CASE 5671: ARD DRILLING CO. FOR DIRECTIONAL DRILLING, LEA COUNTY, NEW MEXICO

CASE NO.

5671

APPlication, Transcripts, Small Exhibits,

ETC.



DIRECTOR

JOE D. RAMEY

Other

OIL CONSERVATION COMMISSION

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

LAND COMMISSIONER



EMERY C. ARNOLD PHIL R. LUCERO June 2, 1976

Re:	CASE NO. 30/1
Mr. Sumner Buell	ORDER NO. R. 5220
Montgomery, Federici, Andrews, 'Hannahs, & Buell Attorneys at Law	Applicant:
Post Office Box 2307	
Santa Fe, New Mexico	
	Ard Drilling Company
Dear Sir:	
Enclosed herewith are two co Commission order recently en	pies of the above-referenced tered in the subject case.
Yours very truly, JOE D. RAMEY Director	,
JDR/fd	
Copy of order also sent to:	
Hobbs OCC x Artesia OCC Aztec OCC	

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. 5671 Order No. R-5220

APPLICATION OF ARD DRILLING CO. FOR DIRECTIONAL DRILLING, LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on April 28, 1976, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this lst day of June, 1976, 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, Ard Drilling Co., is the owner and operator of its State 10 Well No. 1, the Surface location of which is 660 feet from the South line and 660 feet from the East line of Section 10, Township 10 South, Range 32 East, North Mescalero-Cisco Pool, Lea County, New Mexico.
- (3) That at its original bottom hole location, said well encountered only tight non-commercial porosity zones within the Cisco formation.
- (4) That applicant subsequently deviated the above-described well by directionally drilling said well from a kick-off point at approximately 7800 feet and bottoming it in the Cisco formation at a point 892 feet from the South line and 494 feet from the East line, more or less, of said Section 10.
- (5) That the applicant seeks to amend its original application to directionally drill said well to a target within 100 feet of a point 810 feet from the South line and 660 feet from the East line of said Section 10 to the bottom hole location described in Finding No. (4) above.

-2-Case No. 5671 Order No. R-5220

- (6) That the bottom hole location described in Finding No. (4) above would be a legal surface well location in said North Mescalero-Cisco Pool and the request for amendment of the application should be granted.
- (7) That at the above-described bottom hole location applicant's State 10 Well No. 1 encountered productive porosity zones within the Cisco formation.
- (8) That approval of the subject application, as amended, will prevent the drilling of unnecessary wells, avoid the augmentation of risk arising from the drilling of an excessive number of wells, and otherwise prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

- (1) That the applicant, Ard Drilling Co., is hereby authorized to deviate its State 10 Well No. 1, the surface location of which is 660 feet from the South line and 660 feet from the East line of Section 10, Township 10 South, Range 32 East, North Mescalero-Cisco Pool, by directionally drilling said well from a kick-off point at approximately 7800 feet and bottoming it in the Cisco formation at a point 892 feet from the South line and 494 feet from the East line, more or less, of said Section 10.
- (2) 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, Chairman

EMERY C. ARNOLD, Member

JOE D. RAMEY, Member & Secretary

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NEW MEXICO OIL CONSERVATION COMMISSION

EXAMINER	HEA	RINC) }	\
SAN	AT	FE	, NEW	MEXICO

TIME: 9:00 A.M. APRIL 28, 1976 Hearing Date LOCATION NAME REPRESENTING Santa Za Mondoney at al S.G. 184011 HARLEY REAUIS MIOLAND EMON W.T. Probance Midland. Ard Drilling So. Mousen DIG. INC Dallas, SUN Cm. HIR AVEY H.A. SEIDEL NR. DALLAS ITX SUN OIL (.. Midland, Tx Henry Engineering (For Dovid Fosken) Jim Henry AGUA, Inc. H0665 SANDE KEllAhin. + Fox HORWELL Lenning & Pily Copplo MI modiail Spiritulial

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CASE

5671

BEFORE THE NEW MEXICO OIL CONSERVATION COMMISSION Santa Fe, New Mexico April 28, 1976

EXAMINER HEARING

IN THE MATTER OF:

Application of Ard Drilling Co. for directional drilling, Lea County, New Mexico.

BEFORE: Richard L. Stamets, Examiner

TRANSCRIPT OF HEARING

APPEARANCES

For the New Mexico Oil William F. Carr, Esq. Conservation Commission:

Legal Counsel for the Commission

State Land Office Building

Santa Fe, New Mexico

Sumner G. Buell, Esq. For the Applicant:

MONTGOMERY, FEDERICI, ANDREWS,

HANNAHS & BUELL Attorneys at Law 350 East Palace Avenue

Santa Fe, New Mexico

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General Court Reporting Service

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MR. STAMETS: We will call the next Case 5671.

MR. CARR: Case 5671, application of Ard Drilling Company for directional drilling, Lea County, New Mexico.

