. 38 lks. North of the cor. to secs. 13, 18, 19 and 24.
	Thence Prun
	N. 89° 37' E. on a true line bet. secs. 18 and 19.
	Va. 15° 21' E.
	Descend through timber and brush about 50 ft.
28.35	Leave timber and enter flat, course N. & S.
39.68	Set a limestone 28 x 10 x 4 ins. 22 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face; from which
	A cedar 12 ins. diam. bears
	S. 20° E. 26 lks. dist. marked 1/4 S. B. T.
	A cedar 13 ins. diam. bears
	N. 39° W. 30 lks. dist. marked 1/4 S. B. T.
49.90	Enter heavy timber and ascend about 100 ft. course (N.E. & S.W.
71.20	Top of ridge, course N. 20° W. and S. 27° E.
79.68	The cor. to secs. 17, 18, 19 and 20.
	Land, broken and mountainous 29.78 chs.
	Soil, sandy and gravel 2" rate.
	Timber heavy cedar and pinon 29.78 chs.
	Scattering 28.35 chs. Undergrowth same with sage and greasewood 79.68 chs.
	Mountainous and heavily timbered land 29.78 chs.
	July 10. 1894
	North 0° 03' W. on a random line bet. secs. 17 and 18.
	Va. 15° 30' E.
40.00	Set temporary 1/4 sec. cor.
80.62	Intersect auxiliary base 38 lks. East of cor. to secs. 7, 8, 17 and 18
	Thence Prun
	S. 0° 19' E. on a true line bet. secs. 17 and 18.
	Va. 15° 26' E.
	Over rough broken ground.
6.22	Descend abruptly about 350 ft.

Chains	
18.95	Dry wash 3 lks. wide, course N.W. and ascend abruptly about 300 ft;
36.00	Enter scattering timber
40.31	Set a sandstone 20x10x4 ins. 15 ins. in the ground for 1/4 Sec. Cor. marked 1/4 on W. face; from which A pinon 6 ins. diam. bears N. 69° E. 49 lks. dist. marked 1/4 S. B. T. A pinon 8 ins. diam. bears N. 44° W. 77½ lks. dist. marked 1/4 S. B. T.
41.20	Ascend abruptly about 150 ft;
42.20	Top of point, course S. and ascend through heavy timber, course S. W. and S. E.
80.62	The Cor. to secs. 17, 18, 19 and 20. Land rough and mountainous 80.62 chs. Soil, sandy and rocky 2nd rate. Timber, heavy cedar and pinon 38.42 chs. Scattering 6.20 chs. Undergrowth same with sage 80.62 chs. Mountainous or heavily timbered land 80.62 chs Aug. 14 1894

Aug. 9th 1894. At the Cor. to secs. 7, 12, 13 & 18 on E. Bdy. of Sp. T. I observe Polaris at 4h 27m P.M. by my watch which is correct.

Astron. Im't of obs. Aug. 9	4h	27m P.M.
W.C. of Polaris, Aug. 1	16.	36.2
Reduction 8 days		31.4
W.C. of Polaris, Aug. 8	16.	04.8
Hour Angle of Polaris at obs.	17	22.2
Subtract from	23	56.1
Time argument Table 2	6.	33.9
Azimuth of Polaris Lat 37° 47'	1°	34' east
R. end of needle	13°	50' east
The sun is the va.	15°	24' east

At 7 A.M. Aug. 10 The va. is 15° 30' east and the mean declination 15° 24' E.

Owing to the high mountains, and non agricultural character of the land, I run an auxiliary

Subdivision T. 35 S. R. 4 E. continued.

chains	South side of Escalante creek. All the agricultural land N. of this line is in the canons along the streams.
	From the cor. to secs. 7. 12. 13 & 18 on E. Bdy of Tp. hereinbefore described, I run West on a random line Va. 15° 30' E. I set temporary half mile and mile corners at each 40 and 80 chs. and find the line to be 5 miles, 79 chains and 98 lks. long, and the falling to be 49 lks. North of the corner to secs. 7. 12. 13 & 18 on W. Bdy of Tp. The correction for the true line will therefore be 8 1/6 lks. S. per mile, and its true course N. 89° 57' E. Aug. 13 1894.
	From the corner to secs. 7. 12. 13 & 18 on W. Bdy of Tp. hereinbefore described I run N. 89° 57' E. on a true line bet. secs. 7 and 18. Va. 15° 30' E. Ascend through heavy timber
9.80	Top of ridge, course N. 10° W. and S. 10° E.
10.20	Descend abruptly about 500 ft.
36.30	Leave timber, course N. and S.
39.98	Set a sandstone 24×9×3 ins. in a stone pile for 1/4 sec. cor. marked 1/4 on N. face; Raised a mound of stones 3 ft. high 3 1/2 ft. base alongside, Pits impracticable
40.10	Enter bare rocks, and descend about 100 ft.
71.98	Gulch about 200 ft. deep course N. I measure a fair 5 chs. South, and send flag to top of cliffs on East side of gulch. and I also set a flag pole at south end of bare. From flag pole on top of cliffs, flag pole at South end of base bears S. 58° 10' W. subtract from 90° 00' = 31° 50' + 0° 03' = 31° 53'; Cotang. 1.61 × 5 = 8.05 + 71.98 = 80.03. I measure back 5 lks.
79.98	Set a sandstone 22×10×4 ins. in a stone on bare rock for cor. to secs. 7. 8. 17 and 18 marked with 4 notches on S. and 5 notches on E. edges; raised a mound of stones 3 ft. high 3 1/2 ft. base alongside. Pits impracticable Land, broken and mountainous 79.98 chs. Soil sandy and rocky 4th rate.

Subdivision T. 35 S. R. 4 E. continued.

chains	Timber, heavy cedar and pinon 36.30 chs Undergrowth same with sage and oak 79.98 chs Mountainous or heavily timbered land 79.98 chs.
	N. 89° 57' E. on a true line bet. secs. 8 and 17. Va. 15° 27' E. Over bare rocks.
11.00	Descend gradually about 500 ft.
40.00	Set a sandstone 24 x 9 x 4 ins. in a stone pile on rock for 1/4 sec. cor. marked 1/4 on N. face; raised a mound of stones 2½ ft. high, 3½ ft. base alongside Pits impracticable
80.00	Set a sandstone 20 x 10 x 5 ins. in a stone pile on rock for cor. to secs. 8. 9. 16 and 17 marked with 4 notches on S. and E. edges; raised a mound of stones 2½ ft. high, 3½ ft. base alongside, Pits impracticable Land, mountainous and covered with bare rocks. Soil, none. No timber. No brush nothing for it to grow in. Mountainous land 80 chs. Aug 14th 1894
	N. 89° 57' E. on a true line bet secs. 9 and 16. Va. 15° 22' E. Am compelled to measure by triangulation. I send flag to top of point and measure a base S. 10.47 chs. from which flag pole on point of mountain bears N. 75° 18' E. subtract from 90° 00' +.03' = 14° 45, cotang. 3.80 x 10.47 = 39.79 + .21 = 40.00
40.00	Set a sandstone 18 x 10 x 8 ins. in a stone pile on solid rock for 1/4 sec. cor. marked 1/4 on N. face; raised a mound of stones 3 ft. high, 3½ ft. base alongside. Pits impracticable. Ascend abruptly about 300 ft.
64.25	Top of point of mountain course N & S.
65.50	Descend abruptly into gulch about 200 ft. deep, course N.
68.20	Dry wash 53 lks. wide, course N.
80.00	Set a sandstone 24 x 6 x 4 ins. in a stone pile for cor. to secs. 9. 10. 15 and 16 marked with 4 notches on S. and 3 notches on E. edges; raised a mound of stones 3 ft. high, 3½ ft. base alongside Pits impracticable

Subdivision T. 35 S. R. 4 E. continued.

chains	Land, mountainous and rough to the extreme 80 chs.
	No soil.
	No timber No brush, 80 chs. bare rocks.
	Mountainous and extremely rough land 80 chs.
	N. 89°57' E. on a true line bet. secs. 10 and 15.
	Va. 15° 23' E.
	Ascend about 50 ft.
16.40	Enter scattering timber and leave bare rocks. course N. E. and S. W.
29.50	Top of point of mountain, course N. and S. and descend into wash about 100 ft. deep.
30.60	Dry wash 4 4 lks. wide, course N.
32.60	East side of wash and ascend about 100 ft.
34.80	Top of point course N. and S.
40.00	Set a sandstone 24X8X4 ins. in a stone pile on rock for 1/4 sec. cor. marked 1/4 on N. face; raised a mound of stones 2½ ft. high, 3½ ft. base alongside. Pits impracticable. descend abruptly about 200 ft.
80.00	Set a sandstone 20X12X3 ins. in a stone pile on rock for cor. to secs. 10. 11. 14 and 15 marked with 4 notches on S. and 2 notches on E. edges; from which
	A pinon 6 ins. diam. bears
	S. 46° W. 21 lks. dist. marked T. 35 S. R. 4 E. S. 15. B. T.
	A cedar 6 ins. diam. bears
	N. 54° W. 15 lks. dist. marked T. 35 S. R. 4 E. S. 10. B. T.
	No more trees within the limits. Raised a mound of stones 3 ft. high, 3½ ft. base alongside, Pits impracticable.
	Land, rough and mountainous 80 chs.
	Soil, sandy and rocky 4th rate.
	Timber, scattering cedar and pinon 63.60 chs.
	No brush,
	Mountainous land 80 chs. Aug. 15 1894.
	N. 89°57' E. on a true line bet. secs. 11 and 14.
	Va. 15°30' E.
	Over rough ground.
10.50	Ascend abruptly about 200 ft.
39.50	Top of point of mountain, course N. and S. and descend abruptly about 300 ft.
	Inaccessible [illegible] measure a base of

Subdivision T. 35 S. R. 4 E. continued.

chains	10 chs. S. and set flag pole at each end, and send flag across to E. side of gulch on top of point, and measure to canon.
40.00	Set a sandstone 19×8×6 ins. in a stone pile for 1/4 sec. cor. marked 1/4 on N. face; raised a mound of stones 3 ft. high, 3½ ft. base alongside. Pits impracticable.
42.21	Gulch about 250 ft. deep, course N. from flag pole E. side of gulch. Flag pole at south end of base bears S. 63° 50' W. Subtract from 90°00' = 26° 10' + 3' = 26° 13'. Cotang. 2.031×10 = 20.31 + 39.50 = 59.81 chs.
59.85	Top of point of mountain, course N. and S. As the next point on the line is higher than this one I send flagman to the top of it; and measure to gulch.
63.88	Gulch about 200 ft. deep. course N. from flag E. side of gulch. Flag pole on S. end of base bears S. 74° 14' W. subtract from 90°00' = 15° 46' + 3' = 15° 49'. Cotang. 3.53×10 = 35.30 + 39.50 = 74.80 chs
74.80	Top of point of mountain about 350 ft above bottom of inaccessible gulch, course N. and S. and enter heavy timber.
80.00	Set a sandstone 35×14×8 ins. in a stone pile on rocky place for cor. to secs. 11. 12. 13 and 14. marked with 4 notches on S. and 1 notch on E. edge; from which A cedar 18 ins. in diam. bears S. 49° W. 29 lks. dist. marked T. 35 S. R. 4 E. S. 14. B. T. A cedar 10 ins. diam. bears S. 73° E. 49 lks. dist. marked T. 35 S. R. 4 E. S. 13. B. T. A pinon 10 ins. diam. bears N. 55° E. 113 lks. dist. marked T. 35 S. R. 4 E. S. 12. B. T. A pinon 14 ins. diam. bears N. 3° W. 88½ lks. dist. marked T. 35 S. R. 4 E. S. 11. B. T. Land, mountainous and extremely rough 80 chs. Timber, heavy cedar and pinon 5.08 chs. No brush. Soil, sandy and rocky 4th rate. Mountainous or heavily timbered land 80 chains. Aug. 16 1894.

N. 89° 57' E. on a true line bet. secs. 12 and 13.
va. 15° 30' E.

Subdivision T. 35 S. R. 4 E. continued.

chains	
2.50	Descend about 50 ft.
10.90	Descend abruptly about 150 ft.
16.20	Dry wash 25 lks. wide, course N. and ascend abruptly about 100 ft.
25.40	Top of point, course N. and descend about 100 ft.
30.06	Leave timber ~~& enter~~ rolling park, course N. & S.
39.90	Cliff about 30 ft. high, course N. and S.
40.00	Foot of cliff.
	Set a sandstone 22×6×4 ins. in a stone pile for 1/4 Sec. cor. marked 1/4 on N. face; from which
	A cedar 10 ins. diam. bears
	N. 88° E. 30 lks. dist. marked 1/4 S. B. T. and raised a mound a mound of stones 2½ ft. high 3½ ft. base alongside. Pits impracticable.
	Descend abruptly about 50 ft. in dense willow.
40.98	Bottom, course N. and S.
50.20	Escalante creek 58 lks. wide course S.
52.00	Foot of cliffs about 40 ft. high and leave willow.
52.03	Top of cliffs, course N. & S.
55.90	Oliver Lewis house bears S. 4 chs. dist.
57.64	Ascend ledge about 30 ft.
58.20	Top of ledge, course N. W. & S. E.
72.10	Ascend abruptly about 250 ft.
80.00	The cor. to secs. 7. 12. 13 and 18. on E. Bdy of Tp.
	Land, mountainous and broken 63.34 chs.
	Soil, sandy and rocky 63.34 chs. 4th rate, and sandy loam on bottom 2nd rate
	Timber, heavy cedar and pinon 30.06 chs.
	Undergrowth same with sage and oak 68.98 chs. and dense oak, sage and willow 11.02 chs.
	Mountainous or heavily timbered land or covered with dense undergrowth 80 chs. Aug. 17 1894.
	I now return to the cor. to secs. 11. 12. 13 and 14. and run
	North 0° 01' W. bet. secs. 11 and 12.
	Var. 15° 24' E.
	Descend through timber
4.90	Cliffs about 500 ft. high, course E & W. I send flag to bottom and set one on line on top of cliffs. I measure E. 10 chs. from which point flag pole on cliffs bears S. 24° 03' W. cotang 2.2407×10 [illegible]

Subdivision T. 35 S. R. 4 E. continued.

Chains	
19.80	Foot of cliffs, course E. and N. and enter dense brush.
23.47	Escalante creek 50 lks. wide, course E.
30.80	Foot of cliffs about 300 ft. high, course E. and N. Sent flag to top of cliffs. From which point flag pole at East end of base bears S. 51° 16' E. (Calculated) .802 X 10 = 8.02 + 27.31 = 35.33 chs.
35.20	Top of cliffs, course E. and N. 87° W.
40.00	Set a sandstone 24 X 10 X 3 ins. in a stone pile on rock for 1/4 sec. cor. marked 1/4 on W. face; raised a mound of stones 2½ ft. high, 3½ ft. base alongside. Pits impracticable. Over very rough ground.
52.00	Pmeasure a base 15 chs. N. and set a flag pole also one on the line and send the flag pole to N. side of gulch.
52.50	Cliffs about 100 ft. high, course S. 60° E. and N. 60° W. Flag pole at W. end of base bears S. 28° 24' W. 1.85 X 15 = 27.75 + 52 = 79.75
79.75	North side of gulch, course E. and N.
80.00	Set a sandstone 22 X 8 X 4 ins. in a stone pile for cor. to secs. 1, 2, 11 and 12 marked with 5 notches on S. and 1 notch on E. edge; raised a mound of stones 2½ ft. high and 3½ ft. base alongside. Pits impracticable. Land very rough and mountainous 69 chs. Soil, rocky and worthless on mountains, sandy on bottom 2nd rate. Timber, very scattering 80 chs. Undergrowth dense oak, sage and willow 60.20 chs. Mountainous or covered with dense undergrowth 80 chs. Aug 18. 1894

N. 89° 57' E. on a random line bet. secs. 1 and 12.
Var. 15° 22' E.

40.00	Set temporary 1/4 sec. cor.
80.48	Intersect E. bdy. of T. 41 Lks. North of the cor. to secs. 1, 6, 7 and 12

Thence Prun

N. 89° 45' W. on a true line bet. secs. 1 and 12.
Var. 15° 23' E.

Through scattering [illegible]

Subdivision T. 35 S. R. 4 E. continued.

chains	
20.90	Descend abruptly about 350 ft. and leave timber course N. & S.
26.35	Foot of bench, course S. 20° W. and N. 20° E.
28.60	East Fork of Calf creek 10 lks. wide, course S. 10° W.
29.80	Ascend abruptly about 250 ft.
33.60	Top of point, course N. & S. and descend abruptly about 250 ft.
36.25	Foot of point, course N. W. and S. E.
37.10	West Fork of Calf creek 6 lks. wide, course S. E.
37.85	Ascend abruptly about 300 ft.
39.60	Top of bench, course S. E. and N. W.
40.24	Set a sandstone 22 X 9 X 4 ins. in a stone pile for 1/4 sec. cor. marked 1/4 on N. face; from which A pinon 10 ins. diam. bears S. 27° W. 59 lks. dist. marked 1/4 S. B. T. A pinon 12 ins. diam. bears N. 23° W. 46 lks. dist. marked 1/4 S. B. T.
41.80	Enter heavy timber, course N. and S.
73.20	Leave timber, course N. W. and S. E.
80.48	The cor. to secs. 1. 2. 11 and 12. Land, mountainous and very rough 75.43 chs. Soil, sandy and rocky on mountains 75.43 chs. 4th rate and Sandy loam along creeks 1st rate Undergrowth same, with dense sage, oak and willow in scattering timber. 48.60 chs. Timber, heavy cedar and pinon 32 chs. Mountainous, heavily timbered land or covered with dense undergrowth 80.48 chs. Aug. 18 1894

North 0° 01' W. on a random line bet. secs. 1 and 2.
Va. 15° 30' E.

40.00	Set temporary 1/4 sec. cor.
80.12	Intersect N. bdy. of Tp. 40 lks. East of cor. to secs. 1. 2. 35 and 36.

Thence N.

S. 0° 18' E. on a true line bet. secs. 1 and 2.
Va. 15° 24' E.

21.28	Ravine about 100 ft. deep, course S. E.
31.00	Enter very scattering timber
40.12	Set a sandstone 20 X 10 X 4 ins. in a stone pile on rock

Subdivision T. 35 S. R. 4 E. continued.

chains	20X20X12 ins. N. and S. of stone 5½ ft. dist. and raised a mound of stones and earth 2½ ft. high 3½ ft. base alongside.
48.69	Dry wash 60 lks. wide, course S.E.
71.55	Ravine about 50 ft. deep, course S.E.
77.32	Ravine about 30 ft. deep, course E.
80.12	The cor. to secs. 1. 2. 11 and 12.
	Land, mountainous 80.12 chs.
	Soil, sandy and rocky 4th rate.
	Timber, scattering cedar and pinon 80.12 chs.
	Undergrowth same with dense oak and sage 80.12 chs.
	Mountainous land and covered with dense undergrowth 80.12 chs. Aug 19 1894.
	I now return to the cor. to secs. 10. 11. 14 and 15. and run
	North 0° 01' W. bet. secs. 10 and 11.
	Va. 15° 30' E.
	Descend abruptly about 300 ft.
6.10	Perpendicular cliffs about 200 ft. high, course E. & W.
6.10	I measure a base 6 chs. E. from the line and set flag pole, also one on line and send flag flagman below. and set flag on line in bottom. From which point flag pole at east end of base bears S. 20° 40' E. cotang. 2.65 X 6 = 15.90 + 6.10 = 22 chs. I measure back to cliffs.
15.00	Foot of cliffs, course E. and W.
18.27	Escalante creek. 42 lks. wide, course E.
19.83	Wm. Osborne's fence, course E and W.
19.92	Ditch 5 lks. wide, course E.
25.56	Wm. Osborne's house bears E. 8.68 chs.
37.30	Dry wash 36 lks. wide, course S.E.
39.35	Foot of cliffs, course N.W. and E.
40.00	A point about 40 ft. above foot of cliffs Set a sandstone 22X8X5 ins. in a stone stone pile on shelf of cliff, for 1/4 sec. cor. marked 1/4 on W. face; cut a cross on ledge of rock in place and 1/4 S. BO above cross, cross bears N. 20° E. 18 lks. dist.
54.58	Top of cliffs about 500 ft. above creek. course N.W. and S.E. and enter scattering timber in a stone pile on rocks.
80.00	Set a sandstone [illegible]

Subdivision T. 35 S. R. 4 E. continued.

chains 2. 3. 10 and 11 marked with 5 notches on S. and 2 notches on E. edges; from which
A cedar 5 ins. diam. bears
S. 32° E. 280 lks. dist. marked T. 35 S. R. 4 E. S. 11. B. S.
no more trees within the limits. Raised a mound of stones 2½ ft. high; 3½ ft. base alongside. Pits impracticable.
Land, mountainous 55.65 chs.
Soil, rocky and sandy on mountain, and sandy loam on bottom 4th and 2" rate.
Timber, scattering cedar and pinon
Undergrowth sage and oak 80 chs.
Mountainous land 55.65 chs.

N. 89° 57' E. on a random line bet. secs. 2 and 11.
Va. 15° 30' E.
40.00 Set temporary 1/4 sec. cor.
80.39 Intersect N. and S. line 48 lks. South of cor. to secs. 1. 2. 11. and 12.
Thence Prun
S. 89° 36' W. on a true line bet. secs 2 and 11.
Va. 15° 25' E.
Through dense brush.
21.00 Dry wash 33 lks. wide, course S.
24.20 Ascend abruptly about 50 ft.
28.00 Top of plateau course N. and S.
40.19½ Set a sandstone 23×8×4 ins. in a stone pile for 1/4 sec. cor. marked 1/4 on N. face; and raised a mound of stones 2½ ft. high, 3½ ft. base alongside. Pits impracticable.
47.00 Dry wash 22 lks. wide, course S.E.
67.43 Dry wash 63 lks. wide, course S.
73.62 Ravine about 40 ft. deep, course S.E.
80.39 The cor. to secs. 2. 3. 10 and 11.
Land, rough and mountainous 6.80 chs
Soil, sandy and rocky 2nd and 4th rate.
Timber, very scattering
Undergrowth, dense oak sage & rabbit 80.39 chs.
Mountainous land or covered with dense brush 80.39 chs. Aug. 20 1894.

[illegible]

Subdivision T. 35 S. R. 4 E. continued.

chains	
	mountains and non agricultural character of land.
	I now return to the corner to secs. 11. 12. 13 and 14 and run
	S. 0° 01' E. bet. secs. 13 and 14.
	Var. 15° 30' E.
	Ascend abruptly about 20 ft. through heavy timber.
10.00	Top of ridge, course E. and W. and descend about 5 ft.
28.50	Dry wash 20 lks. wide, course N. 15 W. and ascend abruptly about 100 ft.
32.30	Ravine about 20 ft. deep, course N. W.
40.00	Set a sandstone 24 X 12 X 6 ins. in a stone pile on rocky place for 1/4 sec. cor. marked 1/4 on W. face; from which
	A cedar 10 ins. diam. bears
	S. 10 W. 20 lks. dist. marked 1/4 S. B. T.
	A pinon 8 ins. diam. bears
	S. 37 E. 33 lks. dist. marked 1/4 S. B. T.
	Land, rough and mountainous 40 chs.
	Soil, sandy and rocky 4th natt.
	Timber; heavy cedar and pinon 40 chs.
	Undergrowth same with oak and sage 40 chs.
	Mountainous and heavily timbered land 40 chs.
	Aug. 21 1894.
	I quit at the above corner because of high mountains and the extremely rough and broken character of the land, the lines as run take in all the agricultural land.

General Description

This township is mountainous, and cut with very deep canons, gulches, ravines and washes, of the same general character of the deep canons along Colorado river, and the soil ranges from adobe to rich sandy loam. The soil of the bottom land along Escalante and Calf creeks is a sandy

Subdivision T. 35 S. R. 4 E. concluded.

chains capable of producing good crops of sugar cane corn, the cereals and vegetables and fruits. The land in the S. W. portion of the township is ~~#~~ better than that along the streams. The soil in the mountains dont produce good grass. Cottonwood timber grows along the streams sparingly, The mountains are covered in many places with a dense growth of scrubby cedar and pinon timber.

Limestone which has the appearance of Hydraulic lime is abundant in the S. W. portion of the township.

The mean declination for the plat is 15° 24' E.

The township is poorly watered. There are very few springs in that portion south of Escalante creek and the water is alkaline in all of them. That portion north of Escalante creek has several springs, some run pure and some alkaline water. There is one settler in sec. 11 and one in sec. 13. The general geological character of the rock is sandstone in all but the south west corner, coal has not been found in ~~this~~ township. I have not seen or heard of any valuable minerals or salines.

The adjoining townships N. E. and S. are mountainous and ~~and~~ desert land with the exception of a few secs. in T. 35 S. R. 5 E. along Escalante and Boulder creeks The bottoms along these creeks are very narrow.

William Lewman
U. S. Deputy Surveyor.

List of Names.

A list of the names of the individuals employed by .....
....., U. S. Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of the .....
.....
.....
.....
.....
.....
.....
.....Meridian, in ...., showing the respective capacities in which they acted:
.....
.....
.....
.....
.....
.....
.....
.....

Final Oath of Assistants:

We hereby certify that we assisted .....
....., U. S. Deputy Surveyor, in surveying all those parts or portions of the .....
.....
.....
.....
.....
.....
.....
.....Meridian, ..., as are represented in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the U. S. Surveyor General for .....
.....
.....
.....
.....
.....
.....
.....
.....

Subscribed and sworn to before me this .....
day of ....., 18 .

SEAL

.....

.....

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Final Oath of U. S. Deputy Surveyor.

I, _____, U. S. Deputy Surveyor, d
solemnly swear that, in pursuance of instructions received from _____, U. S
Surveyor General for _____, bearing date of the _____day
_____, 18 , I have well, faithfully, and truly, in my own proper person, and in stri
conformity with the instructions furnished by the U. S. Surveyor General for _____, th
surveying manual, and the laws of the United States, surveyed all those parts or portions of _____
_____
_____
_____
_____
_____Meridian, in the_____, as are represented in the for
going field notes as having been surveyed by me, and under my directions; and I do further solemnly swear that
the corners of said survey have been established and perpetuated in strict accordance with the surveying manu
printed instructions, the special written instructions of the U. S. Surveyor General for_____
and in the specific manner described in the field notes, and that the foregoing are the true field notes of such surve
and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congr
approved August 8, 1846.

_____
U. S. Deputy Surveyor.

Subscribed and sworn to before me this _____
day of _____, 18 .

SEAL

_____

_____

Approval.

Office of the U. S. Surveyor General,
Salt Lake City, Utah, 1896

The foregoing field notes of the survey of the Subdivisions of
Township 35 South, Range 4 East of the
Salt Lake Base & Meridian, Utah
_____
_____
_____
_____
_____
_____executed
William Newman
under his Contract No. 191, dated March 2d, 1893, having been critical
examined, the necessary corrections and explanations made, the said field notes, and the surveys they describe,
hereby approved.

George W. Sumner
U. S. Surveyor General.

I certify that the foregoing transcript of the field notes of the above-described surveys in _____
_____, has been correctly copied from the original notes on file in this office.

_____
U. S. Surveyor General.

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(4—679.)

W.T.O. REL.G. 43

K.T.B.

BOOK A-238

FIELD NOTES

OF THE SURVEY OF

the North boundary T. 35 S. R. 4 E.

Of the Salt Lake Base and Meridian,

Territory of Utah

AS SURVEYED BY

William Lewinan, U. S. Deputy Surveyor,

under his Contract No. 191, dated March 2nd 1893.

Survey commenced July 10th, 1894.

Survey completed July 18th, 1894.

(12503—2,000.)

Township (high) 5-00-00 ✓
(low) 79-94 ✓

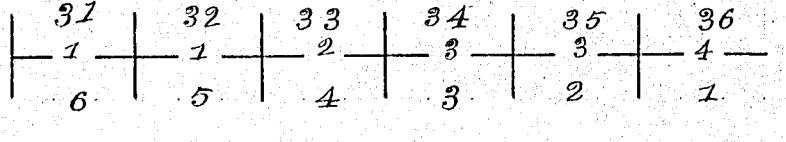
Names and Duties of Assistants.

Peter Barker — Chainman

Orris Wilcox — Chainman

David Woolsey — Axeman

Jacob Hamaker — Flagman



T. 35 S. R. 4 E.

Grand River Meridian East

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7th Standard Parallel South

BOOK A-238

INDEX DIAGRAM.

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30	29	28	27	26	25
31	32	33	34	35	36

Meanders Page .....

Preliminary Oaths of Assistants.

We, _____

_____

_____

do solemnly swear that we will well and faithfully execute the duties of chain carriers; that we will level the cha over even and uneven ground, and plumb the tally-pins either by sticking or dropping the same; that we will repo the true distance to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of o skill and ability, and in accordance with instructions given us in the survey of the _____

_____

_____

_____

_____

_____, *Chainman.*

_____, *Chainman.*

_____, *Chainman.*

_____, *Chainman.*

Subscribed and sworn to before me this _____ day of _____, 18 .

_____

_____

We, _____

_____

do solemnly swear that we will well and truly perform the duties of axemen in the establishment of corners and oth duties, according to instructions given us, and to the best of our skill and ability, in the survey of the _____

_____

_____

_____

_____

Subscribed and sworn to before me this _____ day of _____, 18 .

_____, *Axeman.*

_____, *Axeman.*

_____

_____

_____

North boundary T. 35 S. R. 4 E.

chains	July 10-1894. From the cor. to Tps. 34 and 35 S. Rs. 4 and 5 E. as hereinbefore described.
	I run west between said Tps. on a random line.
	Var. 15°25' E.
	I set temporary half mile and mile corners at each 40 and 80 chains, and find the line to be 5 miles 79 chains and 94 links long. and the falling 2 lks. N. of the cor. to Tps. 34 and 35 S. Rs. 3 and 4 E. The correction for the true line will be 1/3 of link per mile and its course E. ~~My rule to get the return course for 6 miles Example, Falling 2 lks. N. 2:2 1:7 1/7~~
	East on a true line bet. secs. 6 and 31.
	Va. 15°30' E.
20.84	Witness cor. and ascend gradual bout 50 ft.
39.94	Set a sandstone 24X12X5 ins. 18 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face; from which
	A pinon 10 ins. diam. bears
	N. 48° W. 16½ lks. dist. marked 1/4 S. B. T.
	A cedar 14 ins. diam. bears
	S. 38° E. 35 lks. dist. marked 1/4 S. B. T.
74.70	Top of ridge, course N. and S. Descend through timber & brush
79.94	Set a sandstone 22X8X3 ins. in a stone pile on rock for cor. to secs. 5. 6. 31 and 32, marked with 1 notch on W. and 5 notches on E. edges; from which
	A pine 14 ins. diam. bears
	N. 62° E. 67 lks. dist. marked T. 34 S. R. 4 E. S. 32. B. T.
	A pine 12 ins. diam. bears
	S. 27° E. 23 lks. dist. marked T. 35 S. R. 4 E. S. 5. B. T.
	No more trees within the limits. Raised a mound of stones 3 ft. high, 3½ ft. base alongside Pits impracticable
	Land, sloping to the west and rough 74.70 chs. level 5.24 chs.
	Soil, sandy and rocky 4th rate.
	Timber, cedar, pine and pinon 5.24 chs. Undergrowth same with sage 59 chs. July 15 1894.
	East on a true line bet. secs. 5 and 32.
	Va. 15°27' E.
	Ascend about 150 ft. through timber.
5.00	Top of ridge, course N. and S. and descend abruptly about 300 ft.
7.80	Dry wash 32 lks. wide [illegible]

North boundary T. 35 S. R. 4 E. continued.

chains	
	about 150 ft.
40.00	Set a sandstone 30×12×3 ins. 24 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face; from which
	A pinon 10 ins. diam. bears
	N. 5° W. 103 lks. dist. marked 1/4 S. B. T.
	A pinon 10 ins. diam. bears
	S. 40° E. 91 lks. dist. marked 1/4 S. B. T.
54.40	Top of ridge, course N. and S.
76.79	Descend abruptly about 100 ft.
79.00	Foot of ridge, course N. and S.
80.00	Set a sandstone 24×7×3 ins. 18 ins. in the ground for cor. to secs. 4. 5. 32 and 33, marked with 2 notches on W. and 4 notches on E. edges; from which
	A pinon 5 ins. diam. bears
	N. 29° E. 21 lks. dist. marked T. 34 S. R. 4 E. S. 33. B. T.
	A pinon 8 ins. diam. bears
	N. 9° W. 22½ lks. dist. marked T. 34 S. R. 4 E. S. 32. B. T.
	A pinon 10 ins. diam. bears
	S. 60° E. 56 lks. dist. marked T. 35 S. R. 4 E. S. 4. B. T.
	A cedar, 5 ins. diam. bears
	S. 34° W. 22 lks. dist. marked T. 35 S. R. 4 E. S. 5. B. T.
	Land, rough and mountainous 80 chs
	Soil, sandy and rocky 4th rate.
	Timber, cedar pinon and pine 80 chs; undergrowth same with sage and rabbit brush 80 chs. July 15 1894.

