Volume

#

R0252

BOOK A-252

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, ... and .....
do solemnly swear that we will well and faithfully execute the duties of chainmen; 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 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

BOOK A-252

INDEX DIAGRAM.

Township 42 S., *Range* 13 W.

72	6	71	5	61	4	55	3	54	2		1	49
	70		70		61		54					
72	7	69	8	60	9	53	10		11		12	49
	68		68		60		53					
72	18	67	17	59	16	52	15		14		13	49
	67		66		59		52					
72	19	66	20	58	21	52	22	48	23		24	49
	65		64		58		51		47			
72	30	64	29	57	28	51	27	47	26	45	25	28
	63		63		57		50		46		44	
73	31	62	32	56	33	50	34	46	35	43	36	28
	33		33		32		31		30		30	

Meanders Page

6—151

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 over 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

BOOK A-252

INDEX DIAGRAM.

Township 36 S., *Range* 9 W.

	134		134		134		134		134		134
133	6	126	5	123	4	120	3	110	2	116	1	90
	127		124		121		118		117		115
133	7	128	8	122	9	119	10	109	11	114	12	89
	130		129						113		112
133	18	131	17		16		15	108	14	111	13	88
									107		105
133	19		20		21		22		23	106	24	87
											104
132	30		29		28		27		26		25	87
											103
132	31		32		33		34		35		36	86
											85

Meanders Page.....

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 over 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

BOOK A-252

INDEX DIAGRAM.

Township 36 S., *Range* 8 W.

~~225~~	~~225~~	~~225~~	~~225~~	~~225~~	~~225~~
6 222	5 206	4 197	3 186	2 177	1 224
~~221~~	~~221~~	~~206~~	~~196~~	~~186~~	~~176~~
7 220	8 205	9 195	10 185	11 175	12 224
~~219~~	~~218~~	~~204~~	~~194~~	~~184~~	~~173~~
18 217	17 203	16 193	15 183	14 172	13 224
~~215~~	~~214~~	~~202~~	~~192~~	~~182~~	~~171~~
19 213	20 201	21 191	22 181	23 170	24 224
~~212~~	~~212~~	~~201~~	~~190~~	~~181~~	~~169~~
30 211	29 200	28 189	27 180	26 168	25 223
~~210~~	~~209~~	~~199~~	~~189~~	~~179~~	~~167~~
31 208	32 198	33 188	34 178	35 165	36 223
~~154~~	~~153~~	~~152~~	~~151~~	~~150~~	~~149~~

Meanders Page.....

C—151

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 over 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

.....

BOOK A-252

INDEX DIAGRAM.

Township 40 S., *Range* 22 E.

	~~270~~		~~269~~		~~268~~		~~267~~		~~266~~		~~265~~
281	6	322	5	316	4	309	3	302	2	294	1	247
	~~323~~		~~323~~		~~316~~		~~309~~		~~303~~		~~295~~
281	7	324	8	317	9	310	10	303	11	296	12	248
	~~325~~		~~324~~		~~318~~		~~311~~		~~304~~		~~296~~
282	18	326	17	318	16	312	15	305	14	298	13	249
	~~327~~		~~326~~		~~319~~		~~312~~		~~306~~		~~298~~
282	19	328	20	320	21	313	22	307	23	300	24	251
	~~330~~		~~328~~		~~320~~		~~314~~		~~307~~		~~300~~
283	30	331	29	321	28	315	27	308	26	301	25	252
	31		32		33		34		35		36

Meanders Page 332 - 336.

C—151

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 over 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

BOOK A-252

INDEX DIAGRAM.

Township 40 S., *Range* 23 E.

350	351	352	353	354	355
6 408 5	400 4	391 3	382 2	374 1	356
410	409	401	391	383	375
7 411 8	402 9	392 10	383 11	375 12	357
413	412	403	393	384	376
18 413 17	403 16	394 15	385 14	377 13	358
415	414	404	395	386	377
19 416 20	405 21	396 22	386 23	378 24	359
417	417	406	397	387	379
30 418 29	407 28	398 27	388 26	380 25	359
			399	389	381
31	32	33	34	390 35	381 36 360

Meanders Page 419 - 424

6—151

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 over 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

.....

.....

BOOK A-252

INDEX DIAGRAM.

Township 40 S., *Range* 24 E.

552	553	553	554	555	556
6 485	5 474	4 466	3 458	2 450	1 550
484	484	473	465	457	449
7 483	8 472	9 464	10 456	11 448	12 549
482	481	472	464	456	447
18 481	17 471	16 463	15 455	14 447	13 549
480	479	470	462	454	446
19 478	20 469	21 462	22 454	23 445	24 548
478	477	469	461	453	444
30 476	29 468	28 460	27 452	26 444	25 547
437	438	467	460	451	443
31 475	32 439	33 459	34 451	35 442	36 546
	498	500	502	503	505

Meanders Page 486 · 487

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 over 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

.....

BOOK A-252

INDEX DIAGRAM.

Township 40 S., *Range* 25 E.

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36
508	509	510	511	513	514

Meanders Page

6—151

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 over 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

BOOK A-252

INDEX DIAGRAM.

Township 40 S., *Range* 26 E.

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

516 517 518 533

Meanders Page

6—151

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 over 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

BOOK A-252

INDEX DIAGRAM.

Township 40 S., *Range* 21 E.

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36
~~523~~	~~522~~	~~521~~			

Meanders Page

6—151

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 over 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

BOOK A-252

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, ... and .....
do solemnly swear that we will well and faithfully execute the duties of chainmen; 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 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

4—679.

BOOK A-252

FIELD NOTES

OF THE SURVEY OF

The South and East Boundaries

of

Tp. 42 South

Range 13 West.

Of the Salt Lake Base and Meridian,

State of Utah

AS SURVEYED BY

Washington Jenkins and J.A. West, United States Deputy Surveyor,

Under ~~his~~ their Contract No. 212, dated October 15th, 1896,

Survey commenced July 1st, 1897

Survey completed July 2nd, 1897

6—151

E. Bdry. high	1	62-20
low		7-80
S. Bdry. high	6	13-15
closing		24-39
Cont'g. Bdry.		10-00

Names and Duties of Assistants.

David A. Jenkins	Chainman
C. A. Lundquist	Chainman
David A. Jenkins	moundman
John A. Child	axman
David Jenkins	flagman

For preliminary affidavits see Book "B"

6—121

BOOK A-252

INDEX DIAGRAM.

Township 42 South, *Range* 13 West,

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

1-7

2-3

7-8 7- 6-7 5-6 4-5 4

Meanders Page

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

East Boundary of Tp. 42, S. R. 13. West.

This survey commenced July 1st 1897, and executed with a J. T. Hobby engineers transit no number, without solar attachments, being the same instrument heretofore described in the survey of the 8th Standard Parallel, and other parts of the survey made under this Contract, See Book F.

I commence at the established Cor. of Secs 19-24-25 and 30, on the E. bdy. of the township, which is a sandstone 10x8x6 ins. above ground firmly set, marked and witnessed as described by the surveyor general, July 1st 1897 at 12h 41m P.M. or at 1h 15m A.M. July 2nd 1897 by my watch which is correct mountain standard rail road time. I observe Polaris at Eastern Elongation in accordance with the Manual of Instructions 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, in approximate Latitude 37°-08' N. Longitude 113°-12' W.

July 2nd at 7 A.M. I lay off the Azimuth of Polaris 1°-34' 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 this morning. Mean magnetic variation is 16°-00' E.

I lay off from the true meridian an angle of 180° from North to East and

run,

South - re-tracing a part of the line bet. Secs 25 & 30,

10.00 intersect the old witness cor. to 1/4 Sec. cor. which is a sandstone 10x7x5 ins. above ground, firmly set, marked and witnessed as described by the

East Boundary of Tp. 42. South Range 13 West.

Chains	surveyor general; which agrees with the original notes
	From this witness cor.
	Thence Drew
	South bet. Secs 25 and 30
	adding the distance of this cor. South from the
	cor. of Secs 19-24-25 and 30, which is 10.00 chs.
	over level, loamy land.
17.80	bottom mountain bears E. and S 40° W. ascend over
	ledges of limestone.
22.80	top of mountain about 150 ft. above the bottom bears
	S 40° W. and E. This mountain drops off perpendicular
	1.00 ch. E. of this point to the level of the surrounding
	country. thence level.
24.70	top of S. side of mountain bears S 30° W. and N 30° E.,
	descend over ledges.
27.40	bottom of mountain about 150 ft. below the top bears
	S 25° W. and N 75° E, thence level.
40.00	Set a sand stone 18×12×6 in. 12 ins. in the ground
	for 1/4 Sec. Cor. Marked 1/4 on W. face. Raised a mound of
	stone 2 ft. base 1½ ft. high W. of Cor. Pits impracticable.
45.75	dry wash 20 ft. wide 15 ft. deep, drains N 80° E., wagon
	road in bottom of same leads from Taquerville to
	Arizona,
58.30	bottom of mountain bears N 45° E. and S 20° W, ascend
	over sand stone ledges.
59.50	top of mountain about 100 ft. above bottom bears S 20° W,
	and N 40° E. thence over limestone sheet, rolling.
80.00	Set a limestone 18×15×5 ins. 12 ins in the ground for Cor.
	of Secs 25-30-31 and 36, marked with 5 notches on the N. and 1
	notch on the S. edges, Raised a mound of stone 2 ft base 1½ ft. high W.
	of cor, Pits impracticable.
	Land mountainous and bad.
	Soil loamy and stony. 2nd and 4th rate.
	No timber.
	Mountainous land 62.20 chs.
	South bet. Secs 31 and 36,
	over rolling, limestony and clay soil.
13.90	dry run 10 ft. deep, 25 ft. wide drains N.
18.30	dry run 10 ft. deep 12 ft. wide drains E,
15.00	same dry run drains N.

East Boundary - Tp. 42. South - Range 13 West.

Chains	
31.20	dry wash 8 ft. deep. 15 ft. wide drains N 30° W.
35.00	dry wash 4 ft. deep. 10 ft. wide drains W.
36.90	same dry wash drains N 10° E.
40.00	Set a sand stone 18 x 10 x 6 ins. 12 ins. in the ground for 1/4 Sec. Cor. marked 1/4 on W. face. Raised a mound of stone 2 ft. base 1 1/2 ft. high. W. of Cor. Pits impracticable.
40.30	dry wash 3 ft. deep 8 ft. wide drains N 40° W. ascend.
70.45	head of a dry wash 10 ft. deep 20 ft. wide drains W. ascend over sage brush land, clay soil.
75.80	top of ridge about 200. feet above the 1/4 Sec. Cor. slopes N 30° W. descend
80.00	bottom of small ravine about 20. ft. below the top drains N 45° W.
	Set a gray sand stone 20 x 12 x 6 ins. 15 ins. in the ground for Cor. of Tps 42 and 43 S. - Rs 12 and 13 W. marked with 6 notches on the N - S - E and W. edges. with 42 S. on N E. - 12 W. on S E. 43 S. on S W. - 13 W. on N W. faces; Raised a mound of stone 2 ft. base 1 1/2 ft. high S. of Cor. Pits impracticable.
	This Cor. is about 1 1/2 mile N. W. of high flat toffed mountain.
	Land mountainous
	Soil stony 4th rate.
	Timber a few scattering cedars, to the East and W. of the line
	Mountainous land 80.00 chains.

The E. bdy. was run South on a true line 1 mile 70. chs. to a Cor. and the S. bdy of the Tp. ran W. therefrom on a true line to a closing cor. on account of the high and impassable cliffs of the Hurricane Mountain which run Northerly and Southerly through the centre of Tps 42 and 43. S R 13 W. making it necessary to travel around the road at the North side of Tp. 42, 7 miles distant, or around the road to Rock Cañon at the South of Tp. 43. and return in order to get over the cliffs, involving great expense and much delay, in running the random lines called for in the Special Instructions. Also the manner in which the said cliffs are broken up and increased in ruggedness at a point about 20.00 chs. South of the S. bdy. of Tp. 42. renderes it impossible to survey the

South Boundary - Tp. 42. South - Range 13. West.

chains	
	South bdy. of the Tp. on the line in which it would intersect the Cor. of Tps 42-43 S. Rs 13 and 14 West. Therefore from the Cor. of Tps 42 & 43 S. Rs 12 & 13 W. I run
	West bet. Secs 1 and 36.
	over broken land cut with small ravines, draining N.
7.50	dry wash 3 ft. deep. 10 ft. wide drains N.
13.60	begin to descend into ravine bears N. and S.
14.40	bottom of ravine about 30. ft. below the top bears N. and S. then level
21.75	bottom of ascent on W. side of ravine drains N. ascend.
22.75	top of W. side of ravine about 40 ft. above the bottom bears N and S. then level.
27.00	begin to descend over rough hard ground, gradually,
40.00	Set a red sandstone 20x8x6 ins. 15 ins. in the ground for 1/4 Sec. Cor, marked 1/4 on N. face, Raised a mound of stone 2 ft. base 1 1/2 ft. high N. of Cor. Pits impracticable.
	ascend.
43.80	top of spur about 20. ft. above the 1/4 Sec Cor, slopes N. descend.
45.00	dry wash in bottom of ravine 40 ft. below the top drains N. ascend.
45.67	road bears N. and S. ascend W. side of ravine
47.73	top of ridge about 100. ft. above the bottom bears N. and S. thence level.
49.60	begin to descend bears N. and S.
52.12	bottom of ravine about 100. ft. below the top drains N. then level.
55.65	begin to ascend the W. side of ravine bears N. and S.
58.70	top of spur about 100. ft. above the bottom bears N. and S.
58.95	begin to descend W. side of spur bears N. and S.
60.60	bottom of ravine about 100 ft. below the top, heads 1 ch. S. and drains N. ascend.
63.25	top of ascent on W. side of ravine 100. ft. above the bottom bears N. and S. then level.
64.60	top of descent bears N. and S,
66.60	bottom of descent 100. ft. below the top bears N. and S. ascend gradually,
	over sheet of limestony ground,
80.00	Set a limestone 16x7x6 ins. 11 ins. in the ground for Cor. of Secs 1-2-35 and 36, marked with 5 notches on the W. and 1 notch on the E. edges. Raised a mound of stone 2 ft. base 1 1/2 ft. high W. of cor. Pits impracticable.
	Land mountainous
	Soil stony. 4th rate.
	No timber,
	Mountainous land 80.00 chs.
	West bet. Secs 2 and 35,
	Ascending over limestone ground.
4.92	top of perpendicular ledge 10 ft. high bears N. 20° W. and S 20° E.
	from bottom of ledge, continue descending

South. Boundary. Tp. 42. South Range 12 West.

Chains.

9.10 bottom of descent about 150 ft. below the top bears N and S. thus level.
17.00 dry wash 2 ft. deep 20 ft. wide drains N. heads S 20° E. ascend.
18.20 top of ascent 15 ft. above the bottom bears N. and S. continue ascend.
20.80 top of spur about 10 ft. above top of ascent. slopes N. descend.
22.75 bottom of descent about 40 ft. below the top drains N. ascend.
34.85 begin to ascend Volcanic mountain over lava bears N 30° W. and S 30° E.
40.00 Set a black lava stone 20x12x6 ins 15 ins. in the ground for ¼ Sec. Cor. Marked ¼ on N. face. Raised a mound of stone 2 ft. base 1½ ft. high N. of Cor. Ets impracticable
40.90 top of abrupt ascent, continue ascending more gradually.
53.00 top of mountain about 200 ft. above the dry wash. slopes N. descend
80.00 Set a lime stone 20x8x4 ins. 15 ins. in the ground for Cor. of Secs 2-3-34 and 35, marked with 2 notches on the E. and 4 notches on the W. edges Dug pits 18x18x12 ins. in each Sec. 5½ ft. dist, and raised a mound of earth 4 ft. base 2 ft. high W. of Cor. Cor. about 50 ft. below the top.
Land mountainous,
Soil stony. 4th rate.
No timber,
Mountainous land 80.00 chs.

West. bet. Secs 3 and 34.
over rolling sandy and gravelly land
27.30 begin to ascend gradually.
33.00 top of ascent about 50 feet above the Sec. Cor. bears N and S. descend
40.00 Set a limestone 20x10x6 ins 15 ins. in the ground for ¼ Sec. Cor. marked ¼ on N. face, Dug pits 18x18x12 ins. E and W. 3 ft. dist and raised a mound of earth 3½ ft. base 1½ ft. high N. of Cor. Cor. on ground Slopes N. W.
43.00 bottom of ravine about 100 ft. below the top drains S 40° W. ascend the W. side
47.62 top of Hurricane Mountain about 75 feet above bottom of ravine bears, N and S 35° E, being a series of perpendicular cliffs of limestone extending a considerable distance both N. and S. and about 700 feet high called Hurricane cliffs.
To determine the distance to the foot of the cliffs, I set a flag on line on the level land below the cliffs; and as it is impossible to measure a base along the top of the cliffs I set a flag at the South end of a base line. South of the Tp. line. The flag at the S. end of the base line bears S. 41° 51' W. and the angle bet. the flags measures, 48° 09'
From the flag on line at the bottom of the cliffs, the

6

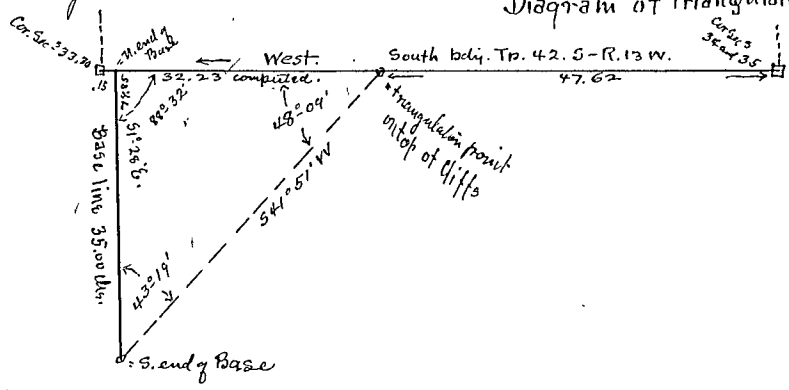
South Boundary of Tp. 42. South — Range 13 West.

Chains

flag at the S. end of the base line bears S1°28' E,
from the flag at the S. end of the base line, the flag on line on the top of the cliffs, bears N 41°51' E, and the angle bet. the two flags on line measures 43°19'
From the flag on line at the bottom of the cliffs, the angle bet. the flag on the top of the cliffs and the flag at the S. end of the base measures 88°32' I measure the length of the base which is 35.00 chs, The angles taken in the order of their measurement are respectively 48°09' 43°19' and 88°32', their sum being 180° I compute the distance as follows,

a.c. log sin 48°09' = 0.127905
log sin 43-19 = 9.836343
log 35.00 chs = 1,544068
log 32.23 chs = 1,508316

Diagram of Triangulation



also
47.62 + 32.23 makes

79.85 flag at bottom of cliffs about 700, ft. below the top. bears N. and S 40° E, continue descending over gravelly land,

80.00 Set a limestone 16x8x8 ins. 11 ins. in the ground for Cor. of Secs. 3-4-33 and 34, marked with 3 notches on the E. and W. edges, Raised a mound of stone 2 ft. base 1½ ft. high W. of cor. Pits impracticable.
Land mountainous.
Soil stony and gravelly, 4th rate.
No timber.
Mountainous land 80.00 chs,

West. bet. Secs 4 and 33,
descending over gravelly land,

6.82 road bears N. and S. from Toquerville to Arizona,

9.24 bottom of W. slope of mountain about 70 ft. below the Sec. Cor, drains N. ascend the N. end of Volcanic mountain over lava,

19.75 top of spur ridge about 100. ft. above the bottom slopes N. descend

South Boundary of Tp. 42. S — Range 13 West.

Chains.	
26.50	bottom of mountain about 150. ft. below the top bears N 40° E. and S 40° W, thence level. over sandy land.
40.00	Set a black lava stone 16x10x6 ins. 11 ins. in the ground for 1/4 Sec. Cor. marked 1/4 on N. face Dug pits 18x18x12 ins. E. and W. of stone 3 ft. dist. and raised a mound of earth 3 1/2 ft. base 1 1/2 ft. high N. of Cor,
44.85	road bears N. and S.
50.00	begin to ascend bears N. and S.
69.70	top of ascent about 100 ft. above the bottom slopes S. descend.
80.00	Set a lava stone 18x12x8 ins. 17 ins. in the ground for Cor. of Secs 4-5-32 and 33, marked with 4 notches on the E. and 2 notches on the W. edges - Dug pits 18x18x12 ins. in each Sec. 5 1/2 ft. dist. and raised a mound of earth 4 ft. base 2 ft. high W. of Cor,
	Land mountainous and level.
	Soil stony and sandy 3rd and 4th rate.
	No timber,
	Mountainous land 80.00 chs.
	West bet. Secs 5 and 32,
	over nearly level sandy soil.
13.60	begin to descend into ravine drains N.
15.50	bottom of ravine about 50. ft below the top drains N. then level.
31.80	begin to ascend the W. side of ravine bears N. and S.
40.00	Set a black lava stone 20x10x6 ins. 15 ins. in the ground for 1/4 Sec. Cor. marked 1/4 on N. face. Dug pits 18x18x12 ins. E. and W. of stone 3 ft. dist. and raised a mound of earth 3 1/2 ft. base 1 1/2 ft. high N. of Cor,
71.00	top of ridge about 200. ft. above the bottom bears N. and S. descend.
80.00	bottom of small ravine about 20 ft. below the top bears 1 ch S. and drains N 20° E,
	Set a black lava stone 16x10x6 ins. 11 ins. in the ground for Cor. of Secs 5-6-31 and 32, marked with 5 notches on the E. and 1 notch on the W. edges; Dug pits 18x18x12 ins. in each Sec. 5 1/2 ft. dist. and raised a mound of earth 4 ft. base 2 ft. high W. of Cor.
	Land mountainous and rolling
	Soil gravelly 3rd rate.
	No timber,
	Mountainous land 80.00 chs.
	West bet. Secs 6 and 31
	ascending over sandy and gravelly land
25.70	top of sand ridge about 100 ft. above the Sec. Cor. bears

South Boundary of Tp. 42. South - Range 13 West.

Chains	
	N. and S. descend into Valley over sandy land, rolling.
40.00	Set a gray sand stone 20×6×5 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 3. ft. dist. and raised a mound of earth 3½ ft. base 1½ ft high N. of Cor.
58.60	spur ridge slopes N. W. continue descending.
78.00	bottom of rocky gulch about 250 ft. below the top of ridge drains N 20° W. thence across the bottom. level
81.80	begin ascent of W. side of ravine.
93.15	intersect the W. bdy of the Tp. 24.39 chs. N. of the old Cor. of the Tps 42 & 43 S R 13 & 14 W. which is a sandstone 36×10×8 ins. in mound of stone, marked and witnessed as described by the surveyor general. at point of intersection Set a red sandstone 36×8×5 ins. in a mound of stone for closing cor. of Tps 42 and 43 S. R 13. West, marked C. C. 13 W. and 6 grooves on the E. face - 42 S - and 6 grooves on the N. face - with 6 grooves on the S. face - Raised a mound of stone 2 ft. base 1½ ft. high E. of Cor. Pits impracticable. I destroyed all marks on the old Cor. of Tp 42 and 43 S - Rs 13 and 14 W. facing to Range 13 W.

Sandstone ledges prevented setting the Cor. stone deeper.

Land mountainous. and rolling

soil sandy, 4th rate.

No timber

Mountainous band 93.15 chs.

July 2nd 1897.

General Description.

The eastern part of this township lies on the top of the Hurricane Mountains, and the western part below the mountains is called the Hurricane Bench. and embraces a quite large area of good soil; the best part of the township lies about the centre. There is an abundance of good grazing lies both to the North and South of the S. bdy of the Tp. There is no timber in the Tp. and no settlers within the part surveyed under this Contract. There are no natural streams within the part surveyed under this Contract. There is an abundance of limestone - sandstone and lava within the township.

Joseph A. Weed
Washington Jenkins
U. S. Deputy Surveyor.

July 2nd 1897.

For table of Latitude & Departure see subdivision notes of this Tp.

Final Oaths of Deputy Surveyor and his Assistants.

LIST OF NAMES.

A list of the names of the individuals employed by Washington Jenkins and Joseph A. West, United States Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of the South and East Boundaries of Tp. 42 S – R. 13 West of the Salt Lake Base and Meridian showing the respective capacities in which they acted:

David A. Jenkins, *Chainman.*
C. A. Lundquist, *Chainman.*
David A. Jenkins, *Moundman.*
, *Moundman.*
John A. Child, *Axman.*
, *Axman.*
David Jenkins, *Flagman.*

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted _____, United States Deputy Surveyor, in surveying all those parts or portions of the _____ of the _____ base and _____ meridian, _____ of _____, which 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 _____

_____, *Chainman.*
_____, *Chainman.*
_____, *Moundman.*
_____, *Moundman.*
_____, *Axman.*
_____, *Axman.*
_____, *Flagman.*

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

SEAL

_____

_____

0—151

Final Oath of United States Deputy Surveyor.

I, ..., United States Deputy Surveyor, do solemnly swear that, in pursuance of a contract received from ....., United States Surveyor General for ....., bearing date of the ..... day of ....., 189 , 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 ....., the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of .....

.....

.....

.....

..... of the ..... base and ..... meridian, in the ..... of ....., which are represented in the foregoing field notes as having been surveyed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the United States Surveyor General for ..... and in the specific manner described in the field notes, and that the foregoing are the original 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.

United States Deputy Surveyor.

Subscribed by said ....., and sworn to before me this ..... day of ....., 189

SEAL

APPROVAL.

Office of the United States Surveyor General.

Salt Lake City, Utah, April 2d, 1890

The foregoing field notes of the survey of The Fifth & East Boundaries of Township 42 South Range 13 West of the Salt Lake Base & Meridian, Utah

executed by Washington Jewelers by Joseph A. Fort under ~~his~~ the contract No. 212, dated October 15, 1891, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

Jacob B. Blair

United States 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.

.....

United States Surveyor General.

6—151

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4—679.

BOOK A-252

FIELD NOTES

K.J.B.

OF THE SURVEY OF

The subdivisional lines

of

Tp. 42 — South.

Range 13 — West.

Of the Salt Lake Base and Meridian,

State of Utah

AS SURVEYED BY

Washington Jenkins and J. A. West United States Deputy Surveyors

Under ~~his~~ their Contract No. 212, dated October 15th, 1896.

Survey commenced July 2nd, 1897

Survey completed July 17th, 1897.

6—151

Subs. [illegible]	12-06-37 ✓
" [illegible]	32-26-52 ✓
" [illegible]	1-09-61 ✓
" Contingent	2-40-00 ✓
E. Bdry "	4-02-70 ✓
W. " "	6-19-96 ✓

BOOK A-252

Names and Duties of Assistants.

David A. Jenkins	Chainman
C. A. Lundquist	Chainman
David A. Jenkins	Moundman
John A. Child	Axman
David Jenkins	Flagman

For preliminary affidavits see Book "C"

6—151

BOOK A-252

INDEX DIAGRAM.

Township 42 South, *Range* 13 West,

6	29- 5	19-20 4	13-14 3	12-13 2	1 -8-
28-29 7	27 28 8	18- 18-19 9	11-12 12 10	11	12 -7-
26-27 18	25-26 26 17	17 18- 16	10-11 11- 15	14	13 -7-
25- 19	24 20	16-17 17- 21	10 10. 22	6 23	24 -7-
23 30	22 22-23 29	15-16 16- 28	9 9 27	5-6 ← 3 → 5 26	3 4 25
21-22 31	20-21 21 32	14- 15- 33	8-9 8 34	4-5 4- 35	2-3 1-2 36

Meanders Page

0—161

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

Subdivisions – Sp. 42 South Range 13 West.

chains	
	This survey commenced July 2nd 1897, and executed with a J. T. Hobby engineer's transit no number, without solar attachments: the horizontal limb 7 ins. diam. having two double verniers placed opposite 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 March 17th 1897. I make all the necessary adjustments before commencing work.
	At the cor. of Secs 35 and 36, on the S. bdy. of the Sp, July 2nd 1897 at 12h 37m l.m.t. or at 1h 11m a.m. July 3rd by my watch which is correct mountain standard rail road time, I observe Polaris at Eastern Elongation in accordance with the Manual of Instructions, 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 July 3rd at 7: a.m. I lay off the Azimuth of Polaris 1° 34' 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 the true meridian is N 16° 27' W. which reduced by the table on page 100. of the Manual, gives the mean magnetic declination 16° 21' E.
	Thence I run
	N 0° 1' W. bet. Secs 35 and 36.
	over nearly level limestone ground.
6.60	top of perpendicular limestone ledges 25 ft. high bears E. and W. from bottom of ledges continue descending the N. slope of mountain.
12.10	bottom of descent about 150. ft. below the top of mountain bears E. and W: thence over level sandy soil
24.60	dry wash 4 ft. deep. 20. ft. circle drains N 20° E.

Subdivisions, Sp. 42. South - Range 13 West.

34.70	main dry wash 20 ft. wide 4 ft. deep. drains N 40° E.
40.00	Set a gray sandstone 20×14×6 ins 15 ins. in the ground for 1/4 Sec. Cor. marked 1/4 on N. face. Raised a mound of stone 2 ft. base 1½ ft. high N. of Cor. Pits impracticable
	continue over level land.
80.00	after diligent search no trace of the old cor. of Secs 25-26-35 and 36, can be found, described by the surveyor general as a trachyte stone 18×8×8 ins 12 ins. in the ground with mound of stone alongside and properly marked.
12.16 / 6.9.6	Set a black lava stone 14×8×8 ins. 9 ins. in the ground for re-established cor. of Secs 25-26-35 and 36, marked with 1 notch on the S. and E. edges. Dug pits 18×18×12 ins. in each Sec. 5½ ft. dist, and raised a mound of earth 4 ft. base 2 ft. high N. of Cor.
	Land mountainous and level.
	Soil stony and loamy, 2nd and 4th rate.
	No timber.
	Mountainous land, 17.10 chs.
	East on a random line bet. Secs 25 and 36.
40.00	Set a temp. 1/4 Sec. Cor.
80.00	intersect the E. bdy of the Sp. at the cor. of Secs 25-30-31 and 36.
	Thence I run
	West on a true line bet. Secs 25 and 36, ascending the E. slope of mountain over limestone formation.
3.56	top of ledge 6 ft. high 50 ft. above the Sec. Cor. bears N. and S. descend from the bottom of ledge.
7.57	bottom of descent 100 ft. below the top. in canon drains N.
15.20	Road bears N. E. and S W. in bottom of dry wash 20 ft. deep 60 ft. wide drains N 20° E.
19.70	begin to ascend mountain over ledges bears N. and S.
22.75	bottom of ledge of limestone 12 ft. high perpendicular, from top of ledge which is 150 ft. above the road.
	thence along flat top of mountain over stony ground.
40.00	Set a limestone 18×10×5 ins. 12 ins. in the ground for 1/4 Sec. Cor. marked 1/4 on N. ace. Raised a mound

Subdivisions — Tp. 42. South — Range 13 West.

Chains	
	of stone 2 ft. base 1½ ft. high N. of Cor. Pits impracticable
44.00	top of perpendicular ledge 12 ft. high bears N and S. from foot of same continue descending over stony ground.
48.10	bottom of mountain about 150. ft. below the top bears N. and S. thence over level sandy loam.
61.10	dry wash 6 ft. deep. 20 ft. wide drains N.
66.06	old road bears N. and S.
80.00	the cor. of Secs 25-26-35 and 36.
4.80 / 3.90	Land mountainous and level.
	Soil stony and loamy 2nd and 4th rate.
	No timber
	Mountainous land 48.10 chs.
	North on a blank line re-tracing the line bet. Secs 25 and 26.
40.00	No trace of the old ¼ Sec. Cor. can be found after diligent search.
80.00	intersect the old cor. of Secs 23-24-25 and 26. which is a Basaltic stone 12×10×4 ins. above ground firmly set, marked and witnessed as described by the surveyor general.
	From the old cor. of Secs 23-24-25 and 26. I run East re-tracing the line bet. Secs 24 and 25,
40.23	intersect N. and S. line 14 lks. S. of the old ¼ Sec. Cor,
80.44	intersect the E. bdy. of the Tp. 28 lks S. of the Cor. of Secs 19-24-25 and 30, Therefore the old line bet. Secs 24 and 25. bears N 89° 48' E,
	From the Cor. of Secs 23-24-25 and 26. I run West, re-tracing the line bet. Secs 23 and 26,
39.56	intersect N. and S. line 29 lks. S. of the old ¼ Sec. Cor, which is a trachyte stone 9×6×5 ins. above ground marked and witnessed as described by the Surveyor general, Therefore the Eastern ½ mile bet. Secs 23 and 26, bears N 89° 35' W, 39.56 chs, which does not.

Subdivisions - Tp. 42. S. — Range 13 West.

chains.	agree with the original notes.
	No. on W. bet. Secs 34 and 35
	descending over loamy sandy soil. gradually,
38.64	begin to descend abruptly into canon over lava, leave
	loamy land,
40.00	Set a black lava stone 18x12x10 ins. 17 ins. in the ground
	for 1/4 Sec. Cor. marked 1/4 on W. face. Raised a mound
	of stone 2 ft. base 1½ ft. high W. of Cor. Pits impracticable
	cor. on steep S. side of canon.
41.67	bottom of canon about 100. ft. below the top drains
	N 40° E, 10.00 chs, into open valley, ascend along E. slope,
45.50	top of a high Volcanic butte bears W. 20.00 chs. dist.
52.65	top of spur ridge about 150. ft. above the bottom slopes
	S 45° E, thence along steep side of mountain slopes
	E. over lava, and gravelly land.
60.50	from this point a high volcanic butte bears W.
	about 15. chs. dist.
80.00	Set a lava stone 16x8x8 ins. 11 ins. in the ground for Cor.
	of Secs 26-27-34 and 35. marked with 1 notch on the
	S. and 2 notches on the E. edges. Raised a mound of
	stone 2 ft. base 1½ ft. high W. of Cor. Pits impracticable.
	Land mountainous.
	Soil loamy and stony 2nd and 4th rate.
	No timber.
	Mountainous land 80.00 chs.
	East on a random line bet. Secs 26 and 35,
40.00	Set a temp. 1/4 Sec. Cor,
80.00	intersect the cor. of Secs 25-26-35 and 36,
	thence I run
	West on a true line bet. Secs 26. and 35,
	over level sandy loam slopes gradually N.
25.75	foot of volcanic spur. bears N 40° W. ascend.
30.25	top of spur about 100 ft. above the bottom slopes N 30° E,
	descend,
37.40	bottom of ravine about 50. ft. below the top drains N,
	ascend.
40.00	Set a black lava stone 18x12x8 ins. 17 ins. in the
	ground for 1/4 Sec. Cor. marked 1/4 on N. face
	Raised a mound of stone 2 ft. base 1½ ft. high N. of Cor.

Subdivisions – Tp. 42. S – Range 13 West.

Chains	
	Pits impracticable.
45.50	top of spur ridge about 100. ft. above the bottom bears N. and S. thence level.
70.45	begin to ascend the E. side of Volcanic Mountain bears N. and S. over broken lava mixed with sand,
80.00	the cor. of Secs 26-27-34 and 35. about 100. feet above the bottom.
	Land mountainous and level.
	Soil loamy sandy and stony 2nd and 4th rate.
	No timber.
	Mountainous land 80.00 chs.
	N 0°-1' W. bet. Secs 26 and 27, descending along the steep East slope of Volcanic ridge. running N. and S. over lava
7.50	bottom of ravine about 150 ft. below the Sec. Cor. drains N 40° E, heads SW. 10. chs. dist.
10.60	begin to ascend the N. side of ravine.
13.60	top of N. side of ravine about 50. ft. above the bottom slopes E. thence along E. slope of Mountain.
40.00	Set a white sandstone 20×6×6 ins. 15 ins. in the ground for 1/4 Sec. Cor, marked 1/4 on W. face. Raised a mound of stone 2 ft. base 1½ ft. high W. of Cor. Pits impracticable
	Continue along E. side of steep ridge, the summit of which is about 10. chs W. and runs N. and S.
80.00	Set a black lava stone 18×6×6 ins. 12 ins. in the ground for cor. of Secs 22-23-26 and 27, marked with 2 notches on the S. and E. edges, Raised a mound of stone 2 ft. base 1½ ft. high W. of Cor, Pits impracticable.
	Land mountainous
	Soil stony 4th rate.
	No timber.
	Mountainous land. 80.00 chs.
	East on a random line bet. Secs 23 and 26,
40.00	intersect the old 1/4 Sec. Cor, bet. Secs 23 and 26, which is a trachyte stone 9×6×5 ins. above ground marked and witnessed as described by the surveyor general.

Subdivisions – Tp. 42. South – Ra[illegible] 13 West.

chains	
	Thence I run
	West on a true line on the Western ½ mile bet. Secs 23 and 26,
	descending over lava rocks, into gulch.
5.14	bottom of gulch about 50. ft. below the ¼ Sec. Cor. drains
	N. ascend over lava rock.
10.44	top of spur ridge about 100 ft. above the bottom slopes
	N. thence over rolling land, gravelly.
21.00	Begin to ascend the E. slope of volcanic mountain
	bears N. and S.
40.00	the Cor. of Secs 22-23-26 and 27, about 100. ft. above
	the beginning of ascent,
	Land mountainous,
	Soil stony and gravelly. 4th rate.
	No timber.
	Mountainous land 40.00 chs.
	N. 0°-01' W. bet. Secs 22 and 23,
	descending, over stony ground, slopes N.
3.80	bottom of ravine about 75 ft. below the top drains
	N 10° E. – heads 10. chs S 40° W. continue descending
	along the W. side of ravine. over rolling ground,
40.00	Set a limestone 16 x 12 x 8 ins. 11 ins. in the ground for
	¼ Sec. Cor. marked ¼ on W. face. Raised a mound of
	stone 2 ft. base 1½ ft. high W. of Cor. Pits impracticable.
41.70	begin to ascend spur, slopes E,
45.50	top of spur 60 ft. above beginning of ascent, slopes N 40° E,
	descend.
47.75	head of ravine 10 ft. below the top drains N 40° E. thence
	along W. side of deep cañon over stony ground.
59.00	beginning of level land.
63.60	begin to descend into chasm bears E. and W. over
	limestone ledges,
77.75	this point is on S. edge of cliffs about 300. feet below
	the beginning of descent; cliffs about 400 feet high:
	it is impossible to chain farther on this line,
	This chasm heads about 1 mile E. and at this point
	turns Norththerly and the line bet. Secs 14-15 and
	10 and 11. runs along the cliffs on the E. side of the
	chasm, making it impossible to either trian
	or run an offset line without an
	amount work not provided or in the

Subdivisions - Tp. 42. South - Range 13 West.

chains	
	methods of surveying. The chasm is about 1/4 to 1/2 mile in width and about 700. feet deep and impassable without going around the end of the same about 1 1/2 mile East.
	Set a limestone 20 x 10 x 8 ins. 15 ins. in the ground for witness cor. to Cor. of Secs 14-15-22 and 23, marked with 3 notches on the S. and 2 notches on the E. edges. and W. C. on N.W. face Raised a mound of stone 2 ft. base 1 1/2 ft. high W. of Cor. Pits impracticable.
80.00	Cor. falls in chasm & vert set
	Land mountainous.
	Soil stony and gravelly. 4th rate.
	No timber.
	Mountainous band 80.00 chs.
	It is impossible to survey any more subdivisional lines on the top of this mountain.
	I re-trace the northern 4 miles of the East bdy of the Tp. as follows,
	From the old cor. of Secs 19-24-25 and 30 on the E. bdy of the Tp.
	Thence I run
	North on a blank line bet. Secs 19 and 24
40.00	no trace of the old 1/4 Sec. Cor. can be found after dilligent search.
80.48	intersect E. and W. line 28 lks. W. of the Cor. of Secs 13-18-19 and 24. which is a stone firmly set and properly marked. The course of this line is therefore N 0° 12' E
	I continue my line
	N. bet. Secs 13 and 18.
40.00	no trace of the 1/4 Sec. Cor. can be found after dilligent search.
80.80	intersect E. and W. line 56 lks W. of the Cor. of Secs 7-12-13 and 18. which is a stone firmly set and properly marked. The course of this line is therefore N 0° 12' E.
	I continue my line
	North bet. Secs 7 and 12,
40.45	I find the old 1/4 Sec. Cor. 70 lks. E.
80.85	intersect E. and W. line 84 lks. W. of the old Cor. of Secs 1-6 7 and 12, which is a stone firmly set, and properly marked. The course of this line is therefore N 0° 12' E.
	I continue my line

Subdivisions – Tp. 42 South – Range 13 West.

chains

North bet. Secs 1 and 6.

40.21 I find the old ¼ Sec. Cor. 90 lks. E.

80.57 intersect the N. bdy. of the Tp. 112 lks. W. of the Cor. of Tps 41 and 42 S. Rs 12 and 13 W. The course of this line is therefore N 0° 14' E.

July 3rd 1897.

At the Cor. of Secs 33 and 34 on the S. bdy of the Tp. July 11th 1897 at 12h 05m l.m.t. or at 0h 36m A.M. July 12th by my watch which is correct mountain standard rail road time, I observe Polaris at Eastern Elongation in accordance with the Manual of Instructions, and mark a point in the line thus determined by a tack driven in a wooden plug set in the ground 5.00 lks. N. of my station. July 12th 1897, at 7. A.M. I lay off the azimuth of Polaris 1° 34' 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 this morning.

Thence I run

N 0° 02' W. bet. Secs 33 and 34,

over stony ground slopes W. at foot of Hurricane cliffs.

40.00 Set a limestone 18×10×8 ins. 17 ins. in the ground for ¼ Sec. Cor. marked ¼ on W. face. Raised a mound of stone 2 ft. base 1½ ft. high W. of Cor. Pits impracticable.

80.00 Set a white sandstone 16×10×6 ins. 11 ins. in the ground for Cor. of Secs 27-28-33 and 34 marked with 1 notch on the S. and 3 notches on the E. edges, Raised a mound of stone 2 ft. base 1½ ft. high W. of Cor. Pits impracticable.

Land nearly level,

Soil stony. 4th rate.

No timber.

~~Running I will reach impassable cliffs within 80.00 lks, I run~~

East on true line bet. Secs 27 and 34,

ascending gradually, over hard stony soil

25.00 bottom of Hurricane cliffs, impossible to chain farther on this line. Distance about 700.

Subdivisions – Tp. 42. South – Range 13 West.

Chains.	
	Set a limestone 18×8×6 ins. 12 ins. in the ground for witness to 1/4 Sec. Cor. marked. W.C 1/4 on N. face, Raised a mound of stone 2 ft. base 1 1/2 ft. high N. of Cor. Pits impracticable. Cor. about 150. ft. above the Sec. Cor.
– 40.00	Cor. falls in cliffs & not set Land mountainous. Soil stony 4th rate. No timber Mountainous land 40.00 chs.
	No. 02' W. bet. Secs 27 and 28. along the W. slope of the bottom of Hurricane Cliffs over sandy and stony land, nearly level.
40.00	Set a black lava stone 20×12×6 ins. 15 ins. in the ground for 1/4 Sec. Cor. marked 1/4 on W. face. Raised a mound of stone 2 ft. base 1 1/2 ft. high W. of Cor. Pits impracticable.
80.00	Set a black lava stone 16×8×6 ins. 11 ins. in the ground for Cor. of Secs 21-22-27 and 28. marked with 2 notches on the S. and 3 notches on the E. edges. Dug pits 18×18×12 ins. in each Sec. 5 1/2 ft. dist. and raised a mound of earth 4 ft. base 2 ft. high W. of Cor. Land level. Soil stony and sandy, 3rd and 4th rate. No timber.
	Knowing I will reach impassable cliffs within 80.00 chs. I run. East. bet. Secs 22 and 27. Ascending gradually the foot of the Hurricane cliffs over sandy and stony land.
28.00	bottom of Hurricane cliffs. bears N. and S. about 700. ft. high: it is impossible to chain farther. the point for the cor. falls on a limestone in place 20×18×6 ins. above ground, at the exact cor. point Cut a cross (x) for witness cor. to 1/4 Sec. Cor. which falls in the cliffs and could not be set, mark W.C 1/4 on N. side of the Cross, and raise a mound of stone 2 ft. base 1 1/2 ft. high N. of Cor. Pits impracticable. Cor. about 50. ft. above the Sec. Cor.
40.00	Cor. falls in impassable cliffs & not set Land nearly level. Soil stony and sandy, 3rd rate. No timber

Subdivisions - Tp. 42. South · Range 13 West

chains	
	N. 0°-02' W. bet. Secs 21 and 22,
[illegible]	over nearly level sandy and clay land,
18.20	bottom of Volcanic mountain ridge bears E. and W.
24.60	top of ridge about 100. feet above the bottom slopes W. descend.
32.60	bottom of N. side of mountain 150. ft. below the top bears S30°W. and N30°E.
40.00	Set a limestone 20x10x10 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 3 ft. dist. and raised a mound of earth 3 1/2 ft. base 1 1/2 ft. high W. of Cor.
80.00	Set a black lava stone 20x12x6 ins. 15 ins. in the ground for Cor. of Secs 15-16x21 and 22, marked 42 S. on N. E. and 13 W. on S E. faces, with 3 notches on the S. and E. edges, Dug pits 18x18x12 ins. in each Sec. 5 1/2 ft. dist. and raised a mound of earth 4 ft. base 2 ft. high W. of Cor.
	Land mountainous and level.
	Soil loamy and stony 2nd and 4th rate.
	No timber
	Mountainous land 14.40 chs.
	~~Knowing I will reach impassable cliffs within 80.00 chs. I run~~
	East on a true line bet. Secs 15 and 22,
	over level sandy loam,
25.00	bottom of Hurricane Cliffs bears N. and S. about 700 ft. high. impossible to chain farther.
	Set a white sandstone 18x12x6 ins. 12 ins. in the ground for witness cor. to 1/4 Sec. Cor, which falls in the cliffs and could not be set; marked WC 1/4 on N. face, Raised a mound of stone 2 ft. base 1 1/2 ft. high N. of Cor. Pits impracticable.
40.00	~~Cor falls in impassable cliffs & is not set~~
	Land level.
	Soil sandy and loamy, 2nd and 3rd rate.
	No timber.
	N 0°-02' W. bet. Secs 15 and 16,
	over level loamy soil.
40.00	Set a black lava stone 16x10x8 ins. 11 ins. in the ground for 1/4 Sec. Cor, marked 1/4 on W. face. Dug pits 18x18 12 ins. N. and S. of stone 3 ft. dist and raised a mound of earth 3 1/2 ft. base 1 1/2 ft. high W. of Cor,
71.20	road bears S10°W. and N. follow alon the road.

Subdivisions – Tp. 42. South. – Range 13 West.

Chains

72.75 leave road bears N 10° E.

80.00 Set a black lava stone 18×6×6 ins. 12 ins. in the ground for cor. of Secs 9-10-15 and 16, marked with 4 notches on the S. and 3 notches on the E. edges, Dug pits 18×18×12 ins. in each Sec. 5½ ft. dist. and raised a mound of earth 4 ft. base 2 ft. high N. of Cor. Sugar loaf Butte on the top of Hurricane Cliffs, bears S 37° 06' E, about 70.00 chs. dist.

Land level

Soil sandy 2nd rate.

No timber.

Knowing I will reach impassable cliffs within 80.00 chs

I run

East on a true line bet. Secs 10 and 15.

over level loamy land.

7.00 road bears S 25° W. and N 25° E.

40.00 Set a black lava stone 16×12×6 ins. 11 ins in the ground for ¼ Sec. Cor, marked ¼ on N. face Raised a mound of stone 2 ft. base 1½ ft. high N. of Cor, Pits impracticable.

At 6.00 chs. farther East the line reaches Hurricane Cliffs over which I cannot chain Therefore I discontinue my line.

Land level

Soil loamy and sandy 2nd rate.

No timber.

N 0° 02' W. bet. Secs 9 and 10

over level loamy land.

40.00 Set a black lava stone 16×12×6 ins 11 ins. in the ground for ¼ Sec. Cor, marked ¼ on N. face Dug pits 18×18×12 ins. N and S. of stone 3 ft. dist. and raised a mound of earth 3½ ft. base 1½ ft. high N. of Cor.

45.00 road bears S 30° W. and N 30° E.

59.00 begin to ascend the S. end of a volcanic mountain bears

Subdivisions - Tp. 42 South Range 13 West

Chains

E. and W. over lava rocks.

67.00 top of ridge about 20. ft. high slopes E, descend

64.50 bottom of small ravine about 40 ft. below the top dra in N50°E.

80.00 Set a black lava stone 18x10x6 ins. 12 ins. in the ground for cor. of Secs 3-4-9 and 10, marked with 5 notches on the S. and 3 notches on the E. edges, Raise mound of stone 2 ft. base 1½ ft. high W. of cor. Pits impracticable.

Land nearly level

Soil loamy - sandy - and stony - 2nd and 4th rate.

No timber.

Cor. for Secs 2-3-10 and 11 not being set

I run

east on a true line bet. Secs 3 and 10

Ascending out of a small ravine drains N.E. over lava and sandy soil,

5.30 top of lava spur about 20 ft. above the Sec. Cor. slopes N. Descend gradually

7.20 bottom of E. End of lava ridge bears N. and S. thence level, Sandy loam. this point about 25 ft. below top.

15.00 road bears N70°E. and S20°W.

40.00 Set a lava stone 16x12x6 ins. 11 ins. in the ground for ¼ Sec. Cor. marked ¼ on N. face. Dug pits 18x18x12 ins. E. and W. of stone 3 ft. dist. and raised a mound of earth 3½ ft. base 1½ ft. high N. of Cor,

46.40 dry wash 8 ft. deep 40. ft. wide, from the large canon, SE, drains N20°W,

80.00 Set a black lava stone 20x10x10 ins. 15 ins. in the ground for Cor of Secs 2-3-10 and 11, marked with 5 notches on the S. and 2 notches on the E. edges, Dug pits 18x18x12 ins. in each Sec 5½ ft. dist. and raise a mound of earth 4 ft. base 2 ft. high W. of Cor. This Cor. is at the bottom of Hurricane Cliffs, about 400 ft. high, bears N10°E. and S10°W, It is impossible to chain East or South from here.

Land level

Soil Loamy, sandy and stony - 2nd and 4th rate.

No timber.

N. 0°01' W. on a true line bet. Secs 2 and 3, over level loam and sand land,

Subdivisions: Sp. 47 South - Range 13 West,

chains

40.00 Set a black lava stone 18×12×8 ins. 12 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 3 ft. dist. and raised a mound of earth 3½ ft. base 1½ ft. high W. of Cor. The mouth of a boxed canon which cuts through the Hurricane cliffs, and having its head about 3 miles S.E., bears E. about 18. chs. dist from this point.

75.90 dry wash 6 ft. deep 30. ft. wide drains N10°W, heads in deep canon SE,

82.18 intersect the N. bdy of the Sp. 90 lks. W. of the Cor, of Secs 2-3-34 and 35,

Set a black lava stone 20×10×8 ins. 15 ins. in the ground for. Closing Cor. of Secs 2 and 3, marked C.C. on the S. with 2 grooves on the E. and 4 grooves on the W. faces, Dug pits 24×18×12 ins. Cross sirse on such line E. and W. of Stone 3 ft. and S. of Stone 7 ft. dist. and raised a mound of earth 4 ft. base 2 ft. high S. of Cor, at the cor. of Secs 2-3-34 and 35 I obliterate the pits pertaining to Secs 2 and 3, and dig pits 24×24×12 ins. N.W. and N.E. of the stone 6. ft. dist. and raise a mound of earth 4 ft. base 2 ft. high N. of Cor, to indicate the cor. of Secs 34 and 35 only.

Land: level.

Soil loamy and sandy, 2nd rate.

No timber.

No° 02' W. on a true line bet. Secs 3 and 4.

ascend gradually out of ravine over sandy and lava soil.

11.25 Top of Spur about 25. ft. above the Sec. Cor, slopes E. descend.

40.00 Set a black lava stone 20×10×8 ins. 15 ins. in the ground for 1/4 Sec. Cor, marked 1/4 on W. face. Raised a mound of stone 2 ft. base 1½ ft. high W. of Cor. Pits impracticable.

Cor. on E. slope of Volcanic ridge on ground slopes N.E,

48.50 Spur of ridge slopes N.E, descend over sandy land, gradually,

82.24 intersect the N. bdy. of the Sp. 97 lks. W. of the cor. of Secs 3-4-33 and 34

Set a black lava stone 15×12×8 ins. 10 ins. in the ground for closing cor. of Secs 3 and 4, marked C.C. on the S. with 3 grooves on the E. and W. faces, Dug pits 24×18×12 ins.

14

Subdivisions. Tp. 42. S. — Range 13 West.

chains	crosswise on each line E. and W. 3 ft. and S. of stone 7 ft. dist. and raised a mound of earth 4 ft. base 2 ft. high S. of Cor.
	at the cor. of Secs 3-4-33 and 34, I obliterate the pits pertaining to Secs 3 and 4 and dig pits 24×24×12 ins. N.W. and N.E. of the stone 6 ft. dist. and raise a mound of earth 4 ft. base 2 ft. high N. of Cor. to indicate the cor. of Secs 33 and 34 only.
	Land nearly level
	Soil loamy and stony 2nd and 3rd rate.
	No timber.
	July 12-1897.
	At the cor. of Secs 32 and 33, on the S. bdy of the township July 14-1897 at 11h 50m A.M. or at 0h. 24m A.M. July 15-h by my watch, which is correct mountain standard rail road time, I observe Polaris at Eastern Elongation in accordance with the Manual of Instructions, 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.
	July 15th at 7. A.M. I lay off the Azimuth of Polaris 1° 34' 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 this morning.
	Thence I run
	N 0° 03' W. bet. Secs 32 and 33,
	ascending gradually over sandy soil.
10.60	top of ascent about 20. ft. above the Sec. cor. bears N 30° W. and S 30° E. descend.
40.00	Set a lava stone 14×7×6 ins. 9 ins. in the ground for 1/4 Sec. Cor, marked 14 on W. face, Raised a mound of stone 2 ft. base 1½ ft. high W. of Cor. Pits impracticable.
54.50	bottom of descent about 100 ft. below the top, thence level
80.00	Set a lava stone 24×14×6 ins. 18 ins. in the ground for cor. of Secs 28-29-32 and 33, marked with 1 notch on the S. and 4 notches on the E. edges: Dug pits 18×18×12 ins. in each Sec. 5½ ft. dist. and raised a mound of earth 4 ft. base 2 ft. high W. Cor.

Subdivisions — Tp. 42. South — Range 13 West.

Chains	
	Land level. Soil sandy and loamy. 2nd and 3rd rate. No timber.
	East on a random line bet. Secs 28 and 33.
40.00	Set a temp. 1/4 Sec. Cor.
80.00	intersect the cor. of Secs 27-28-33 and 34, thence I run West on a true line bet. Secs 28 and 33 descend gradually over loamy soil.
12.50	road bears S10°E. and N. ascend gradually.
40.00	Set a lava stone 14×8×5 ins. 9 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,
47.00	bottom of ascent bears N40°W. and S40°E.
52.50	top of spur about 100 ft. high slopes S30°W. descend.
55.00	bottom of descent about 100 ft. below the top bears N. and S. thence level.
80.00	the cor. of Secs 28-29-32 and 33, Land nearly level, soil sandy loam, 2nd rate, No timber.
	N0°03' W. bet. Secs 28 and 29, over level sandy loamy land,
18.20	begin to ascend over gravelly land slopes SW.
22.00	top of ascent, 25 ft. above the bottom. bears N40°W. and S40°E. descend.
26.50	bottom of ravine about 50 ft. below the top drains N. road bears E. and W. in same. ascend.
31.80	top of N. side of ravine bears E. and W. 50 ft. above the bottom, thence ascend more gradually.
37.90	top of spur slopes N, descend,
40.00	Set a lava stone 15×10×8 ins. 10 ins. in the ground for 1/4 Sec. Cor. marked 1/4 on N. face, Raised a mound of stone 2 ft. base 1½ ft. high N. of Cor. Pits impracticable. ascend a volcanic mountain bears S E. and N.W, over lava,
60.60	top of mountain 200 ft. above the 1/4 Sec. Cor, bears S35°E. and N35°W, descend over ground slopes

Mountain

Subdivisions – Tp. 42 – South – Range 13 West.

chains	
80.00	Set a black lava stone 15×12×10 ins. 10 ins. in the ground for Cor. of Secs. 20-21-28 and 29, marked with 2 notches on the S. and 4 notches on the E. edges; Raised a mound of stone 2 ft. base 1½ ft. high N. of Cor. Pits impracticable. Cor. about 50. feet below the top of mountain. on stony ground.
110/46.	Land mountainous and level.
	Soil sandy and stony 3rd and 4th rate.
	No timber.
	Mountainous land 40.00 chs.
	East on a random line bet. Secs. 21 and 28.
40.00	Set a temp 1/4 Sec. Cor,
80.02	intersect the Cor. of Secs. 21-22-27 and 28.
	Thence I run
	West on a true line bet. Secs. 21 and 28,
	descending gradually over loamy and sandy soil
12.70	road bears N 40° W, and S 10° E,
22.75	begin to ascend lava butte bears N. and S. over stony ground.
28.80	top of butte about 150. ft. high bears N 40° W, and S 30° E, thence over rolling lava
40.01	Set a black lava stone 14×7×6 ins. 9 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.
49.00	begin to ascend rocky spur bears N. and S.
63.60	top of spur about 100. ft. above the beginning of ascent. bears S 30° E, thence level.
71.70	begin to descend the W. slopes of mountain slopes N. W.
80.02	the Cor. of Secs. 20-21-28 and 29. about 75. ft. below the top.
	Land mountainous and level
	Soil sandy and stony. 2nd and 4th rate.
	No timber
	Mountainous land 57.27 chs.
	N 0°-03' W. bet. Secs. 20. and 21.
	descending the N. W. slopes of Volcanic Mountain over lava,
16.20	bottom of mountain about 200. ft. below the top bears S 40° W, and N 40° E; thence over level sandy loamy soil
40.00	Set a lava stone 18×10×6 ins. 12 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 3. ft. dist. and raised a mound earth 3½

Subdivisions — Tp. 47. South — Range 13 West.

Chains	
	N. of cor,
80.00	Set a lava stone 16×10×6 ins. 11 ins. in the ground for cor of Sec^s 16-17-20 and 21, marked with 3 notches on the S. and 4 notches on the E. edges, Dug pits 18×18×12 ins. in each. Sec. 5½ ft. dist. and raised a mound of earth 4 ft. base 2 ft. high N. of Cor.
16.20 / 63.80	Land mountainous and level.
	Soil sandy loam 2nd rate.
	No timber.
	Mountainous land 16.20 chs.
	East on a random line bet. Sec^s 16 and 21
40.00	Set a temp. 1/4 Sec. Cor.
80.00	intersect the cor. of Sec^s 15-16-21 and 22.
	Thence I run
	West on a true line bet. Sec^s 16 and 21
	over level loamy soil
10.38	road bears N. and S.
40.00	Set a lava stone 18×12×6 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.
80.00	the cor. of Sec^s 16-17-20 and 21.
	Land level.
	Soil loamy 2nd rate.
	No timber.
	N 0°-03' W. bet. Sec^s 16 and 17,
	over level land partly barrens.
15.90	road bears E. and W.
40.00	Set a lava stone 16×10×6 ins. 11 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 3 ft. dist and raised a mound of earth 3½ ft. base 1½ ft. high W. of Cor,
64.00	leave barren lands bears S 60° W. and N 60° E. begin ascent over large ridge
80.00	top of large spur 100 ft. above the bottom, slopes E.
16 / 64	Set a lava stone 16×8×7 ins. 11 ins. in the ground for cor. of Sec^s 8-9-16 and 17, marked with 4 notches on the S. and E. edges. Raised a mound of stone 2 ft. base 1½ ft. high W. of cor, Pits impracticable
	Land mountainous and level.
	Soil barrens, and stony 4th rate.
	No timber
	Mountainous land 16.00 chs.

chns East on a random line bet. Secs 9 and 16.
40.00 Set a temp 1/4 Sec. Cor,
80.00 intersect the Cor. of Secs 9-10-15 and 16,
Thence I run
West on a true line bet. Secs 9 and 16,
over level loamy soil
40.00 Set a lava stone 16x10x7 ins. 11 ins. in the ground for 1/4 Sec. Cor, marked 1/4 on N. face, Dug pits 18x18x12 ins. E. and W. of stone 3 ft. dist. and raised a mound of earth 3 1/2 ft. base 1 1/2 ft. high N. of Cor,
42.50 begin to ascend the S. end of volcanic mountain bears S W. and N. E, over lava rocks,
80.00 the cor. of Secs 8-9-16 and 17, Cor. about 100. ft. above the bottom.
Land nearly level,
Soil sandy loamy and stony 2nd and 4th rate.
No timber,

No 03' W. bet. Secs 8 and 9,
descending over lava
5.90 bottom of ravine 20 ft. below the cor. drains S 40° E, ascend gradually,
30.00 top of spur about 50. ft. above ravine slopes S 50° E. descend,
40.00 Set a lava stone 16x10x6 ins. 11 ins. in the ground for 1/4 Sec. Cor. Marked 1/4 on W. face - Raised a mound of stone 2 ft. base 1 1/2 ft. high W. of Cor. Pits impracticable.
47.30 small ravine drains S 50° E, ascend,
71.00 top of lava spur 200. feet above the general level, slopes E. descend,
79.80 bottom of rocky ravine about 100 ft. below the top, drains S 40° E, ascend.
80.00 Set a lava stone 20x12x4 ins. 15 ins. in the ground for Cor. of Secs 4-5-8 and 9, marked with 5 notches on the S. and 4 notches on the E. edges. Raised a mound of stone 2 ft. base 1 1/2 ft. high W. of Cor. Pits impracticable.
Land mountainous.
Soil stony 4th rate.
No timber.
Mountainous land 80.00 chs.

East on a random line bet. Secs 4 and 9,
40.00 Set a temp. 1/4 Sec. Cor,
79.98 intersect N. and S. line 37 lks. S. of the cor. of Secs 3-4-9 and 10

Subdivisions — Tp. 42 South — Range 13 West.

Chains	
	Thence I run
	S 89° 44' W. on a true line bet. Sec^s 4 and 9,
	ascending the E. slope of Volcanic mountain over lava
13.60	top of spur 75 ft. above the Sec. Cor. slopes S 40° E. descend
	gradually.
18.70	Small ravine 25 ft. below the top, drains S 40° E, ascend.
38.60	top of spur 50. ft. above the ravine slopes S 30° E. descend
39.94	Set a lava stone 18x8x8 ins. 12 ins. in the ground for 1/4 Sec. Cor,
	marked 1/4 on N. face. Raised a mound of stone 2 ft. base
	1½ ft. high N. of Cor. Pits impracticable.
	Cor. in bottom of ravine drains S 80° E. from the West,
	then follow up the ravine
53.00	begin to ascend along the S. side of the ravine
77.27	top of spur 100 ft. above the 1/4 Sec. Cor, slopes S 50° E,
	descend into rocky gulch.
79.98	Cor. of Sec^s 4-5-8 and 9 about 30 ft. below the top.
	Land mountainous.
	Soil stony. 4th rate.
	No timber.
	Mountainous land 79.98 chs.

	N 0° 03' W. on a true line bet. Sec^s 4 and 5.
	ascending over E. end of lava mountain.
18.00	top of spur about 150. ft. above the Sec. Cor, slopes E,
	descend
36.40	bottom of rocky gulch about 200. ft. below the top
	drains N 40° E.
40.00	Set a lava stone 16x10x6 ins. 11 ins. in the ground for 1/4
	Sec. Cor, marked 1/4 on W. face. Raised a mound of
	stone 2 ft. base 1½ ft. high W. of Cor. Pits impracticable.
	Top of a Volcanic mountain about 400. ft. high bears W,
	about 20. chs. dist.
	Thence descend over ground slopes N. E,
53.00	ravine drains N 35° E, continue descending.
61.50	begin to ascend over ground slopes S E.
69.70	top of spur about 100. feet above the beginning of ascent
	slopes rapidly N 40° E. descend.
76.00	lava ledge 40 ft. high bears E. and W.
82.48	intersect the N. bdy. of the Tp. 86. chs. W. of the Cor. of
	Sec^s 4-5-32 and 33 established by me under this
	Contract.

20

Subdivisions — Tp. 42 South - Range 13 West

chains

Set a lava stone 20x6x6 ins. 15 ins. in the ground for closing cor. of Secs 4 and 5, marked C.C. on the S. with 4 grooves on the E. and 2 grooves on the W. faces, Raised a mound of stone 2 ft. base 1½ ft. high S. of Cor. Pits impracticable.

At the old cor. of Secs 4-5-32-and 33 heretofore established by me I obliterate the mound to the W. of the Cor. and raise a mound of stone 2 ft. base 1½ ft. high N. of Cor. to indicate the cor. of Secs 32 and 33 only, Pits impracticable.

Land mountainous.

Soil stony, 4th rate.

No timber

Mountainous land 82.48 chs.

July 15-1897.

At the cor. of Secs 31 and 32 on the S. bdy. of the Tp. July 16-1897, at 11h 43m l.m.t. or at 0h 17m A.M. July 17th 1897, by my watch which is correct mountain standard railroad time, I observe Polaris at Eastern Elongation in accordance with the Manual of Instructions, 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.

July 17th 1897, at 8: A.M. I lay off the Azimuth of Polaris 1° 34' 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 this morning

Thence I run

N0°-03' W. bet. Secs 31 and 32,

over nearly level sandy land,

13.60 begin to descend into ravine drains N.

15.50 bottom of ravine 50. ft. below the top drains N.

31.80 begin to ascend out of W. side of same ravine drains N 30° E,

40.00 Set a lava stone 20x10x6 ins. 15 ins. in the ground for ¼ Sec. Cor. marked ¼ on W. face. Dug pits 18x18x12 ins. N. and S. of stone 3 , dist. and raised a mound earth 3½ base 1½ , W. Cor. Pits impracticable

Subdivisions - Tp. 42 South - Range 13 West.

45.50 ravine 60 ft. deep, 2 chs. wide drains N 60° E.
62.90 top of ridge about 200 ft. above the bottom slopes N. descend
80.00 Set a black lava stone 16×10×6 ins. 11 ins. in the ground for cor. of Secs 29-30-31 and 32, marked with 1 notch on the S. and 5 notches on the E. edges, Dug pits 18×18×12 ins. in each. Sec. 5½ ft. dist. and raised a mound of earth 4 ft. base 2 ft. high W. of Cor,
Land rolling.
Soil sandy and stony 4th rate.
No timber.

East on a random line bet. Secs 29 and 32,
40.00 Set a temp. ¼ Sec. Cor,
80.00 intersect the cor. of Secs 28-29-32 and 33,
Thence I run
West on a true line bet. Secs 29 and 32,
over level loamy soil
9.80 begin to ascend over sandy and gravelly land.
14.50 road bears S 30° E. and N 30° W,
40.00 Set a lava stone 16×8×6 ins. 11 ins. in the ground for ¼ Sec. Cor. marked ¼ 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.
51.50 top of ascent about 150 feet above the bottom slopes N.
80.00 the cor. of Secs 29-30-31 and 32,
Land rolling.
Soil sandy and gravelly 3rd rate.
No timber

Moving I will close on the W. boundary out of limit. I run.
West on a true line bet. Secs 30 and 31,
ascending gradually over sandy land.
10.00 top of ascent about 25 ft. above the Sec. Cor,
40.00 Set a red sandstone 14×10×5 ins. 9 ins. in the ground for ¼ Sec. Cor. marked ¼ on N. face
Dug pits 18×18×12 ins. E. and W. of stone 7 ft. dist. and raised a mound of earth 3½ ft. base 1½ ft. high N. of Cor.
Continue descending gradually,
93.10 intersect the W. bdy. of the Tp. 21.97 chs. N. of the old cor. of Secs 25-30-31 and 36 which is

Subdivisions. Tp. 42 South - Range 13 West,

Chains	a red sandstone, firmly set, marked and witnessed as described by the surveyor general, at point of intersection. Set a red sandstone 12x12x5 ins. 8 ins. in the ground for closing cor. of Secs 30 and 31 marked C.C. on the E. with 5 grooves on the N. and 1 groove on the S. faces, Dug pits 24x18x12 ins. crosswise on each line N. and S. of stone 3 ft. and E. of stone 7 ft. dist. and raised a mound of earth 4 ft. base 2 ft. high E. of cor, I destroy the marks on the old cor. pertaining to Secs 30 and 31 Land rolling Soil sandy 4th rate, No timber
	N 0°-03' W. brk. Secs 29 and 30, descending over sandy soil slopes N. E.
36.40	top of descent bears N 30° E,
40.00	Set a sandstone 18x10x8 ins. 12 ins. in the ground for 1/4 Sec. Cor, marked 1/4 on W. face, Raised a mound of stone 2 ft. base 1 1/2 ft. high W. of cor. Pits impracticable
45.50	bottom of descent about 75 ft. below the top bears E. and W. ascend,
56.40	top of ascent about 25 ft. above the bottom bears N 40° W, thence level,
60.50	top of descent bears N 40° E. and S 40° W, descend over ground slopes N. E.
80.00	Set a lava stone 16x8x8 ins. 11 ins. in the ground for cor. of Secs 19-20-29 and 30, marked with 2 notches on the S. and 5 notches on the E. edges, Dug pits 18x18x12 ins. in each Sec. 5 1/2 ft. dist. and raised a mound of earth 4 ft. base 2 ft. high W. of cor, Land rolling Soil sandy and stony 3rd and 4th rate. No timber.
	East on a random line brk. Secs 20 and 29.
40.00	Set a temp. 1/4 Sec. Cor,
80.00	intersect the cor. of Secs 20-21-28 and 29 Thence I run West on a true line brk. Secs 20 and 29, Descending the W. slope of lava butte.

Subdivisions – Tp. 42 South – Range 13 West

Chains	
12.00	bottom of butte about 100. ft. below the top bears S40°W. and N40°E. thence over level loamy land
15.30	road bears S20°E. and N40°W.
24.00	begin slight ascent.
40.00	Set a lava stone 14×8×5 ins. 9 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,
45.50	top of gradual ascent bears N.20°W. and S 20° E, thence level.
50.50	begin to descend into ravine drains N.W.
53.50	bottom of ravine about 20. ft. below the top drains N 25°W, ascend the W. side
58.00	top of W. side about 40 ft. above the bottom thence rolling.
80.00	the cor. of Secs 19-20-29 and 30 Land rolling Soil sandy and stony 3rd rate. No timber.

West on a true line bet. Secs 19 and 30, over rolling sandy land.

5.70	beginning of descent bears. N75°W. and S75°E,
10.60	enter rough chopped up sandstone gulches and ledges, nearly level with the surface bears N. and S,
30.00	leave sandstone ledges and gulches, bear N. and S. continue descending over deep sandy land.
40.00	Set a red sandstone 14×12×5 ins. 9 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,
92.92	intersect the W. bdy. of the Tp. 19.51 chs. N. of the old corn of Secs 19-24-25 and 30, which is a red sandstone firmly set, marked and witnessed as described by the surveyor general, At point of intersection Set a black lava stone 20×6×6 ins. 15 ins. in the ground for closing cor of Secs 19 and 30, marked C.C. on the E. with 4 grooves on the N. and 2 grooves on the

chains	S. face, Dug pits 24×18×12 ins. crosswise on each line N. and S. 3 ft. and E. of stone 7. ft. dist, and raised a mound of earth 4 ft. base 2 ft. high E. of Cor. I destroy the marks on the old Cor. pertaining to Sec. 19 and 30. Land rolling Soil sandy 4th rate. No timber.
	No°03' W. bet. Secs 19 and 20, descending gradually, over sandy land,
40.00	Set a limestone 16×10×7 ins. 11 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 3 ft. dist. and raised a mound of earth 3 1/2 ft. base 1 1/2 ft. high W. of Cor.
71.00	begin gradual ascent,
80.00	Set a lava stone 16×12×6 ins. 11 ins. in the ground for Cor. of Secs 17-18-19 and 20, marked with 3 notches on the S. and 5 notches on the E. edges Raised a mound of stone 2 ft. base 1 1/2 ft. high W. of Cor, Pits impracticable. Land rolling Soil sandy and stony 3rd rate. No timber.
	East on a random line bet. Secs 17 and 20,
40.00	Set a temp. 1/4 Sec. Cor,
80.00	intersect the Cor. of Secs 16-17-20 and 21 Thence I run West on a true line bet. Secs 17 and 20, over level loamy land.
40.00	Set a lava stone 17×11×6 ins. 11 ins. in the ground for 1/4 Sec. Cor. marked 1/4 on N. face, Raised a mound of stone 2 ft. base 1 1/2 ft. high N. of Cor, Pits impracticable.
54.50	begin gradual ascent. bears N. and S. leave loamy land, thence over stony land.
67.30	top of spur about 50. ft. above the beginning of ascent slopes S. rocky. descend, gradually.
80.00	the Cor. of Secs 17-18-19 and 20. Land rolling Soil loamy and stony 2nd and 4th rate. No timber.

Subdivisions — Tp. 42 S. — Range 13 West.

chains	
	West on a true line bet. Secs 18 and 19, over stony and sandy land.
25.70	leave stony and sandy land bears N. and S. thence over level loamy land.
40.00	Set a lava stone 14×12×10 ins. 9 ins. in the ground for 1/4 Sec. Cor. marked 1/4 on N. face. Raised a mound of stone 2 ft. base 1½ ft. high N. of Cor. Pits impracticable.
80.40	top of black lava break bears N 20° E. and S 20° W. descend abruptly.
92.89	intersect the W. bdy. of the Tp. 17.04 chs. N. of the old cor. of Secs 13-18-19 and 24 which is a black lava stone firmly set marked and witnessed as described by the Surveyor general. at point of intersection. Set a lava stone 15×10×8 ins. 10 ins. in the ground for closing cor. of Secs 18 and 19, marked C.C. on the E. with 3 grooves on the N. and S. faces. Raised a mound of stone 2 ft. base 1½ ft. high E. of Cor. Pits impracticable. I destroy the marks on the old Cor. pertaining to Secs 18 and 19 Cor. about 250. ft. below the top. Land rolling Soil stony loamy and gravelly 2nd and 4th rate. No timber.
	No° 03' W. bet. Secs 17 and 18, ascend over rolling land, stony.
5.00	top of spur about 50. ft. above the Sec. Cor. descend over gradual slope.
30.30	South shore of "Ranch Lake" or pond bears N 20° E. and N. 20° W. being a pond of stagnant water draining from the country to the East during rainy weather. its area is about 25 acres, at present, and its depth is about 3 feet. Set a lava stone 16×10×6 ins. 11 ins. in the ground for witness cor. to 1/4 Sec. Cor. marked WC, 1/4 on W. face. Raised a mound of stone 2 ft. base 1½ ft. high W. of Cor. Pits impracticable. To pass the lake I offset as follows: West 5.00 chs. No° 03' W 9.70 chs. to point on margin of lake 5.00 chs. W. of

Subdivisions - Tp. 42. South - Range 13 West.

chs.
40.00 The point for 1/4 Sec. cor. in Lake
N 0°-03' W. 18.00 chs
East 5.00 chs. to
58.00 North edge of lake on line
Set a lava stone 16x10x10 ins. 11 ins. in the ground for witness cor. to 1/4 Sec. Cor. marked W.C. 1/4 on W. face
Raised a mound of stone 2 ft. base 1½ ft. high W. of Cor.
Pits impracticable.
ascend gradually over lava stones.
80.00 Set a lava stone 20x10x7 ins. 15 ins. in the ground for cor. of Secs 7-8-17-and 18, marked with 4 notches on the S. and 5 notches on the E. edges. Raised a mound of stone 2 ft. base 1½ ft. high. W. of Cor. Pits impracticable.
Land rolling
soil gravelly and stony 4th rate.
No timber.

East on a random line bet. Secs 8 and 17,
40.00 Set a temp. 1/4 Sec. Cor.
80.00 intersect the cor. of Secs 8-9-16 and 17,
thence I run
West on a true line bet. Secs 8 and 17
along S side of mountain sloping gradually S. over lava.
37.40 begin to descend over ground slopes gradually S. W.
40.00 Set a lava stone 16x10x8 ins. 11 ins. in the ground for 1/4 Sec. Cor. marked 1/4 on N. face. Raised a mound of stone 2 ft. base 1½ ft. high N. of cor. Pits impracticable.
53.00 bottom of gentle slope, leave lava; thence over loamy land level.
75.00 rocky ridge 6 ft. high trend N. and S. descend.
80.00 the cor. of Secs 7-8-17-and 18,
Land rolling.
Soil stony and loamy 2nd and 4th rate.
No timber.

West on a true line bet. Secs 7 and 18
descending over gradual slope, over loamy land
40.00 Set a lava stone 12x8x6 ins. 8 ins. in the ground for 1/4 Sec. Cor. marked 1/4 on N. face. D pits 18x18x12 ins. E. and

Subdivisions — Tp. 42 S. — Range 13 West.

Chains	
	W. of stone 3. ft. dist. and raised a mound of earth 3½ ft base 1½ ft. high N. of Cor.
53.80	top of lava ledge 12 ft. high bears N. and S. from bottom of ledge continue descending.
59.00	bottom of gulch about 200. ft. below the top drains S 30° W. about 15. chs into open valley, heads N 30° E. about 5. chs. on top of cliff. ascend.
65.00	top of W. side of gulch 200. ft. above the bottom bears S W. and N. E. thence nearly level. over lava.
74.70	top of lava ledge bears N. and S. descend.
83.00	bottom of descent about 200. ft. below the top. bears N. and S. thence over level sandy land.
92.33	intersect the W. bdy. of the Tp. 14.91 chs. N. of the
29.20	old cor. of Secs 7-12-13 and 18, which is a black
53.13	lava stone 20×12×6", marked and witnessed as described by the surveyor general.
	Set a lava stone 20×8×6 ins. 15 ins. in the ground for closing cor. of Secs 7 and 18. marked C.C. on the E. with 2 grooves on the N. and 4 grooves on the S. faces. Dug pits 24×18×12 ins. crossurse on each line N. and S 3 ft. and E. of stone 7. ft. dist and raised a mound of earth 4 ft. base 2 ft. high E. of Cor. I destroy the marks on the old Cor. pertaining to Secs 7 and 18.
	Land mountainous and level
	Soil sandy and stony and loamy. 2nd and 4th rate.
	No timber.
	Mountainous land 29.20 chs.
	No° 03' W. bet. Secs 7 and 8
	ascending the W. slope of Volcanic butte over gradual slope. lava, rolling
40.00	Set a lava stone 18×12×8 ins. 12 ins. in the ground for ¼ Sec. Cor. marked ¼ on W. face. Raised a mound of stone 2 ft. base 1½ ft. high W. of Cor. Pits impracticable.
75.70	lava gulch 10 ft. deep. 75 ft. wide drains. W.
80.00	Set a lava stone 14×10×8 ins. 9 ins. in the ground for Cor. of Secs 5-6-7 and 8. marked with 5 notches on the S. and E. edges. Raised a mound of stone 2 ft. base 1½ ft. high W. of cor. Pits impracticable
	Land rolling
	Soil stony 4th rate.

Subdivisions— Tp. 42 S – Range 13 West.

Chains	
	no timber.
	East on a random line bet. Secs. 5 and 8
40.00	Set a temp. 1/4 Sec. Cor,
80.04	intersect N. and S. line 7 lks S. of the cor. of Secs. 4-5-8 and 9,
	Thence I run
	S 89°-57' W. on a true line bet. Secs. 5 and 8. ascending the S. end of Volcanic mountain. over lava,
22.50	top of rocky ridge about 200. ft. above the Sec. cor. bears N. and S. descend. abruptly.
36.00	bottom of descent about 300. ft. below the top bears N. and S. continue descending gradually,
40.02	Set a lava stone 18×7×6 ins. 12 ins. in the ground for 1/4 Sec. Cor. marked 1/4 on N. face. Raised a mound of stone 2 ft. base 1½ ft. high N. of Cor, Pits impracticable.
80.04	the cor. of Secs. 5-6-7 and 8,
	Land mountainous
	Soil stony 4th rate.
	No timber
	Mountainous land 80.04 chs.
	West on a true line bet. Secs. 6 and 7, descending gradually over lava, and rolling land,
40.00	Set a lava stone 12×12×8 ins. 8 ins. in the ground for 1/4 Sec. Cor. marked 1/4 on N. face. Raised a mound of stone 2 ft. base 1½ ft. high. N. of Cor. Pits impracticable.
43.18	old road bears N 30° W. and S 30° E,
53.00	top of lava bluff bears N 40° W. and S 40° E. then S, descend abruptly.
63.60	bottom of descent about 200. ft. below the top. bears S 50° E. and N 60° W. thence over level rolling land,
92.47	intersect the W. bdy. of the Tp. 12.60 chs. N. of the old cor. of Secs. 1-6-7 and 12, which is a lava stone 18×10×6 ins. marked and witnessed as described by the survey [illegible]

Subdivisions — Tp. 42 S. — Range 13. West.

chains

the intersection falls on a lava rock in place 20 x 20 x 12 ins. above ground; at the exact Cor. point. Cut a cross (x) for closing cor. of Secs 6 and 7 with C.C. on the E. and 5 grooves on the S. and 1 groove on the N. of the cross, Raised a mound of stone 2 ft. base 1½ ft. high E. of Cor. Pits impracticable. I destroy all marks on the old cor. pertaining to Secs 6 & 7
Land mountainous and rolling.
Soil sandy and stony. 4th rate.
No timber.
Mountainous land 10.60 chs.

N 0°-03' W. on a true line bet. Secs 5 and 6, descending gradually over rolling lava land on W. slope of Volcanic mountain.

40.00 Set a lava stone 14 x 10 x 8 ins. 9 ins. in the ground for 1/4 Sec. Cor. marked 1/4 on W. face. Raised a mound of stone 2 ft. base 1½ ft. high W. of Cor. Pits impracticable.

59.00 ground begins to slope gradually N.W.

82.24 intersect the N. bdy. of the Tp. 85 lks. W. of the Cor. of Secs 5-6-31 and 32 as established by me under this contract.

Set a lava stone 22 x 12 x 6 ins. 16 ins. in the ground for closing cor. of Secs 5 and 6, marked C.C. on the S. with 5 grooves on the E. and 1 groove on the W. faces. Dug pits 24 x 18 x 12 ins. crosswise on each line E. and W. 3 ft. and S. of stone 7 ft. dist. and raised a mound of earth 4 ft. base 2 ft. high S. of Cor.

At the cor. of Secs 5-6-31 and 32 heretofore established by me, I obliterate the pits S.W. and S.E. of cor. and all marks pertaining to Secs 5. of the line. and Dig pits 24 x 24 x 12 ins. N.W. and N.E. of stone 6 ft. dist. and raise a mound of earth 4 ft. base 2 ft. high N. of cor. to indicate the cor. of Secs 31 and 32 only.
Land rolling
Soil stony 4th rate.
No timber.

30

Subdivisions — Tp. 42. S — R. 13 W.

I re-trace the W. bdy. of the Tp. as follows:
From the old Cor. of Tps. 41 and 42. S. Rs 13 and 14 W. which is a stone firmly set marked and witnessed as described by the surveyor general, and 6.80 chs. S0°21'W of the closing Cor. of Tps. 41 and 42. S. R 13 W. established by me under this contract.
Thence I run
South on a blank line bet. Secs 1 and 6.
46.61 I find the old 1/4 Sec. Cor, 20 lks. W.
88.17 intersect E. and W. line 37 lks. E. of the old Cor. of Secs 1-6-7 and 12. The course of this line is therefore S0°15'W.

I continue my line
South bet. Secs 7 and 12.
40.00 no trace of the old 1/4 Sec. Cor. can be found after dilligent search.
82.31 intersect E. and W. line 16 lks. E. of the old Cor. of Secs 7-12-13 and 18 heretofore described.
The course of this line is therefore S0°09'E.
I continue my line
South bet. Secs 13 and 18.
41.09 I find the old 1/4 Sec. Cor. 31 lks. W.
87.13 intersect E. and W. line 65 lks. E. of the old Cor. of Secs 13-18-19 and 24 heretofore described
The course of this line is therefore S0°21'W.
I continue my line
South bet. Secs 19 and 24
40.00 no trace of the old 1/4 Sec. Cor. can be found after dilligent search.
82.47 intersect E. and W. line 61 lks. E. of the old Cor. of Secs 19-24-25 and 30 heretofore described, The course of this line is therefore S0°02'E.
I continue my line
South bet. Secs 25 and 30.
40.00 no trace of the 1/4 Sec. Cor, can be found after dilligent search.
82.46 intersect E. and W. line 72 lks. E. of the old Cor. of Secs 25-30-31 and 36, heretofore described.
The course of this line is therefore S0°05'W.
I continue my line

72A BOOK A-252

12/17/48

Note: At corners of secs. 1 and 12, and ¼ sec. cor. of sec. 13, on E. bdy. of T. 42 S., R. 14 W., unmarked GLO 1 iron posts were reported found by Field Examiner Koch in 1948. These are apparently unofficial monuments.

Geo. W. Johnson.

72A

Volume

#

R0252

Subdivisions — Tp. 42 S — R 13 W.

chains
40.00
82.42

South bet. Secs 31 and 36,
no trace of the 1/4 Sec. Cor. can be found after diligent search
Intersect E. and W. line 3. lks. E. of the old Cor. of Tps. 42 and 43
S. Rs. 13 and 14 West, heretofore described. The course of this
line is therefore S 0° 01' E.

July 17 — 1897.

Boundaries of Tp. 42. S — R. 13. W. Latitudes, Departures and closing errors.

