F

4—679
(April 1933)

295

FIELD NOTES

OF THE SURVEY OF THE

DEPENDENT RESURVEY 1st STAN. PAR. N., S. BDY. T. 5 N., R. 39 E.

DEPENDENT RESURVEY OF THE EAST BOUNDARY OF T. 5 N., R. 38 E.

DEPENDENT RESURVEY OF SOUTH BDY. OF SEC. 36, T. 6 N., R. 38 E.

AND SUBDIVISION OF

TOWNSHIP 5 NORTH, RANGE 39 EAST.

Of the WILLAMETTE *Meridian,*

In the State of OREGON

EXECUTED BY

Otis O. Gould. U. S. Transitman.

Under special instructions dated April 11, *19* 29, *which provided for the surveys included under Group No.* 135, *bearing the approval of the Commissioner of the General Land Office under date of* May 13, 1929.

and assignment instructions dated May 19, 1932. June 27, 1935, *19*

Survey commenced Aug. 31, *19* 32

Survey completed Aug. 13, *19* 35.

U. S. GOVERNMENT PRINTING OFFICE: 1933 6—151

INDEX DIAGRAM.

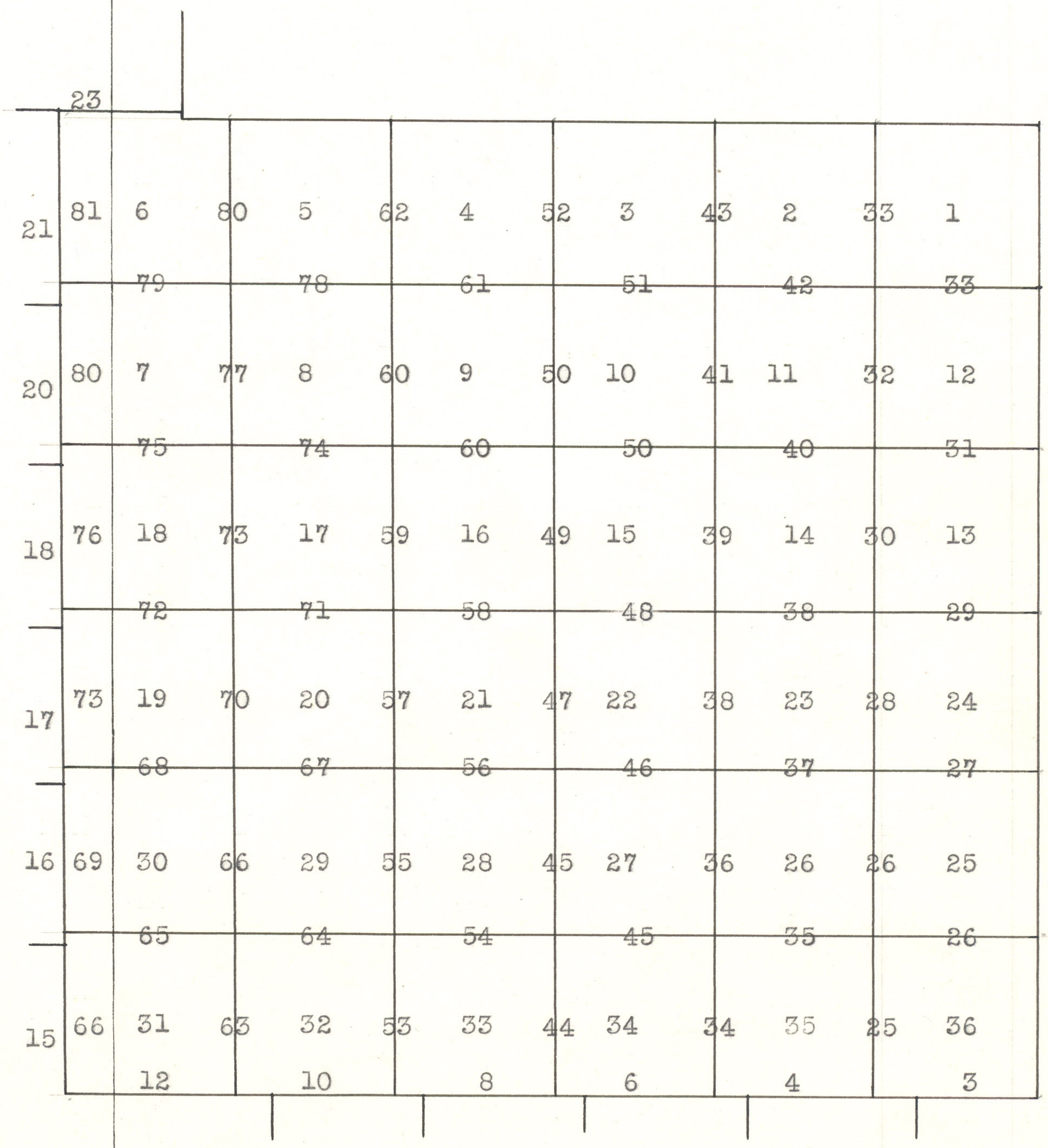
Township ----------, *Range* ----------

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

6—151

INDEX DIAGRAM

Township 5 North, Range 39 East.



U. S. GOVERNMENT PRINTING OFFICE: 1931 6—8155

. Township 5 North, Range 39 East.

These surveys were executed with a solar compass made by W. and L. E. Gurley, Serial No. U. S. G. S. 20, (used in 1932), and with a solar compass made by W. and L. E. Gurley, Serial No. "Memo B.", (used in 1935) both instruments were constructed in accordance with the standard specifications of the General Land Office. These instruments have a horizontal circle with a diameter of 5½ ins. with two double opposite verniers reading to single minutes; the sight vanes are 8 ins. long and are spaced 14 ins. apart. The instruments are equipped with Burt solar attachments, radius of latitude arcs 5½ ins. and of declination arc 4½ ins., each with single verniers reading to single minutes.

The observations in camp; on Polaris for establishment of the meridian; and the altitude observations on the sun on the meridian to verify the latitude and the reading of my watch, were executed with a light mountain solar transit made by Buff and Buff, Serial No. 9987, constructed in accordance with the standard specifications of the General Land Office. The horizontal circle has a diameter of 4½ ins., with double opposite verniers reading to single minutes; the vertical circle has a diameter of 4 ins., with one double vernier reading to single minutes; the telescope has fixed stadia wires, ratio 1:132, with focal constant of 1.2 lks. The instrument is equipped