

Case No.

453

Application, Transcript,
Small Exhibits, Etc.

CASE 453
Humble Oil & R. & Co. dual com-
pletion State 'V' Well #2, SESW 10-21S-37E
Currell

OIL CONSERVATION COMMISSION
P. O. BOX 871
SANTA FE, NEW MEXICO

November 17, 1955

C
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Y

Humble Oil and Refining Company
P. O. Box 1600
Midland, Texas

Attention: Mr. J. W. House

Re: Cancellation of Order R-247

Gentlemen:

This is to advise that the dual completion granted by Order No. R-247 issued in Case No. 453, for your State V Well No. 2, located in the SE/4 SW/4 of Section 10, Township 21 South, Range 37 East, Lea County, New Mexico, is hereby cancelled due to the fact that the well has been plugged and abandoned.

Very truly yours,

W. B. Macey
Secretary-Director

WBM:jh
cc: Oil Conservation Commission, Hobbs
N. M. Oil & Gas Engr. Comm., Hobbs

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
COMMISSION OF NEW MEXICO FOR THE
PURPOSE OF CONSIDERING:

CASE NO. 453
ORDER No. R-247

THE APPLICATION OF HUMBLE OIL
AND REFINING COMPANY FOR AN
ORDER GRANTING PERMISSION TO
DUALY COMPLETE AND PRODUCE
ITS STATE "V", WELL NO. 2, LOCATED
IN THE SE/4 SW/4 OF SECTION 10,
TOWNSHIP 21 SOUTH, RANGE 37 EAST,
NMPM, LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on December 16, 1952, at Santa Fe, New Mexico, before the Oil Conservation Commission, hereinafter referred to as the "Commission".

NOW, on this 5th day of January, 1953, the Commission, a quorum being present, having considered the records and the testimony adduced, and being fully advised in the premises,

FINDS:

(1) That due notice having been given as required by law, the Commission has jurisdiction of the case and the persons and subject matter thereof.

(2) That Applicant's State "V", Well No. 2, SE/4 SW/4, Section 10, Township 21 South, Range 37 East, NMPM, Lea County, New Mexico, was completed as an oil well producing from the Drinkard formation, having drilled through the Blinebry gas zone 5550-5660, and through the Tubb gas and oil zone 6100-6350.

(3) That applicant attempted to recomplete the well in the Glorieta formation 5115-5270 and in the Grayburg formation 3780-3810 and that when recompletion efforts proved unsuccessful the well was plugged.

(4) That although recent experiments tend to show that mechanical packers and other devices are ordinarily available for successful dual/multiple completions of oil - gas wells, the Commission is unconvinced of the soundness as a waste-prevention practice, of such dual/multiple completions as a general practice in New Mexico without specific controls over each such project.

IT IS THEREFORE ORDERED:

That the applicant herein, Humble Oil and Refining Company, be, and it hereby is authorized to re-enter its State "V", Well No. 2, SE/4 SW/4 Section 10, Township 21 South, Range 37 East, NMPM, Lea County, New Mexico, and to dualy complete said well in such a manner that gas from the Blinebry formation may be produced through the annular space between the casing and tubing and oil and gas from the Tubb formation through the tubing by proper perforations and the installation of a proper packer or packers.

PROVIDED, HOWEVER, That subject well shall be completed, and thereafter produced, in such a manner that there will be no commingling within the well bore, either within or outside the casing of gas, oil and gas, or oil produced from either or both of the separate strata, and,

PROVIDED FURTHER, That said subject well for dual completion and production shall be equipped in such a way that reservoir pressures may be determined separately for each of the two specified strata, and further, be equipped with all necessary connections required to permit recording meters to be installed and used, at any time, as may be required by the Commission or its representatives, in order that natural gas, oil, or oil and gas from each separate stratum may be accurately measured and the gas-oil ratio thereof determined, and,

PROVIDED, FURTHER, That the operator applicant shall make any and all tests, including segregation tests, but not excluding other tests and/or determinations at any convenient time and in such manner as deemed necessary by the Commission; the original and all subsequent tests shall be witnessed by representatives of the Commission and by representatives of offset operators, if any there be, at their election, and the results of each test properly attested to by the applicant herein and all witnesses, and shall be filed with the Commission within ten (10) days after the completion of such test, and,

PROVIDED FURTHER, That upon the actual dual completion of such subject well, applicant shall submit to the Commission a diagrammatic sketch of the mechanical installation which was actually used to complete and produce the seal between the strata, and a special report of production, gas/oil ratio and reservoir pressure determination of each producing zone or stratum immediately following completion.