MR. BUELL: Mr. Examiner, Sumner Buell appearing on behalf of the applicant, we will have two witnesses.

MR. STAMETS: The witnesses will stand and be sworn, please.

(THEREUPON, the witnesses were duly sworn.)

WILLIAM T. PROBANDT

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

DIRECT EXAMINATION

BY MR. BUELL:

- Would you state your name, please, by whom you are
 employed, in what capacity and where?
- A. My name is William T. Probandt, I'm employed by Ard Drilling Company as a consulting geologist in Midland, Texas.
- Q. Have you previously testified before the Commission or one of its examiners and had your qualifications accepted as a matter of record?
 - A. I have.
 - Q And are you familiar with what is sought in this

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Case 5671?

- A. Yes, I am.
- Q. What is sought by Ard Drilling Company?
- A. For approval of the Commission for a directionally deviated hole in the Mescalero-Cisco Pool.

MR. BUELL: Are the witness' qualifications acceptable?

MR. STAMETS: They are.

- Q (Mr. Buell continuing.) Referring you to what has been marked as Applicant's Exhibit Number One, of which we only have one copy, would you, number one, explain to the Examiner why we only have one copy, and number two, what is shown on the exhibit?
- A. Yes, one of the reasons that there is but one copy here, I spent the night in Roswell coming up and this has something to do with why I have no tie on. My car was gone through and cleaned out of various things, cameras, geological equipment, I don't know what all is gone, but obviously I'm shorthanded on several counts here and I'm going to blame part of it on this. What I have here, part of this was taken into the room with me and I believe it will be sufficient if you will bear with me.
- Q If you would like to refer to it over the Examiner's shoulder feel free to do so, but will you please demonstrate what is shown on Exhibit Number One?

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A. Yes, this is a plat on a one-to-one scale of the Mescalero-Cisco area in Township 10 South, Range 32 East, Lea County. The color keying and the red cross section lines are indicated, I believe. Now, the blue shading is my impression of the Cisco pay where it will be productive in this area. Pardon me, the gray shading to the south is where I believe the pay would be absent. The red line of cross section represents a cross section that I have with me but that is not essentially germane to this problem, however, it is available if the Examiner would like to see it.

The large colored dots, blue means completion in the main Cisco pay; green means completions in secondary zones not necessarily in the main Cisco pay; the yellow, east-west trending eighty-acre tract shows the Ard Drilling Company lease.

On this yellow eighty-acre tract you will see three additional colored dots, small dots, and some arrows accompanying these dots. Under your left hand there, I believe, there is a small legend with the colored pen printing there showing some further explanations, a legend there. The red arrow and the red dot shows the original surface location six, sixty from the south and east of Section 10. I believe there is a purple dot there with a purple arrow showing the location of the original hole.

The blue dot, I believe is the third dot and the

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blue arrow. This shows the deviated hole and the approximate bottom-hole location from this deviated hole.

- Q Referring you to what has been marked Exhibits Two and Three would you explain what those are, please?
 - A. All right, Exhibits Two and Three.
 - Q The two logs.
- A. All right, the two logs. Essentially those are the before and after loggings of the original hole and the deviated hole. If I may, I would like to come up there and perhaps clarify some of that.

Exhibit Two is the log of the original hole. In this I have indicated in blue the main Cisco pay to correspond generally with this blue color to show that the gross carbonate section, that is the lithology is there, it corresponds, it is present. However, the left-hand side, which has a very small hard to distinguish little bit of orange here. Orange to me in this particular project indicates porosity. Okay, there is not much of that even though we have the gross section. However, in the second hole, the deviated hole, you can see that there is a dramatic difference in there. We have the main zone, essentially the same thickness, the same lithologic characteristic, however, we picked up some thirty-seven feet extra porosity there. This to us means that there is a primary difference in that this definitely will make a well here in the main porosity. This

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probably would not have. We think that this represents eighty percent of our producible hydrocarbons in this hole.

Q. Referring you to what has been marked for identification as Exhibits Four, Five and Six, would you please explain what those are?

A. yes, this Four, Five and Six are waivers from offset operators, mainly to the north would be Teal, to the east would be Pennzoil, to the south would be Texas Oil and Gas in which they concur with our request to directionally drill and so waive their objections to this.

Q Mr. Probandt, in your opinion would the granting of this application prevent waste and protect correlative rights?

A. It would. We feel that the hydrocarbons that we will be able to produce, we think, in the deviated hole were definitely not present and not producible in the original hole. We further feel that the correlative rights will be protected because the oil in this zone would not be producible from these other leases and from this other spaced hole.

Q. Were Exhibits One through Three prepared by you or under your supervision?

A. Yes, they were.

MR. BUELL: Mr. Examiner, I would move Exhibits One through Six inclusive at this time.

MR. STAMETS: These exhibits will be admitted.

(THEREUPON, Applicant's Exhibits One

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through Six were admitted into evidence.)

