

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

Application of Celero Energy II, LP to amend the
Unit Agreement and the Unit Operating Agreement for
the Rock Queen Unit and for Statutory Unitization.

Application of Celero II, LP to Expand the Water
Flood Project and Institute a Tertiary Recovery
Project for the Rock Queen Unit and to Qualify the
Project for the Recovered Oil Tax Rate, Chaves and
Lea Counties, New Mexico.

COPY

Case Nos. 14504 and 14505

AUGUST 19, 2010
9:45 A.M.
Santa Fe, New Mexico

HEARING EXAMINER: DAVID BROOKS
TECHNICAL ADVISOR: TERRY WORNELL

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For The Applicant:

JAMES GARRETT BRUCE, Esq.
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REPORTED BY: JAN GIBSON, CCR, RPR, CRR
Paul Baca Court Reporters
500 Fourth Street, NW - Suite 105
Albuquerque, New Mexico 87102

1 (Note: In Session at 9:45.)

2 HEARING EXAMINER BROOKS: We will go back
3 on the record. At this time we will call Case No.
4 14504, Application of Celero Energy II, LP to amend
5 the unit agreement and the unit operating agreement
6 for the Rock Queen Unit and for statutory
7 unitization and Case No. 14505, application of
8 Celero II, LP to expand the water flood project and
9 institute a tertiary recovery project for the Rock
10 Queen Unit and to qualify the project for the
11 recovered oil tax rate, Chaves and Lea Counties, New
12 Mexico. Call for appearances.

13 MR. KELLAHIN: Jim Bruce of Santa Fe
14 representing the applicant. I have three witnesses.

15 HEARING EXAMINER BROOKS: Are you going to
16 be requesting to consolidate the two cases for the
17 purposes of the hearing?

18 MR. KELLAHIN: Yes, sir.

19 HEARING EXAMINER BROOKS: I anticipated
20 that. Cases No. 14504 and 14505 will be
21 consolidated for the purposes of the hearing. Would
22 the witnesses please stand and identify themselves?

23 (Note: Witnesses Jim Gresham, John Baker
24 and Michael Metza sworn.)

25 HEARING EXAMINER BROOKS: You may proceed,

1 Mr. Bruce.

2 JIM GRESHAM

3 EXAMINATION

4 BY MR. BRUCE

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

7 A. My name is Jim Gresham. I live in Fort
8 Worth, Texas.

9 Q. And who do you work for and in what
10 capacity?

11 A. I am a Certified Professional Landman. I
12 work for Solero Energy II LP, and my position is
13 Land Director.

14 Q. Have you previously testified before the
15 Division?

16 A. No, I have not.

17 Q. Would you summarize your educational and
18 employment background for the examiner.

19 A. Yes, sir. I graduated from the University
20 of Texas with a petroleum land management degree in
21 December of 1977. I spent three years with Getty
22 Oil Company and I moved to Corpus Christi in 1980
23 and I worked for Cox Oil and Gas, an independent out
24 of Dallas, Texas, for about 13 years. After that I
25 worked for a number of different independent oil

1 companies, one of which was Pure Resources. I went
2 to work for them in 2000, and some of the founders
3 of Pure Resources ultimately were the founders of
4 our company, Solero. I moved to Fort Worth about a
5 year ago to go to work for Solero.

6 Q. Does your area of responsibility at Solero
7 include this portion of southeast New Mexico?

8 A. Yes, it does.

9 Q. Are you familiar with the land matters
10 involved in the application?

11 A. I am.

12 MR. BRUCE: Mr. Examiner, I tender
13 Mr. Gresham as an expert petroleum landman.

14 HEARING EXAMINER BROOKS: So qualified.

15 Q. Mr. Gresham, could you summarize what
16 Celero seeks in the two cases?

17 A. Yes, sir. Under Case 14504 Celero seeks
18 to amend the unit agreement of the unit operating
19 agreement and statutorily unitize all working
20 interest owners and unitize Queen Formation
21 underlying the 4939.77 acres of state, federal and
22 fee lands of Chaves and Lee Counties, New Mexico.
23 Also in Case 14505 Celero seeks approval to
24 institute a tertiary recovery project.

25 Q. What is the unitized interval?

1 A. It's the Queen Sand as a member of the
2 Queen Formation Guadalupe Series and part of the
3 Permian system. The top of the interval is found at
4 3050 feet and the base is at 3066 feet. That's as
5 seen on the gamma ray neutron log for the Gulf Oil
6 Company, State of New Mexico BMC Well No. 1. That
7 well is in the southeast quarter of the southeast
8 quarter of Section 23, Township 13 south, Range 31
9 East. The unitized formation includes all
10 subsurface points throughout the unit area
11 correlative to these dips.

12 Q. What is the history of this unit? I refer
13 you to Exhibit 1.

14 A. The unit was formed in 1959. It was
15 approved by Case No. 1798 and by Commission Order
16 No. R 1541. The water flood operations have been
17 conducted in the unit ever since.

18 Q. And the Commission's order is marked as
19 Exhibit 1?

20 A. Yes, it is.

21 Q. Was the unit agreement approved by the
22 Bureau of Land Management and the State Land Office
23 in 1959 or 1960?

24 A. Yes, they were.

25 Q. And what are Exhibits 2 and 3?

1 A. Exhibits 2 and 3 are the unit agreement
2 and the unit operating agreement respectively.

3 Q. The existing ones?

4 A. The existing ones, correct.

5 Q. Was the unit formed before the Statutory
6 Unitization Act was enacted?

7 A. Correct. As a result, joinder of the unit
8 was voluntary.

9 Q. Now, please identify Exhibit 4 for the
10 examiner.

11 A. Exhibit 4 is a land plat that outlines the
12 unit area and identifies the separate tracts which
13 comprise the unit area. There are 44 tracts within
14 the unit.