Line designated	True bearing	Distance chs.	Latitude N. chs.	Latitude S. chs.	Departure E. chs.	Departure W. chs.
South 2 miles of East Bdy.	North	160.00	160.00			
E. bdy's of Secs 12-13 and 24	N 0° 12' E	242.13	242.13		0.85	
E. bdy of Sec. 1	N 0° 14' E	80.57	80.57		0.32	
North bdy of Tp.	West	492.88				492.88
Northern part of W. bdy. Sec. 6.	S. 0° 29' W	6.80		6.80		0.05
E. bdy. Sec. 1 Tp. 42 S R. 14. W.	S 0° 15' W	88.17		88.17		0.38
E. bdy Sec. 12. T 42 S R 14 W	S 0° 09' E.	82.31		82.31	0.21	
E. bdy. Sec. 13. T 42 S R 14 W	S 0° 21' W	82.13		82.13		0.50
E. bdy. Sec. 24. T 42 S R 14 W	S 0° 02' E.	82.47		82.47	0.05	
E. bdy. Sec. 25. T 42 S R 14 W	S 0° 05' W	82.46		82.46		0.11
Frcl. N. part of E. bdy. Sec. 36. T 42 S. R 14 W	S 0° 01' E	58.03		58.03	0.02	
S. bdy. Tp. 42 S R. 13 W.	East.	493.15			493.15	
Convergency		.55				0.55
Totals.			482.70	482.37	494.60	494.47
			482.37		494.47	
			Error in Latitude 0.33		Error in Dep. 0.13	

General Description

The eastern part of this township lies on the top of Hurricane mountain and the western part below the mountain is called Hurricane Bench, and embraces a quite large area of good soil. The Hurricane Canal is under course of construction in the township adjoining on the North and will cover a

Subdivisions, Tp. 42 S. — R. 13 West.

large area in this township. There is an
abundance of good grazing in this township
but no settlers. There is no timber in the township
nor springs, nor natural streams. There is an
abundance of sandstone, limestone, and lava
within the township but no indications of
mineral.

After diligent search no trace of the Desert Entry
claims of Wm A. Bringhurst, Lorenzo Slack
James M. Ballard, and Leroy N. Bube
could be found within
the township, as set forth in the Synopsis
accompanying the Special Instructions.

Joseph A. West
Washington Jenkins.
U. S. Deputy Survey

July 17-1897

Final Oaths of Deputy Surveyor and his Assistants.

LIST OF NAMES.

A list of the names of the individuals employed by Washington Jenkins and Joseph A. West, United States Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of the Subdivisional lines of Tp. 42, South - R. 13 West of the Salt Lake Base and Meridian showing the respective capacities in which they acted:

David A. Jenkins, *Chainman.*
C. A. Lundquist, *Chainman.*
David A. Jenkins, *Moundman.*
, *Moundman.*
John A. Child, *Axman.*
, *Axman.*
David Jenkins, *Flagman.*

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted _____, United States Deputy Surveyor, in surveying all those parts or portions of the _____ of the _____ base and _____ meridian, _____ of _____, which 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 _____

_____, *Chainman.*
_____, *Chainman.*
_____, *Moundman.*
_____, *Moundman.*
_____, *Axman.*
_____, *Axman.*
_____, *Flagman.*

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

SEAL

6—151

Final Oath of United States Deputy Surveyor.

I, _____, United States Deputy Surveyor, do solemnly swear that, in pursuance of a contract received from _____ United States Surveyor General for _____, bearing date of the _____ day of _____, 189 , 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 _____, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of _____

_____

_____

_____ of the _____ base and _____ meridian, in the _____ of _____, which are represented in the foregoing field notes as having been surveyed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the United States Surveyor General for _____ and in the specific manner described in the field notes, and that the foregoing are the original 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.

_____
United States Deputy Surveyor.

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

_____

_____

APPROVAL.

Office of the United States Surveyor General,

Salt Lake City, Utah, April 2d, 1900

The foregoing field notes of the survey of the Subdivision of Township 42 South Range 10 West of the Salt Lake Base & Meridian, Utah

_____

_____

_____

executed by Washington Jenkins & Joseph A West under his contract No. 212 dated October 15, 1896, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

Jacob B Blair
United States 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.

_____
United States Surveyor General.

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4—679.

BOOK A-252

FIELD NOTES

OF THE SURVEY OF

The South and East

Boundaries of

Township 36-South

Range 9 West

Of the Salt Lake Base and Meridian,

State of Utah

AS SURVEYED BY

Washington Jenkins and Jos A. West, United States Deputy Surveyors

Under ~~his~~ their Contract No. 212, dated October 15th, 1896

Survey commenced August 16th, 1897

Survey completed August 18th, 1897.

6—151

S- Bdry - high 1-00-00

E- " high 6-16-15

Names and Duties of Assistants.

David A. Jenkins chainman
C. A. Lundquist chainman
David A. Jenkins moundman
John A. Child axman
David Jenkins flagman

For preliminary oaths of assistants see Book "B"

BOOK A-252

INDEX DIAGRAM.

Township 36 South, *Range* 9 West

6	5	4	3	2	1	8-9
7	8	9	10	11	12	7-8
18	17	16	15	14	13	6-7
19	20	21	22	23	24	5-6
30	29	28	27	26	25	5-
31 1-2	32	33	34	35 1-2	36 2-3	4-

Meanders Page

6—151

PUUR A-202

Preliminary Oaths of Assistants.

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

.....

..... *, 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 o
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 corner
and other duties, according to instructions given us, to the best of our skill and ability, in the survey o

.....

..... *, 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

.....

.....

Exterior Boundaries - Tp. 36. South R 9 West

This survey commenced August 16th 1897, and executed with a J. T. Hobby engineers transit no number, without solar attachments. The horizontal limb 7 in. diam. having two double verniers placed opposite 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, March 17th 1897. I make all necessary adjustments of the instrument before commencing work.

I begin at the Cor. of Tps. 36, and 37 South Rs. 9 and 10 West, which is a sandstone firmly set, marked and witnessed as described by the surveyor general. August 16-1897 at 9h 45m l.m.t. 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 the Manual of Instruction 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 17th at 7: a.m. I lay off the azimuth of Polaris 1° 34' 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 the true meridian is N 15° 51' W. which reduced by the table, on page 100, of the Manual gives the mean magnetic declination 15° 45' E.

It is impossible to survey the western 5 miles of the South boundary of this township by the ordinary methods of surveying on account of the Breaks of Cedar Canon" a series of impassable cliffs and chasms, which extend into both Tps 36 and 37 South

for a considerable distance each direction.
At the township cor. above described and from the meridian established I turn an angle of 90°-00' to the East and cause a flag to be set on the top of the Cedar Breaks about 5 miles distant, on the tangent, S. of the S. bdy of the Township.

August 17th 1897.

August 17th 1897, at 9h 38m l.m.t. or at 10.10 PM, by my watch which is correct standard rail road time, I observe Polaris at Eastern Elongation at the N. E. cor. of Sp. 36. South Range 9 West, which is a stone firmly set marked and witnessed as described by the surveyor general, and mark a point in the line thus determined by a tack driven in a wooden plug set in the ground 3.23 chs. N. of my station. heavy timber prevented setting the point further north.
August 18th at 8: A.M. I lay off the Azimuth of Polaris 1°34' 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
South on a random line along the E. bdy. of the township, setting temp. 1/4 Sec. and Sec. Cors, at intervals of 40.00 chs and 80.00 chs. and at 496.42 chs. intersect the tangent produced 63.68 chs. E. from the flag set on the top of the "Breaks of Cedar Cañon" by observation at the S.W. Cor. of the Sp. - August 17th 1897,
0.27 chs. N. of the point of intersection of the tangent of the S. bdy. of the township, and the random E. bdy. of the township, fall on a black lava stone 2×4×4 feet above ground at the exact point for Cor.
Cut a cross (X) for the S. E. cor. of Sp. 36. South, Range 9 West, with 6 notches on the N.

South Boundary. Tp. 36. South - R. 9 West.

and 6 notches on the W. of the cross, from which
a pine tree 10 ins. diam. bears N 40° W. 41 lks.
dist, marked T36. S. R9. W. S 36. BT.
Raised a mound of stone 3 ft. base 2 ft. high
5 ft. N. W. of cor. Pits impracticable
Thence I run
West along the S. bdy of sec. 36,
Through heavy pine and aspen timber over
lava stones, nearly level, but gradually
sloping S. W.
19.70 leave timber bears N 40° E. and S 40° W,
24.20 enter fallen timber bears N. and S,
27.30 top of lava ridge bears N. and S. descend. a
spring of pure water bears. N 5. chs. dist and
flows S W,
33.70 leave dead timber bears. S 5° W. and N 5° E.
40.00 Set a lava stone 18 x 16 x 6 ins. 12 ins. in the ground
for 1/4 Sec. Cor. marked 1/4 on N. face. Raised
a mound of stone 2 ft. base 1 1/2 ft. high N. of Cor.
Pits impracticable.
43.60 Spring Branch 3 ft. wide 6 ins. deep. drains S.
heads 10.00 chs. N. a meadow extends N.
along banks of the creek. ascend main
ridge,
51.10 enter heavy pine timber bears S 45° E. and
N 45° W,
53.00 a log cabin bears. N 3. chs. dist.,
63.68 top of Breaks of Cedar Cañon bears S 20° W. and
N 20° E. Deep cañons and perpendicular
cliffs prevent chaining farther,
Set a volcanic stone 14 x 10 x 6 ins. 9 ins. in the
ground for witness cor. to Cor. of Secs. 35,
and 36, marked W. C. on N. W. face, with 1 notch
on the E. and 5 notches on the W. edges,
from which
A pine tree 10 ins. diam. bears N 20 1/4° W. 38
lks. dist. marked. T. 36. S R. 9 W. S 35 W.C, BT.
a pine tree 8 ins. diam. bears N 58 1/2° E. 30 lks.
dist. marked T. 36. S. R. 9 W. S 36. W. C. BT.
The U.S. Coast Survey Monument on Brian Head bears
N 1° 10' W. about 4 miles dist.
80.00 Corner falls in impassable cliffs & not set

Chains	
	Land mountainous,
	Soil stony and gravelly, 3rd and 4th rate.
	Timber Pine and aspen,
	Mountainous land 80.00 chs,

East Boundary – Tp. 36. S. R. 9 West,

Chains	
	From the S. E. cor. of Tp. 36. S. R 9 W,
	Thence I run
	North on a true line along the E. bdy. of Sec. 36,
	through heavy pine and aspen timber, over
	nearly level land mixed with lava stones.
12.57	leave timber bears S 20° W. and N 20° E,
27.70	begin to descend gradually bears E. and W,
36.00	enter lava stretch bears E. and W, about 3. chs.
40.00	the point for the 1/4 Sec. Cor. falls on a lava stone 3
	x 2 x 1 ft. above ground, at the exact point for cor,
	Cut a cross (X) for 1/4 Sec. Cor) and mark a 1/4 on
	the W. side of cross, and raise a mound of stone
	2 ft. base 1 1/2 ft. high W. of Cor, Pits impracticable.
47.50	leave lava rocks, bears E. and W,
47.30	enter heavy pine timber bears E. and W,
57.00	Creek 2 lks wide 2 in. deep in small ravine drains N.
59.70	leave creek drains N 40° E. ascend. over ground
	slopes S.E..
65.90	top of spur about 150. ft. above the creek slopes E,
	descend, over ground slopes N. E.
77.00	bottom of ravine slopes E, about 50 ft. below the top
	ascend, leave timber bears E. and W,
80.00	Set a Volcanic stone 20 x 12 x 10 ins 15 ins. in the
	ground for cor. of Secs 25 and 36, marked with
	5 notches on the N. and 1 notch on the S. edges;
	Raised a mound of stone 2 ft. base 1 1/2 ft. high
	W. of Cor. Pits impracticable.
	Land mountainous,
	Soil stony and gravelly,
	Timber, pine and aspen,
	Mountainous land 80.00 chs.

East Boundary Tp. 36. South, Range 9 West.

Chains	
	North on a true line along the E. bdy, Sec. 25.- Ascending gravelly soil sloping S E,
15.00	top of spur about 25 ft. above the Sec. Cor, slopes E, descend gradually,
20.00	enter pine timber bears E. and W.
31.80	begin to descend into canon slopes E.
40.00	Set a volcanic stone 12×8×7 ins 8 ins. in the ground for 1/4 Sec. Cor, marked 1/4 on W. face, from which a pine tree 9 ins. diam. bears N77°E, 49 lks, dist. marked 1/4 S. B T. A pine tree 9 ins. diam. bears S89°W, 25 lks. dist marked 1/4 S. B T.
42.80	leave timber bears. S60°E. and W. enter level meadow extends W. and E.
45.00	creek 4 lks. wide 1 ft. deep, drains E. heads W.
49.40	leave meadow extends E. and W. ascend, through heavy pine and aspen timber.
72.70	top of spur about 200. ft. above creek, slopes W. descend over ground slopes N. and N.W,
80.00	Set a volcanic stone 18×12×6 ins 17 ins. in the ground for cor. of Secs 24 and 25, marked with 4 notches on the N. and 7 notches on the S. edges. from which, a pine tree 17 ins. diam. bears, S35°W, 35 lks. dist marked T. 36. S. R 9 W, S 25. B.T. A Balsam tree 6 ins. diam. bears N43¾°W 27 lks, dist. marked T. 36. S R. 9 W, S 24 B T. Land mountainous. Soil gravelly. 3rd rate. Timber pine and aspen. Mountainous and heavily timbered land 80.00 chs
	North on a true line along the E. bdy, Sec 24. Descending through heavy pine and aspen timber over loamy soil
15.00	leave timber bears E. and W. enter meadow over level land,
18.20	Spring Branch 4 lks. wide 1 ft. deep drains N60°E, 5. chs. and then turns S.E,
23.50	Joseph Warren's log cabin bears W. 7.50 chs. dist.
28.60	Road from Cedar City to Jensen's Saw-mill bears

East Boundary Tp. 36. South. Range 9. West.

Chains.	S 75° E. and S 74° W, leave meadow, bears E. and W, ascend through heavy pine and aspen timber, over stony ground slopes, S.E.
40.00	Set a volcanic stone 18×12×5 ins. 12 ins. in the ground for 1/4 Sec. Cor, marked 1/4 on W. face from which
	A Balsam tree 8 ins. diam. bears N 14° W. 40 lks. dist. marked 1/4 S, B T.
	A Balsam tree 14 ins. diam. bears S 63½° E, 45 lks, dist. marked 1/4 S, B T,
48.00	top of spur about 150. ft. above the creek bears E and W. descend,
80.00	Set a volcanic stone 18×12×6 ins. 12 ins. in the ground for Cor. of Secs. 13 and 24 marked with 3 notches on the N. and S. edges, from which
	a pine tree 12 ins. diam. bears S 80° W, 23. lks, dist. marked T. 36. S., R 9. W. S 24 B T,
	a pine tree 12 ins. diam. bears N 67° W 60 lks, dist. marked T. 36. S. R 9. W. S 13. B T,
	cor, about 150. ft. below the top of ridge.
	Land mountainous.
	Soil gravelly, and loamy, 2nd and 3rd rate.
	Timber, pine and aspen,
	Mountainous and heavily timbered land 80.00 chs.
	North on a true line along the E. bdy. Sec. 13, descending through heavy pine and aspen timber
5.00	leave heavy timber bears N 50° W. and S 50° E,
6.80	C. Adams log cabin bears N 74° 40' W,
7.20	creek 4 lks. wide 6 ins. deep drains N. head S W.
9.40	creek drains N 40° E,
13.30	Mammoth Creek 5 lks. wide 6 ins. deep in bottom of canon about 50 ft. below the cor, drains E, ascend N. side of canon.
16.36	road bears E and W,
25.17	C. Adam's log cabin bears S 81° 40' W.
33.60	enter heavy aspen timber bears E. and W.
40.00	Set a volcanic stone 16×9×6 ins 11 ins. in the ground for 1/4 Sec. Cor, marked 1/4 on W. face, from which
	an aspen tree 10 ins. diam. bears N 50° E, 119 lks dist

East Boundary Tp. 36. South - Range 9 West.

Chains	
	marked '14 S. B T.
	An aspen tree 12 ins. diam. bears. S22½°W. 162 lks. dist. marked '14 S. B T.
74.47	top of ledge on N. side of Mammoth Cañon, about 900 feet above the creek bears S60°E. and N60°W. The monument on Brian Head bears N67°53'W. thence over stony ground slopes W. leave timber.
80.00	Set volcanic stone 20×8×10 ins. 15 ins. in the ground for cor. of Secs 12 and 13, marked with 4 notches on the S. and 2 notches on the N. Edges, Raised a mound of stone 2 ft. base 1½ ft. high W. of Cor, Pits impracticable.
	Land mountainous,
	Soil stony and gravelly,
	Timber Pine and aspen,
	Mountainous and heavily timbered land 80.00 chs,
	North on a true line along the E. bdy. Sec. 12, ascending over ground slopes SW. through scattering pine timber.
12.00	top of ascent. about 25 ft. above the Sec. Cor, bears E. and W. descend gradually, over ground slopes N.E,
23.20	The U.S. Coast survey monument on Brian Head bears West 70.69 chs. distant.
	From the monument on Brian Head a flag at the S.W. cor. of Tp. 36. S. R9. W, bears S49°14'W,
40.00	Set a volcanic stone 20×6×4 in. 15 ins. in the ground for '14 Sec. Cor, marked '14 on W. face from which a
	A pine tree 8 ins. diam bears S28°W. 85 lks, dist marked '14 S. B T.
	A Balsam tree 8 ins. diam. bears N87¼°E. 232 lks, dist. marked '14 S. B T.
72.25	top of main range of mountains bears N45°E, and S45°W, descend abruptly over steep ledge of shelly rocks. volcanic formation.
80.00	bottom of main ledge about 350. feet below the top

East Boundary of Tp. 36. South. Range 9 West

Chains bears N45°E. and S45°W. enter heavy pine timber.
Set a volcanic stone 20×8×8 ins. 15 ins. in the ground for cor. of Secs. 1 and 12, marked with 1 notch on the N. and 5 notches on the S. edges, from which
A spruce tree 14 ins. diam. bears N40½°W, 18 lks. dist. marked T.36.S.R.9W. S1. BT.
A Balsam tree 8 ins. diam. bears S82°W, 100 lks. dist. marked T.36.S.R.9.W. S12. BT.
Land mountainous.
Soil stony and gravelly 4th rate.
Timber pine,
Mountainous land 80.00 chs.

North on a true line along the E. bdy. of Sec 1,
Descending through heavy pine and aspen timber over rough stony ground,
5.00 rocky spur bears N40°E and S60°W.
9.30 leave pine timber bears S60°W. and N60°E. continue descending over rough stony ground slopes N.W.
37.90 Rocky spur. slopes W.
38.50 top of rocky spur slopes W. enter heavy pine and aspen timber bears E. and W. descend abruptly.
40.00 Set a volcanic stone 24×16×6 ins. 18 ins. in the ground for ¼ Sec. Cor. marked ¼ on W. face from which
A pine tree 24 ins. diam. bears N8°W 48 lks, dist marked ¼ S. BT,
a pine tree 8 ins. diam. bears N5°E, 42 lks, dist marked ¼ S. BT,
Continue descending abruptly.
54.34 ledge of volcanic stone 4 ft. high bears E. and W.
78.00 bottom of steep descent. about 500. feet below the Sec. Cor. slopes W, ascend gradually,
84.60 top of spur ridge about 30. ft. above bottom slopes W. descend,
96.15 The Standard Cor. of Tp. 35 & 36 S R 9 W.

about 100. feet below the top of spur,
Land mountainous,
Soil stony and gravelly 4th rate.
Timber, pine and aspen,
Mountainous and heavily timbered land 96, 15 chs.
August 18th 1897,

For Table of Latitudes and Departure see the Notes of the Subdivisions of this Township

General Description.

The East boundary of this Township runs over a very high mountain called "Brian Head" on the Coast Survey maps, and called "Mammoth Peak" by the people in the vicinity. its elevation is given as about 11000. ft.

The South boundary line runs over rough and impassable cliffs running N. and S. called on the maps "Pink cliffs", but locally known as "The Breaks of Cedar Canon". The Townships lying to the South are covered with heavy timber and large lava stretches and above the Breaks are almost totally devoid of water. the lava stretches are impassable for animals and nearly impassable for man on account of the danger of falling into the holes between the rocks. Tps. 36. S. Rs. 8 and 9. West are both covered with heavy pine and aspen timber.

Joseph F West
Washington Jenkins
U.S. Deputy Surveyor.

August 18-1897,

No Notary Public or other officer authorized to administer oaths being available without great expense and delay, I administer the necessary final oaths of assistants

Washington Jenkins
U.S. Deputy Surveyor.

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Final Oaths of Deputy Surveyor and his Assistants.

LIST OF NAMES.

A list of the names of the individuals employed by Washington Jenkins and Joseph A. West, United States Deputy Surveyors, 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 of Tp. 4 S - R. 16 West - the S. and E. bds. of Tp. 4 S - R. 15 West - the E. bdy of Tp. 4 S - R. 13 West - the S. and E. bds. of Tp. 4 S. R. 13 West, - the S. and E. bds. of Tp. 3 S. R. 9 West, the Salt Lake Base and Meridian, showing the respective capacities in which they acted:

C. A. Lundquist, Chainman.
David A. Jenkins, Chainman.
David A. Jenkins, Moundman.
, Moundman.
John A. Child, Axman.
, Axman.
David Jenkins, Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted Washington Jenkins and Joseph A. West, United States Deputy Surveyors, in surveying all those parts or portions of the North-West and South boundaries of Tp. 4 S. R. 16 West - the South and East boundaries of Tp. 4 S. R. 15 West - the East boundary of Tp. 4 S. R. 13 West - the South and E. boundaries of Tp. 4 S. R. 13 West, - the S. and E. bds. of Tp. 3 S. R. 9 West - of the Salt Lake base and meridian, in the State of Utah, which 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 the State of Utah.

David A. Jenkins, Chainman.
C. A. Lundquist, Chainman.
David A. Jenkins, Moundman.
, Moundman.
John A. Child, Axman.
, Axman.
David Jenkins, Flagman.

Subscribed and sworn to before me this 1st day of November, 1897

SEAL

Washington Jenkins
U. S. Deputy Surveyor

6—151

Final Oath of United States Deputy Surveyor.

I, ..., United States Deputy Surveyor, d solemnly swear that, in pursuance of a contract received from ..... United States Surveyor General for ....., bearing date of t ..... day of ....., 189 , I have well, faithfully, and truly, in my c proper person, and in strict conformity with the instructions furnished by the United States Survey General for ....., the Manual of Surveying Instructions, and the laws of t United States, surveyed all those parts or portions of .....

..... of the ..... and ..... meridian, in the ..... of ....., which are represented in t foregoing field notes as having been surveyed by me, and under my direction; and I do further solemnl swear that all the corners of said survey have been established and perpetuated in strict accordance with t Manual of Surveying Instructions, and the special written instructions of the United States Survey General for ..... and in the specific manner described in the field notes, and t the foregoing are the original field notes of such survey; and should any fraud be detected, I will suff the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

.....
United States Deputy Surveyor.

Subscribed by said ....., and sworn to before me this ..... day of ....., 189

SEAL

.....

.....

APPROVAL.

Office of the United States Surveyor General,

Salt Lake City Utah April 2d, 1900

The foregoing field notes of the survey of the South & East Boundaries of T 36 S R 9 W of the Salt Lake Base & Meridian, Utah

executed by Washington Jenkins and Joseph A West under ~~his~~ their contract No. 212, dated October 15th, 1896, having bee critically examined, and the necessary corrections and explanations made, the said field notes, and th surveys they describe, are hereby approved.

Jacob B Bell
United States 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.

.....
United States Surveyor General.

6—151

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BOOK A-252

FIELD NOTES

OF THE SURVEY OF

The Subdivisional line
Township 36. South
Range 9 West

Of the Salt Lake Base and Meridian,

State of Utah.

AS SURVEYED BY

Washington Jenkins and Joe A. West, United States Deputy Surveyors

under ~~his~~ their Contract No. 212, dated October 15th, 1896.

Survey commenced September 1st, 1897

Survey completed September 12th, 1897.

	m. ch. lk.
Subs. high	26-63-53 ✓
" dummy	8-66 ✓
W. Bdry Cor. high	6-01-67 ✓
Std. "	5-68-18 ✓

Names and Duties of Assistants.

David A. Jenkins	Chainman
C. A. Lundquist	Chainman
David A. Jenkins	Moundman
John A. Child	Axman
David Jenkins	Flagman

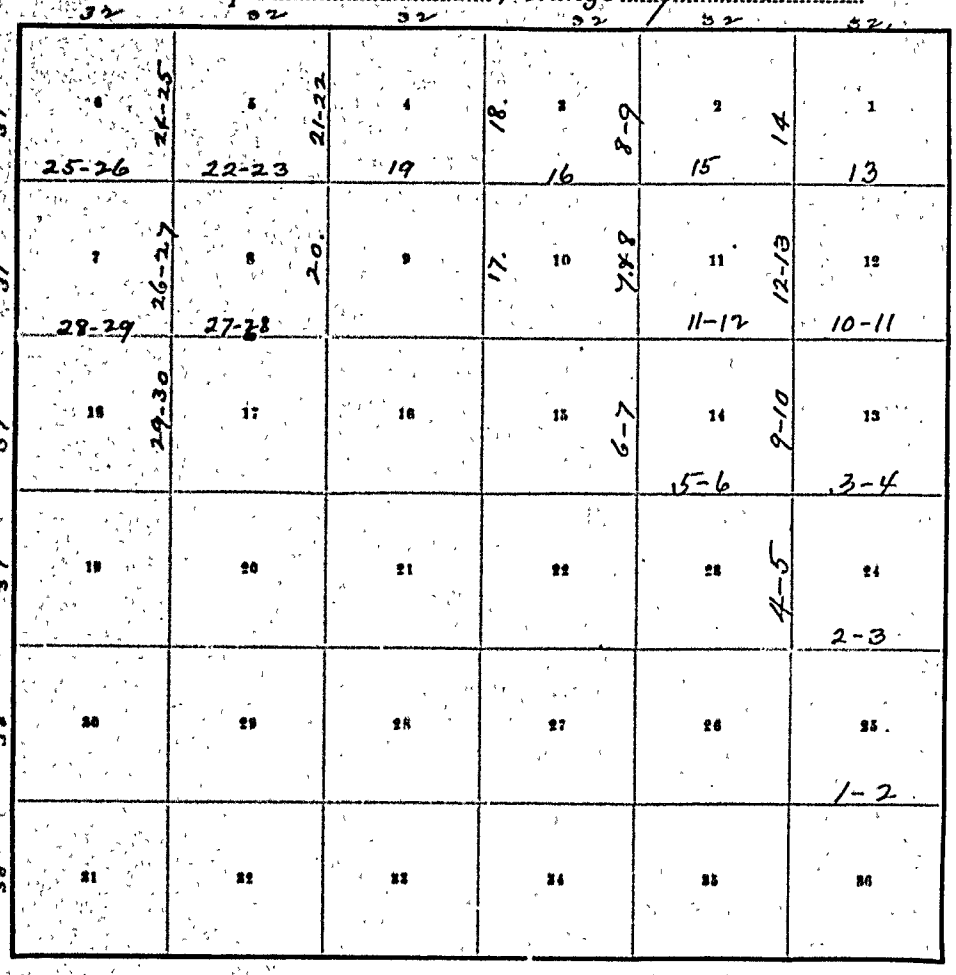
For preliminary affidavits — see Book "C."

6—151

BOOK A-252

INDEX DIAGRAM.

Township 36 South, Range 9 West



Meanders Page.....

6—151

Preliminary Oaths of Assistants.

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

.....

....., *Chainma*

....., *Chainma*

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
corners, according to the instructions given us, to the best of our skill and ability, in the survey of ...

.....

....., *Moundma*

....., *Moundm*

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 corn
and other duties, according to instructions given us, to the best of our skill and ability, in the survey

.....

....., *Axma*

....., *Axma*

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

SEAL

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

....., *Flagma*

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

SEAL

This survey commenced September 1st 1897, and executed with a J. T. Hobby engineers transit No number, without solar attachments. The horizontal limb 7 in. diam. having two double verniers placed opposite 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 March 17th 1897, I make all the necessary adjustments of the instrument before commencing work.

I begin at the Cor. of Secs 25 and 36, on the E. bdy of the Township, heretofore described September 1st 1897 at 8h 40m l. mt. or at 9:12 P.M. by my watch which is correct mountain standard rail road time I observe Polaris at Eastern Elongation in accordance with the Manual of Instructions 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.

September 2nd at 7. A.M. I lay off the Azimuth of Polaris 1° 34' 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 mean magnetic declination is 15° 45' E.

Knowing I will intersect impassable breaks, before reading 80.00 chs, I run West on a true line bet. Secs 25 and 36, ascending the E. slope of mountain over gravelly loam and stony ground,

23.30 enter heavy pine and aspen timber bears N60° E. and S60° W,

24.50 top of spur about 300. feet above the Sec. Cor, slopes S30° E, descend,

34.50 bottom of ravine about 50. feet below the top drains S. thence ascend,

40.00 set volcanic stone 20x14x4 ins. 15 ins.

Chains in the ground for 1/4 Sec. Cor. marked 1/4 on N. face. from which
A Balsam tree 8 ins. diam. bears N45¾°W. 64 lks. dist. marked 1/4 S. B.T.,
A. Balsam tree 8 ins. diam. bears S1°45' E 68 lks. dist. marked 1/4 S. B.T. raised mound of stone 2 ft. base 1½ ft. high N. of cor. Pile impracticable.

10.00 Top of Spur about 50. ft. above bottom slopes S. descend,

56.50 top of rim of Cedar Breaks, bears N55°E. and S55°W. descend abruptly, through heavy pine timber

72.73 East edge of Cedar Breaks, bears N. and S., as it is impossible to chain farther, on account of perpendicular cliffs.
Set volcanic stone 18x12x6 in 12 ins in the ground for witness cor. of Secs. 25-26-35 and 36, marked W.C. with 1 notch on the S. and E. edges. from which
A spruce tree 15 ins diam. bears S25°W. 27 lks. dist. marked T.36.S.R9W. S35.B.T.W.C.
A spruce tree 14 ins. diam. bears S50°E. 54 lks. dist. marked T.36.S.R9W.S36.B.T.W.C.
A spruce tree 18 ins. diam. bears N47°E. 38 lks. dist. marked T.36.S.R9W. S25.B.T.W.C.
A Spruce tree 18 ins diam. bears N15°W. 56 lks. dist. marked T.36.S.R9W. S26.B.T.W.C.

80.00 Cor. not set as the point for the same falls in brake.
Land mountainous.
Soil gravelly, loamy and stony 2nd and 3rd rate.
Timber - Pine and aspen,
Mountainous and heavily timbered land 80.00 chs.

At the cor. of Secs. 24 and 25, on the E. bdy of the Tp. I observe a flag held at the cor. of Secs. 17. and 13, on the E. bdy of said Tp, for a true meridian, which is in plain view on the top of high bdy. Thence I run
West on a true line bet. Secs 24 and 25

chains. descending through heavy pine and aspen timber.
20.00 leave timber bears N. and S.
21.96 a spring of pure water bears N 4.00 chs. dist, 4 ft. wide, drains N.E.
31.00 summit of main range of mountains bears N. and S. on about same level as the Sec. Cor, descend abruptly.
40.00 Set a volcanic stone 18x10x6 ins. 12 ins. in the ground for 1/4 Sec. Cor. marked 1/4 on N. face from which,
A spruce tree 12 ins. diam. bears S80°E. 83 lks. dist. marked 1/4 S.B.T.
A spruce tree 20 ins. diam. bears N40°E. 36 lks. dist. marked 1/4 S.B.T. (this cor. is about 200 feet below the summit of the range and on the edge of the Cedar Breaks;)
As it is impossible to chain farther on this line, I discontinue the line at this point. Land mountainous.
Soil gravelly and loamy 2nd rate,
Timber pine and aspen,
Mountainous and heavily timbered land
40.00 chs.

At the Cor. of Secs 13. and 24 on the E. bdy. of the Sp. heretofore described, I observe a flag held on the E. bdy of the Sp. on a high ledge south of the Cor. of Secs 12 and 13, for a true meridian, which is in plain view, Thence I run
West on a true line bet. Secs 13 and 24 ascending the N.E. slope of mountain along the S. side of Mammoth Canon, through heavy pine timber
1.50 Spring Branch 2 lks. wide 6 ins. deep. drains N.
18.60 leave timber bears N. and S. ascend rocky spur slopes N.
25.75 top of spur about 100. feet above the bottom slopes N. descend.
27.00 bottom of W. side of spur about 50. feet below the top. enter heavy pine and aspen timber

Chains	
	ascend gradually
40.00	Set a volcanic stone 20×8×6 ins. 15 ins. in the ground for 1/4 Sec. Cor. marked 1/4 on N. face, from which,
	A Balsam tree 10 ins. diam. bears S24°E. 14 lks dist. marked 1/4 S. B. T.
	A Balsam tree 10 ins. diam. bears N6°E. 107 lks. dist. marked 1/4 S. B. T.
42.40	top of ascent about 150 feet above the bottom bears N. and S. thence over ground slopes N. W.
50.50	road to Jensens saw mill bears N. and S.
67.00	leave timber bears N. and S. descend into head of canon, drains N40°W. this point is on the summit of the main range bears N. and S.
71.20	bottom of canon about 200 feet below the top drains N40°W. ascend
80.00	top of W. side of Canon about 200 feet above the bottom bears N40°W. and S40°E.
	Set a volcanic stone 20×12×6 ins. 15 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, from which,
	A spruce tree 12 ins. diam. bears S77 1/4°E. 53 lks. dist. marked T. 36 S. R9 W. S24 B.T.
	A Balsam tree 8 ins. diam. bears N42°E. 64 lks dist. marked T. 36. S. R9 W. S13. B. T.
	no other bearing trees within limits; raised a mound of stone 2 ft. base 1 1/2 ft. high W. of Cor. Pits impracticable
	Land mountainous
	Soil gravelly and loamy 2nd rate.
	Timber Pine and aspen,
	Mountainous land heavily timbered 80.00 chs.
	South 0°01'E on a true line bet. Secs 23 and 24 ascending steep knoll.
3.80	top of knoll about 50 feet above the Sec. Cor. slopes N – E – S and W. descend
12.00	bottom of ravine about 50 feet below top

Subdivisions. Tp. 36. South. Range 9 West

chains	
	drains West and N.W. ascend over loamy land
28.60	road to Jensens saw-mill bears S40°E and N40°W
31.70	enter heavy pine timber bears E. and W.
33.10	Breaks of "Cedar Cañon" Pink Cliffs prevent chaining farther on this line
	Set a white sandstone 14×6×6 ins. 9 ins. in the ground for witness Cor. to 1/4 Sec. Cor. marked 1/4 W.C. on W. face. from which
	a Spruce tree 14 ins. diam. bears N40°E. 6 lks. dist. marked 1/4 S. BT. W.C.
	a Spruce tree 14 ins. diam. bears N40°W. 9 lks. dist. marked 1/4 S. BT. W.C.
40.00	Cor. not set. as the point for same falls in breaks.
	Land mountainous.
	Soil loamy and gravelly 2nd rate.
	Timber pine and aspen.
	Mountainous and heavily timbered land 40.00 chs.
	West on a true line bet. Sec° 14 and 23, descending into ravine over ground slopes N.W.
6.44	bottom of ravine about 125. ft. below the top drains N45°E., heads 10 chs S. ascend
18.50	Monument on Brian Head bears N15°-05'E
20.30	road to Jensens Saw-mill bears. S20°E and N20°W. continue ascending.
27.30	top of main range of mountains about 200. ft. above the bottom bears N. and S. descend into cañon drains. N40°W.
38.80	bottom of Cañon about 100. feet below the top: this Cañon heads S40°E. 5. chs. dist. and drains N40°W. very rapidly. ascend.
40.00	Set a lava stone 20×7×6 ins. 15 ins. in the ground for 1/4 Sec. Cor. marked 1/4 on N. face. from which
	a Balsam tree 8 ins. diam. bears N 80 1/4° W. 188 lks. dist. marked 1/4 S. BT.
	a Balsam tree 10 ins. diam. bears S87°W. 203. lks. dist. marked 1/4 S. BT.
42.00	enter heavy pine and aspen timber bears N. and S.

Subdivisions – Tp. 36. South – Range 9 West.

Chains	
47.00	top of spur about 150 feet above the bottom of canon slopes N 50° W. descend.
71.20	another spur slopes N 50° W.
80.00	Set a red sandstone 18x10x10 ins. 17 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, from which A Balsam tree 8 ins. diam. bears S 39¾° E. 50 lks dist. marked T. 36. S-R 9 W, S 23 B T. A Balsam tree 12 ins. diam. bears S 47° W. 57 lks. dist. marked T. 36. S. R 9 W. S 22 B T. A Balsam tree 10 ins. diam. bears N 16½° W 50 lks. dist. marked T. 36 S. R 9 W. S 15. B T. A Balsam tree 8 ins. diam. bears N 45¾° E 50. lks. dist. marked T. 36. S. R 9 W. S 14 B T. The Cedar Breaks lie immediately South and West of this cor. and are impassable, therefore I discontinue the lines W. and S. Land mountainous. Soil loamy and gravelly, 2nd rate. Timber pine and aspen, Mountainous and heavily timbered land 80.00 chs.
	N 0°-01' W. bet. Secs. 14 and 15. Ascending spur of mountain through heavy pine and aspen timber, over ground slopes S.W,
3.00	top of spur about 50. ft. above the Sec. Cor. bears, S 60° E. and N 60° W, descend into canon.
40.00	Set a volcanic stone 24x16x8 ins. 18 ins in the ground for ¼ Sec. Cor. marked ¼ on W. face from which, A spruce tree 10 ins. diam. bears N 25° W. 15 lks, dist. marked ¼ S. B T. A sprucetree 10 ins. diam. bears N 45° E 27 lks, dist. marked ¼ S. B T. Continue descending
43.40	leave heavy timber bears E. and W,
44.40	bottom of canon about 400. feet below the top of spur drains rapidly West. Spring Branch 3 lks. wide 3 ins. deep

chains in bottom of canon ascend, over stony ground. through heavy pine and aspen timber.

77.40 top of N. side of canon about 400. feet above bottom bears E. and W, then level.

79.70 Road to Jansen's saw-mill bears S40°E, and N.40°W,

80.00 Set a volcanic stone 12x10x6 ins. 8 in in the ground for cor. of Sec^s 10-11-14 and 15 marked with 4 notches on the S. and 2 notches on the E. edges, from which.

A spruce tree 16 ins. diam. bears N83¾°W 1.00 chs dist. marked T. 36. S R. 9 W, S 10. B T,

A spruce tree 8 ins. diam. bears S23¼°W 39. lks dist marked T. 36. S. R9. W. S15. B T.

A spruce tree 10 ins. diam. bears N21¾° E, 44 lks. dist. marked T. 36. S. R9. W. S11. B. T,

A Balsam tree 10 ins. diam. bears S66¼°E. 53 lks. dist. marked T. 36. S. R9 W. S14. B. T.

Land mountainous.

Soil stony and gravelly 3rd and 4th rate,

Timber Pine and aspen

Mountainous and heavily timbered. land 80.00 chs.

N0°01' W. bet. Sec^s 10 and 11,

ascending gradually along the N. side of ridge bears N. and S. through heavy pine and aspen timber

13.00 top of spur ridge about 150. feet. above the Sec. cor, slopes W. descend abruptly,

26.30 bottom of ravine about 200 feet below the top drains W. ascend,

27.30 top of spur about 25. feet above bottom, descend over ground slopes N.W.

37.00 Parowan road bears S40°E. and N40°W.

38.00 Creek 3 lks. wide 1 ft. deep, drains rapidly N.40°W, bring the Head of Braffits' Creek.

40.00 Set a volcanic stone 20x10x10 ins. 15 ins. in the ground for ¼ Sec. Cor. marked ¼ on N. face from which

A Balsam tree 8 ins. diam. bears 345°E, 7 lks dist. marked ¼ S. B T.

Subdivisions. Tp. 36. S. Range 9. West.

chains	An aspen tree 12 ins. diam. bears S50°W, 17 lks dist. marked 1/4 S. BT,
62.00	leave timber bears N40°E and S40°W. thence descend through "Bear Flat"
62.30	road to Parowan bears N40°E. and S40°W.
64.40	enter marshy land, bears N40°E. and S40°W.
70.50	Creek 3 lks wide 1 ft. deep in bottom of Cañon drains N40°E. ascend gradually leave marsh.
80.00	Set a volcanic stone 15×6×6 ins 10 ins. in the ground for cor. of Secs 2-3-10 and 11. marked with 5 notches on the S. and 2 notches on the E. edges, and raised a mound of stone 2 ft. base 1½ ft. high W. of Cor. Pits impracticable.
	Land mountainous,
	Soil gravelly and stony 4th rate.
	Timber Pine and aspen
	Mountainous and heavily timbered 80.00 chs.
	N0°01' W. on a true line bet. Secs 2 and 3, ascending the W. side of Bear Cañon over gravelly soil, slopes. S.E.
3.80	enter aspen timber bears N40°E. and S40°W.
17.50	top of ridge about 400. feet above the bottom of cañon slopes N40°E. descend through heavy pine and aspen timber
40.00	Set a volcanic stone 12×7×6 ins. 8 ins. in the ground for 1/4 Sec. Cor. marked 1/4 on W. face, from which,
	A spruce tree 12 ins. diam. bears N5°W, 12 lks. dist. marked 1/4 S. B.T.
	A balsam tree 10 ins. diam. bears East 10 lks. dist. marked 1/4 S. BT.
43.60	Spring Branch, 3 lks. wide 4 ins deep flows N. 30°E.
55.15	bottom of Cañon about 500. feet below the top drains. N40°E. 15.00 chs and joins Braffetts Cañon. ascend. leave timber bears E. and W.
57.50	Enter heavy aspen timber bears N15°E. and S15°W.
68.00	begin to descend gradually.
70.50	S edge of pond. extends E. and W. about 2. chs.

Chains	
72.00	N. edge of pond, extends E. and W. water about 8 ins. deep.
95.94	intersect the N. bdy. of the Tp. 189 lks West of the Standard Cor. of Secs 34 and 35, which is a volcanic stone firmly set, marked and witnessed as described by the surveyor general. at point of intersection
	Set a volcanic stone 12×8×6 ins. 8 ins. in the ground for closing cor. of Secs 2 and 3, marked C.C. on the S. with 2 grooves on the E. and 4 grooves on the W. from which,
	A Balsam tree 10 ins. diam. bears S35° W. 36 lks. dist. marked T.36.S. R.9.W. S 3. B T. C.C.
	A spruce tree 10 ins. diam. bears S56¼° E 47 lks. dist. marked T.36.S. R9.W, S 2, B T. C.C.
	Land mountainous
	Soil gravelly and stony, 3rd and 4th rate,
	Timber. Pine and aspen,
	Mountainous and heavily timbered land 95.94 chs.
	September 2nd 1847,

September 6th 1897, at 8h 20m L.m.t. or at 8h 52m P.M. by my watch which is correct mountain standard rail road time, I observe polaris at Eastern Elongation, in accordance with the Manual of Instructions, at the cor. of Secs 13 14-23 and 24, heretofore described, 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.

September 7th at 7 A.M. I lay off the Azimuth of Polaris 1° 34' 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° 01' W. bet. Secs 13 and 14,

along the head of Mammoth Canon over ground

Chains	
	slopes. E and N. E.
9.40	bottom of ravine about 50 ft below the Sec. cor. drains N 30° E. ascend.
22.30	top of spur about 50 ft. above the bottom slopes E. descend.
26.00	bottom of ravine about 50 ft. below the top drains E. ascend.
33.60	road bears N 60° W. and S 60° E.
34.70	creek 6 ins deep 1 lk. wide drains S 60° E.
40.00	Set a volcanic stone 20×12×10 ins. 15 ins. in the ground for 1/4 Sec. Cor. marked 1/4 on W. face from which, a spruce tree 14 ins diam. bears N 9° W. 225 lks. dist. marked 1/4 S. B.T. no other bearing trees within limit. raised a mound of stone 2 ft. base 1 1/2 ft. high W. of Cor. Pits impracticable.
41.30	Canal 6 ft. wide 2 ft. deep. drains W. and S. W. heads S. 40° E.
48.50	abandoned Canal drains W.
71.20	top of spur about 300. feet above the 1/4 Sec. cor. slopes. S 40° W. descend.
73.00	bottom of ravine about 30. ft. below the top drains S 70° W. ascend.
80.00	Set a volcanic stone 20×10×4 ins. 15 ins. in the ground for Cor. of Secs 11-12-13 and 14. marked with 4 notches on the S. and 1 notch on the E. Edges Raised a mound of stone 2 ft. base 1 1/2 ft. high W. of Cor. Pits impracticable.
	Land mountainous.
	Soil stony and gravelly. 4th rate.
	No timber
	Mountainous land 80.00 chs.

	East on a random line bet. Secs 12 and 13,
40.00	Set temp 1/4 Sec. Cor.
80.00	intersect the E. bdy of the Tp. at the Cor. of Secs 12 and 13, heretofore described
	Thence I run
	West on a true line bet. Secs 12 and 13, descending steep mountain
9.00	begin to descend over ledges bear N. and S.

chains

32.00 bottom of canon about 400. feet below the top drains S. heads N. ascend the N. side

40.00 Set volcanic stone 18x10x8 for 1/4 Sec. Cor, marked 1/4 on N. face, raised a mound of stone 2 ft. base 1 1/2 ft. high N. of Cor, Pits impracticable.

Continue ascending the mountain slopes S. E.

71.00 Top of mountain spur about 400 ft. above the bottom slopes S. descend abruptly over ground slopes S.W.

80.00 the Cor. of Secs 11-12-13 and 14,

Land mountainous

Soil rocky and gravelly 4th rate.

No timber

Mountainous land 80.00 chs,

West on a random line bet. Secs 11 and 14

40.00 Set temp 1/4 Sec. Cor,

80.00 intersect the Cor. of Secs 10-11-14 and 15

Thence I run

East on a true line bet. Secs 11 and 14 descending the E. slopes of a ridge bears N. and S. over ground slopes E. through heavy pine and aspen timber.

8.35 Road to Jensons saw-mill bears N. and S.

35.00 bottom of steep descent, about 200. ft. below the Sec. Cor. drains S. ascend main mountain over rough stony ground,

37.30 road to Jensons saw-mill bears N 70° W. and S,

38.80 unfinished canal drains N 70° W, 6 ft. wide 1 ft. deep.

40.00 Set a white sandstone 14x6x6 ins. 9 ins. in the ground for 1/4 Sec. Cor, marked 1/4 on N. face from which

A spruce tree 14 ins. diam. bears N 80° W. 22. lks. dist. marked 1/4 S. B.T.

A balsam tree 8 ins. diam. bears S 70° W, 13 lks. dist. marked 1/4 S. B.T.

63.50 top of ridge about 200. feet above the bottom slopes S. descend into ravine. leave

Chains timber bears N. and S.,
67.70 bottom of ravine about 20 ft. below the top drains S. ascend abruptly,
72.00 top of spur ridge about 200. ft. above the top slopes S. descend
74.10 bottom of canon or gulch about 100. feet below the top of spur, drains S 40° W. ascend,
— 80.00 The cor. of Sec.s 11-12-13 and 14, about 150. feet above the bottom of gulch,
Land mountainous,
Soil stony and gravelly, 4th rate.
Timber Pine and aspen,
Mountainous land 80.00 chs.

N 0° 01' W. bet. Sec.s 11 and 12,
ascending rough broken volcanic spur of mountain slopes W,
10.60 top of spur about 200. ft. above the Sec. Cor. slopes W. descend
19.70 bottom of gulch about 100 ft. below the top, drains W. ascend over loose shelly rocks,
23.85 top of spur about 15 ft. above the bottom slopes W. Brian Head Peak is about 15. chs. E, descend.
25.00 bottom of rocky descent about 50. ft. below the top bears E. and W. ascend,
27.30 top of spur ridge about 100. ft. above the bottom slopes W. descend over volcanic rocks,
30.00 Enter heavy pine and aspen timber bears E. and W.
40.00 Set volcanic stone 16x10x6 ins. 11 ins. in the ground for 1/4 Sec. Cor. marked 1/4 on W. face, from which
A spruce tree 12 ins. diam. bears N 20° E. 57 lks. dist marked 1/4 S. B.T.
A spruce tree 8 ins. diam. bears N 40° W. 57 lks. dist marked 1/4 S. B.T.
— 80.00 Set a volcanic stone 20x12x6 ins. 15 ins. in the ground for cor. of Sec.s 1-2-11 and 12 marked with 5 notches on the S. and 1 notch on the E. edges, from which
A spruce tree 10 ins. diam bears N 29 1/2° W. 57 lks.

chains dist. marked T. 36. S R9. W, S 2. B.T.
a Balsam tree 8 ins. diam. bears N 39° E, 24 lks,
dist, marked T. 36. S. R9. W, S 1. BT.
a Balsam tree 10 ins. diam. bears S 79¼° E, 30
lks. dist. marked T. 36. S. R. 9 W, S 12. BT.
a Balsam tree 10 ins. diam. bears S 10° W, 39
lks. dist. marked T. 36. S. R. 9 W, S 11. BT.

Land mountainous
Soil stony. 4th rate.
Timber pine and aspen,
Mountainous Land 80.00 chs,

East on a random line bet. Secs 1 and 12
40.00 Set a temp ¼ Sec. Cor,
80.15 intersect the E. bdy of the Tp. at the cor.
of Secs 1 and 12, heretofore described
Thence I run
West on a true line bet. Secs 1 and 12,
descending the N. slope of mountain through
heavy pine and aspen timber, over stony
ground
27.00 begin to ascend out of small ravine bears
N. and S.
30.76 top of ascent about 10 feet. above bottom bears
N. and S. descend more abruptly.
40.07½ Set a volcanic stone 20×6×6 ins. 15 ins. in
the ground for ¼ Sec. Cor, marked ¼ on N. face
from which
a Balsam tree 10 ins. diam. bears N 40° E, 48
lks. dist. marked ¼ S. BT.
a spruce tree 8 ins. diam. bears S 55° E, 39 lks.
dist. marked ¼ S. BT.
56.00 a pond of water in a basin about 1 acre in
area lies 2. chs. S.
63.00 begin to ascend gradually the E. side of rocky
spur, bears N. and S. This point is about 150.
ft. below the ¼ Sec. Cor,
67.50 top of spur about 25. ft. above the bottom slopes N.
descend
80.15 the Cor. of Secs 12-11 and 12, about 150. ft. below

Chains	the top of rocky spur Land mountainous. Soil stony: 3rd and 4th rate. Timber pine and aspen Mountainous and heavily timbered land 80.15 chs.
	N 0° 01' W. on a true line bet. Sec^s 1 and 2, descending through heavy pine and aspen timber
11.50	Braffetts Creek 5 lks wide 1 ft. deep in bottom of cañon about 100. ft. below the Sec. Cor. drains N 40° W, heads S.E. ascend, over ground slopes, S. W,
15.00	top of spur about 20. ft. above the bottom slopes W, descend,
40.00	top of descent, brars N 40° E, and S 40° W, Set a volcanic stone 14×8×8 ins. 9 ins. in the ground for 1/4 Sec. Cor. marked 1/4 on W. face from which A balsam tree 8 ins. diam. brars N 38 1/4° E, 30 lks. dist. marked 1/4 S. B T, A balsam tree 8 ins. diam. brars, N 82 3/4° W, 24 lks. dist marked 1/4 S. B T. descend abruptly over ground slopes N. W,
65.00	bottom of steep mountain about 200 feet below the top brars N 40° E, and S 40° W. thence level,
79.50	road brars S 40° W, and E, a meadow about 10 acres area brars 2. chs W.
89.50	N. end of meadow brars. 2. chs. W,
91.00	head of rocky ravine drains N 40° W, descend
96.15	intersect the N. bdy of the Tp. at the old Standard Cor. of Sec^s 35 and 36, 1 and 2, which I mark C. C. on the S. face, for closing Cor. of Sec^s 1, and 2, As the old bearing trees have been destroyed by fire I mark new trees as follows, A spruce tree 8 ins. diam. brars. S 39 1/2° W, 103 lks, dist. marked T. 36. S. R. 9 W, S 2, C. C. B. T. A spruce tree 20 ins. diam. brars S 54° E, 106 lks dist. marked T. 36. S, R 9. W, S 1. C. C. BT.

Subdivisions – Sp. 36. S. R. 9 West.

chains	
	An aspen tree 10 ins. diam. bears N 27¾° E. 68 lks. dist. Marked T. 35 S. R 9. W. S 36. S C. B T.
	A balsam tree 15 ins. diam. bears N 15¾° W. 151. lks. dist marked T. 35 S. R 9 W. S 35. S C. B T.
	Land mountainous,
	Soil stony and gravelly,
	Timber pine and aspen,
	Mountainous and heavily timbered land 96.15 chs.
	From the cor of Secs 2. & 10 & 11
	East on a random line bet. Secs 2 and 11,
40.00	Set a temp. ¼ Sec. Cor,
79.94	intersect. N. and S. line 20 lks. S of the Cor. of Secs 1 – 2 – 11 and 12,
	Thence I run
	S 89° 51' W, on a true line bet. Secs 2 and 11, descending the W. sloping the mountain through heavy pine timber.
39.97	Set a volcanic stone 18 × 12 × 5 ins. 17 ins in the ground for ¼ Sec. Cor. marked ¼ on N. face, from which
	A spruce tree 17 ins. diam. bears, S 45° E. 32 lks. dist. marked ¼ S. B T,
	A spruce tree 17 ins. diam. bears. N 60° E, 40 lks. dist. marked ¼ S. B T.
69.75	leave timbered land bears N 40° E. and S 40° W. enter "Bear Flat".
71.20	road bears S 40° W. and N 40° E.
75.00	Creek 3 lk. wide 1 ft. deep, in bottom of Canon drains N 40° E. ascend W. side of canon.
79.94	the cor. of Secs 2 – 3 – 10 and 11,
	Land mountainous
	Soil stony. 4th rate.
	Timber Pine and aspen,
	Mountainous land 79.94 chs,

Subdivisions No. 36. South - Range 9 West.

Chains	
	West on a true line bet. Secs. 3 and 10, ascending the W. side of "Bear Flat," over gravelly land.
2.90	enter aspen timber bears N 40° E. and S 40° W.
21.00	top of ridge about 300. ft. above the Sec. Cor. bears N 20° E. and S 20° W. thence over ground slopes S. W.
23.90	small spring drains S. ascend.
35.00	leave aspen timber bears S 70° E. and N 70° W.
36.40	road bears S 60° E. and N 70° W. continue ascending
40.00	Set a volcanic stone 18 x 7 x 6 ins. 12 ins. in the ground for 1/4 Sec. Cor. marked 1/4 on N. face. raised a mound of stone 2 ft. base 1½ ft. high N. of Cor. Pits impracticable.
44.40	top of main ridge about 500 ft. above the Sec. Cor. bears N. and S. descend the W. slope of mountain. enter heavy pine and aspen timber. bears N. and S. The road to Jensens mill is about 3. chs. S. and bears S W. and S E.
75.30	road to Jensens saw-mill bears S 40° E. and N 50° W. in bottom of ravine drains N 20° W. about 200. ft. below the top. ascend gradually over ground slopes N. E.
80.00	Set a volcanic stone 20 x 14 x 10 ins. 15 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, from which A balsam tree 15 ins. diam. bears S 80° E. 20 lks. dist. marked T. 36. S. R 9. W. S 10. B T. a spruce tree 10 ins. diam. bears N 26¾° E 74 lks. dist. marked T. 36. S. R 9. W. S 3. B T. a spruce tree 10 ins. diam. bears N 3¾° W 71 lks. dist. marked T. 36. S R. 9 W. S 4. B T. A balsam tree 8 ins. diam. bears S 57½° W 27 lks. dist. marked T. 36. S. R. 9 W. S 9. B T
	Land mountainous.
	Soil gravelly and loamy 2nd and 3rd rate
	Timber Pine and aspen
	Mountainous and heavily timbered land. 80.00 chs.

chains

S. 0°-02' E. on a true line bet. Sec.s 9 and 10 ascending the North slope of "Navajo Ridge" through heavy pine and aspen timber, over loamy and gravelly soil.

13.00 top of "Navajo Ridge" about 200 feet above the Sec. Cor. slopes N. & E. and W. descend over ground slopes S.W. very steep. through heavy pine and aspen timber.

40.00 Set a Volcanic stone 22×12×6 ins. 16 ins. in the ground for 1/4 Sec. Cor. marked 1/4 on W. face, from which.

An Aspen tree 8 ins. diam. bears S.68° W. 12 lks. dist marked 1/4 S. B.T.

An aspen tree 8 ins. diam. bears S.45° E. 54 lks. dist. marked 1/4 S. B.T.

This cor. is about 400 feet below the top.

The remainder of this line cannot be chained on account of "Breaks of Cedar Canon", which are impassable cliffs of red sandstone and limestone.

Land Mountainous

Soil gravelly and Loamy 2nd and 3rd rate

Timber pine and aspen.

Mountainous and heavily timbered land 40.00 chs.

September 7th 1897.

September 8th 1897 at 8h 15m L.M.T. or at 8:46 P.M. by my watch which is correct mountain standard rail road time, I observe Polaris at Eastern Elongation in accordance with the "Manual of Instructions" at the Cor. of Sec.s 3-4-9 and 10, heretofore described 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.

September 9th at 7 A.M. I lay off the azimuth of Polaris 1° 34' to the W. and mark the true meridian thus determined by a tack driven in a wooden plug set in the ground West of the point

chains	
	established last night. Means magnetic variation is 15°45' E. Thence I run N 0°-02' W. on a true line bet. Secs 3 and 4 descending the N.W. slope of mountain through heavy pine and aspen timber, over gravelly loamy soil.
7.12	Road to Jarvis's saw-mill bears S 40° E. and N 40° W,
20.15	a sink hole 30 ft. diam. 10 ft deep. bears 50 lks. W,
30.60	bottom of canon about 200. feet below the Sec. Cor, drains N 40° W. ascend,
32.40	road bears N 40° W. and S 40° E,
38.50	top of spur ridge about 100 ft. above the bottom slopes W. descend over ground slopes, N.W.
40.00	Set a white sand-stone 14×14×8 ins. 9 ins in the ground for 1/4 Sec. Cor. marked 1/4 on W. face, from which An aspen tree 10 ins. diam. bears N 20° W, 26 lks. dist. marked 1/4 S. B T. An aspen tree 12 ins. diam. bears N 45° E, 29 lks dist. marked 1/4 S. B T,
48.18	top of abrupt descent bears N 30° E, and S 30° W,
53.00	bottom of abrupt descent about 150. feet below the top. continue descending gradually,
81.80	leave aspen and pine timber bears E. and W. thence over grassy land.
94.54	Creek 1 lk. wide 3 ins. deep in bottom of head of "Parowan Main Canon". drains N 30° E, thence nearly level.
96.06	intersect the N. bdy of the Tp. at the old standard Cor. of Secs 33 and 34 which is a limestone 14 × 10 × 6 ins, not firmly set, but properly marked, with 3 notches on the E. and W. edges. There are no bearing trees within limits. I set the original stone 9 ins. in the ground and mark C.C. on the S.W. face for closing cor. of Secs 3 and 4 and raise a mound of stone 2 ft. base 1½ ft. high S. of Cor. Pits impracticable.

Subdivisions – Tp. 36. South – Range 9 West.

Chains	
	Land mountainous Soil gravelly and loamy. 2nd and 3rd rate Timber Pine and aspen, Mountainous land 96.06 chs.
	West on a true line bet. Secs 4 and 9 ascending the E. side of spur of mountain through heavy pine and aspen timber over gravelly loam soil. slopes N. E.
15.00	top of spur about 175. feet above the Sec. Cor, slopes N. the main top is about 5. chs S. descend over ground sloping N. W.
40.00	Set volcanic stone 18×12×12 ins. 12 ins. in the ground for 1/4 Sec. Cor. marked 1/4 on N. face from which An aspen tree 8 ins. diam. bears N5°E. 14 lks. dist. marked 1/4 S. B T. An aspen tree 8 ins. diam. bears S50°E, 23 lks. dist. marked 1/4 S. B T.
50.00	road to Jenkins Saw-mill bears S10°W. and N40°E. continue descending into canon.
55.00	bottom of canon about 406. feet below the top drains N40°W. into "summit canon," ascend
59.00	top of spur about 30. ft. above the bottom slopes N. 30°W. descend, abruptly.
64.00	Creek 2 lks wide 6 ins. deep. in bottom of canon about 100. feet below the top drains N. ascend.
71.00	top of spur ridge about 200 feet above creek bears N. and S. descend,
80.00	Set a volcanic stone 20×10×5 ins. 15 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, from which An aspen tree 8 ins. diam. bears N18°W. 32 lks. dist. marked T. 36. S. R 9 W, S 5. B T. An aspen tree 8 ins. diam, bears S67°W, 42 lks. dist. marked T. 36. S. R. 9. W. S 8. B. T. an aspen tree 8 ins. diam. bears N84°E, 50 lks.

Subdivisions. Tp. 36. South — R. 9 W.

chains.	dist. marked T. 36. S. R9. W. S 4 - B T.
	An aspen tree 6 ins. diam. bears S40°E. 21 lks. dist. marked T. 36. S - R9. W. S 9. B.T.
	Land mountainous.
	Soil gravelly loam 3rd rate.
	Timber. pine and aspen
	Mountainous and heavily timbered land 80.00 chs.
	S 0°-03' E. on a true line bet. Secs. 8 and 9 ascending steep mountain through heavy aspen timber
16.00	road to Jensen's saw-mill bears N80°W. and S40°E. along top of ridge about 200. ft. above the Sec. Cor. Jensen's old saw-mill setting and buildings bears E. about 10. chs. dist. in head of small canon. thence along top of ridge.
20.00	leave aspen timber bears S40° W. and N40°E.
25.00	old road bears S 30° W. and N 30°E. ascend gradually.
25.50	enter heavy aspen timber bears S 30°W. and N30°E
36.50	top of spur about 50. ft. above bottom slopes W. descend into deep canon through heavy pine and aspen timber
40.00	Set a limestone 20x10x6 ins. 15 ins. in the ground for 1/4 Sec. Cor. marked 1/4 on W. face. from which An aspen tree 6 ins. diam. bears S 53°W. 54 lks. dist. marked 1/4 S. B T.
	An aspen tree 6 ins. diam. bears S81 3/4°E. 54 lks. dist. marked 1/4 S. B T.
44.50	bottom of canon about 100. ft. below the top drains W. heads 20. chs E. a spring Branch 3 lk. wide 3 ins. deep. in bottom of Canon Ascend S. side of canon over red gravel and cliffs. and through heavy pine timber.
49.70	small Spring Branch 1 lk. wide 3 ins. deep. drains N. W. into canon.
57.50	top of spur about 250. ft. above the bottom of Canon slopes N. thence over rough and rolling hills. gradually ascending
75.60	top of N. side of "Breaks of Cedar Canon" about 800. ft. high perpendicular, bears E. and W. It is impossible

chains	to chain farther on this line.
	Set gray volcanic stone 20×10×5 ins. 15 ins. in the ground for Witness Cor. to Cor. of Secs. 8-9-16 and 17 marked with 4 notches on the E. and S. edges, and W. C. on S.W. face from which
	A pine tree 10 ins. diam. bears N60°E. 47 lks. dist. marked T.36.S. R9W. S9 B.T. W.C.
	A pine tree 8 ins. diam bears N28°W. 32. lks dist. marked T.36 S. R9W. S8 B.T. W.C.
	No other bearing trees in limits. Raised a mound of stone 2 ft. base 1½ ft. high W. of Cor.
	Pits impracticable
80.00	Cor falls in Breaks of cedar canon and is not set.
	Land mountainous
	Soil gravelly and stony 3rd and 4th rate.
	Timber pine and aspen.
	Mountainous and heavily timbered land 80.00 chs.
	N0°03' W. on a true line bet. Secs. 4 and 5. descending through heavy aspen timber, over gravelly loamy soil.
10.60	50 lks. W. of this point the fence enclosing Wm Holycoak's ranch of about 100 acres area runs N. and SW.
18.00	Wm Holycoak's ranch house bears W. about 3. chs. dist.
25.00	road runs E. and SW. from ranch, 1.00 ch. W. the fence turns N.W.
29.00	descend over a steep rocky spur, bears E.
33.00	bottom of canon about 200. ft. below the Sec. Cor. drains N 40°W. Creek 3 ft. wide 6 ins. deep, in bottom of canon. ascend gradually
40.00	Set a volcanic stone 22×14×4 ins. 15 ins in the ground for ¼ Sec. Cor. marked ¼ on W. face. from which
	An aspen tree 10 ins. diam. bears S18¾°W. 80 lks. dist. marked ¼ S. B.T.
	An aspen tree 8 ins. diam. bears S19° E. 91 lks. dist. marked ¼ S. B.T. Raised a mound of stone 2 ft. base 1½ ft. high W. of Cor. the cor. is 1 ch. W. of road bears N. and S.

chains
41.30 road bears N 40° E. and S 40° W.
70.00 Creek 3 lks. wide 1 ft. deep drains W. ascend gradually.
73.00 top of spur about 50 ft. above the creek slopes W. descend.
81.30 fence bears E. and W. enter ranch claimed by — Brown, Ranch house bears E. about 20. chs. dist.
83.00 Creek 3 lks. wide 1 ft. deep. drains W. ascend gradually.
88.00 top of ridge about 15 ft. above the creek bears E. and W. descend
88.75 Creek 2 lk wide 6 ins. deep. drains S 40° W. ascend
93.00 fence bears N 40° E. and S 40° W.
95.50 top of spur about 100 feet above the creek slopes W. descend into ravine.
98.38 intersect the N. bdy of the Tp. 195 lks. N 84 W of the old Standard Cor. of Secs. 32 and 33 which is a volcanic stone 8×7×5 ins. above ground, marked and witnessed as described by the surveyor general.
At point of intersection
Set a volcanic stone 20×7×6 ins. 15 ins. in the ground for closing cor. of Secs. 4 and 5, marked C.C. on the S. with 2 grooves on the W. and 4 grooves on the E. face, from which
An aspen tree 10 ins. diam. bears S 27° E. 80 lks. dist. marked T. 36. S. R 9. W. S 4 B.T.
no other trees within limits. Raised a mound of stone 2 ft. base 1½ ft. high S. of Cor.
Pits impracticable.
Land mountainous.
Soil stony and gravelly loam, 2nd and 3rd rate.
Timber pine and aspen.
Mountainous and heavily timbered bed 98.38 chs.

West on a true line bet. Secs. 5 and 8, along side of mountain sloping N. over gravelly loamy soil, through heavy pine

Chains and aspen timber.

3.00 the fence on the S. side of Holyoke's ranch runs E. and W. at a point 2. chs. N. a high ridge 20. chs. S. runs E. and W.

19.70 3. chs. N. of here fence runs N.W. and E.

29.50 top of spur ridge about 150 feet above the Sec. cor. slopes N. G. A. Lewis ranch house bears N about 7.50 chs. at bottom of ridge. descend abruptly. leave timber

31.30 Jansons saw-mill road bears N40°W. and S40°E.

40.00 Set a volcanic stone 24×10×5 ins. 18 ins. in the ground for 1/4 Sec. Cor. marked 1/4 on N. face raised a mound of stone 2 ft. base 1½ ft high N. of Cor. Pits impracticable.
Cor. on S.W. slope of ridge. a small spring bears N40°W. about 2. chs. dist.

51.70 road to Jansons saw-mill bears N. and S. thence nearly level. enter scattering aspen timber bears N. and S. this point is about 150 ft. below top of ridge.

63.50 begin to descend into gulch. bears N40°W. and S40°E.

72.50 bottom of gulch. about 250 feet below the beginning of descent. drains N40°W. creek 3 ft. wide 8 ins. deep drains N40°W. into Summit Canon. ascend through heavy pine timber.

74.00 top of W. side of gulch about 100. ft. above the bottom slopes N40°W. thence over ground slopes N.

80.00 Set a volcanic stone 14×6×6 ins. 9 ins. in the ground for Cor. of Secs 5–6–7 and 8. marked with 5 notches on the S. and E. edges, from which
An aspen tree 4 ins. diam. bears N37°E. 14 lks. dist. marked T. 36. S. R. 9 W. S5. B.T.
An aspen tree 5 ins. diam. bears S60°W. 7 lks. dist. marked T. 36 S. R9W. S7. B.T.
An aspen tree 5 ins. diam. bears S7°E. 17 lks. dist. marked T. 36 S. R9W. S8 B.T.
An aspen tree 5 ins. diam. bears N46°W. 9 lks.

Subdivisions. Sp. 36. S. Range 9 West.

Chains	
	dist. marked T. 36. S. R 9 W. S 6. B T. Raised a mound of stone 2 ft. base 1½ ft. high N. of Cor. Pits impracticable. Land mountainous Soil gravelly and loamy 2nd and 3rd rate. Timber pine and aspen. Mountainous and heavily timbered land 80.00 chs.
	N 0°-03' W. on a true line bet. Secs. 5 and 6, descending the North slope of "Sugar Loaf" Butte, through heavy pine and aspen timber
13.00	Creek - 3 lks. wide 8 ins deep, in bottom of canon about 250. feet below the Sec. Cor. drains N 40° W. ascend
17.00	top of spur about 100 ft. above the creek slopes N 40° W. descend
30.00	bottom of ravine drains W. ascend over mountain slopes W.
38.78	road bears N 40° W. and S 40° E. along top of ridge about 50. ft. above bottom of ravine slopes N. W. a few scattering pine trees on this ridge.
40.00	Set a sand stone 18 x 10 x 8 ins. 17 ins. in the ground for ¼ Sec. Cor. marked ¼ on W. face from which a Balsam tree 17 ins. diam. bears. S 16° W, 45 lks. dist. marked ¼ S. B T. a Balsam tree 17 ins. diam. bears S 34° E, 61 lks. dist. marked ¼ S. B T.
	descend into deep canon,
69.00	bottom of canon about 200 feet below the ¼ Sec. Cor. drains N 40° W. continue descending along E. side of canon. leave aspen timber
73.00	Hewlett and Smith's ranch house bears E. 3.00 chs. dist.
76.30	Spring Branch 1 lk. wide 3 ins. deep. drains W. into Summit Canon; heads E. about 30. chs. Ascend steep N. side of Canon.
78.00	Road to ranch bears E. and W.
91.00	top of spur ridge about 50. ft. above bottom

chains	
	slopes rapidly W. thence along the E. side of summit Canon over ground slopes rapidly W.
98.54	intersect the N. bdy of the Sp. 3.15 chs W. of the old Standard Cor. of Secs 31 and 32, which is a sandstone firmly set, marked and witnessed as described by the surveyor general. At the point of intersection Set a white sandstone 20×7×7 ins 15 ins. in the ground for closing cor. of Secs 5 and 6, marked C.C. on the S. with 5 grooves on the E. and 1 groove on the W. faces Raised a mound of stone 2 ft. base 1½ ft. high S. of Cor. Pits impracticable. Land mountainous. Soil gravelly and loamy 2nd and 3rd rate. Timber pine and aspen. Mountainous land 98.54 chs.
	West on a true line bet. Secs 6 and 7, ascending the N. end of "Sugar Loaf Butte" through heavy pine and aspen timber
16.50	Jensons saw-mill road bears N40°W. and S40°E.
26.80	top of spur about 150. feet above the Sec. Cor, bears N25°W. being a spur leading out from Sugar Loaf Butte situate about 20. chs S20°E, descend,
33.50	road to Jensen's saw-mill bears. N10°E. and S5°W.
40.00	Set a red volcanic stone 20×8×4 ins. 15 ins. in the ground for ¼ Sec. Cor. marked ¼ on N. face, from which a pine tree 20 ins. diam. bears S62°W, 83 lks, dist. marked ¼ S. BT. a pine tree 10 ins. diam. bears N37½°W 73 lks dist. marked ¼ S. BT.
57.50	bottom of canon about 250. ft. below the top

Chains	
	drains N. into "Summit canon" heads 20. chs. S. ascend W. side
62.50	top of steep ascent about 100 feet above the bottom slopes N. descend gradually over ground slopes N.
68.18	intersect the W. bdy of the Tp. 1.67 chs S 124W of the old cor. of Secs 1, 6, 7 and 12, which is a sandstone firmly set, marked and witnessed as described by the surveyor general. at point of intersection Set a volcanic stone 20×10×6 ins. 15 ins. in the ground for closing cor. of Secs. 6 and 7 marked C. C. on the E. with 5 grooves on the S. and 1 groove on the N. faces, from which An aspen tree 4 ins. diam. bears N51¼°E, 44 lks, dist. marked T. 36. S. R. 9 W. S 6, B T. C. C. An aspen tree 5 ins. diam. bears S63½°E, 73 lks. dist. marked T. 36. S – R 9 W. S 7. B T. C. C, I raise a mound of stone 2 ft. base 1½ ft. high W. of the old cor. to indicate the cor. of Secs 1 and 12 only. Land mountainous Soil gravelly and loamy 2nd and 3rd rate. Timber pine and aspen, Mountainous and heavily timbered land 68.18 chs,
	S 0°03' E. on a true line bet. Secs 7 and 8 ascending steep mountain through heavy pine and aspen timber. over the E. slope of Sugar Loaf Butte.
4.86	road to Jensens saw-mill bears N 70° W. and S 70° E,
7.34	point about 125. feet above Sec. cor, thence over ground slopes E.
25.00	leave timber bears E. and W,
30.15	Enter heavy pine and aspen timber bears E. and W. Jensens pasture is about 7.50 chs. E. of this point, and consists of an enclosure of about 40 acres in area,
40.00	Set a volcanic stone 20×10×5 ins. 15 ins. in the

Subdivisions – Sec 36. South – Range 9 West.

Chains	
	ground for 1/4 Sec. Cor. marked 1/4 on N. face from which
	An aspen tree 6 ins. diam. bears S77°E 25 lks. dist. marked 1/4 S. B T.
	An aspen tree 17 ins. diam. bears S55°W, 121 lks. dist. marked 1/4 S. B T.
	Sugar loaf Butte bears N63°W about 20. chs dist.
54.50	begin to ascend steep mountain bears E. and W.
58.30	top of spur ridge about 150. ft. above the bottom bears E. and W. thence over ground slopes gradually E,
80.00	Set a volcanic stone 20x12x6 ins. 15 ins. in the ground for Cor. of Secs 7-8-17 and 18 marked with 4 notches on the S. and 5 notches on the E. edges, from which.
	An aspen tree 10 ins. diam. bears N43°W, 25 lks. dist. marked T.36.S.R9W, S 7. B T,
	An aspen tree 8 ins. diam. bears S35½°W, 57 lks. dist. marked T.36.S R.9W. S 18 B T,
	An aspen tree 12 ins. diam. bears S46°E, 45 lks. dist. marked T.36.S, R9W, S17. B T,
	An aspen tree 10 ins. diam. bears N42°E, 75 lks. dist. marked T.36. S R9W. S 8 B T,
	Land mountainous
	Soil loamy and gravelly 2nd and 3rd rate.
	Timber pine and aspen,
	Mountainous and heavily timbered land 80.00 chs.
	East on a true line bet. Secs 8 and 17, descending gradually through heavy pine and aspen timber
6.80	top of steep descent bears N40°E. and S.
10.60	bottom of descent about 250. ft. below the top drains S. thence along head of canon slopes S into Breaks of Cedar Canon, over rough stony ground,
40.00	Set a volcanic stone 24x18x6 ins. 18 ins in the ground for 1/4 Sec. Cor. marked 1/4 on N. face, from which
	An aspen tree 8 ins. diam. bears N50°W, 113 lks

Subdivisions – Tp. 36. South. Range 9 West.

chains	dist. marked 1/4 S. B T.
	An aspen tree 10 ins. diam. bears S60° W. 144 lks. dist. marked 1/4 S. B T.
	It is impossible to to chain this line farther as it runs over the end of impassable cliffs therefore I discontinue the line at this cor.
	Land mountainous.
	Soil stony and gravelly 4th rate.
	Timber pine and aspen
	Mountainous and heavily timbered land 40.00 chs.
	West on a random line bet. Secs 7 and 18
40.00	Set a temp. 1/4 Sec. Cor,
70.19	intersect the W. bdy. of the Tp. at the old Cor of Secs 7-12-13 and 18 which is a volcanic stone firmly set, marked and witnessed as described by the surveyor general.
	Thence I run
	East on a true line bet. Secs 7 and 18 ascending out of deep canon through heavy pine and aspen timber.
2.70	top of spur about 75 feet above the Sec. Cor, slopes N 40° W. descend into canon,
6.69	bottom of canon about 150. feet below the top of spur drains N 74° W. into main Canon. ascend abruptly.
9.70	top of steep ascent. about 150 ft. above the bottom, continue ascending steep mountain
30.19	Set a volcanic stone 20×20×5 ins. 15 ins. in the ground for 1/4 Sec. Cor, marked 1/4 on N. face from which
	An aspen tree 6 ins. diam. bears N 25½° E. 14 lks, dist. marked 1/4 S. B T.
	An aspen tree 6 ins. diam. bears S 45° E. 15 lks, dist. marked 1/4 S. B T,
	The 1/4 Sec. Cor. is about 300. ft, above the bottom of canon. Continue ascending.
54.30	top of spur of mountain about 400. feet above the 1/4 Sec. Cor. slopes N. descend,
56.70	bottom of ravine about 15 feet. below the top drains

Chains.	
	N 50° W, ascend,
58.07	top of ridge about 15 feet above the bottom bears N. and S. descend.
70.19	the Cor. of Secs 7-8-17 and 18 about 200. feet below the top.
	Land mountainous.
	Soil stony. 3rd and 4th rate.
	Timber pine and aspen,
	Mountainous and heavily timbered land 70.19 chs.
	S 0°-03' E, on a true line bet. Secs 17 and 18 through heavy aspen and pine timber over ground slopes gradually E.
8.30	top of steep descent, bears S 40° W. and N 40° E. descend into basin
11.00	bottom of steep descent about 150. ft. below the top slopes E. thence over rough broken ground slopes rapidly E. into Breaks of Cedar Canon.
21.00	begin to ascend out of basin over ground slopes N. E.
25.75	Spring Branch. 1 in. deep 1 ft. wide drains E. into pond about 1/4 acre in area about 7.50 chs E. leave timber bears E. and W.
38.34	top of rocky rim of basin about 75 ft. above the bottom slopes rapidly E. descend.
40.00	Set Volcanic stone 18x12x3 ins. 12 ins. in the ground for 1/4 Sec. Cor, marked 1/4 on N. face, raised a mound of stone 2 ft. base 1 1/2 ft. high W. of Cor. Pits impracticable.
	a high ridge runs N. and S. at a point about 25. chs W. of the Cor, a branch of Cedar Canon about 40. chs E. about 800 ft. deep, drains S W,
42.50	bottom of steep descent, about 75 ft. below the Cor. bears E. and W, a pond of about 1/4 acre area about 5.00 chs, N. of this point.
49.00	begin steep descent bears E. and W.
63.00	bottom of steep descent about 200 ft. below the top drains S 40° E. a pond of about 1/4 acre area is located S 60° W, about 6. chs. dist. a pond of about 1/4 acre area lies about 7. chs E.

Subdivisions - Tp. 36. S - Range 9 West.

Chains	
76.60	top of spur slopes rapidly E. begin steep descent, over mountain slopes S.E, rocky.
80.00	Set a volcanic stone 20x10x5 in. 15. ins. in the ground for Cor. of Secs 17, 18, 19 and 20. marked with 3 notches on the S. and 5 notches on the E. edges. and raised a mound of stone 2 ft. base 1½ ft. high W. of Cor. Pits impracticable, Cor on steep mountain slopes S.E. from which a flag at the S.W. Cor. of the Tp. bears S16° W, The monument on Brian Head bears N72°36' E, a flag at the witness cor. for Cor. of Secs 35 and 36. on the S. bdy of the Tp. bears S54°30' E, each flag and monument being in plain view Land mountainous. Soil stony. 4th rate. Timber aspen and pine scattering. Mountainous land 80.00 chs. September 9th 1897.

It is impossible to survey the remaining subdivisional lines of this township, by the ordinary methods of surveying on account of its rugged features consisting of deep and impassable chasms and high cliffs; it being also nonagricultural in character.

X

As the closings in this Township indicate errors beyond the allowable limit prescribed by the Manual, in order to locate the same I make the following retracements; I begin at the S.W. cor. of Tp 36. South Range 9. West. heretofore described, and with the meridian heretofore determined,

Thence I run

North along the West bdy of the Tp. bet. Secs 31. and 36,

74.00	I find old witness cor. to Cor. of Secs 25-30-31 and 36 on line, which is a sandstone firmly set marked and witnessed as described by the surveyor general.
80.00	no cor. set,

I continue my line

North bet. Secs 25 and 30

9.07	I find the old witness cor. for cor. of Secs 25-30-31 and 36. on line on N. side of Chasm,

Subdivisions – Tp. 36. South – Range 9. West.

chains

40.00 No 1/4 Sec. Cor. could be found after dilligent search

80.00 No Cor. could be found after dilligent search.
I continue my lines.
North bet. Secs 19 and 24

40.00 No cor. could be found after dilligent search

80.00 No cor. could be found after dilligent search.
I continue my lines.
North, bet. Secs 13 and 18.

40.00 No cor. could be found after dilligent search,

80.00 I find the old Cor. of Secs 7-12-13 and 18, 2.00 chs. West, which is a volcanic stone firmly set marked and witnessed as described by the surveyor general. The course of the lines from the witnessed cor. to cor. of Secs 25-30-31 and 36, to this cor. is, therefore, N0°30' W.
I continue my lines
North, bet. Secs 7 and 12.

40.00 no trace of the old 1/4 Sec. Cor. could be found after dilligent search

81.67 I find the old cor. of Secs 1-6-7 and 12. on line, which is is a stone firmly set, marked and witnessed as described by the surveyor general. The course of this line is therefore N1°24' E.
I continue my line
North bet. Secs 1 and 6.

41.46 I find the old 1/4 Sec. Cor. 75 lks. W. which is a volcanic stone 12×8×6 ins. properly marked but not firmly set. The course of this line is therefore N1°02' W.

80.00 intersect the 7th Standard Parallel South, at the Closing Cor. of Tps 36. S. Ranges 9 and 10 W. which is a stone firmly set marked and witnessed as described by the surveyor general The course of this line is therefore N1°07' E.

September 10th 1897.

I re-trace the North boundary of the Tp. as follows; I begin at the closing cor. of Tp. 36. S. bet. Rs. 9 and 10. West, heretofore described September 11th 1897 at 8h 01m l.m.t. or at 8h 33m P.M. by my watch, which is correct mountain standard rail road time, I observe Polaris at Eastern Elongation in accordance with the Manual of Instructions, at the said Cor. 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. September 12th at 7. a.m. I lay off the

Subdivisions – Tp. 36. South. Range 9 West.

	Chains	
		Azimuth of Polaris 1°34' 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
		East re-tracing the N. bdy of the Tp. bet. Sec^s 31 and 36,
	31.06	I find the old 1/4 Sec. Cor. 16.87 chs. N. which is a sandstone 14x10x5 ins. properly marked. The course of this line is therefore, N 61°29' E, and distance 35.35 chs.
C	71.33	I find the old Standard Cor. of Sec^s 31 and 32, 16.87 chs. N. which is a stone firmly set as heretofore described. The course of this line is therefore East.
75 1/2		From the Standard Cor. of Sec^s 31 and 32.
		Thence I run.
		East re-tracing the N. bdy of the Township bet. Sec^s 5 and 32.
	39.57	I find the old 1/4 Sec. Cor. on line, which is a volcanic stone 18x12x4 ins. properly marked. The course of this line is therefore East
	78.80	I find the old Standard Cor. of Sec^s 32 and 33, 16 lks. S. which is a stone firmly set, heretofore described. The course of this line is therefore S 89°46' E, from the 1/4 Sec. Cor. I continue my line
		East, re-tracing the line bet. Sec^s 4 and 33.
	39.90	I find the old 1/4 Sec. Cor. 27 lks. N. which is a volcanic stone 20x14x5 ins. properly marked. The course of this line is therefore N 89°23' E.
	78.05	I find the old Standard Cor. of Sec^s 33 and 34, 248 lks. S. which is a stone firmly set, and heretofore described. The course of this line is therefore S 85°52' E, and length 38.25 chs.
		I continue my line.
		East, re-tracing the line bet. Sec^s 3 and 34.
	44.57	I find the old 1/4 Sec. Cor. 260 lks. S. which is a stone firmly set and properly marked. The course of this line is therefore S 89°51' E.
C	81.89	I find the old Standard Cor. of Sec^s 34 and 35, 2.60 chs. S. which is a stone firmly set and heretofore described. The course of this line is, therefore, East.
		I continue my line.
		East, re-tracing the line bet. Sec^s 2 and 35.
	40.00	No trace of the old 1/4 Sec. Cor. could be found after diligent search.
C	78.11	I find the old Standard Cor. of Sec^s 35 and 36, 240 lks. S. which is a stone firmly set, heretofore described. The course of this line is, therefore, N 89°51' E.
		I continue my line.
		East, re-tracing the line bet. Sec^s 1 and 36.
	40.00	No trace of the 1/4 Sec. Cor. could be found after diligent search.
	80.00	I find the Std. Clos. Cor. of Tp^s 35 and 36 S. – R. 9 W. 240 lks. S. which is a lime stone firmly set, marked and witnessed as described by the surveyor general. The course of this line is, therefore, East.

Subdivisions - Tp. 36. South. Range 9 West.

Exterior Boundaries, Tp. 36. S. R. 9. W.
Latitudes - Departures and closing errors.

Line designated	True bearing	Distance chs	Latitude N chs.	Latitude S chs.	Departure E chs	Departure W chs
S. bdy. Sec. 7.	East	70.19			70.19	
E. bdy. Sec. 7.	N0°03'W	80.00	80.00			.07
S. Bdy. Sec. 5	East	80.00			80.00	
S. Bdy. Sec. 4	East	80.00			80.00	
S. Bdy. Sec. 3	East	80.00			80.00	
W. Bdy. Secs. 11 and 14	S0°1'E.	160.00		160.00	.04	
S. Bdy. Sec. 13 and 14	East	160.00			160.00	
E. Bdy. of Tp. (N. 2 miles)	North.	256.15	256.15			
North Boundary	West	80.00				80.00
do.	S89°51'W	78.11		0.20		78.11
do	West	37.32				37.32
do	N89°51'W	44.57	.12			44.57
do	N85°52'W	38.15	2.75			38.15
do	S89°25'W.	39.90		.43		39.90
do	[illegible]	39.73	0.16			39.73
do	West	39.57				39.57
do	West	40.27				40.27
do	S61°29'W	35.35		16.87		31.06
West boundary	S1°07'W	38.54		38.54		.75
do	S1°02'E.	41.46		41.46	0.75	
do	S1°24'W	81.67		81.67		2.00
Convergency						.56
Totals			339.18	339.17	470.98	471.56
			339.17			470.98
		Error in Latitude	.01		Error in Departure	.58

September 12th 1897.

