CASE NO.

7026

APPLICATION,

TRANSCRIPTS,

SMALL EXHIBITS,

ETC.

LAW OFFICES
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PAUL J. KELLY, JR.
JAMES H. BOZARTH
DOUGLAS L. LUNSFORD
PAUL M. BOHANNON

ERNEST R. FINNEY, JR.
J. DOUGLAS FOSTER
K. DOUGLAS PERRIN
C. RAY ALLEN
JACQUELINE W. ALLEN
T. CALDER EZZELL, JR.
WILLIAM B. BURFORD
JOHN S. NELSON
RICHARD E. OLSON
PHILLIP T. BREWER

OF COUNSEL
CLARENCE E. HINKLE
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W. E. BONDURANT, JR. (1914-1973)

ROSWELL, NEW MEXICO OFFICE
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AMARILLO, TEXAS OFFICE
1701 AMERICAN NATIONAL BANK BUILDING
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ONLY ATTYS. EATON, COFFIELD, MARTIN, POZARTH, BOHANNON, FINNEY, FOSTER, ALLEN, ALLEN, BURFORD, BREWER & STONE LICENSED IN TEXAS

December 16, 1980

File

Mr. Dick Stamets
Oil Conservation Division
Post Office Box 2088
Santa Fe, New Mexico 87501

Re: Case No. 7026
Order No. R-6484
Bass Enterprises Production
Production Co. Big Eddy Unit
No. 60, J-20-21-28, Eddy County,
New Mexico

Dear Dick:

Reference is made to the above referenced Order wherein it was requested that prior to January 1, 1981, the applicant submit data demonstrating that the Fenton-Bone Spring Pool may continue to be produced at a gas-oil ration of 10,000 to one without waste and establishing the size of the reservoir being drained by said Big Eddy Well No. 60. Enclosed please find calculations and illustrations submitted by Bass Enterprises Production Company in satisfaction of these requirements.

Please advise if additional information is required.

Thank you.

Very truly yours,

HINKLE, COX, EATON,
COFFIELD & HENSLEY

Conrad E. Coffield

CEC:rh
Enclosures
xc: Mr. Jim Pullig
xc: Mr. Jim Greve
xc: Mr. Steve Rowland
xc: Mr. Bob Cunningham

Form No. 477-A

INTER-OFFICE COMMUNICATION

MIDLAND OFFICE

DATE December 12, 1980

TO: Files

FOR: MR.

FROM: MR. R. M. Cunningham

RE: Case No. 7026, Order No. R-6484
Bass Enterprises Production Co.
Big Eddy Unit No. 60, J-20-21-28
Eddy County, New Mexico
File: 400-WF

Prior to pipeline connection, Bass production tested Well No. 60 under an order granted by the NMOCD. Bottom hole pressures prior to and following the test were recorded as was the production from the test. This data, coupled with recombined fluid analysis and well logs, provides the basis for the following classical control volume analysis of the reservoir.

Reservoir Size

Basically, the analysis is performed by measuring a pressure drop in a control volume due to the withdrawal of a known volume of fluids. The following data was measured or excerpted from the attachments:

Productive Reservoir Height	H=30 ft
Average Crossplotted Porosity	$\emptyset$=14.7%
Connate Water Saturation	S_{wc}=30%
Initial Reservoir Pressure	P_1=2829 psig BHP
Final Reservoir Pressure	P_2=2749 psig BHP
Gas Production	Q_g=7001.8 MSCF
Oil Production	Q_o=775.6 BSTO
Reservoir Temperature	T_r=575°R (115°F)
Standard Conditions Temperature	T_s=520°R (60°F)
Standard Conditions Pressure	P_s=15.025 psig
(1) Equivalent Compressibility @P_2	Z_2=0.7592
Reservoir Volume @P_1	V_1=1.389 V_{sat}
Reservoir Volume @P_2	V_2=1.412 V_{sat}
(2) Oil Vapor Equivalent	VE=695 SCF/BSTO

(1) GPSA Data Book

(2) Craft and Hawkins

The tested volume at standard conditions

$$Q = (VE)\ (Q_o) + Q_g$$
$$Q = 7540\ MSCF$$

The tested volume at P_2 conditions

$$Q_2 = (Q)\ (P_s)\ (T_r)\ (Z_2) \div (P_2)\ (T_s)$$
$$= 34.597\ MCF\Big|_{P_2}$$

The relative volume tested

$$V_2 - V_1 = 0.023\ V_{sat} = 34.597\ MCF\Big|_{P_2}$$

The saturated volume (by rearranging and dividing)

$$V_{sat} = 1504203\ CF$$

The hydrocarbon pore volume at original pressure

$$HCPV = V_{sat}\ (1.389) = 2089338\ CF$$

The total pore volume

$$PV = HCPV \div (1-S_w) = 2984769\ CF$$

The total reservoir volume

$$RV = PV \div \emptyset = 20304548\ CF$$

The areal reservoir extent

$$A = RV - H = 676818\ ft^2$$
$$= 15.538\ acres$$

GOR and Conservation

Core Laboratories processed a recombined sample of produced fluids. Their findings showed the reservoir to contain 20.1% HCPV volatile oil and 79.9 HCPV gas phase vapors at original reservoir conditions. The volatility of the oil is illustrated by differential pressure liberation of 33% of the total oil volume when pressures were reduced to 1700 psi.

Generally speaking, waste occurs when gas or water drive mechanisms are allowed to expend their energy in a fashion leaving otherwise recoverable hydrocarbons in situ. Such cases include:

A. Upward coning of underlying water into perforations productive of oil or gas (aquifer drive)

B. Solution gas drive and the creation of a gas cap (solved by pressure maintenance)

C. Downward coning of overlying gas into perforations productive of oil (gas pressure maintenance - gas cap expansion)

During the completion of Well 60, all porous members were perforated, and no evidence of water-bearing strata was found. Further, no indication of pressure maintenance due to aquifer drive was noted during the production test. No waters other than waters of condensation have been produced subsequent to the test. This data suggests that the reservoir is not aquifer driven.

Generally, gas cap expansion drives apply to reef-type reservoirs where vertical permeability approaches horizontal permeability and the oil column is displaced by the cap expansion downward through the vertically continuous medium to the perforations. In the case of Well 60, the porosity and permeability are stratigraphically laminated as shown on the well log. No vertically continuous members exist save the lowermost 13 foot interval, an interval far too small to vertically separate by perforation. By the same example, a 15-acre reservoir will not financially support drilling for pressure maintenance.

In support of the high GOR currently requested is Core Laboratories' study which shows that the reservoir fluid is 20% liquid at reservoir conditions. This suggests that for each reservoir barrel of oil produced, 4 reservoir barrels of gas must be produced. From previous calculations, 4 reservoir barrels of gas are equivalent to 4894 SCF at the surface and the barrel of oil liberates an additional 450 SCF gas while actual liquids shrink to 0.65 barrels. This results in absolute minimum producing gas-oil ratios of 8221 to 1. The gas-oil ratio on the original test was 9027 to 1. Further, the volatility of the oil will generate higher producing gas-oil ratios as the reservoir pressure is reduced through production.

It is concluded from the above data and calculations that no waste will occur from producing Big Eddy Unit No. 60 at a 10,000 GOR.

R. M. Cunningham

RMC:gp
Attachments

Dresser Atlas

DRESSER

Compensated Densilog
Compensated Neutron

FILE NO.

COMPANY BASS ENTERPRISES PROD. CO.

WELL BIG EDDY UNIT NO. 60

FIELD BASS MORROW

COUNTY EDDY STATE NEW MEXICO

LOCATION:
1980'FSL & 1980'FEL

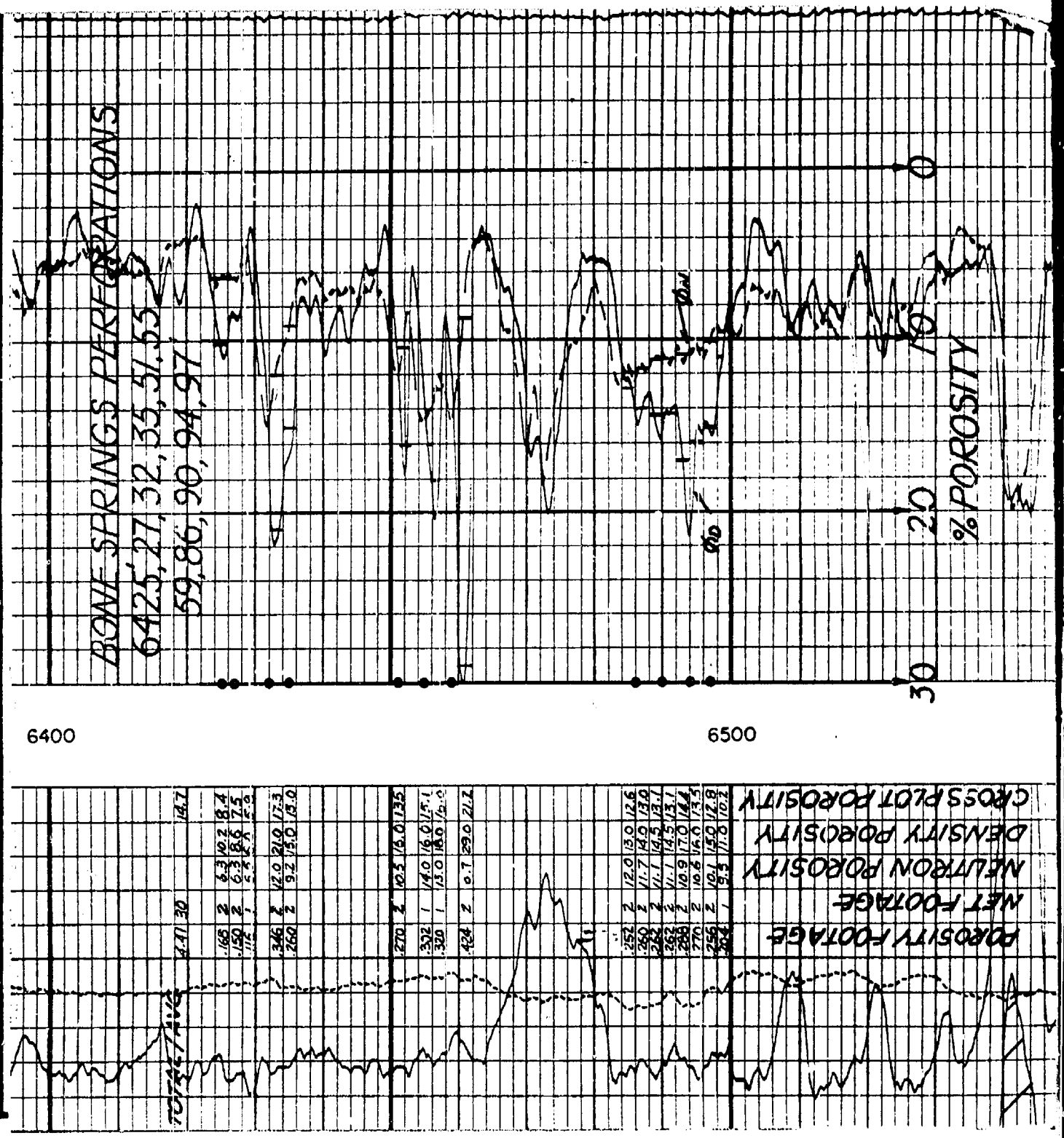
SEC 20 TWP 21-S RGE 28-E

Other Services
DLL/MLL

Permanent Datum GROUND LEVEL Elev. 3404
Log Measured from K. B. 18 Ft. Above Permanent Datum
Drilling Measured from K. B.

