

STATE OF OHIO
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS RESOURCES MANAGEMENT

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In re: :
The Matter of the :
Application of EOG :
Resources Inc., for : Application Date:
Unit Operation : June 24, 2025
:
ORYX NSH Unit :
:

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UNITIZATION APPLICATION HEARING

- - - - -

Before Hearing Host Jeff Large
All Parties Appearing Remotely
August 21, 2025, 2:30 p.m.

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A P P E A R A N C E S

ON BEHALF OF OHIO DEPARTMENT OF NATURAL RESOURCES:

Ohio Department of Natural Resources
2045 Morse Road, Building F-3
Columbus, OH 43229
By Jennifer Barrett, Esq.
(Via videoconference)

ON BEHALF OF EOG RESOURCES INC.:

Porter Wright Morris & Arthur LLP
41 South High Street, 29th Floor
Columbus, OH 43215
By Christopher J. Baronzzi, Esq.
Bob Karl, Esq.
(Via teleconference)

ALSO PRESENT:

Cory Cosby (Via videoconference)
Cynthia Marshall (Via videoconference)
Daniel Corcoran, Esq. (Via videoconference)
Ron Elkin (Via videoconference)
David Howe (Via videoconference)
Matt Schaefer (Via videoconference)
Lindsay Hall-Wiist (Via videoconference)
Ryan Steele (Via videoconference)
Vafa Barissi (Via videoconference)
Mark Merrow (Via videoconference)
Katy Caudle (Via videoconference)
Matt Buckles (Via videoconference)

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2 P R O C E E D I N G S

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4 MR. LARGE: All right. Good afternoon,
5 everyone. Before we begin, I would like to go
6 over some instructions for this video and
7 telephone conference.

8 If you have joined online, please mute
9 your microphone. If you have called in via phone,
10 please use the "mute" feature of your phone. Once
11 the hearing begins, everyone will be muted except
12 for those presenting. If you have called in, you
13 can unmute yourself by pressing "star 6."

14 Witnesses for the Applicant and anyone
15 wishing to make comments, please wait to be
16 individually called upon by your attorney or by
17 the Division before speaking. Please mute your
18 microphone anytime you are not speaking and when
19 you have finished presenting to avoid any
20 feedback.

21 I am now asking anyone who would like
22 to make comments, please state your name slowly
23 and clearly for the Division. Please identify
24 whether you are an unleased mineral owner, working

1 interest owner, or an owner with property in the
2 ORYX NSH unit. I would also like this information
3 from anyone who represents any of these persons.
4 We will make note of your name and call upon you
5 when it is time for comments.

6 So if you have joined us via WebEx,
7 please unmute yourself now and tell us your name
8 if you would like to make any comments.

9 MR. CORCORAN: Good afternoon, this is
10 Dan Corcoran. I represent Lucky Land Management.
11 Lucky Land is the surface owner of the property
12 where the well pad is proposed for the ORYX unit.
13 And I would like to make comments.

14 MR. LARGE: Okay. I've got your name
15 written down.

16 Anyone else that would like to make
17 comments?

18 Okay. If you have joined us via phone
19 today, please unmute yourself by pressing "star 6"
20 and state your name if you would like to make any
21 comments.

22 Okay. Hearing none.

23 So with that, we will begin the
24 proceedings.

1 Ms. Barrett.

2 MS. BARRETT: Thank you and good
3 afternoon. Today is Thursday, August 21st, 2025.
4 And we are here on the matter of the application
5 of EOG Resources Inc., for unit operation of the
6 ORYX NSH unit. This hearing before the Ohio
7 Department of Natural Resources, Division of Oil
8 and Gas Resources Management, is convened pursuant
9 to Ohio Revised Code Section 1509.28.

10 My name is Jennifer Barrett. And I am
11 an administrative officer for the Division. Also
12 with me today is Program Administrator Jeff Large.
13 we are conducting the hearing today and serve as
14 the Chief designees on this matter.

15 On June 24th, 2025, EOG filed with the
16 Division an application for unit operations for a
17 unit designated as the ORYX NSH unit. EOG filed
18 subsequent revisions to the application. The unit
19 is proposed to be located in Noble County, Ohio.
20 In its application, EOG claims to have the mineral
21 rights through voluntary agreements to
22 approximately 2,150.2629 acres of the desired
23 approximate 2,201.6473-acre unit.

24 The purpose of today's hearing is to

1 determine whether EOG's ORYX NSH unit application
2 meets all the requirements of Revised Code Section
3 1509.28. Under that section, the Chief of the
4 Division must issue an order if he determines that
5 the Applicant has shown that, one, the unit is
6 reasonably necessary to increase substantially the
7 ultimate recovery of oil and gas; and two, the
8 estimated additional recovery from the unit
9 exceeds the additional cost.

10 Neither the Chief nor any of us here
11 today have made any decisions on EOG's
12 application. After today's hearing, we will
13 review all of the information provided to us in
14 order to make a determination. We have a court
15 reporter present as well, and we will have a copy
16 of the transcript of this hearing for review.

17 The Chief's decision will be issued
18 through a Chief's Order, which will be posted on
19 the Division's website. Pursuant to Revised Code
20 Section 1509.36, any order may be appealed within
21 30 days after the date upon which the person to
22 whom the order was issued received the order and
23 for all other persons adversely affected by the
24 order within 30 days after the date of the order

1 complained of.

2 The hearing will proceed as follows:
3 EOG will present its witnesses and exhibits and
4 will answer questions posed by the Division staff.
5 Then any unleased mineral owners, working interest
6 owners, and those persons with property included
7 in the proposed ORYX NSH unit will have the
8 opportunity to present questions and concerns to
9 the Division staff. And then the Division staff
10 may take a break to determine if there are any
11 additional questions for the Applicant.

12 To proceed in an orderly fashion, we
13 ask that any interested party who speaks here
14 today pose any questions to the Division and we
15 will then ask any questions to EOG. Additionally,
16 anyone speaking today will be asked to provide
17 their information to the court reporter. If you
18 are uncomfortable speaking during the hearing, we
19 will also accept written comments.

20 For purposes of the record, the
21 Division received comments from Daniel Corcoran on
22 behalf of Lucky Land Management, LLC. These
23 comments have been included as part of the record
24 for the ORYX NSH unit application.

1 Additionally, Daniel Corcoran, on
2 behalf of Lucky Land Management, LLC, has
3 indicated that he wishes to make comments. And
4 those comments can be made at the end of the
5 hearing.

6 We will now ask the Applicant to make
7 its introductions and begin its presentation.

8 MR. BARONZZI: Thank you and good
9 afternoon. My name is Chris Baronzzi. I'm an
10 attorney with Porter Wright Morris & Arthur. My
11 colleague Bob Karl and I are here on behalf of our
12 client, EOG Resources, Inc., the Applicant.

13 EOG is asking the Division to grant an
14 order for unit operations of the ORYX NSH unit.
15 That unit is located in Brookfield, Olive, Noble
16 and Sharon Townships of Noble County, Ohio. For
17 convenience, EOG's witnesses and I may refer to
18 this unit as the "ORYX" unit.

19 As you will hear from EOG's witnesses,
20 and as of the date of the pre-hearing supplement,
21 EOG has a right to drill and produce oil and gas
22 from more than 97 percent of the acreage in the
23 proposed ORYX unit, which exceeds the 65 percent
24 threshold set by Ohio Revised Code Section

1 1509.28.

2 As can be seen from the color-coded
3 map, which is on the screen, and as EOG's
4 witnesses will explain, the proposed ORYX unit
5 consists of 127 tracts, totaling approximately
6 2,202 acres. The ORYX unit will contain four
7 unconventional wells that each extend horizontally
8 through the unit for approximately 16,360 feet.

9 The wells, known as the 2C and 4C
10 wells, will be drilled from the pad that will be
11 constructed near the middle of the proposed unit.
12 And they will extend through the unit toward the
13 northwest. The wells, known as the 1D and 3D
14 wells, will be drilled from that same pad and
15 extend through the unit towards the southeast.

16 EOG seeks an order for unit operations
17 from the Division because there are two tracts of
18 land in the proposed unit that are at least
19 partially unleased and three tracts that are
20 leased but have not been committed to unit
21 operations by the working interest owners of those
22 leases.

23 In support of its application, EOG will
24 call three witnesses: David Cox, geologic

1 specialist; Dax Taylor, land specialist; and John
2 Dwyer, reservoir engineering specialist, who will
3 each testify that the application meets the
4 requirements for granting an order for unit
5 operations under Ohio Revised Code Section
6 1509.28.

7 EOG now asks for permission to call its
8 first witness, David Cox.

9 MR. LARGE: And can we please swear in
10 the witness.

11 - - - - -

12 DAVID COX

13 being first duly sworn, testifies and says as
14 follows:

15 DIRECT EXAMINATION

16 BY MR. BARONZZI:

17 Q. Good afternoon, Mr. Cox.

18 A. Good afternoon.

19 Q. Please state your name and place of
20 employment for the record.

21 A. David Cox at EOG Resources.

22 Q. What is your position as EOG?

23 A. I'm a geological specialist.

24 Q. Would you please describe to the

1 Division your educational background before
2 becoming a geological specialist at EOG, including
3 any degrees that you hold?

4 A. Yeah. In 2005, I graduated from the
5 University of Calgary with a Bachelor of Science
6 degree in geology.

7 Q. After you receive that bachelor's
8 degree from the University of Calgary, did you
9 begin working as a geologist?

10 A. Yes. Immediately upon graduating.

11 Q. Can also describe your professional
12 experience and work history for the Division.

13 A. Okay. From 2005 to 2007, I worked for
14 Petrel Robertson Consulting, helping out with
15 regional mapping projects. And from 2007 to 2012,
16 I worked for Husky Energy, where I worked in the
17 Western Canadian Sedimentary Basin. And from 2012
18 to 2015, I worked for EOG Resources in the
19 Canadian Division, where I focused on exploration
20 with some development drilling in various
21 formations. Then from 2015 to 2022, I worked for
22 EOG Resources in the Denver Division, working
23 primarily in the Powder River and DJ Basins in
24 both exploration and development roles.

1 Finally, from October of 2022 until
2 now, I worked for the Oklahoma Division, initially
3 developing our Woodford assets in the Anadarko
4 Basin and now focusing on the Utica Play in the
5 Appalachian Basin.

6 Q. Are you a member of any professional
7 associations?

8 A. Yes. I'm a member of the American
9 Association of Petroleum Geologists.

10 Q. Please describe your work as a geologic
11 specialist for EOG?

12 A. I'm one of the geologists responsible
13 for the geological information necessary to
14 develop permits and drilling plans for the
15 development and drilling of Utica-Point Pleasant
16 assets owned or operated by EOG.

17 So to accomplish this, my daily
18 activities include geologic mapping, well log
19 analysis, geologic risk assessment using seismic
20 data, acreage evaluations, well prognosis
21 generation, and horizontal well planning. I also
22 coordinate with our geosteering team to keep our
23 wells within the intended geologic target.

24 Q. Mr. Cox, are you familiar with the

1 application for unitization of the ORYX unit,
2 including the geology exhibits that appear in that
3 application?

4 A. Yes, I am.

5 Q. Did you hear my summary and
6 introduction of the ORYX unit a few moments ago?

7 A. Yes.

8 Q. Was my description consistent with your
9 understanding of the ORYX unit and your geologic
10 analysis that supports the application for
11 unitization?

12 A. Yes, it was.

13 Q. Please describe what the term "unitized
14 formation" means with respect to the ORYX unit.

15 A. 50 feet above the top of the Utica
16 Shale to 50 feet below the top of the Trenton
17 Limestone formation.

18 Q. Did you do any analysis to determine if
19 the unitized formation is a pool or a part of a
20 pool, as required for unitization under Ohio law?

21 A. Yes.

22 Q. Are you aware that the word "pool" has
23 a specific meaning for purposes of EOG's
24 application under Ohio law?

1 A. Yes.

2 Q. Under Ohio law, what does it mean to
3 say that a unitized formation is a pool or a part
4 of a pool?

5 A. A pool is an underground reservoir
6 containing a common accumulation of oil or gas, or
7 both, but does not include a gas storage
8 reservoir. Each zone of a geological structure
9 that's completely separated from any other zone in
10 the same structure may contain a separate pool.

11 Q. Is that definition used for purposes of
12 the geologic analysis and the ORYX unit and
13 application?

14 A. Yes, it was.

15 Q. What information did you analyze to
16 determine whether the unitized formation was a
17 pool or a part of a pool?

18 A. I looked at available core reports, mud
19 logs, electrical log data, including nearby
20 vertical wells.

21 Q. If I can direct your attention to
22 Exhibit F from the application, it's the map
23 that's on the screen now. Can you please describe
24 what this map shows and why it is relevant to your

1 geologic analysis?

2 MR. COX: Yes. The map shows the ORYX
3 unit as a red-outlined shape in the middle of the
4 map, with two vertical wells shown as red squares.
5 Those vertical wells were used to describe the
6 portion of the Utica-Point Pleasant pool within
7 the ORYX unit.

8 Q. If I can now direct your attention to
9 Exhibit E from the application, which is on the
10 screen. Can you please explain what this exhibit
11 is and how it relates to geologic analysis?

12 A. Yeah. This is a cross-section of the
13 vertical wells identified on the previous map.
14 Artex Oil's Reed Owen G2 is on the left, and EOG's
15 Frec Nobl Olive A-1 well is on the right. In the
16 middle is a proposed ORYX NSH unit, with the
17 expected depths of the relevant formations.

18 Geologic mapping shows that the ORYX
19 unit underlies entirely within the Point Pleasant
20 pool and is of the same approximate thickness and
21 reservoir quality throughout the unit area, as
22 shown by the wells in the cross-section.

