CASE 7128: HNG OIL COMPANY FOR POOL CREATION, SPECIAL POOL RULES, ASSIGNMENT OF DISCOVERY ALLOWABLE, AND DUAL COMPLETION, LEA COUNTY, NEW MEXICO

CASE NO.

7128

APPLICATION,
TRANSCRIPTS,
SMALL EXHIBITS,
ETC.

CASE 7125: Application of Western Oil Producers Inc. for the amendment of Order No. R-5399, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Division Order No. R-5399 to include production from all of the Pennsylvanian formations in its Amoco State Well No. 1 at an unorthodox location in Unit M of Section 28, Township 16 South, Range 33 East.

CASE 7126: Application of Franks Petroleum, Inc. for an unorthodox gas well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for an unorthodox location 1980 feet from the North line and 1315 feet from the West line, Section 3, Township 21 South, Range 32 East, Hat Mesa-Morrow Gas Pool, the N/2 of said Section 3 to be dedicated to the well.

CASE 7127: Application of Ellwade Corporation for amendment of Order No. R-6399, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Order No. R-6399 which approved a 129.52-acre non-standard gas proration unit comprising the W/2 of Section 33, Township 26 South, Range 30 East, for the Wolfcamp formation in the Ross Draw Area. Applicant seeks to have said order also apply to all formations of Pennsylvanian age.

CASE 6670: (Reopened and Readvertised)

In the matter of Case 6670 being reopened and pursuant to the provisions of Order No. R-6183 which order promulgated temporary special rules and regulations for the Red Hills-Devonian Gas Pool in Lea County, New Mexico, including a provision for 640-acre spacing units. Operators in said pool may appear and show cause why the pool should not be developed on 320-acre spacing units.

CASE 7128: Application of HNG Oil Company for pool creation, special pool rules, assignment of a discovery allowable, and dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks creation of a new Wolfcamp oil pool for its San Simon 6 State Comm. Well No. 1 located 1980 feet from the North line and 660 feet from the East line of Section 6, Township 22 South, Range 35 East, with special rules therefor, including provisions for 160-acre spacing. Applicant further seeks a discovery allowable for said well and approval for its dual completion to produce oil from the Wolfcamp and gas from an undesignated Morrow pool thru parallel strings of tubing.

CASE 7129: Application of Koch Exploration Company for compulsory pooling, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Dakota formation underlying the N/2 of Section 28, Township 28 North, Range 8 West, 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 7130: Application of Read & Stevens, Inc. for an unorthodox gas well location and two non-standard gas proration units, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks approval of two 160-acre non-standard proration units in the Buffalo Valley-Pennsylvanian Gas Pool, the first being the SE/4 of Section 12, Township 15 South, Range 27 East, to be dedicated to its Trobough "A" State Com. Well No. 1 in Unit J, and the other being the NE/4 of said Section 12 to be dedicated to a well to be drilled at an unorthodox location 1315 feet from the North and East lines of the section.

CASE 7131: Application of Read & Stevens, Inc. for an unorthodox gas well location and two non-standard gas proration units, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks approval of two 160-acre non-standard proration units in the Buffalo Valley-Pennsylvanian Gas Pool, the first being the SE/4 of Section 1, Township 15 South, Range 27 East, to be dedicated to its Trobough Com. Well No. 1 in Unit J, and the other being the NE/4 of said Section 1 to be dedicated to a well to be drilled at an unorthodox location 1315 feet from the North and East lines of the section.

CASE 7132: Application of Read & Stevens, Inc. for an unorthodox gas well location and two non-standard gas proration units, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks approval of two 160-acre non-standard proration units in the Buffalo Valley-Pennsylvanian Gas Pool, the first being the SE/4 of Section 13, Township 15 South, Range 27 East, to be dedicated to its Rose Well No. 1 located in Unit J, and the other being the SW/4 of said Section 13 to be dedicated to a well to be drilled at an unorthodox location 1315 feet from the South and West lines of the section.

NEW MEXICO OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

Form C-107
5-1-61

APPLICATION FOR MULTIPLE COMPLETION

Case 7128

Operator			County	Date
HNG Oil Company			Lea	12-1-80
Address			Lease	Well No.
P.O. Box 2267, Midland, Texas 79702			San Simon 6 State Com.	1
Location of Well	Unit	Section	Township	Range
	H	6	22S	35E

1. Has the New Mexico Oil Conservation Commission heretofore authorized the multiple completion of a well in these same pools or in the same zones within one mile of the subject well? YES _____ NO X

2. If answer is yes, identify one such instance: Order No. _____ ; Operator Lease, and Well No.: _____

3. The following facts are submitted:	Upper Zone	Intermediate Zone	Lower Zone
a. Name of Pool and Formation	Und. Wolfcamp		Und. Morrow
b. Top and Bottom of Pay Section (Perforations)	11,132' - 11,154'		13,110' - 13,117'
c. Type of production (Oil or Gas)	Oil		Gas
d. Method of Production (Flowing or Artificial Lift)	Flowing		Flowing

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OIL CONSERVATION DIVISION
SANTA FE

4. The following are attached. (Please check YES or NO)

Yes	No	
X		a. Diagrammatic Sketch of the Multiple Completion, showing all casing strings, including diameters and setting depths, centralizers and/or turbolizers and location thereof, quantities used and top of cement, perforated intervals, tubing strings, including diameters and setting depth, location and type of packers and side door chokes, and such other information as may be pertinent.
X		b. Plat showing the location of all wells on applicant's lease, all offset wells on offset leases, and the names and addresses of operators of all leases offsetting applicant's lease.
X		c. Waivers consenting to such multiple completion from each offset operator, or in lieu thereof, evidence that said offset operators have been furnished copies of the application.*
X		d. Electrical log of the well or other acceptable log with tops and bottoms of producing zones and intervals of perforation indicated thereon. (If such log is not available at the time application is filed it shall be submitted as provided by Rule 112-A.)

5. List all offset operators to the lease on which this well is located together with their correct mailing address.

Exxon Company, USA, Box 1700, Midland, Texas 79702

Phillips Petroleum, Phillips Bldg., Odessa, Texas 79761

Northern Nat'l. Gas Co., 403 Wall Towers West, Midland, Texas 79701

Texaco, Inc., Box 3109, Midland, Texas 79702

Amerada Hess Corp., 2207 West Industrial, Midland, Texas 79701

Getty Oil Co., Box 1231, Midland, Texas 79702

6. Were all operators listed in Item 5 above notified and furnished a copy of this application? YES X NO _____. If answer is yes, give date of such notification December 1, 1980.

CERTIFICATE: I, the undersigned, state that I am the Regulatory Clerk of the HNG Oil (company), and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.

5. Amoco Prod. Co.
P.O. Box 1725
Midland, Texas 79702

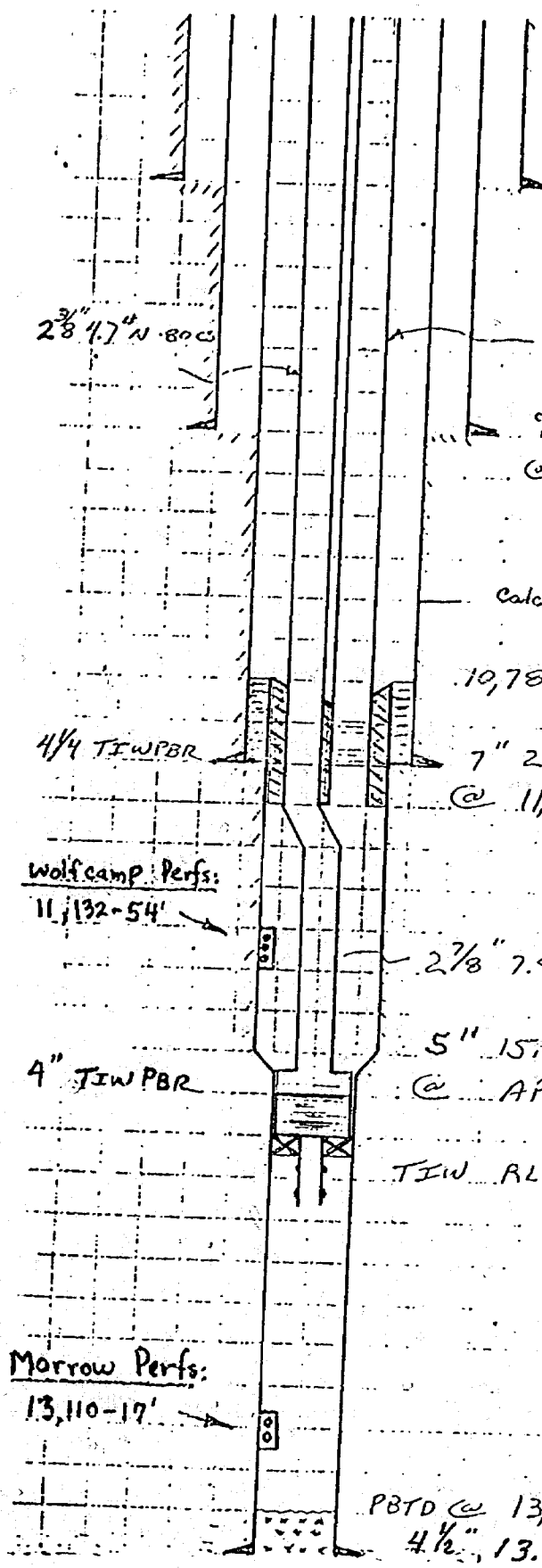
Betty A. Gildon
Signature

Should waivers from all offset operators not accompany an application for administrative approval, the New Mexico Oil Conservation Commission will hold the application for a period of twenty (20) days from date of receipt by the Commission's Santa Fe office. If, after said twenty-day period, no protest nor request for hearing is received by the Santa Fe office, the application will then be processed.

NOTE: If the proposed multiple completion will result in an unorthodox well location and/or a non-standard proration unit in one or more of the producing zones, then separate application for approval of the same should be filed simultaneously with this application.

ANG Oil Co.

SAN SIMON "G" #1



13 3/8" 48#/FT, HTC, ST+C
54.5#/FT, YB + K-55, ST+C
@ 1085' w/ 1450 sx (circ.)

2 3/8" 4.7#/FT N-80 NuLock

9 5/8" 36#/FT, K-55 + S-80, ST+C
@ 5687' w/ 3450 sx. (circ.)

Calc. cement top 9060' (@ 60% eff.)

10,782

7" 23#/FT S-95 LT+C
@ 11,014' w/ 750 sx

SEAL BORE 1 3/4
55

2 7/8" 7.90#/FT PH05 PH-6

5" 15.0 #/FT N-80 LT+C
@ APPROXIMATELY 11,332'

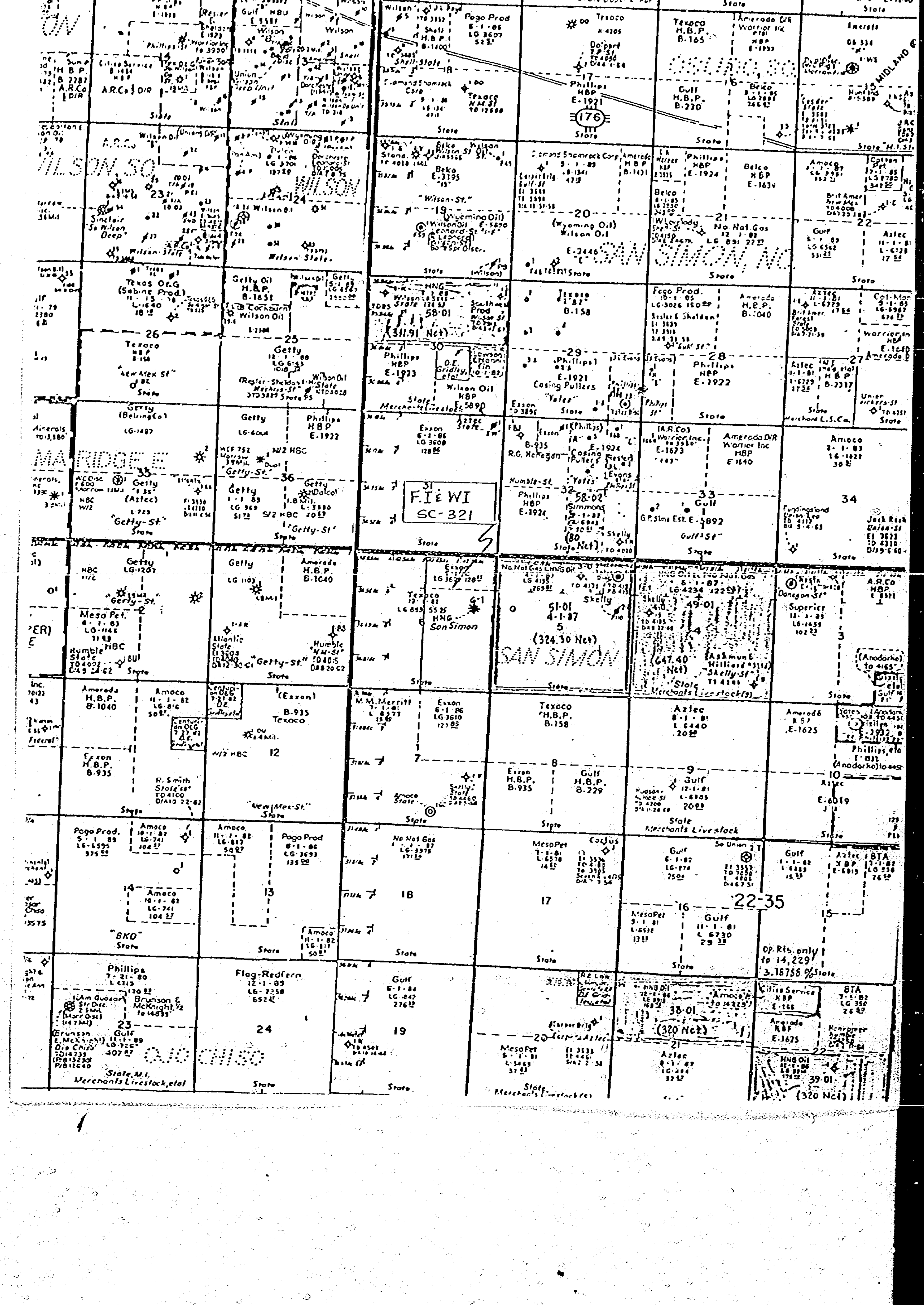
TIW RLN w/ OTIS 1.875 ID PROFILES

No centralizers installed.

PBTD @ 13,217'

4 1/2", 13.50#/FT N-80 LT+C @ 13,300' w/ 400 sx. (circ.)

1



Pogo Prod
6-1-86
LG 3607
Texaco
Dolpart
Phillips
HBP
E-1921
176
State
Texaco
H.B.P.
B-165
Amerada D/R
Warrior Inc
HBP
Gulf
H.B.P.
B-230
Belco
Huntins
MIDLAND
A.R.Co
WILSON SO
Sinclair
"So Wilson Deep"
Wilson-State
Wilson State
Wilson Oil
WILSON
Beko
E-3195
"Wilson-St."
(Wyoming Oil)
Wilson Oil
Diamond Shamrock Corp
Amerada
HBP
B-1431
Phillips
HBP
E-1924
Belco
HBP
E-1639
Amoco
Gulf
Aztec
No. Nat. Gas
E-2446
SAN SIMON, NO.
Texas O&G
(Sabine Prod.)
Getty Oil
H.B.P.
B-1651
Wilson Oil
HNG
58-01
(311.91 Net)
Texaco
B-158
Pogo Prod.
Amerada
H.B.P.
B-1040
Col-Mor
Warrior Inc
HBP
E-1640
Texaco
HBP
"New Mex St"
State
Getty
Phillips
HBP
E-1923
O.E. Gridley, etal
Wilson Oil
HBP
E-5890
Phillips
E-1921
Casing Pullers
"Yates"
Phillips
HBP
E-1922
Aztec
HBP
B-2317
Merchant L.S.Co.
Getty
(Belring Co)
LG-1487
Getty
LG-6004
Phillips
HBP
E-1922
MA RIDGE E
"Getty-St."
Getty
(Aztec)
N/2 HBC
S/2 HBC
Exxon
6-1-86
LG 3608
F.I & WI
SC-321
B-935
R.G. Hellegan
E-1924
Casing Pullers
Humble-St.
Phillips
HBP
E-1924
58-02
Simmons
(80 Net)
Shelly
(A.R.Co)
Warrior Inc.
E-1673
Amerada D/R
Warrior Inc
HBP
E 1640
Gulf
G.P. Sims Est. E-5892
"Gulf St"
Amoco
2-1-83
LG-1822
34
Jack Rush
Union-St
Getty
LG-1207
Getty
LG 1103
Amerada
H.B.P.
B-1640
Meso Pet.
4-1-83
Humble
State
HBC
Atlantic
State
Humble
"NM-St"
"Getty-St."
Exxon
Texaco
HNG
San Simon
No Nat Gas
51-01
4-1-87
5
(324.30 Net)
SAN SIMON
Shelly
HNG Oil & No Nat Gas
6-1-87
LG 4234
49-01
4
(647.40 Net)
Ashmun & Hilliard
"Shelly-St"
State
Merchants Livestock(s)
Superior
A.R.Co
HBP
3
(Anadarko) to 4165
Amerada
H.B.P.
B-1040
Amoco
11-1-82
LG-816
Centurion O&G
(Exxon)
B-935
Texaco
12
Exxon
H.B.P.
B-935
R. Smith
State
"New Mex-St."
State
M.M. Merritt
Exxon
6-1-86
LG 3610
Texaco
H.B.P.
B-158
Aztec
8-1-81
L 6440
Amerada
E-1625
Phillips, etal
(Anadorko) to 4450
7
8
9
10
Exxon
H.B.P.
B-935
Gulf
H.B.P.
B-229
Gulf
Aztec
E-6019
Amoco
State
State
Merchants Livestock
Pogo Prod.
5-1-89
LG-6595
Amoco
10-1-82
LG-741
Amoco
11-1-82
LG-817
Pogo Prod
8-1-86
LG-3693
14
Amoco
10-1-82
LG-741
13
"BKD"
State
Amoco
11-1-82
No Nat Gas
18
17
MesoPet
Cactus
Gulf
6-1-82
So Union
Gulf
Aztec
BTA
16
22-35
15
MesoPet
Gulf
11-1-81
L 6730
Op. Rts. only to 14,229'
3.78758 % State
Phillips
7-21-80
L 4315
Brunson & McKnight 1/2 to 14833'
Am Quasar
23
Gulf
Brunson & McKnight
State, M.I.
Merchants Livestock, etal
Flag-Redfern
12-1-89
LG-7358
24
OJO CHISO
State
Gulf
6-1-84
LG-842
19
State
20
MesoPet
State
Merchants Livestock
HNB Oil
"Amoco"
38-01
(320 Net)
21
Aztec
Cities Service
HBP
Amerada
HBP
E-1625
BTA
22
HNB Oil
39-01
(320 Net)

NEW MEXICO OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

APPLICATION FOR MULTIPLE COMPLETION

Form C-107
5-1-61

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OIL CONSERVATION DIVISION
SANTA FE

Operator	County	Date
HNG Oil Company	Lea	12-1-80
Address	**Lease**	**Well No.**
P.O. Box 2267, Midland, Texas 79702	San Simon 6 State Com.	1

Location of Well	Unit	Section	Township	Range
	H	6	22S	35E

1. Has the New Mexico Oil Conservation Commission heretofore authorized the multiple completion of a well in these same pools or in the same zones within one mile of the subject well? YES _____ NO X

2. If answer is yes, identify one such instance: Order No. _____ ; Operator Lease, and Well No.: _____

3. The following facts are submitted:	Upper Zone	Intermediate Zone	Lower Zone
a. Name of Pool and Formation	Und. Wolfcamp		Und. Morrow
b. Top and Bottom of Pay Section (Perforations)	11,132' - 11,154'		13,110' - 13,117'
c. Type of production (Oil or Gas)	Oil		Gas
d. Method of Production (Flowing or Artificial Lift)	Flowing		Flowing

4. The following are attached. (Please check YES or NO)

Yes	No	
X		a. Diagrammatic Sketch of the Multiple Completion, showing all casing strings, including diameters and setting depths, centralizers and/or turbolizers and location thereof, quantities used and top of cement, perforated intervals, tubing strings, including diameters and setting depth, location and type of packers and side door chokes, and such other information as may be pertinent.
X		b. Plat showing the location of all wells on applicant's lease, all offset wells on offset leases, and the names and addresses of operators of all leases offsetting applicant's lease.
X		c. Waivers consenting to such multiple completion from each offset operator, or in lieu thereof, evidence that said offset operators have been furnished copies of the application.*
X		d. Electrical log of the well or other acceptable log with tops and bottoms of producing zones and intervals of perforation indicated thereon. (If such log is not available at the time application is filed it shall be submitted as provided by Rule 112-A.)

5. List all offset operators to the lease on which this well is located together with their correct mailing address.

Exxon Company, USA, Box 1700, Midland, Texas 79702

Phillips Petroleum, Phillips Bldg., Odessa, Texas 79761

Northern Nat'l. Gas Co., 403 Wall Towers West, Midland, Texas 79701

Texaco, Inc., Box 3109, Midland, Texas 79702

Amerada Hess Corp., 2207 West Industrial, Midland, Texas 79701

Getty Oil Co., Box 1231, Midland, Texas 79702

6. Were all operators listed in Item 5 above notified and furnished a copy of this application? YES X NO _____. If answer is yes, give date of such notification December 1, 1980.

CERTIFICATE: I, the undersigned, state that I am the Regulatory Clerk of the HNG Oil (company), and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.

5. Amoco Prod. Co.
P.O. Box 1725
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Betty A. Gildon
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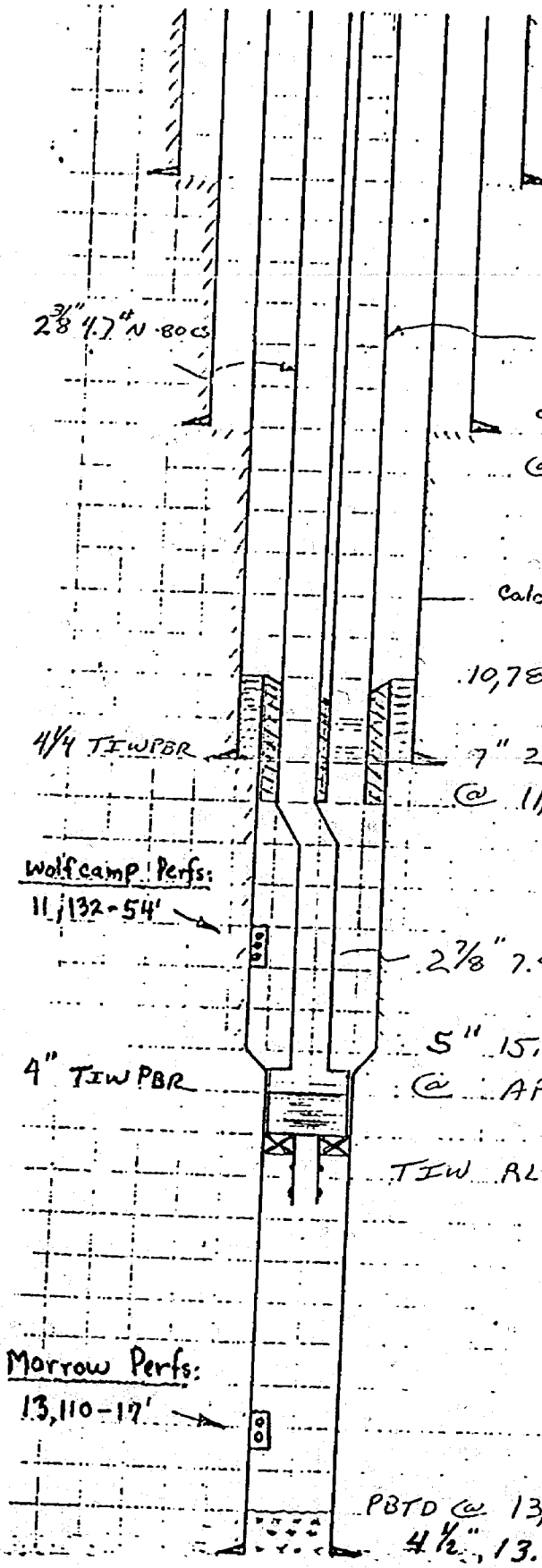


13 3/8" 48 #/FT, HTC, ST+C
54.5 #/FT, X8 + K-55, ST+C
@ 1085' w/1450 sx (circ.)

2 3/8" 4.7 #/FT N-80 Nulock

9 5/8" 36 #/FT, K-55 + S-80, ST+C
@ 5687' w/ 3450 sx. (circ.)

Calc. cement top 9060' (@ 60% eff.)

10,782

4 1/4 TIW PBR

7" 23 #/FT S-95 LT+C
@ 11,014' w/ 750 sx

SEAL BORE 1 3/4
55

Wolfcamp Perfs:
11,132-54'

2 7/8" 7.90 #/FT PH-6

5" 15.0 #/FT N-80 LT+C
@ APPROXIMATELY 11,332'

4" TIW PBR

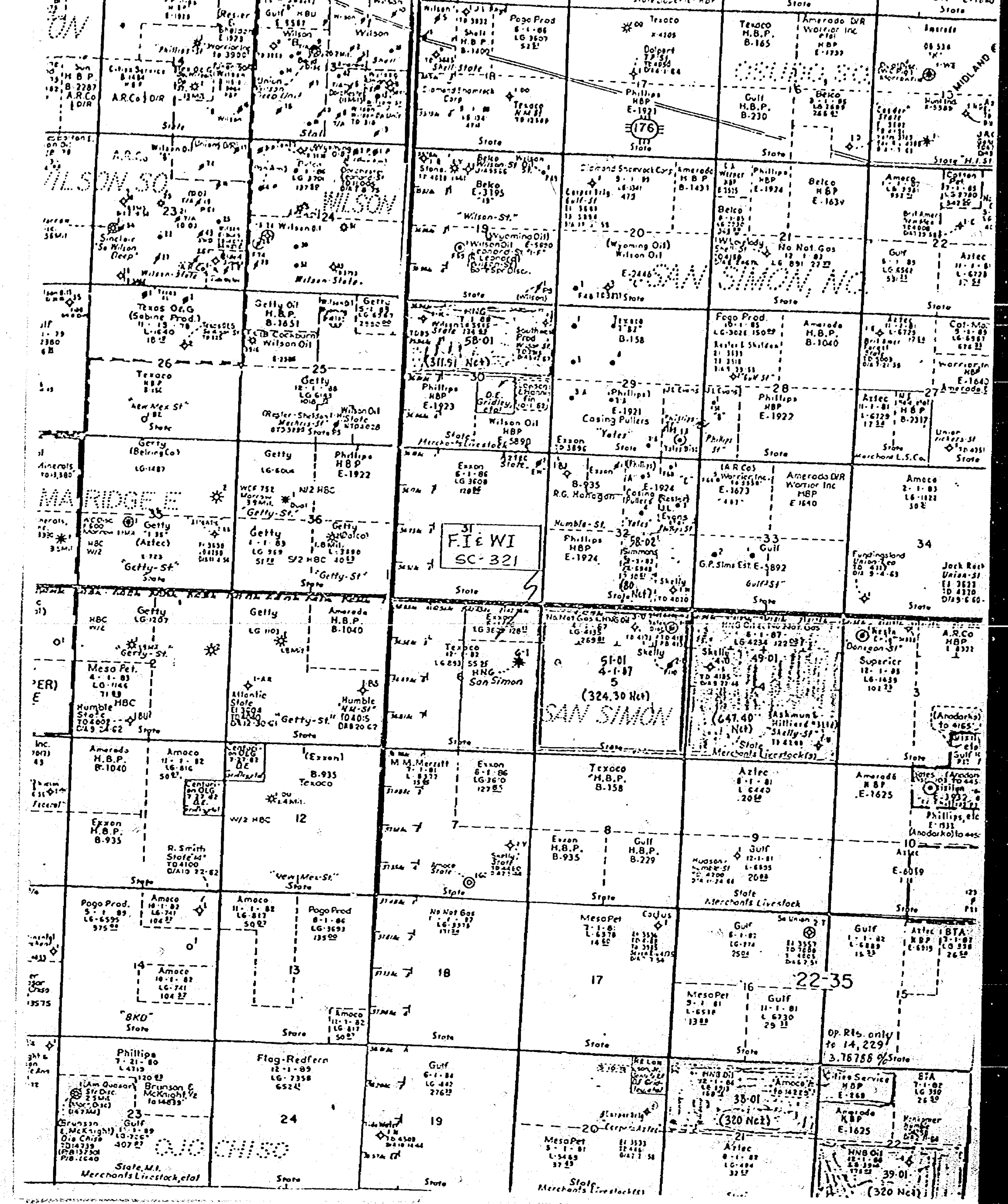
TIW RLN w/ OTIS 1.875 ID PROFILES

No centralizers installed.

Morrow Perfs:
13,110-17'

PBTD @ 13,217'

4 1/2", 13.50 #/FT N-80 LT+C @ 13,300' w/ 400 sx. (circ.)


WILSON
SAN SIMON
OJO CHISO
F.I & WI
SC-321
22-35
176
Op. Rts. only to 14,229'
3.76758 % State
Texaco H.B.P. B-158
Phillips HBP E-1922
Amerada H.B.P. B-1040
Exxon H.B.P. B-935
Flag-Redfern
Merchants Livestock
"Getty-St."
"New Mex-St."
"Wilson-St."
(324.30 Net)
(320 Net)

NEW MEXICO OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
APPLICATION FOR MULTIPLE COMPLETION

Form C-107
5-1-61

RECEIVED
DEC 05 1980
OIL CONSERVATION DIVISION
SANTA FE

Operator		County	Date
HNG Oil Company		Lea	12-1-80
Address		Lease	Well No.
P.O. Box 2267, Midland, Texas 79702		San Simon 6 State Com.	1
Location of Well: Unit H	Section 6	Township 22S	Range 35E

1. Has the New Mexico Oil Conservation Commission heretofore authorized the multiple completion of a well in these same pools or in the same zones within one mile of the subject well? YES _____ NO X

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Betty A. Gildon
Signature

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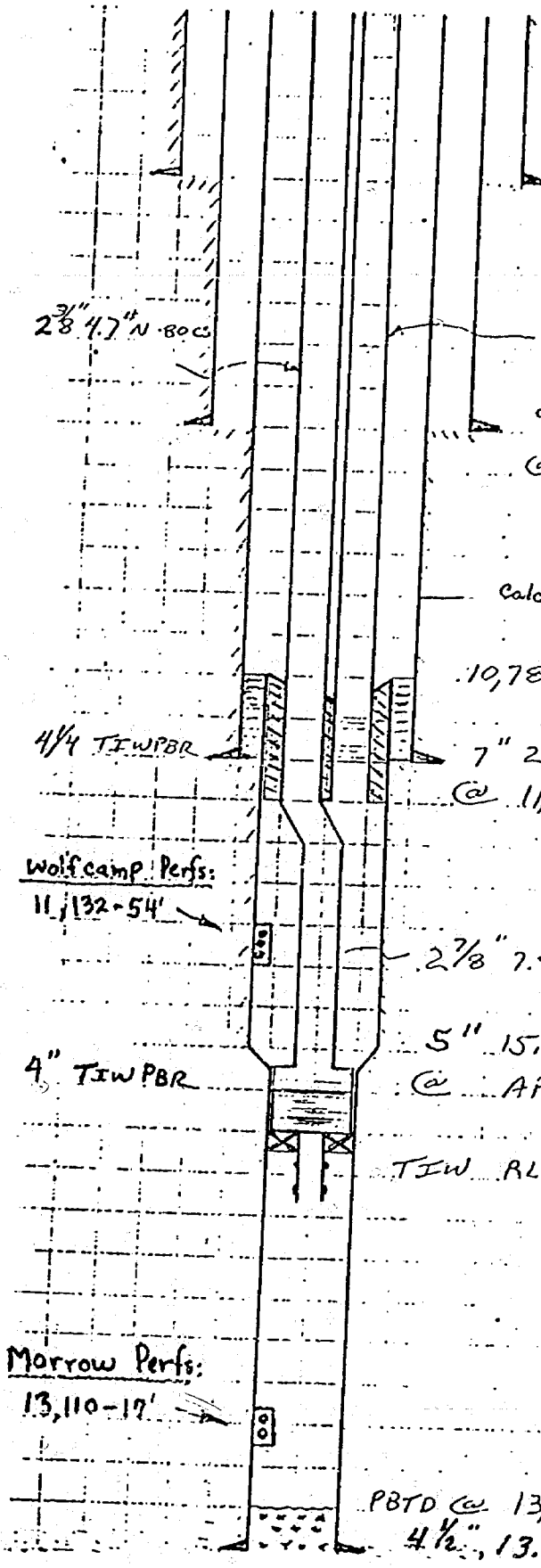

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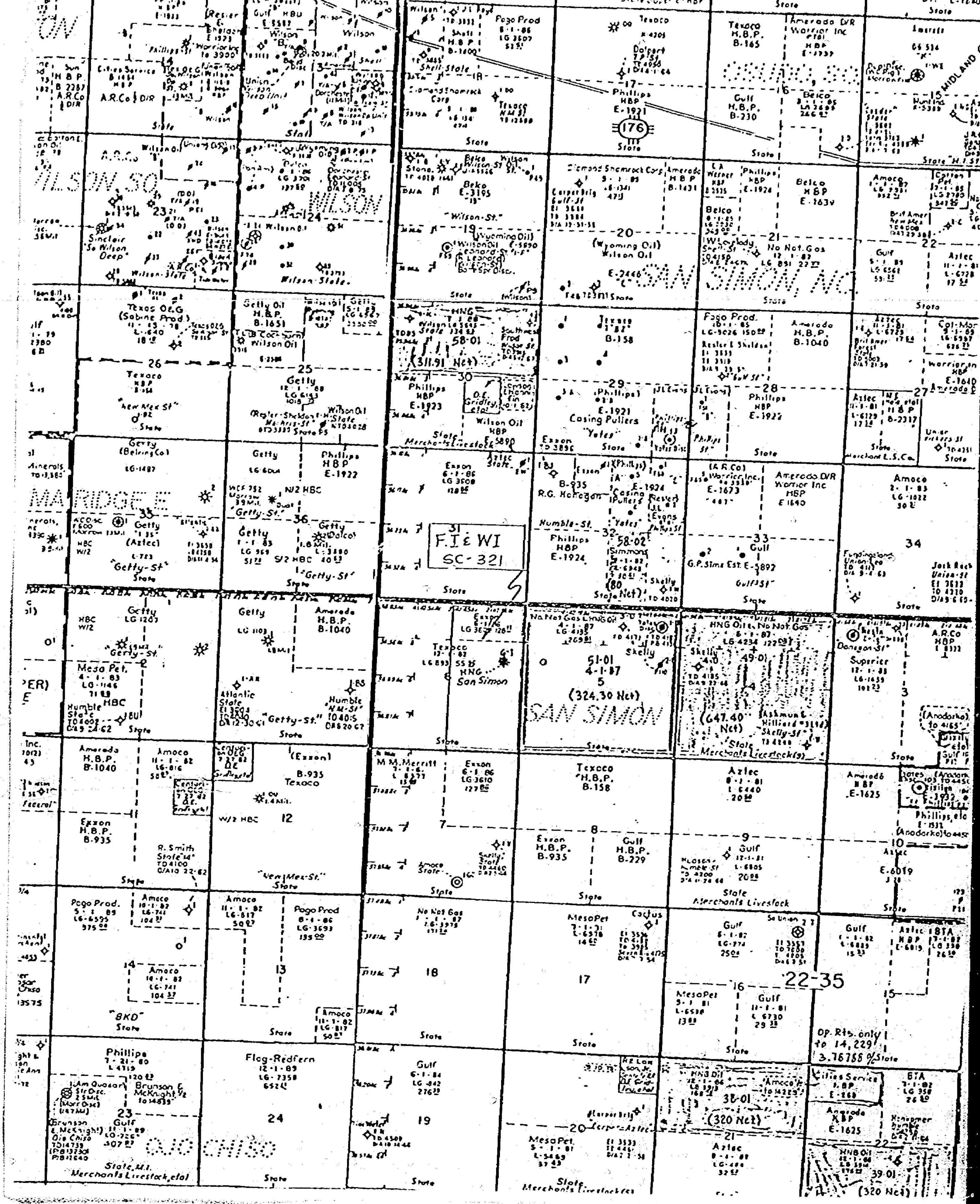
WILSON SO
WILSON
SAN SIMON, NO.
SAN SIMON
MA RIDGE E
OJO CHISO
Sinclair "So Wilson Deep"
Wilson-State
Wilson State.
"Wilson-St."
Texos O&G (Sabine Prod.)
Getty Oil H.B.P. B-1651
Texaco HBP
"New Mex St"
Getty
Phillips HBP E-1922
Phillips HBP E-1921
Phillips HBP E-1923
Phillips HBP E-1924
Texaco H.B.P. B-165
Gulf H.B.P. B-230
Belco HBP E-1639
Belco
Beko E-3195
Amerada D/R Warrior Inc HBP E-1640
Amerada H.B.P. B-1040
Fogo Prod.
Texaco "B2" B-158
(Wyoming Oil) Wilson Oil
No Nat. Gas
Casing Pullers "Yates"
Wilson Oil HBP E-5890
58-01
(311.91 Net)
58-02
(80 Net)
F.I.&WI SC-321
Exxon 6-1-86 LG 3508 128.85
B-935 R.G. Hanagan
Humble-St.
G.P. Sims Est. E-5892
Gulf
Amoco
34
"Getty-St."
Getty (Aztec)
Getty Dolco
Getty LG 1207
Mesa Pet. 4-1-83 LG-1146 71.88
Humble State
Atlantic State
Humble "N.M.-St"
Texaco 12-1-82 LG 6893 55.15
HNG San Simon
51-01
4-1-87
5
(324.30 Net)
HNG Oil & No Nat. Gas 6-1-87 LG 4234
49-01
(647.40 Net)
Superior
3
State Merchants Livestock(s)
Amerada H.B.P. B-1040
Amoco 11-1-82 LG-816 50.27
(Exxon) B-935 Texaco
12
Exxon H.B.P. B-935
R. Smith State "14" TD 4100 D/A10 22-62
"New Mex-St." State
M.M. Merritt
Exxon 6-1-86 LG 3610 127.86
Texaco "H.B.P. B-158
Aztec 8-1-81 L 6440 20.80
Amerada HBP E-1625
Phillips, etal
7
8
9
10
Exxon H.B.P. B-935
Gulf H.B.P. B-229
Gulf 12-1-81 L-6805 20.88
Aztec E-6019
State Merchants Livestock
Pogo Prod. 5-1-89 LG-6595 575.00
Amoco 10-1-82 LG-741 104.37
Amoco 11-1-82 LG-817 50.27
Pogo Prod 8-1-86 LG-3693 135.00
14
13
"BKD" State
No Nat Gas
18
MesoPet
Cactus
17
Gulf
16
22-35
MesoPet 5-1-81 L-6538 13.80
Gulf 11-1-81 L 6730 29.38
15
Op. Rts. only to 14,229'
3.76788 % State
Phillips 7-21-80 L 4719 120.83
Brunson & McKnight
23
Gulf 11-1-89 LO-726 407.87
Flag-Redfern 12-1-89 LG-7358 652.11
24
Gulf 6-1-84 LG-842 276.23
19
20
MesoPet. 5-1-81 L-5469 37.43
21
Aztec
38-01
(320 Net)
Cities Service
Amerada XBP E-1625
BTA
22
HNG Oil
39-01
(320 Net)
State, M.I. Merchants Livestock, etal
State
MIDLAND
176

CAMPBELL AND BLACK, P.A.
LAWYERS

JACK M. CAMPBELL
BRUCE D. BLACK
MICHAEL B. CAMPBELL
WILLIAM F. CARR

POST OFFICE BOX 2208
JEFFERSON PLACE
SANTA FE, NEW MEXICO 87501
TELEPHONE (505) 988-4421

December 22, 1980

Mr. Joe D. Ramey
Division Director
Oil Conservation Division
New Mexico Department of
Energy & Minerals
Post Office Box 2088
Santa Fe, New Mexico 87501

Case 7128

Re: Application of HNG Oil Company for Pool Creation, Special Pool Rules, an Oil Discovery Allowable and approval of a Dual Completion, Lea County, New Mexico

Dear Mr. Ramey:

Enclosed in triplicate is the application of HNG Oil Company in the above-referenced matter.

The applicant requests that this matter be included on the docket for the examiner hearing scheduled to be held on January 14, 1981.

Very truly yours,

William F. Carr

WFC:lr

Enclosures

BEFORE THE

OIL CONSERVATION DIVISION

NEW MEXICO DEPARTMENT OF ENERGY AND MINERALS

IN THE MATTER OF THE APPLICATION
OF HNG OIL COMPANY FOR POOL
CREATION, SPECIAL POOL RULES,
AN OIL DISCOVERY ALLOWABLE,
AND APPROVAL OF A DUAL COMPLETION,
LEA COUNTY, NEW MEXICO.

Case 7128

APPLICATION

Comes now, HNG OIL COMPANY, by and through its undersigned attorneys, and hereby makes application for an order designating a new pool as a result of a discovery of hydrocarbons in the Wolfcamp Formation in its San Simon 6 State Comm. No. 1 Well, promulgating special pool rules for said pool, including 160 acre spacing or proration units, establishing an oil discovery allowable, and approving a dual completion, and in support thereof, would show the following:

1. That applicant has recently completed its San Simon 6 State Comm. No. 1 Well in the Wolfcamp and Morrow formations capable of producing oil and gas in paying quantities, located 1980 feet from the North line and 660 feet from the East line of Section 6, Township 22 South, Range 35 East, Lea County, New Mexico. Said well is producing through perforations from 11,132 feet to 11,154 feet in the Wolfcamp formation and 13,110 feet to 13,117 feet in the Morrow formation and was potentialed in the Wolfcamp as capable of producing 408 barrels of oil per day and 1315 mcf. of gas per day and was potentialed as capable of producing from the Morrow 1979 mcf. of gas per day, 63 barrels of condensate per day.

11132
5
5660

2. Applicant believes the following described lands are reasonably proven to be productive of oil and gas in paying quantities from the Wolfcamp formation and should be included in the original definition of the new pool to be created because of said discovery:

Township 22 South, Range 35 East, N.M.P.M.
Section 6: NE/4

3. In order to prevent economic loss caused by the drilling of unnecessary wells, to avoid augmentation of risk arising from the drilling of an excessive number of wells and to otherwise prevent waste and protect correlative rights, special pool rules and regulations providing for 160 acre spacing units should be promulgated for the new pool.

4. Applicant requests that the Division establish a discovery allowable for the San Simon 6 State Comm. No. 1 Well in accordance with Rule 509 of the Division's Rules and Regulations.

5. The Morrow zone in the San Simon 6 State Comm. No. 1 Well is classified as a gas zone and the Wolfcamp zone in said well is classified as an oil zone. Applicant seeks approval to complete said San Simon 6 State Comm. No. 1 Well as a gas-oil dual completion and will offer testimony to show that the well will be completed in such a manner as to effectively prevent communication between the two producing horizons and will result in a greater ultimate recovery of oil and gas from the two pools.

6. No waste will occur as a result of granting this application and the correlative rights of all owners, including offset owners, will be fully protected.

WHEREFORE, HNG Oil Company requests that this application be set for hearing before a duly appointed examiner of the Oil Conservation Division on January 14, 1981, that notice be given as required by law and the rules of the Division and that the application be approved.

Respectfully submitted,

CAMPBELL AND BLACK, P.A.

By William F. Carr

William F. Carr
Attorneys for Applicant
Post Office Box 2208
Santa Fe, New Mexico 87501

BEFORE THE

OIL CONSERVATION DIVISION

NEW MEXICO DEPARTMENT OF ENERGY AND MINERALS

IN THE MATTER OF THE APPLICATION
OF HNG OIL COMPANY FOR POOL
CREATION, SPECIAL POOL RULES,
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By _____
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Attorneys for Applicant
Post Office Box 2208
Santa Fe, New Mexico 87501

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OIL CONSERVATION DIVISION

NEW MEXICO DEPARTMENT OF ENERGY AND MINERALS

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Respectfully submitted,

CAMPBELL AND BLACK, P.A.

By _____
William F. Carr
Attorneys for Applicant
Post Office Box 2208
Santa Fe, New Mexico 87501

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Respectfully submitted,

CAMPBELL AND BLACK, P.A.

By _____
William F. Carr
Attorneys for Applicant
Post Office Box 2208
Santa Fe, New Mexico 87501

Dan

hng Oil Company

P. O. BOX 2267, MIDLAND, TEXAS 79702 (915) 683-4871

RECEIVED
DEC 09 1980
OIL CONSERVATION DIVISION
SANTA FE

December 2, 1980

Oil Conservation Commission
State of New Mexico
P. O. Box 2088
Santa Fe, NM 87501

Attn: Mr. Dan Nutter

In Re: San Simon 6 State Com., Well No. 1
Und. Morrow
Lea County, Texas

Dear Mr. Nutter:

Tubing for the above-named well has been set at 10,782 feet with ~~packer at 11,332~~ feet, and casing perforated from 13,110 to 13,117 feet.

This office requests administrative exception to Rule 107d.

