STATE OF OREGON

DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES

1005 State Office Bldg., Portland, Oregon 97201

OPEN-FILE REPORT

O-76-4

STREAM SEDIMENT GEOCHEMISTRY

NORTHEASTERN OREGON

1976

STREAM SEDIMENT GEOCHEMISTRY IN NORTHEASTERN OREGON

INTRODUCTION

The Oregon Department of Geology and Mineral Industries conducted a program of stream sediment geochemical sampling in northeastern Oregon in 1971. The purpose of this open-file report is to make available the analytical results on these samples in the hope that they will assist in the development of the State's mining industry.

Analyses for copper, nickel, lead, zinc and mercury for the samples are shown on the attached sheets with analytical data for separate topographic quadrangles on separate sheets. Check analyses performed by a commercial laboratory are given in parentheses on the data sheets.

Sample locations are tabulated in the lists of analyses and are shown as circled sample numbers on topographic quadrangle maps. These base maps are at a scale of 1:24,000 ($7\frac{1}{2}$'series) or 1;62,500 (15' series).

Analyses are arranged alphabetically by quadrangle and the locations of the 33 quadrangles involved are shown on the accompanying index map.

AREA

The samples from northeastern Oregon were collected in drainages tributary to the Snake, Powder and Burnt Rivers in portions of Baker, Malheur, and Wallowa Counties. The area sampled lies between latitudes 44° and $45^{\circ}15'$ and longitudes $116^{\circ}30'$ and $118^{\circ}15'$ W. Most of the area

sampled lies in the Baker $1^{\circ}x2^{\circ}$ quadrangle but the sample coverage includes the eastern edge of the Canyon City and southern portion of the Grangeville $1^{\circ}x2^{\circ}$ quadrangles.

GEOLOGY

The bedrock geology of the area sampled consists primarily of late Tertiary to Recent volcanic and sedimentary units overlying a structurally complex assemblage of Late Paleozoic and Mesozoic metasedimentary and metavolcanic units intruded by small batholiths and stocks ranging in composition from quartz monzonite to gabbro.

Past mining in the area sampled has produced principally gold with lesser values in silver, copper, lead, zinc and antimony.

SAMPLING

A total of 1005 samples were collected and analyzed for copper, lead, zinc, mercury and nickel.

A single sample was collected at each site. Samples were collected from the bed of both active and inactive streams at intervals along the stream ranging from one to five miles. In most cases each sample represents a drainage basin of several square miles.

The bulk of the analyses were performed in the Department of Geology and Mineral Industries' laboratory in Portland with additional analyses including checks by a commercial laboratory. Copper, lead, zinc and nickel analyses by the Department of Geology were done using a partial digestion, hot acid extraction and atomic absorption analysis. Mercury analyses were done with a Lemaire model S-1 mercury "sniffer". To test the distribution

of the sample populations, log-probability plots were made for copper, zinc and nickel. All of the plots are markedly non-linear in the lower ranges. The in-house atomic absorption analyses reported herein represent partial digestion of the contained heavy metals in the samples and no rigorous statistical treatment of analytical results is justified. The following general statements for each element may assist the reader in interpreting the data.

COPPER - The copper content of the samples ranges from "nil" (not detected) to 328 parts per million (ppm). The arithmetic mean value is approximately 20 ppm and only 5 samples contain extractable copper in excess of 100 ppm.

LEAD - The samples range from "nil" (not detected) to 94 ppm lead and only 9 samples exceed 50 ppm.

ZINC - The range of zinc is 2 to 1400 ppm with a mean value of about 45 ppm. A total of 20 samples exceed 200 ppm, using the partial digestion technique described above.

NICKEL - The nickel values range from "nil" to 380 ppm with a mean of approximately 15 ppm. There are 31 samples containing an excess of 100 ppm.

MERCURY - Values range from "not detected" (0) to 50 parts per billion and the majority of values are reported as "not detected" (0) or "trace" (T).

CONCLUSIONS

The analytical results given herein represent a regional sampling

program in an area of complex geology. There has been no systematic attempt to interpret the results in terms of geology and no field checking of results. Northeast Oregon has had a long history of mining and many of the higher values for the various elements likely represent cultural "noise" resulting from mining, milling, ranching and other industry activities. The five elements reported in this study do not necessarily reflect the only exploration targets in northeastern Oregon and future stream sediment geochemical studies should consider analyses for other elements, especially molybdenum, silver and gold.

The greatest concentration of higher zinc and mercury values in the sample population lies in the Ironside Mountain 30' quadrangle in the drainages of West Camp Creek and East Camp Creek, approximately 5 - 10 miles south of the town of Unity. The geology of this area is characterized by Mesozoic volcanic and sedimentary units intruded by late Mesozoic diorite with later extrusion of Tertiary rhyolite (Lowry, 1968). Known mineralization in the Unity area includes minor gold, copper and molybdenum (Brooks and Ramp, 1968).

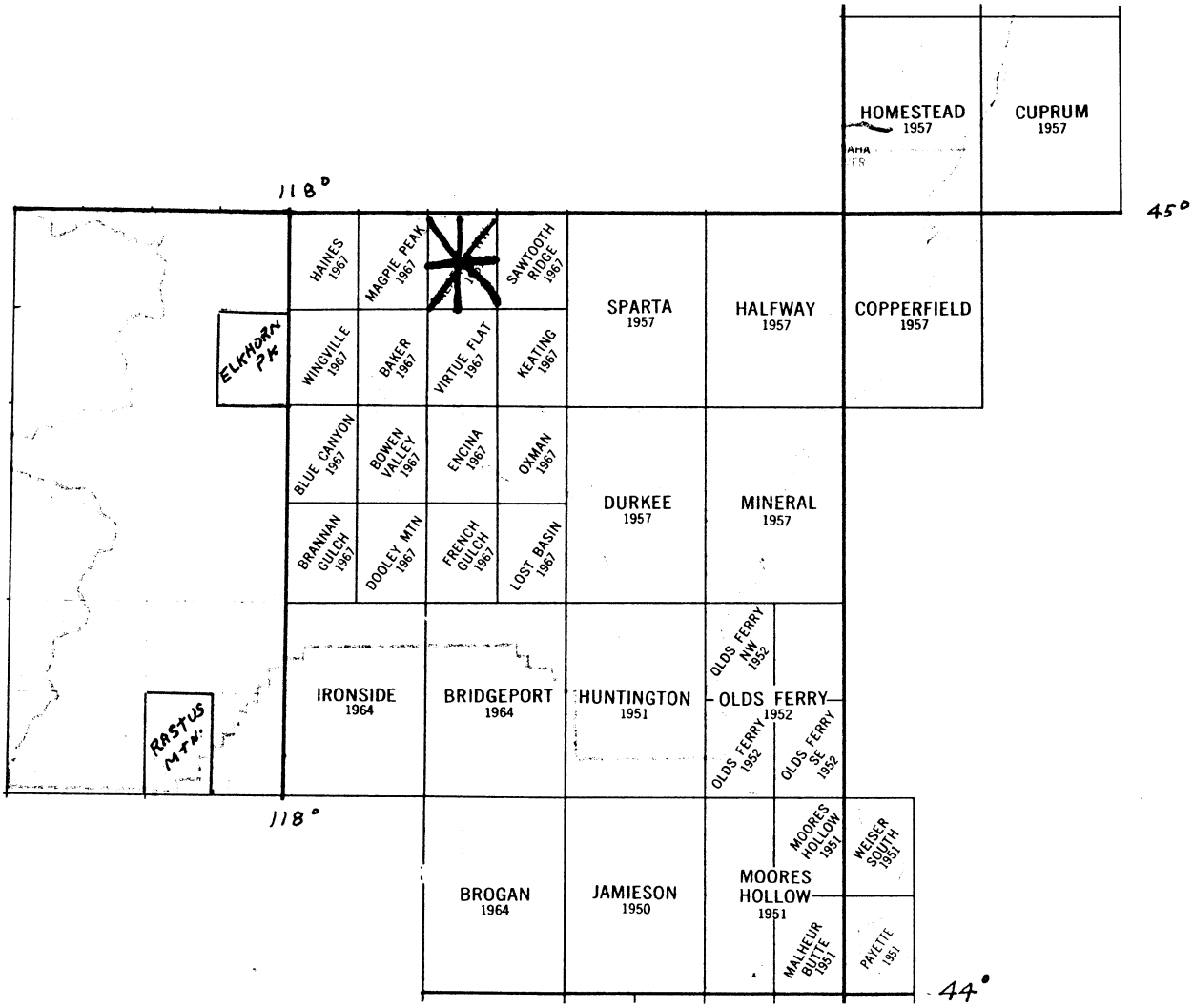
ACKNOWLEDGEMENTS

Stream sediment samples were collected by Mr. Alan Preissler with assistance from Messrs. Don Baggs and Greg Paul. In-house analyses were performed by Don Baggs.

REFERENCES

Brooks, Howard C., and Ramp, Len, 1968, Gold and silver in Oregon: Oregon Dept. Geology and Mineral Industries Bull. 61, 337 pp.

Lowry, W.D., 1968, Geology of the Ironside Mountain quadrangle, Oregon: Oregon Dept. Geology and Mineral Industries open-file report, 79 p.



INDEX OF TOPOGRAPHIC QUADRANGLE MAPS

Stream Sediment Geochemistry (Baker, Oregon 7½' Quad. - sheet 1 of 1)

No.	Sec	Twp	Rge	Cu (ppm)	Ni (ppm)	Pb (ppm)	Zn (ppm)	Hg. (ppb)
1.	1	9	40	15	10	nil	20	0
2.	12	9	40	25	25	"	35	0
3.	11	9	40	17	20	"	30	0
4.	14	9	40	22	35	"	40	0
5.	14	9	40	30	25	"	40	0
6.	23	9	40	20	15	"	35	0
7.	23	9	40	23	30	"	35	0
8.	23	9	40	25	15	"	43	0
9.	21	9	40	30	30	"	45	0
10.	28	9	40	20	15	"	45	0
11.	29	9	40	22	20	"	50	0
12.	19	9	40	13	34	"	43	0

Stream Sediment Geochemistry (Blue Canyon, Oregon 7½' quad - Sheet 1 of 1)

No.	Sec	Twp	Rge	Cu (ppm)	Ni (ppm)	Pb (ppm)	Zn (ppm)	Hg (ppb)
1.	12	10	39	21	56	Nil	46	0
2.	36	9	39	34	37	"	53	0
3.	34	10	39	39	39	"	61	0
4.	4	10	39	47	34	"	70	0
5.	4	10	39	38	41	"	62	0
6.	32	9	39	33	44	"	59	0
7.	30	9	39	29	45	"	61	0
8.	34	9	39	47	36	"	60	0
9.	34	9	39	40	50	"	55	0
10.	11	10	39	31	40	"	50	0
11.	24	10	39	Tr	18	"	28	0
12.	14	10	39	15	25	"	37	0
13.	15	10	39	21	19	"	65	0
14.	15	10	39	15	6	"	42	0
15.	16	10	39	21	21	"	45	0
16.	16	10	39	18	20	"	54	0
17.	16	10	39	19	18	"	48	0
18.	8	10	39	30	22	"	73	0
19.	18	10	39	22	19	"	63	0
20.	29	10	39	4	10	"	38	0
21.	29	10	39	25	18	"	59	0
22.	29	10	39	nil	2	"	23	0
23.	33	10	39	nil	21	"	32	0
24.	28	10	39	nil	27	"	35	0
25.	1	10	38	15	23	"	56	0
26.	30	10	39	5	52	"	51	0
27.	31	10	39	nil	11	"	26	0
28.	6	11	39	nil	18	"	33	0
29.	11	11	39	nil	nil	"	27	0
30.	35	10	39	3	17	"	57	0
31.	27	10	39	nil	45	"	36	0
32.	34	10	39	"	27	"	39	0
33.	34	10	39	"	23	"	28	0
34.	3	11	39	"	36	"	31	0
35.	10	11	39	"	34	"	35	0
36.	10	11	39	"	18	"	30	0

Stream Sediment Geochemistry (Bowen Valley, Oregon 7½' Quad - Sheet 1 of 1)

No.	Sec	Twp	Rge	Cu (ppm)	Ni (ppm)	Pb (ppm)	Zn (ppm)	Hg (ppb)
1.	34	9	40	16	42	nil	46	0
2.	12	10	40	10	2	"	30	0
3.	24	10	40	11	6	"	36	0
4.	36	10	40	10	5	"	28	0
5.	36	10	40	8	nil	"	25	0
6.	12	11	40	3	nil	"	16	0
7.	35	10	40	8	3	"	39	0
8.	14	10	40	9	6	"	34	0
9.	14	10	40	8	7	"	33	0
10.	11	10	40	21	19	"	41	0
11.	2	10	40	15	12	"	32	0
12.	2	10	40	14	10	"	31	0
13.	1	10	40	11	23	"	32	0
14.	2	10	40	18	53	"	56	0
15.	27	9	40	16	32	"	45	T
16.	4	10	40		missing			
17.	10	10	40	16	9	"	35	0
18.	10	10	40	12	10	"	33	0
19.	10	10	40	18	8	"	39	0
20.	9	10	40	25	19	"	46	0
21.	5	10	40	21	17	"	56	0
22.	21	10	40		(not used)			
23.	21	10	40	13	11	"	39	0
24.	28	10	40	11	12	"	49	0
25.	29	10	40	4	11	"	24	0
26.	4	11	40	1	11	"	32	0
27.	27	10	40	5	13	"	35	0
28.	27	10	40	nil	5	"	24	0
29.	3	11	40	nil	5	"	15	0
30.	19	10	40	12	23	"	52	0
31.	30	10	40	4	18	"	40	0
32.	32	10	40	nil	10	"	27	0
33.	36	10	39	11	24	"	47	0
34.	36	10	39	2	12	"	77	0
35.	6	11	40	nil	7	"	27	0
36.	7	10	40	10	38	"	40	0
37.	7	10	40	14	45	"	48	0
38.	32	9	40	15	31	"	49	0
39.	32	9	40	17	23	"	47	0
40.	7	10	40	8	50	"	39	0
41.	18	10	40	9	15	"	35	0
42.	24	10	39	12	18	"	45	0

*Values in parentheses are check analyses by commercial laboratory

Stream Sediment Geochemistry (Brannan Gulch, Ore./7½' quad. sheet 1 of 1)

No.	Sec.	Twp	Rge	Cu (ppm)	Ni (ppm)	Pb (ppm)	Zn (ppm)	Hg (ppb)
1.	24	11	38	37	42	"	72	0
2.	15	11	39	45	39	"	109	0
3.	15	11	39	28	41	"	85	0
4.	15	11	39	22	41	"	53	0
5.	14	11	39	1	nil	"	64	0
6.	3	12	39	34	64	"	56	0
7.	15	12	39	8	16	"	32	0
8.	23	12	39	2	nil	"	32	0
9.	23	12	39	3	1	"	29	0
10.	20	12	39	12	9	"	40	0
11.	16	12	39	3	1	"	29	0
12.	20	12	39	16	23	"	48	0
13.	9	12	39	7	18	"	38	0
14.	4	12	39	26	60	"	66	0
15.	33	12	39	42	56	"	109	0
16.	31	11	39	42	52	"	76	0
17.	31	11	39	21	62	"	59	0
18.	36	11	38	9	16	"	39	0
19.	36	11	38	14	34	"	38	0
20.	18	12	39	Tr	19	"	19	0
21.	18	12	39	12	39	"	45	0

Stream Sediment Geochemistry (Bridgeport, Ore. 15' Quad, Sheet 1 of 2)

No.	Sec	Twp	Rge	Cu (ppm)	Ni (ppm)	Pb (ppm)	Zn (ppm)	Hg (ppb)
1.	31	12	41	55	21	nil	114	0
2.	31	12	41	40	45	"	97	0
3.	32	12	41	25	46	"	68	0
4.	28	12	41	39	120	"	113	0
5.	28	12	41	34	170	trace	100	0
6.	27	12	41	38	208	"	135	0
7.	27	12	41	35	28	"	66	0
8.	27	12	41	32	380	"	97	0
9.	26	12	41	25	33	"	66	0
10.	31	12	42	32	41	"	65	0
11.	31	12	42	46	95	"	92	0
12.	31	12	42	45	56	"	86	0
13.	35	12	41	33	118	"	82	0
14.	3	13	41	29	94	"	113	0
15.	2	13	41	20	104	"	96	0
16.	12	13	41	(45) 33	(315)238	(20) "	(150)170	0
17.	12	13	41	37	132	"	76	0
18.	36	12	42	13	8	"	65	0
19.	36	12	42	7	7	"	44	0
20.	25	12	42	11	9	"	63	0
21.	26	12	42	8	8	"	57	0
22.	33	12	42	9	10	"	53	0
23.	7	14	43	28	104	"	127	0
24.	13	14	42	23	58	"	119	0
25.	15	14	42	20	35	"	94	0
26.	16	14	42	23	25	"	59	0
27.	8	14	42	26	63	"	78	0
28.	14	13	43	21	20	"	57	0
29.	14	13	42	21	123	"	73	0
30.	16	13	42	12	24	"	37	0
31.	21	13	42	20	50	"	30	T
32.	21	13	42	10	154	"	30	0
33.	36	13	41	9	87	"	22	0
34.	25	13	41	9	20	"	26	0
35.	27	13	41	11	37	"	26	0
36.	26	13	41	5	24	"	34	0
37.	31	13	42	18	300	"	55	0
38.	32	13	42	20	154	"	59	0
39.	3	14	42	22	20	"	83	0
40.	2	14	42	21	18	"	78	0

* Values in parentheses are check analyses by commercial laboratory

Stream Sediment Geochemistry (Bridgeport, Ore. 15' Quad, sheet 2 of 2)

No.	Sec	Twp	Rge	Cu (ppm)	Ni (ppm)	Pb (ppm)	Zn (ppm)	Hg (ppb)
41.	19	13	41	21	75	"	85	0
42.	17	13	41	22	192	"	78	0
43.	29	13	41	26	97	"	52	T
44.	28	13	41	18	200	"	50	0
45.	31	13	41	27	57	"	80	0
46.	25	14	42	20	45	"	84	0
47.	1	15	42	21	26	"	88	0
48.	6	15	43	12	27	"	57	0
49.	13	15	42	33	19	"	83	0
50.	20	14	42	25	90	"	62	0
51.	20	14	42	20	19	"	76	0
52.	27	14	42	(140) 104	(60) 44	(10) "	(90) 63	0
53.	34	14	42	77	60	"	134	0
54.	34	14	42	51	26	"	62	0
55.	9	15	42	29	30	"	85	0
56.	9	15	42	31	21	"	115	0
57.	15	15	42	40	22	"	114	0
58.	18	15	42	55	34	"	98	0
59.	18	15	42	45	23	"	73	14
60.	10	15	42	49	46	"	78	0
61.	3	15	41	15	15	"	43	0
62.	20	14	41	11	10	"	70	0
63.	18	14	41	11	9	"	60	0
64.	18	14	41	18	31	"	97	0
65.	9	14	41	13	18	"	73	0
66.	19	15	43	15	15	"	59	0

* Values in parentheses are check analyses by commercial laboratory

Stream Sediment Geochemistry (Brogan, Oregon 15' Quad, Sheet 1 of 1)

No.	Sec	Twp	Rge	Cu (ppm)	Ni (ppm)	Pb (ppm)	Zn (ppm)	Hg (ppb)
1.	31	16	43	7	9	Nil	44	0
2.	31	16	43	4	7	"	41	0
3.	6	17	43	9	5	"	48	0
4.	18	17	43	9	14	"	49	0
5.	25	25	42	4	7	"	40	0
6.	26	17	42	3	6	"	53	0
7.	1	18	43	3	10	"	29	0
8.	2	18	42	4	9	"	43	0
9.	2	18	42	2	6	"	36	0
10.	3	18	42	1	8	"	47	0
11.	3	18	42	2	4	"	56	0
12.	33	17	42	6	13	"	42	0
13.	5	18	42	2	4	"	58	0
14.	5	18	42	9	16	"	48	0
15.	29	17	42	nil	4	"	56	0
16.	8	17	42	2	7	"	53	0
17.	8	17	43	tr	5	"	56	0
18.	18	17	42	nil	5	"	46	0
19.	18	17	42	3	10	"	59	0
20.	25	17	41	1	8	"	58	0
21.	25	17	41	8	15	"	46	0
22.	12	18	41	6	15	"	56	0
23.	35	17	41	nil	5	"	56	0
24.	35	17	41	4	5	"	70	0
25.	11	17	41	4	5	"	66	0
26.	11	18	41	6	7	"	65	8
27.	10	17	41	16	5	"	61	0
28.	32	16	41	54	8	"	58	0
29.	32	16	41	64	25	"	65	T
30.	32	16	41	51	31	"	64	0
31.	19	17	41	48	24	"	60	0
32.	28	17	41	9	27	"	53	0
33.	29	17	41	11	9	"	54	0
34.	5	18	41	6	11	"	42	0
35.	-	16	42	9	9	"	57	0
36.	-	16	42	7	10	"	47	0
37.	-	16	42	14	9	"	55	0
38.	-	16	42	18	12	"	58	0
39.	-	16	42	11	12	"	55	0
40.	-	16	42	12	13	"	47	0
41.	-	16	42	12	9	"	60	0

Stream Sediment Geochemistry (Copperfield, Idaho-Oregon/15' Quad) Sheet 1 of 1)

No	Sec	Twp	Rge	Cu (ppm)	Ni (ppm)	Pb (ppm)	Zn (ppm)	Hg (ppb)
1.	34	7	47	40	22	Nil	62	0
2.	34	7	47	33	17	"	65	0
3.	17	8	48	50	32	"	65	0
4.	19	8	48	58	39	"	63	0
5.	4	8	48	68	41	"	64	0
6.	9	7	48	43	22	"	64	0
7.	9	7	48	66	41	"	62	0
8.	4	7	48	55	37	"	71	0
9.	15	7	47	36	21	"	62	0
10.	2	7	47	33	19	"	61	0
A.	16	19N	4W	26	11	"	50	0
B.	16	19N	4W	26	31	"	76	0
C.	35	7S	47E	60	37	"	62	0

Stream Sediment Geochemistry (Cuprum, Idaho, Ore - 15' Quad - Sheet 1)

No.	Sec	Twp	Rge	Cu (ppm)	Ni (ppm)	Pb (ppm)	Zn (ppb)	Hg (ppb)
1.	20	21N	3W	nil	nil	nil	86	0
2.	29	21N	3W	21	5	"	98	0
3.	31	21N	3W	28	8	"	84	0

Stream Sediment Geochemistry (Dooley Mtn. 7½' Quad - Sheet 1 of 1)

No.	Sec	Twp	Rge	Cu (ppm)	Ni (ppm)	Pb (ppm)	Zn (ppm)	Hg (ppb)
1.	24	11	40	8	2	nil	28	0
2.	15	11	40	4	nil	"	10	0
3.	22	11	40	6	nil	"	27	0
4.	22	11	40	4	nil	"	17	0
5.	8	11	40	12	4	"	34	0
6.	18	11	40	17	4	"	70	0
7.	36	11	40	7	97	"	42	0
8.	7	11	40	14	6	"	108	0
9.	30	11	40	19	30	"	98	0
10.	30	11	40	23	22	"	100	0
11.	30	11	40	17	2	"	144	12
12.	19	11	40	16	4	"	113	0
13.	8	12	40	(10) 12	(10) nil	(20) "	(775) 432	T
14.	5	12	40	(30) 28	(15) 6	(50) "	(570) 320	7
15.	29	12	40	5	nil	"	43	0
16.	18	12	40	18	6	"	183	8
17.	6	12	40	10	11	"	136	0
18.	1	12	39	23	7	"	73	0
19.	24	12	40	10	11	"	33	0
20.	24	12	20	8	12	"	36	0
21.	12	12	40	12	6	"	32	0
22.	2	12	40	17	8	"	35	0
23.	33	11	40	6	nil	"	45	0
24.	33	11	40	8	nil	"	126	0
25.	12	12	40	7	nil	"	36	0
26.	22	12	40	9	nil	"	48	0
27.	16	12	40	3	"	"	21	0
28.	16	12	40	6	"	"	33	0

* Values in parentheses are check analyses by commercial laboratory

Stream Sediment Geochemistry (Durkee 15' quadrangle - Sheet 1 of 2)

No.	Sec	Twp	Rge	Cu (ppm)	Ni (ppm)	Pb (ppm)	Zn (ppm)	Hg (ppb)
1.	31	10	43	40	33	nil	78	0
2.	29	10	43	31	34	"	73	0
3.	29	10	43	30	29	"	71	0
4.	22	10	43	36	45	"	71	0
5.	15	10	43	32	43	"	71	T
6.	9	10	43	37	45	"	69	0
7.	6	10	43	40	37	"	67	0
8.	8	10	43	38	31	"	66	0
9.	11	10	43	21	23	"	56	0
10.	1	10	43	26	21	"	66	0
11.	8	10	44	32	23	"	70	0
12.	18	10	43	43	23	"	77	T
13.	9	11	43	18	22	"	58	T.
14.	21	11	43	20	19	"	54	0
15.	10	11	43	19	17	"	57	0
16.	16	10	43	19	11	"	49	0
17.	35	10	43	22	17	"	58	0
18.	2	11	43	15	17	"	54	0
19.	35	10	43	25	22	"	64	0
20.	30	11	43	6	10	"	53	0
21.	19	11	43	11	14	"	42	0
22.	24	11	43	19	21	"	51	0
23.	7	11	44	32	40	"	69	0
24.	4	11	44	(50) 39	(45) 42	(20) "	(140)95	0
25.	4	11	44	24	39	"	81	0
26.	10	10	44	41	76	"	77	0
27.	10	10	44	36	33	"	64	0
28.	34	9	44	32	33	"	59	0
29.	34	9	44	10	10	"	43	0
30.	3	11	44	32	45	"	68	T
31.	3	11	44	35	48	"	88	0
32.	8	11	44	22	38	"	49	0
33.	30	10	45	30	50	"	73	T
34.	30	10	45	28	38	"	75	0
35.	24	10	44	35	50	"	76	0
36.	24	12	44	26	19	"	98	0
37.	31	11	43	23	27	"	50	0
38.	11	12	43	(30) 9	(30) 24	(40) "	(65) 34	12
39.	22	12	43	16	23	"	51	0
40.	22	12	43	6	12	"	45	0

* Values in parentheses are check analyses by commercial laboratory

Stream Sediment Geochemistry (Durkee 15' quadrangle - Sheet 2 of 2)

No.	Sec.	Twp	Rge	Cu (ppm)	Ni (ppm)	Pb (ppm)	Zn (ppm)	Hg (ppb)
41.	22	12	43	9	45	nil	58	0
42.	14	12	43	8	34	"	45	0
43.	33	11	43	38	123	"	57	14
44.	35	11	43	7	11	"	37	0
45.	35	11	43	8	16	"	37	0
46.	36	11	43	6	14	"	41	0
47.	36	11	43	8	21	"	37	0
48.	6	12	44	6	19	"	42	0
49.	8	12	44	7	21	"	40	0
50.	17	12	44	46	52	"	61	0
51.	17	12	44	18	27	"	63	0
52.	29	12	44	19	30	"	62	0
53.	19	12	44		(missing)	"		
54.	9	12	44	19	24	"	65	0
55.	9	12	44	11	20	"	53	0
56.	35	11	44	1	13	"	50	0
57.	35	11	44	17	35	"	67	0
58.	35	11	44	23	49	"	68	0
59.	22	12	44	36	69	"	84	0
60.	22	12	44	1	9	"	58	0
61.	15	12	44	tr	9	"	57	0
62.	18	11	43	16	28	"	52	0

(Elkhorn Peak 7½' quad.)