23 This hydrocarbon accumulation extends
24 in all directions from the proposed unit, and the

1 rock properties, such as lithology, porosity, and
2 fluid type, are very similar throughout the entire
3 unit and constitute a common source of supply.

4 This is shown by the gamma ray, resistivity, and
5 porosity logs on the cross-section. All of the
6 logs shown have very similar characters.

7 Q. Can you explain how gamma ray works and
8 why it's relevant to your geologic analysis?

9 A. Yeah. The gamma-ray log records the
10 amount of natural gamma radiation emitted by the
11 rocks surrounding the borehole. The gamma-ray log
12 is used to help correlate different formations and
13 derive lithologies, for example, sandstone, shale,
14 and carbonates.

15 Q. And how is gamma ray or the gamma-ray
16 log reflected on the slide on the screen?

17 A. The gamma-ray log is a green curve for
18 all three wells. And as you can see, they are
19 almost a perfect overlay of each other.

20 Q. What do these gamma-ray well logs tell
21 us about the ORYX unit if anything?

22 A. Based on the data from these wells, I
23 would expect the gamma-ray signature of the
24 Utica-Point Pleasant formation in the ORYX unit to

1 be consistent with the two vertical well logs.

2 Q. I also have heard you mention
3 "resistivity." Can you explain how resistivity
4 works and why it is relevant to your geologic
5 analysis?

6 A. Yeah. The resistivity log measures the
7 electrical resistivity of the formation in
8 ohm-meters. It is used to determine the formation
9 fluid type: water or hydrocarbons. So
10 water-bearing formations typically have low
11 resistivity, while hydrocarbon-bearing formations
12 typically have high resistivity.

13 Q. And how is resistivity reflected on the
14 slide?

15 A. The resistivity log is the red curve
16 for both vertical wells and they have similar
17 characteristics from well to well. This indicates
18 that there is uniform hydrocarbon saturation
19 across the ORYX unit.

20 Q. And last, I heard you mention
21 "porosity." Can you explain porosity and why it
22 is relevant to your geologic analysis?

23 A. Yeah. The porosity of a rock is a
24 measure of storage space or empty space within the

1 rock. It is one of the logs used to estimate the
2 volume of hydrocarbons stored in a formation.

3 Neutron porosity is a measure of the amount of
4 hydrogen atoms present in the reservoir fluid and
5 helps identify the fluid type.

6 Q. How was porosity reflected on the
7 slide?

8 A. Density porosity is a black curve, and
9 neutron porosity is the blue curve on the
10 cross-sections for both vertical wells.

11 As you can see, both the density and
12 neutron porosity values are very similar in both
13 vertical wells, which indicates a uniform amount
14 of storage across the ORYX unit.

15 Q. Mr. Cox, did you use the data and
16 analysis you just described to form a professional
17 opinion about whether the unitized formation
18 described in the application for unitization of
19 the ORYX unit is a pool or a part of a pool?

20 A. Yes.

21 Q. What is your professional opinion in
22 that regard?

23 A. That the unitized formation is part of
24 a pool.

1 Q. Is there a uniform thickness across the
2 unitized formation in the ORYX unit?

3 A. Yes, it is.

4 Q. What is the thickness of the
5 Utica-Point Pleasant interval within the ORYX
6 unit?

7 A. It is 280 feet thick based on the data
8 from the identified vertical wells.

9 Q. I see on the slide on the screen, there
10 is a little green box that says "Hz Target Zn";
11 What is that?

12 A. That is where we will drill the
13 horizontal well.

14 Q. What is the height of that target zone
15 where you will drill the horizontal well?

16 A. It's 50 feet.

17 Q. Given your opinion that the unitized
18 formation is a part of a pool and has uniform
19 thickness across the unit, in your professional
20 opinion, would it be appropriate to allocate unit
21 expenses and payments of the proceeds of oil and
22 gas production from the ORYX unit on a surface
23 acreage basis?

24 A. Yes, it would.

1 Q. And in your experience, is it common to
2 allocate payments on a surface acreage basis for
3 horizontal development in the Utica-Point Pleasant
4 Shale?

5 A. Yes.

6 Q. Thank you, Mr. Cox.

7 MR. BARONZZI: Those are my only
8 questions. I'm sure the Division will have a few
9 extra questions for you.

10 THE WITNESS: Okay.

11 MR. LARGE: Hi. Could you tell me what
12 the anticipated true vertical depth of the
13 horizontal portion of this wellbore would be?

14 THE WITNESS: Yeah, sure. It will be
15 7,060 feet.

16 MR. LARGE: And could you tell me the
17 anticipated true vertical depth of the top of the
18 Utica, the Point Pleasant, and the Trenton
19 formations?

20 THE WITNESS: Yeah. The top of the
21 Utica will be at 6,840 feet; top of the Point
22 Pleasant will be at 7,025 feet; and the top of the
23 Trenton Limestone will be at 7,128 feet.

24 MR. LARGE: And do you expect any

1 production from outside the Point Pleasant?

2 THE WITNESS: Maybe a small amount out
3 of the base of the Utica, where the porosity is a
4 little bit higher.

5 MR. LARGE: Okay.

6 Ms. Barrett, do you have any questions?

7 MS. BARRETT: No, I do not. Thank you.

8 MR. LARGE: Thank you.

9 Mr. Baronzzi, if you would like to call
10 your next witness.

11 MR. BARONZZI: Thank you.

12 EOG calls Dax Taylor.

13 MR. LARGE: And can we please swear in
14 the witness.

15 - - - - -

16 DAX TAYLOR

17 being first duly sworn, testifies and says as
18 follows:

19 DIRECT EXAMINATION

20 BY MR. BARONZZI:

21 Q. Good afternoon, Mr. Taylor. Please
22 state your name and place of employment for the
23 record.

24 A. My name is Dax Taylor. And I work for

1 EOG Resources Inc.

2 Q. What is your position at EOG?

3 A. I am a land specialist.

4 Q. Can you describe for the panel your
5 educational background?

6 A. Yes. I have a BBA in energy commerce
7 from Texas Tech University and an MBA from the
8 University of Oklahoma.

9 Q. Can you please describe your
10 professional experience in the oil and gas
11 industry?

12 A. Yes. I started my career with Encana
13 Oil and Gas. I spent two years there, working on
14 Texas, Louisiana, and Mississippi asset teams
15 before I started at EOG Resources, where I've been
16 working for 11 years on Texas, Oklahoma, and Ohio
17 asset teams, working on our Utica-Point Pleasant
18 asset for the last four years.

19 Q. Are you a member of any professional
20 associations?

21 A. Yes. I'm a member of the American
22 Association of Professional Landmen.

23 Q. Are there continuing education
24 requirements to maintain that membership?

1 A. Yes. To maintain my registered
2 professional landman designation, I am required to
3 obtain 25 continuing education credits for every
4 five-year period.

5 Q. Will you please describe your work and
6 responsibilities as a land specialist with EOG?

7 A. Yes. As a land specialist, I help
8 facilitate the development of EOG's Utica Shale
9 asset and manage all aspects of landwork,
10 including but not limited to lease acquisitions,
11 title review, organic leasing, trade agreements,
12 and development planning, among other things.

13 Q. Did you assist with preparing the
14 application for unitization of the ORYX NSH unit?

15 A. Yes.

16 Q. Did you hear my introduction of the
17 ORYX unit and application at the beginning of this
18 hearing?

19 A. Yes.

20 Q. Was it an accurate description of the
21 ORYX unit application for unitization?

22 A. Yes.

23 Q. If I can now direct your attention to
24 Exhibit D from the application for unitization,

1 the color-coded map. Is this a depiction of the
2 proposed ORYX unit?

3 A. Yes.

4 Q. What would be the size of the ORYX unit
5 if it is drilled under a unit order as planned?

6 A. It will be 2,201.6473 acres.

7 Q. Where is it located?

8 A. Within Brookfield, Noble, Olive and
9 Sharon Townships of Noble County, Ohio.

10 Q. Can you describe what other information
11 is depicted on this map?

12 A. This is an overview map that shows all
13 127 tracts that are included within the ORYX unit.
14 Each of those tracts is identified with a unit
15 track number, tax parcel number, and track
16 acreage, and more detailed maps and tables are in
17 the application.

18 All of the tracts in the unit are also
19 categorized on this map by their status within the
20 unit. Yellow tracts are leased and consenting.
21 Green tracts are non-consenting. Crosshatched
22 yellow-and-red tracts are partially leased and
23 consenting and partially unleased. And red tracts
24 are unleased. The black dotted line illustrates

1 the 400-foot setback from unleased or
2 non-consenting tracts, as required by law. And
3 the blue dashed line identifies the location where
4 this overview map is divided into submaps, for
5 purposes of showing greater detail in the
6 application. Last, the blue dot shows the
7 approximate planned surface location.

8 And of course, the map shows the four
9 wells that EOG plans to drill and produce from the
10 Utica-Point Pleasant pool.

11 Q. What is the status of construction of
12 the well pad?

13 A. The pad has not yet been constructed.

14 Q. What is the expected length of the
15 lateral portion of the ORYX wells if an order for
16 unit operations is granted?

17 A. The lateral length is planned to be
18 16,360 feet long under an order for unit
19 operations.

20 Q. What is the spacing at the toes of the
21 units?

22 A. 150 feet between the end of each
23 lateral to the boundary of the unit.

24 Q. What is the spacing between laterals

1 inside the unit, and also from the last lateral on
2 each side to the boundary of the unit on that
3 side?

4 A. The internal spacing between the
5 laterals will be approximately 1,450 feet. And
6 the spacing from the lateral to each side of
7 the -- on each side to the boundary of the unit
8 will be 725 feet.

9 Q. What is your expected development
10 timeline for the unit?

11 A. We plan to drill and complete the wells
12 within the time frame specified in the Chief's
13 Order, if in orders issued.

14 Q. What percentage of the unit is
15 committed to unit operations?

16 A. Approximately 97.666091 percent of the
17 unit is committed to unit operations.

18 Q. Who are the committed working interest
19 owners in the unit?

20 A. Just EOG Resources.

21 Q. Are there uncommitted working interest
22 owners?

23 A. Yes.

24 Q. Who are the uncommitted working

1 interest owners?

2 A. Gulfport Appalachia, LLC; Ascent
3 Resources-Utica, LLC.

4 Q. What percentage of the ORYX unit is
5 leased but not committed to unit operations?

6 A. Approximately 1.757184 percent.

7 Q. I understand there are two unleased or
8 partially unleased tracts in the ORYX unit; is
9 that true?

10 A. Yes. Tracts 25 and 80 are unleased.

11 Q. What percentage of the unit is
12 comprised of unleased interests?

13 A. Approximately 0.576725 percent.

14 Q. Do you know how many acres in the unit
15 those unleased interests account for?

16 A. Approximately 12.6975 net acres.

17 Q. Will you please generally describe
18 EOG's efforts to lease the owners of the unleased
19 mineral interests and to commit the owners of the
20 non-consenting working interests?

21 A. Yes. Our efforts are detailed in our
22 leasing efforts affidavit and spreadsheet in the
23 application for unitization.

24 But generally speaking, we have

1 corresponded with the unleased mineral owners and
2 each non-consenting working interest owner and
3 requests that they lease their interest to EOG.
4 Or in the case of non-consenting working interest
5 owners, we have asked that they commit their
6 interests to unit operations. That correspondence
7 was done by phone, email, in-person meetings, and
8 we sometimes also send mailings.

9 Q. Will EOG continue its efforts to lease
10 the unleased mineral owners and commit the
11 uncommitted working interest owners even after
12 this hearing?

13 A. Yes, we will.

14 Q. Let's talk for a moment about the unit
15 plan that was included within the application for
16 unitization. Are you familiar with that unit
17 plan?

18 A. Yes.

19 Q. What is its purpose?

20 A. It's twofold: It helps define the
21 respective rights of the parties in the unit, and
22 it combines the oil and gas rights of all tracts
23 in the unit as if they were a single tract, for
24 purposes of management, production, and

1 development from the unitized formation within the
2 unit, which is part of a common pool.

3 Q. How will payments be allocated pursuant
4 to the unit plan?

5 A. On a surface acreage basis.

6 Q. What is the reason for that?

7 A. For the reasons discussed by our
8 geologists, mainly uniformity of the formation.

9 Q. Do you know if that is common in Ohio,
10 specifically for the Utica-Point Pleasant play?

11 A. Yes.

12 Q. Who pays unit expenses?

13 A. The participating working interest
14 owners.

15 Q. Do royalty owners pay unit expenses
16 under the terms of the unit plan?

17 A. No.

18 Q. Thank you, Mr. Taylor.

19 MR. BARONZZI: Those are my only
20 questions. I'm sure the Division will have some
21 additional questions for you.

22 MR. LARGE: Thank you.

23 Ms. Barrett, do you have any questions?

24 MS. BARRETT: Yes, I do.

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CROSS-EXAMINATION

BY MS. BARRETT:

Q. What is the current average outstanding offer to the unleased mineral owners in the proposed unit?

A. The current average outstanding offer is \$3,000 an acre and 18 percent royalty.

Q. That 18 percent based on a net or gross amount?

A. The offer would be at a net. But it's a negotiation between us and the owners.

Q. Do those offers include surface use?

A. Yes, they do.

Q. Will those offers expire?

A. They will not.

Q. What is the average offer that was accepted by the leased mineral owners in the proposed unit?

A. Our average accepted offer is \$2,226.27 per acre and 18.36 percent royalty.

Q. Can you explain the difference between the current outstanding offer and the average

1 offer that was accepted?

2 A. Yeah. The difference is when the
3 current leases were negotiated and accepted. The
4 time frame on that versus the current outstanding
5 situation, with higher competition and being
6 closer to our operations date.

7 Q. Do you believe your lease attempts have
8 been reasonable?

9 A. I do.

10 Q. And can you explain why?

11 A. Due to the success that we have had
12 within the unit, we've taken several leases within
13 this. And then also our success in the
14 surrounding area over the course of the last few
15 years.

