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.

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INDEX DIAGRAM.

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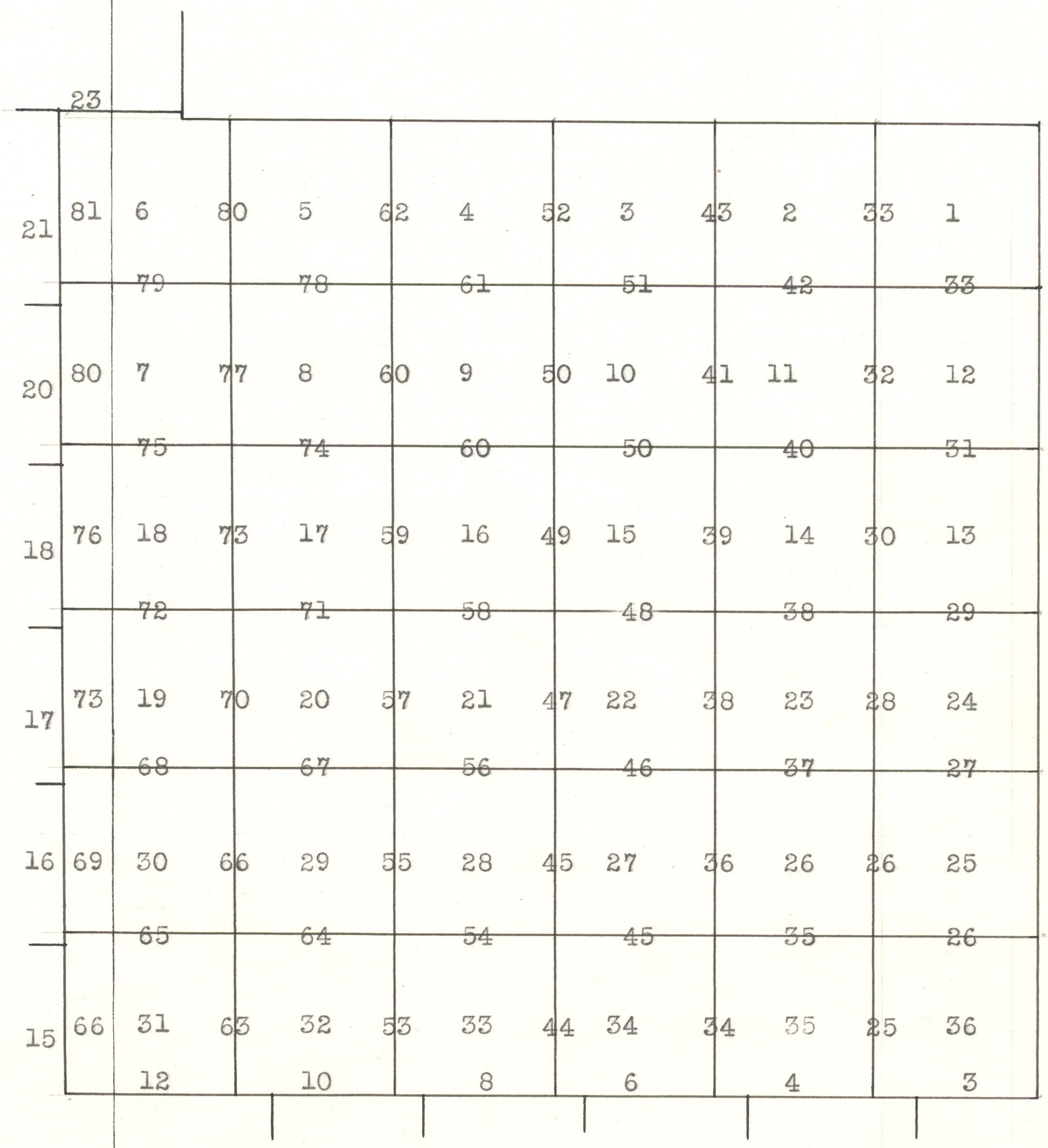
INDEX DIAGRAM

Township 5 North, Range 39 East.



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. 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

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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.

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

Chains	
67.75	Spur, slopes N.; desc. 413 ft. over NW. slope, changing to SW. slope.
80.00	The cor. of secs. 29, 30, 31, and 32.
	Land, mountainous. Soil, sandy loam, rocky; 3rd rate. Timber, fir, pine, spruce and tamarack. Undergrowth, alder, huckleberry, vinemaple, Oregon grape, syringa, willow, laurel, mountain ash, buck brush and fern.

West, on true line bet. secs. 30 and 31.

Desc. 251 ft. over SW. slope, changing to W. slope, through heavy second growth timber and dense undergrowth.

