

CASE 7378: JEROME P. MCHUGH FOR DOWN-
HOLE COMMINGLING, RIO ARRIBA COUNTY,
NEW MEXICO

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DOCKET MAILED

~~DATE~~ 10/9/81

CASE NO.

7378

APPLICATION,
TRANSCRIPTS,
SMALL EXHIBITS,

ETC.



STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

BRUCE KING
GOVERNOR

LARRY KEHOE
SECRETARY

November 25, 1981

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

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Re: CASE NO. 7578
ORDER NO. R-6827

Mr. Tommy Roberts, Landman
Dugan Production Corporation
P. O. Box 208
Farmington, New Mexico 87401

Applicant:

Jerome P. McHugh

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	x

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. 7378
Order No. R-6827

APPLICATION OF JEROME P. MCHUGH
FOR DOWNHOLE COMMINGLING, RIO ARRIBA
COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on October 21, 1981, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this 24th day of November, 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, Jerome P. McHugh, is the owner and operator of the Apache E Well No. 1, located in Unit A of Section 18, Township 26 North, Range 3 West, NMPM, Rio Arriba County, New Mexico.

(3) That the applicant seeks authority to commingle Wildhorse-Gallup and Basin-Dakota production within the wellbore of the above-described well.

(4) That from the Wildhorse-Gallup zone, the subject well is expected to be capable of low marginal production only.

(5) That from the Basin-Dakota zone, the subject well is expected to be capable of low marginal production only.

(6) That the proposed commingling may result in the recovery of additional hydrocarbons from each of the subject pools, thereby preventing waste, and will not violate correlative rights.

-2-

Case No. 7378
Order No. R-6827

(7) That the reservoir characteristics of each of the subject zones are such that underground waste would not be caused by the proposed commingling provided that the well is not shut-in for an extended period.

(8) That to afford the Division the opportunity to assess the potential for waste and to expeditiously order appropriate remedial action, the operator should notify the Aztec district office of the Division any time the subject well is shut-in for 7 consecutive days.

(9) That in order to allocate the commingled production to each of the commingled zones in the subject well, 50 percent of the commingled oil and gas production should be allocated to the Wildhorse-Gallup zone, and 50 percent of the commingled production to the Basin-Dakota zone.

IT IS THEREFORE ORDERED:

(1) That the applicant, Jerome P. McHugh, is hereby authorized to commingle Wildhorse-Gallup and Basin-Dakota production within the wellbore of the Apache E Well No. 1, located in Unit A of Section 18, Township 26 North, Range 3 West, NMPM, Rio Arriba County, New Mexico.

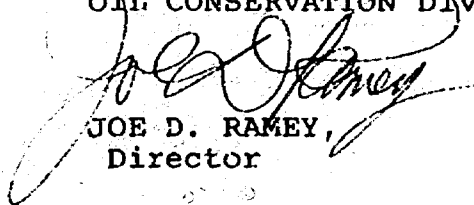
(2) That 50 percent of the commingled oil and gas production shall be allocated to the Wildhorse-Gallup zone and 50 percent of the commingled production shall be allocated to the Basin-Dakota zone.

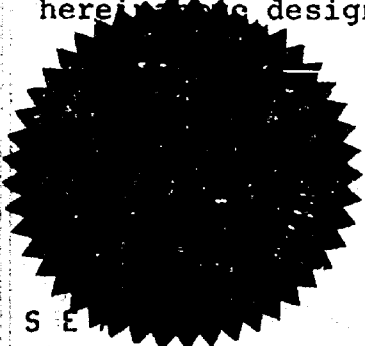
(3) That the operator of the subject well shall immediately notify the Division's Aztec district office any time the well has been shut-in for 7 consecutive days and shall concurrently present, to the Division, a plan for remedial action.

(4) 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 herein designated.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION


JOE D. RAMEY,
Director


S E

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

EXAMINER HEARING

IN THE MATTER OF:

Application of Jerome P. McHugh
for downhole commingling, Rio
Arriba County, New Mexico.

CASE
7378

BEFORE: Richard L. Stamets

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Oil Conservation
Division:

W. Perry Pearce, Esq.
Legal Counsel to the Division
State Land Office Bldg.
Santa Fe, New Mexico 87501

For the Applicant:

Tommy Roberts, Esq.
Dugan Production Corporation
Farmington, New Mexico

1 2

2 I N D E X

3

4 THOMAS A. DUGAN

5 Direct Examination by Mr. Roberts 3

6

7 E X H I B I T S

8

9 Applicant Exhibit One, Map 4

10 Applicant Exhibit Two, Plat 4

11 Applicant Exhibit Three, Log copies 5

12 Applicant Exhibit Four, Log copies 5

13 Applicant Exhibit Five, Log copies 5

14 Applicant Exhibit Six, Log copies 5

15 Applicant Exhibit Seven, Report 6

16 Applicant Exhibit Eight, Shut-in Pressures 7

17 Applicant Exhibit Nine, Curve 8

18 Applicant Exhibit Ten, Curve 8

19 Applicant Exhibit Eleven, Curve 8

20 Applicant Exhibit Twelve, Curve 8

21 Applicant Exhibit Thirteen, Curve 8

22 Applicant Exhibit Fourteen, Curve 8

23 Applicant Exhibit Fifteen, Curve 8

24 Applicant Exhibit Sixteen, Curve 8

25

1
2 MR. STAMETS: We'll call next Case 7378.

3 MR. PEARCE: Application of Jerome P.
4 McHugh for downhole commingling, Rio Arriba County, New
5 Mexico.

6 MR. STAMETS: The record will reflect
7 the same appearances and qualifications of the witness. I
8 would ask that the relationship between the witness and the
9 applicant be established.

10
11 THOMAS A. DUGAN
12 being called as a witness and being previously sworn upon his
13 oath, testified as follows, to-wit:

14
15 DIRECT EXAMINATION

16 BY MR. ROBERTS:

17 Q Mr. Dugan, what is your relationship to
18 the applicant in this case?

19 A I work for Mr. McHugh as a consultant.

20 Q You've been authorized to appear before
21 the Commission on his behalf?

22 A Yes.

23 Q Are you familiar with the contents and
24 the purpose of this application?

25 A Yes.

1

2

Q Would you please describe the purpose?

3

A The purpose is to secure approval for

4

the commingling downhole in the Gallup and Dakota horizons

5

of the Apache 1-E Well, located in Section 18, Township 26

6

North, Range 3 West, Rio Arriba County, New Mexico.

7

Q What is the current status of this well?

8

A The well is completed awaiting, shut-in

9

awaiting a gas connection.

10

Q Refer to Exhibits One and Two and ident-

11

ify those exhibits and explain their significance to this

12

application.

13

A Number One is a map showing the location

14

of the Apache 1-E Well, along with the location of other wells

15

in the vicinity. It also shows the cumulative and 1980

16

production for wells in this area.

17

Q With regard to Exhibit Number One, what

18

conclusions may be drawn from the production figures that

19

are exhibited?

20

A The Dakota production figures for 1980

21

are on the front and the Wild Horse Gallup production figures

22

are on the back of this sheet, of Exhibit One.

23

It would indicate to me that it's a

24

rather poor producing area in both the Dakota and Gallup

25

horizons.

1
2 Q Go onto Exhibit Number Two, if you will.

3 A Exhibit Number Two is showing the pro-
4 ration unit and the offset operators to the Apache 1-E Well.

5 Q Refer to Exhibits marked Three, Four,
6 Five, and Six, and identify those exhibits.

7 A These are xeroxed copies of the logs in
8 the vicinity, showing, let's see, the Exhibit Three is the
9 Apache 1-E Well, and the zone, the Gallup zone that we per-
10 forated was the five foot interval 7530 to -- I guess it was
11 a ten foot interval, excuse me, 7530 to 7520, and upside down.

12 It also shows the Dakota horizons, the
13 zones that we perforated. It would indicate that both the
14 Dakota and Gallup zones are thin.

15 The Number Four is the Apache 3-E Well,
16 which is the well that we secured permission to commingle in
17 the wellbore prior to completion and this well is currently
18 completed and waiting, shut-in awaiting a connection.

19 And also we have the log for the Apache
20 A-1 and A-2 Wells.

21 Q Jicarilla.

22 A Or the Jicarilla A-1 and A-2, which are
23 now the Apache --

24 Q 1 and 2?

25 A 1 and 2, right.

1
2 Q And do they provide the same type of
3 information as the --

4 A Same type of information, yes.

5 Q Where --

6 A These two wells were completed in '69.

7 Q Okay. Where is the Apache 1-E Well
8 located in relation to the wells for which the logs are being
9 provided as exhibits?

10 A The Apache 1-E is in the same section or
11 just to the -- section just to the north of the logs; within
12 a mile, we have McHugh logs within a mile of the Apache 1-E
13 Well.

14 Q Would you refer to Exhibit Number Seven
15 please and identify that exhibit?

16 A Yes. Exhibit Number Seven is the daily
17 drilling report for the Apache 1-E Well, showing the manner
18 in which the well was drilled and completed.

19 Q Okay. Would you briefly summarize the
20 manner in which the well was drilled and completed?

21 A It was drilled in the usual manner using
22 mud and 4-1/2 casing set through both horizons. The Dakota
23 was selectively perforated and fraced. The Gallup was per-
24 forated and fraced in a second stage, and then both wells --
25 both zones kicked off and allowed to clean up, and the well

1
2 was making approximately 1600 Mcf with a light spray of oil
3 and water.

4 Q Please identify Exhibit Number Eight,
5 please.

6 A Exhibit Number Eight shows shut-in pres-
7 sures that were taken during the initial completion of the
8 four McHugh wells, the Apache 1, 2, 3, and 4, and also shows
9 the last shut-in pressures we have on these four wells.

10 Q Do you have pressure data available for
11 the 1-E Well?

12 A I don't believe we've tested that well
13 yet.

14 Q From the chart of shut-in pressures are
15 you able to form an opinion as to whether those pressures
16 would be compatible?

17 A Yes, I believe you can see that they
18 were fairly close, the initial pressures, and the older wells
19 are still relatively close.

20 Q Would you expect to encounter these same
21 pressures in the 1-E Well? Similar pressures?

22 A It would appear from what I've heard
23 that the pressures are going to be similar to the initial
24 shut-in pressures of the original wells.

25 Q Would any disparity of pressures encountered

1
2 in any way adversely affect the efficiency of recovery oper-
3 ations, in your opinion?

4 A. I don't believe so. Both zones are gas
5 zones, horizons.

6 Q. Exhibits Nine through Sixteen are simi-
7 lar in nature. Would you summarize the contents of those
8 exhibits, please?

9 A. These are decline curves of the wells,
10 both Gallup and Dakota horizons of the older wells, Apache 1
11 through 4, and were submitted to show that both the Gallup and
12 the Dakota horizons are relatively marginal and we've had a
13 considerable amount of trouble producing each zone separately.

14 Q. Then, in your opinion is it economically
15 necessary to commingle production in the wellbore of this
16 well?

17 A. We will recover a lot more gas and oil
18 if we do commingle the Gallup and Dakota horizons in this
19 well.

20 Q. And is the ownership of the zones common?

21 A. Yes.

22 Q. Do you propose a formula for allocation
23 of production to the respective zones?

24 A. The formula that we proposed for the
25 Apache 3-E Well was 50 percent of the gas and 50 percent of

1
2 the oil to each horizon, and I propose the same formula for
3 this well.

4 Q And how do you arrive at that allocation
5 formula? What's the basis for that proposal?

6 A Experience with other wells in this
7 immediate area.

8 Q Mr. Dugan, were Exhibits One through
9 Sixteen prepared by you or at your direction?

10 A Yes.

11 MR. ROBERTS: We move admission of Ex-
12 hibits One through Sixteen.

13 MR. STAMETS: These exhibits will be
14 admitted.

15 Q In your professional opinion will the
16 commingling of production in the wellbore of this well result
17 in recovery of additional hydrocarbons, prevention of waste,
18 and protection of correlative rights?

19 A Yes.

20 MR. ROBERTS: We have no other questions.

21 MR. STAMETS: Any questions of the wit-
22 ness? He may be excused.

23 Anything further in this case?

24 The case will be taken under advisement.

25 (Hearing concluded.)

