A — *West*

A′ — *East*

Cross-section C tie
1
Walker
Troy 1-10
SE NE NW 10, T. 1 S., R. 1 E.
Field: Davis SW
KB: 954 ft

10 Miles

2
Northern Natural Gas
J. Little "A" 1-6
NE SW SE 6, T. 3 S., R. 2 E.
Field: Springer
KB: 924 ft

Cross-section E tie

6 Miles

3
Reading & Bates
Future Enterprise No. 1
E2 NW SE 18, T. 2 S., R. 3 E.
Field: Wildcat
KB: 918 ft

Cross-section C tie

9 Miles

4
Ledbetter H. E. et al
1 Noel E. White
NE NW SW 7, T 1 S., R 3 E.
Field: Sandy Creek SW
KB: 900 ft

Cross-section C tie

13 Miles

5
R. W. Simpson Jr.
E. C. Hunter #1
NE NW NE 29, T. 2 N., R. 6 E.
Field: Fitts West
KB: 1,201 ft

8 Miles

6
Pray
House #13
NW SE 12, T. 1 N., R. 7 E.
Field: Fitts
KB: 740 ft

GR SP RES COND

Datum: Top of Viola Group

Viola Group

Simpson Group — Upper / Middle / Lower

Arbuckle Group

Viola
Bromide
Tulip Creek sandstone
Tulip Creek Formation
McLish
basal McLish sandstone
Birdseye
Oil Creek
basal Oil Creek sandstone
Joins
Arbuckle

Oil Creek shale

Basal Oil Creek / Joins Interval

basal Joins sandstone

Sandstones and sandy carbonates

TD: 6,192 ft
Drilled: 1991

TD: 17,980 ft
Drilled: 1977
Arbuckle 367 BOPD and 1,197 MCFGPD (12,798–13,238 ft)
Viola 1,462 MCFGPD (6560–6644 ft)
Woodford/Sycamore 2,168 MCFGPD (5330–5872 ft)
Cumulative Production:
Arbuckle: 53,949 BO and 13,481 MCF (1977–1990)
Woodford and Sycamore: 4,188 BO and
2,854,916 MCF (1991–2013)
Viola: 18,959 BO and 7,651,608 MCF (1991–2015)

TD: 4,629 ft
Drilled: 1980

TD: 3,365 ft
Drilled: 1961

Texaco Incorporated
No. 1 R. W. Simpson Jr
E2 NW NW 29, T. 2 N., R. 6 E
Field: Fitts West
KB 1,200 ft

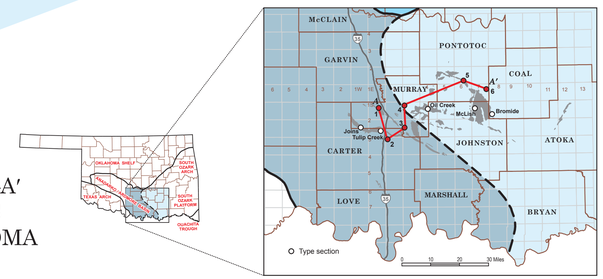
TD: 4,820 FT
Drilled: 1967

TD: 8,978 ft
Drilled: 1966

PLATE 3
WEST–EAST STRATIGRAPHIC CROSS SECTION A–A′ OF ARBUCKLE, SIMPSON, AND VIOLA GROUPS IN THE ARBUCKLE MOUNTAINS REGION, OKLAHOMA

By
Raymond Suhm
2016

Formations of the Simpson Group consist of limestone, dolomite, sandstone, and shale (shown as white and yellow, on this and other cross sections). The Simpson contrasts with thick carbonates of the Viola and Arbuckle (blue). For convenience of subsurface correlation, the Simpson is divided into three units termed lower, middle, and upper (pink); red lines interpreted as time lines separate each. The base of the Simpson is defined by sandstone and sandy carbonates that may have been previously classed with the upper part of the West Spring Creek Formation of the Arbuckle Group.



Explanation

- Sandstones of the Simpson Group
- Shale and sandy carbonates of the Simpson Group
- Carbonates of the Arbuckle and Viola Groups