Stream Sediment Geochemistry (Sumpter 30' Quad - Sheet 1 of 1)

No.	Sec	Twp	Rge	Cu (ppm)	Ni (ppm)	Pb (~~ppm~~)	Zn (ppm)	Hg (ppb)
1.	12	9	38	60	67	17	130	0
2.	12	9	38	52	73	16	84	0
3.	2	9	38	49	46	10	93	0
4.	2	9	38	(60) 57	(65) 65	(10) 10	(130) 110	0
5.	36	8	39	55	63	15	76	0
6.	28	8	38	(50) 50	(95) 89	(10) 10	(105) 96	0
7.	22	8	38	43	56	10	79	0
8.	22	8	38	67	36	94	430	T
9.	26	8	38	59	42	48	315	T
10.	26	8	38	28	46	13	72	T

*Values in Parentheses are check analyses by commercial laboratory

Stream Sediment Geochemistry (Encina, Oregon 7½' quadrangle - Sheet 1 of 1)

No.	Sec	Twp	Rge	Cu (ppm)	Ni (ppm)	Pb (ppm)	Zn (ppm)	Hg (ppb)
1.	24	10	41	33	30	nil	79	T
2.	24	10	41	17	18	"	42	0
3.	24	10	41	24	22	"	56	0
4.	23	10	41	20	18	"	42	0
5.	27	10	41	18	18	"	36	0
6.	35	10	41	nil	8	"	25	0
7.	35	10	41	23	38	"	57	0
8.	12	11	41	13	15	"	57	0
9.	12	10	41	10	15	"	37	0
10.	11	10	41	25	25	"	64	0
11.	11	10	41	(55) 36	(80) 60	(30) "	(105) 75	0
12.	14	10	41	13	20	"	58	0
13.	14	10	41	16	25	"	47	0
14.	14	10	41	33	45	"	63	0
15.	16	10	41	13	18	"	47	0
16.	2	10	41	25	25	"	65	0
17.	10	10	41	24	24	"	58	0
18.	7	10	41	3	12	"	26	0
19.	17	10	41	5	20	"	36	0
20.	28	10	41	5	24	"	35	0
21.	34	10	41	20	24	"	56	0
22.	33	10	41	6	12	"	37	0
23.	17	10	41	5	15	"	35	0
24.	20	10	41	7	15	"	40	0
25.	31	10	41	10	17	"	40	0
26.	31	10	41	2	15	"	32	0
27.	7	11	41	5	17	"	36	0
28.	25	10	40	nil	12	"	30	0
29.	8	10	41	18	23	"	55	0
30.	5	10	41	30	55	"	57	0
31.	8	10	41	25	20	"	35	0
32.	36	9	41	30	35	"	60	0

*Values in parentheses are check analyses by commercial laboratory

Stream Sediment Geochemistry (French Gulch, Ore./7½' quad - Sheet 1 of 1)

No.	Sec	Twp	Rge	Cu (ppm)	Ni (ppm)	Pb (ppm)	Zn (ppm)	Hg (ppb)
1.	17	11	41	17	11	nil	30	0
2.	7	11	41	17	17	"	32	0
3.	26	11	41	26	21	"	48	0
4.	26	11	41	21	31	"	52	0
5.	26	11	41	26	20	"	56	0
6.	22	11	41	13	30	"	41	0
7.	2	12	41	60	31	"	119	0
8.	3	12	41	54	27	"	121	0
9.	9	12	41	16	24	"	50	0
10.	9	12	41	54	83	"	86	0
11.	8	12	41	69	146	"	110	0
12.	6	12	41	55	34	"	119	0
13.	6	12	41	Tr	6	"	30	0
14.	19	12	41	Tr	8	"	23	0
15.	7	12	42	31	89	"	70	0
16.	12	12	41	38	99	"	77	0
17.	12	12	41	29	82	"	76	0

Stream Sediment Geochemistry (Haines, Ore. 7½' quad - Sheet 1 of 1)

No.	Sec	Twp	Rge	Cu (ppm)	Ni (ppm)	Pb (ppm)	Zn (ppm)	Hg (ppb)
1.	12	7	39	29	20	Nil	44	0
2.	25	7	39	13	10	"	26	0
3.	25	7	39	46	17	"	57	0
4.	25	7	39	51	19	"	58	0
5.	1	8	39	23	10	"	35	0
6.	35	7	39	17	11	"	35	0
7.	23	7	39	13	5	"	30	0
8.	16	7	39	14	17	"	29	0

Stream Sediment Geochemistry (Halfway, Oregon 15' Quad - Sheet 1 of 1)

No	Sec	Twp	Rge	Cu (ppm)	Ni (ppm)	Pb (ppm)	Zn (ppm)	Hg (ppb)
1.	8	9	45	25	17	nil	52	0
2.	3	9	45	22	18	"	57	0
3.		sample not analyzed						
4.	16	7	46	19	13	"	74	0
5.	5	7	46	21	20	"	84	0
6.	5	7	46	(65) 40	(25) 19	(10) "	(220) 115	0
7.	2	7	46	15	19	"	68	0
8.	3	7	46	15	12	"	68	0
9.	4	7	46	13	6	"	55	0
10.	33	6	46	22	21	"	57	0
11.	35	7	45	48	28	"	77	0
12.	23	7	45	37	24	"	81	0
13.	23	7	45	59	32	"	78	0
14.	15	7	45	39	32	"	56	0
15.	10	7	45	69	58	"	60	0
16.	3	7	45	(95) 58	(30) 23	(20) "	(125)100	0
17.		sample not analyzed				"		
18.	8	7	46	38	31	"	59	0
19.	6	7	46	50	32	"	61	0
20.	6	7	46	36	27	"	57	0
21.	30	7	46	35	26	"	60	0

* Values in parentheses are check analyses by commercial laboratory

Stream Sediment Geochemistry (Homestead, Ore.-Ida./15' Quad - Sheet 1 of 1)

No	Sec	Twp	Rge	Cu (ppm)	Ni (ppm)	Pb (ppm)	Zn (ppm)	Hg (ppb)
1.	-	5	48	37	21	nil	66	0
2.	-	5	48	27	19	"	53	0
3.	36	5	48	18	1	"	64	0
4.	36	5	48	34	3	"	82	0
5.	1	6	48	32	11	"	85	0
6.	11	6	48	25	11	"	81	0
7.	15	6	48	22	4	"	88	0
8.	21	6	48	27	27	"	78	0
9.	21	6	48	(330) 262	(35) 16	(20) "	(200) 122	0
10.	28	6	48	49	22	"	118	0
11.	33	6	48	(25) 13	(10) 7	(20) "	(145)100	0
12.	12	21N	4W	58	13	"	76	0
13.	23	20N	4W	38	15	"	83	0
14.	27	20N	4W	16	15	"	92	0
15.	25	6	47	28	14	"	55	0
16.	25	6	47	26	14	"	60	0
17.	24	6	47	26	14	"	62	0
18.	13	6	47	19	8	"	60	0
19.	12	6	47	16	8	"	71	0
20.	-	5	48	6	tr	"	63	0
21.	-	5	48	5	tr	"	62	0
22.	-	5	48	5	nil	"	73	0
23.	-	5	48	6	tr	"	60	0
24.	6	6	48	6	tr	"	71	0
25.	1	6	47	9	14	"	57	0
26.	1	6	47	9	7	"	71	0
27.	1	6	47	10	15	"	53	0
28.	-	6	47	14	16	"	53	0
29.	-	5	47	7	13	"	52	0

* Values in Parentheses are check analyses by commercial laboratory
tr - trace

Stream Sediment Geochemistry (Huntington, Ore. 15' Quad - Sheet 1 of 2)

No.	Sec	Twp	Rge	Cu (ppm)	Ni (ppm)	Pb (ppm)	Zn (ppm)	Hg (ppb)
1.	30	12	45	35	26	nil	137	0
2.	30	12	45	49	57	"	179	0
3.	30	12	45	41	28	"	183	0
4.	30	12	45	32	21	"	149	0
5.	30	12	44	49	62	"	83	0
6.	33	12	44	33	17	"	67	0
7.	33	12	44	(20) 12	(15) 5	(10) "	(90) 55	0
8.	27	12	44	19	21	"	73	0
9.	27	12	44	11	nil	"	53	0
10.	4	13	44	24	17	"	130	0
11.	35	12	44	31	23	"	134	0
12.	35	12	44	24	12	"	125	0
13.	15	13	44	7	14	"	39	0
14.	11	13	44	(55) 37	(35) 28	(20) "	(415)165	0
15.	11	13	44	10	18	"	103	0
16.	18	14	45	25	32	"	87	0
17.	12	14	45	32	31	"	57	0
18.	2	14	44	28	10	"	82	0
19.	2	14	44	29	23	"	100	0
20.	34	13	44	24	23	"	117	0
21.	25	13	44	13	9	"	62	0
22.	23	13	44	22	14	"	69	0
23.	22	13	44	20	16	"	123	0
24.	22	13	44	2	7	"	37	0
25.	9	13	44	49	30	"	180	0
26.	16	13	44	13	7	"	50	0
27.	8	13	44	26	8	"	106	0
28.	7	13	44	15	11	"	55	0
29.	12	13	43	62	20	"	102	0
30.	11	13	43	57	5	"	96	0
31.	27	13	44	42	15	"	149	0
32.	11	13	43	62	13	"	102	0
33.	14	13	43	14	10	"	43	0
34.	8	13	43	20	18	"	38	0
35.	5	13	43	16	27	"	49	0
36.	6	13	43	14	10	"	41	0
37.	5	13	43	10	nil	"	97	0
38.	6	13	43	10	5	"	51	0
39.	31	12	43	7	6	"	35	0
40.	31	12	43	11	8	"	54	0

* Values in parentheses are check analyses by commercial laboratory

Stream Sediment Geochemistry (Huntington, Ore 15' Quad - Sheet 2 of 2)

No.	Sec	Twp	Rge	Cu (ppm)	Ni (ppm)	Pb (ppm)	Zn (ppm)	Hg (ppb)
41.	16	14	44	32	21	nil	92	0
42.	16	14	44	34	26	"	105	0
43.	33	13	44	35	31	"	157	0
44.	13	14	43	15	19	"	86	0
45.	22	14	43	15	25	"	88	0
46.	23	14	43	16	20	"	83	0
47.	10	14	43	22	41	"	159	0
48.	15	14	43	19	24	"	111	0
49.	17	14	43	30	23	"	77	0
50.	18	13	43	14	45	"	57	0
51.	18	13	43	15	55	"	60	0
52.	20	13	43	17	20	"	72	0
53.	27	13	43	15	154	"	101	0
54.	27	13	43	20	281	"	79	0
55.	32	13	43	20	30	"	102	0
56.	20	13	43	12	20	"	77	0
57.	3	15	43	30	26	"	85	0
58.	10	15	43	28	20	"	102	0
59.	6	15	43	18	16	"	112	0
60.	17	15	43	17	31	"	89	0
61.	17	15	43	27	35	"	82	0
62.	12	14	44	22	15	"	66	0
63.	26	14	44	25	15	"	70	0
64.	26	14	44	18	14	"	57	0
65.	25	14	44	20	14	"	60	0
66.		14	44		(missing)			
67.	36	14	44	42	32	"	65	0
68.	36	14	44	19	16	"	59	0
69.		14	44		(missing)	"		
70.	14	15	44	46	30	"	66	0
71.	11	15	44	63	58	"	66	0
72.	13	15	44	13	15	"	40	0
73.	13	15	44	14	14	"	45	0
74.	21	15	44	20	11	"	67	0
75.	18	15	44	15	13	"	52	T
76.	18	15	44	10	9	"	35	0
77.	11	14	44	43	23	"	67	0

Stream Sediment Geochemistry (Ironside, Oregon 15' Quad - Sheet 1 of 2)

No.	Sec	Twp	Rge	Cu (ppm)	Ni (ppm)	Pb (ppm)	Zn (ppm)	Hg (ppb)
1.	26	12	39	17	26	nil	44	0
2.	30	12	40			(missing)		
3.	25	12	38	15	29	nil	40	0
4.	4	12	39	17	105	"	83	0
5.	27	12	39	20	284	"	90	0
6.	28	12	39	15	85	"	75	0
7.	32	12	39	36	82	"	107	0
8.	32	12	39	24	33	"	101	0
9.	31	12	39	15	25	"	52	0
10.	26	12	39	16	30	"	133	0
11.	25	12	39	23	39	"	88	0
12.	29	12	40	17	32	"	54	0
13.	6	13	40	15	22	"	41	0
14.	6	13	40	19	32	"	46	0
15.	33	12	40	(35) 32	(250) 220	(20) "	(355) 147	0
16.	34	12	40	30	31	"	164	0
17.	35	12	40	25	69	"	154	0
18.	35	12	40	32	205	"	115	0
19.	36	12	40	25	19	"	82	0
20.	36	12	40	21	20	"	105	0
21.	36	12	40	42	21	"	91	0
22.	26	12	40	6	8	"	27	0
23.	25	13	40	29	20	"	74	0
24.	27	13	40	23	43	"	115	0
25.	16	13	40	29	110	"	136	0
26.	15	13	40	23	21	"	140	0
27.	26	13	40	27	28	"	91	0
28.	1	14	40	18	15	"	60	0
29.	1	14	40	41	80	"	121	0
30.	2	14	40	44	189	"	172	0
31.	30	13	39	6	3	"	59	0
32.	30	13	39	(10) 8	(15) 9	(10)"	(75) 88	0
33.	22	13	39	12	14	"	57	0
34.	22	13	39	18	14	"	62	0
35.	30	13	40	12	25	"	47	0
36.	24	13	39	17	39	"	50	0
37.	24	13	39	15	27	"	42	0
38.	36	14	40	38	18	"	68	T
39.	22	14	40	35	34	"	105	0
40.	22	14	40	25	20	"	55	0

* Values in parentheses are check analyses by commercial laboratory

T - trace

Stream Sediment Geochemistry (Ironside, Ore. 15' Quad - Sheet 2 of 2)

No.	Sec	Twp	Rge	Cu (ppm)	Ni (ppm)	Pb (ppm)	Zn (ppm)	Hg (ppb)
41.	16	14	40	28	29	nil	98	0
42.	20	14	40	26	54	"	98	0
43.	31	14	40	26	21	"	73	0
44.	31	14	40	26	30	"	72	0
45.	36	14	39	26	18	"	80	0
46.	34	14	39	18	12	"	81	0

Stream Sediment Geochemistry (Jamieson, Ore. 15' Quad - Sheet 1 of 2)

No.	sec	Twp	Rge	Cu (ppm)	Ni (ppm)	Pb (ppm)	Zn (ppm)	Hg (ppb)
1.	20	15	44	19	17	Nil	50	0
2.	20	15	44	30	16	"	76	0
3.	29	15	44	15	20	"	44	0
4.	34	15	44	23	35	"	48	0
5.	33	15	44	22	17	"	66	T
6.	33	15	44	18	17	"	45	0
7.	27	15	44	30	45	"	55	0
8.	2	16	43	5	5	"	35	0
9.	3	16	43	-	- Missing	"	-	0
10.	14	16	43	9	6	"	49	0
11.	13	16	43	18	16	"	57	0
12.	13	16	43	16	16	"	64	0
13.	13	16	43	15	16	"	62	0
14.	3	17	44	23	24	"	61	0
15.	35	16	44	22	20	"	53	0
16.	26	16	44	18	27	"	40	0
17.	22	16	44	28	48	"	45	0
18.	24	16	44	45	82	"	55	0
19.	25	15	44	8	11	"	30	0
20.	25	15	44	26	20	"	43	0
21.	30	15	45	11	25	"	26	0
22.	31	15	45	14	10	19	39	0
23.	6	16	45	7	4	12	26	0
24.	7	17	45	18	20	25	39	0
25.	7	17	45	19	19	22	42	0
26.	2	17	43	15	15	16	37	0
27.	2	17	43	13	13	20	47	0
28.	6	17	43	2	7	10	40	0
29.	6	17	43	8	11	15	41	0
30.	9	17	43	28	22	14	54	0
31.	1	17	43	11	12	14	43	0
32.	7	17	44	10	12	11	41	0
33.	18	17	44	10	12	13	41	0
34.	17	17	44	11	11	14	39	0
35.	13	17	43	22	18	17	57	0
36.	16	17	43	10	12	20	32	0
37.	16	17	43	7	7	16	38	0
38.	11	17	43	21	18	18	55	0
39.	11	17	43	6	7	12	35	0
40.	3	17	43	12	18	20	40	0

Stream Sediment Geochemistry (Jamieson, Ore. 15' Quad - Sheet 2 of 2)

No.	sec	Twp	Rge	Cu (ppm)	Ni (ppm)	Pb (ppm)	Zn (ppm)	Hg (ppb)
41.	3	17	43	6	18	15	40	0
42.	34	16	43	6	6	14	35	0
43.	32	16	43	7	7	18	37	0
44.	32	16	43	5	10	15	33	0
45.	21	16	43	9	3	15	36	0
46.	20	16	43	17	5	16	43	0
47.	8	17	43	6	7	20	43	0
48.	8	17	43	10	13	18	44	0
49.	19	17	43	4	5	5	35	0
50.	6	16	43	16	15	11	50	0
51.	7	16	43	13	11	10	51	0
52.	16	16	43	15	12	16	46	0
53.	4	16	43	4	7	5	25	0
54.	27	15	43	4	7	6	30	0
55.	32	15	43	12	12	12	41	0
56.	29	15	43	22	15	12	66	0
57.	18	18	43	28	21	19	50	0

Stream Sediment Geochemistry (Keating, 7½' Ore Quad - Sheet 1 of 1)

No.	Sec	Twp	Rge	Cu (ppm)	Ni (ppm)	Pb (ppm)	Mn (ppm)	Hg (ppb)
1.	19	8	42	30	35	30	80	0
2.	19	8	42	20	40	30	65	T
3.	29	8	42	20	20	20	55	0
4.	6	9	42	30	20	20	65	0
5.	32	8	42	30	25	20	55	0
6.	29	8	42	35	30	20	60	0
7.	4	9	42	15	15	20	50	0
8.	27	8	42	25	20	20	55	0
9.	28	8	42	30	30	30	70	0
10.	25	8	42	30	30	30	70	0
11.	3	9	42	20	25	30	65	0
12.	36	8	42	30	30	20	65	0
13.	14	9	42	25	20	20	65	0
14.	14	9	42	35	25	20	75	0
15.	14	9	42	35	25	30	80	0
16.	27	9	42	40	35	20	80	0
17.	30	9	42	30	25	20	70	0
18.	19	9	42	50	50	20	90	8
19.	18	9	42	30	25	30	70	T
20.	8	9	42	55	35	30	65	0
21.	8	9	42	35	35	20	60	T.
22.	8	9	42	30	35	20	70	0
23.	16	9	42	30	40	20	65	0
24.	16	9	42	20	15	30	55	0
25.	8	9	42	40	35	20	70	0
26.	16	8	42	25	15	20	80	0
27.	16	8	42	25	15	20	80	0
28.	15	8	42	30	20	20	80	0
29.	24	8	42	95	25	30	180	0
30.	1	9	42	35	35	30	75	0
31.	1	9	42	30	35	30	80	0

Stream Sediment Geochemistry (Lost Basin, Ore./7½' Quad - sheet 1 of 1)

No	Sec	Twp	Rge	Cu (ppm)	Ni (ppm)	Pb (ppm)	Zn (ppm)	Hg (ppb)
1.	-	11	42	24	29	nil	43	0
2.	-	11	42	20	14	"	39	0
3.	-	11	42	11	24	"	37	0
4.	-	11	42	34	20	"	38	0
5.	-	11	42	47	31	"	42	0
6.	-	11	42	78	45	"	100	0
7.	-	11	42	33	22	"	74	0
8.	23	12	42	nil	4	"	42	0
9.	23	12	42	3	4	"	44	0
10.	16	12	42	15	20	"	41	8
11.	16	12	42	17	40	"	45	0
12.	17	12	42	25	38	"	47	0
13.	17	12	42	26	51	"	48	0
14.	6	12	42	30	36	"	60	0
15.	9	12	42	18	24	"	53	0
16.	9	12	42	38	22	"	55	0
17.	31	11	43	39	33	"	76	0

Stream Sediment Geochemistry (Magpie Peak, Ore 7½' Quad - Sheet 1 of 1)

No.	Sec	Twp	Rge	Cu (ppm)	Ni (ppm)	Pb (ppm)	Zn (ppm)	Hg (ppb)
1.	1	8	40	18	26	16	33	0
2.	1	8	40	15	29	17	35	0
3.	23	7	40	15	33	19	36	0
4.	23	7	40	16	28	14	42	0
5.	14	7	40	10	15	8	42	0
6.	14	7	40	15	48	18	48	0
7.	3	8	40	13	44	16	45	0
8.	3	7 or 8	40	21	17	8	33	0
9.	35	7	40	23	21	16	43	0
10.	33	7	40	20	12	13	33	0
11.	8	7	40	21	16	12	33	0
12.	29	7	40	21	15	18	38	0
13.	26	7	40	14	12	16	39	0
14.	20	7	40	13	15	6	50	0
15.	17	7	40	10	7	20	50	0
16.	4	7	40	4	3	16	25	0
17.	5	7	40	5	8	15	28	0
18.	6	6	40	8	19	16	35	0
19.	3	7	40	8	3	16	25	0
20.	36	7	39	16	8	10	32	0
21.	31	7	40	16	4	16	39	0
22.	7	7	40	15	3	14	35	0

Stream Sediment Geochemistry (Mineral 15' quadrangle - Sheet 1 of 1)

No.	Sec	Twp	Rge	Cu (ppm)	Ni (ppm)	Pb (ppm)	Zn (ppm)	Hg (ppb)
1.	29	9	45	20	8	6	42	0
2.	29	9	45	19	11	10	45	0
3.	30	9	45	26	20	10	49	0
4.	7	10	46	31	21	6	60	0
5.	5	10	46	20	5	13	55	0
6.	8	11	45	11	2	8	41	0
7.	9	11	45	21	8	12	53	0
8.	9	11	45	42	21	18	76	0
9.	3	11	45	30	16	10	61	0
10.	3	11	45	47	25	12	107	0
11.	27	10	45	27	14	9	64	0
12.	27	10	45	29	23	12	72	0
13.	32	10	45	33	20	12	67	0
14.	29	10	45	28	22	12	75	0
15.	8	11	45	10	1	6	42	0
16.	29	10	46	55	29	12	71	0
17.	32	10	46	71	45	9	58	0
18.	5	11	46	77	50	5	69	0
19.	5	11	46	(95) 83	(65) 49	(30) 10	(170)107	0
20.	18	11	46	64	39	7	63	0
21.	18	11	46	60	71	9	76	0
22.	19	11	46	66	46	5	77	0
23.	30	11	46	52	44	11	260	0
24.	36	11	45	45	103	11	143	0
25.	11	12	45	44	19	7	148	0
26.	11	12	45	34	92	8	110	0
27.	34	11	45	(55)49	(675)371	(30) 11	(180)107	26
28.	34	11	45	35	18	5	52	0
29.	15	12	45	21	26	11	82	0
30.	15	12	45	-	-	missing	-	
31.	20	12	45	24	21	4	82	0
32.	7	12	45	25	18	3	57	0

* Values in parentheses are check analyses by commercial laboratory.

15'

Stream Sediment Geochemistry (Moores Hollow/Quad - Sheet 1 of 2)

No.	Sec	Twp	Rge	Cu (ppm)	Ni (ppm)	Pb (ppm)	Zn (ppm)	Hg (ppb)
1.	3	15	46	27	33	7	52	0
2.	30	15	46	23	27	10	53	0
3.	19	15	45	32	30	12	65	0
4.	28	15	45	38	47	5	99	0
5.	28	15	45	13	7	3	42	0
6.	29	15	45	11	9	3	36	0
7.	12	16	45	5	3	2	28	0
8.	12	16	45	5	2	1	35	0
9.	8	17	45	16	8	2	46	0
10.	31	16	45	3	2	nil	25	0
11.	4	17	45	17	16	7	48	0
12.	5	17	45	9	10	5	38	0
13.	5	17	45	12	9	2	48	0
14.	33	16	45	7	2	1	40	0
15.	34	16	45	16	8	2	57	0
16.	7	17	46	9	5	nil	35	0
17.	7	17	46	8	4	1	40	0
18.	17	17	46	8	2	1	35	0
19.	17	17	46	10	5	nil	35	0
20.	15	17	46	8	4	nil	38	0
21.	33	16	46	6	4	"	35	0
22.	27	15	46	21	10	5	50	0
23.	36	15	46	14	6	3	39	0
24.	2	16	46	14	9	1	37	T
25.	2	16	46	17	10	3	44	0
26.	36	15	46	11	10	nil	32	0
27.	32	16	47	17	15	2	50	0
28.	7	17	47	7	7	nil	35	0
29.	4	18	45	10	8	"	33	0
30.	10	18	45	7	7	"	27	0
31.	11	18	45	8	6	"	30	0
32.	6	18	46	8	6	"	32	0
33.	25	17	45	3	5	"	39	0
34.	2	18	46	6	5	"	28	0
35.	31	17	47	8	10	"	36	0
36.	27	17	47	9	7	12	37	0
37.	27	17	47	8	4	6	32	0
38.	23	17	46	7	8	12	27	0
39.	30	17	47	7	5	9	32	0
40.	19	17	47	8	6	8	33	0

15'

Stream Sediment Geochemistry (Moores Hollow/Quad - Sheet 2 of 2)

No.	Sec	Twp	Rge	Cu (ppm)	Ni (ppm)	Pb (ppm)	Zn (ppm)	Hg (ppb)
41.	19	17	47	8	3	8	31	0
42.	17	16	46	10	5	4	38	0
43.	23	16	46	16	14	10	46	0
44.	24	16	46	15	11	10	46	0

Stream Sediment Geochemistry (Olds Ferry/Quad 7½' NW ¼ and SW ¼ Sheet 1 of 1)

No.	Sec	Twp	Rge	Cu (ppm)	Ni (ppm)		Pb (ppm)	Zn (ppm)	Hg (ppb)
1.	27	12	45	33	32		16	115	0
2.	27	12	45	41	33		22	258	0
3.	33	12	45	48	35		20	153	0
4.	30	12	45	44	31		33	271	0
5.	5	13	45	42	17		22	162	0
6.	4	13	45	30	11		21	117	0
7.	16	13	45	27	10		37	76	0
8.	20	13	45	41	5		34	117	0
9.	29	13	45	42	12		30	77	0
10.	32	13	45	21	3		30	62	0
11.	17	14	45	45	23		50	135	0
12.	20	15	45	-	-	missing	-	-	0
13.	20	15	45	18	21		28	55	0
14.	9	15	45	36	16		24	59	0
15.	14	15	45	43	56		42	70	0
16.	23	15	45	37	52		34	52	0
17.	32	14	45	34	22		34	54	0
18.	32	14	45	11	10		22	35	0

Stream Sediment Geochemistry (Oxman, Ore. 7½' quad - Sheet 1 of 1)

No.	Sec	Twp	Rge	Cu (ppm)	Ni (ppm)	Pb (ppm)	Zn (ppm)	Hg (ppb)
1.	19	10	42	30	15	"	metal contam.	0
2.	20	10	42	37	30	"	65	0
3.	30	10	42	40	95	"	50	0
4.	32	10	42	42	80	"	55	0
5.	33	10	42	30	75	"	50	0
6.	3	11	42	25	75	"	40	0
7.	34	10	42	27	50	"	50	0
8.	34	10	42	38	25	"	50	0
9.	1	11	42	38	25	"	55	0
10.	36	10	42	45	35	"	60	0
11.	36	10	42	46	35	"	65	0
12.	35	9	42	29	32	"	66	0
13.	26	9	42	31	23	"	60	0
14.	31	9	42	18	22	"	43	0
15.	33	9	42	42	31	"	79	0
16.	33	9	42	17	21	"	50	0
17.	28	10	42	28	58	"	70	0
18.	28	10	42	24	32	"	63	0
19.	5	11	42	16	44	"	114	0
20.	9	11	42	1	55	"	47	0
21.	18	10	42	29	32	"	66	0
22.	11	10	42	23	28	"	67	0
23.	11	10	42	30	35	"	74	0
24.	22	10	42	33	28	"	81	0
25.	27	10	42	36	40	"	67	0
26.	27	10	42	40	48	"	79	0
27.	34	10	42	28	29	"	58	0
28.	33	10	42	24	31	"	56	0
29.	3	11	42	30	30	"	50	0
30.	32	10	42	24	28	"	58	0

Stream Sediment Geochemistry (Payette, Idaho-Oregon 7½' Quad - Sheet 1 of 1)

No	Sec	Twp	Rge	Cu (ppm)	Ni (ppm)	Pb (ppm)	Zn (ppm)	Hg (ppb)
1.	20	17	47	1	5		34	0
2.	16	17	47	nil	4		33	0
3.	20	17	47	3	9		44	0
4.	5	17	47	3	8		43	0

(Rastus Mtn. 7½' quad.)