General Description.

This township is very rough and mountainous, and mostly covered with heavy pine and aspen timber. There is an abundance of good grazing in the Eastern and northern parts. The unsurveyed part consists of rough impassable chasms and cliffs, which are in many places from 1000. to 2000. feet in height, called the "Breaks of Cedar Canon" The general elevation of the part surveyed is about 9000. ft. The township adjoining on the South is also of the

same rough character. There are a number of summer ranches located within the township as follows: Wm Holyoak located in Sec. 5, with improvements valued at about $500. consisting of a cabin, fences, and out-houses. Geo. A. Lowe, located in Sec. 5, with improvements valued at $100. consisting of a ranch house. Mrs. Brown located on Sec. 4, with improvements valued at $150. consisting of a ranch house and fences, Hewlett and Smith located on Sec. 5, with improvements valued at $250. consisting of ranch houses. Jenson & Brothers old saw-mill setting located on Sec. 9, with improvements valued at $200. consisting of houses. Also their pasture located on Sec. 8 valued at $200. consisting of fences, enclosing a 40 acre tract, and also the timber road constructed by Jenson Brothers through the township, valued at about $2000. C. Adams located on Sec. 13, with improvements valued at $150. consisting of a log cabin and corall. Joseph Warren located on Sec. 24 with improvements valued at $100. consisting of a log cabin. A cabin on Sec. 36, owners name unknown, valued at $10. The small creek in the South East part of the Township drains into a cañon known as the head of "Long Valley" I observed the true bearing from the U.S. Coast Survey Monument on Brian Head to a flag at the S.W. cor. of Tp. 36 S. R. 9 W. to be S49°-14'W. There is no indications of mineral in the township

Washington Jenkins

October 23-1897. Joseph A. West

U. S. Deputy Surveyors.

There being no Notary Public or other officer authorized to administer oaths available without great delay and expense, I administer the final oaths of Assistants

Washington Jenkins,

U.S. Deputy Surveyor.

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FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by Washington Jenkins and Joseph A. West, United States Deputy Surveyors to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of the Subdivisional lines of Tp. 36-S. R. 9-W — the subdivisional lines of Tps 41 and 42. S. R. 13 West — the subdivisional and meander lines Tp. 43 S - R. 15 West - the subdivisional and meander lines Tp. 43 S. R. 16 West of the Salt Lake Base and meridian. showing the respective capacities in which they acted:

C. A. Lindquist, Chainman.
David A. Jenkins, Chainman.
David A. Jenkins, Moundman.
, Moundman.
John A. Child, Axman.
, Axman.
David Jenkins, Flagman.

FINAL OATH OF ASSISTANTS.

I ~~We~~ hereby certify that I ~~we~~ assisted Washington Jenkins and Joseph A. West, United States Deputy Surveyors in surveying all those parts or portions of the Subdivisional lines of Tp. 36 S. - Ranges 9. West, the Subdivisional lines of Tps. 41 and 42 S. Range 13 West. The subdivisional and meander lines of Tp. 43 S. Rs 15 and 16. West of the Salt Lake Base and meridian, State of Utah, which are represented in the foregoing field notes as having been surveyed by ~~him~~ them and under ~~his~~ their 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 United States Surveyor General for Utah.

David A Jenkins, Chainman.
, Chainman.
, Moundman.
David A Jenkins, Moundman.
, Axman.
, Axman.
, Flagman.

Subscribed and sworn to before me this 1st day of November, 1897

SEAL

Washington Jenkins
U.S. Deputy Surveyor

6—151

FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, ..., United States Deputy Surveyor, do solemnly swear that, in pursuance of a contract received from ..... United States Surveyor General for ....., bearing date of the ..... day of ....., 189 , 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 ....., the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of .....

.....

.....

.....

..... of the .....

..... meridian, in the ..... of ....., which are represented in the foregoing field notes as having been surveyed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the United States Surveyor General for ..... and in the specific manner described in the field notes, and that the foregoing are the original 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.

.....

United States Deputy Surveyor.

Subscribed by said ....., and sworn to before me this ..... day of ....., 189

SEAL

.....

.....

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

....., 189

The foregoing field notes of the survey of .....

.....

.....

.....

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.....

.....

executed by .....

under his contract No. ....., dated ....., 189 , having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

.....

United States 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.

.....

United States Surveyor General.

Final Oaths of Deputy Surveyor and his Assistants.

LIST OF NAMES.

A list of the names of the individuals employed by Washington Jenkins and Joseph A. West, United States Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of the subdivisional lines of Tp. 36 - S. R. 9 West. - The subdivisional lines of Tp. 41 and 42 S. R. 13 West, - The subdivisional and meander lines Tp. 43 S - R. 15 W - The Subdivisional and meander lines Tp. 43 S - R. 16 West of the Salt Lake Base and Meridian. showing the respective capacities in which they acted:

C. A. Lundquist, Chainman.
David A. Jenkins, Chainman.
David A. Jenkins, Moundman.
, Moundman.
John A. Child, Axman.
, Axman.
David Jenkins, Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted Washington Jenkins & Joseph A. West, United States Deputy Surveyor, in surveying all those parts or portions of the subdivisional lines of Tp. 36 South - Range 9 West The subdivisional lines Tp. 41 and 42 S. Range 13 West. The subdivisional and meander lines Tp. 43 S - R. 15 West - The subdivisional and Meander lines Tp. 43 S - R. 16 West of the Salt Lake base and meridian, State of Utah, which are represented in the foregoing field notes as having been surveyed by ~~his~~ him and under ~~his~~ 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.

, Chainman.
, Chainman.
C. A. Lundquist, ~~Moundman.~~ chainman
, Moundman.
John A. Child, Axman.
, Axman.
David Jenkins, Flagman.

Subscribed and sworn to before me this 1st day of November, 1897

SEAL

Washington Jenkins
U. S. Deputy Surveyor.

6—161

Final Oath of United States Deputy Surveyor.

I, _____, United States Deputy Surveyor, do solemnly swear that, in pursuance of a contract received from _____, United States Surveyor General for _____, bearing date of the _____ day of _____, 189 , 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 _____, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of _____

_____ of the _____ base and _____ meridian, in the _____ of _____, which are represented in the foregoing field notes as having been surveyed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the United States Surveyor General for _____ and in the specific manner described in the field notes, and that the foregoing are the original 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.

_____

United States Deputy Surveyor.

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

SEAL

_____

_____

APPROVAL.

Office of the United States Surveyor General,

Salt Lake City, Utah, April 2d, 1890

The foregoing field notes of the survey of the Subdivisions of Township 3 South Range 9 West of the Salt Lake Base & Meridian Utah

executed by Washington Jenkins & Joseph A. West under his contract No. 212, dated October 15, 1896, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

Jacob Bates

United States 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.

_____

United States Surveyor General.

6—151

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145

BOOK A-252

FIELD NOTES

OF THE SURVEY OF THE

South Boundary of Tp. 36 South
Range 8 West

Of the Salt Lake Base and Meridian,
State of Utah

AS SURVEYED BY

Washington Jenkins and Joseph A. West, United States Deputy Surveyors

Under ~~his~~ Their Contract No. 212, dated October 15, 1896

Survey commenced July 10, 1898

Survey completed July 11, 1898

6—151

7-12-07
8-15

BOOK A-252

NAMES AND DUTIES OF ASSISTANTS.

Orson C. Orton	chainman
Frank Herrick	chainman
Frank Herrick	moundman
David Jenkins	Flagman

6—151

BOOK A-252

INDEX DIAGRAM.

Township 36 South, *Range* 8 West.

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31 6-7	32 5-6	33 4-5	34 3-4	35 2-3	36 1-2

Meanders Page

6—151

PRELIMINARY OATHS OF ASSISTANTS.

WE, Orson O. Orton and Frank Herrick do solemnly swear that we will well and faithfully execute the duties of chainmen; 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 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 the S. bdy. of Township 36. South – Range 8 West of the Salt Lake Base & Meridian

Orson O. Orton, Chainman.

Frank Herrick, Chainman.

Subscribed and sworn to before me this 29th day of June, 1898

SEAL

Washington Jenkins
U. S. Deputy Surveyor

~~WE~~, I, Frank Herrick and

do solemnly swear that ~~we~~ I will well and truly perform the duties of moundmen in the establishment of corners, according to the instructions given ~~us~~ me, to the best of ~~our~~ my skill and ability, in the survey of The South boundary of Tp. 36. S. – Range 8 West, of the Salt Lake Base & Meridian

Frank Herrick, Moundman.

, Moundman.

Subscribed and sworn to before me this 29th day of June, 1898

SEAL

Washington Jenkins
U. S. Deputy Surveyor

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, David Jenkins, 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 the South bdy. of Tp. 36. S – R. 8 West, of the Salt Lake Base & Meridian

David Jenkins, Flagman.

Subscribed and sworn to before me this 29th day of June, 1898

SEAL

Washington Jenkins
U. S. Deputy Surveyor

6—151

South Boundary of Tp. 36. South Range 8 West.

This survey commenced July 10th 1898 and executed with a J. T. Hobby engineers transit no number, without solar attachments. The horizontal limb 7 ins. 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 March 17-1897. I make all necessary adjustments of the instrument before commencing work.

I begin at the Cor. of Townships 36 and 37 Rs 7 and 8 West, which is a sandstone firmly set, marked and witnessed as described by the surveyor general, July 10th 1898 at 12h 09m l.m.t. or at 12-39 A.M. July 11 by my watch which is correct mountain standard rail road time I observe Polaris at Eastern Elongation 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.

July 11th at 8: A.M. I lay off the Azimuth of Polaris 1° 34' 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 mean magnetic declination is 15° 45' E.
Knowing I will fall out of limits, I run

West along the S. bdy. of Sec. 36, on a true line ascending the East slope of mountain through heavy pine and aspen timber over gravelly land,

6.50 spur 20 ft. above the cor. slopes N. descend.

8.40 E. side of pond extends N 3. chs. and S 1. ch. and 2 chs. wide.

13.60 top of small ridge about 40 ft. above the pond slopes, N. continue ascending.

20.90 Spring 2 ft. in diam. bears 1. ch. S. and drains N.

South Boundary — Tp. 36. South — R. 8 West.

chains

43.60 Set a volcanic stone 18×12×5 ins. in mound of stone for 1/4 Sec. Cor Marked 1/4 on N. face, from which

An aspen tree 18 ins. diam. bears N80°W. 82 lks. dist. marked 1/4 S. B T.

An aspen tree 4 in. diam. bears S60°W. 14 lks. dist. marked 1/4 S. B T. boulders prevented setting stone deeper

This 1/4 Sec. Cor. was established at this point on account of the Existing of the East boundary of the township which is 3.60 chs.

83.60 Set a volcanic stone 18×6×6 ins. 12 ins in the ground for Cor. of Secs 35, and 36, marked with 5 notches on the W. and 1 notch on the E. edges, from which,

An aspen tree 8 ins. diam. bears N80°E 30 lks. dist, marked T. 36. S. R. 8 W. S 36. B T.

An aspen tree 8 ins. diam. bears N80°W, 30 lks. dist. marked T. 36. S. R 8 W, S 35. B T.

Land mountainous

Soil gravelly, and loamy 2nd and 3rd rate.

Timber, pine and aspen,

Mountainous and heavily timbered land 83.60 chs.

West along the S. bdy. of Sec. 35.

Ascending the East slope of mountain through heavy pine and aspen timber.

13.00 top of spur about 50 ft. above the cor. slopes N. descend,

21.50 bottom of ravine about 50 ft. below the top. drains N. ascend, over ground slopes N. E.

25.30 road bears N10°W. and S10°E.

27.75 top of ridge about 100 ft. above the bottom slopes N.

40.00 Set volcanic stone 14×4×8 ins. 9 in. in the ground for 1/4 Sec. Cor. marked 1/4 on N. face, from which

A balsam tree 6 in. diam. bears N10°E. 12 lks. dist marked 1/4 S. B T.

An aspen tree 6 in. diam. bears S80°W 23 lks. dist. marked 1/4 S. B T.

46.75 begin to ascend steep ridge slopes N. E.

South Boundary, Tp. 36. South Range 8 West.

Chains	
53.70	top of ridge about 50 ft. above bottom slopes N. descend,
55.00	bottom of ravine about 50 ft. below the top drains N.
56.50	Spring Branch 1 lks. wide 4 ins. deep. drains N.
60.60	begin to ascend steep ridge bears N. and S.
63.20	top of ridge about 75. ft. above the bottom slopes N, continue ascending gradually,
80.00	Set a volcanic stone 12×7×7 ins. 8 ins. in the ground for Cor. of Secs 34 and 35 marked with 2 notches on the E. and 4 notches on the W. edges, from which A balsam tree 6 ins. diam. bears N32°E. 23 lks, dist. marked T. 36. S. R 8 W. S 35 BT, A balsam tree 8 ins. diam. bears N26°W. 36 lks. dist. marked T. 36. S. R 8 W. S 34, BT, Land mountainous, Soil gravelly, and stony. 3rd and 4th rate. Timber Pine and aspen, Mountainous and heavily timbered land 80.00 chs.
	West along the S. bdy. of Sec. 34. Ascending through heavy pine and aspen timber
14.10	top of rocky ridge about 75. ft. above the Sec. Cor, slopes N. descend,
17.50	bottom of descent about 25 ft. below the top slopes N. begin to ascend over ground slopes N. E.
21.20	begin to descend,
23.80	small Spring Branch 1 in. deep 1 lk. wide drains N. ascend, over loamy land,
32.50	leave timber bears N. and S.
37.12	enter heavy aspen timber bears N. and S.
40.00	Set a large stone 18×12×10. ins 12 ins. in the ground for 1/4 Sec. Cor. marked 1/4 on N. face, from which An aspen tree 16 ins. diam. bears N31°E. 13 lks, dist. marked 1/4 S. BT. An aspen tree 16 ins. diam. bears S70°E. 32 lks. dist. marked 1/4 S. BT.

South Boundary. Tp. 36. South. Range 8 West.

Chains	
	cor. on top of gradual ascent. slopes N, descend, over ground slopes. N. W,
59.00	a lava sink hole 75 feet deep, and 7.50 chs. diam. bears N 50 lks. dist. bare timber,
65.00	bottom of descent about 100 ft. below the top slopes N. ascend gradually,
75.00	enter heavy pine and aspen timber bears S 70° W, and N 70° E,
80.00	Set a lava stone 18×6×6 ins. 12 ins. in the ground for Cor. of Secs 33 and 34, marked with 3 notches on the E. and W. edges. and mound of stone around cor, from which.
	An aspen tree 6 ins. diam. bears N 41° E, 18 lks. dist. marked T. 36. S. R 8 W, S 34. BT,
	An aspen tree 10 ins. diam. bears N 86° W, 24 lks, dist. marked T. 36. S. R 8 W, S 33 BT,
	Land mountainous.
	Soil loamy and stony 2nd and 4th rate.
	Timber Pine and aspen,
	Mountainous and heavily timbered land 80.00 chs.

	West along the S. bdy. of Sec. 33, ascending the E. slope of Hancock Peak. through heavy pine and aspen timber.
9.00	E. edge of a lava sink hole 75 feet. deep and 7.50 chs. in diam. circular.
25.75	N. Edge of a lava sink hole about 100. feet deep, extends S. about 10. chs, circular.
40.00	Set a lava stone 15×9×6 ins. 10 ins. in the ground for 1/4 Sec. Cor. marked 1/4 on N. face from which,
	An aspen tree 8 ins. diam. bears N 5° W. 25 lks, dist. marked 1/4 S, BT,
	An aspen tree 8 ins. diam. bears S 80° E, 24 lks. dist. marked 1/4 S. BT,
47.00	the N. end of a lava stretch extending S. bears S 3. chs. dist.
80.00	W. edge of pine timber about 400 feet above bottom of ascent. bears N. and S,
	Set a volcanic stone 18×8×6 ins. 12 ins. in the

South Boundary of Tp. 36. S. R. 8 West

chains. ground for cor. of Secs. 32, and 33, marked with 2 notches on the E. and 2 notches on the W. edges, from which
An aspen tree 6 ins. diam. bears N 22° W, 59 lks. dist marked T. 36. S, R 8 W, S 32. B T.
An aspen tree 6 ins. diam bears N 34° E, 18 lks, dist. marked T. 36. S, R. 8. W. S 33 B T.
Land mountainous.
Soil stony. 4th rate.
Timber pine and aspen.
Mountainous and heavily timbered land 80.00 chs.

West along the S. bdy of Sec. 32 ascending the S. E. slopes of Hancock Peak through dense aspen brush.
15.00 the top of Hancock Peak bears N about 15.00 chs. dist. about 400. feet above this point. descend gradually through heavy aspen timber over stony ground slopes S.
40.00 the point for the 1/4 Sec. Cor. falls on a lava stone 24 x 12 x 6 ins above ground, at the exact cor. point Cut a cross (X) for 1/4 Sec. cor, and mark 1/4 on N. side of cross, from which
An aspen tree 12 ins. diam. bears N 80° W, 83 lks. dist. marked 1/4 S, B T.
An aspen tree 8 ins. diam bears S 82° W, 104 lks. dist. marked 1/4 S. B T.
Raised a mound of stone 2 ft. base 1½ ft. high N. of Cor, Pits impracticable.
67.00 begin to descend over lava stones stretch bears N. and S, leave timber.
74.00 bottom of steep descent about 300 feet. below beginning of descent at W. edge of lava bears N. and S, enter heavy pine and aspen timber bears N. and S. continue descending
80.00 Set a lava stone 12 x 9 x 5 ins. 8 ins in the ground for Cor. of Secs 31 and 32, marked with 5 notches on the E. and 1 notch on the W. edges, from which
An aspen tree 8 ins. diam. bears N 54° W, 30 lks,

chains dist. marked T. 36. S. R 8 W. S 31. B T.
An aspen tree 6 ins. diam. bears N 10° E. 25 lks. dist. marked T. 36. S. R 8 W. S 32. B T.
Land mountainous
Soil Stony 4th rate.
Timber Pine and aspen,
Mountainous and heavily timbered land 80.00 chs.

West along the S. bdy of Sec. 31.
descending through heavy pine and aspen timber, over stony ground.
15.00 bottom of descent about 75. feet below the sec. cor. slopes N.
21.70 begin to ascend,
35.00 a small lake or pond bears N. 4.00 chs dist about 1/4 acre area,
40.00 Set a large stone 16 x 6 x 6 ins. 11 ins. in the ground for 1/4 Sec. Cor. marked 1/4 on N. face from which,
An aspen tree 8 ins. diam. bears N 3° W. 15 lks. dist. marked 1/4 S. B T.
An aspen tree 6 ins. diam. bears S 40° E. 40 lks. dist. marked 1/4 S. B T.
47.50 lake or pond 1 acre area, bears S 4.00 chs. dist.
94.00 top of large spur about 300 ft. above the bottom slopes N. descend,
99.50 enter swampy land bears N. and S. leave timber
106.40 leave swampy land bears N. and S.
117.75 creek 4 lks wide 4 ins deep. drains N 30° E. heads 70. chs S.
124.50 creek 4 lks wide 2 ins. deep. drains N 60° E. ascend out of ravine.
136.60 enter heavy pine and aspen timber bears N. and S.
168.97 intersect the Range line bet. Ranges 8 and 9 West, 8.15 chs. S. of the Cor. of Secs 25 and 36. on the E. bdy. of Tp. 36. S. R. 9 W. as established by me under this Contract.
At point of intersection

South Boundary of Tp. 36. South. Range 8 West.

Set a lava stone 20 x 12 x 8 ins. 15 ins. in the ground for closing cor. of Tps 36. and 37. S. bet. Rs. 8 and 9 W. marked C.C. and 6 grooves on the E. with 6 grooves on the N. and S. faces, from which
A balsam tree 6 ins. diam. bears N 36 3/4° E. 35 lks. dist. marked T. 36. S. R 8. W. S 31. C.C. BT.
A balsam tree 6 ins. diam. bears S 9° E. 91 lks. dist. marked T. 37. S. R 8 W. S 6. BT. C.C.
Raised a mound of stone 2 ft. base 1½ ft. high E. of cor. Pits impracticable.
Land mountainous.
Soil stony and gravelly. 3rd and 4th rate.
Timber Pine and aspen.
Mountainous and heavily timbered land 168.97 chs.
July 11th 1898.

For Table of Latitudes and Departures see notes of the Subdivisions of this Tp.

General Description.

This township line runs through heavy pine and aspen timber for nearly its entire length. The formation in Tps 36 and 37. S. Rs. 8 West. is volcanic. Tps 36. and 37. S. are nearly entirely covered with heavy pine timber. Tp. 37. S. R. 8 West. is very difficult of access on account of large areas of lava broken into fragments in such manner as to be dangerous for foot travel and impossible for animals to travel over. There is no water in the township and, it is not worth surveying as it would be enormously expensive to build roads to obtain the timber, and it is largely not useful for grazing purposes; there are no ranches

South Boundary. Tp. 36. S. R. 8 West.

within the Tp.
Tp. 36. S. R 8 W. is easily accessable for timber and grazing, and is well watered.

Washington Jenkins
U. S. Deputy Surv

July 11-1898.

As no Notary Public or other officer authorized to administer oaths is available without great delay and expense I administer the necessary preliminary and final oaths.

Washington Jenkins
U. S. Deputy Surveyor,

FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by Washington Jenkins and Joseph A. West, United States Deputy Surveyors, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of the South boundary of Tp. 36, South - Range 8 West of the Salt Lake Base and Meridian showing the respective capacities in which they acted:

Orson C. Orton, Chainman.
Frank Herrick, Chainman.
, Moundman.
Frank Herrick, Moundman.
, Axman.
, Axman.
David Jenkins, Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted Washington Jenkins and Joseph A. West, United States Deputy Surveyors in surveying all those parts or portions of the South boundary of Township No 36, South - Range 8 West of the Salt Lake Base and meridian, in the State of Utah, which are represented in the foregoing field notes as having been surveyed by ~~him~~ them and under ~~his~~ their 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.

Orson C. Orton, Chainman.
Frank Herrick, Chainman.
, Moundman.
Frank Herrick, Moundman.
, Axman.
, Axman.
David Jenkins, Flagman.

Subscribed and sworn to before me this 15th day of September, 1898

SEAL

Washington Jenkins
U.S. Depty Surveyor.

6—151

FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, ..., United States Deputy S[illegible] solemnly swear that, in pursuance of a contract received from ..... United States Surveyor General for ....., bearing date of ..... day of ....., 189 , I have well, faithfully, and truly, in my proper person, and in strict conformity with the instructions furnished by the United States S[illegible] General for ....., the Manual of Surveying Instructions, and the laws of United States, surveyed all those parts or portions of

.....

.....

.....

..... of the

..... meridian, in the ..... of ....., which are represented in foregoing field notes as having been surveyed by me, and under my direction; and I do further sole[illegible] swear that all the corners of said survey have been established and perpetuated in strict accordance the Manual of Surveying Instructions, and the special written instructions of the United States S[illegible] General for ..... and in the specific manner described in the field notes, and the foregoing are the original field notes of such survey; and should any fraud be detected, I will s[illegible] the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

.....
United States Deputy Surv[illegible]

Subscribed by said ....., and sworn to before me this ..... day of ....., 189

.....

SEAL

.....

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City Utah April 2nd, 1[illegible]

The foregoing field notes of the survey of the South Boundary of Township 36 South Range 8 West of the Salt Lake Base & Meridian Utah

executed by Washington Jenkins and Joseph A West under ~~his~~ their contract No. 212 dated October 15th, 1896, having critically examined, and the necessary corrections and explanations made, the said field notes, [illegible] surveys they describe, are hereby approved.

Jacob B. R[illegible]
United States Surveyor Gen[illegible]

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 off[illegible]

.....
United States Surveyor Gen[illegible]

6-131

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4—679.

BOOK A-252

FIELD NOTES

OF THE SURVEY OF

The Subdivisional lines and re-tracements
Tp. 36 South, Range 8 West

Of the Salt Lake Base and Meridian,

State of Utah.

AS SURVEYED BY

Washington Jenkins and Joseph A. West United States Deputy Surveyors

Under ~~his~~ their Contract No. 212, dated October 15, 1896

Survey commenced July 19th, 1898

Survey completed September 1st, 1898

6—151

Subs. high M. chain 64-42-16
" low 42-10
" closings 1-61-33

E Bdry - Contingent 5-72-11
Stand " 7-08-42

BOOK A-252

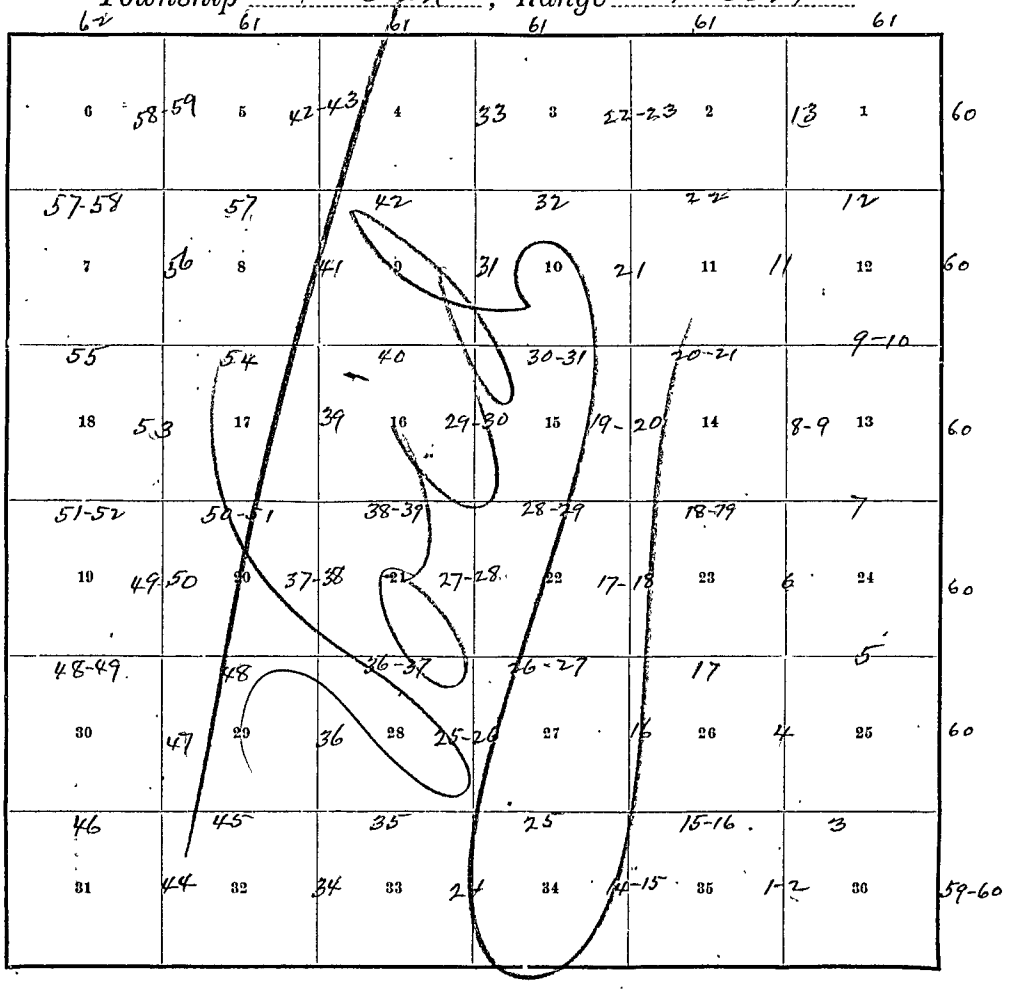
Names and Duties of Assistants.

Orson C. Orton	chainman
Nephi Orton	chainman
Frank Herrick	chainman
David Jenkins	chainman
Frank Herrick	Moundman
Frank Herrick	Axman

BOOK A-252

INDEX DIAGRAM.

Township 36 South, *Range* 8 West,



Meanders Page

6—151

Preliminary Oaths of Assistants.

WE, Orson C. Orton, Nephi Orton ~~and~~ Frank Herrick and David Jenkins do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level chain upon even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; we will report the true distances to all notable objects, and the true lengths of all lines that we assi- measuring, to the best of our skill and ability, and in accordance with instructions given us, in the surv-

the Subdivisional lines & retracements of Tp 3 South - Range No 8 West of the Salt Lake Base & Meridian

Orson C. Orton, Chainm

Nephi Orton, Chainm

Subscribed and sworn to before me this 29th day of June, 1898.

Frank Herrick chain.

David Jenkins chain.

Washington Jenkins

U.S. Deputy Surveyor.

SEAL

~~WE,~~ I Frank Herrick ~~and~~

do solemnly swear that ~~we~~ I will well and truly perform the duties of moundmen in the establishm- corners, according to the instructions given ~~us~~ me, to the best of ~~our~~ my skill and ability, in the survey of

the Subdivisional lines of Tp. 36. S. - R. 8 West of the Salt Lake Base and Me-

Frank Herrick, Mound-

, Mound-

Subscribed and sworn to before me this 29th day of June, 1898

Washington Jenkins

U.S. Deputy Surveyor

SEAL

~~WE,~~ I Frank Herrick ~~and~~

do solemnly swear that ~~we~~ I will well and truly perform the duties of axmen in the establishment of co- and other duties, according to instructions given ~~us~~ me, to the best of ~~our~~ my skill and ability, in the su-v-

The Subdivisional lines of Tp. 36. S - R. 8 West of the Salt Lake Base and Meridian.

Frank Herrick, Axm

, Ax-

Subscribed and sworn to before me this 29th day of June, 1898

Washington Jenkins

U.S. Deputy Surveyor

SEAL

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

, Flag-

Subscribed and sworn to before me this day of , 189

SEAL

6—131

Subdivisions — Tp 36 South — Range 8 West.

I begin at the cor. of Secs 35. and 36. on the S. bdy. of the Township.

On account of high and impassible cliffs on the North side of Mammoth Canon on the line bet. Secs 25 and 26, and other difficult features to be encountered in running the line North from this corner, I measure an offset West 2.00 chains and set a stake.

At the stake 2.00 chs. West of the cor of Secs 35 and 36, on the South boundary of the Tp, July 19th 1898, at 11h 32m l.m.t, or at 0:06 am July 20th by my watch which is correct mountain standard rail road time, I observe Polaris at Eastern Elongation in accordance with instructions in the Manual 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.

July 20th 1898.

July 20th at 7. a.m I lay off the azimuth of Polaris 1°34' 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 the true meridian is N 15°36' W. which reduced by the table on page 100. of the Manual gives the mean magnetic declination 15°30' E.

Thence I run

North on an offset line 2.00 chs. W. of the Sectional Guide Meridian bet. Secs 35 and 36,

descending through heavy pine and aspen timber over gravelly soil.

10.22	leave heavy timber, enter meadow and dense willows bears. E. and W. thence nearly level.
13.63	small branch 1 lk wide 1 ft. deep. drains S70°E. ascend through heavy pine and aspen. leave meadow bears E and W.
19.10	creek 4 ins deep 1 lk. wide drains E. 2. chs. into a lake 1 acre in area.
23.50	top of ridge about 75. ft. above the meadow bears E and W. descend.
25.00	W. edge of pond or lake extending E. about 100 ft. ascend.
26.50	top of small ridge about 10 ft. above pond bears E. and W. descend.
33.30	Road to Jensens sawmill 1 ch. W. bears N and S.
39.80	same road bears S45°W. and N45°E. and E.
40.00	2.00 chs. E.
	Set a lava stone 16x12x5 ins. 11 ins. in the ground for 1/4 Sec. Cor. marked 1/4 on W. face; from which an aspen 6 ins. diam., bears N52°W. 33 lks dist. marked 1/4 S. B.T.
	An aspen 16 ins diam bears N30°E. 24 lks. dist. marked 1/4 S. B.T. Raised a mound of stone 2 ft. base 1/2 ft. high W. of Cor. The cor. is 6 lks N. of road bears SE. and SW.
53.20	top of S. side of Mammoth Canon bears E. and W. descend abruptly, over rough lava rocks, through heavy pine and aspen timber.
80.00	2.00 chs. E.
	Set a lava stone 15x12x6 ins. 10 ins. in the ground for Cor. of Secs 25-26-35 and 36, marked with 1 notch on the S. and E. edges, from which
	An Aspen 5 ins. diam. bears N42°E. 38 lks. dist. marked T. 36 S. - R8W. S 25. BT.
	An Aspen 5 ins. diam. bears N24°W. 15 lks. dist. marked T. 36. S - R8W. S 26. - BT.
	An Aspen 6 ins. diam. bears S60°E. 42 lks. dist marked T. 36 S - R8W. S 36 - BT.
	An Aspen 6 ins. diam bears S42°W. 39 lks. dist. marked T. 36 - S - R8W. S35. BT. Raised a mound of stone 2 ft. base 1 1/2 ft. high W. of Cor. This Cor. is

about 400 ft. below the top of the S. side of the canon
Land mountainous.
Soil thin and gravelly, 3rd rate.
Mountainous and heavily timbered land 80.00 chs.

Knowing I will fall out of limits & run
East on a true line between Secs 25 and 36,
descending along the South side of Mammoth
Canon over rough lava rocks, through
heavy pine and aspen timber
15.20 W. edge of Mammoth Creek 24 lks wide, 10 ins. deep
drains S 60° E. rocky bottom, rapid current,
in bottom of canon about 200 ft. below the Sec. Cor.
ascend along the North side of canon over rough
broken sandy and clay and gravelly land through
heavy timber,
40.00 Set volcanic stone 18 x 6 x 6 ins. 12 ins. in the ground
for 1/4 Sec. Cor. marked 1/4 on N. face, from which
A pine tree 10 ins. diam. bears N 81° W. 244 lks
dist. marked 1/4 S. B.T.
A pine tree 8 ins. diam. bears S 80½° W. 206 lks
dist. marked 1/4 S. B.T.
76.50 top of spur ridge about 300. feet above the bottom
of canon slopes South; descend.
81.36 intersect the E. bdy of the Sp. 6.88 chs N 2°09' W of the
cor. of Secs 25-30-31 and 36, which is a
lava stone firmly set, marked and witnessed
as described by the Surveyor general, at the
point of intersection,
Set a limestone 20 x 10 x 5 ins. 15 ins. in the ground
for closing cor. of Secs 25 and 36, marked
C.C. on the W. with 1 groove on the S. and 5 grooves
on the N. faces, and raised a mound of stones
2 ft. base 1½ ft. high W. of Cor. from which
A balsam tree 8 ins. diam bears S 22° W 185
lks. dist. marked T. 36 S - R 8 W. S 36. B.T. C.C.
A balsam tree 6 ins. diam. bears N 63° W. 164 lks
dist. marked T. 36 S - R 8 W. S 25. B.T. C.C. & destroy the
marks on the old cor. pertaining to Secs 25 and 36.
Land mountainous
Soil stony and gravelly, 3rd and 4th rate.
Timber, pine and aspen,

Subdivisions - Tp. 36 South - Range 8 West.

Mountainous and heavily timbered land 81.36 chs.

North on an offset line 2.00 chs West of the Sectional Guide Meridian bet. Secs. 25 and 26,
descending into Mammoth Canon over very rough lava rocks, through heavy pine and aspen timber and dense undergrowth of aspen.
9.70 South side of Mammoth Creek 24 lks wide 9 ins. deep pure water, rocky bottom, rapid current in bottom of canon drains S 70° E, about 100 feet below the Sec. Cor, ascend the N. side of canon very steep. through scattering pine timber.
23.90 road bears E. and N.
24.48 small creek 1 in deep drains E. 1 lk wide
25.90 old road bears E. and N. leads from Panguitch Lake to Cedar City. very rough road. to travel.
40.00 2.00 chains East Set a lava stone 15 x 9 x 6 ins 10 ins. in the ground for 1/4 Sec. Cor, marked 1/4 on N. face, from which
a pine tree 16 ins. diam. bears N 40° E. 86. lks dist. marked 1/4 S. B.T.
An aspen tree 8 ins. diam. bears N 45° W. 194 lks dist. marked 1/4 S. B.T. : raised a mound of stone 2 ft. base 1 1/2 ft. high N. of Cor.
54.00 top of ridge about 350. ft. above the bottom of canon, bears E. and W. descend abruptly.
61.00 bottom of canon about 75 ft. below top drains W. ascend very steep mountain.
78.80 bottom of volcanic ledge bears E. and W. 16. ft. high at this point. the main ledge is about 2.00 chains E. This ledge forms a rim around the flat top of mountain.
78.85 top of ledge about 700. feet above the bottom of canon. thence level.
80.00 2.00 chs. East.
Set a lava stone 20 x 12 x 8 ins. 4 ins. in the ground for cor. of Secs. 23-24-25 and 26. marked with 2 notches on the S. and 1 notch on the E. edges, large boulders prevented setting the cor. deeper, from which,

an aspen tree 6 ins. diam. bears S44½°E. 18 lks. dist. marked T.36.S.R.8W. S25.BT.
An Aspen tree 6 ins. diam. bears N63°E. 18 lks. dist. marked T.36 S. R8W. S24. BT.
An aspen tree 8 ins. diam. bears S25°W. 18 lks. dist. marked T.36.S.R8W. S26. BT.
An aspen tree 6 ins. diam. bears N20°W. 10 lks. dist. marked T.36 S. R8W. S23. B.T.
Raised a mound of stone around the cor. also raised a mound of stone 2 ft. base 1½ ft. high N. of cor.
Land mountainous.
Soil lava rocks and gravelly 3rd and 4th rate.
Timber - pine and aspen.
Mountainous and heavily timbered land 80.00 chs.

Knowing I will fall out of limits, I run,
East on a true line bet. Secs 24 and 25, along level top of mountain, through heavy pine and aspen timber.
1.28 top of perpendicular lava ledge 30 ft. high bears N. and S. descend; from bottom of ledge, descend rapidly through heavy pine and aspen timber.
40.00 Set a volcanic stone 12×7×6 ins 8 ins. in the ground for ¼ Sec. Cor. marked ¼ on N. face, from which,
A pine tree 26 ins. diam bears N30°W. 26 lks dist. marked ¼ S. B.T.
A pine tree 20 ins. diam. bears N40°E. 30 lks dist. marked ¼ S. B.T. no trees S. of line within limits; raised a mound of stone 2 ft. base 1½ ft. high N. of Cor. continue descending.
78.27 intersect the E. bdy of the Tp. 4.39 chs N.15°E. of the old cor. of Secs 19-24, 25 and 30, which is a lava stone, firmly set, marked and witnessed, as described by the Surveyor general. At the point of intersection Set a volcanic stone 20×14×8 ins. 15 ins. in the ground for closing cor. of Secs 24 and 25, marked C.C. on the N. with 2 grooves on

the S. and 4 grooves on the N. faces, from which
An aspen tree 6 ins. diam. bears N40°W. 27 lks dist.
marked T.36 S. R8.W. S24. BT. C.C.
An aspen tree 6 ins. diam. bears S40°W. 33 lks. dist.
Marked T.36.S-R.8.W. S25. B.T. C.C. : raised a
mound of stone 2 ft. base 1½ ft. high N. of cor; I
also raise mound of stone 2 ft. base 1½ ft high
E. of the old cor, I destroy the marks on the old cor. pertaining to Sec.s 24 & 25
Land mountainous.
Soil rocky and gravelly. 3rd and 4th rate.
Timber pine and aspen,
Mountainous and heavily timbered land 78.27 chs.

In order to insure the accuracy of the line
on which I have been running bet. Sec.s 25 and
26, I continue
North on an offset line 2.00 chs. W. of the
Sectional Guide Meridian bet. Sec.s 23 and 24,
Along level top of plateau through heavy pine
and aspen timber. over lava rocks,
2.00 chains East
40.00 Set a lava stone 12×7×6 ins. 3 ins. in the
ground for 1/4 Sec. Cor, marked 1/4 on N. face. from
which,
An aspen tree 8 ins. diam bears N30°W. 17 lks.
dist. marked 1/4 S. BT.
A pine tree 18 ins. diam. bears N70°E. 30 lks. dist.
marked 1/4 S. B. T. boulders prevented setting
the cor. the proper depth: raised a mound of
stone around the cor. Also raised mound of stone
2 ft. base 1½ ft. high W. of cor.
48.50 begin to descend the North slope of mountain,
80.00 2.00 chs. East,
Set a lava stone 16×6×6 ins. 11 ins. in the ground
for Cor. of Sec.s 13-14-23 and 24, marked with
3 notches on the S. and 1 notch on the E. edges,
from which
An aspen tree 6 ins. diam. bears N4°W. 26 lks. dist.
marked T.36 S. R8W. S14. BT.
An aspen tree 6 ins. diam. bears S3°W. 13 lks dist
marked T.36. S. R. 8W. S23. B.T.
An aspen tree 6 ins. diam. bears S29°E. 38 lks dist.

Marked T.36 S. R8. W. S24. B.T.
An aspen tree 6 ins. diam. bears N44°E. 24 lks.
dist. marked T.36.S. R.8 W. S.13. BT. Raised
a mound of stone 2 ft. base 1½ ft. high W. of Cor.
The cor. is about 250 ft. below the top of mountain.
Land mountainous
Soil lava stones and gravel 4th rate.
Timber pine and aspen,
Mountainous and heavily timbered land 80.00 chs.

Knowing I will fall out of limits I run
East on a true line bet. Secs 13 and 24.
along the North slopes of mountain, through heavy
pine and aspen timber, over lava rocks.
23.60 begin abrupt descent bears N. and S. over large
lava rocks,
26.00 bottom of descent about 100. ft. below the top.
thence nearly level, over rough lava fragments.
31.80 begin abrupt descent. bears N. 20° W. and S 20° E,
33.30 bottom of descent about 50. ft. below the top bears
N20°W. and S20°E. thence ascend over very
rough fragments of lava and broken small ridges
40.00 Set a lava stone 16×6×6 ins. in mound of stone,
could not set stone in ground on account of
boulders; from which
An aspen tree 5 ins. in diameter bears,
N10°W 15 lks. dist. marked 1/4 S. B.T.
An aspen tree 6 ins. diam. bears S10° W. 10 lks.
dist. marked 1/4 S. B.T. Raised a mound
of stone 2 ft. base 1½ ft. high N. of cor,
49.50 top of ridge about 150. feet, above the bottom
slopes N. descend, gradually,
60.00 begin to descend abruptly over rough lava,
80.00 intersect the E. bdy of the Tp. 5.17 chs. N0°53'E
of the old cor. of Secs 13-18-19- and 24
which is a volcanic stone firmly set marked
and witnessed as described by the surveyor
general. At the point of intersection
Set a lava stone 18×12×10 ins. 12 ins. in the
ground for closing cor. of Secs 13. and 24
marked C. C. on the W. with 3 grooves on the
2 and S. faces, from which.

Subdivisions - Tp. 36. South - Range 8 West.

chains An aspen tree 10 ins in diam. bears N 10° W. 41 lks dist marked T. 36 S. R 8 W. S 13. B.T. C.C.
An aspen tree 6 ins. diam. bears S 30° W. 25 lks dist marked T. 36 S. R 8 W. S 24. B.T. C.C. Raised a mound of stone 2 ft. base 1½ ft. high W. of Cor.
I also raise a mound of stone 2 ft. base 1½ ft. high E. of the old cor. to indicate a cor. for two sections only, 18 and 19. I destroy the marks on old Cor. pertaining to Secs 13 & 24.
This closing Cor. is at foot of steep descent about 150 feet below the top
Land mountainous.
Soil lava stone fragments 4th rate.
Timber pine, and aspen,
Mountainous and heavily timbered land 80.00 chains.

North on an offset line 2.00 chs. West of the Sectional Guide Meridian bet. Secs. 13 and 14,
descending into Deer Creek Cañon, through heavy aspen timber,
30.30 begin abrupt descent over rough lava rocks, bears E. and W. this point is about 300. ft. below the Sec. Cor.
37.60 bottom of abrupt descent about 200 feet below the top, continue descending over lava rocks and dead and fallen timber.
40.00 2.00 chs. East
Set a lava stone 18×12×4 ins in mound of stone; (boulders prevented setting the stone in the ground.) for ¼ Sec. Cor. marked ¼ on W. face, from which
A spruce tree 12 ins. diam. bears S 60° W. 1.50 chs. dist. marked ¼ S. B.T.
An aspen tree 6 ins. diam. bears N 70° E. 18 lks. dist. marked ¼ S. B.T. raised a mound of stone 2 ft. base 1½ ft. high W. of cor, continue descending.
57.27 Deer Creek in bottom of cañon, drains N 70° E. 10 lk. wide. 6 ins deep, rapid current pure water; this point about 800. feet below the Section Cor, ascer bower

light gravelly soil. through heavy aspen timber.

63.60 road from Panguitch Lake to Castle Valley bears S80°W. and N80°E, on ridge about 150 ft. above bottom of cañon. descend

68.33 cattle trail bears N40°W. and S40°E. in small ravine drains SE, ascend, gradually

77.25 top of small spur about 20 ft. above bottom of ravine bears SE and N.W, descend

80.00 2.00 chains East,

Set a flint stone 16×12×6 ins. 11 ins. in the ground for Cor. of Secs 11, 12, 13 and 14, marked with 4 notches on the S. and 1 notch on the E. edges, from which

An aspen tree 6 ins. diam. bears N45°W, 91 lks, dist. marked. T.36 S. R8W. S 11. BT,

An aspen tree 6 ins. diam. bears N40°E, 41 lks. dist, marked T.36.S. R.8W. S.12. B.T.

An aspen tree 6 ins. diam. bears S9°E. 41 lks. dist. marked T.36.S. R.8W. S13. BT.

An aspen tree 6 ins. diam. bears S 55°W, 45 lks dist. marked T.36.S. R.8W. S14. BT,

Raised a mound of stone 2 ft. base 1½ ft. high W. of Cor,

Land mountainous

Soil, stony and light gravelly soil 2nd and 4th rate

Timber pine and aspen,

Mountainous and heavily timbered land 80.00 chs.

Knowing I wire fall out of limits, I run

East on a true line bet. Secs 12 and 13, descending the E. slope of mountain through heavy aspen timber, over rich loamy soil

25.00 road bears N70°E. and S70°W,

32.90 branch of same road bears S70°E. and N.70°W.

37.40 same road bears N. and S. at bottom of Cañon bears N. and S. about 500. ft. below the Sec. cor. A. sheep corall bears N about 5. chs. dist. Thence along level bottom through dense undergrowth of willows. leave aspen timber bears N. and S.

40.00 Set a sandstone 20×12×6 ins 15 ins in

Subdivisions – Tp. 36 South – Range 8 West.

chains	
	the ground for 1/4 Sec. cor. marked 1/4 on N. face, from which
	An aspen 8 ins. diam. bears S 40° W, 136 lks dist. marked 1/4 S. B T.
	An aspen 18 ins. diam. bears N 70° W, 265 lks. dist. marked 1/4 S. B T.
40.10	road bears N. and S,
43.50	Deer Creek 10 lks. wide 6 ins. deep. drains N 40° E,
55.60	leave level land and dense undergrowth of willows, bears N 40° E, and S 80° W, ascend through heavy pine and aspen timber
57.50	top of ascent about 40. feet above bottom bears N. and S. descend over ground slopes N. E,
81.15	intersect the E. bdy. of the Tp. 10.88 chs. N 0°50' W of the old cor. of Secs 7, 12, 13 and 18, which is a lava stone firmly set, marked and witnessed as described by the surveyor general. At the point of intersection Set a sandstone 16×12×6 ins. 11 ins. in the ground for closing cor. of Secs 12 and 13 marked C.C. on the W. with 2 grooves on the N. and 4 grooves on the S. faces, from which an aspen tree 14 ins. diam. bears N 78° W. 42 lks dist. Marked T. 36 S. R. 8. W. S. 12. B T. C.C, An aspen tree 12 ins. diam. bears S 67 1/2° W, 38 lks, dist, marked T. 36 S. R. 8 W. S 13. B T. C C, Raised a mound of stone 2 ft. base 1 1/2 ft. high W. of cor, I raise a mound of stone 2 ft. base 1 1/2 ft. high E. of the old cor. as the cor. of two sections, namely Secs 7 and 18. I destroy the marks on the old cor. pertaining to Secs 12 and 13 The closing cor. is at the bottom of the mountain at the West edge of Mr Hanvis meadow, which extends Easterly, North Easterly and South Easterly.
	Land mountainous
	Soil rich loam 1st rate.
	Timber pine and aspen
	Mountainous and heavily timbered and land covered with dense undergrowth 81.15 chs.

Subdivisions - Tp. 36. South - Range 8 West

chains	North on an offset line 2.00 chs. West of the Sectional Guide Meridian bet. Secs 11. and 12, ascending over ground slopes S.E. through heavy pine and aspen timber.
22.75	spur about 100 feet above sec. cor. slopes E. descend.
40.00	2.00 chs. East
	Set a volcanic stone 20×12×6 ins. 15 ins in the ground for 1/4 Sec. Cor. marked 1/4 on N. face from which,
	An aspen tree 8 ins. diam. bears S80°E. 10 lks dist marked 1/4 S. B.T.
	an aspen tree 8 ins. diam. bears S61°W 9. lks. dist. marked 1/4 S. B.T.
43.90	bottom of ravine about 100 ft. below the cor. drains N.40°W. continue descending over ground slopes N.W.
47.12	trail bears E. and W. descend abruptly.
50.75	creek 10 ft. wide 4 ins. deep drains E. in bottom of Bunker Canon. about 75. feet below the beginning of abrupt descent. gravelly bottom, rapid current. ascend N. side of Canon. over large fragments of conglomerate stone and clay soil.
57.40	trail bears E. and W.
64.80	top of rocky spur about 200. feet above Creek bears E. and W. thence over broken ground
67.00	road bears E. and W.
72.50	begin to descend gradually into slight basin
79.80	road bears E. and W.
80.00	2.00 chains East
	Set a volcanic stone 20×12×8 ins. 15 ins. in the ground for cor. of Secs 1-2-11 and 12, marked with 5 notches on the S. and 1 notch on the E. edges, from which,
	An aspen tree 10 ins. diam. bears N15°W. 260 lks. dist. marked T.36 S. R.8 W. S 2. B.T.
	an aspen tree 10 ins. diam. bears S33½°W. 77. lks dist. marked T.36 S. R8 W. S 11. B.T.
	an aspen tree 8 ins. diam. bears N3°E. 151 lks. dist. Marked T.36 S. R. 8. W. S 1. B.T.
	an aspen tree 8 ins. diam. bears S15°E. 104 lks.

Subdivisions – Tp. 36. South – Range 8 West,

Chains.	
	dist. marked T. 36 S. R. 8 W. S 12. B T.
	Land mountainous
	Soil loamy, clay, and stony. 2nd 3rd and 4th rate
	Timber. Pine and aspen,
	Mountainous and heavily timbered land 80.00 chs.
	Knowing I will fall out of limits I run.
	East on a true line bet. Secs 1 and 12,
	ascending gradually out of a slight basin,
	through heavy pine and aspen timber,
22.70	bottom of steep ascent bears N. and S,
28.80	top of steep and rocky ascent about 300. feet above
	the bottom bears N. and S. descend gradually
	through heavy aspen timber.
40.00	Set a lava stone 16 x 6 x 6 ins. 11. ins. in the ground
	for 1/4 Sec. Cor. marked 1/4 on N. face. from which
	An aspen tree 6 ins. diam. bears, N 57° E, 14 lks. dist.
	marked 1/4 S. B. T.
	An aspen tree 8 ins. diam. bears S 3° W, 7. lks. dist.
	marked 1/4 S. B. T.
79.94	intersect E. bdy. of the Tp. 9.48 chs N 0°01' E of the
	old cor. of Secs 1-6-7 and 12, which is a
	lava stone. firmly set, marked and witnessed
	as described by the surveyor general.
	At point of intersection
	Set a limestone 20 x 12 x 6 ins. 15 ins. in the ground
	for closing cor. of Secs 1 and 12. marked C.C.
	on the W. with 1 groove on the N. and 5 groove
	on the S. faces, from which
	An aspen tree 6 ins. diam. bears S 58° W 45. lks
	dist. marked T. 36. S. R. 8. W. S 12 B. T. C C.
	An aspen tree 6 ins. diam. bears N 58° W, 39
	lks. dist. marked T. 36. S. R. 8. W, S 1, B T. C. C.
	Raised mound of stone 2 ft. base 1 1/2 ft. high
	W. of cor. I also raised mound of stone
	2 ft. base 1 1/2 ft. high East of the old cor.
	to indicate the cor. for two secs only, namely
	Secs 6 and 7, I destroy all marks on the old cor. pertaining to Secs 1 and 12.
	Land mountainous
	Soil gravelly and stony 3rd and 4th rate,
	Timber Pine and aspen,
	Mountainous and heavily timbered land 79.94 chs

Subdivisions. Sec. 36 S - R. 8. West.

chains	
	North on an offset line 2.00 chains West of the Sectional Guide Meridian bet. Secs. 1 and 2, through heavy aspen timber, gradually ascending out of a small basin, over gravelly land.
2.30	begin to ascend steep mountain over ledges bears E. and W. leave aspen timber.
9.46	top of ledges of volcanic formation about 250 feet above bottom bears E. and W. continues ascending the North side of Bunker Canon, over gravelly land.
40.00	top of ridge about 900. feet above the Sec. Cor. bears E. and W. 2.00 chs. East. Set a volcanic stone 20×7.×6 ins. 15 ins. in the ground for 1/4 Sec. Cor. marked 1/4 on W. face, and raised a mound of stone 2 feet. base 1½ ft. high W. of Cor. Pits impracticable. descend into canon drains N 40° W. through heavy pine and aspen timber,
71.15	intersect the N. bdy. of the Sp. 10.97 chs. E. of the Standard Cor. of Secs. 35 and 36, which is a volcanic stone firmly set, marked and witnessed as described by the surveyor general, 2.00 chs. E. of the point of intersection Set a volcanic stone 20×12×6. ins. in mound of stone, for closing cor. of Secs. 1 and 2 marked C. C. on S. with 5 grooves on the W. and 1 groove on the E. faces, and raised a mound of stone 2 ft. base 1½ ft. high S. of cor. from which An aspen tree 6 ins. diam. bears S 10° E. 32 lks. dist. marked T. 36. S. R. 8 W. S 1. B.T. C.C. an aspen tree 6 ins. diam. bears S 15° W. 54 lks. dist. marked T 36 S. R. 8. W. S 2. B.T. C.C. boulders prevented setting the cor. stone in the ground. this closing

chains. cor. is 12.97 chs. E. of the Standard Sec. cor. on the E. side of a canon draining N. W.
Land mountainous
Soil gravelly and stony 3rd rate.
Timber pine and aspen on the N. 1/2 mile
Mountainous and heavily timbered land 71.15 chs
July 20-1898.

July 25th 1898, at 11h 11m l. mt. or at 11h 42m P.M. July 25th 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 2-3-34 and 35, on the South boundary of the Tp. 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,
July 26th at 7. A.M. I lay off the Azimuth of Polaris 1° 34' 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° 01' W. bet. Secs 34 and 35.
descending from the cor. through heavy pine and aspen timber over gravelly land and lava fragments.
21.00 dry creek bed drains E. about 100. feet below the cor. thence over ground slope N.E.
40.00 Set a lava stone 18 x 12 x 6 ins. in mound of stone for 1/4 Sec. Cor. marked 1/4 on W. face, from which
An aspen 10 ins. diam. bears S 87° E. 83 lks. dist. marked 1/4 S.B.T.
An aspen tree 9 ins. diam. bears N 63° W. 45 lks dist. marked 1/4 S.B.T. Boulders prevented setting the cor. deeper.
64.50 Road to Jennino's saw-mill bears N 40° W. and S 40° E.

Subdivisions. - Tp 36. South. Range 8 West.

Chains	
80.00	Set a lava stone 15 X 10 X 10 ins. 10 ins. in the ground for Cor. of Secs 26-27-34 and 35. marked 1 notch on the S. and 2 notches on the E. edges from which. An aspen 8 ins. diam. bears S 32° E, 15 lks. dist. marked T. 36 S. R 8 W. S 35. B T. An aspen tree 6 ins. diam. bears S 52° W. 11 lks dist. marked T. 36 S - R 8 W. S 34. B T. An aspen tree 6 ins. diam. bears N 32° E. 36 lks. dist. Marked T. 36 S. R 8 W. S 26. B T. An aspen tree 8 ins diam bears N 43° W. 45 lks dist. marked T. 36 S. R 8 W. S 27. B T. Raised a mound of stone 2 ft. base 1½ ft. high W. of Cor. Land mountainous Soil gravelly clay. mixed with lava 3rd rate. Timber pine and aspen. Mountainous and heavily timbered land 80.00 chs.
	East on a random line bet. Secs 26 and 35,
40.00	Set a temp 1/4 Sec. Cor,
80.00	intersect the cor. of Secs 25-26-35 and 36 Thence I run West on a true line bet. Secs 26. and 35, ascending the South side of Mammoth Canon over ground slopes N. E. through heavy pine and aspen timber very steep and rocky.
24.00	top of steep ascent about 450. feet above the Sec. Cor. bears N. and S. continue ascending gradually,
40.00	the point for the 1/4 Sec. Cor. falls on a lava stone 3 ft X 18 X 18 ins. in place, at the exact point for cor. I mark a X and 1/4 on N. side of cross for 1/4 Sec. Cor, and raise a mound of stone 2 ft. base 1½ ft. high N. of Cor, from which an aspen tree 8 ins. diam. bears N 44° E 59 lks dist., marked 1/4 S. B T. An aspen tree 8 ins. diam. bears S 2° E, 36 lks dist. marked 1/4 S. B T. Begin to ascend steep mountain.

chains	
55.30	top of steep ascent about 200 feet above the 1/4 Sec. cor. bears N. and S. Continue ascending gradually.
80.00	The cor. of Secs 26-27-34 and 35. Land mountainous. Soil, lava stones, and thin soil. 4th rate. Timber, Pine and aspen. Mountainous and heavily timbered land 80.00 chs.
	No. 01' W. bet. Secs 26 and 27. descending gradually through heavy pine and aspen timber over stony ground slopes N.E.
28.80	West side of Mammoth Canon, bears E. and W. descend abruptly over loose volcanic stone
34.90	Mammoth Creek in bottom of Cañon about 300 feet below the top 9 ins. deep. 24 lks wide drains N 80° E. rapid current, rocky bottom, pure water. ascend the North side of cañon abruptly over loose volcanic stones, through heavy aspen timber.
38.50	top of North side of Cañon bears N 40° E. and S 40° W. about 300 feet above the bottom. thence level.
40.00	Set a Volcanic stone 20x6x6 ins. 15 ins in the ground for 1/4 Sec. Cor. marked 1/4 on W. face and raised a mound of stone 2 ft. base 1 1/2 ft. high W. of Cor. from which An aspen tree 6 ins. diam. bears N 32° E. 40 lks dist. marked 1/4 S. B.T. An aspen tree 7 ins. diam. bears N 54° W. 54 lks dist marked 1/4 S. B.T. continue nearly level
48.50	leave aspen timber bears E. and W. enter clearing
71.20	head of a ravine drains S 45° E.
80.00	Set a volcanic stone 16x6x6 ins. 11 ins in the ground for Cor. of Secs 22-23-26 and 27, marked with 2 notches on the S. and E. edges and raised a mound of stone 2 ft. base 1 1/2 ft high W. of Cor. Pits impracticable
48.50 / 71.50	Land mountainous and level Soil stony and gravelly. 3rd and 4th rate Timber, pine and aspen.

Mountainous and heavily timbered land 48.50 chs.

East on a random line bet. Secs 23 and 26.
40.00 Set a temp 1/4 Sec. Cor.
80.00 intersect a N. and S. line 2 lks N. of the Cor. of Secs 23-24-25 and 26.
Thence I run
N89°59' W. on a true line bet. Secs 23 and 26.
Through heavy pine and aspen timber along the S. end of a flat top of mountain.
15.60 Begin to descend into canon.
40.00 foot of steep descent about 400 feet below the top bears S 40° E. and N 40° W.
Set a volcanic stone 16x6x6 ins. 11 ins in the ground for 1/4 Sec. Cor. marked 1/4 on N. face, from which
An aspen tree 5 ins. diam. bears S 80° W. 60 lks. dist marked 14 S. B. T.
An aspen tree 5 ins. diam. bears N 10° E. 60 lks. dist. marked 14 S. B T.
42.27 wagon road bears S 40° E. and N 45° W. begin steep descent.
57.90 Castle Creek 6 ins. deep. 8 lks. wide drains S 40° E. in bottom of Canon about 150. feet below the beginning of steep descent; ascend, through heavy pine and aspen, and fallen timber
65.60 top of W. side of canon about 200. ft. above the bottom bears S 30° E. and N 30° W. thence level.
69.40 leave heavy timber bears S 40° E. and N 40° W. descend into clearing over gravelly land.
80.00 Cor. of Secs 22. 23-26 and 27.
6.40 / 10.00
Land mountainous and level.
Soil gravelly and stony 3rd and 4th rate.
Timber Pine and aspen.
Mountainous and heavily timbered land 69.40 chs.

N 0°-01' W. bet. Secs 22 and 23.
ascending over gravelly land, grassy.
11.36 top of ridge about 100. ft. above the Sec. Cor. bears S 80° E. and N. 80° W. descend into Canon.

Subdivisions, Sp. 36. South – Range 8 West

chains	
21.66	Castle Creek in bottom of Canon 10 ins deep 6 ft wide drains S 80° E, about 150 ft. below the top, ascend abruptly.
25.75	top of N. side of Canon about 150. feet above the bottom bears E. and W. descend gradually
38.30	road bears S 70° E. and N. 70° W.
40.00	Set a volcanic stone 15×8×6 ins. 10 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 Hatch's ranch house and corrall bears 15.00 chs. West, ascend gradually.
52.42	pond of water about 50 lks. diam on line
65.15	road leads from Castle Valley to Panguitch Lake bears N 40° E, and S 40° W.
74.24	enter heavy pine and aspen timber bears N 40° E, and S 60° W, ascend.
77.00	Canal 2 ft. deep 6 ft. wide drains N 45° E.
80.00	Set a flint stone 20×8×4 ins. 15 ins in the ground for cor. of Secs 14-15-22 and 23, marked with 3 notches on the S. and 2 notches on the E. edges, from which An aspen tree 5 ins. diam. bears S 25° E. 50 lks dist. Marked T. 36. S. R. 8 W. S 23-B T. An aspen tree 10 ins. diam. bears N 75° E. 104 lks dist. Marked T. 36. S. R. 8. W. S 14. B T. An aspen tree 6 ins. diam. bears N 57° W. 59 lks. dist. marked T. 36 S. R 8 W. S 15. B T. An aspen 5 ins. diam bears S 45° W. 45 lks dist. Marked T. 36. S. R. 8 W. S 22. B. T. Land mountainous, and rolling. Soil gravelly 2nd rate. Timber Pine and aspen Mountainous and heavily timbered land 80.00 chs.
	S 89° 59' E. on random line bet. Secs 14 and 23,
40.00	Set temp 1/4 Sec. Cor,
80.00	intersect. N. and S. line 2 lks S. of the Cor. of Secs 13-14-23 and 24. Thence I run

Subdivisions – Tp. 36. South – Range 8 West.

chains	
	West on a true line bet. Secs 14 and 23 ascending over lava stones along the N.E. slope of canon, through heavy aspen and pine timber
40.00	Point for 1/4 Sec. Cor. falls on N. end of a lava stone in place 6 x 3 x 2 feet. Cut a cross (X) at the exact cor. point for 1/4 Sec. Cor. and marked a 1/4 on N. side of cross, and raised a mound of stone 2 ft. base 1 1/2 ft. high N. of cor, from which.
	An aspen tree 6 ins. diam. bears N70°W. 9 lks, dist, marked 1/4 S. BT,
	An aspen tree 6 ins. diam. bears S80°W. 10 lks, dist, marked 1/4 S. BT,
42.00	a ledge of volcanic stone about 40 ft. high bears S 2. chs, rising about 40 ft. above the line. bearing SE. and SW.
65.00	top of spur about 300 feet above the Sec. Cor, slopes rapidly North. descend, abruptly
74.55	road bears N50°E. and S50°W. leads from Castle Valley to Panguitch Lake. The summit of the divide bet. Castle Valley and Deer Creek Canon is 2.00 chs. N.
76.20	Canal 2 feet deep 6 feet wide drains N60°E. this point is about 200 feet below the top of spur. ascend gradually,
80.00	Cor. of Secs 14-15-22 and 23,
	Land mountainous
	Soil stony and gravelly 3rd & 4th rate,
	Timber pine and aspen,
	Mountainous and heavily timbered land 80.00 chs,

	N0°01' W. bet. Secs 14 and 15. ascending through heavy pine and aspen timber over ground sloping SE.
5.75	top of spur ridge about 100 feet above the Sec. cor. slopes East. descend. into canon
28.50	Deer Creek 2 lks. wide 3 ins. deep drains E. in bottom of canon about 250 feet below the top: ascend the N. side of canon.
40.00	Set a volcanic stone 22 x 4 x 4 ins. 16 ins. in the ground for 1/4 Sec. Cor. marked 1/4 on W.

Subdivisions – Tp 36. S. R. 8. West.

chains. face. from which
An aspen tree 6 ins. diam. bears S 60° W. 9 lks
dist. marked 14 S. B T.
An aspen tree 6 ins. diam. bears S 50° E. 32 lks
dist. marked 14 S. B T. continue ascending
55.30 top of ridge about 400. feet above the bott.
bears E. and W. continue ascending grad.
along E. side of head of ravine drains S. W.
80.00 Set a volcanic stone 16 x 10 x 6 ins. 11 ins. in
the ground for Cor. of Secs 10-11-14 and 15,
marked with 4 notches on the S. and 2 notches
on the E. edges. from which.
An aspen tree 6 ins. diam. bears N 27° W. 18 lks
dist. marked T. 36. S. R 8 W. S 10. B T.
An aspen tree 6 ins. diam. bears N 50° E. 82 lks
dist. marked T. 36. S. R 8 W. S 11 - B T.
An aspen tree 6 ins. diam. bears S 31° E 50 lks
dist. marked T. 36. S R 8 W. S 14. B T.
An aspen tree 7 ins. diam. bears S 56° W. 64 lks
dist. marked T. 36. S. R 8 W. S 15. B T.
Land mountainous.
Soil gravelly 3rd rate.
Timber, Pine and aspen,
Mountainous and heavily timbered land 80.00 chs.

East on a random line bet. Secs 11 and 14,
40.00 Set temp 1/4 Sec. Cor,
80.04 intersect N. and S. line 4 lks. N. of the Cor. of
Secs 11-12-13 and 14,
Thence I run
N 89° 58' W. on a true line bet. Secs 11 and 14,
ascending steep mountain through heavy
pine and aspen timber, over gravelly land
40.00 bottom of rough volcanic ledges bears N. and S.,
about 500. feet above the Sec. Cor.
Set Volcanic stone 12 x 7 x 6 ins. 8 ins in
the ground for 1/4 Sec. Cor. marked 14
on N. face. from which
An aspen tree 6 ins. diam. bears S 20° W, 9 lks.
dist. marked 14 S. B. T.
An aspen tree 6 ins. diam. bears N 40° W. 18 lks,

Subdivisions – Tp. 36. S – R 8 W.

dist. marked 14 S. B. T.
58.50 top of steep ledges, about 400 feet above the 1/4 Sec. Cor. bears N. and S. continue ascending gradually.
75.50 Top of main mountain bears N. and S. descend
80.04 The cor. of secs 10-11-14 and 15.
Land mountainous.
Soil gravelly, 3rd rate.
Timber Pine and aspen.
Mountainous and heavily timbered land 80.04 chs.

N. 0°01' W. bet. Secs 10 and 11.
Ascending gradually, over ground slopes S.E. through heavy pine and aspen timber
7.50 top of ridge about 100 feet above the Sec. cor. slopes S 80° E. descend gradually along the West side of deep canon draining N 10° E. over very rough and stony ground very steep.
40.00 top of mountain on S. side of Bunker Canon bears E. and W.
Set a lava stone 15x8x6 ins. 9 ins. in the ground for 1/4 Sec. Cor. marked 1/4 on W. face, from which
A red pine tree 17 ins. diam. bears S 10° W 30 lks. dist marked 14 S. B. T.
A red pine tree 6 ins. diam. bears S 30° E. 38 lks. dist. marked 14 S. B. T. Raised a mound of stone 2 ft. base 1½ ft. high W. of Cor.
descend abruptly through heavy pine and aspen and fallen timber.
77.73 Bunker Creek 6 ins deep, 6 ft. wide in bottom of canon drains S 80° E. about 800 feet below the top, pure water, gravelly bottom rapid current, ascend N. side of canon. heavy timber
80.00 Set lava stone 20x10x5 ins. 15 ins. in the ground for cor. of Secs 2-3-10 and 11. marked with 5 notches on the S. and 2 notches on the E. edges, from which
An aspen tree 8 ins. diam. bears N 63° W. 227. lks. dist, marked T. 36. S. R. 8 W. S 3. B. T.
no other trees within limits, Raised a mound of stone 2 ft. base 1½ ft. high W. of cor. Pits impracticable. The cor. is 22 lks. S. of Road.

Subdivisions. Sp. 36. South. Range 8 West,

chains.	
	Land mountainous Soil stony and gravelly, 3rd and 4th rate. Timber pine and aspen Mountainous and heavily timbered land 80.00 chs.
	S 89° 58' E. on a random line bet. Secs. 2 and 11,
40.00	Set temp. 1/4 Sec. Cor,
80.00	intersect. N. and S. lines 4 lks S. of the cor. of Secs 1-2-11 and 12,
	thence I run
	West, on a true line bet. secs 2 and 11, descending gradually along N side of Bunker Canon, through heavy aspen timber.
7.50	Road bears N 80° W. and S 80° E,
9.75	road bears S 50° W, and N 50° E,
20.00	Bunker's cabin and corrals, (deserted) bears S about 10. chs. dist.
23.00	top of rocky spur on N. side of canon slopes rapidly S. descend into canon.
40.00	Set a volcanic stone 16x8x6 ins. 11 ins. in the ground for 1/4 Sec. Cor, marked 1/4 on N, face, from which
	An aspen tree 12 ins. diam bears S 57° E. 61 lks. dist. marked 1/4 S.B.T.
	An aspen tree 12 ins. diam bears N 4½° E. 39 lks. dist. marked 1/4 S.B.T. continue descend
68.90	Road bears S 80° E, and N 80° W, leave timber
80.00	Cor, of Secs 2, 3, 10 and 11, about 150. feet below top of rocky spur,
	Land mountainous,
	Soil stony 4th rate.
	Timber, Aspen,
	Mountainous and heavily timbered land 80.00 chs.
	N 0° 01' W, on a true line bet. Secs 2 and 3, ascending the N. side of Bunker Canon.
0.22	road bears S 80° E, and N 80° W,
19.70	top of steep ascent about 400 feet above the Sec, Cor, bears E. and W. entire heavy aspen timber. continue ascending gradually over gravelly land,
40.00	the point for the 1/4 Sec. Cor, falls on lava rock

Subdivisions - Tp. 36. S. R. 8 West,

in place, surface 4 x 3 ft x 6 ins. above ground.
on which
Cut a cross (x) at the exact cor. point for
1/4 Sec. Cor., marked 1/4 on N. side of cross,
from which
An aspen tree 8 ins. diam. bears N 45° W. 36 lks.
dist. marked 1/4 S. B T.
An aspen tree 6 ins. diam. bears N 40° E, 32. lks
dist. marked 1/4 S. B. T. no stone available
for mound. Pits impracticable.
51.50 top of steep descent, bears E. and W. descend
into deep canon drains N 40° E, through
heavy pine and aspen timber.
71.15 Intersect the N. bdy of the Tp. 13.61 chs E. of
the Standard Sec. Cor. of Secs 34. and 35,
which is a volcanic stone firmly set.
marked and witnessed as described by the
surveyor general. at point of intersection
Set a large stone 12 x 8 x 8 ins. 8 ins. in the
ground for closing cor. of Secs 2 and 3,
marked C. C. on S, with 2 grooves on the E,
and 4 grooves on the W. faces, from which
an aspen tree 8 ins. diam. bears S 50° W. 91 lks
dist marked T. 36. S R. 8. W, S 3. B.T. C. C,
An aspen tree 6 ins. diam. bears S 40° E. 70
lks. dist. marked T. 36. S. R. 8 W, S 2, BT. C.C,
Raised a mound of stone 2 ft. base 1 1/2 ft. high
S. of cor. Pits impracticable.
Land mountainous,
soil gravelly 3rd rate.
Timber Pine and aspen,
Mountainous and heavily timbered land 71.15 chs.
July 26 - 1898.

August 1st 1898. at 10h 43m l.m.t. or at
11h 15m P.M. Aug. 1 - 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 33 and 34, on the South

Chains	
	boundary of the Tp, 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 2nd 1898. at 7. a. m. I lay off the azimuth of Polaris 1° 34' 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
	No° 01' W. bet Secs. 33 and 34
	ascending gradually through heavy pine and aspen timber, over lava rocks.
18.20	top of ridge about 20 feet above Sec. Cor, bears E. and W. descend,
31.80	S. edge of lava sink 75 feet deep extends E 2. chs and W. 2. chs,
37.80	North edge of same sink.
40.00	Set a lava stone 16×12×3 ins. 11 ins. in the ground for 1/4 Sec. Cor, marked 1/4 on N. face, from which
	An aspen tree 6 ins. diam. bears S 42½° W. 31 lks dist. marked 1/4 S. B T.
	An aspen tree 8 ins. diam. bears S 80° E, 41 lks, dist marked 1/4 S. B T, Raised a mound of stone 2 ft. base 1½ ft. high W. of Cor. Pits impracticable
47.70	begin to ascend a small ridge bears N 40° E.
54.50	top of ridge about 50. ft. above beginning of ascent slopes N 40° E, descend,
80.00	Set a lava stone 16×12×5 ins. 11 ins. in the ground for Cor. of Secs. 27-28-33. and 34, marked with 1 notch on the S. and 3 notches on the E. edges, from which.
	An aspen tree 8 ins. diam. bears N 71° W. 73 lks, dist marked T. 36. S R. 8 W, S 28. B T,
	An aspen tree 6 ins. diam. bears N 42° E, 76 lks dist, marked T. 36. S. R 8 W. S 27, B T,
	An aspen tree 8 ins. diam. bears S 35° E, 14 lks dist. marked T. 36. S. R 8 W. S 34. B T,
	An aspen tree 8 ins. diam. bears S 70° W, 82 lks, dist. marked T. 36. S. R 8 W, S 33, B. T.

Subdivisions. Tp. 36. S. R 8 West.

Land mountainous,
Soil lava stones, and very thin soil 4th rate.
Timber Pine and aspen,
Mountainous and heavily timbered land 80.00 chs.

East on a random line bet. Secs 27 and 34
40.00 Set temp. 1/4 Sec. Cor,
80.00 intersect the Cor. of Secs 26-27-34 and 35,
Thence I run,
West. on a true line bet. Secs 27. and 34,
ascending the East slope of mountain through
heavy pine and aspen timber. over lava rocks.
8.56 road to Jensen's sawmill bears N30°W. and
S30°E.
40.00 Set a black lava stone 12×7×7. ins. 8 ins in the
ground for 1/4 Sec. Cor. marked 1/4 on N. face,
from which:
An aspen tree 12 ins. diam. bears S40°W. 104
lks. dist marked 1/4 S. B T.
An aspen tree 10 ins. diam. bears N43½°E. 77
lks. dist marked 1/4 S. B T. raised a
mound of stone 2 ft. base 1½ ft. high N. of Cor,
Pits impracticable. The cor is 14.10 chs
S. of Jensen's saw-mill road,
80.00 Cor. of Secs 27-28-33 and 34, about
200. feet above the Cor. of Secs 26-27-34 and 35.
Land mountainous.
Soil. thin clay and gravel mixed with lava stones
3rd and 4th rate.
Timber pine and aspen,
Mountainous and heavily timbered land 80.00 chs.

N0°01' N. bet. Secs 27 and 28.
descending through heavy pine and aspen
timber
18.70 Road to Jensen's saw-mill bears S80°W. and
N80°E. at bottom of descent about 60. feet
below the Cor, at W. end of clearing extends
E. thence nearly level.
40.00 Set a Volcanic stone 16×6×6 ins. 11 ins.
in the ground for 1/4 Sec. Cor. marked

Subdivisions Sp. 36. South. Range 8 West

chains	
	1/4 on W. face from which
	An aspen tree 6 ins. diam. bears N28°E. 147 lks dist marked 1/4 S. B T.
	An aspen tree 6 ins. diam. bears N40°W 68. lks. dist. marked 1/4 S.B T.
49.10	Mammoth creek 15 lks. wide 9 ins. deep. drains S80°E. rapid current rocky bottom ascend steep ridge. bears E. and W.
71.36	Road to Hatches ranch bears S70°W. and N70°E, descend,
80.00	Set a Volcanic stone 18×7×7 ins. 12 ins. in the ground for Cor. of Secs. 21-22-27 and 28 marked with 2 notches on the S. and 3 notches on the E. edge, from which
	An Aspen tree 12 ins. diam. bears N59°E. 19 lks dist. marked T. 36. S. R. 8 W, S 22. B. T,
	an aspen tree 12 ins. diam. bears N35°W. 23 lks. dist. marked T. 36. S R 8 W. S 21., B.T.
	An aspen tree 12 ins diam. bears S25°E, 36 lks dist. marked T. 36. S. R 8 W, S 27, B T.
	An aspen tree 12 ins. diam. bears S42°W, 32 lks. dist. marked T. 36. S. R. 8. W, S 28 B.T,
	Raised a mound of stone 2 ft. base 1½ ft. high W. of Cor, Pits impracticable.
	Land mountainous.
	Soil gravelly and stony 3rd and 4th rate.
	Timber, pine and aspen,
	Mountainous and heavily timbered land 80.00 chs,
	East on a random line bet. Secs 22, and 27,
40.00	Set. temp 1/4 Sec. Cor,
80.10	intersect. N. and S. line 2 lks. S. of the Cor. of Secs 22-23-26 and 27,
	Thence I run
	S89°-59' W. on a true line bet. Secs 22, and 27, ascending the east slopes of mountain over gravelly land. grassy.
9.70	Small rivulet drains S30°E,
21.20	Enter heavy aspen timber bears S60°E and N60°W,
25.75	leave aspen timber. bears N60°E. and S60°W,
40.05	Set a Volcanic stone 20×6×6 ins. 15 ins.

Subdivisions - Tp. 36. South - Range 8 West.

chains	
	in the ground for 1/4 Sec. cor. marked 1/4 on N. face, from which
	An aspen tree 6 ins. diam. bears N 46° W. 272 lks dist. marked 1/4 S. BT.
	An aspen tree 10 ins. diam. bears S 4° W. 173 lks dist. marked 1/4 S. BT. raised a mound of stone 2. ft. base 1 1/2 ft. high N. of Cor.
50.90	Road bears S 70° W. and N 70° E.
56.85	Enter heavy aspen timber bears S 30° E. and N 40° W.
65.15	leave aspen timber bears N. and S.
69.25	enter heavy aspen timber bears N. and S.
80.10	Cor. secs. 21 - 22 - 27 and 28. being about 250. feet above the Sec. Cor.
	Land mountainous.
	Soil gravelly and loamy 2nd and 3rd rate.
	Timber aspen.
	Mountainous and heavily timbered land 80.10 chs.
	N 0° 01' W. bet. Secs 21 and 22, ascending over ground slopes SE. through heavy pine and aspen timber.
13.65	road from upper Castle Valley to Lower Castle Valley bears E. and W.
18.20	top of gradual ascent about 100 feet above the Sec. Cor. slopes. E. descend over ground slopes N. E.
27.60	small ravine drains E.
40.00	Set a volcanic stone 16 x 8 x 4 ins. 11 ins. in the ground for 1/4 Sec. Cor. marked 1/4 on W. face from which
	An aspen tree 8 ins. diam. bears N 43° E. 18 lks dist. marked 1/4 S. BT.
	An aspen tree 6 ins. diam. bears N 47° W. 45 lks. dist. marked 1/4 S. BT. raised a mound of stone 2 ft. base 1 1/2 ft. high W. of cor. Pits impracticable.
	begin to descend abruptly into Lower Castle Valley, over ground slopes N. E.
47.00	bottom of steep descent about 75 ft. below the top bears S 45° E. and N 45° W.
50.60	leave heavy aspen timber bears E. and W. continue descending.

Subdivisions. Tp. 36. South. Range 8 West

65.15	Enter heavy pine and aspen bears E. and W.,
69.70	leave timber bears E. and W. enter dense willows
70.50	Spring Branch 2 lks. wide 3 ins. deep drains N40°E.
73.80	Castle Creek 6 lks wide 8 ins. deep drains N40°E. pure water, sandy bottom. easy current,
80.00	Set a Volcanic stone 20×10×8 ins. 15 ins in the ground for Cor. of Secs 15-16-21-and 22, marked with 3 notches on the S. and E. edges, in dense willows, from which.
	An aspen tree 6 ins diam. bears N62°E. 112 lks. dist. marked T.36.S.R.8W.S 15.B.T.
	An aspen tree 6 ins. diam. bears N30°W. 113 lks dist. marked T. 36. S. R 8. W. S 16. B. T.
	no other bearing trees within limits. no stone available for mound. — Pits impracticable
	Land Mountainous
	Soil 1st 1/4 mile gravelly 2nd 1/4 mile loamy 3rd and 2nd rate.
	Timber. Pine and aspen
	Mountainous and heavily timbered land 80.00 chs.
	N89°-59'E. on a random line bet. Secs. 15 & 22,
40.00	Set temp. 1/4 Sec. Cor,
80.00	intersect the Cor. of Secs 14-15-22 and 23,
	Thence I run
	S89°-59'W. on a true line bet. Secs 15 and 22, ascending through heavy pine and aspen timber along the N. side of Lower Castle Valley. over gravely loam, sloping S.E,
40.00	Set a volcanic stone 13×10×6 ins. 9 ins in the ground for 1/4 Sec. Cor. marked 1/4 on N. face. from which
	a balsam tree 5 ins. diam. bears S40°E. 24 lks dist. marked 1/4 S. B. T.
	A. balsam tree 5 ins. diam. bears N70°E 23 lks. dist marked 1/4 S. B. T. Cor. 4 feet North of Canal drains S E,
40.40	Canal drains S 80°E, heads S 80°W.

44.50 same canal 5 feet wide 2 feet deep, drains S70°E, heads N70°W,
47.00 leave heavy timber bears S70°E. and N70°W, ascend gradually through dense undergrowth of willows
56.00 same canal 10 feet wide 6 ft. deep drain N70°E.
67.00 Castle Creek 11 lk. wide 2 ft. deep. drains S45°E.
67.50 same creek. drains N.
68.30 " creek 3 lk. wide drains S. sandy bottom, easy current,
80.00 Cor. Secs 15-16-21, and 22,
Land mountainous and level,
Soil gravelly and loamy. 2nd and 3rd rate.
Timber Pine and aspen,
Mountainous land, lands heavily timbered, and land covered with dense undergrowth 80.00 chs

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N.0° 01' W. bet. Secs 15 and 16,
through dense undergrowth of willows, over level loam.
1.20 Branch of Castle Creek 3 lk. wide 6 ins. deep drains S30°E, ascend through heavy aspen timber leave willows bears E. and W.
9.00 leave aspen timber bears, S30°E. and N70°W, ascend over gravelly land, the N. End of Castle Valley,
27.50 Spring Branch 3 lk. wide 2 ins. deep. drains S30°E, at mouth of Cañon heads N30°W, ascend mountain along E. side of Cañon over stony ground slopes S.W. Enter heavy pine and aspen timber.
40.00 Set a volcanic stone 16x6x6 ins. 11 ins in the ground for 1/4 Sec. Cor. marked 1/4 on W. face, from which
An aspen 6 ins. diam. bears S80°W, 20. lks. dist. marked 1/4 S.B.T,
An aspen tree 6 ins. diam. bears E, 15 lks. dist. marked 1/4 S.B.T,
Raised a mound of stone 2. ft base 1 1/2 ft. high W. of Cor. Pits impracticable.
50.00 a high ledge of Volcanic stone bears E. 10. chs dist. continue ascending
65.00 bottom of a ravine drains S60°W

chains ascend more abruptly.
80.00 top of abrupt ascent, about 800 feet above Castle Valley, bears E. and W.
Set a large stone 15x10x10 ins. 10 ins. in the ground for cor. of Secs. 9-10-15 and 16 marked with 4 notches on the S. and 3 notches on the E. edges, from which
An aspen tree 6 ins. diam. bears S30°W. 136 lks dist. marked T.36.S.R.8W.S16.B.T.
a balsam tree 10 ins. diam. bears N40°E. 80 lks dist. marked T.36.S.R.8W.S10.B.T.
An aspen tree 6 ins. diam. bears N10°W. 118 lks dist. marked T.36.S-R.8W. S9 B.T.
no other bearing trees in limits. raised a mound of stone 2 ft. base 1½ ft. high W. of cor. Pits impracticable.
Land mountainous.
Soil stony and gravelly, 3rd and 4th rate
Timber pine and aspen,
Mountainous and heavily timbered land 80.00 chs.

N89°59' E. on a random line bet. Secs. 10 and 15.
40.00 Set Temp. ¼ Sec. Cor.
80.08 intersect N. and S. line 2 lks. N. of the Cor. of Secs. 10-11-14 and 15,
Thence I run
West on a true line bet. Secs. 10 and 15, ascending out of head of ravine drains S. through heavy pine and aspen timber.
15.00 top of spur ridge about 100 ft. above the Sec. cor. slopes S. descend over rocky ground slopes SW. into Deer Creek Cañon
30.00 Deer Creek 2 lks wide 2 ins. deep drains S27°E. heads 20 chs N5° W. this point is about 300 feet below top of spur in bottom of cañon.
Ascend W. side through heavy pine and aspen timber
40.04 Set Volcanic stone 18x10x8 ins. 12 ins. in the ground for ¼ Sec. Cor. marked ¼ on N. face, from which
A balsam tree 8 ins. diam. bears S20°W. 51 lks.