with improved Smith solar attachment; radius of latitude arc 2½ ins., and declination arc 3½ ins., each with verniers reading to single minutes. The instruments were in good condition, having been placed in satisfactory adjustment prior to beginning the survey, and tested and found free from appreciable error, were approved by the district cadastral engineer on May 19, 1932, and on June 27, 1935. I examined all the instrumental adjustments before making the field tests hereinafter recorded.

The directions of all lines were determined by solar compass method. The measurements were made with Lallie steel tapes, 5 chs. in length, graduated every link for the first 100 lks., and the balance at intervals of 10 lks. The tapes were tested by comparison with a Lufkin standard and found correct. The measurements were made on the slope and the vertical angle of each interval was ascertained by a clinometer in good adjustment; the horizontal equivalents are entered in the field note record.

The data furnished with the special instructions gives the geographic position for the SW. cor. of the township as follows: latitude 45°52'N., and longitude 118°00'W.

August 13, 1932, in camp located near the cor. of secs. 4, 5, 8, and 9, at 10h 13m 00s p.m., l.m.t., or 10h 4m 50s p.m. by my watch, which reads correct 120 th meridian time as determined by radio signals I observe Polaris at eastern elongation, making two sights each with the telescope in direct and reversed positions, and place a tack at the mean point, on a peg driven firmly in the ground 10 chs. N. August 14, after sunrise, I lay off the azimuth of Polaris 1° 31' 36", and make a meridian mark on a peg, 26.64 lks. (17.58 ft.) to the west of the mean point in the line determined by the observation; I verify the angle by a vernier reading of the instrument.

In order to verify the latitude of this station and the reading of my watch, I make a meridian observation of the sun, first setting on the lower limb and noting the transit of the west limb, then after reversal of the instrument, setting on the upper limb and noting the transit of the east limb, as follows:

Mean observed altitude	58° 20' 00"
Reduced latitude	45° 55' 50"
Mean watch time of observation	11h 56m 24s
Watch slow of l.m.t.	8m 14s
Same, by reference to radio time signals and calculated difference in longitude	8m 10s

U. S. GOVERNMENT PRINTING OFFICE: 1931 6—8155

4—673 b

Township 5 North, Range 39 East.

