



Case 665

## BEFORE THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO

APPLICATION OF AMERADA PETROLEUM CORPORATION  
FOR THE ESTABLISHMENT OF THREE PRORATION  
UNITS IN THE SE/4 SEC. 11-13S-38E, BRONCO  
FIELD, LEA COUNTY, NEW MEXICO, CONSISTING  
OF THE EAST 43.69 ACRES AND THE NORTH AND  
SOUTH 43.69 ACRES OF THE WEST HALF OF SAID  
QUARTER SECTION.

APPLICATION

COMES NOW Amerada Petroleum Corporation and alleges and states:

(1) That it is the owner of oil and gas leases covering the SE/4 of Section 11, Township 13 South, Range 38 East, Lea County, New Mexico.

(2) That the east line of said quarter section coincides with the boundary line between New Mexico and Texas, and because of the adjustment of the survey on the east line, this quarter section contains only 131.07 acres.

(3) That applicant has heretofore completed its Ward #1 Well, located approximately 660 feet from the south and west line of said quarter section, and its Ward #2 Well, located approximately 660 feet from the north and 520 feet from the east line of said quarter section; and applicant is presently drilling its Ward #3 Well 660 feet from the north and west line of said quarter section.

(4) That each of these wells is an oil well in the Bronco Field, Lea County, New Mexico.

(5) That because of the size and shape of said quarter section four 40-acre proration units substantially in the form of a square cannot be established in said quarter section and all three of said wells cannot be located on 40 contiguous surface acres in the form of a square within said quarter section.

(6) That establishment of three proration units in said quarter section, consisting of the east 43.69 acres and the north and south 43.69 acres of the west half of said quarter section, as shown on a plat marked Exhibit "A", attached hereto and made a part hereof, will secure to applicant the full value of its wells in said quarter section and will not result in waste or injury to correlative rights.

WHEREFORE, applicant respectfully requests that this matter be set down for hearing and that the proration units proposed herein be established.

DATED this 3 day of February, 1954.

AMERADA PETROLEUM CORPORATION

By

John A. Woodward  
John A. Woodward,  
Its Attorney

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**TESTIMONY IN SUPPORT OF AMERADA PETROLEUM CORPORATION'S  
APPLICATIONS FOR ORDERS ESTABLISHING PRORATION UNITS  
IN THE BRONCO SILURO-DEVONIAN POOL, LEA COUNTY, NEW MEXICO**

The Bronco Siluro-Devonian Pool is located in Lea County, New Mexico and Yoakum County, Texas. Referring to Exhibit "A" it will be noted the east line of Sections 11 & 14 coincides with the boundary line between New Mexico and Texas, and because of the adjustment of the survey on the east line the SE/4 of Section 11 contains only 131.07 acres and the NE/4 of Sections 14 contains only 128.20 acres. This deficiency in acreage results in Lots of less than 40 acres being formed along the boundary line in New Mexico.

The Schenck No. 1 well is located in Lot No. 1, Section 14, T13S, R38E and it is proposed to unitize Lot No. 1 containing 24.46 acres with 15.54 acres of Lot No. 2 to form a 40 acre proration unit. The Ward No. 2 well is located in Lot No. 3, Section 11, T13S, R38E containing 25.89 acres. It is proposed to form three proration units of equal size, each unit to contain 43.69 acres, all contained within the boundary of the SE/4 of Section 11. All the acreage contained in this quarter section is one leasehold and therefore requires no unitisation. All proration units herein proposed are outlined in red on Exhibit "A".

Exhibit "B" is a map of the Bronco Area showing contours drawn on the top of the Devonian formation. Our inspection of Exhibit "B" indicates that all the units here proposed lie within the productive limits of the pool.

Exhibit "C" is a tabulation of pertinent data pertaining to the three wells now completed on three of the four units here proposed. Of particular significance is the bottom-hole pressures and potential tests,

which indicate good communication within the reservoir and high productivity.

Exhibits "D" & "E" are copies of productivity index reports on Schenk No. 1 and Ward No. 2. These tests further substantiate the high productivity of the wells and indicate in my opinion that one well will drain an area much larger than 40 acres.