16 Q. Will you continue attempts to lease the
17 unleased mineral owners even after a unitization
18 order is issued, if one is issued?

19 A. Yes, we will.

20 Q. Do you believe your attempts to commit
21 the non-consenting working interest owners have
22 been reasonable?

23 A. Yes, I do.

24 Q. Can you explain why?

1 A. We have made contact with those owners
2 over a reasonable amount of time and conversed
3 with them on what they want to do with their
4 interests, which they have not committed one way
5 or another to date.

6 Q. Will you continue your attempts to
7 commit those non-consenting working interest
8 owners after today's hearing?

9 A. Yes, we will.

10 Q. Do the leases in the unit authorize
11 drilling into and producing from the proposed
12 unitized formations?

13 A. Yes, they do.

14 Q. To establish bonus and royalty amounts
15 in leases, how are those generally determined?

16 A. They are typically determined by the
17 current market dynamics, meaning what the
18 commodity price is at the time, what the
19 competition level is like. And we also ask our
20 reservoir engineers to give us an analysis.

21 Q. Do you believe the non-consent penalty
22 included in your JOA is reasonable?

23 A. Yes, I do.

24 Q. Can you explain why?

1 A. It is the typical non-consent penalty
2 that has been used for many years within these
3 unit orders.

4 Q. Okay. Thank you.

5 MS. BARRETT: No further questions for
6 me.

7 THE WITNESS: Thank you.

8 MR. LARGE: Thank you.

9 Please call your next witness.

10 MR. BARONZZI: EOG calls John Dwyer.

11 MR. LARGE: And can we please swear in
12 the witness.

13 - - - - -

14 JOSEPH DWYER

15 being first duly sworn, testifies and says as
16 follows:

17 DIRECT EXAMINATION

18 BY MR. BARONZZI:

19 Q. Good afternoon, Mr. Dwyer.

20 A. Good afternoon.

21 Q. Please state your name and place of
22 employment.

23 A. My name is John Dwyer. I work at EOG
24 Resources.

1 Q. What is your position at EOG?

2 A. I'm a reservoir engineering specialist.

3 Q. Can you please describe for the
4 Division your educational background before you
5 became a reservoir engineering specialist at EOG,
6 including any degrees you hold?

7 A. Sure. I hold a chemical engineering
8 degree from Purdue University and a Master of
9 Business Administration from the University of
10 Michigan.

11 Q. Please tell the Division about your
12 professional and work experience since receiving
13 your engineering degree from Purdue University.

14 A. I have worked in the industry for over
15 12 years now. In chronological order, I have
16 worked at Halliburton, Whiting Petroleum, Devon
17 Energy, and EOG Resources.

18 My background includes extensive
19 operations and technical experience in fracturing,
20 well intervention, asset development, and
21 reservoir simulation. My experience spans the
22 Williston, Anadarko, Delaware, and Utica Basins.

23 Q. Are you a member of any professional
24 associations?

1 A. I am. The Society of Petroleum
2 Engineers.

3 Q. Can you please describe your
4 responsibilities and work as a reservoir
5 engineering specialist for EOG?

6 A. My primary job responsibilities are to
7 forecast future production for both producing and
8 undeveloped wells. I use these forecasts to
9 estimate the reserves, recoveries, and economics
10 for various development scenarios. Using this
11 information, my team members and I recommend how
12 EOG should develop its assets to maximize value
13 and resource recovery.

14 Q. Are you familiar with the application
15 for unitization of the ORYX NSH unit?

16 A. Yes.

17 Q. Did you hear my summary and
18 introduction of the ORYX unit, as well as the
19 testimony of Mr. Cox and Mr. Taylor this
20 afternoon?

21 A. Yes.

22 Q. Was my description and the prior
23 testimony consistent with your understanding of
24 the ORYX unit at the time you estimated the

1 economics and production volumes for the ORYX unit
2 as set forth in the application?

3 A. Yes.

4 Q. I understand you have analyzed
5 potential recovery of oil and gas in the ORYX unit
6 and the associated economics of the unit under two
7 scenarios. First is if the ORYX unit was drilled
8 without an order for unit operations. Secondly,
9 if it was drilled with the benefit of an order for
10 unit operations from the Division; is that right?

11 A. Yes. That's correct.

12 Q. All right. Let's talk first about
13 exactly what the well configurations would be in
14 each of those scenarios so that we can understand
15 your economic engineering analysis, and we will
16 discuss them later. I will start by directing
17 your attention to Exhibit D from the application,
18 which is the color-coded map on the screen now.
19 Are you familiar with this map?

20 A. Yes, I am.

21 Q. Does this map accurately depict the
22 configuration of the wells and unit as the basis
23 of your engineering and economic analysis?

24 A. Yes, it does.

1 Q. Tell the Division, if EOG is granted an
2 order for unit operations, what will be the extent
3 and configuration of the wells in the ORYX unit?

4 A. The ORYX unit is planned as a four-well
5 unit. The lateral length of each well will be
6 16,360 feet in length. And it will have a central
7 pad with two wells extending southeast and two
8 extending northwest. The wells will have an
9 internal well spacing of approximately 1,450 feet.
10 They will be set back from the eastern and western
11 unit boundaries by 725 feet and set back 150 feet
12 from the northern and southern unit boundaries.

13 Q. Will EOG produce from the whole length
14 of each lateral, if unitized?

15 A. Yes.

16 Q. Will the entire unit be developed and
17 produced under an order for unit operations as
18 planned?

19 A. Yes.

20 Q. And as planned under an order for unit
21 operations, do you expect any production outside
22 the ORYX unit?

23 A. No.

24 Q. If EOG does not receive an order

1 authorizing unit operations, what would be the
2 configuration and extent of the wells in that
3 scenario?

4 A. If EOG attempted to develop the unit
5 without an order for unit operations, three of the
6 four wells would be shorter. And in two cases,
7 much shorter, due to the location of
8 non-consenting or unleased tracts within the unit.
9 While the 4C well would not be affected, the 2C
10 well could only be drilled to a total of 9,748
11 lateral feet; the 1D would be limited to 15,234
12 feet; and the 3D would be limited to 7,620 feet.

13 Q. From an economic perspective, would EOG
14 actually drill any of these wells in the proposed
15 ORYX unit without the unitization order from the
16 Division?

17 A. No. Not this time.

18 Q. Let's talk about economics and
19 production in both the unitized and non-unitized
20 scenarios as you have analyzed them. And for
21 that, I want to direct your attention to the
22 economics tables.

23 Are these the economics tables on the
24 screen that were included in the pre-hearing

1 supplemental application for unitization of the
2 ORYX unit that you just mentioned?

3 A. Yes, they were.

4 Q. Tell the Division what these tables
5 show, generally speaking.

6 A. Sure. So the first table above is the
7 unitized scenario, the middle table is the
8 non-unitized scenario, and the final table is the
9 difference between the two.

10 Q. Do these tables show the difference in
11 lateral length between the unitized and
12 non-unitized scenario that you testified about
13 previously?

14 A. Yes. If you look at the bottom table,
15 which is the difference table, the second column
16 has the difference in lateral length.

17 Q. When making your calculations, what did
18 you look at to estimate potential productions in
19 the ORYX unit?

20 A. Production from and configuration of
21 nearby wells.

22 Q. If I can now direct your attention to a
23 map on the screen titled "Analogue Well Map."

24 Does this map show the wells used in your analysis

1 for purposes of estimating production and
2 economics from the ORYX unit?

3 A. Yes, it does.

4 Q. Can you explain what all is shown on
5 this map?

6 A. Sure. These are analogue wells that
7 were used to estimate the performance of the ORYX
8 developments. The wells shown with green lines
9 are wells that are either drilled, being drilled,
10 permitted, or unitized but not yet producing. The
11 wells shown with black lines are currently
12 producing. And the wells shown with black lines
13 and a numbered label are analogue wells that we
14 use for the purpose of estimating production from
15 the ORYX wells.

16 Q. Can you explain why you selected these
17 wells with the number labels on them for purposes
18 of estimating production economics from the ORYX
19 wells?

20 A. Yeah. We use these wells due to their
21 similar geological characteristics and proximity
22 to the proposed ORYX unit.

23 Q. Directing your attention now to the
24 analogue well table that's on the screen. Does

1 the information on this table relate to the
2 numbered analogue wells we were just discussing
3 from the analogue well map?

4 A. Yes, it does.

5 Q. What information does this table
6 provide and why is it relevant to your engineering
7 analysis?

8 A. This table provides specific well
9 details that correspond with wells labeled in the
10 analogue well map. This information is relevant
11 because it shows we considered the producing time
12 of the wells in proximity to the proposed ORYX
13 unit.

14 Q. I see the last column there is
15 identified as "SHL to SHL." Is that an
16 abbreviation for surface hole location to surface
17 hole location?

18 A. That is correct. It is the surface
19 hole location of the existing wells, to our best
20 guess or best estimates of the surface hole
21 location of the wells we are proposing.

22 Q. Now, I don't see anywhere on this
23 analogue well table that it shows production data
24 from the analogue wells. But did you have access

1 to production data from each of the analogue
2 wells?

3 A. Yes, we did.

4 Q. And did you consider the production
5 data from each of those analogue wells in
6 estimating the production and economics for the
7 ORYX wells?

8 A. Yes.

9 Q. Mr. Dwyer, are there any other
10 horizontal wells drilled into the Utica Point
11 Pleasant pool within the same townships as the
12 ORYX unit wells?

13 A. Yes.

14 Q. Do we have an understanding as we talk
15 about adjacent wells, that when we use the term
16 "adjacent wells," what we mean are wells that are
17 in the same townships as the ORYX wells and
18 drilled into the same unitized formation?

19 A. Yes.

20 Q. Okay. Now directing your attention to
21 the adjacent well map on the screen. Does this
22 map show all adjacent wells and units?

23 A. Yes.

24 Q. Can you just walk us through

1 specifically what this map shows?

2 A. Sure. it shows the ORYX units in the
3 blue-shaded rectangle. The blue lines in the blue
4 shaded rectangle are the four proposed ORYX wells
5 themselves. The light-green-shaded boxes are
6 other horizontal drilling units in the area. And
7 the green lines are wells that are either drilled,
8 being drilled, permitted, or unitized, but not yet
9 produced.

10 Q. I also see there are some of these
11 light-green boxes with black lines; what are
12 those?

13 A. Yes. The black lines represent wells
14 that are producing.

15 Q. And finally I see, there are number
16 labels on the wells. Why are some of them
17 numbered?

18 A. Sure. The numbered labels are the --
19 those are the identified adjacent wells on the
20 map.

21 Q. Are all these wells also identified on
22 a table?

23 A. Yes.

24 Q. We can turn now to the adjacent well

1 table, which is on screen. Is that the table you
2 are just referring to?

3 A. Yes. That identifies the wells by name
4 and API number.

5 Q. Did you count all of these adjacent
6 units and adjacent wells in your analysis of the
7 economics and potential production from the ORYX
8 unit and wells in the application for unitization?

9 A. Yes.

10 Q. I am going to turn back now to the
11 economics tables. You have already discussed the
12 "Lateral Length" column, which is the second
13 column from the left. I want to continue to work
14 left to right from that "Lateral Length" column.
15 And the next column is "Measured Depth." Can you
16 describe, what is measured depth and how does it
17 differ from lateral length?

18 A. Sure. The measured depth includes the
19 vertical and lateral sections of the wells.

20 Q. Now, when these wells are actually
21 drilled, do you expect to have any changes to this
22 estimated measured depth number that is included
23 in the economics table?

24 A. Yes. We would actually expect there to

1 be a slight increase in the total measured depth
2 that is calculated once we survey and drill the
3 well path. But we do not expect that to
4 materially change the production or economics
5 presented today.

6 Estimates of capital costs,
7 performance, and economics are driven by the
8 lateral length assumptions as opposed to the
9 measured depth assumptions. This is because
10 costs, performance, and economics are estimated
11 using a data set that accounts for these
12 variabilities.

13 Q. So you are saying that even if the
14 as-drilled measured depth might vary from what is
15 shown on this table, the economics and potential
16 production are not expected to change?

17 A. That is correct.

18 Q. Can you explain -- continuing our
19 discussion on these columns, next is "Operating
20 Costs." Can you explain what operating costs are
21 and give some examples of operating costs?

22 A. Yeah, for sure. So lease operating
23 costs are costs incurred from the day-to-day
24 operations that occur once the well begins

1 producing. These include variable oil, gas
2 processing and transportation, water
3 transportation, and a fixed monthly cost in
4 dollars per well per month.

5 Q. And you have a table that shows those
6 operating costs?

7 A. Yes, I do.

8 Q. And that table is on the screen now?

9 A. It is.

10 Q. Why don't you just walk us through the
11 specifics of what this table shows?

12 A. Sure. So starting at the top of the
13 table, you can see that variable oil is estimated
14 to be \$0.30 per barrel. Variable gas is estimated
15 to be \$0.14 per MCF. Variable water is estimated
16 to be \$3.75 per barrel. And fixed operating costs
17 are estimated to be \$7,184 per month.

18 Q. Now, while we are looking at the slide,
19 the second table there, the table on the bottom
20 labeled June-2025 strip price; what is that?

21 A. That is the NYMEX strip price that was
22 effective at the time that this calculation was
23 performed in mid June.

24 Q. Let's turn back now to the economics

1 tables and continue our discussion. The columns
2 working left to right, where we left off was on
3 our discussion of operating costs. The next
4 column to the right is "Capital Costs." Can you
5 just describe what capital costs are?

6 A. Sure. Capital costs are any costs
7 related with land, drilling, completions,
8 flowback, facilities, plug and abandonment, and
9 reclamation.

10 Q. Did I hear you mention the capital
11 costs do include the costs to plugging and
12 abandonment, and reclaim the wells and pad site?