Chains	
	Every 30 min. from 6 to 10.30 a.m. and from 1.30 to 6 p.m., I make proper settings on the arcs of the solar attachment and ascertain that the resulting orientation of the instrument, when compared with the meridian established by Polaris observation, has a maximum error of less than 1' 30". I repeat the tests of the arcs daily by noon observation and verify the meridional indications at frequent intervals throughout the survey. The observed magnetic declination is 21°00'E. July 7, 1935, in camp heretofore described, the geographic position of which is latitude 45° 56'N., and longitude 117°57'30"W., I examined the adjustments of my instruments and proceeded with the usual field tests as follows: Every 30 min. from 6 to 10.30 a.m. and from 1.30 to 6 p.m., I make proper settings on the arcs of the solar attachment and ascertain that the resulting orientation of the instrument, when compared with the meridian established by Polaris observation, has a maximum error of less than 1' 30". I repeat the tests of the arcs daily by noon observation and verify the meridional indications at frequent intervals throughout the survey. The observed magnetic declination is 21° 00'E.
	Dependent Resurvey, Ist Stan. Par. N., S. Bdy. T. 5 N., R. 39 E.
	"Reestablishment of the surveys executed by Rufus S. Moore, U. S. Deputy Surveyor, in 1882."
	Random Line
	From the angle point of sec. 36, which was formerly the standard corner of Tps. 5 N., Rs. 39 and 40 E.
	West, retracing the S. bdy. of sec. 36.
40.00	Find no trace of the standard ¼ sec. cor. Set temp.
58.11	Find no evidence of the original closing cor. of secs. 1 and 2, T. 4 N., R. 39 E. Set temp.
80.00	Find no evidence of the original standard cor. of secs. 35 and 36. Set temp.
	West, retracing the S. bdy. of sec. 35.
41.41	Intersect the standard ¼ sec. cor. of sec. 35.
57.84	Fall 47 lks. N. of the closing cor. of secs. 2 and 3, T. 4 N., R. 39 E.
81.85	Fall 117 lks. N. of the original standard cor. of secs. 34 and 35.
	West, retracing the S. bdy. of sec. 34.
40.17	Fall 7 lks. N. of the original standard ¼ sec. cor. of sec. 34.
56.77	Find no evidence of the original closing cor. of secs. 3 and 4, T. 4 N., R. 39 E. Set temp.
80.17	Find no evidence of the original standard cor. of secs. 33 and 34. Set temp.
	West, retracing the S. bdy. of sec. 33.

U. S. GOVERNMENT PRINTING OFFICE: 1936 C—8155

Dependent Resurvey of East Boundary of T. 5 N., R. 38 E.

Chains	I now change this cor. to refer to secs. 1 and 12 only.
	At point for cor.
	Set an iron post, 3 ft. long, 2 ins. diam., 27 ins. in the ground, for cor. of secs. 1 and 12 only, with brass cap marked T5N | T5N S 1 | R39E S12 | S 7 R38E | 1935
	from which
	A fir, 36 ins. diam., bears N.25°E., 129 lks. dist., marked T 5 N R 39 E S 6 B T. (Old B. T.)
	A fir snag, 34 ins. diam., bears S.26°E., 95 lks. dist., marked T 5 N R 39 E S 7 B T. (Old B. T.)
	A dead fir, 24 ins. diam., bears S.88°W., 58 lks. dist., marked T 5 N R 38 E S 12 B T. (Old B. T.)
	A fir, 54 ins. diam., bears N.5°W., 90 lks. dist., marked T 5 N R 38 E S 1 B T. (Old B. T.)
	Obliterate the marks on old bearing trees referring to T. 5 N., R. 39 E.
	A spruce, 48 ins. diam., bears S.81½°W., 87 lks. dist., marked T 5 N R 38 E S 12 B T. (New B. T.)
	Land, mountainous. Soil, sandy loam, rocky; 3rd rate. Timber, fir, pine, spruce and tamarack. Undergrowth, alder, vinemaple, laurel, huckleberry, willow, syringa, mountain ash, fern and Oregon grape.
	N.0°29'W., on a true line on the E. bdy. of sec. 1.
	Asc: 84 ft. over SW. slope, through heavy timber and dense undergrowth.
4.60	Rocky spur, slopes W.; desc. 75 ft. over NW. slope.
8.70	Spring branch, 1 lk. wide, course W.; asc. 199 ft. over SW. slope.
20.00	Spur, slopes W.; desc. 491 ft. over NW. slope.
39.83	Proportionate point for the ¼ sec. cor. of sec. 1 only.
	Set an iron post, 3 ft. long, 1 in. diam., 27 ins. in the ground, for ¼ sec. cor. of sec. 1 only, with brass cap marked ¼ S 1 | 1935
	from which
	A fir, 26 ins. diam., bears S.49°W., 96 lks. dist., marked ¼ S 1 B T.
	A fir, 14 ins. diam., bears N.51°W., 66 lks. dist., marked ¼ S 1 B T.

