

west virginia department of environmental protection

Oil and Gas Conservation Commission
601 57th Street, SE Charleston, WV 25304
(304)926-0499, Ext 1656

Earl Ray Tomblin, Governor
Barry K. Lay, Chairman
dep.wv.gov

**BEFORE THE OIL AND GAS CONSERVATION COMMISSION
OF THE STATE OF WEST VIRGINIA**

IN THE MATTER OF THE REQUEST BY SWN
PRODUCTION CO., LLC FOR AN EXCEPTION
TO RULE 39 CSR 1-4.2 REGARDING THE
DRILLING OF A PROPOSED WELL IDENTIFIED
AS THE O.E. BURGE U MSH 501H TO BE
LOCATED IN LIBERTY DISTRICT, MARSHALL
COUNTY, WEST VIRGINIA

DOCKET NO. 234-224
ORDER NO. 1

REPORT OF THE COMMISSION

This cause came before the Commission on August 18, 2015, in the Department of Environmental Protection Conference Room, Charleston, West Virginia, after giving notice as required by law, at the request of SWN Production Co., LLC ("SWN"), on the application seeking approval for an exception to W. Va. Code R. § 39-1-4.2, for the drilling of one proposed well identified as O.E. Burge U MSH 501H ("501H"). SWN requests an exception to the 400 foot unit boundary and leasehold setback for the 501H well. Bill Herlihy appeared as counsel on behalf of SWN. No opposing or noticed parties made an appearance.

SWN presented testimony from two witnesses, Scott Crump and Brandi Williams. Following the testimony, there being no other witnesses or parties interested in or affected by the application present, the Board voted on and thereupon convened an executive session. After breaking from executive session, a Motion was made by a member of the Commission to deny the exception for proposed well 501H on the grounds that SWN's proposed plan did not justly compensate nor protect the correlative rights of certain mineral owners affected by the well, in violation of W. Va. Code § 22C-9-1(a)(4). The Motion was properly seconded. There being no objection to the Motion, a vote was taken. There being three (3) ayes, and no nays, with the chair abstaining and one (1) member absent and not voting, the Motion carried, and the request for an exception was denied.

Promoting a healthy environment.

Thereupon, the Commission makes the following Findings of Fact and Conclusions of Law:

FINDINGS OF FACT

1. Members of the Commission present were Barry Lay, Lisa McClung, James Martin, and Robert Radabaugh.
2. The applicant is an operator within the meaning paragraph (4) subsection (a) of the West Virginia Code 22C-9-2.
3. SWN wishes to drill well 501H on a well pad that already contains three (3) existing wells that are drilled and producing from the Marcellus formation in the O.E. Burge South Unit (the "South Unit"). These wells are the O.E. Burge MSH 10H well, O.E. Burge 8H well and the O.E. Burge 6H well.
4. The three existing Marcellus wells travel southeast from the well pad into the South Unit as depicted in Exhibit 7.
5. The South Unit is a voluntary unit for all depths. There are no wells producing from the Utica formation in the South Unit.
6. The proposed 501H well would be drilled from the O.E. Burge existing well pad to produce in the Utica formation within the O.E. Burge Northwest Unit (the "Northwest Unit"), a separate Unit. Currently there are no wells drilled into the Northwest Unit.
7. SWN proposes that, in order to reach the Utica formation in Northwest Unit, the 501H well will first travel south into the South Unit, and then curve around the southwest strata and cross the western boundary of the South Unit line to reach the Northwest Unit, as depicted in Exhibit 7.
8. SWN represents that the proposed 501H well, though it transects the South Unit, would not produce within the boundaries of the South Unit. All productive portions of the 501H well would be located within the Northwest Unit.
9. SWN seeks an exception to the 400 foot boundary requirement for the proposed 501H well at two points. First, along the northern boundary of the South Unit where the well pad sits, and second, at the point where the 501H well crosses the western boundary of the South Unit to reach the Northwest Unit.
10. SWN is unable to construct and drill the 501H well into the direct northwest of the well pad because it lacks sufficient property rights.

11. The Commission finds that under SWH's proposed plan, potentially productive portions of the Utica formation in the South Unit will be sterilized due to 501H's transection of the South Unit.
12. Despite 501H effectively sterilizing portions of the South Unit owners' mineral interests in the Utica formation, no South Unit mineral owner will receive any royalties produced from well 501H.

CONCLUSIONS OF LAW

1. That due notice of time, place and purpose of the hearing has been given in all respects as required by law.
2. That pursuant to Chapter 22C, Article 9, Code of West Virginia, as amended, the Commission has jurisdiction over the subject matter embraced in said notice, and the persons interested therein, and jurisdiction to promulgate the hereinafter prescribed Order, and that a quorum of the Commission was present at the hearing.
3. Pursuant to the Legislature's declaration of public policy in W. Va. Code § 22C-9-1, the Commission has a duty to:
 - (4) Safeguard, protect and enforce the correlative rights of operators and royalty owners in a pool of oil or gas to the end that each such operator and royalty owner may obtain his just and equitable share of production from such pool of oil or gas. W. Va. Code § 22C-9-1(a)(4).
4. Under SWN's plan, the proposed 501H well will sterilize potentially productive portions of the Utica formation located in the South Unit. Thus, because the South Unit owners of the sterilized mineral interests would not receive any revenue produced by 501H, all mineral owners affected by 501H will not be properly compensated.
5. The Commission holds that SWN's proposed plan violates the correlative rights of the South Unit owners by sterilizing their mineral interests in the Utica formation without just compensation.
6. Accordingly, the Commission holds that SWN's proposed plan violates the public policy of this State as set forth in W. Va. Code § 22C-9-1(a)(4), and must be denied.

ORDER

Therefore, based on the Findings of Fact and Conclusions of Law, the West Virginia Oil and Gas Conservation Commission **DENIES** the applied for exception to W. Va. Code R. § 39-

1-4.2 by SWN for the drilling of the 501H well. Although the Commission encourages pad development for the purpose of minimizing surface disturbance, by statute the Commission has a paramount duty to safeguard, protect and enforce the correlative rights of operators and royalty owners and a pool of oil and gas along the entire length of the well bore. As proposed, SWN's plan violates the public policy of this State as set forth under W. Va. Code § 22C-9-1(a)(4). Accordingly, the request is denied.

IN THE NAME OF THE STATE OF WEST VIRGINIA

OIL AND GAS CONSERVATION COMMISSION
OF THE STATE OF WEST VIRGINIA

By: Barry K. Lay
Barry K. Lay, Chairman

Dated this 24th day of September, 2015, at Charleston, West Virginia.

BEFORE THE OIL AND GAS CONSERVATION COMMISSION
OF THE STATE OF WEST VIRGINIA

IN THE MATTER OF THE REQUEST BY
SWN PRODUCTION CO., LLC, FOR AN
EXCEPTION TO RULE 39CSR1-4.2
REGARDING THE DRILLING OF A
PROPOSED WELL IDENTIFIED AS THE
O.E. BURGE U MSH 501H TO BE
LOCATED IN LIBERTY DISTRICT,
MARSHALL COUNTY, WEST VIRGINIA.

DOCKET NO. 234
CAUSE NO. 224

Transcript of PROCEEDINGS had on the 18th day of
August, 2015, at 10:05 a.m., at the West Virginia
Department of Environmental Protection offices located at
601 57th Street, Southeast, Charleston, West Virginia,
pursuant to notice.

BEFORE:

BARRY K. LAY, CHAIRMAN
LISA McCLUNG, COMMISSIONER
JAMES MARTIN, COMMISSIONER
ROBERT RADABAUGH, COMMISSIONER
GREGORY FOSTER, ASSISTANT ATTORNEY GENERAL
CINDY RAINES, STAFF

BONNIE K. WOLFE
Certified Court Reporter
1211 Ellen Drive
South Charleston, West Virginia 25303
(304) 744-4318

APPEARANCES:

ON BEHALF OF THE APPLICANT:

William M. Herlihy, Esquire
 Spilman, Thomas & Battle, PLLC
 300 Kanawha Boulevard, East
 Charleston, WV 25321-0273

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No. 1 (Notice of Hearing)		3
No. 2 (Sec. of State Confirm.)		3
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1 CHAIRMAN LAY: Before the Oil and Gas
2 Conservation Commission of the State of West Virginia in
3 the matter of the request by SWN Production Company, LLC,
4 for an exception to Rule 39CSR1-4.2 regarding the drilling
5 of a proposed well identified as the O.E. Burge UMSH 501H
6 to be located in Liberty District, Marshall County, West
7 Virginia.

8 This is Docket No. 234, Cause No. 224. Let
9 the record show that present are members of the
10 Commission, Lisa McClung, James Martin, Robert Radabaugh,
11 Barry Lay, Greg Foster, counsel, and Cindy Raines of
12 staff.

13 I'd like to place of record as Exhibit 1 a
14 copy of the Notice of Hearing along with the certified
15 mail receipts.

16 (WHEREUPON, said document was
17 identified as Exhibit No. 1 and was
18 received in evidence and attached
19 hereto and made a part hereof.)

20 CHAIRMAN LAY: Exhibit 2 is a copy of
21 Confirmation for the Secretary of State Public Meeting.

22 (WHEREUPON, said document was
23 identified as Exhibit No. 2 and was
24 received in evidence and attached

1 hereto and made a part hereof.)

2 CHAIRMAN LAY: Exhibit 3 is a Confirmation of
3 the Legal Ad Publication.

4 (WHEREUPON, said document was
5 identified as Exhibit No. 3 and was
6 received in evidence and attached
7 hereto and made a part hereof.)

8 CHAIRMAN LAY: Exhibit 4 is the letter
9 requesting exception location hearing.

10 (WHEREUPON, said document was
11 identified as Exhibit No. 4 and was
12 received in evidence and attached
13 hereto and made a part hereof.)

14 CHAIRMAN LAY: Exhibit 5 is the Notice of
15 Deviation.

16 (WHEREUPON, said document was
17 identified as Exhibit No. 5 and was
18 received in evidence and attached
19 hereto and made a part hereof.)

20 CHAIRMAN LAY: Exhibit 6 is a copy of the
21 Application.

22 (WHEREUPON, said document was
23 identified as Exhibit No. 6 and was
24 received in evidence and attached

1 hereto and made a part hereof.)

2 CHAIRMAN LAY: At this time, the Commission will
3 take appearances.

4 MR. HERLIHY: Good afternoon, Mr. Chairman. My
5 name's Bill Herlihy from the law firm of Spilman, Thomas &
6 Battle. I represent Southwestern Production Company, LLC,
7 in this hearing before the Commission.

8 And the purpose of this hearing is based on
9 Southwestern's request for a variance from the 400 foot
10 unit boundary and leasehold setback stated in West
11 Virginia CSR39-1-4.2 for the O.E. Burge UMSH 501H well,
12 API No. 047-051-01853. And from here on in, I'll refer to
13 it as the 501 well or 501H well for simplicity's purposes.

14 I'd like to orient the Commission as to
15 exactly what we're doing here 'cause I'm not sure you've
16 addressed this before. But before we do it, I just want
17 to say how grateful I am to Cindy Raines.

18 When I have one of these, I usually send
19 her a couple dozen emails. And she was very responsive in
20 answering them and setting up the hearing date and helping
21 us get to this point. She's been tremendously efficient,
22 and I really appreciate that. Thank you.

23 So to orient you, the Burge 501H well, the
24 O.E. Burge well pad. I'm gesturing. It's marked whatever

1 exhibit you'd like to call that, Mr. Chairman.

2 CHAIRMAN LAY: Let's just call it 7.

3 MR. HERLIHY: So I'd like to introduce Exhibit 7
4 for this hearing as a depiction of the 501H well as
5 applied for in the existing well permit application.

6 (WHEREUPON, said document was
7 identified as Exhibit No. 7.)

8 MR. HERLIHY: And what I'd like to show is the
9 well pad, the O.E. Burge well pad that I'm gesturing to
10 that's depicted in green at the top of what is also
11 depicted as the O.E. Burge south unit is an existing well
12 pad.

13 There are three existing wells that move --
14 that are drilled on and producing from that well pad, and
15 they're all Marcellus wells. One is the O.E. Burge MSH
16 10H well. And I'm moving from the northeast down to the
17 southeast. The second is the O.E. Burge 8H well. And the
18 third is the O.E. Burge 6H well.

19 This well pad is a little bit over three
20 acres in size. It's been in production for quite a while.
21 It is in fairly mountainous terrain which will come into
22 focus later on. The O.E. Burge south unit has been
23 registered and recorded. One point of interest is, if you
24 look at this red outline in the middle, in case you're

1 wondering, which is 07-19-33, it is held out of the unit
2 because there's still some existing title issues with
3 regard to it. So that's why it's depicted in red.

4 But at any rate, the 501H well is proposed
5 to be spudding or drilled from its existing well pad. It
6 will travel down to the south and then curving around to
7 the southwest in nonproductive strata before it reaches
8 the ultimate target formation, which is the Pt. Pleasant
9 shale.

10 And here's where we bump into one of the
11 issues. First of all, the well pad where this well is
12 spudded is within 400 feet of the boundary of the Burge
13 South unit. In addition, where it crosses the southern --
14 southwestern border of the Burge South unit, it is still
15 again in a nonproductive area, but again it violates the
16 400 foot boundary.

17 It progresses into what is depicted here as
18 the O.E. Burge Northwest Unit, which has been again
19 registered, formed and is the subject of a recorded
20 unitization agreement. And it hits the productive area of
21 the Pt. Pleasant shale well within the boundaries of the
22 northwest unit.

23 And when I say well within the boundaries,
24 it's way beyond 400 feet. And then the productive portion

1 of the 501H well goes from the landing point, which is
2 approximately where I'm gesturing-- It's approximately
3 800 feet into the Burge Northwest Unit. --and that
4 productive area extends all the way to the northwest up
5 here to the end point, which I'm gesturing to, which is at
6 the very top northwestern corner of the O.E. Burge MSH
7 501H well.

8 So the reason for using this type of
9 configuration in moving across the unit boundaries is
10 because you've got this existing well pad which has room
11 for one or more additional wells. So what we would deal
12 with here is, not only is it economically advisable,
13 because you don't have to build an additional well pad,
14 but you've got a well pad that's constructed so you don't
15 have the construction noise, the lighting, dust that's
16 normally associated with building another well pad in this
17 sort of mountainous terrain.

18 It's got existing roads that move to it.
19 It's got existing pipeline access to it. So you won't
20 have the disruption of road building off of the site. You
21 would have the disruption of building another pipeline to
22 a second well pad area. So in terms of economic issues
23 and in terms of environmental surface impact issues, we
24 feel like it minimizes the impact that we would have from

1 the 501H well.

2 And then crossing into the northwest unit,
3 the reason for that is that is maximizing the reach of
4 this well bore into the Pt. Pleasant shale. In other
5 words, we have-- If this well is drilled as planned, from
6 landing point to the end point is in excess of 7,000 feet
7 of productive area.

8 Southwestern couldn't construct and drill
9 that sort of well into the direct northwest of the Burge
10 well pad that I'm gesturing to in green on Exhibit 7
11 because they don't have sufficient property rights in the
12 area to extend it beyond maybe 2500 feet right now. And
13 they have certain budgetary requirements. They want to
14 drill this well. They want to prove up the reserve. And
15 they want to maximize the return on this shale development
16 in order to drill this well.

17 So that's kind of the general outlay of
18 what we're asking the Commission to rule on, which would
19 be to deal with the fact that the Burge well pad is within
20 400 feet of the northwestern boundary of the Burge south
21 unit. And then it crosses within 400 feet of the
22 southwestern barrier between the Burge south unit and the
23 Burge Northwestern Unit.

24 And we would take the position that that is

1 the most efficient way to develop the Pt. Pleasant shale
2 both from an economic sense but also from maximizing the
3 dealings -- maximizing the production, rather, from the
4 Pt. Pleasant shale in the Burge Northwest unit.

5 And I'd like to now introduce testimony
6 that would support those different claims that I've made
7 in my introductory remarks, if that's acceptable to the
8 Commission.

9 CHAIRMAN LAY: Call your witness.

10 MR. HERLIHY: My first witness is going to be
11 Scott. And if you'd take the witness stand, please--
12 It's Scott Crump, C-r-u-m-p. And his title at
13 Southwestern is Director of Regulatory and Operational
14 Compliance.

15 (Witness sworn.)

16 THEREUPON came

17 SCOTT CRUMP

18 called as a witness by the Applicant herein, being first
19 duly sworn according to law, testified as follows:

20 MR. HERLIHY: You know, Mr. Chairman, I'm sorry.
21 I've made a mistake in my rush to get at it. I'd really
22 like to have our land person testify first. So again, I
23 apologize.

24 CHAIRMAN LAY: You may be excused.

1 (Witness stands aside.)

2 MR. HERLIHY: Let me adjourn Mr. Crump, and I'm
3 going to call Brandi Williams, B-r-a-n-d-I, Williams.

4 (Witness sworn.)

5 THEREUPON came

6 BRANDI WILLIAMS

7 called as a witness by the Applicant herein, being first
8 duly sworn according to law, testified as follows:

9 DIRECT EXAMINATION

10 BY MR. HERLIHY:

11 Q Please state your name for the record.

12 A My name is Brandi Williams, and I'm a Senior
13 Landman with Southwestern.

14 Q Could you describe for the Commission your
15 educational background?

16 A Yes. I graduated from Texas A&M University in
17 2000 and then attended South Texas College of Law in 2003,
18 obtained my law degree. I'm licensed to practice law in
19 the State of Texas, and I'm also a Certified Petroleum
20 Landman. And over the past ten years, oil and gas law has
21 been my primary focus.

22 Q Okay. And could you tell the Commission a
23 little bit about your employment experience?

24 A Sure. Have over ten years experience as a

1 landman, particularly eight years in the northeastern U.S.
2 Prior to joining Southwestern in 2013, I worked several
3 years for Talisman Energy managing their northeast
4 Pennsylvania assets as well as some of their south Texas
5 assets.