MR. BUELL: I have nothing further of this witness.

MR. STAMETS: Mr. Buell, does either one of your witnesses know what the spacing is in this pool, what the standard locations are?

MR. PROBANDT: Eighty acres.

MR. STAMETS: Eighty acres. And do you know what the order number is that assigns that? I went through our records yesterday trying to determine this and I couldn't find a special pool rule order.

MR. PROBANDT: I was present and a witness at this hearing that established this spacing. It has been a matter of three or four years, I think. I have no idea what the number would be. At that time it was a Roger C. Hanks' application for spacing. Mr. Hanks since that sold his production to Teal who then has in-field on eighty-acre spacing. It could be as far back as the late sixties.

MR. STAMETS: I think we need to find that order before the case is concluded this morning.

Okay, you may proceed.

GLEN HARBERT

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

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DIRECT EXAMINATION

BY MR. BUELL:

- Q Would you state your name, please?
- A. I'm Glen Harbert.
- 0. Mr. Harbert, by whom are you employed and in what capacity?
- A. I'm president of D-I-G, Incorporated in Midland, Texas.
- Q And are you familiar with the well in this case that is the subject matter of this application?
 - A. Yes, sir.
 - Q. And what has been your connection with that well?
- A. We deviated the wellbore and run a single-shot survey.
- Q. And referring you to what has been marked as Exhibit Seven, would you explain what that exhibit shows, please?
- A. This shows where we kicked the wellbore off and the direction that we kicked it and the bottom-hole location.
- Q And what is the present bottom-hole location of the deviated well?
- A. The bottom-hole location is at nine thousand and nine, true vertical depth is two hundred and eighty-four point eighty-two foot north, thirty-five degrees and thirty-six minutes east of the surface location.

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Q Was Exhibit Seven prepared by you or under your supervision?

A. Yes, sir.

MR. BUELL: I move the introduction of Exhibit Number Seven, Mr. Examiner.

MR. STAMETS: Exhibit Number Seven will be admitted.

(THEREUPON, Applicant's Exhibit Number Seven
was admitted into evidence.)

MR. BUELL: I have nothing further of this witness.

MR. STAMETS: What is the actual location of the bottom hole when it is measured from the south line and the east line of Section Ten?

MR. HARBERT: I don't have that information.

MR. STAMETS: Does your other witness have that?

MR. BUELL: Do you know what that is?

MR. PROBANDT: I can calculate it. It may take me a minute.

MR. HARBERT: I don't have a copy of the surface location.

MR. PROBANDT: Mr. Examiner, these calculations indicate that the location would be eight hundred and ninety-one point five, five feet from the south line and four hundred and ninety-four point two oh feet from the east line.

MR. STAMETS: Okay, if any subsequent check shows it to be erroneous, if you would advise the Examiner, I would

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appreciate it.

MR. STAMETS: What acreage is dedicated to this particular well?

MR. PROBANDT: An eighty-acre tract which is the south half of the southeast quarter of Section 10, 10 South, 32 East.

MR. STAMETS: The south half?

MR. PROBANDT: Of the southeast quarter.

MR. STAMETS: Any other questions of the witnesses? They may be excused.

(THEREUPON, the witnesses were excused.)

MR. BUELL: I have nothing further, Mr. Examiner.

MR. STAMETS: If there is nothing further we will take this case under advisement.

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REPORTER'S CERTIFICATE

I, SIDNEY F. MORRISH, a Certified Shorthand 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.

F. Morrish,

do nersby certify that the foregoing a complete record of the proceedings the Examiner hearing of Case No. 37

New Mexico 011 Conservation Commission Examine

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BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
April 28, 1976

EXAMINER HEARING

IN THE MATTER OF:

Application of Ard Drilling Co. for directional drilling, Lea County, New Mexico.

CASE 5671

BEFORE: Richard L. Stamets, Examiner

TRANSCRIPT OF HEARING

APPEARANCES

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:

Summer G. Buell, Esq.

MONTGOMERY, FEDERICI, ANDREWS,

HANNAHS & BUELL Attorneys at Law 350 East Palace Avenue Santa Fe, New Mexico

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A. I have.

Q And are you familiar with what is sought in this

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Case 5671?

- A. Yes, I am.
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sid matrish reporting service General Court Reporting Service 825 Calle Mejia, No. 122, Santa Fe, New Mexico 875 Phone (505) 982-9212 Mescalero-Cisco area in Township 10 South, Range 32 East,
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Phone (505) 982-9212

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(THEREUPON, Applicant's Exhibits One

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DIRECT EXAMINATION

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- Q. And are you familiar with the well in this case that is the subject matter of this application?
 - Yes, sir. A.
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- The bottom-hole location is at nine thousand and nine, true vertical depth is two hundred and eighty-four point eighty-two foot north, thirty-five degrees and thirty-six minutes east of the surface location.

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Q.	Was	Exhibit	Seven	prepared	bу	you	or	under	your
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A. Yes, sir.