Stream Sediment Geochemistry (Ironside Mtn. 30' Sheet 1 of 1)

No.	Sec	Twp	Rge	Cu (ppm)	Ni (ppm)	Pb (ppm)	Zn (ppm)	Hg (ppb)
1.	16	14	37	45	30	60	270	8
2.	20	14	37	55	30	40	420	0
3.	19	14	37	70	35	40	745	23
4.	30	14	37	65	30	20	560	4
5.	25	14	36	20	20	10	110	4
6.	36	14	36	20	20	10	120	17
7.	30	14	37	30	35	30	515	10
8.	1	15	36	20	30	10	280	4
9.	5	15	37	40	45	20	1400	6
10.	5	15	37	80	50	40	1300	27
11.	34	15	37	45	50	30	990	4
12.	26	14	37	30	40	20	790	21
13.	26	14	37	15	30	10	465	8

Stream Sediment Geochemistry (Sawtooth Ridge 7½' quadrangle - Sheet 1 of 1)

No.	Sec	Twp	Rge	Cu (ppm)	Ni (ppm)	Pb (ppm)	Zn (ppm)	Hg (ppb)
1.	8	8	42	36	12	14	63	0
2.	31	7	42	37	19	15	69	0
3.	31	7	42	39	15	13	65	0
4.	19	7	42	39	10	14	66	0
5.	32	6	42	15	8	7	49	0
6.	5	7	42	26	5	13	54	0
7.	5	7	42	23	13	16	73	0
8.	?		42	26	15	10	74	0
9.	15	7	42	24	15	12	69	0
10.	24	7	42	24	15	9	73	T
11.	23	7	42	18	12	10	54	T
12.	24	7	42	38	23	9	90	0
13.	26	7	42	44	19	14	81	0
14.	26	7	42	25	17	13	80	0
15.	27	7	42	14	20	13	80	0
16.	28	7	42	51	21	15	83	0
17.	20	7	42	24	20	20	71	0
18.	4	8	42	33	22	12	80	0
19.	1	8	42	25	22	15	89	0
20.	1	8	42	24	18	12	62	0
21.	2	8	42	35	20	13	93	0
22.	31	7	43	34	30	25	110	0
23.	1	8	42	30	17	19	70	0
24.	12	8	42	25	12	10	93	T
25.	1	7	42	27	21	7	68	0
26.	1	7	42	21	24	nil	79	0

Stream Sediment Geochemistry (Sparta 15' quadrangle - Sheet 1 of 3)

No.	Sec	Twp	Rge	Cu (ppm)	Ni (ppm)	Pb (ppm)	Zn (ppm)	Hg (ppb)
1.	31	7	43	23	8	30	76	T
2.	32	7	43	21	15	38	84	T
3.	17	7	43	12	Nil	32	56	0
4.	32	7	43	*(485) 328	(30) 18	(40) 52	(585) 323	T
5.	7	8	43	318	20	31	276	0
6.	4	8	43	18	2	22	60	T
7.	8	8	43	29	27	30	76	T
8.	4	8	43	18	3	30	62	T
9.	12	8	43	10	8	22	46	0
10.	7	8	44	9	6	19	58	0
11.	3	8	43	23	12	26	82	0
12.	3	8	43		sample not analyzed			
13.	35	7	43	12	6	24	64	0
14.	35	7	43	40	38	36	79	0
15.	23	7	43	16	6	26	91	0
16.	14	7	43	30	12	24	62	0
17.	14	7	43	47	50	22	83	T
18.	10	7	43	30	22	22	78	T
19.	10	7	43	53	63	22	82	T
20.	33	6	43	69	80	30	90	0
21.	33	8	43	9	nil	12	52	T
22.	34	8	43	14	1	14	42	0
23.	34	8	43	12	nil	32	33	0
24.	6	9	44	26	11	18	41	0
25.	6	9	44	24	10	20	39	0
26.	5	9	44	18	11	20	39	T
27	4	9	44	14	8	24	34	T
28	4	9	44	16	16	26	38	0
29	10	9	44	46	29	25	53	0
30.	24	9	44	32	14	10	37	0
31.	24	9	44	29	12	9	49	0
32.	13	9	44	52	9	8	46	0
33.	12	9	44	20	5	8	40	0
34.	36	8	44	26	14	6	46	0
35.	31	8	45	29	13	9	47	0

* Values in parentheses are check analyses by commercial laboratory

T - trace

Stream Sediment Geochemistry (Sparta 15' quadrangle - Sheet 2 of 3)

No.	sec	Twp	Rge	Cu (ppm)	Ni (ppm)	Pb (ppm)	Zn (ppm)	Hg (ppb)
36.	24	8	44	23	7	8	45	0
37.	14	8	44	11	2	3	44	0
38.	17	8	44	11	tr	3	33	0
39.	28	9	43	34	39	13	50	0
40.	26	9	43	34	41	11	51	0
41.	25	9	44	40	31	8	61	0
42.	18	9	45	29	11	15	49	0
43.	26	9	44	48	29	11	65	0
44.	7	9	44	54	30	16	45	0
45.	11	9	43	27	10	11	43	0
46.	9	9	43	31	71	16	49	0
47.	9	9	43	39	35	10	45	0
48.	4	9	43	35	23	14	42	0
49.	5	9	43	33	27	15	44	0
50.	6	9	43	35	28	20	44	0
51.	5	9	43	32	15	12	43	0
52.	3	8	44	31	13	16	64	T
53.	34	7	44	24	19	14	67	T
54.	-	7	44	20	5	9	79	0
55.	-	7	44	35	17	6	44	0
56.	35	6	43	20	8	2	23	0
57.	36	6	43	(90) 65	(50) 27	(20) 16	(125) 80	0
58.	1	7	43	52	20	9	70	0
59.	6	7	44	27	11	3	29	0
60.	6	7	44	30	15	5	43	T
61.	-	7	44	56	20	10	84	0
62.	-	7	44	26	6	13	79	0
63.	-	7	44	42	17	13	81	0
64.	-	7	44	32	15	10	75	17
65.	-	7	44	22	11	8	65	T
66.	-	7	44	32	14	14	58	50
67.	-	7	44	46	20	1	63	0
68.	-	7	44	36	24	9	74	0
69.	30	7	45	29	19	4	57	0
70.	18	7	45	40	23	9	72	0

* Values in parentheses are check analyses by commercial laboratory

T - trace

Stream Sediment Geochemistry (Sparta 15' quadrangle - Sheet 3 of 3)

No.	Sec	Twp	Rge	Cu (ppm)	Ni (ppm)	Pb (ppm)	Zn (ppm)	Hg (ppb)
71.	13	7	44	59	28	13	82	0
72.	13	7	44	25	16	7	70	0
73.	1	8	44	39	22	8	67	0
74.	6	8	45	32	21	5	64	0
75.	7	8	45	34	19	8	67	0
76.	15	9	44	50	19	9	36	T
77.	23	7	43	33	8	11	80	

T - trace

Stream Sediment Geochemistry (Virtue Flat/7½' Quad - Sheet 1 of 2)

No.	Sec	Twp	Rge	Cu (ppm)	Ni (ppm)	Pb (ppm)	Zn (ppm)	Hg (ppb)
1.	8	9	41	52	86	60	56	0
2.	8	9	41	72	140	70	52	0
3.	8	9	41	30	60	nil	49	0
4.	17	9	41	24	40	10	45	0
5.	20	9	41	38	30	nil	51	12
6.	21	9	41	76	70	nil	56	0
7.	21	9	41	84	120	"	55	0
8.	28	9	41	73	110	"	56	0
9.	28	9	41	83	40	"	30	0
10.	28	9	41	35	30	30	50	0
11.	27	9	41	32	40	10	50	0
12.	27	9	41	34	30	nil	50	0
13.	27	9	41	31	40	"	45	0
14.	27	9	41	58	50	"	69	0
15.	26	9	41	61	40	50	78	0
16.	26	9	41	29	20	nil	41	0
17.	26	9	41	37	40	60	58	0
18.	26	9	41	25	20	60	47	0
19.	25	9	41	53	20	70	61	T
20.	25	9	41	31	10	60	50	0
21.	11	9	41	48	10	nil	42	0
22.	11	9	41	34	40	20	42	0
23.	10	9	41	29	30	nil	41	0
24.	10	9	41	40	30	"	43	0
25.	4	9	41	41	50	"	44	0
26.	4	9	41	45	31	"	43	0
27.	5	9	41	32	17	"	36	0
28.	12	9	40	14	12	"	33	0
29.	12	9	40	56	32	"	44	0
30.	12	9	40	29	10	"	30	0
31.	9	9	41	42	46	"	49	0
32.	4	9	41	24	47	"	48	0
33.	35	8	41	25	74	"	51	0
34.	35	8	41	19	23	"	40	0
35.	25	8	41	12	37	"	40	0
36.	2	8	41	19	26	"	39	0
37.	23	8	41	15	58	"	41	0
38.	23	8	41	16	69	"	45	0
39.	14	8	41	10	29	"	36	0
40.	10	9	41	24	21	"	42	0

Stream Sediment Geochemistry (Virtue Flat/7½' Quad - Sheet 2 of 2)

No.	Sec	Twp	Rge	Cu (ppm)	Ni (ppm)	Pb (ppm)	Zn (ppm)	Hg (ppb)
41.	13	9	41	21	24	nil	44	0
42.	31	8	41	13	16	"	35	0
43.	31	8	41	9	14	"	35	0
44.	30	8	41	10	32	"	46	0
45.	30	8	41	9	42	"	43	0
46.	16	8	41	9	20	"	32	0

Stream Sediment Geochemistry (Weiser - South, 7½' Quad, Sheet 1 of 1)

No.	Sec.	Twp	Rge	Cu (ppm)	Ni (ppm)	Pb (ppm)	Zn (ppm)	Hg (ppb)
1.	17	16	47	1	9	nil	26	0
2.	20	16	47	5	2	"	35	0
3.				-	-	missing	-	-
4.	21	16	47	nil	2	"	25	0
5.	29	16	47	9	10	"	48	0
6.	29	16	47	12	6	30	65	0
7.	3	17	47	3	9	nil	39	30
8.	33	16	47	3	21	"	34	8
9.	33	16	47	6	10	"	35	12

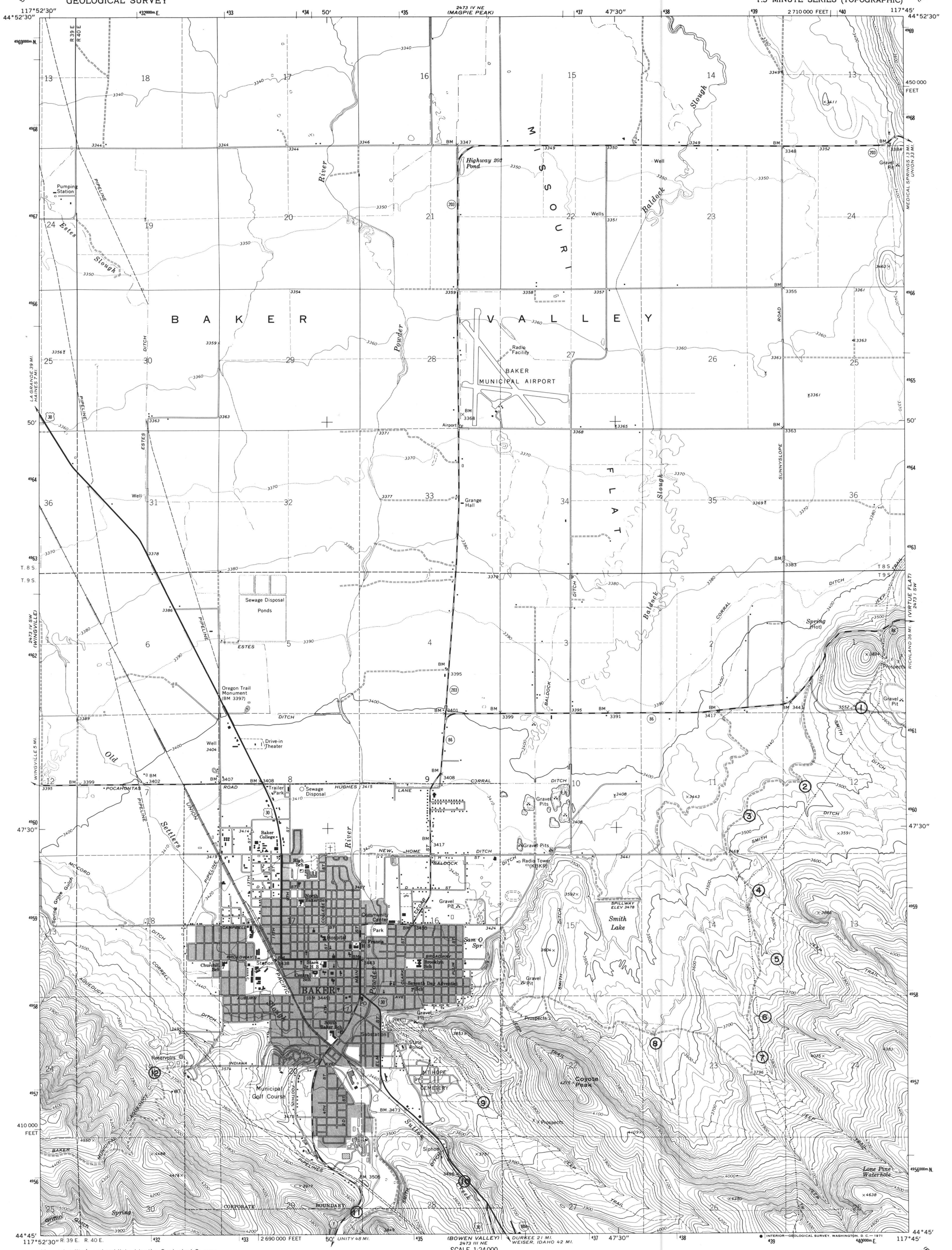
Stream Sediment Geochemistry (Wingville 7½' Quad - Sheet 1 of 1)

No.	Sec	Twp	Rge	Cu (ppm)	Ni (ppm)	Pb (ppm)	Zn (ppm)	Hg (ppb)
1.	13	9	39	102	105	20	135	0
2.	11	9	39	76	40	26	94	0
3.	11	9	39	31	39	12	71	0
4.	22	9	39	45	40	15	103	0
5.	23	9	39	44	50	12	93	0
6.	26	9	39	23	61	13	40	0
7.	28	9	39	31	40	15	69	0
8.	28	9	39	44	67	13	87	0
9.	9	9	39	48	45	10	71	0
10.	9	9	39	39	50	22	80	0
11.	8	9	39					0
12.	18	9	39					0
13.	18	9	39					0
14.	6	9	39					0
15.	1	9	38					0

OFR 76-4

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

BAKER QUADRANGLE
OREGON–BAKER CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)



Mapped, edited, and published by the Geological Survey

Control by USGS, USC&GS, and State of Oregon

Topography by photogrammetric methods from aerial photographs taken 1966. Field checked 1967

Polyconic projection. 1927 North American datum
10,000-foot grid based on Oregon coordinate system, north zone
1000-meter Universal Transverse Mercator grid ticks, zone 11, shown in blue

Red tint indicates areas in which only landmark buildings are shown

Fine red dashed lines indicate selected fence lines

UTM GRID AND 1967 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

SCALE 1:24 000

CONTOUR INTERVAL 20 FEET
DOTTED LINES REPRESENT 10-FOOT CONTOURS
DATUM IS MEAN SEA LEVEL

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225, OR WASHINGTON, D. C. 20242
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

QUADRANGLE LOCATION

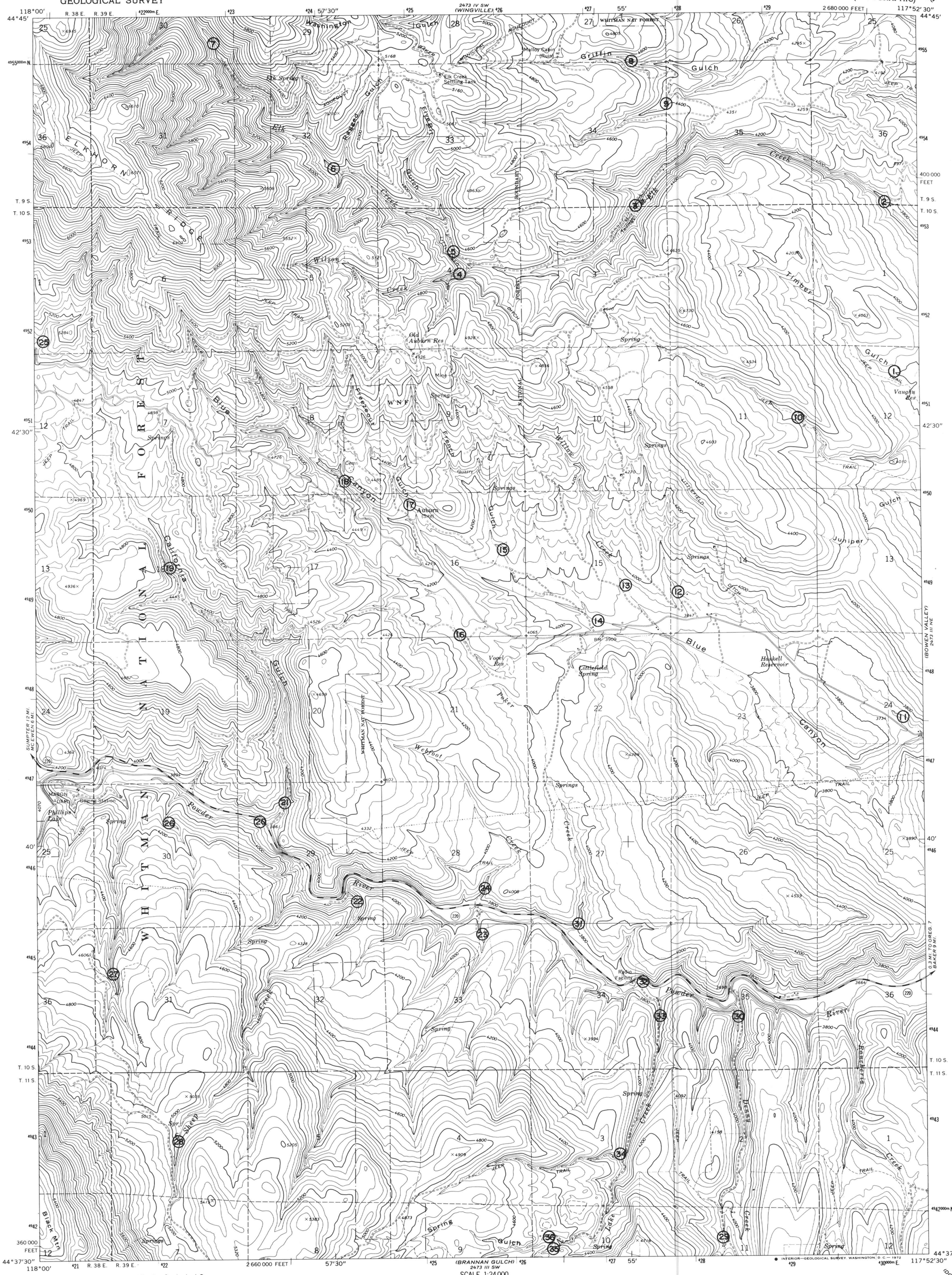
ROAD CLASSIFICATION
Heavy-duty — Light-duty
Medium-duty — Unimproved dirt
Interstate Route — U. S. Route — State Route

BAKER, OREG.
N4445—W11745/7.5
1967
AMS 2473 IV SE—SERIES V892

OFR 76-4

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

BLUE CANYON QUADRANGLE
OREGON—BAKER CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)



Mapped, edited, and published by the Geological Survey

Control by USGS and USC&GS

Topography by photogrammetric methods from aerial photographs taken 1966. Field checked 1967

Polyconic projection. 1927 North American datum
10,000-foot grid based on Oregon coordinate system, north zone
1000-meter Universal Transverse Mercator grid ticks, zone 11, shown in blue

Fine red dashed lines indicate selected fence lines

UTM GRID AND 1967 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

SCALE 1:24 000

CONTOUR INTERVAL 40 FEET
DATUM IS MEAN SEA LEVEL

ROAD CLASSIFICATION
Medium-duty — Light-duty
Unimproved dirt
State Route

QUADRANGLE LOCATION

BLUE CANYON, OREG.
N4437.5—W11752.5/7.5
1967
AMS 2473 III NW—SERIES V892

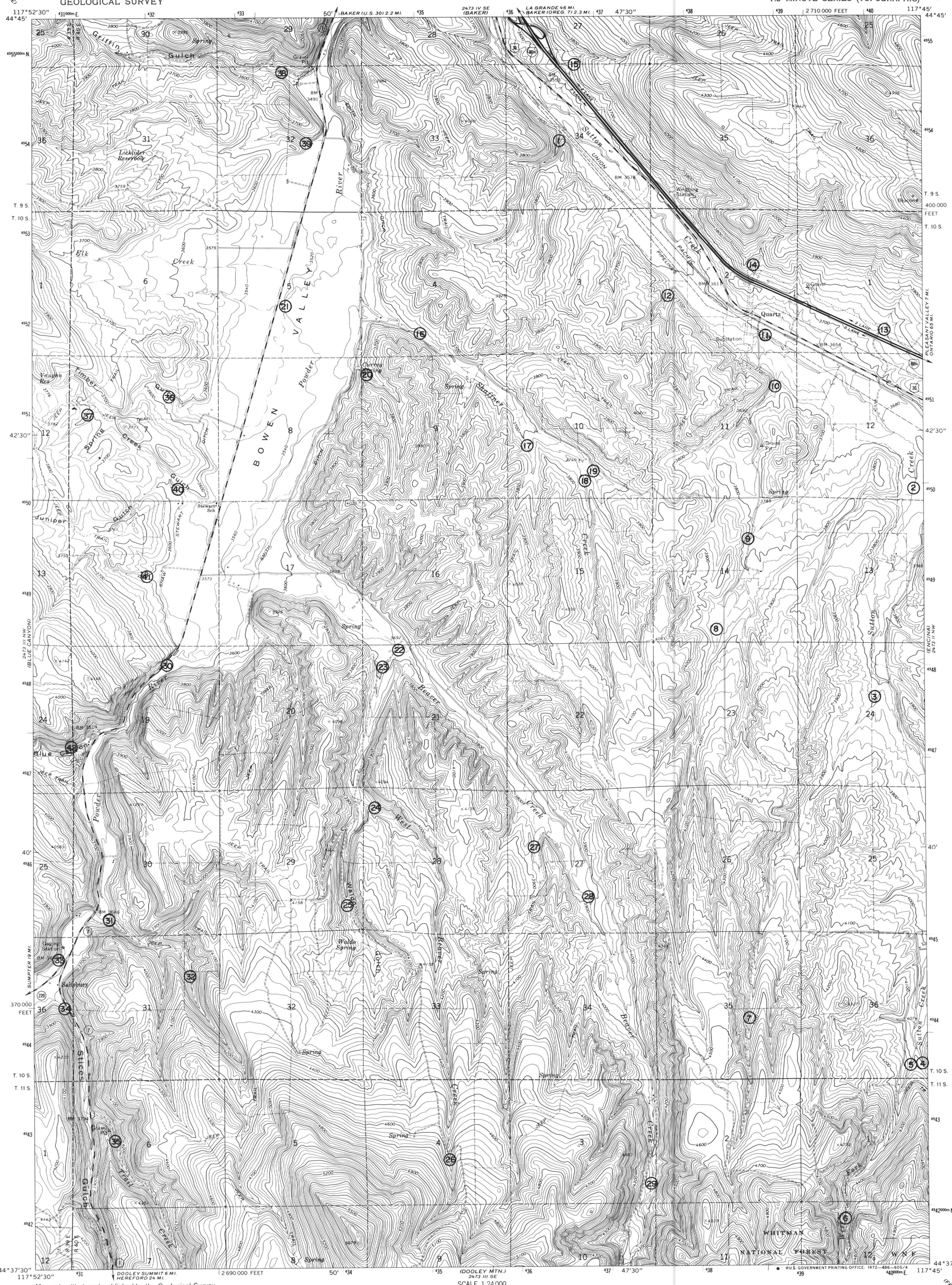
THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225, OR WASHINGTON, D. C. 20242
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

INTERIOR—GEOLOGICAL SURVEY, WASHINGTON, D. C.—1972

OFR 76-4

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

BOWEN VALLEY QUADRANGLE
OREGON–BAKER CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)



Mapped, edited, and published by the Geological Survey

Control by USGS and USC&GS

Topography by photogrammetric methods from aerial photographs taken 1966. Field checked 1967

Polyconic projection. 1927 North American datum
10,000-foot grid based on Oregon coordinate system, north zone
1000-meter Universal Transverse Mercator grid ticks, zone 11, shown in blue

Fine red dashed lines indicate selected fence lines

UTM GRID AND 1967 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET
GN MN 0°34' 10 MILS 19½° 347 MILS

SCALE 1:24 000

1 ½ 0 1 MILE
1000 0 1000 2000 3000 4000 5000 6000 7000 FEET
1 .5 0 1 KILOMETER

CONTOUR INTERVAL 20 FEET
DATUM IS MEAN SEA LEVEL

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225, OR WASHINGTON, D. C. 20242
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

☆U.S. GOVERNMENT PRINTING OFFICE: 1972—486-605/4

OREGON
QUADRANGLE LOCATION

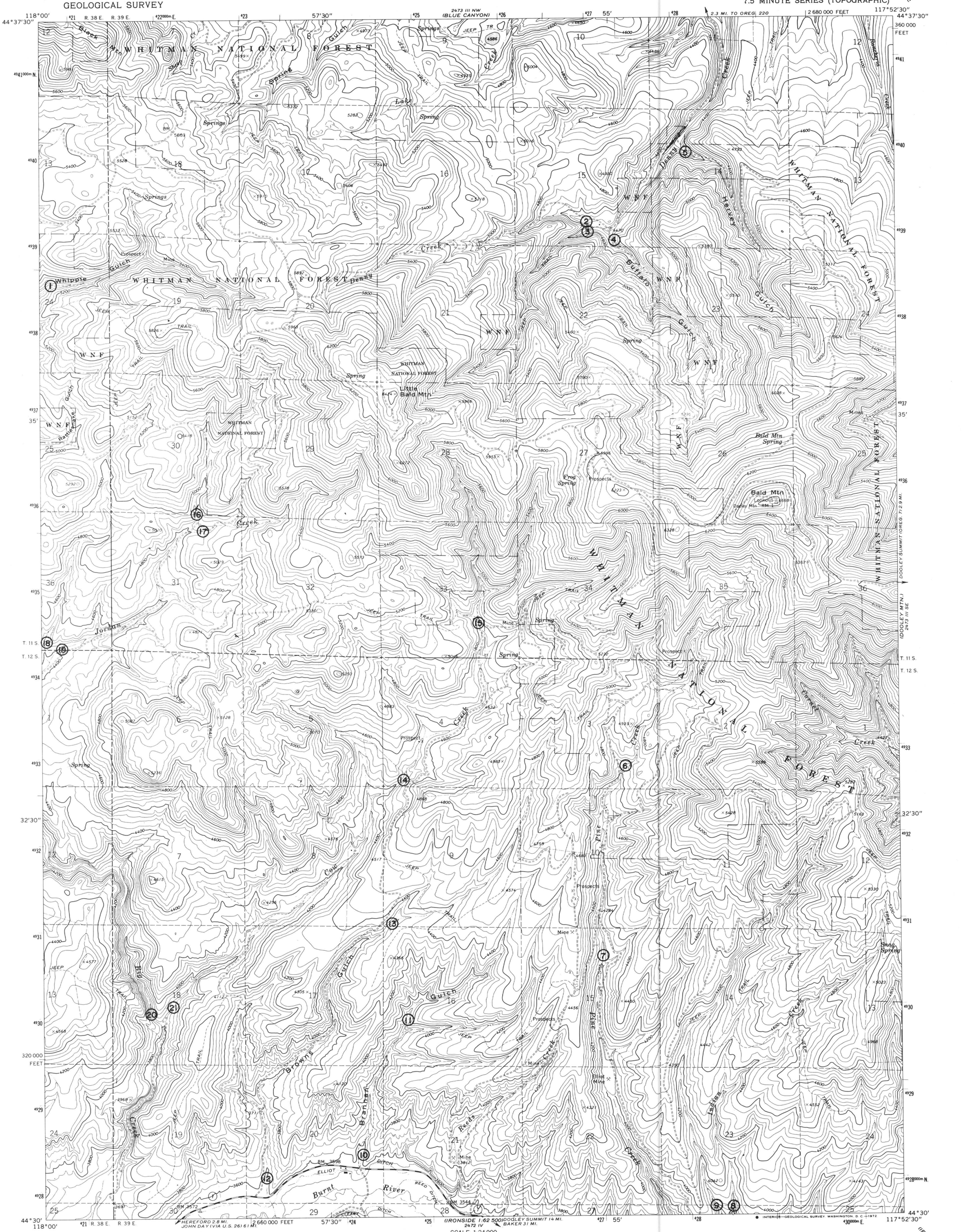
ROAD CLASSIFICATION
Heavy-duty — Light-duty
Medium-duty — Unimproved dirt
Interstate Route — U. S. Route — State Route

BOWEN VALLEY, OREG.
N4437.5—W11745/7.5
1967
AMS 2473 III NE—SERIES V892

OFR 76-4

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

BRANNAN GULCH QUADRANGLE
OREGON–BAKER CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)



Mapped, edited, and published by the Geological Survey

Control by USGS and USC&GS

Topography by photogrammetric methods from aerial photographs taken 1966. Field checked 1967

Polyconic projection. 1927 North American datum
10,000-foot grid based on Oregon coordinate system, north zone
1000-meter Universal Transverse Mercator grid ticks, zone 11, shown in blue

