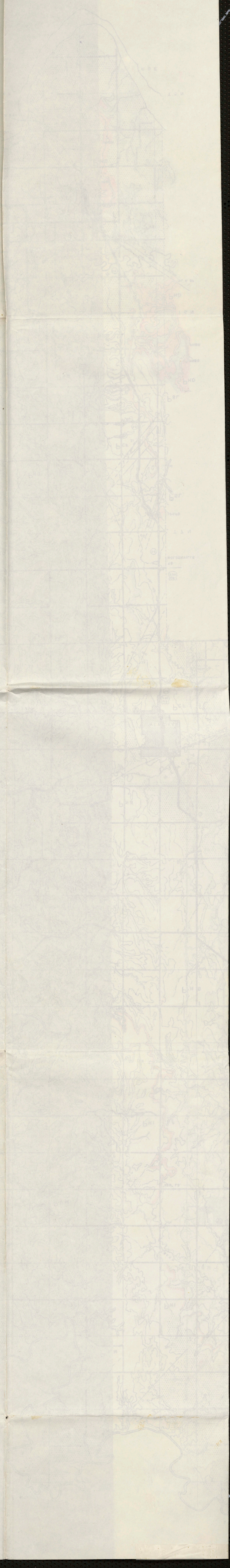
PLATE I



EXPLANATION

QUATERNARY — PLEISTOCENE RECENT

Alluvium

Terrace deposits

Mostly sand and silt, with some mud or clay.

PERMIAN — PENNSYLVANIAN SYSTEM

PONTOTOC TERRANE

VIRGIL SERIES

Pkn — Konawa formation

Shales, sandstones, and both light and dark chert conglomerates. In the northern part of the county, the Grayhorse ("Prague") limestone is present. The base of each resistant bed is shown by a single line. Thickness (in both Seminole and Pottawotomie counties): 800–900 feet.

Pvn — Vanoss formation

Shales and sandstones. In the southern part of the county, limy arkosic sandstones and conglomerates are prominent. The base of each resistant bed is shown by a single line. Thickness: 140–550 feet, thickening southward.

Pad — Ada formation

Variegated shales, siltstones and sandstones. Distinctive members are the Middle Ada limestone conglomerates, in the southern part of the county, and the Snomac limestones, in the central part. The base of each resistant bed is shown by a single line. Thickness: 150–250 feet, thickening southward.

Pvm — Vamoosa formation

Shales, sandstones and light chert conglomerates. Six members of the Upper Vamoosa — each a sandstone, or conglomerate, overlain by shale — are colored distinctly to show truncation and overlap by the Ada formation. The base of each resistant bed is shown by a single line. Thickness: zero north of the city of Ada, 125 feet at the Canadian river, 600 feet north of the North Canadian river.

MISSOURI SERIES

Phi — Hilltop formation

Dark blue-gray shales, buff siltstones and buff, very fine sandstones, with many very thin limestones near the base. Includes representatives of the Barnsdall, Chanute, and possibly Dewey formations of northern Oklahoma. The base of each resistant bed is shown by a single line. Thickness: zero to 200 feet, thickening northward.

Pbc — Belle City formation

Upper and lower limestones, separated by a dark shale. A single line marks the base of the upper limestone, where outcrop width permits. Thickness: maximum, 30 feet, thinning to zero southwest of Cromwell.

Pnb — Nellie Bly formation

Shales, sandstones and chert conglomerates. In the southern part of the county, limestones and limestone conglomerates are present. The base of each resistant bed is shown by a single line. Thickness: 300–400 feet.

FRANCIS FORMATION

Pcf — Coffeyville formation

Dark shales and buff sandstones. The DeNay limestone member is at the base in the southern part of the county. The base of each sandstone bed is shown by a single line. Thickness: 150–200 feet.

Psl — Seminole formation

Shales, sandstones and lenses of chert conglomerate. The base of each resistant bed is shown by a single line. Thickness: about 170 feet.

DES MOINES SERIES

Phd — Holdenville formation

Shales, with lenses of sandstone and chert conglomerate. Distinctive members are the Sasakwa (upper) and Homer (lower) limestones. The base of each limestone is shown by a single line. Thickness: about 250 feet.

Pwk — Wewoka formation

Shales alternating with sandstones. The base of the upper sandstone is shown by a single line. Thickness (in both Seminole and Hughes counties): about 700 feet.

U / D — FAULT

U / D — UPTHROWN SIDE / DOWNTHROWN SIDE

INFERRED FAULT

U.S. HIGHWAY

STATE HIGHWAY

ROAD

RAILROAD

ABANDONED RAILROAD

SCHOOL

CHURCH

SECTION LINE

COUNTY LINE

AREAL GEOLOGY OF SEMINOLE COUNTY, OKLAHOMA

Submitted in partial fulfillment of the requirements for the Ph.D. degree at the University of Oklahoma