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C E R T I F I C A T E

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

Sally W. Boyd CSR

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 7378 heard by me on 10 21 19 81.
Richard L. Starn, Examiner
 Oil Conservation Division

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

EASIN DAKOTA
T26N R4W

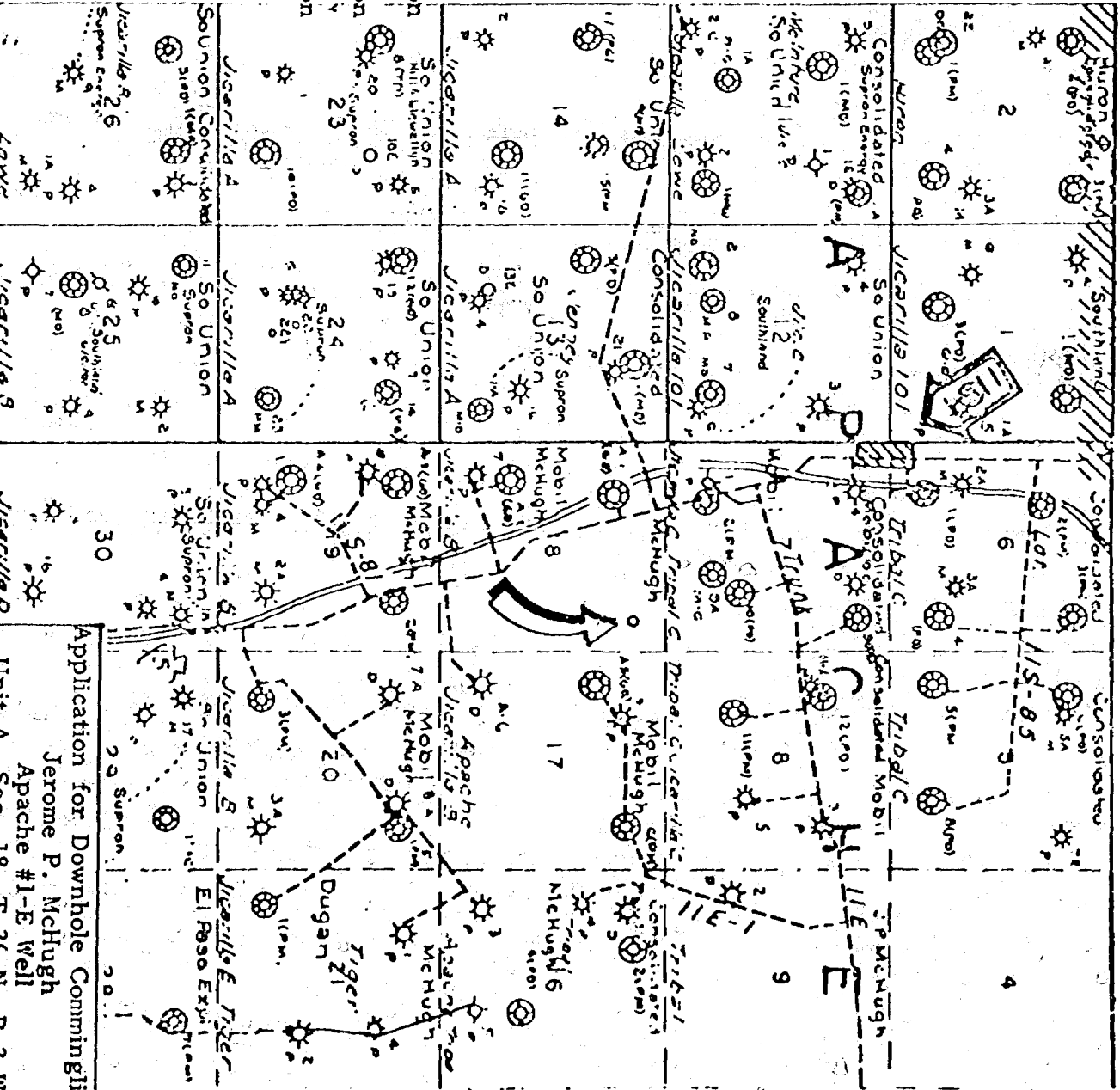
Cumulative 1980

26-4

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26-3

Consolidated Oil & Gas Co.		
Sec. 13 (B) Jenney #1	gas	924980
	oil	20348
Sec. 13 (P) Jenney #1M	gas	77113
	oil	2067
Southern Union Exploration Co.		
Sec. 13 (E) Jicarilla A #13	gas	435793
	oil	8465
Sec. 24 (D) Jicarilla A #12	gas	373887
	oil	17471
Southland Royalty Company		
Sec. 12 (M) Jicarilla 101 #2	gas	493244
	oil	13887
Sec. 12 (P) Jicarilla 101 #7	gas	30252
	oil	198
T26N R3W		
Jerome P. McHugh		
Sec. 17 (E) Apache #5	gas	424436
	oil	8980
Sec. 17 (M) Apache #6	gas	510170
	oil	28197
Sec. 18 (D) Apache #1	gas	435098
	oil	2481
Sec. 18 (L) Apache #2	gas	338219
	oil	5635
Sec. 19 (D) Apache #3	gas	265286
	oil	3171
Sec. 19 (L) Apache #4	gas	103484
	oil	1329
Sec. 20 (3) Apache #8	gas	880
	oil	539
Sec. 20 (D) Apache #7	gas	262576
	oil	14177
Consolidated Oil & Gas Co.		
Sec. 7 (J) Tribal C #10	gas	492014
	oil	5387
Sec. 7 (B) Tribal C #10-E	gas	32945
	oil	642
Sec. 8 (E) Tribal C #12	gas	696877
	oil	8732



Application for Downhole Commingling
Jerome P. McHugh
Apache #1-E Well
Unit A, Sec. 18, T-26-N, R-3-W
Rio Arriba County, New Mexico
Case No. 222
Exhibit No. 1

WIND HORSE GALLUP

T26N R4W

Southern Union Exploration Co.

Sec. 24 (A) Jicarilla A #14

Sec. 24 (D) Jicarilla A #12

Southern Royalty Company

Sec. 12 (W) Jicarilla 101 #2

T26N R3W

Jerome P. McHugh

Sec. 18 (D) Apache #1

Sec. 18 (L) Apache #2

Sec. 19 (D) Apache #3

Sec. 19 (L) Apache #4

Consolidated Oil & Gas Co.

Sec. 7 (O) Tribal C #9-A

gas	512997	16634
oil	2891	--
gas	1880638	55841
oil	7842	232

gas	187189	8355
oil	494	139

gas	135197	5467
oil	7187	365
gas	51966	S
oil	937	S

gas	1463891	41854
oil	16081	275
gas	264242	S
oil	5166	S

gas	10747	4723
-----	-------	------

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OFFSET OPERATORS AND LEASES

T-26-N, R-4-W

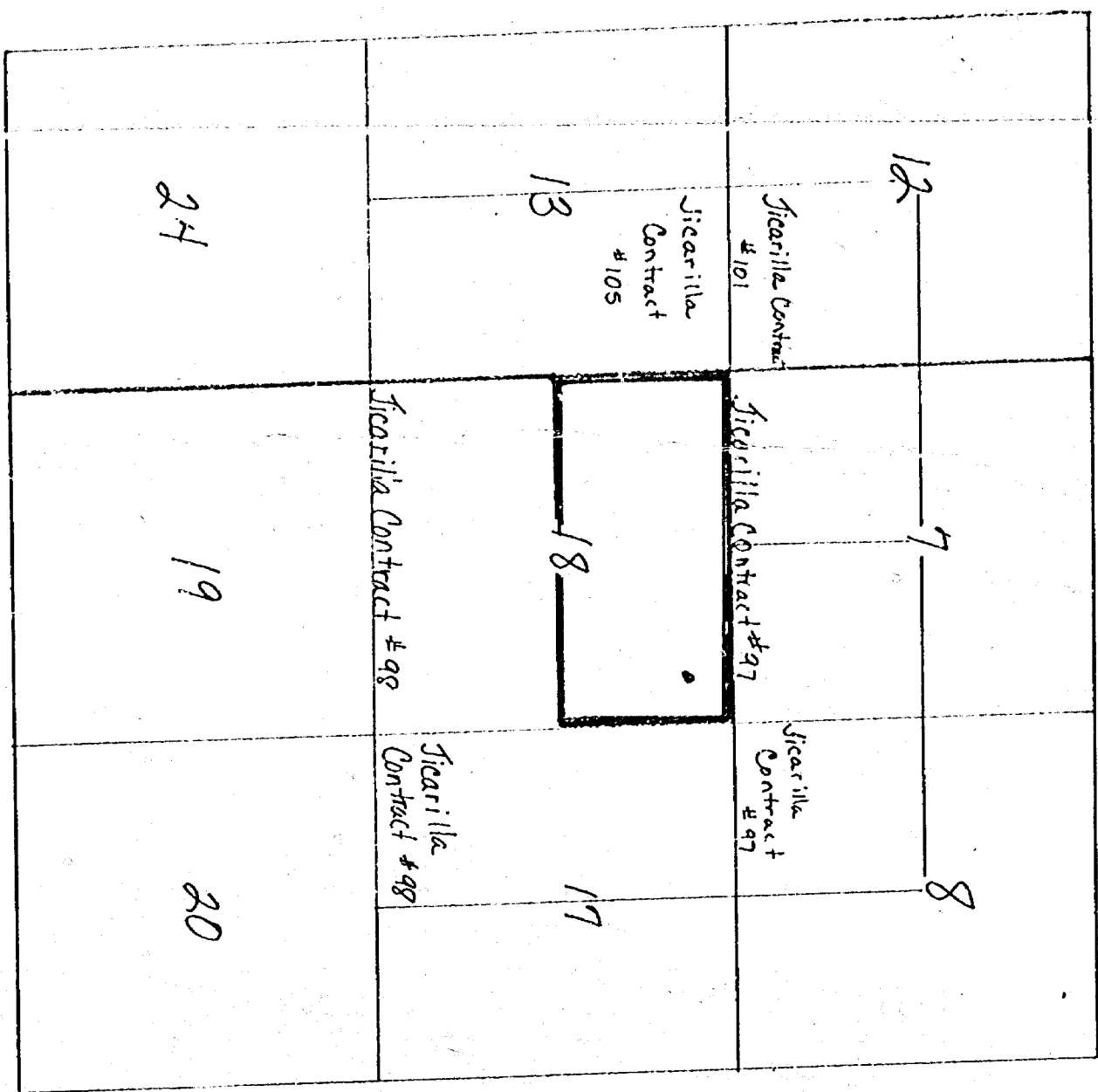
Sec. 12: SE/4
Southland Royalty
Jic. Tribal Contract #101

Sec. 13: E/2
Consolidated Oil and Gas, Inc.
Jic. Tribal Contract #105

T-26-N, R-3-W

Sec. 7: SE/4, SW/4
Sec. 8: SW/4
Consolidated Oil and Gas. Inc.
Jic. Tribal Contract #97

Sec. 17: W/2
Sec. 18: S/2
Jerome P. McHugh
Jic. Tribal Contract #98



JEROME P. MCHUGH
Apache #1-E Well
Sec. 18, T-26-N, R-3-W
Jic. Tribal Contract #98

Application for Downhole Commingling

Jerome P. McHugh

Apache #1-E Well

Unit A, Sec. 18, T-26-N, R-3-W
Rio Arriba County, New Mexico

Case No. 7371

Exhibit No. 2



INDUCTION
ELECTRIC LOG

WELL APACHE #1E

FIELD BASIN DAKOTA
County RIO ARRIBA State N.M.

COMPANY JEROME P. McHUGH

WELL APACHE #1E

FIELD BASIN DAKOTA

COUNTY RIO ARRIBA STATE NEW MEXICO

Location

810 ENL
820 BEL

Other Services:

CDL-C

Sec. 13 Twp. 26N Rge. 3N

GROUND LEVEL

Elev. 7140

Elev. K.B. 7152

Measured From KELLY BUSHING

FLUORIDE Perm. Datum

D.F. 7150

Measured From KELLY BUSHING

G.L. 7140

6-28-81

ONE

8250

8222

8221

255

8 5/16 @ 260

255

7 7/8

7 7/8

7 7/8

7 7/8

7 7/8

7 7/8

7 7/8

7 7/8

7 7/8

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7 7/8

2" = 100'

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CONDUCTIVITY MILLIMHO

400

1000

RESISTIVITY OHMS M²/M

16" Normal

0

100

100

1000

Induction

100

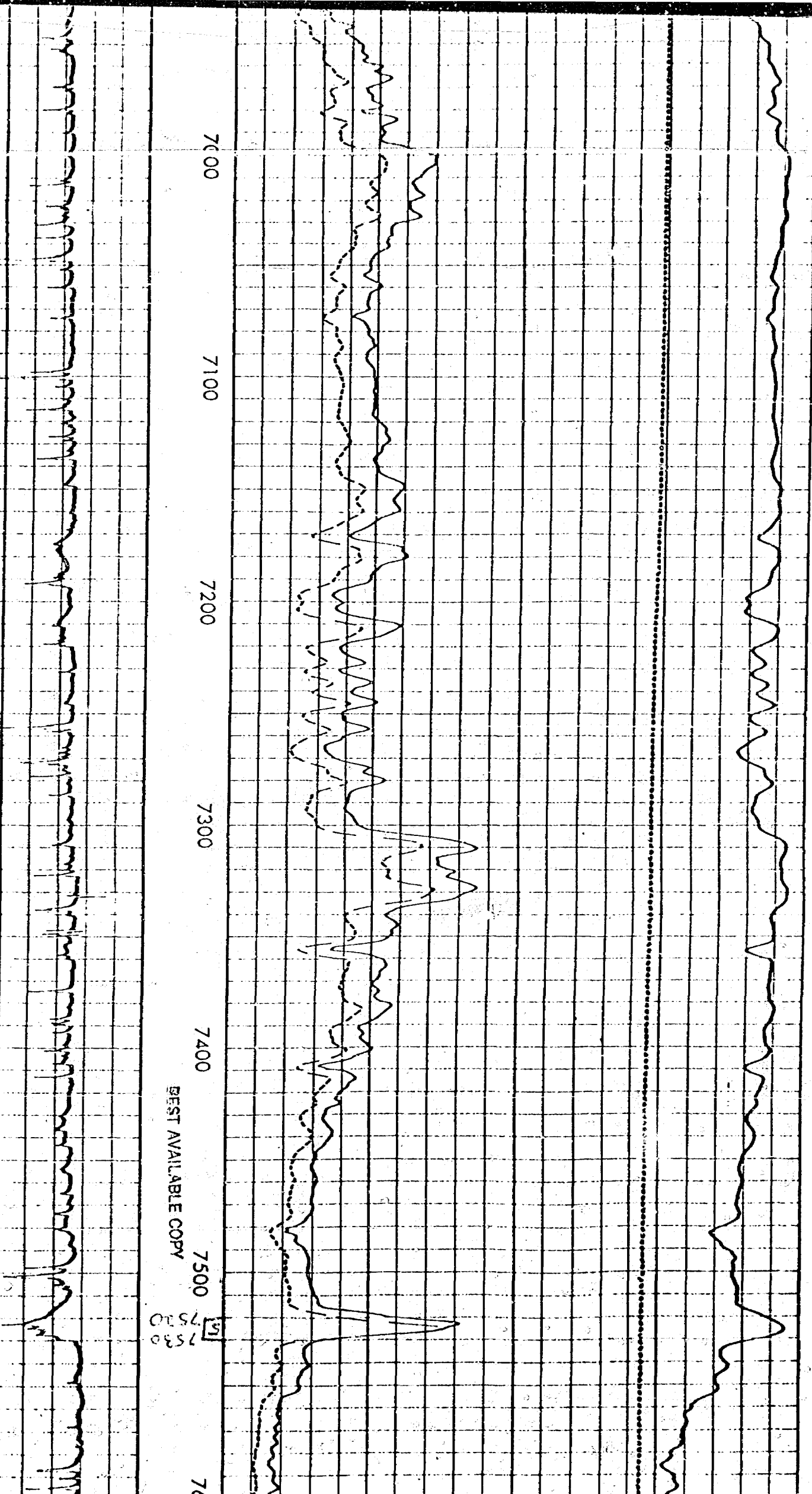
POTENTIAL MILLIVOLTS

10 +

mf .96 at 168 °F.

