

HORIZONTAL CONTROL
NORTH AMERICAN DATUM OF 1927

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

36-083-42
MIDDLESBORO QUADRANGLE
4 KY.-198 TENN.-32 VA.
N3650-W8330/15
DIAGRAM NJ 17-10
JOHNSON CITY

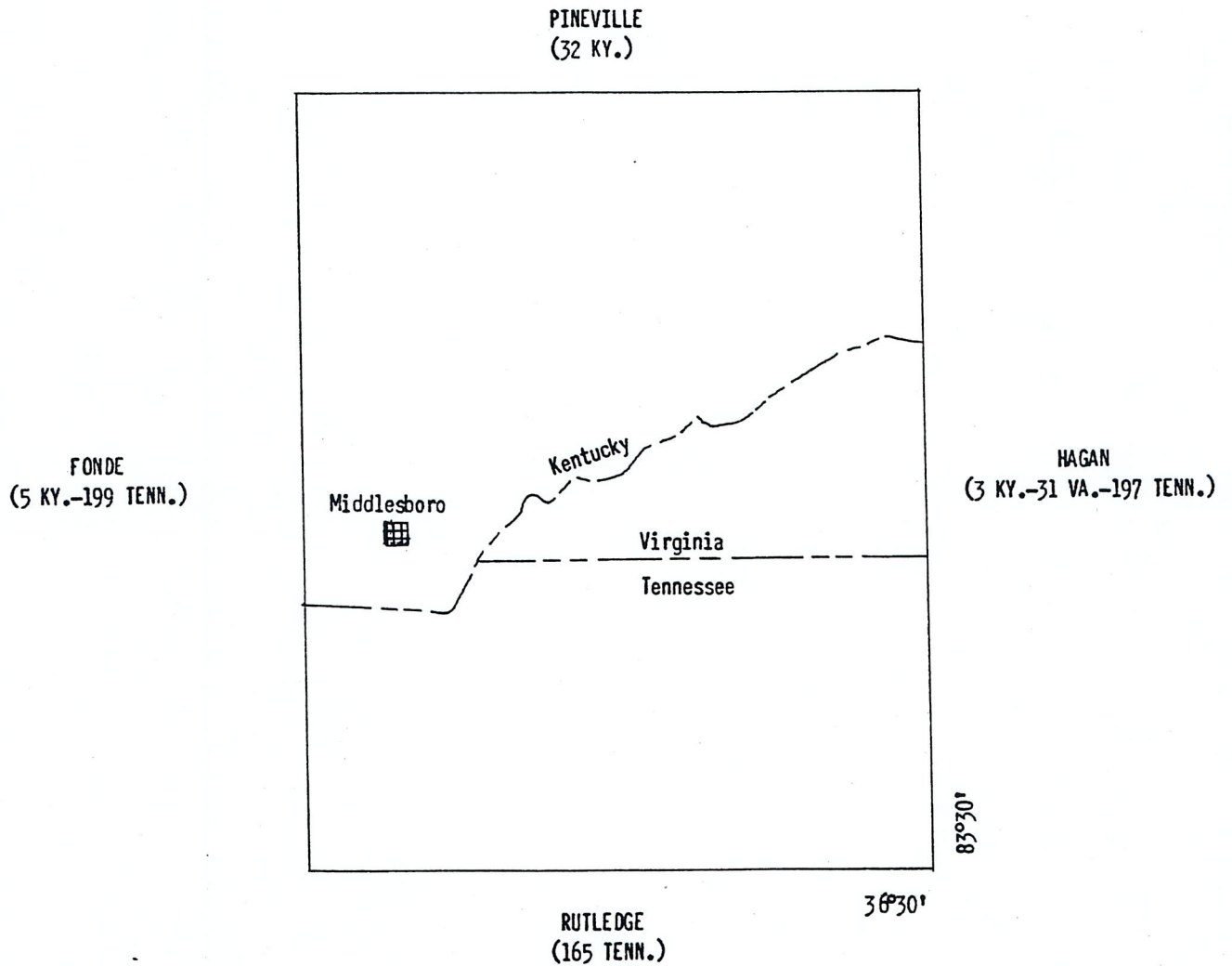
Bell and Harlan Counties, Ky.; Claiborne
County, Tenn.; Lee County, Va.