East on a true line bet. secs. 4 and 33.

Var. 15° 30' E.

	Descend abruptly about 600 ft. through dense brush and timber.
40.00	Set a sandstone 20×10×5 ins. in a stone pile on rock, for 1/4 sec. cor. marked 1/4 on N. face; raised a mound of stones 3 ft. high, 3½ ft. base alongside, Pits impracticable.
70.10	Bottom, course N. and S.
75.53	Bowington creek 25 lks. wide, course S: runs about 1000 ins. pure water
77.20	Foot of mountain, course N. and S. and ascend about 600 ft.
80.00	A point about 300 ft. above bottom.
	Set a sandstone 24×14×4 ins. in a stone pile on rock for cor. to secs. 3. 4. 33 and 34 marked with 3 notches on W. and E. edges; Raised a mound of stones 3 ft. high, 4 ft. base alongside Pits impracticable.
	Land, rough and mountainous 80 chs.
	[illegible]

North boundary T. 35 S. R. 46 E. continued.

chains	
	loam on bottom 2nd rate
	Timber, scattering cedar, pinon and pine 80 chs.
	Undergrowth same with dense oak, sage, and willow (chs) 80
	Mountainous land covered with dense underg- July 16 1894
	-rowth 80 chs.

East on a true line between secs. 3 and 34,

Var. 15° 23' E.

	Ascend abruptly through dense brush and timber,
8.60	Top of mountain, course N. and S. and enter heavy timber.
33.80	Head of ravine; course S.
40.00	Set a sandstone 24 X 14 X 4 ins. 18 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face; from which A pinon 12 ins. diam. bears N. 8° E. 35 lks. dist. marked 1/4 S. B. T. A cedar 20 ins. diam. bears S. 45° W. 10 lks. dist. marked 1/4 S. B. T.
42.70	Descend abruptly about 150 ft.
55.56	Dry wash 40 lks. wide, course S. 20° W.
71.68	Ravine about 40 ft. deep, course N. 30° W.
80.00	Set a sandstone 22 X 7 X 2 ins. 16 ins. in the ground for cor. to secs. 2, 3, 34 and 35 marked with 4 notches on W. and 2 notches on E. edges; from which A pine 5 ins. diam. bears S. 22° E. 56 lks. dist. marked T. 35 S. R. 4 E. S. 2. B. T. A cedar 12 ins. diam. bears N. 44° E. 66 lks. dist. marked T. 34 S. R. 4 E. S. 35. B. T. A cedar 6 ins. diam. bears N. 71° W. 71½ lks. dist. marked T. 34 S. R. 4 E. S. 34. B. T. A cedar 13 ins. diam. bears S. 29° W. 138 lks. dist. marked T. 35 S. R. 46 E. S. 3. B. T.
	Land, rough and mountainous 80 chs.
	Soil, sandy and rocky 4th rate.
	Timber, heavy cedar, pinon and pine 71.40 chs.
	Undergrowth, same with dense oak. 80 chs. July 16 1894.
	Mountainous land heavily timbered and covered with dense undergrowth 80 chs.

East on a true line bet. secs. 2 and 35,

Var. 15° 30' E.

	Ascend abruptly about 200 ft. through heavy timber and brush
27.00	Top of ridge, course E. and W. and descend gradually about 100 ft.
40.00	Set a sandstone 24 X 6 X 3 ins. 18 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face; from which

North boundary T. 35 S. R. 4 E. continued.

chains A pinon 16 ins. diam. bears
S. 34° W. 209 lks. dist. marked 1/4 S. B. T.
A pinon 8 ins. diam. bears
N. 64° E. 259 lks. dist. marked 1/4 S. B. T.
56.80 Ravine about 35 ft. deep, course S. 60° E.
62.00 Ravine about 40 ft. deep, course S. E.
75.00 Ravine about 40 ft. deep, course S.
80.00 Set a sandstone 30×10×5 ins. 24 ins. in the ground for cor. to secs. 1-2. 35 and 36 marked with 5 notches on W. and 1 notch on E. edges; from which
A cedar 24 ins. diam. bears
N. 87° E. 64 lks. dist. marked T. 34 S. R. 4 E. S. 36. B. T.
A cedar 10 ins. diam. bears
N. 34° W. 194 lks. dist. marked T. 34 S. R. 4 E. S. 35. B. T.
A pinon 13 ins. diam. bears
S. 79° W. 214 lks. dist. marked T. 35 S. R. 4 E. S. 2. B. T.
A cedar 20 ins. diam. bears
S. 74° E. 63 lks. dist. marked T. 35 S. R. 4 E. S. 1. B. T.
Land, rough and hilly 80 chs.
Soil, sandy and rocky 4th rate.
Timber, heavy cedar and pinon 80 chs.
Undergrowth same with dense oak and sage 80 chs.
Heavily timbered land or covered with dense undergrowth 80 chs.

July 17 1894.

East on a true line bet. secs. 1 and 36.
Va. 15° 30' E.
Descend about 50 ft. in timber, heavy
4.60 Gulch about 50 ft. deep and 374 lks. wide, course S.
8.34 Leave heavy timber and enter scattering timber, course N. 8 and ascend about 200 ft.
28.90 Top of ridge, course N. and S. and descend abruptly about 600 ft.
40.00 Cor. falls in a very rocky place.
Set a sandstone 20×10×4 ins. in a stone pile on rock for 1/4 sec. cor. marked 1/4 on N. face. Raised a mound of stones 3 ft. high, 3½ ft. base alongside. Pits impracticable.
46.80 Enter dense oak, and sage brush and leave timber.
47.25 Foot of mountain, course N. and S.
49.10 Calf creek canon, course S. about 300 ft. deep.
58.70 Enter bottom course N. and S.
61.47 Calf creek 16 lks. wide, course S.
62.00 Measure base 10 chs. [illegible]

North boundary T. 35 S. R. 4 E.

chains	Set flag pole at s. end of base, also on the line at N. end of base and one on line on top of cliffs; from which flag at s. end of base bears S. 49° 19' W. Subtract from 90°00' = 40°41'. cotang. 1.163 × 10 = 11.63 + 62.00 = 73.63
65.60	Leave bottom and ascend abruptly about 150 ft.
73.63	Top of cliffs, course N. and S. enter heavy timber and ascend abruptly about 150 ft.
80.00	The cor. to Tps. 34 and 35 S. Rs. 4 and 5 E.

Land, rough, rocky and mountainous 73.10 chs.
Bottom 6.90 chs.
Soil, sandy, rocky, and sandy loam 4th and 1st rate.
Timber, heavy cedar and pinon 14.71 chs. scattering 65.29 chs. Brush dense sage oak and willow 33.20 chs.
Mountainous land or heavily timbered or covered with dense undergrowth 80 chs.

July 18. 1894

General Description.

The northern portion of this township is mountainous and broken, cut with deep canons, gulches and ravines. and ~~and~~ in many places densely timbered Most of the water north of E scalante creek is pure

William Lewman.
U. S. Deputy Surveyor.

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PAGE

List of Names.

A list of the names of the individuals employed by _____, U. S. Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of the _____

_____ Meridian, in _____, showing the respective capacities in which they acted:

_____

Final Oath of Assistants:

We hereby certify that we assisted _____, U. S. Deputy Surveyor, in surveying all those parts or portions of the _____

_____ Meridian, _____, as are represented in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the U. S. Surveyor General for _____

_____

Subscribed and sworn to before me this _____ day of _____, 18 .

SEAL

_____

_____

6—151

440-441 Blank

Final Oath of U. S. Deputy Surveyor.

I, ..., U. S. Deputy Surveyor, d
solemnly swear that, in pursuance of instructions received from ....., U. S
Surveyor General for ....., bearing date of the ..... day o
....., 18 , I have well, faithfully, and truly, in my own proper person, and in stric
conformity with the instructions furnished by the U. S. Surveyor General for ....., th
surveying manual, and the laws of the United States, surveyed all those parts or portions of .....

.....Meridian, in the ....., as are represented in the fore
going field notes as having been surveyed by me, and under my directions; and I do further solemnly swear that a
the corners of said survey have been established and perpetuated in strict accordance with the surveying manua
printed instructions, the special written instructions of the U. S. Surveyor General for .....
and in the specific manner described in the field notes, and that the foregoing are the true field notes of such survey
and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congres
approved August 8, 1846.

.....
U. S. Deputy Surveyor.

Subscribed and sworn to before me this .....
day of ....., 18 .

SEAL

.....

.....

Approval.

Office of the U. S. Surveyor General,

Salt Lake City Utah Nov 4, 1896

The foregoing field notes of the survey of The North Boundary of Township 35 South Range 4 East of the Salt Lake Base & Meridian, Utah

.....

.....

.....

.....

..... executed b
William Lewman
under his Contract No. 191, dated March 2, 1893 having been criticall
examined, the necessary corrections and explanations made, the said field notes, and the surveys they describe, a
hereby approved.

George W Snow
U. S. Surveyor General.

I certify that the foregoing transcript of the field notes of the above-described surveys in .....
....., has been correctly copied from the original notes on file in this office.

.....
U. S. Surveyor General.

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(4—679.)

R. ECC. 445

BOOK A-238

FIELD NOTES

K. J. B.

OF THE SURVEY OF

Subdivision T. 35 S. R. 1 E.

Of the Salt Lake Base and Meridian,

Territory of Utah

AS SURVEYED BY

William Lewman, U. S. Deputy Surveyor,

under his Contract No. 197, dated March 2nd 1893.

Survey commenced July 20th, 1894.

Survey completed September 30th, 1894.

(12503—2,000.)

Sect. (high) M. Cho. Ur. 14-29-25

" (low) 52.84

Names and Duties of Assistants.

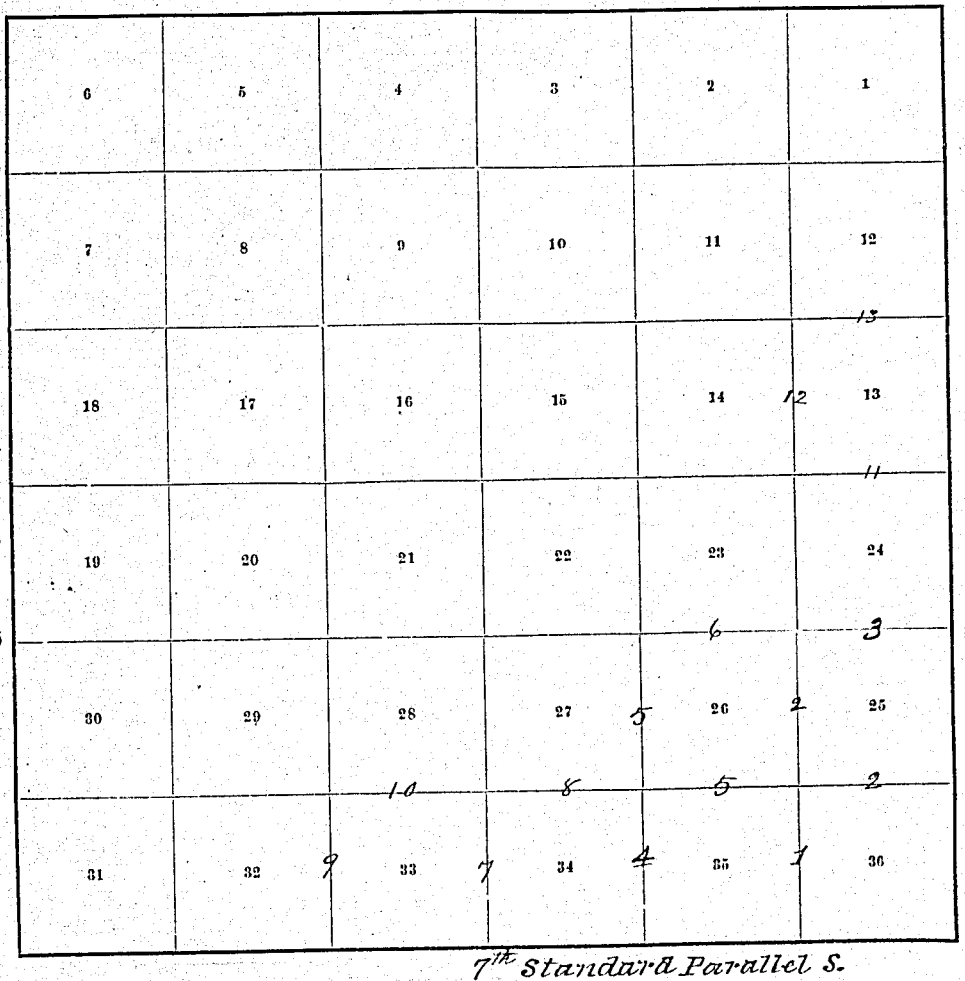
Peter Barker	Chairman
Orris Wilcox	Chairman
David Woolsey	Axeman
Jacob Hamaker	Flagman.

BOOK A-238

INDEX DIAGRAM.

Township 35 S., Range 1 E.

Salt Lake P. M.



7th Standard Parallel S.

Meanders Page.....

Preliminary Oaths of Assistants.

We, _____

_____

_____

do solemnly swear that we will well and faithfully execute the duties of chain carriers; that we will level the ch
over even and uneven ground, and plumb the tally-pins either by sticking or dropping the same; that we will rep
the true distance to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of
skill and ability, and in accordance with instructions given us in the survey of the _____

_____

_____

_____

_____

_____, *Chainman*

_____, *Chainman*

_____, *Chainman*

_____, *Chainman*

Subscribed and sworn to before me this _____
day of _____, 18 .

_____

_____

We, _____

_____

do solemnly swear that we will well and truly perform the duties of axemen in the establishment of corners and oth
duties, according to instructions given us, and to the best of our skill and ability, in the survey of the _____

_____

_____

_____

_____

Subscribed and sworn to before me this _____
day of _____, 18 .

_____, *Axeman*

_____, *Axeman*

_____

_____

_____

Subdivision T. 35 S. R. 1 E.

chains	
	July 20th 1894. On the true meridian established in Escalante April 9th also by two or three previous obs.
	On the night of April 9th, at h 8 m 48 P. M.
	Time argument Table 2 8 41
	Azimuth Polaris Lat. 37° 45' 1° 11' west
	North end of needle 16° 35' east
	The difference is the va. 15° 24' east
	Tested the adjustments of my transit on above meridian July 20th at 7 A. M. and found them correct.
	From the standard cor. to secs. 35 and 36 Tp. 35 S. R. 1 E. as hereinbefore described. Run North 0° 01' W. bet. secs. 35 and 36.
	Va. 15° 22' E.
	Ascend abruptly through heavy timber and brush
28.80	Head of gulch, course N. E.
40.00	Set a sandstone 23 X 7 X 7 ins. in a stone pile on solid rock for 1/4 sec. cor. marked 1/4 on W. face; from which
	A pinon 8 ins. diam. bears
	N. 86° W. 11 lks. dist. marked 1/4 S. B. T.
	A pinon 12 ins. diam. bears
	S. 85° E. 8 lks. dist. marked 1/4 S. B. T.
42.50	Enter scattering timber, course E. and W.
80.00	Set a sandstone 24 X 20 X 12 ins. in a stone pile among rocks for cor. to secs. 25. 26. 35 and 36. marked with 1 notch on S. and E. edges, from which
	A pinon 10 ins. diam. bears
	S. 14° W. 9 lks. dist. marked T. 35 S. R. 1 E. S. 35. B. T.
	A pinon 12 ins. diam. bears
	N. 84° W. 73 lks. dist. marked T. 35 S. R. 1 E. Sec. 26. B. T.
	A pinon 20 ins. diam. bears
	N. 68° E. 112 lks. dist. marked T. 35 S. R. 1 E. S. 25. B. T.
	A pinon 10 ins. diam. bears
	S. 32° E. 63 lks. dist. marked T. 35 S. R. 1 E. S. 36. B. T.
	Land slopes to the South 80 chs.
	Soil, sandy and gravel 3rd rate.
	Timber, heavy cedar and pinon 42.50 chs. scattering 37.50 chs. Undergrowth same 42.50 chs. and

Subdivision S. 35 S. R. 1 E. continued.

chains	Heavily timbered or covered with dense undergrowth. 80 chs. July 20 1894.
	East on a random line bet. Secs. 25 and 36. Var. 15° 30' E.
40.00	Set temporary 1/4 sec. cor.
80.13	Intersect E. bdy. of Sp. at the cor. to secs. 25. 30. 31 & 36. Thence S. run W. on a true line bet. Secs. 25 and 36. Var. 15° 25' E.
	Ascend through very heavy timber and brush.
6.50	Top of Plateau, course N. and S.
35.10	Dry wash 24 lks. wide, course S. E.
40.06½	Set a sandstone 22 X 11 X 4 ins. 16 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face; from which A pinon 8 ins. diam. bears S. 10° E. 19 lks. dist. marked 1/4 S. B. T. A pinon 14 ins. diam. bears N. 15 E. 25 lks. dist. marked 1/4 S. B. T.
78.10	Descend about 10 ft.
80.13	The cor. to secs. 25. 26. 35 and 36. Land, rough and rolling 6.50 chs. Soil, sandy loam 2nd rate. Timber, heavy cedar and pinon 80 13/100 chs. Undergrowth same with oak and sage 80 13/100 chs. Land, heavily timbered 80.13 chs.
	North 0° 01' W. bet. Secs. 25 and 26. Var. 15° 21' E.
	Descend through heavy timber and brush.
16.67	Perpendicular cliffs about 400 ft. high, course N. E. and S. 22° W. Set a flag on the bottom in alignment and a high pole on the line at this point; from flag pole on bottom I measure a base 10 chs. E. from which point the flag pole on top of cliffs bears S. 20° 17' W. Log tang. 2.70 57 X 10 = 27.06 + 16.67 = 43.73 chains. I measure back to cliffs.
17.32	Foot of cliffs
22.84	Leave timber and enter bottom course N. E. & S. W.
35.46	Wm. Cottam's fence, course N. E. and S. W.
40.00	Set a sandstone 22 X 12 X 4 ins. 16 ins. in the ground

Subdivision T. 35 S. R. 1 E. continued.

chains	
	ground for 1/4 sec. cor. marked 1/4 on W. face; dug pits 18×18×12 ins. N. and S. of stone 5½ ft. dist. and raised a mound of earth and stones 2 ft. high, 3½ ft. base alongside.
41.10	Escalante Creek 5 lks. wide Course E
42.22	Road, course E. and W.
42.22	Wm Cottom's house bears S. 58° W. 6.31 chs. dist.
45.50	Enter timber and ascend about 50 ft. course E & W.
48.80	Perpendicular cliffs, about 6.50 ft. high, course N. 58° E. and S. 58° W.
50.20	Top of cliffs, course N. 62° E. and S. 60° W. and enter heavy timber.
80.00	Set a sandstone 18×10×6 ins. in a stone pile for cor. to secs. 23. 24. 25 and 26 marked with 2 notches on S. and 1 notch on E. edges; from which
	A fir 10 ins. diam. bears
	N. 3° E. 14 lks. dist. marked T. 35 S. R. 1 E. S. 24. B. T.
	A fir 10 ins. diam. bears
	N. 80° W. 7 lks. dist. marked T. 35 S. R. 1 E. S. 23. B. T.
	A fir 6 ins. diam. bears
	S. 32° W. 40 lks. dist. marked T. 35 S. R. 1 E. S. 26. B. T.
	No other tree within the limits; Raised a mound of stones 2 ft. high, 3 ft. base alongside.
	Land, mountainous 57.34 chs.
	Soil, gravel, sandy and clay loam 4th and 2" rate.
	Timber, heavy cedar, pinon, pine and fir 52.64 chs.
	Scattering 4.70 chs. Undergrowth same 57.34 chs.
	Dense oak, sage and willow 22.66 chs.
	Mountainous land or covered with dense undergrowth or heavily timbered 80 chs. July 23. 1894

East on a random line bet. secs. 24 and 25.

Va. 15° 30' E.

40.00	Set temporary 1/4 sec. cor.
80.33	Intersect E. bdy. of Tp. 18 lks. N. of cor. to secs. 19. 24. 25 and 30.

Thence I run

N. 89° 52' W. on a true line bet. secs. 24 and 25.

Va. 15° 22' E.

	Ascend abruptly through heavy timber & dense brush 50 ft.
16.80	Top of point, course N. and S. and descend about 50 ft.
40.16½	Set a sandstone 24×10×5 ins. in a stone pile on [illegible]

Subdivision T. 35 S. R. 1 E. continued.

chains	
	which
	A pinon 8 ins. diam. bears
	N. 4 lks. dist. marked 1/4 S. B. T.
	A pinon 6 ins. diam. bears
	S. 21° W. 7 lks. dist. marked 1/4 S. B. T.
50.00	Head of gulch, course N. E.
63.55	Ravine about 50 ft. deep course N. E.
80.33	The cor. to secs. 23. 24. 25 and 26.
	Land, rough and mountainous 80.33 chs.
	Soil, gravel and sandy 4th rate
	Timber, heavy cedar, pinon, pine & fir 80.33 chs.
	Undergrowth same with oak 80.33 chs.
	Mountainous land and heavily timbered 80.33 chs.
	July 23 1894.

I did not run North of above cor. because of high mountains.

From Standard cor. to secs. 34 and 35 on S. Bdy of Tp. as hereinbefore described. I run North 0° 01' W. bet. secs. 34 and 35.

Var. 15° 30' E.

	Ascend gradually through heavy timber and brush.
23.80	Descend abruptly about 600 ft.
40.00	Set a sandstone 24 X 8 X 7 ins. in a stone pile on rocky place for 1/4 sec. cor. marked 1/4 on W. face; from which
	A pinon 18 ins. diam. bears
	S. 40° E. 21 lks. dist. marked 1/4 S. B. T.
	A pinon 12 ins. diam. bears
	N. 48° W. 18 lks. dist. marked 1/4 S. B. T.
47.08	Leave heavy timber, course N. E. and W.
51.40	Dry wash 5 lks. wide, course N. E.
56.10	Foot of mountain, course N. W. and S. E. enter dense brush.
77.90	Escalante creek 16 lks. wide, course E.
80.00	Set a sandstone 28 X 6 X 5 ins. 22 ins. in the ground for cor. to secs. 26. 27. 34 and 35, marked with 1 notch on S. and 2 notches on E. edge; dug pit 20 X 24 X 15 ins. in each Sec. 5 lks. dist. and raised a mound of earth 3 ft. high, 3½ ft. base alongside.
	Land, rough and mountainous 56.10 chs.
	Soil, gravel, rocky and sandy loam 4th and 2nd rate.
	Timber heavy cedar, pinon 47.08 chs.

Subdivision S. 35 T. R. 1 E. continued.

chains

Undergrowth same 47.08 chs. dense oak, sage and willow 32.92 chs.
Mountainous land heavily timbered 47.08 chs.
July 25 1894.

E. on a random line bet. secs. 26 and 35.
Var. 15° 23' E.

40.00 Set temporary 1/4 sec. cor.
80.24 Intersect N. and S. line at the cor. to secs. 25. 26. 35 & 36.
Thence S. run
W. on a true line bet. secs. 26 and 35.
Var. 15° 22' E.
1.43 Through heavy timber, and descend very abruptly about 50 ft.
13.68 Foot of mountain and leave timber, course N. and S. W. and enter dense sage and oak brush
40.12 Set a sandstone 30 X 10 X 2½ ins. 24 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face; dug pits 20 X 24 X 15 ins. E. and W. of stone 5½ ft. dist. and raised a mound of earth 3 ft. high, 3½ ft. base alongside.
71.50 Escalante Creek, 83 lks. wide, course N. 75° E.
78.07 Leave creek, bank about 10 ft. high.
80.24 The corner to secs. 26. 27. 34 and 35.
Land very rough and mountainous 13.68 chs.
Soil, sandy and clay loam and grand 1st and 4th mtn.
Timber, heavy cedar and pinon 13.68 chs.
Undergrowth same 13.68 chs. dense sage, rabbit greasewood, oak and willow 66.56 chs.
Mountainous land or heavily timbered or covered with dense undergrowth 80.24 chains. July 26 1894.

North 0° 01' W. bet. secs. 26 and 27
Var. 15° 30' E.
Through dense oak and willow
0.86 Road to Escalante, course N. 80° E. and S. 86 W.
11.00 Enter heavy timber; course E. and W.
13.50 Dry wash 4 lks. wide, course S. 30° E.
18.00 Ascend abruptly about 60 ft. leave dense oak and sage
23.00 Foot of cliffs, about 300 ft. high, course N. 80° E. & S. 81° W.
Measure a base 12 chs. E. from cor. to secs. 26. 27. 34 and 35 and set a flag pole at cor. and another at
E. [illegible]

Subdivision T. 35 S. R. 1 E. continued.

chains	From a point on line on top of cliff, the flag pole at E. end of base bears S. 26° 15' E. Cotang. 2.03 X 12 = 24.36 chs.
24.36	Top of cliffs, course N. 80° E. & S. 80° W. and ascend through heavy timber about 100 ft.
40.00	Set a sandstone 20 X 10 X 6 ins. in a stone pile for 1/4 sec. cor. marked 1/4 on W. face; from which A pinon 10 ins. diam. bears N. 70° W. 6 lks. dist. marked 1/4 S. B. T. A pinon 5 ins. diam. bears S. 73° E. 10 lks. dist. marked 1/4 S. B. T.
41.00	Top of ridge, course E. and west and descend about 400 ft.
58.42	Gulch about 200 ft. deep, course N. E.
62.30	Bottom of gulch, course N. E.
62.43	Dry wash 6 lks. wide, course N. E. and ascend
74.50	N. side of gulch course N. E. and leave timber ascend.
80.00	Set a sandstone 24 X 10 X 5 ins. in a stone pile among rocks, for cor. to secs. 22. 23. 26 and 27 marked with 2 notches on S. and E. edges; Raised a mound of stones 3 ft. high, 3 ft. base alongside, Pits impracticable.
	Land, rough and mountainous 62. chs.
	Soil, rocky gravel and sandy 4th and 2nd rate.
	Timber, heavy cedar and pinon and pine 63.50 chs.
	Undergrowth same with 63.50 chs. dense sage, oak and willow 18 chs.
	Mountainous land or heavily timbered 8000 chs. or covered with dense undergrowth
	July 27 1894.

	E. on a random line bet. secs. 23 and 26. Var. 15° 24' E.
40.00	Set temporary 1/4 sec. cor
80.36	Intersect N. and S. line at the cor. to secs. 23. 24. 25 & 26.
	Thence Run
	W. on a true line bet. secs. 23 and 26. Var. 15° 30' E.
	Through heavy timber and brush.
0.90	Dry wash 6 ft. wide, course N. and ascend abruptly about 50 ft.
5.50	Top of point, course N. E. and S. W. and ascend along N. side of ridge

Subdivision T. 35 S. R. 1 E. continued.

chains	
13.63	Dry wash 61 lks. wide, course N.E. and ascend abruptly about 100 ft.
40.18	Set a sandstone 20x8x5 ins. 15 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face; from which A pinon 4 ins. diam. bears N. 28° E. 15 lks. dist. marked 1/4 S. B. T. A pinon 18 ins. diam. bears S. 29° W. 33 lks. dist. marked 1/4 S. B. T.
42.00	Top of ridge, course N.E. and S.W.
69.20	Gulch about 200 ft. deep, course N. 60° E.
73.58	Bottom of gulch, course North 60° E. leave timber and ascend abruptly about 300 ft.
80.36	The cor. to secs. 22, 23, 26 and 27. Land, rough and mountainous 80.36 chs. Soil, rocky gravel 4th rate Timber, heavy cedar, pinon and pine 73.58 chs. Undergrowth same, 80.36 chs. Mountainous land or heavily timbered 80.36 chs. July 28 1894.

I quit at this cor. on account of high mountains and numerous very deep canons The ground is of no account for anything.

From the standard cor. to secs. 33 and 34 on S. Bdy. of Tp. hereinbefore described I run North 0° 02' W. bet. secs 33 and 34.

Va. 15° 23' E.

0.90	Escalante road, course N.E. & S.W.
1.13	Philo Allen's fence, course S. 82° W. and N. 12° E.
14.80	Foot of point, and enter timber, course E and W. and ascend about 40 ft.
20.00	Philo Allen's house bears S. 62° 30' E.
32.50	Top of ridge, course, E and W. and leave timber Philo Allen's house bears S. 16° E. descend abruptly about 50 ft.
33.20	Foot of ridge, course S.E. and N. 60° W.
39.78	Philo Allen's fence, course S. 70° E. and N. 70° W.
40.00	Set a sandstone 20x8x4 ins. 15 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face; dug pits 20x20 x15 ins. N. and S. of stone 5½ ft. dist. and raised a

Subdivision S. 35 S. R. 1 E. continued.

chains	mound of stones and earth 2½ ft. high, 3½ ft. base alongside.
40.70	Spring run 4 lks. wide, course N.E. water alkaline.
43.80	Enter heavy timber and ascend abruptly about 250 ft. along E. side of ridge
80.00	Set a sandstone 26 X 12 X 12 ins., in a stone pile on rocky place for cor. to secs. 27-28-33 and 34 marked with 1 notch on S. and 3 notches on E. edges; from which A cedar 14 ins. diam. bears S. 13° W. 60 lks. dist. marked S. 35 S. R. 1 E. S. 33. B. T. A cedar 13 ins. diam. bears N. 60° W. 6 lks. dist. marked S. 35 S. R. 1 E. S. 28. B. T. No more trees within the limits. raised a mound of stones 2½ ft. high, 4 ft. base alongside, Pits impracticable. Land, rough and mountainous 54.60 chs. Soil, rocky gravel and sandy loam 4th and 2nd rate. Timber, heavy cedar 8. pinion 326.0 chs. Undergrowth same with sage and oak 539.0 chs. and dense sage, oak and willow 2.60 chs. Mountainous land or heavily timbered or covered with dense undergrowth 80. chs. July 28 1894.

East on a random line bet. secs. 27 and 34.
Va. 15° 28' E.

