

**NEW MEXICO OIL CONSERVATION COMMISSION
EXAMINER HEARING
SANTA FE, NEW MEXICO
DECEMBER 3, 1992 - 8:15 A.M.**

NAME	REPRESENTING	LOCATION
Ernie & Carol	Zoro Canon Law Firm	Artesia
Michael J. P.	WJC Inc	Hobbs
William J. Jay	Empbell, Jay, Foy & Shindler	Santa Fe
Bob Zilden	Property Management & Consulting Inc.	Farmington
Johnnie Drake	Pro New Mexico	Santa Fe
Robert Bullard	Yates Pet Corp	Artesia
Ernst L. Padell	Padell & Snyder	Santa Fe
DAVE BONEAU	YATES PETROLEUM	ARTESIA
Gene Gallegos	Gallegos Law Firm	Santa Fe
W. K. Kellum	Kellum & Kellum	Santa Fe
Ron Folsom	MARATHON	Midland, TX
Elaine & Norm Gilbreath	SELF	Artesia, NM
Johnnie	Fritson	FW Tex
Robert Lee	State	Roswell.
M.P. GADDIS	MERIDIAN	MIDLAND, TX

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION
CASE 10,613

EXAMINER HEARING

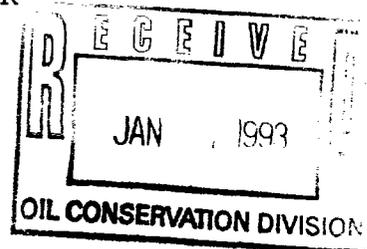
IN THE MATTER OF:

Application of WJC, Inc., for salt water disposal,
Lea County, New Mexico

ORIGINAL

TRANSCRIPT OF PROCEEDINGS

BEFORE: DAVID R. CATANACH, EXAMINER



STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO
December 3, 1992

A P P E A R A N C E S

FOR THE DIVISION:

ROBERT G. STOVALL
Attorney at Law
Legal Counsel to the Division
State Land Office Building
Santa Fe, New Mexico 87504

FOR THE APPLICANT:

CAMPBELL, CARR, BERGE & SHERIDAN, P.A.
Attorneys at Law
By: WILLIAM F. CARR
Suite 1 - 110 N. Guadalupe
P.O. Box 2208
Santa Fe, New Mexico 87504-2208

* * *

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

I N D E X

Page Number

Appearances

2

MICHAEL L. PIERCE

Direct Examination by Mr. Carr

4

Examination by Examiner Catanach

15

Certificate of Reporter

20

* * *

E X H I B I T S

APPLICANT'S EXHIBITS:

Exhibit 1

6

Exhibit 2

19

* * *

1 WHEREUPON, the following proceedings were had
2 at 8:24 a.m.

3 EXAMINER CATANACH: At this time we'll call
4 Case 10,613.

5 MR. STOVALL: Application of WJC, Inc., for
6 salt water disposal, Lea County, New Mexico.

7 EXAMINER CATANACH: Are there appearances in
8 this case?

9 MR. CARR: May it please the Examiner, my
10 name is William F. Carr with the Santa Fe law firm,
11 Campbell, Carr, Berge & Sheridan.

12 I represent WJC, Inc., and I have one
13 witness.

14 EXAMINER CATANACH: Are there other
15 appearances in this case?

16 Will the witness please stand to be sworn in?

17 MICHAEL L. PIERCE,
18 the witness herein, after having been first duly sworn
19 upon his oath, was examined and testified as follows:

20 DIRECT EXAMINATION

21 BY MR. CARR:

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

24 A. Michael L. Pierce.

25 Q. And where do you reside?

1 A. In Hobbs, New Mexico.

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

4 A. I'm owner of Peak Consulting Services.

5 Q. And you are employed in this case in what
6 regard?

7 A. I was retained to file the salt water
8 disposal Application.

9 Q. And who is WJC, Inc.?

10 A. They're an independent oil operator out of
11 Midland, Texas.

12 Q. Mr. Pierce, have you previously testified
13 before this Division and had your credentials as a
14 consulting geologist accepted and made a matter of
15 record?

16 A. Yes, I have.

17 Q. Are you familiar with the Application filed
18 in this case?

19 A. Yes, I am.

20 Q. And are you familiar with the proposed salt
21 water disposal well?

22 A. I am.

23 MR. CARR: Mr. Catanach, are the witness's
24 qualifications acceptable?

25 EXAMINER CATANACH: They are.

1 Q. (By Mr. Carr) Would you briefly state what
2 WJC, Inc., seeks in this case?

3 A. We are looking to convert the J.G. Cox Number
4 1 well, located in Section 13, 17-38, for disposal into
5 the San Andres and Bone Spring formation.

