

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

COPY

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

Case No. 14612

APPLICATION OF CELERO ENERGY II, LLP,
FOR APPROVAL OF A COOPERATIVE
WATERFLOOD PROJECT, AND TO QUALIFY
THE PROJECT FOR THE RECOVERED OIL
TAX RATE, LEA COUNTY, NEW MEXICO

REPORTER'S TRANSCRIPT OF PROCEEDINGS
EXAMINER HEARING

BEFORE: TERRY WARNELL, Technical Examiner
DAVID K. BROOKS, Legal Examiner

March 31, 2011

Santa Fe, New Mexico

This matter came on for hearing before the New Mexico Oil Conservation Division, TERRY WARNELL, Technical Examiner, and DAVID K. BROOKS, Legal Examiner, on March 31, 2011, at the New Mexico Energy, Minerals and Natural Resources Department, 1220 South St. Francis, Drive, Room 102, Santa Fe, New Mexico.

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A P P E A R A N C E S

FOR THE APPLICANT:
JAMES BRUCE
369 Montezuma, No.
Santa Fe, NM 87501

I N D E X

WITNESSES

JIM GRISHAM	
Direct By Mr. Bruce	04
JOHN BAKER	
Direct by Mr. Bruce	08
JOHN ANDERSON	
Direct by Mr. Bruce	14

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1 EXAMINER WARNELL: Okay. That takes us back to Page
2 1 where we started, so we can go back on the record. Next
3 case will be case 14612, application of Celero Energy for
4 approval of corporate -- cooperative waterflood project and
5 to quantify the project for the recovered oil and tax rate in
6 Lea County, New Mexico. Call for appearances.

7 MR. BRUCE: Mr. Examiner, Jim Bruce of Santa Fe
8 representing the applicant. I have three witnesses.

9 EXAMINER BROOKS: Does that include Mr. Catanach?

10 MR. BRUCE: If the examiners order me to.

11 EXAMINER WARNELL: Would the three witnesses please
12 stand and state your name and be sworn. Could you state your
13 name first, please?

14 MR. GRISHAM: Jim Grisham.

15 MR. BAKER: John Baker.

16 MR. ANDERSON: John Anderson.

17 (Oath administered.)

18 MR. BRUCE: The land exhibits are already in front
19 of you.

20 EXAMINER WARNELL: I see your color copier is
21 working.

22 MR. BRUCE: Somebody's is.

23

24

25

1 JIM GRISHAM

2 (Having been sworn, testified as follows:)

3 DIRECT EXAMINATION

4 BY MR. BRUCE:

5 Q. Would you please state your name and city of
6 residence?

7 A. ~~Jim Grisham~~, Ft. Worth, Texas.

8 Q. Who do you work for and in what capacity?

9 A. Celero Energy. I'm the ~~land director~~.

10 Q. Have you previously testified before the Division as
11 a landman?

12 A. Yes, I have.

13 Q. Were your credentials as an expert accepted as a
14 matter of the record?

15 A. Yes, they were.

16 Q. As does your area of responsibility at Celero
17 include this portion of Southeast New Mexico?

18 A. Yes, it does.

19 Q. Are you familiar with the land matters involved in
20 case?

21 A. I am.

22 MR. BRUCE: Mr. Examiner, I tender Mr. Grisham as an
23 expert petroleum landman.

24 EXAMINER WARNELL: Mr. Grisham is so recognized.

25 Q. Mr. Grisham, would you identify Exhibit 1 for the

1 examiner and summarize what Celero seeks in this case?

2 A. Yes, sir. ~~Celero seeks to institute a cooperative~~
3 ~~waterflood project in the Devonian formation underlying 320~~
4 ~~acres of land outlined on the plat.~~ The second page of the
5 plat describes the ~~three fee leases involved.~~ Celero also
6 ~~requests approval to inject produced water into the Devonian~~
7 ~~formation in the two wells.~~

8 ~~The WT Mann A Well Number 2,~~ an existing well
9 located 660 feet from the North Line and 2,310 feet from the
10 East Line of Section 36 and ~~the TD Pope 36 Well Number 10,~~
11 which is currently drilling at a location of 350 feet from
12 the North Line and 990 feet from the West Line of Section 36.