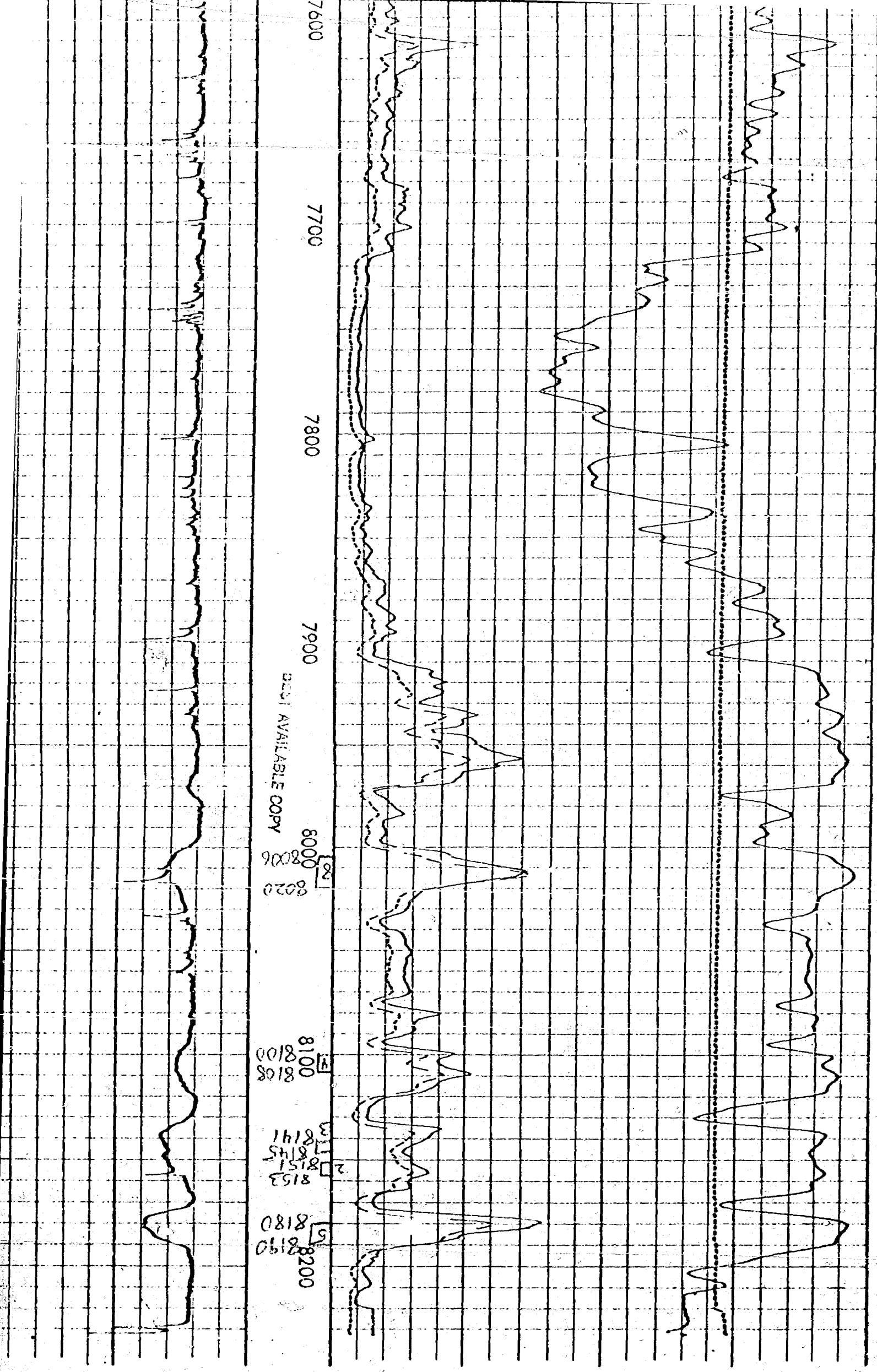
Application for Downhole Commingling
Jerome P. McHugh
Apache #1-E Well
Unit A, Sec. 18, T-26-N, R-3-W
Rio Arriba County, New Mexico
Case No. 7378
Exhibit No. 3

Weles does not guarantee the accuracy of any interpretation of log data, conversion of log data to physical rock parameters, or recommendations which may appear on the log or in any other form. Any user of such data, interpretations, conversions, or recommendations agrees that Weles is not liable for any loss, damages, or expenses resulting from the use thereof.

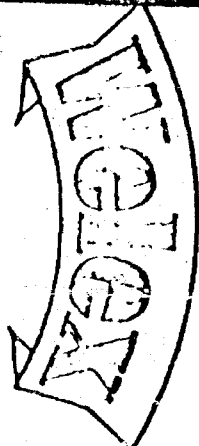


7530
7530

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7600 7700 7800 7900 8000 8100 8200
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8020 8108 8145 8153 8180 8190



INDUSTRIAL RECORDING
100
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COMPANY TEROME P. McHUGH
WELL APACHE #3E
FIELD BRISIN DAKOTA
COUNTY RIO ARRIBA STATE NEW MEXICO
Location
Other Services:

1710' FNL/1120' FEL
CDL

Permanent Datum GROUND LEVEL Elev. 701.5
Log Measured From KELLY RUSHING 125' Above Perm. Datum Elev. K.B. 702.5
Drilling Measured From KELLY RUSHING O.F. —
Date 5-11-81 G.L. 701.5
Run No. ONE
Depth—Driller 8197'
Depth—Wellbore 8191'
Bore Log Inter. 3189'
Top Log Inter. 250'
Casing—Driller 8 5/8" @ 253'
Casing—Wellbore 250'
Bit Size 7 1/4"
Type Fluid in Hole ACND
Dens. Visc 9.2 63
P.H. Fluid Loss 8.0 15.4 ml
Source of Sample MUD PIT
R. Meas. Temp 2.87 @ 70 °F
M. Meas. Temp 2.5 @ 67 °F
B. Meas. Temp 4.0 @ 63 °F
Source R. MEAS. MEAS.
BHT 1.18 @ 170 °F
BHT 0.98 @ 170 °F
BHT 1.48 @ 170 °F

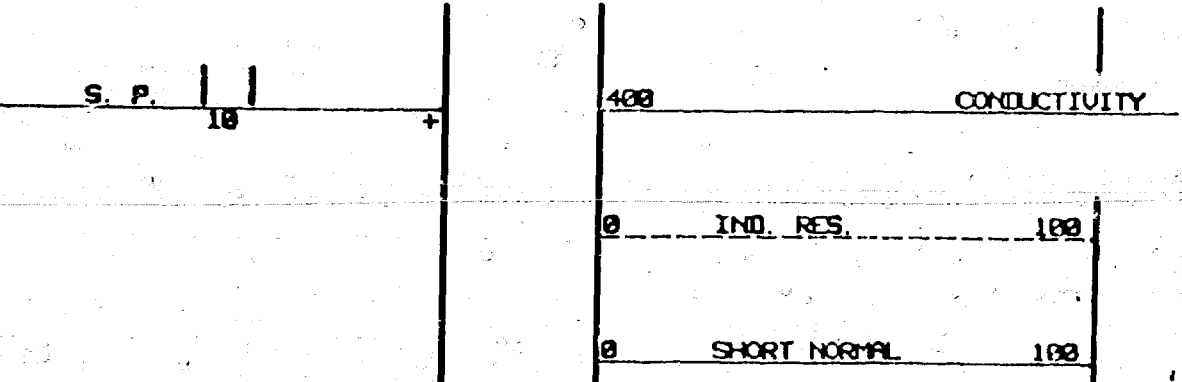
Price Ticket No 082813 Remarks.

Change in Mud Type or Additional Samples				SCALE CHANGES <u>NONE</u>			
Sample No				Type Log	Depth	Scale Up Hole	Scale Down Hole
Driller				<u>TEL</u>			
Fluid in Hole							
Visc	<u>9.2</u>	<u>63</u>					
Fluid Loss	<u>8.0</u>	<u>15.4 ml</u>					
Source of Sample	<u>MUD PIT</u>						
R. Meas. Temp	<u>2.87</u>	<u>@ 70 °F</u>	<u>@ °F</u>	Run No.	Tool Type and No.	Pad Type	Tool Position
M. Meas. Temp	<u>2.5</u>	<u>@ 67 °F</u>	<u>@ °F</u>	<u>ONE</u>	<u>280 # 28609</u>		<u>FREE</u>
B. Meas. Temp	<u>4.0</u>	<u>@ 63 °F</u>	<u>@ °F</u>				
Source R.	<u>MEAS.</u>	<u>MEAS.</u>					
BHT	<u>1.18</u>	<u>@ 170 °F</u>	<u>@ °F</u>				
BHT	<u>0.98</u>	<u>@ 170 °F</u>	<u>@ °F</u>				
BHT	<u>1.48</u>	<u>@ 170 °F</u>	<u>@ °F</u>				

We warrant the accuracy of any interpretation of log data, conversion of log data to physical rock parameters, or recommendation for well operations, based on the log data, and the information. Any user of such data, interpretations, conversions, or recommendations agree where due to gross negligence or willful misconduct, for any loss, damages, or expenses resulting from the use thereof.

Application for Downhole Correlating
Jerome P. McHugh
Apache #1-E Well
Unit A, Sec. 18, T-26-N, R-3-W
Rio Arriba County, New Mexico
Case No. 2324
Exhibit No. 4

2" = 100' BEST AVAILABLE COPY



7300.

7400.

7416

12

7430

7500.

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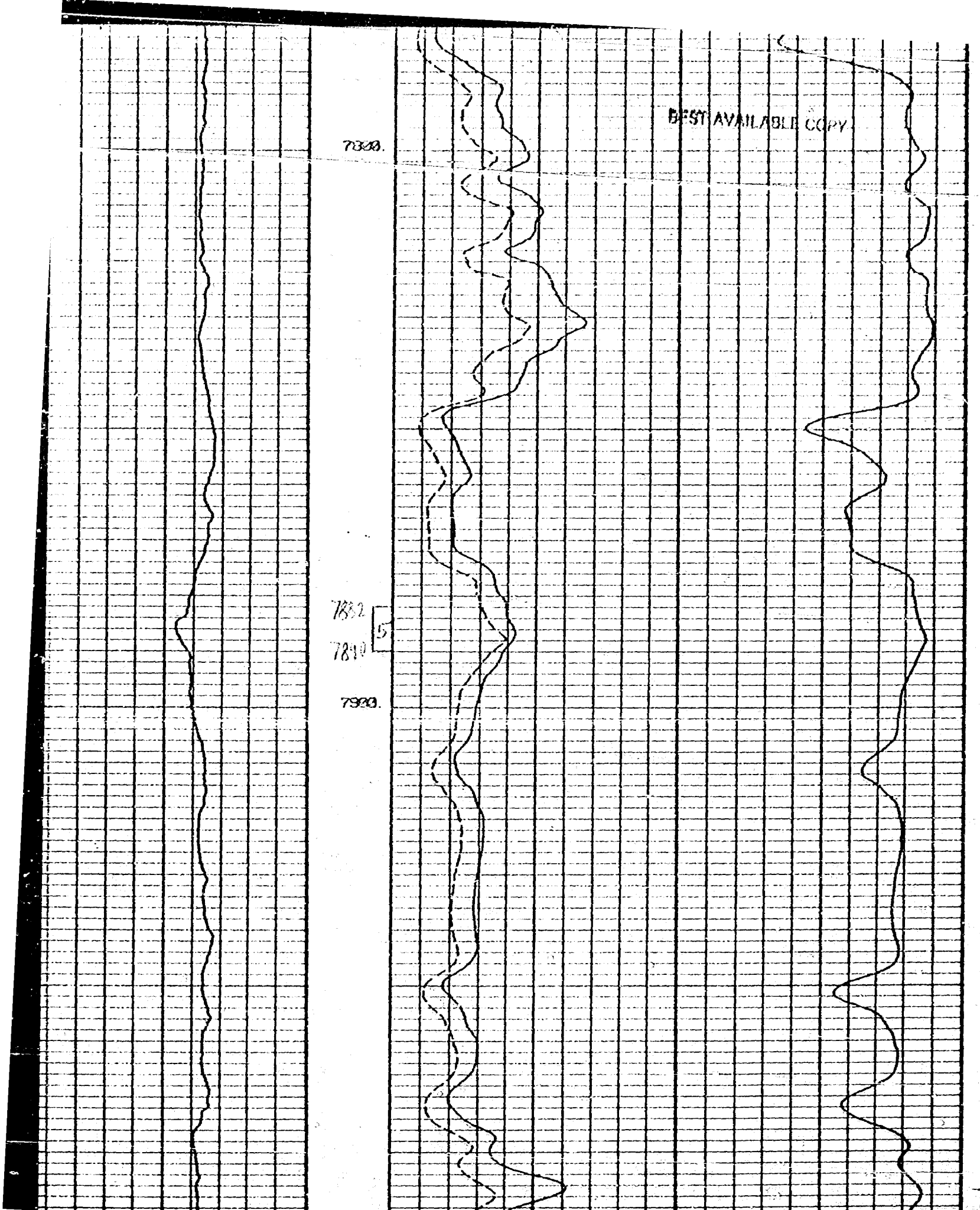
7300.