MR. BUELL: I move the introduction of Exhibit Number Seven, Mr. Examiner.

MR. STAMETS: Exhibit Number Seven will be admitted.

(THEREUPON, Applicant's Exhibit Number Seven
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MR. STAMETS: What is the actual location of the bottom hole when it is measured from the south line and the east line of Section Ten?

MR. HARBERT: I don't have that information.

MR. STAMETS: Does your other witness have that?

MR. BUELL: Do you know what that is?

MR. PROBANDT: I can calculate it. It may take me a minute.

MR. HARBERT: I don't have a copy of the surface location.

MR. PROBANDT: Mr. Examiner, these calculations indicate that the location would be eight hundred and ninety-one point five, five feet from the south line and four hundred and ninety-four point two oh feet from the east line.

MR. STAMETS: Okay, if any subsequent check shows it to be erroneous, if you would advise the Examiner, I would

appreciate it.

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MR. STAMETS: What acreage is dedicated to this particular well?

MR. PROBANDT: An eighty-acre tract which is the south half of the southeast quarter of Section 10, 10 South, 32 East.

MR. STAMETS: The south half?

MR. PROBANDT: Of the southeast quarter.

MR. STAMETS: Any other questions of the witnesses? They may be excused.

(THEREUPON, the witnesses were excused.)

MR. BUELL: I have nothing further, Mr. Examiner.

MR. STAMETS: If there is nothing further we will take this case under advisement.

sid morrish reporting service

General Court Reporting Service

Galle Mejia, No. 122, Santa Fe, New Maxico 87501

Phone (505) 982-5212

REPORTER'S CERTIFICATE

I, SIDNEY F. MORRISH, a Certified Shorthand 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, C.S.R.

the Examiner hearing of the foregoing in the Examiner hearing Mexico Oil Conservation Commission Examinen

sid morrish reporting service

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

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

Gentlemen:

This is regarding Case No. 5671, scheduled April 28, 1976, concerning an application to directionally drill Ard Drilling Company State "10" No. 1, located in the North Mescalero-Cisco Pool, Lea County, New Mexico.

According to the information furnished us, this well was spudded March 10, 1976, and drilled to a total depth of 9010 feet. The surface location is 660 feet from the South line and 660 feet from the East line of Section 10. At 9010 feet the bottom hole is located 15.29 feet North and 161.50 feet East with a horizontal displacement of 162.22 feet at North 84° East of the surface location. According to electric logs no producible porosity was indicated in the Cisco zone. In order to develop a pay zone in the Cisco, the hole was plugged back to an approximate depth of 7800 feet and the well is in the process of being directionally drilled down to the Cisco zone. It is anticipated that the bottom of the hole will be approximately 480 feet from the East line and 895 feet from the South line of Section 10.

Texas Oil and Gas Company has no objection to Ard Drilling Company's request regarding Case No. 5671, scheduled for hearing April 28, 1976.

Yours very truly,

TEXAS OIL AND GAS COMPANY

By: M. Colten

BEFORE EXAMINER STAMETS
OIL CONSERVATION COMMISSION

LAND. EXHIBIT NO. 4

CASE NO. 567/

Submitted by Axcl

Hearing Date Land 28, 1976

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

Gentlemen:

Regarding case No. 5671, scheduled April 28, 1976, concerning an application to directionally drill Ard Drilling Company State "10" No. 1, located in the North Mescalero-Cisco Pool, Lea County, New Mexico, we concur with said request.

Yours very truly,

Pennzoil Company

A. 1017 145

April 26, 197/6

BEFORE EXAMINER STAMETS
OIL CONSERVATION COMMISSION
And exhibit NO. 5
CASE NO. 5671
Submitted by Ard
Hearing Date apr. 28 1976

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

Gentlemen:

Regarding case No. 5671, scheduled April 28, 1976, concerning an application to directionally drill Ard Drilling Company State "10" No. 1, located in the North Mescalero-Cisco Pool, Lea County, New Mexico, we concur with said request.

Yours very truly,

Teal Petroleum Company

Bv:

EESCAS EXAMINER STAMETS
CIL CONSERVATION COMMERSION
CASE NO. 567/
Submitted by Arch



P. O. Box 7238 • Midland, Texas 79701 • Phone (915) 563-1490

COUNTY OF <u>Midland</u>
I, Loyd V. Jones , in the employ of the Directional Drilling Department of Directional Investment Guidance, Inc., did on the days of March 9,19,76 thru March 23,19,76 conduct or supervise the taking of a Magnetic Single Shot Survey by the method of Magnetic Oriented Survey from a depth of 7805 MD feet to 9037 MD feet, with records of inclination being taken at approximately every 120 feet.
This survey was conducted at the request of ARD Drilling Company for their State 10 Well No. 1 Lea County, State of New Mexico, in the Field.
Loyd V. Jones
STATE OF Texas COUNTY OF Midland
Before me the undersigned authority, on this day personally appeared Loyd V. Jones , known to me to be the person whose name is subscribed to this instrument, who after being by me duly sworn on oath, states that he has knowledge of all the facts stated above and that the same is a true and correct statement of facts therein recited.
Subscribed and sworn to before me this 27th day of April, 19 76.
Notary Public In and for the Midland County, Texas