40.00	Set temporary ¼ sec. cor.
80.23	Intersect N. and S. line 10 lks. N. of the cor. to secs. 26. 27. 34 and 35.
	Thence S. run N. 89° 56' W. on a true line bet. secs. 27 and 34.
	Va. 15° 22' E.
	Through dense sage brush
5.44	Escalante road, course S. 80° W. and N. 80° E.
25.50	Leave bottom and ascend mountain about 250 ft.
36.50	Top of bench, course S.W. and N.E. and ascend about 150 ft.
40.11½	Set a sandstone 24 X 10 X 5 ins., in a stone in rocky place for ¼ sec. cor., marked ¼ on N. face; raised a mound of stones 3 ft. high, 3½ ft. base alongside. Pit impracticable.
49.50	Enter heavy timber, course N.E. & S.W.
50.20	Ravine about 50 ft. deep, course S.E.
61.80	Top of spur, course N.E. and S.W. and ascend about 200 ft.
74.50	Dry wash 20 lks. wide, course S.W. and ascend [illegible]

Subdivision T. 35 S. R. 1 E. continued.

chains	
80.23	The cor. to secs. 27, 28, 33 and 34. Land, mountainous 54.73 chs. Soil, rocky gravel and sandy 4th and 2nd rate. Timber, heavy cedar and pinon 30.73 chs. Undergrowth same 30.73 chs. with dense sage, oak and rabbit brush 49.50 chs. Mountainous or heavily timbered land or land covered with dense undergrowth 80.23 chs. July 29 1894.
	I do not run any further north from above cor on account of high mountains and the useless character of the land.
	From the Standard cor. to secs. 32 and 33, on S. Bdy. of Tp. hereinbefore described, I run North 0° 03' W. Dist. secs. 32 and 33. Var. 15° 30' E.
	Ascend abruptly about 200 ft. through heavy timber & brush
11.50	Top of ridge, course E and west.
15.80	Descend abruptly about 200 ft.
33.80	Foot of ridge and leave timber and enter dense sage brush course E and W.
40.00	Set a sandstone 24 X 11 X 5 ins. 18 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face; dug pits 20 X 24 X 15 ins. N and S. of stone 5 1/2 ft. dist. and raised a mound of earth 3 ft. high, 3 1/2 ft. base alongside.
43.50	Enter heavy timber and ascend abruptly about 150 ft. course E and W.
56.40	Top of ridge, course N. 80° E. & W. and descend abruptly about 150 ft.
61.50	Foot of ridge, course N. 80° E and S. 80° W. and leave timber
80.00	Set a limestone 26 X 8 X 6 ins. 20 ins. in the ground for cor. to secs. 28, 29, 32 and 33, marked with 1 notch on S. and 4 notches on E. edges; from which A cedar 10 ins. diam. bears S. 13° W. 28 lks. dist., marked T. 35 S. R. 1 E. S. 32, B. T. A pinon 13 ins. diam. bears N. 29° W. 48 lks. dist., marked T. 35 S. R. 1 E. S. 29, B. T. No more trees within the limits. Raised a mound

Subdivision T. 35 S. R. 1 E. continued.

chains Pits impracticable.
Land, rough and mountainous 51.80 chs.
Soil, rocky gravel and sandy 4th & 2nd rate.
Timber, heavy cedar and pinon 51.80 chs.
Undergrowth same with dense oak 51.80 chs. and dense sage brush 28.20 chs.
Mountainous and heavily timbered land, 80 chs.
accused with dense undergrowth

E. on a random line bet. secs. 28 and 33.
Var. 15° 25' E.

40.80 Set temporary 1/4 sec. cor.
80.34 Intersect N. and S. line 24 lks. North of the cor. to secs 27. 28. 33 and 34.
Thence Drum
N. 89° 50' W. on a true line bet. secs. 28 and 33.
Var. 15° 21' E.
Ascend abruptly about 150 ft. through heavy timber
6.40 Top of ridge, course N. and S. and descend abruptly about 300 ft.
23.60 Foot of ridge, course N. W. and S. E.
25.40 Ascend about 40 ft.
26.35 Top of ridge, course N. W. and S. E. and descend abruptly about 40 ft.
27.50 Foot of ridge and leave timber. course N. W. & S. E.
40.17 Enter scattering timber, course N. and S.
Set a sandstone 24 x 8 x 5 ins. 18 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face; from which
A cedar 10 ins. diam. bears
N. 13° W. 61 lks. dist. marked 1/4 S. B. T.
A pinon 18 ins. diam. bears
S. 39° E. 58 lks. dist. marked 1/4 S. B. T.
80.34 The cor. to secs. 28. 29. 32 and 33.
Land, rough and mountainous 27.50 chs.
Soil, sandy and clay loam & gravel & rocky 2nd & 4th rate.
Timber heavy cedar pinon and pine 27.50 chs.
Scattering 40.17 chs.
Undergrowth same with oak 27.50. sage 52.84 chs.
Mountainous and heavily timbered land 27.50 chs.
I dont run any further N. on this line on account of high mountains and the worthless character of the land.

July 30 1894

chains

I commence on E. bdy. of township to survey sec. 13. because it will be almost impossible to run a line N. from the cor. to secs. 23. 24. 25 and 26 owing to inaccessible canons. There is nothing in the secs. of an agricultural character and very little in sec. 13. but the people want it surveyed.

From the cor. to secs. 13. 18. 19 and 24 on E. bdy. of Tp. Drum
N. 89° 52' W. on a true line bet. secs. 13 and 24.
Va. 15° 30' E.
Through heavy timber and brush
23.00 Descend abruptly about 500 ft.
38.24 Foot of ridge, course N. 70° E.
38.30 Dry wash 26 lks. wide, course N. 70° E and ascend abruptly about 500 ft.
40.00 A point about 250 ft. above foot of mountain
Set a sandstone 24 X 9 X 6 ins. in a stone pile on rock for 1/4 sec. cor. marked 1/4 on N. face; from which
A cedar 8 ins. diam. bears
N. 10° W. 41 lks. dist. marked 1/4 S. B. T.
A cedar 6 ins. diam. bears
S. 5° E. 10 lks. dist. marked 1/4 S. B. T.
68.55 Top of mountain, course S. 70° W. and N. 70° E.
80.00 Set a sandstone 26 X 12 X 5 ins. 20 ins. in the ground for cor. to secs. 13. 14. 23 and 24 marked with 3 notches on S. and 1 notch on E. edges; from which
A cedar 10 ins. diam. bears
N. 33° W. 53 lks. dist. marked T. 35 S. R. 18 E. S. 14. B. T.
A cedar 9 ins. diam. bears
S. 21° W. 19 lks. dist. marked T. 35 S. R. 18 E. S. 23. B. T.
A pinon 14 ins. diam. bears
N. 78° E. 43 lks. dist. marked T. 35 S. R. 18 E. S. 13. B. T.
A pinon 8 ins. diam. bears
S. 17° E. 21 lks. dist. marked T. 35 S. R. 18 E. S. 24. B. T.
Land, rough and mountainous 80 chs.
Soil, gravel and rocky 4th rate.
Timber, heavy cedar and pinon 80 chs.
Undergrowth, same 80 chs.
Mountainous and heavily timbered land 80 chs.

Sept. 28 1894

12 Subdivision T. 35 S. R. 1 E. continued.

chains North 0° 01' w. bet. secs. 13 and 14.
Va. 15° 27' E.
Descend through heavy timber and brush about 300 ft.
5.50 Dry gulch about 300 ft. deep, course N. E.
7.58 Dry wash 54 lks. wide, course N. E. and ascend abruptly about 100 ft.
10.23 Top of bench, course N. E.
21.60 Ascend abruptly about 100 ft.
33.60 Top of point, course S. w. and N. E. and descend abruptly about 100 ft.
40.00 Set a sandstone 20 X 10 X 3 ins. in a stone pile for 1/4 sec. cor. marked 1/4 on w. face; from which
A pinon 7 ins. diam. bears
N. 70° w. 13 lks. dist. marked 1/4 S. B. T.
A pinon 12 ins. diam. bears
S. 51° E. 23 lks. dist. marked 1/4 S. B. T.
48.00 Leave timber and ascend about 50 ft. course N. w. & S. E.
50.20 Top of ridge, course N. w. and S. E. enter heavy timber and descend abruptly about 100 ft.
60.30 Ravine about 100 ft. deep, course E. and ascend ascend about 50 ft.
75.50 Top of ridge, course E. and w. and descend abruptly about 300 ft.
78.20 Bottom, course N. w. and S. E.
80.00 Set a sandstone 24 X 10 X 8 ins. in a stone pile in rocky place for cor. to secs. 11. 12. 13 and 14 marked with 4 notches on S. and 1 notch on E. edges; from which
A cedar 10 ins. diam. bears
N. 24° E. 27 lks. dist. marked T. 35 S. R. 1 E. S. 12. B. T.
A cedar 12 ins. diam. bears
N. 39° w. 43 lks. dist. marked T. 35 S. R. 1 E. S. 11. B. T.
A pinon 8 ins. diam. bears
S. 28° E. 11 lks. dist. marked T. 35 S. R. 1 E. S. 13 B. T.
A pinon 10 ins. diam. bears
S. 17° w. 91 lks. dist. marked T. 35 S. R. 1 E. S. 14. B. T.
Land, rough and mountainous 80 chs.
Soil, gravel and rocky 4th rate.
Timber heavy cedar and pinon 77.80 chs.
Undergrowth same 80 chs.
Mountainous and heavily timbered land 80 chs.

Sept. 29 1894

Subdivision T. 35 S. R. 1 E. continued.

chains	
	S. 89° 52' E. on a random line bet. secs. 12 and 13.
	Var. 15° 30' E.
40.00	Set temporary 1/4 sec. cor.
80.46	Intersect E. bdy. of Tp. 42 lks. S. of cor. to secs. 7, 12, 13 and 18.
	Thence Prun
	S. 89° 50' W. on a true line bet. secs. 12 and 13.
	Var. 15° 23' E.
	Through heavy timber and dense brush
8.90	Descend abruptly about 300 ft.
14.84	Dry wash 48 lks. wide, course S. E. and ascend abruptly about 300 ft.
28.50	Top of ridge, course N. W. & S. E. and descend abruptly about 200 ft.
53.27	Dry wash 37 lks. wide, course S. E. and ascend abruptly about 200 ft.
39.60	Top of ridge, course S. E. and N. W.
40.23	Set a sandstone 22 x 8 x 6 ins. in a stone pile for 1/4 sec. cor. marked 1/4 on N. face; from which
	A pinon 10 ins. diam. bears
	N. 32° W. 59 lks. dist. marked 1/4 S. B. T.
	A cedar 12 ins. diam. bears
	S. 38° W. 52 lks. dist. marked 1/4 S. B. T.
42.80	Descend abruptly about 200 ft.
46.95	Dry wash 10 lks. wide, course S. and ascend abruptly about 150 ft.
61.30	Top of ridge, course N. and S. and descend abruptly about 500 ft.
70.20	Bottom course N. & S. and enter dense brush
74.63	Birch creek 21 lks. wide, course S. E.
77.10	Road, course S. E. and N. W.
80.46	The cor. to secs. 11, 12, 13 and 14.
	Land, rough and mountainous 70.20 chs.
	Soil, gravel and sandy loam 4th and 2" rate.
	Timber, heavy cedar and pinon 80.46 chs.
	Undergrowth same 70.20 chs. and dense oak, sage and willow on bottom 10.26 chs.
	Mountainous land and heavily timbered or covered with dense undergrowth 80.46 chs.
	Sept. 30 1894.

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Subdivision T. 35 S. R. 1 E.

chains

General Description.

This township contains very little agricultural land. The soil of the bottom land ranges from almost pure sand to a rich black loam. It produces good crops.

The mountains are covered with a dense growth of cedar, pinion and pine timber. There are few springs in this township but the water is generally pure. The geological character of the land varies from sandstone, limestone porphyry, trachyte and basalt to shell rock.

There is some coal of good quality on Sand Creek in the northern part of the township Sand Creek is not in the surveyed portion.

The mean declination of the plat is 15° 24' E.

There is one settler in sec. 34. and 1 in sec. 26.

None of the valuable minerals or salines have been found in this township

Wm Lewman
U. S. Deputy Surveyor.

I took daily observations at noon or 12 o clock every day that the weather permitted me to do so for the correction Latitude and to determine the condition of the Solar apparatus of my transit. I made no record of the observations because I could find no record of Latitude observations in the Manual of 1890 in the Specimen field Notes, therefore I did not deem it necessary. I was extremely carful with my instrument and I did not at any time allow any other person to carry, handle or meddle with my transit.

William Leeman
U. S. Deputy Surveyor.

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BOOK A-238

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(6.—FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.)

I, William Lewman

United States deputy surveyor, do solemnly swear that in pursuance of instructions received from Ellsworth Daggett United States surveyor-general for Utah, bearing date of the Second day of March 1893, I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the United States surveyor-general for Utah, the surveying manual and the laws of the United States, surveyed all those parts or portions of N. bdy. T. 34 S. R. 1 W. Salt Lake T. 34, 35 & 36 S. R. 1, 2, 3 & 4 E. P. M. 7th Standard Parallel S. 1st Guide Meridian E. and the N.W. & S. Bdy. T. 38 S. R. 9 W. The E. & S. Bdy. T. 36 S. R. 1 E. The N. & E. Bdys. Tps. 35 S. Rs. 1, 2 & 3 E. The N. Bdy. T. 35 S. R. 4 E. And the Subdivision of Tps. 35 S. Rs. 1, 2, 3 & 4 E. T. 36 S. R. 1 E. and T. 38 S. R. 9 E. W. of Salt Lake base and meridian in the Territory of Utah, as are represented in the foregoing field notes as having been surveyed by me and under my directions; and I do further solemnly swear, that all the corners of said survey have been established and perpetuated in strict accordance with the surveying manual, printed instructions, the special written instructions of the United States surveyor-general for Utah, and in the specific man-

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ner described in the field notes, and that the foregoing are the **TRUE** field notes of such survey; and, should any fraud be detected, I will suffer the penalty of perjury, under the provisions of an act of Congress, approved August 8, 1846.

William Lawrence
United States Deputy Surveyor.

Subscribed and sworn to before me this 15th day of March 1895

Geo. W. Grant
U.S. Surveyor General

BOOK A-238

List of Names.

A list of the names of the individuals employed by William Leeman, U. S. Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of the Subdivision Tp. 35 S. Rs. 1, 2, & 3 E. & T. 36 S. R. 1 E. and the W. & E. Boundaries Tp. 35 S. Rs. 1, 2 & 3 E. & North Boundary T. 35 S. R. 4 E. of the Salt Lake Base & Meridian, in Utah Territory, showing the respective capacities in which they acted:

Orris Wilcox Chainman
Peter Barker "
David Woolsey Axeman
Jacob Hamaker Flagman

[4.—FINAL OATHS OF ASSISTANTS.]

We hereby certify that we assisted William Leeman, United States Deputy Surveyor, in surveying all those parts or portions of the Subdivision Tps. 35 S. Rs. 1, 2 & 3 E. and T. 36 S. R. 1 E. And the N. & E. Bdys. T. 35 S. Rs. 1, 2 & 3 E. & N. Bdy. T. 35 S. R. 4 E. and the S. & E. Bdys. T. 36 S. R. 1 E. of the Salt Lake base and meridian in the Territory of Utah, as are represented in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established according to the instructions furnished by the United States Surveyor-General for Utah.

Orris Wilcox, Chainman.
Peter Barker, Chainman.
, Chainman.
, Chainman.
David Woolsey, Axeman.
, Axeman.
Jacob Hamaker, Flagman.

Subscribed and sworn to before me this 10th day of October 189 4

J. H. Chidester
County Clerk

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Final Oath of U. S. Deputy Surveyor.

I, ..., U. S. Deputy Surveyor, d
solemnly swear that, in pursuance of instructions received from ....., U. S
Surveyor General for ....., bearing date of the ..... day
....., 18 , I have well, faithfully, and truly, in my own proper person, and in stri
conformity with the instructions furnished by the U. S. Surveyor General for ....., th
surveying manual, and the laws of the United States, surveyed all those parts or portions of .....

.....Meridian, in the ....., as are represented in the fore
going field notes as having been surveyed by me, and under my directions; and I do further solemnly swear that a
the corners of said survey have been established and perpetuated in strict accordance with the surveying manua
printed instructions, the special written instructions of the U. S. Surveyor General for .....
and in the specific manner described in the field notes, and that the foregoing are the true field notes of such survey
and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congres
approved August 8, 1846.

.....
U. S. Deputy Surveyor.

Subscribed and sworn to before me this .....
day of ....., 18 .

SEAL

.....

.....

Approval.

Office of the U. S. Surveyor General,
Salt Lake City Utah Nov 4th, 1896.

The foregoing field notes of the survey of The Subdivision of Township 35 South Range 1 East of the Salt Lake Base & Meridian, Utah

..... executed by
William Lewinson
under his Contract No. 191, dated March 2, 1893 having been critically
examined, the necessary corrections and explanations made, the said field notes, and the surveys they describe, are
hereby approved.

George W. Snow
U. S. Surveyor General.

I certify that the foregoing transcript of the field notes of the above-described surveys in .....
....., has been correctly copied from the original notes on file in this office.

.....
U. S. Surveyor General.

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Final Oath of U. S. Deputy Surveyor.

I, ..., U. S. Deputy Surveyor, d
solemnly swear that, in pursuance of instructions received from ....., U. S
Surveyor General for ....., bearing date of the .....day o
....., 18 , I have well, faithfully, and truly, in my own proper person, and in stric
conformity with the instructions furnished by the U. S. Surveyor General for ....., th
surveying manual, and the laws of the United States, surveyed all those parts or portions of .....
.....
.....
.....
.....Meridian, in the....., as are represented in the fore
going field notes as having been surveyed by me, and under my directions; and I do further solemnly swear that al
the corners of said survey have been established and perpetuated in strict accordance with the surveying manual
printed instructions, the special written instructions of the U. S. Surveyor General for.....
and in the specific manner described in the field notes, and that the foregoing are the true field notes of such survey
and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congres
approved August 8, 1846.

.....
U. S. Deputy Surveyor.

Subscribed and sworn to before me this .....
day of ....., 18 .

SEAL

.....

.....

Approval.

Office of the U. S. Surveyor General,
Salt Lake City Utah Jan 4th, 1896.

The foregoing field notes of the survey of The Subdivision of Township 35 South Range 1 East of the Salt Lake Basis & Meridian Utah
.....
.....
.....
.....
.....
..... executed by
William Newman
under his Contract No. 191, dated March 2, 1893 having been critically
examined, the necessary corrections and explanations made, the said field notes, and the surveys they describe, are
hereby approved.

George Snow
U. S. Surveyor General.

I certify that the foregoing transcript of the field notes of the above-described surveys in .....
....., has been correctly copied from the original notes on file in this office.

.....
U. S. Surveyor General.

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(4—679.)

N. 3. B.

BOOK A-238

FIELD NOTES

OF THE SURVEY OF

First Standard Parallel North, or
Fractional North Boundary of
Sps. 4 North — Ranges 4 East

Of the Salt Lake Meridian,

Territory of Utah

AS SURVEYED BY

Washington Jenkins, U. S. Deputy Surveyor,

Under his Contract No. 207, dated June 6th, 1895.

Survey commenced July 15th, 1895.

Survey completed July 16th, 1895.

(FCH—2,'00.) 6—151

Mean magnetic declination 16° 37' E.

Names and Duties of Assistants.

S. J. Campbell chainman

David A. Jenkins chainman

Harry H. Crossman chainman

Wm Felt chainman

David A. Jenkins axeman

Harry H. Crossman axeman

BOOK A-238

INDEX DIAGRAM.

Township 4 North, *Range* 4 East

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31	32	33	34	35	36

Meanders Page

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Mean magnetic declination 16° 37' E.

Preliminary Oaths of Assistants.

We, S. T. Campbell, David A. Jenkins, Harry H. Crossman, and Wm Felt,

do solemnly swear that we will well and faithfully execute the duties of chain carriers; that we will level the chain over even and uneven ground, and plumb the tally-pins either by sticking or dropping the same; that we will report the true distance to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us in the survey of the First Standard Parallel or Fractional North Boundary of Tp. 4. North – Range 4 East, of the Salt Lake Base and Meridian

S. T. Campbell, Chainman.
David A Jenkins, Chainman.
Harry H Crossman, Chainman.
Wm Felt, Chainman.

Subscribed and sworn to before me this 10th day of July, 1895.

D K Peery Jr, Clerk
By F D Higginbotham Jr, Deputy.

We, David A Jenkins and Harry H. Crossman

do solemnly swear that we will well and truly perform the duties of axemen in the establishment of corners and other duties, according to instructions given us, and to the best of our skill and ability, in the survey of the First Standard Parallel, or Fractional North Boundary of Tp. 4. North, Range 4 East of the Salt Lake Base and Meridian

Subscribed and sworn to before me this 10th day of July, 1895.

David A Jenkins Axeman.
Harry H Crossman Axeman.

D K Peery Jr, Clerk
By F D Higginbotham Jr, Deputy.

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1st Standard Parallel North, or Fractional N. bdy. Sp. 4. N. R. 4 E.

Survey commenced July 15-1895, and executed with a J. T. Hobby engineers transit, no number, without solar attachments; the horizontal limb, 7 ins in diam, having two double verniers placed opposite to each other and reading to 30" of arc, The instrument was examined, tested on the true meridian at Salt Lake City found correct and was approved by the Surveyor General for Utah, July 3rd 1895.

I examine the adjustments of the transit, and correct the level and collimation errors,

I begin at the established standard corner of Sections 33 and 34, on the north boundary of the township, which is a gray sandstone 25 x 8 x 4 ins, marked and witnessed as described by the surveyor general, in approximate latitude 41° 07' N. Longitude 111° 30' W.

This stone was accidentally broken in two halves, while attempting to mark S.C. on its N. face: therefore I re-establish this corner in its original place as follows:

Set a gray sandstone 18 x 9 x 6 ins. 12 ins in the ground for standard cor. of secs. 33 and 34, marked S.C. on N. with 3 grooves on E. and 3 grooves on W. faces; and raised a mound of stone 2 Ft. base, 1½ Ft high N. of cor. Pits impracticable, The fragments of the original stone were placed in the mound.

At the above described corner, on the above date, at 11h 47m P.M. l.m.t. or at 0h 13m A.M. July 16. by my watch which is correct mountain standard rail road time, I observe Polaris at eastern elongation in accordance with Manual of Instructions and mark the line thus determined by a mark on a large stone firmly set in the ground 2.50 chs. north of my station; a ridge prevented my setting a point at 5.00 chs. North,

July 15th 1895.

July 16th 1895, at 8. A.M, mountain standard rail road time, I lay off the azimuth of Polaris 1° 40' to the west, and mark the true meridian thus determined by cutting a mark on a stone firmly set in the ground west of the point established last night. The magnetic bearing of said true meridian is N 16° 43' W. which, reduced by the table on page 100 of the Manual, gives the mean magnetic declination 16° 37' E.

First Standard Parallel North; or Junctional N. bdy. of Sp. 4. N. R. 4 E.

chains.	
	Leg off from the true meridian an angle of 90° from north to west and run
	West on the tangent, S of sec. 33,
	over stony ground, ascending abruptly the west side of Lost Creek Canon, bearing S 50° W. and N 50° E.
4.90	Bottom of small ravine; course S 45° E. Begin steep ascent,
9.00	Top of steep ascent bears S 30° E. and N 30° W. about 200 ft. above the sec. cor. Continue ascending over stony ground sloping S.
13.63	Top of ridge about 250 ft above the sec. cor, bears N 30° W. and S 30° E. Begin descent,
18.70	Bottom of ravine 50 ft. below top of ridge: course S 45° E, Begin steep ascent,
25.00	Top of ridge about 50 ft above bottom of ravine; course S 40° E. thence over ground sloping S.
31.70	Foot of steep ascent bears N and S.
38.60	Top of ridge about 400 ft above the sec. cor. bears N. and S, bet. Lost Creek and Big Cottonwood Canons. Begin to descend the slope of ridge S.
	Difference between measurements of 40.00 chs. by two sets of chainmen, is 1 lk; position of middle point
	By 1st set 39.99½ chs.
	By 2nd set 40.00½ chs; the mean of which is
40.00	N 0.14 ft. from the tangent
	Set quartzite boulder stone 16 X 13 X 9 ins, 11 ins. in the ground for standard ¼ sec. cor. marked S.C. ¼ on N. face; and raised a mound of stone 2 ft. base 1½ ft. high N. of cor. Pits impracticable.
45.45	Bottom of ravine about 150. ft below the ¼ sec. cor. course S 45° E. and,
49.85	Top of spur about 50 ft. above bottom of ravine, course S.
56.05	Descend abruptly.
61.20	Bottom of ravine about 90 ft. deep; course S. Begin steep ascent,
66.72	Top of ridge about 50 ft. above bottom of ravine, bears N and S. Begin steep descent over rocky ground
78.20	Foot of descent in bottom of Big Cottonwood Canon, 200 ft. deep; course S 30° E. in creek bed (dry). Begin to ascend the N. side of canon.
	Difference between measurements of 70.00 chs. by two sets of chainmen is 2 lks: position of middle point

1st Standard Parallel North, on west. N. bdy. of Tp. 4 N. R. 4 E.

chains	
	By 1st set 79.99 chs.
	By 2nd set 80.01 chs: the mean of which is
80.00	N. 0.58 ft from the tangent,
	Set quartzite boulder stone 18 x 6 x 6 ins. 12 ins. in the ground for standard cor. of secs. 32 and 33, marked S.C. on N. with 4 grooves on E. and 2 grooves on W. faces, from which a cottonwood tree 14 ins. diam. bears N 39° E. 68 lks dist. marked: T. 5. N. R. 4 E. S 33. B.T.
	A cottonwood tree 8 ins. diam. bears N 3° 45' W. 78 lks. dist. marked T. 5. N. R. 4 E. S 32. B.T.
	Land mountainous and broken,
	Soil stony: 4th rate.
	Timber, scattering cottonwood South of the line in Cottonwood canon,
	Mountainous land 80.00 chs.
	S. 89° 59' W. on the tangent. S of sec. 32.
	Ascending over stony ground.
0.25	Begin steep ascent at W. side of Big Cottonwood Canon, course S. 30° E.
4.80	Top of spur 150 ft. above the sec. cor. bears N. 45° E. a small spring of pure water bears N. 2.00 chs. dist. and drains N.E. about 1.00 ch. and sinks. Descend.
7.80	Bottom of ravine 50 ft. below top of spur, course N.E. Ascend
30.75	Top of spur about 200 ft. above bottom of ravine; slopes N 40° E. Continue ascent over ground sloping N.E.
	Difference between measurements of 40.00 chs. by two sets of chainmen is 2 lks: position of middle point
	By 1st set 40.01 chs.
	By 2nd set 39.99 chs, the mean of which is
40.00	N. 1.31 ft from the tangent,
	Set quartzite boulder stone 16 x 12 x 5 ins. 11 ins. in the ground for standard 1/4 sec. cor. marked S.C. 1/4 on N. face; and raised a mound of stone 2 ft. base, 1 1/2 ft high N. of cor. Pits impracticable.
50.50	Top of ridge about 150 ft. above the 1/4 sec. cor. bearing N 80° W. and S. 80° E. between Big and Little Cottonwood Canons.
	Descend along S. slopes of ridge.
55.00	Foot of descent, and on top of same ridge bears W. and N. 80° E. Ascend along top of ridge.
67.00	Leave top of ridge bears S 80° W. Ascend along N. side

1st Standard Parallel North, or fracl. N. bdy. of Tp. 4. N. R. 4 E.

chains	
	of ridge.
	Difference between measurements of 80.00 chs. by two sets of chainmen is 2 lks; position of middle point
	By 1st set 79.99 chs.
	By 2nd set 80.01 chs.; the mean of which is
80.00	N. 2.33 ft. from the tangent
	Set quartzite boulder stone 20X12X7 ins. 15 ins. in the ground for standard cor. of secs. 31 and 32; marked S.C. on N. with 5 grooves on E. and 1 groove on W. faces; and dug pits 24X18X12 ins. crosswise on each line E and W. 3 ft. dist and N. of stone 7 ft dist. and raised a mound of earth 4 ft. base, 2 ft. high N. of cor.
	Land mountainous and broken.
	Soil stony; 4th rate.
	No timber.
	Mountainous land 80.00 chs.
	S 89° 58' W. on the tangent S. of sec. 31.
	Ascending over stony ground sloping N.E.
22.75	Top of ridge about 100 ft. above the sec. cor. bears N 80° W. and S. 80° E. bet. Big and Little Cottonwood Cañons. Descend over stony ground sloping S.
35.00	Bottom of Little Cottonwood Cañon, 100 ft. below top of ridge; course S 50° E. Begin ascent of west side of cañon.
36.35	Enter scattering aspen, bears N. and S.
38.65	Leave scattering aspen, bears N. and S.
	Difference between measurements of 40.00 chs. by two sets of chainmen, is 2 lks; position of middle point
	By 1st set 40.01 chs.
	By 2nd set 39.99 chs. the mean of which is
40.00	N. 3.63 ft. from the tangent
	Set quartzite boulder stone 18X12X10 ins 12 ins. in the ground for standard 1/4 sec. cor. marked S.C. 1/4 on N. face; and raised a mound of stone 2 ft. base, 1 1/2 ft high, N. of cor. Pits impracticable.
51.50	Top of ridge about 200 ft. above the 1/4 sec. cor. bears S. 40° E. and N. 40° W. Begin descent over stony ground sloping S.W.
61.30	Bottom of ravine 50 ft. deep, course S 25° E.
	Difference between measurements of 61.35 chs by two sets of chainmen is 2 lks; position of middle point

1st Standard Parallel North, or fract. N. bdy. of Sp. 4, N. R. 4 E.

chains.	
	By 1st set 61.36 chs.
	By 2nd set 61.34 chs: the mean of which is
61.35	N. 4.43 ft from the tangent, and on a line 10.29 chs S. of the standard cor. to Ranges 3 and 4 E. as established by Robert Gorlinski
	Set quartzite boulderstone, 18 X 11 X 5 ins, 12 ins. in the ground for S.W. cor. of Sp. 5. N. R. 4. E., marked S.C. and 6 grooves on N. and 6 grooves on E. faces; and raised a mound of stone 2 ft. base, 1½ ft. high N.E. of cor. Pits impracticable. This cor. is at foot of east slope of a ridge about 75 ft high bearing N and S.
	Land mountainous and broken,
	Soil stony; 4th rate.
	No timber.
	Mountainous land 61.35 chs.
	July 16th 1895.

This line runs across mountain ridges and cañons, having a southeasterly trend, barren of timber, and not well watered; the land being useful only for grazing. The Township to the north of the line is of the same character, and said to contain coal lands.

Washington Jenkins.
U.S. Deputy Surveyor.

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List of Names.

A list of the names of the individuals employed by Washington Jenkins, U. S. Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of the First Standard Parallel North or, Fractional North Boundary of Tp. 4. North, Range 4 East of the Salt Lake Base and Meridian, in Utah, showing the respective capacities in which they acted:

David A. Jenkins Chainman and Axeman
S. T. Campbell Chainman
Wm Felt, Chainman
Harry H. Crossman Chainman and Axeman.

Final Oath of Assistants:

We hereby certify that we assisted Washington Jenkins, U. S. Deputy Surveyor, in surveying all those parts or portions of the First Standard Parallel North or Fractional North Boundary of Township 4. North, Range 4 East of the Salt Lake Base and Meridian, Utah Territory, as are represented in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the U. S. Surveyor General for Utah.

David A. Jenkins Chainman & Axeman
Harry H. Crossman Chainman
Wm Felt
S T Campbell Chainman & Axeman

Subscribed and sworn to before me this 30" day of October, 1891

SEAL

D. H. Perry Jr. Clerk
By Higginbotham Jr. Deputy

6—151

Final Oath of U. S. Deputy Surveyor.

I, Washington Jenkins, U. S. Deputy Surveyor, do solemnly swear that, in pursuance of instructions received from Geo. W. Snow, U. S. Surveyor General for Utah, bearing date of the 6th day of June, 1895, I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the U. S. Surveyor General for Utah, the surveying manual, and the laws of the United States, surveyed all those parts or portions of The First Standard Parallel North, or Fractional North Boundary of Township 4. North. Range 4 East Salt Lake Meridian, in the Territory of Utah, as are represented in the foregoing field notes as having been surveyed by me, and under my directions; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the surveying manual, printed instructions, the special written instructions of the U. S. Surveyor General for Utah and in the specific manner described in the field notes, and that the foregoing are the true field notes of such survey; and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

Washington Jenkins
U. S. Deputy Surveyor.