Subdivisions — Tp. 36. S. — R. 8 West.

chains	
	dist. marked 1/4 S-B.T.
	a balsam tree 8 ins. diam. bears N30°W. 7 lks. dist. marked 1/4 S. B.T. Raised a mound of stone 2 ft. base 1½ ft. high N. of cor.
	Continue ascending out of canon
41.20	small spring branch drains N.E.
67.00	Top of ridge about 500. feet above bottom of canon bears N. and S, ascend over ground slopes S.E. along N. side of ravine draining SW,
80.08	The cor. of Secs 9-10-15 and 16,
	Land mountainous
	Soil gravelly and stony 3rd and 4th rate.
	Timber, Pine and aspen,
	Mountainous and heavily timbered land 80.08 chs.
	N. 0°-01' W. bet. Secs 9 and 10,
	ascending over stony ground, through heavy pine and aspen timber.
13.00	top of main mountain about 100 feet above the Sec. Cor. bears E. and W, descend very abruptly.
37.50	Spring Branch 1 lk. wide 3 ins. deep drains N.E.
40.00	Set a volcanic stone 15×8×6 ins. 10 ins in the ground for 1/4 Sec. Cor. marked 1/4 on N. face from which
	An aspen tree 12 ins. diam. bears S40°E, 27 lks. dist. marked 1/4 S. B.T,
	An aspen tree 6 ins. diam bears S80°W, 30 lks. dist. marked 1/4 S. B.T.
78.50	Creek in bottom of canon 7 lks. wide 6 ins deep drains rapidly N80°E, rocky bottom. this point is about 900. feet below the top of mountain. ascend the N. side
80.00	Set a lava stone 12×8×6 ins. 8 ins. in the ground for cor. of Secs 3-4-9 and 10, marked with 5 notches on the S. and 3 notches on the E. edges, from which
	An aspen tree 10 ins. diam. bears N38°E, 50 lks. dist marked T. 36. S. R. 8 W. S 3. B.T.

Subdivisions — Tp. 36. S — Range 8 West.

chains	An aspen tree 6 ins. diam. bears S42°W. 24 lks. dist., marked T. 36. S. R 8 W. S 9 B.T.
	An aspen tree 6 ins. diam. bears S34°E. 27 lks. dist. marked T. 36. S. R. 8 W. S 10. B.T.
	An aspen tree 12 ins. diam. bears N55°W. 73 lks dist. marked T. 36. S. R 8 W. S 4. B.T.
	Land mountainous,
	Soil stony and gravelly, 3rd and 4th rate.
	Timber pine and aspen
	Mountainous and heavily timbered land 80.00 ac.
	East on a random line bet. Secs 3 and 10.
40.00	Set temp 1/4 Sec. cor,
80.00	intersect the cor. of Secs 2-3-10 and 11.
	Thence I run
	West on a true line bet. Secs 3 and 10.
	descend from the cor.
4.40	Bunker Creek drains S70°E. 6 ins. deep. 6. lks. wide gravelly bottom. enter dense undergrowth of willows
7.50	begin steep ascent along S. side of canon through heavy pine and aspen timber bears N. and S.
40.00	Set a lava stone 15x6x6 ins 10 ins. in the ground for 1/4 Sec. cor. marked 1/4 on N. face from which.
	An aspen tree 6 ins. diam. bears N40°E. 45 lks. dist marked 1/4 S. B.T.
	and aspen tree 6 ins. diam. bears S50°E. 38 lks. dist. marked 1/4 S. B.T.
	cor. on S. side of canon about 200 ft. above bottom. continue ascending.
70.50	Creek in bottom of canon drains N80°E. into Bunker Canon. ascend the N. side of canon.
80.00	The cor. of Secs 3-4-9 and 10. about 500 feet above the bottom of Bunker Canon.
	Land mountainous
	Soil stony and gravelly. 4th rate.
	Timber. Pine and aspen.
	Mountainous and heavily timbered land 80.00 ac.

Subdivisions. Sp. 36. S. — Range 8 West.

Chains	
	N 0°-01' W. on a true line bet. Sec^s 3. and 4, ascending N. side of Cañon, through heavy aspen timber.
23.00	top of ridge about 300. feet above the Sec. Cor, slopes E. descend into Bunker Canon through heavy pine and aspen, and fallen timber over stony ground,
40.00	Set a volcanic stone 16×11×5 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 no live bearing trees within limits,
55.30	Creek in bottom of Bunker Cañon, about 400 feet below top of ridge. 8 lks. wide 6 ins deep. drains S 40° E. pure water, gravelly bottom, rapid current, ascend the N. side through heavy aspen timber.
72.73	intersect the N. bdy of the Sp. 7.57 chs S 88°46' E. of the old Standard cor of Sec^s 33 and 34, which is a volcanic stone firmly set, marked and witnessed as described by the surveyor general. At point of intersection Set, a volcanic stone 18×6×5 ins. 17 ins. in the ground for closing cor. of Sec^s 3 and 4, marked C. C. on S. with 3 grooves on the E. and N. faces, and raised a mound of stone 2 ft. base 1½ ft. high S. of cor, no trees large enough for bearing trees within limits.
	Land mountainous.
	Soil stony and gravelly, 3rd and 4th rate.
	Timber Pine and aspen,
	Mountainous and heavily timbered land 72.73 chs.
	August 2 – 1898,

August 6th 1898. at 10h 23m L.M.t. or at 10h 55m P.M. by my watch which is correct mountain standard rail road time, I observe Polaris at Eastern Elongation in accordance with the Manual of Instruction at the cor. of

Subdivisions Tp. 36. South. Range 8 West

Chains	
	Secs 32 and 33, on the South boundary of the Tp; 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 8th at 7. A.M. I lay off the azimuth of Polaris 1° 34' 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 the night of the 6th
	Thence I run
	N 0°-02' W. bet Secs 32 and 33, ascending the S.E. side of Hancock Peak, through heavy pine and aspen timber
10.00	top of spur ridge about 200 feet above the Sec. Cor. slopes E. descend the N.E. slope of same peak, the top of the peak is about 20. chs. West and about 600 feet higher than this point.
40.00	set a lava stone 14 x 8 x 5 ins. 9 ins. in the ground for 1/4 Sec. Cor, marked '14 on N. face from which
	An aspen tree 6 ins. diam. bears N54°E. 9 lks. dist. marked 14 S. B. T.
	An aspen tree 6 ins. diam. bears S64°W, 27 lks. dist. marked 14 S. B. T.
	Raised a mound of stone 2 ft. base 1½ ft. high N. of cor. Pits impracticable.
	Continue descending
80.00	The point for the Sec. cor. falls on a volcanic stone in place 4 ft x 18 x 6 ins. above ground, on which
	cut a cross (X) at the exact cor. point for cor. of Secs 28-29-32 and 33, with 1 notch on the S. and 4 notches on the E. of the cross, from which.
	An aspen tree 6 ins. diam. bears N50°W. 21 lks dist. marked T. 36. S. R8W. S29 B.T.
	An aspen tree 6 ins. diam. bears N40°E. 80 lks dist. marked T. 36. S. R8W. S 28. B.T.

chains	
	An aspen tree 5 ins. diam. bears S 35° E. 53 lks. dist marked T. 36. S. R 8 W. S 33. B. T.
	An aspen tree 10 ins. diam. bears S 34° W 57 lks dist. marked T. 36. S. R. 8 W. S 32. BT.
	Raised a mound of stone 2 ft. base 1½ ft. high W. of cor.
	Land mountainous.
	Soil stony 4th rate.
	Timber Pine and aspen.
	Mountainous and heavily timbered land 80.00 chs.
	East on a random line bet. Secs. 28 and 33.
40.00	Set temp ¼ Sec. cor.
80.00	intersect the cor. of Secs. 27-28-33 and 34.
	Thence I run
	West on a true line bet. Secs 28 and 33.
	ascend from the cor. through heavy pine and aspen timber over stony ground.
4.00	top of rise about 50. ft. above the cor. slopes N.
	thence over ground slopes N. E.
40.00	Set a volcanic stone 12 x 7 x 6 ins 8 ins. in the ground for ¼ Sec. cor. marked ¼ on N. face
	from which
	An aspen tree 6 ins. diam. bears S 36° E. 18 lks. dist. marked ¼ S. B T.
	An aspen tree 6 ins. diam. bears N 40° E. 68 lks. dist. marked ¼ S. B. T.
45.00	bottom of mouth of canon heads S 40° W.
	ascend the W. side
62.00	top of W. side of canon about 300. feet above the bottom slopes N. 35° E. descend
69.40	bottom of descent about 200. feet below the top bears N 40° E. and S 40° W. ascend gradually over loose lava rock, mixed with thin soil.
72.50	S. end of lava field extends N 2. chs.
80.00	The cor. of Secs 28-29-32 and 33
	Land mountainous.
	Soil stony 4th rate.
	Timber Pine and aspen.
	Mountainous and heavily timbered land 80.00 chs.

Subdivisions — Tp. 36. S - Range 8 West.

chains	No°-02' W. bet. Secs 28- and 29.
	descending gradually over lava stony ground, through heavy pine and aspen timber.
5.00	Road to Jensen's Saw-mill bears S87°W. and N87°E.
16.50	lava bed extends E. about 4. chs.
25.50	Mammoth Creek 24 lks. wide. 10 ins. deep. drains N. 80°E. in small ravine about 100. feet below the Sec. Cor. ascend N. side.
36.00	top of ridge about 40 feet above the creek slopes E. descend.
40.00	Set a volcanic stone 12×7×6 ins. 8 ins. in the ground for 1/4 Sec. Cor. marked 1/4 on W. face from which
	An aspen tree 8 ins. diam. bears S38°E. 123 lks. dist. marked 1/4 S. B. T.
	An aspen tree 6 ins. diam bears S 53°W. 136 lks dist. marked 1/4 S. B. T. continue descending
42.10	Lowder Creek 4 lks. wide 4 ins. deep. drains S70°E. rocky bottom rapid current. about 40 feet below the top. ascend, leave timber.
49.60	road to Castle Valley bears N70°E. and S70°W.
58.10	Enter heavy pine and aspen timber bears E and
80.00	Set a lava stone 17×8×6 ins 11 ins. in the ground for cor. of Secs 20-21-28 and 29. marked with 2 grooves on the S. and 4 grooves on the E. edges. from which
	An aspen tree 10 ins. diam. bears S25°W. 4 lks. dist marked T. 36. S. R8W. S29. B.T.
	An aspen tree 10 ins. diam. bears N46°W. 11 lks dist. marked T. 36. S. R. 8W. S 20. B.T.
	An aspen tree 6 ins. diam. bears N26°E. 32 lks. dist. marked T. 36. S. R8W. S21. B.T.
	An aspen tree 8 ins. diam. bears S83°E. 54 lks. dist. marked T. 36. S. R. 8W. S28. B.T.
	Land mountainous
	Soil stony and gravelly 3rd and 4th rate
	Timber. pine and aspen
	Mountainous and heavily timbered land - 80.00 chs.
	East on a random line bet Secs. 21 and 28
40.00	Set temp 1/4 Sec. Cor.

Subdivisions. Sp. 36. S — Range 8 West.

80.06 intersect N. and S. line 4 lks. S. of the Cor. of Secs 21-22-27 and 28.
Thence I. run
S89°58' W. on a true line bet. Secs 21. and 28.
ascending the E. slope of mountain through heavy pine and aspen timber, a gradual slope
40.03 Set a volcanic stone 16×6×6 ins. 8 ins. in the ground and mound of stones, for 1/4 Sec. Cor, marked 1/4 on N. face. from which
An aspen tree 6 ins diam. bears. S60°E. 33 lks. dist. marked 1/4 S. B. T.
An aspen tree 17 ins. diam. bears N80°E, 33 lks. dist. marked 1/4 S. B. T.
stony ground prevented sitting the cor. deeper.
80.06 The cor. of Secs 20-21-28 and 29, about 300. feet above the last sec. cor.
Land mountainous
Soil stony and gravelly, 3rd and 4th rate.
Timber Pine and aspen.
Mountainous and heavily timbered land 80.06 chs.

N. 0°02' W. bet. Secs 20 and 21.
Ascending gradually the S.E. slope of mountain through heavy pine and aspen timber, over stony ground. lava.
27.00 top of gradual ascent about 75 feet above the Sec. Cor, slopes. E. thence along the E. slope of mountain.
40.00 Set a lava stone 16×8×5 in. 11 ins. in the ground for 1/4 Sec. Cor. marked 1/4 on W. face. from which.
An aspen tree 17 ins. diam. bears N79°E. 32 lks. dist. marked 1/4 S. B. T.
An aspen tree 12 ins. diam. bears N47°W, 18 lks. dist marked 1/4 S. B. T.
45.00 rocky wash. 1 ft. deep. 6 ft. wide drains E.
54.00 a high butte bears 20. chs. W.
63.50 old road bears S70°E. and N45°W, from upper to Lower Castle Valley.
66.40 begin. to descend into ravine bears E and W.

Subdivisions Tp. 36. South Range 8 West.

chain
79.10 bottom of ravine about 100 feet below the top drains E. ascend
80.00 Set a volcanic stone 12 x 7 x 6 ins. 8 ins in the ground for cor. of Secs 16-17-20 and 21, marked with 3 notches on the S. and 4 notches on the E. edges. from which
An aspen tree 8 ins. diam. bears N 35° W. 128 lks dist. marked T. 36. S. R. 8 W. S 17. B T,
A spruce tree 10 ins. diam. bears N 43° E. 114 lks dist. marked T. 36. S. R. 8 W. S 16. B T,
An aspen tree 8 ins. diam. bears S 12° W. 110 lks dist. marked T. 36. S. R. 8 W. S 20. B. T,
An aspen tree 8 ins. diam. bears S 35° E. 174 lks dist marked T. 36. S. R. 8 W. S 21. B T,
Raised a mound of stone 2 ft. base 1½ ft. high W. of Cor,
Land mountainous,
Soil stony. 4th rate.
Timber, pine and aspen,
Mountainous and heavily timbered land 80.00 chs.

N 89° 58' E. on a random line bet. Secs. 16 and 21,
40.00 Set temp. 1/4 Sec. Cor,
80.00 intersect N. and S. line 4 lks. N of the Cor. of Secs 15-16 21, and 22,
Thence I run
West on a true line bet. Secs 16. and 21, ascending gradually through dense undergrowth of willows over loamy land at the N.W. end of Lower Castle Valley.
9.00 Castle Creek Branch drains N 40° E. 3 lks wide 1 ft. deep, enter heavy pine and aspen timber.
21.00 leave dense willow brush bears N. and S.
40.00 Set a volcanic stone 12 x 6 x 6 ins. 8 ins in the ground for 1/4 Sec. Cor. marked 1/4 on N. face from which
An aspen tree 5 ins. diam. bears S 30° E. 15 lks dist. marked 1/4 S. B. T,
A balsam tree 8 ins. diam. bears N 40° E. 36 lks. dist. marked 1/4 S. B. T.
45.30 Castle Creek drains S 50° E. 10 lks. wide 1 ft. deep

Subdivisions. Sp. 36. South, Range 8 West.

chains	
	rocky bottom. rapid current, begin to ascend steep Mountain at South side of mouth of deep Canon heads N. W.
80.00	The Cor. of Secs. 16-17-20 and 21, about 800 feet above the last Sec. Cor,
	Land Mountainous,
	Soil loamy 1st 1/2 mile - Stony the last 1/2 mile 1st and 4th rate.
	Timber Pine and aspen,
	Mountainous, heavily timbered and covered with dense undergrowth 80.00 chs.
	N 0°-02' W. bet Secs 16 and 17, ascending small ridge slopes E. through heavy pine and aspen timber over stony, rough and rolling ground sloping E. into deep canon, draining S.E.
0.20	top of small ridge about 4 ft. above Sec. cor. descend,
27.00	Castle Creek in bottom of gulch about 100 feet deep drains rapidly E, 10 lks. wide 1 ft. deep. rocky bottom ledge timber ascend, over broken and rough stony ground slopes S. and W.
40.00	Set a volcanic stone 16×8×8 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 W. of Cor, Pits impracticable. continue ascending
46.00	Enter heavy pine and aspen timber bears E. and W.
73.00	top of main ridge about 300. feet above the Sec. Cor, bears N 40° W. and S 40° E, descend,
80.00	Set a volcanic stone 20×10×10 ins. 15 ins. in the ground for Cor. of Secs - 8-9-16 and 17, marked with 4 notches on the S. and E. edges, from which,
	An aspen tree 8 ins. diam. bears N 8° E. 80 lks. dist. marked T. 36. S, R. 8 W, S 9. B. T.
	An aspen tree 6 ins. diam. bears N 60° W. 110 lks. dist. marked T. 36. S - R. 8 W. S 8. B T.

Subdivisions Tp. 36. S – R. 8. W.

Chains	
	An aspen tree 6 ins. diam. bears S30°W. 73 lks dist. marked T.36.S.R.8W.S17.B.T.
	An aspen tree 5 ins. diam. bears S27°E. 83 lks. dist. marked T.36.S.R.8W.S16.B.T.
	The cor. is on ground sloping N.E. about 100 feet below the top of ridge.
	Land mountainous.
	Soil stony 4th rate.
	Timber Pine and aspen.
	Mountainous and heavily timbered land 80.00 ac
	East on a random line bet. Secs. 9 and 16,
40.00	Set temp 1/4 Sec. Cor,
79.96	intersect N. and S. line 7 lks. S. of the Cor. of Secs. 9-10-15 and 16,
	Thence I run
	S89°57' W. on a true line bet. Secs. 9 and 16, over ground slopes S.E. stony, through heavy pine and aspen timber,
13.00	top of spur about 100. ft. above the Sec. Cor, slopes S. descend into canon,
26.00	bottom of canon about 200. feet below the top drains S45°E, ascend,
31.00	Spring Branch. 1/2 in. deep 1 lk. wide drains SE.
39.98	Set a black volcanic stone 20×12×6 ins. 15 ins. in the ground for 1/4 Sec. Cor, marked 1/4 on N. face, from which
	An aspen tree 6 ins. diam. bears S80°E. 23 lks. dist. marked 1/4 S.B.T.
	An aspen tree 6 ins. diam. bears N70°E. 60 lks. dist. marked 1/4 S.B.T. Raised a mound of stone 2 ft. base 1 1/2 ft. high N. of Cor,
45.50	top of ridge about 400. feet above bottom bears N45°W. and S45°E. descend,
60.40	Spring branch. 2 ins. deep 2 lks. wide in bottom of canon about 400 feet below the top drains S45°E. ascend the N. side.
72.00	top of N. side about 500 feet above the bottom bears S40°E. and N40°W. ascend more gradually.

Subdivisions, No. 36. South, Range 8 West

Chains.

79.96 The cor. of Secs. 8-9-16 and 17,
Land mountainous,
Soil stony 4th rate,
Timber Pine and aspen,
Mountainous and heavily timbered land 79.96 chs

N 0°-02' W. bet. Secs. 8 and 9,
descending gradually into head of ravine or canon through heavy pine and aspen timber over gravelly land.

14.00 bottom of ravine about 50. feet below the Sec. Cor. drains S 35° E, ascend the N. side

40.00 Set a volcanic stone 12x6x7. ins. 8 ins. in the ground for 1/4 Sec. Cor, marked 1/4 on N. face, from which.
a balsam tree 8 ins. diam. bears N 47° W. 38 lks. dist marked 1/4 S. B. T.
a spruce tree 20 ins. diam bears N 23° E, 23 lks. dist marked 1/4 S. B. T.
continue ascending gradually.

52.70 top of main ridge about 200. feet above the bottom of ravine bears E. and W, descend abruptly.

80.00 Set a volcanic stone 16x10x6 ins. 11 ins. in the ground for cor. of Secs. 4-5-8 and 9, marked with 5 notches on the S. and 4 notches on the E. edges; from which.
a spruce tree 20 ins. diam. bears N 64° W, 80 lks. dist. marked T. 36. S. R. 8 W, S 5. B. T,
a balsam tree 8 ins. diam. bears N 74° E, 50 lks. dist. marked T. 36. S - R. 8 W. S 4. B. T,
a balsam tree 10 ins. diam. bears S 30° E, 14 lks. dist. marked T. 36. S. R. 8 W. S 9, B. T.
a. Balsam tree 12 ins. diam. bears S 43° W, 61 lks. dist. marked T. 36. S. R. 8 W. S 8. B. T.
and raised a mound of stone 2 ft. base 1½ ft. high W. of cor,
This cor. is about 500 feet below the top of ridge on ground sloping N. into head

Chains. of Canon.
Land mountainous
Soil gravelly, 3rd rate.
Timber Pine and aspen,
Mountainous and heavily timbered land 80.00

N 89° 57' E. on a random line bet. Secs 4 and
40.00 Set temp 1/4 Sec. Cor,
80.10 intersect N. and S. line 7 lks. N. of the Cor. of Secs 3-4-9 and 10,
Thence I run
West on a true line bet. Secs 4 and 9,
Ascending along the N. side of Canon,
through heavy pine and aspen timber
11.30 Creek 8 lks. wide 6 ins. deep in bottom of Canon drains S 70° E. continue ascending along South side of Canon, abruptly.
40.05 Set a Volcanic stone 12 x 10 x 6 ins. 8 ins. in the ground for 1/4 Sec. Cor, marked 1/4 on N. face. from which
a spruce tree 24 ins. diam. bears S 45° E, 10 lks. dist. marked 1/4 S. B. T,
a spruce tree 10 ins. diam. bears N 60° W. 6 lks. dist. marked 1/4 S. B. T. Raised a mound of stone 2 ft. base 1 1/2 ft. high N. of
50.00 rocky ravine 10 ft. deep. 50. ft. wide drains rapidly N. 48° E,
74.00 top of rocky spur about 800 ft. above the Sec. Cor. slopes N, thence along ground slopes N.
80.10 The cor. of Secs. 4-5-8 and 9,
Land mountainous.
Soil stony 4th rate.
Timber. pine and aspen,
Mountainous and heavily timbered land 80.

N 0° 02' W. on a true line bet. Secs 4 and 5, descending into head of canon, through heavy pine and aspen timber.
4.16 Spring Branch. 3 ins deep. 1 ft. wide drs N.E,
5.30 Spring Branch 3 ins. deep. 1 ft. wide drains N 70° E,

Subdivisions — Tp. 36. South Range 8 West.

Chains	
9.00	bottom of canon, about 100. feet below the Sec. Cor, drains rapidly N60°E. thence over ground slopes E.
12.50	bottom of main canon drains E. ascend the N. side.
27.00	top of N. side of canon about 400. feet above the bottom bears E. and W. descend gradually.
40.00	Set volcanic stone 18×8×4 ins. 12 ins. in the ground for 1/4 Sec. Cor. marked 1/4 on W. face, from which, a balsam tree 12 ins. diam. bears N45°W, 4 lks. dist. marked 1/4 S.B.T. a balsam tree 8 ins. diam. bears N50°E. 18 lks. dist. marked 1/4 S.B.T.
56.80	bottom of canon about 500. feet below the top drains N80°E. ascend.
72.12	intersect the N. bdy of the Tp. 7.57 chs N89°34'E. of the Old Standard Cor of Secs 32 and 33, which is a volcanic stone firmly set, marked and witnessed as described by the surveyor general, at point of intersection Set a volcanic stone 16×7×6 ins. 11 ins. in the ground for, closing cor. of Secs 4 and 5, marked C.C. on S. with 4 grooves on the E. and 2 grooves on the W. faces, from which An aspen tree 5 ins. diam. bears S20°W. 91 lks. dist. marked T.36.S.R.8.W.S 5.B.T.C.C. An aspen tree 6 ins. diam. bears S40°E, 110. lks. dist. marked T.36.S.R.8W.S 4.B.T.C.C. Raised a mound of stone 2 ft. base 1½ ft. high S. of Cor. Pits impracticable. the cor. is on ground sloping S.E. about 200 feet above bottom of canon.

Land Mountainous,
Soil gravelly and stony. 3rd and 4th rate.
Timber Pine and aspen,
Mountainous and heavily timbered land 72.12 chs.

August 8th 1898.

Subdivisions — Tp. 36. South — Range 8 West.

Chains	
	August 15th 1898. at 9h 49m l.m.t or at 10h 20m 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 31. and 32, on the S. bdy of the Tp. 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 16.-1898 at 7. A.M. I lay off the Azimuth of Polaris 1°-34' 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°-03' W. bet. Secs 31 and 32, descending along the W. slope of Hancock Peak through heavy pine and aspen timber, over stony ground, gradual slope.
40.00	Set a lava stone 12x7x6 ins. 8 ins. in the ground for 1/4 Sec. Cor. marked 1/4 on W. face. from which.
	A balsam tree 6 ins. diam. bears N45°W. 11. lks. dist. marked 1/4 S.B.T.
	A balsam tree 6 ins. diam. bears S80°E, 11. links dist. marked 1/4 S.B.T.
	Raised a mound of stone 2 ft. base 1½ ft, high W. of cor. Pits impracticable.
66.40	leave heavy timber bears N30°E. and S30°W.
80.00	Set a volcanic stone 15x6x6 ins. 10 ins. in the ground for Cor. of Secs 29-30-31 and 32, marked with 1 notch on the S. and 5 notches on the E. edges, from which
	A spruce tree 10 ins. diam. bears N43°E. 250 lks. dist. marked T.36.S.R.8W.S 29.B.T.
	The monument on Brian Head bears N51°-19½' W, about 4 miles distant. no other bearing trees within limits. Raised a mound of stone 2 ft. base 1½ ft. high

Subdivisions. No. 36. South. Range 8 West.

chains.	
	N. of Cor. Pits impracticable.
	Land mountainous.
	Soil lava rocks mixed with very thin soil 4th rate.
	Timber Pine and aspen.
	Mountainous and heavily timbered land 80.00 chs.
	East on a random line bet. Secs 29, and 32.
40.00	set temp. 1/4 Sec. Cor,
80.04	intersect the cor. of Secs 28-29-32 and 33,
	Thence I run
	West on a true line bet. Secs 29 and 32.
	ascending gradually along the N. slope of Hancock Mountain, through heavy pine and aspen timber over lava stone ground.
40.02	the point for the 1/4 Sec. Cor. falls on a volcanic stone 4 x 4 x 1 ft. above ground, on which cut a cross (x) at the exact cor. point for 1/4 Sec. Cor. and mark a 1/4 on N. side of cross,
	from which
	an aspen tree 6 in. diam bears N69°E. 127 lks. dist. marked 1/4 S. B.T.
	an aspen tree 6 in. diam. bears S79°E. 100 lks dist. marked 1/4 S. B.T.
	Raised a mound of stone 2 ft. base 1½ ft. high N. of Cor. Pits impracticable.
47.50	road to Jenkins saw-mill bears N74°E. and N71°W,
57.00	leave heavy pine and aspen timber bears N. and S.
62.00	same road bears N50°E. and S50°W,
66.00	same road bears N80°W. and S55°E.
76.50	top of rocky ridge about 250. feet above the Sec. Cor. bears N. and S. thence level
80.04	The cor. of Secs 29-30-31 and 32,
	Land mountainous.
	Soil lava stones and thin soil 4th rate.
	Timber, Pine and aspen.
	Mountainous and heavily timbered land 80.04 chs.

chains. West on a true line bet. Secs 30 and 31, descend into ravine.

6.00 Creek 3 ft. wide 6 ins. deep. drains N 40° E. rocky bottom. Ascend the East slope of mountain

35.00 creek 3 ft. wide 4 ins deep drains S 50° E.

40.00 Set Volcanic stone 16 x 8 x 5 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. Cor. is about 150 lks. N of creek drains E. and about 7.00 chs S. of road to Jensons Saw-mill.

46.50 Sheepherder's cabin bears N 10° W. about 15.00 chs. dist.

67.17 road bears N 10° E. and S 10° W.

66.50 Enter heavy timber, pine and aspen bears N. and S.

83.00 a sheep corrall bears N. about 25. chs. dist.

98.50 a sheep herder's cabin bears S. about 15. chs. near a creek drains N.E.

Continue ascending.

168.87 intersect the N. bdy of the Tp. 8.33 chs S. of the cor. of Secs 24 and 25 of Tp. 36-S-R.9 W. as established by me under this contract.

At point of intersection.

Set a volcanic stone 18 x 10 x 6 ins. 12 ins. in the ground for closing cor. of Secs 30 and 31, marked C. C. on the E. with 5 grooves on the N. and 1 groove on the S. faces, from which

An aspen tree 6 ins. diam. bears N 28° E. 127 lks. dist. marked T. 36. S. R. 8 W. S 30 B.T. C.C.

An aspen tree 8 ins. diam. bears S 84° E. 145 lks. dist marked T. 36. S. R. 8 W. S 31. B.T.C.C.

Raised a mound of stone 2 ft. base 1½ ft. high E. of cor. Pits impracticable.

The cor. is about 450 feet above the creek, near top of main range.

Land mountainous

Soil stony. 4th rate.

Timber – pine and aspen.

Subdivisions. No. 36. South. Range 8 West.

chains	
	Mountainous and heavily timbered 168.87 chs.
	N 0°-03' W. brt. Secs 29 and 30. descending along W. side of rocky ridge over stony ground, sloping N.W.
5.00	creek 6 lks. wide 5 ins. deep. drains N. 40° E. rocky bottom,
10.91	road to Jensens saw-mill bears S 80° W. and N 80° E
23.80	Spring Branch drains E. into Mammoth Creek,
27.28	Mammoth Creek 5 lks. wide 6 ins. deep. drains E. rocky bottom easy current, ascend,
40.00	Set a Volcanic 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 1 1/2 ft. high W. of Cor. Pits impracticable.
43.40	road to Lower Castle Valley bears N 84° E. and S 84° W,
54.00	enter heavy pine and aspen timber bears N 40° E. and W.
73.00	top of ridge about 200 feet above mammoth Creek. bears E. and W. descend
80.00	Set a Volcanic stone 12 x 7 x 7 ins. 8 ins. in the ground for Cor. of Secs 19-20-29 and 30, marked with 2 notches on the S. and 5 notches on the E. edges. from which.
	An aspen tree 8 ins. diam. bears N 42° E. 27 lks. dist. marked T. 36. S. R 8 W. S 20. B.T.
	A Balsam tree 8 ins. diam. bears N 63 1/2° W, 18 lks. dist. marked T. 36. S. R. 8 W. S 19. B.T.
	A spruce tree 8 ins. diam. bears S 85° W. 50 lks. dist. marked T. 36. S. R. 8 W. S 30. B.T.
	An aspen tree 6 ins. diam. bears S 41° E 64 lks dist. marked T. 36. S. R 8 W, S 29. B.T.
	Raised a mound of stone 2 ft. base 1 1/2 ft. high W. of Cor, Cor. about 100 feet below top of ridge on S. side of ravine drains N.E.
	Land mountainous
	Soil stony and gravelly 3rd and 4th rate.
	Timber Pine and aspen,
	Mountainous and heavily timbered land 80.00 acs.

Chains	
	East on a random line bet. Secs 20 and 29
40.00	Set temp. 1/4 Sec. Cor,
79.90	intersect N. and S. line 10 lks. S. of the Cor. of Secs 20-21-28 and 29
	Thence I run
	S 89°-56' W. on a true line bet. Secs 20 and 29, ascending the E. slope of mountain through heavy pine and aspen timber, over stony ground,
39.95	Set a black volcanic stone 16×7×6 ins. 11 ins. in the ground for 1/4 Sec. Cor, marked 1/4 on N. face, from which
	An aspen tree 8 ins. diam. bears N 67° W. 36 lks. dist. marked 1/4 S. B. T,
	An aspen tree 6 ins. diam. bears S 7° E. 64 lks. dist marked 1/4 S. B. T,
65.00	top of rocky spur about 200 feet above the Sec. slopes S. heavy timber bears N. and S, desce
76.60	Lowder Creek 1 lk. wide 2 ins. deep. drains S 60 heads N. 20° W, ascend out of ravine enter heavy pine and aspen timber.
78.50	top of spur ridge about 50 feet above creek slopes N 40° E. descend.
79.90	The Cor. of Secs 19-20-29 and 30, about 6 ft. below top.
	Land mountainous.
	Soil stony and gravelly 4th rate,
	Timber, pine and aspen,
	Mountainous and heavily timbered land 79.90 ch

	West on a true line bet. Secs 19 and 30, ascending the E. slope of mountain through heavy pine and aspen timber over gravelly land,
3.00	head of small ravine drains N 35° E. ascend over ground slopes S.E.
19.00	heavy timber bears N. and S.
35.00	enter heavy pine and aspen timber bears N and
39.84	road to Lowders Ranch bears N 10° W. and S 10° E,
40.00	Set a volcanic stone 12×7×6 ins. 8 ins. in the ground for 1/4 Sec. Cor. marked 1/4 on N. face

chains

from which
an aspen tree 6 ins. diam. bears N2°E. 3 lks. dist
marked 14 S. B. T.
an aspen tree 6 in. diam. bears S30°W, 15 lks. dist
marked 14 S. B. T. continue ascending
53.30 road bears S80°W. and N80°E.
81.00 leave heavy timber bears N50°W. and S50°E.
descend into Mammoth Creek.
89.70 road bears N80°W. and S80°E.
107.00 road bears N60°W. and S60°E.
115.20 Mammoth creek 7 lks. wide 8 ins. deep rapid
current rocky bottom drains 355°E. ascend
W. side over swampy land. grassy.
126.00 enter heavy pine and aspen timber bears
N. 50°W. and S50°E.
168.80 intersect the W. bdy. of the Tp. 8.03 chs S. of
the Cor. of Secs 13. and 24 in Tp. 36. S. R. 9 W.
established by me under this Contract.
at point of intersection.
Set a volcanic stone 16×8×5 ins. 11 ins. in
the ground for closing cor. of Secs 19. and 30
marked with C. C. on the E. and 4 grooves
on the N. and 2 grooves on the S. face from
which,
A spruce tree 20 ins. diam. bears N47°E. 18 lks.
dist marked T. 36. S. R. 8 W. S 19. B T. C. C.
A Balsam tree 8 ins. diam. bears S56°E. 77 lks.
dist marked T. 36. S. R. 8 W. S 30 B.T. C.C.
This cor. is about 200. feet above Mammoth
Creek.
Land Mountainous
Soil stony and gravelly and loamy
2nd 3rd and 4th rate.
Timber pine and aspen.
Mountainous and heavily timbered land 168.80 chs.

N0°03' W. bet. Secs 19 and 20.
descending into ravine through heavy pine
and aspen timber.
1.50 bottom of ravine about 10 feet below the Sec.
Cor. drains E. 3 chs into main ravine

chains ascend gradually, along W. side of ravine
24.00 Lowder Creek 3 lks. wide 6 ins. deep r.
S 40° E, in ravine.
40.00 Set a black volcanic stone 20 x 6 x 4 ins
15 ins in the ground for 1/4 Sec. Cor. mark
1/4 on W. face, from which
An aspen tree 8 ins. diam. bears S 10° W, 106
lks. dist. marked 1/4 S. B. T.
An aspen tree 6 ins. diam. bears S 71° E. 30 3
lks. dist. marked 1/4 S. B T.
40.50 a small pond extends 1. chain E,
47.50 partly constructed canal 2 feet wide 6 i
deep, bears N 45° E. and S 45° W.
70.50 small rocky ridge extends E. and W,
at S. end of clearing. leave timber
bears E. and W. thence level.
80.00 Set volcanic stone 20 x 7 x 5 ins. 15 ins
in the ground for Cor. of Secs. 17-18-19-20.
marked with 3 notches on the S. a
5 notches on the E. edges. from which
An aspen tree 8 ins. diam. bears, N 31° W, 10
lks. dist marked T. 36. S. R. 8 W. S 18. B T.
No other bearing trees within limits.
Raised a mound of stone 2 ft. base 1 1/2 ft.
high W. of Cor. Pits impracticable.
This cor. is in W. edge of "Long Flat"
which is a clearing extending North east
from this cor.
Land mountainous
Soil stony, 4th rate.
Timber Pine and aspen,
Mountainous and heavily timbered land 80.00 c

N 89° 56' E. on a random line bet. Secs. 17 and 20,
40.00 Set temp 1/4 Sec. Cor.
80.08 intersect N. and S. line 10 lks. N. of the cor. of
Secs. 20-21-16 and 17.
Thence I run
West on a true line bet. Secs. 17 and 2
ascending the E. slope of mountain, over rough
stony ground, through heavy pine and aspen

Chains timber.

40.00 Set a volcanic stone 12x9x6 ins. 8 ins. in the ground for 1/4 Sec. Cor. marked 1/4 on N. face from which a Balsam tree 8 ins. diam. bears N. 65° W. 156. lks. dist. marked 1/4 S. B. T.
No other bearing trees within limits, raised a mound of stone 2 ft. base 1½ ft. high N. of cor. Pits impracticable. The cor. is in the N. edge of a clearing extends SE. and SW.

45.50 begin to ascend steep S. end of mountain; ground slopes S.E.

63.50 top of spur of mountain, about 300. feet above the bottom. slopes S. descend

73.00 leave timber bears N. and S. on E. edge of "Long Flat" - thence level. over grassy land

80.00 The Cor. of Secs. 17-18-19 and 20. about 200 feet below the top.
Land mountainous.
Soil stony and gravelly. 3rd and 4th rate.
Timber Pine and aspen.
Mountainous and heavily timbered land 80.00 chs.

West on a true line bet. Secs. 18 and 19. over level land.

1.50 enter heavy pine and aspen timber, begin to ascend steep mountain over ground slopes S.E. steep.

15.00 a lake of about 1 acre in area lies about 8.00 chs. S. in small Valley

30.00 top of spur of mountain about 600. feet above the Sec. Cor. slopes S. into E. end of Lowder Valley.

30.75 John Lowder's cabin, and ranch house bears S.55° W. about 1/4 mile dist. descend.

37.00 bottom of ravine about 200 feet. below the top drains S. 3.00 chs. into Valley. ascend very steep N. side.

39.50 top of spur on N. side of ravine about 50. feet above bottom slopes rapidly S. descend over ground slopes S. W.

40.00 Set a volcanic stone 16x6x5 ins. 11 ins.

claim in the ground for 1/4 Sec. Cor. marked 1/4 on N. face
from which.
a spruce tree 10 ins. diam. bears N14°E. 39 lks
dist marked 1/4 S.B.T.
No other bearing trees within limits, raised
a mound of stone 2 ft. base 1½ ft. high N. of Cor.
Pits impracticable. The cor. is on very
steep ground sloping S.
Lowders Cabin bears S32° W.

45.00 bottom of mountain about 150 feet below
the 1/4 Sec. Cor. ascend across the N. End
of Lowder Valley.

68.00 Rocky spur slopes S40°E. descend into
ravine. a meadow of about 10 acres area
lies about 10.00 chs. S.

72.70 Lowder Creek about 8 lks wide 3 ins deep,
drains S40°E. in ravine about 50 ft. below
top of spur. rocky bottom rapid current
heads N43°W. about 20. chs. dist. ascend
main mountain very steep.

75.60 top of abrupt ascent about 75 feet above creek
bears N. and S. continue ascending gradually.

78.00 trail from Lowders ranch to Parowan
bears S40°E. and N43°W. ascend steep
ledge.

88.20 top of main ledge about 400 feet above the
creek bears S20°E. and N20°W.
continue ascending over ground slopes N.E.
gradual ascent.

150.00 top of ascent, at West edge of ledge. bears
N67°W. and S67°E. about 500 feet above
Mammoth creek. descend over steep ground
and ledges.

165.67 intersect the W. bdy. of the Tp. 8.03 chs S.
of the Cor. of Secs 12 and 13 in Tp. 36 S. R. 9
W. as established by me under this Contract
The point of intersection falls on a large stone
4 x 3 x 2. feet above ground. at the exact cor. point
Cut a cross (X) for closing cor. of Secs 18 and
19, with C.C. on the E. and 3 grooves N. and
3 grooves S. of the cross; raised a mound

chains	of stone 2 ft. base 1½ ft. high E. of Cor. Pits impracticable. no trees large enough to mark within limits. The Cor. is about 100 feet. below the top of ledge on ground sloping S.W. Land Mountainous. Soil stony and gravelly. 3rd and 4th rate. Timber pine and aspen. Mountainous and heavily timbered land 168.67 chs.
	No. 03' W. bet. Secs 17. and 18. over level land. at W. edge of "Long Flat".
4.25	enter heavy pine and aspen timber bears N50°E. and S50°W. ascend along S.E. slope of mountain over clay and loamy and stony land.
22.50	a small lake or pond 1 acre in area lies 10. chs. E.
40.00	Set a volcanic stone 16×8×5 ins. 11 ins. in the ground for ¼ Sec. Cor. marked ¼ on W. face from which, an aspen 6 ins. diam. bears W. 6 lks. dist. marked ¼ S. B.T. An aspen tree 6 ins. diam. bears E. 23. lks. dist. marked ¼ S. B.T. a lake or pond about 1 acre are. lies E. about 10. chs dist.
50.00	top of spur about 200. feet above the Sec. Cor. slopes E. descend over broken rough ground sloping N.E. into Upper Castle Valley.
80.00	Set a volcanic stone 20×7×6 ins. 15 ins. in the ground for cor. of Secs 7-8-17-and 18. marked with 4 notches on the S. and 5 notches on the E. edges, from which a spruce tree 8 ins. diam. bears N66°E. 23 lks dist. marked T.36. S.R.8 W. S 8. B.T. A spruce tree 7 ins. diam. bears S70°E. 45 lks dist marked T.36. S R.8 W. S17. B T. a spruce tree 8 ins. diam. bears N83°W. 6 lks. dist. marked T.36. S.R.8 W. S 7. B.T. a spruce tree 8 ins. diam. bears S 55° W. 6 lks. dist. marked T.36. S.R.8 W. S 18. B.T.

Subdivisions Tp. 36. S - R 8 W.

chains.	
	The cor. is about 150. feet below the top of spur
	Land mountainous,
	Soil stony, loamy and gravelly 3rd and 4th,
	Timber, pine and aspen.
	Mountainous and heavily timbered land 80.00 ac
	East on a random line bet. Secs 8 and 17,
40.00	Set temp 1/4 Sec. Cor,
80.00	intersect the cor. of Secs 8-9-16 and 17,
	Thence I run
	West on a true line bet. Secs 8 and 17,
	ascending S E. slope of mountain through
	heavy pine and aspen timber.
15.00	top of spur ridge about 150. feet above the Sec.
	Cor. slopes rapidly S. descend over stony
	ground slopes S.W.
40.00	Set a black volcanic stone 16 x 6 x 6 in. 11. ins
	in the ground for 1/4 Sec. Cor. marked 1/4 on N.
	face. from which.
	An aspen tree 6 ins. diam. bears S 40° E. 1.4
	dist. marked 1/4 S. B T.
	A. balsam tree 6 ins. diam. bears N 10° W, 4.4
	dist. marked 1/4 S. B. T,
42.50	leave heavy timber bears N 20° W. and S 20° E.
	enter upper end of "Upper Castle Valley"
57.00	Castle Creek 8 lks. wide 8 ins. deep. drains
	S 20° E. ascend, west side of Valley.
	over marshy land, this point is about 400. feet below top of
56.00	leave marshy land bears N. and S,
	a log cabin and sheep corrall bears S. 25.00
	chs. dist.
68.00	enter heavy pine and aspen timber bears
	N. and S. ascend abruptly.
80.00	The cor. of Secs 7-8-17 and 18. about 150. feet
	above the creek.
	Land mountainous
	Soil stony and gravelly 4th rate.
	Timber. Pine and aspen.
	Mountainous and heavily timbered land 80.00 ac

Subdivisions — Tp. 36. S. Range 8 West.

chains.	
	West on a true line bet. Secs 7. and 18, ascending the E. slope of mountain through heavy pine and aspen timber, over rough broken ground gravelly.
10.60	rocky gulch 6 feet deep, 30 ft. wide drains N70°E.
40.00	Set a volcanic stone 16×7×6 ins. 11 ins. in the ground for 1/4 Sec. Cor. marked 1/4 on N. face from which.
	A spruce tree 12 ins. diam. bears S24°W, 15. lks dist. marked 1/4 S. B T,
	A spruce tree 10 ins. diam. bears N27°W, 47 lks, dist. marked 1/4 S. B. T,
67.00	dry creek bed drains S30°E,
68.40	same creek bed, (dry) drains N70°E,
76.80	top of bluff about 300. feet above the Sec. Cor, bears N. and S, thence level,
106.00	W. side of level land, begin to ascend
113.00	top of ridge about 100 feet above the beginning of ascent, bears N. and S, descend,
116.00	bottom of small ravine drains S30°E, about 30 feet below top, ascend gradually,
168.65	intersect the W. bdy. of the Tp. 8.35 chs. S. of the Cor. of Secs 1 and 12, in Tp. 36. S. R. 9 W, established by me under this Contract, at point of intersection.
	Set a volcanic stone 16×8×6 ins. 11 ins. in the ground for closing Cor. of Secs 7. and 18, marked C. C, on the E. with 4 grooves on the S. and 2 grooves on the N. faces, from which.
	A spruce tree 8 ins. diam. bears S40°E, 163 lks. dist. marked T. 36. S. R. 8 W, S 18. B.T.C.C.
	A spruce tree 6 ins. diam. bears N75°E 147 lks, dist. marked T. 36. S. R 8 W. S 7, B.T. C.C,
	Raised a mound of stone 2 ft. base 1½ ft. high E. of Cor, Pits impracticable. The cor, is on the summit of the main range of mountains, on top of ledge bears, N50°E. and S50°W.
	Land mountainous
	Soil stony, 4th rate.
	Timber Pine and aspen

Subdivisions – Tp. 36. S. Range 8 West.

chains.	
	Mountainous and heavily timbered land 168.60
	N 0°-03' W. bet. Secs 7. and 8.
	descend from the cor. into ravine. through heavy pine and aspen timber.
2.00	bottom of ravine about 100. feet below the cor, drains E. ascend N. side.
13.00	top of spur ridge about 200 feet above the bottom of ravine slopes rapidly E. descend
20.00	creek 6 lks. wide 6 ins. deep drains E. in ravine about. 200 feet. below the top of spur. ascend
35.00	top of spur ridge about 200 feet above the bottom slopes rapidly E. descend.
40.00	Set red volcanic stone 20×12×6 ins. 15 in in the ground for 1/4 Sec. Cor. marked 1/4 on W. face, from which,
	an aspen tree 6 ins. diam. bears N 74° W, 41 lks. dist. marked 1/4 S B T,
	An aspen tree 5 ins. diam. bears N 49° E, 32 lks. dist. marked 1/4 S. B. T,
60.00	Spring Branch 2 lks. wide 3 ins. deep. dr. S 55° E, in bottom of gulch. about 150. ft. bet the top of spur ridge. ascend.
80.00	Set a volcanic stone 14×11×3 ins. 9 ins. in the gr. for cor. of Secs 5-6-7 and 8. marked with 5 notches on the S. and E. edges. from which
	An aspen tree 6 ins. diam. bears N 50° W. 23 lks. dist. marked T. 36. S. R. 8 W. S 6. B T.
	A Balsam tree 10 ins. diam bears S 70° W. 15. lks. dist. marked T. 36. S. R. 8 W. S 7. B T.
	An aspen tree 6 ins. diam. bears N 27 1/2° E. 71 lks. dist. marked T. 36. S. R. 8 W. S 5. B T.
	An aspen tree 6 ins. diam. bears S 35° E. 128 lks. dist. marked T. 36. S. R. 8 W. S. 8. B. T.
	The cor. is about 150 - feet above Spring Branch on ground sloping S.E.
	Land mountainous.
	Soil stony 4th rate.
	Timber Pine and aspen.
	Mountainous and heavily timbered land 80.00

Subdivisions – Tp. 36. South. Range 8. West.

Chains	
	East on a random line bet. Secs 5 and 8,
40.00	Set temp 1/4 Sec. Cor,
80.00	intersect the Cor. of Secs 4-5-8 and 9,
	Thence I run
	West on a true line bet. Secs 5 and 8.
	ascending along the S. side of canon. through
	heavy pine and aspen timber.
0.75	Spring Branch drains N. 1 lk wide
11.21	Small Spring Branch, drains N. 1 lk wide
17.42	Small Spring Branch drains N. 1 lk wide
31.80	bottom of head of canon drains N 40° E. continue
	ascending more abruptly.
40.00	Set a lava stone 14×8×8 ins. 9 ins. in the ground
	for 1/4 Sec. Cor, marked 1/4 on N. face, from which,
	An aspen tree 6 ins. diam. bears S 40° W. 14 lks.
	dist. marked 1/4 S. BT.
	An aspen tree 6 ins diam. bears N 45° W. 23 lks.
	dist. marked 1/4 S. BT.
42.50	top of main spur of mountain about 500. feet
	above the Sec. Cor, Slopes S,
45.50	begin to descend into head of canon drains S,
	Castle Creek 2 lks. wide 6 ins deep in bottom
	of Canon about 300 feet below the top drains S 30° E.
	This creek heads about 4 chs. N 30° W.
	ascend the W. side of canon,
80.00	The Cor. of Secs 5-6-7-and 8, about 200
	feet above the creek,
	Land mountainous.
	Soil stony and gravelly, 3rd and 4th rate.
	Timber Pine and aspen,
	Mountainous and heavily timbered land 80.00 chs.

	West on a true line bet. Secs 6. and 7,
	ascending the E. slope of main range. through
	heavy pine and aspen timber. over gravelly
	loamy and stony soil. gradual ascent,
40.00	Set volcanic stone 20×14×4 in. 15 ins. in the
	ground for 1/4 Sec. Cor, marked 1/4 on N. face
	from which.
	a. spruce tree 8 ins. diam. bears S 80° W. 54
	lks. dist. marked 1/4 S. BT,

chains a spruce tree 20 ins. diam. bears N70°W. 91 lks. dist. marked 14 S. B.T.

74.47 top of main spur of mountain about 600 ft. above the Sec. Cor. bears S40°E. and N40°W. being a spur of the main range of mountains bearing S50°W. and N50°E, descend over steep ledges over ground slopes S.W.

05.00 intersect summit of main range, bears S and N10°E.

98.50 bottom of canon about 1500 feet below the top drains N. ascend,

110.60 top of W. side of canon bears N. and S. about 400 feet above the bottom. descend W. slope of main range, over stony ground very steep

168.47 intersect the W. bdy. of the Tp. 24.50 chs. S. of the Standard Closing Cor. of Tps. 35 and 36. S. Range 9. West, which is a limestone found, set, marked and witnessed as described by the surveyor general, at point of intersection set a volcanic stone 12×9×3 ins. 8 ins. in the ground for closing cor. of Secs 6 and 7, marked C.C. on the E, with 5 grooves on the S. and 1 groove on the N. faces, from which a Balsam tree 9 ins. diam. bears S40°E. 44 lks dist. marked T. 36. S. R. 8 W. S7. B.T. C.C.
a Balsam tree 8 ins. diam. bears N70°E. 57 lks. dist. marked T. 36. S. R 8 W. S6. B.T. C.C.
Cor. about 800. feet below the top of mountain.
Land mountainous
Soil stony and gravelly 3rd and 4th rate
Timber Pine and aspen,
Mountainous and heavily timbered land 168.47 chs.

N. 0°-03' W. on a true line bet. Secs 5 and 6, ascending along the W. side of canon through heavy pine and aspen timber

18.35 leave timber bears S30°E. and N30°W. ascend along the bottom of canon,

25.00 dry bed of creek. drains S40°E,

40.00 Set a volcanic stone 20×10×8 ins. 15 ins. in the ground for 1/4 Sec. cor. marked 14 on W. face. from which a Balsam tree 8 ins. diam. bears S54½°E 91 lks. dist marked 14 S. B.T.

Subdivisions - Tp. 36. S - Range 8 West.

Chains.	
53.50	A Spruce tree 20 ins. diam bears N51°W. 178 lks. dist. marked 14 S.B.T. summit of main range of mountains, about 300. ft. above the Sec. Cor. bears S65°W and N65°E, descend abruptly.
72.57	intersect the N. bdy. of the Tp. 7.57 chs. S89°41'E, of the old Standard Cor. of Secs 31. and 32. which is a volcanic stone, firmly set, marked and witnessed as described by the surveyor general.
	At point of intersection,
	Set a volcanic stone 16 x 9 x 3 ins. 11 ins. in the ground for closing cor. of Secs 5 and 6. marked C.C. on the S. with 5 grooves on the E. and 1 groove on the W. faces. from which,
	A. Spruce tree 24 ins. diam. bears S30°W. 15 lks dist, marked T. 36. S - R. 8 W. - S. 6. B.T. C.C
	An aspen tree 8 ins, diam. bears S45°E, 38 lks. dist. marked T. 36. S - R. 8 W. S 5 B.T. C.C.
	The cor. is about 500 ft. below the summit of the main range at foot of cliffs
	Land Mountainous,
	Soil stony and gravelly, 3rd and 4th rate.
	Timber. Pines and aspen,
	Mountainous and heavily timbered land 72.57 chs.
	August 16 - 1898.
	As the closings of this Tp. indicate errors beyond the allowable limit prescribed by the Manual. In order to determine and locate the said errors, I make the following re-traccments:
	I commence at the S. E. cor. of Tp. 36, S. Range 8 West. heretofore described, and from the true meridian heretofore determined at this Cor,
	Thence I run
	North, re-tracing the E. bdy of the Tp,
	bet. Secs 31 and 36,
40.00	No trace of the Quar. Sec. Cor. could be found after diligent search.
73.12	Find old Cor. of Secs 25-30-31 and 36, 2.24 chs. West. The course of this line is therefore N1°45'W. distance 73.15 chs.
	I continue my line
	North, re-tracing the line bet. Secs 25 and 30
41.20	find old 1/4 Sec. Cor. 1.00 ch. W.
82.48	Find old Cor. of Secs 19-24-25 and 30, 5.33 chs. W.
	The course of this line is therefore N2°09'W. distance 82.54 chs.

Subdivisions - Tp. 36. S - R. 8. W.

	I continue my line North, re-tracing the line brt. Secs 19 and 24.
40.22	Find old 1/4 Sec. Cor. 3.60 chs. W.
79.22	Find old Cor. of Secs 13-18-19 and 24, 3.60 chs. W. The course of this line is therefore N1°15' E. distance 79.24 chs.
	I continue my line North re-tracing the line brt. Secs 13 and 18
40.00	No trace of the old 1/4 Sec. Cor. could be found after diligent search
74.28	Find old cor. of Secs 7-12-13 and 18, 2.45 chs W. The course of this line is therefore N0°53' E. distance 74.29 chs.
	I continue my line. North, re-tracing the line brt. Secs 7 and 12.
37.89	Find old 1/4 Sec. Cor. 9.60 chs. W.
81.39	Find old cor. of Secs 1-6-7 and 12, 3.64 chs W. The course of this line is therefore N0°50' W. distance 81.40 chs.
	I continue my line North, re-tracing the line brt. Secs 1 and 6.
37.70	Find old 1/4 Sec. Cor. 3.60 chs W.
81.62	Find closing cor. of Tp. 36. S. brt. R 7 and 8 W. 3.62 chs. W. The course of this line is therefore N0°01' E. distance 81.62 chs.
	I re-trace the N. bdy of the Tp. as follows: At the closing Cor. of Tp. 36. S. brt. Rs. 7 and 8 W. which is a lava stone, firmly set, marked and witnessed as described by the Surveyor General, I observe Polaris at Eastern Elongation, in accordance with Manual of Instructions, Aug. 20-1898 at 9hr 29m l.m.t, or at 10hr 00m P.M. by my watch which is correct mountain standard rail road time 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.

Subdivisions - Twp 36 S - R 8 W.

Chains	
	of my Station.
	August 21st 1898 I lay off the Azimuth of Polaris 1° 34' to the W. 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 Irun:
	West retracing the N. boundry of the Twp. along the N line of Sec 1.
12.97	Intersect N and S line 1.00 ch N of Standard Cor. of Twp 35 S. bet Rs 7 and 8 W. which is a volcanic Stone firmly set marked and witnessed as described by the Surveyor General. which does not agree with the original notes in measurement nor alignment. The course of this line is therefore S 85° 36' W. distance 13.01 chs.
	From the above described Standard Cor, thence Irun!
	West retracing S. boundry Sec. 36.
80.00	Intersect standard cor of Secs 35 and 36 heretofore described
	West along the S bdry of Sec. 35
40.00	No trace of the old 1/4 Sec. cor could be found after diligent search.
80.64	Intersect the standard cor of Secs 34 and 35 heretofore described
	West retracing the S. bdry line of Sec 34.
40.00	No trace of the old 1/4 Sec Cor could be found after diligent search
73.96	Find standard Cor of Secs 33 and 34. 1.58 Chs N. heretofore described The course of this line is therefore N 88° 46' W. distance 73.98 chs
	I continue my line
	West retracing the S. bdry of Sec 33
40.00	No trace of the old 1/4 Sec Cor could be found after diligent search.
80.00	Find standard cor of Secs 32 and 33. 97 lks N. The course of this line is therefore S 89° 34' W. distance 80.00 chs. I continue my line.
	West retracing S bdry of Sec 32.
40.00	No trace of the old 1/4 Sec cor. could be found after diligent search.
80.00	Find standard Cor of Secs 31 and 32. 1.42 Chs N. The course of this line is therefore N 89° 41' W. distance 80.00 chs. I continue my line.
	West retracing the S. bdry of Sec 31.

Subdivisions – Twp 36 S – R. 8 W.

Chains

140.00 No trace of the old ¼ Sec. Cor. could be found after diligent search.

160.85 Intersect the Range line, 2.47 chs S. of the Standard closing Cor of Tp 35 and 36 S. R. 8 W. which is a Standstone firmly set, marked and witnessed as described by the Surveyor General. The course of this line is therefore N89°38'W. and distance 160.85 chs. This corner is N. 49.12 chs from closing Standard Cor of T35 & 36 S R 9 W. August 21st 1898.

Boundaries of Tp. 36. S. R. 8 W.

Line designated	True bearing	Dist chs	Latitude N. chs	Latitude S. chs	Departure E. chs	Departure W. chs
7th Standard Parallel	S85°36'W	13.01		1.00		12.97
do	West	80.00				80.00
do	West	80.64				80.64
do	N88°46'W	73.98	1.58			73.96
do	S89°34'W	80.00		0.61		80.00
do	N89°41'W	80.00	0.45			80.00
do	N89°38'W	160.85	1.05			160.85
West Boundary	South.	473.62		473.62		
South Boundary	East	572.57			572.57	
East Boundary	N1°45'W	73.15	73.12			2.24
do	N2°09'W	82.54	82.48			3.09
do	N1°15'E	79.24	79.22		1.73	
do	N0°53'E	74.29	74.28		1.15	
do	N0°50'W	81.40	81.39			1.19
do	N0°01'E	81.62	81.62		.02	
						0.56
convergency			475.19	475.23	575.47	575.50
				475.19		575.47

Error in Lat .04 Error in departure .03

General Description.

This township lies wholly in the mountains, and is cut in all directions with deep cañons. The township is covered with timber; pine and aspen being very abundant.

The geological formation is volcanic; the soil is very thin, and in many places there are large areas of broken up lava rocks, without soil between, and very difficult to walk over. The township is fairly well watered in the northern and Western part: The Mammoth Creek is tributary to the Sevier River, but the other streams, from the Panguitch Lake which

also empties into the Sevier River.
The average elevation of the Township is estimated at about 8500 feet.
The Eastern boundary of the township forms the line between Iron and Garfield Counties.
There is an abundance of good grazing in the township.
There are a number of "summer ranches" located within the township, located as follows.
Bunker's ranch, located on the N.E. 1/4 of Sec 11. with improvements valued at about $250. consisting of a log house and corrall. abandoned.
Hatchie's ranch located in Sec. 22, with improvements valued at about $150. consisting of a log house and sheep corrall. partly abandoned.
Abandoned ranch, house and sheep corrall located in N.W. 1/4 of Sec 17. Valued at $25.
John Lowder's ranch located in Sec. 19, with improvements valued at $500. consisting of ranch house, corralls, and outhouses and fences.
Sheepherder's cabin, located on Sec. 30. Valued at $100. and occupied by the Parowan Sheep Company. as a herd house.
a sheep herders cabin located in Sec. 31. valued at $25. owner's name unknown.
The canal in the N. 1/2 of Sec. 22, is for the purpose of diverting the waters of the Castle Creek into Deer Creek, thence to irrigate farms near Panguitch Lake, and is valued at about $100. owners names unknown.
The most valuable improvements within the township consists of a lumber road running E. and W. through the Tp. leading to Jensen's saw-mill located in Sec. 31. Tp. 36. S-R. 7. W, the road being a very difficult one to open - valued at about $1500.
Hancock Peak situated in Sec. 32, is an extinct crater rising to an elevation

Subdivisions - Tp 36. South. Range 8 Wes

of about 1500. feet above the surrounding level. and covered with heavy pine and aspen timber There are no indications of mineral in the township.

Joseph A West
Washington Jenkins
U.S. Depty Surv.

September 1st 1898

To have surveyed another township would have carried the cost of the work beyond the liability named in the Contra therefore in accordance with section 10 of our special instructions, we discontinue further work

Jo A West
Washington Jenkins

U.S. Deputy Surv.

No Notary Public or other officer authorized to administer oaths being available without great delay and expense I administer the necessary preliminary and final oaths of Assistants.

Washington Jenkins
U.S. Deputy Surveyor.

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Final Oaths of Deputy Surveyor and his Assistants.

LIST OF NAMES.

A list of the names of the individuals employed by Washington Jenkins and Joseph A. West, United States Deputy Surveyors, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of Township No. 36 South - Range No. 8 West Subdivisional lines and Re-traversments, Salt Lake Base and Meridian. showing the respective capacities in which they acted:

Orson O. Orton, Neplii Orton, Chainman.
Frank Herrick, David Jenkins, Chainman.
Frank Herrick, Moundman.
, Moundman.
Frank Herrick, Axman.
, Axman.
, Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted Washington Jenkins and Joseph A. West, United States Deputy Surveyors, in surveying all those parts or portions of the Subdivisional lines and Re-traversments of Township No. 36 South Range No. 8 West of the Salt Lake base and Meridian meridian, State of Utah, which are represented in the foregoing field notes as having been surveyed by ~~him~~ them and under ~~his~~ their 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 the State of Utah.

Orson O. Orton, David Jenkins, Chainman.
Neplii Orton, Frank Herrick, Chainman.
, Moundman.
Frank Herrick, Moundman.
Frank Herrick, Axman.
, Axman.
, Flagman.

Subscribed and sworn to before me this 15th day of September, 1898

SEAL

Washington Jenkins
U.S. Deputy Surveyor.

6—151

Final Oath of United States Deputy Surveyor.

I, Wm Washington Jenkins & Joseph A West, United States Deputy Surve solemnly swear that, in pursuance of a contract received from George W Sparrow United States Surveyor General for The State of Utah, bearing date 15th day of October, 1896, we have well, faithfully, and truly, in proper person, and in strict conformity with the instructions furnished by the United States S General for The State of Utah, the Manual of Surveying Instructions, and the law United States, surveyed all those parts or portions of Townships 36 South Ranges 8 Township 41 & 42 South Range 13 West & Township 43 South Ranges 15 & 16 West

of the Salt Lake and meridian, in the State of Utah, which are represente foregoing field notes Books A-N as having been surveyed by ~~me~~ we, and under ~~my~~ our direction; and ~~I~~ we do further s swear that all the corners of said survey have been established and perpetuated in strict accordance Manual of Surveying Instructions, and the special written instructions of the United States S General for The State of Utah and in the specific manner described in the field notes, a the foregoing are the original field notes of such survey; and should any fraud be detected, ~~I~~ we wil the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

Washington Jenkins
Joseph A West

Washington Jenkins Joseph
United States Deputy Su

Subscribed by said Joseph A West, and sworn to before me this 22 day of December, 1899

SEAL

Jacob B T
U.S. Surveyor General for Utah

APPROVAL.

Office of the United States Surveyor General,

Salt Lake City, Utah, Capitol 2d,

The foregoing field notes of the survey of The Subdivisions of Townshi 36 South Range 8 West of the Salt Lake Base & Merid Utah

executed by Washington Jenkins & Joseph A West under ~~his~~ their contract No. 212, dated October 15, 1896, havi critically examined, and the necessary corrections and explanations made, the said field notes, surveys they describe, are hereby approved.

Jacob B T
United States Surveyor Ge

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

United States Surveyor Ge

G—151

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BOOK A-252

FIELD NOTES

OF THE re SURVEY OF THE

The Colorado Guide Meridian
Township 40 South
between
Ranges 22 & 23 East

Of the Salt Lake Base and Meridian,
State of Utah

AS re SURVEYED BY

Hubert D. Page and James M. Lentz, United States Deputy Surveyor,
& Nuneprolenic Spl Inst dated Sep 14th 1899

Under ~~his~~ their Contract No. 215, dated October 29th, 1897

Survey commenced December 23rd, 1898

Survey completed December 23rd, 1898

6—151

Resurvey - Sec. M [illegible] 4-22-00
[illegible] 52-25

BOOK A-252

NAMES AND DUTIES OF ASSISTANTS.

Peter Meyer, Peter Allen — chainmen.

Henry Erwin, Walter O. McCuen, chainmen

John R. Lumpkin, Moundsman

George W. Dalton, Moundsman

John R. Lumpkin, axman

George W. Dalton, axman

6—151

BOOK A-252

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

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6—151

PRELIMINARY OATHS OF ASSISTANTS.

WE, Peter Meyer, Peter Allen and Harry Erwin and Walter O. McC

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

Colorado Guide Meridian through Township 40 South between Ranges 22 and 23 E of the Salt Lake Base & Meridian Utah

Peter Meyer.
Harry Erwin

Peter Allan, Ch
Walter O. McCuen, Ch

Subscribed and sworn to before me this 5th day of December, 1898

Hubert D. Page
U.S. Deputy Surve

SEAL

WE, John R. Lumpkin and George W. Dalton.

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

Colorado Guide Meridian through Tp. 40 South between Ranges 22 and 23 East of the Lake Base & Meridian Utah

John R. Lumpkin, Mou
George W. Dalton, Mou

Subscribed and sworn to before me this 5th day of December, 1898

Hubert D. Page
U.S. Deputy Su

SEAL

WE, John R. Lumpkin and George W. Dalton

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

Colorado Guide Meridian through Tp 40 South between Rs 22 and 23 East, of the Lake Base & Meridian Utah

John R. Lumpkin
George W. Dalton

Subscribed and sworn to before me this 5th day of December, 1898

Hubert D. Page
U.S. Deputy Surv

SEAL

I, ..., do solemnly swear that I will well a perform the duties of flagman according to instructions given me, to the best of my skill and abili survey of .....

....., F

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

SEAL

6—151

Resurvey of the Colorado Guide Meridian.

The resurvey of the Colorado Guide Meridian Tp. 40 S. bet. Rs. 27 and 23 E. the 8th Standard Parallel South. Rs. 21, 24, 25 and 26 E. and the Exterior Bds. of Tps. 40 S. Rs. 21 22, 23, 24, 25 and 26 E. as included in books A.B.C.E.H.J.K.M 7a under our contract No 215. dated Oct. 29th 1897. are authorized by the Nunc Pro tunc special instructions, dated Sept. 14th 1899.

In making these resurveys we obliterated all the old cors. found as with the exception of the cor. of T. 39 and 40 S. Rs. 27 and 23 E. on the Colorado Guide Meridian, our starting point. They were all out of limits in alignment or measurement, usually both, as indicated in the notes of retracement accompaning our letter of July 12th 1899. and upon which the above named Nunc Pro tunc Special instructions were issued.

We resurvey the Colorado Guide meridian in Tp 40 S. Rs 27 and 23 E. as follows:

Resurvey Commenced December 23d 1898. and executed with a W. and L. E. Gurley light Mountain transit No. no. The horizontal limb having two double verniers placed opposite to each other and reading to 1' 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.

Resurvey of the Colorado Guide Meridian.

Nov 21st 1898.

Then to test the solar apparatus by comparing its indications resulting from solar observations made during a. m. and p. m. hours with a true meridian determined by observation on Polaris, We proceed as follows:

At the cor. of Ts 39 and 40 S. Rs. 22 and 23 E. Latitude 37°21' N. Longitude 109°31' W. We set off 37°21' N. on lat. arc. 23°23' S. on decl. arc: and at 4 hrs. 0 m. pm l. m. t. determine with the solar a true meridian and mark a point thereof on a stone firmly set in the ground 5 chs. N. of the cor.

Dec. 22nd 1898.

December 23rd 1898.

At 1 hr 10 m. a. m. l. m. t., We observe Polaris at Western elongation in accordance with manual of instructions and mark a point in the line thus determined on a plug driven in the ground 5 chs. North of our station.

At 7 a. m. l. m. t. We lay off the azimuth of Polaris. 1°33' to the East the true Meridian thus determined falls on the mark set by p. m. Polaris observation. Dec. 22nd

At 8 hrs. 00 m. a. m. l. m. t. We set off 37°21' N. on the lat. arc: 23°22' S. on the decl. arc: and determine a true meridian with the solar. which falls on the mark set on the true meridian established by the Polaris observation.

Resurvey of the Colorado Guide Meridian Continued.

The solar apparatus by p. m. and a. m. observations defines position for true meridian.
therefore we conclude that the adjustment of the instruments is satisfactory.
The magnetic bearing of the true meridian at 8. am. is N. 14° 00 W.
the angle thus determined, reduced by the table page 100 gives the mean mag. decl. 13° 58' E.

The old cor. of Tps. 39 and 40 S, Rs. 22 and 23 E. is a sand stone rapidly disintegrating and the marks are becoming obliterated, we therefore reestablish it at the same point as follows:
Set a sand stone 30 x 16 x 10 ins. on solid sand stone base in a mound of stone for the cor. of Tps. 39 and 40 S. Rs. 22 and 23 E. marked 39 S. on N. E. 23 E. on S. E. 40 S. on S. W. and 22 E on N. W. faces, with 6 notches on each edge. and raised a mound of stone 4 ft. base, 1½ ft. high S. of cor. Pits impracticable
Down the
reestablished cor. of Tps 39 and 40 S. Rs. 22 and 23 E.
We run
South bet. secs. 1 and 6.
Descending over broken sandstone, falling land. nearly parallel to old trail.
2650 Dry run. Course W.
Difference between measurement of 40 chs. by two set of chainmen is 6 lks. position of middle point

by 1st set 39.91 chs.
by 2nd set 40.03 chs. the mean of which is.
40.00 Set a sand stone 16 x 10 x 7 ins. 11 ins.
in the ground for 1/4 sec. cor.
marked 1/4 S on W. face, and raised
a mound of stone 2 ft. base, 1½ ft.
high W. of cor.
Pits impracticable.
After dilligent search no old 1/4 sec. cor
could be found. See statement
p. 1. this book.
55.00 Dry run — Course W.
Difference between measurements
of 80.00 chs. by two set. of chain-
men is 4 lks. position of middle point
by 1st set 79.98 chs.
By 2nd set 80.01 chs. the mean of which is.
80.00 Set a lime stone 16 x 8 x 6 ins. 11 ins.
in the ground for cor. of secs.
1, 6, 7 and 12. Marked with 1 notch
on N. and 5 notches on S. Edges.
and raised a mound of stone
2 ft. base, 1½ ft. high W. of cor.
Pits impracticable.
Destroyed old cor. See statement p. 1 this
book.
Land mountainous
Soil, stony — Hit slates.
No timber
Mountainous land, 80.00 chs.

South bet. secs. 7 and 12.
Ascending over broken clay
and stony hills.
0.00 Difference between measurements
of 40.00 chs. by two set of
chainmen is 6 lks. position of
middle point by 1st set 39.97 chs
By 2nd set. 40.03 chs. the mean of which

Resurvey of the Colorado Guide Meridian - continued.

Chains	
	is.
40.00	Set a sand stone 22 x 12 x 3 ins. 16 ins. in the ground for 1/4 sec. cor. marked 1/4 S. on N. face, and raised a mound of stone 2 ft. base, 1½ ft. high. N. of cor. Pits impracticable. Destroyed old cor. see statement Page 1 this book.
77.00	Top of spur, trans. E. and W. projects N. Descend.
	Difference between measurements of 80.00 chs. by two set. of chainmen is 4 lks. position of middle point By 1st set is 79.98 chs. By 2nd set. is 80.02 chs. the mean of which is
80.00	Set a sand stone 16 x 11 x 5 ins. 11 ins. in the ground. for Cor. of secs. 7, 12, 13 and 18. marked with 2 notches on N. and 4 notches on S. edges. and raised a mound of stone 2 ft. base 1½ ft. high N. of cor. Pits impracticable. Destroyed old cor. see statement p. 1. this book.
	Land, mountainous Soil, stony and clay, 3rd rate. No timber. Mountainous land, 80.00 chs.
	At this cor. I reset off 23°25' S. on the decl. arc, and at 12 h. 00 m. 0 s. m. t. observe the sun on the meridian the resulting lat. is 34°20' N.
	South bet. secs. 13 and 18.

Resurvey of the Colorado Guide Meridian continued

Chains	
	Ascending over rolling clay and stony foot-hills.
36.00	Ravine, course N.W.
	Difference between measurements of 40.00 chs. by two set of chainmen is 4 lks. position of middle point
	By 1st set 39.98 chs.
	By 2nd set 40.02 chs. the mean of which is
40.00	Set a sandstone 14 x 8 x 6 ins. 10 ins. in the ground for 1/4 sec. cor. marked 1/4 S. on W. face and raised a mound of stone 2 ft. base, 1½ ft high. W. of cor.
	Pits impracticable.
	After diligent search no trace of old 1/4 sec. cor. can be found.
	See statement p. 1. this book.
50.00	Begin descending over rolling foot hills.
79.00	Near head of ravine course S.W. ascend.
	Difference between measurement of 80.00 chs. by two set of chainmen is 6 lks. position of middle point
	By 1st set. 79.97 chs.
	By 2nd set. 80.03 chs. the mean of which is
80.00	Set a sandstone 15 x 12 x 8 ins. 10 ins. in the ground for cor. of sec. 13, 18, 19 & 24. marked with 3 notches on N. and E. edges. and raised a mound of stone 2 ft base, 1½ ft high W. of cor. Pits impracticable. After diligent search no old sec. cor. can be found. See statement p. 1. this book.
	Land, Mountainous
	Soil, Stony & Clay, 3rd rate.
	No timber
	Mountainous land 8000 chs.

Chains.	
	South bet. secs. 19 and 24.
	Over rolling sandy mesa.
	Difference between measurements of 80.00 chs. by two set of chainmen is 2 lks. position of middle point
	By 1st set 39.99 chs.
	By 2nd set 40.01 chs. the mean of which is.
40.00	Set a sandstone 14×12×8 ins. 10 ins. in the ground for 1/4 sec. cor. Marked 1/4 S. on W. face, and raised a mound of stone 2 ft. base, 1 1/2 ft. high W. of cor.
	Pits impracticable.
	After dilligent search no trace of old 1/4 sec. cor. can be found, see statement p. 1. this book.
41.00	Ravine. Course S. W.
70.00	Begin descending over smooth sandstone floor.
79.00	Smooth sandstone drain 15 ft. deep. Course S. W. heads about 10 chs. N. E.
	ascend.
	Difference between measurement of 80.00 chs. by two set 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	Set a sandstone 16×12×6 ins. on solid sandstone base, in a mound of stone, for cor. of secs. 19, 24, 25 and 30 marked with 2 notches on S. and 4 notches on N. edges. and raised a mound of stone 2 ft. base, 1 1/2 ft. high W. of cor. Pits impracticable.
	After dilligent search no trace of old cor. can be found, see statement 1st page of this book.

Resurvey of the Colorado Guide Meridian — continued

Chains	
	Land, mountainous Soil sandy and stony, 1st and 4th rate. No timber Mountainous land, 8.00 chs.
	South bet. secs. 25 and 30. Ascending over smooth sandstone floor.
3.20	Top of ridge bears N.E. and S.W. Descend over sandy and stony Mesa.
23.00	Top of sand. stone cliffs 150 ft. high. 2nd edge of mesa bears E. and W., down which pole cannot chain; set a flag on line near foot of cliffs. Measure a base East 3 chs. to a point from which the flag bears S. 45° W., which gives for distance, (by traverse table) 3 chs. which added to 23.00 chs. makes
26.00	Foot of cliffs. enter San Juan river bottom thence over nearly level land soil sandy, through dense artimesa
32.50	Wagon road bet. Bluff City and Colorado bears E. and W.
34.60	A point from which the Cottonwood tree mentioned in original survey of the Colorado Guide Meridian bears W. 4.45 chs. dist. Difference between measurements of 40.00 chs. by two set of chain-men is 4 lks. position of middle point By 1st set 39.98 chs. By 2nd set 40.02 chs. the mean of which is.
43.00	Set a sand-stone 15 x 10 x 6 ins. 10 ins. in the ground. for 1/4 sec. cor. marked 1/4 S. on W. face, and raised a mound stone 2 ft. base, 1½ ft. high W. of cor. Pits impracticable No trace of old cor. could be found, See statement p. 1 this book. Difference between measurement of 45.35 chs. by two set of chainmen is 4 lks. position of middle point

Resurvey of the Colorado Guide Meridian - concluded.

Chains.	
	By 1st set 75.33 chs.
	By 2nd set 75.37 chs. the mean of which is
75.35	Right bank of San Juan river, bears E. N. N.
22.00 / 52.35	Set a sand stone 15 x 10 x 8 ins. 10 ins. in the ground for Meander Cor. of fracl. secs. 25 and 30. Marked M.C. on S. T. 40 S. on N. R. 23 E. S. 30 on E. R. 22 E. S 25. on W. faces. and raised a mound of stone 2 ft. base 1½ ft. high N. of Cor.
	Pits impracticable.
	Land, Level, and Mountainous
	Soil sandy and stony.
	Timber Cottonwood.
	Mountainous land, 23 chs.
	Dec. 23 - 1898.
	For general discription see book of subdivisions end of notes.

Hubert D. Page,
James M. Lentz:
U.S. Deputy Surveyor.

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FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by Hubert D Page Esq James M. Lentz, United States Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of the Colorado Guide Meridian through Tp. 40 South, Ranges 22 and 23 East of the Salt Lake Base & Meridian Utah showing the respective capacities in which they acted:

Peter Meyer, Peter Allen, Chainman.
Harry Erwin, Walter O. McCuen, Chainman.
John R. Lumpkin, Moundman.
George W. Dalton, Moundman.
John R. Lumpkin, Axman.
George W. Dalton, Axman.
, Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted Hubert D. Page and James M. Lentz, United States Deputy Surveyor, in surveying all those parts or portions of the Colorado Guide Meridian through Township 40 South, between Ranges 22 and 23 East.

of the Salt Lake Base and meridian, State of Utah, which are represented in the foregoing field notes as having been surveyed by ~~him~~ them and under ~~his~~ their 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 The District of Utah.

Peter Meyer, Peter Allen, Chainman.
Harry Erwin, Walter O. McCuen, Chainman.
John R. Lumpkin, Moundman.
George W. Dalton, Moundman.
John R. Lumpkin, Axman.
George W. Dalton, Axman.
, Flagman.

Subscribed and sworn to before me this 13th day of April, 1899

SEAL

Hubert D. Page
U.S. Deputy Surveyor

6—151

FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, Hubert D. Page & James M. Lent, United States Deputy Su... solemnly swear that, in pursuance of a contract received from Jacob B. Blair United States Surveyor General for the District of Utah, bearing ... 29th day of October, 189 , I have well, faithfully, and truly, in proper person, and in strict conformity with the instructions furnished by the United States ... General for ....., the Manual of Surveying Instructions, and the la... United States, surveyed all those parts or portions of

.....

.....

.....

..... of the

..... meridian, in the ..... of ....., which are represent... foregoing field notes as having been surveyed by me, and under my direction; and I do further swear that all the corners of said survey have been established and perpetuated in strict accord... the Manual of Surveying Instructions, and the special written instructions of the United States General for ..... and in the specific manner described in the field notes, the foregoing are the original field notes of such survey; and should any fraud be detected, I ... the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

Hubert D. Page

.....
United States Deputy

Subscribed by said ....., and sworn to before me this ..... day of ....., 189

SEAL

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City, Utah, February 17th

The foregoing field notes of the survey of the Colorado Guide Mer... Tp. 40 S. Rs. 22 & 23 E. of the Salt Lake Base & Meridian, Ut...

executed by Hubert D. Page & James M. Lent, under ~~his~~ their contract No. 215, dated October 29th, 1897, have critically examined, and the necessary corrections and explanations made, the said field notes surveys they describe, are hereby approved.

Jacob B. Blair
United States Surveyor

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

.....
United States Surveyor

6—151

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4—679.

BOOK A-252

R.3.B.

FIELD NOTES

OF THE re SURVEY OF THE

North boundary
of
Township No. 40 South
Range No. 22 East

Of the Salt Lake Base and Meridian,

In the State of Utah

AS re SURVEYED BY

[illegible]ebert D. Page and James M. Lentz, United States Deputy Surveyors

Spl Instr dated Sept 14 1899

[illegible]nder ~~his~~ their Contract No. 215, dated Oct 29 and June prior time, 1897.

[illegible]rvey commenced December 24th, 1898

[illegible]rvey completed December 25th, 1898

6—151

Resurvey-N-Bdry Length 5-00-00 M. Chs. Lks.
" Cons 79-45

NAMES AND DUTIES OF ASSISTANTS.

Peter Mayer, Peter Allen, Chainmen.

Henry Erwin, Walter A. McCuen, Chainmen.

John R. Lumpkin, Moundman.

George H. Dalton, Moundman.

John R. Lumpkin, Axman.

George H. Dalton, Axman.

BOOK A-252

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.....

6—151

PRELIMINARY OATHS OF ASSISTANTS.

We, Peter Mayer, Peter Allen, Harry Ervin & Walter O. McCuen

do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level chain over 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 make measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey of the 7th E. boundary of T. 14 S., Rs. 21, 22, 23, 24, 25 & 26 E. of the Salt Lake Base & Meridian, Utah.

Peter Mayer
Peter Allen, Chainman
Harry Ervin
Walter O. McCuen, Chainman

Subscribed and sworn to before me this 5th day of December, 1898.

Hubert D. Page,
U.S. Deputy Surveyor

SEAL

We, John R. Lumpkin and George W. Dalton

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 the 7th E. boundary of T. 14 S., Rs. 21, 22, 23, 24, 25 & 26 E. of the Salt Lake Base & Meridian, Utah.

John R. Lumpkin, Moundman
George W. Dalton, Moundman

Subscribed and sworn to before me this 5th day of December, 1898.

Hubert D. Page,
U.S. Deputy Surveyor

SEAL

We, John R. Lumpkin and George W. Dalton

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 the 7th E. boundary of T. 14 S., Rs. 21, 22, 23, 24, 25 & 26 E. of the Salt Lake Base & Meridian, Utah.

John R. Lumpkin, Axman
George W. Dalton, Axman

Subscribed and sworn to before me this 5th day of December, 1898.

Hubert D. Page,
U.S. Deputy Surveyor

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

North boundary T. 40 S., R. 22 E.

Dec. 24th 1898

Note: As we find no part of the north boundary of T. 40 S., R. 22 E., in alignment, and that many of the corners are obliterated and as Tps. 39 and 40 S. R. 22 E. have not been subdivided we destroy all old corners and resurvey the line between them as follows:

Knowing from recent p. m. and a. m. solar observation and observation on Polaris. Dec. 23d 1898, that the adjustments of the instrument are satisfactory, we begin at the cor. of Tps. 39 and 40 S. Rs 22 and 23. E. which we reestablished Dec. 23d 1898. already described.

Dec. 24th 1898. At 8 a. m. l. mt., we set off 37°21' N. on lat. arc, 23°21' S on decl. arc; and determine a true meridian with the solar at the above cor.

Thence we run.

West bet. 1 and 36.

Ascend over stony and sandy soil.

0.05 Indian trail bears N. and S.

10.25 Top of knol, 200 ft above the Tp. cor. precipitous descent over broken ledges and boulders

18.00 Foot of descent.

thence over rolling sandy mesa.

40.00 Set a sand stone 18 x 12 x 4 ins

North boundary of T40S R22E, continued

Chains	
	12 ins in the ground for 1/4 sec. cor. marked 1/4 S. on N. face, raised a mound of stone 2 ft. base 1 1/2 ft. high N. of cor. Pits impracticable destroyed old cor. see p. 1 book
78.00	Foot of knole, begin to ascend.
80.00	Near top of knole 100 ft. above 1/4 sec. cor. set a cobble stone 18x14x8 ins. 12 ins. in the ground, for cor of secs. 1, 2, 35 and 36. marked with 1 notch on E. and 5 notches on west edges. and raised a mound of stone 2 ft. base, 1 1/2 ft. high West of cor. Pits impracticable destroyed old cor. see p. 1 book. Land mountainous Soil stony and gravelly 3rd and 4th rate No timber Mountainous land 80.00 Chs.
	West bet. 2 and 35. Ascend
1.00	Top of knoll Descend over broken sand stone ledges. bear N. & S.
4.00	Foot of ledges and bottom
12.00	Recapture Wash - 10 ft. deep 20 ft. wide course S. Leap of water along the bottom. 300 ft. below sec. cor. ascending.
31.50	Point of projecting cliffs

North Boundary T.40 S., R.22 E., continued

Chains	
	30 ft high. bear N. and S.
	Project S.
40.00	Set a sand stone 12×8×6 ins, 8 ins. in the ground, for 1/4 sec. cor marked 1/4 S on N. face, raised a mound of stone 2 ft. base 1 1/2 ft. high, N of cor.
	Pits impracticable destroyed old cor. see p. 1 book "A"
77.50	Bottom of wash 30 ft. deep. 2 chs. wide course S.E.
80.00	Set a sand stone 15×6×6 ins 10 ins. in the ground for cor of secs 2, 3, 34 and 35, marked with 2 notches on the E. and 4 notches on W. edges. and raised a mound of stone 2 ft. base, 1 1/2 ft. high. W. of cor.
	Pits impracticable destroyed old cor. see p. 1 book A
	Land, mountainous
	Soil stony, 2nd 24th rate,
	No timber
	Mountainous land 80.00 chs.
	Dec. 24th 1898, at this cor. we set off 23°24' S on dial arc; and at 12 h. 0 m. l. m. t., observe the sun on the meridian, the resulting lat. is 37°21'
	West bet. secs 3 and 34.
	Ascending over broken sand stone hills.
40.00	Set a sand stone 16×10×4 ins. 11 ins. in the ground. for 1/4 sec. cor. marked 1/4 S

North boundary of T. 40 S., R. 27 E. continued

Chains	
	on N. face, raised a mound of stone 2 ft. base, 1½ ft high N of the Cor.
	Pits impracticable destroyed old cor.
80.00	Set a sand stone 16 x 8 x 6 ins 12 ins. in the ground, for Cor. of secs. 3, 4, 33 & 34 marked with 3 notches on E. and W. edges. raised a mound of stone 2 ft base, 1½ ft high. N. of cor
	Pits impracticable destroyed old c
	Land, mountainous
	soil stony 4th rate.
	no timber
	Mountainous land 80.00 C.
	West bet secs. 4 and 33.
	Ascending over broken sandstone ledges and boulders with no defined bearing.
27.50	Foot of precipice upon which we cannot chain.
	Set a flag on line on top of cliffs. measure a base North 4 chs. to a point from which the flag bears S. 45° W., which gives for the distance 4 chs. which added to 27.50 chs. make 31.50 chs.
31.50	Top of cliffs. 250 ft. high and edge of mesa. bears N and S
	Over rolling sandy mesa.
37.00	Top of sand ridge. bears N and S. descend.
40.00	set a sandstone 18 x 10 x 4, 12 ins in the ground, for 1/4

North boundary of T. 40 S., R. 22 E., continued.

