

CASE 5586: Appl. of AMERADA HESS  
CORP. for DOWNHOLE COMMINGLING,  
( Rio Arriba County

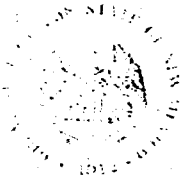
CASE NO.

55 86

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APPLICATION,  
TRANSCRIPTS,  
SMALL EXHIBITS,

ETC.



## OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO  
P. O. BOX 2088 - SANTA FE  
87501

DIRECTOR  
JOE D. RAMEY

LAND COMMISSIONER  
PHIL R. LUCERO  
December 17, 1975



STATE GEOLOGIST  
EMERY C. ARNOLD

Mr. Tom Kellahin  
Kellahin & Fox  
Attorneys at Law  
Post Office Box 1769  
Santa Fe, New Mexico

Re: CASE NO. 5586  
ORDER NO. R-5138

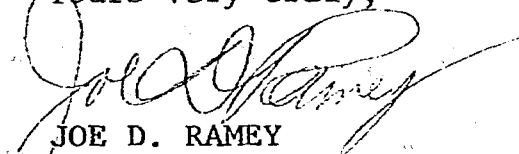
Applicant:

Amerada Hess Corporation

Dear Sir:

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

Yours very truly,

  
JOE D. RAMEY  
Director

JDR/fd

Copy of order also sent to:

Hobbs OCC ☒  
Artesia OCC \_\_\_\_\_  
Aztec OCC ☒

Other \_\_\_\_\_  
\_\_\_\_\_

BEFORE THE OIL CONSERVATION COMMISSION  
OF THE STATE OF NEW MEXICO

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

CASE NO. 5586  
Order No. R-5138

APPLICATION OF AMERADA HESS CORPORATION  
FOR DOWNHOLE COMMINGLING, RIO ARRIBA  
COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on November 19, 1975, at Santa Fe, New Mexico, before Examiner Daniel S. Mutter.

NOW, on this 16th day of December, 1975, the Commission, a quorum being present, 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 Commission has jurisdiction of this cause and the subject matter thereof.

(2) That the applicant, Amerada Hess Corporation, is the owner and operator of its McKenzie Federal Wells Nos. 1 and 3 located, respectively, in Units M and O of Section 25 and its Harvey State Well No. 1, located in Unit N of Section 36, all in Township 25 North, Range 6 West, NMPM, Rio Arriba County, New Mexico.

(3) That the applicant seeks authority to commingle Otero-Gallup oil and Basin-Dakota gas production within the wellbore of each of the above-described wells.

(4) That from the Otero-Gallup zone, each of the subject wells is capable of low marginal production only.

(5) That from the Basin-Dakota zone, both the McKenzie Federal Well No. 1 and the Harvey State Well No. 1 are capable of marginal production only.

(6) That the aforesaid McKenzie Federal Well No. 3 is presently shut in insofar as the Dakota zone is concerned, but is thought to be capable of marginal production only.

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Case No. 5586

Order No. R-5138

(7) 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.

(8) That the reservoir characteristics of each of the subject zones in each of the subject wells 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.

(9) That to afford the Commission 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 Commission any time any of the subject wells are shut-in for 7 consecutive days.

(10) That in order to allocate the commingled production to each of the commingled zones in the McKenzie Federal Well No. 1 all of the oil production and 11 percent of the commingled gas production should be attributed to the Otero-Gallup zone, and 89 percent of the commingled gas production to the Basin-Dakota zone and in the Harvey State Well No. 1, all of the oil production and 9 percent of the commingled gas production should be attributed to the Otero-Gallup zone, and 91 percent of the commingled gas production to the Basin-Dakota zone.

(11) That upon completion of workover operations the operator should consult with the supervisor of the Aztec district office of the Commission to determine an allocation formula for the McKenzie Federal Well No. 3.

IT IS THEREFORE ORDERED:

(1) That the applicant, Amerada Hess Corporation, is hereby authorized to commingle Otero-Gallup and Basin-Dakota production within the wellbore of its McKenzie Federal Wells Nos. 1 and 3 located, respectively, in Units M and O of Section 25 and its Harvey State Well No. 1 located in Unit N of Section 36, all in Township 25 North, Range 6 West, NMPM, Rio Arriba County, New Mexico.

(2) That all of the oil production and 11 percent of the commingled gas production shall be attributed to the Otero-Gallup zone and 89 percent of the commingled gas production shall be attributed to the Basin-Dakota zone in the McKenzie Federal Well No. 1, and all of the oil production and 9 percent of the commingled gas production shall be attributed to the Otero-Gallup zone, and 91 percent of the commingled gas production shall be attributed to the Basin-Dakota zone in the Harvey State Well No. 1.

(3) That upon completion of workover operations, the operator shall consult with the supervisor of the Aztec district office of the Commission to determine an allocation formula for the McKenzie Federal Well No. 3, provided however, that this authority for down-

-3-

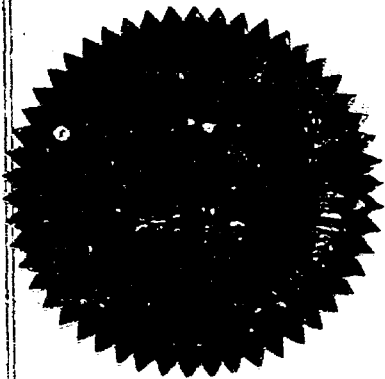
Case No. 5586  
Order No. R-5138

hole commingling shall automatically terminate in the event non-marginal production is obtained in the Dakota zone of said well.

(4) That the operator of the subject wells shall immediately notify the Commission's Aztec district office any time any of said wells have been shut-in for 7 consecutive days and shall concurrently present, to the Commission, a plan for remedial action.

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

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



STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION

*Phil R. Lucero*  
PHIL R. LUCERO, Chairman

*Emery C. Arnold*  
EMERY C. ARNOLD, Member

*Joe D. Ramsey*  
JOE D. RAMSEY, Member & Secretary

S E A L

jr/

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General Court Reporting Service  
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501  
Phone (505) 982-9212

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BEFORE THE  
NEW MEXICO OIL CONSERVATION COMMISSION  
Santa Fe, New Mexico  
November 19, 1975

EXAMINER HEARING

IN THE MATTER OF:

Application of Amerada Hess Corporation ) CASE  
for downhole commingling, Rio Arriba ) 5586  
County, New Mexico. )

BEFORE: Daniel S. Nutter, Examiner

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the New Mexico Oil Conservation Commission: William F. Carr, Esq.  
Legal Counsel for the Commission  
State Land Office Building  
Santa Fe, New Mexico

For the Applicant: W. Thomas Kellahin, Esq.  
KELLAHIN & FOX  
Attorneys at Law  
500 Don Gaspar  
Santa Fe, New Mexico

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1 MR. NUTTER: We will call Case Number 5586.

2 MR. CARR: Case 5586, application of Amerada Hess  
3 Corporation for downhole commingling, Rio Arriba County,  
4 New Mexico.

5 MR. KELLAHIN: Tom Kellahin, Kellahin and Fox,  
6 Santa Fe, New Mexico appearing on behalf of Amerada Hess  
7 Corporation and I have one witness to be sworn.

8 (THEREUPON, the witness was duly sworn.)

9 A. E. SNYDER

10 called as a witness, having been first duly sworn, was  
11 examined and testified as follows:

12  
13 DIRECT EXAMINATION

14 BY MR. KELLAHIN:

15 Q Would you please state your name, by whom you are  
16 employed and in what capacity?

17 A My name is A. E. Snyder, I'm employed by Amerada  
18 Hess Corporation as Regional Manager of Technical Services  
19 in Seminole, Texas.

20 Q Have you previously testified before the Commission  
21 and had your qualifications as an expert accepted and made  
22 a matter of record?

23 A Yes.

24 Q And are you familiar with the facts surrounding  
25 this particular application?

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1 A. Yes.

2 MR. KELLAHIN: If the Examiner please, are the  
3 witness's qualifications acceptable?

4 MR. NUTTER: Yes, they are.

5 Q. (Mr. Kellahin continuing.) Mr. Snyder, would you  
6 please refer to what has been marked as Exhibit Number One,  
7 identify it and state what Amerada Hess is seeking?

8 A. Exhibit Number One is a plat of the gas-producing  
9 area in northwest New Mexico, Rio Arriba County. It has two  
10 leases outlined on it, Amerada Hess McKenzie Federal and the  
11 Harvey State. The three wells with red arrows on them, Harvey  
12 State Number 1 located in Unit N, Section 36, 25 North, 6 West  
13 and the McKenzie Federal Number One located in Unit M, Section  
14 25 and the McKenzie Federal Number Three located In Unit O of  
15 Section 25, 25 North, 6 West.

16 We are asking for permission to take these wells  
17 that are currently dual-completed wells in the Gallup oil  
18 zone and the Dakota gas zone and commingle the production in  
19 the wellbore. The reason we wish to do that is really an  
20 economic reason. We think that we can reduce our operating  
21 costs substantially; we will salvage nearly twenty thousand  
22 feet of tubing that can be used in other operations; and  
23 probably will be able to increase production slightly. The  
24 production from the wells in both zones is very marginal.

25 Q. What is the ownership between the two zones?

1 A. The ownership is common to all depths, royalty and  
2 working interest both.

3 Q. Please refer to Exhibit Number Two and identify it?

4 A. Exhibit Number Two is a copy of the Commission Form  
5 C-116 for recent tests taken on the Otero-Gallup wells. The  
6 three wells that we are asking for, the McKenzie Federal 1 and  
7 3 and the Harvey State Number 1 each are on gas lift,  
8 artificial lift, and the tests show that they are making --  
9 the McKenzie Federal Number 1, six barrels of oil; McKenzie  
10 Federal Number 3, three barrels of oil; and Harvey State Number  
11 1, three barrels of oil a day.

12 Q. Please refer to Exhibit Number Three and identify it?

13 A. Exhibit Three is also a State Form C-116 on the Basin-  
14 Dakota gas wells showing that they are flowing gas wells.  
15 The test indicates about four hundred and forty thousand  
16 cubic feet per day on the McKenzie Federal Number One. The  
17 Number 3 has been closed in for sometime, zero pressure on  
18 the tubing. The Harvey State Number 1 on this test made  
19 two hundred and ninety-six thousand cubic feet per day.

20 The tubing pressures there, we had a typographical  
21 error and I had entered a decimal point. The tubing pressure  
22 should be fifty-five point two and fifty point zero, rather  
23 than five hundred and fifty two.

24 Q. Please refer to Exhibit Four?

25 A. Exhibit Four is a record of bottom-hole pressures

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1 we obtained in these six completions. The Harvey State  
2 Number 1 and the Dakota bottom-hole pressure was three  
3 hundred and seventy-five pounds at sixty-eight hundred and  
4 seventy-five feet. The Gallup oil zone was four hundred and  
5 six pounds at fifty-two hundred and eighty-five feet, or if  
6 we extended this on to the Dakota horizon at sixty-eight  
7 seventy-five it would be four hundred and thirty-eight pounds  
8 at the Dakota level. The McKenzie Federal Number 1, the  
9 bottom-hole pressure was six hundred and twenty-five pounds.  
10 We were unable to get into the tubing in the Gallup zone and  
11 establish that pressure. The McKenzie Federal Number 3 that  
12 has been shut in for a couple of years at five hundred and  
13 thirty-seven pounds in the Dakota and five hundred and fifty-one  
14 pounds in the Gallup or extrapolated onto the Dakota level  
15 would be six hundred and twenty pounds in the Gallup.

16 These were seventy-two hour shut-in pressures.

17 Q Please identify Exhibit Five?

18 A Exhibit Number Five is a schematic diagram of  
19 the Harvey State Number 1 showing the casing and tubing  
20 setting depth, the perforations, the cement levels and  
21 so forth.

22 Q Exhibit Number Six?

23 A Exhibit Number Six is the production history of the  
24 Harvey State Number 1 Gallup oil zone for the past six-and-  
25 a-half years. It shows roughly that the well the past year

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1 has been making about seventy barrels per month.

2 Q Exhibit Number Seven?

3 A Exhibit Number Seven is the gas production history  
4 of the Harvey State Number 1 Dakota and is also for five-and-  
5 a-half to six years and it shows that it is making between  
6 five and six thousand MCF per month.

7 Q Exhibit Number Eight?

8 A Exhibit Number Eight is a schematic diagram of  
9 the McKenzie Federal Number 1 with the casing, tubing setting  
10 depths and perforated intervals and so forth.

11 Q Exhibit Number Nine?

12 A Exhibit Number Nine is the production history of  
13 the McKenzie Federal Number 1 in the Gallup oil zone, showing  
14 that it is making slightly in excess of one hundred barrels  
15 a month for the past year or so.

16 Q Exhibit Number Ten?

17 A Exhibit Number Ten is the production graph of the  
18 McKenzie Federal Number 1 in the Dakota gas zone showing that  
19 it is slightly below four thousand cubic feet for the past  
20 year or so.

21 Q Exhibit Number Eleven?

22 A Exhibit Number Eleven is the schematic diagram of  
23 the McKenzie Federal Number 1 showing the casing, setting  
24 depth, tubing and the perforations and so forth of the well.

25 Q Exhibit Number Twelve?

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1           A.     Exhibit Number Twelve is the production history of  
2 the McKenzie Federal Number 3 in the Gallup oil zone, showing  
3 the production between a hundred and a hundred and fifty  
4 barrels a month for the last year or so.

5           Q.     Exhibit Number Thirteen?

6           A.     Exhibit Number Thirteen is the production history  
7 of the McKenzie Federal Number 3 Dakota gas zone, showing that  
8 it had declined to where actually it wouldn't flow and was  
9 shut in in July of 1972. It has been closed in since that time.

10          Q.     In your opinion, Mr. Snyder, will approval of this  
11 application be in the best interests of conservation, prevention  
12 of waste and protection of correlative rights?

13          A.     Yes, sir.

14          Q.     Were Exhibits One through Thirteen either prepared  
15 by you directly or under your direction and supervision?

16          A.     Yes.

17                 MR. KELLAHIN: If the Examiner please, we move  
18 the introduction of Exhibits One through Thirteen.

19                 MR. NUTTER: Amerada's Exhibits One through Thirteen  
20 will be admitted into evidence.

21                 MR. KELLAHIN: That concludes our case.

22

23

CROSS EXAMINATION

24 BY MR. NUTTER:

25          Q.     Mr. Snyder, I note from your Exhibits Two and Three

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1 that while the three wells in the Gallup formation produce  
2 oil, they also produce some gas, is that correct?

3 A. Yes, sir.

4 Q And then Exhibit Three shows me that the two wells  
5 that are producing, at any rate from the Dakota formation,  
6 are producing gas, you don't show any liquids there?