U. S. GOVERNMENT PRINTING OFFICE: 1931 6—8155

Dependent Resurvey of East Boundary of T. 5 N., R. 38 E.

Chains	
	Continue to desc. 170 ft. over NW. slope.
43.40	Creek, 3 lks. wide, course N.70°W.; asc. 42 ft. over SW. slope.
46.60	Spur, slopes W.; desc. 130 ft. over NW. slope.
56.60	Ravine, course S.20°W.; asc. 586 ft. over SE. slope.
70.50	Road, from Walla Walla to Skyline, bears NE. and SW.
85.84	Trail, bears E. and W.
87.50	Spur, slopes E.; desc. 18 ft. over NE. slope.
93.08	The closing cor. of Tps. 5 N., Rs. 38 and 39 E., on the S. bdy. of sec. 36, T. 6 N., R. 38 E., which is post, 4 ins. sq., 30 ins. above ground, marked T 5 N C C on S., R 39 E S 6 on E., and R 38 E S 1 on W. At point for cor. Set an iron post, 3 ft. long, 3 ins. diam., 27 ins. in the ground, for closing cor. of Tps. 5 N., Rs. 38 amd 39 E., with brass cap marked T6N R38E S 36 S 1 | S 6 R38E | R39E T5N C C 1932 from which A dead spruce, 8 ins. diam., bears S.68°E., 6 lks. dist., marks grown over. (Old B. T.) A dead spruce, 6 ins. diam., bears S.65°W., 6 lks. dist., marked T 5 N R 38 E S 1 B T. (Old B. T.) No trace of old NW. bearing tree. A fir, 10 ins. diam., bears S.5°E., 45 lks. dist., marked T 5 N R 39 E S 6 C C B T. A fir, 7 ins. diam., bears S.9°W., 40 lks. dist., marked T 5 N R 38 E S 1 C C B T. From this point the cor. of secs. 35 and 36, T. 6 N., R. 38 E., bears S.89°04'W., 18.12 chs. dist., hereinafter described. Land, mountainous. Soil, rocky loam; 3rd rate. Timber, fir, pine, spruce and tamarack. Undergrowth, willow, alder, salal, vinemaple, huckleberry, laurel, mountain ash, syringa, fern and Oregon grape.

Dependent Resurvey of the S. Bdy. of sec. 36, T. 6 N., R. 38 E.

"Reestablishment of the surveys executed George Williams, U. S. Deputy Surveyor in 1872, and retraced by William E. and George R. Campbell, U. S. Deputy Surveyors in 1899."

U. S. GOVERNMENT PRINTING OFFICE: 1934 C—8155

Dependent Resurvey of S. Bdy. of Sec. 36, T. 6 N., R. 38 E.

Chains	
	Randon Line.
	From the SE. cor. of T. 6 N., R. 38 E.
	West, retracing the S. bdy. of sec. 36.
40.00	Find no evidence of the ¼ sec. cor. Set temp.
63.01	Fall 103 lks. N. of the closing cor. of Tps. 5 N., Rs. 38 and 39 E.
81.13	Fall 132 lks. N. of the cor. of secs. 35 and 36.

True Line.

I commence the dependent resurvey of the S. bdy. of sec. 36, T. 6 N., R. 38 E., from the SE. cor. of T. 6 N., R. 38 E., as described in the notes of T. 6 N., R. 39 E.

S.89°04'W., on a true line on the S. bdy. of sec. 36.

Desc. 72 ft. over NW. slope, through heavy timber and dense undergrowth.

1.70 Ravine, course N.; asc. 247 ft. over NE. slope.

15.38 (Point 40.00 chs. in westing from the cor. of secs. 5, 6, 31, and 32.)