6.00	Ravine, course NW.; asc. 61 ft. over NE. slope.
10.00	Small spur, slopes N., desc. 612 ft. over NW. slope.
30.50	South Fork of the Walla Walla River Trail, bears NE. and SW.
30.90	Stone monument, marked U.S.G.S. P.T.B.M. elev. 3342, bears N., 1.10 chs. dist.
31.05	South Fork of the Walla Walla River, 30 lks. wide, course S.20°W.; asc. 381 ft. over E. slope.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 16 ins. in the ground, for ¼ sec. cor., with brass cap marked ¼ S 30 / S 31 1932 from which A fir, 14 ins. diam., bears N.22°W., 42 lks. dist., marked ¼ S 30 B T. A fir, 10 ins. diam., bears S.13°E., 54 lks. dist., marked ¼ S 31 B T.
	Continue to asc. 432 ft. over E. slope.
50.00	Small spur, slopes NE.; continue to asc. 250 ft. over NE. slope.
69.40	Ravine, course NE.; continue to asc. 557 ft. over E. slope, changing to NE. slope.
80.00	Set an iron post, 3 ft. long, 1 in. diam., 27 ins. in the ground, for cor. of lots 1, 2, 7, and 8, with brass cap marked S 30 7 | 8 2 | 1 S31 1932 from which A fir, 10 ins. diam., bears N.21°E., 65 lks. dist., marked L 8 S. 30 B T. A fir, 36 ins. diam., bears S.7°W., 50 lks. dist., marked L 2 S 31 B T.

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

Chains	
81.36	Small spur, slopes NE.; continue to asc. 15 ft. over NE. slope.
87.47	Intersect E. bdy. of T. 5 N., R. 38 E.

Set an iron post, 3 ft. long, 2 ins. diam., 16 ins. in the ground to solid rock and in a mound of stone to top, for closing cor. of secs. 30 and 31, with brass cap marked

T5N | T5N
S25 | S30 CC
R38E | S31
R39E

1932

from which

A fir, 26 ins. diam., bears N.38°E., 46 lks. dist., marked T 5 N R 39 E S 30 C C B T.

A fir, 12 ins. diam., bears S.75°E., 60 lks. dist., marked T 5 N R 39 E S 31 C C B T.

From this point the cor. of secs. 25 and 36 only, bears South, 5.57 chs. dist., heretofore described.

Land, mountainous.
Soil, rocky loam; 3rd rate.
Timber, fir, pine, spruce and tamarack.
Undergrowth, alder, salal, vinemaple, laurel, huckleberry, thorn, willow, mountain ash and buck brush.

To complete the survey of sec. 31, I go to the ¼ sec. cor. of sec. 36 only, on E. bdy. of T. 5 N., R. 38 E., and run

North, along the E. bdy. of sec. 36.

4.51	Point 40.00 chs. in southing from closing cor. of secs. 30 and 31.

Set an iron post, 3 ft. long, 1 in. diam., 27 ins. in the ground, for ¼ sec. cor. of sec. 31 only, with brass cap marked

¼ S 31

1932

from which

A fir, 6 ins. diam., bears N.52°E., 41 lks. dist., marked ¼ S 31 B T.

A fir, 5 ins. diam., bears S.58°E., 22 lks. dist., marked ¼ S 31 B T.

From the cor. of secs. 29, 30, 31, and 32.

N.0°05'W., bet. secs. 29 and 30.

Desc. 587 ft. over broken NW. slope, through heavy second growth timber and dense undergrowth.

24.15	Spring branch, 2 lks. wide, course W.
26.20	Spring branch, 3 lks. wide, course W.
26.90	Spring branch, 1 lk. wide, course N.70°W.

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

Chains 29.05	Creek, 10 lks. wide, course W.; asc. 58 ft. over SW. slope.
37.50	Spur, slopes W.; desc. 25 ft. over NW. slope.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 27 ins. in the ground, for ¼ sec. cor., with brass cap marked ¼ S30 | S29 1932 from which A fir, 14 ins. diam., bears N.52°E., 54 lks. dist., marked ¼ S 29 B T. A fir, 8 ins. diam., bears S.50°W., 22 lks. dist., marked ¼ S 30 B T.
40.05	Creek, 2 lks. wide, course W.; continue to desc. 27 ft. over NW. slope.
42.00	Creek, 8 lks. wide, course W.; asc. 329 ft. over broken SW. slope.
65.20	Spur, slopes W.; desc. 86 ft. over NW. slope.
67.80	Ravine, course W.; asc. 84 ft. over SW. slope.
72.75	Spur, slopes W.; desc. 108 ft. over NW. slope.
80.00	Set an iron post, 3 ft. long, 2 ins. diam., 20 ins. in the ground to solid rock and in a mound of stone to top, for cor. of secs. 19, 20, 29, and 30, with brass cap marked T5N R39E S19 | S20 S30 | S29 1932 from which A fir, 20 ins. diam., bears N.21°E., 52 lks. dist., marked T 5 N R 39 E S 20 B T. A fir, 14 ins. diam., bears S.7°E., 234 lks. dist., marked T 5 N R 39 E S 29 B T. A fir, 24 ins. diam., bears S.26½°W., 81 lks. dist., marked T 5 N R 39 E S 30 B T. A fir, 8 ins. diam., bears N.70½°W., 30 lks. dist., marked T 5 N R 39 E S 19 B T. Land, mountainous. Soil, sandy loam, rocky; 3rd rate. Timber, fir, pine, spruce and tamarack. Undergrowth, alder, huckleberry, vinemaple, laurel, rose, willow, Oregon grape, salal, buck brush and fern.
	East, on a random line bet. secs. 20 and 29.
40.00	Set temp. ¼ sec. cor.
80.00	Intersect N. and S. line, at the cor. of secs. 20, 21, 28, and 29.
	Thence