7832

7890

7920.

5



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828.

8041 13
8041

8041 15
8041

8041

10

8041

8100.

15" NORMAL.

Induction Resistivity

" IND. CONDUCTIVITY

T.D.

LOGGED

0 SHORT NORMAL 100

0 IND RES 100

400 CONDUCTIVITY

S. P. 10

Productions

$$-\frac{1}{10} +$$

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7200

7299
7300
07300

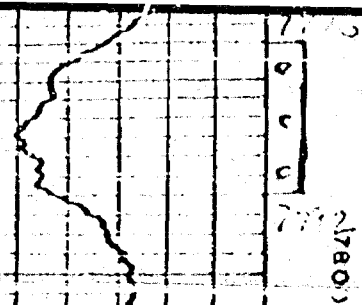
7309

7387

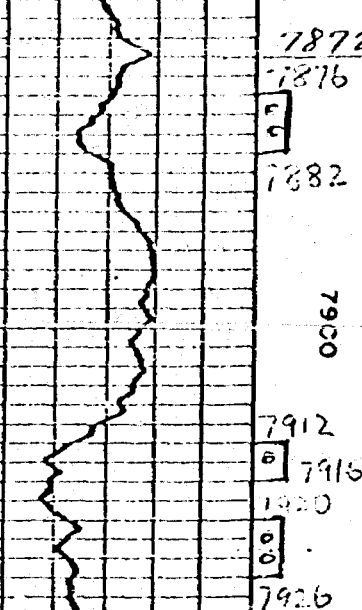
7400

CHIC

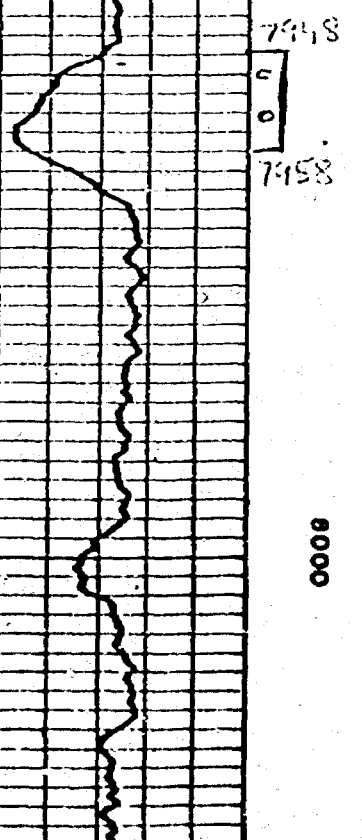
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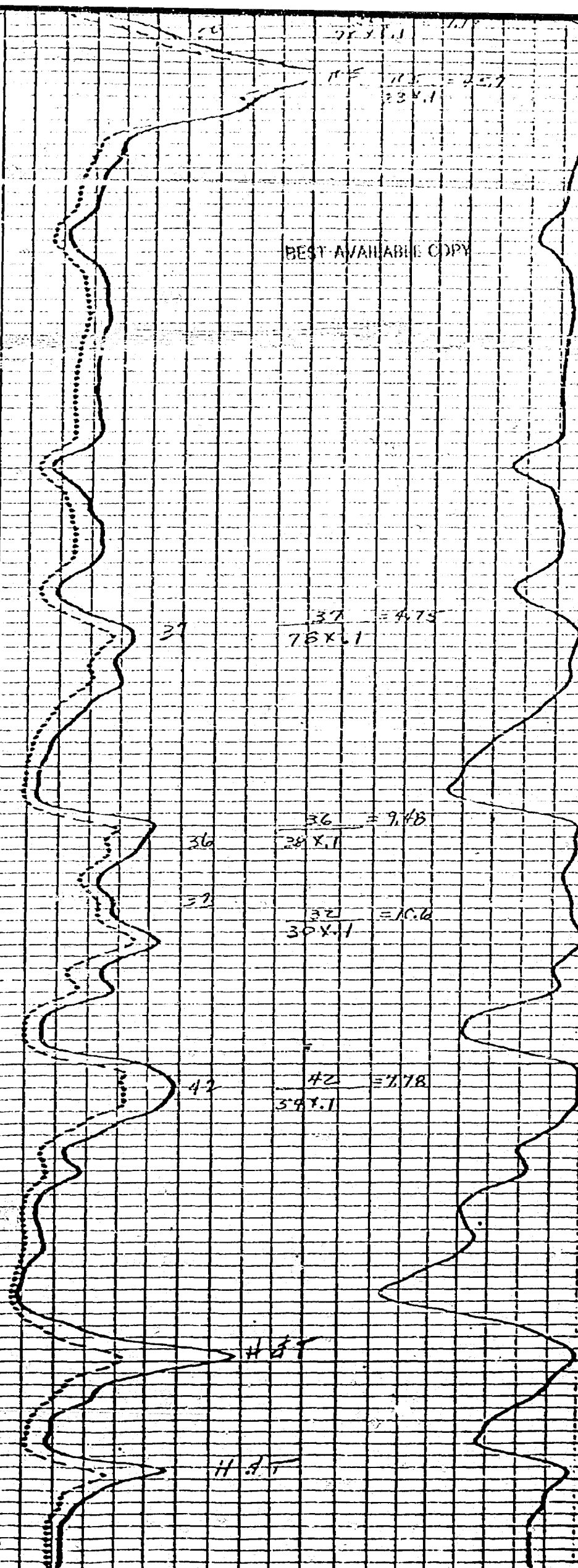
7870
7872
7874
7876
7878
7880



7872
7876
7882
7900
7912
7916
7920
7926



7948
7958
8000
8035



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37

$$\frac{37}{75 \times 1} = 4.75$$

36

$$\frac{36}{28 \times 1} = 9.46$$

32

$$\frac{32}{30 \times 1} = 10.6$$

42

$$\frac{42}{39 \times 1} = 7.78$$

HAT

HAT

Good location
Electroform

FILE NO.

COMPANY Jerome P. McHugh

WELL CLICKAILLA # 2 Paris

FIELD BASIN DAKOTA

COUNTY Rio Arriba STATE

LOCATION: 1650' ASL & 790' FWL

SEC 18 TWP 24N RGE 3W

Permanent Datum S.L. Elev. 6939

Log Measured from K.B. 13 Ft. Above Permanent Datum

Drilling Measured from K.B. Elevations: KB 6952 DF 6939 GI 6939

Date 5-1-69

Run No. ONE

Depth-Driller 812.7

Depth-Logger 811.8

Bottom Logged Interval 811.2

Top Logged Interval 210

Casing-Driller 35/8 @ 211'

Casing-Logger 210

Bit Size 7 7/8"

Type Fluid in Hole Shale Gel

Density and Viscosity 9.2 78

pH and Fluid Loss 9.0 3.2 cc

Source of Sample 214

Rm @ Meas. Temp. 2.2 @ 70 °F

Rmf @ Meas. Temp. 2.0 @ 70 °F

Rmc @ Meas. Temp. 2.6 @ 70 °F

Source of Rmf and Rmc MEASURED

Rm @ BHT 0.9 @ 167 °F

Rmf @ BHT 0.9 @ 167 °F

Rmc @ BHT 0.9 @ 167 °F

Time Since Circ. 9.415

Max. Rec. Temp. Deg. F. 167 °F

Equip. No. and Location 1650' ASL

Recorded By DICKINSON

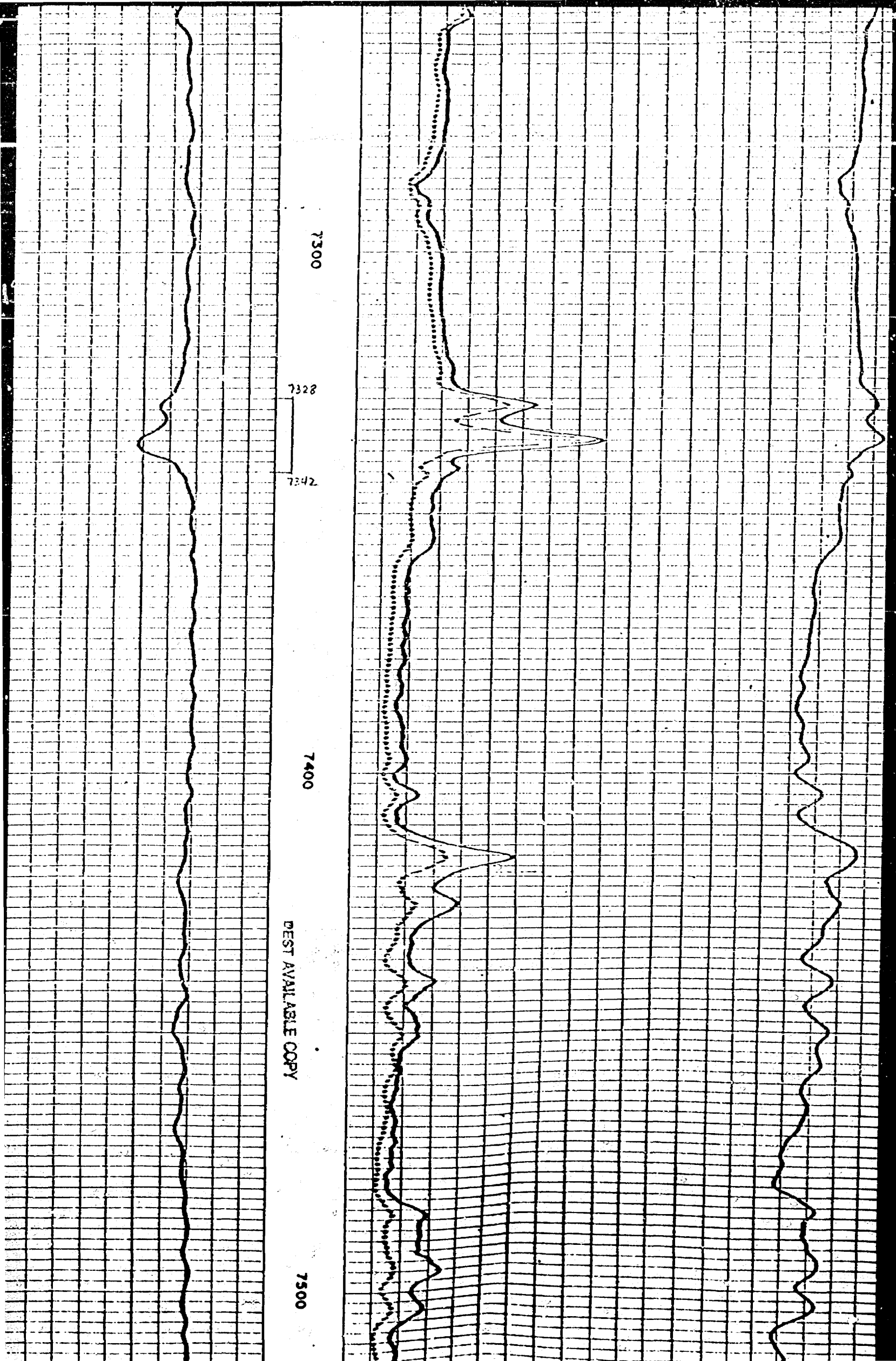
Witnessed By 1650' ASL

REMARKS

Changes in Mud Type or Additional Samples				Scale Changes			
Date	Sample No.			Type Log	Depth	Scale Up Hole	Scale Down Hole
Depth-Driller							
Type Fluid in Hole							
Dens.	Visc.						
pH	Fluid Loss	cc	cc				
Source of Sample				Equipment Data			
Rm @ Meas. Temp.	@	°F	@	°F	Run No.	Tool Type	Pod Type Tool Position Other
Rmf @ Meas. Temp.	@	°F	@	°F	1	805	Free
Rmc @ Meas. Temp.	@	°F	@	°F		S.N. 23	
Source Rmf Rmc							
Rm @ BHT	@	°F	@	°F			
Rmf @ BHT	@	°F	@	°F			
Rmc @ BHT	@	°F	@	°F			

SPONTANEOUS POTENTIAL Millivolts	DEPTH	BEST AVAILABLE COPY CONDUCTIVITY Millimhos/m
$\frac{+}{-}$		INDUCTION CONDUCTIVITY 40" SPACING
		400
		RESISTIVITY Ohms m ² /m
		16" NORMAL
		100
		1000

Application for Downhole Commingling
Jerome P. McHugh
Apache #1-E Well
Unit A, Sec. 18, T-26-N, R-3-W
Rio Arriba County, New Mexico
Case No. 1318
Exhibit No. 16