Set an iron post, 3 ft. long, 1 in. diam., 27 ins. in the ground, for ¼ sec. cor. of sec. 6 only, with brass cap marked

¼ S 6

1932

from which

A fir, 18 ins. diam., bears S.47°E., 35 lks. dist., marked ¼ S 6 B T.

A fir, 12 ins. diam., bears S.20°W., 86 lks. dist., marked ¼ S 6 B T.

17.30 Flat topped ridge, bears NW. and SE.; desc. 103 ft. over gradual SW. slope.

40.57 Proportionate point for the ¼ sec. cor. of sec. 36 only.

Set an iron post, 3 ft. long, 1 in. diam., 27 ins. in the ground, for ¼ sec. cor. of sec. 36 only, with brass cap marked

¼ S 36

1932

from which

A fir, 16 ins. diam., bears N.43°E., 33 lks. dist., marked ¼ S 36 B T.

A spruce, 12 ins. diam., bears N.22°W., 55 lks. dist., marked ¼ S 36 B T.

Continue to desc. 52 ft. over SW. slope.

42.87 Road, Walla Walla to Skyline, bears NW. and SE.

U. S. GOVERNMENT PRINTING OFFICE: 1931 6—8155

Dependent Resurvey of S. Bdy., of Sec. 36, T. 6 N., R. 38 E.

Chains

45.00 Head of ravine, course S.20°W.; asc. 90 ft. over SE. slope.

49.10 Road, Walla Walla to Skyline, bears NE. and SW.;

55.39 (Point 80.00 chs. in westing from the cor. of secs. 5, 6, 31 and 32:)

Set an iron post, 3 ft. long, 1 in. diam., 27 ins. in the ground, for cor. of lots 4 and 5, with brass cap marked

5 | 4
S 6
1932

from which

A tamarack, 30 ins. diam., bears S.42½°E., 36 lks. dist., marked L 4 S 6 B T.

A fir, 12 ins. diam., bears S.36°W., 51 lks. dist., marked L 5 S 6 B T.

Continue to asc. 54 ft. over E. slope.

63.02 The closing cor. of Tps. 5 N., Rs. 38 and 39 E., heretofore described.

Continue to asc. 176 ft. over E. slope.

81.14 The old cor. of secs. 35 and 36, which is the rotted remains of old post, with no marks legible set in an old mound of stone, on ridge, bears N. and S.

At point for cor.

Set an iron post, 3 ft. long, 2 ins. diam., 12 ins. in the ground to solid rock and in a mound of stone to top, for cor. of secs. 35 and 36, with brass cap marked

T6N | R38E
S35 | S36
T5N R38E
S 1
1932

from which

A spruce stump, 8 ins. diam., bears N.2°E., 48 lks. dist., marked B.T. other marks rotted off. (Old B. T.)

A fir, 10 ins. diam., bears N.42½°E., 110 lks. dist., marked T 6 N R 38 E S 36 B T.(New B. T.)

A fir, 10 ins. diam., bears N.81°W., 115 lks. dist., marked T 6 N R 38 E S 35 B T. (New B. T.)

Land, mountainous.
Soil, rocky loam, sandy; 3rd rate.
Timber, fir, pine, spruce and tamarack.
Undergrowth, alder, vinemaple, salal, willow, laurel, mountain ash, huckleberry, fern and Oregon grape.

Subdivision of T. 5 N., R. 39 E.

I commence the subdivisional survey at the standard cor. of secs. 35 and 36, on the S. bdy. of the Tp., heretofore described.

U. S. GOVERNMENT PRINTING OFFICE: 1934 6—8155

. Township 5 North, Range 39 East.

GENERAL DESCRIPTION.

