

GEOLOGIC REPORT

By

George J. Ulmo

November 3, 1997

Stevens & Tull, Inc.
Terry Prospect
Terry No. 1
Unit G, Sec. 24
T-20-S, R-38-E, N.M.P.M.
Lea County, New Mexico

SETTING

The Stevens & Tull, Inc. Terry lease is situated in eastern Lea County, New Mexico on the eastern side of the East Warren (Tubb) Field and within a mile or so of the Warren, DK, and House Fields. Production in the area is from the Permian San Andres, Paddock, (Glorieta), Blinebry (Upper Clearfork), Tubb, Drinkard (Lower Clearfork), and Abo (Wichita Albany) reservoirs at various depths between 4250 and 7550 feet. Recent development drilling in the area has extended the limits of Blinebry-Tubb production from the Warren Field to the northeast in what is called the East Warren Field. The entire west half of section 24 has recently been developed on 40 acre spacing. In similar fashion the DK Field has been extended to the northwest. The Terry Prospect is believed to be the northern extension of the DK structural trend. Most wells in the vicinity have been completed in more than a single pay zone, some are dually completed, and in some wells the production has been commingled. In order to test the abovementioned reservoirs, Stevens & Tull proposes to drill the captioned well to the Abo.

STRUCTURE

As shown on the enclosed structure maps of the Abo, Tubb, and Blinebry horizons, the Terry Prospect is a structurally positive area having 75 to 175 feet of relief at the Tubb and Abo horizons. Recent drilling has shown that the fields mentioned above are structurally separated from one another at the levels of the Drinkard, and Abo. The structure is believed to be the result of drape over deep-seated faulted structures. As shown on the enclosed Structural Cross Section B-B', the Blinebry (Upper Clearfork) thickens dramatically where the Tubb is structurally low. This thickening results in the filling of many of the synclines, which separate the various fields in the area at the levels of the Drinkard and Abo, and a Blinebry structure map having considerably less relief than the maps of the deeper horizons. For practical purposes the Tubb is the best horizon on which to map the structure in the area.

RESERVOIR DEVELOPMENT

All of the reservoirs listed above were deposited in a shallow water carbonate platform setting (formed over a deep-seated structural high), where pelletal grainstones, packstones, and wackestones, along with oolitic grainstones, are the typical commercial reservoir facies where they have been dolomitized. Quartz sandstones and siltstones in the Tubb, Paddock (Glorieta), Blinebry also form commercial reservoirs.

The distribution of depositional facies within each carbonate platform sequence was influenced by the topography of the underlying previous carbonate platform. The Upper and Lower Clearfork Formations contain a multitude of thin bedded sequences. Porosity in most of the reservoirs is contained within stratigraphic intervals which seem to correlate over a large area. Therefore most of the wells in the area have been perforated in approximately the same intervals within each reservoir. However, close examination and comparison of the wells in the area reveals that a particular porous unit may not cover more than 2 or 3 locations, and that it may be replaced by another unit in a similar stratigraphic position. Often a well which is low at one horizon develops porosity in a shallower zone. Such reservoir heterogeneity makes it very difficult to condemn a potential drilling location based solely on its structural position or by a nearby well which has poorly developed porosity.

RESERVES

Cumulative production for the nearby wells in the vicinity of the Terry Lease is shown on the enclosed Cumulative Production Map. A typical Abo producer in the area is expected to produce between 35 MBO and 100 MBO with associated gas, and the Drinkard is capable of producing between 50 MBO and 250 MBO with associated gas. Based on nearby production in the East Warren (Tubb) Field and the Warren Field, The Tubb and Blinebry are each believed to be capable of producing up to 100 MBO and 1,000 MMCF gas. A well which produces from all four reservoirs would be capable of producing as much as 400 MBO and 3,000 MMCF gas.