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

Chains	
	West, on true line bet. secs. 20 and 29.
	Desc. 325 ft. over W. slope, through heavy second growth timber and dense undergrowth.
12.20	Ravine, course SW.; asc. 232 ft. over SE. slope.
28.80	Saddle in ridge spur, bears NE. and S.80°W.; continue to asc. 78 ft. over NE. slope.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 27 ins. in the ground, for ¼ sec. cor., with brass cap marked ¼ S 20 / S 29 1932 from which
	A fir, 20 ins. diam., bears N.88°W., 159 lks. dist., marked ¼ S 20 B T.
	A fir, 6 ins. diam., bears S.32°W., 46 lks. dist., marked ¼ S 29 B T.
	Continue to asc. 9 ft. over NE. slope.
42.00	Same spur, slopes N.70°W.; desc. 424 ft. over SW. slope.
65.95	Small spur, slopes SW.; continue to desc. 599 ft. over W. slope, changing to NW. slope.
80.00	The cor. of secs. 19, 20, 29, and 30.
	Land, mountainous. Soil, rocky loam, sandy; 3rd rate. Timber, fir, pine, spruce and tamarack. Undergrowth, alder, elder, vinemaple, laurel, huckleberry, willow, salal, buck brush, Oregon grape, mountain ash, fern and syringa.
	West, on true line bet. secs. 19 and 30.
	Desc. 218 ft. over W. slope, through heavy second growth timber and dense undergrowth.
4.45	South Fork of the Walla Walla River, 35 lks. wide, course S.; asc. 1227 ft. over broken E. slope.
6.00	South Fork of the Walla Walla River Trail, bears N. and S.
16.00	Small ravine, course SE.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 4 ins. in the ground to solid rock and in a mound of stone to top, for ¼ sec. cor., with brass cap marked ¼ S 19 / S 30 1932 from which
	A fir, 10 ins. diam., bears N.10°W., 42 lks. dist., marked ¼ S 19 B T.
	A fir, 24 ins. diam., bears S.60°E., 59 lks. dist., marked ¼ S 30 B T.
	Continue to asc. 96 ft. over NE. slope.

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

Chains

42.60 Spur, slopes SE.; desc. 549 ft. over broken SW. slope.

64.00 Ravine, course S.; asc. 470 ft. over SE. slope.

76.20 Spur, slopes SE.; desc. 180 ft. over SW. slope.

80.00 Set an iron post, 3 ft. long, 1 in. diam., 5 ins. in the ground to solid rock and in a mound of stone to top, for cor. of lots 1, 2, 7, and 8, with brass cap marked

S19	
7	8
2	1
S30	

1932

from which

A fir, 20 ins. diam., bears N.13°W., 83 lks. dist., marked L 7 S 19 B T.

A pine, 26 ins. diam., bears S.40°E., 155 lks. dist., marked L 1 S 30 B T.

Continue to desc. 168 ft. over SW. slope.

84.40 Ravine, course S.30°W.; asc. 43 ft. over SE. slope.

87.16 Intersect E. bdy. of T. 5 N., R. 38 E.

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 closing cor. of secs. 19 and 30, with brass cap marked

T5N	T5N
S24	S19 CC
R38E	S30
	R39E

1932

from which

A fir, 42 ins. diam., bears N.89°E., 126 lks. dist., marked T 5 N R 39 E S 19 C C B T.

A fir, 30 ins. diam., bears S.16°E., 55 lks. dist., marked T 5 N R 39 E S 30 C C B T.

From this point the cor. of secs. 24 and 25 only, bears S.0°22'E., 569 lks. dist., heretofore described.

Land, mountainous.
Soil, sandy loam, rocky; 3rd rate.
Timber, fir, pine, spruce and tamarack.
Undergrowth, alder, vinemaple, salal, huckleberry, rose, laurel, willow, buck brush and fern.

To complete the survey of sec. 30, I go to the ¼ sec. cor. of sec. 25 only, on E. bdy. of T. 5 N., R. 38 E., and run

North, along the E. bdy. of sec. 25.