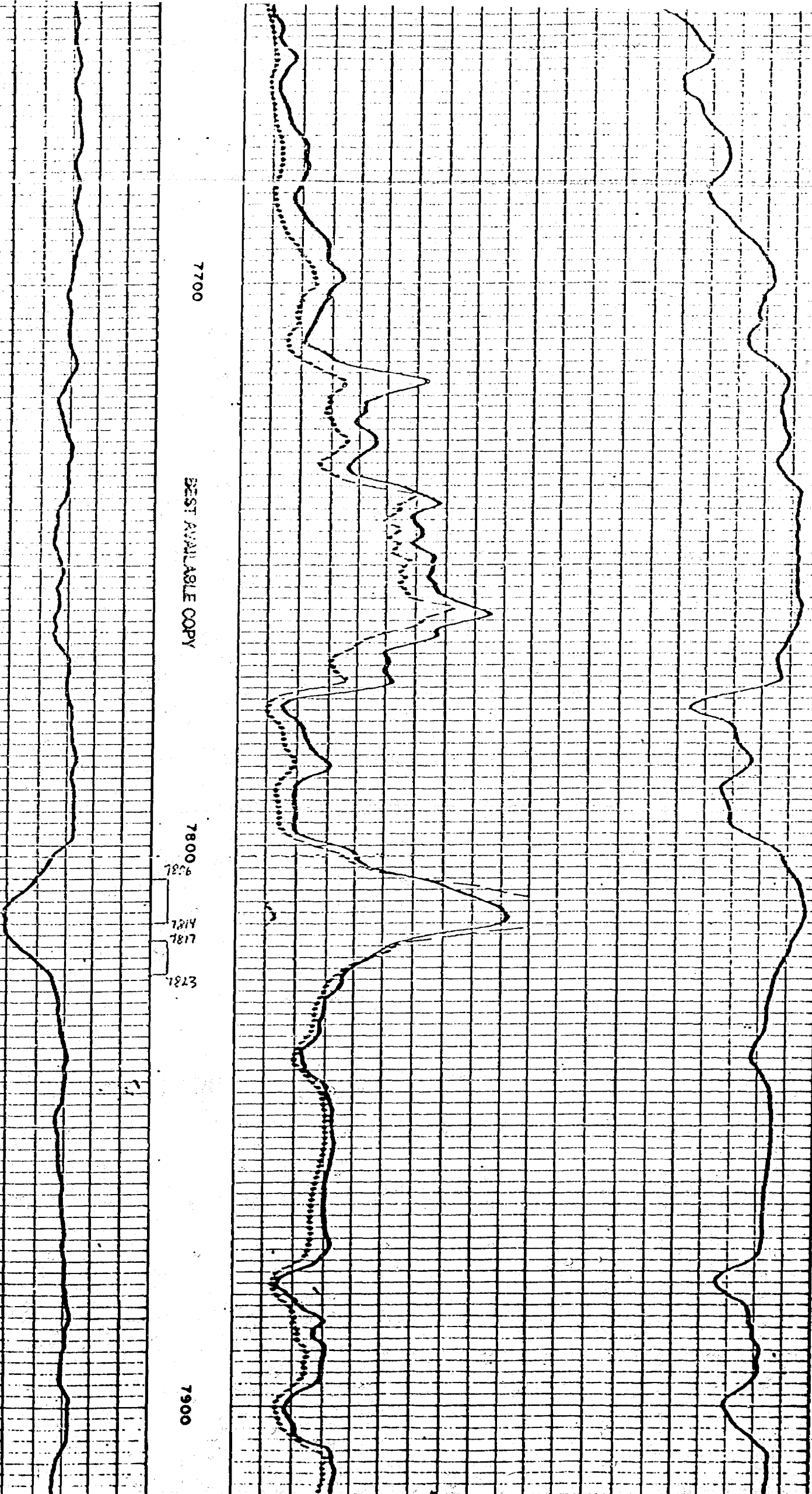
7700

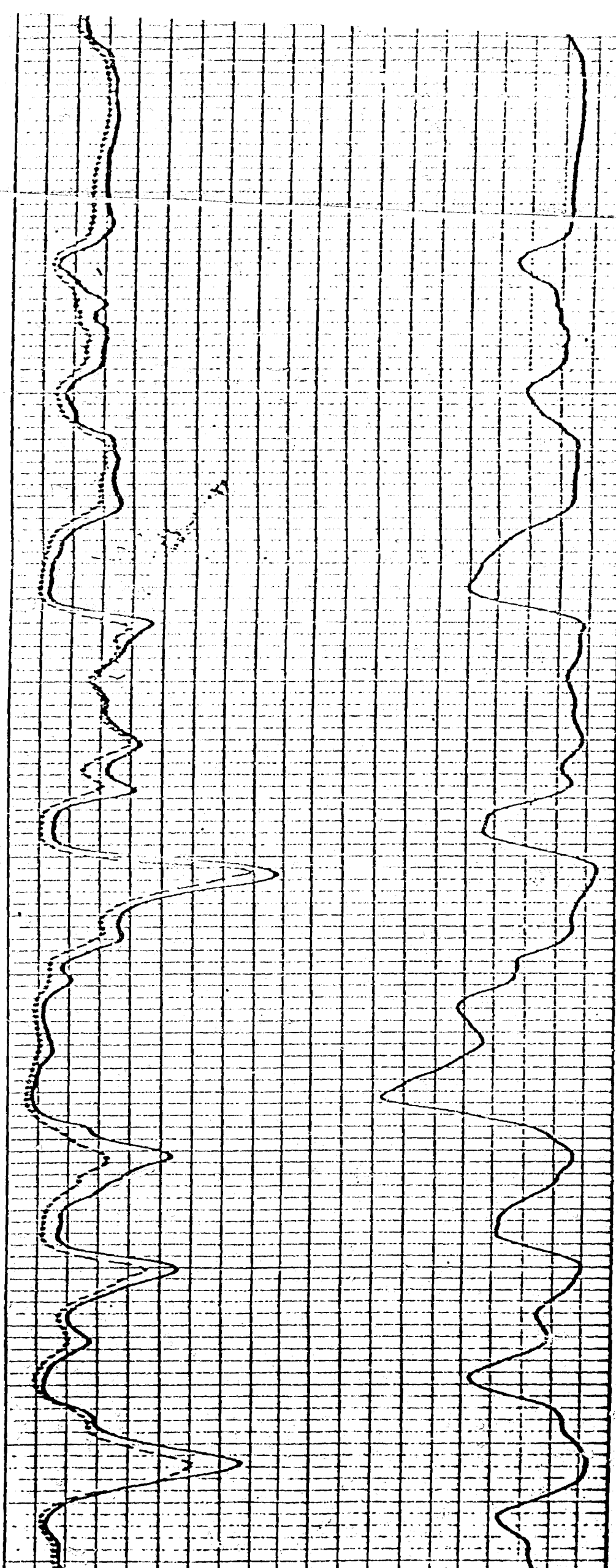
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7800

7826
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7817
7813

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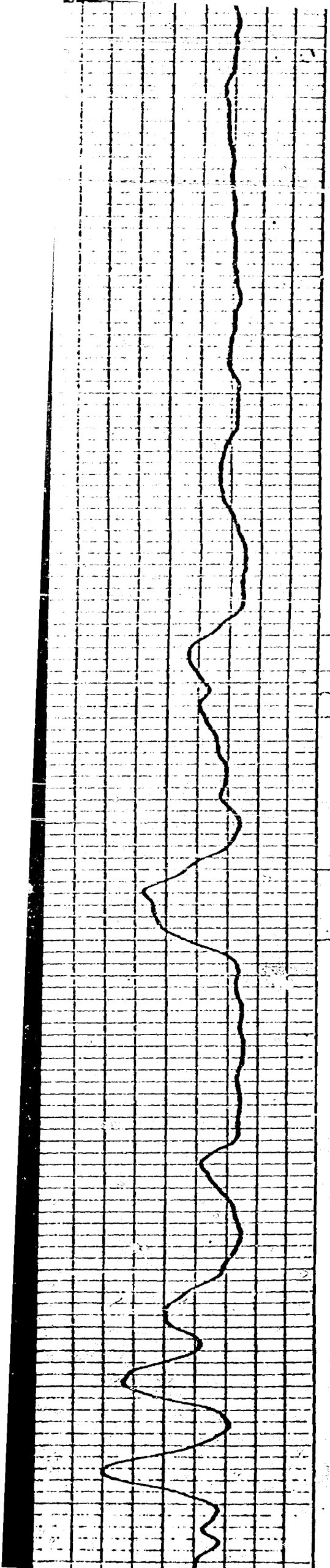
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7912
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7952
7956

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7980
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810



dugan production corp.

JEROME P. McHUGH
Apache #1E
810' FNL - 820' FEL
Sec 18 T26N R3W
Rio Arriba County, NM

Application for Downhole Commingling
Jerome P. McHugh
Apache #1-E Well
Unit A, Sec. 18, T-26-N, R-3-W
Rio Arriba County, New Mexico
Case No. 7374
Exhibit No. 7

MORNING REPORT

- 5-31-81 Move in Four Corners Rig #10
- 6-1-81 Spud 12-1/4" hole at 1:30 p.m. 5-31-81. Drilling to 268'.
1/2° at 268'. Ran 8 jts. 8-5/8" OD, 24#, J-55, 8R, ST&C
csg. set at 260' RKB. Cemented w/ 150 sx class "B" 2% CaCl.
P.O.B. at 5:30 p.m. 5-31-81. Circulated 2 bbls good cement.
W.O.C. and nipple up.
- 6-2-81 2498' - Drilling Wt. 8.9 Vis 29 W.L. 10
1/2° at 781', 1/2° at 1276', 3/4° at 1615', 1° at 1797', 1° at 2402'
- 1-1/2 hrs - trip
18-1/4 hrs - drlg.
3/4 hr - rig service
1-1/4 hrs - survey
1/4 hr - wash
2 hrs - W.O.C.
- 6-3-81 3553' - Drilling Wt. 8.9 Vis 29 W.L. 9.4
3/4° at 2652', 1° at 3148'
- 2 hrs - trip
20-1/2 hrs - drilling
3/4 hr - rig service
1/2 hr - survey
1/4 hr - wash to bottom
- 6-4-81 4260' - Drilling Wt. 8.9 Vis 29 W.L. 8.5
1 1/4° at 3625', 1 1/4° at 4120'
- 2-3/4 hrs - trip
20 hrs - drilling
1/4 hr - rig service
1/2 hr - survey
1/2 hr - wash to bottom

JEROME P. McHUGH

Apache #1E

Page 2

6-5-81 4760' - Drlg. W.t 8.9 Vis 29 W.L. 8.4 1 1/2° at 4615'

3-1/2 hrs - trip
19-1/2 hrs - drlg.
1/2 hr - rig service
1/4 hr - survey
1/4 hr - wash to bottom

6-6-81 5270' - Drlg. W.t 8.9 Vis 29 W.L. 8.4 1° at 5179'

23 hrs - drilling
3/4 hr - rig service
1/4 hr - survey

6-7-81 5575' - drlg. Wt. 8.9 Vis 34 W.L. 8.0
1° at 5179' 3/4° at 5544'

4-3/4 hrs - trip
17 hrs - drilling
3/4 hr - rig service
1 hr - cut drilling line
1/2 hr - wash to bottom

6-8-81 5998 - Drlg. Wt. 8.9 Vis 45 W.L. 8.6 30% LCM
1° at 5959'

20-3/4 hrs - drlg.
3/4 hr - rig service
1/4 hr - survey
1-1/2 hrs - lost circulation at 5990' - lost 175 bbls.
1/2 hr - wash to bottom

6-9-81 6222' - Drlg. Wt. 8.6 Vis 43 W.L. 8 32% LCM

Lost circ. at 6020 & 6052, total of 920 bbls.

1/4 hr - trip
13 hrs - trip
1/4 hr - rig service
10-1/2 hrs - lost circ. and mix mud

6-10-81 6507' - Drilling Wt. 8.5 Vis 45 W.L. 8.8 35% LCM
Lost circ. at 6426' - 500 bbl. 1 1/4° at 6482

17-1/4 hrs - drilling
3/4 hr - rig service
1/4 hr - survey
5-3/4 hr - lost circulation

6-11-81 6972' - Drlg. Wt. 8.8 Vis 44 W.L. 9.2
34% LCM
23-1/4 hrs - drlg.
3/4 hr - rig service

6-12-81 7221 - Drlg. Wt. 8.7 Vis 50 W.L. 9.0 30% LCM
1° at 6982', 1° at 7206'
5-1/2 hrs - trip
17 hrs - drilling
1/4 hr - rig service
1/4 hr - survey
1/2 hr - clean junk basket
1/4 hr - rig repair
1/4 hr - circ.

6-13-81 7570' - Drlg. Wt. 8.8 Vis 40 W.L. 10.0
28% LCM
23-1/4 hrs - drilling
3/4 hr - rig service

6-14-81 7875' - Trip. Wt. 8.8 Vis 40 W.L. 10.0 20% LCM
3/4° @ 7705'
1 hr - Trip
21-1/2 hrs - drilling
3/4 hr - rig service
1/4 hr - survey
1/2 hr - mix mud

6-15-81 8090' - Drlg. Wt. 8.9 Vis 44 W.L. 10.0 20% LCM
1° @ 7825'
6-3/4 hrs - Trip
16-3/4 hrs - drilling
1/2 hr - rig service

6-16-81 8250' - Trip for logs. Wt. 8.9 Vis 60 W.L. 10.0 20% LCM
1-1/2 hrs - trip
19-1/4 hrs - drilling
1/2 hr - rig service
1/2 hr - survey
2-1/4 hrs - circ. for logs

6-17-81 8250' - Logging. 1° @ 8250'
11-3/4 hrs - trip
6-1/2 hrs - logging
3-3/4 hrs - attempt to log
3 hrs - circ. & condition

6-18-81 8250' Circulate between.