15 Q. Now, the unit is already in existence and
16 it's been around for some 50 years. Why are we here
17 today?

18 A. Well, Celero purchased this property in
19 June of 2007 with the intent to redevelop the water
20 flood project and to institute a tertiary project.
21 The redevelopment could potentially encompass 60
22 injection wells and 60 producing wells. Our
23 expenditure could be over 65 million dollars. When
24 the unit was formed, it was voluntary. About 3.015
25 percent of the working interest owners did not

1 ratify the unit. The existing unit operating
2 agreement has certain conditions that allow small
3 working interest owners to block expenditures for
4 the unit operations. That is contained in Article
5 4.3.2 of the Unit Operating Agreement.

6 What that provision provides is should a
7 party own 50 percent or more of the working
8 interest, it requires the joinder of two additional
9 parties with their cumulative interest being 10
10 percent. Celero, by itself, owns about 99.6
11 percent, so effectively it is impossible to
12 accomplish that.

13 Because this project is expensive, Celero
14 wants to ensure that all working interest parties
15 are subject to an updated operating agreement. As a
16 result we are amending the unit agreement and the
17 unit operating agreement.

18 Q. What is Exhibit 5?

19 A. Exhibit 5 is the proposed amended unit
20 agreement. It's a standard form used by the State
21 Land Office and is similar to agreements approved
22 previously by the Division. The unit agreement
23 describes the unit area and the unitized formation.
24 The unitized substances include all oil and gas
25 produced from the unitized formation. This

1 agreement designates Celero Energy II LP as the
2 operator.

3 Q. And does the copy submitted to the
4 Division contain signature pages from the working
5 interest owners who at this time have signed or
6 agreed to the amended unit?

7 A. That's correct. Celero, as operator and
8 working interest party is one of the parties.
9 Circle Ridge Production, Inc., another nonoperating
10 party, also executed the agreements as well as
11 Manford Production Company.

12 Q. What is Exhibit 6?

13 A. Exhibit 6 is the proposed unit operating
14 agreement. It sets forth the authorities and duties
15 of the unit operator as well as the apportionment of
16 expenses between the working interest owners.

17 Q. And again, has this been -- does it
18 contain the signature pages for the various parties
19 who at this time have signed on to the amended unit
20 operating agreement?

21 A. That's correct. All three have executed
22 the agreement as well.

23 Q. Does the amended unit operating agreement
24 contain a provision for carrying working interest
25 owners?

1 A. It does. That's in Article 11.4.

2 Q. Does it also provide for a penalty against
3 nonconsenting working interest owners?

4 A. Yes, 11.8.

5 Q. Does the statutory unitization and amended
6 unit operating agreement?

7 A. Yes, it does. In fact, submitted as
8 Exhibit 7 are portions of the act which specifically
9 allow the amendments to the plan of unitization. It
10 also provides that tract participation factors
11 previously approved shall remain the same after the
12 amendment.

13 Q. And was tract participation agreed upon
14 when the unit was originally formed?

15 A. It was. A listing of the participation
16 factors is attached as Exhibit 8. These factors
17 will be used in the amendment.

18 Q. And the participation factors in the -- I
19 guess the Column 3, the participation factor column,
20 have been used since the inception of the unit?

21 A. That's correct.

22 Q. Now, regarding ownership of the tracts
23 within the unit, would you describe the tract
24 ownership and how you determine the names of the
25 interest owners?

1 A. Well, the unit tracts are formed according
2 to common mineral ownership. If you go back to
3 Exhibit No. 5, the amended unit agreement, and look
4 at Exhibit B, you will find a tract-by-tract
5 listing. This information is from current division
6 order records.

7 Q. And how many interest owners are there in
8 the unit area?

9 A. Currently there are ten working interest
10 owners. There's 57 royalty owners and 42 overriding
11 royalty interest owners.

12 Q. Who are the working interest owners? I
13 refer you to Exhibit 9.

14 A. Exhibit 9 sets out all the interest of the
15 parties. The ones highlighted in yellow are the
16 parties that have not ratified the two agreements.

17 Q. So everyone in yellow has not signed on to
18 the amended documents?

19 A. That's correct.

20 Q. And what is the total percentage of
21 working interest owners who have voluntarily
22 ratified the unit?

23 A. 99.638249 percent.

24 Q. Do you seek to unitize the royalty and
25 overriding royalty owners?

1 A. No we do not. They will receive the same
2 interest they currently have. Since they are
3 unaffected, we do not seek statutory unitization
4 from them.

5 Q. Have the Commissioner of Public Lands and
6 the BLM preliminarily approved the amended unit
7 agreement?

8 A. No, not yet. We have requested
9 administrative approval. Of course, their
10 percentage of interest will be unaffected by the
11 applications.

12 Q. Let's discuss your effort to obtain
13 voluntary unitization among the working interest
14 owners. Let's start -- you said that Celero
15 acquired this interest in mid 2007. What did it do
16 with respect to the interest owners?

17 A. Well, when we acquired the property, we
18 acquired something around 98 percent of the
19 interest. And the previous operator, due to the
20 issues that we are addressing today in this hearing,
21 just began carrying all the parties and, frankly, I
22 don't know how far back that procedure went.

23 So when we took on the operations of the
24 property we began doing the same thing. We promptly
25 began enhancing the property in terms of

1 environmental issues that had been in place for
2 quite a long time. After eight months of owning the
3 property, we had already spent almost 10 million
4 dollars, and that was getting some of the wells back
5 turned on, reequipping the wells, and the main
6 issues were the environmental issues.

7 So in February of 2008, eight months after
8 we acquired the property, we sent a letter to all of
9 the parties informing them that we had already spent
10 ten million dollars and explained to them that they
11 had been in suspense for quite a long time and we
12 offered to buy their interest for their outstanding
13 JIBs. At that time there were 12 nonoperating
14 parties. So in the ensuing months we were able to
15 acquire three of those parties, and that brought us
16 up to the 99.6 percent.

17 The other parties either never responded.
18 I got a few phone calls from people wanting
19 additional data but very little response at all.

20 We went about our business. In October of
21 2009 I sent a follow-up letter. In this letter,
22 since I hadn't heard from anyone, I just made the
23 presumption that they wanted to stay in. So we sent
24 them an updated JIB billing asking them to please
25 pay their share of the outstanding JIBs, and then we

1 put them at pay status. Otherwise, we would still
2 like to acquire your interest. Again, we heard
3 almost no response from any of the parties.