5.63 Midpoint on the W. bdy. of sec. 30.

Set an iron post, 3 ft. long, 1 in. diam., 4 ins. in the ground to solid rock and in a mound of stone to top, for ¼ sec. cor. of sec. 30 only, with brass cap marked

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

Chains	
	¼ S 30 1932 from which A fir, 8 ins. diam., bears N.30°E., 127 lks. dist., marked ¼ S 30 B T. A fir, 14 ins. diam., bears S.62°E., 61 lks. dist., marked ¼ S 30 B T.
	From the cor. of secs. 19, 20, 29, and 30.
	N.0°05'W., bet. secs. 19 and 20.
	Asc. 36 ft. over SW. slope, through heavy second growth timber and dense undergrowth.
1.40	Small spur, slopes W.; desc. 221 ft. over broken NW. slope.
20.20	South Fork of the Walla Walla River, 35 lks. wide, course SW.; from N.; thence in river.
21.00	South Fork of the Walla Walla River Trail, bears NE. and SW.
25.00	Leave South Fork of the Walla Walla River, 35 lks. wide, course S.; from NW.; continue along gradual broken W. slope.
25.43	South Fork of the Walla Walla River Trail, bears NW. and SE.
32.00	Creek, 5 lks. wide, course W.; asc. 153 ft. over SW. slope.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 27 ins. in the ground, for ¼ sec. cor., with brass cap marked ¼ S19 | S20 1932 from which A fir, 11 ins. diam., bears S.46°E., 10 lks. dist., marked ¼ S 20 B T. A spruce, 10 ins. diam., bears N.68°W., 4 lks. dist., marked ¼ S 19 B T. Continue to asc. 65 ft. over SW. slope.
42.85	Spur, slopes SW.; desc. 37 ft. over NW. slope.
46.05	Ravine, course SW.; asc. 547 ft. over SE. slope.
62.00	Spur, slopes SW., from N.; asc. 436 ft. over S. slope, on spur.
75.50	Leave spur, slopes S., from NE.; desc. 99 ft. over NW. slope.
79.50	Bottom of descent, bears E. and W.; continue along W. slope.
80.00	Set an iron post, 3 ft. long, 2 ins. diam., 12 ins. in the

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

Chains	ground to solid rock and in a mound of stone to top, for cor. of secs. 17, 18, 19, and 20, with brass cap marked T5N R39E S18 | S17 S19 | S20 1932 from which A fir, 12 ins. diam., bears N.20°E., 88 lks. dist., marked T 5 N R 39 E S 17 B T. A fir, 28 ins. diam., bears S.17°E., 34 lks. dist., marked T 5 N R 39 E S 20 B T. A fir, 26 ins. diam., bears S.50°W., 38 lks. dist., marked T 5 N R 39 E S 19 B T. A fir, 22 ins. diam., bears N.65°W., 52 lks. dist., marked T 5 N R 39 E S 18 B T. Land, mountainous. Soil, sandy loam, rocky; 3rd rate. Timber, fir, pine, spruce and tamarack. Undergrowth, willow, huckleberry, alder, vinemaple, rose, Oregon grape, fern, syringa, buck brush and fern.
	East, on a random line bet. secs. 17 and 20.
40.00	Set temp. ¼ sec. cor.
80.20	Intersect N. and S. line, 23 lks. S. of the cor. of secs. 16, 17, 20, and 21.
	Thence S.89°50'W., on true line bet. secs. 17 and 20.
	Desc. 558 ft. over broken SW. slope, through heavy second growth timber and dense undergrowth.
15.70	Creek, 6 lks. wide, course S.10°W.; asc. 516 ft. over SE. slope.
31.30	Spur, slopes S.15°W., desc. 283 ft. over SW. slope.
40.10	Set an iron post, 3 ft. long, 1 in. diam., 20 ins. in the ground to solid rock and in a mound of stone to top, for ¼ sec. cor., with brass cap marked ¼ S 17 S 20 1935 from which A fir, 36 ins. diam., bears N.80°W., 42 lks. dist., marked ¼ S 17 B T. A fir, 48 ins. diam., bears S.30°E., 26 lks. dist., marked ¼ S 20 B T. Continue to desc. 243 ft. over SW. slope.
51.80	Creek, 2 lks. wide, course S.; asc. 564 ft. over SE. slope.
76.90	Spur, slopes S.20°W.; desc. 174 ft. over W. slope, changing to SW. slope.