13 Q. And these ~~three fee leases,~~ ~~who operates those in~~
14 ~~the Devonian formation?~~

15 A. ~~Celero Energy.~~

16 Q. Regarding the injection operation, who are the
17 offset operators or working interest owners?

18 A. That information is listed on Exhibit 2.

19 Q. And does Celero have internal working interest
20 owners in the three fee leases?

21 A. Yes, sir, we do. And that information is listed on
22 Exhibit 3.

23 Q. Okay. So ~~one lease you own 100 percent,~~ and the
24 ~~other ones you have some relatively small working interest~~
25 ~~owners?~~

1 A. Yes, sir.

2 Q. And who are the ~~surface owners of the land~~ where the
3 well that's ~~drilling the TD Pope 36 Well Number 10~~, who is
4 the owner of that surface?

5 A. ~~Donald Spears~~.

6 Q. And I believe, ~~on the other well~~, the ~~actual owner~~,
7 ~~is Celero~~---

8 A. That's correct.

9 Q. -- itself?

10 A. That's correct.

11 Q. And were all of these interest owners notified of
12 the hearing?

13 A. Yes, they were.

14 Q. Is that reflected in the Affidavit of Notice of
15 David Catanach marked Exhibit 4?

16 A. Yes, sir, it is.

17 Q. And all of these people received actual notice;
18 there were no returned green cards?

19 A. That's correct.

20 Q. And was notice of the injection application also
21 published in a newspaper?

22 A. Yes, sir, and the Affidavit of Publication is
23 included in the C-108.

24 Q. And that will be -- other witnesses will introduce
25 that exhibit, correct?

1 A. Yes.

2 Q. One final thing, if this application is approved, do
3 you request that any additional injection wells, ~~if there are~~
4 ~~any, be allowed to be approved administratively without a~~
5 ~~hearing?~~

6 A. Yes, sir, we do.

7 Q. In your opinion, will the granting of this
8 application be in the interest of conservation and prevention
9 of waste?

10 A. Yes, sir.

11 Q. And were Exhibits 1 through 4 prepared by you or
12 under your direction or compiled from company business
13 records?

14 A. Yes, sir, they were.

15 MR. BRUCE: Mr. Examiner, I move the admission of
16 Exhibits 1 through 4.

17 EXAMINER WARNELL: Exhibits 1 through 4 admitted.
18 (Exhibits 1 through 4 admitted.)

19 MR. BRUCE: I have nothing further.

20 EXAMINER BROOKS: No questions.

21 EXAMINER WARNELL: Do you have a breakdown, as far
22 as on the total ~~320-acres~~ as far as federal, state and fee?

23 THE WITNESS: ~~It's all fee.~~

24 EXAMINER WARNELL: It's all fee?

25 THE WITNESS: Yes, sir.

1 EXAMINER WARNELL: No questions.

2 THE WITNESS: Okay.

3 MR. BRUCE: The only thing I do have in addition
4 with respect to land is ~~this is a cooperative project. They~~
5 ~~have not unitized, and I just wanted to make sure that I'm~~
6 ~~giving you Order Number R12268, which is the prior case where~~
7 a cooperative non-unitized project was approved. They are
8 not often done, but --

9 EXAMINER WARNELL: Okay. Thank you.

10 JOHN BAKER

11 (Having been sworn, testified as follows:)

12 DIRECT EXAMINATION

13 BY MR. BRUCE:

14 Q. Will you please state your name and city of
15 residence.

16 A. ~~John Baker,~~ Ft. Worth, Texas.

17 Q. And who do you work for?

18 A. Celero Energy.

19 Q. What's your job at Celero?

20 A. ~~Petroleum geologist.~~

21 Q. Have you previously testified before the Division?

22 A. I have.

23 Q. And were your credentials as an expert petroleum
24 geologist accepted as a matter of record?

25 A. Yes, they were.

1 Q. Are you familiar with the geology involved in this
2 application?

3 A. I am.

4 Q. Mr. Baker, you have Exhibit 5 in front of you, which
5 is the C-108. Does that also contain geologic exhibits for
6 this project?