Very truly yours,

HNG OIL COMPANY

Betty A. Gildon

Betty A. Gildon
Regulatory Clerk

bg

RECEIVED
DEC 22 1980
OIL CONSERVATION DIVISION
SANTA FE

this is the pulling depth for the Wolfcamp tubing (Perfs @ 11,132-54)

These are the Morrow perfs- Morrow pkr @ 11,332

11,132
10782
350

13,110
11,332
1,778

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LAND OFFICE		
OPERATOR		

Form C-105
Revised 1-1-65

NEW MEXICO OIL CONSERVATION COMMISSION
WELL COMPLETION OR RECOMPLETION REPORT AND LOG

RECEIVED DEC 09 1980 OIL CONSERVATION DIVISION SANTA FE

5a. Indicate Type of Lease: State [X] Fee [ ]
5. State Oil & Gas Lease No.: LG 893 & LG 3609

1a. TYPE OF WELL
b. TYPE OF COMPLETION: OIL WELL [ ] GAS WELL [X] DRY [ ] OTHER
NEW WELL [X] WORK OVER [ ] DEEPEN [ ] PLUG BACK [ ] DIFF. RESVR. [ ] OTHER

7. Unit Agreement Name
8. Farm or Lease Name: San Simon 6 State Com
2. Name of Operator: HNG Oil Company
9. Well No.: 1
3. Address of Operator: P.O. Box 2267, Midland, Texas 79702
10. Field and Pool, or Wildcat: Und. Morrow
4. Location of Well: UNIT LETTER H LOCATED 1980 FEET FROM THE North LINE AND 660 FEET FROM THE East LINE OF SEC. 6 TWP. 22S RGE. 35E NMPM
12. County: Lea

15. Date Spudded	16. Date T.D. Reached	17. Date Compl. (Ready to Prod.)	18. Elevations (DF, RKB, RT, GR, etc.)	19. Elev. Cashinghead
8-10-80	10-4-80	10-31-80	3628.8' GR	3628.8'

20. Total Depth	21. Plug Back T.D.	22. If Multiple Compl., How Many	23. Intervals Drilled By →	Rotary Tools	Cable Tools
13,300'	13,187'	2		X	

24. Producing Interval(s), of this completion -- Top, Bottom, Name: 13,110 - 13,117 (Morrow)
25. Was Directional Survey Made: No
26. Type Electric and Other Logs Run: Dual Laterlog BHC Sonic, Compensated Neutron Formation Density
27. Was Well Cored: No

28. CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT LB. FT.	DEPTH SET	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
13-3/8	48#	1085	17-1/2	1450 sx C1C	Circ.
9-5/8	36#	5687	12-1/4	500 C1C & 2950 Pacesetter lite	
7"	23#	11014	8-1/2	400 Pacesetter lite & 350 C1H	

29. LINER RECORD

SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN
4-1/2 & 5"	10,782	13,300	400 C1H	

30. TUBING RECORD

SIZE	DEPTH SET	PACKER SET
2-3/8"	10782	11,332

31. Perforation Record (Interval, size and number)
13,110 - 13,117 (.38" 8)

RECEIVED DEC 22 1980 OIL CONSERVATION DIVISION SANTA FE

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL	AMOUNT AND KIND MATERIAL USED
13,110-13,117	3000 gals 7-1/2% MS Acid

33. PRODUCTION

Date First Production	Production Method (Flowing, gas lift, pumping - Size and type pump)	Well Status (Prod. or Shut-in)
10-13-80	Flowing	Shut - in

Date of Test	Hours Tested	Choke Size	Prod'n. For Test Period →	Oil - Bbl.	Gas - MCF	Water - Bbl.	Gas-Oil Ratio
10-13-80	24	10/64		70	2300	244	33 000

Flow Tubing Press.	Casing Pressure	Calculated 24-Hour Rate →	Oil - Bbl.	Gas - MCF	Water - Bbl.	Oil Gravity - API (Corr.)
4500	-					56.0

34. Disposition of Gas (Sold, used for fuel, vented, etc.): Vented
Test Witnessed By

35. List of Attachments
Form C-122, Inclination Report, and 1 set of logs- The other set of logs was sent to Santa Fe along with Form C-107

36. I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief.

SIGNED Betty A. Gildon TITLE Regulatory Clerk DATE 12-3-80

INSTRUCTIONS

This form is to be filed with the appropriate District Office of the Commission not later than 20 days after the completion of any newly-drilled or deepened well. It shall be accompanied by one copy of all electrical and radioactivity logs run on the well and a summary of all special tests conducted, including drill stem tests. All depths reported shall be measured depths. In the case of directionally drilled wells, true vertical depths shall also be reported. For multiple completions, Items 35 through 38 shall be reported for each zone. The form is to be filed in quintuplicate except on state land, where six copies are required. See Rule 1105.

INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE

Southeastern New Mexico				Northwestern New Mexico			
T. Anhy		T. Canyon		T. Ojo Alamo		T. Penn. "B"	
T. Salt		T. Strawn	11631	T. Kirtland-Fruitland		T. Penn. "C"	
B. Salt		T. Atoka	12128	T. Pictured Cliffs		T. Penn. "D"	
T. Yates		T. Miss		T. Cliff House		T. Leadville	
T. 7 Rivers		T. Devonian		T. Menefee		T. Madison	
T. Queen		T. Silurian		T. Point Lookout		T. Elbert	
T. Grayburg		T. Montoya		T. Mancos		T. McCracken	
T. San Andres		T. Simpson		T. Gallup		T. Ignacio Qtzte	
T. Glorieta		T. McKee		Base Greenhorn		T. Granite	
T. Paddock		T. Ellenburger		T. Dakota		T.	
T. Blinebry		T. Gr. Wash		T. Morrison		T.	
T. Tubb		T. Granite		T. Todilto		T.	
T. Drinkard		T. Delaware Sand		T. Entrada		T.	
T. Abo		T. Bone Springs	8360	T. Wingate		T.	
T. Wolfcamp	Reef 11086	T.	3rd/ Bone Spring 10794	T. Chinle		T.	
T. Penn.	11472	T.	Morrow Lime 12654	T. Permian		T.	
T. Cisco (Bough C)		T.	Morrow Clastics 12828	T. Penn. "A"		T.	

OIL OR GAS SANDS OR ZONES

No. 1, from Morrow 13110 to 13117 No. 4, from ..... to .....

No. 2, from ..... to ..... No. 5, from ..... to .....

No. 3, from ..... to ..... No. 6, from ..... to .....

IMPORTANT WATER SANDS

Include data on rate of water inflow and elevation to which water rose in hole.

No. 1, from None to ..... feet. .....

No. 2, from ..... to ..... feet. .....

No. 3, from ..... to ..... feet. .....

No. 4, from ..... to ..... feet. .....

FORMATION RECORD (Attach additional sheets if necessary)

From	To	Thickness in Feet	Formation	From	To	Thickness in Feet	Formation
0	8360	8360	Gravel & Redbeds				
8360	10794	2434	Bone Springs				
10794	11086	292	3rd/ Bone Spring Sand				
11086	11472	386	Wolfcamp Reef				
11472	11631	159	Pennsylvanian				
11631	12128	497	Strawn				
12128	12654	526	Atoka				
12654	12828	174	Morrow Lime				
12828	13300	472	Morrow Clastics				

ROUGH

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. 7128

Order No. R-6586

Application of HNG Oil Company for pool creation, special pool rules, assignment of a discovery allowable, and dual completion, Lea County, New Mexico.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on January ~~22~~ 14, 19 81, at Santa Fe, New Mexico, before Examiner RLS.

NOW, on this _____ day of _____, 19____, 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, HNG Oil Company,

seeks creation of a new Wolfcamp oil pool for its San Simon 6 State Comm. Well No. 1 located 1980 feet from the North line and 660 feet from the East line of Section 6, Township 22 South, Range 35 East, with special rules therefor, including provisions for 160-acre spacing.

(3) That the

Applicant

further seeks a discovery allowable for said well and approval for its dual completion to produce oil from the Wolfcamp and gas from an undesignated Morrow pool thru parallel strings of tubing.

(4) ~~(2)~~ That the applicant, *HNG Oil Company* is the owner of ~~the~~ *San Simon 6 State Com* Well No. *1* ~~located in~~ Unit *H* of ~~Section~~ *6* ~~Township~~ *22 South*, ~~Range~~ *35 East*, ~~NMPM~~, *Lea* ~~County, New Mexico.~~

(5) ~~(3)~~ That said well was *dually* completed as an *oil well and as a* ~~gas~~ well capable of producing from the *Wolfcamp and Morrow* formations ~~[illegible]~~ *(oil)* *October 31, 1980*, through perforations from *11132* feet to *11,154* feet *and 13,110 feet to 13,117 feet, respectively.*

(6) ~~(4)~~ That the applicant seeks the creation of a new pool for *Wolfcamp* production for said well, and the assignment of an oil discovery allowable in the amount of *56,660* barrels of oil to said well.

(7) ~~(5)~~ That said well has in fact made discovery of a new *Wolfcamp* oil pool, and is entitled to the assignment of such discovery allowable.

(8) ~~(6)~~ That a new pool in *Lea* County, New Mexico, should be created and defined, classified as an oil pool for *Wolfcamp* production, and designated as the *San Simon-Wolfcamp* Oil Pool, comprising the following-described lands:

TOWNSHIP ~~19 NORTH~~ *22 South*, RANGE ~~5 WEST, NMPM~~ *35 East, NMPM*
Section ~~25: NW/4~~ *6 : NE/4*

(9) ~~(7)~~ That the discovery well for said pool, the *HNG Oil Company San Simon 6 State Com* Well No. *1*, located in Unit *H* of said Section *6* should be assigned an oil discovery allowable in the amount of *56,660* barrels to be produced in addition to the well's regularly assigned allowable during the next 730 days.

10 ~~(8)~~ **That in order to prevent the economic loss caused by the drilling of unnecessary wells, to avoid the augmentation of risk arising from the drilling of an excessive number of wells, to prevent reduced recovery which might result from the drilling of too few wells, and to otherwise prevent waste and protect correlative rights, special rules and regulations providing for 160-acre spacing units should be promulgated for the** *San Simon-Wolfcamp* **Pool.**

(11) ~~(9)~~ **That the special rules and regulations should provide for limited well locations in order to assure orderly development of the pool and protect correlative rights.**

(12) ~~(9)~~ **That the mechanics of the proposed** *dual* **completion are feasible and in accord with good conservation practices.**

(13) ~~(8)~~ **That approval of the subject application will prevent waste and protect correlative rights.**

(1) That a new pool in Lea, County, New Mexico, classified as an oil pool for Wolfcamp production., is hereby created and designated as the San Simon-Wolfcamp Oil Pool, consisting of the following described area:

TOWNSHIP ~~19 NORTH~~ 22 South, RANGE ~~5 WEST~~ 35 East, NMPM
Section ~~15: NW/4~~ 6: NE/4

(2) That the discovery well for said pool, the HNG Oil Company San Simon 6 State Com Well No. 1, located in Unit H of said Section 6, is hereby assigned an oil discovery allowable in the amount of 55,660 barrels, to be produced in addition to said well's regularly assigned allowable, at the rate of approximately 77 barrels per day during the next 730 days.

(3) ~~(2)~~ That Special Rules and Regulations for the San Simon-Wolfcamp Pool, Lea County, New Mexico, are hereby promulgated as follows:

SPECIAL RULES AND REGULATIONS
FOR THE San Simon-Wolfcamp POOL

RULE 1. Each well completed or recompleted in the San Simon-Wolfcamp Pool or in the Wolfcamp formation within one mile of the San Simon-Wolfcamp Pool, and not nearer to nor within the limits of another designated Wolfcamp pool, shall be spaced, drilled, operated, and prorated in accordance with the Special Rules and Regulations hereinafter set forth.

RULE 2. Each well completed or recompleted in the San Simon-Wolfcamp Pool shall be located on a unit containing 160 acres, more or less, substantially in the form of a square, which is a quarter section being a legal subdivision of the United States Public Lands Survey.

RULE 3. Each well completed or recompleted in said pool shall not be drilled closer than 660 feet to any quarter section line nor closer than 330 feet to any quarter-quarter section line.

RULE 4. For good cause shown, the Division Director may grant an exception to the requirements of Rule 2 without notice and hearing when the application is for a non-standard unit comprising less than 160 acres. All operators offsetting the proposed non-standard unit shall be notified of the application by registered or certified mail, and the application shall state that such notice has been furnished. The Division Director may approve the application if, after a period of 30 days, no offset operator has entered an objection to the formation of such non-standard unit.

The allowable assigned to any such non-standard unit shall bear the same ratio to an established allowable in the San Simon-Wolfcamp Pool as the acreage in such non-standard unit bears to 160 acres.

RULE 5. A standard proration unit (158 through 162 acres) in the San Simon-Wolfcamp Pool shall be assigned a depth bracket allowable of 605 barrels, subject to the market demand percentage factor, and in the event there is more than one well on a 160-acre proration unit, the operator may produce the allowable assigned to the unit in any proportion.

IT IS FURTHER ORDERED:

(1)~~(3)~~ That the locations of all wells presently drilling to or completed in the San Simon-Wolfcamp Pool or in the Wolfcamp formation within one mile thereof are hereby approved; that the operator of any well having an unorthodox location shall notify the Hobbs District Office of the Division in writing of the name and location of the well on or before May 1, 1981.

2 ~~(4)~~ That, pursuant to Paragraph A. of Section 70-2-18, NMSA 1978, contained in Chapter 271, Laws of 1969, existing wells in the San Simon-Wolfcamp Pool shall have dedicated thereto 160 acres in accordance with the foregoing pool rules; or, pursuant to Paragraph C. of said Section 70-2-18, existing wells may have non-standard spacing or proration units established by the Division and dedicated thereto.

Failure to file new Forms C-102 with the Division dedicating 160 acres to a well or to obtain a non-standard unit approved by the Division within 60 days from the date of this order shall subject the well to cancellation of allowable. Until said Form C-102 has been filed or until a non-standard unit has been approved, and subject to said 60-day limitation, each well presently drilling to or completed in the San Simon-Wolfcamp Pool or in the Wolfcamp formation within one mile thereof shall receive no more than one-half of a standard allowable for the pool.

IT IS ~~THEREFORE~~ Further ORDERED:

(1) That the applicant, HNG Oil Company, **is hereby authorized to complete its** San Simon 6 State Com **Well No.** 1, **located in Unit** H **of Section** 6, **Township** 22 South, **Range** 35 East, **NMPM,** Lea **County, New Mexico, as a** dual **completion (conventional) ~~(combination)~~ ~~(tubingless)**

to produce ~~gas~~ oil from the Wolfcamp formation and gas from the Morrow formation thru parallel strings of tubing with separation of the zones to be accomplished by means of polished bore receptacles located at approximately 10,782 feet and 11,356 feet

PROVIDED HOWEVER, that the applicant shall complete, operate, and produce said well in accordance with the provisions of Rule 112-A of the Division Rules and Regulations insofar as said rule is not inconsistent with this order;

PROVIDED FURTHER, that the applicant shall take packer leakage tests upon completion and annually thereafter during the Annual Shut-In Pressure Test Period for ~~the~~ gas wells in Southeastern New Mexico Pool.

(2) 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
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

February 13, 1981

Re: CASE NO. 7128
ORDER NO. R-6586

Mr. William F. Carr
Campbell and Black
Attorneys at Law
Post Office Box 2208
Santa Fe, New Mexico

Applicant:

HNG Oil 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. 7128
Order No. R-6586

APPLICATION OF HNG OIL COMPANY FOR POOL CREATION, SPECIAL POOL RULES, ASSIGNMENT OF A DISCOVERY ALLOWABLE, AND DUAL COMPLETION, LEA COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on January 14, 1981, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this 10th day of February, 1981, 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, HNG Oil Company, seeks creation of a new Wolfcamp oil pool for its San Simon 6 State Comm. Well No. 1 located 1980 feet from the North line and 660 feet from the East line of Section 6, Township 22 South, Range 35 East, with special rules therefor, including provisions for 160-acre spacing.

(3) That the applicant further seeks a discovery allowable for said well and approval for its dual completion to produce oil from the Wolfcamp and gas from an undesignated Morrow pool through perallel strings of tubing.

(4) That the applicant, HNG Oil Company, is the owner of said San Simon 6 State Comm. Well No. 1.

(5) That said well was duelly completed as an oil well and as a gas well capable of producing from the Wolfcamp and Morrow formations on October 31, 1980, through perforations from 11,132 feet to 11,154 feet and 13,110 feet to 13,117 feet, respectively.

(6) That the applicant seeks the creation of a new pool for Wolfcamp production for said well, and the assignment of an oil discovery allowable in the amount of 55,660 barrels of oil to said well.

(7) That said well has in fact made discovery of a new Wolfcamp oil pool, and is entitled to the assignment of such discovery allowable.

(8) That a new pool in Lea County, New Mexico, should be created and defined, classified as an oil pool for Wolfcamp production, and designated as the San Simon-Wolfcamp Oil Pool, comprising the following-described lands:

TOWNSHIP 22 SOUTH, RANGE 35 EAST, NMPM
Section 6: NE/4

(9) That the discovery well for said pool, the HNG Oil Company San Simon 6 State Comm. Well No. 1, located in Unit H of said Section 6 should be assigned an oil discovery allowable in the amount of 55,660 barrels to be produced in addition to the well's regularly assigned allowable during the next 730 days.

(10) That in order to prevent the economic loss caused by the drilling of unnecessary wells, to avoid the augmentation of risk arising from the drilling of an excessive number of wells, to prevent reduced recovery which might result from the drilling of too few wells, and to otherwise prevent waste and protect correlative rights, special rules and regulations providing for 160-acre spacing units should be promulgated for the San Simon-Wolfcamp Pool.

(11) That the special rules and regulations should provide for limited well locations in order to assure orderly development of the pool and protect correlative rights.

(12) That the mechanics of the proposed dual completion are feasible and in accord with good conservation practices.

(13) That approval of the subject application will prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

(1) That a new pool in Lea County, New Mexico, classified as an oil pool for Wolfcamp production, is hereby created and designated as the San Simon-Wolfcamp Oil Pool, consisting of the following described area:

TOWNSHIP 22 SOUTH, RANGE 35 EAST, NMPM
Section 6: NE/4

(2) That the discovery well for said pool, the HNG Oil Company San Simon 6 State Comm. Well No. 1, located in Unit H of said Section 6, is hereby assigned an oil discovery allowable in the amount of 55,660 barrels, to be produced in addition to said well's regularly assigned allowable, at the rate of approximately 77 barrels per day during the next 730 days.

(3) That Special Rules and Regulations for the San Simon-Wolfcamp Pool, Lea County, New Mexico, are hereby promulgated as follows:

SPECIAL RULES AND REGULATIONS
FOR THE SAN SIMON-WOLFCAMP POOL

RULE 1. Each well completed or recompleted in the San Simon-Wolfcamp Pool or in the Wolfcamp formation within one mile of the San Simon-Wolfcamp Pool, and not nearer to nor within the limits of another designated Wolfcamp pool, shall be spaced, drilled, operated, and prorated in accordance with the Special Rules and Regulations hereinafter set forth.

RULE 2. Each well completed or recompleted in the San Simon-Wolfcamp Pool shall be located on a unit containing 160 acres, more or less, substantially in the form of a square, which is a quarter section being a legal subdivision of the United States Public Lands Survey.

RULE 3. Each well completed or recompleted in said pool shall not be drilled closer than 660 feet to any quarter section line nor closer than 330 feet to any quarter-quarter section line.

RULE 4. For good cause shown, the Division Director may grant an exception to the requirements of Rule 2 without notice and hearing when the application is for a non-standard unit comprising less than 160 acres. All operators offsetting the proposed non-standard unit shall be notified of the application by registered or certified mail, and the application shall state that such notice has been furnished. The Division Director may

approve the application if, after a period of 30 days, no offset operator has entered an objection to the formation of such non-standard unit.

The allowable assigned to any such non-standard unit shall bear the same ratio to an established allowable in the San Simon-Wolfcamp Pool as the acreage in such non-standard unit bears to 160 acres.

RULE 5. A standard proration unit (158 through 162 acres) in the San Simon-Wolfcamp Pool shall be assigned a depth bracket allowable of 605 barrels, subject to the market demand percentage factor, and in the event there is more than one well on a 160-acre proration unit, the operator may produce the allowable assigned to the unit in any proportion.

IT IS FURTHER ORDERED:

(1) That the locations of all wells presently drilling to or completed in the San Simon-Wolfcamp Pool or in the Wolfcamp formation within one mile thereof are hereby approved; that the operator of any well having an unorthodox location shall notify the Hobbs District Office of the Division in writing of the name and location of the well on or before May 1, 1981.

(2) That, pursuant to Paragraph A. of Section 70-2-18, NMSA 1978, contained in Chapter 271, Laws of 1969, existing wells in the San Simon-Wolfcamp Pool shall have dedicated thereto 160 acres in accordance with the foregoing pool rules; or, pursuant to Paragraph C. of said Section 70-2-18, existing wells may have non-standard spacing or proration units established by the Division and dedicated thereto.

Failure to file new Forms C-102 with the Division dedicating 160 acres to a well or to obtain a non-standard unit approved by the Division within 60 days from the date of this order shall subject the well to cancellation of allowable. Until said Form C-102 has been filed or until a non-standard unit has been approved, and subject to said 60-day limitation, each well presently drilling to or completed in the San Simon-Wolfcamp Pool or in the Wolfcamp formation within one mile thereof shall receive no more than one-half of a standard allowable for the pool.

IT IS FURTHER ORDERED:

(1) That the applicant, HNG Oil Company, is hereby authorized to complete its San Simon 6 State Comm. Well No. 1, located

in Unit H of Section 6, Township 22 South, Range 35 East, NMPM, Lea County, New Mexico, as a dual completion (conventional) to produce oil from the Wolfcamp formation and gas from the Morrow formation through parallel strings of tubing with separation of the zones to be accomplished by means of polished bore receptacles located at approximately 10,782 feet and 11,356 feet.

PROVIDED HOWEVER, that the applicant shall complete, operate, and produce said well in accordance with the provisions of Rule 112-A of the Division Rules and Regulations insofar as said rule is not inconsistent with this order;

PROVIDED FURTHER, that the applicant shall take packer leakage tests upon completion and annually thereafter during the Annual Shut-In Pressure Test Period for gas wells in Southeastern New Mexico.

(2) 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

S E A L

fd/

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
STATE LAND OFFICE BLDG.
SANTA FE, NEW MEXICO
14 January 1981

EXAMINER HEARING

IN THE MATTER OF:

Application of HNG Oil Company for pool creation, special pool rules, assignment of a discovery allowable, and dual completion, Lea County, New Mexico.

CASE 7128

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: William F. Carr, Esq.
CAMPBELL, BYRD, & BLACK
Jefferson Place
Santa Fe, New Mexico 87501

I N D E X

E X H I B I T S

E X H I B I T S

MR. STAMETS: Call next Case 7128.

MR. PADILLA: Application of HNG Oil Company for pool creation, special pool rules, assignment of a discovery allowable, and dual completion, Lea County, New Mexico.

MR. STAMETS: Call for appearances.

MR. CARR: May it please the Examiner, my name is William F. Carr, with the law firm of Campbell, Byrd, & Black, Santa Fe, New Mexico, appearing on behalf of the applicant.

I have three witnesses.

MR. STAMETS: Any other appearances in this case?

I'd like to have all the witnesses stand and be sworn at this time.

(Witnesses sworn.)

MR. CARR: At this time, Mr. Examiner, I would like to call Stewart Martin, and would ask that Mr. Martin be permitted to sit at the side of the table since he's working with some fairly large exhibits.

MR. STAMETS: That will be fine.

STEWART MARTIN

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

DIRECT EXAMINATION

BY MR. CARR:

Q. Will you state your name and place of residence?

A. Stewart Martin, Midland, Texas.

Q. By whom are you employed and in what capacity?

A. HNG Oil Company, Vice-President, Exploration.

Q. Have you previously testified before this Commission, had your credentials accepted and made a matter of record?

A. Yes, sir, as a geologist.

Q. Are you familiar with the application in this case and the subject area?

A. Yes, sir.

MR. CARR: Are the witness' qualifications accepted?

MR. STAMETS: They are.

Q. Mr. Martin, will you briefly state what

HNG seeks with this application?

A. HNG Oil Company is making application at this hearing today for an order to include the following:

Number one, designation of a new pool as a result of a discovery of hydrocarbons in the Wolfcamp formation in the HNG Oil Company San Simon 6 State Com No. 1, Section 6, Township 22 South, Range 35 East, Lea County, New Mexico.

Number two, promulgate special pool rules for said new pool, including 160-acre spacing for proration units.

Number three, establish an oil discovery allowable.

Number four, approve a dual completion, Wolfcamp oil and Morrow gas.

Q. Will you please refer to what has been marked for identification as HNG Exhibit Number One and explain to the Examiner what it is and what it shows?

A. Number One is the location plat, which is labeled completion map. We have this circle which is two mile radius from our discovery well, which is located in the east portion of Section 6, 22 South, 35 East. The exact location of this well is 1980 feet from the north line, 660 feet from the east line, at a standard gas location. The

east half of Section 6 was dedicated to the gas zone. This well was dually completed in the Wolfcamp, as shown on the plat. The first oil run from the Wolfcamp zone was made on 10-31-80 during the potential test.

Moving over to Section 36 in Township 21 South, 34 East, it's near the perimeter where the "A" is on the cross section, we have a Getty well that's dually completed in the Wolfcamp formation and the Morrow in late September, September, 1979. The oil zone in the Morrow was designated oil originally in the original completion but later, at a hearing in early 1980 the Commission designated it as a gas reservoir retrograde condensate.

Getty subsequently drilled their No. 2 well in the southeast quarter of the same section and the Morrow was not productive and it was completed as a gas well.

Moving over to the east in Section 32 ---

MR. STAMETS: Run that by me again on that Getty well. What wasn't productive?

A. The Wolfcamp was not productive and it was made as a single Morrow completion.

MR. STAMETS: Thank you.

A. Moving over to Section 2 along the south line, Phillips Petroleum has proposed their No. 32 State 1-A to HNG and Northern Natural Gas, or Nortex Gas and

Oil, and this location has not been filed with the Commission as yet. They're waiting on a rotary.

MR. STAMETS: My hearing must be off today. Did you say Section 2 or Section 32?

A Section 32.

MR. STAMETS Okay.

A One and a half miles west of our well in Section 1 of 22 South, 34 East, there's a single Morrow completion by Getty Oil Company, their Getty State 1-1.

Moving south in Section 12 of the same township, Texaco has a Morrow completion, their No. 1-DU State, a single Morrow completion.

Moving one mile east in Section 7, along the south line, Amoco is currently testing their No. 1 GC State in the Wolfcamp. To date they ran production tests in the Morrow that were not of commercial value.

The shallow production to the northeast of this discovery well in Section 32, 29, Section 30, is shallow Yates oil production, which is classified in the San Simon-Yates Field, at a depth of about 3800 feet.

That's all I have.

Q This map also has a trace on it which is the trace of the cross section, which will be entered as a subsequent exhibit, is that correct?

A. Yes, sir, the red line.

Q. Mr. Martin, is it your testimony that the east half of Section 6 is dedicated to this well in the Pennsylvanian?

A. Yes, sir.

Q. And the northeast quarter in the Wolf-camp?

A. Yes.

MR. STAMETS: Mr. Martin, if I might ask a question at this point.

There are a couple wells I don't believe that you discussed. One in Section 1 of 22, 34, and then the next well in the east half of Section2 of that same town-ship.

A. Okay. I did discuss the one in Section 1 and the one in Section 2 is also a Morrow completion, single completion.

MR. STAMETS: Okay, and the same is true with the well in Section --

A. Yes, sir. And for your benefit there is a legend down in -- in case you want to do any further study on certain zones.

MR. STAMETS: Okay, thank you.

Q. Mr. Martin, will you now refer to what

has been marked for identification as HNG Exhibit Two and review this for Mr. Stamets.

A Yes, sir. I'll have to stand up for this since it's -- this is a cross section which is marked in red on the first one, also in the insert in this Exhibit Number Two.

Starting from the top - this consists of four wells, the Getty -- Getty 36 State Com No. 1, first well in the cross section. Second well is the Getty -- Getty 36 State Com No. 2. The one in the middle is the HNG Oil Company San Simon State 6 Com No. 1, and the one to the right is the Amoco Production Company State "GC" Com No. 1.

Going back to the Getty well on the far left, we see it is completed in the Wolfcamp, which I consider a patch reef. Potential is on the left side of the wellbore and it also shows a Morrow completion.

The next well, which is the Getty State 36 Com No. 2, shows its Wolfcamp essentially shaled out; some live stringers but no porosity. It was completed in the Wolfcamp -- or in the Morrow sand at 12,946 to 954.

Going to the HNG discovery well, we encountered another patch reef at a higher structural elevation but we have an oil well, and Getty's is a retrograde condensate; why it is, I don't know, but it is, and I can't

explain why we have oil higher than retrograde condensate.

And we have also our Morrow perfs on this cross section from 13,110 to 117.

Moving to the Amoco well, in the same equivalent stratigraphic horizon as our Wolfcamp completion, Amoco took a drill stem test and recovered 1500 feet of free oil with good bottom hole pressures. Their -- the current set of perforations they're testing is down at 11,728 to 806 in the lower portion of the Wolfcamp formation.

This cross section is set on a structural datum of -9500 feet, which is at the bottom of the cross section.

Q. Mr. Martin, in your opinion is the Wolfcamp Pool in the discovery well a new Wolfcamp oilpool not being produced by any other well in the area?

A. Yes, sir.

Q. Will you now refer to what has been marked for identification as HNG Exhibit Number Three and explain this to Mr. Stamets?

A. This is a consulting paleontologist's report made on our well by Mr. Harold L. Williams, consulting paleontologist in Midland, Texas, and if you'll look at the second page especially, in the middle of page, where it says 11 -- 10,990 to 11,620, he identifies Wolfcamp fossils, and

in that interval we perforated from 11,132 to 11,154, so this just confirms the age determination as being the Wolfcamp formation.

Q. Will you now refer to HNG Exhibit Number Four, identify this, and explain it to the Examiner?

A. This map is a structure map on the top of the Wolfcamp reef or its equivalent. The main thrust of this is you see the Getty well in Section 36 has a datum of -7532. The HNG discovery well is -7436 on the same datum and it puts the HNG well 96 feet high structurally with a low trough separating the two Wolfcamp producers.

Q. Will you now refer to Applicant's Exhibit Number Five and review that for Mr. Stamets?

A. This is the Wolfcamp reef limestone net porosity Isopach map, showing any porosity over 4 percent.

Again, going to the Getty well in the northwest quarter of Section 36, they encountered 132 feet of porosity in this patch reef.

HNG discovery well has got 36 feet of porosity.

In between there are two wells, the Getty well in the southeast quarter of Section 36 had zero feet of porosity and moving down in the next section south, in Section 1, there's zero feet of porosity in that Getty well;

therefor postulating a band of no porosity between the two Wolfcamp producing wells.

Q. Mr. Martin, from your review of the data on this well, do you believe the acreage which HNG is proposing to have included in the new pool, do you believe this acreage has been reasonably proven productive of hydrocarbons in the Wolfcamp?

A. Yes, sir.

Q. Are you prepared to make a recommendation to Mr. Stamets as to the spacing for the new pool?

A. Yes, sir. HNG recommends 160-acre spacing, 660 feet from the quarter section line, and no less than 330 feet from the quarter quarter section line.

Q. In your opinion will rules providing for 160-acre spacing avoid the drilling of unnecessary wells?

A. Yes, sir.

Q. In your opinion will granting this application reduce the risk that might result from the drilling of an excessive number of wells in the Wolfcamp?

A. Yes, sir.

Q. In your opinion will granting this application be in the best interest of conservation, the prevention of waste, and the protection of correlative rights?

A. Yes, sir.

Q. Will HNG call another witness to provide our reservoir engineering ---

A. Yes, sir.

Q. -- data on this pool?

A. Our reservoir engineer, Mr. Anchor Holm.

Q. Were Exhibits One through Five prepared by you or under your supervision and direction?

A. Yes, sir.

MR. CARR: At this time, Mr. Stamets, we would offer Exhibits One through Five.

MR. STAMETS: These exhibits will be admitted.

MR. CARR: I have nothing further of this witness on direct.

CROSS EXAMINATION

BY MR. STAMETS:

Q. Mr. Martin, it would appear as though what you've drawn here, or what you've illustrated here, are separate patch reefs --

A. Yes, sir.

Q. -- in the area. To your knowledge is any other well completed in the Wolfcamp in the same patch reef that you show your well completed in on Exhibit Five?

A. No, sir.

Q. What about the Amoco well, is it conceivable that that might be in the same --

A. It could possibly be. Like the cross section shows, we just show it like a stringer. It doesn't look like a reef, the cleanliness of a reef.

Q. Now you indicated the Getty had a retrograde condensate reservoir.

A. Yes, sir.

Q. What's the nature of the oil that is being produced from your well?

A. That testimony will --

Q. The next witness.

A. -- be brought out by the next witness. He has several exhibits on it.

MR. STAMETS: Any other questions of this witness? He may be excused.

MR. CARR: At this time I would call Anchor Holm.

ANCHOR E. HOLM

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

DIRECT EXAMINATION

BY MR. CARR:

Q. Will you state your name for the record, please?

A. Anchor E. Holm.

Q. Where do you reside?

A. 2815 West Frontier, Midland, Texas.

Q. By whom are you employed and in what capacity?

A. HNG Oil Company as a Senior Reservoir Engineer.

Q. Have you previously testified before this Commission or one of its Examiners and had your credentials accepted and made a matter of record?

A. No, I have not.

Q. Would you briefly summarize for Mr. Stamets your educational background and your work experience?

A. I received a Bachelor of Science degree in geological engineering from the University of Arizona in 1967. I graduated from there. I went to work for Texaco, Incorporated, as a production engineer in the southeast Utah area for two years. Half a year with Texaco as a reservoir engineer I was stationed in Farmington, New Mexico.

Following working for Texaco I went to work for El Paso Natural Gas for four years as a drilling engineer in Farmington, New Mexico, and subsequently three years as a reservoir engineer in El Paso, Texas.

I spent a little over one and one-half years with the First National Bank of Midland as a petroleum engineer, where I was an in-house consultant for the bank.

And since May of 1980 I have been working for HNG Oil as a Senior Reservoir Engineer.

Q. Are you familiar with the application of HNG filed in this case?

A. Yes, I am familiar, and also, I am registered in the State of Texas as a professional engineer.

Q. Are you familiar with the subject well and the general area involved in this case?

A. Yes, I am.

MR. CARR: Are the witness' qualifications as a reservoir engineer acceptable.

MR. STAMETS: They are.

Q. Mr. Holm, will you refer to what has been marked as HNG Exhibit Number Six and review this for the Examiner?

A. HNG Exhibit Number Six is a xeroxed copy of a portion of an open hole compensated neutron formation

density log run on the subject well. On it we have marked the location of the upper 4-1/2 inch Texas Ironworks polished bore receptacle which is set at 10,782. We show the Wolfcamp perforations from 11,132 to 11,154 feet. We show the lower 4-inch PBR set at 11,356 feet and we show the Morrow perforations at 13,110 to 117 feet with a plugback TT -- plugback TD, as 13,217 feet. This is a porosity log and the parameters are indicated on the top.

Q. Is HNG also seeking authority to dually complete this well?

A. Yes, HNG is seeking multiple completion.

Q. Will you identify what has been marked Exhibit Number Seven and summarize the data contained thereon?

A. Exhibit Number Seven is the application for multiple completion filed on December 1st, 1980, on the subject well. The upper zone is the Wolfcamp at perforations I previously referred to. It is an oil reservoir and its condition was flowing method of production.

The lower zone is also flowing and it's the Morrow zone and it is a gas zone.

Q. Will you now review the data contained on Exhibit Number Eight for Mr. Stamets?

A. Exhibit Number Eight is a wellbore

diagrammatic sketch of the well as it was drilled.

The surface casing, 14 3/8ths inch, was set at 1,085 feet and cement circulated to surface.

Intermediate casing, the first intermediate casing, was 9-5/8ths inch set at 5687 feet with cement circulated to surface.

The long intermediate string was 7-inch casing set at 11,114 feet, and a calculated top of cement at 9060 feet.

Subsequently a liner was hung from 10,782 feet to the total depth of 13,300 feet. This is a 5-inch liner which reduced down to 4-1/2 inch at approximately 11,332 feet.

Subsequent to setting the liner and circulating cement to the top of the liner, the Wolfcamp perforations were perforated and then the 2-3/8ths Hydril1 tubing was run with the PBR's hung on it and the lower PBR was set at 11,356, PBR being a polished bore receptacle, and the upper 4-1/4 inch was set at the top of the liner, being part of the top of the top of the liner hanger.

That tubing does -- is 2-7/8ths inch tubing between the two PBR's.

The second string of tubing was then run, which was 2-3/8ths inch Nulock and stung into the upper

PBR.

The Wolfcamp perforations are as indicated as are the Morrow perforations down below the lower PBR.

Q. Does this method of completion conform with good engineering practices and insure the separation of the zones involved?

A. Yes, it does.

Q. In your opinion is the proposed completion the best method of completing the well so as to produce both the Wolfcamp and the Morrow in one well?

A. Yes, it is.

Q. Will you now refer to Applicant's Exhibit Nine-A and review this for Mr. Stamets?

A. Exhibit Number Nine-A is the bottom hole pressure data on the Wolfcamp zone, that is the upper zone. The pressure bombs were set at 10,750 feet and the bottom hole pressures were calculated at the midpoint of the perforations at 11,143 feet. This was run on 11-1-80 and the test was completed on 11-3.

The initial pressure of the surface tubing pressure was 3020 psi. The estimated datum pressure was 5890 psi.

A 4-point test was run as if it were a

gas well. At this time we felt there was a chance that it might be a retrograde condensate so we wanted to treat it as that, since it did want to flow, and we flowed the well for four hours at four rates and ran bombs back to 10,750 and shut it in for a 68-hour buildup.

The last two pages are the static surveys run immediately prior to the flow and the one run immediately after the 68-hour buildup.

Q. Will you now refer to Applicant's Exhibit Nine-B and review this?

A. Exhibit Nine-B is similar data except it's on the Morrow formation, Morrow zone, that is the lower perforations.

It was started on 10-31 and completed also on 11-3 with the 4-point test data indicating the initial reservoir pressure was 7551 psi at 13,124 feet, which calculated to be the midpoint of the perforations, and that is an estimated bottom hole pressure, because we were only able to run the bombs to 11,371 feet.

And this was a 70-hour shutin. At the end of 70 hours the bottom hole pressure was estimated to be 7584 psi.

And the last page of this is the static survey run after the 70-hour shutin.

Q. Will you now refer to HNG Exhibit Nine-C and review this for Mr. Stamets?

A. Exhibit Nine-C is the Commission Form C-105 for well completions report and log on the subject well in the Wolfcamp zone, date of completion being 10-31-80 for the Wolfcamp perforations, showing that they were treated with 3000 gallons of 15 percent spearhead acid.

This test, what we did is we converted the 4-hour flow to a 24-hour flow to get the initial test and it calculated for a 24-hour rate, an average rate of 407.58 barrels of oil a day, 505.6 Mcf gas per day, no water. Gas/oil ratio of 1,240, oil gravity 46.9 degree API, at an average flowing tubing pressure of 2850 psi.

Q. Will you now refer to Exhibit Nine-D and review this for Mr. Stamets?

A. Exhibit Nine-D is the multipoint back pressure test for the gas zone of the Morrow run also on 10-31-80 as the completion date, and the calculated AOF on this was 17,849 Mcfd at 15.025 psia.

During the test 10.59 barrels of oil was also produced, that is, barrels of condensate.

The second page is the plat, the graph of the back pressure curve, and the back completion is the Form C-105 well completion report and log for the Morrow zone

indicating that we treated that zone with 3000 gallons of 7-1/2 percent MS acid and we also had the gravity of the condensate measured at 56.0 API degrees.

Q. Will you now review Exhibit Nine-E for the Examiner?

A. Exhibit Nine-E is the southeast New Mexico packer leakage test report, which shows no communication between the two zones, and it was run from 12-17-80 through I think it would be 12-21, and it showed that we didn't have any communication between the zones.

And attached to it are, in chronological order, are the four days charts that were run with the Morrow and the Wolfcamp pressure lines indicated.

Attached also is the two packer setting reports, one for the 4-1/4 inch TIW PBR set at 10,782, which is the upper dual PBR.

MR. STAMETS: Could I interrupt you?

A. Yes.

MR. STAMETS: On it. Take a short break. I hate to do this, but I've got somebody I need to talk to on the telephone on a long-standing project that the Division has been working on. I'll be back in just a few moments.

(Thereupon a brief recess was taken.)

MR. STAMETS: Okay, thank you very much. I appreciate your indulgence.

You may proceed.

A. Let's see we were at the packer setting report for the upper PBR set at 10,782; also the form following that is the packer setting report for the 4-inch PBR, set at 11,332, approximately.

Also attached is the shutin surveys, one run on 12-17-80, which is 50-day shutin time, and this was on the Morrow long string, and it came up with an estimated pressure of 7556 psi at 13,124 feet.

The last static survey is on the Wolf-camp zone, run on the same date, which showed a 16-day -- let's see, I believe that's incorrect -- it's probably 48-day shutin, and that was at 11,143 feet, estimated bottom hole pressure of 5878 psi.

Q. Mr. Holm, will you now refer to Exhibit 10 and review this for the Examiner?

MR. STAMETS: Could I ask a question while we're on Number Nine? Which one of the charts reflects the flow test number two?

A. This is on the packer leakage test, Nine-E?

MR. STAMETS: Yes.

A. Let me see, the first chart was run 12-17 to the 18th, was the shutin of both zones.

The following chart is on the flow of the Morrow from 12-18 to 12-19.

The third chart is 12-19 to --

MR. STAMETS: Okay.

A. -- 12-20, which is flow of the Wolfcamp, and then the last one being shutin in both zones.

MR. STAMETS: Thank you.

Q. Will you now review Exhibit Ten?

A. Exhibit Number Ten is a summary of the reservoir data calculated from the bottom hole pressure surveys. In the Wolfcamp zone the permeability was calculated to be 9.6 millidarcies; flow efficiency, 397.1 millidarcy feet per centipoise; and a skin factor of -4.7.

In the Morrow zone the data was not determined since the buildup data were unreliable due to an apparent changing liquid level and fluid gradient between the pressure bombs and the midpoint of the perforations, that is datum.

Q. Mr. Holm, is HNG requesting a discovery allowable for the subject well?

A. Yes, it is.

Q. Will you refer to Exhibit Eleven and re-

view this for the Examiner?

A. Exhibit Eleven is the application for discovery allowable and the creation of a new pool on the HNG Oil Company San Simon State 6 No. 1.

The suggested pool names listed in order of preference are, first, the San Simon Wolfcamp; second, the Merchant Wolfcamp; and third, the Ojo Chiso East Wolfcamp.

This form C-109 was filed on 1-7-81, as was the Form C-104.

The nearest production to this discovery is the Morrow well in East Grama Ridge Field, I believe it's Well No. 2 on the cross section, coming from the left. This well is located approximately 7720 feet northwest of the discovery well. Vertical distance between, or vertical separation between the pay zones is about 1792 feet.

The nearest Wolfcamp production is from the Grama Ridge Wolfcamp gas well, the first well on our cross section, that being on the extreme left. It's top of pay is 11,320 feet and it's located approximately 9810 feet northwest of the discovery well.

All the operators owning leases within one mile of this well were sent copies of this form.

And also attached to this is the Form C-104 showing the Western Crude Oil as being the purchaser

of both the condensate and the oil and Texaco being the purchaser of the dry gas and the casinghead gas, showing both the Morrow and the Wolfcamp.

Q. Will you now refer to your fluid analysis, which is marked for identification as Exhibit Number Twelve, and review the data contained thereon?

A. The Exhibit Number Twelve, we had Mobile Analytical Laboratories in Odessa, Texas, run a recombination of the liquid and gaseous phases of the fluids produced by the Wolfcamp zone, and this recombination was done at average reservoir conditions of 5890 psi at 164 degrees Fahrenheit.

Both the summation of KM and M/K was found to be greater than the summation of M; therefor, the reservoir is part liquid and part vapor phase. That is, in the reservoir you have oil and free gas.

Also attached are the oil sample analysis and the gas sample analysis.

Q. Mr. Holm, will you now refer to Exhibit Thirteen and review this for Mr. Stamets?

A. To show the difference between HNG's well and the Getty State 36 No. 1 retrograde condensate reservoir fluids, we drew a Wolfcamp fence diagram of the gas sample and the oil sample with the Mole percent increasing from the centerline, zero, both to a left and to the right,

the gas sample being on the left, oil sample being on the right.

The HNG gas was found to have a BTU rating of 1194 as compared to 1224 for the Getty well. Both -- both wells had very similar gas.

The triangle represents the Getty Well data; the circle represents HNG's well data.

On the righthand side there's a significant difference in the composition of the oil, as indicated in -- as you come down through the methanes, ethanes, and propanes. The HNG well has significantly lower lighter ends and has more of the heavier ends percentagewise, indicating that it is definitely an oil as compared to the condensate.

Q. Mr. Holm, in your opinion is the Wolfcamp zone in the San Simon 6 No. 1 Well a new Wolfcamp Pool that is not being produced by any other well in the area?

A. Yes, sir, it is.

Q. In your opinion will granting this application be in the best interest of conservation, the prevention of waste, and the protection of correlative rights?

A. Yes.

Q. Were Exhibits Six through Eight, Nine-A, B, C, D, and E, and Ten through Thirteen prepared by you or under your direction and supervision?

A. Yes, they were.

MR. CARR: At this time, Mr. Stamets, we would offer these exhibits into evidence.

MR. STAMETS: These exhibits will be admitted.

MR. CARR: I have nothing further of Mr. Holm on direct.

MR. STAMETS: Are there questions of this witness? He may be excused.

MR. CARR: Mr. Stamets, we will not call an additional witness.

This concludes our direct case.

MR. STAMETS: Is there anything further, then, in this case?

The case will be taken under advisement.

(Hearing concluded.)