SUMMARY

Stevens & Tull, Inc. proposes to drill the No. 1 Terry at the captioned location in order to test the Blinebry through Abo Formations. Recent drilling in the vicinity has proven that the area is prospective in these horizons. Nearby offset wells produce from the Tubb and Blinebry reservoirs, and the proposed location is a direct offset to a commercial well which has recently been completed in the Blinebry. In order to lessen the drainage of the Terry lease by offset wells, the Terry No. 1 shall be drilled as soon as possible, according to rig availability. Anticipated reserves for the well are considered to be approximately 250 MBO and 2,500 MMCF gas.

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S
E

19

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Burnett Oil

Dewey, Caroline

Stevens & Tull
"Terry"

PROPOSED LOCATION

Stevens & Tull
"Federal 24"

XERIC
"Carter"

Rushwold Oil Co

Ee Carter

STEVENS & TULL, INC.

D-K PROJECT AREA
Lea County, NM

CUM. PRODUCTION MAP
THROUGH 3/97
(Unless otherwise indicated)

October 29, 1997

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7420

ABO 103.2 + 982.5

ABO 64.4 + 386.5

ABO 58.7 + 353.9

ABO 41.7 + 735.7

ABO 30.5 + 222.4

ABO 70.2 + 398.7

DKRD 100.2 + 356.3

30

Olsen, R. Oil Comp

Lee Carter

Stevens & Tull
"Kyle"

BLBY 0.09 + 1.0
(8/97 only)

TUBB 1.0 + 1.8 (IN)
(6/97 - 8/97)

BLBY 58.6 + 206.5
(8/90 - 6/97)

STEVENS & TULL
"NMFCU"

TUBB 4.7 + 6.4
(Through 9/97)

56

BLBY-TUBB 40.1 + 249.8
TUBB 69.5 + 47.6

CONOCO
"WARREN UNIT"

55

BLBY-TUBB 62.8 + 295.1
TUBB 33.5 + 28.0

26

BLBY-TUBB 48.9 + 247.8
TUBB 64.3 + 75.0

BLBY-TUBB 5.5 + 66.2

LEGEND
BLBY Blinbry
TUBB Tubb
DKRD Drinkard
ABO W. Albany (ABO)
Cum. MB Oil + Cum. MMCF Gas

25

BLBY 0.73 + 1.1 (8/97 Only)
TUBB 5.7 + 6.8
(Through 8/97)

BLBY 12.3 + 80.5
TUBB 10.9 + 67.4
DKRD 2.9 + 10.1
ABO 42.8 + 114.1
(Through 8/97)

DKRD 7.9 + 12.3
(5/97 - 8/97)