7 A. On test the amount of liquid was almost negligible.  
8 They maybe do make a barrel or two of liquids a month, something  
9 like that, very, very small.

10 Q And then when we refer to the Exhibit Number Four  
11 and the bottom-hole pressure, we see that the Gallup pressures  
12 exceed the Dakota pressures and if extrapolated down to the  
13 Dakota perforations would be in excess of even what we show  
14 for the Gallup. Now is there any danger here, being that the  
15 Gallup pressures exceed the Dakota pressures, of the Gallup  
16 formation bleeding off and being thiefed into the Dakota  
17 formation, and if so, is the Dakota formation a dry formation  
18 which would be wetted by these Gallup oils and this oil be  
19 lost as a result of this commingling?

20 A. We didn't feel that there was any real danger of this  
21 happening with the type of lift we will have on it. We think  
22 that we will keep the production off of the Dakota formation.  
23 The tubing will be all of the way down to the Dakota formation  
24 and we will lift from the very bottom of the well.

25 Q Will you have a rod pump on it?

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1 A. It will not be a rod pump, it will be a gas-lift  
 2 arrangement with a plunger lift.

3 Q. But the entry into the tubing would be from the  
 4 bottom of the tubing, the bottom of the hole, is that correct?

5 A. Yes. You mentioned the Dakota zone being wet or  
 6 dry, appreciably it is a dry zone, it does make, as I mentioned,  
 7 some condensate, a few barrels a month, it is about sixty,  
 8 sixty-one degree condensate, where the gravity on the Gallup  
 9 ranges from forty to forty-five.

10 Q. Did you have any proposal as to how production should  
 11 be allocated in the future to each of these two zones in the  
 12 three wells?

13 A. Yes, basically on the basis of these tests that we  
 14 took this month.

15 Q. These tests pretty much represent the status as one  
 16 would derive them from an extrapolation of the production  
 17 decline curves then?

18 A. Well, to some extent. The production decline curves,  
 19 as you understand, are on a lease basis and we allocate  
 20 back on the basis of tests in the past.

21 Q. Well, if we used the tests that you made, we  
 22 wouldn't allocate anything to the Dakota in the McKenzie  
 23 Federal 3?

24 A. That's right.

25 MR. NUTTER: Are there any further questions of

1 Mr. Snyder? He may be excused.

(THEREUPON, the witness was excused.)

2  
3 MR. NUTTER: Do you have anything further, Mr.

4 Kellahin?

MR. KELLAHIN: No, sir.

5  
6 MR. NUTTER: Does anyone have anything they wish

7 to offer in Case Number 5586?


8 We will take the Case under advisement.

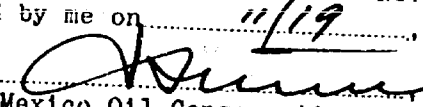
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REPORTER'S CERTIFICATE

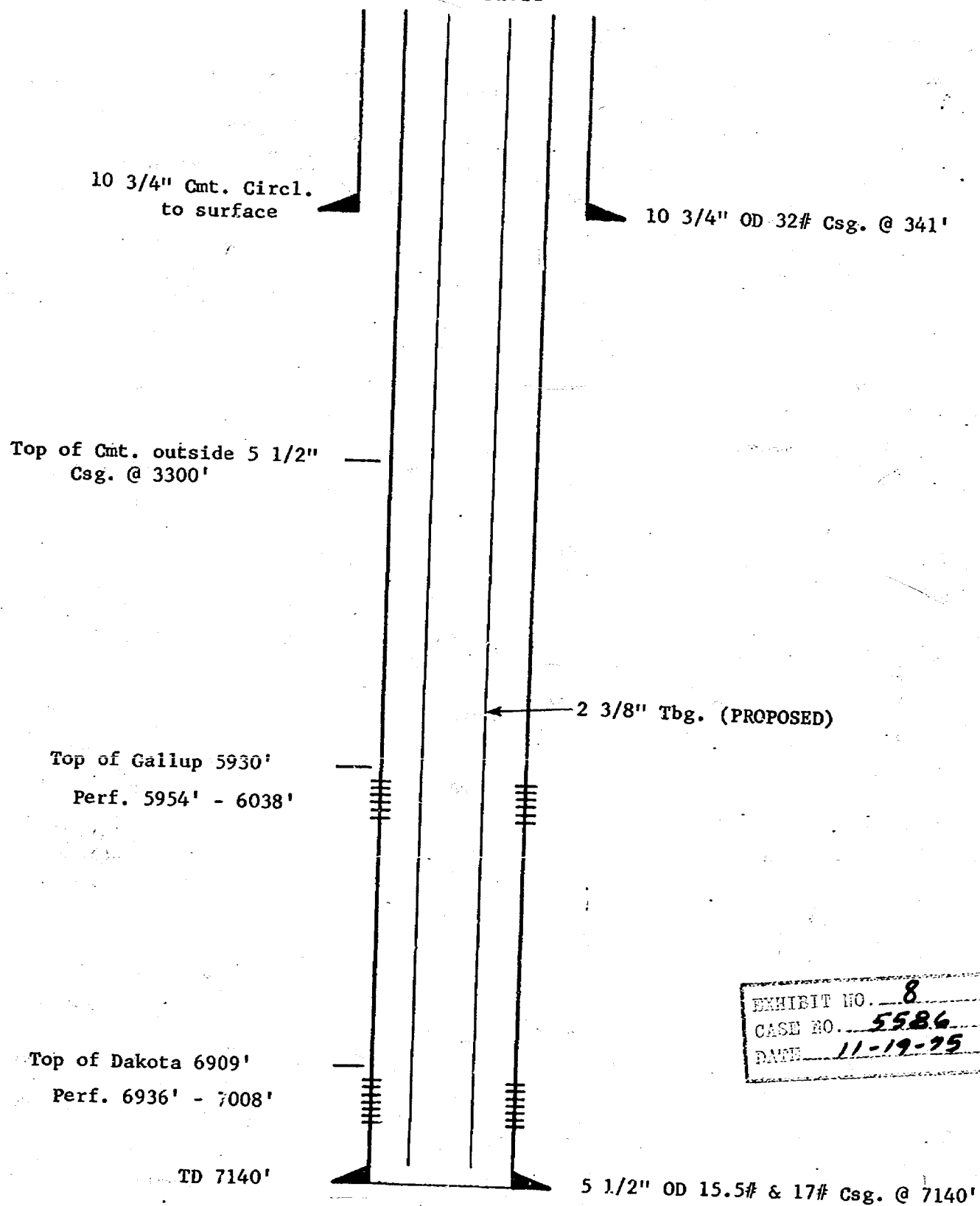
I, SIDNEY F. MORRISH, a court reporter, do hereby  
 certify that the foregoing and attached Transcript of Hearing  
 before the New Mexico Oil Conservation Commission was reported  
 by me, and the same is a true and correct record of the said  
 proceedings to the best of my knowledge, skill and ability.

  
 Sidney F. Morrish, Court Reporter

I do hereby certify that the foregoing is  
 a complete record of the proceedings in  
 the Examiner hearing of Case No. 5586  
 heard by me on 11/19, 1975.  
  
 Examiner  
 New Mexico Oil Conservation Commission

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 Phone (505) 982-9212

Amerada Hess Corp.  
McKENZIE FEDERAL No. 1  
SW/SW Sec. 25 - T25N - R6W  
Rio Arriba County, New Mexico  
Otero Field



NEW MEXICO OIL CONSERVATION COMMISSION  
GAS-OIL RATIO TESTS

C-116  
Revised 1-1-65

Operator <b>Amerada Hess Corporation</b>		Pool <b>Otero Gullup</b>				County <b>Rio Arriba</b>										
Address <b>Drawer D, Monument, New Mexico 88265</b>						TYPE OF TEST - (X)		Scheduled <input type="checkbox"/> Completion <input type="checkbox"/> Special <input checked="" type="checkbox"/>								
LEASE NAME	WELL NO.	LOCATION				DATE OF TEST	STATUS	CHOKE SIZE	TBG. PRESS.	DAILY ALLOW-ABLE	LENGTH OF TEST HOURS	PROD. DURING TEST				GAS - OIL RATIO CU.FT/BBL
		U	S	T	R							WATER BBLs.	GRAV. OIL	OIL BBLs.	GAS M.C.F.	
McKenzie Federal	1	M	25	25	06	11-9-75	G	2"	12		24	0	-	6	55	9,167
"" ""	3	O	25	25	06	11-11-75	G	2"	14		24	0	-	3	35	11,667
Harvey State	1	N	36	25	06	11-6-75	G	2"	30		24	0	-	3	31	10,333

EXHIBIT NO. 2  
CASE NO. 5584  
DATE 11-19-75

No well will be assigned an allowable greater than the amount of oil produced on the official test.  
During gas-oil ratio test, each well shall be produced at a rate not exceeding the top unit allowable for the pool in which well is located by more than 25 percent. Operator is encouraged to take advantage of this 25 percent tolerance in order that well can be assigned increased allowables when authorized by the Commission.  
Gas volumes must be reported in MCF measured at a pressure base of 15,025 psia and a temperature of 60° F. Specific gravity base will be 0.60.  
Report casing pressure in lieu of tubing pressure for any well producing through casing.  
Mail original and one copy of this report to the district office of the New Mexico Oil Conservation Commission in accordance with Rule 301 and appropriate pool rules.

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

*M. D. Black*  
(Signature)  
Supv. Admin. Services  
(Title)  
11-17-75  
(Date)

Dockets Nos. 30-75 and 31-75 are tentatively set for hearing on December 3 and December 17, 1975. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: EXAMINER HEARING - WEDNESDAY - NOVEMBER 19, 1975

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

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

- ALLOWABLE: (1) Consideration of the allowable production of gas from seventeen prorated pools in Lea, Eddy, Roosevelt, and Chaves Counties, New Mexico, for December, 1975.
- (2) Consideration of the allowable production of gas from five prorated pools in San Juan, Rio Arriba, and Sandoval Counties, New Mexico, for December, 1975.

CASE 5583: Application of Stevens Oil Company for a pilot waterflood project, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a pilot waterflood project in the Twin Lakes-San Andres Pool by injection of produced water through its Twinlakes Oil Company Well No. 1, located in Unit D of Section 12, Township 9 South, Range 28 East, Chaves County, New Mexico.

CASE 5584: Application of Cities Service Oil Company for an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to drill a well at an unorthodox location 990 feet from the North line and 660 feet from the West line of Section 29, Township 21 South, Range 27 East, South Carlsbad Field, Eddy County, New Mexico, or, in the alternative, in the NW/4 NW/4 of said Section 29 at some point not closer than 660 feet from either the North or West lines of said Section, the W/2 of said Section 29 to be dedicated to the well.

CASE 5585: Application of W. P. Carr for compulsory pooling, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Pictured Cliffs formation underlying the NE/4 of Section 13, Township 31 North, Range 11 West, Blanco-Pictured Cliffs Pool, San Juan County, New Mexico, to be dedicated to a well to be drilled in Unit G of said Section 13. 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.

CASE 5586: Application of Amerada Hess Corporation for downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks authority to commingle Otero-Gallup oil production and Basin-Dakota gas production in the wellbore of its McKenzie Federal Wells Nos. 1 and 3 located, respectively, in Units M and O of Section 25 and its Harvey State Well No. 1 located in Unit N of Section 36, all in Township 25 North, Range 6 West, Rio Arriba County, New Mexico.

CASE 5587: Application of Pennzoil Company for downhole commingling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval to commingle Morrow and Atoka gas production in the wellbore of its Gulf Federal Well No. 2, located in Unit L of Section 6, Township 23 South, Range 27 East, South Carlsbad Field, Eddy County, New Mexico.

CASE 5588: Application of Amoco Production Company for downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval to commingle Gonzales-Mesaverde and Basin-Dakota gas production in the wellbore of its Jicarilla Contract 146 Well No. 11 located in Unit K of Section 4, Township 25 North, Range 5 West, Rio Arriba County, New Mexico.

CASE 5589: Application of Filon Exploration Corporation for pool creation, assignment of a discovery allowable, and special pool rules, Sandoval County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new pool for the production of oil from the Entrada formation for its Federal 33 Well No. 3 located in Unit N of Section 33, Township 21 North, Range 5 West, Sandoval County, New Mexico, and the assignment of a discovery allowable to said well; applicant further seeks the promulgation of special pool rules for said pool, including a provision for a special depth bracket allowable.

CASE 5590: Northwestern New Mexico nomenclature case calling for an order for the creation, contraction, and extension of certain pools in San Juan, Rio Arriba, and Sandoval Counties, New Mexico.

(a) CREATE a new pool in San Juan County, New Mexico, classified as a gas pool for Pictured Cliffs production and designated as the Nipp Pictured Cliffs Pool and described as:

TOWNSHIP 26 NORTH, RANGE 12 WEST, NMPM

Section 16: SW/4  
Section 17: SE/4  
Section 20: E/2  
Section 21: W/2  
Section 28: W/2  
Section 33: All  
Section 34: SW/4

(b) CONTRACT the Blanco-Pictured Cliffs Pool boundary in Rio Arriba and San Juan Counties, New Mexico, to exclude therefrom:

TOWNSHIP 29 NORTH, RANGE 9 WEST, NMPM

Section 17: SW/4

TOWNSHIP 30 NORTH, RANGE 10 WEST, NMPM

Section 35: NW/4

(c) EXTEND the Angels Peak-Gallup Pool boundary in San Juan County, New Mexico, to include therein:

TOWNSHIP 26 NORTH, RANGE 9 WEST, NMPM

Section 5: N/2

Section 15: SE/4

TOWNSHIP 26 NORTH, RANGE 10 WEST, NMPM

Section 13: S/2

TOWNSHIP 27 NORTH, RANGE 9 WEST, NMPM

Section 31: All

(d) EXTEND the Aztec-Fruitland Pool boundary in San Juan County, New Mexico, to include therein:

TOWNSHIP 29 NORTH, RANGE 10 WEST, NMPM

Section 8: NW/4

Section 9: SW/4

Section 20: N/2

(e) EXTEND the Aztec-Pictured Cliffs Pool boundary in San Juan County, New Mexico, to include therein:

TOWNSHIP 29 NORTH, RANGE 9 WEST, NMPM

Section 17: SW/4

Section 20: NW/4

TOWNSHIP 29 NORTH, RANGE 10 WEST, NMPM

Section 11: N/2

Section 12: NW/4

TOWNSHIP 30 NORTH, RANGE 10 WEST, NMPM

Section 27: E/2

Section 35: NW/4

(f) EXTEND the Blanco-Mesaverde Pool boundary in Rio Arriba and San Juan Counties, New Mexico, to include therein:

TOWNSHIP 30 NORTH, RANGE 5 WEST, NMPM

Section 2: All

Section 3: All

(g) EXTEND the Blanco-Pictured Cliffs Pool boundary in Rio Arriba and San Juan Counties, New Mexico, to include therein:

