

DEPARTMENT OF THE INTERIOR
UNITED STATES GEOLOGICAL SURVEY

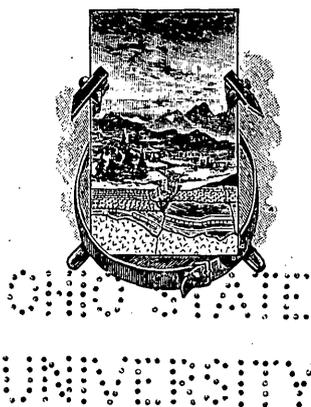
GEORGE OTIS SMITH, DIRECTOR

BULLETIN 472

RESULTS OF SPIRIT LEVELING
IN SOUTH DAKOTA

1896 TO 1910, INCLUSIVE

R. B. MARSHALL, CHIEF GEOGRAPHER



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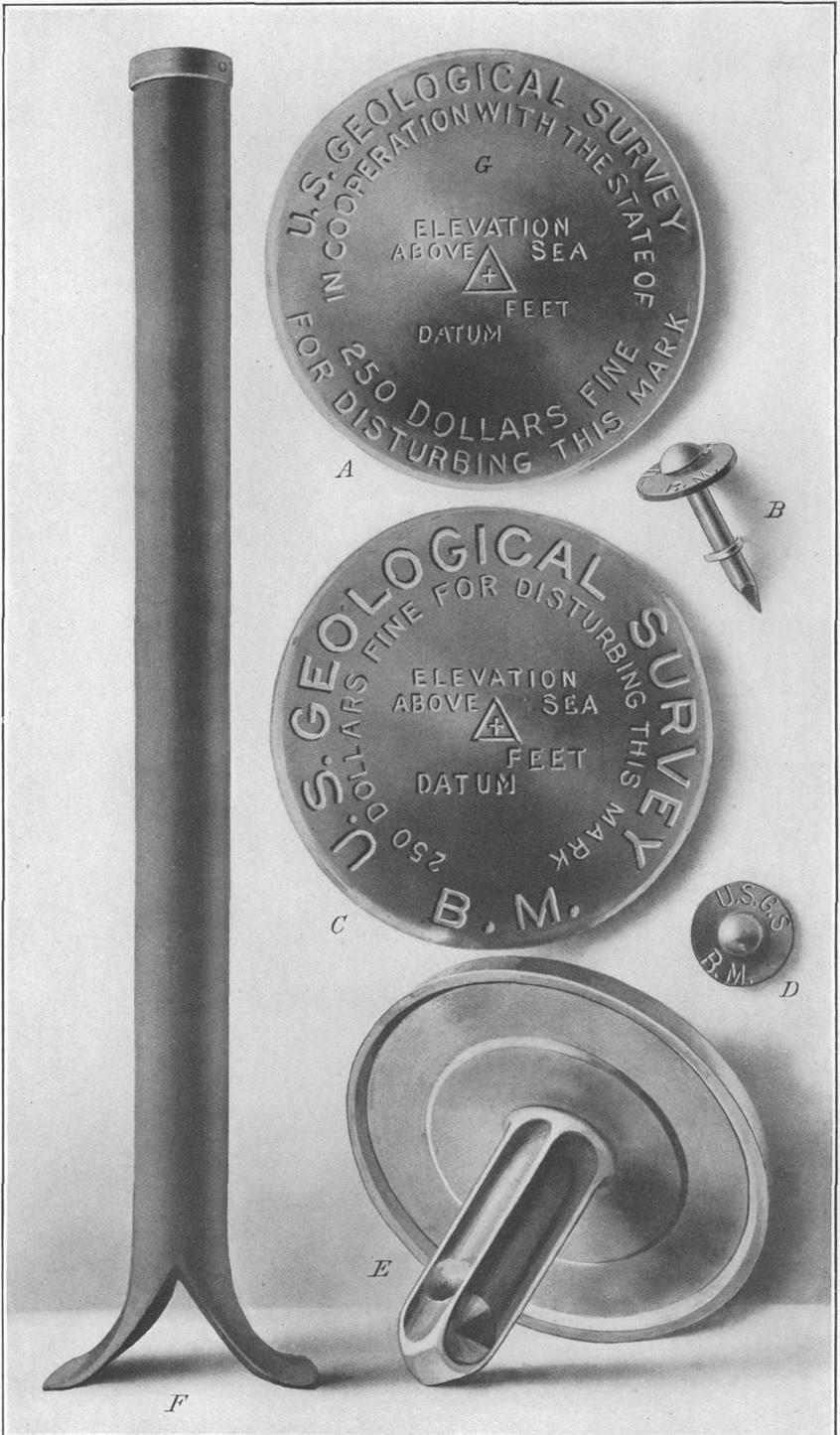
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GEOLOGICAL SURVEY BENCH MARKS.

A, Tablet used in cooperating States. The State name is inserted at *G*.
B and *D*, Copper temporary bench mark, consisting of a nail and copper washer.
A, *C*, and *E*, Tablets for stone or concrete structures.
F, Iron post used where there is no rock.

RESULTS OF SPIRIT LEVELING IN SOUTH DAKOTA, 1896 TO 1910, INCLUSIVE.

R. B. MARSHALL, Chief Geographer.

INTRODUCTION.

Scope of the work.—All results of spirit leveling in South Dakota previously published by the United States Geological Survey and all the results of later work are included in this report, rearranged by quadrangles. Elevations are based on heights of bench marks along precise level lines of the Coast and Geodetic Survey as adjusted in 1907, and on checked primary leveling of the Missouri River Commission.

Personnel.—The field work in the western part of the State from 1896 to 1906, inclusive, was done under the general direction of E. M. Douglas, geographer. That for the remainder of the State, previous to 1903, was under the general direction of J. H. Renshawe, geographer, and from 1903 to 1906, inclusive, under H. M. Wilson, geographer. Since 1907 the work has been under E. C. Barnard and Sledge Tatum, geographers, under the general direction of R. B. Marshall, chief geographer. The names of the various levelmen are given in the introduction to each list. The office work of computation, adjustment, and preparation of lists was done mainly by S. S. Gannett, geographer, and D. H. Baldwin, topographer, and since 1907 under the general direction of E. M. Douglas, geographer.

Classification.—No precise leveling has been done by the United States Geological Survey in this State.

For primary lines standard Y levels are used; lines are run in circuits or are closed on precise lines, with an allowable closing error in feet represented by $0.05\sqrt{D}$, in which D is the length of the circuit in miles, sufficient care being given to the work to maintain this standard. For circuit closures careful office adjustments are made, the small outstanding errors being distributed over the lines.

Bench marks.—The standard bench marks are of two forms. The first form is a circular bronze or aluminum tablet (C and E, Pl. I), $3\frac{1}{2}$ inches in diameter and one-quarter inch thick, having a 3-inch stem, which is cemented in a drill hole in solid rock in the wall of some public building, a bridge abutment, or other substantial masonry

structure. The second form (*F*, Pl. I), used where masonry or rock is not available, consists of a hollow wrought-iron post $3\frac{1}{2}$ inches in outer diameter and 4 feet in length. The bottom is spread out to a width of 10 inches in order to give a firm bearing on the earth. A bronze or aluminum-bronze cap is riveted over the top of the post which is set about 3 feet in the ground. A third style of bench mark with abbreviated lettering (*B* and *D*, Pl. I) is used for unimportant points. This consists of a special copper nail $1\frac{1}{2}$ inches in length driven through a copper washer seven-eighths inch in diameter. The tablets as well as the caps on the iron posts are appropriately lettered, and cooperation by States is indicated by the addition of the State name (*G*, Pl. I).

The numbers stamped on the bench marks described in the following pages represent the elevations to the nearest foot as determined by the levelman. These numbers are stamped with three-sixteenths-inch steel dies on the tablets or post caps, to the left of the word "feet." The office adjustment of the notes and the reduction to mean sea level datum may so change some of the figures that the original markings are 1 or 2 feet in error. It is assumed that engineers and others who have occasion to use the bench-mark elevations will apply to the Director of the United States Geological Survey at Washington, D. C., for the adjusted values, and will use the markings as identification numbers only.

Datum.—All United States Geological Survey elevations are referred to mean sea level, which is the level that the sea would assume if the influence of winds and tides was eliminated. This level is not the elevation determined from the mean of the highest and the lowest tides, nor is it the half sum of the mean of all the high tides and the mean of all the low tides, which is called the half-tide level. *Mean sea level is the average height of the water, all stages of the tide being considered.* It is determined from observations made by means of tidal gages placed at stations where local conditions, such as long, narrow bays, rivers, and like features, will not affect the height of the water. To obtain even approximately correct results these observations must extend over at least one lunar month, and if accuracy is desired they must extend over several years. At ocean stations the half-tide level and the mean sea level usually differ but little. It is assumed that there is no difference between the mean sea level as determined from observations in the Atlantic Ocean, the Gulf of Mexico, or the Pacific Ocean.

The connection with tidal stations for bench marks in certain areas that lie at some distance from the sea coast is still uncertain, and this fact is indicated by the addition of a letter or word to the right of the word "DATUM" on tablets or posts. For such areas corrections for published results will be made from time to time as the

precise-level lines of the United States Geological Survey or other Government organizations are extended.

Topographic maps.—Topographic maps of the following quadrangles wholly or partly in South Dakota have been published by the United States Geological Survey up to May 1, 1911. They may be obtained for 5 cents each or \$3 a hundred, on application to the Director of the Survey at Washington, D. C.

Aberdeen. ¹	Harney Peak.
Aladdin (Wyoming-South Dakota-Montana).	Hecla (South Dakota-North Dakota). ³
Alexandria.	Hermosa.
Belle Fourche. ²	Huron.
Byron.	Mitchell.
Canton (South Dakota-Iowa).	Newcastle (Wyoming-South Dakota).
Columbia 30' (South Dakota-North Dakota). ³	Northville.
Columbia 15'. ³	Oelrichs (South Dakota-Nebraska).
Conde. ¹	Olivet.
Deadwood. ⁴	Parker.
De Smet.	Rapid.
Edgemont (South Dakota-Nebraska).	Redfield.
Elk Point (South Dakota-Nebraska-Iowa).	Redwater. ²
Ellendale 30' (South Dakota-North Dakota). ⁵	St. Onge. ²
Ellendale 15' (North Dakota-South Dakota). ⁵	Savo (South Dakota-North Dakota). ³
	Spearfish. ⁴
	Sturgis. ⁴
	Sundance (Wyoming-South Dakota).
	Vale.

PRIMARY LEVELING.

Canton, Elk Point, Olivet, and Parker Quadrangles.

BONHOMME, CLAY, HUTCHINSON, LINCOLN, TURNER, UNION, AND YANKTON COUNTIES.

The elevations in the following list were determined by primary leveling extended from bench marks of the Missouri River Commission and the Coast and Geodetic Survey, and accord with the 1907 adjustment. A correction of +0.755 foot has been applied to the values published in part 3 of the Report of the Chief of Engineers United States Army, for 1894, at and west of Elk Point, a junction point with a precise level line of the Coast and Geodetic Survey, crossing the Elk Point and Canton quadrangles along the Chicago, Milwaukee & St. Paul Railway.

¹ Conde sheet, on scale of 1:62,500, has been reduced and forms part of Aberdeen sheet, on a scale of 1:125,000.

² Redwater and St. Onge sheets, on scale of 1:62,500, have been reduced and form parts of Belle Fourche sheet, on scale of 1:125,000.

³ Columbia 15' Hecla, and Savo sheets, on scale of 1:62,500, have been reduced and form parts of Columbia 30' sheet on scale of 1:125,000.

⁴ Spearfish and Sturgis sheets, on scale of 1:62,500, have been reduced and form parts of Deadwood sheet, on scale of 1:125,000.

⁵ Ellendale 15' sheet, on scale of 1:62,500, has been reduced and forms part of Ellendale 30' sheet, on scale of 1:125,000.

The leveling was done in the Canton, Olivet, and Parker quadrangles by Alfred Tyler in 1896, and in the Elk Point quadrangle by D. C. Wray in 1898.

The Iowa elevations in the Canton and Elk Point quadrangles and the Nebraska elevation in the Elk Point quadrangle are given in the spirit leveling bulletins for those States.

CANTON QUADRANGLE.

Centerville east along Chicago & Northwestern Ry. to line between R. 52 W. and R. 51 W., thence south to line between Tps. 95 and 96 N., east to line of Rs. 48 and 49 W., north to line of Tps. 96 and 97 W., west to line of Rs. 51 and 52 W., and southwest to Centerville.

T. 95 N., R. 51 W., northwest corner of sec. 6; iron post stamped	Feet.
"YNKTN 1254"-----	1, 254. 341
T. 95 N., R. 50 W., northwest corner of sec. 6; iron post stamped	
"YNKTN 1422"-----	1, 422. 576
T. 95 N., R. 49 W., northwest corner of sec. 6; iron post stamped	
"YNKTN 1390"-----	1, 391. 018
T. 95 N., R. 48 W., northwest corner of sec. 6; iron post stamped	
"YNKTN 1438"-----	1, 438. 373
T. 96 N., R. 48 W., northwest corner of sec. 6; iron post stamped	
"YNKTN 1485"-----	1, 486. 110
T. 96 N., R. 49 W., northwest corner of sec. 6; iron post stamped	
"YNKTN 1538"-----	1, 538. 474
T. 96 N., R. 50 W., northwest corner of sec. 6; iron post stamped	
"YNKTN 1372"-----	1, 372. 981
T. 96 N., R. 51 W., northwest corner of sec. 6; iron post stamped	
"YNKTN 1217"-----	1, 217. 483

Sec. 18, T. 97 N., R. 52 W., northeast to Davis, thence east to line of Rs. 48 and 49, thence northwest to sec. 3, T. 98 N., R. 49 W.

T. 97 N., R. 51 W., northwest corner of sec. 6; iron post stamped	
"YNKTN 1273"-----	1, 273. 726
T. 97 N., R. 50 W., northwest corner of sec. 6; iron post stamped	
"YNKTN 1299"-----	1, 300. 050
T. 97 N., R. 49 W., northwest corner of sec. 6; iron post stamped	
"YNKTN 1337"-----	1, 337. 759
T. 97 N., R. 48 W., northwest corner of sec. 6; iron post stamped	
"YNKTN 1274"-----	1, 274. 951

Parker southeast along Chicago, Milwaukee & St. Paul Ry. and highway to corner of Tps. 98 and 99 N., Rs. 51 and 52 W., thence east along township line to line of Rs. 48 and 49 W., thence northwest to sec. 7, T. 100 N., R. 49 W., thence west and south to sec. 15, T. 100 N., R. 53 W. (portion of line).

T. 98 N., R. 51 W., northwest corner of sec. 6; iron post stamped	
"YNKTN 1335"-----	1, 335. 722
T. 98 N., R. 50 W., northwest corner of sec. 6; iron post stamped	
"YNKTN 1349"-----	1, 349. 833
T. 98 N., R. 49 W., northwest corner of sec. 6; iron post stamped.	
"YNKTN 1372"-----	1, 372. 722
T. 98 N., R. 48 W., northwest corner of sec. 6; iron post stamped	
"YNKTN 1329"-----	1, 330. 511

T. 100 N., R. 49 W., northwest corner of sec. 7; iron post stamped	Feet.
“ YNKTN 1484 ”-----	1, 484. 804
T. 100 N., R. 50 W., northwest corner of sec. 7; iron post stamped	
“ YNKTN 1504 ”-----	1, 505. 750
T. 100 N., R. 51 W., northwest corner of sec. 7; iron post stamped	
“ YNKTN 1534 ”-----	1, 535. 090

Sec. 30, T. 99 N., R. 51 W., north along range line to line between Tps. 99 and 100 N., thence east to line of Rs. 49 and 50 W., thence southeast to sec. 34, T. 99 N., R. 49 W.

T. 99 N., R. 51 W., northwest corner of sec. 6; iron post stamped	
“ YNKTN 1448 ”-----	1, 448. 967
T. 99 N., R. 50 W., northwest corner of sec. 6; iron post stamped	
“ YNKTN 1461 ”-----	1, 462. 306
T. 99 N., R. 49 W., northwest corner of sec. 6; iron post stamped	
“ YNKTN 1419 ”-----	1, 420. 049

PARKER QUADRANGLE.

Yankton northeast along Chicago & Northwestern Ry. to Centerville, thence northwest to Parker.

Wakonda, in front of town hall, sec. 33, T. 95 N., R. 53 W.; iron post stamped “ YNKTN 1390 ”-----	1, 391. 191
Hurley, in center of park, sec. 27, T. 98 N., R. 53 W.; iron post stamped “ YNKTN 1293 ”-----	1, 293. 841
T. 98 N., R. 53 W., northeast corner of sec. 4; iron post stamped “ YNKTN 1300 ”-----	1, 300. 719
Parker, in foundation of courthouse, sec. 17, T. 99 N., R. 53 W., bronze tablet stamped “ 1371 YNKTN ”-----	1, 373. 361

Hurley south and west to sec. 15, T. 97 N., R. 54 W., thence east and south to T. 95 N., R. 53 W.

T. 97 N., R. 53 W., northeast corner of sec. 20; iron post stamped “ YNKTN 1281 ”-----	1, 282. 116
T. 97 N., R. 54 W., northeast corner of sec. 21; iron post stamped “ YNKTN 1360 ”-----	1, 361. 247
T. 96 N., R. 54 W., northeast corner of sec. 1; iron post stamped “ YNKTN 1382 ”-----	1, 383. 940
Irene, near township corners, sec. 1, T. 95 N., R. 54 W.; iron post stamped “ YNKTN 1371 ”-----	1, 372. 596
T. 95 N., R. 53 W., northeast corner of sec. 4; iron post stamped “ YNKTN 1323 ”-----	1, 324. 282

Parker along Chicago, Milwaukee & St. Paul Ry. northwest to Marion, thence southwest to T. 98 N., R. 57 W.

Freeman, southeast corner of Windmill Square, sec. 35, T. 99 N., R. 56 W.; iron post stamped “ YNKTN 1514 ”-----	1, 515. 203
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Parker northeast to sec. 15, T. 100 N., R. 53 W., thence north and west to sec. 10, T. 100 N., R. 54 W., thence south to sec. 15, T. 97 N., R. 54 W.

T. 100 N., R. 53 W., northeast corner of sec. 21; iron post stamped “ YNKTN 1402 ”-----	1, 403. 865
T. 100 N., R. 54 W., northeast corner of sec. 12; iron post stamped “ YNKTN 1358 ”-----	1, 360. 098

T. 99 N., R. 54 W., northeast corner of sec. 21; iron post stamped	Feet.
" YNKTN 1454 "-----	1,455.998
T. 98 N., R. 54 W., northeast corner of sec. 4; iron post stamped	
" YNKTN 1412 "-----	1,414.121
T. 98 N., R. 54 W., northeast corner of sec. 21; iron post stamped	
" YNKTN 1346 "-----	1,347.966
T. 97 N., R. 54 W., northeast corner of sec. 4; iron post stamped	
" YNKTN 1302 "-----	1,303.384

Marion west and north to sec. 12, T. 100 N., R. 55 W., thence northwest to sec. 9, thence south to sec. 15, T. 97 N., R. 55 W., thence east to sec. 15, T. 97 N., R. 54 W.

T. 99 N., R. 55 W., northeast corner of sec. 4; iron post stamped	
" YNKTN 1444 "-----	1,445.838
T. 100 N., R. 55 W., northeast corner of sec. 9; iron post stamped	
" YNKTN 1397 "-----	1,398.725
T. 99 N., R. 55 W., northeast corner of sec. 21; iron post stamped	
" YNKTN 1474 "-----	1,475.082
T. 98 N., R. 55 W., northeast corner of sec. 4; iron post stamped	
" YNKTN 1525 "-----	1,526.320
T. 98 N., R. 55 W., northeast corner of sec. 21; iron post stamped	
" YNKTN 1434 "-----	1,435.248
T. 97 N., R. 55 W., northeast corner of sec. 4; iron post stamped	
" YNKTN 1615 "-----	1,616.119
T. 97 N., R. 55 W., northeast corner of sec. 21; iron post stamped	
" YNKTN 1683 "-----	1,684.282

Sec. 15, T. 97 N., R. 55 W., south to sec. 30, T. 94 N., R. 54 W.