IT IS FURTHER ORDERED, That jurisdiction of this cause is hereby retained by the Commission for such further order or orders as may seem necessary or convenient for the prevention of waste and/or protection of correlative right; upon failure of applicant to comply with any requirement of this order after proper notice and hearing, the Commission may terminate the authority hereby granted and require applicant or its successors and assigns to limit its activities to regular single-zone production in the interests of conservation.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

Edwin L. Mechem
EDWIN L. MECHEM, Chairman

E. S. Walker
E. S. WALKER, Member

R. R. Spurr
R. R. SPURR, Secretary

S E A L

CASE 453

HUMBLE NEW MEXICO STATE V-2, DRINKARD POOL, LEA COUNTY, N. M.

Case 453 is concerned with the application dated October 23, 1952 of Humble Oil & Refining Company to dually recomplate their New Mexico State V-2 well which was originally completed in the Drinkard Pool, Lea County, New Mexico.

This well is located in the SE/4 of SW/4 of Section 10, T-21-S, R-37-E. Its location with reference to other wells on the same lease and to wells of operators who offset this lease is shown on the plat, Exhibit A.

It was completed February 16, 1949 at a total depth of 6751 feet with 5½-inch O.D. production string of casing set at 6655 feet. It was produced from the open hole section from 6655 to 6751 feet and also from a series of casing perforations in the interval between 6536 to 6653 feet. The open hole and casing perforations permitted the well to produce from the Drinkard formation. Both open hole and casing perforations were cemented off when an unsuccessful attempt was made in April and May 1949 to recomplate the well progressively through casing perforations from 5115 to 5270 feet in the Glorietta formation and from 3780 to 3810 feet in the Grayburg formation. The well was plugged and abandoned May 15, 1949. Exhibit B is a schematic diagram of the original completion and present physical status of the well.

It is proposed to dually complete this well in such a way as to permit producing either an oil well or a gas well from the Drinkard Tubb productive horizons through the tubing and gas from the Blinbry pay through the tubing casing annulus. Our geological information indicates that the Tubb productive horizon is in the middle Clear Fork and that the Blinbry pay occurs in the upper Clear Fork formation. To accomplish this proposal, the cement plugs will be drilled out to approximately 6560 feet for a new total depth.

An attempt will be made to reconnect at approximately 2000 feet to the 5½-inch casing now in the well and bring the top of the productive string to the surface. The productive string will be tested. The 5½-inch casing will be perforated within the approximate interval from 5550 to 5660 feet opposite the Blinbry pay and from 6100 to 6350 feet opposite the Tubb pay. A production type packer will be set at approximately 5670 feet and between the Blinbry and Tubb perforated interval. A schematic diagram of the proposed dual completion is shown in Exhibit C.

Exhibit D is a radioactive log of Humble's New Mexico State V-2 well.

We offer Exhibits A, B, C, and D for identification as Exhibits in this case.

It is my opinion that the proposed dual completion is mechanically feasible and practical with conventional equipment designed for this purpose.

It is my opinion that the granting of this application for dual completion with oil or gas from the Tubb and gas from the Blinbry is in the interest of conservation and protection of correlative rights.

The applicant is acquainted with and will comply with all rules and regulations of the New Mexico Conservation Commission relative to maintaining separation from the two pay horizons.

A marketing arrangement has been made to sell the gas which may be produced.

