

THIRD-ORDER LEVELS
NATIONAL GEODETIC VERTICAL DATUM OF 1929

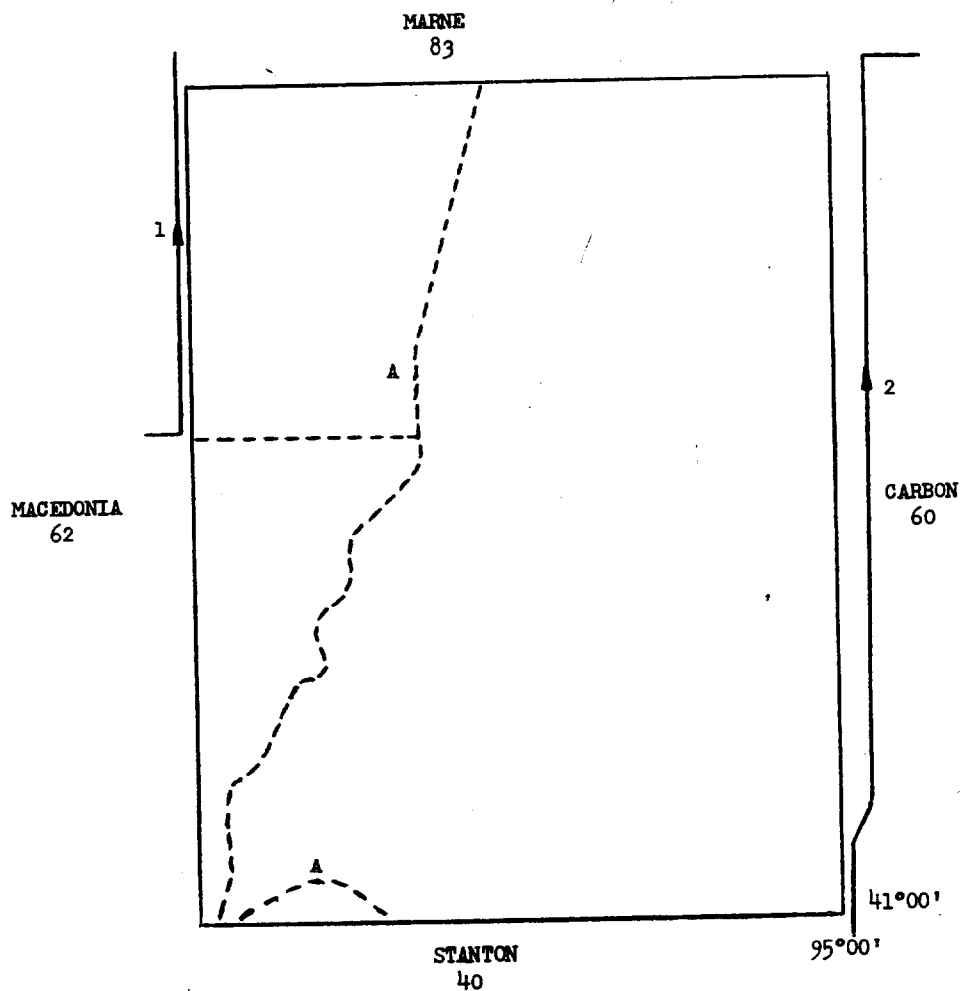
UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Pottawattamie, Cass and Montgomery Counties

