



STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
HOBBS DISTRICT OFFICE

50 YEARS



1935 - 1985

TONY ANAYA
GOVERNOR

November 26, 1985

POST OFFICE BOX 1980
HOBBS NEW MEXICO 88240
(505) 393-6161

MEMO TO: Mike Stogner
FROM: Paul F. Kautz *K?*
SUBJECT: CASE No. 8676

I find several problems with the testimony on the geology of the area.
These are:

- 1) environmental interpretation of a debris flow
- 2) the statement that there is no structural nosing
- 3) area of proposed new pool
- 4) wells drilled near the margin of the pool may not drain more than 40 acres.

1) With the completion of Southland Royalty, Peoples State 32 #2 in Unit H of Section 32, T18S, R35E, and Forest Oil Lee State B #8 in Unit A Section 5, T19S, R35E, it can be shown that there is no channel for a debris flow and that the proper interpretation for the shape of the reservoir is an elongate pod of dolomite which trends generally in an east-west trend (see figures 1 and 2).

2) Contour maps on the tops of Bone Spring, first Bone Spring sand, second lime, second Bone Spring sand, third lime, third Bone Spring sand, and Wolfcamp indicate structural nosing in sections 32 and 33. Geomap's structural contour map of the Devonian also shows nosing in the area. My structural map also shows a slight structural nose for the base of the lower Wolfcamp chert bed. It appears that the dolomite buildup coincides with the structural nosing.

3) Figures 1 and 2 and cross sections AA' and BB' indicate that the area of the new pool is much smaller than the area requested by Southland Royalty.

4) Logs of the Forest Lee B State #8 indicate that the porosity and permeability decreases towards the margins of this dolomite pod. This suggests that the permeability and porosity is not uniform. The Forest Lee B State #8 had an initial potential of approximately 100 BOPD much lower than Southland Royalty's two wells. With a lower permeability this well may not drain more than 40 acres.

Therefore, I do not recommend a new pool or 80 acre spacing. However, if it is decided to grant this proposal, I suggest that the new pool if created consist of the following acreage dedicated to it:

TOWNSHIP 18 SOUTH, RANGE 35 EAST
Section 32: SE/4
Section 33: SW/4

TOWNSHIP 19 SOUTH, RANGE 35 EAST, NMPM
Section 5: NE/4

and that the vertical limits of the lower Wolfcamp be defined as from the marker bed found at 11,060 feet to the base of Wolfcamp as found on the log of Southland Royalty Peoples State #1-P in Sec 32, T18S, R35E. Also, the Scharb Wolfcamp vertical limits be contracted to the Upper Wolfcamp (from top of Wolfcamp to 11,060 feet in Southland Royalty Peoples State #1).

PFK/ed

County, _____

Township 18 South Range 34 East

Township 18 South Range 35 East

Township 19 South Range 34 East

Township 19 South Range 35 East

Form 104—(Four on Township)