T. 96 N., R. 56 W., northeast corner of sec. 1; iron post stamped	
" YNKTN 1456 "-----	1,457.204
T. 95 N., R. 55 W., northwest corner of sec. 6; iron post stamped	
" YNKTN 1311 "-----	1,312.042
T. 95 N., R. 55 W., northeast corner of sec. 1; iron post stamped	
" YNKTN 1481 "-----	1,482.330

Sec. 13, T. 98 N., R. 57 W., east 3 miles, thence north and west to sec. 12, T. 100 N., R. 57 W.

T. 98 N., R. 56 W., northeast corner of sec. 21; iron post stamped	
" YNKTN 1599 "-----	1,600.826
T. 99 N., R. 56 W., northeast corner of sec. 4; iron post stamped	
" YNKTN 1445 "-----	1,446.897

OLIVET QUADRANGLE.

Yankton along Chicago, Milwaukee & St. Paul Ry. northwest to Scotland, thence northeast to sec. 24, T. 98 N., R. 57 W.

Menno, crossroads, near mill; iron post stamped " YNKTN 1327 "-----	1,328.414
T. 98 N., R. 57 W., northeast corner of sec. 24; iron post stamped	
" YNKTN 1403 "-----	1,404.659

Sec. 9, T. 97 N., R. 57 W., south 5 miles, thence east to corner of Tps. 96 and 97 N., Rs. 55 and 56 W.

T. 96 N., R. 57 W., northeast corner of sec. 4; iron post stamped	
" YNKTN 1290 "-----	1,291.764

T. 96 N., R. 57 W., northeast corner of sec. 1; iron post stamped Feet.
 "YNKTN 1307" ----- 1,308.675

Sec. 36, T. 95 N., R. 57 W., north to sec. 1, thence west along township line
 to line between Rs. 60 and 61 W., thence north 8 miles, thence east along
 township line, and southeast to Scotland.

T. 95 N., R. 57 W., northeast corner of sec. 1; iron post stamped
 "YNKTN 1442" ----- 1,443.301
 T. 95 N., R. 58 W., northeast corner of sec. 1; iron post stamped
 "YNKTN 1338" ----- 1,339.182
 T. 95 N., R. 59 W., northeast corner of sec. 1; iron post stamped
 "YNKTN 1399" ----- 1,399.780
 T. 95 N., R. 60 W., northeast corner of sec. 1; iron post stamped
 "YNKTN 1526" ----- 1,527.195
 T. 95 N., R. 61 W., northeast corner of sec. 1; iron post stamped
 "YNKTN 1596" ----- 1,597.060
 T. 96 N., R. 61 W., northeast corner of sec. 1; iron post stamped
 "YNKTN 1584" ----- 1,585.152
 T. 96 N., R. 60 W., northeast corner of sec. 1; iron post stamped
 "YNKTN 1446" ----- 1,446.876
 T. 96 N., R. 59 W., northeast corner of sec. 1; iron post stamped
 "YNKTN 1355" ----- 1,356.441

Sec. 24, T. 97 N., R. 58 W., northwest to sec. 1, thence west to sec. 6, thence
 south to corner of Tps. 96 and 97 N., Rs. 58 and 59 W.

Olivet, southwest corner of foundation of courthouse; bronze tablet
 stamped "YNKTN 1221" ----- 1,222.004

Corner of Tps. 96 and 97 N., Rs. 58 and 59 W., north along range line to Tps.
 98 and 99 N., thence west along township line to Rs. 59 and 60 W., thence
 north to line of secs. 1-12, T. 100, R. 60 W., thence west 6 miles, thence
 south to corner of Tps. 97 and 98 N., Rs. 60 and 61 W., thence east to corner
 of Tps. 97 and 98 N., Rs. 58 and 59 W.

T. 97 N., R. 59 W., northeast corner of sec. 1; iron post stamped
 "YNKTN 1281" ----- 1,281.956
 T. 98 N., R. 59 W., northeast corner of sec. 1; iron post stamped
 "YNKTN 1312" ----- 1,313.548
 T. 98 N., R. 60 W., northeast corner of sec. 1; iron post stamped
 "YNKTN 1351" ----- 1,352.174
 T. 99 N., R. 60 W., northeast corner of sec. 1; iron post stamped
 "YNKTN 1316" ----- 1,317.359
 T. 100 N., R. 60 W., northeast corner of sec. 12; iron post stamped
 "YNKTN 1301" ----- 1,301.825
 T. 100 N., R. 61 W., northeast corner of sec. 12; iron post stamped
 "YNKTN 1371" ----- 1,372.434
 T. 99 N., R. 61 W., northeast corner of sec. 1; iron post stamped
 "YNKTN 1393" ----- 1,394.011
 T. 98 N., R. 61 W., northeast corner of sec. 1; iron post stamped
 "YNKTN 1433" ----- 1,434.488
 T. 97 N., R. 61 W., northeast corner of sec. 1; iron post stamped
 "YNKTN 1528" ----- 1,529.414
 T. 97 N., R. 60 W., northeast corner of sec. 1; iron post stamped
 "YNKTN 1396" ----- 1,396.645

Sec. 9, T. 97 N., R. 57 W., north to sec. 21, T. 99 N., R. 57 W., thence west, north, and west to sec. 3, T. 99 N., R. 59 W.

T. 98 N., R. 57 W., northeast corner of sec. 21; iron post stamped	Feet.
" YNKTN 1351 "-----	1, 352. 250
T. 98 N., R. 57 W., northeast corner of sec. 4; iron post stamped	
" YNKTN 1355 "-----	1, 356. 542
T. 99 N., R. 57 W., northeast corner of sec. 21; iron post stamped	
" YNKTN 1366 "-----	1, 367. 586
T. 99 N., R. 58 W., northeast corner of sec. 24; iron post stamped	
" YNKTN 1328 "-----	1, 328. 732
T. 99 N., R. 58 W., northeast corner of sec. 4; iron post stamped	
" YNKTN 1330 "-----	1, 331. 427
Milltown, at east end of James River Bridge; iron post stamped	
" YNKTN 1200 "-----	1, 200. 821

Line of secs. 1 and 12, T. 100 N., R. 57 W., west to line between secs. 1 and 12, R. 59 W., thence south to Tps. 99 and 10 N.

T. 100 N., R. 57 W., northeast corner of sec. 12; iron post stamped	
" YNKTN 1410 "-----	1, 411. 696
T. 100 N., R. 58 W., northeast corner of sec 12; iron post stamped	
" YNKTN 1349 "-----	1, 350. 350
T. 100 N., R. 59 W., northeast corner of sec. 12; iron post stamped	
" YNKTN 1315 "-----	1, 316. 432

ELK POINT QUADRANGLE.

Elk Point north to sec. 6, T. 94 N., R. 49 W., thence east to line between Rs. 48-49, thence south to line between Tps. 93 and 94, thence east to Chatsworth.

T. 91 N., R. 49 W., northwest corner of sec. 6; iron post stamped	
" YNKTN 1121 "-----	1, 122. 176
T. 92 N., R. 49 W., northwest corner of sec. 6; iron post stamped	
" YNKTN 1293 "-----	1, 293. 943
T. 93 N., R. 49 W., northwest corner of sec 6; iron post stamped	
" YNKTN 1347 "-----	1, 347. 978
T. 94 N., R. 49 W., northwest corner of sec. 6; iron post stamped	
" YNKTN 1383 "-----	1, 383. 261
T. 94 N., R. 48 W., near northwest corner of sec. 6; iron post stamped	
" YNKTN 1358 "-----	1, 358. 425
T. 93 N., R. 48 W., near northwest corner of sec. 6; iron post stamped	
" YNKTN 1314 "-----	1, 314. 845

Burbank north to sec. 6, T. 94 N., R. 50 W., thence west to line between Rs. 51 and 52, thence south to Vermillion.

T. 91 N., R. 50 W., northwest corner of sec. 6; iron post stamped	
" YNKTN 1137 "-----	1, 137. 472
T. 92 N., R. 50 W., northwest corner of sec. 6; iron post stamped	
" YNKTN 1235 "-----	1, 236. 018
T. 93 N., R. 50 W., northwest corner of sec. 6; iron post stamped	
" YNKTN 1274 "-----	1, 275. 101
T. 94 N., R. 50 W., northwest corner of sec. 6; iron post stamped	
" YNKTN 1394 "-----	1, 394. 340
T. 94 N., R. 51 W., northwest corner of sec. 6; iron post stamped	
" YNKTN 1228 "-----	1, 228. 694

T. 93 N., R. 51 W., northwest corner of sec. 6; iron post stamped	Feet.
"YNKTN 1147"-----	1, 148. 056
T. 92 N., R. 51 W., northwest corner of sec. 6; iron post stamped	
"YNKTN 1183"-----	1, 183. 635

Elk Point south to sec. 6, T. 90 N., R. 49 W., thence east to line between
Rs. 48 and 49 W., thence south to Jefferson.

T. 90 N., R. 49 W., northwest corner of sec. 6; iron post stamped	
"YNKTN 1128"-----	1, 128. 929
T. 90 N., R. 48 W., northwest corner of sec. 6; iron post stamped	
"YNKTN 1111"-----	1, 111. 685
Jefferson, northwest corner of school yard, at northwest side of walk, in stone set 4 feet underground and covered by a 3-inch pipe marked "U.S.B.M."; copper bolt (Missouri River Commission bench mark 358/3, re-covered by Coast and Geodetic Survey)-----	1, 110. 459

Deadwood, Edgemont, Harney Peak, Hermosa, Oelrichs, Rapid, and Sundance
Quadrangles.

CUSTER, LAWRENCE, MEADE, AND PENNINGTON COUNTIES.

The elevations in the following list were originally based on a bronze tablet marked "4543," set in the city hall at Deadwood, and are stamped with the letters "DW." The elevations have been corrected to agree with the preliminary Coast and Geodetic Survey heights of bench marks near Edgemont.

The leveling was done between 1897 and 1900, by J. C. Barber, C. E. Worthington, and J. T. Stewart, with the exception of the line from Tilford to Deadwood and the leveling in the vicinity of Deadwood, which was done by L. F. Gottschalk.

DEADWOOD QUADRANGLE.

At Deadwood.

	Feet.
Deadwood, city hall, north entrance, in stone lintel on west side of door; bronze tablet stamped "DW 4543"-----	4, 544. 872
Deadwood, city hall, under window, northwest corner of building, 2 feet east of corner stone; top of water table-----	4, 546. 12
Deadwood, Chicago & Northwestern Ry. station; top of rail-----	4, 532. 9
Deadwood, north side of Deadwood Avenue, east side of Deadwood Creek, south face of southeast corner of Smith building, occupied in part by post office; bronze tablet stamped "DW 4535"-----	4, 536. 641
Deadwood, Chicago, Burlington & Quincy R. R. station, in front of ticket office; top of west rail-----	4, 534. 7

Deadwood via Chicago, Burlington & Quincy R. R. to Englewood.

Kirk, in front of Chicago, Burlington & Quincy R. R. station; top of rail-----	4, 990. 7
Kirk, 150 feet west of Chicago, Burlington & Quincy R. R. station, 45 feet southwest of railroad tracks, 15 feet north of wagon road, 30 feet southwest of telegraph pole, in top of north side quartzite rock 3 by 2 feet; copper bolt stamped "DW 4990"-----	4, 991. 284

Kirk, 2.25 miles south of, near stone quarry, east side of railroad tracks, 25 feet south of north end of cut, top of small projection, in niche on face of rock wall, 3 feet above rails; deep rock cut.....	Feet. 5, 324. 92
Englewood, 1.25 miles north of, 60 feet south of wagon road crossing; cross on flat rock.....	5, 423. 11

Englewood to Rochford.

Englewood, 0.5 mile north of, 100 feet south of crossing of two branches of the Chicago, Burlington & Quincy R. R., 30 feet east of Burlington & Missouri River division track, in large rock 15 by 15 by 10 feet; bronze tablet in top of center stamped "DW 5537"....	5, 538. 3'
Englewood, in front of Chicago, Burlington & Quincy R. R. station; top of rail.....	5, 590. 4
Englewood, 0.5 mile south of, 35 feet east of track, 220 feet south of cattle guard, west side of center of ledge of light rock, just south of rock mound; cross on flat stone.....	5, 674. 15
Englewood, 1.5 miles south of, center of rock cut, 20 feet high on east side of track, 350 feet south of whistling post, 2.5 feet above tracks; cross on top of rock.....	5, 840. 83
Dumont, 0.8 mile north of, 60 feet west of wagon road crossing, 10 feet east of wagon-road running north and south; iron post stamped "DW 6178".....	6, 180. 742
Dumont, opposite frog in switch, in front of section house; top of east rail.....	6, 150. 3
Bulldog ranch, 75 feet east of track, 50 feet northwest from wagon road, 15 feet southwest of post in mound of rock marked "U. S. L. M. 73," in top of small flat rock; bronze tablet stamped "DW 5863".....	5, 864. 398
Nahant, 0.5 mile south of, 200 feet west of track, 30 feet southwest of wagon road, in northwest side of rock quarry, 14 feet above wagon road; copper bolt stamped "DW 5604".....	5, 605. 621
Rochford, 1.6 miles northwest of, 2,000 feet north of junction of North and South Rapid creeks, 240 feet north of bridge 92, rock cut on east side of track, 100 feet from south end of cut; cross on rock near ground.....	5, 383. 08
Rochford, 1.2 miles west of, junction of North and South Rapid creeks, 200 feet west of track, 10 feet north of wagon road, 40 feet southeast of stream, on north side of rock 7 by 7 by 6 feet, 2.5 feet above ground; small cross.....	5, 362. 78
Rochford, west end of town, 30 feet north of junction of road along north bank of Rapid Creek with road from Hill City, in rock out-crop on point above 22 feet above track, 2 feet south of rock mound; copper bolt stamped "DW 5299".....	5, 300. 408'
Rochford, 300 feet west of railroad station, 10 feet north of track, .15 feet northeast of northeast corner of planking in road crossing, 1 foot from small mound of rock; projection in face of rock cut 1 foot above ground.....	5, 229. 04

Rochford to Redfern.

Rochford station, 3.5 miles southeast of, 100 feet northeast of bridge 79, 150 feet southeast of fork in wagon road, 25 feet northeast of road, in top of northwest one of two large slate rocks; copper bolt stamped "DW 4970".....	4, 971. 438
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Rochford station, 4.5 miles southeast of, 220 feet southeast of bridge 77, 8 feet southwest of track; projection in wall of rock cut 1.5 feet above tracks -----	Fect. 4, 900. 42
Mystic, 3,500 feet northeast of, 300 feet south of signpost marked "Mystic," 40 feet west of track, 20 feet west of wagon road; wire nail in root of large spruce tree-----	4, 830. 14
Mystic, 1,500 feet west of sawmill near section house, 400 feet northeast of post office, 100 feet northwest of wagon road, 200 feet northwest of tracks, 7 feet above foot of rock outcrop on point, in east corner; copper bolt stamped "DW 4865"-----	4, 866. 725
Mystic, 4.5 miles southwest of, north end of divide between Castle and Slate Creeks, 3,500 feet northwest of bridge 68 over Slate Creek, 350 feet south of garden patch, 15 feet east of wagon road, 30 feet west of track, 50 feet southwest of "P. T." post, 30 feet north of end of waste dump; iron post stamped "DW 5514"-----	5, 515. 464
Redfern, at section house; top of road crossing-----	5, 632. 4

Sturgis to Whitewood.

Sturgis, about 0.5 mile northwest of Chicago & Northwestern Ry. station and 105 feet northeast of the first road crossing; iron post stamped "DW 3484"-----	3, 485. 868
Whitewood, 1 mile southeast of, 50 feet south of Sturgis and Whitewood wagon road, 70 feet southwest of road crossing, 0.25 mile east of northwest corner of sec. 27, T. 6 N., R. 4 E.; iron post stamped "DW 3590"-----	3, 591. 488

Deadwood along public road to Sturgis.

Deadwood, 2.25 miles east of, west of powder house and east of overhanging rock, just north of road crossing; spike in root on northeast side of 20-inch dead pine tree-----	4, 490. 37
Deadwood, 4.25 miles east of, south side of road about 1 mile east of Deadwood fair grounds, and about 75 feet east of wagon bridge over Peedee Creek; iron post on a flat bench stamped "DW 4454"-----	4, 455. 125
Deadwood, 5 miles east of, south side of road, opposite limestone ledge between two projecting ledges, southwest of projecting ledge with large anvil-shaped rock on top; spike on north side of 18-inch pine-----	4, 286. 11
Sturgis, 5.8 miles west of, at point where road makes a sharp turn to the east toward Boulder Park, after leaving the main divide on the north side; spike in root on north side of 15-inch burr oak-----	4, 146. 39
Sturgis, 3.8 miles west of, top of large limestone boulder on south side of road, 460 feet east of the "Barroom" and 50 feet southwest of bridge across Bear Butte Creek; copper bolt stamped "DW 3814"-----	3, 815. 510
Sturgis, 1.25 miles west of, on south side of road and about 400 feet northeast of deserted log cabin on west side of mouth of canyon, at extreme north end of each ledge of Bear Butte Canyon; top of north end of stone-----	3, 577. 34
Sturgis, at first road crossing west of station, northeast of signboard, north of Chicago & Northwestern Ry. track; spike in root on southwest side of scrub oak-----	3, 484. 75

Deadwood via Centennial Park to Whitewood.

Deadwood, 4.5 miles north of, about 63 feet east of southeast corner of a large two-story dwelling known as the "Halfway House," just east of forks of road; iron post stamped "DW 4360"-----	Feet. 4,361.325
Deadwood, 6.5 miles north of, 500 feet southeast of round stone water tank at Centennial Park, southeast of intersection of Deadwood-Spearfish road with old Spearfish-Whitewood road; iron post stamped "DW 4005"-----	4,006.023
Whitewood, 1 mile south of, 16 feet northeast of mile board, 18 feet east of Chicago & Northwestern Ry. track; iron post stamped "DW 3751"-----	3,752.831

Sturgis via Spring Creek public road north about 5 miles.

Sturgis, 5 miles northwest of, 400 feet southwest of large red barn with two ventilators on top, about 2,050 feet north of southwest corner of sec. 17, T. 6 N., R. 5 E., on east side of Spring Creek road; iron post stamped "DW 3308"-----	3,309.441
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Runkel along Chicago, Burlington & Quincy R. R. to Englewood.

Runkel, 450 feet east of station, 15 feet north of track, just southwest of sawmill, on top of 10 by 15 by 8 foot limestone boulder; copper bolt stamped "DW 4498"-----	4,499.713
Mowatts siding, 75 feet east of east switch, north of old log cabin, in limestone boulder 10 feet north of track; copper bolt stamped "DW 4720"-----	4,721.840
Elk Creek station, in front of; top of rail-----	4,842.0
Elk Creek station, 0.5 mile west of, 30 feet south of railroad, 60 feet south of point where Galena and Greenwood road crosses track; iron post stamped "DW 4882"-----	4,883.374
Anthony station, at west end of; top of frog-----	4,979.0
Perry, 1.5 miles east of, 30 feet northeast of switch, at junction of Este branch Chicago, Burlington & Quincy R. R., on top of point of ledge; copper bolt stamped "DW 5269"-----	5,270.703
Portuguese siding, at signpost; top of rail-----	5,342.65
Perry, southeast corner of platform, at road crossing; top of rail----	5,401.6
Brownsville, 650 feet southeast of station, 20 feet west of track, 60 feet northwest of road crossing, 80 feet southwest of second switch block from station; iron post stamped "DW 5496"-----	5,497.343
Brownsville, in front of station; top of rail-----	5,503.6
Woodville, 1.5 miles east of, 3.5 miles northwest of Brownsville, 20 feet east of Elk Creek-Kirk wagon road, 25 feet north of railroad; iron post stamped "DW 5743"-----	5,744.304
Woodville, switch block in front of station; top of rail-----	5,935.1
Woodville, 80 feet southeast of switch at station, 35 feet south of main track, in top of a large quartzite boulder; copper bolt stamped "DW 5938"-----	5,939.633
Englewood, 0.5 mile north of, opposite Burlington & Missouri River R. R. transfer station; top of rail-----	5,547.5

Englewood via Spearfish branch of Chicago, Burlington & Quincy R. R. to Spearfish.