Subscribed and sworn to before me this 30" day of October, 1895.

SEAL

G. H. Berry Jr., Clerk.
By Higginbotham Jr., Dep.

Approval.

Office of the U. S. Surveyor General,

Salt Lake City Utah July 28th, 1896.

The foregoing field notes of the survey of the First Standard Parallel North or North Boundary of Tp 4 N R 4 E of the Salt Lake Base & Meridian, Utah executed by Washington Jenkins under his Contract No. 202, dated June 6th, 1895 having been critically examined, the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

George W. Snow
U. S. Surveyor General.

I certify that the foregoing transcript of the field notes of the above-described surveys in ....., has been correctly copied from the original notes on file in this office.

U. S. Surveyor General.

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No. J. B.

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BOOK A-233

FIELD NOTES

OF THE SURVEY OF

The Fractional West Boundary

of

Sp. 5, North Range 4, East

Of the Salt Lake Meridian,

Territory of Utah

AS SURVEYED BY

Washington Jenkins, U. S. Deputy Surveyor,

Under his Contract No. 202, *dated* June 6th, 185.

Survey commenced July 16th, 1895.

Survey completed July 17th, 1895.

(8620—2,'00.) 6—151

Wash 10-29

Names and Duties of Assistants.

David Jenkins a Chainman and Axeman

S. T. Campbell Chainman

Wm Fell Chainman

Harry H. Crossman Chainman and Axeman

BOOK A-238

INDEX DIAGRAM.

Township 5 North, *Range* 4 East

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30	29	28	27	26	25
31	32	33	34	35	36

Meanders Page

Preliminary Oaths of Assistants.

We, David A. Jenkins S. T. Campbell
Wm Fell and Harry H. Crossman

do solemnly swear that we will well and faithfully execute the duties of chain carriers; that we will level the chain over even and uneven ground, and plumb the tally-pins either by sticking or dropping the same; that we will report the true distance to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us in the survey of the Fractional West Boundary of Tp. 5. North, Range 4 East of the Salt Lake Meridian.

S. T. Campbell, Chainman.
David A Jenkins, Chainman.
Harry H Crossman, Chainman.
Wm Fell, Chainman.

Subscribed and sworn to before me this 10th day of July, 1895.

D. K. Perry Jr., Clerk
By F. D. Higginbotham Jr., Deputy.

We, David A. Jenkins and Harry H. Crossman

do solemnly swear that we will well and truly perform the duties of axemen in the establishment of corners and other duties, according to instructions given us, and to the best of our skill and ability, in the survey of the Fractional West Boundary of Townships 5. North, Range 4 East of the Salt Lake Meridian.

Subscribed and sworn to before me this 10th day of July, 1895.

David A Jenkins Axeman.
Harry H Crossman, Axeman.

D. K. Perry Jr., Clerk.
By F. D. Higginbotham Jr., Deputy.

C—151

Fractional West Boundary of Tp. 5 N. R. 4 E.,

Chains.	
	Survey commenced July 16th 1895, and executed with a J. I. Hobby engineer's transit, no number without solar attachments. The horizontal limb 7 ins. in diam., having two double verniers placed opposite to each other, and reading to 30" of arc. The instrument was examined, tested on the true meridian at Salt Lake City, found correct and was approved by the Surveyor General for Utah, July 3rd 1895. I begin at the standard cor. to Ts. 3 and 4 E., as established by Robert Gorlinski, which is a red sand stone 11 X 7 X 5 ins. above ground firmly set, marked and witnessed as described by the surveyor general. July 16-1895, at 11h 43m P.M. or at 0h 09m A.M. July 17th by my watch which is correct mountain standard rail road time, I observe Polaris at eastern elongation in accordance with Manual of Instructions and mark the line thus determined by a tack driven in a wooden plug set in the ground 3.00 chs. N. of my station; a hill obstructs the view at 5 chs North. July 16-1895.
	July 17th at 8. A.M, mountain standard rail road time, I lay off the azimuth of Polaris 1°-40' to the west, and mark the true meridian thus determined, by a tack driven in a wooden plug set in the ground west of the point established last night. The magnetic bearing of said true meridian is N. 16°-43' W. which reduced by the table on page 100 of the Manual gives the mean magnetic declination 16°-37' E. As the falling of the 1st Standard Parallel North, surveyed by me on July 16th 1895, is south of this corner, I obliterate the marks thereon and re-mark it S.C. and 6 grooves on the N. face, and C.C. and 6 grooves on the W. face, in accordance with Special Instructions. I lay off from the true meridian an angle of 180° from North to west, and run
	South along the fractional W. bdy of the Tp. bet. Secs. 6 and 31. Descending over stony ground sloping S.
10.29	Intersect the standard cor. to Tp. 5. N. R. 4 E., set by me as heretofore described. This cor. is about 150 ft. below the cor. at which I begin.

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Fractional West boundary of Tp. 5. N. R. 4 E.

Land mountainous
Soil stony; 4th rate.
No timber
Mountainous land 10.29 chs.
July 17th 1895.

Washington Jacobs
U S Dep Surveyor

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List of Names.

A list of the names of the individuals employed by Washington Jenkins, U. S. Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of the Fractional West Boundary of Township 5 North Range 4 East of the

Salt Lake Meridian, in Utah Territory, showing the respective capacities in which they acted:

David A. Jenkins Chainman and axeman
S. T. Campbell Chainman
Wm Felt Chainman
Harry H. Crossman Chainman and axeman

Final Oath of Assistants:

We hereby certify that we assisted Washington Jenkins, U. S. Deputy Surveyor, in surveying all those parts or portions of the Fractional West Boundary of Township 5, North, Range 4 East

Salt Lake Meridian, Utah Territory, as are represented in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the U. S. Surveyor General for Utah

David A Jenkins Chainman & Axeman
Harry H Crossman Chainman
Wm Felt
S. T. Campbell Chainman & Axeman

Subscribed and sworn to before me this 30" day of October, 1891

SEAL

D. Beery Jr. Clerk
By Higginbotham Jr. Deputy

6—151

Final Oath of U. S. Deputy Surveyor.

I, Washington Jenkins, U. S. Deputy Surveyor, do solemnly swear that, in pursuance of instructions received from Geo. W. Snow, U. S. Surveyor General for Utah, bearing date of the 6th day of June, 1895, I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the U. S. Surveyor General for Utah, the surveying manual, and the laws of the United States, surveyed all those parts or portions of The Fractional West Boundary of Township No. 5, North Range 4 East

Salt Lake Meridian, in the Territory of Utah, as are represented in the foregoing field notes as having been surveyed by me, and under my directions; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the surveying manual, printed instructions, the special written instructions of the U. S. Surveyor General for Utah and in the specific manner described in the field notes, and that the foregoing are the true field notes of such survey; and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

Washington Jenkins
U. S. Deputy Surveyor.

Subscribed and sworn to before me this 30" day of October, 1891

SEAL

D. H. Peery Jr., Clerk
By Wyzenbotham Jr., D

Approval.

Office of the U. S. Surveyor General,

Salt Lake City Utah July 28th, 1896.

The foregoing field notes of the survey of The Fractional West Boundary of Township 5 North Range 4 East of the Salt Lake Base & Meridian, Utah

executed by Washington Jenkins under his Contract No. 202, dated June 6th, 1895, having been critically examined, the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

George W. Snow
U. S. Surveyor General.

I certify that the foregoing transcript of the field notes of the above-described surveys in _____, has been correctly copied from the original notes on file in this office.

_____
U. S. Surveyor General.

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(4—679.)

K. J. B.

BOOK A-238

FIELD NOTES

OF THE SURVEY OF

Subdivisions Meanders and
Retracements of
Township No. 4, North, Range 4 East

Of the Salt Lake Base and Meridian,

Territory of Utah

AS SURVEYED BY

Washington Jenkins, U. S. Deputy Surveyor,

Under his Contract No. 202, dated June 6 — 1895

Survey commenced July 17th, 1895

Survey completed September 14th, 1895

(8630—2,000.) 6—151

	m.	ch.	lk.		Contingent
Highcrate	36	24	12 ✓	[illegible]	3 13 47 ✓
[illegible] "	1	21	03 ✓	[illegible]	5.79 6 ✓
Meanders	6	63	03 ✓	[illegible]	10.29 ✓
Closings [illegible]		40	02 ✓	[illegible]	11.79.06 ✓
" [illegible]				Subs	2.66.48 ✓

Names and Duties of Assistants.

David Jenkins Chainman and axeman

S. T. Campbell Chainman

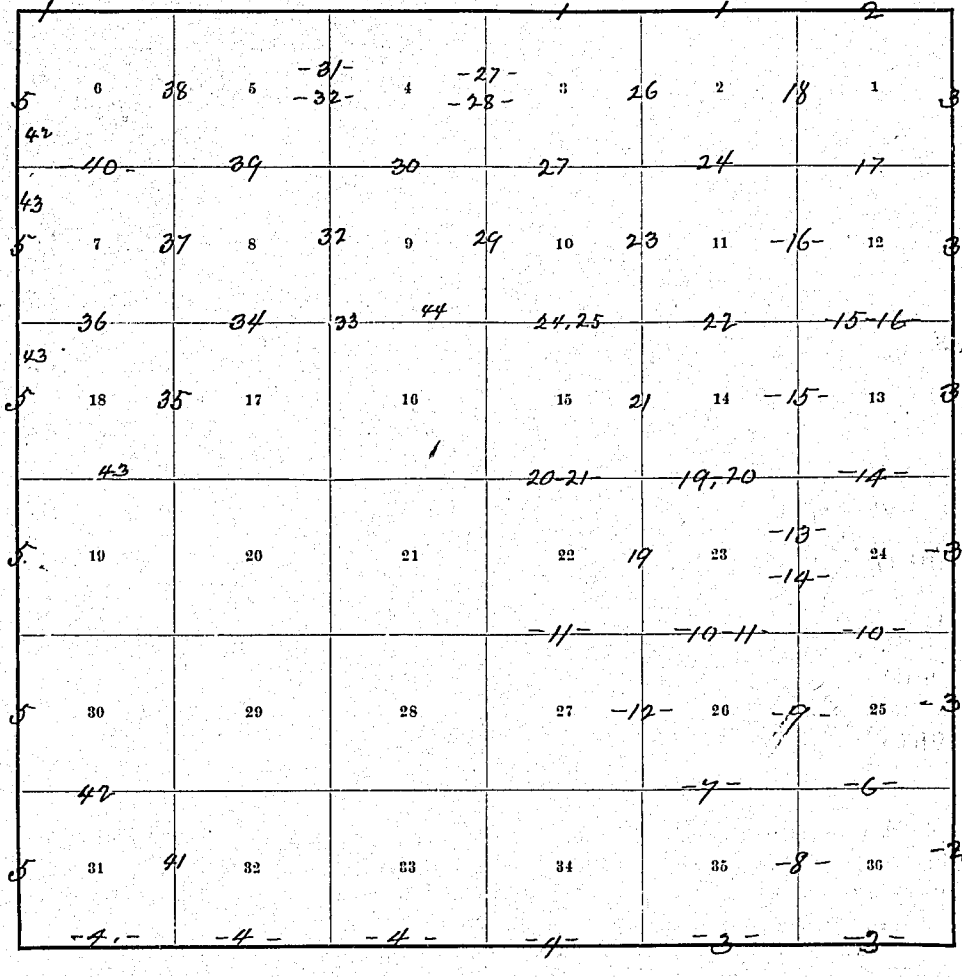
Wm Felt Chainman

Harry A. Crossman Chainman and axeman

BOOK A-238

INDEX DIAGRAM.

Township 4 North, *Range* 4 East



Meanders Page 44 to 51

Preliminary Oaths of Assistants.

We, David A. Jenkins S. T. Campbell
Wm Felt and Harry H. Crossman

do solemnly swear that we will well and faithfully execute the duties of chain carriers; that we will level the chain over even and uneven ground, and plumb the tally-pins either by sticking or dropping the same; that we will report the true distance to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us in the survey of the Subdivision lines, Meanders and retracements of Township 4 North, Range 4 East of the Salt Lake Base and Meridian,

S. T. Campbell, Chainman.
David A Jenkins, Chainman.
Harry H Crossman, Chainman.
Wm Felt, Chainman.

Subscribed and sworn to before me this 10th day of July, 1895.

D. H. Peery Jr, Clerk.
By F. D. Higginbotham Jr, Deputy.

We, David A. Jenkins and Harry H. Crossman

do solemnly swear that we will well and truly perform the duties of axemen in the establishment of corners and other duties, according to instructions given us, and to the best of our skill and ability, in the survey of the Subdivision lines, and Meanders, and retracements of Township No 4 North, Range 4 East of the Salt Lake Base and Meridian,

Subscribed and sworn to before me this 10th day of July, 1895,

David A Jenkins, Axeman.
Harry H Crossman, Axeman.

D. H. Peery Jr, Clerk.
By F. D. Higginbotham Jr, Deputy.

Retracements. Sp. 4. N. R. 4 E.

Chains	Survey commenced July 17th 1895, and executed with a J. I. Hobby engineers transit, no number without solar attachments; the horizontal limb 7 ins. in diameter having two double verniers placed opposite to each other and reading to 30" of arc, The instrument was examined, tested on the true meridian at Salt Lake City, found correct and was approved by the surveyor general for Utah, July 3rd 1895.
	This survey embraces a portion of the exteriors of the Townships, and the closing indicates discrepancies beyond the allowable limit prescribed by the Manual,
	Therefore to discover the error I retrace as follows,
	From the standard corner to Rs. 3 and 4 E, as established by Robert Gerlinski, and heretofore described
	I run
	West on a blank line, on the 1st Standard Parallel, bet. Secs. 31 and 6,
13.44	Intersect the closing corner of Sp. 4. N. Rs 3 and 4. E, which is a quartzite boulder stone 9 X 7 X 5 ins, above ground firmly set, marked and witnessed as described by the surveyor general; and the bearing of this line is as stated by him, but my chaining does not agree with the original survey.
	From the standard cor of Rs. 3 and 4 E.
	I run
	S. re-tracing the fracl. N. bdy of Sp. 5. N. R. 4 E. at
10.29	Intersect the 1st Standard Parallel at the S. W. cor. of Sp. 5. has established by me, and find the bearing and distances agree with the original survey.
	I re-trace the 1st Standard Parallel as follows; From the point 4.43 Ft. S. of the S. W. cor. of Sp. 5. N. R. 4. E. heretofore described, & re-trace the tangent S. of Secs. 31, 32 and 33, and find that the 1/4 sec. and sec. cors. agree in measurement and alignment with the original survey.
	At the standard cor. of secs. 33, and 34, on the N. bdy of the Sp. heretofore described, I lay off from the true meridian already established an angle of 90° from north to east, and run
	East on the tangent, S. of sec. 34, at
40.00	I intersect the standard 1/4 sec. cor.

Retracements Sp. 4. N. R. 4 E.

chains.	
80.01	I find the standard cor. of secs. 34 and 35, 2 lks. N. I continue the tangent S 89°-59' E, S. of Sec. 35, and at
40.01	I find the standard 1/4 sec. cor. 4 lks N. and at
80.00	I find the standard cor. of secs. 35 and 36, 2 lks N. I continue the tangent S 89°-58' E, S. of sec. 36, and at
40.00	I find the standard 1/4 sec. cor. 6 lks N. at
80.02	I find the standard cor. of Sps 4 and 5. N. Rs 4 and 5 E. 10 lks. N. a gray sandstone firmly set in mound of stone, marked and witnessed as described by the surveyor general, and the N. bdy. of the Sp. is as stated by him.

July 18 - 1895.

I re-trace the 1st Guide Meridian, or E. bdy of the Sp. as follows:

I begin at the cor. of Sps. 3 and 4. N. Rs. 4 and 5. E. in Latitude 41°-02' N. Longitude 111°-26' W. which is a boulder stone 12 x 7 x 5 ins. firmly set in mound of stone, marked and witnessed as described by the surveyor general. July 19th 1895, at 11h 31m P. M. L. mt. or at 11h 6m P. M. by my watch which is correct mountain standard rail road time, I observe Polaris at eastern elong-ation in accordance with Manual of Instructions, and mark the line thus determined by a tack driven in a wooden plug set in the ground 7.70 chs. N. of my station: a ridge and ravine obstructs the view at 5.00 chs. North.

July 19th 1895,

July 20th 1895, at 8. a.m. I lay off the azimuth of Polaris 1°-40' to the west and mark the true meridian thus determined by a tack driven in a wooden plug set in the ground west of the point established last night: the magnetic bearing of said true meridian is N 16°-43' W. which reduced by the table on page 100 of the Manual gives the mean magnetic declination 16°-37' E.

Thence I run

North on a blank line bet. secs. 31 and 36, at

40.00	I find the 1/4 sec. cor. 10 lks E. at
80.00	I find the ... cor. of secs. 25, 30, 31 and 36, 25 lks E.

Retracements Sp 4. N. R. 4 E.

Chains	
	I continue my line
	North on a blank line bet secs 25 and 30. at
40.00	I find the 1/4 sec. cor. 47 lks E. and at
80.00	I find the cor of secs, 19, 24, 25 and 30, E. 68 lks dist.
	I continue my line
	N bet secs, 19 and 24, at
40.00	I find the 1/4 sec. cor, E. 46 lks dist, at
80.00	I find the cor. of secs. 18, 19, 13 and 24, E. 28 lks dist.
	I continue my line
	N bet. secs, 13 and 18, at
40.00	I find the 1/4 sec. cor. E. 40 lks dist. at
80.00	I find the cor. of secs. 7, 12, 13 and 18. E, 51 lks, dist.
	I continue my line
	N. bet. secs. 7 and 12. at
40.00	I find the 1/4 sec. cor. E. 76 lks. dist. at
80.00	I find the cor. of secs, 1, 6, 7 and 12. E. 101 lks, dist
	I continue my line
	N. bet. secs. 1 and 6, at
40.00	I find the 1/4 sec, cor, E, 124 lks dist. at
79.67	I intersect the N. bdy. of the Sp. 148 lks W. of the cor. of Sps 4 and 5. N. Rs. 4 and 5 E.

The bearing from the S.E. cor. to the N.E. cor. of the Sp. is N 0° 11' E; and the bearing between any two corners on the E. bdy. line does not exceed the limit prescribed by the Manual; and my chaining agrees with the original chaining up to the last half mile.

July 26th 1895.

I retrace the S. bdy. of the Sp. as follows:
I begin at the cor. of Sps. 3 and 4 N Rs. 4 and 5 E, heretofore described, and run
West on a blank line bet. secs, 1 and 36, at

38.93	I find the 1/4 sec. cor. N 60 lks. dist at
78.10	I find the cor. of secs. 1, 2, 35 and 36, N 107 lks. dist.

July 27th 1895.

I continue my line
N. on a blank line bet. secs. 2 and 35, and at

39.22	I find the 1/4 sec. cor. N. 165 lks. dist. at
78.91	I find the cor. of secs. 2, 3, 34 and 35. N 207 lks dist.

July 29th 1895.

Subdivisions Sp. 4. N. R. 4 E.

chains	
	I continue my line
	W. on a blank line bet. secs. 3 and 34, at
39.16	I find the 1/4 sec. cor. N. 2.68 chs. dist and at
77.87	I find the cor. of secs. 3, 4, 33, and 34, N. 3.26 chs. dist
	I continue my line
	W. bet secs, 4 and 33, and at
38.82	I find the 1/4 sec. cor. N 3.81 chs. dist. at
79.16	I find the cor. of secs., 4, 5, 32 and 33, N 4.29 chs dist,
	I continue my line
	W. bet secs, 5 and 32. at
40.00	after dilligent search I do not find any trace of the old 1/4 sec. cor. at
80.79	I find the cor. of secs, 5, 6, 31, and 32, N. 5.19 chs dist,
	I continue my line
	W. bet. secs. 6 and 31, at
40.00	after dilligent search I do not find any trace of the old 1/4 sec. cor, at
80.00	I intersect N. and S. line 5.98 chs S. of the cor. of Sps. 3 and 4. N. Rs. 3 and 4 E, which is a granite boulder stone 6 x 6 x 5 ins. above ground, firmly set. in mound of stone, marked and witnessed as described by the surveyor general. Therefore the bearing of the S. bdy, from the S. E. cor. to the S. W. cor, of the Sp. is N 89° 17' W. and the distance is 474.83 chains, which does not agree with the original survey.

August 1st 1895.

I retrace the W. bdy. of the Sp. as follows:
I commence at the cor. of Sps. 3 and 4. N. Rs. 3 and 4 E. August 5th 1895. at 10h 27m P. M. L. M. T. or at 10h 53m P. M. by my watch which is correct mountain standard rail road time, I observe Polaris at eastern elongation in accordance with Manual of Instructions and mark a point in the line thus determined by a tack driven in a wooden plug set in the ground 2.00 chs. N. of my station; a ridge and ravine obstructed the view at 5.00 chains North.

August 5th 1895.

Subdivisions Sp. 4. N. R. 4 E.

chains	
	August 6th 1895. at 8. a.m. mountain standard rail road time. I lay off the azimuth of Polaris 1° 40' to the west and mark the true meridian thus determined by a tack driven in a wooden plug set in the ground west of the point established last night; the magnetic bearing of said true meridian is N 16° 43' W. which reduced by the table on page 100 of the Manual gives the mean magnetic declination 16° 37' E.
	Thence I run
	North on a blank line bet. secs. 31 and 36. at
40.40	I find the 1/4 sec. cor. W. 12 lks. dist. and at
80.83	I find the cor. of secs. 25, 30, 31 and 36. W. 24 lks. dist.
	I continue my line
	N. bet. secs. 25 and 30. at
39.60	I find the 1/4 sec. cor. W. 36 lks. dist. and at
79.20	I find the cor. of secs. 19, 24, 25 and 30, W 48 lks. dist.
	I continue my line
	N. bet. secs. 19 and 24. at
39.40	I find the 1/4 sec. cor. E. 13 lks. dist. and at
78.87	I find the cor. of secs. 13, 18, 19, and 24 E. 74 lks. dist.
	I continue my line
	N. bet. secs. 13 and 18. at
40.51	I find the 1/4 sec. cor. E. 79 lks. dist. and at
81.51	I find the cor. of secs. 7, 12, 13 and 18. E. 85 lks. dist.
	I continue my line
	N. bet. secs. 7 and 12. at.
40.43	I find the 1/4 sec. cor. E. 86 lks. dist. and at.
81.09	I find the cor. of secs. 1, 6, 7 and 12. E. 75 lks. dist.
	I continue my line
	N. bet. secs. 1 and 6. at.
40.53	I find the 1/4 sec. cor. E. 83 lks. dist. at.
82.78	I find the closing cor. of Sp. 4. N. Rs 3 and 4 E. E. 80 lks dist.
	August 13th 1895.

As the S. bdy. of this Sp. is defective both in alinement and measurement, and subdivision lines have been closed on the south side thereof, I proceed with the subdivision lines of the Township as follows:

I begin at the cor. of secs. 25, 30, 31 and 36, on the E. bdy. of the Sp. which is a gray sandstone 12X6X5 ins. above ground, mound, trench, set, marked and witnessed as described

Chains	
	by the surveyor general, August 14th 1895, at 9h 52m P.M. L.mt, or at 10h 18m P.M. by my watch which is correct mountain standard rail road time, I observed Polaris at eastern elongation in accordance with Manual of Instructions and mark the line thus determined by a tack driven in a wooden plug set in the ground 4.00 chains N. of my station, a hill obstructed the view at 5. chs. North. August 14th 1895.
	August 15th 1895, at 8. A.M. I lay off the azimuth of Polaris, 1° 40' to the west and mark the true meridian thus determined by a tack driven in a wooden plug set in the ground west of the point established last night, the magnetic bearing of said true meridian is N 16° 43 W. which reduced by the table on page 100 of the Manual gives the mean magnetic declination 16° 37' E. Thence I run West on a Sectional Correction line bet. secs. 25 and 36, ascending over ground sloping S. into Burro Canon.
5.00	Begin to descend,
10.00	Bottom of ravine 100 ft. deep, drains S. into Burro Canon, Begin ascend
20.00	Top of ridge about 150 ft above bottom of ravine, bears N and S. descend,
32.00	Small spring in bottom of ravine, drains S. Bottom of ravine about 100 ft below top of ridges; course S. ascend.
40.00	Set a quartzite boulder stone, 12×8×8 ins, 8 ins in the ground for 1/4 sec. cor. marked 1/4 on N. face, and raised a mound of stone 2 ft base 1½ ft high N. of cor. Pits impracticable.
45.00	Top of ridge about 150 ft above bottom of ravine bears S 20° W. and N. 70° E. descend.
58.50	Bottom of small ravine, course S 10° W. ascend,
60.00	top of ridge 30 ft above bottom of ravine, course S. Begin descent along bottom of ravine, course W.
73.00	Leave bottom of ravine bears N 80° W. Descend along S. side of ravine.
80.00	Set quartzite boulder stone 20×10×8 ins, 15 ins. in the ground for cor. of secs 25, 26, 35 and 36, marked with 1 notch on E. and 1 notch on the S. edges: and raised a mound of stone 2 ft. base 1½ ft high W. of cor. Pits impracticable.

Subdivisions Tp. 4N-R.4E.

chains	
	Land mountainous and broken, Soil stony: 4th rate. No timber. Mountainous land 80.00 chs.
	W. on a Sectional Correction line bet. secs. 26 and 35. over stony ground sloping N.W. Descending.
3.50	Bottom of ravine about 50 ft. below the sec. cor. course S 45° W. Thence over stony ground sloping S.
18.00	Bottom of ravine 10 ft deep. 2.00 chs. wide, course S. Begin steep ascent.
21.00	Top of ridge about 75 ft above bottom of ravine bears S 45° W. and N. 45° E. Descend.
26.80	Bottom of ravine about 100 ft. deep. course S 10° W. ascend.
30.00	Top of ridge about 100 ft above bottom of ravine. bears N and S. Descend.
32.50	Bottom of ravine about 50 ft below top of ridge. bears N. and S. ascend
38.00	Top of ridge about 150 ft above bottom of ravine, bears N. and S. Descend.
40.00	Set quartzite boulder stone 14 X 6 X 6 ins 9 ins in the ground for 1/4 sec. cor. marked 1/4 on N. face; and raised a mound of stone 2 ft base 1½ ft high N. of Cor. Pits impracticable.
44.90	Bottom of ravine about 200 ft below the top of ridge bears N. & S. Begin ascent.
52.25	Top of ridge about 200 ft above bottom of ravine; course S 10° E. Descend over broken ground sloping S.
61.30	Begin steep descent bears N E & S. W.
72.75	Bottom of ravine about 200 ft below top of ridge; course S 45° W. ascend.
76.32	Intersect N. & S. line 1.71 chs. S. of the cor of secs. 26, 27, 34 and 35, which is a boulder stone 21 X 12 X 12 ins. above ground, marked and witnessed as described by the surveyor general. at this point I Set quartzite boulderstone 15 X 8 X 6 ins. 10 ins in the ground for closing cor. of secs. 26 and 35. marked C. C. on E. face, with 5 notches on N. and 1 notch on S. edges; and raised a mound of stone 2 ft base 1½ ft high E. of cor. Pits impracticable.
	I re-establish the old cor of secs. 26, 27, 34 and 35

Sp. 4. N. R. 4 E. Subdivisions.

chains	
	as the N.E. cor. of Sec. 34. by raising a mound of stone 2 ft base 1½ ft high S.W. of the original cor. Pits impracticable Land mountainous and broken, Soil stony: 4th rate. No timber. Mountainous land 76.32 chs.
	From the cor. of secs. 25, 26, 35 and 36, heretofore described I run
	S. 0°10' W. on a true line bet. secs 35 and 36. Ascending over stony ground sloping N.
10.50	Top of ridge about 100 ft. above the sec. cor. bears S 45° W. and N 45° E. Descend over stony ground on E. slope of ridge into Burns Cañon.
40.00	Set quartzite boulder stone 18X8X7 ins. 12 ins. in the ground for ¼ sec. cor., marked ¼ on W. face, and raised a mound of stone 2 ft base, 1½ ft high W. of cor. Pits impracticable.
55.15	Burns creek bed, (dry) drains S 45° W.
55.65	Wood road bears S 45° W and N 45° E, from Hennefer up Burns cañon. Ascend.
67.25	Top of spur bears N. Descend.
71.40	Bottom of ravine drains N. Begin steep ascent.
72.65	Top of spur bears N. Descend
73.40	Bottom of ravine, course N 80° W. Begin steep ascent.
78.86	Intersect the S. bdy. of the Sp. 1.90 chs N 89° W of the cor. of Secs 1, 2, 35 and 36, which is a boulder stone 12X10X8 ins above ground firmly set, marked and witnessed as described by the surveyor general. At this point I set a quartzite boulder stone 15X8X6 ins 10 ins. in the ground for closing cor. of secs. 35 and 36, marked with 5 notches on the W. and 1 notch on E. edges; and raised a mound of stone 2 ft base, 1½ ft high N. of cor. Pits impracticable. I re-establish the old cor. of secs. 1, 2, 35 and 36, already described, as the cor. of secs. 1 and 2, by raising a mound of stone 2 ft base, 1½ ft high S. of the original corner. Pits impracticable. Land mountainous and broken, Soil stony: 4th rate. No timber. Mountainous land 78.86 chs.

Subdivisions, Sp. 4. N. R. 4 E.

chains	
	August 15th 1895.
	August 15th 1895. at 9h 48m l.mt. or at 10h 14m P.M by my watch which is correct mountain standard rail road time, I observe Polaris at eastern elongation, in accordance with Manual of Instructions, at the cor. of secs. 25. 26. 35 and 36, and mark the line thus determined by a tack driven in a wooden plug set in the ground 5.00 chs. N. of my station. August 15th 1895.
	August 16th 1895, at 8. a.m. I lay off the azimuth of Polaris 1° 40' to the west and mark the true meridian thus determined by a tack driven in a wooden plug set in the ground west of the point established last night. Thence I run N 0° 10' E. bet. secs. 25 and 26. Descending over stony ground.
1.30	Bottom of ravine about 20 ft. below the sec. cor. course N 80° W. Begin ascent.
3.50	Top of spur sloping N. Descend.
5.00	Bottom of ravine, course S 20° W. ascend over stony ground.
12.85	Top of ridge about 250 ft. above bottom of ravine bears E. and W. Descend.
36.00	Spring branch drains N 50° W. in bottom of ravine about 50 ft. deep. very little water in this spring, sinks about 150 lks after leaving the spring. Begin ascent.
40.00	Set quartzite boulder stone 15 x 10 x 8 ins., 10 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face; and raised a mound of stone 2 ft. base, 1½ ft high N. of cor. Pits impracticable. Descend.
54.50	Bottom of S. Fork of Harris Cañon, about 500 feet deep, course S 80° W. Begin to ascend N. side of canon. over stony ground
74.30	Top of ridge about 400 feet above bottom of cañon, bears E and W. Begin descent.
80.00	Bottom of ravine, about 100 ft below top of ridge; course W. Set quartzite boulder stone 14 x 8 x 8 ins, 9 ins in the ground for cor of secs, 23. 24. 25 and 26, marked with 1 notch on E. and 2 notches on S. edges; and raised a mound of stone 2 ft base, 1½ ft high W. of cor. Pits impracticable.