Elevations.
KB 3422
DF
GL 3404

Date	3-15-79			
Run No.	ONE			
Service Order	35569			
Depth—Driller	12185			
Depth—Logger	12220			
Bottom Logged Interval	12218			
Top Logged Interval	SURFACE			
Casing—Driller	8 5/8@ 3200	@	@	@
Casing—Logger	3200			
Bit Size	7 7/8"			
Type Fluid in Hole	DRISPAC-KCL			
Density and Viscosity	10.2 32			
pH and Fluid Loss	10 8.4 cc	cc	cc	cc
Source of Sample	PIT			
Rm @ Meas. Temp.	.052@ 76 °F	@ °F	@ °F	@ °F
Rmf @ Meas. Temp.	.046@ 76 °F	@ °F	@ °F	@ °F
Rmc @ Meas. Temp.	- @ °F	@ °F	@ °F	@ °F
Source of Rmf and Rmc	MEAS.		F	
Rm @ BHT	.021@ 184°F	@ °F	@ °F	@ °F
Time Since Circ.	9 HOURS			
Max. Rec. Temp. Deg. F.	184°F	°F	°F	°F
Equip. No. and Location	6124 HOBBS			
Recorded By	HERNDON			
Witnessed By	WALLACE & ROBERTSON			



DRESSER

Compensated Densilog
Compensated Neutron

NO.

COMPANY BASS ENTERPRISES PROD. CO.

WELL BIG EDDY UNIT NO. 60

FIELD BASS MORROW

COUNTY EDDY STATE NEW MEXICO

LOCATION:
1980'FSL & 1980'FEL

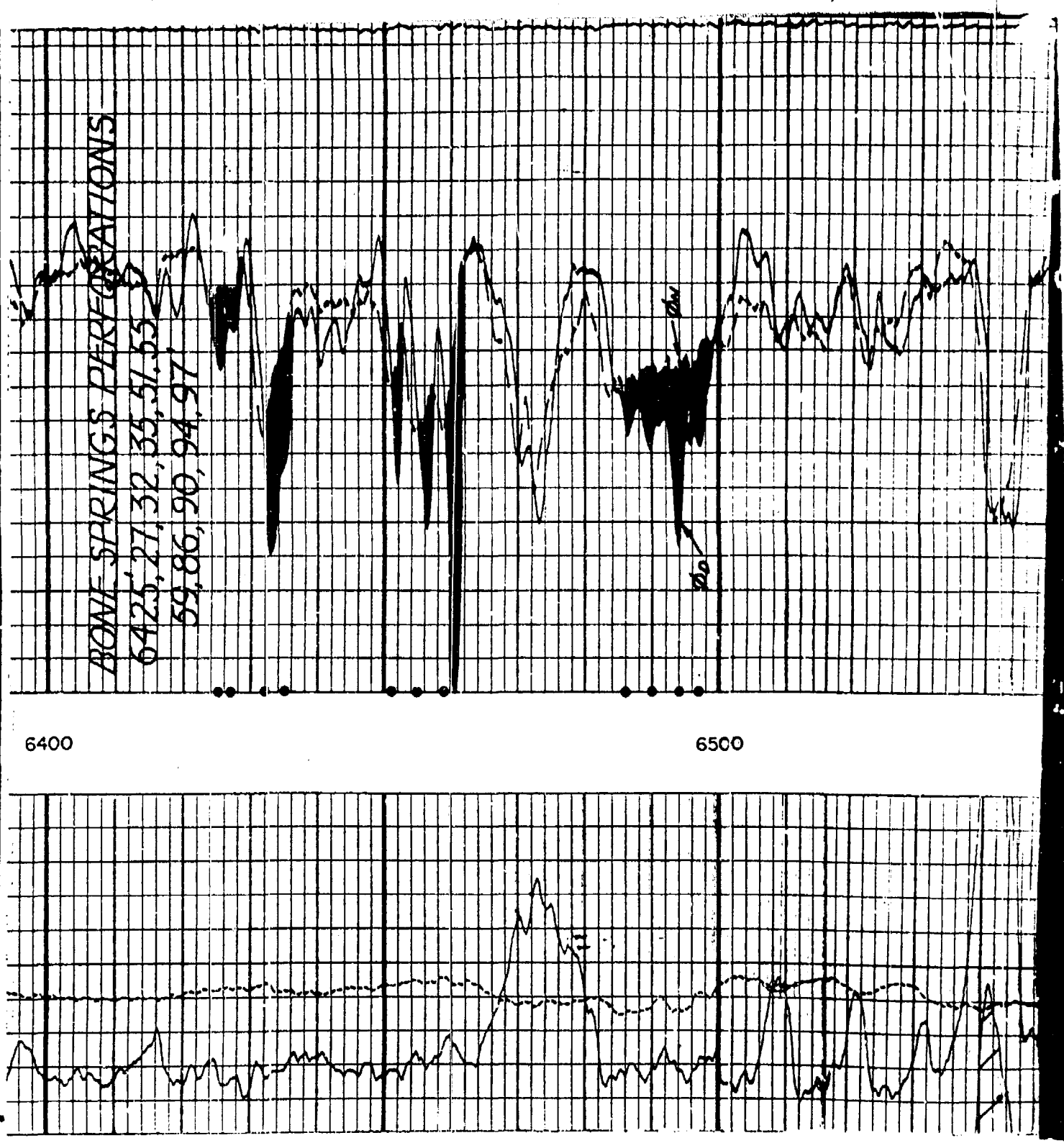
SEC 20 TWP 21-S RGE 28-E

Other Services
DLL/MLL

anent Datum GROUND LEVEL Elev. 3204
Measured from K. B. 15 Ft. Above Permanent Datum
g Measured from K. B.

Elevations.
KB 3222
DF
GL 3204

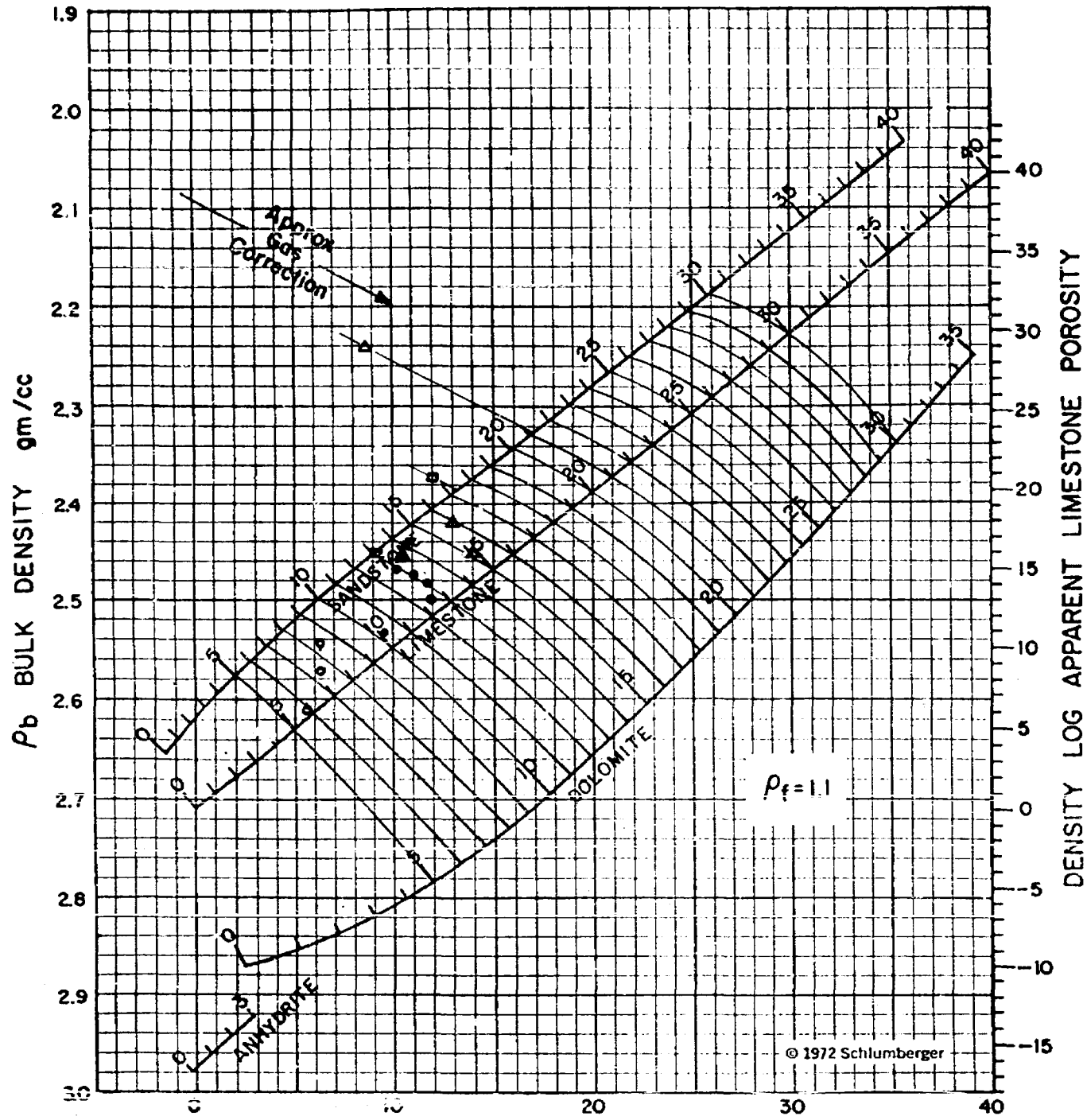
	3-15-78			
No.	ONE			
ce Order	95869			
n—Driller	12155			
n—Logger	12220			
m Logged Interval	12218			
Logged Interval	SURFACE			
g—Driller	8 5/8@ 3200	@	@	@
g—Logger	3200			
ze	7 7/8"			
Fluid in Hole	DRISPAC-KC			
sity and Viscosity	10.2 32			
and Fluid Loss	10 8.4 cc	cc	cc	cc
rce of Sample	PIT			
@ Meas. Temp.	.052@ 76 °F	@ °F	@ °F	@ °F
@ Meas. Temp.	.046@ 76 °F	@ °F	@ °F	@ °F
c @ Meas. Temp.	- @ °F	@ °F	@ °F	°F
rce of Rmf and Rmc	MEAS.		F	
@ BHT	.021@ 184°F	@ °F	@ °F	@ °F
Since Circ.	9 HOURS			
Rec. Temp. Deg. F.	184°F	°F	°F	°F
. No. and Location	6124 HOBBS			
rded By	HERNDON			
ssed By	WALLACE & ROBERTSON			

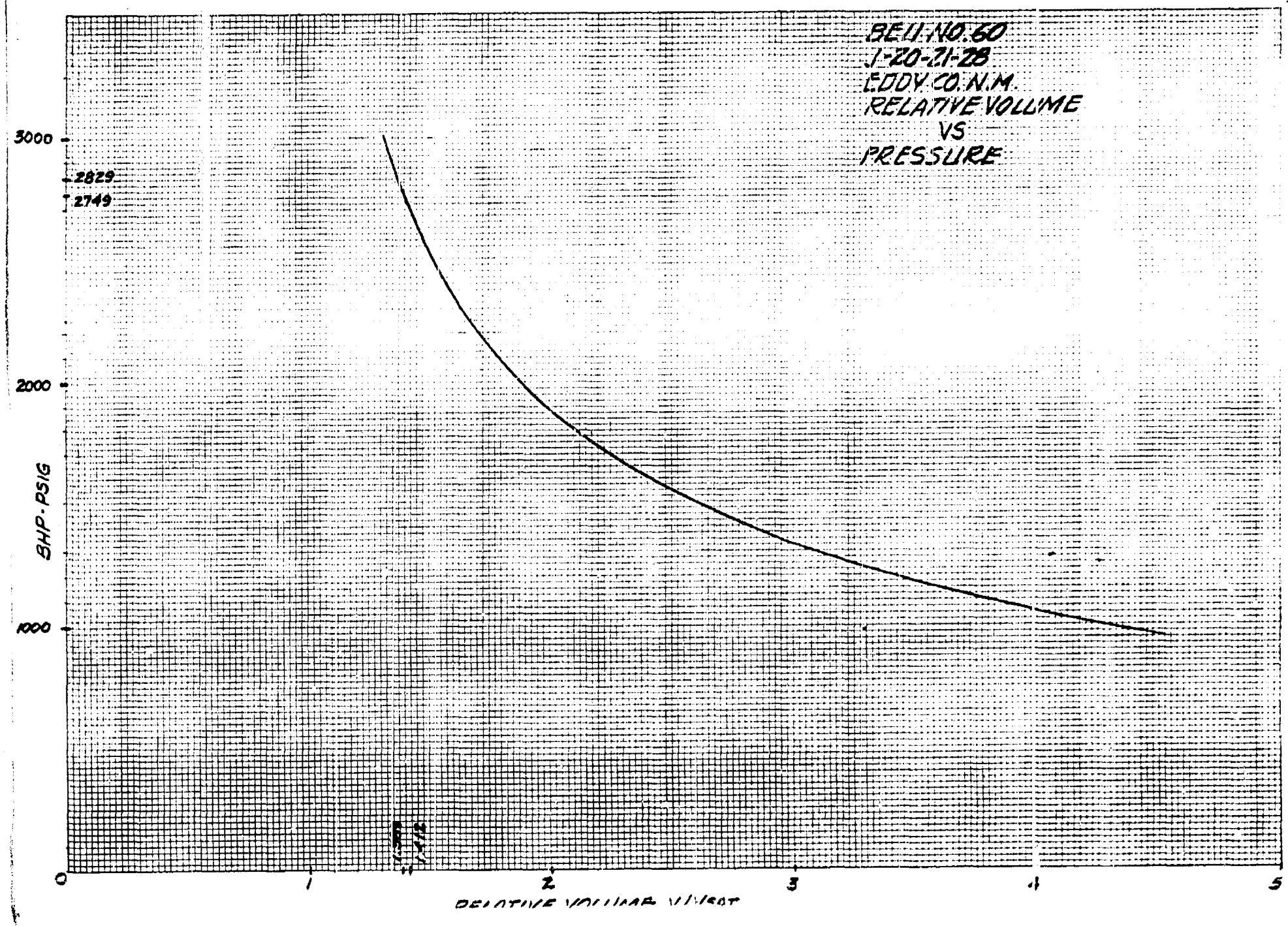


Schlumberger

POROSITY AND LITHOLOGY DETERMINATION FROM FORMATION DENSITY LOG AND COMPENSATED NEUTRON LOG (CNL)