7 A. It does.

8 Q. And did you prepare those geologic exhibits?

9 A. I did.

10 MR. BRUCE: Mr. Examiner, you may want to pull out
11 those geologic exhibits where they are a little easier to --

12 THE WITNESS: The first is the one over here.

13 MR. BRUCE: The first one -- there should be --

14 THE WITNESS: It's in Exhibit 5. That's one.

15 EXAMINER WARNELL: One of how many?

16 THE WITNESS: One of four.

17 Q. So we make sure we have them all in front of us,
18 what are the three exhibits, Mr. Baker?

19 A. The first one is a location. The second one will be
20 a type log and explanation of the stratigraphy. The third
21 one will be a structure map of the area, and the fourth one
22 will be a cross-section through the area of review.

23 Q. Okay. Which one do you want to testify first on,
24 Mr. Baker?

25 A. I would like to call your attention first to the map

1ST MAP

Page 10

1 that shows the area of review and also the project area, as
2 well as the well names.

3 Q. Okay. Go ahead. What does that reflect?

4 A. This shows the area of review and also the project
5 area around the well that is drilling the Pope 36 10 and also
6 the other well in question, the WT Mann A 2 within -- within
7 that area. The subsequent maps will show details concerning
8 this area.

9 Q. Okay. Go ahead.

10 A. The next item I would like to discuss is this one.

11 THE WITNESS: Do you have this one?

12 EXAMINER WARNELL: With the log on it?

13 THE WITNESS: Yeah, it's got a log on it.

14 A. Essentially what this does is describes the
15 stratigraphy of the reservoir.

16 Q. Wait a second, Mr. Baker.

17 MR. BRUCE: They are about three-quarters of the way
18 through the information packet, Mr. Examiner.

19 EXAMINER WARNELL: You would think one of us would
20 find it.

21 MR. BRUCE: It took me --

22 EXAMINER BROOKS: Next time you should put pages on
23 these things. Like Carol said to me one time about something
24 that worked for me, "Next time. If there is a next time."

25 EXAMINER WARNELL: She's tough.

1 Q. So this is the type log, Mr. Baker?

2 A. Yes. This is the ~~type log that shows the~~
3 ~~stratigraphy of the reservoir area.~~ For our purposes, the
4 designation as the age of the reservoir being Devonian,
5 Silurian is also applicable or representative of the
6 reservoir section. It is referred to as Silurian slash
7 Devonian. The ~~Silurian Reservoir,~~ as you can see on the type
8 log on the right, is made up ~~of a --- of dolomite and~~
9 ~~limestone and is a continuous interval that in this,~~
10 ~~particular well occurs over about 5-, 600 feet.~~ If you want
11 an explanation as to the relationship of the Silurian to the
12 Devonian stratigraphy, that is provided there in the type log
13 discussion.

14 Q. Okay. And is capped by the Woodford Shale?

15 A. It is capped by the Woodford Shale, which you can
16 see on the type log.

17 Q. And right behind that in the packet was the cross-
18 section, correct?

19 A. Right.

20 Q. And what does the cross-section show?

21 A. The cross-section goes from West to East across the
22 project area and goes through both the 36 10 -- TD Pope 36 10
23 Well that is currently drilling, and also on the far right of
24 the cross-section shows the well logs for the WT Mann A 2,
25 and it shows the consistency of the reservoir and also shows

1 the structure of the reservoir. You can see that by looking
2 at the ~~Woodford-Shale-cap~~ and how the Woodford Shale is
3 considerably higher on the West as it is to the East. This
4 area, this portion, this cross-section is only on the Eastern
5 flank of the reservoir, the whole reservoir.