Subdivisions. Tp. 4. N — R. 4 E.

chains	
	Land mountainous and broken, Soil stony: 4th rate. No timber, Mountainous land 80.00 chs.
	East on a random line bet. secs. 24 and 25.
40.00	Set temp. 1/4 sec. cor.
80.20	Intersect the E. bdy of Tp. 2 lks. S. of the cor. of secs. 19, 24, 25 and 30, which is a boulder stone 7X6X6 ins. above ground marked and witnessed as described by the surveyor general Thence I run
	S 89° 59' W, on a true line bet. secs. 24 and 25, Descending over stony ground,
10.25	Bottom of S. Fork of Harris Cañon, about 500 ft deep, drains S 70° W, at small spring. Ascend over rough broken hill side sloping S.
40.10	Set quartzite boulder stone 18X8X8 ins 12 ins. in the ground for 1/4 sec. cor. marked 1/4 on N face; and raised a mound of stone 2 ft. base 1½ ft high N. of cor. Pits impracticable.
40.70	Top of spur bearing S. Descend.
47.70	Bottom of ravine about 100 ft below top of spur course S. Begin ascent,
58.20	Top of ridge 50 ft above bottom of ravine, bears S 70° W. and N. 70° E. Descend,
76.70	Begin steep descent bears N.W. and S.E.
80.20	The cor. of secs. 23, 24, 25 and 26. Land mountainous and broken, Soil stony: 4th rate. No timber, Mountainous land 80.20 chs.
	West, bet. secs. 23, and 26. Descending along bottom of ravine bears W.
40.00	Set, quartzite boulder stone 18X10X8 ins 12 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face, and raised a mound of stone 2 ft base, 1½ ft high N. of cor. Pits impracticable,
40.75	Bottom of ravine about 50 ft. below the 1/4 sec. cor. course N 40° W. ascend,
42.00	Top of spur 50 ft above bottom of ravine bears N. Descend.
46.30	Bottom of N. Fork of Harris Canon, about 500 ft deep, course S 45° W

Subdivisions, Sp. 4. N — R. 4 E.

Chains	
47.50	Creek brd. (dry) draws S 45° W.
48.00	Wood road bears N 45° E. and S 45° W. Begin steep ascent, west side of canon, over rocky ground.
57.50	Conglomerate stone ledge 20 ft. high bears N and S.
63.50	Top of spur about 300 feet above bottom of canon, slopes S. Begin descent.
69.75	Bottom of ravine about 200 ft below top of spur; course S 15° E. a small spring of pure water bears S 15° E. about 15.00 chs dist at mouth of this ravine. Ascend.
76.50	Top of spur about 200 ft. above bottom of ravine slopes S. Begin descent.
80.00	Set a quartzite boulder stone 16 x 12 x 6 ins, 11 ins in the ground for cor. of secs. 22, 23, 26 and 27, marked with 2 notches on the E. and 2 notches on the S. edges; and raised a mound of stone 2 ft base 1½ ft high W. of cor. Pits impracticable. Land mountainous and broken. Soil stony: 4th rate. No timber. Mountainous land 80.00 chs.
	W. brt. secs. 22. and 27. Descending over stony ground.
3.40	Bottom of ravine about 100 ft. below the sec. cor. bears S 15° E. ascend,
7.50	Top of ridge about 150 ft above bottom of ravine, course S 15° E. Begin descent,
15.00	Bottom of ravine about 20 ft deep. course S 10° E. ascend,
18.50	Top of low ridge, bearing S. and N. Begin descent,
22.25	Bottom of ravine 70 ft deep. course S 15° E. Begin ascent,
38.60	Top of ridge about 200 ft. above ravine, bears N 15° E, and S 15° W. Descend W. slope.
40.00	Set quartzite boulder stone 18 x 12 x 6 ins 12 ins. in the ground for ¼ sec. cor. marked ¼ on N. face and raised a mound of stone 2 ft base 1½ ft high N. of cor. Pits impracticable.
43.90	Bottom of ravine about 150 ft. below top of ridge. course S 15° W. Ascend
47.70	Top of spur about 75 ft above ravine, sloping S 15° W Begin descend

Subdivisions. Sp. 4. N. – R. 4 E.

Chains	
66.50	Bottom of ravine about 200 ft below top of ridge, course S 30° W. Begin ascent.
71.50	Top of spur bears S. Descend.
73.50	Bottom of ravine, about 20 ft. below spur, course S.
73.72	Intersect N and S lines 148 lks S. of the cor of secs 21, 22, 27 and 28, which is a boulder stone 8 X 6 X 6 ins. above ground firmly set, marked and witnessed as described by the surveyor general. At this point I set a quartzite boulder stone 18 X 8 X 6 ins 12 ins. in the ground for closing cor. of secs, 22 and 27, marked C.C. on E. face, with 4 notches on N. and 2 notches on S. edges, and raised a mound of stone 2 ft. base 1½ ft high E. of cor. Pits impracticable. I re-establish the old cor. of secs, 21-22, 27 and 28, as the cor. of secs, 21 and 28, by raising a mound of stone 2 ft base, 1½ ft high N. of the original cor. Pits impracticable.
	Land mountainous and broken,
	Soil stony: 4th rate.
	No timber.
	Mountainous land 73.72 chs,

From the cor. of secs. 22, 23, 26 and 27, I run
S 0° 04' W. brt. secs, 26 and 27,
Descending over stony ground.

6.15	Bottom of ravine about 200 ft below the sec. cor. course S 40° E, Begin ascent,
12.40	Top of spur about 100 ft. above bottom of ravine, slopes S.E. Begin descent,
30.00	Bottom of N. Fork of Harris canon, about 300 ft below top of spur, course S 50° W,
32.50	Wood road bears S 50° W. and N. 50° E.
33.50	Harris Creek (dry) course S 50° W,
34.35	Begin ascent. S. side of canon, bears N 47° E and S 47° W,
36.50	Top of spur slopes N. Descend,
39.05	Foot of descent at north side of the S. Fork of Harris canon, course N 55° W,
39.73	Creek brd (dry) course N 55° W,
40.00	Set quartzite boulder stone 16 X 6 X 6 ins 11 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face; and raised a mound of stone 2 ft base 1½ ft high N. of cor. Pits impracticable.

Subdivisions, Sp. 4. N., R. 4 E.,

Chains	
40.35	Wood road bears N 78° W. and S 78° E.,
40.87	Begin ascent, at S. side of canon, bears N 80° W. and S 80° E.,
59.00	Top of steep ascent about 300 ft. above the bottom of canon, thence over broken ground sloping W.,
73.00	Begin descent at head of ravine bears South.,
78.30	Intersect E. and W. line 3.68 chs. N of the old cor. of secs. 26, 27, 34 and 35. heretofore described, at this point I Set, a quartzite boulder stone 14 X 10 X 8 ins. 9 ins. in the ground for closing cor. of secs. 26 and 27, marked C. C. on N. face, with 2 notches on E. and 4 notches on W. faces, and raised a mound of stone 2 ft. base 1½ ft high N of cor. Pits impracticable Land mountainous and broken Soil stony; 4th rate. No timber, Mountainous land 78.30 chs.

August 16th 1895. at 9h 44m P.M. l.m.t or at 10h 10m P.M. by my watch which is correct mountain standard rail road time, I observe Polaris at eastern elongation in accordance with Manual of Instructions, at the cor. of secs, 23, 24, 25 and 26, and mark a point in the line thus determined by a tack driven in a wooden plug set in the ground 5.00 chs. N of my station.

August 16th 1895,

August 17th 1895. at 8. A. M. I lay off the azimuth of Polaris, 1° 40' to the west and mark the true meridian thus determined by a tack driven in a wooden plug set in the ground west of the point established last night,

Thence I run

N. 0° 10' E. brt. secs. 23 and 24,

ascending over stony ground sloping W.,

5.65	Top of ridge 20 ft above the sec. cor, bears N 47° W. and S 47° E. Begin descent,
8.30	Bottom of ravine about 50 ft. below top of ridge course N 10° W. Continue descent, along E. side of

Subdivisions. Sp. 4. N — R. 4 E.

Chains	
	ravine.
36.30	Bottom of ravine 50 ft. deep, 6.00 chs. wide, course N 65° W.
56.30	Foot of descent in bottom of N. Fork of Harris Canon about 400 ft deep: course S 60° W. Begin ascent.
74.60	Sandstone ledge 7 ft. high bears E and W.
76.30	Top of spur about 400 ft above bottom of canon, slopes S 45° E. continues ascent.
80.00	Set quartzite boulder stone 14 X 8 X 8 ins 9 ins: in the ground for cor. of secs. 13, 14, 23 and 24, marked with 1 notch on the E. and 3 notches on the S. edges; and raised a mound of stone 2 ft. base, 1½ ft high W. of cor. Pits impracticable.
	Land mountainous and broken,
	Soil stony; 4th rate.
	No timber
	Mountainous land 80.00 chs,
	N 89° 59' E, on a random line bet. secs 13 and 24.
40.00	Set temp. ¼ sec. cor,
79.60	Intersect the E. bdy of Sp. at the cor. of secs. 13, 18, 19 and 24. which is a boulder stone 16 X 6 X 6 ins, above ground firmly set, marked and witnessed as described by the surveyor general,
	Thence I run
	S. 89° 59' W. on a true line bet. secs, 13 and 24,
	Descending over stony ground sloping W.
37.00	Bottom of N. Fork of Harris Canon, about 300 ft deep: course S 60° W. Begin ascent,
39.80	Set quartzite boulder stone 14 X 10 X 8 ins. 9 ins, in the ground for ¼ sec. cor. marked ¼ on N. face; and raised a mound of stone 2 ft. base 1½ ft. high N. of cor. Pits impracticable
58.00	Top of ridge about 250 ft. above bottom of canon, bears N and S. Descend,
62.50	Bottom of ravine 50 ft. below top of ridge: course S. Ascend,
68.00	Top of ridge about 50 ft above ravine: course S. Descend
75.20	Bottom of ravine about 150 ft below top of ridge. Course S. Ascend.
79.60	The cor. of secs, 13, 14, 23 and 24,
	Land mountainous and broken,
	Soil stony. 4th rate,

Subdivisions, Sp. 4. N. R. 4 E.

Chains	
	No timber.
	Mountainous land 79.60 chs.
	N 0°-10' E. bet. secs. 13 and 14,
	Ascending over stony ground sloping S. E.
12.90	Top of ridge about 150 ft. above the sec. cor. bears S 10° W. and N 10° E.: bring the boundary line bet. Summit County on the S. and Morgan County on the North. Descend.
24.75	Enter aspen and maple brush bears E and W.
26.75	Leave aspen and maple brush, bears E and W.
34.25	Wood road bears N 40° E. and S 40° W. in bottom of Woolf Dew Canon. Ascend.
40.00	Set quartzite boulder stone 16x6x6 ins. 11 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face and raised a mound of stone 2 ft base, 1½ ft high W. of cor. Pits impracticable.
52.75	Top of ridge 300 ft. above the bottom of canon, bears E. and W. Begin descent, through scattering aspen, maple and willows,
68.00	Bottom of canon about 300 ft below top of ridge, course N. 70° W. Leave aspen and maple brush. Begin ascent.
73.00	Top of spur sloping W. Begin descent,
79.00	Bottom of ravine about 50 ft below spur, course S 45° W.
80.00	Set quartzite boulder stone 16x12x10 ins. 11 ins. in the ground for cor. of secs. 11, 12, 13 and 14, marked with 1 notch on the E. and 4 notches on the S. edges; and raised a mound of stone 2 ft. base 1½ ft high W. of cor. Pits impracticable.
	Land mountainous and broken
	Soil alluvial and stony: 1st and 4th rate.
	Timber, scattering aspen,
	Mountainous land 80.00 chs.
	N 89°-59' E. on a random line bet. secs. 12 and 13.
40.00	Set temp. 1/4 sec. cor.
79.58	Intersect E. bdy of Sp. 3 lks. N. of the cor. of secs. 7, 12, 13 and 18. which is a boulder stone 8x6x5 ins above ground, firmly set marked and witnessed as described by the surveyor general.
	Shenee Drum
	W. on a true line bet. secs. 12 and 13

Subdivisions, Sp. 4, N — R. 4 E.

Chains.	
	Through thick oak brush, over ground sloping N.
3.00	Leave oak brush bears N and S. Descend over ground sloping N.W.
25.00	Bottom of canon about 400 ft. below the sec. cor. course N 25° W. Pure water in holes in this canon, Begin ascent through oak and willow brush
39.74	Set quartzite boulder stone 18×7×7 ins. 12 ins. in the ground for 1/4 sec. cor. marked 1/4 on N face; dug pits 18×18×12 ins, E and W. of stone 3 ft. dist. and raised a mound of earth 3½ ft, base 1½ ft high N of cor.
40.80	Top of ascent about 200 ft above bottom of canon, course N. Leave oak and willow brush bears N and S. Descend over ground sloping N.W.
53.00	Bottom of ravine about 200 ft below top of ascent, course N 45° E, scattering aspen timber in this ravine, Begin ascent,
63.00	Top of ridge about 100 ft above bottom of ravine, bears N 30° E. and S. 30° W, Descend along bottom of ravine bears W,
79.58	The cor. of secs. 11, 12, 13 and 14, Land mountainous and broken, Soil alluvial and stony; 1st and 4th rate. Timber scattering aspen, Mountainous land 79.58 chs.
	N 0° 10' E. bet. secs. 11 and 12, Ascending over stony ground
8.75	Top of ridge about 250 ft. above the sec. cor. bears N 60° W. and S 60° E Begin descent over stony ground sloping N.E.
17.75	Spur sloping N.E. Begin steep descent into W. Fork of Black Hawk Canon.
40.00	Set quartzite boulder stone 18×8×6 ins. 12 ins in the ground for 1/4 sec. cor. marked 1/4 on W. face and raised a mound of stone 2 ft. base 1½ ft high W. of cor. Pits impracticable.
49.50	Bottom of W. Fork of Black Hawk canon, about 400. ft below top of ridge, Course N 50° E. Very small springs of water in this canon. Begin ascent, along W. side of canon,
70.00	Top of ridge about 300 ft. above bottom of canon. bears N 5° E. and S 15° W. Descend along W. slopes of ridge;
80.00	Set quartzite boulder stone 14×8×6 ins 10 ins in the

Subdivisions, Sp. 4. N — R. 4 E.

Chains.	
	ground for cor. of secs. 1, 2, 11 and 12. marked with 1 notch on the E. and 5 notches on the S. edges, and raised a mound of stone 2 ft. base 1½ ft high W. of cor. Pits impracticable. Land mountainous and broken Soil stony, and alluvial; 1st and 4th rate. Timber scattering aspen. Mountainous land 80.00 chs.
	E. on a random line bet. secs. 1 and 12.
40.00	Set temp. ¼ sec. cor.
79.80	Intersect E. bdy. of Sp. at the cor. of secs. 1, 6, 7 and 12, which is a white sand stone 6×6×6 ins. above ground firmly set, marked and witnessed as described by the surveyor general, Shenee Irun
	N. on a true line bet. secs. 1 and 12, ascending over broken ground
3.60	Top of ascent about 100 ft above the sec. cor. bears N and S. Thence along broken ground on S. side of Cedar Cañon.
8.00	Enter oak brush bears N and S.
12.30	Leave oak brush bears N and S.
28.00	Top of spur bears N 45° W. Descend into Black Hawk Cañon.
39.90	Set gray sand stone 15×10×5 ins. 10 ins. in the ground for ¼ sec. cor. marked ¼ on N. face; and raised a mound of stone 2 ft. base, 1½ ft high N. of cor. Pits impracticable.
50.00	Foot of descent in Black Hawk Cañon, about 400. ft. below top of spur. Course N 45° W. Thence over level land.
50.90	Wood road bears N. and S 45° E.
55.50	Creek bed 2 ft deep, 10 ft wide, (dry) drains N.
56.10	Begin steep ascent W. side of canon bears N and S.
75.00	Top of ridge about 800 ft. above bottom of canon, bears N 15° E. and S. 15° W. Begin descent,
79.80	The cor. of secs. 1. 2. 11. and 12, Land mountainous and broken Soil, alluvial and sandy: 1st and 3rd rate. Timber, scattering aspen. Mountainous land 79.80 chs.

Subdivisions Sp. 4. N. — R. 4 E.

chains.	
	N 0°10' E. brt. secs. 1 and 2.
	Descending over broken ground sloping N.W.
6.00	Foot of steep descent bears N 15° E. and S 15° W. Thence over ground nearly level.
16.00	Top of steep descent bears E and W. on S. side of Cedar Canon.
26.50	Enter scattering pine bears E and W.
30.50	Leave scattering pine bears E and W.
31.30	Bottom of Cedar Canon, about 800 ft. below the last sec. cor. bears E. and W. Enter Georges Shackerays land claim bears E. and W. along foot hills, marshy land.
35.86	Cedar Creek 2 ft deep, 5 lks. wide, course N 80° W. Pure water, Leave marshy bottom land, Enter Meadow.
37.30	Leave Shackerays land claim, and meadow bears E. and W. N. end of subdivision line brt. Shackerays claim and John Hopkins claim, bears E. 3.00 chs. dist, and runs S. about 6.00 chs. to the south side of the canon.
38.60	Wood road bears E. and W. Begin ascent.
40.00	Set quartzite boulder stone 16 x 8 x 7 ins. 11 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face; and raised a mound of stone 2 ft. base 1½ ft high W. of cor. Pits impracticable.
44.25	Begin steep ascent bears E and W. very rocky.
63.70	Top of spur about 500 ft above bottom of canon, bears S. 40° W. Descend along ground sloping N.W.
79.60	Intersect N. bdy. of the Sp. at the standard cor. of secs. 35 and 36, which is a gray sandstone 7 x 7 x 6 ins. above ground firmly set, marked and witnessed as described by the surveyor general, which I mark C.C. on S. face, and raise a mound of stone 2 ft. base 1½ ft high S. of cor. Pits impracticable.

Land mountainous and broken
Soil stony and alluvial; 1st and 4th rate.
Timber, a few scattering pine.
Mountainous land 72.20 chs.

August 17th 1895.

August 20-1895. at 9h 28m P.M. L.M.T. or at 9h 54m P.M. by my watch which is correct mountain standard rail road time, I observed Polaris at eastern elongation in accordance with Manual of Instructions, at the cor. of Secs. 22, 23, 26 and 27, and mark a point in the line thus determined by a tack driven in a wooden plug set in the ground 5.00 chs N. of my station.

Subdivisions. Tp. 4. N. — R. 4 E.

Chains.	August 20th 1895.
	August 21st 1895, at 8. a m, I lay off the azimuth of Polaris 1° 40' to the west, and mark the true meridian thus determined by a tack driven in a wooden plug set in the ground west of the point established last night,
	Thence I run
	N 0° 09' E. bet. secs. 22 and 23,
	ascending over stony ground sloping S. W.
6.50	Top of ridge about 175 ft above the sec. cor. bears S 10° E. and N 10° W. Continue ascent along E. sloping ridge. over stony ground.
33.50	Top of ridge about 300 ft above the sec. cor. bears S 45° W. and N 45° E. Being the boundary line between Summit County on the South and Morgan County on the north.
	Begin descent.
40.00	Bottom of ravine about 100 ft. below the top of ridge. Course N 45° W.
	Set quartzite boulder stone 16 × 8 × 6 ins. 11 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face, and raised a mound of stone 2 ft. base 1½ ft high W. of cor. Pits impracticable.
	Descend over broken ground sloping W.
62.00	Bottom of ravine about 200 ft. below the 1/4 sec. cor, course W. a small spring of pure water 2 ins deep. 1 ft in diam. bears W. about 8.00 chs. dist. and flows N. W.
	Begin steep ascent,
80.00	Set a quartzite boulder stone 14 × 6 × 6 ins 9 ins. in the ground for cor. of secs. 14, 15. 22, and 23, marked with 2 notches on the E. and 3 notches on the S. edges; and raised a mound of stone 2 ft. base, 1½ ft high W. of cor. Pits impracticable.
	Land mountainous and broken
	Soil stony: 4th rate.
	No timber,
	Mountainous land 80.00 chs.
	E. on a random line bet. secs. 14, and 23
40.00	Set temp. 1/4 sec. cor.
80.03	Intersect N and S. line 2 lks. N. of the cor. of secs. 13, 14, 23 and 24, [illegible]
	Thence I run

Subdivisions, Sp. 4. N — R. 4 E.

chains.	N 89° 59' W. on a true line bet. secs. 14 and 23. Ascend over stony ground sloping N.E.
7.60	Top of spur about 200 ft above the sec cor. bears S 45° E.
15.00	Top of ridge about 20 ft above top of spur, bears S 80° W. and N 80° E. Boundary bet. Summit County on the S. and Morgan County on the N. Begin steep descent.
33.30	Bottom of steep descent about 300 ft below ridge bears N and S. Thence over broken ground sloping N.W.
38.00	Begin ascent bears N and S.
40.01½	Set gray sand stone 15 x 8 x 5 ins 10 ins. in the ground for ¼ sec. cor. marked ¼ on N. face; and raised a mound of stone 2 ft. base 1½ ft high N. of cor. Pits impracticable.
41.00	Top of spur about 75 ft. above bottom of ascent, course N. Begin descent.
49.50	Bottom of ravine about 100 ft. below spur, course N 10° W. Ascend.
55.30	Top of ridge about 100 ft above bottom of ravine; course N 45° W. descend.
61.50	Bottom of ravine about 125 ft. below top of ridge, course N 45° W. a small spring of pure water at mouth of this ravine bears N 45° W. about 20. chs. dist. ascend.
69.70	Top of ridge about 125. ft above bottom of ravine, bears NE. and S.W. Descend.
72.75	Bottom of ravine about 50 ft below top of ridge, course N 40° E. Ascend.
79.00	Top of ridge about 100 ft above bottom of ravine bears N 45° W. and S 45° E. Descend.
80.03	The cor. of secs. 14, 15, 22, and 23. Land mountainous and broken. Soil alluvial and stony; 1st and 4th rate. No timber. Mountainous land 80.03 chs.

	W. on a random line bet. secs. 15 and 22.
40.00	Set temp. ¼ sec. cor.
73.76	Intersect N and S. line 15 lks. S. of the cor. of secs. 15, 16, 21, and 22, which is a boulder stone 12 x 8 x 5 ins. above ground firmly set, marked and witnessed as described by the surveyor general, but broken in two halves. To re-establish this cor. in its original place as follows: Set a quartzite boulder stone 18 x 10 x 8 ins 12 ins in the

Subdivisions. Sp. 4. N. — R. 4 E.

Chains	
	ground for cor. of secs. 15, 16, 21 and 22, marked 4 N. on N.W. and 4E on S.W. faces, with 3 notches on the E. and 3 notches on the S. edges; and raised a mound of stone 2 ft. base 1½ ft high. W. of cor. Pits impracticable. Thence I run
	S 89° 53' E, on a true line bet secs. 15 and 22. Ascending over gentle slope,
25.00	Bottom of ravine 50 ft. deep, 5 chs. wide; course N 45° W.
33.25	Bottom of ravine 50 ft deep. 3 chs. wide; course N 80° W.
33.76	Set quartzite boulder stone 16 x 8 x 6 ins. 11 ins. in the ground for ¼ sec. cor. marked ¼ on N. face; and raised a mound of stone 2 ft. base, 1½ ft high N. of cor. Pits, impracticable. Begin steep ascent.
65.75	Top of ridge about 250 ft above the ¼ sec. cor. bears N and S. Descend.
68.25	Bottom of ravine about 50 ft. below ridge, course S. Ascend. A small spring of pure water bears S. about 18 chs. dist and flows N.W.
73.76	The cor. of secs. 14. 15. 22 and 23.
	Land mountainous and broken,
	Soil, rocky and loam; 3rd and 4th rate.
	No timber,
	Mountainous land 73.76 chs.
	N 0° 09' E. bet. secs. 14 and 15.
	Descending over rough stony ground sloping N.E.
27.90	Bottom of ~~N. Fork of~~ Woolf Dew Canon, about 300. ft. below the sec. cor. Course N 80° W.
28.03	Wood road bears S 80° E. and N 80° W.
28.40	Creek bed (dry) course N.W.
28.70	Begin ascent over rocky ground.
33.30	Top of spur about 100 ft above bottom of canon, slopes N. Descend.
40.00	Set quartzite boulder stone 14 x 8 x 6 ins 9 ins. in the ground for ¼ sec. cor. marked ¼ on N. face; and raised a mound of stone 2 ft base, 1½ ft high N. of cor. Pits impracticable.
42.70	Bottom of canon about 100 ft below top of spur, course S 45° W. Ascend over rocky ground sloping S. E.

Subdivisions, Sp. 4. N—— R. 4 E.

Chains	
62.00	Top of ridge about 275. ft above bottom of canon. bears S 50° W. and N. 50° E. Begin descent over ground sloping W.
79.75	Conglomerate stone ledge 20 ft. high bears N 10° W. and S 10° E. Begin steep ascent.
80.00	Set gray sand stone 16×10×5 ins. 11 ins. in the ground for cor. of secs. 10, 11, 14 and 15. marked with 2 notches on the E. and 4 notches on the S. edges: and raised a mound of stone 2 ft. base, 1½ ft high W. of cor. Pits impracticable. Land mountainous and broken, Soil stony; 4th rate. No timber. Mountainous land 80.00 chs.
	S 89° 59' E. on a random line bet. secs. 11 and 14,
40.00	Set temp. ¼ sec. cor.
80.04	Intersect N and S. line 3 lks. S. of the cor. of secs. 11, 12, 13, and 14, Thence I run. W. on a true line bet. secs. 11 and 14, Descend over stony ground.
0.75	Bottom of ravine, course S. Begin ascent.
7.50	Top of ridge 150 ft. above sec. cor. course S. Begin descent,
12.90	Bottom of ravine about 100 ft. below top of ridge, course, S. Begin ascent.
17.40	Top of ridge about 125. ft above bottom of ravine, bears N and S. Begin descent.
21.60	Bottom of ravine about 125. ft below top of ridge, course S. Begin ascent,
25.40	Top of ridge about 125. ft above bottom of ravine, bears S 20° W. and N. 20° E. Descend,
33.00	Bottom of ravine about 200 ft below top of ridge, course S. Begin steep ascent.
40.02	Set gray sand stone 14 X 8 X 6 ins, 9 ins. in the ground for ¼ sec. cor. marked ¼ on N. face; and raised a mound of stone 2 ft. base, 1½ ft. high N. of cor. Pits impracticable
40.90	Top of ridge about 250 ft above bottom of ravine, bears N and S. Thence over ground sloping S.
45.50	Begin steep descent, over ground sloping N.
54.40	Bottom of ravine about 300 ft below ridge, course S.

Subdivisions Sp. 4 N. — R 4 E.

Chains	
	Begin ascent.
66.60	Top of ridge about 400 ft above bottom of ravine, bears S 10° W. and N 10° E. Descend
79.50	Bottom of ravine about 375 ft below top of ridge, course S 10° W.
80.04	The cor. of secs. 10, 11, 14 and 15.
	Land mountainous and broken.
	Soil stony; 4th rate.
	Timber, a few scattering aspen, S. of the line.
	Mountainous land 80.04 chs.
	N 0° 09' E. bet. secs. 10 and 11.
	Ascending over steep rocky ground sloping S.
13.60	Top of ridge about 500 ft. above the sec. cor. bears E. and W. Descend into Brewer Canon.
18.80	Enter scattering dead aspen, bears E and W.
34.00	Bottom of Brewer Canon about 600 ft. below top of ridge Course N 70° W. Leave dead aspen. Ascend.
38.00	Top of spur slopes W. Descend.
40.00	Set gray sand stone 16 x 8 x 4 ins 11 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face; and raised a mound of stone 2 ft. base 1½ ft high W. of cor. Pits impracticable.
41.70	Spring branch ½ in. deep 1 lk. wide, course S 45° W. in bottom of ravine. The source of this Branch bears N 45° E. about 10 chs. dist. Ascend over ground sloping S.W.
57.60	Top of spur about 200 ft above bottom of canon, slopes S.W. Descend over ground sloping N.W.
66.70	Bottom of ravine 20 ft below top of spur, course S 40° W. Begin steep ascent.
76.00	Top of steep ascent, bears NE. and S.W. Thence over ground sloping W.
80.00	Set, quartzite boulder stone 18 x 8 x 6 ins, 12 ins. in the ground for cor. of secs. 2, 3, 10 and 11. marked with 2 notches on E. and 5 notches on S. edges; and raised a mound of stone 2 ft. base, 1½ ft high W. of cor. Pits impracticable.
	Land mountainous and broken.
	Soil stony and alluvial; 1st and 4th rate.
	Timber, scattering aspen.
	Mountainous land 80.00 chs.
	E. on a random line bet. secs. 2 and 11.
40.00	Set temb. 1/4 sec. cor.

Subdivisions Sp. 4 N — R. 4 E.

Chains	
80.02	Intersect N. and S. line 3 lks. S. of the cor. of secs. 1. 2. 11. and 12,
	Thence I run
	S. 89° 59' W. on a true line bet secs. 2 and 11.
	Descending over ground sloping N. W.
10.50	Bottom of ravine about 200 ft. below the sec. cor. course N. 10° W. Begin ascent,
13.50	Top of spur slopes N. Descend,
18.70	Bottom of canon about 300 ft. below the sec. cor, course N. Small spring branch 1/2 in. deep 1 lk. wide flows N. Ascend,
30.30	Top of spur about 200 ft. above bottom of canon. slopes S. E. Ascend over ground sloping S. E.
34.80	Head of ravine course S. E. Continue ascent.
40.01	Set quartzite boulder stone 15 x 6 x 5 ins. 10 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face; and raised a mound of stone 2 ft. base 1 1/2 ft high N. of cor. Pits impracticable,
44.70	Top of rocky ridge about 500 ft above bottom of canon. bears N 15° E and S 15° W. Descend.
53.00	Bottom of ravine 175 ft below top of ridge; course N 40° W. Begin ascent,
67.00	Top of spur 50 ft. above bottom of ravine slopes N. Descend,
64.50	Bottom of ravine about 50 ft. below top of spur, course N 10° E. ascend,
71.00	Top of rocky ridge about 200 ft. above bottom of ravine bears N 40° W. and S 40° E. Descend.
80.02	The cor. of secs. 2, 3, 10 and 11,
	Land mountainous and broken,
	Soil boulders and loamy; 3rd and 4th rate.
	Timber, a few scattering aspen S. of the line.
	Mountainous land 80.02 chs.

	From cor. of secs 10. 11. 14 & 15, I begin
	N 89° 53' W. on a random line bet. secs, 10 and 15.
40.00	Set temp. 1/4 sec. cor,
73.86	Intersect N and S. line 4 lks S. of the cor. of secs. 9, 10, 15 and 16, which is a gray sand stone 15 x 8 x 5 ins above ground firmly set marked and witnessed as described by the Surveyor general.
	Thence I run
	S 89° 51' E. on a true line bet. secs, 10 and 15.
	Descending over stony ground

Subdivisions, Sp. 4. N. — R. 4 E.

Chains	
0.76	Bottom of ravine 10 ft. below the cor. course S 40° W. ascend.
3.00	Top of ascent about 75 ft above bottom of ravine bears N 40° E. and S 40° W. Thence over ground nearly level.
5.30	Begin steep descent, bears S 40° W. and N 40° E,
9.50	Bottom of ravine 75 ft deep, course S 35° W. ascend
11.30	Top of ascent about 90 ft above bottom of ravine bears N 35° E and S 35° W, ascend over broken ground
26.52	Begin descent bears S 45° W. and N 45° E.
29.40	Bottom of ravine about 75 ft deep; course S 46° W. ascend over ground sloping S. W.
33.86	Set a quartzite boulder stone 20 × 6 × 6 ins. 15 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face; and raised a mound of stone 2 ft. base, 1½ ft high N. of cor. Pits impracticable.
37.50	Top of spur about 30 ft. above 1/4 sec. cor. slopes S 40° W. Descend.
41.30	Bottom of ravine about 50 ft. below spur; course S. W. ascend,
44.30	Top of spur about 75 ft above bottom of ravine, slopes S. W. Continue ascending over ground sloping S. W.
53.40	Bottom of ravine; course S 70° W. Begin steep ascent,
64.75	Top of spur about 100 ft above bottom of ravine, slopes S. Continue ascending over rocky ground.
73.86	The cor. of secs. 10, 11, 14 and 15, about 100 ft above top of spur,

Land mountainous and broken.
Soil stony; 4th rate.
No timber.
Mountainous land 73.86 chs.