4 Q. Did you follow up the letters with phone
5 calls?

6 A. I did. I did. A lot of people never
7 called me back and we just never really got anywhere
8 with it. The issue is a lot of the people are
9 successors to the interest and it's a small -- I
10 mean, cumulatively -- currently we have nine parties
11 who own 4/10s of one percent. So it's a relatively
12 small interest and it's hard to get anyone to focus
13 on it.

14 So thereafter is when we went the letter
15 out, Exhibit 10, which is in May of this year where
16 we are informing them of our intentions and
17 submitting to them the new amended agreements. And
18 that's the status.

19 Q. And although there are approximately ten
20 working interest owners now when the unit agreement
21 was -- when the unit was originally formed I believe
22 there were 40 working --

23 A. No, more like 56.

24 Q. 56 working interest owners. And at that
25 time with the difference in working interest owners

1 and the fact that no one party controlled more than
2 50 percent, unit operations weren't constrained like
3 they are now?

4 A. Correct. That certainly would have to be
5 the case with the multiple number of parties
6 involved.

7 Q. In your opinion, has Celero made a good
8 faith effort to secure voluntary unitization?

9 A. Yes, sir, we sure have.

10 Q. And has notice of the unitization case
11 been given to all working interest owners who did
12 not voluntarily join in the unit?

13 A. Yes, sir.

14 Q. Is that reflected in my affidavit of
15 notice marked Exhibit 11?

16 A. Yes, it is.

17 Q. They all received actual notice of this
18 hearing?

19 A. Yes, sir, they have.

20 Q. In order for the Land Office and the
21 Bureau of Land Management to approve unit
22 agreements, record title owners also need to ratify
23 the agreement. Were the record title owners also
24 notified of this application?

25 A. Yes, sir, they were. That's Exhibit 12.

1 MR. BRUCE: Mr. Examiner, if you look at
2 Exhibit 12, you will see that a couple of parties
3 did not receive actual notice when the first mailing
4 went out. I think everything was eventually --
5 everybody was eventually notified except -- I don't
6 know how to pronounce it. G-E-R-O-R, Geror Oil
7 Company.

8 Q. And Mr. Gresham, you had an independent
9 landman check for parties on all the addresses, did
10 you not?

11 A. Yes, we did.

12 MR. BRUCE: Mr. Examiner, since we could
13 not locate that company, Exhibits 13 and 14 are
14 affidavits of publication regarding the unitization
15 of the record title owners. One is in the Roswell
16 paper and one is from the Hobbs papers since we were
17 dealing with two counties.

18 HEARING EXAMINER BROOKS: Thank you.

19 Q. Have any of the record title owners
20 ratified the unit agreement?

21 A. Yes, sir. Those ratifications are
22 contained in Exhibit 15.

23 Q. Now, with respect to the tertiary recovery
24 application, was notice given to all of the proper
25 offsets or surface interest owners?

1 A. Yes, sir. Exhibit 16 is a schedule
2 showing the acreage within a have mile of the unit
3 area, so notification was sent to all operators or
4 lessees in the Queen Formation or with wells which
5 penetrate the Queen Formation.

6 Q. And within the unit area, the only
7 operator is Celero?

8 A. That's correct.

9 Q. And again, Exhibit 16 was prepared by an
10 independent landman, I believe?

11 A. Yes, it was.

12 Q. And was notice of the injection
13 application given to these parties?

14 A. Yes, it was.

15 Q. Is that reflected in the affidavit of
16 notice submitted as Exhibit 17?

17 A. Yes, it is.

18 MR. BRUCE: Again, Mr. Examiner, there
19 were, when all was said and done -- believe it or
20 not, I believe almost everybody received actual
21 notice, but since there were a few people we were
22 uncertain of, we did publish notice as to certain of
23 these interest owners and that's reflected in
24 Exhibits 18 and 19, the affidavits of publication of
25 Roswell and Hobbs interest owners.

1 Q. Mr. Gresham, in your opinion, will the
2 granting of these two applications be in the
3 interest of conservation and prevention of waste and
4 protection of correlative rights?

5 A. Yes, sir. I believe that.

6 Q. Were Exhibits 1 through 19 prepared by you
7 or under your supervision or compiled from business
8 company records?

9 A. Yes, they were.

10 MR. BRUCE: I move the admission of
11 Exhibits 1 through 19.

12 HEARING EXAMINER BROOKS: Exhibits 1
13 through 19 are admitted.

14 MR. BRUCE: No further questions of the
15 witness.

16 HEARING EXAMINER BROOKS: Okay. I guess
17 my question would be probably to counsel, but just
18 to clarify the testimony as I understand it, you are
19 proposing to statutory unitization of the working
20 interest only?

21 THE WITNESS: Yes, sir.

22 HEARING EXAMINER BROOKS: I guess my
23 question to you, Mr. Bruce, is did the statutes
24 contemplate that? Is that something that we can
25 actually do?

1 MR. BRUCE: I believe so, Mr. Examiner.
2 Under 70-7-9 that says an order providing for unit
3 operations may be amended by an order by the
4 Division in the same -- subject to the same
5 conditions as the original order provided if such an
6 amendment affects only the rights and interests of
7 the working interest owners. Approval by royalty
8 owners shall not be required.

9 HEARING EXAMINER BROOKS: Are all the
10 royalty interest owners committed to the unit? Is
11 it only working interest owners not committed to the
12 unit?

13 MR. BRUCE: I will doublecheck that. If
14 there are a few royalty owners it's very small. I
15 looked in the ratifications in the State Land Office
16 file, and I believe most, if not all. But their
17 interest will be unaffected regardless.