Englewood, 2 miles northwest of, 40 feet north of track and 40 feet west of Dumont-Lead City wagon road, about 75 feet northwest of bridge over railroad; iron post stamped "DW 5862"-----	5,863.285
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	Feet.
Terry, in front of station; top of north rail of main line-----	6, 165. 3
Terry, 225 feet north of station, 30 feet east of north end of a short switch, on ledge about 2 feet above the surface of ground; bronze tablet stamped "DW 6165"-----	6, 166. 486
Portland, in front of station; top of rail-----	6, 431. 0
Portland, 600 feet northwest of station, at forks of wagon road 60 feet northeast of railroad (the only crossing between North and South Portland); iron post stamped "DW 6426"-----	6, 427. 297
Crownhill, in front of station; top of rail-----	6, 154. 8
Crownhill, 60 feet south of station, 40 feet west of track; iron post stamped "DW 6153"-----	6, 154. 274
Elmore, in front of water tank; top of rail-----	5, 217. 5
Elmore, 120 feet west of water tank, 80 feet south of section house, 40 feet south of track; iron post stamped "DW 5218"-----	5, 219. 816
Spearfish, 14 miles south of, 500 feet northwest of switch block at Savoy, in center of top of 12 by 12 by 20 foot limestone boulder, between Spearfish River and railroad, 40 feet northeast of rail- road; bronze tablet "DW 4954"-----	4, 955. 378
Maurice, opposite section house; top of rail-----	4, 465. 1
Spearfish, 8.8 miles south of, 40 feet west of railroad, 240 feet north- east of section house, 330 feet southwest of water tank, in top of limestone boulder between section house and water tank; copper bolt stamped "DW 4470"-----	4, 471. 144
Spearfish, 3.5 miles south of, 460 feet south of Spearfish electric-light plant and 50 feet east of track, between track and Spearfish River; iron post stamped "DW 3892"-----	3, 893. 364
Spearfish, in front of station; top of rail-----	3, 638. 1
Spearfish, southwest corner of Star & Bullock stone building on cor- ner of Sixth and I Streets, in water table; bronze tablet stamped "DW 3647"-----	3, 648. 655

Spearfish along public roads to Centennial Park.

Spearfish, 4.5 miles southeast of, 50 feet south of crossroads and 260 southwest of water tank, about 50 feet southeast of southeast corner of sec. 18, T. 6 N., R. 3 E.; iron post stamped "DW 3942"__	3, 943. 396
Spearfish, 6 miles southeast of, 40 feet southeast of southeast corner stone of sec. 16, T. 6 N., R 3 E., 20 feet south of wagon road; iron post stamped "DW 3815"-----	3, 816. 388

Woodward ranch via Cold Springs to Bulldog ranch.

Woodward ranch, 1.25 miles south of, 1,000 feet southeast of Scott's unfinished cabin, 6 inches below top of limestone outcrop, 200 feet southwest of spring; witness tree 15 feet southeast, 10-inch pine; witness tree 125 feet west, 10-inch pine; copper bolt stamped "DW 6681"-----	6, 682. 638
Castle Creek, head of, in west side and 2 feet below top of limestone outcrop 10 by 10 feet, 150 feet northeast of intersection of Castle Creek, Cold Springs, and Newcastle roads; witness tree 150 feet north, 18-inch pine tree; witness tree 200 feet east, 18-inch pine tree; copper bolt stamped "DW 6536"-----	6, 537. 445

Cold Springs, 300 feet north of, in limestone ledge 15 feet higher than creek bed, 150 feet north of point where Cheyenne-Deadwood road crosses creek, 100 feet west of road, 200 feet west of road running south to head of Castle Creek; ledge shows out of ground 10 feet in length and 2 feet high; copper bolt stamped "DW 6417"-----	Feet. 6, 418. 399
McQuaig road and Cheyenne-Deadwood road, 1 mile north of intersection of, east of road; nail in root of pine tree-----	6, 567. 1
McQuaig road and Cheyenne-Deadwood road, intersection of, 2 miles west of Colton ranch, in shelf of limestone cliff, 10 feet high and 15 feet long, on south bank dry creek channel, 100 feet south of the road intersection, 3 feet below top of cliff on the part farthest south and west; copper bolt stamped "DW 6464"-----	6, 465. 913
Colton ranch, 800 feet west of, 20 feet north of road; nail in side of big pine tree-----	6, 300. 05
Besant, 2 miles west of, on north edge of highway; nail in root of pine tree-----	6, 591. 36
Bulldog ranch, 2.25 miles west of, 300 feet south of dwelling at abandoned sawmill, 20 feet east of wire fence at road intersection; nail in root of spruce tree-----	6, 064. 09
Bulldog ranch, 0.7 mile west of; nail in root of balsam tree at edge of timber-----	5, 964. 92

Bulldog ranch, on Chicago, Burlington & Quincy R. R., east to Nasby.

Bulldog ranch, 1 mile east of, in middle of road; nail in root of large pine tree-----	6, 008. 02
Bulldog ranch, 3 miles east of, south edge of highway 150 feet east of log house; nail in root of large pine tree-----	5, 817. 58
Dayton ranch, 0.4 mile east of, ridge south side of highway, 50 feet north of fence; nail in root of large pine tree-----	5, 730. 01
Rassumussen ranch, 0.25 mile east of, 20 feet from gate; nail in root pine tree-----	5, 493. 35
Nasby, 200 feet north of dwelling, 50 feet northwest of road intersection; iron post stamped "DW 5456"-----	5, 457. 518

Nasby southeast to Merritt.

Peterson ranch, 150 feet east of dwelling, on west side of road; iron post stamped "DW 5322"-----	5, 323. 502
Peterson ranch, 1 mile southeast of, 20 feet west of road, 800 feet south of top of ridge; nail in root of 15-inch pine-----	5, 394. 66
Merritt, 0.8 mile west of, stone at fence corner northwest of intersection of Silver City and Merritt roads; point 1 inch west of piece of white quartz in northwest end of stone-----	5, 135. 34
Merritt, at post office, 60 feet northeast of ranch on north side of road; iron post stamped "DW 5059"-----	5, 060. 540

Chicago, Burlington & Quincy R. R. bridge 74, about 1.5 miles northeast of Mystic, to Silver City and Pactola.

Castle Creek, 150 feet west of junction with Rapid Creek, 35 feet north of small highway bridge over Rapid Creek, 40 feet east of cabin; wire nail in southeast side of 18-inch pine stump-----	4, 771. 92
Castle Creek, 4,500 feet southeast of mouth, 40 feet south of small highway bridge over Rapid Creek, 12 feet west of south end of high trestle bearing flume, 10 feet southeast of wagon road; point on west face of columnar rock 18 inches above ground-----	4, 726. 26

Silver City, 2.8 miles west of, 5 feet north of road up Rapid Creek, 30 feet west of junction with Merritt Road; southeast corner of high point of rock, on small shelf 2.5 feet above road; location marked by spruce 1 foot in diameter west 145 feet and three pine trees marked "U.S.G.S. B.M. W.T.," one 2.5 feet in diameter east 120 feet, one 15 inches in diameter northeast 100 feet, and one 1 foot in diameter north 65 feet; bronze tablet stamped "DW 4698"	Feet. 4, 699. 428
Silver City, 1.6 miles west of, 40 feet southwest of highway bridge over Rapid Creek, at mouth of deep gulch coming in from the southwest; spike in root west side of 18-inch spruce tree.....	4, 660. 38
Silver City, 1,200 feet east of post office, 110 feet southwest of highway bridge over Rapid Creek, 15 feet southwest of junction of road down Nugget Gulch with road down Rapid Creek; iron post stamped "DW 4592".....	4, 593. 433
Silver City, 1.9 miles east of, at mouth of Jenny Gulch, 220 feet east of highway bridge over Rapid Creek, 40 feet northeast of highway bridge over ditch, 200 feet east of head gates; spike in north side of 15-inch pine tree.....	4, 547. 48
Pactola, 1.8 miles west of, 15 feet southwest of road to Silver City, 350 feet northwest of junction with road running up Bear Gulch, 220 feet north of house, near two pine trees marked "U.S.G.S. B.M. W.T.," one 20 inches in diameter southeast 35 feet, one 2.5 feet in diameter west 25 feet; iron post stamped "DW 4518".....	4, 519. 371

Pactola northwest to Merritt.

Pactola, 1.2 miles northwest of, 50 feet southwest of road to Merritt, 80 feet east of plank fence, at top of steep hill; spike in west root of 15-inch pine tree.....	4, 742. 58
Traft ranch, 900 feet southeast of, 150 feet from top of divide between Rapid and Deer creeks, 20 feet southwest of road from Pactola to Merritt; spike in root on north side of 15-inch pine tree..	4, 886. 48
Pactola, 3 miles northwest of, 0.25 mile northwest of Hughes ranch, 35 feet southwest of road from Pactola to Merritt, 190 feet northwest of fork in road; two witness trees marked "U.S.G.S. B.M. W.T.," 6 inches diameter northwest 200 feet; iron post stamped "DW 4934".....	4, 935. 545
Ireland ranch, 500 feet northwest of, 25 feet southwest of road from Pactola to Merritt; spike in root northwest side of 2.5 foot pine tree.....	5, 054. 17
Merritt post office (Jones ranch), 3,000 feet southeast of, in fork of road from Pactola to Merritt, 8 feet below and 140 feet northwest of top of divide between Jim and Deer creeks; large wire spike in root southeast side of 13-inch pine tree.....	5, 197. 18

Merritt east down Jim Creek.

Merritt, 0.8 mile northeast of, 4 feet south of road down Jim Creek, 350 feet east of fence; wire nail in west side of 20-inch pine tree..	4, 997. 45
Merritt, 2.5 miles northeast of, 25 feet south of wagon road down Jim Creek, 65 feet south of old cabin 330 feet east of fence; wire nail in root north side of 2.5-foot pine tree.....	4, 823. 05
Merritt, 3.25 miles east of, 500 feet south of old sawmill, 30 feet north of road down Jim Creek, tree used as southwest gatepost in wire fence; spike in root south side.....	4, 745. 65

Riley ranch (on Bogus Jim Creek), 0.25 mile northwest of, 8 feet southwest of timber road, in saddle on top of divide between Jim Creek and Bogus Jim Creek; spike in south side of 12-inch pine tree----- Feet.
4, 776. 02

Nemo via Greenwood to Nasby.

Nemo, 0.8 mile southeast of, 35 feet northeast of road down Boxelder Creek, 900 feet northeast of bridge over Boxelder Creek; spike in west root of 18-inch pine tree on rocky point----- 4, 653. 57

Nemo, 500 feet northwest of, 10 feet southwest of road to Greenwood on top of slight ridge; spike in root northwest side of 24-inch pine tree----- 4, 706. 12

Nemo, 3,500 feet northwest of, junction of road from Greenwood with road from Elk Creek; spike in root of 15-inch pine----- 4, 740. 17

Greenwood, 2 miles southeast of, 10 feet northeast of road to Nemo, at junction of county road from Elk Creek to Nemo; near three pine trees marked "U.S.G.S. B.M. W.T.," one 20 inches in diameter southeast 105 feet, one 20 inches in diameter northwest 35 feet, one 18 inches in diameter southwest 70 feet; iron post stamped "DW 4786"----- 4, 787. 188

Greenwood, 1 mile southeast of, top of divide between Greenwood and Nemo, 8 feet north of county road; spike in east root of 18-inch pine----- 4, 997. 11

Greenwood, 100 feet southeast of large dwelling, at northwest corner of highway bridge over Boxelder Creek; spike in root on north side of 18-inch pine tree----- 4, 924. 50

Greenwood, 1.1 miles northwest of, 30 feet west of road to Deadwood at point where timber road turns toward Nasby, across road from group of old log cabins, 250 feet northwest of highway bridge over Boxelder Creek, near two pine trees, one marked "U.S.G.S. B.M. W.T.," 15 inches in diameter southeast 18 feet, one 30 inches in diameter northeast 40 feet; iron post stamped "DW 5020"----- 5, 021. 213

Johnson ranch, 1.8 miles northeast of, 6 feet northwest of county road, 150 feet northeast of road crossing over Boxelder Creek; spike in root southwest side of 15-inch pine tree----- 5, 101. 17

Anderson ranch, 1,000 feet southeast of, 10 feet southwest of road; iron post stamped "DW 5204"----- 5, 205. 158

Nelson ranch, 2,000 feet southwest of, 60 feet southeast of road, 180 feet southwest of forks in road running south across Boxelder Creek; spike in north root of 24-inch pine----- 5, 300. 13

Slate Creek schoolhouse via Castle Creek and Cold Springs to Bulldog ranch.

Slate Creek schoolhouse, 1.5 miles northwest of, 25 feet northeast of intersection of Hill City and Lookout roads, center of east side and 1 foot below top of highest slate outcrop; copper bolt stamped "DW 6146"----- 6, 147. 358

Kinney ranch, 500 feet east of, 125 feet south of bridge over Castle Creek, on Hill City road, west side of road east of Castle Creek; iron post stamped "DW 5737"----- 5, 738. 497

Reynolds ranch, 1 mile south of, intersection of Rochford, Hill City, and Castle Creek roads; iron post stamped "DW 6029"----- 6, 030. 542

Shick ranch, 0.5 mile east of, 275 feet west of intersection of Rochford and Castle Creek roads, 50 feet north of road, 6 feet from highest point of outcrop, in slate ledge 12 feet higher than road; copper bolt stamped "DW 6007"----- 6, 008. 481

Johnson ranch, 700 feet northwest of, 2.5 feet north of section corner on township line, 250 feet north of Castle Creek road, 60 feet west of road to Smith ranch; iron post stamped "DW 6363"-----	Feet. 6,364.598
Castle Creek, head of, in west side and 2 feet below top of limestone outcrop, 10 by 10 feet, 150 feet northeast of intersection of Castle Creek, Cold Springs, and Newcastle roads; copper bolt, stamped "DW 6536"-----	6,537.445
Thowell ranch, 0.5 mile west of, 25 feet southwest of fork of road to ranch; iron post stamped "DW 6769"-----	6,770.366
Cold Springs, 300 feet north of, 150 feet north of point where Cheyenne-Deadwood road crosses creek, 100 feet west of road, in limestone ledge, 15 feet higher than creek bed, which shows out of ground 10 feet in length and 2 feet high; copper bolt stamped "DW 6417"-----	6,418.399
Besant, 2.3 miles west of, north side of road near edge of small park; iron post stamped "DW 6547"-----	6,548.551
Besant, 0.2 mile southeast of, south side of road; iron post stamped "DW 6433"-----	6,434.586
Fish timber camp, 100 feet south of, 50 feet west of stable, south edge of road; iron post stamped "DW 6284"-----	6,285.521
Bulldog ranch, 75 feet east of track, 50 feet northwest from wagon road, 15 feet southwest of post, in mound of rock, marked "U. S. L. M. 73," in top of small flat rock; bronze tablet stamped "DW 5363"-----	5,864.398

Spearfish via Spearfish and Bear Gulch road to Powers sawmill site.

Spearfish, water table of Star & Bullock Building; bronze tablet stamped "DW 3647"-----	3,648.655
Brown ranch, 200 feet southwest of, south side of road; iron post stamped "DW 4224"-----	4,225.358
Brown ranch, 4.1 miles southwest of, 2.3 feet north of corner common to secs. 1, 6, 31, and 36, Tps. 5 and 6 N., Rs. 1 and 2 E.; iron post stamped "DW 5131"-----	5,132.324
Powers sawmill site, 400 feet north of, north side of road; iron post stamped "DW 5437"-----	5,438.252

Elmore via Cheyenne Crossing to Block ranch and return.

Elmore, west of section house; iron post stamped "DW 5218"-----	5,219.816
Cheyenne crossing, 20 feet northwest of, intersection of road to Elmore with old Deadwood-Cheyenne stage road; iron post stamped "DW 5308"-----	5,309.330
Block ranch, 75 feet northeast of, mouth of Deadhorse Canyon, west side of road; iron post stamped "DW 5610"-----	5,611.349
Block ranch, 1.8 miles northwest of, west side of town line, 1,000 feet south of corner common to secs. 24 and 25, R. 1 E., and secs. 19 and 30, R. 2 E.; iron post stamped "DW 6140"-----	6,141.356

EDGEMONT QUADRANGLE.

Ivanhoe via Minnekahta to Hot Springs.

Ivanhoe, 2,000 feet northeast of, 60 feet southeast of crossing of Pringle-Minnekahta road, 10 feet northeast of corner fence post; iron post stamped "DW 4443"-----	4,444.594
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	Feet.
Minnekahta, in front of station; top of rail-----	4, 162. 8
Minnekahta, 800 feet northeast of station, 100 feet northeast of switch stand at east end of Y, 50 feet north of track, 5 feet southeast of corner fence post; iron post stamped "DW 4159"-----	4, 160. 563
Minnekahta, 3.5 miles east of, 850 feet east of road crossing, 40 feet north of track, 16 feet east of north-south wire fence; iron post stamped "DW 4061"-----	4, 062. 507
Erskine, road crossing at platform; top of rail-----	3, 816. 6
Erskine, 2,500 feet northeast of, 150 feet northwest of Minnekahta-Hot Springs road crossing, near bridge 5, 30 feet north of wagon road at nearest point, 2 feet south of rock mound, top of south corner of limestone ledge; copper bolt stamped "DW 3794"-----	3, 795. 585
Minnekahta along Chicago, Burlington & Quincy R. R. via Edgemont to S. & G. ranch.	
Minnekahta, 800 feet northeast of station, 100 feet northeast of switch stand at east end of Y, 50 feet north of track, 5 feet southeast of fence corner post; iron post, stamped "4159 DW"-----	4, 160. 563
Arnold ranch, 300 feet northwest of, 50 feet west of railroad, east side of wagon road; iron post stamped "4058 DW"-----	4, 059. 334
Arnold ranch, 3 miles south of, 350 feet north and 300 feet east of railroad trestle 6, east bank of creek, 300 feet east of railroad; iron post stamped "3891 DW"-----	3, 892. 414
Chilson, 0.4 mile west of section house, 75 feet south of wagon-road crossing; iron post stamped "3795 DW"-----	3, 796. 516
Edgemont, 2.9 miles northeast of; 150 feet south of Red Canyon, 75 feet east of wagon road, 50 feet west of railroad; iron post stamped "3460 DW"-----	3, 461. 451
Edgemont, north end of Chicago, Burlington & Quincy R. R. Hotel park, 50 feet west of main track; iron post stamped "3449 DW"-----	3, 450. 584
Edgemont, 4 miles northwest of, 450 feet southeast of railway pile bridge 206, 100 feet southwest of railway track, northeast side of wagon road; iron post stamped "3463 DW"-----	3, 464. 527
Marietta, 80 feet southwest of, near track at section house, 25 feet northeast of wagon road; iron post stamped "3486 DW"-----	3, 487. 506
Marietta, 2.7 miles northwest of, 300 feet southeast of trestle 213, 100 feet southwest of railroad track, 200 feet north of wagon road; iron post stamped "3544 DW"-----	3, 545. 652
Argentine, 175 feet south of water tank, 100 feet southwest of main track, 40 feet northeast of wagon road; iron post stamped "3632 DW"-----	3, 633. 596
Moss Agate Creek, west bank, 1.8 miles southwest of junction with Cheyenne River, 100 feet west of steep bank, 70 feet above creek, and quarter of a mile west of it; iron post stamped "3612 DW"-----	3, 613. 554
Edgemont via Maitland post office and Cascade Springs to Hot Springs.	
Edgemont, 2.1 miles southeast of, at top of bluff, 25 feet south of road; iron post stamped "3671 DW"-----	3, 672. 481
Edgemont, 5.8 miles southeast of, 75 feet southeast of intersection of Edgemont, Ardmore, and Maitland post-office roads; iron post stamped "3578 DW"-----	3, 579. 512
Edgemont, 8.6 miles southeast of, 25 feet north of road, top of ridge; iron post stamped "3575 DW"-----	3, 576. 382

Edgemont, 10.6 miles southeast of, 0.2 mile east of Plum Creek, 0.3 mile south of Cheyenne River, top of small ridge 25 feet south of road; iron post stamped "3350 DW"-----	Feet. 3, 351. 475
Maitland post office (Bradý ranch), 200 feet southwest of, quarter corner on south side of sec. 24, T. 9 S., R. 4 E.; iron post stamped "3327 DW"-----	3, 328. 069
Maitland post office, 2 miles northeast of, top of highest ridge on Maitland and Cascade wagon road, 25 feet north of road; iron post stamped "3521 DW"-----	3, 522. 481
T. 85, R. 4 E., southeast corner of, quarter of a mile northwest of Coffey Flat schoolhouse; iron post stamped "3261 DW"-----	3, 262. 415
Cascade Springs, 300 feet west of sanitarium, in sandstone rock 3 feet higher than creek, between wagon road and creek; bronze tablet stamped "3406 DW"-----	3, 407. 413
Cascade Springs, 3.4 miles northeast of, west side of canyon, 200 feet east of deserted house, 25 feet north of road; iron post stamped "3835 DW"-----	3, 836. 364
Cascade Springs, 5.9 miles northeast of, 3.6 miles southwest of Hot Springs, 25 feet west of road on ridge; iron post stamped "3826 DW"-----	3, 827. 323

Edgemont up Cottonwood Creek 6 miles, thence southeast to Provo, thence along Chicago, Burlington & Quincy R. R. to Ardmore.