Midland, Texas
October 23, 1952

Case 453

File: 6-1
Re: Application to Dually Complete,
Humble New Mexico State V-2,
Drinkard Field, Lea County,
New Mexico

Oil Conservation Commission
State of New Mexico
Santa Fe, New Mexico

Gentlemen:

By means of this application, Humble Oil & Refining Company wishes to state the following:

- (a) Humble Oil & Refining Company New Mexico State V-2, located in the SE/4 of SW/4 of Section 10, T21S, R37E, Lea County, was completed February 16, 1949, at a total depth of 6751 feet. Five and one-half inch oil string was set at 6655 feet.
- (b) Appended Exhibit A shows the location of the subject well, other wells on the same lease, and all the offset wells to the Humble New Mexico State "V" lease.
- (c) The subject well was completed as an oil well producing in open hole section from 6655 to 6751 feet and also through seven sets of perforations in the casing from 6536 to 6653 feet from the Drinkard formation. The well was worked over in April and May 1949 in an unsuccessful effort to obtain oil production from 5115 to 5270 feet in the Glorieta formation and from 3780 to 3810 feet in the Grayburg formation. Abandonment operations were completed May 15, 1949. A schematic diagram of the original completion and present physical status of the well is shown in Exhibit B.
- (d) The applicant proposes to dually complete the well to produce gas and/or oil from the Drinkard (Tubb zone) formation through the tubing and gas from the upper Drinkard (Blinberry zone) formation through the tubing-casing annulus in the following manner:
 - (1) Remove successively the cement plugs; reconnect, individually, the 7-5/8- and 5-1/2-inch casing strings; and test each in the prescribed manner. Remove successively the cement and bridge plugs placed opposite the Penrose-Skelly and Paddock pay zones, respectively, from 3700 to 3900 feet and 4966 to 5280 feet. Test perforated intervals in the prescribed manner and perform necessary remedial work if required.
 - (2) Drill out bottom cement to approximately 6360 feet.

Oil Conservation Commission
State of New Mexico
October 23, 1952
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- (3) Perforate the 5-1/2-inch casing from approximately 6100 to 6350 feet opposite the Drinkard (Tubb) formation and 5550 to 5660 feet opposite the upper Drinkard (Blinebry) formation.
- (4) Set a production type packer immediately below the Blinebry perforation interval at 5670 feet to separate the gas and gas-oil pays.

The manner and method of the dual completion is shown in the schematic diagram as Exhibit C.

- (e) Granting of this application for permission to produce the well as a dual completion with gas and oil from the Drinkard (Tubb) formation and gas from the upper Drinkard (Blinebry) formation is in the interest of conservation and protection of correlative rights.
- (f) The applicant will comply with all rules and regulations of the New Mexico Oil Conservation Commission to maintain separation of production from the two pay zones.
- (g) The manner and method of the proposed dual completion is mechanically feasible and practical.

Therefore, Humble Oil and Refining Company requests that the New Mexico Oil Conservation Commission set a certain day upon which this application may be heard and after said hearing to grant permission in order that the applicant may dually complete the subject well as proposed in their application.