Edition of: 5-2-77

PR: ADF/LB/cb

41-095-22
GRISWOLD QUADRANGLE
61 - IOWA
N4100-W9500/15
DIAGRAM NK 15-7
QMAHA



N.G.S. (USC&GS) VERTICAL CONTROL DATA

A. Quadrangle No. 410952

61C

LINE 1

FEET

D.N. Burgeson, 1976; Book CV-3342

MACEDONIA QUAD. - 62

- | | | | | |
|----|-----|-----|---|----------|
| 6 | 12 | 0.0 | BM, about 0.3 mi S. along a graveled road from the water tower at Elliott, thence 3.7 W. along State Hwy. 48, thence 2 mi W. along County Road A, 204 ft E.-NE. of a road crossing, 100 ft N. of the center of an E.-W. road, 40 ft E.-SE. of the SE. corner of Mr. Gordon Bass farmhouse, 34 ft SW. of the NW. corner of a metal building, 1 ft S. of a powerline pole, 15.5 ft NW. of the center of a concrete cistern, and set in the top of a round concrete post which is flush with the ground, a standard USC&GS disk stamped "T 148 RESET 1970" | 1245.692 |
| 14 | 1.0 | | UE 1 mi E. of tablet; T. 73 N., R. 38 W., near cor. secs. 5, 6, 7 and 8; 34 ft S., 50.3 ft W. and 1.1 ft higher than crossroad; 0.2 from W. end of a 2 ft steel corrugated culvert; punched hole | 1175.99 |
| 16 | 1.9 | | UE, 1 mi E. and 1 mi N. of tablet; T. 73 and 74 N., R. 38 W., near cor. secs. 5, 6, 31 and 32, 19 ft S., 27.5 ft E. and 2 ft lower than T.-rd. E.; 0.5 ft from E. end of a 24-in. concrete culvert; chiseled square | 1174.61 |
| 22 | 3.0 | | Reference mark, 29 ft N., 25 ft E. and 7.3 ft lower than crossroad; 0.3 ft from the E. end of a 20-in. concrete culvert; chiseled cross (+) | 1245.42 |
| 23 | 3.0 | | Elliott, 2 mi N. and 4.5 mi W. of; 10 mi N. and 1 mi W. of red oak; T. 74 N., R. 38 W., near cor. sec. 29, 30, 31 and 32; 191 ft N. of crossroad; 36 ft E. of road; 148 ft N. of fence corner, 9 ft E. of a power pole, 1 ft W. of fence and witness post; standard tablet on a copper coated steel rod driven to a depth of 15 ft stamped "1 DNB 1976" and encased in a 6-in. clay tile | 1253.798 |
| 25 | 4.0 | | UE 1 A, Elliott, 3 mi N. and 4.5 mi W. of; 3 mi S. and 6 mi W. of Griswold; T. 74 N., R. 38 W. near cor. secs. 19, 20, 29 and 30; 21.5 ft S., 23 ft E. and 4.5 ft lower than crossroads; 0.2 ft from E. end of a 24-in. steel corrugated culvert; punched hole | 1213.88 |
| 27 | 5.0 | | UE 1 B, Griswold, 2 mi S. and 6 mi W. of; 4 mi N. and 4.5 mi W. of Elliott; T. 74 N., R. 38 W. near cor. secs. 17, 18, 19 and 20; 94 ft S., 24.5 ft E. and 0.8 ft lower than crossroad; 57 ft S. of a fence corner; 1 ft W. of fence; a copper coated steel rod driven flush with the ground and encased in a 6-in. clay tile | 1281.55 |
| 30 | 6.0 | | Reference mark 1, 75 ft SW. of tablet; 139 ft N., 32 ft W. and 0.6 ft higher than crossroad, 94 ft N. of a fence corner, 0.5 ft E. of a fence; a 5 ft copper coated steel rod driven 0.2 ft below the surface of ground and encased in a 6-in. clay tile | 1282.71 |
| 31 | 6.0 | | BM, Griswold, 1 mi S. and 6 mi W. of; 5 mi N. and 4.5 mi W. of Elliott, 7 mi S., 7 mi E. of junction of U.S. Hwy. 59 and 6, at Oakland, T. 74 N., R. 38 W., near cor. secs. 7, 8, 17 and 18; 189 ft N. of crossroad; 31 ft S. and 24.5 ft E. of road at drive E., to a farm house, standard tablet on a copper coated steel rod driven to a depth of 20 ft stamped "2 DNB 1976" and 4.5 ft N. of a witness post | 1285.929 |
| 32 | 6.1 | | Reference mark 2, 133 ft NW. of tablet; 310 ft N. and 31 ft W. of crossroads; 5 ft copper coated steel rod driven 0.1 ft below surface of ground and encased in 6-in. clay tile | 1285.94 |
| 34 | 7.0 | | UE 2 A, Griswold, 6 mi W. of; 6 mi S. and 7 mi E. of the junction of U.S. Hwys. 59 and 6, at Oakland; T. 74 N., R. 38 W. near cor. secs. 5, 6, 7 and 8; at the Pottawattamie Co. maintenance building; 83.5 ft N. and 49.5 ft E. and 1.7 ft lower than crossroads; at center on S. side of small concrete island for gas pumps; chiseled square | 1261.46 |