Only the permanent marks are
listed for control classified
obsolete and are not shown on
sketch

Edition of 6/14/76

PR: JH/fmc

Plane coordinates are based on Lambert projection,
Kentucky and Virginia, South Zones and Tennessee



DISCLAIMER

We no longer attest to the validity of the positions listed for horizontal control established by transit traverse procedures. This control is now considered OBSELETE and is included in this list for the purpose of identification only.

4 KY.-198 TENN.-32 VA.
MIDDLESBORO QUADRANGLE

36-083-42
N3630-W8330/15

INDEX OF PERMANENT MARKS

MARK (NGS)

PAGE NO.

Q 209 1951

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4 KY.-198 TENN.-32 VA.
MIDDLESBORO QUADRANGLE

36-083-42

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STATION DESCRIPTION
 PLANE COORDINATES, FEET

LATITUDE
° ' "

LONGITUDE
° ' "

The following positions are considered OBSOLETE. To be used only to locate permanent marks in the field.

C. W. Haas, 1952; Book AS 88

Pineville, 1.5 mi S. of courthouse, along U. S. Highway 25E, thence 4.1 mi SW. along State Highway 190 to entrance to Kentucky Ridge State Forest; at Louisville and Nashville Railroad crossing; 156 ft S. of S. rail; 29 ft SW. of centerline of hwy.; 2 ft N. of fence; in concrete post; MGS standard disk stamped "Q 209 1951"

Ky. S.) X = 2,588,891

Y = 149,825

36 43 39.54

83 44 25.86

198 Tenn - 4 Ky - 32 VA

Station: **BUTCHER (Not occupied)** County: **BELL-LEE** Middleboro 15' Qd. State: **KY.-VA.**
 Observer: **R. B. Steele** Year: **1934** Datum: **Prelim. 1927 N.A.D.**
 Description: **Comp. Bk. TVA #27**

Located 4 mi. by rd. and trail N. of Gibson Station, Va., post office on top of the Cumberland Mountain, 0.75 mi. NE. from Butchers Gap. Station is on first high top NE. of the Gap. To reach each station from Gibson Station Post Office, follow rd. N. about 2 mi. to end of rd., thence take trail to top of mountain, in gap; thence follow NE. along divide to station about 0.75 mi.

Station Marks: Dill hole in rock centered under signal.

Signal: Pole with flag mounted in top of 20" oak centered over station mark.

To Station—	[Latitude 36 39 08.34			Longitude 83 33 27.02]			Distance	
	Azimuth			Back Azimuth			Log. Meters	Miles
White Rock	261	31	11.63	81	34	59.40	3.9813067	5.952
Redman	340	24	49.72	160	26	27.45	4.0849793	7.557

MIDDLESBORO 15'

Station: CHADWELL (Not occupied) County: BELL-LEE State: KY.-VA.

Observer: R. B. Steele Year: 1934 Datum: Prelim 1927 N.A.D.

Description: Comp. Bk. #27

Located about 2.5 mi. N. and 1 mi. of Caylor a station on the Louisville & Nashville RR. on a high point of Cumberland Mountain, 1 mi. W. of where trail goes thru Chadwell Gap. Station is on cleared top.

Station Mark: Drill hole in rock set in place and centered under signal.

Signal: Pole tripod with brush and flag in top, centered over station mark.

To Station—	[Latitude 36 39 59.43			Longitude 83 31 20.27]			Distance	
	Azimuth			Back Azimuth			Log. Meters	Miles
Forge	30	19	14.96	210	16	33.27	4.1255824	8.297
White Rock	271	29	44.46	91	32	16.57	3.8012854	3.932

198 Series - 4 Ky - 320A

Middlesboro 15' Qd.

Station: **CLINE**

County: **CLAIBORNE**

State: **TENNESSEE**

Observer: **T. T. Ranney**

Year: **1934**

Datum: **Prelim. 1927 N.A.D.**

Description: **Comp. Bk. TVA #25**

On the N. end of Cline Knob, a well-known hill, 1/2 mi. W. of Kings Bend of the Powell River, on property owned by Willie Bruce, who lives about 1/2 mi. S. of the station.

(NOTE): - A cultivated field is 620 ft. S. of station and the signal tree stands on the line of an old clearing covered with brush and young pine growth on the E. side, with heavy hardwood timber on the W.