SALT WATER, LIQUID-FILLED HOLES





CORE LABORATORIES, INC.
Petroleum Reservoir Engineering
DALLAS, TEXAS 75247

Reservoir Fluid Study

for

BASS ENTERPRISES PRODUCTION COMPANY

Big Eddy Unit No. 60 Well
Eddy County, New Mexico

7501 STEMMONS FREEWAY, BOX 47547, DALLAS, TEXAS 75247 · 214/631-8270

October 27, 1980

CORE LABORATORIES, INC.

Bass Enterprises Production Company
P. O. Box 2760
Midland, TX 79701

P. L. Moses
Manager
Reservoir Fluid Analysis

Attention: Mr. Robert Cunningham

Subject: Reservoir Fluid Study
Big Eddy Unit No. 60 Well
Eddy County, New Mexico
Our File Number: RFL 80575

Gentlemen:

Samples of separator gas and liquid were collected from the subject well by our representative on August 9, 1980. The samples were delivered to our laboratory in Dallas to be used in a reservoir fluid study, and the results of this study are presented on the following pages.

At the time of sampling, the well was flowing at a rate of 90.43 barrels of stock tank oil per day, and the gas-oil ratio was 8095 standard cubic feet of separator gas per barrel of stock tank liquid. In the laboratory this was found to be equivalent to 6156 standard cubic feet of gas per barrel of separator liquid at 82°F., and the separator products were recombined in these proportions to simulate the fluid entering the wellbore during sampling. The mixture was examined in a visual cell at the reservoir temperature of 125°F., and was found to be 20.1 volume percent liquid at the original reservoir pressure of 2793 psig. This is interpreted to mean that the well is presently producing approximately 80 percent gas and 20 percent liquid at reservoir conditions.

The separator gas and liquid compositions were measured by chromatography and by fractional distillation, respectively. The well stream composition was calculated on the basis of the producing gas-liquid ratio, and all of these compositional data are presented on page two. The well stream composition does not represent the reservoir liquid nor the reservoir gas, but is a composite of the overall gas-liquid mixture currently being produced.

No further testing was requested at this time; however, we will keep the samples for sixty days in case you decide to continue the study. It was a pleasure to cooperate with you by performing these analyses and we hope we may work with you again in the near future. Please do not hesitate to contact us if we can be of any other assistance or if you have any questions or comments concerning the data.

Very truly yours,

CORE LABORATORIES, INC.

James R. Fortner

James R. Fortner
Assistant Manager
Reservoir Fluid Analysis

JRF:JB:km
7cc: Addressee

CORE LABORATORIES, INC.
Petroleum Reservoir Engineering
DALLAS, TEXAS 75247

File RFL 80575

Company Bass Enterprises Production Co. Date Sampled August 9, 1980

Well Big Eddy Unit No. 60 County Eddy

Field Undesignated State New Mexico

FORMATION CHARACTERISTICS

Formation Name			Bone Springs	
Date First Well Completed			April 28, 1978	
Original Reservoir Pressure			2793 PSIG @ 6461	Ft.
Original Produced Gas-Liquid Ratio			34483	SCF/Bbl
Production Rate			21.78	Bbls/Day
Separator Pressure and Temperature			600 PSIG	°F.
Liquid Gravity at 60°F.			45.5	°API
Datum				Ft. Subsea

WELL CHARACTERISTICS

Elevation	3222 KB		Ft.
Total Depth	6747 PB		Ft.
Producing Interval	6425-6497		Ft.
Tubing Size and Depth	2-3/8 In. to 6342		Ft.
Open Flow Potential	4.374		MMSCF/Day
Last Reservoir Pressure	2793 PSIG @ 6461		Ft.
Date	April 28, 1978		
Reservoir Temperature	125 °F. @ 6461		Ft.
Status of Well	Shut in		
Pressure Gauge	Amerada		

SAMPLING CONDITIONS

Flowing Tubing Pressure		915	PSIG
Flowing Bottom Hole Pressure (Calculated)		1267	PSIG
Primary Separator Pressure		580	PSIG
Primary Separator Temperature		82	°F.
Secondary Separator Pressure		42	PSIG
Secondary Separator Temperature		132	°F.
Field Stock Tank Liquid Gravity		50	°API @ 60°F.
Primary Separator Gas Production Rate		732.0	MSCF/Day
Pressure Base	15.025	PSIA	
Temperature Base	60	°F.	
Compressibility Factor (F_{pv})	1.055		
Gas Gravity (Laboratory)	0.776		
Gas Gravity Factor (F_g)	0.8793		
Stock Tank Liquid Production Rate @ 60°F.		90.43	Bbls/Day
Primary Separator Gas/Stock Tank Liquid Ratio		8095	SCF/Bbl
	or		Bbls/MMSCF
Sampled by		Tefteller	

REMARKS:

CORE LABORATORIES, INC.
Petroleum Reservoir Engineering
DALLAS, TEXAS 75247

File RFL 80575

Well Big Eddy Unit No. 60

HYDROCARBON ANALYSES OF SEPARATOR PRODUCTS AND CALCULATED WELL STREAM

Component	Separator Liquid Mol Percent	Separator Gas Mol Percent	Separator Gas GPM	Well Stream Mol Percent
Hydrogen Sulfide	0.38	0.18		0.21
Carbon Dioxide	4.00	10.38		9.54
Nitrogen	0.06	1.44		1.26
Methane	12.24	72.70		64.79
Ethane	8.22	9.49	2.523	9.32
Propane	9.76	3.87	1.059	4.64
iso-Butane	2.48	0.47	0.153	0.73
n-Butane	6.86	0.91	0.285	1.69
iso-Pentane	3.91	0.21	0.077	0.69
n-Pentane	4.31	0.19	0.069	0.73
Hexanes	6.77	0.11	0.045	0.98
Heptanes plus	41.01	0.05	0.023	5.42
	100.00	100.00	4.234	100.00
Properties of Heptanes plus				
API gravity @ 60°F.	42.1			
Specific gravity @ 60/60°F.	0.8151			0.814
Molecular weight	173	103		172

Calculated separator gas gravity (air=1.000) = 0.776

Calculated gross heating value for separator gas = 1066 BTU per cubic foot of dry gas @ psia and 60°F.

Primary separator gas collected @ 580 psig and 82°F.

Primary separator liquid collected @ 580 psig and 82°F.

Primary separator gas/separator liquid ratio 6156 SCF/Bbl @ 82°F.

Primary separator liquid/stock tank liquid ratio 1.315 Bbls @ 82°F./Bbl

Primary separator gas/well stream ratio 868.97 MSCF/MMSCF

CORE LABORATORIES, INC.
Petroleum Reservoir Engineering
DALLAS, TEXAS 75247

File RFL 80575

Well Big Eddy Unit No. 1

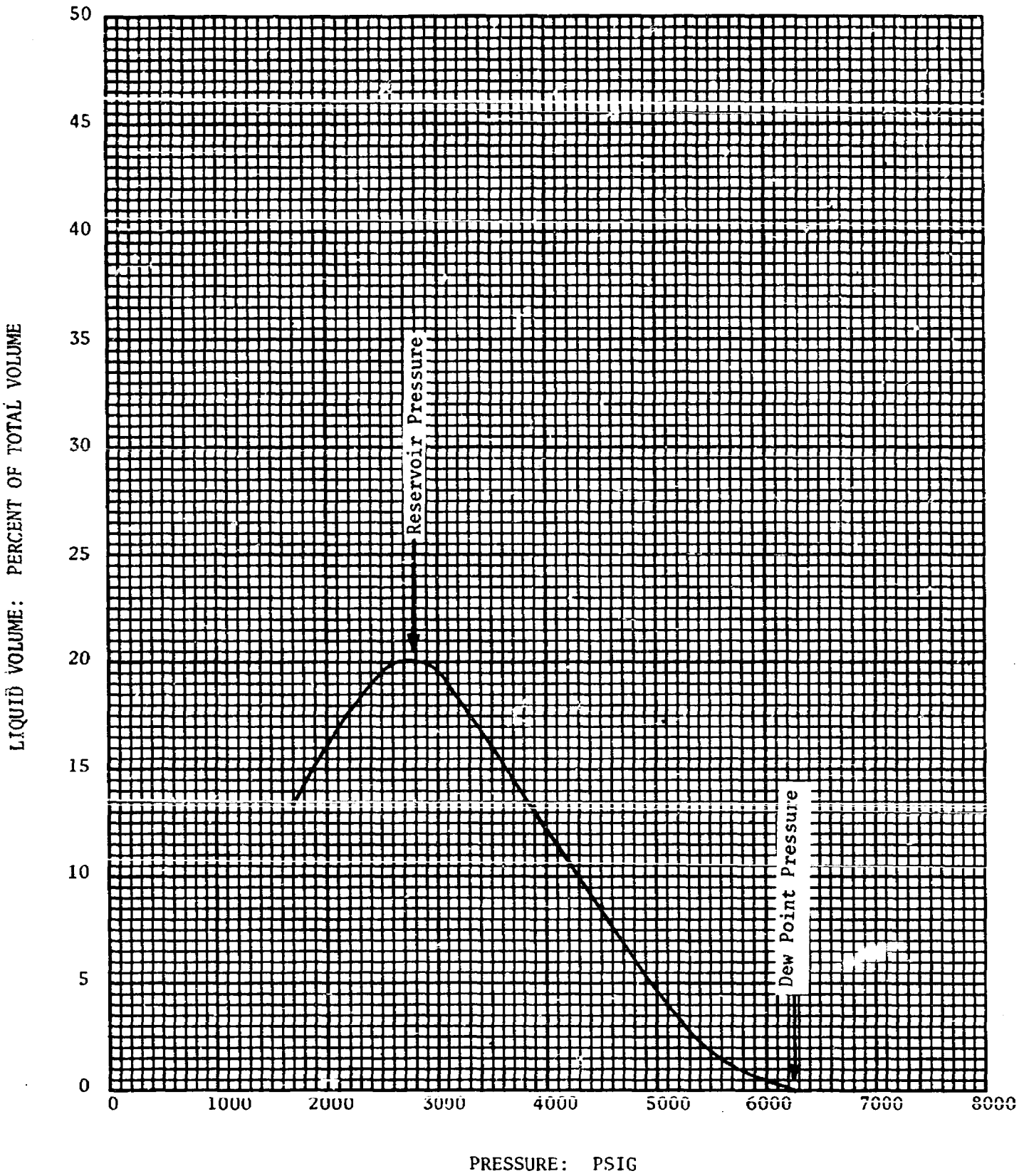
PRESSURE-VOLUME RELATIONS OF RESERVOIR FLUID AT 125°F.
(Constant Composition Expansion)

Pressure, PSIG		Relative Volume, V/Vsat	Liquid Volume, Percent of Total Volume
7000		0.9762	
6700		0.9855	
6500		0.9918	
6350		0.9968	
6260	Dew Point Pressure	1.0000	0.0
6200		1.0022	0.2
6100		1.0060	0.4
5950		1.0120	0.6
5750		1.0205	1.1
5500		1.0319	1.9
5200		1.0473	3.4
5000		1.0587	4.9
4500		1.0933	8.6
4000		1.1392	12.1
3500		1.2079	15.9
3000		1.3209	19.6
2793	Reservoir Pressure	1.3930	20.1
2200		1.7080	17.6
1700		2.2501	13.4
1300		3.0702	*
950		4.5512	*
785		5.8126	*

*Liquid levels not visible.