6 For the past few years with Southwestern, I
7 have been working their northeastern PA and now their West
8 Virginia--

9 Q So you've had a significant amount of experience
10 in real property rights in the Appalachian Basin. Is that
11 correct?

12 A That's correct for the past eight years.

13 Q Okay. Let me give you a copy of what is Exhibit
14 No. 7 that you can refer to, as well as looking at the
15 chart that's on the easel. And let me ask you to describe
16 the O.E. Burge well pad. And what I mean by that is its
17 acreage, what's on it.

18 A Well, the O.E. Burge pad is approximately a
19 little over three and a half acres and currently has three
20 producing wells, Marcellus wells.

21 Q And that would be where the 501H well would be
22 drilled assuming it's approved.

23 A That's correct.

24 Q Okay. And let's move-- Well, do you have all

1 of the surface rights and consent necessary to operate on
2 the Burge well pad?

3 A Yes.

4 Q And so there are no problems with drilling a
5 well on the surface of that well pad. Is that correct?

6 A That's correct.

7 Q Let's move from there to what is the O.E. Burge
8 south unit.

9 A Uh-huh.

10 Q Could you describe that for the Commission in
11 terms of how large it is?

12 A Yes. That unit is 535 acres and currently has
13 three producing wells.

14 Q And except for that one little spot in the
15 middle, you have all leasehold rights to that South unit?

16 A Yes. That's correct.

17 Q And that's what I'd call a voluntary unit. Is
18 that correct?

19 A Yes. It's a voluntary unit.

20 Q And the only existing wells in that unit right
21 now are the three Marcellus wells that I've referenced
22 before. Is that correct?

23 A That's correct.

24 Q Are there any flat rate leases within the

1 boundaries of the South unit?

2 A No.

3 Q Now, tell the Commission how the 501H well, if
4 you would, moves through the South unit? And what I mean
5 by that is what's the purpose of that well bore moving
6 through that unit and what would it intersect on its way?

7 A So at the starting point of the 501 well from
8 the pad, it'll move through the O.E. Burge south unit and
9 then cross the western boundary of the O.E. Burge south
10 unit line. That's where our issues are with the 400 foot
11 setback. And then the actual--

12 Q Brandi, could you raise your voice just a little
13 bit? I'm having a hard time hearing you.

14 A Sure. So along that boundary line and where the
15 well starts, that's where we have our issue with the 400
16 foot setback.

17 Q Okay. Would the 501H well be producing anywhere
18 within the South unit?

19 A No.

20 Q And so would you describe the two points for the
21 proposed 501H well where it comes within 400 feet of the
22 boundaries with the South unit?

23 A Yes. It would be along the northern boundary of
24 the O.E. Burge south where the pad sets and then where the

1 nonproductive portion of the well bore crosses the western
2 boundary of the O.E. Burge south unit.

3 Q Now, if you would, could you describe the O.E.
4 Burge Northwest Unit? And what I mean by that, again, is
5 the approximate acreage and what is anticipated to be
6 within that unit at this point.

7 A The acreage is 395 acres. And currently,
8 everything is leased within that unit boundary. And it's
9 a voluntary unit as well.

10 Q Okay. So there are no foreign tracts within
11 that unit?

12 A That's correct.

13 Q Are there any flat rate royalty leases within
14 the Burge Northwest Unit?

15 A No.

16 Q So tell me about the relationship with the
17 Northwest Unit to the 501H well. And what I mean by that
18 is where's the landing point of that unit and what does
19 the well do within the boundaries of that unit?

20 A The landing point is well outside the 400 foot
21 setback of the unit boundary lines. And all along that,
22 it is more than 400 feet from the boundary lines of the
23 unit.

24 Q And when you say the landing point, do I

1 understand that to be where the well bore hits the
2 productive area of the Pt. Pleasant shale?

3 A That's correct.

4 Q What do you call the end point of that well
5 bore?

6 A The end point would be where you see the ending
7 point on the--

8 Q Well, end point is the terminology I ought to
9 use for that, for the ending of the horizontal well bore?

10 A That's correct.

11 Q And so the distance from the landing point to
12 the end point of the 501H well, which is the productive
13 area, is roughly how long? Do you know?

14 A The entire length of the lateral?

15 Q Yeah, the productive length of the lateral.

16 A Approximately, 7500 feet.

17 Q Now, at any point in either the South unit or
18 the Northwestern Unit, does the 501H well come within a
19 3000 foot barrier from other deep wells?

20 A No.

21 Q So there are no deep wells within that area?

22 A There's no deep wells within that area.

23 Q Let's focus for a minute on tract four depicted
24 on Exhibit 7. And just for the record, tract four is

1 indicated on there with a tax map number of 071736. And
2 it's depicted in white.

3 And is tract number four within either the
4 South unit or the Northwestern Unit?

5 A Currently, it is not.

6 Q And what's the status of that tract? And what I
7 mean by that is how is Southwestern dealing with that
8 tract?

9 A That tract is owned by the West Virginia
10 Department of Natural Resources. And Southwestern
11 nominated that parcel for lease earlier this year.

12 MR. HERLIHY: Mr. Chairman, I'd like to
13 introduce what I will call Exhibit No. 8 and ask you to
14 view it. With your permission, I'll move this into
15 evidence.

16 CHAIRMAN LAY: Any objection to admitting
17 Exhibit 8? We'll admit both Exhibits 7 and 8.

18 MR. HERLIHY: Thank you.

19 (WHEREUPON, the documents previously
20 identified as Exhibits 7 and 8 were
21 received in evidence and made a part
22 hereof.)

23 BY MR. HERLIHY:

24 Q Brandi, could you identify what has been labeled

1 as Exhibit 8?

2 A Yes. That is the August 10th letter of approval
3 that we received from the Governor's office approving the
4 tract number four to move forward in the bid process for
5 leasing.

6 Q So the next step in that process will be that
7 the West Virginia Department of Natural Resources will
8 publicly advertise tract number four for bid?

9 A That's correct.

10 Q And that's bidding it out for potential leases
11 with other operators?

12 A Yes. It's a competitive bid.

13 Q Does Southwestern intend to bid on that?

14 A That's correct.

15 Q If Southwestern were to successfully bid on that
16 and obtain a lease, which unit would it be included in?

17 A It would be included in the O.E. Burge Northwest
18 Unit.

19 Q Okay. And approximately how-- If I understand
20 it correctly, the tract number four contains approximately
21 13.25 acres. Is that right?

22 A That's correct.

23 Q Can you share with the Commission how that
24 bidding process is anticipated to proceed?

1 A Yes. Based on how the process works with
2 Department of Natural Resources, there's a two-week period
3 for bids, and then there's a thirty-day evaluation period.
4 So from Southwestern's standpoint, if we're successful, we
5 would expect to have an answer within forty-five days if
6 we have the lease and are able to include it in the
7 Northwest Unit.

8 Q And if I understand correctly, publication
9 either went out today or is going out tomorrow. Is that
10 right?

11 A That's correct.

12 Q So based on a forty-five day estimate, we'd be
13 into, what, the second week in October?

14 A First or second week of October.

15 MR. HERLIHY: That's all I have for this
16 witness. I would request, if the Commission has any
17 questions for her, please ask.

18 CHAIRMAN LAY: Questions?

19 EXAMINATION

20 BY COMMISSIONER MARTIN:

21 Q Mr. Chairman, I guess I have a question. Do you
22 have a distance on the proposed lateral from the boundary?
23 You said it's outside the 400 feet. What is the distance
24 proposed?

1 A Along the western boundary?

2 Q Yes, the southwestern boundary.

3 A It's approximately 475 feet.

4 COMMISSIONER MARTIN: Thank you.

5 EXAMINATION

6 BY COMMISSIONER RADABAUGH:

7 Q One place I'm still getting confused on the map,
8 I guess, I looked at the buffer zone that you've got
9 around the unit. But then the dark red line is actually
10 the unit boundary?

11 A Yes. The dark red line is the unit boundary.

12 Q The unit boundary. So you're actually-- The
13 lateral's going to be closer to one unit side than it is
14 the other unit side for what reason?

15 A That's to allow for future development. If this
16 well is successful and we want to drill potentially
17 another P5. Pleasant well, this sets us up to do that.

18 COMMISSIONER RADABAUGH: Okay.

19 EXAMINATION

20 BY COMMISSIONER McCLUNG:

21 Q Just one question. Who owns the cabin?

22 A I'm sorry. I don't have that in front of me.
23 The cabin? Scott, do you--

24 COMMISSIONER RADABAUGH: The cabin and a water

1 well. It's over near the pad.

2 MR. HERLIHY: You're referencing the well plat
3 that's within the well work application?

4 COMMISSIONER RADABAUGH: Yeah.

5 MR. HERLIHY: May I borrow your copy just to
6 share with the witness? Thank you.

7 THE WITNESS: Where was that at, the cabin?

8 MR. HERLIHY: The cabin is somewhere up near
9 the--

10 THE WITNESS: I don't have their name with me,
11 but I could follow up with that information if it would
12 help.

13 MR. HERLIHY: Do you know the nature of that
14 structure?

15 THE WITNESS: I do not.

16 MR. HERLIHY: I'll vouch for the record, and
17 I'll introduce that testimony later, that this is a
18 hunting cabin, a recreational structure.

19 BY COMMISSIONER McCLUNG:

20 Q By somebody different than who's doing all this
21 (indicating)? Have they been talked to? I mean-- What
22 is it, seven hundred and some feet?

23 MR. HERLIHY: Yes.

24 THE WITNESS: Yes. With the permit of the well,

1 we would have talked -- you know, handled all of our
2 surface issues within the area.

3 BY COMMISSIONER McCLUNG:

4 Q There's probably an application somewhere.

5 A Mm-hum.

6 MR. HERLIHY: So but to your knowledge, you
7 haven't received any--

8 THE WITNESS: I haven't received--

9 MR. HERLIHY: --objection from the person who
10 owns this hunting cabin?

11 THE WITNESS: That's correct.

12 EXAMINATION

13 BY CHAIRMAN LAY:

14 Q I have a couple of questions. What is the
15 distance from the proposed well bore to the northeast unit
16 boundary? I don't see it depicted anywhere on the plat.

17 A So do you mean from the 501 over to the
18 northeast--

19 Q Yeah.

20 A The further--

21 Q Northeast of the 501 lateral itself. It
22 appears, and I think you testified, that's it's 475 feet
23 to the southern unit boundary from that horizontal. How
24 far is it to the northeastern boundary?

1 A Up towards where you see the number, two?

2 Q Yeah. That runs along-- No.

3 A Okay.

4 Q That begins at the tract number four and
5 terminates at what's labeled number three.

6 A We don't have that exact measurement with us
7 but--

8 MR. HERLIHY: Based on the scale of that side,
9 what would you estimate it is?

10 THE WITNESS: Based on the scale of the plat, I
11 would say it's over 1000 feet.

12 BY CHAIRMAN LAY:

13 Q Okay. It's over 1000 feet from the proposed
14 lateral to the-- I'm going to call it the northern
15 boundary of the northwest unit.

16 A Okay.

17 Q And that's your estimate?

18 A That's my estimate based on the scale of the
19 map.

20 Q Okay.

21 A I don't think that exact measurement's on the --
22 on the plat. 'Cause you see the 1500 foot, yeah.

23 Q Right.

24 COMMISSIONER RADABAUGH: It includes part of

1 that boundary, so it would be less than 1500.

2 THE WITNESS: Less than 1500 hundred or probably
3 more than 1000.

4 BY CHAIRMAN LAY:

5 Q More than 1000?

6 A Mm-hum.

7 Q Okay. Your southern unit, it is a unit formed
8 just for the Marcellus?

9 A That unit covers all depths. It's a voluntary
10 unit, but it's for Marcellus wells.

11 Q It covers all depths, however--

12 A The pooling-- The pooling is for the Marcellus
13 formation.

14 Q There is no pooling for the Marcellus formation
15 for us. It doesn't enter into-- And my point is this,
16 because you have a voluntary unit doesn't reflect any on
17 what is being done in the Utica because you have a
18 Marcellus unit there.

19 MR. HERLIHY: Mr. Chairman, that unit was
20 voluntarily formed for drilling and producing Marcellus
21 wells.

22 CHAIRMAN LAY: Understood.

23 MR. HERLIHY: There are no Utica wells that are
24 planned, nor does the 501H well -- will it, if it's

1 drilled, produce anywhere within the boundaries of that
2 south unit.

3 CHAIRMAN LAY: Understood. That's your proposal
4 anyway.

5 MR. HERLIHY: Correct.

6 BY CHAIRMAN LAY:

7 Q I'm going to assume-- You have two different
8 colors on the map. One is a darker yellow, and one is a
9 lighter yellow.

10 A Mm-hum.

11 Q Since you're the land person, I will direct this
12 to you. I assume the darker-- Or maybe-- What is the
13 darker yellow?

14 A The darker yellow reflects all the parcels that
15 are affected by both of those -- both of those units.
16 Either all or a portion of those parcels that are the
17 darker yellow fall within the units.

18 Q And your company holds the leases? Who holds
19 the leases on those yellow tracts?

20 A Southwestern.

21 Q All the tracts shown in yellow or just the
22 darker yellow?

23 A We hold the majority of everything in yellow.

24 Q Okay.

1 A Even the lighter-colored yellow, yes.

2 Q But the darker yellow, do you hold all the
3 leasehold estate?

4 A That's correct.

5 Q Okay. To all depths?

6 A That's correct.

7 Q Out of curiosity, why bring this action, if
8 you're in the process of acquiring tract four, to the
9 Commission when it appears that it's something that's
10 going to happen in the near future?

11 A Scott can probably, you know, bring more
12 information on that. But, you know, from our-- From
13 Southwestern's standpoint, right now is the right time to
14 drill this well. We have the rig availability. We also,
15 you know, have it within our budget. And we'd like to
16 drill this well by the end of the year.

17 MR. HERLIHY: So Mr. Chairman, just to clarify,
18 the 501H well can be drilled on exactly the route that's
19 depicted on Exhibit 7 before the Commission. And the
20 reason we have introduced evidence about tract number four
21 is it may be added to that tract in the future, and, if
22 so, there's a possibility that the well bore could be
23 redirected. But as depicted in Exhibit 7, it can and is
24 planned to be drilled.

1 CHAIRMAN LAY: Okay.

2 MR. HERLIHY: And since you've focused on that
3 issue, let me raise a procedural issue for you and the
4 other members of the Commission to think about. One issue
5 that Mr. Crump is going to talk about, if you think it's
6 appropriate, is the idea of an alternative route for the
7 501H well that would have the same offset issues that its
8 current route has on Exhibit 7, but it would just
9 intersect a portion of tract four in the future once a
10 lease is successfully obtained for that, which we fully
11 expect.

12 So in other words, what we'd be thinking
13 about and asking the Commission to rule on, if it's
14 appropriate, is the concept that, if and when that lease
15 is obtained, would the Commission approve the same offsets
16 on the second route which would be involved in our
17 judgment in exactly the same issues as the route that's on
18 Exhibit 7.

19 CHAIRMAN LAY: I'm not exactly-- Restate that
20 again. I don't quite follow what you're asking.

21 MR. HERLIHY: Well, if-- If, let's say, in the
22 first week of October Southwestern successfully obtains a
23 lease from the West Virginia Department of Natural
24 Resources on tract number four--

1 CHAIRMAN LAY: Okay.

2 MR. HERLILHY: --then they would conceivably
3 move to-- And let me show you on Exhibit 7. They would
4 move to decrease -- potentially move to decrease the arc
5 of the 501H well to come-- And we've got an exhibit that
6 shows this if you think it's appropriate. --that would
7 come in closer and cross the southern boundary of tract
8 four. But it would still have the same sort of producing
9 landing point and end point on the lateral.

10 The same formation, target formation, would
11 be the Pt. Pleasant shale. And quite frankly, it would be
12 more efficient in the sense that, if you don't have to go
13 on this larger arc that's depicted on Exhibit 7, then it
14 would take less time for surface disruptions. And
15 conceivably, the well might be even more productive
16 because you have less pipe in the ground.

17 COMMISSIONER RADABAUGH: But if I can ask a
18 question--

19 MR. HERLIHY: Sure.

20 COMMISSIONER RADABAUGH: If you would do that,
21 you may save a little now, but would that effect the
22 potential of a second lateral because you're-- You're
23 cutting through the new tract, so you're saving some
24 distance, but you're also-- It looks to me like you're

1 taking away from what you're going to need to do that
2 second lateral--

3 COMMISSIONER MARTIN: In the same unit.

4 COMMISSIONER RADABAUGH: --in future-- Yeah.

5 MR. HERLIHY: I don't have the expertise to
6 answer that spacing question, but I think Mr. Crump can,
7 again, if you feel like that's an appropriate portion of
8 this hearing.

9 COMMISSIONER LAY: And since we're out of the
10 venue of this witness, I'll ask the question. Do you have
11 a technical expert here today on drilling that can answer
12 some of the questions?

13 MR. HERLIHY: Yes. Mr. Crump. He's an oil and
14 gas engineer, and I'll qualify him as such.

15 CHAIRMAN LAY: Okay. I'm having a difficult
16 time with the fact that you're showing this well starting
17 in a -- or not being in the unit itself. You're starting
18 the well-- You're asking for an exception to the rule.
19 However, the surface location is not, as I can tell from
20 this plat, within the bounds of the unit. Is that
21 correct?

22 MR. HERLIHY: It's not within the boundaries of
23 the Burge Northwest Unit. It's within the boundaries of
24 the Burge south unit.

1 CHAIRMAN LAY: The South unit has no bearing on
2 this because it's a Marcellus unit. It doesn't have
3 anything to do with what we're doing. Those two units can
4 overlap because you pooled-- That is a pooling for a
5 shallow formation. It does not enter into what we're
6 doing today.

7 MR. HERLIHY: Well, but I think as Ms. Williams'
8 testimony has been, that South unit covers all formations.

9 CHAIRMAN LAY: That's a contractual unit and
10 voluntary on your part. It doesn't-- It doesn't compel
11 us to say that can't or won't be pooled with this well
12 because it gives me a problem that the well bore itself is
13 not within the bounds of the unit.