18 HEARING EXAMINER BROOKS: Okay. Very
19 good. Thank you. You may step down and call your
20 next witness, Mr. Bruce.

21 JONATHAN BAKER

22 EXAMINATION

23 BY MR. BRUCE

24 Q. Will you please such for the record?

25 A. Jonathan Buster Baker.

1 Q. Where do you reside?

2 A. Fort Worth, Texas.

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

4 A. I work for Celero Energy in the capacity
5 of a geologist.

6 Q. Have you previously testified before the
7 Division?

8 A. Yes, I have.

9 Q. Were your credentials as an expert
10 petroleum geologist accepted as a matter of record?

11 A. Yes.

12 Q. Does your area of responsibility at Celero
13 include this portion of the Permian Basin?

14 A. Yes.

15 Q. Are you familiar with the geologic matters
16 involved in these cases?

17 A. Yes.

18 MR. BRUCE: I tender Mr. Baker as an
19 expert petroleum geologist.

20 HEARING EXAMINER BROOKS: So qualified.

21 Q. Mr. Baker, what is Exhibit 20?

22 A. Exhibit 20 shows three main points. It
23 shows the geographical location of our project area,
24 the age and nomenclature of the formations in
25 question and also a type log of the formation that

1 is our objective.

2 First of all, I call your attention to the
3 map of Texas and New Mexico up near the title of the
4 presentation. You can see the general location of
5 our project, which is in basically straddles the
6 border of Chaves and Lea County, New Mexico.

7 The next thing I would point out is if you
8 look directly below that map -- and I apologize for
9 the small font. This is a stratigraphic column
10 indicating the age and the formation nomenclature.
11 The formation is termed the Queen, which is part of
12 the Artesia group, which is Permian or, more
13 specifically, Guadalupian in age.

14 Beyond that, there are three type logs.
15 The type log furthest on the right shows the whole
16 section from the surface down to just below into the
17 San Andreas. As you go over to the left, it shows a
18 close-up depiction of the Main Queen Sand interval,
19 which is our interval in question.

20 You can see above it the Seven Rivers
21 Formation in blue and below it the Grayburg
22 Formation in gray. The Main Sand Interval that I
23 indicated there is the interval of our object.

24 A few things I would point out about the
25 Main Queen Sand is it occurs within our project area

1 or within the Rock Queen Unit from about 3,000 feet
2 to 3100 feet measured depth, which corresponds to a
3 subsea depth of about 1410 feet, which is on the
4 west and 1310 feet which is on the east.

5 The sand is typically an average of 13
6 feet thick. The porosity ranges from 8 percent to
7 25 percent. It was deposited as both fluvial and
8 deltaic sands and is a very fine to fine grade
9 sandstone.

10 Q. One thing on this exhibit. The logs --
11 this is a fairly old field, is it not?

12 A. Yes.

13 Q. And a lot of wells were drilled and there
14 were no logs on the wells?

15 A. That is true.

16 Q. So you have logs from the Drickey Queen
17 144. That is an unit immediately to the southwest?

18 A. It's directly to the south.

19 Q. Then you have one from the Trig federal
20 well, which is a lease to the west of this unit, I
21 believe?

22 A. That is true. I will show you the
23 location of the Drickey Queen 144 well on a
24 subsequent issue.

25 Q. Let's move to Exhibit 21. What does that

1 show?

2 A. One thing I would like to point out on
3 this before we go to the next exhibit is that within
4 our project area, none of these other intervals
5 above or below are currently producing. It is only
6 the Queen Formation that produces within the Rock
7 Queen unit.

8 On to Exhibit 21? Exhibit 21 is a
9 structure map constructed on the top of the Main
10 Queen Sand interval. It was built by using most of
11 the wells shown on this map. The yellow on this map
12 is a representation of Celero's approximate acreage
13 position. You can see the -- the center the purple
14 outline is the outline of our injection area, our
15 CO2 injection area, and the red outline is the
16 outline of what we are speaking to today.

17 This generally shows that the structure in
18 the area is the strike, which is -- which trends
19 north northeast to south southwest. The dip is
20 perpendicular to that and dips at a rate of about 25
21 feet for every mile.

22 One thing that you can see on here is that
23 there are no -- we have not represented any faults,
24 and I do not find any faults within this map area
25 within the queen section.

1 Also shown on this map is the
2 cross-section trace within the Unit A to A prime.
3 It's rather small. Are you able to see that?

4 HEARING EXAMINER BROOKS: Yes.

5 Q. And just for reference, when we mention
6 the Drickey Queen Unit, that starts in Section 35 to
7 the south of the Rock Queen Unit and proceeds to the
8 south southwest?

9 A. Yes. I'm sorry. If you look at the
10 northeast quarter of Section 35 -- I will show you.
11 Right here. That is the type well that I showed you
12 on the previous exhibit.

13 Q. Let's move on to Exhibit 22. What does
14 that show?

15 A. Exhibit 22 is a cross-section A to A prime
16 that I showed you in Exhibit 21. It shows -- these
17 are cased hole logs within our project area that
18 show in yellow the Main Queen Sand Interval and is
19 used to show the continuity of the reservoir over
20 our project area.

21 Q. Is the -- was the original unit outlined
22 from a geologic standpoint?

23 A. Yes, it was.

24 Q. And from a geologic standpoint has this
25 reservoir been reasonably defined by development?

1 A. Yes.

2 Q. And is the Queen Reservoir continuous
3 across the unit area?

4 A. Yes.

5 Q. Is there a fresh water zone in this area?

6 A. There are no fresh water wells inside the
7 unit boundary. I do understand that the Ogallala
8 aquifer exists. The very western limits of the
9 Ogallala aquifer exist beneath our acreage at a
10 depth of about 200 feet.

11 Q. Will the next witness have some data on
12 fresh water in the area?

13 A. Yes.

14 Q. Were Exhibits 20 through 22 prepared by
15 you or under your direction?

16 A. Yes.

17 Q. In your opinion, is the granting of these
18 applications in the interest of conservation and the
19 prevention of waste?

