



**EXPLANATION**

**QUATERNARY**

- Qa Alluvium
- Qs Sand, silt, and clay of present streams
- Qt Sand, silt, and clay with associated eolian deposits

**TERRACE DEPOSITS**

Pw-740	Pw-735
Pw-680	Pw-560
Pw-640	Pw-620
Pw-600	Pw-600
Pw-500	Pw-480
Pw-460	Pw-450
Pw-400	Pw-380
Pw-300	Pw-280
Pw-200	Pw-200
Pw-160	Pw-140
Pw-120	Pw-100
Pw-80	Pw-60
Pw-20	

**WELLINGTON FORMATION** Pw  
Red lenticular sandstones and mudrock with thin nodular carbonate beds. Approximately 780 ft of formation crops out in western Payne County. Two key beds divide formation into three units (Pw<sub>1</sub>, Pw<sub>2</sub>, and Pw<sub>3</sub>). Carbonate units are most prominent in upper unit, sandstone is most prominent in middle unit, mudrock is most prominent in lower unit. The following unnamed beds are mapped (intervals given are approximate):

Upper key bed: Pw-680—Sandstone with carbonate, 600 feet above base

Lower key bed: Pw-160—Sandstone, 140 feet above base

**OSCAR GROUP**<sup>1</sup>  
Red claystone with lenticular sandstones and nodular dolomites above Pn, which is a persistent carbonate unit. Average thickness of Oscar Group is approximately 600 feet. The group contains the following units:

Po-165	Po-165
Po-105	Po-105
Po-80	Po-80
Po-60	Po-60
Po-40	Po-40
Po-20	Po-20
Po-10	Po-10
Po-5	Po-5
Po-2	Po-2

**GEARYAN SERIES**

Pg-175	Pg-175
Pg-125	Pg-125
Pg-105	Pg-105
Pg-85	Pg-85
Pg-65	Pg-65
Pg-45	Pg-45
Pg-25	Pg-25
Pg-10	Pg-10
Pg-5	Pg-5
Pg-2	Pg-2

**PERMIAN**

**CUMBERLAND SERIES**

Pc-105	Pc-105
Pc-85	Pc-85
Pc-65	Pc-65
Pc-45	Pc-45
Pc-25	Pc-25
Pc-10	Pc-10
Pc-5	Pc-5
Pc-2	Pc-2

**GEARYAN SERIES**

Pg-175	Pg-175
Pg-125	Pg-125
Pg-105	Pg-105
Pg-85	Pg-85
Pg-65	Pg-65
Pg-45	Pg-45
Pg-25	Pg-25
Pg-10	Pg-10
Pg-5	Pg-5
Pg-2	Pg-2

**GEARYAN SERIES**

Pg-175	Pg-175
Pg-125	Pg-125
Pg-105	Pg-105
Pg-85	Pg-85
Pg-65	Pg-65
Pg-45	Pg-45
Pg-25	Pg-25
Pg-10	Pg-10
Pg-5	Pg-5
Pg-2	Pg-2

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Pg-175	Pg-175
Pg-125	Pg-125
Pg-105	Pg-105
Pg-85	Pg-85
Pg-65	Pg-65
Pg-45	Pg-45
Pg-25	Pg-25
Pg-10	Pg-10
Pg-5	Pg-5
Pg-2	Pg-2

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Pg-175	Pg-175
Pg-125	Pg-125
Pg-105	Pg-105
Pg-85	Pg-85
Pg-65	Pg-65
Pg-45	Pg-45
Pg-25	Pg-25
Pg-10	Pg-10
Pg-5	Pg-5
Pg-2	Pg-2

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Pg-105	Pg-105
Pg-85	Pg-85
Pg-65	Pg-65
Pg-45	Pg-45
Pg-25	Pg-25
Pg-10	Pg-10
Pg-5	Pg-5
Pg-2	Pg-2

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Pg-65	Pg-65
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Pg-10	Pg-10
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Pg-25	Pg-25
Pg-10	Pg-10
Pg-5	Pg-5
Pg-2	Pg-2