C E R T I F I C A T E

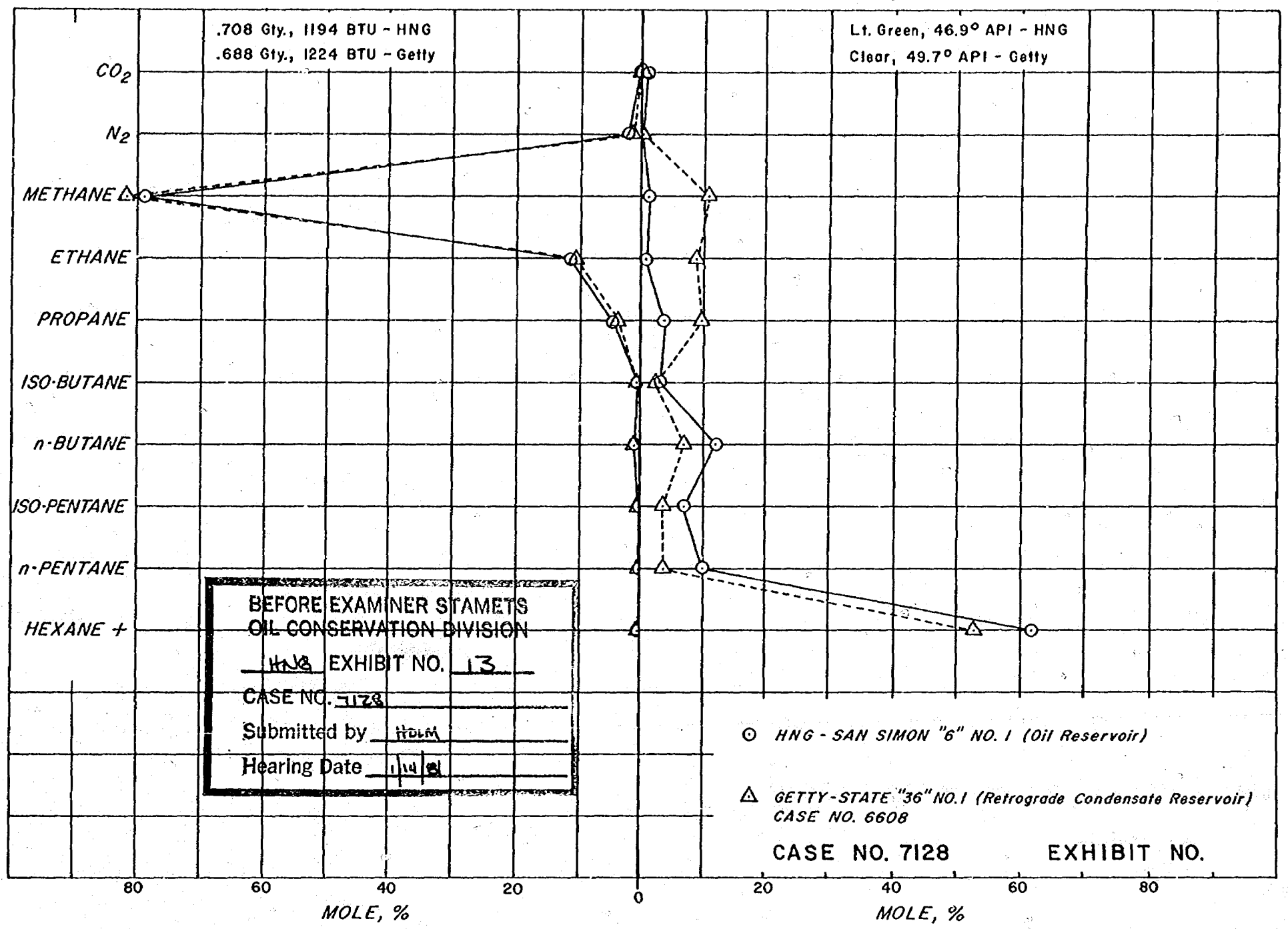
I, SALLY W. BOYD, C.S.R., DO HEREBY CERTIFY that the foregoing Transcript of Hearing before the Oil Conservation Division was reported by me; that the said transcript is a full, true, and correct record of the hearing, prepared by me to the best of my ability.

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. _____ heard by me on _____ 19____.

_____, Examiner
Oil Conservation Division

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


— GAS SAMPLE —
.708 Gty., 1194 BTU - HNG
.688 Gty., 1224 BTU - Getty
— OIL SAMPLE —
Lt. Green, 46.9° API - HNG
Clear, 49.7° API - Getty
CO_2
N_2
METHANE
ETHANE
PROPANE
ISO·BUTANE
n·BUTANE
ISO·PENTANE
n·PENTANE
HEXANE +
BEFORE EXAMINER STAMETS
OIL CONSERVATION DIVISION
HNG EXHIBIT NO. 13
CASE NO. 7128
Submitted by HNG
Hearing Date 1/14/81
⊙ HNG - SAN SIMON "6" NO. 1 (Oil Reservoir)
△ GETTY-STATE "36" NO.1 (Retrograde Condensate Reservoir) CASE NO. 6608
CASE NO. 7128 EXHIBIT NO.
80 60 40 20 0 20 40 60 80
MOLE, %
MOLE, %

Mobile Analytical Laboratories
& SOLAR ENERGY TESTING
WEST UNIVERSITY AND WESTOVER STREET
THERMAL SCIENTIFIC BUILDING
P. O. BOX 6771
ODESSA, TEXAS 79762
PHONE 337-4744

HNG Oil Company

SanSimon 6 # 1 (Wolfcamp)

RECOMBINATION OF GAS, MOLE % **RECOMBINATION OF LIQUID, LIQ.VOL.%**

COMPONENT	MOLE %	LIQUID VOLUME %
NITROGEN	2.33	0.93
METHANE	73.06	60.34
CARBON DIOXIDE	0.69	0.57
ETHANE	11.23	13.96
PROPANE	4.64	6.24
ISO-BUTANE	.67	1.07
NORMAL BUTANE	1.91	2.94
ISO-PENTANE	.72	1.28
NORMAL PENTANE	.97	1.71
HEXANE PLUS	3.78	10.96
TOTAL	100.00	100.00

CALCULATIONS OF THE RECOMBINATION OF THE GAS AND LIQUID WERE MADE FROM THE ASSUMED AVERAGE RESERVOIR CONDITIONS OF 5890# AT 164 DEG F.

Σ KM = 131.79
Σ M/K = 116.22
Σ M = 100
Σ KM AND M/K IS GREATER THAN M, THEREFORE THE RESERVOIR IS PART LIQUID AND PART VAPOR PHASE.

JARREL SERVICES INC.
A.O. SMITH
BOX 1654
HOBBS, NM 88240

ANCHOR HOLM
P.O. BOX 2267
MIDLAND, TX 79701

BEFORE EXAMINER STAMETS
OIL CONSERVATION DIVISION
HNG EXHIBIT NO. 12
CASE NO. 7128
Submitted by Holm
Hearing Date 1/14/81

CASE NO. 7128

EXHIBIT NO. 12

****

MOBILE ANALYTICAL LAB, INC.

P.O. BOX 6771

ODESSA, TEXAS

****

11/10/80 LAB #2031

San Simon 6 #1 (Wolfcamp)

HOUSTON NATURAL GAS
OIL SAMPLE

FRACTIONAL ANALYSIS

COMPONENT	LIQ. VOL. %	MOL %	WT. %
METHANE	0.05	0.12	0.02
CARBON DIOXIDE	0.01	0.02	0.02
ETHANE	0.51	0.75	0.26
PROPANE	3.86	5.54	2.85
ISO-BUTANE	2.44	2.95	2.01
NORMAL BUTANE	9.62	12.05	8.20
ISO-PENTANE	6.39	6.89	5.82
NORMAL PENTANE	9.13	9.95	8.39
HEXANE +	67.99	61.73	72.43
TOTALS	100.00	100.00	100.00

SPECIFIC GRAVITY 0.657
CU. FT. / GAL. 25.39
C1 / C2 RATIO 9.80

VAPOR PRESSURE 34.5
/ GAL. 5.477
/ GAL. C5+ 5.937

COMPOSITION OF C6+

CU FT/GALLON 16.84

MOLECULAR WT. 155
SPECIFIC GRAVITY .8251
GAL/LB MOL. 22.55
CU FT/GALLON 16.84

****

MOBILE ANALYTICAL LAB., INC.

P.O. BOX 6771

ODESSA, TEXAS

****

11/10/80 LAB # 2031

San Simon 6 #1 (Wolfcamp)

HOUSTON NATURAL GAS
GAS SAMPLE

FRACTIONAL ANALYSIS

COMPONENT	MOLE %	GPM
NITROGEN	1.88	0,000
METHANE	78.93	0.000
CARBON DIOXIDE	0.81	0.000
ETHANE	11.58	3.078
PROPANE	4.58	1.253
ISO-BUTANE	0.48	0.156
NORMAL BUTANE	1.04	0.326
ISO-PENTANE	0.19	0.069
NORMAL PENTANE	0.20	0.072
HEXANE PLUS	0.31	0.131
TOTALS	100.00	5.085

SPECIFIC GRAVITY	0.708	12# VAPOR PRESSURE	0.340
GROSS BTU	1173.0	26# VAPOR PRESSURE	0.408
DRY BTU	1193.9		

HNG OIL COMPANY - SAN SIMON '6' #1

SUMMARY OF RESERVOIR DATA

BOTTOM-HOLE PRESSURE SURVEY

WOLFCAMP ZONE:

PERMEABILITY, k = 9.6 md

FLOW EFFICIENCY, kh/μ = 397.1 md-ft./cp

SKIN FACTOR, S = -4.7

MORROW ZONE:

Data not determined since buildup data were unreliable due to an apparent changing liquid level and fluid gradient between the pressure bombs and the midpoint of perforations (datum).

BEFORE EXAMINER STAMETS
OIL CONSERVATION DIVISION
HNG EXHIBIT NO. 10
CASE NO. 7128
Submitted by HOLM
Hearing Date 1/14/81

HNG Oil Company
Anchor E. Holm/sh
January 14, 1981

CASE NO. 7128

EXHIBIT NO. 10

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION

P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

Form C-109
Revised 10-1-78

APPLICATION FOR DISCOVERY ALLOWABLE AND CREATION OF A NEW POOL

NOTE: This form is to be filed and attachments made in accordance with the provisions of Rule 509. If discovery is claimed for more than one zone, separate forms must be filed for each.

Operator	Address
HNG Oil Company	P.O. Box 2267, Midland, Texas 79702

Lease Name	Well No.	County
San Simon 6 State Com	1	Lea

Well Location
Unit Letter H ; 1980 Feet from The North Line and 660 Feet From the East Line of Section 6 , Township 22-S , Range 35-E , NMPM

Suggested Pool Names (List in order of preference)
1. San Simon (Wolfcamp) 2. Merchant (Wolfcamp) 3. Ojo Chiso, East (Wolfcamp)

Name of Producing Formation	Perforations	Date of Filing Form C-104
Wolfcamp	11,132-154'	1/7/81

Has "Affidavit of Discovery" Previously Filed For This Well in this Pool?	If Yes, Give Date of Filing	Date Well was Spudded	Date Compl. Ready to Prod.
No		8-10-80	10-31-80

Total Depth	Plugged Back Depth	Depth Casing Shoe	Tubing Depth	Elevation (Gr., DF, RKB, RT, etc.)
13,300'	13,217'	13,300'	10,782'	3628.8' GR

Oil Well Potential (Test to be taken only after all load oil has been recovered)

407.58 Bbls. Oil Per Day Based On 67.93 Bbls In 4 Hours; 0 Bbls Water Per Day Based On 0 Bbls In 4 Hours; Gas Production During Test: 505.6 MCF; Gas-Oil Ratio: 1240 Method Of Producing: flowing Chk. Size 9/64"

NEAREST PRODUCTION TO THIS DISCOVERY (Includes past and present oil or gas producing areas and zones whether this discovery is based on horizontal or vertical separation):

Pool Name	Name of Producing Formation	Top of Pay	Bottom of Pay	Currently Producing?
East Gramma Ridge	Morrow	12,946'	12,954'	Yes

Horizontal Distance and Direction from Subject Discovery Well to the Nearest Well in this Pool	Vertical Distance from Subject Discovery Zone to Producing Interval this Pool
7720 feet Northwest	1792' (1763.5' subsea)

NEAREST COMPARABLE PRODUCTION (Includes past and present oil or gas production from this pay or formation only):

Pool Name	Top of Pay	Bottom of Pay	Currently Producing?
Gramma Ridge (Wolfcamp) Gas	11320'	11,335'	Yes

Horizontal Distance and Direction from Subject Discovery Well to the Nearest Well in this Comparable Pool: 9810 feet Northwest

Is "County Deep" Discovery Allowable Requested for Subject Discovery Well?	If Yes, Give Name, Location, and Depth of Next Deepest Oil Production in this County
No	

Is the Subject Well Multiple Completion?	Is Discovery Allowable Requested for other Zone(s)?	If Yes, Name all Such Formations
Yes	No	

LIST ALL OPERATORS OWNING LEASES WITHIN ONE MILE OF THIS WELL (Attach additional sheet if necessary)

NAME	ADDRESS
Exxon Company, USA	Box 1700, Midland, Texas 79702
Phillips Petroleum	Phillips Bldg. Odessa, Texas 79760
Northern Nat'l Gas Co.	403 Wall Towers West, Midland, Texas 79701
Texaco, Inc.	P.O. Box 3109, Midland, Texas 79702
Amerada Hess Corp.	2207 W. Industrial, Midland, Texas 79701
Getty Oil Company	Box 1231, Midland, Texas 79702
Amoco Prod. Co.	P.O. Box 1725, Midland, Texas 79702

Attach evidence that all of the above operators have been furnished a copy of this application. Any of said operators who intends to object to the designation of the subject well as a discovery well, eligible to receive a discovery allowable, must notify the appropriate District Office and the Santa Fe Office of the Division of such intent in writing within ten days after receiving a copy of this application.

Remarks:

CASE No. 7128

EXHIBIT NO. 11

CERTIFICATION

I hereby certify that all rules and regulations of the New Mexico Oil Conservation Division have been complied with, with respect to the subject well, and that it is my opinion that a bona fide discovery of a hitherto unknown common source of oil supply has been made in said well. I further certify that the discovery allowable for the subject well, if authorized, will be produced from the subject zone in this well only. Further, that the information given herein and attached hereto is true and complete to the best of my knowledge and belief.

Betty A. Gildon — Signature
Betty A. Gildon — Position: Regulatory Clerk
1-7-81 — Date

CERTIFICATE OF SERVICE

I hereby certify that I have this day mailed to all operators owning leases within on mile of this well, postage pre-paid, copies of the attached OCD Form C-109 of HNG Oil Company in accordance with the requirements of the Oil Conservation Division Form C-109.

Dated at Midland, Texas, this 7 day of January, 1981.

Betty A. Gildon
Regulatory Clerk

HNG OIL COMPANY

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TRANSPORTER OIL		
TRANSPORTER GAS		
OPERATOR		
PRORATION OFFICE		

NEW MEXICO OIL CONSERVATION COMMISSION

REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT OIL AND NATURAL GAS

Form C-104
Supersedes Old C-104 and C-1
Effective 1-1-65

I.

Operator: HNG Oil Company

Address: P.O. Box 2267, Midland, Texas 79702

Reason(s) for filing (Check proper box)

- New Well [X]
- Recompletion [ ]
- Change in Ownership [ ]
- Change in Transporter of: Oil [ ] Dry Gas [ ] Casinghead Gas [ ] Condensate [ ]

Other (Please explain)

If change of ownership give name and address of previous owner _____

II. DESCRIPTION OF WELL AND LEASE

Lease Name	Well No.	Pool Name, Including Formation	Kind of Lease	Lease No.
San Simon 6 State Com.	1	Und. Morrow	State, Federal or Fee State	LG 893 & LG 3609

Location

Unit Letter H : 1980 Feet From The North Line and 660 Feet From The East

Line of Section 6 Township 22S Range 35 E , NMPM, Lea County

III. DESIGNATION OF TRANSPORTER OF OIL AND NATURAL GAS

Name of Authorized Transporter of Oil [ ] or Condensate [X]: Western Crude Oil, Inc.	Address (Give address to which approved copy of this form is to be sent): Box 1142, Midland, Texas 79701
Name of Authorized Transporter of Casinghead Gas [ ] or Dry Gas [X]: Texaco, Inc.	Address (Give address to which approved copy of this form is to be sent): Box 3109, Midland, Texas 79702

If well produces oil or liquids, give location of tanks.	Unit	Sec.	Twp.	Rge.	Is gas actually connected?	When
	H	6	22S	35E	No	

If this production is commingled with that from any other lease or pool, give commingling order number: _____

IV. COMPLETION DATA

Designate Type of Completion – (X)	Oil Well	Gas Well	New Well	Workover	Deepen	Plug Back	Same Res'v.	Diff. Res'v.
		X	X					

Date Spudded	Date Compl. Ready to Prod.	Total Depth	P.B.T.D.
8-10-80	10-31-80	13,300'	13,217'
Elevations (DF, RKB, RT, GR, etc.)	**Name of Producing Formation**	**Top Oil/Gas Pay**	**Tubing Depth**
3628.8' GR	Morrow	13,110'	10,782'
Perforations			**Depth Casing Shoe**
13,110 - 13,117			11,014'

TUBING, CASING, AND CEMENTING RECORD

HOLE SIZE	CASING & TUBING SIZE	DEPTH SET	SACKS CEMENT
17-1/2"	13-3/8"	1085'	1450 C1C
12-1/4"	9-5/8"	5687'	500 C1C & 2950 lite
8-1/2"	7"	11,014'	400 lite & 350 C1H
	2-3/8" Tbg.	10,782 W/PBR at 11,332	

V. TEST DATA AND REQUEST FOR ALLOWABLE

(Test must be after recovery of total volume of load oil and must be equal to or exceed top allowable for this depth or be for full 24 hours)

OIL WELL

Date First New Oil Run To Tanks	Date of Test	Producing Method (Flow, pump, gas lift, etc.)	
Length of Test	**Tubing Pressure**	**Casing Pressure**	**Choke Size**
Actual Prod. During Test	**Oil-Bbls.**	**Water-Bbls.**	**Gas-MCF**

GAS WELL

Actual Prod. Test-MCF/D	Length of Test	Bbls. Condensate/MMCF	Gravity of Condensate
2300	24 hours	30	56.0
Testing Method (pitot, back pr.)	**Tubing Pressure (Shut-in)**	**Casing Pressure (Shut-in)**	**Choke Size**
Back pressure	5668	Packer	10/64

VI. CERTIFICATE OF COMPLIANCE

I hereby certify that the rules and regulations of the Oil Conservation Commission have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

Betty A. Gildon
(Signature)

Regulatory Clerk
(Title)

1-7-81
(Date)

OIL CONSERVATION COMMISSION

APPROVED _____, 19 _____

BY _____

TITLE _____

This form is to be filed in compliance with RULE 1104.

If this is a request for allowable for a newly drilled or deepened well, this form must be accompanied by a tabulation of the deviation tests taken on the well in accordance with RULE 111.

All sections of this form must be filled out completely for allowable on new and recompleted wells.

Fill out only Sections I, II, III, and VI for changes of owner, well name or number, or transporter, or other such change of condition.

Separate Forms C-104 must be filed for each pool in multiple

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NEW MEXICO OIL CONSERVATION COMMISSION
REQUEST FOR ALLOWABLE
AND
AUTHORIZATION TO TRANSPORT OIL AND NATURAL GAS

Form C-104
Supersedes Old C-104 and C
Effective 1-1-65

I.

Operator
HNG Oil Company

Address
P.O. Box 2267, Midland, Texas 79702

Reason(s) for filing (Check proper box)
New Well [X]
Recompletion [ ]
Change in Ownership [ ]
Change in Transporter of:
Oil [ ] Dry Gas [ ]
Casinghead Gas [ ] Condensate [ ]

Other (Please explain)

If change of ownership give name and address of previous owner

II. DESCRIPTION OF WELL AND LEASE

Lease Name	Well No.	Pool Name, Including Formation	Kind of Lease	Lease No.
San Simon 6 State Com.	1	Und. Wolfcamp	State, Federal or Fee State	LG-8938 & LG-3609

Location
Unit Letter H : 1980 Feet From The North Line and 660 Feet From The East

Line of Section 6 Township 22S Range 35E , NMPM, Lea County

III. DESIGNATION OF TRANSPORTER OF OIL AND NATURAL GAS

Name of Authorized Transporter of Oil [X] or Condensate [ ]	Address (Give address to which approved copy of this form is to be sent)
Western Crude Oil, Inc.	Box 1142, Midland, Texas 79701
Name of Authorized Transporter of Casinghead Gas [X] or Dry Gas [ ]	Address (Give address to which approved copy of this form is to be sent)
Texaco, Inc.	Box 3109, Midland, Texas 79702

If well produces oil or liquids, give location of tanks.	Unit	Sec.	Twp.	Rge.	Is gas actually connected?	When
	H	6	22S	35E	No	

If this production is commingled with that from any other lease or pool, give commingling order number:

IV. COMPLETION DATA

Designate Type of Completion – (X)	Oil Well	Gas Well	New Well	Workover	Deepen	Plug Back	Same Res'v.	Diff. Res'v.
	X		X					

Date Spudded	Date Compl. Ready to Prod.	Total Depth	P.B.T.D.
8-10-80	10-31-80	13,300'	13,217'
Elevations (DF, RKB, RT, GR, etc.)	**Name of Producing Formation**	**Top Oil/Gas Pay**	**Tubing Depth**
3628.8' GR	Wolfcamp	11,132'	10,782'
Perforations			**Depth Casing Shoe**
11,132' - 11,154'			11,014'

TUBING, CASING, AND CEMENTING RECORD

HOLE SIZE	CASING & TUBING SIZE	DEPTH SET	SACKS CEMENT
17-½ "	13-3/8"	1085'	1450 C1C
12-¼"	9-5/8"	5687'	500 C1C & 2950 lite
8-1/2"	7"	11,014'	400 lite & 350 C1H
	2-3/8" Tubing	10,782' W/PBR at 10,782'	

V. TEST DATA AND REQUEST FOR ALLOWABLE

(Test must be after recovery of total volume of load oil and must be equal to or exceed top allowable for this depth or be for full 24 hours)

OIL WELL

Date First New Oil Run To Tanks	Date of Test	Producing Method (Flow, pump, gas lift, etc.)	
11-1-80	11-1-80	Flowing	
Length of Test	**Tubing Pressure**	**Casing Pressure**	**Choke Size**
4 hours	2850	-	9/64"
Actual Prod. During Test	**Oil-Bbls.**	**Water-Bbls.**	**Gas-MCF**
67.93 bbls	67.93	0	219.2

GAS WELL

Actual Prod. Test-MCF/D	Length of Test	Bbls. Condensate/MMCF	Gravity of Condensate
Testing Method (pitot, back pr.)	**Tubing Pressure (Shut-in)**	**Casing Pressure (Shut-in)**	**Choke Size**

VI. CERTIFICATE OF COMPLIANCE

I hereby certify that the rules and regulations of the Oil Conservation Commission have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

Berry A. Gildon
(Signature)

Regulatory Clerk
(Title)

12-11-80
(Date)

OIL CONSERVATION COMMISSION

APPROVED _____, 19 ____

BY _____

TITLE _____

This form is to be filed in compliance with RULE 1104.

If this is a request for allowable for a newly drilled or deepened well, this form must be accompanied by a tabulation of the deviation tests taken on the well in accordance with RULE 111.

All sections of this form must be filled out completely for allowable on new and recompleted wells.

Fill out only Sections I, II, III, and VI for changes of owner, well name or number, or transporter, or other such change of condition.

Separate Forms C-104 must be filed for each pool in multipl

Schlumberger

COMPENSATED NEUTRON FORMATION DENSITY

COMPANY HNG OIL COMPANY

WELL SAN SIMON STATE "6" COM. #1

FIELD UNDESIGNATED MORROW

COUNTY LEA STATE NEW MEXICO

COUNTY LEA
FIELD UNDESIG. MORROW
LOCATION
WELL SAN SIMON STATE "6" COM. #1
COMPANY HNG OIL CO.

LOCATION
API SERIAL NO. | SEC. 6 | TWP. 22-S | RANGE 35-E
1980' FNL & 660' FEL

Other Services:
DLL
BHC

Elev.: K.B. 3650
D.F.
G.L. 3629

Permanent Datum: G.L. Elev.: 3629
Log Measured From K.B. 21 Ft. Above Perm. Datum
Drilling Measured From K.B.

Date	9-5-80	10-3-80	
Run No.	ONE	TWO	
Depth-Driller	11014	13241	
Depth-Logger	10992	13223	
Btm. Log Interval	10990	13222	
Top Log Interval	SURF	10998	
Casing-Driller	9 5/8@ 5675	7 @ 11014 @	
Casing-Logger	5664	10998	
Bit Size	8 1/2	6 1/8	
Type Fluid in Hole	WATER	SALT MUD	
Dens. / Visc.	8.5 / 28	10.9 / 39	
pH / Fluid Loss	8.5 /	9.0 / 20 ml	ml
Source of Sample	PIT	PIT	
Rm @ Meas. Temp.	.08 @ 81 °F	.094 @ 75 °F	@ °F
Rmf @ Meas. Temp.	.08 @ 79 °F	.064 @ 82 °F	@ °F
Rmc @ Meas. Temp.	@ °F	.13 @ 82 °F	@ °F
Source: Rmf / Rmc	M /	M / C	/
Rm @ BHT	.043 @ 156 °F	.04 @172 °F	@ °F
Time Circulation Stopped	0430	0000	
Time Logger on Bottom	1145	1000	
Max. Rec. Temp.	156 °F	172 °F	°F
Equip. / Location	8075 HOBBS	8185 ROSWELL	
Recorded By	NEUMANN	CAMPAIGN	
Witnessed By	CHERRYHOMES	CHERRYHOMES	

FOLD HERE

The well name, location and borehole reference data were furnished by the customer.

RUN NO.	ONE	TWO
Service Order No.	143273	
Fluid Level	120	FULL
Salinity, PPM Cl.	20000	100000
Speed - F.P.M.	30	30
EQUIPMENT DATA		
Dens. Panel	BB 482	200
Dens. Cart.	661	352
Dens. Skid.	1153	1161
Dens. Sonde	306	307
Dens. Source	3334	3425
Dens. Calibrator	696	184
Neut. Panel	BB 482	
Neut. Cart.	485	2090
Neut. Source	373	
Neut. Calibrator	549	2160
GR Cart.	1752	3003
Memorizer Panel	1057	
Tape Recorder (TTR)	B 1722	
Depth Encoder (DRE)		
Pressure Wheel (CPW)		
Centralizers: Enter Spring, Standoffs, In-line, or None — Type	::	BOWSPRING
Centralizers: Enter Spring, Standoffs, In-line, or None — No.	1 EA.	1
Centralizers: Enter Spring, Standoffs, In-line, or None — S. O. — Inches		
CALIBRATION DATA		
GR — BKG. CPS	59	SEE CAL
GR — Source CPS	512	FILM
GR — Sens. - Cal	165	
GR — T. C. - Cal	1	
CNL — Short Spacing - Before Log	5728	
CNL — Long Spacing - Before Log	2568	
CNL — Short Spacing - After Log	5728	
CNL — Long Spacing - After Log	2558	
FDC — P¹ — Before Log	428	
FDC — P² — Before Log	705	
FDC — P¹ — After Log	426	
FDC — P² — After Log	716	

Type Log	Depth

REMARKS:

RUN ONE: TYPE CENTRALIZERS: BOWSPRING & CALIPER

LOGGING DATA

DEPTH Top	DEPTH Bottom	CNP Porosity Scale	CNP Matrix	CNP Auto Corr. or Hole Size Setting	FDC Porosity Scale	FDC Grain Density	FDC Liquid Density	FDC Hole Fluid	GR Sens. Logged	GR T. C.	GR Zero. Div. Left	GR Scale Per 100 Div.
5664	10990	30 -10	LS-OH	AUTO	30 -10	2.71	1.0	LIQ	100	1	0	100
SURF	5664	30 -10	LS-CH						100	1	0	100
10998	13220	30 -10	LIME	AUTO	30 -10	2.71	1.10	WAT	100		0	100

GR (GAPI)		DRHO(G/C3)	
100.0	200.0	-0.050	0.4500
CALI(IN)		NPHI( )	
6.000	16.00	0.3000	-0.100
GR (GAPI)	Run 1	RHOB(G/C3)	

CASE NO. 7128

EXHIBIT NO. 6

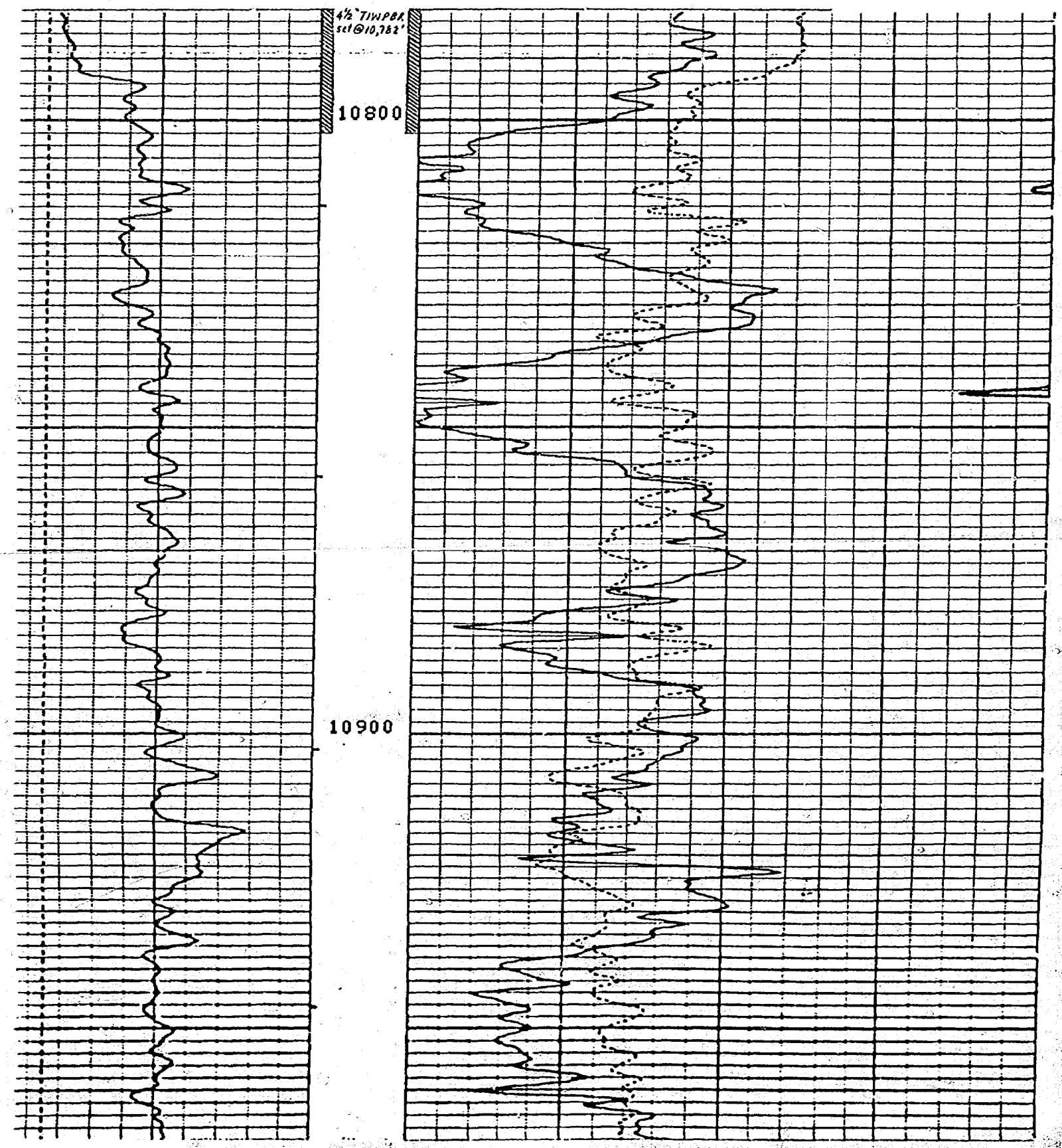
PARAMETERS

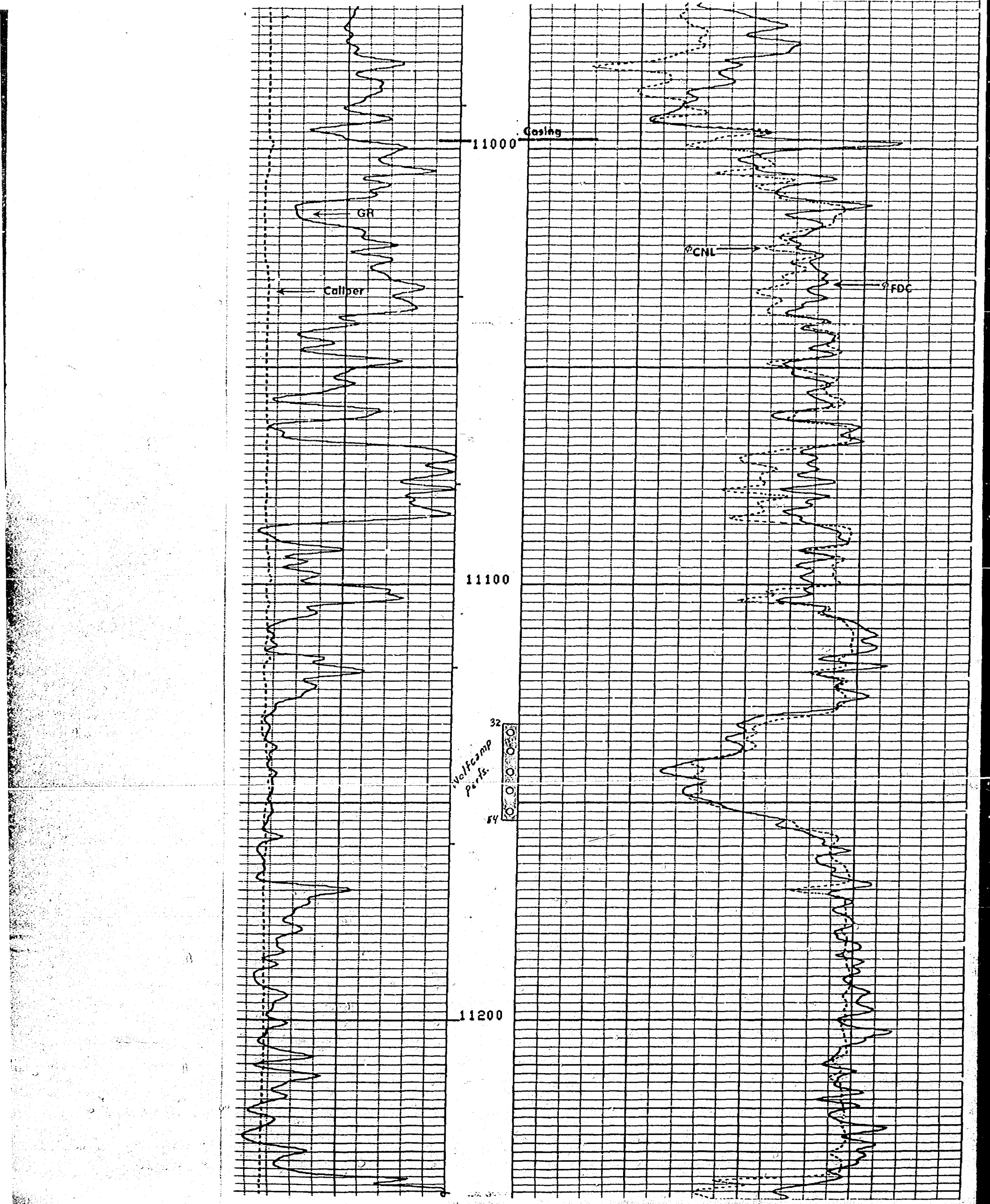
NAME	UNIT	VALUE	NAME	UNIT	VALUE	NAME	UNIT	VALUE
HC		CALI	PSNR		2.355	BS	INCH	6.125
MDEN	G/C3	2.710	FD	G/C3	1.100	MATR		LIME
BHF		WATE						
DD		0.0	BHS		OPEN	FPHI		PHIX

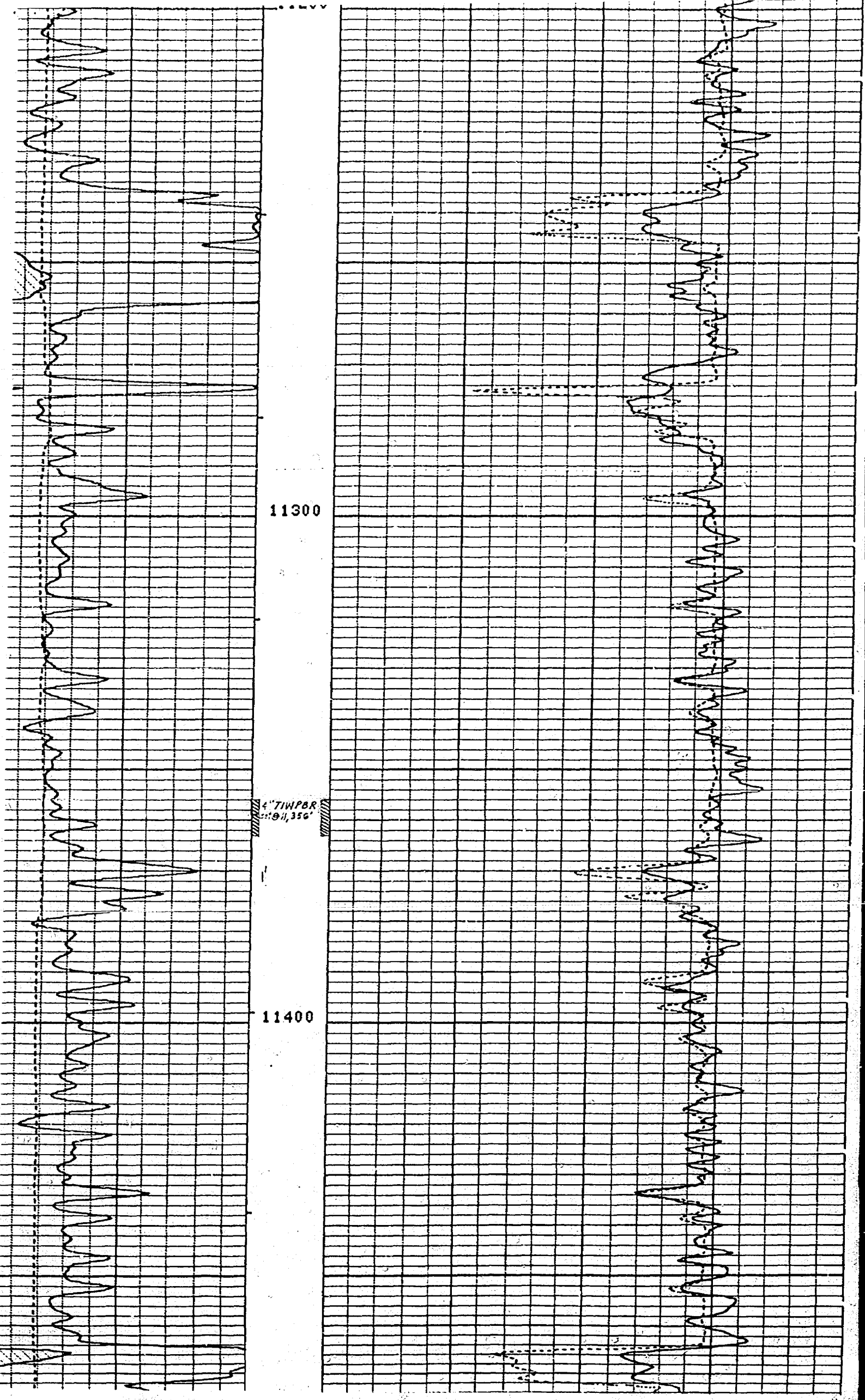
GR (GAPI)		
100.0 200.0		
CALI(IN)		NPHI( )
5.000 15.00	Run 2	0.3000 -0.100
GR (GAPI)		DPHI( )
).0 100.0		0.3000 -0.100

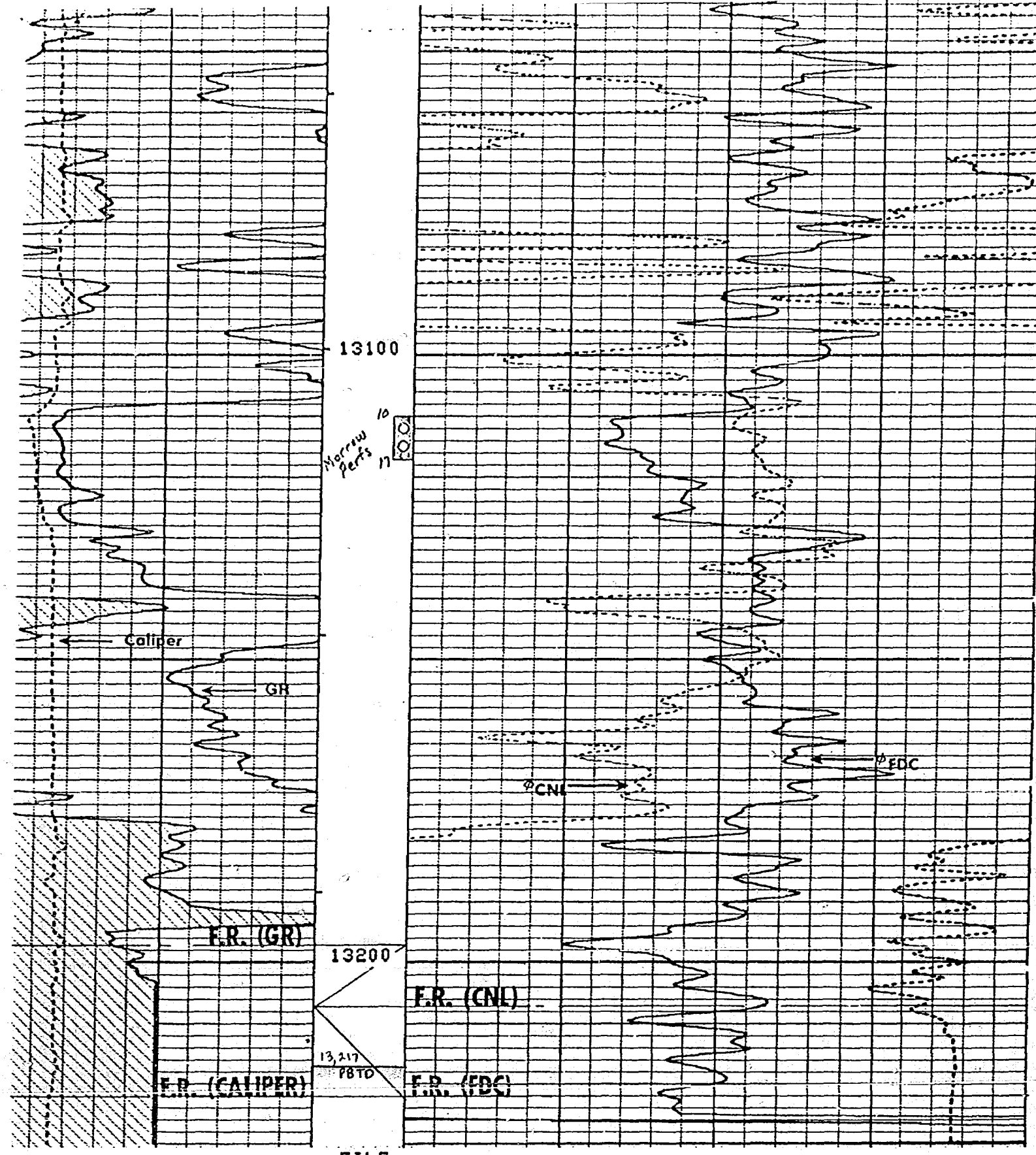
FILE

4




Casing
11000
GR
Caliber
CNL
FDC
11100
32
Wolfcamp perfs.
54
11200


11300
4" TIWPBR
@11,356'
11400



FILE

4

GR (GAPI)			NPHI( )
100.0	200.0		0.3000 -0.100
CALI(IN)			DPHI( )
5.000	15.00		0.3000 -0.100
GR (GAPI)			
0.0	100.0		

PARAMETERS

NAME	UNIT	VALUE	NAME	UNIT	VALUE	NAME	UNIT	VALUE
HC		CALI	PSNR		2.355	BS	INCH	6.125
MDEN	G/C3	2.710	FD	G/C3	1.100	MATR		LIME
BHF		WATE						
DO		0.0	BHS		OPEN	FPHI		PHIX

NEW MEXICO OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
APPLICATION FOR MULTIPLE COMPLETION

Form C-107
5-1-61

CASE No. 7128
EXHIBIT No. 1

Operator	County	Date
HNG Oil Company	Lea	12-1-80
Address	**Lease**	**Well No.**
P.O. Box 2267, Midland, Texas 79702	San Simon 6 State Com.	1

Location of Well	Unit	Section	Township	Range
	H	6	22S	35E

1. Has the New Mexico Oil Conservation Commission heretofore authorized the multiple completion of a well in these same pools or in the same zones within one mile of the subject well? YES_____ NO X
2. If answer is yes, identify one such instance: Order No._____ ; Operator Lease, and Well No.: _____

3. The following facts are submitted:	Upper Zone	Intermediate Zone	Lower Zone
a. Name of Pool and Formation	Und. Wolfcamp		Und. Morrow
b. Top and Bottom of Pay Section (Perforations)	11,132' - 11,154'		13,110' - 13,117'
c. Type of production (Oil or Gas)	Oil		Gas
d. Method of Production (Flowing or Artificial Lift)	Flowing		Flowing

4. The following are attached. (Please check YES or NO)

Yes	No	
X		a. Diagrammatic Sketch of the Multiple Completion, showing all casing strings, including diameters and setting depths, centralizers and/or turbolizers and location thereof, quantities used and top of cement, perforated intervals, tubing strings, including diameters and setting depth, location and type of packers and side door chokes, and such other information as may be pertinent.
X		b. Plat showing the location of all wells on applicant's lease, all offset wells on offset leases, and the names and addresses of operators of all leases offsetting applicant's lease.
X		c. Waivers consenting to such multiple completion from each offset operator, or in lieu thereof, evidence that said offset operators have been furnished copies of the application.*
X		d. Electrical log of the well or other acceptable log with tops and bottoms of producing zones and intervals of perforation indicated thereon. (If such log is not available at the time application is filed it shall be submitted as provided by Rule 112-A.)