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

Chains	
80.20	The cor. of secs. 17, 18, 19, and 20. Land, mountainous. Soil, sandy loam, rocky; 3rd rate. Timber, fir, pine, spruce and tamarack. Undergrowth, alder, huckleberry, vinemaple, elder, rose, Oregon grape, willow, syringa, fern, buck brush and thorn.
	West, on true line bet. secs. 18 and 19.
	Desc. 541 ft. over broken W. slope, through heavy second growth timber and dense undergrowth.
13.70	Continue to desc. 297 ft. over NW. slope.
22.05	South Fork of the Walla Walla River, 30 lks. wide, course SW.; asc. 488 ft. over broken E. slope.
22.60	South Fork of the Walla Walla River Trail, bears NE. and SW.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 27 ins. in the ground, for $\frac{1}{4}$ sec. cor., with brass cap marked $\frac{\frac{1}{4} \text{ S } 18}{\text{S } 19}$ 1935 from which A fir, 10 ins. diam., bears N.7°W., 77 lks. dist., marked $\frac{1}{4}$ S 18 B T. A fir, 22 ins. diam., bears S.34°E., 38 lks. dist., marked $\frac{1}{4}$ S 19 B T.
	Continue to asc. 194 ft. over broken E. slope.
44.90	Spur, slopes SE.; continue to asc. 525 ft. over broken SE. slope.
80.00	Set an iron post, 3 ft. long, 1 in. diam., 24 ins. in the ground to solid rock and in a mound of stone to top, for cor. of lots 1, 2, 7, and 8, with brass cap marked S 18 7 | 8 2 | 1 S 19 1935 from which A fir, 12 ins. diam., bears N.86°E., 75 lks. dist., marked L 8 S 18 B T. A fir, 14 ins. diam., bears S.13°W., 157 lks. dist., marked L 2 S 19 B T.
	Continue to asc. 155 ft. over broken SE. slope.
87.30	Intersect E. bdy. of T. 5 N., R. 38 E. Set an iron post, 3 ft. long, 2 ins. diam., 27 ins. in the ground, for closing cor. of secs. 18 and 19, with brass cap marked

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

Chains	
	T5N | T5N T5N | S18 S13 | CC R38E | S19 R39E 1935 from which A fir, 36 ins. diam., bears N.39°E., 140 lks. dist., marked T 5 N R 39 E S 18 C C B T. A fir, 46 ins. diam., bears S.27°E., 102 lks. dist., marked T 5 N R 39 E S 19 C C B T. From this point the cor. of secs. 13 and 24 only, bears S.0°20'W., 8.29 chs. dist., heretofore described. Land, mountainous. Soil, sandy loam, rocky; 3rd rate. Timber, fir, pine, spruce and tamarack. Undergrowth, alder, vinemaple, salal, willow, huckleberry, mountain ash, laurel, elder, Oregon grape, buck brush and fern.
	To complete the survey of sec. 19, I go to the ¼ sec. cor. of sec. 24 only, on E. bdy. of T. 5 N., R. 38 E., and run N.0°22'W., along the E. bdy. of sec. 24.
6.99	Midpoint on the W. bdy. of sec. 19.
	Set an iron post, 3 ft. long, 1 in. diam., 5 ins. in the ground to solid rock and in a mound of stone to top, for ¼ sec. cor. of sec. 19 only, with brass cap marked ¼ | S 19 1935 from which A fir, 8 ins. diam., bears N.43°E., 39 lks. dist., marked ¼ S 19 B T. A fir, 20 ins. diam., bears S.71°E., 115 lks. dist., marked ¼ S 19 B T.
	From the cor. of secs. 17, 18, 19, and 20. N.0°05'W., bet. secs. 17 and 18. Asc. 45 ft. over SW. slope, through heavy second growth timber and dense undergrowth.
6.60	Spur, slopes W.; desc. 52 ft. over NW. slope.
10.00	Head of ravine, course S.70°W.; asc. 55 ft. over SW. slope.
13.95	Spur, slopes N.80°W.; desc. 224 ft. over NW. slope.
21.20	Head of ravine, course W.; asc. 177 over SW. slope.
26.85	Spur, slopes S.70°W.; desc. 114 ft. over NW. slope.
30.30	Ravine, course W.; asc. 144 ft. over SW. slope.
36.20	Spur, slopes W.; desc. 200 ft. over NW. slope.

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Chains 40.00	Set an iron post, 3 ft. long, 1 in. diam., 27 ins. in the ground, for ¼ sec. cor., with brass cap marked ¼ S18 | S17 1935 from which A fir, 40 ins. diam., bears N.88°E., 103 lks. dist., marked ¼ S 17 B T. A fir, 36 ins. diam., bears N.39°W., 117 lks. dist., marked ¼ S 18 B T.
	Continue to desc. 10 ft. over NW. slope.
40.40	Spring branch, 1 lk. wide, course W.; asc. 298 ft. over SW. slope.
51.70	Spur, slopes W.; desc. 428 ft. over NW. slope.
63.50	Spring branch, 1 lk. wide, course S.70°W.; asc. 224 ft. over SW. slope.
70.20	Spur, slopes S.70°W.; desc. 95 ft. over NW. slope.
74.30	Ravine, course W.; asc. 72 ft. over SW. slope.
77.80	Spur, slopes W.; desc. 108 ft. over NW. slope.
80.00	Set an iron post, 3 ft. long, 2 ins. diam., 27 ins. in the ground, for cor. of secs. 7, 8, 17, and 18, with brass cap marked T5N R39E S 7 | S 8 S18 | S17 1935 from which A fir, 48 ins. diam., bears N.85°E., 46 lks. dist., marked T 5 N R 39 E S 8 B T. A fir, 36 ins. diam., bears S.52°E., 128 lks. dist., marked T 5 N R 39 E S 17 B T. A fir, 16 ins. diam., bears S.33°W., 71 lks. dist., marked T 5 N R 39 E S 18 B T. A fir, 24 ins. diam., bears N.21°W., 127 lks. dist., marked T 5 N R 39 E S 7 B T. Land, mountainous. Soil, sandy loam, rocky; 3rd rate. Timber, fir, pine, spruce and tamarack. Undergrowth, alder, vinemaple, salal, huckleberry, rose, Oregon grape, syringa, willow, elder, buck brush and fern.
	N.89°50'E., on a random line bet. secs. 8 and 17.
40.00	Set temp. ¼ sec. cor.
80.10	Intersect N. and S. line, 12 lks. S. of the cor. of secs. 8, 9, 16, and 17.
	Thence