6 Q. Could you refer to what has been marked as
7 WJC Exhibit Number 1, identify this and review it for
8 Mr. Catanach?

9 A. That's the C-108 Application filed for this
10 well.

11 Q. Does this identify the injection interval
12 that you're proposing to utilize?

13 A. Yes, sir, it does.

14 Q. Is it --

15 A. Go ahead.

16 Q. And would you identify that interval?

17 A. The injection zone is the open-hole interval
18 from the base of the intermediate casing at 5000 feet
19 to a depth of 8360

20 Q. Is this a new well, or are you converting a
21 well to disposal?

22 A. This is an old well, drilled by Jake Hamon as
23 a Devonian producer.

24 Q. And what is the current status of that well?

25 A. Currently plugged and abandoned.

1 Q. Let's go to Exhibit Number 1, and if you
2 would refer to the plat in this exhibit, which is on
3 page 5, would you review that for the Examiner?

4 A. This is a land plat that shows the area of
5 review around the J.G. Cox Number 1 well.

6 Q. Does this show all wells within two miles of
7 the injection well?

8 A. It does.

9 Q. Is current lease ownership reflected on this
10 exhibit?

11 A. To the best of my knowledge, it is, yes.

12 Q. And the area of review for this well is
13 indicated by a circle around the subject well?

14 A. Correct.

15 Q. Could you identify for Mr. Catanach the
16 portion of Exhibit Number 1 which contains data on all
17 wells within the area of review which penetrate the
18 injection zone?

19 A. That is -- Oh, yeah, that's the schematics of
20 each of the wells, that's in pages 8 through 13 in this
21 Application.

22 Q. And you have one on each well that penetrates
23 the injection zone?

24 A. Correct.

25 Q. Are there any plugged and abandoned wells

1 within the area of review?

2 A. Yeah, there's one well that's plugged and
3 abandoned, drilled by Jake Hamon, the Cooper "A" Number
4 1.

5 Q. Do you have a schematic on that well?

6 A. Yes, I do.

7 Q. And where is that in this exhibit?

8 A. It's page number 9.

9 Q. And have you reviewed the plugging detail on
10 this well?

11 A. Yes, it appears to be plugged properly. This
12 well was plugged in 1960.

13 Q. Could you refer to the schematic of the
14 subject well and review for the Examiner both the
15 current completion and how you propose to complete it
16 for disposal?

17 A. Currently the well is plugged and abandoned
18 with a 25 set plug at the 9 1/2 casing shield.

19 Q. And whereabouts in Exhibit 1 are you?

20 A. I'm on page 8.

21 And then several other plugs, one at -- a 25
22 set plug at 8360, and a 25 set plug at 10,100 feet, and
23 then a plug at -- or -- and then it shows the casing
24 that was pulled at 10,130 feet, and that 25 set plug
25 covers that open-hole interval, and the stop 5 1/2

1 sticking up.

2 Q. Let's go now to the proposed completion on
3 page 8A, and explain to Mr. Catanach what you intend to
4 do with this well.

5 A. We propose to drill out the surface plug, the
6 plug at the 9-and-5 shoe, and go down and tag the plug
7 at 8360 and make sure that's there, and we then propose
8 -- you know, and clean out to that depth.

9 We then propose to run 2 7/8 plastic-coated
10 tubing to a depth of approximately 4900 feet,
11 approximately 100 feet above the open-hole interval,
12 and isolate the open-hole interval and the 9-and-5
13 annulus with a Baker Lok-Set packer and then load the
14 back side with packer fluid.

15 Q. Into what formations are you proposing to
16 dispose?

17 A. The San Andres and the Bone Spring.

18 Q. Are either of these formations productive in
19 the immediate area of this proposed salt water disposal
20 well?

21 A. No, they are not.

22 Q. What is the source of the water that you
23 propose to dispose of?

24 A. It will be Devonian water.

25 Q. And where is it coming from?

1 A. From WJC-operated leases in the field.

2 Q. What is presently being done with this water?

3 A. Right now there's two wells that are operated
4 by WJC. One of them makes very little water, and this
5 water is being trucked off. The other well is
6 currently shut in, because the water cut on it doesn't
7 make it economic to truck the water.

8 The well currently makes about 80 barrels a
9 day when it's producing, but in excess of 1000 barrels
10 of water a day.

11 Q. In the past, what has been done with this
12 water?

13 A. This water was taken to an offset disposal
14 well in the field.

15 Q. And who operates that well?

16 A. F&M Oil Company.

17 Q. And what has happened to that situation? Why
18 are you no longer able to use that well?

19 A. When F&M Oil took over operations from
20 Chevron, they raised the injection -- or the disposal
21 rate to 38 cents a barrel.