LINE 1 (Cont'd)

MACEDONIA QUAD. - 62

FEET

- 6 37 8.3 UE 2 B, Griswold, 1 mi N. and 6 mi W. of; 5 mi S. and 7 mi E. of junction of U.S. Hwy. 6 and 59, at Oakland; T. 74 and 75 N., R. 38 W. near cor. secs. 5, 6, 31 and 32, 65 ft S. of road at drive, 17.5 ft W. of road; at center of a 15 ft concrete headwall; a chiseled square 1273.13
- 38 9.0 BM, Oakland, 3.5 mi S., 7.5 mi E. of, T. 75 N., R. 38 W.; at cor. secs. 29, 30, 31 and 32, 36 ft S., 131 ft E. and 2.2 ft higher than crossroads; 1.5 ft S., 100 ft E. of a fence corner post, set in a concrete post; a standard tablet stamped "6 KEE 1962" 1301.761

LINE 2

D.N. Burgeson, 1976; Book CV-3342

VILLISCA QUAD. - 39

- 7 19 5.8 UE 4 DNB A, Villisca, 5 mi N. of; along U.S. Hwy. 71; 10 mi S. of Grant; T. 72 N., R. 36 W., near E. sixteenth cor. secs. 28 and 33; 100 ft E. and 5.3 ft lower than road at fence E.; at right-of-way marker at T-fence E.; top of iron right-of-way post projecting 1.5 ft above ground 1059.15

CARBON QUAD. - 60

- 21 6.7 Reference mark, 86 ft E. of tablet; 150 ft N. of milepost 32; 35 ft N., 43 ft E. and 2.1 ft lower than road at entrance E.; at center of E. concrete headwall; brass plug stamped "I. H. C. BM" 1067.27
- 22 6.7 Villisca, 6 mi N. of along U.S. Hwy. 71; 9 mi S. of Grant; T. 72 N., R. 36 W., near quarter cor. secs. 21 and 28; 655 ft S. of T-rd. W., (Jct. U.S. Hwy. 71 and State Hwy. H-34), 150 ft N. of milepost 32; 35 ft N., 43 ft W. and 1.2 ft lower than road at entrance E.; at center of W. concrete headwall; standard tablet stamped "5 DNB 1976" 1066.295
- 25 7.6 UE 5 DNB A, Villisca, 7 mi N. of along U.S. Hwy. 71; 8 mi S. of Grant; T. 72 N., R. 36 W., in NE 1/4 sec. 21; at the SE. cor. and 1.4 ft higher than center of bridge No. 6904 chiseled square, 7.5 ft N. of S. end of concrete bridge guard 1069.18
- 27 8.6 UE 5 DNB B, Grant, 7.3 mi S. of along U.S. Hwy. 71, 7.7 mi N. of Villisca; T. 72 N., R. 36 W., near quarter cor. secs. 15 and 16, at the NE. end of bridge No. 6905; 8.1 ft S. of concrete guard rail 0.25 ft higher than centerline of bridge; chiseled square 1077.48
- 28 8.9 UE 5 DNB C, Grant, 7 mi S. of along U.S. Hwy. 71; 8 mi N. of Villisca, T. 72 N., R. 36 W., near cor. secs. 9, 10, 15 and 16; at culvert at sec. line fence W.; 1 ft E. and 0.9 ft lower than road at culvert; center of E. concrete headwall brass plug stamped "I. H. C. BM" 1073.88
- 30 9.9 Reference mark, 100 ft NE. of tablet; 115 ft N., 44 ft E. and level with crossroads; at center of E. concrete headwall; brass plug stamped "I.H.C. BM" 1085.27
- 31 10.0 Grant, 6 mi S. of along U.S. Hwy. 71; 9 mi N. of Villisca, T. 72 N., R. 36 W., near cor. secs. 3, 4, 9 and 10; 63 ft N., 42 ft W. and 0.9 ft lower than crossroad; at center of W. concrete headwall, standard tablet stamped "6 DNB 1976" 1084.278
- 35 10.9 UE 6 DNB A, Grant, 5 mi S. of along U.S. Hwy. 71; 10 mi N. of Villisca; T. 72 and 73 N., R. 36 W., near cor. of secs. 3, 4, 33 and 34, 130 ft N., 170 ft W. and 11.4 ft lower than road at entrance W.; 130 ft N. of fence corner; 13.5 ft W. of right-of-way fence; at the S. post of two concrete right-of-way posts 7 ft apart; top of rebar projecting 1-in. above concrete post and 0.7 ft above the ground bolt stamped "U" 1111.34
- 36 11.5 UE 6 DNB B, Grant, 4.5 mi S. of along U.S. Hwy. 71; 10.5 mi N. of Villisca; T. 73 N., R. 36 W., near quarter cor. secs. 33 and 34; at Mortons Mill, 6.1 ft from the NW. end and 0.8 ft higher than the centerline of bridge No. 6906; brass plug 1090.59

