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SPIRIT LEVELING IN TEXAS

PART 3. WEST-CENTRAL TEXAS

1896-1938

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Chief Topographic Engineer



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SPIRIT LEVELING IN TEXAS

PART 3. WEST-CENTRAL TEXAS, 1896-1938

J. G. STAACK, Chief Topographic Engineer

INTRODUCTION

Scope of report.—This bulletin, which for convenience is to be published in seven parts, contains the results of all spirit leveling done by the Geological Survey in Texas, including those heretofore published.¹ Each of the parts deals with one of seven sections into which the State has been divided for this purpose and which have been designated northeastern, southeastern, north-central, south-central, west-central, and western Texas, and the Panhandle. In each part descriptions of the points for which figures of elevation have been determined are listed according to the quadrangles in which the points occur. Results of spirit leveling other than that done by the Geological Survey have not been included.

Classification of leveling.—Spirit leveling is classified according to the degree of refinement in the instruments and methods used and according to the closure errors.

First-ordering leveling² consists of leveling done with the most improved instruments, all sections being leveled twice, in opposite directions, under varying conditions. Closures are not allowed to exceed the amount in feet represented by the formula

$$0.017\sqrt{\text{length of section in miles.}}$$

All corrections for rod error, temperature, and unbalanced sights are applied, as well as the orthometric corrections for convergence toward the poles of level surfaces of different elevations.

¹ For the results of spirit leveling in Texas previously published see Triangulation and spirit leveling—Southern Texas: U. S. Geol. Survey 18th Ann. Rept., pt. 1, pp. 364-391, 1897; Triangulation and spirit leveling—Southern Texas: U. S. Geol. Survey 19th Ann. Rept., pt. 1, pp. 327-353, 1898; Triangulation and spirit leveling—Southern Texas: U. S. Geol. Survey 20th Ann. Rept., pt. 1, pp. 423-457, 1899; Triangulation, primary traverse, and spirit leveling—Southern Texas: U. S. Geol. Survey 21st Ann. Rept., pt. 1, pp. 483-495, 1900; Spirit leveling in Texas, 1896 to 1910, inclusive: U. S. Geol. Survey Bull. 468, 133 pp., 1911; Spirit leveling in Texas, 1896 to 1915, inclusive: U. S. Geol. Survey Bull. 637, 254 pp., 1916.

² See Avers, H. G., Manual of first-order leveling: U. S. Coast and Geodetic Survey Special Pub. 140, 1929.

Second-order leveling, according to regulations of the Geological Survey, comprises lines leveled twice with reliable instruments, though not necessarily of the most improved type. Closures are not allowed to exceed $0.035\sqrt{\text{length of section in miles}}$.

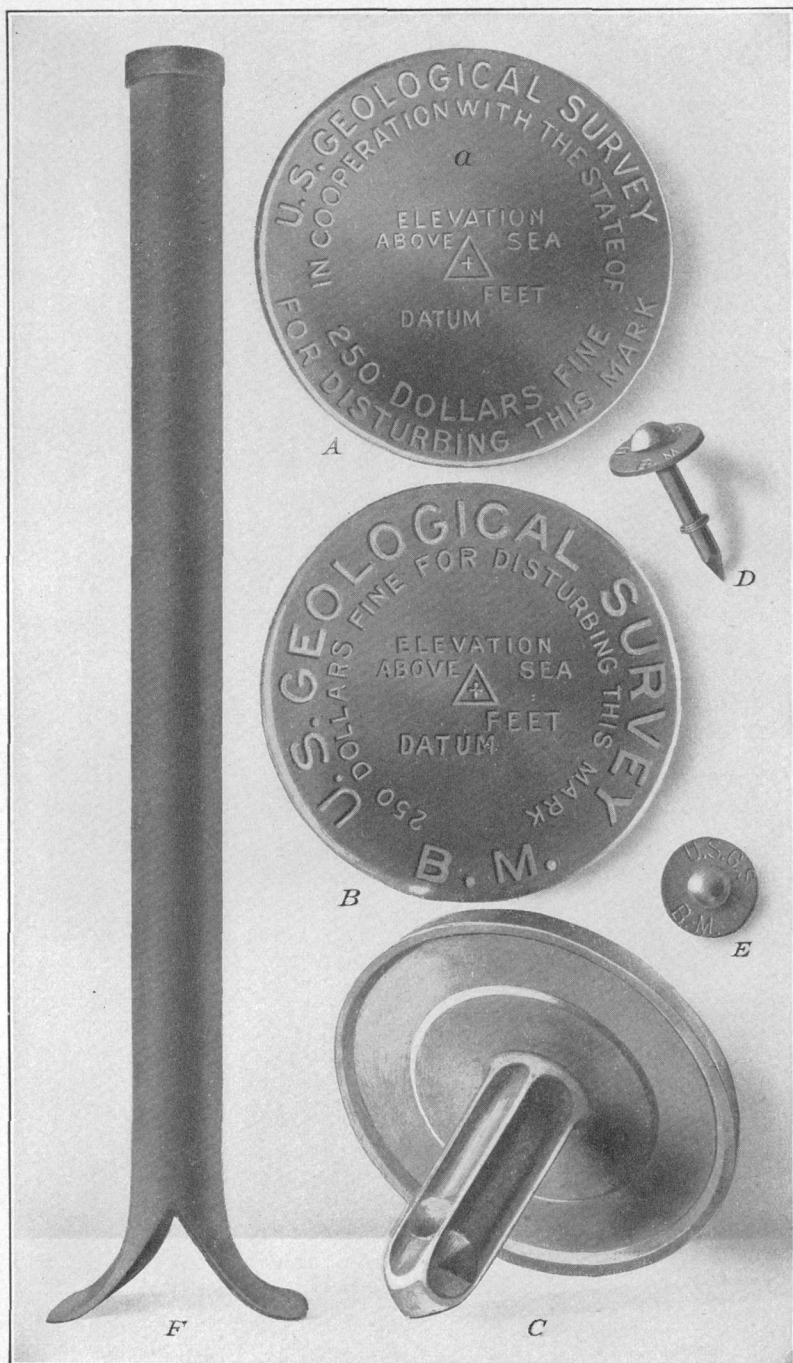
Third-order leveling is made up of lines that are run, either with first-order equipment or with an engineer's wye level and rods of the New York type, in single-line circuits that are required to close within the limits, in feet, of $0.05\sqrt{\text{length of circuit in miles}}$. This is equivalent to $0.071\sqrt{\text{length of section}}$ if the line is leveled twice.

All leveling done by the Geological Survey in Texas is of third-order accuracy except as otherwise stated.

Adjustments.—The adjustment of a net of leveling begins with the first-order lines. Most of these lines in both the United States and Canada have already been combined in a general net, and the orthometric differences derived from the observed values by correction for the convergence of level planes toward the north have been adjusted by least squares to remove accidental closure errors. The latest adjustment of this kind was made in 1929 by the United States Coast and Geodetic Survey and is known as the "1929 general adjustment of first-order leveling." This adjustment included the first-order lines in Texas, and the elevations thus derived are the fundamental references for elevations determined by second- and third-order nets. The third-order leveling of the Geological Survey in Texas has been adjusted by determining weighted mean elevations for new junction points and prorating the errors of each link. The weights are taken as the reciprocals of lengths of links. The third-order net has thus been brought into agreement with the best information available for the results of the fundamental first-order leveling, although the published figures of elevation may be changed slightly by future adjustments of the level net.

Bench marks.—The bench marks used by the Geological Survey (pl. 1) are of two general classes—principal and supplementary. Principal bench marks are placed at more or less regular intervals along a level line, at sites offering them protection from disturbance and affording favorable conditions for their future recovery. They are usually bronze or aluminum tablets, iron posts, or copper bolts. Supplementary or auxiliary bench marks are less formal in design and are placed between the principal bench marks. Some of the supplementary bench marks in common use are marks cut with a chisel on rock or masonry, spikes, and copper nails fitted with washers.

The tablets are circular in shape, measure $3\frac{7}{8}$ inches in diameter, and taper from a thickness of three-eighths of an inch at the center to about a quarter of an inch near the rounded edge. During a short period in the earlier years of the Survey's leveling the tablets



STANDARD GEOLOGICAL SURVEY BENCH MARKS.

A and *B*, Standard tablets, principal bench marks, used where masonry or rock is available to hold them. *A* is used in cooperating States; the State name is inserted at *a*. *C*, Under side of *A* and *B*, showing shank used to hold tablet in place. *D* and *E*, Two views of copper nail and copper washer, a supplementary bench mark, used for points lying between those marked by standard tablets. *F*, Standard iron post fitted with bronze cap similar in design to the standard tablet, formerly used where no rock or masonry was available; superseded by concrete post with tablet set in top.

set were made of aluminum. The softness of this metal, however, made them susceptible to damage, so that aluminum as a material for tablets was soon discarded. The earliest tablets were made of bronze and it is the material now specified for standard tablets. Each tablet is cast with a 3-inch shank extending from the center of its reverse side, by means of which it is cemented in place, and each bears an inscription on its face. The inscriptions on the tablets already placed differ in many details, because of changes in design at various times. The face of every tablet, however, is cast with the words "U. S. Geological Survey," a cross at the center, which indicates the fiducial point for position or elevation, and the words "Elevation above sea." On some tablets the inscription indicates that they were set in connection with a project in which a State or other organization cooperated; on some, the inscription includes a triangle, which signifies a located point, enclosing a small cross at the center. Tablets bearing a triangle enclosing a cross may be used not only as bench marks but also as triangulation- or traverse-station marks. The inscription on most of the tablets already set includes the warning "250 dollars fine for disturbing this mark," but the latest design omits this phrase and adds the sentence "For information write the Director, Washington, D. C."

If the tablet is set to mark a transit-traverse station, the traverse-man stamps upon it with steel dies letters indicating this use of it, such as "Prim Trav Sta," "P T S," or "T T," as well as his own identifying letter or letters, the serial number of the station, and the year. If the tablet is set as a bench mark, the levelman stamps it with his identifying letter or letters, the serial number of the bench mark, and the year. He may at the same time stamp upon it the figures of elevation to the nearest foot; or these figures may be added later. A tablet may be used both as a traverse-station mark and as a bench mark. The engineer who establishes the mark stamps it as noted above and records the stamping with the description to facilitate identification. Engineers who use the mark in subsequent surveys do not alter the original stamping nor add their own stampings with the exception of figures of elevation.

The figures of elevation that appear on a tablet are usually those determined by field computation only. It is sometimes found, therefore, that they do not represent the latest information. This has happened either because they refer to some independent datum temporarily adopted before first-order trunk lines made standard datum available, or because a later adjustment made in the office has rendered necessary an appreciable change in the figures as determined in the field. It is assumed that engineers and others who require accurate figures of elevation for the marks will use those printed in the bulletin instead of accepting the stamped figures.

If the appropriate bulletin is not conveniently accessible, a request for the desired information may be addressed to the Director of the Geological Survey, United States Department of the Interior, Washington, D. C.

The tablet, of whatever style, is cemented into a hole drilled in solid rock or in the wall of a public building, bridge abutment, or other masonry structure. Where masonry or rock is not available the tablet is set in the top of a reinforced concrete post, which may be either precast or mixed and molded at the selected site. The posts are about 8 inches square or 8 inches in diameter at the top and larger at the base. They are generally set so as to project about 6 inches above ground and are made sufficiently long to reach below the frost line.

Antedating the concrete posts which are now constructed to hold the tablets, in places where masonry or rock is not available, are wrought-iron posts, to the tops of which are riveted bronze caps similar in design to the tablets. These iron posts measure 4 feet in length and $3\frac{1}{2}$ inches in outer diameter and are set about 3 feet in the ground. The bottom of the post spreads out to a width of about 10 inches in order to give it a firm footing in the earth. No iron posts have been set in recent years. They have proved impracticable, as they are easily disturbed and are eventually destroyed by rust at the ground level.

The third form of principal bench mark, set only in the early leveling, is a copper bolt, designed to be wedged into a drill hole in rock or masonry and perhaps further secured with lead or cement. This bolt measures 4 inches in length and 1 inch in diameter and has a slot at the bottom end into which fits a brass wedge. The wedge serves to expand the lower part of the bolt, so that after the bolt has been driven nearly its full length into the hole, it cannot easily be removed. The exposed end of the bolt bears an appropriate inscription, stamped upon it with steel dies. The inscription is made up of the letters "U S G S," the letters indicating the datum used, the figures of elevation, and the abbreviated word "Ft."

Supplementary bench marks are of many kinds. One kind consists of a copper nail $1\frac{1}{2}$ inches long supplied with a copper washer seven-eighths of an inch in diameter. The nail is driven into the root of a tree or cemented into rock. The designation "U S G S B M" is stamped on each washer, and on some washers the abbreviation of the name of the cooperating State is added. Another kind of supplementary bench mark is a chiseled square, used on the horizontal surface of a rock or masonry structure, or a chiseled cross, used on a vertical surface. Nails, track spikes, and small capped iron pipes also serve as supplementary bench marks, and easily described and

recognized points, such as doorsills and tops of hydrants, are occasionally used.

Preservation and restoration of bench marks.—Any person who finds that a principal bench mark has been damaged, disturbed, or destroyed or that it should be reset or redescribed on account of highway or other improvements will render a public service by communicating the facts to the Director, Geological Survey, United States Department of the Interior, Washington, D. C., before taking any action affecting the location or elevation of the mark. A proper form, accompanied by a return-addressed, franked envelope, will be sent for use in reporting the action taken and in recording the revised description of the mark, if any, and the notes made in obtaining the revised elevation.

Datum.—All elevations determined by the Geological Survey and those determined by the Coast and Geodetic Survey for inland mapping are referred to mean sea level, which is the level that the sea would assume if the influence of winds, tides, and currents were eliminated. This level is not the elevation determined from the mean of the highest and 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 those due to 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 stations on the open coast 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 levels determined from observations made in the Atlantic Ocean, the Gulf of Mexico, and the Pacific Ocean.³

Location of the area.—West-central Texas, as the term is used in this bulletin and as the subject of part 3 of the bulletin, is that section of the State lying south of latitude 32° and between longitudes 100° and 103°. (See fig. 5.)

Index map.—The accompanying index map of west-central Texas (fig. 6) shows the relative position of the quadrangle areas in which leveling has been done. They are of two sizes—15-minute and 30-minute quadrangles. Each 15-minute quadrangle measures 15 minutes in latitude by 15 minutes in longitude. Each 30-minute quadrangle measures 30 minutes in latitude by 30 minutes in longitude and is equal in area to four 15-minute quadrangles.

³ See Jones, E. L., *Hypsometry—Use of mean sea level as the datum for elevations*: U. S. Coast and Geodetic Survey Special Pub. 41, 1917; *Manual of tide observations*: U. S. Coast and Geodetic Survey Special Pub. 196, 1935.

Maps of quadrangles in west-central Texas for which surveys have been completed may be purchased at 10 cents each retail or 6 cents wholesale, in lots of 50 or more. Prepayment is required and may be made by money order, payable to the Director of the Geological Survey, or in cash—the exact amount, at sender's risk. Postage stamps should not be sent. These maps are of nearly uniform size regardless of the size of the areas they represent, because they are drawn on different scales. For some of the 15-minute quadrangles

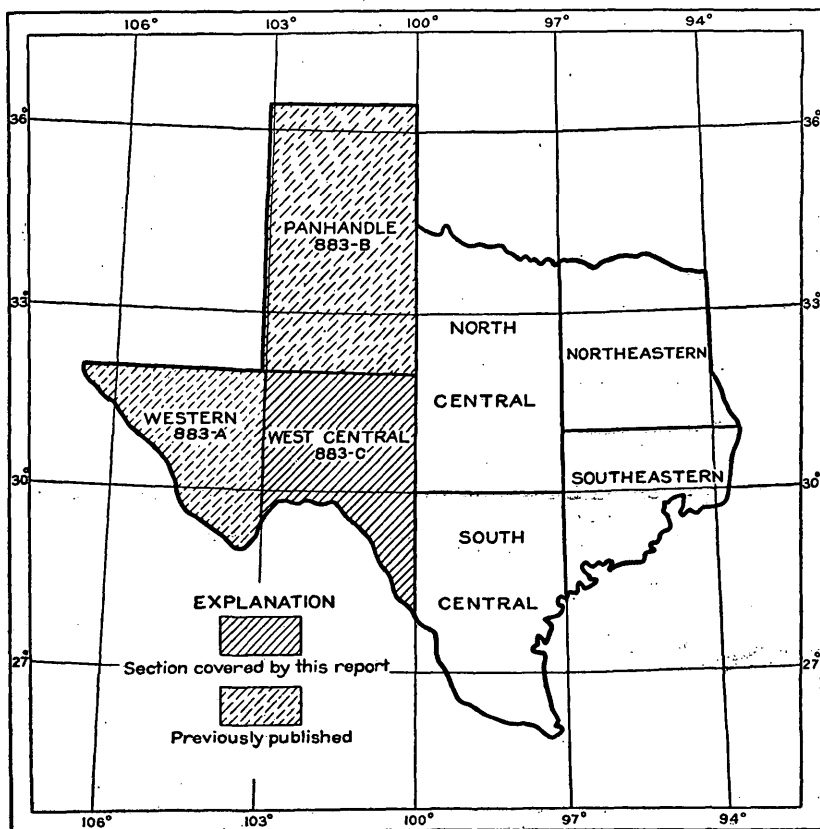


FIGURE 5.—Outline map of Texas showing the names and relative position of the seven sections covered by the parts of Bulletin 883 on spirit leveling in the State.

that appear on the index map there are as yet no corresponding maps, but these areas are included in 30-minute quadrangles, for some of which maps may be purchased.

Cooperation.—The State of Texas, through the University of Texas Mineral Survey in 1902 and 1903, and the State Reclamation Service in 1909, 1910, and 1923–27, contributed financially to the work of mapping and leveling this section of the State.

Personnel.—The leveling of the Geological Survey in west-central Texas was done under the supervision of the several chief geographers

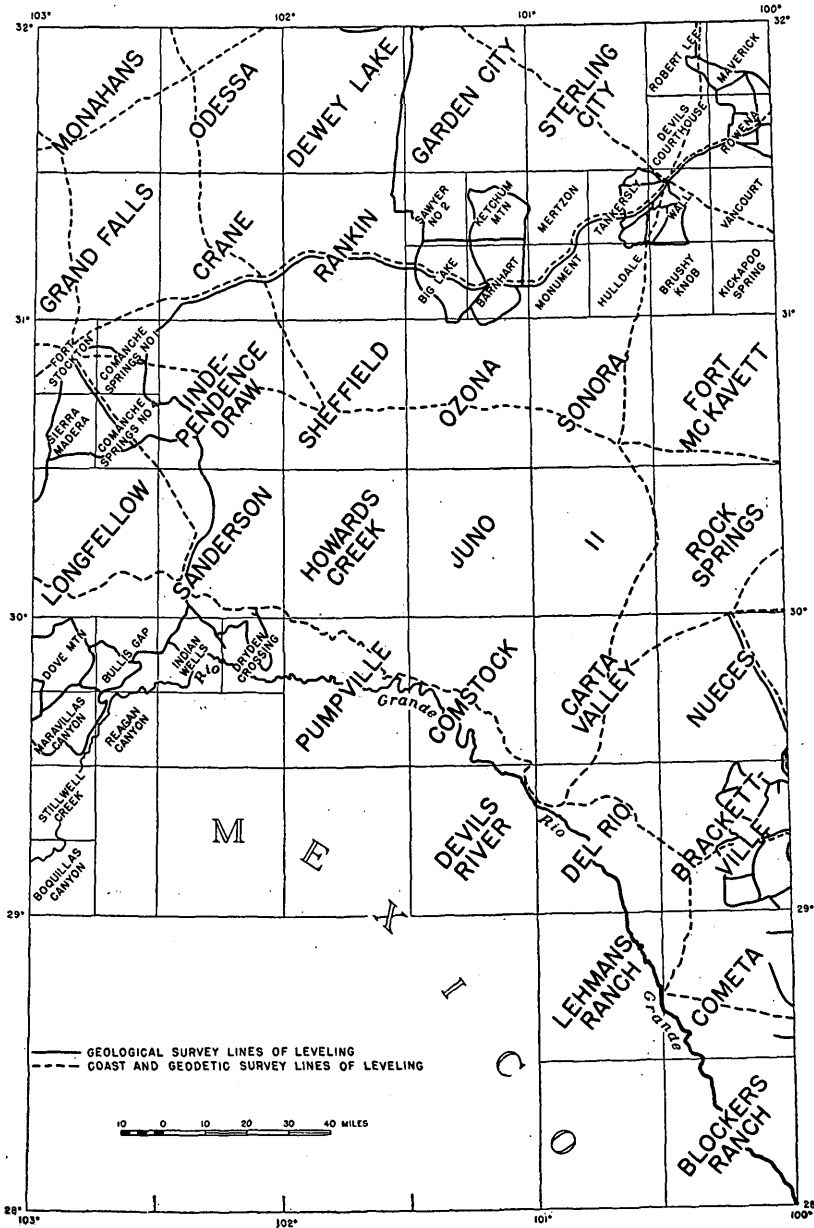


FIGURE 6.—Index map of west-central Texas showing the quadrangles into which this section of the State has been divided and the routes of leveling.

or chief topographic engineers who were in administrative charge of the topographic branch during the years when the lines were run.

The name of the levelman who ran a particular line and the date when it was run immediately follow the designation of the route of that line and form part of the heading that precedes the descriptions of bench marks. The adjustment of the third-order level net and the revision, correlation, and compilation of the descriptions and elevations of bench marks, as well as the assembling of the lists, were done by R. G. Clinite, associate geodetic engineer, under the supervision of R. M. Wilson, chief of the section of computing, under the general direction of J. G. Staack, chief topographic engineer.

DESCRIPTIONS OF BENCH MARKS

BARNHART QUADRANGLE

[Latitude 31°00'–31°15'; longitude 101°00'–101°15']

CROCKETT AND IRION COUNTIES

From Big Lake quadrangle east along Kansas City, Mexico & Orient Railway * to point 2.4 miles east of Suggs, thence generally north along roads into Ketchum Mountain quadrangle (by E. E. Harris in 1920)

Feet

Barnhart, 4.0 mi. W. of, 50 ft. N. of track, 4 ft. W. of milepost 776, in rock set in place; aluminum tablet stamped "1920 Texas 2629"-----	2, 629. 373
Reference mark, 50 ft. N. of track, 20 ft. W. of milepost 776, in base of thorn tree; rail spike-----	2, 629. 70
Barnhart, 1.0 mi. W. of, 50 ft. N. of track, 4 ft. E. of milepost 773; iron post stamped "1920 Texas 2578"-----	2, 578. 151
Barnhart, in front of sta.; top of S. rail of main track-----	2, 559. 9
Barnhart, 200 ft. N. of sta., 110 ft. N. of track, 71 ft. W. of rd., 41 ft. S. of hotel, in root on E. side of 12-in. mesquite tree; copper nail and washer-----	2, 559. 47
Barnhart, 2.0 mi. E. of, 3.6 mi. W. of Suggs, 150 ft. S. of dirt rd., 90 ft. N. of track, opposite milepost 770, in rock set in place; aluminum tablet stamped "1920 Texas 2540" (recovered by U. S. C. & G. S. in 1934)-----	2, 540. 480
Suggs, on S. side of E.-W. rd., 25 ft. W. of rd. S. through gate; iron post stamped "1920 Texas 2483" (recovered in 1923; also recovered by U. S. C. & G. S. in 1934)-----	2, 484. 122
Suggs, 2.4 mi. E. of, 200 ft. E. of rd. N., 50 ft. N. of track, 6 ft. E. of milepost 764, 5 ft. inside right-of-way; iron post stamped "1920 Texas 2442" (recovered by U. S. C. & G. S. in 1934)-----	2, 442. 659
Suggs, 2.4 mi. E., thence 0.8 mi. N. from, 2.5 mi. S. of Noelke ranch house, 30 ft. W. of center line of rd., in root on E. side of 6-in. mesquite tree; copper nail and washer-----	2, 465. 56
Noelke ranch house, 1.4 mi. S. of, 100 ft. SW. of gate, 35 ft. W. of center line of rd., in root on W. side of 6-in. mesquite tree; copper nail and washer-----	2, 459. 87
Noelke ranch house, 700 ft. E. of, 330 ft. SE. of intersection of rd. E. to Mertzon, 30 ft. S. of center line of rd.; iron post stamped "1920 Texas 2486"-----	2, 486. 994
Noelke ranch house, 0.8 mi. N. of, 15 ft. W. of center line of rd., 15 ft. S. of fence line, in root on E. side of thorn tree; copper nail and washer-----	2, 509. 34

* Now the Panhandle & Santa Fe Railway.

Feet

Noelke ranch house, 2.1 mi. N. of, about 300 ft. SW. of windmill, about 100 ft. W. of corral, 20 ft. W. of center line of rd., in root on W. side of 10-in. mesquite tree; copper nail and washer.....	2, 543. 29
Noelke ranch house, 3.6 mi. NW. of, 15 ft. W. of center line of rd., 1 ft. S. of fence line, in rock set in place; aluminum tablet stamped "1920 Texas 2643".....	2, 643. 329
Noelke ranch house, 4.6 mi. NW. of, 40 ft. W. of center line of rd., in root on S. side of mesquite tree; copper nail and washer.....	2, 604. 14
Noelke ranch house, 5.6 mi. NW. of, about 250 ft. E. of windmill, 30 ft. E. of center line of rd., in root on E. side of mesquite tree; copper nail and washer.....	2, 528. 86
Noelke ranch house, 6.6 mi. N. of, 20 ft. W. of center line of rd., in root on W. side of 12-in. mesquite tree; copper nail and washer....	2, 502. 51

From Barnhart northwest along Barnhart-Bar S road into Ketchum Mountain quadrangle at point 2.8 miles south of Bar S ranch (by E. E. Harris in 1920)

Barnhart, 2.4 mi. NW. of, 25 ft. E. of center line of rd., on S. side of fence line, in rock set in place; aluminum tablet stamped "1920 Texas 2666".....	2, 666. 934
Barnhart, 3.2 mi. NW. of, 25 ft. E. of rd. fork, on rock set in place; chiseled square.....	2, 587. 37
Barnhart, 4.2 mi. NW. of, 35 ft. E. of center line of rd., in root on N. side of 7-in. thorn tree; copper nail and washer.....	2, 544. 65
Barnhart, 5.2 mi. NW. of, 60 ft. E. of center line of rd., in root on N. side of thorn tree; copper nail and washer.....	2, 636. 36
Barnhart, 6.1 mi. NW. of, 50 ft. E. of center line of rd., 3 ft. N. of small thorn tree, in rock set in place; aluminum tablet stamped "1920 Texas 2678".....	2, 678. 147
Barnhart, 7.1 mi. NW. of, 6.3 mi. S. of Bar S ranch headquarters, 30 ft. E. of center line of rd., on N. side of fence line, in root on E. side of thorn tree; copper nail and washer.....	2, 653. 52
Bar S ranch headquarters, 5.3 mi. S. of, 30 ft. W. of center line of rd., in root on W. side of thorn tree; copper nail and washer.....	2, 591. 28
Bar S ranch headquarters, 4.0 mi. S. of, 60 ft. W. of rd. fork, 30 ft. S. of rd. to W.; iron post stamped "1920 Texas 2559".....	2, 559. 836
Bar S ranch headquarters, 3.0 mi. S. of, 30 ft. E. of center line of rd., on stone marked "NE 165 SW 161"; chiseled square.....	2, 527. 14

From Barnhart generally southwest along Barnhart-Ozona and Sheffield roads into Big Lake quadrangle (by E. E. Harris in 1920)

Barnhart, 2.0 mi. SW. of, on W. side of rd., 5 ft. S. of milepost 2, on E. side of fence line, in rock set in place; aluminum tablet stamped "1920 Texas 2591".....	2, 591. 109
Barnhart, 3.0 mi. SW. of, 15 ft. W. of W. side of rd., 80 ft. N. of milepost 3, in root on S. side of mesquite tree; copper nail and washer...	2, 635. 75
Barnhart, 4.0 mi. SW. of, near Crockett-Irion county line, 40 ft. E. of milepost 4, in roadbed, on rock outcrop; chiseled square.....	2, 676. 08
Barnhart, 5.4 mi. SW. of, at junction of Sheffield rd., on W. side of Ozona rd., 15 ft. S. of rd. SW.; iron post stamped "1920 Texas 2679".....	2, 679. 161
Barnhart, 6.4 mi. SW. of, on N. side of rd., in root on W. side of thorn tree; copper nail and washer.....	2, 680. 45
Barnhart, 7.2 mi. SW. of, 150 ft. S. of southernmost of twin windmills, 100 ft. NW. of center line of rd., in root on W. side of 12-in. mesquite tree; copper nail and washer.....	2, 689. 21

	<i>Feet</i>
Barnhart, 8.3 mi. SW. of, 100 ft. W. of center line of rd., 6 ft. N. of mesquite tree painted white; iron post stamped "1920 Texas 2703"-----	2, 703. 229
Reference mark, 100 ft. W. of center line of rd., in root on E. side of mesquite tree; copper nail and washer-----	2, 702. 83
Barnhart, 9.2 mi. SW. of, 20 ft. W. of center line of rd., in root on N. side of thorn tree; copper nail and washer-----	2, 708. 02
From road junction 5.4 miles southwest of Barnhart southwest and south along Barnhart-Ozona road into Ozona No. 1 quadrangle at point 2.3 miles northwest of Roger Blain ranch (by E. E. Harris in 1920)	
Barnhart, 6.0 mi. SW. of, on W. side of rd., opposite milepost 6, on E. side of fence line, on rock set in place; chiseled square-----	2, 678. 47
Barnhart, 7.0 mi. SW. of, on W. side of rd., opposite milepost 7, on rock set in place; chiseled square-----	2, 664. 69
Barnhart, 8.0 mi. SW. of, on W. side of rd., opposite milepost 8, on rock set in place; chiseled square-----	2, 677. 18
Barnhart, 9.0 mi. SW. of, on W. side of rd., 120 ft. S. of milepost 9, in rock set in place; aluminum tablet stamped "1920 Texas 2687"-----	2, 687. 952
From Ozona No. 1 quadrangle at point 5.5 miles northeast of Roger Blain ranch along roads northeast to O 9 ranch, thence generally north to Suggs (by E. E. Harris in 1920)	
O 9 ranch headquarters, 2.4 mi. SW. of, 80 ft. N. of center line of rd., in rock set in place; standard tablet stamped "1920 Texas 2619"-----	2, 619. 508
Reference mark, 85 ft. N. of center line of rd., in root on E. side of thorn tree; copper nail and washer-----	2, 619. 82
O 9 ranch headquarters, 1.0 mi. SW. of, 40 ft. S. of center line of rd., on rock ledge; chiseled square-----	2, 615. 42
O 9 ranch headquarters, 1,300 ft. NE. of, 20 ft. N. of center line of rd., just W. of rd. fork, in rock set in place; aluminum tablet stamped "1920 Texas 2612"-----	2, 612. 799
O 9 ranch headquarters, 1.3 mi. by rd. N. of, 20 ft. E. of center line of rd., on rock set in place; chiseled square-----	2, 615. 34
O 9 ranch headquarters, 1.8 mi. N. of, 10 ft. E. of center line of rd., on N. bank of draw, on rock outcrop; chiseled square-----	2, 539. 26
O 9 ranch headquarters, 2.4 mi. N. of, 220 ft. NW. of center line of rd., in root on W. side of 12-in. mesquite tree; copper nail and washer....	2, 560. 00
O 9 ranch headquarters, 3.2 mi. NE. of, 3.6 mi. by rd. S. of Suggs, 130 ft. NW. of center line of rd., in rock set in place; aluminum tablet stamped "1920 Texas 2599"-----	2, 599. 378
Suggs, 2.8 mi. SE. of, 0.5 mi. NE. of Crockett-Irion county line, 150 ft. N. and 20 ft. E. from junction of rd. to Nougues ranch house, on S. side of fence line, on rock set in place; chiseled square-----	2, 598. 05
Suggs, 2.0 mi. SE. of, 10 ft. E. of center line of rd., in root on E. side of mesquite tree; copper nail and washer-----	2, 526. 32
From Monument quadrangle west along Kansas City, Mexico & Orient Railway to Suggs (by A. P. Meade in 1923)	
Suggs, 4.4 mi. E. of, at milepost 762; top of N. rail-----	2, 423. 5
Suggs, 3.4 mi. E. of, at milepost 763; top of N. rail-----	2, 433. 3

BIG LAKE QUADRANGLE

[Latitude 31°00'-31°15'; longitude 101°15'-101°30']

CROCKETT, IRION, AND REAGAN COUNTIES

From Sawyer No. 2 quadrangle at point 5.2 miles northeast of Big Lake southwest along Reaganview road to Big Lake, thence east and southeast along Kansas City, Mexico & Orient Railway into Barnhart quadrangle (by E. E. Harris in 1920)

	<i>Feet</i>
Big Lake, 5.1 mi. NW. of, 20 ft. W. of rd. fork, 2 ft. N. of fence line; iron post stamped "1920 Texas 2659"-----	2, 658. 854
Big Lake, 3.4 mi. NE. of, on W. side of rd., 10 ft. SW. of gate, in root on E. side of thorn tree; copper nail and washer-----	2, 734. 55
Big Lake, 0.9 mi. NE. of, 100 ft. NW. of rd. fork, in root on S. side of thorn tree; copper nail and washer-----	2, 676. 74
Big Lake, at intersection of Kansas City, Mexico & Orient Ry. and main N.-S. rd., 330 ft. W. of sta., 90 ft. N. of main-line track, 130 ft. W. of center line of rd.; iron post stamped "1920 Texas 2690"-----	2, 690. 496
Big Lake, in front of sta.; top of nearest rail-----	2, 691. 9
Big Lake, 3.2 mi. SE. of, 200 ft. W. of milepost 788, 150 ft. W. of trestle 245, 60 ft. N. of track, in rock set in place; aluminum tablet stamped "1920 Texas 2676"-----	2, 676. 348
Big Lake, 6.2 mi. SE. of, 140 ft. W. of milepost 785, 10 ft. S. of center line of track, on top of S. end of 24-in.-drain pipe; chiseled square----	2, 765. 67
Big Lake, 6.3 mi. SE. of, 60 ft. N. of track, 5 ft. N. of milepost 785; iron post stamped "1920 Texas 2763" (recovered by U. S. C. & G. S. in 1934)-----	2, 763. 656
Big Lake, 9.3 mi. SE. of, 10.0 mi. along R. R. W. of Barnhart, 50 ft. N. of track, 6 ft. W. of milepost 782; iron post stamped "1920 Texas 2684" (recovered by U. S. C. & G. S. in 1934)-----	2, 684. 857
Barnhart, 7.0 mi. W. of, 0.3 mi. NW. of rd. crossing, near Irion-Reagan county line, 50 ft. N. of track, 4 ft. W. of milepost 779; iron post stamped "1920 Texas 2602" (recovered by U. S. C. & G. S. in 1934)-----	2, 602. 816

From Barnhart quadrangle southwest along Sheffield-Barnhart road and road to Coates ranch across southeast corner of quadrangle into Ozona No. 2 quadrangle (by E. E. Harris in 1920)

Barnhart, 10.2 mi. SW. of, 20 ft. N. of center line of rd., in root on E. side of thorn tree; copper nail and washer-----	2, 708. 55
Barnhart, 11.4 mi. SW. of, 150 ft. NE. of rd. fork, 60 ft. N. of center line of rd., 10 ft. N. of large mesquite tree, in rock set in place; aluminum tablet stamped "1920 Texas 2681"-----	2, 681. 337
Barnhart, 12.4 mi. SW. of, 0.7 mi. NE. of Coates ranch headquarters, 350 ft. SW. of center line of rd., in cleared field, in root on E. side of mesquite tree; copper nail-----	2, 630. 88

From Ozona No. 2 quadrangle northwest along Big Lake-Ozona road to Big Lake (by E. E. Harris in 1920)

Big Lake, 15.4 mi. SE. of, 50 ft. E. of center line of rd., in root on E. side of thorn tree; copper nail and washer-----	2, 685. 97
Big Lake, 14.4 mi. SE. of, 80 ft. E. of center line of rd., in root on W. side of 6-in. mesquite tree; copper nail and washer-----	2, 648. 38
Big Lake, 13.8 mi. SE. of, about 4 mi. SW. of Owens ranch headquarters, 30 ft. N. and 30 ft. E. from crossroads, in root on S. side of mesquite tree; copper nail and washer-----	2, 691. 77

* Now the Panhandle & Santa Fe Railway.