14 You're not asking for an exception to the
15 400 foot rule because your well bore isn't in the unit.

16 MR. HERLIHY: Well, the productive parts are all
17 in the unit.

18 CHAIRMAN LAY: And our-- Everything we have
19 done at the Commission from past experience, the well has
20 to be or has been-- I'm not saying it has to be. But the
21 well has been within the bounds of the unit.

22 MR. HERLIHY: Just out of curiosity, what
23 statutory basis would you use for that?

24 CHAIRMAN LAY: Well--

1 MR. HERLIHY: Where does the authority come from
2 to make that distinction?

3 CHAIRMAN LAY: There's nothing that we've-- I
4 don't know that we have anything in the Rule. It's a good
5 question.

6 MR. HERLIHY: I mean, admittedly, it's an
7 unusual configuration.

8 CHAIRMAN LAY: Right.

9 MR. HERLIHY: That's why we're here. But I
10 think I can answer-- I know I can introduce evidence from
11 a petroleum engineer that demonstrates that the 501H well
12 will not be producing in any part of the South unit. It's
13 simply transecting that unit.

14 CHAIRMAN LAY: Understood. But realize that our
15 Code and Rules have not been written for horizontal wells.

16 MR. HERLIHY: I understand.

17 CHAIRMAN LAY: And we're trying to proceed as
18 best we can, but-- Well, let's go ahead. We're get into
19 that later.

20 MR. HERLIHY: Mr. Chairman, just to complete
21 that thought, one of the reasons why we even brought this
22 in front of the Commission is the concept that we feel
23 that by allowing the nonproductive portion of the 501H
24 well to be drilled off the existing Burge well pad that's

1 on the South unit, that we would minimize, again, surface
2 disturbances. It would eliminate the--

3 CHAIRMAN LAY: Understand.

4 MR. HERLIHY: --construction of another well pad
5 and would allow this -- the productive part of the 501H
6 will to cross through the most of the northwestern unit as
7 possible.

8 CHAIRMAN LAY: Understand. Let's go off the
9 record for a second.

10 MR. HERLIHY: Sure.

11 CHAIRMAN LAY: I'd like to have a conference
12 with the members of the Commission and counsel.

13 MR. HERLIHY: Okay. Thank you.

14 (WHEREUPON, a brief recess was had.)

15 CHAIRMAN LAY: Sorry for the delay, but we'll go
16 back on the record. Mr. Herlihy, continue.

17 MR. HERLIHY: Mr. Chairman, let me-- Just to
18 simplify matters, let me pull the whole idea of tract
19 number four off the table so we're just focused on well
20 501H as it's currently depicted on Exhibit 7. We won't
21 even delve into the question of whether there's an
22 alternative route, if that's acceptable to the Commission.

23 CHAIRMAN LAY: That's fine. You're presenting
24 your evidence to us.

1 MR. HERLIHY: Thank you. Is there any further
2 questions from the Commission to Ms. Williams?

3 CHAIRMAN LAY: Anybody else have any questions?
4 I don't think I have any more. If you're finished with
5 the witness, she may be excused.

6 MR. HERLIHY: Okay. Thank you.

7 (Witness excused.)

8 CHAIRMAN LAY: Call your next witness, please.

9 MR. HERLIHY: It's Scott Crump, and we've
10 already sworn him based on my mistake in order of
11 witnesses.

12 CHAIRMAN LAY: Mr. Crump, do you realize you're
13 still under oath?

14 MR. CRUMP: I do.

15 THEREUPON came

16 SCOTT CRUMP

17 having been previously called and sworn, resumed the stand
18 and testified as follows:

19 DIRECT EXAMINATION

20 BY MR. HERLIHY:

21 Q Mr. Crump, can you state your name?

22 A Scott Crump.

23 Q And your current employer?

24 A Southwestern, the Applicant.

1 Q And your position with that employer?

2 A Director of Regulatory and Operational
3 Compliance.

4 Q And could you describe for the Commission your
5 educational background?

6 A I have a degree in petroleum engineering from
7 University of Texas, 1992.

8 Q Do you have any further training beyond that?

9 A I do. I have worked towards a master's, but I
10 never completed it.

11 Q A master's degree in what?

12 A Energy and mineral resources development.

13 Q Could you share with the Commission your
14 employment experience since you graduated from school?

15 A I've worked in a variety of positions, including
16 consulting for -- a position as an engineer for
17 Schlumberger Middle East in Saudi Arabia and at Arco
18 Petroleum in Houston, Quantum Resource Management, another
19 oil and gas operator in Houston, and since February of
20 this year, Southwestern.

21 Q If I could-- You've got a copy of Exhibit No. 7
22 in front of you, which is a depiction of the proposed
23 route for the Burge 501H well. And on that exhibit,
24 you've got the Burge well pad. Why did you choose that

1 well pad to be where this 501H well is to be drilled?

2 A Primarily, because this is an existing pad. It
3 was built by a predecessor in 2011, Chesapeake. But it is
4 an existing pad in an area where useable surface locations
5 are hard to come by.

6 Q And as testified before by Ms. Williams, there
7 exists on that well pad three Marcellus wells?

8 A Correct.

9 Q Okay. And they service the southwest-- I'm
10 sorry. --the southern Burge unit?

11 A Yes. They do.

12 Q And the Burge south unit is a voluntary unit.
13 Correct?

14 A That's my understanding. Yes.

15 Q And it is a unit that covers all oil and gas
16 formations.

17 A That is my understanding. Yes.

18 Q Let's move from there to the Burge northwestern
19 unit. Can you describe this unit in relationship to the
20 south unit? And what I mean by that is what changes with
21 the Burge 501H well as it moves from the south unit into
22 the northwest unit?

23 A Well, the orientation changes. It turns and
24 runs to the northwest away from those existing Marcellus

1 wells to the south. But it is a much longer in extent
2 unit there to allow for a greater productive well bore
3 length and greater capture of reserves.

4 Q Focusing on the Burge south unit, the areas of
5 the 501H well within that unit are nonproductive.

6 Correct?

7 A That's correct. The well head and the curve,
8 the vertical and curved portions of it including the
9 entire portion of the O.E. Burge south unit are
10 nonproductive.

11 Q Based on your understanding, you have complete
12 rights to locate that well bore on the south unit.

13 Correct?

14 A That's my understanding. Yes.

15 Q Now, focusing back on the northwest unit, can
16 you describe based on Exhibit 7 where the landing point of
17 that 501H well is?

18 A The landing point is contained within the O.E.
19 Burge northwest unit, and it and in all of the subsequent,
20 complete-able portions of the well are all in a regular
21 location, which is to say more than 400 feet from the
22 Burge northwest unit boundary.

23 Q So all the productive portions of the 501H well
24 or all the intended producing areas of the 501H well are

1 located within the northwest unit?

2 A That's correct.

3 Q And will any stimulation or fracking activities
4 be limited to the northwest unit?

5 A All completions including fracking and
6 perforating occurs within the Burge northwest unit at a
7 distance greater than 400 feet from its boundary.

8 Q Now, let me go up and use some depictions on
9 Exhibit 7. And I'm gesturing to an area that I'll just
10 call for hypothetical purposes the O.E. Burge northeast
11 unit. So that's an area that extends from roughly the
12 existing Burge well pad and it goes to the northwest.

13 Why aren't you drilling the 501H well in
14 that area?

15 A It's my understanding that, while we have leases
16 across that whole yellow area, we don't have a hundred
17 percent of the leasehold through there. Whereas, this
18 Burge northwest unit as depicted on there is an area where
19 we do have one hundred percent of the leasehold.

20 Q Okay. And so if you were to drill deep wells,
21 that is, Pt. Pleasant shale wells, off this existing well
22 pad directionally to the northwest, you couldn't extend
23 them nearly as far as in the existing northwest unit. Is
24 that correct?

1 A That's correct. You would not get nearly as
2 long of a productive well bore.

3 Q So could you tell the Commission about why using
4 the existing Burge well pad to develop the 501H well on
5 the northwest unit is efficient in terms of surface
6 disturbances, which is one of DEP's goals?

7 A This would minimize the creation of a new pad.
8 Full, complete disturbance is generally on the order of
9 about ten acres in this area.

10 Were we to have a location here, it would
11 require that much more disturbance with the associated
12 timber cutting, construction traffic, dust, noise and
13 expenditure in order to build a new location as opposed to
14 using this existing, serviceable location.

15 Q And again, there's an existing efficient road to
16 that well pad?

17 A Yes. There is.

18 Q And there is sufficient pipeline capacity to
19 carry the expected production from the 501H well off the
20 existing well pad?

21 A Today there is, yes.

22 Q Could you describe for the Commission why
23 drilling the well from the existing pad through the south
24 unit into the Burge northwest unit would be efficient from

1 a reservoir development standpoint?

2 A We're seeking here to get the longest,
3 complete-able lateral that we can in an attempt to drain
4 as much with a single well bore. This current
5 configuration allows us to reach out there and get a much
6 longer well path with a greater, complete-able section.

7 Q Would drilling the 501H well as depicted on
8 Exhibit 7 in its current location eliminate drilling
9 future Pt. Pleasant shale wells along the same -- in the
10 same unit?

11 A I'm sorry. Could you re-ask that?

12 Q Would drilling the 501H well in its current
13 location leave enough room to drill other Pt. Pleasant
14 shale wells within the northwest unit?

15 A Yes. There's still available route, slots or
16 space on the pad to drill additional wells.

17 Q Tell the Commission a little bit about the
18 timing of drilling the 501H well. Why is it important to
19 get it completed within the calendar year, 2015?

20 A This is an issue of availability. And by that,
21 I mean we have available capital to spend at this time, in
22 a time of declining commodity prices. We have a rig
23 available now or will be becoming available. And we have
24 at the moment pipeline capacity to take production that we

1 hope to get off of this Pt. Pleasant well and take it to
2 market.

3 Q In thinking about future development plans of
4 deep shale rights, if you were limited to using a well pad
5 that was within an existing unit to develop adjacent
6 reserves, would that harm the ability to drill multiple
7 wells off of a single well pad?

8 A Yes. If I understand your question correctly,
9 you're asking whether, if the pad and the full well bore
10 must be contained within a single--

11 Q Correct.

12 A --unit. Yes. It would eliminate pad drilling.
13 You know, the ability to drill multiple wells from a
14 single pad would require one pad per unit to do that.

15 MR. HERLIHY: With the Chairman's permission,
16 can I have Mr. Crump approach the exhibits?

17 CHAIRMAN LAY: Sure.

18 BY MR. HERLIHY:

19 Q Could you motion on this exhibit your thinking
20 about how limiting drilling of deep shale wells to a
21 single well pad contained within a single unit would limit
22 the ability to use multiple well pads -- multiple wells on
23 a single well pad?

24 A Well, if that was a requirement that the entire

1 well bore and pad had to be in a single unit, we would be-
2 - As configured here in this voluntary unit, this pad
3 would have to be somewhere there. But then we would be
4 unable to drill another well there because we would have
5 to locate--

6 That one would have to be located within
7 there. This (indicating) couldn't be used to drill north
8 of there (indicating). We'd have to drill or-- As drawn
9 on here, perhaps this one does lap over. But the slot
10 would have to be located on this (indicating) and would
11 basically require each well -- one well per pad.

12 Q Now, is using one pad for multiple wells on
13 multiple voluntary units drilling to the Marcellus shale
14 as opposed to deep shale wells, is that common?

15 A It is common as depicted on here. We have three
16 of them for our O.E. Burge south, including one that does
17 leave the Burge south unit or is not contained in there.
18 The nonproductive portion of the well runs to the
19 northwest of it.

20 Q So just for descriptive purposes in the record,
21 that well you just referred to where it moves outside the
22 Burge south unit is the O.E. Burge MSH 10H well.

23 A Correct.

24 Q As a petroleum engineer, do you think this

1 configuration of the 501H well maximizes the current
2 development of the Pt. Pleasant shale within the Burge
3 northwest unit?

4 A Yes.

5 Q Is there the possibility, if this well weren't
6 drilled within 2015 that no well might be drilled within
7 the O.E. Burge northwest unit?

8 A There's that possibility.

9 Q And is it your opinion, as both an
10 administrative manager for Southwestern and also a
11 petroleum engineer, that locating the surface drill pad
12 for the O.E. Burge 501H well on the Burge well pad
13 minimizes surface disturbances?

14 A That is my opinion.

15 Q And for all the reasons that you stated earlier?

16 A Correct.

17 MR. HERLIHY: I don't have any further questions
18 of Mr. Crump.

19 CHAIRMAN LAY: Questions?

20 EXAMINATION

21 BY COMMISSIONER McCLUNG:

22 Q I have a couple I'd like Mr. Crump to answer,
23 but-- What's the distance to tract four as it is
24 configured here?

1 A I don't know the answer to that.

2 MS. WILLIAMS: It's approximately 430 feet.

3 BY COMMISSIONER McCLUNG:

4 Q Well production. And my second question is
5 would it drain anything from tract four or does it have
6 the potential to drain anything from tract four?

7 A The portions of the well that are closest to
8 four where that arc is made around it are going to be
9 nonproductive. So there would be no completion or
10 stimulation in that portion of the well that's near the
11 four.

12 Q So you believe that there wouldn't be?

13 A No. I don't. I believe there would not be.

14 CHAIRMAN LAY: Do you have another question,
15 Lisa?

16 COMMISSIONER McCLUNG: No. I don't have any.

17 CHAIRMAN LAY: Any other questions?

18 EXAMINATION

19 BY COMMISSIONER MARTIN:

20 Q I'm going to follow up on that one. So I think
21 Lisa asked a question about your thoughts on whether or
22 not, even from a productive-- And understanding that part
23 of the lateral is not in the productive horizon, but where
24 it is, it looks like the closest point is 420 feet, which

1 will be on the southeastern part of the lateral. It's
2 Southwestern's position that there wouldn't be any
3 drainage from tract four even at that part of the lateral?

4 A No, sir. Again back to the position of those
5 portions that are closest to it are greater than both the
6 minimum spacing, but they're in a portion of the well bore
7 that won't have a frack put on it. And it's our position
8 that the Pt. Pleasant won't produce without being fracked.

9 Q There won't be any fracturing down in the
10 southeastern part of the lateral in the Pt. Pleasant?

11 A May I?

12 Q There's no fracturing close to the landing
13 point?

14 A From the landing point along that north-- If I
15 may--

16 Q Yeah. Sure.

17 A From the landing point running this way, yes, we
18 intend to frack along here (indicating).

19 Q How far to the southeast will you be fracking?

20 A Close up to the landing point, up to this here
21 (indicating).

22 Q I guess that's my question. At that point,
23 there's no drainage from tract four?

24 A We don't believe so. Yes. If I may, frack half

1 lengths that we're expecting here are roughly 250 to 375.
2 Of course, this is our first Pt. Pleasant well in the
3 area. But based on what we understand from other
4 operators and the literature, that's the sort of frack
5 half length which -- and shale will define under that mix.

6 Q If I may-- And while you're there, maybe you
7 could still address it. Assuming-- I think you testified
8 that it would be difficult to move the well to the
9 northeast because of the-- Well, what you testified, I
10 think, was that-- In the depiction there, it gives you
11 the greatest lateral extent. Right?

12 A Yes, sir.

13 Q So if you drilled in the same type of
14 configuration, i.e., the pattern of drilling backwards and
15 then going forwards, if you will, assuming that's a smart
16 way to do it, why could you not do the same thing and
17 drill to the northwest from that pad without -- and just
18 have the unit configured differently? In other words, put
19 the lateral to the northeast of where it is now off that
20 pad.

21 A Put the lateral to the--

22 Q You control the acreage to the northeast.
23 Right?

24 A Right.

1 Q So why could the unit not be up there and
2 overlap with the south unit and drill from the same pad
3 and have overlapping units and have the lateral going to
4 the northeast?

5 A My understanding of your question is why
6 shouldn't the unit look more like this (indicating)?

7 Q Exactly. You've got the same-- The distance
8 would be equal if not longer, wouldn't it?

9 A We have this issue here where this color shaded
10 right there (indicating), where we don't have a hundred
11 percent, that would preclude us from in this portion of
12 the field running the lateral nearly as long.

13 At a future date, if this is successful
14 that we gain this tract four, there could be a well that
15 runs here as these units -- as this land position is
16 acquired. It would make it possible for a long lateral to
17 run up there. But as I understand the land position
18 today, these lighter-colored bits here that are shown, we
19 don't have a hundred percent. So it would require a
20 shorter--

21 Q I thought the darker units were the only -- were
22 the units that were just being impacted by these two
23 units, not that those were the only ones you controlled,
24 was my understanding. I didn't understand that you didn't

1 have them.

2 A Perhaps I should let the land person address
3 that.

4 Q Is there any reason that you couldn't just,
5 leaving the lateral where it is, change the shape of the
6 unit to include the southeastern portion of the lateral,
7 the piece to the southeast of tract four?

8 A To here (indicating).

9 Q To include that (indicating) portion, yes, sir.

10 A This (indicating) way or to--

11 Q Yeah. Outside to include the entire lateral.
12 Is there a reason that the unit boundary couldn't be
13 changed for that?

14 A I'll have to let the land person speak to that.

15 MR. HERLIHY: If I'm allowed, I think I can
16 answer that question.

17 CHAIRMAN LAY: Not if you don't want to testify.

18 COMMISSIONER MARTIN: We can--

19 THE WITNESS: If I may, if the concern is that
20 we've got to get this entire well bore contained down
21 there, my belief is we just defer this problem later. If
22 the whole thing has to be contained on here, we're back to
23 the problem of, you know, how do you do pad drilling.

24 CHAIRMAN LAY: I disagree. I'm going to break

1 in here.

2 COMMISSIONER MARTIN: Well, I guess that's the
3 point I'm trying to make. I know your testimony made that
4 concern, but I don't see that concern. I don't understand
5 that point that you're trying to make with how having the
6 entire lateral in the unit including the pad prevents you
7 from having-- I don't understand that point. That's why
8 I'm asking the question.