5. List all offset operators to the lease on which this well is located together with their correct mailing address.

Exxon Company, USA, Box 1700, Midland, Texas 79702

Phillips Petroleum, Phillips Bldg., Odessa, Texas 79761

Northern Nat'l. Gas Co., 403 Wall Towers West, Midland, Texas 79701

Texaco, Inc., Box 3109, Midland, Texas 79702

Amerada Hess Corp., 2207 West Industrial, Midland, Texas 79701

Getty Oil Co., Box 1231, Midland, Texas 79702

6. Were all operators listed in Item 5 above notified and furnished a copy of this application? YES X NO_____. If answer is yes, give date of such notification December 1, 1980.

CERTIFICATE: I, the undersigned, state that I am the Regulatory Clerk of the HNG Oil (company), and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.

5. Amoco Prod. Co.
P.O. Box 1725
Midland, Texas 79702

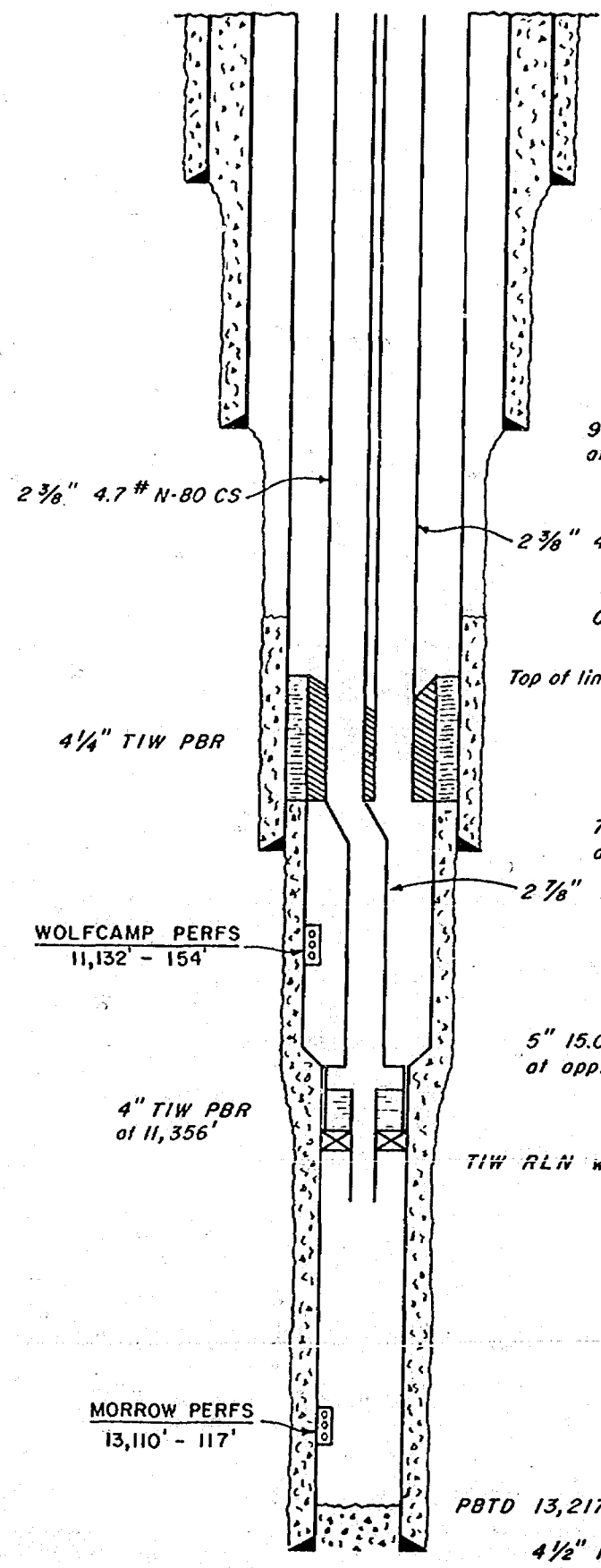
Betty A. Gildon
Signature

*Should waivers from all offset operators not accompany an application for administrative approval, the New Mexico Oil Conservation Commission will hold the application for a period of twenty (20) days from date of receipt by the Commission's Santa Fe office. If, after said twenty-day period, no protest nor request for hearing is received by the Santa Fe office, the application will then be processed.

NOTE: If the proposed multiple completion will result in an unorthodox well location and/or a non-standard proration unit in one or more of the producing zones, then separate application for approval of the same should be filed simultaneously with this application.

BEFORE EXAMINER STAMETS
OIL CONSERVATION DIVISION
HNG EXHIBIT NO. 8
CASE NO. 7128
Submitted by HOLM
Hearing Date 1 | 14 | 81

HNG OIL CO.
San Simon "6" No. 1



CASE NO. 7128
EXHIBIT NO. 8

Case No. 7128.
Exhibit No. 9a.

JARREL SERVICES, INC.

POST OFFICE BOX 1654 PHONE 505 393-5396
HOBBS, NEW MEXICO 88240

COMPANY: HNG Oil Company

WELL: San Simon 6 State Com, No. 1 FIELD: Undesignated - Wolf Camp

CHRONOLOGICAL PRESSURE DATA

DATE	STATUS OF WELL	TIME	ELASPED TIME HRS.	MIN.	SURFACE PRESSURE TBG	CSG	BHP @ (-7493) 11143'PSIG
1980							
11/	Shut in 18 days. Run Static Gradient w/Tandem Bombs & Set bombs @ 10750'	10:30 AM	-	-	3020 DWT	Dual	5890
	Started 1st Rate	10:45	0	15	3020	-	5890
	Finished 1st Rate & Started 2nd Rate	11:45	1	00	3017	-	5856
	Finished 2nd Rate & Started 3rd Rate	12:45	1	00	2997	-	5801
	Finished 3rd Rate & Started 4th Rate	1:45	1	00	2830	-	5759
	Finished 4th Rate & Fished bombs. Flowing Run Bombs to 10750' & Shut in for Buildup	2:45	1	00	2720	-	5674
	Shut in	4:00	1	15	2650	-	5603
	"	4:30	1	30	-	-	5650
	"	5:00	1	00	-	-	5664
	"	5:30	1	30	-	-	5688
	"	6:00	2	00	-	-	5705
	"	6:30	2	30	-	-	5726
	"	7:00	3	00	-	-	5736
	"	7:30	3	30	-	-	5749
	"	8:00	4	00	-	-	5760
	"	8:30	4	30	-	-	5773
	"	9:00	5	00	-	-	5787
	"	9:30	5	30	-	-	5794
	"	10:00	6	00	-	-	5804
	"	10:30	6	30	-	-	5807
	"	11:30	7	00	-	-	5578
11/1	"	12:00	8	00	-	-	5821
11/2	"	1:00 AM	9	00	-	-	5828
	"	2:00	10	00	-	-	5835
	"	3:00	11	00	-	-	5838
	"	4:00	12	00	-	-	5838
	"	6:00	14	00	-	-	5845
	"	8:00	16	00	-	-	5848
	"	10:00	18	00	-	-	5848
	"	12:00	20	00	-	-	5855
	"	2:00	22	00	-	-	5855
	"	4:00	24	00	-	-	5855
	"	6:00	26	00	-	-	5855
	"	8:00	28	00	-	-	5855
	"	10:00	30	00	-	-	5855
	"	3:00 PM	35	00	-	-	5855
11/2	"	8:00	40	00	-	-	5864

WELL: San Simon 6 State Com, No. 1
PAGE: 2

DATE	STATUS OF WELL	TIME	ELASPED TIME HRS.	ELASPED TIME MIN.	SURFACE PRESSURE TBG	SURFACE PRESSURE CSG	BHP @ (-7493) 11143'PSIG
11/3	Shut in	1:00 AM	45	00	-	-	5864
	"	6:00	50	00	-	-	5864
	"	11:00	55	00	-	-	5864
	"	4:00 PM	60	00	-	-	5864
	"	9:00	65	00	-	-	5864
	Fished Bombs & Run Static Gradient	12:00 N	68	00	2978	-	5864

JARREL SERVICES, INC.

POST OFFICE BOX 1654 PHONES 505 393-5396 — 393-8274

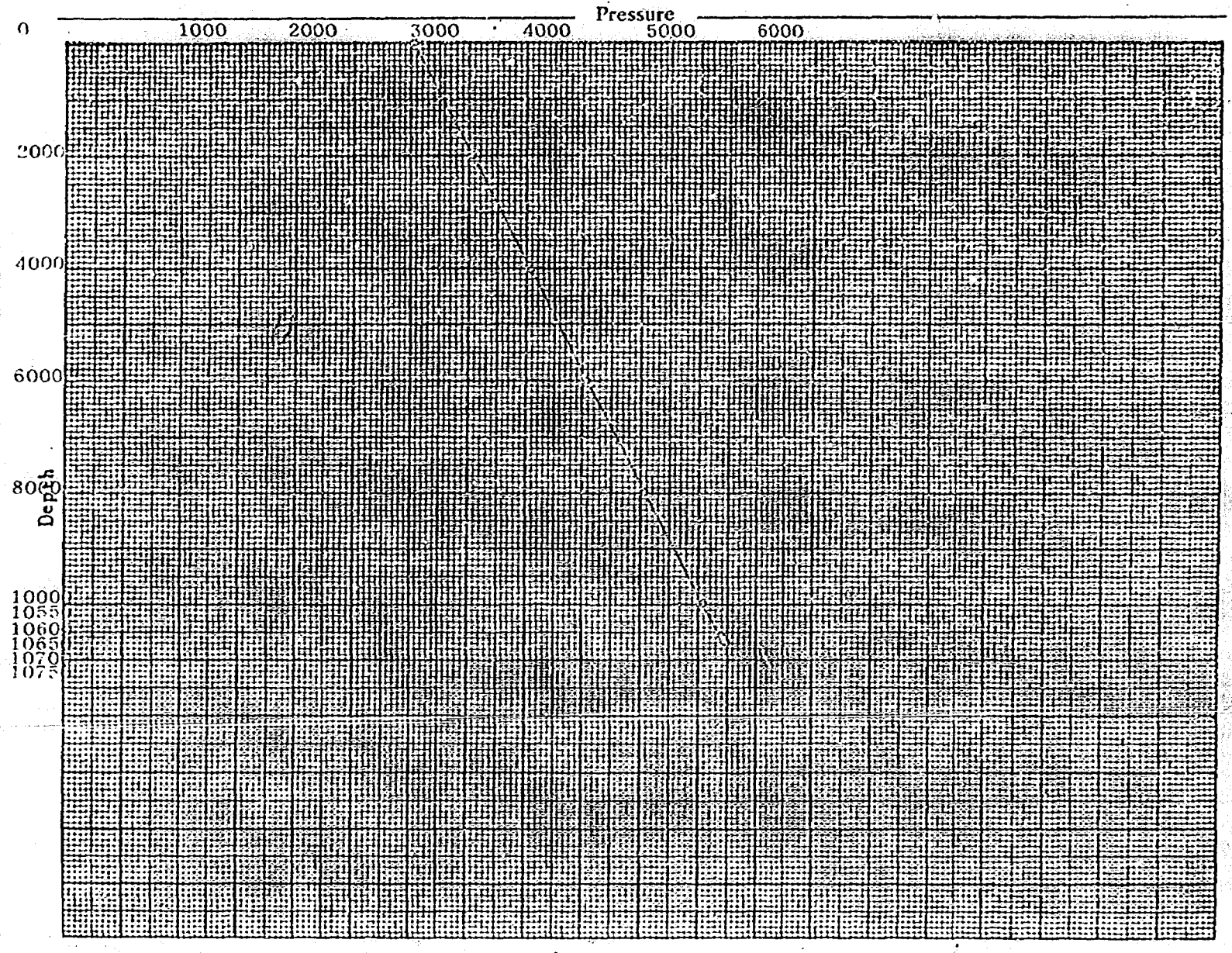
HOBBS, NEW MEXICO 88240

OPERATOR HNG Oil Company
FIELD Undesignated
FORMATION Wolf Camp
LEASE San Simon 6 State Com WELL #1
COUNTY Lea STATE New Mexico
DATE November 1, 1980 TIME 10:30 AM
Status Shut in
Test Depth 10750'
Time S. I. 18 days Last test date –
Tub Pres. 3020 DWT BHP last test –
Cas. Pres. Dual BHP change –
Elev. 3635'KB Fluid top Surface
Datum (-7493)** Water top None
Temp. @ 154°F Run by JSI #16
Cal. No. A36826N Chart No. 1

BOTTOM HOLE PRESSURE RECORD

Depth		Pressure	Gradient
0		3020	–
2000		3517	.249
4000		4023	.253
6000		4529	.253
8000		5039	.255
10000		5549	.255
10550		5703	.280
10600		5718	.300
10650		5734	.320
10700		5750	.320
10750		5766	.320
11143	(-7493)	5890 * **	(.320)

* EXTRAPOLATED PRESSURE
** MIDPOINT OF CASING PERFORATIONS



JARREL SERVICES, INC.

POST OFFICE BOX 1654 PHONES 505 393-5396 — 393-6274

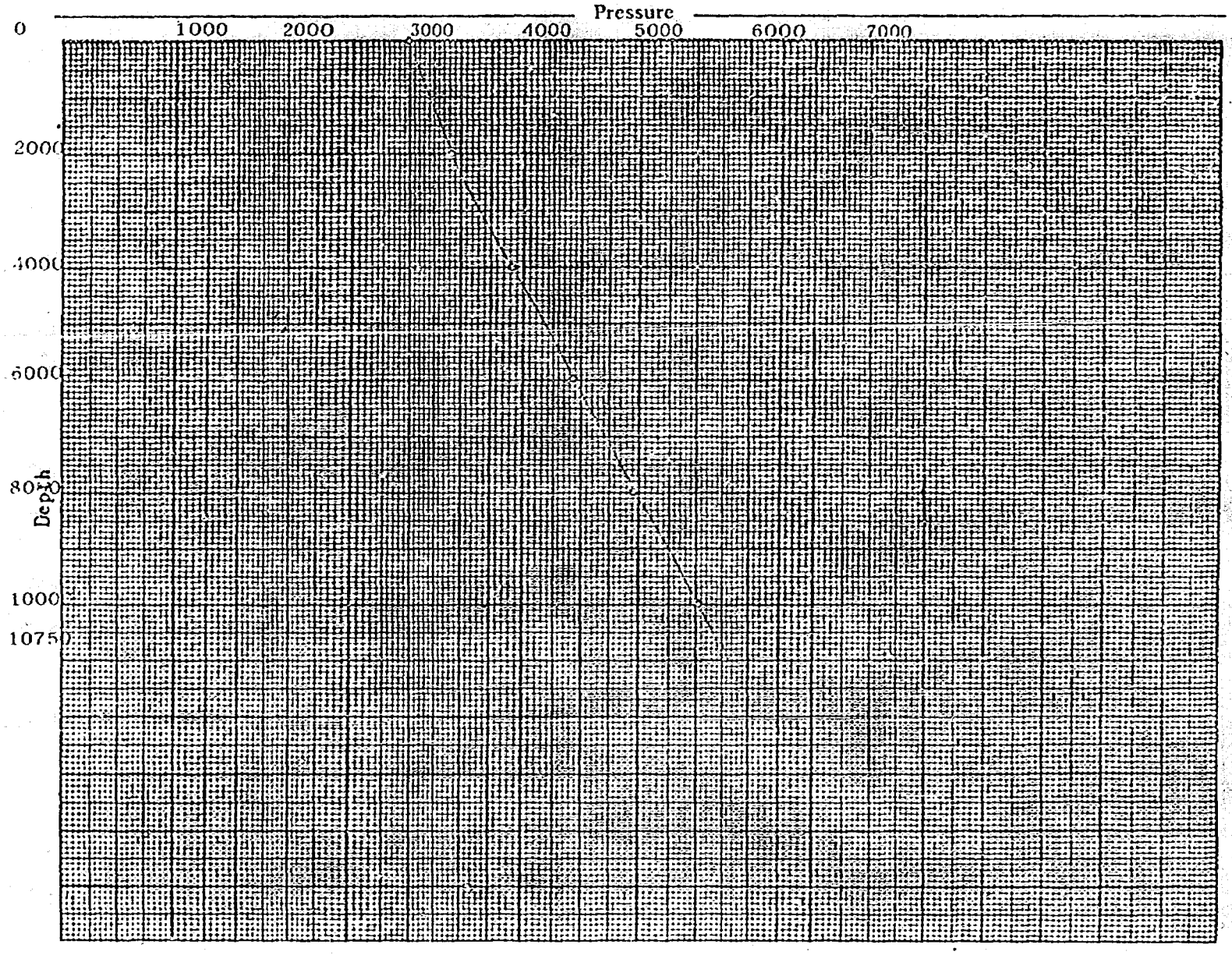
HOBBS, NEW MEXICO 88240

OPERATOR HNG Oil Company
FIELD Undesignated
FORMATION Wolf Camp
LEASE San Simon 6 State Com WELL #1
COUNTY Lea STATE New Mexico
DATE 11/4/80 TIME 12:00 N
Status Shut in
Test Depth 10750'
Time S. I. 68.0 hrs. Last test date 11/1/80
Tub Pres. 2978 BHP last test 5890
Cas. Pres. Dual BHP change 26# Loss
Elev. 3650'KB Fluid top Surface
Datum (-7493)** Water top None
Temp. @ 154° F Run by JSI #20
Cal. No. A14418N Chart No. 2

BOTTOM HOLE PRESSURE RECORD

Depth	Pressure	Gradient
0	2978	-
2000	3401	.212
4000	3901	.250
6000	4421	.260
8000	4961	.270
10000	5521	.280
10750	5746	.300
11143 (-7493)	5864 * (5872) **	(.300) (.320)

* EXTRAPOLATED PRESSURE
** MIDPOINT OF CASING PERFORATIONS



JARREL SERVICES, INC.

POST OFFICE BOX 1654 PHONE 505 393-5396
HOBBS, NEW MEXICO 88240

CASE No. 7128
EXHIBIT No. 9 b.

COMPANY: HNG Oil Company

WELL: San Simon 6 State Com, No. 1 FIELD: Undesignated - Morrow

CHRONOLOGICAL PRESSURE DATA

DATE	STATUS OF WELL	TIME	ELASPED TIME HRS.	MIN.	SURFACE PRESSURE TBG	CSG	BHP @ (-9474) 13124' PSIG
1980							
10/23	Shut in 9.0 days Run Static Gradient to 10000'	12:30 PM	-	-	5660	Dual	7460
10/31	Shut in 17.0 days Run Static Gradient to 11371'	1:00 PM	-	-	5668 DWT	Dual	7551
	Started 1st Rate	1:15	0	15	5660	-	7551
	Finished 1st Rate & Started 2nd Rate	2:15	1	00	5602	-	7478
	Finished 2nd Rate & Started 3rd Rate	3:15	1	00	5777	-	7431
	Finished 3rd Rate & Started 4th Rate	4:15	1	00	5010	-	7350
	Finished 4th Rate & Fished Bombs Flowing. Run Bombs to 11371' & Shut in for Buildup.	5:15	1	00	4712	-	7288
	Shut in	6:40	1	00	4770	-	7304
	"	7:10	0	30	-	-	7491
	"	7:40	1	00	-	-	7491
	"	8:40	2	00	-	-	7481
	"	9:40	3	00	-	-	7481
	"	10:40	4	00	-	-	7477
	"	11:40	5	00	-	-	7463
11/1	"	12:40	6	00	-	-	7463
	"	1:40 AM	7	00	-	-	7458
	"	2:40	8	00	-	-	7454
	"	3:40	9	00	-	-	7449
	"	4:40	10	00	-	-	7440
	"	5:40	11	00	-	-	7431
	"	6:40	12	00	-	-	7421
	"	7:40	13	00	-	-	7417
	"	8:40	14	00	-	-	7417
	"	9:40	15	00	-	-	7421
	"	10:40	16	00	-	-	7421
	"	11:40	17	00	-	-	7426
	"	12:40	18	00	-	-	7426
	"	1:40	19	00	-	-	7435
	"	2:40	20	00	-	-	7435
	"	3:40	21	00	-	-	7440
	"	4:40	22	00	-	-	7440
	"	5:40	23	00	-	-	7449
	"	6:40	24	00	-	-	7449
	"	7:40	25	00	-	-	7449
	"	8:40	26	00	-	-	7454

WELL: San Simon 6 [illegible]te Com. No. 1
PAGE: 2

DATE	STATUS OF WELL	TIME	ELASPED TIME HRS.	ELASPED TIME MIN.	SURFACE PRESSURE TBG	SURFACE PRESSURE CSG	BHP @ (-9474) 13124'PSIG
	Shut in	9:40	27	00	-	-	7454
	"	10:40	28	00	-	-	7463
	"	11:40	29	00	-	-	7463
	"	12:40	30	00	-	-	7463
11/2/80	"	2:40 AM	32	00	-	-	7476
	"	4:40	34	00	-	-	7477
	"	6:40	36	00	-	-	7435
	"	8:40	38	00	-	-	7491
	"	10:40	40	00	-	-	7500
	"	12:40	42	00	-	-	7505
	"	2:40 PM	44	00	-	-	7509
	"	4:40	46	00	-	-	7514
	"	6:40	48	00	-	-	7519
	"	8:40	50	00	-	-	7526
	"	10:40	52	00	-	-	7532
	"	12:40	54	00	-	-	7537
11/3	"	2:40 AM	56	00	-	-	7546
	"	4:40	58	00	-	-	7551
	"	6:40	60	00	-	-	7556
	"	8:40	62	00	-	-	7564
	"	10:40	64	00	-	-	7569
	"	12:40	66	00	-	-	7584
	"	2:40 PM	68	00	-	-	7584
	Fished Bombs & Run Static Gradient	4:40 PM	70	00	5696	-	7584

JARREL SERVICES, INC.

POST OFFICE BOX 1654 PHONES 505 393-5396 -- 393-8274

HOBBS, NEW MEXICO 88240

OPERATOR HNG Oil Company
FIELD Undesignated
FORMATION Morrow
LEASE San Simon 6 State Com WELL#1
COUNTY Lea STATE New Mexico
DATE 11/4/80 TIME 4:40 PM
Status Shut in
Test Depth 11371'
Time S. I. 70 hrs. Last test date 10/31/80
Tub Pres. 5696 BHP last test 7551
Cas. Pres. Dual BHP change 33# Gain
Elev. 3650'KB Fluid top None
Datum (-9474)** Water top None
Temp. @ 172°F Run by JSI #20
Cal. No. A14418N Chart No. 2

BOTTOM HOLE PRESSURE RECORD

Depth		Pressure	Gradient
0		5696	-
2000		5978	.141
4000		6258	.140
6000		6538	.140
8000		6814	.138
10000		7085	.135
11000		7220	.135
11200		7242	.110
11250		7251	.180
11300		7260	.180
11371		7269	.180
13124	(-9474)	7584 * **	(.180)

* EXTRAPOLATED PRESSURE
** MIDPOINT OF CASING PERFORATIONS

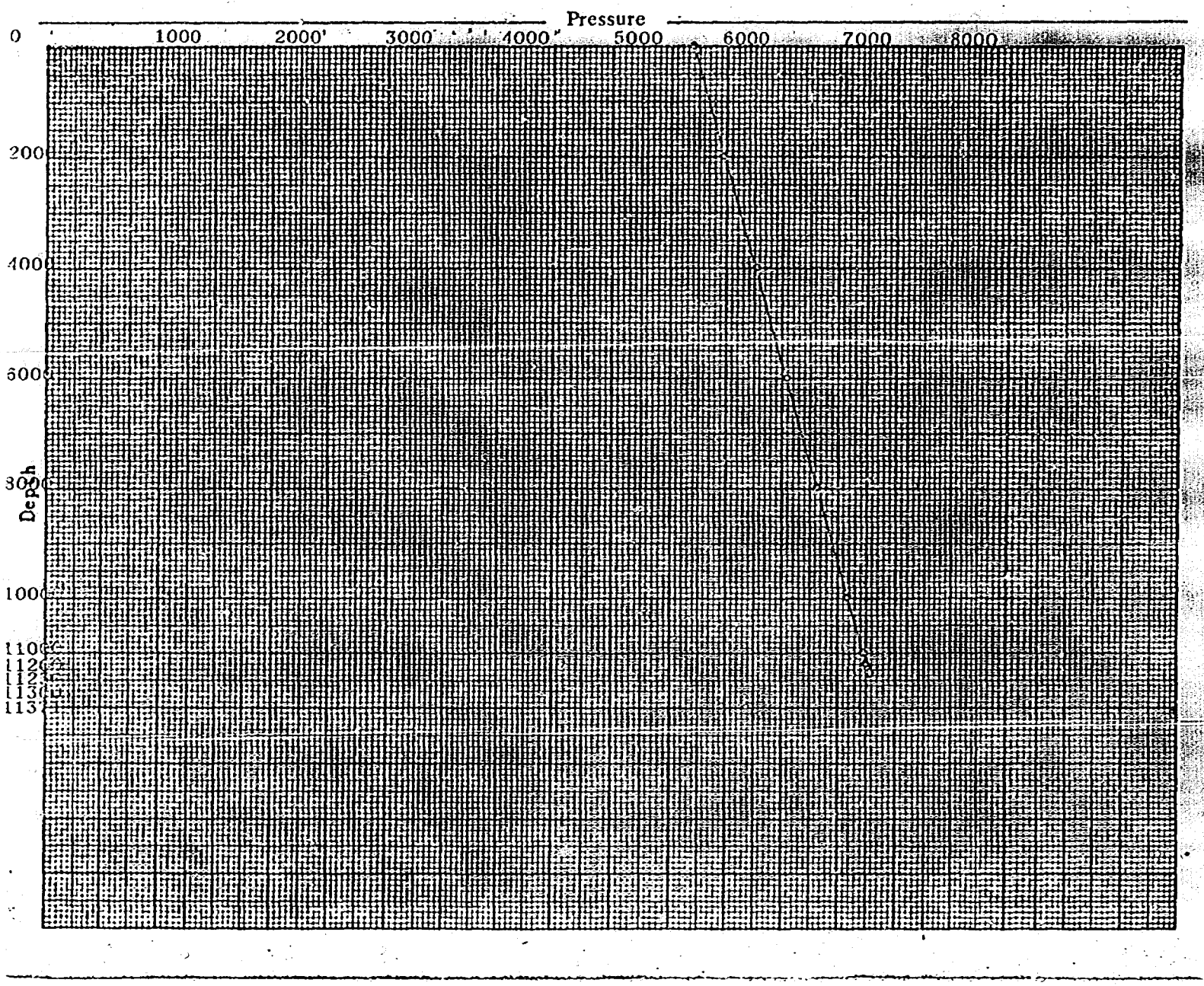


EXHIBIT No. 9 C

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OPERATOR		

TO CORRECT GAS VOLUME AND GOR

Form C-105
Revised 1-1-65

NEW MEXICO OIL CONSERVATION COMMISSION

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

CASE No. 7128

5a. Indicate Type of Lease: State [X] Fee [ ]

5. State Oil & Gas Lease No.: LG 893 & LG 3609

1a. TYPE OF WELL

b. TYPE OF COMPLETION: OIL WELL [X] GAS WELL [ ] DRY [ ] OTHER ____ NEW WELL [X] WORK OVER [ ] DEEPEN [ ] PLUG BACK [ ] DIFF. RESVR. [ ] OTHER

7. Unit Agreement Name:

8. Farm or Lease Name: San Simon 6 State Com

2. Name of Operator: HNG Oil Company

9. Well No.: 1

3. Address of Operator: P.O. Box 2267, Midland, Texas 79702

10. Field and Pool, or Wildcat: Und. Wolfcamp

4. Location of Well: UNIT LETTER H LOCATED 1980 FEET FROM THE North LINE AND 660 FEET FROM THE East LINE OF SEC. 6 TWP. 22S RGE. 35E NMPM

12. County: Lea

15. Date Spudded	16. Date T.D. Reached	17. Date Compl. (Ready to Prod.)	18. Elevations (DF, RKB, RT, GR, etc.)	19. Elev. Cashinghead
8-10-80	10-4-80	10-31-80	3628.8' GR	3628.8'

20. Total Depth	21. Plug Back T.D.	22. If Multiple Compl., How Many	23. Intervals Drilled By	Rotary Tools	Cable Tools
13,300 '	13,217'	2	→	X	

24. Producing Interval(s), of this completion — Top, Bottom, Name: 11,132 - 11,154 (Wolfcamp)

25. Was Directional Survey Made: No

26. Type Electric and Other Logs Run: Dual Laterlog BHC Sonic, Compensated Neutron Formation Density

27. Was Well Cored: No

28. CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT LB./FT.	DEPTH SET	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
13-3/8	48#	1085	17-1/2	1450 sx C1C	Circ.
9-5/8	36#	5687	12-1/4	500 C1C & 2950 Pacesetter Lite	
7	23#	11014	8-1/2	400 pacesetter lite & 350 C1H	

29. LINER RECORD

SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN
4-½ & 5"	10,782'	13,300	400 C1H	

30. TUBING RECORD

SIZE	DEPTH SET	PACKER SET
2-3/8"	10,782'	10,782'

31. Perforation Record (Interval, size and number)

11,132 - 11,154 (.38" 12)

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL	AMOUNT AND KIND MATERIAL USED
11,132 - 11,154	3000 gals 15% spearhead acid

33. PRODUCTION

Date First Production	Production Method (Flowing, gas lift, pumping - Size and type pump)	Well Status (Prod. or Shut-in)
11-1-80	Flowing	SI

Date of Test	Hours Tested	Choke Size	Prod'n. For Test Period →	Oil - Bbl.	Gas - MCF	Water - Bbl.	Gas-Oil Ratio
11-1-80	4	9/64"		67.93	84.3	0	1240

Flow Tubing Press.	Casing Pressure	Calculated 24-Hour Rate →	Oil - Bbl.	Gas - MCF	Water - Bbl.	Oil Gravity - API (Corr.)
2850	-		407.58	505.6	0	46.9°

34. Disposition of Gas (Sold, used for fuel, vented, etc.): Vented

Test Witnessed By:

35. List of Attachments: Log attached to Morrow completion

36. I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief.

SIGNED Betty A. Gildon Betty A. Gildon TITLE Regulatory Clerk DATE 12-15-80

INSTRUCTIONS

This form is to be filed with the appropriate District Office of the Commission not later than 20 days after the completion of any newly-drilled or deepened well. It shall be accompanied by one copy of all electrical and radioactivity logs run on the well and a summary of all special tests conducted, including drill stem tests. All depths reported shall be measured depths. In the case of directionally drilled wells, true vertical depths shall also be reported. For multiple completions, Items 27 through 33 shall be reported for each zone. This form is to be filed in quintuplicate except on state land, where six copies are required. See Rule 1105.

INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE

Southeastern New Mexico				Northwestern New Mexico			
T. Anhy	T. Canyon	T. Ojo Alamo	T. Penn. "B"				
T. Salt	T. Strawn 11631	T. Kirtland-Fruitland	T. Penn. "C"				
B. Salt	T. Atoka 12128	T. Pictured Cliffs	T. Penn. "D"				
T. Yates	T. Miss	T. Cliff House	T. Leadville				
T. 7 Rivers	T. Devonian	T. Menefee	T. Madison				
T. Queen	T. Silurian	T. Point Lookout	T. Elbert				
T. Grayburg	T. Montoya	T. Mancos	T. McCracken				
T. San Andres	T. Simpson	T. Gallup	T. Ignacio Qzte				
T. Glorieta	T. McKee	Base Greenhorn	T. Granite				
T. Paddock	T. Ellenburger	T. Dakota	T.				
T. Blinebry	T. Gr. Wash	T. Morrison	T.				
T. Tubb	T. Granite	T. Todilto	T.				
T. Drinkard	T. Delaware Sand	T. Entrada	T.				
T. Abo	T. Bone Springs 8360	T. Wingate	T.				
T. Wolfcamp Reef 11086	T. 3rd/ " 10794	T. Chinle	T.				
T. Penn. 11472	T. Morrow Line 12654	T. Permian	T.				
T Cisco (Bough C)	T. Morrow Clastics	T. Penn. "A"	T.				

12828

OIL OR GAS SANDS OR ZONES

No. 1, from Wlfcp 11,132' to 11,154' No. 4, from ..... to .....

No. 2, from ..... to ..... No. 5, from ..... to .....

No. 3, from ..... to ..... No. 6, from ..... to .....

IMPORTANT WATER SANDS

Include data on rate of water inflow and elevation to which water rose in hole.

No. 1, from None to ..... feet. .....

No. 2, from ..... to ..... feet. .....

No. 3, from ..... to ..... feet. .....

No. 4, from ..... to ..... feet. .....

FORMATION RECORD (Attach additional sheets if necessary)

From	To	Thickness in Feet	Formation	From	To	Thickness in Feet	Formation
0	8360	8360	Gravel & Redbeds				
8360	10794	2434	Bone Springs				
10794	11086	292	3rd/ Bone Spring Sand				
11086	11472	386	Wolfcamp Reef				
11472	11631	159	Pennsylvanian				
11631	12128	497	Strawn				
12128	12654	526	Atoka				
12654	12828	174	Morrow lime				
12828	13300	472	Morrow Clastics				

BEFORE EXAMINER STAMETS
OIL CONSERVATION DIVISION
EXHIBIT NO. 9
CASE NO. 7178
Submitted by Hnl
Hearing Date 1-14-81

NEW MEXICO OIL CONSERVATION COMMISSION
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

EXHIBIT No. 9d

Form C-122 Revised

CASE No. 7128

Type Test: [x] Initial [ ] Annual [ ] Special		Test Date: 10/31/80	
Company: HNG Oil Company	Connection: None		
Pool: Undesignated	Formation: Morrow		Unit
Completion Date: 10/31/80	Total Depth: —	Plug Back TD: 13217'	Elevation: 3650'KB
Csg. Size: 7" / 5" / 4½"	Wt.: 23 / 15 / 13.5	d: 6.366 / 4.408 / 3.920	Set At: 11014 / 11332 / 13300
Tbg. Size: 2 3/8"	Wt.: 4.70	d: 1.995	Set At: 10782
Perforations: From 13110 To 13117	Perforations: Open ended		
Type Well: Dual	Packer Set At: 11332'		
Producing Thru: Tubing	Reservoir Temp. °F: 172 @ 13124'	Mean Annual Temp. °F: 60	Baro. Press. — P_a: 13.2
L: 13114	H: —	Gg: 0.654	% CO_2: 0.47
% N_2: 0.20	% H_2S: 0.00	Prover	Meter Run: 6 X 1.500

Farm or Lease Name: San Simon 6 State Com
Well No.: 1
Unit: H, Sec.: 6, Twp.: 22s, Rge.: 35e
County: Lea
State: New Mexico
Taps: F

FLOW DATA / TUBING DATA / CASING DATA

NO.	Prover Line Size	X Orifice Size	Press. p.s.i.g.	Diff. h_w	Temp. °F	Tubing Press. p.s.i.g. DWT	Tubing Temp. °F	Casing Press. p.s.i.g.	Casing Temp. °F	Duration of Flow
SI						5668				17 days
1.	6 4/64	1.500	520	5	98	5602	74	PACKER		1.0 hr
2.	6 6/64	1.500	480	12	96	5577	73			1.0 hr
3.	6 8.5/64	1.500	470	28	81	5010	74			1.0 hr.
4.	6 10/64	1.500	410	50	72	4712	74			1.0 hr
5.										

RATE OF FLOW CALCULATIONS

NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P_m	Flow Temp. Factor F_t	Gravity Factor F_g	Super Compress. Factor, F_{pv}	Rate of Flow Q, Mcfd
1	10.70	51.63	533.2	0.9653	1.237	1.042	687.36
2	10.70	76.85	493.2	0.9671	1.237	1.039	1022.08
3	10.70	116.27	483.2	0.9804	1.237	1.042	1572.14
4	10.70	145.43	423.2	0.9887	1.237	1.040	1979.27
5							

NO.	P_r	Temp. °R	T_r	Z
1	0.79	558	1.50	0.921
2.	0.73	556	1.50	0.927
3.	0.72	541	1.46	0.921
4.	0.63	532	1.43	0.924
5				

Gas Liquid Hydrocarbon Ratio 20.70 Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons 56.0 Deg.
Specific Gravity Separator Gas 0.654 XXXXXXXXX
Specific Gravity Flowing Fluid XXXXX
Critical Pressure 673 P.S.I.A. P.S.I.A.
Critical Temperature 371 R R

P_c 7564.2 P_c^2 57217.1

NO	P_t^2	P_w *	P_w^2	$P_c^2 - P_w^2$
1		7491.2	56118.1	1099.0
2		7444.2	55416.1	1801.0
3		7363.2	54201.0	3016.1
4		7301.2	53307.5	3909.6
5				

$$(1)\ \frac{P_c^2}{P_c^2 - P_w^2} = 52.063 \qquad (2)\ \left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 25.967$$

$$AOF = Q\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 17849$$

Absolute Open Flow 17849 Mcfd @ 15.025 Angle of Slope θ 50° 31' Slope, n 0.824

Remarks: * BOTTOM HOLE PRESSURE * (-9474) 13124' USED FOR PRESSURE CALCULATIONS
63.54 BO/D - 10.59 BO DURING TEST

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	JARREL SERVICES, INC.	Joe A. Coleman	Joe A. Coleman (signature)

COMPANY: HNG Oil Company

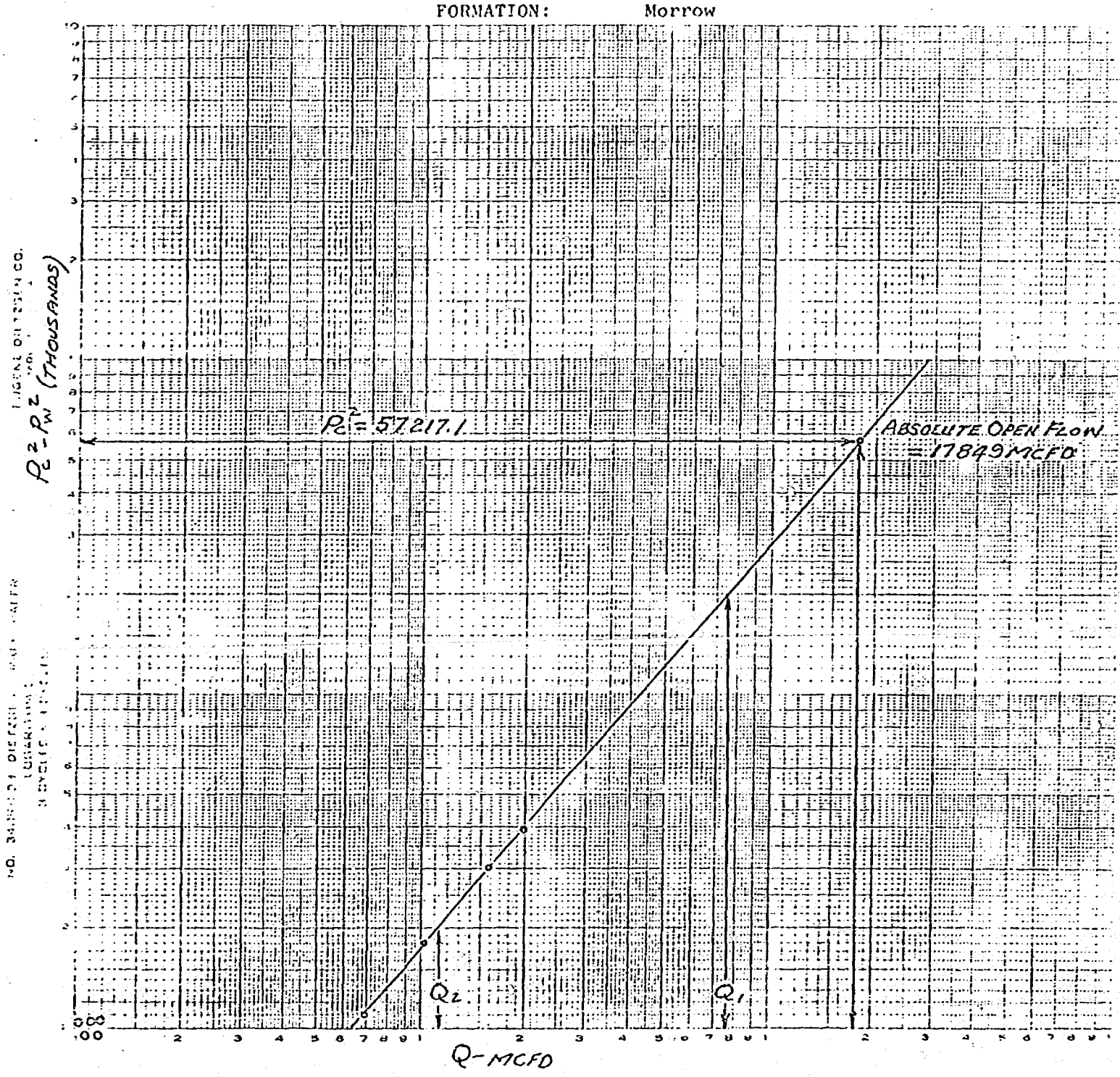
WELL: San Simon 6 State Com, No. 1

LOCATION: H 6 22s 35e

COUNTY: Lea

DATE: October 31, 1980

FORMATION: Morrow



$Q_1 = 7500$ MCFD; LOG $Q_1 = 3.87506$

$Q_2 = 1125$ MCFD; LOG $Q_2 = 3.05115$

$n = 0.82391 = 0.824$

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FILE		
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LAND OFFICE		
OPERATOR		

Form C-105
Revised 1-1-65

NEW MEXICO OIL CONSERVATION COMMISSION
WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5a. Indicate Type of Lease: State [X] Fee [ ]

5. State Oil & Gas Lease No.: LG 893 & LG 3609

1a. TYPE OF WELL: OIL WELL [ ] GAS WELL [X] DRY [ ] OTHER

b. TYPE OF COMPLETION: NEW WELL [X] WORK OVER [ ] DEEPEN [ ] PLUG BACK [ ] DIFF. RESVR. [ ] OTHER

7. Unit Agreement Name:

8. Farm or Lease Name: San Simon 6 State Com

2. Name of Operator: HNG Oil Company

9. Well No.: 1

3. Address of Operator: P.O. Box 2267, Midland, Texas 79702

10. Field and Pool, or Wildcat: Und. Morrow

4. Location of Well: UNIT LETTER H LOCATED 1980 FEET FROM THE North LINE AND 660 FEET FROM THE East LINE OF SEC. 6 TWP. 22S RGE. 35E NMPM

12. County: Lea

15. Date Spudded	16. Date T.D. Reached	17. Date Compl. (Ready to Prod.)	18. Elevations (DF, RKB, RT, GR, etc.)	19. Elev. Cashinghead
8-10-80	10-4-80	10-31-80	3628.8' GR	3628.8'

20. Total Depth	21. Plug Back T.D.	22. If Multiple Compl., How Many	23. Intervals Drilled By	Rotary Tools	Cable Tools
13,300'	13,187'	2	→	X	

24. Producing Interval(s), of this completion -- Top, Bottom, Name: 13,110 - 13,117 (Morrow)

25. Was Directional Survey Made: No

26. Type Electric and Other Logs Run: Dual Laterlog BHC Sonic, Compensated Neutron Formation Density

27. Was Well Cored: No

28. CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT LB./FT.	DEPTH SET	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
13-3/8	48#	1085	17-1/2	1450 sx C1C	Circ.
9-5/8	36#	5687	12-1/4	500 C1C & 2950 Pacesetter Lite	
7"	23#	11014	8-1/2	400 Pacesetter Lite & 350 C1H	

29. LINER RECORD

SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN
4-1/2 & 5"	10,782	13,300	400 C1H	

30. TUBING RECORD

SIZE	DEPTH SET	PACKER SET
2-3/8"	10782	11,332

31. Perforation Record (Interval, size and number): 13,110 - 13,117 (.38" 8)

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL	AMOUNT AND KIND MATERIAL USED
13,110-13,117	3000 gals 7-1/2% MS Acid

33. PRODUCTION

Date First Production	Production Method (Flowing, gas lift, pumping - Size and type pump)	Well Status (Prod. or Shut-in)
10-13-80	Flowing	Shut - In

Date of Test	Hours Tested	Choke Size	Prod'n. For Test Period →	Oil - Bbl.	Gas - MCF	Water - Bbl.	Gas-Oil Ratio
10-13-80	24	10/64	→	70	2300	244	33

Flow Tubing Press.	Casing Pressure	Calculated 24-Hour Rate →	Oil - Bbl.	Gas - MCF	Water - Bbl.	Oil Gravity - API (Corr.)
4500	-	→				56.0

34. Disposition of Gas (Sold, used for fuel, vented, etc.): Vented

Test Witnessed By:

35. List of Attachments: Form C-122, Inclination Report, and 1 set of logs- The other set of logs was sent to Santa Fe along with Form C-107

36. I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief.

SIGNED Betty A. Gildon Betty A. Gildon TITLE Regulatory Clerk DATE 12-3-80

INSTRUCTIONS

This form is to be filed with the appropriate District Office of the Commission not later than 20 days after the completion of any newly-drilled or deepened well. It shall be accompanied by one copy of all electrical and radioactivity logs run on the well and a summary of all special tests conducted, including drill stem tests. All depths reported shall be measured depths. In the case of directionally drilled wells, true vertical depths shall also be reported. For multiple completions, Items 35 through 41 shall be reported for each zone. The form is to be filed in quintuplicate except on state land, where six copies are required. See Rule 1105.

INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE

Southeastern New Mexico		Northwestern New Mexico	
T. Anhy	T. Canyon	T. Ojo Alamo	T. Penn. "B"
T. Salt	T. Strawn 11631	T. Kirtland-Fruitland	T. Penn. "C"
B. Salt	T. Atoka 12128	T. Pictured Cliffs	T. Penn. "D"
T. Yates	T. Miss	T. Cliff House	T. Leadville
T. 7 Rivers	T. Devonian	T. Menefee	T. Madison
T. Queen	T. Silurian	T. Point Lookout	T. Elbert
T. Grayburg	T. Montoya	T. Mancos	T. McCracken
T. San Andres	T. Simpson	T. Gallup	T. Ignacio Qtzte
T. Glorieta	T. McKee	Base Greenhorn	T. Granite
T. Paddock	T. Ellenburger	T. Dakota	T.
T. Blinebry	T. Gr. Wash	T. Morrison	T.
T. Tubb	T. Granite	T. Todilto	T.
T. Drinkard	T. Delaware Sand	T. Entrada	T.
T. Abo	T. Bone Springs 8360	T. Wingate	T.
T. Wolfcamp Reef 11086	T. 3rd/ Bone Spring 10794	Chinle	T.
T. Penn. 11472	T. Morrow Lime 12654	T. Permian	T.
T Cisco (Bough C)	T. Morrow Clastics 12828	Penn "A"	T.