Edgemont, 3 miles southwest of, 75 feet northwest of Cottonwood Creek, east side of railroad track; iron post stamped "3528 DW"-----	3, 529. 477
Edgemont, 6 miles southwest of, 800 feet southeast of Cottonwood Creek, about 800 feet north of draw running northwest and emptying into it, and about 900 feet north of two high buttes; iron post stamped "3634 DW"-----	3, 635. 318
Edgemont, 9.2 miles southwest of, junction of roads running south and southwest, at top of divide; iron post stamped "3839 DW"-----	3, 840. 390
Edgemont, 12 miles southwest of, 2.5 miles west of Provo, 10 feet north of abandoned wagon road to Provo, 1 mile south of sheep corral; iron post stamped "3710 DW"-----	3, 711. 422
Provo, 500 feet southeast of, 35 feet northeast of wagon road crossing; iron post stamped "3708 DW"-----	3, 709. 498
Provo, 3 miles east of, 50 feet north of Chicago, Burlington & Quincy R. R. track; iron post stamped "3632 DW"-----	3, 633. 359
Provo, 6 miles east of, 2 miles northwest of Rumford, 60 feet southwest of railway track; iron post stamped "3532 DW"-----	3, 533. 412
Rumford, 0.5 mile southeast of, 75 feet south of southeast end of siding, 65 feet southwest of main track, 300 feet east of wagon road; iron post stamped "3500 DW"-----	3, 501. 271
Rumford, 3 miles southeast of, 60 feet east of wagon road, 600 feet south of bridge over wagon road, 650 feet west of track; iron post stamped "3487 DW"-----	3, 488. 251
Rumford, 5.9 miles southeast of, 2 miles north of Ardmore, 25 feet east of wagon road, 500 feet west of railway track; iron post stamped "3527 DW"-----	3, 528. 177
Ardmore, 525 feet northwest of station, 80 feet north of road, 125 feet northwest of schoolhouse; iron post stamped "3553 DW"-----	3, 554. 213

Ardmore up Indian Creek to Cole ranch, thence north and east to Rumford.

Ardmore, 3.2 miles southwest of, 75 feet northwest of crossroads, 0.5 mile north of State line between South Dakota and Nebraska; iron post stamped "3666 DW"-----	Feet. 3, 667. 239
T. 12 S., R. 3 E., quarter corner on west side of sec. 16, 2,100 feet north of State line; iron post stamped "3672 DW"-----	3, 673. 372
T. 12 S., R. 2 E., quarter corner on west side of sec. 13, 1,000 feet southwest of Simler's ranch; iron post stamped "3679 DW"-----	3, 680. 075
T. 12 S., R. 2 E., southeast corner of sec. 8, about 0.7 mile west of Cole ranch, northeast of bank of Alkali Creek; iron post stamped "3756 DW"-----	3, 757. 510
Cole ranch, about 4 miles northwest of, 200 feet east of east prong of Alkali Creek, at west end of low ridge; iron post stamped "3899 DW"-----	3, 900. 257
T. 11 S., R. 1 E., southwest corner of sec. 18, at top of divide between north and south forks of Camp Creek; iron post stamped "4138 DW"-----	4, 139. 361
T. 11 S., R. 2 E., near southwest corner of sec. 14, 10 feet north of road; iron post stamped "3909 DW"-----	3, 910. 203
T. 11 S., R. 3 E., southwest corner of sec. 16, top of low ridge; iron post stamped "3720 DW"-----	3, 720. 991
T. 11 S., R. 3 E., 1,000 feet north and 300 feet east of quarter corner on south side of sec. 14, top of low ridge; iron post stamped "3673 DW"-----	3, 674. 608

Rumford via Hat Creek to Maitland post office.

T. 10 S., R. 4 E., southwest corner of sec. 26, 1 mile southwest of Bar T ranch, 100 feet southeast of schoolhouse, 125 feet north of Hat Creek, in rock 8 by 12 inches and 6 inches above ground; aluminum tablet stamped "3443 DW"-----	3, 444. 041
T. 10 S., R. 4 E., near middle of sec. 10, 200 feet south of Pine Creek, 400 feet west of Hat Creek, 100 feet south of schoolhouse, 20 feet west of wagon road, in sandstone 15 by 10 inches, 7 inches above ground; aluminum tablet stamped "3383 DW"-----	3, 384. 433

HARNEY PEAK QUADRANGLE.

Redfern to Hill City.

Redfern, 2.6 miles southeast of, 75 feet east of crossing of Rochford and Hill City wagon road, 1,000 feet north of dwelling between bridges 61 and 62; spike in northeast side of pine tree-----	5, 436. 72
Hill City, 4.3 miles northwest of, 900 feet north of bridge 60, 3,000 feet east of county road crossing; 300 feet north of spring meadow, 400 feet west of house, 30 feet north of wagon road from Redfern to Hill City, in east side of rock outcrop, 10 feet above road, 3 feet north of small rock mound; copper bolt stamped "DW 5349"-----	5, 350. 506
Hill City, 120 feet south of station, in center of south end of lawn, 2 feet north of fence; iron post stamped "DW 4976"-----	4, 977. 714
Hill City, south end of town, 3,600 feet south of station, 75 feet east of track, 500 feet north of switch on branch line to Coats and Cowboy, 75 feet south of abandoned sawmill, in top of white quartz rock, 2 by 2 feet at surface; bronze tablet stamped "DW 5026"---	5, 027. 604

Hill City to Custer.

Hill City, 4 miles south of, 1 mile southwest of switch at lumber spur, 470 feet northeast of crossing of Hill City-Custer wagon road, 235 feet southwest of southwest end of bridge 42, 100 feet north of limit post between railroad sections 10 and 9, about center of rock cut, 10 feet west of and 6 inches above track; top of rock projection from main wall of cut; copper bolt stamped "DW 5240"-----	Feet. 5, 241. 537
Oreville, 25 feet northwest of track, 25 feet west of mail-bag catcher stand, 60 feet north of switch stand at north end of siding, on top of flat boulder east of small rock mound; chisel mark-----	5, 338. 31
Oreville, 2,500 feet south of sawmill, 200 feet southeast of junction of Spring and Tenderfoot creeks, 250 feet south of crossing of Hill City-Custer wagon road, 100 feet west of bridge 37; copper nail in north side of pine tree, near ground-----	5, 366. 30
Custer, 6 miles northwest of, 1,000 feet north of tin mine, 500 feet northeast of Tenderfoot Springs, long rock cut in curve on east side of track, in white quartz rock, 2 by 2 foot face, on top of south end of cut; copper bolt stamped "DW 5696"-----	5, 697. 253
Custer, 3.5 miles northwest of, 250 feet north of crossing of Hill City-Custer wagon road, 50 feet east of road, in center of quartz outcrop, 1 foot south of loose rock mound, in top of 2 by 2 foot rock; bronze tablet stamped "DW 5749"-----	5, 750. 720
Custer, in front of ticket office, top of rail, main track-----	5, 304. 4
Custer, 950 feet southwest of station, 440 feet south of track, 500 feet east of axle grease factory, north side of group of rocks, 5 feet east of large blazed pine tree, 1 foot north of rock mound, in top of rock, 5 by 5 foot surface, 5 feet high on lower side; bronze tablet stamped "DW 5322"-----	5, 323. 665

Custer to Pringle.

Custer, 1.2 miles south of, 100 feet east of track on inside of curve, on opposite side of track from large jagged rock, at west end of rock ledge; copper nail in root on west side of pine tree-----	5, 374. 83
Custer, 1.8 miles south of, 900 feet south of log house, north of yellowish-brown house, 20 feet west of white reference post marked "P. S. 10°," north end of large rock in cut on west side of track; chisel mark-----	5, 426. 59
Custer, 2.7 miles south of, 0.5 mile south of top of divide, 85 feet northeast of Custer-Pringle road crossing over railroad, 300 feet north of log house, 25 feet east of wagon road, 2 feet southwest of rock mound, in rock 4 by 10 by 2 feet high; copper bolt stamped "DW 5469"-----	5, 470. 652
Mayo, 175 feet north of railroad section house, 75 feet northeast of road crossing, in rock 100 by 30 feet, 25 feet high, near southwest corner, 6 feet above ground; copper bolt stamped "DW 5190"-----	5, 191. 482
Pringle, 3,000 feet northeast of station, 300 feet south of Custer-Hot Springs road crossing over railroad, 250 feet north of whistling post marked "Pringle," 30 feet west of track, in south side of rock 100 by 30 feet, 20 feet high, 4 feet above ground; copper bolt stamped "DW 4879"-----	4, 880. 355
Pringle, in front of ticket office; top of rail, main track-----	4, 880. 4

Pringle to Ivanhoe.

	Feet.
Pringle, 1 mile southwest of, 40 feet south of road crossing near top of divide, 3 feet northeast of telegraph pole, point on southwest corner of limestone rock-----	4, 951. 89
Loring siding, 6,000 feet north of north switch stand, 180 feet west of crossing of Pringle-Minnekahta road, 280 feet northwest of bridge 11, in limestone rock 20 by 15 feet, 5 feet high, 15 feet northwest of pine tree, in top 3 feet from northwest corner; copper bolt stamped "DW 4697"-----	4, 698. 525
Argyle, in front of section house; top of rail-----	4, 795. 2
Argyle, 1,550 feet southwest of section house, 30 feet east of track, near north end of small cut, 2 inches above ground, in southeast end of sandstone rock 8 by 3 feet; copper bolt stamped "DW 4798"-----	4, 799. 660
Berne siding, 3.5 miles northwest of Custer, along public road to Bear Springs public road.	
Pleasant View ranch, 0.5 mile southeast of, 0.5 mile northeast of Wright ranch, 800 feet south of small bridge on Custer-Deadwood road, 30 feet southeast of road from Wright ranch to Custer, 50 feet west of large pine tree blazed on west side, in large rock at north end of ledge 50 feet long, near center of top rock, about 15 feet above road; chisel mark-----	5, 702. 88
Wright ranch, 0.8 mile west of, 100 feet southeast of junction of two roads, 200 feet east of timber; spike in top of root on east side of detached 2-foot pine tree-----	5, 767. 37
Wright ranch, 1.5 miles west of, 1,300 feet east of small butte covered with white quartz rock, 3,000 feet east of fork in road, rocky ridge running across road northwest and southeast 30 feet south of county road, in large outcrop 30 by 30 feet 6 feet high, 7 feet west of northeast corner and 4 feet above ground, near three pine trees marked { U.S.G.S. } { B.M., W.T. }, one southeast 18 feet, one northeast 35 feet, and one northwest 35 feet; bronze tablet stamped "DW 5871"-----	5, 872. 599
Wright ranch, 2 miles west of, 45 feet west of fork in road, 1,700 feet west of small quartz-covered butte on north side of road; spike in root on north side of 2-foot pine tree-----	5, 999. 7
Wright ranch, 3 miles west of, 3,000 feet west of placer mine, 400 feet northwest of fork in road, 150 feet north of road to placer mine, 40 feet northeast of Custer-Bear Springs road; spike in root on north side of pine tree 18 inches in diameter-----	6, 009. 68
Henderson ranch, 2,000 feet east of, 75 feet northwest of fork in county roads, 30 feet north of Custer-Bear Springs road, near three pine trees marked "U.S.G.S. B.M. W.T.," one 15 inches in diameter southeast 133 feet, one 30 inches in diameter north 23 feet, one 24 inches in diameter northwest 49 feet; iron post stamped "DW 6060"-----	6, 061. 550
Peterson ranch, 1,400 feet northwest of, 50 feet west of right-angle bend in Custer-Bear Springs road; spike in root on northeast side of 2-foot pine tree-----	6, 183. 09
Peterson ranch, 1 mile west of, at foot of steep hill, 8 feet south of county road; spike in root on north side of 1-foot pine tree-----	6, 282. 80

Peterson ranch, 1.25 miles west of, in gap on top of divide between heads of French Creek and Hell Canyon, 10 feet north of Custer-Bear Springs wagon road, 5.25 feet northwest of southeast corner of sec. 33, T. 2 S., R. 3 E.; near two pine trees marked "U.S.G.S. B.M. W.T.," one 1 foot in diameter, west 11 feet; one 15 inches in diameter, east 30 feet; iron post stamped "DW 6443"-----	Feet. 6, 444. 540
Bear Springs, 1.8 miles southeast of, 300 feet east of top of divide between Bear Springs and Bull Spring gulches, 5 feet north of Custer-Bear Springs road; spike in root on southeast side of 1-foot pine tree-----	6, 629. 95
Bear Springs, 1.25 miles southeast of, 30 feet northeast of Custer-Bear Springs road, 0.5 mile northwest of crossing over top of divide between Bear Springs and Bull Spring gulches, on east side of small park; copper nail in root on west side of 15-inch pine tree--	6, 515. 44
Bear Springs to Buck Spring public road.	
Alkali Spring, 1 mile northwest of, 520 feet northwest of fork of roads to Buck Spring and down west side of Hell Canyon, 65 feet northeast of Buck Spring road, near top of limestone rock 24 by 4 feet and 2½ feet high; location marked by two pine trees marked "U.S.G.S. B.M. W.T.," one 10 inches in diameter north 150 feet, one 18 inches in diameter southeast 180 feet; bronze tablet stamped "DW 6224"-----	6, 225. 638
Alkali Spring, 3.25 miles northwest of, 0.8 mile northwest of top of divide near southeast corner of park, 30 feet north of Custer-Buck Spring road; spike in root on northwest side of 30-inch pine tree-----	6, 231. 59
Alkali Spring, 2.5 miles northwest of, 4,000 feet east of road crossing over west fork of Hell Canyon, 25 feet south of Custer-Buck Spring road, in scattered timber on top of ridge, near three pine trees marked "U.S.G.S. B.M. W.T.," one 10 inches in diameter southeast 30 feet, one 10 inches in diameter west 65 feet, one 10 inches in diameter north 45 feet; iron post stamped "DW 6325"--	6, 326. 910
West fork of Hell Canyon, 2,000 feet west of, 20 feet southwest of Custer-Buck Spring road; wire nail in root on north side of 15-inch tall dead pine tree-----	6, 252. 75
Buck Spring, 5.25 miles northeast of, 2.3 miles northeast of point where Custer-Buck Spring road descends into bottom of Gillette Canyon, 25 feet west of road, near two pine trees marked "U.S.G.S. B.M. W.T.," one northwest 40 feet, one southeast 75 feet; iron post stamped "DW 6193"-----	6, 194. 651
Buck Spring, 4.2 miles northeast of, 1.6 miles northeast of point where Custer-Buck Spring road enters Gillette Canyon, 8 feet southeast of road; spike in root on west side of 15-inch pine tree--	6, 085. 92
Buck Spring, 4 miles northeast of, 30 feet north of Custer-Buck Spring road, on north side of clump of large trees 1.1 miles northeast of point where road enters bottom of Gillette Canyon; spike in root on south side of 18-inch pine tree-----	5, 982. 92
Gillette Canyon, top of slope, east side, 20 feet northwest of Custer-Buck Spring road at top of steep descent into bottom of canyon; spike in root in southeast side of 18-inch pine tree-----	5, 828. 94

Buck Spring, 3 miles east of, 30 feet southwest of and about 10 feet above Custer-Buck Spring road, 250 feet east of point where road crosses dry stream bed in Gillette Canyon after descending steep hill, in top of limestone outcrop 2 by 2 by 2 feet high; location mark by three pine trees marked "U.S.G.S. B.M. W.T.," one 15 inches in diameter east 250 feet, one 10 inches in diameter northwest 12 feet, one 12 inches in diameter south 45 feet; bronze tablet stamped "DW 5627"-----	Feet. 5, 628. 738
Buck Spring, 2 miles east of, 30 feet north of Custer-Buck Spring road, 400 feet northwest of mouth of deep narrow gulch up which road runs, on bank 25 feet above road; spike in root on north side of 15-inch pine tree-----	5, 699. 13
Buck Spring, 1.8 miles east of, 6 feet northwest of Custer-Buck Spring road, 200 feet east of top of divide between Gillette and Buck Spring canyons; spike in root on southwest side of 18-inch pine tree-----	5, 800. 03
Buck Spring, 100 feet southeast of, 330 feet southwest of Kemp dwelling house, 45 feet west of road down Buck Spring Canyon, in top of north end of limestone rock, 4 by 6 feet, 18 inches above ground; location marked by two pine trees marked "U.S.G.S. B.M. W.T.," one 14 inches in diameter northwest 200 feet, one 15 inches in diameter southeast 20 feet; bronze tablet stamped "DW 5432"-----	5, 433. 697
Buck Spring to Hell Canyon and Pass Creek public road.	
Buck Spring 0.7 mile south of, 45 feet northwest of road down canyon; spike in root on east side of 3-foot pine tree-----	5, 340. 66
Buck Spring, about 2 miles south of, 8 feet northwest of road down canyon, 6 feet southeast of dry rocky stream bed; spike in southeast side of 20-inch pine tree 6 inches above ground-----	5, 175. 06
Buck Spring, 3.2 miles south of, 150 feet east of dry stream bed in Buck Spring Canyon, 60 feet southeast of and about 10 feet above wagon road, near foot of a point topped with high vertical rock, where road again enters canyon after crossing ridge to northeast, in top of gray sandstone outcrop 3 feet wide and 2.5 feet high; location marked by three pine trees marked "U. S. G. S. B. M. W. T.," one 20 inches in diameter southeast 6 feet, one 5 inches in diameter southwest 50 feet, one 12 inches in diameter north 27 feet; bronze tablet stamped "DW 5050"-----	5, 051. 670
Buck Spring, 4.5 miles south of, 100 feet southeast of dry stream bed of Buck Spring Canyon, 500 feet south of old stone chimney near water hole 50 feet southeast of and 20 feet above road; spike in west side of 22-inch pine tree-----	4, 897. 04
3-C-S, or Campbell ranch, 700 feet southwest of, 80 feet east of fork in roads, 1,000 feet east of junction of Gillette and Buck Spring Canyons, on top of small rocky point; iron post stamped "DW 4727"-----	4, 728. 767
Babcock ranch, 0.8 mile northwest of, 1.2 miles southeast of Coe ranch, 30 feet south of Custer-Newcastle road, 200 feet east of junction of road from Babcock ranch, 400 feet east of timbered ravine down which Custer-Newcastle road runs; iron post stamped "DW 4950"-----	4, 951. 636
Barthold ranch, 0.25 mile east of, 500 feet northeast of Coon Creek, 60 feet north of intersection of two wagon roads; iron post stamped "DW 4670"-----	4, 671. 741

	Feet.
Drew ranch, 2,200 feet northwest of, 15 feet southwest of road from Barthold ranch, 35 feet southeast of northwest corner of sec. 2, T. 5 S., R. 1 E., on southeast bank of gulch; iron post stamped "DW 4373"-----	4, 374. 721
Drew ranch, 1.8 miles south of, 30 feet west of road to S & G. ranch, 800 feet southwest of two buttes capped with limestone boulders, about 1 mile northeast of point where road crosses stream in Tepee Canyon, top of long hill; iron post stamped "DW 4422"-----	4, 423. 676
Drew ranch, 2.8 miles south of, 75 feet east of road to S. & G. ranch, 180 feet northwest of stream in Tepee Canyon, 300 feet northeast of remains of old log cabin, small outcrop of sandstone rock, 20 feet above bed of stream, on top of rock 1 by 1 foot in center of outcrop, 2 feet southeast of mound; chisel mark-----	4, 201. 77
Hell Canyon and Pass Creek, 3.2 miles north of junction of, 15 feet west of road from Drew ranch to S. & G. ranch, 1,100 feet south of junction with road down west side of Tepee Canyon, on top of ridge covered with scattered quartzite boulders, 6 feet east of boulder 12 by 8 by 5 feet, in top of rock 4 by 2 by 1 foot; bronze tablet stamped "DW 4294"-----	4, 295. 486
Hell Canyon and Pass Creek, 1,200 feet west of junction, 75 feet southwest of junction of road down Pass Creek with road from Drew ranch to S. & G. ranch, 24 feet southeast of road, 90 feet south of south bank of creek bed; iron post stamped "DW 3846"-----	3, 847. 834
Sullivan ranch, 1 mile east of, on south bank of Pass Creek, 250 feet east of mouth of small running stream, 40 feet southeast of road; spike in root on north side of 15-inch cottonwood tree-----	3, 899. 80
Sullivan ranch, 2.6 miles east of, 240 feet south of stream bed in Pass Creek Valley, 45 feet south of county road crossing over stream bed. 800 feet west of point where road runs up out of valley onto a flat prairie, on small point of land 10 feet above road; iron post stamped "DW 3988"-----	3, 989. 722
Sullivan ranch, 5.8 miles east of, 3,800 feet northeast of southwest corner of sec. 35, T. 5 S., R. 2 E., 25 feet north of county road from S. & G. ranch to Custer, 65 feet west of junction with dim road from northwest, about halfway up a long hill; iron post stamped "DW 4253"-----	4, 254. 797

Pass Creek to Loring siding public road.