22 Q. The F&M disposal well is in fact an immediate
23 offset to this well, is it not?

24 A. It is, it's the direct east offset.

25 Q. This Application was originally filed for

1 administrative approval?

2 A. It was.

3 Q. And why was it set for hearing?

4 A. F&M protested.

5 Q. Have they been advised of today's hearing?

6 A. Yes, they have.

7 Q. What volumes do you propose to dispose of in
8 this well?

9 A. Approximately 2000 barrels a day.

10 Q. And the maximum disposal rate would be what
11 volume?

12 A. 5000.

13 Q. Will this be a closed system?

14 A. It will be closed.

15 Q. And do you propose to inject by gravity, or
16 will you need to utilize pressure?

17 A. It looks like I -- I pulled the file for the
18 offset injection well, and the last test in September
19 of this year showed that injection pressure was 200
20 pounds, so it looks like we may have to set a small
21 pump to get it going.

22 Q. Would a pressure limitation of 2/10 pound per
23 foot of depth to the top of the injection interval be
24 sufficient for your purposes?

25 A. Yes, it would.

1 Q. Is the offsetting well also disposing into
2 the San Andres and the Bone Spring?

3 A. Yes, it is.

4 Q. Do you anticipate any compatibility problems
5 with the injected water?

6 A. No, the Devonian water has been injected into
7 these two formations for over 20 years with no problem
8 so far.

9 Q. In fact, the offsetting well is injecting
10 Devonian water into these formations?

11 A. That's correct.

12 Q. Are there freshwater zones in the area?

13 A. Yes, the Ogalalla.

14 Q. And at about what interval do you find the
15 Ogalalla?

16 A. From about 100 to 300 feet.

17 Q. Does Exhibit Number 1 contain water analyses
18 of water from two of the freshwater wells within a mile
19 of the proposed injection well?

20 A. Yes, it does.

21 Q. And could you identify those portions of
22 Exhibit 1 for the Examiner?

23 A. On page 6 of the Application, there are noted
24 two locations, number 1 and number 2, where I took a
25 freshwater sample at farmhouses located within a mile

1 of each -- or a mile of the well, the J.G. Cox Number
2 1.

3 Q. And on page 7 of the exhibit, what is that?

4 A. That's a water analysis, specifically
5 chlorides, run by Halliburton for me.

6 Q. Has a log of the proposed injection well been
7 filed with the Oil Conservation Division?

8 A. Yes, it has.

9 Q. Could you go to what is page 17 of Exhibit
10 Number 1 and identify that?

11 A. That is a letter from the current owner of
12 the 160-acre tract that the J.G. Cox well is located
13 on, saying that they're aware of this Application and
14 are not opposed to it.

15 Q. And was notice of this Application and
16 hearing provided by certified mail to all leasehold
17 operators within a mile of the well, and also to the
18 owner of the surface of the land?

19 A. Yes, it was.

20 Q. How recently have you been in communication
21 with representatives of F&M Oil and Gas?

22 A. Last Friday, I received a phone call from an
23 individual they retained to look at this Application,
24 and he indicated to me that they would probably not
25 show up for the hearing.

1 Q. Does Exhibit Number 1 also contain a
2 diagrammatic sketch for the F&M Oil and Gas Company
3 salt water disposal well?

4 A. It does.

5 Q. And that's on page 11 of this Exhibit?

6 A. Right.

7 Q. Mr. Pierce, have you examined the available
8 geologic and engineering data on this area?

9 A. Yes, I have.

10 Q. And as a result of that examination, have you
11 found any evidence of open faults or other hydrologic
12 connections between the disposal zone and any
13 underground source of drinking water?

14 A. I have not.

15 Q. In your opinion, would approval of this
16 Application be in the best interest of conservation and
17 prevention of waste and the protection of correlative
18 rights?

19 A. It would.

20 Q. Was Exhibit Number 1 prepared by you?

21 A. It was.

22 MR. CARR: At this time, Mr. Catanach, we
23 move the admission of WJC Exhibit Number 1.

24 EXAMINER CATANACH: Exhibit Number 1 will be
25 admitted as evidence.

1 MR. CARR: That concludes my direct
2 examination of Mr. Pierce.

3 EXAMINATION

4 BY EXAMINER CATANACH:

5 Q. Mr. Pierce, current production in the
6 producing well, did you say, was 1000 barrels a day?

7 A. Water production.

8 Q. Right.

9 A. The well is shut in. There's two wells, the
10 Brooks Number 1 and the Brooks Number 1. The Number 1
11 is shut in because of high water cut.