RECORD OF SURVEY

ARD Drilling Company State 10 #1, Lea County, New Mexico

JOB NO. 7616 DATE April 26, 1976

CHECKED BY

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	MEASURED	DRIFT	TRUE VERTICAL	VERTICAL	COURSE	DRIFT	RECTANGL	LAR COORDINA	TES
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2	7970	4 °	7966.28	116.33	10.07	N 5 W	22.52	168 59	
3	8032	4 3/4°	8028.11	119.82	4.59	N 4 W	27.09	168 19	
4	8060	4 3/4°	8056.01	121.66	2.32	N	29.41	168 11	
5	8156	5 3/4°	8151.61	128.98	8.78	N 3 E	38.18	168 42	
6	8284	8 3/4°	8278.59	142.59	16.15	N 4 E	54.31	169 27	
7	8409	11 3/4°	8401.60	161.75	22.24	NGE	76.47	171 21	
8	8533	121/40	8522.89	183.96	25.78	N 4 E	102.15	173 46	
9	8659	13 1/4°	8645.78	207.41	27.81	N 2 E	129.92	174 92	
10	8784	15°	8766.93	232.45	30.77	NlW	160.69	174 92	
11	8903	16°	8881.60	256.98	31.80	N 8 W	192.41	172.70	
12	9037	18 1/2°	9009.57	284.82	39.74	NllW	231.55	165 80	
Clos	ure 284.8	2' N35	,36,E						
DIG, Calc	inc. Cal	culation 7805	s are bas aken from	ed on the Sperry S	Averaging un Survey.	Method.			

OH CONSERVATION COMM

ARD DRILLING COMPANY

P. O. BOX 1030

MIDLAND, TEXAS 79701

308 WALL TOWERS EAST 915-684-5716

May 4, 1976

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

Attention Mr. Dick Stamets

Re: Ard Drilling Company State "10" No. 1 Section 10, T-10-S, R-32-E Lea County, New Mexico

Gentlemen:

Per our telephone conversation on May 3, 1976, we are attaching the following data on the subject well:

- 1. Deviation record from 0 to 3463 feet.
- 2. Sperry-Sun Multishot survey from 3463 to 7805 feet.
- 3. Directional Investment Guidance, Inc. Magnetic Single Shot Survey on the deviated hole from 7805 to 9037 feet.

Form C-103, Sundry Notices and Reports on Wells for work to date have been filed with the Hobbs, New Mexico office.

Yours very truly,

N. W. Harrison
Manager

NWH: CW

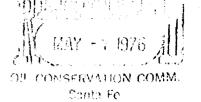
Attachments

NEW MEXICO OIL CONSERVATION COMMISSION

TELD	North	Mescaler	0	LEASE	State "10"	i i	WELL NO. 1
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В	efore me,	the unde	ersigned autho	rity, on t	his day persona	ally app	eared
N. W. H	arrison	, knov	n to me to be	the perso	n whose name is is acting at th	s subscr	ibed hereto,
half of t	he operat	or of the	well identif	ied in thi	s instrument ar	id that	such well was
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				Sign	Cuttarre ature	com	
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Swarn	and Subsec	ribed to	before me th	is the	4th day of	Mav	. 1976
ONVIII	una Japaci	, ibed to	Deloie me, ut	ر المالي		riuj	, 1976 S. R. McKINNEY, oldland County,
				_\$/0	M) Him	71	S. R. McKINNEY,
				Notai	rv Public in an	a for M	idiand County.
				Texas	s.		,

June 1, 1977





P. O. Box 7238 • Midland, Texas 79701 • Phone (915) 563-1490

STATE OF Texas COUNTY OF Midland	
Drilling Department of Direct did on the days of March 23, 19, 76 of a Magnetic Single of Magnetic Oriented Street to 9037 M D feet, taken at approximately every	in the employ of the Directional ional Investment Guidance, Inc., ch 9 ,19 76 thru conduct or supervise the taking by the curvey from a depth of 7805 M D with records of inclination being 120 feet. the request of ARD Drilling Company Well No. 1 y, State of New Mexico, in the
Lea County Field.	y, State of New Mexico, in the
	Loyd V. Jones
STATE OF Texas COUNTY OF Midland	
Loyd V. Jones , name is subscribed to this ins sworn on oath, states that he	hority, on this day personally appeared known to me to be the person whose trument, who after being by me duly has knowledge of all the facts stated rue and correct statement of facts
Subscribed and sworn to before 19 76.	me this 27th day of April,
A CONTRACTOR OF THE PARTY OF TH	Notary Public in And for the Midland County, Texas