	<i>Feet</i>
Big Lake, 13.2 mi. SE. of, 30 ft. E. of center line of rd., just E. of wind-mill, on S. side of fence line, in rock set in place; aluminum tablet stamped "1920 Texas 2640"-----	2, 640. 551
Big Lake, 12.1 mi. SE. of, 50 ft. E. of center line of rd., in root on E. side of large mesquite tree; copper nail and washer-----	2, 656. 56
Big Lake, 10.8 mi. SE. of, 30 ft. E. of center line of rd., 60 ft. S. of gate, in root on E. side of 15-in. mesquite tree; copper nail and washer....	2, 675. 19
Big Lake, 9.8 mi. SE. of, 0.5 mi. NW. of Crockett-Reagan county line, 120 ft. E. of center line of rd., in root on S. side of 6-in. mesquite tree; copper nail and washer-----	2, 704. 08
Big Lake, 8.7 mi. SE. of, 30 ft. N. of center line of rd., on E. side of fence line, in rock set in place; standard tablet stamped "1920 Texas 2733"-----	2, 733. 133
Big Lake, 8.3 mi. S. of, 130 ft. N. of rd. fork, on W. side of rd., in root on S. side of 12-in. mesquite tree; copper nail and washer-----	2, 722. 46
Big Lake, 7.9 mi. SE. of, 100 ft. W. of center line of rd., in root on S. side of 8-in. mesquite tree; copper nail and washer-----	2, 737. 56
Big Lake, 7.0 mi. SE. of, 40 ft. N. of center line of rd., in root on E. side of mesquite tree; copper nail and washer-----	2, 728. 32
Big Lake, 6.1 mi. SE. of, 20 ft. N. of center line of rd., in root on W. side of 5-in. mesquite tree; copper nail and washer-----	2, 704. 51
Big Lake, 5.2 mi. SE. of, 35 ft. NE. of rd. fork; iron post stamped "1920 Texas 2683"-----	2, 683. 557
Big Lake, 4.1 mi. SE. of, 70 ft. N. of center line of rd., in root on N. side of forked mesquite tree; copper nail and washer-----	2, 684. 39
Big Lake, 3.6 mi. S. of, just S. of rd. fork, 30 ft. W. of center line of rd., 5 ft. NW. of corner fence post, on rock set in place; chiseled square...	2, 642. 67
Big Lake, 2.5 mi. S. of, 30 ft. W. of center line of rd., on N. side of fence line; iron post stamped "1920 Texas 2627"-----	2, 627. 754
Reference mark, 30 ft. E. of center line of rd., 200 ft. S. of gate, in root on E. side of 7-in. mesquite tree; copper nail and washer-----	2, 628. 33
Big Lake, 1.4 mi. S. of, 35 ft. W. of center line of rd., in root on W. side of mesquite tree; copper nail and washer-----	2, 676. 72
Big Lake, 0.7 mi. S. of, 25 ft. E. of center line of rd., S. of rd. fork, in root on S. side of mesquite tree; copper nail and washer-----	2, 700. 58

From Big Lake west along Kansas City, Mexico & Orient Railway into Rankin
No. 4 quadrangle (by E. E. Harris in 1920)

Big Lake, 1.6 mi. W. of, at trestle 249, in E. end of S. guardrail; top of iron bolt-----	2, 672. 00
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BOQUILLAS CANYON QUADRANGLE

[Latitude 29°00'-29°15'; longitude 102°45'-103°00'] ^{1a}

BREWSTER COUNTY

From Chilicotal quadrangle at point 3.3 miles southeast of Boquillas along road
southeast 4.2 miles (by Chester Irvine in 1903; spur line leveled twice)

Boquillas, 4.3 mi. SE. of, at rd. junction, in drain; iron post stamped "1903 Marfa 2029"-----	2, 032. 164
Boquillas, 7.5 mi. SE. of, 350 ft. W. of two old adobe houses, on N. side of rd., on small ridge; iron post stamped "1903 Marfa 1873"....	1, 876. 553

^{1a} A large part of this area lies in Mexico,

BRACKETTVILLE NO. 2 QUADRANGLE

[Latitude 29°15'-29°30'; longitude 100°15'-100°30']

KINNEY COUNTY

From Turkey Mountain quadrangle at point 16.8 miles west of Laguna along roads south west to point 10.6 miles northeast of Brackettville, thence southeast about 3.5 miles and back into Turkey Mountain quadrangle (by G. N. Tex in 1937-38)

	<i>Feet</i>
Brackettville, 12.4 mi. along Laguna rd. NE. of Kinney County courthouse, at junction of Brackettville-Laguna rd. and rd. N. to Silver Lake, 91 ft. N. and 28 ft. E. from center of junction of T-rd. N., 16 ft. N. and 31 ft. E. from center post of double gate, in Nolan and Postell pasture, in limestone outcrop; standard tablet stamped "T T 2 C 1938 1382"-----	1, 382. 420
Reference mark, 130 ft. N. of rd. junction, 63 ft. N. of center of bumper gate, 18 ft. E. of center line of rd., on rock outcrop; chiseled square-----	1, 381. 27
Brackettville, 11.6 mi. NE. of, about 0.3 mi. SW. of rd. fork N., 35 ft. S. of center line of rd., in root on NW. side of lone 36-in. live-oak tree; copper nail and washer-----	1, 405. 61
Brackettville, 10.6 mi. NE. of, 14 ft. S. and 80 ft. E. from junction of T-rd. S. to Petersen ranch, 75 ft. W. of fence corner, in rock outcrop; standard tablet stamped "9 TX 1937 1459"-----	1, 458. 775
Reference mark, about 400 ft. NE. of rd. junction, 65 ft. N. of center line of rd., in root on S. side of gnarled triple mesquite tree; copper nail and washer-----	1, 458. 37
Brackettville, 10.6 mi. NE., thence 1.2 mi. along rd. to Petersen ranch S. from, about 150 ft. N. of Petersen ranch house, 14 ft. E. of rd., in crotch of split mesquite tree; copper nail and washer-----	1, 319. 16
Brackettville, 10.6 mi. NE., thence 2.1 mi. SE. from, about 150 ft. NW. of drain crossing rd., 25 ft. NE. of center line of rd., in crotch of triple-forked mesquite tree; copper nail and washer-----	1, 289. 04
Brackettville, 10.6 mi. NE., thence 2.9 mi. SE. from, 18 ft. N. and 4 ft. W. from center line of rd. at gate, 3 ft. S. and 4 ft. W. from corner fence post, on rock outcrop; chiseled square-----	1, 297. 62
From Turkey Mountain quadrangle southwest along Silver Lake road to point 12.4 miles northeast of Brackettville (by G. N. Tex in 1937-38)	
Brackettville, 12.4 mi. NE., thence 1.7 mi. N. from, 35 ft. SW. of center of bumper gate, 2 ft. S. of fence line, in concrete post; standard tablet stamped "8 TX 1937 1396"-----	1, 395. 66
Reference mark, 100 ft. S. of center of bumper gate, 30 ft. E. of center line of rd., in crotch of twin mesquite tree; copper nail and washer-----	1, 395. 09
Brackettville, 12.4 mi. NE., thence 0.9 mi. N. from, 70 ft. NW. of small drain crossing rd., 33 ft. W. of center line of rd., in N. side of twin mesquite tree; copper nail and washer-----	1, 356. 31
From Turkey Mountain quadrangle at point about 3.7 miles north and 11 miles east from Brackettville generally south along road and back into Turkey Mountain quadrangle at point 3.2 miles northwest of Harrison ranch headquarters (by G. N. Tex in 1938)	
Brackettville, about 3 mi. N. and 11 mi. E. from, 4.8 mi. NW. of Harrison ranch headquarters, 1.3 mi. NE. of N. windmill of Pat Rose, near line fence between Petersen and Rose ranches, 22 ft. S. of T-fence N., in root on S. side of twin mesquite tree; copper nail and washer-----	1, 257. 00

Feet

Harrison ranch headquarters, 3.5 mi. NW. of, 0.6 mi. NW. of middle windmill, about 180 ft. SE. of drain crossing rd., about 60 ft. NW. of clump of live-oak trees, on W. side of 6-in. mesquite tree; copper nail and washer----- 1, 255. 26

BRACKETTVILLE NO. 3 QUADRANGLE

[Latitude 29°00'-29°15'; longitude 100°15'-100°30']

KINNEY AND MAVERICK COUNTIES

From Cline quadrangle along Southern Pacific Railroad southwest to point 1.7 miles southwest of Anacacho, thence along roads south and east and back into Cline quadrangle at point about 2 miles east of Davidson ranch house (by G. N. Tex in 1937-38)

Pavo sta., 1.1 mi. SW. of, about 300 ft. NE. of sub-grade rd. crossing at Arenosa Creek, 100 ft. N. of center line of track, 25 ft. N. and 70 ft. W. from center line of rd. at point in line with fence S., on W. side of 8-in. mesquite tree; copper nail and washer-----	1, 020. 85
Pavo sta., 2.2 mi. SW. of, about 200 ft. NW. of center of trestle 331 A, 40 ft. W. of fence corner, in E. side of 8-in. mesquite tree; copper nail and washer-----	1, 005. 44
Pavo sta., 2.8 mi. SW. of, 1.6 mi. NE. of Anacacho, 63 ft. N. and 130 ft. E. from milepost 332, on S. side of track, 7 ft. N. of right-of-way fence, in concrete post; standard tablet stamped "T T 2 C 1937 1002"-----	1, 001. 922
U. S. C. & G. S. B. M. designated "Y 31"-----	987. 055
Anacacho sta., about 100 ft. W. of, 45 ft. W. of center line of main track, 7 ft. W. of private property line, in root on NE. side of 10-in. mesquite tree; copper nail and washer-----	975. 32
U. S. C. & G. S. B. M. designated "X 31"-----	962. 026
Anacacho, 1.7 mi. SW. of, 17 ft. W. of milepost 335, 25 ft. N. of center line of T-rd. S. to Davidson ranch, in R. R. right-of-way, 6 ft. N. of S. fence, in concrete post; standard tablet stamped "T T 1 C 1937 961"-----	961. 068
Reference mark, 42 ft. S. and 35 ft. E. from center line of T-rd. S., on W. corner of concrete base of sign "Posted—keep out"; chiseled square-----	959. 76
Anacacho, 1.7 mi. SW., thence 1.2 mi. along rd. to Davidson ranch S. from, about 600 ft. S. of power line crossing rd., 20 ft. S. and 25 ft. E. from center line of rd. at fence line E., on SW. corner of concrete base of sign "Posted—keep out"; chiseled square-----	928. 92
Anacacho, 1.7 mi. SW., thence 2.3 mi. S. from, 33 ft. E. of center line of rd., 21 ft. E. of fence line, on S. side of 6-in. mesquite tree; copper nail and washer-----	923. 31
Anacacho, 5.3 mi. by rd. S. of, about 1.2 mi. NE. of Peloncillo Peak, at point where rd. turns E. along fence of Anacacho ranch, 25 ft. along fence W. of center of gate, 1 ft. S. and 1 ft. W. from corner fence post of T-fence N. along W. side of public rd., in concrete post; standard tablet stamped "T T 25 C 1938 902"-----	901. 460
Reference mark, 580 ft. N. of point where rd. turns E. along fence of Anacacho ranch, 25 ft. W. of center line of rd., in root on N. side of twin mesquite tree; copper nail and washer-----	902. 21
Anacacho, 1.7 mi. SW. along S. P. R. R., thence 4.5 mi. along Davidson ranch rd. S. from, 42 ft. S. and 35 ft. E. from center line of rd. at T-fence E., on SW. corner of concrete base of sign marked "Posted—keep out"; chiseled square-----	902. 84

	<i>Feet</i>
Anacacho, 1.7 mi. SW., thence 5.3 mi. S. from, 18 ft. N. and 18 ft. E. from center line of rd. at gate, on N. corner of concrete base of sign marked "Posted—keep out"; chiseled square-----	911. 60
Anacacho, 1.7 mi. SW., thence 5.8 mi. S. from, 100 ft. S. of rd. fork SW. to cabin, on SE. side of 4-in. mesquite tree; copper nail and washer-----	919. 61
Davidson ranch house, 5.3 mi. N. of, at SW. corner of Anacacho ranch, 18 ft. S. and 30 ft. E. from center of junction of T-rd. E., 18 ft. S. and 30 ft. E. from center of gate, in corner of T-fence N., in concrete post; standard tablet stamped "T T 26 C 1938 883"-----	883. 301
Reference mark, 30 ft. N. and 12 ft. E. from junction of T-rd. E., 30 ft. N. and 18 ft. W. from gate, 50 ft. N. and 12 ft. E. from another gate, in crotch of twin mesquite tree; copper nail and washer-----	883. 22
Davidson ranch house, 4.3 mi. N. of, 27 ft. E. of center line of rd., in crotch of twin mesquite tree with triangular blaze; copper nail and washer-----	863. 54
Davidson ranch house, 3.2 mi. N. of, 18 ft. W. of center line of rd., in N. side of easternmost of clump of three mesquite trees; copper nail and washer-----	847. 49
Davidson ranch house, 2.5 mi. N. of, 2.9 mi. S. of N. gate, 18 ft. S. and 47 ft. W. from blazed mesquite tree on E. side of rd., 7 ft. S. and 17 ft. E. from blazed mesquite tree on W. side of rd., 34 ft. W. of center line of rd., in concrete post; standard tablet stamped "T T 27 C 1938 838"-----	838. 247
Reference mark, 100 ft. S. and 47 ft. W. from blazed mesquite tree on E. side of rd., 35 ft. W. of center line of rd., in crotch of four mesquite trees; copper nail and washer-----	837. 99
Davidson ranch house, 1.5 mi. N. of, 9 ft. E. of center line of rd., in E. side of prominent twin mesquite tree; copper nail and washer-----	827. 26
Davidson ranch house, 0.9 mi. NE. of, about 200 ft. NE. of rd. crossing Chacon Creek, 50 ft. W. of rd. fork NW., in root on N. side of twin mesquite tree; copper nail and washer-----	818. 93
Davidson ranch, 37 ft. N. and 160 ft. E. from SE. corner of ranch house, 17 ft. N. and 6 ft. W. from center of cattle guard, 1 ft. E. of fence line, in concrete post; standard tablet stamped "T T 28 C 1938 848"-----	848. 079
Reference mark, 15 ft. N. and 160 ft. E. from SE. corner of ranch house, on S. end of E. concrete abutment of cattle guard; chiseled square-----	848. 53
Davidson ranch house, 1.0 mi. E. of, 90 ft. W. of center line of cattle guard at N.-S. fence line, 10 ft. S. of center line of rd., in root on N. side of 3-in. leaning mesquite tree; copper nail and washer-----	815. 14
Davidson ranch house, 1.6 mi. E. of, about 400 ft. E. of cattle guard, about 250 ft. E. of rd. fork SW., about 250 ft. W. of rd. crossing creek, 15 ft. S. of center line of rd., on W. side of 10-in. mesquite tree; copper nail and washer-----	805. 60
From southwest corner of Anacacho ranch southeast along road about 2 miles into Cline quadrangle (by G. N. Tex in 1938)	
Anacacho ranch, about 0.6 mi. S. of Peloncillo Tank, near SE. corner of cleared field, 45 ft. N. and 40 ft. E. from center line of rd. at T-fence N., in crotch of twin mesquite tree; copper nail and washer--	880. 93

	<i>Feet</i>
Anacacho ranch, about 1.0 mi. SE. of Peloncillo Tank, about 0.25 mi. N. of Kinney-Maverick county line, 60 ft. N. and 42 ft. E. from intersection of tangents of rd. N. and E., in crotch of twin mesquite tree; copper nail and washer.....	880. 91

From point 1.7 miles west of Anacacho east along road into Cline quadrangle at point near Juan Mill on Anacacho ranch (by G. N. Tex in 1938; spur line leveled twice)

Anacacho ranch, about 200 ft. NE. of windmill known as Double Mill, 50 ft. S. of center line of rd. at gate, 25 ft. W. of fence line, in root on S. side of triple mesquite tree; copper nail and washer.....	909. 70
Anacacho ranch, 1.1 mi. NW. of Double Mill windmill, about 400 ft. W. of pond, 80 ft. SE. of junction of rd. SE., in crotch of twin mesquite tree; copper nail and washer.....	937. 19
Anacacho ranch, 0.6 mi. SW. of windmill known as Juan Mill, about 400 ft. NE. of edge of cleared field adjoining rd., 20 ft. S. of center line of rd., on boulder; chiseled square.....	965. 56

BRUSHY KNOB QUADRANGLE

[Latitude 31°00'-31°15'; longitude 100°15'-100°30']

SCHLEICHER AND TOM GREEN COUNTIES

From Wall quadrangle southwest along Christoval road 1 mile, thence east along fence line about 8 miles, thence north along second-class road and back into Wall quadrangle (by A. B. Williams in 1923)

San Angelo, 16.3 mi. SW. of, at junction of private rd. W. to river, 25 ft. S. of gate, in fence corner, in concrete post; standard tablet....	2, 045. 373
San Angelo, 17.0 mi. SW. of, on E. side of concrete culvert; chiseled square (recovered by U. S. C. & G. S. in 1934).....	2, 015. 298
San Angelo, 17.0 mi. SW., thence 1.3 mi. E. from, at T-fence S., in fence corner, in concrete post; standard tablet.....	2, 133. 696
Reference mark, 25 ft. SE. of tablet, in mesquite tree; copper nail....	2, 133. 34
Pecan Creek, at rd. crossing, 800 ft. W. of stone corral; surface of water Dec. 21, 1923.....	2, 032. 5
Doorkey ranch house, 1.0 mi. N. of, 340 ft. E. of Rudd rd., at S. end of stone corral, 3 ft. N. of wire fence, in concrete post; standard tablet stamped "Prim Trav Sta No 13 K 1923".....	2, 048. 169
Stone corral at Doorkey ranch, 1.8 mi. E. of, at T-fence N., at point where N.-S. telephone line crosses fence line, in concrete post; standard tablet.....	2, 130. 382
Reference mark, 30 ft. E. of tablet, 3 ft. S. of fence line, on stone ledge; chiseled square.....	2, 132. 41
Stone corral, 3.8 mi. E. of, 18.0 mi. SE. of San Angelo, 400 ft. S. of fence corner, at gate in wolf-proof fence, 6 ft. W. of fence, in concrete post; standard tablet stamped "Prim Trav Sta No 12 K 1923"....	2, 122. 292

BULLIS GAP QUADRANGLE

[Latitude 29°45'-30°00'; longitude 102°30'-102°45']^a

BREWSTER COUNTY

From Reagan Canyon quadrangle at point in Reagan Canyon northeast along road and Bullis Trail to Harrel ranch, thence north and east into Indian Wells quadrangle at point about 5 miles southwest of Indian Wells (by D. S. Birkett in 1917)

	<i>Feet</i>
Español House, 2.7 mi. SW. of, 250 ft. NE. of rd. summit, 15 ft. S. of rd.; iron post stamped "1917 2664"-----	2, 664. 428
Español House, 1.7 mi. NE. of, in Kellogg Canyon, 0.6 mi. SW. of rd. fork at SW. portal of Bullis Gap, 6.6 mi. SW. of Harrel ranch house, near water hole in small ravine, 20 ft. SE. of rd., in limestone outcrop, marked by cairn; standard tablet stamped "1917 2542"-----	2, 543. 029
Harrel ranch house, 2.1 mi. SE. of, 3.8 mi. NE. of rd. fork at Bullis Gap, in Kellogg Canyon, 40 ft. N. of rd. fork, 10 ft. E. of rd.; iron post stamped "1917 2280"-----	2, 280. 987
Harrel ranch house, 300 ft. SE. of, 200 ft. N. of crossing of San Francisco Creek, at point where rd. turns uphill; iron post stamped "1917 2181"-----	2, 182. 273

From Dove Mountain quadrangle near head of Reagan Canyon generally east along road 2.6 miles to road fork in canyon (by D. S. Birkett in 1917)

Bowden Tank, 7.9 mi. SE. of, 1.1 mi. NW. of junction of rd. to Bullis Gap, in Reagan Canyon, 150 ft. E. of bed of dry creek, 12 ft. N. of rd., in limestone boulder; aluminum tablet stamped "1917 2640"-----	2, 640. 719
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From Dove Mountain quadrangle at point 1 mile southwest of Martin ranch along road generally southeast to Harrel ranch (by D. S. Birkett in 1917)

Martin ranch house, 60 ft. E. of, 6.5 mi. NE. of Horseshoe Mesa, near junction of rd. NE. to San Francisco Creek, at fence corner; iron post stamped "1917 2819"-----	2, 819. 657
Martin ranch house, 2.2 mi. SE. of, 20 ft. N. of rd., at summit, on rock; chiseled square-----	2, 888. 52
Martin ranch house, 3.3 mi. SE. of, 8 ft. S. of rd., on boulder, marked by cairn; chiseled square-----	2, 694. 55
Martin ranch house, 3.8 mi. SE. of, 25 ft. S. of rd., in limestone outcrop, marked by cairn; standard tablet stamped "1917 2652"-----	2, 652. 875
Martin ranch house, 5.0 mi. SE. of, 5.6 mi. NW. of Harrel ranch house, 400 ft. NW. of earth tank, 50 ft. N. of rd., on rock; chiseled square-----	2, 575. 87
Harrel ranch house, 4.3 mi. NW. of, 4 ft. N. of rd., near summit of ridge, on rock; chiseled square-----	2, 528. 32
Harrel ranch house, 3.1 mi. NW. of, 40 ft. N. of rd., at fence line between Martin and Harrel ranches; iron post stamped "1917 2488"-----	2, 488. 780
Harrel ranch house, 2.2 mi. NW. of, 0.4 mi. NW. of junction of Beef Canyon and San Francisco Creeks, 20 ft. N. of rd., on rock; chiseled square-----	2, 332. 88
Harrel ranch house, 1.8 mi. NW. of, 200 ft. SW. of junction of Beef Canyon and San Francisco Creeks, 40 ft. S. of smaller creek, 30 ft. W. of rd., on large boulder; chiseled square-----	2, 247. 50
Harrel ranch house, 0.5 mi. SW. of, 350 ft. SW. of windmill, 80 ft. N. of rd., at edge of bench, on large limestone boulder, marked by cairn; chiseled square-----	2, 221. 06

^a A small section in the southeastern part of this area lies in Mexico.

CLINE QUADRANGLE

[Latitude 29°00'-29°15'; longitude 100°00'-100°15']

KINNEY, MAVERICK, UVALDE, AND ZAVALA COUNTIES

From Turkey Mountain quadrangle along road southeast 1 mile to Cline,
thence west along Southern Pacific Railroad 0.6 mile (by G. N. Tex in 1938)

	<i>Feet</i>
Cline, about 150 ft. W. of sta., 60 ft. SW. of rd. crossing main-line track of Southern Pacific R. R., 17 ft. S. of center line of main-line track, on NE. corner of NE. concrete pier of water tank; chiseled square-----	997. 58
U. S. C. & G. S. standard disk stamped "E 32 1917 992.508"-----	992. 508

From Cline northeast along Southern Pacific Railroad into Turkey Mountain quadrangle (by G. N. Tex in 1939; leveled twice)

Cline, 0.7 mi. E. of R. R. sta., about 200 ft. E. of R. R. trestle A-318, on W. side of signal block 3187, on concrete base; chiseled square--	1, 005. 60
U. S. C. & G. S. standard disk stamped "F 32 1917 1014.535"-----	1, 014. 535

From Turkey Mountain quadrangle southeast along U. S. Highway 90 to Southern Pacific Railroad, thence east along railroad to Cline (by G. N. Tex in 1938)

Pawo triangulation sta., 1.65 mi. E. of, 7 ft. S. of N. right-of-way fence line, 3 ft. SW. of right-of-way marker, in concrete post; U. S. C. & G. S. standard disk stamped "Pawo AZ 1 1935" (azimuth mark)-----	1, 198. 699
Brackettville, 14.0 mi. along U. S. Highway 90 E. of courthouse, 195 ft. W. of junction of T-rd. S. to Anacacho, 16 ft. S. of center line of highway, on E. corner of S. head wall of concrete culvert; chiseled square-----	1, 187. 21
Brackettville, 15.1 mi. E. of, 1.7 mi. along Southern Pacific R. R. W. of Odlaw, 9 ft. N. of center line of track, on W. side of concrete base of signal block 3265; chiseled square-----	1, 124. 95
Odlaw, 0.9 mi. W. of, about 120 ft. NW. of center of R. R. trestle 325 B, 40 ft. NW. of drain crossing rd., in crotch of twin mesquite tree; copper nail and washer-----	1, 100. 10
Odlaw, 22 ft. S. and 96 ft. W. from sta. signboard, 31 ft. S. and 60 ft. E. from center of rd. crossing, 5½ telegraph poles E. of milepost 325, 53 ft. E. of wire gate, in concrete post; standard tablet stamped "T T 3 C 1937 1102"-----	1, 101. 983
Reference mark, 90 ft. N. of flag sta., 70 ft. N. of center line of main track, 4 ft. N. of fence line, in root on NW. side of 15-in. mesquite tree; copper nail and washer-----	1, 100. 57
U. S. C. & G. S. standard disk stamped "C 32 1917 1074.617"-----	1, 074. 617
Odlaw, 1.8 mi. E. of, 3.6 mi. W. of R. R. sta. at Cline, about 200 ft. SE. of milepost 323, about 100 ft. S. of R. R. trestle 322 C, 35 ft. S. of center line of rd., in root on W. side of 10-in. mesquite tree; copper nail and washer-----	1, 045. 62
Cline, 3.1 mi. W. of, at overhead highway bridge, opposite W. pier; top of S. rail-----	1, 042. 1
U. S. C. & G. S. standard disk stamped "D 32 1917 1027.006"-----	1, 027. 006
Cline, 2.0 mi. along U. S. Highway 90 W. of, 90 ft. S. of center line of old R. R. crossing highway, 18 ft. S. of fence line, in root on SE. side of twin mesquite tree; copper nail and washer-----	1, 021. 76
Cline, 1.3 mi. W. of, 290 ft. W. of bridge over Turkey Creek, 50 ft. S. of center line of highway, 5 ft. N. of fence line, in root on S. side of twin mesquite tree; copper nail and washer-----	998. 74

From point 1.7 miles west of Odlaw west along Southern Pacific Railroad into Brackettville No. 3 quadrangle (by G. N. Tex in 1938)

	<i>Feet</i>
Odlaw, 2.3 mi. W. of, 85 ft. S. of center of R. R. crossing, 24 ft. S. and 10 ft. E. from center of gate, in crotch of twin mesquite tree; copper nail and washer-----	1, 098. 94
U. S. C. & G. S. standard disk stamped "A 32 1917 1062.577"-----	1, 062. 577
Pavo sta., 1,300 ft. W. of, at point of intersection of R. R. curve, in concrete post; iron plug inscribed "EX 68 1930"-----	1, 037. 33

From Brackettville No. 3 quadrangle at point about 2 miles east of Davidson ranch house along roads generally east to point 0.5 mile east of Franke ranch house, thence north to James ranch house (by G. N. Tex in 1938)

Davidson ranch house, 2.8 mi. E. of, about 290 ft. W. of center line of T-rd. N., 20 ft. N. of center line of rd., in crotch of twin mesquite tree; copper nail and washer-----	816. 47
Davidson ranch house, 4.1 mi. E. of, 3.3 mi. W. of junction of Davidson ranch rd. and Uvalde-Eagle Pass rd., 12 ft. S. of center line of rd., on S. side of N. tree of triple mesquite tree; copper nail and washer-----	813. 47
Davidson ranch house, 4.5 mi. E. of, 3.0 mi. W. of junction of Davidson ranch and Uvalde-Eagle Pass rds., 1,027 ft. W. of Mula Creek, 30 ft. N. and 35 ft. W. from center of crossroads, in concrete post; standard tablet stamped "T T 29 C 1938 808"-----	807. 616
Davidson ranch house, 5.0 mi. E. of, 0.5 mi. E. of rd. crossing Mula Creek, 2.4 mi. W. of junction of Davidson ranch and Uvalde-Eagle Pass rds., 22 ft. S. of center line of rd., in crotch of prominent triple mesquite tree; copper nail and washer-----	804. 39
Davidson ranch house, 6.1 mi. E. of, 1.3 mi. W. of junction of Davidson ranch and Uvalde-Eagle Pass rds., about 470 ft. W. of cattle guard at N.-S. fence line, 20 ft. N. of center line of rd., in crotch of twin mesquite tree; copper nail and washer-----	800. 02
Davidson ranch house, 7.5 mi. E. of, 4.1 mi. SW. of Franke ranch house, at junction of ranch rd. and Uvalde-Eagle Pass rd., 22 ft. N. and 10 ft. W. from cattle guard, 38 ft. N. and 44 ft. E. from center of red gate, 13 ft. N. along fence from corner post, in concrete post; standard tablet stamped "T T 30 C 1938 778"-----	777. 878
Reference mark, 180 ft. E. of center of cattle guard, 60 ft. S. of center line of rd., in root on N. side of 3-in. mesquite tree; copper nail and washer-----	775. 93
Franke ranch house, 3.2 mi. along old Uvalde-Eagle Pass rd. SW. of, about 500 ft. NE. of concrete low-water bridge, 40 ft. N. of center line of rd., on NW. side of 8-in. mesquite tree; copper nail and washer-----	788. 77
Franke ranch house, 2.3 mi. SW. of, about 400 ft. N. of windmill, 35 ft. NW. of center line of rd. fork S., in root on E. side of 6-in. mesquite tree; copper nail and washer-----	824. 67
Franke ranch house, 1.7 mi. SW. of, 370 ft. SW. of center line of cattle guard, 26 ft. S. and 22 ft. E. from junction of T-rd. NW., 192 ft. NE. of post at angle in fence, in concrete post; standard tablet stamped "T T 31 C 1938 833"-----	833. 253
Reference mark, 70 ft. E. of center line of rd. NW., 9 ft. SE. of fence line, in crotch of triple mesquite tree; copper nail and washer-----	834. 04
Franke ranch house, 1.0 mi. SW. of, 55 ft. SE. of junction of T-rd. S., in root on SE. side of twin mesquite tree; copper nail and washer--	821. 80

	<i>Feet</i>
Franke ranch house, about 500 ft. SW. of, about 250 ft. W. of junction of private rd. N. to ranch house, 40 ft. N. of center line of rd., 14 ft. W. of corner fence post, in crotch of triple mesquite tree; copper nail and washer.....	779. 16
Franke ranch house, 0.5 mi. E. of, about 250 ft. W. of cattle guard, 60 ft. SE. of crossroads, in root on W. side of twin mesquite tree; copper nail and washer.....	790. 292
Franke ranch house, 0.5 mi. E., thence 0.9 mi. NW. from, 50 ft. NE. of center of gate, 35 ft. NE. of center of rd. fork, in crotch of twin mesquite tree; copper nail and washer.....	794. 32
Franke ranch house, 0.5 mi. E., thence 1.8 mi. NW. from, near well-defined cattle trail SW., 33 ft. W. of center line of rd., in crotch of twin mesquite tree; copper nail and washer.....	806. 76
Franke ranch house, 0.5 mi. E., thence 2.7 mi. NW. from, in small open area, 12 ft. NE. of center line of rd., on NE. side of southwesternmost of three mesquite trees; copper nail and washer.....	807. 59
Franke ranch house, 0.5 mi. E., thence 3.6 mi. NW. from, 3.4 mi. SE. of James ranch house, 22 ft. NE. of center of gate, in concrete post; standard tablet stamped "6 TX 1938 819".....	818. 910
Reference mark, 33 ft. N. of center of gate, in crotch of triple mesquite tree; copper nail and washer.....	818. 88
James ranch house, 2.3 mi. SE. of, 70 ft. E. of center of gate, on N. side of S. fork of triple mesquite tree; copper nail and washer.....	842. 38
James ranch house, 1.2 mi. SE. of, 27 ft. NW. of center of gate, in root on SW. side of 12-in. mesquite tree; copper nail and washer.....	860. 16
James ranch house, 0.5 mi. S. of, about 400 ft. NE. of point where rd. crosses drain, 15 ft. S. and 14 ft. W. from rd. fork formed by old rd. SE., on E. side of 8-in. leaning mesquite tree; copper nail and washer.....	870. 65
James ranch house, about 200 ft. NW. of, about 70 ft. SE. of center of triangle formed by rd. fork, 35 ft. N. of corner fence post at NW. corner of cattle pens, in limestone outcrop; standard tablet stamped "5 TX 1938 889".....	889. 227
Reference mark, about 40 ft. NW. of tablet, 40 ft. E. of center of triangle formed by rd. fork, 65 ft. N. of corner fence post at NW. corner of cattle pens, in root on E. side of 10-in. mesquite tree; copper nail and washer.....	888. 78
From Brackettville No. 3 quadrangle at point near southeast corner of Anacacho ranch east along road to James ranch house (by G. N. Tex in 1938)	
Anacacho ranch, at SE. corner of, 2.3 mi. SW. of Quien Sabe windmill, about 0.25 mi. N. of Kinney-Maverick county line, 14 ft. W. of corner fence post, 12 ft. N. of center line of rd., in concrete post; standard tablet stamped "2 TX 1938 883".....	882. 456
Reference mark, 18 ft. N. and 30 ft. E. from center line of rd. at gate, on N. side of 8-in. leaning mesquite tree; copper nail and washer.....	882. 48
Anacacho ranch, 1.0 mile N. of SE. corner of, 1.3 mi. SW. of Quien Sabe windmill, 55 ft. S. and 40 ft. E. from T-fence W., 27 ft. E. of center line of rd., on N. side of leaning 3-in. mesquite tree; copper nail and washer.....	895. 20
Anacacho ranch, 1.7 mi. NE. of SE. corner of, 0.6 mi. W. of Quien Sabe windmill, about 160 ft. E. of point where rd. joins E.-W. fence line, 30 ft. S. of center line of rd., in root on W. side of 10-in. mesquite tree; copper nail and washer.....	878. 70

Feet

Quien Sabe windmill, 35 ft. SE. of S. edge of circular tank, 30 ft. E. of center of windmill, on S. side of southernmost of three concrete water troughs; chiseled square.....	890. 53
Quien Sabe windmill, 0.6 mi. E. of, 0.2 mi. SW. of Pool Tank, 12 ft. N. and 60 ft. E. from corner fence post at SE. corner of feed pens, 60 ft. SE. of rd. fork, in crotch of twin mesquite tree; copper nail and washer.....	872. 68
Pool Tank ranch house, 1.8 mi. SW. of, about 0.2 mi. NE. of Pool Tank, 50 ft. W. of rd. fork, 40 ft. SE. of small wooden bridge, in concrete post; standard tablet stamped "3 TX 1938 870".....	869. 839
Pool Tank ranch house, 0.8 mi. S. of, 100 ft. SW. of center line of rd. at gate, 40 ft. N. of center line of rd., in crotch of twin mesquite tree; copper nail and washer.....	886. 97
Pool Tank ranch house, about 80 ft. S. of SW. corner of, 48 ft. SE. of gate, 30 ft. SE. of rd. fork, in crotch of twin mesquite tree; copper nail and washer.....	909. 90
Pool Tank ranch house, 1.3 mi. SE. of, 2.0 mi. W. of James ranch house, 40 ft. SW. along fence from center of gate, 4 ft. N. of corner fence post of T-fence SE., in concrete post; standard tablet stamped "4 TX 1938 918".....	917. 730
Reference mark, 40 ft. NE. of center of gate, in root on SW. side of lone 3-in. mesquite tree; copper nail and washer.....	920. 06
Pool Tank ranch house, 2.1 mi. SE. of, 1.2 mi. NW. of James ranch house, 120 ft. SE. of junction of T-rd. NE., 35 ft. NW. of center of gate, on N. side of 7-in. mesquite tree; copper nail and washer.....	905. 39
From Uvalde quadrangle at point about 4 miles northeast of Blewett along roads generally south to point 1.1 mi. SW. of Blewett, thence east 0.9 mile, thence southeast along Asphalt Belt Railroad and back into Uvalde quadrangle at point near ranch house of J. G. Smythe (by G. N. Tex in 1938)	
Blewett, 3.6 mi. N., thence 0.6 mi. E. from, 82 ft. NW. of intersection of N.-S. rd. and U. S. Highway 90, 40 ft. NW. of center of gate, in root on S. side of twin mesquite tree; copper nail and washer.....	1,037. 77
Blewett, 3.6 mi. N. of, 37 ft. N. and 41 ft. E. from junction of U. S. Highway 90 and rd. S. to Blewett, 13 ft. S. and 11 ft. E. from corner post at T-fence N., in limestone outcrop; standard tablet stamped "T T 41 C 1938 1075".....	1, 074. 629
Blewett, 2.5 mi. N. of, about 500 ft. N. of cattle guard, 45 ft. E. of center line of rd., on W. side of 15-in. mesquite tree; copper nail and washer.....	996. 50
Blewett, 1.6 mi. N. of, 150 ft. S. of break in pavement, 35 ft. W. of center line of rd., on SE. side of 10-in. mesquite tree; copper nail and washer.....	967. 99
Blewett, 0.7 mi. N. of, 55 ft. SE. of center of crossroads, in crotch of twin mesquite tree; copper nail and washer.....	942. 65
Blewett, 0.6 mi. N. of, 20 ft. S. and 36 ft. E. from center of cattle guard, 2 ft. S. of fence, in concrete post; standard tablet stamped "T T 40 C 1938 939".....	938. 837
Blewett, near W. village limits, about 200 ft. NE. of N. edge of lake, in line with tangent of dam extended N., 58 ft. N. of center line of R. R. crossing, 15 ft. W. of center line of rd., on rock outcrop; chiseled square.....	927. 77
Blewett, 1.1 mi. SW. of post office, 40 ft. NW. of center of rd. forks, 110 ft. NW. of R. R. crossing, in crotch of twin mesquite tree; copper nail and washer.....	948. 23

	<i>Feet</i>
Blewett, 0.5 mi. along Asphalt Belt R. R. SE. of post office, about 200 ft. SE. of point of switch, 33 ft. NE. of old rd. crossing R. R., 60 ft. NW. of old rd. crossing R. R., on rock outcrop; chiseled square-----	912. 74
Blewett, 1.5 mi. SE. of, about 600 ft. W. of center line of R. R. over Turkey Creek, about 180 ft. W. of milepost 12, 90 ft. N. of center of cattle guard, in root on E. side of 10-in. mesquite tree; copper nail and washer-----	899. 34
Blewett, 2.0 mi. SE. of, about 120 ft. NE. of White ranch house, 160 ft. E. of rd. crossing R. R., 12 ft. W. of NE. corner of old concrete foundation, in root on N. side of 3-in. mesquite tree; copper nail and washer-----	898. 10
Blewett, 2.6 mi. SW. of, 0.5 mi. SE. of White ranch house, 490 ft. along fence W. of center line of track at milepost 11, 25 ft. E. of center of gate, 1 ft. S. of fence, in concrete post; standard tablet stamped "T T 39 C 1938 902"-----	902. 262
Reference mark, 120 ft. S. of gate, 50 ft. S. and 15 ft. W. from rd. fork, in crotch of triple mesquite tree; copper nail and washer-----	902. 87
Blewett, 3.3 mi. SE. of, 45 ft. SE. of center line of rd. crossing R. R., 8 ft. N. of center line of rd., in crotch of twin mesquite tree; copper nail and washer-----	891. 61
Blewett, 4.0 mi. SE. of, 27 ft. W. of point of switch of spur track, on SE. side of 6-in. mesquite tree; copper nail and washer-----	877. 24
Blewett, 4.6 mi. SE. of, 4.1 mi. NW. of Smythe, 55 ft. W. of rd. crossing R. R., in crotch of triple mesquite tree; copper nail and washer--	873. 26
Blewett, 4.9 mi. SE. of, 3.8 mi. NW. of Smythe, 40 ft. N. and 60 ft. W. from center of R. R. crossing, 10 ft. N. and 8 ft. W. from mesquite tree with triangular blaze, in concrete post; standard tablet stamped "T T 38 C 1938 869"-----	868. 960
Reference mark, 75 ft. SW. of rd. crossing R. R., 15 ft. S. of center line of rd., in root on W. side of triple mesquite tree; copper nail and washer-----	868. 76
From Uvalde quadrangle at point about 3.5 miles west of Smythe southwest along road to point 0.5 mile east of Franke ranch house (by G. N. Tex in 1938)	
Smythe, 4.4 mi. W. of, 5.2 mi. along old Uvalde-Eagle Pass rd. E. of Finley ranch house, 150 ft. E. of small drain crossing rd., 33 ft. N. of center line of rd., on W. side of 5-in. mesquite tree; copper nail and washer-----	834. 54
Finley ranch house, 4.5 mi. E. of, 5.1 mi. W. of Smythe, 65 ft. W. of center line of T-rd. S., 27 ft. N. of center line of rd., in root on SW. side of 7-in. mesquite tree; copper nail and washer-----	816. 48
Finley ranch house, 3.9 mi. E. of, 5.7 mi. W. of Smythe, 130 ft. SW. of center of cattle guard, 50 ft. S. of center line of rd., in root on S. side of twin mesquite tree; copper nail and washer-----	814. 19
Finley ranch house, 2.8 mi. E. of, 3.3 mi. W. of crossing at Turkey Creek, 66 ft. S. and 22 ft. W. from junction of T-rd. S. to ranch of Albert Finley, in concrete post; standard tablet stamped "T T 35 C 1938 797"-----	796. 813
Reference mark, 55 ft. SE. of T-rd. S., in crotch of triple mesquite tree; copper nail and washer-----	797. 14
Finley ranch house, 1.8 mi. E. of, 65 ft. NW. of center line of cattle guard at N.-S. fence line, on W. side of 10-in. mesquite tree; copper nail and washer-----	782. 86

Feet

Finley ranch house, 1.1 mi. E. of, about 100 ft. E. of large boulder on S. side of rd., 27 ft. S. of center line of rd., on large boulder; chiseled square.....	811. 28
Finley ranch house, on Uvalde-Eagle Pass rd., 55 ft. S. and 5 ft. E. from SW. leg of windmill, 100 ft. N. and 73 ft. W. from center of concrete water trough, 42 ft. S. and 75 ft. W. from triple mesquite tree, in concrete post; standard tablet stamped "T T 34 C 1938 790".....	789. 597
Reference mark, about 150 ft. S. of ranch house, about 100 ft. W. of windmill, 115 ft. N. of junction of private rd. N., 8 ft. NW. of corner fence post, in root on SE. side of 20-in. mesquite tree; copper nail and washer.....	789. 85

From U. S. Highway 90 at point 2 miles west of Cline southwest along abandoned railroad spur and road to James ranch house (by G. N. Tex in 1938)

Cline, 2.0 mi. W., thence 1.0 mi. along abandoned R. R. spur S. from R. R. sta., about 0.25 mi. N. of old rd. crossing R. R., 18 ft. W. of center line of track, on E. side of 8-in. mesquite tree; copper nail and washer.....	1, 064. 36
Cline, 2.0 mi. W., thence 1.8 mi. S. from, about 130 ft. NE. of center of R. R. culvert, about 70 ft. E. of center line of track, 12 ft. W. of center line of old rd., in crotch of twin mesquite tree; copper nail and washer.....	1, 086. 18
Cline, 2.0 mi. W., thence 2.8 mi. S. from, 91 ft. NE. of rd. crossing R. R., 60 ft. SE. of center line of cattle guard, 34 ft. NW. of center of gate, in concrete post; standard tablet stamped "7 TX 1938 1078".....	1, 078. 006
Reference mark, 86 ft. E. of rd. crossing R. R., 138 ft. SE. of center line of cattle guard, 44 ft. SE. of center of gate, on W. side of 5-in. mesquite tree; copper nail and washer.....	1, 079. 35
Cline, 2.0 mi. W., thence 3.8 mi. along abandoned R. R. and ranch rd. S. from, 1.0 mi. S. of rd. crossing R. R., about 100 ft. S. of drain crossing rd., 20 ft. W. of center line of rd., in root on W. side of 10-in. mesquite tree; copper nail and washer.....	1, 039. 692
Cline, 2.0 mi. W., thence 4.9 mi. S. from, about 1,000 ft. N. of windmill near old No. 3 mine, 45 ft. NE. of center of gate at E.-W. fence, in rock outcrop; standard tablet stamped "8 TX 1938 1125".....	1, 124. 936
Reference mark, about 1,000 ft. N. of windmill, 25 ft. E. of center of gate, on rock outcrop; chiseled square.....	1, 123. 36
Cline, 2.0 mi. W., thence 5.3 mi. S. from, about 1,000 ft. S. of windmill near old No. 3 mine, 36 ft. SW. of center of dim rd. fork S., on rock outcrop; chiseled square.....	1, 065. 29
Cline, 2.0 mi. W., thence 6.2 mi. S. and W. from, 1.5 mi. NE. of Horse Shoe Tank, on top of cleared ridge, in root on SE. side of lone twin mesquite tree; copper nail and washer.....	1, 083. 78
Cline, 2.0 mi. W., thence 7.5 mi. S. and W. from, 2.3 mi. N. of James ranch house, about 800 ft. NE. of Horse Shoe Tank, at NW. corner of old feed pens, 2 ft. N. of corner fence post; standard tablet stamped "9 TX 1938 968".....	968. 314
James ranch house, 1.6 mi. along old ranch rd. to Cline N. of, 65 ft. S. of center of gate at E.-W. fence line, 12 ft. W. of center line of rd., on E. side of 5-in. mesquite tree; copper nail and washer.....	930. 63

Feet

James ranch house, 0.7 mi. along rd. to Blewett NE. of, 160 ft. NW. of center of gate in N.-S. fence, 90 ft. N. of center line of rd., in E. crotch of clump of four mesquite trees; copper nail and washer -----	898. 92
From Brackettville No. 3 quadrangle northeast along road to Juan Mill on Anacacho ranch (by G. N. Tex in 1938; spur line leveled twice)	
Anacacho ranch, about 500 ft. NW. of windmill known as Juan Mill, about 180 ft. N. of circular concrete water tank, 30 ft. SE. of corner fence post, in rock outcrop; standard tablet stamped "1 TX 1938 993" -----	992. 588
Reference mark, about 300 ft. NW. of Juan Mill, 20 ft. SE. of S. side of circular concrete water tank, on rock outcrop; chiseled square---	989. 66
From point on old Uvalde-Eagle Pass road 2.8 miles east of Finley ranch house southeast along road 4.6 miles (by G. N. Tex in 1933; leveled twice)	
Finley ranch house, 2.8 mi. E., thence 0.3 mi. along rd. to Albert Finley ranch house S. from, 50 ft. SE. of center of gate, in crotch of twin mesquite tree; copper nail and washer-----	788. 44
Finley ranch house, 2.8 mi. E., thence 1.3 mi. along rd. to Albert Finley ranch house S. from, 45 ft. SE. of center of crossroads, in root on W. side of 10-in. mesquite tree; copper nail and washer-----	767. 53
Albert Finley ranch, 2.3 mi. S. of old Uvalde-Eagle Pass rd., along Finley ranch rd. to Ingram Place, 34 ft. N. and 12 ft. E. from center of crossroads, 8 ft. S. of blazed mesquite tree, in concrete post; standard tablet stamped "T T 42 C 1938 752"-----	751. 514
Albert Finley ranch, 3.5 mi. S. of old Uvalde-Eagle Pass rd., along Finley ranch rd. to Ingram Place, 25 ft. W. of center line of rd., in crotch of prominent twin mesquite tree; copper and washer-----	745. 02
Albert Finley ranch, 4.6 mi. S. of Uvalde-Eagle Pass rd., along Finley ranch rd. to Ingram Place, 16 ft. W. of center of gate, 5 ft. E. of post of T-fence S., in concrete post; standard tablet stamped "T T 43 C 1938 728"-----	728. 367
Reference mark, 210 ft. N. of tablet, 12 ft. W. of center line of rd., in crotch of twin mesquite tree; copper nail and washer-----	725. 06

COMANCHE SPRINGS NO. 1 QUADRANGLE

[Latitude 30°45'-31°00'; longitude 102°30'-102°45']

PECOS COUNTY

From Fort Stockton quadrangle southeast along old Sheffield road and other roads by way of McKenzie ranch into Comanche Springs No. 4 quadrangle (by S. R. Archer in 1919-20)

Fort Stockton, 3.1 mi. NE., thence 5.7 mi. E. from, at concrete culvert over stream, on top of center of S. head wall under pipe railing; chiseled square-----	2, 861. 71
Fort Stockton, 9.8 mi. by rd. E. of, 0.3 mi. E. of concrete dip for water crossing, on top of S. concrete head wall of culvert; chiseled square (recovered by U. S. C. & G. S. in 1933) ⁷ -----	2, 852. 790
Fort Stockton, 10.6 mi. E. of, at N.-S. fence line crossing rd., 15 ft. S. of cattle guard at fence line; iron post stamped "1919 2855"-----	2, 853. 107
Fort Stockton, 11.6 mi. E. of, at concrete dip in rd. for water crossing, on NE. corner of concrete; chiseled square-----	2, 899. 93

⁷ The U. S. Coast & Geodetic Survey reports that this bench mark is northeast of a bridge on new U. S. Highway 290 and 18 feet south of the center line of the old road.