The station is best reached from Tazewell, Tenn., by following U.S. 25 N., about 4 mi. to Cline's garage, thence W. on county road 4.3 mi. to the Bruce home.

Station Mark: A standard bronze tablet (triangulation) cemented in a limestone rock and set flush with the ground, stamped "CLINE R 1934".

Signal: Flag and pine brush in top of 12" poplar tree.

Reference Mark No. 1: Triangular blaze, with nail in center of, on signal tree, 28.6 ft. distance from station mark. Magnetic bearing from station mark, 645°. Angle between Forge and ref. 25°17'30".

Reference Mark No. 2: Triangular blaze, with nail in center of, on signal tree, 1.3 ft. distant from station mark. Magnetic bearing from station mark, 345°. Angle between reference and Forge is 64°08'20".

[Latitude 36 30 15.23

Longitude 83 39 41.11]

To Station—	Azimuth		Back Azimuth		Distance	
	°	' "	°	' "	Log. Meters	Miles
Pinnacle	177	59 37.19	357	59 27.74	4.0515066	6.966
Forge	221	23 55.69	41	26 12.46	3.9364827	5.368

198 Tenn - 4 Ky - 32 VA

Station: **ESTEP (Not occupied)** County: **LEE** Middleboro 15' Qd.
 Observer: **R. B. Steele** Year: **1934** Datum: **Prelim. 1927 N.A.D.** State: **VIRGINIA**
 Description: **Comp. Bk. TVA #26**

Located about 2 mi. S. of Caylor, a station on the Louisville & Nashville RR. and at the head of Wheeler Hollow, on a knob that is timbered on the W. and clear on the E., station is 200 ft. N. of timber line E. and 100 ft. S. of angle in timber line N.-S., 3 ft.

W. of property line between M. Estep and W. Fry. To reach station from Gibson Post Office, drive E. on U.S. 58 about 2.5 mi. to a Mr. Wheeler's residence, then turn right (S) on private rd. and drive up Wheeler Hollow to residence of W. Fry, from this point walk 1/2 mi. to station.

Station Mark: Drill hole in rock set in place.

Signal: Pole with white flag in top of a 15" chestnut center over station mark.

Reference: Triangular blaze, nail in center, on E. side signal tree, 9.8 ft. N. 16° E. from station mark.

To Station—	[Latitude 36 36 13.97		Longitude 83 30 10.70]		Distance	
	Azimuth		Back Azimuth		Log. Meters	Miles
Redman	7 32 48.32	187 32 29.01	3.7879504	3.813		
Forge	61 37 49.99	241 34 26.96	3.9834970	5.982		

198 Tenn - 4 Ky - 32 UA

Station: HAYSTACK (Not occupied)

County: CLAIBORNE

Middlesboro 15' Qd.

State: TENNESSEE

Observer: R. B. Steele

Year 1934

Datum: Prelim. 1927 N.A.D.

Description: Comp. Bk. TVA #26

Located about 2 mi. S. and a little E. of Shawnee, Tenn., post office, 1/2 mi. NE. of Gobblers Knob, and about 2000 ft. NW. of Hamlet School, 1000 ft. of the residence of R. J. Thomas, and on a cleared hill. A young orchard is on the N. slope of the hill, and a few scattered pine trees on S. slope. The signal tree is on a fence line running SE., and stands on the SW. side of a haystack, 4 more haystacks are close and NW. of the signal tree. To reach station from Shawnee take road S. for a distance of 2 miles to Hamlet School, thence E. 0.4 mi. to residence of R. J. Thomas.

Station Mark: Center of 8" walnut tree.

Reference Mark: Drill hole in rock set in place 25.28 feet distant from station mark S. 35° E.

Signal: Pole with white flag in 8" walnut ~~tree~~ center over sta. mk.

[Latitude 36 33 31.24

Longitude 83 37 22.28]

To Station—	Azimuth			Back Azimuth			Distance	
	°	'	"	°	'	"	Log. Meters	Miles
Cline	29	45	45.93	209	44	23.30	3.8425485	4.324
Pinnacle	143	35	09.61	323	33	37 43	3.8113015	4.024

198 Tenn - 4 Ky - 32 VA

Middlesboro 15' Qd.