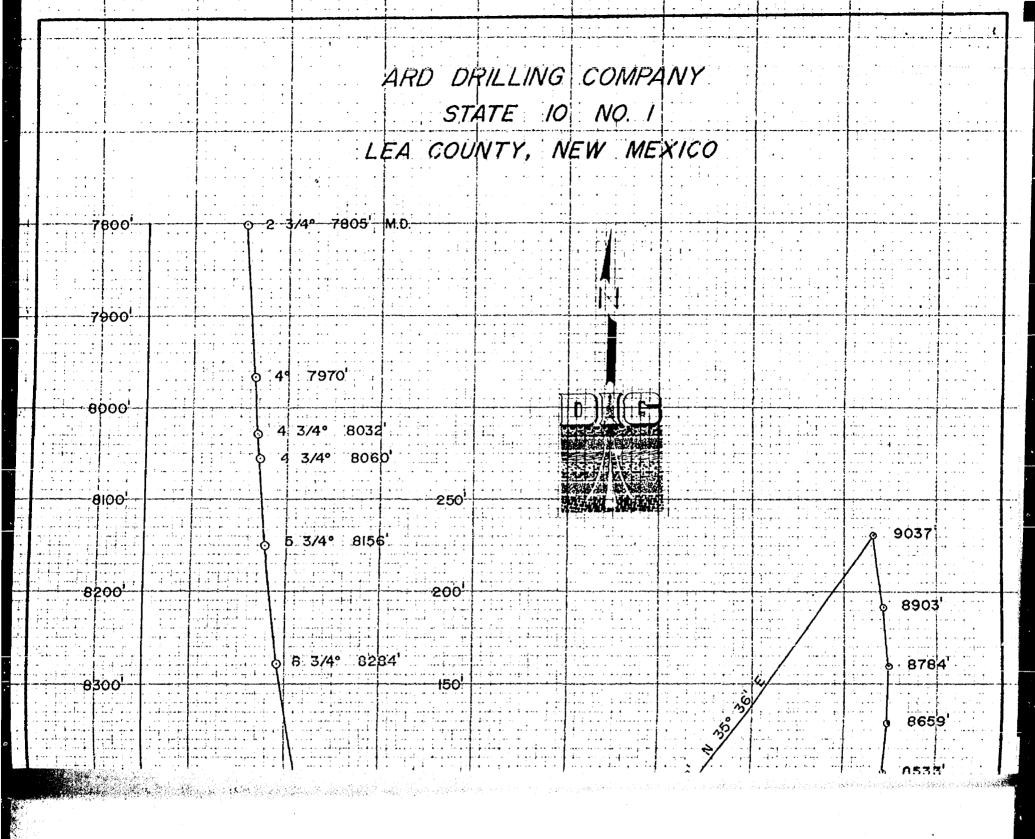


RECORD OF SURVEY

ARD Drilling Company State 10 #1, Lea County, New Mexico

JOB NO. 7616 DATE Δpril 26, 1976

	MEASURED DEPTH	DRIFT ANGLE	TRUE VERTICAL	VERTICAL SECTION	COURSE	DRIFT D'RECTION		GILAR COOR	
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1	7805	2 3/4°	7801.59	106.43		S82E	15.28	161	59
2	7970	4 °	7966.28	116.33	10.07	7 N 5 W	22.52	168	59
3	8032	4 3/4°	8028.11	119.82	4.59	9 N4W	27.09	168	19
4	8060	4 3/4°	8056.01	121.66	2.32	2 N	29.41	168	[11]
5	8156	5 3/4°	8151.61	128.98	8.78	8 N 3 E	38.18	168	42
6	8284	8 3/4°	8278.59	142.59	16.15	5 N4E	54.31	169	27
7	8409	11 3/4°	8401.60	161.75	22.24	4 N6E	76.47	171	21
8	8533	12 1/4°	8522.89	183.96	25, 78	8 N4E	102.15	173	46
9	8659	13 1/4°	8645 78	207.41	27.81	N 2 E	129.92	174	92
10	8784	15°	8766.93	232.45	30.77	7 NIW	160.69	174	92
11	8903	16°	8881.60	256.98	31.80	N 8 W	192.41	172	70
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J. A. Fauché

April 12, 1976

ARD Drilling Company P.O. Box 1030 Midland, TX 79701

Gentlemen:

The enclosed film and five folders show the results of our Multishot survey job no. MS-6407, on the State "10" lease well no. 1, in Lea County, NM on April 10, 1976. This survey was ran from 3,463 feet to a depth of 7,805 feet.

This folder contains the original of the computation sheet, and field data sheet.

It has been a pleasure to perform this survey for you.

Very truly yours,

SPERRY-SUN, INC.