LIQUID VOLUMES AT 125°F.

Company BASS ENTERPRISES PRODUCTION CO. Formation BONE SPRINGS
Well BIG EDDY UNIT NO. 60 County EDDY
Field UNDESIGNATED State NEW MEXICO



STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
STATE LAND OFFICE BLDG.
SANTA FE, NEW MEXICO
17 September 1980

EXAMINER HEARING

IN THE MATTER OF:

Application of Bass Enterprises Production Company for pool creation Eddy County, New Mexico.

CASE 7026

BEFORE: Richard L. Stamets

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Oil Conservation Division:

Ernest L. Padilla, Esq.
Legal Counsel to the Division
State Land Office Bldg.
Santa Fe, New Mexico 87501

For the Applicant:

Conrad E. Coffield, Esq.
The Hinkle Law Firm
P. O. Box 3580
Midland, Texas 79701

SALLY W. BOYD, C.S.R.
Rt. 1 Box 193-B
Santa Fe, New Mexico 87501
Phone (505) 455-7409

I N D E X

E X H I B I T S

MR. STAMETS: We will call next Case 7026.

MR. PADILLA: Application of Bass Enterprises Production Company for pool creation, Eddy County, New Mexico.

MR. STAMETS: Call for appearances in this case.

MR. COFFIELD: I'm Conrad Coffield with the Hinkle Law Firm in Midland, Texas, appearing on behalf of the applicant, and I have one witness.

(Witness sworn.)

BOB CUNNINGHAM

being called as a witness and having been duly sworn upon his oath, testified as follows, to-wit:

DIRECT EXAMINATION

BY MR. COFFIELD:

Q. Mr. Cunningham, for the record would you please state your name, address, occupation, and employer?

A. My name is Bob Cunningham. I'm a Senior Production Engineer with Bass Enterprises Production Company in Midland, P. O. Box 2760, 79702.

Q. Mr. Cunningham, have you previously testified before the Division as a petroleum engineer?

A. No, sir, I have not.

Q. And for the Examiner's benefit, would you please give a brief statement as to your educational background and work experience as a petroleum engineer?

A. I attended Oklahoma State University and graduated in December of 1970 with a B.S. degree in mechanical engineering. I started work in January of 1971 with Cities Service Oil Company and worked there as a production engineer for three years.

I then worked for Borg-Warner Corporation in Midland, Texas, as a design engineer for one year.

I then worked for Union Oil Company of California in Midland, Texas, as a production engineer for four years, and have been with Bass for two years in the capacity of a petroleum engineer.

I'm currently registered EIT in Oklahoma.

Q. Are you familiar with Bass' application in this particular case?

A. Yes, sir, I am.

Q. Are you familiar generally with the situation involved in this particular area?

A. Yes, sir, I am.

MR. COFFIELD: Mr. Examiner, do you have any other questions of the witness?

MR. STAMETS: No, the witness is considered

qualified.

Q. Mr. Cunningham, would you please state for the record what it is that Bass seeks by this application?

A. Bass seeks to create a new Bone Springs oil pool and further promulgation of special pool rules permitting a GOR limitation of 10,000-to-1. The only well in this field is the Bass Big Eddy Unit Well No. 60, located in Unit J, 20, 21, 28, Eddy County.

Q. Okay, Mr. Cunningham, would you please refer to what we've marked as Exhibit One and explain this exhibit to the Examiner?

A. Exhibit Number One is a land plat covering the area around Big Eddy Unit No. 60. The acreage shown in yellow color on the plat is Bass operated acreage, all of which lies within the Federally unitized Big Eddy Unit, which Bass Enterprises operates.

In the upper lefthand corner of the illustration the green dot denotes Well No. 60 while the red dots denote the nearest offset wells.

MR. STAMETS: I believe that's the upper -- you're right, sorry about that. Go ahead.

A. Bass Enterprises Production Company is the only offset operator to the proration unit currently serviced by Well No. 60, which is the east half of Section 20.

Q. All right, Mr. Cunningham, would you please go to what was marked now as Exhibit Two, Two-A, Two-B, and Two-C, and explain those to the Examiner?

A. Exhibit Number Two is the open hole log performed by Dresser-Atlas. It's a compensated neutron formation density log run across the Bone Springs interval in the Well No. 60. Perforations and depths are shown on the log.

Exhibit Two-A is a cross section referring to Wells Nos. 79Y and Wells No. 60 on the plat, Exhibit One, showing the Bone Springs presence in the Well No. 60 on the left side of the small cross section and the correlation with the currently or recently completed Well No. 79Y.

Two-B is a second cross section showing that type of relationship between Well 60 and Well No. 2, again referring to Exhibit No. 1 for the location of the wells.

Exhibit Number Two-C is a similar exhibit, a cross section between Wells 39 and 60, again referring to Exhibit Number One for the location of the cross section.

Q. Next we have Exhibit Three. Would you please explain that exhibit for the Examiner?

A. Exhibit Number Three is a schematic diagram of the wellbore of Well No. 60. The Bone Springs zone has been perforated and tested and is currently being produced through a diethylalomine (sic) or DEA, gas sweetening

SALLY W. BOYD, C.S.R.
Rt. 1 Box 193-B
Santa Fe, New Mexico 87501
Phone (505) 455-7409

unit at rates near 3/4 of a million cubic feet of sweet gas per day and 75 barrels of oil per day.

Q Next is Exhibit Four. Would you please explain that exhibit?

A Exhibit Number Four is a schedule, a table of production history from the Well No. 60. As shown on the table, cumulative gas production to date amounts to approximately 33.3-million cubic feet, inclusive of 7-million cubic feet flared during a test sanctioned by the NMOCD.

Cumulative oil production amounts to 3135 barrels of oil, inclusive of 751 barrels of oil previously sold during the same sanctioned test. This test was performed in an effort to determine reservoir size.

Q The next exhibit is Exhibit Five. Would you please discuss that exhibit, Mr. Cunningham?

A Exhibit Number Five is an illustration of the data presented in Exhibit Number Four in graphic form.

Q What is the current status of the well in question here?

A The well is currently classified through Mr. Gressett's office as a gas well and is producing near 3/4 of a million cubic feet per day, plus 75 barrels of oil per day.

Q Mr. Cunningham, what studies have you done to determine the reservoir volumetric extent of the re-

SALLY W. BOYD, C.S.R.
Rt. 1 Box 193-B
Santa Fe, New Mexico 87501
Phone (505) 455-7409

servoir?

A. Well, as we previously mentioned, in a sanctioned test by the NMOCD we produced the well for the time period required to make 7 million cubic feet of gas, and across this test the reservoir pressure was measured and shown to drop 80 psi.

All the tests previous to this flaring test had indicated that the well was a gas well, and we used classical gas-type calculations in an effort to determine the reservoir size. The reservoir calculations indicated that the reservoir amounted to approximately 14 acres in extent and contained approximately 0.3 of one billion cubic feet of gas; however, during the test we did note that the production from the well was sour and that oil -- hydrocarbon liquids in the form of oil were being produced, and we've since sampled these hydrocarbon liquids and have a sample in CORE Labs laboratories to get PVT data from such that we can perform classical oil reservoir material balance.

Now the samples that we have taken have been analyzed, using the standard ASTM-D86 distillation method and do have the characteristics of oil.

Q. Mr. Cunningham, you have done some economic studies relative to this project. Will you please describe those to the Examiner?

A. This well was originally drilled as a

Morrow test and TD was originally 12,000 feet, and the cost for the drilling of the well was near a million dollars; however, if we were to drill only to the Bone Springs at near 6500 feet, the cost today would be approximately $350,000. The previously mentioned gas sweetening unit costs about $450,000, to bring the total cost of a completed, pipelined, Bone Springs oil well to $800,000.

Now at prevailing gas prices and windfall corrected oil prices, our before tax profits would be reduced 64 percent, that is, from roughly $3400 to $1200 per day if we were penalized under the existing statewide 2000 GOR ruling for a 40-acre oil well.

Further, payout of the equipment and the expenditure that Bass has made to put this well on line would be deferred for more than one year; that is, from 0.6 years to 1.75 years.

All the operations expenses and any other time/function costs would be increased, due to the required extended well life at the lower producing rates, and this will increase the operating cost across the life of the well some 164 percent.

The DEA gas sweetening unit is designed to handle rates sufficiently between 1/2-million cubic feet per day and 1-million cubic feet of gas, sour gas per day.

Although it will operate at lower rates,

the efficiency of the unit deteriorates. The plan at lower rates would be to shut the unit down and operate the well at capacity for only a few days per month. The starting and stopping of the unit also is an expensive process and would increase the operating expenses of the well, should we have to follow that plan.

This increase in operating expenses, the basic operating expenses, would cause a shutdown of the well and the facility sooner than normal, or sooner than what we petitioned for, and that would result in leaving otherwise recoverable hydrocarbons in the ground.

Q. Mr. Cunningham, in your opinion, would the granting of our application for the classification, or reclassification of this field, gas to oil, in combination with an increase in permissible gas/oil ratios from 2000 to 10,000, increase the recovery of hydrocarbons, as well as reduce economic waste --

A. Yes.

Q. -- and protect correlative rights?

A. Yes, sir, it would.

Q. Were these exhibits, One through Five prepared by you or under your supervision?

A. Yes, sir, they were.

MR. COFFIELD: Mr. Examiner, I move the admission of Exhibits One through Five.

MR. STAMETS: Exhibits One through Five will be admitted.

MR. COFFIELD: And I have no other questions on direct.

CROSS EXAMINATION

BY MR. STAMETS:

Q. Mr. Cunningham, what spacing size are you proposing for this pool?

A. I'm proposing a standard 40-acre proration unit, covering "J", 20, 21, 28, around our Big Eddy Unit No. 60 Well as an oil proration unit.

Q. Now you indicated that the sweetening unit needs to operate at some sort of a maximum efficient rate, or minimum efficient rate?

A. That's correct.

Q. What is that rate?

A. The gas sweetening unit will operate most efficiently between 1/2-million cubic feet per day and 1-million cubic feet per day.

Q. And at 10,000 gas/oil ratio at this depth what will be your gas production, authorized gas production rate, if you made those calculations?

A. No, sir, I have not made those calculations, but it would be simple to do them.

Q. Just run through those quickly, if you could.

A. All right.

If my memory serves me correctly, we have 142 barrels of oil per day allowable at this particular depth by the statewide rules.

Q. You said this was at the depth of --

A. 6450 feet.

Q. That's correct, 142 is the basic allowable.

A. All right, and at a 10,000 cubic feet per standard barrel --

Q. 142,000 a day.

A. That's 1,420,000 per day. That would allow full operation of the well as it currently stands. The capacity of the well at this time is approximately 3/4 of a million cubic feet of gas per day at a 10,000 GOR; such that if the 10,000 GOR ruling were granted, we could produce the well at rates not only compatible with the DEA sweetening unit but also at the full capacity of the well itself.

Q. Okay. So the well will only make 3/4 of a million a day.

A. Yes, sir, the well will at this time make 3/4 of a million a day, approximately.

If my memory serves me correctly, the standard GOR ruling would permit something less than 1/4 of

one million cubic feet per day, based on 142-barrel allowable at a 2000 GOR.

Q. The -- do you have any information on the liquids that are produced relative to specific gravity?

A. Yes, sir, I referred to a distillation that was performed on the oil, and the results of that distillation, I've made copies of, anticipating that there may have been some questions.

Would you like to distribute those, please?

MR. COFFIELD: Would you like that as an exhibit, Mr. Stamets?