Fine red dashed lines indicate selected fence lines

UTM GRID AND 1967 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

SCALE 1:24 000

CONTOUR INTERVAL 40 FEET
DATUM IS MEAN SEA LEVEL

ROAD CLASSIFICATION
Medium-duty ——— Unimproved dirt - - - - -
State Route

QUADRANGLE LOCATION

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225, OR WASHINGTON, D. C. 20242
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

BRANNAN GULCH, OREG.
N4430—W11752.5/7.5

1967

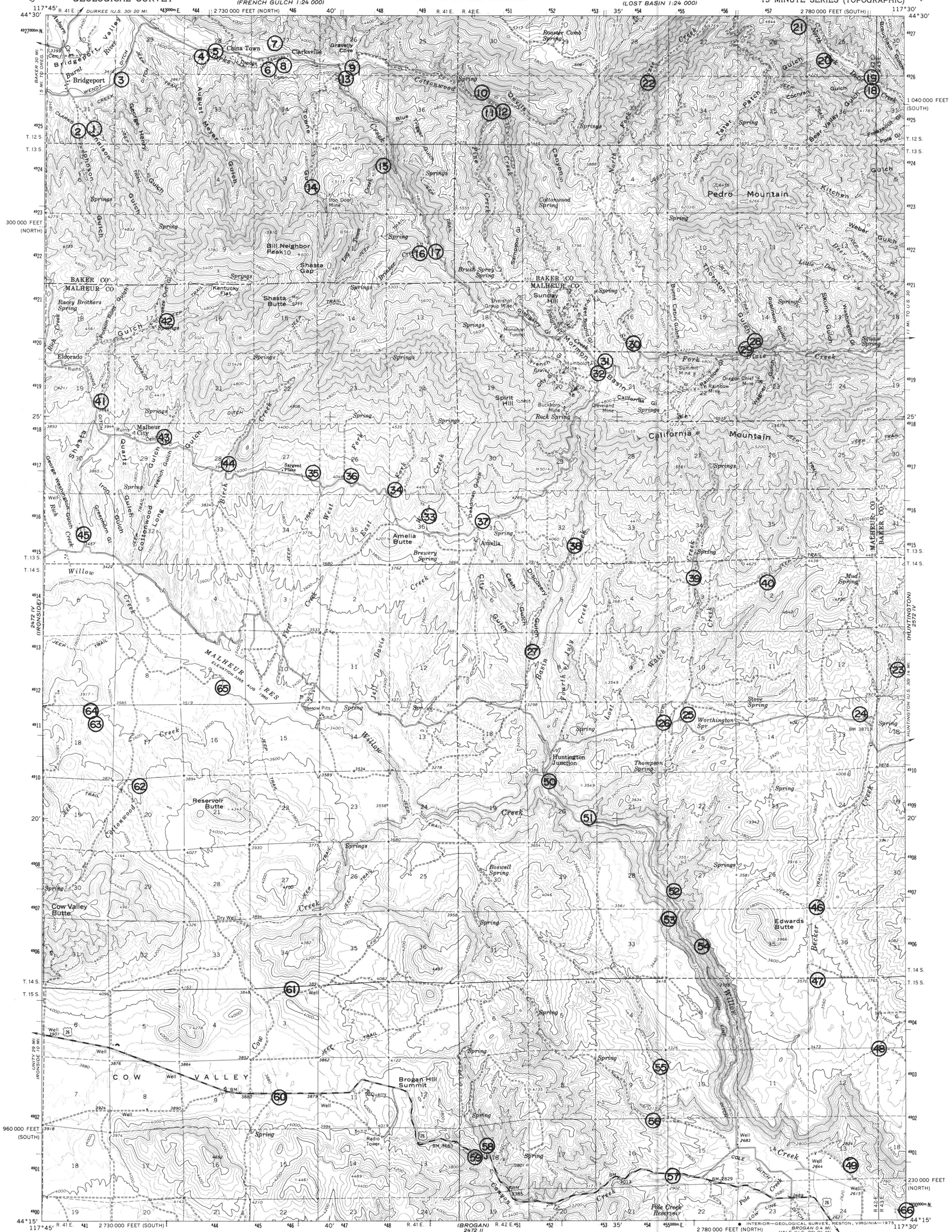
AMS 2473 III SW—SERIES V892

OFR 76-4

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

STATE OF OREGON
REPRESENTED BY THE STATE ENGINEER

BRIDGEPORT QUADRANGLE
OREGON
15 MINUTE SERIES (TOPOGRAPHIC)



Mapped, edited, and published by the Geological Survey

Control by USGS and USC&GS

Topography by photogrammetric methods from aerial photographs taken 1960. Field checked 1964

Polyconic projection. 1927 North American datum
10,000-foot grids based on Oregon coordinate system, south and north zones
1000-metre Universal Transverse Mercator grid ticks, zone 11, shown in blue

GN MN 0°26' 8 MILS 19½° 347 MILS

UTM GRID AND 1964 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

SCALE 1:62 500

1 ½ 0 1 2 3 4 MILES

3000 0 3000 6000 9000 12000 15000 18000 21000 FEET

1 .5 0 1 2 3 4 5 KILOMETRES

CONTOUR INTERVAL 40 FEET
DOTTED LINES REPRESENT 20-FOOT CONTOURS
NATIONAL GEODETIC VERTICAL DATUM OF 1929

ROAD CLASSIFICATION

Medium-duty — Light-duty

Unimproved dirt

U. S. Route

OREGON

QUADRANGLE LOCATION

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225, OR RESTON, VIRGINIA 22092
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

BRIDGEPORT, OREG.
N4415—W11730/15

1964

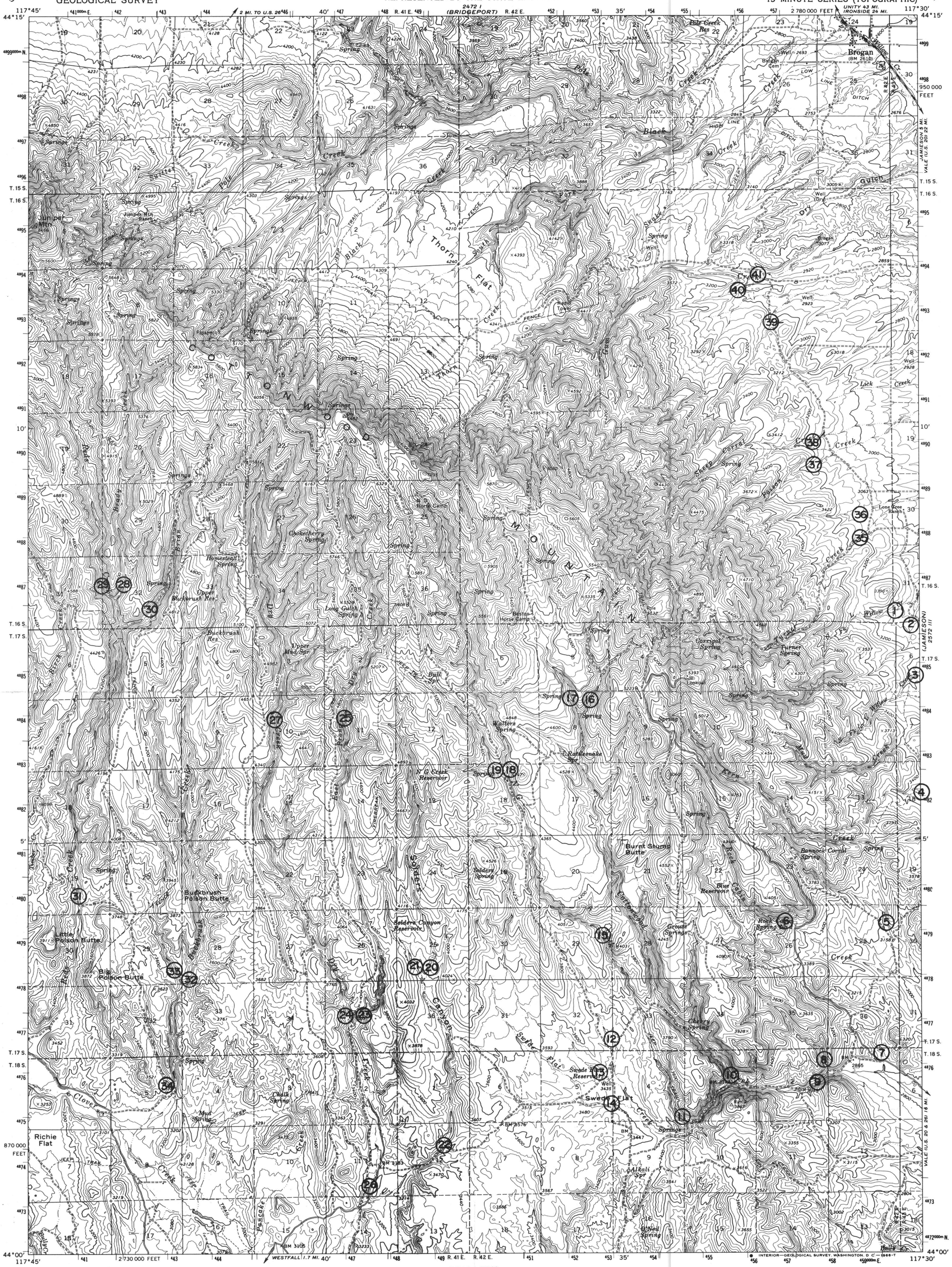
AMS 2472 I—SERIES V792

OFR 76-4

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

STATE OF OREGON
REPRESENTED BY THE STATE ENGINEER

BROGAN QUADRANGLE
OREGON–MALHEUR CO.
15 MINUTE SERIES (TOPOGRAPHIC)



Mapped, edited, and published by the Geological Survey

Control by USGS and USC&GS

Topography by photogrammetric methods from aerial photographs taken 1960. Field checked 1964

Polyconic projection. 1927 North American datum
10,000-foot grid based on Oregon coordinate system, south zone
1000-meter Universal Transverse Mercator grid ticks, zone 11, shown in blue

Certain land lines are omitted because of insufficient data

GN MN 0°26' 8 MILS 19½° 347 MILS
UTM GRID AND 1964 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

SCALE 1:62 500

1 ½ 0 1 2 3 4 MILES
3000 0 3000 6000 9000 12000 15000 18000 21000 FEET
1 .5 0 1 2 3 4 5 KILOMETERS

CONTOUR INTERVAL 40 FEET
DOTTED LINES REPRESENT 20-FOOT CONTOURS
DATUM IS MEAN SEA LEVEL

OREGON
QUADRANGLE LOCATION

ROAD CLASSIFICATION
Medium-duty — Light-duty
Unimproved dirt
U. S. Route

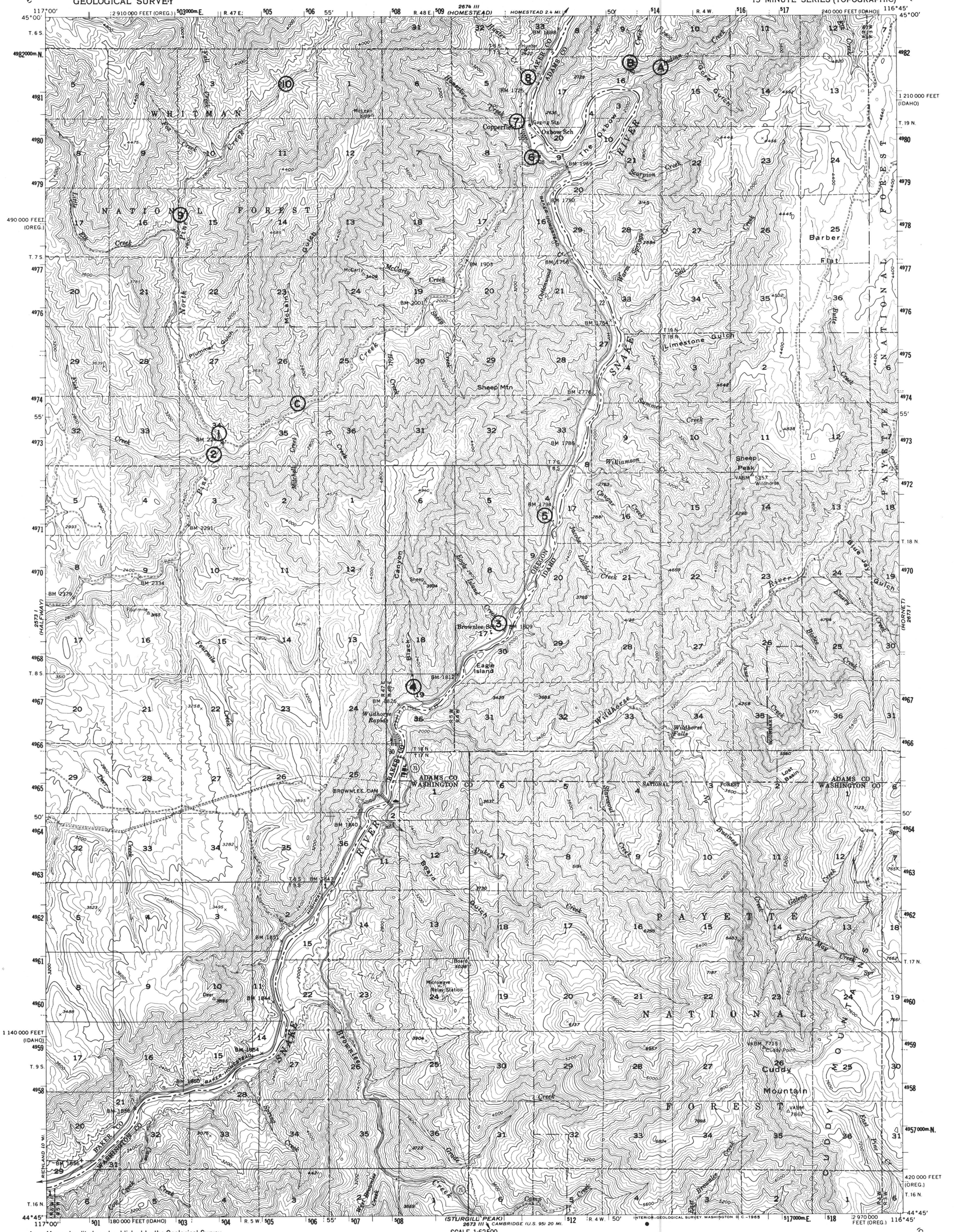
THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225, OR WASHINGTON, D. C. 20242
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

BROGAN, OREG.
N4400—W11730/15
1964
AMS 2472 II–SERIES V792

OFR 764

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

COPPERFIELD QUADRANGLE
IDAHO—OREGON
15 MINUTE SERIES (TOPOGRAPHIC)



Mapped, edited, and published by the Geological Survey

Control by USGS and USC&GS

Topography from aerial photographs by multiplex methods
Aerial photographs taken 1951. Field check 1957

Polyconic projection. 1927 North American datum
10,000-foot grids based on Idaho coordinate system, west zone, and Oregon coordinate system, north zone
1000-meter Universal Transverse Mercator grid ticks, zone 11, shown in blue

Dashed land lines indicate approximate locations

Blue hatching indicates areas to be submerged by Brownlee Dam at spillway elevation of 2077 feet

Unchecked elevations are shown in brown

UTM GRID AND 1957 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

SCALE 1:62 500

CONTOUR INTERVAL 80 FEET
DATUM IS MEAN SEA LEVEL

ROAD CLASSIFICATION
Light-duty — Unimproved dirt
State Route

QUADRANGLE LOCATION

COPPERFIELD, IDAHO—OREG.
N4445—W11645/15

1957

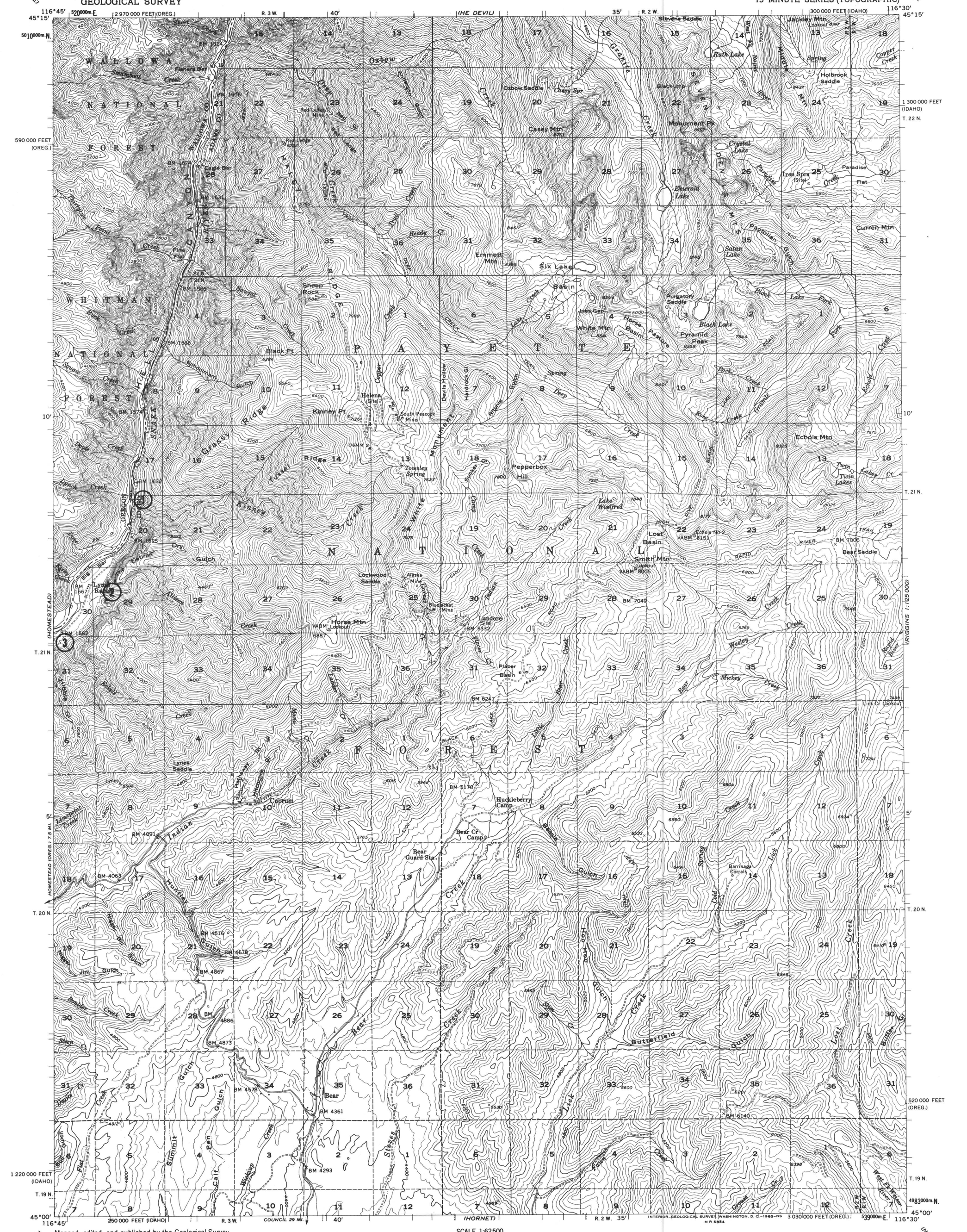
AMS 2673 IV—SERIES V793

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY, DENVER 25, COLORADO OR WASHINGTON 25, D. C.
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

OFR 76-4

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

CUPRUM QUADRANGLE
IDAHO—OREGON
15 MINUTE SERIES (TOPOGRAPHIC)



Mapped, edited, and published by the Geological Survey

Control by USGS and USC&GS

Topography from aerial photographs by multiplex methods
Aerial photographs taken 1951. Field check 1957

Polyconic projection. 1927 North American datum
10,000-foot grids based on Idaho coordinate system, west zone, and Oregon coordinate system, north zone
1000-meter Universal Transverse Mercator grid ticks, zone 11, shown in blue

Dashed land lines indicate approximate locations

Unchecked elevations are shown in brown

TRUE NORTH
MAGNETIC NORTH
20°
APPROXIMATE MEAN DECLINATION, 1957

SCALE 1:62500

1 ½ 0 1 2 3 4 MILES

3000 0 3000 6000 9000 12000 15000 18000 21000 FEET

1 .5 0 1 2 3 4 5 KILOMETERS

CONTOUR INTERVAL 80 FEET
DATUM IS MEAN SEA LEVEL

IDAHO
QUADRANGLE LOCATION

ROAD CLASSIFICATION

Light-duty _____ Unimproved dirt - - - - - -

CUPRUM, IDAHO—OREG.
N4500—W11630/15

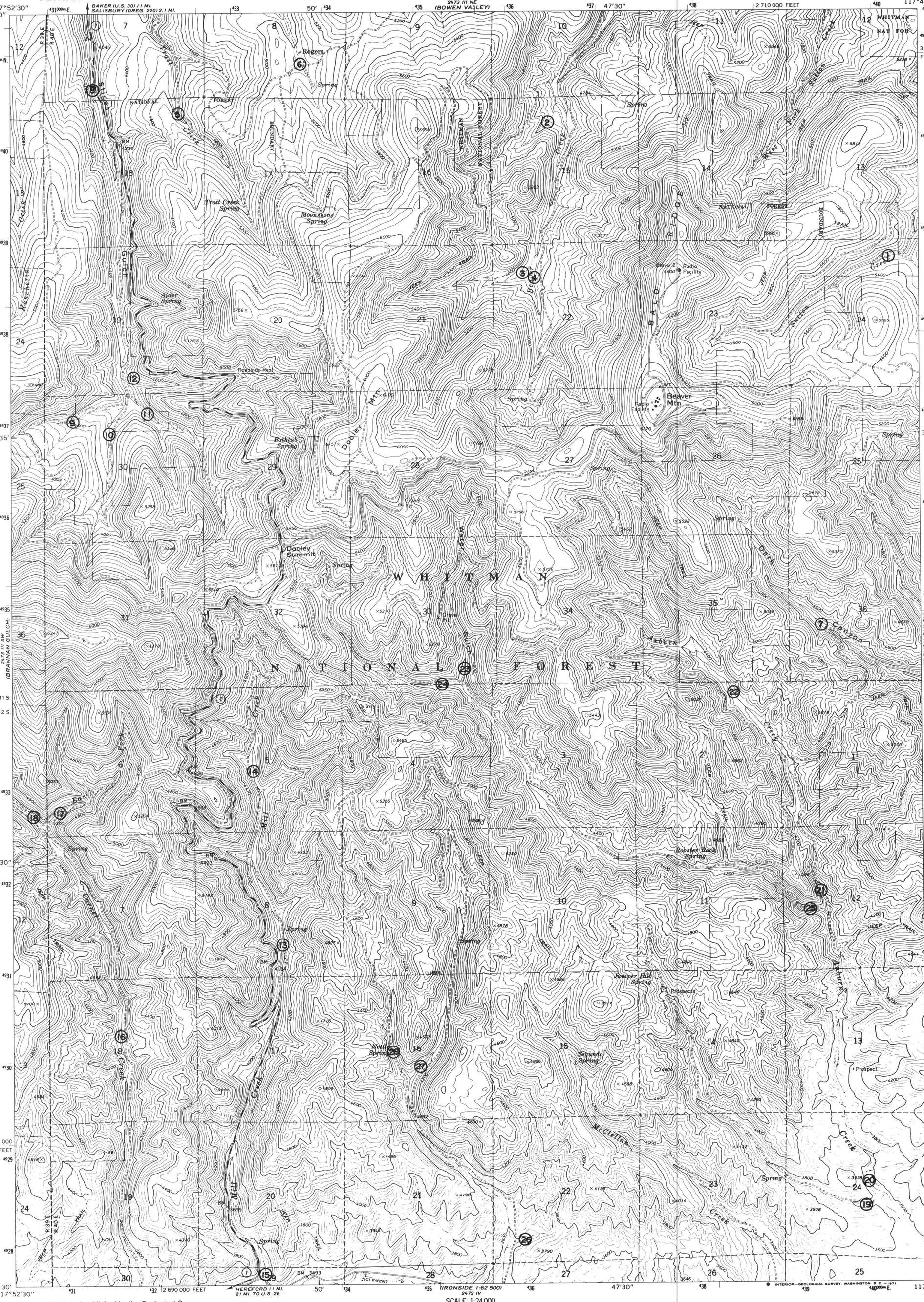
1957

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY, DENVER 25, COLORADO OR WASHINGTON 25, D. C.
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

OFR 76-4

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

DOOLEY MTN. QUADRANGLE
OREGON–BAKER CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)



Mapped, edited, and published by the Geological Survey

Control by USGS and USC&GS

Topography by photogrammetric methods from aerial photographs taken 1966. Field checked 1967

Polyconic projection. 1927 North American datum
10,000-foot grid based on Oregon coordinate system, north zone
1000-meter Universal Transverse Mercator grid ticks, zone 11, shown in blue

Fine red dashed lines indicate selected fence lines

UTM GRID AND 1967 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

SCALE 1:24 000

CONTOUR INTERVAL 40 FEET
DATUM IS MEAN SEA LEVEL

ROAD CLASSIFICATION
Medium-duty — Light-duty
Unimproved dirt
State Route

QUADRANGLE LOCATION

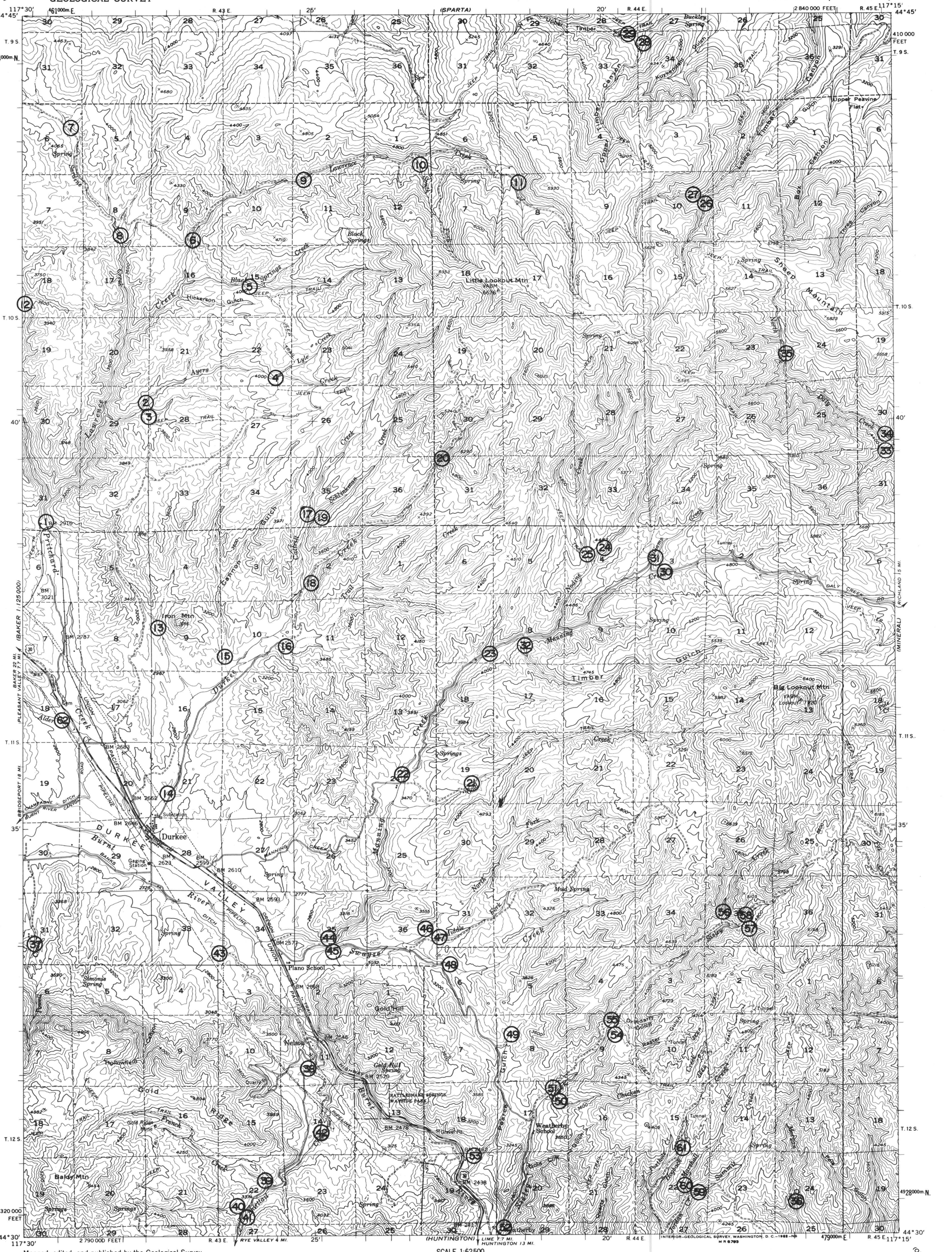
THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225, OR WASHINGTON, D. C. 20242
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

