

Executive Summary

West Tatum State Unit
Lea County, New Mexico

Oil Conservation Division
Case No. 4
Exhibit No. 4

Unit Location: T-12S-R-35E; Sections N2, SE4, SESW, N2SW 14; 23; 25; 26; 34; 35; 36
Proposed TVD: 9900'
Proposed MD: 14,400'
Projected Drilling Location: Section 26, T12S, R35E; W2W2 (160 acre unit)
Proposed Unit Leases: Sections N2, SE4, SESW, N2SW 14; 23; 25; 26; 34; 35; 36-12S-35E

Prospect Summary:

The purpose of forming the proposed West Tatum State Exploratory Unit is to drill an Abo exploration well, determine if there are commercial hydrocarbon reserves, and to protect correlative offsetting rights in the event it requires a substantial production decline period. The initial unit location will be a horizontal traverse along the W2W2 of Section 26-12S-35E, with a proposed surface location at a legal distance from the SWSW and ending at a legal distance from the NWNW. The pilot hole is projected to reach a TVD of 9900' with a landing target depth of approximately 9550' TVD. One target penetration completed as a dry hole November 19, 1956 is the only well that exists within the proposed unit acreage.

The target objective is composed of tight discontinuous interbedded dolomite and limestone stringers deposited in an alleged sabkha environment. This zone has been penetrated with several wells surrounding the proposed unit but none of these wells reported commercial hydrocarbons in the Abo or any other producing horizon. A summary of the surrounding wells are:

- 1) 30025-37529; N-11-12s35e, Completed as a Morrow dry hole in 1-31-2006. No tests were run.
- 2) 30025-02661; N-26-12s35e, Completed as a Morrow dry hole in 11-19-1956. Five tests were run on this well. U. Abo 9070-105', rec. 20' VSGCM, FSP 35#; Bough 10,398-560', rec. 630' SGCM + 7787' SW, FSP 4065#; Canyon 11,039-095', rec. 10' M, FSP 65#; Atoka 12,686-752', rec. 15' SGCM, FSP 890#; Morrow 12,986-13,130', rec. 180' VSGCM, FSP 1900#. No tests were deemed commercial.
- 3) 30025-28902; J-33-12s35e, Completed as a Morrow dry hole in 1-11-1985. Three tests were run on this well. Bough 10,762-810', rec. 75' SO&GCM, FSP 3962#; Atoka 12,577-633', rec. 675' GCM + 186' FW, FSP 2481#. Recorded Perforations were in the Morrow 12,932-13,187 but no production was recorded.

The attached Abo Isoporosity map indicates a potential thick Abo interval composed of multiple discontinuous beds suspected to contain hydrocarbons (see Abo A Isopach, Cross Section A-A'). The nearest producing Abo well in this interval is located twelve miles SW in the N2 23-14s34e. The thin discontinuous stratigraphic nature of the dolomite lenses prohibits 40 or 80 acre commercial vertical or horizontal Abo production. These reasons exemplify this formation as an exploration target yet make it an ideal candidate for horizontal exploration by increasing the chance of intersecting multiple porous dolomite lenses with 160 acre horizontal spacing.

Validation for the inclusion of the subject leases into the West Tatum State Exploratory Unit is based on the evidence presented in the three wells that penetrated the tight discontinuous Abo formation directly offsetting this acreage (see North-South Cross Section A-A').



Lea Co., NM, Cochran & Yoakum Co., TX

W. Tatum XX Structure; C.I. 50'

W. Tatum Abo "A" Isoporosity >5%N

0 2,403

FEET

POSTED WELL DATA

ABO_A - 5%_ISOPOROSITY_THICKNESS[KEM]