LINE 2 (Cont'd)

CARBON QUAD. - 60

FEET

- 7 39 12.9 Reference mark 1, 220 ft N. of tablet, 300 ft S. and 98 ft E. of crossroads; 258 ft N. of milepost 38, on right-of-way fence, top of RR. iron right-of-way post projecting 1 ft above the ground stamped "RM" 1097.49
- 40 12.9 Grant, 3 mi S. of along U.S. Hwy. 71 and 12 mi N. of Villisca; T. 73 N., R. 36 W., near the cor. of secs. 21, 22, 27 and 28, 331 ft S. and 100 ft E. of crossroad; 178 ft S. of the NW. fence corner, 1.5 ft W. of right-of-way fence, and witness post; standard tablet on a copper coated steel rod driven to a depth of 10 ft and encased in a 6-in. clay tile; stamped "7 DNB 1976" 1093.874
- 41 12.9 Reference mark 2, 155 ft N. of tablet; 80 ft S., 98 ft E. and 3.5 ft lower than crossroad; 21 ft S. of fence corner; 2.6 ft W. of fence; top of rebar in a concrete right-of-way marker post projecting 0.2 ft above the ground 1093.84
- 43 14.0 UE 7 DNB A, Grant, 2 mi S. of along U.S. Hwy. 71; 13 mi N. of Villisca; T. 73 N., R. 36 W., near cor. of secs. 15, 16, 21 and 22; 215 ft N. of a T-rd. E., 42 ft E. and 2 ft lower than road at culvert; at the center of a 27 ft concrete box culvert through the hwy. a brass plug stamped "I.H.C. BM" 1098.43
- 45 14.9 UE 7 DNB B, Grant, 1 mi S. of along U.S. Hwy. 71, 14 mi N. of Villisca; T. 73 N., R. 36 W., near cor. secs. 9, 10, 15 and 16; 22 ft S., 43 ft E. and 0.2 ft lower than crossroad; at center of a 21 ft concrete headwall of culvert under hwy. brass bolt stamped "I.H.C. BM" 1107.29
- 48 15.9 Reference mark 1, 370 ft S. of tablet; 615 ft N. of crossroads; 36 ft E. of hwy. at end of cable anchor of guard rail; head of bolt; stamped "RM" 1168.14
- 49 16.0 Grant, at, on U.S. Hwy. 71, 985 ft N. of crossroads; 19 mi S. of Atlantic; T. 73 N., R. 36 W., in the SE $\frac{1}{4}$ sec. 4; 45 ft N., 122 ft E. and 1.5 ft higher than road at E.-W. entrance; 15 ft W. of a fence line, 3 ft S. of a power pole standard tablet on a copper coated steelrod driven to a depth of 12 ft and stamped "8 DNB 1976" 1168.801
- 51 16.9 UE 8 DNB A, Grant, 1 mi N. of along U.S. Hwy. 71, 18 mi S. of Atlantic; T. 73 and 74 N., R. 36 W., near cor. secs. 3, 4, 33 and 34, 39 ft N., 99 ft E. and 0.3 ft lower than road at section line fence E. and W.; top of 1-in. rebar in concrete post projecting about 0.4 above ground 1197.15
- 53 17.8 UE 8 DNB B, Grant, 2 mi N. of along U.S. Hwy. 71; 17 mi S. of Atlantic; T. 74 N., R. 36 W., near cor. secs. 27, 28, 33 and 34; 75 ft S. and 68 ft E. of crossroad; 35 ft NW. of a fence corner; chiseled square on E. end of a 4 ft concrete culvert 1214.89
- 56 18.7 Reference mark, 110 ft S. of tablet; 85 ft S., 100 ft E. of entrance E., 8.5 ft W. of fence line; top of right-of-way marker projecting 1 ft above ground 1199.28
- 57 18.7 Grant, 3 mi N. of along U.S. Hwy. 71; 16 mi S. of Atlantic, T. 74 N., R. 36 W., near cor. secs. 21, 22, 27 and 28; 615 ft S. of crossroad; 41 ft N. of milepost 44; 34 ft N., 100 ft E. and 6.3 ft lower than road at entrance E.; 3 ft S. of a power pole; 2.5 ft W. of fence line; standard tablet on a copper coated steel rod; driven to a depth of 10 ft and encased in a 6-in. clay tile stamped "9 DNB 1976" 1191.996