MR. STAMETS: Oh, it probably ought to be an exhibit, Conrad. That would be Exhibit Seven?

MR. COFFIELD: Six.

A. Six.

MR. STAMETS: Okay.

A. Exhibit Number Six is a ASTM-D86 distillation, the results of that test, performed by Southwest Laboratories in conjunction with Forrest Tefteller.

It shows that the initial boiling point is 90° F and that residues of 20 percent are found at 580°; that the gravity of the liquids is 49.6° API at standard conditions; and that the color of the liquids is straw yellow but opaque.

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Q. Do you have any evidence that these higher gas rates can be produced without causing liquids to unnecessarily be left in the reservoir?

A. There -- I have no evidence to that effect, sir.

Q. Do you anticipate getting any evidence?

A. We have pressure tests that will tell us whether or not the recoveries that we will make will be optimum; that is to say, as soon as we get back the PDT data from CORE Laboratories we'll be able to determine what amounts of hydrocarbons are in the reservoir, or should be producable to the pressure base that we can operate to, and at that point in time we should be able to determine whether the recovery factors of the original liquids and gases in place is in line with other Bone Spring -- other similar Bone Springs production.

Q. Well, that also will give you a better indication of reservoir size?

A. Yes, sir, it will. In my experience, however, classical gas calculations with volatile oils, or -- or oil that contains considerable light ends, the actual acreage calculations will remain very close under either of the two, whether it's an oil reservoir or a gas reservoir.

Q. When do you think you will have this information?

A. According to CORE Labs, it should not take them more than about a month and a half.

Q. Okay. Will you submit this data subsequent to the hearing, data which would demonstrate the most efficient production rate for this well relative to oil and gas?

A. Yes, sir.

Q. And any information relative to reservoir size?

A. Yes, sir.

Q. Speaking of reservoir size, referring to Exhibit Number Two-A, is the righthand log any indication that perhaps the reservoir is larger than 40 acres?

A. No, sir. The log of the Well No. 79Y, which appears on the right in Exhibit Number Two-A, as compared to the log on the left of the well in question, Well No. 60, does not show the same development within the Bone Springs. These are both compensated formation density compensated neutron open hole logs drawn across the Bone Springs in the correlative interval.

If you'd refer to the perforations near 6430 feet, there will be four perforation astraddle the depth 6430 feet, you'll find dissimilarities between the logs, indicating that the porous and productive members in Well No. 60 are not porous and productive in Well No. 79.

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Q. How about the section then below 6450?

A. All right. The section immediately below 6450 and covering 10 feet to 6460, appears as porous and permeable and clean on the gamma ray section on the lefthand log of Well No. 60. On the righthand log, however, if you'll check the gamma ray column, which is the left margin column, you'll see that the zone -- that the log indicates that the zone is shale bearing at that point. That will cause a response similar to that seen in 79Y's log.

Q. Okay.

MR. STAMETS: Are there any other questions of the witness? He may be excused.

MR. COFFIELD: I would move the admission of Exhibit Six, Mr. Examiner.

MR. STAMETS: Exhibits Six will be admitted.

If there is nothing further, the case will be taken under advisement.

(Hearing concluded.)

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C E R T I F I C A T E

I, SALLY W. BOYD, C.S.R., DO HEREBY CERTIFY that the foregoing Transcript of Hearing before the Oil Conservation Division was reported by me; that the said transcript is a full, true, and correct record of the hearing, prepared by me to the best of my ability.

_____

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. _____, heard by me on _____ 19____.

_____, Examiner
Oil Conservation Division

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Santa Fe, New Mexico 87501
Phone (505) 455-7409

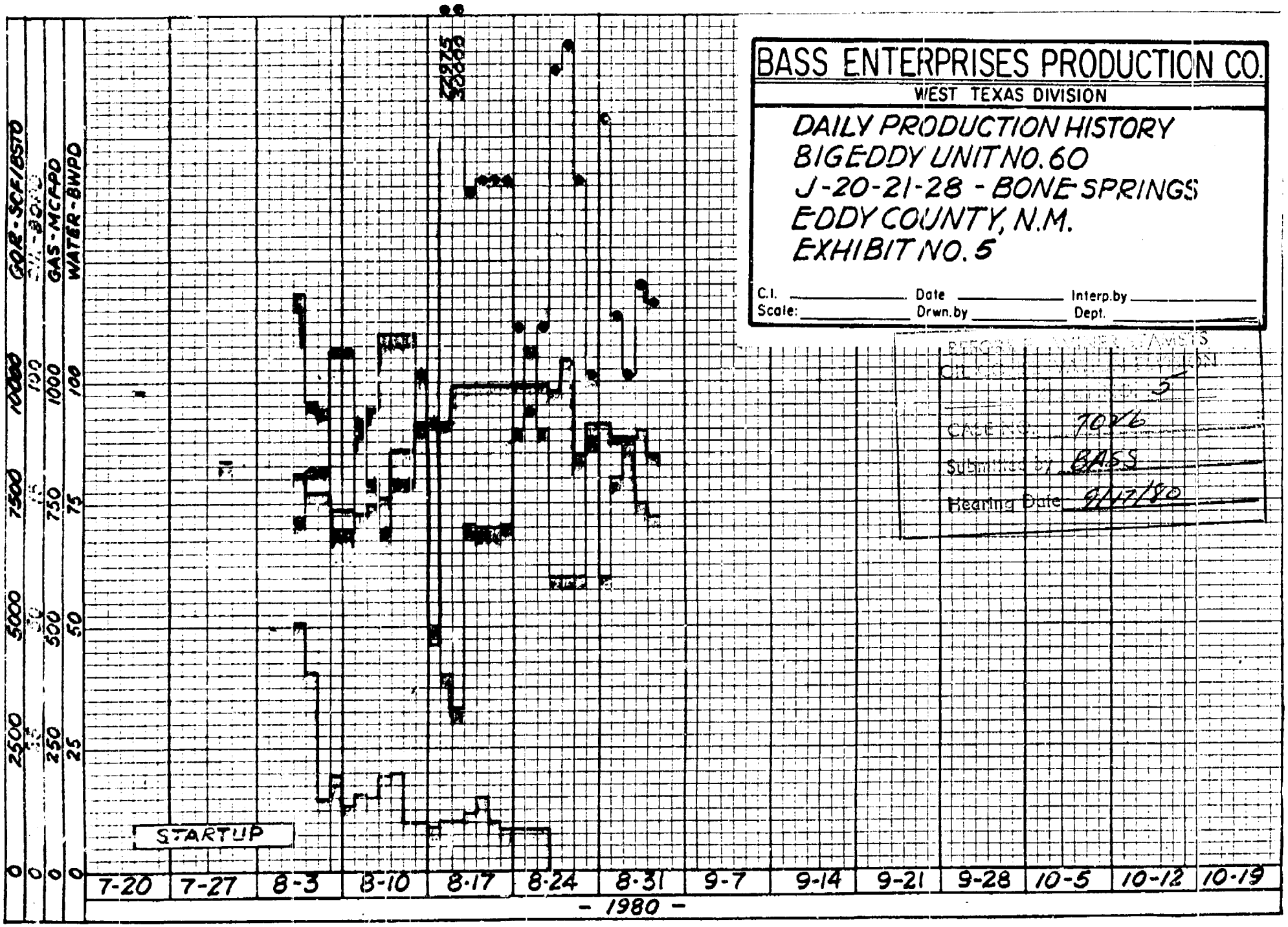
BASS ENTERPRISES PRODUCTION CO.

WEST TEXAS DIVISION

DAILY PRODUCTION HISTORY
BIG EDDY UNIT NO. 60
J-20-21-28 - BONE SPRINGS
EDDY COUNTY, N.M.
EXHIBIT NO. 5

C.I. _____ Date _____ Interp.by _____
Scale: _____ Drwn.by _____ Dept. _____

BEFORE EXAMINER STAMETS
OIL CONSERVATION DIVISION
Case No. 7096
Submitted by: BASS
Hearing Date: 9/17/80



SOUTHWESTERN LABORATORIES

FORT WORTH · DALLAS · HOUSTON · MIDLAND · BEAUMONT · TEXARKANA

CONSULTING, ANALYTICAL CHEMISTS
AND TESTING ENGINEERS

BEFORE EXAMINER STAMETS
OIL CONSERVATION DIVISION
CASE NO. 7026
Submitted by BASS 9/17/80
Hearing Date

Midland Texas 8-14-80 File No. C-1902-GD 6

Report of tests on Fluid

To Bass Enterprises Prod. Date Rec'd. 8-11-80

Received from

Identification Marks Big Eddy Unit No. 60, New Mexico, Separator Oil 580 psig @ 56° F., Sampled by Tefteller, 8-9-80

DISTILLATION, ASTM D-86

Percent Distilled	Observed Temperature° F
I.B.P.	90
5	130
10	160
20	210
30	256
40	300
50	382
60	466
70	580
80	—
90	—
95	—
	602 (End Point)

Percent Recovery ------- 75.0
Percent Residue ------- 20.0
Percent Loss ---------- 5.0
Gravity --------------- 49.6 ° A.P.I. @ 60° F
Color ----------------- Straw Yellow

Bar. Press. ----688 mm Hg

3cc Bass Enterprises Prod.
1cc Tefteller

SOUTHWESTERN LABORATORIES
Jack H Barton

Lab. No. 44420

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

BRUCE KING
GOVERNOR

LARRY KEHOE
SECRETARY

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501
(505) 827-2434

October 23, 1980

Re: CASE NO. 7026
ORDER NO. R-6484

Mr. Conrad Coffield
Hinkle, Cox, Eaton, Coffield
& Hensley
Attorneys at Law
P. O. Box 3580
Midland, Texas 79702

Applicant:

Baas Enterprises Production Company

Dear Sir:

Enclosed herewith are two copies of the above-referenced Division order recently entered in the subject case.

Yours very truly,

JOE D. RAMEY
Director

JDR/fd

Copy of order also sent to:

Hobbs OCD x
Artesia OCD x
Aztec OCD

Other

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
DIVISION FOR THE PURPOSE OF
CONSIDERING:

CASE NO. 7026
Order No. R-6484

APPLICATION OF BASS ENTERPRISES
PRODUCTION COMPANY FOR POOL
CREATION, EDDY COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on September 17, 1980, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this 20th day of October, 1980, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDINGS:

(1) That due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.

(2) That the applicant, Bass Enterprises Production Company, is the owner and operator of the Big Eddy Well No. 60, located in Unit J of Section 20, Township 21 South, Range 28 East, NMPM, Eddy County, New Mexico.

(3) That said well has discovered a separate common source of supply in the Bone Spring formation, and applicant seeks the creation and designation of a new oil pool therefor and the promulgation of special pool rules govering said pool, including a special gas-oil ratio limitation of 10,000 to one for said pool.

(4) That the evidence presently available indicates that a new pool should be created and designated the Fenton-Bone Spring Pool; that the vertical limits of said pool should be the Bone Spring formation, and that the horizontal limits of said pool should comprise:

TOWNSHIP 21 SOUTH, RANGE 28 EAST, NMPM
Section 20: NW/4 SE/4

(5) That the evidence presently available indicates that said pool may be produced at a limiting gas-oil ratio of 10,000 to one without waste.

(6) That the applicant, on or before January 1, 1981, should submit data to the Director of the Division as to the size of the reservoir being drained by said Big Eddy Well No. 60, and demonstrating that the Fenton-Bone Spring Pool may continue to be produced at a gas-oil ratio of 10,000 to one without waste.

(7) That the Director of the Division should be permitted to reopen this case, at his option, for further testimony relative to the proper gas-oil ratio limitation or spacing unit size following receipt of the data required in Finding No. (6) above.

(8) That the application for pool creation and special gas-oil ratio limitation should be approved.

IT IS THEREFORE ORDERED:

(1) That a new pool in Eddy County, New Mexico, classified as an oil pool for Bone Spring production, is hereby created and designated the Fenton-Bone Spring Pool, with vertical limits comprising the Bone Spring formation, and horizontal limits comprising the following-described area:

TOWNSHIP 22 SOUTH, RANGE 28 EAST, NMPM
Section 20: NW/4 SE/4

(2) That the limiting gas-oil ratio for said Fenton-Bone Spring Pool shall be 10,000 to one.