2-1/4 hrs - logging
1 hr - cut drilling line
2-1/2 hrs - trip in hole
1/2 hr - wash to bottom
2-1/2 hrs - drilling
3/4 hr - circ.
5-1/2 hrs - lay down drilling pipe
5 hrs - run 4 1/2" csg.
1-1/4 hrs - circ & cement 1st stage
1-1/2 hrs - circ. between stages

6-19-81 Ran 30 jts 4 1/2" OD, 11.6#, K-55, 8Rd, ST&C csg. and 171 jts 4 1/2" OD, 10.5#, K-55, 8Rd, ST&C csg. (total of 201 jts.) T.E. 8271.42' set @ 8259' RKB. Cemented 1st stage w/ 10 bbls mud flush, 200 sks class "B" plus 8% gel and 1/4# flocele per sk. followed by 150 sks class "B" w/ 7-1/2# salt per sk. (total slurry first stage 555 Cu Ft.) Had good circ. and recipricated pipe OK while cementing. Float held OK. Opened bottom stage tool @ 6447'. Circ. 3 hrs w/ rig pump. Cemented 2nd stage w/ 10 bbls mud flush followed by 250 sks 65-35 plus 12% gel and 1/4# flocele per sk. Followed by 50 sks class "B" w/ 1/4# flocele per sk. (total slurry 2nd stage 714 Cu Ft) Good returns throughout job. Opened stage tool @ 6447'. Circulated w/ rig pump for 2 hrs. Cemented 3rd stage w/ 10 bbls mud flush followed by 400 sks 65-35 plus 12% gel and 1/4# flocele per sk followed by 50 sks class "B" w/ 1/4# flocele per sk. (total slurry 3rd stage 1107 Cu Ft) Good circulation throughout job. Closed stage tool w/ 2500 psi - held OK. Job complete @ 11:15 6-18-81. Set 4 1/2" csg. slips and cut off csg. Released rig @ 1:00 PM 6-18-81.

DAILY REPORT

9-21-81 Move in and rig up MTK Rig #2. Go in hole w/ bit and tbq. Tagged up at 3934'. Drlg. 11' cement and D.V. tool at 3945'.
9-22-81 Went in hole w/ tbq. to 6445'. Drlg. cement and D.V. tool at 6447'. Went in hole w/ tbq. and clean out to PBTD 8226'. Circulated hole clean.
9-23-81 Rig up Western Co. Pressure test to 4000 psi. OK. Spot 250 gals 7 1/2% HCL. POH. Rig up Jetronics. Ran GR-CCL from PBTD 8226' to 7350'.

Perforate Dakota 8006, 08, 10, 12, 14, 16, 18, 20
8100, 02, 06, 08, 41, 43, 45, 51, 53, 80, 82,
84, 86, 88, 90
Total 23 holes, all 1 SPF

9-24-81 Rig up Western Co. Broke formation down w/ 2100 psi.
Pumped 250 gal 15% HCL. Dropped 40 ball sealers.
Ball off w/ 4000 spi. Rig up Jetronics. Ran 4 1/2" junk
basket. Unable to get thru D.V. tool at 6447. Surged well
back.

Frac'd well as follows:

15,000 gal Mini Max III-30 w/ 2% oil - pad
20,000 gal Mini Max III-30 w/ 2% oil w/ 1# 20-40 sand
20,000 gal Mini Max III-30 w/ 2% oil w/ 1.5# 20-40 sand
15,000 gal Mini Max III-30 w/ 2% oil w/ 2# 20-40 sand
10,000 gal Mini Max III-30 w/ 2% oil w/ 2# 10-20 sand
5,292 gal fresh water - flush

ISDP - 1650 psi 15 min - 1500 psi
Max treating press 2900 psi, Min treating press 2700 psi,
Ave treating press 2800 psi at 36 BPM

Totals: 80,000 gal Mini Max III-30
80,000# 20-40 sand
20,000# 10-20 sand
1,600 gal condensate
60# breaker B-5
80 gal Aquaflo
80 gal Fracide

Shut in for 4 hours.

Perforate Gallup 7520-7530', 1 SPF. Spot 250 gal 15% HCL across
Gallup perfs. Wait 30 min.

Frac'd Gallup as follows:

6,000 gal Mini Max III-30 w/ 2% oil - pad
12,000 gal Mini Max III-30 w/ 2% oil w/ 1# 20-40 sand
16,000 gal Mini Max III-30 w/ 2% oil w/ 2# 20-40 sand
6,000 gal Mini Max III-30 w/ 2% oil w/ 2 1/2# 20-40 sand
5,040 gal fresh water - flush

ISDP 1200 psi 15 min - 1100 psi
Max treating press 3000 psi, Min treating press 2600 psi
Ave treating press 2800 psi at 39 BPM

Totals: 40,000 gal Mini Max III-30
69,000# 20-40 sand
800 gal condensate
55# B-5 breaker
40 gal Aquaflo
40 gal Fracide

Shut well in over night.

JEROME P. McRUGH

Apache #1E

Page 6

9-25-81 Opened well up. Flowing by heads. Went in hole w/ tbq.
Tagged sand at 8184' RKB. Leaving 3 perforations covered.
Landed tbq. as follows: 252 jts. 1 1/2" OD, 2.9#, V-55 10 Rd,
EUE tbq., w/ 31' cross pin sub on bottom. T.E. 8145.11'
set at 8154' RKB.

Nipple down BOP. Nipple up well head. Rig down pump and pit
and MTK.

9-26-81 Blowing well to pit. Well making 1600 MCK with light spray of
oil and water.

SHUT-IN PRESSURES

WELL	ZONE	INITIAL TEST	DATE	CURRENT TEST	DATE
Apache #1	Upper completion	1669 psig	9-2-69	300 psig	7-20-80
	Lower completion	2309 psig	9-2-69	510 psig	7-20-80
Apache #2	Upper completion	1514 psig	1-25-71	0	7-20-80
	Lower completion	1835 psig	1-25-71	510 psig	7-20-80
Apache #3	Upper completion	1357 psig	9-13-70	300 psig	7-2-80
	Lower completion	1496 psig	9-13-70	0	7-2-80
Apache #4	Upper completion	1330 psig	10-8-69	605 psig	5-27-78
	Lower completion	1345 psig	10-8-69	605 psig	2-20-78

Application for Downhole Commingling

Jerome P. McHugh

Apache #1-E Well

Unit A, Sec. 18, T-26-N, R-3-W

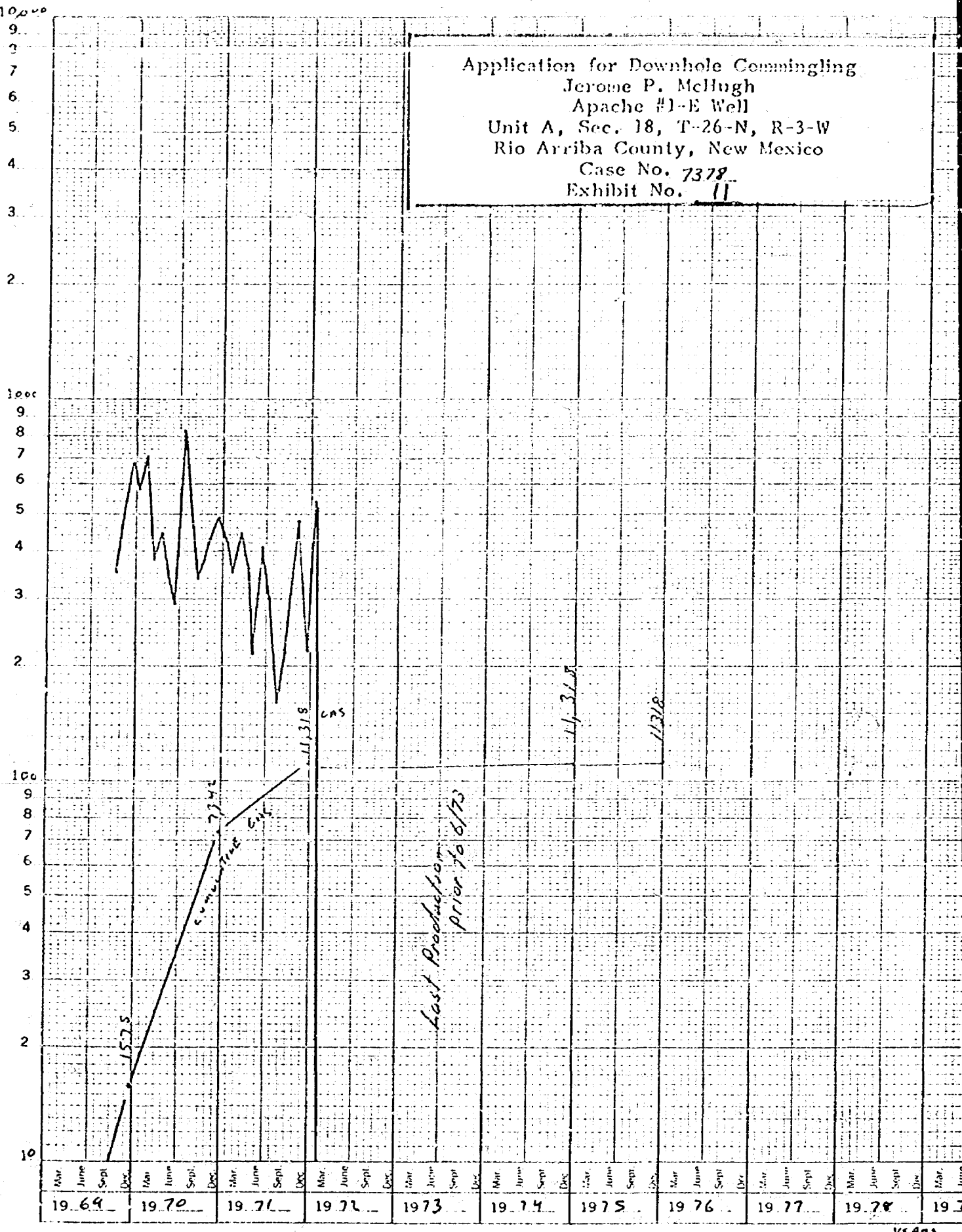
Rio Arriba County, New Mexico

Case No. 1328

Exhibit No. 8

Apache #2
Wildhorse Gallup

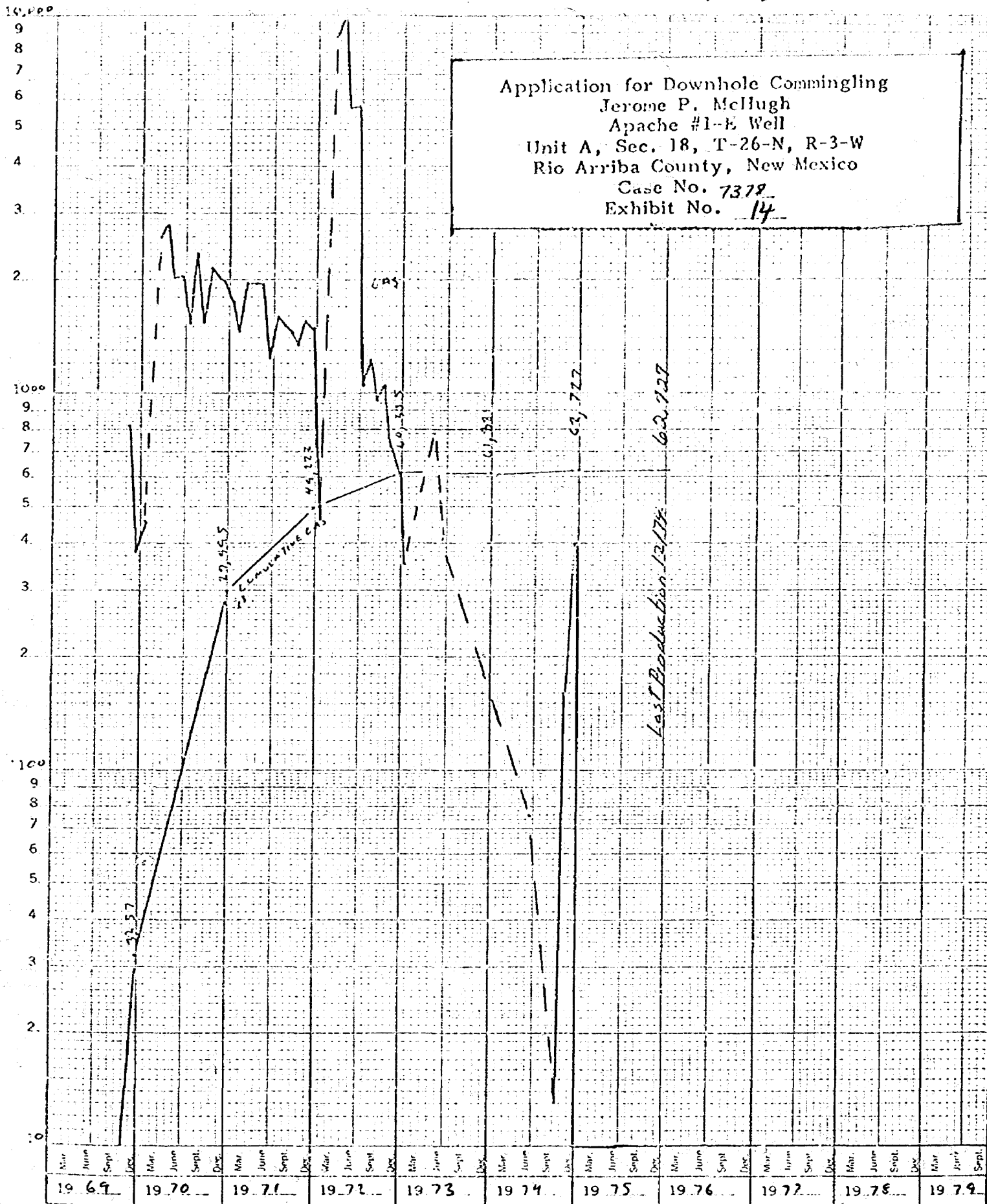
Application for Downhole Commingling
Jerome P. McHugh
Apache #1-E Well
Unit A, Sec. 18, T-26-N, R-3-W
Rio Arriba County, New Mexico
Case No. 7378
Exhibit No. 11