WILLIAM F. TANNER, 1953

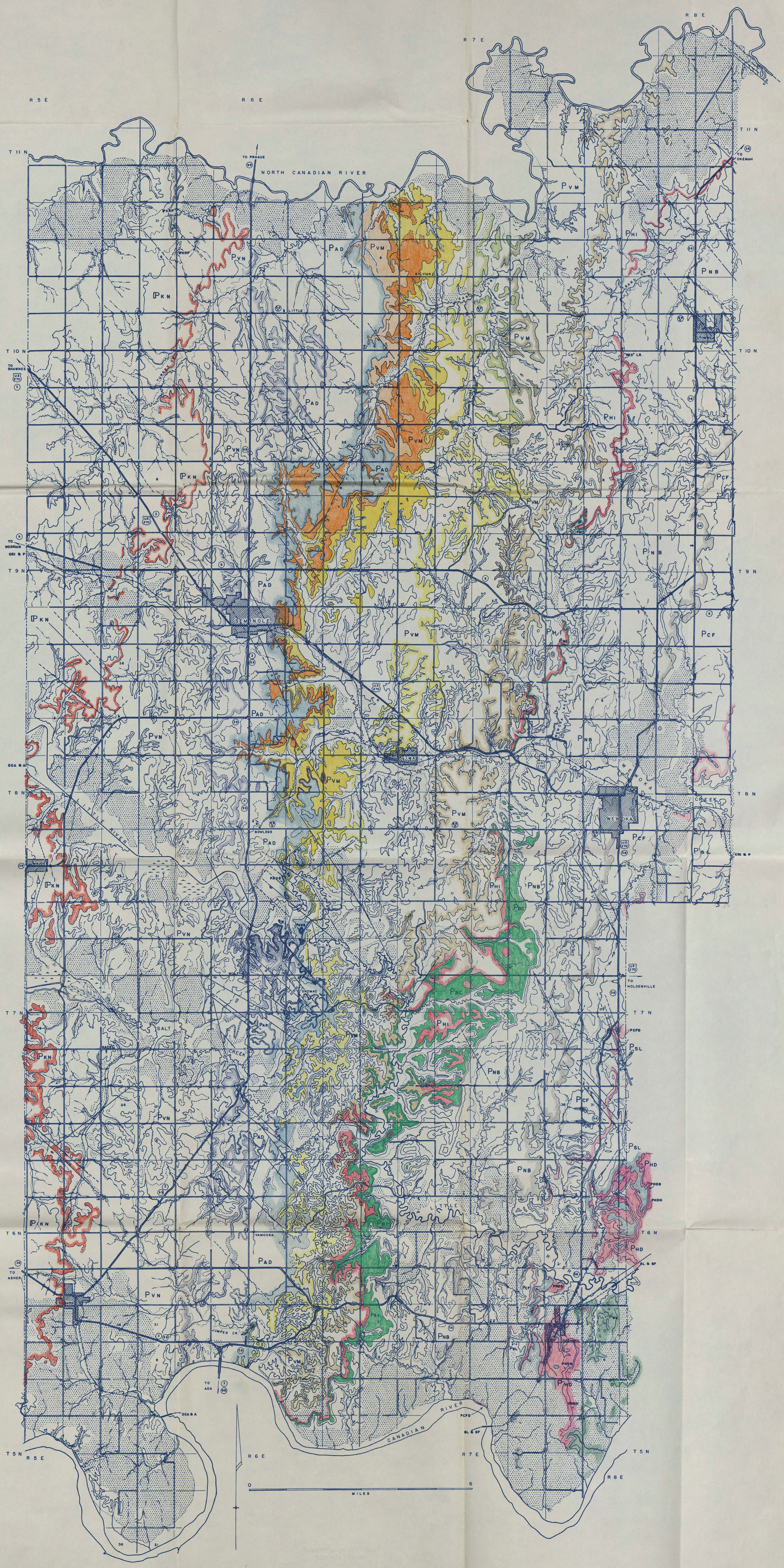
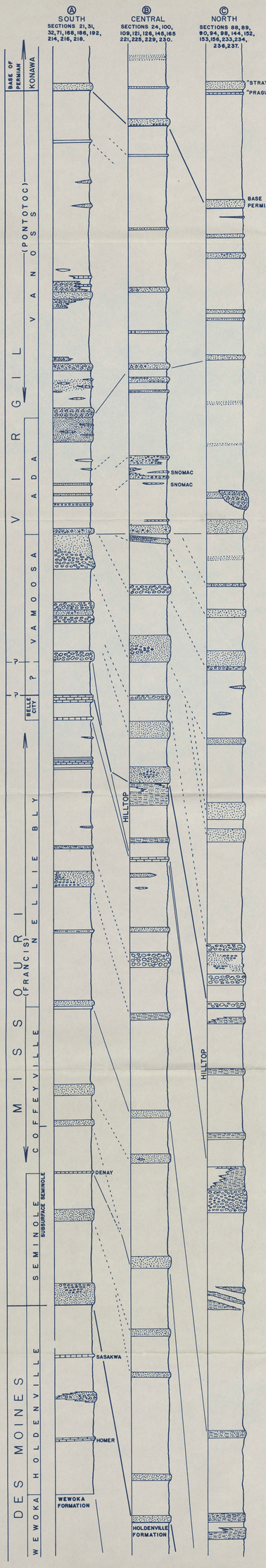


PLATE II



COMPOSITE SECTION OF PENNSYLVANIAN ROCKS OF SEMINOLE CO. OKLAHOMA

(AVERAGE DIP, 1°)

Konawa formation. Shales, sandstones and conglomerates. The shales are thick and varied in color, with reds predominating. The sandstones are commonly soft and buff in color. The coarser clastics include buff chert conglomerates, the "Dripping Springs" dark chert conglomerates (west of Maude) and the "Jarvis Church" varicolored chert conglomerates. The Prague limestone occurs in the northern part of the county, about 150 feet above the base of the Konawa. The basal Konawa is a sandstone with occasional penecontemporaneous contortions, cross-bedding, and chert pebble or mica flake lenses; it is often limy; and is usually buff to light dirty brown or reddish purple. The basal contact is commonly undulatory. The Konawa is 800 to 900 feet thick in southern Seminole and Pottawatomie counties.

Possible unconformity

Vanoss formation. Shales and sandstones. In the southern part of the county, limy arkosic sandstones and conglomerates are prominent. The base of the arkose, instead of marking the base of the Vanoss, climbs in the section northward, and also occurs in two isolated exposures in lower formations (the Ada and the Wewoka). Several limestones and limestone conglomerates occur in the Vanoss: (1) a yellow, crinoidal limestone, one foot thick, 20 feet down from the top, in the north; (2) a crumbly, fossiliferous limestone lens in a sandstone, about 60 feet down from the top, west of Seminole; (3) a limestone, chert and quartz conglomerate, six inches thick, about 70 feet down from the top, in the central part of the county; and (4) a crinoidal limestone conglomerate, about 70 feet down from the top, in several railroad and road cuts northeast of Konawa. In the southern part of the county, the Vanoss channels locally into the Ada formation; in the northern part of the county, where distinctive Vanoss lithologies are not common, the two formations can be separated only with great difficulty. The basal Vanoss sandstone, where sandy and buff but not arkosic, shows penecontemporaneous contortions. The Vanoss is 140 to 550 feet thick, thickening southward.

Unconformity in southern part of county

Ada formation. Variegated shales, siltstones and sandstones. The pastel colored shales are distinctive, except in the northern part of the county where they are easily confused with similar shales in the Vanoss formation. The basal member of the Ada is a buff, cross-bedded and contorted sandstone, usually 10 to 20 feet thick. In a distance of less than 50 miles, it truncates the Pawhuska formation (in southwestern Okfuskee county), most of the Vamoosa formation (in Seminole county), and the rest of the Vamoosa formation, plus certain underlying Pennsylvanian strata (in Pontotoc county); the average angle of truncation is approximately 14 feet per mile. Locally the basal sandstone is a chert conglomerate, and therefore difficult to distinguish from the underlying Vamoosa formation. The middle Ada limestone conglomerates are well developed in the central and southern parts of the county. They are cross-bedded, and contain limestone cobbles are large as 6½ inches. Northward they grade into chert conglomerates in a buff sandstone matrix, and then into shale. Southward, the limestone cobbles are accompanied by pebbles of red, tan and gray chert. Biotite flakes are also fairly common. The Snomac limestone member, in the central part of the county, consists of an irregular series of very thin, dull white, finely crystalline limestone beds in the lowest third of the formation. They are very useful, where present, for structural control. The Ada is 150 to 250 feet thick, thickening and thinning in an irregular manner. This is due in part to less deposition northward, in part to channeling by the overlying Vanoss, and probably in part to structure.