August 21st 1895.

September 1st 1895, at 8h 42m P.M. mt. or 9h 7m P.M. by my watch which is correct mountain standard rail road time, I observed Polaris at eastern elongation in accordance with Manual of Instructions, at the cor. of secs. 2, 3, 10 and 11, and mark the line thus determined by a tack driven in a wooden plug set in the ground 4. chs. N. of my station; a ridge obstructs the view at 5. chs. N.

September 1 - 1895.

26
528

Subdivisions, Tp. 4 N. — R 4 E.

chains	September 2nd 1895. at 8. a.m. mountain standard rail road time, I lay off the azimuth of Polaris 1°-40' to the west and mark the true meridian thus determined by a tack driven in a wooden plug set in the ground west of the point established last night. Thence I run N. 0°-09' E. bet. secs. 2 and 3. ascending over stony ground.
4.50	Top of ridge about 75 ft. above the sec. cor. bears E. and W. Begin descent
15.15	Enter scattering aspen bears E and W.
18.20	Bottom of canon about 600 ft below top of ridge, course N 40° E Leave aspen bears E and S 40° W. Thence along W. side of cañon.
40.00	Set gray sandstone 14×10×10 ins. 9 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face; and raised a mound of stone 2 ft. base. 1½ ft high W. of cor. Pits impracticable.
58.22	Foot of descent at bottom of Cedar Canon about 1000 ft below ridge, course N 75° W. Enter John Hopkins' twenty years adverse claim, to be meandered. Set quartzite boulder stone 22×11×8 ins, 16 ins. in the ground for meander cor. of fracl. secs. 2 and 3. marked M.C. on N. face; with 2 grooves on E. face; and raised a mound of stone 2 ft base. 1½ ft high S. of cor. Pits impracticable. Enter alfalfa field bears N.W. an S.E.
61.70	Cedar Creek 5 lks. wide 1 ft deep; course W. Pure water
66.54	Leave alfalfa field and John Hopkins claim. Set quartzite boulder stone 19×11×6 ins 14 ins. in the ground for meander cor. of fracl. secs. 2 and 3. marked M.C. on S. face. with 2 grooves on E. face; and raised a mound of stone 2 ft. base 1½ ft high N. of Cor. Pits impracticable.
66.64	Wood road bears N 64° W. and S 64° E.
68.18	Begin steep ascent over boulders and gravelly ground, at N. side of cañon bears N 80° W. and S 80° E.
77.20	Top of steep ascent sloping S. about 300 ft above bottom of cañon. Thence over ground sloping W. Enter scattering cedar bears E. and W.
79.60	Intersect N. bdy of Tp. at the standard cor. of secs. 34 and 35, which is a gray sand stone 12×6×6 ins. above ground firmly set marked and witnessed as

1628
8.32

Subdivisions, Sp. 4. N— R. 4 E.,

Chains.	
	described by the surveyor general.
	& mark C.C. on S. face for closing cor. of secs. 2 and 3. and raise a mound of stone 2 ft base 1½ ft high S. of cor. Pits impracticable.
	Land mountainous and broken.
	Soil alluvial and stony: 1st and 4th rate.
	Timber scattering aspen.
	Mountainous land 71,28 chs.
	N. on a true line bet. secs. 3 and 10
	Descending over stony ground sloping S. W.
4.50	Head of ravine, about 75 ft. below the sec. cor. course S. 10° W. ascend
10.00	Top of spur, course S 10° W. Descend.
12.90	Bottom of ravine about 70 ft below spur, course S 15° W. Ascend,
18.70	Top of ridge about 50 ft above ravine bears S 70° W. and N 70° E. Descend along N. sloping ridge
36.40	Bottom of Little Brewer Cañon, bears N. and N 80° E, about 300 ft. below top of ridge.
40.00	Set gray sandstone 20×11×6 ins, 15 ins. in the ground for ¼ sec. cor. marked ¼ on N. face; and raised a mound of stone 2 ft. base 1½ ft high N. of cor. Pits impracticable. Leave bottom of cañon. course N 80° W. Descend along S. side of cañon.
80.00	Set gray sandstone 14×8×7 ins, 9 ins. in the ground for cor. of secs, 3, 4, 9 and 10. marked with 3. notches on the E. and 5 notches on the S. edges; and raised a mound of stone 2 ft. base. 1½ ft. high W. of cor. Pits impracticable.
	Land mountainous and broken.
	Soil rocky; 4th rate.
	No timber.
	Mountainous land 80.00 chs.
	N. 0° 09' E. bet. secs. 3 and 4.
	Descending over stony ground sloping N.
7.50	Bottom of Little Brewer Canon, about 200 ft below the sec. cor. course N 80° W. Enter cottonwood grove bears E. and W.
9.00	Leave cottonwood grove bears E and W. Begin ascent,
16.70	Top of spur, about 200 ft above bottom of canon, slopes N.

Subdivisions, Sp. 4. N — R. 4 E.

chains.	
	Begin descent, over ground sloping W.
36.03	Wire fence bears N 39° E. and S 39° W. Lost creek bottom at the point where this line crosses, is liable to overflow, therefore at
36.66	Set a quartzite boulder stone 14 x 6 x 6 ins, 9 ins. in the ground for wit. to 1/4 sec. cor. marked W. C 1/4 on W. face; from which a cottonwood tree 14 ins diam. bears N 5° E. 47 lks. dist, marked W.C. 1/4 3. B T. a cottonwood tree 14 ins. diam. bears N 6° W. 41 lks dist. marked W. C. 1/4 S. B T.
37.12	Foot of descent bears N 40° E. and S. 40° W. Enter Lost creek bottom, thence over gravelly bottom subject to overflow. Enter scattering cottonwood.
40.00	Set quartzite boulder stone 14 x 6 x 6 ins. 9 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face; and raised a mound of stone 2 ft base, 1½ ft high E. of cor. Pits impracticable.
41.66	S. side of Lost Creek, a stream of pure water 1 ft deep 34 lks wide, course S 10° W. Flows over gravel and boulders, rapid current, but no well defined banks
42.00	N. side of creek, thence over gravel and boulders through scattering cottonwood.
56.00	Leave rocky land and cottonwood bears NE. and S.W.
56.68	Enter John Hopkins old land claim to be meandered, & Set quartzite boulder stone 18 x 6 x 6 ins, 12 ins. in the ground for meander cor. of fract. sec. 3, marked M.C. on N. face, with 3 grooves on the E. face; and raised a mound of stone 2 ft base 1½ ft high S. of cor. Pits impracticable.
56.90	Irrigation ditch 2 ft deep, 3 ft. wide, course S 70° W. thence over alfalfa field, rocky loam, level.
71.60	Wire fence bears N 35° E and S 35° W. Leave John Hopkins old claim, Set quartzite boulder stone 14 x 8 x 6 ins 9 ins. in the ground for meander cor. of fract. sec. 3, marked MC, on S. face, with 3 grooves on E. face; and raised a mound of stone 2 ft base 1½ ft high N. of cor. Pits impracticable.
72.24	Wagon road from Croviden to Lost Creek bears 335° W.

Subdivisions, Sp. 4. N. — R. 4 E.

Chains	
	and N 35° E. Begin ascent over stony ground.
79.59	Intersect N. bdy of Sp, at the standard
44.47 / 35.12	cor. of secs. 33, and 34, heretofore described, which I mark C. C. on S. face, for closing cor. of secs. 3 and 4, and raised a mound of stone 2 ft. base 1½ ft high S. of cor. Pits impracticable.
	Land mountainous and level.
	Soil stony and loam; 3rd and 4th rate.
	Timber, scattering cottonwood.
	Mountainous land 44.47 chs.
	S. 0° 09' W. bet. secs. 9 and 10.
	Ascending over rocky ground.
9.84	Top of spur about 150 ft. above sec. cor. slopes N. Descend.
27.00	Bottom of Brewer Canon about 100 ft below top of spur; course N. a small spring of pure water bears E. about 10. chs. dist. Begin steep ascent.
40.00	Set gray sand stone 18 x 12 x 6 ins. 12. ins. in the ground for ¼ sec. cor. marked ¼ on N. face; and raised a mound of stone 2 ft base 1½ ft high N. of cor. Pits impracticable.
43.50	Top of spur about 500 ft above bottom of canon, bears N. Thence over ground sloping N.
51.00	Top of small ridge about 10 ft. above spur, bears N 40° W. and S 40° E. Descend.
54.00	Bottom of ravine about 50 ft. below top of ridge; course N 40° W. ascend.
56.30	Top of ridge about 40. ft above bottom of ravine, bears N 40° W. and S 40° E. on the N. side of Wolf Den Canon. Descend abruptly
79.80	Intersect E. and W. lines 6.14 chs. W. of the cor. of secs. 9, 10, 15 and 16, heretofore described, Set quartzite boulder stone 20 x 10 x 8 ins 16 ins. in the ground for closing cor. of secs. 9 and 10. marked C. C. on N. face; with 3 notches on the E. and W. edges, and raised a mound of stone 2 ft base 1½ ft high N. of cor. Pits impracticable. Re-establish the old cor. of secs. 9-10. 15, and 16, as the cor. of secs. 15 and 16. by raising a mound of stone 2 ft. base 1½ ft high S. of the original cor. Pits impracticable.
	Land mountainous and broken.
	Soil stony; 4th rate.

Subdivisions. Sp. 4 N. — R. 4 E.

Chains.	No timber. Mountainous land 79.80 chs.
	W. on a true line bet. secs. 4 and 9, Descending over rocky ground sloping N. W.
23.25	Foot of descent in Lost Creek Bottom, about 400 ft. below the sec. cor. bears S 35° W. and N 35° E. Thence over level, gravelly creek bed, through scattering cottonwood.
26.75	E. edge of Lost Creek 1 ft deep, 52 lks wide, course S. 20° W. Pure water; flows over gravel and boulders; gentle current.
27.27	West side of creek. Thence over sandy and gravelly land.
35.25	Wagon road bears N 39° E, and S 39° W. from Croyden, up Lost Creek.
35.41	Wire fence bears S 32° W. and N 39° E. Enter Jacob Moles and Elizabeth Moles old land claim to be meandered. Set quartzite boulder stone 16×6×6 ins 11 ins. in the ground for meander cor. of fract. secs. 4 and 9, marked M.C. on W. face, with 5 grooves on S. face and raised a mound of stone 2 ft base 1½ ft high E. of cor. Pits impracticable.
35.75	Irrigating ditch 3 ft. wide 1½ ft deep, course S 40° W. Enter alfalfa field; leave cottonwood bears NE and S.W.
40.00	Set quartzite boulder stone 14×8×6 ins 9 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face; dig pits 18×18×12 ins; E and W. of stone 3 ft dist. and raised a mound of earth 3½ ft base, 1½ ft high N. of cor.
49.09	Irrigating ditch 3 ft. wide 1 ft. deep, course S 45° E. Leave alfalfa field, Thence over stony ground,
52.66	Wire fence bearing N 26° E and S 23° W. W. bdy of Jacob Moles and Elizabeth Moles old land claim to be meandered. Set quartzite boulder stone 17×12×10 ins. 12 ins. in the ground for meander cor. of fract. secs. 4 and 9, marked M. C. on E. face, with 5 grooves on S. face, and dig a pit 36×36×12 ins, 8 ft. W. of stone and raised a mound of earth 4 ft base 2 ft high W. of cor. Begin ascent over stony ground sloping E.
59.50	Dry bed of cottonwood creek, course S 40° E. Begin ascent, south side of Little Cottonwood Canon, at mouth.
76.54	Conglomerate stone ledge 12 ft. high, bears N and S.
80.00	Set fragment of granite stone, 24×12×6 ins. 18 ins. in the ground for cor. of secs. 4, 5, 8 and 9, marked with 4 notches on the E. and 5 notches on the S. edges; dug pits 18×18×12 ins

50.59
50.41

Subdivisions, Sp. 4. N. — R. 4 E.

chains.	
	in each sec. 5½ ft. dist., and raised a mound of earth 4 ft. base, 2 ft. high W. of cor. This cor. is on S. side of mouth of Little Cottonwood Canon, about 600. ft. above Last Creek. — Land mountainous and level. Soil, stony and sandy loam; 3rd and 4th rate. Timber, scattering cottonwood along Last Creek, Mountainous land 50.59 chs. September 2nd 1895.
	September 10 - 1895. at 8h 6m P.M. l.m.t. or at 8h 32m P.M. by my watch which is correct mountain standard rail road time, I observe Polaris at eastern elongation in accordance with Manual of Instructions at the cor. of secs 4, 5, 8 and 9, and mark the line thus determined by a tack in a wooden plug set in the ground 5. chs. N. of my station. September 10th 1895.
	September 11th 1895, at 8.h a.m. I lay off the azimuth of Polaris, 1°-40' to the west, and mark the true meridian thus determined by a tack driven in a wooden plug set in the ground west of the point established last night. Thence I run N 0°-08' E. brk. secs. 4 and 5, Descending abruptly over stony ground.
1.50	Bottom of ravine about 50 ft. below the sec. cor., course E., ascend abruptly.
5.30	Top of spur about 50 ft above bottom of ravine, slope E. Descend.
17.30	Bottom of Little Cottonwood Canon, about 400 ft below the sec. Cor. Course S 40° E. a small spring bears N 40° W. about 10. chs. dist. Ascend.
37.80	Top of ridge about 500 ft. above bottom of canon. bears S 40° E. and N 40° W. Descend.
40.00	Set quartzite boulder stone 14 x 10 x 7 ins, 9 ins in the ground for ¼ sec. cor. marked ¼ on W. face; and raised a mound of stone 2 ft. base 1½ ft high W. of cor. Pits impracticable.
50.40	Bottom of ravine about 200. ft below top of ridge, course N. 80° E. ascend.
54.25	Top of spur about 50 ft. above bottom of ravine, slope E. Descend along W. side of Big Cottonwood Canon.

Subdivisions Sp. 4. N. — R. 4 E.

Chains	
59.50	Bottom of ravine about 150 ft. below top of spur course N 80° E. ascend.
62.00	Top of spur about 125 ft. above bottom of ravine. slopes E. Descend, over gravelly land sloping E.
79.62	Intersect N. bdy. of Sp. at the standard cor. of secs. 32 and 33. heretofore described, which I mark C.C. on S. face, for closing cor. of secs. 4 and 5: and raise a mound of stone 2 ft. base 1½ ft. high S. of cor. Pits impracticable. Land mountainous and broken. Soil stony; 4th rate. Timber, scattering cottonwood east of the line in bottom of cañon. Mountainous land 79.62 chs.
	S 0° 08' W. bet. secs. 8 and 9. Ascend over ground sloping N.
4.60	Top of spur about 150 ft above the sec. cor. sloping E. Descend,
9.00	Bottom of ravine about 100 ft. below spur, course S 40° E. ascend,
13.60	Top of spur about 10 ft. above bottom of ravine, slopes S 40° E. Descend.
22.00	Bottom of cañon, about 200 ft below top of spur. Thence over ground sloping E, along W. side of cañon. course of canon S 30° E,
30.00	Top of spur slopes E. Begin steep descent,
40.00	Bottom of descent about 250 ft below spur, bears E and W. Set red sand stone 16×11×6 ins. 11 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face and raised a mound of stone 2 ft base 1½ ft high N. of cor. Pits impracticable.
40.90	Bottom of washout 6 ft deep. 30 lks wide, course E. Descend gradually over ground sloping S.E. along foot hills West side of Lost Creek cañon.
54.40	Bottom of washout 10 ft deep, 40 lks. wide, course E,
59.30	Wire fence bears N 22° E. and S 22° W. bring the W. bdy. of Jacob Mohr's old claim to be meandered. Set quartzite boulder stone 12×8×7 ins 8 ins. in the ground for meander cor. of frac. sec. 9, and 8, marked M.C. on S. face, with 4 grooves on E. face, and raised a mound of stone 2 ft. base 1½ ft high N. of cor. Pits impracticable.
67.72	Foot of descent in Lost Creek Bottom. Irrigation ditch 1½ deep 3 ft wide, course S 40° W. Enter alfalfa field. Thence

Subdivisions, Sp. 4. N— R. 4 E.

chains.	
	over level land; sandy loam.
76.42	Intersect E and W. lines 6.73 chs. N. of the cor. of secs. 8, 9, 16 and 17, which is a quartzite boulder stone 10×10×5 ins. above ground firmly set, marked and witnessed as described by the Surveyor general.
80.00	Set quartzite boulder stone 15×8×6 ins 10 ins. in the ground for S.E. Cor. of sec. 8. marked with 4 notches on the S. and 2 notches on the N. edges; and dug a pit 36×36×12 ins, in the sec. 8 ft dist; and raised a mound of earth 4 ft. base, 2 ft high N.W. of cor. This cor. is in alfalfa field.
67.72 / 12.28	Land mountainous and level.
	Soil, rocky and sandy loam; 3rd and 4th rate.
	No timber.
	Mountainous land 67.72 chs.
	From the old cor. of secs, 8-9-16 and 17, heretofore described, I run
	N. on the fractional boundary line bet. secs. 9 and 17. over level land through scattering cottonwood timber.
0.70	Wagon road bears N40°E and S57°W.
0.40	Wire fence bears N40°E and S57°W. Being the east bdy. of Jacob Moles old claim, to be meandered.
	Set quartzite boulder stone 16×10×6 ins. 11 ins. in the ground for meander cor. of fract. sec. 9; marked M.C. on W. face, with 4 grooves on the E. face, and raised a mound of stone 2 ft. base 1½ ft high E. of cor. Pits impracticable.
4.73	Leave cottonwood timber bears N. and S. Enter alfalfa field.
6.73	Intersect the line run this day bet. secs. 8 and 9, 3.58 chs. N. of the S.E. cor. of sec. 8. heretofore described. at this point,
	I set quartzite boulder stone 14×11×8 ins 9 ins. in the ground for closing S.W. cor. of sec. 9. marked C.C. on E. with 4 notches on E. and 2 notches on N. edges; dug a pit 36×36×12 ins. in the sec. 8 ft dist, and raised a mound of earth 4 ft. base, 2 ft. high, N.E. of cor.
	I re-establish the old cor. of secs. 8-9-16 and 17, in its original place, as the cor. of secs. 16 and 17, by digging pits 24×24×12 ins in each sec. 16 and 17, 6 ft. dist and raised a mound of earth 4 ft base, 2 ft high S. of cor.
	Land, level.

Subdivisions. Sp. 4. N. — R. 4 E.

Chains	
	Soil. loam and gravel. Timber scattering cottonwood.
	W. on a true line bet. secs. 8 and 17, over alfalfa field
1.87	Wire fence bears N 65° W. and S 65° E. Being the W. bdy of Jacob Moles old claim, to be meandered & Set quartzite boulder stone 15×12×6 ins, 10 ins. in the ground for meander cor. of fracl. sec 8. marked M.C. on E. face, with 4 grooves on S. face; and raised a mound of stone 2 ft. base 1½ ft high W. of cor. Pits impracticable. Leave alfalfa field, ascend,
2.20	Wood road bears N 65° W. and S 65° E. from Lost creek bottom into Folley Canon,
6.50	Begin steep ascent at South side of mouth of Folley Canon bears N 45° W. and S 45° E.
29.00	Top of ridge about 500 ft above Lost Creek, bears S 45° E. and N 45° W. Descend,
37.50	Bottom of canon, about 400 ft below top of ridge, course S 45° E. Ascend,
40.00	Set quartzite boulder stone 12×8×6 ins 8 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face; and raised a mound of stone 2 ft. base, 1½ ft high N. of cor. Pits impracticable.
50.00	Top of ridge about 300 ft above the 1/4 sec. cor. course S 40° E. Descend,
58.00	Bottom of ravine about 200 ft below top of ridge, course S. Ascend,
63.00	Top of spur, slopes S. Descend,
68.00	A small spring of pure water bears S. about 5 chs. dist.
72.00	Bottom of canon about 300 ft deep, course S 40° E. ascend.
80.00	Set quartzite boulder stone 16×10×6 ins 11 ins. in the ground for cor. of secs, 7, 8, 17 and 18, marked with 5 notches on the E. and 4 notches on the S. edges; and raised a mound of stone 2 ft. base 1½ ft high W. of cor. Pits impracticable. Land mountainous and level. Soil stony, and loam, 3rd and 4th rate. Timber, cottonwood in Folley Canon N. of the line. Mountainous land 78.13 Chs.

78.13
1.87

Subdivisions. Sp. 4. N— R. 4 E.

chains	
	S 0° 7' W. bet. secs. 17 and 18.
	Descend over stony ground sloping E.
3.00	Bottom of ravine 20 ft below the sec. cor. course E. Ascend.
10.50	Top of ridge about 150. above ravine bears S 80° E. and N. 80° W. Descend,
14.70	Bottom of ravine about 150 ft below top of ridge, course S 35° E, ascend along W. side of ravine.
26.80	Top of spur about 70 ft above bottom of ravine bears S.E. Descend abruptly.
36.00	Bottom of ravine about 200 ft. below top of spur; course S 20° E. ascend along W. side of ravine.
40.00	Set quartzite boulder stone 16×12×6 ins. 11 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face; and raised a mound of stone 2 ft. base 1½ ft high W. of cor. Pits impracticable. Descend.
45.00	Bottom of ravine about 100 ft below the 1/4 sec. cor. course S 30° W. ascend,
47.00	Top of spur bearing W. Descend.
50.75	Bottom of same ravine about 200 ft. below 1/4 sec. cor. course S 35° E. ascend.
53.00	Top of spur about 50 ft above bottom of ravine bearing S 10° E, Descend,
56.20	Bottom of ravine about 75 ft below the top of spur, course E, ascend,
59.00	Top of spur about 150 ft. above bottom of ravine bears S 20° E. Descend,
69.30	Bottom of ravine about 200 ft below top of spur, course S 45° E, ascend abruptly.
70.90	Top of abrupt ascent bears S 45° E and N 45° W. Thence over broken ground sloping E,
76.38	Intersect E. and N. line 5.65 chs N. of the cor. of secs. 17, 18, 19 and 20, which is a boulder stone 12×9×7 ins. above ground firmly set, marked and witnessed as described by the surveyor general. At this point & Set quartzite boulder stone 12×8×7 ins, 8 ins. in the ground for closing cor. of secs. 17, and 18, marked C.C on N. with 5 notches on the E. and 1 notch on the W. edges, and raised a mound of stone 2 ft. base 1½ ft high N. of cor. Pits impracticable. Re-establish the old cor. of secs, 17, 18, 19 and 20 as the cor. of secs. 19 and 20, by raising a mound of stone 2 ft base

Subdivisions Sp. 4. N. — R. 4 E.:

chains	
	1½ ft high S. of the original cor. Pits impracticable. Land mountainous and broken, Soil stony: 4th rate. No timber. Mountainous land 76.38 chs.
	N. on a true line bet. secs. 7 and 18. Ascending over stony ground sloping S.E.
6.80	Top of spur about 150. ft above the sec. cor. sloping S80°E. continue ascending over rocky ground.
21.00	Top of ridge about 500. ft above the sec. cor. bears S70°E. and N. 70° W. Thence over ground sloping S.
25.00	Top of ridge braring S10° W. Descend
27.65	Bottom of ravine about 100 ft below last ridge. course S10° W, ascend.
34.85	Top of ridge about 50 ft above bottom of ravine bears S40° W. and N40°E. Descend abruptly over rocky ground.
40.00	Set quartzite boulder stone 12×10×6 ins. 8 ins. in the ground for ¼ sec. cor. marked ¼ on N. face; and raised a mound of stone 2 ft. base 1½ ft high N. of cor, Pits impracticable.
40.50	Bottom of ravine about 150 ft. below top of last ridge course S 50° W, ascend along N. side of ravine.
50.00	Spur slopes S. 70° W, Descend over ground sloping S.W,
54.50	Bottom of ravine 75 ft below spur, course S. 50° W. ascend,
59.00	Spur slopes S. Descend abruptly,
72.70	Bottom of canon about 400 ft below spur, Small spring pure water drains S.W. course of canon S 40° W, ascend abruptly.
74.47	Intersect W. bdy. of Sp. 6.04 chs. S. of the cor. of secs. 7, 12, 13 and 18. which is a quartzite boulder stone, 10×8×5 ins. above ground, marked and witnessed as described by the surveyor general. at this point & Set quartzite boulder stone 20×12×6 ins 15 ins. in the ground for closing cor. of secs. 7 and 18, marked C.C. on E. with 4 notches on S. and 2 notches on N. edges; and raised a mound of stone 2 ft base 1½ ft high E. of cor. Pits impracticable. Land mountainous and broken

chains	
	Soil stony: 4th rate.
	No timber.
	Mountainous land 74.47 chs.
	No. 7' E. brk. secs. 7 and 8.
	Descending over gravelly loam, sloping N. E.
5.00	Bottom of ravine about 75 ft below the sec. cor, course E. Ascend,
7.00	Top of spur about 75 ft above bottom of ravine, slopes E. Descend,
8.40	Bottom of cañon, about 50 ft below spur, course S45°E,
9.55	Spring of pure water 1 ft deep 9 ft wide, flows S.E. 1.50 chs, and sinks. Ascend,
14.85	Top of ridge about 100 ft, above bottom of cañon, bears S. E and N.W. Descend,
24.00	Bottom of cañon about 300 ft below top of ridge, course S30°E. ascend,
36.50	Top of ridge about 400 ft above bottom of cañon, bears S35°E. and N35°W. Descend,
40.00	Set quartzite boulder stone 12x10x6 ins. 8 ins. in the ground for 1/4 sec. cor, marked 1/4 on W. face; and raised a mound of stone 2 ft. base 1½ ft high W. of cor. Pits impracticable,
42.75	Bottom of cañon, about 150 ft below top of ridge course S40°E, ascend abruptly, over stony ground.
45.15	Top of ridge about 100 ft above bottom of canon, bears S45°E. and N45°W. Descend
48.20	Bottom of ravine about 20 ft below ridge, course E. Ascend,
51.20	Top of spur slopes S 70°E. Descend,
56.50	Bottom of canon 100 ft below top of spur, course S80°E. ascend abruptly,
59.20	Top of spur about 75 ft above bottom of canon, slopes E. Descend abruptly.
61.50	Foot of abrupt descent bears E and W.
63.35	Begin to ascend abruptly. bears E and W.
66.00	Top of spur slopes E. Descend.
73.16	Wood road bears N48°W. and S48°E. in Folley Cañon.
73.53	Bed of creek (dry) course S50°E, Begin ascent.
80.00	Set quartzite boulder stone 14x6x6 ins 9 ins. in the ground for cor of secs 5 6 7 and 8 marked with 5 notches on the

Subdivisions. Tp. 4. N — R. 4 E.

chains, S. and E. edges; and raised a mound of stone 2 ft. base, 1½ ft. high W. of cor. Pits impracticable.
Land mountainous and broken,
Soil stony, and loam; 3rd and 4th rate.
No timber,
Mountainous land 80.00 chs,
Sept. 11-1895,

September 12th 1895, at 7h 58m P.M. l.m.t. or at 8h 24m P.M. by my watch which is correct, mountain standard railroad time, I observe Polaris at eastern elongation in accordance with instructions in the Manual, at the cor. of secs. 5. 6. 7 and 8, and mark a point in the line thus determined by a tack driven in a wooden plug set in the ground 5. chs. N. of my station,
September 12-1895,

September 13-1895, at 8. A.M. I lay off the azimuth of Polaris 1° 40' to the west, and mark the true meridian thus determined by a tack driven in a wooden plug set in the ground west of the point established last night.
Thence I run
N 0° 07' E bet. secs. 5 and 6.
Ascending over stony ground sloping S.E., on W. side of ravine.

20.00 Foot of steep ascent bears E and W,
37.80 Top of rocky ridge about 600 ft. above bottom of cañon, bears S 80° E. and N 80° W. Descend,
39.40 Enter aspen grove bears E and W,
40.00 Set quartzite boulder stone 15 x 12 x 6 ins, 10 ins, in the ground for ¼ sec. cor. marked ¼ on W. face; and raised a mound of stone 2 ft base 1½ high W. of cor. Pits impracticable.
43.20 Leave aspen bears E. and W. ascend.
45.50 Top of spur slopes N 70° E. Descend
47.00 Enter aspen and willow brush.
55.00 Bottom of canon about 400 ft below top of last ridge, course N 80° E. Leave aspen and willow brush bears N 80° E. and S 80° W, ascend,
57.50 Top of spur about 50 ft above bottom of cañon slopes E

Subdivisions Sec. 4. N. — R. 4 E.

Chains.	
	Thence over broken ground sloping E.,
62.10	Bottom of Little Cottonwood canon, course S 35° E., ascend
76.50	Top of ridge about 300 ft. above bottom of ravine; course N 80° E. and S 80° W., Descend,
79.57	Intersect N. bdy. of Sec. at the standard cor. of secs. 31 and 32, heretofore described; which I mark C.C. on S. face, for closing cor. of secs. 5 and 6, and raise a mound of stone 2 ft. base, 1½ ft. high S. of cor. Pits impracticable.
	Land mountainous and broken.
	Soil rocky and loam; 1st and 4th rate.
	Timber, scattering aspen.
	Mountainous land 79.57 chs.

	E. on a random line bet. secs. 5 and 8.
40.00	Set temp. ¼ sec. cor.
80.00	Intersect the cor. of secs. 4, 5, 8 and 9, Thence I run N. on a true line bet. secs. 5 and 8, ascending over stony ground.
4.50	Enter dead aspen brush bears N. and S.
10.60	Leave aspen brush bears N.E. and S.W.
27.25	Top of spur about 400 ft above the sec. cor, bears S 10° E, Descend,
34.80	Head of ravine, course S.E., ascend abruptly,
39.00	Top of ridge about 500 ft above the sec. cor bears N. and S. Descend.
40.00	Set quartzite boulder stone 16×6×5 ins, 11 ins. in the ground for ¼ sec. cor, marked ¼ on N. face; and raised a mound of stone 2 ft. base 1½ ft high N. of cor. Pits impracticable. Descend over stony ground.
44.75	Bottom of ravine 150 ft. below the ¼ sec. cor, course S. Ascend abruptly.
48.90	Top of rocky ridge about 150 ft. above bottom of ravine course S. Descend abruptly,
55.00	Bottom of ravine 50 ft below top of ridge, bears 6.
56.25	Spur slopes S. Descend,
57.25	Bottom of ravine 25 ft below spur, course S 40° E, ascend
62.50	Top of spur bears S 40° E. Descend over ground sloping S. broken with ravines and spurs.
79.40	Begin steep descent [illegible]

Subdivisions, Sp. 4, N— R. 4E.