OIL OR GAS SANDS OR ZONES

No. 1, from Morrow 13110 to 13117 No. 4, from ..... to .....

No. 2, from ..... to ..... No. 5, from ..... to .....

No. 3, from ..... to ..... No. 6, from ..... to .....

IMPORTANT WATER SANDS

Include data on rate of water inflow and elevation to which water rose in hole.

No. 1, from None to ..... feet. .....

No. 2, from ..... to ..... feet. .....

No. 3, from ..... to ..... feet. .....

No. 4, from ..... to ..... feet. .....

FORMATION RECORD (Attach additional sheets if necessary)

From	To	Thickness in Feet	Formation	From	To	Thickness in Feet	Formation
0	8360	8360	Gravel & Redbeds				
8360	10794	2434	Bone Springs				
10794	11086	292	3rd/ Bone Spring Sand				
11086	11472	386	Wolfcamp Reef				
11472	11631	159	Pennsylvanian				
11631	12128	497	Strawn				
12128	12654	526	Atoka				
12654	12828	174	Morrow Lime				
12828	13300	472	Morrow Clastics				

BEFORE EXAMINER STAMETS
OIL CONSERVATION DIVISION
EXHIBIT NO. 9
CASE NO. 7128
Submitted by Hum
Hearing Date 7-1-81

This form is not to be used for reporting packer leakage tests in Northwest New Mexico

NEW MEXICO OIL CONSERVATION COMMISSION

SOUTHEAST NEW MEXICO PACKER LEAKAGE TEST

EXHIBIT No. 9e
CASE No. 7128

Operator			Lease		Well
HNG Oil Company			San Simon 6 State Com.		No. 1
Location of Well	Unit	Sec	Twp	Rge	County
	H	6	22s	35e	Lea

	Name of Reservoir or Pool	Type of Prod (Oil or Gas)	Method of Prod Flow, Art Lift	Prod. Medium (Tbg or Csg)	Choke Size
Upper Compl	Wolf Camp	Oil	Flow	Tbg.	8/64
Lower Compl	Morrow	Gas	Flow	Tbg.	8.5/64

FLOW TEST NO. 1

Both zones shut-in at (hour, date): 11/1/80

Well opened at (hour, date): 10:30 AM 12/18/80

	Upper Completion	Lower Completion
Indicate by (X) the zone producing		X
Pressure at beginning of test	3040	5697
Stabilized? (Yes or No)	Yes	Yes
Maximum pressure during test	3040	5697
Minimum pressure during test	3040	4660
Pressure at conclusion of test	3040	4820
Pressure change during test (Maximum minus Minimum)	0	1037
Was pressure change an increase or a decrease?	None	Decrease

Well closed at (hour, date): 9:00 PM 12/18/80 Total Time On Production 10.5 hours

Oil Production During Test: 5 bbls; Grav. - ; Gas Production During Test 521025 MCF; GOR 104205

Remarks

FLOW TEST NO. 2

	Upper Completion	Lower Completion
Well opened at (hour, date): 6:30 PM 12/19/80		
Indicate by (X) the zone producing	X	
Pressure at beginning of test	3040	5640
Stabilized? (Yes or No)	Yes	Yes
Maximum pressure during test	3110	5695
Minimum pressure during test	2900	5640
Pressure at conclusion of test	2900	5695
Pressure change during test (Maximum minus Minimum)	210	55
Was pressure change an increase or a decrease?	Decrease	Increase

Well closed at (hour, date) 12:00 PM 12/19/80 Total time on Production 5 hours

Oil Production During Test: 24 bbls; Grav. 46.9 ; Gas Production During Test 84113 MCF; GOR 3504

Remarks

I hereby certify that the information herein contained is true and complete to the best of my knowledge.

Approved 19
New Mexico Oil Conservation Commission

By

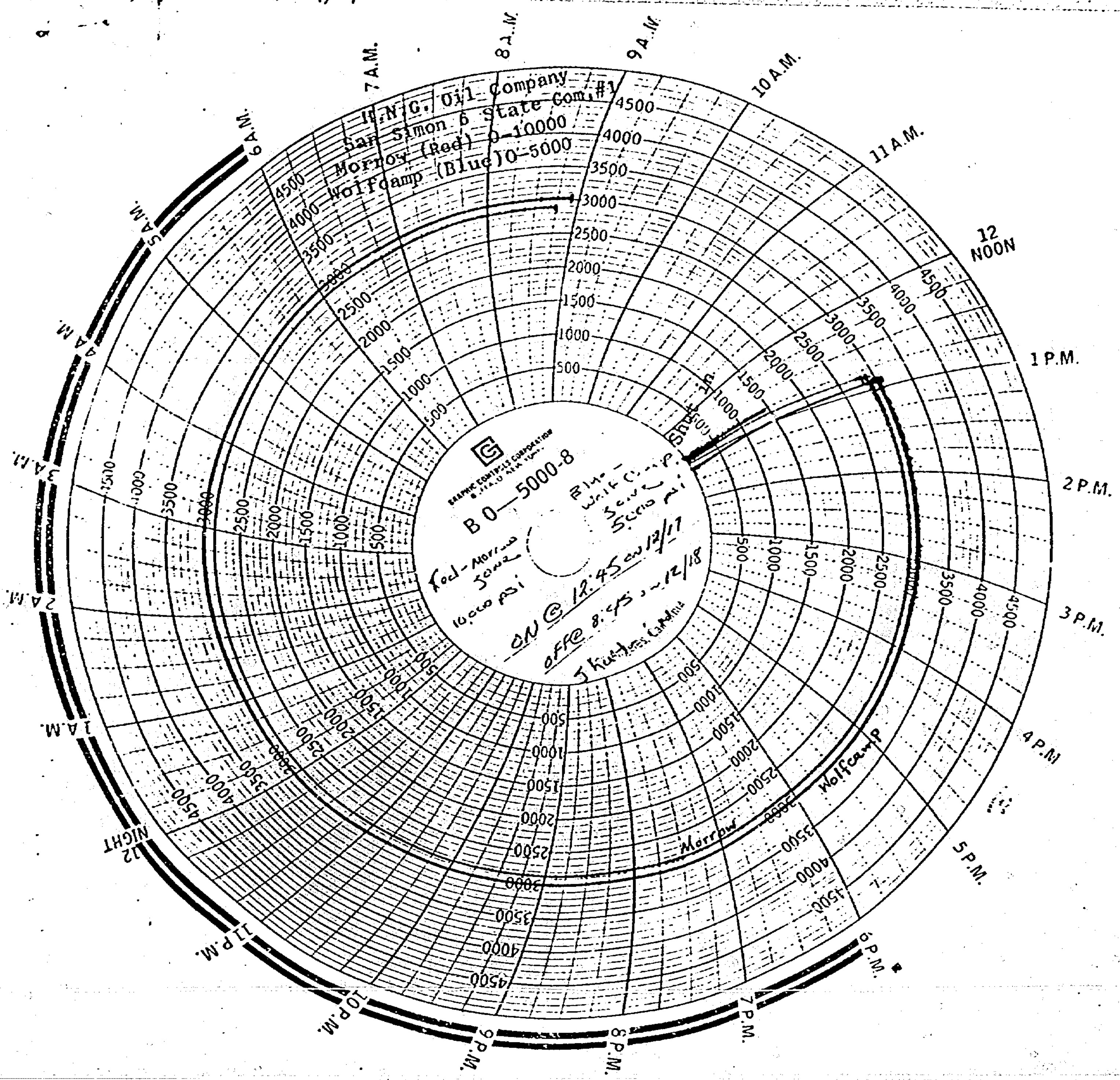
Title

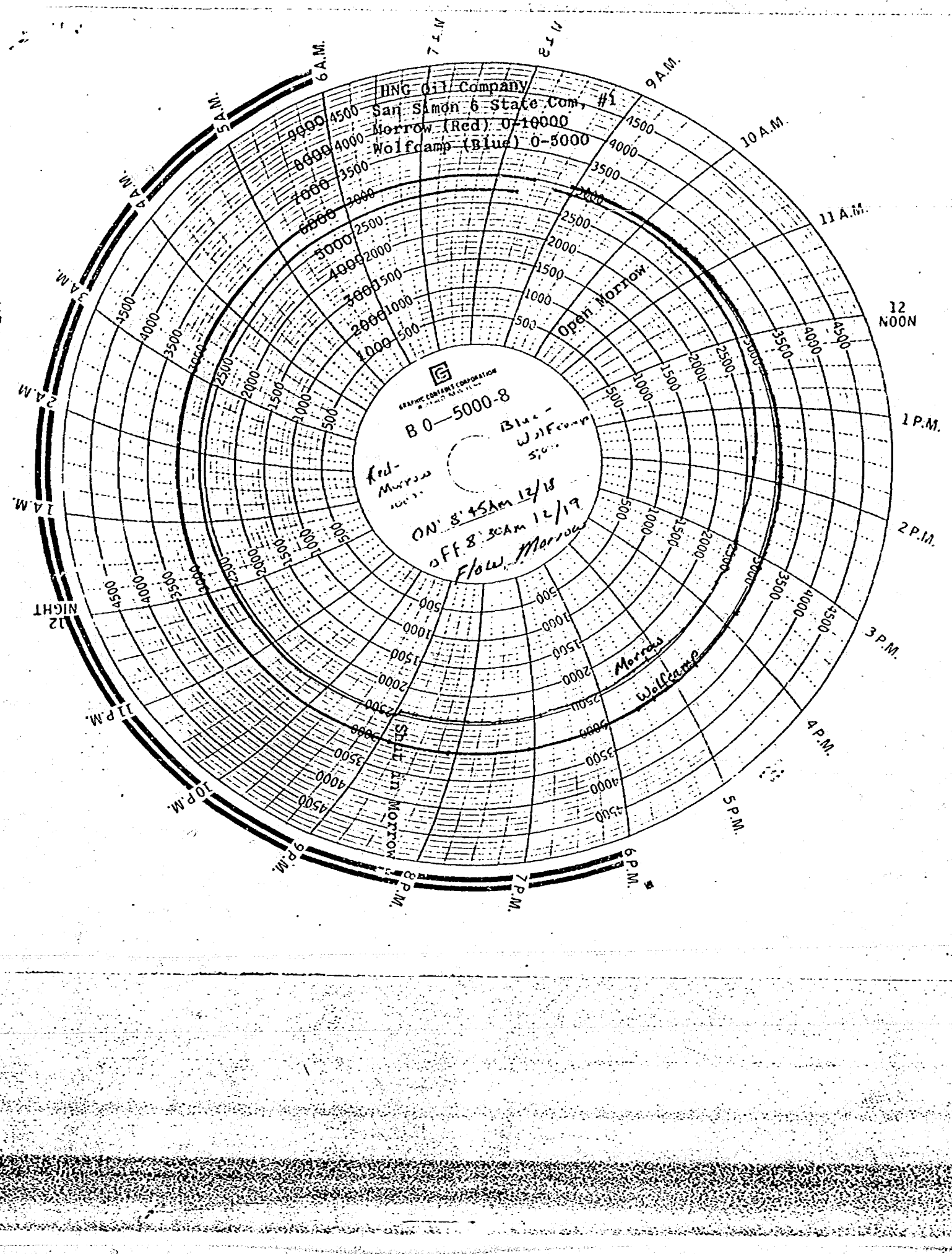
Operator HNG OIL COMPANY

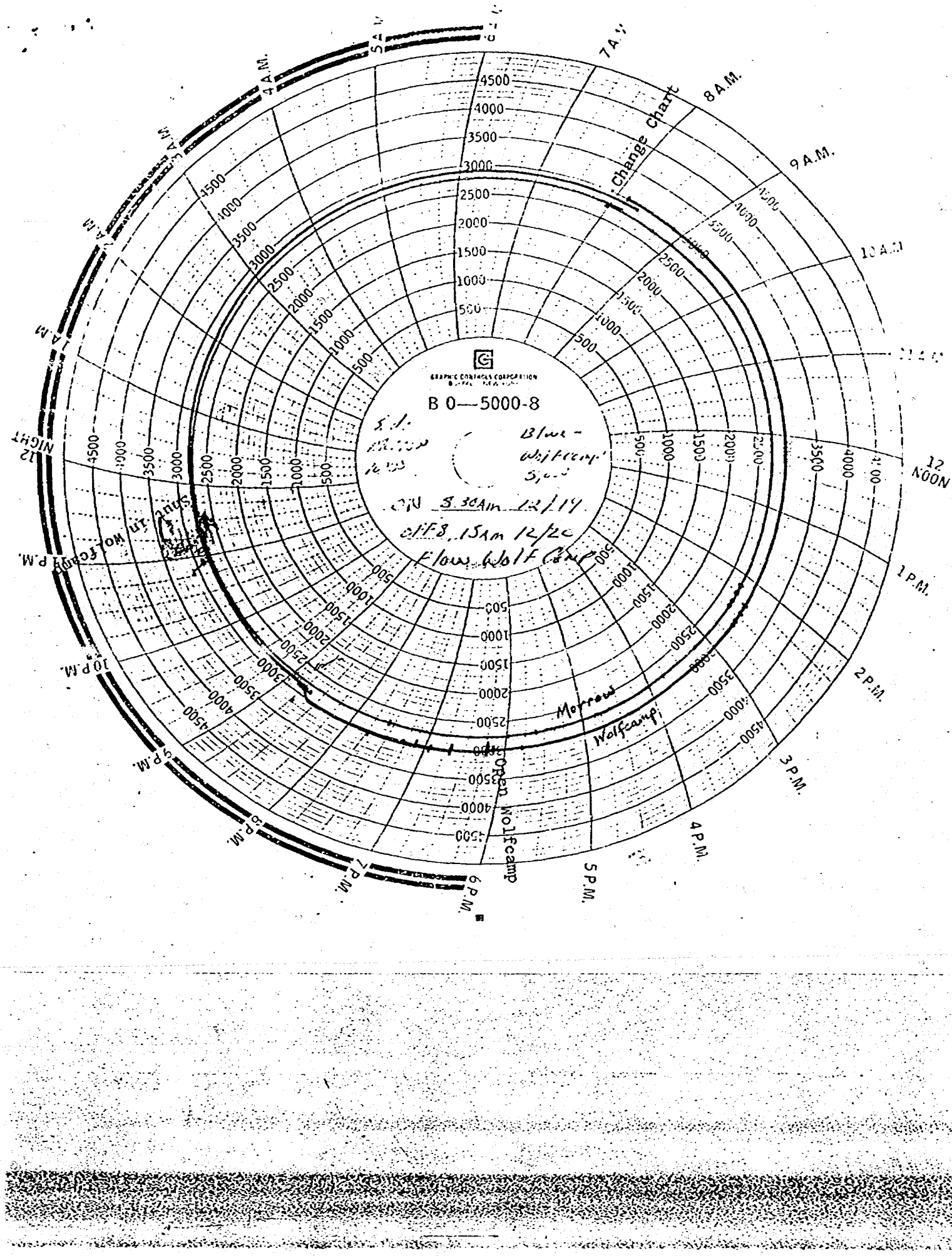
By JARREL SERVICES, INC.

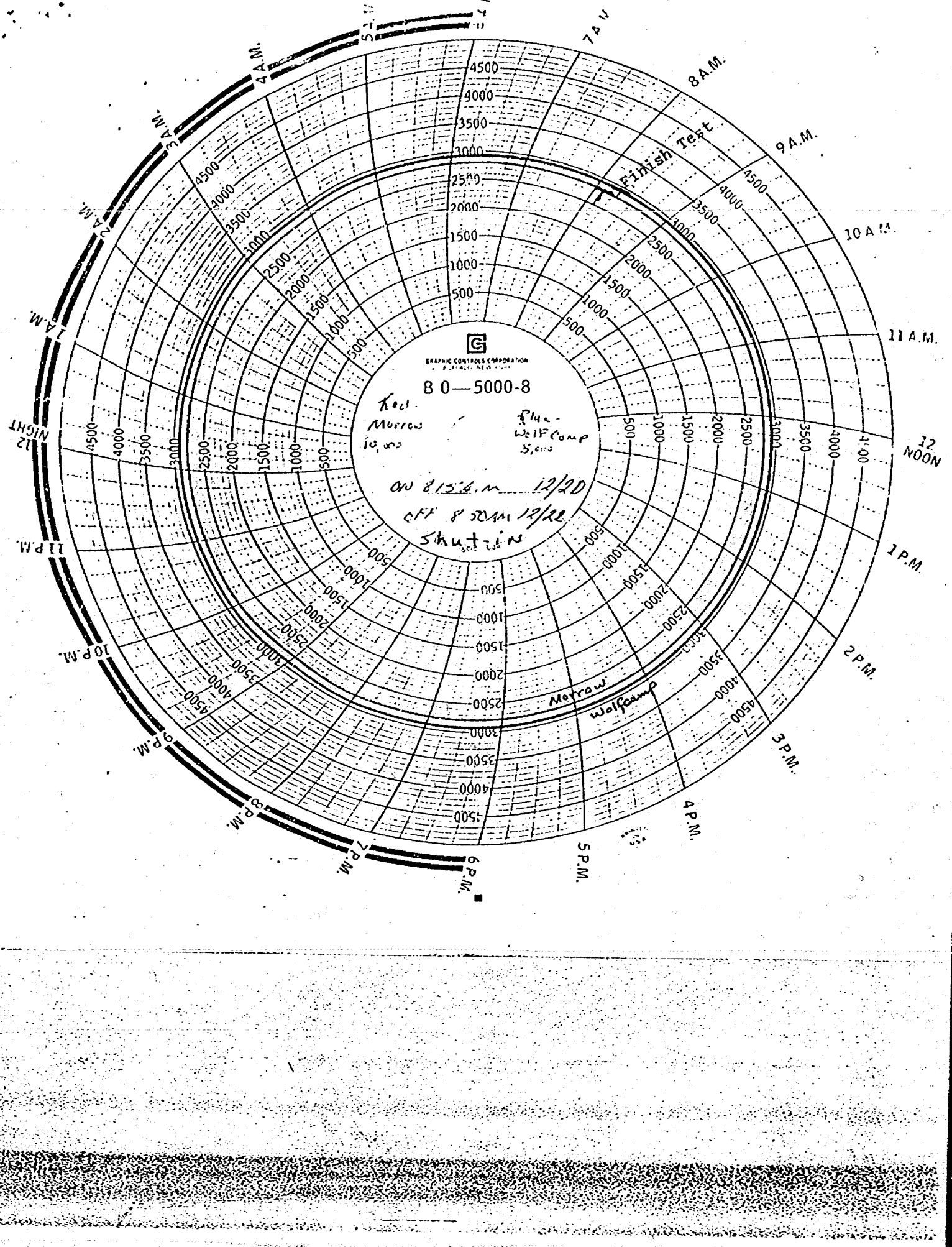
Title Agent

Date December 22, 1980


H.N.G. Oil Company
San Simon 6 State Com #1
Morrow (Red) 0-10000
Wolfcamp (Blue) 0-5000
B 0—5000-8
ON @ 12:45 on 12/17
Morrow
Wolfcamp
12 NOON
1 P.M.
2 P.M.
3 P.M.
4 P.M.
5 P.M.
6 P.M.
7 P.M.
8 P.M.
9 P.M.
10 P.M.
11 P.M.
12 NIGHT
1 A.M.
2 A.M.
3 A.M.
4 A.M.
5 A.M.
6 A.M.
7 A.M.
8 A.M.
9 A.M.
10 A.M.
11 A.M.


HNG Oil Company
San Simon 6 State Com, #1
Morrow (Red) 0-10000
Wolfcamp (Blue) 0-5000
B 0—5000-8
Blue - Wolfcamp 5000
Red - Morrow 10000
ON 8:45Am 12/18
OFF 8:30Am 12/19
Flow Morrow
Open Morrow
Morrow
Wolfcamp
6 A.M.
7 A.M.
8 A.M.
9 A.M.
10 A.M.
11 A.M.
12 NOON
1 P.M.
2 P.M.
3 P.M.
4 P.M.
5 P.M.
6 P.M.
7 P.M.
8 P.M.
9 P.M.
10 P.M.
11 P.M.
12 MIDNIGHT
1 A.M.
2 A.M.
3 A.M.
4 A.M.
5 A.M.


Change Chart
B 0—5000-8
Blue -
ON 5.30Am 12/14
OFF 8.15Am 12/20
Flow thru Wolfcamp
Morrow
Wolfcamp
Open Wolfcamp
7 A.M.
8 A.M.
9 A.M.
10 A.M.
11 A.M.
12 NOON
1 P.M.
2 P.M.
3 P.M.
4 P.M.
5 P.M.
6 P.M.
7 P.M.
8 P.M.
9 P.M.
10 P.M.
11 P.M.
12 MIGHT
1 A.M.
2 A.M.
3 A.M.
4 A.M.
5 A.M.


GRAPHIC CONTROLS CORPORATION
B 0—5000-8
Red. Morrow
Plug Wolfcamp
ON 8:15 a.m. 12/20
OFF 8:00 a.m. 12/22
Shut-in
Finish Test
Morrow
Wolfcamp
4 A.M.
5 A.M.
6 A.M.
7 A.M.
8 A.M.
9 A.M.
10 A.M.
11 A.M.
12 NOON
1 P.M.
2 P.M.
3 P.M.
4 P.M.
5 P.M.
6 P.M.
7 P.M.
8 P.M.
9 P.M.
10 P.M.
11 P.M.
12 NIGHT
1 A.M.
2 A.M.
3 A.M.

Adopted
1-1-65

NEW MEXICO OIL CONSERVATION COMMISSION

PACKER SETTING REPORT

I, Frank Brownson (*Name of party making report*), being of lawful age and having full knowledge of the facts hereinbelow set out do state:

That I am employed by HNG Oil Company in the capacity of Drilling Superintendent, that on 10-8, 19 80 I personally supervised the setting of a 4-½" TIW PBR (*Make & type of packer*) in HNG Oil Company (*Operator of well*), San Simon 6 State Com. (*Lease name*), Well no. 1 located in the Und. Wolfcamp field, Lea county, state of NM, at a subsurface depth of 10,782 feet, said depth measurement having been furnished me by drill pipe measurement;

That the purpose of setting this packer was to effect a seal in the annular space between two strings of pipe where the packer was set so as to prevent the commingling, in the bore of this well, of fluids produced from a stratum below the packer with fluids produced from a stratum above the packer; that this packer was properly set and that it did, when set, effectively and absolutely seal off the annular space between the two strings of pipe where it was set in such manner as that it prevented any movement of fluids across the packer.

(Signature)

District Drilling Superintendent
(*Title*)

December 9, 1980
(*Date*)

Adopted
1-1-65

NEW MEXICO OIL CONSERVATION COMMISSION

PACKER SETTING REPORT

I, Frank Brownson, being of lawful age and having full
Name of party making report
knowledge of the facts hereinbelow set out do state:

That I am employed by HNG Oil Company in the capacity of

Drilling Superintendent, that on 10-8, 1980

I personally supervised the setting of a 4" TIW PBR
Make & type of packer

in HNG Oil Company, San Simon 6 State Com.,
Operator of well *Lease name*

Well no. 1 located in the Und. Morrow field,

Lea county, state of NM, at a subsurface depth of

11,332 feet, said depth measurement having been furnished me by

drill pipe measurement;

That the purpose of setting this packer was to effect a seal in the annular space between two strings of pipe where the packer was set so as to prevent the commingling, in the bore of this well, of fluids produced from a stratum below the packer with fluids produced from a stratum above the packer; that this packer was properly set and that it did, when set, effectively and absolutely seal off the annular space between the two strings of pipe where it was set in such manner as that it prevented any movement of fluids across the packer.

(Signature)

District Drilling Superintendent
(Title)

December 9, 1980
(Date)

JARREL SERVICES, INC.

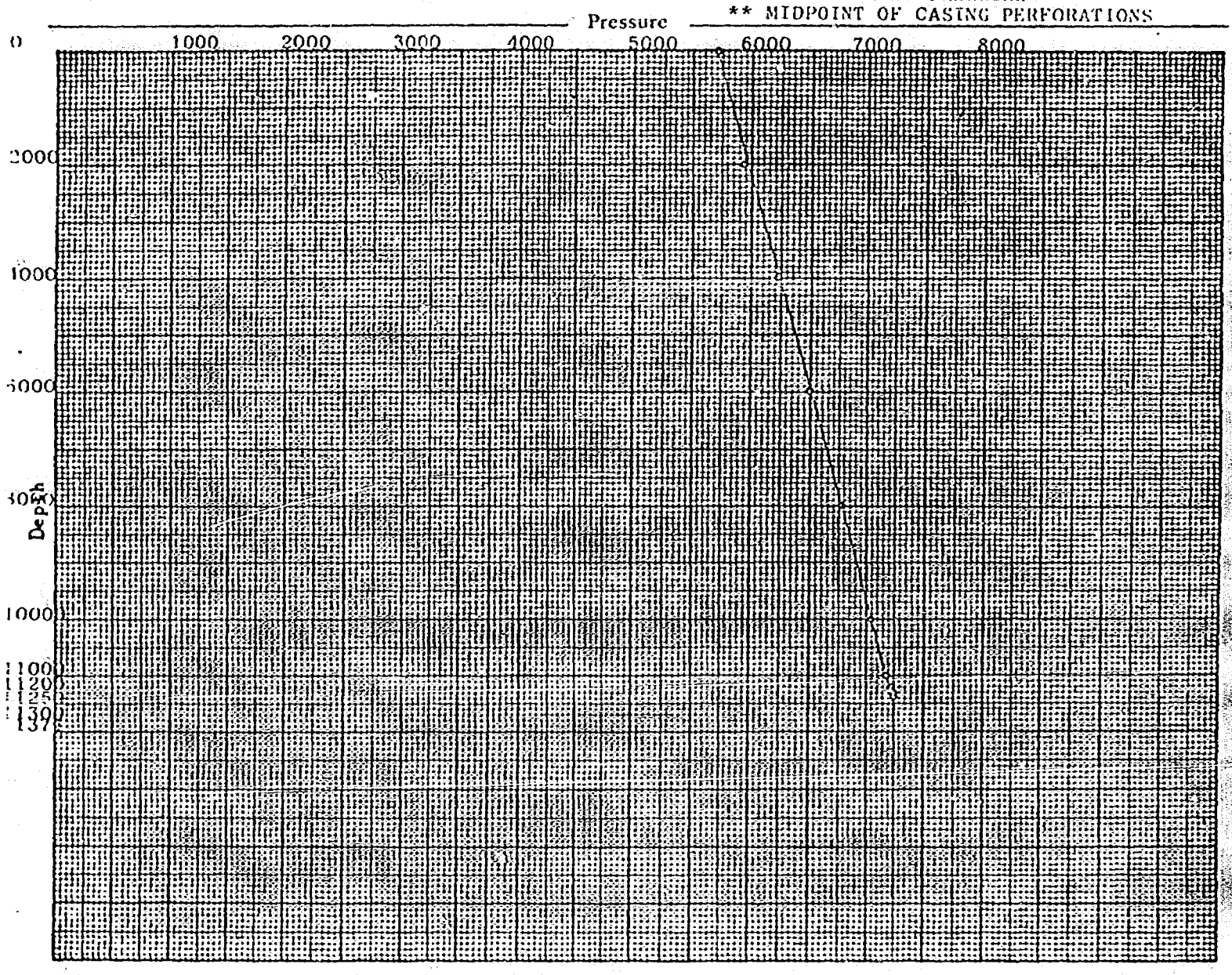
POST OFFICE BOX 1654 PHONES 505 393-5396 — 393-8274
HOBBS, NEW MEXICO 88240

OPERATOR HNG Oil Company
FIELD Undesignated
FORMATION Morrow
LEASE San Simon 6 State Com WELL #1
COUNTY Lea STATE New Mexico
DATE 12/17/80 TIME 9:30 AM
Status Shut in
Test Depth 11371'
Time S. I. 50 days Last test date 10/31/80
Tub Pres. 5705 BHP last test 7551
Cas. Pres. Dual BHP change 5# Gain
Elev. 3650'KB Fluid top None
Datum (-9474) ** Water top None
Temp. @ 162° F Run by JSI #10
Cal. No. A18473N Chart No. 1

BOTTOM HOLE PRESSURE RECORD

Depth		Pressure	Gradient
0		5705	–
2000		5944	.120
4000		6218	.137
6000		6492	.137
8000		6768	.138
10000		7044	.138
11000		7182	.138
11200		7210	.140
11250		7219	.180
11300		7228	.180
11371		7240	.180
13124	(-9474)	7556 * **	(.180)

* EXTRAPOLATED PRESSURE
** MIDPOINT OF CASING PERFORATIONS



JARREL SERVICES, INC.

POST OFFICE BOX 1654 PHONES 505 393-5396 — 393-8274

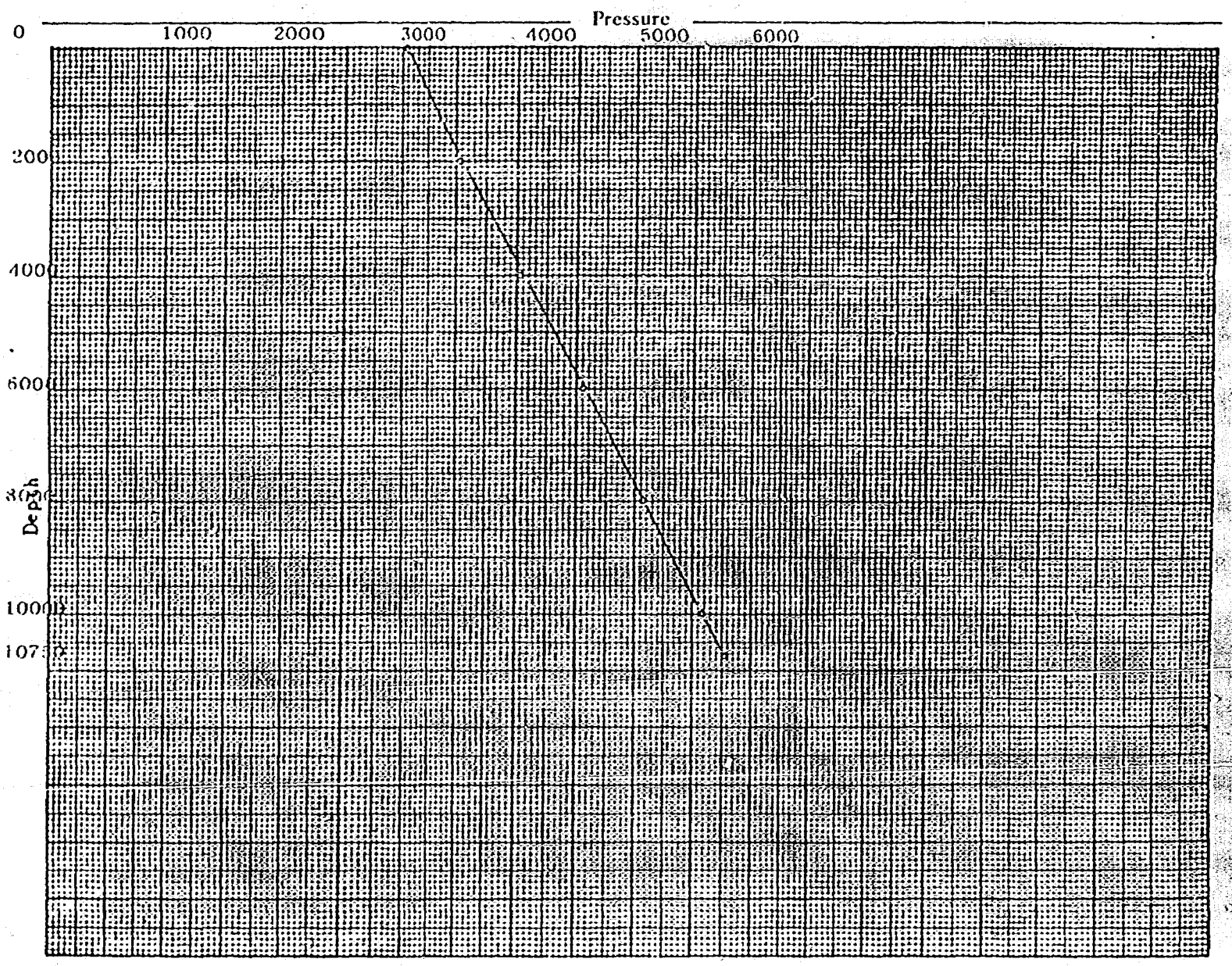
HOBBS, NEW MEXICO 88240

OPERATOR HNG OIL Company
FIELD Undesignated
FORMATION Wolfcamp
LEASE San Simon 6 State Com WELL #1
COUNTY Lea STATE New Mexico
DATE 12/17/80 TIME 12:15 PM
Status Shut in
Test Depth 10750'
Time S. I. 16 days Last test date 11/4/80
Tub Pres. 3036 BHP last test 5864
Cas. Pres. Dual BHP change 14# Gain
Elev. 3650'KB Fluid top Surface
Datum (-7493)** Water top None
Temp. @ 145° F Run by JSI #10
Cal. No. A18473N Chart No. 2

BOTTOM HOLE PRESSURE RECORD

Depth	Pressure	Gradient
0	3036	-
2000	3538	.251
4000	4048	.255
6000	4558	.255
8000	5070	.256
10000	5584	.257
10750	5777	.257
11143 (-7493)	5878 * **	(.257)

* EXTRAPOLATED PRESSURE
** MIDPOINT OF CASING PERFORATIONS



HAROLD L WILLIAMS CONSULTANTS, INC.
STRATIGRAPHY · PALEONTOLOGY
3307 NEELY 915/694-6908
MIDLAND, TEXAS 79703

December 30, 1980

Mr. Richard N. Mercurio
HNG Oil Company
P.O. Box 2267
Midland, TX 79702

Dear Mr. Mercurio:

This is the Paleontological Report requested by you on December 18, 1980. It covers the interval from 10,500 to 13,300 feet in the HNG Oil Company, San Simon State 6 Com No. 1, Lea County, New Mexico. Data were reported to you by telephone today.

Also enclosed is a Xerox copy of a lithologic log covering the same interval.

Thank you.

Very truly yours,

Harold L Williams
Harold L Williams

HLW/fw

BEFORE EXAMINER STAMETS
OIL CONSERVATION DIVISION
HNG EXHIBIT NO. 3
CASE NO. 7128
Submitted by MARTIN
Hearing Date 1/14/81

HAROLD L WILLIAMS CONSULTANTS, INC.
STRATIGRAPHY - PALEONTOLOGY
3307 NEELY 915/694-6908
MIDLAND, TEXAS 79703

December 30, 1980

Lea County, New Mexico
HNG Oil Company
San Simon State 6 Com No. 1
Sec. 6, T 22 S, R 35 E
1980 FNL & 660 FEL of section
Comp: 12-?-80 TD: 13,300 El: 3650 KB

10,500-10,680: No fossils found

10,680-10,710: Leonard fusulines, lower Leonard types
10,680-10,710: Schubertella cf. melonica

10,710-10,990: No fossils found

?: Suggested top Wolfcamp series by lithology

10,990-11,620: Wolfcamp fusulines, Hueco types
10,990-11,090: Upper Hueco types
10,990-11,000: Schwagerina
11,000-11,080: No fossils found
11,080-11,090: Schwagerina
11,090-11,200: No fossils found
11,200-11,620: Lower Hueco types
11,200-11,440: Schwagerina; Paraschwagerina in 11,250-60
11,440-11,500: No fossils found
11,500-11,620: Triticites; Paraschwagerina in 11,570-80

11,620-11,650: No fossils found

11,650: Suggested base Wolfcamp series by lithology

11,650: Suggested top lower Strawn limestone by lithology

11,650-11,750: No diagnostic fossils found

11,750-11,760: Lower Strawn fusulines
11,750-11,760: Fusulina
Chaetetes - coral indicative of Strawn

11,760-12,080: No diagnostic fossils found

12,080: Suggested top Atoka series by lithology

12,080-12,120: No diagnostic fossils found

12,120-12,460: Atoka fusulines, nondescript types
12,120-12,130: Paramillerella
12,130-12,390: No diagnostic fossils found
12,390-12,400: Millerella
12,400-12,450: No diagnostic fossils found
12,450-12,460: Paramillerella

12,460-12,780: Non-diagnostic fossils fragments - mostly algae, sponge spicules, crinoids

12,780: Suggested top Morrow series by lithology and regional correlations

12,780-12,870: Morrow fusulines
12,780-12,870: Millerella

12,870-13,300 TD: No fossils found

13,200-13,300 TD: "Barnett" shale by lithology

Samples were examined from 10,500 to 13,200 feet, total depth.

Respectfully submitted,

Harold L Williams
Harold L Williams

HLW/fw

HAROLD L WILLIAMS CONSULTANTS, INC.
STRATIGRAPHY · PALEONTOLOGY
3307 NEELY 915/694-6908
MIDLAND, TEXAS 79703

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Harold L Williams
Harold L Williams

HLW/fw

BEFORE EXAMINER STAMETS
OIL CONSERVATION DIVISION
HNG EXHIBIT NO. 3
CASE NO. 7128
Submitted by MARTIN
Hearing Date 1/14/81

HAROLD L WILLIAMS CONSULTANTS, INC.
STRATIGRAPHY · PALEONTOLOGY
3307 NEELY 915/694-6908
MIDLAND, TEXAS 79703

December 30, 1980

Lea County, New Mexico
HNG Oil Company
San Simon State 6 Com No. 1
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Samples were examined from 10,500 to 13,200 feet, total depth.

Respectfully submitted,

Harold L Williams
Harold L Williams

HLW/fw

Schlumberger

COMPENSATED NEUTRON FORMATION DENSITY

COMPENSATED NEUTRON-FORMATION DENSITY

COMPANY HNG OIL COMPANY

WELL SAN SIMON STATE "6" COM. #1

FIELD UNDESIGNATED MORROW

COUNTY LEA STATE NEW MEXICO

LOCATION: 1980' FNL & 660' FEL

API SERIAL NO. | SEC. 6 | TWP. 22-S | RANGE 35-E

Other Services: DLL, BHC

Elev.: K.B. 3650, D.F., G.L. 3629

Permanent Datum: G.L. Elev.: 3629

Log Measured From K.B. 21 Ft. Above Perm. Datum

Drilling Measured From K.B.

COUNTY LEA

FIELD UNDESIG. MORROW

LOCATION

WELL SAN SIMON STATE "6" COM. #1

COMPANY HNG OIL CO.

Date	9-5-80	10-3-80
Run No.	ONE	TWO
Depth—Driller	11014	13241
Depth—Logger	10952	13223
Btm. Log Interval	10990	13222
Top Log Interval	SURF	10998
Casing—Driller	9 5/8@5675	7 @ 11014 @
Casing—Logger	5664	10998 @
Bit Size	8 1/2	6 1/8
Type Fluid in Hole	WATER	SALT MUD
Dens. / Visc.	8.5 / 28	10.9 / 39
pH / Fluid Loss	8.5 / ml	9.0 / 20 ml
Source of Sample	PIT	PIT
Rm @ Meas. Temp.	.08 @ 81 °F	.094 @ 75 °F @ °F
Rmf @ Meas. Temp.	.08 @ 79 °F	.064 @ 82 °F @ °F
Rmc @ Meas. Temp.	@ °F	.13 @ 82 °F @ °F
Source: Rmf / Rmc	M /	M / C
Rm @ BHT	.043 @ 156 °F	.04 @ 172 °F @ °F
TIME: Circulation Stopped	0430	0100
TIME: Logger on Bottom	1145	0800
Max. Rec. Temp.	156 °F	172 °F °F
Equip. / Location	8075 / HOBBS	8185 / ROSWELL
Recorded By	NEUMANN	CAMPAIGN
Witnessed By	CHERRYHOMES	CHERRYHOMES

FOLD HERE

The well name, location and borehole reference data were furnished by the customer.

RUN NO.	ONE	TWO
Service Order No.	143273	
Fluid Level	120	FULL
Salinity, PPM Cl.	20000	100000
Speed - F.P.M.	30	30
EQUIPMENT DATA		
Dens. Panel	BB 482	200
Dens. Cart.	661	352
Dens. Skid.	1153	1161
Dens. Sonde	306	307
Dens. Source	3334	3425
Dens. Calibrator	696	184
Neut. Panel	BB 482	
Neut. Cart.	485	2090
Neut. Source	323	
Neut. Calibrator	549	2160
GR Cart.	1752	3003
Memorizer Panel	1057	
Tape Recorder (TTR)	B 1722	
Depth Encoder (DRE)		
Pressure Wheel (CPW)		
Centralizers: Enter Spring, Standoffs, In-line, or None — Type	::	BOWSPRING
Centralizers: Enter Spring, Standoffs, In-line, or None — No.	1 EA.	1
Centralizers: Enter Spring, Standoffs, In-line, or None — S. O. — Inches		

Type Log	Depth		

REMARKS:

RUN ONE: TYPE CENTRALIZERS: BOWSPRING & CALIPER

CALIBRATION DATA

GR	BKG. CPS	59	SEE CAL
GR	Source CPS	512	FILM
GR	Sens. - Cal	165	
GR	T. C. - Cal	1	
CNL	Short Spacing - Before Log	5728	
CNL	Long Spacing - Before Log	2568	
CNL	Short Spacing - After Log	5728	
CNL	Long Spacing - After Log	2558	
FDC	P¹ — Before Log	428	
FDC	P² — Before Log	705	
FDC	P¹ — After Log	426	
FDC	P² — After Log	716	

LOGGING DATA

DEPTH Top	DEPTH Bottom	CNP Porosity Scale	CNP Matrix	CNP Auto Corr. or Hole Size Setting	FDC Porosity Scale	FDC Grain Density	FDC Liquid Density	FDC Hole Fluid	GR Sens. Logged	GR T. C.	GR Zero. Div. Left	GR Scale Per 100 Div.
5664	10990	30 -10	LS-OH	AUTO	30 -10	2.71	1.0	LIQ	100	1	0	100
SURF	5664	30 -10	LS-CH						100	1	0	100
10998	13220	30 -10	LIME	AUTO	30 -10	2.71	1.10	NAT	100		0	100

All interpretations are opinions based on inferences from electrical or other measurements and we cannot, and do not guarantee the accuracy or correctness of any interpretations, and we shall not, except in the case of gross or wilful negligence on our part, be liable or responsible for any loss, costs, damages or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our General Terms and Conditions as set out in our current Price Schedule.