13 A. Yes, they do.

14 Q. Do you know what those costs are
15 specifically?

16 A. Yes. \$77,000 for P&A and restoration
17 combined.

18 Q. P&A is plugging and abandonment?

19 A. That is correct.

20 Q. Do you know how those costs are
21 estimated?

22 A. The operations team makes an estimate
23 of the current service company rates, estimated
24 job duration, and the estimate of the quantity and

1 prices of materials to perform the plugging
2 abandon.

3 Q. Continuing our discussion from left to
4 right, the next column is "Discounted Value of
5 Estimated Recovery." Do you see that?

6 A. I do.

7 Q. What is that?

8 A. That's just the gross revenue,
9 exclusive of operating costs and capital.

10 Q. Next two columns are labeled "PV0" and
11 "PV10." What are those?

12 A. Present value. That PV stands for
13 present value. And present value is inclusive of
14 operating and capital costs that can be
15 represented at different discount rates to account
16 for the time value of money. PV0 is an
17 undiscounted value and PV10 is a 10 percent
18 discount rate applied.

19 Q. Are those present value numbers net of
20 reasonably expected capital costs and operating
21 expenses?

22 A. Yes, they are.

23 Q. Last I see a table -- excuse me. I see
24 a column labeled "Estimated Gross Recovery." What

1 is that?

2 A. That is the estimated volume of
3 recovered oil and gas in BCFe, which is billion
4 cubic feet equivalent.

5 Q. Is estimated gross recovery a financial
6 measure?

7 A. It is just an estimated volume of
8 production from the wells.

9 Q. And you mentioned BCFe is the metric
10 used to estimate that volume. What is BCFe?

11 A. Again that is billion cubic feet
12 equivalents. And that is used in a six-to-one
13 ratio of gas to oil.

14 Q. Now that we have a better understanding
15 of these columns, let's look at the top table more
16 specifically. That's the table that shows the
17 unitized scenario; is that right?

18 A. That's correct.

19 Q. Under that unit scenario, please tell
20 the Division what you estimate for production
21 volumes, revenue, expenses, costs, and the value
22 of production.

23 A. Sure. So we estimate that our
24 production volumes will be 42.04 BCFe; that the

1 revenue will be 191.52 million; operating expenses
2 will be 56.56 million; capital costs will be 36.64
3 million; PV0 will be 73.44 million; and PV10 will
4 be 49.68 million.

5 Q. Now, can you tell the Division how
6 those numbers change in the second table from the
7 top, being the non-unitized scenario?

8 A. Sure. All of those numbers will be
9 lower because of the limited development that
10 would be possible. And to be more precise, in the
11 non-unitized scenario our production volumes are
12 estimated to be 31.23 BCFe; the revenue would be
13 142.32 million; operating expenses would be
14 44.74 million, capital costs would be
15 30.12 million; PV0, 50.8 million; PV10 would be
16 34.12 million.

17 Q. Now, I will just close out our
18 discussion of the economics table; the differences
19 you just described in the first and second tables
20 are what is shown in that third table, correct?

21 A. That is correct.

22 Q. So if we compare the unitized and
23 non-unitized scenarios, in your professional
24 opinion, would the estimated ultimate recovery of

1 oil and gas increase substantially if the ORYX
2 unit could be drilled under an order for unit
3 operations as compared to drilling and production
4 in the non-unitized scenario?

5 A. Yes. I estimate that EOG will recover
6 an additional 10.81 BCFe of natural gas
7 equivalents with an order for unit operations as
8 compared to the non-unitized scenario.

9 Q. In your professional opinion is 10.81
10 BCFe of natural gas a substantial increase?

11 A. Definitely. To put it in financial
12 terms, as you can see from the bottom table, I
13 have estimated that 10.81 BCFe of natural gas is
14 worth a gross value of \$49 million, which in my
15 experience and opinion is substantial.

16 Q. Let's now focus for a minute on the
17 anticipated difference in value between the
18 unitized and non-unitized scenarios.

19 In your professional opinion, does the
20 value of the estimated additional recovery of oil
21 and gas with unit operations exceed the estimated
22 additional costs of those unit operations?

23 A. Yes. This is most easily demonstrated
24 by comparing the PV figures. Here, the unit would

1 make an additional 22.64 million on an
2 undiscounted net present value basis if unitized,
3 and 15.56 million, even on a 10 percent discount
4 to net present.

5 Q. So, Mr. Dwyer, if I understand your
6 testimony correctly, if unit operations are
7 allowed, the unit makes \$22.64 million more
8 revenue on an undiscounted present value basis
9 than if unit operations are not allowed; is that
10 right?

11 A. That is our estimate, yes.

12 Q. Thank you.

13 MR. BARONZZI: Those are my only
14 questions. The Division will have some more
15 questions for you.

16 MR. LARGE: Would you be able to tell
17 me what the estimated economic life of the well
18 would be in years?

19 THE WITNESS: Our estimate is 28 years.

20 MR. LARGE: And could you give me the
21 estimated payout for the wells at 1 times, 1.5
22 times, 2 times, and 3 times?

23 THE WITNESS: Sure. In order, it would
24 be 1.08, and then that is years, and then 1.58

1 years, and then 2.75 years, and then 25.08 years
2 is our estimate.

3 MR. LARGE: Okay. And how many wells
4 are going to be drilled from the pad?

5 THE WITNESS: Four.

6 MR. LARGE: Okay.

7 THE WITNESS: That is our best estimate
8 at this time.

9 MR. LARGE: Okay.

10 Ms. Barrett, do you have any questions?

11 MS. BARRETT: Yes, I do.

12 - - - - -

13 CROSS-EXAMINATION

14 BY MS. BARRETT:

15 Q. Were estimated pad costs then shared
16 equally between all four of those wells?

17 A. Yes, they were.

18 Q. Okay. Plugging and restoration costs
19 per well was that 77,000?

20 A. That's correct.

21 Q. What is the estimated BCFe per 1,000
22 feet?

23 A. 0.64.

24 Q. What is the estimated recovery factor

1 in the area?

2 A. We believe that it will be somewhere
3 between 4.5 and 6 percent.

4 Q. Can you explain why the 4C well was not
5 made a voluntary well?

6 A. Sure. So in the case of the 4C being
7 excluded from the unit, we believe that there
8 would be two detrimental things that would follow,
9 and it would affect mineral interest owners. The
10 first is that there would be waste within the
11 unit, because if the 4C is excluded, production
12 facilities would double, which means the size of
13 the pad would have to increase. And then the
14 costs to operate the wells would also increase, so
15 that would lower the economic lifespan of the
16 wells. It would lower the total recovery if the
17 economic lifespan were lowered, and then
18 ultimately all stakeholders would lose because
19 there would be less recovery in the long run. So
20 that is reason one.

21 And then reason two, why we believe it
22 should be in the unit is let's -- what I'm going
23 to call it is "enhanced recovery." So let's say
24 15 years from now, we need to implement an

1 enhanced oil recovery method, such as a water
2 flood or a CO2 recovery, to keep these wells
3 economically viable. This is where an operator
4 would pump CO2 or water into one well in order to
5 enhance the production of another well next door.

6 In the case of the ORYX 4C and 2C,
7 which well in that case should be chosen as the
8 injector well? If the 4C is excluded from the
9 unit and then were to be unlucky enough to be
10 chosen as the injector well, the mineral interest
11 holders of that well would lose out on the
12 economic benefits that the 2C owners would gain.

13 So it makes sense to unitize it so that
14 all mineral interest owners can benefit equally in
15 an enhanced recovery scenario later down the road.

16 Q. Okay. On Exhibit D, the well pad looks
17 like it is closer to two of the wells, yet all the
18 wells have this same measured depth on the
19 economics. Can you explain why that is?

20 A. Yes. So again, the location of the pad
21 is -- the lateral lengths will be equal on all
22 four wells, that is what we will target. And then
23 in the case of -- and we tried our best to answer
24 this earlier. But we do expect the measured depth

1 that you see here on the application to deviate
2 once these are all done, but that has been the
3 case for previous unitization hearings.

4 And that deviation of measured depth
5 does not affect the productivity nor the capital
6 cost that we are presenting to you. Because those
7 estimates that we gave you today are based on
8 datasets that also had that very same deviation,
9 so this is not uncommon.

10 Q. Okay. Our typical orders reference a
11 total measured depth to be hit by a certain date.
12 To anticipate you would hit --

13 A. I'm sorry?

14 Q. Our typical orders contemplate a total
15 measured depth to be hit by a certain date, which
16 is based on what was included in the application.
17 Would operating expenses change?

18 A. Again, no. The operating expenses are
19 based on our performance estimates, so how much
20 production the wells will make and that is a
21 lateral length consideration.

22 And then again, capital costs, we do
23 not expect to change because the pool or the
24 datasets of wells that we use to estimate how much

1 these wells will cost to drill, have these very
2 same variations baked into the pie.

3 So it's true for every well that's on
4 the analogue well list that we have. Really,
5 every well that we have drilled here at EOG has
6 these very common deviations from measured depth,
7 where the wells need to kick out further or go at
8 a different inclination angle. This is all put
9 into the dataset that rendered our estimates for
10 the capital costs, the operating costs, and the
11 performance.

12 Q. Okay.

13 MS. BARRETT: No further questions for
14 me at this time.

15 MR. LARGE: Thank you.

16 So once again, if you would like to
17 make comments, I'm first going to take all your
18 names and note whether you are an unleased mineral
19 owner, working interest owner, or an owner with
20 property in the unit.

21 Only one person may speak at a time to
22 properly record the hearing and please mute your
23 microphone once you have delivered your comments
24 or questions to avoid any feedback. Additionally,

1 anyone speaking today will be asked to provide
2 their information to the court reporter. If you
3 are uncomfortable speaking during the hearing, we
4 will also accept written comments.

5 Now, I have Mr. Corcoran down, and I
6 will now ask for anyone else that wishes to make
7 comments.

8 So if you have joined us via WebEx and
9 would like to make any comments, please unmute
10 yourself now and state your name.

11 Hearing none.

12 If you have joined us via phone and
13 would like to --

14 MR. HOWE: David.

15 MR. LARGE: Oh, sorry.

16 MR. HOWE: David Howe. David Howe on
17 WebEx.

18 MR. LARGE: And are you an unleased
19 mineral owner?

20 MR. HOWE: I am a leased mineral owner.

21 MR. LARGE: Okay.

22 MR. HOWE: I have 12.94 acres. But we
23 were not sent a packet because the survey was done
24 in May. So I don't think it was -- but my parents

1 were sent the packets and we are part of --

2 MR. LARGE: Mr. Howe.

3 MR. HOWE: Yes.

4 MR. LARGE: Before I take any comments,
5 can I get you sworn in real quick?

6 MR. HOWE: Yes.

7 - - - - -

8 (David Howe, having been duly sworn,
9 testifies as follows.)

10 MR. LARGE: Go ahead, sir.

11 MR. HOWE: Okay. I actually had a
12 couple questions. I noticed that we are on the
13 bottom end in the southeast corner, beyond the
14 green properties on the map, so beyond the
15 non-consenting properties. And I also noticed
16 that my parents' property, that the 400-foot
17 setback extends onto their property.

18 And my two questions would be if the
19 unitization does not go through, or if the
20 non-consenting mineral owners do not come to an
21 agreement or a lease, then if we are on the
22 opposite side of the non-consenting land, like
23 opposite side of where the wellhead will be.
24 Would that exclude us from the well and from

1 royalties in the future?

2 And then I guess --.

3 MR. DWYER: I'm going to have my -- go
4 ahead, Mr. Howe.

5 MR. HOWE: Okay. My other question was
6 just in regards to that 400-foot setback. Does
7 that affect -- since that comes onto my parents'
8 property, would that affect their royalties?
9 Because I'm not sure if that 400-foot setback --
10 if that prevents minerals from being taken in that
11 400-foot setback, or is that strictly for, say,
12 like, the horizontal wellbore? And that's all I
13 had.

14 MR. DWYER: Sure. I'm going to swap
15 out with my landman Dax Taylor, Mr. Howe, and he
16 will get you an answer right now.

17 MR. TAYLOR: Okay. Mr. Howe, again
18 this is Dax Taylor, landman, EOG.

19 I believe the answer to your first
20 question has to do with, should we not receive a
21 unitization order, would we still develop the
22 property?

23 This is the unit configuration that we
24 have planned to drill the most economic wells. We

1 are also locked into this configuration on the
2 west side by the Gazelle and are not locked in on
3 the south side. So should we ultimately not
4 receive a unit order, it would be contemplated
5 drilling this in another fashion. Maybe in the
6 future, should some sort of market conditions
7 change. But at this time, this is the only viable
8 way to do it.

9 That setback line shows us the
10 difference in drilling this in a unitized versus
11 non-unitized way, which ends up giving us the
12 different economic outcomes that John had
13 presented.

14 So to answer your question, we would
15 not complete the sections inside that setback
16 should it be drilled that way. But we have proven
17 it's less economic. So our intention is to
18 proceed forward with the plan that is put in place
19 in this hearing and ultimately drill these wells
20 under an order, should it be issued.

21 MR. BARONZZI: Dax, if you don't mind,
22 can you just clarify if an order for unit
23 operations is issued, and in that situation, how
24 would Mr. Howe's property be developed and would

1 those 400-foot setbacks matter at that point?

2 MR. TAYLOR: Yeah, those would go away
3 should a unit order be issued. Because we would
4 be developing them as if everything inside the
5 unit was yellow, effectively.

6 MR. HOWE: Okay. Thank you.

7 MR. BARONZZI: So, Mr. Howe, I think
8 the short answer to your question is if a
9 unitization order is granted, all of the setback
10 lines and that kind of thing are sort of
11 nullified. And the unit would be developed as if
12 everything was leased and consenting. But that is
13 not the same if an order for unit operations is
14 not granted. Then -- and I think the testimony
15 was, it could not be developed this way. And I'm
16 not sure how it would be developed, if ever.