LINE 2 (Cont'd)

CARBON QUAD. - 60

FEET

- 7 60 19.8 UE 9 DNB A, Grant, 4 mi N. of along U.S. Hwy. 71; 15 mi S. of Atlantic, T. 74 N., R. 36 W., near cor. secs. 15, 16, 21 and 22; at Nobel Methodist Church, 0.5 ft from the S. end of the first step of church; chiseled cross 1245.43
- 64 20.9 UE 9 DNB B, Grant, 5 mi N. of along U.S. Hwy. 71; 14 mi S. of Atlantic, T. 74 N., R. 36 W., near cor. secs. 9, 10, 15 and 16, 105 ft N. and 135 ft W. of crossroad; at the S. end of the first step of the United Church of Christ; chiseled cross 0.2 ft from end of step 1225.82
- 66 21.8 Reference mark 1, 300 ft SE. of tablet; 355 ft S. and 120 ft E. of crossroads, opposite road destination sign; 1.5 ft W. of fence line copper steel rod projecting 0.1 and encased in a 6-in. clay tile 1280.49
- 67 21.9 BM, Grant, 6 mi N. of along U.S. Hwy. 71; 13 mi S. of Atlantic; T. 74 N., R. 36 W., near cor. of secs. 3, 4, 9 and 10; 257 ft S. and 108 ft W. of crossroads; 65 ft S. of a fence corner, 1.8 ft E. of a fence line and witness post; standard tablet on a copper coated steel rod driven to a depth of 15 ft and stamped "10 DNB 1976" 1277.578
- 68 22.0 Reference mark 2, 230 ft NE. of tablet; 30 ft S., 22 ft W. and 0.06 ft lower than centerline of crossroads; 1.4 ft from the S. point on a triangular concrete median; chiseled square 1271.31
- 71 23.3 UE 10 DNB A, Grant, 7.3 mi N. of along U.S. Hwy. 71; 11.7 mi S. of Atlantic; T. 75 N., R. 36 W., near S. sixteenth cor. between secs. 33 and 34; at the SW. cor. of bridge No. 1501, 7 ft N. of the S. end; chiseled square 1170.64

ANITA QUAD. - 82

- 72 23.8 UE 10 DNB B, Grant, 8 mi N. of along U.S. Hwy. 71, 11 mi S. of Atlantic, 145 ft N. and 45 ft E. of crossroad; (jct. of U.S. Hwy. 71 and State Hwy. 92); at the center of the E. end of an 11 ft concrete box culvert brass plug stamped "THC BM" 1170.62
- 78 25.3 Cumberland, 1 mi S. and 4.5 mi W. of; near quarter cor. between secs. 26 and 35; T. 75 N., R. 36 W., in the right-of-way of State Hwy. 92, 1.45 mi E. of its intersection with U.S. Hwy. 71; standard tablet stamped "LYMAN 1968" crimped on 10 ft length of copper coated rod, driven flush with ground and set in 6-in. tile filled with gravel 1319.394