6 Q. And you stated the ~~Celero-Devonian-is-constant~~
7 across the proposed project-area? *Silurian*

8 A. It is.

9 Q. And then finally your structure map?

10 A. The structure map shows the structure of the entire
11 field and where the area of review exists within the entire
12 field. Essentially, this is a Northwest -- North-to-South
13 ~~structure~~. You can see most of the Northern portion of the
14 field. The black lines are where there are faulting defined
15 by seismic, and you can see there is ~~not-much-faulting~~ in the
16 area of review that is shown on the map. The contour
17 interval of the map is 50 feet.

18 Q. Are there -- you mentioned faulting. Is there any
19 faulting which would connect the injection zone with any
20 fresh water system?

21 A. Not to my knowledge.

22 Q. And were the area of review map and type log, the
23 cross-section and structured map prepared by you or under
24 your supervision?

25 A. Yes, they were.

1 Q. In your opinion, is the granting of this application
2 in the interest of conservation and prevention of waste?

3 A. Yes.

4 MR. EXAMINER: Mr. Examiner, I would move the
5 admission of those four portions of Exhibit 5, the geologic
6 plats.

7 EXAMINER WARNELL: Those four portions of Exhibit 5
8 will be admitted.

9 (Exhibit 5 geologic portions admitted.)

10 MR. BRUCE: I have nothing further of this witness.

11 EXAMINER WARNELL: Mr. Brooks, any questions?

12 EXAMINER BROOKS: No questions.

13 EXAMINER WARNELL: I'm curious about your type log
14 there.

15 THE WITNESS: Okay.

16 EXAMINER WARNELL: The Woodford Shale, is there any
17 Woodford Shale production in that area of review here?

18 THE WITNESS: There is not.

19 EXAMINER WARNELL: So what do you make of that
20 porosity on that log?

21 THE WITNESS: The porosity in the log is actually,
22 it's very interesting. ~~The whole reservoir is low porosity,~~
23 ~~but it's highly fractured.~~ Not in the area of review, I
24 don't think, but we have core -- cored wells in several
25 portions of the reservoir that show that although it is low

1 porosity or has very few porosity streaks, it's pervasively
2 fractured.

3 EXAMINER WARNELL: I have no further questions.

4 JOHN ANDERSON

5 (Having been sworn, testified as follows:)

6 DIRECT EXAMINATION

7 BY MR. BRUCE:

8 Q. Would you please state your name for the record.

9 A. John Anderson.

10 Q. And where do you reside?

11 A. Colleyville, Texas.

12 Q. Who do you work for and in what capacity?

13 A. I work for Celeron Energy. I'm a petroleum
14 engineer.

15 Q. Have you previously testified before the Division?

16 A. Yes.

17 Q. Were your credentials as an expert petroleum
18 engineer accepted as a matter of record?

19 A. Yes, they were.

20 Q. Are you familiar with the engineering involved in
21 this application?

22 A. Yes, I am.

23 MR. BRUCE: Mr. Examiner, I tender Mr. Anderson as
24 an expert petroleum engineer.

25 EXAMINER WARNELL: Mr. Anderson is so tendered. I'm

1 not sure we tendered Mr. Baker. Do you remember that?

2 EXAMINER BROOKS: I don't remember.

3 MR. BRUCE: If so, I tender him as an expert.

4 EXAMINER BROOKS: You should say he is so qualified.

5 Mr. Baker and Mr. Anderson will be accepted.

6 Q. Mr. Anderson you've got in front of you Exhibit 5.

7 Did you prepare that, other than the geology?

8 A. Yes, sir.

9 Q. This is the C-108 for the project, correct?

10 A. Yes, sir.

11 Q. Let's go to the third page, which is the basic

12 project data. Could you just summarize the proposed

13 injection operations?

14 A. ~~We intend to inject in both the 30 -- Pope 36 Number~~
 15 ~~10 Well and in the WT Mann A Number 2 Well as injectors,~~ and
 16 we test an average injection rate of about 20,000 barrels of
 17 water per day per well with a maximum of about 20,000 barrels
 18 of water per day per well.