Chains.	
79.50	Bottom of Folley Cañon, about 100 ft. below the last 1/4 sec. cor. bears S. 45° E. and N. 45° W. at mouth of ravine.
80.00	The cor. of secs. 5, 6, 7 and 8. Land mountainous and broken, Soil rocky: 4th rate, No timber. Mountainous land 80.00 chs.
	N. on a true line bet. secs. 6 and 7, Ascending over stony ground.
1.50	Top of spur about 30 ft above sec. cor. Descend,
3.80	Foot of descent in bottom of Folley cañon, bears S. 45° E. and N. 45° W. Thence over ground sloping S.
6.65	Wood road bears N. 45° W. and S. 45° E. in Folley Cañon.
8.50	Creek bed (dry) 1 ft deep 6 ft wide; course S. 45° E. Ascend abruptly, the west side of cañon,
14.80	Top of spur about 300 ft. above bottom of cañon, slope S. 80° E. ascend over ground sloping S. E.
35.60	Bottom of ravine, foot of steep ascent, course S. 70° E.
40.00	Set quartzite boulder stone 14 x 12 x 7 ins. 9 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face, and raised a mound of stone 2 ft. base, 1½ ft high N. of cor. Pits impracticable
45.00	Top of ridge about 400 ft. above bottom of cañon. bears S. 50° E. and N. 50° W. Descend,
49.25	Bottom of ravine about 50 ft below top of ridge; course S. 15° W. Ascend,
51.50	Top of ridge bears S. and N. Descend,
54.50	Bottom of ravine about 200 ft. below top of last ridge course S. 40° W. Ascend abruptly.
57.50	Top of ridge about 100 ft. above bottom of ravine bears S. 10° W. and N. 10° E. Descend abruptly over stony ground,
65.00	Bottom of ravine about 200 ft. below top of ridge, course S. 40° W. Ascend,
72.75	Top of ridge about 50 ft above bottom of ravine bears N. E. and S. W. Descend.
74.60	Intersect W. bdy. of Sp. 7.13 chs. S. of the cor. of secs. 1, 6, 7 and 12, which is a quartzite boulder stone 12 x 8 x 5 ins above ground firmly set marked and witnessed as described by the surveyor general

chains

at this point I
set a quartzite boulder stone 16 x 10 x 8 ins 11 ins. in the ground for closing cor. of secs. 6 and 7, marked C.C. on the E. with 5 notches on S. and 1 notch on N. edges; and raised a mound of stone 2 ft base, 1½ ft. high E. of cor. Pits impracticable.

Land mountainous and broken,
Soil rocky, 4th rate,
No timber,
Mountainous land 74.60 chs.

September 13th 1895.

Preliminary to running the lines brt. secs. 30 and 31, I go to the cor. of secs 31 and 32, on the S. bdy. of the Sp. which is a quartzite boulder stone 8 x 8 x 5, ins above ground firmly set, and marked with 5 notches on the E, and 1 notch on the W. edges, and on the evening of September 15th 1895, at 7h 46m P.M, l.m.t. or at 8h 12m P.M. by my watch which is correct mountain standard railroad time, I observe Polaris at eastern elongation in accordance with Manual of Instructions and mark the line thus determined by a tack driven in a wooden plug set in the ground 5. chs. N. of my station.

September 15th 1895,

September 16-1895. at 8h a.m, I lay off the azimuth of Polaris 1° 40' to the west, and mark the true meridian thus determined by a tack driven in a wooden plug set in the ground west of the point established last night.

Thence I run
North, on a blank line between Secs. 31 and 32,
39.80 I find the ¼ sec. cor, E. 36 lks. dist. and at
78.91 I find the cor. of secs, 29, 30, 31 and 32, East 81 lks dist, which is a boulder stone 15 x 6 x 5 ins, marked and witnessed as described by the surveyor general. Therefore the line brt. secs. 31 and 32. bears N 0° 35' E, which does not agree with the original survey.

From the cor of secs 29 30 31 and 32 I mid-

Subdivisions. Sp. 4. N— R. 4 E.

chains	
	described & run
	W. on a true line bet. secs. 30 and 31,
	ascending over rocky ground sloping E.
6.25	Foot of conglomerate stone ledge 30 ft high bears N and S.
7.00	Foot of conglomerate stone ledge 15 ft high bears N and S.
12.37	Conglomerate stone ledge 12 ft. high bears N and S.
12.77	Conglomerate stone ledge 9 ft. high bears N. and S.
18.00	Top of ridge about 900 ft. above the sec. cor, bears S 35° E and N 35° W, Descend.
24.50	Bottom of ravine about 200 ft below top of ridge; course S 35° E, Ascend.
37.00	Top of ridge about 400 ft. above bottom of ravine, bears N and S, descend,
40.00	Set quartzite boulder stone 14 x 8 x 6 ins 9 ins in the ground for 1/4 sec. cor, marked 1/4 on N. face; and raised a mound of stone 2 ft. base 1½ ft high N. of cor, Pits impracticable.
44.50	Bottom of ravine about 100 ft. below top of ridge, course S. begin ascent,
52.30	Top of ridge about 50 ft above bottom of ravine, bears S 45° W, and N 45° E, Descend into deep canon.
81.10	Intersect W. bdy of Sp, 2.71 chs. S. of the cor. of secs, 25, 30, 31 and 36, which is a sandstone 14 x 8 x 6 ins above ground firmly set marked and witnessed as described by the surveyor general.
	At this point I
	Set quartzite boulder stone 16 x 11 x 7 ins 11 ins. in the ground for closing cor. of secs 30 and 31, marked C. C. on E. face, with 5 notches on the N. and 1 notch on the S. edges, and raised a mound of stone 2 ft. base 1½ ft high E. of cor, Pits impracticable,
	Land mountainous and broken.
	Soil rocky; 4th rate.
	No timber.
	Mountainous land 81.10 chs.
	September 16-1895

From the closing cor. of secs. 6 and 7, heretofore described I run

N. on a [illegible] line along the W. bdy of the [illegible]

Subdivisions, Sp. 4, N— R. 4 E,

chains	
7.13	The old cor. of secs. 1, 6, 7 and 12,
40.00	Set quartzite boulder stone 17×7×6 ins. 11 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face; and raised a mound of stone 2 ft. base 1½ ft high W. of cor. Pits impracticable,
47.66	The old 1/4 sec. cor. which is a quartzite boulder stone 10×7×5 ins, above ground firmly, marked and witnessed as described by the surveyor general.
	From the closing cor. of secs. 6 and 7, heretofore described & run
	S. on a blank line along the W. bdy. of the Sp.
33.53	The old 1/4 sec. cor. which is a quartzite boulder stone 11×7×5 ins. above ground marked and witnessed as described by the surveyor general.
40.00	Set quartzite boulder stone 16×11×5 ins., 11 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face: and raised a mound of stone 2 ft. base 1½ ft high W. of cor. Pits impracticable.
	From the closing cor. of secs. 7 and 18, heretofore described Q run
	S. on a blank line, along the W. bdy. of the Sp.
34.96	The old 1/4 sec. cor. which is a conglomerate stone 10×8×5 ins. above ground, marked and witnessed as described by the surveyor general,
40.00	Set quartzite boulder stone 18×8×5 ins. 12 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face and raised a mound of stone 2 ft base 1½ ft high W. of cor. Pits impracticable.
	From the closing cor. of secs. 17 and 18,
	Q run
	W. on a blank random line bet. secs. 18 and 19.
34.00	Q find the old 1/4 sec. cor. N 45 lks. dist. which is a boulder stone 12×10×5 ins. firmly set in mound of stone marked 1/4 on N. side.
74.30	Intersect the W. bdy. of the Sp. 91 lks. S. of the cor. of secs. 13, 18, 19 and 24 which is a redsandstone 10×7×5 ins. above ground, marked and witnessed as described by the surveyor general. From this sec. cor. Q run

Subdivisions, Tp. 4. N. — R. 4 E.

chains	
	S 89° 18' E. on a true blank line bet. secs 18 and 19.
34.30	Set a quartzite boulder stone 18×10×10 ins 12 ins in the ground for 1/4 sec. cor. marked 1/4 on N. face; and raised a mound of stone 2 ft base 1 1/2 ft high N. of cor. Pits impracticable.
74.30	The closing cor. of secs. 17 and 18.
	From the closing cor. of secs. 9 and 10. heretofore described.
	I run.
	W. on a random blank line bet. secs. 9 and 16.
33.86	I make dilligent search for the old 1/4 sec. cor. but do not find any trace of the same within a radius of 5. chs.
73.27	Intersect N. and S. line 3.19 chs S. of the old cor. of secs. 8, 9, 16 and 17, heretofore described.
	Thence I run
	S 87° 30' E on a true blank line bet. secs. 9 and 16.
33.27	Set quartzite boulder stone 16×6×6 ins. 11. ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face and raised a mound of stone 2 ft base 1 1/2 ft high N. of cor. Pits impracticable.
73.27	The closing cor. of secs. 9 and 10.

Meanders of John Londons claim.

John London having duly presented his claim and proofs of 20 years continuous adverse possession of a tract of land in the S. W 1/4 of sec. 9: Therefore in accordance with Special Instructions, I proceed to locate and meander the claim as follows: From the old cor. of secs. 8. 9. 16 and 17, heretofore described, a pine post 8 ins. diam, 5 ft. high in fence at the S. W. cor. of the claim, bears N 82° 15' E, 7.47 chs dist. which I establish as an auxilary meander cor, in the S. W 1/4 of sec. 9, marked A.M.C. on N.E. T.4 N. on S.W. R4E. S9. on S.E. S9 on N.W. faces; dug a pit 36×36×12 ins. S. W. of cor, 4 ft. dist. and raised a mound of earth around post, The close proximity of wagon road prevented digging the pit at greater dist. from post,

September 13 - 1895 at 7h 52m P.M. l.m.t. or at

Meanders, Tp. 4. N — R. 4 E.

chains	8h 18m P.M. by my watch which is correct mountain standard rail road time. I observe Polaris at eastern elongation in accordance with Manual of Instructions at the auxilary meander cor. above described, and mark the line thus determined by a tack driven in a wooden plug set in the ground 5. chs. N. of my station.
	September 13 - 1895.
	September 14th 1895. at 8.h A.M. I lay of the azimuth of Polaris 1°-40' to the west and mark the true meridian thus determined by a tack driven in a wooden plug set in the ground west of the point established last night.
	Thence I run with meanders in Sec. 9.
	Along level ground bet. wagon and fence.
	N 17½° E, 3.30 chs. Bet. wagon road from Croyden, and a wire fence on W. side of claim.
	North 1.40 "
	N 22¼° W 1.70 "
	N 16° E 6.30 "
	N 68¼° E, 3.90 " End of course is N.W. cor of claim and S.W. cor. of Geo. Thackeray's claim. Fence continues N 42° E. and wagon road continues parallel with same fence, and about 10 ft W. of fence
	S 58½° E. 17.40 along fence bet. this claim and Geo Thackerays claim on the N. At 4.70 chs. centre of Croyden Irrigating ditch 8 ft wide 2 ft deep. course S 54° W. 12.70 chs foot of steep ascent 20 ft high bears NE. and SW. End of course, Thackeray's fence continues S 58½° E. 1.50 chs. and thence bears NE.
	S 39½° W, 6.30 chs. at 1.00 ch. begin steep descent bears E and W. 2.14 chs. bottom of descent 20 ft high 3.40 chs. bottom of washout 10 ft deep, 20 ft wide, course N 45° W. at 5.40 chs. begin ascent, at 5.77 chs. top of ascent bears E & W. 20 ft high. Line passes on
	37.00

Chains. gravelly loam, uncultivated.

N 89° W. 16.60 chs. At 1.50 chs. begin descent, over rocky ground at 2.20 chs. foot of descent, 20 ft. high bears N.E. at 10.70 chs. centre of Croyden irrigating ditch, course S 10° E. Line runs along wire fence which is the S. bdy of this claim and N. bdy of land occupied by Jos. Bowers. All the land lying west of the Croyden irrigating ditch, within this claim is cultivated with alfalfa, and potatoes. The land lying E. of the said ditch is uncultivated. To the auxilary meander cor. in sec. 9.

Land nearly level.
Soil gravelly loam, 3rd and 4th rate.
No timber.

Meanders of the Mole claim.

Jacob and Elizabeth Mole having duly presented their joint claim and proofs of 20 years continuous adverse possession of a tract of land situated in secs. 4-8 and 9; therefore in accordance with Special Instructions, I proceed to meander their joint claim as follows;

[illegible] S 0° 08' W 30 chs. fr. cor. [illegible] 4-5-8-9.

I commence at the meander cor. of fracl. secs. 8 and 9, heretofore described.

Thence I run with meanders in sec. 9, over gravelly bench land along foothills at West side of Lost Creek canon, about 50 ft above bottom land,

N 22½° E 39.00 chs. At 4.50 chs. bottom of washout 20 ft deep. 1.00 ch wide: course E. At 36.30 chs. Jacob Mole's residence, a frame house, bears E. 1.50 chs. dist. A spring of pure water 1.00 ch. S. of Mole's house. From end of course Mole's barns and sheds &c, bears E. 1.00 ch. dst. This line runs along and near a wire fence

N 53° E 4.80 " Line follows top of bluff sloping E

about 50 ft. above the bottom land.

N 23¼° E 22.16 chs. Line follows top of bluff sloping E. to meander cor. of fracl. sec. 4 and 9.

Land nearly level.

Soil, loam and gravel; 2nd and 4th rate.

No timber.

Thence in sec. 4,

Over gravelly foot hill N. side of Lost Creek,

N 76° E 29.20 chs. At 27.20 chs. begin abrupt descent at mouth of Big Cottonwood cañon. bears E. and N. At 28.00 foot of descent. 20 ft high bears E and N. At 28.50 chs. dry bed of creek bears S 40° E. Cottonwood trees along bed of this creek,

N 80¼° E 2.90 " At 0.73 chs. wire fence bears N 30° E. and S 30° W. At 2.30 chs. same fence bears N 85° E. and S 85° W,

N 67¾° E 4.60 " Line runs along wire fence. leaves foot hills, and enters bottom land. At 4.30 chs. irrigating ditch 1 ft. deep 2 ft wide, course S 20° E. At end of course John Hopkins house bears N 22° 20' W. about 7.50 chs. dist. End of course is at S. side of wagon road from Croyden up Lost creek. bearing S 36° E. and N 22° W,

S 36° E 10.10 " Line runs along fence at S. side of wagon road, over level ground, End of course enters scattering cottonwood.

S 25¾° E 2.50 " Line follows fence about 20 ft N. of wagon road, through scattering cottonwood. over gravelly land.

S 15¼° W 9.40 "

S 36¾° W 4.50 "

S 39½° W. 7.00 " To meander cor. of fracl. secs 4 and 9.

Land nearly level,

Soil gravel and sandy loam; 3rd and 4th rate.

Timber scattering cottonwood.

Meanders Sp. 4. N. — R. 4 E.

Thence in sec. 9.
Through scattering cottonwood timber, along wire fence at west side of wagon road.

S 32° W	7.40 chs.	
S 36° W.	22.00 "	
S 14½° W	6.10 "	
S 35¼° W	4.50 "	At end of course, the wagon road branches off S.E. across Lost creek to Crayden, End of course is 10 ft E. of main gateway entering Mole's enclosure
S 9¾° W.	7.80 "	Line runs along wire fence about 20 ft W. of wagon road leading to Water Canon
S 33½° W	6.80 "	
S 17° W	6.10 "	
S 31¾° W	3.70 "	
S 48¾° W	3.80 "	
S 24¼° W	5.00 "	
S 7° E	6.60 "	
S 30° W	4.50 "	
S 37½° W	3.60 "	To meander cor. of fract. Sec. 9, The above meanders run along a fence on west side of road. and about 4.00 chs W. of Lost Creek, draining S.W.
West	6.33 "	To the S.W. cor. of sec. 9.

Land level.
Soil gravelly, and sandy loam; 3rd and 4th rate.
Timber, scattering cottonwood.

Thence in sec. 8,
Over level alfalfa field.

S 0°-08' W.	3.58 chs.	Along E. line of Sec. 8. to S.E. cor.
West	1.87 "	At end of course, wire fence bears S 65° E. and N. 65° W. To meander cor. of fract. sec. 8.
N. 65° W	3.30 "	Line runs along fence at N. side of wood road leading into Folley Canon,
N 46¼° W	3.10 "	This line ascends the foot hills at N. side of Folley Canon

N 72½° E., 18.60 chs. This line runs along the foot hills at west side of Lost creek canon, over stony ground sloping E. to meander cor. of fracl. secs. 8 and 9,

Land level and broken,
Soil gravelly and sandy loam; 3rd and 4th rate.
No timber.

Meanders of John Hopkins's claim.

John Hopkin, having duly presented his claim and proofs of 20 years continuous adverse possession of two separate tracts of land in secs, 2 and 3; therefore I proceed to meander the claims as follows:

To establish the meander corners on the N. bdy. of sec. 3. I commence at the closing cor. of secs. 3 and 4. on the N. bdy. of the Sp,

Thence I run,

E. along the N. bdy. of the Sp.

5.70 Wire fence bears N 32° E. and S. 36° W. 20 lks E. of Wagon road from Croydon, at the west bdy. of John Hopkins old claim, Q

Set quartzite boulder stone 14×8×6 ins. 9 ins. in the ground for meander cor. of fracl. N½ of sec. 3. marked M.C. on E. face: with 6 grooves on S. face, and S.C. on N. face; and raised a mound of stone 2 ft. base. 1½ ft high W. of cor. Pits impracticable.

10.16 Wire fence bears N 70° W. and S 34° E. Being E. bdy. of John Hopkins old claim. Q

Set quartzite boulder stone 15×8×6 ins 10 ins. in the ground for meander cor. of fracl. N½ of sec. 3, marked S.C. on N. M.C. on W. face, and 6 grooves on S. face; and raised a mound of stone 2 ft. base, 1½ ft high E. of cor. Pits impracticable, Entre Lion Sunn's claim,

31.40 Enter John Hopkins old claim to be meandered: at mouth of Cedar Canon, Q

Set quartzite boulder stone 16×10×8 ins. 11 ins. in the ground for meander cor. of fracl. N½ of sec. 3. marked S.C. on N. M.C. on E. face, with 6 grooves on S. face; and raised a mound of stone 2 ft base 1½ ft high W. of

cor. Pits impracticable.
40.00 The old ¼ sec. cor,
43.03 W. bank of irrigating ditch 6 ins deep. 2 Ft. wide, course N.W. Bring the E. bdy of John Hopkins old claim
A set gray sandstone 24 × 8 × 4 ins. 18 ins. in the ground for meander cor. of fract. N½ of sec. 3. marked S.C. on N. M.C. on W. with 6 grooves on S. faces: and raised a mound of stone 2 ft. base 1½ ft high E. of cor, Pits impracticable.
From the last described meander cor.
Run with meanders in sec. 3,
over stony ground along N. side of alfalfa field. at north side of Cedar Canon, and South of wagon road leading S.E. in said canon.
S 61¼° E, 16.70 chs.
S 86¼° E, 14.00 "
S 64° E, 9.30 " Lines run along N. side of alfalfa field, and S. side of road. To meander cor. of fract secs 2 and 3. Cedar Creek runs N.W. through the alfalfa field.
Land nearly level,
Soil rocky and clay: 3rd and 4th rate.
No timber.

Thence in sec. 2
over rocky, hard land along N. side of Cedar Canon, and N. side of alfalfa field, South of road,
S 64° E 19.10 chs. End of course. John Hopkins Hay stacks bear N. 2.00 chs. dist. and Geo. Thackeray's Hay stack bears E, 5.00 chs dist. a spring of pure water bears E. 1.00 ch. dist.
S 17½° W 7.50 " At 3.50 chs, Cedar Cr, 1 ft deep 5 lks wide. pure water, course N 80° W, This line runs over gravelly loam along N. side of a road-way 1. ch wide. Geo Thackeray and Jos. Condir occupy the land in this Cañon lying E of this claim

Meanders Sp 4 N. — R. 4 E.

N 64¼° W.	16.50 chs.	This line runs along foot hills at S. side of Cedar Cañon. To the meander cor. of fracl. secs. 2 and 3.

Land nearly level
Soil, rocky, sandy and loam; 2nd 3rd and 4th rate.
No timber.

Thence in sec. 3

N 74¼° W.	25.20 chs.	Line runs along foot hills at S. side of Cedar Cañon, over loamy soil,
N 52½° W.	22.30 "	
West	6.60 "	Line runs along south side of the mouth of Cedar Canon.
North	0.90 "	Line runs along top of a bluff about 40 ft high at mouth of Cedar Cañon. To the meander cor. of fracl. N. ½ of sec. 3,

Land nearly level,
Soil gravelly loam: 3rd and 4th rate.
No timber,

Meanders of John Hopkins claim,
I commence on the line bet. secs. 3 and 4, at the meander cor. of fracl. secs. 3 which is a boulder stone marked M.C. on N face, and heretofore described.
Thence I run with meanders in sec. 3,
Over gravelly land on south side of alfalfa field

N 55° E	3.40 chs.	
East	3.70 "	
N 19¾° E.	18.30 "	At 13.60 chs. line crosses irrigation ditch 1 ft deep 3 ft wide, course S.W. at end of course I, a fence bears S 63° E 4. chs. to Lost Creek. Line runs over rocky ground,
N 33¾° W.	4.50 "	Line runs over gravelly land at W. edge of cottonwood timber. To N bdy. of Sp. at meander cor. of fracl. N½ of sec. 3.
West	4.46 "	Line runs along N. bdy. of Sp. over gravelly land, To meander cor. of fracl. N½ of Sec. 3

Meanders Sp. 4. N — R. 4 E.

S. 35½° W; 9.80 chs. Line runs along west fence 20 lks E. of wagon road, to the meander cor. of fract. Sec. 3, on the line bet. Secs. 3 and 4. The greater part of this claim is covered with alfalfa.

Land level.
Soil, rocky and loam,
Timber, scattering cottonwood along Lost Creek,
September 14 - 1895

Boundaries of Sp. 4, N — R. 4 E.
Latitudes, departures and closing errors,

Lines designated	True bearing	Distance	Latitudes -N-	Latitudes -S-	Departures -E-	Departures -W-
		chs.	Chs.	Chs.	Chs.	Chs.
1st Stand. Parallel or, fract. N. bdy. T. 4 N. R. 4 E.	West.	461.35				461.35
Fract. W. bdy. T. 5. N — R. 4 E.	North	10.29	10.29			
1st Stand. Paralal or; fract. N. bdy. T. 4 N — R. 4 E	West	13.44				13.44
W. bdy. T. 4 N — R. 4 E.	S. 0° 06' W.	484.23		484.23		.85
S. bdy. T. 4 N — R 4 E.	S 89° 17' E.	474.83		5.95	474.83	
1st Guide Meridian, or E. bdy. T. 4 N — R 4 E.	N 0° 11' E	479.62	479.62		1.53	
Convergency.						.63
Totals.			489.91	490.18	476.36	476.27
				489.91	476.27	
			Errors	.27	.09	

General Description

This Township contains very little agricultural land and is mostly useful for grazing. The agricultural land lies along Lost Creek bottom, and in Cedar Canon. Cottonwood, a very few scattering pines and aspen are the only kinds of timber found in the township. There are five settlers located within that portion of the township surveyed under this contract; viz: Jacob and Elizabeth Moles in Sections 4 - 8 and 9, with improvements valued at about fifteen hundred ($1500.) Dollars and consisting of a residence,

out-buildings, sheds, fences, improved land and irrigating ditches, John Hopkins, in Sections 1-2-3 and 4, with improvements valued at about one thousand ($1,000.) Dollars, and consisting of a residence, out-buildings, sheds, fences, improved land and irrigating ditches,
John London, in Section 9, with improvements valued at one hundred ($100.) Dollars, and consisting of fences, improved land, and irrigating ditches, George Shackeray, in Section 2, with improvements valued at two hundred ($200.) Dollars, and consisting of a log house, fences, improved land, and irrigating ditches,
Alfred London, in Section 1, with improvements valued at fifty ($50.) and consisting of a log house, and improved land.

Washington Jenkins
U. S. Deputy Surveyor

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Corrections Notes. Sp. 4. North. Range 4. East

No. of Note	
1	At 40.00 chs. I set a quartzite boulder stone 14 x 8 x 8 ins., 9 ins. in the ground for ¼ Sec. cor. marked ¼ on N. face, and raised a mound of stone 2 ft. base 1½ ft. high N. of cor. Pits impracticable.

This was a clerical omission from the notes.

Washington Jenkins
U.S. Deputy Surveyor.

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List of Names.

A list of the names of the individuals employed by Washington Jenkins, U. S. Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of the Subdivision lines, Meanders and retracements of Township 4 North, Range 4 East of the Salt Lake Base and Meridian, in the Territory of Utah, showing the respective capacities in which they acted:

David A. Jenkins, Chainman and Axeman
S. T. Campbell Chainman
Wm Felt Chainman
Harry H. Crossman Chainman and axeman.

Final Oath of Assistants:

We hereby certify that we assisted Washington Jenkins, U. S. Deputy Surveyor, in surveying all those parts or portions of the Subdivision lines Meanders and retracements of Township No 4 North Range 4 East, of the Salt Lake Meridian, in the Territory of Utah, as are represented in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the U. S. Surveyor General for Utah

David A Jenkins Chainman Axeman
Harry H Crossman Chainman
Wm Felt "
S. T. Campbell Chainman "

Subscribed and sworn to before me this 30" day of October, 1891

SEAL

D. Peery Jr. Clerk
By Riggin Botham Jr. Dep.

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Final Oath of U. S. Deputy Surveyor.

I, Washington Jenkins, U. S. Deputy Surveyor, do solemnly swear that, in pursuance of instructions received from Geo. W. Snow, U. S. Surveyor General for Utah, bearing date of the 6th day of June, 1895, I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the U. S. Surveyor General for Utah, the surveying manual, and the laws of the United States, surveyed all those parts or portions of the Subdivisional lines and Meanders and retracements of Township 4 North, Range 4 East, of the Salt Lake Meridian, in the Territory of Utah, as are represented in the foregoing field notes as having been surveyed by me, and under my directions; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the surveying manual, printed instructions, the special written instructions of the U. S. Surveyor General for Utah and in the specific manner described in the field notes, and that the foregoing are the true field notes of such survey; and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

Washington Jenkins
U. S. Deputy Surveyor.

Subscribed and sworn to before me this 30" day of October, 1891.

SEAL

D. H. Peery Jr., Clerk
By Higginbotham Jr., Dep

Approval.

Office of the U. S. Surveyor General,
Salt Lake City Utah July 28th, 1896

The foregoing field notes of the survey of the Subdivisions & Meanders of Township 4 North Range 4 East of the Salt Lake Base & Meridian, Utah executed by Washington Jenkins under his Contract No. 202, dated June 6, 1895, having been critically examined, the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

George W. Snow
U. S. Surveyor General.

I certify that the foregoing transcript of the field notes of the above-described surveys in _____, has been correctly copied from the original notes on file in this office.

_____
U. S. Surveyor General.

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(4—679.)

N. S. B.

BOOK A-238

FIELD NOTES

OF THE SURVEY OF

Gunnison Islands

In Great Salt Lake

In Township No 7 North Range No 9 West

Of the Salt Lake Base and Meridian,

State of Utah

AS SURVEYED BY

Andrew P Lausen, U. S. Deputy Surveyor,

Under his Contract No. 206, dated January 9th 1896

Survey commenced April 29, 1896.

Survey completed May 4, 1896

(12503—2,000.)

Names and Duties of Assistants.

Wm H Trone Chainman

H E Giers "

Geo. H Payne Flagman or Axman

BOOK A-238

INDEX DIAGRAM.

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Meanders Page .....

BOOK A-238

Preliminary Oaths of Assistants.

We, Wm H Trane and H E Giers

do solemnly swear that we will well and faithfully execute the duties of chain carriers; that we will level the chain over even and uneven ground, and plumb the tally-pins either by sticking or dropping the same; that we will report the true distance to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us in the survey of ~~the~~ Gunnisons Island and all lines pertaining to said survey

Wm H Trane, Chainman.

H E Giers, Chainman.

_____, Chainman.

_____, Chainman.

Subscribed and sworn to before me this 27th day of April, 1896

Kenneth M. Atkinson
Notary Public

~~We~~ I George H Payne

do solemnly swear that ~~we~~ I will well and truly perform the duties of ~~axeman~~ Flagman in the establishment of corners and other duties, according to instructions given ~~us~~ me, and to the best of ~~our~~ my skill and ability, in the survey of ~~the~~ Gunnison Island and all lines pertaining to said survey

Subscribed and sworn to before me this 28th day of April, 1896

George H Payne, Axeman.

_____, Axeman.

Andrew P Hansen
U.S. Deputy Surveyor

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To the Surveyor General for Utah

Sir:-

One of my assistants George H Payne acting as flagman or axeman joined the party after it was made up and on the way, and finding it would cause considerable delay and expence to take him before an officer qualified to administer oaths and, the wind being favorable for sailing, I administered the oath to him myself, and upon return from the survey it was my intention to have brought him to the nearest officer which was a distance of about 16 miles. but finding matters in his family he desired to remain, hence I administered to him the final oath also.—

A P Hanson
U.S. Deputy Surveyor

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PAGE

Gunnison Island Tp 7 N R 9 W.