Feet

Fort Stockton, 12.6 mi. SE. of, 0.2 mi. SE. of trail crossing, 0.6 mi. W. of turn to NE. in rd., 25 ft. N. of rd., at E. end of rocky outcrop, on large flat rock; chiseled square-----	2, 946. 82
Fort Stockton, 13.6 mi. E. of, at top of divide, 0.3 mi. W. of bend to S. in rd., 200 ft. E. of turn to NW., 15 ft. N. of rd., in bedrock, surrounded by circle of rocks; aluminum tablet stamped "1919 2974" (recovered by U. S. C. & G. S. in 1933) ^a -----	2, 972. 209
Fort Stockton, 14.3 mi. E. of, 0.4 mi. W. of angle in rd., on E. side of divide, near foot of hill, 25 ft. N. of rd., in lower prominent outcrop ledge, on pointed rock; chiseled square-----	2, 917. 68
Fort Stockton, 14.7 mi. E. of, 200 ft. W. of angle in rd., 2 ft. W. of NE. corner of concrete dip for water crossing, on concrete; chiseled square-----	2, 881. 82
Fort Stockton, 15.6 mi. E. of, 0.8 mi. E. of angle in rd., at NE. corner of concrete dip for water crossing, on concrete; chiseled square-----	2, 841. 11
Fort Stockton, 16.6 mi. E. of, 0.2 mi. W. of angle in rd. and junction of rd. NE. to windmill and tank, in top of N. concrete head wall of culvert; aluminum tablet stamped "1919 2834" (recovered by U. S. C. & G. S. in 1933)-----	2, 832. 025
Fort Stockton, 17.4 mi. E. of, on top of S. head wall of concrete culvert; chiseled square-----	2, 825. 24
Fort Stockton, 18.3 mi. E. of, about 500 ft. W. of junction of rd. S., on N. edge of rd. at concrete dip for water crossing, 1 ft. W. of NE. corner of concrete; chiseled square-----	2, 825. 59
Fort Stockton, 18.4 mi. E. of, 6.2 mi. N. of McKenzie ranch house, on N. side of rd., in line with center of rd. S.; iron post stamped "1920 2830" (recovered by U. S. C. & G. S. in 1933) ^b -----	2, 828. 137
McKenzie ranch house, 3.6 mi. N. of, 1.0 mi. S. of E.-W. fence line crossing rd., at angle in rd., in front of windmill in valley to E., in front of first spur top from ridge S. of main valley, 10 ft. W. of rd.; iron post stamped "1920 2829"-----	2, 826. 569
McKenzie ranch house, 2.4 mi. N. of, 120 ft. N. of stream crossing, 8 ft. W. of rd., in root of mesquite bush; copper nail and washer-----	2, 840. 68
McKenzie ranch house, 1.3 mi. NW. of, about 300 ft. N. of angle in rd., opposite and 70 ft. N. of N. end of highest point of hill E. of rd., on large pointed rock; chiseled square-----	2, 916. 91
McKenzie ranch house, at rd. crossing E.-W. fence line E. of, 110 ft. E. of SE. corner of corral, about 300 ft. E. of S. side of earth tank, 6 ft. E. of E. gatepost in E.-W. fence line, on N. side of fence; iron post stamped "1920 2971"-----	2, 969. 590
McKenzie ranch house, 1.0 mi. SE. of, 240 ft. E. of angle in rd., 200 ft. E. of line from center of low gap in ridge to S. of rd., on S. side of rd., in root of mesquite bush; copper nail and washer-----	3, 032. 09
McKenzie ranch house, 1.7 mi. SE. of, 0.6 mi. W. of earth tank, on W. side of drain crossing, 50 ft. W. of grass line, 5 ft. N. of rd., on rock; chiseled square-----	3, 071. 32
McKenzie ranch house, 2.4 mi. SE. of, at angle in rd., opposite and 125 ft. E. of E. end of earth tank N. of rd., 15 ft. S. of rd.; iron post stamped "1920 3110"-----	3, 108. 02

^a The U. S. Coast & Geodetic Survey reports that this bench mark is 120 feet north of the center line of U. S. Highway 290 and 72 feet north of the fence line.

^b The U. S. Coast & Geodetic Survey reports that this bench mark is on the south edge of the right-of-way of U. S. Highway 290.

176 SPIRIT LEVELING IN TEXAS, PART 3, WEST-CENTRAL TEXAS

From Independence Draw No. 2 quadrangle southwest along road to junction of Sheffield road at point 14.7 miles east of Stockton (by E. E. Harris in 1920)

	<i>Feet</i>
Livingston ranch house, 3.1 mi. SW. of, 30 ft. S. of center line of rd., in rock set in place; aluminum tablet stamped "1920 Texas 2668"-----	2, 666. 635
Livingston ranch house, 4.2 mi. SW. of, 25 ft. SW. of center line of rd., on rock set in place; chiseled square-----	2, 741. 74
Livingston ranch house, 5.2 mi. SW. of, 20 ft. S. of center line of rd., on rock set in place; chiseled square-----	2, 831. 28
Livingston ranch house, 6.3 mi. SW. of, 25 ft. S. of center line of rd.; iron post stamped "1920 Texas 2818"-----	2, 817. 156
Livingston ranch house, 7.2 mi. SW. of, 10 ft. S. of gate across rd., on E. side of fence line, on rock set in place; chiseled square-----	2, 873. 37
Livingston ranch house, 8.0 mi. SW. of, 20 ft. E. of center line of rd., 150 ft. S. of drain, on rock set in place; chiseled square-----	2, 854. 28
Livingston ranch house, 8.9 mi. SW. of, 20 ft. E. of center line of rd.; iron post stamped "1920 Texas 2871"-----	2, 869. 603
Livingston ranch house, 9.8 mi. SW. of, 30 ft. W. of gate across rd., on rock set in place; chiseled square-----	2, 864. 92
Livingston ranch house, 10.7 mi. SW. of, 20 ft. W. of center line of rd., on rock set in place; chiseled square-----	2, 899. 45
Livingston ranch house, 12.1 mi. SW. of, 0.7 mi. N. of junction of Fort Stockton-Sheffield rd., 60 ft. E. of center line of rd.; iron post stamped "1920 Texas 2862"-----	2, 860. 448

COMANCHE SPRINGS NO. 4 QUADRANGLE

[Latitude 30°30'-30°45'; longitude 102°30'-102°45']

PECOS COUNTY

From Fort Stockton quadrangle ¹⁰ southeast along old Sanderson road to Scharbauer Horse Camp, thence southwest and northwest along road into Sierra Madera quadrangle at point about 2.3 miles northwest of Pyle's North Camp (by F. L. Shalibo in 1920)

Martin Tank, 3.1 mi. SE. of, 5.2 mi. NW. of Stockton Tank, 1.1 mi. NW. of gate, 30 ft. E. of rd.; iron post stamped "1919 3285" (recovered by U. S. C. & G. S. in 1933)-----	3, 283. 300
Stockton Tank, 1.8 mi. NW. of, 1.0 mi. SE. of Hole in the Ground Tank, 30 ft. W. of rd.; iron post stamped "1920 3357" (recovered by U. S. C. & G. S. in 1933)-----	3, 355. 252
Stockton Tank, 0.5 mi. SE. of, opposite junction of rd. N., 40 ft. W. of rd.; iron post stamped "1920 3412" (recovered by U. S. C. & G. S. in 1933)-----	3, 410. 220
Stockton Tank, 3.2 mi. SE. of, 6.2 mi. NW. of Scharbauer Horse Camp, 30 ft. W. of junction of rd. E.; iron post stamped "1920 3402" (recovered by U. S. C. & G. S. in 1933)-----	3, 399. 849
Scharbauer Horse Camp, 2.1 mi. NW. of, 10 ft. E. of gate, in fence line; iron post stamped "1920 3358"-----	3, 356. 101
Scharbauer Horse Camp, 0.3 mi. SW. of, in NW. angle of crossroads, in fence line; iron post stamped "1920 3476"-----	3, 474. 094
Scharbauer Horse Camp, 3.4 mi. SW. of, 2.0 mi. NE. of Pyle's North Camp, 20 ft. N. of gate, in fence line; iron post stamped "1920 3611"-----	3, 609. 014
Pyle's North Camp, 1.2 mi. NW. of, 15 ft. N. of rd.; iron post stamped "1920 3763"-----	3, 761. 222

¹⁰ This line cuts the northeast corner of Sierra Madera quadrangle, but no permanent marks were set in that portion of the line.

From Comanche Springs No. 1 quadrangle at point about 2.4 miles southeast of McKenzie ranch southeast about 2.8 miles along road into Independence Draw No. 3 quadrangle (by S. R. Archer in 1920)

Feet

McKenzie ranch house, 3.3 mi. SE. of, 0.9 mi. SE. of earth tank, 50 ft. E. of drain crossing, on N. side of rd., in root of mesquite bush; copper nail and washer.....	3, 155. 68
McKenzie ranch house, 4.4 mi. SE. of, 0.4 mi. W. of gap, at drain crossing, 25 ft. N. of rd., in root of mesquite bush; copper nail and washer.....	3, 219. 72
McKenzie ranch house, 5.1 mi. SE. of, 0.3 mi. SE. of gap, 70 ft. N. of rd. at junction of ranch rd. to S. down canyon, in large rock outcrop; aluminum tablet stamped "1920 3242".....	3, 240. 621

From Scharbauer Horse Camp east along road by way of Rochelle ranch into Independence Draw No. 3 quadrangle at point about 3.5 miles east of Rochelle ranch (by F. L. Shalibo in 1920; releveled by E. E. Harris in same year)

Scharbauer Horse Camp, 3.1 mi. E. of, 3.3 mi. W. of Rochelle ranch house, 6 ft. S. of gate, in fence line; iron post stamped "1920 3427".....	3, 425. 550
Rochelle ranch house, 500 ft. N. of, 100 ft. N. of W. end of tank, 4 ft. N. of gate to corral; iron post stamped "1920 3365".....	3, 362. 743
Rochelle ranch house, 2.9 mi. E. of, 11.2 mi. W. of Free post office (now discontinued), 15 ft. S. of gate, in fence line; iron post stamped "1920 3316".....	3, 313. 366

COMETA NO. 1 QUADRANGLE

[Latitude 28°45'-29°00'; longitude 100°00'-100°15']

MAVERICK AND ZAVALA COUNTIES

From Loma Vista No. 2 quadrangle west along highway to point about 18 miles west of La Pryor (by E. E. Harris in 1930; single spur line)

La Pryor, 10.3 mi. W. of, Missouri Pacific R. R. sta. at, on NE. wing wall of small bridge; chiseled square.....	683. 50
La Pryor, 11.0 mi. W. of, 800 ft. W. of gates in N. and S. fences, on N. side of highway, on NE. wing wall of bridge; chiseled square.....	687. 45
La Pryor, 12.0 mi. W. of, about 650 ft. W. of summit of grade, on N. side of highway, 10 ft. N. of fence line, in root on W. side of 12-in. mesquite tree; copper nail and washer.....	728. 56
La Pryor, 12.8 mi. W. of, 41 ft. S. of center line of highway, 13 ft. E. of ranch rd. S. through gate, 1.7 ft. N. of fence line, in concrete cone; bronze tablet stamped "U S Engrs Fort Sam Houston 736" (U. S. C. E. B. M.).....	734. 833
La Pryor, 13.7 mi. W. of, on NW. wing wall of small bridge; chiseled square.....	701. 98
La Pryor, 14.9 mi. W. of, 100 ft. N. of center line of rd. at slight angle in highway, on E. side of ranch rd. NW. through gate, in root on NE. side of mesquite tree; copper nail and washer.....	710. 31
La Pryor, 15.8 mi. W. of, in SW. wing wall of concrete bridge (now abandoned) over Palo Blanco Creek; bronze tablet stamped "U S Army Engrs Fort Sam Houston 689" (U. S. C. E. B. M.).....	687. 464
La Pryor, 15.8 mi. W. of, 150 ft. W. of Palo Blanco Creek, 400 ft. N. of highway, at well No. MM 3-1; top of old casing.....	689. 53
La Pryor, 15.8 mi. W., thence 1.0 mi. SW. from, 100 ft. S. of dip in rd., on W. side of highway, in crotch of mesquite tree; copper nail and washer.....	696. 77
La Pryor, 15.8 mi. W., thence 2.0 mi. SW. from, 80 ft. NW. of center line of highway, opposite gate in E. fence line, in root on W. side of 10-in. mesquite tree; copper nail and washer.....	693. 06

	<i>Feet</i>
La Pryor, 15.8 mi. W., thence 2.2 mi. SW. from, 100 ft. S. of rd., at well No. MM 3-2; top of old casing -----	705. 38
Reference mark, 100 ft. NW. of well; copper nail and washer -----	705. 00

From Cometa No. 4 quadrangle northwest along highway to point 9.4 miles northwest of Cometa (by E. E. Harris in 1930)

Cometa, 0.7 mi. W., thence 7.0 mi. NW. from, 90 ft. S. of rd. fork W. to ranch of W. M. Van Cleve, on W. side of rd., in root on SE. side of 6-in. mesquite tree; copper nail and washer -----	659. 22
Cometa, 0.7 mi. W., thence 8.3 mi. NW. from, 38 ft. N. and 30 ft. E. from center of junction of T-rd. E., in concrete post; standard tablet stamped "H 44 1930" -----	649. 640
Cometa, 9.4 mi. NW. of, 0.3 mi. N. of crossroads, 300 ft. W. of rd., near buildings, at well No. ZM 6-4; top of casing -----	656. 31

COMETA NO. 4 QUADRANGLE

[Latitude 28°30'-28°45'; longitude 100°00'-100°15']

DIMMIT, MAVERICK, AND ZAVALA COUNTIES

From Loma Vista No. 3 quadrangle at point near Cometa northwest along highway into Cometa No. 1 quadrangle (by E. E. Harris in 1930; single spur line)

Cometa, 400 ft. W. of schoolhouse at, on S. side of rd., in fence line, in root on SE. side of 12-in. mesquite tree; copper nail and washer ----	632. 93
Cometa, 0.7 mi. W. of, 54 ft. N. of Eagle Pass-Crystal City rd., 40 ft. E. of center line of rd. N., 2.5 ft. S. and 16 ft. E. from fence line, in concrete post; standard tablet stamped "H 41 1930" -----	643. 962
Cometa, 0.7 mi. W., thence 1.0 mi. N. from, 60 ft. S. of gate, on E. side of rd., in root on W. side of 15-in. mesquite tree; copper nail and washer -----	609. 69
Cometa, 0.7 mi. W., thence 1.8 mi. NW. from, 60 ft. S. of dim crossroads, on W. side of rd., in crotch of mesquite tree; copper nail and washer -----	618. 05
Cometa, 0.7 mi. W., thence 2.8 mi. NW. from, 19 ft. W. of center line of rd., just N. of summit of grade, 2.5 ft. E. of corner fence post, in concrete post; standard tablet stamped "H 42 1930" -----	653. 079
Reference mark, 156 ft. S.40°E. of tablet, in root on NW. side of small mesquite tree; copper nail and washer -----	653. 69
Cometa, 0.7 mi. W., thence 4.4 mi. NW. from, in SE. corner of rd. fork, at right-angle turn in rd. to N., in root on W. side of 12-in. mesquite tree; copper nail and washer -----	600. 24
Cometa, 0.7 mi. W., thence 5.3 mi. NW. from, 100 ft. S. of bridge, 24 ft. E. of center of angle in rd., at fork of ranch rd. NW., 5 ft. from corner fence post, in concrete post; standard tablet stamped "H 43 1930" -----	598. 371
Reference mark, 178 ft. S.15°E. of tablet, in crotch of mesquite tree; copper nail and washer -----	598. 46
Cometa, 0.7 mi. W., thence 6.5 mi. NW. from, 0.8 mi. N. of Davidson ranch, on E. side of rd., 5 ft. E. of fence line, in root on N. side of prominent mesquite tree; copper nail and washer -----	650. 55

From Loma Vista No. 3 quadrangle west along highway to point about 13.5 miles west of Carrizo Springs (by E. E. Harris in 1930; single spur line)

Carrizo Springs, about 13.2 mi. along Eagle Pass rd. NW. of, on N. side of highway, on concrete culvert, in center of top of head wall; chiseled square -----	665. 45
---	---------

Feet

Carizzo Springs, 13.5 mi. NW. of, 2.25 mi. W. of Cometa rd. fork, N. of highway, near clump of mesquite trees on top of hill, at well No. DM 9-1, about 2 ft. above ground; top of casing----- 688. 78

CRANE NO. 3 QUADRANGLE

[Latitude 31°00'-31°15'; longitude 102°15'-102°30']

CRANE, CROCKETT, PECOS, AND UPTON COUNTIES

From Crane No. 4 quadrangle southwest along Kansas City, Mexico & Orient Railway ¹¹ to Girvin, thence south and southwest along road into Independence Draw No. 2 quadrangle at point about 4.5 miles northeast of Livingston ranch (by E. E. Harris in 1920)

McCamey,¹² near sta., 60 ft. N. of track, 10 ft. N. of milepost 839; iron post stamped "1920 Texas 2461"----- 2, 460. 050
 McCamey, 3.2 mi. SW. of, 7.9 mi. NE. of Girvin, 55 ft. N. of track, 10 ft. NE. of milepost 842; iron post stamped "1920 Texas 2429"----- 2, 428. 472
 Girvin, 4.1 mi. NE. of, 800 ft. E. of milepost 846, 480 ft. E. of rd. crossing, 90 ft. N. of track, 20 ft. S. of dirt rd. paralleling track, on W. side of fence, in rock set in place; standard tablet stamped "1920 Texas 2321"----- 2, 320. 492
 Pecos River, under trestle 302; surface of water Apr. 19, 1920----- 2, 272. 9
 Girvin, in front of sta.; top of nearest rail----- 2, 306. 0
 Girvin post office and store, at SE. corner of building, in E. wall; standard tablet set vertically and stamped "1920 Texas 2303" (recovered by U. S. C. & G. S. in 1935)----- 2, 302. 046
 Girvin, 2.0 mi. S. of, on W. side of rd., near wire fence, on top of rock ledge flush with ground; chiseled square----- 2, 364. 88
 Girvin, 2.7 mi. S. of, on W. side of rd., 80 ft. S. of gate across rd., 10 ft. S. of fence post in angle in fence line, in large rock set in place; standard tablet stamped "1920 Texas 2409"----- 2, 407. 455
 Girvin, 3.7 mi. S. of, on E. side of rd., on top of rock ledge; chiseled square----- 2, 432. 11
 Girvin, 4.6 mi. S. of, 7.4 mi. NE. of Livingston ranch house, 30 ft. N. and 60 ft. W. from crossroads, on rock set in place; chiseled square. 2, 450. 83
 Livingston ranch house, 6.6 mi. NE. of, about 400 ft. NW. of adobe house, 25 ft. N. of center line of rd., on W. side of fence line, in rock set in place; standard tablet stamped "1920 Texas 2458"----- 2, 456. 395
 Livingston ranch house, 5.8 mi. NE. of, 40 ft. N. of rd., on rock set in place; chiseled square----- 2, 494. 33
 Livingston ranch house, 4.8 mi. NE. of, 30 ft. N. of center line of rd., on rock outcrop; chiseled square----- 2, 503. 01

CRANE NO. 4 QUADRANGLE

[Latitude 31°00'-31°15'; longitude 102°00'-102°15']

CROCKETT, PECOS, AND UPTON COUNTIES

From Rankin No. 3 quadrangle southwest along Kansas City, Mexico & Orient Railway ¹¹ into Crane No. 3 quadrangle (by E. E. Harris in 1920)

Rankin, 6.4 mi. SW. of, 50 ft. N. of track, 7 ft. E. of milepost 827; iron post stamped "1920 Texas 2417" (recovered by U. S. C. & G. S. in 1934)----- 2, 416. 389

¹¹ Now the Panhandle & Santa Fe Railway.¹² There was no town at this location in 1920.

Feet

Rankin, 9.5 mi. SW. of, 55 ft. N. of track, 8 ft. NE. of milepost 830; iron post stamped "1920 Texas 2484" (recovered by U. S. C. & G. S. in 1934).....	2, 483. 286
Rankin, 11.5 mi. SW. of, 170 ft. W. of milepost 832, 15 ft. N. of track, on top of 30-in. drain pipe; chiseled square.....	2, 510. 74
Rankin, 12.5 mi. SW. of, 6.2 mi. NE. of McCamey, ¹⁴ 55 ft. N. of track, 5 ft. NW. of milepost 833; iron post stamped "1920 Texas 2534" (recovered by U. S. C. & G. S. in 1934).....	2, 534. 004

DEVILS COURTHOUSE QUADRANGLE

[Latitude 31°30'-31°45'; longitude 100°15'-100°30']

COKE, RUNNELS, AND TOM GREEN COUNTIES

From Rowena quadrangle southwest along Gulf, Colorado & Santa Fe Railway
into Wall quadrangle (by A. P. Meade in 1923)

Miles, 4.7 mi. SW. of, 4.5 mi. NE. of Harriett, near stone milepost 14.0 mi. from San Angelo, at S. side of rd., 60 ft. N. of R. R. trestle 58 A, in N. abutment at W. end of concrete highway culvert; standard tablet stamped "M 100 1923" (recovered by U. S. C. & G. S. in 1934).....	1, 820. 915
Harriett, 4.2 mi. NE. of, at milepost 59; top of iron rail set vertically.....	1, 823. 07
Harriett, 3.2 mi. NE. of, at milepost 60; top of iron rail set vertically.....	1, 811. 14
Harriett, 2.2 mi. NE. of, at milepost 61; top of iron rail set vertically.....	1, 813. 60
Harriett, 1.2 mi. NE. of, at milepost 62; top of iron rail set vertically.....	1, 820. 07
Harriett, 1.1 mi. NE. of, opposite R. R. bridge 62 A, at concrete highway culvert, in W. end of N. abutment; standard tablet stamped "M 101 1923" (recovered by U. S. C. & G. S. in 1934).....	1, 819. 901
Harriett, in front of sta.; top of N. rail.....	1, 837. 0
Harriett, 1.8 mi. SW. of, opposite R. R. bridge 64 A, at concrete highway culvert, in W. end of N. abutment; standard tablet stamped "M 102 1923" (recovered by U. S. C. & G. S. in 1934).....	1, 830. 426
Harriett, 1.9 mi. SW. of, at milepost 65, on N. side of track; top of iron rail set vertically.....	1, 832. 52
Harriett, 3.2 mi. SW. of, 5.9 mi. NE. of San Angelo, at private rd. crossing, in right-of-way fence corner, on N. side of highway, on S. side of track, in concrete post; standard tablet stamped "Prim Trav Sta No 3 K 1923" ¹⁵ (recovered by U. S. C. & G. S. in 1934).....	1, 852. 132
San Angelo, 5.2 mi. NE. of, at milepost 67, 7 ft. N. of track; top of iron rail set vertically.....	1, 869. 13
San Angelo, 4.6 mi. NE. of, at W. abutment of R. R. bridge 67 B, at S. side of track, 1.8 ft. below track level, 2.4 ft. above ground, in top step; standard tablet stamped "M 103 1923" (recovered by U. S. C. & G. S. in 1934).....	1, 868. 126
San Angelo, 4.3 mi. NE. of, at milepost 68, 7 ft. N. of track; top of iron rail set vertically.....	1, 870. 70
San Angelo, 3.3 mi. NE. of, at milepost 69; top of iron rail set vertically.....	1, 874. 30

From Wall quadrangle along roads north to Lakeview School, thence west into
Sterling City No. 4 quadrangle (by A. B. Williams in 1923)

San Angelo, 3.0 mi. N. of, in SE. corner of yard of Lakeview School, in fence corner, in concrete post; standard tablet stamped "Prim Trav Sta No 4 K 1923".....	1, 900. 398
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¹⁴ There was no town at this location in 1920.¹⁵ Established by A. B. Williams.

	<i>Feet</i>
Reference mark, 170 ft. SW. of tablet, on concrete base for iron swing post; chiseled square.....	1, 900. 68
San Angelo, 4.0 mi. NW. of, 200 ft. W. of stone milepost, on SW. side of rd., in center of S. end of concrete culvert; chiseled square...	1, 890. 65
San Angelo, 5.0 mi. NW. of, 0.9 mi. E. of Pulliam School, on SW. side of rd., on concrete culvert; chiseled square.....	1, 908. 20

DEWEY LAKE NO. 1 QUADRANGLE

[Latitude 31°45'-32°00'; longitude 101°30'-101°45']

GLASSCOCK COUNTY

From Garden City No. 2 quadrangle southwest along Garden City-Stiles road into Dewey Lake No. 4 quadrangle (by E. E. Harris in 1920)

Garden City, 5.1 mi. SW. of, in center of rd. at right-angle bend from N. to W., on top of section corner stone 35; chiseled square.....	2, 626. 74
Garden City, 6.1 mi. SW. of, in center of rd. at right-angle bend from E. to S., in center of top of large white stone projecting 1 ft. above ground; chiseled square.....	2, 640. 28
Garden City, 8.1 mi. SW. of, 20 ft. E. of center line of rd., opposite wire fence W., on rock ledge level with ground; chiseled square....	2, 712. 21

From Morita quadrangle at point about 4.4 miles south and 4.6 miles southwest from Lees southwest along section lines and roads to Atlantic pipe line, thence northwest into Dewey Lake No. 2 quadrangle (by E. W. Gouchenour in 1938 and 1939; leveled twice)

Lees, 4.4 mi. by rd. S., thence 5.1 mi. along fence line and rd. SW. from, 30 ft. N. of center line of rd. and cor. secs. 35, 36, 41, and 42, T. 2 S., block 34, Texas and Pacific Ry. survey, 3 ft. N. of fence line, in pasture; top of iron pipe, reference mark for section corner.	2, 523. 53
Lees, 4.4 mi. S., thence 6.1 mi. SW. from, at cor. secs. 36, 37, 40, and 41, T. 2 S., block 34, T. and P. Ry. survey, 33 ft. N. and 15 ft. E. from junction of rd. SE., 54 ft. E. of T-fence SE., on W. side of rd., in concrete post; standard tablet stamped "T T 30 C 1938".....	2, 530. 742
Reference mark, 120 ft. SE. of tablet, in root of small mesquite bush; copper nail and washer.....	2, 529. 36
Lees, 4.4 mi. S., thence 7.3 mi. SW. from, about 0.2 mi. S. of right-angle turn W. and S. in rd., at cor. secs. 37, 38, 39, and 40, T. 2 S., block 34, T. and P. Ry. survey, on S. bluff of Mustang Draw, on E. end of cattle guard; bolt head.....	2, 527. 20
Lees, 4.4 mi. S., thence 8.4 mi. SW. from, about 0.5 mi. SW. of farmhouse of L. Daves, 200 ft. SW. of wire gate, 30 ft. NW. of Salt Lake rd., in root of small mesquite tree; copper nail and washer....	2, 525. 91
Lees, 4.4 mi. S., thence 9.2 mi. SW. from, on line between secs. 27 and 38, T. 2 S., block 34, T. and P. Ry. survey, on top of sand ridge, in root of small blackjack-oak tree; copper nail and washer.....	2, 571. 46
Lees, 4.4 mi. S., thence 9.6 mi. SW. from, 9.0 mi. S. and 2.0 mi. W. in air line from Lomax, at cor. secs. 27, 28, 37, and 38, T. 2 S., block 35, T. and P. Ry. survey, 1 ft. S. and 2 ft. W. from corner post of T-fence W., in concrete post; standard tablet stamped "T T 31 C 1938".....	2, 549. 531
Reference mark, 45 ft. SW. of tablet, in root on W. side of small mesquite tree; copper nail and washer.....	2, 549. 10

Feet

Lees, 4.4 mi. S., thence 11.0 mi. SW. from, on section line about 0.3 mi. SW. of cor. secs. 28, 29, 36, and 37, T. 2 S., block 35, T. and P. Ry. survey, in root on N. side of mesquite tree; copper nail and washer-----	2, 569. 87
Lees, 4.4 mi. S., thence 11.7 mi. SW. from, at intersection of Atlantic pipe line and line between secs. 30 and 35, T. 2 S., block 35, T. and P. Ry. survey, 25 ft. N. and 120 ft. W. from gate in E.-W. fence line, in root of small mesquite tree; copper nail and washer-----	2, 549. 98
Lees, 4.4 mi. S., thence 12.7 mi. SW. from, 8.5 mi. S. and 5.0 mi. W. in air line from Lomax, at line between secs. 30 and 31, T. 2 S., block 35, T. and P. Ry. survey, in Mustang Draw, 77 ft. S. and 83 ft. W. from junction of ranch rd. N., 9 ft. E. of Atlantic pipe line telephone pole 21-10, in concrete post; standard tablet stamped "T T 32 C 1938"-----	2, 521. 323
Reference mark, 0.25 mi. along pipe line NW. of tablet, 30 ft. S. of telephone pole, in root on NW. side of mesquite tree; copper nail and washer-----	2, 557. 34
Lees, 4.4 mi. S., thence 13.9 mi. SW. from, 8.5 mi. in air line S., thence 3.6 mi. along pipe line SE. from Stanton, 20 ft. N. and 25 ft. E. from gate on section line and pipe line, in root on W. side of 4-in. mesquite tree; copper nail and washer-----	2, 584. 51
Stanton, 8.5 mi. in air line S., thence 2.5 mi. along pipe line SE. from, 290 ft. E. of line between secs. 21 and 36, T. 2 S., blocks 35 and 36, T. and P. Ry. survey, 5 ft. N. and 28 ft. W. from Atlantic pipe line telephone pole 19-5, on S. point of sand ridge, in concrete post; standard tablet stamped "T T 33 C 1938"-----	2, 615. 680
Reference mark, 0.6 mi. W. of tablet, near quarter corner sec. 36, T. 2 S., block 35, T. and P. Ry. survey, on S. side of rd., in root of mesquite tree; copper nail and washer-----	2, 613. 22
Stanton, 8.5 mi. in air line S., thence 1.3 mi. along pipe line SE. from, near cor. secs. 25, 26, 35, and 36, T. 2 S., block 36, T. and P. Ry. survey, 24 ft. N. of gate in N.-S. fence, in root of mesquite tree; copper nail and washer-----	2, 633. 16

DEWEY LAKE NO. 2 QUADRANGLE

[Latitude 31°45'-32°00'; longitude 101°45'-102°00']

GLASSCOCK AND MIDLAND COUNTIES

From Dewey Lake No. 1 quadrangle northwest along Atlantic pipe line to Garden City-Stanton road, thence northeast across country into Slaughter No. 3 quadrangle (by E. W. Gouchenour in 1938 and 1939; leveled twice)

Woolsey triangulation sta., about 8.5 mi. S. and 2.3 mi. E. (12.7 mi. SE. by route) from Martin County courthouse at Stanton, in west central part of sec. 26, T. 2 S., block 36, Texas and Pacific Ry. survey, on property of William Woolsey, SW. of Woolsey residence, 30 ft. E. of center line of rd., 171 ft. SW. of center of concrete cap of well, in concrete post; U. S. C. & G. S. standard triangulation disk stamped "Woolsey"-----	2, 655. 745
Reference mark, 875 ft. S. of sta., 28 ft. W. of rd., at junction of telephone line, in concrete post; standard tablet-----	2, 643. 763

DEWEY LAKE NO. 4 QUADRANGLE

[Latitude 31°30'–31°45'; longitude 101°30'–101°45']

GLASSCOCK AND REAGAN COUNTIES

From Dewey Lake No. 1 quadrangle southwest along Garden City-Stiles road
into Rankin No. 1 quadrangle (by E. E. Harris in 1920)

Feet

arden City, 9.3 mi. SW. of, on W. side of rd., 20 ft. S. of lane crossing; iron post stamped "1920 Texas 2710"-----	2, 709. 919
arden City, 10.4 mi. SW. of, 60 ft. N. of center line of rd., 50 ft. NW. of corner fence post at jog in fence line, 20 ft. N. of wire fence, in field, on highest point of stone projecting 8 in. above ground and having cut on S. side; chiseled square-----	2, 710. 14
Garden City, 11.4 mi. SW. of, just N. of Hubbard ranch house, 450 ft. N. of gate to S., 150 ft. S. of gate to N., on W. side of rd., in root on W. side of thorn tree; copper nail and washer-----	2, 705. 73
Garden City, 13.5 mi. SW. of, 10 ft. E. of center line of rd., on N. side of wire fence, just E. of gate; iron post stamped "1920 Texas 2693"-----	2, 693. 595
Garden City, 15.9 mi. SW. of, on W. side of rd., on N. side of wire fence, 4 ft. W. of gatepost, on large flat stone; chiseled square-----	2, 674. 87
Garden City, 18.2 mi. SW. of, 0.4 mi. N. of deserted shack just E. of windmill, 10 ft. W. of center line of rd., on N. side of wire fence, just W. of gate; iron post stamped "1920 Texas 2664"-----	2, 663. 925
Garden City, 19.1 mi. SW. of, 15 ft. E. of center line of rd., 120 ft. E. of fence corner, in root on E. side of 6-in. thorn tree; copper nail and washer-----	2, 668. 66
Garden City, 20.4 mi. SW. of, in NW. angle of rd. fork, 5 ft. E. of cor- ner fence post, 4 ft. SE. of telephone pole, on stone; chiseled square-----	2, 670. 97
Garden City, 21.7 mi. SW. of, 10 ft. N. of center line of rd., just N. of gate, 1 ft. E. of wire fence, on E. edge of rock set in place; chiseled square-----	2, 674. 97
Garden City, 23.3 mi. SW. of, 13.4 mi. NE. of Stiles, 100 ft. E. of McDonald School, just S. of rd. fork, 12 ft. E. of center line of rd., in SW. corner of angle in wire fence; iron post stamped "1920 Texas 2671"-----	2, 670. 833
Stiles, 12.2 mi. NE. of, 25 ft. W. of center line of rd., in root on E. side of thorn tree; copper nail and washer-----	2, 660. 30
Stiles, 10.9 mi. NE. of, 300 ft. W. of deserted house, 75 ft. N. of watering, 15 ft. E. of center line of rd., 30 ft. W. of corner fence post; in center of top of large rock outcrop; chiseled square-----	2, 663. 48
Stiles, 9.5 mi. NE. of, 10 ft. N. of center line of rd., on E. side of wire fence, 1.5 ft. N. of gatepost; iron post stamped "1920 Texas 2661"-----	2, 661. 091
Stiles, 8.9 mi. NE. of, 200 ft. N. of rd. fork, 140 ft. W. of main rd., 15 ft. E. of abandoned rd. on W. side of wire fence, 3 ft. NE. of corner fence post, in center of top of rock set in place; chiseled square-----	2, 655. 37
Stiles, 7.9 mi. NE. of, 70 ft. E. of center line of rd., in root on N. side of forked thorn tree; copper nail and washer-----	2, 661. 45
Stiles, 6.7 mi. NE. of, 12 ft. W. of center line of rd., 2 ft. N. of fence line, 3.5 ft. W. of iron gatepost, in center of top of rock set in place; chiseled square-----	2, 654. 08

DOVE MOUNTAIN QUADRANGLE

[Latitude 29°45'-30°00'; longitude 102°45'-103°00']

BREWSTER COUNTY

Southeast and southwest along roads near Black Hills (by D. S. Birkett in 1917)

[A jog from Hood Spring quadrangle]

Feet

Black Hills, about 2 mi. S. of, about 8 mi. N. of Stillwell ranch, 0.6 mi. W. of Bear Creek, at junction of Boquillas-Sanderson rd. and NE.-SW. rd.; iron post stamped "1917 2697"----- 2, 698. 073

From Maravillas Canyon quadrangle near Dove Mountain ranch along road generally northeast to Bowden Tank, thence east and southeast along road through Reagan Canyon into Bullis Gap quadrangle (by D. S. Birkett in 1917)

Dove Mountain ranch house, 4.0 mi. NE. of, 1.7 mi. NE. of Dove Mountain, 1.3 mi. S. of Bowden Tank, about 270 ft. S. of rd. fork, 10 ft. E. of rd., at small cairn; aluminum tablet stamped "1917 2758"- 2, 758. 327

Bowden Tank, 4.5 mi. SE. of, 2.5 mi. SE. of Jones Tanks, 0.8 mi. W. along rd. from head of Reagan Canyon, on low summit, 10 ft. S. of rd., in limestone outcrop; aluminum tablet stamped "1917 2909"- 2, 909. 574

From Bowden Tank northeast along Sanderson road to junction of road to Martin ranch (by D. S. Birkett in 1917)

