CASE NO. 5117

NEW MEXICO OIL CONSERVATION COMMISSION
EXAMINER HEARING
WEDNESDAY, NOVEMBER 28, 1973

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APPLICATION OF ROGER C. HANKS FOR DESIGNATION OF NORTH DAGGER DRAW POOL AND SPECIAL POOL RULES, EDDY COUNTY, NEW MEXICO

Roger C. Hanks seeks pool designation and special rules for an area composed of Sections 24, 25 and 36 of Township 19 South, Range 24 East, Sections 18, 19, 30 and 31 of Township 19 South, Range 25 East, and Section 1 of Township 20 South, Range 24 East, Eddy County, New Mexico. Hydrocarbon production in this area was discovered in 1964, and to date six oil completions have been made. One well is currently producing under a temporary permit while two others have been abandoned. The remaining three wells have been shut in for some time due to the absence of a gas connection and salt water disposal facilities. Installation of these facilities is now nearly complete, and these wells are expected to be returned to production in the very near future. Since the wells are now expected to be producing on a continuous basis, applicant is seeking rules to govern the production of these wells and the spacing and drilling of any subsequent wells within this area. At the present time wells in this area are assigned to the Dagger Draw Upper Penn, Parish Ranch Upper Penn, or Undesignated Pools. However, it is the opinion of the applicant that this entire area constitutes a common source of supply and should be consolidated into one pool classification.

EXHIBIT NO. 1 is a lease plat showing the proposed field area and also showing other wells in the area which have penetrated the Cisco-Canyon portion of the Upper Pennsylvanian formation. The wells enclosed in red circles are those which have been completed in the Cisco-Canyon while those enclosed by green squares are wells that have penetrated the Cisco-Canyon but did not attempt completion or were unsuccessful in completion attempts in that zone. The proposed field area is part of a large producing trend that includes a number of Cisco-Canyon Fields. The producing wells shown on the lower part of the map are part of the Indian Basin Field which is a large prolific gas field. North of this field is the 4-well South Dagger Draw Upper Penn Field which has an associated oil and gas classification. Northeast of the proposed field area is the Boyd Cisco Gas Field which has one producer and is offset by two other wells which have undesignated classifications. West of the proposed area is the Antelope Sink Field which has a single gas producer.

Production in the proposed field area began in November, 1964, when the Atlantic Refining Company completed their Cone-Federal No. 1 in 24-19-24 and Monsanto completed their Hondo No. 1 in 31-19-25. Yates Petroleum

Corporation completed their No. 1-AN Foster in April, 1965. The Monsanto and Yates wells were assigned to the Dagger Draw Field while the Atlantic well was assigned to the Parrish Ranch Field, Subsequently, all three of these wells were abandoned. The Yates well was plugged back to a higher pay in the Wolfcamp, and the other two wells were plugged and abandoned. Activity in this field was resumed in 1970 when Roger C. Hanks completed the No. 1 Dagger Draw well in 30-19-25. In 1971 Roger C. Hanks re-entered the Monsanto No. 1 Hondo and recompleted it, redesignating it the No. 1 Kathy Eyre-Federal. Roger C. Hanks also completed the No. 1 Barbara-Federal in 18-19-25 in 1971. The three Hanks wells were shut in during late 1971 and early 1972, and there was no additional production from the field until Hanks completed the No. 2 Barbara-Federal well in June, 1973.

EXHIBIT NO. 2 is a cross section showing logs of the producing zones in the six wells. The Cisco-Canyon in this area is composed of a carbonate reef. The reservoir rock is described as being limestone with varying degrees of dolomitization. The porous portions of the reef have been found primarily in those zones which are predominantly dolomite. There are several different porosity zones in each of the wells. Some porosity zones appear to be continuous from well to well while others do not.

EXHIBIT NO. 3 is a tabulation of monthly oil and water production from the six wells which have been completed in the proposed field area. The Atlantic Refining Company No. 1 Cone-Federal produced 4,168 barrels of oil before being plugged. Monsanto's No. 1 Hondo made 5,999 barrels of oil before being plugged. After being re-entered by Roger C. Hanks, the well has made an additional 5,759 barrels and when last produced in December, 1971, was making about 50 barrels daily with 95% water. The Yates Petroleum Corporation No. 1 AN Foster made 6,114 barrels before being plugged back. The Roger C. Hanks No. 1 Dagger Draw has cumulative oil production of 22,629 barrels and was producing about 30 barrels daily with 96% water when shut in during February, 1972. The Roger C. Hanks No. 1 Barbara-Federal has cumulative oil production of 2,511 barrels and was making 35 barrels daily with 96% water when shut in. The Roger C. Hanks No. 2 Barbara-Federal has just been producing since June, 1973, but early performance of this well indicates it may be considerably better than the other wells in this area. In five months the well has produced 12,720 barrels of oil and in October produced at the rate of about 136 barrels daily with 75% water. The productivity of the wells in this area is quite good; however, the water percentage on most wells is very high. Because of the high water percentage, the amount of oil produced from these wells to date has been relatively low totaling 59,900 barrels for the six wells. Cost to drill and equip one of these wells is about $215,000. Unless the oil rates improve on some of these wells, it now appears that at least five of the six wells will be unprofitable. Several Upper Penn Fields in Southeast New Mexico have experienced increases in oil and gas production as formation water has been depleted, and these wells are being produced in the hope of a similar occurrence. If this does occur, it may be desirable to

develop this reservoir on closer spacing than now exists. However, at the present time it would appear that the average well may be unprofitable even on 320-acre spacing, and closer spacing is not economically feasible at this time.