Richardson ranch, 1.8 miles southwest of, 800 feet east of southeast fork of Pass Creek, 5 feet south of county road from S. & G. ranch to Custer; spike in root on northwest side of 2-foot pine tree-----	4, 427. 96
Richardson ranch, 1 mile southwest of, 15 feet northwest of road from S. & G. ranch to Pringle, at junction of road from southwest, in saddle on top of ridge; iron post stamped "DW 4594"-----	4, 595. 808
Richardson ranch, 500 feet southwest of dwelling, 65 feet southwest of county road; spike in root on north side of 20-inch pine tree-----	4, 588. 47
Richardson ranch, 2 miles east of, 20 feet east of road, 800 feet north of junction of roads, 900 feet south of junction with private road from Richardson ranch, on top of ridge about 1.25 miles west of Pleasant Valley; iron post stamped "DW 4796"-----	4, 797. 890

Eighteen Mile ranch, 0.8 mile west of, 1,200 feet north of Tutt ranch, 15 feet southwest of county road, 100 feet west of junction of road from Eighteen Mile ranch with road up Pleasant Valley, west side of Pleasant Valley, 3 feet northeast of wire fence; iron post stamped "DW 4649"-----	Feet. 4, 650. 883
Eighteen Mile ranch, 1,800 feet northeast of, 180 feet southwest of fork in stream bed, 90 feet northwest of water hole, on northwest end of brown sandstone 5 by 3 feet and 1 foot high; circle and radial lines, chisel mark-----	4, 692. 37
Eighteen-Mile ranch, about 2 miles southeast of, 6 feet west of road from Eighteen-Mile ranch to Horgan ranch, 1,500 feet north of top of divide; spike in root on east side of 2½-foot pine tree-----	4, 851. 53
Horgan ranch, 2 miles northwest of, 15 feet west of road from Loring siding to Eighteen-Mile ranch, 350 feet south of top of divide over which road crosses; iron post stamped "DW 4916"-----	4, 918. 046
Horgan ranch, 0.8 mile southwest of, 27 feet southeast of road coming into ranch from southwest, 400 feet southwest of junction with road from Eighteen-Mile ranch, near north end of circular outcrop of flat rock, on top of southeast side of sandstone rock 5 by 3 by 1 foot; chisel mark-----	4, 792. 85
Point 2 miles east of Richardson's ranch southwest by McBeath ranch down East Fork of Hawkwright Creek, thence north to Pass Creek Valley.	
McBeath ranch, 1.4 miles northeast of, 20 feet east of road to Custer, on south side of ridge of timber through which road passes, 6 feet east of dry sandy ravine; copper nail in root on northwest side of 15-inch pine tree-----	4, 639. 79
McBeath ranch, 1,600 feet northeast of, 35 feet southeast of road to Custer on southwest edge of timber, 300 feet southwest of point where road runs down dry rocky stream bed, near pine tree, marked "U.S.G.S. B.M. W. T.," east 30 feet; iron post stamped "DW 4512"-----	4, 513. 841
Cedar ranch, 1,300 feet northwest of, 370 feet south of gate in wire fence, 60 feet east of road; copper nail in root on west side of 15-inch dry pine stump 6 feet high-----	4, 400. 59
Cedar ranch, 500 feet west of, 140 feet west of gate in wire fence, 20 feet southwest of road; spike level with ground in root on northeast side of 12-inch pine tree-----	4, 349. 55
Cedar ranch, 2 miles south of, 20 feet west of road down Hawkwright Creek, 180 feet west of and about 30 feet above bed of east fork of creek, 600 feet north of point where road runs up out of valley and crosses ridge; near two pine trees marked "U.S.G.S. B.M. W.T.," one 5 inches in diameter south 70 feet, one 8 inches in diameter west 40 feet; iron post stamped "DW 4165"-----	4, 166. 790
Cedar ranch, 4 miles south of, 40 feet west of crossing of road over Hawkwright Creek, 500 feet south of spring; spike in root on south side of 15-inch cottonwood tree-----	4, 035. 11
Cedar ranch, 4.8 miles south of, 25 feet northeast of road down Hawkwright Creek, at junction with road from northwest, about 3,000 feet south of fork in creek, 0.5 mile west of creek; iron post stamped "DW 4021"-----	4, 022. 825

McBeath ranch, 2.5 miles west of, 70 feet northwest of road from McBeath and Cedar ranches to Pass Creek, at junction with road up ridge from the southwest, on top of watershed between Pass Creek and Hawkwright Creek, where road starts descent into Pass Creek basin; pine tree 15 inches diameter marked "U.S.G.S. B.M. W.T.," southeast 130 feet; iron post stamped "DW 4373"----- 4,374.790

Pass Creek Valley north to Marsh ranch.

Roger's shack, 1.25 miles northeast of, 120 feet southeast of old S. & G.-Custer County road, 25 feet northeast of plank gate in wire fence on south side of Lindsay ranch pasture; spike in root on north side of 2-foot pine tree----- 4,640.83

Lindsay ranch, 0.8 mile east of, 18 feet southeast of old S. & G.-Custer County road, in small saddle on top of ridge, 40 feet northeast of crest, 600 feet south of fence on north side of pasture; near two pine trees marked "U.S.G.S. B.M. W.T.," one 5 inches in diameter northwest 60 feet, one 12 inches in diameter northeast 90 feet; iron post stamped "DW 4801"----- 4,802.541

Lindsay ranch pasture, 4,000 feet north of northeast corner, 40 feet west of old S. & G.-Custer County road, 450 feet north of junction with road from southwest, south side of belt of timber; wire spike in southeast side of 12-inch pine tree----- 4,858.61

Reynolds ranch, about 1 mile southwest of, 120 feet southeast of old S. & G.-Custer County road; wire spike in root on southeast side of 18-inch pine tree----- 5,154.61

Reynolds ranch, 0.5 mile southwest of, 30 feet east of old S. & G.-Custer County road, at junction of road from southeast, 0.25 mile south of point of fork of road to Reynolds ranch; iron post stamped "DW 5208"----- 5,209.692

Reynolds ranch, 1.2 miles north of, 35 feet southeast of old S. & G.-Custer County road, 165 feet northeast of cross roads in draw forming head of Pass Creek; copper nail in northwest side of 12-inch pine tree----- 5,306.46

Reynolds ranch, 2 miles north of, 150 feet southeast of road to Y 4 ranch, 0.5 mile southwest of timbered butte; copper nail in northwest side of 2-foot pine tree----- 5,433.91

Reynolds ranch, 2.8 miles north of, 20 feet east of road to Y 4 ranch, 0.5 mile northwest of timbered butte, near south end of strip of prairie; location marked by two pine trees marked "U.S.G.S. B.M. W.T.," one 6 inches in diameter south 180 feet, one 12 inches in diameter northeast 260 feet; iron post stamped "DW 5491"----- 5,492.664

Reynolds ranch, 3.8 miles north of, 50 feet east of road to Y 4 ranch, 160 feet southwest of gate in fence; wire spike in root on north side of 18-inch pine tree----- 5,489.57

Y 4 ranch, 0.5 mile southwest of, 30 feet north of road from Pass Creek, 25 feet east of ravine, 60 feet north of fence; wire spike in root on south side of 2-foot pine tree----- 5,517.36

Y 4 ranch, 0.5 mile northeast of, 20 feet southeast of road to Custer, in saddle on top of small ridge, near two pine trees marked "U.S. G.S. B.M. W.T.," one 5 inches in diameter west 145 feet, one 12 inches in diameter northeast 200 feet; iron post stamped "DW 5541"----- 5,542.589

Y 4 ranch, 2.5 miles northeast of, 10 feet southeast of road to Custer, 2,500 feet southwest of junction with old Custer-Newcastle stage road; wire spike in root on north side of 18-inch pine tree.....	Feet. 5, 673. 05
Carr ranch along Custer-Newcastle public road via Fourmile, Marsh ranch, and Ward ranch, across Hell Canyon to point about 0.8 mile north of Babcock ranch.	
Carr ranch, 300 feet northeast of, 3 miles southwest of Custer, in spherical rock outcrop 100 feet southeast of road; witness trees, one 45 feet east, 30-inch pine, one 30 feet south, 15-inch pine; bronze tablet stamped "DW 5475".....	5, 476. 689
Fourmile, Hendricks ranch, 500 feet east of, 3 feet west of mile board at the intersection of the Dudley road with Custer-Newcastle road, 4.5 miles southwest of Custer; iron post stamped "DW 5336".....	5, 337. 561
Fourmile, 2 miles west of, 0.5 mile east of Marsh ranch; nail in root of 18-inch pine 40 feet south of road.....	5, 475. 17
Marsh ranch, 800 feet west of, top of large flat rock on east edge of road, level with road, in west bank of dry creek channel, 125 feet north of crossing; pine witness tree, 30 inches in diameter, 70 feet east of south; pine witness tree, 30 inches in diameter, 50 feet east of south; bronze table stamped "DW 5453".....	5, 454. 668
Ward ranch, 300 feet south of, 50 feet north of road; 18-inch pine witness tree 30 feet east; bronze tablet set in rock stamped "DW 5614".....	5, 615. 495
Ward ranch, 1 mile west of, on south edge of road; nail in root of 15-inch pine tree.....	5, 597. 88
Ward ranch, 2 miles west of, 1 mile north of Smith ranch, at junction of ravine with Hell Canyon on south edge of road, 75 feet east of road down Hell Canyon; 10-inch pine witness tree 50 feet south-east, 20-inch pine witness tree 165 feet northeast; bronze tablet stamped "DW 5090".....	5, 091. 596
Smith ranch, 3 miles west of, 800 feet west of intersection of middle and south roads over Hell Canyon, on top of divide between west Hell Canyon and east prong of Tepee Canyon, in limestone 3 by 2 by 1½ feet high, 100 feet northwest of road; 15-inch pine witness tree 200 feet north, 12-inch pine witness tree 65 feet southwest; bronze tablet stamped "DW 5358".....	5, 359. 529
Smith ranch, 5 miles west of, 25 feet north of road, 100 feet west of middle prong of Tepee Canyon; nail in root of 12-inch pine.....	5, 100. 04
Smith ranch, 6 miles west of, 25 feet south of road, 900 feet east of section corner, on line between ranges 1 and 2, near foot of ridge; 20-inch pine witness tree 285 feet east, 24-inch pine witness tree 250 feet northeast; iron post stamped "DW 5094".....	5, 095. 542
Smith ranch, 8 miles west of, on north edge of road, 300 feet west of top of ridge, 0.25 mile west of road running to Babcock ranch; point on large flat rock.....	5, 044. 72
Point on Custer-Deadwood public road 0.5 mile southeast of Pleasant View ranch, half mile northeast of Wright ranch, and 30 feet southeast of road from Wright ranch to Custer northwest to James Dwyer's ranch.	
Mahnke ranch, 0.5 mile south of, 35 feet west of intersection of old stage road from Custer to Deadwood and road running to Hill City via Tenderfoot, 0.5 mile southeast of Junction schoolhouse; 15-inch pine witness tree 120 feet northeast, 18-inch pine witness tree 120 feet northeast; iron post stamped "DW 6106".....	6, 107. 490

Mahnke ranch, 1.5 miles north of, 10 feet east of road; nail in root of 12-inch pine tree-----	Feet. 6, 032. 11
Vonderlehr ranch, 275 feet north of, east side of road where it turns northwest on north side of valley; 24-inch pine witness tree 120 feet northwest, 24-inch pine witness tree 300 feet northeast; iron post stamped "DW 5818"-----	5, 819. 481
Vonderlehr ranch, 2 miles north of, 20 feet east of road, 300 feet north of top of ridge at Spring Creek; nail in root of 24-inch pine tree--	5, 943. 55
Jackson ranch, 800 feet west of, at west edge of road, 100 feet west of small creek; 30-inch pine witness tree 170 feet northeast, 36-inch pine witness tree 265 feet northwest; iron post stamped "DW 5833"-----	5, 834. 468
Jackson ranch, 1.25 miles north of, 50 feet west of road; nail in root of 10-inch pine tree-----	5, 949. 55
Simpson ranch, 400 feet northeast of, in rock outcrop on point of ridge on east side of road; 18-inch pine witness tree 85 feet west; 15-inch pine witness tree 35 feet north; bronze tablet stamped "DW 6123"--	6, 124. 371
Gillette ranch, 350 feet east of, in rock outcrop 20 feet long and 4 feet high, 15 feet above and 25 feet northeast of road at angle of road, 175 feet northwest of bridge over Slate Creek; 24-inch pine witness tree 370 feet south; bronze tablet stamped "DW 6243"-----	6, 244. 553
Gillette ranch, 1.1 miles north of, triangular stone 18 inches high with 2 feet base, 40 feet west of road, 75 feet east of Slate Creek; top surface-----	6, 106. 99
Cramer ranch, 0.4 mile north of, 20 feet south of road forks; 36-inch pine witness tree 325 feet northeast; 30-inch pine witness tree 425 feet southwest; iron post stamped "DW 5901"-----	5, 902. 373
Dwyer ranch east to Tigerville, on Chicago, Burlington & Quincy R. R.	
Jim Dwyer ranch, 800 feet northwest of, 275 feet north of road; iron post set for township corner on base line, marked "Sec. 1 N., R. 3 E.," on northwest side and "R. 4 E." on northeast side, stamped "DW 5837"-----	5, 838. 898
Jim Dwyer ranch, 1 mile east of, south of road; nail in root of 10-inch pine tree-----	5, 863. 35
Mrs. Dwyer ranch (Tigerville), 100 feet east of road intersection; nail in root of 24-inch pine tree-----	5, 486. 52
Point 1.25 miles southeast of Bear Springs on Custer road to Bear Springs, Preacher Spring, and head of Castle Creek, thence north to Deadwood-Newcastle road, thence east to Bulldog ranch on Chicago, Burlington & Quincy R. R.	
Bear Springs, in flat limestone outcrop 12 by 15 feet, 130 feet east of creek, 500 feet southeast of cabin, 50 feet below timber line, 350 feet southeast of road, 600 feet northeast of road; 18-inch pine witness tree 400 feet northwest; 40-inch pine witness tree 250 feet northeast; copper bolt stamped "DW 6490"-----	6, 491. 644
Bear Springs, 2.25 miles north of, in center and upper side of flat limestone outcrop, 135 feet northeast of road, on top of divide between head of Gillette Canyon and Hell Canyon, outcrop 60 feet by 30 feet; 15-inch pine witness tree 175 feet south; 12-inch pine witness tree 310 feet northwest; copper bolt stamped "DW 6912"-----	6, 913. 7
Bear Springs, 3.8 miles northwest of, 75 feet north of road; nail in root of 15-inch pine tree-----	6, 666. 03

Bear Springs, 4 miles northwest of, 25 feet east of road from Gillette Canyon to Bear Springs, on southeast side of Gillette Park at foot of ridge dividing branch of Gillette Canyon toward Bear Springs from branch to head of Spring Creek, 800 feet south of the intersection of the two branches of Gillette Canyon, near the intersection of the roads running to Bear Springs, Spring Creek, down Gillette Canyon, and north through Gillette Park; witness tree 190 feet northeast of 20-inch pine tree; witness tree 400 feet southeast of 30-inch pine tree; iron post stamped "DW 6611".....	Fect. 6, 612. 630
Preacher Spring main road and Gillette Canyon road, 5.1 miles east of intersection on Preacher Spring road; highest point of rock 12 by 12 inches 30 feet south of road.....	6, 561. 96
Preacher Spring main road and Gillette Canyon road, 3 miles east of intersection, 150 feet north of road; nail in root of 24-inch pine tree.....	6, 463. 42
Preacher Springs main road and Gillette Canyon road, 3 miles east of intersection, at intersection with a ravine from the south with Gillette Canyon, in second limestone outcrop from the north, at foot of cliff and 40 feet south of northwest point of cliff, 5 feet above level of surface in outcrop 10 feet high; 30-inch pine witness tree 280 feet north; 24-inch pine witness tree 300 feet southwest; copper bolt stamped "DW 6374".....	6, 375. 451
Preacher Spring main road and Gillette Canyon road, 1 mile east of intersection; nail in root of 18-inch pine tree 50 feet east of road.....	6, 209. 26
Preacher Spring main road and Gillette Canyon road, 0.3 mile west of intersection, in east end and 8 inches below top of limestone outcrop 5 feet long and 2 feet high, 75 feet north of road and 6 feet higher than road; 18-inch pine witness tree 25 feet north; 24-inch pine witness tree 125 feet northeast; copper bolt stamped "DW 6129".....	6, 130. 641
Graham ranch road, 1 mile northeast of intersection with, 20 feet east of road; nail in root of 24-inch dead pine tree.....	5, 965. 19
Graham ranch road, 25 feet west of intersection of, 4 miles east of Graham ranch; 30-inch pine witness tree 45 feet north; 30-inch pine witness tree 125 feet northeast; iron post stamped "DW 6167".....	6, 168. 623
Graham ranch, 3 miles east of, 20 feet west of road; nail in root of 18-inch pine tree.....	6, 222. 60
Graham ranch, 1 mile east of, on south side of road; nail in root of 15-inch pine tree.....	6, 093. 09
Graham ranch, 1,000 feet south of, in blue limestone outcrop 12 by 12 inches, 15 feet east of road on east side of Hay Canyon, 20 feet east of foot of hill; 24-inch pine witness tree 135 feet north, 30-inch pine witness tree 280 feet southeast; copper bolt stamped "DW 5752".....	5, 753. 694
Moon ranch, 1.25 miles south of, 45 feet east of road; nail in root of 18-inch dead pine tree.....	6, 147. 67
Moon ranch, 65 feet south of cabin, in limestone outcrop 18 by 24 inches; 10-inch pine witness tree 170 feet north, 24-inch pine witness tree 85 feet west; copper bolt stamped "DW 6273".....	6, 274. 932
D. W. Thompson ranch, 2.5 miles south of, 75 feet east of road; nail in root of 40-inch pine tree.....	6, 404. 77
D. W. Thompson ranch, 1.25 miles south of, 50 feet west of road; nail in root of 30-inch pine tree.....	6, 387. 49

D. W. Thompson ranch, 0.7 mile south of, 25 feet east of intersection of Newcastle road with road south; 12-inch pine witness tree 50 feet east, 18-inch pine witness tree 265 feet southwest; iron post stamped "DW 6480"----- Feet.
6, 481. 610

D. W. Thompson ranch, 0.25 mile south of, 90 feet east of road; nail in root of 15-inch pine tree----- 6, 512. 67

D. W. Thompson ranch, 1.25 miles east of, in limestone outcrop 24 by 18 feet, 6 feet higher than road, 40 feet southeast of intersection of Preacher Spring road with Newcastle road; 36-inch pine witness tree 250 feet west, 18-inch pine witness tree 185 feet southeast; copper bolt stamped "DW 6588"----- 6, 589. 585

Woodward ranch, 2.25 miles south of, stone 2 feet by 1 foot, 40 feet east of road, beside stake; highest point of stone----- 6, 570. 13

Intersection of Preacher Spring, Ditch Creek, Spring Creek, and Bear Springs roads north to head of Ditch Creek.