Chains	
	sec. cor. marked 1/4 S. on N. face, on N. face, raised a mound of stone 2 ft. base, 1 1/2 ft. high. N. of cor. Pits impracticable destroyed old cor. See statement page 1 book "a"
60.50	Bottom of ravine, 30 ft. deep course S. N.
80.00	Set a sand stone 16 x 8 x 4 ins. 11 ins. in the ground for cor. of secs. 4, 5, 32 and 33. marked with 4 notches on the E. and 2 notches on N. edges, raised a mound of stone 2 ft. base, 1 1/2 ft. high N. of cor. Pits impracticable destroyed old cor. see pt. Book "a" Land mountainous Soil sandy and stony 2nd and 4th rate. No timber Mountainous land 80.00 chs. Dec. 24th 1898.
	Dec. 25th 1898. At 8 a.m. l. m.l. We set off 37°21' N on the lat. arc; 23°19' S on decl arc; and determine a true meridian with the solar, at the cor. of secs. 4, 5, 32 and 33. N. bdy of T. Thence we run West bet. secs. 5 and 32. Descending over rolling Mesa. soil sandy,
24.00	Wagon road, bet. Monticello and Bluff City bears N.E. and S.W.
40.00	Set a sand stone 16 x 10 x 4 ins. 11 ins. in the ground for 1/4 sec. cor. marked 1/4 S. on N. face, raised a mound of

North boundary of T. 40 S., R. 22 E., contin

Chains	
	stone 2 ft base, 1 1/2 ft high N. of cor. Pits impracticable destroyed old cor. [illegible]
80.00	Set a sand stone 15 x 8 x 6 ins. 10 ins in the ground, for cor of secs. 5, 6, 31 and 32. marked with 5 notches on E. and 1 notch on W. edges. raised a mound of stone 2 ft. base, 1 1/2 ft. high N. of cor. Pits impracticable destroyed old cor. [illegible] Sand, mountainous Soil, sandy 2nd rate. No timber Mountainous land, 80.00 chs.
	West. bet secs. 6 and 31. Over rolling sand mesa. dense artimesa, gradually descending.
40.00	Set a sandstone 15 x 10 x 6 ins. 10 ins. in the ground, for 1/4 sec. cor, marked 1/4 S. on N. face, raised a mound of stone 2 ft. base 1 1/2 ft. high. N. of cor. Pits impracticable destroyed old cor. [illegible]
47.00	Ravine 20 ft. deep course S.W.
40.00	Ravine 20 ft. deep course S.W. allowing for convergency ah
49.45	Set a sand stone 16 x 6 x 6 ins. 11 ins in the ground for cor. of T. 39 and 40 S. Rs 21 and 22 E. Marked 39 S on N.E. 22 E on S.E. 40 S on S.W. 21 E on N.W. faces with 6 notches on each edge, and raised a mound of stone 2 ft. base, 1 1/2 ft. high. S. of cor. Pits impracticable destroyed old cor. Sand rolling.

North boundary of T.40S. R.22E, concluded

Chains	
	Soil sandy. No timber. 1st rate. Dec. 25th 1898.

For General description & table of latitude and departure see book of subdivisions.

Hubert D. Pagan
James M. Lentz
U.S. Deputy Surveyors

Volume
#
R0252

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PAGE

FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

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

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

.....

showing the respective capacities in which they acted:

....., *Chainman.*

....., *Chainman.*

....., *Moundman.*

....., *Moundman.*

....., *Axman.*

....., *Axman.*

....., *Flagman.*

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted .....

..... United States Deputy Surveyor, in surveying all those parts or portions of the .....

..... of the .....

..... meridian, ... of ....., which 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 .....

....., *Chainman.*

....., *Chainman.*

....., *Moundman.*

....., *Moundman.*

....., *Axman.*

....., *Axman.*

....., *Flagman.*

.....

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

SEAL

.....

.....

6—161

272-1 Bl

FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, ..., United States Deputy S... solemnly swear that, in pursuance of a contract received from United States Surveyor General for ....., bearing ... . day of ....., 189 , I have well, faithfully, and truly, in ... proper person, and in strict conformity with the instructions furnished by the United States S... General for ....., the Manual of Surveying Instructions, and the law... United States, surveyed all those parts or portions of

.....

.....

.....

..... of the

..... meridian, in the ..... of ....., which are represen... foregoing field notes as having been surveyed by me, and under my direction; and I do further s... swear that all the corners of said survey have been established and perpetuated in strict accor... the Manual of Surveying Instructions, and the special written instructions of the United States S... General for ..... and in the specific manner described in the field notes, ... the foregoing are the original field notes of such survey; and should any fraud be detected, I w... the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

.....

United States Deputy S...

Subscribed by said ....., and sworn to before me this ..... day of ....., 189

SEAL

.....

.....

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City Utah Feb 17

The foregoing field notes of the re survey of the North Boundary Town 40 South Range No 22 East of the Salt Lake Base & Meridian Utah

executed by Hubert D Page & James M Leute under ~~his~~ their contract No. 215, dated October 29 1896 (Supplemental Int. dated Sept 14...), 189 ..., havi... critically examined, and the necessary corrections and explanations made, the said field notes, ... surveys they describe, are hereby approved.

Jacob B R

United States Surveyor ...

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 c...

.....

United States Surveyor ...

6--151

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PAGE

4—679.

BOOK A-252

FIELD NOTES

OF THE re SURVEY OF THE

West Boundary

of

Township 40 South

Range

No 22 East

Of the Salt Lake Base and Meridian,

State of Utah

AS re SURVEYED BY

Hubert D. Page & James M. Lentz, United States Deputy Surveyors

Under ~~his~~ their Contract No. 215, dated October 29 1897

Survey commenced December 25th, 1898

Survey completed December 25th, 1898

6—151

Resurvey N. Bdry — high 1-00-00

" " " low 3-45-00

NAMES AND DUTIES OF ASSISTANTS.

Peter Meyer	Chainman
Harry Erwin	"
Peter Allen	"
Walter P. McCann	"
John R. Lumpkin	Rodman
George W. Dalton	"
John R. Lumpkin	Axeman
George W. Dalton	"

Preliminary affidavit in book "B"

6—161

BOOK A-252

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.....

6—151

PRELIMINARY OATHS OF ASSISTANTS.

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

... Chai

... Chai

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 mountsmen in the establish
of corners, according to the instructions given us, to the best of our skill and ability, in the sur

... Monno

... Monno

Subscribed and sworn to before me t...
day of ..., 189

SEAL

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

... A

... A

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

SEAL

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

... Fla

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

SEAL

6—151

Resurvey of the W. Bdy. of T. 40 S. R. 22 E.

December 25th 1898.

At 10 a.m. l.m.t. We set off 37°21' N. on the lat arc; 23°22' S. on the decl. arc; and determine a true meridian with the solar at the cor. of Tps. 39 and 40 S. Rs. 21 and 22 E. established this day previously described

Thence We run

South bet secs. 1 and 6

Over rolling sandy mesa

9.00 Ravine 20 ft. deep Course W.

40.00 Set a sandstone 16×12×6 ins. 11 ins. in the ground for ¼ sec. cor. marked ¼ S. on W. face and raise a mound of stone 2 ft. base 1½ ft. high W. of cor. Pits impracticable

We obliterate old ¼ sec. cor see p 1 Book A.

76.00 Solid stone bottom ravine 30 ft. deep Course SW. heads about 6 chs N. E.

80.00 Set a sandstone 18×14×4 ins. 12 ins. in the ground for cor. of secs. 1. 6. 7 and 12 marked with 1 notch on N and 5 notches on S. edges and raise a mound of stone 2 ft. base 1½ ft. high W. of cor. Pits impracticable.

We obliterate old sec. cor [illegible]

Land rolling

Soil sandy 1st rate.

No timber.

South bet. secs. 7 and 12.

Over rolling sandy mesa.

40.00 Set a sandstone 14×10×4 ins. 10 ins. in the ground for ¼ sec. cor. marked ¼ S. on W. face and raise a mound of stone 2 ft. base 1½ ft. high W. of cor. Pits impracticable

We obliterate old ¼ sec cor. see p 1 Book A.

58.00 Leave sandy soil thence over solid sandstone floor.

80.00 Set a sandstone 24×16×6 ins. 18 ins. in the ground for cor. of secs. 7. 12. 13 and 18 marked with 2 notches on N and 4 notches

Resurvey of the W. bdy. of T. 40 S. R. 22 E. Continued

on S. edges and raise a mound of stone 2 ft. base 1½ ft. high W. of cor. Pits impracticable
WE obliterate old sec. cor. Sup. 1 Book "A".
Land rolling
Soil sandy and stone: 1st and 4th rate.
No timber.

At this cor. WE set off 23°22' S on the decl. arc: and at 12 hrs 1 m.l. m.t. observe the sun on the meridian the resulting lat is 37°19' N.

South bet. secs. 13 and 18
Over smooth stone floor gradually descending.

6.00 Spring canon 100 ft. deep course W. heads about 8 chs E. in bottom of this canon there are small springs about 6 chs W. of line.

18.00 Leave stone floor. thence over sandy mesa gradually ascending

20.00 Set a sandstone 16 x 12 x 4 ins., 11 ins. in the ground for ¼ sec. cor. marked ¼ S. on W. face and raise a mound of stone 2 ft. base 1½ ft. high W. of cor. Pits impracticable. WE obliterate old ¼ sec. cor. Sup.

80.00 Set a cobble stone 14 x 10 x 8 ins., 10 ins. in the ground for cor. of secs. 13. 18. 19 and 24 marked with 3 notches on N. and S. edges and raise a mound of stone 2 ft. base 1½ ft. high W. of cor. Pits impracticable.
WE obliterate old sec. cor. Sup. 1 Book "A".
Land rolling;
Soil sandy; 1st rate
No timber.

South bet. secs. 19 and 24,
Ascending over stony gravelly land,

2.25 Top of gravelly ridge bears E. and W.

4.00 Begin descend land, stony,

36.00 Edge of calf canon 100 ft. deep 1 ch wide heads about 10 chs N.E. course S.W.

Resurvey of the N. bdy. of T. 40 S., R. 22 E. Continued,

Chains.	
40.00	Point for 1/4 sec. cor. falls on solid sandstone floor, on which we cut a cross for 1/4 sec. cor. marked 1/4 S. :: on N. and raise a mound of stone 2 ft. base 1 1/2 ft. high W. of cross. Pits impracticable. We obliterate old 1/4 sec. cor. See page 1 Book "A".
54.70	Top of ridge bears E. and W. descend,
68.27	Top of perpendicular cliff 300 ft. high and edge of mesa bears N. W. and S. E. down which we can not chain: set a flag on line near foot of cliffs: measure a base each 5 chs. to a point from which the flag bears S. 45° W.: which gives for the distance (by traverse table) 5 chs. which added to 68.27 chs. makes
73.27	Foot of cliffs, enter San Juan river valley, thence over rolling foot hills soil clay and stony, descending,
80.00	Bottom of small wash 10 ft. wide 4 ft. deep. course S. W.
	Set a sandstone 18 x 12 x 5 ins., 12 ins. in the ground for cor. of secs. 19, 24, 25 and 30 marked with 2 notches on S. and 4 notches on N. edges and raise a mound of stone 2 ft. base 1 1/2 ft. high W. of cor. Pits impracticable. We obliterate old sec. cor. See page 1 Book "A".
	Land mountainous
	Soil stony, 4th rate.
	No timber.
	Mountainous land. 80.00 chs.
	South bet. secs. 25 and 30.
	Gradual descent over sandy soil
5.00	Wagon road bet. Bluff City, Colorado, and Monticello bears E. and W.
5.35	Pole fence bears E. and W. enter cultivated-land
7.00	A point from which the residence of D. J. Rodgers bears W. 15 chs. distant

Resurvey of the W. Bdy. of T. 40 S., R. 22 E. - Conclu

Chains.	
8.40	Irrigation canal 6 ft. wide 2 ft. deep Course W.
13.00	Wire fence bears N. E and S. W.
13.50	Enter meadow land and river bottoms soil sandy loam.
18.60	A point from which the N. E. cor. of the Bluff City Co. op. bears S 88° 41' W. 14.85 chs dist.
40.00	Set a cottonwood post 3 ft. long 3 ins. sq. 24 ins. in the ground for 1/4 sec. cor. marked 1/4 S. on W face. from which A cottonwood 12 ins. diam. bears S. 49 30' W. 74 lks. dist. marked 1/4 S. B. T. A cottonwood 7 ins. diam. bears N. 85° 30' E. 1.04 chs. dist marked 1/4 S. B. T. After dilligent search no trace of old 1/4 sec cor could be found, See page 1 book "A"
40.50	Enter scattering cottonwood.
45.00	Right bank of San Juan river 6 ft high bears E and W.
	Set a cottonwood stake 3 ft. long 4 ins sq., 24 ins. in the ground for meander cor. of frac'l. secs. 25 and 30 marked M. C. on S. T 40 S. on N. R. 22 E., S. 30 on E. and S. 25 on W. faces, from which A Cottonwood 24 ins. diam. bears N. 8° W. 42 lks dist marked T. 40 S. R 21 E. S 25 M. C. B. T. A cottonwood 16 ins. diam bears N. 11° E., 85 lks. dist. marked T. 40 S. R. 22 E. S. 30 M. C. B. T. No old cor. could be found, See p 1
	Land level
	Soil sandy; 1st rate.
	Timber cottonwood scattering.
	Dec. 25th 1898.

For general description and table of lat. and departure see end of note of subdivisions T. 40 S., R. 22 E.

Hubert D Page.
James M. Lintz.

FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by _____

_____, United States Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of _____

_____

showing the respective capacities in which they acted:

_____, *Chainman.*

_____, *Chainman.*

_____, *Moundman.*

_____, *Moundman.*

_____, *Axman.*

_____, *Axman.*

_____, *Flagman.*

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted _____

_____, United States Deputy Surveyor, in surveying all those parts or portions of the _____

_____

_____

_____ of the _____

_____ meridian, _____ of _____, which 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 _____

_____, *Chainman.*

_____, *Chainman.*

_____, *Moundman.*

_____, *Moundman.*

_____, *Axman.*

_____, *Axman.*

_____, *Flagman.*

_____

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

_____

SEAL

_____

6—151

FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I ..... United States Deputy Su...
...ly swear that, in pursuance of a contract received from .....
United States Surveyor General for ..... bearing da...
..... day of ..... 189 . I have well, faithfully, and truly, in
proper person, and in strict conformity with the instructions furnished by the United States
General for ..... the Manual of Surveying Instructions, and the la...
United States, surveyed all those parts or portions of .....

.....

.....

.....

..... of the .....

meridian, in the ..... of ..... which are represent...
foregoing field notes as having been surveyed by me, and under my direction; and I do further
swear that all the corners of said survey have been established and perpetuated in strict accord...
the Manual of Surveying Instructions, and the special written instructions of the United States
General for ..... and in the specific manner described in the field notes,
the foregoing are the original field notes of such survey; and should any fraud be detected, I ...
the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

.....
United States Deputy

Subscribed by said ..... and sworn to before me
this ..... day of ..... , 189

SEAL

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL.

Salt Lake City Utah February 17

The foregoing field notes of the survey of the West Boundary of Township ... South Range 22 East of the Salt Lake Base & Meridian Utah,

executed by Hubert F. Page & James M. Leslie
under contract No. 215, dated October 24, 1897, h...
critically examined, and the necessary corrections and explanations made, the said field not...
corners they describe, are hereby approved.

Jacob B. F...
United States Surveyo...

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 thi...

United States Survey...

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4—679.

BOOK A-252

K.F.B.

FIELD NOTES

OF THE SURVEY OF THE

Subdivision
and Meander lines
of
Township No. 40 South
Range No. 22 East.

Of the Salt Lake, Base and Meridian,
In the state of Utah.

AS SURVEYED BY

Hubert D Page, and James M. Lentz, United States Deputy Surveyors,
under ~~his~~ then Contract No. 215, dated Oct 29th, 1897
Survey commenced December 5th, 1898
Survey completed April 13th, 1899

6—151

Meander —
Lots - high 45-42-39
low 43-20

Meanders high 5-37-65
low 1-55-65

BOOK A-252

NAMES AND DUTIES OF ASSISTANTS.

Peter Mayer, Peter Allen, chainmen
Harry Erwin, Walter O. McCuen, chainmen.
John R. Lumpkin, mound m.
George W. Dalton, mound m.
John R Lumpkin, axman
George W Dalton axman.

6—151

BOOK A-252

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, Peter Meyer, Peter Allen, Harry Erwin and Walter O. McC

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

Subdivision and meander lines of T.40 S. Rs 21, 22, 23 & 24 E., T. 41 S., Rs 24 & 25 E., T. 42 S. Rs. 25 & 26 E., T. 43 S. and the subdivision of T. 40 S. Rs. 25 & 26 E., T. 41 S. R. 26 E. of the Salt Lake R.M. Base & Meridian Utah

Peter Meyer, Peter Allen, Chai

Harry Erwin, Walter O. McCain, Chair

Subscribed and sworn to before me this 5th day of December, 1898

Hubert D. Page
U.S. Deputy Surve

SEAL

WE, John R. Lumpkin and George W. Dalton,

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

Subdivision and meander lines of T. 40 S. Rs 21, 22, 23 & 24 E., T. 41 S. Rs. 24 & 25 E., T. 42 S. Rs 25 & R. 26 E., and subdivision of T. 40 S. Rs 25 & 26 E., T. 41 S., R. 26 E. of the Salt Lake Ba Meridian Utah

John R. Lumpkin, Mour

George W. Dalton, Mound

Subscribed and sworn to before me this 5th day of December, 1898

Hubert D. Page
U.S. Deputy Surv

SEAL

WE, John R. Lumpkin and George W. Dallo

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

Subdivision and meander lines of T. 40 S., Rs 21, 22, 23, 24 E., T. 41 S., Rs. 24 & 25 E., T. 42 S., Rs. 25 & R. 26 E. and subdivision of T. 40 S., Rs. 25 & 26 E., T. 41 S. R. 26 E. of the Salt Lake Base & Meridian Utah

John R. Lumpkin, A

George W. Dalton, A

Subscribed and sworn to before me this 5th day of December, 1898

Hubert D. Page
U.S. Deputy Surv

SEAL

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

_____, Fla

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

SEAL

_____

6—151

Subdivision of T. 40 S., R. 22 E.

Survey commenced Dec. 26. 1898 and executed with two W. and L. E. Gurley light mountain transits no numbers, each with solar attachments. The horizontal limb of each is provided with two double verniers placed opposite to each other, reading to single minutes of arc; which is also the least count of the latitude and declination arcs.

The instruments was examined, tested on the true meridian at Salt Lake City, found correct, and was approved by the Surveyor General for Utah. Nov. 21st 1898.

Prior to test the solar apparatus by comparing their indications, resulting from solar observations made during a.m. and p.m. hours with a true meridian determined by observations on Polaris. We proceed as follows.

At the cor. of secs. 1 and 2 N. bdy. of Tp. 40 S., R 22 E.; Latitude 37°21' N. Longitude 109° 32' W.; We set off 37°21' N. on the lat arc: 23°17' S. on the decl arc; and at 4 p.m. l. m. t., determine with the solar with one of the instruments a true meridian and mark a point thereof on a stone firmly set in the ground 5 chs N of the station. With the second instrument placed over the same initial point we set off 37°21' N. on the lat arc: 23°17' S on the decl arc; and at 4h 10m p.m. l. m. t., determine with the solar a true meridian and mark a point thereof on the stone already set 5 chs. N. of our station. This point falls identical with that of the 1st instrument.

Dec 26th 1898.

Subdivision of T. 40 S., R. 22 E. Continue

Dec. 27. 1898.

At 0hr 54m a.m. l.m.t., We observe Polaris at western elongation with the 1st instrument in accordance with Manual of Instructions, and mark a point in the plug thus determined and a plug driven station the ground 5 chs N. of our station.

At 7h 30m a.m. l.m.t. We lay off the azimuth of Polaris 1°33' to the east, the true meridian thus determined falls on the marks set by p.m. solar observations of both instruments Dec 26th 1898.

At 8 a.m. l.m.t., We set off 37°21' N. on the lat arc: 23°15' S. on the decl arc: of the 1st instrument. and determine a true meridian with the solar which falls on the mark set on the true Meridian established by the Polaris observation.

At 8hrs 10m. a.m. l.m.t., We set off 37°21' N on the lat. arc: 23°15' S. on the decl arc: of the second instrument, and determine a true meridian with the solar which falls on the mark set on the true Meridian established by the Polaris observations.

The solar apparatus of each instrument by p.m. and a.m. observations defines positions for true meridians.

Therefore We conclude that the adjustments of the instruments are satisfactory.

The magnetic bearing of the true Meridian at 8 a.m. is N. 14°00 W.; the angle thus determined reduced by the table page 170 of the Manual gives the mean mag. decl 13°58' E.

We begin at the cor. of secs. 1. 2. 35 and 36 N. b of Tp. which We reestablished Dec 25. 1898, and previously described.

Thence We run

S. 0°1' E. bet. secs. 1 and 2.

Subdivision of T. 40 S., R. 22 E. Continued

Descending over stony soil.
1.00 Top of cliffs 40 ft high bears E and W. begin rapid descent over broken ledges and boulders
8.00 Bottom of ravine 150 ft deep course S.W. Ascend.
16.00 Top of sandstone ledges and boulders, edge of mesa bears S.W. and N.E. Thence over stony and broken mesa, descending
33.00 Top of spur bears S.W. and N.E. projects S.W.
40.00 Near foot of spur
Set a sandstone 15 x 12 x 3 ins. 12 ins. in the ground for 1/4 sec cor. marked 1/4 S 2 on W. face and raise a mound of stone 2 ft base 1 1/2 ft. high W. of cor. Pits impracticable
54.50 Point of spur. projects W. bears E. and W.
60.50 Bottom of ravine course W. Ascend.
80.00 Set a sandstone 16 x 8 x 6 ins 12 ins in the ground for cor. of secs. 1. 2. 11 and 12 marked with 1 notch on E. and 5 notches on S. edges and raise a mound of stone 2 ft base 1 1/2 ft high W. of cor. Pits impracticable
Land mountainous,
Soil stony; 4th rate,
No timber,
Mountainous land, 80.00 chs.

East on a random line bet. secs. 1 and 12.
40.00 Set temp. 1/4 sec. cor.
80.02 Intersect the E bdy of the Tp. 5 lks. N. of the cor. of secs 1. 6. 7 and 12 already described
Thence WE run
N. 89° 58' W. on a true line bet. secs. 1 and 12,
Descending, over rolling land soil stony.
37.00 Ledges 30 ft high bears N. and S. begin precipitous descent
40.01 Set a sandstone 16 x 10 x 6 ins 11 ins in the ground for 1/4 sec cor. marked 1/4 S. 1 on N. face and raise a mound of stone 2 ft. base 1 1/2 ft. high N. of cor. Pits impracticable
56.00 Wash 25 ft. deep 50 ft wide course S.W. 300 ft below cor of secs. 1. 6. 7 and 12. Ascend
80.02 The cor. of secs. 1. 2. 11 and 12.

Subdivision of Sec 40 S. R22 E. continued

Land mountainous
Soil stony and sandy; 3rd rate;
No timber,
Mountainous land, 80.02 chs.
Dec 27, 1898. At this cor. We set off 23°17' S. on the decl. arc: and at 12 hrs 01 M. l.m.t., observe the sun on the meridian the resulting lat. is 37°20' N.

S. 0' E. bet secs. 11 and 12.
Descend over precipitous ledges and boulders bears N.
19.50 North bank of Recapture wash 20 ft high bears N.W. and S.E.
19.75 Bottom of Recapture wash. Course S.E. 200 ft below sec. cor. Ascend.
20.00 South bank of same wash bears N.W. and S.E.
27.00 Begin precipitous ascent over ledges and boulders bears N. and S. and N.W.
40.00 Top of ascent, edge of mesa bears N. and S. and S.W. 150 ft above bottom of Recapture wash.
Set a cobble stone 14x10x6 ins. 10 ins. in the ground for 1/4 Sec cor marked 1/4 S. 11 on W. face and raise a mound of stone 2 ft. base 1 1/2 ft. high W. of cor. Pits impracticable
42.00 Begin precipitous descent over ledges and boulders bears N. and S. and S.W.
43.50 Foot of descent 75 ft below 1/4 cor. bears N.E. and S. Thence descending gradually, land rolling
75.00 Bottom of dry creek or wash 40 ft deep. Course E. Ascend.
80.00 Set a sandstone 16x12x8 ins. 11 ins. in the ground for cor. of secs. 11, 12, 13, and 14 marked with 1 notch on E. and 4 notches on S. edges and raise a mound of stone 2 ft. base 1 1/2 ft. high W. of cor. Pits impracticable
Land mountainous
Soil stony and gravelly 4th rate;
No timber
Mountainous land 80.00 chs.

S 89°58' E on a random line bet secs 12 and 13
40.00 Set temp 1/4 Sec cor

Subdivision of T. 40 S., R. 22 E. - Continued

Chains	
80.06	Intersect E. bdy. of the Tp. 4 lks. S. of the cor. of secs. 7, 12, 13 and 18, already described. Thence We run West on a true line bet. secs. 12 and 13 Descending over rolling mesa, Soil Sandy and gravelly.
26.00	Top of broken sandstone ledges and cliffs 40 ft. high, bears. N. and S. descend over broken sandstone ledges and cliffs
27.15	Foot of ledges and cliffs. thence over stony land descending
40.03	Set a Quartzite 12 x 10 x 3 ins. 8 ins. in the ground for 1/4 sec. cor. marked 1/4 S. on N. face and raise a mound of stone 2 ft. base 1 1/2 ft. high N. of cor. Pits impracticable.
56.80	Bottom of ravine 50 ft. deep course S.W. Ascend
61.00	Sandstone ledges and point of spur projects S.W. Descend.
70.30	Each bank of Recapture wash bears N. and S.
73.05	Bottom of Recapture wash course S.
75.80	West bank of Recapture wash 15 ft. high, bears. N. and S. ascend over stony land
80.06	The cor. of secs. 11, 12, 13 and 14 This corner is 500 ft. below the cor. of secs. 7, 12, 13 and 18. Land mountainous. Soil, stony and sandy; 2nd and 4th rate. No timber. Mountainous land 80.06 chs. Dec. 29, 1898

December 28, 1898: At 8 a. m., l. m. t., We set of 37° 19' N. on the lat. arc; 23° 12' S. on the decl. arc, and determine a true meridian with the solar at the cor. of secs. 11, 12, 13 and 14.

Subdivision of T. 40 S., R. 22 E. Continued

Chains	
	Thence We run
	So° 1' E. bet secs. 13 and 14
	Ascending over rolling land. Soil Sandy
39.0	Old trail bears N.W. and S.E.
25.00	Old trail bears N.W. and S.E.
36.50	North edge of wash 75 ft. disp. bears E. & W.
	Begin precipitous descent into bottom
37.50	Bottom of wash course E. begin
	precipitous ascent to mesa
40.00	Set a Sandstone 14 x 8 x 6 ins. 10 ins.
	in the ground for 1/4 Sec cor. marked
	1/4 S. on W. face and raise a mound
	of stone 2 ft. base 1 1/2 ft. high W. of cor.
	Pits impracticable.
47.00	Top of cliffs 100 ft. high and edge of
	mesa 150 ft. above 1/4 Sec cor.
	Thence descending along each side
	of cliffs and west edge of Recapture
	wash.
80.00	Set a Sandstone 14 x 10 x 9 ins. in a mound
	of stone for cor. of secs. 13, 14, 23 and 24
	marked with 1 notch on E. and 3 notches
	on S. edges and raise a mound of
	stone 2 ft. base 1 1/2 ft high W. of cor.
	Pits impracticable.
	from which a Sandstone ledge 20 ft
	high bears W. 14 lks. dist. marked
	with a cross.
	This cor stands on the west edge of
	Recapture wash and foot of cliffs
	Land mountainous
	Soil stony and sandy; 2nd and 4th rate
	No Timber
	Mountainous land 80.00 chs
	East on a random line bet. secs.
	13 and 24.
40.00	Set temp. 1/4 Sec cor.
80.00	Intersect E. bdy. of the Tp. at the cor.
	of secs. 13, 18, 19, and 24, already described
	Thence We run

Subdivision of T. 40 S. R. 22 E. Continued

Chains	
	West on a true line bet. secs. 13 and 24 Over rolling mesa soil stony and sandy.
2.00	Dry wash 10 ft. deep and 20 ft wide course SW.
28.00	Ledge sandstone 60 ft. high bears N. and S. Begin precipitous descent over broken sandstone ledges and boulders.
40.02	The point for 1/4 Sec. cor. falls on solid sandstone floor. We mark a cross with 1/4 S on N. and raise a mound of stone 2 ft. base 1½ ft high N. of the cross. Pits impracticable Thence over smooth sandstone floor
43.00	Enter rolling mesa, soil sandy, leave sandstone.
54.00	Leave sandy soil. Thence over smooth sandstone floor.
65.00	Begin precipitous descent over sandstone ledges and boulders, edge of mesa
69.00	Top of sandstone cliffs 100 ft. high, bears N. and S. and each side of Recapture canon. begin precipitous descent into canon
73.50	Foot of descent and cross edge of a wash in bottom of canon. 15 ft. deep course S. a point about 200 ft below 1/4 Sec. cor.
80.04	West edge of Recapture wash and the cor. of Secs 13, 14, 23 and 24 Land mountainous. Soil sandy and stony: 2nd and 4th rate No timber Mountainous land 80.04 chs.

Dec 28 1898: At this cor the sun off 23° 14' S. on the decl. arc: and at 12 hrs 02 m l.m.t. observe the sun on the meridian. the resulting lat is 37° 18' N.

Subdivision of T. 40 S., R. 22 E. Continued

Chains	
	So. 1 E. bet. secs. 23 and 24
	Descending over broken sandstone ledges and boulders
3.00	West side of Recapture wash bears S.W. and N.E.
5.00	Bottom of Recapture wash course S.W. 40 ft. below sec. cor.
8.00	S.E. edge of Recapture wash bears S.W. and N.E. begin precipitous ascent over sandstone ledges and boulders
10.00	Top of cliffs 60 ft. high and S.E. rim of Recapture canon on wash and edge of mesa bears N.E. and S.W. Thence over rolling mesa, soil sandy and stony.
40.00	Set a sandstone 14 x 8 x 6 ins 10 ins in the ground for 1/4 sec cor marked 1/4 S. on W. face and raise a mound of stone 2 ft. base 1 1/2 ft. high W. of cor. Pits impracticable.
79.00	Top of perpendicular cliffs, sandstone 120 ft. high and edge of mesa bears E. and W. precipitous descent into San Juan river bottom
80.00	Foot of cliffs.
	Set a sandstone 14 x 8 x 7 ins 10 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 raise a mound of stone 2 ft. base 1 1/2 ft high W. of cor. Pits impracticable.
	Land mountainous
	Soil sandy and stony. 2nd and 4th rate
	No timber
	Mountainous land, 80.00 chs.
	Each on a random line bet. secs. 24 and 25.
40.00	Set temp. 1/4 sec. cor.

Subdivision of T. 40 S., R. 22 E. Continued

Chains	
80.06	Intersect the E. bdy of the Tp. 5 lks N. of the cor. of secs 19. 24. 25 and 30. already described. Thence We run S. 89° 58' W. on a True line bet secs 24 and 25
	Descending over smooth Sandstone floor
1.00	Bottom of draw course S.W. 30 ft. below the sec cor. begin precipitous ascent over stony soil
3.00	Top of ascent and edge of mesa 80 ft. above sec cor. bears N.E. and S.W. Thence over rolling mesa. soil sandy and gravelly.
40.03	Set a Sandstone 15 x 10 x 4 ins. 10 ins in the ground for 1/4 sec cor marked 1/4 S. 2 on N. face and raise a mound of stone 2 ft. base 1 1/2 ft. high N. of cor. Pits impracticable.
73.00	Top of sandstone cliffs 120 ft. high and edge of mesa bears N.W. and S.E. begin precipitous descent into San Juan river bottom along S. side of cliffs
80.06	Foot of cliffs
	The cor. of secs. 23. 24. 25 and 26
	Land mountainous
	Soil stony and sandy: 2nd and 4th rate.
	No Timber
	Mountainous land 80.06 chs.
	S. 0° 1' E. bet. sec. 25 and 26
	Along level river bottom. through dense artimesa. soil sandy loam.
11.40	Wagon road bet. Bluff City and Colorado bears N.W. and S.E.
21.00	Wagon road bears N.W. and S.E.
25.00	North bank of San Juan river 4 ft. high bears N.W. and S.E.
	Set a sandstone 15 x 10 x 8 ins. 10 ins. in the ground for meander cor. of

Subdivision of T. 40 S., R. 22 E. - Continued

Chains	
	fractional secs. 25 and 26. marked M. C. on S. face with 1. groove on E face and raise a mound of stone 2 ft base 1½ ft high N. of cor.
	Pits impracticable
	Land level.
	Soil. Sandy loam 1st rate
	No timber device antimesa 25.00 chs
	Dec: 28. 1898.
	December 27, 1898:
	At 9 a. m. l. m. t., We set off 37° 21' N. on the lat. arc: 23° 17' S. on the decl. arc: and determine a true meridian with the solar at the cor. of secs. 2. 3. 34. and 35. N. bdy. of Tp. which We reestablished Dec. 25th 1898: previously described
	Thence We run.
	S. 0° 1' E. bet. secs. 2 and 3.
	Ascending over broken sandstone ledges and boulders
9.20	Broken sandstone cliffs 30 ft. high bears E. and W. and edge of mesa. thence over rolling mesa soil gravelly. gradually ascending
34.00	Begin descend over rolling mesa
40.00	Set a Sandstone 16 x 12 x 4 ins. 11 ins. in the ground for ¼ sec. cor. marked ¼ S. on W. face and raise a mound of stone 2 ft. base 1½ ft. high W. of cor Pits impracticable
80.00	Edge of mesa bears N. W. and S. E.
[illegible]	Set a Sandstone 14 x 10 x 6 ins. 9 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 raise a mound of stone 2 ft. base 1½ ft. high W. of cor.
	Pits impracticable.
	Land mountainous
	Soil gravelly and stony: 3rd and 4th rate.
	No timber.
	Mountainous land 80.00 chs.

Subdivision of T. 40 S. R. 22 E. - Continued.

Chains	
	East on a random line bet. secs. 2 and 11.
40.00	Set temp. 1/4 sec. cor.
80.06	Intersect N. and S. line 7 lks. N. of the cor. of secs. 1. 2. 11 and 12.
	Thence We run
	N. 89° 57' W. on a true line bet. secs. 2 and 11
	Along level stony and gravelly soil
2.50	Top of sandstone cliffs 30 ft. high bears N. and S.
	Begin precipitous descent into bottom of Recapture wash
2.80	East bank of Recapture wash, bears N. and S.
4.30	Bottom of Recapture wash course S. 80 ft. below sec. cor.
5.80	West bank of Recapture wash, bears N. and S.
	Thence over rolling sandy land in bottom of Recapture wash.
15.70	Enter hard mesa land rolling
36.60	Bottom of ravine 25 ft. deep, course N. E.
40.03	Set a Sandstone 16 x 12 x 6 ins. 11 ins. in the ground for 1/4 sec. cor. marked 1/4 S. on N. face, and raise a mound of stone 2 ft. base 1 1/2 ft. high N. of cor.
	Pits impracticable.
	Ascending over rolling mesa, soil sandy and gravelly.
80.06	The cor. of secs. 2. 3. 10 and 11
	Land mountainous
	Soil, sandy, gravelly and stony; 2nd 3rd and 4th rate.
	No timber.
	Mountainous land 80.06 chs.
	DEC. 27, 1898: At this cor. We set off 23° 17' S on the decl. arc: and at 12 hrs 01 m. L. m. t., observe the sun on the meridian the resulting lat. is 37° 28' N.
	So. 1 E. bet. secs. 10 and 11
	Ascending over broken sandstone ledges and boulders, bearing in all directions

Chains.	
17.00	Bottom of ravine 20 ft. deep course N.E.
40.00	Set a Sandstone 20 x 12 x 4 ins. 15 ins. in a mound of stone and gravel marked 1/4 S. on W. face and raise a mound of stone 2 ft. base 1½ ft. high W. of cor. Pits impracticable. This cor. is at the foot of very stony ridge bears E. and W. ascend.
41.00	Top of stony ridge 75 ft. above 1/4 sec. cor. Begin precipitous descent over ledges and boulders bearing in all directions
70.00	Begin ascend over precipitous land, sandstone ledges and boulders bearing in all directions
80.00	Set a Quartzite 24 x 12 x 8 ins. 18 ins in the ground for cor. of secs. 10, 11, 14 and 15 marked with 2 notches on E. and 4 notches on S. edges. and raise a mound of stone 2 ft. base 1½ ft. high W. of cor. Pits impracticable. This cor. is about 600 ft. above the cor. of secs. 2, 3, 10, and 11 and general level of the surrounding country S. and E. Land mountainous Soil stony; 4th rate No timber. Mountainous land 80.00 chs.
	S. 89° 57' E. on a random line bet. secs. 11 and 14.
40.00	Set temp 1/4 sec. cor.
79.90	Intersect N. and S. line 2 chs. S. of the cor of secs. 11, 12, 13 and 14 Thence we run N. 89° 58' W. on a true line bet. secs. 11 and 14. Ascending over sandy soil.
0.80	Smooth sandstone floor
28.00	Leave smooth sandstone floor and enter rolling mesa. Soil gravelly and sandy
39.97½	Set a Sandstone 18 x 8 x 5 ins 12 ins. in

Subdivision of T. 20 S., R. 22 E. Continued

Varies	the ground for 1/4 sec. cor. marked 1/4 S. on N. face and raise a mound of stone 2 ft. base 1 1/2 ft. high N. of cor. Pits impracticable.
68.00	Edge of mesa begin precipitous accent over broken sandstone ledges and boulders bearing in all directions
79.95	The cor. of secs. 10. 11. 14 and 15. This cor is 600 ft. above the cor. of secs. 11. 12. 13 and 14. Land mountainous. Soil sandy and clayey: 2nd and 4th rate. No timber. Mountainous land 79.95 chs. Dec 27. 1898.
	December 28 1898 At 8 a.m. l.m.t., We set off 37° 19' N. on the lat. arc: 23° 12' S. on the decl. arc: and determine a true meridian with the solar at the cor. of secs. 10. 11. 14 and 15. Thence We run L.0° 1' E. bet. secs. 14 and 15. Descending over precipitous ledges and sandstone boulders.
14.00	Foot of precipitous descent. 350 ft. below sec. cor. and edge of mesa. thence over rolling mesa: soil sandy. gradually descending.
40.00	Set a Sandstone 18 x 8 x 6 ins. 12 ins in the ground for 1/4 sec. cor. marked 1/4 S. on W. face and raise a mound of stone 2 ft. base 1 1/2 ft. high W. of cor. Pits impracticable
80.00	Set a Quartzite 16 x 8 x 6 ins. 11 ins. in the ground for cor. of secs. 14. 15. 22 and 23 marked with 2 notches on E. and 3 notches on S. edges and raise a mound of stone 2 ft. base 1 1/2 ft. high W. of cor. Pits impracticable. Land mountainous.

Chains	
	Soil, sandy and stony; 2nd and 4th rate.
	No timber
	Mountainous land 80.00 chs.
	S. 89°58' E. on a random line bet. secs. 14 and 23.
40.00	Set temp. 1/4 sec. cor.
80.00	Intersect N. and S. line 5 chs. S. of the cor. of secs. 13. 14. 23 and 24. already described
	Thence we run
	West, on a true line bet. secs. 14 and 23.
	Begin precipitous ascent over broken sandstone cliffs and ledges.
2.00	Top of cliffs and ledges 70 ft. above the sec. cor. bears N. and S. and edge of mesa. As the place for the cor. of secs. 13. 14. 23 and 24 falls at the foot of cliff near edge of Recapture wash and subject on account of floods to be obliterated.
	We therefore
	Set a Sandstone 16 x 10 x 6 ins. 11 ins in a mound of stone for witness corner to cor. of secs. 13. 14. 23 and 24.
	marked W. C. on N. E. face with 1 notch on E. and 3 notches on S. edges and raise a mound of stone 2 ft. base 1 1/2 ft. high W. of cor. Pits impracticable
	Thence over rolling sandy mesa
40.00	Set a Sandstone 14 x 11 x 9 ins. 10 ins in the ground for 1/4 sec. cor. marked 1/4 S. on N. face and raise a mound of stone 2 ft. base 1 1/2 ft. high N. of cor. Pits impracticable.
74.53	Indian trail bears N. E. and S. W.
80.00	The cor. of secs. 14. 15. 22 and 23.
	Land mountainous.
	Soil, sandy; 2nd rate.
	No timber.
	Mountainous land 80.00 chs.

Subdivision of T. 40 S. R 22 E.—Continued.

Chains.	S. 0° 1' E. bet. secs. 22 and 23. Descending gradually over rolling mesa soil sandy.
40.00	Indian trail bears N.E. and S.W.
58.00	Bottom of ravine 20 ft. deep course E. heads about 10 chs. west. Ascend.
40.00	Set a cobble stone 16 x 8 x 6 ins 11 ins in the ground for 1/4 sec. cor. marked 1/4 S. on W. face and raise a mound of stone 2 ft base 1 1/2 ft high W. of cor. Pits impracticable.
50.00	Top of ridge bears N.E. and S.W. 150 ft. above 1/4 sec. cor. Descend.
79.30	Top of sandstone cliffs 200 ft high and edge of mesa, down which we can not chain. set a flag on line near foot of cliffs: measure a base 1 ch. S 89° 59' W. to a point from which the flag bears S 55° E which gives for the dist. (by traverse table) 76 lks. which added to 79.30 chs. makes
80.00	To foot of cliffs bears S.W. and N.E. Set a sandstone 16 x 10 x 9 ins. 11 ins in the ground for cor. of secs. 22. 23. 26 and 27. marked with 2 notches on S. and E. edges. and raise a mound of stone 2 ft. base 1 1/2 ft. high W. of cor. Pits impracticable. Land mountainous. Soil sandy: 2nd rate. No timber. Mountainous land 80.00 chs.
	Dec 28, 1898: At this cor. we set off 25° 14' S. on the decl. arc: and at 12 hrs 02 m. l. m. t., observe the sun on the meridian the resulting lat. is 37° 17' N
	East, on a random line bet. secs. 23 and 26.
40.00	Set temp. 1/4 sec. cor.
80.06	Intersect N. and S. line at the cor. of secs. 23. 24. 25 and 26. already described

Subdivision of T. 40 S., R. 22 E. Continued.

Chains	
	Thence Herein
	West, on a true line bet. secs. 23 and 26.
	Over level land. soil sandy. through
	dense artimesa
18.90	Wagon road bet. Bluff City and Colorado
	bears N.W. and S.E.
29.00	East edge of the mouth of Recapture
	wash, bank 3 ft. high bears N. and S.
31.00	West edge of the mouth of Recapture wash
	bank 3 ft. high
40.03	Set a Sandstone 14 x 8 x 6 ins in the
	ground for 1/4 sec. cor. marked 1/4 S. on
	N. face and raise a mound of stone 2
	ft. base 1 1/2 ft. high. N. of cor. Pits im-
	practicable.
76.00	Wagon road bet. Bluff City and Colorado
	bears. S.W. and N.E.
— 80.06	The Cor. of secs. 22. 23. 26 and 27.
	Land level
	Soil. sandy: 2nd rate.
	No timber.
	Dense artimesa 80.06 chs.
	S. 0° 1' E. bet. secs. 26 and 27.
	Over level land soil sandy. through
	dense artimesa, San Juan river bottom;
3.00	Wagon road bet. Bluff City and Colorado
	bears S.W. and N.E.
— 13.10	Right bank of San Juan river 4 ft high
	bears E. and W.
	Set a Sandstone 15 x 10 x 4 ins, 10 ins.
	in the ground for meander cor. of frac'l.
	secs. 26 and 27. marked M. C. on S.
	face with 2 grooves on E. face and
	raise a mound of stone 2 ft. base 1 1/2
	ft. high N. of cor. Pits impracticable
	Land level.
	Soil sandy: 2nd rate
	No timber.
	Dense artimesa 13.10 chs.

DEC. 28, 1898.

Subdivision of T. 40 S., R. 22 E., Continued.

Chains.	Dec. 29, 1898.
	At 8 a.m. l.m.t., We set off 37° 21' N. on the lat. arc: 23° 09' S. on the dec. arc; and, determine a true meridian with the solar at the cor. of secs. 3, 4, 33 and 34 on the N. bdy of Tp. which We reestablished Dec. 25 1898. previously described.
	Thence We run
	S. 0° 2' E. bet. secs. 3 and 4,
	Ascending over precipitous sandstone ledges and boulders, bearing in all directions
40.00	Set a Sandstone 15 x 8 x 5 ins. 10 ins. in a mound of stone for 1/4 sec cor. marked 1/4 S. on W. face and raise a mound of stone 2 ft base 1 1/2 ft. high W. of cor. Pits impracticable.
53.00	Begin steep ascent along N.E. side of mountain
80.00	Set a Sandstone 16 x 6 x 6 ins. 11 ins. in a mound of stone for cor. of secs. 3, 4, 9 and 10 marked with 3 notches on E. and 5 notches on S. edges and raise a mound of stone 2 ft. base 1 1/2 ft high W. of cor. Pits impracticable.
	This cor is 300 ft. above the 1/4 sec. cor.
	Land mountainous.
	Soil stony: 4th rate.
	No timber.
	Mountainous land 80.00 chs.
	East, on a random line bet. secs 3 and 10,
40.00	Set temp. 1/4 sec. cor.
80.07	Intersect N. and S. line 6 lks N. of the cor. of secs 2, 3, 10 and 11
	Thence We run
	N. 89° 57' W. on a true line bet. secs. 3 and 10.
	Ascending over precipitous sandstone ledges and boulders, bearing in all directions

Chains	
40.03½	Set a Sandstone 18 x 12 x 10 ins 12 ins. in a mound of stone for 1/4 sec. cor. marked 1/4 S. on N. face and raise a mound of stone 2 ft. base 1½ ft. high N. of cor. Pits impracticable
62.70	Foot of mountain, begin steep precipitous ascent, bears N.W. and S.E.
80.07	The cor. of secs. 3. 4. 9 and 10. This cor. is 400 ft. above the cor. of secs. 2. 3. 10 and 11
	Land mountainous.
	Soil stony, 4th rate.
	No timber.
	Mountainous land 80.07 chs.
	Dec. 29, 1898. At this cor. We set off 23° 10' S. on the decl. arc; and at 2 hrs. 02 m. l. m. t., observe the sun on the meridian the resulting lat. is 37° 20' N
	S. 0° 2' E. bet. secs. 9 and 10.
	Ascending over precipitous sandstone ledges and boulders bearing in all directions, along N.E. side of mountain.
14.85	Top of mountain 700 ft. above the sec. cor. bears N.W. and S.E.
20.00	Begin precipitous descent over broken sandstone ledges and boulders
34.00	Foot of mountain
	Thence over rolling sandy mesa, descending.
40.00	Set a Sandstone 15 x 6 x 6 ins. 10 ins. in the ground for 1/4 sec. cor. marked 1/4 S. on W. face, and raise a mound of stone 2 ft. base 1½ ft. high W. of cor. Pits - impracticable.
67.00	Bottom of ravine 70 ft. deep, course S.E.
77.20	Top of sandy ridge bears S.W. and N.E. Ascend. Descend.

Subdivision of T. 40 S., R. 22 E.—Continued.

Chains.	
80.00	Set a Limestone 15 x 10 x 4 ins. 10 ins. in the ground for cor. of secs. 9, 10, 15 and 16 marked with 3 notches on E and 4 notches on S. edges, and raise a mound of stone 2 ft. base 1½ ft. high N. of cor. Pits impracticable. Land mountainous. Soil stony and sandy; 2nd and 4th rate. No timber. Mountainous land 80.00 chs. Dec. 29, 1898.
	December 30, 1898: At 8 am. l. m. t. We set off 37° 19' N. on the lat. arc; 23° 05' S. on the decl. arc; and determine a true meridian with the solar at the cor. of secs. 9, 10, 15 and 16. Thence We run
	S. 89° 57' E. on a random line bet. secs. 10 and 15:
40.00	Set temp. cor. to secs. cor.
79.98	Intersect N. and S. line 7 chs. S. of the cor. of secs. 10, 11, 14 and 15. Thence We run
	West, on a true line bet. secs. 10 and 15, Ascending over precipitous sandstone ledges and large boulders bearing in all directions
20.00	Pass between point of ridge and Butte 400 ft. high, along north side of Butte
22.00	Begin descend
39.99	Set a Sandstone 14 x 10 x 6 ins. 10 ins. in a mound of stone for ¼ sec. cor. marked ¼ S. on N. face and raise a mound of stone 2 ft. base 1½ ft. high N. of cor. Pits impracticable.
50.00	Top of spur bears N. and S. projects S. Descend.
51.50	Broken Sandstone ledges 20 ft. high bears N. and S.

Subdivision of T. 40 S., R. 22 E. Contin

Chains	
57.00	Bottom of ravine 100 ft. deep course S. Ascend
59.00	Top of spur bears N. and S. projects S. Descend
62.50	Bottom of ravine 150 ft. deep course S.E. Ascend over sandy soil.
79.98	The cor. of secs. 9. 10. 15 and 16. Land mountainous. Soil stony and sandy; 2nd and 4th rate. No timber. Mountainous land 79.98 chs.
	S. 0° 2' E. bet. secs. 15 and 16. Descending over rolling mesa. soil sandy
14.40	Sandstone croppings bear E.
40.00	Set a Limestone 18×10×4 ins. 12 ins. in the ground for 1/4 sec cor. marked 1/4 S. on W. face and raise a mound of stone 2 ft. base 1½ ft. high W. of cor. Pits impracticable
80.00	Set a Sandstone 16×10×6 ins 11 ins. in the ground for cor. of secs. 15. 16. 21 and 22. marked 40 S. on N.E. and 22 E. on S.E. faces with 3 notches on S. and E. edges and raise a mound of stone 2 ft. base 1½ ft. high W. of cor. Pits impracticable. Land Mountainous. Soil sandy; 2nd rate. No timber Mountainous land. 80.00 chs.
	Dec 30. 1898 At this cor. We set off 23° 07' S. on the decl. arc: and at 12 hrs. 03 m l.m.t. observe the sun on the meridian the resulting lat. is 37° 18' N
	East on a random line bet. secs. 15 and 22.
40.00	Set temp. 1/4 sec cor.

Subdivision of T. 40 S., R. 22 E. Continued.

Chains.	
80.04	Intersect N. and S. line at the cor. of secs. 14, 15, 22 and 23.
	Thence we run
	West on a true line bet. secs. 15 and 22, ascending over rolling mesa soil sandy.
36.00	Wash 35 ft. deep 50 ft. wide course S.E.
40.02	Set a sandstone 14 x 8 x 6 ins., 10 ins. in the ground for 1/4 sec. cor. marked 1/4 S. on N. face and raise a mound of stone 2 ft. base 1 1/2 ft. high N. of cor. Pits impracticable
42.00	Ravine 20 ft. deep course S. Ascend over rolling mesa
80.04	The cor. of secs. 15, 16, 21 and 22.
	Land mountainous.
	Soil sandy: 2nd rate
	No timber.
	Mountainous land. 80.04 chs.
	So 2' E. bet secs. 21 and 22
	Gradually descending over rolling mesa. soil sandy.
29.00	Bottom of ravine 20 ft. deep, course E.
	Thence over stony land ascend,
40.00	Set a sandstone 16 x 8 x 6 ins. 11 ins. in the ground for 1/4 sec. cor. marked 1/4 S on W. face and raise a mound of stone 2 ft base 1 1/2 ft. high W. of cor. Pits impracticable
42.50	Top of ridge bears E. and W. 75 ft above 1/4 sec cor. Descend,
53.00	Old trail bears S.E and N.W.
80.00	Set a sandstone 16 x 8 x 8 ins. 11 ins. in the ground for cor. of secs. 21, 22, 27 and 28. marked with 2 notches on S. and 3 notches on E edges, and raise a mound of stone 2 ft base 1 1/2 ft high W. of cor. Pits impracticable.
	Land mountainous.

Chains.	Soil sandy & stony: 2nd & 4th rate
	No timber.
	Mountainous land 80.00 chs.
	East on a random line bet. secs 22 & 27
40.00	Set temp 1/4 sec cor.
78.07	To top of cliffs 200 ft. high.
	To determine dist. to foot of cliffs, we set a flag on line at foot of cliffs, measure a base North 2 chs. to a point from which the flag bears S. 44 20 E.; from the flag the N end of the base bears N. 44° 20 W.; therefore the dist is tan 44° 23' x base or 0.979 x 2 = 1.95 chs which added to 78.07 makes
80.02	To foot of cliffs.
	Intersect N. and S. line 8 chs. S of the cor of secs. 22, 23, 26 and 27,
	Thence we run,
	S. 89° 57' W. on a true line bet. secs. 22 and 27
1.95	Top of cliffs 200 ft. high and edge of mesa bears S.W. and N.E.
	Thence over stony rolling land,
40.01	Set a sandstone 16 x 12 x 5 ins. 11 ins. in the ground for 1/4 sec cor marked 1/4 S on N. face and raise a mound of stone 2 ft. base 1½ ft. high N. of cor.
	Pits impracticable.
	Begin precipitous descent into ravine or wash over broken sandstone ledges and boulders.
42.00	Bottom of ravine or wash 175 ft. below 1/4 sec. cor. course S. 10° W.
	Ascend over precipitous ledges and boulders
60.00	Track 15 ft. deep course S.W. leads about 12 chs. N.
63.40	Indian trail bears S.W. and N.E.
78.19	Top of sandstone cliffs and ledges 100 ft. high bears N. and S. precipitous ascent
80.02	The cor of secs 21, 22, 27 and 28
	Land mountainous
	Soil stony: 4th rate

Subdivision of T. 40 S., R. 22 E.—Continued.

Chains	No Timber.
	Mountainous land 80.02 chs.
	S. 0° 2' E. bet. secs. 27 and 28.
	Descending rapidly over stony ground and sandstone boulders
7.00	Foot of steep descent. Thence over gravelly soil. rolling land.
14.50	Indian trail bears N.E. and S.W.
21.00	Bottom of ravine 20 ft. deep course S.W. thence along east side of ravine descending
40.00	Set a Sandstone 12x10x4 ins. 10 ins. in the ground for 1/4 sec. cor. marked 1/4 S. on W. face and raise a mound of stone 2 ft. base 1 1/2 ft. high W. of cor. Pits impracticable.
42.00	Enter San Juan river bottom. soil sandy.
42.10	Irrigation canal 4 ft. wide 2 ft. deep. course W. abandoned
42.50	Wagon road bet. Bluff City and Colorado bears E. and W.
43.00	Right bank of San Juan river 4 ft. high bears E. and W.
	Set a Sandstone 16x10x8 ins., 11 ins. in the ground for meander cor. of tract, sec. 27 and 28. Marked M. on S. face with 3 grooves on E. face and raise a mound of stones 2 ft. base 1 1/2 ft. high N. of cor. Pits impracticable
	Land Mountainous
	Soil stony and sandy. 2nd and 4th rate.
	No timber.
	Mountainous land. 43.00 chs.
	Dec. 30. 1898.

Subdivision of T. 40 S., R. 22 E. - Continue.

Chains.	
	DEC 29, 1898:
	At 8 a.m. l.m.t., We set off 37° 21' N. on the lat. arc; 23° 09" S. - the decl. arc; and determine a true meridian with the solar at the cor. of secs. 4. 5. 32 and 33, on the N. bdy. of Tp. which We reestablish DEC. 25, 1898. previously described.
	Thence We run
	S. 0° 3' E. bet. secs. 4 and 5.
	Descending over rolling mesa, soil sandy.
16.00	Ravine 50 ft deep. course S.W. ascend
21.00	Top of sand ridge bears E. and W.
	Thence over rolling mesa
40.00	Set a Sandstone 14 x 8 x 6 ins. 9 ins. in the ground for 1/4 sec. cor. marked 1/4 S. on W. face and raise a mound of stone 2 ft. base 1 1/2 ft. high W. of cor. Pits impracticable.
42.00	Ravine 20 ft deep. course W.
80.00	Set a Sandstone 15 x 8 x 6 ins. 10 ins. in the ground for cor. of secs. 4. 5. 8 and 9, marked with 5 notches on S. and 4 notches on E. edges. and raise a mound of stone 2 ft. base 1 1/2 ft. high W. of cor. Pits impracticable.
	Land rolling
	Soil sandy 1st rate.
	No timber
	Mountainous land. 80.00 chs.
	Cont. on a random line bet. secs. 4 and 9.
40.00	Set temp. 1/4 sec. cor.
79.98	Intersect N. and S. line 10 chs S. of the cor. of secs. 3. 4. 9 and 10.
	Thence We run
	S 89° 56' W. on a true line bet. secs. 4 and 9.
	Precipitous ascent over stony

Chains.	
	ground, and boulders.
12.70	Top of mountain 500 ft. above sec. cor. bears N.W. and S.E. Thence along top of mountain, soil stony.
21.70	Begin descend west side of mountain
31.70	Foot of mountain. Thence over rolling foot hills, soil sandy and gravelly.
39.99	Set a Sandstone 14 x 8 x 6 ins. 10 ins. in the ground for 1/4 sec. cor. marked 1/4 S. on N. face and raise a mound of stone 2 ft. base 1 1/2 ft. high N. of cor. Pits impracticable.
79.98	The cor. of secs. 4. 5. 8 and 9
	Land mountainous
	Soil sandy and stony: 2nd and 3rd rate
	No timber.
	Mountainous land. 79.98 chs.
	Dec. 29, 1898: At this cor. We set off 23° 10' S. on the decl. arc: and at 12 hrs 02 m l. m. t. observe the sun on the meridian: the resulting lat. is 37° 20' N
	S. 0° 3' E bet. secs. 8 and 9.
	Descending over rolling mesa soil sandy.
40.00	Set a Sandstone 16 x 6 x 6 ins. 11 ins. in the ground for 1/4 sec. cor. marked 1/4 S. on W. face and raise a mound of stone 2 ft. base 1 1/2 ft. high W. of cor. Pits impracticable
78.00	Ravine Course S.W.
80.00	Set a Sandstone 14 x 8 x 5 ins. 9 ins. in the ground for cor. of secs. 8. 9. 16. and 17. marked with 4 notches on S. and E. edges and raise a mound of stone 2 ft. base 1 1/2 ft. high W of cor. Pits impracticable.
	Land mountainous
	Soil sandy 1st rate
	No timber
	Mountainous land. 80.00 chs.

Subdivision of T. 40. S., R. 22 E.- Contin

Chains.	
	N. 89° 56' E. on a random line bet. secs. 9 and 16.
40.00	Set temp. 1/4 sec. cor.
80.03	Intersect N. and S. line 11 lks. N. of the cor. of secs. 9. 10. 15 and 16.
	Thence We run
	N. 89° 59' W. on a true line bet. secs. 9 and 16.
	Ascending over rolling sandy mesa
4.00	Top of sandy ridge bears N. E. and S.
	Begin descend over rolling mesa
40.01½	Set a sandstone 14 x 8 x 5 ins. 9 ins. in the ground for 1/4 sec. cor. marked 1/4 S. on W. face and raise a mound of stone 2 ft. base 1½ ft. high N. of cor. Pits impracticable.
48.60	Bottom of ravine 75 ft. below 1/4 sec cor. course S.W. ascend over rolling mesa
62.00	Begin descend over rolling mesa
80.03	The cor. of secs. 8. 9. 16 and 17.
	Land mountainous.
	Soil sandy. 1st rate.
	No timber
	Mountainous land. 80.03 chs
	Dec 29. 1898.
	December 30. 1898.
	At 8 a.m. l.m.t. We set off 37° 19' N. on the lat. arc; 23° 05' S. on the decl. arc, and determine a true meridian with the solar at the cor. of secs. 8. 9. 16 and 17.
	Thence We run
	S. 0° 3' E. bet. secs. 16 and 17.
	Descending over rolling mesa. soil sandy
24.50	Bottom of ravine 30 ft. deep, course W.
40.00	Set a Sandstone 18 x 12 x 8 ins. 12 ins. in the ground for 1/4 sec. cor. marked 1/4 S. on W. face, and raise a mound of stone 2 ft base 1½ ft. high W. of cor. Pits impracticable.
53.50	Bottom of wash 3 ft. deep. 12 ft wide

Chains.

80.00 Set a sandstone 18x10x3 ins., 12 ins. in the ground for cor. of secs. 16. 17. 20 and 21. Marked with 3 notches on S. and 4 notches on E. edges, and raised a mound of stone and earth 5 ft. base 2½ ft. high W. of cor. Pits impracticable.
Land mountainous.
Soil sandy, 12th rate.
No timber.
Mountainous land. 80.00 chs.

S. 89° 59' E. on a random line bet. secs. 16 and 21.

40.00 Set temp. ¼ sec. cor.

80.00 Intersect N. and S. line 2 chs. S. of the cor. of secs. 15. 16. 21 and 22.
Thence the run
West, on a true line bet. secs. 16 and 21.
Ascending over rolling mesa soil sandy.

40.00 Set a sandstone 15x8x6 ins. 10 ins. in the ground for ¼ sec. cor. marked ¼ S. 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 south above cor. of secs. 15. 16. 21 and 22. bears S. 75° W. and N. E.
Descend.

80.00 The cor. of secs. 16. 17. 20 and 21.
Land mountainous.
Soil sandy, 12th rate.
No timber.
Mountainous land. 80.00 chs.

Dec. 30. 1898. At this cor. the est. of 23° 07' S. on the decl. arc: and at 12 hrs. 03 m. L. m. t., observe the sun on the meridian the resulting lat. is 37° 18' N.

Subdivision of T. 40 S., R. 22 E. Contin

chains S. 0° 3' E. bet. secs. 20 and 21.
Descending over rolling mesa sandy soil
39.00 Leave sandy soil. thence over smooth sandstone floor.
40.00 The point for 1/4 sec. cor falls on solid sandstone floor. We mark a cross with 1/4 S. on W. and raise a mound of stone 2 ft. base 1 1/2 ft. high W. of cor. Pits impracticable.
Thence over stony land, descending
77.85 Top of broken sandstone cliffs and ledges 150 ft. high; edge of mesa bears N. W. and S. E.
Begin precipitous descent to foot of cliffs and ledges into San Juan river bottoms, along west side of spur projects S. E.
80.00 Set a Sandstone 18 x 10 x 9 ins. 12 ins. in a mound of stone for cor. of secs. 20, 21, 28 and 29. marked with 2 notches on S. and 4 notches on E. edges, and raise a mound of stone 2 ft. base 1 1/2 ft. high W. of cor. Pits impracticable.
Land mountainous
Soil stony and sandy; 12th and 4th rate.
No timber
Mountainous land. 80.00 chs.

East. on a random line bet. secs. 21 and 16
40.00 Set temp. 1/4 sec. cor.
80.10 Intersect N. and S. line 4 lks. S. of the cor. of secs. 21, 22, 27 and 28
Thence We run
S. 89° 58' W. on a true line bet. secs. 21 and 22
Over rolling sandstone mesa, gentle ascent.
20.00 Point of sandstone cliffs 40 ft high: N. 25 lks. dist.
24.00 Small drain 10 ft. deep course S 10° W.
32.00 Point or spur of sandstone cliffs 40 ft. high. N 10 lks. dist. begin precipitous

Subdivision of T. 40 S., R. 22 E.—Continued.

Chains	
	descent over broken sandstone ledges and boulders.
40.00	Set a sandstone 16×12×4 ins. 11 ins. in a mound of stone for 1/4 sec. cor. marked 1/4 S. on N. face and raise a mound of stone 2 ft. base 1½ ft. high N. of cor. Pits impracticable.
74.00	East edge of canon and edge of mesa bears N. and S.
75.50	Bottom of canon 200 ft. deep course S.
	Begin precipitous ascent over broken sandstone ledges and boulders.
77.00	West edge of canon and edge of mesa 200 ft. above bottom of canon. bears N. and S.
79.00	Begin precipitous descent over broken sandstone ledges and boulders.
80.10	The cor. of secs. 20. 21. 28 and 29.
	Land Mountainous
	Soil stony; 4th rate.
	No timber
	Mountainous land. 80.10 chs.
	S. 0° 3' E., bet. secs. 28 and 29.
	Descending over broken sandstone ledges along west side of spur
10.00	Bottom of ravine 150 ft below sec. cor. course S.W. Thence over rolling land soil sandy loam through dense artimesa. gradual descent.
13.00	Enter San Juan river bottom
14.60	Wagon road bet. Bluff City and Colorado. bears E. and W.
17.50	Irrigation canal 2 ft. deep 4 ft. wide course N. taken from San Juan by Bluff City pump works
18.00	Enter dense growth—Young cottonwood, leave artimesa.
26.50	Right bank of San Juan river 4 ft. high bears E. and W.
	Set a cobble stone 10×8×6 ins., 10 ins.

Subdivision of T. 40 S., R. 22 E. Contd.

Chains. in the ground for meander corner of fracl. secs. 28 and 29 marked M.C. on S. face with 4 grooves on E. face and raise a mound of stone 2 ft. base 1½ ft high N. of cor. Pits impracticable

Land rolling.

Soil sandy loam. 1st rate.

Timber young cottonwood and dense artemisia

26.80 chs.

DEC. 30th 1898.

DEC. 31. 1898.

At 8 a. m. l. m. t., We set off 37° 21' N. on the lat arc: 23° 01' S on the decl arc: and determine a true meridian with the solar at the cor of secs. 5. 6. 31 and 32 on the N. bdy of the Tp. which We established

DEC. 25. 1899. previously described

Thence We run

S. 0° 3' E. bet secs. 5 and 6

Descending over sandy rolling mesa

40.00 Set a sandstone 15x8x6 ins. 10 ins. in the ground for ¼ sec. cor. marked ¼ S. on W. face and raise a mound of stone and earth 2 ft base 1½ ft hig. W. of cor. Pits impracticable

41.00 Small ravine or drain Course S.W.

80.00 Set a sandstone 14x10x5 ins., 10 ins. in the ground for cor. of secs. 5. 6. 7 and 8. marked with 5 notches on S. and E. edge. and raise a mound of stone 2 ft. base 1½ ft. high W. of cor. Pits impracticable

Land mountainous

Soil sandy. 1st rate.

No timber

Mountainous land 80.00 chs.

Subdivision of T. 40 S., R. 22 E. Continued:

Chains	
	Back on a random line bet. secs. 5 and 8
40.00	Set temp. 1/4 sec. cor.
80.00	Intersect N. and S. line at the cor. of secs. 4, 5, 8 and 9.
	Thence We run
	West on a true line bet. secs. 5 and 8.
	Descending over rolling mesa,
33.00	Wagon road bet. Bluffdale and Monticello bears S.W. and N.E.
36.00	Small ravine course S.W.
40.00	Set a sandstone 14x9x7 ins. 16 ins. in the ground for 1/4 sec. cor. marked 1/4 S. on N. face and raise a mound of stone 2 ft. base 1 1/2 ft. high N. of cor. Pits impracticable
59.70	Top of low sandy ridge. bears S.E. and N.W. Descending
80.00	The cor. of secs. 5, 6, 7 and 8.
	Land mountainous.
	Soil sandy: 1st rate.
	No timber.
	Mountainous land. 80.00 chs.
	Dec 31: 1898, At this cor. We set off 23° 02' S. on the decl. arc: and at 12 hrs. 03 m. l. m. t., observe the sun on the meridian the resulting lat. is 37° 20' N.

	West on a random line bet. secs. 6 and 7.
40.00	Set temp. 1/4 sec. cor.
79.66	Intersect the W. bdy. of the Tp. at the cor. of secs. 1, 6, 7 and 12.
	Thence We run
	East on a true line bet. secs. 6 and 7.
	Ascending over rolling sandy mesa,
39.66	Set a sandstone 13x10x7 ins., 10 ins. in the ground for 1/4 sec. cor. marked 1/4 S. 6 on N. face and raise

Subdivision of T. 40 S., R. 22 E. continued

chains.	
	a mound of stone 2 ft. base 1½ ft. high.
	N. of cor. Pits impracticable
79.66	The cor. of secs. 5. 6. 7 and 8.
	Land. mountainous
	Soil. sandy; 1st rate.
	No timber.
	Mountainous land 79.66
	S. 0° 3' E. bet. secs. 7 and 8.
	Descending over rolling sandy mesa.
40.00	Set a sandstone 15 x 8 x 4 ins., 10 ins.
	in the ground for ¼ sec cor. marked
	¼ S. on W. face, and raise a
	mound of stone 2 ft. base 1½ ft.
	high W. of cor. Pits impracticable.
80.00	Set a sandstone 15 x 8 x 4 ins., 10 ins.
	in the ground for cor. of secs. 7. 8.
	17 and 18. marked with 4 notches on
	S. and 5 notches on E. edges and
	raise a mound of stone 2 ft base
	1½ ft high W. of cor. Pits impracticable
	Land Mountainous
	Soil sandy; 1st rate.
	No timber.
	Mountainous land 80.00 chs Dec 31st 1898.
	Jan 2nd 1899
	At 8 a.m. L.M.T., We set off
	37° 19' N. on the lat. arc; 22° 50' S.
	on the decl. arc; and determined a
	true meridian with the solar at
	the cor. of secs. 7. 8. 17 and 18.
	Thence We run
	East on a random line bet. secs.
	8 and 17,
40.00	Set temp. ¼ sec. cor.;
80.06	Intersect N. and S. line 4 chs. S. of the
	cor of secs 8. 9. 16 and 17.
	Thence We run
	S 89° 58' W. on a true line bet. secs. 8
	and 17.

Subdivision of T. 40 S., R. 22 E.—Continued.

Chains	
	Over rolling mesa soil sandy
2.00	Ravine Course S.W.
20.00	Top of sandy ridge bears S.W. and N.E.
34.00	Ravine heads about 15 chs N.E. Course S.W.
40.03	Set a sandstone 14 x 8 x 6 ins., 10 ins. in the ground for 1/4 sec. cor. marked 1/4 S. on N. face and raise a mound of stone 2 ft base 1½ ft high N. of cor. Pits impracticable
44.00	Top of sandy ridge bears S.W. and N.E.
61.00	Wagon road bet. Bluff City and Monticello bears N. and S.
80.06	The cor. of secs. 7, 8, 17 and 18. Land mountainous Soil sandy; 1st rate No timber Mountainous land 80.06 chs.

West on a random line bet. secs. 7 and 18

40.00	Set temp. 1/4 sec. cor.
79.73	Intersect the N. bdy. of the Tp. 3 lks. N. of the cor. of secs. 7, 12, 13 and 18. Thence We run N. 89° 59' E. on a true line bet. secs. 7 and 18. Ascending over rolling sandy mesa
39.73	Set a sandstone 14 x 12 x 9 ins., 10 ins. in the ground for 1/4 sec. cor. marked 1/4 S. on N. face and raise a mound of stone 2 ft base 1½ ft high N. of cor. Pits impracticable
79.73	The cor. of secs. 7, 8, 17 and 18. Land mountainous Soil sandy; 1st rate; No timber Mountainous Land 79.73 chs

Subdivision of T. 40 S., R. 22 E. Continue

Chains	
	S. 0°3' E. bet. secs. 17 and 18.
	Descending over rolling sandy mesa
40.00	Set a sandstone 15 x 10 x 6 ins., 10 ins. in the ground for 1/4 sec. cor. marked S. on W. face and raise a mound of stone 2 ft. base 1 1/2 ft. high W. of cor.
	Pits impracticable.
40.80	Wagon road bet. Bluff City and Monticello. bears N.E. and S.W.
80.00	Set a sandstone 15 x 8 x 6 ins., 10 ins. in the ground for cor. of secs. 17, 18, 19 and 20 marked with 3 notches on S. and 5 notches on E. edges and raise a mound of stone 2 ft. base 1 ft. high W. of cor.
	Pits impracticable
	Land mountainous.
	Soil sandy: 1st rate.
	No timber.
	Mountainous land, 80.00 chs.
	Jan. 2, 1899. At this cor. We set off 22°52' S. on the deel arc; and at 12 hrs. 04 m. l. m. t., observe the su on the meridian the resulting la is 37°18' N.
	N. 89°58' E. on a random line bet. secs. 17 and 20.
40.00	Set temp. 1/4 sec. cor.
80.00	Intersect N. and S. line at the cor. of secs. 16, 17, 20 and 21.
	Thence We run.
	S. 89°58' W. on a true line bet. secs. 17 and 20.
	Descending over rolling sandy mesa.
10.00	Ravine course S.W.
40.00	Set a sandstone 15 x 12 x 7 ins., 10 ins. in the ground for 1/4 sec. cor. mark 1/4 S. on N face and raise a mound of stone 2 ft. base

Subdivision of T. 40 S., R. 22 E. - Continued.

Chains.	
	1½ ft high N. of cor. Pits impracticable
58.40	Ravine course S.
77.00	Head of a ravine 10 ft deep course S.W.
80.00	The cor. of secs. 17. 18. 19 and 20. Land mountainous. Soil sandy: 1st rate. No timber. Mountainous land. 80.00 chs.
	S. 89° 59' W., on a random line bet. secs. 18 and 19.
40.00	Set temp. ¼ sec. cor.
79.80	Intersect the W. bdy. of the Tp. 3 lks. S. of the cor. of secs. 17. 18. 19 and 24 Thence WE run East on a true line bet. secs. 18 and 19 Ascending over stony land.
15.00	Top of stony spur projects N. thence descending over rolling sandy mesa.
39.80	Set a sandstone 15×12×6 ins. 10 ins. in the ground for ¼ sec. cor. marked ¼ S. on N. face and raise a mound of stone 2 ft. base 1½ ft. high N. of cor. Pits impracticable.
68.80	Wagon road bet. Bluff City and Monticello. bears S.W. and N.E.
79.80	The cor. of secs. 17. 18. 19 and 20. Land mountainous. Soil sandy and stony: 1st and 4th rate. No timber. Mountainous land 79.80 chs.
	Jan. 2nd 1899.
	Jan. 3rd 1899. At 8 a.m. l.m.t. WE set off 37° 18' N. on the lat. arc: 22° 44' S. on the decl arc; and determine a true meridian with the solar. at the cor. of secs. 17. 18. 19 and 20.

Subdivision of T. 40 S., R. 22 E. Contin.

Chains	
	Thence We run
	S0°31'E. bet. secs. 19 and 20.
	Over rolling sandy mesa.
3.50	Ravine 10 ft deep, Course S.W.
40.00	Set a sandstone 14 x 8 x 6 ins., 10 ins. in the ground for 1/4 sec. cor. mark 1/4 S. on W. face and raise a mound of stone 2 ft. base 1 1/2 ft. high W. of cor. Pits impracticable
64.00	Begin descend over rolling sandy mesa.
80.00	Set a sandstone 15 x 10 x 6 ins. in a mound of stone and earth for c. of secs. 19. 20. 29 and 30 marked with 2 notches on S. and 5 notches on E. edges, and raise a mound of stone 2 ft base 1 1/2 ft. high W. of c. Pits impracticable
	Land mountainous.
	Soil sandy; 1st rate.
	No timber.
	Mountainous land. 80.00 chs.
	N. 89°58'E. on a random line bet. secs. 20 and 29.
34.10	West edge of canon and top of sandstone cliffs 200 ft high bears N and S. across which We cannot chain; set a flag on line at east side of canon measure a base north 4 chs. to a point from which the flag bears S. 45° E.; which gives for the distance (by traverse table) 4.00 chs. which added to 34.10 chs makes.
38.10	To east edge of canon and top of sandstone cliffs 200 ft high bears N. and S.
40.00	Set temp. 1/4 sec. cor.
75.10	Top of perpendicular cliffs 200 ft high down which We can not chain; set a flag on line at foot of cliffs measure a base 2 chs North to a

Subdivision of T. 40 S., R. 22 E. — continued.

Chains.	
	point from which the flag bears S. 40° E.; which gives for the distance (by traverse table) 2.00 chs which added to 75.10 chs. makes
77.10	Foot of cliff.
80.10	Intersect N. and S. line 5 chs. N. of the cor. of secs. 20, 21, 28 and 29.
	Thence We run
	West on a true line bet. secs. 20 and 29
	Descending over precipitous broken sandstone ledges and boulders
2.00	Bottom of box canon 200 ft. below sec. cor. course S. leads about 15 chs. N. W..
3.00	Foot of cliff 200 ft high
5.00	Top of cliff and edge of mesa bears N. and S. thence over stony mesa,
40.00	Set a sandstone 24 x 8 x 4 ins, in a mound of stone for 1/4 sec. cor, marked 1/4 S.; on N. face and raise a mound of stone 2 ft. long 1 1/2 ft. high N. of cor. Pits impracticable
42.00	Top of perpendicular cliff 200 ft high east edge of canon bears N. and S.
46.00	To west edge of canon and top of sandstone cliff 200 ft. high bears N. and S. thence over hard level mesa,
80.10	The cor. of secs: 19, 20, 29 and 30.
	Land mountainous
	Soil sandy and stony: 1st and 4th rate.
	No timber
	Mountainous land 80.10 chs.
	Jan. 3. 1899: At this cor. We set off 22° 46' from the decl arc: and at 12 hrs 05 m. l. m. t., observe the sun on the meridian the resulting lat. is 37° 17' N.
	West on a random line bet. secs. 19 and 30
40.00	Set temp. 1/4 sec. cor.

Subdivision of T. 40 S., R. 22 E. Continued.

Chains	
40.37	To top of perpendicular cliffs 200 ft high and edge of mesa bears N. and S. down which we can not chain: set a flag on line at foot of cliffs. measure a base south 3 chs. to a point from which the flag bears N 45° W.; which gives for the distance (by traverse table) 3. chs which added to 40.37 chs makes
43.37	Foot of cliffs
64.87	To pass perpendicular cliffs 200 ft. high and point of spur We off set as follows. South 4.00 chains, West 9.00 chs. North 4.00 chs. to a point on line bet secs. 19 and 30
79.87	Intersect the W. bdy. of the Tp. at the cor. of secs. 19. 24. 25; and 30. Thence We run East on a true line bet. secs. 19 and 30. Ascending over stony and clay land.
6.00	Foot of sandstone cliffs 200 ft. high and point of spur. projects S.
19.00	Wagon road bet Bluff City and Mont. bears N.E. and S.W. thence across mouth of spring canon
23.00	Wash 6 ft. deep 20 ft wide with branch 3 lks. wide flowing from spring canon course S. thence descending over stony land
36.50	Foot of sandstone cliffs 200 ft. high
39.50	Top of sandstone cliffs 200 ft high and edge of mesa bears N. and S. thence over smooth sandstone floor.
39.87	Point for 1/4 sec. cor. falls on solid sandstone floor on which. We cut a cross for 1/4 sec. cor. marked 1/4 S.; on N. side and raise a mound of stone 2 ft. base 1 1/2 ft. high N. of cor. Pits impracticable. thence over level rolling mesa
41.87	[illegible]

Subdivision of T. 40 S., R. 22 E. - Continued.

Chains	
58.85	Head of gulch Course S.
79.87	The cor. of sec. 19. 20. 29. and 30.
	Land mountainous
	Soil stony: 4th rate.
	No timber.
	Mountainous land. 79.87 chs.
	S. 0° 3' E. bet. sec. 29 and 30.
	Descending over hard stony mesa.
10.80	Top of perpendicular sandstone cliffs 200 ft. high and edge of mesa bears E. and W. down which we can not chain. set a flag on line at foot of cliffs. measure a base each 4 chs to a point from which the flag bears S. 45° W.; which gives for the distance (by traverse table 4 chs which added to 10.80 chs. makes.
14.80	Foot of cliffs enter San Juan river valley
15.00	Bluff city irrigation canal 6 ft wide 2 ft deep course W.
15.90	Wagon road bet. Bluff City and Colorado bears E. and W. thence over level sandy land
17.50	Wire fence bears E. and W. enter cultivated fields
21.00	Irrigation ditch. course W.
22.40	Leave cultivated field
20.80	Wire fence bears E. and W.
40.00	Set a sandstone 16 x 8 x 6 ins. 11 ins. in the ground for 1/4 sec. cor. marked 1/4 S. on W. face and raise a mound of stone 2 ft. base 1 1/2 ft high W. of cor. Pits impracticable
40.50	Enter cultivated land.
42.50	Leave cultivated land.
44.96	Wire fence bears E. and W. enter dense growth young cottonwoods
58.00	Right bank San Juan river bears E. and W.
	Set a sandstone 14 x 12 x 6 ins. 10 ins in the ground for meander cor.

Subdivision of T. 40 S., R. 22 E. Concluded

claims of fracl. secs. 29 and 30 marked M. C. on S. face with 5 grooves on E face and raise a mound of stone 2 ft. base 1½ ft. high N. of cor. Pits impracticable
Land mountainous and level
Soil sandy and stony; 1st and 4th rate;
Timber young growth of cottonwood
Mountainous 14.80 chs.

Jan. 3rd 1899.

Meanders T. 40 S. R. 22 E.

Meanders of the right bank of San Juan River up stream.
We commence at the meander cor. of fracl. secs. 25 and 30 on the W. bdy. of the Tp. established by us December 25 1898. previously described

At this cor Jan. 4th 1899 We set off 37° 16' N. on the lat. arc; 22° 38' S. on the decl arc; and at 8 a.m. c.m. determine a true meridian with the solar. Thence We run with meanders in sec. 30,

N. 77° 15' E.	7.20 chs.	Bank 6 ft high
N. 89° E.	7.80 chs.	Bank 6 ft high. At end of course Wire fence bears N. E. and S. W.
N. 68° 15' E.	5.50 chs.	Bank 6 ft high
S. 76° E.	8.20 chs.	Bank 6 ft high. At end of course Wire fence bears N. W. and S. E.
S 81° 55' E.	14.90 chs.	Bank 6 ft high. At end of course wire fence bears N. and S.
S 86° 40' E.	13.95 chs	Bank 5 ft high
S. 52° E.	14.85 chs	Bank 5 ft high under dense growth young cottonwood.

Meanders of the right bank of San Juan River, up stream - Continued

S. 74° E.	4.25 chs.	Bank 4 ft. high
S. 40° 40' E.	1.95 chs.	Bank 4 ft. high
S. 89° 15' E.	6.30 chs.	Bank 4 ft. high.
		To the meander cor. of fracl. secs. 29 and 30.

Land level.
Soil sandy loam: 1st rate.
Timber. dense growth Young cottonwood
12.50 chs.

Thence in sec. 29.
Through dense undergrowth and Young cottonwood.

S. 61° 45' E.	6.40 chs.	Bank 4 ft. high.
N. 83° 20' E.	9.20 chs.	Bank 6 ft. high.
N. 52° 20' E.	11.60 chs.	Bank 6 ft. high
N. 20° 50' E.	3.75 chs.	Bank 6 ft. high
N. 34° 10' W.	8.90 chs.	Bank 6 ft. high
N. 1° 40' E.	13.20 chs.	Bank 4 ft. high.
N. 40° 50' E.	18.75 chs.	Bank 3 ft. high.
N. 66° 50' E.	11.25 chs.	Bank 3 ft. high.
S. 83° 25' E.	7.75 chs.	Bank 4 ft. high.
S. 60° 10' E.	18.60 chs.	Bank 4 ft. high
S. 83° 40' E.	9.50 chs.	Bank 4 ft. high;
S. 35° 10' E.	6.60 chs.	Bank 4 ft high
		To the meander cor. of fracl. secs. 28 and 29.

Land level.
Soil sandy loam: 1st rate
Timber dense undergrowth and Young cottonwood - 125.30 chs.

Thence in sec. 28.
January 4: at the meander cor. of fracl secs. 28 and 29 We set off 22° 40' S. on the decl arc and at 2 hrs. 05 m. L. m.t. observe the sun on the meridian the resulting lat. 37° 16' N.
Through Young growth cottonwood

Meanders T. 40 S. R. 22 E. Continued

Meanders of the right bank of San Juan River, up stream. Continued.

S. 73° 40' E.	14.00 chs.	Bank 6 ft. high, leave undergrowth and cotton woods, enter dense artimesa
S. 70° 40' E.	19.75 chs.	
S. 72° 40' E.	4.70 chs.	Bank 8 ft. high
S. 85° 25' E.	11.55 chs.	At end of course Bluff Canal pump.
S. 88° 55' E.	19.60 chs.	Bank 6 ft. high
S. 77° 10' E.	12.75 chs.	Bank 6 ft. high. To meander cor. of frail. secs. 27 and 28.

Land level.
Soil sandy loam 1st rate.
Timber, young cottonwood, dense artimesa 82.35 chs.

Thence in sec 27.

N. 77° 35' E.	3.80 chs.	Bank 4 ft. high, leave artimesa, enter dense cottonwood timber and undergrowth
S. 43° 40' E.	6.50 chs.	
S. 85° 40' E.	8.50 chs.	
N. 70° 30' E.	17.90 chs.	
S. 86° 40' E.	17.25 chs.	Bank 5 ft. high.
N. 79° 20' E.	7.60 chs.	
N. 69° 20' E.	10.90 chs.	Bank 5 ft. at end of course leave timber
N. 28° 50' E.	22.10 chs.	Bank 4 ft. high.
N. 11° 35' E.	4.90 chs.	Bank 4 ft. high. To meander cor. of frail. secs. 26 and 27.