19 Q. And what would be the injection pressures?

20 A. The top perforations in the producing wells are
 21 approximately 12 -- 12,200 feet subsurface. So under
 22 Division rules the maximum injection pressure will be about

23 ~~2,440 PSI.~~ 12,200'

24 Q. Okay. And in looking at this, this is in the --

25 insofar as the fresh water goes, this -- it's a couple

1 hundred feet in-depth, the Ogallala, the fresh water?

2 A. Yes. Yeah, the maximum depth of the Ogallala that
3 we investigated in this area is 193 feet.

4 Q. Okay. And you ~~don't anticipate any problem~~
5 ~~complying with the Division's point~~ 2 PSI per foot of depth
6 rule, do you?

7 A. No. As a matter of fact, we will likely be
8 injecting on a ~~vacuum to start~~, but we don't anticipate
9 injecting more than the maximum.

10 Q. Let's go a couple of pages further into C-108, and
11 there is the well data on the ~~WT-Mann-A-Number-2~~. Could you
12 discuss that well, its prior -- how it was completed, and
13 then its current completion, or, I should say, proposed
14 completion?

15 A. Okay. Would you like to move to one of the wellbore
16 sketches.

17 Q. Sure. Let's go to the wellbore sketches.

18 A. Yeah.

19 EXAMINER WARNELL: Which one is that?

20 THE WITNESS: I think the other direction. That's
21 the Pope. Just a couple of pages ahead of that.

22 EXAMINER WARNELL: This is a wellbore?

23 THE WITNESS: Yeah. Go two more.

24 A. This was a wellbore configuration as it was in
25 December of this past year, and it's essentially a well that

1 was drilled in 1954. It has cumed 463,000 barrels of oil
2 from 1996 when it was TA'd and had been TA'd since that point
3 in time. It penetrated 263 feet of the proposed oil
4 productive Devonian reservoir, and we've got 7 inch
5 production casing from TD, which is a 12639 feet to surface,
6 and currently the well has been TA'd since 1966.

7 Q. So that was the current status of the well.

8 A. Moving to the next page. In ~~December of 2010~~, an
9 ~~administrative order~~ was issued by your -- the OCD to convert
10 this well to a saltwater disposal well. And the plan was to
11 squeeze the existing perforations in the wellbore, deepen the
12 well 261 feet to 12,900 feet, and then run in cement a 4.5
13 inch liner from 12,300 feet down to 12,900 feet and perforate
14 the interval of the Devonian that's below the oil water
15 contact from 12725 to 12900 feet, and inject as a saltwater
16 disposal well the original oil water contact into the
17 non-hydrocarbon bearing Devonian formation.

18 We've got that approved, and we ~~are~~ actually in the
19 process of doing ~~the well work on this well at the current~~
20 ~~time~~. And the actual injection tubing arrangement that we
21 had established, that's where the next page -- well, I'm not
22 sure -- if you go to the next page, it kind of shows. There
23 is two pages in there. One shows the actual liner and liner
24 hanger arrangement.

25 And then the following page, essentially what we are

1 going to do is have a polished bore receptacle at the top of
 2 the liner when it's installed, and originally we were going
 3 to go ahead and just use that polished bore receptacle and
 4 sting in the 4.5 inch injection tubing into that receptacle
 5 and inject down the tubing through the liner into the
 6 formation. Your Hobbs office had a little bit of a concern *
 7 about that with regards to possibly the liner top leaking on
 8 the back side. So we modified the design to install an
 9 actual production packer above the seal assembly and then tie
 10 our 4.5 inch line, injection line, from that production *
 11 packer all the way up to the surface to inject the fluid
 12 into, thereby isolating any potential liner top leak that
 13 could potentially occur in the wellbore.

14 Q. Now, you said the initial proposed perforations for
 15 injection were ~~12,725 to 12,900 feet~~, do you now propose
 16 additional perforations?