20 A. Yes.

21 MR. BRUCE: Mr. Examiner, I move the
22 admission of Exhibits 20, 21 and 22.

23 HEARING EXAMINER BROOKS: 20, 21 and 22
24 are admitted.

25 MR. BRUCE: No further questions.

1 HEARING EXAMINER BROOKS: Okay. I don't
2 believe I have any questions. Do you have any
3 questions, Mr. Wornell?

4 MR. WORNELL: I don't think so. You did
5 say that these are cased hole logs?

6 THE WITNESS: Yes.

7 MR. WORNELL: What kind of hole is it?

8 THE WITNESS: Gamma ray neutron.

9 MR. WORNELL: And that was logged fairly
10 recently?

11 THE WITNESS: Those were logged recently
12 by us.

13 MR. WORNELL: Thank you.

14 HEARING EXAMINER BROOKS: Okay. I guess
15 the witness may stand down. Call your next witness,
16 Mr. Bruce.

17 MR. BRUCE: We call Mr. Metza to the
18 stand.

19 MICHAEL WAYNE METZA

20 DIRECT EXAMINATION

21 BY MR. BRUCE

22 Q. Would you please state your full name and
23 city of residence.

24 A. My name is Michael Wayne Metza from
25 Midland, Texas.

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

2 A. I work for Celero Energy II LP as a senior
3 production engineer.

4 Q. Have you previously testified before the
5 Division?

6 A. Yes.

7 Q. Was it a while ago?

8 A. A long while ago. I believe it was in
9 1984 or '85.

10 Q. Why don't you, just for the Examiner,
11 describe your educational and employment background.

12 A. I have a bachelor's degree in petroleum
13 and natural gas engineering. For the first 16 years
14 of my career I worked in various major oil
15 companies. For the last 13 I worked in various
16 engineering assignments for independent oil
17 companies.

18 Q. How long have you worked for Celero
19 Energy?

20 A. I worked for Celero Energy for
21 approximately two years.

22 Q. Are you familiar with the engineering
23 matters related to these applications?

24 A. Yes.

25 Q. And your area of responsibility at Celero

1 includes this portion of the Permian Basin?

2 A. Yes.

3 MR. BRUCE: Mr. Examiner, I tender
4 Mr. Metza as an expert petroleum engineer.

5 HEARING EXAMINER BROOKS: So qualified.

6 Q (By Mr. Bruce) Mr. Metza, let's start out
7 with your Exhibit 23. Could you give an overview of
8 this project.

9 A. Exhibit 23 is Celero Energy's application
10 for an EOR project involving admissible CO2
11 displacement. The project's name is Rock Queen CO2
12 Pilot. The exhibit gives the physical description
13 of the acreage, the number of acres, its original
14 unitization and the pool and formation name. It
15 also lists 20 producing wells, 17 water alternating
16 gas injection wells in the project area and 19 water
17 injection wells that will be curtain wells
18 surrounding the project. It shows also our
19 replacement wells and one re-entry of a P and A
20 well.

21 HEARING EXAMINER BROOKS: How many
22 injection wells are there, 17 in total?

23 THE WITNESS: Seventeen. The application
24 today involves 12 that exist and we are -- we have
25 permitted five more to drill.

1 It shows that the capital cost of the
2 facilities for the project going forward are is
3 about 6.9 million dollars. That cost includes the
4 cost of a pipeline to deliver CO2 to the field,
5 roughly five million a day of compression
6 capability, and miscellaneous CO2 injection and
7 gathering facilities. Total project cost to date
8 was roughly 42 million. Excuse me. Total project
9 cost of approximately 42 million, roughly 28 million
10 has been spent to date. The value of oil we expect
11 to produce from the project is roughly 132 million
12 dollars.

13 Q. Mr. Metza, on the exhibit -- excuse me,
14 the unit agreement, it covers approximately 4900
15 acres but the initial project area for the CO2 flood
16 is smaller than that; is that correct?

17 A. It's only roughly 1570 acres.

18 Q. And you mentioned the water injection
19 wells, a curtain of water injection wells. You
20 mentioned this again further on in your testimony,
21 but what is the intent of the wells?

22 A. The purpose of those wells was to form a
23 water curtain around the area where we inject CO2
24 and to keep the CO2 confined.

25 Q. Let's move on to your Exhibit 24. What

1 about does that show?

2 A. Exhibit 24 is a required plat of the
3 production history of the pilot area. As you can
4 see from the plot, cumulative oil production was 8.4
5 million barrels. Cumulative gas production was
6 roughly .8 BCF. Cumulative water production was
7 60.5 million barrels and cumulative water injection
8 was relatively 56.9 million barrels.

9 Behind Exhibit 24 is a table of the data
10 that was used to develop Exhibit 24.

11 Q. A couple of matters. It shows a gas
12 production that dropped off precipitously almost 48
13 years ago. Is there much in the way of gas
14 production at this time from the unit area?

15 A. Very little. We have to augment our
16 produced gas with propane in some of the facilities.

17 Q. And the other thing, although the
18 application was -- I entitled the application as
19 expansion of the water flood project, at this point
20 Celero has already come in and redeveloped the water
21 flood aspect of this project, has it not?

22 A. A great portion of it.

23 Q. So at this point, although there is more
24 water injection to come, at this point the primary
25 aspect of this hearing is for the tertiary recovery

1 project?

2 A. Yes.

3 Q. Let's move on to your outline marked
4 Exhibit 25. What is set forth in that?

5 A. Exhibit 25 is a general discussion of the
6 oil, gas and water production history and injection
7 history of the CO2 pilot area. The original pilot
8 area was developed as part of the Rock Queen Unit in
9 the mid to late '50s when 124 wells were drilled in
10 the unit's original 4940 acres. Wells were drilled
11 on 40-acre space and primary production peaked in
12 October of 1956 at roughly 1700 barrels of oil per
13 day. Production was at a low gas/oil ratio and gas
14 was eventually vented after August of 1962.

15 Production was water-free until water
16 operations started in 1960. Our estimate of primary
17 recovery is roughly 9 percent of the oil in place.
18 Pilot areas put on a conventional five spot 80-acre
19 pattern water flood by converting one-half of the
20 wells in the area to injection. Injection in the
21 area peaked in August of 1962 at roughly 6900
22 barrels of water per day until Celero purchased the
23 property, after which injection again peaked in
24 October of 2008 at slightly less than 7500 barrels
25 of water per day.