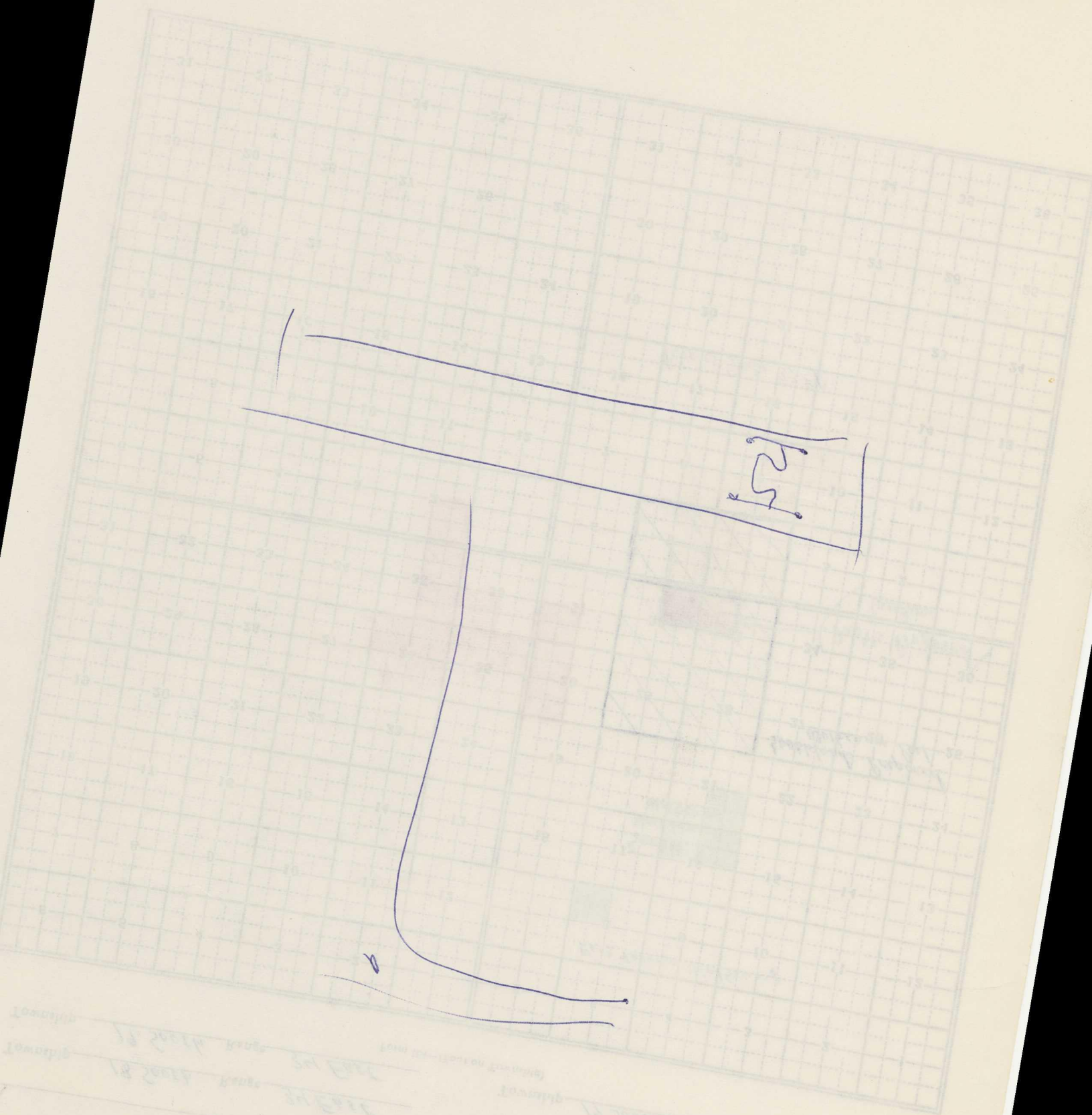
6	5	4	3	2	1	6	5	4	3	2	1
7	8	9	10	11	12	7	8	9	10	11	12
18	17	16	15	14	13	18	17	16	15	14	13
19	20	21	22	23	24	19	20	21	22	23	24
30	29	28	27	26	25	30	29	28	27	26	25
31	32	33	34	35	36	31	32	33	34	35	36
6	5	4	3	2	1	6	5	4	3	2	1
7	8	9	10	11	12	7	8	9	10	11	12
18	17	16	15	14	13	18	17	16	15	14	13
19	20	21	22	23	24	19	20	21	22	23	24
30	29	28	27	26	25	30	29	28	27	26	25
31	32	33	34	35	36	31	32	33	34	35	36