Unconformity

Vamoosa formation. Shales, sandstones and chert conglomerates. The three highest members in the formation have been mapped, frequently, across northern and central parts of the county as the Pawhuska or LeCompton limestone. This report does not so consider them. They are buff to yellow sandstones having a very high proportion of secondary calcite (about 40%), and occasional chert conglomerate lenses. Very hard, they occasionally reach thicknesses in excess of 10 feet, but are usually only a foot or two thick. The three are truncated by the Ada formation, at more-or-less regular intervals. Each of the three changes, southward, as it approaches the point of truncation; first, from a sandstone to hard limy sandstone, then to a soft rotten sandstone probably deeply weathered in pre-Ada time. The coarsest conglomerates occur in the middle and lower portions of the Vamoosa formation. Pebble cobbles in the lowest 100 feet coarsen from a maximum of about 3 inches, in T6N, to a maximum of 7 inches, in T11N. Where not conglomeratic, the resistant ledges in the Vamoosa are buff to brown sandstones and silts, commonly cross-bedded and contorted. The shales are largely red to brown. The entire formation grades from a shale-clastic ratio of 60:40, in the south, to a ratio of about 80:20, in the north. Fossils are rare, yet three fossil-assemblage types have been found: poorly preserved and unidentified gastropods; plant remains; and a suite consisting of Nuculana sp., Tropidophorous sp., Acanthopecten ? and Hustedia ? . The plant remains, the most common of the three assemblages, usually occur in the thickest conglomerates. The Vamoosa formation, in Seminole county, varies from 125 feet thick at the Canadian river, to over 550 feet thick at the North Canadian river.

Unconformity

Hilltop formation. Dark blue-gray shales, buff siltstones and buff, very fine, sandstones, with many very thin limestones near the base of the formation. The Hilltop includes representatives of the Barnsdall, Chanute, upper Dewey and perhaps other formations of northern Oklahoma. In the southern part of the county, isolated red shales between the Vamoosa and Belle City formations probably belong to the Hilltop. In the northern part of the county, where the formation reaches a thickness of 400 feet, the various components are not separable. In the extreme northeastern part of the county, beds which are probably Dewey equivalents contain mudcracks, contortions, and the following fossils, commonly replaced by pink calcite: Nuculana bellistriata, Dielasma bovidens, Derbyia sp., crinoid plates, and pelecypod fragments. In the extreme southern part of the county, the 7-Hilltop contains, 22 feet above the base, a bluish-gray conglomerate of chert, jasper, limestone and clay-plates, the limestone cobbles measuring up to 7 inches in diameter. In the subsurface, the Hilltop is often separable into a lower shale, which seems to be upper Dewey, and a clastic section which is probably entirely Barnsdall. The Hilltop is truncated by the Vamoosa formation; excluding the pre-Vamoosa outliers in the southern part of the county, the Hilltop thins from 200 feet, at the North Canadian river, to zero feet, in the central part of the county. The average angle of truncation is seven feet per mile.

Belle City formation. Upper and lower limestones, separated by a dark shale. The upper limestone, usually the thicker of the two, is commonly a blue-gray, dense, fossiliferous limestone, exhibiting a rubbly, wavy type of bedding, and weathering to a dull, chalky white. South of Wewoka creek, it varies from a maximum thickness of about 11 feet, to a minimum of about 2 feet. The middle shale, although often black or dark gray, and highly fossiliferous, is occasionally light green or gray-green, and non-fossiliferous. It is commonly 10 to 20 feet thick. The lower limestone, only 2 or 3 feet thick, is buff to pale yellow, and locally fossiliferous. North of Wewoka creek, the entire formation is usually a blue crystalline limestone, a few inches thick, which weathers yellow. The fossil suite changes northward, becoming first crinoidal, then fusulinid. Within a few miles thereafter, the formation thickens locally to 2 or 3 feet, and becomes a deep red limestone. It vanishes southwest of Cromwell. The Belle City has a maximum thickness of 30 feet, thinning northward.

Nellie Bly formation. Shales, sandstone, siltstones and chert conglomerates. The sandstones are frequently massive but soft, buff to brown in color, cross-bedded, and ripple marked (ripple index about 10). Siltstones and very fine sandstones are common both in exposed ledges and in covered intervals. The chert conglomerates often occur as soft lenses in soft sandstones, rather than as ridge or cuesta makers. Cross-bedding, lensing, channeling, and rapid facies changes are common. The 100-foot interval above the basal sandstone member is generally a black or very dark gray shale. This can be traced great distances in the subsurface on electric logs. In the southern part of the county, limestone lenses — some of them very pure — and coarse limestone conglomerates are found. The coarsest, which outcrops in the roadside ditch 2½ miles west of Sasakwa, contains limestone boulders, pockets of yellow clay, and fragments of thick-shelled brachiopods such as Neospirifer dunbari. The black shale immediately underlying this conglomerate is one of the best fossil-bearing beds in the county. The limestone lenses are most numerous near the top of the section, where some of them rival, for short distances, the overlying Belle City formation. In the subsurface, upper Nellie Bly limestone lenses are often misidentified as Belle City. On the surface, the best limestone lenses are developed in T6N. The Nellie Bly has a thickness of 300-400 feet; where it varies, the difference is usually accounted for in the underlying Coffeyville formation.

Coffeyville formation. Dark shales and buff sandstones. The Coffeyville and Nellie Bly formations comprise Morgan's Francis formation, described from outcrops in Pontotoc county. The Coffeyville usually contains two sandstone members, although in the southern part of the county they are sufficiently close, locally, to be mistaken for one. Limestone, siltstone and chert conglomerate lenses are found in the upper sandstone member, and occasionally in the shales. The latter are usually dark, like those of the overlying Nellie Bly formation, although seldom so fossiliferous. The base of the formation is marked by the DeNay member, a dense but vuggy, mustard yellow to brown, fossiliferous limestone a few inches to a few feet thick. West of Sasakwa it is about 65 feet down from the overlying sandstone member; from there northward it rises in the section until, in western Hughes county, it vanishes in shale only a few feet down from the surface. For about 15 miles from there north, the lower sandstone is considered to mark the base of the formation; then the Checkerboard limestone appears, much in the same manner as the DeNay vanished. The Checkerboard does not, however, extend as far southwestward as Seminole county. The DeNay fossil suite is noteworthy chiefly for its trilobites and minute brachiopods, including Punctospirifer kentuckiensis. The Coffeyville is 150 to 200 feet thick. The Francis interval is uniformly close to 600 feet thick.