Bowden Tank, 2.3 mi. NE. of, 3.0 mi. in air line S. of center of Horse-shoe Mesa, 25 ft. W. of rd., in limestone outcrop, marked by cairn; aluminum tablet stamped "1917 2883"----- 2, 883. 188

Bowden Tank, 6.8 mi. NE. of, 3.0 mi. in air line E. of center of Horse-shoe Mesa, 1.6 mi NW. of Crenshaw Tank, 0.6 mi. N. of rd. summit, 200 ft. E. of rd., at foot on NW. side of rock-capped hill, in limestone outcrop, marked by cairn; aluminum tablet stamped "1917 3026"- 3, 026. 378

Bowden Tank, 8.0 mi. NE. of, 5.9 mi. SE. of Jones ranch house, 1.7 mi. S. of junction of rd. to Martin ranch house, at low summit in rd., on W. edge of rd., on rock; chiseled square----- 3, 055. 77

From Hood Spring quadrangle at point 0.8 mile northwest of junction of Kincaid and Bear Creeks along roads northeast to point on San Francisco Creek about 4.6 miles northeast of Gage ranch, thence southeast into Bullis Gap quadrangle at point 1 mile southwest of Martin ranch (by D. S. Birkett in 1917)

Kincaid Springs, 4.8 mi. SE. of, 6.5 mi. SW. of headquarters of Gage ranch, 30 ft. N. of rd., on large boulder; chiseled square----- 3, 395. 59

Gage ranch headquarters, 5.6 mi. SW. of, 0.3 mi. NE. of junction of Kincaid and Bear Creeks, at curve in rd. from SE. to NE., on N. edge of rd., on rock; chiseled square----- 3, 333. 64

Gage ranch headquarters, 4.2 mi. SW. of, 2.0 mi. SW. of Cedar Tank, 0.7 mi. SW. of gate, 15 ft. SE. of rd., on rock, marked by small cairn; chiseled square----- 3, 441. 90

Gage ranch headquarters, 3.4 mi. SW. of, 1.4 mi. SW. of Cedar Tank, on S. side of gate in N.-S. fence; iron post stamped "1917 3477"--- 3, 477. 132

Gage ranch headquarters, 1.4 mi. SW. of, 0.6 mi. NW. of Cedar Tank, on edge of rock-covered bench, 20 ft. E. of rd., on rock outcrop, marked by small cairn; chiseled square----- 3, 464. 88

Gage ranch headquarters, 40 ft. SW. of, 0.3 mi. S. of San Francisco Creek, at fence corner; iron post stamped "1917 3250"----- 3, 250. 583

Gage ranch headquarters, about 1 mi. NE. of, on S. side of San Francisco Creek, on S. side of dim rd., in root of large willow tree; spike and copper washer----- 3, 220. 17

Feet

Gage ranch headquarters, 2.4 mi. NE. of, on S. bank of San Francisco Creek, in root of large willow tree; copper nail.....	3, 183. 72
Gage ranch headquarters, 3.5 mi. NE. of, about 200 ft. N. of San Francisco Creek, at E. side of pasture, 30 ft. S. of gate; iron post stamped "1917 3154".....	3, 154. 107
Gage ranch headquarters, 4.5 mi. NE. of, 4.2 mi. NW. of Jones ranch house, 150 ft. S. of San Francisco Creek, on N. side of dim rd., 30 ft. E. of small corral, at E. edge of group of large cottonwood trees, in root of large tree; copper nail.....	3, 113. 99
Jones ranch headquarters, 2.0 mi. NW. of, about 2 mi. S. of San Francisco Creek, 60 ft. S. of rd., on top of gravel bench, 10 ft. E. of cairn, in limestone boulder; standard tablet stamped "1917 3104".....	3, 104. 024
Jones ranch headquarters, 1.0 mi. NW. of, 350 ft. W. of earth tank, in low saddle, 15 ft. N. of rd., on rock; chiseled square.....	3, 062. 38
Jones ranch headquarters, 50 ft. NE. of; iron post stamped "1917 3020".....	3, 020. 713
Jones ranch headquarters, 1.3 mi. SE. of, 5 ft. E. of rd., on boulder; chiseled square.....	3, 100. 67
Jones ranch headquarters, 3.6 mi. SE. of, 0.3 mi. W. of gap, about 200 ft. W. of earth tank, on W. side of gate across rd.; iron post stamped "1917 3047".....	3, 047. 627
Jones ranch headquarters, 4.2 mi. SE. of, 2.7 mi. by rd. W. of Martin ranch house, 0.3 mi. E. of gap, 70 ft. S. of junction of Sanderson rd., on rock, marked by cairn; chiseled square.....	3, 006. 38
Martin ranch house, 1.4 mi. SW. of, 1.3 mi. SE. of junction of Sanderson rd., 50 ft. S. of rd., on rock; chiseled square.....	2, 925. 15

DRYDEN CROSSING QUADRANGLE

[Latitude 29°45'-30°00'; longitude 102°00'-102°15']

TERRELL COUNTY

From Indian Wells quadrangle at point 3.3 miles southwest of Gatlin ranch northeast and southeast along roads by way of McClain ranch to Cable Crossing road, thence northeast and northwest along Cable Crossing and Shafter Crossing roads into Sanderson No. 4 quadrangle (by D. S. Birkett in 1917)

Gatlin ranch house, 2.0 mi. SW. of, on edge of bench, 5 ft. S. of rd., on rock; chiseled square.....	2, 048. 56
Gatlin ranch house, 1.2 mi. SW. of, 0.3 mi. NE. of Seminole Canyon, 0.4 mi. SW. of Sanderson Canyon, on low summit, on N. side of rd., on limestone rock; chiseled square.....	2, 018. 61
Gatlin ranch house, 0.3 mi. SW. of, at low summit in rd., 17 ft. SE. of rd., on rock; chiseled square.....	2, 016. 22
Gatlin ranch house, 150 ft. S. of, about 1 mi. NW. of junction of Sanderson and Seminole Canyons, on N. side of canyon, in extensive limestone outcrop; standard tablet stamped "1917 1986".....	1, 985. 919
Gatlin ranch house, 1.4 mi. NE. of, on ridge, 12 ft. SE. of rd., on rock; chiseled square.....	2, 165. 98
McClain ranch house, 2.3 mi. NE. of, 1.5 mi. NW. of McClain ranch headquarters, at northernmost bend in rd. between ranches, at foot of small light-colored hill, 70 ft. N. of rd., on limestone outcrop, marked by cairn; chiseled square.....	2, 183. 60
McClain ranch headquarters, 0.5 mi. NW. of, about 6 mi. S. of Dryden, 100 ft. S. of low light-colored hill, 10 ft. SW. of rd.; iron post stamped "1917 2165".....	2, 164. 325

	<i>Feet</i>
McClain ranch headquarters, 1.2 mi. SE. of, 90 ft. S. of edge of hill, 40 ft. SW. of rd., on rock; chiseled square-----	2, 093. 17
McClain ranch headquarters, 3.5 mi. SE. of, 0.6 mi. N. of earth tank, 15 ft. E. of rd.; iron post stamped "1917 2011"-----	2, 010. 477
McClain ranch headquarters, 5.8 mi. SE. of, 400 ft. SE. of rd. fork, 25 ft. SW. of rd., on rock; chiseled square-----	1, 958. 55
McClain ranch headquarters, 6.5 mi. SE. of, 1.3 mi. NW. of junction of Cable Crossing rd., just S. of White Hills, 10 ft. SW. of old rd.; iron post stamped "1917 1941"-----	1, 940. 506
McClain ranch headquarters, 7.8 mi. SE. of, 2.9 mi. SW. of Miller ranch house, 5.3 mi. NE. of Cable Crossing on Rio Grande, 160 ft. S. of junction of Cable Crossing rd.; iron post stamped "1917 1940"-----	1, 939. 233
Miller ranch house, 1.9 mi. SW. of, 1.0 mi. along Cable Crossing rd. NE. of junction of rd. NW. to McClain ranch, at summit, 20 ft. E. of rd., on rock; chiseled square-----	1, 999. 45
Miller ranch house, 1.0 mi. SW. of, 0.3 mi. SW. of junction of Cable Crossing and Shafter Crossing rds., 3 ft. W. of rd., on rock, marked by cairn; chiseled square-----	1, 957. 03
Miller ranch house, 0.3 mi. N. of, 0.3 mi. NE. of crossing of Persimmon Creek, in fork between Shafter Crossing rd. and rd. to house; iron post stamped "1917 1878"-----	1, 877. 544
Miller ranch house, 1.3 mi. NW. of, 30 ft. E. of rd., on rock, marked by small cairn; chiseled square-----	1, 957. 16
Miller ranch house, 2.3 mi. NW. of, 50 ft. W. of rd., at foot of small hill, on rock, marked by small cairn; chiseled square-----	2, 011. 70
Miller ranch house, 3.5 mi. NW. of, 700 ft. N. of intersection of rd. to McClain ranch, 15 ft. E. of main rd., at junction of dim rd. SE.; iron post stamped "1917 2120"-----	2, 119. 500
Miller ranch house, 4.7 mi. NW. of, 0.5 mi. S. of crossing of Prairie Creek, 40 ft. W. of rd., on rock, marked by cairn; chiseled square--	2, 108. 20
From Indian Wells quadrangle at point 5.7 miles southeast of Gatlin ranch southeast along Middle Watering road to point 3.4 miles northwest of Rio Grande (by D. S. Birkett in 1917; spur line leveled twice)	
Gatlin ranch house, 6.4 mi. by rd. SE. of, 5.7 mi. NW. of Middle Watering on Rio Grande, 2.3 mi. SE. of junction of Bone Watering rd., on summit of ridge, 10 ft. E. of rd., on rock; chiseled square--	2, 053. 96
Middle Watering on Rio Grande, 4.5 mi. NW. of, 8 ft. E. of rd., on rock; chiseled square-----	1, 927. 36
Middle Watering on Rio Grande, 3.4 mi. NW. of, 0.8 mi. NW. of junction of rd. NE. to mouth of Seminole Canyon, on ridge, on NE. side of rd., 150 ft. NW. of junction of dim rd., in limestone rock, marked by cairn 3 ft. high; standard tablet stamped "1917 1831"-----	1, 831. 191

FORT MCKAVETT NO. 4 QUADRANGLE

[Latitude 30°30'-30°45'; longitude 100°00'-100°15']

KIMBLE, MENARD, SCHLEICHER, AND SUTTON COUNTIES

Along road northwest 0.4 mile, thence southwest 0.9 mile near North Llano River (by W. A. Fisher in 1925; leveled twice)

[A jog from Rock Springs No. 1 quadrangle]

Roosevelt, 1.8 mi. NW. of, 500 ft. W. of Wilson residence, 50 ft. S. of rd., in root of 10-in. cedar tree; copper nail and washer-----	1, 958. 90
Roosevelt, 2.6 mi. NW. of, 30 ft. N. of rd., 80 ft. E. of gate at fence corner, in base of 6-in. oak tree; copper nail-----	1, 941. 36

FORT STOCKTON QUADRANGLE

[Latitude 30°45'-31°00'; longitude 102°45'-103°00']

PECOS COUNTY

From Sierra Madera quadrangle alternately northeast and north along Fort Stockton-Marathon road to Fort Stockton, thence northeast and east along Sheffield road into Comanche Springs No. 1 quadrangle (by S. R. Archer in 1919)

Feet

Fort Stockton, 1.4 mi. SW., thence 7.5 mi. S. from courthouse at, 2.2 mi. NE. of gap, at angle in rd., on E. side of rd., in line with intersection of center lines; top of iron stake driven in ground.....	3, 420. 88
Fort Stockton, 1.4 mi. SW., thence 6.8 mi. S. from, on E. side of rd., at E. bank of rd. gutter, in ledge of rock outcrop; aluminum tablet stamped "1919 3343".....	3, 341. 791
Fort Stockton, 1.4 mi. SW., thence 4.9 mi. S. from, on top of W. end of concrete culvert; chiseled square.....	3, 214. 70
Fort Stockton, 1.4 mi. SW., thence 4.0 mi. S. from, on W. side of rd.; iron post stamped "1919 3160".....	3, 158. 420
Fort Stockton, 1.4 mi. SW., thence 1.0 mi. S. from, 0.5 mi. S. of gate and cattle guard across rd., 580 ft. N. of small galvanized iron drain pipe under rd., on E. side of rd., at fence line; iron post stamped "1919 3011".....	3, 009. 613
Fort Stockton, 1.4 mi. SW., thence 0.5 mi. S. from, at E.-W. fence line crossing rd., on SW. corner of cattle guard; top of bolt.....	2, 999. 24
Fort Stockton, 1.4 mi. SW., thence 0.2 mi. S. from, at top of rise from S., on E. side of rd., on large flat rock; chiseled square.....	3, 008. 88
Fort Stockton, on W. side of Pecos County courthouse grounds, about midway of iron fence, on W. side of small gate, on top of concrete base of fence; chiseled square.....	2, 955. 72
Fort Stockton, at NW. corner of courthouse grounds, in fence corner; iron post stamped "1919 2954" (recovered by U. S. C. & G. S. in 1933).....	2, 952. 520
Fort Stockton, at street just E. of Kansas City, Mexico & Orient Ry. ¹⁶ freight sta.; top of S. rail of main track.....	2, 975. 66
Fort Stockton, 0.8 mi. N. of courthouse, at W. end of K. C. M. and O. Ry. passenger sta., under arched storm shed, at W. entrance to white waiting room, on top of S. end of concrete doorsill; chiseled square (recovered by U. S. C. & G. S. in 1933).....	2, 972. 658
Fort Stockton, 2.4 mi. NE. of, at irrigation ditch flume under stream, on S. side of rd., in top of N. end of E. concrete head wall; aluminum tablet stamped "1919 2927" (recovered by U. S. C. & G. S. in 1933).....	2, 925. 512
Fort Stockton, 3.1 mi. NE. of, 260 ft. W. of house on S. side of rd. at angle in rd., on top of S. concrete head wall of culvert; chiseled square (recovered by U. S. C. & G. S. in 1933).....	2, 917. 665
Fort Stockton, 3.1 mi. NE., thence 0.6 mi. E. from, in NE. corner of crossroads, on top of N. end of concrete culvert; chiseled square (recovered by U. S. C. & G. S. in 1933).....	2, 918. 866
Fort Stockton, 3.1 mi. NE., thence 1.1 mi. E. from, in NE. corner of junction of T-rd. N., on top of N. concrete head wall of culvert; chiseled square.....	2, 913. 50
Fort Stockton, 3.1 mi. NE., thence 1.7 mi. E. from, at jog in main rd., in NE. corner of junction of T-rd. E.; iron post stamped "1919 2907".....	2, 904. 772

¹⁶ Now the Panhandle & Santa Fe Railway.

Feet

Fort Stockton, 3.1 mi. NE., thence 2.5 mi. E. from, 500 ft. W. of gate and cattle guard in N.-S. fence line crossing rd., on N. side of rd., on S. bank of drainage ditch, in crotch between forks of double maple tree; copper nail and washer-----	2, 893. 66
Fort Stockton, 3.1 mi. NE., thence 4.4 mi. E. from, at top of hill, at turn to SE. in rd., 15 ft. N. of cattle guard in N.-S. fence line crossing rd.; iron post stamped "1919 2917" (recovered by U. S. C. & G. S. in 1933)-----	2, 914. 738
From Fort Stockton southeast along old Sanderson road into Comanche Springs No. 4 quadrangle ¹⁷ (by F. L. Shalibo in 1919)	
Fort Stockton, 3.0 mi. SE. of, 900 ft. NW. of junction of rd. S., 20 ft. NE. of rd.; iron post stamped "1919 3047" (recovered by U. S. C. & G. S. in 1933)-----	3, 045. 545
Fort Stockton, 6.0 mi. SE. of, 0.7 mi. SE. of Duck Tank, 1.0 mi. NW. of gate at junction of rd. E. to Price Place, 30 ft. SW. of rd.; iron post stamped "1919 3095" (recovered by U. S. C. & G. S. in 1933)-----	3, 093. 576
Fort Stockton, 9.0 mi. SE. of, 2.0 mi. NW. of gate to Scharbauer ranch, 50 ft. SW. of rd.; iron post stamped "1919 3112"-----	3, 110. 647
Fort Stockton, 11.8 mi. SE. of, at Martin Tank on Old Martin Place, 100 ft. NE. of rd., at SW. corner of windmill; iron post stamped "1919 3164" (recovered by U. S. C. & G. S. in 1933)-----	3, 162. 641

GARDEN CITY NO. 2 QUADRANGLE

[Latitude 31°45'-32°00'; longitude 101°15'-101°30']

GLASSCOCK AND STERLING COUNTIES

From Big Spring South quadrangle at point about 5.6 miles south of Lees generally south along roads to Garden City, thence southwest about 4 miles into Dewey Lake No. 1 quadrangle (by E. E. Harris in 1920)

Lees, 6.2 mi. S. of, 5 ft. W. of center line of rd., in NW. corner of box culvert; copper nail and washer-----	2, 635. 86
Lees, 7.4 mi. S. of, in NW. corner of right-angle turn in rd., 10 ft. N. of corner fence post, 2 ft. E. of wire fence, on top of milestone "G C 9"; chiseled square-----	2, 649. 12
Lees, 8.3 mi. S. of, 8.7 mi. N. of Glasscock County courthouse at Garden City, in SE. corner of right-angle turn in rd., inside wire fence; iron post stamped "1920 Texas 2621" ¹⁸ -----	2, 620. 860
Garden City, 7.6 mi. N. of, on inside angle of turn in rd., in center of top of rock ledge level with ground; chiseled square-----	2, 708. 28
Garden City, 6.7 mi. N. of, just S. of rd. fork, in center of W. side of wooden bridge over drain; copper nail and washer-----	2, 728. 30
Garden City, 4.2 mi. N. of, 60 ft. N. of junction of rd. E. to well of General Oil Co., 30 ft. E. of center line of rd., in SE. corner of angle in wire fence; iron post stamped "1920 Texas 2656"-----	2, 656. 428
Garden City, at front entrance to courthouse, at S. side of stone steps, in center of top of concrete banister; aluminum tablet stamped "1920 Texas 2634"-----	2, 635. 800
Garden City, 1.1 mi. SW. of, on E. side of rd., just N. of T in wire fence, in center of top of rock set in place; chiseled square-----	2, 598. 84
Garden City, 3.8 mi. SW. of, on E. side of rd., 7 ft. S. of junction of private lane E.; iron post stamped "1920 Texas 2599"-----	2, 599. 339

¹⁷ This line cuts the northeast corner of Sierra Madera quadrangle, but no permanent marks were set in that portion of the line.

¹⁸ In 1938 this bench mark was reported destroyed.

Near north border of northwest part of quadrangle (by E. W. Gouchenour in 1938; leveled twice)

[A jog from Big Spring South quadrangle]

Feet

Lees, 5.7 mi. S. and 2.4 mi. E. in air line from, 4.0 mi. S. and 2.1 mi. W. from Panther Draw School, 200 ft. W. of gate in N.-S. fence line, at T-fence E., at cor. secs. 2, 3, 10, and 11, T. 3 S., block 33, Texas and Pacific Ry. survey, in root on NW. side of 4-in. mesquite tree; copper nail and washer.....	2, 775. 45
Lees, 5.7 mi. S. and 2.0 mi. E. from, in SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 3, T. 3 S., block 33, T. and P. Ry. survey, in saddle of ridge at S. end of drain from N., 22 ft. N. and 60 ft. W. from center of ranch rd. fork, in limestone outcrop; standard tablet stamped "T T 28 C 1938 2755".....	2, 755. 296
Reference mark, 95 ft. NE. of tablet, on boulder; chiseled square....	2, 755. 43

HULLDALE QUADRANGLE

[Latitude 31°00'-31°15'; longitude 100°30'-100°45']

IRION, SCHLEICHER, AND TOM GREEN COUNTIES

Along roads southeast and northeast (by R. W. Burchard in 1923)

[A jog from Tankersly quadrangle]

Knickerbocker, 2.0 mi. SE. of, at lone ranch house, at wire fence, at W. side of concrete water tank, on top of concrete water trough around base; chiseled cross.....	2, 135. 99
Knickerbocker, 2.2 mi. SE. of, 100 ft. W. of wooden gate at cross fence, on N. side of rd., in low flat limestone outcrop, marked by cairn; standard tablet.....	2, 145. 817
Reference mark, 25 ft. W. of tablet, on limestone outcrop; chiseled cross.....	2, 145. 80
Knickerbocker, 3.5 mi. SE. of, about 0.6 mi. W. of wooden gate, 600 ft. E. of creek crossing, 400 ft. N. of rd., in base of large lone oak tree; copper nail and washer.....	2, 100. 12
Knickerbocker, 4.4 mi. E. of, 600 ft. E. of wooden gate, on crest of flat-topped ridge, 30 ft. N. of rd., in concrete post; standard tablet.....	2, 132. 755
Reference mark, 40 ft. W. of tablet, 15 ft. N. of rd., on flat outcrop; chiseled mark.....	2, 132. 28
Knickerbocker, 5.8 mi. E. of, 200 ft. E. of lone windmill by dirt tank, near grove of live-oak trees, on S. side of rd., in base of large bushy live-oak tree; copper nail and washer.....	2, 042. 96

INDEPENDENCE DRAW NO. 2 QUADRANGLE

[Latitude 30°45'-31°00'; longitude 102°15'-102°30']

PECOS COUNTY

From Crane No. 3 quadrangle at point about 4.5 miles northeast of Livingston ranch southwest along road about 6.5 miles into Comanche Springs No. 1 quadrangle (by E. E. Harris in 1920)

Livingston ranch house, 3.6 mi. NE. of, 0.4 mi. W. of twin windmills, 30 ft. S. of center line of rd., in rock set in place; aluminum tablet stamped "1920 Texas 2525".....	2, 524. 302
Livingston ranch house, 2.6 mi. NE. of, 40 ft. N. of center line of rd., on rock set in place; chiseled square.....	2, 543. 00
Livingston ranch house, 1.4 mi. NE. of, 25 ft. N. of center line of rd., on rock set in place; chiseled square.....	2, 546. 49
Livingston ranch house, about 700 ft. NW. of, on N. edge of E.-W. rd., on W. edge of rd. N., on E. side of fence line; iron post stamped "1920 Texas 2589".....	2, 588. 194

Feet

Livingston ranch house, 1.0 mi. SW. of, 30 ft. N. of center line of rd., on rock set in place; chiseled square-----	2, 623. 07
Livingston ranch house, 2.0 mi. SW. of, 30 ft. N. of center line of rd., on rock set in place; chiseled square-----	2, 641. 55

INDEPENDENCE DRAW NO. 3 QUADRANGLE

[Latitude 30°30'-30°45'; longitude 102°15'-102°30']

PECOS AND TERRELL COUNTIES

From Comanche Springs No. 4 quadrangle generally east and south along roads
by way of Edward Harral ranch house and Free post office (now discontinued)
into Sanderson No. 2 quadrangle (by S. R. Archer in 1920)

McKenzie ranch house, 6.1 mi. SE. of, 1.3 mi. E. of gap, 0.2 mi. SW. of W. end of earth tank, at junction of rocky rd. and heavy sod, 50 ft. S. of rd., on rock outcrop; chiseled square-----	3, 262. 13
McKenzie ranch house, 6.9 mi. SE. of, 0.4 mi. E. of E. end of earth tank, at ranch rd. NE., at junction of sod and rocky ground, 35 ft. S. of rd., on rock; chiseled square-----	3, 281. 91
McKenzie ranch house, 7.8 mi. SE. of, 0.4 mi. W. of top of ridge, at angle in rd. at outcrop of rock layer, 20 ft. S. of rd., on rock; chiseled square-----	3, 349. 88
McKenzie ranch house, 8.2 mi. SE. of, at top of ridge, on S. side of rd.; iron post stamped "1920 3376"-----	3, 373. 790
McKenzie ranch house, 9.0 mi. SE. of, 1.2 mi. W. of tank and windmill, 700 ft. W. of stream crossing and junction of drain, 18 ft. S. of rd. at right-angle bend, on flat triangular rock outcrop; chiseled square--	3, 302. 15
McKenzie ranch house, 10.1 mi. SE. of, 1.0 mi. S., thence 4.5 mi. W. from Edward Harral ranch house, 25 ft. S. of rd., at turn to E., 800 ft. SW. of windmill and tank, at end of spur ridge from S., on rock outcrop; chiseled square-----	3, 235. 65
Harral ranch house, 1.0 mi. S., thence 3.5 mi. W. from, 0.2 mi. E. of top of ridge, 8 ft. N. of N. gatepost in N.-S. fence line crossing rd., on W. side of fence; iron post stamped "1920 3336"-----	3, 334. 015
Harral ranch house, 1.0 mi. S., thence 2.8 mi. W. from, 0.7 mi. E. of N.-S. fence line crossing rd., at stream crossing at angle in rd., on S. bank of stream, on SW. side of rd., on large flat rock outcrop; chiseled square-----	3, 282. 86
Harral ranch house, 1.0 mi. S., thence 1.7 mi. W. from, 0.8 mi. W. of earth tank, 65 ft. N. of rd., at cluster of three mesquite trees, in crotch between forks; copper nail and washer-----	3, 233. 49
Harral ranch house, 1.0 mi. S., thence 0.8 mi. W. from, 25 ft. N. of rd., 125 ft. S. of earth tank, 125 ft. S. and 120 ft. W. from S. end of earth embankment, at foot of E. side of mesquite tree; iron post stamped "1920 3201"-----	3, 199. 602
Harral ranch house, 1.0 mi. S. of, in SE. corner of triangle of rd. forks, on N. side of main rd. at point where it turns SE., on SW. side of rd. NW. to ranch house, at point where telephone line crosses rd., at fourth telephone pole S. of angle in telephone line, in root of mesquite bush; copper nail and washer-----	3, 171. 98
Harral ranch house, 330 ft. E. of, at SE. corner of earth tank, 120 ft. N. of gate in N.-S. fence line crossing rd., at E. side of small corral, on top of SE. corner of concrete watering trough; chiseled square-----	3, 083. 73

Feet

Harral ranch house, 1.3 mi. NE. of, 4.6 mi. NW. of Harral ranch headquarters, at mouth of draw from SW., 125 ft. SW. of ford, 160 ft. W. of junction of creeks, 40 ft. NW. of rd., under triple-forked hackberry tree; iron post stamped "1920 2995"-----	2, 993. 569
Harral ranch headquarters, 3.6 mi. NW. of, 240 ft. W. of stream crossing, on S. edge of rd., on rock; chiseled square-----	2, 965. 02
Harral ranch headquarters, 2.7 mi. NW. of, 0.7 mi. NW. of crossroads, on S. side of rd., in base of mesquite bush; copper nail and washer----	2, 945. 89
Harral ranch headquarters, 2.0 mi. along old rd. on N. side of valley NW. of, 25 ft. N. of center of crossroads; iron post stamped "1920 2924"-----	2, 922. 180
Harral ranch headquarters, 1.1 mi. NW. of, 0.5 mi. W. of N.-S. fence line across rd., at angle in rd., on N. side of rd., in root of mesquite bush; copper nail and washer-----	2, 890. 91
Harral ranch headquarters, at NE. corner of yard fence at foreman's bungalow S. of point of hill, in mouth of cove W.; iron post stamped "1920 2866"-----	2, 864. 956
Harral ranch headquarters, 0.8 mi. SE. of, 0.2 mi. SW. of low gap in spur ridge, near foot of hill, 75 ft. NE. of angle in rd., 20 ft. W. of rd., on rock; chiseled square-----	2, 847. 62
Harral ranch headquarters, 2.4 mi. SW. of, at rd. crossing N.-S. fence line at corners of four pastures, on S. side of rd., on E. side of N.-S. fence, on N. side of E. fence, 5 ft. S. of S. gatepost, in fence corner; iron post stamped "1920 2897"-----	2, 895. 668
Harral ranch headquarters, 3.4 mi. SW. of, 30 ft. E. of rd., at top of gap in ridge, 17 ft. W. of fence line, on rock outcrop; chiseled square-----	3, 007. 93
Harral ranch headquarters, 4.4 mi. SW. of, 1.0 mi. S. of gap, 975 ft. N. of angle in fence line on E. side of rd., 85 ft. N. of S. side of E. end of spur ridge from W., on E. side of rd., 35 ft. W. of fence line, on flat rock outcrop; chiseled square-----	2, 890. 18
Harral ranch headquarters, 5.3 mi. SW. of, 325 ft. S. of junction of rd. SE., 200 ft. S. and 200 ft. W. from gate in fence line across rd. SE., 340 ft. N. of windmill and tank, 40 ft. W. of rd., in rock outcrop; aluminum tablet stamped "1920 2846"-----	2, 844. 971
Harral ranch headquarters, 7.0 mi. SW. of, 0.3 mi. E., thence 2.0 mi. N. from Free post office, 30 ft. N. of point where rd. crosses drain from E., 70 ft. N. of foot of hill, in mouth of draw from E. in which rd. ascends hill, on rock; chiseled square-----	2, 914. 90
Free post office, 0.3 mi. E., thence 1.1 mi. N. from, about 0.4 mi. S. of bend in rd. S., on top of mesa, on W. side of rd., on flat rock outcrop; chiseled square-----	3, 037. 77
Free post office, 0.3 mi. E., thence 0.5 mi. N. from, at top of mesa, 25 ft. E. of rd., on rock outcrop; chiseled square-----	3, 027. 48
Free post office, 0.3 mi. E. of, on N. side of rd., on top of concrete foundation of N. leg of windmill tower; chiseled square-----	2, 862. 78
Free post office, 130 ft. N. of, 175 ft. NE. of dwelling, at right-angle turn to S. in rd., at E.-W. fence line crossing rd., on N. side of fence, 5 ft. E. of E. gatepost, in SE. corner of rd.; iron post stamped "1920 2857"-----	2, 855. 517
Free post office, 0.6 mi. SE. of, on S. bank of creek, on E. side of rd., in root of mesquite bush; copper nail and washer-----	2, 832. 90

Feet

Free post office, 1.6 mi. SE. of, at low gap in ridge, 30 ft. E. of rd., on rock; chiseled square-----	2, 934. 35
Free post office, 2.6 mi. SE. of, 1.0 mi. SE. of low gap, at point where rd. crosses N.-S. fence line, at junction of fence line from W., at turn to S. in rd., 12 ft. S. of S. gatepost, 5 ft. S. of fence corner, on E. side of fence; iron post stamped "1920 2863"-----	2, 861. 311
Free post office, 3.3 mi. SE. of, 1.0 mi. N. of earth tank, 25 ft. N. of rd., 30 ft. E. of large green thorn bush, in crotch of forked mesquite bush; copper nail and washer-----	2, 874. 51
Free post office, 4.3 mi. SE. of, 125 ft. S. of W. end of earth tank on N. side of rd., 45 ft. S. of rd., in crotch of forked mesquite bush; copper nail and washer-----	2, 912. 75
Free post office, 5.6 mi. SE. of, 0.2 mi. S. of rd. NE., at top of mesa, at junction of fence line S. and E.-W. fence line crossing rd., on E. side of rd., 15 ft. E. of E. gatepost, 35 ft. E. of concrete crossover, 18 ft. W. of corner of three fences, on N. side of E.-W. fence; iron post stamped "1920 3074"-----	3, 072. 76
From Comanche Springs No. 4 quadrangle along road east to Free post office (by F. L. Shalibo in 1920; releveled by E. E. Harris in same year)	
Free post office, 8.4 mi. W. of, 1.1 mi. E. of rd. fork, 30 ft. N. of rd.; iron post stamped "1920 3144"-----	3, 141. 919
Free post office, 5.7 mi. W. of, 300 ft. SE. of windmill, 15 ft. S. of gate, in fence line; iron post stamped "1920 3045"-----	3, 041. 976
Free post office, 2.5 mi. W. of, 500 ft. W. of McGreager ranch house, 10 ft. N. of W. gate to corral, in fence line; iron post stamped "1920 2922"-----	2, 918. 502

INDIAN WELLS QUADRANGLE

[Latitude 29°45'-30°00'; longitude 102°15'-102°30']¹⁹

BREWSTER AND TERRELL COUNTIES

From Bullis Gap quadrangle at point 8.2 miles northeast of Harrel ranch northeast along road by way of Indian Wells into Sanderson No. 3 quadrangle at point 0.8 miles northeast of Stansell ranch (by D. S. Birkett in 1917)

Harrel ranch house, 6.3 mi. by rd. NE. of, 5.0 mi. SW. of Indian Wells, at four-way rd. fork; iron post stamped "1917 2135"-----	2, 135. 592
Indian Wells, 4.1 mi. SW. of, 3.0 mi. W. of crossing of Maxon Creek, 15 ft. NW. of rd., at foot of hill, on large boulder; chiseled square-----	2, 166. 38
Indian Wells, 1.1 mi. SW. of, about 100 ft. E. of Maxon Creek, about 100 ft. E. of old stone chimney, 30 ft. S. of rd., in limestone boulder, marked by cairn; standard tablet stamped "1917 1907"-----	1, 008. 183
Indian Wells, about 1 mi. NE. of, 0.3 mi. E. of main rd., about 300 ft. E. of dim rd., on NW. edge of low bluff, on top of 4- by 6- by 24-in. stone post ²⁰ projecting 1 ft. above surface of ground; chiseled cross----	2, 234. 23
Indian Wells, 2.4 mi. NE. of, 1.8 mi. SW. of Elders ranch house, 0.7 mi. along rd. NE. of Brewster-Terrell county line, 0.4 mi. NE. of junction of rd. to Candilla Canyon, 800 ft. NE. of shearing shed, on S. side of Cedar Creek, 30 ft. W. of rd., in ravine, in limestone outcrop, marked by cairn; standard tablet stamped "1917 2119"-----	2, 119. 484
Elders ranch house, 0.8 mi. by rd. N. of, 1.1 mi. SW. of Stansell ranch house, at foot of rocky point, 50 ft. NW. of rd., on limestone rock, marked by cairn; chiseled square-----	2, 120. 95

¹⁹ A large part of this area lies in Mexico.²⁰ The stone post is centered over a bronze tablet which marks Indian Well triangulation station.

Feet

Stansell ranch house, 200 ft. N. of, about 600 ft. E. of Pothole Canyon,
at center of concrete dam, in top surface; aluminum tablet stamped
"1917 2125"----- 2, 125. 787

From Sanderson No. 3 quadrangle at point about 8 miles south of Feodora south-
east along Middle Watering road to point 4.9 miles southwest of Gatlin ranch,
thence north and east 1.6 miles along road into Dryden Crossing quadrangle
(by D. S. Birkett in 1917)

Gartin ranch house, 5.2 mi. SE. of, 4.4 mi. SW., thence 2.7 mi. NW. from
Gatlin ranch house, 2.7 mi. NW. of intersection of Gatlin ranch-
Bone Watering and Middle Watering rds., 30 ft. NE. of rd., on rock,
marked by cairn; chiseled square----- 2, 256. 76
Gatlin ranch house, 4.4 mi. SW., thence 1.7 mi. NW. from, on low sum-
mit, 25 ft. NE. of rd., on limestone outcrop; chiseled square----- 2, 228. 00
Gatlin ranch house, 4.4 mi. SW. of, 6.5 mi. N. of point on Rio Grande
River known as Bone Watering, in canyon at intersection of Gatlin
ranch-Bone Watering and Middle Watering rds., in large limestone
outcrop, marked by cairn; standard tablet stamped "1917 2110"--- 2, 109. 495
Gatlin ranch house, 4.9 mi. by direct rd. SW. of, 0.8 mi. SE. of inter-
section of Gatlin ranch-Bone Watering and Middle Watering rds.,
at summit, on E. side of rd., on rock, marked by cairn; chiseled
square----- 2, 174. 80
Twin Butte triangulation station, 3.9 mi. SW. of Gatlin ranch house,
1.0 mi. NE. of intersection of Gatlin ranch-Bone Watering and Mid-
dle Watering rds., 800 ft. NW. of rd., on top of small light-colored
hill, in rock; aluminum tablet stamped "1917 2258"----- 2, 257. 963

From road junction 1.1 miles southwest of Indian Wells southeast along road
to mouth of Maxon Creek (by D. S. Birkett in 1917; spur line leveled twice)

Stewart ranch house, about 70 ft. E. of, near Maxon Creek, on rock;
chiseled square----- 1, 851. 87
Stewart ranch house, 1.0 mi. SE. of, about 200 ft. SW. of Maxon Creek,
60 ft. SW. of rd., on rock, marked by cairn; chiseled square----- 1, 791. 04
Stewart ranch house, 1.9 mi. SE. of, about 1,000 ft. NW. of junction
of Maxon and San Francisco Creeks, about 700 ft. N. of latter creek
and 350 ft. SW. of former, on edge of bench, 15 ft. E. of dim rd.
along W. side of Maxon Creek, on limestone rock; chiseled square--- 1, 782. 31
Stewart ranch house, 2.2 mi. SE. of, about 0.5 mi. W. of junction of
Maxon and San Francisco Creeks, about 500 ft. S. of San Francisco
Creek, on N. edge of mesa about 200 ft. above creek bed, in lime-
stone rock, marked by cairn; aluminum tablet stamped "1917
1929"----- 1, 930. 044

KETCHUM MOUNTAIN QUADRANGLE

[Latitude 31°15'-31°30'; longitude 101°00'-101°15']

IRION COUNTY

From Barnhart quadrangle north along Barnhart road to Bar S ranch (by E. E.
Harris in 1920)

Bar S ranch headquarters, 300 ft. SW. of, at junction of rd. E. to Mert-
zon, 20 ft. S. of center line of rd.; iron post stamped "1920 Texas
2463"----- 2, 463. 314

From Barnhart quadrangle at point 7.3 miles north of Noelke ranch along road
north to Stiles-Mertzon road, thence west to Bar S ranch (by E. E. Harris in
1920)

Noelke ranch house, 7.3 mi. N. of, just S. of rd. fork, 25 ft. E. of
center line of main rd.; iron post stamped "1920 Texas 2482"----- 2, 482. 777

Feet

Noelke ranch house, 8.1 mi. N. of, 25 ft. E. of center line of rd., in root on S. side of mesquite tree; copper nail and washer-----	2, 458. 09
Noelke ranch house, 9.1 mi. N. of, at rd. fork, 30 ft. W. of center line of rd., in root of mesquite tree; copper nail and washer-----	2, 491. 85
Noelke ranch house, 9.9 mi. N. of, about 0.25 mi. W. of Poage ranch house, 50 ft. S. of fence line, 20 ft. E. of center line of rd., in root on E. side of mesquite tree; copper nail and washer-----	2, 473. 55
Poage ranch house, 0.8 mi. NW. of, 12.0 mi. E. of Bar S ranch headquarters, 50 ft. S. and 20 ft. W. from junction of Stiles-Mertzson rd., in rock set in place; aluminum tablet stamped "1920 Texas 2545" ..	2, 545. 646
Bar S ranch headquarters, 11.0 mi. E. of, at angle in rd., 12 ft. S. of center line of rd., inside fence line, on rock set in place; chiseled square-----	2, 577. 97
Bar S ranch headquarters, 8.7 mi. E. of, 15 ft. S. of center line of rd., 6 ft. SW. of mail box, on rock set in place; chiseled square-----	2, 604. 55
Bar S ranch headquarters, 8.0 mi. E. of, 40 ft. N. of center line of rd.; iron post stamped "1920 Texas 2600"-----	2, 600. 524
Bar S ranch headquarters, 6.9 mi. E. of, on S. side of rd., at point where rd. leaves fence line, on rock set in place; chiseled square----	2, 584. 91
Bar S ranch headquarters, 4.9 mi. E. of, at intersection of Barnhart and Concho River rd., on N. side of E.-W. rd., 25 ft. E. of cross-roads, in rock set in place; aluminum tablet stamped "1920 Texas 2485"-----	2, 485. 315
Bar S ranch headquarters, 2.8 mi. E. of, on S. side of rd., just inside fence line, in root of thorn tree; copper nail and washer-----	2, 428. 56
Bar S ranch headquarters, 1.8 mi. NE. of, at turn in rd. from W. to SW., 50 ft. NW. of center line of rd., 50 ft. W. of gate, on E. end of large rock outcrop; chiseled square-----	2, 442. 00
Bar S ranch headquarters, 0.9 mi. E. of, on S. side of rd., in E. end of thorn tree; copper nail and washer-----	2, 442. 12
From Bar S ranch north along road 9.3 miles, thence northeast across country and Middle Concho River 1.2 miles, thence along roads generally east to Evans ranch, thence southeast and southwest to Poage ranch (by Gerald FitzGerald in 1920)	
Bar S ranch house, 1.8 mi. N. of, 6 ft. W. of rd., in root of 6-in. tree; copper nail-----	2, 500. 99
Bar S ranch house, 3.7 mi. N. of, at E.-W. fence line in draw, 6 ft. W. of wire gate; iron post stamped "1920 Texas 2430"-----	2, 430. 848
Bar S ranch house, 6.1 mi. N. of, near summit of ridge above draw, 8 ft. E. of center line of rd., near large pile of rock, in flat rock; aluminum tablet stamped "1920 Texas 2476"-----	2, 476. 932
Bar S ranch house, 7.2 mi. N. of, 3.2 mi. SW. of Middle Concho River, 2 ft. E. of rd., in root of 8-in. mesquite tree; copper nail-----	2, 503. 29
Bar S ranch house, 8.2 mi. N. of, 2.2 mi. SW. of Middle Concho River, 25 ft. E. of rd., in root of 6-in. mesquite tree; copper nail-----	2, 411. 25
Bar S ranch house, 10.7 mi. NE. of, 1,500 ft. N. of Middle Concho River, 10 ft. NW. of Stiles-Angelo rd., in flat rock; aluminum tablet stamped "1920 Texas 2364"-----	2, 364. 077
Bar S ranch house, 12.2 mi. NE. of, 4.6 mi. by rd. W. of old Evans ranch house, 2.9 mi. W. of junction of rd. to 7 Bar D ranch house, 5 ft. N. of rd., in root of 6-in. mesquite tree; copper nail-----	2, 316. 27
Evans ranch house, 3.1 mi. W. of, 1.4 mi. W. of Kiowa Creek, 30 ft. S. of large double swinging gate, on flat rock; chiseled square-----	2, 314. 56