1 Peak water flood response occurred in May
2 of 1964 at a little more than 3300 barrels of oil
3 per day with a little more than 3,000 barrels of
4 water per day. Peak water production occurred in
5 March of 1967 at a little more than 6900 barrels of
6 water per day until Celero began returning wells to
7 production when water again peaked in October of
8 2008 at a little more than 13,000 barrels of water
9 per day.

10 Production continued to decline after the
11 field was developed and the area became rather
12 marginal by the mid 1970s. From that time to the
13 mid 1980s 21 wells were plugged in the unit. Celero
14 has since plugged five additional wells in the unit
15 once we took over operations.

16 Secondary recovery is estimated at 28
17 percent of the oil in place. Total primary and
18 secondary recovery is 37 percent of the oil in
19 place.

20 The Rock Queen Unit has had numerous
21 operators throughout its life. Celero purchased the
22 property in June of 2007, specifically for the
23 purpose of developing the unit using CO2 miscible
24 displacement. Our estimated recovery from miscible
25 CO2 is 2.1 million barrels of oil or approximately 9

1 percent of the oil in place. Purchased CO2 for the
2 project is estimated at slightly more than 10 BCF
3 and the produced CO2 will be reinjected. Our
4 anticipated date of first injection is January 2011.
5 Peak oil response for the project is estimated at
6 708 barrels per day.

7 Q. What does Exhibit 26 show?

8 A. Exhibit 26 is a required plot showing the
9 anticipated performance of the pilot with respect to
10 oil production, water production, water injection,
11 CO2 injection and CO2 production.

12 Q. And Exhibits 27 is simply tabular data
13 reflecting Exhibit 26?

14 A. Yes.

15 Q. What materials did you examine in your
16 study of the reservoir?

17 A. We looked at, obviously, well logs,
18 production history, available studies that have been
19 done by prior operators or commissioned by prior
20 operators and our company records.

21 Q. And although in your first exhibit you
22 went over this somewhat, how does Celero plan to
23 redevelop the unit for CO2 flood?

24 A. Initially, our plan is to start with the
25 pilot area, inject CO2 via a WAG schedule, see how

1 it performs over the period of two years and then
2 make a decision whether we can expand the pilot to
3 include all of the Rock Queen Unit or probably
4 what's been mentioned as the Drickey Queen Unit and
5 other properties we own in the area.

6 Q. With respect to the CO2, is Celero in the
7 process of obtaining a pipeline right-of-way for the
8 CO2 line?

9 A. Pipeline has been staked right away we are
10 securing right-of-ways for it. It's my
11 understanding we have approximately 50 percent of
12 those. Once we have secured right-of-ways and our
13 pipeline has been -- our operations manual has been
14 approved by the Pipeline Safety Bureau, we will
15 start construction of 18 miles of six-inch pipeline.

16 Q. And Celero has secured a supply of CO2?

17 A. Yes.

18 Q. Was the tertiary recovery project and the
19 water flood expansion or increase in water flooding
20 that you have done over the last couple of years
21 proposed as a method of extending the life of the
22 reservoir?

23 A. Yes.

24 Q. What is the dried mechanism of the pool?

25 A. The primary dry mechanism was depletion.

1 Q. What is the current average production
2 from wells within the Rock Queen Unit?

3 A. We average -- the majority of the wells
4 producing roughly 4.5 barrels of oil per day with
5 440 barrels of water per day.

6 Q. Definitely you are at what used to be
7 known as a stripper state at this point?

8 A. Yes.

9 Q. Is the unitized portion of this pool
10 suitable for institution of a tertiary recovery
11 project?

12 A. Yes.

13 Q. And is the area so depleted that it's
14 prudent to apply an enhanced recovery program at
15 this time?

16 A. Yes.

17 Q. Is the tertiary recovery project
18 technically and economically feasible at this time?

19 A. Yes.

20 Q. Will the value of the oil and gas
21 recovered by unit operations exceed the unit cost
22 plus a reasonable profit?

23 A. Yes.

24 Q. Will the enhanced recovery operations
25 result in the recovery of substantially more

1 hydrocarbons from the pool than would otherwise be
2 recovered?

3 A. Yes.

4 Q. Will the enhanced recovery benefit the
5 working interest and royalty owners in the area?

6 A. Yes.

7 Q. Is the unitized management and operation
8 of this reservoir necessary to effectively carry on
9 your proposed enhanced recovery operations?

10 A. Yes.

11 Q. And because of the estimated additional
12 production which you will obtain, do the wells in
13 the proposed unit qualify, or at least in the
14 project area, qualify for the recovered oil tax
15 rate?

16 A. Yes.

17 Q. Let's move on to your next exhibit,
18 Mr. Metza, Exhibit 28. What does that reflect?

19 A. The exhibit is a plat which shows the CO2
20 pilot area, the active production in injection
21 wells, the plugged and abandoned wells and the
22 shut-in or temporarily abandoned wells in an area
23 marked in red, which is one-half mile boundary we
24 are calling our area of review for your injection
25 well package.

1 Our area review is a little larger than
2 the area that would normally occur if we used
3 calculated half-mile radius around the 12 injection
4 wells we will be requesting authority to inject
5 with. And it was -- we made it a little larger for
6 two reasons. The area includes the area review
7 includes a half-mile radius around those wells to
8 the north of the unit that we intend to redrill as
9 injection wells. It also includes our replacement
10 wells in the unit and one well that we intend to
11 re-enter. Although we are not specifically
12 requesting authority to inject in those replacement
13 wells at this time.

14 The second reason was the area of review
15 includes many of the wells that we are requesting as
16 monitor wells for the project.

17 HEARING EXAMINER BROOKS: Now, you are
18 only then requesting injection authority for the 12
19 wells?

20 A. Twelve wells in the CO2 pilot area.

21 Q. Mr. Metza, would you like for the order to
22 provide for administrative approval of additional
23 injection wells?

24 A. Subject to review under normal procedures.

25 Q. Yes. Is that what you are requesting?

1 A. Yes.

2 Q. Go ahead with this, Mr. Metza.

3 A. Lastly, where our area review boundary
4 fell on a well or was close to a well, that well,
5 for the purposes of review, was included in the
6 review.