Bear Springs, 5 miles northwest of, 2.8 miles southeast of head of water in Ditch Creek, 12 feet east of road, 100 feet southeast of limestone outcrop, 300 feet north of top of ridge; highest point of 18-inch black bowlder with broken corner----- 6, 599. 46

Bear Springs, 5.5 miles northwest of, 2.25 miles southeast of head of water in Ditch Creek, 2 feet northeast of corner of SE. $\frac{1}{4}$ and SW. $\frac{1}{4}$ sec. 36, T. 1 S., R. 2 E., and NE. $\frac{1}{4}$ and NW. $\frac{1}{4}$ of sec. 1, T. 2 S., R. 2 E., 100 feet west of road, 25 feet east of dry creek; 24-inch pine witness tree 425 feet southwest; iron post stamped "DW 6571"----- 6, 572. 657

Ditch Creek, head of, in limestone outcrop 10 by 10 feet and 2 feet high, 85 feet east of road and 15 feet higher than road, 400 feet south of spring at head of Ditch Creek; 24-inch pine witness tree 180 feet northeast, 15-inch pine witness tree 230 feet west; bronze tablet stamped "DW 6410"----- 6, 411. 606

Sheridan via Hill City to McAdam ranch.

Sheridan, 3.2 miles southwest of, 100 feet south of J. R. stamp mill, 75 feet northwest of Lambert house, 60 feet west of intersection of road; iron post stamped "DW 4736"----- 4, 737. 463

Hill City, 120 feet south of railroad station, in center of south end of lawn, 2 feet north of fence; iron post stamped "DW 4976"----- 4, 977. 714

McAdam ranch, 100 feet northwest of, south edge of road; iron post stamped "DW 4947"----- 4, 948. 359

Richardson ranch via Lame Johnny Creek to Tinsley ranch.

Richardson ranch, 600 feet northeast of, 3.5 miles from Custer; iron post stamped "DW 5187"----- 5, 188. 514

Wood ranch, 0.8 mile southeast of, 400 feet south of abandoned saw-mill, 100 feet west of road, 25 feet south of rock ledge 5 by 15 feet, 2 feet high, in solid rock; bronze tablet stamped "DW 5027"----- 5, 028. 591

Tinsley ranch, 800 feet east of, in granite rock, 10 feet diameter, 4 feet high, on south side of road, 300 feet west of top of divide; bronze tablet stamped "DW 5109"----- 5, 110. 536

Clinkenbeard ranch to Pringle.

Clinkenbeard ranch, 300 feet southwest of, at intersection of Pringle, Hot Springs, and Buffalo Gap roads; iron post stamped "DW 4532"----- 4, 533. 509

Bowman ranch, fork of road to, north side of road; iron post stamped "DW 4716"-----	Feet. 4, 717. 583
Pringle, 0.4 mile north of; copper bolt stamped "DW 4879"-----	4, 880. 355

Point near Dwyer ranch.

Jim Dwyer ranch, 800 feet northwest of, 275 feet north of road; iron post set in township corner on base line, marked "sec. 5, T. 1 N., R. 3 E.," on northwest and "R. 4 E." on northeast, stamped "DW 5837"-----	5, 838. 898
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HERMOSA QUADRANGLE.

Bench mark near Sheridan.

Sheridan, 0.2 miles south of, 200 feet northwest of Barthold ranch, west of intersection of Sheridan, Hill City, and Keystone roads; iron post stamped "DW 4601"-----	4, 602. 471
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Beardsley ranch via Keystone and Glendale to Hayward.

Beardsley ranch, 0.5 mile northeast of, 25 feet north of bridge over Battle Creek, in granite rock east side of road; bronze tablet stamped "DW 4734"-----	4, 735. 348
Keystone, 225 feet west of south end of business street, 150 feet southwest of Nick Shoemaker house, north side of road, bench of rock 2 by 5 feet, 3 feet higher than road; aluminum tablet stamped "DW 4340"-----	4, 341. 224
Harney schoolhouse, 300 feet east of, in large rock 50 feet southeast of intersection of Keystone, Rockerville, and Glendale roads; bronze tablet stamped "DW 4198"-----	4, 199. 356
Glendale, 0.4 mile south of, 100 feet east of intersection of Glendale, Spokane, and Hayward roads, in rock 8 by 10 feet and 3 feet high; bronze tablet stamped "DW 4244"-----	4, 245. 339
Hayward, west side of town, 175 feet east of Battle Creek, 50 feet south of intersection of Glendale, Rockerville, and Hermosa roads, in rock 15 by 8 feet, 3 feet high; bronze tablet stamped "DW 3812"-----	3, 813. 417

Hayward north to Rockerville.

Hayward, 3.5 miles north of, on ridge west of road; iron post stamped "DW 4507"-----	4, 508. 258
Rockerville, west end of town, southeast side of intersection of Hill City, Keystone, and Rockerville roads; iron post stamped "DW 4369"-----	4, 370. 215

Bench marks near Baker ranch.

Sheridan, 2 miles northeast of, 50 feet northeast of intersection of Sheridan, Pactola, and Rapid roads, in stone 3 by 3 feet projecting 18 inches above ground; bronze tablet stamped "DW 4553"-----	4, 554. 481
Baker ranch, 800 feet southeast of, north side of road; iron post stamped "DW 4495"-----	4, 496. 163

Chicago & Northwestern Ry. bridge over Spring Creek to Rockerville.

Spring Creek, 0.5 mile north of, 90 feet southwest of crossing of county road and railroad; iron post stamped "DW 3326"-----	3, 327. 584
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McMinn ranch, 350 feet northeast of, northeast side of intersection of road down Spring Creek with Rapid-Hermosa road; iron post stamped "DW 3350"-----	Feet. 3, 351. 323
McMinn ranch, 1 mile west of, 25 feet north of road; copper nail in root of 18-inch elm tree-----	3, 332. 34
McMinn ranch, 2 miles west of, northeast corner of bridge over Spring Creek; copper nail in root of 15-inch cottonwood tree-----	3, 420. 60
McMinn ranch, 2.8 miles west of, 675 feet north of Erb ranch, 40 feet north of road, in sandstone 5 by 15 feet and 2 feet high; bronze tablet stamped "DW 3457"-----	3, 458. 387
Blair ranch, 400 feet northwest of, 45 feet northeast of intersection of Spring Creek, Rapid, and Rockerville roads; iron post stamped "DW 3511"-----	3, 512. 426
Blair ranch, 0.9 mile west of, north side of road; copper nail in root of 15-inch pine-----	3, 704. 93
Wright ranch, 1 mile east of, top of divide between Spring Creek and Rockerville Gulch, north side of road; iron post stamped "DW 4329"-----	4, 330. 311
Wright ranch, 800 feet west of, north side of road; copper nail in root of 12-inch pine-----	4, 341. 31

Rockerville via McNown, Murphy, and Peterson ranches to Hermosa.

McNown ranch, 0.5 mile northwest of, 100 feet north of road, in limestone rock 6 by 2 feet outcropping in side of rocky hill, 20 feet higher than road; bronze tablet stamped "DW 4324"-----	4, 325. 700
McNown ranch, 0.9 mile southeast of, 25 feet west of road; copper nail in root of 6-inch pine-----	4, 249. 81
McNown ranch, 2.9 miles southeast of, 1.7 miles northwest of Murphy (Red Earth) ranch, 20 feet north of road on top of divide, in sandstone 4 by 2 feet, 15 inches high; bronze tablet stamped "DW 4063"-----	4, 064. 405
Murphy ranch, 1 mile southwest of, 1.4 miles northwest of Peterson ranch; 300 feet northwest of junction of roads, on bank of channel in gulch; copper nail in root of 8-inch pine tree-----	3, 600. 19
Peterson ranch, 0.2 mile northwest of, northeast side of junction of Rockerville road with Hayward-Hermosa road; iron post stamped "DW 3525"-----	3, 526. 381
Peterson ranch, 0.8 mile south of, 100 feet northwest of Hayward-Hermosa road ford of Battle Creek, north bank of Battle Creek; copper nail in root of 20-inch oak tree-----	3, 456. 87
Beatty ranch, 0.6 mile east of, 450 feet southwest of intersection of the Squaw Creek and Battle Creek roads; iron post stamped "DW 3349"-----	3, 350. 261
Hermosa, 150 feet southwest of station, 60 west of track, in southwest corner of station agent's private yard; iron post stamped "DW 3300"-----	3, 301. 683

Glendale via Spokane and Farmer, Ray, and Clark ranches to Fairburn.

Spokane, 500 feet northwest of post office, 300 feet north of schoolhouse, in granite rock 8 by 10 feet and 18 inches high, on west side of road; bronze tablet stamped "DW 4521"-----	4, 522. 319
Farmer ranch, 1.6 miles southeast of, on north bank of ravine 60 feet east of road, in rock 3 feet high; bronze tablet stamped "DW 4086"-----	4, 087. 333

	Feet.
Ray ranch, southwest side of, intersection of Spokane, Hermosa, and Custer roads; iron post stamped "DW 3650"-----	3, 651. 371
Clark ranch, 0.3 mile east of, 350 feet north of Dry Creek, 50 feet south of cut-off road to Fairburn; iron post stamped "DW 3780"---	3, 781. 914
Clark ranch, 0.7 mile southeast of, south side of road; copper nail in root of 12-inch elm tree-----	3,696. 64
Laning ranch, 2.8 miles southeast of, top of ridge 1,000 feet east of gulch running into French Creek, north side of road, 375 feet southeast of quarter-section corner; iron post stamped "DW 3700"-----	3, 701. 225
Smith ranch, 0.5 mile north of, southwest side of road crossing, 2.5 miles west of Fairburn; iron post stamped "DW 3430"-----	3, 431. 212
Fairburn, 200 feet northeast of station, 40 feet northeast of county-road crossing; iron post stamped "DW 3310"-----	3, 311. 660

Clark ranch to Richardson ranch via Hare and McClelland ranches.

Fay ranch, 2.5 miles northwest of, 500 feet southeast of top of ridge, in white limestone, 2 by 4 feet and 1 foot high, on west side of road; bronze tablet stamped "DW 4223"-----	4, 224. 520
Hare ranch, 2.1 miles west of, 1 mile southwest of divide, between French Creek ravine and Squaw Creek, in granite ledge 3 feet higher than road on west side of road, on south bank of channel in ravine; bronze tablet stamped "DW 4664"-----	4, 665. 528
McClelland ranch, 0.1 mile west of, granite ledge north of and 4 feet higher than road; bronze tablet stamped "DW 5010"-----	5, 011. 555

Combe ranch to Gould ranch.

Combe ranch, 0.3 mile south of, on west side of road; iron post stamped "DW 4696"-----	4, 697. 681
Kenoyer ranch, 0.6 mile east of, on north side of road in rock 24 inches high, at point of rock outcrop 10 feet high; bronze tablet stamped "DW 4244"-----	4, 245. 487
McVey ranch, 1.7 miles east of, 300 feet north of intersection of Fairburn, Buffalo Gap, and Custer roads; iron post stamped "DW 3862"-----	3, 863. 520
Dowe ranch, 1.3 miles southeast of, 150 feet north of road down west branch of Lame Johnny Creek, 200 feet southwest of road from Fairburn, 600 feet west of intersection of roads, 1 mile southeast of Lame Johnny Creek, in sandstone outcrop 60 feet long; bronze tablet stamped "DW 3745"-----	3, 746. 222
Gould ranch, 0.4 mile northwest of, 2 feet northwest of northwest corner of sec. 21, T. 5 S., R. 7 E., on Buffalo Gap-Rapid road, 250 feet southwest of junction with road up Lame Johnny Creek; iron post stamped "DW 3482"-----	3, 483. 372

Parker ranch via Highland ranch to Otey ranch.

Parker ranch, 1.8 miles west of, at intersection of Custer, Buffalo Gap, and Lame Johnny Creek roads; iron post stamped "DW 4312"-----	4, 313. 460
Highland ranch, 0.4 mile northwest of, 75 feet east of intersection of Custer, Buffalo Gap, and Pringle roads, in rock outcrop 4 feet wide and 2 feet high; bronze tablet stamped "DW 4373"-----	4, 374. 607
Otey ranch, 0.4 mile north of, on south side of road at intersection of road to Reeve ranch; iron post stamped "DW 4617"-----	4, 618. 514

Fairburn via Richardson and Grimley ranches to Nelson ranch.

Fairburn, 3 miles east of, 50 feet southeast of southeast corner of sec. 28, T. 4 S., R. 8 E., 50 feet southeast of intersection of roads, 250 feet north of bridge over French Creek; iron post stamped "DW 3184" -----	Feet. 3, 185. 307
Richardson ranch, 750 feet east of, 500 feet south of north quarter section corner of sec. 14, T. 5 S., R. 8 E., on west side of road; iron post stamped "DW 3298" -----	3, 299. 341
Richardson ranch, 3.1 miles south of, 1.4 miles south of French Creek divide, top of ridge, 20 feet west of road; iron post stamped "DW 3179" -----	3, 180. 133
Grimley ranch, 0.5 mile south and 0.5 mile east of, north side of road on top of ridge; iron post stamped "DW 3021" -----	3, 022. 249
Nelson ranch, 2.3 miles southwest of, southeast corner of sec. 21, T. 6 S., R. 8 E., 450 feet northwest of road; iron post stamped "DW 3183" -----	3, 184. 180

Wood ranch to Wind Cave ranch.

Wood ranch, 600 feet southwest of, 500 feet east of bridge over Beaver Creek, 5 feet south of south fence, on large outcrop of rock, 1 foot above ground; bronze tablet stamped "DW 3365" -----	3, 366. 436
Johnson ranch, 1.7 miles west of, on south side of road at junction of cut-off from Buffalo Gap-Custer road, foot of round hill with limestone ledge at top; iron post stamped "DW 3502" -----	3, 503. 446
Martin Valley ranch, 2.2 miles west of, south side of road, in ledge of limestone 20 by 30 feet; bronze tablet stamped "DW 3810" -----	3, 811. 608
Wind Cave ranch, 0.5 mile southeast of, 250 feet west of intersection of Buffalo Gap road with Wind Cave-Hot Springs road; iron post stamped "DW 4158" -----	4, 159. 580
Wind Cave ranch, 3.3 miles southeast of, west side of high ridge, in limestone rock on south side of road; bronze tablet stamped "DW 4233" -----	4, 234. 706

Grimley ranch via Cheyenne River and Morris, Smith, Stinger, Gramberg, and Bennett ranches to point 2 miles south of Brennan.

Harrison Flat schoolhouse, 1 mile north and 1 mile east of, southeast corner of SW. $\frac{1}{4}$ sec. 8, T. 6 S., R. 9 E.; iron post stamped "DW 2964" -----	2, 965. 193
Harrison Flat schoolhouse, 3.2 miles northeast of, 1.7 miles south of mouth of Cottonwood Creek, west side of Cheyenne River bottom where road comes down bluff; nail in 10-inch cottonwood tree -----	2, 792. 21
Cottonwood Creek, 500 feet southwest of mouth of, west side of Cheyenne River bottom, south side of Cottonwood Creek bottom, 50 feet southwest of junction of trails running down Cottonwood Creek; iron post stamped "DW 2775" -----	2, 776. 102
Ayres ranch, 0.2 mile southwest of, on west line of Pine Ridge Indian Reservation, 700 feet south of Cheyenne River, quarter mile east of west corner of secs. 13 and 24, T. 5 S., R. 9 E., 150 feet north of road in side of Indian monument; iron post stamped "DW 2738" -----	2, 739. 355
Cheyenne River, bed of, at northwest corner of Pine Ridge Indian Reservation -----	2, 729. 40

	Feet.
Ayres ranch, 3 miles northwest of, top of divide between French Creek and Cheyenne River, 25 feet north of road; iron post stamped "DW 3270"-----	3, 270.181
Morris ranch, 75 feet southwest of, 9 miles east of Fairburn on north side of road, north side of French Creek; iron post stamped "DW 3008"-----	3, 009. 210
Morris ranch, 3.3 miles northwest of, about 0.5 mile northeast of junction of Alkali and Dry creeks, 500 feet south of junction of road to Battle Creek with Dry Creek-Hermosa road; iron post stamped "DW 3076"-----	3, 077. 066
Smith ranch, 0.5 mile north of, southeast corner of sec. 32, T. 3 S., R. 9 E., 0.25 mile west of road from French Creek to Hermosa; iron post stamped "DW 3162"-----	3, 163. 078
Stinger ranch, 1 mile southwest of, 75 feet southeast of intersection of roads to Hermosa, Battle Creek, and Cheyenne River; iron post stamped "DW 3212"-----	3, 213. 032
Stinger ranch, 0.6 mile east of, southeast corner of NE. $\frac{1}{4}$ sec. 7, T. 3 S., R. 9 E.; iron post stamped "DW 3137"-----	3, 138. 199
Stinger ranch, 1 mile east and 2.7 miles north of, 0.3 mile south of southeast corner of sec. 30, T. 2 S., R. 9 E., 30 feet southwest of road crossing; iron post stamped "DW 3278"-----	3, 279. 075
Vohmer ranch, 250 feet east of, on west side of road, 725 feet south of northeast corner of sec. 7, T. 2 S., R. 9 E., 450 feet south of Spring Creek; iron post stamped "DW 3133"-----	3, 134. 095
Gramberg ranch, 1 mile northwest of, at southwest corner of NW. $\frac{1}{4}$ sec. 31, T. 1 S., R. 9 E., 100 feet north of crossroads; iron post stamped "DW 3216"-----	3, 217. 075
Bennett ranch, 0.7 mile northeast of, at southeast corner of SW. $\frac{1}{4}$ sec. 17, T. 1 S., R. 8 E., 100 feet south of road; iron post stamped "DW 3155"-----	3, 156. 074
Brennan, 2 miles south of, 250 feet southeast of county road crossing, 20 feet southwest of county road, southwest corner of Getchell ranch, 1 foot south of north quarter corner of sec. 14, T. 1 S., R. 8 E.; iron post stamped "DW 3160"-----	3, 161. 695

Buffalo Gap to Brennan.