Feet

Evans ranch house, 1.7 mi. W. of, near mouth of Kiowa Creek, at intersection of Sterling City-Barnhart rd. (Barnhart and Concho River rd. S. and rd. N. to 7 Bar D ranch), 8 ft. E. of crossroads; iron post stamped "1920 Texas 2290"-----	2, 290. 472
Evans ranch house, 250 ft. N. of rd., at windmill, at base of SW. brace; bolt head-----	2, 279. 16
Evans ranch house, 2.0 mi. SE. of, in low saddle above draw, 4 ft. N. of rd.; iron post stamped "1920 Texas 2312"-----	2, 312. 041
Evans ranch house, 3.2 mi. SE. of, 0.3 mi. S. of Sheen ranch house, at water hole, 10 ft. N. of rd., in root of 18-in. mesquite tree; copper nail-----	2, 262. 09
Evans ranch house, 4.2 mi. SE. of, 50 ft. S. of rd., in root of mesquite tree; copper nail-----	2, 239. 72
Evans ranch house, 5.1 mi. E. of, 5.7 mi. W. of Irion City, 150 ft. E. of sharp turn in rd., near large pile of rock, in flat rock; aluminum tablet stamped "1920 Texas 2230"-----	2, 230. 415
Irion City, 5.0 mi. W. of, on W. side of wooded draw, 30 ft. N. of rd., in root of large blazed tree used as fence post; copper nail-----	2, 219. 02
Irion City, 3.7 mi. W. of, E. of creek crossing, 10 ft. S. of rd., in root of 12-in. tree; copper nail-----	2, 218. 53

[Line jogs into Mertzon quadrangle]

Burney ranch house, 600 ft. SE. of, at turn in rd., in root of 6-in. mesquite tree; copper nail-----	2, 354. 59
Burney ranch house, 1.0 mi. SW. of, 2.3 mi. NE. of Poage ranch house, 1,200 ft. E. of Burney School, 25 ft. SE. of wire gate; iron post stamped "Texas 2475"-----	2, 476. 339

LONGFELLOW NO. 2 QUADRANGLE

[Latitude 30°15'-30°30'; longitude 102°45'-103°00']

BREWSTER AND PECOS COUNTIES

From Hess Canyon quadrangle northeast along Fort Stockton-Marathon road into Sierra Madera quadrangle (by S. R. Archer in 1919)

Marathon Gap, 3.4 mi. SW. of, 2.0 mi. NE. of Dessie ranch house, 0.2 mi. NE. of point in rd. directly in front of windmill and tank, 150 ft. NE. of point in rd. at right angle to highest point of detached hill to NW. of rd., on W. side of rd.; iron post stamped "1919 4344"-----	4, 343. 206
Marathon Gap, 1.1 mi. W. of highest point in, at point where stream has cut through low ridge, about midway of jog in rd. to E., 80 ft. W. of embankment of earth tank, 25 ft. N. of rd., 30 ft. S. of two hackberry trees 5 in. in diameter growing at foot of rock cliff, on rock outcrop; chiseled square-----	4, 466. 71
Marathon Gap, at W. end of level stretch of rd. in, on S. side of rd., at point in rd. where line at right angle to rd. would pass through 12-in. pine tree 220 ft. SE. of rd.; iron post stamped "1919 4571"-----	4, 570. 487
Marathon Gap, 1.0 mi. NE. of, 60 ft. N. of top of hill descending N. to drain, on N. side of rd., on rock; chiseled square-----	4, 521. 53
Marathon Gap, 1.8 mi. NE. of, 10 ft. N. of rd., 0.2 mi. W. of angle in rd., on rock; chiseled square-----	4, 458. 94
Marathon Gap, 2.8 mi. NE. of, at fence line, 10 ft. E. of E. gatepost; iron post stamped "1919 4404"-----	4, 403. 148

Feet

Marathon Gap, 4.2 mi. NE. of, 25 ft. N. of summit of ridge, on E. side of rd., on rock outcrop; chiseled square-----	4, 496. 34
Marathon Gap, 4.9 mi. NE. of, 8.4 mi. S. of S. entrance to Elsinore ranch, 0.7 mi. N. of top of ridge, 165 ft. N. of angle in rd., at end of spur ridge from SE., on E. side of rd., on ledge of rock outcrop; chiseled square-----	4, 338. 45

MARAVILLAS CANYON QUADRANGLE[Latitude 29°30'–29°45'; longitude 102°45'–103°00'] ²¹**BREWSTER COUNTY**

Along roads near Stillwell ranch (by D. S. Birkett in 1917)

[A jog from Bone Spring quadrangle]

Stillwell ranch house, 1.8 mi. NW. of, about 8 mi. S. of Black Hills, 8.5 mi. SW. of Dove Mountain ranch house, 0.2 mi. W. of Bear Creek, on W. side of rd. fork; iron post stamped "1917 2322"-----	2, 322. 443
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From point 1.8 miles northwest of Stillwell ranch northeast along road into Dove Mountain quadrangle near Dove Mountain ranch (by D. S. Birkett in 1917)

Stillwell ranch house, 4.3 mi. by rd. NE. of, on first summit NE. of Bear Creek, 4 ft. N. of rd., on rock outcrop; unmarked point-----	2, 638. 07
Stillwell ranch house, 4.7 mi. NE. of, 5.6 mi. SE. of Dove Mountain ranch house, on second summit, 10 ft. S. of rd., in limestone outcrop; standard tablet stamped "1917 2634"-----	2, 634. 603
Dove Mountain ranch house, 2.9 mi. SW. of, at highest summit on rd. between Stillwell and Dove Mountain ranches, 40 ft. NW. of rd., in limestone outcrop; aluminum tablet stamped "1917 2797"-----	2, 797. 712
Dove Mountain ranch house, 300 ft. NW. of, at SW. side of Dove Mountain, on N. side of gate, at fence line; iron post stamped "1917 2536"-----	2, 536. 724

From Bone Spring quadrangle southeast along Stillwell Crossing road to point 2 miles southeast of Bee Cave Tank, thence northeast along road to Maravillas Canyon, thence southeast through canyon to Rio Grande, thence northeast along Seminole Trail into Reagan Canyon quadrangle (by D. S. Birkett in 1917)

Bee Cave Tank, 0.6 mi. NW. of, 0.9 mi. SE. of junction of rd. N. to Stillwell ranch, at rd. summit, 12 ft. W. of rd., in basalt boulder; aluminum tablet stamped "1917 2579"-----	2, 579. 173
Bee Cave Tank, 2.2 mi. SE. of, 0.7 mi. W. of Black Gap, at junction of Stillwell Crossing rd. and rd. NE. to Maravillas Canyon, 25 ft. E. of board gate across rd. at junction; iron post stamped "1917 2333"-----	2, 333. 207
Black Gap, 2.6 mi. NE. of, at W. end of dam at Dell Tank, about 2 mi. S. of creek crossing in Maravillas Canyon, 50 ft. E. of rd.; iron post stamped "1917 2068"-----	2, 069. 123
Dell Tank, 3.5 mi. by rd. NE. of, 3.7 mi. NW. of Pettit ranch house, in Maravillas Canyon, 1.2 mi. SE. of point where rd. crosses creek, about 600 ft. NE. of creek, 1,000 ft. W. of well, 20 ft. NE. of rd., in large limestone boulder; aluminum tablet stamped "1917 1890"-----	1, 890. 944
Pettit ranch house, 800 ft. N. of, 3.9 mi. W. of mouth of Maravillas Creek, about 600 ft. NE. of creek, at N. edge of small field, 30 ft. SW. of rd., in large limestone boulder; aluminum tablet stamped "1917 1767"-----	1, 767. 775

²¹ The southeastern corner of this area lies in Mexico.

Feet

Pettit ranch house, 3.8 mi. E. of, about 600 ft. SW. of junction of Maravillas Creek and Rio Grande, 150 ft. S. of creek, about 400 ft. W. of river, 140 ft. N. of old rock house, at corner of brush arbor; iron post stamped "1917 1656"-----	1, 656. 155
Pettit ranch house, 3.8 mi. E., thence 3.2 mi. NE. from, 5.0 mi. SW. of Horn ranch house, on SE. side of Seminole Trail, 150 ft. NW. of Rio Grande, 0.5 mi. W. of house known as Old Russian Place, 5 ft. E. of rd., in limestone outcrop; aluminum tablet stamped "1917 1627"-----	1, 627. 202

MAVERICK QUADRANGLE

[Latitude 31°45'-32°00'; longitude 100°00'-100°15']

COKE AND RUNNELS COUNTIES

From Robert Lee quadrangle at point 5.2 miles south and 2.8 miles east from Bronte along roads southeast, northeast, and northwest and back into Robert Lee quadrangle at point 4 miles northwest of Maverick (by A. K. Andrews in 1921)

Brookshire School, 0.7 mi. NE. of, at crossroads, 20 ft. E. of center line of N.-S. rd., 35 ft. S. of center line of Ballinger-Tennyson rd.; iron post stamped "1921 Texas 1776"-----	1, 775. 014
Brookshire School, 2.1 mi. NE. of, 1.0 mi. S. of Colorado River, at angle in rd. S. and W., 5 ft. SW. of center line of rd. at corner, on limestone rock firmly embedded in ground; highest point-----	1, 747. 87
Brookshire School, 3.1 mi. NE. of, 4.0 mi. SE. of Maverick, 80 ft. N. of N. bank of Colorado River, 0.5 mi. SW. of Mrs. Gordon's ranch house, at W. side of big spring, on rock; chiseled mark-----	1, 685. 46
Colorado River; surface of water May 24, 1921-----	1, 666. 6
Maverick, 3.2 mi. SE. of, about 1 mi. N. of Colorado River, 0.3 mi. N. of Mrs. Gordon's ranch house, 450 ft. N. of drain, 20 ft. W. of center line of second-class rd., 150 ft. S. of ridge break, on southern exposure, on prominent limestone ledge, 15 ft. N. of 1.5-in. mesquite tree, in limestone ledge; standard tablet stamped "1921 Texas 1755"-----	1, 754. 411
Maverick, about 2 mi. SE. of, 1,000 ft. N. of rd. fork NE., 10 ft. W. of N.-S. second-class rd., in notch of 8-in. blazed mesquite tree; copper nail-----	1, 758. 20
Maverick, 1.5 mi. E., thence 0.4 mi. S. from, 0.5 mi. E. of ranch house of C. O. Harris, at top of and at western break of divide between Harris River and Mesquite Creek, 30 ft. W. of NE.-SW. rd. which passes ranch house, in 8-in. blazed mesquite tree; spike-----	1, 787. 21
Maverick, 5.8 mi. E., thence 2.1 mi. SW. from, 30 ft. NE. of vacant tenant house belonging to Jake Stubblefield, 20 ft. S. of third-class rd., 8 ft. NE. of 8-in. mesquite tree; in 8- by 8-in. limestone rock; aluminum tablet stamped "1921 Texas 1815"-----	1, 814. 183
Reference mark, 8 ft. SW. of tablet, in root of 8-in. mesquite tree; copper nail-----	1, 814. 21
Quarry Creek crossing, 0.25 mi. S. of, in 4-in. mesquite tree; copper nail-----	1, 821. 88
Maverick, 5.8 mi. E. of, 9 ft. S. of center line of Maverick-Ballinger rd., at concrete causeway at crossing of Quarry Creek, in SW. corner; standard tablet stamped "1921 Texas 1787"-----	1, 786. 183
Quarry Creek; surface of water May 27, 1921-----	1, 786. 0

Feet

Maverick, 1.5 mi. E. of, on Ballinger rd., at angle in rd. to N. and E., 40 ft. E. of fence corner, 30 ft. S. of center line of rd., in line with N.-S. rd., in limestone boulder; standard tablet stamped "1921 Texas 1787"-----	1, 786. 796
Oak Creek, under bridge at Maverick; surface of water May 30, 1921-----	1, 731. 6
Maverick, 2.5 mi. NW. of, at W. edge of Hog Creek bottom, at foot of steep grade (ascent) W., on N. side of rd.; iron post stamped "1921 Texas 1737"-----	1, 736. 499

From Rowena quadrangle at point about 8 miles north of Rowena northwest
along Quarry Creek to point 5.8 miles east of Maverick (by C. E. Fulmer in
1921)

Rowena, 10.0 mi. N. of, 5.8 mi. E., thence 3.4 mi. SE. from Maverick, 500 ft. SW. of Quarry Creek, 50 ft. N. of old dim rd. to Smith ranch, in 3-in. mesquite tree; 40-penny spike-----	1 717. 35
Maverick, 5.8 mi. E., thence 1.4 mi. SE. from, 1.0 mi. SE. of Herring ranch house, 2,000 ft. S. of Quarry Creek, 1,500 ft. N. of E.-W. fence line, 2 ft. from N.-S. fence line; iron post stamped "1754"---	1, 753. 511

From point 5.8 miles east of Maverick southeast along Ballinger road into
Ballinger No. 2 quadrangle (by C. E. Fulmer in 1921)

Maverick, 6.9 mi. E. of, 1.0 mi. E. of Quarry Creek, on Ballinger- Bronte rd., at junction of T-rd. S., on E. side of rd., on stone mark- ing section corner; highest point-----	1, 797. 82
Maverick, 9.6 mi. E. of, 10.0 mi. NW. of Ballinger, along Ballinger- Bronte rd., 1.2 mi. W. of Valley Creek, 200 ft. E. of house, on S. side of rd., at SE. corner of jog, in line with rd. W., in concrete post; standard tablet stamped "1921 Texas 1794"-----	1, 793. 002
Ballinger, 8.8 mi. along Ballinger-Bronte rd. NW. of, 800 ft. W. of junction of T-rd. SE., 800 ft. W. of large white house, on N. side of E. end of steel bridge over Valley Creek, on lower pier; top of bolt--	1, 746. 59
Ballinger, 6.1 mi. NW. of, at NW. corner of junction of rd. N., 500 ft. W. of small drain, in concrete post; standard tablet stamped "1921 Texas 1780"-----	1, 779. 022

MERTZON QUADRANGLE

[Latitude 31°15'-31°30'; longitude 100°45'-101°00']

IRION COUNTY

Along roads southeast to point 2 miles west of Irion City, thence southwest
(by Gerald FitzGerald in 1920)

[A jog from Ketchum Mountain quadrangle]

Irion City, 2.0 mi. W. of, 600 ft. E. of milestone painted "Irion 2 miles," 10 ft. N. of rd., in ground; iron post stamped "Texas 2219"-----	2, 219. 138
Burney ranch house, 2.0 mi. NE. of, 2.5 mi. S. of Middle Concho River, 1.4 mi. N. of Lasatares farmhouse, at rd. fork, at wire gate, 3 ft. W. of W. gatepost, in rock; aluminum tablet stamped "2265"-----	2, 265. 084
From Tankersly quadrangle southwest along Kansas City, Mexico & Orient Railway ²² into Monument quadrangle (by A. P. Meade in 1923)	
Mertzton, 4.5 mi. NE. of, 0.2 mi. SW. of milepost 741, at S. right-of-way fence, 50 ft. S. of track, 30 ft. E. of gate, in concrete post; standard tablet stamped "M 113 1923" (recovered by U. S. C. & G. S. in 1934)-----	2, 132. 394

²² Now the Panhandle & Santa Fe Railway.

Feet

Mertzon, 2.0 mi. NE. of, 1.0 mi. NW. of Sherwood, just E. of grade crossing, 6 ft. NW. of track, at NW. abutment of concrete culvert; top of NE. corner of abutment.....	2, 167. 26
Mertzon, at R. R. sta., in front of office; top of N. rail.....	2, 193. 0
Mertzon, 0.2 mi. SW. of sta., 60 ft. S. of track, 20 ft. S. of R. R. water tank, on concrete base of ladder to top of tank, near NE. corner of block; standard tablet stamped "M 114 1923" (recovered by U. S. C. & G. S. in 1935).....	2, 194. 923

MONUMENT QUADRANGLE

[Latitude 31°00'-31°15'; longitude 100°45'-101°00']

CROCKETT, IRION, AND SCHLEICHER COUNTIES

From Mertzon quadrangle southwest along Kansas City, Mexico & Orient Railway²² into Barnhart quadrangle (by A. P. Meade in 1923)

Mertzon, 3.5 mi. SW. of, 0.2 mi. W. of milepost 749, 460 ft. W. of bridge 211, 27 ft. N. of track, 12 ft. S. of telegraph pole, 15 ft. S. of right-of-way fence, about 40 ft. E. of live-oak bushes, 2 ft. above grade of rails, in rock ledge; standard tablet stamped "M 115 1923" (recovered by U. S. C. & G. S. in 1934).....	2, 242. 502
Mertzon, 6.5 mi. SW. of, 0.2 mi. W. of milepost 752, 300 ft. W. of two-pipe drain, 35 ft. N. of track, 12 ft. S. of rd., halfway between two telegraph poles; top of rock.....	2, 293. 17
Mertzon, 6.9 mi. SW. of, 3.6 mi. E. of Monument Sta., 0.4 mi. E. of milepost 753, 200 ft. NE. of bridge 216, 40 ft. N. of track, 6 ft. S. of rd., under telegraph wires, in concrete post; standard tablet stamped "M 116 1923".....	2, 296. 600
Monument Sta., 1.2 mi. NE. of, 200 ft. W. of milepost 755, 50 ft. N. of track, 75 ft. S. of center line of rd., in concrete post; standard tablet stamped "M 117 1923" (recovered by U. S. C. & G. S. in 1934).....	2, 319. 411
Monument Sta., opposite sta. sign; top of N. rail.....	2, 334. 4
Monument Sta., 1.4 mi. SW. of, at W. end of first big stone cut W. of sta., at ninth telegraph pole E. of milepost 758, 12 ft. S. of track, cemented in solid rock; standard tablet stamped "M 118 1923" (recovered by U. S. C. & G. S. in 1934).....	2, 390. 227
Monument Sta., 4.4 mi. SW. of, 0.4 mi. E. of milepost 761, 300 ft. NE. of bridge 226, 40 ft. N. of track, 15 ft. S. of rd., 10 ft. E. of telegraph pole, in concrete post; standard tablet stamped "M 119 1923" (recovered by U. S. C. & G. S. in 1934).....	2, 399. 172

NUECES NO. 1 QUADRANGLE

[Latitude 29°45'-30°00'; longitude 100°00'-100°15']

EDWARDS COUNTY

From Nueces No. 4 quadrangle at point about 3 miles northwest of Barksdale along road northwest into Rock Springs No. 4 quadrangle at point 1.5 miles southeast of Rocksprings (by E. E. Harris in 1923-25)

Barksdale, 3.3 mi. NW. of, on N. side of rd., in gap, 8 ft. N. of fence line, in root on S. side of 8-in. cedar tree; copper nail and washer....	1, 723. 05
Barksdale, 4.6 mi. NW. of, 120 ft. E. of junction of rd. W., on N. side of rd., on concrete culvert, in center of top of parapet; chiseled square (recovered by U. S. C. & G. S. in 1935).....	1, 632. 218

²² Now the Panhandle & Santa Fe Railway.

Feet

Barksdale, 5.0 mi. NW. of, at first crossing of Pulliam Creek, on N. side of rd., on concrete spillway, in center of top of parapet; chiseled square-----	1, 600. 10
Barksdale, 6.0 mi. NW. of, in NE. corner of junction of T-rd. E., in angle in fence line, 3 ft. from each fence, in concrete post; standard tablet stamped "H 69 1923" (recovered by U. S. C. & G. S. in 1935)-----	1, 640. 256
Reference mark, 81.4 ft. S. 20° E. of tablet, in root on N. side of 8-in. mesquite tree; copper nail and washer-----	1, 639. 92
Barksdale, 7.0 mi. NW. of, on W. side of angle in rd., in root on W. side of 18-in. oak tree; copper nail and washer-----	1, 655. 58
Barksdale, 7.8 mi. NW. of, 400 ft. W. of creek crossing, at lane NE. to ranch house, on S. side of rd., in root on S. side of easternmost of twin live-oak trees; copper nail and washer-----	1, 671. 14
Barksdale, 8.7 mi. NW. of, 40 ft. E. of center line of rd. at bumper gate across rd., in SE. corner of T-angle in fence line, 3 ft. from each fence, in concrete post; standard tablet stamped "H 70 1923" (recovered by U. S. C. & G. S. in 1935)-----	1, 710. 859
Reference mark, 185 ft. N. 50° W. of tablet, in root on W. side of 18-in. live-oak tree; copper nail and washer (recovered by U. S. C. & G. S. in 1935)-----	1, 710. 679
Barksdale, 9.9 mi. NW. of, 200 ft. S. of creek crossing, 100 ft. W. of rd., on W. side of private lane NW. to ranch house, in root on W. side of 20-in. live-oak tree; copper nail and washer-----	1, 725. 31
Barksdale, 10.8 mi. NW. of, 250 ft. S. of creek crossing, on W. side of rd., in root on S. side of forked red-oak tree; copper nail and washer-----	1, 739. 09
Barksdale, 11.8 mi. NW. of, 200 ft. W. of creek crossing, on N. side of rd., in root on S. side of 12-in. hackberry tree; copper nail and washer (recovered by U. S. C. & G. S. in 1935)-----	1, 774. 908
Barksdale, about 12.4 mi. NW. of, at bumper gate across rd., 35 ft. W. of rd., in SW. corner of T-angle in fence line, 3 ft. from each fence, in concrete post; standard tablet stamped "H 71 1923"-----	1, 803. 992
Reference mark, 69.5 ft. N. 90° E. of tablet, in fence line, in root on W. side of 12-in. oak tree; copper nail and washer-----	1, 801. 08
Barksdale, about 13.3 mi. NW. of, at E. end of long creek crossing, on S. side of rd., in root on N. side of 24-in. pecan tree; copper nail and washer-----	1, 833. 12
Barksdale, about 14.3 mi. NW. of, at summit of short grade, on E. side of rd., in root on N. side of 12-in. mesquite tree; copper nail and washer-----	1, 883. 56
Barksdale, 15.2 mi. NW. of, on W. side of rd., 20 ft. S. of corner fence post, 15 ft. N. of prominent cedar tree, just N. of "Halfway House," in rock outcrop; standard tablet stamped "H 72 1923" (recovered by U. S. C. & G. S. in 1935)-----	1, 930. 022
Reference mark, 53.3 ft. S. 10° E. of tablet, on ledge of rock; chiseled square-----	1, 930. 08
Barksdale, 16.2 mi. NW. of, on W. side of rd., in root on E. side of twin live-oak tree; copper nail and washer-----	1, 956. 82
Barksdale, 16.5 mi. NW. of, in SE. corner of rd. fork, in root on E. side of 10-in. cedar tree; copper nail and washer-----	1, 964. 34
Barksdale, 17.4 mi. NW. of, at N. end of creek crossing, on W. side of rd., in root on N. side of prominent hackberry tree; copper nail and washer-----	1, 993. 32

Feet

Barksdale, 18.5 mi. NW. of, 100 ft. N. of drain crossing, on W. side of rd., in root on E. side of 12-in. live-oak tree; copper nail and washer.....	2, 038. 82
Barksdale, 18.9 mi. NW. of, just N. of creek crossing, on E. side of rd., in prominent boulder; standard tablet stamped "H 73 1923" (recovered by U. S. C. & G. S. in 1935).....	2, 066. 590
Barksdale, 20.0 mi. NW. of, in NW. corner of rd. fork, at bumper gate across rd., in corner of fence line, in root on S. side of 12-in. cedar tree; copper nail and washer.....	2, 237. 29
Barksdale, 20.8 mi. NW. of, on N. side of rd., on top of concrete culvert; chiseled square (recovered by U. S. C. & G. S. in 1935).....	2, 287. 896
Barksdale, 21.0 mi. NW. of, on N. side of rd., in center of top of concrete culvert; chiseled square (recovered by U. S. C. & G. S. in 1935).....	2, 264. 329
Barksdale, 22.0 mi. NW. of, 300 ft. E. of bend in rd., on N. side of rd., in top of parapet of concrete culvert; standard tablet stamped "H 74 1923" (recovered by U. S. C. & G. S. in 1935).....	2, 293. 381
Reference mark, 24.3 ft. S. of tablet, on top of concrete culvert; chiseled square (recovered by U. S. C. & G. S. in 1935).....	2, 293. 342
Barksdale, 23.1 mi. NW. of, 60 ft. S. of rd. W. through gate to Brackettsville, on W. side of rd., in fence line, in root on E. side of small mesquite tree; copper nail and washer.....	2, 352. 25
Barksdale, 24.3 mi. NW. of, 80 ft. E. of center line of rd., on S. side of private rd. SE. through gate, in root on E. side of 10-in. live-oak tree; copper nail and washer.....	2, 374. 39
Barksdale, 24.9 mi. NW. of, 350 ft. S. of lane W. to ranch house on hill, 100 ft. S. of dipping vat, on W. side of rd., in center of top of parapet of concrete culvert; standard tablet stamped "H 75 1923" (recovered by U. S. C. & G. S. in 1935).....	2, 342. 344
Reference mark, 24 ft. N. 70° E. of tablet, on top of concrete culvert; chiseled square (recovered by U. S. C. & G. S. in 1935).....	2, 342. 351
Barksdale, 26.0 mi. NW. of, 200 ft. S. of concrete spillway in angle in rd., on E. side of rd., in root on E. side of 6-in. wild pecan tree; copper nail and washer.....	2, 387. 74
Barksdale, 26.7 mi. NW. of, 700 ft. E. of cross lane, on N. side of rd., on concrete culvert, in center of top of parapet; chiseled square (recovered by U. S. C. & G. S. in 1935).....	2, 401. 304
Barksdale, 27.6 mi. NW. of, 1.9 mi. SE. of Rocksprings, on N. side of rd., in top of concrete culvert; standard tablet stamped "H 76 1923" (recovered by U. S. C. & G. S. in 1935).....	2, 389. 303
Reference mark, 27.6 ft. S. 20° W. of tablet, on top of concrete culvert; chiseled square (recovered by U. S. C. & G. S. in 1935).....	2, 389. 861

NUECES NO. 4 QUADRANGLE

[Latitude 29°30'-29°45'; longitude 100°00'-100°15']

EDWARDS, KINNEY, AND UVALDE COUNTIES

From Turkey Mountain quadrangle along Uvalde and Northern Railway north to Camp Wood, thence along roads north and northwest into Nueces No. 1 quadrangle at point about 3 miles northwest of Barksdale (by E. E. Harris in 1923-25)

Montell Siding, 1.9 mi. S. of, 900 ft. N. of water tank, on E. side of track, in root on W. side of prominent live-oak tree; copper nail and washer.....	1, 238. 05
--	------------

Feet

Montell Siding, 1.6 mi. S. of, 0.4 mi. N. of water tank, 80 ft. W. of track, in prominent boulder; standard tablet stamped "H 60 1923" (recovered by U. S. C. & G. S. in 1935)-----	1, 241. 097
Montell Siding, 0.8 mi. S. of, on E. side of track, in E. right-of-way fence line, in root on S. side of 15-in. cedar tree; copper nail and washer-----	1, 272. 41
Montell Siding, in SW. angle of rd. crossing at, 120 ft. S. of rd., 100 ft. W. of track, in concrete post; standard tablet stamped "H 61 1923" (recovered by U. S. C. & G. S. in 1935)-----	1, 284. 709
Reference mark, 44 ft. N.30°E. of tablet, in root on S. side of twin oak tree; copper nail and washer-----	1, 285. 47
Montell Siding, 0.8 mi. N. of, 130 ft. E. of track, in small clearing, in root on W. side of 8-in. mesquite tree; copper nail and washer-----	1, 312. 21
Montell Siding, 2.8 mi. N. of, 550 ft. N. of R. R. trestle, 220 ft. S. of fence line crossing track at cattle guard, 50 ft. W. of track, in root on E. side of forked pecan tree; copper nail and washer-----	1, 318. 61
Montell Siding, 3.1 mi. N. of, 7.4 mi. S. of Camp Wood, 70 ft. E. of track, on W. slope of hill in small clearing, in rock outcrop; standard tablet stamped "H 62 1923" (recovered by U. S. C. & G. S. in 1935)-----	1, 319. 354
Reference mark, 38 ft. N. of tablet, on round boulder; chiseled square-----	1, 318. 63
Camp Wood, 6.4 mi. S. of, 450 ft. N. of crossing of second-class rd., 60 ft. E. of track, in root on S. side of large leaning mesquite tree; copper nail and washer-----	1, 355. 97
Camp Wood, 5.5 mi. S. of, 10 ft. S. of fence line crossing track at cattle guard, 80 ft. E. of track, in root on W. side of leaning forked mesquite tree; copper nail and washer-----	1, 367. 19
Camp Wood, 4.3 mi. S. of, 39 ft. W. of curve in track, 2 ft. S. of S. fence line of lane crossing track between two cattle guards, in concrete post; standard tablet stamped "H 64 1923" (recovered by U. S. C. & G. S. in 1935)-----	1, 375. 896
Reference mark, 89.8 ft. N. of tablet, 43 ft. W. of track, 1 ft. S. of fence line, on iron pipe 6 in. underground; top of cap-----	1, 375. 20
Camp Wood, 3.4 mi. S. of, 600 ft. N. of crossing of second-class rd., 50 ft. W. of track, in root on W. side of 12-in. live-oak tree; copper nail and washer-----	1, 397. 46
Camp Wood, 2.7 mi. S. of, 60 ft. E. of track, in root on N. side of 8-in. mesquite tree; copper nail and washer-----	1, 409. 85
Camp Wood, 1.9 mi. S. of, 40 ft. S. of rd. crossing, 55 ft. W. of track, in concrete post; standard tablet stamped "H 65 1923" (recovered by U. S. C. & G. S. in 1935)-----	1, 421. 969
Reference mark, 59.8 ft. S. of tablet, in crotch of mesquite tree; copper nail and washer-----	1, 421. 69
Camp Wood, 1.1 mi. S. of, in SW. angle of main rd. crossing, 80 ft. S. of track, 40 ft. W. of rd., in root on S. side of 8-in. live-oak tree; copper nail and washer-----	1, 432. 03
Camp Wood, in front of sta.; top of rail-----	1, 444. 2
Camp Wood, N. of schoolhouse, in SW. corner of town park, in concrete post; standard tablet stamped "H 66 1923" (recovered by U. S. C. & G. S. in 1935)-----	1, 455. 184
Reference mark, 101.8 ft. N.15°W. of tablet, in root on W. side of 15-in. live-oak tree; copper nail and washer-----	1, 454. 11
Camp Wood, 1.2 mi. N. of, 130 ft. N. of cross lane, on W. side of rd., in root on S. side of 12-in. live-oak tree; copper nail and washer---	1, 466. 92

Feet

Camp Wood, 1.7 mi. N. of, in center of angle in rd., in root on W. side of 12-in. live-oak tree; 10-penny nail.....	1, 473. 94
Camp Wood, 2.2 mi. N. of, 1.9 mi. S. of Barksdale, on E. side of rd., in root on W. side of prominent twin-oak trees; copper nail and washer.....	1, 478. 07
Barksdale, 1.1 mi. S. of, on W. side of rd., 80 ft. N. of dwelling, in root on S. side of 12-in. live-oak tree; copper nail and washer.....	1, 501. 34
Barksdale, 0.2 mi. S. of, in NE. angle of crossing of Nueces River, at former concrete spillway, on S. end of remaining retaining wall; chiseled square.....	1, 479. 06
Barksdale, in SE. corner of crossroads at, E. of schoolhouse, at residence of L. V. Wallace, in NW. corner of yard, in angle in fence line, 2.5 ft. from each fence, in concrete post; standard tablet stamped "H 67 1923" (recovered by U. S. C. & G. S. in 1935).....	1, 506. 772
Reference mark, 58.8 ft. S. 20° E. of tablet, in root on N. side of 24-in. oak tree; copper nail and washer.....	1, 506. 32
Barksdale, 1.0 mi. N. of, in SW. corner of rd. fork, at base of corner fence post, on ledge of rock; chiseled square.....	1, 606. 07
Barksdale, 2.1 mi. NW. of, 200 ft. E. of creek crossing, on S. side of rd., in root on E. side of 15-in. sycamore tree; copper nail and washer..	1, 573. 59
Barksdale, 2.9 mi. NW. of, on E. side of rd., 20 ft. N. of lane E. through gate to ranch house, 2 ft. E. of fence line, in concrete post; standard tablet stamped "H 68 1923" (recovered by U. S. C. & G. S. in 1935).....	1, 649. 357
Reference mark, 173.1 ft. S. 50° W. of tablet, in root on N. side of 10-in. mesquite tree; copper nail and washer.....	1, 645. 88

OZONA NO. 1 QUADRANGLE

[Latitude 30°45'-31°00'; longitude 101°00'-101°15']

CROCKETT COUNTY

From Barnhart quadrangle along Barnhart-Ozona road and other roads south-east to headquarters of Roger Blain ranch, thence northeast and back into Barnhart quadrangle at point 3.2 miles southwest of O 9 ranch (by E. E. Harris in 1920)

Barnhart, 9.8 mi. S. of, on E. side of rd., on top of masonry culvert; chiseled square.....	2, 659. 80
Barnhart, 10.8 mi. S. of, 1.2 mi. NW. of Roger Blain ranch headquarters, on E. side of N.-S. rd., 15 ft. S. of rd. SE., inside fence line, on large rock in place; chiseled square.....	2, 625. 26
Roger Blain ranch headquarters, 700 ft. W. of, 70 ft. S. of rd. fork, 30 ft. W. of corral; iron post stamped "1920 Texas 2577".....	2, 577. 948
Roger Blain ranch headquarters, 0.8 mi. NE. of, on W. side of rd., on E. bank of draw, in root on E. side of mesquite tree; copper nail and washer.....	2, 574. 19
Roger Blain ranch headquarters, 1.8 mi. NE. of, 40 ft. N. of center line of rd., in root on E. side of 10-in. mesquite tree; copper nail and washer.....	2, 636. 20
Roger Blain ranch headquarters, 2.8 mi. NE. of, 15 ft. S. of center line of rd., in root on E. side of thorn tree; copper nail and washer.....	2, 631. 40
Roger Blain ranch headquarters, 3.6 mi. NE. of, 5.2 mi. SW. of O 9 ranch headquarters, on E. side of fence line, 25 ft. S. of gate across rd.; iron post stamped "1920 Texas 2627".....	2, 627. 396
O 9 ranch headquarters, 4.3 mi. SW. of, 100 ft. E. of old San Angelo-Ozona rd., in line with lane W., on rock in place; chiseled square....	2, 602. 29

	<i>Feet</i>
O 9 ranch headquarters, 3.3 mi. SW. of, 50 ft. N. of center line of rd., in root on N. side of thorn tree; copper nail and washer.....	2, 609. 84

OZONA NO. 2 QUADRANGLE

[Latitude 30°45'-31°00'; longitude 101°15'-101°30']

CROCKETT COUNTY

From Big Lake quadrangle at point near headquarters of Coates ranch along roads southwest 0.4 mile, thence west to Big Lake-Ozona road, thence north and back into Big Lake quadrangle (by E. E. Harris in 1920)

Barnhart, 13.6 mi. SW. of, 0.5 mi. W. of Coates ranch headquarters, 30 ft. E. of center line of rd., 40 ft. SE. of gate, in line with cut-off rd. W., on S. side of fence line, in root on W. side of mesquite tree; copper nail and washer.....	2, 591. 68
Barnhart, 14.0 mi. SW. of, 0.9 mi. W. of Coates ranch headquarters, 10 ft. N. of center line of rd., on E. side of fence line, on rock in place; chiseled square.....	2, 633. 70
Barnhart, 15.6 mi. SW. of, 2.5 mi. W. of Coates ranch headquarters, 15 ft. W. of Big Lake-Ozona rd., 30 ft. N. of cross lane, on N. side of fence line, in rock in place; standard tablet stamped "1920 Texas 2675".....	2, 675. 252

RANKIN NO. 1 QUADRANGLE

[Latitude 31°15'-31°30'; longitude 101°30'-101°45']

REAGAN COUNTY

From Dewey Lake No. 4 quadrangle along roads south, southeast, and east by way of Stiles into Sawyer No. 2 quadrangle (by E. E. Harris in 1920)

Stiles, 5.7 mi. N. of, 300 ft. SE. of deserted house, 10 ft. W. of center line of rd., 1 ft. S. of fence line, 4 ft. W. of gate; iron post stamped "1920 Texas 2658".....	2, 657. 851
Stiles, 4.7 mi. N. of, 10 ft. W. of center line of rd., 1 ft. S. of fence line, 3 ft. SW. of gate, in center of top of rock set in place; chiseled square.....	2, 654. 91
Stiles, 3.8 mi. N. of, 50 ft. E. of center line of rd., in root on E. side of thorn tree; copper nail and washer.....	2, 663. 55
Stiles, 2.4 mi. N. of, 15 ft. W. of center line of rd., 1 ft. S. of fence line, 7 ft. W. of gate; iron post stamped "1920 Texas 2659".....	2, 659. 390
Stiles, 0.6 mi. N. of, 50 ft. E. of center line of rd., inside angle in fence line, on rock outcrop; chiseled square.....	2, 642. 68
Stiles, at front entrance to residence and community center, in N. end of lower stone step; aluminum tablet stamped "1920 Texas 2545".....	2, 545. 229
Stiles, 2.6 mi. SE. of, 30 ft. W. of center line of rd., inside fence line, on rock outcrop; chiseled square.....	2, 607. 10
Stiles, 4.3 mi. SE. of, at angle from N. to E. in rd., inside angle in fence line; iron post stamped "1920 Texas 2612".....	2, 611. 926
Stiles, 5.2 mi. SE. of, 30 ft. S. of center line of rd., 10 ft. E. of lane to ranch house of E. W. Loftin, on large rock outcrop; chiseled square.....	2, 571. 46

RANKIN NO. 3 QUADRANGLE

[Latitude 31°00'-31°15'; longitude 101°45'-102°00']

CROCKETT, REAGAN, AND UPTON COUNTIES

From Rankin No. 4 quadrangle west and southwest along Kansas City, Mexico
& Orient Railway ²⁵ into Crane No. 4 quadrangle (by E. E. Harris in 1920)

	<i>Feet</i>
Rankin, 9.6 mi. E. of, 50 ft. N. of track, 80 ft. S. of rd., 6 ft. W. of milepost 811, in line with telegraph poles; iron post stamped "1920 Texas 2727" (recovered by U. S. C. & G. S. in 1934)-----	2, 727. 288
Rankin, 5.6 mi. E. of, 250 ft. E. of target switch, 55 ft. N. of track, 6 ft. NW. of milepost 815, opposite derail sign, in rock set in place; standard tablet stamped "1920 Texas 2639" (recovered by U. S. C. & G. S. in 1934)-----	2, 639. 306
Rankin, 1.7 mi. E. of, 450 ft. E. of milepost 819, on N. side of rd., just W. of rd. fork; iron post stamped "1920 Texas 2535"-----	2, 534. 722
Rankin, in front of sta.; top of nearest rail of main-line track-----	2, 513. 9
Rankin, 250 ft. NW. of sta., at crossing of R. R. and main N.-S. rd., 90 ft. N. of main-line track, 70 ft. W. of rd., in line with telegraph poles, on rock set in place; chiseled square-----	2, 512. 67
Rankin, 0.5 mi. W. of, 90 ft. E. of milepost 821, 20 ft. N. of track, on top of 30-in. galvanized drain pipe, 15 in. from N. end; chiseled square-----	2, 496. 38
Rankin, 2.5 mi. W. of, 50 ft. N. of track, 50 ft. W. of rd. crossing, 5 ft. W. of milepost 823; iron post stamped "1920 Texas 2471" (recovered by U. S. C. & G. S. in 1934)-----	2, 470. 799

RANKIN NO. 4 QUADRANGLE

[Latitude 31°00'-31°15'; longitude 101°30'-101°45']

CROCKETT AND REAGAN COUNTIES

From Big Lake quadrangle alternately west and northwest along Kansas
City, Mexico & Orient Railway ²⁵ into Rankin No. 3 quadrangle (by E. E.
Harris in 1920)

Big Lake, 2.8 mi. W. of, 70 ft. S. of track, on S. side of dirt rd., opposite milepost 794, on rock set in place; chiseled square-----	2, 680. 70
Big Lake, 3.8 mi. W. of, 70 ft. S. of track, 15 ft. S. of center line of rd., opposite milepost 795, on S. side of fence line, in rock set in place; standard tablet stamped "1920 Texas 2673"-----	2, 673. 278
Big Lake, 6.8 mi. NW. of, 10 ft. S. of track, opposite milepost 798, on top of 15-in. galvanized drain pipe, 2 ft. from end; chiseled square-----	2, 711. 50
Big Lake, 7.8 mi. NW. of, 4.4 mi. SE. of Rita Santa, ²⁶ 55 ft. N. of track, 5 ft. N. of milepost 799; iron post stamped "1920 Texas 2742" (recovered by U. S. C. & G. S. in 1934)-----	2, 742. 038
Rita Santa, 0.4 mi. E. of, 100 ft. S. of rd., 60 ft. N. of track, 8 ft. W. of milepost 803; iron post stamped "1920 Texas 2727" (recovered by U. S. C. & G. S. in 1934)-----	2, 726. 924
Rita Santa, 3.5 mi. W. of, 13.8 mi. E. of Rankin, 50 ft. N. of track, 25 ft. S. of rd., 6 ft. SE. of milepost 807, in rock set in place; standard tablet stamped "1920 Texas 2713" (recovered by U. S. C. & G. S. in 1934)-----	2, 713. 334

²⁵ Now the Panhandle & Santa Fe Railway.²⁶ There was no town at this location in 1920.