DOOLEY MTN., OREG.
N4430—W11745/7.5
1967
AMS 2473 III SE—SERIES V892

OFR 76-4

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

DURKEE QUADRANGLE
OREGON—BAKER CO.
15 MINUTE SERIES (TOPOGRAPHIC)



Mapped, edited, and published by the Geological Survey

Control by USGS and USC&GS

Topography from aerial photographs by multiplex methods
Aerial photographs taken 1953. Field check 1957

Polyconic projection. 1927 North American datum
10,000-foot grid based on Oregon coordinate system, north zone
1000-meter Universal Transverse Mercator grid ticks, zone 11, shown in blue

Dashed land lines indicate approximate locations

Unchecked elevations are shown in brown

TRUE NORTH
MAGNETIC NORTH
20°
APPROXIMATE MEAN DECLINATION, 1957

SCALE 1:62500

1 ½ 0 1 2 3 4 MILES

3000 0 3000 6000 9000 12000 15000 18000 21000 FEET

1 .5 0 1 2 3 4 5 KILOMETERS

CONTOUR INTERVAL 80 FEET
DATUM IS MEAN SEA LEVEL

ROAD CLASSIFICATION

Medium-duty ——— Light-duty ———

Unimproved dirt - - - - - -

U. S. Route

OREGON
QUADRANGLE LOCATION

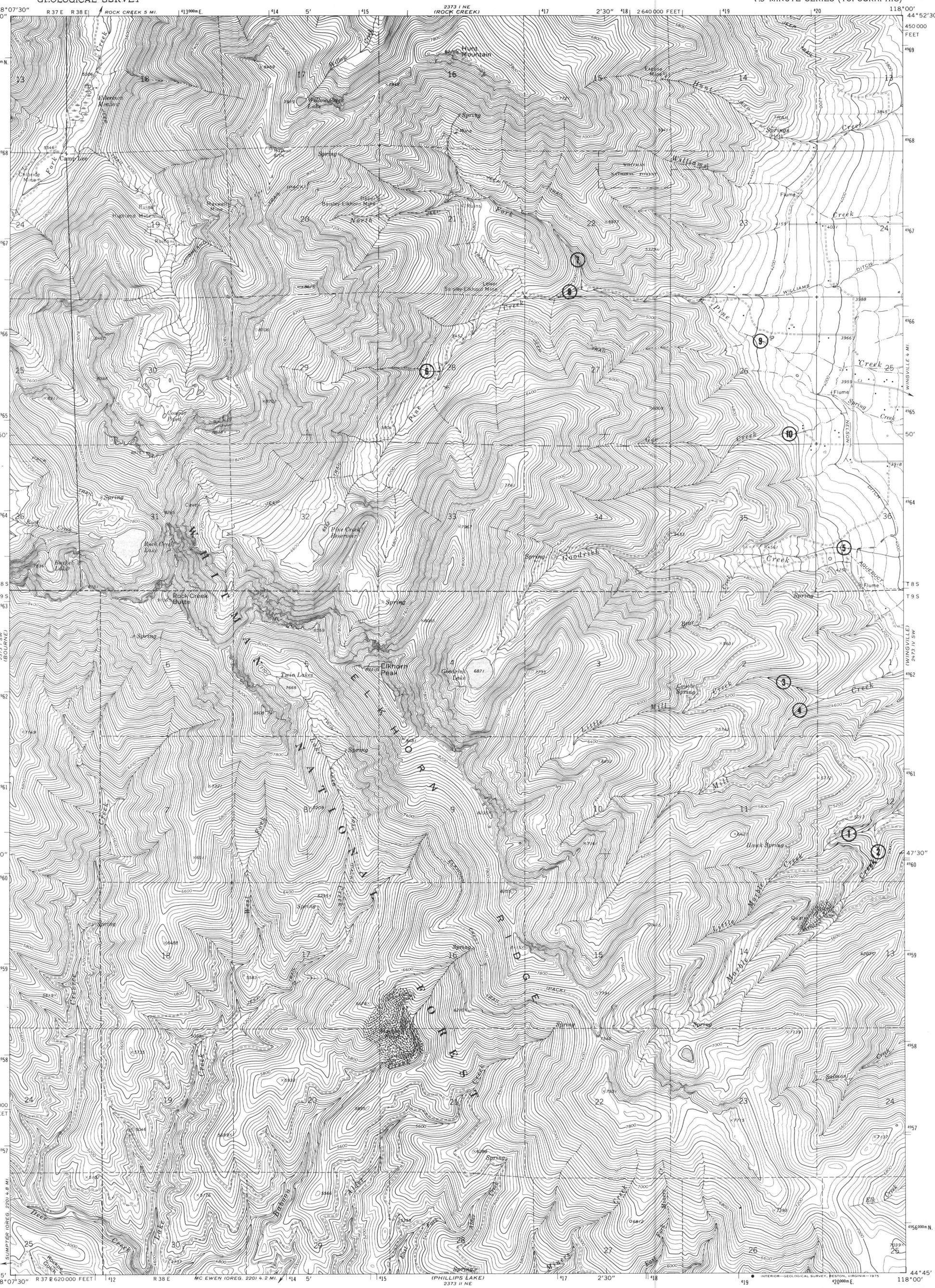
DURKEE, OREG.
N4430—W11715/15
1957

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY, DENVER 25, COLORADO OR WASHINGTON 25, D. C.
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

OFR 76-4

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

ELKHORN PEAK QUADRANGLE
OREGON—BAKER CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)



Mapped, edited, and published by the Geological Survey

Control by USGS and NOS/NOAA

Topography by photogrammetric methods from aerial photographs taken 1971. Field checked 1972

Projection and 10,000-foot grid ticks: Oregon coordinate system, north zone (Lambert conformal conic)
1000-metre Universal Transverse Mercator grid ticks, zone 11, shown in blue. 1927 North American datum

Fine red dashed lines indicate selected fence lines

Where omitted, land lines have not been established

UTM GRID AND 1972 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET
GN MN 0°45' 13 MILS 19½° 347 MILS

SCALE 1:24 000
1 ½ 0 1 MILE
1000 0 1000 2000 3000 4000 5000 6000 7000 FEET
1 .5 0 1 KILOMETRE

CONTOUR INTERVAL 40 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225, OR RESTON, VIRGINIA 22092
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

OREGON
QUADRANGLE LOCATION

ROAD CLASSIFICATION

Primary highway, hard surface — Light-duty road, hard or improved surface
Secondary highway, hard surface — Unimproved road
Interstate Route — U. S. Route — State Route

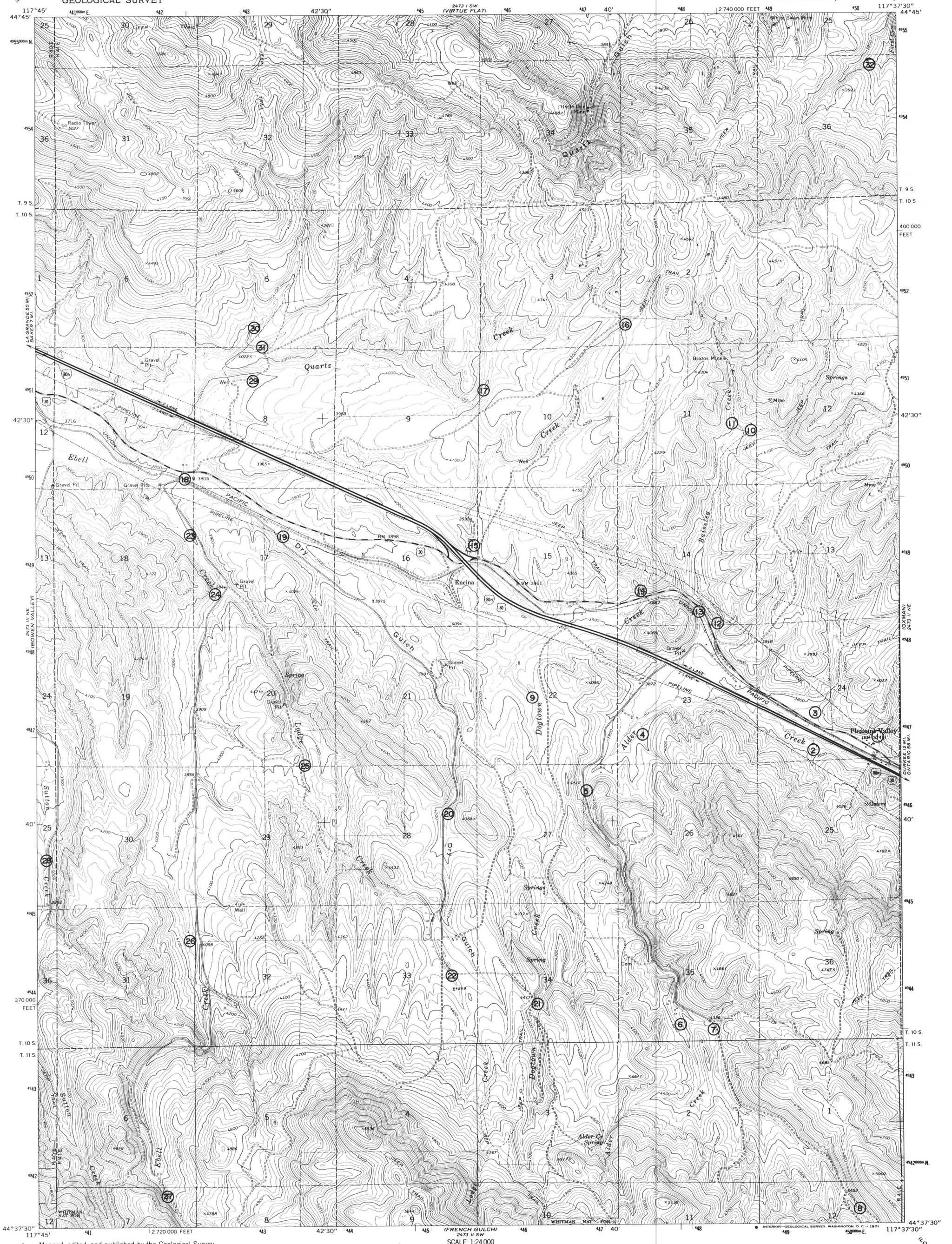
ELKHORN PEAK, OREG.
N4445—W11800/7.5
1972
AMS 2373 I SE—SERIES V892

Sumpter I SE, Oregon
Sumpter Project
AHL

OFR 76-4

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

ENCINA QUADRANGLE
OREGON—BAKER CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)



Mapped, edited, and published by the Geological Survey

Control by USGS and USC&GS

Topography by photogrammetric methods from aerial photographs taken 1966. Field checked 1967

Polyconic projection. 1927 North American datum
10,000-foot grid based on Oregon coordinate system, north zone
1000-meter Universal Transverse Mercator grid ticks, zone 11, shown in blue

Fine red dashed lines indicate selected fence lines

UTM GRID AND 1967 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

SCALE 1:24 000

CONTOUR INTERVAL 20 FEET
DATUM IS MEAN SEA LEVEL

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225, OR WASHINGTON, D. C. 20242
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

QUADRANGLE LOCATION

ROAD CLASSIFICATION

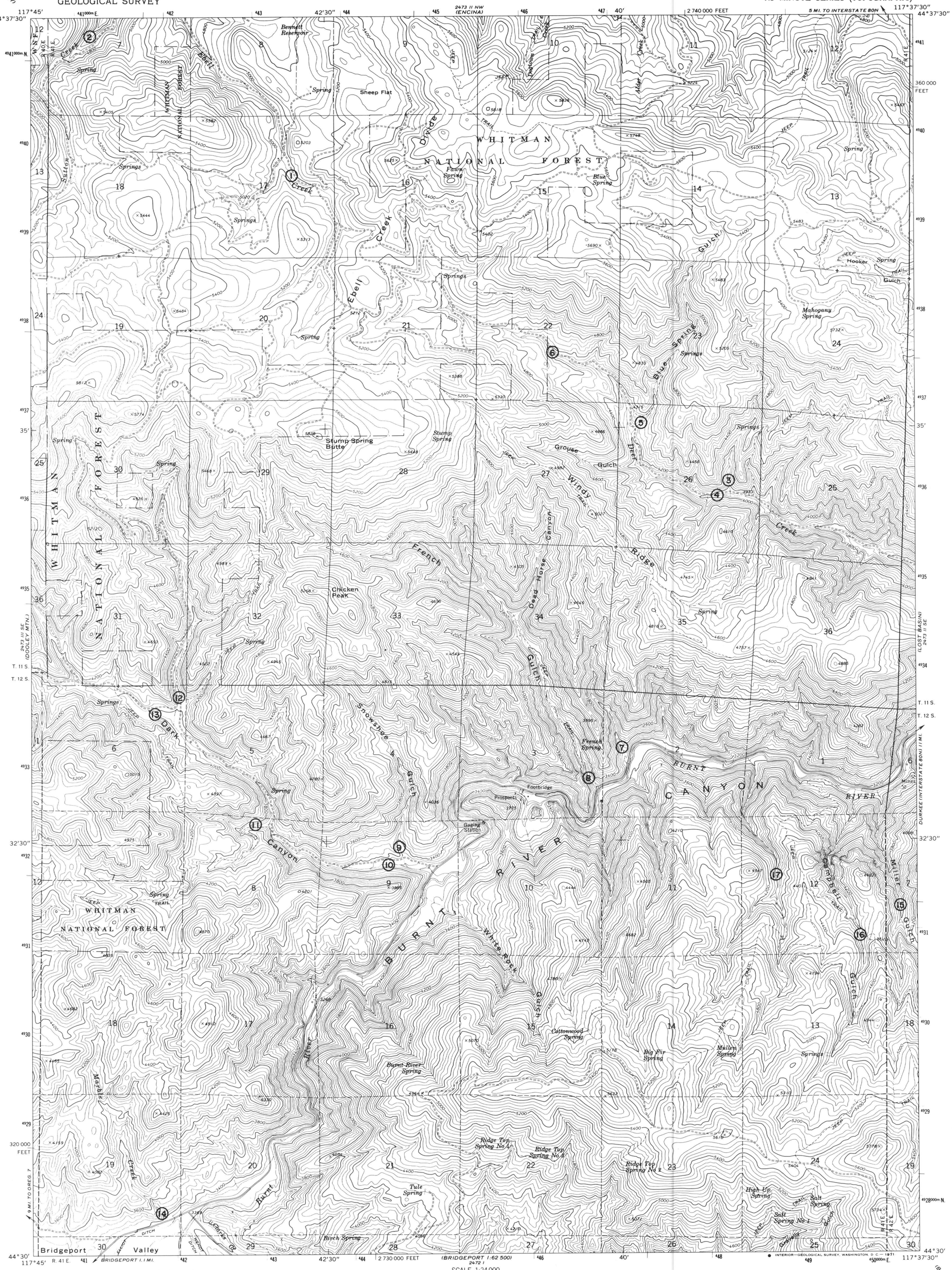
Heavy-duty — Light-duty
Medium-duty — Unimproved dirt
Interstate Route — U. S. Route

ENCINA, OREG.
N4437.5—W11737.5/7.5
1967
AMS 2473 II NW—SERIES V892

OFR 764

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

FRENCH GULCH QUADRANGLE
OREGON–BAKER CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)



Mapped, edited, and published by the Geological Survey

Control by USGS and USC&GS

Topography by photogrammetric methods from aerial photographs taken 1966. Field checked 1967

Polyconic projection. 1927 North American datum
10,000-foot grid based on Oregon coordinate system, north zone
1000-meter Universal Transverse Mercator grid ticks, zone 11, shown in blue

Fine red dashed lines indicate selected fence lines

Certain land lines are omitted because of insufficient data

GN MN
0°29' 9 MILS
19½° 347 MILS
UTM GRID AND 1967 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

SCALE 1:24 000

1 ½ 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 .5 0 1 KILOMETER

CONTOUR INTERVAL 40 FEET
DATUM IS MEAN SEA LEVEL

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225, OR WASHINGTON, D. C. 20242
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

OREGON
QUADRANGLE LOCATION

ROAD CLASSIFICATION

Light-duty ——— Unimproved dirt - - - - -

FRENCH GULCH, OREG.
N4430—W11737.5/7.5

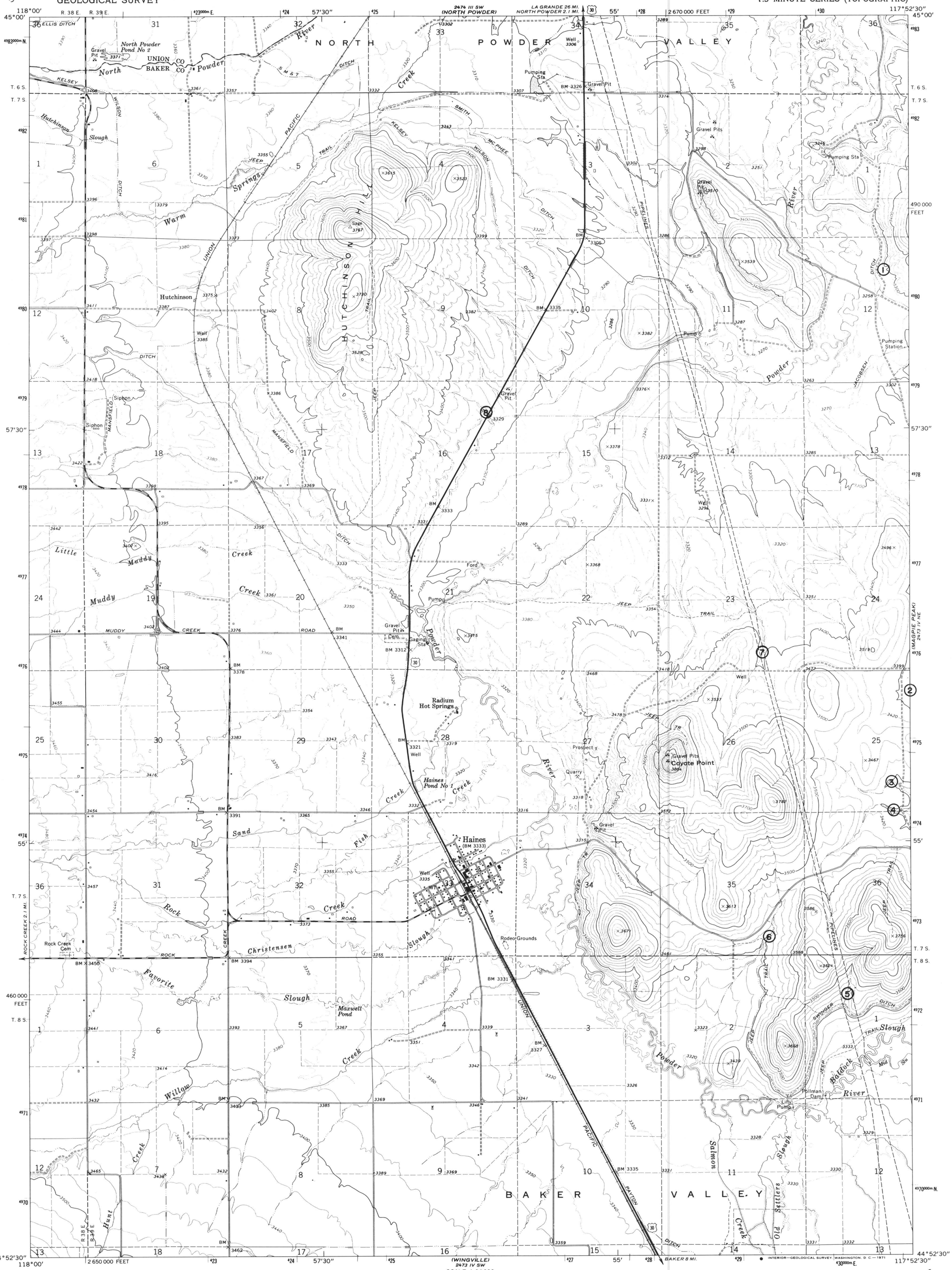
1967

AMS 2473 II SW—SERIES V892

OFR 76-4

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

HAINES QUADRANGLE
OREGON
7.5 MINUTE SERIES (TOPOGRAPHIC)



Mapped, edited, and published by the Geological Survey

Control by USGS and USC&GS

Topography by photogrammetric methods from aerial photographs taken 1966. Field checked 1967

Polyconic projection. 1927 North American datum
10,000-foot grid based on Oregon coordinate system, north zone
1000-meter Universal Transverse Mercator grid ticks, zone 11, shown in blue

Fine red dashed lines indicate selected fence lines

UTM GRID AND 1967 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

SCALE 1:24 000

CONTOUR INTERVAL 20 FEET
DOTTED LINES REPRESENT 10-FOOT CONTOURS
DATUM IS MEAN SEA LEVEL

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225, OR WASHINGTON, D. C. 20242
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

QUADRANGLE LOCATION

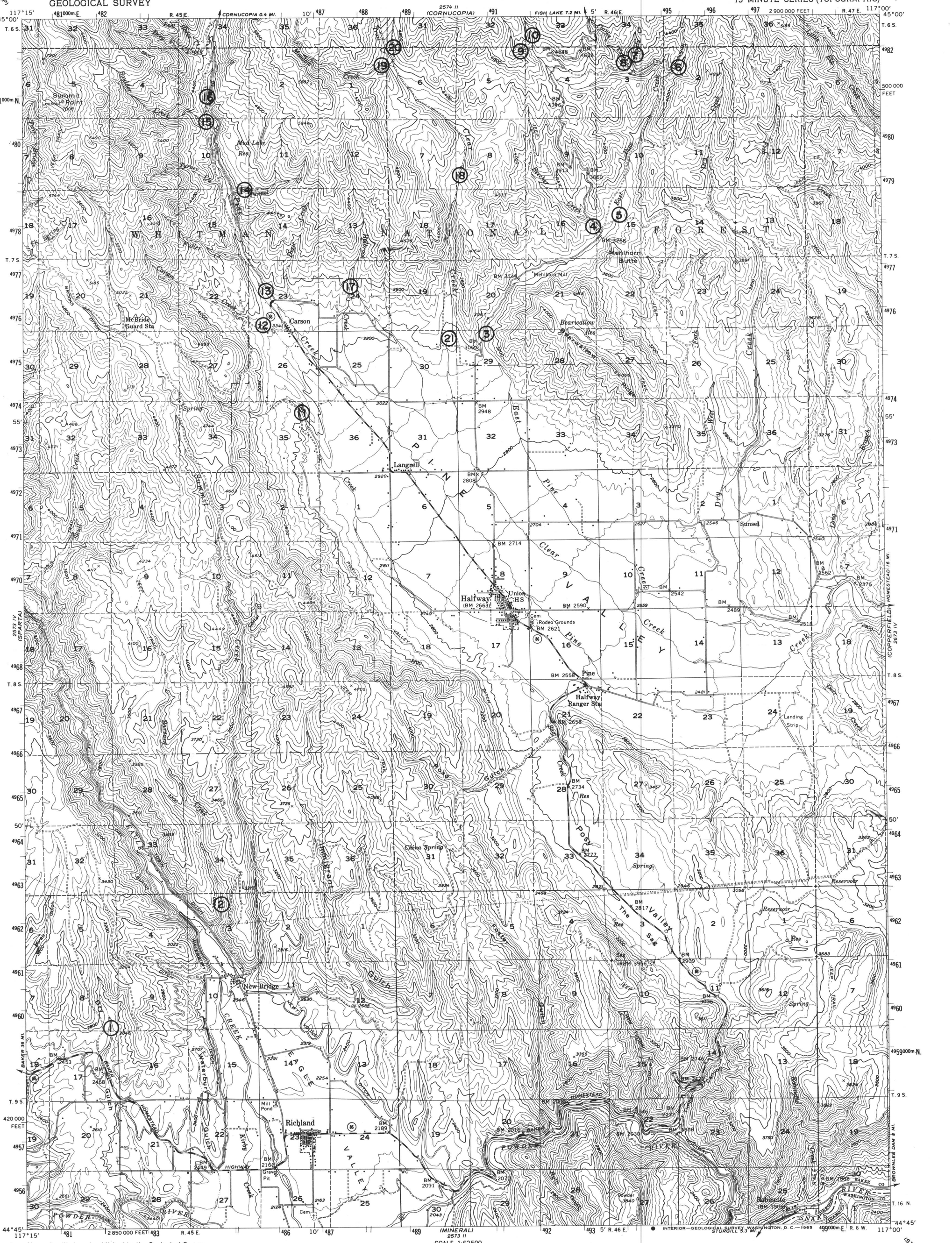
ROAD CLASSIFICATION
Heavy-duty — Light-duty
Medium-duty — Unimproved dirt
U. S. Route

HAINES, OREG.
N4452.5—W11752.5/7.5
1967
AMS 2473 IV NW—SERIES V892

OFR 76-4

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

HALFWAY QUADRANGLE
OREGON—IDAHO
15 MINUTE SERIES (TOPOGRAPHIC)



Mapped, edited, and published by the Geological Survey

Control by USGS and USC&GS

Topography from aerial photographs by multiplex methods
Aerial photographs taken 1953. Field check 1957

Polyconic projection. 1927 North American datum
10,000-foot grid based on Oregon coordinate system, north zone
1000-meter Universal Transverse Mercator grid ticks, zone 11, shown in blue

Dashed land lines indicate approximate locations

Blue hatching indicates area to be submerged by Brownlee Dam at spillway elevation of 2077 feet

Unchecked elevations are shown in brown

UTM GRID AND 1957 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET
GN MN 0°05' 1 MIL 20° 356 MILS

SCALE 1:62500

1 ½ 0 1 2 3 4 MILES

3000 0 3000 6000 9000 12000 15000 18000 21000 FEET

1 .5 0 1 2 3 4 5 KILOMETERS

CONTOUR INTERVAL 80 FEET
DATUM IS MEAN SEA LEVEL

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225 OR WASHINGTON, D. C. 20242
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

OREGON
QUADRANGLE LOCATION

ROAD CLASSIFICATION
Medium-duty — Light-duty
Unimproved dirt
State Route

HALFWAY, OREG.—IDAHO
N4445—W11700/15

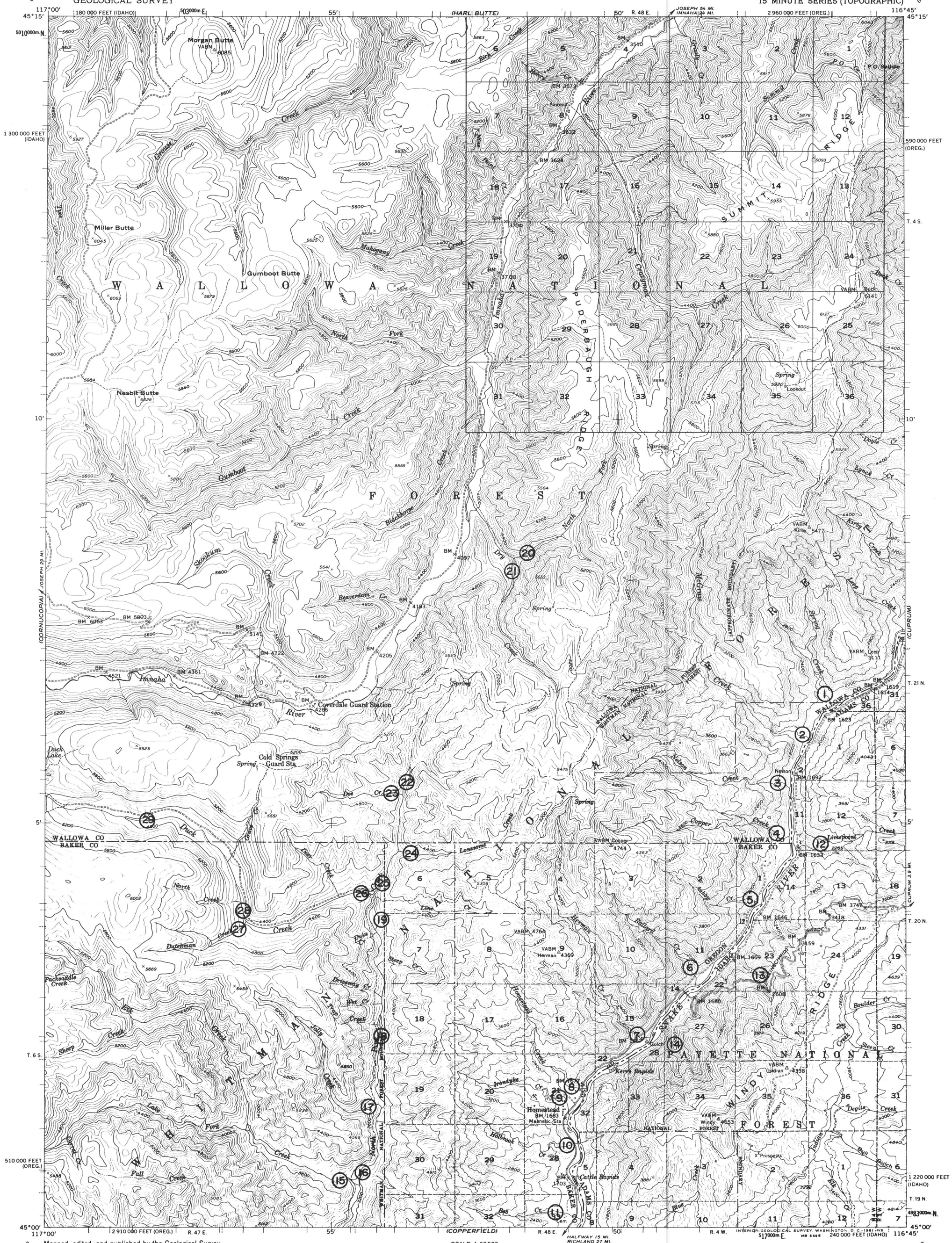
1957

AMS 2573 I—SERIES V792

OFR 76-4

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

HOMESTEAD QUADRANGLE
OREGON—IDAHO
15 MINUTE SERIES (TOPOGRAPHIC)