Seminole formation. Shales, sandstones and lenses of chert conglomerate. In the southern part of the county, there are two resistant ledges; east of Wewoka, along the Hughes county line, there are three, with the basal member locally splitting into two distinct sandstones. The uppermost sandstone is occasionally yellow, limy and crinoidal, and therefore easily mistaken for the DeNay member of the Coffeyville formation above. Yellow limestone lenses also occur in the upper Seminole shales. In general, the resistant members are yellow to buff, locally contorted, siltstones and very fine sandstones. The shales are green to gray green, and sparingly fossiliferous. A few thick lenses of coarse chert conglomerate convey the impression that the formation is coarser than it actually is. In the subsurface, the Seminole interval is handled most conveniently by extending it upward past the DeNay limestone to the base of the lowest sandstone member of the Coffeyville formation. The subsurface "Checkerboard" is approximately middle Seminole, and may be equivalent to the middle Seminole sandstone. The Seminole formation is about 170 feet thick.

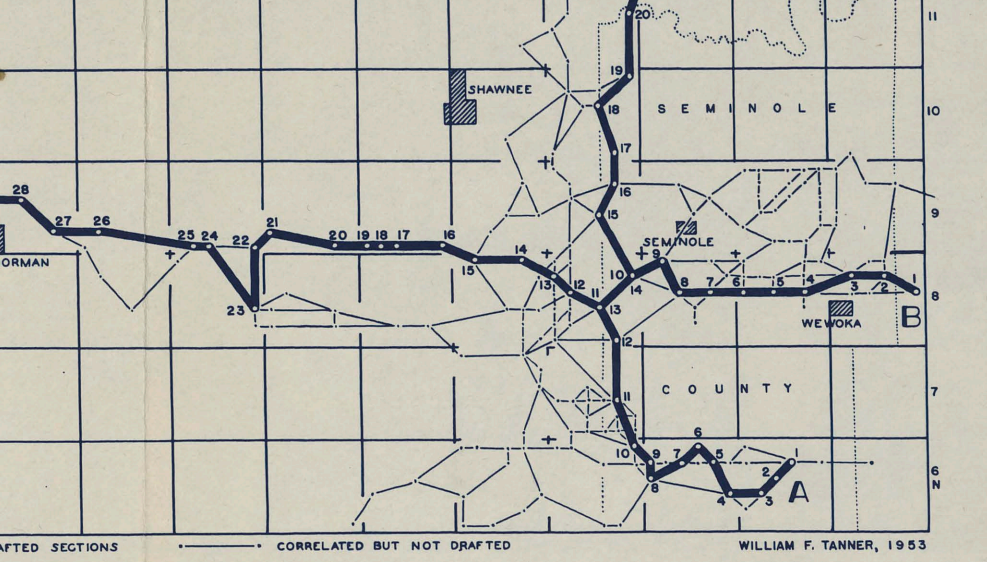
Holdenville formation. Shales, with two prominent limestone members. The upper, the Sasakwa limestone, is light gray to chalky white, fine grained, very hard, and richly fossiliferous. Its weathered surface looks much like that of the Snomac limestone, or the upper Belle City limestone. The Sasakwa fossil suite, of more than 50 species, can be collected from the quarry southeast of Sasakwa. The limestone is 30 to 70 feet down from the top of the formation, and a few inches to a few feet thick. Despite its variations in thickness, it is generally thin bedded. The lower member, the Homer, is a thin Chaetetes limestone with a black or dark gray color, or a dark brown sandy pelecypod limestone 2 to 10 feet thick. It lies 70 to 120 feet above the base of the formation. Both limestone members thin northeastward into Hughes county, where they vanish, the Homer into a shale section, and the Sasakwa into a coarse chert conglomerate which may be a Seminole formation channel. In the shale interval between the two limestones may be found local sandstone and chert conglomerate lenses. The shales are gray to green, and largely barren. In the subsurface, the lower Seminole, the Holdenville, and the Wewoka shales are often not separable. The Holdenville is about 250 feet thick.

Wewoka formation. Shales alternating with sandstones. The sandstones are buff or brown, commonly cross-bedded, and frequently contain chert flakes or pebbles. The upper sandstone (PIK-4 of Weaver) is the only clastic, in the Wewoka section, outcropping in Seminole county. It is more massive than any of the other clastic members in the entire Seminole county section. The Wewoka is 600-700 feet thick in Seminole and Hughes counties.

VERTICAL SCALE: 1 INCH = 50 FEET

WILLIAM F. TANNER, 1953

PLATE III



SECTION B-B'

1.	Sam A. King	Cordell #1			13-8n-8e
2.	R. Olsen Oil Company	Davis #1		NW NW SE	10-8n-8e
3.	Sinclair	Jennings #1		C SW SE	8-8n-8e
4.	Prague Drilling Company	Racetrack #1		NE NE NW	14-8n-7e
5.	Phillips Petroleum Company	Burch #1		NW NW SE	16-8n-7e
6.	R. P. Traugh	Cousins #1		SE SW SE	18-8n-7e
7.	Magnolia Petroleum Company	Davis Jackson #9		SW NE SE	14-8n-6e
8.	Ashland Oil and Refining Company	Doyle #1		C NE NE	16-8n-6e
9.	Walter Duncan	Esole Micco #1-A		SW NE SE	5-8n-6e
10.	Double R Drilling Company	Nellie #1	(A-14)	NW NE SE	12-8n-5e
11.	Helmerich and Payne	McClung #1	(A-13)	SE NE NE	22-8n-5e
12.	Phillips Petroleum Company	Wallace #5		SW NW SW	17-8n-5e
13.	The Texas Company	E. Colvin #10		SW NE SE	7-8n-5e
14.	Atlantic Oil and Refining Company	Pratt #1		C NW NE	2-8n-4e
15.	The Ohio Oil Company	Van Meter #1		NW NW NE	5-8n-4e
16.	The Texas Company	State Schoolland #1		SW SW NE	36-9n-3e
17.	Continental Oil Company	Baker #3		C SW SE	33-9n-3e
18.	Herman Hurst	Womack #1		SW SW NE	32-9n-3e
19.	Kingwood Oil Company	Rader #2		NE SW SE	31-9n-3e
20.	Gulf Oil Corp.	Kaplan #1		SW SW NE	35-9n-2e
21.	Coronado Oil Company	Tyner #1		C NW NE SW	30-9n-2e
22.	Zephyr Drilling Company	Banning #1		NE SE SE	36-9n-1e
23.	Viersen and Cochran	Roselius #1		NE SE NE	25-8n-1e
24.	Phillips Petroleum Company	Gooden #1		SW SW SE	33-9n-1e
25.	Sun Oil Company	Braman #1		SE SE SW	32-9n-1e
26.	J. E. Trigg	Gray #1		C SE NE	29-9n-1w
27.	J. E. Crosbie	Maria Bruemmer #1		NE NW SE	26-9n-2w
28.	Hale-Burton et al	Boggs #1		NE NE SE	16-9n-2w
29.	J. F. Smith	Morrow Unit #1		C NE NE	18-9n-2w
30.	Amerada	Anderson #1		C SW NW	23-9n-3w
31.	Sinclair	George L. Rose #1		C SW NW	21-9n-3w
32.	Ashland Oil and Refining Company	Morgan #1		C SE NW	19-9n-3w
33.	Coronado-Carter	Foster #1		C SW SW	26-9n-4w
34.	Carter	Johnson Ranch #1		C SW NE	13-8n-4w
35.	Carter	Edwards C-135		C NE NE	1-7n-4w
36.	Universal Oil Company	Ada Moore #1		C NE NE	20-7n-4w