Chains

Survey commenced April 29, 1896 and executed with a W & L E Gurley light mountain transit No 7 with solar attachment. — The horizontal limb is furnished with two double verniers placed opposite to each other reading to single minutes of arc, which is also the least count of the verniers of the declination and latitude arcs. —

The instrument was examined, tested on the true meridian at Salt Lake, found correct and now observed by the surveyor general for Utah April 24th 1896. In conformance with special instructions I sail to Gunnison Island in Great Salt Lake for the purpose of establishing a flag which may be distinctly observed through my instrument from the mainland on the west shore. —

I find that a flag has already been established on the highest point of the island, near its north end (I am informed it was established by the U S Geological Survey)

Said flag consists of three posts about seven ins. diam. and ten feet long placed in a pyramidal position, from the top of which a straight pole ten feet long extends upward, securely fastened and braced; a circular wall of rock six feet inside diameter and three feet high has been laid up between the base of the posts, making the whole very firm and durable and also permanent. — As I could not select a better position nor construct a more desirable flag I determine to use this one as the triangulation point. —

I now take a due west course and proceed to the west shore of the lake, where I commence searching for corners, and by the assistance of topographical and other data obtained in the Surveyor generals office

Chains	and 18 township 7 N. range 10 W. which is a split pine stake 2 x 3 ins. 3 ft. long marked with 4 and 5 notches on two corners, lying on a mound of earth 3 ft. diam. 1 ft. high and surrounded by 4 pits in proper position.— This cor. is located on top of a gradual swell or ridge running nearly E. and W. about 35 ft. high.— At this cor. I set off 48° 39' N ow the latitude are. = Co-Lat. (calculated Lat. = 41° 21' nearly) and 14° 50' E ow the declination are and at 3h 27m p.m. v.m.t. determine a true meridian with the solar and mark a point thereof by a tack driven in a stake set in the ground 10 chs. north of my station.— The magnetic bearing of the true meridian this determined at 3h 30m p.m. is 17° 5' W. the angle thus determined, reduced by the table page 100 of the manual gives the mean mag. decl. 17° 2' E.—
11,00	From the cor. already described I run South on a replacement line bet. secs. 17 and 18 Descending gradually At foot of slope, intersect margin of soft alkali flat bears nearly E. and W., extending southward for about 1 mile to margin of lake I search carefully for the meander corner at this place but fail to find any traces of it. Land sloping ridge Soil sandy No timber Shadscale there, and greasewood undergrowth Note:- It may be well to here call attention to the fact that since the original survey was made the surface of Great Salt Lake has become lower by more than two feet (I am not prepared to give the exact shrinkage which is however a matter of record) which has converted enormous lake-areas on the west and

Chains | everywhere the the water line has receded a long distance from the meander lines and corners as then set. —
The object of retracing this line was to more fully establish the identity of the cor. of secs. 7-8-17 and 18, and also to determine if it may be made part of a Base line. — While the meander cor. could not be found the topographical features fully corresponds with the original field notes. —

From the cor. of secs. 7-8-17 and 18 as already described I run
East on a retracement line bet. secs. 8 and 17
Over level slightly rolling surface
39,04 The 1/4 sec. cor. bears north - 37 lks. distant being a split pine post 2 x 3 inc. 3 ft. long lying on a mound of earth 3 ft. base 1 ft. high marked 1/4, with pits on E and W. side, continuing my line east, descending gradually at
46.30 Intersect old Lake margin bearing nearly N. and S. where a carefull search is made for the meander cor. but no trace of it could be found
Land nearly level, rolling
Soil sandy, gravely and adobe
No timber
Shadscale thorn, and Greasewood undergrowth
Note: The present water line is about 8 chs east of the end of my chaining. —
The object of retracing this line was the same as the foregoing line. —

From the 1/4 sec. cor. last described I run
North through the center of sec. 8, and at
80,00 make search for the 1/4 sec. cor. which could not be found; hence I continue my line north through sec. 5. and at
80,00 on the shore of the Lake I take the bearing of the flag on Gunnison Island; having done the same, at the 1/4 sec. cor. bet. secs. 8 and 17 I find this line will not fill the requirements

Chains	
	of the Lake be extended to do so, hence I abandone it at this point.—
	Land level gently rolling
	Soil sandy and gravely
	No timber
	Shadscale thorn, and greasewood undergrowth—
	April 29, 1896
	April 30, at 7h 50m a.m. l.m.t. I set off 48°39' N (= C.L.) on the latitude arc and 15°4' N. on the declination arc and determine a true meridian with the solar at the cor. of secs. 7-8-17 and 18 as herein before described, and marking a point in the line thus established, on the stake set Apr. 29, 10 chs. north of the cor. I find the two meridians established by p.m. and a.m., observations respectively, to agree without material difference and conclude the adjustments of the instruments are true.—
	This cor. being in the same latitude as Gunnison Island I determine to make it the southerly end of the Base-line and for further reference designate it Station A.
	From the meridian as established I deflect an angle to the flag on the Island, which can be distinctly seen through the telescope from this point, and find its bearing to be N. 86°49' E
	I now establish a flag in exact position at this point, 30 ft. high made from 2 x 3 ins milled Oregon pine bolted together and securely fastened in the ground and braced.—
	Thence by fore-and-back sights I run North on a retracement line bet. secs. 7 and 8
1,50	Begin gradual descent bears E. and W.
11,50	Bottom of slope 35 ft. below cor.; enter soft alkali flat, bears E. and W.; runs E about 6 chs. and turns N.
39,80	The 1/4 sec. cor. bears east 22 lks. distant, being a cedar post 4 ins. diam. 3 ft above ground firmly set and marked 1/4 on W. face
52,50	Leave alkali flat bears N.W., and begin gradual [illegible]

Chains	
80,26	The cor. of secs. 5-6-7 and 8 bears east 47 lks. distant being a conglomerate lava stone 4x 6 x 6 ins. on top of a mound 1 ft. high 3 ft. diameter, surrounded by 4 pits in prospect position.- No marks could be detected on the stone which is somewhat soft and friable.- Land rolling and level Soil sandy and sticky adobe No timber Shadscale thorn, and greasewood undergrowth
	North on a retracement line bet. secs. 5 and 6 (Continuing my own course and measurement throughout) Ascending gradually on W. slope, rolling and broken
40,16	The 1/4 sec. cor. bears east 14 lks. dist. being a conglomerate stone 4x6x7 ins. marked 1/4, set in a mound of earth 1 ft. high with pits on N. and S. sides
75,00	Ascent becomes more steep and broken with wash gullies, running W.
80,00	At top of slope 75 ft. above alkali flat.- I search for the sec. cor. on Tp. boundary but am unable to discover any trace of it within a radius of 3 chs.; and the ground bearing evidence of having been washed away I conclude it has been destroyed in this this manner. — Land rolling and broken Soil sandy wash and adobe clay No timber Shadscale thorn, and greasewood undergrowth-
	Thence in township 8 N. R 10 W. North on a retracement line bet. secs 30 and 32 on nearly level top of ridge, bears N 25° W and S. 20° E
7,00	Begin gradual descent on slope E and N to Lake
39,90	The 1/4 sec. cor. bears W. 17 lks. dist. being a split cedar stake 2 x 3½ ins. 3 ft. long marked 1/4 lying on a mound of earth, with pits on N. and S. sides

Chains	being a cedar post 3x3 ins. 3 ft. long marked with 1 and 5 notches on different edges and T 8 N. other markings indistinct; lying by side of a mound of rock and earth surrounded by 4 pits in proper position This cor. stands on N. E slope about 40 ft below top of ridge Land rolling and sloping Soil gravely and adobe clay No timber Shadscale thorn, greasewood and sagebrush undergrowth.— Apr. 30: At this cor. I set off 15°7' N. on the declination arc and at 11h 57m a.m., 7.m.t. observe the sun on the meridian; the resulting latitude is 41°23'30"; which as near as the instrument can be read corresponds to the calculated latitude.—
	North on a retracement line bet secs. 29 and 30 Descending gradually on rolling slope N. E.
40,00	The 1/4 sec. cor. bears east 17 lks. dist. being a conglomerate lava stone 5x5x4 ins. above ground marked 1/4 on W. face, with mound of earth alongside, and pits N. and S. of cor.
57,62	Intersect meander cor. of fractional secs. 29 and 30 being a conglomerate lava stone 18x10x5 ins. set in a well built mound of large stones 3 ft base 1½ ft. high, and marked as described in the original field notes obtained in the surveyor generals office.— This cor. stands on a hard shingle beach about 35 ft. below last sec. cor. and 8 chs. from present water line Land rolling and sloping Soil sandy, and adobe clay No timber Shadscale thorn, and greasewood undergrowth— From this cor. I deflect an angle to the flag on the Island but find the line as run from St. A too short to fulfill the requirements of a Base-line, nor can it be extended

Chains	
	running into the lake.—
	From the meander cor. last described I run N. 24° 20' W. on the meander line in sec. 30
24,40	To the meander cor. of fractional secs. 19 and 30 which is a pine stake 3 x 3 ins. 3 ft. long lying on a mound of earth with a mound of rock alongside.- The markings on stake are nearly obliterated and can not be deciphered
	Land gently sloping beach
	soil sand dunes and hard shingle
	No timber
	Shadscale thorn and greasewood undergrowth part way
	At this cor. I calculate the course and distance from St. A and deflecting an angle to the flag on the Island I find I must still obtain a longer Base line, to fulfill the requirement.—
	From the meander cor. of fractional sections 19 and 30 as above described I run N. 13° 51' W. along the shore of the Lake
76,80	At this point the shore line turns more to the west and I can proceed no further on this course, hence I calculate by latitudes and departures the distance and bearing from St. A and find it to be N. 4° 7' W 396,02 chs.; and the angle at St. A is therefor 90° 56'
	I now deflect an angle to the flag on the Island and find it bears. S. 62° 28" E. and the angle at this station 58° 21' or the sum of the two angles 149° 17'; hence
	180° — 149° 17' = 30° 43' for the remaining angle of the triangle.—
	As this will fulfill all the requirements of the triangulation I establish a flag in exact position at this point and for further reference designate it Station B
	This station is close to the present water line of the Lake on a hard sandy beach.—
	Land level beach
	soil shingle and sand

Chains	No timber nor vegatation of any kind
	Owing to the contour of the ground I am unable to see the 30 ft. flag at St. A nor would it be possible to do so with a flag double that height hence from St. B I run S 4° 7' E on the calculated course of the Base line setting marked stakes at each 40,00 and 80,00 chs. Over nearly level beach
50,00	Leave beach bears N.W. and S.E.; enter dense undergrowth and begin gradual ascent on rolling slope N.E.
117,00	On top of ridge about 70 ft. above the beach bears N. 25° W. and S. 25° E.— As this is the only point on the line from which both ends of the Base-line can be observed I direct the telescope to the flag at St. A and reversing it I find the line falls to the east of St. B equal to a distance in arc of about 3' and by calculation there is an error in the course of the Base-line of about 1'; shifting the instrument accordingly I again direct the telescope to St. A and reversing the same, intersect the flag at St. B.— To guard against possible error in collimation I turn the horizontal limb 180° and again sighting St. A I reverse the telescope when I intersect St. B as before.— The instrument being therefor in a true line with the ends of the Base-line or Sts A and B I remove it and put in its place a firm and well braced flag which can be observed from both stations.— Descending gradually on rolling broken slope S.W.
254,40	Leave dense undergrowth enter soft alkali flat about 70 feet below top of ridge bears N.W. and S.E.
301,00	Leave alkali flat bears S.W. enter dense undergrowth and ascend gradually on rolling slope N.W.
3[illegible]	Top of spur 35 ft. high running W.— Begin gradual descent on rolling surface
[illegible]	[illegible]

Chains	
	flat bears S.E.
383,00	Leave alkali flat bears E. and W.; enter dense undergrowth and ascend
394,70	Top of slope 35 ft. above flat; enter level top of ridge runs E. and W.
396,10	St. A or the cor. of secs 7-8-17 and 18 T 7 N R 10 W. as herein before described. —

Land rolling, and broken
Soil sandy, gravely, adobe clay, and sticky alkali mud. —
No timber
Dense undergrowth of shadscale thorn, greasewood and some sagebrush on 236,80 chs. —
At this station at 8h 10m p.m. l.m.t. I take an observation on Polaris in accordance with instructions in the Manual and mark the course thus determined on a stake set firmly in the ground 10 chs. N. of my station. —

Astron. l.m.t. of obs. Apr 30 - - - - -		h m 8. 10
U.C. Polaris May 1st - - - - - - - -	h. m. 22. 35,5	
Red. to April 29th - - - - add.	7.8	
U.C. Polaris Apr. 29. - - - - - - -	22. 43,3	22 43,3
Hour ang. of Pol. at obs. and argument for Table II - - -		9. 26,7

Azimuth of Polaris at observation = 0°59' W.
April 30, 1896

May 1: at 8h 20m a.m., l.m.t. I lay off the azimuth of Polaris 0°59' to the east and mark the true meridian thus established on the stake set April 29, 10 chs. N of my station and by inspection find that the meridians as determined by solar and polar observations respectively agree without material difference
From the true meridian thus established I deflect plate angles to the flag on Gunnison Island as follows:
Angles measured from the north to right
Vernier at 0 — 1st reading 86°49' —
2d " 173°39'
3d [illegible]

Chains

4th reading 347°16'
4 = 86°49'

The mean of all angles, and course = - - - N 86°49'E

From the meridian as before, to the flag set on top of the ridge on the Base line or line St. A., St. B.

Angles measured from the north- to left

Vernier at O. - 1st reading 4°6'
2d " 8°12'
3d " 12°19'
4th " 16°25'
5th " 20°30'
6th " 24°36' - 24°36'
6 = 4°6'

The mean of all angles, and course = - - - N 4°6' W.

From the flag set on top of ridge on line St. A- St. B
I deflect plane angles to the flag on Gunnison Island as follows.

Angles turned to right

Vernier at O - 1st reading 90°56'
2nd " 181°60'
3d " 272°45' - 272°45'
3 = 90°55'

Angle at Station A = 90°55'

I now remove my instrument and place in exact position a pine post 8 ins. diam. 12 ft. long set 2½ ft. in the ground, scribed U.S.T. St. A. G.I.Sz. bearing at the top a short canvas flag securely fastened and surrounded by a mound of earth 5 ft. base 3 ft. high; and by its side I replace the cor. stake of secs 7-8-17 and 18 of the original survey as found, and hereinbefore described. —

Thence I run

N 4° 6' W. on the Base line, making a careful remeasurement of the entire distance

396.10 To Station B.

At this point I deflect plane angles as follows—

From the flag set on top of the ridge on the Base line or line St. A., St. B. to flag on Gunnison Island

Angles turned to the left

Vernier at O. - 1st reading 58°22'

Chains

3d reading 175°6'
3 = 58°22'

Angle at Station B. = 58°22'
" " " A = 90°55'
" A + B = 149°17'
180° − 149°17' = 30°43' for the remaining angle of the triangle at flag on Gunnison Island

I now remove the instrument and place in exact position a pine post 3×9 ins. 10 ft. long set 1½ ft. in the ground, scribed U.S.T. St. B G Isl. bearing at the top a stout canvas flag securely fastened and surrounded by a mound of large stone 6 ft base 4 ft. high.—

The corners of the original survey were identified beyond a question of doubt, both by the markings and also by the topographical features of the ground, which I found to correspond closely with the description in the original survey, as well in the lines retraced by me as also those crossing them and notably so the boundary bet Tps. 7 and 8 N. R. 10 W. which I carefully observed; and nowhere else in the vicinity could these features be at all compared.—

The Base-line was measured with great care first by traverse line and afterward by two separate, direct measurements, from North to south and south to north, the first one of which was made with a 66 ft braced steel chain; the last one made by myself assisted by an experienced chainer was made with a 100 ft. steel tape and agreed closely.—

May 1, 1896

May 2: having returned to Gunnison Island I go to the flag as hereinbefore described and which for further reference I shall designate Station C.; and having set off 15°42'13" N. on the declination arc, at 11h 57m a.m., l.m.t. I observe the sun on the meridian, the resulting latitude is 41°21'N which is as near as the instrument can be read corresponds to the calculated latitude.

I now direct the telescope to St. A on the mainland which can be plainly observed and deflect plate angles, to St. B which is also distinctly to be seen as follows

Angles turned to right

Vernier at O. – 1st reading 30°43'

2nd " 61°26'

3d " 92°09' – 92°9'

3 = 30°43'

Angle at Station C = 30°43'

" " " A = 90°55'

" " " B = 58°22'

" " " A + B + C. = 180°

Hence to solve the triangle we have

sin 30°43' : sin 58°22' :: 396.10 chs. : lenght of line St. A. St. C

Log. 396.10 = 2.597805

Log. sin. 58°22' = 9.930145

a. c. " " 30°43' = 0.291755

Log. 2.819705 = 660.24

Lenght of required side of triangle = 660.24 chs. or 8 m. 20.24 chs.

And for finding the tangent to parallel or a due east course from St. A and longitude of St. C. we have the right angle triangle of which

Ang at St. A. = 3°11'

" " " C = 86°49' – hence

Cos. 3°11' × 660,24 = lenght of tangent to parallel

sin 3°11' × 660.24 = northing of St. C.

Log cos. 3°11' = 9.999329

Log 660,24 = 2.819705

Log - - - - - - - - 2.819034 = 659.23 chs. = 8 m 19.23 chs.

Lenght of tangent to parallel, or difference of longitude bt. St. A. and St. C. = 8 m 19.23 chs.

For convergency of Meridian I deduct 1.70 chs. from the line bt. secs. 7 and 18 T. 7 N. R. 9 W. — ....

Log sin 3°11' = 8.744536

Log 660,24 = 2.819705

Log. - - - - 1.564241 = 36.66 chs.

Offset from Tang. to parallel subt. .60 " (Tab. VI P 127 Man.)

36.06 chs.

From the above calculations it is seen that triangulation Station C. Gunnison Island, Great [illegible]

Chains	
	meridional section line running from Station A. on the main land and 36,06 chs. north of the latitudinal section line of the same place. produced. and is therefor situated in Sec 10 Tp. 7 N. R 9 W. of the Salt Lake Base and Meridian in latitude 41° 21' N. longitude 112° 52' W.
	May 2: At 2h 35m p.m., T.m.t. I set off 48° 39' on the latitude arc (= co Lat.) and 15° 44' 30" on the declination arc. and determine a true meridian with the solar at Station C and mark a point of the course on a stake set 36,00 chs. S. of the St. The magnetic bearing of the true meridian at 3h p.m. is 17° 10' E.; the angle thus determined reduced by the table P. 100 of the manual gives the mean mag. decl. 17° 14' E.— From the true meridian I turn a plate angle to St. A. on the main land which bears S. 86° 57' W. The difference in course, as established at St. A. being due to the difference in longitude of stations
	From Station C as already described I run south 36,06 chs. to the intersection with the E and W. sec. line bet. secs. 10 and 15. 20,93 chs. E. of the cor. of secs. 9-10-15 and 16 T. 7 N. R. 9 W. which falls in the lake and will not be set. The intersection point falling on the sandy beach at high water mark, I set a limestone 20 x 9 x 8 ins. 15 ins. in the ground for meander cor. of fract. secs 10 and 15 marked M.C. on E. face with 4 grooves on S. face; and raised a mound of stones 2 ft. base 1½ ft. high W. of cor. Pits inconvenient.— A house bears N 15° 40' W 9,80 chs.
	From the meander cor. of fract. secs. 10 and 15 as above described I run West on a true line bet. secs. 10 and 15 ascending gradually on sandy beach
2,40	Leave sandy beach, bears N. and S.; enter guano beds and dense undergrowth
4,10	Leave guano beds. bears N. and S: enter rough

Chains	
5,70	Top of main ridge running throughout the island, in low pass of same 62 ft above water line of lake, course N 20° W. and S 30° E
	Begin descent
8,20	Leave rocky slope, enter guano bed, bears N and S. and descend gradually
12,05	Leave guano beds and dense undergrowth, bears N. and S. and enter rocky beach
13,00	High water line of lake bears N. 30° W and S 10° E, 7.93 chs. E of cor. of secs. 9-10-15 and 16 which falls in lake
	Set light colored porphyry relic stone 24 x 10 x 6 ins. 18 ins. in ground and mound of stones 4 ft. base for meander cor. of fract. secs. 10 and 15 marked M.C. on W. face with 4 grooves on S. face: Pits inscribable
	This line commences about the center of what is known as East Bay and terminates in West Bay. —
	Land gradual slope and mountainous —
	Soil, sand, boulders, guano, and barren limestone rock. —
	No timber
	Dense undergrowth of rank, high weeds on guano beds; thorn and greasewood on the rocky part. —
	Mountainous land and dense undergrowth on 10,60 chs. —

From the meander cor. of fract. secs. 10 and 15 on the W. shore, as above described I run E. 1.00 chs. thence S. 19,35 chs. thence W. 8.93 chs. To high water line of the lake on N.W. shore of the island, on rocky beach

I set a limestone 29 x 12 x 8 ins. in a mound of stones. 4 ft. base 2 ft. high for meander cor. of fract. secs. 15 and 16 marked M.C. on N. face with 3 grooves on E. face. — Pits inscribable

From the meander cor. of fract. secs. 15 and 16 as above described I run

Chains	
	Ascending on rocky beach bears N.E. and S.W.
2,14	Leave beach, enter dense undergrowth — and ascend on steep rocky broken slope bears N.E. and S.W.
6,65	Top of main ridge running transverse the island 103 feet above high water line, course N.E. and S.W. Begin descent on rocky broken slope
10,10	Leave dense undergrowth — and broken slope bears N.E. and S.W.; enter gravelly shingle beach and descend gradually
11,25	At high water line on S shore of island set a limestone 24 x 12 x 8 ins. in a mound of stones 6 ft. base 2 ft. high for meander cor. of fract. secs. 15 and 16 marked M.C. on S. face with 3 grooves on E. face. — Pits impracticable. — Land Mountainous. Soil rocky, No timber Dense undergrowth of greasewood and shore mountainous land and dense undergrowth — on 11,25 chs. —

At the stake set on the true meridian established this day by observation with the solar, 36,00 chs. S. of St. C. at 8h 32m P.M., L.M.T. May 2, I take an observation on Polaris in accordance with instructions in the manual, and mark a point in the line thus determined on a stake driven in the ground 8 chs N. of my station. —

Astron. T.m.t. of obs. May 2 - - - - 8h 32m

U.C. Polaris May 1, - - - - 22h 35m.5 - 22 35.4

Hour ang. of Polaris at obs. and arg for Tab. II = 9.56.5

Azimuth of Polaris at observation = 0°30' W.

May 2, 1896

May 3: At 7h a.m., L.M.T. I lay off the azimuth of Polaris 0°60' to the east and sighting along this course to St. C I bisect the flag, and therefor conclude the solar is in adjustment. —

Meanders T 7 N R 9 W. Gunnison Island

Meanders in section 10.
I commence at the meander cor. of fracl. secs. 10 and 15 on the east side of the island as hereinbefore described.—
At this cor. May 3: at 7h 15m a.m., l.m.t.
I sight north to triangulation St C which is on a true meridian with this cor. and turning a plate angle to the right of 9° 0'
I run with meanders in sec 10
On sandy beach
N. 9° E. 6,00 chs.
N. 26° 30' E. 9,00 " Leave sandy beach enter steep rocky shore and huge bowlders glazed with salt.
S 77° E. 3,30 "]
N. 26° E .60 "
N. 9° W. 4,00 "
N 1° 30' E 20,90 "
N. 68° 30. W. 4.00 "
N 55° 15' W. 9,70 "
S 80° 45' W. 6,20 " √
S 35° 45' W. 3,00 "
S 13° 45' W 6,70 " Enter Guam Bay
S 19° 30' E 14,00 " Enter sandy beach
S 10° W. 4,00 "
S 42° 15' W. 5,00 "
S 65° W. 5,50 " Enter steep rocky shore and huge bowlders.
N 62° 30' W. 2,00 "
S 28° 15' W. 1,80 "
S 28° E 13,37 " To the meander cor. of fracl. secs. 10 and 15 on W. shore of the island
Land gently sloping, and steep broken beach
Soil sand, and barren limestone rock, mostly large bowlders and fragments.—
No timber
No undergrowth
Mountainous land 90.07 chs.

0.07
9.00

At the north end of the main island and separated from it by a narrow and shallow channel is a small rocky island locally known as Cub Island.— I am at first in doubt whether this should be included in the survey

Chains

The special instructions for this survey I conclude it is considered a part of this island which it properly should be, and proceed to survey it as follows. —
Not being able to see it from any of the meander cor. owing to the mountainous character of the ground I run
From the meander cor. of fract. secs. 10 and 15 on the east shore of the island,
N 12° 11' E. 39,50 chs. to a point on the N.E. shore from which a flag set on the nearest point of Cub Island bears N 36° 46' E. thence measuring a base N 68° 30' W. 6,00 chs. to a point from which the flag as before bears N 71° 53' E. which gives for the distance to flag from first point. -

$$\frac{\text{Sin } 39° 37' \times 6{,}00}{\text{Sin. } 36° 07'} \text{ or } \frac{0.63765 \times 6.00}{0.57524} = 6.65 \text{ chs.}$$

6.65

In place of the flag I
set a black limestone 30 x 10 x 6 ins. 24 ins in a mound of stones 6 ft. base for an auxiliary meander cor. in sec. 10 marked A.M.C. on S. face. - Pits inaccessible. -
This cor. stands on rocky surface on a shark point or reef 1 ft above high water line

---

Meander of Cub Island

I commence at the auxiliary meander cor. in sec 10 as hereinbefore described. -
Thence I run with meanders in sec. 10
On rocky broken shore.

N 28° 15' E	2,00	chs.
N 84° 30' E.	1,20	"
N 54° E	1,00	"
N 27° 30' E	1,00	
N 15° W.	1,60	"
N 40° 30' W.	3,50	"
N. 41° 45' E.	6,70	"
N 20° 30 W.	2,00	"
N 48° W.	3,80	"
N 72° 45' W.	6,00	"
S 57° 30' W	1,40	"

Thence S 10° 45' E. 4,00 chs
S 82° 15' E. 5,00 "
S 40° E 3,20 "
S 15° 15' W. 3,00 "
S 6° 30' W. 3,60 " to the auxiliary meander cor. in secs. 10 the place of beginning. —

Land mountainous steep and broken
Soil barren limestone rock and bowlders.
No timber
No undergrowth —
Mountainous land 48.83 chs.

Thence in sec. 15
On west shore of the island beginning at meander cor. of fract secs 10 and 15
S 4° 0' E 9,00 chs.
S 28° 45' W. 6,00 "
S 45° W. 6,00 "
S 58° 30' W. 1,70 to the meander cor. of fract secs. 15 and 16 on W. shore
Land sloping beach
Soil large bowlders, glazed with salt
No timber
No undergrowth —
Mountainous land 22.70 chs. —

Thence in sec. 16
On rocky mountainous shore
S 57° 30' W. 8,30 chs.
S 37° W 3,00 "
S 10° W 2,40 "
S 69° 15' E 7,90 "
S 71° E 2,05 " to the meander cor. of fract secs 15 and 16 on S. shore of island
Land mountainous steep rocky shore
Soil barren rock, mostly large bowlders.
No timber
No undergrowth —
Mountainous land 23.65 chs.

Chains

May 4: at 7h 30m a.m. I.M.T. I set off 48° 40' N. on the lat. arc (= co-Lat.). and 16° 15' W. on the declination arc and determined a true meridian at the meander cor. of fract. secs. 15 and 16 on S. shore of island

Thence in sec. 15

On mountainous rocky shore

N. 71° 0' E.	4,00	chs.
S 81° E.	2,50	"
N 59° 15' E.	10,90	" at 10,00 enter sandy beach 3 chs wide
N 79° E.	7,00	"
S 68° 30' E.	4,20	"
S. 16° 15" E	7,70	" at 1 ch. head sandy beach, enter rocky mountainous shore
S 54° E.	2,30	"
N. 79° 45' E.	1.40	"
N. 34° 45" E.	2,80	"
N. 3° 30' W	4,70	"
N 32° E.	7,80	"
N. 1° 30' E	.90	"
N 39° 15" W.	7,90	"
S. 87° 30' W.	1,40	" enter East bay and sandy beach
N. 59° W.	7,60	
N 22° 15" W.	9,10	to the meander cor. of fract. secs. 10 and 15 on E. shore of island

Land mountainous, rocky, and sandy beach

Soil sand and barren rock, mainly large boulders.

No timber

No undergrowth

Mountainous land 52,40 chs. -

May 4, 1896

General Description

Gunnison Island in Great Salt Lake located in secs. 10, 15 and 16, T. 7 N. R 9 W. is all mountainous land with the exception of a few small bays or coves worn by disintegration

line has been formed. – The island is in fact a shark nosed reef running nearly north and south, rising quite abruptly from the bottom of the lake with deep water close to the shore. – The top of the range or crest running throughout the middle of the island is very broken an irregular in height; the highest point is near the north end at triangulation St. C. which has an elevation of 280 feet above high water line as determined by triangulation; the mean height is about 100 feet. –

There is no water on the islands and very little soil and it is therefor not suited for settlement nor cultivation. – The vegetation consists of shrubs and weeds growing very rank and luxuriantly and is seemingly of different species from those found elsewhere in Utah as nowhere else have I encountered exactly the same. –

The rock formation is a dark colored limestone intermixed in places with a light colored porphyritic rock or cement, whether this latter is due to infusion or surface deposition I did not take time to examine. –

For ages past the Gulls and other sea birds infesting the lake have used this island as breeding ground and their droppings have accumulated in the low sheltered places where the nest is made until a deposit of guano has been formed several feet in thickness. (5 feet is about the maximum depth) These deposits are everywhere mixed with fragments and pebbles of limestone carried down from the disintegrating ridge along the center of the island and therefor has to be screened before being ready for the market or else crushed up by some grinding process. –

The greatest portion of these guano deposits are located in sec 10 in Guano bay East bay and West bay extending over the sec. line into sec. 15 for about 1000 to 1500 feet on the W. side and and about 1000 feet on the east side

while in sec. 16 is none whatever; the width-
way cover is about 300 to 400 feet, the depth
is very irregular. —
As these deposits are certainly very valuable
(I am informed it brings $20 per ton in the
market) there are a number of claimants
to the land. — The Utah Guano Co. a
Corporation seems to hold possession at the present
time and manufactured a quantity of guano
last season; they have a house on the
island 14 x 28 ft. built of lumber which bears
from the meander cor. of fract. secs. 10 and 15
on the east shore N 15° 40' W. 9.80 chs. and
thereby in sec. 10. — This house is the only
improvements on the island of any kind
That portion of the island known as Cub island
is a barren rock containing a very small amount
of guano deposit the highest point has a height
above water of 84 feet. — Should the surface of the
lake continue to settle at the rate it has for
several years past there will in a year or at
most two be no separating channel, but
a rocky ridge connecting the whole. —
Bird Bay affords an excellent harbor or
anchorage with deep water close in and
a sandy bottom. —

Andrew P. Hanson
U S Deputy Surveyor

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BOOK A-238

List of Names.

A list of the names of the individuals employed by .....

....., U. S. Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of the .....

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.....Meridian, in ....., showing the respective capacities in which they acted:

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Final Oath of Assistants:

We hereby certify that ~~we~~ assisted Andrew P. Hansen

....., U. S. Deputy Surveyor, in surveying those parts or portions of ~~the~~ Gunnisons Islands in Great Salt Lake Tp 7 N R 19 W

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of Salt Lake Base and Meridian, State of Utah, as are represented in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of ~~our~~ my knowledge and belief, well and faithfully surveyed, and the corner monuments established according to the instructions furnished by the U. S. Surveyor General for Utah

~~Wm H Isaac~~

George H Wayne

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.....

Subscribed and sworn to before me this 5th day of May, 1896

SEAL

Andrew P Hansen

U. S. Deputy Surveyor

6—151

Final Oath of U. S. Deputy Surveyor.

I, _____, U. S. Deputy Surveyor, do solemnly swear that, in pursuance of instructions received from _____, U. S. Surveyor General for _____, bearing date of the _____ day of _____, 18 , I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the U. S. Surveyor General for _____, the surveying manual, and the laws of the United States, surveyed all those parts or portions of _____

_____

_____

_____

_____

_____ Meridian, in the _____, as are represented in the foregoing field notes as having been surveyed by me, and under my directions; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the surveying manual, printed instructions, the special written instructions of the U. S. Surveyor General for _____ and in the specific manner described in the field notes, and that the foregoing are the true field notes of such survey; and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

_____

U. S. Deputy Surveyor.

Subscribed and sworn to before me this _____ day of _____, 18 .

SEAL

_____

_____

Approval.

Office of the U. S. Surveyor General,

_____, *18* .

The foregoing field notes of the survey of _____

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_____

_____ executed by

_____

under his Contract No. _____, dated _____, 18 , having been critically examined, the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

_____

U. S. Surveyor General.

I certify that the foregoing transcript of the field notes of the above-described surveys in _____, has been correctly copied from the original notes on file in this office.

_____

U. S. Surveyor General.

List of Names.

A list of the names of the individuals employed by Andrew P. Hansen, U. S. Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of the Gunnison Island in Great Salt Lake

Tp 7 N R 9 W of Salt Lake Base and Meridian, in the State of Utah, showing the respective capacities in which they acted:

Wm H Trone Chainman
H E Giers "
George H Payne Flagman or Axman

Final Oath of Assistants:

We hereby certify that we assisted Andrew P. Hansen, U. S. Deputy Surveyor, in surveying all those parts or portions of the Gunnison Island in Great Salt Lake in Tp 7 N R 9 W

of Salt Lake Base and Meridian, State of Utah, as are represented in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the U. S. Surveyor General for Utah

Wm H Trone Chainman
H E Giers "
~~George H Payne~~

Subscribed and sworn to before me this 16th day of May, 1896

SEAL

Henry J. M. Atkinson
Mary Pulle

6—151

Final Oath of U. S. Deputy Surveyor.

I, Andrew P. Hanson U. S. Deputy Surveyor, do solemnly swear that, in pursuance of instructions received from George W. Snow, U. S. Surveyor General for the State of Utah, bearing date of the 9th day of January, 1896 I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the U. S. Surveyor General for Utah, the surveying manual, and the laws of the United States, surveyed all those parts or portions of Gunnison Island in Great Salt Lake Tp 7 N. R 9 W of the Salt Lake Base &

Meridian, in the State of Utah, as are represented in the foregoing field notes as having been surveyed by me, and under my directions; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the surveying manual, printed instructions, the special written instructions of the U. S. Surveyor General for Utah and in the specific manner described in the field notes, and that the foregoing are the true field notes of such survey; and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

Andrew P. Hanson
U. S. Deputy Surveyor.

Subscribed and sworn to before me this 29th day of May, 1896

SEAL

George W. Snow
U. S. Surveyor General

Approval.

Office of the U. S. Surveyor General,

Salt Lake City, Utah, June 13th, 1896.

The foregoing field notes of the survey of the Triangulation &c, and the survey of the subdivision and Meanders of Gunnison Island in Great Salt Lake in Tp 7 N. R 9 W of the Salt Lake Base & Meridian Utah

executed by Andrew P. Hanson under his Contract No. 206, dated January 9th, 1896 having been critically examined, the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

George W. Snow
U. S. Surveyor General.

I certify that the foregoing transcript of the field notes of the above-described surveys in ....., has been correctly copied from the original notes on file in this office.

U. S. Surveyor General.

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