9 THE WITNESS: Okay.

10 CHAIRMAN LAY: Yeah. And if you don't mind, I'd
11 like to add to your question. Under your scenario,
12 basically, you would not be allowed to drill a Marcellus.
13 I mean, you drilled a Marcellus pad there off the same
14 well in a single unit. You got multiple wells within a
15 unit. Why are you not allowing for multiple well units
16 within the Utica? I mean, you reserved enough area that
17 you testified to that you could drill a second lateral.
18 Correct?

19 THE WITNESS: Yes. Yes, sir. I think I
20 mis-characterized it.

21 BY COMMISSIONER MARTIN:

22 Q So I don't know-- You know, maybe you're not
23 the right person to that question, so I understand. But
24 it seems to me just looking at the acreage, and maybe I

1 have a misunderstanding how you control it, but it looks
2 like you can get the same lateral from that pad in a
3 couple different ways.

4 MR. HERLIHY: Mr. Martin, just so I understand
5 where you're talking about that hypothetical well bore,
6 are you saying from here (indicating).

7 THE WITNESS: I understand it to be here
8 (indicating).

9 BY COMMISSIONER MARTIN:

10 Q There's two separate issues. One point I was
11 trying to make is that it looks like you could get the
12 same length of lateral to the northeast, and you said you
13 didn't think so because you didn't think you controlled
14 all that acreage.

15 A Yes.

16 Q I guess that's a question that still needs an
17 answer. The other point I was saying, even leaving the
18 lateral where it is, if you just change the shape of the
19 unit, you can do exactly that and you'll have the entire
20 lateral within the unit.

21 CHAIRMAN LAY: Like this (indicating). Add the
22 blue ink line to your unit.

23 BY COMMISSIONER MARTIN:

24 Q And my question was: Is there a reason from

1 your perspective that you can't do that?

2 A I'll defer that to the land person.

3 Q That's fine. I understand.

4 CHAIRMAN LAY: Okay. Any other questions? I
5 have a couple or at least one.

6 THE WITNESS: Okay.

7 EXAMINATION

8 BY CHAIRMAN LAY:

9 Q Part of my concern is obviously the safety and
10 mechanical--

11 A Yes, sir.

12 Q --integrity of the drilling process and what
13 you're proposing. You have proposed that your kick from
14 surface to the heel will cross over your O.E. Burge 6H
15 Marcellus completion. What is the length of separation
16 between the existing well bore and your proposed bore at
17 their intersection?

18 A I'll have to get back to you on that, but I will
19 say it's a configuration that we have done safely in other
20 places. But I don't have a distance there for where their
21 closest point would be, but I can provide that.

22 Q You see and share my concern, I assume, that
23 there be a safe distance between those two laterals?

24 A Absolutely, absolutely. They're steered

1 actively at all times to maintain a separation. In this
2 particular case though, I don't know what that minimum
3 distance is. This configuration though is not-- This is
4 not unique. This has been done safety.

5 Q I understand. I just want to make sure that
6 you're not trying to cut the corner too close.

7 A Understood. No, sir. We are not.

8 Q Second, my other question is concerning your
9 testimony with regard to the half-length of your frack
10 links.

11 A Yes, sir.

12 Q What information or what data do you have to
13 support your hypothesis that your--

14 A Primarily from other operators and just
15 literature. At this point, this is our first-- This is
16 our first Pt. Pleasant, so we don't have direct
17 experience. We have just from other operators in the
18 area.

19 One of the most recent ones, another
20 operator is doing it. They're putting their spacing at
21 500 foot between wells, which would-- You would infer
22 then that that's a maximum of 250. And what we're
23 seeing--

24 Q In the Utica? Not in West Virginia.

1 A Over in Ohio.

2 Q Okay. Do you have any reservoir modeling or any
3 data that you can present? And I assume that you're the
4 proper person that will allow the Commission to understand
5 that 400 feet is, in fact, sufficient to protect the
6 correlative rights of the offset owners?

7 A I do, but not today. We can provide the
8 Commission with that, but we don't have that today.

9 CHAIRMAN LAY: Okay. That's all the questions I
10 have. Okay. No other questions. The witness may be
11 excused. Mr. Herlihy?

12 MR. HERLIHY: Can I just have a redirect of--

13 CHAIRMAN LAY: Certainly.

14 MR. HERLIHY: --Mr. Crump?

15 REDIRECT EXAMINATION

16 BY MR. HERLIHY:

17 Q Mr. Crump, the Chairperson referred you to where
18 the proposed path of the Burge 501H well goes underneath
19 the existing Marcellus Burge 6N well in the south unit.

20 A Yes.

21 Q Typically, in that area, do you know what the
22 depth of the Marcellus well might be in the south unit
23 just in your experience?

24 A It's several thousand feet above this. We're at

1 12,000 feet for the Pt. Pleasant, so the Marcellus is
2 thousands of feet above.

3 Q Okay. So the Marcellus, you would expect in
4 this area to be above what minimum elevation or minimum
5 depth, rather?

6 A Above?

7 Q Yeah.

8 A Above nine.

9 Q So based on your understanding as an oil and gas
10 engineer, what would be the minimum separation you'd
11 expect here? Would it be in the thousands of feet between
12 the two well bores?

13 A The minimum? Not necessarily, because this well
14 is going down. But it would be-- We generally maintain
15 hundreds of feet in my experience elsewhere.

16 MR. HERLIHY: I have no further questions of
17 this witness.

18 CHAIRMAN LAY: Okay. Witness may be excused.
19 You can call your next witness.

20 (Witness excused.)

21 MR. HERLIHY: I have none, except I'd like to
22 recall Brandi Williams to address some of Chief Williams'
23 questions--

24 CHAIRMAN LAY: Okay.

1 MR. HERLIHY: --about--

2 MS. WILLIAMS: We think we can clarify.

3 MR. HERLIHY: If you'd like to take the witness
4 chair--

5 CHAIRMAN LAY: You realize you're still under
6 oath.

7 MR. HERLIHY: If you'd have a seat, please?

8 THE WITNESS: It may be easier if I can--

9 MR. HERLIHY: Okay.

10 THE WITNESS: --if I can come up.

11 MR. HERLIHY: Do you want to approach Exhibit 7
12 on the easel?

13 THEREUPON came

14 BRANDI WILLIAMS

15 having been previously called and sworn, resumed the stand
16 and testified as follows:

17 EXAMINATION

18 BY COMMISSIONER MARTIN:

19 Q There are two questions. I realize the issue
20 with tract four and the fact it is not leased. So that
21 aside, the two points I was trying to make, two questions,
22 one was in regard to the lateral length which I believe
23 from what I see on this map could be achieved to the
24 northeast.

1 A Northeast.

2 Q Mr. Crump was talking about the acreage and the
3 belief that maybe the lighter yellow wasn't controlled one
4 hundred percent. So is that the distinction between the
5 colors?

6 A Let me clarify that. I think it's more of a
7 timing issue. We were wanting to drill this year. In the
8 northeast, we have eighty-some tracts we're still working
9 on and so we don't feel comfortable drilling it before the
10 end of the year. Probably in the next six to nine months,
11 that would be a different situation. We're working on
12 some lease modifications and some curative titles in
13 heirships.

14 Q That's just the lighter yellow?

15 A That's in this lighter-- Yes.

16 Q So all the dark yellow, that wouldn't be--

17 A There's no title issues with the darker yellow.
18 That's correct.

19 Q So the distinction between the colors is not
20 just because those dark yellows are parts of these two
21 units?

22 A The reason that we've shown the darker yellow on
23 this map is to illustrate what parcels are affected by
24 these two units. That's the primary purpose of that.

1 Q The other question I had was in regard to--
2 This played into more of an issue with tract four. Again
3 that aside, could the lateral-- Could the unit boundary
4 be changed, drilled in the same configuration and that way
5 capture the entire--

6 A For illustrative purposes, let's just say they
7 follow something like this (indicating). Is that what
8 you're saying?

9 Q No. Right where it is now. Oh, you mean the
10 deeper boundary.

11 CHAIRMAN LAY: The unit boundary, exactly.
12 Yeah.

13 THE WITNESS: You're already in a boundary--

14 COMMISSIONER MARTIN: Yeah. That's right.

15 THE WITNESS: --to take in this pad.

16 CHAIRMAN LAY: Not that large probably, but the
17 configuration.

18 THE WITNESS: But the configuration would--

19 CHAIRMAN LAY: I just sketched on something that
20 would be--

21 THE WITNESS: Something to where it would take
22 that in. We could, but wouldn't we have the same issue or
23 conversation if we wanted a hearing on drilling a Utica
24 well in the future if we're wanting to drill off this pad

1 but we couldn't be part of that unit?

2 BY COMMISSIONER MARTIN:

3 Q Well, it's a different-- It would be a
4 different unit. Right? I mean, what I'm talking--

5 A But the pad wouldn't--

6 Q But we're talking about the pad being now in
7 multiple units. That's the question.

8 A So--

9 Q You're talking about another unit potentially.
10 Right?

11 A For right now, we've only got the pad in the one
12 unit.

13 Q I understand. My point was: Is there a reason
14 it couldn't be in multiple units and drill it just like
15 you have now?

16 A If they're both Utica, you would have
17 overlapping units.

18 Q Well, this is a Marcellus unit.

19 A Well, let's just say we want to put another
20 Utica unit for the purpose of a deep well, then you would
21 be overlapping your unit here.

22 COMMISSIONER RADABAUGH: What if-- What if--

23 THE WITNESS: Your voluntary unit shouldn't--

24 EXAMINATION

1 BY COMMISSIONER RADABAUGH:

2 Q What if you started your unit right at the well
3 bore itself? Forget about the pad. It's the well bore
4 itself. Then the next well bore, as she's talking--

5 A And I think that's the idea.

6 Q --you take off of your next unit right there.

7 CHAIRMAN LAY: No. I think, if you're going to
8 do pad drilling-- And this is my opinion only. We
9 haven't discussed it as a Commission and otherwise.

10 But your testimony, any well drilled off
11 the same pad should be configured in the same unit. So if
12 you drill a second well off that pad and it's not within
13 the confines of that, you should enlarge the pad to
14 include that well.

15 THE WITNESS: Should enlarge the unit or the--

16 CHAIRMAN LAY: The unit, I mean. Yes. That's
17 just my opinion. That's not the Commission's ruling or--

18 THE WITNESS: For example, a common practice in
19 the leases here is there is going to be a unit limited to
20 a 640 acre unit. So--

21 CHAIRMAN LAY: Limitation. That was a
22 limitation?

23 THE WITNESS: So that limits the unit.

24 CHAIRMAN LAY: But that's not something--

1 COMMISSIONER RADABAUGH: We'll discuss that
2 later. That's not--

3 CHAIRMAN LAY: Yeah.

4 MR. HERLIHY: I have a couple of redirect
5 questions, if I may.

6 CHAIRMAN LAY: Okay.

7 MR. HERLIHY: Are all the members of the
8 Commission done?

9 CHAIRMAN LAY: Yeah. I think so.

10 DIRECT EXAMINATION

11 BY MR. HERLIHY:

12 Q Brandi, if you were to, as a matter of
13 contractual rights, leasehold rights, would you be able
14 now to redraw this shale unit?

15 A If we were to redraw that unit, it would affect
16 the royalty rights to this (indicating) unit, because this
17 unit goes for all depths. It would affect payments to
18 those landowners.

19 Q And it's a voluntary-- The Burge south unit is
20 a voluntary unit. Correct?

21 A That's correct.

22 Q All depths?

23 A That's correct.

24 Q And so you really can't change that, can you?

1 CHAIRMAN LAY: No.

2 THE WITNESS: You can change it, but it will
3 have an impact on our royalty payments to the royalty
4 owners.

5 CHAIRMAN LAY: Why would it have-- I mean, yes,
6 it would have an impact, but why is that detrimental to
7 your existing Marcellus unit, because they're included in
8 another unit in another strata. It's no different than,
9 for example, not so much in our area, but you go to Texas
10 or Oklahoma and you have multiple zone wells that are
11 drilled on the same pad and they have different ownership.
12 They have different working interest owners. They have in
13 some cases different royalty owners. But yet they form a
14 unit for that formation, and they overlap by horizon.

15 THE WITNESS: Well, one example with the way
16 that this is set up is that we can actually-- Since this
17 is all depths in the O.E. Burge south, we could drill a
18 Utica well there the way we currently have it pooled. So,
19 I mean, there's benefits to it that way. So then we're
20 going to be changing everything.

21 CHAIRMAN LAY: Okay. Again in my mind, it would
22 be much better to have a small overlap between units on
23 that surface location than to preclude them. Because
24 we're not talking about a large amount of acreage that

1 would be overlapping if you want to drill one north and
2 south. But that's something for us, as a Commission, to
3 determine.

4 THE WITNESS: And we'll be happy to add that to
5 what we do when we get to that third unit or that next
6 Utica unit. We still have a similar issue.

7 CHAIRMAN LAY: Any other redirect? Okay.

8 BY MR. HERLILHY:

9 Q I'm sorry. One redirect question. If you were
10 to rearrange the Burge northwest unit just with respect to
11 the Pt. Pleasant shale to include -- to overlap the Burge
12 south unit and include the Burge well pad, that would be a
13 violation of the current leasehold situation, wouldn't it?

14 A I think what you're asking there would be just
15 because of the current unit that we've already placed
16 those leases in.

17 Q Right.

18 A Yes. We would have to do something with that
19 southern unit.

20 MR. HERLIHY: Thank you. I have no further
21 questions.

22 (Witness excused.)

23 CHAIRMAN LAY: No further witnesses?

24 MR. HERLIHY: No, sir

1 CHAIRMAN LAY: Okay. Like to go off the record
2 then, if everyone would be so kind as to allow us to
3 deliberate.

4 (WHEREUPON, a discussion was had
5 off the record.)

6 CHAIRMAN LAY: Let's go back on the record. Do
7 I have a motion?

8 COMMISSIONER RADABAUGH: I have a motion, Mr.
9 Chairman. I make a motion to deny the request. Although
10 we encourage pad development for the purpose of minimizing
11 surface disturbance, by Code we have a paramount duty to
12 safeguard, protect and enforce the correlative rights of
13 operators and royalty owners and a pool of oil and gas
14 along the entire length of the well bore. As proposed,
15 this request does not accomplish this task.

16 COMMISSIONER MARTIN: Second.

17 CHAIRMAN LAY: I have a motion and a second.
18 Any further discussion? All those in favor of the motion,
19 aye. Opposed, nay. Motion carried.

20 MR. HERLIHY: Mr. Chairman, can I explore the
21 details of the ruling?

22 CHAIRMAN LAY: Certainly, within certain levity.
23 We're not going to discuss our--

24 MR. HERLIHY: Sure. To whom would I address

1 those questions? To you?

2 CHAIRMAN LAY: I mean, you can address it to the
3 Board and--

4 MR. HERLIHY: What's the authority for the
5 ability of this Commission to rule on correlative rights?

6 CHAIRMAN LAY: In the Declaration of Public
7 Policy Legislature Findings under 22(C)9-1(a)(4). Also, I
8 believe it is part of 22(C)-97(a)-- No. --7(b), excuse
9 me, (b)(1).

10 MR. HERLIHY: And can I explore with the
11 Commission at what point the well bore as proposed for the
12 501H well came too close?

13 COMMISSIONER RADABAUGH: It's not that it came
14 too close. What the problem is, that you've got a section
15 of the well bore back to the pad that there are mineral
16 owners that are not going to receive any revenue from the
17 production.

18 CHAIRMAN LAY: And thereby, I'll expand upon
19 Bob's explanation. Under your plan, we're setting a
20 precedent where the well bore is not contained within the
21 unit, and the owners of those minerals could potentially
22 be sterilized and not participate in any revenue from the
23 Utica unit because you're only incorporating what is being
24 completed, not the entire length of the lateral.

1 MR. HERLIHY: Thank you. You're getting to the
2 crux of my question, which is--

3 CHAIRMAN LAY: Yes.

4 MR. HERLIHY: --I was wondering whether the
5 Commission's ruling was based on the number of feet of
6 offset in the Pt. Pleasant shale or whether it's the fact
7 that you have more than one unit involved. And it sounds
8 like it's the fact that you have more than one unit
9 involved.

10 COMMISSIONER RADABAUGH: Well, it's not really
11 that you have more than one unit. You've got a section of
12 mineral owners that are not going to be compensated.

13 CHAIRMAN LAY: If I might show you exactly what
14 we discussed -- not what we discussed but a--

15 MR. HERLIHY: Sure. Thank you.

16 CHAIRMAN LAY: For example, let's say you drill
17 a section well from this pad in the Utica. Then you've
18 acquired this (indicating) tract. Then your drilling path
19 goes here (indicating) and goes this (indicating) way.
20 And you use the same criteria that you've done. You're
21 saying that none of these (indicating) people are being
22 produced.

23 However, you're holding their minerals
24 with-- Or you have to have the right to drill through

1 their minerals to achieve your length in this (indicating)
2 lateral plus the second lateral.

3 However, if you don't include them in the
4 revenue from this well or from this well (indicating)
5 because of the way you've got your pad, you're not going
6 to drill another Utica well through there because of the
7 fact that you've got too many well bores coming down
8 through there.

9 So these people on this particular tract
10 right here (indicating), which the well is located and
11 which a majority of the -- no, not the majority -- a big
12 part of your curve exists, you're holding their minerals
13 with that surface location, but they're not receiving any
14 royalty.

15 So anything within four hundred-- What we
16 were discussing, anything within four hundred feet of that
17 pad and the entire length should be included in the unit.
18 Now, if the units overlap, so be it. If you've got six
19 wells on this pad-- If you've got a 640 acre unit and you
20 include -- one guy gets one acre in four different wells,
21 it's decimal dust. I mean, one out of a 640 acre unit--
22 So he gets a little extra interest. He's getting-- It's
23 a very small piece to have the surface disturbance.