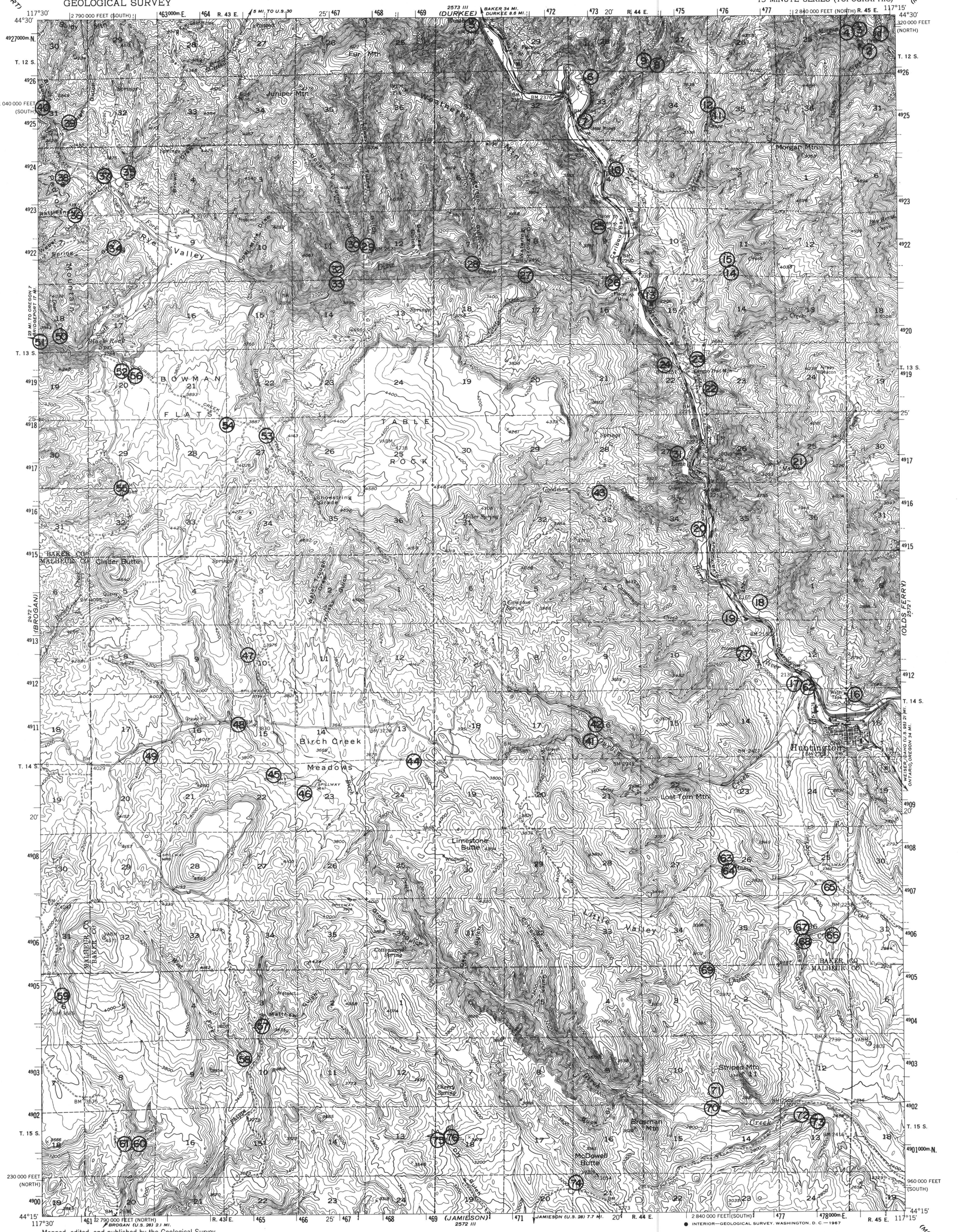


THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY, DENVER 25, COLORADO OR WASHINGTON 25, D. C.
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

OFR 76-4

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

HUNTINGTON QUADRANGLE
OREGON
15 MINUTE SERIES (TOPOGRAPHIC)



Mapped, edited, and published by the Geological Survey

Control by USGS and USC&GS

Topography from aerial photographs by multiplex methods
Aerial photographs taken 1946. Field check 1951

Polyconic projection. 1927 North American datum
10,000-foot grids based on Oregon coordinate system, north and south zones

Dashed land lines indicate approximate locations

1000-meter Universal Transverse Mercator grid ticks, zone 11, shown in blue

UTM GRID AND 1951 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

SCALE 1:62 500

CONTOUR INTERVAL 40 FEET
DATUM IS MEAN SEA LEVEL

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225 OR WASHINGTON, D. C. 20242
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

INTERIOR—GEOLOGICAL SURVEY, WASHINGTON, D. C.—1967

ROAD CLASSIFICATION
Heavy-duty — 4 LANE | 6 LANE — Light-duty
Medium-duty — 4 LANE | 6 LANE — Unimproved dirt
U. S. Route — State Route

QUADRANGLE LOCATION

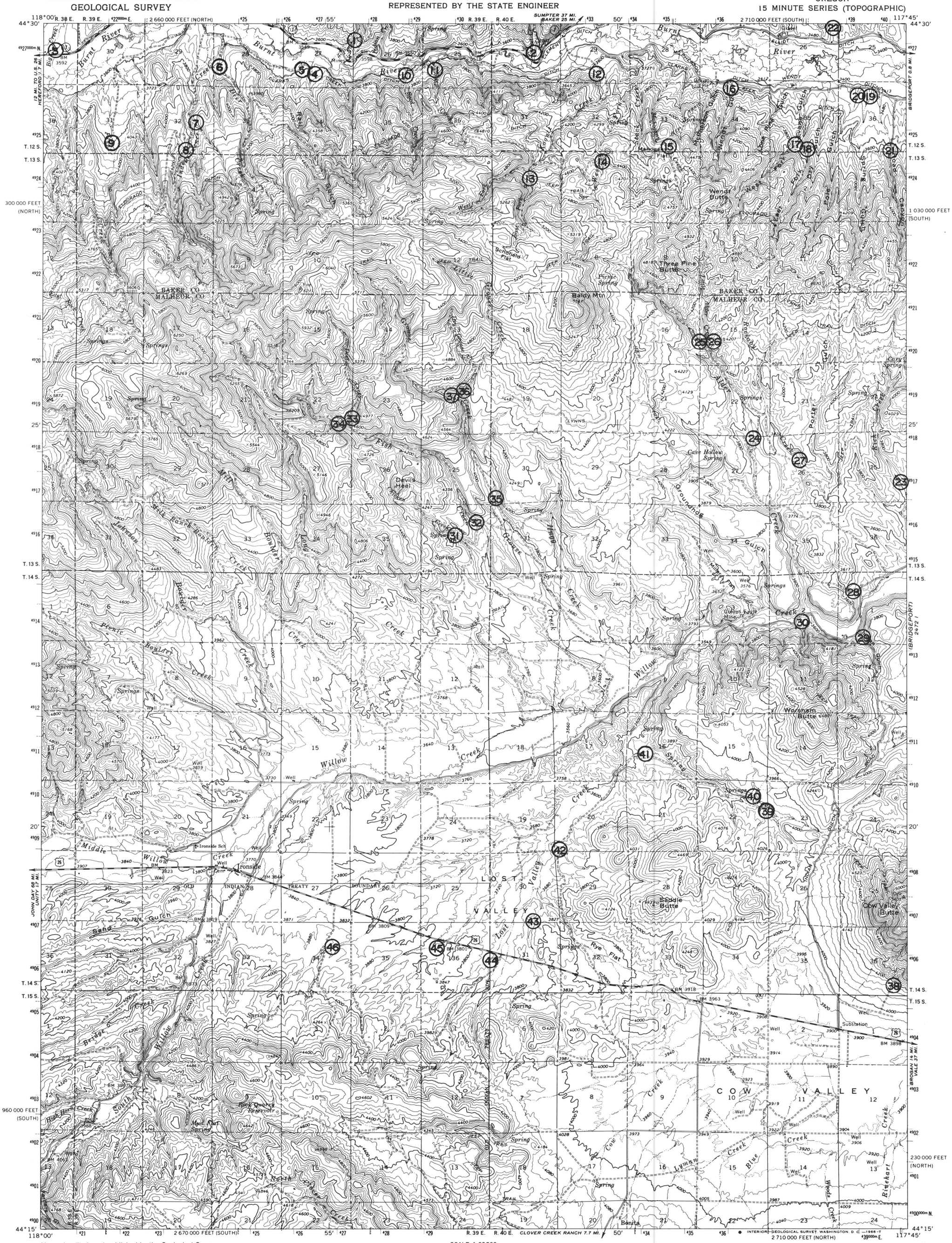
HUNTINGTON, OREG.
N4415—W11715/15
1951
AMS 2572 IV—SERIES V792

OFR 76-4

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

STATE OF OREGON
REPRESENTED BY THE STATE ENGINEER

IRONSIDE QUADRANGLE
OREGON
15 MINUTE SERIES (TOPOGRAPHIC)



Mapped, edited, and published by the Geological Survey

Control by USGS and USC&GS

Topography by photogrammetric methods from aerial photographs taken 1960. Field checked 1964

Polycentric projection. 1927 North American datum
10,000-foot grids based on Oregon coordinate system, south and north zones
1000-meter Universal Transverse Mercator grid ticks, zone 11, shown in blue

GN
MN
0°37'
11 MILS
19½°
347 MILS
UTM GRID AND 1964 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

SCALE 1:62500

1 ½ 0 1 2 3 4 MILES

3000 0 3000 6000 9000 12000 15000 18000 21000 FEET

1 .5 0 1 2 3 4 5 KILOMETERS

CONTOUR INTERVAL 40 FEET
DOTTED LINES REPRESENT 20-FOOT CONTOURS
DATUM IS MEAN SEA LEVEL

ROAD CLASSIFICATION

Medium-duty ——— Light-duty ———

Unimproved dirt - - - - - -

U. S. Route ◯ State Route

OREGON
QUADRANGLE LOCATION

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225, OR WASHINGTON, D. C. 20242
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

IRONSIDE, OREG.
N4415—W11745/15

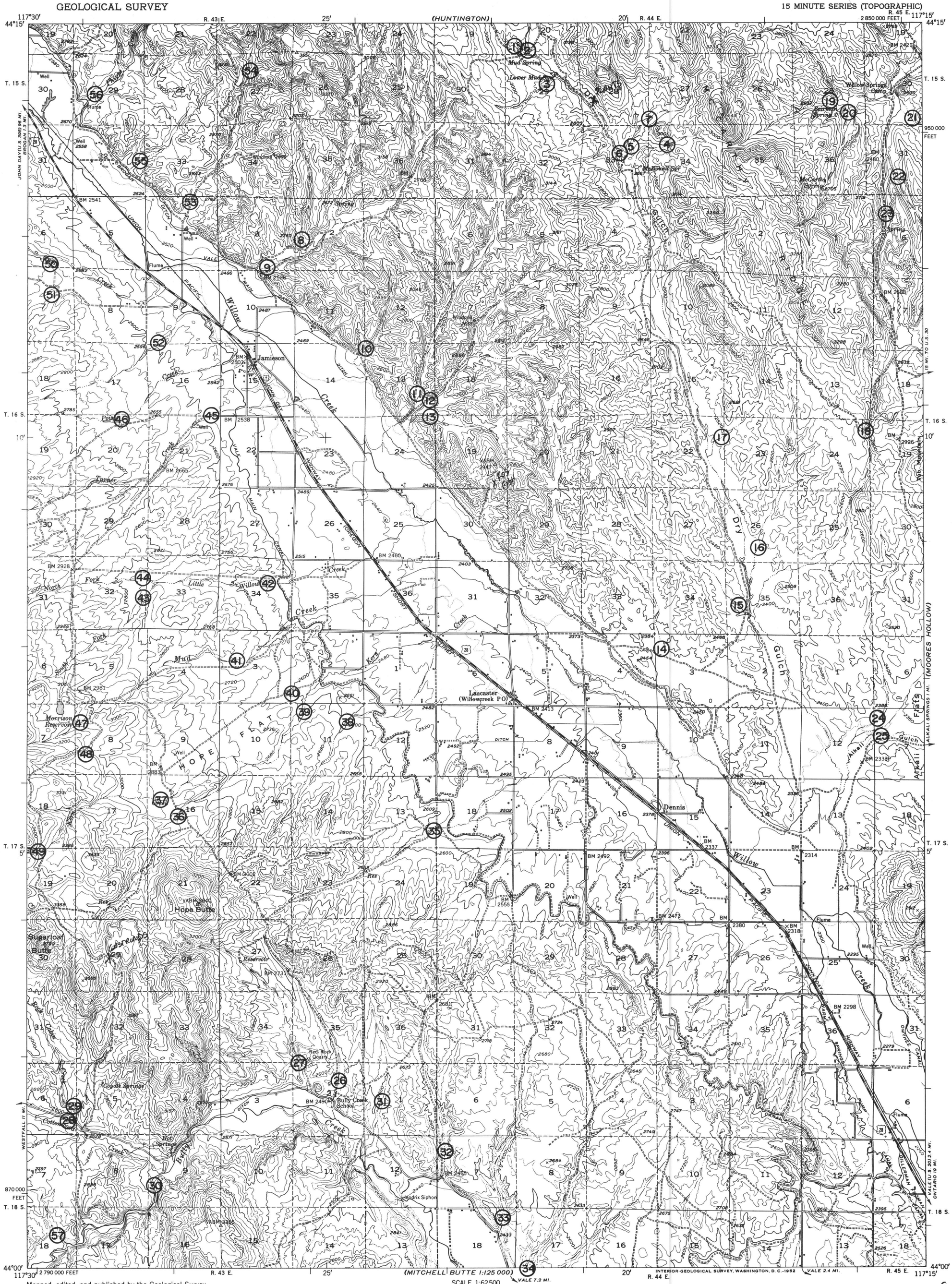
1964

AMS 2472 IV—SERIES V792

OFR 76-4

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

JAMIESON QUADRANGLE
OREGON-MALHEUR CO.
15 MINUTE SERIES (TOPOGRAPHIC)



Mapped, edited, and published by the Geological Survey

Control by USGS and USC&GS

Topography from aerial photographs by multiplex methods
Aerial photographs taken 1946. Field check 1950

Polyconic projection. 1927 North American datum
10,000-foot grid based on Oregon coordinate system, south zone

Dashed land lines indicate approximate locations

Unchecked elevations are shown in brown

TRUE NORTH
MAGNETIC NORTH
20°
APPROXIMATE MEAN DECLINATION, 1950

SCALE 1:62 500

1 ½ 0 1 2 3 4 MILES

3000 0 3000 6000 9000 12000 15000 18000 21000 FEET

1 .5 0 1 2 3 4 5 KILOMETERS

CONTOUR INTERVAL 40 FEET
DOTTED LINES REPRESENT HALF-INTERVAL CONTOURS
DATUM IS MEAN SEA LEVEL

ROAD CLASSIFICATION

Heavy-duty — 4 LANE | 6 LANE
Light-duty
Medium-duty — 4 LANE | 6 LANE
Unimproved dirt
U. S. Route
State Route

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY, FEDERAL CENTER, DENVER, COLORADO OR WASHINGTON 25, D. C.
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

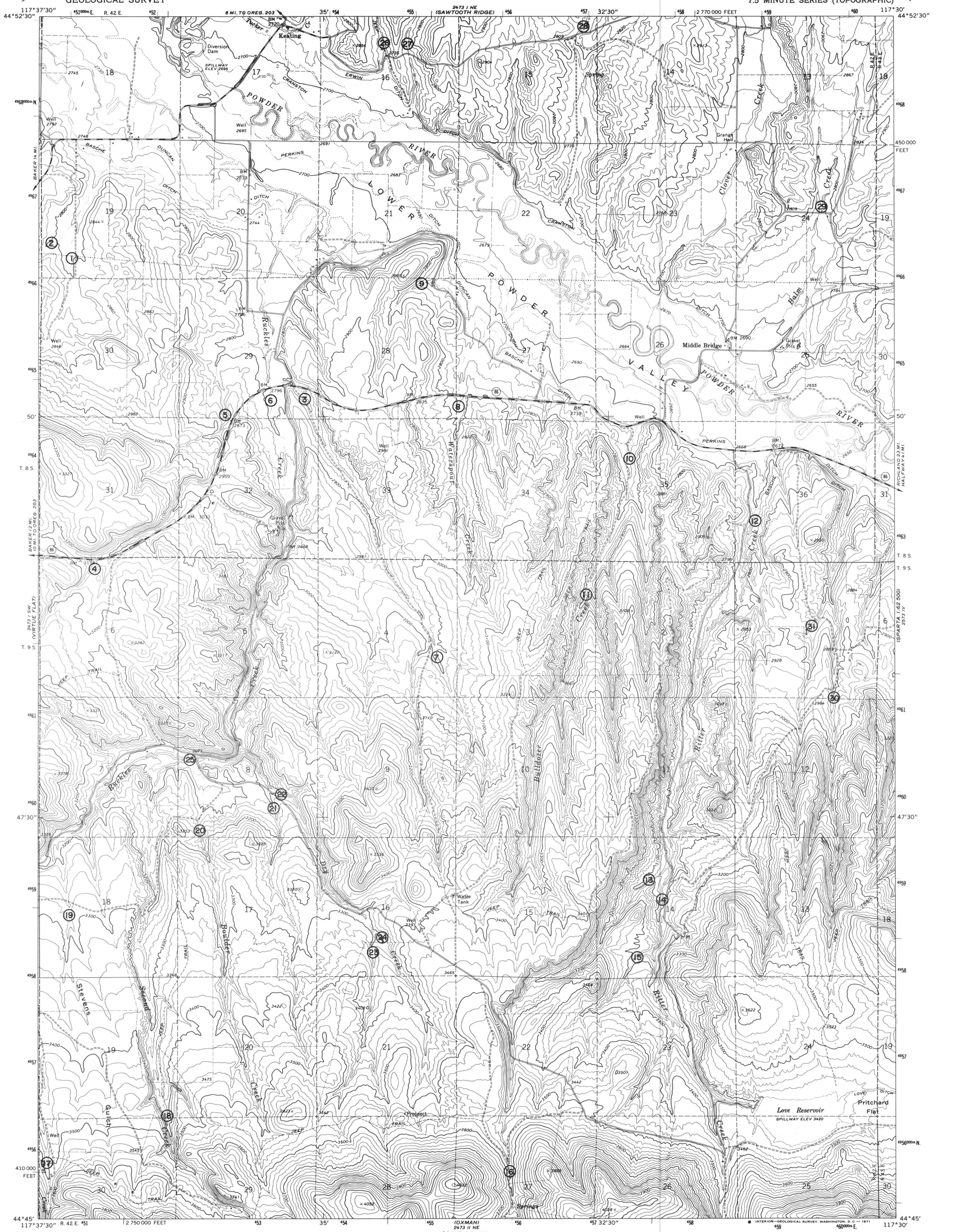
JAMIESON, OREG.
N4400—W11715/15

1950

OFR 76-4

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

KEATING QUADRANGLE
OREGON–BAKER CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)



Mapped, edited, and published by the Geological Survey

Control by USGS, USC&GS, and State of Oregon

Topography by photogrammetric methods from aerial photographs taken 1966. Field checked 1967

Polyconic projection. 1927 North American datum
10,000-foot grid based on Oregon coordinate system, north zone
1000-meter Universal Transverse Mercator grid ticks, zone 11, shown in blue

Fine red dashed lines indicate selected fence lines

UTM GRID AND 1967 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

SCALE 1:24 000

CONTOUR INTERVAL 20 FEET
DOTTED LINES REPRESENT 10-FOOT CONTOURS
DATUM IS MEAN SEA LEVEL

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225, OR WASHINGTON, D. C.
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

OREGON
QUADRANGLE LOCATION

ROAD CLASSIFICATION
Medium-duty — Light-duty
Unimproved dirt
State Route

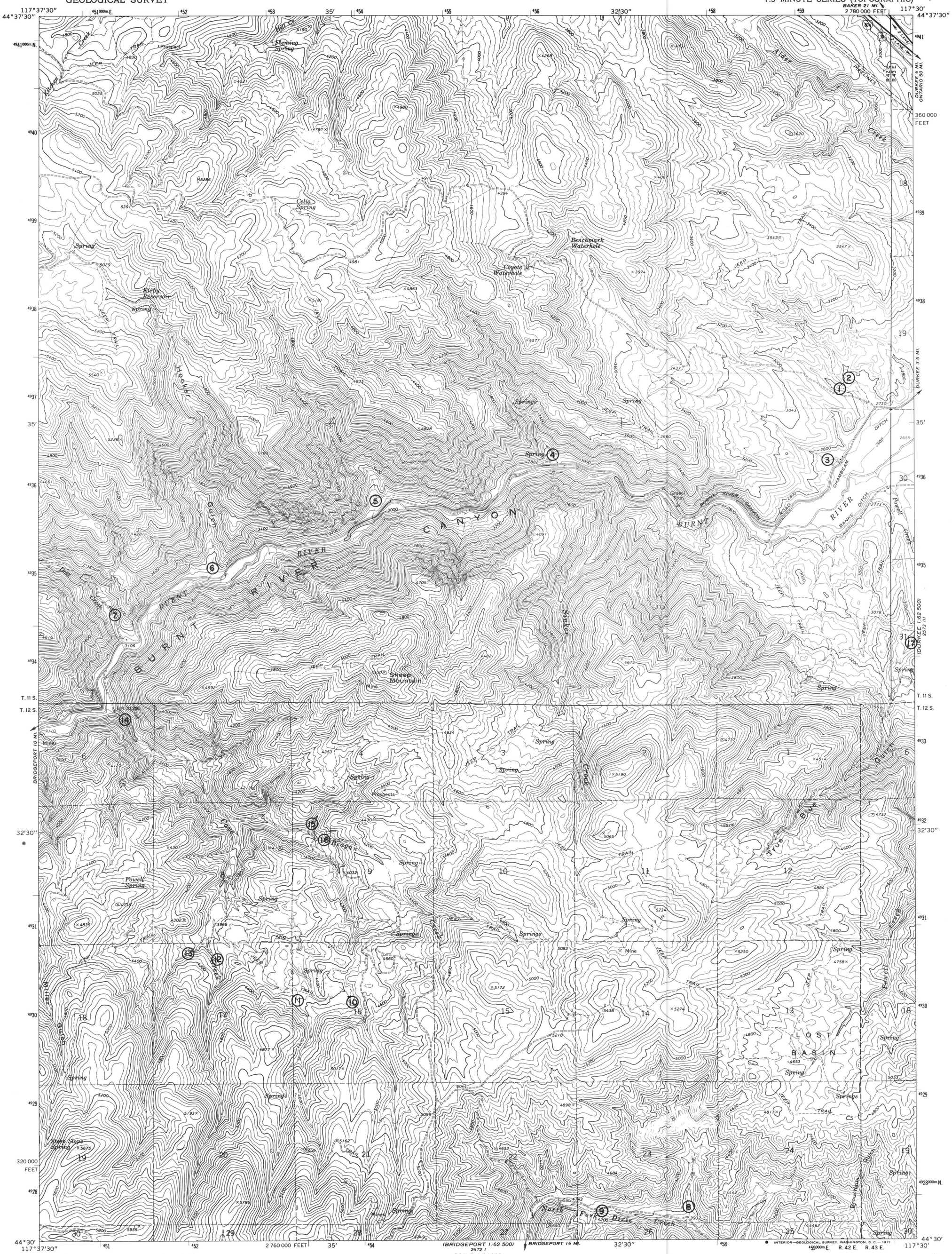
KEATING, OREG.
N4445—W11730/7.5
1967
AMS 2473 I SE—SERIES V892

INTERIOR—GEOLOGICAL SURVEY, WASHINGTON, D. C.—1971

OFR 76-4

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

LOST BASIN QUADRANGLE
OREGON–BAKER CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)



Mapped, edited, and published by the Geological Survey

Control by USGS and USC&GS

Topography by photogrammetric methods from aerial photographs taken 1966. Field checked 1967

Polyconic projection. 1927 North American datum
10,000-foot grid based on Oregon coordinate system, north zone
1000-meter Universal Transverse Mercator grid ticks, zone 11, shown in blue

Fine red dashed lines indicate selected fence lines

Certain land lines are omitted because of insufficient data

GN MN 0°24' 7 MILS 19½° 347 MILS

UTM GRID AND 1967 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

SCALE 1:24 000

1 ½ 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 .5 0 1 KILOMETER

CONTOUR INTERVAL 40 FEET
DATUM IS MEAN SEA LEVEL

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225, OR WASHINGTON, D. C. 20242
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

OREGON
QUADRANGLE LOCATION

ROAD CLASSIFICATION

Heavy-duty ——— Light-duty ———

Unimproved dirt - - - - - -

Interstate Route U. S. Route

LOST BASIN, OREG.
N4430—W11730/7.5

1967

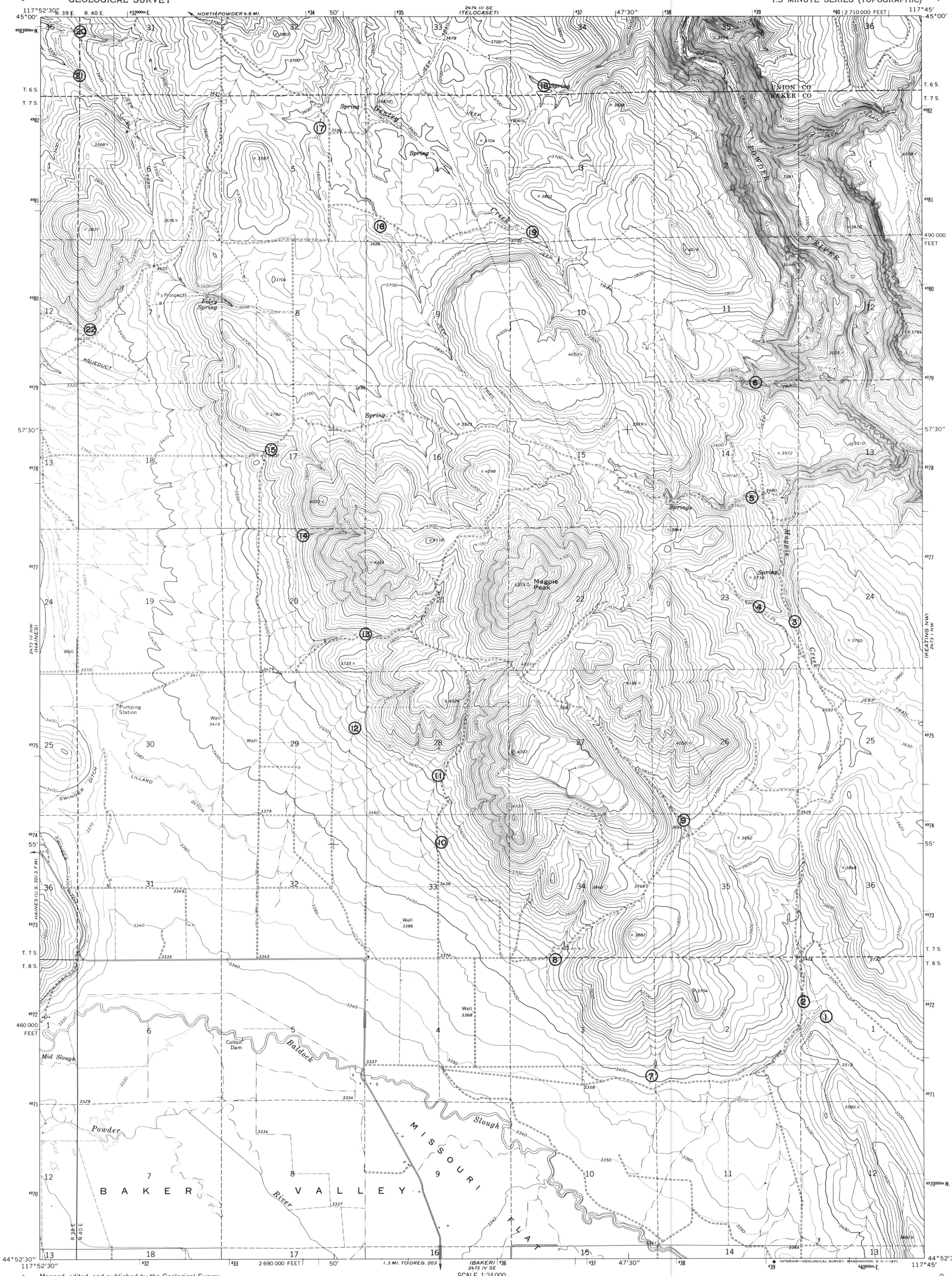
AMS 2473 II SE—SERIES V892

INTERIOR—GEOLOGICAL SURVEY, WASHINGTON, D. C.—1971

OFR 76-4

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

MAGPIE PEAK QUADRANGLE
OREGON
7.5 MINUTE SERIES (TOPOGRAPHIC)