TOWNSHIP 29 NORTH, RANGE 8 WEST, NMPM

Section 31: SE/4

Section 32: S/2

TOWNSHIP 29 NORTH, RANGE 9 WEST, NMPM

Section 28: E/2

TOWNSHIP 30 NORTH, RANGE 8 WEST, NMPM

Section 29: SW/4

Section 32: N/2

TOWNSHIP 30 NORTH, RANGE 10 WEST, NMPM

Section 3: All

Section 4: E/2

TOWNSHIP 31 NORTH, RANGE 9 WEST, NMPM

Section 31: NE/4

Section 32: NW/4

TOWNSHIP 31 NORTH, RANGE 10 WEST, NMPM

Sections 5 through 8: All

Section 14: W/2

Sections 15 through 17: All

Section 18: N/2 and SE/4

Section 20: N/2 and SE/4

Sections 21 through 23: All

Sections 26 through 28: All

Section 29: NE/4

Sections 33 and 34: All

Section 35: N/2

TOWNSHIP 31 NORTH, RANGE 11 WEST, NMPM

Section 1: All

Section 2: E/2 and SW/4

Section 15: NW/4

Section 16: N/2

Section 26: NE/4

TOWNSHIP 32 NORTH, RANGE 11 WEST, NMPM

Section 16: S/2

Section 17: SE/4

(h) EXTEND the Bloomfield-Chacra Pool boundary in San Juan County, New Mexico, to include therein:

TOWNSHIP 29 NORTH, RANGE 10 WEST, NMPM

Section 8: SE/4

Section 17: N/2 and SW/4

(i) EXTEND the Campo-Gallup Pool boundary in Rio Arriba County, New Mexico, to include therein:

TOWNSHIP 29 NORTH, RANGE 4 WEST, NMPM

Section 12: NW/4

(j) EXTEND the Escrito-Gallup Oil Pool boundary in Rio Arriba and San Juan Counties, New Mexico, to include therein:

TOWNSHIP 24 NORTH, RANGE 7 WEST, NMPM

Section 33: E/2

TOWNSHIP 24 NORTH, RANGE 8 WEST, NMPM

Section 13: W/2 NE/4, E/2 NW/4 and E/2 SE/4

(k) EXTEND the Fulcher Kutz-Pictured Cliffs Pool boundary in San Juan County, New Mexico, to include therein:

TOWNSHIP 28 NORTH, RANGE 11 WEST, NMPM  
Section 23: NW/4 and SE/4

TOWNSHIP 29 NORTH, RANGE 11 WEST, NMPM  
Section 7: NE/4  
Section 8: NW/4

(1) EXTEND the Harris Mesa-Chacra Pool boundary in San Juan County, New Mexico, to include therein:

TOWNSHIP 27 NORTH, RANGE 9 WEST, NMPM  
Section 2: N/2 and SE/4  
Section 11: NE/4  
Section 12: NW/4

TOWNSHIP 28 NORTH, RANGE 9 WEST, NMPM  
Section 26: N/2 and SE/4  
Section 34: NW/4  
Section 35: All

(m) EXTEND the Largo-Chacra Pool boundary in Rio Arriba and San Juan Counties, New Mexico, to include therein:

TOWNSHIP 27 NORTH, RANGE 7 WEST, NMPM  
Section 6: SW/4  
Section 7: W/2  
Section 15: SW/4  
Section 22: W/2  
Section 27: NW/4  
Section 28: NE/4  
Section 29: S/2

TOWNSHIP 27 NORTH, RANGE 8 WEST, NMPM  
Section 1: SE/4  
Section 12: All

(n) EXTEND the South Lindrith Gallup-Dakota Oil Pool boundary in Rio Arriba County, New Mexico, to include therein:

TOWNSHIP 23 NORTH, RANGE 4 WEST, NMPM  
Section 3: NW/4  
Section 4: N/2  
Section 5: NE/4

TOWNSHIP 24 NORTH, RANGE 4 WEST, NMPM  
Section 33: SW/4

(o) EXTEND the West Lindrith Gallup-Dakota Oil Pool boundary in Rio Arriba County, New Mexico, to include therein:

TOWNSHIP 24 NORTH, RANGE 4 WEST, NMPM  
Section 1: NW/4 SW/4 and E/2 SW/4  
Section 2: N/2  
Section 11: NW/4 NE/4 and S/2 NE/4

(p) EXTEND the Ojo-Pictured Cliffs Pool boundary in San Juan County, New Mexico, to include therein:

TOWNSHIP 28 NORTH, RANGE 15 WEST, NMPM  
Section 26: NE/4

(q) EXTEND the Otero-Chacra Pool boundary in Rio Arriba County, New Mexico, to include therein:

TOWNSHIP 26 NORTH, RANGE 6 WEST, NMPM  
Section 21: NE/4

TOWNSHIP 26 NORTH, RANGE 7 WEST, NMPM  
Section 11: S/2  
Section 13: SW/4  
Section 14: N/2  
Section 24: NW/4

(r) EXTEND the Rusty-Menefee Oil Pool boundary in Sandoval County, New Mexico, to include therein:

TOWNSHIP 22 NORTH, RANGE 7 WEST, NMPM  
Section 13: NW/4  
Section 14: NE/4

(s) EXTEND the Tapacito-Pictured Cliffs Pool boundary in Rio Arriba County, New Mexico, to include therein:

TOWNSHIP 27 NORTH, RANGE 4 WEST, NMPM  
Section 16: SW/4  
Section 21: N/2

(t) EXTEND the Waw-Pictured Cliffs Pool boundary in San Juan County, New Mexico, to include therein:

TOWNSHIP 27 NORTH, RANGE 13 WEST, NMPM  
Section 29: E/2 and SW/4  
Section 30: SE/4  
Section 31: NE/4  
Section 32: N/2

(u) EXTEND the Wild Horse-Gallup Pool boundary in Rio Arriba County, New Mexico, to include therein:

TOWNSHIP 26 NORTH, RANGE 4 WEST, NMPM  
Section 14: N/2  
Section 24: NE/4

CASE 5591: Application of Amoco Production Company for an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to drill a well at an unorthodox location 1980 feet from the South line and 1241 feet from the West line of Section 33, Township 17 South, Range 29 East, Grayburg-Morrow Gas Pool, Eddy County, New Mexico, the S/2 of said Section 33 to be dedicated to the well.

CASE 5592: Application of Agua, Inc. for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced water by injection into the San Andres formation through the open-hole interval from approximately 4000 to 5000 feet in its Blinbry-Drinkard SWD System Well No. A-22 located 817 feet from the North line and 965 feet from the East line of Section 22, Township 22 South, Range 37 East, Lea County, New Mexico.

CASE 5403: (Reopened)

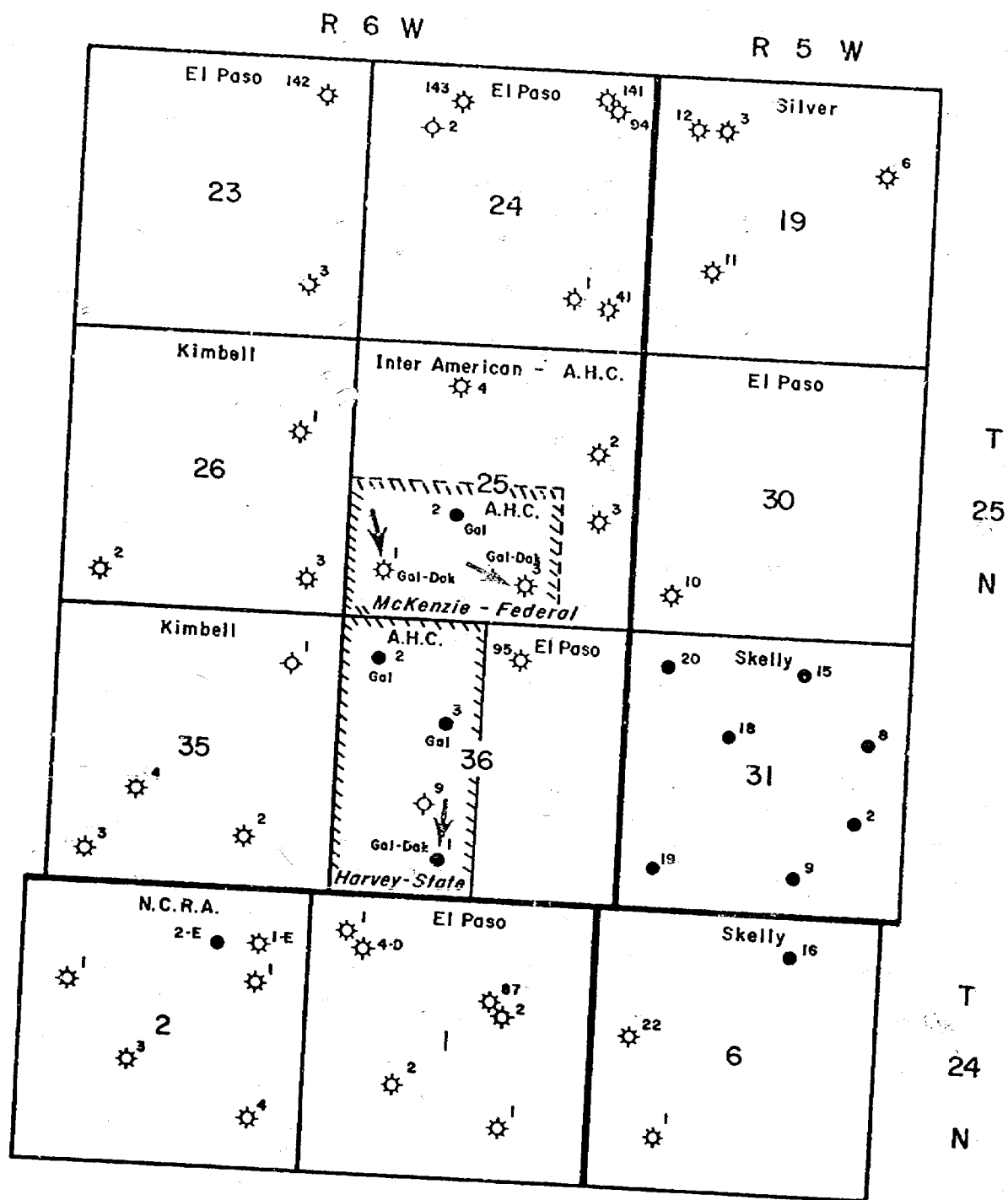
In the matter of the hearing called by the Oil Conservation Commission on its own motion to further consider the subject matter of Case No. 5377, namely to permit all interested parties to appear and show cause why the continued injection of water for secondary recovery or disposal purposes into any formation from the surface of the ground down to and including the Drinkard formation should be permitted in the following described area in Lea County, New Mexico:

TOWNSHIP 22 SOUTH, RANGE 37 EAST, NMPM  
Sections 13 through 36: All

TOWNSHIP 23 SOUTH, RANGE 37 EAST, NMPM  
Sections 1 through 12: All

CASE 5571: (Continued from October 8, 1975 Examiner Hearing)

Application of Robert G. Cox for amendment of Order No. R-4561, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks amendment of Order No. R-4561, which order permitted the directional drilling of applicant's Federal "EA" Well No. 1, located 330 feet from the North and West lines of Section 12, Township 18 South, Range 27 East, Empire-Abo Pool, Eddy County, New Mexico, in such a manner as to be bottomed within 100 feet of the surface location. Applicant seeks the amendment of said order to permit bottoming of the subject well approximately 58 feet from the North line and 8 feet from the West line of said Section 12 and to permit verification of said downhole location by single-shot directional surveys made concurrently with the drilling of said well.



Amerada Hess Corp.  
**OTERO FIELD**  
 Rio Arriba County, New Mexico  
 Scale: 1" = 3000'

RECORD NO.	1
CASE NO.	5586
DATE	11-19-75

AMERADA HESS CORPORATION  
BOTTOM HOLE PRESSURE DATA  
OTERO FIELD  
RIO ARriba COUNTY, NEW MEXICO  
OCTOBER, 1975

WELL  
Harvey State #1  
McKenzie Federal #1  
McKenzie Federal #3

DAKOTA BHP  
375 PSI @ 6875'  
625 PSI @ 6995'  
537 PSI @ 6904'

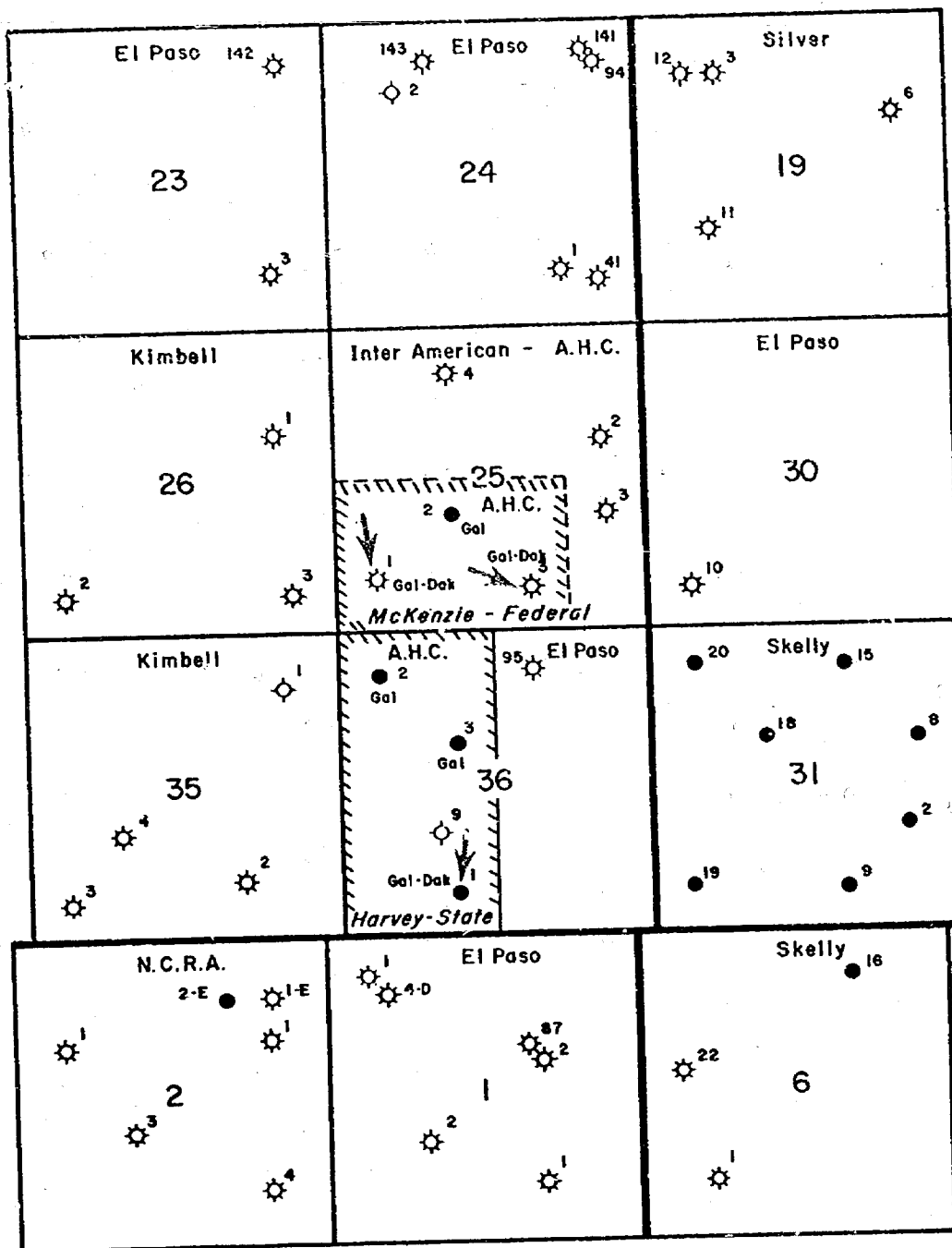
GALLUP BHP  
406 PSI @ 5285'  
\*  
551 PSI @ 4590'

\* Unable to conduct BHP test due to tubing restriction.