24 MR. HERLIHY: Mr. Chairman, have you bumped--

1 Has the Commission bumped into that situation before,
2 where you have a well pad that's divided up among
3 different units?

4 CHAIRMAN LAY: Yes. Well, not the Commission.
5 We have had that in Coalbed.

6 MR. HERLIHY: Yeah.

7 CHAIRMAN LAY: But never -- never in this
8 situation. But I gotta tell you. We have never had a
9 unit proposed or a well proposed outside of the unit
10 before. We've never ruled on this type of situation, or
11 at least in my tenure of eighteen years.

12 MR. HERLIHY: Right. Okay. Okay. Well, I
13 appreciate that explanation. Thank you. I just wanted to
14 be clear on how the Commission reached its conclusion.

15 CHAIRMAN LAY: Any other-- I mean, did I
16 represent our concerns?

17 COMMISSIONER RADABAUGH: Yeah. I mean, the big
18 concern is some people being left out of the picture, and
19 we need to protect their rights that they receive revenues
20 and aren't sterilized down the road.

21 CHAIRMAN LAY: And I think you're going to find
22 our paramount responsibility is correlative rights. And
23 we're going to be very picky going forward that we don't
24 -- you know, that we are not inclusive of everyone that

1 should be included in the development, that we don't
2 strand acreage and that we don't sterilize acreage.

3 MR. HERLIHY: Thank you. And just so I-- One
4 other thought-- So the commission wouldn't be opposed to
5 units divided based on stratigraphic depths?

6 CHAIRMAN LAY: Absolutely not. I mean, there's
7 no-- We could-- We could have a unit in the Marcellus
8 that covers-- Of course, we've got no jurisdiction, so
9 let's go to--

10 MR. HERLIHY: Right.

11 CHAIRMAN LAY: --areas we have jurisdiction.
12 Let's assume that we have a Utica pad and we have a
13 Rogersville pad. Those units could-- You know, one could
14 lay this (indicating) and one could lay this (indicating)
15 on top of each other.

16 COMMISSIONER MARTIN: From the same pad.

17 CHAIRMAN LAY: But the same pad.

18 COMMISSIONER RADABAUGH: Right, yeah. But you'd
19 have different units--

20 CHAIRMAN LAY: But you'd have different units
21 because the laterals go different directions. They're
22 different lengths. They're in different reservoirs.

23 So the units could be different, completely
24 different. Just because you have a unit there, it doesn't

1 preclude you from developing the Utica. So it doesn't
2 preclude you from changing the orientation or existence or
3 size, shape, whatever of the unit in the Utica.

4 MR. HERLIHY: I appreciate that.

5 CHAIRMAN LAY: Any other questions?

6 MR. HERLIHY: If you could entertain one more--
7 Mr. Bill Reedy is also an employee of Southwestern. Could
8 he ask a question?

9 CHAIRMAN LAY: Yeah. I will allow him to ask a
10 question. He's not testifying. He's asking a question.
11 So, yeah.

12 MR. REEDY: And I guess the clarification I was
13 asking about is your concern was participation in
14 royalties and production from the unit. An example that
15 popped into my head was: Let's say that you have a pad
16 location on, we'll call it, a hundred acre lease. It's a
17 nice, big lease.

18 Say fifty percent of the lease is in the
19 unit you're going to produce from. Fifty percent falls
20 outside, and the pad falls outside of that unit. Would
21 that-- Would that affect your thinking on that at all
22 where that surface owner and mineral owner is benefitting
23 from royalties from that well even though a hundred
24 percent of their tract is not included within that unit?

1 CHAIRMAN LAY: No. I mean, I think it depends
2 upon the testimony, which I will tell you that was another
3 area that I was not comfortable with. You didn't know how
4 much separation you had mechanically between the two well
5 bores. Hundreds of feet? Thousands of feet? I don't
6 know. Our job is to protect the public as well.

7 If there's a chance we miss and intersect
8 that other well bore with its being completed, I mean, it
9 could be-- It could be catastrophic. I think that was
10 part of it. But I think, also, testimony as to what the
11 half length is-- I mean, what is the permeability, your
12 best guess? Even if you're using published data, where
13 did it come from? Who established that data?

14 No different than we would use in a force
15 pooling area. Because basically, you're asking us to
16 force pool this -- not force pool it, but to establish a
17 pool because we would have allowed you to drill outside of
18 the unit. That's what we're not comfortable with.

19 MR. REEDY: Then the fact that it's a voluntary
20 unit doesn't matter.

21 CHAIRMAN LAY: Doesn't matter because you're
22 still outside the unit.

23 MR. REEDY: Thank you.

24 MR. HERLIHY: Thank you. I appreciate your

1 detail and your--

2 CHAIRMAN LAY: And I apologize. We might have
3 been able to shortcut this, but I've looked at your plat
4 probably a dozen times, and I said let's go to hearing,
5 because I didn't understand what you were trying to tell
6 me.

7 MR. HERLIHY: Fair enough.

8 CHAIRMAN LAY: Anything else for the record?

9 Okay.

10 (WHEREUPON, the hearing was adjourned.)

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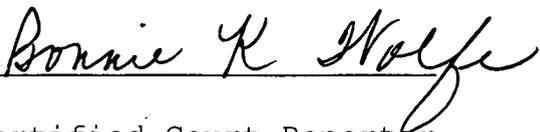
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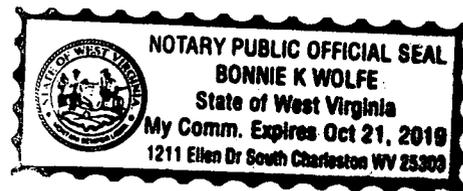
STATE OF WEST VIRGINIA
COUNTY OF KANAWHA, to wit:

I, BONNIE K. WOLFE, Certified Court Reporter and Notary Public of West Virginia, do hereby certify that the foregoing is, to the best of my skill and ability, a true and accurate transcript of all the proceedings as set forth in the caption hereof.

Given under my hand this 28th day of August,
2014.

My commission expires October 21, 2019.


Certified Court Reporter



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September 9, 2015

Ms. Cindy Raines, Executive Assistant
West Virginia Oil and Gas Conservation Commission
Office of Oil and Gas
West Virginia Department of Environmental Protection
601 57th Street, S.E.
Charleston, West Virginia 25304

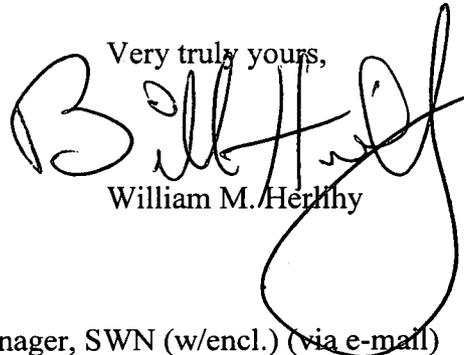
Re: In the Matter of the Request by SWN Production Co., LLC for
an Exception to Rule 39 CSR 1-4.2 Regarding the Drilling of a
Proposed Well Identified as the O.E. Burge U MSH 501H
to be Located in Liberty District, Marshall County, West Virginia;
Docket No. 234, Case No. 224

Dear Ms. Raines:

I have reviewed the transcript of the hearing held on August 18, 2015, before the West Virginia Oil and Gas Conservation Commission in the above-referenced case. I have enclosed an Errata Sheet which outlines various mistakes which I found in the transcript for this proceeding. I would appreciate your requesting that Bonnie K. Wolfe, the court reporter, correct these mistakes in the transcript and reissue it.

I also have not received draft Findings of Fact, Conclusions of Law and Order which the Chairman requested that Gregory Foster, the Assistant Attorney General present at the hearing, prepare to support the Commission's ruling in this case. I look forward to receiving a copy of this draft order in the near future. Thank you for your help in this matter.

Very truly yours,



William M. Herlihy

WMH/laf:7698046

Enclosure

cc: Scott Crump, Regulatory Manager, SWN (w/encl.) (via e-mail)

BEFORE THE OIL AND GAS CONSERVATION COMMISSION
OF THE STATE OF WEST VIRGINIA

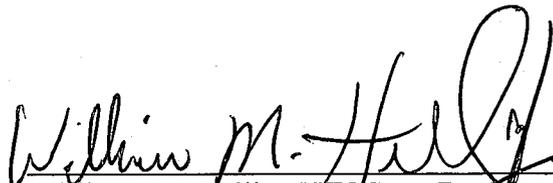
IN THE MATTER OF THE REQUEST BY
SWN PRODUCTION CO., LLC, FOR AN
EXCEPTION TO RULE 39 CSR 1-4.2
REGARDING THE DRILLING OF A
PROPOSED WELL IDENTIFIED AS THE
O.E. BURGE U MSH 501H TO BE
LOCATED IN LIBERTY DISTRICT,
MARSHALL COUNTY, WEST VIRGINIA.

DOCKET NO. 234
CAUSE NO. 224

**ERRATA SHEET REGARDING THE
TRANSCRIPT OF PROCEEDINGS HAD ON
THE 18th DAY OF AUGUST, 2015**

<u>Page</u>	<u>Line</u>	<u>Correction</u>
6	13	Delete "that move --"
7	1	"07-19-33" not "071933"
7	8-9	"Point Pleasant shale." not "Physical therapy. Pleasant shale."
9	4	"Point Pleasant shale." not "Physical therapy. Pleasant shale."
10	1	"Point Pleasant shale" not "Physical therapy. Pleasant shale"
10	4	"Point Pleasant shale" not "Physical therapy. Pleasant shale"
20	18	"Point Pleasant well" not "Physical therapy. Pleasant well"
22	11	"any objection from" not "--objection form"
39	3	"efficient" not "deficient"
39	12	"Point Pleasant shale" not "Physical therapy. Pleasant shale"
39	16-17	"Point Pleasant shale" not "Physical therapy. Pleasant shale"
40	4	"Point Pleasant well" not "Physical therapy. Pleasant well"

<u>Page</u>	<u>Line</u>	<u>Correction</u>
42	5	"Point Pleasant shale" not "Physical therapy. Pleasant shale"
44	11	"Point Pleasant" not "Physical therapy. Pleasant"
44	14-15	"Point Pleasant?" not "Physical therapy. Pleasant?"
45	7	"Point Pleasant well" not "Physical therapy. Pleasant well"
51	22	"Point Pleasant" not "Physical therapy. Pleasant"
53	7	"Point Pleasant" not "Physical therapy. Pleasant"
61	17	"Point Pleasant shale" not "Physical therapy. Pleasant shale"
64	13	"Point Pleasant shale" not "Physical therapy. Pleasant shale"
68	14	"Reedy" not "Reed"
68	19	"REEDY:" not "REED:"
70	2	"REEDY:" not "REED:"
70	6	"REEDY:" not "REED:"


 William M. Herlihy (WV State Bar No. 1688)
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 Counsel for SWN Production Co., LLC

BEFORE THE OIL AND GAS CONSERVATION COMMISSION
OF THE STATE OF WEST VIRGINIA

IN THE MATTER OF THE REQUEST BY
SWN PRODUCTION CO., LLC, FOR AN
EXCEPTION TO RULE 39CSR1-4.2
REGARDING THE DRILLING OF A
PROPOSED WELL IDENTIFIED AS THE
O.E. BURGE U MSH 501H TO BE
LOCATED IN LIBERTY DISTRICT,
MARSHALL COUNTY, WEST VIRGINIA.

DOCKET NO. 234
CAUSE NO. 224

Transcript of PROCEEDINGS had on the 18th day of
August, 2015, at 10:05 a.m., at the West Virginia
Department of Environmental Protection offices located at
601 57th Street, Southeast, Charleston, West Virginia,
pursuant to notice.

BEFORE:

BARRY K. LAY, CHAIRMAN
LISA McCLUNG, COMMISSIONER
JAMES MARTIN, COMMISSIONER
ROBERT RADABAUGH, COMMISSIONER
GREGORY FOSTER, ASSISTANT ATTORNEY GENERAL
CINDY RAINES, STAFF

BONNIE K. WOLFE
Certified Court Reporter
1211 Ellen Drive
South Charleston, West Virginia 25303
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APPEARANCES:

ON BEHALF OF THE APPLICANT:

William M. Herlihy, Esquire
 Spilman, Thomas & Battle, PLLC
 300 Kanawha Boulevard, East
 Charleston, WV 25321-0273

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Brandi Williams	11 59	19 (Martin) 20 (Radabaugh) 20 (McClung) 22 (Lay) 54 (Martin) 58 (Radabaugh)

<u>EXHIBITS</u>	<u>IDENTIFIED/RECEIVED</u>	
No. 1 (Notice of Hearing)		3
No. 2 (Sec. of State Confirm.)		3
No. 3 (Legal Ad Confirm.)		4
No. 4 (Request for Exception)		4
No. 5 (Notices of Deviation)		4
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1 CHAIRMAN LAY: Before the Oil and Gas
2 Conservation Commission of the State of West Virginia in
3 the matter of the request by SWN Production Company, LLC,
4 for an exception to Rule 39CSR1-4.2 regarding the drilling
5 of a proposed well identified as the O.E. Burge UMSH 501H
6 to be located in Liberty District, Marshall County, West
7 Virginia.

8 This is Docket No. 234, Cause No. 224. Let
9 the record show that present are members of the
10 Commission, Lisa McClung, James Martin, Robert Radabaugh,
11 Barry Lay, Greg Foster, counsel, and Cindy Raines of
12 staff.

13 I'd like to place of record as Exhibit 1 a
14 copy of the Notice of Hearing along with the certified
15 mail receipts.

16 (WHEREUPON, said document was
17 identified as Exhibit No. 1 and was
18 received in evidence and attached
19 hereto and made a part hereof.)

20 CHAIRMAN LAY: Exhibit 2 is a copy of
21 Confirmation for the Secretary of State Public Meeting.

22 (WHEREUPON, said document was
23 identified as Exhibit No. 2 and was
24 received in evidence and attached

1 hereto and made a part hereof.)

2 CHAIRMAN LAY: Exhibit 3 is a Confirmation of
3 the Legal Ad Publication.

4 (WHEREUPON, said document was
5 identified as Exhibit No. 3 and was
6 received in evidence and attached
7 hereto and made a part hereof.)

8 CHAIRMAN LAY: Exhibit 4 is the letter
9 requesting exception location hearing.

10 (WHEREUPON, said document was
11 identified as Exhibit No. 4 and was
12 received in evidence and attached
13 hereto and made a part hereof.)

14 CHAIRMAN LAY: Exhibit 5 is the Notice of
15 Deviation.

16 (WHEREUPON, said document was
17 identified as Exhibit No. 5 and was
18 received in evidence and attached
19 hereto and made a part hereof.)

20 CHAIRMAN LAY: Exhibit 6 is a copy of the
21 Application.

22 (WHEREUPON, said document was
23 identified as Exhibit No. 6 and was
24 received in evidence and attached

1 hereto and made a part hereof.)

2 CHAIRMAN LAY: At this time, the Commission will
3 take appearances.

4 MR. HERLIHY: Good afternoon, Mr. Chairman. My
5 name's Bill Herlihy from the law firm of Spilman, Thomas &
6 Battle. I represent Southwestern Production Company, LLC,
7 in this hearing before the Commission.

8 And the purpose of this hearing is based on
9 Southwestern's request for a variance from the 400 foot
10 unit boundary and leasehold setback stated in West
11 Virginia CSR39-1-4.2 for the O.E. Burge UMSH 501H well,
12 API No. 047-051-01853. And from here on in, I'll refer to
13 it as the 501 well or 501H well for simplicity's purposes.

14 I'd like to orient the Commission as to
15 exactly what we're doing here 'cause I'm not sure you've
16 addressed this before. But before we do it, I just want
17 to say how grateful I am to Cindy Raines.

18 When I have one of these, I usually send
19 her a couple dozen emails. And she was very responsive in
20 answering them and setting up the hearing date and helping
21 us get to this point. She's been tremendously efficient,
22 and I really appreciate that. Thank you.

23 So to orient you, the Burge 501H well, the
24 O.E. Burge well pad. I'm gesturing. It's marked whatever

1 exhibit you'd like to call that, Mr. Chairman.

2 CHAIRMAN LAY: Let's just call it 7.

3 MR. HERLIHY: So I'd like to introduce Exhibit 7
4 for this hearing as a depiction of the 501H well as
5 applied for in the existing well permit application.

6 (WHEREUPON, said document was
7 identified as Exhibit No. 7.)

8 MR. HERLIHY: And what I'd like to show is the
9 well pad, the O.E. Burge well pad that I'm gesturing to
10 that's depicted in green at the top of what is also
11 depicted as the O.E. Burge south unit is an existing well
12 pad.

13 There are three existing wells that move --
14 that are drilled on and producing from that well pad, and
15 they're all Marcellus wells. One is the O.E. Burge MSH
16 10H well. And I'm moving from the northeast down to the
17 southeast. The second is the O.E. Burge 8H well. And the
18 third is the O.E. Burge 6H well.

19 This well pad is a little bit over three
20 acres in size. It's been in production for quite a while.
21 It is in fairly mountainous terrain which will come into
22 focus later on. The O.E. Burge south unit has been
23 registered and recorded. One point of interest is, if you
24 look at this red outline in the middle, in case you're

1 wondering, which is 071933, it is held out of the unit
2 because there's still some existing title issues with
3 regard to it. So that's why it's depicted in red.

4 But at any rate, the 501H well is proposed
5 to be spudding or drilled from its existing well pad. It
6 will travel down to the south and then curving around to
7 the southwest in nonproductive strata before it reaches
8 the ultimate target formation, which is the Physical
9 therapy. Pleasant shale.

10 And here's where we bump into one of the
11 issues. First of all, the well pad where this well is
12 spudded is within 400 feet of the boundary of the Burge
13 South unit. In addition, where it crosses the southern --
14 southwestern border of the Burge South unit, it is still
15 again in a nonproductive area, but again it violates the
16 400 foot boundary.