Mapped, edited, and published by the Geological Survey

Control by USGS and USC&GS

Topography by photogrammetric methods from aerial photographs taken 1966. Field checked 1967

Polyconic projection. 1927 North American datum
10,000-foot grid based on Oregon coordinate system, north zone
1000-meter Universal Transverse Mercator grid ticks, zone 11, shown in blue

Fine red dashed lines indicate selected fence lines

UTM GRID AND 1967 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

SCALE 1:24 000

CONTOUR INTERVAL 20 FEET
DOTTED LINES REPRESENT 10-FOOT CONTOURS
DATUM IS MEAN SEA LEVEL

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225, OR WASHINGTON, D. C. 20242
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

QUADRANGLE LOCATION

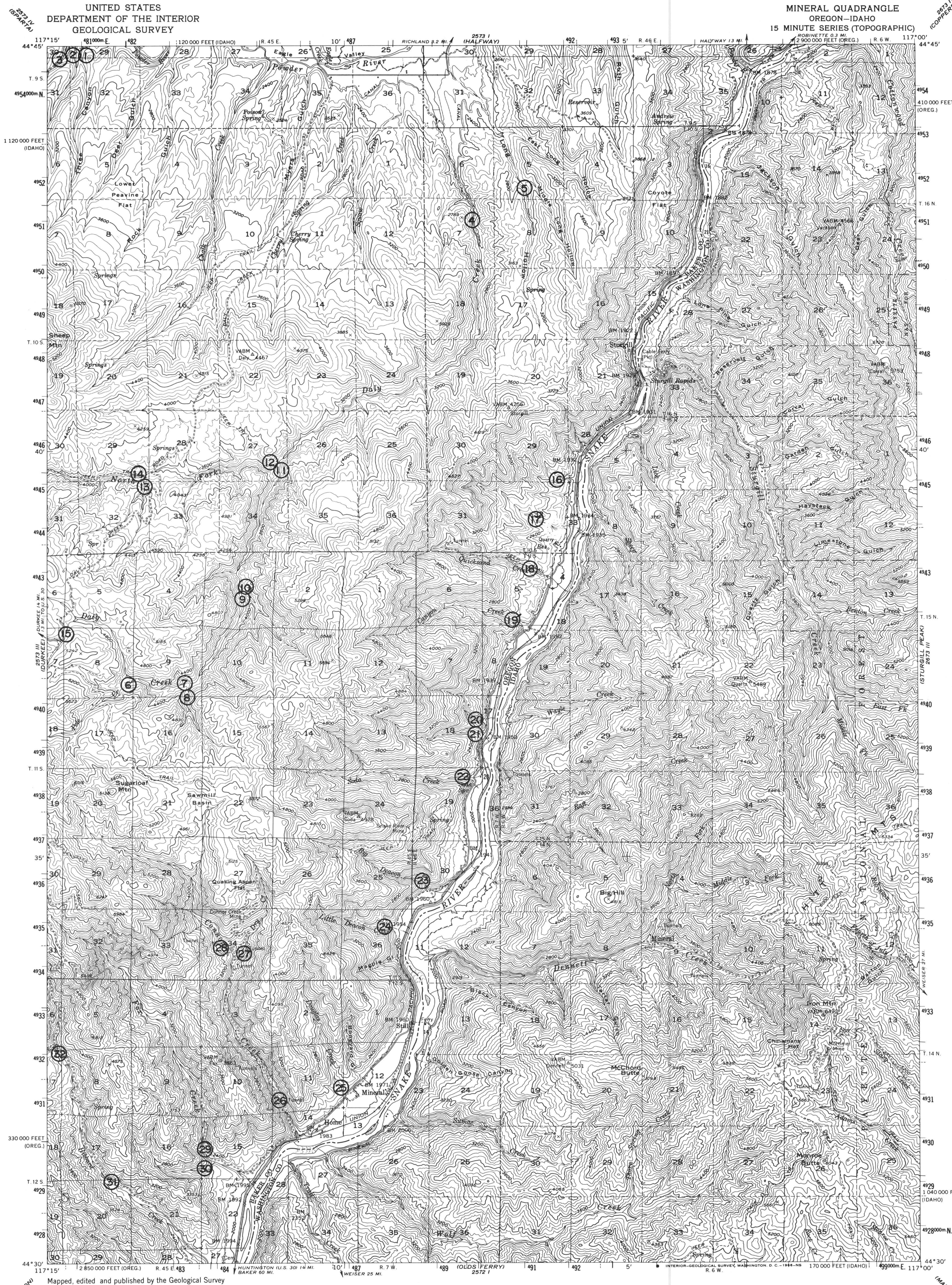
ROAD CLASSIFICATION
Light-duty ——— Unimproved dirt - - - -

MAGPIE PEAK, OREG.
N4452.5—W11745/7.5
1967
AMS 2473 IV NE—SERIES V892

OFR 76-4

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

MINERAL QUADRANGLE
OREGON—IDAHO
15 MINUTE SERIES (TOPOGRAPHIC)



Mapped, edited and published by the Geological Survey

Control by USGS and USC&GS

Topography from aerial photographs by multiplex methods
Aerial photographs taken 1952. Field check 1957

Polyconic projection. 1927 North American datum
10,000-foot grids based on Oregon coordinate system, north zone and Idaho coordinate system, west zone
1000-meter Universal Transverse Mercator grid ticks, zone 11, shown in blue

Dashed land lines indicate approximate locations

Unchecked elevations are shown in brown

Blue hatching indicates area to be submerged by Brownlee Dam at spillway elevation of 2077 feet

UTM GRID AND 1957 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

SCALE 1:62500

CONTOUR INTERVAL 80 FEET
DATUM IS MEAN SEA LEVEL

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225, OR WASHINGTON, D. C. 20242
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

ROAD CLASSIFICATION
Light-duty ——— Unimproved dirt - - - - -

OREGON
QUADRANGLE LOCATION

MINERAL, OREG.—IDAHO
N4430—W11700/15

1957

AMS 2573 II—SERIES V793

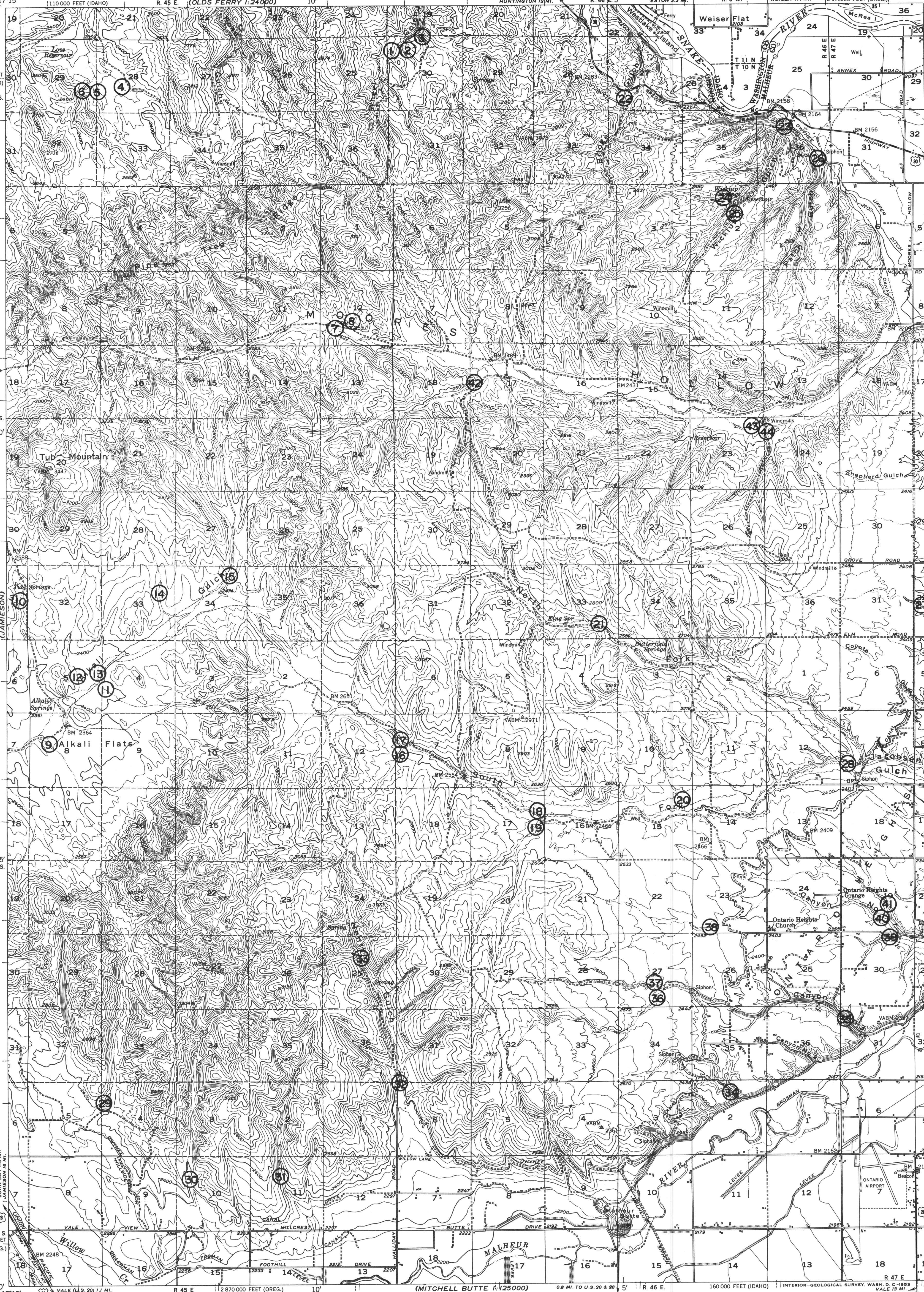
OFR-76-4

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

MOORES HOLLOW QUADRANGLE
OREGON-IDAHO
15 MINUTE SERIES (TOPOGRAPHIC)

(HUNTINGTON)

(WEISER 1:125000)



(MITCHELL BUTTE 1:125000)

(NAMPA 1:125000)

Mapped, edited, and published by the Geological Survey

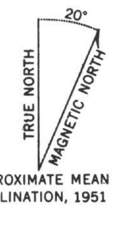
Control by USGS and USC&GS

Topography from aerial photographs by multiplex methods and by plane-table surveys 1951. Aerial photographs taken 1950

Polyconic projection. 1927 North American datum
10,000-foot grids based on Oregon coordinate system, south zone, and Idaho coordinate system, west zone

Dashed land lines indicate approximate locations

Unchecked elevations are shown in brown



APPROXIMATE MEAN DECLINATION, 1951

SCALE 1:62500

1 ½ 0 1 2 3 4 MILES

3000 0 3000 6000 9000 12000 15000 18000 21000 FEET

1 .5 0 1 2 3 4 5 KILOMETERS

CONTOUR INTERVAL 40 FEET
DATUM IS MEAN SEA LEVEL

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS

FOR SALE BY U. S. GEOLOGICAL SURVEY, FEDERAL CENTER, DENVER, COLORADO OR WASHINGTON 25, D. C.

A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

QUADRANGLE LOCATION

ROAD CLASSIFICATION

Heavy-duty — 4 LANE | 6 LANE — Light-duty
Medium-duty — 4 LANE | 6 LANE — Unimproved dirt
U. S. Route — State Route

The east half of this area is also covered by 1:24 000 scale maps of Moores Hollow and Malheur Butte 7.5 minute quadrangles

MOORES HOLLOW, OREG.-IDAHO

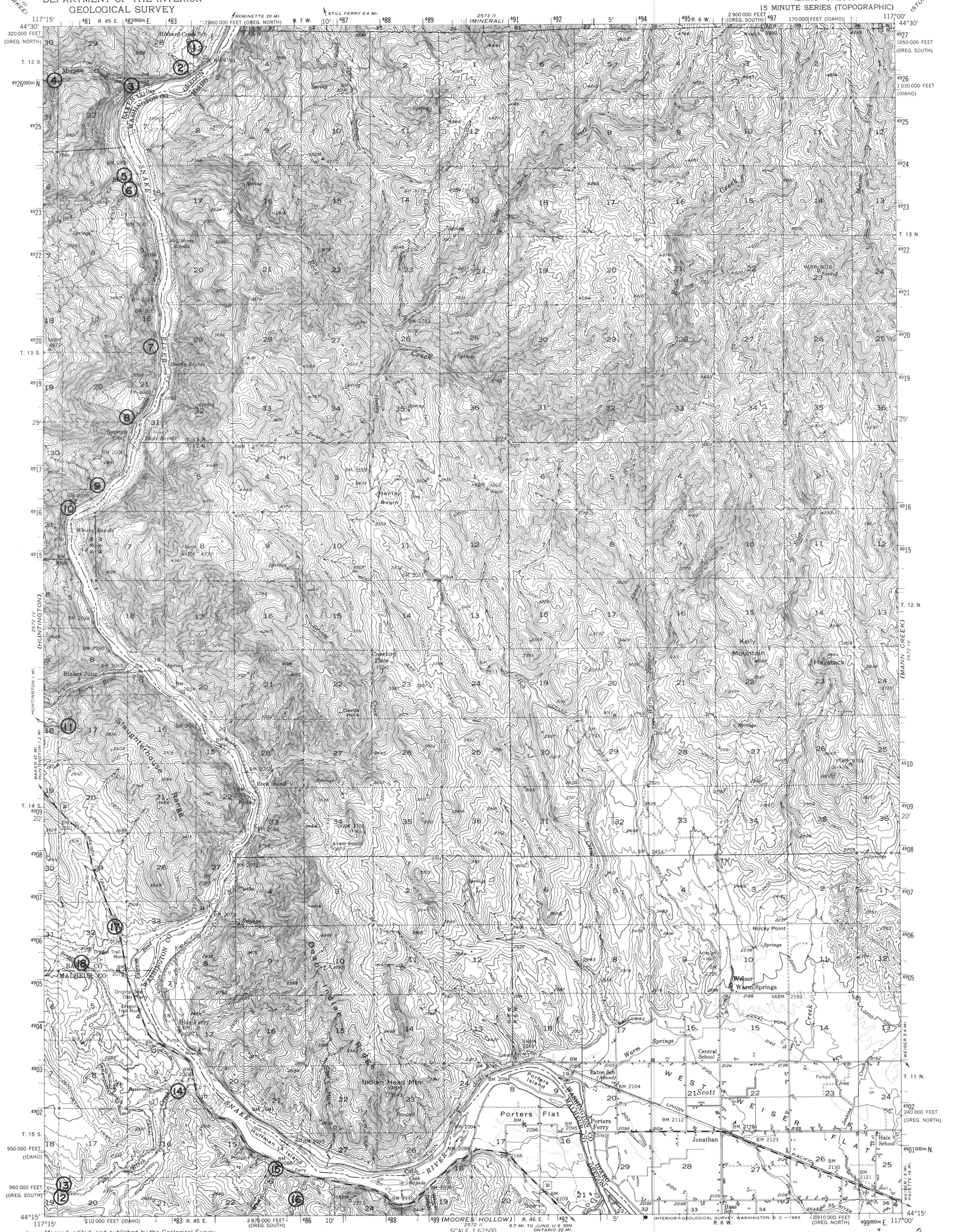
N4400—W11700/15

1951

OFR 764

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

OLDS FERRY QUADRANGLE
IDAHO—OREGON
15 MINUTE SERIES (TOPOGRAPHIC)



Mapped, edited, and published by the Geological Survey

Control by USGS and USC&GS

Topography from aerial photographs by multiplex methods and by plane-table surveys 1952. Aerial photographs taken 1950

Polyconic projection. 1927 North American datum
10,000-foot grids based on Idaho coordinate system, west zone and Oregon coordinate system, north and south zones

Dashed land lines indicate approximate locations

1000-meter Universal Transverse Mercator grid ticks, zone 11, shown in blue

GN MN 0°05′ 1 MIL 20° 356 MILS
UTM GRID AND 1952 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

SCALE 1:62 500

1 ½ 0 1 2 3 4 MILES

3000 0 3000 6000 9000 12000 15000 18000 21000 FEET

1 .5 0 1 2 3 4 5 KILOMETERS

CONTOUR INTERVAL 40 FEET
DOTTED LINES REPRESENT HALF-INTERVAL CONTOURS
DATUM IS MEAN SEA LEVEL

IDAHO
QUADRANGLE LOCATION

ROAD CLASSIFICATION

Heavy-duty — Light-duty
Medium-duty — Unimproved dirt
U. S. Route · State Route

This area is also partially covered by 1:24 000 scale maps of Olds Ferry NW, Olds Ferry, and Olds Ferry SE 7.5 minute quadrangles

OLDS FERRY, IDAHO—OREG.
N4415—W11700/15

1952

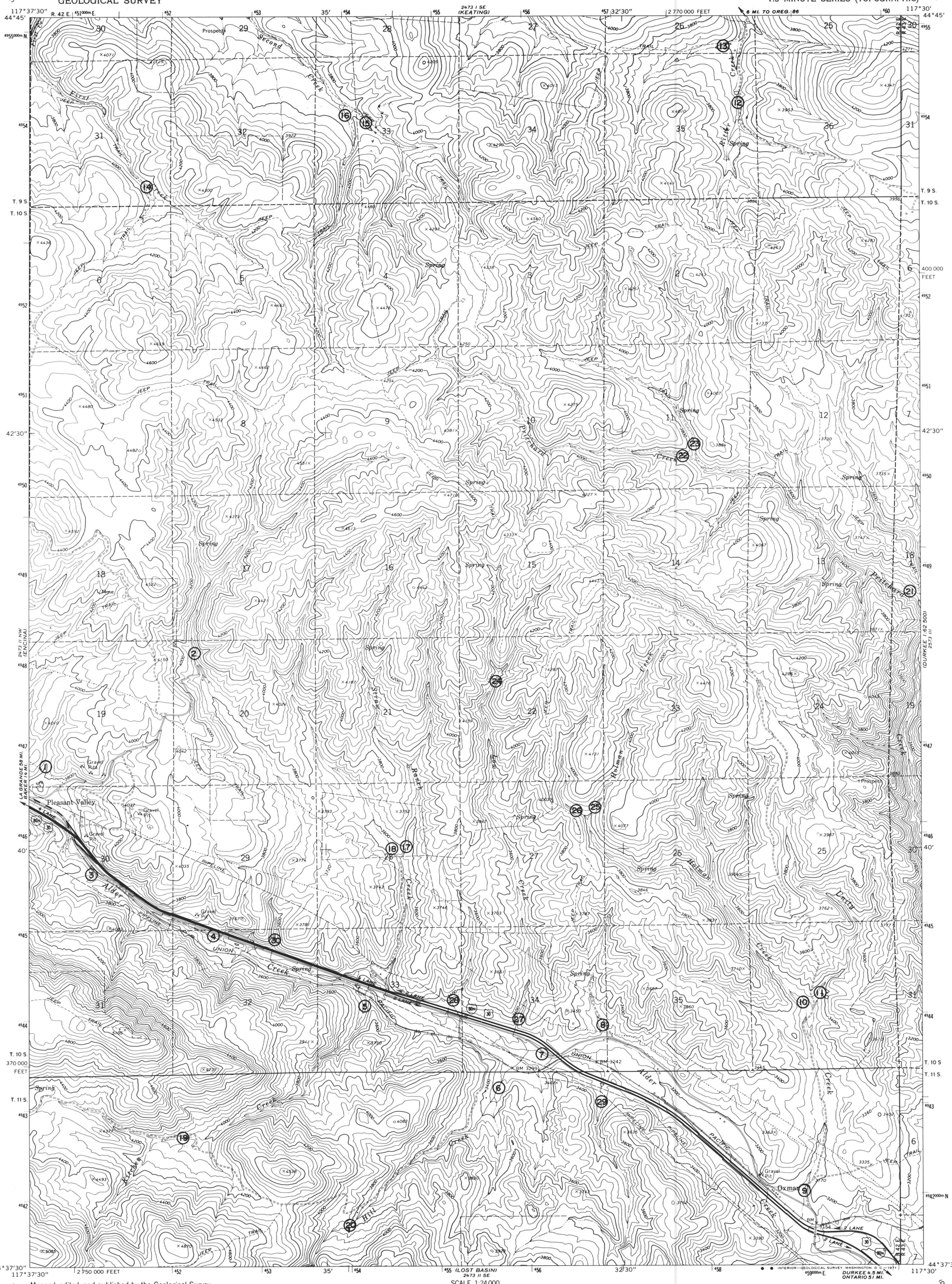
AMS 2572 I—SERIES V793

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225 OR WASHINGTON, D. C. 20242
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

OFR 76-4

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

OXMAN QUADRANGLE
OREGON–BAKER CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)



Mapped, edited, and published by the Geological Survey

Control by USGS and USC&GS

Topography by photogrammetric methods from aerial photographs taken 1966. Field checked 1967

Polyconic projection. 1927 North American datum
10,000-foot grid based on Oregon coordinate system, north zone
1000-meter Universal Transverse Mercator grid ticks, zone 11, shown in blue

Fine red dashed lines indicate selected fence lines

Certain land lines are omitted because of insufficient data

GN MN 0°24' 7 MILS 19½° 347 MILS

UTM GRID AND 1967 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

SCALE 1:24 000

1 ½ 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 .5 0 1 KILOMETER

CONTOUR INTERVAL 40 FEET
DATUM IS MEAN SEA LEVEL

OREGON
QUADRANGLE LOCATION

ROAD CLASSIFICATION

Heavy-duty — Light-duty
Medium-duty — Unimproved dirt
Interstate Route — U. S. Route

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225, OR WASHINGTON, D. C. 20242
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

INTERIOR—GEOLOGICAL SURVEY, WASHINGTON, D. C.—1971

OXMAN, OREG.
N4437.5—W11730/7.5

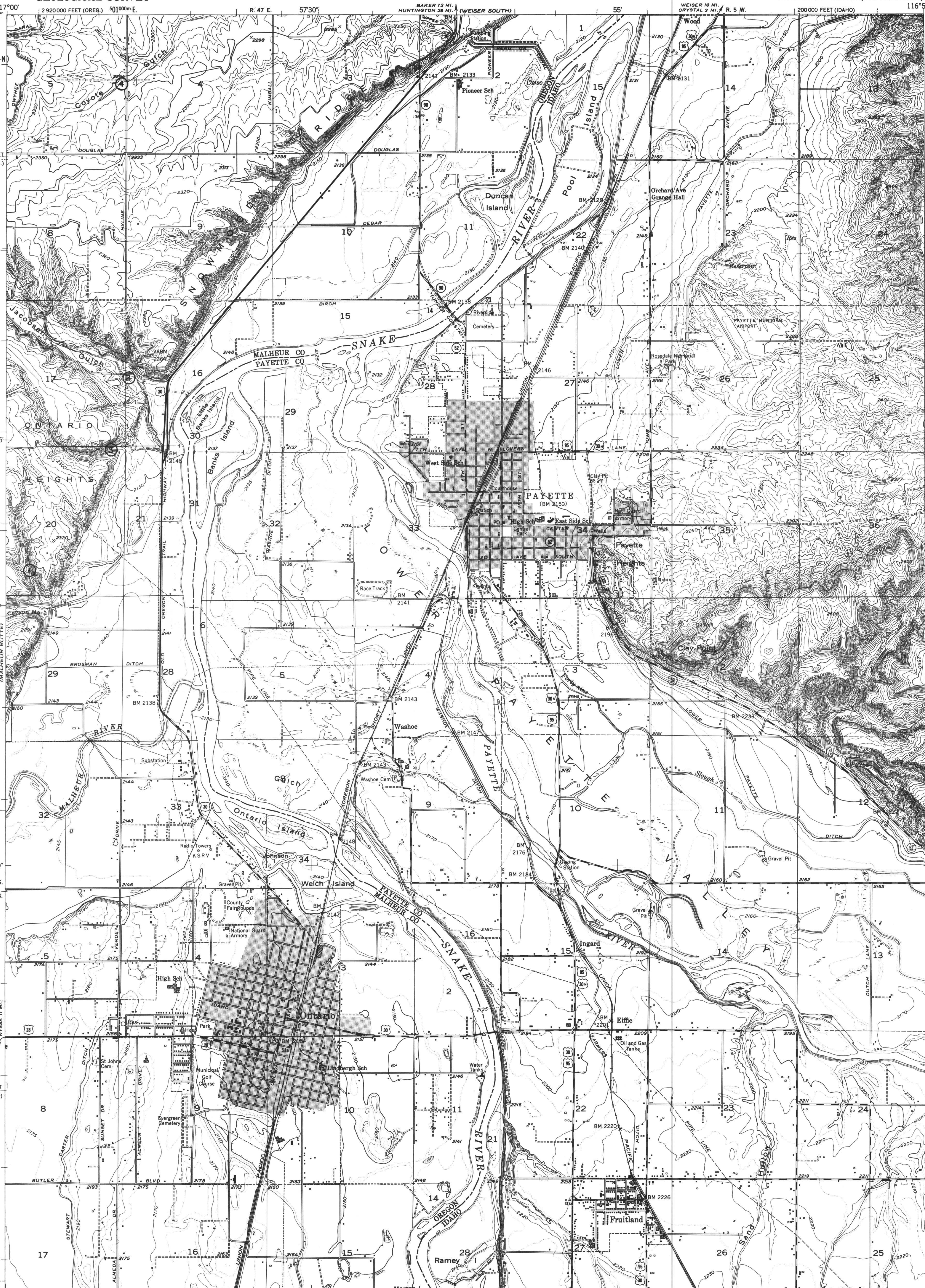
1967

AMS 2473 II NE—SERIES V892

OFR 76-4

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

PAYETTE QUADRANGLE
IDAHO-OREGON
7.5 MINUTE SERIES (TOPOGRAPHIC)



Mapped, edited, and published by the Geological Survey

Control by USGS and USC&GS

Topography from aerial photographs by photogrammetric methods and by plane-table surveys 1951. Aerial photographs taken 1946 and 1950

Polyconic projection. 1927 North American datum
10,000-foot grids based on Idaho coordinate system, west zone, and Oregon coordinate system, south zone

Red tint indicates areas in which only landmark buildings are shown

Dashed land lines indicate approximate locations

1000-meter Universal Transverse Mercator grid ticks, zone 11, shown in blue

APPROXIMATE MEAN DECLINATION, 1951

SCALE 1:24000

CONTOUR INTERVAL 10 FEET
DOTTED LINES REPRESENT HALF-INTERVAL CONTOURS
DATUM IS MEAN SEA LEVEL

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY, FEDERAL CENTER, DENVER, COLORADO OR WASHINGTON 25, D. C.
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