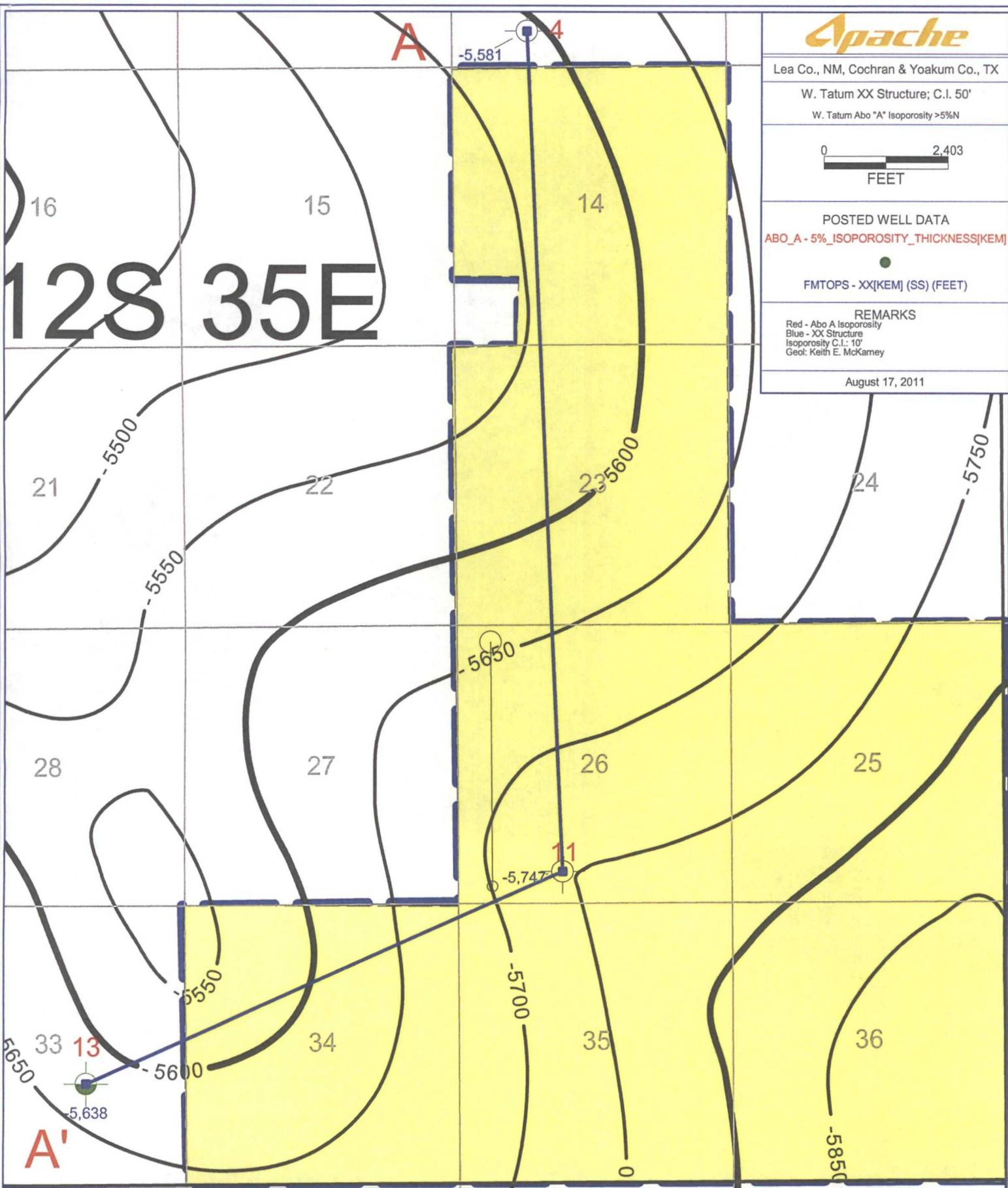


FMTOPS - XX[KEM] (SS) (FEET)

REMARKS

Red - Abo A Isoporosity
Blue - XX Structure
Isoporosity C.I.: 10'
Geol: Keith E. McKamey

August 17, 2011





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W. Tatum Abo "A" Isoporosity >5%N

W. Tatum XX Structure; C.I. 50'



POSTED WELL DATA

ABO_A - 5%_ISOPOROSITY_THICKNESS[KEM]

FMTOPS - XX[KEM] (SS) (FEET)

REMARKS

Red - Abo A Isoporosity
Blue - XX Structure
Isoporosity C.I.: 10'
Geol: Keith E. McCarney

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12S 35E

A

4
-5,581

16

15

14

10

21

22

23

24

28

27

26

25

33

13

34

20

35

36

20

-5,638

A'

11
-5,475

10

A

A'