REAGAN CANYON QUADRANGLE

[Latitude 29°30'-29°45'; longitude 102°30'-102°45']²⁷

BREWSTER COUNTY

From Maravillas Canyon quadrangle northeast and northwest along Seminole Trail and road through Reagan Canyon into Bullis Gap quadrangle (by D. S. Birkett in 1917)

Feet

Horn ranch house, 1.6 mi. SW. of, 1,200 ft. S. of upper ford, near SW. corner of small field, 10 ft. E. of dim rd., in large willow tree; spike.....	1, 605. 35
Horn ranch house, 1.0 mi. by rd. N. of, near top of first rd. summit N. of ranch house, 120 ft. SE. of rd., marked by cairn; aluminum tablet stamped "1917 1779".....	1, 779. 969
Horn ranch house, 4.6 mi. NE. of, 2.2 mi. in air line from mouth of Reagan Canyon, just S. of long cane brake, about 120 ft. NW. of NW. bank of Rio Grande, about 25 ft. above level of river, at NW. corner of brush pen, in boulder; aluminum tablet stamped "1917 1585".....	1, 585. 661
Reagan Canyon, 0.7 mi. in air line SW. of mouth of, 850 ft. SW. of mouth of Big Canyon, on W. bank of Rio Grande, 80 ft. S. of two springs, in base of 24-in. willow tree; 60-penny spike and copper washer.....	1, 564. 10
Reagan Canyon, about 150 ft. W. of mouth of, about 60 ft. S. of dry bed of Reagan Creek, on boulder-strewn point; top of large boulder.....	1, 559. 29
Reagan Canyon, 0.5 mi. NW. of mouth of, 100 ft. NW. of point where rd. leaves Rio Grande valley, 40 ft. W. of rd., at bottom of slope, in large limestone boulder, marked by cairn; aluminum tablet stamped "1917 1624".....	1, 624. 553
Reagan Canyon, 1.8 mi. NW. of mouth of, at junction of Bullis Trail, 3 ft. S. of rd., on rock; highest point.....	1, 875. 67
Reagan Canyon, 3.5 mi. NW. of mouth of, 9.7 mi. SW. of Español House, at upper side of the "Jumpoff," 15 ft. SE. of rd., marked by cairn; aluminum tablet stamped "1917 2148".....	2, 148. 532

ROBERT LEE QUADRANGLE

[Latitude 31°45'-32°00'; longitude 100°15'-100°30']

COKE COUNTY

From Blackwell quadrangle south along Kansas City, Mexico & Orient Railway²⁸ to Bronte, thence southwest along road 4.2 miles (by A. K. Andrews in 1921; double-rodged line)

Bronte, 4.3 mi. N. of, 50 ft. W. of center line of track, 35 ft. S. of milepost 681, 50 ft. E. of resaca 10 ft. deep; iron post stamped "1921 Texas 1876" (recovered by U. S. C. & G. S. in 1933).....	1, 876. 010
Bronte, 300 ft. SW. of K. C. M. & O. Ry. sta. at, about 0.3 mi. S. of milepost 685, 100 ft. W. of center line of track, 75 ft. E. of center line of street; iron post stamped "1921 Texas 1799" (recovered by U. S. C. & G. S. in 1933).....	1, 798. 126
Bronte, 4.2 mi. SW. of, at NE. corner of yard of S. A. Kiker, 3 ft. outside fence corner; iron post stamped "1921 Texas 1800".....	1, 799. 916

²⁷ The greater part of this area lies in Mexico.²⁸ Now the Panhandle & Santa Fe Railway.

From point 4.2 miles southwest of Bronte along roads generally southeast into Maverick quadrangle at point 5.2 miles south and 2.8 miles east from Bronte (by A. K. Andrews in 1921)

Feet

Bronte, 4.2 mi. SW., the 1.1 mi. S. from, 175 ft. SW. of farmhouse of T. I. Mobley, 2 ft. N. of E.-W. wire fence; top of sharp, pointed rock.....	1, 766. 33
Bronte, 4.0 mi. S., thence 1.2 mi. NW. from, 60 ft. S. of junction of Colorado River and Liveoak Creek, at base of bluff, in sandstone ledge; standard tablet stamped "1921 Texas 1736".....	1, 735. 372
Bronte, 3.0 mi. S., thence 0.7 mi. NW. from, 200 ft. SW. of Live Oak ranch house of G. R. Humlong, on top of N. end of concrete watering trough; chiseled square.....	1, 749. 88
Bronte, 4.0 mi. S. of, 1,250 ft. S. of milepost 689 on K. C. M. & O. Ry., 50 ft. W. of center line of track, 30 ft. S. of rd.; iron post stamped "1921 Texas 1775" (recovered by U. S. C. & G. S. in 1933).....	1, 774. 462
Bronte, 4.8 mi. S. of, 200 ft. E. of R. R., 300 ft. SE. of milepost 690, 20 ft. E. of Bronte-San Angelo rd., 20 ft. S. of T-rd. E., on end of big conglomerate boulder; chiseled square.....	1, 837. 69
Bronte, 4.8 mi. S., thence 1.5 mi. along secondary rd. NE. from, 150 ft. NE. of junction of NE.-SW. rd., 8 ft. N. of N. post of wire gate, 25 ft. N. of T-fence E.; pointed stone set in place.....	1, 779. 63
Bronte, 5.1 mi. S. and 2.7 mi. E. from, 3.5 mi. SW., thence 2.1 mi. NW. from Maverick, 1.5 mi. E. of ranch house of W. J. Parrish, 0.5 mi. N. of conical hill with signal on summit, 10 ft. S. of wire gate, 3 ft. NW. of T-fence W., in 6-in. limestone rock; standard tablet stamped "1921 Texas 1795".....	1, 794. 973

From Maverick quadrangle at point 4 miles northwest of Maverick northwest along roads to Bronte (by A. K. Andrews in 1921)

Bronte, 2.6 mi. SE. of, 0.5 mi. W. of signal on hill, in SW. corner of angle in rd. to N. and E., 5 ft. outside fence corner, in limestone boulder; aluminum tablet stamped "1921 Texas 1816".....	1, 815. 238
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ROCK SPRINGS NO. 1 QUADRANGLE

[Latitude 30°15'-30°30'; longitude 100°00'-100°15']

EDWARDS, KIMBLE, AND SUTTON COUNTIES

Along trail and roads northwest 2.7 miles to Company ranch, thence north 3 miles, thence east (by E. E. Harris in 1924)

[A jog from Junction quadrangle]

Company ranch headquarters, 2.4 mi. SE. of, on S. side of angle in rd., on highest part of large boulder; chiseled square.....	2, 294. 60
Company ranch headquarters, 1.4 mi. SE. of, 6 ft. N. of gate in fence line crossing rd., 70 ft. W. of rd., in root on N. side of 10-in. mesquite tree; copper nail and washer.....	2, 174. 55
Company ranch headquarters, 0.5 mi. SE. of, 200 ft. N. of creek crossing rd., 40 ft. E. of rd., in root on W. side of 8-in. mesquite tree; copper nail and washer.....	2, 149. 51
Company ranch headquarters, 0.2 mi. N. of, 40 ft. N. and 50 ft. E. from rd. fork, in concrete post; standard tablet stamped "H 111 1924".....	2, 141. 689
Reference mark, 97 ft. S. of tablet, in root on W. side of 12-in. mesquite tree; copper nail and washer.....	2, 141. 06
Company ranch headquarters, 1.1 mi. N. of, 25 ft. N. of gate in fence line crossing rd., on W. side of rd., in root on W. side of 8-in. mesquite tree; copper nail and washer.....	2, 113. 58

Feet

Company ranch headquarters, 2.1 mi. N. of, on W. side of rd., on N. edge of wash, in root on E. side of northernmost oak tree in clump of eight trees; copper nail and washer.....	2, 082. 88
Company ranch headquarters, 3.0 mi. N. of, 0.4 mi. W. of Hasima ranch, 60 ft. from junction of Y-rd., in concrete post; standard tablet stamped "H 112 1924".....	2, 065. 826
Reference mark, 78.7 ft. S. 20° W. of tablet, in root on S. side of 6-in. mesquite tree; copper nail and washer.....	2, 065. 00

From northwest corner of Junction quadrangle generally west along State road (old State Highway 27) to point 6.9 miles west of Roosevelt (by W. A. Fisher in 1925; leveled twice)

Junction, 16.4 mi. W. of, 60 ft. S. of rd., in root of large oak tree; copper nail.....	1, 871. 95
Junction, 17.2 mi. W. of, 2.3 mi. E. of Roosevelt, 60 ft. N. of highway, 80 ft. E. of dry stream crossing, 6 ft. S. of fence line, in concrete post; standard tablet stamped "Prim Trav Sta No 2 T 1925 F 4" (recovered by U. S. C. & G. S. in 1932).....	1, 889. 714
Roosevelt, 2.2 mi. E. of, 0.5 mi. E. of mail box of O. J. Camp, 50 ft. S. of rd., in root of small mesquite tree; copper nail.....	1, 890. 57
Roosevelt, 1.0 mi. E. of, 100 ft. E. of residence of W. Allison, on N. side of rd., in root of 6-in. mesquite tree; copper nail.....	1, 904. 10
Roosevelt, 1,000 ft. E. of, at residence of Burwell Fisher, in SW. corner of concrete porch; top of iron pin.....	1, 923. 74
Roosevelt, 0.7 mi. W. of, 950 ft. W. of North Llano River crossing, 30 ft. N. of rd., in base of 30-in. red-oak tree; copper nail.....	1, 912. 80
Roosevelt, 1.3 mi. W. of, 300 ft. W. of North Llano River crossing, 12 ft. S. of rd., in root of large oak tree; copper nail.....	1, 923. 43

[Line jogs into Fort McKavett No. 4 quadrangle]

Roosevelt, 3.7 mi. by rd. W. of, 40 ft. S. of rd., in base of 6-in. mesquite tree; copper nail.....	1, 970. 15
Roosevelt, 4.0 mi. W. of, 700 ft. E. of North Llano River crossing, at summit of grade, 70 ft. N. of rd.; standard tablet stamped "F 5 1925".....	1, 965. 126
Roosevelt, 4.7 mi. W. of, 1,360 ft. E. of North Llano River crossing, 15 ft. S. of rd., in root of 12-in. oak tree; copper nail.....	1, 969. 53
Roosevelt, 5.7 mi. W. of, 100 ft. E. of flume over rd., 12 ft. N. of rd., in base of 20-in. elm tree; iron screw.....	1, 971. 75
Roosevelt, 6.9 mi. W. of, 26.4 mi. W. of Junction, at Allison camp on North Llano River, 60 ft. S. of angle in rd., 270 ft. SW. of Allison store, in natural rock; standard tablet stamped "F 6 1925".....	1, 977. 858

ROCK SPRINGS NO. 4 QUADRANGLE

[Latitude 30°00'-30°15'; longitude 100°00'-100°15']

EDWARDS COUNTY

From Nueces No. 1 quadrangle at point 1.5 miles southeast of Rocksprings along road northwest 1.0 miles, thence northeast about 22 miles into Segovia No. 3 quadrangle (by E. E. Harris in 1923-25)

Rocksprings, 1.0 mi. SE. of, on E. side of rd., on concrete culvert, in center of top of wall of parapet; chiseled square (recovered by U. S. C. & G. S. in 1935).....	2, 400. 550
Rocksprings, 800 ft. E. of courthouse, in SW. corner of crossroads, in center of top of wall of concrete culvert; chiseled square (recovered by U. S. C. & G. S. in 1935).....	2, 404. 155

Feet

Rocksprings, in S. wall of Edwards County courthouse, E. of entrance, midway between two windows, 4 ft. above ground; standard tablet stamped "H 77 1923" (recovered by U. S. C. & G. S. in 1931)---	2, 410. 156
Reference mark, 76.5 ft. S. 40° E. of tablet, on top of concrete well; chiseled square-----	2, 406. 17
Rocksprings, at front entrance of schoolhouse, in SE. corner of stone step; standard tablet stamped "H 78 1923" (recovered by U. S. C. & G. S. in 1931)-----	2, 401. 429
Reference mark, 95.5 ft. S. 70° W. of tablet, in root on N. side of 6-in. live-oak tree; copper nail and washer-----	2, 402. 09
Rocksprings, 0.7 mi. NE. of, on W. side of rd., on concrete culvert, in center of top of parapet; chiseled square-----	2, 383. 20
Rocksprings, 0.8 mi. NE. of, on E. side of rd., across rd. from ranch house, 20 ft. N. of gate to pasture, in root on S. side of 6-in. live-oak tree; copper nail and washer-----	2, 393. 84
Rocksprings, 1.8 mi. NE. of, on E. side of rd., in fence line, in root on W. side of prominent live-oak tree; copper nail and washer-----	2, 394. 63
Rocksprings, 2.9 mi. NE. of, 80 ft. E. of center line of rd., 60 ft. N. of fence line crossing rd., in ledge of rock; standard tablet stamped "H 79 1924" (recovered by U. S. C. & G. S. in 1931)-----	2, 369. 598
Reference mark, 115 ft. W. of tablet, in root on E. side of 15-in. cedar tree; copper nail and washer-----	2, 371. 42
Rocksprings, 3.7 mi. NE. of, on E. side of rd., 50 ft. S. of gate in fence line crossing rd., in root on W. side of 6-in. live-oak tree; copper nail and washer-----	2, 334. 02
Rocksprings, 4.6 mi. NE. of, 100 ft. N. of rd. fork, on W. side of main rd., on W. side of rd. NW., in root on N. side of 12-in. mesquite tree; copper nail and washer-----	2, 235. 44
Rocksprings, 5.4 mi. NE. of, on E. side of rd., 17 ft. S. and 3 ft. E. from L-angle in fence line, in line with rd. W. to ranch house, in concrete post; standard tablet stamped "H 80 1923" (recovered by U. S. C. & G. S. in 1931)-----	2, 199. 536
Reference mark, 114.1 ft. N. 50° E. of tablet, in root on N. side of 12-in. mesquite tree; copper nail and washer-----	2, 198. 47
Rocksprings, 6.4 mi. NE. of, 40 ft. E. of bumper gate in fence line crossing rd., on N. side of rd., in root on S. side of 6-in. mesquite tree; copper nail and washer-----	2, 182. 65
Rocksprings, 7.4 mi. NE. of, 200 ft. N. of rd. fork, on W. side of private rd. to ranch house, in L-angle in fence line, in root on E. side of 10-in. mesquite tree; copper nail and washer-----	2, 168. 43
Rocksprings, 8.3 mi. NE. of, on W. side of sharp turn in rd., 3 ft. N. of fence line crossing rd., in concrete post; standard tablet stamped "H 81 1923" (recovered by U. S. C. & G. S. in 1931)-----	2, 164. 428
Reference mark 1, 100.2 ft. S. 20° W. of tablet, in root on N. side of 8-in. mesquite tree; copper nail and washer-----	2, 165. 27
Reference mark 2, 197.6 ft. N. of tablet, on ledge of rock; chiseled square-----	2, 161. 57
Rocksprings, 9.0 mi. NE. of, 100 ft. N. of rd. fork, on W. side of old rd., at point where rd. crosses wash, at L-angle in fence line, in root on E. side of 8-in. live-oak tree; copper nail and washer-----	2, 137. 74
Rocksprings, 10.0 mi. NE. of, 1,600 ft. E. of gate in fence line crossing rd., on S. side of rd., on concrete culvert, in center of top of parapet; chiseled square-----	2, 135. 34

Feet

Rocksprings, 11.0 mi. NE. of, on W. side of main rd., on N. side of old rd., in root on W. side of 12-in. mesquite tree; copper nail and washer-----	2, 132. 55
Rocksprings, 12.0 mi. NE. of, on E. side of sharp turn in rd., at bumper gate across rd., 20 ft. S. of gate, 3 ft. E. of fence line, in concrete post; standard tablet stamped "Prim Trav Sta No 21 T 1925 H 82"-----	2, 170. 718
Reference mark, 270.5 ft. N. 20° E. of tablet, in root on W. side of 10-in. mesquite tree; copper nail and washer-----	2, 165. 58
Rocksprings, 12.9 mi. NE. of, on E. side of rd., in root on E. side of 6-in. live-oak tree; copper nail and washer-----	2, 119. 41
Rocksprings, 13.7 mi. NE. of, on W. side of rd., in root on E. side of 30-in. live-oak tree; copper nail and washer-----	2, 116. 53
Rocksprings, 14.7 mi. NE. of, 100 ft. N. of Y-rd. fork, 50 ft. from each rd., in concrete post; standard tablet stamped "Prim Trav Sta No 20 T 1925 H 83"-----	2, 067. 863
Reference mark, 108.7 ft. N. 10° W. of tablet, in root on S. side of 8-in. mesquite tree; copper nail and washer-----	2, 067. 46
Rocksprings, 15.5 mi. NE. of, on N. side of rd., in gap, on top of large ledge of rock; chiseled square-----	2, 182. 06
Rocksprings, 16.2 mi. NE. of, on W. side of rd., on concrete culvert, in center of top of parapet; chiseled square (recovered by U. S. C. & G. S. in 1931)-----	2, 132. 719
Rocksprings, 17.3 mi. NE. of, 400 ft. N. of gate in fence line crossing rd., just W. of Gear windmill, on E. side of rd., at summit of grade, in concrete post; standard tablet stamped "Prim Trav Sta No 19 T 1925 H 84"-----	2, 141. 552
Reference mark, 156 ft. N. 55° E. of tablet, in root on S. side of 8-in. mesquite tree; copper nail and washer-----	2, 136. 00
Rocksprings, 18.4 mi. NE. of, near summit of grade, on W. side of rd., on large ledge of rock; chiseled square-----	2, 149. 00
Rocksprings, 19.3 mi. NE. of, 20 ft. N. of bumper gate in fence line crossing rd., on W. side of rd., in root on E. side of 12-in. live-oak tree; copper nail and washer-----	2, 126. 41
Rocksprings, 20.5 mi. NE. of, 12.9 mi. SW. of Telegraph, on S. side of rd., at concrete culvert, in center of top of parapet; standard tablet stamped "Prim Trav Sta No 18 T 1925 H 85" (recovered by U. S. C. & G. S. in 1931)-----	2, 008. 109
Reference mark, 24.5 ft. N. of tablet, on top of concrete culvert; chiseled square-----	2, 008. 03
Telegraph, 11.9 mi. SW. of, 160 ft. W. of gate in fence line crossing rd., on S. side of rd., in root on N. side of 10-in. mesquite tree; copper nail and washer-----	2, 000. 31

ROWENA QUADRANGLE

[Latitude 31°30'-31°45'; longitude 100°00'-100°15']

COKE, CONCHO, RUNNELS, AND TOM GREEN COUNTIES

From Maverick quadrangle at point 0.3 mile south of Brookshire school along roads generally south and east to Rowena (by A. K. Andrews in 1921)

Brookshire School, 2.3 mi. S. of, 2,000 ft. W. of farmhouse, 30 ft. E. of center line of Maverick-Miles rd., 15 ft. N. of gate and second-class rd. E., 3 ft. outside fence, at top of most prominent hill in vicinity; iron post stamped "1921 Texas 1872"-----	1, 871. 694
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Feet

Brookshire School, 5.0 mi. SE. of, in Groce pasture, on E.-W. grassy ridge with scattered mesquite trees, 350 ft. E. of old rd., 150 ft. S. of E.-W. second-class rd., in 7-in. mesquite tree; 40-penny spike...	1, 800. 40
Brookshire School, 6.1 mi. SE. of, 3.3 mi. N. and 6.2 mi. W. from Rowena, 0.25 mi. W. of ranch house, at junction of T-rd. S., 50 ft. SE. of rd., at N. end of lane that leads to public rd.; iron post stamped "1732"-----	1, 731. 113
Rowena, 2.3 mi. N. and 4.7 mi. W. from, 100 ft. NE. of vacant house with broken windmill, at top of hill, on S. side of E.-W. rd., 3 ft. outside fence corner, on sandstone rock; chiseled square-----	1, 784. 41
Rowena, 2.3 mi. N. and 2.7 mi. W. from, at junction of N.-S. rd., on E. side of rd., in limestone boulder firmly embedded in ground; standard tablet stamped "1921 Texas 1717"-----	1, 716. 636
Rowena, 1.7 mi. W. of, at junction of T-rd. N., 30 ft. W. of center line of rd., on N. side of E.-W. rd., 3 ft. outside corner post, on large white stone; chiseled square-----	1, 730. 19
Rowena, on main street of, at SW. corner of brick building owned by Mrs. L. M. Kuhn, in concrete walk, 10 in. from wall; standard tablet stamped "1921 Texas 1761"-----	1, 760. 425
U. S. C. & G. S. standard disk stamped "B 212 1934" ²⁰ -----	1, 740. 548

From Rowena along roads generally north about 8 miles into Maverick quadrangle (by C. E. Fulmer in 1921)

Rowena, 2.0 mi. along rd. to Whiley ranch house N. of, at junction of T-rd. SW., 50 ft. E. of Stony Creek, on N. side of rd., on large rock ledge; chiseled square-----	1, 685. 03
Rowena, 3.8 mi. N. of, about 2,000 ft. S. of Ballinger-Maverick rd., on W. side of rd., 5 ft. from back porch of old Whiley ranch house, in post over entrance to cellar; standard tablet stamped "1694"-----	1, 693. 194
Rowena, 7.0 mi. N. of, at Ballinger-Maverick river rd., 1.0 mi. W. of Valley Creek School, on N. side of rd., in fence corner; iron post stamped "1680"-----	1, 679. 279

From Rowena along roads south and west to Miles, thence generally north to point 2.5 miles north and 5 miles west from Rowena (by C. E. Fulmer in 1921)

Rowena, 2.6 mi. S. of, 0.5 mi. N. of Little Concho Creek, 1,000 ft. N. of large white house, 100 ft. S. of windmill, at SW. corner of junction of T-rd. W.; iron post stamped "1716"-----	1, 715. 293
Rowena, 4.0 mi. S. of, in SE. angle of junction of T-rd. E., 150 ft. S. of junction of T-rd. W., at stone marking section corner; top of stone-----	1, 724. 22
Rowena, 5.0 mi. S. of, at intersection of Miles-Paint Rock rd., at stone marking section corner; top of stone-----	1, 741. 04
Rowena, 5.0 mi. S., thence 1.0 mi. along Miles-Paint Rock rd. W. from, 1.0 mi. S. and 6.3 mi. E. from Miles, 0.5 mi. N. of Lowake Gin, at NE. corner of junction of T-rd. E.; iron post stamped "1745"-----	1, 744. 813
Miles, 1.0 mi. S. and 3.3 mi. E. from, at crossing of Paint Rock branch of G. C. & S. F. Ry., on N. side of wagon rd., on E. side of track; iron post stamped "1775.3" (recovered by U. S. C. & G. S. in 1935)-----	1, 775. 206
Miles, at NW. corner of street intersection, at First National Bank, on S. side of building, 2.5 ft. above sidewalk, in window sill; standard tablet stamped "9 K 1924 1805" (recovered in 1923 and 1924; also recovered by U. S. C. & G. S. in 1934)-----	1, 805. 114

²⁰ The tie between this mark and the bench mark stamped "1921 Texas 1761" was made in 1936.

212 SPIRIT LEVELING IN TEXAS, PART 3, WEST-CENTRAL TEXAS

Feet

Miles, 3.0 mi. N. of, at SW. corner of crossroads, 200 ft. NW. of old ranch house; iron post stamped "1837" 1, 836. 890

From Paint Rock quadrangle west along Bethel Church-Rowena road 3.1 miles to Rowena (by C. E. Fulmer in 1921)

Rowena, 2.7 mi. E. of, on N. side of Bethel Church rd., 600 ft. W. of house, 75 ft. N. of two windmills standing side by side, in big rock buried in ground; standard tablet 1, 739. 882

From Paint Rock quadrangle northwest along Paint Rock Branch of Gulf, Colorado & Santa Fe Railway to Miles (by C. E. Reick in 1923; a portion of this line was releveled by H. P. Kilby in 1924)

Sim's Valley, 4.8 mi. W. of, 90 ft. S. of track, at rd. crossing, on E. side of rd., in root of 10-in. mesquite tree; copper nail 1, 714. 84

Sim's Valley, 5.9 mi. W. of, 2.2 mi. E. of Lowake, 60 ft. N. of track, on concrete base of gatepost; chiseled square 1, 731. 24

Lowake, 100 ft. S. of track, in NE. corner of foundation of post office; standard tablet stamped "R 26 Texas 1923" (recovered by U. S. C. & G. S. in 1935) 1, 749. 363

Lowake, 100 ft. W. of rd. crossing, on S. side of track, on rock; chiseled square 1, 750. 41

Lowake, 2.1 mi. NW. of, 60 ft. E. of rd. crossing, 200 ft. E. of Concho-Tom Green county line; top of iron pipe 1, 770. 11

Lowake, 2.6 mi. NW. of, 4.1 mi. SE. of Miles, on N. side of track, at Runnels-Tom Green county line, on top of concrete monument stamped "T G Co Line No 3"; chiseled square 1, 778. 92

Miles, 3.8 mi. SE. of, 80 ft. NW. of rd. crossing, in fence corner, in boulder; standard tablet stamped "R 27 Texas 1923" 1, 775. 242

From Miles southwest along Gulf, Colorado & Santa Fe Railway into Devils Courthouse quadrangle (by A. P. Meade in 1923)

Miles, in front of sta.; top of N. rail 1, 799. 9

Miles, 0.9 mi. SW. of, at milepost 55, 5 ft. N. of track; top of section of iron rail set vertically 1, 822. 37

Miles, 2.6 mi. SW. of, on N. side of rd., at stone marking Runnels-Tom Green county line; top of stone 1, 770. 26

Miles, 3.1 mi. SW. of, on S. side of rd., on W. end of S. abutment of concrete culvert; chiseled square 1, 801. 34

Miles, 3.9 mi. SW. of, at milepost 58, on N. side of track; top of section of iron rail set vertically 1, 826. 08

SANDERSON NO. 2 QUADRANGLE

[Latitude 30°15'-30°30'; longitude 102°15'-102°30']

PECOS AND TERRELL COUNTIES

From Independence Draw No. 3 quadrangle at point 5.6 miles southeast of Free post office (now discontinued) southwest and south along road by way of Big Canyon ranch into Sanderson No. 3 quadrangle at point about 8.2 miles northwest of Sanderson (2.4 miles by S. R. Archer; remainder by F. L. Shalibo in 1920)

Free post office, 6.6 mi. S. of, 170 ft. S. of drain crossing, 190 ft. NW. of gate in fence line on E. side of rd., at old rd. E. to ranch house, 35 ft. NW. of rd., on rock; chiseled square 2, 995. 96

Free post office, 7.5 mi. S. of, at top of ridge, at angle in rd. and fence line, 10 ft. E. of rd. to S., 35 ft. W. of corner fence post, on rock; chiseled square 3, 022. 53

Feet

Free post office, 8.6 mi. S. of, 0.4 mi. NE. of right-angle bend in rd. to SE., at angle in rd. and fence from W. to SW., 30 ft. E. of rd., 45 ft. SW. of corner fence post, 10 ft. W. of fence, in crotch of forked mesquite bush; copper nail and washer.....	2, 973. 55
Free post office, 9.0 mi. S. of, 1.1 mi. NW. of main entrance to headquarters of Corder ranch, at right-angle bend in rd. to SE., 5 ft. E. of fence corner, on N. side of rd.; iron post stamped "1920 2950".....	2, 949. 146
Reference mark, 300 ft. SE. of post, 30 ft. N. of rd., 8 ft. S. of fence, in root of mesquite bush; copper nail and washer.....	2, 944. 24
Corder ranch headquarters, at main entrance to, in center of top of W. wall of concrete cattle guard; chiseled square.....	2, 918. 83
Corder ranch headquarters, 2.1 mi. SE. of main entrance to, 40 ft. N. of rd., at fence line; iron post stamped "1920 2849".....	2, 847. 661
Corder ranch headquarters, 2.8 mi. SE. of main entrance to, 3.8 mi. NE. of headquarters of Big Canyon ranch, in center of top of concrete cattle guard; chiseled square.....	2, 800. 67
Big Canyon ranch headquarters, 2.2 mi. NE. of, 100 ft. E. of rd., at fence line between cattle guard and gate; iron post stamped "1920 2859".....	2, 858. 394
Big Canyon ranch headquarters, in front of, in S. end of E. support of cattle guard; copper nail.....	2, 965. 20
Big Canyon ranch headquarters, 1.0 mi. SW. of, 20 ft. W. of rd., near telephone pole; iron post stamped "1920 3025".....	3, 023. 854
Big Canyon ranch headquarters, 4.3 mi. SW. of, about 1 mi. N. of tank, 50 ft. E. of rd.; iron post stamped "1920 3207".....	3, 206. 171
Big Canyon ranch headquarters, 7.1 mi. SW. of, 15.7 mi. NW. of Sanderson, at top of divide, 30 ft. W. of rd., in bedrock, surrounded by circle of rocks; standard tablet stamped "1920 3398" (recovered by U. S. C. & G. S. in 1933).....	3, 397. 096
Sanderson, 13.7 mi. NW. of, 400 ft. N. of ranch house, 50 ft. E. of rd., at base of windmill, in E. end of timber over well; copper nail.....	3, 141. 44
Sanderson, 13.0 mi. NW. of, 1.0 mi. NW. of gate, 20 ft. W. of rd., at base of telephone pole; iron post stamped "1920 3101" (recovered by U. S. C. & G. S. in 1933) ²⁰	3, 099. 820
Sanderson, 9.5 mi. NW. of, about 400 ft. N. of top of Nine Mile Hill, 20 ft. E. of rd., in ledge of rock; standard tablet stamped "1920 3396".....	3, 395. 196
Sanderson, 8.5 mi. NW. of, 1.9 mi. NW. of rd. fork, on W. side of rd., on large boulder; chiseled square.....	3, 267. 95

SANDERSON NO. 3 QUADRANGLE

[Latitude 30°00'-30°15'; longitude 102°15'-102°30']

TERRELL COUNTY

From Indian Wells quadrangle at point 0.8 mile north of Stansell ranch northeast along roads to point on Southern Pacific Railroad 5.9 miles southeast of Sanderson (by D. S. Birkett in 1917)

Stansell ranch house, 1.4 mi. NE. of, 30 ft. E. of rd., on S. edge of bench, on limestone rock; chiseled square.....	2, 287. 28
Stansell ranch house, 3.0 mi. NE. of, 1.1 mi. N. of point where rd. crosses Big Canyon, 8 ft. W. of rd., on limestone outcrop, marked by cairn; chiseled square.....	2, 351. 90

²⁰ The U. S. Coast & Geodetic Survey reports that this post is 40 feet east and north of the center line of the present highway.

Feet

Stansell ranch house, 4.1 mi. NE. of, 1.4 mi. NW. along Southern Pacific R. R., thence 3.6 mi. SW. along rd. from Feodora, on S. edge of flat, about 300 ft. N. of low summit, 30 ft. E. of rd., at NW. corner of small field; iron post stamped "1917 2451"-----	2, 451. 445
Feodora, 1.4 mi. NW. along R. R., thence 1.3 mi. S. from, 5.9 mi. SE. along R. R., thence 1.3 mi. S. from Sanderson, on summit of hill, 12 ft. E. of rd., on limestone outcrop, marked by cairn; chiseled mark-----	2, 676. 44
U. S. C. & G. S. standard disk stamped "H 27 1917"-----	2, 530. 523

From road junction 5.2 miles northeast of Stansell ranch southeast 4.2 miles along Middle Watering road into Indian Wells quadrangle (by D. S. Birkett in 1917)

Gartin ranch house, 1.4 mi. SE. of, 2.3 mi. SE. of junction of rd. to Bullis Gap, 8 ft. N. of rd., on rock; chiseled square-----	2, 422. 84
Gartin ranch house, 2.0 mi. SE. of, on summit, 18 ft. S. of rd., on rock, marked by cairn; chiseled square-----	2, 482. 54
Gartin ranch house, 3.0 mi. SE. of, 0.8 mi. NW. of junction of rd. to Gatlin ranch, 40 ft. E. of rd., marked by cairn; standard tablet stamped "1917 2433"-----	2, 433. 332

From Sanderson No. 2 quadrangle at point 8.2 miles northwest of Sanderson southeast along road to Sanderson (by F. L. Shalibo in 1920)

Sanderson, 6.6 mi. NW. of, 50 ft. SE. of rd. fork, at S. fork of T-rd. E.; iron post stamped "1920 3154" (recovered by U. S. C. & G. S. in 1933) ³¹ -----	3, 152. 435
Sanderson, 3.3 mi. NW. of, 1.6 mi. NW. of gate, at point of mountain, 50 ft. W. of rd., near telephone pole; iron post stamped "1920 2947" (recovered by U. S. C. & G. S. in 1933) ³² -----	2, 945. 886
U. S. C. & G. S. standard disk stamped "E 27 1917"-----	2, 774. 824
U. S. C. & G. S. standard disk stamped "D 27 1917"-----	2, 779. 670

SANDERSON NO. 4 QUADRANGLE

[Latitude 30°00'-30°15'; longitude 102°00'-102°15']

TERRELL COUNTY

From Dryden Crossing quadrangle northwest along road to Dryden, thence east 0.6 mile along Southern Pacific Railroad (by D. S. Birkett in 1917)

Dryden, 3.0 mi. SE. of Southern Pacific R. R. sta. at, on S. side of small ravine, 35 ft. W. of Shafter Crossing rd.; iron post stamped "1917 2179"-----	2, 178. 418
Dryden, 2.5 mi. SE. of, about 0.8 mi. E. of Dryden triangulation sta.; 5 ft. E. of rd., on large limestone rock, marked by cairn; chiseled square-----	2, 211. 20
Dryden, 0.3 mi. S. of, between two light-colored knolls, 25 ft. W. of rd.; iron post stamped "1917 2132"-----	2, 130. 975
U. S. C. & G. S. standard disk stamped "F 27 1917"-----	2, 093. 920

From point on Shafter Crossing road west to Dryden triangulation station (by D. S. Birkett in 1917; single spur line)

Dryden triangulation sta., about 2.5 mi. S. of Dryden, 0.8 mi. W. of Shafter Crossing rd., near fence line, in rectangular rock used as sta. mark; bottom of drill hole-----	2, 262. 938
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³¹ The U. S. Coast & Geodetic Survey reports that this post is 1,200 feet northeast of the present highway and southeast of a small draw.

³² The U. S. Coast & Geodetic Survey reports that this post is at the south edge of the present highway and that it has been damaged by a road machine.