ROAD CLASSIFICATION

Heavy-duty — Light-duty
Medium-duty — Unimproved dirt
U. S. Route — State Route

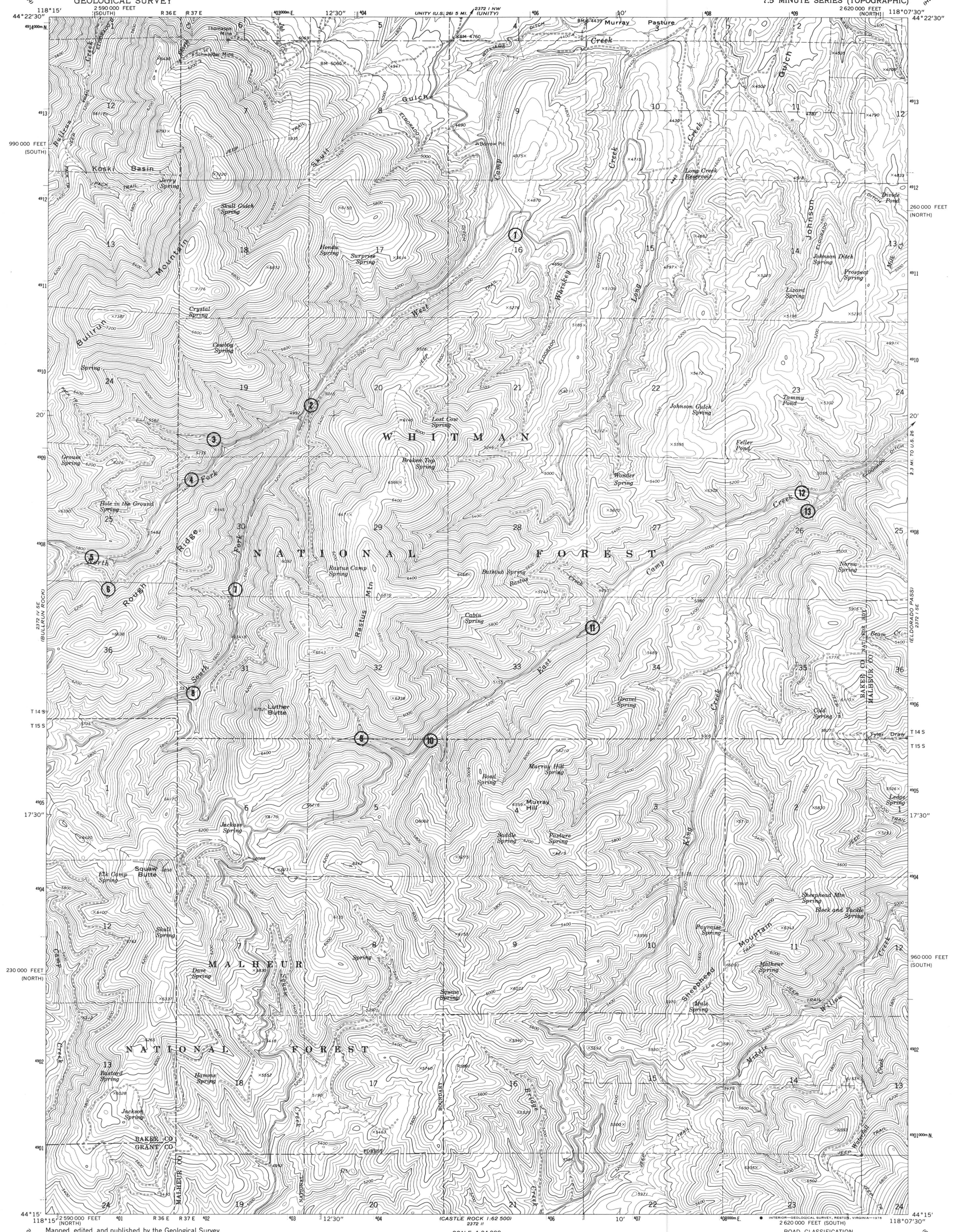
PAYETTE, IDAHO-OREGON
N4400—W11652.5/7.5

1951

OFR 76-A

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

RASTUS MTN. QUADRANGLE
OREGON
7.5 MINUTE SERIES (TOPOGRAPHIC)



Mapped, edited, and published by the Geological Survey

Control by USGS and NOS/NOAA

Topography by photogrammetric methods from aerial photographs taken 1971. Field checked 1972

Projection: Oregon coordinate system, north zone (Lambert conformal conic)
10,000-foot grid ticks based on Oregon coordinate system, north and south zones
1000-metre Universal Transverse Mercator grid ticks, zone 11, shown in blue. 1927 North American datum

Fine red dashed lines indicate selected fence lines

UTM GRID AND 1972 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

SCALE 1:24 000

CONTOUR INTERVAL 40 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225, OR RESTON, VIRGINIA 22092
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

QUADRANGLE LOCATION

ROAD CLASSIFICATION

Primary highway, hard surface
Light-duty road, hard or improved surface
Secondary highway, hard surface
Unimproved road
Interstate Route
U. S. Route
State Route

RASTUS MTN., OREG.
N4415—W11807.5/7.5

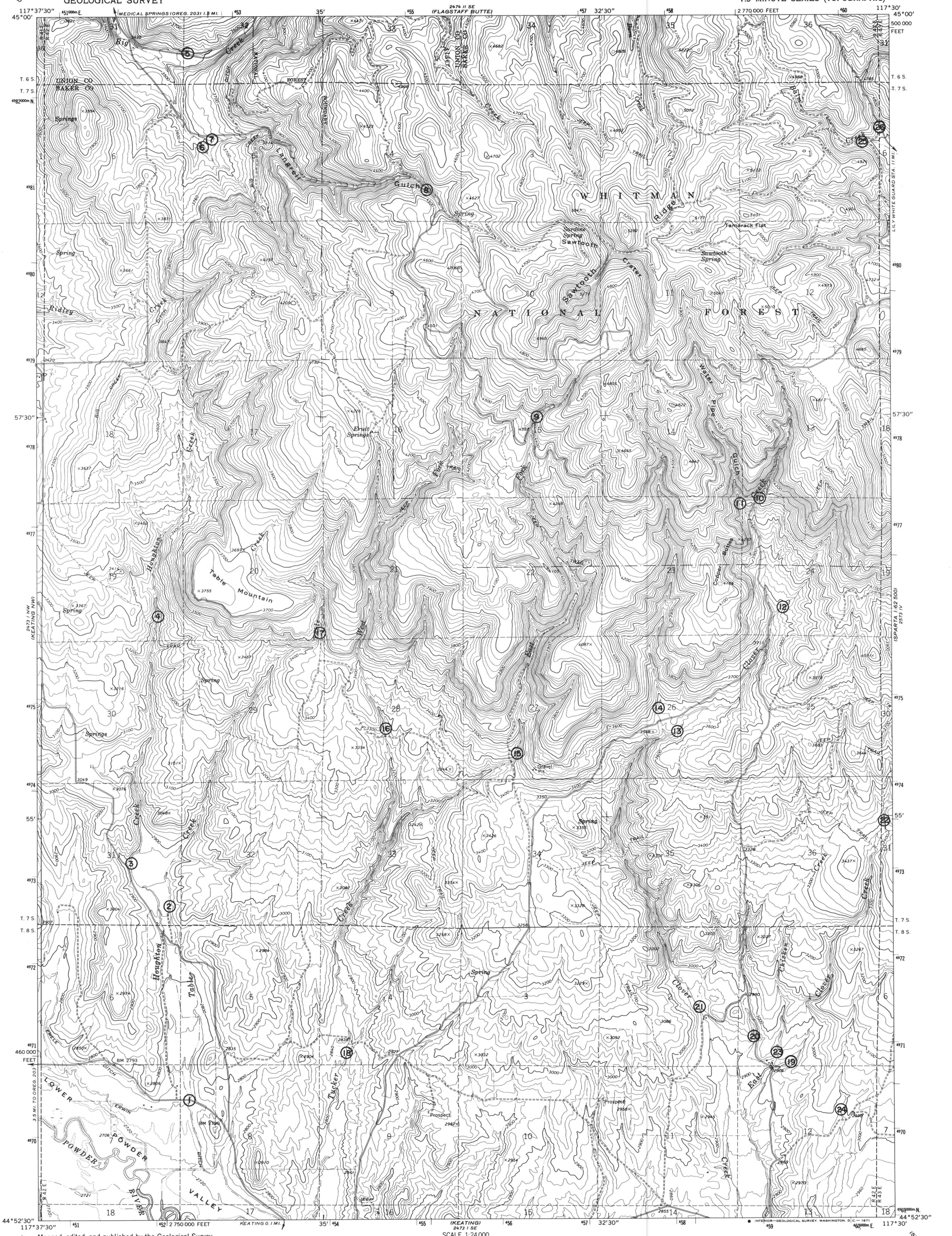
1972

AMS 2372 I SW—SERIES V892

OFR 76-4

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SAWTOOTH RIDGE QUADRANGLE
OREGON
7.5 MINUTE SERIES (TOPOGRAPHIC)



Mapped, edited, and published by the Geological Survey

Control by USGS and USC&GS

Topography by photogrammetric methods from aerial photographs taken 1966. Field checked 1967

Polyconic projection. 1927 North American datum
10,000-foot grid based on Oregon coordinate system, north zone
1000-meter Universal Transverse Mercator grid ticks, zone 11, shown in blue

Fine red dashed lines indicate selected fence lines

GN MN
0°24' 7 MILS
19½° 347 MILS
UTM GRID AND 1967 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

SCALE 1:24 000
1 ½ 0 1 MILE
1000 0 1000 2000 3000 4000 5000 6000 7000 FEET
1 .5 0 1 KILOMETER

CONTOUR INTERVAL 20 FEET
DOTTED LINES REPRESENT 10-FOOT CONTOURS
DATUM IS MEAN SEA LEVEL

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225, OR WASHINGTON, D. C. 20242
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

ROAD CLASSIFICATION
Light-duty ——— Unimproved dirt - - - - -

OREGON
QUADRANGLE LOCATION

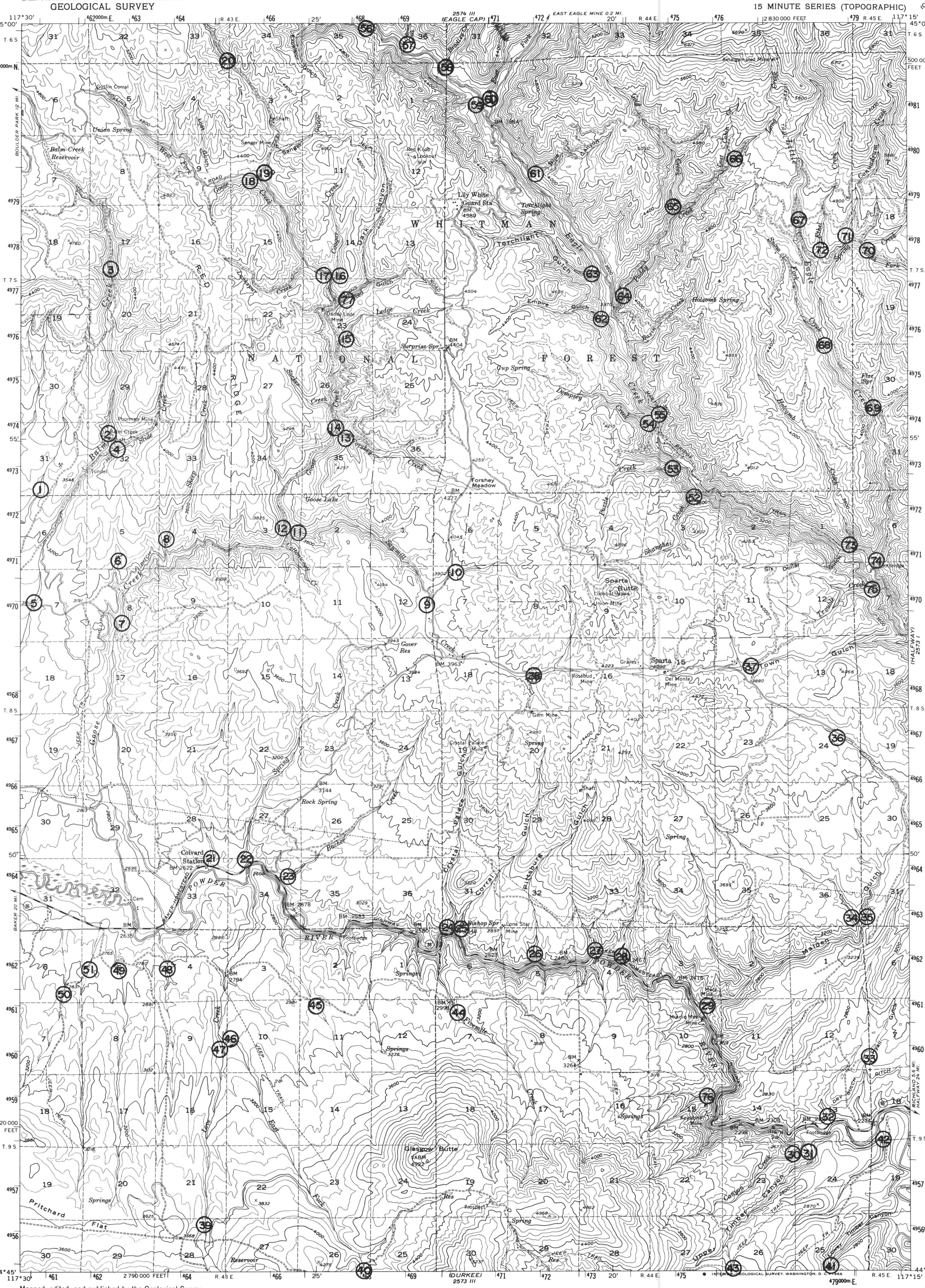
SAWTOOTH RIDGE, OREG.
N4452.5—W11730/7.5
1967
AMS 2473 I NE—SERIES V892

INTERIOR—GEOLOGICAL SURVEY, WASHINGTON, D. C.—1971

OFR 76-4

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SPARTA QUADRANGLE
OREGON—BAKER CO.
15 MINUTE SERIES (TOPOGRAPHIC)



Mapped, edited, and published by the Geological Survey

Control by USGS and USC&GS, and State of Oregon

Topography from aerial photographs by multiplex methods
Aerial photographs taken 1953. Field check 1957

Polyconic projection. 1927 North American datum
10,000-foot grid based on Oregon coordinate system, north zone
1000-meter Universal Transverse Mercator grid ticks, zone 11, shown in blue

Dashed land lines indicate approximate locations
Certain land lines are omitted because of insufficient data
All recovered corners are shown

Unchecked elevations are shown in brown

UTM GRID AND 1957 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

SCALE 1:62500

CONTOUR INTERVAL 80 FEET
DATUM IS MEAN SEA LEVEL

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225 OR WASHINGTON, D. C. 20242
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

ROAD CLASSIFICATION
Medium-duty — Light-duty
Unimproved dirt
State Route

QUADRANGLE LOCATION

SPARTA, OREG.
N4445—W11715/15

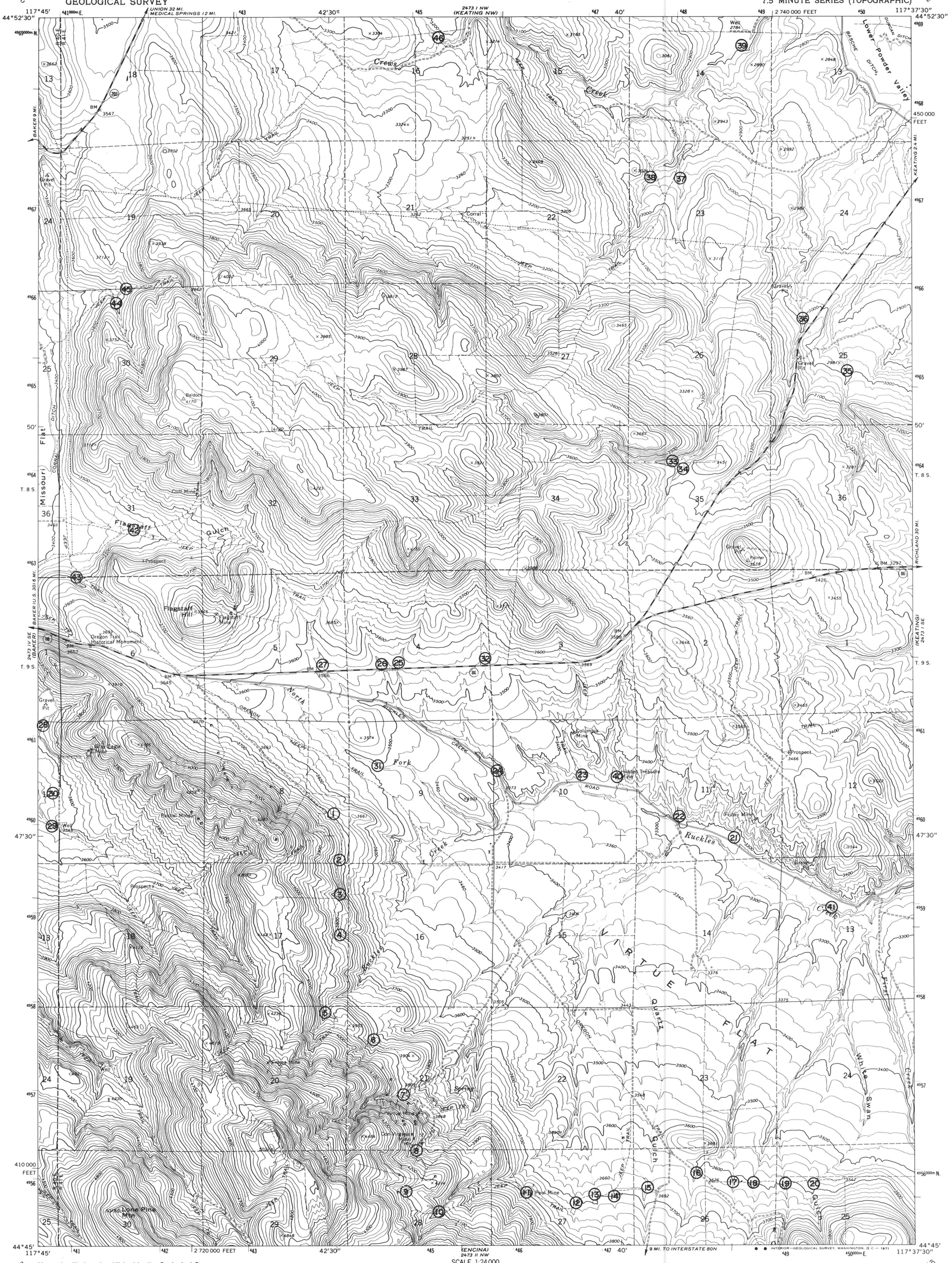
1957

AMS 2573 IV—SERIES V792

OFR 76-4

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

VIRTUE FLAT QUADRANGLE
OREGON–BAKER CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)



Mapped, edited, and published by the Geological Survey

Control by USGS, USC&GS, and State of Oregon

Topography by photogrammetric methods from aerial photographs taken 1966. Field checked 1967

Polyconic projection. 1927 North American datum
10,000-foot grid based on Oregon coordinate system, north zone
1000-meter Universal Transverse Mercator grid ticks, zone 11, shown in blue

Fine red dashed lines indicate selected fence lines

UTM GRID AND 1967 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET
GN MN 0°29′ 9 MILS 19½° 347 MILS

SCALE 1:24 000
1 ½ 0 1 MILE
1000 0 1000 2000 3000 4000 5000 6000 7000 FEET
1 .5 0 1 KILOMETER

CONTOUR INTERVAL 20 FEET
DATUM IS MEAN SEA LEVEL

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225, OR WASHINGTON, D. C. 20242
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

OREGON
QUADRANGLE LOCATION

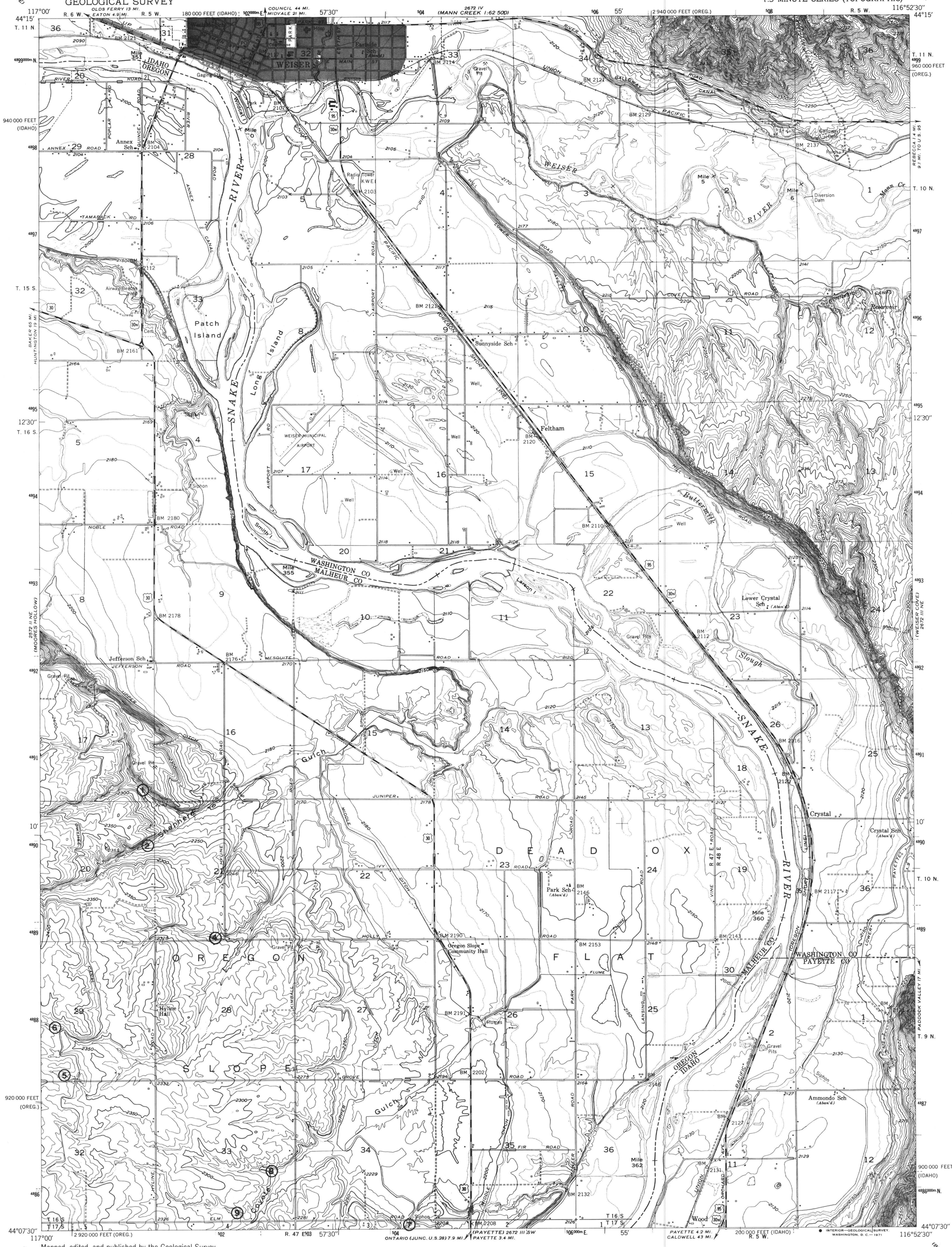
ROAD CLASSIFICATION
Medium-duty — Light-duty
Unimproved dirt
State Route

VIRTUE FLAT, OREG.
N4445—W11737.5/7.5
1967
AMS 2473 I SW—SERIES V892

OFR 76-4

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

WEISER SOUTH QUADRANGLE
OREGON–IDAHO
7.5 MINUTE SERIES (TOPOGRAPHIC)



Mapped, edited, and published by the Geological Survey

Control by USGS and USC&GS

Topography from aerial photographs by Kelsh plotter and by plane-table surveys 1951. Aerial photographs taken 1950

Polyconic projection. 1927 North American datum
10,000-foot grid based on Oregon coordinate system, south zone and Idaho coordinate system, west zone

Red tint indicates areas in which only landmark buildings are shown

1000-meter Universal Transverse Mercator grid ticks, zone 11, shown in blue

UTM GRID AND 1951 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

SCALE 1:24 000

CONTOUR INTERVAL 10 FEET
DOTTED LINES REPRESENT HALF-INTERVAL CONTOURS
DATUM IS MEAN SEA LEVEL

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225, OR WASHINGTON, D. C. 20242
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

ROAD CLASSIFICATION

Heavy-duty — 4 LANE | 6 LANE
Medium-duty — 4 LANE | 6 LANE
Light-duty
Unimproved dirt
U. S. Route
State Route

INTERIOR—GEOLOGICAL SURVEY, WASHINGTON, D. C.—1971

WEISER SOUTH, OREG.-IDAHO
N4407.5—W11652.5/7.5

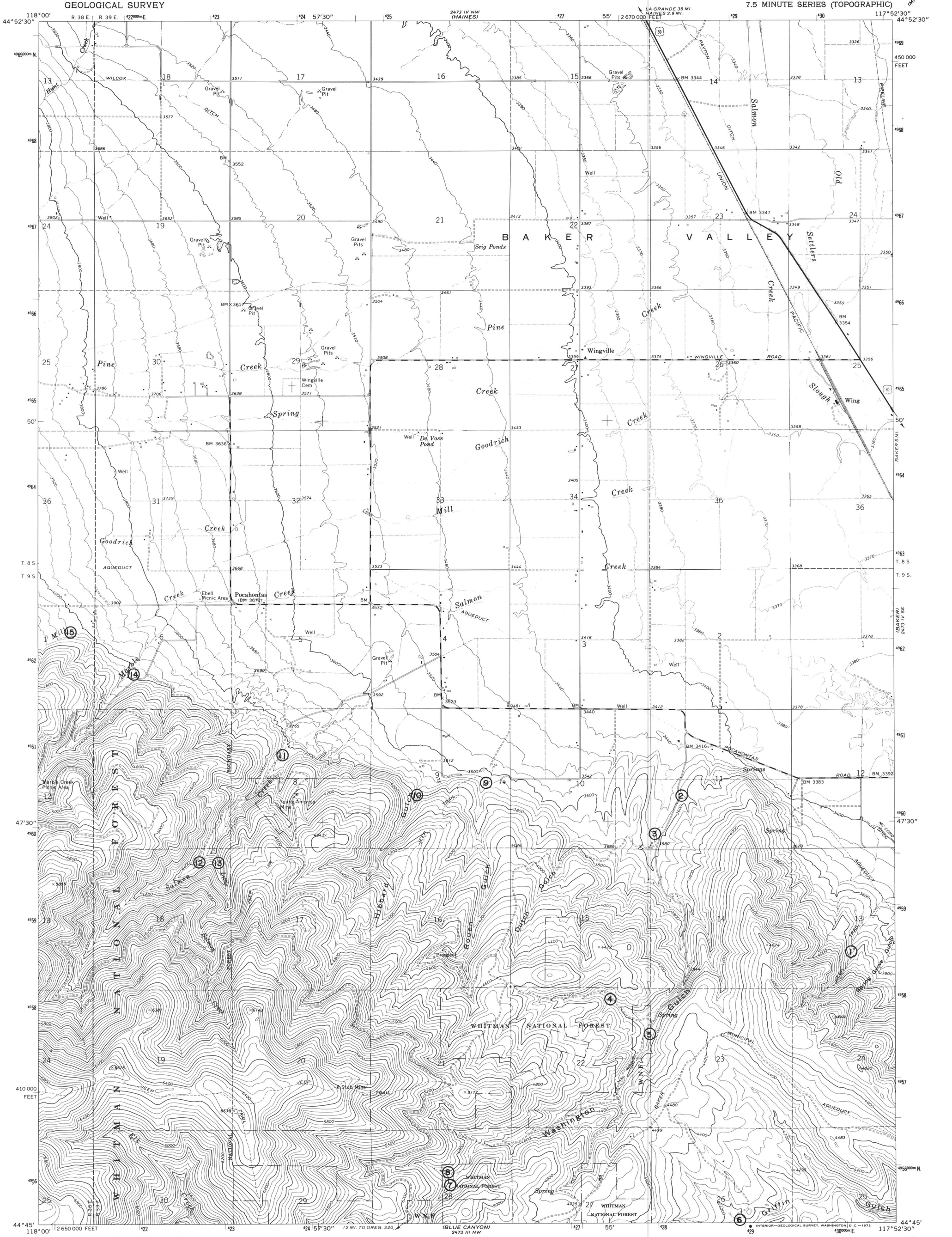
1951

AMS 2672 III NW—SERIES V893

OFR 76-4

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

WINGVILLE QUADRANGLE
OREGON–BAKER CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)



Mapped, edited, and published by the Geological Survey

Control by USGS, USC&GS, and State of Oregon

Topography by photogrammetric methods from aerial photographs taken 1966. Field checked 1967

Polyconic projection. 1927 North American datum
10,000-foot grid based on Oregon coordinate system, north zone
1000-meter Universal Transverse Mercator grid ticks, zone 11, shown in blue

Fine red dashed lines indicate selected fence lines

UTM GRID AND 1967 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

SCALE 1:24 000

CONTOUR INTERVAL 40 FEET
DOTTED LINES REPRESENT 10-FOOT CONTOURS
DATUM IS MEAN SEA LEVEL

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225, OR WASHINGTON, D. C. 20242
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

ROAD CLASSIFICATION

Heavy-duty — Light-duty
Medium-duty — Unimproved dirt
U. S. Route

OREGON
QUADRANGLE LOCATION

WINGVILLE, OREG.
N4445—W11752.5/7.5

1967

AMS 2473 IV SW—SERIES V892