17 MR. LARGE: Okay. Thank you.

18 Okay. Mr. Corcoran, are you still on
19 there?

20 MR. CORCORAN: Yes, I am. Can you hear
21 me?

22 MR. LARGE: Yep. I can hear you.

23 Can we get him sworn in, please.

24 - - - - -

1 (Dan Corcoran, having been duly sworn,
2 testifies as follows.)

3 MR. CORCORAN: Okay. Good afternoon,
4 everyone. My name is Dan Corcoran. I'm an
5 attorney for Lucky Land Management. Lucky Land
6 Management does not own any mineral rights that
7 would be affected by the proposed ORYX unit. But
8 it does own the surface of the property where the
9 well pads are proposed to be constructed. And
10 that is why I'm here today.

11 Lucky Land is currently in a dispute
12 with EOG about whether or not it is permitted to
13 construct its well pads on our property. EOG
14 wants to do it there. And it had first come to my
15 client in 2023 with a proposal to do that, to
16 enter into a surface use agreement. No agreement
17 was reached. EOG said that if an agreement was
18 not reached, that it would sue Lucky Land. And it
19 did sue Lucky Land in Federal District Court for
20 the Southern District of Ohio.

21 It's seeking to use -- initially, it
22 wanted a little over 45 acres of my client's
23 property to build its well pads. And then there
24 were some discussions after that where they

1 thought they might be able to get it down as low
2 as 35 acres, or a little bit more than that. So
3 it is a pretty substantial amount of acreage of my
4 client's property that would be affected either
5 way.

6 This is the problem for my client
7 because he bought the property as part of a
8 business in which he develops land to turn it into
9 a hunting property for whitetail deer. And after
10 he bought the property, he spent thousands of
11 man-hours and hundreds of thousands of dollars. I
12 think we said in our written comments, it was
13 about \$590,000 total. And what he spent on this
14 property, that includes, by the way, about
15 \$300,000 to clear about 60 acres of his property
16 for some food plots, which also happened to be the
17 location that EOG wants to take in order to use
18 for the development of its well pad. So this is
19 not something that my client wants to have
20 happened, did not want to agree to it, didn't want
21 to sign the surface use agreement.

22 So as I said, EOG sued my client in
23 late 2023. They asserted that they had the right
24 to do it. That they just have the right to do it,

1 and we had no right to block them. We were not
2 entitled to anything from EOG's perspective. They
3 just should have been able to come on the property
4 and take our land and build their well pads.

5 They asked for an injunction -- for the
6 court to issue an injunction so that we would be
7 prevented from not allowing them to come on the
8 property and do what they wanted to do. There was
9 a hearing on the injunction request, and the
10 district court granted that injunction initially.
11 This would have been in February of 2024.

12 We filed an appeal of that injunction,
13 which was our right. We asked for the district
14 court to suspend the injunction while that appeal
15 was pending. The district court did not get
16 around to ruling on that request either way until
17 after the end of March, which was EOG's deadline
18 for it to cut the trees on the property, because
19 of the protected bat species. So that is what it
20 did; it came on the property, cut down all the
21 trees within a 35-acre area of the property while
22 the motion to suspend the injunction was pending.
23 The district court still had not gotten around to
24 it by that time.

1 So since we were tired of waiting, we
2 went to the court of appeals and asked if they
3 would stay the injunction order and they did,
4 thankfully. So EOG did not take any further steps
5 after that to continue the construction of its
6 well pad and to cause further damage to my
7 client's property.

8 Now in the course of the appeal, there
9 were briefs that were filed and there were
10 arguments that were made. And the court of
11 appeals -- this is the Sixth Circuit Court of
12 Appeals in Cincinnati. They made the decision
13 earlier this year. I think it might have been
14 April -- something like that. And we attached the
15 decision to our comments so you can read the whole
16 thing if you want to, and I hope you will.

17 They reversed the injunction order that
18 had been issued by the district court. And the
19 reason they did that is because they believed that
20 EOG was not likely to prevail on its claims. That
21 is, it's not likely to win in its arguments that
22 it has the right to come onto the property, to
23 build its well pads there.

24 And that decision was made based on the

1 Sixth Circuit's understanding of Ohio law, of
2 course. And it was also made based on the
3 language in the particular deeds that are at
4 issue, in our case; under which the minerals were
5 separated from the surface of the property. There
6 were five or six deeds from the late 1950s and
7 early 1960s where those rights were separated.

8 And when that separation occurred, the deeds could
9 have had language in them giving the mineral owner
10 the right to use the property, not just to produce
11 the underlying oil and gas, which we don't have an
12 objection to, but to use the surface of the
13 property to produce from thousands of acres of
14 other land, which is of course, what EOG is trying
15 to do in this case.

16 It doesn't just want to produce the oil
17 and gas beneath our property where the pads are
18 located. It wants to produce from this massive
19 unit covering thousands of acres that stretches
20 across the entirety of a township.

21 We don't think they had the right to do
22 that under the deeds and under Ohio law. And the
23 court of appeals agreed, or at least it agreed
24 that the injunction should not have been issued.

1 That is why it said EOG was not likely to prevail
2 on the case.

3 So the case goes back down to the
4 district court because it's not over yet. And
5 upon it being remanded to the district court, we
6 filed a motion with the court asking it to dismiss
7 EOG's claims against us in their entirety, because
8 it didn't appear to us, based on the deeds and
9 based on the law, that they had any merit. They
10 don't have the right to do that. We want the
11 district court to make a final determination to
12 that effect. And that motion is pending right
13 now. We are waiting for the district court to
14 make a ruling on that.

15 At about the same time that was
16 happening, EOG asked the district court to put the
17 entire case on hold because it wanted to do what
18 it's attempting to do right now, which is to get a
19 unitization order from the Division that would
20 allow it to drill these wells and to construct the
21 pads on our property.

22 EOG has told us and it has told the
23 district court that once it gets this unitization
24 order, it's going to be able to build these pads.

1 Okay. It's going to somehow change the court's
2 analysis about what it can and can't do on the
3 surface of our property. And we disagree with
4 that. I hope we made that clear in the written
5 comments, we don't think that is the case. We
6 don't think that is Ohio law. I have talked about
7 that -- the reasons for that in our comments.

8 And I don't want to totally rehash
9 everything that we said in there, but I will
10 briefly try to summarize it. We were pointing out
11 the distinction between mineral rights, which are
12 correlative, and surface rights, which are not.
13 We are talking about surface rights here. So
14 whatever authority the Division has to create
15 units, and it does have authority under the
16 statute 1509.28, that does not give it the
17 authority to take away our land, the surface of
18 our land that we are using for a business, for a
19 commercial investment. It's just not intended to
20 apply to surface rights at all; that should have
21 nothing to do with it.

22 That is one thing. But then we also
23 said, in addition to that, even if the Division
24 believes or if EOG believes that this statute can

1 somehow confer on it additional surface rights on
2 our property, that it should not apply to us.
3 That statute should not operate to take away our
4 surface rights. And the reason for that is
5 because the statute was not enacted in Ohio until
6 1965. And as I mentioned earlier, the minerals
7 were separated from the surface prior to that. It
8 was in the late '50s and early 1960s, all before
9 1965.

10 And under the Ohio Constitution, the
11 legislature can't enact statutes and apply them
12 retroactively. So from our position, whatever
13 rights EOG has to use the surface, it was
14 delineated when that separation took place, when
15 those deeds were signed and delivered. And the
16 statute that was enacted after that can't change
17 it.

18 And then the third thing that we said
19 was, again, we don't think the statute has
20 anything to do with surface rights. Even if it
21 did, it does not apply to us. But even if it did
22 apply to us, and even if it did affect surface
23 rights, we don't believe that it is constitutional
24 for it to apply to us if we are not given

1 compensation for the land that they are taking
2 from us.

3 You know, property rights, private
4 property rights are protected in Ohio. And we do
5 not think that the unitization statute is a
6 condemnation statute. We don't think that EOG can
7 use it as a taking, like the State would do if
8 it's going to build a road on our property, for
9 example. We would get paid for that if that
10 happened. We don't think that's what this statute
11 is. But if that's the way EOG's going to treat
12 it, if that's the way the Division's going to
13 treat it, then we should be entitled to
14 compensation for the 35-plus acres at least, that
15 they plan to take away from us.

16 And if we do not receive any reasonable
17 compensation for that, then the statute is
18 unconstitutional. Okay. Now, I don't actually
19 think the statute is unconstitutional. I don't
20 think it should apply to us in the first place.
21 So that's our position. That was the basis for
22 our objection.

23 And the other thing that I wanted to
24 point out is since EOG does not have the right to

1 build the well pads where it has proposed right
2 now, and it does not, this proposal that the
3 Division is being asked to consider here today is
4 hypothetical. If they are not able to put the pad
5 there, will they be able to drill this unit, the
6 one that they proposed? The one that has shown up
7 on the maps and we have all these calculations
8 for. EOG has told us that they would not be able
9 to do that.

10 In fact, we have suggested, we have
11 encouraged them, and we have said, hey, there is a
12 neighboring landowner; we think he might be
13 willing to put a well pad on his property. Why
14 don't you talk to him instead of us? It's right
15 next door to us. And EOG has said, no, we are not
16 going to do that. We can't do that. It would not
17 be possible for us to drill the units that we want
18 to drill if we had to put the well pad anywhere
19 other than on Lucky Land's property.

20 And so if you know -- so it is
21 hypothetical. We don't know whether any of this
22 is true or not. And if they do have to change
23 their plans, it could affect the units themselves,
24 including the size and the shape of the unit, it

1 could change the length of the laterals. So we do
2 not think that the Division should be issuing a
3 unit order on something that is purely
4 hypothetical, because they don't have the ability
5 to build the pads -- to drill the wells in the
6 first place.

7 The other thing that I wanted to point
8 out about the application, and there was a
9 question about this earlier from Ms. Barrett. I
10 think she was asking about the ORYX NSH 4C. Why
11 is that part of this unit application? According
12 to the map, all the acreage that would be affected
13 by that particular well, it is leased and they
14 have all consented to unit operations. Why are
15 they putting that in there? It did not seem like
16 they would need to do it.

17 There was a similar question this
18 morning when we had a hearing on the Gazelle unit.
19 There is a well in the Gazelle unit that does not
20 appear to need a unit order in order for them to
21 unitize it and drill their well. Why don't they
22 just go ahead and unitize it right now?

23 Well, the reason they don't want to do
24 it right now is because they want the unit order.

1 They want to take it back to the lawsuit that we
2 are currently involved in. And they want to point
3 to that and say, hey look, the State of Ohio says
4 we can do this. The State of Ohio says that we
5 are allowed to drill these wells and put the pads
6 where we want. Okay. That is the reason they put
7 that in.

8 The excuses they came up with today
9 about why they included those wells in this unit
10 application don't make any sense. They said that
11 they would need to build a larger pad for some
12 reason, but there was no explanation for why that
13 is. They said that the operating costs would be
14 more; no explanation for why that is. They also
15 said that it would result in problems if, maybe 15
16 years down the road, they wanted to engage in some
17 kind of enhanced recovery. And the problem from
18 their perspective would be that it would just
19 disproportionately affect the mineral owners. And
20 they are really concerned about the impact it
21 would have on the mineral owners. That's baloney,
22 okay.

23 If they wanted to do some kind of
24 enhanced recovery, secondary recovery 15 years

1 from now, and if they really needed a unit order,
2 then they could apply for it at that time. That
3 is not the reason they are doing it. They are
4 doing it to shove it down our throats and to get
5 this unit order to gain an advantage in a lawsuit,
6 which is an abuse of this whole process.

7 So I think that there are some serious
8 questions for EOG. Remember the standard here is
9 that the Division should issue the order if it is
10 reasonably necessary, right? Reasonably
11 necessary?

12 In the case of the ORYX 4C, it is not
13 necessary at all. There is no reason why you
14 should issue a unit order for that well. And they
15 have not given any evidence to the Division today
16 as to why they need it. You should deny their
17 application for that reason. They don't need it.

18 And there's a number of questions --
19 and I understand I'm not permitted to ask
20 questions to EOG. So I would just suggest -- here
21 are some questions that I have, and I'm wondering
22 if anybody else has them.

23 We have been talking about this. Can
24 EOG still drill the unit it has proposed if it is

1 unable to construct its well pads on Lucky Land's
2 property? Again, my understanding is that the
3 answer is no, but I'd be curious to hear what the
4 EOG answer is today --

5 MS. BARRETT: Mr. Corcoran, not --

6 MR. CORCORAN: And to have an answer to
7 that under oath.

8 MS. BARRETT: Not to interrupt you.
9 You are permitted to ask questions.

10 MR. CORCORAN: Okay. Well, then maybe
11 I will go through my questions. And I don't know
12 if you want me to do them one at a time, or if EOG
13 would want -- maybe list them all and then you can
14 respond to them?

15 Chris, what would be your preference?

16 MR. BARONZZI: I will let the Division
17 decide how best to manage the hearing.

18 MS. BARRETT: Yeah. I think one at a
19 time makes the most sense for us.

20 MR. CORCORAN: Okay. All right.

21 So again, my first question for EOG is
22 can it still drill the unit that it has
23 proposed -- the ORYX unit, if it is unable to
24 construct its well pad on Lucky Land's property?

1 MS. BARRETT: Mr. Baronzzi, if you or
2 someone from the Applicant has a response to that
3 question.

4 MR. BARONZZI: Yeah. If I may, I have
5 an objection to Mr. Corcoran and Lucky Land
6 Management's attempt to interject itself in these
7 unit proceedings. You know, we can answer,
8 hopefully, some of these questions to the extent
9 possible.