17 A. Yes. And that's what's on the next page is our
 18 proposed -- well, there should be an injection well proposed
 19 water injection wellbore. Essentially all we are doing here
 20 is, I mean, we are basically going to add ~~perforations in the~~
 21 ~~hydrocarbon-bearing portion of the Devonian reservoir and~~
 22 essentially have -- ~~we are asking permission to inject from~~
 23 ~~the top of the Devonian formation which is at 12376 feet ab~~
 24 ~~the way to 12900 feet~~, and inject both hydrocarbon and
 25 non-hydrocarbon portion of the reservoir.

Check.
This with
Will J.

Top of
Devonian
12376'
?
"12175"

12376' - 12900'

1 EXAMINER WARNELL: Has ~~the SWD~~ been amended?

2 MR. BRUCE: ~~We are asking to amend that now,~~

3 EXAMINER WARNELL: What's the original SWD number?

4 THE WITNESS: That should be included in your
5 package, maybe at the very back of it, but the Administrative
6 Order SWD is ~~SWD-1257~~, approved on December 16 of 2010.

7 MR. BRUCE: It's two of the last three pages of the
8 C-108, Mr. Examiner.

9 EXAMINER WARNELL: All right. Thank you.

10 Q. Enough on that. We'll go a couple more pages in and
11 you have the data, the wellbore sketches or sketch, yes,
12 sketches of the W -- excuse me -- the TD Pope 36 Number 10,
13 what is the current status of that well?

14 A. The current status of the TD Pope 36 Number 10 is
15 that its current drilling, and it's essentially, the design
16 of the wellbore is such that we are going to have a 7 inch
17 production casing in that wellbore. It will be an open hole
18 completion from the top of the Devonian, which is at 12175 ✓
19 feet in this wellbore down to the original oil water contact,
20 which is estimated 12,720 feet. So this will be purely an
21 injection well in the hydrocarbon bearing portion of the
22 reservoir.

23 The completion will be conventional packer with a
24 4.5 inch injection tubing strength run from the packer set at
25 12,125 feet to surface. And as an additional note, I mean,

12,225? - ASK Jim Bruce To Verify.
Well should have been Logged by now.

1 depending on how quickly -- we were going to originally plan
2 to produce this well until we got permission to convert it to
3 injection.

4 EXAMINER WARNELL: Did you do any initial projection
5 tests? Will you do any kind of testing on this or are you
6 just --

7 THE WITNESS: Well, yes, because our vision was we
8 were going to get the well completed before we got permission
9 to convert it, so we are going to kind of produce it and see
10 what it would do.

11 Q. And then scrolling through the C-105, there is a
12 land plat that has already previously been submitted, and
13 then you have a couple of spreadsheets, or maybe it's all
14 one -- it's just -- what does the spreadsheets on the wells
15 in the area of review reflect, without going into great
16 detail?

17 A. The spreadsheet in front of you is essentially a
18 compilation of all the wells that either -- that -- in the
19 area of review. And it includes both low camp wells that did
20 not actually penetrate the Devonian formation and the wells
21 that did penetrate the Devonian formation. The spreadsheet
22 itself contains well names, location, spud date, the surface
23 intermediate and production casing and cementing data, well
24 TD, well status, and the actual production intervals on that
25 well.

1 Q. Does it currently indicate the current status of
2 those wells?

3 A. Yes, it does.

4 Q. And how many PNA'd wells are there?

5 A. There were ~~four PNA'd wells that actually~~ penetrated
6 the Devonian reservoir.

7 Q. And for of the wells in the area of review, are they
8 properly completed or properly PNA'd so as to prevent
9 movement of fluid between open zones?

10 A. Yes, they are. Another item I just want to mention,
11 there are also 11 wells within -- that have anywhere from one
12 to three laterals, and then that actually impact the area of
13 review.