7 Q. And what is Exhibit 28A?

8 A. Exhibit 28A is a Midland Map Company plat
9 on a one inch equals 4,000 foot scale which shows
10 two miles around our pilot area, which is outlined
11 in blue. It also shows current boundaries of the
12 Rock Queen Unit outlined in yellow and all of the
13 wells that have been drilled of record, according to
14 the information that the map company has.

15 I have to apologize for American Inland
16 Resources being designated as the operator of Rock
17 Queen Unit. The people who published this resource
18 have been advised that we have taken over operations
19 and they have assured us it will be changed in the
20 future.

21 Q. This exhibit was prepared as part of the C
22 108 package, was it not?

23 A. Yes. It's a required exhibit.

24 Q. What is Exhibit 29?

25 A. Exhibit 29 is N.M. OCD Form C 108,

1 authorization to inject, and signed by me. Attached
2 to form C 108 are two pages which discuss Items 8,
3 Data on the Proposed Operation -- excuse me, Item 7,
4 Data on the Proposed Operation; Item 8, Geologic
5 Data; Item 9, Data on the Proposed Stimulation
6 Program; and Item 11, Data on Fresh Water Wells.

7 Q. Now, the rest of your exhibits, except
8 for, I think, your final exhibit, all are part of
9 the C 108 package, are they not?

10 A. Correct.

11 Q. And they have been broken out to make it
12 easier for the examiner to look at them as you
13 discussed them?

14 A. Correct.

15 Q. What do you want to begin with for your
16 discussion of the C 108?

17 A. I would like to cover Item 7 in a little
18 more detail at this time. It has to do with data on
19 our proposed operation. Our project is an enhanced
20 oil recovery pilot where we plan to inject carbon
21 dioxide and water into the Queen Formation using a
22 Walter alternating gas or WAG method.

23 The system will be closed. That is, all
24 the produced water and all produced CO2 will be
25 reinjected into the reservoir. Our proposed average

1 and maximum water injection pressure is 800 PSI.
2 This pressure is slightly higher than the 610 PSI
3 which would normally be allowed using the
4 traditional calculation of 0.2 PSA per foot times
5 depth to the top of the formation. We requested a
6 little higher pressure based on some step rate data
7 we have and we will go over that in Exhibit 33.

8 Consequently, we are proposing that we
9 have a maximum and average wellhead injection
10 pressure on water of 800 PSI for all of the current
11 and future water injection wells and WAG wells in
12 the entire Rock Queen unit. Our proposed maximum
13 CO2 pressure is 1200 PSI. It's also based on the
14 same step rate test data that we will go over in a
15 minute.

16 Q. Next move to your Exhibit 30. What is
17 contained in that?

18 A. Exhibit 30 are the required well data
19 sheets and well sketches for the 12 WAG injection
20 wells in our request. In the case of Rock Queen
21 Unit 54, a copy of N.M. OCD Form C 133 at proposing
22 to squeeze some well formations at 2934 and 2943 is
23 included in that well's package.

24 Q. And what is Exhibit 31?

25 A. Exhibit 31 is a required list of all wells

1 within the area of review. There are 91 wells on
2 the list. There are also nine replacement wells on
3 the list, five which have recently been permitted.
4 There are also four more plus one re-entry that are
5 being staked and will be permitted.

6 The well list also shows a planned well
7 type of injector for the Drickey Queen Sand Unit No.
8 1 and No. 4. These wells are currently active
9 producing wells and an administrative application to
10 convert them to water injection wells has been
11 filed.

12 Q. Is that part of the water curtain that you
13 were talking about?

14 A. Yes.

15 Q. And what is contained in Exhibit 32?

16 A. Exhibit 32 is the required well sketches
17 of the 21 wells in the area of review which have
18 been plugged and abandoned. One well in Section 23
19 Unit N has an issue in that there is not a plug
20 immediately above the Queen Formation. A prior
21 operator attempted to get to the bottom of the well
22 but encountered junk at 1858. They spent two days,
23 I believe, trying to get through it, then set plugs,
24 cut and recovered the casing at 1025 feet and
25 finished plugging it.

1 Celero proposes to re-enter the well in an
2 attempt to make it an injection well. If we are
3 unsuccessful, it's likely that the well will not be
4 any appreciably different when we are finished.

5 Q. And again, this is no production above the
6 Queen?

7 A. That is correct.

8 Q. What is contained in Exhibit 33?

9 A. Exhibit 33 is a summary of the data
10 gathered from step rate tests that were run on ten
11 wells in the Rock Queen Unit. The test on Rock
12 Queen Unit No. 62 was used to calculate the
13 recommended average and maximum wellhead injection
14 pressures for produced water and CO2 for all of the
15 wells in the Rock Queen Unit.

16 The test was run with fresh water and the
17 surface pressure of 1050 PSI gauge was adjusted for
18 the higher density of produced water and the lower
19 density of CO2. The method to calculate 800 PSIG
20 using produced water on injection and 1200 PSIG on
21 CO2 injection are shown on the exhibit.

22 Attached to Exhibit 33 are the actual pump
23 tests that were run on the wells in the field and a
24 National Institute of Standards and Technology
25 report which shows the physical properties of CO2 at

1 70 degrees.

2 Q. That's a standard table or standard data?

3 A. Yes.

4 Q. And these step rate tests were performed a
5 couple year ago in connection with your water flood
6 expansion, was it not?

7 A. Correct.

8 Q. And are these pressures that you have been
9 using in use for water injection at this point? The
10 recommended injection pressures?

11 A. No. In fact, throughout the history of
12 the field injection pressures have been slightly
13 higher than this on occasion.

14 Q. Okay. So you are not exceeding anything
15 that has been used by previous operators?

16 A. We shouldn't be.

17 Q. And what is Exhibit 34?

18 A. Exhibit 34 is a comparison of the produced
19 water from the Rock Queen Unit No. 84 and water from
20 our fresh water system. Also attached are the
21 analyses of both waters and an analysis of water
22 from water well in Section 35 Township 13 South
23 Range 31 East along with a map showing the well's
24 location. This is a required submittal for the form
25 C 108.