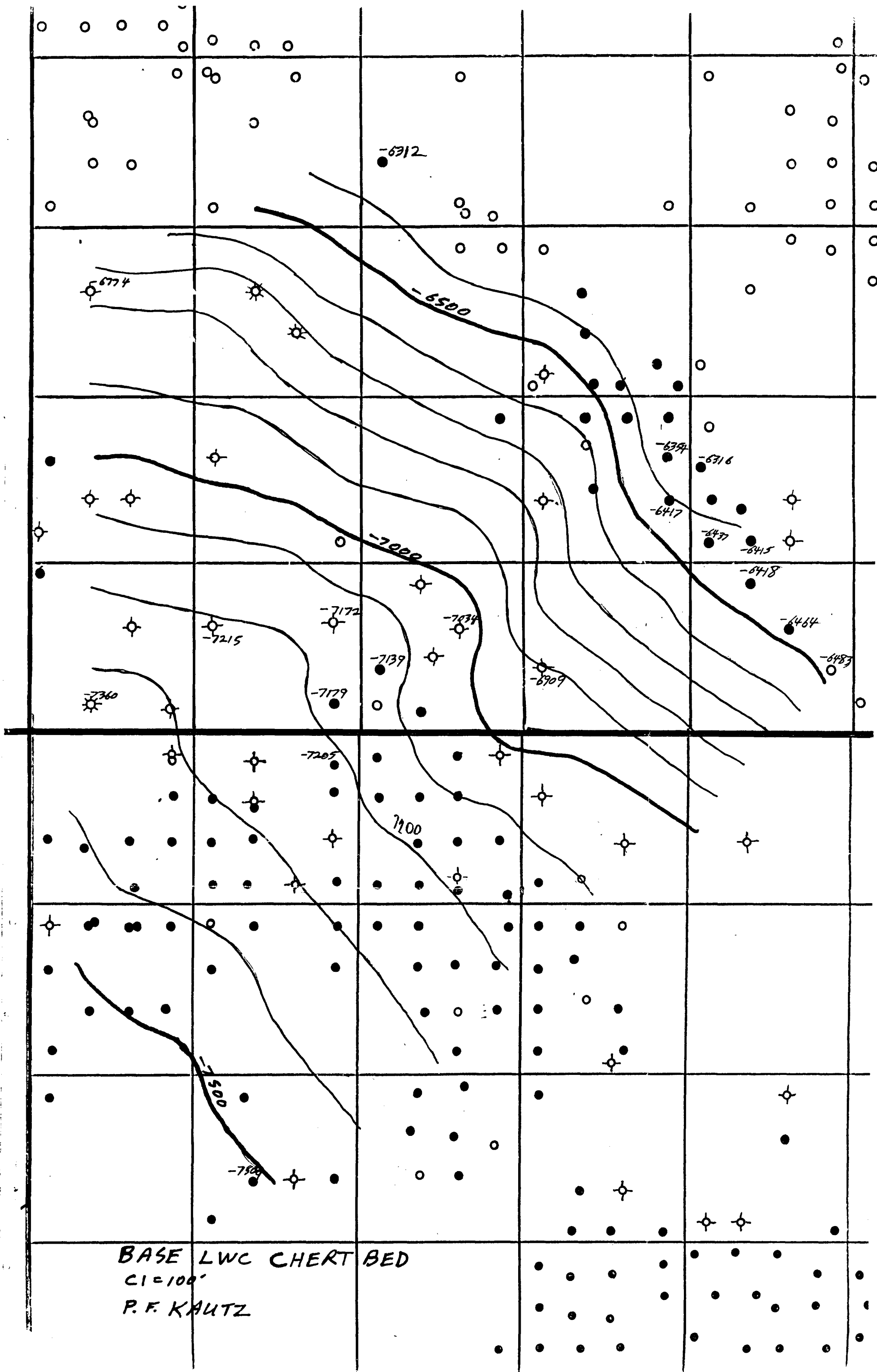
Handwritten notes and markings on the grid:

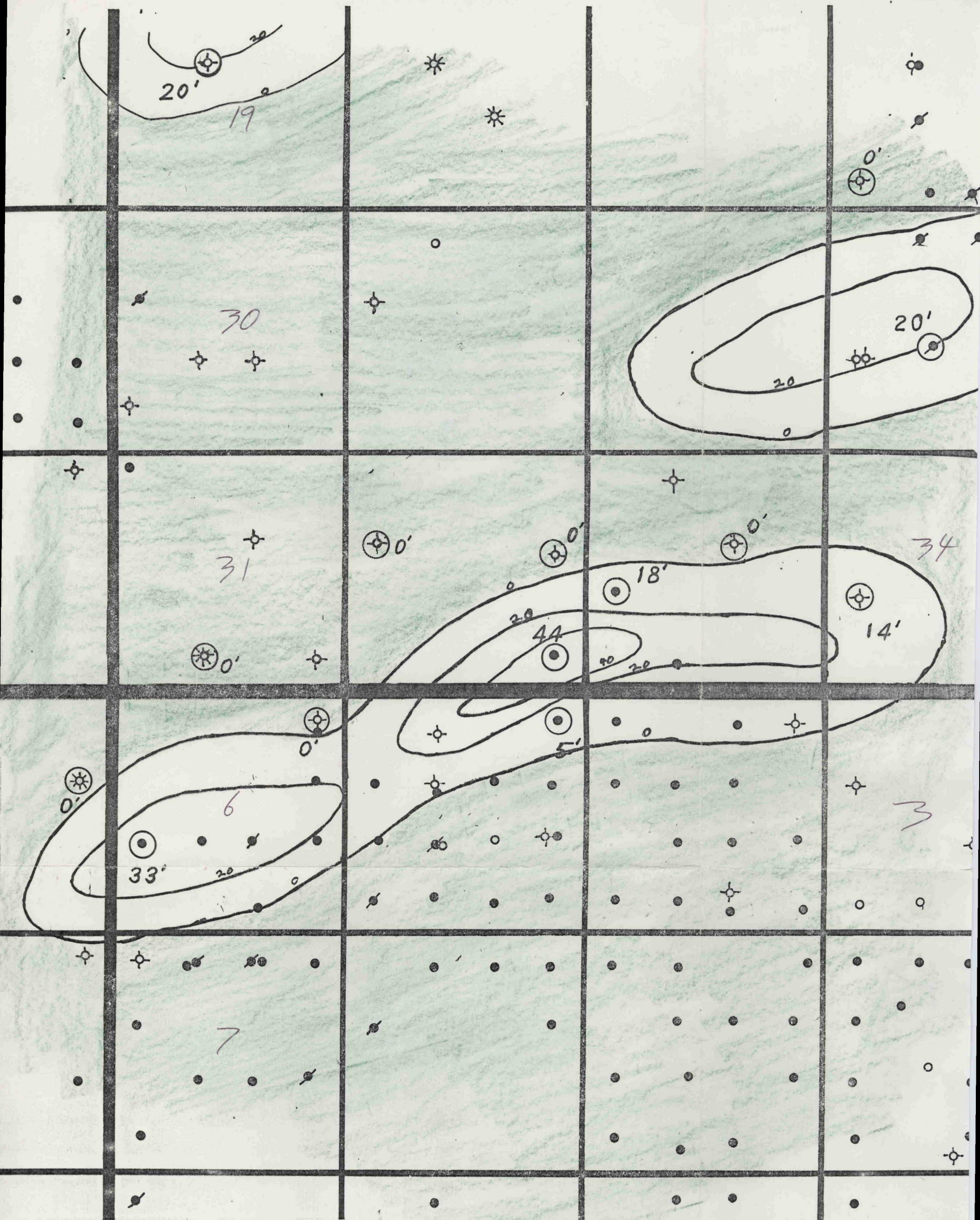
- East Yarrow Wellcamp** (written in blue ink, top right section)
- South Yarrow Wellcamp** (written in green ink, top right section)
- Acacia Wellcamp** (written in red ink, middle left section)
- Southlands Proposed Wellcamp** (written in blue ink, middle right section)
- Part's Proposed** (written in black ink, middle right section)
- Peoples' South B2 #1** (written in black ink, bottom right section)

Other markings:

- Red shaded area covering sections 25, 26, 35, and 36 in the left column.
- Blue shaded area covering sections 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36 in the right column.
- Yellow shaded area covering sections 25, 26, 35, and 36 in the right column.