Station: **KELLY (Not occupied)**

County: **CLAIBORNE**

State: **TENNESSEE**

Observer: **R.B. Steele**

Year: **1934**

Datum: **1927 N.A.D. Preliminary**

Description: **Comp. Bk. TVA #26**

Located on a high knob 8 miles by rd. from Gibson Station, Va. post office, and about 4.5 mi. by rd. W. of W. R. Neville Store and crossroads, on property owned by Alden Kelly. Station is on highest point of a knob about 0.3 mi. W. of residence of Alden Kelly, and about 600 ft. N. of rd., 54 ft. at right angle from and SE. of a rail fence. To reach station from Gibson Station post office, drive S. along county rd. 4.5 mi. to W. P. Neville Store, then W. 2.8 mi. to a T-rd., then 0.75 mi. N. to Alden Kelly's residence.

Station Mark: 1" drill hole in rock set in place, centered under signal tree.

Signal: 6" black locust tree which has all limbs trimmed except the top ones.

A cedar top was wired in top of locust tree with a white flag underneath. Tree has a 5" triangle hacked on S. side.

Signal and instrument on center.

[Latitude 36 35 10.84 Longitude 83 34 02.85]

To Station—	Azimuth	Back Azimuth	Distance	
			Log. Meters	Miles
Pinnacle	103 41 44.30	283 38 13.19	3.9570564	5.629
White Rock	229 52 33.82	49 56 42.80	4.1320545	8.422

198 Tenn - 4 Ky - 32 VA
 Station: RICE (Not occupied) County: CLAIBORNE Middleboro 15' Qd.
 Observer: R. B. Steele Year: 1934 Datum: Prelim. 1927 N.A.D. State: TENNESSEE
 Description: Comp. Bk. TVA #26

Located on a partly timbered top locally known as Pin Rice Knob, on Allen Whitaker property, whose residence is about 1/2 mi. NE. of sta., 500 ft. W. of a fence line N., 100 ft. E. of SW. corner of a clearing and 8 ft. S. of an E.-W. property line. The station is best reached from Taxewell, Tenn., by following US #25N about 5 mi. to the Bachus Store, then E. along Pine Hill Road 2.2 mi. S. to a field rd. through the property of Tillman Campbell, which leads to station; Bachus School is about 1.7 mi. W. of sta.

Station Mark: Drill hole in rock set in place and centered under signal.

To Station—	[Latitude 36 30 43.86			Longitude 83 34 36.62]			Distance	
	Azimuth			Back Azimuth			Log. Meters	Miles
Cline	83	22	58.23	263	19	57.05	3.8824085	4.740
Forge	161	37	59.41	341	37	14.92	3.7706385	3.664