IT IS FURTHER ORDERED:

(1) That the applicant, on or before January 1, 1981, shall submit data to the Director of the Division demonstrating that the Fenton-Bone Spring Pool may continue to be produced at a gas-oil ratio of 10,000 to one without waste and establishing the size of the reservoir being drained by said Big Eddy Well No. 60.

(2) That following receipt of the data required in Finding No. (6) of this order the Director of the Division may, at his option, reopen this case for further testimony relative to the proper gas-oil ratio limitation or spacing unit size.

(3) That jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

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

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

JOE D. RAMEY
Director

SEAL

fd/

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
STATE LAND OFFICE BLDG.
SANTA FE, NEW MEXICO
17 September 1980

EXAMINER HEARING

IN THE MATTER OF:

Application of Bass Enterprises Production Company for pool creation Eddy County, New Mexico.

CASE 7026

BEFORE: Richard L. Stamets

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Oil Conservation Division:

Ernest L. Padilla, Esq.
Legal Counsel to the Division
State Land Office Bldg.
Santa Fe, New Mexico 87501

For the Applicant:

Conrad E. Coffield, Esq.
The Hinkle Law Firm
P. O. Box 3580
Midland, Texas 79701

I N D E X

E X H I B I T S

MR. STAMETS: We will call next Case 7026.

MR. PADILLA: Application of Bass Enterprises Production Company for pool creation, Eddy County, New Mexico.

MR. STAMETS: Call for appearances in this case.

MR. COFFIELD: I'm Conrad Coffield with the Hinkle Law Firm in Midland, Texas, appearing on behalf of the applicant, and I have one witness.

(Witness sworn.)

BOB CUNNINGHAM

being called as a witness and having been duly sworn upon his oath, testified as follows, to-wit:

DIRECT EXAMINATION

BY MR. COFFIELD:

Q. Mr. Cunningham, for the record would you please state your name, address, occupation, and employer?

A. My name is Bob Cunningham. I'm a Senior Production Engineer with Bass Enterprises Production Company in Midland, P. O. Box 2760, 79702.

Q. Mr. Cunningham, have you previously testified before the Division as a petroleum engineer?

A. No, sir, I have not.

Q. And for the Examiner's benefit, would you please give a brief statement as to your educational background and work experience as a petroleum engineer?

A. I attended Oklahome State University and graduated in December of 1970 with a B.S. degree in mechanical engineering. I started work in January of 1971 with Cities Service Oil Company and worked there as a production engineer for three years.

I then worked for Borg-Warner Corporation in Midland, Texas, as a design engineer for one year.

I then worked for Union Oil Company of California in Midland, Texas, as a production engineer for four years, and have been with Bass for two years in the capacity of a petroleum engineer.

I'm currently registered EIT in Oklahoma.

Q. Are you familiar with Bass' application in this particular case?

A. Yes, sir, I am.

Q. Are you familiar generally with the situation involved in this particular area?

A. Yes, sir, I am.

MR. COFFIELD: Mr. Examiner, do you have any other questions of the witness?

MR. STAMETS: No, the witness is considered

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qualified.

Q. Mr. Cunningham, would you please state for the record what it is that Bass seeks by this application?

A. Bass seeks to create a new Bone Springs oil pool and further promulgation of special pool rules permitting a GOR limitation of 10,000-to-1. The only well in this field is the Bass Big Eddy Unit Well No. 60, located in Unit J, 20, 21, 28, Eddy County.

Q. Okay, Mr. Cunningham, would you please refer to what we've marked as Exhibit One and explain this exhibit to the Examiner?

A. Exhibit Number One is a land plat covering the area around Big Eddy Unit No. 60. The acreage shown in yellow color on the plat is Bass operated acreage, all of which lies within the Federally unitized Big Eddy Unit, which Bass Enterprises operates.

In the upper lefthand corner of the illustration the green dot denotes Well No. 60 while the red dots denote the nearest offset wells.

MR. STAMETS: I believe that's the upper -- you're right, sorry about that. Go ahead.

A. Bass Enterprises Production Company is the only offset operator to the proration unit currently serviced by Well No. 60, which is the east half of Section 20.

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Q. All right, Mr. Cunningham, would you please go to what was marked now as Exhibit Two, Two-A, Two-B, and Two-C, and explain those to the Examiner?

A. Exhibit Number Two is the open hole log performed by Dresser-Atlas. It's a compensated neutron formation density log run across the Bone Springs interval in the Well No. 60. Perforations and depths are shown on the log.

Exhibit Two-A is a cross section referring to Wells Nos. 79Y and Wells No. 60 on the plat, Exhibit One, showing the Bone Springs presence in the Well No. 60 on the left side of the small cross section and the correlation with the currently or recently completed Well No. 79Y.

Two-B is a second cross section showing that type of relationship between Well 60 and Well No. 2, again referring to Exhibit No. 1 for the location of the wells.

Exhibit Number Two-C is a similar exhibit, a cross section between Wells 39 and 60, again referring to Exhibit Number One for the location of the cross section.

Q. Next we have Exhibit Three. Would you please explain that exhibit for the Examiner?

A. Exhibit Number Three is a schematic diagram of the wellbore of Well No. 60. The Bone Springs zone has been perforated and tested and is currently being produced through a diethylalcmine (sic) or DEA, gas sweetening

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unit at rates near 3/4 of a million cubic feet of sweet gas per day and 75 barrels of oil per day.

Q. Next is Exhibit Four. Would you please explain that exhibit?

A. Exhibit Number Four is a schedule, a table of production history from the Well No. 60. As shown on the table, cumulative gas production to date amounts to approximately 33.3-million cubic feet, inclusive of 7-million cubic feet flared during a test sanctioned by the NMOCD.

Cumulative oil production amounts to 3135 barrels of oil, inclusive of 751 barrels of oil previously sold during the same sanctioned test. This test was performed in an effort to determine reservoir size.

Q. The next exhibit is Exhibit Five. Would you please discuss that exhibit, Mr. Cunningham?

A. Exhibit Number Five is an illustration of the data presented in Exhibit Number Four in graphic form.

Q. What is the current status of the well in question here?

A. The well is currently classified through Mr. Gressett's office as a gas well and is producing near 3/4 of a million cubic feet per day, plus 75 barrels of oil per day.

Q. Mr. Cunningham, what studies have you done to determine the reservoir volumetric extent of the re-

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servoir?

A. Well, as we previously mentioned, in a sanctioned test by the NMOCD we produced the well for the time period required to make 7-million cubic feet of gas, and across this test the reservoir pressure was measured and shown to drop 80 psi.

All the tests previous to this flaring test had indicated that the well was a gas well, and we used classical gas-type calculations in an effort to determine the reservoir size. The reservoir calculations indicated that the reservoir amounted to approximately 14 acres in extent and contained approximately 0.3 of one billion cubic feet of gas; however, during the test we did note that the production from the well was sour and that oil -- hydrocarbon liquids in the form of oil were being produced, and we've since sampled these hydrocarbon liquids and have a sample in CORE Labs laboratories to get PVT data from such that we can perform classical oil reservoir material balance.

Now the samples that we have taken have been analyzed, using the standard ASTM-D86 distillation method and do have the characteristics of oil.

Q. Mr. Cunningham, you have done some economic studies relative to this project. Will you please describe those to the Examiner?

A. This well was originally drilled as a

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Now at prevailing gas prices and windfall corrected oil prices, our before tax profits would be reduced 64 percent, that is, from roughly $3400 to $1200 per day if we were penalized under the existing statewide 2000 GOR ruling for a 40-acre oil well.

Further, payout of the equipment and the expenditure that Bass has made to put this well on line would be deferred for more than one year; that is, from 0.6 years to 1.75 years.

All the operations expenses and any other time/function costs would be increased, due to the required extended well life at the lower producing rates, and this will increase the operating cost across the life of the well some 164 percent.

The DEA gas sweetening unit is designed to handle rates sufficiently between 1/2-million cubic feet per day and 1-million cubic feet of gas, sour gas per day.

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the efficiency of the unit deteriorates. The plan at lower rates would be to shut the unit down and operate the well at capacity for only a few days per month. The starting and stopping of the unit also is an expensive process and would increase the operating expenses of the well, should we have to follow that plan.

This increase in operating expenses, the basic operating expenses, would cause a shutdown of the well and the facility sooner than normal, or sooner than what we petitioned for, and that would result in leaving otherwise recoverable hydrocarbons in the ground.

Q. Mr. Cunningham, in your opinion, would the granting of our application for the classification, or reclassification of this field, gas tc oil, in combination with an increase in permissible gas/oil ratios from 2000 to 10,000, increase the recovery of hydrocarbons, as well as reduce economic waste --

A. Yes.

Q. -- and protect correlative rights?

A. Yes, sir, it would.

Q. Were these exhibits, One through Five prepared by you or under your supervision?

A. Yes, sir, they were.

MR. COFFIELD: Mr. Examiner, I move the admission of Exhibits One through Five.

MR. STAMETS: Exhibits One through Five will be admitted.

MR. COFFIELD: And I have no other questions on direct.

CROSS EXAMINATION

BY MR. STAMETS:

Q. Mr. Cunningham, what spacing size are you proposing for this pool?

A. I'm proposing a standard 40-acre proration unit, covering "J", 20, 21, 28, around our Big Eddy Unit No. 60 Well as an oil proration unit.

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A. That's correct.

Q. What is that rate?

A. The gas sweetening unit will operate most efficiently between 1/2-million cubic feet per day and 1-million cubic feet per day.

Q. And at 10,000 gas/oil ratio at this depth what will be your gas production, authorized gas production rate, if you made those calculations?

A. No, sir, I have not made those calculations, but it would be simple to do them.

Q. Just run through those quickly, if you could.

A. All right.

If my memory serves me correctly, we have 142 barrels of oil per day allowable at this particular depth by the statewide rules.

Q. You said this was at the depth of --

A. 6450 feet.

Q. That's correct, 142 is the basic allowable.

A. All right, and at a 10,000 cubic feet per standard barrel --

Q. 142,000 a day.

A. That's 1,420,000 per day. That would allow full operation of the well as it currently stands. The capacity of the well at this time is approximately 3/4 of a million cubic feet of gas per day at a 10,000 GOR; such that if the 10,000 GOR ruling were granted, we could produce the well at rates not only compatible with the DEA sweetening unit but also at the full capacity of the well itself.

Q. Okay. So the well will only make 3/4 of a million a day.

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A. Yes, sir, I referred to a distillation that was performed on the oil, and the results of that distillation, I've made copies of, anticipating that there may have been some questions.

Would you like to distribute those, please?

MR. COFFIELD: Would you like that as an exhibit, Mr. Stamets?

MR. STAMETS: Oh, it probably ought to be an exhibit, Conrad. That would be Exhibit Seven?

MR. COFFIELD: Six.

A. Six.

MR. STAMETS: Okay.

A. Exhibit Number Six is a ASTM-D86 distillation, the results of that test, performed by Southwest Laboratories in conjunction with Forrest Tefteller.

It shows that the initial boiling point is 90° F and that residues of 20 percent are found at 580°; that the gravity of the liquids is 49.6° API at standard conditions; and that the color of the liquids is straw yellow but opaque.

Q. Do you have any evidence that these higher gas rates can be produced without causing liquids to unnecessarily be left in the reservoir?

A. There -- I have no evidence to that effect, sir.

Q. Do you anticipate getting any evidence?

A. We have pressure tests that will tell us whether or not the recoveries that we will make will be optimum; that is to say, as soon as we get back the PDT data from CORE Laboratories we'll be able to determine what amounts of hydrocarbons are in the reservoir, or should be producable to the pressure base that we can operate to, and at that point in time we should be able to determine whether the recovery factors of the original liquids and gases in place is in line with other Bone Spring -- other similar Bone Springs production.

Q. Well, that also will give you a better indication of reservoir size?

A. Yes, sir, it will. In my experience, however, classical gas calculations with volatile oils, or -- or oil that contains considerable light ends, the actual acreage calculations will remain very close under either of the two, whether it's an oil reservoir or a gas reservoir.

Q. When do you think you will have this information?

A. According to CORE Labs, it should not take them more than about a month and a half.

Q. Okay. Will you submit this data subsequent to the hearing, data which would demonstrate the most efficient production rate for this well relative to oil and gas?