EXHIBIT NO.	4
CASH NO.	5586
DATE	11-19-75

R 6 W

R 5 W



T  
25  
N

T  
24  
N

Amerada Hess Corp.

OTERO FIELD

Rio Arriba County, New Mexico

Scale: 1" = 3000'

BEFORE EXAMINER NUTTER  
OIL CONSERVATION COMMISSION  
Amerada EXHIBIT NO. 1  
CASE NO. 5586

EXHIBIT NO. \_\_\_\_\_  
CASE NO. 5586  
DATE 11-19-75

NEW MEXICO OIL CONSERVATION COMMISSION  
GAS-OIL RATIO TESTS

C-116  
Revised 1-1-65

Operator <b>Amerada Hess Corporation</b>		Pool <b>Otero Gullup</b>		County <b>Rio Arriba</b>	
Address <b>Drawer D, Monument, New Mexico 88265</b>				TYPE OF TEST - (X) <input checked="" type="checkbox"/> Scheduled <input type="checkbox"/> Completion <input type="checkbox"/> Spectral <input checked="" type="checkbox"/>	

LEASE NAME	WELL NO.	LOCATION				DATE OF TEST	STATUS	CHOKE SIZE	TBG. PRESS.	DAILY ALLOWABLE	LENGTH OF TEST HOURS	PROD. DURING TEST				GAS - OIL RATIO CU.FT/BBL
		U	S	T	R							WATER BBLs.	GRAV. OIL	OIL BBLs.	GAS M.C.F.	
McKenzie Federal	1	M	25	25	06	11-9-75	G	2"	12		24	0	-	6	55	9,167
" " "	3	O	25	25	06	11-11-75	G	2"	14		24	0	-	3	35	11,667
Harvey State	1	N	36	25	06	11-6-75	G	2"	30		24	0	-	3	31	10,333

BEFORE EXAMINER MUTTER  
OIL CONSERVATION COMMISSION  
*Amerada* EXHIBIT NO. 2  
CASE NO. 5586

EXHIBIT NO. \_\_\_\_\_  
CASE NO. 5586  
DATE 11-19-75

No well will be assigned an allowable greater than the amount of oil produced on the official test.

During gas-oil ratio test, each well shall be produced at a rate not exceeding the top unit allowable for the pool in which well is located by more than 25 percent. Operator is encouraged to take advantage of this 25 percent tolerance in order that well can be assigned increased allowables when authorized by the Commission.

Gas volume must be reported in MCF measured at a pressure base of 15.025 psia and a temperature of 60° F. Specific gravity base will be 0.60.

Report casing pressure in lieu of tubing pressure for any well producing through casing.

Mail original and one copy of this report to the district office of the New Mexico Oil Conservation Commission in accordance with Rule 301 and appropriate pool rules.

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

*M. P. Black*  
(Signature)

Supv. Admin. Services  
(Title)

11-17-75  
(Date)

NEW MEXICO OIL CONSERVATION COMMISSION  
GAS-OIL RATIO TESTS

C-116  
Revised 1-1-65

Operator <b>Amerada Hess Coporation</b>		Pool <b>Basin Dakota Gas</b>		County <b>Rio Arriba</b>												
Address <b>Drawer D, Monument, New Mexico</b>		<b>88265</b>		TYPE OF TEST - (X) <input type="checkbox"/> Scheduled <input type="checkbox"/> Completion <input type="checkbox"/> Special <input checked="" type="checkbox"/>												
LEASE NAME	WELL NO.	LOCATION				DATE OF TEST	STATUS	CHOKE SIZE	T.B.G. PRESS.	DAILY ALLOWABLE	LENGTH OF TEST HOURS	PROD. DURING TEST				GAS - OIL RATIO CU. FT./BBL.
		U	S	T	R							WATER BBL.S.	GRAV. OIL	OIL BBL.S.	GAS M.C.F.	
McKenzie Federal	1	M	25	25	06	11-7-75	F	32/64	552	--	24	0		0	440	--
" "	3	O	25	25	06	11-6-75	F	32/64	--	--	24	0		0	0	Closed IN
Harvey State	1	N	36	25	06	11-4-75	F	32/64	500	--	24	0		0	296	--

BEFORE EXAMINER NUTTER  
OIL CONSERVATION COMMISSION  
*Amerada* EXHIBIT NO. 3  
CASE NO. 5586

EXHIBIT NO. \_\_\_\_\_  
CASE NO. 5586  
DATE 11-19-75

No well will be assigned an allowable greater than the amount of oil produced on the official test.

During gas-oil ratio test, each well shall be produced at a rate not exceeding the top unit allowable for the pool in which well is located by more than 25 percent. Operator is encouraged to take advantage of this 25 percent tolerance in order that well can be assigned increased allowables when authorized by the Commission.

Gas volumes must be reported in MCF measured at a pressure base of 15.025 psia and a temperature of 60° F. Specific gravity base will be 0.60.

Report casing pressure in lieu of tubing pressure for any well producing through casing.

Mail original and one copy of this report to the district office of the New Mexico Oil Conservation Commission in accordance with Rule 301 and appropriate pool rules.

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

  
(Signature)

Supv. Admin. Services  
(Title)

11-17-75  
(Date)

AMERADA HESS CORPORATION  
BOTTOM HOLE PRESSURE DATA  
OTERO FIELD  
RIO ARriba COUNTY, NEW MEXICO

OCTOBER, 1975

WELL  
Harvey State #1  
McKenzie Federal #1  
McKenzie Federal #3

DAKOTA BHP  
375 PSI @ 6875'  
625 PSI @ 6995'  
537 PSI @ 6904'

GALLUP BHP  
406 PSI @ 5285'

\*

551 PSI @ 4590'

*Gallup BHP  
extrapolated  
down to DK*

*438@Dak*

*620@Dak*

\* Unable to conduct BHP test due to tubing restriction.

EXHIBIT NO. \_\_\_\_\_  
CASE NO. 5586  
DATE 11-19-75

BEFORE EXAMINER NUTTER  
OIL CONSERVATION COMMISSION  
*Amerada* EXHIBIT NO. 4  
CASE NO. 5586

Amerada Hess Corp.  
HARVEY STATE No. 1  
SE/SW Sec. 36 - T25N - R6W  
Rio Arriba County, New Mexico  
Otero Field

10 3/4" Cmt. Circl.  
to surface

10 3/4" OD 32# Csg. @ 295'

Top of Cmt. outside 7" Csg.  
@ 2600'

2 3/8" Tbg. (PROPOSED)

Top of Gallup 5926'  
Perf. 5966' - 6045'

Top of Dakota 6890'  
Perf. 6974' - 7044'

BEFORE EXAMINER NUTTER  
OIL CONSERVATION COMMISSION  
*Amerada* EXHIBIT NO. 5  
CASE NO. 5586

EXHIBIT NO. \_\_\_\_\_  
CASE NO. 5586  
DATE 11-19-75

PRD 7070'

7" OD 20# & 23# Csg. @ 7166'

TD 7196'

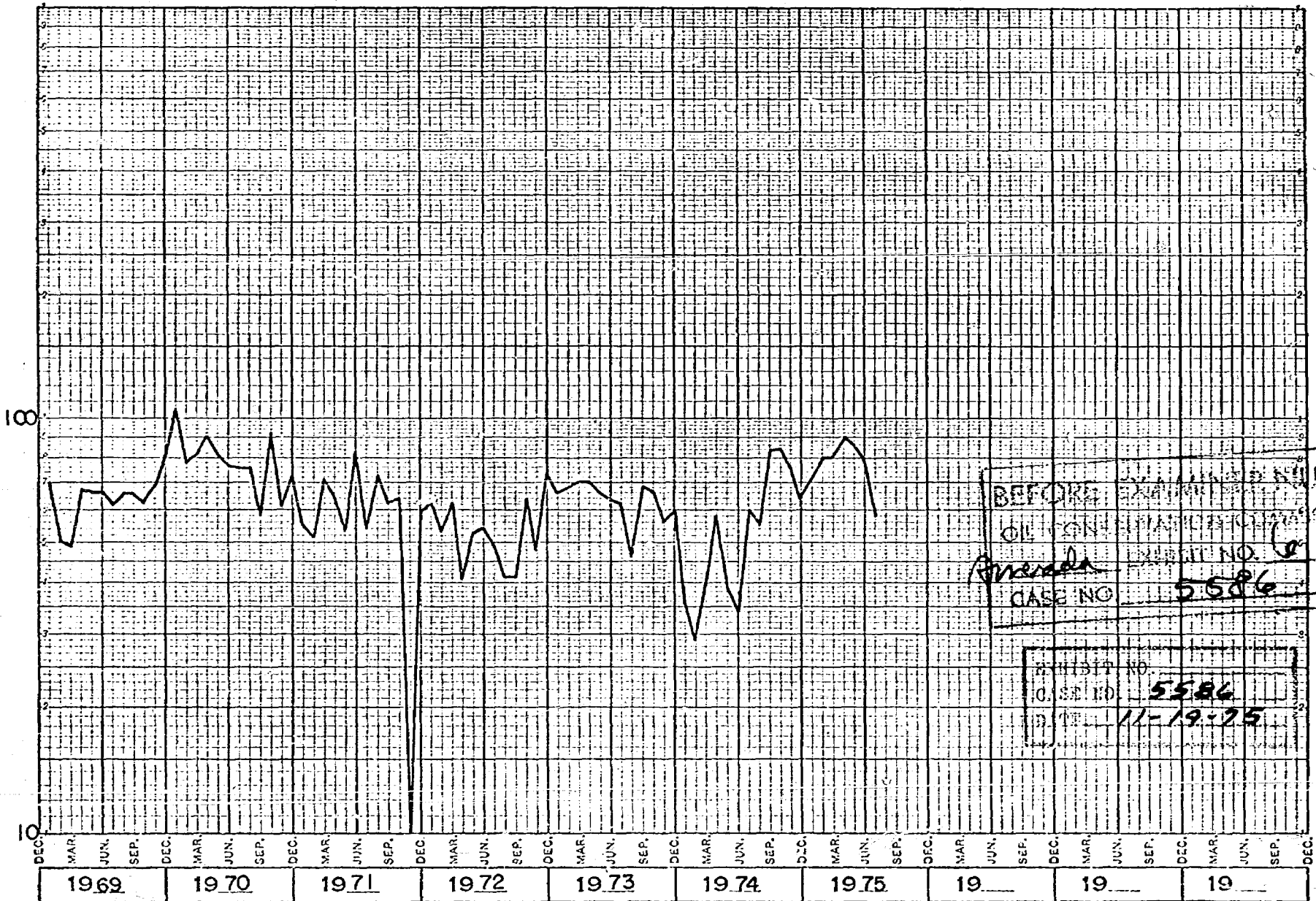
NO. 3157. TEN YEARS BY MONTHS X 2 3-INCH CYCLES RATIO RULING.

Codex  
GRAPH PAPER

IN STOCK DIRECT FROM CODEX BOOK CO., NORWOOD, MASS. 02062  
PRINTED IN U.S.A.

Amerada Hess Corp.  
HARVEY STATE No. 1  
Otero Gallup (Oil)

BBLS. OIL PER MONTH



NO. 3157. TEN YEARS BY MONTHS X 2 3-INCH CYCLES RATIO RULING.

codex  
GRAPH PAPER

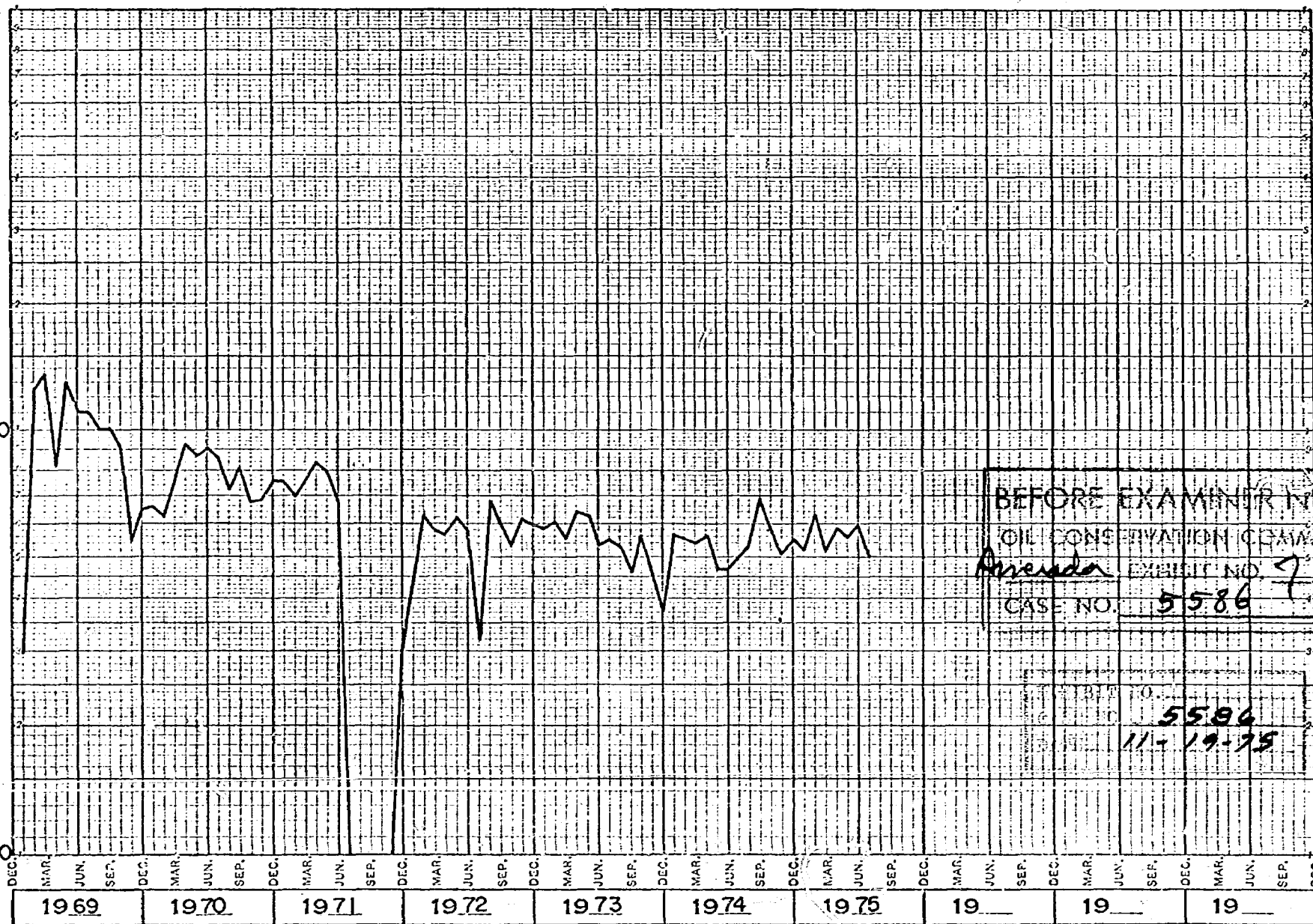
IN STOCK DIRECT FROM CODEX BOOK CO., NORWOOD, MASS. 02062  
PRINTED IN U. S. A.