SAWYER NO. 2 QUADRANGLE

[Latitude 31°15'-31°30'; longitude 101°15'-101°30']

IRION AND REAGAN COUNTIES

From Rankin No. 1 quadrangle east and south along roads into Big Lake quadrangle at point 5.2 miles northeast of Big Lake (by E. E. Harris in 1920)

	<i>Feet</i>
Stiles, 6.7 mi. SE. of, at turn in rd. from W. to S., in line with N. side of rd. W. and E. side of rd. S., on stone set in place; chiseled square----	2, 616. 07
Stiles, 7.9 mi. SE. of, 20 ft. N. and 30 ft. E. from crossroads, in SE. angle in fence line; iron post stamped "1920 Texas 2617"-----	2, 617. 436
Stiles, 8.7 mi. SE. of, 25 ft. S. of center line of rd., 120 ft. S. of Coates ranch house, 200 ft. SW. of smaller house to E., in root on W. side of mesquite tree; copper nail and washer-----	2, 611. 94
Stiles, 9.9 mi. SE. of, 1.2 mi. E. of Coates ranch house, 30 ft. S. of center line of rd., in NE. corner of angle in fence line, on rock set in place; chiseled square-----	2, 599. 48
Stiles, 10.5 mi. SE. of, 1.8 mi. E. of Coates ranch house, 300 ft. S. of deserted shack, 60 ft. S. and 8 ft. W. from junction of T-rd. S., on rock set in place; chiseled square-----	2, 596. 39
Stiles, 11.5 mi. SE. of, 3.0 mi. E. of Coates ranch house, 11.8 mi. NE. of Big Lake, 140 ft. S. and 10 ft. W. from crossroads, in NW. corner of angle in wolf-proof fence; iron post stamped "1920 Texas 2594"-----	2, 594. 568
Big Lake, 10.0 mi. NE. of, 25 ft. E. of center line of rd., in center of top of large rock outcrop; chiseled square-----	2, 525. 55
Big Lake, 8.7 mi. NE. of, 25 ft. E. of center line of Reaganview rd., 7 ft. W. of lone tree, in rock set in place; aluminum tablet stamped "1920 Texas 2527"-----	2, 527. 416
Big Lake, 7.2 mi. NE. of, 20 ft. S. and 20 ft. E. from S. crossing of Reaganview and Stiles-Mertzon rds., on rock set in place; chiseled square-----	2, 514. 13
Big Lake, 6.6 mi. NE. of, on W. side of Reaganview rd., just W. of two windmills, in root on E. side of thorn tree; copper nail and washer-----	2, 545. 32

From Ketchum Mountain quadrangle west along Stiles-Mertzon road to Reaganview road at point 7.2 miles northeast of Big Lake (by E. E. Harris in 1920)

Bar S ranch headquarters, 1.1 mi. W. of, 15 ft. N. of center line of rd., in root on W. side of small thorn tree; copper nail and washer-----	2, 480. 98
Bar S ranch headquarters, 1.8 mi. W. of, 10 ft. S. of center line of rd., on E. side of fence line, in root on W. side of thorn tree; copper nail and washer-----	2, 500. 19
Bar S ranch headquarters, 3.2 mi. W. of, 30 ft. S. of center line of rd., in root on N. side of thorn tree; copper nail and washer-----	2, 548. 83
Bar S ranch headquarters, 4.0 mi. W. of, on E. side of fence line, 20 ft. S. of center line of rd., in rock set in place; aluminum tablet stamped "1920 Texas 2515"-----	2, 515. 955
Bar S ranch headquarters, 4.8 mi. W. of, 30 ft. S. of rd. fork, on rock set in place; chiseled square-----	2, 481. 51
Bar S ranch headquarters, 5.3 mi. W. of, 70 ft. S. and 30 ft. W. from rd. fork, in root on E. side of thorn tree; copper nail and washer----	2, 474. 63
Bar S ranch headquarters, 6.6 mi. W. of, 40 ft. S. of center line of rd., in root of thorn tree; copper nail and washer-----	2, 482. 31
Bar S ranch headquarters, 7.3 mi. W. of, 30 ft. S. and 60 ft. W. from crossroads, in rock set in place; aluminum tablet stamped "1920 Texas 2461"-----	2, 461. 221

	<i>Feet</i>
Bar S ranch headquarters, 7.8 mi. W. of, 10 ft. S. and 10 ft. W. from junction of T-rd. S., about 400 ft. E. of ranch house of W. H. Burns, on rock set in place; chiseled square.....	2, 462. 84
Bar S ranch headquarters, 8.8 mi. W. of, at angle in rd. from W. to SW., 30 ft. S. of center line of rd., 4 ft. NW. of corner fence post, on rock set in place; chiseled square.....	2, 472. 06
Bar S ranch headquarters, 9.7 mi. W. of, 10 ft. N. of center line of rd., in rock set in place; aluminum tablet stamped "1920 Texas 2477".....	2, 477. 402
Bar S ranch headquarters, 10.7 mi. W. of, 7.2 mi. NE., thence 1.0 mi. E. from Big Lake, 50 ft. S. of center line of rd., in root on S. side of thorn tree; copper nail and washer.....	2, 485. 91

SIERRA MADERA QUADRANGLE

[Latitude 30°30'-30°45'; longitude 102°45'-103°00']

PECOS COUNTY

From Longfellow No. 2 quadrangle generally north and northeast along Fort Stockton-Marathon road into Fort Stockton quadrangle (by S. R. Archer in 1919)

Elsinore ranch, 7.7 mi. S. of S. entrance to, 1.5 mi. N. of top of ridge, at turn to N. in rd., on E. side of rd.; iron post stamped "1919 4236".....	4, 235. 320
Elsinore ranch, 5.0 mi. S. of S. entrance to, at E.-W. fence line crossing rd., just N. of W. gatepost, between rd. through gate and rd. over cattle guard; iron post stamped "1919 4027".....	4, 025. 641
Elsinore ranch, 2.4 mi. S. of S. entrance to, at angle in rd., at top of small rise, on E. side of rd.; iron post stamped "1919 3872".....	3, 870. 729
Elsinore ranch, 1.1 mi. S. of S. entrance to, 0.8 mi. S. of turn to N. in rd., on W. side of rd., on rock outcrop; chiseled square.....	3, 792. 00
Elsinore ranch, 0.3 mi. S. of S. entrance to, 500 ft. N. of turn to N. in rd., on E. side of rd., on rock; chiseled square.....	3, 739. 62
Elsinore ranch, at S. entrance to, on W. side of rd., at fence line, 15 ft. N. of gate to rd. NW. to ranch house; iron post stamped "1919 3714".....	3, 712. 889
Elsinore ranch, 1.3 mi. N. of S. entrance to, 0.2 mi. S. of N. entrance, 30 ft. N. of fence W., on top of W. end of concrete culvert; chiseled square.....	3, 624. 25
Elsinore ranch, 0.6 mi. N. of N. entrance to, at top of hill, 35 ft. E. of rd., on rock; chiseled square.....	3, 679. 42
Elsinore ranch, 1.5 mi. N. of N. entrance to, 0.9 mi. N. of rd. crossing spur ridge, at angle in rd., on W. side of rd., at fence line; iron post stamped "1919 3602".....	3, 600. 468
Elsinore ranch, 3.7 mi. N. of N. entrance to, 760 ft. N. of drain crossing, at top of small rise, on W. side of rd., on small rock; chiseled square...	3, 450. 89
Elsinore ranch, 4.7 mi. N. of N. entrance to, 2.5 mi. S. of gap, 1.2 mi. S. of E.-W. fence line crossing rd., on W. side of rd., at fence line; iron post stamped "1919 3413".....	3, 411. 963
Elsinore ranch, 6.6 mi. N. of N. entrance to, 11.7 mi. SW. of Pecos County courthouse at Fort Stockton, 0.6 mi. S. of gap, on top of E. end of concrete culvert; chiseled square.....	3, 509. 01
Fort Stockton, 10.9 mi. SW. of, 700 ft. NE. of gap, in top of E. end of concrete culvert; aluminum tablet stamped "1919 3575".....	3, 573. 154

From Comanche Springs No. 4 quadrangle along road alternately northwest and southwest to point 2.4 miles northwest of Talley ranch, thence generally north through small draw and along road to Number Four Draw, thence southwest across country to point on Fort Stockton-Marathon road 5 miles south of south entrance to Elsinore ranch (by F. L. Shalibo in 1920)

Feet

Pyle's North Camp, 4.2 mi. NW. of, 5.9 mi. by rd. E. of Talley ranch house, 150 ft. W. of junction of rd. NW. to Tank No. 9, 50 ft. S. of rd.; iron post stamped "1920 3924"-----	3, 922. 253
Talley ranch house, 2.7 mi. NE. of, 0.6 mi. E. of gate, 20 ft. S. of rd.; iron post stamped "1920 3770"-----	3, 767. 887
Talley ranch house, at NE. corner of yard fence, 4 ft. S. of gate; iron post stamped "1920 3899"-----	3, 896. 794
Talley ranch house, 2.4 mi. NW. of, in small draw, about 600 ft. SW. of tank, 8 ft. S. of gate, in fence line; iron post stamped "1920 3862"-----	3, 860. 013
Talley ranch house, 5.0 mi. NW. of, in Number Four Draw, on S. side of creek, 15 ft. W. of rd.; iron post stamped "1920 3737"-----	3, 735. 392

From Talley ranch house north along road 5.1 miles (by F. L. Shalibo in 1920; single spur line)

Talley ranch house, 3.1 mi. N. of, 8 ft. W. of gate, in fence line; iron post stamped "1920 3734"-----	3, 732. 028
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STERLING CITY NO. 4 QUADRANGLE

[Latitude 31°30'-31°45'; longitude 100°30'-100°45']

COKE, IRION, AND TOM GREEN COUNTIES

From Wall quadrangle " northwest along Gulf, Colorado & Santa Fe Railway to point 5.8 miles northwest of San Angelo, thence west and southwest along roads into Tankersly quadrangle (by R. W. Burchard in 1923)

San Angelo, 5.8 mi. NW. of, 200 ft. NW. of milepost 78, on E. side of rd. at crossing, at NW. end of Pulliam switch, in NW. corner of cattle guard; top of bolt-----	1, 917. 26
San Angelo, 8.2 mi. NW. of, at Pulliam ranch, 40 ft. E. of ranch house, in base of large mesquite tree; copper nail and washer-----	1, 922. 22
San Angelo, 9.0 mi. NW. of, 0.8 mi. NW. of Pulliam ranch house, 4 ft. E. of new wooden gate, in concrete post; standard tablet-----	1, 953. 688
Reference mark, 25 ft. W. of tablet, on S. side of gate, at white rock projecting about 3 in. above surface of ground; top of rock-----	1, 953. 40

From Devils Courthouse quadrangle generally west along roads to point on Gulf, Colorado & Santa Fe Railway 5.8 miles northwest of San Angelo (by A. B. Williams in 1923)

San Angelo, 5.9 mi. NW. of, in NW. corner of yard of Pulliam School, in concrete post; standard tablet stamped "Prim Trav Sta No 5 K 1923" (recovered by U. S. C. & G. S. in 1933)-----	1, 918. 943
Reference mark, 160 ft. SW. of tablet, in mesquite tree; copper nail---	1, 919. 05

* No marks were established in that portion of the line which crosses the southwest corner of Devils Courthouse quadrangle.

TANKERSLY QUADRANGLE

[Latitude 31°15'-31°30'; longitude 100°30'-100°45']

IRION AND TOM GREEN COUNTIES

From Wall quadrangle southwest along Kansas City, Mexico & Orient Railway ³⁴ into Mertzon quadrangle (by A. P. Meade in 1923)

	<i>Feet</i>
San Angelo, 7.3 mi. SW. of, 8.9 mi. NE. of Tankersly, 0.2 mi. W. of bridge 187, at W. end of fill across big arroyo, on E. side of hill, 40 ft. N. of track, 3 ft. above grade of rails, under telegraph wires, in sloping embedded rock; standard tablet stamped "M 107 1923" (recovered by U. S. C. & G. S. in 1934).....	1, 887. 483
Tankersly, 6.4 mi. NE. of, 525 ft. W. of milepost 726, 40 ft. S. of track, 1 ft. N. of R. R. right-of-way fence, 7 ft. below grade of rails, in concrete post; standard tablet stamped "M 108 1923" (recovered by U. S. C. & G. S. in 1934).....	1, 893. 292
Tankersly, 6.2 mi. NE. of, 0.3 mile W. of milepost 726, at S. side of track, at E. end of concrete culvert; NE. corner of head wall.....	1, 897. 43
Tankersly, 3.4 mi. NE. of, 500 ft. SW. of milepost 729, 75 ft. S. of track, on S. side of main rd., 8 ft. E. of gate of ranch rd. S., 2 ft. N. of fence, in concrete post; standard tablet stamped "Prim Trav Sta No 2 C 1923 M 109" (recovered by U. S. C. & G. S. in 1934).....	1, 950. 058
Tankersly, 2.5 mi. NE. of, opposite milepost 730; top of N. rail.....	1, 964. 5
Tankersly, 0.7 mi. NE. of, 100 ft. E. of W. end of cut, 12 ft. N. of track, about 4 ft. above grade of rails, in rock; standard tablet stamped "M 110 1923" (recovered by U. S. C. & G. S. in 1934).....	2, 015. 616
Reference mark, about 210 ft. E. of tablet, 20 ft. E. of grade crossing, 18 ft. N. of track; highest point of rock.....	2, 012. 47
Tankersly, at sta., opposite semaphore signal; top of N. rail.....	2, 012. 2
Tankersly, 1.8 mi. SW. of, 40 ft. N. of track, 40 ft. S. of rd., 12 ft. W. of telegraph pole, in concrete post; standard tablet stamped "M 111 1923" (recovered by U. S. C. & G. S. in 1934).....	2, 031. 046
Tankersly, 6.0 mi. SW. of, 7.5 mi. NE. of Mertzon, 0.4 mi. W. of milepost 738, 70 ft. NW. of sign "5 M to Sherwood," 50 ft. W. of angle in rd., 40 ft. S. of track and cattle guard, 1 ft. E. of fence, in concrete post; standard tablet stamped "M 112 1923" (recovered by U. S. C. & G. S. in 1934).....	2, 085. 242

From Sterling City No. 4 quadrangle about 1.6 miles west of Pulliam ranch along roads generally south to point on Kansas City, Mexico & Orient Railway 11.9 miles southeast of San Angelo (by R. W. Burchard in 1923)

San Angelo, 10.4 mi. W., thence 4.8 mi. NE. from Tom Green County courthouse at, about 2.8 mi. W. of Pulliam ranch, 20 ft. S. of rd., in base of mesquite tree; copper nail and washer.....	2, 013. 82
San Angelo, 10.4 mi. W., thence 3.0 mi. NE. from, at NW. end of dirt tank, 100 ft. NW. of rd., at creek crossing, on N. side of creek, in base of mesquite tree; iron nail.....	2, 040. 02
San Angelo, 10.4 mi. W., thence 2.1 mi. N. from, 20 ft. N. of rd. fork, in concrete post; standard tablet.....	2, 062. 496
Reference mark, 150 ft. E. of rd. fork, in base of mesquite tree; iron spike.....	2, 059. 45
San Angelo, 10.4 mi. W. of, 500 ft. W. of milepost 10 on Arden rd., on S. side of rd., opposite junction of T-rd. N., 10 ft. S. of pasture fence, in base of mesquite tree; copper nail and washer.....	2, 044. 58

³⁴ Now the Panhandle & Santa Fe Railway.

Feet

San Angelo, 11.4 mi. W. of, about 150 ft. W. of milestone 11, in SW. angle of junction of T-rd. S., in fence corner, in concrete post; standard tablet stamped "Prim Trav Sta No 17 K 1923"-----	2, 054. 186
Reference mark, 150 ft. E. of tablet, on N. side of rd., on concrete milepost; chiseled mark-----	2, 053. 79
San Angelo, 11.4 mi. W., thence 1.5 mi. S. from, 100 ft. E. of rd., in base of large bushy lone live-oak tree; copper nail and washer-----	1, 994. 84
San Angelo, 11.4 mi. W., thence 2.4 mi. S. from, at Cummings ranch, 50 ft. NE. of corner of fence around ranch house, on large flat-topped boulder projecting about 4 in. above ground; chiseled cross-----	1, 972. 27
San Angelo, 12.5 mi. along Sherwood-San Angelo rd. SW. of, about 1,800 ft. W. of Twelve Mile Bridge over Middle Concho River, 100 ft. E. of gate, on N. side of Sherwood rd., in fence corner, in concrete post; standard tablet stamped "Prim Trav Sta No 18 K 1923"-----	1, 946. 871
Reference mark, 4 ft. E. of tablet, on buried boulder; chiseled mark--	1, 946. 87
San Angelo, 12.0 mi. SW. of, at Twelve Mile Bridge, on N. side of W. end; top of bolt clamping steelwork to masonry abutment-----	1, 951. 50
Middle Concho River, under bridge; surface of water Dec. 4, 1923---	1, 920. 4
San Angelo, 12.0 mi. SW., thence 1.5 mi. S. from, 1.5 mi. S. of Twelve Mile Bridge, on E. side of rd., at SE. corner of cottonfield, in base of mesquite tree; bent iron nail-----	1, 969. 33
From point on Kansas City, Mexico & Orient Railway 11.9 miles southwest of San Angelo along roads generally south to Knickerbocker, thence southeast and east into Wall quadrangle (by R. W. Burchard in 1923)	
Knickerbocker, 7.5 mi. NE. of schoolhouse at, 1.0 mi. S. of K. C. M. & O. Ry., at Duncan ranch house, at water tank in yard, on concrete base of east leg; chiseled cross-----	1, 962. 52
Knickerbocker, 6.7 mi. NE. of, 1.8 mi. SW. of K. C. M. & O. Ry., at Wylie ranch, 50 ft. E. of gate in front of ranch house, in base of mesquite tree; copper nail and washer-----	1, 960. 07
Spring Creek, 6.5 mi. NE. of Knickerbocker, at rd. crossing; surface of water Dec. 6, 1923-----	1, 932. 9
Knickerbocker, 5.7 mi. NE. of, at rock and concrete dam across Dove Creek at Ross ranch, at water level, on top of dam, 15 ft. NW. of SE. bank; chiseled mark-----	1, 953. 62
Knickerbocker, 5.6 mi. NE. of, at Ross ranch, 400 ft. below dam across Dove Creek, at creek crossing, 150 ft. E. of rd., in fence corner, in concrete post; standard tablet stamped "Prim Trav Sta No 3 C 1923"-----	1, 958. 451
Reference mark, 20 ft. S. of tablet, in fence line, on buried boulder; chiseled mark-----	1, 958. 59
Knickerbocker, 1.9 mi. NE. of, 16.8 mi. along Knickerbocker rd. SW. of San Angelo, 30 ft. N. of W. side of rd., at wooden gate, 10 ft. inside pasture, on exposed surface of large buried boulder; chiseled mark-----	2, 048. 57
Knickerbocker, 500 ft. NE. of schoolhouse at, at rd. fork S., on N. side of rd., in fence corner, in concrete post; standard tablet-----	2, 052. 436
Reference mark, 25 ft. W. of tablet, in fence line; top of buried boulder--	2, 051. 59

[Line jogs into Huldale quadrangle]

Feet

Knickerbocker, 6.8 mi. E. of, in SE. corner of crossroads, at fence corner of division fence to N., 45 ft. E. of wooden gate, 40 ft. S. of wire gate with iron-pipe gateposts, in concrete post; standard tablet.....	2, 019. 756
Reference mark, 40 ft. W. of tablet, in fence line, on E. side of wooden gate; top of buried boulder.....	2, 019. 67

From point on Arden-San Angelo road 10.4 miles west of San Angelo generally east into Wall quadrangle (by R. W. Burchard in 1923)

San Angelo, 9.8 mi. W. of, on N. side of rd., at slight bend at corner of division fence, at base of corner fence post, on square boulder; chiseled mark.....	2, 077. 14
San Angelo, 8.2 mi. W. of, 800 ft. E. of milepost 8, 75 ft. E. of wooden gate, on N. side of rd., in fence corner, in concrete post; standard tablet.....	2, 036. 983
Reference mark, 70 ft. W. of tablet, in fence line; 4 ft. E. of gate; top of buried boulder.....	2, 036. 85
San Angelo, 5.4 mi. W. of, 150 ft. N. of rd., at jog in fence, in fence corner, in concrete post; standard tablet.....	1, 967. 251
Reference mark, 30 ft. S. of tablet, in fence line; top of buried boulder.....	1, 967. 91

From point 1.9 miles northeast of Knickerbocker northeast along Knickerbocker-San Angelo road into Wall quadrangle (by R. W. Burchard in 1923)

San Angelo, 16.0 mi. SW. of, 600 ft. N. of milepost 16, 10 ft. W. of rd., on summit of bare ridge, on top of low flat limestone outcrop; chiseled mark.....	2, 120. 38
San Angelo, 15.5 mi. SW. of, on W. side of rd., at fence corner, in concrete post; standard tablet.....	2, 042. 935
Reference mark, 20 ft. N. of tablet, in fence line; top of buried boulder.....	2, 042. 17
San Angelo, 11.8 mi. SW. of, 1,000 ft. N. of milepost 12, on W. side of rd., at wooden gate, 3 ft. S. of S. gatepost, in fence line, in concrete post; standard tablet.....	1, 940. 614
Reference mark, 300 ft. S. of tablet, in fence line; top of buried boulder.....	1, 940. 03
San Angelo, 10.0 mi. SW. of, 2.2 mi. SW. of Seven Mile Bridge over Middle Concho River, at junction of rd. W. to Tankersly, at angle formed by junction of rds., in fence corner, in concrete post; standard tablet.....	1, 910. 742
Reference mark, 25 ft. N. of tablet, in fence corner; top of buried boulder.....	1, 910. 18

From Wall quadrangle at point about 8 miles east of Knickerbocker north along roads near east border of quadrangle to point on Knickerbocker-San Angelo road 3.1 miles southwest of Seven Mile Bridge over Middle Concho River (by R. W. Burchard in 1923)

Seven Mile Bridge, 3.1 mi. SW., thence 5.3 mi. SE. from, 70 ft. E. of rd. fork, in base of mesquite tree; iron nail.....	1, 951. 40
Seven Mile Bridge, 3.1 mi. SW., thence 4.3 mi. SE. from, 1,000 ft. N. of dim crossroads, 20 ft. W. of rd., in base of double mesquite tree; copper nail and washer.....	1, 937. 96
Seven Mile Bridge, 3.1 mi. SW., thence 3.3 mi. SE. from, at fork of rd. E. to ranch house, at fence corner, 2 ft. E. of E. gatepost, in concrete post; standard tablet stamped "Prim Trav Sta No 6 C 1923".....	1, 937. 432
Seven Mile Bridge, 3.1 mi. SW., thence 0.9 mi. SE. from, 40 ft. S. of fence, in center of right-of-way of rd., in base of small lone mesquite tree; copper nail and washer.....	1, 949. 33

TURKEY MOUNTAIN QUADRANGLE

[Latitude 29°15'-29°30'; longitude 100°00'-100°15']

KINNEY AND UVALDE COUNTIES

From Uvalde quadrangle along Uvalde & Northern Railway northwest into
Nueces No. 4 quadrangle (by E. E. Harris in 1923-26)

	<i>Feet</i>
Montell Siding, 4.6 mi. S. of, 160 ft. S. of fence line crossing track at cattle guard, 20 ft. W. of W. right-of-way fence line, in root on E. side of 30-in. live-oak tree; copper nail and washer-----	1, 201. 09
Montell Siding, 3.8 mi. S. of, 96 ft. E. of public rd., 77 ft. N. of track, in rock outcrop; standard tablet stamped "H 59 1923" (recovered by U. S. C. & G. S. in 1935)-----	1, 230. 660
Reference mark, 22 ft. N. of tablet, in root on W. side of 8-in. live-oak tree; copper nail and washer-----	1, 231. 00
Montell Siding, 2.9 mi. S. of, 700 ft. N. of sharp turn in R. R. around point of cliff, 8 ft. E. of track, on ledge of rock at base of cliff; chiseled square-----	1, 235. 87

From Uvalde quadrangle at point 0.6 mile northeast of Laguna along roads
south to Laguna, thence generally west along Brackettville road into Brackettville No. 2 quadrangle (by G. N. Tex in 1937-38)

Laguna, about 400 ft. SW. of schoolhouse at, 135 ft. NW. of junction of T-rd. W., 40 ft. W. of center line of U. S. Highway 83, in root on SW. side of 20-in. mesquite tree; copper nail and washer-----	1, 156. 45
Laguna, 1.1 mi. along Brackettville rd. W. of, about 0.2 mi. N. of ranch house of J. F. Dooley, 50 ft. N. of center of bumper gate, in root on S. side of 10-in. mesquite tree; copper nail and washer-----	1, 157. 85
Laguna, 1.8 mi. W. of, 90 ft. N. and 45 ft. W. from junction of rd. S., in rock outcrop; standard tablet stamped "1 TX 1937 1213"-----	1, 212. 641
Reference mark, 900 ft. E. of rd. junction, 30 ft. S. of center line of rd., on top of rock outcrop; chiseled square-----	1, 176. 67
Laguna, 2.8 mi. W. of, 25 ft. N. and 15 ft. E. from center line of rd. at bumper gate, on rock outcrop; chiseled square-----	1, 246. 42
Laguna, 3.4 mi. W. of, 75 ft. E. of small drain crossing rd., 15 ft. N. of center line of rd., on top of rock outcrop; chiseled square-----	1, 265. 89
Laguna, 4.5 mi. W. of, 42 ft. S. and 20 ft. W. from junction of rd. SW., about 600 ft. E. of West Nueces River, 2 ft. E. of fence line, in concrete post; standard tablet stamped "2 TX 1937 1200"-----	1, 199. 731
Reference mark, 130 ft. E. of rd. junction, 20 ft. S. of center line of rd., in root on W. side of 8-in. mesquite tree; copper nail and washer-----	1, 198. 94
Laguna, 5.3 mi. W. of, 140 ft. NW. of angle in rd., in crotch of twin mesquite tree; copper nail and washer-----	1, 207. 45
Laguna, 6.6 mi. W. of, 270 ft. NW. of bumper gate, about 150 ft. W. of barn, in root on S. side of 18-in. elm tree; copper nail and washer-----	1, 225. 60
Laguna, 7.4 mi. W. of, in SE. corner of yard of Liveoak School, 30 ft. N. of center line of rd., 3 ft. N. of corner fence post; standard tablet stamped "3 TX 1937 1239"-----	1, 238. 388
Reference mark, about 500 ft. E. of schoolhouse, 24 ft. N. and 40 ft. E. from junction of T-rd. N., in root on SE. side of 15-in. mesquite tree; copper nail and washer-----	1, 237. 29
Laguna, 8.2 mi. W. of, 0.8 mi. W. of Liveoak School, about 700 ft. W. of Kinney-Uvalde county line, 270 ft. N. of junction of private T-rd. N. to ranch of L. H. Wallace, 20 ft. E. of private rd., on NW. side of 30-in. sycamore tree; copper nail and washer-----	1, 231. 94

Feet

Laguna, 8.9 mi. W. of, 1.5 mi. W. of Liveoak School, 180 ft. NW. of center line of rd., about 100 ft. E. of clump of live-oak trees, in crotch of twin cedar tree; copper nail and washer.....	1, 241. 50
Laguna, 9.9 mi. W. of, about 0.8 mi. E. of crossing of West Nueces River, 30 ft. N. of center line of rd., 1 ft. S. of fence line, in S. side of telephone pole; rail spike.....	1, 246. 02
Laguna, 10.8 mi. W. of, about 400 ft. W. of crossing of West Nueces River, 36 ft. N. of junction of rd. NW., 2 ft. S. of fence line, in concrete post; standard tablet stamped "4 TX 1937 1262".....	1, 261. 895
Reference mark, about 450 ft. W. of crossing of West Nueces River, 33 ft. S. and 45 ft. W. from rd. junction, in crotch of mesquite tree; copper nail and washer.....	1, 261. 25
Laguna, 11.8 mi. W. of, about 100 ft. NE. of westernmost of two small drains crossing rd., 27 ft. S. of center line of rd., in root on W. side of 12-in. live-oak tree; copper nail and washer.....	1, 273. 47
Laguna, 12.7 mi. W. of, about 150 ft. NE. of junction of T-rd. SE., 20 ft. SE. of center line of rd., in root on N. side of 8-in. cedar tree; copper nail and washer.....	1, 315. 78
Laguna, 13.3 mi. W. of, 100 ft. NE. of center line of rd. at N.-S. fence line, 27 ft. S. of rd., on N. side of 6-in. mesquite tree; copper nail and washer.....	1, 327. 44
Laguna, 14.1 mi. W. of, 16.0 mi. along Laguna-Brackettville rd. NE. of Brackettville, at easternmost entrance to Posterl ranch, 90 ft. E. of junction of rd. SE., 1 ft. N. and 85 ft. E. from gate, in concrete post; standard tablet stamped "T T 1 C 1938 1325".....	1, 324. 650
Reference mark, 240 ft. E. of rd. junction, 30 ft. S. of center line of rd., in root on N. side of 10-in. mesquite tree; copper nail and washer.....	1, 324. 61
Laguna, 15.1 mi. W. of, about 150 ft. NW. of drain crossing rd., 25 ft. N. of center line of rd., in root on N. side of 12-in. mesquite tree; copper nail and washer.....	1, 327. 26
Laguna, 16.4 mi. W. of, 40 ft. N. and 35 ft. W. from center line of rd. at N.-S. fence line, in crotch of split mesquite tree; copper nail and washer.....	1, 348. 82
From Brackettville No. 2 quadrangle at point about 3.7 miles north and 11 miles east from Brackettville south and southeast along roads into Cline quadrangle at point about 1 mile northwest of Cline (by G. N. Tex in 1937-38)	
Brackettville, 10.6 mi. NE., thence 4.0 mi. SE. from courthouse at, about 125 ft. SW. of barn, 13.7 ft. E. of center of windmill, in rock outcrop; standard tablet stamped "10 TX 1937 1305".....	1, 305. 285
Reference mark, about 100 ft. SW. of stock barn, 33 ft. S. and 20 ft. E. from center of windmill, on top of rock outcrop; chiseled square.....	1, 305. 31
Brackettville, 10.6 mi. NE., thence 4.7 mi. SE. from, 120 ft. SE. of drain crossing rd., on top of rock outcrop; chiseled square.....	1, 270. 90
Brackettville, 10.6 mi. NE., thence 5.8 mi. SE. from, about 1,000 ft. NW. of N. point of prominent ridge, 12 ft. S. of center line of rd., on NE. side of 5-in. mesquite tree; copper nail and washer.....	1, 307. 36
Brackettville, 10.6 mi. NE., thence 6.7 mi. SE. from, 14.0 mi. NW. of Cline, about 250 ft. E. of line fence between Dunbar and Petersen ranches, 52 ft. NE. of NE. corner of abandoned cabin, 59 ft. S. of center line of windmill, in concrete post; standard tablet stamped "11 TX 1937 1290".....	1, 289. 929
Reference mark, about 250 ft. E. of ranch-line fence, at windmill, on NE. corner of concrete base; chiseled square.....	1, 290. 96

Feet

Cline, 12.9 mi. NW. of, 2.3 mi. W. of Dunbar ranch house, about 1.6 mi. S. of Turkey Mountain, 100 ft. N. of rd., 15 ft. W. of abandoned house, in root on SW. side of 10-in. mesquite tree; copper nail and washer.....	1, 308. 15
Cline, 12.4 mi. NW. of, 1.8 mi. W. of Dunbar ranch house, 185 ft. E. of N.-S. fence crossing rd., 27 ft. S. of rd., on NW. side of 6-in. mesquite tree; copper nail and washer.....	1, 320. 01
Cline, 11.4 mi. NW. of, 0.8 mi. W. of Dunbar ranch house, about 500 ft. W. of gate at N.-S. fence line, 140 ft. E. of large twin live-oak tree, 45 ft. N. of center line of rd., in root on N. side of 6-in. mesquite tree; copper nail and washer.....	1, 251. 90
Cline, 10.6 mi. NW. of, about 100 ft. E. of Dunbar ranch house, 1 ft. N. and 5 ft. W. from corner fence post, in concrete post; standard tablet stamped "12 TX 1937 1218".....	1, 218. 245
Reference mark, about 200 ft. NW. of Dunbar ranch house, at windmill, on W. edge of concrete base; chiseled square.....	1, 215. 34
Cline, 9.9 mi. NW. of, 0.7 mi. E. of Dunbar ranch house, 35 ft. S. of rd. fork formed by turn-out in rd., in root on N. side of 12-in. twin mesquite tree; copper nail and washer.....	1, 204. 34
Cline, 9.1 mi. NW. of, 1.5 mi. SE. of Dunbar ranch house, 90 ft. E. of rd. fork, 120 ft. NE. of gate at fence corner, on S. side of N. trunk of split mesquite tree; copper nail and washer.....	1, 149. 75
Cline, 8.0 mi. NW. of, 2.6 mi. SE. of Dunbar ranch house, 20 ft. N. and 4 ft. W. from junction of rd. SE., in concrete post; standard tablet stamped "13 TX 1937 1147".....	1, 147. 140
Reference mark, about 280 ft. S. of rd. junction, 12 ft. W. of center line of rd., in root on E. side of 10-in. mesquite tree; copper nail and washer.....	1, 150. 68
Cline, 7.2 mi. NW. of, 3.4 mi. SE. of Dunbar ranch house, 45 ft. W. of center line of rd. at gate, 12 ft. N. of fence line, 24 ft. S. of center line of rd., on top of rock outcrop; chiseled square.....	1, 209. 20
Cline, 6.6 mi. NW. of, 4.0 mi. SE. of Dunbar ranch house, 100 ft. SE. of gate, 10 ft. N. of center line of rd., in root on S. side of 8-in. mesquite tree; copper nail and washer.....	1, 168. 40
Cline, 6.1 mi. NW. of, 4.5 mi. SE. of Dunbar ranch house, 40 ft. S. of E. fork of rd. turn-out, in crotch of triple mesquite tree; copper nail and washer.....	1, 188. 54
Cline, 5.1 mi. NW. of, 5.5 mi. SE. of Dunbar ranch house, near point where rd. turns S. from old fence line, 10 ft. S. and 35 ft. E. from SE. fork of rd. turn-out, in old fence line, in concrete post; standard tablet stamped "14 TX 1937 1157".....	1, 156. 631
Reference mark, near point where rd. turns S. from old fence line, 30 ft. S. of SE. fork of rd. turn-out, in root on E. side of 6-in. mesquite tree; copper nail and washer.....	1, 156. 24
Cline, 4.4 mi. NW. of, 15 ft. N. and 10 ft. W. from drain crossing rd., in root on N. side of 5-in. mesquite tree; copper nail and washer.....	1, 093. 90
Cline, 3.9 mi. NW. of, 30 ft. N. and 30 ft. E. from junction of rd. W., in crotch of twin mesquite tree; copper nail and washer.....	1, 119. 72
Cline, 2.9 mi. NW. of, 45 ft. W. of center line of rd., near head of drain, in root on NW. side of 36-in. twin live-oak tree; copper nail and washer.....	1, 114. 08
Cline, 2.2 mi. NW. of, 38 ft. E. of center line of rd. at W. gate, 31 ft. E. of corner post of T-fence N., 2 ft. S. of fence line, in concrete post; standard tablet stamped "15 TX 1937 1074".....	1, 073. 551

	<i>Feet</i>
Reference mark, 25 ft. N. and 8 ft. W. from center line of rd. at W. gate, on rock outcrop; chiseled square.....	1, 074. 85
Cline, 1.1 mi. along rd. to Harris ranch NW. of, about 250 ft. NW. of brick dwelling at Harris ranch, 27 ft. SW. of SW. corner of western-most of two concrete water troughs, in root on SE. side of 10-in. mesquite tree; copper nail and washer.....	1, 017. 24
From Cline quadrangle northeast and east along Southern Pacific Railroad into Uvalde No. 2 quadrangle (by G. N. Tex in 1938)	
Cline, 2.2 mi. NE. of, 9 ft. N. of center line of track, on W. side of signal block 3173, on concrete base; chiseled square.....	1, 037. 26
Cline, 3.3 mi. E. of, about 250 ft. E. of R. R. trestle 316 A, 40 ft. N. of track, 1 ft. N. of property-line fence, on rock outcrop; chiseled square.....	1, 084. 94
Cline, 4.2 mi. E. of, about 400 ft. W. of R. R. trestle 315 A, 9 ft. N. of track, on W. side of signal block 3153, on concrete base; chiseled square.....	1, 097. 10
Cline, 4.4 mi. E. of, 1.4 mi. W. of Obi, 375 ft. W. of milepost 315, 683 ft. E. of R. R. bridge 315 A, 10 ft. S. and 3 ft. E. from 3-ft. cairn, 10 ft. N. of center line of track, in limestone ledge; standard tablet stamped "T T 4 C 1937 1099".....	1, 099. 056
Obi, 0.7 mi. W. of, 9 ft. S. of center line of track, on E. side of signal block 3144, on concrete base; chiseled square.....	1, 078. 67
From Brackettville No. 2 quadrangle at point 3.2 miles northwest of Harrison ranch headquarters along roads generally south to U. S. Highway 90, thence southeast into Cline quadrangle (by G. N. Tex in 1938)	
Harrison ranch headquarters, 2.8 mi. NW. of, at windmill and concrete tanks known as Middle Mill, 50 ft. S. and 26 ft. E. from SE. leg of windmill, 55 ft. S. of S. edge of round concrete water trough, 146 ft. along fence line NW. of fence corner, 10 ft. N. and 10 ft. W. from lone mesquite tree, in concrete post; standard tablet stamped "T T 16 C 1938 1219".....	1, 219. 582
Reference mark, on NW. corner of concrete base of windmill; chiseled square.....	1, 220. 60
Harrison ranch headquarters, 1.8 mi. NW. of, 130 ft. SW. of center line of rd. at gate, in crotch of twin mesquite tree; copper nail and washer.....	1, 185. 71
Harrison ranch headquarters, 1.0 mi. N. of, 170 ft. E. of drain crossing rd., 90 ft. W. of W. fork of rd. turn-out, 12 ft. N. of center line of rd., in crotch of twin mesquite tree; copper nail and washer.....	1, 146. 26
Harrison ranch headquarters (leased by Pat Rose), 56 ft. W. of front gate and walk to house, 110 ft. S. of SW. corner of garage, 1 ft. N. of SW. corner post of yard fence, in concrete post; standard tablet stamped "T T 17 C 1938 1151".....	1, 151. 471
Reference mark, 70 ft. S. of SW. corner post of yard fence, 180 ft. S. of SW. corner of garage, in root on S. side of 12-in. mesquite tree; copper nail and washer.....	1, 152. 85
Harrison ranch headquarters, 0.8 mi. S. of, 11.0 mi. E. along U. S. Highway 90, thence 1.3 mi. N. from courthouse at Brackettville, 800 ft. N. of power line crossing rd., 9 ft. W. of center line of rd., in root on S. side of 5-in. mesquite tree; copper nail and washer.....	1, 146. 53
Brackettville, 11.0 mi. E. along U. S. Highway 90, thence 0.9 mi. N. from, 50 ft. E. of cross road, 46 ft. NW. of telephone pole 1480, on rock outcrop; chiseled square.....	1, 163. 33

Feet

Brackettville, 11.0 mi. along U. S. Highway 90 E. of, 35 ft. N. and 18 ft. E. from junction of highway and rd. N. to Harrison ranch headquarters, on top of rock outcrop; chiseled square.....	1, 145. 85
U. S. C. & G. S. triangulation sta. Pawo, Kinney County, 12.0 mi. along U. S. Highway 90 E. of Brackettville, reached from gateway to Fort Clark and U. S. Highway 90 by going E. 12 mi. to top of ridge and mark 60 ft. S. of highway, 8.5 ft. S. of S. right-of-way fence line, set on extension of S. right-of-way fence tangent E., in rock outcrop, 6 in. below ground; standard triangulation disk stamped "Pawo 1935".....	1, 193. 699
Reference mark 1, 104 ft. E. of triangulation sta., in concrete slab; U. S. C. & G. S. standard reference disk stamped "Ref 1 Pawo"....	1, 195. 39
Brackettville, 12.7 mi. along U. S. Highway 90 E. of, 40 ft. N. and 53 ft. W. from center of junction of T-rd. N., 46 ft. W. of W. end of corrugated culvert, 7 ft. S. of fence, on rock outcrop; chiseled square.....	1, 136. 52
From point 4.5 miles west of Laguna southwest along roads to point 8 miles northwest of Cline (by G. N. Tex in 1938)	
Laguna, 4.5 mi. along Brackettville rd. W., thence 1.0 mi. along rd. to Old Dole place SW. from, 25 ft. SW. of center of gate, 8 ft. N. of center line of rd., in root on S. side of 8-in. mesquite tree; copper nail and washer.....	1, 190. 95
Laguna, 4.5 mi. W., thence 1.9 mi. SW. from, 45 ft. NE. of rd. fork, in E. side of twin mesquite tree; copper nail and washer.....	1, 168. 83
Laguna, 4.5 mi. W., thence 2.5 mi. SW. from, on Herndon ranch, 20 ft. S. and 152 ft. E. from SE. corner of ranch house known as the Old Dole place, 130 ft. S. and 17 ft. E. from center of gate at entrance to corral, 140 ft. SE. along fence line from corral, 52 ft. W. of mesquite tree with triangular blaze, in concrete post; standard tablet stamped "T T 21 C 1938 1171".....	1, 170. 971
Reference mark, 40 ft. N. and 152 ft. E. from SE. corner of ranch house, in root on SE. side of 15-in. mesquite tree; copper nail and washer.....	1, 171. 12
Laguna, 4.5 mi. W., thence about 3.5 mi. SW. from, 1.2 mi. SE. of Old Dole place, about 200 ft. W. of windmill, 15 ft. S. of dim rd. fork, in crotch of triple mesquite tree; copper nail and washer.....	1, 161. 08
Laguna, 4.5 mi. W., thence about 4.4 mi. SW. from, 2.1 mi. SE. of Old Dole place, 80 ft. SE. of gate at fence between Herndon and Dunbar ranches, in NW. side of 12-in. leaning mesquite tree; copper nail and washer.....	1, 133. 71
Old Dole place, about 3 mi. SE. of, 1.0 mi. NE. of windmill known as River Mill, on W. bank of West Nueces River, at point where river makes sharp bend, on S. side of northernmost of clump of four mesquite trees; copper nail and washer (also transit-traverse position).....	1, 140. 39
Dunbar ranch, on W. bank of West Nueces River, at River Mill, 35 ft. N. and 42 ft. E. from NE. leg of windmill, 33 ft. N. of round concrete reservoir, 15 ft. N. and 10 ft. W. from corner fence post, in rock outcrop; standard tablet stamped "T T 20 C 1938 1147".....	1, 146. 864
Reference mark, 48 ft. N. and 42 ft. E. from NE. leg of windmill, 45 ft. N. of round concrete reservoir, 28 ft. N. and 10 ft. W. from corner fence post, in root on SE. side of 10-in. mesquite tree; copper nail and washer.....	1, 147. 61

Feet

Dunbar ranch house, about 3 mi. in air line E. of, 0.7 mi. SW. of River Mill, about 1,000 ft. W. of West Nueces River, 60 ft. SW. of rd. at crossing of Rough Hollow, 12 ft. NW. of center line of rd., on E. side of 6-in. live-oak tree; copper nail and washer.....	1, 110. 81
Dunbar ranch, 1.5 mi. SW. of River Mill, 8.6 mi. NW. along rd. to Dunbar ranch, thence 1.2 mi. along ranch rd. NE. from Cline, 14 ft. E. of center line of rd., on E. side of 8-in. lone mesquite tree; copper nail and washer.....	1, 150. 16
Cline, 8.6 mi. NW., thence 0.7 mi. NE. from, 90 ft. SW. of rd. junction, 20 ft. E. of center line of rd., in root on N. side of 5-in. mesquite tree; copper nail and washer.....	1, 124. 62

From point 10.8 miles west of Laguna along road generally northwest up West Nueces River to point 0.6 mile west of Wade Wilson ranch house, thence southeast and southwest along Silver Lake road into Brackettville No. 2 quadrangle (by G. N. Tex in 1938)