SECTION B-B'

Explanation

Datum:
Section A-A' — sea level.
Section B-B' — varies.

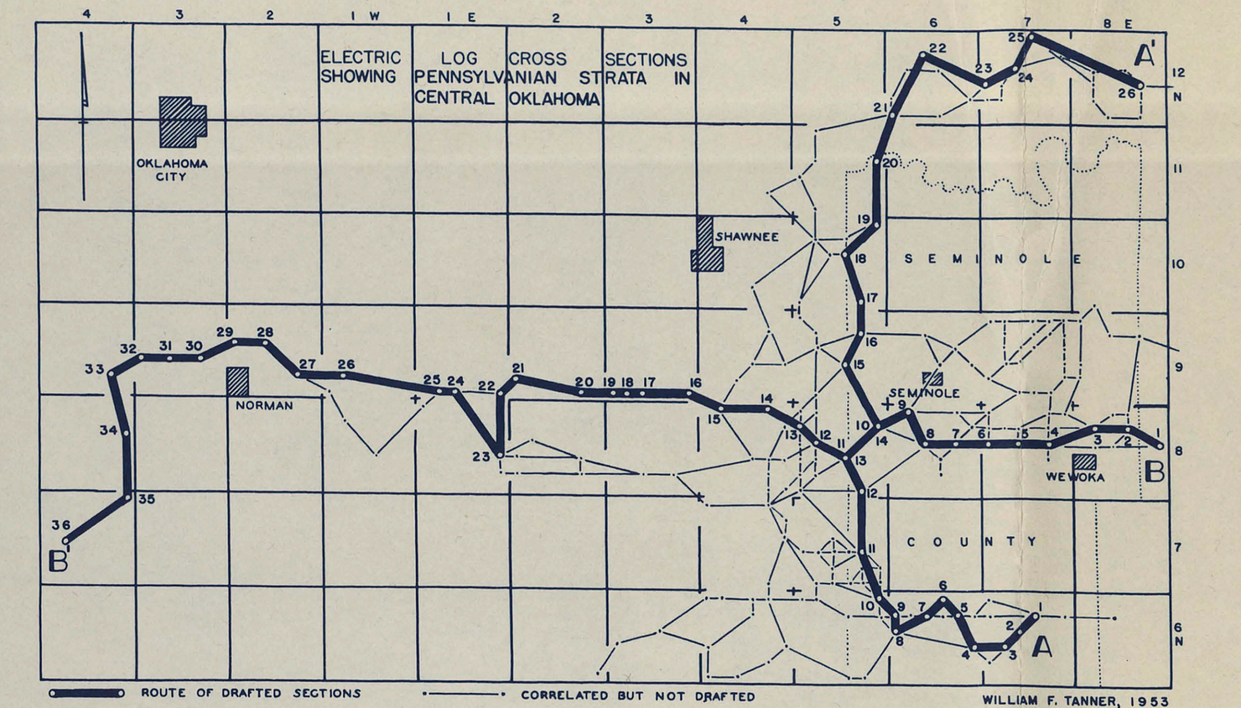
Figure immediately above each electric log: depth from ground level.

Subsurface names in current use have been set off by quotation marks. The use of quotation marks is not intended to convey either approval or disapproval of the correlations so made.
Surface names have been entered without quotation marks.

Tripoli, where indicated, was logged from well samples by Dr. Carl A. Moore of the University of Oklahoma.

(Submitted in partial fulfillment of the requirements for the Ph. D. degree at the University of Oklahoma. William F. Tanner, 1953)

PLATE IV



SECTION A-A'

1.	Toklan Production Company	Edward F. Reed #1		NW NW SE	10-6n-7e
2.	R. P. Traugh	Sturgeon #1		SE NW SE	16-6n-7e
3.	American Realty & Investment	Gains #2		SE SE NW	20-6n-7e
4.	T. N. Berry	Harjo #1		C N-1/2 NE SE	24-6n-6e
5.	McIntyre, Sherman and Cummings	Osborn #1		NE NE SE	11-6n-6e
6.	Harold Fleet	Davis #1		SW SW NE	3-6n-6e
7.	Konawa Operating Company	Woods #1		SW SW SW	9-6n-6e
8.	Manahan Oil Company	Amason #1		C SE NE	18-6n-6e
9.	Sunray Oil Company	Milsap #2		SW SW SW	7-6n-6e
10.	Don Edwards et al	Harjo #1		SW SE SW	1-6n-5e
11.	Wood Oil Company	Micco #1		SW SE NW	23-7n-5e
12.	Kerlyn Oil Company	Goss #1		C NE NW	35-8n-5e
13.	Helmerich and Payne	McClung #1	(B-11)	SE NE NE	22-8n-5e
14.	Double R Drilling Company	Nellie #1	(B-10)	NW NE SE	12-8n-5e
15.	Helmerich and Payne	Edwards #1		SW NE SE	22-9n-5e
16.	Barnsdall Oil Company	M. Davis #4		NE SE SW	11-9n-5e
17.	Kerr-Lynn and I. T. I. O.	Raney #1		SW NE SE	35-10n-5e
18.	J. Garfield Buell	Madgett #1		SE SW SE	15-10n-5e
19.	Sherrod and Apperson	McGinnis #1-B		NW NW SW	1-10n-5e
20.	B.B.Blair and B.V. Oil Company	Chas. McCosato #1		NW NW NW	13-11n-5e
21.	Herndon Drilling Company	Bonntey #1		NE NE SW	31-12n-6e
22.	Fordee-Rhoades Oil Company	Hind #1		SW SW NW	9-12n-6e
23.	J. E. Crosbie Inc.	Crain #1		SW SW NE	19-12n-7e
24.	Smith-Horton Drilling Company	Miller #1		NW NE NE	16-12n-7e
25.	J. Garfield Buell	Lasely #1		SE NE NE	3-12n-7e
26.	McIntyre, Sherman and Cummings	Curry #1		NW SE NW	23-12n-8e

Explanation

Datum:
Section A-A' — sea level.
Section B-B' — varies.