The proposed field rules provide for spacing of 320 acres per well. As previously mentioned, it is questionable whether these wells will be profitable even on spacing this wide. While economic considerations are the prime reason for recommending 320-acre spacing at this time, it also appears likely that the existing wells are capable of efficiently draining an area this large. The wells have all produced at rates in excess of 800 barrels of fluid daily indicating good permeability. While it is possible that extended production history may justify closer spacing on a basis of either economics or drainage efficiency, it appears that 320 acres per well is the minimum justified at this time.

A maximum daily oil allowable of 427 barrels has been recommended. This is the normal allowable for wells drilled on 160-acre spacing to this depth. This allowable is adequate for all existing wells and would guard against excessive withdrawal if closer spacing should prove desirable at a later date.

A limiting gas-oil ratio of 2,000 cubic feet of gas per barrel of oil has been proposed. This is the normal gas-oil ratio for oil pools.

In summary, it is the applicant's opinion that the proposed field rules can effectively prevent waste and permit production of the recoverable hydrocarbons from this reservoir while protecting the correlative rights of all interested parties. The applicant respectfully requests that the proposed rules be adopted.

EXHIBITS

EXHIBIT 1	Lease Plat
EXHIBIT 2	Cross Section A - A'
EXHIBIT 3	Tabulated Production Data

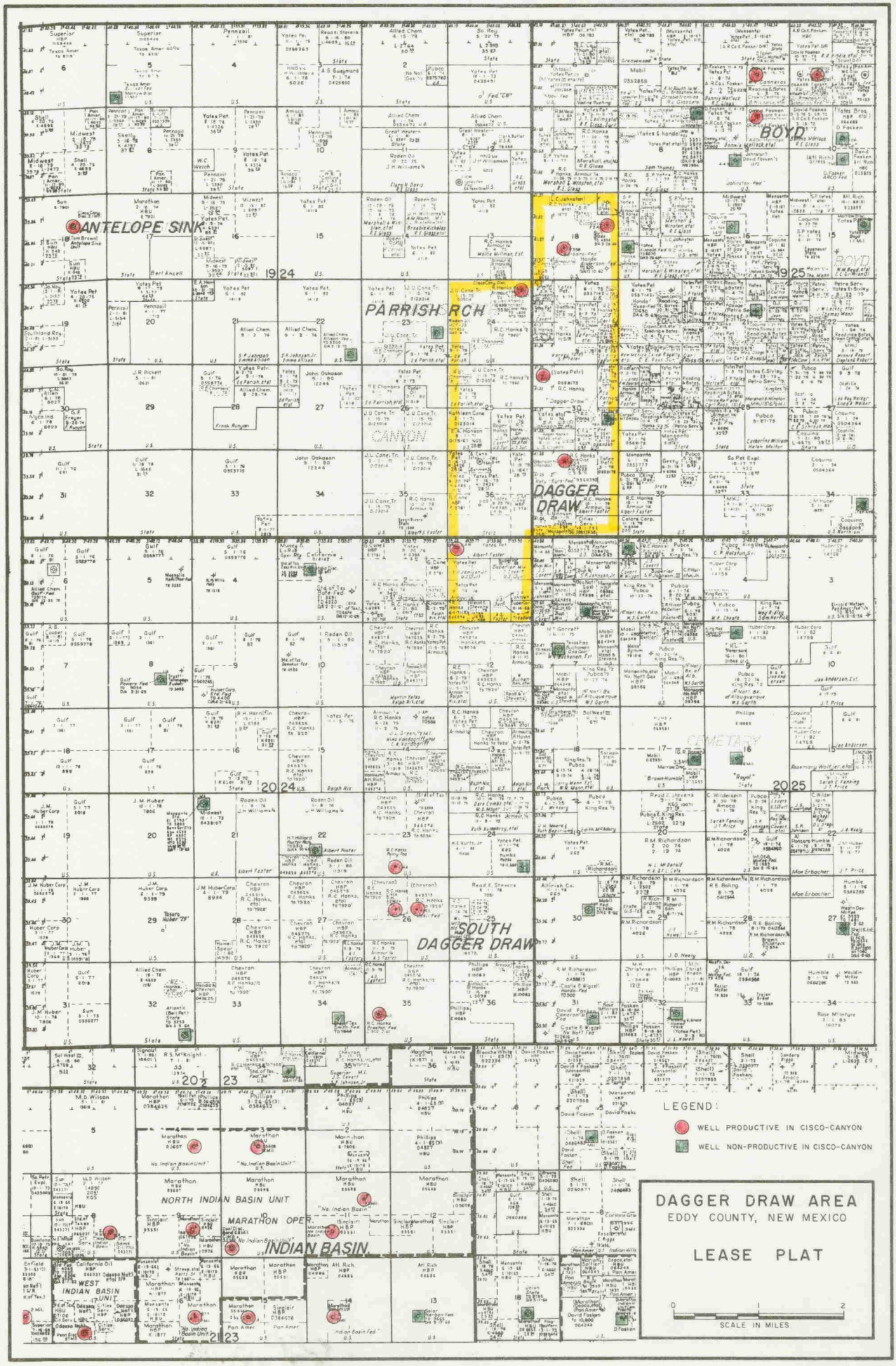
ANTELOPE SINK
PARRISH RCH
CANYON
DAGGER DRAW
BOYD
CEMETERY
SOUTH DAGGER DRAW
NORTH INDIAN BASIN UNIT
MARATHON OPER.
INDIAN BASIN
WEST INDIAN BASIN UNIT
LEGEND:
WELL PRODUCTIVE IN CISCO-CANYON
WELL NON-PRODUCTIVE IN CISCO-CANYON
DAGGER DRAW AREA
EDDY COUNTY, NEW MEXICO
LEASE PLAT
0
1
2
SCALE IN MILES

EXHIBIT I