Respectfully Submitted,

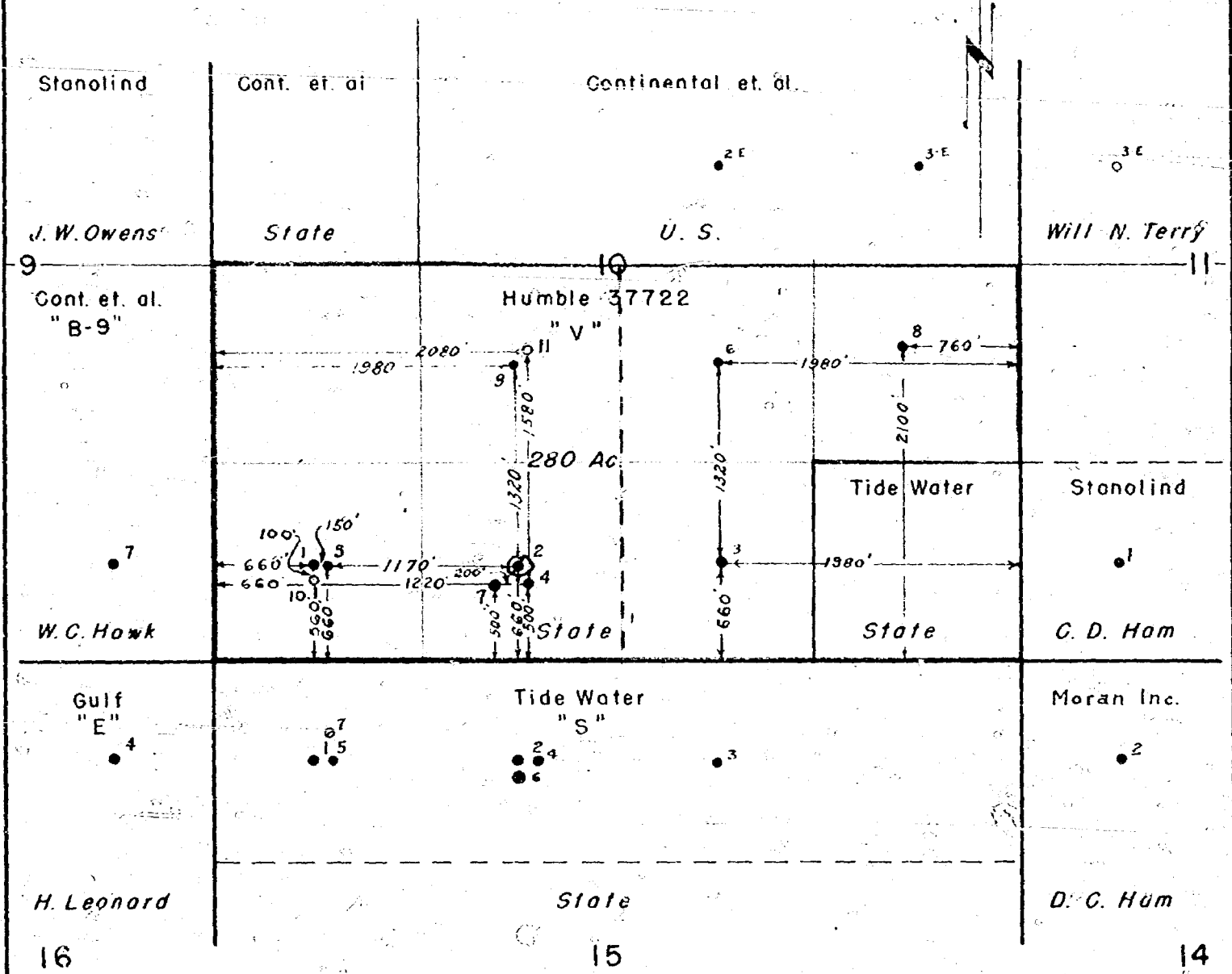
HUMBLE OIL & REFINING COMPANY

J. W. House
J. W. HOUSE
Division Superintendent

JEG/hrs

- Encl. Exhibit A - Plot showing all wells on Humble New Mexico State V lease and offset leases.
- Exhibit B - Schematic Diagram of Current Completions, Humble New Mexico State V-2.
- Exhibit C - Schematic Diagram of Proposed Dual Completion, Humble New Mexico State V-2.
- Exhibit D - Radioactive Log of Humble New Mexico State V-2.

T-21-S R-37-E



*Case A
Case 453*



NOTE: Area shown hereon is a portion of Lse. No. 37722 which covers 3,960 Ac. lying in Lea County.

NEW MEXICO STATE "V" NO. 37722		
SEC. 10 T-21S R-37-E LEA CO. N.M.		
HUMBLE OIL & REFINING COMPANY CIVIL ENGINEERING DIVISION MIDLAND, TEXAS		
DRAWN D.L. MCKIBBIN	SCALE 1" = 1000'	FILE NO.
CHECKED <i>A. Russell</i>	DATE 9-8-48	WT-A 759
APPR. _____	REVISE 4-11-52 D.L.M.	