Township 5 north, range 39 east is located in the Umatilla National Forest Reserve, on the summit of the Blue Mountains in the northeastern part of Oregon. The elevation of the highest ridges of the township and along the Skyline Road is about 6,000 ft. above sea level. The South Fork of the Walla Walla River, has an elevation of about 3,000 ft. above sea level, where it leaves the township on the south boundary of sec. 31. The South Fork of the Wenaha River, has an elevation of about 3,500 ft. above sea level, where it leaves the township on the east boundary of sec. 13. The slopes along these two rivers are exceptionally rough and broken, but on some of the higher points on the township the land is only rolling. The soil is of a clayish sandy loam composition and on the steeper slopes is very rocky. This soil produces an abundance of grass even on the steep slopes, that are not covered with a dense growth of brush. Most of the timber is second growth with the exception of a few patches of old growth timber that the fires of many years ago did not burn over. Some scattering old growth timber was left standing throughout the township, making it impossible to distinguish the exact line of demarcation between the second growth and old growth timber. This timber consists of fir, pine, spruce, tamarack and yew. The undergrowth consists of huckleberry, alder, laurel, willow, mountain ash, thorn, Oregon grape, syringa, rose, fern, buck brush, vinemaple and salal.

The east half of the township drains into the South Fork of the Wenaha River and the west half drains into the South Fork of the Walla Walla River. Neither of these streams are large enough to be meandered. The township is well watered and although there are no lakes many different small springs are found throughout the township.

Bone Springs Lookout Station is located near the south centeral part of section 28. The buildings of this lookout station are on the highest point of this township. Skyline Road extends through the central part of the township in a north and south direction. Lookout Mountain Road extends from this road in a easterly direction through the southeastern part of the township. This road connects with the Troy Road about 7 miles east of the township. A road loops through section 6. This road leads to Walla Walla, Washington, about 35 miles distant in a northwesterly direction, and also joins the Skyline Road in township 6 north, range 39 east. There is also a road extending south from this road along the top of Yellow Jacket Ridge, for a distance of about 3 miles. There are several good pack trail extending to all parts of the township.

Part of the bottom land of the South Fork of the Walla Walla River is reserved for a cattle range but the remainder furnishes range for about 6,000 head of sheep during the summer months.

No settlers are located in this township.

No mineral was noted in this township.

The average of a number of readings over all parts of the township gives a value of 21°30'E. for the mean magnetic declination. There is a range of 5° in local attraction.

U. S. GOVERNMENT PRINTING OFFICE: 1934 6—8155

4—680
(August, 1926)

FIELD ASSISTANTS.

NAMES.	CAPACITY.
For 1932.	
Leonel R. Davidson	Principal assistant.
Richard Ganong	Chainman.
Earl Gould	Truckdriver and axeman.
Norman Prendergast	Axeman.
Harold Gould	Cornerman.
Glen Johnson	Axeman.
for 1935.	
John C. Greiner	Principal assistant.
Victor Miller	Chainman.
Paul Jelley	Axeman.
Robert Coffman	Axeman.
Edward Graves	Cornerman.
George Dawson	Truckdriver and chainman.

6—2764

382

CERTIFICATE OF UNITED STATES SURVEYOR.

I, Otis O. Gould. U. S. Transitman., ~~U. S. Surveyor,~~ hereby certify upon honor that, in pursuance of special instructions received from the District Cadastral Engineer for Oregon. bearing date of the 11th day of April, 1929, I have well, faithfully, and truly in my own proper person, and in strict conformity with said instructions, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of the dependent resurvey of 1st stan. par. N., S. bdy. T. 5 N., R. 39 E.; dependent resurvey of the east boundary of T. 5 N., R. 38 E.; dependent resurvey of south bdy. of sec. 36, T. 6 N., R. 38 E., and subdivision of township 5 north, range 39 east. of the Willamette Meridian, in the State of Oregon., which are represented in the foregoing field notes as having been executed by me, and under my direction; and that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the District Cadastral Engineer for Oregon. and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

Portland, Oregon.
Feb. 4, 1936.

Otis O. Gould.
U. S. Transitman. ~~U. S. Surveyor.~~

APPROVAL.

OFFICE OF U. S. SUPERVISOR OF SURVEYS,

DENVER, COLORADO MAR 30 1936, 19

The foregoing field notes of the Dependent Resurvey of First Standard Parallel North, S. Bdy. T. 5 N., R. 39 E.; Dependent Resurvey of the E. Bdy. of T. 5 N., R. 38 E.; Dependent Resurvey of S. bdy. of sec. 36, T. 6 N., R. 38 E., and the Survey of the Subdivisions of Township No. 5 North, Range No. 39 East, of the Willamette Meridian, Oregon,

executed by Otis O. Gould, U. S. Transitman

under his special instructions dated April 11, 1929, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

U. S. Supervisor of Surveys.

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

~~*U. S. Supervisor of Surveys.*~~