17 It progresses into what is depicted here as
18 the O.E. Burge Northwest Unit, which has been again
19 registered, formed and is the subject of a recorded
20 unitization agreement. And it hits the productive area of
21 the Pt. Pleasant shale well within the boundaries of the
22 northwest unit.

23 And when I say well within the boundaries,
24 it's way beyond 400 feet. And then the productive portion

1 of the 501H well goes from the landing point, which is
2 approximately where I'm gesturing-- It's approximately
3 800 feet into the Burge Northwest Unit. --and that
4 productive area extends all the way to the northwest up
5 here to the end point, which I'm gesturing to, which is at
6 the very top northwestern corner of the O.E. Burge MSH
7 501H well.

8 So the reason for using this type of
9 configuration in moving across the unit boundaries is
10 because you've got this existing well pad which has room
11 for one or more additional wells. So what we would deal
12 with here is, not only is it economically advisable,
13 because you don't have to build an additional well pad,
14 but you've got a well pad that's constructed so you don't
15 have the construction noise, the lighting, dust that's
16 normally associated with building another well pad in this
17 sort of mountainous terrain.

18 It's got existing roads that move to it.
19 It's got existing pipeline access to it. So you won't
20 have the disruption of road building off of the site. You
21 would have the disruption of building another pipeline to
22 a second well pad area. So in terms of economic issues
23 and in terms of environmental surface impact issues, we
24 feel like it minimizes the impact that we would have from

1 the 501H well.

2 And then crossing into the northwest unit,
3 the reason for that is that is maximizing the reach of
4 this well bore into the Physical therapy. Pleasant shale.
5 In other words, we have-- If this well is drilled as
6 planned, from landing point to the end point is in excess
7 of 7,000 feet of productive area.

8 Southwestern couldn't construct and drill
9 that sort of well into the direct northwest of the Burge
10 well pad that I'm gesturing to in green on Exhibit 7
11 because they don't have sufficient property rights in the
12 area to extend it beyond maybe 2500 feet right now. And
13 they have certain budgetary requirements. They want to
14 drill this well. They want to prove up the reserve. And
15 they want to maximize the return on this shale development
16 in order to drill this well.

17 So that's kind of the general outlay of
18 what we're asking the Commission to rule on, which would
19 be to deal with the fact that the Burge well pad is within
20 400 feet of the northwestern boundary of the Burge south
21 unit. And then it crosses within 400 feet of the
22 southwestern barrier between the Burge south unit and the
23 Burge Northwestern Unit.

24 And we would take the position that that is

1 the most efficient way to develop the Physical therapy.
2 Pleasant shale both from an economic sense but also from
3 maximizing the dealings -- maximizing the production,
4 rather, from the Physical therapy. Pleasant shale in the
5 Burge Northwest unit.

6 And I'd like to now introduce testimony
7 that would support those different claims that I've made
8 in my introductory remarks, if that's acceptable to the
9 Commission.

10 CHAIRMAN LAY: Call your witness.

11 MR. HERLIHY: My first witness is going to be
12 Scott. And if you'd take the witness stand, please--
13 It's Scott Crump, C-r-u-m-p. And his title at
14 Southwestern is Director of Regulatory and Operational
15 Compliance.

16 (Witness sworn.)

17 THEREUPON came

18 SCOTT CRUMP

19 called as a witness by the Applicant herein, being first
20 duly sworn according to law, testified as follows:

21 MR. HERLIHY: You know, Mr. Chairman, I'm sorry.
22 I've made a mistake in my rush to get at it. I'd really
23 like to have our land person testify first. So again, I
24 apologize.

1 CHAIRMAN LAY: You may be excused.

2 (Witness stands aside.)

3 MR. HERLIHY: Let me adjourn Mr. Crump, and I'm
4 going to call Brandi Williams, B-r-a-n-d-I, Williams.

5 (Witness sworn.)

6 THEREUPON came

7 BRANDI WILLIAMS

8 called as a witness by the Applicant herein, being first
9 duly sworn according to law, testified as follows:

10 DIRECT EXAMINATION

11 BY MR. HERLIHY:

12 Q Please state your name for the record.

13 A My name is Brandi Williams, and I'm a Senior
14 Landman with Southwestern.

15 Q Could you describe for the Commission your
16 educational background?

17 A Yes. I graduated from Texas A&M University in
18 2000 and then attended South Texas College of Law in 2003,
19 obtained my law degree. I'm licensed to practice law in
20 the State of Texas, and I'm also a Certified Petroleum
21 Landman. And over the past ten years, oil and gas law has
22 been my primary focus.

23 Q Okay. And could you tell the Commission a
24 little bit about your employment experience?

1 A Sure. Have over ten years experience as a
2 landman, particularly eight years in the northeastern U.S.
3 Prior to joining Southwestern in 2013, I worked several
4 years for Talisman Energy managing their northeast
5 Pennsylvania assets as well as some of their south Texas
6 assets.

7 For the past few years with Southwestern, I
8 have been working their northeastern PA and now their West
9 Virginia--

10 Q So you've had a significant amount of experience
11 in real property rights in the Appalachian Basin. Is that
12 correct?

13 A That's correct for the past eight years.

14 Q Okay. Let me give you a copy of what is Exhibit
15 No. 7 that you can refer to, as well as looking at the
16 chart that's on the easel. And let me ask you to describe
17 the O.E. Burge well pad. And what I mean by that is its
18 acreage, what's on it.

19 A Well, the O.E. Burge pad is approximately a
20 little over three and a half acres and currently has three
21 producing wells, Marcellus wells.

22 Q And that would be where the 501H well would be
23 drilled assuming it's approved.

24 A That's correct.

1 Q Okay. And let's move-- Well, do you have all
2 of the surface rights and consent necessary to operate on
3 the Burge well pad?

4 A Yes.

5 Q And so there are no problems with drilling a
6 well on the surface of that well pad. Is that correct?

7 A That's correct.

8 Q Let's move from there to what is the O.E. Burge
9 south unit.

10 A Uh-huh.

11 Q Could you describe that for the Commission in
12 terms of how large it is?

13 A Yes. That unit is 535 acres and currently has
14 three producing wells.

15 Q And except for that one little spot in the
16 middle, you have all leasehold rights to that South unit?

17 A Yes. That's correct.

18 Q And that's what I'd call a voluntary unit. Is
19 that correct?

20 A Yes. It's a voluntary unit.

21 Q And the only existing wells in that unit right
22 now are the three Marcellus wells that I've referenced
23 before. Is that correct?

24 A That's correct.

1 Q Are there any flat rate leases within the
2 boundaries of the South unit?

3 A No.

4 Q Now, tell the Commission how the 501H well, if
5 you would, moves through the South unit? And what I mean
6 by that is what's the purpose of that well bore moving
7 through that unit and what would it intersect on its way?

8 A So at the starting point of the 501 well from
9 the pad, it'll move through the O.E. Burge south unit and
10 then cross the western boundary of the O.E. Burge south
11 unit line. That's where our issues are with the 400 foot
12 setback. And then the actual--

13 Q Brandi, could you raise your voice just a little
14 bit? I'm having a hard time hearing you.

15 A Sure. So along that boundary line and where the
16 well starts, that's where we have our issue with the 400
17 foot setback.

18 Q Okay. Would the 501H well be producing anywhere
19 within the South unit?

20 A No.

21 Q And so would you describe the two points for the
22 proposed 501H well where it comes within 400 feet of the
23 boundaries with the South unit?

24 A Yes. It would be along the northern boundary of

1 the O.E. Burge south where the pad sets and then where the
2 nonproductive portion of the well bore crosses the western
3 boundary of the O.E. Burge south unit.

4 Q Now, if you would, could you describe the O.E.
5 Burge Northwest Unit? And what I mean by that, again, is
6 the approximate acreage and what is anticipated to be
7 within that unit at this point.

8 A The acreage is 395 acres. And currently,
9 everything is leased within that unit boundary. And it's
10 a voluntary unit as well.

11 Q Okay. So there are no foreign tracts within
12 that unit?

13 A That's correct.

14 Q Are there any flat rate royalty leases within
15 the Burge Northwest Unit?

16 A No.

17 Q So tell me about the relationship with the
18 Northwest Unit to the 501H well. And what I mean by that
19 is where's the landing point of that unit and what does
20 the well do within the boundaries of that unit?

21 A The landing point is well outside the 400 foot
22 setback of the unit boundary lines. And all along that,
23 it is more than 400 feet from the boundary lines of the
24 unit.

1 Q And when you say the landing point, do I
2 understand that to be where the well bore hits the
3 productive area of the Physical therapy. Pleasant shale?

4 A That's correct.

5 Q What do you call the end point of that well
6 bore?

7 A The end point would be where you see the ending
8 point on the--

9 Q Well, end point is the terminology I ought to
10 use for that, for the ending of the horizontal well bore?

11 A That's correct.

12 Q And so the distance from the landing point to
13 the end point of the 501H well, which is the productive
14 area, is roughly how long? Do you know?

15 A The entire length of the lateral?

16 Q Yeah, the productive length of the lateral.

17 A Approximately, 7500 feet.

18 Q Now, at any point in either the South unit or
19 the Northwestern Unit, does the 501H well come within a
20 3000 foot barrier from other deep wells?

21 A No.

22 Q So there are no deep wells within that area?

23 A There's no deep wells within that area.

24 Q Let's focus for a minute on tract four depicted

1 on Exhibit 7. And just for the record, tract four is
2 indicated on there with a tax map number of 071736. And
3 it's depicted in white.

4 And is tract number four within either the
5 South unit or the Northwestern Unit?

6 A Currently, it is not.

7 Q And what's the status of that tract? And what I
8 mean by that is how is Southwestern dealing with that
9 tract?

10 A That tract is owned by the West Virginia
11 Department of Natural Resources. And Southwestern
12 nominated that parcel for lease earlier this year.

13 MR. HERLIHY: Mr. Chairman, I'd like to
14 introduce what I will call Exhibit No. 8 and ask you to
15 view it. With your permission, I'll move this into
16 evidence.

17 CHAIRMAN LAY: Any objection to admitting
18 Exhibit 8? We'll admit both Exhibits 7 and 8.

19 MR. HERLIHY: Thank you.

20 (WHEREUPON, the documents previously
21 identified as Exhibits 7 and 8 were
22 received in evidence and made a part
23 hereof.)

24 BY MR. HERLIHY:

1 Q Brandi, could you identify what has been labeled
2 as Exhibit 8?

3 A Yes. That is the August 10th letter of approval
4 that we received from the Governor's office approving the
5 tract number four to move forward in the bid process for
6 leasing.

7 Q So the next step in that process will be that
8 the West Virginia Department of Natural Resources will
9 publicly advertise tract number four for bid?

10 A That's correct.

11 Q And that's bidding it out for potential leases
12 with other operators?

13 A Yes. It's a competitive bid.

14 Q Does Southwestern intend to bid on that?

15 A That's correct.

16 Q If Southwestern were to successfully bid on that
17 and obtain a lease, which unit would it be included in?

18 A It would be included in the O.E. Burge Northwest
19 Unit.

20 Q Okay. And approximately how-- If I understand
21 it correctly, the tract number four contains approximately
22 13.25 acres. Is that right?

23 A That's correct.

24 Q Can you share with the Commission how that

1 bidding process is anticipated to proceed?

2 A Yes. Based on how the process works with
3 Department of Natural Resources, there's a two-week period
4 for bids, and then there's a thirty-day evaluation period.
5 So from Southwestern's standpoint, if we're successful, we
6 would expect to have an answer within forty-five days if
7 we have the lease and are able to include it in the
8 Northwest Unit.

9 Q And if I understand correctly, publication
10 either went out today or is going out tomorrow. Is that
11 right?

12 A That's correct.

13 Q So based on a forty-five day estimate, we'd be
14 into, what, the second week in October?

15 A First or second week of October.

16 MR. HERLIHY: That's all I have for this
17 witness. I would request, if the Commission has any
18 questions for her, please ask.

19 CHAIRMAN LAY: Questions?

20 EXAMINATION

21 BY COMMISSIONER MARTIN:

22 Q Mr. Chairman, I guess I have a question. Do you
23 have a distance on the proposed lateral from the boundary?
24 You said it's outside the 400 feet. What is the distance

1 proposed?

2 A Along the western boundary?

3 Q Yes, the southwestern boundary.

4 A It's approximately 475 feet.

5 COMMISSIONER MARTIN: Thank you.

6 EXAMINATION

7 BY COMMISSIONER RADABAUGH:

8 Q One place I'm still getting confused on the map,
9 I guess, I looked at the buffer zone that you've got
10 around the unit. But then the dark red line is actually
11 the unit boundary?

12 A Yes. The dark red line is the unit boundary.

13 Q The unit boundary. So you're actually-- The
14 lateral's going to be closer to one unit side than it is
15 the other unit side for what reason?

16 A That's to allow for future development. If this
17 well is successful and we want to drill potentially
18 another Physical therapy. Pleasant well, this sets us up
19 to do that.

20 COMMISSIONER RADABAUGH: Okay.

21 EXAMINATION

22 BY COMMISSIONER McCLUNG:

23 Q Just one question. Who owns the cabin?

24 A I'm sorry. I don't have that in front of me.

1 The cabin? Scott, do you--

2 COMMISSIONER RADABAUGH: The cabin and a water
3 well. It's over near the pad.

4 MR. HERLIHY: You're referencing the well plat
5 that's within the well work application?

6 COMMISSIONER RADABAUGH: Yeah.

7 MR. HERLIHY: May I borrow your copy just to
8 share with the witness? Thank you.

9 THE WITNESS: Where was that at, the cabin?

10 MR. HERLIHY: The cabin is somewhere up near
11 the--

12 THE WITNESS: I don't have their name with me,
13 but I could follow up with that information if it would
14 help.

15 MR. HERLIHY: Do you know the nature of that
16 structure?

17 THE WITNESS: I do not.

18 MR. HERLIHY: I'll vouch for the record, and
19 I'll introduce that testimony later, that this is a
20 hunting cabin, a recreational structure.

21 BY COMMISSIONER McCLUNG:

22 Q By somebody different than who's doing all this
23 (indicating)? Have they been talked to? I mean-- What
24 is it, seven hundred and some feet?

1 MR. HERLIHY: Yes.

2 THE WITNESS: Yes. With the permit of the well,
3 we would have talked -- you know, handled all of our
4 surface issues within the area.

5 BY COMMISSIONER McCLUNG:

6 Q There's probably an application somewhere.

7 A Mm-hum.

8 MR. HERLIHY: So but to your knowledge, you
9 haven't received any--

10 THE WITNESS: I haven't received--

11 MR. HERLIHY: --objection from the person who
12 owns this hunting cabin?

13 THE WITNESS: That's correct.

14 EXAMINATION

15 BY CHAIRMAN LAY:

16 Q I have a couple of questions. What is the
17 distance from the proposed well bore to the northeast unit
18 boundary? I don't see it depicted anywhere on the plat.

19 A So do you mean from the 501 over to the
20 northeast--

21 Q Yeah.

22 A The further--

23 Q Northeast of the 501 lateral itself. It
24 appears, and I think you testified, that's it's 475 feet

1 to the southern unit boundary from that horizontal. How
2 far is it to the northeastern boundary?

3 A Up towards where you see the number, two?

4 Q Yeah. That runs along-- No.

5 A Okay.

6 Q That begins at the tract number four and
7 terminates at what's labeled number three.

8 A We don't have that exact measurement with us
9 but--

10 MR. HERLIHY: Based on the scale of that side,
11 what would you estimate it is?

12 THE WITNESS: Based on the scale of the plat, I
13 would say it's over 1000 feet.

14 BY CHAIRMAN LAY:

15 Q Okay. It's over 1000 feet from the proposed
16 lateral to the-- I'm going to call it the northern
17 boundary of the northwest unit.

18 A Okay.

19 Q And that's your estimate?

20 A That's my estimate based on the scale of the
21 map.

22 Q Okay.

23 A I don't think that exact measurement's on the --
24 on the plat. 'Cause you see the 1500 foot, yeah.

1 Q Right.

2 COMMISSIONER RADABAUGH: It includes part of
3 that boundary, so it would be less than 1500.

4 THE WITNESS: Less than 1500 hundred or probably
5 more than 1000.

6 BY CHAIRMAN LAY:

7 Q More than 1000?

8 A Mm-hum.

9 Q Okay. Your southern unit, it is a unit formed
10 just for the Marcellus?

11 A That unit covers all depths. It's a voluntary
12 unit, but it's for Marcellus wells.

13 Q It covers all depths, however--

14 A The pooling-- The pooling is for the Marcellus
15 formation.

16 Q There is no pooling for the Marcellus formation
17 for us. It doesn't enter into-- And my point is this,
18 because you have a voluntary unit doesn't reflect any on
19 what is being done in the Utica because you have a
20 Marcellus unit there.

21 MR. HERLIHY: Mr. Chairman, that unit was
22 voluntarily formed for drilling and producing Marcellus
23 wells.

24 CHAIRMAN LAY: Understood.

1 MR. HERLIHY: There are no Utica wells that are
2 planned, nor does the 501H well -- will it, if it's
3 drilled, produce anywhere within the boundaries of that
4 south unit.

5 CHAIRMAN LAY: Understood. That's your proposal
6 anyway.

7 MR. HERLIHY: Correct.

8 BY CHAIRMAN LAY:

9 Q I'm going to assume-- You have two different
10 colors on the map. One is a darker yellow, and one is a
11 lighter yellow.

12 A Mm-hum.

13 Q Since you're the land person, I will direct this
14 to you. I assume the darker-- Or maybe-- What is the
15 darker yellow?

16 A The darker yellow reflects all the parcels that
17 are affected by both of those -- both of those units.
18 Either all or a portion of those parcels that are the
19 darker yellow fall within the units.