Amerada Hess Corp.  
HARVEY STATE No. 1  
Basin Dakota (Gas)

GAS - MCF PER MONTH

10,000

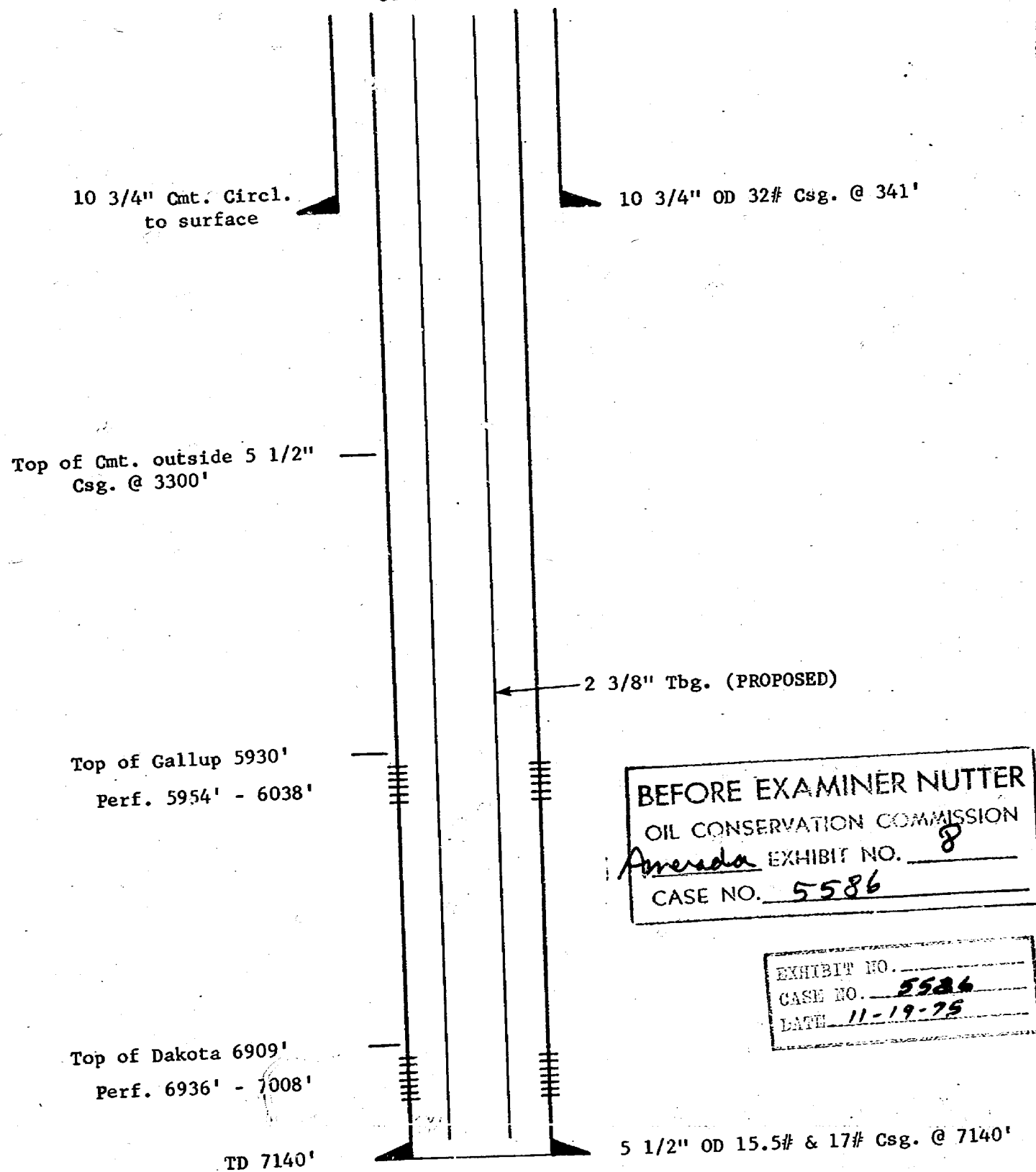
1,000



BEFORE EXAMINER MUTTER  
OIL CONSERVATION COMMISSION  
Amerada EXHIBIT NO. 7  
CASE NO. 5586

5586  
11-19-75

Amerada Hess Corp.  
McKENZIE FEDERAL No. 1  
SW/SW Sec. 25 - T25N - R6W  
Rio Arriba County, New Mexico  
Otero Field



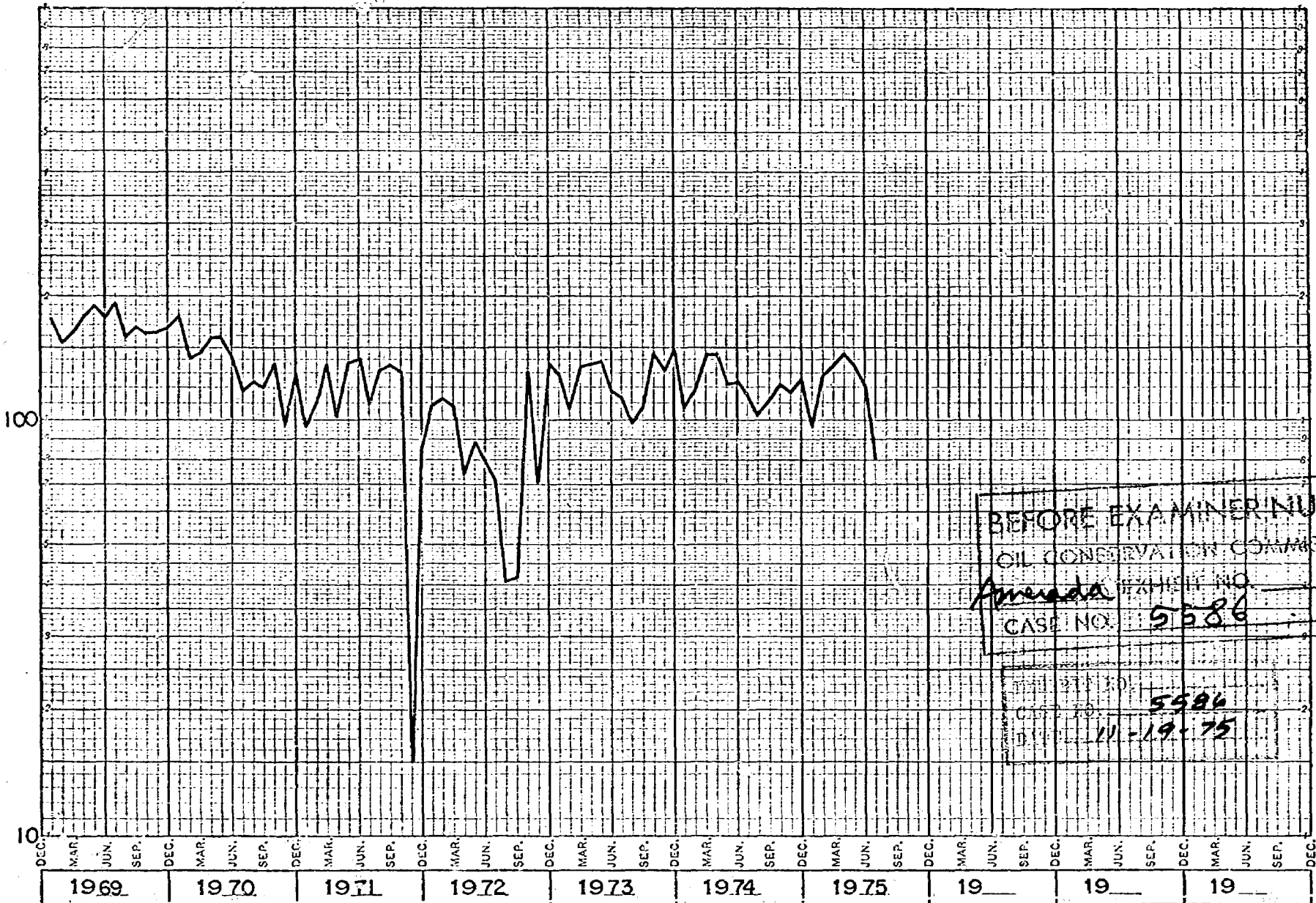
NO. 3157 TEN YEARS BY MONTHS X 2 3-INCH CYCLES RATIO RULING.

CODEX  
GRAPH PAPER

IN STOCK DIRECT FROM CODEX BOOK CO., NORWOOD, MASS. 02062  
PRINTED IN U. S. A.

Amerada Hess Corp.  
McKENZIE FEDERAL No. 1  
Otero Gallup (Oil)

BBLS. OIL PER MONTH



NO. 3157. TEN YEARS BY MONTHS X 2 3-INCH CYCLES RATIO RULING.

CODER  
GRAPH PAPER

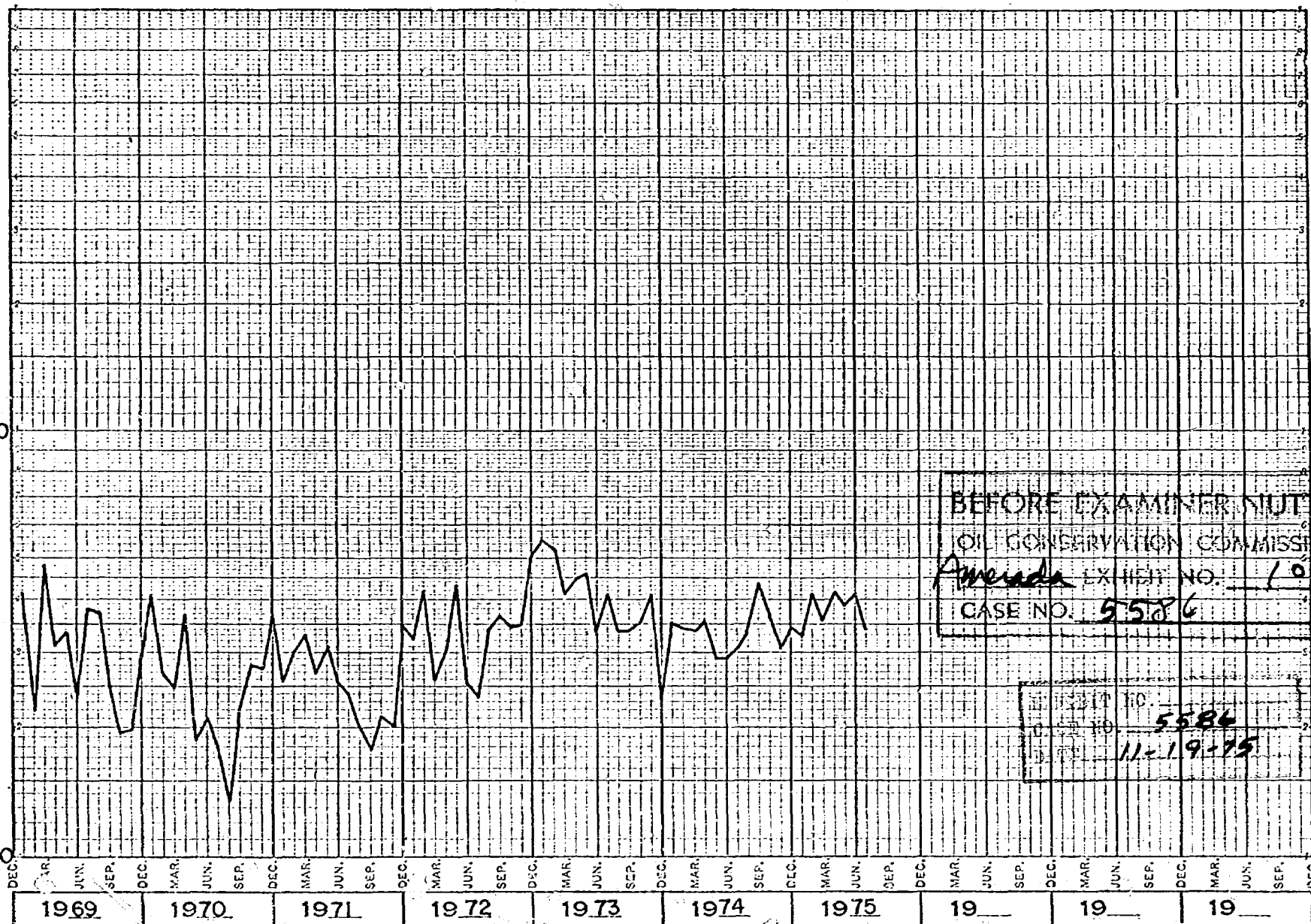
IN STOCK DIRECT FROM CODER BOOK CO., NORWOOD, MASS. 02062  
PRINTED IN U. S. A.