GR (GAPI)			DRHO(G/C3)	
100.0	200.0		-0.050	0.4500
CALI (IN)			NPHI( )	
6.000	16.00	Run 1	0.3000	-0.100
TEN (GAPI)			RHOB(G/C3)	

BEFORE EXAMINER STAMETS
OIL CONSERVATION DIVISION
HNG EXHIBIT NO. 6
CASE NO. 7128
Submitted by Holm
Hearing Date 1/14/81

CASE NO. 7128

EXHIBIT NO. 6

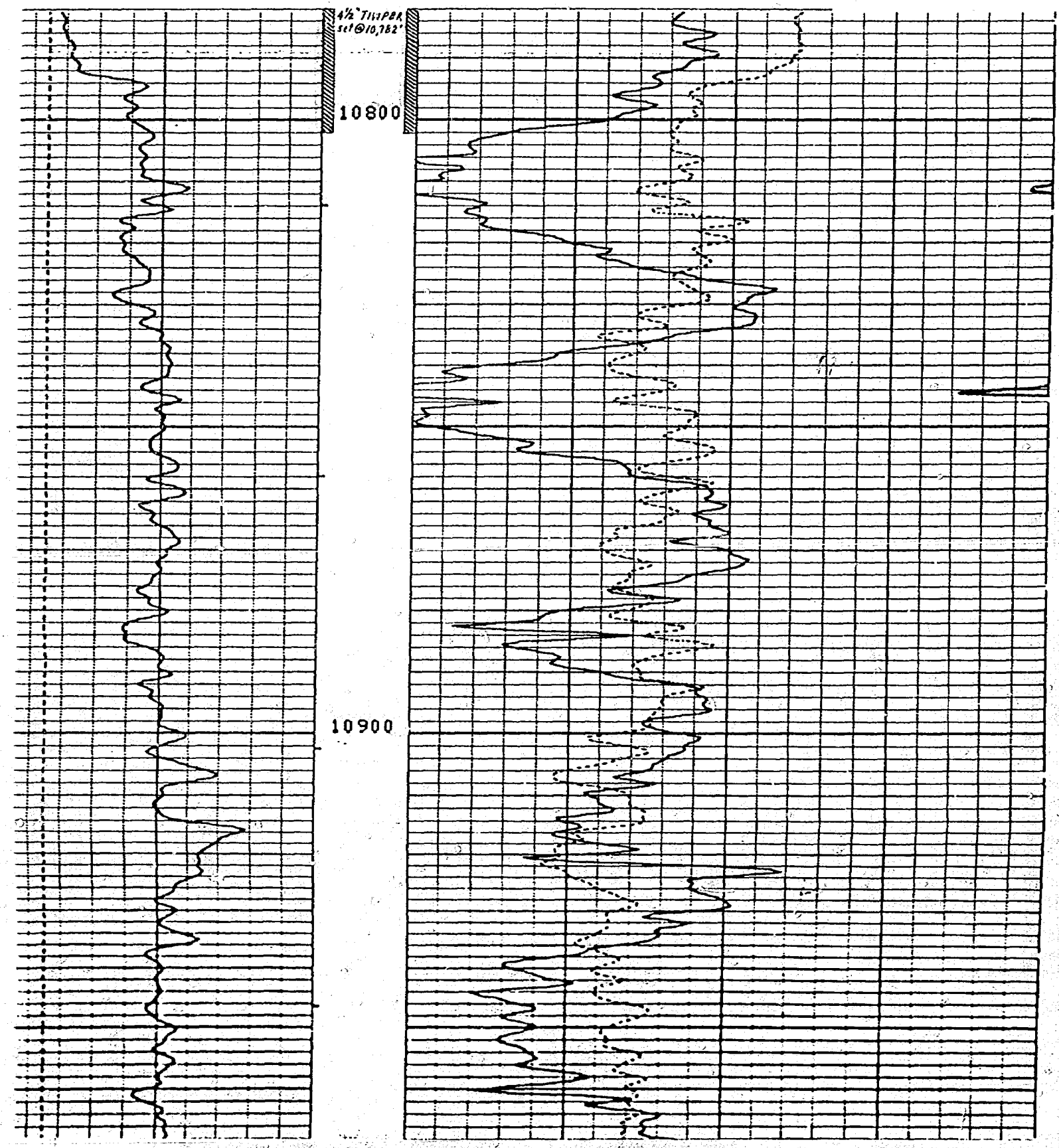
PARAMETERS

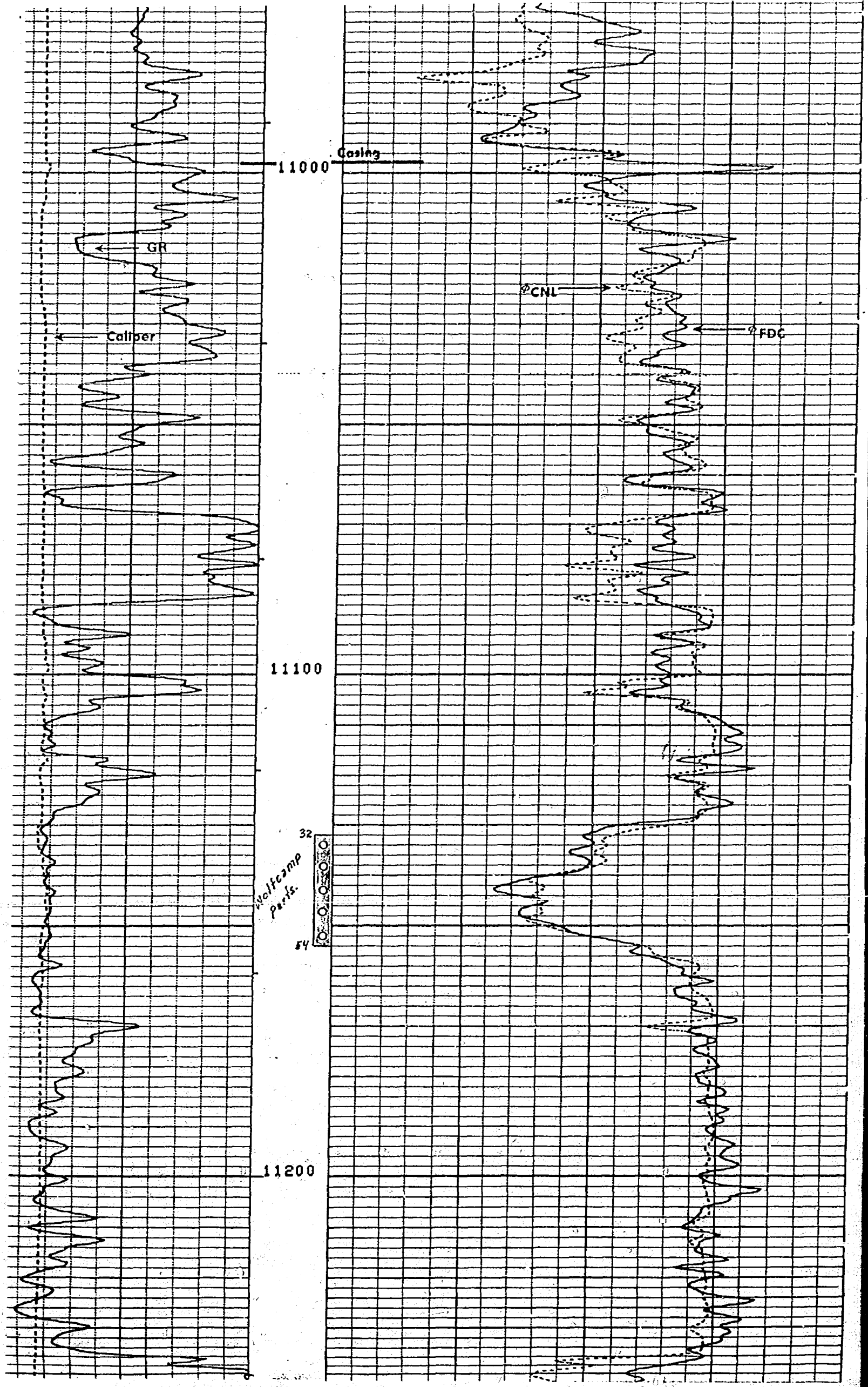
NAME	UNIT	VALUE	NAME	UNIT	VALUE	NAME	UNIT	VALUE
HC		CALI	PSNR		2.355	BS	INCH	6.125
MDEN	G/C3	2.710	FD	G/C3	1.100	MATR		LIME
BHF		WATE						
DD		0.0	BHS		OPEN	FPHI		PHIX

GR (GAPI)		NPHI( )
100.0 200.0	Run 2	0.3000 -0.100
CALI(IN)		DPHI( )
5.000 15.00		0.3000 -0.100
GR (GAPI)		
).0 100.0		

FILE

4

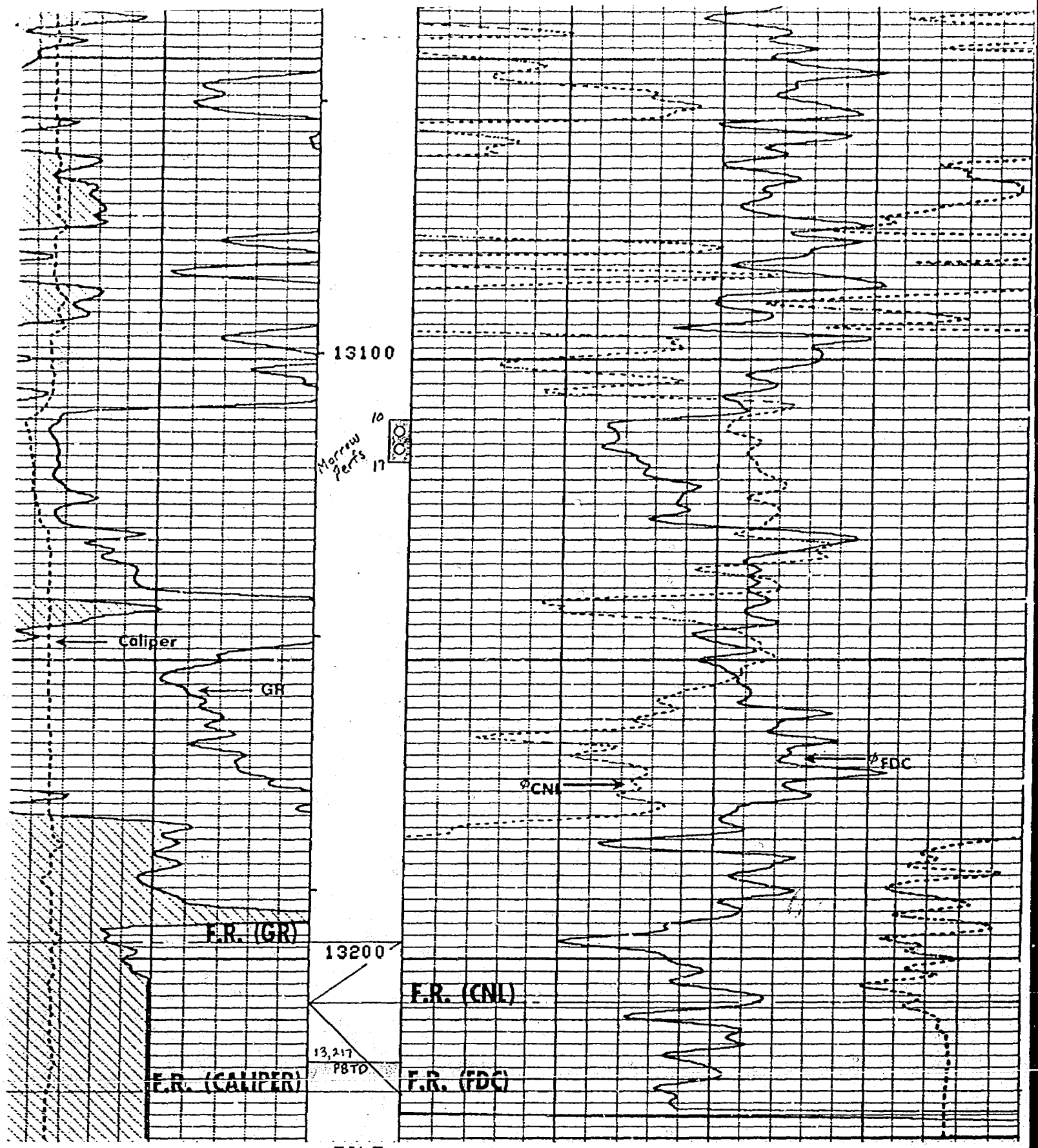



Casing
11000
GR
Caliper
ΦCNL
ΦFDC
11100
32
Volt-amp parts.
54
11200

11300

4"TIWPBR
@11,356'

11400



FILE

4

GR (GAPI)			
100.0	200.0		
CALI(IN)			NPHI( )
5.000	15.00	0.3000	-0.100
GR (GAPI)			DPHI( )
0.0	100.0	0.3000	-0.100

PARAMETERS

NAME	UNIT	VALUE	NAME	UNIT	VALUE	NAME	UNIT	VALUE
HC		CALI	PSNR		2.355	BS	INCH	6.125
MDEN	G/C3	2.710	FD	G/C3	1.100	MATR		LIME
BHF		WATE						
DD		0.0	BHS		OPEN	FPHI		PHIX

NEW MEXICO OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
APPLICATION FOR MULTIPLE COMPLETION

Form C-107
5-1-61

CASE No. 7128
EXHIBIT No. 7

Operator	County	Date
HNG Oil Company	Lea	12-1-80
Address	**Lease**	**Well No.**
P.O. Box 2267, Midland, Texas 79702	San Simon 6 State Com.	1

Location of Well	Unit	Section	Township	Range
	H	6	22S	35E

1. Has the New Mexico Oil Conservation Commission heretofore authorized the multiple completion of a well in these same pools or in the same zones within one mile of the subject well? YES_____ NO X

2. If answer is yes, identify one such instance: Order No._____; Operator Lease, and Well No.: _____

3. The following facts are submitted:	Upper Zone	Intermediate Zone	Lower Zone
a. Name of Pool and Formation	Und. Wolfcamp		Und. Morrow
b. Top and Bottom of Pay Section (Perforations)	11,132' - 11,154'		13,110' - 13,117'
c. Type of production (Oil or Gas)	Oil		Gas
d. Method of Production (Flowing or Artificial Lift)	Flowing		Flowing

4. The following are attached. (Please check YES or NO)

Yes	No	
X		a. Diagrammatic Sketch of the Multiple Completion, showing all casing strings, including diameters and setting depths, centralizers and/or turbolizers and location thereof, quantities used and top of cement, perforated intervals, tubing strings, including diameters and setting depth, location and type of packers and side door chokes, and such other information as may be pertinent.
X		b. Plat showing the location of all wells on applicant's lease, all offset wells on offset leases, and the names and addresses of operators of all leases offsetting applicant's lease.
X		c. Waivers consenting to such multiple completion from each offset operator, or in lieu thereof, evidence that said offset operators have been furnished copies of the application.*
X		d. Electrical log of the well or other acceptable log with tops and bottoms of producing zones and intervals of perforation indicated thereon. (If such log is not available at the time application is filed it shall be submitted as provided by Rule 112-A.)

5. List all offset operators to the lease on which this well is located together with their correct mailing address.

Exxon Company, USA, Box 1700, Midland, Texas 79702

Phillips Petroleum, Phillips Bldg., Odessa, Texas 79761

Northern Nat'l. Gas Co., 403 Wall Towers West, Midland, Texas 79701

Texaco, Inc., Box 3109, Midland, Texas 79702

Amerada Hess Corp., 2207 West Industrial, Midland, Texas 79701

Getty Oil Co., Box 1231, Midland, Texas 79702

6. Were all operators listed in Item 5 above notified and furnished a copy of this application? YES X NO_____. If answer is yes, give date of such notification December 1, 1980.

CERTIFICATE: I, the undersigned, state that I am the Regulatory Clerk of the HNG Oil (company), and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.

5. Amoco Prod. Co.
P.O. Box 1725
Midland, Texas 79702

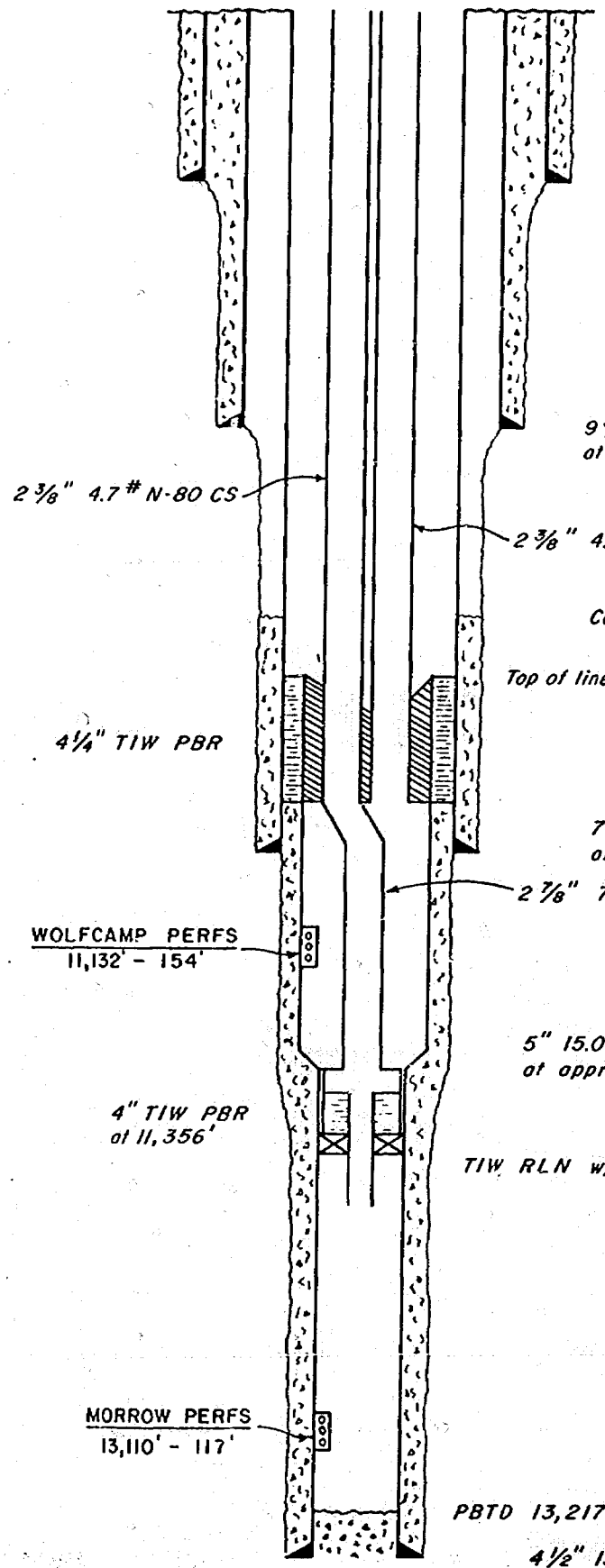
Betty A. Gildon
Signature

*Should waivers from all offset operators not accompany an application for administrative approval, the New Mexico Oil Conservation Commission will hold the application for a period of twenty (20) days from date of receipt by the Commission's Santa Fe office. If, after said twenty-day period, no protest nor request for hearing is received by the Santa Fe office, the application will then be processed.

NOTE: If the proposed multiple completion will result in an unorthodox well location and/or a non-standard proration unit in one or more of the producing zones, then separate application for approval of the same should be filed simultaneously with this application.

BEFORE EXAMINER STAMETS
OIL CONSERVATION DIVISION
HNG EXHIBIT NO. 8
CASE NO. 7128
Submitted by HOLM
Hearing Date 1/14/81

HNG OIL CO.
San Simon "6" No. 1



CASE NO. 7128
EXHIBIT NO. 8

JARREL SERVICES, INC.

POST OFFICE BOX 1654 PHONE 505 393-5396
HOBBS, NEW MEXICO 88240

CASE No. 7128.
EXHIBIT No. 9 a.

COMPANY: HNG Oil Company

WELL: San Simon 6 State Com, No. 1 FIELD: Undesignated - Wolf Camp

CHRONOLOGICAL PRESSURE DATA

DATE	STATUS OF WELL	TIME	ELASPED TIME HRS.	MIN.	SURFACE PRESSURE TBG	CSG	BHP @ (-7493) 11143'PSIG
1980							
11/	Shut in 18 days. Run Static Gradient w/Tandem Bombs & Set bombs @ 10750'	10:30 AM	-	-	3020 DWT	Dual	5890
	Started 1st Rate	10:45	0	15	3020	-	5890
	Finished 1st Rate & Started 2nd Rate	11:45	1	00	3017	-	5856
	Finished 2nd Rate & Started 3rd Rate	12:45	1	00	2997	-	5801
	Finished 3rd Rate & Started 4th Rate	1:45	1	00	2830	-	5759
	Finished 4th Rate & Fished bombs. Flowing Run Bombs to 10750' & Shut in for Buildup	2:45	1	00	2720	-	5674
	Shut in	4:00	1	15	2650	-	5603
	"	4:30	1	30	-	-	5650
	"	5:00	1	00	-	-	5664
	"	5:30	1	30	-	-	5688
	"	6:00	2	00	-	-	5705
	"	6:30	2	30	-	-	5726
	"	7:00	3	00	-	-	5736
	"	7:30	3	30	-	-	5749
	"	8:00	4	00	-	-	5760
	"	8:30	4	30	-	-	5773
	"	9:00	5	00	-	-	5787
	"	9:30	5	30	-	-	5794
	"	10:00	6	00	-	-	5804
	"	10:30	6	30	-	-	5807
	"	11:30	7	00	-	-	5578
11/1	"	12:00	8	00	-	-	5821
11/2	"	1:00 AM	9	00	-	-	5828
	"	2:00	10	00	-	-	5835
	"	3:00	11	00	-	-	5838
	"	4:00	12	00	-	-	5838
	"	6:00	14	00	-	-	5845
	"	8:00	16	00	-	-	5848
	"	10:00	18	00	-	-	5848
	"	12:00	20	00	-	-	5855
	"	2:00	22	00	-	-	5855
	"	4:00	24	00	-	-	5855
	"	6:00	26	00	-	-	5855
	"	8:00	28	00	-	-	5855
	"	10:00	30	00	-	-	5855
	"	3:00 PM	35	00	-	-	5855
11/2	"	8:00	40	00	-	-	5864

WELL: San Simon 6 [illegible]te Com, No. 1
PAGE: 2

DATE	STATUS OF WELL	TIME	ELASPED TIME HRS.	ELASPED TIME MIN.	SURFACE PRESSURE TBG	SURFACE PRESSURE CSG	BHP @ (-7493) 11143'PSIG
11/3	Shut in	1:00 AM	45	00	-	-	5864
	"	6:00	50	00	-	-	5864
	"	11:00	55	00	-	-	5864
	"	4:00 PM	60	00	-	-	5864
	"	9:00	65	00	-	-	5864
	Fished Bombs & Run Static Gradient	12:00 N	68	00	2978	-	5864

JARREL SERVICES, INC.

POST OFFICE BOX 1654 PHONES 505 393-5396 — 393-8274

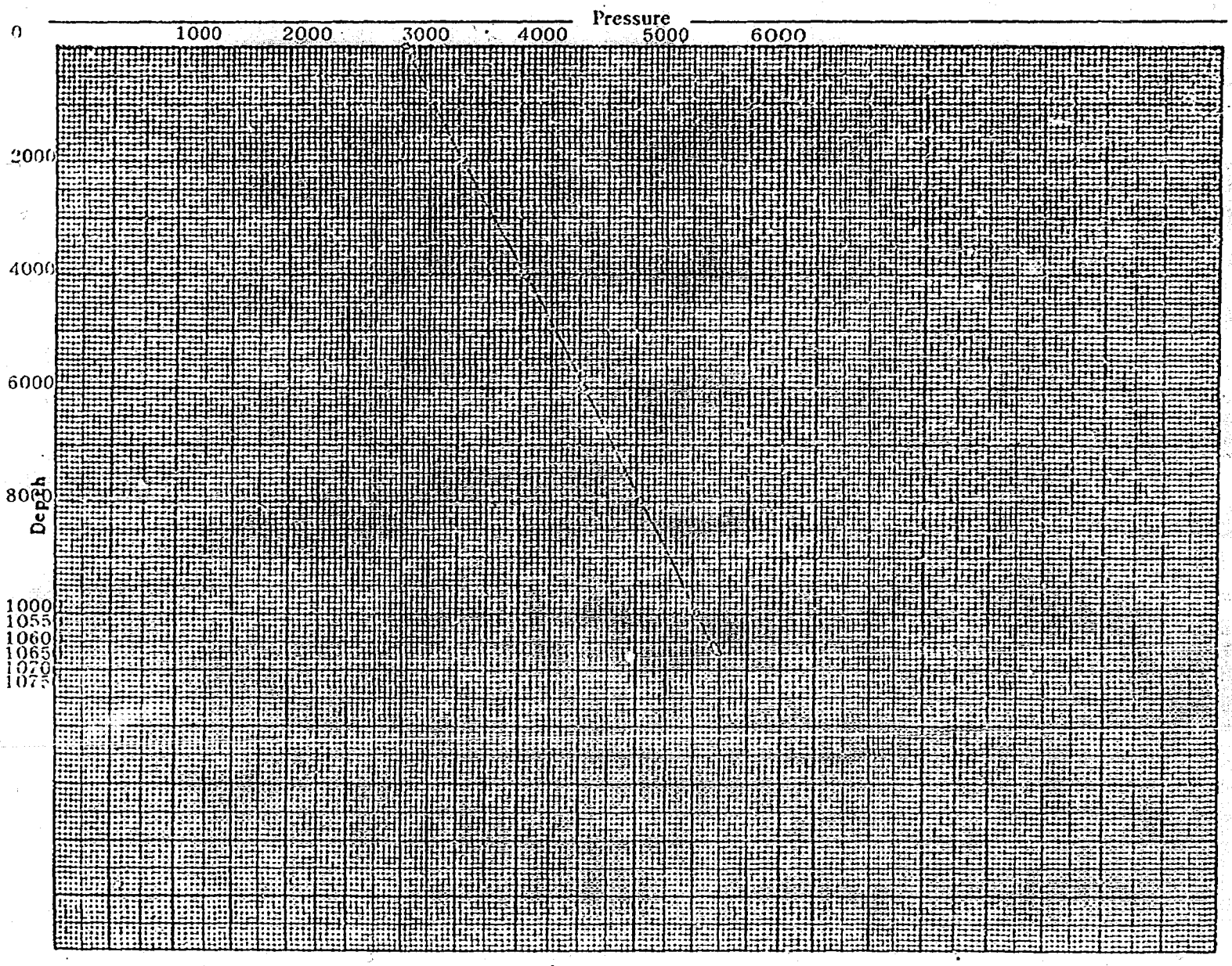
HOBBS, NEW MEXICO 88240

OPERATOR BNG Oil Company
FIELD Undesignated
FORMATION Wolf Camp
LEASE San Simon 6 State Com WELL #1
COUNTY Lea STATE New Mexico
DATE November 1, 1980 TIME 10:30 AM
Status Shut in
Test Depth 10750'
Time S. I. 18 days Last test date –
Tub Pres. 3020 DWT BHP last test –
Cas. Pres. Dual BHP change –
Elev. 3635'KB Fluid top Surface
Datum (-7493)** Water top None
Temp. @ 154°F Run by JSI #16
Cal. No. A36826N Chart No. 1

BOTTOM HOLE PRESSURE RECORD

Depth		Pressure	Gradient
0		3020	–
2000		3517	.249
4000		4023	.253
6000		4529	.253
8000		5039	.255
10000		5549	.255
10550		5703	.280
10600		5718	.300
10650		5734	.320
10700		5750	.320
10750		5766	.320
11143	(-7493)	5890 * **	(.320)

* EXTRAPOLATED PRESSURE
** MIDPOINT OF CASING PERFORATIONS



JARREL SERVICES, INC.

POST OFFICE BOX 1654 PHONES 505 393-5396 — 393-6274

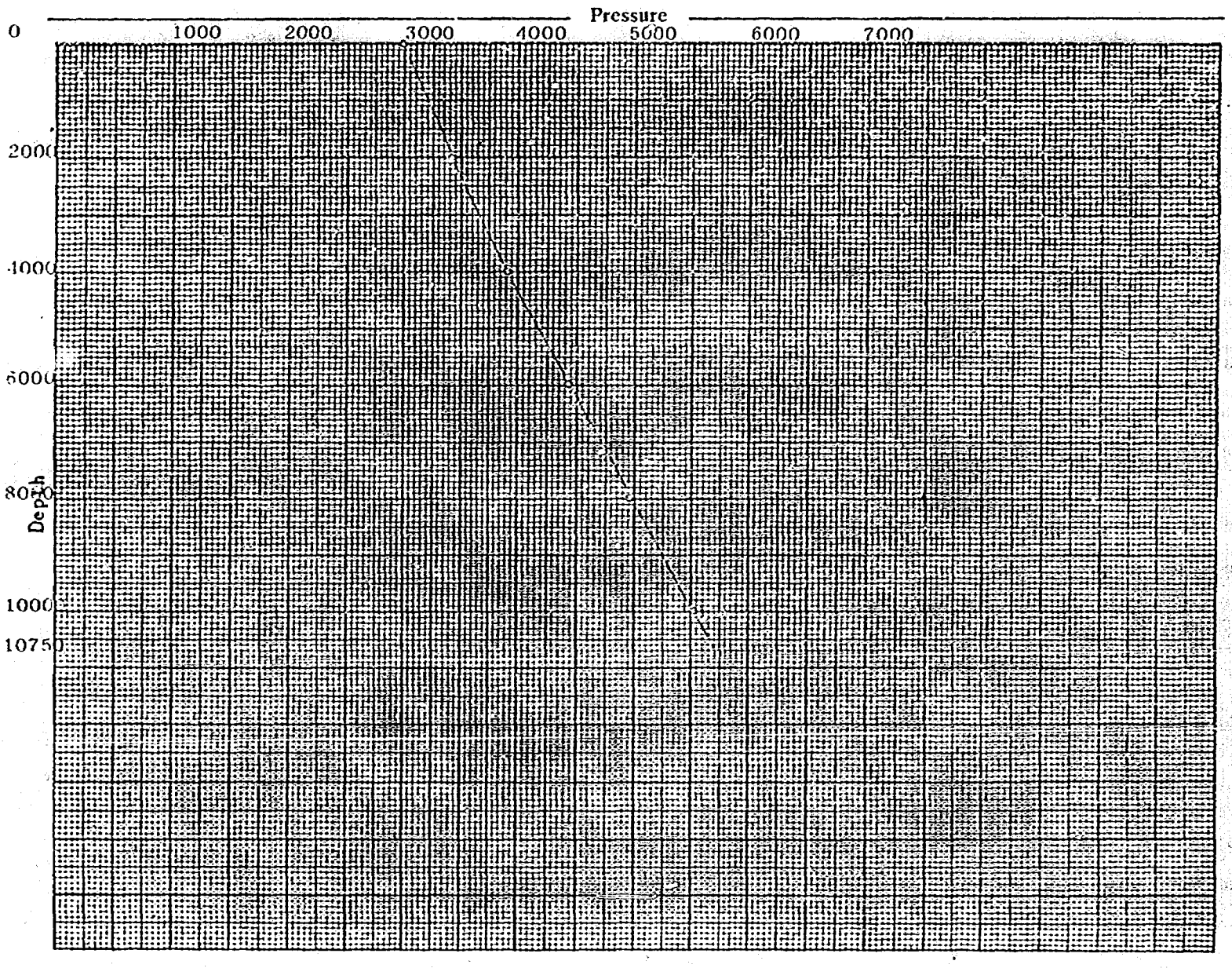
HOBBS, NEW MEXICO 88240

OPERATOR HNG Oil Company
FIELD Undesignated
FORMATION Wolf Camp
LEASE San Simon 6 State Com WELL #1
COUNTY Lea STATE New Mexico
DATE 11/4/80 TIME 12:00 N
Status Shut in
Test Depth 10750'
Time S. I. 68.0 hrs. Last test date 11/1/80
Tub Pres. 2978 BHP last test 5890
Cas. Pres. Dual BHP change 26# Loss
Elev. 3650'KB Fluid top Surface
Datum (-7493)** Water top None
Temp. @ 154°F Run by JSI #20
Cal. No. A14418N Chart No. 2

BOTTOM HOLE PRESSURE RECORD

Depth	Pressure	Gradient
0	2978	-
2000	3401	.212
4000	3901	.250
6000	4421	.260
8000	4961	.270
10000	5521	.280
10750	5746	.300
11143 (-7493)	5864 * (5872) **	(.300) (.320)

* EXTRAPOLATED PRESSURE
** MIDPOINT OF CASING PERFORATIONS



JARREL SERVICES, INC.

POST OFFICE BOX 1654 PHONE 505 393-5396
HOBBS, NEW MEXICO 88240

CASE No. 7128
EXHIBIT No. 9 b.

COMPANY: HNG Oil Company

WELL: San Simon 6 State Com, No. 1 FIELD: Undesignated - Morrow

CHRONOLOGICAL PRESSURE DATA

DATE 1980	STATUS OF WELL	TIME	ELASPED TIME HRS.	MIN.	SURFACE PRESSURE TBG	CSG	BHP @ (-9474) 13124' PSIG
10/23	Shut in 9.0 days Run Static Gradient to 10000'	12:30 PM	-	-	5660	Dual	7460
10/31	Shut in 17.0 days Run Static Gradient to 11371'	1:00 PM	-	-	5668 DWT	Dual	7551
	Started 1st Rate	1:15	0	15	5668	-	7551
	Finished 1st Rate & Started 2nd Rate	2:15	1	00	5602	-	7478
	Finished 2nd Rate & Started 3rd Rate	3:15	1	00	5777	-	7431
	Finished 3rd Rate & Started 4th Rate	4:15	1	00	5010	-	7350
	Finished 4th Rate & Fished Bombs Flowing. Run Bombs to 11371' & Shut in for Buildup.	5:15	1	00	4712	-	7288
	Shut in	6:40	1	00	4770	-	7304
	"	7:10	0	30	-	-	7491
	"	7:40	1	00	-	-	7491
	"	8:40	2	00	-	-	7481
	"	9:40	3	00	-	-	7481
	"	10:40	4	00	-	-	7477
	"	11:40	5	00	-	-	7463
11/1	"	12:40	6	00	-	-	7463
	"	1:40 AM	7	00	-	-	7458
	"	2:40	8	00	-	-	7454
	"	3:40	9	00	-	-	7449
	"	4:40	10	00	-	-	7440
	"	5:40	11	00	-	-	7431
	"	6:40	12	00	-	-	7421
	"	7:40	13	00	-	-	7417
	"	8:40	14	00	-	-	7417
	"	9:40	15	00	-	-	7421
	"	10:40	16	00	-	-	7421
	"	11:40	17	00	-	-	7426
	"	12:40	18	00	-	-	7426
	"	1:40	19	00	-	-	7435
	"	2:40	20	00	-	-	7435
	"	3:40	21	00	-	-	7440
	"	4:40	22	00	-	-	7440
	"	5:40	23	00	-	-	7449
	"	6:40	24	00	-	-	7449
	"	7:40	25	00	-	-	7449
	"	8:40	26	00	-	-	7454

WELL: San Simon 6 State Com. No. 1
PAGE: 2

DATE	STATUS OF WELL	TIME	ELASPED TIME HRS.	ELASPED TIME MIN.	SURFACE PRESSURE TBG	SURFACE PRESSURE CSG	BHP @ (-9474) 13124'PSIG
	Shut in	9:40	27	00	-	-	7454
	"	10:40	28	00	-	-	7463
	"	11:40	29	00	-	-	7463
	"	12:40	30	00	-	-	7463
11/2/80	"	2:40 AM	32	00	-	-	7476
	"	4:40	34	00	-	-	7477
	"	6:40	36	00	-	-	7435
	"	8:40	38	00	-	-	7491
	"	10:40	40	00	-	-	7500
	"	12:40	42	00	-	-	7505
	"	2:40 PM	44	00	-	-	7509
	"	4:40	46	00	-	-	7514
	"	6:40	48	00	-	-	7519
	"	8:40	50	00	-	-	7526
	"	10:40	52	00	-	-	7532
	"	12:40	54	00	-	-	7537
11/3	"	2:40 AM	56	00	-	-	7546
	"	4:40	58	00	-	-	7551
	"	6:40	60	00	-	-	7556
	"	8:40	62	00	-	-	7564
	"	10:40	64	00	-	-	7569
	"	12:40	66	00	-	-	7584
	"	2:40 PM	68	00	-	-	7584
	Fished Bombs & Run Static Gradient	4:40 PM	70	00	5696	-	7584

JARREL SERVICES, INC.

POST OFFICE BOX 1654 PHONES 505 393-5396 — 393-8274

HOBBS, NEW MEXICO 88240

BOTTOM HOLE PRESSURE RECORD

OPERATOR HNG Oil Company
FIELD Undesignated
FORMATION Morrow
LEASE San Simon 6 State Com WELL#1
COUNTY Lea STATE New Mexico
DATE 11/4/80 TIME 4:40 PM
Status Shut in
Test Depth 11371'
Time S. I. 70 hrs. Last test date 10/31/80
Tub Pres. 5696 BHP last test 7551
Cas. Pres. Dual BHP change 33# Gain
Elev. 3650'KB Fluid top None
Datum (-9474)** Water top None
Temp. @ 172°F Run by JSI #20
Cal. No. A14418N Chart No. 2

Depth		Pressure	Gradient
0		5696	-
2000		5978	.141
4000		6258	.140
6000		6538	.140
8000		6814	.138
10000		7085	.135
11000		7220	.135
11200		7242	.110
11250		7251	.180
11300		7260	.180
11371		7269	.180
13124	(-9474)	7584 * **	(.180)

* EXTRAPOLATED PRESSURE
** MIDPOINT OF CASING PERFORATIONS

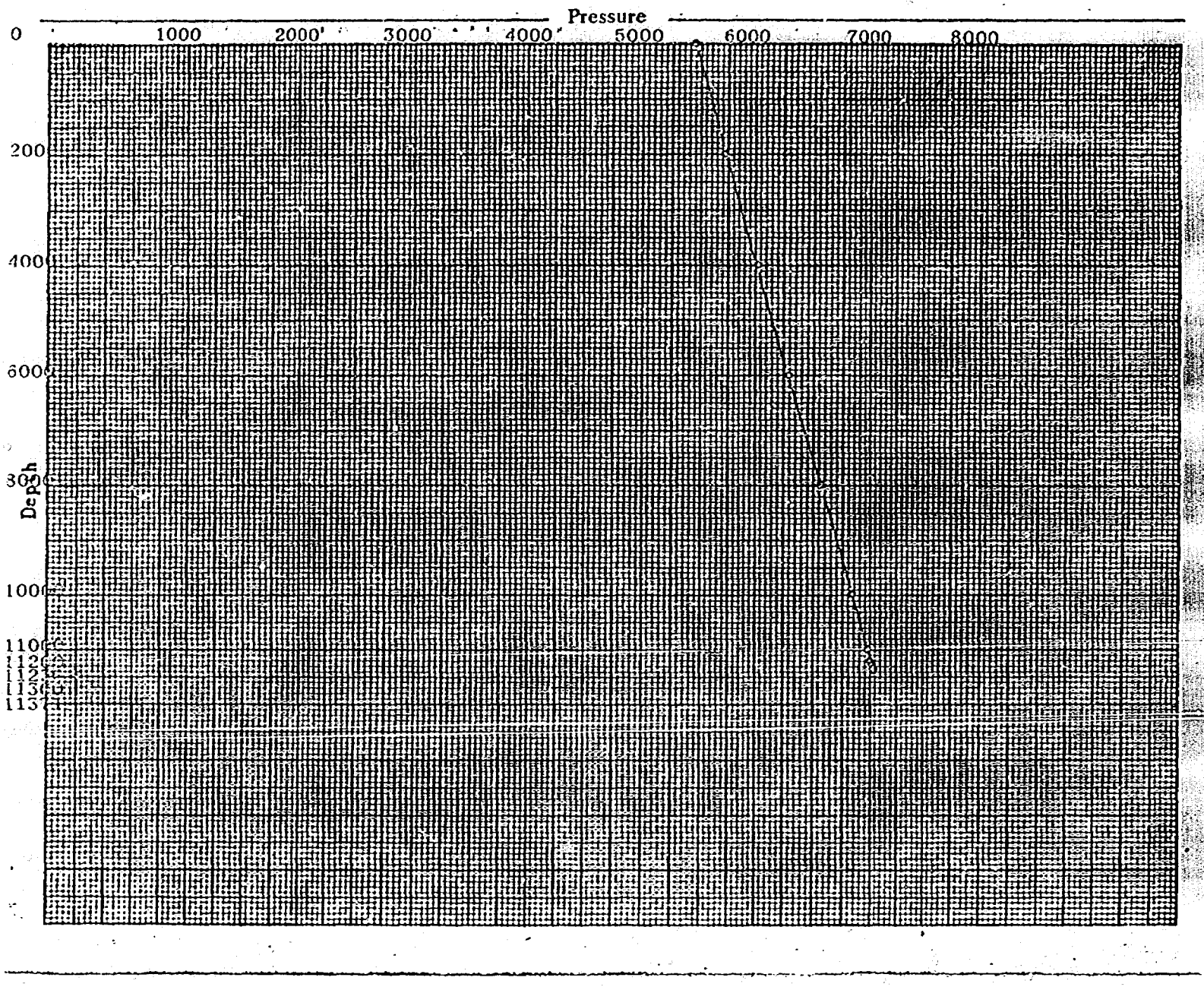


EXHIBIT No. 9 C

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TO CORRECT GAS VOLUME AND GOR

Form C-105
Revised 1-1-65

NEW MEXICO OIL CONSERVATION COMMISSION

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

CASE No. 7128

5a. Indicate Type of Lease: State [X] Fee [ ]

5. State Oil & Gas Lease No.: LG 893 & LG 3609

1a. TYPE OF WELL: OIL WELL [X] GAS WELL [ ] DRY [ ] OTHER

b. TYPE OF COMPLETION: NEW WELL [X] WORK OVER [ ] DEEPEN [ ] PLUG BACK [ ] DIFF. RESVR. [ ] OTHER

7. Unit Agreement Name:

8. Farm or Lease Name: San Simon 6 State Com

2. Name of Operator: MNG Oil Company

9. Well No.: 1

3. Address of Operator: P.O. Box 2267, Midland, Texas 79702

10. Field and Pool, or Wildcat: Und. Wolfcamp

4. Location of Well: UNIT LETTER H LOCATED 1980 FEET FROM THE North LINE AND 660 FEET FROM THE East LINE OF SEC. 6 TWP. 22S RGE. 35E NMPM

12. County: Lea

15. Date Spudded	16. Date T.D. Reached	17. Date Compl. (Ready to Prod.)	18. Elevations (DF, RKB, RT, GR, etc.)	19. Elev. Cashinghead
8-10-80	10-4-80	10-31-80	3628.8' GR	3628.8'

20. Total Depth	21. Plug Back T.D.	22. If Multiple Compl., How Many	23. Intervals Drilled By	Rotary Tools	Cable Tools
13,300 '	13,217'	2	→	X	

24. Producing Interval(s), of this completion — Top, Bottom, Name: 11,132 - 11,154 (Wolfcamp)

25. Was Directional Survey Made: No

26. Type Electric and Other Logs Run: Dual Laterlog BHC Sonic, Compensated Neutron Formation Density

27. Was Well Cored: No

28. CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT LB./FT.	DEPTH SET	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
13-3/8	48#	1085	17-1/2	1450 sx C1C	Circ.
9-5/8	36#	5687	12-1/4	500 C1C & 2950 Pacesetter lite	
7	23#	11014	8-1/2	400 pacesetter lite & 350 C1H	

29. LINER RECORD

SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN
4-½ & 5"	10,782'	13,300	400 C1H	

30. TUBING RECORD

SIZE	DEPTH SET	PACKER SET
2-3/8"	10,782'	10,782'

31. Perforation Record (Interval, size and number)

11,132 - 11,154 (.38" 12)

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL	AMOUNT AND KIND MATERIAL USED
11,132 - 11,154	3000 gals 15% spearhead acid

33. PRODUCTION

Date First Production	Production Method (Flowing, gas lift, pumping - Size and type pump)	Well Status (Prod. or Shut-in)
11-1-80	Flowing	SI

Date of Test	Hours Tested	Choke Size	Prod'n. For Test Period →	Oil - Bbl.	Gas - MCF	Water - Bbl.	Gas - Oil Ratio
11-1-80	4	9/64"		67.93	84.3	0	1240

Flow Tubing Press.	Casing Pressure	Calcul ated 24-Hour Rate →	Oil - Bbl.	Gas - MCF	Water - Bbl.	Oil Gravity - API (Corr.)
2850	-		407.58	505.6	0	46.9°

34. Disposition of Gas (Sold, used for fuel, vented, etc.): Vented

Test Witnessed By:

35. List of Attachments: Log attached to Morrow completion

36. I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief.

SIGNED Betty A. Gildon TITLE Regulatory Clerk DATE 12-15-80

INSTRUCTIONS

This form is to be filed with the appropriate District Office of the Commission not later than 20 days after the completion of any newly-drilled or deepened well. It shall be accompanied by one copy of all electrical and radioactivity logs run on the well and a summary of all special tests conducted, including drill stem tests. All depths reported shall be measured depths. In the case of directionally drilled wells, true vertical depths shall also be reported. For multiple completions, Items 33 through 34 shall be reported for each zone. The form is to be filed in quintuplicate except on state land, where six copies are required. See Rule 1105.

INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE

Southeastern New Mexico				Northwestern New Mexico			
T. Anhy		T. Canyon		T. Ojo Alamo		T. Penn. "B"	
T. Salt		T. Strawn	11631	T. Kirtland-Fruitland		T. Penn. "C"	
B. Salt		T. Atoka	12128	T. Pictured Cliffs		T. Penn. "D"	
T. Yates		T. Miss		T. Cliff House		T. Leadville	
T. 7 Rivers		T. Devonian		T. Menefee		T. Madison	
T. Queen		T. Silurian		T. Point Lookout		T. Elbert	
T. Grayburg		T. Montoya		T. Mancos		T. McCracken	
T. San Andres		T. Simpson		T. Gallup		T. Ignacio Qtzte	
T. Glorieta		T. McKee		Base Greenhorn		T. Granite	
T. Paddock		T. Ellenburger		T. Dakota		T.	
T. Blinebry		T. Gr. Wash		T. Morrison		T.	
T. Tubb		T. Granite		T. Todilto		T.	
T. Drinkard		T. Delaware Sand		T. Entrada		T.	
T. Abo		T. Bone Springs	8360	T. Wingate		T.	
T. Wolfcamp	Reef 11086	T. 3rd/ "	10794	T. Chinle		T.	
T. Penn.	11472	T. Morrow Lime	12654	T. Permian		T.	
T Cisco (Bough C)		T. Morrow Clastics	12828	T. Penn. "A"		T.	

OIL OR GAS SANDS OR ZONES

No. 1, from Wlfcp 11,132' to 11,154' No. 4, from ..... to .....

No. 2, from ..... to ..... No. 5, from ..... to .....

No. 3, from ..... to ..... No. 6, from ..... to .....

IMPORTANT WATER SANDS

Include data on rate of water inflow and elevation to which water rose in hole.

No. 1, from None to ..... feet. .....

No. 2, from ..... to ..... feet. .....

No. 3, from ..... to ..... feet. .....

No. 4, from ..... to ..... feet. .....

FORMATION RECORD (Attach additional sheets if necessary)

From	To	Thickness in Feet	Formation	From	To	Thickness in Feet	Formation
0	8360	8360	Gravel & Redbeds				
8360	10794	2434	Bone Springs				
10794	11086	292	3rd/ Bone Spring Sand				
11086	11472	386	Wolfcamp Reef				
11472	11631	159	Pennsylvanian				
11631	12128	497	Strawn				
12128	12654	526	Atoka				
12654	12828	174	Morrow lime				
12828	13300	472	Morrow Clastics				

BEFORE EXAMINER STAMETS
OIL CONSERVATION DIVISION
~~HNG~~ EXHIBIT NO. 9c
CASE NO. 7128
Submitted by HOLM
Hearing Date 1/12/81

EXHIBIT No. 9

NEW MEXICO OIL CONSERVATION COMMISSION
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised C-1-6

CASE No. 7128

Type Test: [X] Initial [ ] Annual [ ] Special — Test Date: 10/31/80

Company: HNG Oil Company	Connection: None		
Pool: Undesignated	Formation: Morrow		Unit
Completion Date: 10/31/80	Total Depth: –	Plug Back TD: 13217'	Elevation: 3650'KB
Csg. Size: 7" / 5" / 4½"	Wt.: 23 / 15 / 13.5	d: 6.366 / 4.408 / 3.920	Set At: 11014 / 11332 / 13300
Tbg. Size: 2 3/8"	Wt.: 4.70	d: 1.995	Set At: 10782

Perforations: From 13110 To 13117

Perforations: From Open ended To

Farm or Lease Name: San Simon 6 State Com

Well No.: 1

Unit: H — Sec.: 6 — Twp.: 22S — Rge.: 35E

County: Lea

State: New Mexico

Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Dual

Packer Set At: 11332'

Producing Thru	Reservoir Temp. °F	Mean Annual Temp. °F	Baro. Press. – P_a
Tubing	172 @ 13124'	60	13.2

L	H	Gg	% CO_2	% N_2	% H_2S	Prover	Meter Run	Taps
13114	–	0.654	0.47	0.20	0.00		6 X 1.500	F

FLOW DATA / TUBING DATA / CASING DATA

NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h_w	Temp. °F	Press. p.s.i.gDWT	Temp. °F	Press. p.s.i.g.	Temp. °F	Duration of Flow
SI											
1.	6	4/64	1.500				5668				
2.	6	6/64	1.500	520	5	98	5602	74			17 days
3.	6	8.5/64	1.500	480	12	96	5577	73	PACKER		1.0 hr
4.	6	10/64	1.500	470	28	81	5010	74			1.0 hr
5.				410	50	72	4712	74			1.0 hr.
											1.0 hr

RATE OF FLOW CALCULATIONS

NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P_m	Flow Temp. Factor Ft.	Gravity Factor Fg	Super Compress. Factor, Fpv	Rate of Flow Q, Mcfd
1	10.70	51.63	533.2	0.9653	1.237	1.042	687.36
2	10.70	76.85	493.2	0.9671	1.237	1.039	1022.08
3	10.70	116.27	483.2	0.9804	1.237	1.042	1572.14
4	10.70	145.43	423.2	0.9887	1.237	1.040	1979.27
5							

NO.	P_t	Temp. °R	T_f	Z
1	0.79	558	1.50	0.921
2	0.73	556	1.50	0.927
3	0.72	541	1.46	0.921
4	0.63	532	1.43	0.924
5				

Gas Liquid Hydrocarbon Ratio 20.70 Mcf/bbl.