Figure immediately above each electric log: depth from ground level.

Subsurface names in current use have been set off by quotation marks. The use of quotation marks is not intended to convey either approval or disapproval of the correlations so made.
Surface names have been entered without quotation marks.

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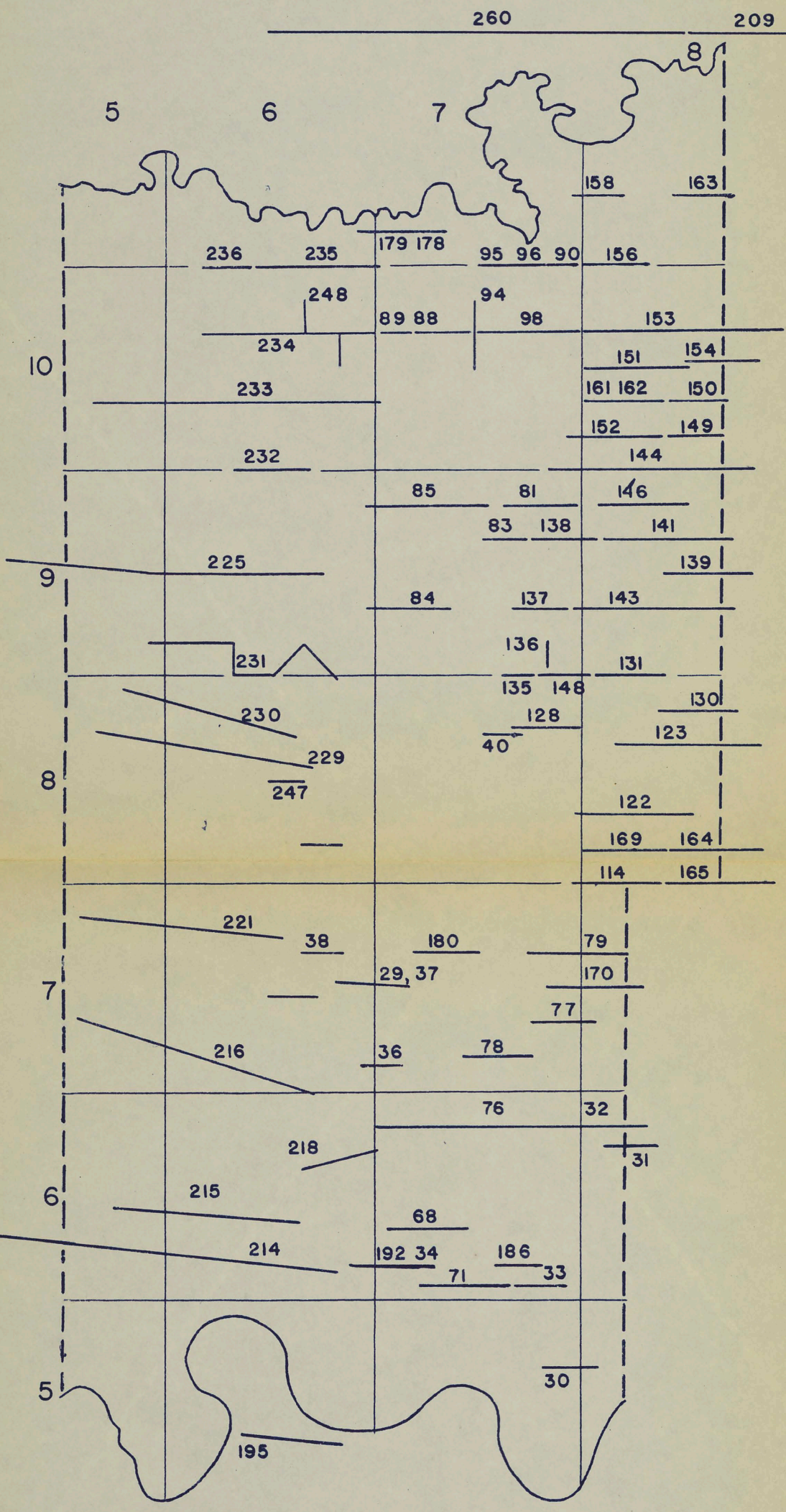
(Submitted in partial fulfillment of the requirements for the Ph. D. degree at the University of Oklahoma. William F. Tanner, 1953)

SECTION A-A'