Beaver Creek, on bridge, 15 feet above stream; top of rail-----	3, 260. 1
Buffalo Gap, 4.2 miles northeast of, 350 feet northeast of bridge H 112, 200 feet southeast of track, 100 feet southeast of wagon road, 2.5 feet east of fence corner post; iron post stamped "DW 3265"-----	3, 266. 605
Melvin siding, 180 feet south of, north switch stand, west end of masonry culvert H 121, in top of southwest corner of coping stone; bronze tablet stamped "DW 3396"-----	3, 397. 735
T. 5 S., R. 7 E., 675 feet east and 30 feet north of south quarter corner of sec. 4, 700 feet north of section house 10, 60 feet west of track, 40 feet east of county road; iron post stamped "DW 3604"-----	3, 605. 576
Fairburn, 2.5 miles southwest of, 1,190 feet south of east quarter corner of sec. 27, T. 4 S., R. 7 E., 3 feet northwest of railroad fence, 60 feet southeast of angle in county road; iron post stamped "DW 3420"-----	3, 421. 612
Fairburn, 200 feet northeast of station, 40 feet northeast of county road crossing; iron post stamped "DW 3310"-----	3, 311. 660

Hermosa, 5.8 miles south of, 270 feet north of section house 12, 60 feet southeast of county road crossing 6 feet northwest of fence corner post; iron post stamped "DW 3430"-----	Feet. 3, 431. 818
Hermosa, about 3 miles southwest of, 880 feet north of southeast corner of sec. 12, T. 3 S., R. 7 E., 180 feet north of bridge H 159, in center of county road lane at bend in road; iron post stamped "DW 3458"-----	3, 459. 655
Hermosa, 150 feet southwest of station, 60 feet west of track, in southwest corner of station agent's private yard; iron post stamped "DW 3300"-----	3, 301. 683
Hermosa, 4.3 miles north of, 740 feet west of east side and 35 feet south of north side of sec. 8, T. 2 S., R. 8 E., 115 feet southwest of county road crossing, 400 feet southeast of dwelling house, 50 feet northwest of track, 4 feet north of fence corner post; iron post stamped "DW 3503"-----	3, 504. 642
Spring Creek, 200 feet south of, 200 feet south of section house 14, east end of stone culvert H 185½, on projection on top of south end of coping stone; chisel mark-----	3, 294. 39
Spring Creek, 0.5 mile north of, 90 feet southwest of crossing of north-south county road and railroad, 25 feet west of county road, 40 feet southeast of track, 80 feet southwest of crossing signpost marked U.S.G.S.; iron post stamped "DW 3326"-----	3, 327. 584

B.M.

W.P.

Brennan, 2 miles south of, 250 feet southeast of county road crossing, 20 feet southwest of county road, southwest corner of Getchell ranch, 1 foot south of north quarter corner of sec. 14, T. 1 S., R. 8 E.; iron post stamped "DW 3160"-----	3, 161. 695.
Brennan, 1,300 feet south of section house 215, 75 feet southwest of county road crossing, 80 feet west of signpost marked "Brennan" and scribed U.S.G.S.; iron post stamped "DW 3114"-----	3, 115. 680

B.M.

W.P.

OELRICHS QUADRANGLE.

Bench marks near Hot Springs.

Hot Springs, 4.1 miles north of, east side of junction of Buffalo Gap-Hot Springs road with Hot Springs-Wind Cave road; iron post stamped "DW 3847"-----	3, 848. 767
Hot Springs, south entrance to county courthouse, 2.5 feet east of steps in vertical face of wall 2.5 feet above ground; bronze tablet stamped "DW 3462"-----	3, 463. 569

Bench marks near Buffalo Gap.

Buffalo Gap, 5 miles east of, southeast corner of NE. ¼ sec. 25, T. 6 S., R. 7 E.; iron post stamped "DW 3221"-----	3, 222. 095
Buffalo Gap, 120 feet east of railroad ticket office, 150 feet north of wagon road along south side of sec. 29, T. 6 S., R. 7 E.; iron post stamped "DW 3258"-----	3, 259. 585

Hot Springs via Chicago & Northwestern Ry. to Buffalo Gap.

Hot Springs, county courthouse, south entrance, 2.5 feet east of steps, 2.5 feet above ground, in vertical face of wall; bronze tablet marked "DW 3462"-----	Feet. 3, 463. 569
Hot Springs, in front of union station; top of rail-----	3, 444. 8
Hot Springs, in front of Chicago & Northwestern Ry. station; top of rail-----	3, 429. 2
Hot Springs, 2.3 miles southeast of, 100 feet southwest of track, 300 feet south of bridge, H. S. 23, 150 feet southwest of wagon road, in northeast end of sandstone rock 20 by 10 feet and 4 feet high; copper bolt stamped "DW 3313"-----	3, 314. 750
Evans quarry, 450 feet north of post office, 200 feet north of falls of Fall River, 550 feet east of bridge, H. S. 17, 50 feet north of and about 15 feet above track, in irregular sloping rock 10 by 3 feet, 3 feet high, 2 feet south of north end; copper bolt stamped "DW 3225"-----	3, 226. 529
Evans quarry, 1.8 miles northeast of, 40 feet northwest of bridge, H. S. 15, 15 feet southwest of telegraph pole, 2 feet south of rock mound, on top of small rock 2 by 1 foot, 1 foot out of ground; chisel mark-----	3, 341. 08
Buffalo Gap, 5 miles southwest of, 1,000 feet southwest of section house, 60 feet west of county road crossing, 25 feet southeast of northeast end of snow fence; iron post stamped "DW 3315"-----	3, 316. 702
Buffalo Gap, 2 miles southwest of, 290 feet west of county road crossing, 30 feet south of county road, 1.5 feet south of stone marking northwest corner of T. 7 S., R. 7 E.; iron post stamped "DW 3410"-----	3, 411. 717
Buffalo Gap, in front of station; top of rail, main track-----	3, 258. 8
Buffalo Gap, 120 feet east of station ticket office, 150 feet north of wagon road running along south side of sec. 29, T. 6 S., R. 7 E.; iron post stamped "DW 3258"-----	3, 259. 585

RAPID QUADRANGLE.**Brennan along Chicago & Northwestern Ry. via Rapid to Sturgis.**

Rapid, 3 miles southeast of, sec. 23; T. 1 N., R. 8 E., 1,200 feet east of northwest corner and 30 feet south of north line, 50 feet west of track, 40 feet east of angle in county road; iron post stamped "DW 3218"-----	3, 219. 650
Rapid, in front of ticket office; top of rail, main track-----	3, 199. 6
Rapid, courthouse yard, 80 feet southwest of southwest corner of courthouse, in center of top of United States Geological Survey astronomic pier; bronze tablet stamped "DW 3228." (Center of plate carefully centered over original cross cut in pier)-----	3, 230. 144
Rapid, 3 miles west of, 40 feet southeast of crossing of Rapid-Rochford wagon road, 400 feet east of section house 17; spike in west side of cottonwood tree, 6 inches above ground-----	3, 267. 85
Rapid, 5.2 miles northwest of, 65 feet southwest of crossing of Rapid and Blackhawk county road, 50 feet west of track, 80 feet south of crossing, signpost scribed (U. S. G. S.) (B. M., W. P.)	
4 feet north of fence corner post; iron post stamped "DW 3457"-----	3, 458. 786
Blackhawk, in front of ticket office; top of rail-----	3, 494. 9

	Feet.
Blackhawk, 100 feet northwest of station, in west corner of yard on northwest side of building; iron post stamped "DW 3491"-----	3, 492. 695
Blackhawk, 2.4 miles northwest of, top of divide between Blackhawk and Piedmont, 90 feet east of county road crossing, 50 feet northeast of track, 25 feet south of county road along east and west section line, 1,150 feet east of northwest corner of sec. 31, T. 3 N., R. 7 E.; iron post stamped "DW 3622"-----	3, 623. 741
Piedmont, 1,400 feet southeast of station, southwest end stone culvert, H 238 northwest side of stream, in top of wing wall 1 foot below top of coping stone, 140 feet northeast of telegraph pole marked (U. S. G. S.); bronze tablet stamped "DW 3460"-----	3, 461. 805 (B. M., W. P.)
Tilford, 2 miles southeast of, about 75 feet northwest of point where Elk Creek wagon road crosses railroad track, 0.25 mile east of mouth of Elk Creek canyon, 150 feet northwest of junction of Elk Creek wagon road with Sturgis-Rapid road; iron post stamped "DW 3565"-----	3, 566. 453
Tilford, in front of station; top of rail-----	3, 581. 2
Tilford, 2.25 miles northwest of, 45 feet northeast of railroad crossing, on east side of Sturgis-Rapid wagon road; iron post stamped "DW 3693"-----	3, 694. 911
Sturgis, 5.5 miles southeast of, about 500 feet southeast of Beaver siding mile board, on west end of south cap of bridge H 256; top of iron driftbolt-----	3, 665. 14
Sturgis, 4.5 miles southeast of, 960 feet southeast of switch at Myers siding, 50 feet north of track, 100 feet south of Sturgis-Rapid wagon road; iron post stamped "DW 3622"-----	3, 623. 503
Myers siding, at switch; top of rail-----	3, 618. 3
Sturgis, 2.8 miles southeast of, top of west end of north cap of bridge H 264, under which Sturgis-Rapid wagon road passes; iron driftbolt-----	3, 634. 43

Bench mark at Pactola.

Pactola, junction of road from Rapid with roads from Hill City and Silver City, 3 feet south of corner 15, mineral claim 891; iron post stamped "DW 4459"-----	4, 460. 343
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Riley ranch to McDonald ranch.

Riley ranch, on Bogus Jim Creek, 2,000 feet northwest of, 10 feet southeast of road from Merritt, center of top of rock 8 by 7 by 2 feet; pine witness trees marked "U.S.G.S. B.M. W.T.," one 24 inches in diameter northeast 75 feet, one 12 inches in diameter north 75 feet, one 18 inches in diameter northwest 30 feet; copper bolt stamped "DW 4801"-----	4, 802. 333
Jim Creek, 1,500 feet northeast of mouth, 190 feet north of highway bridge over Boxelder Creek, in east corner of flat rock 15 by 25 by 4 feet; pine witness trees marked "U.S.G.S. B.M. W.T.," one 18 inches in diameter southwest 36 feet, one 15 inches in diameter northwest 36 feet, one 18 inches in diameter northeast 20 feet; bronze tablet stamped "DW 4413"-----	4, 414. 286
Estes ranch, 1.5 miles southeast of, 1,800 feet northwest of Elliott's sawmill at west end of highway bridge over Boxelder Creek; spike in root east side of 2-foot pine tree-----	4, 458. 83

Estes ranch, 150 feet northwest of dwelling, 12 feet northeast of country road up Boxelder Creek, 30 feet northwest of junction with road running down Estes Creek; spike in south root of 18-inch pine.....	Feet. 4,564.81
McDonald ranch, 575 feet northwest of, 15 feet west of county road up Boxelder Creek at junction with private road from ranch; witness trees marked "U.S.G.S. B.M. W.T.," one 18 inches in diameter north 70 feet, one 18 inches in diameter southeast 20 feet, one 12 inches in diameter southwest 45 feet; iron post stamped "DW 4614".....	4,615.241

Pactola to Rockerville.

Pactola, junction of road from Rapid with roads from Hill City and Silver City, 3 feet south of corner 15, M. C. 891; iron post stamped "DW 4459".....	4,460.343
Harvey ranch, 800 feet north of, on top of divide, east side of road; iron post stamped "DW 5021".....	5,022.516
Wetzell ranch, 2 miles south of, 2.5 miles north of intersection of Rapid, Pactola, and Sheridan roads, 30 feet east of road on top of divide; iron post stamped "DW 5042".....	5,043.543
Wetzell ranch, 3 miles south of, 1.5 miles north of intersection of Rapid, Pactola, and Sheridan roads, on top of ridge 25 feet east of road; iron post stamped "DW 4864".....	4,865.368

SUNDANCE QUADRANGLE.**Bench mark on McQuaig road.**

McQuaig road, 3.7 miles west of intersection with Cheyenne-Deadwood stage road, 15 feet south of road fork; iron post stamped "DW 6539".....	6,540.563
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Bench marks near Pratt ranch.

Pratt ranch (Bear Gulch), 1,000 feet east of, 45 feet south of road, on north bank of Potato Gulch, in quartzite cliff; aluminum tablet stamped "DW 5836".....	5,836.260
Pratt ranch, 1 mile northeast of; wire nail in root of 15-inch pine tree north of road.....	5,845.86

Belle Fourche and Empire 30' Quadrangles.**BUTTE, LAWRENCE, AND MEADE COUNTIES.**

The elevations in this list were originally based on a bronze tablet stamped "4543," set in the city hall building at Deadwood in 1897, the elevation of which is now accepted as 4,544.872 feet above mean sea level. In 1908 the Coast and Geodetic Survey precise line redetermined United States Geological Survey bench marks near Edgemont, thus furnishing a more reliable connection with mean sea level. A correction of +1.4 feet obtained by computation in 1911 has been applied to all elevations in this list.

The leveling in the Belle Fourche quadrangle was done in 1903 and 1904 by Chester Irvine, and in 1904 by M. S. Bright and C. H.

Birdseye; that in the Empire quadrangle was done in 1904 by Chester Irvine and H. M. Hadley, and in 1910 by H. L. Caldwell. The leveling followed section lines almost to the exclusion of the few roads in this area.

BELLE FOURCHE 30' QUADRANGLE.

Point 900 feet east and 2,400 feet north of southwest corner of sec. 21, T. 9 N., R. 4 E., northeast to northwest corner of same section, thence north 4 miles to northwest corner of sec. 33, T. 10 N., R. 4 E., thence east to northwest corner of sec. 36 and south 4.8 miles to point 0.2 mile south of quarter corner between secs. 23 and 24, T. 9 N., R. 4 E.

	Feet.
T. 9 N., R. 4 E., 45 feet southwest of northwest stone at corner of sec. 9; iron post stamped "2880 DW"-----	2, 881. 368
T. 10 N., R. 4 E., northwest corner of sec. 33; iron post stamped "2891 DW"-----	2, 892. 317
T. 10 N., R. 4 E., northwest corner of sec. 35; iron post stamped "2920 DW"-----	2, 921. 438
T. 9 N., R. 4 E., northwest corner of sec. 1; iron post stamped "2872 DW"-----	2, 873. 327
T. 9 N., R. 4 E., northwest corner of sec. 13; iron post stamped "2877 DW"-----	2, 878. 407
T. 9 N., R. 4 E., 0.2 mile south of quarter corner between secs. 23 and 24; iron post stamped "2865 DW"-----	2, 866. 257
Northwest corner of sec. 16, T. 9 N., R. 4 E., west 1 mile, north 2 miles, east 2 miles, thence south 1 mile to northwest corner of sec. 33, T. 10 N., R. 4 E.	
T. 9 N., R. 4 E., triangulation station No. 18, about 1,200 feet southwest of northwest corner of sec. 17; iron post stamped "3041 DW"-----	3, 042. 560
Tps. 9 and 10, Rs. 3 and 4, corner of; iron post stamped "2925 DW"-----	2, 926. 415
T. 10 N., R. 4 E., 30 feet south of quarter corner between secs. 19 and 30; iron post stamped "2904 DW"-----	2, 904. 978
Northwest corner of sec. 13, T. 9 N., R. 4 E., east 2 miles, south 1 mile, east 1 mile, and south 2 miles to point 400 feet west of northwest corner of sec., 33, T. 9 N., R. 5 E.	
T. 9 N., R. 5 E., northwest corner of sec. 20; iron post stamped "2871 DW"-----	2, 872. 018
T. 9 N., R. 5 E., 400 feet west of northwest corner of sec. 33; iron post stamped "2981 DW"-----	2, 982. 602
Point 1,100 feet south of quarter corner between secs. 23 and 24, T. 9 N., R. 4 E., south 2 miles, east 1 mile, and south 1 mile, thence east 3 miles and north 0.5 mile to quarter corner between secs. 3 and 4, T. 8 N., R. 5 E., thence north 6.5 miles, west 1 mile, south 1 mile, west 2 miles, north 1 mile, and west 1 mile to northwest corner of sec. 1, T. 9 N., R. 4 E.	
T. 9 N., R. 4 E., southeast corner of sec. 36; iron post stamped "2874 DW" (jog of 65 feet in north and south lines)-----	2, 875. 566
T. 8 N., R. 5 E., 35 feet southwest of northwest corner of sec. 8; iron post stamped "2876 DW"-----	2, 877. 202
T. 8 N., R. 5 E., quarter corner between secs. 3 and 4, about 400 feet south of Owl Creek bridge; iron post stamped "2821 DW"-----	2, 821. 760
T. 9 N., R. 5 E., 25 feet west of northwest corner of sec. 34; iron post stamped "2854 DW"-----	2, 855. 594
T. 9 N., R. 5 E., 5 feet northeast of fence at northwest corner of sec. 22, west side of lane; iron post stamped "2826 DW"-----	2, 826. 976

T. 9 N., R. 5 E., 3 feet east of northwest corner of sec. 10; iron post stamped "2902 DW"-----	Feet. 2,903.838
Tps. 9 and 10 N., R. 5 E., northwest corner of sec. 4; iron post stamped "2858 DW"-----	2,859.548
T. 9 N., R. 5 E., northwest corner of sec. 8; iron post stamped "2871 DW"-----	2,872.434
Northwest corner of sec. 30, T. 12 N., R. 5 E., south 2 miles, west 3 miles, and south 7 miles to northwest corner of sec. 10, T. 10 N., R. 9 E.	
T. 12 N., R. 5 E., northwest corner of sec. 30; iron post stamped "3164 DW"-----	3,165.446
T. 11 N., R. 4 E., northwest corner of sec. 1; iron post stamped "3194 DW"-----	3,195.276
T. 11 N., R. 4 E., northwest corner of sec. 10; iron post stamped "3196 DW"-----	3,197.554
T. 11 N., R. 4 E., northwest corner of sec. 27; iron post stamped "3044 DW"-----	3,045.498
T. 10 N., R. 4 E., northwest corner of sec. 10; iron post stamped "3028½ DW"-----	3,029.948
Corner of Tps. 9 and 10 N., Rs. 3 and 4 E., west 2 miles, north 1 mile, and west 1 mile, thence north 12 miles to northwest corner of sec. 34, T. 12 N., R. 3 E., thence west 6 miles to northwest corner of sec. 34, T. 12 N., R. 2 E., thence south 14 miles to northwest corner of sec. 10, T. 9 N., R. 2 E., thence east 1 mile and south 3 miles to northwest corner of sec. 26, T. 9 N., R. 2 E.	
T. 10 N., R. 3 E., northwest corner of sec. 35; iron post stamped "3054 DW"-----	3,055.337
T. 10 N., R. 3 E., northwest corner of sec. 22; iron post stamped "2956 DW"-----	2,967.331
Ts. 10 and 11 N., R. 3 E., northwest corner of sec. 3; iron post stamped "2948 DW"-----	2,949.3
T. 11 N., R. 3 E., northwest corner of sec. 22; iron post stamped "3043 DW"-----	3,044.273
T. 11 N., R. 3 E., near northwest corner of sec. 3 (no corner post found), at heap of rocks; iron post stamped "3117 DW"-----	3,118.369
T. 12 N., R. 3 E., 30 feet northwest of northwest corner of sec. 32; iron post stamped "3126 DW"-----	3,127.567
T. 12 N., R. 2 E., quarter corner between secs. 26 and 35; iron post stamped "3114 DW"-----	3,115.226
T. 11 N., R. 2 E., northwest corner of sec. 10; iron post stamped "3104 DW"-----	3,105.344
T. 11 N., R. 2 E., 800 feet west and 180 feet north of northwest corner of sec. 27, on summit of divide between Owl and Indian creeks; iron post stamped "3297 DW"-----	3,298.360
T. 10 N., R. 2 E., 30 feet southwest of northwest corner of sec. 10; iron post stamped "3034 DW"-----	3,035.462
T. 10 N., R. 2 E., between corner pits at northwest corner of sec. 27; iron post stamped "3114 DW"-----	3,115.341
T. 9 N., R. 2 E., 1 foot west of northwest corner of sec 11; iron post stamped "3250 DW"-----	3,251.297
T. 9 N., R. 2 E., at corner of secs 22, 23, 26, and 27; iron post stamped "3076 DW"-----	3,077.608

Northwest corner of sec. 34, T. 12 N., R. 4 E., west 6 miles, thence south 13 miles to northwest corner of sec. 3, T. 9 N., R. 1 E., thence east 1 mile, south 1 mile, and east 5 miles to northwest corner of sec. 10, T. 9 N., R. 2 E.