A.P.I. Gravity of Liquid Hydrocarbons 56.0 Deg.

Specific Gravity Separator Gas 0.654 XXXXXXXXX

Specific Gravity Flowing Fluid XXXXX

Critical Pressure 673 P.S.I.A. ____ P.S.I.A.

Critical Temperature 371 R ____ R

P_c 7564.2 P_c^2 57217.1

NO	P_t	P_w *	P_w^2	$P_c^2 - P_w^2$
1		7491.2	56118.1	1099.0
2		7444.2	55416.1	1801.0
3		7363.2	54201.0	3016.1
4		7301.2	53307.5	3909.6
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2}$ = 52.063 (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n$ = 25.967

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n$ = 17849

Absolute Open Flow 17849 Mcfd @ 15.025 Angle of Slope θ 50° 31' Slope, n 0.824

Remarks: * BOTTOM HOLE PRESSURE * (-9474) 13124' USED FOR PRESSURE CALCULATIONS
63.54 BO/D – 10.59 BO DURING TEST

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	JARREL SERVICES, INC.	Joe A. Coleman	Joe A. Coleman

COMPANY: HNG Oil Company

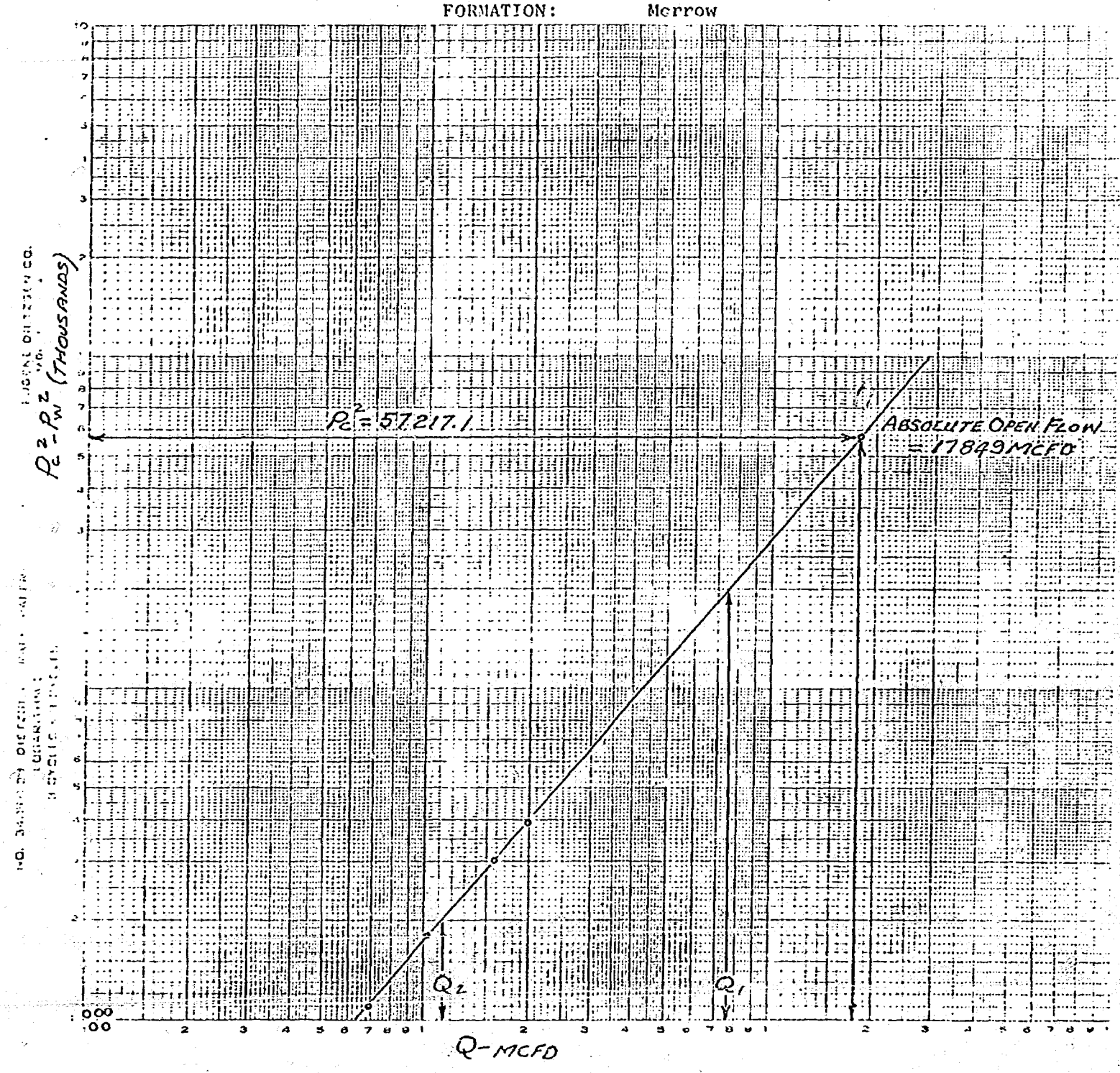
WELL: San Simon 6 State Com, No. 1

LOCATION: H 6 22s 35e

COUNTY: Lea

DATE: October 31, 1980

FORMATION: Morrow



$Q_1 = 7500$ MCFD; LOG $Q_1 = 3.87506$

$Q_2 = 1125$ MCFD; LOG $Q_2 = 3.05115$

$n = 0.82391 = 0.824$

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Form C-105
Revised 11-1-58

NEW MEXICO OIL CONSERVATION COMMISSION
WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5a. Indicate Type of Lease: State [X] Fee [ ]

5. State Oil & Gas Lease No.: LG 893 & LG 3609

1a. TYPE OF WELL: OIL WELL [ ] GAS WELL [X] DRY [ ] OTHER

1b. TYPE OF COMPLETION: NEW WELL [X] WORK OVER [ ] DEEPEN [ ] PLUG BACK [ ] DIFF. RESVR. [ ] OTHER

7. Unit Agreement Name:

8. Farm or Lease Name: San Simon 6 State Com

2. Name of Operator: HNG Oil Company

9. Well No.: 1

3. Address of Operator: P.O. Box 2267, Midland, Texas 79702

10. Field and Pool, or Wildcat: Und. Morrow

4. Location of Well: UNIT LETTER H LOCATED 1980 FEET FROM THE North LINE AND 660 FEET FROM THE East LINE OF SEC. 6 TWP. 22S RGE. 35E NMPM

12. County: Lea

15. Date Spudded	16. Date T.D. Reached	17. Date Compl. (Ready to Prod.)	18. Elevations (DF, RKB, RT, GR, etc.)	19. Elev. Cashinghead
8-10-80	10-4-80	10-31-80	3628.8' GR	3628.8'

20. Total Depth	21. Plug Back T.D.	22. If Multiple Compl., How Many	23. Intervals Drilled By	Rotary Tools	Cable Tools
13,300'	13,187'	2	→	X	

24. Producing Interval(s), of this completion -- Top, Bottom, Name: 13,110 - 13,117 (Morrow)

25. Was Directional Survey Made: No

26. Type Electric and Other Logs Run: Dual Laterlog BHC Sonic, Compensated Neutron Formation Density

27. Was Well Cored: No

28. CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT LB./FT.	DEPTH SET	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
13-3/8	48#	1085	17-1/2	1450 sx C1C	Circ.
9-5/8	36#	5687	12-1/4	500 C1C & 2950 Pacesetter lite	
7"	23#	11014	8-1/2	400 Pacesetter lite & 350 C1H	

29. LINER RECORD

SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN
4-1/2 & 5"	10,782	13,300	400 C1H	

30. TUBING RECORD

SIZE	DEPTH SET	PACKER SET
2-3/8"	10782	11,332

31. Perforation Record (Interval, size and number): 13,110 - 13,117 (.38" 8)

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL	AMOUNT AND KIND MATERIAL USED
13,110-13,117	3000 gals 7-1/2% MS Acid

33. PRODUCTION

Date First Production	Production Method (Flowing, gas lift, pumping - Size and type pump)	Well Status (Prod. or Shut-in)
10-13-80	Flowing	Shut - in

Date of Test	Hours Tested	Choke Size	Prod'n. For Test Period →	Oil - Bbl.	Gas - MCF	Water - Bbl.	Gas - Oil Ratio
10-13-80	24	10/64		70	2300	244	33

Flow Tubing Press.	Casing Pressure	Calculated 24-Hour Rate →	Oil - Bbl.	Gas - MCF	Water - Bbl.	Oil Gravity - API (Corr.)
4500	-					56.0

34. Disposition of Gas (Sold, used for fuel, vented, etc.): Vented

Test Witnessed By:

35. List of Attachments: Form C-122, Inclination Report, and 1 set of logs- The other set of logs was sent to Santa Fe along with Form C-107

36. I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief.

SIGNED Betty A. Gildon Betty A. Gildon TITLE Regulatory Clerk DATE 12-3-80

INSTRUCTIONS

This form is to be filed with the ... District Office of the Commission not later than ... days after the completion of any newly-drilled or deepened well. It shall be accompanied by one copy of all electrical and radioactivity logs run on the well and a summary of all special tests conducted, including drill stem tests. All depths reported shall be measured depths. In the case of directionally drilled wells, true vertical depths shall also be reported. For multiple completions, items 35 through 41 shall be reported for each zone. This form is to be filed in quintuplicate except on state land, where six copies are required. See Rule 1105.

INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE

Southeastern New Mexico				Northwestern New Mexico			
T. Anhy		T. Canyon		T. Ojo Alamo		T. Penn. "B"	
T. Salt		T. Strawn	11631	T. Kirtland-Fruitland		T. Penn. "C"	
B. Salt		T. Atoka	12128	T. Pictured Cliffs		T. Penn. "D"	
T. Yates		T. Miss		T. Cliff House		T. Leadville	
T. 7 Rivers		T. Devonian		T. Menefee		T. Madison	
T. Queen		T. Silurian		T. Point Lookout		T. Elbert	
T. Grayburg		T. Montoya		T. Mancos		T. McCracken	
T. San Andres		T. Simpson		T. Gallup		T. Ignacio Qtzte	
T. Glorieta		T. McKee		Base Greenhorn		T. Granite	
T. Paddock		T. Ellenburger		T. Dakota		T.	
T. Blinebry		T. Gr. Wash		T. Morrison		T.	
T. Tubb		T. Granite		T. Todilto		T.	
T. Drinkard		T. Delaware Sand		T. Entrada		T.	
T. Abo		T. Bone Springs	8360	T. Wingate		T.	
T. Wolfcamp	Reef 11086	T.	3rd/ Bone Spring 10794	T. Chinle		T.	
T. Penn.	11472	T.	Morrow Lime 12654	T. Permian		T.	
T. Cisco (Bough C)		T.	Morrow Clastics 12828	Penn. "A"		T.	

OIL OR GAS SANDS OR ZONES

No. 1, from Morrow 13110 to 13117 No. 4, from ..... to .....

No. 2, from ..... to ..... No. 5, from ..... to .....

No. 3, from ..... to ..... No. 6, from ..... to .....

IMPORTANT WATER SANDS

Include data on rate of water inflow and elevation to which water rose in hole.

No. 1, from None to ..... feet. .....

No. 2, from ..... to ..... feet. .....

No. 3, from ..... to ..... feet. .....

No. 4, from ..... to ..... feet. .....

FORMATION RECORD (Attach additional sheets if necessary)

From	To	Thickness in Feet	Formation	From	To	Thickness in Feet	Formation
0	8360	8360	Gravel & Redbeds				
8360	10794	2434	Bone Springs				
10794	11086	292	3rd/ Bone Spring Sand				
11086	11472	386	Wolfcamp Reef				
11472	11631	159	Pennsylvanian				
11631	12128	497	Strawn				
12128	12654	526	Atoka				
12654	12828	174	Morrow Lime				
12828	13300	472	Morrow Clastics				

BEFORE EXAMINER STAMETS
OIL CONSERVATION DIVISION
EXHIBIT NO. 9
CASE NO. 7128
Submitted by Hess
Hearing Date 1-14-81

This form is not to be used for reporting packer leakage tests in Northwest New Mexico

NEW MEXICO OIL CONSERVATION COMMISSION

SOUTHEAST NEW MEXICO PACKER LEAKAGE TEST

EXHIBIT No. 9 e
CASE No. 7128

Operator	Lease	Well
HNG Oil Company	San Simon 6 State Com.	No. 1

Location of Well	Unit	Sec	Twp	Rge	County
	H	6	22s	35e	Lea

	Name of Reservoir or Pool	Type of Prod (Oil or Gas)	Method of Prod Flow, Art Lift	Prod. Medium (Tbg or Csg)	Choke Size
Upper Compl	Wolf Camp	Oil	Flow	Tbg.	8/64
Lower Compl	Morrow	Gas	Flow	Tbg.	8.5/64

FLOW TEST NO. 1

Both zones shut-in at (hour, date): 11/1/80

Well opened at (hour, date): 10:30 AM 12/18/80

	Upper Completion	Lower Completion
Indicate by (X) the zone producing		X
Pressure at beginning of test	3040	5697
Stabilized? (Yes or No)	Yes	Yes
Maximum pressure during test	3040	5697
Minimum pressure during test	3040	4660
Pressure at conclusion of test	3040	4820
Pressure change during test (Maximum minus Minimum)	0	1037
Was pressure change an increase or a decrease?	None	Decrease

Well closed at (hour, date): 9:00 PM 12/18/80 Total Time On Production 10.5 hours

Oil Production During Test: 5 bbls; Grav. - ; Gas Production During Test 521025 MCF; GOR 104205

Remarks

FLOW TEST NO. 2

	Upper Completion	Lower Completion
Well opened at (hour, date):	6:30 PM 12/19/80	
Indicate by (X) the zone producing	X	
Pressure at beginning of test	3040	5640
Stabilized? (Yes or No)	Yes	Yes
Maximum pressure during test	3110	5695
Minimum pressure during test	2900	5640
Pressure at conclusion of test	2900	5695
Pressure change during test (Maximum minus Minimum)	210	55
Was pressure change an increase or a decrease?	Increase Decrease	Increase

Well closed at (hour, date) 12:00 PM 12/19/80 Total time on Production 5 hours

Oil Production During Test: 24 bbls; Grav. 46.9 ; Gas Production During Test 84113 MCF; GOR 3504

Remarks

I hereby certify that the information herein contained is true and complete to the best of my knowledge.

Approved 19
New Mexico Oil Conservation Commission

By

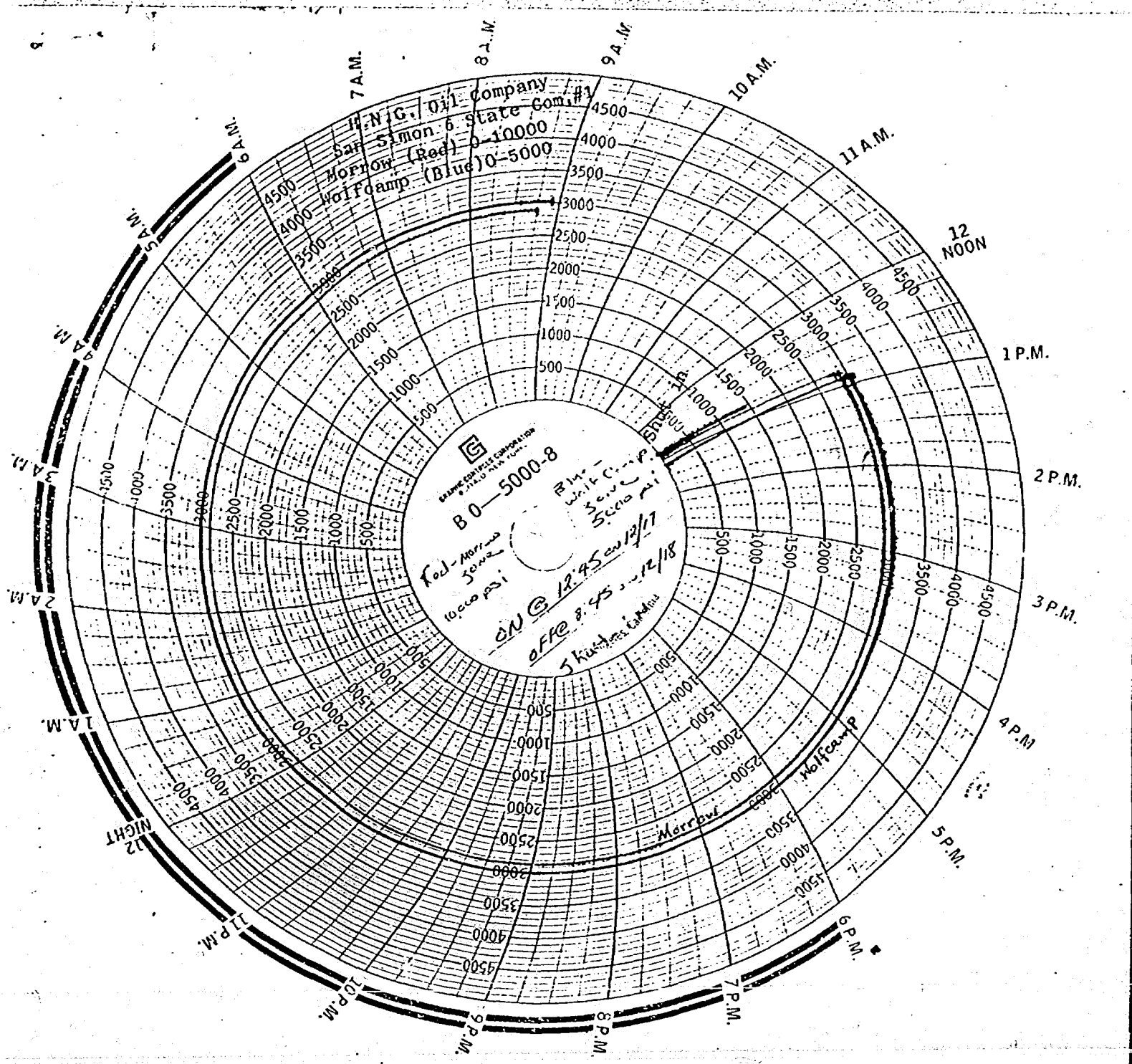
Title

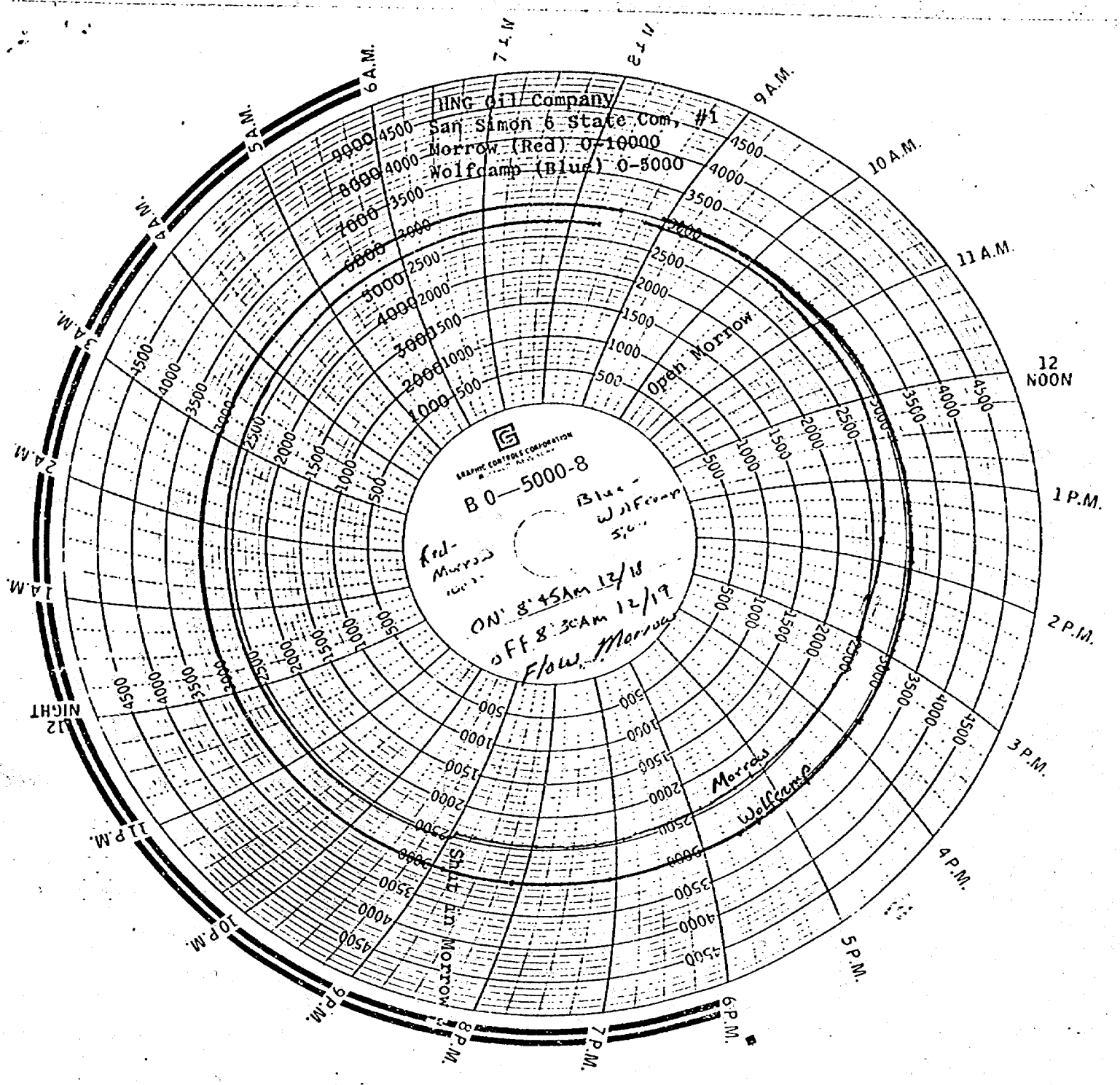
Operator HNG OIL COMPANY

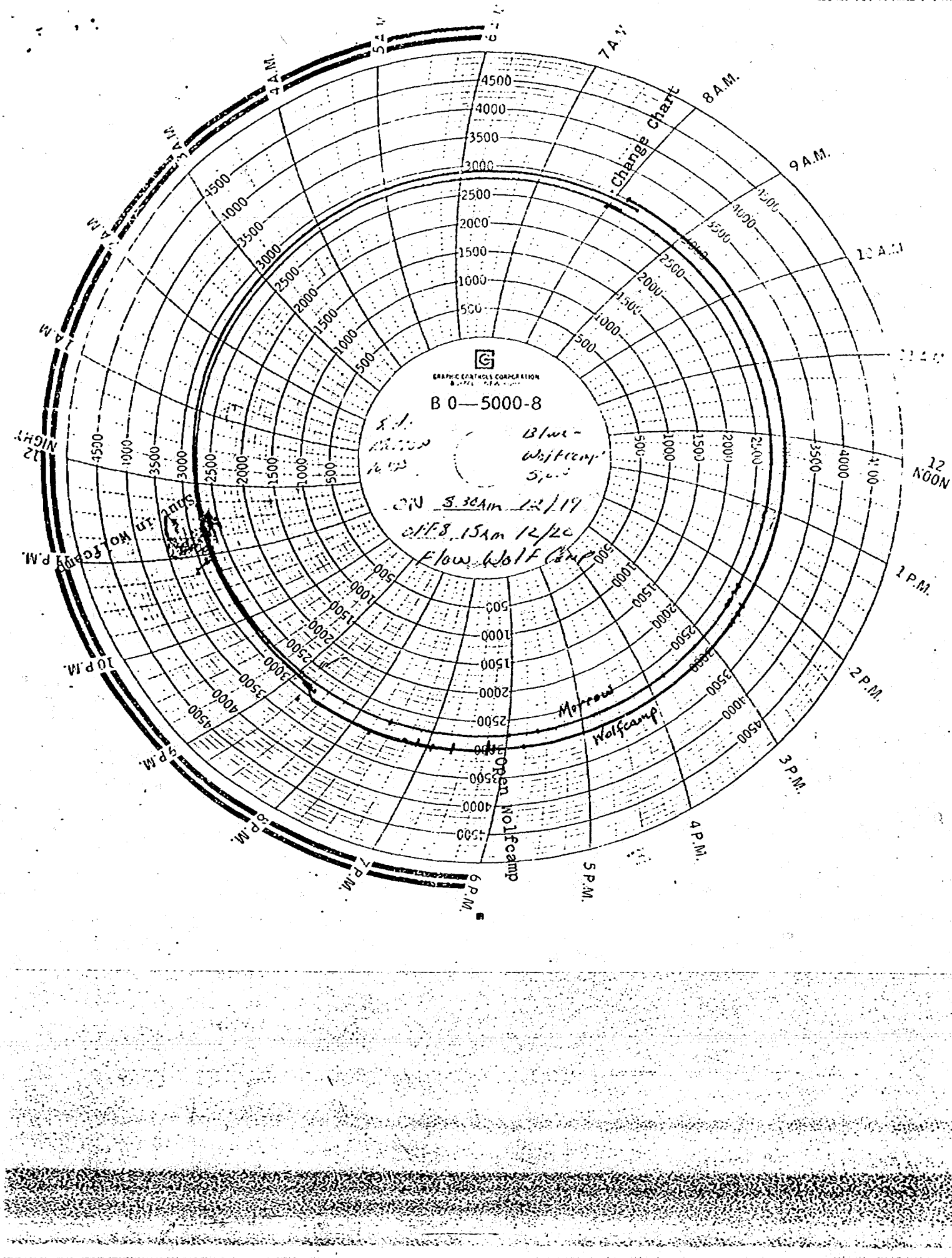
By JARREL SERVICES, INC.

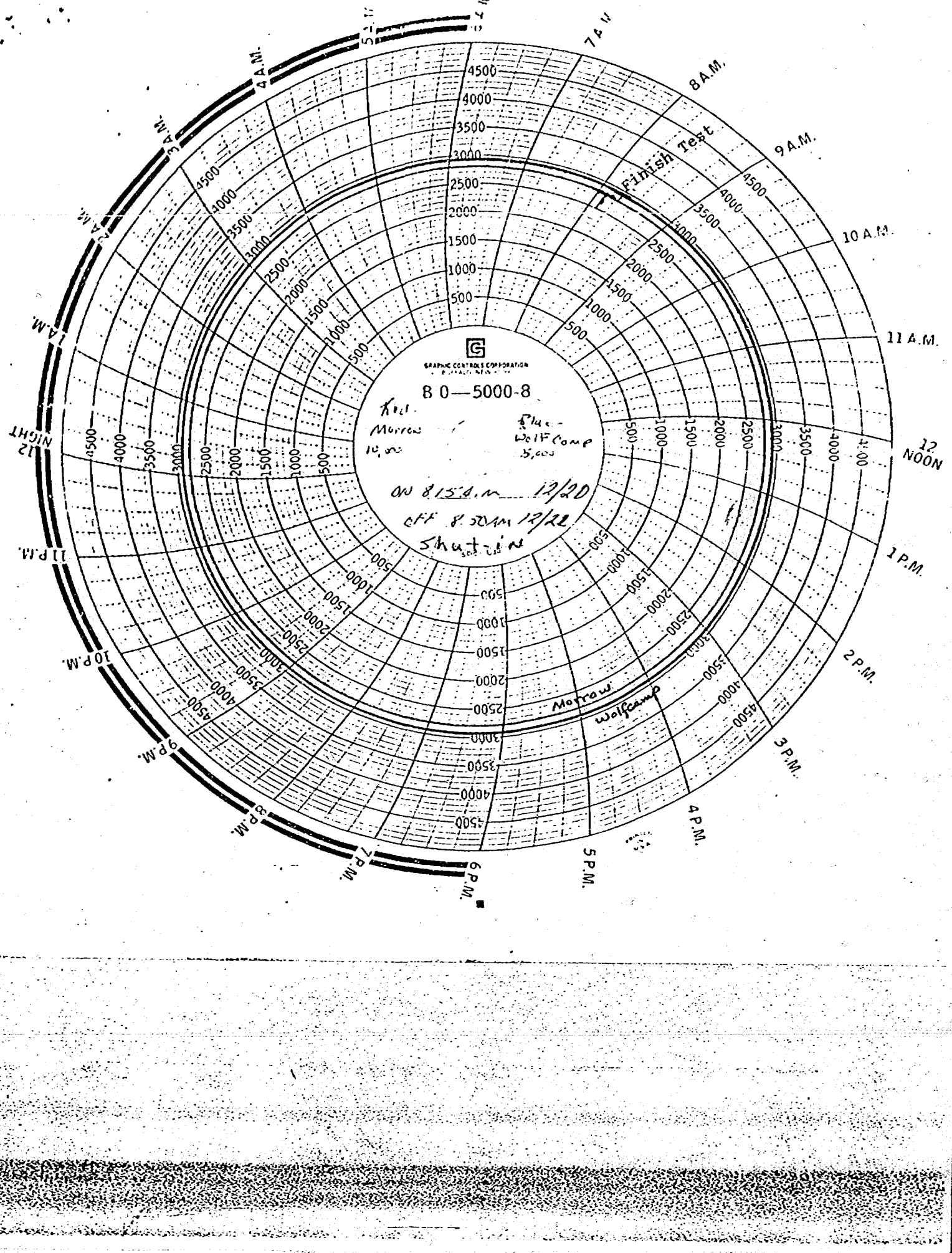
Title Agent

Date December 22, 1980


H.N.G. Oil Company #1
San Simon 6 State Com.
Morrow (Red) 0-10000
Wolfcamp (Blue) 0-5000
B 0—5000-8
Morrow
Wolfcamp
7 A.M.
8 A.M.
9 A.M.
10 A.M.
11 A.M.
12 NOON
1 P.M.
2 P.M.
3 P.M.
4 P.M.
5 P.M.
6 P.M.
7 P.M.
8 P.M.
9 P.M.
10 P.M.
11 P.M.
12 NIGHT
1 A.M.
2 A.M.
3 A.M.
4 A.M.
5 A.M.
6 A.M.


HNG Oil Company
San Simon 6 State Com, #1
Morrow (Red) 0-10000
Wolfcamp (Blue) 0-5000
GRAPHIC CONTROLS CORPORATION
BO—5000-8
Red-
Morrow
Blue -
Wolfcamp
ON: 8:45Am 12/18
OFF 8:30AM 12/19
Flow Morrow
Open Morrow
Morrow
Wolfcamp
6 A.M.
7 A.M.
8 A.M.
9 A.M.
10 A.M.
11 A.M.
12 NOON
1 P.M.
2 P.M.
3 P.M.
4 P.M.
5 P.M.
6 P.M.
7 P.M.
8 P.M.
9 P.M.
10 P.M.
11 P.M.
12 MIGHT
1 A.M.
2 A.M.
3 A.M.
4 A.M.
5 A.M.


Change Chart
GRAPHIC CONTROLS CORPORATION
B 0—5000-8
Blue - Wolfcamp
ON 5.30Am 12/19
OFF 8.15Am 12/20
Flow Wolf Camp
Shut in Wolfcamp P.M.
Morrow
Wolfcamp
Open Wolfcamp
NIGHT
12 NOON
1 P.M.
2 P.M.
3 P.M.
4 P.M.
5 P.M.
6 P.M.
7 P.M.
8 P.M.
9 P.M.
10 P.M.
11 P.M.
12 NIGHT
1 A.M.
2 A.M.
3 A.M.
4 A.M.
5 A.M.
6 A.M.
7 A.M.
8 A.M.
9 A.M.
10 A.M.
11 A.M.
12 NOON


GRAPHIC CONTROLS CORPORATION
B 0—5000-8
Red
Morrow
10,000
Blue
Wolf Camp
5,000
ON 8:15 a.m. 12/20
OFF 8:30 AM 12/22
Shut-in
Finish Test
Morrow
Wolfcamp
12 NOON
1 P.M.
2 P.M.
3 P.M.
4 P.M.
5 P.M.
6 P.M.
7 P.M.
8 P.M.
9 P.M.
10 P.M.
11 P.M.
12 NIGHT
1 A.M.
2 A.M.
3 A.M.
4 A.M.
5 A.M.
7 A.M.
8 A.M.
9 A.M.
10 A.M.
11 A.M.

Adopted
1-1-65

NEW MEXICO OIL CONSERVATION COMMISSION
PACKER SETTING REPORT

I, Frank Brownson, being of lawful age and having full
Name of party making report
knowledge of the facts hereinbelow set out do state:

That I am employed by HNG Oil Company in the capacity of Drilling Superintendent, that on 10-8, 19 80 I personally supervised the setting of a 4-½" TIW PBR
Make & type of packer
in HNG Oil Company, San Simon 6 State Com.,
Operator of well *Lease name*
Well no. 1 located in the Und. Wolfcamp field, Lea county, state of NM, at a subsurface depth of 10,782 feet, said depth measurement having been furnished me by drill pipe measurement;

That the purpose of setting this packer was to effect a seal in the annular space between two strings of pipe where the packer was set so as to prevent the commingling, in the bore of this well, of fluids produced from a stratum below the packer with fluids produced from a stratum above the packer; that this packer was properly set and that it did, when set, effectively and absolutely seal off the annular space between the two strings of pipe where it was set in such manner as that it prevented any movement of fluids across the packer.

(Signature)

District Drilling Superintendent
(Title)

December 9, 1980
(Date)

Adopted
1-1-65

NEW MEXICO OIL CONSERVATION COMMISSION

PACKER SETTING REPORT

I, Frank Brownson (*Name of party making report*), being of lawful age and having full knowledge of the facts hereinbelow set out do state:

That I am employed by HNG Oil Company in the capacity of Drilling Superintendent, that on 10-8, 1980 I personally supervised the setting of a 4" TIW PBR (*Make & type of packer*) in HNG Oil Company (*Operator of well*), San Simon 6 State Com. (*Lease name*), Well no. 1 located in the Und. Morrow field, Lea county, state of NM, at a subsurface depth of 11,332 feet, said depth measurement having been furnished me by drill pipe measurement;

That the purpose of setting this packer was to effect a seal in the annular space between two strings of pipe where the packer was set so as to prevent the commingling, in the bore of this well, of fluids produced from a stratum below the packer with fluids produced from a stratum above the packer; that this packer was properly set and that it did, when set, effectively and absolutely seal off the annular space between the two strings of pipe where it was set in such manner as that it prevented any movement of fluids across the packer.

Frank L. Brownson
(*Signature*)

District Drilling Superintendent
(*Title*)

December 9, 1980
(*Date*)

JARREL SERVICES, INC.

POST OFFICE BOX 1654 PHONES 505 393-5396 — 393-8274

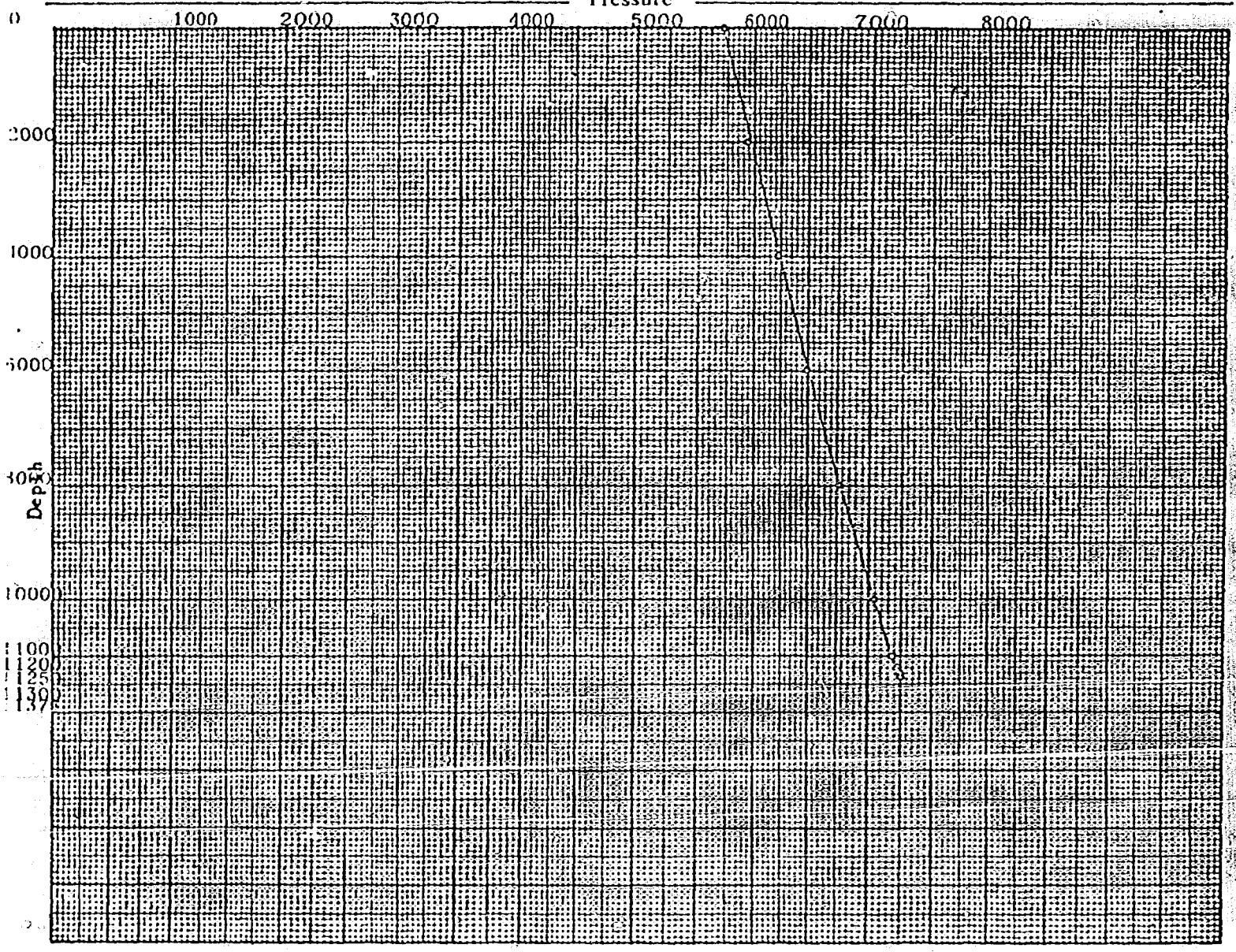
HOBBS, NEW MEXICO 88240

OPERATOR HNG Oil Company
FIELD Undesignated
FORMATION Morrow
LEASE San Simon 6 State Com WELL #1
COUNTY Lea STATE New Mexico
DATE 12/17/80 TIME 9:30 AM
Status Shut in
Test Depth 11371'
Time S. I. 50 days Last test date 10/31/80
Tub Pres. 5705 BHP last test 7551
Cas. Pres. Dual BHP change 5# Gain
Elev. 3650'KB Fluid top None
Datum (-9474) ** Water top None
Temp. @ 162° F Run by JSI #10
Cal. No. A18473N Chart No. 1

BOTTOM HOLE PRESSURE RECORD

Depth		Pressure	Gradient
0		5705	-
2000		5944	.120
4000		6218	.137
6000		6492	.137
8000		6768	.138
10000		7044	.138
11000		7182	.138
11200		7210	.140
11250		7219	.180
11300		7228	.180
11371		7240	.180
13124	(-9474)	7556 * **	(.180)

* EXTRAPOLATED PRESSURE
** MIDPOINT OF CASING PERFORATIONS



JARREL SERVICES, INC.

POST OFFICE BOX 1654 PHONES 505 393-5396 — 393-8274

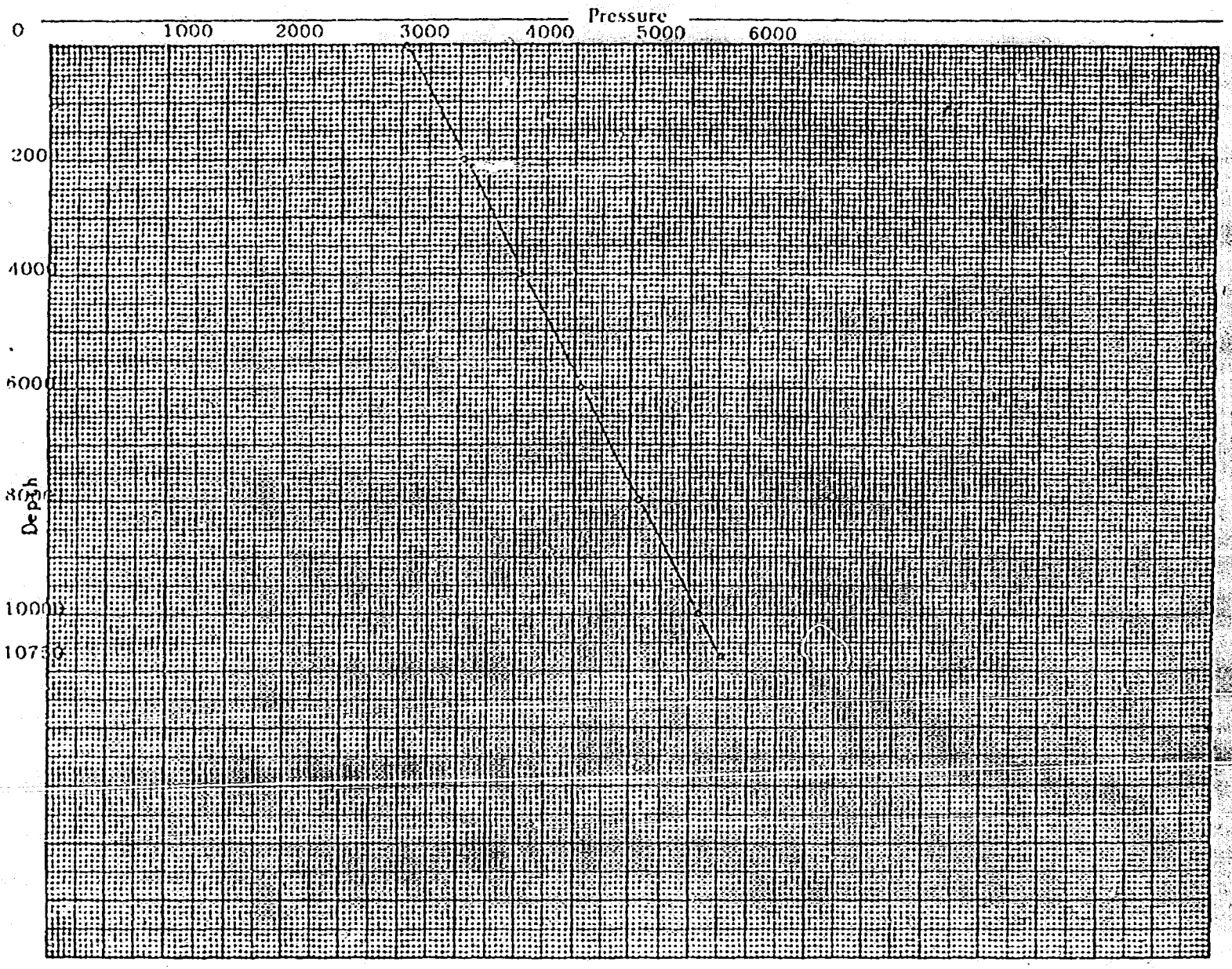
HOBBS, NEW MEXICO 88240

OPERATOR HNG OIL Company
FIELD Undesignated
FORMATION Wolfcamp
LEASE San Simon 6 State Com WELL #1
COUNTY Lea STATE New Mexico
DATE 12/17/80 TIME 12:15 PM
Status Shut in
Test Depth 10750'
Time S. I. 16 days Last test date 11/4/80
Tub Pres. 3036 BHP last test 5864
Cas. Pres. Dual BHP change 14# Gain
Elev. 3650'KB Fluid top Surface
Datum (-7493)** Water top None
Temp. @ 145°F Run by JSI #10
Cal. No. A18473N Chart No. 2

BOTTOM HOLE PRESSURE RECORD

Depth		Pressure	Gradient
0		3036	-
2000		3538	.251
4000		4048	.255
6000		4558	.255
8000		5070	.256
10000		5584	.257
10750		5777	.257
11143	(-7493)	5878 * **	(.257)

* EXTRAPOLATED PRESSURE
** MIDPOINT OF CASING PERFORATIONS



HNG OIL COMPANY - SAN SIMON '6' #1

SUMMARY OF RESERVOIR DATA

BOTTOM-HOLE PRESSURE SURVEY

WOLFCAMP ZONE:

PERMEABILITY, k = 9.6 md

FLOW EFFICIENCY, kh/μ = 397.1 md-ft./cp

SKIN FACTOR, S = -4.7

MORROW ZONE:

Data not determined since buildup data were unreliable due to an apparent changing liquid level and fluid gradient between the pressure bombs and the midpoint of perforations (datum).