THIRD-ORDER LEVELING
NATIONAL GEODETIC VERTICAL DATUM OF 1929

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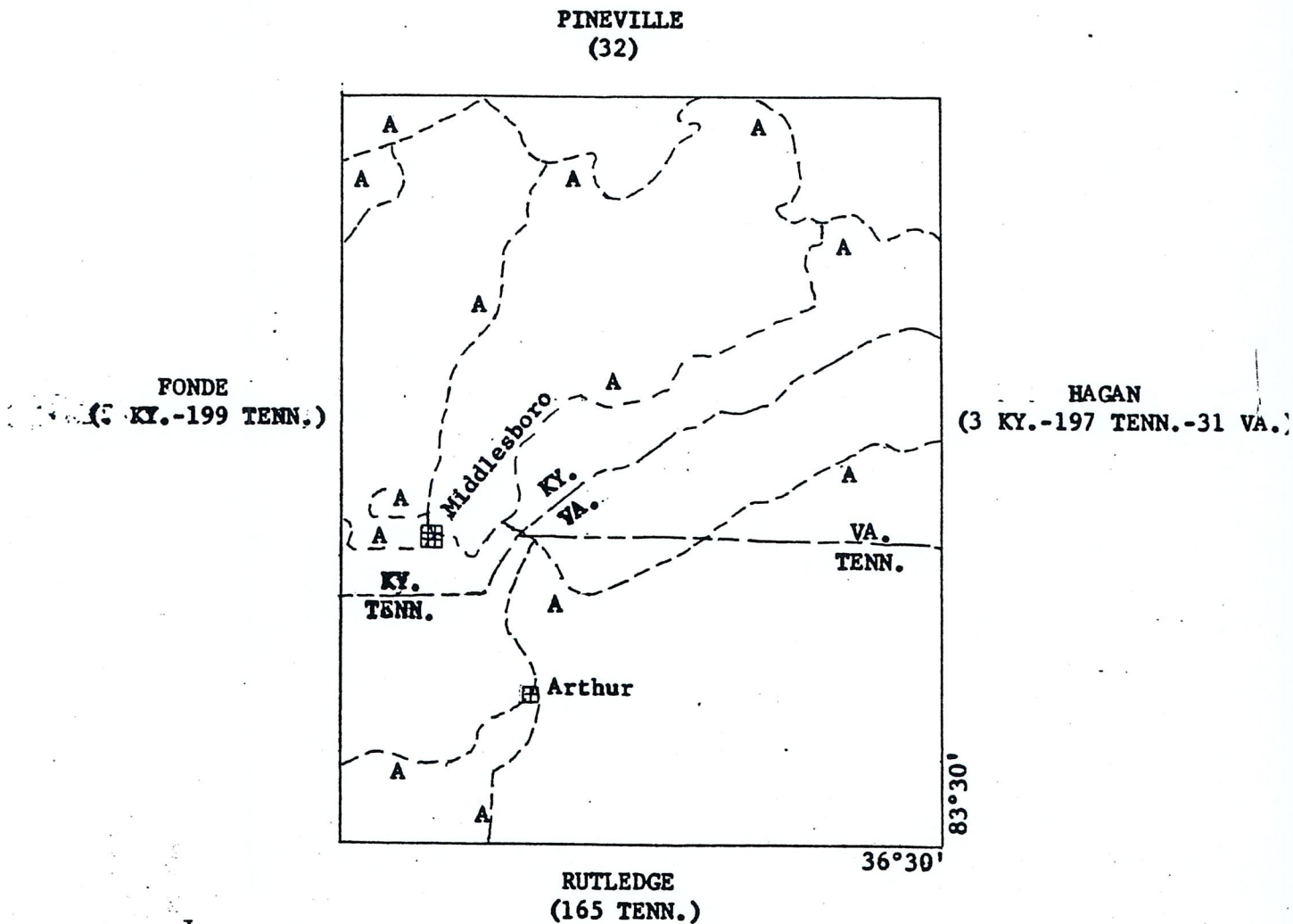
UNITED STATES
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Bell and Harlan Counties, Ky.; Clairborne County,
Tenn.; Lee County, Va.

Final adjustment of 1976

Edition of 9/13/76

PR: FJK/kp



NGS (USC&GS) VERTICAL CONTROL DATA

A. Quadrangle 360834

4 KY.-198 TENN.-32 VA.
MIDDLESBORO QUADRANGLE

36-083-42
N3630-W8330/15

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ISOLATED BENCH MARKS (By Nat Tyler, Jr.; 1903; Book 5597A)	<u>Feet</u>
Middlesboro, 775 ft S. of station; in W. end of S. abutment of culvert over Cumberland Avenue; standard tablet stamped "1137 LEXINGTON" (Not found, 1952)	1136.207
Pineville, 6.0 mi SE. of; 375 ft NW. of Percivals Ford on Cumberland River, S. edge of rd.; on iron post; standard cap stamped "1029 LEXINGTON" (Not found, 1954)	1028.145
By L. F. Biggs, 1912; Book A8954	
Cumberland Gap, 0.2 mi SE. of station; in W. side of N. abutment of large culvert over hwy.; standard tablet stamped "1304"	1303.705
Wheeler, 2.0 mi E. of station; 300 ft W. of milepost N 61; in rock 25 ft S. of track; standard tablet stamped "1336 B 52 1912"	1335.351
Wheeler, 0.3 mi SW. of station; 75 ft S. of switch stand; in SE. corner of culvert; standard tablet stamped "1257 B 53 1912"	1256.331
Shawanee, 1.8 mi E. of station; in top of Virginia-Tenn. State line post on north right-of-way line of Louisville & Nashville RR.; standard tablet stamped "1249 B 67 1912"	1249.081
By A. P. Meade, 1923; Book B1626	
Arthur, 4.7 mi W. along State Highway 63 from Southern RR. station; 0.8 mi E. of Thomas Hall; 0.2 mi W. of Bruce Mail Exchange; about 300 ft E. of bridge over Town Creek; opposite house of P. L. Day; 20 ft S. of centerline of hwy.; on S. shoulder of hwy.; in top of Rock outcrop, and about 4 ft higher than roadway; standard tablet stamped "1227" (Tied by NGS, 1955)	1225.168
Arthur, 1.2 mi W. of, between two summits; on top of hill in low long sag; opposite first telephone pole from W. rise; 4 ft from E. side of rd.; 1 ft above grade; standard tablet stamped "M 16 1923 TENN 1248"	1247.173
Powell River, 0.9 mi N. of station; E. edge of S. abutment of steel bridge over Powell River; standard tablet stamped "1045 LEXINGTON"	1044.817
By C. E. Reick, 1926; Book B2522	
Middlesboro, 3.6 mi N. along Louisville & Nashville RR. from station; 22 ft E. of centerline of track; 10 ft W. of centerline of U. S. Highway 25 E; 75 ft S. of small powerline crossing rd. to junction at pole 1685; 13 ft W. of centerline of rd.; at concrete-box culvert under hwy.; in center of top of W. headwall; standard tablet stamped "R 1 1926" (Tied by NGS, 1957)	1118.384