Respectfully submitted,

*R. S. Christie*  
R. S. Christie

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

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EXHIBIT "C"

PERTINENT WELL DATA

	<u>Schenck No. 1</u>	<u>Ward No. 1</u>	<u>Ward No. 2</u>
Location	660' F NL & 477.18' F EL Section 14, T13S, R38E	660' F SL & 660' F WL Section 11, T13S, R38E	1983' F SL & 520' F EL Section 11, T13S, R38E
Spudded	11-21-52	4-7-53	7-7-53
Completed	4-4-53	7-3-53	9-24-53
Elevation (DF)	3810'	3809'	3810'
Top Devonian	11,387'	11,670'	11,566'
Top Pay	11,387'	11,670'	11,566'
Oil String	7" at 11,411' 5" liner 12,030'	5½" set at 11,725'	5½" set at 11,650'
Perforations	11,420-11,515' 11,535-11,615' 11,700-11,780'	open hole	open hole
Total Depth	12,548' P.B. 11,780'	11,890'	11,871'
Acidized	11,420-11,780' w/5000 gals.	11,725-11,890' w/1000 gals.	11,650-11,871' w/1000 gals.
Potential Test	560 bbls. in 24 hrs. 3/4" choke, GOR 205 Gravity 43.5° API	1598 in 24 hrs. based on 6 hr. test 1/2" choke, GOR 125 Gravity 43.9° API	1744 bbls. in 24 hrs. based on 8 hr. test 1/2" choke, GOR 113 Gravity 45° API
Reservoir Pressure at -8000'	6-18-53 4788# 9-28-53 4767#	9-28-53 4768#	10-3-53 BHP 4771#
Original Pressure 4789# Weems #1, 11-24-52			

## AMERADA BOTTOM-HOLE PRESSURE-TEMPERATURE REPORT

R.P.G. 3 NO. 4703 CLOCK NO. HK 1931 SPEED 24 HR. LEASE L. W. Ward WELL NO. 2  
 ELEMENT NO. 10,655N RANGE 0-6000 CORR. TO - °F LOCATION Bronco S/D Pool Lea, County, N.M.  
 RUN BY JRE/RAB CALCULATED BY JRE/RAB REPORTED BY RAB DATE RUN 10-2-53 TIME 10:45 PULLED 10-3-53 TIME 10:37 a.m.  
 9-24-53 581.23 bbl. in 8 hrs. WELL DATA Gas measurement by orifice well tester.  
 POTENTIAL: CHOKED 2" OIL WATER 0 G.O.R. 113 ZONE Devonian TOP 11,566' BOTTOM T.D. 11,871'  
 HOW PRODUCED Natural flow thru tbg. P.I. CASING 5 1/2" DEPTH 11,650' TUBING 2" DEPTH 11,864'  
 HOURS SHUT IN 46 WELL HEAD PRESS. CAS. Pkr. TUB 1000 TOP LINER - PERFORATIONS Open hole 11,650-11,871'  
 LAST RESERVOIR PRESSURE Initial DEPTH 11,810 DATE ELEVATION 3810°F GRAVITY OF OIL 45.0 SP. GR. OF GAS  
 Flow line : 1627' of 3" Estimated shrinkage - 12%  
 Trap press: 65 psi

## TEST RECORD

PURPOSE OF TEST To determine flowing characteristics of well.

TIME	DEPTH	WELL PRESSURE	Press. Decline	Tbg. Prod.	Prod. Net	Prod. Net Average	P. I. (Hrly)	Tbg. Press.	WELL GOR	Remarks
15A	11810									
45A	11810	4771	-	-	-	-	-	1000	-	Opened well on a 24/64" Pos. Choke. Oil Immediately
45P		4546	225	40.03	60.75	58.84	0.2615	545	93	
45		4544	227	-	56.93	57.62	0.2538	546	102	
45		4544	227	-	58.31	59.69	0.2630	547	100	
45		4544	227	-	61.07	60.38	0.2660	550	96	
45		4541	230	-	59.69	59.00	0.2565	551	99	
45		4538	233	-	58.31	58.48	0.2510	550	101	
45		4535	236	-	58.65	59.69	0.2529	549	101	
45		4535	236	-	60.72	60.72	0.2573	549	97	
45		4535	236	-	60.72	59.69	0.2529	548	97	
45		4532	239	-	58.65	59.17	0.2476	548	102	
45		4529	242	-	59.69	59.17	0.2445	547	100	
45		4526	245	-	58.65	59.00	0.2408	547	102	
45A		4526	245	-	59.34	58.83	0.2401	547	100	
45		4526	245	-	58.31	58.31	0.2380	547	101	
45		4526	245	-	58.31	59.52	0.2429	547	101	
45		4526	245	-	60.72	61.07	0.2493	547	97	
45		4526	245	-	61.41	60.03	0.2450	547	96	
45		4526	245	-	58.65	59.00	0.2408	547	101	
45		4526	245	-	59.34	59.69	0.2436	547	99	
45		4526	245	-	60.03	60.72	0.2478	547	98	
45		4526	245	-	61.41	61.41	0.2507	547	95	Shut well in Storage full

## EXPLANATIONS OR CHART

Total oil production prior to test: 673 bbl.

Total oil production during test: 1249.63

ILLEGIBLE





FLOW TEST  
L.W. WARD NO.2  
BRONCO SILURO-DEVONIAN  
FIELD  
LEA COUNTY, NEW MEXICO  
10-2-53  
24/64" POSITIVE CHOKE