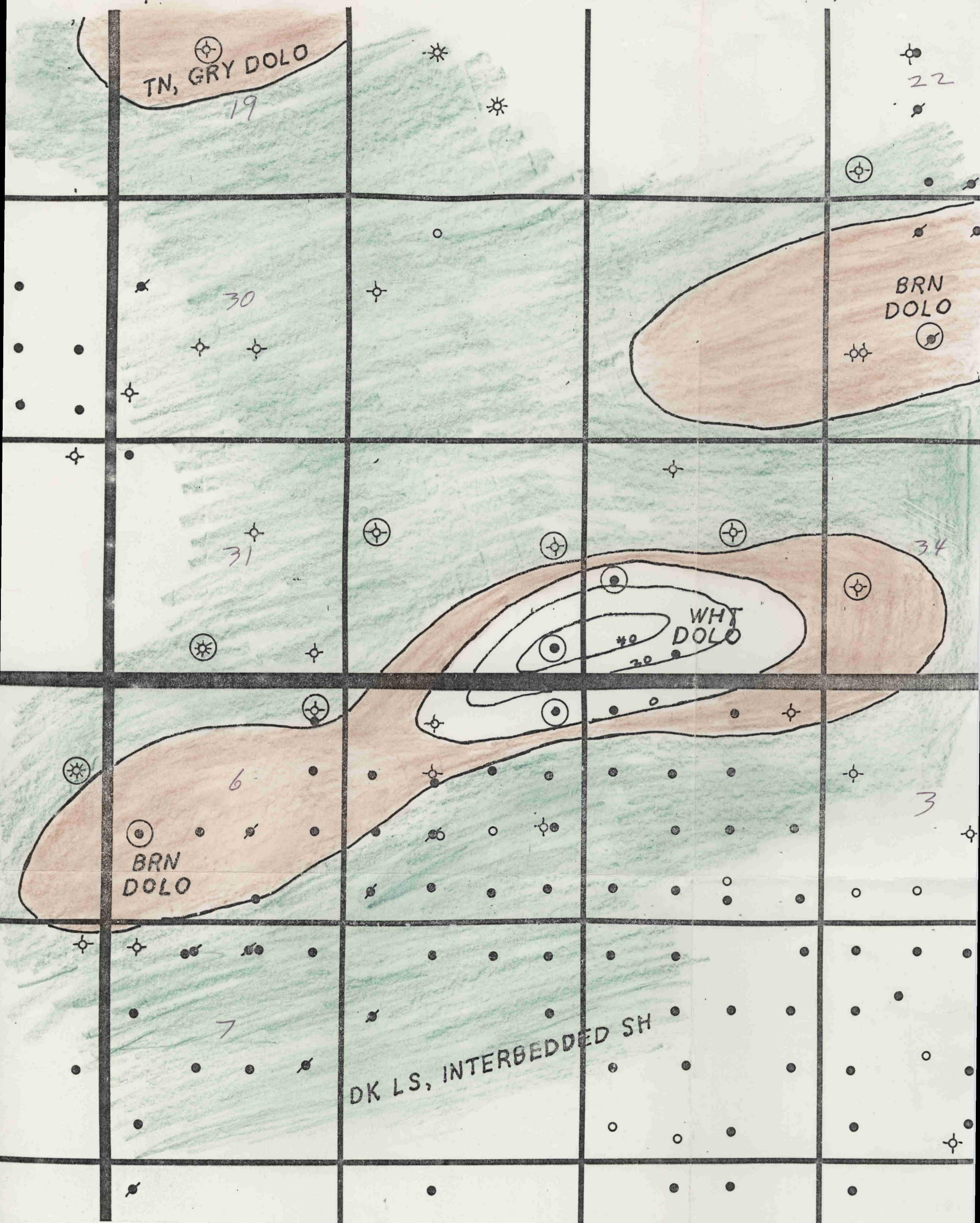






LOWER WOLFCAMP
PAY ZONE
NET DOLOMITE ISOPACH
NMOCD P.F. KAUTZ

FIGURE 1



LOWER WOLFCAMP PAY ZONE
FACIES AND NET EFFECTIVE
POROSITY ISOPACH
NMOCD P.F. KAUTZ

FIGURE 2

SOUTHLAND Royalty Co
PEOPLES STATE 32 #1

SE4/SE4/SEC 32 T-18S R35E
LEA CO. NEW MEXICO

11100

11118

ES PAY ZONE 11124

(-7/90)

PROPOSED

LOWE R

WOLF CAMP

PAY ZONE

#2

11168

11180

11200

CROSS SECTION AA'