14 Q. So they are within the area of review?

15 A. Right. The vertical is not necessarily, but the
16 laterals cross over into the area of review.

17 Q. Okay. I got you. Now, there is a bunch of data
18 after your spreadsheet --

19 A. Well --

20 Q. -- data -- go ahead.

21 A. What's included after the spreadsheet are the
22 wellbore sketches and well histories provided in this exhibit
23 for all of the wells that actually penetrated the Devonian
24 formation. The four PNA'd wells appear to have been properly
25 PNA'd to prevent migration of fluid to other zones. But I

1 included all the wells so you could see what the laterals
2 look like and how they -- that initial map that John Baker
3 showed you of the locations, there is red lines on that map
4 that actually shows the direction of the laterals and how
5 they impact the area of review. So with that information
6 together, you should get a good picture of what has been
7 penetrated in that reservoir.

8 Q. This is data on all Devonian wells, not just the
9 PNA'd wells?

10 A. That's correct.

11 Q. Okay. And once you wade through that section of the
12 C-105, is there data on water in the area?

13 A. Yes, there is.

14 Q. And including a water analysis, fresh water
15 analysis?

16 A. Yes, there is.

17 Q. All right. And I think you covered this, but what
18 is the source of the injection water?

19 A. The source of ~~the injection water would be~~
20 ~~exclusively produced water from the Devonian formation.~~

21 Q. Therefore, ~~there will not be any compatibility~~
22 ~~issues?~~

23 A. That is correct.

24 Q. Let's go on to the -- some more of the project data.
25 You prepared some exhibits on production and data on what you

1 hoped to achieve by this project. Without me interrupting
2 too much, why don't you start with Exhibit 7 and tell the
3 Examiner what Exhibit 6 through 8 reflect -- or 6 through 9,
4 excuse me.

5 A. Okay. Exhibit 6 is a production history for the
6 eight wells that are actually in the project area, not the
7 area of review, but the project area, and it basically shows
8 that they were essentially drilled in the early 50s. Peak
9 production was about 20,500 barrels of water per day in 1955.
10 And current production is about 350 barrels of oil per day in
11 this area, and about 37 hundred barrels of water per day for
12 these eight wells.

13 And you can see that from a period of probably 1982
14 to essentially 2004, most of this production was basically
15 shut in and just TA'd. And it wasn't until the early 2000s
16 that they actually started reactivating these wells and
17 putting them back on production.

18 Q. And what is Exhibit 7?

19 A. One other note on that plot is, we, basically, out
20 of these eight wells, produced 6.1 million barrels of oil,
21 2.8 Bcf of gas, and about 11.4 million barrels of water.

22 Q. And what is the drive mechanism in this pool?

23 A. Well, generally speaking, in most Devonian
24 reservoirs and a good portion of this Devonian reservoir,
25 it's a strong water drive, but Mr. Baker and I had performed

1 a reservoir engineering study on this field on this
2 reservoir, and we determined that this portion of the field
3 is a combination weak water drive and a gas expansion
4 reservoir, and as a result of that we feel like there is an
5 opportunity for a secondary recovery project.

6 Q. And then move on to Exhibit 7. What does this show
7 you?

8 A. Exhibit 7 is essentially the eight wells that will
9 be in the project area that shows their location, their cum,
10 production history, and it also shows our projected remaining
11 recoverable reserves as we continue to produce the wells, and
12 it also shows the -- what our estimate is of the original oil
13 in place here. So it boils down to the -- to the far right
14 columns that shows the recovery efficiency that we have
15 already had on -- to date on these wells, which, for all
16 eight wells is about 43 percent. And our estimated
17 recovery -- recovery efficiency at the end of the life, the
18 ultimate recovery, is around 49 percent.

19 EXAMINER WARNELL: So these are the same eight wells
20 that are here on --

21 THE WITNESS: Yes, sir.

22 EXAMINER WARNELL: -- Exhibit 6?

23 THE WITNESS: Yes, sir.

24 Q. And when you say the "ultimate," that's ultimate
25 without the injection project?

1 A. Yes. This is just current producing under the weak
2 water drive situation.

3 Q. Then Exhibit 8, what does that reflect?

4 A. Exhibit 8 is a projected model for this infill
5 injector in this well, the 36 10. And it basically shows
6 that, you know, once we drill the wells, start injecting with
7 a year or year and a half -- it takes about a year to a year
8 and a half to respond, and it will peak out at about 70
9 barrels of oil per day of incremental production with the
10 associated gas, and then it will steadily go on to a decline
11 rate.