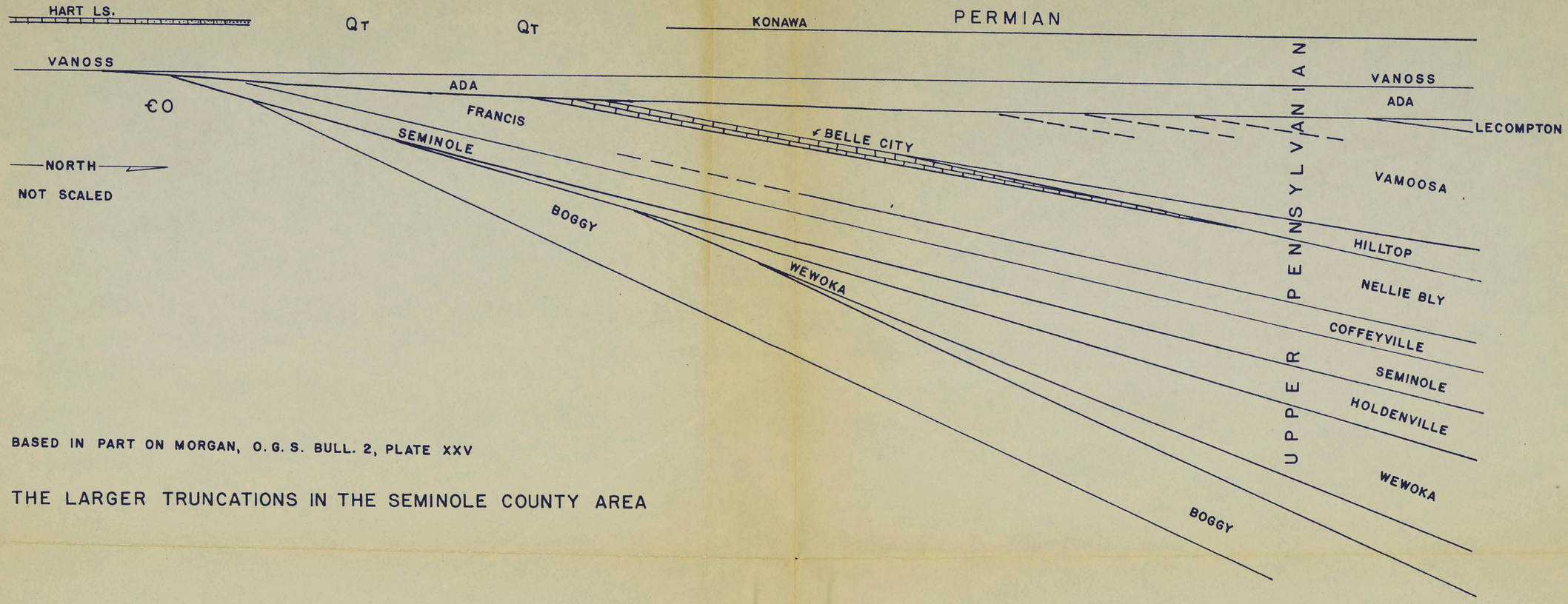
PLATE V



THE LONGER MEASURED SECTIONS IN SEMINOLE COUNTY

WILLIAM F. TANNER, 1953

PLATE XI

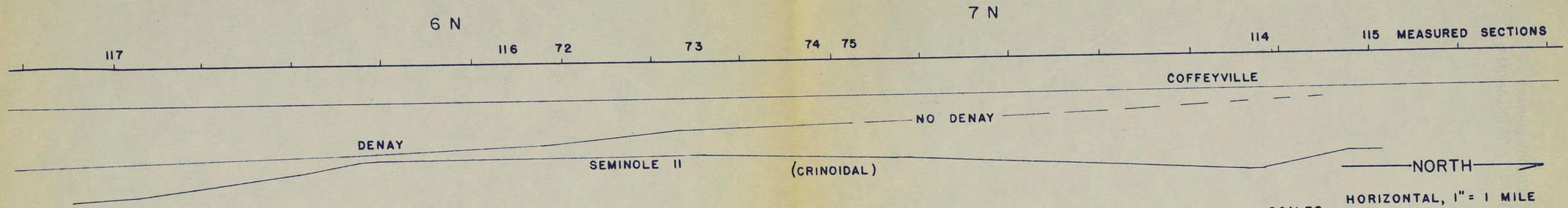


BASED IN PART ON MORGAN, O. G. S. BULL. 2, PLATE XXV

THE LARGER TRUNCATIONS IN THE SEMINOLE COUNTY AREA

WILLIAM F. TANNER, 1953

PLATE VII



EACH LINE REPRESENTS THE BASE OF A RESISTANT BED

THE NORTH END OF THE DENAY MEMBER OF THE COFFEYVILLE FORMATION

SCALES: HORIZONTAL, 1" = 1 MILE
VERTICAL, 1" = 100 FEET

PLATE VIII

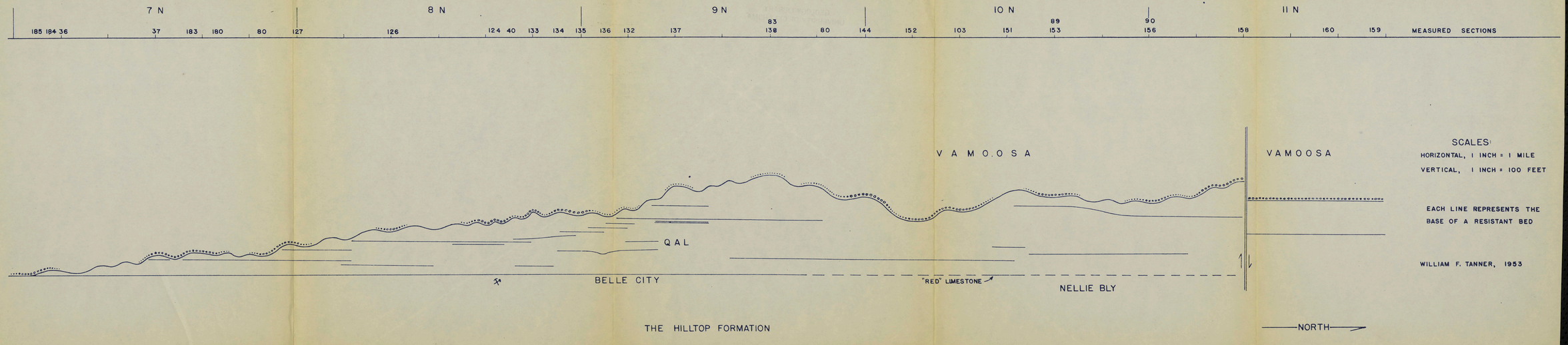

7 N
8 N
9 N
10 N
11 N
185 184 36 37 183 180 80 127 126 124 40 133 134 135 136 132 137 83 138 80 144 152 103 151 89 153 90 156 158 160 159 MEASURED SECTIONS
VAMOOSA
VAMOOSA
QAL
BELLE CITY
"RED" LIMESTONE
NELLIE BLY
THE HILLTOP FORMATION
NORTH
SCALES:
HORIZONTAL, 1 INCH = 1 MILE
VERTICAL, 1 INCH = 100 FEET
EACH LINE REPRESENTS THE BASE OF A RESISTANT BED
WILLIAM F. TANNER, 1953