Amerada Hess Corp.  
McKENZIE FEDERAL No. 1  
Basin Dakota (Gas)

GAS-MCF PER MONTH

10,000

1,000



BEFORE EXAMINER NUTTER  
OIL CONSERVATION COMMISSION  
*Amerada* EXHIBIT NO. 10  
CASE NO. 5586

EXHIBIT NO. 5586  
DATE 11-19-75

Amerada Hess Corp.  
McKENZIE FEDERAL No. 3  
SW/SE Sec. 25 - T25N - R6W  
Rio Arriba County, New Mexico  
Otero Field

10 3/4" Cmt. Ctrcl.  
to surface

10 3/4" OD 32# Csg. @ 317'

Top of Cmt. outside 7" Csg.  
@ 2610'

Top of Gallup 5856'  
Perf. 5914' - 5996'

Top of Dakota 6790'  
Perf. 6868' - 6934'

TD 7000'

PBD 6951'

7" OD 23# Csg. @ 7000'

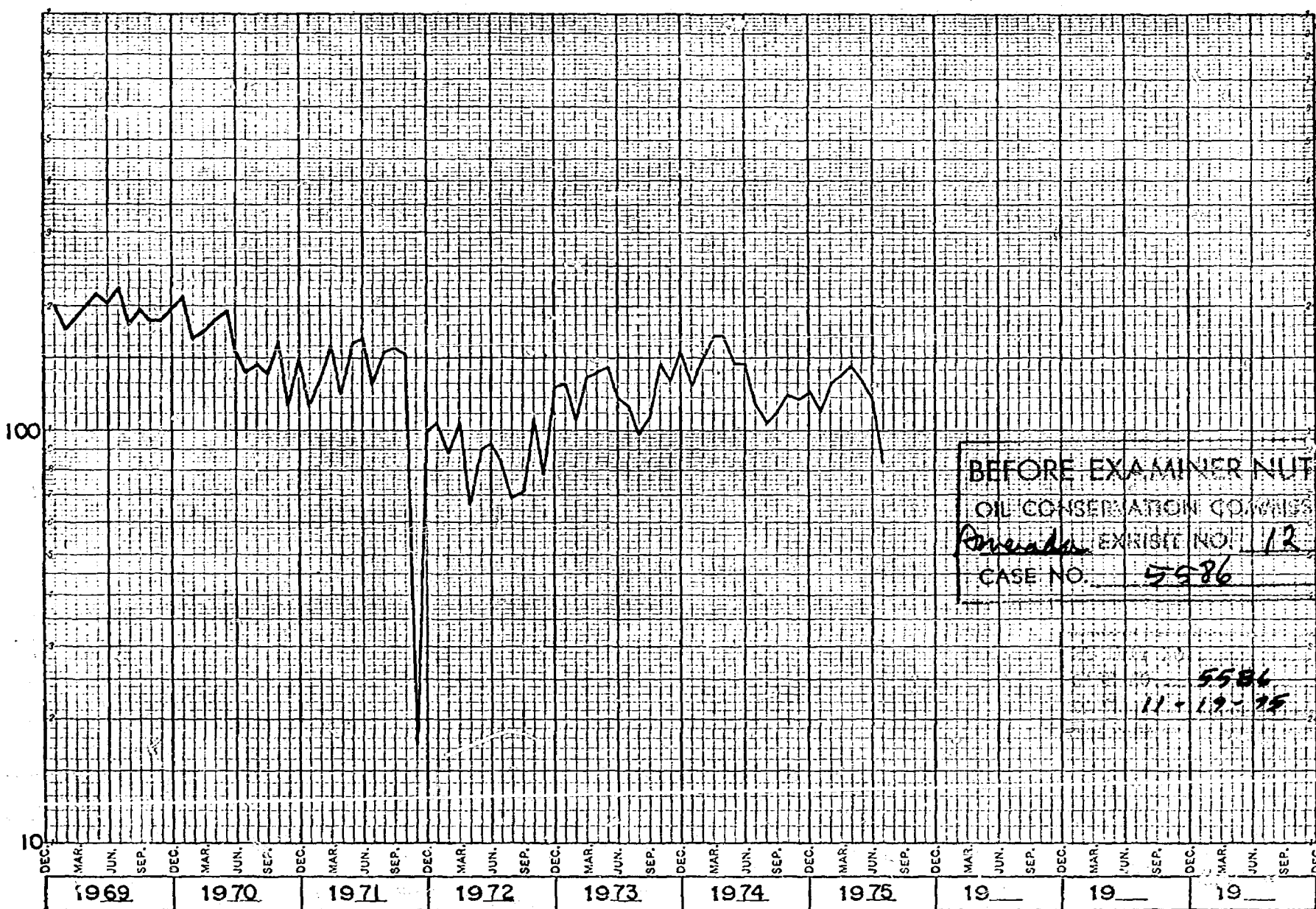
2 3/8" Tbg. (PROPOSED)

BEFORE EXAMINER NUTTER  
OIL CONSERVATION COMMISSION  
EXHIBIT NO. 11  
CASE NO. 5586

EXHIBIT NO. 5586  
CASE NO. 5586  
DATE 11-19-75

**Codex**  
GRAPH PAPER®

IN STOCK DIRECT FROM CODEX BOOK CO., NORWOOD, MASS. 02062  
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**388LS. OIL PER MONTH**

IN STOCK DIRECT FROM CODEX BOOK CO., NORWOOD, MASS. 02062  
PRINTED IN U. S. A.

BEFORE EXAMINER NOTICE  
OIL CONSERVATION COMMISSION  
Venezuela EXHIBIT NO. 13  
CASE NO. 5586

EXHIBIT NO. 5586  
DATE 11-19-75

NEW MEXICO OIL CONSERVATION COMMISSION  
GAS-OIL RATIO TESTS

C-116  
Revised 1-1-65

Operator <b>Amerada Hess Coporation</b>		Pool <b>Basin Dakota Gas</b>				County <b>Rio Arriba</b>											
Address <b>Drawer D, Monument, New Mexico 88265</b>						TYPE OF TEST - (X)		Scheduled <input type="checkbox"/>		Completion <input type="checkbox"/>		Special <input checked="" type="checkbox"/>					
LEASE NAME	WELL NO.	LOCATION				DATE OF TEST	STATUS	CHOKE SIZE	TBG. PRESS.	DAILY ALLOWABLE	LENGTH OF TEST HOURS	PROD. DURING TEST				GAS - OIL RATIO CU. FT./BBL.	
		U	S	T	R							WATER BBLs.	GRAV. OIL	OIL BBLs.	GAS M.C.F.		
McKenzie Federal	1	M	25	25	06	11-7-75	F	32/64	552	--	24	0		0	440	89	--
" "	3	O	25	25	06	11-6-75	F	32/64	--	--	24	0		0	0		Closed IN
Harvey State	1	N	36	25	06	11-4-75	F	32/64	500	--	24	0		0	295	91	--
									55.2								
									50.0								

EXHIBIT NO. 3  
CASE NO. 5586  
DATE 11-17-75

No well will be assigned an allowable greater than the amount of oil produced on the official test.

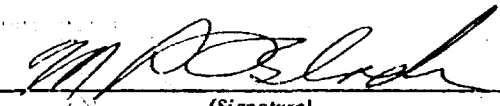
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Gas volumes must be reported in MCF measured at a pressure base of 15.025 psia and a temperature of 60° F. Specific gravity base will be 0.60.

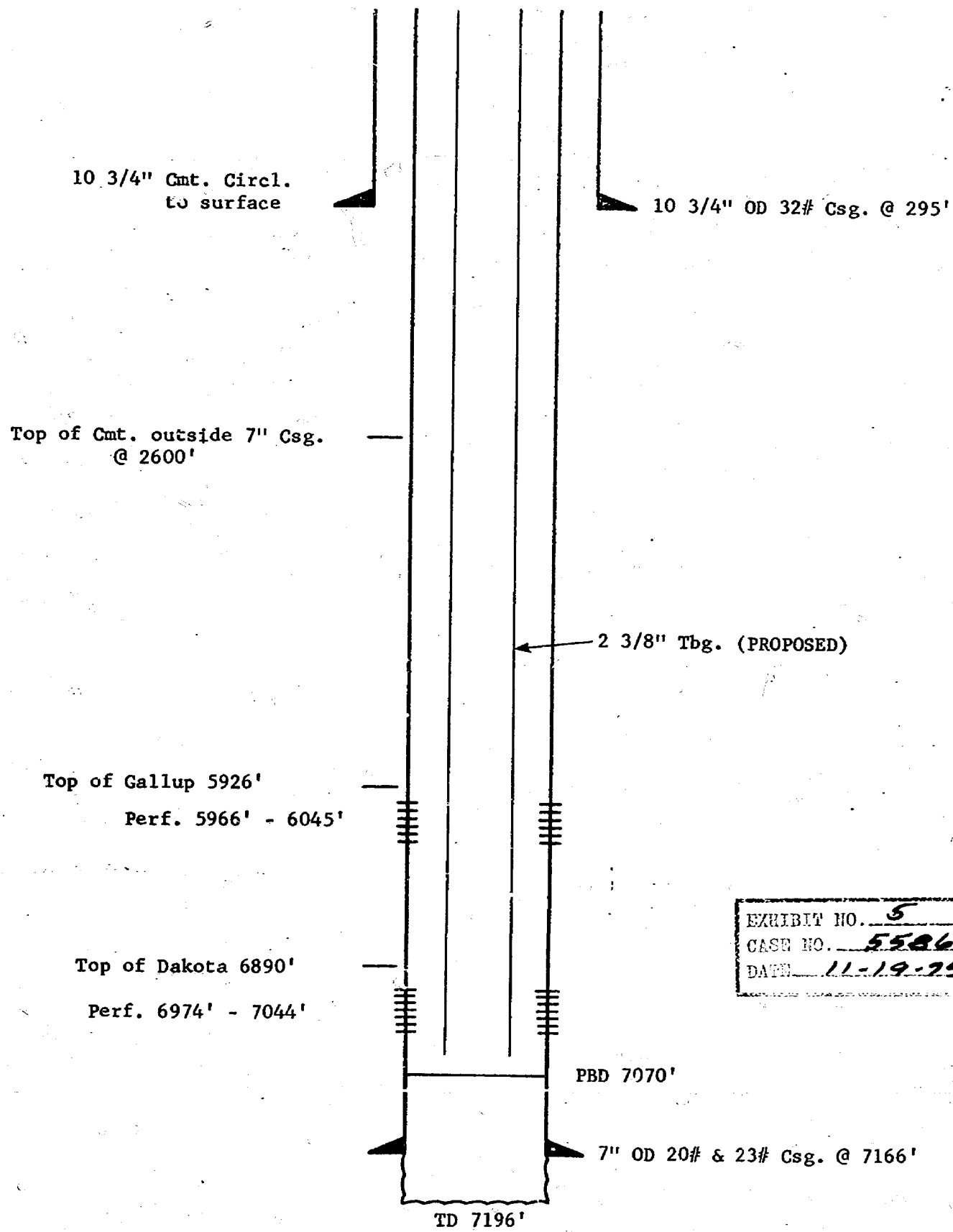
Report casing pressure in lieu of tubing pressure for any well producing through casing.

Mail original and one copy of this report to the district office of the New Mexico Oil Conservation Commission in accordance with Rule 301 and appropriate pool rules.

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

  
(Signature)  
Supv. Admin. Services  
(Title)  
11-17-75  
(Date)

Amerada Hess Corp.  
HARVEY STATE No. 1  
SE/SW Sec. 36 - T25N - R6W  
Rio Arriba County, New Mexico  
Otero Field



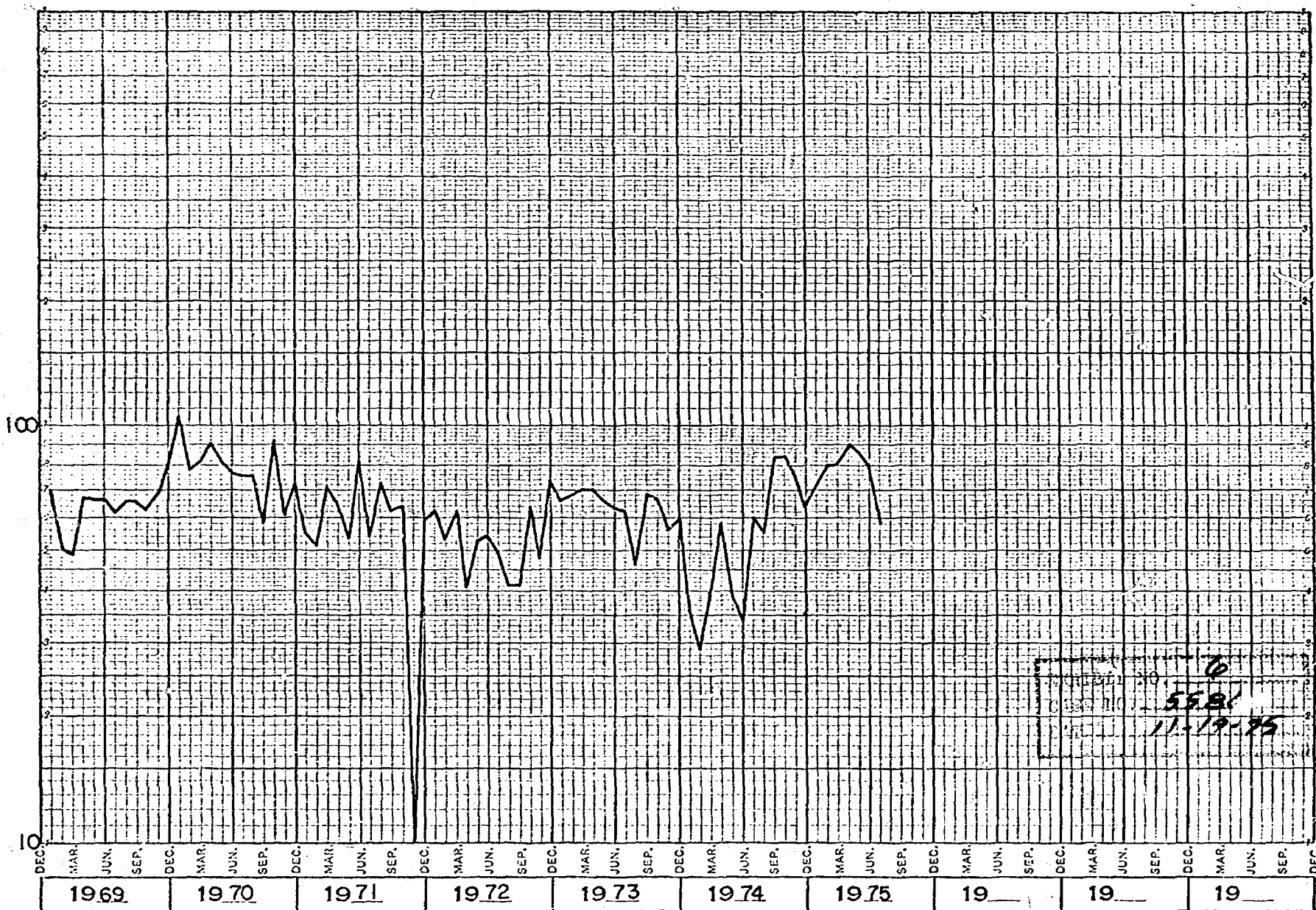
NO. 3157. TEN YEARS BY MONTHS X 2 3-INCH CYCLES RATIO RULING.