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

Chains	
	S.89°45'W., on true line bet. secs. 8 and 17.
..	Desc. .614 ft. over broken W. slope, through heavy second growth timber and dense undergrowth.
.. 31.60	Spring branch, 1 lk. wide, course SW.
33.00	Dry creek bed, 4 lks. wide, course S.20°W.; asc. 104 ft. over broken SE. slope.
37.50	Dry creek bed, 3 lks. wide, course SE.
40.05	Set an iron post, 3 ft. long, 1 in. diam., 27 ins. in the ground, for ¼ sec. cor., with brass cap marked ¼ S 8 / S 17 1935 from which A fir, 16 ins. diam., bears N.35°E., 56 lks. dist., marked ¼ S 8 B T. A fir, 15 ins. diam., bears S.35°E., 65 lks. dist., marked ¼ S 17 B T.
	Continue to asc. 157 ft. over SE. slope.
56.70	Ridge, spur, slopes S.; desc. 618 ft. over W. slope, changing to NW. slope.
77.20	Small ravine, course NW.
80.10	The cor. of secs. 7, 8, 17, and 18. Land, mountainous. Soil, sandy loam, rocky; 3rd rate. Timber, fir, pine, spruce and tamarack. Undergrowth, alder, huckleberry, vinemaple, willow, rose, buck brush, laurel, syringa, fern and thorn.

West, on true line bet. secs. 7 and 18.

	Desc. 367 ft. over broken NW. slope, changing to SW. slope, through heavy second growth timber and dense undergrowth.
16.50	South Fork of the Walla Walla River, 20 lks. wide, course S.20°E.; asc. 95 ft. over E. slope.
20.10	Spur, slopes SE.; desc. 10 ft. over SW. slope.
22.10	Creek, 6 lks. wide, course S.70°E.; asc. 500 ft. over broken NE. slope.
24.50	South Fork of the Walla Walla River, Trail, bears NE. and SW.
26.80	Spring branch, 2 lks. wide, course N.30°E.
35.35	Top of pyramid shaped volcanic plug, 60 ft. high on E. face.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 27 ins. in the ground, for ¼ sec. cor., with brass cap marked ¼ S 7 / S 18 1935

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

Chains	
	from which
	A fir, 42 ins. diam., bears N.66°E., 46 lks. dist., marked ¼ S 7 B T.
	A fir, 18 ins. diam., bears S.69°E., 21 lks. dist., marked ¼ S 18 B T.
	Continue to asc. 973 ft. over broken NE. slope.
79.80	Yellow Jacket Road, bears NE. and SW.
80.00	Set an iron post, 3 ft. long, 1 in. diam., 27 ins. in the ground, for cor. of lots 1, 2, 7, and 8, with brass cap marked S 7 7 | 8 2 | 1 S18 1935
	from which
	A fir, 8 ins. diam., bears N.52°E., 35 lks. dist., marked L 8 S 7 B T.
	A pine, 8 ins. diam., bears S.57°E., 46 lks. dist., marked L 1 S 18 B T.
	Continue to asc. 10 ft. over SE. slope.
86.62	Intersect E. bdy. of T. 5 N., R. 38 E.
	Set an iron post, 3 ft. long, 2 ins. diam., 10 ins. in the ground to solid rock and in a mound of stone to top, for closing cor. of secs. 7 and 18, with brass cap marked T5N | T5N S12 — S 7 — CC R38E | S18 R39E 1935
	from which
	A fir, 20 ins. diam., bears N.71°E., 45 lks. dist., marked T 5 N R 39 E S 7 C C B T.
	A fir, 20 ins. diam., bears S.14°E., 36 lks. dist., marked T 5 N R 39 E S 18 C C B T.
	From this point the cor. of secs. 12 and 13 only, bears S.0°27'E., 8.41 chs. dist., heretofore described.
	Land, mountainous. Soil, sandy loam, rocky; 3rd rate. Timber, fir, pine, spruce and tamarack. Undergrowth, alder, vinemaple, salal, huckleberry, fern, laurel, elder, syringa, buck brush and thorn.
	To complete the survey of sec. 18, I go to the ¼ sec. cor. of sec. 13 only, on E. bdy. of T. 5 N., R. 38 E., and run
	N.0°20'E., along the E. bdy. of sec. 13.
8.35	Midpoint on the W. bdy. of sec. 18.
	Set an iron post, 3 ft. long, 1 in. diam., 27 ins. in the ground, for ¼ sec. cor. of sec. 18 only, with brass cap marked