A. Yes, sir.

Q. And any information relative to reservoir size?

A. Yes, sir.

Q. Speaking of reservoir size, referring to Exhibit Number Two-A, is the righthand log any indication that perhaps the reservoir is larger than 40 acres?

A. No, sir. The log of the Well No. 79Y, which appears on the right in Exhibit Number Two-A, as compared to the log on the left of the well in question, Well No. 60, does not show the same development within the Bone Springs. These are both compensated formation density compensated neutron open hole logs drawn across the Bone Springs in the correlative interval.

If you'd refer to the perforations near 6430 feet, there will be four perforation astraddle the depth 6430 feet, you'll find dissimilarities between the logs, indicating that the porous and productive members in Well No. 60 are not porous and productive in Well No. 79.

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Q. How about the section then below 6450?

A. All right. The section immediately below 6450 and covering 10 feet to 6460, appears as porous and permeable and clean on the gamma ray section on the lefthand log of Well No. 60. On the righthand log, however, if you'll check the gamma ray column, which is the left margin column, you'll see that the zone -- that the log indicates that the zone is shale bearing at that point. That will cause a response similar to that seen in 79Y's log.

Q. Okay.

MR. STAMETS: Are there any other questions of the witness? He may be excused.

MR. COFFIELD: I would move the admission of Exhibit Six, Mr. Examiner.

MR. STAMETS: Exhibits Six will be admitted.

If there is nothing further, the case will be taken under advisement.

(Hearing concluded.)

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C E R T I F I C A T E

I, SALLY W. BOYD, C.S.R., DO HEREBY CERTIFY that the foregoing Transcript of Hearing before the Oil Conservation Division was reported by me; that the said transcript is a full, true, and correct record of the hearing, prepared by me to the best of my ability.

Sally W. Boyd C.S.R.

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 7026, heard by me on 9-17, 1980.

Richard L. Stamets, Examiner
Oil Conservation Division

Dockets Nos. 30-80 and 31-80 are tentatively set for October 1 and 15, 1980. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: EXAMINER HEARING - WEDNESDAY - SEPTEMBER 17, 1980

9 A.M. - OIL CONSERVATION DIVISION CONFERENCE ROOM,
STATE LAND OFFICE BUILDING, SANTA FE, NEW MEXICO

The following cases will be heard before Richard L. Stamets, Examiner, or Daniel S. Nutter, Alternate Examiner:

ALLOWABLE: (1) Consideration of the allowable production of gas for October, 1980, from fifteen prorated pools in Lea, Eddy, and Chaves Counties, New Mexico.

(2) Consideration of the allowable production of gas for October, 1980, from four prorated pools in San Juan, Rio Arriba, and Sandoval Counties, New Mexico.

CASE 7021: Application of Gulf Oil Corporation for simultaneous dedication, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the simultaneous dedication of a previously approved 477-acre non-standard gas proration unit comprising the N/2 and SE/4 of Section 19, Township 19 South, Range 37 East, Eumont Gas Pool, to its B. V. Culp (NCT-A) Wells Nos. 3 and 9 located in Units F and J, respectively, of said Section 19.

CASE 6961: (Continued from August 20, 1980, Examiner Hearing)

Application of Conoco Inc. for a dual completion and unorthodox well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion of its Meyer A-29 Well No. 11 to be drilled at an unorthodox location 990 feet from the North line and 660 feet from the East line of Section 29, Township 22 South, Range 36 East, to produce gas from the Langley-Devonian and -Ellenburger Pools thru parallel strings of tubing, the E/2 of said Section 29 to be dedicated to the well.

CASE 7022: Application of Texas Pacific Oil Company, Inc. for a non-standard proration unit and simultaneous dedication, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the simultaneous dedication of a 320-acre non-standard proration unit comprising the N/2 of Section 9, Township 22 South, Range 36 East, Jalmat Gas Pool, to its Wells Nos. 40 and 63 located in Units A and C, respectively, of said Section 9. Applicant further seeks approval to simultaneously dedicate its Wells Nos. 14, 36, 42, and 62 located in Units B, M, E, and K, respectively, of Section 11, Township 22 South, Range 36 East, to a standard proration unit to be comprised of all of said Section 11.

CASE 7008: (Continued from August 20, 1980, Examiner Hearing)

Application of Coronado Exploration Corp. for eight compulsory poolings, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the San Andres formation underlying eight 40-acre proration units, being the NE/4 NE/4 of Section 4 and the NW/4 NE/4 of Section 5, both in Township 12 South, Range 28 East, and the NW/4 SE/4 of Section 6, the NE/4 NW/4 of Section 23, the NE/4 SE/4 of Section 28, the SE/4 SE/4 of Section 29, the NE/4 NW/4 of Section 32, and the SE/4 NW/4 of Section 33, all in Township 11 South, Range 28 East, each to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said wells and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as operator of the wells, and a charge for risk involved in drilling said wells.

CASE 7004: (Continued from August 20, 1980, Examiner Hearing)

Application of Anadarko Production Company for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Wolfcamp-Morrow formations underlying the N/2 of Section 12, Township 19 South, Range 25 East, to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as operator of the well, and a charge for risk involved in drilling said well.

CASE 7023: Application of Shell Oil Company for pool creation and temporary special pool rules, Roosevelt County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new Pennsylvanian oil pool for its Askew Well No. 1 located in Unit L of Section 2, Township 5 South, Range 33 East, and the promulgation of special pool rules therefor, including a provision for 80-acre spacing.

CASE 7011: (Continued from August 20, 1980, Examiner Hearing)

Application of Amoco Production Company for downhole commingling, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Fruitland and Blanco-Pictured Cliffs production in the wellbores of the following six wells: Elliott "C" No. 1, SE/4 of Section 9, Township 30 North, Range 9 West; Elliott "B" No. 8, NE/4 of Section 10; "A" Nos. 3 and 2, NE/4 and NW/4, Section 11; "D" No. 7, SW/4 of Section 11; and "E" No. 1, NW/4 of Section 14, all in Township 29 North, Range 9 West.

CASE 7019: (Continued from September 3, 1980, Examiner Hearing)

Application of Amoco Production Company for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Pennsylvanian formation underlying the W/2 of Section 30, Township 23 South, Range 25 East, to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as operator of the well, and a charge for risk involved in drilling said well.

CASE 6991: (Continued from September 3, 1980, Examiner Hearing)

Application of Amoco Production Company for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the San Andres formation in a 100 foot perforated interval between 4400 feet and 4800 feet in its South Hobbs Unit Well No. 103 in Unit B of Section 15, Township 19 South, Range 38 East, Hobbs Grayburg-San Andres Pool.

CASE 7024: Application of Southland Royalty Company for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Pennsylvanian formation underlying the E/2 of Section 35, Township 18 South, Range 29 East, to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as operator of the well, and a charge for risk involved in drilling said well.

CASE 7025: Application of Southland Royalty Company for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Pennsylvanian formation underlying the W/2 of Section 35, Township 18 South, Range 29 East, to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as operator of the well, and a charge for risk involved in drilling said well.

CASE 7005: (Continued from August 20, 1980, Examiner Hearing)

Application of Sol West III for an NGPA determination, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks a new onshore reservoir determination in the Morrow formation for his Turkey Track-Morrow Sand Well No. 1 in Unit I of Section 26, Township 18 South, Range 28 East.

CASE 6822: (Continued from September 3, 1980, Examiner Hearing)

In the matter of Case 6822 being reopened pursuant to the provisions of Order No. R-6293 which order created the West Double X-Wolfcamp Gas Pool as a retrograde gas condensate pool and set special production limitations therein. Operator(s) may appear and present evidence to establish the true nature of the reservoir and proper rates of withdrawal therefrom.

CASE 7026: Application of Bass Enterprises Production Company for pool creation, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new Bone Spring oil pool for its Big Eddy Unit Well No. 60 located in Unit J of Section 20, Township 21 South, Range 28 East, and the promulgation of special rules therefor including a gas-oil ratio limitation of 10,000 to one.

CASE 7027: Application of W. A. Moncrief, Jr. for an NGPA determination, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks a new onshore reservoir determination in the Morrow formation for his Marathon State Com. Well No. 1 in Unit J of Section 11, Township 24 South, Range 24 East.

CASE 7028: In the matter of the hearing called by the Oil Conservation Division on its own motion for an order creating, deleting, and extending certain pools in Chaves, Eddy, and Lea Counties, New Mexico:

(a) CREATE a new pool in Lea County, New Mexico, classified as an oil pool for Wolfcamp production and designated as the North Bell Lake-Wolfcamp Pool. The discovery well is Amoco Production Company State HL Well No. 1 located in Unit L of Section 2, Township 23 South, Range 33 East, NMPM. Said pool would comprise:

TOWNSHIP 23 SOUTH, RANGE 33 EAST, NMPM
Section 2: W/2

(b) CREATE a new pool in Eddy County, New Mexico, classified as an oil pool for Delaware production and designated as the Golden Lane-Delaware Pool. The discovery well is Meadco Properties, Ltd. Hudson Federal Well No. 1 located in Unit C of Section 4, Township 21 South, Range 29 East, NMPM. Said pool would comprise:

TOWNSHIP 21 SOUTH, RANGE 29 EAST, NMPM
Section 4: Lots 3, 4, 5, 6, 11, and 12

(c) CREATE a new pool in Lea County, New Mexico, classified as a gas pool for Atoka production and designated as the McDonald-Atoka Gas Pool. The discovery well is Harvey E. Yates Company Mayco Betenbough Well No. 1 located in Unit C of Section 32, Township 13 South, Range 36 East, NMPM. Said pool would comprise:

TOWNSHIP 13 SOUTH, RANGE 36 EAST, NMPM
Section 32: N/2

(d) CREATE a new pool in Lea County, New Mexico, classified as an oil pool for Seven Rivers production and designated as the Pearsall-Seven Rivers Pool. The discovery well is Arrowhead Oil Corporation Hover Well No. 3 located in Unit D of Section 32, Township 17 South, Range 32 East, NMPM. Said pool would comprise:

TOWNSHIP 17 SOUTH, RANGE 32 EAST, NMPM
Section 32: NW/4

(e) CREATE a new pool in Lea County, New Mexico, classified as an oil pool for Wolfcamp production and designated as the West Tonto-Wolfcamp Pool. The discovery well is Inexco Oil Company Federal Com 7 Well No. 2 located in Unit E of Section 7, Township 19 South, Range 33 East, NMPM. Said pool would comprise:

TOWNSHIP 19 SOUTH, RANGE 33 EAST, NMPM
Section 7: NW/4

(f) CREATE a new pool in Eddy County, New Mexico, classified as an oil pool for Bone Spring production and designated as the Winchester-Bone Spring Pool. Further to assign approximately 38,955 barrels of discovery allowable to the discovery well, Marathon Oil Company Martinez "31" Federal Well No. 1 located in Unit F of Section 31, Township 19 South, Range 29 East, NMPM. Said pool would comprise:

TOWNSHIP 19 SOUTH, RANGE 29 EAST, NMPM
Section 31: NW/4

(g) CONTRACT the horizontal limits of the Mid Bell Lake-Devonian Gas Pool in Lea County, New Mexico, by the deletion of the following described area:

TOWNSHIP 23 SOUTH, RANGE 34 EAST, NMPM
Section 18: N/2 and SW/4

(h) CONTRACT the horizontal limits of the La Rica-Morrow Gas Pool in Lea County, New Mexico, by the deletion of the following described area:

TOWNSHIP 19 SOUTH, RANGE 34 EAST, NMPM
Section 2: All

(i) EXTEND the Airstrip-Upper Bone Spring Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 18 SOUTH, RANGE 34 EAST, NMPM
Section 35: NE/4
Section 36: N½/4

TOWNSHIP 18 SOUTH, RANGE 35 EAST, NMPM
Section 31: NW/4

(j) EXTEND the Airstrip-Lower Bone Spring Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 18 SOUTH, RANGE 34 EAST, NMPM
Section 23: SW/4
Section 26: NE/4

(k) EXTEND the Artesia Queen-Grayburg-San Andres Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 18 SOUTH, RANGE 27 EAST, NMPM
Section 22: E/2 NE/4