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Apache #3
Basin Dakota

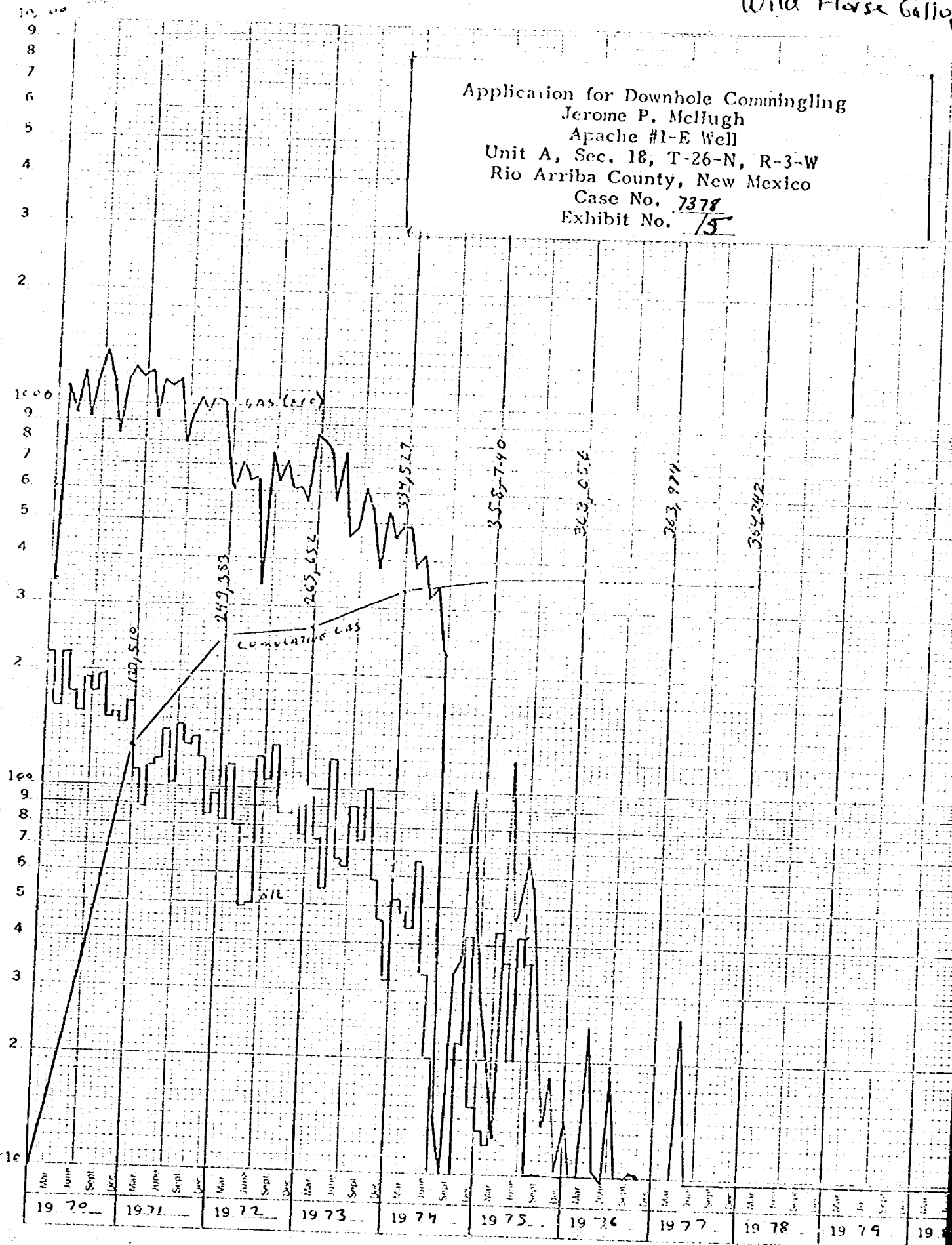
Application for Downhole Commingling
Jerome P. Mclugh
Apache #1-E Well
Unit A, Sec. 18, T-26-N, R-3-W
Rio Arriba County, New Mexico
Case No. 7372
Exhibit No. 14



YEARS

Apache Well #4
Wild Horse Gallup

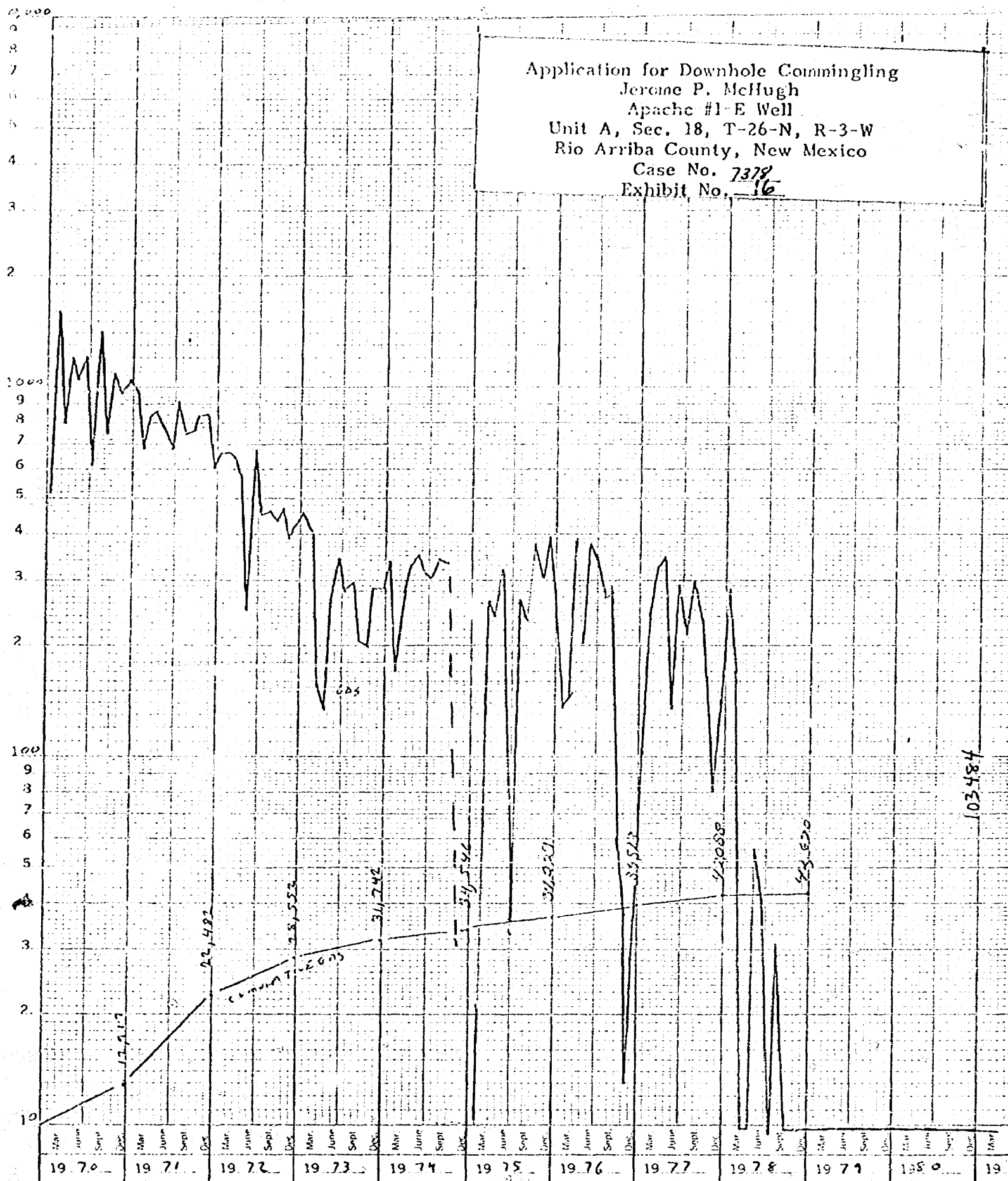
Application for Downhole Commingling
Jerome P. McHugh
Apache #1-E Well
Unit A, Sec. 18, T-26-N, R-3-W
Rio Arriba County, New Mexico
Case No. 7378
Exhibit No. 15



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Apache Well #4
Rosin Dakota

Application for Downhole Commingling
Jerome P. McHugh
Apache #1-E Well
Unit A, Sec. 18, T-26-N, R-3-W
Rio Arriba County, New Mexico
Case No. 7378
Exhibit No. 16



Docket Nos. 34-81 and 35-81 are tentatively set for October 21 and November 4, 1981. Applications for hearing must be filed at least 22 days in advance of hearing date.

COMMISSION HEARING - WEDNESDAY - OCTOBER 14, 1981

9 A.M. - OIL CONSERVATION COMMISSION - ROOM 205
STATE LAND OFFICE BUILDING, SANTA FE, NEW MEXICO

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(The following cases are continued from the October 13, 1981, Commission hearing to October 16, 1981.)
CASE 7345: (Continued and Readvertised)

Application of Bass Enterprises Production Company for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the San Andres, Bone Springs and Pennsylvanian formations, Lovington Field, underlying the N/2 NE/4 of Section 13, Township 16 South, Range 36 East, to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as operator of the well, and a charge for risk involved in drilling said well.

CASE 7323: (DE NOVO)

Application of Clements Energy, Inc., for compulsory pooling, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests underlying the E/2 of Section 32, Township 15 South, Range 27 East, to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

Upon application of Southland Royalty Company, this case will be heard DE NOVO pursuant to the provisions of Rule 1220.

Docket No. 34-81

DOCKET: EXAMINER HEARING - WEDNESDAY - OCTOBER 21, 1981

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

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

- ALLOWABLE:
- (1) Consideration of the allowable production of gas for November, 1981, from fifteen prorated pools in Lea, Eddy, and Chaves Counties, New Mexico.
 - (2) Consideration of the allowable production of gas for November, 1981, from four prorated pools in San Juan, Rio Arriba, and Sandoval Counties, New Mexico.

CASE 7373: Application of J. C. Williamson for Amendment of Division Order No. R-6738, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the Amendment of Division Order No. R-6738, which approved an unorthodox location for a well 1560 feet from the North line and 1830 feet from the West line of Section 10, Township 23 South, Range 34 East. Applicant seeks the Amendment of said order to reflect the corrected location of said well at a point 1580 feet from the North line and 2614 feet from the West line of said Section 10.

CASE 7374: Application of Dugan Production Corporation for an unorthodox gas well location, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of a Farmington formation well located 330 feet from the South line and 990 feet from the East line of Section 9, Township 28 North, Range 11 West, the E/2 of said Section 9 to be dedicated to the well.

- CASE 7375: Application of Dugan Production Corporation for downhole commingling, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Angel Peak Gallup-Basin Dakota production in the wellbore of its McAdams Well No. 2 located in Unit P of Section 34, Township 27 North, Range 10 West.
- CASE 7376: Application of Dugan Production Corporation for downhole commingling, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Basin-Dakota and Bisti-Lower Gallup production in the wellbore of its Big 8 Well No. 1-E, located in Unit O of Section 8, Township 24 North, Range 9 West.
- CASE 7377: Application of Dugan Production Corporation for downhole commingling, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of undesignated Gallup and Basin-Dakota production in the wellbore of its July Jubilee Well No. 1 located in Unit G of Section 30, Township 24 North, Range 9 West.
- CASE 7378: Application of Jerome P. McHugh for downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Wildhorse-Gallup and Basin-Dakota production in the wellbore of his Apache 2 Well No. 1, located in Unit A of Section 18, Township 26 North, Range 3 West.
- CASE 7356: (Continued from September 23, 1981, Examiner Hearing)
- Application of S & I Oil Company for compulsory pooling, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the W/2 SW/4 of Section 12, Township 29 North, Range 15 West, Cha Cha-Gallup Oil Pool, 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 7379: Application of JEM Resources, Inc., for vertical pool extension and special GOR limit, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the vertical extension of the Cave-Grayburg Pool to include the San Andres formation, and the establishment of a special gas-oil ratio limit for said pool to 6000 to one or, in the alternative, the abolishment of the gas-oil ratio limit in said pool, all to be effective October 1, 1981.
- CASE 7380: Application of Bird Oil Corporation for an unorthodox location, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox Entrada location of a well to be drilled 2310 feet from the North line and 1325 feet from the East line of Section 10, Township 22 North, Range 9 West, the SW/4 NE/4 of said Section 10 to be dedicated to the well.
- CASE 7381: Application of H. L. Brown, Jr., for an unorthodox gas well location, Roosevelt County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of a well to be drilled 330 feet from the South line and 2310 feet from the East line of Section 34, Township 7 South, Range 37 East, Bluitt-Wolfcamp Gas Pool, the E/2 of said Section 34 to be dedicated to the well.
- CASE 7382: Application of TXO Production Corporation for an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of a Morrow well to be drilled 660 feet from the South and West lines of Section 20, Township 17 South, Range 28 East, the W/2 of said Section 20 to be dedicated to the well.
- CASE 7383: Application of Amoco Production Company for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Upper Pennsylvanian formation underlying the NW/4 of Section 19, Township 19 South, Range 25 East, to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as operator of the well, and a charge for risk involved in drilling said well.