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

Chains	
	$\frac{1}{4}$ S 18 1935 from which A fir, 20 ins. diam., bears N.62°E., 357 lks. dist., marked $\frac{1}{4}$ S 18 B T. A fir, 52 ins. diam., bears S.12°E., 45 lks. dist., marked $\frac{1}{4}$ S 18 B T.
	From the cor. of secs. 7, 8, 17, and 18.
	N.0°05'W., bet. secs. 7 and 8.
	Desc. 10 ft. over NW. slope, through heavy second growth timber and dense undergrowth.
0.10	Ravine, course N.80°W.; asc. 210 ft. over SW. slope.
7.25	Spur, slopes W.; desc. 447 ft. over broken NW. slope.
27.15	South Fork of the Walla Walla River, 15 lks. wide, course S.20°W.; from N., thence in river.
29.40	Leave South Fork of the Walla Walla River, 15 lks. wide, course S., from NE.; asc. 350 ft. over SE. slope.
33.30	South Fork of the Walla Walla River Trail, bears NE. and SW.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 20 ins. in the ground to solid rock and in a mound of stone to top, for $\frac{1}{4}$ sec. cor., with brass cap marked $\frac{1}{4}$ S 7 | S 8 1935 from which A fir, 28 ins. diam., bears N.80°E., 12 lks. dist., marked $\frac{1}{4}$ S 8 B T. A fir, 10 ins. diam., bears S.51°W., 46 lks. dist., marked $\frac{1}{4}$ S 7 B T.
	Continue to asc. 100 ft. over SE. slope.
44.60	Spur, slopes S.70°E.; desc. 63 ft. over NE. slope.
47.10	Ravine, course S.70°E.; asc. 306 ft. over S. slope.
57.55	Spur, slopes SE.; desc. 25 ft. over NE. slope.
58.52	Ravine, course SE.; asc. 374 ft. over S. slope.
74.60	Spur, slopes SE.; desc. 23 ft. over NE. slope.
80.00	Set an iron post, 3 ft. long, 2 ins. diam., 20 ins. in the ground to solid rock and in a mound of stone to top, for cor. of secs. 5, 6, 7, and 8, with brass cap marked T5N R39E S 6 | S 5 S 7 | S 8 1935 from which A fir, 16 ins. diam., bears N.82°E., 88 lks. dist.,

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

Chains	
	marked T 5 N R 39 E S 5 B T. A fir, 14 ins. diam., bears S.51½°E., 71 lks. dist., marked T 5 N R 39 E S 8 B T. A fir, 10 ins. diam., bears S.2°W., 32 lks. dist., marked T 5 N R 39 E S 7 B T. A fir, 10 ins. diam., bears N.31°W., 42 lks. dist., marked T 5 N R 39 E S 6 B T. Land, mountainous. Soil, sandy loam, rocky; 3rd rate. Timber, fir, pine, spruce, tamarack and yew. Undergrowth, alder, salal, vinemaple, willow, thorn, fern, syringa, elder, laurel, huckleberry, buck brush and Oregon grape.
	N.89°45'E., on a random line, bet. secs. 5 and 8.
40.00	Set temp. ¼ sec. cor.
80.32	Intersect N. and S. line, 7 lks. S. of the cor. of secs. 4, 5, 8, and 9.
	Thence
	S.89°42'W., on true line bet. secs. 5 and 8.
	Along S. slope, through heavy second growth timber and dense undergrowth.
0.36	Spur, slopes S.; desc. 112 ft. over SW. slope.
7.00	Ravine, course S.; asc. 59 ft. over SE. slope.
11.20	Spur, slopes S.10°E.; desc. 21 ft. over SW. slope.
15.67	Small ravine, course S.; asc. 55 ft. over SE. slope.
22.60	Spur, slopes S.30°W.; desc. 340 ft. over broken SW. slope.
40.16	Set an iron post, 3 ft. long, 1 in. diam., 27 ins. in the ground, for ¼ sec. cor., with brass cap marked ¼ S 5 / S 8 1935 from which A fir, 14 ins. diam., bears N.2°E., 43 lks. dist., marked ¼ S 5 B T. A fir, 24 ins. diam., bears S.20°W., 52 lks. dist., marked ¼ S 8 B T. Continue to desc. 268 ft. over SW. slope.
49.67	South Fork of the Walla Walla River, 10 lks. wide, course SW.; asc. 600 ft. over broken SE. slope.
51.29	South Fork of the Walla Walla River Trail, bears NE. and SW.
76.20	Spur, slopes SE.; desc. 10 ft. over SW. slope.
79.50	Ravine, course SE.; asc. 80 ft. over E. slope.
80.32	The cor. of secs. 5, 6, 7, and 8.