DKRD 41.7 + 735.7

DKRD 62.4 + 883.6
ABO 85.6 + 566.9

DKRD 30.5 + 222.4

ABO 70.2 + 398.7

ABO 64.4 + 386.5

ABO 58.7 + 353.9

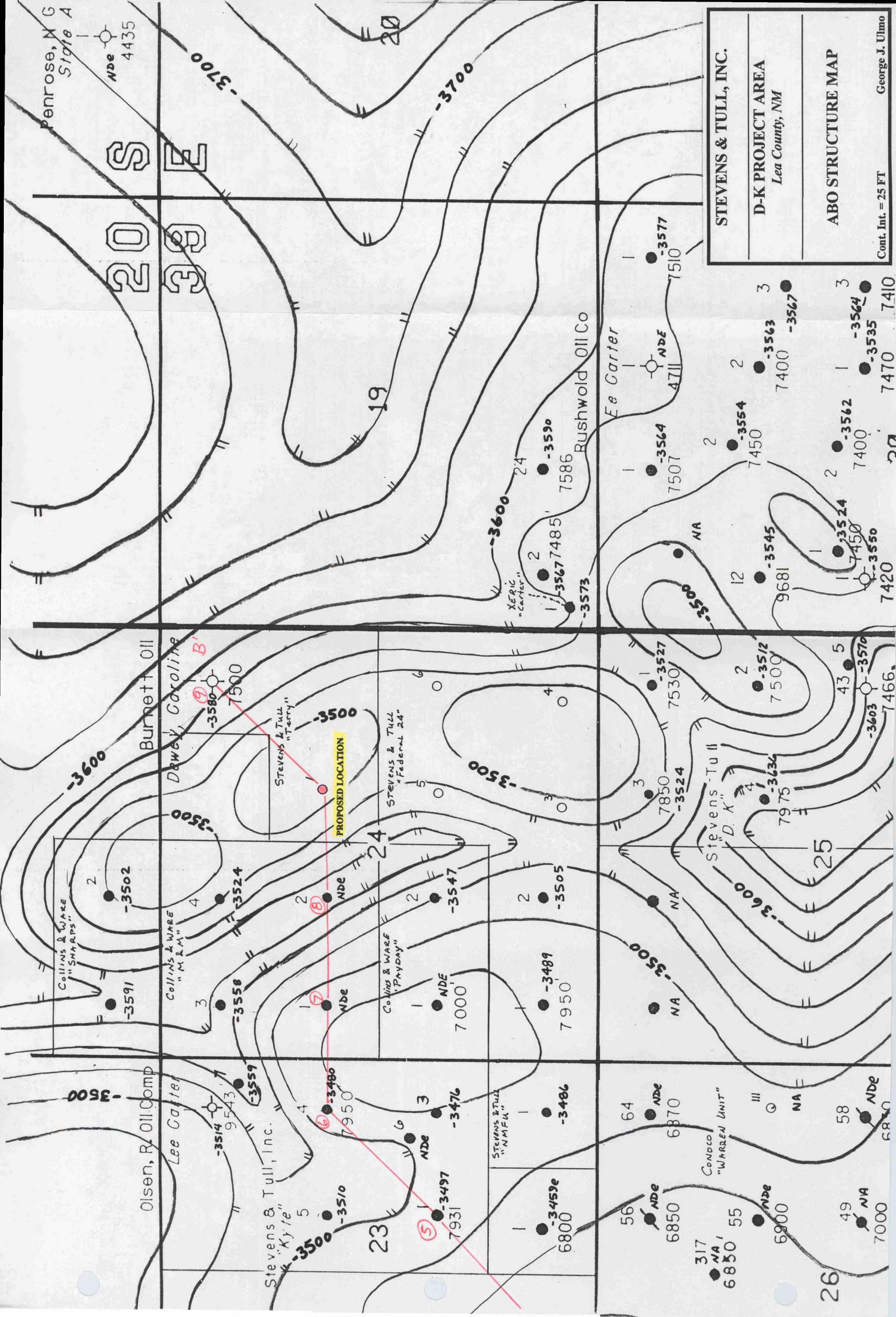
ABO 41.7 + 735.7

ABO 30.5 + 222.4

ABO 70.2 + 398.7

DKRD 100.2 + 356.3

30



STEVENS & TULL, INC.
D-K PROJECT AREA Lea County, NM
ABO STRUCTURE MAP
Cont. Int. = 25 FT
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Penrose N G
State A
NDE 4435

20
20
39
39
SE

20
-3100

19

Rushwold Oil Co

Ee Carter

STEVENS & TULL, INC.
D-K PROJECT AREA Lea County, NM
TUBB STRUCTURE MAP

Cont. Int. = 25 FT
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Burnett Oil
Dewey Carolipe

Stevens & Tull
"Terry"

PROPOSED LOCATION

Stevens & Tull
"Federal 24"

Collins & Ware
"SHARPS"

Collins & Ware
"M & M"

Collins & Ware
"PAYDAY"

STEVENS & TULL
"NMFU"

CONOCO
"WARREN UNIT"

Olsen, R. Oil Comp

Ee Carter

Stevens & Tull, Inc.
"Kyle"

26

25

24

24

23

NA 317
6850

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LARGE FORMAT
EXHIBIT HAS
BEEN REMOVED
AND IS LOCATED
IN THE NEXT FILE