12 Q. And that's producing 1000 --

13 A. Eighty barrels a day, 80 barrels of oil a
14 day, 1000 barrels of water.

15 Q. Right. Your estimate for disposal is 2000 to
16 5000. Where is the additional water going to come
17 from?

18 A. From the -- There's two other operators in
19 the field that are having difficulty with F&M Oil
20 Company also.

21 Q. So you are in fact going to open this up to
22 other operators?

23 A. If they want to joint the system.

24 Currently the Avra Oil Company operates a
25 well to the south, and it's completed in the

1 Pennsylvanian, making about three barrels a day. It's
2 fairly marginal.

3 But they've isolated the Devonian formation
4 with the intent of going back to it if an economic way
5 to dispose of the water becomes available.

6 So that was the reason to put the maximum at
7 5000.

8 Q. Okay. Do you have information regarding the
9 top of the -- the formation tops in this well?

10 A. In -- ?

11 Q. In the proposed disposal well.

12 A. Yes, sir, I have a cross-section I can submit
13 to you. This cross-section is labeled B-B', and I have
14 additional copies of this also that I can furnish you.

15 Q. Okay.

16 A. This is the east-west cross-section. The
17 furthest west well is the J.G. Cox Number 1.

18 The well to the -- The next well is the F&M
19 Oil Company disposal well.

20 The proposed disposal interval for the Cox
21 well is indicated, as well as the current disposal
22 interval for the F&M Oil Company Holloway Number 1
23 well.

24 Q. The disposal well doesn't penetrate all of
25 the Bone Spring?

1 A. No, sir, it does not -- It does, but we have
2 a plug set at approximately 8360 --

3 Q. Okay.

4 A. -- that we're not going to go below. We
5 don't feel it's necessary to have any more open-hole
6 section.

7 Q. Okay, the base of the Bone Spring is below
8 that plug?

9 A. Yes, sir.

10 Q. Okay. The injection interval appears to
11 contain something above the San Andres. Is that your
12 understanding?

13 A. The 5 1/2 casing is set at 5000 feet. Let's
14 see here. I mean -- I mean, excuse me, the 9 5/8
15 casing. And I -- This cross-section was prepared by an
16 individual with WJC, and I don't know that I would
17 agree with that, the San Andres pick on this. I did
18 not prepare this cross-section.

19 We're in the San Simone channel there, and we
20 have a lot of interfingering of San Andres/Bone Spring
21 going on. I think the San Andres probably is somewhat
22 higher than this, what is actually depicted on this
23 cross-section.

24 Q. Somewhat higher, or do you think it's --

25 A. I think it's behind the 9-and-5 casing. I

1 think we're in -- the 5 1/2 -- or the 9-and-5 was set
2 into the San Andres.

3 Q. Okay. It's quite an extensive open-hole
4 interval for injection. Are you aware of any problems
5 that F&M has had with their well?

6 A. They have repaired their well several times
7 -- or I don't know that F&M has repaired it, but the
8 well has been repaired several times due to casing
9 rotting out, the intermediate casing rotted out.

10 And several -- it appears to be several
11 offset wells -- or within -- Within the field, there's
12 been a problem with casing around 8000 feet or so, that
13 seems to have developed a leak in there.

14 But I don't know whether to attribute that to
15 the injection or not.

16 Q. Mr. Pierce, on page 10, the F&M -- it looks
17 like W.F. Cone Well Number 2 --

18 A. Yes, sir.

19 Q. That's a producing well?

20 A. It's a Devonian well that's currently shut
21 in, last report.

22 Q. Do you have any information on that well as
23 to the placement of the cement behind the 7-inch
24 casing?

25 A. All the records that I have at the Hobbs

1 District Office indicated was there's a casing leak at
2 6904 to 6967, and it was squeezed with 450 sacks.

3 If they ran a temperature survey or anything
4 like that, it was not reported in those files.

5 Q. On page 13, the W- -- I mean the VF Cox well
6 Number 1, do you have any information on that well
7 regarding the cement top?

8 A. No, sir, I don't, no information at OCD.

9 Q. Okay.

10 A. Or the information that's there is presented
11 in this schematic.

12 EXAMINER CATANACH: I believe that's all I
13 have of the witness.

14 MR. CARR: Mr. Catanach, we would move the
15 admission of Exhibit Number 2.

16 EXAMINER CATANACH: Exhibit Number 2 will be
17 admitted as evidence.

18 MR. CARR: And I have nothing further of Mr.
19 Pierce in this case.

20 EXAMINER CATANACH: There being nothing
21 further, Case 10,613 will be taken under advisement.

22 (Thereupon, these proceedings were concluded
23 at 8:43 a.m.)

I do hereby certify that the foregoing is
a complete record of the proceedings in
the Examiner hearing of Case No. 10613,
heard by me on December 3 1992.

David R. Catanach Examiner

Oil Conservation Division