Laguna, 10.8 mi. along Brackettville rd. W., thence 0.7 mi. along rd. up West Nueces River NW. from, 350 ft. NW. of junction of rd. SW. to ranch house of C. C. Veltmann, 27 ft. W. of rd., in crotch of twin mesquite tree; copper nail and washer.....	1, 279. 78
Laguna, 10.8 mi. W., thence 1.3 mi. NW. from, 0.6 mi. NW. of Veltmann ranch house, 570 ft. S. of rd. fork, 12 ft. W. of center line of rd., on top of rock outcrop; chiseled square.....	1, 306. 93
Laguna, 10.8 mi. W., thence 2.8 mi. NW. from, 2.0 mi. NW. of Veltmann ranch house, 30 ft. NE. of center line of rd. at gate, 1 ft. SE. of fence line, in concrete post; standard tablet stamped "5 TX 1937 1296".....	1, 295. 985
Reference mark, 105 ft. N. of center line of rd. at gate, in root on NW. side of leaning twin cedar tree; copper nail and washer.....	1, 295. 60
Laguna, 10.8 mi. W., thence 3.5 mi. NW. from, 2.8 mi. NW. of Veltmann ranch house, 390 ft. S. of gate, 60 ft. E. of center line of rd., in root on SE. side of twin elm tree; copper nail and washer.....	1, 302. 28
Laguna, 10.8 mi. W., thence 4.3 mi. NW. from, about 1,000 ft. N. of ranch house of A. Chapman, 105 ft. NW. of center of gate, in crotch of triple cedar tree; copper nail and washer.....	1, 320. 04
Laguna, 10.8 mi. W., thence 5.4 mi. NW. from, 1.3 mi. NW. of Chapman ranch house, 400 ft. E. of West Nueces River crossing, 18 ft. NE. of center of gate, in concrete post; standard tablet stamped "6 TX 1937 1328".....	1, 327. 972
Reference mark, 55 ft. E. of center of gate, on boulder; chiseled square.....	1, 329. 69
Laguna, 10.8 mi. W., thence 5.9 mi. NW. from, 1.8 mi. NE. of ranch house of Wade Wilson, about 550 ft. SW. of junction of rd. SW. to sheep barn, 180 ft. W. of center line of rd., in root on N. side of 18-in. elm tree; copper nail and washer.....	1, 325. 09
Wilson ranch house, 0.8 mi. E. of, about 400 ft. NW. of West Nueces River, 75 ft. NE. of gate, 15 ft. NW. of center line of rd., on NW. side of 20-in. live-oak tree; copper nail and washer.....	1, 347. 69
Wilson ranch house, about 150 ft. NW. of, 12.4 mi. along Laguna rd. NE., thence 6.1 mi. N. from Brackettville, 20 ft. NE. of center of gate, in root on S. side of 4-in. goat-bean tree; copper nail and washer.....	1, 369. 91

Feet

Brackettville, 12.4 mi. NE., thence 5.5 mi. N. from, about 500 ft. W. of West Nueces River, 25 ft. S. and 20 ft. W. from junction of Silver Lake rd., in concrete post; standard tablet stamped "7 TX 1937 1351"	1, 350. 748
Reference mark, 60 ft. SW. of rd. junction, in most prominent root in center of small clump of goat-bean trees; copper nail and washer	1, 350. 38
Brackettville, 12.4 mi. NE., thence 4.9 mi. N. from, about 200 ft. SE. of drain crossing rd., 22 ft. W. of center line of rd., on E. side of 5-in. mesquite tree; copper nail and washer	1, 349. 74
Brackettville, 12.4 mi. NE., thence 4.5 mi. N. from, 30 ft. E. of center of drain crossing rd., 15 ft. SE. of center line of rd., on NW. side of 10-in. cedar tree; copper nail and washer	1, 391. 33
Brackettville, 12.4 mi. NE., thence 3.9 mi. N. from, on summit of high ridge, 27 ft. S. of center line of rd., 30 ft. W. of 12-in. cedar tree, on top of rock outcrop; chiseled square	1, 580. 45
Brackettville, 12.4 mi. NE., thence 3.5 mi. N. from, 75 ft. NW. of center of bumper gate, 40 ft. W. of center line of rd., on top of rock outcrop; chiseled square	1, 519. 70
Brackettville, 12.4 mi. NE., thence 2.6 mi. N. from, at slight curve in rd., 24 ft. E. of center line of rd., in root on N. side of 10-in. mesquite tree; copper nail and washer	1, 449. 41

From Liveoak School north along road up Liveoak Creek 4.7 miles to Jones Pens on Edwards ranch (by G. N. Tex and L. H. Lister in 1938; spur line leveled twice)

Liveoak School, 0.7 mi. N. of, 140 ft. N. of center line of Liveoak Creek crossing, 20 ft. W. of center line of rd., in crotch of twin live-oak tree; copper nail and washer	1, 244. 61
Liveoak School, 1.9 mi. N. of, 130 ft. N. of drain crossing rd., 20 ft. E. of center line of rd., in crotch of triple live-oak tree; copper nail and washer	1, 275. 00
Liveoak School, 2.7 mi. N. of, 0.25 mi. SE. of Herndon ranch house, about 300 ft. W. of Liveoak Creek, 73 ft. N. and 27 ft. W. from S. point of triangle formed by rd. junction, in concrete post; standard tablet stamped "T T 13 C 1938 1300"	1, 299. 241
Reference mark, 1,200 ft. SE. of Herndon ranch house, 160 ft. S. of rd. junction, 70 ft. W. of center line of rd., in root on NE. side of 15-in. live-oak tree; copper nail and washer	1, 297. 48
Liveoak School, 3.3 mi. N. of, 60 ft. NW. of gate, 12 ft. E. of center of junction of rd. N., on S. side of 24-in. mesquite tree; copper nail and washer	1, 316. 94
Liveoak School, 3.7 mi. N. of, about 500 ft. SE. of Red Shed ranch house of Paul Edwards, 60 ft. NW. of rd. fork, in root on N. side of 15-in. mesquite tree; copper nail and washer	1, 324. 97
Liveoak School, 4.6 mi. N. of, at Jones Pens on Edwards ranch, 400 ft. W. along fence from center of gate, 86 ft. E. along fence from T-fence N. to pens, 22 ft. N. of center line of rd., in concrete post; standard tablet stamped "T T 14 C 1938 1358"	1, 357. 864
Reference mark, 380 ft. W. of center of gate, 125 ft. E. along fence from T-fence N. to pens, 15 ft. N. of center line of rd., in root on NE. side of 24-in. live-oak tree; copper nail and washer	1, 355. 91

From road junction 1.8 miles west of Laguna south along road 3.8 miles to
Rosenow ranch house (by G. N. Tex in 1938; spur line leveled twice)

	Feet
Laguna, 1.8 mi. along Brackettville rd. W., thence 1.1 mi. along Rosenow ranch rd. S. from, 35 ft. NE. of center of bumper gate, in root on W. side of 10-in. mesquite tree; copper nail and washer-----	1, 133. 75
Laguna, 1.8 mi. W., thence 2.1 mi. S. from, about 400 ft. NW. of house on Rosenow ranch, 55 ft. SE. of center of bumper gate, on E. side of 10-in. mesquite tree; copper nail and washer-----	1, 152. 43
Laguna, 1.8 mi. W., thence 3.0 mi. S. from, 200 ft. S. of drain crossing rd., 20 ft. W. of center line of rd., on N. side of 4-in. mesquite tree; copper nail and washer-----	1, 141. 65
Laguna, 1.8 mi. W., thence 3.8 mi. S. from, about 200 ft. NE. of Rosenow ranch house, 40 ft. NE. of center of bumper gate, on top of 2.5- by 2.5-ft. concrete base of old engine foundation; standard tablet stamped "10 TX 1938 1164"-----	1, 164. 075
Reference mark, about 150 ft. NE. of ranch house, 18 ft. E. of center of bumper gate, in crotch of twin mesquite tree; copper nail and washer-----	1, 163. 71

WALL QUADRANGLE

[Latitude 31°15'-31°30'; longitude 100°15'-100°30']

TOM GREEN COUNTY

From Devils Courthouse quadrangle southwest along Gulf, Colorado & Santa
Fe Railway to San Angelo, thence southwest along Kansas City, Mexico &
Orient Railway ³⁵ into Tankersly quadrangle (by A. P. Meade in 1923)

San Angelo, 2.3 mi. NE. of G. C. & S. F. Ry. sta. at, at milepost 70; top of iron rail set vertically-----	1, 874. 45
San Angelo, 2.0 mi. NE. of, 0.2 mi. NE. of crossing of K. C. M. & O. Ry. track, just W. of grade crossing, 5.5 ft. N. of track, in SE. corner of base of semaphore signal; standard tablet stamped "M 104 1923" (recovered by U. S. C. & G. S. in 1934)-----	1, 869. 868
San Angelo, 1.3 mi. NE. of, at milepost 71; top of iron rail set verti- cally-----	1, 860. 37
San Angelo, in front of G. C. & S. F. Ry. sta.; top of S. rail of main track-----	1, 851. 5
San Angelo, on E. side of Tom Green County courthouse, on S. side of E. entrance, 2.2 ft. N. of S. end of building, 2.8 ft. above ground; standard tablet stamped "Prim Trav Sta No 1 K 1923 M 105"-----	1, 849. 171
Reference mark, at E. entrance to yard of courthouse, 1 ft. S. of gate, 3 in. S. of S. gatepost, 7 in. above ground, on stone block; chiseled square-----	1, 846. 55
San Angelo, at K. C. M. & O. Ry. sta., at SE. corner of sta. platform, 2 ft. N. of track, at S. end of name "J. H. Hulsey"; chiseled square--	1, 847. 48
San Angelo, 2.1 mi. SW. of K. C. M. & O. Ry. sta. at, 300 ft. W. of siding, 40 ft. S. of grade crossing, 5 ft. W. of rd., 1 ft. N. of right- of-way fence, in concrete post; standard tablet stamped "M 106 1923" (recovered by U. S. C. & G. S. in 1934)-----	1, 856. 889

From San Angelo generally southeast along road 8 miles, thence west to Seven
Mile Bridge, thence northwest along road to point on Kansas City, Mexico
& Orient Railway 4.3 miles southwest of San Angelo (by A. B. Williams in
1923)

San Angelo, 0.8 mi. S. of K. C. M. & O. Ry. sta. at, at sharp turn in rd., on S. end of concrete culvert; chiseled square-----	1, 835. 44
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³⁵ Now the Panhandle & Santa Fe Railway.

Feet

San Angelo, 1.8 mi. SE. of, at second-class rd. SE., on E. end of concrete culvert; chiseled square (recovered by U. S. C. & G. S. in 1933)-----	1, 827. 549
San Angelo, 3.3 mi. S. of, 800 ft. S. of top of hill at rd. fork, 100 ft. SE. of SW. corner of large triangle formed by rds., in fence corner, in concrete post; standard tablet stamped "Prim Trav Sta No 10 K" (recovered by U. S. C. & G. S. in 1933)-----	1, 859. 429
Reference mark, 90 ft. N. of tablet, 15 ft. E. of center line of rd., on stone ledge; chiseled-square-----	1, 854. 45
San Angelo, 4.0 mi. SE. of, at second-class rd. E., 155 ft. SE. of S. end of wooden culvert, 20 ft. W. of center line of rd., 11 ft. E. of wire fence, on stone ledge; chiseled square-----	1, 881. 17
San Angelo, 5.4 mi. SE. of, at junction of rd. E., 175 ft. W. of rd., 40 ft. S. of windmill, on N. end of concrete water tank; chiseled square-----	1, 864. 64
San Angelo, 8.0 mi. SE. of, at rd. fork at end of paved rd., 130 ft. SE. of E. end of concrete culvert, in angle of rds., in concrete post; standard tablet stamped "Prim Trav Sta No 9 K 1923" (recovered by U. S. C. & G. S. in 1933)-----	1, 860. 144
Reference mark, at rd. fork, on concrete culvert; chiseled square-----	1, 861. 75
San Angelo, 7.3 mi. along Christoval rd. S. of, 40 ft. W. of center line of rd., in fence corner, in concrete post; standard tablet stamped "Prim Trav Sta No 8 K 1923" ³⁶ -----	1, 903. 634
San Angelo, 7.3 mi. along Christoval rd. S., thence 1.9 mi. W. from, at red and white windmill, 50 ft. E. of old roadbed of K. C. M. and O. Ry., on E. side of iron water tank; chiseled mark-----	1, 890. 44
San Angelo, 7.3 mi. S., thence 3.1 mi. W. from, at old dam on South Concho River, 800 ft. E. of old Lee ranch house, on concrete wall SE.; chiseled square-----	1, 857. 83
South Concho River, at S. side of old dam; surface of water Dec. 5, 1923-----	1, 851. 7
San Angelo, 7.2 mi. SW. of, 900 ft. S. of Seven Mile Bridge over Middle Concho River, at gate to old Lee ranch house, in fence corner, in concrete post; standard tablet stamped "Prim Trav Sta No 7 K 1923"-----	1, 879. 889
Reference mark, on W. end of S. abutment of bridge; chiseled square--	1, 874. 95
Middle Concho River, at Seven Mile Bridge; surface of water Dec. 5, 1923-----	1, 842. 0

From San Angelo east along road 5.4 miles, thence north into Devils Court-house quadrangle (by A. B. Williams in 1923)

San Angelo, at intersection of Main Street and East Harris Avenue, on N. end of culvert; chiseled square-----	1, 825. 64
San Angelo, 1.0 mi. E. of, at intersection of East Harris Avenue and K. C. M. & O. Ry., 60 ft. SE. of center line of track, on S. side of street, on S. end of concrete water meter near fireplug; chiseled square-----	1, 838. 24
San Angelo, 2.2 mi. E. of, on rd. to Six Mile Crossing, 170 ft. E. of cattle guard in rd., in root on S. side of mesquite tree; copper nail--	1, 835. 02
San Angelo, 4.0 mi. E. of, 900 ft. W. of drain, 450 ft. W. of junction of T-rd. N., in root on N. side of mesquite tree; copper nail-----	1, 811. 47

³⁶ In 1936 this bench mark was reported destroyed in construction of a new highway.

Feet

San Angelo, 5.4 mi. E. of, on rd. to Six Mile Crossing, 20 ft. N. of center line of rd., in fence corner, in concrete post; standard tablet stamped "Prim Trav Sta No 2 K 1923"-----	1, 809. 599
Reference mark, 80 ft. SW. of tablet, on S. side of rd., in mesquite tree; copper nail-----	1, 809. 68
San Angelo, 5.4 mi. E., thence 1.0 mi. through pasture N. from, 40 ft. N. of E.-W. rd., in root on W. side of mesquite tree; copper nail-----	1, 827. 67
San Angelo, 5.4 mi. E., thence 2.0 mi. N. from, 1.2 mi. S. of G. C. & S. F. Ry. track, 100 ft. W. of fence line, on top of hill, in root on S. side of mesquite tree; copper nail (also transit-traverse sta. and plane-table triangulation point)-----	1, 881. 89

From San Angelo along roads northwest into Devils Courthouse quadrangle
(by A. B. Williams in 1923)

San Angelo, 100 ft. W. of G. C. & S. F. Ry. sta., 50 ft. S. of main track, 3 ft. NW. of small live-oak tree, on NW. corner of stone curb around yard; chiseled square-----	1, 852. 81
San Angelo, 1.5 mi. N. of, at NW. corner of intersection of North Chadburn and West Twenty-first Streets, on top of fireplug; chiseled mark-----	1, 890. 29
San Angelo, 2.0 mi. N. of, at point where paved rd. turns W., at SW. corner of T formed by paved rd. and second-class rd. N., on W. end of S. side of concrete culvert; chiseled square-----	1, 900. 43

From San Angelo courthouse by way of Pat Murphy and Chadburn Avenue
Bridges to Kansas City, Mexico & Orient Railway station in San Angelo (by
A. B. Williams in 1923)

San Angelo, 0.7 mi. W. of courthouse, in hand rail of Pat Murphy Bridge; standard tablet set vertically (recovered by U. S. C. & G. S. in 1933 and 1934)-----	1, 844. 015
Reference mark, 4 ft. S. of tablet, on N. sidewalk; chiseled square-----	1, 841. 71
San Angelo, at Chadburn Avenue Bridge, in pier on N. bank of North Concho River; standard water gage tablet set vertically (recovered by U. S. C. & G. S. in 1933) ³⁷ -----	1, 807. 506
San Angelo, near center of Chadburn Avenue Bridge, at E. side of bridge, on sidewalk; chiseled square (recovered by U. S. C. & G. S. in 1933)-----	1, 838. 221

From point on Christoval road 7.3 miles south of San Angelo southwest into
Brushy Knob quadrangle (by A. B. Williams in 1923)

San Angelo, 10.9 mi. S. of, 30 ft. W. of center line of rd., 50 ft. W. of sign " $\frac{1}{2}$ mile to Phillips place," in fence corner, in concrete post; standard tablet ³⁸ -----	1, 959. 676
San Angelo, 14.5 mi. SW. of, on N. end of E. side of concrete culvert; chiseled square-----	2, 022. 29
U. S. C. & G. S. standard disk stamped "H 211 1934" ³⁹ -----	2, 031. 699
San Angelo, 15.5 mi. SW. of, at W. side of rd., on culvert; chiseled square-----	2, 067. 03
San Angelo, 15.7 mi. SW. of, at top of hill, 200 ft. SW. of large live-oak tree, 30 ft. W. of center line of paved rd., on limestone outcrop; chiseled square-----	2, 097. 94

³⁷ Zero for water level -5.11 feet.

³⁸ In 1936 this bench mark was reported destroyed in construction of a new highway.

³⁹ The tie between this mark and the bench mark with elevation 2,022.29 feet was made in 1936.

From Brushy Knob quadrangle about 1 mile north and 4 miles east from stone corral on Doorkey ranch north along second-class road to point on main highway 8 miles southeast of San Angelo (by A. B. Williams in 1923)

Feet

San Angelo, 10.0 mi. SE. of, 1,000 ft. S. of sharp turn in rd., at junction of rd. E. to Fort McKeet, in angle of rds., in concrete post; standard tablet..... 1, 866. 262

From Gulf, Colorado & Santa Fe Railway station in San Angelo northwest along railroad into Sterling City No. 4 quadrangle⁴⁰ (by R. W. Burchard in 1923)

San Angelo, 0.3 mi. NW. of, 200 ft. NW. of branch from main line, at center line of street; top of N. rail on Sterling City line..... 1, 851. 6

San Angelo, 1.0 mi. NW. of, 600 ft. S. of large brick ranch house, at grade crossing; at center line of rd.; top of S. rail..... 1, 847. 8

San Angelo, 3.0 mi. NW. of, in corner of right-of-way fence, on SW. side of track, on N. side of rd., at grade crossing, in concrete post; standard tablet (recovered by U. S. C. & G. S. in 1933)..... 1, 873. 602

From Tankersly quadrangle at point about 8 miles east of Knickerbocker along roads east 0.5 mile, thence southeast 0.1 mile into Brushy Knob quadrangle (by R. W. Burchard in 1923)

Knickerbocker, 8.3 mi. E. of, on W. bank of South Concho River, at rd. fork, 50 ft. W. of wire gate, in leaning limb of bent pecan tree; copper nail and washer..... 1, 970. 81

South Concho River; at rd. crossing; surface of water Dec. 18, 1923... 1, 951. 4

From Tankersly quadrangle east along Arden road to San Angelo (by R. W. Burchard in 1923)

San Angelo, 2.9 mi. W. of, in W. angle of intersection of Arden and Sherwood rds., 4 ft. E. of fence corner, in concrete post; standard tablet..... 1, 922. 846

Reference mark, 50 ft. E. of tablet; top of concrete base of "Circle" signpost..... 1, 922. 95

SUPPLEMENTAL ELEVATIONS IN WEST-CENTRAL TEXAS

The following table shows altitudes of well-known features, mostly mountain summits, in west-central Texas as assembled from records and topographic maps of the Geological Survey and from other sources.⁴¹ The figures of elevation of triangulation stations and vertical-angle bench marks included in this list and indicated respectively by \triangle and "V. A. B. M." were determined by vertical-angle measurements, while altitudes of features which have no marked point of reference were obtained by barometric observations. The figures given are in accord with the latest information, but they are only approximate and should not be used for accurate work.

⁴⁰ No marks were established in that portion of the line which crosses the southwest corner of Devils Courthouse quadrangle.

⁴¹ Gannett, Henry, A dictionary of altitudes in the United States (fourth edition): U. S. Geol. Survey Bull. 274, pp. 943-974, 1906; Garner, C. L., Precise triangulation in Texas, Rio Grande arc: U. S. Coast and Geodetic Survey Special Pub. 78, pp. 31-32, 1922.

Supplemental elevations

Location	County	Quadrangle	Elevation (feet)
Anacacho Mountains, Anacacho Δ	Kinney.....	Brackettville No. 3.....	1,349
Anacacho Mountains, Cline Δ	Kinney.....	Cline.....	1,517
Asphalt Mountain.....	Uvalde.....	Cline.....	1,310
Babb Δ (U. S. C. & G. S.).....	Val Verde.....	Howards Creek.....	2,063
Baker Δ	Pecos.....	Independence Draw No. 1.....	2,805
Barnhart Δ	Crockett.....	Barnhart.....	2,689
Barr Δ (U. S. C. & G. S.).....	Dimmit.....	Blockers Ranch.....	832
Bassett Δ (U. S. C. & G. S.).....	Val Verde.....	Howards Creek.....	2,110
Belding Δ , Twelvemile Mesa.....	Pecos.....	Fort Stockton.....	3,722
Big Mesa, Parks Δ	Pecos.....	Independence Draw No. 2.....	3,020
Black Hills Δ	Brewster.....	Dove Mountains.....	3,379
Black Mountain.....	Brewster.....	Maravillas Canyon.....	3,629
Black Mountain, Nueces Δ	Edwards-Kinney.....	Nueces No. 3.....	2,089
Blacks Bluff.....	Uvalde.....	Turkey Mountain.....	1,393
Blackstone Δ	Terrell.....	Sheffield.....	2,750
Blue Hill, Blue Δ (U. S. C. & G. S.).....	Val Verde.....	Juno.....	2,154
Bluff Δ	Terrell.....	Dryden Crossing.....	2,117
Bobcat Hills.....	Upton.....	Crane No. 3.....	2,660
Boiling Mountain.....	Kinney-Uvalde.....	Nueces No. 4.....	1,950
Bullhead Mountain.....	Edwards.....	Nueces No. 1.....	2,050
Bullis Gap Δ	Brewster.....	Bullis Gap.....	3,007
Burr Δ (U. S. C. & G. S.).....	Maverick.....	Cometa No. 2.....	893
Bracket Δ , Las Moras Mountain (U. S. C. & G. S.).....	Kinney.....	Brackettville No. 2.....	1,675
Brown Δ , Housetop Mountains (U. S. C. & G. S.).....	Brewster.....	Longfellow No. 3.....	5,460
Brushy Knob.....	Tom Green.....	Brushy Knob.....	2,270
Cable Hills.....	Terrell.....	Dryden Crossing.....	1,850
Cactus Δ	Terrell.....	Dryden Crossing.....	2,232
Carroll Δ	Reagan.....	Big Lake.....	2,756
Casey Mountain.....	Kinney.....	Turkey Mountain.....	1,540
Castle Gap Mountain Δ (U. S. C. & G. S.).....	Upton.....	Crane No. 1.....	3,154
Cedar Knob.....	Kemble.....	Rock Springs.....	2,230
Cedar Mountain.....	Coke.....	Robert Lee.....	1,980
Cedar Δ	Pecos.....	Independence Draw No. 1.....	3,050
Center Δ	Terrell.....	Sanderson No. 1.....	2,720
Cline Mountain.....	Uvalde.....	Cline.....	1,310
Cline Δ , Anacacho Mountains.....	Kinney.....	Cline.....	1,517
Corder Δ	Terrell.....	Sanderson No. 1.....	2,960
Corner Δ , McKenzie Mesa.....	Pecos.....	Independence Draw No. 2.....	3,260
Cow Δ	Upton.....	Rankin No. 2.....	2,725
Cox Δ	Reagan.....	Big Lake.....	2,782
Cupola Mountain (V. A. B. M.).....	Brewster.....	Maravillas Canyon.....	3,925
Curtis Δ (U. S. C. & G. S.).....	Crane.....	Monahans No. 4.....	2,855
Davidson Δ (U. S. C. & G. S.).....	Maverick.....	Cometa No. 3.....	860
Dean Δ	Terrell.....	Independence Draw No. 4.....	2,915
Devils Courthouse Peak.....	Tom Green.....	Devils Courthouse.....	2,250
Dewey Lake.....	Glasscock.....	Dewey Lake No. 1.....	2,523
Dike Δ (U. S. C. & G. S.).....	Kinney.....	Del Rio.....	960
Dobkins Δ (U. S. C. & G. S.).....	Val Verde.....	Del Rio.....	1,122
Douro Δ (U. S. C. & G. S.).....	Ector.....	Monahans No. 4.....	3,069
Dove Mountain Δ	Brewster.....	Dove Mountain.....	3,790
Downie Δ	Pecos.....	Sanderson No. 2.....	3,530
Dublin Δ (U. S. C. & G. S.).....	Ector.....	Monahans No. 1.....	3,213
Dry Δ (U. S. C. & G. S.).....	Brewster.....	Longfellow No. 3.....	4,459
Eagle Δ (U. S. C. & G. S.).....	Maverick.....	Cometa No. 3.....	916
East Black Hills.....	Brewster.....	Dove Mountain.....	3,357

Supplemental elevations—Continued

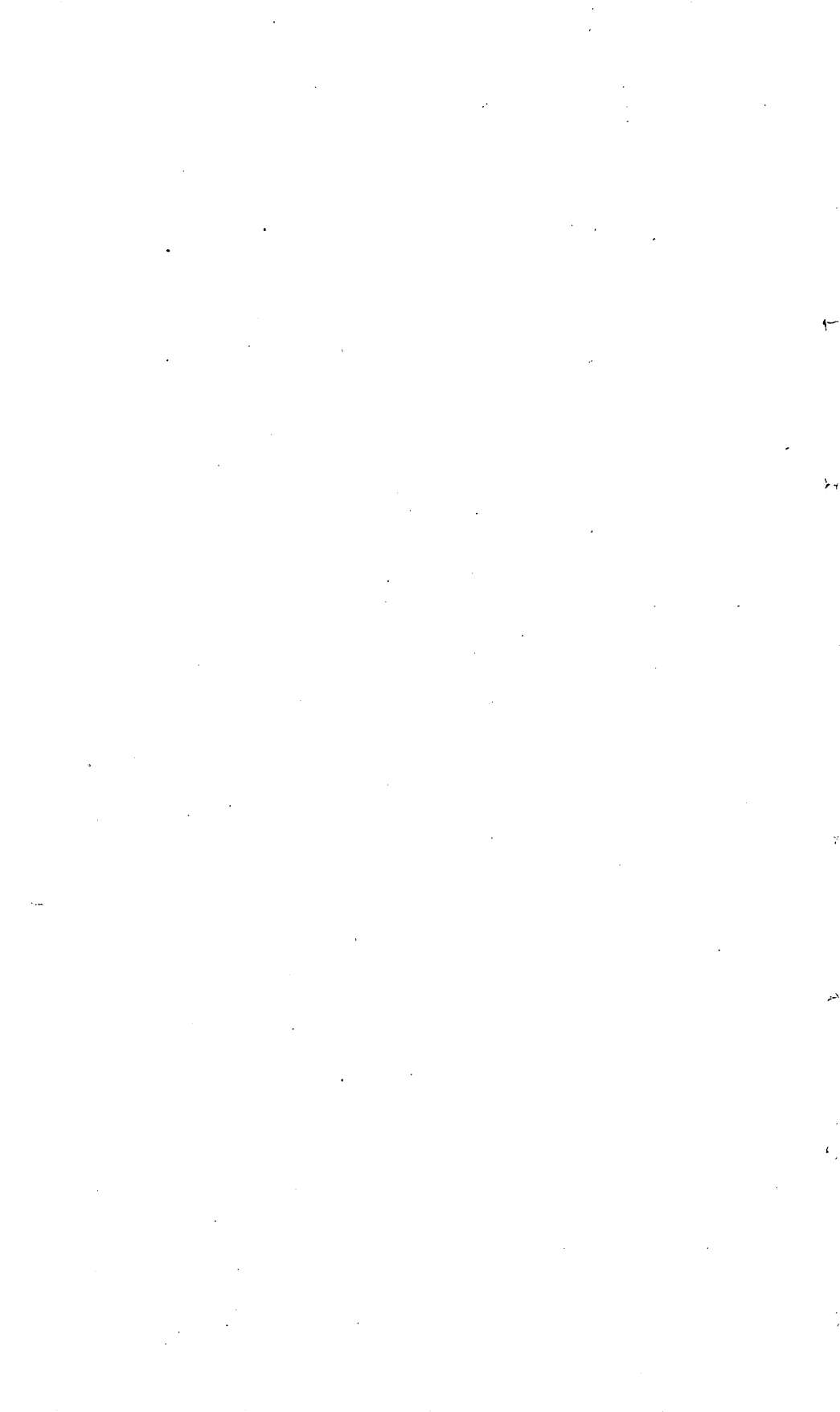
Location	County	Quadrangle	Elevation (feet)
East Mesa, Twelvemile△	Pecos	Comanche Springs No. 1	3,120
Eldridge△ (U. S. C. & G. S.)	Terrell	Sanderson No. 4	2,338
Ellis Butte	Pecos	Longfellow No. 2	4,530
Ellis△	Edwards	Nueces No. 2	2,252
Elm Mountain	Kinney	Brackettville No. 2	1,449
English△ (U. S. C. & G. S.)	Dimmit	Blockers Ranch	871
Estes△ (U. S. C. & G. S.)	Ward	Grand Falls No. 2	2,616
Farland△ (U. S. C. & G. S.)	Maverick	Blockers Ranch	858
Feely△ (U. S. C. & G. S.)	Val Verde	Comstock	1,400
Fence△	Reagan	Rankin No. 2	2,720
Feodora△	Terrell	Sanderson No. 3	3,015
Free△	Terrell	Independence Draw No. 3	3,020
Gap Peak	Brewster	Longfellow No. 3	5,000
Girvin Butte	Crockett	Crane No. 3	2,890
Glass△ (U. S. C. & G. S.)	Maverick	Blockers Ranch	855
Goode△	Edwards	Nueces No. 3	2,260
Gunny△	Reagan	Rankin No. 3	2,910
Half△	Upton	Rankin No. 3	2,671
Hamilton△ (U. S. C. & G. S.)	Kinney	Carta Valley	1,474
Harris△ (U. S. C. & G. S.)	Winkler	Monahans No. 3	2,889
Harrison△ (U. S. C. & G. S.)	Val Verde	Carta Valley	2,145
Hayrick Mountain	Coke	Robert Lee	2,320
Hen△ (U. S. C. & G. S.)	Terrell	Sanderson No. 4	2,335
Hobbs△	Irion	Barnhart	2,697
Hock△	Pecos	Comanche Springs No. 4	3,440
Hoddy△ (U. S. C. & G. S.)	Terrell	Howards Creek	2,163
Hog Mountain	Runnels	Maverick	2,000
Holiday△	Edwards	Nueces No. 2	2,320
Horseshoe Mesa	Brewster	Dove Mountain	4,100
Housetop Mountain	Uvalde	Turkey Mountain	1,510
Housetop Mountains, Brown△ (U. S. C. & G. S.)	Brewster	Longfellow No. 3	5,460
Hubert Ridge (V. A. B. M.)	Brewster	Stillwell Creek	3,940
Ike△ (U. S. C. & G. S.)	Val Verde	Howards Creek	2,069
Independence△	Terrell	Independence Draw No. 4	2,740
Indian Mesa, Indian△	Pecos	Independence Draw No. 1	3,140
Indian Mountain	Edwards	Nueces No. 3	2,114
Indio△ (U. S. C. & G. S.)	Maverick	Blockers Ranch	825
Jamerson△ (U. S. C. & G. S.)	Kinney	Del Rio	956
Japson△	Reagan	Rankin No. 1	2,720
Jim△ (U. S. C. & G. S.)	Val Verde	Comstock	1,986
Juniper△	Terrell	Sanderson No. 4	2,210
Kelley Peak	Edwards	Nueces No. 4	2,250
Kelley△ (U. S. C. & G. S.)	Val Verde	Del Rio	1,240
Kennedy△ (U. S. C. & G. S.)	Maverick	Cometa No. 4	873
Ketchum Mountain	Irion	Ketchum Mountain	2,730
Ketchum Mountain, Ketchum△	Irion	Ketchum Mountain	2,706
King△	Terrell	Sanderson No. 1	2,815
King△	Upton	Crane No. 4	3,010
Lake△ (U. S. C. & G. S.)	Maverick	Del Rio	911
Las Moras Mountain, Bracket△ (U. S. C. & G. S.)	Kinney	Brackettville No. 2	1,675
Las Moras Mountain, Las Moras△	Kinney	Brackettville No. 2	1,667
Last△	Reagan	Big Lake	2,776
Livingston△	Pecos	Independence Draw No. 2	2,855

Supplemental elevations—Continued

Location	County	Quadrangle	Elevation (feet)
Loma de las Palmas.....	Brewster.....	Bullis Gap.....	2,940
Loma Vista.....	Terrell.....	Dryden Crossing.....	2,100
Lone△ (U. S. C. & G. S.).....	Maverick.....	Cometa No. 2.....	916
Lopez Peaks.....	Irion.....	Mertzon.....	2,600
Low△.....	Reagan.....	Rankin No. 4.....	2,840
Mack△ (U. S. C. & G. S.).....	Maverick.....	Blockers Ranch.....	853
McKenzie Mesa, Corner△.....	Pecos.....	Independence Draw No. 2.....	3,260
McKenzie Mesa, McKenzie△.....	Pecos.....	Independence Draw No. 2.....	3,415
McKenzie Mesa, Shebina△.....	Pecos.....	Independence Draw No. 2.....	3,210
McNutt△ (U. S. C. & G. S.).....	Val Verde.....	Comstock.....	1,990
Madera△, Sierra Madera (U. S. C. & G. S.).....	Pecos.....	Sierra Madera.....	4,600
Margaret Peak.....	Coke.....	Devils Courthouse.....	2,300
Mark△ (U. S. C. & G. S.).....	Val Verde.....	Carta Valley.....	1,891
Mex△.....	Crockett.....	Rankin No. 3.....	2,820
Military Mountain.....	Edwards.....	Nueces No. 4.....	2,018
Mine△ (U. S. C. & G. S.).....	Maverick.....	Lehmans Ranch.....	876
Mitchell△.....	Terrell.....	Sanderson No. 1.....	2,735
Monte△.....	Irion.....	Barnhart.....	2,708
Monte△.....	Kinney.....	Nueces No. 4.....	2,050
Moore△ (U. S. C. & G. S.).....	Val Verde.....	Del Rio.....	1,316
Murphy△.....	Crockett.....	Rankin No. 3.....	3,010
Nation△ (U. S. C. & G. S.).....	Pecos.....	Longfellow No. 2.....	5,124
New△ (U. S. C. & G. S.).....	Terrell.....	Longfellow No. 4.....	3,024
Nine-Mile△.....	Crockett.....	Barnhart.....	2,688
Nipple Peak.....	Coke.....	Robert Lee.....	2,400
Nolke△.....	Upton.....	Rankin No. 3.....	3,008
Nueces△, Black Mountain.....	Edwards-Kinney.....	Nueces No. 3.....	2,089
Owens△.....	Irion.....	Barnhart.....	2,728
Palmer△.....	Kinney.....	Brackettville No. 2.....	1,165
Paloma△ (U. S. C. & G. S.).....	Maverick.....	Cometa No. 2.....	909
Parks△, Big Mesa.....	Pecos.....	Independence Draw No. 2.....	3,020
Pass△ (U. S. C. & G. S.).....	Maverick.....	Cometa No. 3.....	906
Peak△.....	Brewster.....	Dove Mountain.....	4,150
Pecks Lake.....	Midland.....	Dewey Lake No. 2.....	2,593
Pecos△, Southwest Mesa.....	Upton.....	Crane No. 4.....	3,025
Peggy△ (U. S. C. & G. S.).....	Terrell.....	Dryden Crossing.....	2,154
Pen△ (U. S. C. & G. S.).....	Maverick.....	Cometa No. 2.....	899
Peters△ (U. S. C. & G. S.).....	Kinney.....	Del Rio.....	1,014
Pike Peak.....	Edwards.....	Nueces No. 4.....	1,905
Pine Mountain.....	Brewster.....	Dove Mountain.....	4,178
Pinto Mountain.....	Kinney.....	Brackettville No. 2.....	1,551
Proctor△ (U. S. C. & G. S.).....	Val Verde.....	Pumpville.....	1,846
Pyle△ (U. S. C. & G. S.).....	Pecos.....	Longfellow No. 1.....	4,260
Rachel△.....	Pecos.....	Comanche Springs No. 4.....	3,650
Reagan△.....	Edwards.....	Nueces No. 4.....	2,265
River Peak△.....	Brewster.....	Maravillas Canyon.....	3,629
Road△ (U. S. C. & G. S.).....	Terrell.....	Indian Wells.....	2,431
Rock Quarry Hill, Stockton△.....	Pecos.....	Fort Stockton.....	3,198
Rock△.....	Irion.....	Ketchum Mountain.....	2,571
Rooney△.....	Pecos.....	Fort Stockton.....	3,010
Ross△ (U. S. C. & G. S.).....	Kinney.....	Del Rio.....	1,099
Round Mountain.....	Uvalde.....	Turkey Mountain.....	1,576
Round Mountain, Round△.....	Pecos.....	Sierra Madera.....	3,606
Russell△.....	Terrell.....	Sanderson No. 2.....	3,430
Saddle Butte.....	Pecos.....	Comanche Springs No. 1.....	3,105
Salmon Peak.....	Kinney.....	Turkey Mountain.....	1,942

Supplemental elevations—Continued

Location	County	Quadrangle	Elevation (feet)
Sanderson△ (U. S. C. & G. S.)	Terrell	Sanderson No. 3.	3,551
Scarboro△	Pecos	Comanche Springs No. 4.	3,420
Seep Springs Mountain	Edwards	Nueces No. 1.	2,280
Sevenmile Mesa	Pecos	Fort Stockton	3,210
Shebina△, McKenzie Mesa	Pecos	Independence Draw No. 2.	3,210
Shebina Mesa, Tower△	Pecos	Independence Draw No. 2.	3,210
Sheffield Butte	Pecos	Sheffield	2,730
Shoe Peg Mountain	Uvalde	Nueces No. 4.	1,741
Sierra Madera, Madera△ (U. S. C. & G. S.)	Pecos	Sierra Madera	4,600
Silo△ (U. S. C. & G. S.)	Maverick	Cometa No. 3.	827
Smith△ (U. S. C. & G. S.)	Ector	Odessa No. 2.	3,022
Southwest Mesa, Pecos△	Upton	Crane No. 4.	3,025
Stairway Mountain	Brewster	Maravillas Canyon	3,950
Stiles△	Reagan	Rankin No. 1.	2,660
Stillwell Mountain	Brewster	Maravillas Canyon	3,596
Stockton△, Rock Quarry Hill	Pecos	Fort Stockton	3,198
Sue Peaks△	Brewster	Boquillas Canyon	5,857
Sugar Loaf	Upton	Crane No. 4.	2,955
Table Top	Upton	Crane No. 4.	2,995
Talley△	Pecos	Sierra Madera	4,355
Threemile Mesa, Threemile△	Pecos	Fort Stockton	3,362
Tippetts△ (U. S. C. & G. S.)	Val Verde	Comstock	1,809
Tower△, Shebina Mesa	Pecos	Independence Draw No. 2.	3,210
Towne△ (U. S. C. & G. S.)	Maverick	Del Rio	920
Tres Hermanas△	Brewster	Longfellow No. 3.	5,350
Trimmins△ (U. S. C. & G. S.)	Collingsworth	Wheeler No. 3.	2,484
Turkey Mountain, Turkey△	Kinney	Turkey Mountain	1,801
Twelvemile Mesa, Belding△	Pecos	Fort Stockton	3,722
Twelvemile△, East Mesa	Pecos	Comanche Springs No. 1.	3,120
Twin Butte△	Terrell	Indian Wells	2,258
Twin Buttes (north)	Tom Green	Tankersly	2,190
Twin Buttes (south)	Tom Green	Tankersly	2,181
White Tip△	Brewster	Longfellow No. 3.	4,310
White△ (U. S. C. & G. S.)	Maverick	Del Rio	917
Whitcotton Peaks	Uvalde	Turkey Mountain	1,858
Wiff△ (U. S. C. & G. S.)	Maverick	Lehmans Ranch	916
Wildcat Mountain	Edwards	Nueces No. 4.	2,150
Wildcat Mountain	Pecos	Longfellow No. 2.	4,110
Windmill△	Pecos	Independence Draw No. 4.	3,010
Yellow House Peak	Brewster	Dove Mountain	3,363



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