TOWNSHIP 18 SOUTH, RANGE 28 EAST, NMPM
Section 35: W/2 NW/4

TOWNSHIP 19 SOUTH, RANGE 27 EAST, NMPM
Section 2: NW/4 and N/2 SW/4

(l) EXTEND the Bough-San Andres Gas Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 9 SOUTH, RANGE 35 EAST, NMPM
Section 14: NE/4

(m) EXTEND the Buffalo-Pennsylvanian Gas Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 19 SOUTH, RANGE 33 EAST, NMPM
Section 8: E/2

(n) EXTEND the North Burton Flat-Wolfcamp Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 20 SOUTH, RANGE 28 EAST, NMPM
Section 29: N/2

(o) EXTEND the South Carlsbad-Morrow Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 22 SOUTH, RANGE 27 EAST, NMPM
Section 16: W/2

(p) EXTEND the Chaveroo-San Andres Pool in Chaves County, New Mexico, to include therein:

TOWNSHIP 8 SOUTH, RANGE 32 EAST, NMPM
Section 4: E/2 E/2

(q) EXTEND the South Culebra Bluff-Bone Spring Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 23 SOUTH, RANGE 28 EAST, NMPM
Section 24: S/2 NW/4 and N/2 S/2

(r) EXTEND the Eagle Creek Permo-Pennsylvanian Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 17 SOUTH, RANGE 25 EAST, NMPM
Section 31: All

(s) EXTEND the South Empire-Morrow Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 18 SOUTH, RANGE 28 EAST, NMPM
Section 12: All

(t) EXTEND the East Empire Yates-Seven Rivers Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 17 SOUTH, RANGE 28 EAST, NMPM
Section 28: N/2 N/2

(u) EXTEND the East Grama Ridge-Morrow Gas Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 22 SOUTH, RANGE 34 EAST, NMPM
Section 3: E/2

(v) EXTEND the West Indian Basin-Morrow Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 21 SOUTH, RANGE 22 EAST, NMPM
Section 24: N/2

(w) EXTEND the Langley-Devonian Gas Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 22 SOUTH, RANGE 36 EAST, NMPM
Section 28: S/2

(x) EXTEND the Langley-Ellenburger Gas Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 22 SOUTH, RANGE 36 EAST, NMPM
Section 28: S/2

(y) EXTEND the Los Medanos-Atoka Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 23 SOUTH, RANGE 30 EAST, NMPM
Section 1: S/2

(z) EXTEND the North Loving-Morrow Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 23 SOUTH, RANGE 28 EAST, NMPM
Section 17: S/2
Section 19: E/2
Section 20: W/2

(aa) EXTEND the Lusk-Morrow Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 19 SOUTH, RANGE 31 EAST, NMPM
Section 13: All

(bb) EXTEND the West Malaga-Atoka Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 24 SOUTH, RANGE 28 EAST, NMPM
Section 8: E/2
Section 9: S/2

(cc) EXTEND the Mesa-Queen Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 16 SOUTH, RANGE 31 EAST, NMPM
Section 1: SW/4

(dd) EXTEND the Midway-Devonian Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 17 SOUTH, RANGE 37 EAST, NMPM
Section 8: SE/4

(ee) EXTEND the Nash Draw-Morrow Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 23 SOUTH, RANGE 30 EAST, NMPM
Section 7: S/2

(ff) EXTEND the North Osudo-Morrow Gas Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 20 SOUTH, RANGE 36 EAST, NMPM
Section 29: S/2

(gg) EXTEND the East Red Lake Queen-Grayburg Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 16 SOUTH, RANGE 26 EAST, NMPM
Section 25: NW/4 and N/2 SW/4

(hh) EXTEND the Sand Point-Morrow Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 21 SOUTH, RANGE 28 EAST, NMPM
Section 3: Lots 1, 2, 7, 8, 9, 10, 15 and 16

(ii) EXTEND the Shoebar-Atoka Gas Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 16 SOUTH, RANGE 35 EAST, NMPM
Section 28: N/2 and SW/4

(jj) EXTEND the Shugart-Pennsylvanian Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 19 SOUTH, RANGE 31 EAST, NMPM
Section 1: W/2
Section 2: N/2

(kk) EXTEND the Sioux Tansill-Yates-Seven Rivers Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 26 SOUTH, RANGE 36 EAST, NMPM
Section 9: SE/4

(ll) EXTEND the Teas Yates-Seven Rivers Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 20 SOUTH, RANGE 34 EAST, NMPM
Section 19: SE/4

(mm) EXTEND the Tom-Tom San Andres Pool in Chaves County, New Mexico, to include therein:

TOWNSHIP 7 SOUTH, RANGE 31 EAST, NMPM
Section 24: SW/4
Section 35: NW/4

(nn) EXTEND the Turkey Track-Atoka Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 19 SOUTH, RANGE 29 EAST, NMPM
Section 1: S/2
Section 2: S/2
Section 11: N/2
Section 14: All

(oo) EXTEND the Turkey Track-Morrow Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 19 SOUTH, RANGE 29 EAST, NMPM
Section 7: S/2
Section 18: All

(pp) EXTEND the Winchester-Wolfcamp Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 19 SOUTH, RANGE 28 EAST, NMPM
Section 34: SE/4

(qq) EXTEND the Yarrow-Delaware Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 23 SOUTH, RANGE 26 EAST, NMPM
Section 22: NE/4

(rr) EXTEND the Young-Morrow Gas Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 18 SOUTH, RANGE 32 EAST, NMPM
Section 4: S/2
Section 9: E/2

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August 27, 1980

Case 7026

Mr. Dan Nutter
Oil Conservation Division
Post Office Box 2088
Santa Fe, New Mexico 87501

Re: Bass Enterprises Production Company Application for Pool Creation and Special Pool Rules, Eddy County, New Mexico

Dear Dan:

Per our recent telephone conversation, transmitted hereith you will find triplicate executed copies of an Application for Bass Enterprises Production Company for pool creation in connection with its Big Eddy Unit No. 60 Well in Eddy County, New Mexico, with special pool rules therefor including a gas oil ratio limitation of 10,000 to 1.

This will also confirm that September 17 is available, and that this particular case will be heard on the 17th of September.

I trust that the enclosed copies of the Application are all that is needed for this to be set for the September 17 hearing. However if anything further is needed in this connection, please advise.

Very truly yours,

HINKLE, COX, EATON,
COFFIELD & HENSLEY

Conrad E. Coffield

CEC:rh
Enclosures

xc: Mr. Jim Pullig
xc: Mr. Steve Rowland
xc: Mr. Bob Cunningham

BEFORE THE OIL CONSERVATION DIVISION OF

THE DEPARTMENT OF ENERGY AND MINERALS

STATE OF NEW MEXICO

APPLICATION OF BASS ENTERPRISES)
PRODUCTION CO. FOR POOL CREATION)
AND SPECIAL POOL RULES, EDDY)
COUNTY, NEW MEXICO)

Case 7026

APPLICATION

Bass Enterprises Production Co., by its undersigned attorneys, hereby makes application for pool creation and special pool rules in connection with certain Eddy County, New Mexico lands as follows:

1. Applicant seeks the creation of a new oil pool for Bone Springs production for its Big Eddy Unit No. 60 Well located in Unit "J" Section 20, Township 21 South, Range 28 East, N.M.P.M., Eddy County, New Mexico and promulgation of special pool rules therefor including a gas oil ratio limitation of 10,000 to 1.

2. Said proposed new Bone Springs Associated Oil Pool was discovered by the Big Eddy Unit No. 60 Well located in Unit "J" Section 20, Township 21 South, Range 28 East, N.M.P.M., Eddy County, New Mexico.

3. Matters urged by the Applicant herein are in the interest of conservation, prevention of waste and protection of correlative rights.

4. Applicant requests this matter to be heard at the September 17, 1980 Examiner's hearing.

HINKLE, COX, EATON, COFFIELD & HENSLEY

By: _____

Conrad E. Coffield
Post Office Box 3580
Midland, Texas 79702
Attorneys for Bass Enterprises
Production Co.

BEFORE THE OIL CONSERVATION DIVISION OF

THE DEPARTMENT OF ENERGY AND MINERALS

STATE OF NEW MEXICO

APPLICATION OF BASS ENTERPRISES)
PRODUCTION CO. FOR POOL CREATION)
AND SPECIAL POOL RULES, EDDY)
COUNTY, NEW MEXICO)

Case 7026

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HINKLE, COX, EATON, COFFIELD & HENSLEY

By _____
Conrad E. Coffield
Post Office Box 3580
Midland, Texas 79702
Attorneys for Bass Enterprises
Production Co.

BEFORE THE OIL CONSERVATION DIVISION OF
THE DEPARTMENT OF ENERGY AND MINERALS
STATE OF NEW MEXICO

APPLICATION OF BASS ENTERPRISES)
PRODUCTION CO. FOR POOL CREATION)
AND SPECIAL POOL RULES, EDDY)
COUNTY, NEW MEXICO)

Case 7026

APPLICATION

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3. Matters urged by the Applicant herein are in the interest of conservation, prevention of waste and protection of correlative rights.

4. Applicant requests this matter to be heard at the September 17, 1980 Examiner's hearing.

HINKLE, COX, EATON, COFFIELD & HENSLEY

By: _____
Conrad E. Coffield
Post Office Box 3580
Midland, Texas 79702
Attorneys for Bass Enterprises
Production Co.

Dan Nutter

Called in by
Conrad Caffield
with a request
for dismissal
of Case 7017

ROUGH

dr/

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
DIVISION FOR THE PURPOSE OF
CONSIDERING:

CASE NO. 7026

Order No. R-6484

APPLICATION OF BASS ENTERPRISES
PRODUCTION COMPANY FOR POOL CREATION,
EDDY COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on September 17, 19 80, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this _____ day of September, 19 80, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

(1) That due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.

(2) That the applicant, Bass Enterprises Production Company, is the owner and operator of the Big Eddy Well No. 60, located in Unit J of Section 20, Township 21 South, Range 28 East, NMPM, Eddy County, New Mexico.

(3) That said well has discovered a separate common source of supply in the Bone Spring formation, and applicant seeks the creation and designation of a new oil pool therefor and the promulgation of special pool rules governing said pool, including ~~provision for 80-acre spacing and proration units and well locations.~~

(5) That the evidence presently available indicates that said pool may be produced at a limiting gas-oil ratio of 10,000 to one without waste.

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(6) ~~That the applicant also seeks the establishment of~~ a special gas-oil ratio limitation of 10,000 to one for said pool.

(4) That the evidence presently available indicates that a new pool should be created and designated the Fenton-Bone Spring Pool; that the vertical limits of said pool should be the Bone Spring formation, and that the horizontal limits of said pool should comprise:

TOWNSHIP 21 SOUTH, RANGE 28 EAST, NMPM
Section 20: NW/4 SE/4

(5)

(6) That the applicant, on or before January 1, 1981, should submit data to the Director of the Division ~~as to~~ demonstrating ~~that~~ that the Fenton-Bone Spring Pool may/be continue to produced at a gas oil ratio of 10000 to one without waste.

The size of the reservoir being drained by said Big Eddy Well No. 60, and

(7) That the Director of the Division should be permitted to reopen this case, at his option, for further testimony ~~to reopen~~ relative to the proper gas-oil ratio limitation or spacing unit size following receipt of the ~~the~~ data required in Finding No. (6) above.

(8) That the application for pool creation and special gas-oil ratio limitation should be approved

spacing units.

IT IS THEREFORE ORDERED:

(1) That a new pool in Eddy County, New Mexico, classified as an oil pool for Bone Spring production, is hereby created and designated the Fenton-Bone Spring Pool,

with vertical limits comprising the Bone Spring formation, and horizontal limits comprising the following-described area:

TOWNSHIP 21 SOUTH, RANGE 28 EAST, NMPM
Section 20: NW/4 SE/4

(2) That the limiting gas-oil ratio for said Fenton-Bone Spring Pool shall be 10,000 to one.

IT IS FURTHER ORDERED:

(1) That the applicant, on or before January 1, 1981, ~~shall~~ submit data to the Director of the Division demonstrating that the Fenton-Bone Spring Pool ~~is~~ may/be continue to produced at a gas oil ratio of 10,000 to one without waste and establishing the size of the reservoir being drained by said Big Eddy Well No. 60.

(2) That the Director of the Division may ~~order~~ reopen this case, at this option, for further testimony relative to the proper gas-oil ratio limitation or spacing unit size following receipt of the ~~test~~ data required in Finding No. (6) ~~of~~ of this order

(3) That jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

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