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- CASE 7384:** Application of Morris R. Antweil for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests from the surface to the base of the Abo formation underlying the NE/4 SW/4 of Section 5, Township 20 South, Range 38 East, to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as operator of the well, and a charge for risk involved in drilling said well.
- CASE 7385:** Application of El Paso Natural Gas Company for downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Blanco-Mesaverde and Basin-Dakota production in the wellbore of its San Juan 27-5 Unit Well No. 59, located in Unit A of Section 6, Township 27 North, Range 5 West.
- CASE 7386:** Application of El Paso Natural Gas Company for downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of South Blanco-Pictured Cliffs and Blanco-Mesaverde production in the wellbore of its San Juan 27-5 Unit Well No. 54, located in Unit L of Section 31, Township 27 North, Range 5 West.
- CASE 7387:** Application of Sun Oil Company for an unorthodox oil well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of a well to be drilled 660 feet from the North and East lines of Section 32, Township 9 South, Range 37 East, West Sawyer-San Andres Pool, the N/2 NE/4 of said Section 32 to be dedicated to the well.
- CASE 7388:** Application of Sun Oil Company for an unorthodox oil well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of a well to be drilled in the Northeast Lusk Yates Pool, 2500 feet from the North line and 1880 feet from the East line of Section 15, Township 19 South, Range 32 East the SW/4 NE/4 of said Section 15 to be dedicated to the well.
- CASE 7389:** Application of Yates Petroleum Corporation for an Amendment to Division Order No. R-4365, Eddy County, New Mexico. Applicant, in the above-styled cause seeks the amendment of Division Order No. R-4365, which promulgated special rules and regulations for the Penasco Draw San Andres-Yeso Pool, by amending Rule 5 to permit the simultaneous dedication of gas wells and oil wells and amending Rule 9 to provide for annual gas-liquid ratio tests in lieu of semi-annual tests.
- CASE 7365:** (Continued from October 7, 1981, Examiner Hearing)
- Application of Yates Petroleum Corporation for the amendment of Order No. R-6406, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Order No. R-6406, to permit recompletion of its State "JM" No. 2 Well, drilled at an unorthodox Morrow location 660 feet from the South line and 660 feet from the East line of said Section 25, Township 18 South, Range 24 East, in any and all Wolfcamp and Pennsylvanian pays in said well.
- CASE 7390:** Application of Harvey E. Yates Company for compulsory pooling, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Mississippian formation underlying the W/2 of Section 18, Township 9 South, Range 27 East, to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as operator of the well, and a charge for risk involved in drilling said well.
- CASE 7391:** Application of Harvey E. Yates Company for statutory unitization, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order unitizing, for the purposes of a secondary recovery project, all mineral interests in the Travis Penn Unit encompassing 480 acres, more or less, underlying all or portions of Sections 12 and 13, Township 18 South, Range 28 East, Eddy County, New Mexico.

The unitized interval would be the Cisco-Canyon formation between the depths of 9815 feet and 9935 feet in Harvey E. Yates Company's Travis Deep Unit No. 2 Well. Among the matters to be considered at the hearing will be the necessity of unit operations; the designation of a unit operator; the determination of the horizontal and vertical limits of the unit area; the determination of the fair, reasonable, and equitable allocation of production and costs of production, including capital investment, to each of the various tracts in the unit area; the determination of credits and charges to be made among the various owners in the unit area for their investment in well and equipment; and such other matters as may be necessary and appropriate for carrying on efficient unit operations, including, but not necessarily limited to, unit voting procedures, selection, removal, or substitution of unit operator, and time of commencement and termination of unit operations.

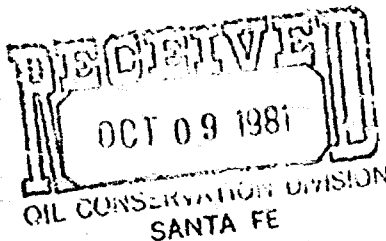
- CASE 7392: Application of Sam H. Snoddy, for an unorthodox gas well location in the Oil-Potash Area, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the location of a Pennsylvanian well to be drilled 660 feet from the North and East lines of Section 26, Township 23 South, Range 32 East, Oil-Potash Area, the N/2 of said Section 26 to be dedicated to the well.
- CASE 7393: Application of Urish Exploration Incorporated for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Cisco, Canyon and Morrow formations underlying the W/2 of Section 13, Township 22 South, Range 24 East, to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as operator of the well, and a charge for risk involved in drilling said well.
- CASE 7394: Application of Supron Energy Corporation for an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of a Pennsylvanian well to be drilled 467 feet from the North line and 1650 feet from the West line of Section 13, Township 22 South, Range 24 East, the N/2 of said Section 13 to be dedicated to the well.
- CASE 7395: Application of Curtis J. Little for Designation of a Tight formation, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks the designation of the Pictured Cliffs formation underlying portions of Townships 25 and 26 North, Ranges 6 and 7 West containing a total of 14,400 acres, more or less, as a tight formation pursuant to Section 107 of the Natural Gas Policy Act and 18 CFR Section 271. 701-705.
- CASE 7300: (Reopened and Readvertised)
- Application of Dome Petroleum Corporation for designation of a tight formation, Sandoval County, New Mexico. Applicant, in the above-styled cause, seeks the designation of the Chacra formation underlying portions of Townships 21 and 22 North, Ranges 5, 6, and 7 West, containing 73,018 acres, more or less, as a tight formation pursuant to Section 107 of the Natural Gas Policy Act and 18 CFR Section 271. 701-705.
- CASE 7352: (Continued from September 23, 1981, Examiner Hearing)
- Application of Yates Petroleum Corporation for designation of a tight formation, Eddy County, New Mexico. Applicant, in the above-styled cause, pursuant to Section 107 of the Natural Gas Policy Act 18-CFR Section 271. 701-705, seeks the designation as a tight formation of the Permian Penn formation underlying all of the following townships:
- Township 17 South, Ranges 24 thru 26 East;
 - 18 South, 24 and 25 East,
 - 19 South, 23 thru 25 East;
 - 20 South, 21 thru 24 East;
 - 20 1/2 South, 21 and 22 East;
 - 21 South, 21 and 22 East;
 - Also Sections 1 thru 12 in
 - 22 South, 21 and 22 East,

All of the above containing a total of 315,000 acres more or less.



dugan production corp.

October 8, 1981



Joe D. Ramey
Division Director
New Mexico Oil Conservation Division
P.O. Box 2088
Santa Fe, NM 87501

Case 7378

Re: Application for Downhole Commingling
Jerome P. McHugh
Apache #1-E Well (Basin Dakota Pool and
Wildhorse Gallup Pool)
Rio Arriba County, New Mexico

Dear Mr. Ramey:

Enclosed please find three copies of the above referenced Application.

I previously verbally requested this matter be placed on the October 21, 1981 Docket and was advised by the New Mexico Oil Conservation Division that this request would be honored.

Please advise if you are in need of further information.

Sincerely,

Tommy Roberts
Landman

nw

enc.

cc: Southland Royalty Company
1000 Ft. Worth Club Tower
Ft. Worth, TX 76102

Consolidated Oil and Gas, Inc.
Lincoln Tower Bldg.
1860 Lincoln St.
Denver, CO 80203

OIL CONSERVATION DIVISION
STATE OF NEW MEXICO

IN THE Matter of the Application of
Jerome P. McHugh for Downhole
Commingling of the Apache #1-E Well
in Rio Arriba County, New Mexico

Case 2378

APPLICATION

Pursuant to Rule 303 C of the Rules and Regulations of the State of New Mexico Oil Conservation Division, The Applicant, Jerome P. McHugh, by and through its agent, Thomas A Dugan, hereby makes application for approval of downhole commingling in the well bore of the Apache #1-E Well in Rio Arriba County, New Mexico.

The Applicant further states:

1. The Operator of the Apache #1-E Well is the Applicant, Jerome P. McHugh, whose address is P.O. Box 208, Farmington, NM 87401.

2. The Apache #1-E Well is located on Jicarilla Apache Tribal Contract #98 insofar as said lease covers the following described lands:

Township 26 North, Range 3 West, NMPM
Section 18: NE/4 NE/4 (Basin Dakota Pool)
Section 18: NE/4 NE/4 (Wildhorse Gallup Pool)
Rio Arriba County, New Mexico

3. The legal location of the well is as follows:

Township 26 North, Range 3 West, NMPM
Section 18: Unit Letter A
Rio Arriba County, New Mexico

4. The Apache #1-E Well is not currently dually completed in the Basin Dakota Pool and the Wildhorse Gallup Pool.

5. The Apache #1-E Well is capable of only low marginal production from the Basin Dakota Pool, and is capable of only low marginal production from the Wildhorse Gallup Pool.

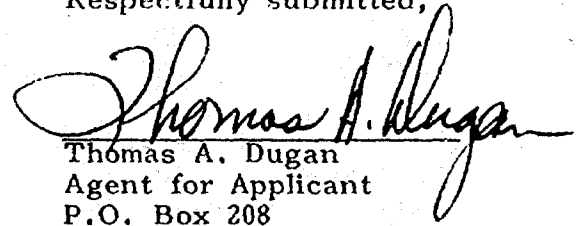
6. The ownership of the above mentioned Pools is common.

7. The proposed commingling from the above Pools will result in recovery of additional hydrocarbons, the prevention of waste and the protection of correlative rights.

8. All operators of leases offsetting the dedicated acreage for this well, the U.S. Geological Survey and the Supervisor of the District III Office of the New Mexico Oil Conservation Division have been mailed a copy of this Application.

WHEREFORE, the Applicant requests this Application be set for hearing on October 21, 1981, and that after said hearing the New Mexico Oil Conservation Division grant this Application by giving approval to the downhole commingling of the Apache #1-E Well in Rio Arriba County, New Mexico.

Respectfully submitted,


Thomas A. Dugan
Agent for Applicant
P.O. Box 208
Farmington, NM 87401

APACHE #1-E WELL

Application For Approval of Downhole Commingling
Jerome P. McHugh

OFFSET LEASES AND OPERATORS

1. Jicarilla Tribal Contract #101
Township 26 North, Range 4 West, NMPM
Sec. 12: SE/4
Rio Arriba County, New Mexico

OPERATOR: Southland Royalty Company
1000 Ft. Worth Club Tower
Ft. Worth, TX 76102

2. Jicarilla Tribal Contract #97
Township 26 North, Range 3 West, NMPM
Sec. 7: SE/4, SW/4
Sec. 8: SW/4
Rio Arriba County, New Mexico

OPERATOR: Consolidated Oil and Gas, Inc.
Lincoln Tower Building
1860 Lincoln St.
Denver, CO 80203

3. Jicarilla Tribal Contract #98
Township 26 North, Range 3 West, NMPM
Sec. 17: W/2
Sec. 18: S/2
Rio Arriba County, New Mexico

OPERATOR: Jerome P. McHugh
No. 1074, P.O. Box 22557
650 S. Cherry Str., #1225
Denver, CO 80222

4. Jicarilla Tribal Contract #105
Township 26 North, Range 4 West, NMPM
Sec. 13: E/2
Rio Arriba County, New Mexico

OPERATOR: Consolidated Oil and Gas, Inc.

October 21, 1981

Memo

From

FLORENE DAVIDSON
ADMINISTRATIVE SECRETARY

To Called in by Tommy Roberts
9/16/81

Jerome P. McHugh
Hornhole Commingling
Basin-Wakota and
Wildhorse-Gallup
Apache #1E - A
18-26N-34W
Rio Arriba County

BEST AVAILABLE COPY

dr/

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

BEST AVAILABLE COPY

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

CASE NO. 7378

Order No. R-6827

APPLICATION OF JEROME P. McHUGH
FOR DOWNHOLE COMMINGLING, RIO ARRIBA
COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on October 21,
19 81, at Santa Fe, New Mexico, before Examiner Richard L.
Stamets.

NOW, on this October day of October, 19 81, 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, Jerome P. McHugh, is
the owner and operator of the Apache E Well No. 1,
located in Unit A of Section 18, Township 26 North,
Range 3 West, NMPM, Rio Arriba County, New Mexico.

(3) That the applicant seeks authority to commingle
Wildhorse-Gallup and Basin-Dakota production
within the wellbore of the above-described well.

(4) That from the Wildhorse-Gallup zone, the subject well is ^{expected to be} capable of low marginal production only.

(5) That from the Basin-Dakota zone, the subject well is ^{expected to be} capable of low marginal production only.

(6) That the proposed commingling may result in the recovery of additional hydrocarbons from each of the subject pools, thereby preventing waste, and will not violate correlative rights.

(7) That the reservoir characteristics of each of the subject zones are such that underground waste would not be caused by the proposed commingling provided that the well is not shut-in for an extended period.

(8) That to afford the Division the opportunity to assess the potential for waste and to expeditiously order appropriate remedial action, the operator should notify the Aztec district office of the Division any time the subject well is shut-in for 7 consecutive days.

(9) That in order to allocate the commingled production to each of the commingled zones in the subject well, 50 percent of the commingled inland gas production should be allocated to the Wildhorse-Gallup zone, and 50 percent of the commingled production to the Basin-Dakota zone.

(ALTERNATE)

(9) That in order to allocate the commingled production to each of the commingled zones in the wells, applicant should consult with the supervisor of the Aztec district office of the Division and determine an allocation formula for each of the production zones.

IT IS THEREFORE ORDERED:

(1) That the applicant, Jerome P. McHugh, is hereby authorized to commingle Wildhorse-Gallup and Basin-Dakota production within the wellbore of the Apache F Well No. 1, located in Unit A of Section 18, Township 26 North, Range 3 West, NMPM, Rio Arriba County, New Mexico.

(2) That the applicant shall consult with the Supervisor of the Aztec district office of the Division and determine an allocation formula for the allocation of production to each zone in each of the subject wells.

(ALTERNATE)

(2) That 50 percent of the commingled Basin-Dakota production shall be allocated to the Wildhorse-Gallup zone and 50 percent of the commingled Wildhorse-Gallup production shall be allocated to the Basin-Dakota zone.

(3) That the operator of the subject well shall immediately notify the Division's Aztec district office any time the well has been shut-in for 7 consecutive days and shall concurrently present, to the Division, a plan for remedial action.

(4) 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.