BEFORE EXAMINER STAMETS
OIL CONSERVATION DIVISION
HNG EXHIBIT NO. 10
CASE NO. 7128
Submitted by Holm
Hearing Date 1/14/81

HNG Oil Company
Anchor E. Holm/sh
January 14, 1981

CASE NO. 7128

EXHIBIT NO. 10

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION
P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

Form C-109
Revised 10-1-78

APPLICATION FOR DISCOVERY ALLOWABLE AND CREATION OF A NEW POOL

NOTE: This form is to be filed and attachments made in accordance with the provisions of Rule 509. If discovery is claimed for more than one zone, separate forms must be filed for each.

Operator: HNG Oil Company
Address: P.O. Box 2267, Midland, Texas 79702

Lease Name: San Simon 6 State Com
Well No.: 1
County: Lea

Well Location: Unit Letter H ; 1980 Feet from The North Line and 660 Feet From the East Line of Section 6 , Township 22-S , Range 35-E , NMPM

Suggested Pool Names (List in order of preference): 1. San Simon (Wolfcamp) 2. ~~Merchant~~ (Wolfcamp) 3. Ojo Chiso, East (Wolfcamp)

Name of Producing Formation: Wolfcamp
Perforations: 11,132-154'
Date of Filing Form C-104: 1/7/81

Was "Affidavit of Discovery" Previously Filed for This well in this Pool? No
If Yes, Give Date of Filing:
Date Well was Spudded: 8-10-80
Date Compl. Ready to Prod.: 10-31-80

Total Depth: 13,300'
Plugged Back Depth: 13,217'
Depth Casing Shoe: 13,300'
Tubing Depth: 10,782'
Elevation (Gr., DF, RKB, RT, etc.): 3628.8' GR

Oil Well Potential (Test to be taken only after all load oil has been recovered)

407.58 Bbls. Oil Per Day Based On 67.93 Bbls In 4 Hours; 0 Bbls Water Per Day Based On 0 Bbls In 4 Hours; Gas Production During Test: 505.6 MCF; Gas-Oil Ratio: 1240 Method of Producing: flowing Chk. Size: 9/64"

NEAREST PRODUCTION TO THIS DISCOVERY (Includes past and present oil or gas producing areas and zones whether this discovery is based on horizontal or vertical separation):

Pool Name	Name of Producing Formation	Top of Pay	Bottom of Pay	Currently Producing?
East Gramma Ridge	Morrow	12,946'	12,954'	Yes

Horizontal Distance and Direction from Subject Discovery Well to the Nearest Well in this Pool: 7720 feet Northwest

Vertical Distance from Subject Discovery Zone to Producing Interval this Pool: 1792' (1763.5' subsea)

NEAREST COMPARABLE PRODUCTION (Includes past and present oil or gas production from this pay or formation only):

Pool Name	Top of Pay	Bottom of Pay	Currently Producing?
Gramma Ridge (Wolfcamp) Gas	11320'	11,335'	Yes

Horizontal Distance and Direction from Subject Discovery Well to the Nearest Well in this Comparable Pool: 9810 feet Northwest

Is "County Deep" Discovery Allowable Requested for Subject Discovery Well? No
If Yes, Give Name, Location, and Depth of Next Deepest Oil Production in this County:

Is the Subject Well Multiple Completion? Yes
Is Discovery Allowable Requested for other Zone(s)? No
If Yes, Name all Such Formations:

LIST ALL OPERATORS OWNING LEASES WITHIN ONE MILE OF THIS WELL (Attach additional sheet if necessary)

NAME	ADDRESS
Exxon Company, USA	Box 1700, Midland, Texas 79702
Phillips Petroleum	Phillips Bldg. Odessa, Texas 79760
Northern Nat'l Gas Co.	403 Wall Towers West, Midland, Texas 79701
Texaco, Inc.	P.O. Box 3109, Midland, Texas 79702
Amerada Hess Corp.	2207 W. Industrial, Midland, Texas 79701
Getty Oil Company	Box 1231, Midland, Texas 79702
Amoco Prod. Co.	P.O. Box 1725, Midland, Texas 79702

Attach evidence that all of the above operators have been furnished a copy of this application. Any of said operators who intends to object to the designation of the subject well as a discovery well, eligible to receive a discovery allowable, must notify the appropriate District Office and the Santa Fe Office of the Division of such intent in writing within ten days after receiving a copy of this application.

Remarks: added perfs 11132 – 11154 Date of Test 11-1-80

CASE No. 7128

EXHIBIT NO. 11

CERTIFICATION

I hereby certify that all rules and regulations of the New Mexico Oil Conservation Division have been complied with, with respect to the subject well, and that it is my opinion that a bona fide discovery of a hitherto unknown common source of oil supply has been made in said well. I further certify that the discovery allowable for the subject well, if authorized, will be produced from the subject zone in this well only. Further, that the information given herein and attached hereto is true and complete to the best of my knowledge and belief.

Betty A. Gildon (Signature) Betty A. Gildon
Position: Regulatory Clerk
Date: 1-7-81

CERTIFICATE OF SERVICE

I hereby certify that I have this day mailed to all operators owning leases within on mile of this well, postage pre-paid, copies of the attached OCD Form C-109 of HNG Oil Company in accordance with the requirements of the Oil Conservation Division Form C-109.

Dated at Midland, Texas, this 7 day of January, 1981.

Betty A. Gildon
Regulatory Clerk

HNG OIL COMPANY

NO. OF COPIES RECEIVED		
DISTRIBUTION		
SANTA FE		
FILE		
U.S.G.S.		
LAND OFFICE		
TRANSPORTER OIL		
TRANSPORTER GAS		
OPERATOR		
PRORATION OFFICE		

NEW MEXICO OIL CONSERVATION COMMISSION

REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT OIL AND NATURAL GAS

Form C-104
Supersedes Old C-104 and C-1
Effective 1-1-65

I. Operator: HNG Oil Company

Address: P.O. Box 2267, Midland, Texas 79702

Reason(s) for filing (Check proper box)

New Well	X	Change in Transporter of:			
Recompletion		Oil		Dry Gas	
Change in Ownership		Casinghead Gas		Condensate	

Other (Please explain)

If change of ownership give name and address of previous owner _____

II. DESCRIPTION OF WELL AND LEASE

Lease Name	Well No.	Pool Name, Including Formation	Kind of Lease	Lease No.
San Simon 6 State Com.	1	Und. Morrow	State, Federal or Fee State	LG 893 & LG 3609

Location

Unit Letter H : 1980 Feet From The North Line and 660 Feet From The East

Line of Section 6 Township 22S Range 35 E , NMPM, Lea County

III. DESIGNATION OF TRANSPORTER OF OIL AND NATURAL GAS

Name of Authorized Transporter of Oil ☐ or Condensate X	Address (Give address to which approved copy of this form is to be sent)
Western Crude Oil, Inc.	Box 1142, Midland, Texas 79701
Name of Authorized Transporter of Casinghead Gas ☐ or Dry Gas X	Address (Give address to which approved copy of this form is to be sent)
Texaco, Inc.	Box 3109, Midland, Texas 79702

If well produces oil or liquids, give location of tanks.	Unit	Sec.	Twp.	Rge.	Is gas actually connected?	When
	H	6	22S	35E	No	

If this production is commingled with that from any other lease or pool, give commingling order number: _____

IV. COMPLETION DATA

Designate Type of Completion – (X)	Oil Well	Gas Well	New Well	Workover	Deepen	Plug Back	Same Res'v.	Diff. Res'v.
		X	X					

Date Spudded	Date Compl. Ready to Prod.	Total Depth	P.B.T.D.
8-10-80	10-31-80	13,300'	13,217'
Elevations (DF, RKB, RT, GR, etc.)	**Name of Producing Formation**	**Top Oil/Gas Pay**	**Tubing Depth**
3628.8' GR	Morrow	13,110'	10,782'
Perforations			**Depth Casing Shoe**
13,110 - 13,117			11,014'

TUBING, CASING, AND CEMENTING RECORD

HOLE SIZE	CASING & TUBING SIZE	DEPTH SET	SACKS CEMENT
17-1/2"	13-3/8"	1085'	1450 C1C
12-1/4"	9-5/8"	5687'	500 C1C & 2950 Lite
8-1/2"	7"	11,014'	400 Lite & 350 C1H
	2-3/8" Tbg.	10,782 W/PBR at 11,332	

V. TEST DATA AND REQUEST FOR ALLOWABLE

(Test must be after recovery of total volume of load oil and must be equal to or exceed top allowable for this depth or be for full 24 hours)

OIL WELL

Date First New Oil Run To Tanks	Date of Test	Producing Method (Flow, pump, gas lift, etc.)	
Length of Test	**Tubing Pressure**	**Casing Pressure**	**Choke Size**
Actual Prod. During Test	**Oil - Bbls.**	**Water - Bbls.**	**Gas - MCF**

GAS WELL

Actual Prod. Test - MCF/D	Length of Test	Bbls. Condensate/MMCF	Gravity of Condensate
2300	24 hours	30	56.0
Testing Method (pitot, back pr.)	**Tubing Pressure (Shut-in)**	**Casing Pressure (Shut-in)**	**Choke Size**
Back pressure	5668	Packer	10/64

VI. CERTIFICATE OF COMPLIANCE

I hereby certify that the rules and regulations of the Oil Conservation Commission have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

Betty A. Gildon
(Signature)

Regulatory Clerk
(Title)

1-7-81
(Date)

OIL CONSERVATION COMMISSION

APPROVED _____, 19 _____

BY _____

TITLE _____

This form is to be filed in compliance with RULE 1104.

If this is a request for allowable for a newly drilled or deepened well, this form must be accompanied by a tabulation of the deviation tests taken on the well in accordance with RULE 111.

All sections of this form must be filled out completely for allowable on new and recompleted wells.

Fill out only Sections I, II, III, and VI for changes of owner, well name or number, or transporter, or other such change of condition.

Separate Forms C-104 must be filed for each pool in multiple

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TRANSPORTER	OIL	
	GAS	
OPERATOR		
PRORATION OFFICE		

NEW MEXICO OIL CONSERVATION COMMISSION

REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT OIL AND NATURAL GAS

Form C-104
Supersedes Old C-104 and C
Effective 1-1-65

I.

Operator
HNG Oil Company

Address
P.O. Box 2267, Midland, Texas 79702

Reason(s) for filing (Check proper box)

New Well	[X]	Change in Transporter of:			
Recompletion	[ ]	Oil	[ ]	Dry Gas	[ ]
Change in Ownership	[ ]	Casinghead Gas	[ ]	Condensate	[ ]

Other (Please explain)

If change of ownership give name and address of previous owner _____

II. DESCRIPTION OF WELL AND LEASE

Lease Name	Well No.	Pool Name, Including Formation	Kind of Lease	Lease No.
San Simon 6 State Com.	1	Und. Wolfcamp	State, Federal or Fee State	LG-8933 LG-3609

Location

Unit Letter H : 1980 Feet From The North Line and 660 Feet From The East

Line of Section 6 Township 22S Range 35E , NMPM, Lea County

III. DESIGNATION OF TRANSPORTER OF OIL AND NATURAL GAS

Name of Authorized Transporter of Oil [X] or Condensate [ ]	Address (Give address to which approved copy of this form is to be sent)
Western Crude Oil, Inc.	Box 1142, Midland, Texas 79701
Name of Authorized Transporter of Casinghead Gas [X] or Dry Gas [ ]	Address (Give address to which approved copy of this form is to be sent)
Texaco, Inc.	Box 3109, Midland, Texas 79702

If well produces oil or liquids, give location of tanks.	Unit	Sec.	Twp.	Rge.	Is gas actually connected?	When
	H	6	22S	35E	No	

If this production is commingled with that from any other lease or pool, give commingling order number: _____

IV. COMPLETION DATA

Designate Type of Completion – (X)	Oil Well	Gas Well	New Well	Workover	Deepen	Plug Back	Same Res'v.	Diff. Res'v
	X		X					

Date Spudded	Date Compl. Ready to Prod.	Total Depth	P.B.T.D.
8-10-80	10-31-80	13,300'	13,217'
Elevations (DF, RKB, RT, GR, etc.)	**Name of Producing Formation**	**Top Oil/Gas Pay**	**Tubing Depth**
3628.8' GR	Wolfcamp	11,132'	10,782'
Perforations			**Depth Casing Shoe**
11,132' - 11,154'			11,014'

TUBING, CASING, AND CEMENTING RECORD

HOLE SIZE	CASING & TUBING SIZE	DEPTH SET	SACKS CEMENT
17-½"	13-3/8"	1085'	1450 C1C
12-¼"	9-5/8"	5687'	500 C1C & 2950 Lite
8-1/2"	7"	11,014'	400 Lite & 350 C1H
	2-3/8" Tubing	10,782' W/PBR at 10,782'	

V. TEST DATA AND REQUEST FOR ALLOWABLE

(Test must be after recovery of total volume of load oil and must be equal to or exceed top allowable for this depth or be for full 24 hours)

OIL WELL

Date First New Oil Run To Tanks	Date of Test	Producing Method (Flow, pump, gas lift, etc.)	
11-1-80	11-1-80	Flowing	
Length of Test	**Tubing Pressure**	**Casing Pressure**	**Choke Size**
4 hours	2850	-	9/64"
Actual Prod. During Test	**Oil-Bbls.**	**Water-Bbls.**	**Gas-MCF**
67.93 bbls	67.93	0	219.2

GAS WELL

Actual Prod. Test-MCF/D	Length of Test	Bbls. Condensate/MMCF	Gravity of Condensate
Testing Method (pitot, back pr.)	**Tubing Pressure (Shut-in)**	**Casing Pressure (Shut-in)**	**Choke Size**

VI. CERTIFICATE OF COMPLIANCE

I hereby certify that the rules and regulations of the Oil Conservation Commission have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

Betty A. Gildon
(Signature)

Regulatory Clerk
(Title)

12-11-80
(Date)

OIL CONSERVATION COMMISSION

APPROVED _____, 19 _____

BY _____

TITLE _____

This form is to be filed in compliance with RULE 1104.

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All sections of this form must be filled out completely for allowable on new and recompleted wells.

Fill out only Sections I, II, III, and VI for changes of owner, well name or number, or transporter, or other such change of condition.

Separate Forms C-104 must be filed for each pool in multipl

Mobile Analytical Laboratories
& SOLAR ENERGY TESTING
WEST UNIVERSITY AND WESTOVER STREET
THERMAL SCIENTIFIC BUILDING
P. O. BOX 6771
ODESSA, TEXAS 79762
PHONE 337-4744

HNG Oil Company

San Simon 6 # 1 (Wolfcamp)

RECOMBINATION OF GAS, MOLE % **RECOMBINATION OF LIQUID, LIQ.VOL.%**

COMPONENT	MOLE %	LIQUID VOLUME %
NITROGEN	2.33	0.93
METHANE	73.06	60.34
CARBON DIOXIDE	0.69	0.57
ETHANE	11.23	13.96
PROPANE	4.64	6.24
ISO-BUTANE	.67	1.07
NORMAL BUTANE	1.91	2.94
ISO-PENTANE	.72	1.28
NORMAL PENTANE	.97	1.71
HEXANE PLUS	3.78	10.96
TOTAL	100.00	100.00

CALCULATIONS OF THE RECOMBINATION OF THE GAS AND LIQUID WERE MADE FROM THE ASSUMED AVERAGE RESERVOIR CONDITIONS OF 5890# AT 164 DEG F.

Σ KM = 131.79
Σ M/K = 116.22
Σ M = 100
Σ KM AND M/K IS GREATER THAN M, THEREFORE THE RESERVOIR IS PART LIQUID AND PART VAPOR PHASE.

JARREL SERVICES INC.
A.O. SMITH
BOX 1654
HOBBS, NM 88240

ANCHOR HOLM
P.O. BOX 2267
MIDLAND, TX 79701

BEFORE EXAMINER STAMETS
OIL CONSERVATION DIVISION
HNG EXHIBIT NO. 12
CASE NO. 7128
Submitted by HOLM
Hearing Date 1/14/81

CASE NO. 7128

EXHIBIT NO. 12

****

MOBILE ANALYTICAL LAB, INC.

P.O. BOX 6771

ODESSA, TEXAS

****

11/10/80 LAB #2031

San Simon 6 # 1 (Wolfcamp)

HOUSTON NATURAL GAS
OIL SAMPLE

FRACTIONAL ANALYSIS

COMPONENT	LIQ. VOL. %	MOL %	WT. %
METHANE	0.05	0.12	0.02
CARBON DIOXIDE	0.01	0.02	0.02
ETHANE	0.51	0.75	0.26
PROPANE	3.86	5.54	2.85
ISO-BUTANE	2.44	2.95	2.01
NORMAL BUTANE	9.62	12.05	8.20
ISO-PENTANE	6.39	6.89	5.82
NORMAL PENTANE	9.13	9.95	8.39
HEXANE +	67.99	61.73	72.43
TOTALS	100.00	100.00	100.00

SPECIFIC GRAVITY 0.657
CU. FT. / GAL. 25.39
C1 / C2 RATIO 9.80

VAPOR PRESSURE 34.5
/ GAL. 5.477
/ GAL. C5+ 5.937

COMPOSITION OF C6+

CU FT/GALLON 16.84

MOLECULAR WT. 155
SPECIFIC GRAVITY .8251
GAL/LB MOL. 22.55
CU FT/GALLON 16.84

****

MOBILE ANALYTICAL LAB., INC.

P.O. BOX 6771

ODESSA, TEXAS

****

11/10/80 LAB # 2031

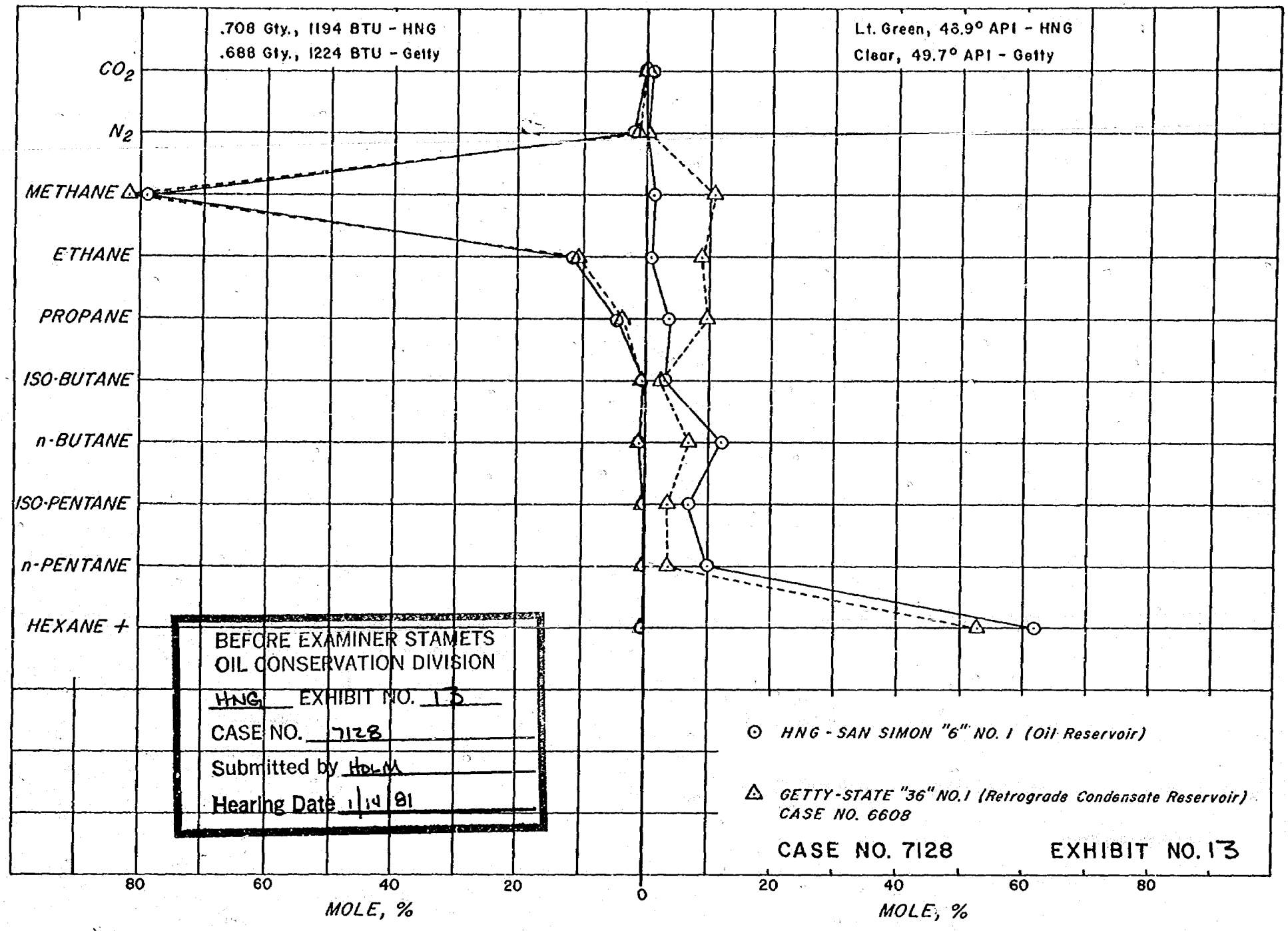
San Simon 6 #1 (Wolfcamp)

HOUSTON NATURAL GAS
GAS SAMPLE

FRACTIONAL ANALYSIS

COMPONENT	MOLE %	GPM
NITROGEN	1.88	0.000
METHANE	78.93	0.000
CARBON DIOXIDE	0.81	0.000
ETHANE	11.58	3.078
PROPANE	4.58	1.253
ISO-BUTANE	0.48	0.156
NORMAL BUTANE	1.04	0.326
ISO-PENTANE	0.19	0.069
NORMAL PENTANE	0.20	0.072
HEXANE PLUS	0.31	0.131
TOTALS	100.00	5.085

SPECIFIC GRAVITY	0.708	12# VAPOR PRESSURE	0.340
GROSS BTU	1173.0	26# VAPOR PRESSURE	0.408
DRY BTU	1193.9		



BEFORE EXAMINER STAMETS
OIL CONSERVATION DIVISION
HNG EXHIBIT NO. 13
CASE NO. 7128
Submitted by HNG
Hearing Date 1/14/81

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
STATE LAND OFFICE BLDG.
SANTA FE, NEW MEXICO
14 January 1981

EXAMINER HEARING

IN THE MATTER OF:

Application of HNG Oil Company for pool creation, special pool rules, assignment of a discovery allowable, and dual completion, Lea County, New Mexico.

CASE 7128

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: William F. Carr, Esq.
CAMPBELL, BYRD, & BLACK
Jefferson Place
Santa Fe, New Mexico 87501

I N D E X

E X H I B I T S

E X H I B I T S

MR. STAMETS: Call next Case 7128.

MR. PADILLA: Application of HNG Oil Company for pool creation, special pool rules, assignment of a discovery allowable, and dual completion, Lea County, New Mexico.

MR. STAMETS: Call for appearances.

MR. CARR: May it please the Examiner, my name is William F. Carr, with the law firm of Campbell, Byrd, & Black, Santa Fe, New Mexico, appearing on behalf of the applicant.

I have three witnesses.

MR. STAMETS: Any other appearances in this case?

I'd like to have all the witnesses stand and be sworn at this time.

(Witnesses sworn.)

MR. CARR: At this time, Mr. Examiner, I would like to call Stewart Martin, and would ask that Mr. Martin be permitted to sit at the side of the table since he's working with some fairly large exhibits.

MR. STAMETS: That will be fine.

STEWART MARTIN

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

DIRECT EXAMINATION

BY MR. CARR:

Q. Will you state your name and place of residence?

A. Stewart Martin, Midland, Texas.

Q. By whom are you employed and in what capacity?

A. HNG Oil Company, Vice-President, Exploration.

Q. Have you previously testified before this Commission, had your credentials accepted and made a matter of record?

A. Yes, sir, as a geologist.

Q. Are you familiar with the application in this case and the subject area?

A. Yes, sir.

MR. CARR: Are the witness' qualifications accepted?

MR. STAMETS: They are.

Q. Mr. Martin, will you briefly state what

HNG seeks with this application?

A. HNG Oil Company is making application at this hearing today for an order to include the following:

Number one, designation of a new pool as a result of a discovery of hydrocarbons in the Wolfcamp formation in the HNG Oil Company San Simon 6 State Com No. 1, Section 6, Township 22 South, Range 35 East, Lea County, New Mexico.

Number two, promulgate special pool rules for said new pool, including 160-acre spacing for proration units.

Number three, establish an oil discovery allowable.

Number four, approve a dual completion, Wolfcamp oil and Morrow gas.

Q. Will you please refer to what has been marked for identification as HNG Exhibit Number One and explain to the Examiner what it is and what it shows?

A. Number One is the location plat, which is labeled completion map. We have this circle which is two mile radius from our discovery well, which is located in the east portion of Section 6, 22 South, 35 East. The exact location of this well is 1980 feet from the north line, 660 feet from the east line, at a standard gas location. The

east half of Section 6 was dedicated to the gas zone. This well was dually completed in the Wolfcamp, as shown on the plat. The first oil run from the Wolfcamp zone was made on 10-31-80 during the potential test.

Moving over to Section 36 in Township 21 South, 34 East, it's near the perimeter where the "A" is on the cross section, we have a Getty well that's dually completed in the Wolfcamp formation and the Morrow in late September, September, 1979. The oil zone in the Morrow was designated oil originally in the original completion but later, at a hearing in early 1980 the Commission designated it as a gas reservoir retrograde condensate.

Getty subsequently drilled their No. 2 well in the southeast quarter of the same section and the Morrow was not productive and it was completed as a gas well.

Moving over to the east in Section 32 --

MR. STAMETS: Run that by me again on that Getty well. What wasn't productive?

A. The Wolfcamp was not productive and it was made as a single Morrow completion.

MR. STAMETS: Thank you.

A. Moving over to Section 2 along the south line, Phillips Petroleum has proposed their No. 32 State 1-A to HNG and Northern Natural Gas, or Nortex Gas and

Oil, and this location has not been filed with the Commission as yet. They're waiting on a rotary.

MR. STAMETS: My hearing must be off today. Did you say Section 2 or Section 32?

A. Section 32.

MR. STAMETS: Okay.

A. One and a half miles west of our well in Section 1 of 22 South, 34 East, there's a single Morrow completion by Getty Oil Company, their Getty State 1-1.

Moving south in Section 12 of the same township, Texaco has a Morrow completion, their No. 1-DU State, a single Morrow completion.

Moving one mile east in Section 7, along the south line, Amoco is currently testing their No. 1 GC State in the Wolfcamp. To date they ran production tests in the Morrow that were not of commercial value.

The shallow production to the northeast of this discovery well in Section 32, 29, Section 30, is shallow Yates oil production, which is classified in the San Simon-Yates Field, at a depth of about 3800 feet.

That's all I have.

Q. This map also has a trace on it which is the trace of the cross section, which will be entered as a subsequent exhibit, is that correct?

A. Yes, sir, the red line.

Q. Mr. Martin, is it your testimony that the east half of Section 6 is dedicated to this well in the Pennsylvanian?

A. Yes, sir.

Q. And the northeast quarter in the Wolf-camp?

A. Yes.

MR. STAMETS: Mr. Martin, if I might ask a question at this point.

There are a couple wells I don't believe that you discussed. One in Section 1 of 22, 34, and then the next well in the east half of Section2 of that same township.

A. Okay. I did discuss the one in Section 1 and the one in Section 2 is also a Morrow completion, single completion.

MR. STAMETS: Okay, and the same is true with the well in Section --

A. Yes, sir. And for your benefit there is a legend down in -- in case you want to do any further study on certain zones.

MR. STAMETS: Okay, thank you.

Q. Mr. Martin, will you now refer to what

has been marked for identification as HNG Exhibit Two and review this for Mr. Stamets.

A. Yes, sir. I'll have to stand up for this since it's -- this is a cross section which is marked in red on the first one, also in the insert in this Exhibit Number Two.

Starting from the top -- this consists of four wells, the Getty -- Getty 36 State Com No. 1, first well in the cross section. Second well is the Getty -- Getty 36 State Com No. 2. The one in the middle is the HNG Oil Company San Simon State 6 Com No. 1, and the one to the right is the Amoco Production Company State "GC" Com No. 1.

Going back to the Getty well on the far left, we see it is completed in the Wolfcamp, which I consider a patch reef. Potential is on the left side of the wellbore and it also shows a Morrow completion.

The next well, which is the Getty State 36 Com No. 2, shows its Wolfcamp essentially shaled out; some live stringers but no porosity. It was completed in the Wolfcamp -- or in the Morrow sand at 12,946 to 954.

Going to the HNG discovery well, we encountered another patch reef at a higher structural elevation but we have an oil well, and Getty's is a retrograde condensate; why it is, I don't know, but it is, and I can't

explain why we have oil higher than retrograde condensate.

And we have also our Morrow perfs on this cross section from 13,110 to 117.

Moving to the Amoco well, in the same equivalent stratigraphic horizon as our Wolfcamp completion, Amoco took a drill stem test and recovered 1500 feet of free oil with good bottom hole pressures. Their -- the current set of perforations they're testing is down at 11,728 to 806 in the lower portion of the Wolfcamp formation.

This cross section is set on a structural datum of -9500 feet, which is at the bottom of the cross section.

Q. Mr. Martin, in your opinion is the Wolfcamp Pool in the discovery well a new Wolfcamp oilpool not being produced by any other well in the area?

A. Yes, sir.

Q. Will you now refer to what has been marked for identification as HNG Exhibit Number Three and explain this to Mr. Stamets?

A. This is a consulting paleontologist's report made on our well by Mr. Harold L. Williams, consulting paleontologist in Midland, Texas, and if you'll look at the second page especially, in the middle of page, where it says 11 -- 10,990 to 11,620, he identifies Wolfcamp fossils, and

in that interval we perforated from 11,132 to 11,154, so this just confirms the age determination as being the Wolfcamp formation.

Q. Will you now refer to HNG Exhibit Number Four, identify this, and explain it to the Examiner?

A. This map is a structure map on the top of the Wolfcamp reef or its equivalent. The main thrust of this is you see the Getty well in Section 36 has a datum of -7532. The HNG discovery well is -7436 on the same datum and it puts the HNG well 96 feet high structurally with a low trough separating the two Wolfcamp producers.

Q. Will you now refer to Applicant's Exhibit Number Five and review that for Mr. Stamets?

A. This is the Wolfcamp reef limestone net porosity Isopach map, showing any porosity over 4 percent.

Again, going to the Getty well in the northwest quarter of Section 36, they encountered 132 feet of porosity in this patch reef.

HNG discovery well has got 36 feet of porosity.

In between there are two wells, the Getty well in the southeast quarter of Section 36 had zero feet of porosity and moving down in the next section south, in Section 1, there's zero feet of porosity in that Getty well;

therefor postulating a band of no porosity between the two Wolfcamp producing wells.

Q. Mr. Martin, from your review of the data on this well, do you believe the acreage which HNG is proposing to have included in the new pool, do you believe this acreage has been reasonably proven productive of hydrocarbons in the Wolfcamp?

A. Yes, sir.

Q. Are you prepared to make a recommendation to Mr. Stamets as to the spacing for the new pool?

A. Yes, sir. HNG recommends 160-acre spacing, 660 feet from the quarter section line, and no less than 330 feet from the quarter quarter section line.

Q. In your opinion will rules providing for 160-acre spacing avoid the drilling of unnecessary wells?

A. Yes, sir.

Q. In your opinion will granting this application reduce the risk that might result from the drilling of an excessive number of wells in the Wolfcamp?

A. Yes, sir.

Q. In your opinion will granting this application be in the best interest of conservation, the prevention of waste, and the protection of correlative rights?

A. Yes, sir.

Q. Will HNG call another witness to provide our reservoir engineering --

A. Yes, sir.

Q. -- data on this pool?

A. Our reservoir engineer, Mr. Anchor Holm.

Q. Were Exhibits One through Five prepared by you or under your supervision and direction?

A. Yes, sir.

MR. CARR: At this time, Mr. Stamets, we would offer Exhibits One through Five.

MR. STAMETS: These exhibits will be admitted.

MR. CARR: I have nothing further of this witness on direct.

CROSS EXAMINATION

BY MR. STAMETS:

Q. Mr. Martin, it would appear as though what you've drawn here, or what you've illustrated here, are separate patch reefs --

A. Yes, sir.

Q. -- in the area. To your knowledge is any other well completed in the Wolfcamp in the same patch reef that you show your well completed in on Exhibit Five?

A. No, sir.

Q. What about the Amoco well, is it conceivable that that might be in the same --

A. It could possibly be. Like the cross section shows, we just show it like a stringer. It doesn't look like a reef, the cleanliness of a reef.

Q. Now you indicated the Getty had a retrograde condensate reservoir.

A. Yes, sir.

Q. What's the nature of the oil that is being produced from your well?

A. That testimony will --

Q. The next witness.

A. -- be brought out by the next witness. He has several exhibits on it.

MR. STAMETS: Any other questions of this witness? He may be excused.

MR. CARR: At this time I would call Anchor Holm.

ANCHOR E. HOLM

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

DIRECT EXAMINATION

BY MR. CARR:

Q. Will you state your name for the record, please?

A. Anchor E. Holm.

Q. Where do you reside?

A. 2815 West Frontier, Midland, Texas.

Q. By whom are you employed and in what capacity?

A. HNG Oil Company as a Senior Reservoir Engineer.

Q. Have you previously testified before this Commission or one of its Examiners and had your credentials accepted and made a matter of record?

A. No, I have not.

Q. Would you briefly summarize for Mr. Stamets your educational background and your work experience?

A. I received a Bachelor of Science degree in geological engineering from the University of Arizona in 1967. I graduated from there. I went to work for Texaco, Incorporated, as a production engineer in the southeast Utah area for two years. Half a year with Texaco as a reservoir engineer I was stationed in Farmington, New Mexico.

Following working for Texaco I went to work for El Paso Natural Gas for four years as a drilling engineer in Farmington, New Mexico, and subsequently three years as a reservoir engineer in El Paso, Texas.

I spent a little over one and one-half years with the First National Bank of Midland as a petroleum engineer, where I was an in-house consultant for the bank.

And since May of 1980 I have been working for HNG Oil as a Senior Reservoir Engineer.

Q. Are you familiar with the application of HNG filed in this case?

A. Yes, I am familiar, and also, I am registered in the State of Texas as a professional engineer.

Q. Are you familiar with the subject well and the general area involved in this case?

A. Yes, I am.

MR. CARR: Are the witness' qualifications as a reservoir engineer acceptable.

MR. STAMETS: They are.

Q. Mr. Holm, will you refer to what has been marked as HNG Exhibit Number Six and review this for the Examiner?

A. HNG Exhibit Number Six is a xeroxed copy of a portion of an open hole compensated neutron formation

density log run on the subject well. On it we have marked the location of the upper 4-1/2 inch Texas Ironworks polished bore receptacle which is set at 10,782. We show the Wolfcamp perforations from 11,132 to 11,154 feet. We show the lower 4-inch PBR set at 11,356 feet and we show the Morrow perforations at 13,110 to 117 feet with a plugback TT -- plugback TD, as 13,217 feet. This is a porosity log and the parameters are indicated on the top.

Q. Is HNG also seeking authority to dually complete this well?

A. Yes, HNG is seeking multiple completion.

Q. Will you identify what has been marked Exhibit Number Seven and summarize the data contained thereon?

A. Exhibit Number Seven is the application for multiple completion filed on December 1st, 1980, on the subject well. The upper zone is the Wolfcamp at perforations I previously referred to. It is an oil reservoir and its condition was flowing method of production.

The lower zone is also flowing and it's the Morrow zone and it is a gas zone.

Q. Will you now review the data contained on Exhibit Number Eight for Mr. Stamets?

A. Exhibit Number Eight is a wellbore

diagrammatic sketch of the well as it was drilled.

The surface casing, 14-3/8ths inch, was set at 1,085 feet and cement circulated to surface.

Intermediate casing, the first intermediate casing, was 9-5/8ths inch set at 5687 feet with cement circulated to surface.

The long intermediate string was 7-inch casing set at 11,114 feet, and a calculated top of cement at 9060 feet.

Subsequently a liner was hung from 10,782 feet to the total depth of 13,300 feet. This is a 5-inch liner which reduced down to 4-1/2 inch at approximately 11,332 feet.

Subsequent to setting the liner and circulating cement to the top of the liner, the Wolfcamp perforations were perforated and then the 2-3/8ths Hydrill tubing was run with the PBR's hung on it and the lower PBR was set at 11,356, PBR being a polished bore receptacle, and the upper 4-1/4 inch was set at the top of the liner, being part of the top of the top of the liner hanger.

That tubing does -- is 2-7/8ths inch tubing between the two PBR's.

The second string of tubing was then run, which was 2-3/8ths inch Nulock and stung into the upper

PBR.

The Wolfcamp perforations are as indicated as are the Morrow perforations down below the lower PBR.

Q. Does this method of completion conform with good engineering practices and insure the separation of the zones involved?

A. Yes, it does.

Q. In your opinion is the proposed completion the best method of completing the well so as to produce both the Wolfcamp and the Morrow in one well?

A. Yes, it is.

Q. Will you now refer to Applicant's Exhibit Nine-A and review this for Mr. Stamets?

A. Exhibit Number Nine-A is the bottom hole pressure data on the Wolfcamp zone, that is the upper zone. The pressure bombs were set at 10,750 feet and the bottom hole pressures were calculated at the midpoint of the perforations at 11,143 feet. This was run on 11-1-80 and the test was completed on 11-3.

The initial pressure of the surface tubing pressure was 3020 psi. The estimated datum pressure was 5890 psi.

A 4-point test was run as if it were a

gas well. At this time we felt there was a chance that it might be a retrograde condensate so we wanted to treat it as that, since it did want to flow, and we flowed the well for four hours at four rates and ran bombs back to 10,750 and shut it in for a 68-hour buildup.

The last two pages are the static surveys run immediately prior to the flow and the one run immediately after the 68-hour buildup.

Q. Will you now refer to Applicant's Exhibit Nine-B and review this?

A. Exhibit Nine-B is similar data except it's on the Morrow formation, Morrow zone, that is the lower perforations.

It was started on 10-31 and completed also on 11-3 with the 4-point test data indicating the initial reservoir pressure was 7551 psi at 13,124 feet, which calculated to be the midpoint of the perforations, and that is an estimated bottom hole pressure, because we were only able to run the bombs to 11,371 feet.

And this was a 70-hour shutin. At the end of 70 hours the bottom hole pressure was estimated to be 7584 psi.

And the last page of this is the static survey run after the 70-hour shutin.

Q. Will you now refer to HNG Exhibit Nine-C and review this for Mr. Stamets?

A. Exhibit Nine-C is the Commission Form C-105 for well completions report and log on the subject well in the Wolfcamp zone, date of completion being 10-31-80 for the Wolfcamp perforations, showing that they were treated with 3000 gallons of 15 percent spearhead acid.

This test, what we did is we converted the 4-hour flow to a 24-hour flow to get the initial test and it calculated for a 24-hour rate, an average rate of 407.58 barrels of oil a day, 505.6 Mcf gas per day, no water. Gas/oil ratio of 1,240, oil gravity 46.9 degree API, at an average flowing tubing pressure of 2850 psi.

Q. Will you now refer to Exhibit Nine-D and review this for Mr. Stamets?

A. Exhibit Nine-D is the multipoint back pressure test for the gas zone of the Morrow run also on 10-31-80 as the completion date, and the calculated AOF on this was 17,849 Mcfd at 15.025 psia.

During the test 10.59 barrels of oil was also produced, that is, barrels of condensate.

The second page is the plat, the graph of the back pressure curve, and the back completion is the Form C-105 well completion report and log for the Morrow zone

indicating that we treated that zone with 3000 gallons of 7-1/2 percent MS acid and we also had the gravity of the condensate measured at 56.0 API degrees.

Q. Will you now review Exhibit Nine-E for the Examiner?

A. Exhibit Nine-E is the southeast New Mexico packer leakage test report, which shows no communication between the two zones, and it was run from 12-17-80 through I think it would be 12-21, and it showed that we didn't have any communication between the zones.

And attached to it are, in chronological order, are the four days charts that were run with the Morrow and the Wolfcamp pressure lines indicated.

Attached also is the two packer setting reports, one for the 4-1/4 inch TIW PBR set at 10,782, which is the upper dual PBR.

MR. STAMETS: Could I interrupt you?

A. Yes.

MR. STAMETS: On it. Take a short break. I hate to do this, but I've got somebody I need to talk to on the telephone on a long-standing project that the Division has been working on. I'll be back in just a few moments.

(Thereupon a brief recess was taken.)

MR. STAMETS: Okay, thank you very much. I appreciate your indulgence.

You may proceed.

A. Let's see, we were at the packer setting report for the upper PBR set at 10,782; also the form following that is the packer setting report for the 4-inch PBR, set at 11,332, approximately.

Also attached is the shutin surveys, one run on 12-17-80, which is 50-day shutin time, and this was on the Morrow long string, and it came up with an estimated pressure of 7556 psi at 13,124 feet.

The last static survey is on the Wolfcamp zone, run on the same date, which showed a 16-day -- let's see, I believe that's incorrect -- it's probably 48-day shutin, and that was at 11,143 feet, estimated bottom hole pressure of 5878 psi.

Q. Mr. Holm, will you now refer to Exhibit 10 and review this for the Examiner?

MR. STAMETS: Could I ask a question while we're on Number Nine? Which one of the charts reflects the flow test number two?

A. This is on the packer leakage test, Nine-E?

MR. STAMETS: Yes.

A. Let me see, the first chart was run 12-17 to the 18th, was the shutin of both zones.

The following chart is on the flow of the Morrow from 12-18 to 12-19.

The third chart is 12-19 to --

MR. STAMETS: Okay.

A. -- 12-20, which is flow of the Wolfcamp, and then the last one being shutin in both zones.

MR. STAMETS: Thank you.

Q. Will you now review Exhibit Ten?

A. Exhibit Number Ten is a summary of the reservoir data calculated from the bottom hole pressure surveys. In the Wolfcamp zone the permeability was calculated to be 9.6 millidarcies; flow efficiency, 397.1 millidarcy feet per centipoise; and a skin factor of -4.7.

In the Morrow zone the data was not determined since the buildup data were unreliable due to an apparent changing liquid level and fluid gradient between the pressure bombs and the midpoint of the perforations, that is datum.

Q. Mr. Holm, is HNG requesting a discovery allowable for the subject well?

A. Yes, it is.

Q. Will you refer to Exhibit Eleven and re-

view this for the Examiner?

A. Exhibit Eleven is the application for discovery allowable and the creation of a new pool on the HNG Oil Company San Simon State 6 No. 1.

The suggested pool names listed in order of preference are, first, the San Simon Wolfcamp; second, the Merchant Wolfcamp; and third, the Ojo Chiso East Wolfcamp.

This form C-109 was filed on 1-7-81, as was the Form C-104.

The nearest production to this discovery is the Morrow well in East Grama Ridge Field, I believe it's Well No. 2 on the cross section, coming from the left. This well is located approximately 7720 feet northwest of the discovery well. Vertical distance between, or vertical separation between the pay zones is about 1792 feet.

The nearest Wolfcamp production is from the Grama Ridge Wolfcamp gas well, the first well on our cross section, that being on the extreme left. It's top of pay is 11,320 feet and it's located approximately 9810 feet northwest of the discovery well.

All the operators owning leases within one mile of this well were sent copies of this form.

And also attached to this is the Form C-104 showing the Western Crude Oil as being the purchaser

of both the condensate and the oil and Texaco being the purchaser of the dry gas and the casinghead gas, showing both the Morrow and the Wolfcamp.

Q. Will you now refer to your fluid analysis, which is marked for identification as Exhibit Number Twelve, and review the data contained thereon?

A. The Exhibit Number Twelve, we had Mobile Analytical Laboratories in Odessa, Texas, run a recombination of the liquid and gaseous phases of the fluids produced by the Wolfcamp zone, and this recombination was done at average reservoir conditions of 5890 psi at 164 degrees Fahrenheit.

Both the summation of KM and M/K was found to be greater than the summation of M; therefor, the reservoir is part liquid and part vapor phase. That is, in the reservoir you have oil and free gas.

Also attached are the oil sample analysis and the gas sample analysis.

Q. Mr. Holm, will you now refer to Exhibit Thirteen and review this for Mr. Stamets?

A. To show the difference between HNG's well and the Getty State 36 No. 1 retrograde condensate reservoir fluids, we drew a Wolfcamp fence diagram of the gas sample and the oil sample with the Mole percent increasing from the centerline, zero, both to a left and to the right,

the gas sample being on the left, oil sample being on the right.

The HNG gas was found to have a BTU rating of 1194 as compared to 1224 for the Getty well. Both -- both wells had very similar gas.

The triangle represents the Getty Well data; the circle represents HNG's well data.

On the righthand side there's a significant difference in the composition of the oil, as indicated in -- as you come down through the methanes, ethanes, and propanes. The HNG well has significantly lower lighter ends and has more of the heavier ends percentagewise, indicating that it is definitely an oil as compared to the condensate.

Q. Mr. Holm, in your opinion is the Wolfcamp zone in the San Simon 6 No. 1 Well a new Wolfcamp Pool that is not being produced by any other well in the area?

A. Yes, sir, it is.

Q. In your opinion will granting this application be in the best interest of conservation, the prevention of waste, and the protection of correlative rights?

A. Yes.

Q. Were Exhibits Six through Eight, Nine-A, B, C, D, and E, and Ten through Thirteen prepared by you or under your direction and supervision?

A. Yes, they were.

MR. CARR: At this time, Mr. Stamets, we would offer these exhibits into evidence.

MR. STAMETS: These exhibits will be admitted.

MR. CARR: I have nothing further of Mr. Holm on direct.

MR. STAMETS: Are there questions of this witness? He may be excused.

MR. CARR: Mr. Stamets, we will not call an additional witness.

This concludes our direct case.

MR. STAMETS: Is there anything further, then, in this case?

The case will be taken under advisement.

(Hearing concluded.)

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. 7128, heard by me on 1-14 19 84.

Richard L. Stamets, Examiner
Oil Conservation Division

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