**EXHIBIT B - SCHEMATIC
DIAGRAM OF CURRENT
COMPLETION - HUMBLE
NEW MEXICO STATE V-2 ***

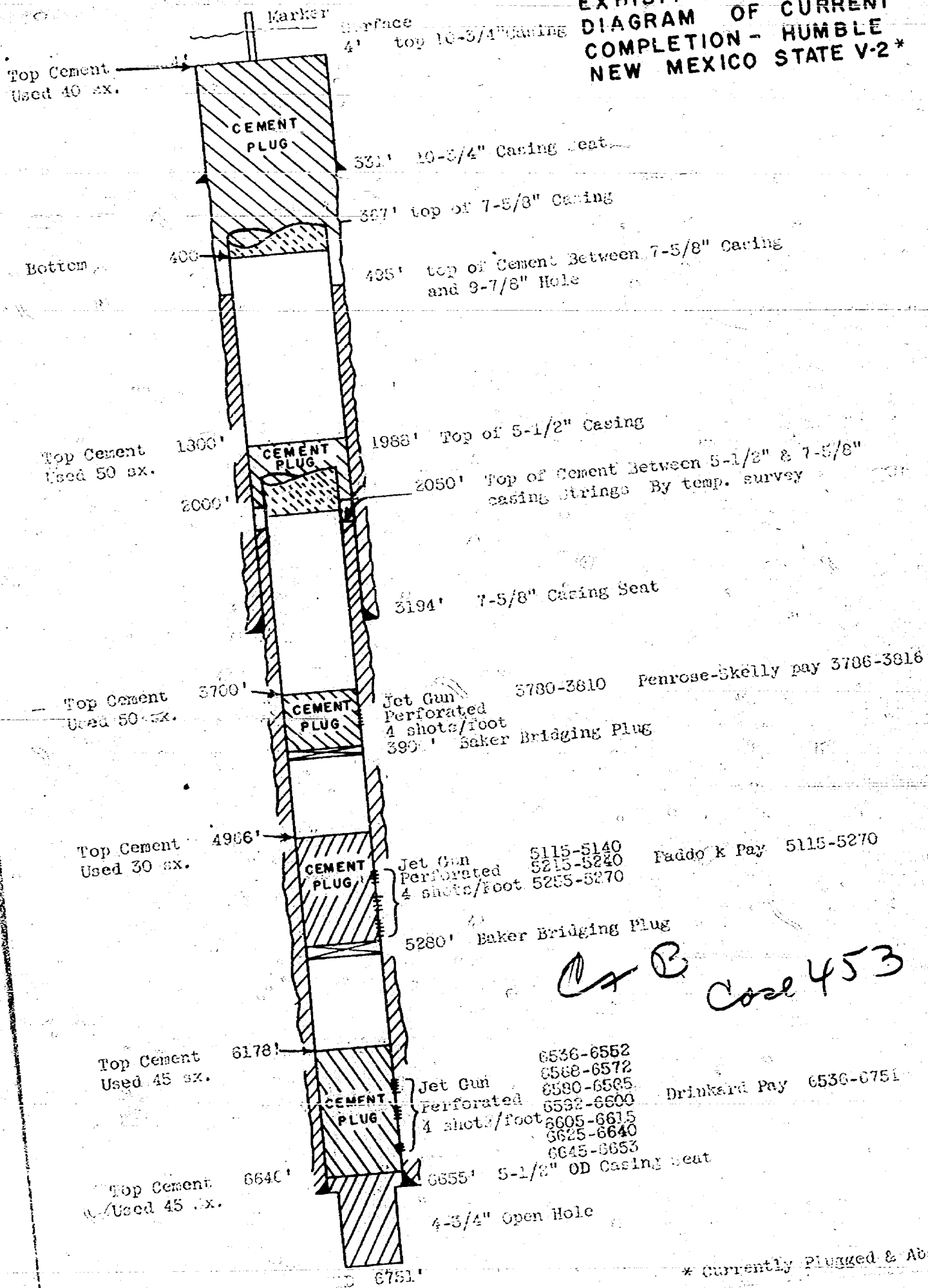


EXHIBIT C - SCHEMATIC DIAGRAM OF PROPOSED DUAL COMPLETION - HUMBLE NEW MEXICO STATE V-2