Glenn A. Belote District Manager

GAB/jp enclosures

SPERRY-SUN WELL SURVEYING COMPANY MAGNETIC MULTISHOT FIELD DATA AND TIME SHEET NO. 1

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ARR PRILLING CO. STATE '10' YOLL MESCALLERO FIELD COIX SM LUM YINLI C ATL

DATE OF SURVEY 69 VERTICAL SECTION BIRECTION 40311

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	5549	6546.89	6546.89	1 15	5 65 E	.54	17.10 N	105.64 €	166.78
	3693	884D.35	654U.85	1 45	11 11 5	.56	17.61 N	103.47 0	102.65
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	6925	6527.63	6922.63	_ 43	5 (9)	.80	17.30 N	119.53 6	121.64
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	1206	7203.34	7203.34	2 15	ы а9 €	. ខំព	17.21 N	132.13 E	133.22
	7300	7297.25	1297.25	2 30	S 66 E	, 7()	17.00 N	136.28 E	137.26
	73.54	7391.14	7391.14	2 45	N 54 E	.47	17.53 N	140.77 €	141.75
	7483	7435.03	7435.03	2 45	N 33 C	.10	17.83 N	145.27 [146.30
· .	15.2	75.72.86	7576.88	3 15	2 60 E	, с ц	19.92 N	150.51 5	151.44
			-					And the second s	
	7678	7672.77	1572.77	2 45	5 03 É	. 55	16.37 N	154.93 2	155.34
		7786.64	7766.64	1.0	3 06 2	.31	15.52 N	155.84 [160.59
	7 80 5	7891.88	7391.60	2 45	5 32 8	.7?	15.29 N	161.54 [163.22

** THE CALCULATIONS ARE BASED ON THE TANGENTIAL OR TERMINAL ANGLE METHOD **

HORIZONTAL DISPLACEMENT =

192.22 FEET AT NORTH 84 DEG. 35 MIN. EAST (TOUE)

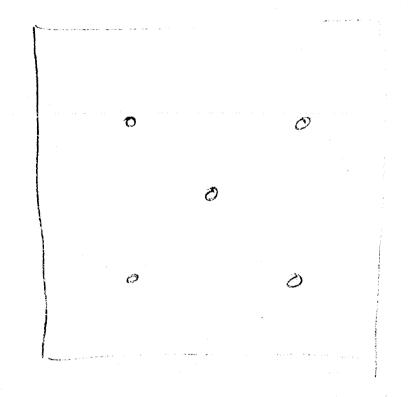
46 1320

K-E 10 X 10 10 7 INCH 3 X 10 INCHES

)

1980 1780

G 22 17 25 Eagle Creek-SA



A)

Dockets Nos. 14-76 and 15-76 are tentatively set for hearing on May 12 and May 26, 1976. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: EXAMINER HEARING - WEDNESDAY - APRIL 28, 1976

9 A.M. - OIL CONSERVATION COMMISSION 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:

- CASE 5670: Application of Read & Stevens, Inc. for an unorthodox location and directional drilling, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks authority to deviate its Harris-Federal Well No. 3, the surface location of which is 660 feet from the South line and 1980 feet from the East line of Section 27, Township 15 South, Range 28 East, Chaves County, New Mexico, by directionally drilling said well from a kick-off point at approximately 6000 feet and bottoming it at an unorthodox location in the Pennsylvanian formation within 250 feet of a point 990 feet from the South line and 1650 feet from the East line of said Section 27, the S/2 of the Section to be dedicated to the well.
- CASE 5671: Application of Ard Drilling Co. for directional drilling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to deviate its State 10 Well No. 1, the surface location of which is 660 feet from the South and East lines of Section 10, Township 10 South, Ratge 32 East, North Mescalero-Cisco Pool, Lea County, New Mexico, by directionally drilling said well from a kick-off point at approximately 7800 feet and bottoming it in the Cisco formation within 100 feet of a point 810 feet from the South line and 660 feet from the East line of said Section 10.
- Application of Horace F. McKay, Jr. for downhole commingling and simultaneous dedication, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Aztec-Fruitland and Aztec-Pictured Cliffs gas production in the wellbore of his Beardon "A" Well No. 1, located in Unit C of Section 19, Township 29 North, Range 10 West, San Juan County, New Mexico. Applicant further seeks approval for the simultaneous dedication of the NW/4 of said Section 19 to the above-described well and his Beardon Well No. 1 in Unit E of said Section 19.
- CASE 5673: Application of David Fasken for approval of an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of a well to be drilled 1980 feet from the South line and 660 feet from the West line of Section 32, Township 20 South, Range 25 East, Cemetery-Morrow Gas Pool, Eddy County, New Mexico, the \$/2 of said Section 32 to be dedicated to the well.
- CASE 5674:

 Application of Agua, Inc. for an extension of time and amendment of Orders Nos. R-4495-A and R-4495-B, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Orders Nos. R-4495-A and R-4495-B to permit disposal, after the current May 7, 1976, deadline, of produced salt water through perforations from 4230 feet to 4320 feet in its SWD Well No. C-2, located in Unit C of Section 2, Township 22 South, Range 37 East, Lea County, New Mexico. Applicant seeks the amendment of said orders to permit such disposal for an additional 90-day period after May 7, 1976, and thereafter until 30 days after the entry of an order favorable to the applicant in Case No. 5644.
- CASE 5675: Application of Merrion & Bayless for a dual completion and downhole commingling, Sandoval County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion (combination) of its Jicarilla 428 Well No. 2, located in Unit A of Section 31, Township 23 North, Range 4 West, Sandoval County, New Mexico, by cementing parallel strings of 2 7/8-inch casing and 4 1/2-inch casing in a common wellbore, completing said well in such a manner as to commingle undesignated Pictured Cliffs and undesignated Chacon gas production in the 2 7/8-inch casing, and to commingle various undesignated Mesaverde, Mancos, Gallup, Carlisle, and Graneros gas stringers in the 4 1/2-inch casing.

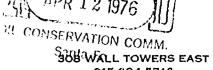
CASE 5443: (Reopened & Continued)

In the matter of Case 5443 being reopened pursuant to the provisions of Order No. R-4994, which order established special rules and regulations for the East Lusk-Bone Spring Oil Pool, Lea County, New Mexico, including a provision for 160-acre spacing and proration units. All interested parties may appear and show cause why said pool should not be developed on less than 160-acre spacing units,

ARD DRILLING COMP

P. O. BOX 1030

MIDLAND, TEXAS 79701



915-684-5716

Case 5671

April 9, 1976

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

Attention Mr. Dan Nutter, Chief Engineer

Re: Ard Drilling Company State "10" Well No. 1 Located 660 feet from the South and East Lines of Section 10, T-10-S, R-32-E

Lea County, New Mexico

Gentlemen:

The well in caption was drilled to a total depth of 9010 feet in the Cisco pay. However, the porosity was absent. We plan to plug back to 7800 feet and directionally drill due north to a point approximately 230 feet from the original hole, which we believe will put us back into the porosity.

We request a formal hearing so that we can obtain permission to accomplish this.

Yours very truly,

J. E. R. Sheeler Vice-President

JERS: CW

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.	5671

Order No. R- 5220

APPLICATION OF ARD DRILLING CO. FOR DIRECTIONAL DRILLING, LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on April 28 , 19 76 , at Santa Fe, New Mexico, before Examiner Richard L. Stamets

NOW, on this day of May , 1976 , 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, Ard Drilling Co., is the owner and operator of its State 10 Well No. 1, the surface location of which is 660 feet from the South and line and 660 feet from the East line of Section 10, Township 10 South, Range 32 East, North Mescalero-Cisco Pool, Lea County, New Mexico.
- Mescalero-Cisco Pool, Lea County, New Mexico.

 (4) That applicant seeks authority to deviate the abovedescribed well by directionally drilling said well from a kick-off
 point at approximately 7800 feet and bottoming it in the Cisco formation within 190 feet usa point 872 feet from the South line and

 1904 feet from the East line of said Section 10.

location, the said well encountived only tright non-commercial porosity zones within the Cisco formation

(5) That at said deviated bottom hole location soid well encounted productives prosity 29 es within the Risco formation.

(6) That the applicant seeks opproval of the direction of drilling of said well in the Manner and to the paint described in Finding No. (4) above.

(5) What the applicant seeks to amound its original application to directionally drill said well to a target within lookeet of a point 810 feet from the South line and 660 feet from the Conthine of said Section 10 to the button hole location described is Finding No (4) above.

(6) That the bottom took location described in finding No (4) above would be a legal surface well location in said North Mescaloro - Cisco fool and the and the request for amendment Bof the application should be growted.

(7) That at the above-doscinbed bottom hole location applicants State 10 well No. 1 encountered productive porosity zones within the Ciseo formation.

(30)

(3) That approval of the subject application will prevent the drilling of unnecessary wells, avoid the augmentation of risk arising from the drilling of an excessive number of wells, and otherwise prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

authorized to deviate its State 10 Well No. 1, the surface location of which is 660 feet from the South line and 660 feet from the East line of Section 10, Township 10 South, Range 32 East, North Mescalero-Cisco Pool, by directionally drilling said well from a kick-off point at approximately 7800 feet and bottoming it in the Cisco formation within 100 feet of a point 910 feet from the South line and 660 feet from the East line of said Section 10.

applicant shall determine the subsurface location of the "kick off" point at approximately 7800 feet and subsequent to said directional drilling applicant shall determine the subsurface location of the bottom of the hole by means of continuous multishot directional surveys with shot points no more than 100 feet apart; that the operator shall cause the surveying company to foward a copy of the survey reports directly to the Commission's Santa Fe Office, P. O. Box 2088, Santa Fe, New Mexico, and that the operator shall notify the Commission's Hobbs District Office of the date and time said surveys are to be commenced.

(2) 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.