10 But I feel compelled up front here just
11 to make the objection, that as Mr. Corcoran
12 indicated, his client is not a mineral owner, not
13 a working interest owner, has no other interest in
14 the minerals. He is an owner of a surface. He is
15 not even listed in the application for
16 unitization. And that is because he has no
17 interest in the unitized formation.

18 And EOG is not asking for any specific
19 finding or decision about surface rights in this
20 case. EOG just wants a standard order for
21 unitization.

22 Now, in this case, Mr. Corcoran has
23 gone through a long history of litigation and the
24 back-and-forth that has happened in court between

1 EOG and his client. And EOG strongly believes
2 that the issues raised by Mr. Corcoran are
3 appropriate to continue to be litigated in that
4 federal district court litigation and not before
5 the Department of Natural Resources.

6 I do want to point out that EOG does
7 have an oil and gas lease on Mr. Corcoran's
8 client's property and has express rights through
9 the deeds that severed the minerals from
10 Mr. Corcoran's client's property -- has express
11 rights to use the surface in connection with those
12 minerals.

13 And again, you know, all of those
14 rights and exactly what the extent of those rights
15 are, are subject to current litigation. Any of
16 the decisions that have been described by
17 Mr. Corcoran from the Southern District Court or
18 from the Sixth Circuit, are all -- all relate to a
19 preliminary injunction. There is no final order
20 on any of this yet. EOG is not trying to take, as
21 Mr. Corcoran has described it, you know, seize his
22 client's property. It is just trying to exercise
23 the rights that were reserved in the severance
24 deeds and that it has under the lease.

1 And then, you know, to the extent that
2 Mr. Corcoran believes that EOG is trying to gain
3 some advantage through unitization, you know, it's
4 just trying to exercise the rights it has and
5 follow the suggestion from the Sixth Circuit,
6 where the Sixth Circuit's decision on the
7 preliminary injunction said that -- recognize that
8 EOG plans to become a unit operator; it had not
9 done so yet at the time that decision was issued.
10 But it said that if and when it does become a unit
11 operator, the Sixth Circuit said it could change
12 the calculus of its analysis of the parties'
13 respective rights.

14 So, you know, there is a lot of legal
15 analysis here. There is a lot of legal dispute
16 that is best left before the Southern District
17 Court. And so I just want to make clear up front
18 that we object to Mr. Corcoran trying to litigate
19 this matter before the Department of Natural
20 Resources. And we would encourage the Chief to
21 leave any decision about surface rights to the
22 courts. And if and when an order is issued for
23 unitization, to just issue a standard order, which
24 is all that EOG's application requests.

1 Now, I appreciate you indulging my
2 objection. I think the question is, would EOG in
3 fact drill these wells if it could not use the
4 surface of the Lucy Land Management's property?
5 Was that the first question?

6 MR. CORCORAN: Yes.

7 MR. BARONZZI: To answer that question,
8 I will bring Dax Taylor, land specialists, back in
9 here.

10 So, Dax, can you give an answer to
11 that?

12 MR. TAYLOR: Yeah, sure. So this
13 unit -- and as it's laid out, is a combination of
14 analysis by many members of our team. And so this
15 is the only way that we would drill these wells
16 from the current layout.

17 MS. BARRETT: Okay. Thank you.

18 MR. CORCORAN: Okay. All right. And I
19 appreciate the answer. I'm not satisfied by it,
20 but I guess it is what it is.

21 I do think it is interesting that EOG
22 is objecting to our involvement in this case.
23 They want to be able to get their unit order.
24 They do not want us to be able to participate or

1 offer comment. But they are not saying they won't
2 use the unit order against us in the lawsuit.
3 They are just saying they don't want us to have
4 any say in whether it is issued or not.

5 Okay. Another question that I have for
6 EOG is that if the pad has to be built somewhere
7 else other than on Lucky Land's property, which is
8 proposed, would it change the size or shape of the
9 unit, or the length and location of the laterals?

10 MR. BARONZZI: You know, Mr. Taylor, to
11 the extent you can answer. I mean, I -- do we
12 have -- does EOG have any other options for
13 building this wall pad? To drill these units or
14 develop these units in this way, elsewhere?

15 MR. TAYLOR: Not at this time.

16 MR. BARONZZI: And do you have any
17 comment about what might happen if it has to move
18 the well pad to some other location? Do we know
19 how that might affect the development plan?

20 MR. TAYLOR: I think it is too
21 hypothetical at this time.

22 MS. BARRETT: Yeah. This is the
23 application that is pending before us. It is what
24 the Division is here making a decision on today.

1 You can proceed with any other
2 questions you have, Mr. Corcoran.

3 MR. CORCORAN: Okay. So it does not
4 sound like there has been any analysis on how a
5 different well pad location would affect recovery,
6 is what it sounds like.

7 If EOG is not seeking to obtain any
8 additional surface rights through this proceeding
9 that it does not already have, then why is it
10 objecting to the alternative relief that we
11 requested in our comments and our objection, which
12 was that if the order is issued, that the Division
13 should expressly state that it does not give EOG
14 any additional surface rights in the property
15 beyond what it would have if the order had not
16 been issued?

17 MS. BARRETT: Mr. Baronzzi, do you have
18 an explanation as to why EOG is asking for the
19 standard order and the situation for this
20 application?

21 MR. BARONZZI: Yeah, certainly. I
22 mean, EOG only expects to receive a unitization
23 order that is -- in keeping with the orders issued
24 by the Chief, dozens or hundreds of times, you

1 know, over the last many years. It is not asking
2 for anything new or unique regarding surface
3 rights.

4 But on the flip side, there is a
5 complicated history and a variety of contracts,
6 deeds, leases, and case law that impacts EOG's
7 right to use the surface of Lucky Land Managements
8 property. And we do think it would be
9 inappropriate for the Division to go out on a limb
10 and make specific findings or decisions about
11 surface rights, without having the benefit of all
12 of the evidence and case law. And the fact of the
13 matter is, those issues are pending before the
14 Southern District Court and should be left before
15 the Southern District Court.

16 MR. CORCORAN: Okay. Well, let's focus
17 on your application here and specifically, the
18 ORYX NSH 4C. I talked a little bit earlier about
19 how it does not appear from the materials that I
20 have that there are any non-consenting or unleased
21 properties related to that well.

22 And I think in the answer that EOG gave
23 earlier about that and why it was included in the
24 application, has something to do with the size of

1 the well pad that it would need to build -- to
2 drill that well as opposed to, if it's voluntarily
3 or involuntarily pooled.

4 So can EOG provide any explanation for
5 why it needs an even larger well pad? Which by
6 the way, would affect my client even more. Why
7 does it need to have a larger well pad if
8 something's voluntarily pooled versus pooled with
9 a unit order? And I guess while you are on the
10 topic, I think the result said something about
11 operating costs. Why would it have any effect on
12 what the operating costs are for that particular
13 well if it does not get this unit order?

14 MS. BARRETT: Mr. Dwyer, I think that
15 was your testimony. If you are able to elaborate
16 a little further for purposes of our record, why
17 there would be additional costs with using that as
18 a voluntary unit, that would be appreciated.

19 MR. DWYER: Yeah, sure. So the short
20 answer is that our production facilities set up on
21 a well pad that has a single unit can be leaner,
22 because we can with confidence use less equipment
23 to allocate appropriately which production goes to
24 what well. Because at the end of the day, the

1 unitization is a shared pool.

2 If there were to be a situation where
3 on the same pad we have a well that is not a part
4 of that unit, we need to have more production
5 equipment facilities that will appropriately
6 allocate to the separate units at the appropriate
7 allocations. Those additional facilities take up
8 space, so that is why we said that it would have a
9 spacing impact. And having additional facilities,
10 of course, raises your operating costs.

11 And again, the terminal life of the
12 wells are quite sensitive at the end of its life
13 when it is making the least amount of hydrocarbon
14 it's going to make. It is very easy to have the
15 profitable become not profitable and terminate
16 that terminal life. And so that, of course, means
17 that we produced for less time, so we made less
18 molecules, so the recovery was lower. And that
19 has implications for all stakeholders; it's bad
20 for EOG, it's bad for mineral interest owners, and
21 it's bad for the State of Ohio.

22 MR. BARONZZI: Mr. Dwyer, If I may ask,
23 why do you think it is important to treat these
24 mineral owners in this area similarly?

1 MR. DWYER: Well again, we want to pool
2 the shared incentive structure for this particular
3 unit because it maximizes. It is the best chance,
4 in our professional opinion, to maximize the most
5 amount of recovery for everyone that is in this
6 section, of course, including EOG and that is the
7 basis of that. And so if we Balkanized this, in
8 our opinion, it will make it very likely that that
9 does not occur.

10 MR. CORCORAN: What my follow-up
11 question is, what are those production facilities
12 that you are referring to in your answer; what is
13 that?

14 MR. DWYER: Separators.

15 MR. CORCORAN: Okay. So you need to
16 have an additional separator on the well pad, is
17 that what you are saying?

18 MR. DWYER: It is my understanding we
19 will have multiple separators. Now that is a
20 facility engineering and production engineering
21 question; we can go pretty deep into the weeds
22 here and I'm a reservoir engineer.

23 But, yes. It is -- my understanding is
24 its separators are one of the production

1 facilities.

2 MR. CORCORAN: Is there anything else
3 besides the separator?

4 MR. DWYER: I do not know.

5 MR. CORCORAN: Okay. So for the sake
6 of a separator, that well, and I guess also the
7 neighboring Gazelle well, you want to have those
8 included in larger units rather than having them
9 be their own voluntary unit; is that what you are
10 saying?

11 MR. BARONZZI: Well, I'm not sure that
12 characterizes all the explanation that was given.
13 I think --

14 MS. BARRETT: Yeah. There was a part
15 provided that included spacing as well. So, yeah.
16 Understood.

17 MR. DWYER: You mean the enhanced
18 recovery explanation?

19 MR. CORCORAN: Yeah. That was also
20 part of your earlier answer, wasn't it? The
21 enhanced recovery? That is why you wanted to have
22 this part of the unit for these other three wells?

23 MR. DWYER: That is why it would not
24 make sense to have the 4C out of the unit; one of

1 the reasons, yes.

2 MR. CORCORAN: Do you need to have it
3 in the unit now in order to engage in a secondary
4 recovery 10 or 15 years down the road?

5 MR. DWYER: I don't -- someone else?

6 MR. BARONZZI: Yeah. If you don't
7 know, just say you don't know.

8 MR. DWYER: Yeah. I don't know.

9 MR. BARONZZI: If I may.

10 - - - - -

11 REDIRECT EXAMINATION

12 BY MR. BARONZZI:

13 Q. Mr. Dwyer, are you aware, do adjacent
14 wells sometimes have an effect on each other?
15 Does drilling wells in sequence next to each other
16 have some effect on one another?

17 A. Definitely. With timing and -- yes.

18 Q. And in this case, we have heard
19 testimony that all these mineral owners are part
20 of a common pool, correct?

21 A. That's correct.

22 Q. And is that why we want to treat them
23 the same and not have differences in production
24 and costs and that kind of thing?

1 A. That is correct.

2 MR. CORCORAN: So is the comment that
3 you made about secondary or enhanced recovery, is
4 that solely based on concern for the neighboring
5 mineral owners, or does it create any problem for
6 EOG and its development of the shared pool?

7 MR. DWYER: It's hard for me to say
8 how -- that's hard for me to say with the
9 information I have in front of me.

10 MR. CORCORAN: Okay. Well, I don't
11 think I have any other questions. I appreciate
12 the opportunity to ask the questions that I have.

13 And I will just conclude by saying that
14 we object to the unit application. We do not
15 think that it is reasonably necessary, and at
16 least with respect to the well that does not have
17 any unleased or non-consenting acreage.

18 We do think that this is an abuse of
19 the unitization process, frankly. That they are
20 trying to go through this process to get a unit
21 order to use against my client, the surface owner,
22 in a pending lawsuit. Notice they are not
23 promising not to do that; they are promising to do
24 that. We do not think it should have any effect

1 on our client's rights. And so we think that it
2 should be denied.

3 But if it is not denied, the Division
4 should make clear, that that's not the purpose of
5 unitization. It's not to give EOG or any other
6 unit operator the right to do something on the
7 surface of our property or anybody else's property
8 that they would not otherwise have. Thank you.

9 MR. LARGE: Thank you.

10 Ms. Barrett, do you have any additional
11 questions for the Applicant?

12 MS. BARRETT: No, I do not. Thank you.

13 MR. LARGE: And does the Applicant have
14 any closing remarks?

15 MR. BARONZZI: Mr. Dwyer's testimony
16 concludes EOG's presentation of evidence today.
17 EOG believes it has demonstrated that its
18 application for unit operations of the ORYX NSH
19 unit meets the requirements of a Revised Code
20 1509.28. And therefore asks the Division to issue
21 its standard order for unit operations and to
22 reject Lucky Land Management's request for the
23 Division to make specific findings or decisions
24 about EOG and Lucky Land Management surface

1 rights. Thank you.

2 MR. LARGE: Thank you, everyone.

3 With that, the hearing is now
4 concluded.

5 - - - - -

6 Thereupon, the foregoing proceedings
7 concluded at 4:04 p.m.

8 - - - - -

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1 State of Ohio : C E R T I F I C A T E
2 County of Franklin: SS

3 I, Bridget Mary Hoyer, a Notary Public in and
4 for the State of Ohio, do hereby certify that I
5 transcribed or supervised the transcription of the
6 audio recording of the aforementioned proceedings;
7 that the foregoing is a true record of the
8 proceedings.

9 I do further certify I am not a relative,
10 employee or attorney of any of the parties hereto,
11 and further I am not a relative or employee of any
12 attorney or counsel employed by the parties
13 hereto, or financially interested in the action.

14 IN WITNESS WHEREOF, I have hereunto set my
15 hand and affixed my seal of office at Columbus,
16 Ohio, on September 12, 2025.