1 Q. And I believe the well that you obtained,
2 the fresh water well is within about a half mile or
3 less of the unit boundary?

4 A. The southern boundary of the Rock Queen
5 Unit, yes.

6 Q. What type of water is injected into the
7 unit?

8 A. Right now we inject produced water and
9 fresh water from supply wells we have that take
10 water from the Ogallala.

11 Q. And is there any compatibility problems
12 between the formation water and the injection water?

13 A. No.

14 Q. Now, let's move on to your final exhibit,
15 and maybe you should have Exhibit 28, the plat, out
16 in front so you can show the examiner what you are
17 talking about with respect to the monitoring wells
18 and the water injection curtain. If you go through
19 Exhibit 35 and inform the examiners of what you
20 propose with respect to the monitor of the wells?

21 A. If you can refer to Exhibit 28, you will
22 see a number of wells that have pastel yellow
23 circles around them located on the west and north
24 end of our CO2 pilot area. We are proposing these
25 with monitor wells for roughly two years while we

1 evaluate the project.

2 Therefore there are eight shut in
3 producers, six temporarily abandoned producers and
4 three shut-in injection wells. We propose to limit
5 production to the north in the hope that it offers
6 the best opportunity to maximize CO2 utilization in
7 the project and limit the possible CO2 migration.
8 It's more cost-effective using these as monitor
9 wells than expanding the water injection system to
10 the north and west and the number of injection wells
11 to support what would likely be marginal or
12 uneconomic production at this time.

13 If necessary, a number of the wells could
14 readily be converted to active water injection wells
15 to maintain our water curtain to the north and the
16 west of the project. Wells would be equipped with
17 2 3/8 plastic-coated tubing set on a packer with a
18 single minimum 1500 PSI valve installed in each
19 well. We would propose an initial mechanical
20 integrity test be run after the installation of
21 tubing and packer and then in intervals of one year
22 thereafter.

23 Bottom hole pressures will be measured
24 initially and each quarter thereafter in each well.
25 The information would be made available to the

1 Division on request. The wells would remain as
2 monitor wells for approximately two years while the
3 performance of the pilot is evaluated.

4 Ultimate disposition of the wells at 16 of
5 the 17 wells would be returned to production and one
6 would be returned to injection in the event that the
7 pilot is successful and the project is expanded. We
8 have discussed this with compliance manager and
9 attorney and they were not opposed to it as a means
10 to meet our agreed compliance order for these wells.

11 Q. In other words, in normal circumstances
12 these would be deemed out of compliance wells --

13 A. Because they have been shut in or
14 temporarily abandoned for so long.

15 Q. But the Division staff has stated they
16 will not count these as noncompliant wells for the
17 purpose of the two years while you are evaluating
18 the project?

19 A. Correct.

20 Q. In your opinion, will two years from the
21 commencement of injection of CO2, will two years be
22 sufficient to evaluate the project?

23 A. Yes.

24 Q. In your opinion, is the granting of the
25 injection application in the interest of

1 conservation and the prevention of waste?

2 A. Yes.

3 Q. And were Exhibits 23 through 35 prepared
4 by you or under your supervision?

5 A. Yes.

6 MR. BRUCE: Mr. Examiner, I move the
7 admission of Exhibits 23 through 35.

8 HEARING EXAMINER BROOKS: Exhibits 23
9 through 35 are admitted.

10 MR. BRUCE: No further questions.

11 HEARING EXAMINER BROOKS: I don't believe
12 I have any questions at this time either. Do you,
13 Mr. Wornell?

14 MR. WORNELL: Just, I think, one or two
15 here. On your WAG or your water alternating gas
16 injection, your CO2, you say you have a contract for
17 CO2.

18 THE WITNESS: That's correct.

19 MR. WORNELL: That's coming from?

20 THE WITNESS: Coming from Kinder Morgan
21 roughly 18 miles almost due north of the Rock Queen
22 Unit.

23 MR. WORNELL: Then the water that's
24 associated with that injection, where is that coming
25 from?

1 THE WITNESS: It will be produced water
2 from the field. Where makeup water is required we
3 will use fresh water.

4 MR. WORNELL: So the makeup water will be
5 fresh Ogallala water?

6 THE WITNESS: Correct.

7 MR. WORNELL: No further questions.

8 MR. BRUCE: One question. You are
9 currently using fresh water for injection?

10 THE WITNESS: Yes.

11 MR. BRUCE: That's all I have.

12 Mr. Examiner.

13 HEARING EXAMINER BROOKS: Very good. If
14 there's nothing further, then cases 14504 and 14505
15 will be taken under advisement. I believe you have
16 one more case, Mr. Bruce?

17 MR. BRUCE: If I didn't send in a
18 continuance, I should have.

19 HEARING EXAMINER BROOKS: You did on one,
20 and maybe I didn't pick this up. The one I have is
21 case No. 14528.

22 MR. BRUCE: If you could continue that for
23 four weeks, please.

24 HEARING EXAMINER BROOKS: That would be to
25 the 16th. Case 14528 is continued to November 16th.

1 I mean September 16th. Before we close the record,
2 I believe this is case 14526. That was
3 Mr. Kellahin's case. We want to substitute the
4 original for a copy of the publication that was
5 included in the exhibit package. With that, we will
6 stand adjourned.

7 (Note: The hearing was concluded at
8 10:45).

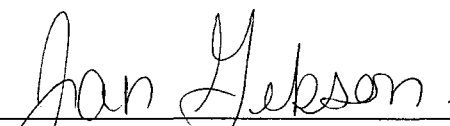
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16 I do hereby certify that the foregoing is
17 a complete record of the proceedings in
18 the Examiner hearing of Case No. 14504 & 14505
19 heard by me on 8-19-10
20 David K. Burkh
21 Oil Conservation Division
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REPORTER'S CERTIFICATE

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I, JAN GIBSON, Certified Court Reporter for the State of New Mexico, do hereby certify that I reported the foregoing proceedings in stenographic shorthand and that the foregoing pages are a true and correct transcript of those proceedings and was reduced to printed form under my direct supervision.

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



JAN GIBSON, CCR-RPR-CRR
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