Land level.
Soil sandy loam 1st rate.
Timber cottonwood, dense undergrowth and artimesa 72.45 chs.

January 4th 1899.

Meanderings of the right bank of San Juan River up stream. Continued January 5th 1899.

At 8 am. l. m. t., We set off 37° 17' N. on the lat. arc: 22° 32' S. on the decl. arc; and determine a true meridian with the polar at the meander cor. of fracl secs. 2 and 27, established by us previously described

Thence We run with meanderings in sec. 26

S. 78° 40' E.	12.90 chs.	Bank 5 ft. high
S. 78° 20' E.	19.35 chs.	Bank 4 ft. high at end of course Right bank of Recapture wash bears N.E. and S.W.
N. 81° E.	17.95 chs.	Bank 5 ft. high at 4.00 chs Left bank of Recapture wash bears N.E. and S.W. enter dense undergrowth
S. 72° 25' E.	18.10 chs.	Bank 4 ft high
S. 79° E.	14.00 chs.	Bank 5 ft high
	92.00	To meander cor. of fracl. secs. 25 and 26

Land level.
Soil sandy loam; 1st rate.
Timber - dense undergrowth. 46.05 chs.

Thence in sec. 25.
Through dense undergrowth and scattering cottonwood timber

S. 42° E.	38.00 chs.	Bank 4 ft. high
N. 87° 15' E.	20.00 chs.	
S. 54° 45' E.	25.00 chs.	
S. 53° 00' E.	8.00 chs.	Bank 4 ft high
S. 45° 00' E.	11.00 chs.	To meander cor of fracl secs 25 and 30.
S. 65° 00' E.	18.00 chs	

100.00

Meanders T. 40 S., R. 22 E., - Concluded.

Meanders of the right bank of San Juan River up stream - concluded

on the E. bdy of the Tp. established by us

previously described

Land level.
Soil sandy loam: 1st rate
Timber cottonwood scattering
~~Some undergrowth~~ 100-00 Jno—
January 5th 1899.

General description

This township is comprised of generally rolling table lands, or mesa producing an abundant growth of grass. There is considerable agricultural lands lying along the San Juan river bottoms.

The township contains nearly every variety of land, from plain or mesa to mountainous, and the soil ranges from sand loam to gravelly and in many places the solid sandstone is at the surface.

The soil in the bottom lands along the San Juan river is generally rich sandy loam and produces abundant crops with little irrigation, the water for which purpose, can be taken from the San Juan river.

There is no timber of any commercial value. Cottonwood and willow are found

General description - Concluded.

along the San Juan river, and some along the canons and washes.

There is abundant sandstone of fine quality which affords excellent building material and can be easily quarried from surrounding cliffs.

The northern portion of sec. 20, and the north western portion of sec. 29, is under cultivation by residents of Bluff City.

There are no settlers in this township.

There are no indications of minerals

James Neilson and J. M. Redd applicants for survey live in Bluff City.

Hubert D. Page,
James M. Lentz,
U.S. Deputy Surveyors

Latitude, departure and closing errors

Line designated	Trav. bearing	Distance	Latitude N	Latitude S	departure E	departure W.
N bdy T 40 S, R 22 E.	West	479.45				479.45
W bdy	South	370.00		370.00		
bet secs 19 & 30; 20 & 29	East	159.97			159.97	
bet secs 21 & 28	N 89°58' E	80.10	.05		80.10	
bet secs 22 & 27	N 89°57' E	80.02	.07		80.02	
bet 23 & 26	East	80.06			80.06	
bet 24 & 25	N 89°58' E	80.06	.05		80.06	
Colorado Guide Meridian	North	370.00	370.00			
Contingency						.55
			370.17	370.00	480.21	480.00
			370.00		480.00	
Error in Lat. and dep.			.17		.21	

Hubert D. Page,
James M. Lentz,
U.S. Deputy Surveyors

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FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

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

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

.....

showing the respective capacities in which they acted:

..... *Chainman.*

..... *Chainman.*

..... *Moundman.*

..... *Moundman.*

..... *Axman.*

..... *Axman.*

..... *Flagman.*

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted .....

..... , United States Deputy Surveyor, in surveying all those parts or portions of the .....

..... of the .....

..... meridian, ... of ..... , which 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 .....

..... *Chainman.*

..... *Chainman.*

..... *Moundman.*

..... *Moundman.*

..... *Axman.*

..... *Axman.*

..... *Flagman.*

.....

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

day of ....., 189

SEAL

4—161

338-34 Blan

FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, ..., United States Deputy S
solemnly swear that, in pursuance of a contract received from
United States Surveyor General for ....., bearing
..... day of ....., 189 , I have well, faithfully, and truly,
proper person, and in strict conformity with the instructions furnished by the United Stat
General for ....., the Manual of Surveying Instructions, and the
United States, surveyed all those parts or portions of

.....

.....

.....

..... of the

..... meridian, in the ..... of ....., which are r...
foregoing field notes as having been surveyed by me, and under my direction; and I do furth
swear that all the corners of said survey have been established and perpetuated in strict acco
the Manual of Surveying Instructions, and the special written instructions of the United Stat
General for ..... and in the specific manner described in the field not
the foregoing are the original field notes of such survey; and should any fraud be detected,
the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

.....
United States Depu

Subscribed by said ....., and sworn to before me
this ..... day of ....., 189

SEAL

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City Utah February 17

The foregoing field notes of the survey of the Subdivisions & meanders of Lawns
40 South Range 22 East of the Salt Lake Base & Merid
Utah

executed by Hubert S Page & James M Lewis
under ~~his~~ their contract No. 215, dated October 29, 1897,
critically examined, and the necessary corrections and explanations made, the said field not
surveys they describe, are hereby approved.

Jacob B. F.
United States Su...

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

.....
United States Surve

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4—679.

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BOOK A-252

FIELD NOTES

OF THE SURVEY OF THE

North & East Boundaries

of

Township 40 South Range 23 East

Of the Salt Lake Base and Meridian,

State of Utah

AS SURVEYED BY

Hubert D Page & James M Lewis, United States Deputy Surveyors

Under ~~his~~ their Contract No. 215, dated October 29 1897 and Mineral Surveyor 189

Survey commenced January 5th, 1899

Survey completed January 8th, 1899

6—151

Recovery N. Bdy. high [illegible]

" S. " high [illegible]

" " " low [illegible]

BOOK A-252

NAMES AND DUTIES OF ASSISTANTS.

Pete Meyer	Chairman
Peter Allen	"
Harry Erwin	"
Walter O McCuen	"
John R Lumpkin	Moundman
George W Dalton	"
John R Lumpkin	Axeman
George W Dalton	"

For preliminary affidavits see book "B"

6—151

BOOK A-252

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.....

6—151

PRELIMINARY OATHS OF ASSISTANTS.

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

.....

..... , C

..... , Ch

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 estal
of corners, according to the instructions given us, to the best of our skill and ability, in the

.....

..... , M

..... , Mo

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 c
and other duties, according to instructions given us, to the best of our skill and ability, in the

.....

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

SEAL

I, ..., do solemnly swear that I will well
perform the duties of flagman according to instructions given me, to the best of my skill and abil
survey of .....

.....,

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

SEAL

Resurvey of the N. bdy. of T. 40 S., R. 23 E.

Survey commenced Jan 5th 1899 and executed with the instrument described in book "A".
Then to test the solar apparatus by comparing its indications resulting from solar observations made during a.m. and p.m. hours with a true meridian determined by observations on Polaris we proceed as follows

At the cor of Tps. 39 and 40 S. Rs. 22 and 23 E. previously described, Latitude 37°21' N. Longitude 109°31' W.; we set off 37° 21' N. on the lat. arc; 22°29' S. on the decl. arc; and at 4 hrs 20 m. p.m. l.m.t., determine with the solar a true meridian and mark a point thereof on a stone firmly set in the ground 5 chs. N. of the cor.

Jan. 5th 1899

Jan. 6th 1899. At 0 hrs 15 a.m. l.m.t., we observe Polaris at western elongation in accordance with manual of Instructions and mark a point in the line thus determined on a plug driven in the ground 5 chs N. of our station.

At 7 hrs 20 m. a.m. l.m.t., we lay off the azimuth of Polaris 1°33' to the east the true meridian thus determined falls on the mark set by p.m. solar observations Jan 5th

At 8 a.m. l.m.t., we set off 37°21' N. on the lat. arc; 22°25' S. on the decl. arc; and determine with the solar a true

Resurvey of the N. bdy. of T. 40 S., R. 23 E.

meridian which falls on the mar
set on the True Meridian establish
ed by Polaris observations.

The solar apparatus by p.m. and
a.m. observations defines posit
for True Meridians. Therefore we
conclude that the adjustments
of the instrument are satisfac
tory.

The magnetic bearing of the
true meridian at 8 a.m. is N.
14° 20' W. the angle thus determin
ed reduced by the table page
106 of the manual gives the mean magnetic
decl 14° 18' E.

We begin at the cor. of Tps. 39 and 40 S.
Rs. 22 and 23 E. which we reestablish
ed Dec. 23rd 1898. already described
Thence we run
East bet secs. 6 and 31.
Ascend, land rolling, soil stony,
allowing for convergency &c.

39.45 Set a sandstone 18x10x6 ins. 12 ins.
in the ground for 1/4 sec. cor.
marked 1/4 S. 31 on N. face, and
raise a mound of stone 2 ft. bas
1 1/2 ft high N. of cor. Pits impractic
able. After dilligent search no
trace of old 1/4 sec. cor. can be
found. [illegible]
Ascending over broken sandstone
ledges and boulders.

57.60 Top of sandstone cliffs 30 ft high
600 ft. above 1/4 sec cor. and edge
of mesa bears N. and S. thence
over rolling land, soil gravelly,
gradually ascending.

59.00 Enter scattering cedar.

75.00 Top of ascent.

78.00 Begin precipitous descent over

Resurvey of the N. bdy. of T. 40 S., R. 23 E. - Continued

broken sandstone cliffs and ledges 500 ft. high and edge of mesa. bears N. and S.

79.45 The point for sec. cor. falls on solid sandstone, therefore we mark a cross for cor. of secs. 5. 6. 31 and 32. with 5 notches on E and 1 notch on W and raise a mound of stone 2 ft. base 1½ ft. high W. of cross. Pits impracticable. No trace of old sec. cor. can be found. See Statement pg. 1 book "A"

From which

A. cedar 6 ins. diam. bears N. 50° W. 10 lks. dist. marked T39S R23E. S.31 B.T.

No other trees within proper dist.

Land mountainous.

Soil stony and gravelly: 2nd and 4th rate

Timber scattering cedar

Mountainous land 79.40

East. bet. secs. 5 and 32.

Descending over broken sandstone ledges and boulders through scattering cedars.

23.50 Bottom of ravine 100 ft. below sec. cor. course S. leave scattering cedars. thence over broken foot hills ascending

40.00 Set a sandstone 24 x 18 x 6 ins. 18 ins in the ground for ¼ sec. cor. marked ¼ S. : 2 on N. face, and raise a mound of stone 2 ft. base 1½ ft. high. N. of cor. Pits impracticable. No trace of old ¼ sec. cor. can be found. See Statement Page 1 Book "A"

45.00 Begin descend over broken foot hills

77.50 Bottom of ravine 150 ft. below ¼ sec. cor. and junction of two ravines course S.E. begin

Resurvey of the N. bdy. of T. 40 S. R. 23 E. - Cont

Chains.	
	precipitous ascent.
80.00	Top of precipitous ascent 200 ft. above bottom of ravine and edge of mesa bears N.E. and S.E. Point for sec. cor. falls on solid sand stone floor. therefore WE mark a cross for cor. of secs. 4. 5. 32 and 33. with 4 notches on E and 2 notches on W side and raise a mound of stone 2 ft base 1½ ft high W. of cor. Pits impracticable after dilligent search no trace of old sec. cor. can be found see p. 1. book
	Land mountainous
	Soil stony: 4th rate
	Timber scattering cedar 23.50 ch.
	mountainous land. 80.00 chs.
	Jan 6. 1899: At this cor. WE set off 22°26' S. on the decl arc: and at 12 hrs. 06 m. l. m. t. observe the sun on the meridian. the resulting lat is 37°21' N.
	East bet sec 4 and 33 ascending over rolling mesa through dense artimesa. soil gravelly
20.00	Draw 20 ft deep course S.E.
40.00	Top of ridge bears N and S. Set a sandstone 18×8×6 ins 12 ins in the ground for ¼ sec. cor. marked ¼ S. 33 on N face and raise a mound of stone 2 ft base 1½ ft high N. of cor. Pits impracticable. After dilligent search no trace of old ¼ sec cor can be found, see page 1 book "A"
	Descend over rolling land soil sandy. enter scattering cedar
70.35	Bottom of McCracken wash 10 ft deep 10 ft wide course S.E.

Resurvey of the N. bdy. of T40S. R23E; Continued:

Chains	
	Thence over level land. leave scattering cedars.
80.00	Set a sandstone 18x8x5 ins. 12 ins. in the ground for cor. of Secs. 3. 4. 33 and 34. marked with 3 notches on E. and W. edges. and raise a mound of stone 2 ft. base. 1½ ft. high W. of cor. Pits impracticable. After delligent search no trace of old cor. can be found. See statement page 1 book "A" Land mountainous. Soil sandy and stony; 2nd and 4th rate; Timber cedar. scattering Mountainous land 80.00 chs. Jan 6th 1899.
	Jan 7. 1899 At 8 a.m. l.m.t. We set off 37°21' N. on the lat arc; 22°18' S. on the decl. arc; and determine a true meridian with the solar at the cor. of Secs. 3. 4. 33 and 34. Thence We run. East bet. Secs. 3 and 34. over level land, soil sandy.
4.00	Begin steep ascent leave sandy soil. enter stony land. broken sandstone ledges and boulders
29.00	Top of spur bears S.W. and N.E. projects S.W. descend.
40.00	Set a sandstone 12x8x7 ins. 8 ins. in the ground for ¼ sec. cor. marked ¼ S. 4 on N face and raise a mound of stone 2 ft base 1½ ft. high N. of cor. Pits impracticable. After delligent search no trace of old ¼ cor can be found. See statement page 1 book "A"

Resurvey of the N. bdy. of T. 40 S. R. 23 E. - Co

Chains	
41.00	Head of ravine course S.E. Ascend
54.00	Ledges 20 ft. high. top of spur bea. N and S. projects S. descend
63.00	Head of ravine course S. begin ascend over precipitous land. broken sandstone ledges and boulders
80.00	Set a sandstone 15 x 10 x 9 ins. 10 ins. in the ground for cor of secs 2, 3, 34 and 35 mark. with 2 notches on E and 4 notches on W. edges and raise a mound of stone 2 ft base 1½ ft. high W. of cor. Pits impractiable. After dilligent search no trace of old sec. cor. can be found. See statement page 1 book "A"
	Land mountainous
	Soil stony: 4th rate;
	No timber
	Mountainous land 80.00 chs
	East bet. secs. 2 and 35:
	Ascending over stony land, broken sandstone ledges and boulders.
15.00	Top of spur bears N and S projects S. 75 ft above sec. cor. descend
29.00	Bottom of ravine 30 ft deep course S. Ascend,
39.25	Top of broken sandstone ledges 40 ft. high and edge of mesa bears S.E. and N.W.
40.00	Set a sandstone 16 x 9 x 6 ins 12 ins in the ground for ¼ sec. cor. marked ¼ S. 35 on N. face and raise a mound of stone 2 ft base 1½ ft. high W. of cor. Pits impracticable After dilligent search no trace of old ¼ cor can be found. See pl. book "A"
	Thence over rolling mesa soil

Resurvey of the N bdy of T. 40 S. R 23 E. — Continued

Chains.	
	gravelly
80.00	Set a sandstone 16 x 10 x 8 ins., 11 ins in the ground for cor of secs. 1, 2, 35 and 36 marked with 1 notch on E and 5 notches on N. edges. and raise a mound of stone 2 ft. base 1½ ft. high N. of cor. Pits impracticable After delligent search no trace of old sec cor can be found. Land mountainous Soil gravelly and stony: 3rd and 4th rate No timber. Mountainous land 80.00 chs.
	East, bet. secs. 1 and 36. Descending over rolling mesa soil gravelly and sandy.
10.00	Set a sandstone 15 x 10 x 9 ins., 10 ins. in the ground for ¼ sec. cor. marked ¼ S. on N. face, and raise a mound of stone 2 ft. base 1½ ft. high N. of cor. Pits impracticable. After delligent search no trace of old ¼ sec cor can be found,
41.00	Bottom of a wash 50 ft. deep. course N.E. Ascend.
75.00	Begin precipitous descent over broken sandstone ledges and boulders bearing N. and S.
80.00	Set a sandstone 18 x 14 x 5 ins. 12 ins. in the ground for cor. of Tps. 39 and 40 S., Rs. 23 and 24 E., marked 39 S. on N.E., 24 E. on S.E., 40 S. on S.W. and 23 E. on N.W. faces, with 6 notches on each edge, and raise a mound of stone 2 ft. base 1½ ft. high S. of cor. Pits impracticable. After diligent search no trace of old Tp. cor can be found

Resurvey of the N. bdy of T. 40 S., R. 23 E. Conclude

chains.	
	See Statement page 1 book "A"
	Land mountainous.
	Soil Sandy and Gravelly: 2nd & 3rd rate
	No timber.
	Mountainous land 80.00 chs.
	Jan 7, 1899.

Resurvey of the

E. bdy. of T. 40 S., R. 23 E.

Jan 8th 1899.

At 8 a.m. l.m.t., we set off 37°21' N. on the lat arc; 22°10' E. on the decl arc; and determine a true meridian with the solar at the cor. of Tps. 39 and 40 S., R's 22 and 24 E. reestablished by us Jan 7th 1899 previously described

Thence we run

South bet. secs. 1 and 6

Ascending over sandy land.

chains.	
2.00	Top of spur. bears E. and W. projects E. 50 ft. above Tp. cor. thence over rolling mesa.
24.00	Top of spur 150 ft. above Tp. cor. bears E. and W. projects E. descend
30.00	Ravine 75 ft. deep. course N.E. ascend.
40.00	Set a sandstone 16 x 12 x 5 ins. 11 ins. in the ground for 1/4 sec. cor. mark 1/4 S. on W. face and raise a mound of stone 2 ft base 1 1/2 ft. high N. of cor. Pits impracticable. After diligent search no trace of old 1/4 sec. cor can be found. See page 1 book "A"
45.50	Top of ridge bears N.E. and S.W. Descend.
52.00	Ravine 60 ft. deep course N.E.

Resurvey of the E. bdy of T. 40 S., R. 23 E. Continued;

Chains	
	Ascend;
62.00	Broken sandstone ledges bears E and W.
80.00	Set a sand stone 15 x 10 x 7 ins. 10 ins. in the ground for cor of secs. 1.6.7 and 12. marked with 1 notch on N and 5 notches on S. edges and raise a mound of stone 2 ft base 1½ ft high W. of cor. Pits impracticable After dilligent search no trace of old sec cor. can be found See p. 1 book "A"
	Land mountainous
	Soil sandy: 1st rate.
	No timber
	Mountainous land. 80.00 chs.
	South bet. secs. 7 and 12.
	Ascending over rolling mesa, dense artimesa. soil sandy.
37.00	Begin precipitous descent over broken sandstone ledges and boulders 75 ft high and edge of mesa bears N.E and S.W.
40.00	Point for ¼ sec. cor. falls on sandstone boulder 6 x 6 x 4 ft. in place on which N.E
	Cut a cross for ¼ sec. cor. marked ¼ S. on W. and raise a mound of stone 2 ft. base 1½ ft. high W. of cor. Pits impracticable After dilligent search no trace of old ¼ sec. cor. can be found See p. 1 book "A"
47.00	Foot of precipitous descent thence over rolling mesa soil gravelly. ascending.
80.00	Top of ridge bears N.E. and S.W. Set a sandstone 16 x 9 x 6 ins. 11 ins in the ground for cor. of secs. 7.12.13 and 18 marked with 2 notches on N and 4 notches on S. edges and raise a mound of stone 2 ft base 1½ ft high W. of

cor. Pits impracticable, after dilligent search no trace of old sec cor can be found. See page 1 book "A"
Land mountainous.
Soil sandy and stony: 1st 4th rate.
No timber.
Mountainous land. 80.00 chs.

South bet. secs. 13 and 18
Over rolling mesa soil gravelly gradually descending
10.00 Ravine 75 ft. below sec cor. Course W.
28.00 Ravine 50 ft. deep. course W. ascend over rolling land.
40.00 Set a sandstone 14 x 10 x 10 ins. 10 ins in the ground for 1/4 sec. cor. marked 1/4 S. on W. face, and raise a mound of stone 2 ft base 1 1/2 ft high W. of cor. Pits impracticable.
After dilligent search no trace of old cor. can be found. See page 1 book "A"
Thence along side of stony ridge bearing N and S. ascending
80.00 Set a sandstone 16 x 8 x 8 ins, 11 ins in the ground for. cor. of secs. 13, 18, 19 and 24 marked with 3 notches on N and S. edges and raise a mound of stone 2 ft base 1 1/2 ft high W. of cor. Pits impracticable. After dilligent search no trace of old sec. cor. can be found. See statement page 1 book "A"
Land mountainous.
Soil sandy and stony: 1st and 4th rate.
No timber.
Mountainous land. 80.00 chs.
Jan 8th at this cor. WE set off 22° 10' S. on the decl. arc: and at 12 hrs 07 m. l. m. t. observe the sun on the meridian, the resulting lat. is 37° 18' N.

Resurvey of the E bdy. of T. 40 S. R 23 E. Continued.

Chains.	South bet. secs. 19 and 24.
	Ascending over stony land
5.00	Top of ridge 75 ft above sec. cor. bears N.E. and S.W.
8.00	Begin steep precipitous descent over broken sandstone ledges bears E and W.
30.00	Bottom of ravine 100 ft deep. course S.E. ascend over precipitous ledges and boulders
40.00	Set a sandstone 20 x 10 x 8 ins. in a mound of stone for 1/4 sec. cor. marked 1/4 S. on W face and raise a mound of stone 2 ft base 1 1/2 ft. high W. of cor. Pits impracticable. After dilligent search no trace of old 1/4 sec. cor. can be found. [illegible]
70.00	Top of stony spur 200 ft above 1/4 sec. cor bears E and W. projects W. descend.
80.00	Set a sandstone 18 x 6 x 6 ins. 12 ins in the ground for cor. of secs. 19. 24. 25 and 30 marked with 2 notches on S and 4 notches on N edges and raise a mound of stone 2 ft. base 1 1/2 ft. high W. of cor. Pits impracticable. After dilligent search no trace of old sec. cor can be found. [illegible]
	Land mountainous
	Soil stony: 4th rate.
	No timber.
	Mountainous land. 80.00
	South bet. secs. 25 and 30.
	Over rolling mesa. soil clay and stony. gradually ascending
25.00	Ledges and boulders bears E and W. thence over stony land.

Resurvey of the E. bdy of T. 40 S. R 23 E. Continued

Chains	
31.60	Top of ridge 100 ft above sec. cor. bears E. and W. Descend
40.00	Set a sandstone 15 x 10 x 9 ins. 10 ins. in the ground for 1/4 sec. cor. marked 1/4 S. 25 on W. face and raise a mound of stone 2 ft. ba. 1 1/2 ft. high W. of cor. Pits impractic able. After dilligent search no trace of old 1/4 sec cor can be found. See statement page 1. book "a"
	Thence over rolling sandy and gravelly mesa descending
80.00	Set a cobble stone 15 x 10 x 9 ins. 10 ins. in the ground for cor. of secs. 25. 30. 31 and 36. marked with 5 notches, on N. and 1 notch on S. edges and raise a mound of stone 2 ft base 1 1/2 ft. high W. of cor. Pits impractic able After dilligent search no trace of old cor can be found. See statement page 1. book "a"
	Land mountainous.
	Soil stony. 3rd rate.
	No timber.
	Mountainous land 80.00 chs.
	South bet. secs. 31 and 36.
	Descending soil gravelly and sandy
2.00	Wagon road bet Bluff City and Colorado bears E. and W.
3.40	Right bank of San Juan river 3 ft high bears E. and W.
	Set a sandstone 18 x 12 x 6 ins. 12 ins. in the ground for meander cor. of tract. secs. 31 and 36 marked M. C. on S. T. 40 S. on N. R. 24 E. S. 31 on E. and R 23 E S. 36 on W. faces. and raise a

Resurvey of the E. bdy. of T. 40 S. R 23 E. Continued

Chains. mound of stone 2 ft. base 1½ ft. high. N. of cor. Pits impracticable.

Owing to the change in the course of the river the old M.C. the distance to which is given in original field notes as 15.00 chs. has been obliterated

See statement page 1 Book A.

Land rolling.

Soil sandy and gravelly: 2nd rate

No timber.

Jan 8th 1899.

For general description and table of latitude and departure see end of subdivision notes of T. 40 S. R 23 E.

Hubert D. Page.

James M. Lentz.

U.S. Deputy Surveyors

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FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

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

..... United States Deputy Surveyor, to assist in running, measuring, and

arking the lines and corners described in the foregoing field notes of the survey of .....

.....

owing the respective capacities in which they acted:

..... *Chainman.*

..... *Chainman.*

..... *Moundman.*

..... *Moundman.*

..... *Axman.*

..... *Axman.*

..... *Flagman.*

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted

..... United States Deputy Surveyor, in surveying all

ose parts or portions of the

..... of the

..... meridian, ... of ..... which are represented

the foregoing field notes as having been surveyed by him and under his direction; and that said survey

as been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the

rner monuments established, according to the instructions furnished by the United States Surveyor

neral for

..... *Chainman.*

..... *Chainman.*

..... *Moundman.*

..... *Moundman.*

..... *Axman.*

..... *Axman.*

..... *Flagman.*

.....

ubscribed and sworn to before me this .....

day of 189

SEAL

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FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, ..., United States Deputy S... solemnly swear that, in pursuance of a contract received from United States Surveyor General for ....., bearing ... . day of ....., 189 , I have well, faithfully, and truly, i... proper person, and in strict conformity with the instructions furnished by the United States General for ....., the Manual of Surveying Instructions, and the United States, surveyed all those parts or portions of

.....

.....

.....

..... of the

..... meridian, in the ..... of ....., which are represe... foregoing field notes as having been surveyed by me, and under my direction; and I do furth... swear that all the corners of said survey have been established and perpetuated in strict accor... the Manual of Surveying Instructions, and the special written instructions of the United States General for ..... and in the specific manner described in the field not... the foregoing are the original field notes of such survey; and should any fraud be detected, I the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

.....
United States Deputy

Subscribed by said ....., and sworn to before me this ..... day of ....., 189

SEAL

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City Utah February 17th

The foregoing field notes of the survey of North & East Boundaries of T... 40 South Range 23 East of the Salt Lake Base & Mina... Utah

executed by Hubert D Page & James M Lentz under ~~his~~ their contract No. 215, dated October 29 & Nuno pro tunc Jul 1st 1897, h... critically examined, and the necessary corrections and explanations made, the said field not... surveys they describe, are hereby approved.

Jacob Y Y
United States Surveyo...

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 th...

.....
United States Surveyo...

6--151

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PAGE

4—679.

369

BOOK A-252

K.J.B.

FIELD NOTES

OF THE SURVEY OF THE

Subdivisions
and Meanders of
Township No. 40 South
Range No 23 East

Of the Salt Lake Base and Meridian,
State of Utah,

AS SURVEYED BY

Hubert D Page and James M. Lentz, United States Deputy Surveyor,

Under ~~his~~ their Contract No. 215, dated Oct. 29, 1897

Survey commenced Jan 8th, 1899

Survey completed Jan 16th, 1899

6—151

		M. Ch. Ln.	
Sub-	high	50-49-58	
	low-	1-12-95	11.62.83
Meanders-	high	4-18-30	
	low-	3-47-60	7.65.90

BOOK A-252

NAMES AND DUTIES OF ASSISTANTS.

Peter McLeod Chainman
Peter Allen "
Harry Erwin "
Walter O. McCuen "
John R. Lumpkin Mounted
George H. Dalton "
John R. Lumpkin alone
George H. Dalton "

For preliminary affidavits see book "D"

6—151

BOOK A-252

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.....

6—151

PRELIMINARY OATHS OF ASSISTANTS.

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

.....

.....*Cha*

.....*Cha*

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 estab
of corners, according to the instructions given us, to the best of our skill and ability, in the

.....

.....*Mou*

.....*Mou*

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
and other duties, according to instructions given us, to the best of our skill and ability, in the s

.....

.....,

.....

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

.....

SEAL

.....

I, ..., do solemnly swear that I will well
perform the duties of flagman according to instructions given me, to the best of my skill and abili
survey of .....

.....,

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

.....

SEAL

.....

6—151

Subdivision of T. 40 S., R. 23 E.

Chains

Survey commenced Jan. 8th, 1899 and executed with the instruments described in Book D.

Then to test the solar apparatus: by comparing their indications, resulting from solar observations made during a.m. and p.m. hours with a true meridian determined by observations on Polaris we proceed as follows:

At the cor of secs. 1. 2. 35 and 36 on the N. bdy. of the Tp. Latitude 37°21' N. Longitude 109°25' W.: We set off 37°21' N. on the lat. arc: 22°08' S. on the decl. arc: and at 3 p.m. l.m.t., determine with the solar, with one of the instruments, a true meridian, and mark a point thereof on a stone firmly set in the ground 5 chs. N. of the cor.

With the second instrument placed over the same initial point We set off 37°21' N. on the lat arc: 22°08' S. on the decl. arc: and at 3hrs 10m p.m. l.m.t., determine with the solar a true meridian and mark a point thereof on the stone already set 5 chs N of our station. This point falls identical with that of the 1st instrument.

Jan. 8th, 1899

Jan. 9th, 1899,

At 0hrs 05m a.m. l.m.t., We observe Polaris at western elongation with the 1st instrument in accordance with Manual of Instructions and mark a point in the line thus determined on a plug driven in the ground 5 chs. N. of our station.

At 7 a.m. l.m.t., We lay off the azimuth of Polaris 1°33' to the east the true meridian thus determined falls on the marks set by p.m. solar observations of both instruments Jan. 8th

At 8 a.m. l.m.t., We set off 37°21' N.

Subdivision of T. 40 S. R. 23 E. Continued

on the lat. arc: 22° 00' S. on the decl. arc: of the 1st instrument and determine a true meridian with the solar, which falls on the mark set on the true meridian established by the Polaris observation.

At 8hr 10m a.m. l.m.t., We set off 37° 21' N on the lat. arc; 22° 00' S. on the decl. arc: of the second instrument, & determine a true meridian with the solar, which falls on the mark set on the true meridian established by Polaris observations.

The solar apparatus of each instrument by p.m. and a.m. observations defines positions for true meridians. Therefore We conclude that the adjustments are satisfactory.

The magnetic bearing of the true meridian at 8 a.m. is N 14° 05' W.; the angle thus determined reduced by the table page 100 of the manual gives the mean mag. decl. 14° 03' E.

We commence at the cor. of secs. 1, 2, 35 & 36 on the N. bdy. of the Tp. which We established Jan 7th 1899 previously described.

Thence We run

So° 1' E. bet. secs. 1 and 2.

Over rolling sandy mesa, dense artimesa

40.00 Set a sandstone 14 x 10 x 5 ins, 10 ins in the ground for 1/4 sec cor. marked 1/4 S 2 on W. face and raise a mound of stone 2 ft base 1 1/2 ft. high W. of cor. Pits impracticable

57.00 Top of impassable perpendicular cliffs 100 ft high and edge of mesa bears N.W. and S.; To pass the cliffs We offset as follows:

East 4.00 chs.

So° 1' E. 10.00 chs.

West 4.00 chs. to

67.00 Top of perpendicular cliffs 100 ft high

Subdivision of T40 S., R. 23 E. Continued.

Chains.	
	and edge of mesa on line bears N.E. and S.W. begin ascend.
80.00	Set a sandstone 14 x 10 x 6 ins. 10 ins. in the ground for cor. of secs. 1.2.11 and 12 marked with 1 notch on E and 5 notches on S. edges and raise a mound of stone 2 ft. base 1½ ft. high W of cor. Pits impracticable Land rolling and mountainous. Soil sandy and stony; 1st and 4th rate. No timber. dense artimesa 80.00 chs.
	East on a random line bet. secs. 1 and 12
40.00	Set temp. ¼ sec. cor.
80.00	Intersect the E bdy of the Tp. at the cor. of secs. 1.6.7 and 12 already described. Thence We run West on a true line bet. secs. 1 and 12. Over rolling mesa. Soil sandy. dense artimesa.
12.00	Ravine 100 ft. deep course N.E. ascend.
23.00	Ledges. sandstone 10 ft. high bears N.E. and S.W. leave sandy soil, thence over stony land.
35.00	Top of ridge. bears N.E. and S.W. descend.
40.00	Set a sandstone 14 x 10 x 8 ins. 10 ins. in the ground for ¼ sec. cor. marked ¼ S. 1 on N. face and raise a mound of stone 2 ft. base 1½ ft. high N. of cor. Pits impracticable. leave stony land Thence over rolling mesa
80.00	The cor. of secs. 1.2.11. and 12. Land rolling and mountainous. Soil sandy and stony; 1st and 2nd rate. No timber. dense artimesa 80.00 chs. Jan 9. 1899: At this cor. We set off 22°02' S. on the decl arc: and at 12 hrs 07 m. l.m.t. observe the sun on the meridian the resulting lat. is 37°20' N.
	S. 0° 1' E. bet. secs. 11 and 12. Ascending over rolling mesa soil sandy and stony. dense artimesa.
40.00	Set a sandstone 12 x 10 x 8 ins. 8 ins. in

Subdivision of T. 40 S., R. 23 E. Continued.

Chains	
	the ground for 1/4 sec. cor. marked 1/4 S. 11 on W. face and raise a mound of stone 2 ft. base 1 1/2 ft. high W of cor. Pits impracticable.
	Begin descend over stony land.
48.00	Top of Ledges 75 ft. high. edge of mesa bears N.E. and S.W.
50.00	Foot of ledges. thence over broken sandstone ledges and boulders. bearing in all directions
80.00	Set a sandstone 18 x 12 x 8 ins. in a mound of stone for cor. of secs. 11, 12 13 and 14, marked with 1 notch on E and 4 notches on S. edges, and raise a mound of stone 2 ft base 1 1/2 ft. high W. of cor. Pits impracticable
	Land rolling and mountainous
	Soil sandy and stony; 1st and 4th rate.
	No timber, dense artimesa, 48.00 chs.
	Mountainous land 32.00 chs.
	Jan 9, 1899.
	Jan 10th 1899: At 8 a.m. l.m.t., WE set off 37° 19' N on the lat arc: 21° 52' S. on the decl. arc: and determine a true meridian with the solar at the cor of secs 11, 12, 13 and 14. Thence WE run
	East on a random line bet. secs. 12 and 13
40.00	Set temp. 1/4 sec cor.
80.00	Intersect the E. bdy. of the Tp. 4 lks. S. of the cor of secs. 7, 12, 13 and 18. Already described Thence WE run
	S. 89° 58' W. on a true line bet. secs. 12 and 13, Descending over rolling land
3.00	Begin steep descent soil stony.
15.00	Bottom of ravine 250 ft. deep. course SW. ascend over broken ledges and boulders soil clay.
40 02 1/2	Set a sandstone 16 x 10 x 5 ins, 11 ins, in the ground for 1/4 sec cor marked 1/4 S. 12 on N face and raise a mound of

Subdivision of T. 40 S. R. 23 E. - Continued.

Chains.	stone 2 ft base 1½ ft. high N. of cor. Pits impracticable Thence ascending over very broken stony land
80.05	The cor. of Secs. 11. 12. 13 and 14. Land mountainous. Soil stony: 4th rate. No timber. Mountainous land 80.05 chs.
	S. 0° 1' E. bet. secs. 13 and 14. Descending over broken sandstone boulders and ledges bearing in all directions
40.00	Set a sandstone 18 x 12 x 10 in a mound of stone for 1/4 sec. cor. marked 1/4 S. on W. face and raise a mound of stone 2 ft. base. 1½ ft. high W. of cor. Pits impracticable.
80.00	Set a sandstone 14 x 12 x 9 ins. 10 ins. in the ground for cor. of Secs. 13. 14. 23 and 24 marked with 1 notch on E. and 3 notches on S. edges and raise a mound of stone 2 ft. base 1½ ft. high W. of cor. Pits impracticable. Land mountainous. Soil stony: 4th rate. No timber. Mountainous land. 80.00 chs. Jan 10, 1899 At this cor. We set off 21° 53' S. on the decl. arc: and at 12 hrs 08 m. l. m. t., observe the sun on the meridian the resulting lat. is 37° 18' N.
	N 89° 58' E. on a random line bet. secs. 13 and 24.
40.00	Set temp. 1/4 sec. cor.
80.02	Intersect the E. bdy. of the Tp. 2 chs. N. of the cor. of secs. 13. 18, 19 and 24. already described Thence We run S 89° 59' W. on a true line bet. secs. 13 and 24

Subdivision of T. 40 S., R. 23 E. continued.

Chains.	
	Descending over rolling land soil sandy and stony.
37.00	Bottom of ravine 100 ft. deep course S. ascend over stony land. large broken sandstone boulders.
40.01	Set a sandstone 18 x 11 x 9 ins. in a mound of stone for 1/4 sec. cor. marked 1/4 S. on N. face and raise a mound of stone 2 ft. base 1 1/2 ft. high N. of cor. Pits impracticable.
80.02	The cor. of secs. 13. 14. 23. and 24. Land mountainous. Soil stony and sandy; 1st and 4th rate. No timber. Mountainous land 80.02 chs.

Jan. 10, 1899.

Jan. 11, 1899. At 8 a.m., l.m.t., We set off 37° 18' N. on the lat. arc: 21° 42' S on the decl. arc:, and determine a true meridian with the solar, at the cor. of secs. 13. 14. 23 and 24.
Thence We run
S 0° 1' E. bet. secs. 23 and 24.
Precipitous descent over broken sandstone ledges and boulders

4.00	Bottom of ravine or wash 75 ft. deep. course S.E. begin steep precipitous ascent. very stony.
18.50	Top of stony ridge 600 ft. above sec. cor. bears S.E. and N.W.
20.00	Begin descend
40.00	Set a sandstone 18 x 12 x 5 ins. 12 ins. in the ground for 1/4 sec. cor. marked 1/4 S. on W. face and raise a mound of stone 2 ft. base 1 1/2 ft. high W. of cor Pits impracticable.
42.00	Bottom of ravine 20 ft. deep course W. ascend
54.50	Top of spur 400 ft. above 1/4 sec. cor. bears E. and W. projects W descend.

Chains	
73.00	Bottom of wash 10 ft. deep 10 chs wide course E. & E. thence over sandy soil ascending
79.00	Leave sandy soil. thence over solid sandstone floor. ascending.
80.00	Point for sec. cor. falls on solid sandstone floor. Therefore we mark a cross for cor of secs. 23. 24. 25 and 26 with 1 notch on E. and 2 notches on S. and raise a mound of stone 2 ft. base 1½ ft high N. of the cross. Land mountainous. Soil stony. 4th rate. No timber. Mountainous land 80.00 chs.
	N. 89° 59' E. on a random line bet secs 24 and 25.
40.00	Set temp. 1/4 sec. cor.
80.06	Intersect the E. bdy of the Tp. 6 chs. N. of the cor. of secs. 19. 20 24. 25 & 30 already described Thence we run N. 39° 58' W. on a true line between 24 and 25 Ascending over rolling mesa soil sandy and gradually
25.00	Leave sandy soil. thence over broken sandstone boulders
30.00	Top of spur 100 ft. above cor sec. bears N. and S. projects S. descend.
40.03	Set a sandstone 14 x 10 x 8 ins. 10 ins. in the ground for 1/4 sec. cor. marked 1/4 S. on N. face and raise a mound of stone 2 ft. base 1½ ft. high N. of cor. Pits impracticable. Begin ascend
46.75	Top of stony ridge 150 ft above 1/4 sec. cor. bears N. and S. descend over very broken stony land
75.00	Bottom of wash 10 ft. deep 8 chs wide 200 ft below top of ridge course S.

Subdivision of T. 40 S., R 23 E. - Continued

Chains.	
79.50	ascend over solid sandstone floor leave wash
80.06	The cor. of secs. 23. 24. 25 and 26
	Land mountainous
	Soil stony: 4th rate.
	No timber.
	Mountainous land 80.06 chs.
	Jan 11. 1899 At this cor. We set off 21° 44' S. on the decl. arc: and at 12 hrs 08 m. l. m. t., observe the sun on the meridian the resulting lat. is 37° 17' N.
	S. 0° 1' E. bet. secs. 25 and 26
	Descending over smooth sandstone floor
5.50	Enter wash. leave sandstone floor.
20.00	Bottom of wash 10 ft deep about 7 chs wide. thence, along wash. course S.
40.00	Set a sandstone 14 x 12 x 6 ins., 10 ins. in the ground for 1/4 sec. cor. marked 1/4 S. on W. face and raise a mound of stone 2 ft. base 1 1/2 ft. high W. of cor. Pits impracticable.
66.50	Leave wash begin ascend over very stony land
80.00	Set a sandstone 16 x 12 x 3 ins. 11 ins. in the ground for cor. of secs. 25. 26. 35 and 36 marked with 1 notch on S. and E. edges and raise a mound of stone 2 ft. base 1 1/2 ft. high W. of cor. Pits impracticable.
	Land mountainous
	Soil sand. and stony 2nd and 4th rate
	No timber.
	Mountainous land 80.00 chs.
	S. 89° 58' E. on a random line bet. secs. 25 and 36.
40.00	Set temp 1/4 sec. cor.

Subdivision of T. 40 S., R. 23 E. Continued.

Chains.	
79.98	Intersect the E. bdy. of the Tp 4 cks S. of the cor of secs 25.30.31. and 36. already described Thence We run
	West on a true line bet. secs. 25 and 36 ascending over rolling stony land.
39.99	Set a sandstone 18 x 8 x 6 ins., 12 ins. in the ground for 1/4 sec. cor. marked 1/4 S. on N. face and raise a mound of stone 2 ft. base 1 1/2 ft. high N. of cor. Pits impracticable.
71.00	Foot of broken sandstone ledges bears N. and S.
	Begin precipitous ascent over sandstone ledges and cobble stones
72.00	Top of stony ridge bears N. and S.W.
79.98	The cor. of secs. 25. 26. 35 and 36.
	Land mountainous.
	Soil. stony; 4th rate.
	No timber.
	Mountainous land. 79.98 chs.
	S. 0° 1' E. bet secs. 35 and 36 ascending over stony land
2.00	Top of ridge 100 ft above sec cor. bears E. and W.
4.00	Begin descend over broken sandstone ledges and cobble stones
12.00	Foot of descent. Thence over gravelly soil
22.75	Wagon road bet Bluff City and Colorado bears E. and W.
25.00	Begin descend into San Juan river bottoms
28.50	Enter dense undergrowth and cottonwood timber, soil sandy loam.
40.00	Set a sandstone 18 x 8 x 5 ins., 12 ins. in the ground for 1/4 sec cor. marked 1/4 S. on W. face and raise a mound of stone 2 ft. base 1 1/2 ft. high W. of cor. Pits impracticable.

Subdivision of T. 40 S., R. 23 E. Continued.

Chains. Thence over level sandy soil.
56.45 Right bank of San Juan river 5 ft. high bears N. W. and S. E.
Set a sandstone 16 x 13 x 9 ins., 11 ins. in the ground for meander cor. of fractional secs. 35 and 36. marked M. C. on S. face with 1 groove on E. face and raise a mound of stone 2 ft. base 1½ ft. high N. of cor. Pits impracticable.
Land level and mountainous
Soil sandy loam and stony; 1st and 4th rate
Timber Cottonwood
Mountainous land 12.00 chs

Jan 11, 1899.

Jan. 9. 1899.
At 8 hrs 30 m. a. m. l. m. t. We set off 37° 21' N. on the lat. arc: 22° 00' S. on the decl arc: and determine a true meridian with the solar at the cor. of secs. 2. 3. 34 and 35 on the N. bdy. of the Tp. which We reestablished Jan. 7th 1899 previously described.
Thence We run
S. 0° 1' E. bet. secs. 2 and 3.
Descending over broken sandstone ledges and boulders bearing in all directions
16.50 Bottom of ravine and wash 75 ft. deep course W. begin ascend over broken sandstone and clay hills
40.00 Set a sandstone 14 x 10 x 9 ins., 10 ins in the ground for ¼ sec. cor. marked ¼ S. on W. face and raise a mound of stone 2 ft. base 1½ ft high W. of cor. Pits impracticable.
80.00 Set a sandstone 16 x 11 x 8 ins., 11 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 raise a mound of stone 2 ft. base 1½ ft. high W. of cor. Pits impracticable

Subdivision of T. 40 S., R. 23 E. — Continued.

Chains.	Land mountainous. Soil clay and stony: 3rd and 4th rate. No timber. Mountainous land. 80.00 chs.
	East on a random line bet secs. 2 and 11.
40.00	Set temp 1/4 sec. cor.
80.10	Intersect N. and S. line 3 chs. S. of the cor. of secs 1, 2, 11 and 12. Thence we run S. 89° 59' W. on a true line bet. secs. 2 and 11. Over rolling mesa, soil sandy, through dense artimesa descending.
13.00	Top of sandstone ledges 60 ft high and edge of mesa bears N. E. and S.W. Precipitous descent over broken sandstone ledges and boulders. leave artimesa
34.00	Bottom of ravine and wash 60 ft. deep, course N. Thence ascending over broken sandstone and clay hills
40.00	Set a sandstone, 16 x 10 x 4 ins., 11 ins. in the ground for 1/4 sec. cor. marked 1/4 S. on N. face and raise a mound of stone 2 ft. base. 1 1/2 ft. high N. of cor. Pits impracticable.
80.10	The cor. of secs. 2, 3, 10 and 11. Land mountainous Soil, sandy, clay and stony; 1st 3rd and 4th rate; No timber. dense artimesa 13.00 chs. Mountainous land 67.10 chs. Jan 9: 1899 At this cor. We set off 22° 02' S. on the decl. arc: and at 12 hrs 7 m. l. m. t., observe the sun on the meridian the resulting lat. is 37° 20' N.
	S. 0° 1' E. bet. secs. 10 and 11. Ascending over broken sandstone and clay hills.
18.00	Top of ridge 300 ft above sec cor. bears E. and W. descending over broken sand-

Subdivision of T. 40 S., R. 23 E. Continued.

Chains	
	stone and clay hills
40.00	Set a sandstone 13x12x10 ins., 9 ins. in the ground for 1/4 sec. cor. marked 1/4 S. on W. face and raise a mound of stone 2 ft. base, 1 1/2 ft. high W. of cor. Pits impracticable.
80.00	Set a sandstone 18x8x4 ins., 12 ins. in the ground for cor. of secs. 10. 11. 14 and 15 marked with 2 notches on E. and 4 notches on S. edges and raise a mound of stone 2 ft. base 1 1/2 ft. high W. of cor. Pits impracticable.
	Land mountainous
	Soil clay and stony; 3rd and 4th rate.
	No timber.
	Mountainous land. 80.00 chs.
	Jan 9. 1899.
	Jan 10. 1899.
	At 8 a.m. l.m.t., We set off 3° 19' N. on the lat. arc; 21° 52' S. on the decl. arc; and determine a true meridian with the solar at the cor. of secs. 10. 11. 14 and 15.
	Thence We run
	N. 89° 59' E. on a random line bet. secs. 11 and 14.
40.00	Set temp. 1/4 sec. cor.
80.06	Intersect N. and S. line 5 chs S. of the cor. of secs. 11. 12. 13 and 14.
	Thence We run
	S. 89° 57' W. on a true line bet. secs. 11. and 14. ascending over broken sandstone ledges and boulders bearing in all directions.
32.00	Top of ridge 500 ft. above sec. cor. bears N. W. and E. descend.
40.03	Set a sandstone 14x10x5 ins., 10 ins. in the ground for 1/4 sec. cor. marked 1/4 S. on N. face and raise a mound of stone 2 ft. base 1 1/2 ft. high N. of cor. Pits impracticable.

Subdivision of T. 40 S., R. 23 E.- Continued.

Chains	
50.00	Bottom of ravine 30 ft deep course N. Ascend over rolling land soil clay
55.00	Top of spur bears S.E. and N.W., projects S.E. thence descending over stony land.
59.00	Bottom of ravine 20 ft. deep course S.E.
80.06	The cor. of secs. 10. 11. 14 and 15. Land mountainous Soil clay and stony: 3rd 4th rate. No timber. Mountainous land. 80.06 chs.
	S. 0° 1' E. bet. secs. 14 and 15, Ascending over broken sandstone and clay hills.
33.00	Begin descend
40.00	Set a sandstone 14 x 12 x 5 ins., 10 ins. in the ground for 1/4 sec. cor, marked 1/4 S. on W. face and raise a mound of stone 2 ft. base 1½ ft. high W. of cor. Pits impracticable. Thence over broken hills. soil clay and stony.
80.00	Set a sandstone 14 x 11 x 6 ins, 10 ins. in the ground for cor. of secs. 14. 15. 22 and 23. marked with 2 notches on E and 3 notches on S. edges, and raise a mound of stone 2 ft. base 1½ ft. high W. of cor. Pits impracticable Land mountainous. Soil clay and stony: 3rd and 4th rate. No timber. Mountainous land. 80.00 chs. Jan 10, 1899 At this cor. We sch off 21° 53' S. on the decl. arc: and ah 2 hrs 30 m. l. m.t., observe the sun on the meridian. the resulting lat is 37° 18' N.

Subdivision of T. 40 S., R. 23 E. Continued.

Chains.	
	N. 89° 57' E. on a random line bet. secs. 14 and 23.
40.00	Set temp. 1/4 sec. cor.
80.05	Intersect N. and S. line 6 chs. N. of the cor of secs. 13. 14. 23 and 24.
	Thence We run
	West on a true line bet. secs. 14. and 23.
	Descending over stony land
2.00	Bottom of ravine and wash 40 ft deep course S.E. ascend over broken sandstone and clay hills.
18.50	Top of ridge 500 ft above sec. cor. bears S.E. and N.W.
20.00	Begin descend over broken sandstone and clay hills
30.00	Bottom of ravine and wash 30 ft deep course S.E. ascend
40.02½	Set a sandstone 14 x 11 x 6 ins., 10 ins. in the ground for 1/4 sec cor. marked 1/4 S. on N. face and raise a mound of stone 2 ft. base 1½ ft high N. of cor. Pits impracticable.
	Thence over broken sandstone and clay hills ascending
80.05	We cor. of secs. 14. 15. 22 and 23.
	Land mountainous.
	Soil clay and stony: 3rd and 4th rate
	No timber.
	Mountainous land. 80.05 chs.
	Jun 10. 1899.
	Jun 11. 1899.
	At 8 a.m., l. m. t., We set off 37° 18' N on the lat. arc: 21° 42' S. on the decl arc: and determine a true meridian with the solar at the cor. of secs. 14. 15. 22 and 23.
	Thence We run
	S. 0° 1' E. bet. secs. 22 and 23.
	ascending over broken sandstone and clay hills

Chains.	
30.00	Top of ridge 300 ft above sec. cor. bears E. and W. begin precipitous descent over broken sandstone ledges and boulders.
35.00	Sandstone ledges 40 ft high bears N.E. and S.W.
40.00	Set a sandstone 18x8x8 ins. in a mound of stone for 1/4 sec. cor. marked 1/4 S. on W. face and raise a mound of stone 2 ft. base 1 1/2 ft high W of cor. Pits impracticable.
42.00	Bottom of ravine 75 ft deep course S.W. precipitous ascent over broken sandstone ledges and boulders along N.W. side of ridge
61.25	Top of ridge 500 ft. above 1/4 sec cor. bears N.E. and S.W. begin descend over rolling mesa soil sandy and gravelly.
80.00	Set a sandstone 16x8x5 ins., 11 ins. in the ground for cor. of secs. 22, 23, 26 and 27 marked with 2 notches on S. and E. edges and raise a mound of stone 2 ft. base 1 1/2 ft. high W. of cor. Pits impracticable.
	Land mountainous.
	Soil, sandy and stony; 1st and 4th rate;
	No timber.
	Mountainous land 80.00 chs.
	East on a random line bet. secs. 23 and 26
40.00	Set temp. 1/4 sec. cor.
80.00	Intersect N. and S. line 4 chs S. of the cor. of secs. 23, 24, 25 and 26.
	Thence we run
	S 89° 58' W. on a true line bet secs. 23 and 24.
	Ascending over smooth sandstone floor.

Subdivision of T. 40 S., R. 23 E. Continued.

Chains.	
3.00	Leave smooth sandstone floor. Thence over rolling mesa soil sandy through dense artemesa, descending.
40.00	Set a sandstone 14 x 10 x 6 ins., 10 ins. in the ground for 1/4 sec. cor. marked 1/4 S. on N. face and raise a mound of stone 2 ft. base 1½ ft. high N. of cor. Pits impracticable. This cor. stands on N. side of a ridge. Begin steep precipitous ascent along north side of ridge. leave artemesa.
60.00	Top of ridge or mountain 500 ft. above sec. cor. bears N. and S. precipitous descent over broken sandstone boulders
70.00	Foot of precipitous descent. Thence over rolling mesa, soil sandy.
80.00	The cor. of secs. 22. 23. 26 and 27. Land mountainous. Soil, sandy and stony; 1st and 4th rate. No timber. Mountainous land. 80.00 chs.

Jan 11, 1899 At this cor. We set off 21° 44' S. on the decl. arc: and at 12 hrs. 05 m. l. m. t., observe the sun on the meridian. The resulting lat. is 37° 17' N.

S. 0° 1' E. bet. secs. 26 and 27. Descending over rolling mesa, soil sandy and gravelly.

20.00	Bottom of ravine 50 ft. deep course S 10° W.
40.00	Set a sandstone 18 x 8 x 6 ins., 12 ins. in the ground for 1/4 sec. cor. marked 1/4 S. on W. face and raise a mound of stone 2 ft. base 1½ ft. high W. of cor. Pits impracticable. Thence over rolling gravelly

Chains.	
	mesa. descending
67.00	Top of broken sandstone ledges 40 ft. high bears E. and W. precipitous descent
69.00	Foot of precipitous descent. leave ledges thence over rolling mesa. Soil sandy
80.00	Set a sandstone 18 x 8 x 5 ins., 12 ins. in the ground for cor. of secs. 26. 27. 34 and 35. marked with 1 notch on S. and 2 notches on E. edges. and raise a mound of stone 2 ft. base 1½ ft. high W. of cor. Pits impracticable.
	Land rolling and mountainous
	Soil sand and stony; 1st and 4th rate,
	No timber.
	Mountainous land 80.00 chs.
	N. 89° 58' E. on a random line bet. secs. 26 and 35;
40.00	Set temp. ¼ sec. cor.
80.10	Intersect N. and S. line 3 lks. N. of the cor. of secs. 25. 26. 35 and 36.
	Thence we run
	S. 89° 59' W. on a true line bet. secs. 26 and 35.
	Ascending over stony land.
10.00	Top of ascent and spur 150 ft above sec. cor. bears N. and S. projects about 3 chs N. begin steep descent.
18.00	Bottom of ravine and wash 10 ft. deep 10.00 chs wide course S. 300 ft below top of spur.
36.00	Begin precipitous ascent over broken sandstone boulders.
38.00	Top of spur bears N. and S. projects S. descend
40.00	Set a sandstone 12 x 8 x 4 ins., 9 ins. in the ground for ¼ sec. cor. marked ¼ S. on N. face and raise a mound of stone 2 ft. base 1½ ft. high

Subdivision of T. 40 S., R. 23 E. Contin.

chains	
	N. of cor. Pits impracticable.
	This cor is on the west slope of spur
	about 50 ft below the top.
	Thence, descending over rolling mesa
	Soil sandy and gravelly
77.00	Bottom of ravine 30 ft deep course
	S. E. ascend
80.10	The cor. of secs. 26, 27, 34 and 35
	Land mountainous.
	Soil sandy gravelly and stony; 1st 2nd
	and 4th rate.
	No timber.
	Mountainous land. 80.10 chs.
	S. 0° 1' E. bet. secs. 34 and 35.
	Descending over rolling land, soil gravelly.
15.00	Bottom of ravine 75 ft. below sec. cor.
	course S.W. ascend
20.00	Wagon road bet. Bluff City and Colorado
	bears E. and W. thence over level land
26.00	Top of ledges 40 ft high, broken sandstone,
	and edge of mesa, bears E. and W.
	begin precipitous descent.
26.30	Foot of precipitous descent.
26.90	Right bank of San Juan river. 5 ft.
	high bears E and W.
	Set a sandstone 14 x 8 x 7 ins., 10 ins.
	in the ground for meander cor. of
	frac. secs. 34 and 35 marked M.C on
	S. face with 2 grooves on E. face, and
	raise a mound of stone 2 ft. base 1½ ft.
	high N. of cor. Pits impracticable.
	Land mountainous
	Soil gravelly and stony; 3rd and 4th rate.
	No timber
	Mountainous land. 26.90 chs.
	Jan. 11, 1899.

Chains	
	Jan 12. 1899.
	At 8 a. m., l. m. t., I set off 37° 21' N. on the lat. arc: 21° 32' S. on the decl. arc: and determine a true meridian with the solar at the cor of secs. 3. 4. 33. and 34 on the N. bdy. of the Tp. previously described
	Thence We run
	S. 0° 2' E. bet. secs. 3 and 4.
	Descending over sandy soil
8.00	Bottom of McCracken wash 10 ft. deep 10 ft. wide course S.E. ascend
12.00	Top of spur bears N.E. and S.W. projects N.E. 75 ft. above sec. cor. descend
22.00	Bottom of McCracken wash 10 ft deep 15 ft. wide course S.W.
36.00	Begin ascend over rolling land
40.00	Set a sandstone 16 x 8 x 6 inc., 11 inc. in the ground for 1/4 sec. cor. marked 1/4 S on W. face, and raise a mound of stone 2 ft. base 1½ ft. high W. of cor. Pits impracticable.
61.00	Bottom of ravine 60 ft deep. course S.W.
71.00	Bottom of ravine 40 ft deep. course W.
80.00	Set a sandstone 14 x 10 x 7 inc, 10 inc. in the ground for cor. of secs. 3. 4. 9 and 10. marked with 5 notches on S. and 3 notches on E. edges, and raise a mound of stone 2 ft. base 1½ ft. high W. of cor. Pits impracticable.
	Land mountainous.
	Soil sandy: 2nd rate.
	No timber.
	Mountainous land. 80.00 chs.
	Each on a random line bet. secs. 3 and 10.
40.00	Set temp. 1/4 sec. cor
80.02	Intersect N. and S. line 3 chs. S. of the

Subdivision of T. 40 S., R. 23 E. Continued.

Chains	
	cor. of secs. 2. 3. 10 and 11.
	Thence We run
	S. 89° 59' W. on a true line bet. secs. 3 and 10.
	Ascending over broken sandstone and clay hills
33.00	Begin precipitous ascent over large brk. sandstone boulders
37.00	Top of knoll and precipitous ascent 200 ft above sec. cor. begin steep descent
40.01	Set a sandstone 14 x 9 x 7 ins., 10 ins. in the ground for 1/4 sec. cor. marked 1/4 S. on N. face, and raise a mound of stone 2 ft. base 1 1/2 ft. high N. of cor. Pits impracticable.
	This cor stands at foot of steep descent on N. side of knoll. Thence over rolling land
50.00	Top of ridge 200 ft. above 1/4 sec. cor. bears N. and S. descend
57.00	Top of broken sandstone ledges 50 ft high bears N. and S. begin precipitous descent
60.00	Foot of ledges and precipitous descent
	Thence over rolling land descending.
80.02	The cor. of secs. 3. 4. 9 and 10.
	Land mountainous.
	Soil clay and stony; 3rd and 4th rate
	No timber.
	Mountainous land. 80.02 chs.
	Jan 12, 1899 At this cor. We set off 21° 33' S. on the decl are: and at 12 hrs 09 m. l. m. t., observe the sun on the meridian the resulting lat. is 37° 20' N.
	S. 0° 2' E. bet. secs. 9 and 10.
	Ascending over rolling land. soil gravelly
15.95	Top of ridge 350 ft. above sec. cor. bears E. and W. descend over precipitous land broken sandstone ledges and boulders
40.00	Point for 1/4 sec. cor. falls on solid sandstone on which
	We cut a cross for 1/4 sec. cor.

Subdivision of T. 40 S., R. 23 E. Continued.

Chains	
	marked 1/4 S.; on W. side of cross; and raise a mound of stone 2 ft. base 1½ ft. high W. of cor. Pits impracticable from which sandstone cliffs 200 ft. high bear N. 50 lks. dist. marked with a cross.
65.00	Bottom of ravine 500 ft. below 1/4 sec. cor. course W. Thence ascending over stony land.
80.00	Set a sandstone 2 in x 6 x 11 ins., in a mound of stone for cor of secs 9. 10. 15 and 16. marked with 4 notches on S. and 3 notches on E. edges and raise a mound of stone 2 ft. base 1½ ft. high W. of cor. Pits impracticable. This cor stands near foot of slope on N. W. side of mountain. Land mountainous. Soil stony: 4th rate. No timber. Mountainous land. 80.00 chs. Jan. 12. 1899.
	Jan. 13. 1899. At 8 a.m. L.M.T. We set off 37° 19' N. on the lat. arc: 21° 22' S. on the decl. arc: and determine a true meridian with the solar at the cor. of secs. 9. 10. 15 and 16. Thence We run N. 89° 09' E. on a random line bet. secs. 10 and 15
40.00	Set temp. 1/4 sec. cor.
80.09	Intersect N. and S. line 4 lks. N. of the cor. of secs. 10. 11. 14 and 15 Thence We run N. 89° 09' W. on a true line bet. secs. 10 and 15; Descending over stony land:
5.00	Bottom of ravine 30 ft. deep course S.W. heads about 4 chs N.

Subdivision of T. 40 S., R. 23 E. Continued.

Chains	ascending over stony land.
20.00	Top of ridge 300 ft above sec. cor. bears N. and S. Descend
34.00	Bottom of ravine 40 ft deep course S.W. ascending over stony land
40.04½	Set a sandstone 18 x 6 x 4 ins., 12 ins. in the ground for ¼ sec. cor marked ¼ S. on N. face and raise a mound of stone 2 ft. base 1½ ft high N. of cor. Pits impracticable
53.00	Top of ridge 300 ft above ¼ sec. cor. bears N. and S. Descend
61.00	Top of broken sandstone ledges 20 ft. high bears N. and S. precipitous descent over broken sandstone ledges and boulders
74.00	Foot of precipitous descent. Thence over rolling land soil sandy and stony. descending along north side of mountain
80.09	The cor. of secs. 9, 10, 15 and 16. Land mountainous. Soil stony; 4th rate; No timber; Mountainous land. 80.09 chs.
	S. 0° 2' E. bet. secs. 15 and 16, Ascending over rolling foot hills along West side of mountain through dense artimesa soil sandy.
28.00	Bottom of ravine 150 ft deep course W. Ascend
36.00	Begin steep ascent.
38.00	Top of spur bears E. and W. projects W. Descend.
40.00	Point for ¼ sec. cor. falls on solid sandstone floor. on which We cut a cross for ¼ sec. cor. marked ¼ S. on W. side of cross; and raise a mound of stone 2 ft. base 1½ ft. high W. of cor. Pits impracticable Descending over smooth sandstone

Chains	
	floor.
42.00	Bottom of ravine and wash 100 ft. below 1/4 sec. cor. course N. ascend over rolling land
66.50	Bottom of ravine 100 ft. deep course N.W. heads about 15 chains S.E. Begin ascend.: land rolling.
80.00	Set a sandstone 24 x 6 x 4 ins., 18 ins. in the ground for cor. of secs. 15, 16, 21 and 22. marked 40 S. on N.E. and 23 E. on S.E. faces. with 3 notches on S. and E. edges. and raise a mound of stone 2 ft. base 1 1/2 ft. high N. of cor. Pits impracticable. Land mountainous. Soil sandy: 2nd rate No timber. Mountainous land. 80.00 chs.
	Jan. 13, 1899. At this cor. We set off 21° 23' S. on the decl. arc: and at 12 hr. 09 m. l. m. t., observe the sun on the meridian. the resulting lat. is 37° 18' N.
	S. 89° 59' E. on a random line bet. secs. 15 and 22.
40.00	Set temp. 1/4 sec. cor.
80.00	Intersect N. and S. line 6 lks. S. of the cor. of secs. 14, 15, 22 and 23. Thence We run S. 89° 58' W. on a true line bet. secs. 15 and 22. Descending over broken sandstone and clay hills
20.00	Bottom of ravine and wash 60 ft. deep. course S.W. begin ascend over rolling land soil sandy and stony.
40.00	Set a sandstone 14 x 9 x 7 ins., 10 ins. in the ground for 1/4 sec. cor. marked 1/4 S. on N. face and raise a mound of stone 2 ft. base 1 1/2 ft. high N. of cor. Pits impracticable.

Subdivision of T. 40 S., R. 23 E. Continued.

Chains	
	Thence ascending over rolling land soil sandy
80.00	The cor. of secs. 15.16.21 and 22 Land mountainous Soil sandy and clay 2nd and 4th rate, No timber Mountainous land. 80.00 chs.
	January 13, 1899.
	Jan. 14. 1899, At 8. a. m., l. m. t., We set off 37° 18' N. on the lat. arc 21° 12' S. on the decl arc. and determine a true meridian with the solar, at the cor. of secs. 15.16 21. and 22. Thence We run S. 0° 2' E. bet. secs. 21. and 22, Ascending over rolling land soil sandy and stony.
9.00	Top of ridge bears N.E. S.W. descend
18.00	Begin descend over broken sandstone bouldere
30.00	Bottom of canon 100 ft. deep course S.W. ascending along N.W. side of ridge soil stony.
40.00	Set a sandstone 16 x 6 x 4 ins., 11 ins. in the ground for 1/4 sec. cor. marked 1/4 S. on W. face. and raise a mound of stone 2 ft. base 1 1/2 ft. high W. of cor. Pits impracticable.
43.50	Top of ridge 100 ft above 1/4 sec cor. bears S.W. and N.E. Descend,
50.00	Bottom of ravine 75 ft. deep course S.W. Ascend,
60.00	Top of ridge bears N.E. and S.W. Descend
77.00	Bottom of ravine 100 ft. below top of ridge. course S.W. Ascend,
80.00	Set a sandstone 16 x 8 x 6 ins., 11 ins. in the ground for cor. of secs. 21. 22. 27 and 28. marked with 2 notches on S. and 3 notches on E. edges and raise a

Subdivision of T. 40 S., R 23 E. Continued.

Chains	mound of stone 2 ft base 1½ ft high W. of cor. Pits impracticable. Land mountainous. Soil sandy and stony. 2nd and 4th rate. No timber. Mountainous land. 80.00 chs.
	N. 89° 58 E. on a random line bet. secs. 22 and 27.
40.00	Set temp. ¼ sec. cor.
80.04	Intersect N. and S. line 6 N. of the cor. of secs. 22. 23. 26 and 27. Thence, we run N. 89° 59 W. on a true line bet secs. 22 and 27. Descending over rolling land soil sandy through dense artimisia.
28.00	Begin precipitous descent over broken sandstone ledges, and boulders. bears N. E. and S. W.
34.00	Bottom of ravine 100 ft. deep course S.W. , ascend
40.02	Set a sandstone 16 x 12 x 5 ins., 11 ins. in the ground for ¼ sec. cor. marked ¼ S. on N. face, and raise a mound of stone 2 ft. base 1½ ft. high N. of cor Pits impracticable
42.00	Top of spur 100 ft. above ¼ sec cor. bears N. and S. project S. Descend
50.80	Bottom of ravine 150 ft. deep course S. Ascend over broken sandstone ledges and boulders
63.00	Top of spur. bears N. and S. projects N. Descending over very stony soil
68.20	Broken sandstone ledges bears N. E. and S. W.
71.10	Bottom of ravine 75 ft. deep course N. W. Thence over broken stony hills descending
80.04	The cor. of secs. 21. 22. 27 and 28. Land mountainous.

Subdivision of T. 40 S., R. 23 E. Continued.

chains.	
	Soil sandy and stony; 2nd and 4th rate.
	No timber.
	Mountainous land 80.04 chs.
	Jan 14: At this cor. We set off 21° 13' S. on the decl. arc: and at 12h. 09m. G. M. T., observe the sun on the meridian the resulting lat. is 37° 17' N.
	S. 0° 2' E. bet. secs. 27 and 28.
	Ascending over rolling land, soil sandy and stony.
11.00	Top of ridge bears N.E. and S.W. descend over broken sandstone ledges and E "
16.00	Begin ascend
40.00	Set a sandstone 24 x 6 x 3 ins., in a mon. of stone for 1/4 sec. cor. marked 1/4 S. on W. face, and raise a mound of stone 2 ft. base 1 1/2 ft. high W. of cor. Pits impracticable.
42.00	Top of spur bears E. and W. projects E. Descend
56.80	Top of sandstone cliffs perpendicular, 150 ft. high bears E. and W. down which we can not chain: set a flag on line near foot of cliffs: measure a base west 1.00 ch: to a point from which the flag bears S. 46° 24' E.; which gives for the distance (by traverse table) 1.05 chs. which added to 56.80 chs. makes
57.85	To Right bank of San Juan river 10 ft. high bears E. and W.
	The foot of cliffs and wagon road bet. Bluff City and Colorado bearing E. and W. falls in the foregoing triangulation.
	Set a sandstone 15 x 10 x 5 ins., in a mon. of stone for meander cor. of fract. secs. 27 and 28. marked M.C. on S. face with 3 grooves on E. face and raise a mound of stone 2 ft. base 1 1/2 ft. high

Subdivision of T. 40 S., R. 23 E., Continued.

Chains	
	N. of cor. Pits impracticable. Land mountainous. Soil sandy and stony; 2nd and 4th rate. No timber. Mountainous land. 57.85 Chs.
	From the cor. of secs. 26, 27, 34 and 35, previously described thence We run West. bet. secs. 27 and 34, over rolling land. Soil sandy.
20.00	Begin steep descent
29.00	Bottom of ravine 150 ft. deep course S.W. heads about 10 chs N.E.
37.00	Bottom of ravine 75 ft. deep course S.W. heads about 8 chs N.E.
40.00	Set a sandstone 16 x 10 x 6 ins., 11 ins. in the ground for 1/4 Sec. cor. marked 1/4 S. on N. face, and raise a mound of stone 2 ft. base 1½ ft. high N. of cor. Pits impracticable.
46.00	Begin steep descent
49.00	Top of perpendicular sandstone cliff 100 ft. high bears N.W. and S.E. down which we can not chain: set a flag on line near foot of cliffs: measure a base north 1.00 ch. to a point from which the flag bears S. 45° W. which gives for the distance (by traverse table) 1.00 ch. which added to 49.00 chs. makes
50.00	Foot of cliffs. San Juan river bottom.
50.30	Wagon road bet. Bluff City and Colorado bears N.W. and S.E.
51.00	Right bank of San Juan river 8 ft. high bears N.W. and S.E. Set a sandstone 16 x 8 x 6 ins., 11 ins. in the ground for meander cor. of fract. secs. 27 and 34, marked M.C. on W. face with 1 groove on S. face and raise a mound of stone 2 ft. base 1½ ft. high E. of cor. Pits impracticable.

Subdivision of T. 40 S., R 23 E. continued

Chains	Land mountainous.
	Soil, sandy and stony 2nd and 4th rate
	No timber
	Mountainous land. 51.00 chs.
	Jan 14, 1899.
	Jan. 12, 1899.
	At 8 a.m., l.m.t., We set off 37° 21' N. on the lat. arc: 21° 32' S. on the decl. arc: and determine a true meridian with the solar at the cor. of secs. 4.5.32 and 33 on the N. bdy of the Tp. previously described.
	Thence We run
	S. 0° 3' E. bet. secs. 4 and 5.
	Descending over stony land.
5.00	Bottom of ravine 150 ft deep course S.E. Ascend
15.00	Top of spur bears N.W. and S.E. projects S.E. Descend
20.50	Bottom of ravine 100 ft. deep course E. Ascend
38.80	Top of ridge bears E. and W. Descend
40.00	Point for 1/4 Sec cor. falls on solid sandstone
	We cut a cross for 1/4 Sec cor. marked 1/4 S. on W side of cross and raise a mound of stone 2 ft. base 1 1/2 ft high W. of cor. Pits impracticable
42.70	Top of sandstone cliffs bears E. and W. 150 ft high. down which We can not chain: set a flag on line at foot of cliffs: measure a base N. 89° 57' E. 2 chs. to a point from which the flag bears S 53° W.; which gives for the distance (by traverse table) 1.50 chs. which added to 42.70 chs. makes.
44.20	Foot of cliffs. Thence descending over stony land
50.30	Shelving sandstone ledges bears E. & W.

Subdivision of T. 40 S., R. 23 E. Continued.

Chains	
50.50	Bottom of ravine and wash 50 ft deep. course E. thence over rolling land
71.00	Bottom of wash 3 ft deep 40 ft wide course S.E.
80.00	Set a sandstone 14×10×10 ins., 10 ins. in the ground for cor. of secs. 4. 5. 8 and 9 marked with 5 notches on S. and 4 notches on E. edges, and raise a mound of stone 2 ft. base 1½ ft. high N. of cor. Pits impracticable Land mountainous. Soil stony: 4th rate. No timber. Mountainous land. 80.00 chs.
	East on a random line bet secs. 4 and 9
40.00	Set temp. ¼ sec cor.
80.06	Intersect N and S. line at the cor. of secs. 3. 4. 9 and 10. Thence we run West on a true line bet secs. 4 and 9. Descending over stony land.
15.00	East edge of McCracken wash bears S.W.
20.50	West edge of McCracken wash bears S.W. Thence over rolling land
34.00	Foot of sandstone ledges bears N and S.
36.00	Top of ledges Descend
40.03	Set a sandstone 14×10×6 ins., 10 ins. in the ground for ¼ sec. cor. marked ¼ S. on N. face and raise a mound of stone 2 ft. base 1½ ft. high N. of cor. Pits impracticable.
42.00	Point of spur projects W.
44.50	Bottom of wash 75 ft deep course S. ascend
58.00	Bottom of wash 2 ft. deep 70 ft wide course S.E.
80.06	The cor. of secs. 4. 5. 8 and 9.

Subdivision of T. 40 S., R. 23 E. Continued

chains	
	Land mountainous.
	Soil stony; 4th rate
	No timber
	Mountainous land 80.06 chs.
	Jan. 12, 1899 At this cor. We set off 21° 33' S. on the decl arc: and at 12 hrs 09 m. l. m.t., observe the sun on the meridian. the resulting lat. is 37° 20' N.
	S. 0° 3' E. bet. secs. 8 and 9.
	Ascending over rolling land soil stony.
8.40	Begin steep ascent over broken sandstone boulders and ledges
16.00	Top of ridge 600 ft high near E end bears S.E. and N.W. descend over stony rolling land
40.00	Set a sandstone 16 x 8 x 7 ins., 11 ins. in the ground for 1/4 sec cor. marked 1/4 S. on W. face and raise a mound of stone 2 ft. base. 1½ ft. high W. of cor. Pits impracticable.
50.00	Bottom of ravine 150 ft below 1/4 sec cor course S.E. Thence ascending over rolling land soil sandy
61.00	Bottom of ravine 40 ft. deep course E. ascend.
80.00	Set a sandstone 14 x 10 x 6 ins., 10 ins. in the ground for Cor. of secs. 8. 9. 16 and 17 marked with 4 notches on S. and E. edges, and raise a mound of stone 2 ft. base 1½ ft. high W. of cor. Pits impracticable
	Land mountainous.
	Soil sandy and stony; 2nd and 4th rate.
	No timber
	Mountainous land, 80.00 chs.
	Jan. 12, 1899.

Subdivision of T. 40 S., R. 23 E. - Continued.

Chains.	Jan. 13, 1899.
	At 8 a.m. l.m.t., We set off 37° 19' N. on the lat. arc 21° 22' S on the decl. arc; and determine a true meridian with the polar at the cor. of secs. 8, 9, 16 and 17.
	Thence We run
	East on a random line bet. secs. 9 and 16.
40.00	Set temp. 1/4 sec. cor.
80.00	Intersect N. and S. line at the cor of secs. 9, 10, 15 and 16.
	Thence We run
	West on a true line bet. secs. 9 and 16 Descending over rolling land. Soil sandy
18.75	Bottom of McCracken wash 3 ft deep 6 chs. wide course S.
23.00	Begin ascend over rolling land.
40.00	Set a sandstone 18 x 10 x 4 ins., 12 ins. in the ground for 1/4 sec. cor marked 1/4 S. on N. face. and raise a mound of stone 2 ft. base 1 1/2 ft. high N of cor Pits impracticable.
55.00	Bottom of ravine 40 ft deep course S.E.
56.00	Top of sandy ridge bears S.E. and N.W. Ascend Thence over rolling land.
80.00	The cor of secs 8, 9, 16 and 17. Land mountainous. Soil sandy and stony; 2nd and 4th rate. No timber. Mountainous land. 80.00 chs.
	S. 0° 3' E. bet secs. 16 and 17 Ascending
15.00	Top of Butte 700 ft. high 500 ft. E and W. Descend
31.50	Bottom of ravine 100 ft. deep course E. ascend over rolling land
40.00	Point for 1/4 sec. cor falls on solid rock-

Chains	
	stone floor, on which We cut a cross for 1/4 sec. cor. marked 1/4 S. 17 on N. side of cross, and raise a mound of stone 2 ft. base 1 1/2 ft. high W. of cor. Pits impracticable.
41.50	Bottom of ravine 150 ft. below 1/4 sec. cor. Ascend
46.50	Top of ridge bears N.W. and S.E., descend
52.50	Bottom of ravine 100 ft. deep course E. Thence over rolling land ascending.
62.50	Bottom of wash 40 ft. deep, 200 ft. wide course E. steep ascent over stony soil along each slope of ridge.
80.00	Set a sandstone 16 x 12 x 6 ins., 11 ins. in the ground for cor. of secs. 16, 17, 20 and 21, marked with 3 notches on S. and 4 notches on E. edges, and raise a mound of stone 2 ft. base 1 1/2 ft. high W. of cor. Pits impracticable.
	Land mountainous.
	Soil stony: 4th rate.
	No timber.
	Mountainous land. 80.00 chs.
	Jan. 13, 1899 At this cor. We set off 21° 23' S. on the decl. arc: and at 12 hrs 08 m. l. m. t., observe the sun on the meridian the resulting lat. is 37° 18' N
	Each on a random line bet. secs. 16 and 21,
40.00	Set temp. 1/4 sec. cor.
79.98	Intersect N. and S. line 3 chs. S. of the cor. of secs. 15, 16, 21 and 22, Thence We run S. 89° 59' W. on a true line bet. secs. 16 and 21 Descending over rolling land. Soil sandy.
20.00	Leave sandy soil thence over broken stony land. begin rapid descent
39.99	Set a sandstone 14 x 10 x 8 ins., 10 ins. in the ground for 1/4 sec. cor. marked 1/4

chains.	S. on N. face, and raise a mound of stone 2 ft. base 1½ ft. high N. of cor. Pits impracticable.
53.00	Bottom of McCracken wash 10 ft deep 4 chs. wide course S. Ascend,
78.00	Begin steep ascent.
79.98	The cor of secs. 16, 17, 20 and 21. This cor is 100 ft. above McCracken wash, near foot of slope Land mountainous. Soil sandy and stony; 1st and 4th rate. No timber. Mountainous land 79.98 chs Jan 13, 1899.
	Jan, 14, 1899. At 8 a.m. l. m. t., We set off 37° 18' N. on the lat arc; 21° 12' S. on the decl. arc: and determine a true meridian with the solar, at the cor. of secs. 16, 17, 20, and 21. Thence We run S. 0° 3' E. bet secs. 20 and 21, Descending over broken sandstone and clay land along each slope of ridge
9.50	Wash 30 ft deep 150 ft wide course N.E. Ascend
21.50	Sandstone croppings bears N.E. and S.W.
37.00	Sandstone ledges bears N.E. and S.W.
40.00	Set a sandstone 16 x 12 x 4 ins., 11 ins. in the ground for 1/4 sec. cor. marked 1/4 S. on W. face, and raise a mound of stone 2 ft base 1½ ft. high W. of cor. Pits impracticable, Thence over rolling mesa
48.50	Top of broken sandstone cliffs 50 ft high Precipitous descent.
49.00	Foot of precipitous descent.
58.50	West side of McCracken wash at bend N.E. and S.E. dir S.E. Ascend
66.50	Top of stony spur. bears E. and W. projecting

Subdivision of T. 40 S., R 23 E. - Continued.

Chains	E.	Descend.
70.70	North side of McCracken wash bank 6 ft high bears E. and W.	
71.50	Bottom of McCracken wash 6 ft deep course N.	
72.20	South side of McCracken wash bank 7 ft high bears E. & W. thence over rolling land.	
78.00	Leave rolling land. thence over stony land	
80.00	Point for sec cor falls on solid sandstone on which	
	We cut a cross for cor of secs 20. 21, 28 and 29. marked with 2 notches on S. and 4 notches on E sides of cross. and raise a mound of stone 2 ft. base 1½ ft high N. of cor. Pits impracticable	
	Land mountainous.	
	Soil. Sandy and stony. 1st and 4th rate.	
	No timber	
	Mountainous land,	80.00 chs.
	N. 89° 59' E. on a random line bet. secs. 21 and 28.	
40.00	Set a temp. ¼ sec. cor.	
80.00	Intersect N. and S. line 3 chs. S. of the cor of secs. 21, 22, 27 and 28.	
	Thence We run	
	S. 89° 58' W. on a true line bet. secs. 21 and 28.	
	Descending over rolling land soil stony	
9.00	Bottom of ravine 30 ft deep course S.W.	
	Ascend over rolling land	
20.00	Begin descend.	
30.00	Bottom of ravine and wash 75 ft deep course S.W.	
		Ascend.
40.00	Set a sandstone 14 x 12 x 6 ins., 10 ins. in the ground for ¼ sec. cor. marked ¼ S. on N. face, and raise a mound of stone 2 ft. base 1½ ft. high N. of cor. Pits impracticable.	
	Thence over rolling land. Soil gravelly.	

Subdivision of T. 40 S., R 23 E., Continued.

Chains.	
	ascending.
60.00	Top of ridge bears S.W. and N.E. descend land rolling
74.00	Top of broken sandstone ledges 100 ft. high and edge of mesa. begin precipitous descent
80.00	Foot of precipitous descent, and the cor of secs. 20, 21, 28 and 29. Land mountainous. Soil gravelly and stony: 2nd and 4th rate. No timber Mountainous land. 80.00 chs.
	Jan 12: 1899 At this cor. we set off 2° 13' S. on the decl. arc: and at 12 hrs 35 m. l. m. t., observe the sun on the meridian the resulting lat. is 37° 17' N.
	S. 0° 3' E. bet. secs. 28 and 29 ascending over broken sandstone ledges
13.00	Leave ledges
15.50	Top of spur bears E. and W. projects W. descend
23.10	Top of perpendicular sandstone cliffs bears E. and W. 100 ft high down which we can not chain: set a flag on line at foot of cliffs: measure a base West 1 ch. to a point from which the flag bears S. 45° E which gives for the distance (by traverse table) 1.00 ch. which added to 23.10 chs. makes
24.10	Foot of cliffs. Thence over smooth sandstone floor descending
25.00	Top of precipitous broken sandstone ledges 60 ft. high bears E. and W. begin precipitous descent into San Juan river valley.
25.25	Enter San Juan river valley. Thence over level sandy land.
26.30	Wagon road bet. Bluff City and Colorado bears N.W. and S.E. enter dense artemisia
40.00	Set a sandstone 16 x 12 x 3 ins., 11 ins. in the ground for 1/4 Sec. cor. marked 1/4 S.

Chains, on W. face, and raise a mound of stone 2 ft. base 1½ ft. high W. of cor. Pits impracticable.

42.00 Enter river bottoms, dense undergrowth and cottonwood trees, bears N.E. and S.W.

51.80 Old wagon road bears E. and W.

53.50 Right bank of San Juan river bears E. and W.

Set a cottonwood post 3 ft. long, 4 ins., sq., 24 ins. in the ground, for meander cor. of fracl. secs. 28 and 29, marked M.C. on S., P.40S. on N., R23E. S.28 on E., and S. 29 on W., faces and raise a mound of stone 2 ft. base 1½ ft. high N. of cor. Pits impracticable.

Land mountainous.

Soil sandy and stony: 1st and 4th rate.

Timber cotton wood, 13.00 chs.

Mountainous land, 42.00 chs.

Jan. 14. 1899.

Jan. 15. 1899.

At 8 a.m., l.m.t., We set off 37°21' N on the lat. arc; 21°01' S. on the decl. arc; and determine a true meridian with the solar at the cor of secs 5. 6. 31 and 32 on the N. bdy. of the Tp. previously described.

Thence We run

So 3' E. bet. secs. 5 and 6.

Ascending over broken sandstone ledges and boulders

5.00 Top of ledges 100 ft above sec cor. projecting from N.W. and S.W. begin descend over stony land.

40.00 Set a sandstone 5 x 8 x 6 ins., 10 ins. in the ground for ¼ sec cor. marked ¼ S. on W. face, and raise a mound of stone 2 ft. base 1½ ft. high W. of cor. Pits impracticable.

Subdivision of T. 40 S., R. 23 E. Continued.