17
18
19 

20 _____
21 Bridget Mary Hoyer, Notary Public - State of Ohio
22 My commission expires April 14, 2030.

ORYX NSH UNIT
UNITIZATION HEARING
AUGUST 21, 2025



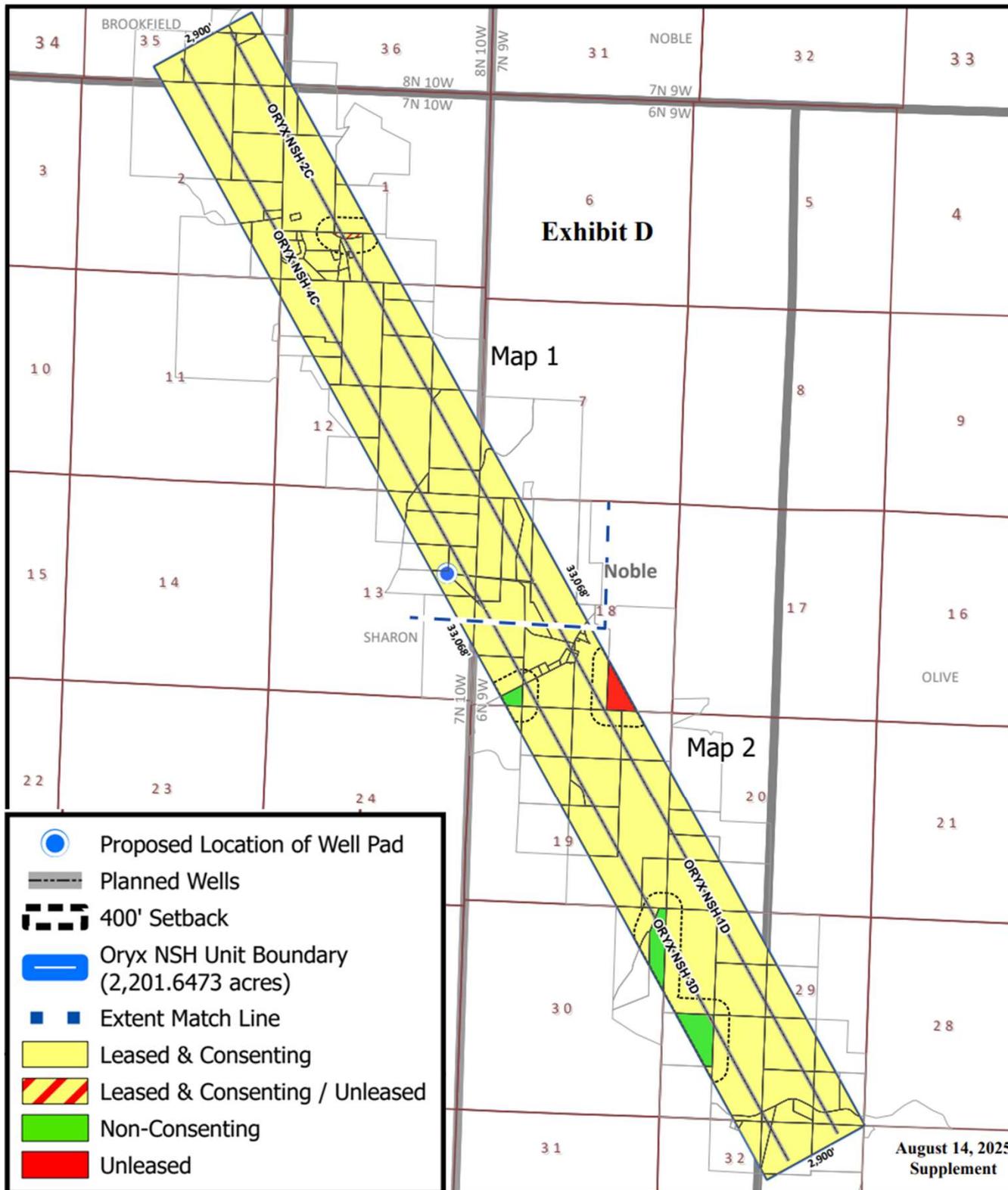
Christopher J. Baronzzi, Esq.

Robert J. Karl, Esq.

Porter Wright Morris & Arthur LLP

41 S. High St., Suites 2800-3200

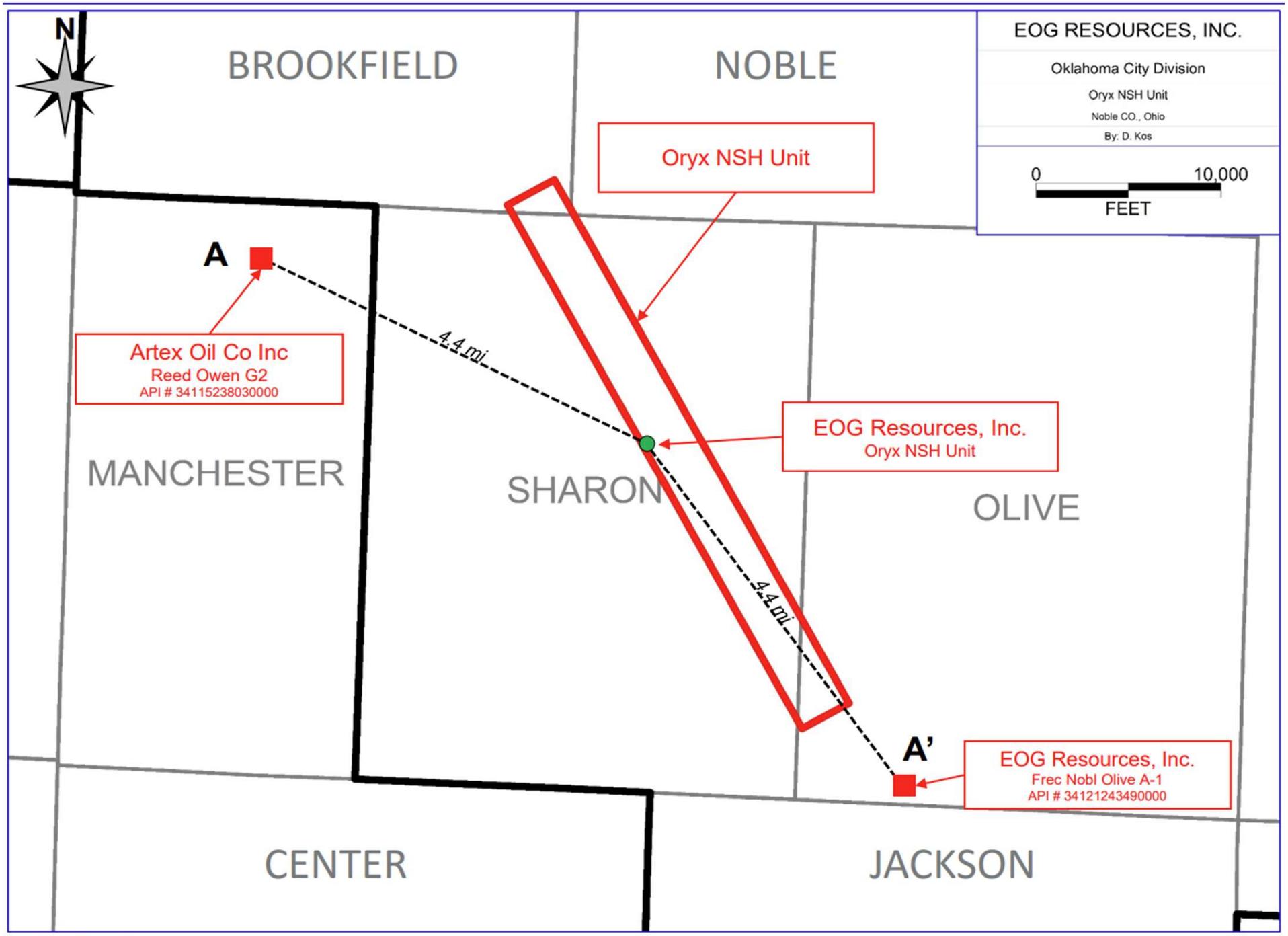
Columbus, Ohio 43215



-  Proposed Location of Well Pad
-  Planned Wells
-  400' Setback
-  Oryx NSH Unit Boundary (2,201.6473 acres)
-  Extent Match Line
-  Leased & Consenting
-  Leased & Consenting / Unleased
-  Non-Consenting
-  Unleased

August 14, 2025 Supplement

Exhibit F



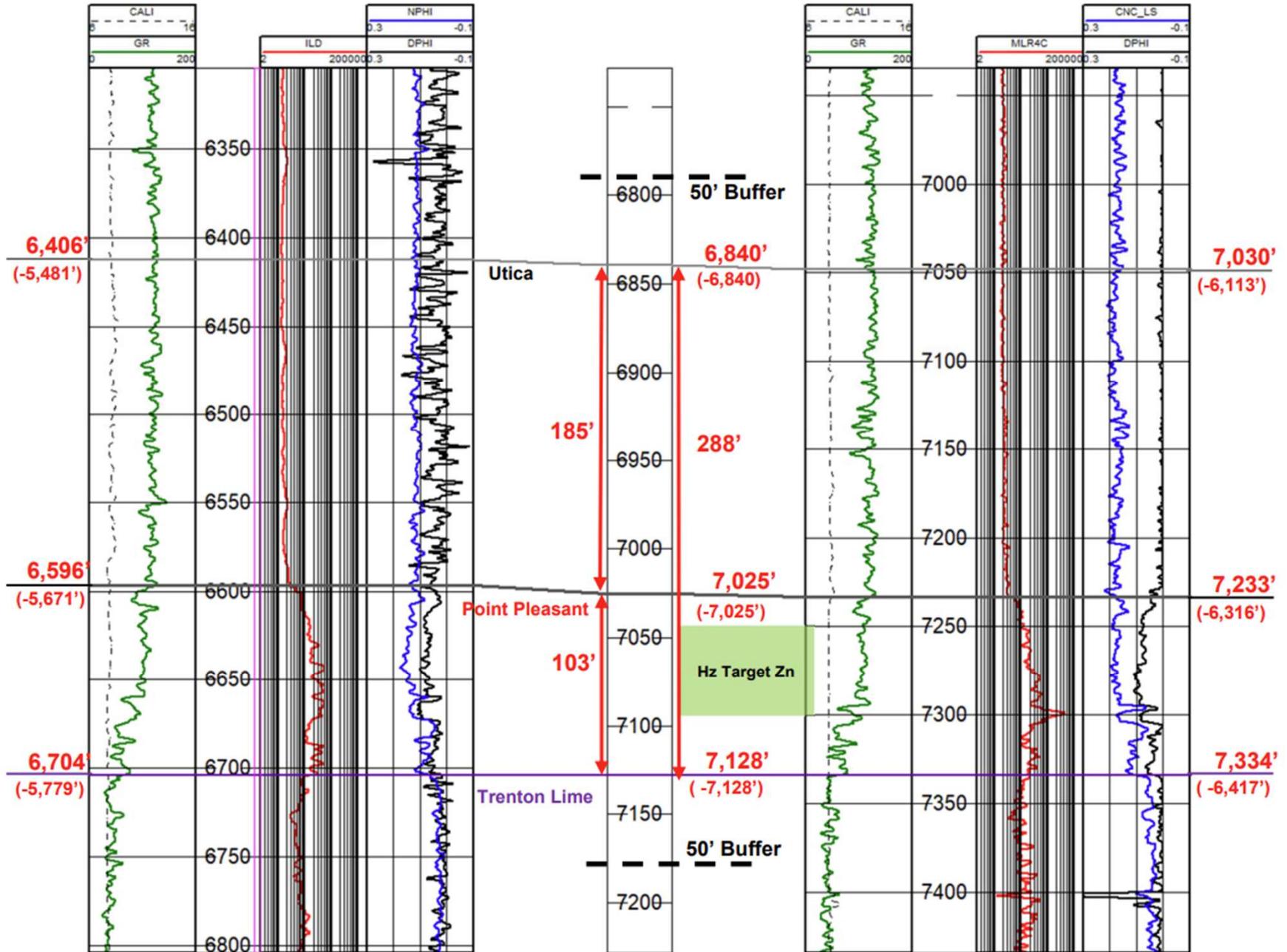
■ Pilot Well

● Proposed Surface Pad Location

Exhibit E

A

A'



Unitized Scenario

Well Name	Lateral Length (ft)	Measured Depth (ft)	Operating Costs (MMS)	Capital Costs (MMS)	Undiscounted Value of Estimated Recovery (MMS)	PV0 (MMS)	PV10 (MMS)	Estimated Gross Recovery (BCFe)
ORYX NSH 1D	16360	23360	14.14	9.16	47.88	18.36	12.42	10.51
ORYX NSH 2C	16360	23360	14.14	9.16	47.88	18.36	12.42	10.51
ORYX NSH 3D	16360	23360	14.14	9.16	47.88	18.36	12.42	10.51
ORYX NSH 4C	16360	23360	14.14	9.16	47.88	18.36	12.42	10.51
Total:	65440	93440	56.56	36.64	191.52	73.44	49.68	42.04

Non-Unitized Scenario

Well Name	Lateral Length (ft)	Measured Depth (ft)	Operating Costs (MMS)	Capital Costs (MMS)	Undiscounted Value of Estimated Recovery (MMS)	PV0 (MMS)	PV10 (MMS)	Estimated Gross Recovery (BCFe)
ORYX NSH 1D	15234	23360	13.17	9.16	43.93	16.13	10.80	9.64
ORYX NSH 2C	9748	16748	9.51	6.15	28.53	9.77	6.62	6.26
ORYX NSH 3D	7620	15647	7.92	5.65	21.98	6.54	4.28	4.82
ORYX NSH 4C	16360	23360	14.14	9.16	47.88	18.36	12.42	10.51
Total:	48962	79115	44.74	30.12	142.32	50.80	34.12	31.23