PLATE IX

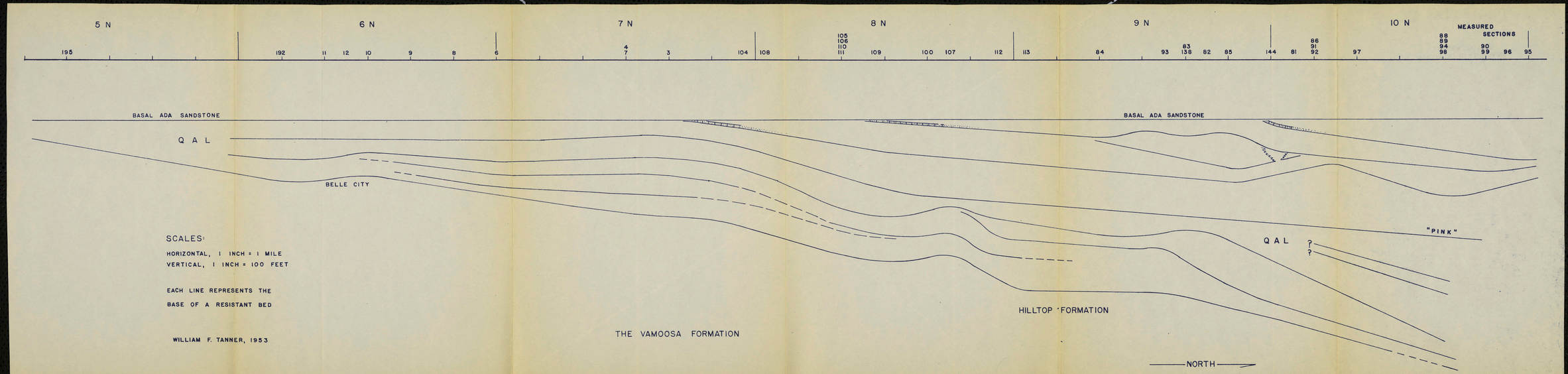

5 N
6 N
7 N
8 N
9 N
10 N
MEASURED SECTIONS
195
192 11 12 10 9 8 6
4 7 3 104 108
105 106 110 111 109 100 107 112 113
84 93 83 138 82 85 144 81 86 91 92 97
88 89 94 98 90 99 96 95
BASAL ADA SANDSTONE
BASAL ADA SANDSTONE
Q A L
BELLE CITY
"PINK"
Q A L
? ?
HILLTOP FORMATION
THE VAMOOSA FORMATION
NORTH
SCALES:
HORIZONTAL, 1 INCH = 1 MILE
VERTICAL, 1 INCH = 100 FEET
EACH LINE REPRESENTS THE
BASE OF A RESISTANT BED
WILLIAM F. TANNER, 1953

PLATE X

R 3 W R 2 W R 1 W R 1 E R 2 E R 3 E R 4 E R 5 E R 6 E R 7 E

T 13 N
T 12 N
T 11 N
T 10 N
T 9 N
T 8 N
T 7 N
T 6 N
T 5 N
T 4 N

OKLAHOMA CITY
NORMAN
SHAWNEE
PRAGUE
SEMINOLE
WEWOKA
ADA
ADA FM.

BUCK CREEK FORMATION
VAMOOSA FM.
ADA FORMATION
CANADIAN RIVER

1000'
900'
800'
700'
600'
500'
400'
300'
200'
100'
0

700
600
600+
500
500+
400
300
200
100
50

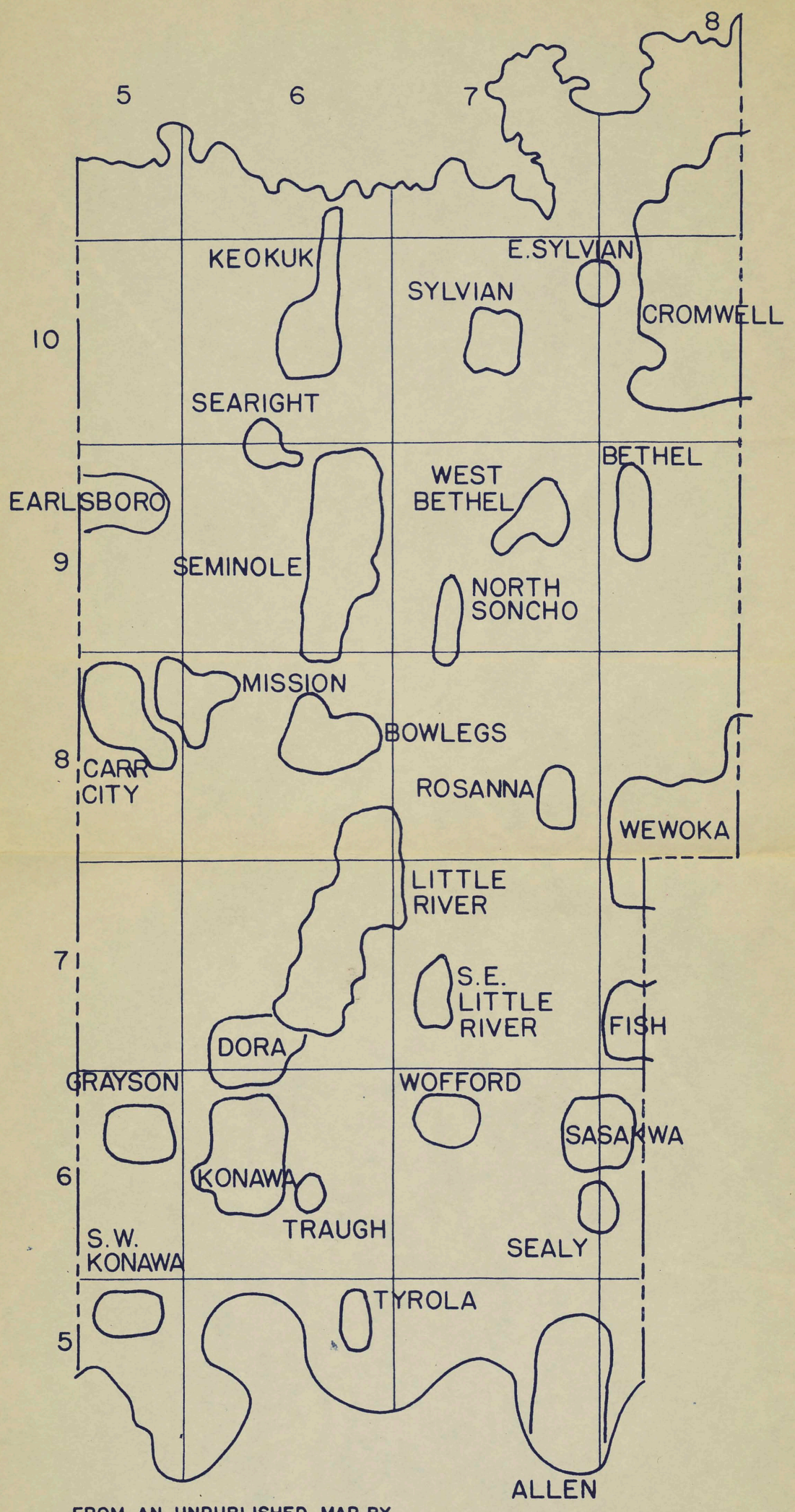
680
630
600
550
470
430 420
400
420
370
470
420
420
300
500 470
470
260
600
570
370

ISOPACH MAP OF THE VAMOOSA FORMATION IN EAST CENTRAL OKLAHOMA

INTERVAL — 100 FT.

WILLIAM F. TANNER, 1953

PLATE VI



FROM AN UNPUBLISHED MAP BY
C.M.CADE III (1952)

OIL FIELDS IN SEMINOLE COUNTY

WILLIAM F. TANNER, 1953