Chains.	
43.00	Begin steep descent along S.E. slope of ridge
72.00	Sandstone cliffs 30 ft high bears E. and W. Precipitous descent over large broken sandstone boulders
75.00	Foot of precipitous descent. Thence over rolling land, descending
80.00	Set a sandstone 20x10x10 ins. in a mound of stone for cor. of secs. 5, 6, 7 and 8. marked with 5 notches on S. and E. edges and raise a mound of stone 2 ft. base 1½ ft. high W. of cor. Pits impracticable.
	Land mountainous
	Soil, stony; 4th rate.
	No timber.
	Mountainous land. 80.00 chs.
	East on a random line bet. secs. 5 and 8
40.00	Set temp. 1/4 sec cor.
80.10	Intersect N. and S. line 6 chs. S. of the cor. of secs. 4, 5, 8 and 9.
	Thence, We run
	S. 89° 57' W. on a true line bet. secs. 5 and 8
	Over rolling foot hills soil stony.
9.40	Ledges bears N.E. and S.W.
12.50	Top of spur bears N.E. and S.W. projects N.E. thence over broken sandstone ledges bearing E. and W.
22.50	Leave ledges. begin steep descent.
24.00	Bottom of ravine and wash course N.E. thence along wash course E.
26.00	Leave wash begin ascend
30.00	Top of spur bears N.E. and S.W. projects N.E. Descend
33.50	Bottom of ravine and wash 150 ft. deep course N.E.
37.50	Begin steep ascent.
39.50	Top of spur. bears N.E. and S.W. projects S.W. Descend

Subdivision of T. 40 S., R. 23 E. Continued.

Chains.	
40.05	Set a sandstone 17x12x6 ins., 12 ins. in the ground for 1/4 sec. cor. marked 1/4 S. on N. face and raise a mound of stone 2 ft. base 1 1/2 ft. high N. of cor. Pits impracticable.
	This cor is on the N.W. slope of spur 30 ft below top.
45.00	Bottom of ravine. 100 ft deep course S. Ascend.
49.30	Top of spur: bears N.W. and S.E. projects S.E.
50.80	Sandstone ledges bear N.W. and S.E. Ascending along the south slope of mountain
62.40	Conglomerate boulder 30 ft x 20 x 20 on line
67.00	Top of spur bears N. and S. projects S.
	Thence descending over rolling foot hills.
80.10	The cor. of secs. 5. 6. 7 and 8.
	Land mountainous.
	Soil. stony: 4th rate.
	No timber.
	Mountainous land 80.10 chs.
	West. on a random line bet. secs. 6 and 7
40.00	Set temp. 1/4 sec. cor.
79.66	Intersect the West. bdy. of the Tp. at the cor. of secs 1. 6. 7 and 12 on Colorado Guide meridian. previously described.
	Thence We run
	East on a true line bet secs. 6 and 7 Ascending over very broken stony hills
39.66	Set a sandstone 14x8x8 ins., 10 ins. in the ground for 1/4 sec. cor. marked 1/4 S. on N. face and raise a mound of stone 2 ft. base. 1 1/2 ft. high N. of cor. Pit impracticable.
	This cor stands on W. slope of high ridge
44.66	Top of ridge 700 ft above sec. cor. bears

Subdivision of T. 40 S., R 23 E. Continued.

Chains.	
	S.W. and N.E.
42.00	Begin descend over broken stony hills
76.75	Sandstone ledges 20 ft. high bears N.E. and S.W. precipitous descent over broken sandstone ledges and boulders
79.66	The cor. of secs. 5, 6, 7 and 8,
	Land mountainous.
	Soil stony: 4th rate.
	No timber.
	Mountainous land. 79.66 chs.
	Jan. 15: 1899 At this cor. We set off 21° 53' S. on the decl. arc: and at 12 hrs. 10 m. l. m. t., observe the sun on the meridian the resulting lat. is 37° 20' N.
	S. 0° 3' E. bet. secs. 7 and 8.
	Descending over broken sandstone cliffs and ledges
2.20	Peak of projecting cliffs 20 ft high bears E. and W.
13.10	Bottom of ravine 30 ft. deep course S.E. Ascend
21.80	Top of spur projects E. bears E. & W.
28.00	Top of knoll 100 ft high
39.00	Top of projecting point of cliffs 40 ft high. There is a pass between cliffs 20 ft wide of line
40.00	Point for 1/4 Sec. cor. falls on large sandstone boulder in place 6 x 5 x 5 ft. on which
	We cut a cross for 1/4 Sec. cor. marked 1/4 S. on W. side of cross and raise a mound of stone 2 ft. base 1 1/2 ft. high W. of cor. Pits impracticable.
46.00	Sandstone cliffs 30 ft high bears S.W. and N.E. precipitous ascent.
49.00	Top of spur bears E. and W. projects W. Descend,
	over broken stony hills.
80.00	Set a sandstone 16 x 8 x 8 ins., 11 ins.

Subdivision of R. 40 S., R. 23 E. Continued.

chains	
	in the ground for cor. of secs. 7. 8. 17 and 18, marked with 4 notches on S. and 5 notches on E. edges and raise a mound of stone 2 ft. base 1½ ft. high W. of cor. Pits impracticable.
	Land mountainous.
	Soil stony; 4th rate.
	No timber.
	Mountainous land. 80.00 chs.
	N. 89° 57' E. on a random line bet. secs. 8 and 17.
40.00	Set temp. ¼ sec. cor.
80.00	Intersect N. and S. line 6 chs. N. of the cor. of secs. 8. 9. 16. and 17.
	Thence We run
	West on a true line bet. secs. 8 and 17.
	Descending over rolling land
10.00	Bottom of ravine 30 ft. deep course N.E.
33.00	Bottom of ravine 30 ft. deep course E thence along ravine
37.00	Leave ravine. ascend over rolling land
40.00	Set a sandstone 14 x 8 x 6 ins., 10 ins. in the ground for ¼ sec. cor. marked ¼ S. on N. face and raise a mound of stone 2 ft. base 1½ ft. high N. of cor. Pits impracticable. thence over rolling land, ascending
60.00	Bottom of ravine 30 ft. deep, course N.E. heads about 6 chs S.W. ascend over stony land.
72.00	Top of ridge 400 ft above ¼ sec. cor. bears N. and S. Descend
80.00	The cor of secs. 7. 8. 17 and 18.
	Land mountainous.
	Soil stony; 4th rate
	No timber.
	Mountainous land. 80.00 chs.

Subdivision of T. 40 S., R. 23 E. Continued.

chains	
	West on a random line bet. secs. 7 and 18,
40.00	Set temp. 1/4 sec. cor.
79.73	Intersect the W. bdy. of the Tp. at the cor. of secs. 7, 12, 13 and 18 on Colorado Guide Meridian, previously described
	Thence We run
	East on a true line bet. secs. 7 and 18
	Ascending over broken sandstone and clay hills
26.00	Top of ridge 500 ft. above sec. cor. bears N.W. and S.E. descending over broken sandstone hills soil sandy and clay.
39.73	Set a sandstone 14 x 9 x 8 ins., 10 ins. in the ground for 1/4 sec. cor. marked 1/4 S. on N. face and raise a mound of stone 2 ft. base 1 1/2 ft. high N. of cor. Pits impracticable.
78.70	Bottom of ravine and wash 100 ft deep course S.E. begin steep ascent.
79.73	The cor. of secs. 7, 8, 17 and 18,
	Land mountainous.
	Soil stony, sand and clay, 1st 3rd and 4 rate,
	No timber,
	Mountainous land. 79.73 Pts.
	Jan. 15, 1899.

Jan. 16, 1899.

At 8 a.m. l. m. t. We set off 37° 19' N. on the lat. arc: 20° 50' S. on the decl. arc: and determine a true meridian with the solar at the cor. of secs. 7, 8, 17 and 18.

Thence We run

So° 3' E. bet. secs. 17 and 18,

Descending

1.00	Bottom of ravine and wash 100 ft deep course S.E. begin ascent over broken sandstone hills

Subdivision of T. 40 S., R. 23 E. Continued

Chains	
35.20	Top of spur bears E. and W. projects E. Descend.
40.00	Set a sandstone 16 x 10 x 6 ins., 11 ins. in the ground for 1/4 sec. cor. marked 1/4 S. on W. face, and raise a mound of stone 2 ft base 1 1/2 ft. high W. of cor. Pits impracticable.
62.00	Bottom of ravine and wash 100 ft below 1/4 sec. cor. course S.W. ascend.
76.00	Top of ridge bears N.E. and S.W. Descend
80.00	Set a sandstone, 15 x 9 x 7 ins., 10 ins. in the ground for cor of secs. 17, 18, 19 and 20. marked with 3 notches on S. and 5 notches on E. edges and raise a mound of stone 2 ft. base 1 1/2 ft high W. of cor. Pits impracticable. This cor stands on S.E. slope of ridge near top. Land mountainous. Soil stony; 4th rate. No timber Mountainous land. 80.00 chs.
	Back on a random line bet secs 17 and 20.
40.00	Set temp. 1/4 sec. cor.
80.04	Intersect N. and S. line at cor of secs. 16, 17, 20 and 21. Thence West Next on a true line bet secs. 17 and 20 ascending over gravelly land.
10.00	Top of ridge 300 ft. above sec. cor. bears N. and S. descending over broken sandstone ledges and bowlders
25.10	Bottom of ravine 300 ft deep course S. Ascend.
40.02	Top of spur. bears N. and S. projects S. Set a sandstone 24 x 12 x 4 ins., in a mou of stone for 1/4 sec. cor. marked 1/4 S. on

Chains	
	N. face and raise a mound of stone 2 ft. base 1½ ft. high N. of cor. Pits impracticable. Thence over rolling land.
54.00	Top of stony knoll, begin descend over broken land. Soil very stony
65.00	Begin ascend.
80.04	The cor. of secs. 17, 18, 19 and 20 This cor stands on south E slope of ridge Land mountainous. Soil stony; 4th rate. No timber Mountainous land. 80.04 chs.

	Mesh on a random line bet. secs. 18 and 19
40.00	Set temp. ¼ sec. cor.
79.80	Intersect the W. bdy. of the Tp. 11 chs N. of the cor. of secs 13, 18, 19 and 24. on the Colorado Guide Meridian previously described. Thence, we run N. 89° 05' E. on a true line bet. secs. 18 and 19. Ascending over rolling land soil sandy and gravelly
39.80	Set a Quartzite stone 20 x 12 x 6 ins., 15 ins. in the ground for ¼ sec. cor. marked ¼ S. on N face and raise a mound of stone 2 ft. base 1½ ft. high N. of cor. Pits impracticable Descending over broken sandstone boulders
40.80	Bottom of ravine and wash 150 ft below ¼ sec cor. ascending over rolling sand hills
76.80	Top of sandy ridge bears N.E. and S.W. descend
79.80	The cor. of secs. 17, 18, 19 and 20. Land mountainous.

Subdivision of T. 40 S., R 23 E. Contin.

Chains. Soil sandy and stony: 2nd and 4th rate
No timber.
Mountainous land. 79.80 chs
Jan 16 1899 At this cor. We sch off 20° 50' S. on the decl. arc: and at 12 hrs 10 m. l. m. t., observe the sun on the meridian the resulting lat. is 37° 18' N.

S. 0° 3' E. bet. secs. 19 and 20
Descending over rolling land. Soil sandy and gravelly.
40.00 Set a sandstone 15 x 10 x 7 ins., 10 ins. in the ground for 1/4 sec. cor. marked 1/4 S. on W. face, and raise a mound of stone 2 ft. base 1 1/2 ft. high W. of cor. Pits impracticable
60.00 Top of broken sandstone ledges north side of box canon 70 ft high bears N.E. and S.W. steep descent over broken sandstone ledges and boulders
64.00 Bottom of box canon and wash 100 ft deep course S.W.
68.00 Begin steep precipitous ascent on broken sandstone ledges and boulders bears N.E. and S.W.
72.00 Top of stony spur bears E. and W. projects W. about 3 chs. begin steep descent
80.00 Set a sandstone 18 x 10 x 6 ins., 12 ins. in the ground for cor. of secs. 19, 20, 29 and 30. marked with 2 notches on S. and 5 notches on E. edges, and raise a mound of stone 2 ft. base 1 1/2 ft. high W. of cor. Pits impracticable.
Land mountainous.
Soil sandy and stony: 2nd and 4th rate.
No timber
Mountainous land. 80.00 chs.

Subdivision of T. 40 S., R. 23 E. - Continued.

Chains.	
	East on a random line bet. secs. 20 and 29.
40.00	Set temp. 1/4 sec. cor.
80.02	Intersect N. and S. line at the cor. of secs 20, 21, 28 and 29
	Thence We run
	West on a true line bet. secs. 20 and 29,
	Descending over stony land,
2.00	Bottom of McCracken wash 10 ft deep 66 ft wide. course S.W. begin ascend over broken sandstone ledges and boulders
14.00	Top of precipitous and broken sandstone ledges 120 ft. above bottom of McCracken wash bears N. and S. Thence over rolling land soil sand, and gravelly
40.01	Set a sandstone 13 x 10 x 4 ins., 9 ins. in the ground for 1/4 sec. cor. marked 1/4 S. on N. face, and raise a mound of stone 2 ft. base 1 1/2 ft. high N. of cor. Pits impracticable.
75.35	Top of broken sandstone ledges 150 ft. high and edge of mesa bears N. and S. begin steep precipitous descent
78.38	Foot of precipitous descent.
80.02	The cor. of secs. 19, 20, 29 and 30,
	Land mountainous.
	Soil sandy and stony; 2nd and 4th rate,
	No timber.
	Mountainous land. 80.02 chs.

	S. 89° 55' W. on a random line bet. secs. 19 and 30
40.00	Set temp. 1/4 sec. cor.
79.87	Intersect the W. bdy of the Tp. 12 ENS S. of the cor of secs 19, 24, 25 and 30 on the Colorado Guide meridian previously described
	Thence We run
	East on a true line bet. secs. 19 and 30.

Chains	Ascending over smooth sandstone floor
2.00	Bare sandstone floor. thence over rolling land soil sandy and gravelly.
30.35	Bottom of ravine 30 ft deep course S.W. ascend
35.35	South end of stony spur 50 ft high. Descend along south side of broken sandstone ledges and cliffs and stony.
39.87	Set a sandstone 16 x 10 x 7 ins., 11 ins. in the ground for 1/4 Sec. cor. marked 1/4 S. on N face and raise a mound of stone 2 ft. base 1 1/2 ft. high N. of cor. Pits impracticable.
47.00	Begin ascend along south side of ledges and cliffs.
60.35	Foot of precipitous sandstone cliffs and ledges
62.85	Top of precipitous ascent and spur 200 ft above 1/4 Sec cor. bears N. and S. projects about 5 chs. S. begin steep precipitous descent over broken sandstone cliffs and boulders.
73.85	Bottom of wash 10 ft deep 20 ft wide in bottom of canon course S. ascend over stony land.
79.87	The cor. of secs. 19. 20. 29 and 30. Land mountainous. Soil sandy and stony: 2nd and 4th rate: No timber. Mountainous land. 79.87 chs.

So. 3/4 E. bet. secs. 29 and 30.
Ascending over broken sandstone ledges and boulders

11.00	Top of spur 200 ft above sec. cor. bears E. and W. projects W. descend
17.00	Begin precipitous descent over broken sandstone cliffs and boulders into San Juan river valley.
20.00	Foot of descent enter San Juan river valley. Thence over level sandy land

Subdivision of T. 40 S., R. 23 E. Concluded.

Chains	
24.00	Wagon road bet. Bluff City and Colorado bears E. and W.
40.00	Set a sandstone 14 x 9 x 9 ins., 10 ins. in the ground for 1/4 sec. cor. marked 1/4 S. on W. face and raise a mound of stone 2 ft. base 1 1/2 ft. high. Pits impracticable.
45.00	Old wagon road bears E. and W.
47.85	Old wagon road bears E. and W.
55.00	Right bank San Juan river 4 ft high bears E. and W.
20/35	Set a sandstone 16 x 10 x 5 ins., 11 ins. in the ground for meander cor. of frac'l secs. 29 and 30 marked M.C. on S. face with 5 grooves on E face and raise a mound of stone 2 ft. base 1 1/2 ft. high N. of cor. Pits impracticable
	Land mountainous and river bottom.
	Soil sandy and stony: 1st 4th rates
	No timber.
	Mountainous land. 20.00 chs.
	Jan 16, 1899.

Meanders T. 40 S., R. 23 E.

Meanders of the right bank of San Juan river up stream.
We commence at the meander cor of frac'l secs 25 and 30 on the W. bdy of the Tp.
Jan 17, 1899. At this cor We set off 37°16' N. on the lat. arc: 20°38' S on the decl arc: and at 8 a.m. l.m.t., determine a true meridian with the solar.
Thence We run with meanders in sec. 30.
Through dense undergrowth, [illegible]
Cotton wood
S. 77° E. 9.00 chs. Banks 4 ft high.
N. [illegible] E. [illegible] chs.
N. 32° E. [illegible] chs.
N. [illegible] E. [illegible] chs.
N. [illegible] E. 3.50 chs.
N. [illegible] E. 5.00 chs.
N. [illegible] E. 3.00 chs.

Meanders of T 40 S., R 23 E. Continued

Meanders of San Juan river right bank up stream.

N. 47°15' W. 7.00 chs.
N. 56° E. 22.00 chs.
S. 60° E. 16.00 chs.
S. 66°45' E. 11.00 chs.
S. 68°45' E. 8.00 chs.
N. 83°45' E. 5.00 chs.
N. 67°30' E. 7.00 chs.
S. 40°45' E. 13.20 chs. Bank 5 ft high.
To meander cor.
bet of frac. secs. 29 and 30.

Land, level,
Soil, sandy loam 1st rate,
Timber Cottonwood,
Dense undergrowth 131-20 chs.-

Thence in sec 29,
Through heavy cottonwood timber
S. 50° E. 20.00 chs. Bank 5 ft high
S. 51° E. 10.80 chs.
N. 89°45' E. 8.60 chs.
N. 81°35' E. 21.00 chs.
N. 63°15' E. 9.20 chs.
N 68°45' E. 3.80 chs.
N. 55°30' E. 18.40 chs. Bank 4 ft high
To the meander cor of frac secs 28 and 29,

Land level
Soil sandy loam, 1st rate,
Timber cottonwood heavy 91.80 chs.-

Thence in sec 28.
Jan 14, 1899.
At the meander cor of frac secs 28 and 29. We set off 20°38' S. on the dial arc; and at 12 hrs 10 m.

Meanders of T. 40 S., R. 23 E.

Meanders of the right bank of San Juan River up stream.

l. m. t., observe the sun on the meridian: the resulting lat is 37° 16' N.
Through heavy cottonwood timber

S. 83° 45' E.	13.00 chs.	Bank 6 ft high
S. 80° 15' E.	6.30 chs.	
S. 75° 30' E.	3.30 chs.	
N. 80° 15' E.	10.80 chs.	
N. 84° 30' E.	18.00 chs.	
S. 84° 15' E.	9.40 chs.	
		At end of course leave timber
N. 79° 45' E.	6.70 chs.	
S. 82.45' E.	5.00 chs.	
S. 76° E.	8.50 chs.	Bank 8 ft high
		To meander cor. of fract secs. 27 and 28.

91.00
60.80
20.20

Land level.
Soil sandy loam. 1st rate
Timber cottonwood.
~~Heavy cottonwood timber~~ 60.80 chs.
Jan. 17, 1899.

Jan. 18, 1899.
At 8 a.m. l. m. t. We set off 37° 16' N. on the lat arc: 20° 37' S on the decl arc: and determine a true meridian with the solar at the meander cor of fract secs. 27 and 28.
Thence we run with meanders in sec. 27.

S. 59° 30' E.	5.20 chs.	Bank 10 ft. high
S. 59° 15' E.	10.20 chs.	
		At 1 ch. mouth of wash course S.W.
S. 66° E.	7.00 chs	

32.00

Meanders T. 40 S., R. 23 E. Continued

Meanders of the right bank of San Juan River up stream

S. 33° 30' E. 12.90 chs.
S. 69° 45' E. 2.40 chs.

To meander cor. of
37.7° fracl. secs. 27 and 34

Land level.
Soil sandy and clay.
No timber.

Thence in sec. 34.
S. 52° 15' E. 6.00 chs. Bank 7 ft. high
S. 11° E. 7.30 chs. Bank 5 ft high
S. 29° 30' E. 2.30 chs.

at end of course
enter undergrowth

S. 11° E. 11.80 chs.
S. 57° 30' E. 10.50 chs.
N. 68° 30' E. 2.50 chs.
N. 69° E. 6.10 chs.
S. 85° 30' E. 10.40 chs. Bank 6 ft. high
At 2 chs enter timber
N. 76° 45' E. 9.80 chs.
S. 73° 45' E. 4.90 chs.

To meander cor of
31.1° fracl. secs. 34 and 35

Land level.
Soil sandy
Timber Cottonwood.

Thence in sec. 35.
Through dense undergrowth and scattering timber
S. 73° 45' E. 0.50 chs Bank 4 ft high
S. 35° 30' E. 16.90 chs.
S. 59° 45' E. 5.60 chs.
S. 82° W. 7.80 chs.

Meanders T. 40 S., R. 23 E. Continued

Meanders of the right bank of San Juan River up stream.

N. 81° E. 11.20 chs. Bank 5 ft. high.
N. 57° 15' E. 6.50 chs.
S. 87° 15' E 13.50 chs. Bank sandstone and gravel bluffs 60 ft high
at 6 chs leave timber
at 6.50 chs mouth of wash .50 lks wide from N.
N. 76° E. 8.30 chs. Bank 5 ft high
S. 46° 15' E. 26.50 chs. Bank 5 ft high
To meander cor. of frail. secs. 35 and 36.

Land level and rolling.
Soil sandy and stony.
Timber scattering cottonwood.
~~Timber undergrowth 54.50 chs~~
Jan 18, 1899.

At this meander cor. WE set off 20° 26' S on the decl. arc: and at 12 hrs 10 m. l. m. t., observe the sun on the meridian the resulting lat is 37° 16' N.

Thence in sec. 36
S. 78° E. 12.10 chs. Bank 4 ft high
at 0.25 chs leave bluffs, at end of course enter undergrowth and cottonwood timber
N. 83° 15' E. 7.70 chs.
N. 45° 45' E. 7.00 chs.
N. 2° 15' E. 5.50 chs.
N. 4° 30' W. 9.80 chs.
N. 7° E. 8.00 chs.
N. 25° 30' E. 3.70 chs.
N. 44° E. 5.50 chs.

59.30

Meanders T. 40 S., R. 23 E. Concluded

Meanders of the right bank of San Juan River up stream.

59.30

N. 78° 45' E.	7.50 chs.
N. 58° 15' E.	8.50 chs.
N. 18° 30' E.	3.70 chs.
N. 60° E.	12.80 chs.
S. 71° 45' E.	6.50 chs.
N. 73° 15' E.	3.90 chs.
N. 71° 45' E.	13.60 chs.

Bank 4 ft. high at 4 chs. leave timber to meander cor. of fract. secs. 31 and 36 E. bdy. of the Tp.

115.90

Land level.
Soil sandy loam 1st rate
Timber cottonwood

Jan 18 1899

General description

This township is generally rough and mountainous, while in some parts it is high level or rolling mesa, in the north east portion the mesa land is some 700 ft. above the surrounding country. The soil on the mesa land is usually of a sandy character and can be classed as 1st rate as it produces abundant bunch or buffalo grass. In many places the white sage grows prolific and is considered fine range land. Along the San Juan river bottoms is first class agricultural lands and will produce good crops without irrigation, while

The waters of the San Juan river is more than sufficient to supply all needed water for that purpose and could be taken out with little expense. The soil along the San Juan river is a rich sandy loam. The cottonwood is the only timber and grows dense and heavy in many places.
There are no settlers in this township.
There are no indications of mineral in this township. We found no trace of D.E. #1254. Levy Watts.

Hubert D Page,
James M Lendy,
U.S. Deputy Surveyors.

Latitude, departure, and closing errors

	True bearing	Distance	Latitudes N.	Latitudes S.	Departures E.	Departures W.
N bdy Thos. R 23 E.	East	479.45			479.45	
E bdy Thos R 23 E.	South	400.00		400.00		
S bdy bet secs 25 and 36	West	79.98				79.98
S bdy bet secs 26 and 35	S 89° 59' W	80.10		.03		80.10
W bdy bet secs 26 and 27	N 0° 1' W	80.00	80.00			.03
S bdy bet secs 22 and 27	N 89° 59' W	80.04	.03			80.04
S bdy bet secs 21 and 28	S 89° 58' W	80.00		.05		80.00
S bdy bet secs 20, 19 and 30	West	159.89				159.89
W bdy Thos R 23 E	North	320.00	320.00			
Convergency					.55	
Totals			400.03	400.08	480.00	480.04
				400.03		480.00
Error in Lat. and dep.				.05		.04

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FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by ..... United States Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of .....

showing the respective capacities in which they acted:

....., *Chainman.*

....., *Chainman.*

....., *Moundman.*

....., *Moundman.*

....., *Axman.*

....., *Axman.*

....., *Flagman.*

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted ....., United States Deputy Surveyor, in surveying all those parts or portions of the ..... of the ..... meridian, ... of ....., which 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 .....

....., *Chainman.*

....., *Chainman.*

....., *Moundman.*

....., *Moundman.*

....., *Axman.*

....., *Axman.*

....., *Flagman.*

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

SEAL

6—151

426-4 Bl

FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, ..., United States Deputy Surv. solemnly swear that, in pursuance of a contract received frc United States Surveyor General for ....., bearing dat ..... day of ....., 189 , I have well, faithfully, and truly, in proper person, and in strict conformity with the instructions furnished by the United States S General for ....., the Manual of Surveying Instructions, and the law United States, surveyed all those parts or portions of

.....

.....

.....

..... of the

..... meridian, in the ..... of ....., which are represent foregoing field notes as having been surveyed by me, and under my direction; and I do further s swear that all the corners of said survey have been established and perpetuated in strict accorda the Manual of Surveying Instructions, and the special written instructions of the United States S General for ..... and in the specific manner described in the field notes, a the foregoing are the original field notes of such survey; and should any fraud be detected, I wi the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

.....

United States Deputy S

Subscribed by said ....., and sworn to before me this ..... day of ....., 189

SEAL

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City Utah February 17th

The foregoing field notes of the survey of the Subdivisions & Meanders of Township 40 South Range 23 East of the Salt Lake Base & Meridian, Utah

executed by Hubert D Page & James M Lentz under ~~his~~ their contract No. 215, dated October 29th, 1897, hav critically examined, and the necessary corrections and explanations made, the said field notes, surveys they describe, are hereby approved.

Jacob B T

United States Surveyor

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

.....

United States Surveyor

6-151

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4—679.

BOOK A-252

FIELD NOTES

OF THE SURVEY OF THE

Subdivision and
Meander lines
of
Township No. 40 South.
Range No. 24 East.

Of the Salt Lake Base & Meridian,
In the state of Utah

AS SURVEYED BY

Hubert D Page and James M Kentz, United States Deputy Surveyors

Under ~~his~~ their Contract No. 215, dated Oct 29th, 1897

Survey commenced January 17th, 1899

Survey completed February 6th, 1899

6—151

NAMES AND DUTIES OF ASSISTANTS.

Peter Meigs, chainman
Peter Allen "
Harry Erwin "
Walter O. McCuen "
John R. Lumpkin moundman
George W. Dalton "
John R. Lumpkin aiman
George W. Dalton. "

See preliminary affidavits see book D.

6—151

BOOK A-252

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.....

6—121

PRELIMINARY OATHS OF ASSISTANTS.

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

..... , *Chainma*

..... , *Chainma*

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 establishm
of corners, according to the instructions given us, to the best of our skill and ability, in the survey
.....

..... , *Moundma*

..... , *Moundma*

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 corne
and other duties, according to instructions given us, to the best of our skill and ability, in the survey
.....

..... , *Axma*

..... , *Axma*

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

SEAL

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

..... , *Flagma*

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

SEAL

Subdivision of T. 40 S., R. 24 E.

Jan. 17. 1899.

Knowing from recent observation on Polaris that the instrument is in adjustment We proceed as follows:

Jan. 17th 1899.

At 8. a. m., l. m. t., We set off 37°16' N. on lat. arc; 20° 39' S. on decl. arc; and determine a true meridian with the polar at the cor. of secs. 25, 30, 31 and 36 on the West boundary of Tp.

Set by us.

The township line cannot be extended to lat. of the South boundary, on account of Sanguan River.

Therefore We run East on auxiliary base line bet. secs. 30 and 31.

Over rolling land.

10.00 Enter bottom land.

bears N. E. and S. W.

39.91 Allowing for Convergency of Meridian. Set a sandstone 14 x 8 x 7 ins. 10 ins. in the ground, for 1/4 sec. cor. Marked 1/4 S. on N. face, raised a mound of stone 2 ft. base, 1½ ft. high N. of cor.

Pits impracticable.

59.00 Leave bottom land, bears S. E. and N. W. over rolling land.

79.91 Set a sand stone 18 x 10 x 6 ins. 12 ins. in the ground for cor. of secs. 29, 30, 31 and 32. Marked with 5 notches on the E. and 1 notch on the S. edges. raised a mound of stone 2 ft. base 1½ ft. high. W. of cor.

Subdivision of T40 S. R 24 E continued

Chains	
	Pits impracticable.
	Land, rolling.
	Soil, sandy loam, 1st rate
	No timber.
	East bet. secs. 29 and 32.
	Over rolling land, sandy soil.
4.50	West bank of Montezuma wash 15 ft high, course S.
13.50	East bank of same wash 10 ft. high. ascend.
15.00	Spur to Knole, bears S.
20.00	Ridge bears N. and S.
34.00	Drain, course S.
35.00	Begin steep ascent over broken sand stone ledges. bears N. and S.
40.00	Set a sand stone 16 x 12 x 12 ins. 11 ins. in the ground for 1/4 sec. cor. marked 1/4 S. on N. face. raised a mound of stone 2 ft. base, 1 1/2 ft. high N. of cor.
	Pits impracticable.
72.50	Top of ridge bears N. and S. descend.
80.00	Near Bottom of ravine, course S. Set a sand stone 18 x 10 x 4 ins. 12 ins. in the ground for cor. of secs. 28, 29, 32 and 33. marked with 4 notches on the E. and 1 notch on the S. edges, raised a mound of stone 2 ft. base, 1 1/2 ft. high N. of cor.
	Pits impracticable.
	Land, Mountainous.
	Soil, sandy and stony 1st and 3rd rate.
	No timber.
	Mountainous land 45 chs
	Jan 17th 1899. at this cor. Ype set off 20°38' S. on decl. arc and at 12 hrs

45.00
35.00

Subdivision of T. 40 S., R. 24 E., continued.

Chains.	
	10 m. observe the sun on the meridian, the resulting lat is 37°16' N.
	Thence I pe run S 0°03' E. bet. secs. 32 and 33.
1.00	Descend along ravine over broken sand stone ledges
5.00	Leave ravine course S. W. ascend;
20.00	Spur to high knoll projects W. descend.
40.00	Set a sand stone 16 x 10 x 6 ins 11 ins. in the ground for 1/4 sec. cor. marked 1/4 S. on W. face, raised a mound of stone 2 ft. base, 1½ ft. high W. of cor. Pits impracticable
45.00	Leave ledges. Over broken gravelly hills.
67.00	Ravine 150 ft. deep course S. W. ascend.
69.60	Wagon road Bluffcity to Colorado. bears E. and W. on top of ridge bears E. and W.
71.00	Begin steep descent.
79.00	Bottom of ravine 200 ft. below ridge course S. W.
80.00	Set a sand stone 24 x 12 x 4 ins. in a mound of stone for Standard cor. to secs. 32 and 33 on the 8th Standard Parallel South Marked S.C. on N. with 4 grooves on the E. and 2 grooves on the W. faces raised a mound of stone 2 ft base, 1½ ft. high N. of cor. Pits impracticable. From this cor the old standard cor. bears N. 88° E. 2.35 chs dist.

Subdivision of T.40 S., R.24 E. continued

which is a sand-stone 18x10x3 ins. laying loose on the ground marked as described by the Surveyor General.
We obliterate all trace of old Cor.
Land, Mountainous,
Soil, stony 3rd and 4th rate.
No timber
Mountainous land, 80.00 chs.
Jan 17th 1899.

Volume
#
R0252

Subdivision of T.40 S., R. 24 E.

Survey commenced Jan 27, 1899 and executed with instruments described in Book D.

Then to test the solar apparatus by comparing their indications resulting from solar observations made during a.m. and p.m. hours with a true meridian determined by observations on Polaris We proceed as follows:

At the Standard Cor. of Secs. 35 and 36 on the 8th Standard Parallel South. T.40 S. R.24 E. Latitude 37°16' N. Longitude 109°19' W.; We set off 37°16' N. on the lat. arc: 18°15' S. on the decl. arc: and at 4 p.m. l.m.t., determine with the solar, with one of the instruments a true meridian and mark a point thereof on a stone firmly set in the ground 5 chs. N. of the cor.

With the second instrument placed over the same initial point, We set off 37°16' N on the lat. arc: 18°15' S. on the decl. arc: and at 4 hr 10 m p.m. l.m.t., determine with the solar and mark a point thereof on the stone already set 5 chs. N. of our station. This point falls identical with that of the 1st instrument.

At 10 hr 48 m p.m. l.m.t., We observe Polaris at western elongation with the 1st instrument in accordance with Manual of Instructions and mark a point in the line thus determined on a plug driven in the ground 5 chs. N. of our Station.

Jan. 27, 1899.

Jan. 28, 1899:

At 7 a.m. l.m.t., We lay off the azimuth of Polaris 1°33' to the east. The true meridian thus determined falls on the marks set by p.m. solar observations of both instruments Jan. 27.

At 8 a.m. l.m.t., We set off 37°16' N. on

Chains.	the lat. arc: 18°04' S. on the decl. arc: of the 1st instrument and determine a true meridian with the solar which falls on the mark set on the true meridian established by the Polaris observations. At 8hr 10m a.m. l.m.t. WE set off 37°16' N. on the lat. arc: 18°04' S. on the decl arc: of the second instrument, and determine a true meridian with the solar which falls on the mark set on the true meridian established by Polaris observations. The solar apparatus of each instrument by p.m. and a.m. observations defines position for true meridians. Therefore WE conclude that the adjustments are satisfactory. The magnetic bearing of the true meridian at 8 a.m. is N. 14°05' W.: the angle thus determined reduced by the table page 106 of the Mandal gives the mean mag. decl. 14°03' E.
	From the standard cor. of secs. 35 and 36 already described WE run N 0°01' W. bet. secs. 35 and 36. Ascending along the W. slope of ridge
1.00	Ravine [illegible] course N.W. ascend.
7.00	Spur projects W.
40.00	Set a sandstone 16x10x5 ins. 11 ins. in the ground for 1/4 sec. cor. marked 1/4 S 35 on W. face and raise a mound of stone 2 ft base 1½ ft high W. of cor. Pits impracticable
64.00	Sand ridge bears E. and W.
66.50	Ravine 100 ft deep course W.
68.25	Sandstone cliffs 60 ft high bears E. and W.
70.00	Top of ridge bears E. and W.
76.00	Begin steep descent.
80.00	Set a sandstone 14x12x6 ins. 10 ins. in the ground for cor. of secs. 25. 26 35 and 36. marked with 1 notch

Subdivision of T. 44 S., R. 24 E. Continued.

Chains.	on the S. and E. edges raised a mound of stone 2 ft. base 1½ ft. high W. of cor. Pits impracticable Land mountainous. Soil stony. 4th rate. No timber. Mountainous land, 80.00 chs.
	Each on a random line bet. secs. 25 and 36
40.00	Set temp. ¼ sec. cor.
80.02	Intersect E. bdy. of Tp. 3 chs. S. of cor. of secs. 25. 30. 31 and 36, already described Thence We run S. 89° 59' W. on a true line bet. secs. 25 and 36. Descending along S. side of ridge over broken sandstone ledges and boulders.
18.00	Bottom of E branch of Allen wash, 150 feet deep. Course S. ascend,
30.00	Begin steep ascent.
32.50	Top of sandstone cliffs 125 ft. high bears N. W. and S. E.
34.00	Top of steep ascent.
40.00	Set a sandstone 16 x 10 x 4 ins., 11 ins. in the ground for ¼ sec cor. marked ¼ S. 25 on N face. raised a mound of stone 2 ft. base 1½ ft. high N. of cor. Pits impracticable
44.00	Top of ridge bears N. and S. Descend,
63.00	Enter head of ravine course N. descend along W. side
80.02	The cor. of secs 25. 26. 35 and 36. Land mountainous. Soil stony and sandy. 2nd and 4th rate. No timber. Mountainous land 80.02 chs Jan 28 1899 At this cor We set off 18° 04' S. on the decl. arc: and at 12 hrs 05 m l. m. t., observe the sun on the meridian The resulting lat. is 37° 16' N.

Subdivision of T.40 S., R.24 E. Continued.

Chains	
	N 0° 01' W. bet. secs. 25 and 26.
	Ascending over broken sandstone
	ledges and boulders.
6.00	Perpendicular sandstone cliffs 25 ft.
	high bear N.W. and S.E.
12.00	Sandstone ledge bears E. and W.
29.30	Top of steep descent and South side
	of canon 200 ft. deep. course W.
37.90	N. side of same canon.
40.00	Set a sandstone 15 x 12 x 5 ins. 10 ins.
	in the ground for 1/4 sec cor marked
	1/4 S. on W. face. raised a mound
	of stone 2 ft. base 1 1/2 ft. high W. of cor
	Pits impracticable
54.00	Enter sandy hills.
70.00	Top of sandridge bears S.W. and N.E.
77.00	Wash course S. 60° W.
80.00	Set a sandstone 15 x 12 x 6 ins. 10 ins.
	in the ground. for cor. of secs. 23. 24.
	25. and 26. marked with one notch on
	E and two notches on S edges,
	raise a mound of stone 2 ft. base
	1 1/2 ft. high W. of cor.
	Pits impracticable
	Land mountainous.
	Soil stony and sandy: 2nd and 4th rate.
	No timber.
	Mountainous land. 80.00 chs.
	Jan 28. 1899.

Jan 29: 1899. at 8 a.m. l.m.t., We set off 37°17' N. on lat arc: 17°48' S. on decl arc: and determine a true meridian with the solar. at the cor. of secs. 23. 24. 25 and 26.

Thence We run

N. 89°59' E. on a random line bet. secs 24 and 25.

40.00	Set temp 1/4 sec cor.
80.00	Intersect the E. bdy. of Tp. at the cor. of

Subdivision T. 40 S., R. 24 E., - Continued.

Chains.	
	Secs. 19, 24, 25 and 30.
	previously described
	Thence We run.
	S. 89°59' W. on a true line bet. secs. 24 and 25
	over Nearly level land. dense arlimesa
0.10	Dry wash. 15 ft wide 4 ft deep
	Course S. W.
6.00	Leave bottom, begin steep ascent
	over broken sandstone ledges and
	boulders.
30.00	Leave ledges and boulders.
38.00	Top of ridge, 350 ft. above cor.
	bears N. and S. descend.
40.00	Set a sand stone 16 x 14 x 3 ins. 11 ins.
	in the ground, for 1/4 sec. cor. marked
	1/4 S. on N. face, raised a mound
	of stone 2 ft. base 1½ ft high N. of cor.
	Pits impracticable.
47.00	Begin steep descent over broken
	Sandstone ledges & boulders.
52.00	Ravine, 150 ft deep course S. W.
74.00	Wash. course S. W.
80.00	The cor. of secs. 23, 24, 25 and 26.
	Land, Mountainous.
	Soil. sandy & stony 1st and 4th rate.
	No timber
	Mountainous land, 60.00 chs.
	N. 0°01' W., bet. secs. 23 and 24
	Ascending over broken sandstone
	ledges & boulders.
40.00	Set a sand stone 16 x 12 x 4 ins. 11
	ins. in the ground for 1/4 sec cor.
	marked 1/4 S. on N. face, raised a
	mound of stone 2 ft. base, 1½ ft high.
	N. of cor. Pits impracticable
47.00	leave broken sand stone boulders
	enter rolling hills.

Subdivision of T. 40 S., R. 24 E. - Continued

Chains	
80.00	Set a sand stone 16 x 10 x 5 ins. 11 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. edge, raised a mound of stone 2 ft. base, 1½ ft. high W. of cor. Pits impracticable Land mountainous. Soil stony and sandy 1st and 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. 1/4 sec. cor.
80.00	Intersect the E. bdy. of Tp. 2 lks. N. of the cor. of secs. 13, 18, 19 and 24. previously described Thence W. run W. on true line. bet. secs. 13 and 24. descending.
4.00	Bottom of Ravine 75 ft. deep. course S. ascending.
26.00	Top of ridge, bears N. & S.
40.00	Set a sand stone 12 x 12 x 6 ins. 9 ins in the ground. for 1/4 sec. cor. marked 1/4 S. on N. face; Raised a mound of stone 2 ft. base, 1½ ft high. N. of cor. Pits impracticable.
43.50	Begin Ascending.
63.00	Top of ridge, bears N.E. and S.W.
65.00	Bottom of ravine 75 ft. deep. course N.E.
80.00	The cor. of secs. 13, 14, 23 and 24. Land mountainous Soil, stony & sandy 2nd rate. No timber Mountainous land 80.00 chs

Subdivision of T. 40 S., R. 24 E., Continued.

Chains	
	N. 0°01' W. bet. secs. 13 and 14. descending over rolling land.
4.00	Wagon road. Bluff City to Colorado. bears E. and W.
40.00	set sand stone 14 x 8 x 4 ins. 10 ins. in the ground, for 1/4 sec. cor. marked 1/4 S. on W. face. raised a mound of stone 2 ft. base, 1 1/2 ft. high. W. of cor. Pits impracticable.
40.50	Bottom of ravine. 75 ft. deep. Course N. W.
55.00	Bottom of ravine 100 ft deep. course N. E.
80.00	Set a sand stone 18 x 10 x 4 ins 12 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. raised a mound of stone 2 ft. base, 1 1/2 ft. high. W. of cor. Pits impracticable. Land, Mountainous. Soil, stony & sandy 2nd rate. No timber. Mountainous. 80.00 chs.
	E. on a random line bet. secs. 12 and 13.
40.00	Set temp 1/4 sec. cor.
80.00	Intersect E. bdy. of Tp. at the cor. of secs. 7, 12, 13 and 14. previously described. Thence W. run. West on a true line bet. secs. 12 and 13 Ascending over rolling hills.
13.00	Top of ridge, bears N. and S.
32.50	Spur, projects N.
40.00	Set a sand stone 15 x 8 x 6 ins. 10 ins. in the ground for 1/4 sec. cor. marked 1/4 S. on N. face, raised a

Chains	
	Mound of stone 2 ft. base, 1½ ft. high N. of Cor.
	Pits impracticable.
54.50	Bottom of ravine 75 ft. deep, course N. enters Broken Sandstone ledges.
66.50	Bottom of ravine 100 ft. deep, course N.
80.00	The cor. of secs. 11, 12, 13 and 14.
	Land, Mountainous
	Soil, stony, 3rd rate.
	No timber
	Mountainous land 80.00 chs.
	Cloud obscured the sun; could take no observation for lat. this day.
	Jan. 29th 1899.
	Jan. 30 1899.
	At 8 a.m., l.m.t., We set off 37° 19' N. on lat. arc; 17° 31' S. on decl. arc; and determine a true meridian with the polar. at the cor. of secs. 11, 12, 13, and 14.
	Thence We run.
	N. 0° 01' W. bet secs. 11 and 12.
	descending over rolling land.
19.00	Head of ravine, course E.
23.50	Top of ridge, bears E. and W.
	Begin descending over broken sandstone ledges.
38.00	Bottom of ravine, N. W.
	descend along West slope.
40.00	250 ft. below Sec. cor. set a sandstone 16 x 10 x 4 ins. 11 ins. in the ground, for 1/4 sec. cor. marked 1/4 S. on W. face, raised a mound of stone 2 ft. base, 1½ ft. high. W. of cor.
	Pits impracticable.
46.50	Dry run, course N. W. in bottom of ravine.

Subdivision of T. 40 S., R. 24 E., Continued.

Chains.	
49.00	Leave ravine, begin steep ascent.
73.00	Bottom of ravine, 160 ft. deep. course N.W.
80.00	set a sand stone 24 x 11 x 6 ins. in a mound of stone. for cor. of secs. 1, 2, 11, and 12. marked with 1 notch on the E. and 5 notches on the S. edges. raised a mound of stone 2 ft. base, 1½ ft. high N. of cor.
	Pits impracticable.
	Land mountainous.
	Soil stony 3rd rate
	No timber
	Mountainous land, 80.00 chs.
	East on a random line bet. secs. 1 and 12
40.00	set temp. 1/4 sec. cor.
80.02	Intersect the E. bdy of Tp. at the cor. of secs. 1, 6, 7 and 12.
	Set by us.
	Thence We run
	W. on a true line bet. secs. 1 and 12.
	descending over broken hills.
16.00	Bottom of ravine 60 ft. deep. course N.W.
29.00	Bottom of ravine 150 ft. deep. course S.W.
39.00	Spur. projects S.
40.01	500 ft. below Sec. Cor. set a sand stone 18 x 8 x 4 ins. in a mound of stone. for 1/4 sec. cor. marked 1/4 S on N. face, raised a mound of stone 2 ft. base, 1½ ft. high. N. of cor.
	Pits impracticable.
59.00	Bottom of ravine 50 ft. deep.
	Course S.W.
80.02	The cor. of secs. 1, 2, 11 and 12.
	Land, mountainous
	Soil, clay and sandy. 3rd or 4th rate.

Subdivision of T. 40 S., R. 24 E.—Continue

Chains	
	No timber.
	Mountainous land 80.02 chs.
	Jan 30 1899.; at this cor. we set off 17° 31' S. on decl. arc; and at 12h. 10m. l. m. t., observe the sun on the meridian; the resulting lat. is 37° 20' N
	N. 0° 01' W. on a random line bet. secs. 1 and 2.
40.00	Set temp 1/4 sec. cor.,
80.10	Intersect N. bdy. of Tp. at the cor. of secs. 1, 2, 35 and 36.
	Set by ties.
	Thence we run
	S. 0° 01' E. on a true line bet. secs. 1 and 2. descending along the W. side of high ridge, through broken sandstone ledges and boulders.
40.10	Set a sandstone 12 x 12 x 4 ins. 9 ins. in the ground, for 1/4 sec. cor. marked 1/4 S. on W. face, raised a mound of stone 2 ft. base, 1 1/2 ft. high W. of cor.
	Pits impracticable.
46.00	Begin gradual ascent.
73.00	Top of Clay knoll 250 ft. high. descend.
80.10	The cor. of secs. 1, 2, 11, and 12.
	Mountainous land,
	Soil stony clay & sandy 4th rate.
	No timber
	Mountainous land, 80.10 chs.
	Jan. 30 1899.
	Jan. 28 1899.
	At 9 a. m., l. m. t., we set off 37° 16' N on decl. arc; 18° 05' S on decl. arc;

Subdivision of T. 40 S., R. 24 E., continued.

chains.	
	and determine a true meridian with the solar at the standard cor. of secs. 34 and 35 on the 8th standard parallel South. on the S. bdy. of T. 40 S., R. 24 E.
	Set by ces.
	Thence We run
	N. 0°01' W. bet. secs. 34 and 35.
	Ascending over broken sand stone ledges and boulders.
13.00	Top of steep ascent over rolling and broken sand hills.
20.50	Old wagon road. N. W. and S. E.
40.00	Set sand stone 14×8×6 ins. 10 ins. in the ground, for 1/4 sec. cor. marked 1/4 S. on W. face, raised a mound of stone 2 ft. base, 1 1/2 ft. high. W. of cor.
	Pits impracticable.
	Bottom of Drain 50 ft deep.
	Course E.
60.00	Top of rocky ridge, bears E. and W.
80.00	on top of stony point marked cross on solid sand stone floor for cor. of secs. 26, 27, 34 and 35. with 1 groove on the S. and 2 grooves on the E. sides. raised a mound of stone 2 ft. base, 2 ft. high W. of cor.
	Pits impracticable.
	Land, mountainous
	Soil stony. 4th rate
	No timber
	Mountainous land 80.00 chs.
	East on a random line bet. secs. 26 and 35.
40.00	Set temp. 1/4 sec. cor.
80.06	Intersect N. and S. line 5 lks. N. of the cor. of secs. 25, 26, 35 and 36.

Subdivision of T. 40 S., R. 24 E. - Continued

Chains	
	Thence W. E. run
	N. 89°58' W., on a true line bet. secs. 26 and 35
	descending over broken sandstone
	ledges and boulders. rolling land,
6.00	begin steep descent.
11.00	Bottom of canon 250 ft deep. course
	S. (West fork of Allen Canon.)
26.00	West side of canon. ascending.
40.03	Set a sandstone 18 x 8 x 6 ins. in a
	mound of rock. for 1/4 sec. cor. marked
	1/4 S. on N. face. raised a mound
	of stone 2 ft. base, 1 1/2 ft. high N. of Cor.
	Pits impracticable.
	descending
65.00	Bottom of canon 150 ft deep ~~course~~
	S. ascend
80.06	The cor. of secs. 26, 27, 34 and 35.
	Land, ~~mountainous~~
	Soil stony. 4th rate.
	No timber.
	Mountainous land, 80.06 chs.
	Jan. 28 1899.
	At this cor. We set off. 18° 04' S
	on decl. arc; and at 12 hrs 10 m l. m. t.
	observe the sun on the meridian, the
	resulting lat. is 37° 16 N

	N. 0°01' W., bet. secs. 26 and 27.
	Over broken sandstone ledges and boulders
	rolling land.
5.00	Bottom of ravine. 75 ft deep. Course
	S. 75° W. ascending.
13.00	Top of ridge bears N. E. and S. W. descend.
40.00	Set a sandstone 16 x 12 x 3 ins. 11 ins. in
	the ground for 1/4 sec. cor. marked 1/4
	S on W. face, raised a mound
	of stone 2 ft. base, 1 1/2 ft. high W. of
	Cor.
	Pits impracticable

Subdivision of T 40 S., R. 24 E: Continued.

Chains.	
55.00	Wash, course S. 50° E. ascending
75.00	Wagon road, Bluff city to Colorado,
	bears N. E. and S. W.
80.00	Set sand stone 14 x 10 x 5 ins. 10 ins. in the ground for cor. of secs. 22, 23, 26 and 27 marked with 2 notches on the S. and E. edges. raised a mound of stone 2 ft. base, 1½ ft. high. W. of cor. Pits impracticable.
	Land, mountainous.
	Soil stony 4th rate.
	No timber
	Mountainous land, 80.00 chs.
	S. 89° 58' E. on a random line bet. secs. 23 and 26
40.00	Set temp. 1/4 sec. cor.
80.00	Intersect N. and S. line. 5 lks. S. of the cor. of secs. 23, 24, 25 and 26.
	Thence We run
	West on a true line bet. secs. 23 and 26. ascending over broken sandstone ledges and boulders.
40.00	Set a sand stone 12 x 12 x 6 ins. 9 ins. in the ground. for 1/4 sec. cor, marked 1/4 S on N. face, raised a mound of stone 2 ft. base, 1½ ft. high N. of cor. Pits impracticable.
60.00	Top of ridge bears. N. and S. descend,
73.50	Wagon road Bluff City to Colorado bears N. E. and S. W.
80.00	The cor. of secs. 22, 23, 26 and 27.
	Land, mountainous.
	Soil, stony 4th rate
	No timber.
	Mountainous land, 80.00 chs.
	Jan. 28 1899.
	Jan. 29 1899 at 8 a. m., l. m. t., We

Chains.	
	Set off 37°17' W on lat. arc, 17° 48' S. on decl. arc: and determine a true meridian with the solar, at the cor. of secs. 22, 23, 26 and 27.
	Thence W. run
	N. 0°01' W. bet. secs. 22 and 23, ascending over rolling land, mountainous
22.00	Enter boulders
30.00	Leave boulders, descending a canon.
40.00	Set a sand stone 12 x 12 x 4 ins. 9 ins. in the ground for 1/4 sec. cor. marked 1/4 S. on W. face, raised a mound of stone 2 ft. base, 1/2 ft. high W. of cor. Pits impracticable
78.40	S. side of canon, 250 ft. deep, course N. W.
80.00	Set a sand stone 16 x 10 x 4 ins. 11 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. raised a mound of stone 2 ft. base, 1 1/2 ft. high W. of cor.
	Pits impracticable.
	Land mountainous
	Soil, stony and sandy. 1st and 4th rate.
	No timber.
	Mountainous land, 80.00 chs.
	East on a random line bet. secs. 14 and 23.
40.00	Set temp. 1/4 sec. cor.
80.00	Intersect N. and S. line at the cor. of secs. 13, 14, 23 and 24.
	Thence W. run
	W. on a true line bet. secs. 14 and 23. descending along ravine, course W.
12.00	Leave ravine, course N. W.
31.00	Top of ridge, bears N. W. and S. E.
32.50	Ravine, 75 ft. deep, course N. W.
40.00	Set a sand stone 16 x 12 x 3 ins. 11 ins. in the ground, for 1/4 sec. cor. marked

Subdivision of T. 40 S., R. 24 E. - continued.

Chains	
	1/4 S. on N. face, raised a mound of stone 2 ft. base, 1½ ft. high. N. of Cor. Pits impracticable.
41.75	Wagon road, Bluff City to Colorado bears N.E. and S.W.
70.00	East edge of canon 200 ft. deep. Course N.W. descend over boulders.
80.00	The cor. of secs. 14, 15, 22 and 23. Land, mountainous. Soil, stony & sandy, 2nd & 4th rate. No timber. Mountainous land, 80.00 chs.
	N. 0.01 W. bet. secs. 14 and 15 descending over broken sand stone ledges & boulders.
28.00	Bottom of canon. Course N.W. begin ascending.
40.00	Set a sand stone 14 x 10 x 8 ins. 10 ins. in the ground for 1/4 sec. cor. marked 1/4 S. on W. face, raised a mound of stone 2 ft. base, 1½ ft. high W. of Cor. Pits impracticable.
46.00	Top of ridge 50 ft. above cor. bears E. and W. descend
80.00	Set a sand stone 14 x 10 x 8 ins. 10 ins. in the ground for 1 cor. of secs. 10, 11, 14, and 15. Marked with 4 notches on the E. and 4 notches on the S. edges. raised a mound of stone 2 ft. base, 1½ ft. high W. of Cor. Pits impracticable. Land, mountainous. Soil, stony 3rd rate. No timber. Mountainous land, 80.00 chs.

Subdivision of T. 40 S., R. 24 E.: Continued.

Chains	
	East on a random line bet. secs. 11 and 14.
40.00	Set temp. 1/4 sec. cor.
80.02	Intersect N. and S. line 2 lks. S. of the cor. of secs. 11, 12, 13 and 14.
	Thence we run
	S. 89°59' W. on a true line bet. secs. 11 and 14. Ascending wooded rolling land.
17.50	Begin steep descent.
29.00	Bottom of ravine 100 ft deep.
	Course N.
37.00	Begin ascending.
40.01	Set a sandstone 12x10x8 ins. 8 ins. in the ground, for 1/4 sec. cor. marked 1/4 S. N. face, raised a mound of stone 2 ft. base, 1 1/2 ft. high. N. of cor. Pits impracticable.
40.20	Sand stone ledges 15 ft high, bear N.W. and S.E. precipitous ascent.
50.50	Top of spur. projects N. W. descend
80.02	The cor. of secs. 10, 11, 14 and 15.
	500 ft. below spur.
	Land, mountainous,
	Soil stony, 2nd and 4th rate.
	No timber
	Mountainous land, 80.02 chs.
	Note, Cloud obscures the sun can take no observation for Lat. this day.
	Jan. 29 1899.

Jan 30 1899. At 7h 30m a.m. l.m.t., we set off 37°19' N. on lat. arc; 17° 31' S. on decl. arc; and determine a true meridian with the solar. at the cor. of secs. 10, 11, 14 and 15.

Thence we run.

N. 0°01' W. bet. secs. 10 and 11.

Subdivision of T. 40 S. R. 24 E. continued.

chains	
	Ascending over rolling land dense artemisia and broken stone.
31.00	Top of ridge bears N.W. and S.E.
40.00	Set a sandstone 16 x 6 x 5 ins 11 ins. in the ground for 1/4 sec. cor. marked 1/4 S. 10 on W. face raised a mound of stone 2 ft base 1½ ft high W of cor. Pits impracticable descend
43.00	Bottom of ravine 100 ft deep. course N.E. ascend
46.00	Top of ridge bears S.W. and N.E. descend
77.00	Top of rocky spur projects N.E.
80.00	Set a sandstone 16 x 10 x 6 ins 11 ins. in the ground for cor of secs 2. 3. 10 and 11 marked with 2 notch on the E and 5 notches on S. edges raised a mound of stone 2 ft base 1½ ft high W of cor. Pits impracticable
	Land mountainous
	Soil stony: 3rd and 4th rate:
	No timber
	Mountainous land 80.00 chs.
	N. 89° 59' E. on a random line bet secs 2 and 11.
40.00	Set temp. 1/4 sec cor.
80.00	Intersect the N and S. line 3 chs. N. of the cor. of secs 1. 2. 11 and 12. Thence we run West on a true line bet secs 2 and 11 Descend.
4.00	Bottom of drain 120 ft deep course N. W.
20.00	Foot of bluffs. begin ascend over stony land.
40.00	Set a sandstone 16 x 8 x 4 ins. 11 ins in the ground for 1/4 sec cor. marked 1/4 S. 2

Subdivision of T. 40 S., R. 24 E. - Continued

Chains	
	on N face. and raise a mound of stone 2 ft base 1½ ft high N. of cor. Pits impracticable
57.00	Top of ridge course N.E. and S. Descend.
59.00	Foot of descent. thence over rolling land.
77.00	Begin ascend.
79.00	Top of spur projects N.E. descend
80.00	The cor of secs 2. 3. 10 and 11
	Land mountainous
	Soil stony and clay; 3rd rate
	No timber
	Mountainous land. 80.00 chs.
	Jan. 30. 1899. At this cor We set off 17° 31' S on the decl arc; and at 12h 05m l.m.t. observe the sun on the meridian. the resulting lat is 37° 20' N.
	N. 0° 01' W. on a random line bet. secs. 2 and 3
40.00	Set temp. ¼ sec cor.
80.00	Intersect N. bdy of Tp 6 lks E of the cor. of secs. 2. 3. 34 and 35; set by us Thence We run
	S. 0. 04' E. on a true line bet. secs. 2 and 3. descending over rolling land dense artimesa
23.00	Spur projects N.E.
25.00	Bottom of Montezuma canon 100 ft. below cor. course S. 50° W.
31.00	Enter wash. 8 ft deep course W land,
31.50	Leave wash over level land dense artimesa
40.00	Set a sandstone 12 x 12 x 4 ins. 8 ins. in the ground. for ¼ sec cor marked ¼ S. 2 on W. face. raised a mound of stone 2 ft base 1½ ft high W of cor Pits impracticable

Subdivision of T. 40 S., R. 24 E.-Continued.

Chains	
79.50	Begin ascending.
80.00	The cor. of secs. 2, 3, 10 and 11.
	Land, rolling and level.
	Soil, sandy, 1st rate.
	No timber, dense underbush
	Dense undergrowth 80.00 chs.
	Jan 30 1899.

Jan 31st 1899. At 8 a.m., l.m.t., I set off 37°16' N on lat. arc; 17° 15' S on decl. arc; and determine a true meridian with the polar, at the standard cor. of secs. 33 and 34.
On the 8th Standard parallel South.

Thence I run
N 0°02' W. bet. secs. 33 and 34.
Ascending over broken sand stone ledges and boulders.

30.0	Top of steep ascent 150 ft. above cor. bears E and W. leave broken ledges and boulders, over rolling land.
28.50	Wagon road, Bluff city to Colorado. bears N. 60° E. and S. 60° W.
40.00	Set a sand stone 12 x 10 x 6 ins. 8 ins. in the ground, for 1/4 sec. cor. marked, 1/4 S. on W. face, raised a mound of stone 2 ft. base, 1½ ft. high W. of cor.
	Pits impracticable.
80.00	Set a sand stone 16 x 10 x 5 ins. 11 ins. in the ground, for cor. of secs. 27, 28, 33 and 34. marked with 1 notch on the S. and 3 notches on the E. edge raised a mound of stone 2 ft. base, 1½ ft. high W. of cor.
	Pits impracticable.
	Land mountainous
	Soil sandy & stony 1st 2nd 4th rate.

Subdivisions of T. 40 S., R. 24 E.-Contin

Chains	
	No timber Mountainous land 80.00 chs.
	East on a random line bet secs. 27 and 34
40.00	Set temp. 1/4 sec. cor.
80.00	Intersect N. and S. line at the cor. of secs. 26, 27, 34 and 35. Thence N/E, run N. on a true line bet. secs. 27 and 34 Descending over broken ledges and boulders.
0.50	Brink of cañon.
6.00	Bottom of cañon 100 ft deep. course S. ascend
27.00	Top of ridge. bears N. and S.
40.00	Set a sand stone 18 x 14 x 5 ins. 12 ins. in the ground, for 1/4 sec. cor. Marked 1/4 S. on N. face, raised a mound of stone 2 ft. base, 1 1/2 ft. high. N. of cor. Pits impracticable.
67.20	Wagon road, Bluffcity to Colorado. bears N. and S.
80.00	The cor. of secs. 27, 28, 33 and 34. Land, mountainous Soil, sandy and stony 2nd 3rd grade. No timber Mountainous land, 80.00 chs.
	N. 0°02' W. bet. secs. 27 and 28. Gradual ascent, sandy soil.
40.00	Set a sand stone 12 x 10 x 5 ins. 8 ins. in the ground. for 1/4 sec. cor. marked 1/4 S. on W. face, raised a mound of stone 2 ft. base, 1 1/2 ft. high. W. of cor. Pits impracticable.

Subdivision of T. 40 S. R. 24 E., Continued.

Chains	
70.00	Top of ridge, bears E. and W. descend.
80.00	Set a sand stone 14 x 8 x 5 ins. 10 ins. in the ground, for cor. of secs. 21, 22, 27 and 28. marked with 2 notches on the S. and 3 notches on the E. edge, raised a mound of stone 2 ft. base, 1½ ft. high W. of cor.
	Pits impracticable.
	Land, mountainous
	Soil sandy.
	No timber.
	Mountainous land. 8000 chs.
	Jan. 31 1899 At this cor. We set off 17° 15' S. on decl. arc; and at 12 hrs 10 min l. m. t, observe the sun on the meridian the resulting lat. is. 37° 7' N
	East on a random line bet. secs. 22 and 27
40.00	Set temp. 1/4 sec. cor.
80.00	Intersect N. and S. line at the cor. of secs. 22, 23, 26 and 27.
	Thence We run
	W. on a true line bet. secs. 22 and 27.
	Ascending over rolling land,
5.00	Top of ridge, bears N. and S. descend over broken sand stone ledges,
20.00	leave ledges.
40.00	Set a sand stone 15 x 9 x 5 ins. 10 ins. in the ground for 1/4 sec. cor. Marked 1/4 S. on N. face, raised a mound of stone 2 ft. base, 1½ ft. high. N. of cor.
	Pits impracticable.
80.00	The cor. of secs. 21, 22, 27 and 28.
	Land rolling,
	Soil sandy and stony 1st and 4th rate.
	No timber

Subdivision of T. 10 S., R. 24 E., Continued.

Chains	
	N. 0°02' W. bet. secs. 21 and 22
	Descending over rolling land.
8.00	Bottom of ravine 150 ft. deep, course N. W. ascending over broken sand stone ledges.
40.00	Set a sand stone 16 x 12 x 6 ins. 11 ins. in the ground, for 1/4 sec. cor. marked 1/4 S. on W. face, raised a mound of stone 2 ft. base, 1½ ft. high, W. of Cor.
	Pits impracticable
41.00	Top of ridge runs N.E. and S.W. descend.
80.00	Set a sand stone 15 x 10 x 10 ins. 10 ins. in the ground, for cor of secs. 15, 16, 21 and 22 marked, 40 S. on N.E. and 24 E. on S.E. faces, with 3 notches on the E and S. edges, raised a mound of stone 2 ft. base, 1½ ft. high W. of Cor.
	Pits impracticable.
	Land mountainous;
	Soil sandy & stony 1st and 4th rate,
	No timber
	Mountainous land 80.00 chs.

	East on a random line bet. secs 15 and 22
40.00	Set temp. 1/4 sec. cor.
80.02	Intersect N. and S. line 3 lks. N. of the cor. of secs. 14, 15, 22 and 23.
	Thence W. run
	N. 89°59' W. on a true line bet. secs. 15 and 22.
	Ascending over rolling land,
3.00	Top of spur, projects N.
	Along steep slope to North, descend.
31.00	Begin precipitous decent over broken sandstone ledges.
36.00	Foot of steep descent

Subdivision of T. 40 S., R. 24 E., Continued.

Chains.	
40.01	Set a sand stone 18×8×6 ins. 12 ins. in the ground, for 1/4 sec. cor. marked 1/4 S. on N. face, raised a mound of stone 2 ft. base, 1 1/2 ft. high, W. of cor. Pits impracticable
80.02	The cor. of secs. 15, 16, 21 and 22. Land, mountainous. Soil, stony and sandy 1st and 4th rate. No timber. Mountainous land, 80.02 chs. Jan. 31. 1899.
	Feby 1st 1899. at 8 a.m., l.m.t., WE set off 37°18' N on lat. arc; 16° 58' S. on decl. arc; and determine a true meridian with the solar, at the cor. of secs. 15, 16, 21 and 22. Thence We run N. 0°02' W. bet secs. 15 and 16. Gradually ascending.
8.50	Top of ridge bears E and W. descend.
37.00	Dry wash bears S. 50° W. ascend.
40.00	Set a sand stone 15×12×5 ins. 10 ins. in the ground, for 1/4 sec. cor. marked 1/4 S. on W. face, raised a mound of stone, 2 ft. base 1 1/2 ft. high, W. of cor. Pits impracticable
60.00	Foot of steep ascent. N.E. & S.W.
78.00	Top of ridge, 300 ft high bears E and W. descend.
80.00	Set a sand stone 17×8×6 ins. 11 ins. in the ground, for cor. of secs. 9, 10, 15 and 16 marked with 3 notches on the E. and 4 notches on the S. edges. raised a mound of stone 2 ft. base, 1 1/2 ft. high W. of cor. Pits impracticable. Land mountainous.

Subdivision of T. 40 S., R. 24 E. continued

Chains	
	Soil, stony and sandy 3rd and 4th rate, mountainous land, 80.00 chs.
	S. 89°59' E. on a random line bet. secs. 10 and 15.
40.00	Set temp. 1/4 sec. cor.
79.90	Intersect N. and S. line 5 lks. S. of the cor. of secs. 10, 11, 14 and 15.
	Thence N. per.
	S. 89°59' W. on a true line bet. secs. 10 and 15.
	Ascending over rolling rocky land,
9.50	Begin steep ascent
28.00	Top of ridge, 300 ft above sec. cor. bears N.E. and S.W.
32.00	descend along S. side of ridge and cliffs 100 ft high.
39.95	Set sand stone 12 x 12 x 10 ins. 8 ins in the ground, for 1/4 sec. cor. marked 1/4 S. on N. face, raised a mound of stone 2 ft base, 1½ ft high N. of cor.
	Pits impracticable.
	Ascend.
51.00	Top of ridge, bears N.E. and S.W.
	slopes S.W. descend
79.90	The cor. of secs. 9, 10, 15 and 16.
	Land, mountainous
	Soil stony 3rd and 4th rate.
	No timber.
	Mountainous land 79.90 chs.
	N. 0°02' W. bet. secs. 9 and 10.
	Gradual ascent over stony land,
10.00	Begin descending, over broken land,
40.00	Set a sand stone 12 x 10 x 5 ins 9 ins. in the ground, for 1/4 sec. cor. marked 1/4 S. on W. face, raised a mound

Subdivision of T. 40 S., R. 24 E. - continued.

Chains.	
	of stone 2 ft base, 1 1/2 ft. high. W. of cor.
	Pits impracticable
60.50	Enter Montezuma Bottom and wash bank of wash 25 ft high.
	Along wash.
80.00	Near E. side of wash, set a sandstone 12 x 11 x 5 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. raised a mound of stone 2 ft. base, 1 1/2 ft. high. W. of cor.
	Pits impracticable.
	Land, mountainous,
	Soil, stony and sandy. 1st and 4th rate.
	No timber.
	Mountainous land, 80.00 Chs.
	Cloud obscures the sun can take no observation for lat. this day.
	Feby 1st 1899.
	Feby 2d 1899. at 8h 00 a.m., l.m.t. We set off 37°020' N. on lat. arc, 16° 41' S. on decl. arc; and determine a true meridian with the solar. at the cor. of secs. 3, 4, 9 and 10.
	Thence We run.
	N. 89°59' E. on a random line bet. secs. 3 and 10.
40.00	Set temp 1/4 sec. cor.
79.94	Intersect N. and S. line. 3 lks. N. of the cor. of secs. 2, 3, 10 and 11.
	Thence We run.
	West on a true line bet. secs. 3 and 10.
	Ascending precipitious ledges.
17.00	Top of spur, 250 ft high projects N. begin rapid descent.

Subdivision of T. 40 S., R. 24 E., Continu.

Chains	
24.00	Foot of steep descent.
	Enter Montezuma Bottom and dense artimesia
	Course S. W. along level land
39.97	Set a sandstone 16 x 16 x 5 ins. 11 ins. in the ground, for 1/4 sec. cor. marked 1/4 S. on N. face, raised a mound of stone 2 ft. base, 1 1/2 ft. high, N. of cor.
	Pits impracticable.
79.94	The cor. of secs. 3, 4, 9 and 10.
24.00 / 15.94	Land, level and mountainous
	Soil, sandy loam and stony, 1st and 4th rate.
	No timber.
	Mountainous land, 24.00 chs.

	N. 0°02' W. on a random line bet. secs. 3 and 4.
40.00	Set temp. 1/4 sec. cor.
80.06	Intersect N. bdy. of Tp. at the cor. of secs. 3, 4, 33, and 34.
	Set by prs.
	Thence W. run
	S. 0°02' E. on a true line bet. secs. 3 and 4. Descending over broken sandstone ledges and boulders.
8.00	Enter Bottom of ravine 200 ft. deep. Course E.
9.55	leave ravine. begin steep ascent.
36.00	Top of steep ascent.
38.00	Spur projects. E.
40.06	Set a sandstone 15 x 12 x 4 ins. 10 ins. in the ground for 1/4 sec. cor. marked 1/4 S. on W. face, raised a mound of stone 2 ft. base, 1 1/2 ft. high W. of cor.
	Pits impracticable
42.50	Begin rapid descent.
61.00	Foot, enter Montezuma Bottom dense artimesia. 400 ft below 1/4 sec. cor. Course S. W.

Subdivision of T. 40 S., R. 24 E. continued.

Chains	
70.50	Montezuma Wash. 25 ft deep. 100 ft wide course W. 2 chs. W. Course is S.
77.50	Clay projections in bend of wash.
79.00	Enter Wash. Course S.
80.06	The cor. of secs. 3, 4, 9 and 10. Land mountainous Soil sandy loam clay and stony. 1st and 4th rate. No timber. Mountainous land and dense under-growth. 80.06 chs. Feby 2nd 1899.

Jan 31, 1899. at 8 a.m., l.m.t., WE set off 37°16 N. on lat. arc; 17°15 S. on decl. arc; and determine a true meridian with the solar at the cor. of secs. 28, 29, 32 and 33.
Set by us.
Thence WE run
East on a random line bet. secs. 28 and 33.

40.00	Set temp 1/4 sec. cor.
80.00	Intersect N. and S. line at the cor. of secs. 27, 28, 33 and 34. Thence WE run West on a true line bet secs. 28 and 33. Gradual ascent over rolling land.
40.00	Set a sand stone 1.8 x 8 x 6 ins. 12 ins in the ground, for 1/4 sec. cor. Marked 1/4 S on N. face, raised a mound of stone, 2 ft base, 1 1/2 ft high, N. of cor. Pits impracticable
50.00	Top of ridge, bears N. and S. descend

Subdivision of T. 40 S., R. 24 E. Continu.

Chains	
	over broken sand stone ledges.
76.00	Begin precipitious descent.
80.00	The Cor. of secs. 28, 29, 32 and 33.
	Land, Mountainous,
	Soil, sandy and stony. 1st and 4th rate.
	No timber.
	Mountainous land, 80.00 chs.
	N 0°03' W. bet. secs. 28 and 29
	Ascending over broken sand stone ledges.
14.00	leave ledges, ridge, bears E and W.
	over rolling land.
40.00	Set a sand stone 16×10×6 ins 11 ins. in the ground, for 1/4 sec. cor. marked 1/4 S. on W. face, raised a mound of stone 1½ ft high 2 ft. base, W. of cor.
	Pits impracticable.
74.00	Begin rapid descent.
80.00	Set a sand stone 16×8×6 ins. 11 ins. in the ground for cor. of secs 20, 21, 28 and 29 marked with 2 notches on the S. and 4 notches on the E edges raised a mound of stone 2 ft. base, 1½ ft high, W. of cor.
	Pits impracticable,
	Land, mountainous
	Soil, stony and sandy. 2nd and 4th rate.
	No timber
	Mountainous land 80.00 chs.
	Jan. 31 1899 at this cor. We set off. 17°15' [illegible] decl. arc; and at 12h 14m [illegible] m.t. observe the sun on the meridian, the resulting lat. is 37°17' N
	East on a random line bet. secs.

Subdivision of T. 40 S., R. 24 E., Continued.

Chains	
	2
	21 and 28.
40.00	Set temp. 1/4 sec. cor.
80.00	Intersect N. and S. line at the cor. of secs. 21, 22, 27 and 28.
	Thence we run.
	W. on a true line bet. secs. 21 and 28.
	descending over rolling land,
	stony soil
40.00	Set a sand stone 12 x 10 x 5 ins. 8 ins. in the ground for 1/4 sec. cor. marked 1/4 S. on N. face, raised a mound of stone 2 ft base, 1 1/2 ft. high N. of cor.
	Pits impracticable.
51.00	Rapid descent. land sloping N. W. through broken sand stone ledges.
80.00	The cor. of secs. 20, 21, 28 and 29.
	Land, mountainous
	Soil, stony and sandy 2nd and 3rd rate.
	No timber
	Mountainous land, 80.00 chs.
	N. 0°03' W. bet. secs. 20 and 21.
	Descending rapidly over broken sand stone ledges.
3.50	Leave ledges.
28.00	S. side of ravine, 75 ft deep. course N. W.
40.00	Near N. side of ravine, set a sand stone 16 x 9 x 4 ins. 11 ins in the ground for 1/4 sec. cor marked 1/4 S. on W. face, raised a mound of stone 2 ft base, 1 1/2 ft. high. W. of cor.
	Pits impracticable.
46.00	Begin steep descent.
58.00	Enter Montezuma bottom, over nearly level land, through dense

Subdivision of T. 40 S. R. 24 E.—Continued.

Chains	
	artimesa.
76.00	S.E. bank of Wash. 15 ft high. course S.W.
80.00	set a sand stone 14 x 8 x 5 ins. 10 ins. in the ground for cor. of secs. 16, 17, 20 and 21 marked with 3 notches on the S. and 4 notches on the E. edges, raised a mound of stone 2 ft. base, 1½ ft. high W. of cor.
	Pits impracticable.
	Land, mountainous
	Soil, sandy loam and stony, 1st and 3rd rate.
	No timber
	Mountainous land and dense under-growth
	80.00 chs.
	Jan. 31st 1899.

	Feby. 1st 1899. At 8 a.m., l. m.t., We set off 37°18' N. on lat. arc; 16°58' S. on decl. arc; and determine a true meridian with the solar. at the cor. of secs. 16, 17, 20 and 21.
	Thence We run.
	E. on a random line bet. secs. 16 and 21
40.00	set temp. 1/4 sec. cor.
80.02	Intersect N. and S. line at the cor. of secs. 15, 16, 21 and 22.
	Thence We run
	W. on a true line bet. secs. 16 and 21.
	Descending over rolling land.
2.50	Ravine, 25 ft deep. course N.W.
40.01	Set a sand stone 17 x 10 x 5 ins. 8 ins. in the ground for 1/4 sec. cor. marked 1/4 S. on N. face, raised a mound of stone 2 ft base, 1½ ft. high N. of cor.
	Pits impracticable.
47.00	Begin steep descent.
59.00	Enter Montezuma Bottom, dense artimesa.

Chains.	
76.50	S.E. bank of wash 15 ft. high. course S.W.
80.02	The cor. of secs. 16, 17, 20 and 21 Land, mountainous. Soil, sandy loam and stony 1st and 3rd rate. No timber. Mountainous land, dense undergrowth 80.02 chs.
	N 0°03' W bet. secs. 16 and 17. Along wash.
3.00	Leave wash, ascend through dense artimesa.
31.00	Enter same wash, course S.E. Leave artimesa
40.00	Set a sand stone 14 x 10 x 4 ins. 10 ins in the ground for 1/4 sec. cor. marked 1/4 S. on W. face, raised a mound of stone 2 ft. base, 1½ ft. high. W. of cor. Pits impracticable.
47.00	Leave wash, enter dense artimesa along bottom.
57.00	Begin gradual ascent, leave bottom and artimesa, enter broken sand stone ledges.
75.00	Top of ridge, bears N.E. and S.W. descend
78.50	Ravine, 25 ft deep, course S.W.
80.00	Set a sand stone 16 x 10 x 7 ins. 12 ins in the ground for cor. of secs. 8, 9, 16 and 17 marked with 4 notches on the S. and E. edges, raised a mound of stone 2 ft. base, 1½ ft. high. W. of cor. Pits impracticable. Land, mountainous Soil, sandy loam and stony 1st and 3rd rate. Mountainous land and dense undergrowth 80.00 chs. Feby 1st, 1899, at this cor. We set off 16° 58' S. on decl. arc; and at 12 hrs. 10 m. l. m. t., observe the sun on the meridian the resulting lat. is 37° 19' N.

Subdivision of T. 40 S., R. 24 E.—Continued.

Chains.

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

40.00 Set temp. 1/4 sec. cor.

80.10 Intersect N. and S. line 6 lks. N. of the cor. of secs. 9, 10, 15 and 16.

Thence We run

N 89° 57' W. on a true line bet. secs. 9 and 16

Gradually ascending

7.00 Top of knob (flat top)

Begin steep descent over broken sand stone ledges, and large boulders

26.00 Foot of broken sand stone ledges and bluff. bears S 75 E. and N 75° W.

40.15 In Bottom of drain. 15 ft deep course S.W.

Set a sand stone 12×12×12 ins, 8 ins in the ground for 1/4 sec. cor. marked. 1/4 S. on N. face, raised a mound of stone 2 ft. base, 1 1/2 ft. high N. of cor.

Pits impracticable.

77.00 Sand stone ledge 10 ft high. bears S.E. and N.W.

79.00 Bottom of ravine, 25 ft deep. course S.W.

80.10 The cor. of secs. 8, 9, 16 and 17.

Land, mountainous

Soil, stony. 3rd rate.

No timber

Mountainous land 80.10 chs.

Feby 1st 1899.

Feby 2 1899. at 8 a.m., l.m.t., We set off 5° 19' N. on lat. arc: 16° 41' S. on decl. arc; and determine a true meridian with the solar, at the cor. of secs. 8, 9, 16 and 17.

Thence We run

N. 0°03' W. bet. secs. 8 and 9.

Ascending over rolling land,

11.00 Top of ridge. bears E. and W. descend.

Subdivision of T. 40 S., R. 24 E. continued.

Chains.	
28.00	Enter montezuma bottom through dense under growth.
33.00	Wash. 15 ft deep 100 ft wide Course W.
40.00	Set a sand stone 12 x 10 x 5 ins 8 ins in the ground, for 1/4 sec. cor. marked 1/4 S. on W. face, raised a mound of stone, 2 ft. base, 1 1/2 ft high W. of cor. Pits impracticable.
46.00	Begin steep ascent over broken sand stone ledges, bear N.E. and S.W. Leave ailimesa.
80.00	On S. slope of mountain Set a sand stone 15 x 8 x 6 ins, 10 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. raised a mound of stone 2 ft. base, 1 1/2 ft high. W. of cor. Pits impracticable. Land, mountainous Soil, sandy loam and stony 1st and 4th rate. No timber Mountainous land, and dense under growth 80.00 chs.
	S. 89° 59' E. on a random line bet. secs. 4 and 9.
40.00	Set temp. 1/4 sec. cor.
80.09	Intersect N. and S. line 6 lks. S. of the cor. of secs. 3, 4, 9 and 10. Thence We run West on a true line bet. secs. 4 and 9.
2.00	West side of Wash. banks 20 ft high Course S. Begin ascending over precipitious land, broken sand stone ledges.

Subdivision of T. 40 S., R. 24 E. continued

chains	
9.00	Spur. projects S. Ascending along S. side of mountain through boulders.
40.04½	Set a sand stone 12 x 10 x 5 ins. 8 ins. in the ground for 1/4 sec. cor. marked 1/4 S. on N. face, raised a mound of stone 2 ft. base, 1½ ft high N. of cor. Pits impracticable.
80.09	The cor. of secs. 4, 5, 8 and 9. 400 ft above Bottom. Land mountainous. Soil stony. 4th rate. No timber Mountainous land 80.09 chs. Feby 2nd 1899. at this cor. We set off 16° 40' S. on decl. arc; and at 12 hrs 14 m l. m. t., observe the sun on the meridian the resulting lat. is. 37° 20' N'
	N 0°03' W on a random line bet. secs. 4 and 5.
40.00	set temp. 1/4 sec. cor.
80.06	Intersect N. bdy. of Tp. at the cor. of secs. 4, 5, 32 and 33. set by us. Thence We run S. 0°03' E. on a true line bet. secs. 4 and 5. Begin steep ascent along the W. side of ravine, through broken boulders and sand stone ledges.
28.00	Spur projects E.
40.06	on W. side of ravine, set a sand stone 14 x 8 x 8 ins. 10 ins. in the ground, for 1/4 sec. cor. Marked 1/4 S on the W. face, raised

Subdivision of T. 40 S., R. 24 E., Continued.

Chains	
	a mound of stone, 2 ft. base, 1 1/2 ft. high. W. of cor.
	Pits impracticable
45.00	Head of ravine, and top of flat. 750 ft. above. Bottom.
55.00	Begin steep descent from top of mountain and ridge bears E. & W.
80.06	The cor. of secs. 4, 5, 8 & 9.
	Land, mountainous
	Soil, Stony 4th rate.
	No timber.
	Mountainous land, 80.06 chs.
	Feby 2d 1899.

Feby 3, 1899. at 8 a.m., l.m.t., We set off 37° 16' N on lat. arc: 16° 24' S on decl. arc; and determine a true meridian with the solar, at the cor of secs. 29, 30, 31 & 32.

Set by us.

Thence We run

S. 0° 03' E bet. secs. 31 & 32.

over nearly level land, dense artimesa.

15.00	Begin descending, edge of Wash bank 5 ft high. Course S. W.
26.50	S. bank of wash 20 ft high. Course S. W. Leave Artimesa.
40.00	Set a sand stone 16 x 10 x 5 ins. 11 ins. in the ground for 1/4 sec. cor. Marked 1/4 S on W. face, raised a mound of stone 2 ft. base, 1 1/2 ft high W. of cor. Pits imp
40.50	Wagon Road Bluff to Colorado bears E & W.
55.45	Right bank of San Juan River.
15.00 / 40.45	Set a sand stone 16 x 10 x 6 ins. 11 ins. in the ground, for meander cor. of fracl. secs. 31 & 32, marked M.C. on S. and with 5 grooves on the E. faces. raised

Chains	
	a mound of stone 2 ft. base, 1½ ft. high. N. of cor.
	Pits impracticable
	Land, rolling.
	Soil gravelly sand. 1st rate.
	No timber.
	Dense undergrowth 15 chs.
	Level land 40.45 chs.
	From the cor. of secs. 29, 30, 31 and 32 previously described
	We run N. 0°03' W. bet. secs. 29 and 30. over nearly level land, through dense artimisia.
14.00	S. W. bank of wash. 15 ft. high course S. E.
40.00	Near N. E. edge of Wash. set a sand stone 12 x 12 x 5 ins. 8 ins. in the ground, for 1/4 sec. cor. marked 1/4 S on W. face, raised a mound of stone 2 ft. base, 1½ ft. high. W. of cor.
	Pits impracticable.
	Ascending over broken sandstone ledges along W. slope of ridge.
46.00	Top of ridge. 150 ft. above wash. bears E. and W.
	descend over rolling land.
80.00	set a sand stone 16 x 12 x 6 ins. 11 ins. in the ground, for cor. of secs. 19, 20, 29 and 30. marked with 2 notches on the S. and 5 notches on the E. side. raised a mound of stone 2 ft. base, 1½ ft. high W. of cor.
	Pits impracticable.
	Land, mountainous
	Soil sandy loam and stony 1st and 4th rate
	No timber.
	Mountainous land and dense undergrowth 80.00 chs.

Subdivisions of T. 40 S., R. 24 E, continued.

Chains	
	East on a random line bet. secs. 20 and 29.
40.00	set temp. 1/4 sec. cor.
80.00	Intersect N. and S line at the cor: of secs. 20, 21, 28 and 29.
	Thence We run
	West on a true line bet. secs. 20 and 29
	Descending over rolling hills.
23.00	Begin steep descent. over broken sand stone ledgs.
33.00	Foot of steep descent. bears N.E. and S.W. Enter " " " " bottom, Over nearly level land through dense artimesa.
40.00	Set a sand stone 16 x 12 x 3 ins. 11 ins in the ground, for 1/4 sec. cor. marked 1/4 S. on N. face, raised a mound of stone 2 ft. base, 1 1/2 ft. high N. of cor. Pits impracticable.
44.70	E. bank of wash, 15 ft deep. course S.W. along wash. Leave Artimesa.
59.00	W. bank of same wash. ascend ascend along steep side hill.
67.00	Top of steep slope.
71.00	Top of ridge, bears, N.E. & S.W. descend.
80.00	The cor. of secs. 19, 20, 29 and 30.
	Land Mountainous
	Soil, sandy loam and stony. 1st & 3rd rate
	No timber.
	Mountainous land, 80.00 chs.
	Cloud obscures the sun can take no observation for lat. this day. July 3rd 1899.