12 Q. And was the ~~waterflood project proposed as a method~~
13 of extending the life of this portion of the reservoir?

14 A. Yes, it was.

15 Q. And what is Exhibit 9?

16 A. Exhibit 9 is just a summary of -- we were initially
17 going to have six producing wells in this field. We are
18 going to have two injection wells. Estimated cost of the
19 facility associated with this project is a million dollars.
20 Estimated total project cost is \$4.3 million. And ~~estimated~~ ⁴
21 value of incremental production on a cash value basis is
22 about \$13 million. We estimate injection commencement
23 starting June of this year, and we are going to be injecting
24 produced water, and anticipated injection volumes is 40,000
25 barrels of water per day.

1 Q. How many -- you mentioned the estimated value of
2 incremental production. How many additional barrels of oil
3 do you anticipate recovering during the life of the
4 project?

5 A. It will be 200- to 250,000 barrels.

6 Q. And what is the estimated life of the project?

7 A. Seventeen years.

8 Q. And will this project, based on the numbers you have
9 given, will this project be economic?

10 A. Yes, sir.

11 Q. From an engineering standpoint, is this, this
12 portion of the pool suitable for a waterflood project?

13 A. Yes, sir.

14 Q. And, in your opinion, is it prudent to apply an
15 enhanced recovery program at this time?

16 A. Yes, sir.

17 Q. And you believe that it is technically and
18 economically feasible?

19 A. Yes, sir.

20 Q. And will the value of the oil and gas recovered by
21 project operations exceed the project costs plus a reasonable
22 profit?

23 A. Yes, sir.

24 Q. And because of the estimated additional production,
25 do the wells in the project, will they qualify for the

26.

1 recovered oil tax rate?

2 A. Yes, sir.

3 Q. And, in your opinion, is the granting of this
4 application in the interest of conservation and prevention of
5 waste?

6 A. Yes, sir.

7 Q. And were Exhibits 5 through 9 prepared by you?

8 A. Yes, sir.

9 MR. BRUCE: Mr. Examiner, I would move the admission
10 of Exhibits 5 through 9.

11 EXAMINER WARNELL: Exhibits 5 through 9 admitted.

12 (Exhibits 5 through 9 admitted.)

13 MR. BRUCE: I have nothing further in this case.

14 EXAMINER BROOKS: No questions.

15 EXAMINER WARNELL: I think I've got everything I
16 need. I have no further questions.

17 MR. BRUCE: I have one more witness to call.

18 EXAMINER WARNELL: Okay. Call your fourth and final
19 witness. Okay. So with that, Case Number 14612 will be
20 taken under advisement, and I believe that that concludes
21 today's docket.

22 EXAMINER BROOKS: Okay, well, since Mr. Hall has not
23 reported back to us, then case number 14605 will be continued
24 until April the 14th.

25 EXAMINER WARNELL: April 14, the one Richard said he

1 would take.

2 EXAMINER BROOKS: No, that's the one that Scott Hall
3 wanted time to figure out what was going on.

4 (Docket concluded.)

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I do hereby certify that the foregoing is
a complete record of the proceedings in
the Examiner hearing of Case No. _____
heard by me on _____.


_____, Examiner
Oil Conservation Division

REPORTER'S CERTIFICATE

I, IRENE DELGADO, New Mexico CCR 253, DO HEREBY
CERTIFY THAT ON March 31, 2011, proceedings in the
above-captioned case were taken before me and that I did
report in stenographic shorthand the proceedings set forth
herein, and the foregoing pages are a true and correct
transcription to the best of my ability.

I FURTHER CERTIFY that I am neither employed by nor
related to nor contracted with any of the parties or
attorneys in this case and that I have no interest whatsoever
in the final disposition of this case in any court.

WITNESS MY HAND this 31st day of March 2011.


Irene Delgado, CCR 253
Expires: 12-31-2011