20 Q And your company holds the leases? Who holds
21 the leases on those yellow tracts?

22 A Southwestern.

23 Q All the tracts shown in yellow or just the
24 darker yellow?

1 A We hold the majority of everything in yellow.

2 Q Okay.

3 A Even the lighter-colored yellow, yes.

4 Q But the darker yellow, do you hold all the
5 leasehold estate?

6 A That's correct.

7 Q Okay. To all depths?

8 A That's correct.

9 Q Out of curiosity, why bring this action, if
10 you're in the process of acquiring tract four, to the
11 Commission when it appears that it's something that's
12 going to happen in the near future?

13 A Scott can probably, you know, bring more
14 information on that. But, you know, from our-- From
15 Southwestern's standpoint, right now is the right time to
16 drill this well. We have the rig availability. We also,
17 you know, have it within our budget. And we'd like to
18 drill this well by the end of the year.

19 MR. HERLIHY: So Mr. Chairman, just to clarify,
20 the 501H well can be drilled on exactly the route that's
21 depicted on Exhibit 7 before the Commission. And the
22 reason we have introduced evidence about tract number four
23 is it may be added to that tract in the future, and, if
24 so, there's a possibility that the well bore could be

1 redirected. But as depicted in Exhibit 7, it can and is
2 planned to be drilled.

3
4 CHAIRMAN LAY: Okay.

5 MR. HERLIHY: And since you've focused on that
6 issue, let me raise a procedural issue for you and the
7 other members of the Commission to think about. One issue
8 that Mr. Crump is going to talk about, if you think it's
9 appropriate, is the idea of an alternative route for the
10 501H well that would have the same offset issues that its
11 current route has on Exhibit 7, but it would just
12 intersect a portion of tract four in the future once a
13 lease is successfully obtained for that, which we fully
14 expect.

15 So in other words, what we'd be thinking
16 about and asking the Commission to rule on, if it's
17 appropriate, is the concept that, if and when that lease
18 is obtained, would the Commission approve the same offsets
19 on the second route which would be involved in our
20 judgment in exactly the same issues as the route that's on
21 Exhibit 7.

22 CHAIRMAN LAY: I'm not exactly-- Restate that
23 again. I don't quite follow what you're asking.

24 MR. HERLIHY: Well, if-- If, let's say, in the

1 first week of October Southwestern successfully obtains a
2 lease from the West Virginia Department of Natural
3 Resources on tract number four--

4 CHAIRMAN LAY: Okay.

5 MR. HERLILHY: --then they would conceivably
6 move to-- And let me show you on Exhibit 7. They would
7 move to decrease -- potentially move to decrease the arc
8 of the 501H well to come-- And we've got an exhibit that
9 shows this if you think it's appropriate. --that would
10 come in closer and cross the southern boundary of tract
11 four. But it would still have the same sort of producing
12 landing point and end point on the lateral.

13 The same formation, target formation, would
14 be the Physical therapy. Pleasant shale. And quite
15 frankly, it would be more efficient in the sense that, if
16 you don't have to go on this larger arc that's depicted on
17 Exhibit 7, then it would take less time for surface
18 disruptions. And conceivably, the well might be even more
19 productive because you have less pipe in the ground.

20 COMMISSIONER RADABAUGH: But if I can ask a
21 question--

22 MR. HERLIHY: Sure.

23 COMMISSIONER RADABAUGH: If you would do that,
24 you may save a little now, but would that effect the

1 potential of a second lateral because you're-- You're
2 cutting through the new tract, so you're saving some
3 distance, but you're also-- It looks to me like you're
4 taking away from what you're going to need to do that
5 second lateral--

6 COMMISSIONER MARTIN: In the same unit.

7 COMMISSIONER RADABAUGH: --in future-- Yeah.

8 MR. HERLIHY: I don't have the expertise to
9 answer that spacing question, but I think Mr. Crump can,
10 again, if you feel like that's an appropriate portion of
11 this hearing.

12 COMMISSIONER LAY: And since we're out of the
13 venue of this witness, I'll ask the question. Do you have
14 a technical expert here today on drilling that can answer
15 some of the questions?

16 MR. HERLIHY: Yes. Mr. Crump. He's an oil and
17 gas engineer, and I'll qualify him as such.

18 CHAIRMAN LAY: Okay. I'm having a difficult
19 time with the fact that you're showing this well starting
20 in a -- or not being in the unit itself. You're starting
21 the well-- You're asking for an exception to the rule.
22 However, the surface location is not, as I can tell from
23 this plat, within the bounds of the unit. Is that
24 correct?

1 MR. HERLIHY: It's not within the boundaries of
2 the Burge Northwest Unit. It's within the boundaries of
3 the Burge south unit.

4 CHAIRMAN LAY: The South unit has no bearing on
5 this because it's a Marcellus unit. It doesn't have
6 anything to do with what we're doing. Those two units can
7 overlap because you pooled-- That is a pooling for a
8 shallow formation. It does not enter into what we're
9 doing today.

10 MR. HERLIHY: Well, but I think as Ms. Williams'
11 testimony has been, that South unit covers all formations.

12 CHAIRMAN LAY: That's a contractual unit and
13 voluntary on your part. It doesn't-- It doesn't compel
14 us to say that can't or won't be pooled with this well
15 because it gives me a problem that the well bore itself is
16 not within the bounds of the unit.

17 You're not asking for an exception to the
18 400 foot rule because your well bore isn't in the unit.

19 MR. HERLIHY: Well, the productive parts are all
20 in the unit.

21 CHAIRMAN LAY: And our-- Everything we have
22 done at the Commission from past experience, the well has
23 to be or has been-- I'm not saying it has to be. But the
24 well has been within the bounds of the unit.

1 MR. HERLIHY: Just out of curiosity, what
2 statutory basis would you use for that?

3 CHAIRMAN LAY: Well--

4 MR. HERLIHY: Where does the authority come from
5 to make that distinction?

6 CHAIRMAN LAY: There's nothing that we've-- I
7 don't know that we have anything in the Rule. It's a good
8 question.

9 MR. HERLIHY: I mean, admittedly, it's an
10 unusual configuration.

11 CHAIRMAN LAY: Right.

12 MR. HERLIHY: That's why we're here. But I
13 think I can answer-- I know I can introduce evidence from
14 a petroleum engineer that demonstrates that the 501H well
15 will not be producing in any part of the South unit. It's
16 simply transecting that unit.

17 CHAIRMAN LAY: Understood. But realize that our
18 Code and Rules have not been written for horizontal wells.

19 MR. HERLIHY: I understand.

20 CHAIRMAN LAY: And we're trying to proceed as
21 best we can, but-- Well, let's go ahead. We're get into
22 that later.

23 MR. HERLIHY: Mr. Chairman, just to complete
24 that thought, one of the reasons why we even brought this

1 in front of the Commission is the concept that we feel
2 that by allowing the nonproductive portion of the 501H
3 well to be drilled off the existing Burge well pad that's
4 on the South unit, that we would minimize, again, surface
5 disturbances. It would eliminate the--

6 CHAIRMAN LAY: Understand.

7 MR. HERLIHY: --construction of another well pad
8 and would allow this -- the productive part of the 501H
9 will to cross through the most of the northwestern unit as
10 possible.

11 CHAIRMAN LAY: Understand. Let's go off the
12 record for a second.

13 MR. HERLIHY: Sure.

14 CHAIRMAN LAY: I'd like to have a conference
15 with the members of the Commission and counsel.

16 MR. HERLIHY: Okay. Thank you.

17 (WHEREUPON, a brief recess was had.)

18 CHAIRMAN LAY: Sorry for the delay, but we'll go
19 back on the record. Mr. Herlihy, continue.

20 MR. HERLIHY: Mr. Chairman, let me-- Just to
21 simplify matters, let me pull the whole idea of tract
22 number four off the table so we're just focused on well
23 501H as it's currently depicted on Exhibit 7. We won't
24 even delve into the question of whether there's an

1 alternative route, if that's acceptable to the Commission.

2 CHAIRMAN LAY: That's fine. You're presenting
3 your evidence to us.

4 MR. HERLIHY: Thank you. Is there any further
5 questions from the Commission to Ms. Williams?

6 CHAIRMAN LAY: Anybody else have any questions?
7 I don't think I have any more. If you're finished with
8 the witness, she may be excused.

9 MR. HERLIHY: Okay. Thank you.

10 (Witness excused.)

11 CHAIRMAN LAY: Call your next witness, please.

12 MR. HERLIHY: It's Scott Crump, and we've
13 already sworn him based on my mistake in order of
14 witnesses.

15 CHAIRMAN LAY: Mr. Crump, do you realize you're
16 still under oath?

17 MR. CRUMP: I do.

18 THEREUPON came

19 SCOTT CRUMP

20 having been previously called and sworn, resumed the stand
21 and testified as follows:

22 DIRECT EXAMINATION

23 BY MR. HERLIHY:

24 Q Mr. Crump, can you state your name?

1 A Scott Crump.

2 Q And your current employer?

3 A Southwestern, the Applicant.

4 Q And your position with that employer?

5 A Director of Regulatory and Operational
6 Compliance.

7 Q And could you describe for the Commission your
8 educational background?

9 A I have a degree in petroleum engineering from
10 University of Texas, 1992.

11 Q Do you have any further training beyond that?

12 A I do. I have worked towards a master's, but I
13 never completed it.

14 Q A master's degree in what?

15 A Energy and mineral resources development.

16 Q Could you share with the Commission your
17 employment experience since you graduated from school?

18 A I've worked in a variety of positions, including
19 consulting for -- a position as an engineer for
20 Schlumberger Middle East in Saudi Arabia and at Arco
21 Petroleum in Houston, Quantum Resource Management, another
22 oil and gas operator in Houston, and since February of
23 this year, Southwestern.

24 Q If I could-- You've got a copy of Exhibit No. 7

1 in front of you, which is a depiction of the proposed
2 route for the Burge 501H well. And on that exhibit,
3 you've got the Burge well pad. Why did you choose that
4 well pad to be where this 501H well is to be drilled?

5 A Primarily, because this is an existing pad. It
6 was built by a predecessor in 2011, Chesapeake. But it is
7 an existing pad in an area where useable surface locations
8 are hard to come by.

9 Q And as testified before by Ms. Williams, there
10 exists on that well pad three Marcellus wells?

11 A Correct.

12 Q Okay. And they service the southwest-- I'm
13 sorry. --the southern Burge unit?

14 A Yes. They do.

15 Q And the Burge south unit is a voluntary unit.
16 Correct?

17 A That's my understanding. Yes.

18 Q And it is a unit that covers all oil and gas
19 formations.

20 A That is my understanding. Yes.

21 Q Let's move from there to the Burge northwestern
22 unit. Can you describe this unit in relationship to the
23 south unit? And what I mean by that is what changes with
24 the Burge 501H well as it moves from the south unit into

1 the northwest unit?

2 A Well, the orientation changes. It turns and
3 runs to the northwest away from those existing Marcellus
4 wells to the south. But it is a much longer in extent
5 unit there to allow for a greater productive well bore
6 length and greater capture of reserves.

7 Q Focusing on the Burge south unit, the areas of
8 the 501H well within that unit are nonproductive.

9 Correct?

10 A That's correct. The well head and the curve,
11 the vertical and curved portions of it including the
12 entire portion of the O.E. Burge south unit are
13 nonproductive.

14 Q Based on your understanding, you have complete
15 rights to locate that well bore on the south unit.

16 Correct?

17 A That's my understanding. Yes.

18 Q Now, focusing back on the northwest unit, can
19 you describe based on Exhibit 7 where the landing point of
20 that 501H well is?

21 A The landing point is contained within the O.E.
22 Burge northwest unit, and it and in all of the subsequent,
23 complete-able portions of the well are all in a regular
24 location, which is to say more than 400 feet from the

1 Burge northwest unit boundary.

2 Q So all the productive portions of the 501H well
3 or all the intended producing areas of the 501H well are
4 located within the northwest unit?

5 A That's correct.

6 Q And will any stimulation or fracking activities
7 be limited to the northwest unit?

8 A All completions including fracking and
9 perforating occurs within the Burge northwest unit at a
10 distance greater than 400 feet from its boundary.

11 Q Now, let me go up and use some depictions on
12 Exhibit 7. And I'm gesturing to an area that I'll just
13 call for hypothetical purposes the O.E. Burge northeast
14 unit. So that's an area that extends from roughly the
15 existing Burge well pad and it goes to the northwest.

16 Why aren't you drilling the 501H well in
17 that area?

18 A It's my understanding that, while we have leases
19 across that whole yellow area, we don't have a hundred
20 percent of the leasehold through there. Whereas, this
21 Burge northwest unit as depicted on there is an area where
22 we do have one hundred percent of the leasehold.

23 Q Okay. And so if you were to drill deep wells,
24 that is, Physical therapy. Pleasant shale wells, off this

1 existing well pad directionally to the northwest, you
2 couldn't extend them nearly as far as in the existing
3 northwest unit. Is that correct?

4 A That's correct. You would not get nearly as
5 long of a productive well bore.

6 Q So could you tell the Commission about why using
7 the existing Burge well pad to develop the 501H well on
8 the northwest unit is efficient in terms of surface
9 disturbances, which is one of DEP's goals?

10 A This would minimize the creation of a new pad.
11 Full, complete disturbance is generally on the order of
12 about ten acres in this area.

13 Were we to have a location here, it would
14 require that much more disturbance with the associated
15 timber cutting, construction traffic, dust, noise and
16 expenditure in order to build a new location as opposed to
17 using this existing, serviceable location.

18 Q And again, there's an existing efficient road to
19 that well pad?

20 A Yes. There is.

21 Q And there is sufficient pipeline capacity to
22 carry the expected production from the 501H well off the
23 existing well pad?

24 A Today there is, yes.

1 Q Could you describe for the Commission why
2 drilling the well from the existing pad through the south
3 unit into the Burge northwest unit would be deficient from
4 a reservoir development standpoint?

5 A We're seeking here to get the longest,
6 complete-able lateral that we can in an attempt to drain
7 as much with a single well bore. This current
8 configuration allows us to reach out there and get a much
9 longer well path with a greater, complete-able section.

10 Q Would drilling the 501H well as depicted on
11 Exhibit 7 in its current location eliminate drilling
12 future Physical therapy. Pleasant shale wells along the
13 same -- in the same unit?

14 A I'm sorry. Could you re-ask that?

15 Q Would drilling the 501H well in its current
16 location leave enough room to drill other Physical
17 therapy. Pleasant shale wells within the northwest unit?

18 A Yes. There's still available route, slots or
19 space on the pad to drill additional wells.

20 Q Tell the Commission a little bit about the
21 timing of drilling the 501H well. Why is it important to
22 get it completed within the calendar year, 2015?

23 A This is an issue of availability. And by that,
24 I mean we have available capital to spend at this time, in

1 a time of declining commodity prices. We have a rig
2 available now or will be becoming available. And we have
3 at the moment pipeline capacity to take production that we
4 hope to get off of this Physical therapy. Pleasant well
5 and take it to market.

6 Q In thinking about future development plans of
7 deep shale rights, if you were limited to using a well pad
8 that was within an existing unit to develop adjacent
9 reserves, would that harm the ability to drill multiple
10 wells off of a single well pad?

11 A Yes. If I understand your question correctly,
12 you're asking whether, if the pad and the full well bore
13 must be contained within a single--

14 Q Correct.

15 A --unit. Yes. It would eliminate pad drilling.
16 You know, the ability to drill multiple wells from a
17 single pad would require one pad per unit to do that.

18 MR. HERLIHY: With the Chairman's permission,
19 can I have Mr. Crump approach the exhibits?

20 CHAIRMAN LAY: Sure.

21 BY MR. HERLIHY:

22 Q Could you motion on this exhibit your thinking
23 about how limiting drilling of deep shale wells to a
24 single well pad contained within a single unit would limit

1 the ability to use multiple well pads -- multiple wells on
2 a single well pad?

3 A Well, if that was a requirement that the entire
4 well bore and pad had to be in a single unit, we would be--
5 - As configured here in this voluntary unit, this pad
6 would have to be somewhere there. But then we would be
7 unable to drill another well there because we would have
8 to locate--

9 That one would have to be located within
10 there. This (indicating) couldn't be used to drill north
11 of there (indicating). We'd have to drill or-- As drawn
12 on here, perhaps this one does lap over. But the slot
13 would have to be located on this (indicating) and would
14 basically require each well -- one well per pad.

15 Q Now, is using one pad for multiple wells on
16 multiple voluntary units drilling to the Marcellus shale
17 as opposed to deep shale wells, is that common?

18 A It is common as depicted on here. We have three
19 of them for our O.E. Burge south, including one that does
20 leave the Burge south unit or is not contained in there.
21 The nonproductive portion of the well runs to the
22 northwest of it.

23 Q So just for descriptive purposes in the record,
24 that well you just referred to where it moves outside the

1 Burge south unit is the O.E. Burge MSH 10H well.

2 A Correct.

3 Q As a petroleum engineer, do you think this
4 configuration of the 501H well maximizes the current
5 development of the Physical therapy. Pleasant shale within
6 the Burge northwest unit?

7 A Yes.

8 Q Is there the possibility, if this well weren't
9 drilled within 2015 that no well might be drilled within
10 the O.E. Burge northwest unit?

11 A There's that possibility.

12 Q And is it your opinion, as both an
13 administrative manager for Southwestern and also a
14 petroleum engineer, that locating the surface drill pad
15 for the O.E. Burge 501H well on the Burge well pad
16 minimizes surface disturbances?

17 A That is my opinion.

18 Q And for all the reasons that you stated earlier?

19 A Correct.

20 MR. HERLIHY: I don't have any further questions
21 of Mr. Crump.

22 CHAIRMAN LAY: Questions?

23 EXAMINATION

24 BY COMMISSIONER McCLUNG:

1 Q I have a couple I'd like Mr. Crump to answer,
2 but-- What's the distance to tract four as it is
3 configured here?

4 A I don't know the answer to that.

5 MS. WILLIAMS: It's approximately 430 feet.

6 BY COMMISSIONER McCLUNG:

7 Q Well production. And my second question is
8 would it drain anything from tract four or does it have
9 the potential to drain anything from tract four?