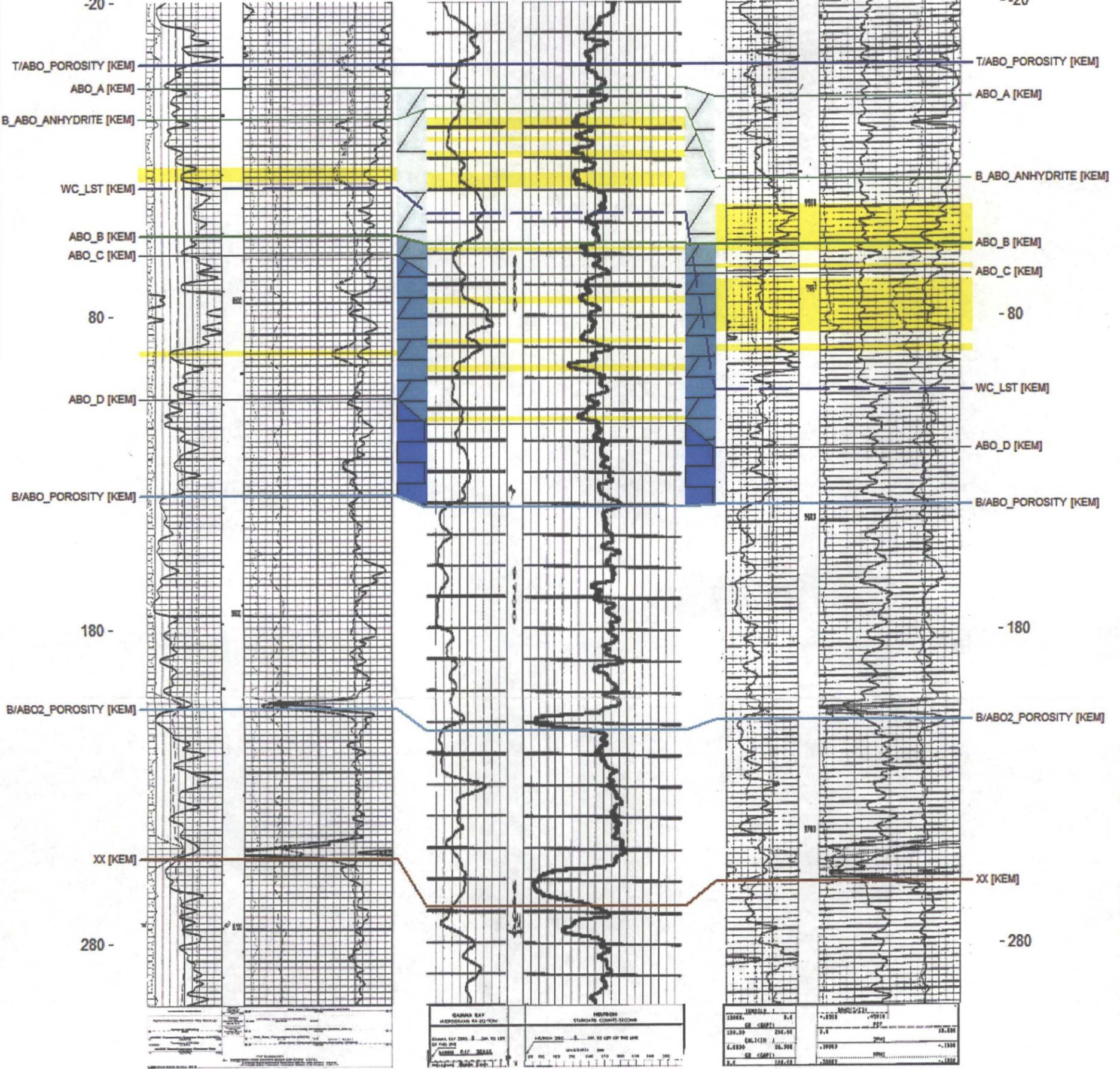
SILVERHEELS 11 STATE COM
T12S R35E S11

WEST TATUM UNIT
T12S R35E S26

HUBER STATE
T12S R35E S33

Rel
Depth(ft)
-20 -

Rel
Depth(ft)
-20



Apache Corp.

W. Tatum Exploratory Unit

Stratigraphic Xsec

By: Keith E. McNamey

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