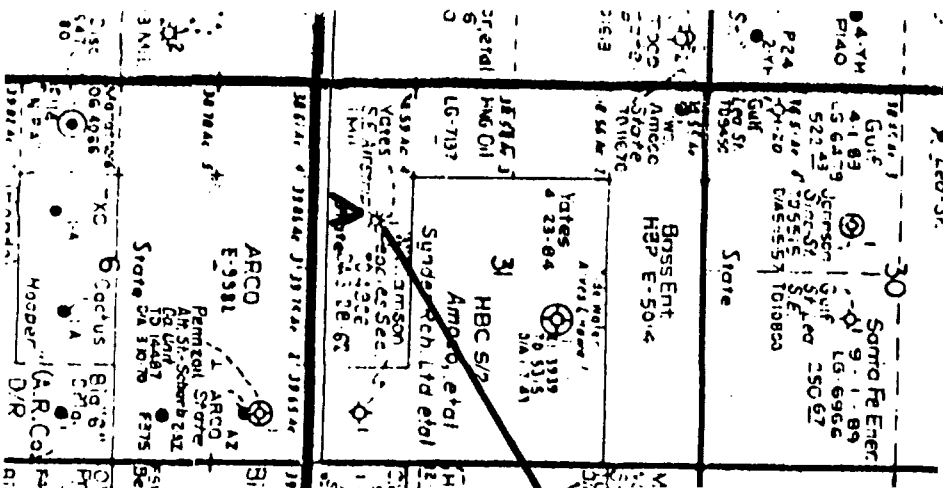
LOWER WOLF CAMP

PAY ZONE

NEW MEXICO OIL CONSERVATION DIVISION

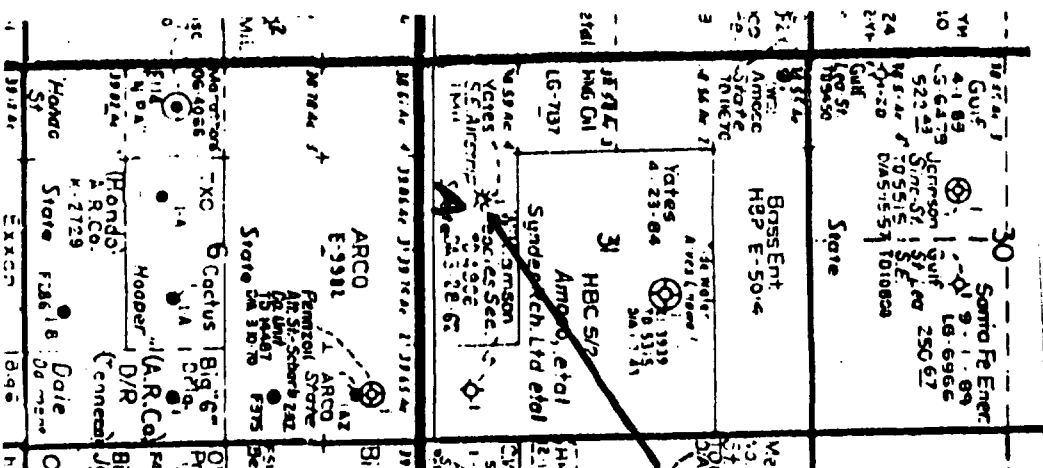
P. F. KAUTZ

NOVEMBER 19, 1985



NOVEMBER 19, 1985

PAY ZONE





STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
HOBBS DISTRICT OFFICE

50 YEARS



1935 - 1985

TONEY ANAYA
GOVERNOR

August 5, 1986

POST OFFICE BOX 1980
HOBBS, NEW MEXICO 88240
(505) 393-6161

m. S.

MEMO TO: Michael E. Stogner

FROM: Paul F. Kautz *Kz*

SUBJECT: Case 8676, Application of Southland Royalty Company
for Pool Creation, Special Pool Rules, and the Contraction
of the Horizontal Limit of the Scharb-Wolfcamp Pool.

1) The application for the creation of a new oil pool for Wolfcamp production comprising Section 28, 29, 32 and 33, T18S, R35E, and Section 4 and 5, T19S, R35E, is too large of an area.

- a) In this area there are several wells which have penetrated the entire Wolfcamp section and have proved to be non-production. These wells include the following:
Harvey E. Yates Co. HEYCO North Scharb #1-E in Sec 32, T18S, R35E
Mesa, Peoples Vacuum #1-G in Sec 33, T18S, R35E

Also, no wells have tested the Wolfcamp in Section 28 and 29, T18S, R35E.

- b) Southland, Peoples 32 State #1-P in Sec 32, T18S, R35E, and Peoples 33 State #1-L produce from a pay zone which are much lower stratigraphically from other wells in the Scharb-Wolfcamp Pool. Therefore, Wolfcamp wells in Section 4 should not be placed in a different pool from Wolfcamp wells in Sections 8, 9, and 10, T19S, R35E and SE/4 SW/4 Section 33, T18S, R35E
- c) Production data for Wolfcamp wells in Section 4 do not suggest that the upper pay zone is capable of draining more than 40 acres.
- d) There is no Wolfcamp production in Section 5 and there is no problem with contracting the acreage in Section 5 assigned to the Scharb-Wolfcamp Pool.
- 2) If a new pool is created it should at this time include the SE/4 of Section 32 and the N/2 of SW/4 of Section 33 in T18S, R35E. The E/2 of Section 5, T19S, R35E, should be contracted from the Scharb-Wolfcamp. It should be noted that with two separate pay zones existing that there will be areas of overlap. Therefore it would be best to have one pool and allow both zones to be produced.

PFK/ed