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

Chains	
	Land, mountainous. Soil, sandy loam, rocky; 3rd rate. Timber, fir, pine, spruce and tamarack. Undergrowth, alder, vinemaple, laurel, salal, huckleberry, buck brush, Oregon grape, thorn, willow and fern.
	West, on true line bet. secs. 6 and 7.
	Asc. 274 ft. over E. slope, through heavy second growth timber and dense undergrowth.
11.60	Spur, slopes SE.; desc. 182 ft. over SW. slope.
27.50	Creek, 1 lk. wide, course S.; asc. 23 ft. over SE. slope.
29.40	Spur, slopes S.30°E.; desc. 146 ft. over SW. slope.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 4 ins. in the ground to solid rock and in a mound of stone to top, for ¼ sec. cor., with brass cap marked ¼ S 6 / S 7 1935 from which A fir, 14 ins. diam., bears N.40°W., 246 lks. dist., marked ¼ S 6 B T. A fir, 14 ins. diam., bears S.58°W., 99 lks. dist., marked ¼ S 7 B T.
	Continue to desc. 10 ft. over SW. slope.
41.00	Creek, 2 lks. wide, course SE.; asc. 498 ft. over broken SE. slope.
57.87	Yellow Jacket Road, bears NW. and SE.
72.40	Flat topped ridge, bears N. and S.; desc. 113 ft. over W. slope.
80.00	Set an iron post, 3 ft. long, 1 in. diam., 27 ins. in the ground, for cor. of lots 1, 2, 10, and 11, with brass cap marked S 6 / 10 | 11 / 2 | 1 / S 7 1935 from which A fir, 12 ins. diam., bears N.50°E., 26 lks. dist., marked L 11 S 6 B T. A fir, 14 ins. diam., bears S.7°E., 76 lks. dist., marked L 1 S 7 B T.
	Continue to desc. 255 ft. over SW. slope.
87.00	Intersect E. bdy. of T. 5 N., R. 38 E.
	Set an iron post, 3 ft. long, 2 ins. diam., 27 ins. in the ground, for closing cor. of secs. 6 and 7, with brass cap marked

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

Chains

T5N | T5N
S 1 | S 6 CC
R38E | S 7
R39E

1935

from which

A fir, 40 ins. diam., bears N.55°E., 81 lks. dist., marked T 5 N R 39 E S 6 C C B T.

A fir, 40 ins. diam., bears S.74°E., 61 lks. dist., marked T 5 N R 39 E S 7 C C B T.

From this point the cor. of secs. 1 and 12 only, bears S.0°29'E., 9.50 chs. dist., heretofore described.

Land, mountainous.
Soil, sandy loam, rocky; 3rd rate.
Timber, fir, pine, spruce and tamarack.
Undergrowth, alder, vinemaple, salal, elder, willow, rose, huckleberry, laurel, Oregon grape and buck brush.

To complete the survey of sec. 7, I go to the ¼ sec. cor. of sec. 13 only, on E. bdy. of T. 5 N., R. 38 E., and run

N.0°12'E., along the E. bdy. of sec. 12.

8.89 Midpoint on the W. bdy. of sec. 7.

Set an iron post, 3 ft. long, 1 in. diam., 20 ins. in the ground to solid rock and in a mound of stone to top, for ¼ sec. cor. of sec. 7 only, with brass cap marked

¼ S 7

1935

raise a mound of stone, 3 ft. base, 2 ft. high, E. of cor.

From the cor. of secs. 5, 6, 7, and 8.

N.0°03'E., on a random line bet. secs. 5 and 6.

40.00 Set temp. ¼ sec. cor.

82.52 Intersect N. bdy. of Tp., 28 lks. W. of the cor. of secs. 5, 6, 31, and 32, as described in the notes of T. 6 N., R. 39 E., of this group.

Thence

S.0°15'W., on true line bet. secs. 5 and 6.

Desc. 24 ft. over gradual SE. slope, through heavy second growth timber and dense undergrowth.

8.56 Trail, bears NE. and SW.

11.75 Spring branch, 1 lk. wide, course E.; asc. 140 ft. over broken NE. slope.

42.52 Set an iron post, 3 ft. long, 1 in. diam., 20 ins. in the ground to solid rock and in a mound of stone to top, for ¼ sec. cor., with brass cap marked

U. S. GOVERNMENT PRINTING OFFICE: 193 C—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

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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.*~~