CODEX  
GRAPH PAPER

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Amerada Hess Corp.  
HARVEY STATE No. 1  
Otero Gallup (Oil)

BBLS. OIL PER MONTH



NO. 3157. TEN YEARS BY MONTHS X 2 3-INCH CYCLES RATIO RULING.

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PRINTED IN U.S.A.

Amerada Hess Corp.  
HARVEY STATE No. 1  
Basin Dakota (Gas)

GAS - MCF PER MONTH



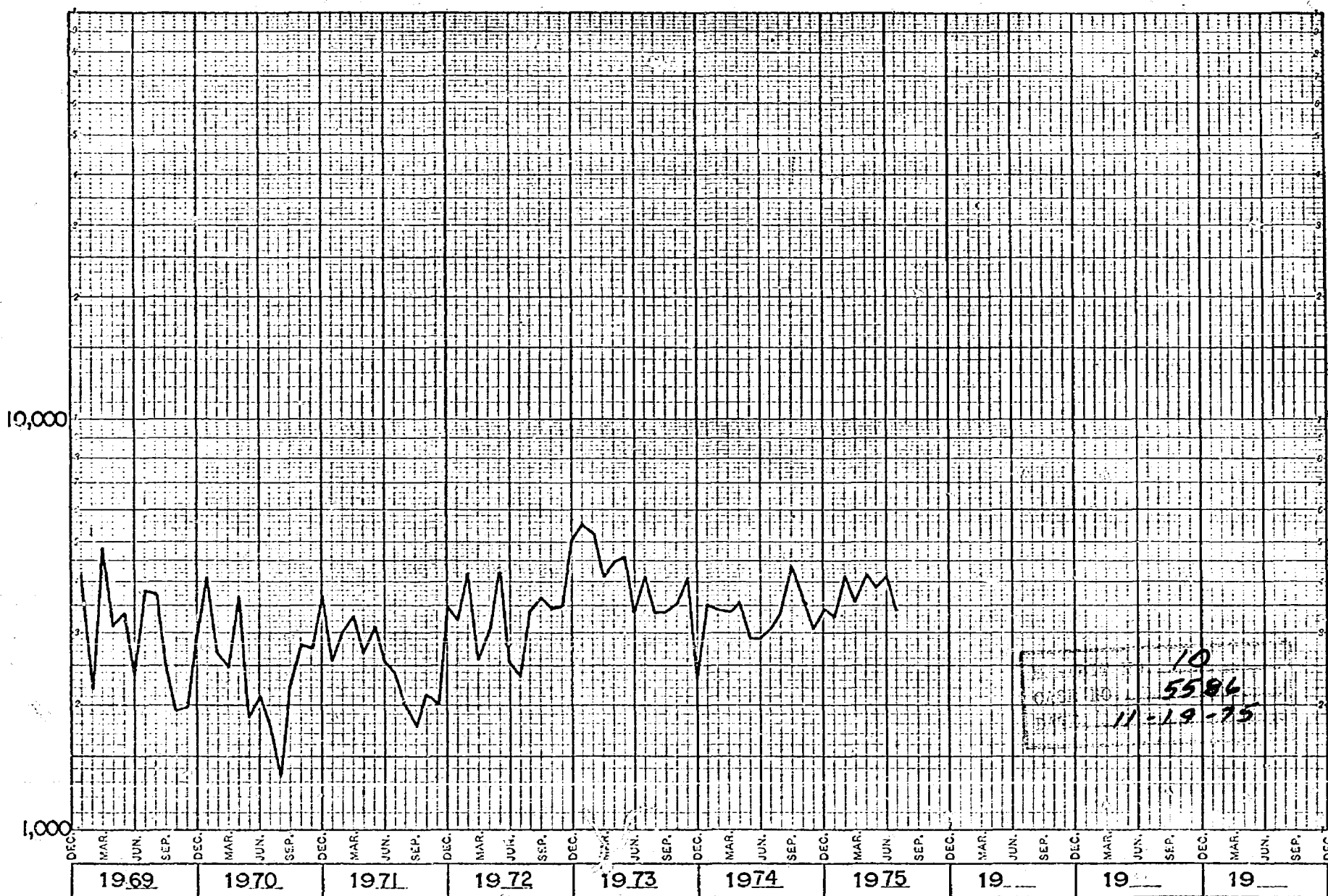
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5586  
11-19-75

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GRAPH PAPER

Amerada Hess Corp.  
McKENZIE FEDERAL No. 1  
Basin Dakota (Gas)



Amerada Hess Corp.  
 MCKENZIE FEDERAL No. 3  
 SW/SE Sec. 25 - T25N - R6W  
 Rio Arriba County, New Mexico  
 Otero Field

10 3/4" Cmt. Chrl.  
 to surface

10 3/4" OD 32# Csg. @ 317'

Top of Cmt. outside 7" Csg.  
 @ 2610'

2 3/8" Tbg. (PROPOSED)

Top of Gallup 5856'

Perf. 5914' - 5996'

Top of Dakota 6790'

Perf. 6868' - 6934'

TD 7000'

P&D 6951'

7" OD 23# Csg. @ 7000'

EXHIBIT NO.	11
CASE NO.	5586
DATE	11-19-75

NO. 3157. TEN YEARS BY MONTHS X 2 3-INCH CYCLES RATIO RULING.

codex  
GRAPH PAPER

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PRINTED IN U. S. A.

Amerada Hess Corp.  
McKENZIE FEDERAL No. 3  
Otero Gallup (Oil)

BBLs. OIL PER MONTH

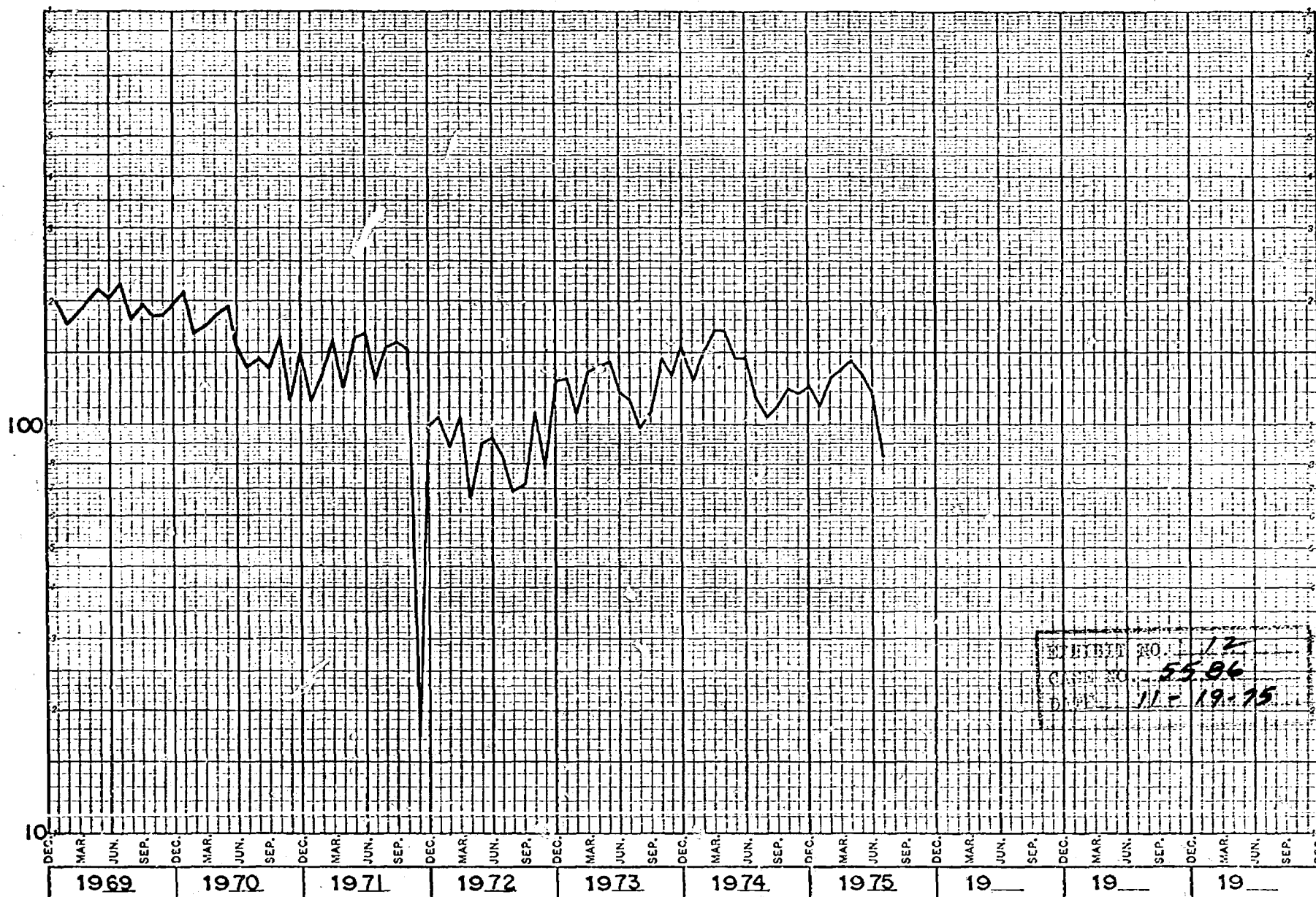


EXHIBIT NO. 12  
55.86  
11-19-75

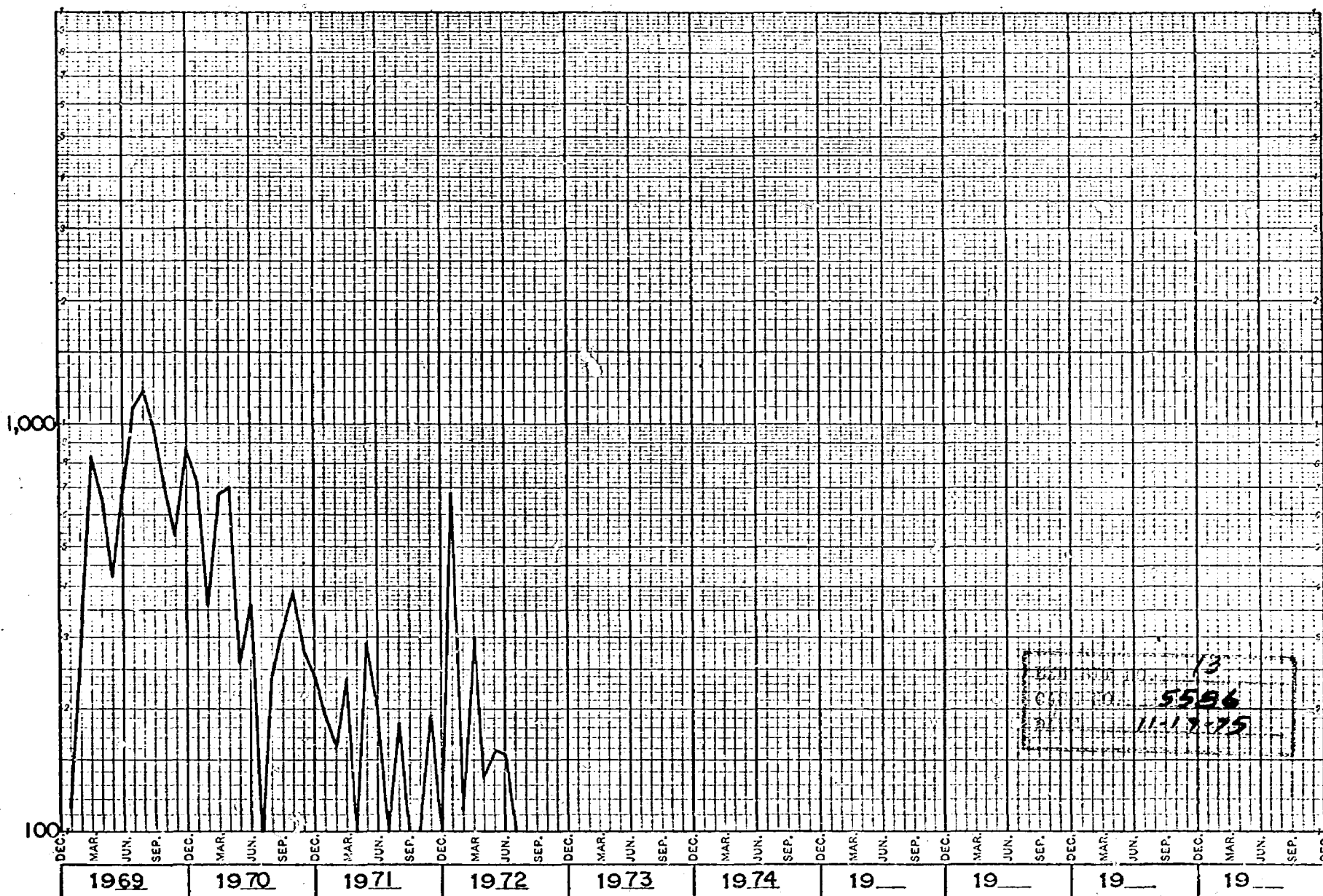
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GRAPH PAPER

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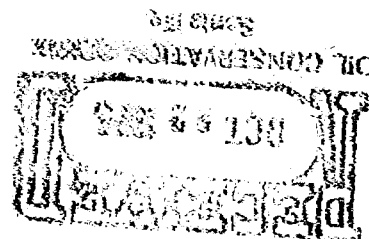
Amerada Hess Corp.  
McKENZIE FEDERAL No. 3  
Basin Dakota (Gas)

GAS - MCF PER MONTH



13  
5596  
11-17-75

Case 5586



BEFORE THE  
OIL CONSERVATION COMMISSION OF NEW MEXICO

IN THE MATTER OF THE APPLICATION  
OF AMERADA HESS CORPORATION FOR  
APPROVAL OF DOWN-HOLE COMMINGLING,  
RIO ARriba COUNTY, NEW MEXICO

A P P L I C A T I O N

Comes now Amerada Hess Corporation and applies to the Oil Conservation Commission of New Mexico for approval of down-hole commingling of production of oil from the Otero-Gallup Pool, and the production of gas from the Basin-Dakota Gas Pool in the Otero field, in three wells, and in support thereof would show the Commission:

1. Applicant proposes to commingle in the well bore, oil and gas from the following wells:

1) McKenzie Federal No. 1

- a) Located 990' FSL and 890' FWL Section 25-25N-6W, Rio Arriba County;
- b) Completed in the Gallup Zone through perforations 5954'-6038'. Approximate production of 1.1 BO and 45 MCFGPD.
- c) Completed in the Dakota Zone through perforations 6907'-7008'. Approximate production of 132 MCFGPD.