ISOLATED BENCH MARKS (Cont'd.)Feet

CoTmar, 1.5 mi SW. of; 70 ft NE. of E. end of Clear Fork bridge; in W. end of culvert; standard tablet stamped "R 2 1926"	1068.854
Middlesboro, 1.5 mi SE. and E. along U. S. Highway 25 E from intersection of Cumberland Avenue, thence about 3.75 mi N. and NE. along graveled rd., thence 2.65 mi E. and NE. along graveled and dirt rd.; 0.7 mi NE. of Hutch Baptist Church and stone school building; on outside of curve with tangents extending NE. and NW. and the NE. end of curve which has been cut off by a new graveled rd.; 200 ft S. of center of new rd.; about 200 ft SW. of junction of old and new rds.; 40 ft SE. of power pole with four brace cables at directional change in line and line crosses new rd.; 33.5 ft SW. of SW. edge of stone steps; 10 ft SE. of, and about 2 ft higher than center of old rd.; in top of outcrop of rock which extends under rock wall around yard of burned ruins of frame house; standard tablet stamped "R 3 1926 1203.173" (Note: The 3 is stamped backward) (Tied by NGS, 1952) (Not found, 1974)	1203.173
Middlesboro, 1.5 mi SE. and E. along U. S. Highway 25 E from intersection of Cumberland Avenue, thence about 3.75 mi N. and NE. along graveled rd., thence 4.7 mi E. and NE. along graveled and dirt rd.; at 30-ft wooden bridge over Shillaly Creek; about 180 ft W. of dim crossroad; 24 ft S. of center-line of rd.; 23 ft SW. of SW. corner of bridge and about level with rd.; in top of rounded outcrop of rock which is in NE. corner of cultivated field; standard tablet stamped "1362.412 LEX" (Tied by NGS, 1952)	1362.412
Ferndale, 500 ft NW. of station; in NE. corner of concrete hwy. bridge; standard tablet stamped "R 13 1926" (Reported destroyed, 1952)	1173.020
Wasioto, 1.0 mi SW. of; 400 ft N. of rd. fork W. to Clear Creek Springs; in E. end of concrete culvert; standard tablet stamped "R 14 1926" (As reset by Ky. Hwy. Dept. 1/26/31)	1013.945
East Pineville, 0.3 mi E. of post office, S. side of hwy.; in SW. corner of concrete culvert; standard tablet stamped "R 4 1926" (Not found, 1952)	1021.177
Miracle, 3.0 mi S. of; 5.8 mi NW. of Cubage Post Office; 40 ft S. of rd. fork at ford; 2 ft above old stream bed; in 10-ft boulder; standard tablet stamped "R 6 1926" (Not found, 1954)	1069.754
Cubage Post Office, 2.7 mi NW. of; at mouth of Cubage Branch; 100 ft N. of school; in boulder; standard tablet stamped "R 7 1926" (Not found, 1954)	1115.174

MIDDLESBORO QUADRANGLE

4 KY.-198 TENN.-32 VA.

36-083-42

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ISOLATED BENCH MARKS (Cont'd.)

Feet

Carlsbad, 60 ft W. of rd. crossing; 15 ft N. of track; in top
of large boulder; standard tablet stamped "R 14 1926"

1142.517