T. 12 N., R. 2 E., northwest corner of sec. 31; iron post stamped "3130 DW"-----	Feet. 3, 131. 300
T. 12 N., R. 1 E., northwest corner of sec. 34 (no corner found), in small draw 10 feet west of Alzada road; iron post stamped "3238 DW"-----	3, 239. 408
T. 11 N., R. 1 E., northwest corner of sec. 15; iron post stamped "3123 DW"-----	3, 124. 359
T. 11 N., R. 1 E., 450 feet north of northwest corner of sec. 3, T. 10 N., R. 2 E. (no corner post found); 150 feet northwest of clump of three trees, in small creek bed; iron post stamped "3187 DW"-----	3, 188. 373
T. 10 N., R. 1 E., between corner pits northwest corner of sec. 22; iron post stamped "3322 DW"-----	3, 323. 507
Tps. 9 and 10 N., R. 1 E., 1 foot west of northwest corner of sec. 2; iron post stamped "3181 DW"-----	3, 182. 571
T. 9 N., Rs. 1 and 2 E., 3 feet west of northwest corner of sec. 7; iron post stamped "3126 DW"-----	3, 127. 491

Spearfish along county road to Belle Fourche, thence to The Forks.

T. 7 N., R. 2 E., 1,200 feet south of quarter corner between secs. 34 and 27; iron post stamped "3601 DW 1903"-----	3, 602. 274
T. 7 N., R. 2 E., 1,200 feet north of quarter corner between secs. 10 and 15; iron post stamped "3343 DW 1903"-----	3, 344. 620
Willow Creek bridge, 400 feet south of, at fence corner, 40 feet north of crossing of roads; iron post stamped "3360 DW 1903"-----	3, 161. 384
T. 8 N., R. 1 E., 300 feet east of stone at corner of secs. 11, 12, 13, and 14, forks of road; iron post stamped "3373 DW 1903"-----	3, 374. 132
Joost schoolhouse, 100 feet north of; iron post stamped "3274 DW 1903"-----	3, 275. 390
The Forks (Robinson ranch), at junction of old Miles City stage road with road from Aladdin (coal bank), in sandstone rock 6 by 8 inches, 17 inches above ground; aluminum tablet stamped "3398 DW"-----	3, 399. 435

Belle Fourche along Three V ranch road to Middle Creek Butte.

Belle Fourche, Butte County jail, northeast corner of; iron post stamped "3036 DW 1903"-----	3, 037. 678
Belle Fourche, Butte County courthouse, southeast corner of yard, in stone; azimuth tablet stamped "3011 DW"-----	3, 012. 638
Belle Fourche, 2.9 miles west of, 10 feet south of road, on rise near fence; iron post stamped "3098 DW 1903"-----	3, 099. 299
T. 9 N., R. 1 E., NE $\frac{1}{4}$ sec. 22, 30 feet south of wagon road; iron post stamped "3204 DW 1903"-----	3, 205. 187
Three V ranch, 2.5 miles north of; iron post-----	3, 180. 091

Belle Fourche along county road via Richardson ranch and Giles Crossing to Belle Fourche.

T. 9 N., R. 2 E., corner of secs. 22, 23, 26, and 27; iron post stamped "3076 DW 1903"-----	3, 077. 608
T. 9 N., R. 3 E., 0.2 mile north of quarter corner between secs. 29 and 32; iron post stamped "3029 DW 1903"-----	3, 029. 933

T. 8 N., R. 3 E., just south of northwest corner of sec. 4; iron post stamped "3004 DW 1903"-----	Feet. 3,005.101
T. 8 N., R. 3 E., quarter corner between secs. 7 and 18; iron post stamped "3187 DW 1903"-----	3,188.404

Belle Fourche along railroad to St. Onge, thence along county road to Centennial Prairie.

T. 8 N., R. 3 E., corner of secs. 26, 30, 31, and 36; iron post stamped "3149 DW 1903"-----	3,150.238
T. 7 N., R. 3 E., 0.2 mile north of and 2,300 feet west of southeast corner of sec. 9; iron post stamped "3314 DW 1903"-----	3,318.366
St. Onge, 200 feet west of station, 2,000 feet east of southwest corner of sec. 23, T. 7 N., R. 3 E.; iron post stamped "3428 DW 1903"-----	3,429.213
T. 6 N., R. 3 E., corner of secs 2, 3, 10, and 11; iron post stamped "3614 DW 1903"-----	3,615.306

Belle Fourche along county road via Snoma and Big Bottom to St. Onge.

T. 8 N., R. 3 E., 900 feet north of corner of secs. 14, 15, 22, and 23; iron post stamped "3097 DW 1903"-----	3,098.534
T. 8 N., R. 4 E., quarter corner between secs. 17 and 20; iron post stamped "2920 DW 1903"-----	2,921.430
T. 8 N., R. 4 E., corner of secs. 13, 14, 23, and 24; iron post stamped "2940 DW 1903"-----	2,941.254
T. 8 N., R. 5 E., corner of secs. 15, 16, 21, and 22; iron post stamped "2886 DW 1903"-----	2,887.354
T. 7 N., R. 5 E., 1,100 feet east of corner of secs. 4, 5, 8, and 9; iron post stamped "2984 DW 1903"-----	2,985.433
T. 7 N., R. 5 E., center of sec. 29; iron post stamped "3132 DW 1903"-----	3,133.349
T. 7 N., R. 5 E., 350 feet east of northwest corner of sec. 19; iron post stamped "3149 DW 1903"-----	3,150.247
T. 7 N., R. 4 E., 200 feet west of quarter corner between secs. 31 and 32; iron post stamped "3664 DW 1903"-----	3,665.369

Giles ranch along county road and across country via Owl Creek Bridge to corner of secs. 15, 16, 21, and 22, T. 8 N., R. 5 E.

T. 9 N., R. 3 E., corner of secs. 26, 27, 34, and 36; iron post stamped "2983 DW 1903"-----	2,984.273
T. 9 N., R. 4 E., 400 feet north and 1,600 feet west of southeast corner of sec. 30; iron post stamped "2960 DW 1903"-----	2,961.327
T. 9 N., R. 4 E., 900 feet east and 2,400 feet north of southwest corner of sec. 21; iron post stamped "2933 DW 1903"-----	2,934.323
T. 9 N., R. 5 E., 1,600 feet north of corner of secs. 23, 24, 25, and 26; iron post stamped "2865 DW 1903"-----	2,866.257
T. 9 N., R. 5 E., 500 feet west of corner of secs. 28, 29, 32, and 33; iron post stamped "2981 DW 1903"-----	2,982.602
T. 8 N., R. 5 E., 2,100 feet north of corner of secs. 3, 4, 9, and 10; iron post stamped "2821 DW 1903"-----	2,821.760

EMPIRE QUADRANGLE.

Northwest corner of sec. 22, T. 8 N., R. 5 E., east 1 mile, south 1 mile, east 1 mile, south one-half mile, east 1 mile, and south one-half mile to northwest corner of sec. 31, T. 8 N., R. 6 E., thence east 10 miles to northwest corner of sec. 35, T. 8 N., R. 7 E., thence north 2 miles, east 1 mile, north 1 mile, and west 10 miles to northwest corner of sec. 13, T. 8 N., R. 5 E., thence north 1 mile, west 2 miles, and north one-half mile to section line 2,100 feet north of northwest corner of sec. 10, T. 8 N., R. 5 E.

T. 8 N., R. 5 E., 30 feet northeast of northwest corner of sec. 25; iron post stamped "2815 DW"-----	Feet. 2, 816.402
T. 8 N., R. 6 E., 40 feet northwest of northwest corner of sec. 32; iron post stamped "2788 DW"-----	2, 789.278
T. 8 N., R. 6 E., 40 feet southwest of northwest corner of sec. 35; iron post stamped "2812 DW"-----	2, 809.497
T. 8 N., Rs. 6 and 7 E., 30 feet southwest of northwest corner of sec. 31; iron post stamped "2783 DW"-----	2, 784.331
T. 8 N., R. 7 E., 50 feet southeast of northwest corner of sec. 33; iron post stamped "2710 DW"-----	2, 711.271
T. 8 N., R. 7 E., 40 feet southeast of northwest corner of sec. 35; iron post stamped "2679 DW"-----	2, 679.125
T. 8 N., R. 7 E., northwest corner of sec. 23; iron post stamped "2777 DW"-----	2, 777.456
T. 8 N., R. 7 E., near northwest corner of sec. 16, at fence corner south of road; iron post stamped "2726 DW"-----	2, 726.126
T. 8 N., Rs. 6 and 7 E., 40 feet southeast of northwest corner of sec. 18; iron post stamped "2728 DW"-----	2, 728.211
T. 8 N., R. 6 E., 40 feet southeast of northwest corner of sec. 14; iron post stamped "2751 DW"-----	2, 751.336
T. 8 N., R. 6 E., 50 feet southwest of southeast corner of sec. 7; iron post stamped "2903 DW"-----	2, 904.307
T. 8 N., R. 5 E., at quarter corner between secs. 11 and 12; iron post stamped "2819 DW"-----	2, 819.210
T. 8 N., R. 5 E., 2,100 feet north of northwest corner of sec. 10; iron post stamped "2820 DW"-----	2, 821.760

Horse Creek Bridge at Steager ranch east 2 miles and south 1 mile, thence east 9 miles to northwest corner of sec. 33, T. 9 N., R. 7 E., thence south 3 miles to northwest corner of sec. 16, T. 8 N., R. 7 E.

T. 9 N., R. 5 E., southeast corner of sec. 23; iron post stamped "2903 DW"-----	2, 904.385
T. 9 N., R. 6 E., quarter corner between secs. 30 and 31; iron post stamped "2857 DW"-----	2, 858.484
T. 9 N., R. 6 E., quarter corner between secs. 28 and 33; iron post stamped "2810 DW"-----	2, 811.492
T. 9 N., R. 6 E., southeast corner of sec. 26; iron post stamped "2805 DW"-----	2, 806.312
T. 9 N., R. 7 E., southeast corner of sec. 29; iron post stamped "2840 DW"-----	2, 841.216

Northwest corner of sec. 15, T. 9 N., R. 5 E., east 3 miles, north 2 miles, east 2 miles, and south and east 5 miles to quarter corner between secs. 28 and 33, T. 9 N., R. 6 E.

T. 9 N., R. 6 E., northwest corner of sec. 18; iron post stamped "2850 DW"-----	2, 851.344
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Tps. 9 and 10 N., Rs. 5 and 6 E., corner of; iron post stamped "2898 DW 1904"-----	Feet. 2, 899. 278
T. 9 N., R. 6 E., northwest corner of sec. 4; iron post stamped "2909 DW"-----	2, 910. 357
T. 9 N., R. 6 E., 30 feet south of northwest corner of sec. 16; iron post stamped "2871 DW"-----	2, 872. 267

Northwest corner of sec. 16, T. 9 N., R. 6 E., east 6 miles, north 1 mile, and east 2 miles to northwest corner of sec. 11, T. 9 N., R. 7 E., thence south 1 mile, west 1 mile, south 1 mile, west 1 mile, and south 2 miles to northwest corner of sec. 33, T. 9 N., R. 7 E.

T. 9 N., R. 6 E., 380 feet north of northwest corner of sec. 13; iron post stamped "2897 DW"-----	2, 898. 294
T. 9 N., R. 7 E., northwest corner of sec. 17; iron post stamped "2776 DW"-----	2, 777. 072
T. 9 N., R. 7 E., northwest corner of sec. 10; iron post stamped "2902 DW"-----	2, 903. 489
T. 9 N., R. 7 E., northwest corner of sec. 14; iron post stamped "2908 DW"-----	2, 909. 272
T. 9 N., R. 7 E., northwest corner of sec. 21; iron post stamped "2873 DW"-----	2, 874. 224

Point 40 feet southwest of northwest corner of sec. 35, T. 8 N., R. 6 E., south 3 miles, west 6 miles, south 0.5 mile, east 1 mile, south 1.5 miles, east 1 mile, and south 2 miles to corner of Tps. 6 and 7 N., Rs. 5 and 6 E., thence east 8 miles, north 4 miles, east 1 mile, north 2 miles, and northwest 1 mile to point 50 feet southeast of northwest corner of sec. 33, T. 8 N., R. 7 E.

T. 7 N., R. 6 E., northwest corner of sec. 14; iron post stamped "2890 DW"-----	2, 891. 391
T. 7 N., R. 6 E., 800 feet east of northwest corner of sec. 17; iron post stamped "3025 DW"-----	3, 026. 374
T. 7 N., R. 5 E., northwest corner of sec. 14; iron post stamped "2908 DW"-----	2, 909. 401
T. 7 N., R. 5 E., northwest corner of sec. 25; iron post stamped "2934 DW"-----	2, 935. 383
T. 6 N., R. 6 E., northwest corner of sec. 6; iron post stamped "3037 DW"-----	3, 038. 414
T. 6 N., R. 6 E., northwest corner of sec. 3; iron post stamped "3068 DW"-----	3, 069. 419
Tps. 6 and 7 N., Rs. 6 and 7 E., corner of; iron post stamped "2983 DW"-----	2, 984. 467
T. 7 N., R. 7 E., northwest corner of sec. 33; iron post stamped "2942 DW"-----	2, 943. 454
T. 7 N., R. 7 E., northwest corner of sec. 16; iron post stamped "2819 DW"-----	2, 820. 470

Northwest corner of sec. 10, T. 9 N., R. 7 E., north 15 miles to northwest corner of sec. 27, T. 12 N., R. 7 E., thence east 6 miles to northwest corner of sec. 27, T. 12 N., R. 6 E., thence south 14 miles and west 1 mile to northwest corner of sec. 4, T. 9 N., R. 6 E.

T. 10 N., R. 7 E., northwest corner of sec. 27; iron post stamped "2935 DW"-----	2, 936. 250
T. 10 N., R. 7 E., northwest corner of sec. 10; iron post stamped "3093 DW"-----	3, 094. 135

T. 11 N., R. 7 E., northwest corner of sec. 27; iron post stamped "3004 DW"-----	Feet. 3,005.204
T. 11 N., R. 7 E., northwest corner of sec. 10; iron post stamped "2927 DW"-----	2,928.280
T. 12 N., R. 7 E., northwest corner of sec. 27; iron post stamped "2957 DW"-----	2,958.437
T. 12 N., R. 7 E., northwest corner of sec. 30; iron post stamped "2979 DW"-----	2,980.303
T. 12 N., R. 6 E., northwest corner of sec. 27; iron post stamped "3045 DW"-----	3,046.299
T. 11 N., R. 6 E., northwest corner of sec. 10; iron post stamped "3063 DW"-----	3,065.337
T. 11 N., R. 6 E., northwest corner of sec. 27; iron post stamped "2986 DW"-----	2,987.277
T. 10 N., R. 6 E., northwest corner of sec. 10; iron post stamped "2943 DW"-----	2,944.372
T. 10 N., R. 6 E., northwest corner of sec. 27; iron post stamped "2929 DW"-----	2,930.330
T. 9 N., R. 6 E., NW. $\frac{1}{4}$ sec. 3, Dry triangulation station; iron post stamped "3006 DW"-----	3,007.223

Northwest corner of sec. 10, T. 9 N., R. 5 E., north along section lines to
northwest corner of sec. 30, T. 12 N., Rs. 4 and 5 E.

T. 10 N., R. 5 E., northwest corner of sec. 27; iron post stamped "2942 DW"-----	2,943.217
T. 10 N., R. 5 E., northwest corner of sec. 10; iron post stamped "2976 DW"-----	2,976.314
T. 11 N., R. 5 E., northwest corner of sec. 27; iron post stamped "3160 DW"-----	3,161.226
T. 11 N., R. 5 E., northwest corner of sec. 10; iron post stamped "3049 DW"-----	3,050.414
T. 12 N., R. 5 E., northwest corner of sec. 27; iron post stamped "3169 DW"-----	3,170.282

Northwest corner of sec. 33, T. 7 N., R. 7 E., east along line between Tps. 6
and 7 N., thence north along line between Rs. 8 and 9, thence west along
line between Tps. 11 and 12 N. to northwest corner of sec. 10, T. 11 N.,
R. 7 E.

NOTE.—The original error of this line was 2.66 feet. The line was
adjusted by correcting 2.06 feet of this error between secs. 17
and 18, T. 8 N., R. 9 E., where doubt exists, and the remainder by
distribution. Reliance can not be placed on these elevations until
they are checked by further field work.

T. 7 N., R. 7 E., northwest corner of sec. 33; iron post stamped "2942"-----	2,943.454
T. 6 N., R. 7 E., northwest corner of sec. 3; top of corner stone marked "2901"-----	2,898.03
T. 6 N., R. 7 E., northwest corner of sec. 2; top of corner stone marked "2894"-----	2,891.27
T. 6 N., R. 7 E., northwest corner of sec. 1; top of corner stone marked "2839"-----	2,835.73
T. 6 N., R. 8 E., northwest corner of sec. 6; iron post stamped "2793"-----	2,789.713
T. 6 N., R. 8 E., northwest corner of sec. 5; top of corner stone marked "2745"-----	2,742.31

	Feet.
T. 6 N., R. 8 E., 40 feet northwest of iron bridge, on Belle Fourche River; iron post stamped "2555"-----	2,552.122
T. 7 N., R. 8 E., northwest corner of SW. $\frac{1}{4}$ sec. 24; top of rock marked "2781"-----	2,778.08
T. 7 N., R. 9 E., northwest corner of sec. 19; iron post stamped "2761"-----	2,757.819
T. 7 N., R. 9 E., northwest corner of SW. $\frac{1}{4}$ sec. 7; top of rock marked "2766"-----	2,763.10
T. 7 N., R. 9 E., northwest corner of sec. 7, top of corner stone marked "2741"-----	2,738.16
T. 7 N., R. 9 E., northwest corner of sec. 6; iron post stamped "2733"-----	2,730.556
T. 8 N., R. 8 E., 600 feet northwest of southeast corner of sec. 36; square cut in top of large rock marked "2774"-----	2,771.14
T. 8 N., R. 9 E., west side of sec. 19, on section line; large rock marked "2752"-----	2,749.35
T. 8 N., R. 9 E., near center of sec. 18; large rock marked "2788"-----	2,785.83
T. 8 N., R. 9 E., northwest corner of sec. 17; iron post stamped "2701"-----	2,700.536
T. 8 N., R. 9 E., northwest corner of SW. $\frac{1}{4}$ sec. 6; top of rock marked "2745"-----	2,744.41
T. 8 N., R. 9 E., northwest corner of sec. 6; iron post stamped "2770"-----	2,769.428
T. 9 N., R. 9 E., on line between secs. 31-36, northwest corner of sec. 31; rock marked "2810"-----	2,809.40
T. 9 N., R. 9 E., northwest corner of sec. 19; iron post stamped "2851"-----	2,850.555
T. 9 N., R. 9 E., northwest corner of NE. $\frac{1}{4}$ sec. 7; top of rock marked "2875"-----	2,874.57
T. 9 N., R. 9 E., northwest corner of sec. 5; iron post stamped "2818"-----	2,818.950
T. 10 N., R. 9 E., northwest corner of SE. $\frac{1}{4}$ sec. 19; top of large rock marked "2905"-----	2,904.51
T. 10 N., R. 9 E., northwest corner of sec. 19; iron post stamped "2834"-----	2,833.571
T. 10 N., R. 9 E., on west line of sec. 18; large rock marked "2856"-----	2,855.20
T. 10 N., R. 9 E., west line of sec. 7, at top of high hill; large rock marked "2871"-----	2,870.52
T. 10 N., R. 9 E., northwest corner of sec. 7; top of large rock marked "2846"-----	2,845.41
T. 10 N., R. 9 E., northwest corner of sec. 6; iron post stamped "2876"-----	2,875.131
T. 11 N., R. 9 E., on west line of sec. 30, 500 feet south northwest of corner of sec. 30; wooden stake marked "2825"-----	2,825.38
T. 11 N., R. 9 E., northwest corner of sec. 19; iron post stamped "2795"-----	2,794.286
T. 11 N., R. 9 E., 700 feet south and 300 feet west of northwest corner of sec. 6; top of rock marked "2873"-----	2,872.35
T. 11 N., R. 9 E., 700 feet south and 300 feet west of northwest corner of sec. 6, in large rock; tablet stamped "2874"-----	2,873.783
T. 11 N., R. 8 E., northwest corner of sec. 3; iron post stamped "2910"-----	2,909.445
T. 11 N., R. 8 E., northwest corner of sec. 6, at top of hill north of trail; iron post stamped "2926"-----	2,925.58

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