2) McKenzie Federal No. 3

- a) Located 950' FSL and 1850' FEL Section 25-25N-6W, Rio Arriba County.
- b) Completed in the Gallup Zone through perforations 5914'-5996'. Approximate production of 1.1 BO and 52 MCFGPD.
- c) Completed in the Dakota Zone through perforations 6868'-6934'. Dakota Zone is shut-in.

3) Harvey State No. 1

- a) Located 990' FSL and 1750' FWL Section 36'25N-6W, Rio Arriba County.
- b) Completed in the Gallup Zone through perforations 5966'-6045'. Approximate production .3 BO and 14 MCFGPD.
- c) Completed in the Dakota Zone through perforations 6974'-7044'. Approximate production of 125 MCFGPD.

2. Attached hereto is a plat showing the location of the wells, applicant's acreage, and offsetting ownership to the best of applicant's information and belief.

3. Production from the wells, from both the Gallup and the Dakota formations, is marginal and the wells in their present condition are verging on abandonment. All gas production from the leases is compressed to sales line pressure.

4. Approval of commingling of production as requested will prolong the life of the three wells and will result in the recovery of oil and gas that would not otherwise be recovered, thereby preventing waste.

5. The correlative rights of owners of interest in the subject wells will not be impaired.

WHEREFORE applicant prays that this application be set for hearing before the Commission or the Commission's duly appointed examiner, and that after notice and hearing as required by law the Commission enter its order approving commingling of production from the two horizons in each of the three wells be approved.

Respectfully submitted,

AMERADA HESS CORPORATION

By

Jason W. Kellahin

Kellahin & Fox  
P. O. Box 1769  
Santa Fe, New Mexico 87501

Attorneys for Applicant



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By

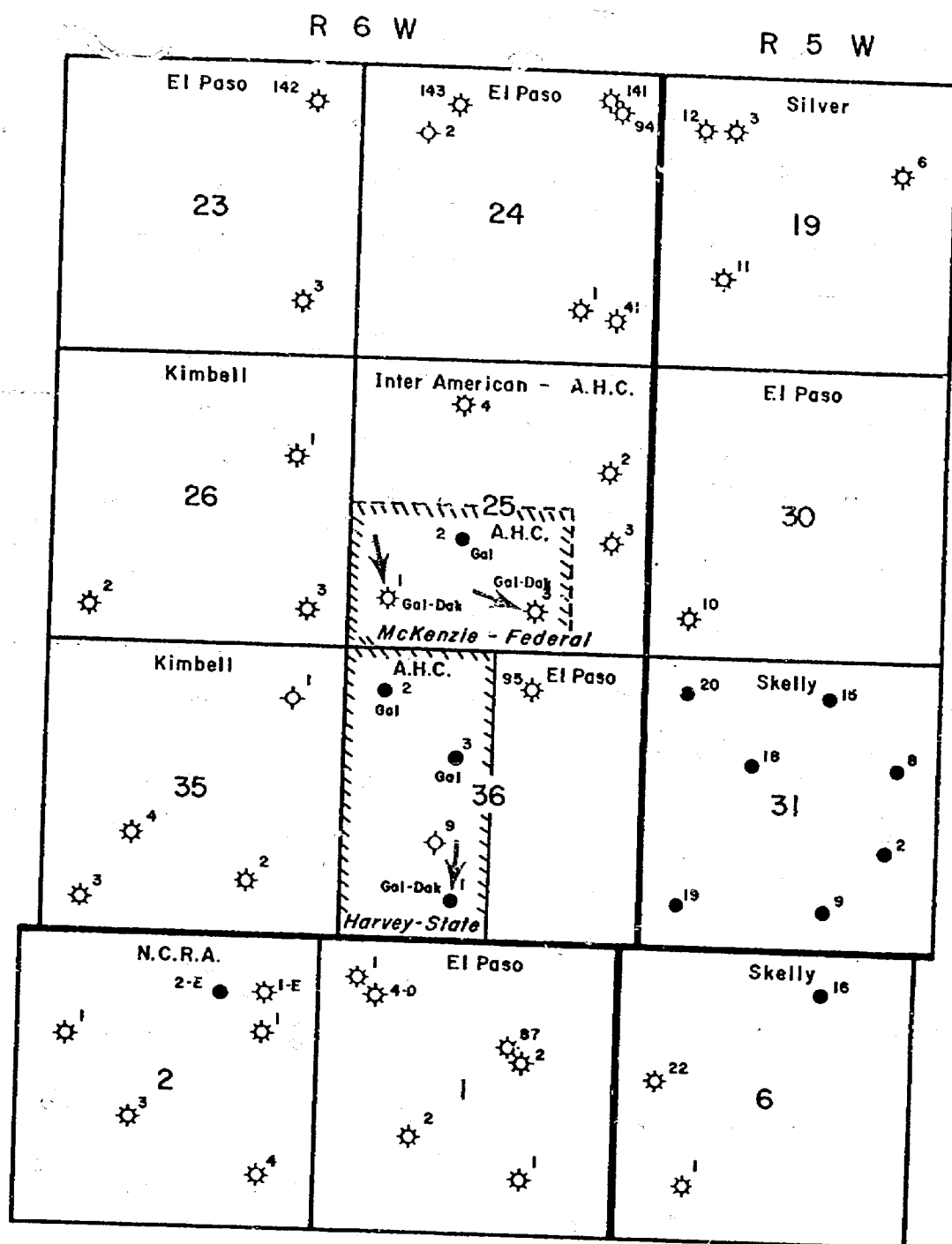
Jason W. Kellahin

Kellahin & Fox

P. O. Box 1769

Santa Fe, New Mexico 87501

Attorneys for Applicant



Amerada Hess Corp.

# OTERO FIELD

Rio Arriba County, New Mexico

Scale: 1" = 3000'

Case 5586

Case 5586

BEFORE THE  
OIL CONSERVATION COMMISSION OF NEW MEXICO

IN THE MATTER OF THE APPLICATION  
OF AMERADA HESS CORPORATION FOR  
APPROVAL OF DOWN-HOLE COMMINGLING,  
RIO ARriba COUNTY, NEW MEXICO

A P P L I C A T I O N

Comes now Amerada Hess Corporation and applies to the Oil Conservation Commission of New Mexico for approval of down-hole commingling of production of oil from the Otero-Gallup Pool, and the production of gas from the Basin-Dakota Gas Pool in the Otero field, in three wells, and in support thereof would show the Commission:

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WHEREFORE applicant prays that this application be set for hearing before the Commission or the Commission's duly appointed examiner, and that after notice and hearing as required by law the Commission enter its order approving commingling of production from the two horizons in each of the three wells be approved.

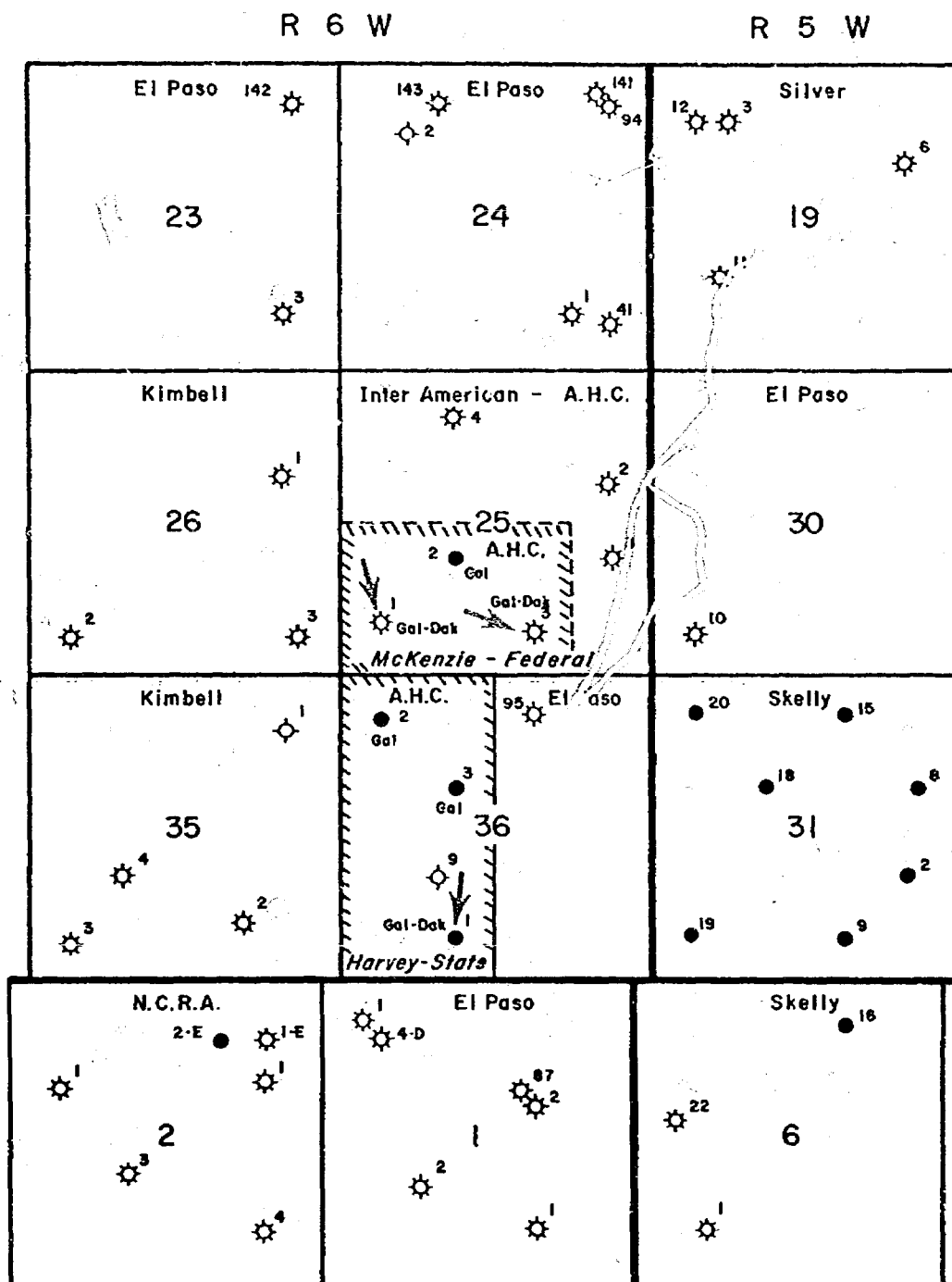
Respectfully submitted,

AMERADA HESS CORPORATION

By Jason W. Kellahin

Kellahin & Fox  
P. O. Box 1769  
Santa Fe, New Mexico 87501

Attorneys for Applicant



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25  
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Amerada Hess Corp.

# OTERO FIELD

Rio Arriba County, New Mexico

Scale: 1" = 3000'

Cue 5586

DRAFT

dr/

BEFORE THE OIL CONSERVATION COMMISSION  
OF THE STATE OF NEW MEXICO

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

CASE NO. 5586

Order No. R- 5138

APPLICATION OF AMERADA HESS CORPORATION  
FOR DOWNHOLE COMMINGLING, RIO ARRIBA  
COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on November 19,  
19 75, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 19 day of November, 1975, the Commission,  
a quorum being present, 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 Commission has jurisdiction of this cause and the subject  
matter thereof.

(2) That the applicant, Amerada Hess Corporation, is the  
owner and operator of its McKenzie Federal Wells Nos. 1 and 3  
located, respectively, in Units M and O of Section 25 and its  
Harvey State Well No. 1 located in Unit N of Section 36, all in  
Township 25 North, Range 6 West, NMPM, Rio Arriba County, New  
Mexico.

(3) That the applicant seeks authority to commingle  
Otero-Gallup oil and Basin-Dakota gas production within the wellbore  
<sup>each of</sup>  
of the above-described wells.

(4) That from the Otero-Gallup zone, <sup>each of the</sup> ~~the~~ subject wells is  
capable of low marginal production only.

(5) That from the Basin-Dakota zone, ~~the subject well is~~  
~~capable of low marginal production only.~~ <sup>both</sup> both the McKenzie  
Federal Well No. 1 and the Harvey State Well No. 1  
are capable of marginal production only.

(6) That the aforesaid McKenzie Federal Well No. 3  
is presently shut in insofar as the Dakota zone is  
concerned, but is thought to be capable of marginal  
production only.

(f) 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.

(g) That the reservoir characteristics of each of the subject zones <sup>in each of the subject wells</sup> 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.

(h) That to afford the Commission 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 Commission any time <sup>any of</sup> the subject wells is shut-in for 7 consecutive days.

(i) That in order to allocate the commingled production to each of the commingled zones in the <sup>McKenzie Federal Well No. 1</sup> ~~subject well~~, all of the oil production and 11 percent of the commingled gas production should be ~~attributed~~ to the Otero-Gallup zone, and 89 percent of the commingled gas production to the Basin-Dakota zone <sup>and</sup> in the Harvey State.

IT IS THEREFORE ORDERED:

(1) That the applicant, Amerada Hess Corporation, is hereby authorized to commingle Otero-Gallup and Basin-Dakota production within the wellbore of its McKenzie Federal Wells Nos. 1 and 3 located, respectively, in Units M and O of Section 25 and its Harvey State Well No. 1 located in Unit N of Section 36, all in Township 25 North, Range 6 West, NMPM, Rio Arriba County, New Mexico.

(2) That <sup>all of the oil production and</sup> 11 percent of the commingled gas production shall be ~~attributed~~ to the Otero-Gallup zone and 89 percent of the commingled gas production shall be ~~attributed~~ to the Basin-Dakota zone <sup>in the</sup> (cont. next page)

→ Well No. 1, all of the oil production and 9 percent of the commingled gas production should be attributed to the Otero-Gallup zone, and 91 percent of the commingled gas production to the Basin-Dakota zone.

(3) That upon completion of workover operations the operator should consult with the Supervisor of the Aztec District Office of the Commission to determine and allocation formula for the McKenzie Federal Well No. 1.

(4) That the operator of the subject wells shall immediately notify the Commission's Aztec district office any time <sup>any of said</sup> ~~the~~ wells has been shut-in for 7 consecutive days and shall concurrently present, to the Commission, a plan for remedial action.

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

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

McKenzie Federal Well No. 1, and all of the oil production and 9 percent of the commingled gas production shall be attributed to the Otero-Gallup zone, and 91 percent of the commingled gas production shall be attributed to the Basin-Dakota zone in the Henry State Well No. 1.

(3) That upon completion of workover operations, the operator shall consult with the District Supervisor of the Aztec District Office of the Commission to determine an allocation formula for the McKenzie Federal Well No. 3, provided however that this ~~can~~ authority for downhole commingling shall automatically terminate in the event non-marginal production is obtained in the Dakota zone of said well.