Difference

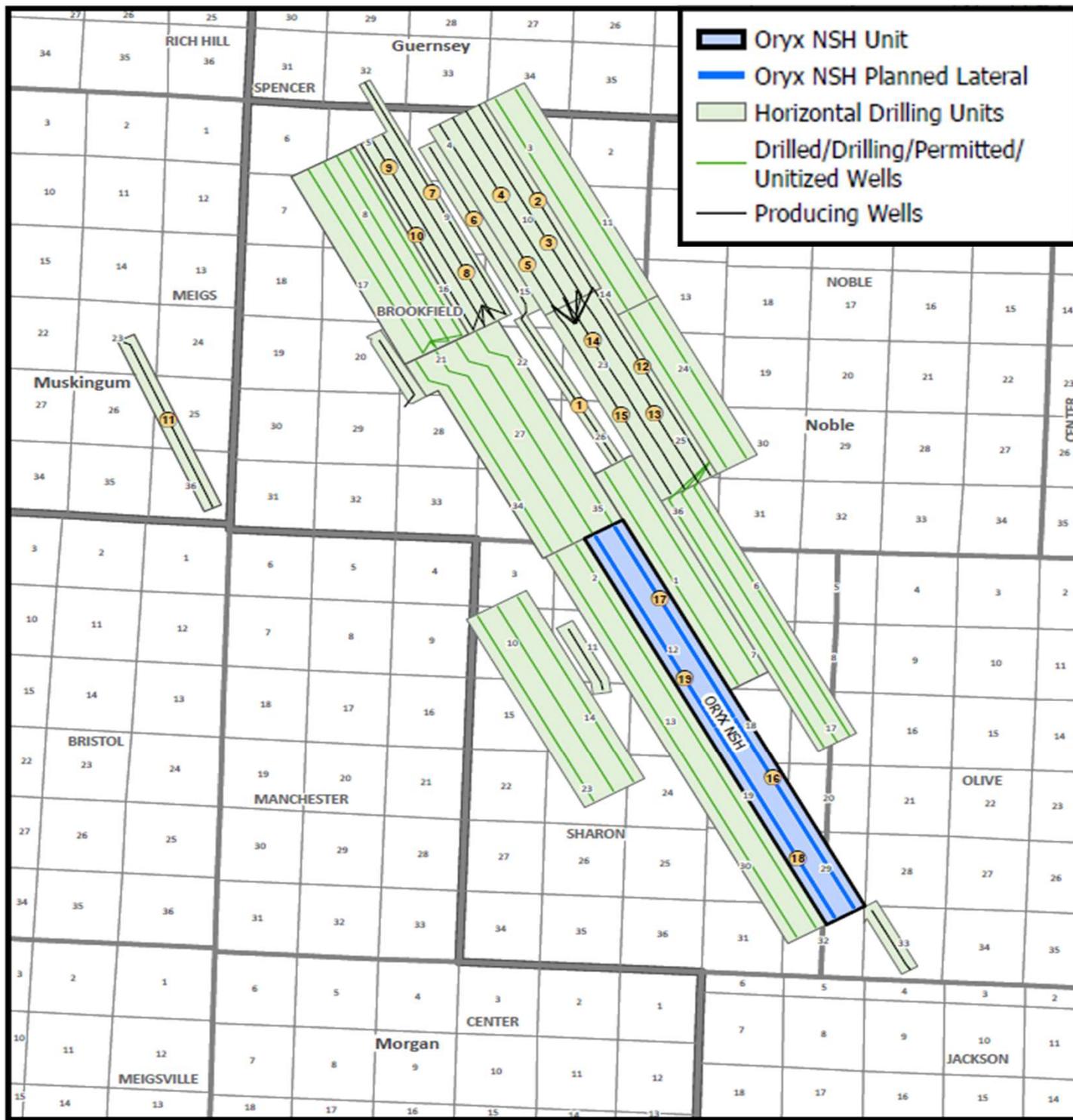
Well Name	Lateral Length (ft)	Measured Depth (ft)	Operating Costs (MMS)	Capital Costs (MMS)	Undiscounted Value of Estimated Recovery (MMS)	PV0 (MMS)	PV10 (MMS)	Estimated Gross Recovery (BCFe)
ORYX NSH 1D	1126	-	0.97	-	3.95	2.23	1.62	0.87
ORYX NSH 2C	6612	6612	4.63	3.01	19.35	8.59	5.80	4.25
ORYX NSH 3D	8740	7713	6.22	3.51	25.90	11.82	8.14	5.69
ORYX NSH 4C	-	-	-	-	-	-	-	-
Total:	16478	14325	11.82	6.52	49.20	22.64	15.56	10.81

Operating Stream	Operating Cost	
Variable Oil (\$/bbl)	\$	0.30
Variable Gas (\$/mcf)	\$	0.14
Variable Water (\$/bbl)	\$	3.75
Fixed Op Costs (\$/month)	\$	7,184.00

June 2025 STRIP PRICE

Year	Oil Price (\$/bbl)	Gas Price (\$/mcf)
2025	65.11	3.48
2026	60.97	3.86
2027	61.32	3.84
2028	61.96	3.75
2029	62.41	3.63
LIFE	65.00	3.50

Analogue Well Map



Analogue Wells Used in Reserve Calculation Analysis

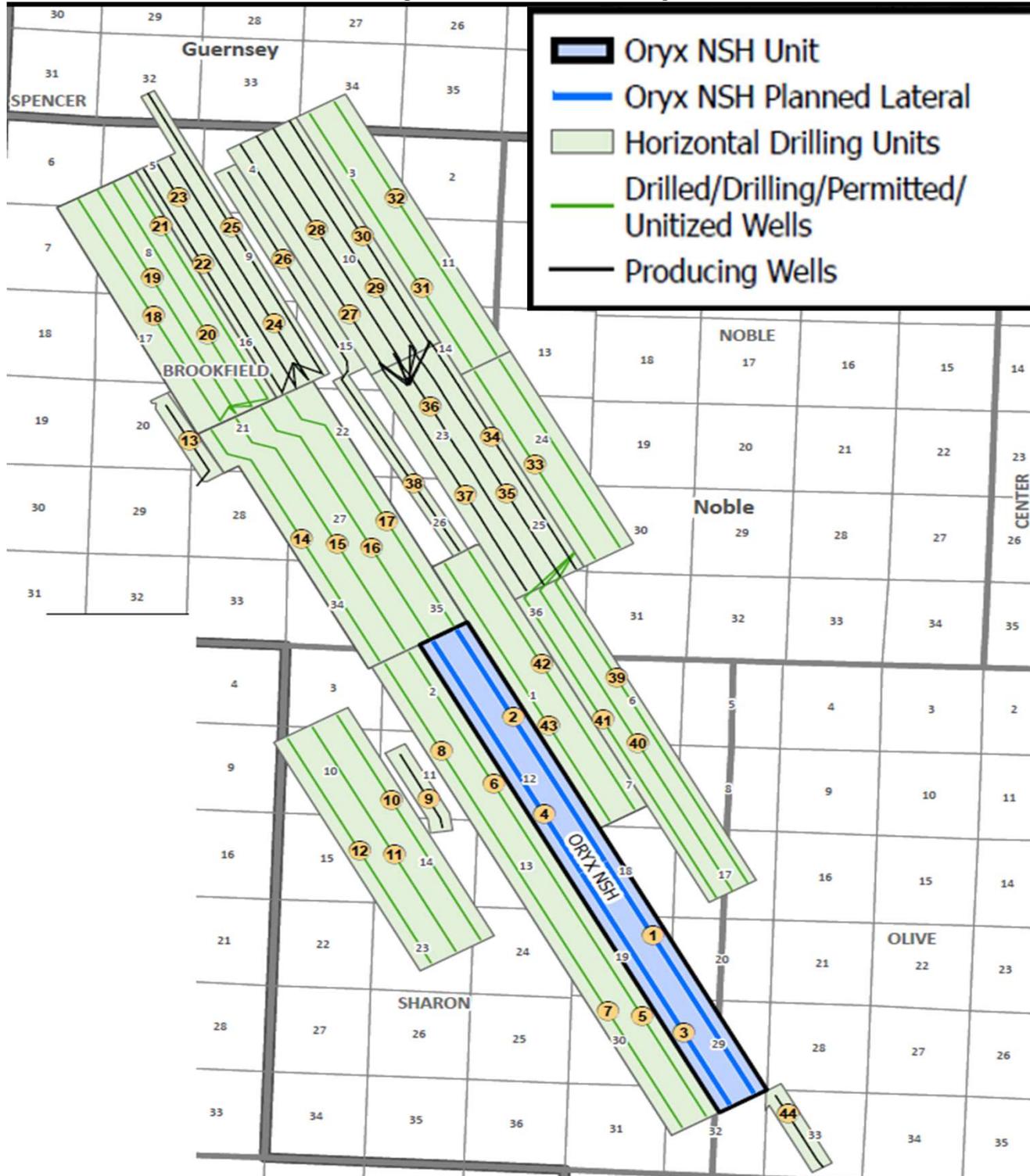
Oryx NSH Unit

Brookfield, Olive, Noble & Sharon Township

Noble County, OH

WELL NAME	LABEL NUMBER	API NUMBER	LATERAL LENGTH (FT)	PRODUCTION START DATE	SHL TO SHL (FT)
BROOKFIELD NBK15 #3A	1	34121246550000	12,114	10/15/2022	3.09 miles
WHITE RHINO NBK14 #2A	2	34121246610100	15,550	3/24/2024	2.89 miles
WHITE RHINO NBK14 #4A	3	34121246620000	15,374	3/24/2024	2.89 miles
WHITE RHINO NBK14 #6A	4	34121246630000	15,529	3/24/2024	2.89 miles
WHITE RHINO NBK14 #8A	5	34121246640100	15,456	3/24/2024	2.89 miles
BROOKFIELD NO 15 SE1 HPA	6	34121246490000	13,239	12/1/2020	3.10 miles
SABLE NBK16 #2A	7	34121246570000	19,458	7/24/2024	3.33 miles
SABLE NBK16 #4A	8	34121246580000	15,548	7/24/2024	3.33 miles
SABLE NBK16 #6A	9	34121246590000	15,535	7/24/2024	3.33 miles
SABLE NBK16 #8A	10	34121246600000	15,541	7/24/2024	3.33 miles
MEIGS-MU-23SE 1HPA HPA	11	34119288120000	13,231	2/15/2021	6.17 miles
WHITE RHINO NBK14 #11B	12	34121246740000	15,549	11/21/2024	2.88 miles
WHITE RHINO NBK14 #5B	13	34121246750000	15,425	11/21/2024	2.88 miles
WHITE RHINO NBK14 #7B	14	34121246720000	15,552	11/21/2024	2.88 miles
WHITE RHINO NBK14 #9B	15	34121246730000	15,540	11/21/2024	2.88 miles
ORYX NSH 1D	16	N/A	16,360	N/A	0.00 miles
ORYX NSH 2C	17	N/A	16,360	N/A	0.00 miles
ORYX NSH 3D	18	N/A	16,360	N/A	0.00 miles
ORYX NSH 4C	19	N/A	16,360	N/A	0.00 miles

Adjacent Well Map



Adjacent Well Table

NUMBER	WELL NAME	API
1	GAZELLE NSH 1D	PLANNED LATERAL
2	GAZELLE NSH 2C	PLANNED LATERAL
3	GAZELLE NSH 3D	PLANNED LATERAL
4	GAZELLE NSH 4C	PLANNED LATERAL
5	ORYX NSH 2C	PLANNED LATERAL
6	ORYX NSH 4C	PLANNED LATERAL
7	ORYX NSH 1D	PLANNED LATERAL
8	ORYX NSH 3D	PLANNED LATERAL
9	FREC NOBL SHARON A-1H	34121243480100
10	CHEETAH NSH 2C	PLANNED LATERAL
11	CHEETAH NSH 4C	PLANNED LATERAL
12	CHEETAH NSH 6C	PLANNED LATERAL
13	FREC NOBL BROOKFIELD A-3H	34121243500100
14	DEERE NBK 7B	34121246940000
15	DEERE NBK 5B	34121246930000
16	DEERE NBK 3B	34121246920000
17	DEERE NBK 1B	34121246910000
18	DEERE NBK 8A	34121246790000
19	DEERE NBK 6A	34121246780000
20	DEERE NBK 4A	34121246770000
21	DEERE NBK 2A	34121246760000
22	SABLE NBK16 8A	34121246600000
23	SABLE NBK16 6A	34121246590000
24	SABLE NBK16 4A	34121246580000
25	SABLE NBK16 2A	34121246570000
26	BROOKFIELD-NO-15SE 1HPA	34121246490100
27	WHITE RHINO NBK14 8A	34121246640000
28	WHITE RHINO NBK14 6A	34121246630000
29	WHITE RHINO NBK14 4A	34121246620000
30	WHITE RHINO NBK14 2A	34121246610000
31	BISON NNB 4A	PLANNED LATERAL
32	BISON NNB 2A	PLANNED LATERAL
33	BISON NNB 3B	PLANNED LATERAL
34	WHITE RHINO NBK14 #5B	34121246750000
35	WHITE RHINO NBK14 #9B	34121246730000
36	WHITE RHINO NBK14 #7B	34121246720000
37	WHITE RHINO NBK14 #11B	34121246740000
38	BROOKFIELD NBK15 3A	34121246550000
39	GEMSBOK NNB 1C	34121246880000
40	GEMSBOK NNB 3C	34121246890000
41	GEMSBOK NNB 5C	34121246900000
42	OSPREY NBK 1C	PLANNED LATERAL
43	OSPREY NBK 3C	PLANNED LATERAL
44	FREC NOBL OLIVE A-1H	34121243490100