July 4 1899. At 8 a.m. L.m.t. We set off. 37°17' N. on lat. arc; 16° 06' S. on decl. arc; and determine a true meridian with the solar

Subdivision of T. 40 S., R. 24 E., Continued.

chains	
	at the cor. of secs. 19, 20, 29 and 30
	Thence We run
	West on a random line bet. secs. 19 and 30
40.00	Set temp. 1/4 sec. cor.
79.81	Intersect W. bdy. of tp. 6 lks. S. of the cor. of secs. 19, 24, 25 and 30.
	Set by us.
	Thence We run
	S. 89°57' E. on a true line bet. secs. 19 and 30.
	Descending over rolling land.
39.81	200 ft. below sec. cor.
	Set a sand-stone 16 x 12 x 4 ins. 11 ins in the ground for 1/4 sec. cor. marked 1/4 S. on N. face, raised a mound of stone 2 ft. base, 1 1/2 ft. high N. of cor.
	Pits impracticable.
51.00	Top of ridge, bears N. and S. descend over broken sandstone ledges and boulders.
60.00	W. bank of Montezuma wash. Course S. W.
73.50	E. bank of wash. 500 ft below sec. cor.
	Begin ascending.
79.81	The cor. of secs. 19, 20, 29 and 30.
	Land, mountainous
	Soil, sandy and stony 1st and 4th rate.
	No timber
	Mountainous land, 79.81 chs.
	N. 0°03' W. bet. secs. 19 and 20.
	Ascending over rolling land.
10.00	Top of ridge, bears E and W. descend.
4.00	S. bank of Montezuma Wash. banks 4 ft. high course S. W.
20.00	N. bank of same wash.
	Begin ascending over broken foot hills. Sand stone ledges.

Subdivision of T. 40 S., R. 24 E., Continued.

Chains.	
40.00	Set a sand stone 14×10×10 ins. 9 ins. in the ground for 1/4 sec. cor. marked 1/4 S. on W. face, raised a mound of stone. 2 ft. base, 1 1/2 ft. high W. of cor. Pits impracticable. Leave broken sand stone
80.00	Set a sand stone 14×10×6 ins. 10 ins. in the ground, for cor of secs. 17, 18, 19 and 20. marked with 3 notches on the S. and 5 notches on the E. raised a mound of stone 2 ft. base, 1 1/2 ft. high W. of cor. Pits impracticable. Land, mountainous Soil, sandy and stony 1st and 4th rate. No timber. Mountainous land, 80.00 chs. Feby 4th 1899. At this cor. We set off 16°05' S. on dell. arc; and at 12 hrs 10 m. l. m. t., observe the sun on the meridian, the resulting lat. is 37° 18' N
	East on a random line bet. secs. 17 and 20.
40.00	set temp. 1/4 sec. cor.
79.96	Intersect N. and S. line 3 lks. N. of the cor. of secs. 16, 17, 20 and 21 Thence We run N. 89°59' W. on a true line bet. secs. 17 and 20.
0.50	W. bank of Montezuma wash. Course S. W. Begin ascending over broken ledges and boulders.
34.00	Top of ridge bears N. and S. descending.
39.98	Set a Sand stone 12×10×5 ins. 8 ins. in the ground, for 1/4 sec. cor.

Subdivision of T. 40 S., R. 24 E., Continued.

Chains	
	marked 1/4 S. on N. face, raised a mound of stone 2 ft. base, 1½ ft. high N. of cor.
	Pits impracticable.
79.96	The cor. of secs. 17, 18, 19 and 20.
	Land, mountainous.
	Soil stony. 2nd and 4th rate.
	No timber
	mountainous land, 79.96 chs.
	N. 89°57' W. on a random line bet. secs. 18 and 19.
40.00	Set temp. 1/4 sec. cor.
79.70	Intersect West Bdy of Township 8 lks. S. of the cor. of secs. 13, 18, 19 and 24.
	Thence we run
	S 89°54' E. on a true line bet. secs. 18 and 19.
	Descending over rolling land.
7.00	Begin steep descent over broken sandstone ledges.
39.70	set a sandstone 13 x 10 x 4 ins. 9 ins in the ground for 1/4 sec. cor. marked 1/4 S on N. face, raised a mound of stone, 2 ft. base, 1½ ft. high. N. of cor.
	Pits impracticable.
79.70	The cor. of secs. 17, 18, 19 and 20.
	500 ft below cor of secs. 13, 18, 19 and 24.
	Land, mountainous.
	Soil, stony. 2nd and 4th rate.
	No timber.
	Mountainous land, 79.70 chs.
	Feby 4 1899.
	Feby 5. 1899. at 8 a.m. l.m.t., we set off 37° 18' N on lat. arc; 15° 48' S. on decl. arc; and determine a true meridian with the solar, at

Chains	
	the cor. of secs. 17, 18, 19 and 20.
	Thence we run
	N. 0°03' W. bet. secs. 17 and 18.
	ascending over rolling land.
20.00	Top of ridge, bears E. and W. descend.
40.00	set a sand stone 16 x 10 x 4. ins. 11 ins. in the ground for 1/4 sec. cor. marked 1/4 S. on W. face, raised a mound of stone 2 ft. base, 1 1/2 ft. high. W. of Cor.
	Pits impracticable.
47.00	Bottom of ravine 100 ft. deep course S.E. ascend through broken sand stone boulders
46.00	spur, projects N.E.
58.00	Bottom of ravine 75 ft deep. course S.E. ascending.
80.00	Cor. falls on solid sandstone ledge. mark point by cross in ledge, with 4 notches on S. and 5 notches on E. sides raised a mound of stone 2 ft. base, 1 1/2 ft. high W. of Cor.
	Pits impracticable.
	Land, mountainous
	soil stony. 2nd and 4th rate.
	No timber.
	mountainous land, 80.00 chs.
	S. 89°59' E. on a random line bet. secs. 8 and 17.
40.00	set temp 1/4 sec. cor.
80.00	Intersect N. and S. line at the cor. of secs. 8, 9, 16 and 17.
	Thence W. we run.
	N. 89°59' W. on a true line bet. secs. 8 and 17.
	Descending over rolling land.
10.00	Foot of ridge and bottom. bears S. 10° E.

Subdivision of T. 40 S., R. 24 E., Continued.

Chains.	
	and N. 10° W. Enters dense aspen bottom, (Montezuma bottom)
13.00	E. bank of Montezuma wash 20 ft. deep. 100 ft wide. Course S. 10° E.
24.00	Foot of ridge, and bottom, bears S. 60° E. ascend over stony soil.
34.00	Top of ridge bears N. and S. 100 ft above bottom.
40.00	Set a sand stone 16 x 12 x 4 ins. 11 ins. in the ground, for 1/4 sec. cor. marked 1/4 S. on N. face, raised a mound of stone 2 ft. base, 1½ ft. high. N. of cor. Pits impracticable.
	Over rolling land
80.00	The cor. of secs. 7, 8, 17 and 18.
	Land, mountainous
	Soil, sandy and stony 1st and 3rd rate.
	No timber.
	Mountainous land, 80.00 chs.
	Feby 5. 1899 at this cor. we set off 15° 47' S. on decl. arc; and at 12 hrs 14 m. l. m. t., observe the sun on the meridian the resulting lat. is. 37° 19' N
	N. 89° 54' W. on a random line bet. secs. 7 and 18.
10.00	Set temp. 1/4 sec. cor.
79.67	Intersect N. and S. line, W. bdy. of Tp. 10 lks. N. of the cor. of secs. 7, 12, 13 and 14. Thence, W. per
	S. 89° 58' E. on a true line bet. secs. 7 and 18.
	Descending over precipitous land.
20.00	Foot of steep descent. bears N. and S.
39.67	350 ft. below sec. cor.
	Set a sand stone 12 x 12 x 5 ins. 8 ins. in the ground for 1/4 sec. cor. marked 1/4 S. on N. face, raised a mound of stone 2 ft. base, 1½ ft. high. N. of cor.

Subdivisions of T. 40 S., R. 24 E., Continued.

Chains.	
	Pits impracticable.
44.00	Bottom of ravine, 50 ft deep.
	Course S.E. over broken sand stone
53.00	Bottom of ravine 100 ft deep
	course S.E.
57.00	Bottom of ravine 75 ft deep.
	Course S.E. Begin steep
	ascent.
79.62	The cor. of secs. 7, 8, 17 and 18.
	Land, mountainous.
	Soil, stony
	No timber.
	Mountainous land, 79.62 chs.

	N. 0°03' W. bet. secs. 7 and 8.
	Ascending over broken sandstone
	ledges and large boulders.
40.00	On S.E. side of mountain.
	Set a sand stone 12 x 10 x 8 ins. 8 ins.
	in the ground for 1/4 sec. cor. marked
	1/4 S on W. face, raised a mound of
	stone 2 ft. base, 1 1/2 ft. high. W. of cor.
	Pits impracticable.
55.85	Top of S.E. side of ridge 800 ft.
	high. bears N.E. and S.W.
59.00	Begin descending along W. side
	of ravine.
80.00	Near foot of steep slope.
	Set a sand stone 16 x 10 x 6 ins.
	11 ins. in the ground for cor. of secs.
	5, 6, 7 and 8, marked with 5 notches on
	the N. and E. edges. raised a mound of
	stone 2 ft. base, 1 1/2 ft. high. W. of cor.
	Pits impracticable.
	Land, mountainous
	Soil stony 4th rate.
	No timber.
	Mountainous land. 80.00 chs.
	Feb 5 1899.

chains	
	July 6 1899. At 8 a.m., l.mt. We set off 37°20' N. on lat. arc; 15°29' S. on decl. arc; and determine a true meridian with the polar, at the cor. of secs. 5, 6, 7 and 8.
	Thence We run
	S. 89°59' E. on a random line bet. secs. 5 and 8.
40.00	set temp. 1/4 sec. cor.
80.04	Intersect N. and S. line 5 lks S. of the cor. of secs. 4, 5, 8 and 9.
	Thence We run
	S. 89°59' W. on a true line bet. secs. 5 and 8. Steep ascent.
	Quet broken sand stone ledges.
40.02	Set a sand stone 13 x 10 x 5 ins. 9 ins. in the ground for 1/4 sec. cor. marked 1/4 S on N. face, raised a mound of stone 2 ft. base, 1½ ft. high N. of cor. Pits impracticable.
48.00	Top of ridge and mountain, bears N.E. and S.W. descend
56.00	Begin precipitous descent
76.00	Bottom of ravine, bears N. and S.
80.04	The cor. of secs. 5, 6, 7 and 8.
	Land, mountainous
	Soil stony. 4th rate.
	Timber
	Mountainous land, 80.04 chs.

	N. 89°58' W. on a random line bet. secs. 6 and 7.
40.00	Set temp. 1/4 sec cor.
79.56	Intersect W. bdy. of Tp. at the cor. of secs. 1, 6, 7 and 12.
	Thence We run
	S. 89°58' E. on a true line bet. secs. 6 and 7.
	Descending through dense artimesia
39.56	Set a sand stone 12 x 12 x 5 ins. 8 ins.

Subdivision of T. 40 S. R. 24 E.—Continued.

Chains	
	in the ground for 1/4 sec. cor. marked 1/4 S. on N. face, raised a mound of stone 2 ft. base, 1 1/2 ft. high N. of cor. Pits impracticable.
52.00	Begin precipitious descent over broken sand stone.
71.00	Bottom of ravine, 350 ft deep course N. E. ascend.
79.56	The cor. of secs. 5, 6, 7 and 8. Land, mountainous. Soil sandy loam and stony 1st and 4th rate. No timber. Mountainous land, 79.56 chs. Feby 6. 1899. At this cor. W.E. set off 15° 28' S. on decl. arc; and at 12hrs 10 m. l. m. t., observe the sun on the meridian the resulting lat. is 37° 20' N
	N. 0°03' W. on a random line bet. secs. 5 and 6.
40.00	set temp. 1/4 sec. cor.
80.06	Intersect N. bdy. of Tp. at the cor. of secs. 5, 6, 31 and 32. set by us. Thence W.E. run. S. 0°03' E. on a true line bet. secs. 5 and 6. Begin steep ascent over broken sandstone ledges and large boulders along the W. side of ravine through scattering cedar.
10.00	spur projects E. descend.
40.06	Set a sand stone 8 x 10 x 8 ins. in a mound of stone. marked 1/4 S. on W. face, raised a mound of stone 2 ft. base 1 1/2 ft. high W. of cor. Pits impracticable.
71.00	Bottom of ravine, 150 ft below 1/4 sec. cor. course N. E. ascend.

Subdivision of T. 40 S., R. 24 E., continued

Chains
80.06. The cor. of secs. 5, 6, 7 and 8.
Land, mountainous
Soil, stony.
Scattering cedar
mountainous land.
4th rate.
80.06 chs.
Feb. 6th 1899.

Manders, T. 40 S., R. 24 E.

Meanders of the right bank of San Juan River, up stream.

We commence at the meander cor. of fracl. secs. 31 and 36 on the W. bdy. of Tp.
Set by us.
Feb. 7th 1899, at 8 a.m., l.m.t., We set off 37°16' N. on lat. arc; 15°11' S. on decl. arc; and determine a true meridian with the solar.
Thence We run with meanders in sec. 31.
Over bottom land.

S. 69°15' E. 24.00 chs. bank 3 ft. high. At 7.00 chs. right bank of Montezuma wash course S. W.
S. 55°05' E. 10.00 chs. At 7.00 chs. left bank of same Wash.
S. 62°05' E. 30.60 chs. bank 10 ft high.
S. 63°25' E. 8.40 chs. bank 15 ft. high.
S. 36°10' E. 16.00 chs. bank 20 ft high cropping of sand stone ledges.
S. 38°20' E. 8.60 chs. To meander cor of fracl. secs. 31 and 32.

Land, bottom extend.
Soil, sandy & gravelly
No timber
1st and 2nd rate.

Meanders, T. 40 S., R. 24 E., Concluded.

Thence in sec. 32.
Over bench, points.
S. 38°20' E. 3.40 chs. bank 15 ft. high.
S. 42°55' E. 18.40 chs.
S. 2°15' E. 8.40 chs. at 1.00 ch.
leave bench, enter bottom. to Meander Cor. to fracl. secs. 5 and 32. on the 8th Standard Parallel South.
Land, bench and bottom.
Soil, sandy and gravelly 1st and 2nd rate,
No timber. 30.00

Feb. 7th 1899.

General Description.

This township contains nearly every variety of land, from Mesa to bottom, and the soil ranges from stony clay to sandy loam, the soil of the bottom along the San Juan River and Montezuma bottom is generally rich sandy loam, capable of producing abundant crops with irrigation. water for irrigation can be obtained from the San Juan River. Cottonwood timber is found along the river and Montezuma Wash.

Cedar is very scattering and is usually found in the head of ravines adjoing the Mesa.

There are no settlers in this Tp. but at one time a small settlement was located at

the mouth of the Montezuma wash. Extending through secs. 31 and 32, the ruins of old cabins mark the places at the present time.

The township would be considered good grazing at all seasons of the year. Numerous seeps along the Montezuma wash supply stock with water. There are no indications of mineral in this Tp.

Hubert D. Page,
James M. Lentz,
U.S. Deputy Surveyors.

Latitude departure and closing errors.

Line designated.	True bearing	Distance	Latitude N.	Latitude S.	Departure E.	Departure W.
N. bdy. Tp. 40 S R. 24 E	S 89°59' E	479.35		.14	479.35	
E. bdy. Tp. 40 S R 24 E	South	480.00		480.00		
S. bdy. Tp. 40 S R 24 E	West	320.00				320.00
W. bdy. bet. sec. 32 and 33	N 03' W	80.00	80.00			.07
S. bdy. bet. secs. 29 32. 30 and 31	West	159.91				159.91
W. bdy. Tp. 40 S R 24 E	North	400.00	400.00			
Convergency					.55	
			480.00	480.14	479.90	479.98
				480.00		479.90
Error in Lat. and Dept.				.14		.08

Hubert D. Page,
James M. Lentz,
U.S. Deputy Surveyors.

FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

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

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

.....

showing the respective capacities in which they acted:

....., *Chainman.*

....., *Chainman.*

....., *Moundman.*

....., *Moundman.*

....., *Axman.*

....., *Axman.*

....., *Flagman.*

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted .....

....., United States Deputy Surveyor, in surveying all those parts or portions of the .....

.....

.....

..... of the .....

..... meridian, ... of ....., which 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 .....

....., *Chainman.*

....., *Chainman.*

....., *Moundman.*

....., *Moundman.*

....., *Axman.*

....., *Axman.*

....., *Flagman.*

.....

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

SEAL

.....

.....

6—151

FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

[illegible] United States Deputy Surveyor, [illegible]

[illegible] bearing date of [illegible] I have well, faithfully, and truly, in my [illegible] furnished by the United States Surve[illegible] Manual of Surveying Instructions, and the laws of [illegible]

[illegible] of the [illegible] which are represented in [illegible] under my direction; and I do further solem[illegible] established and perpetuated in strict accordance [illegible] special written instructions of the United States Surve[illegible] the specific manner described in the field notes, and [illegible] and should any fraud be detected, I will su[illegible] of an Act of Congress approved August 8, 1846.

United States Deputy Surve[illegible]

[illegible] and sworn to before me [illegible] 18[illegible]

APPROVAL.

[illegible] OF THE UNITED STATES SURVEYOR GENERAL.

[illegible] 18[illegible]

[illegible] the Sub-Divisions & Boundary [illegible] Township [illegible] Ex. of the [illegible]

[illegible] 18[illegible], having [illegible] field notes, and [illegible]

Jacob B. Be[illegible]

United States Surveyor Gen[illegible]

[illegible]

United States Surveyor Gen[illegible]

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4—679.

BOOK A-252

K.J.B.

FIELD NOTES

OF THE Re SURVEY OF THE

Eight Standard Parallel South

through

Ranges Nos 21, 24, 25 and 26. East.

Of the Salt Lake Base and Meridian,

State of Utah

AS re SURVEYED BY

Hubert D Page and James M. Lentz, United States Deputy Surveyors

& Prime Instruments Spl Instr dated Sept 14 1899

Under ~~his~~ their Contract No. 215, dated Oct 29th, 1897

Re Survey commenced January 18th, 1899

Re Survey completed April 4th, 1899

6—151

Resurvey Standard Pol	R. 21 E		high	M. Chs. Lks.	1-09-00
" "	"	do	low		1-00-00
" "	"	R. 24 E	high		4-10-25
" "	"	do	low		54-50
" "	"	R 25 E	high		6-00-00
" "	"	R 26 E	high		3-00-00
" "					

Tp closings	R. 24 E		5.45
" "	R 25 E		8-17
Sect "	R 24 E		21.80

10

NAMES AND DUTIES OF ASSISTANTS.

Peter Meyer,	Chainmen
Peter Allen	"
Harry Erwin	"
Walter O. McCuen	"
John R. Lumpkin	Mound man
George N. Dalton	"
John R. Lumpkin	Osman
George N. Dalton	"

6—151

BOOK A-252

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.....

BOOK A-[illegible]

PRELIMINARY OATHS OF ASSISTANTS.

WE, [illegible] and [illegible] Walter O. McEwen

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

[illegible] Standard Parallel South through ranges 21, 24, 25 and 26 E. of the Salt Lake Base & Meridian Utah

Peter Meyer, Peter Allan, Chain

Harry Erwin Walter O. McEwen, Chain

Subscribed and sworn to before me this 5th day of December, 1898

Hubert D. Page
U.S. Deputy Surve

SEAL

WE, John R. Lumpkin and George W. Dalton

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

[illegible] Standard Parallel South through ranges 21, 24, 25 and 26 [illegible] the Salt Lake Base & Meridian Utah

[illegible], Mound

George W. Dalton, Mound

Subscribed and sworn to before me this 5th day of December, 1898

Hubert D. Page
U.S. Deputy Sur

SEAL

WE, John R. Lumpkin and George W. Dalton,

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

[illegible] Standard Parallel South through ranges 21, 24, 25 and 26 E the Salt Lake Base & Meridian Utah

[illegible], Ax

George W. Dalton, Ax

Subscribed and sworn to before me this 5th day of December, 1898

Hubert D. Page
U.S. Deputy Survey

SEAL

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

....., Flag

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

SEAL

6-[illegible]

Eighth Standard Parallel South, through Range 24 East.

Survey commenced Jan 18. 1899
and executed with the instrument
described in Book. "C"

When to test the solar apparatus
by comparing its indications resulting from solar observations made
during a. m. and p. m. hours, with a true
meridian determined by observation
on Polaris, We proceed as follows:
At the standard cor. of secs.
32 and 33 Township 40 S., R. 24 E.
in Lat. 37°16' N. Long. 109°22' W.
Set by us. Jan 17th
At 4 p. m., l. m. t. We set off 37°16' N on
lat. arc, 20°22' S. on decl. arc; and determine a true meridian with the
Solar, and mark a point thereof
on a stone set firmly in the ground
5 chs. N. of the cor.
at 11 hrs 23 m. p m., l. m. t, We observe
Polaris at Western elongation, in
accordance with manual of instructions, and mark a point on the
line thus determined on a plug
driven in the ground 5 chs. N. of our
Station

Jan 18. 1899

Jany 19 1899
At 7 a. m., l. m. t, We lay off the
azimuth of Polaris, 1°33' to the East, and
mark the True Meridian thus determined,
by cutting a small groove in the
stone set. Jan 18. 1899. on which
the true meridian falls 0.25 ins W. of the
mark determined by the solar.
At 8 a. m., l. m. t., We set off

Chains.	
	37°15' W. on lat. arc; 20° 14' S. on decl. arc; and mark a point in the true meridian determined with the solar, by a cross on the stone already set 5.00 chs. N. of our Station; this mark falls 0.25 ins W. of the true meridian established by the Polaris observation.
	The solar apparatus, by p.m. and a.m. observations, defines position for true meridian, same distance East and West of the true meridian established by the Polaris observation; therefore, We conclude the adjustments of the instruments are satisfactory.
	The magnetic bearing of the true meridian at 8 a.m., is N 14 20' W the Angle thus determined reduced by the table, page 100 of the manual gives the mean mag. decl. 14°18' E.
	We lay off from the true meridian, an angle of 90°, from N. to W. and turn.
	West on the tangent S. of sec. 32. Quit rolling land.
0.75	Bottom of ravine 50 ft. deep. course S. W.
	Difference between measurement of 5.45 chs, by two set of chainmen, is 2 chs.; position of middle point
	By 1st set 5.46 chs.
	By 2nd set 5.44 chs.; the mean of which is
5.45	
	Set a sand stone 24 x 10 x 9 ins. in a mound of stone for closing cor sec. 4 and 5 T. 41 S. R. 24 E. marked C.C. on S. with 4 grooves on the E. and 2 grooves on the W. faces

chains.	
	raised a mound of stone 2 ft. base, 1½ ft. high S. of Cor. Pits impracticable.
9.65	Wagon Road, from Bluff along up the River bottom. bears N. W. and S. E.
24.65	Bottom of ravine 25 ft. deep course S.
	Difference between measurements of 40.00 chs., by two set of chainmen, is 4 lks.; position of middle point
	By 1st set, 40.02 chs.
	By 2nd set. 39.98 chs.; the mean of which is
40.00	N. 0.13 ft. from the tangent,
	Set a cobble rock 14 x 10 x 5 ins. 10 ins. in the ground, for standard 1/4 sec. cor. marked S. C. 1/4 S. on N. face, raised a mound of stone 2 ft. base, 1½ ft. high. N. of Cor. Pits impracticable.
	destroyed old cor. see statement page 1 back "A"
54.50	Enter Bottom. bears, N. W. and S. E. dense sage brush and young growth of Cottonwood.
	Difference between measurements of 64.75 chs., by two set of chainmen is 2 lks.; position of middle point
	By 1st set, 64.76 chs.
	By 2nd set, 64.74 chs.; the mean of which is
64.75	N. 0.40 ft. from the tangent.
	On the Right bank of San Juan River.
	Set a Sand stone 14 x 10 x 5 ins. 10 ins. in the ground, for M. C. to sec. cor. secs. 5 and 32.
	Marked, M. C. R 24 on E. T 40 S. S. 32 on N.

chains

S. 5 on S. face and
Raised a mound of stone 2 ft. base,
1½ ft. high E. of Cor.
Pits impracticable. Destroyed offset. See page 1 book "A"
Land rolling.
Soil, gravelly.
Rolling land 54.50 chs.
dense undergrowth and young cottonwood
timber 102.5 chs.

We return to the Standard cor. of sec. 32 and 33
and
We lay off from the true meridian, an angle of 90°, from North to East, and run
East on the tangent, S. of sec. 33.
Ascending over precipitious land
8.80 Spur. 3.50 ft. high, projects S.
27.00 Spur. projects S.
Difference between measurements of 40.00 chs., by two set of chainmen, is 6 lks.; position of middle point
By 1st set, 40.03 chs.
By 2nd set 38.97 chs.; the mean of which is.
40.00 N. 0.15 ft. from the tangent
Set a sand stone 12×12×6 ins. 9 ins in the ground for 1/4 sec. cor.
marked S.C. 1/4 S. on N. face,
raised a mound of stone 2 ft. base, 1½ ft. high N. of Cor.
Pits impracticable. Destroyed offset. See page 1 "A"
43.30 Spur. projects S.
63.40 Spur. projects S.

Eighth Standard Parallel South, through R. 24 E., continued.

Chains.	
	Difference between measurements of 74.55 chs., by two set of chainmen, is 8 lks.; position of middle point
	By 1st set, 74.59 chs
	By 2nd set, 74.51 chs.; the mean of which is
74.55	N. 0.47 ft from the tangent, set a sand stone 12 x 10 x 6 ins. 8 ins. in the ground, for closing cor. to secs. 3 and 4 Tps 41 S. R 24 E. marked C.C. on the S. with, 3 grooves on the E. and W. faces. raised a mound of stone 2 ft. base, 1½ ft. high S. of cor. Pits impracticable.
	Difference between measurements of 80.00 chs.; by two set of chainmen is 10 lks.; position of middle point
	By 1st set, 79.95 chs.
	By 2nd set, 80.05 chs.; the mean of which is
80.00	N. 0.50 ft. from the tangent, set a sand stone 12 x 12 x 5 ins. 8 ins. in the ground. for standard cor. of secs. 33 and 34. marked S.C. on N. with 3 grooves on the E. and W. faces. raised a mound of stone 2 ft. base, 1½ ft. high N. of cor. Pits impracticable. destroyed old cor. see statement 2 page 1 book 1 "a".
	Land, mountainous
	Soil stony 4th rate
	no timber
	Mountainous land 80.00 chs.
	Jan 19/99 At this cor. we set off 20° 14' S. on decl. arc; and at

Eighth Standard Parallel South through R. 24 E., contin

Chains	
	12 hrs 08 m. l. m. t., observe the sun on the meridian, the resulting lat. is. 37° 1/6 N.
	S. 89° 59' E. on the tangent S. of sec. 34. Over broken sand stone ledges on steep slope of bluff to South. descend.
10.00	Foot of bluff bears N. 80° E. and S. 80° W. and San Juan River Bottom. Dense undergrowth. Difference between measurements of 40.00 chs.; by two set of chainmen is 8 lks.; position of middle point By 1st set 39.96 chs. By 2nd set 40.04 chs.; the mean of which is
40.00	N. 1.14 ft. from the tangent. Set a sand stone 16 x 10 x 4 ins. 11 ins. in the ground for Standard 1/4 sec. cor. marked S.C. 1/4 S. on N. face, raised a mound of stone 2 ft. base, 1 1/2 ft. high N. of cor. Pits impracticable destroyed old cor. sig. 1. Book "A"
43.00	Foot of bluff and river bottom Leave dense under growth. bears. N. 80° W. and S. 80° E. Begin steep ascent. Difference bet. measurements of 74.55 chs.; by two set of chainmen is 12 lks.; position of middle point By 1st set 74.49 chs. By 2nd set 74.61 chs.: the mean of which is
74.55	N. 1.90 ft. from the tangent. Set a sand stone 16 x 10 x 4 ins.

Eighth Standard Parallel South, through R. 24 E., Continued.

Chains.	
	11 ins. in the ground, for Closing Cor. to secs. 2 and 3. T. 41 S. R. 24 E. Marked C.C. on S. with 4 grooves on the W. and 2 grooves on the E. faces, raised a mound of stone 2 ft. base, 1½ ft. high S. of Cor.
	Pits impracticable.
77.00	Spur. 300 ft. above river bottom projects S. descend.
	Difference bet., measurement of 80.00 chs., by 2 set of chainmen, is 14 lks.; position of middle point.
	By 1st set 79.93 chs.
	By 2nd set 80.07 chs., the mean of which is.
80.00	N. 2.02 ft. from the tangent, set a sand stone 18 × 8 × 6 ins. 12 ins. in the ground for standard cor. of secs. 34 and 35. Marked S.C. on N. with 4 grooves on the W. and 2 grooves on the E. faces raised a mound of stone 2 ft. base, 1½ ft. high N. of Cor.
	Pits impracticable & shaped old cor. Surp. book "a"
	Land, mountainous
	Soil, stony 4th rate.
	No timber
	Mountainous land 80.00 chs.
	S. 89° 58' E. on a tangent S. of sec. 35. Descending over broken stony ground.
15.00	Ravine, 200 ft deep, course S. 10° W.
	Ascend,

Eighth Standard Parallel South, through R. 24 E., continue

31.00	Topofridge bears. N. and S. Descend
	Difference bet. measurement of 40.00 chs. by two set of chainmen is 6 lks.; position of middle point.
	By 1st set 39.97 chs.
	By 2nd set 40.03 chs.; the mean of which is
40.00	N. 3.15 ft. from the tangent, set a sand stone 16 x 10 x 8 ins. 11 ins. in the ground for standard 1/4 sec. cor. marked S.C. 1/4 S on N. face, raised a mound of stone 2 ft. base, 1 1/2 ft. high N. of cor. Pits impracticable destroyed old cor. See page 1 book "A".
45.00	West fork of Allen Cañon 200 ft. deep. Course S. ascend.
	Difference bet. measurement of 74.55 chs. by two set of chain men is 8 lks. position of middle point
	By 1st set 74.51 chs.
	By 2nd set 74.59 chs: the mean of which is
74.55	N. 4.39 ft. from the tangent, set a sand stone 15 x 10 x 6 ins. for closing cor. to secs. 1 and 2 Tp. 41 S., R 24 E. marked C.C. on S. With 5 grooves on the W. and 1 groove on the E. faces raised a mound of stone 2 ft. base, 1 1/2 ft. high S. of cor. Pits impracticable.
	Difference bet. measurement of 80.00 chs. by two set of chainmen is 10 lks. position of middle point
	by 1st set 79.95 chs.
	by 2nd set 80.05 chs.; the mean of which is.

Eighth Standard Parallel South, through R. 24 E., continued.

Chains.	
80.00	N. 4.56 ft. from the tangent, set a sand stone 16 x 10 x 6 ins. 11 ins. in the ground for standard cor. of secs 35 and 36. marked S.C. on N. with 5 grooves on the W. and 1 groove on the E. faces. raised a mound of stone 2 ft. base, 1 1/2 ft. high. N. of cor. Pits impracticable destroyed old cor. see page 1 book "a" Land, mountainous soil, stony 4th rate. No timber Mountainous land, 80.00 chs.
	Jan. 19 1899 At 3 p.m. l.m.t., We set off 37° N. on lat. arc; 20° 11' S. on decl. arc; and determine a true meridian with the solar at the standard cor. of secs. 35 and 36. Thence WE run. S. 89°57' E. on the tangent, S. of sec. 36. Descending,
0.70	Ravine, 25 ft. below cor. Course N.W. ascend,
6.00	Top of ridge bears N. and S. descend,
15.00	Bottom of ravine 150 ft deep. Course S.
39.50	Sand ridge bears N. and S. descend, Difference bet. Measurements of 40.00 chs.; by two set of chainmen is 6 lks.; position of middle point. By 1st set 39.97 chs. By 2nd set 40.03 chs.; the mean of which is
40.00	N. 6.22 ft. from the tangent

Eighth Standard Parallel South, through R. 24 E. Continued

Chains	
	Set a sand stone 16 x 10 x 4 ins. 11 ins in the ground for standard 1/4 sec. cor. marked S.C. 1/4 S. on N. face, Raised a mound of stone 2 ft. base, 1½ ft. high N. of cor.
	Pits impracticable.
50.00	Ravine 75 ft deep course S. ascend,
65.00	Top of ridge, bears N. and S. descend.
68.00	Foot of ridge and bottom Allen canon bears N. and S. through dense aspinesa.
	Difference bet. measurement of 74.55 chs. by two set of chainmen, is 10 lks.; position of middle point
	By 1st set. 74.50 chs.
	By 2nd set 74.60 chs.; the mean of which is
74.55	N. 7.86 ft. of the tangent,
	In Allen Wash. set a sand stone 16 x 10 x 4 ins. 11 ins in the ground for cor. of T. 41 S. R. 24 and 25 E. Marked C.C. T 41 S. on S. R 24 E on W. R 25 E on E faces with 6 grooves on E. S. and W. faces and raised a mound of stone, 2 ft. base, 1½ ft. high. S. of cor.
	Difference bet. measurements of 80.00 chs. by two set of chainmen is 10 lks.; position of middle point
	By 1st set. 79.95 chs.
	By 2nd set 80.05 chs.; the mean of which is.
80.00	N. 8.17 ft. from the tangent,
	Set a sand stone 18 x 14 x 4 ins. 12 ins. in the ground for Standard cor. of T. 40 S. R. 24 and 25 E. Marked S.C. T 40 S on N. with 6 grooves on the N. R. 25 E with 6 grooves on E.

Eighth Standard Parallel South through R. 24 E. Concluded.

R. 24 E. with 6 grooves on the N. faces, raised a mound of stone 2 ft. base, 1½ ft. high N. of cor.
Pits impracticable destroyed old cor. see fr. bot. "a".
Land, mountainous.
Soil, stony 3rd rate,
No timber
Mountainous land 80.00 chs.
Jan 19. 1899

Jan 19th 1899
At the standard cor. of T. 40 S. R. 24 and 25 E. In lat. 37°16' N. Long. 109°18' W. At 11h 19m p. m. l. m. t., We observe Polaris at Western Elongation, in accordance with instructions in the manual, and mark the line thus determined by a tack driven in a wooden plug set in the ground 5 chs. N. of the cor.
Jan 20th 1899 We turn off the azimuth of Polaris 1°33' to the E., and mark the True meridian thus determined by cutting a mark on a stone firmly set in the ground East of the mark established last night; The magnetic bearing of the true meridian is N 14°20' W. which reduced by the table on page 100. of the manual, gives the mean magnetic declination 14°18' E.

Chains	
	We lay off from the true meridian, an angle of 90°, from N. to E. and run
	East on the tangent S. of sec. 31.
	Along bottom through dense artimesa.
3.00	Foot of slope, Leave bottom and dense artimesa bears N. & S. Begin ascending over broken hills.
23.50	Top of ridge, bears N. & S. descend
39.00	Bottom of ravine 100 ft deep course S. & ascend.
	Difference bet. measurement of 4000 chs. by two set of chainmen. is 6 lks.; position of middle point
	By 1st set 39.97 chs.
	By 2nd set 40.03 chs. the mean of which is
40.00	N. 0.73 ft. from the tangent,
	Set a sand stone 18 x 14 x 4 ins. 12 ins. in the ground, for standard 1/4 sec. cor. marked, S.C. 1/4 S. on N. face, raised a mound of stone 2 ft. base, 1 1/2 ft. high. N. of cor.
	Pits impracticable [illegible]
55.00	Begin steep ascent.
61.50	Top of ridge bears N. & S. descend
66.00	Cañon 100 ft deep course S. ascend.
76.00	Top of steep ascent bears N. & S.
	Difference bet. measurement of 8000 chs. by two set of chainmen is 8 lks.; position of middle point
	by 1st set 79.96 chs.
	by 2nd set 80.04 chs. the mean of which is
80.00	N. 0.52 ft. from the tangent,
	Set a sand stone 16 x 10 x 6 ins. 11 ins. in the ground for standard cor. to secs. 31 & 32. marked S.C. on N.

Eight Standard Parallel South, through R. 25 E. continued.

Chains.	
	with 5 grooves on the E. and 1 groove on the W. faces. raised a mound of stone, 2 ft. base, 1½ ft. high N. of the cor. Pits impracticable destroyed old cor. see pages book "A".
	Mountainous land,
	Soil stony 3rd rate.
	No timber
	Mountainous land 80.00 chs.
	S. 89°59' E. on the tangent S. of sec. 32. Ascending over rolling land dense artimesa
28.00	Top of ridge bears N. and S. descend.
	Difference bet. measurements of 40.00 chs. by two set of chainmen, is 4 lks. position of middle point
	By 1st set 39.98 chs.
	By 2nd set 40.02 chs; the mean of which is
40.00	N. 1.14 ft. from the tangent.
	Set a sand stone 16 x 12 x 5 ins. 11 ins. in the ground for standard ¼ sec. cor. marked S.C. ¼ S. on N. face, raised a mound of stone 2 ft. base, 1½ ft. high N. of cor. Pits impracticable destroyed old cor. see pages book "A".
	Head of ravine 20 ft deep. course S. ascend.
54.00	Begin steep descent over broken sandstone ledges. bear N. and S.
56.00	Leave ledges.
72.00	Begin steep descent over sand stone ledges. bear N. & S.
75.00	Bottom of ravine 15 ft deep course S. ascend,
	Difference bet. measurements of 80.00 chs. by two set of chainmen

Eighth Standard Parallel South through R. 25 E. contin

Chains.	
	is 6 lks.; position of middle point
	By 1st set 79.97 chs.
	By 2nd set 80.03 chs. the mean of which is.
80.00	N. 2.02 ft. from the tangent
	Falls on a boulder 8 x 4 x 4 ft.
	Cut a cross in boulder for
	standard cor. of secs. 32 and 33
	with S.C. on N. 4 grooves on
	the E. and 2 grooves on the W. sides
	raised a mound of stone
	2 ft. base, 1½ ft. high N. of cor.
	Pits impracticable destroyed old cor. see fr. book A
	Land, mountainous
	Soil, stony 3rd pat.
	No timber.
	Mountainous land 80.00 chs.
	Jan 20th 1899 At this cor. We set off
	20° 01' S. on decl. arc; and at 12h 10m
	l.m.t., observe the sun on the
	meridian the resulting lat.
	is 37°16'
	S. 89°58' E. on the tangent, S of sec. 33.
	Ascending steep slope, over broken
	sand stone ledges.
40.00	Spur. projects. S.
15.00	Spur. projects. S. descend.
16.00	Ravine 15 ft. deep. course
	S W. ascend.
	Difference bet. measurements of
	40.00 chs.; by two set of chainmen
	is 6 lks. position of middle point
	By 1st set 40.03 chs.
	By 2nd set 39.97 chs. the mean of which is
40.00	N 3.15 ft. from the tangent
	Set a sand stone 15 x 12 x 5 ins. 10 ins.
	in the ground for standard
	¼ sec. cor. marked S.C. ¼ S. 33 on

Eight Standard Parallel South, through R. 25 E, continued.

Chains.	
	N. face, raised a mound of stone 2 ft base, 1½ ft. high N. of cor. Pits impracticable destroyed old cor. see p. 1. book "a"
56.00	Begin steep ascent.
62.00	Top of ridge. bears N. and S.
64.00	Begin steep descent.
74.50	Wagon road, near bottom of ravine bears N. 10° E. and S. 10° W. Course of ravine S. 10° W.
	Ascend,
	Difference bet. measurement of 80.00 chs.; by two set of chain-men, is 10 lks.; position of middle point
	By 1st set. 79.95 chs.
	By 2nd set 80.05 chs.; the mean of which is.
80.00	N. 4.56 ft. from the Tangent set a sand stone 16 x 10 x 4 ins. 11 ins. in the ground for standard cor. of secs. 33 and 34. marked S.C. on N. with 3 grooves on the E. and W. faces, raised a mound of stone 2 ft. base, 1½ ft. high N. of cor. Pits impracticable destroyed old cor. see page 1. book "a".
	Land, mountainous
	Soil, stony, 3rd rate.
	No. timber
	Mountainous land, 80.00 chs.
	S. 89° 57' E. on the Tangent S. of sec. 34.
	Ascending steep slope.
5.00	Top of steep slope. bears N. & S.
	Ascending over rolling land,
18.00	Enter sand stone ledges and boulders.
35.00	Bottom of ravine 100 ft deep. Course S. 10° W.
	Difference bet. measurement of 40.00 chs. by two set of chain-men is 4 lks.

Eighth Standard Parallel South through R. 25 E. continued

Chains.	
	position of middle point.
	By 1st set 40.02 chs.
	By 2nd set 39.98 chs: the mean of which is
40.00	N. 6.22 ft. from the tangent,
	Set a sand stone 16 x 10 x 8 ins.
	11 ins. in the ground for Standard
	1/4 sec. cor. marked S.C. 1/4 S. on
	N. face, raised a mound of stone
	2 ft. base, 1 1/2 ft. high N. of Cor.
	Pits impracticable, destroyed old cor. surf. Post "A"
50.00	Top of ridge bears N. N. and S.E.
	descend,
76.00	Dry run, course S.E.
78.50	Road
	bears N. and S.
	Difference bet measurement of
	80.00 chs. by two set of chain men
	is 6 lks. position of middle point.
	By 1st set 80.03 chs.
	By 2nd set 79.97 chs.; the mean of which is
80.00	N. 8.11 ft. from the tangent.
	Set a sand stone 16 x 10 x 6 ins.
	11 ins. in the ground for standard
	Cor. to secs. 34 and 35. marked S.C. on N.
	with 4 grooves on the N. and 2 grooves
	on the E. faces. raised a mound
	of stone 2 ft. base, 1 1/2 ft. high N. of
	Cor.
	Pits impracticable, destroyed old cor. surf. Post "A"
	Land, mountainous
	Soil, stony 2nd and 3rd rate.
	No timber
	Mountainous land 80.00 chs.
	Jan 20. 1899

Jan 21. 1899.

At 8 a.m. l.m.t., We set off 37°16' N on lat. arc. 19° 48' S. on decl. arc. and determine a true meridian

Eighth Standard Parallel South through R. 25 E., continued.

Chains.	
	with the solar.
	S. 89°56' E. on the tangent S. of sec. 35. Descending.
3.75	Dry run, course S. W. Ascending over broken hills.
35.00	Begin steep ascent, bear S. and N. W.
37.00	Top of steep ascent. Difference bet. measurements of 40.00 chs. by two set of chainmen 2 lks.; position of middle point. By 1st set 39.99 chs. By 2nd set 40.01 chs. the mean of which is.
40.00	N. 10.28 ft. from the tangent, Set a sand stone 18 x 10 x 6 ins. 12 ins. in the ground for standard 1/4 sec. cor. marked S.C. 1/4 S. on N. face, raised a mound of stone 2 ft. base, 1 1/2 ft. high N. of cor. Pits impracticable destroyed old cor. see p. 1 book "A."
44.00	Begin steep descent.
79.00	Dry run, course S.E. ascend, Difference bet. measurements of 80.00 chs. by two set of chainmen is 4 lks.: position of middle point. By 1st set 79.98 chs. By 2nd set 80.02 chs. the mean of which is.
80.00	N. 12.68 ft. from the tangent. Set a sand stone 14 x 8 x 6 ins. 10 ins. in the ground, for standard cor. to secs. 35 and 36. Marked S.C. on N. with 5 grooves on the W. and 1 groove on the E. raised a mound of stone 2 ft. base, 1 1/2 ft. high N. of cor.

Eighth Standard Parallel South, through R. 25 E. continued

Chains.	
	Pits impracticable destroyed old cor. Sup. 1. Book "A"
	Land, mountainous
	Soil, stony. 2nd rate.
	No timber
	Mountainous land, 80.00 chs.
	S. 89°56' E. on the tangent S. of sec. 36,
	Descending.
18.00	Bottom of ravine 150 ft deep.
	Course S 10° E. ascend,
	Difference bet. measurements of 40.00 chs. by two set of chainmen is 4 lks. position of middle point.
	By 1st set. 39.98 chs.
	By 2nd set 40.02 chs. the mean of which is
40.00	N. 15.34 ft. from the tangent.
	On top of ridge bears N.E. and S.S.W.
	Set a sand stone 16 x 8 x 6 ins. 11 ins. in the ground for standard 1/4 sec. cor. marked, S.C. 1/4 S on N face, raised a mound of stone 2 ft base, 1 1/2 ft. high. N. of cor.
	Pits impracticable destroyed old cor. Sup. 1. Book
	Descend,
52.00	Bottom of ravine, 40 ft deep.
	Course S. ascend
	Difference bet. measurement of 71.83 chs. by two set of chainmen is 6 lks. position of middle point
	By 1st set. 71.80 chs.
	By 2nd set 71.86 chs. the mean of which is
71.83	N. 17.66 ft. from the tangent
	Set a sand stone 16 x 10 x 4 ins. 11 ins in the ground for cor. of T. 41 S. Rs 25 and 26 E.,
	Marked, C.C. 41 S on S. 25 E. on N. and R. 26 E. with 6 grooves on the S.E. and N. faces. raised a mound of stone 2 ft. base, 1 1/2 ft high S. of cor.

Eighth Standard Parallel South, through R. 25 E. concluded.

chains.	Pits impracticable.
	Difference bet. measurement of 8000 chs. by two set of chainmen is 8 lks. position of middle point.
	By 1st set 80.04 chs.
	By 2nd set 79.96 chs. the mean of which is
80.00	N. 18 ft. from the tangent.
	Set a sand stone 16 x 8 x 7 ins. 11 ins. in the ground for standard cor. of T. 40 S. R. 25 and 26 E. marked S.C. 40 S. on N., 26 E. on E., 25 E. on W., with 6 grooves on the N.E. and W. faces. raised a mound of stone 2 ft. base 1½ ft. high N. of cor. Pits impracticable.
	Destroyed old corner statement page 1 Book A.
	Land, mountainous
	Soil, stony 2nd and 3rd rate.
	No timber
	Mountainous land 8000 chs.
	Jan 21st 1899.

Eighth Standard Parallel South through R. 26. E.

	Jan 21. 1899 At the standard cor. of T. 40 S. Rs. 25 and 26 E., Lat. 37°16' N. Long. 109°12' W. at 11 hrs 11 m. p.m., l.m.t., We observe Polaris at Western Elongation, in accordance with instructions in the manual, and mark the line thus determined by a tack driven in a wooden plug set in the ground 5 chs. N. of the cor.
	Jan 22. 1899 We turn off the Azimuth of Polaris 1°33' to the East and mark the True Meridian thus determined by cutting a mark on a stone firmly set in the ground East of the mark, established last night. The magnetic bearing of the true meridian is N. 14°20' W. which reduced by the table on page 100. of the manual, gives the Mean Mag. decl. 14°18' E.
	We lay off from the true meridian an angle of 90°; from N. to E. and run
	East on the tangent S. of sec. 31. Descending
3.00	Ravine 20 ft. deep. course S.
6.50	Begin steep descent sand stone ledges 60 ft. high bear N. and S.

Eighth Standard Parallel South through R. 26 E. continued

Chains.	
10.00	Enter McElmo Bottom, Leave steep slope, bears N. and S. Enter dense artimesa
15.00	W. bank of Wash. 15 ft high bears N. 20° E. and S. 20° W.
23.00	McElmo creek, 20 lks wide flows S.
23.50	E. bank of Wash 15 ft high bears N. 20° E. and S. 20° W.
	Difference bet. measurement of 40.00 chs by two set of chainmen is 6 lks. position of middle point
	By 1st set 40.03 chs.
	By 2nd set 39.97 chs. the mean of which is
40.00	N. 0.13 ft. from the tangent,
	Set a sand stone 18 x 8 x 3 ins. 12 ins. in the ground for standard 1/4 sec. cor.
	Marked S.C. 1/4 S. 31 on N. face, raised a mound of stone 2 ft. base 1 1/2 ft. high N. of cor.
	Pits impracticable destroyed old cor. see p. 1 book "a"
42.50	Leave Bottom and dense artimesa Begin steep ascent, bears N.E. and S.W.
70.00	Top of spur. projects. N. descend.
73.00	McElmo Bottom bears N.W. and S.E.
	Difference bet. measurement of 80.00 chs. by two set of chainmen is 8 lks. position of middle point
	By 1st set 80.04 chs.
	By 2nd set 79.96 chs. the mean of which is
80.00	N. 0.50 ft. from the tangent,
	Set a sand stone 24 x 8 x 6 ins. in a mound of rock, for standard cor. to secs. 31 and 32. Marked S.C. on N. with 5 grooves on the E. and 1 groove on the W. faces raised a mound of stone 2 ft. base 1 1/2 ft. high N. of cor.
	Pits impracticable, destroyed old cor. see p. 1 book "a"
	Land, mountainous
	Soil, sandy & stony, 2nd and 3rd rate.

Eighth Standard Parallel South, through R. 4 E. continued.

Chains	
	No timber Mountainous land and dense undergrowth 80.00 chs.
	S. 89°59' E., on the tangent S. of sec. 32. Along bottom through dense artimesa
4.00	Leave bottom, dense artimesa and begin steep ascent, bears N.E. and S.W.
6.00	Spur projects N. descend.
36.50	Bottom of ravine 20 ft deep. Course N.W.
	Difference bet. measurements of 40.00 chs. by two set of chainmen, is 4 lks. position of middle point By 1st set 39.98 chs. By 2nd set 40.02 chs. the mean of which is
40.00	N. 1.14 ft. from the tangent. Set a sand stone 16 x 10 x 6 ins. 11 ins. in the ground for standard 1/4 sec. cor. marked S.C. 1/4 S. on N. face, raise a mound of stone 2 ft. base, 1 1/2 ft. high N. of cor. Pits impracticable destroyed old cor. seeps. book "A."
50.00	Bottom of ravine 60 ft. deep. Course N 10° W.
70.50	Begin steep ascent over broken sand stone ledges. bear N.W. and S.E.
	Difference bet. measurements of 80.00 chs. by two set of chainmen is 8 lks. position of middle point is By 1st set 80.04 chs. By 2nd set 79.96 chs. the mean of which is
80.00	N. 2.02 ft. from the tangent. Set a sand stone 16 x 10 x 4 ins. 11 ins. in the ground for standard

Eighth Standard Parallel South through R. 26 E. Contin.

Chains	
	Cor. to secs. 32 and 33. marked S.C. on N. with 4 grooves on the E. and 2 grooves on the W. faces. raised a mound of stone 2 ft. base, 1½ ft. high N. of cor. Pits impracticable. [illegible] Land, mountainous Soil, stony 2nd and 4th rate. No timber Mountainous land and dense under-growth. 80.00 chs.
	Jan 21. 1899 at 2.30 P.M., l. m. t., Ye set off 37°16' N. on lat. arc. 19°46' S. on decl. arc; and determine a true meridian with the solar.
	S. 89°58' E. on the tangent S. of sec. 33. Ascending over broken sand-stone ledges.
8.00	Top of ledges and edge of mesa. 350 ft above bottom. Bears N. and S. over rolling land.
12.50	Ravine 40 ft deep course S.N.
	Difference bet measurements of 40.00 chs. by two set of chain-men. 4 lks. position of middle point. By 1st set. 40.02 chs. By 2nd set 39.98 chs. the mean of which is
40.00	N. 3.15 ft. from the tangent. Set a sand stone 16 x 7 x 5 ins. 11 ins. in the ground for standard ¼ sec. cor. marked S.C. ¼ S 33 on N. face, raised a mound of stone 2 ft. base, 1½ ft. high N. of cor.

Eighth Standard Parallel South, through R. 1 E. Concluded.

Chains.	
	Pits impracticable.
	Destroyed old cor. see Statement Page 1 set "A"
43.00	Top of ridge bears N.E. and S.W. descend.
59.50	Indian trail bears N.E. and S.W.
77.00	Head of ravine, course S.
	Difference between measurements of 80.00 chs. by two set of Chainmen is 6 lks. position of middle point By 1st set 79.97 chs. By 2nd set 80.03 chs. the mean of which is
80.00	N. 4.56 ft. from the Tangent: Set a sand stone 18 x 12 x 14 ins. 12 ins. in the ground for Standard cor. to secs. 33 and 34 marked S.C. on N. with 3 grooves on the E. and W. faces. Raised a mound of stone 3 ft. base, 1½ ft. high. N. of cor.
	Pits impracticable.
	Destroyed old cor. see Statement page 1 set "A"
	Land, mountainous.
	Soil, sandy and stony, 1st and 3rd rate.
	No timber.
	Mountainous, land, 80.00 chs.
	Jan 21st 1899.

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Eight Standard Parallel South, through Range 21 East.

The test of the Adjustments of the instrument, were made April 3rd 1899 and recorded in the book of Subdivisions of T. 40 S., R. 21 E.

April 4th '99 at 2:00 p.m., l. m. t., We set off 37°16' N. on lat. arc; 5° 53' N. on dec. arc; and determine a true meridian at the Standard cor. of Secs. 32 and 33.
Tp. 40 S., R. 21 E., in Lat. 37°16' N
Long. 109°41' W.
Set by us.
Thence We run.
East on the tangent S. of sec. 33.
over bottom land, dense growth of young Cotton wood,
No difference by two set of chainmen,
9.00 on right bank of San Juan river bears N.E. & S.W.
N 0.03 ft from the tangent,
Set a sand stone 16 x 10 x 5 ins. 11 ins in the ground for Meander cor. to frac. secs. 4 and 33.
Marked M.C. on E. S.C. T40 on N. T41 on S. and R21E. S33 and S.4 on W. faces raised a mound of stone 2 ft. base, 1½ ft. high W. of cor.
Pits impracticable destroyed old cor. see p. 1 Book "A"
Land, bottom
Soil, sandy,
Cotton wood,
Dense under growth 9.00 chs.

From the Standard cor. of secs.

Eighth Standard Parallel South through R. 21 E., continued

Chains.	
	32 and 33.
	Already described.
	The run
	West on the Tangent S. of sec. 32.
	Over bottom land, dense growth
	of young cottonwood,
2.25	Foot of cliffs,
	80 ft. high. bear N.E. and S.W.
2.50	Top of cliffs and edge of 1st bench
	bears N.E. and S.W., leave undergrowth.
	ascend,
5.25	Indian trail bears N.E. and S.W.
8.50	Begin steep ascent.
11.00	Top of 2nd bench bears N.E. and S.W.,
	over rolling mesa.
28.75	Trail bears N.E. and S.W.
	Difference between measurement
	of 40.00 chs. by two set of chain men
	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. 0.13 ft. from the Tangent
	Set a cobble rock 18 x 12 x 5 ins. 12
	ins. in the ground for standard
	1/4 sec. cor. marked S.C. 1/4 S. on N.
	face, raised a mound of stone 2
	ft. base 1½ ft. high. N. of cor.
	Pits impracticable destroyed all evidence
40.20	Trail bears N.E. and S.W.
77.00	Top of ascent N & S
	Descend.
	Difference between measurement
	of 80.00 chs. by two set of Chain-
	men. is 4 lks.; position of middle
	point. By 1st set 80.02 chs.
	By 2nd set 79.98 chs.; the mean
	of which is.
80.00	N. 0.50 ft. from the Tangent

Eighth Standard Parallel South through R. 21 E., Continued.

Chains.	
	Set a sand stone 18 x 14 x 3 ins. 12 ins. in the ground, for standard cor. to secs. 31 and 32. Marked S.C. on N. with 5 grooves on the E. and 1 groove on the W. faces, raised a mound of stone 2 ft. base, 1½ ft. high N. of cor.
	Pits impracticable destroyed old cor. Surface 1 foot "A"
	Land, mountainous.
	Soil, sandy and gravelly. 1st and 2nd rate.
	Cottonwood timber.
	Dense under growth and mountainous land 80.00 chs.
	S. 89°59' W. on the tangent S. of sec. 31. Over rolling mesa,
14.00	Smooth sand stone floor. bears N. and S.E.
19.00	Leave sand stone floor. bears N. & S.
	No difference bet. measurement of 40.00 chs. by two set of chainmen,
40.00	N. 1.14 ft. from the tangent.
	Set a sand stone 24 x 14 x 4 ins. 18 ins. in the ground for standard ¼ sec. cor. marked S.C. ¼ S. on N. face, raised a mound of stone 2 ft. base, 1½ ft. high N. of cor.
	Pits impracticable destroyed old cor. Surface 1 foot "A"
	No difference bet. measurements of 70.25 chs. by two set of chainmen
70.25	N. 1.81 ft from the tangent on solid sand stone floor near the E. side of Butler Canon, being impossible to proceed farther on account of precipitious descent.

Eighth Standard Parallel South through R. 21 E., conclu

Set a sand stone 20 x 14 x 4 ins. on solid rock base, in a mound of stone for witness cor. of Standard Cor. to secs. 31 and 36 T. 40 S. Rs. 20 and 21 E.
Marked. W. C. S. C. T 40 S on N. 21 E. on E., 20 E on W. with 6 grooves on the N. E. and W. faces, raised a mound of stone 2 ft. base, 1 1/2 ft. high N. of Cor.
Pits impracticable.

80,00 Cor. for Tps 40 S. Rs 20 and 21 E. falls on unaccessable cliffs and is not set.
Land rolling.
Soil sandy 2nd rate
No timber

April 4, 1899.

Hubert D. Page,
James M. Lentz.
U.S. Deputy Surveyors.

For general description see subdivision notes of T 40 S. Rs 21. 24. 25 and 26 E.

FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by Hubert D. Page and James M. Lentz, United States Deputy Surveyors, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of the Eighth Standard Parallel South through ranges 21, 24, 25 and 26 E. of the Salt Lake Base and Meridian, Utah showing the respective capacities in which they acted:

Peter Meyer, Peter Allen, Chainman.
Harry Erwin, Walter O. McCuen, Chainman.
John R. Lumpkin, Moundman.
George W. Dalton, Moundman.
John R. Lumpkin, Axman.
George W. Dalton, Axman.
, Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted Hubert D. Page and James M. Lentz, United States Deputy Surveyors, in surveying all those parts or portions of the Eighth Standard Parallel South through ranges 21, 24, 25 and 26 E. of the Salt Lake Base and meridian, State of Utah, which are represented in the foregoing field notes as having been surveyed by ~~him~~ them and under ~~his~~ their 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 the district of Utah.

Peter Meyer, Peter Allen, Chainman.
Harry Erwin, Walter O. McCuen, Chainman.
John R. Lumpkin, Moundman.
George W. Dalton, Moundman.
John R. Lumpkin, Axman.
George W. Dalton, Axman.
, Flagman.

Subscribed and sworn to before me this 13th day of April, 1899.

SEAL

Hubert D. Page
U.S. Deputy Surveyor.

6—151

FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, ..., United States Deputy Survey solemnly swear that, in pursuance of a contract received from United States Surveyor General for ....., bearing date c ..... day of ....., 189 , I have well, faithfully, and truly, in y proper person, and in strict conformity with the instructions furnished by the United States Su General for ....., the Manual of Surveying Instructions, and the laws United States, surveyed all those parts or portions of

.....

.....

.....

..... of the

..... meridian, in the ..... of ....., which are represented foregoing field notes as having been surveyed by me, and under my direction; and I do further sol swear that all the corners of said survey have been established and perpetuated in strict accordan the Manual of Surveying Instructions, and the special written instructions of the United States Su General for ..... and in the specific manner described in the field notes, an the foregoing are the original field notes of such survey; and should any fraud be detected, I will the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

Hubert D. Page

United States Deputy Su.

Subscribed by said ....., and sworn to before me this ..... day of ....., 189

SEAL

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City, Utah, February 17th 1

The foregoing field notes of the re survey of the Eighth Standard Paro South Tp 40 South through Ranges 21 24 25 & 26 East of Salt Lake Base & Meridian Utah

executed by Hubert D Page & James M Lentz under these contract No. 215, dated October 29th 1891 and Nineteenth, 189 , have critically examined, and the necessary corrections and explanations made, the said field notes, a surveys they describe, are hereby approved.

Jacob T B Bl

United States Surveyor C.

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 o

United States Surveyor C.

6—151

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BOOK A-252

K.J.B.

FIELD NOTES

OF THE SURVEY OF THE

Eighth Standard Parallel South
through
Range 26 East.

Of the Salt Lake Base and Meridian,
State of Utah

AS SURVEYED BY

Hubert D Page and James M Lentz, United States Deputy Surveyor,

Under ~~his~~ their Contract No. 215, dated Oct. 29th, 1897

Survey commenced January 21st, 1899

Survey completed January 21st, 1899

6—151

Standards high M. [illegible] 60-98 ✓

" Closing 6-81 ✓

[illegible]

NAMES AND DUTIES OF ASSISTANTS.

Peter Mauck	Chainman
Peter Allen	Chainman
Larry Erwin	"
Walter C. McCuen	"
John R. Lumpkin	Moundman
George H. Dalton	Moundman
John R. Lumpkin	Aiman
George H. Dalton	"

BOOK A-252

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.....

6—151

PRELIMINARY OATHS OF ASSISTANTS.

WE, Peter Meyer Peter Allen and Harry Erwin & Walter O. M.
do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will lev
chain over even and uneven ground, and plumb the tally pins, either by sticking or dropping the m.
we will report the true distances to all notable objects, and the true lengths of all lines that we a
measuring, to the best of our skill and ability, and in accordance with instructions given us, in the su
8th Standard Parallel South through R. 26 E. of the Salt Lake B.
& Meridian Utah

Peter Meyer Peter Allan, Chai
Harry Erwin Walter O. McCuen, Chai

Subscribed and sworn to before me this 5th
day of December, 1898

Hubert D. Page
U.S. Deputy Surveyor

SEAL

WE, John R. Lumpkin and George W. Dalton
do solemnly swear that we will well and truly perform the duties of moundmen in the establi
of corners, according to the instructions given us, to the best of our skill and ability, in the su
8th Standard Parallel South through R. 26 E. of the S
Lake Base Meridian Utah

John R. Lumpkin, Mou
George W. Dalton, Mou

Subscribed and sworn to before me this 5th
day of December, 1898

Hubert D. Page
U.S. Deputy Sur

SEAL

WE, John R. Lumpkin and George W. Dalton
do solemnly swear that we will well and truly perform the duties of axmen in the establishment of
and other duties, according to instructions given us, to the best of our skill and ability, in the su
Eighth Standard Parallel South through R. 26 E. of the S
Lake Base & Meridian Utah

John R. Lumpkin,
George W. Dalton,

Subscribed and sworn to before me this 5th
day of December, 1898

Hubert D. Page
U.S. Deputy Surv

SEAL

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

....., Fl

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

SEAL

6—151

Eighth Standard Parallel South, through R. 26 E.

Survey commenced Jan 21st 1899.
and executed with the instrument
described in book "A"

The test of the adjustments of
the instrument were made
Jan 21st 1899. and recorded in
book H

Resurvey of the Eighth Standard
Parallel South through R. 21, 24,
25 and 26 E. and this
is a continuation of that
line.

S. 89°57' E. on the Tangent S. of
sec. 34.
Descending over rolling Mesa.
4.00 Enter scattering cedar.
20.00 West side of perpendicular
cliffs and Canon bears N. and S.
impossible to chain.
Set a flag on line on East side
of Canon, measure a base
N. 24.00 chs. to a point from
which the flag bears S. 44°46' E.
which gives for distance 23.80 chs.
which added to 20.00 chs. makes
By two set of chainmen
43.80 Point for 1/4 sec. cor. falls on
an accessable ground, therefore
set a witness cor.
N. 650 ft. from the Tangent
On a solid sandstone ledge.
Cut a cross for standard 1/4
sec. cor. marked 1/4 C. S.C. 1/4 S.
on N. side, raised a mound
of stone 2 ft. base 1½ ft. high N.
of Cor.
Pits impracticable.

Eighth Standard Parallel South through R. 26 E. concluded

Chains.	
	Distance by two set of chainmen is the same.
60.95	N. 1.26 ft. from the tangent intersect Utah Colorado boundary 6.81 chs. S. of the 18th mile cor. which is a sand stone 15 x 8 x 3 ins. above ground, firmly set and marked as described by the Surveyor General.
	Set a sand stone 24 x 10 x 5 ins. in a mound of stone for Closing cor. to Tps. 40 and 41 S. R. 26 E.
	Marked C.C.C. R 26 E. on W. 40 S on N. 41 S. on S. with 6 grooves on the N. and S. faces. Raised a mound of stone, 2 ft base, 1½ ft. high W. of cor.
	Pits impracticable.
	Soil, stony, 2nd and 3rd class.
	Scattering cedar.
	Mountainous land, 60.98 chs.
	Jan. 21st 1899.

For General description see subdivision of Tps. 40 S R. 26 E.

Hubert D. Page
James M. Lentz
Asst. Deputy Surveyors

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FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by Hubert D Page & James M Lentz, United States Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of 8th Standard Parallel South, through R 26 E. of the Salt Lake Base & Meridian Utah showing the respective capacities in which they acted:

Peter Meyer Peter Allen, Chainman.
Harry Erwin Walter O McCuen, Chainman.
John R Lumpkin, Moundman.
George W Dalton, Moundman.
John R Lumpkin, Axman.
George W Dalton, Axman.
, Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted Hubert D Page & James M Lentz, United States Deputy Surveyor, in surveying all those parts or portions of the [illegible] Parallel South, through [illegible] of the Salt Lake Base & Meridian Utah of the meridian, of , which are represented in the foregoing field notes as having been surveyed by ~~him~~ them and under ~~his~~ their 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 the District of Utah.

Peter Meyer Peter Allen, Chainman.
Harry Erwin Walter O McCuen, Chainman.
, Moundman.
George W Dalton, Moundman.
, Axman.
George W Dalton, Axman.
, Flagman.

Subscribed and sworn to before me this 13th day of April, 1899

Hubert D. Page
U.S. Deputy Surveyor

SEAL

6—151

FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, , United States Deputy surveyor, solemnly swear that, in pursuance of a contract received from United States Surveyor General for , bearing date day of , 18 , I have well, faithfully, and truly, in my proper person, and in strict conformity with the instructions furnished by the United States Surveyor General for , the Manual of Surveying Instructions, and the laws of United States, surveyed all those parts or portions of

[illegible]

foregoing field notes [illegible] swear that all the [illegible] the Manual of Surveying Instructions [illegible] General for [illegible] the foregoing are the original [illegible] the penalty of perjury under the [illegible]

United States Deputy [illegible]

Subscribed by said [illegible]

this day of [illegible]

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL.

[illegible]

The foregoing field notes of the survey of [illegible]

executed by [illegible] under the contract No. [illegible], dated [illegible], 18[illegible], having critically examined, and the necessary corrections and explanations made, the said field notes, and surveys they describe, are hereby approved.

[illegible]

United States Surveyor Ge[illegible]

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

United States Surveyor Ge[illegible]

6—151

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4—679.

BOOK A-252

K.J.B.

FIELD NOTES

OF THE SURVEY OF THE

East and North

Boundaries

of

Township No. 40. South.

Range No. 24. East.

of

the

Of the Salt Lake Base & Meridian,

In the state of Utah.

AS SURVEYED BY

Hubert D. Page and James M. Lentz United States Deputy Surveyor,

Hum. pictures Spl Inst dated Sept 14 1899

Under ~~his~~ their Contract No. 215, dated Oct 29th 1897 and , 189

Survey commenced January 23rd, 1899

Survey completed January 27th, 1899.

6—151

Survey — E. Bdry — high M. chs. [illegible] 6-00-00

" N. Bdry — high 5-79-35

BOOK A-252

NAMES AND DUTIES OF ASSISTANTS.

Peter Meyer. chainma

Peter Allen. "

Harry Erwin. "

Walter O. McCuen. "

John R. Lumpkin, mour

George W. Dalton. "

John R. Lumpkin adma

George W. Dalton. "

For preliminary affidavits see book "B"

6—151

BOOK A-252

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, ... and

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

.....

....., *Cha*

....., *Cha*

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 esta
of corners, according to the instructions given us, to the best of our skill and ability, in the s

.....

....., *Mou*

....., *Mou*

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
and other duties, according to instructions given us, to the best of our skill and ability, in the s

.....

.....,

.....,

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

SEAL

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

....., *Fl*

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

SEAL

East Boundary of T. 40 S., R. 24 E.

Survey commenced Jan 23 1899 and executed with the instruments described in Book "A"

Then to test the solar apparatus by comparing its indications resulting from solar observations made during a. m. and p. m. hours, with a true meridian determined by observation on Polaris. We proceed as follows:

At the standard cor. of T. 40 S. Rs. 24 and 25 E. Lat. 37°16' N Long. 109°18' W.

Set by us. Jan 19th

At 4 p. m., l. m. t., We set off 37°16' N. on lat. arc; 19° 15' S. on decl. arc; and determine a true meridian with the solar, the line thus determined falls on the mark made by observation on Polaris. Made Jan 19. 1899

Jan 24. 1899 At 8 a. m., l. m. t., We set off 37°16' N. on lat. arc. 19° 05' S. on decl. arc; and determine a true meridian with the solar. the line thus determined falls on the mark of the true Meridian Made by Polaris observation on Jan 19. 1899

The solar apparatus by p. m. and a. m. observations, defines the position of the true meridian same as by Polaris observation therefore, we conclude the adjustments of the instruments

Chains	
	are correct.
	The magnetic bearing of the true meridian at 8 a.m., is N. 14° 20' W. the angle thus determined, reduced by the table page 100, gives the mean mag. dec. 14° 18' E.
	We begin at the standard cor. of Tp. 40 S., Rs. 24 and 25 E. which We established Jan. 19 1899.
	Thence We run North bet. secs. 31 and 36. Gradually ascending through dense cottonwood along bottom.
40.00	Set a sandstone 16 x 10 x 8 ins. 11 ins. in the ground for 1/4 sec. cor. marked 1/4 S. on W. face, raised a mound of stone 2 ft. base, 1½ ft. high W. of cor. Pits impracticable. Destroyed old cor. see statement page 1. Book A.
58.00	Dry run, course S. W. leave bottom.
60.00	artemisia, bears N. W. and S. E. ascend foot hills.
60.00	Spur projects W.
64.00	Ravine 50 ft. deep course W. ascend.
80.00	Set a sandstone 14 x 6 x 6 ins. 10 ins. in the ground for cor. of secs. 25, 30, 31 and 36. marked with 5 notches on the N. and 1 notch on the S. edges. raised a mound of stone 2 ft. base, 1½ ft. high W. of cor. Pits impracticable. Destroyed old cor. see statement p. 1. Book A. Land mountainous, soil, sandy and stony, 1st and 3rd rate. No timber. Mountainous land and dense undergrowth.

East boundary of T. 40 S., R. 24 E., continued.

Chains	
	80.00 chs.
	North bet. 25 and 30.
1.00	Ridge bears East and West. descend.
12.00	Spur projects N.
21.00	Ravine 60 ft. deep. course S. N.
22.00	Ledges. 25 ft. high bear. N. E. and S. N.
28.00	Ridge bears E. and W.
35.00	Bottom of Allen wash and cañon course S. N. ascend
40.00	Set a sand stone 14 x 8 x 6 ins. 10 ins. in the ground for 1/4 sec. cor. marked 1/4 S. on N. face, raised a mound of stone 2 ft. base, 1 1/2 ft. high. N. of cor. Pits impracticable Destroyed old cor. See pl. Book A.
44.00	Sand stone ledges. bear E. & W.
60.00	Top of ridge, bears E. and W. descend.
74.50	Leave sand stone ledges.
80.00	In bottom. Set a sand stone 16 x 10 x 6 ins. 11 ins. in the ground, for cor. of secs. 19, 24, 25 and 30. Marked with 4 notches on the N. and 2 notches on the S. edges. raised a mound of stone, 2 ft. base, 1 1/2 ft. high N. of cor. Pits impracticable Destroyed old cor. see R. Book A.
	Land, mountainous soil, stony. 2nd rate. No timber. Mountainous land 80.00 chs.
	Jan 24 At this cor. We set off 19° 05' S. on decl. arc; and at 12hrs 12ms l. m. t., observe the sun on the

East boundary of T. 40 S., R. 24 E., continued

Chains	
	meridian, the resulting lat. is 37°17'
	North bet. secs. 19 and 24. Along bottom Allen Cañon, through dense artimesa.
15.00	Leave bottom and dense artimesa bears N.E. and S.W. Ascend over broken sandstone ledges.
25.00	Top of spur. 200 ft above bottom projects E. descend
35.00	Foot of steep descent and
40.00	bottom, bears S.E. and N.W. ascend.
40.00	Falls on sand stone ledge, cut cross on ledge for 1/4 sec. cor. marked 1/4 S. on W. raised a mound of stone 2 ft. base 1 1/2 ft. high W. of cor. Pits impracticable Destroyed old cor. See P. Book Ascend along cañon, East side.
66.00	Leave cañon, Enter rolling Mesa.
80.00	Set a sand rock 14 x 8 x 6 ins. 10 ins. in the ground for cor. to secs. 13, 18, 19 and 24. Marked with 3 notches on the N. and S. edges, raised a mound of stone 2 ft. base, 1 1/2 ft. high W. of cor. Pits impracticable, Destroyed old cor. See P. Book Land, mountainous. Soil, stony, 4th rate. No timber Mountainous land, 80.00 chs. Jan 24. 1899
	Jany 25, 1899 at 8 a.m., l.m.t., We set

East boundary of T. 40 S., R. 24 E., continued.

Chains.	
	off 37° 18' N. on lat. arc; 18° 51' S. on decl. arc; and determine a true meridian with the solar at the cor. of secs. 13, 18, 19 and 24.
	Thence We run
	North bet. secs. 13 and 18,
	Ascending over rolling mesa.
12.00	Wagon road Bluffcity to Colorado bears E. and W.
40.00	Set a sand stone 16 x 8 x 4 ins. 11 ins. in the ground, for 1/4 sec. cor. marked 1/4 S. on W. face, raised a mound of stone 2 ft. base, 1 1/2 ft. high W. of cor.
	Pits impracticable Destroyed old cor. See P. Book A.
60.00	Ridge bears E. and W. devide between water sheds.
	Descend along drain
71.00	Leave drain course N. W.
80.00	Set a sand stone 18 x 8 x 7 ins. 12 ins. in the ground for cor. to secs. 7, 12, 13 and 18. marked with 4 notches on the S. and 2 notches on the N. edges. raised a mound of stone 2 ft. base, 1 1/2 ft. high W. of cor.
	Pits impracticable Destroyed old cor. See P. Book A.
	Land, mountainous
	Soil, sandy & Stony 1st and 3rd rate.
	No timber
	Mountainous land 80.00 chs.
	North bet. secs. 7 and 12.
	Ascend,
16.00	Spur projects W.
40.00	Set a sand stone 14 x 10 x 3 ins 10 ins. in the ground for 1/4 sec. cor. marked 1/4 S. on W. face raised a mound of stone 2 ft.

East boundary of T. 40 S., R. 24 E., continued

Chains	
	base, 1½ft. high, W. of cor.
	Pits impracticable. Destroyed old cor. See P. Book A.
55.00	Dry run, course N. & W.
60.00	Begin steep, ascent.
73.00	W. of steep slope and edge of Mesa, 350 ft above ¼ sec. cor., bears E. and W.
80.00	Set a sand stone 16 x 10 x 4 ins. 11 ins. in the ground, for ¼ cor. to secs. 1, 6, 7 and 12. Marked with 5 notches on the S. and 1 notch on the N. edges. Raised a mound of stone 2 ft. base, 1½ ft. high W. of cor. Pits impracticable. Destroyed old cor. See P. Book
	Land, mountainous.
	Soil, stony & sandy. 3rd rate.
	No timber.
	Mountainous land 80.00 chs.
	Jan 25 At this cor. I set off 18° 50' S. on decl. arc; and at 12 h. 13 m. l. m. t. observe the sun on the meridian, the resulting lat. is 37° 20' N
	North bet. secs. 1 and 6.
	Ascending over rolling Mesa, through dense timber.
13.00	Ravine 50 ft deep. Course W. Sandstone ledges 20 ft high on S.
40.00	Set a sand stone 14 x 12 x 4 ins. 10 ins. in the ground, for ¼ sec. cor. marked ¼ S. on W. face, raised a mound of stone 2 ft. base 1½ ft. high W. of cor. Pits impracticable. Destroyed old cor. See statement page 1. Book A.
42.00	Top of ridge bears E. and W.

East boundary of T. 40 S., R. 24 E., concluded.

Chains	
	Descend.
< 80.00	Falls on smooth sand stone floor. Cut cross in floor for cor. of Ts. 39 and 40 S., Rs. 24 and 25 E., marked 39 S on N.E. 25 E. on S.E. 40 S. on S.W. and 24 E. on N.W. faces with 6 notches on the N., E., S and W. edges. raised a mound of stone with a marked stone 3 ft base 2 ft high S. of cor. Pits impracticable Destroyed old cor. See statement p 1 Box 18 A. Land, mountainous soil, sandy 1st rate. No timber Mountainous land and dense artimesia 80.00 chs. Jan 25. 1899

North boundary of T. 40 S., R. 24 E.

Jan 25. 1899 At 2 p.m. l.m.t. We set off 37°21' W. on lat arc; 18°49' E. on decl. arc and determine a true meridian with the solar at the cor. of Ts. 39 and 40 S., Rs. 24 and 25 E.

Thence We run West on a random line along the N. bdy. of T. 40 S., R. 24 E. setting temp. 1/4 sec. and sec. cors. at intervals of 40.00 chs. and at 479.35 chs. Intersect E. bdy. of T. 40 S. R. 23 E. 15 lks S. of the cor. of Ts. 39 and 40 S., Rs. 23 and 24 E. hereinafter described

North boundary of T. 40 S., R. 24 E. continued

Chains.	
	The falling answers to a correction of 0°01' or 2 1/3 lks. N. per mile, Counting from the N.E. cor. of the Tp. Therefore We run S. 89°59' E. bet. secs. 6 and 31. over nearly level land, dense artimesa,
37.00	Leave dense artimesa and begin steep ascent.
38.00	Sand stone ledge 25 ft high bears N. and S.
39.35	Set a sand-stone 16 x 6 x 6 ins. 11 ins. in the ground for 1/4 sec. cor. marked 1/4 S. on N. face. raised a mound of stone 2 ft. base, 1 1/2 ft. high N. of cor. Pits impracticable Destroyed Hd. cor. See p. 1. Book A
43.00	Top of ridge bears N. and S. descend,
50.00	Bottom of ravine. 200 ft. deep. Course N.E. Ascend over broken sand stone ledges and boulders along N. slope of ridge.
70.00	Spur projects N. descend,
79.35	Set a sand stone 16 x 14 x 5 ins. 11 ins. in the ground for cor. of secs. 5, 6, 31 and 32. marked with 5 notches on the E. and 1 notch on the W. edges. raised a mound of stone 2 ft. base, 1 1/2 ft. high W. of cor. Pits impracticable. Destroyed Hd. cor. See page 1 Book A
	Land, mountainous
	Soil, sandy and stony 1st and 4th rate
	No timber
	Mountainous land, and dense artimesa 79.35 chs.

North boundary of T. 40 S., R. 24 E. Continued.

Chains.	
	S. 89°59' E. bet. secs. 5 and 32. Ascending over broken sand stone ledges.
30.00	Leave boulders.
36.00	Dry run course N. E.
40.00	Set a sand rock 14 x 10 x 5 ins. 10 ins. in the ground for 1/4 sec. cor., marked 1/4 S. on N. Fall raised a mound of stone 2 ft. base, 1 1/2 ft. high N. of cor. Pits impracticable, destroyed old cor. See P. 1 Book A.
64.00	Spur, to clay knob, projects N.
70.00	Near foot of stony spur. projects S.
80.00	Set a sand stone 18 x 14 x 4 ins. 12 ins. in the ground for cor. to secs. 4, 5, 32 and 33. marked with 4 notches on the E. and 2 notches on the W. & raised a mound of stone 2 ft. base, 1 1/2 ft. high W. of cor. Pits impracticable, destroyed old cor. see page 1, Book A. Land, mountainous Soil, stones, 4th rate. No timber Mountainous land, 80.00 chs. Jan 26 1899 At this cor. We set off 18°35' S. on decl. arc; and at 2 hrs. 13m l. m. t., observe the sun on the meridian the resulting lat. is 37°21'
	S. 89°59' E. bet. secs. 4 and 33. Ascending
5.00	Begin steep ascent. over broken sand stone ledges

16.50 Spur of High mesa. 350 ft above Cor. Projects N.
Descend along N.E. side of spur.

40.00 Set a sand stone 14 x 12 x 6 ins 10 ins. in the ground for 1/4 sec. Cor. marked 1/4 S. on N. face, raised a mound of stone 2 ft. base, 1 1/2 ft. high N of Cor.
Pits impracticable (destroyed old Cor. See P. 1. Book)

47.00 Ravine 500 ft below Spur
Course S. 15° E. ascend.

78.00 Spur projects S.

80.00 Set a sand rock 18 x 14 x 14 ins. in a mound of rock, for Cor. to secs. 3, 4, 33 and 34. marked with 3 notches on the E. and W. edges. raised a mound of stone 2 ft. base, 1 1/2 ft. high W. of Cor.
Pits impracticable (destroyed old Cor. See P. 1. Book)
Land, mountainous
Soil, stony 4th rate.
No timber
Mountainous land, 80.00 chs.
Jan 26. 1899

Jan 27 1899
At 8 a.m., l.m.t., We set off 37°21' N. on lat. arc: 18°20' S. on decl. arc; and determine a true meridian with the solar. at the Cor. of secs. 3, 4, 33 and 34.
Thence We run
S. 89°59' E. bet. secs. 3 and 34.
Ascending along the S. slope of Mesa. through broken sand stone ledges and boulders.

26.50 Spur projects S. descend.

40.00 Set a sand stone 14 x 10 x 5 ins. 10 ins

North boundary of T. 40 S., R. 24 E., continued.

Chains.	
	in the ground, for 1/4 sec. cor. marked 1/4 S. on N. face, raised a mound of stone. 2 ft. base, 1 1/2 ft. high N. of Cor.
	Pits impracticable destroyed old cor. See p. 1 book A.
52.00	Enter ravine 50 ft deep course E.
68.00	Junction of two ravines. from W. and N.E. course S.
	Leave boulders and ledges. ascend,
72.00	leave ravine course W.
80.00	Set a sand stone 16 x 10 x 6 ins. 11 ins. in the ground, for cor. of secs. 2, 3, 34 and 35, marked with 4 notches on the W. and 2 notches on the E. & raised a mound of stone 2 ft. base, 1 1/2 ft. high W. of cor.
	Pits impracticable destroyed old cor. See p. 1 Book A.
	Land, mountainous
	Soil, sandy, & stony 2nd and 4th rate
	No timber
	Mountainous land, 80.00 chs
	S. 89°59' E. bet. secs. 2 and 35.
	Descending over rolling mesa.
8.00	Ravine. 25 ft deep course S.
33.00	Begin steep descent over broken sand-stone ledges. bear. N. 10° E. and S. 10° W.
37.00	Leave ledges enter Montezuma. Bottom Dense under growth.
38.50	Montezuma wash. banks 15 ft high 50 ft wide. course S. W.
40.00	Set a sand stone 16 x 11 x 5 ins 11 ins. in the ground, for 1/4 sec. cor. marked 1/4 S. on N. face, raised a mound of stone 2 ft.

North boundary of T. 40 S., R. 24 E., continued

chains	
	base
	1½ ft. high N. of cor.
	Pits impracticable destroyed old cor. See fl. book A.
60.00	Leave bottom, and dense timber
	Begin steep ascent.
	bears N. and S.
80.00	set a sand stone 18 x 10 x 8 ins. in a mound of stone; for cor. of secs. 1, 2, 35 and 36. marked with 5 notches on the N. and 1 notch on the E. edges, raised a mound of stone 2 ft. base, 1½ ft. high N. of cor.
	Pits impracticable destroyed old cor. See fl. Book A.
	Land, mountainous,
	soil, sandy and stony, 1st and 4th rate.
	No timber,
	Mountainous land, 80.00 chs.
	Jan. 27, 1899 At this cor. we set off 18° 20' S. on decl. arc; and at 12h 10m l. mt., observe the sun on the meridian, the resulting latitude is 37° 21'
	S. 89° 59' E. bet. secs. 1 and 36.
	Ascending broken sand stone ledges.
4.00	Sand stone ledge 75 ft. high and edge of mesa; 50 ft. above Montezuma bottom, bears N. 15° E. and S. 15° W.
	Ascending over rolling mesa dense timber.
28.00	Top of ridge bears, N. and S.
	descend,
40.00	Set a sand stone 14 x 12 x 5 ins. 10 ins. in the ground, for 1/4 sec. cor. marked 1/4 S. on N. face raised a mound of stone 2 ft. base,

North boundary of T. 40 S., R. 24 E. Concluded.

Chains.	
	1½ ft. high N. of cor.
	Pits impracticable destroyed old cor. Sup. 1 Book A.
42.00	Ravine 25 ft. deep course N. 10° E. ascend.
62.50	Top of ridge bears N. and S. descend.
72.00	Bottom of ravine 50 ft. deep. course N. 10° E.
80.00	The cor. of Tps. 39 and 40 S. Rs. 24 and 25 E.
	Land, mountainous
	Soil, sandy loam and stony, 1st and 3rd rate,
	No timber.
	Mountainous land and dense under growth 80.00 chs.
	Jan 27 1899

For General description and table of Latitude and Departure see book of Subdivisions of T. 40 S. R. 24 E.

Hubert D. Bogle
James M. Lentz
U.S. Deputy Surveyors

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PAGE

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PAGE

FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

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

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

.....

showing the respective capacities in which they acted:

....., *Chainman.*

....., *Chainman.*

....., *Moundman.*

....., *Moundman.*

....., *Axman.*

....., *Axman.*

....., *Flagman.*

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted .....

....., United States Deputy Surveyor, in surveying all these parts or portions of the .....

.....

.....

.....of the .....

..... meridian, ... of ....., which 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 .....

....., *Chainman.*

....., *Chainman.*

....., *Moundman.*

....., *Moundman.*

....., *Axman.*

....., *Axman.*

....., *Flagman.*

.....

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

SEAL

6—161

FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, _____, United States Deputy Surveyor, solemnly swear that, in pursuance of a contract received from _____ United States Surveyor General for _____ bearing date of the _____ day of _____, 189 , 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 _____, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of _____

_____

_____

_____ of the _____ meridian, in the _____ of _____, which are represented in the foregoing field notes as having been surveyed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the United States Surveyor General for _____ and in the specific manner described in the field notes, and that the foregoing are the original 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.

_____
United States Deputy Surveyor.

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

SEAL

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL.

Salt Lake City, Utah, February 17th 189

The foregoing field notes of the survey of the East & North Boundaries of Township 40 South Range 24 East of the Salt Lake Base & Meridian, Utah

executed by Hubert D. Page & James M. Lynch [illegible] 1899 under contract No. 215, dated October 29, 189 having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

Jacob B. Blo[illegible]
United States 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.

_____
United States Surveyor General.