10 A The portions of the well that are closest to
11 four where that arc is made around it are going to be
12 nonproductive. So there would be no completion or
13 stimulation in that portion of the well that's near the
14 four.

15 Q So you believe that there wouldn't be?

16 A No. I don't. I believe there would not be.

17 CHAIRMAN LAY: Do you have another question,
18 Lisa?

19 COMMISSIONER McCLUNG: No. I don't have any.

20 CHAIRMAN LAY: Any other questions?

21 EXAMINATION

22 BY COMMISSIONER MARTIN:

23 Q I'm going to follow up on that one. So I think
24 Lisa asked a question about your thoughts on whether or

1 not, even from a productive-- And understanding that part
2 of the lateral is not in the productive horizon, but where
3 it is, it looks like the closest point is 420 feet, which
4 will be on the southeastern part of the lateral. It's
5 Southwestern's position that there wouldn't be any
6 drainage from tract four even at that part of the lateral?

7 A No, sir. Again back to the position of those
8 portions that are closest to it are greater than both the
9 minimum spacing, but they're in a portion of the well bore
10 that won't have a frack put on it. And it's our position
11 that the Physical therapy. Pleasant won't produce without
12 being fracked.

13 Q There won't be any fracturing down in the
14 southeastern part of the lateral in the Physical therapy.
15 Pleasant?

16 A May I?

17 Q There's no fracturing close to the landing
18 point?

19 A From the landing point along that north-- If I
20 may--

21 Q Yeah. Sure.

22 A From the landing point running this way, yes, we
23 intend to frack along here (indicating).

24 Q How far to the southeast will you be fracking?

1 A Close up to the landing point, up to this here
2 (indicating).

3 Q I guess that's my question. At that point,
4 there's no drainage from tract four?

5 A We don't believe so. Yes. If I may, frack half
6 lengths that we're expecting here are roughly 250 to 375.
7 Of course, this is our first Physical therapy. Pleasant
8 well in the area. But based on what we understand from
9 other operators and the literature, that's the sort of
10 frack half length which -- and shale will define under
11 that mix.

12 Q If I may-- And while you're there, maybe you
13 could still address it. Assuming-- I think you testified
14 that it would be difficult to move the well to the
15 northeast because of the-- Well, what you testified, I
16 think, was that-- In the depiction there, it gives you
17 the greatest lateral extent. Right?

18 A Yes, sir.

19 Q So if you drilled in the same type of
20 configuration, i.e., the pattern of drilling backwards and
21 then going forwards, if you will, assuming that's a smart
22 way to do it, why could you not do the same thing and
23 drill to the northwest from that pad without -- and just
24 have the unit configured differently? In other words, put

1 the lateral to the northeast of where it is now off that
2 pad.

3 A Put the lateral to the--

4 Q You control the acreage to the northeast.
5 Right?

6 A Right.

7 Q So why could the unit not be up there and
8 overlap with the south unit and drill from the same pad
9 and have overlapping units and have the lateral going to
10 the northeast?

11 A My understanding of your question is why
12 shouldn't the unit look more like this (indicating)?

13 Q Exactly. You've got the same-- The distance
14 would be equal if not longer, wouldn't it?

15 A We have this issue here where this color shaded
16 right there (indicating), where we don't have a hundred
17 percent, that would preclude us from in this portion of
18 the field running the lateral nearly as long.

19 At a future date, if this is successful
20 that we gain this tract four, there could be a well that
21 runs here as these units -- as this land position is
22 acquired. It would make it possible for a long lateral to
23 run up there. But as I understand the land position
24 today, these lighter-colored bits here that are shown, we

1 don't have a hundred percent. So it would require a
2 shorter--

3 Q I thought the darker units were the only -- were
4 the units that were just being impacted by these two
5 units, not that those were the only ones you controlled,
6 was my understanding. I didn't understand that you didn't
7 have them.

8 A Perhaps I should let the land person address
9 that.

10 Q Is there any reason that you couldn't just,
11 leaving the lateral where it is, change the shape of the
12 unit to include the southeastern portion of the lateral,
13 the piece to the southeast of tract four?

14 A To here (indicating).

15 Q To include that (indicating) portion, yes, sir.

16 A This (indicating) way or to--

17 Q Yeah. Outside to include the entire lateral.

18 Is there a reason that the unit boundary couldn't be
19 changed for that?

20 A I'll have to let the land person speak to that.

21 MR. HERLIHY: If I'm allowed, I think I can
22 answer that question.

23 CHAIRMAN LAY: Not if you don't want to testify.

24 COMMISSIONER MARTIN: We can--

1 THE WITNESS: If I may, if the concern is that
2 we've got to get this entire well bore contained down
3 there, my belief is we just defer this problem later. If
4 the whole thing has to be contained on here, we're back to
5 the problem of, you know, how do you do pad drilling.

6 CHAIRMAN LAY: I disagree. I'm going to break
7 in here.

8 COMMISSIONER MARTIN: Well, I guess that's the
9 point I'm trying to make. I know your testimony made that
10 concern, but I don't see that concern. I don't understand
11 that point that you're trying to make with how having the
12 entire lateral in the unit including the pad prevents you
13 from having-- I don't understand that point. That's why
14 I'm asking the question.

15 THE WITNESS: Okay.

16 CHAIRMAN LAY: Yeah. And if you don't mind, I'd
17 like to add to your question. Under your scenario,
18 basically, you would not be allowed to drill a Marcellus.
19 I mean, you drilled a Marcellus pad there off the same
20 well in a single unit. You got multiple wells within a
21 unit. Why are you not allowing for multiple well units
22 within the Utica? I mean, you reserved enough area that
23 you testified to that you could drill a second lateral.
24 Correct?

1 THE WITNESS: Yes. Yes, sir. I think I
2 mis-characterized it.

3 BY COMMISSIONER MARTIN:

4 Q So I don't know-- You know, maybe you're not
5 the right person to that question, so I understand. But
6 it seems to me just looking at the acreage, and maybe I
7 have a misunderstanding how you control it, but it looks
8 like you can get the same lateral from that pad in a
9 couple different ways.

10 MR. HERLIHY: Mr. Martin, just so I understand
11 where you're talking about that hypothetical well bore,
12 are you saying from here (indicating).

13 THE WITNESS: I understand it to be here
14 (indicating).

15 BY COMMISSIONER MARTIN:

16 Q There's two separate issues. One point I was
17 trying to make is that it looks like you could get the
18 same length of lateral to the northeast, and you said you
19 didn't think so because you didn't think you controlled
20 all that acreage.

21 A Yes.

22 Q I guess that's a question that still needs an
23 answer. The other point I was saying, even leaving the
24 lateral where it is, if you just change the shape of the

1 unit, you can do exactly that and you'll have the entire
2 lateral within the unit.

3 CHAIRMAN LAY: Like this (indicating). Add the
4 blue ink line to your unit.

5 BY COMMISSIONER MARTIN:

6 Q And my question was: Is there a reason from
7 your perspective that you can't do that?

8 A I'll defer that to the land person.

9 Q That's fine. I understand.

10 CHAIRMAN LAY: Okay. Any other questions? I
11 have a couple or at least one.

12 THE WITNESS: Okay.

13 EXAMINATION

14 BY CHAIRMAN LAY:

15 Q Part of my concern is obviously the safety and
16 mechanical--

17 A Yes, sir.

18 Q --integrity of the drilling process and what
19 you're proposing. You have proposed that your kick from
20 surface to the heel will cross over your O.E. Burge 6H
21 Marcellus completion. What is the length of separation
22 between the existing well bore and your proposed bore at
23 their intersection?

24 A I'll have to get back to you on that, but I will

1 say it's a configuration that we have done safely in other
2 places. But I don't have a distance there for where their
3 closest point would be, but I can provide that.

4 Q You see and share my concern, I assume, that
5 there be a safe distance between those two laterals?

6 A Absolutely, absolutely. They're steered
7 actively at all times to maintain a separation. In this
8 particular case though, I don't know what that minimum
9 distance is. This configuration though is not-- This is
10 not unique. This has been done safety.

11 Q I understand. I just want to make sure that
12 you're not trying to cut the corner too close.

13 A Understood. No, sir. We are not.

14 Q Second, my other question is concerning your
15 testimony with regard to the half-length of your frack
16 links.

17 A Yes, sir.

18 Q What information or what data do you have to
19 support your hypothesis that your--

20 A Primarily from other operators and just
21 literature. At this point, this is our first-- This is
22 our first Physical therapy. Pleasant, so we don't have
23 direct experience. We have just from other operators in
24 the area.

1 One of the most recent ones, another
2 operator is doing it. They're putting their spacing at
3 500 foot between wells, which would-- You would infer
4 then that that's a maximum of 250. And what we're seeing-
5 -

6 Q In the Utica? Not in West Virginia.

7 A Over in Ohio.

8 Q Okay. Do you have any reservoir modeling or any
9 data that you can present? And I assume that you're the
10 proper person that will allow the Commission to understand
11 that 400 feet is, in fact, sufficient to protect the
12 correlative rights of the offset owners?

13 A I do, but not today. We can provide the
14 Commission with that, but we don't have that today.

15 CHAIRMAN LAY: Okay. That's all the questions I
16 have. Okay. No other questions. The witness may be
17 excused. Mr. Herlihy?

18 MR. HERLIHY: Can I just have a redirect of--

19 CHAIRMAN LAY: Certainly.

20 MR. HERLIHY: --Mr. Crump?

21 REDIRECT EXAMINATION

22 BY MR. HERLIHY:

23 Q Mr. Crump, the Chairperson referred you to where
24 the proposed path of the Burge 501H well goes underneath

1 the existing Marcellus Burge 6N well in the south unit.

2 A Yes.

3 Q Typically, in that area, do you know what the
4 depth of the Marcellus well might be in the south unit
5 just in your experience?

6 A It's several thousand feet above this. We're at
7 12,000 feet for the Physical therapy. Pleasant, so the
8 Marcellus is thousands of feet above.

9 Q Okay. So the Marcellus, you would expect in
10 this area to be above what minimum elevation or minimum
11 depth, rather?

12 A Above?

13 Q Yeah.

14 A Above nine.

15 Q So based on your understanding as an oil and gas
16 engineer, what would be the minimum separation you'd
17 expect here? Would it be in the thousands of feet between
18 the two well bores?

19 A The minimum? Not necessarily, because this well
20 is going down. But it would be-- We generally maintain
21 hundreds of feet in my experience elsewhere.

22 MR. HERLIHY: I have no further questions of
23 this witness.

24 CHAIRMAN LAY: Okay. Witness may be excused.

1 You can call your next witness.

2 (Witness excused.)

3 MR. HERLIHY: I have none, except I'd like to
4 recall Brandi Williams to address some of Chief Williams'
5 questions--

6 CHAIRMAN LAY: Okay.

7 MR. HERLIHY: --about--

8 MS. WILLIAMS: We think we can clarify.

9 MR. HERLIHY: If you'd like to take the witness
10 chair--

11 CHAIRMAN LAY: You realize you're still under
12 oath.

13 MR. HERLIHY: If you'd have a seat, please?

14 THE WITNESS: It may be easier if I can--

15 MR. HERLIHY: Okay.

16 THE WITNESS: --if I can come up.

17 MR. HERLIHY: Do you want to approach Exhibit 7
18 on the easel?

19 THEREUPON came

20 BRANDI WILLIAMS

21 having been previously called and sworn, resumed the stand
22 and testified as follows:

23 EXAMINATION

24 BY COMMISSIONER MARTIN:

1 Q There are two questions. I realize the issue
2 with tract four and the fact it is not leased. So that
3 aside, the two points I was trying to make, two questions,
4 one was in regard to the lateral length which I believe
5 from what I see on this map could be achieved to the
6 northeast.

7 A Northeast.

8 Q Mr. Crump was talking about the acreage and the
9 belief that maybe the lighter yellow wasn't controlled one
10 hundred percent. So is that the distinction between the
11 colors?

12 A Let me clarify that. I think it's more of a
13 timing issue. We were wanting to drill this year. In the
14 northeast, we have eighty-some tracts we're still working
15 on and so we don't feel comfortable drilling it before the
16 end of the year. Probably in the next six to nine months,
17 that would be a different situation. We're working on
18 some lease modifications and some curative titles in
19 heirships.

20 Q That's just the lighter yellow?

21 A That's in this lighter-- Yes.

22 Q So all the dark yellow, that wouldn't be--

23 A There's no title issues with the darker yellow.
24 That's correct.

1 Q So the distinction between the colors is not
2 just because those dark yellows are parts of these two
3 units?

4 A The reason that we've shown the darker yellow on
5 this map is to illustrate what parcels are affected by
6 these two units. That's the primary purpose of that.

7 Q The other question I had was in regard to--
8 This played into more of an issue with tract four. Again
9 that aside, could the lateral-- Could the unit boundary
10 be changed, drilled in the same configuration and that way
11 capture the entire--

12 A For illustrative purposes, let's just say they
13 follow something like this (indicating). Is that what
14 you're saying?

15 Q No. Right where it is now. Oh, you mean the
16 deeper boundary.

17 CHAIRMAN LAY: The unit boundary, exactly.

18 Yeah.

19 THE WITNESS: You're already in a boundary--

20 COMMISSIONER MARTIN: Yeah. That's right.

21 THE WITNESS: --to take in this pad.

22 CHAIRMAN LAY: Not that large probably, but the
23 configuration.

24 THE WITNESS: But the configuration would--

1 CHAIRMAN LAY: I just sketched on something that
2 would be--

3 THE WITNESS: Something to where it would take
4 that in. We could, but wouldn't we have the same issue or
5 conversation if we wanted a hearing on drilling a Utica
6 well in the future if we're wanting to drill off this pad
7 but we couldn't be part of that unit?

8 BY COMMISSIONER MARTIN:

9 Q Well, it's a different-- It would be a
10 different unit. Right? I mean, what I'm talking--

11 A But the pad wouldn't--

12 Q But we're talking about the pad being now in
13 multiple units. That's the question.

14 A So--

15 Q You're talking about another unit potentially.
16 Right?

17 A For right now, we've only got the pad in the one
18 unit.

19 Q I understand. My point was: Is there a reason
20 it couldn't be in multiple units and drill it just like
21 you have now?

22 A If they're both Utica, you would have
23 overlapping units.

24 Q Well, this is a Marcellus unit.

1 A Well, let's just say we want to put another
2 Utica unit for the purpose of a deep well, then you would
3 be overlapping your unit here.

4 COMMISSIONER RADABAUGH: What if-- What if--

5 THE WITNESS: Your voluntary unit shouldn't--

6 EXAMINATION

7 BY COMMISSIONER RADABAUGH:

8 Q What if you started your unit right at the well
9 bore itself? Forget about the pad. It's the well bore
10 itself. Then the next well bore, as she's talking--

11 A And I think that's the idea.

12 Q --you take off of your next unit right there.

13 CHAIRMAN LAY: No. I think, if you're going to
14 do pad drilling-- And this is my opinion only. We
15 haven't discussed it as a Commission and otherwise.

16 But your testimony, any well drilled off
17 the same pad should be configured in the same unit. So if
18 you drill a second well off that pad and it's not within
19 the confines of that, you should enlarge the pad to
20 include that well.

21 THE WITNESS: Should enlarge the unit or the--

22 CHAIRMAN LAY: The unit, I mean. Yes. That's
23 just my opinion. That's not the Commission's ruling or--

24 THE WITNESS: For example, a common practice in

1 the leases here is there is going to be a unit limited to
2 a 640 acre unit. So--

3 CHAIRMAN LAY: Limitation. That was a
4 limitation?

5 THE WITNESS: So that limits the unit.

6 CHAIRMAN LAY: But that's not something--

7 COMMISSIONER RADABAUGH: We'll discuss that
8 later. That's not--

9 CHAIRMAN LAY: Yeah.

10 MR. HERLIHY: I have a couple of redirect
11 questions, if I may.

12 CHAIRMAN LAY: Okay.

13 MR. HERLIHY: Are all the members of the
14 Commission done?

15 CHAIRMAN LAY: Yeah. I think so.

16 DIRECT EXAMINATION

17 BY MR. HERLIHY:

18 Q Brandi, if you were to, as a matter of
19 contractual rights, leasehold rights, would you be able
20 now to redraw this shale unit?

21 A If we were to redraw that unit, it would affect
22 the royalty rights to this (indicating) unit, because this
23 unit goes for all depths. It would affect payments to
24 those landowners.

1 Q And it's a voluntary-- The Burge south unit is
2 a voluntary unit. Correct?

3 A That's correct.

4 Q All depths?

5 A That's correct.

6 Q And so you really can't change that, can you?

7 CHAIRMAN LAY: No.

8 THE WITNESS: You can change it, but it will
9 have an impact on our royalty payments to the royalty
10 owners.

11 CHAIRMAN LAY: Why would it have-- I mean, yes,
12 it would have an impact, but why is that detrimental to
13 your existing Marcellus unit, because they're included in
14 another unit in another strata. It's no different than,
15 for example, not so much in our area, but you go to Texas
16 or Oklahoma and you have multiple zone wells that are
17 drilled on the same pad and they have different ownership.
18 They have different working interest owners. They have in
19 some cases different royalty owners. But yet they form a
20 unit for that formation, and they overlap by horizon.

21 THE WITNESS: Well, one example with the way
22 that this is set up is that we can actually-- Since this
23 is all depths in the O.E. Burge south, we could drill a
24 Utica well there the way we currently have it pooled. So,

1 I mean, there's benefits to it that way. So then we're
2 going to be changing everything.

3 CHAIRMAN LAY: Okay. Again in my mind, it would
4 be much better to have a small overlap between units on
5 that surface location than to preclude them. Because
6 we're not talking about a large amount of acreage that
7 would be overlapping if you want to drill one north and
8 south. But that's something for us, as a Commission, to
9 determine.

10 THE WITNESS: And we'll be happy to add that to
11 what we do when we get to that third unit or that next
12 Utica unit. We still have a similar issue.

13 CHAIRMAN LAY: Any other redirect? Okay.

14 BY MR. HERLILHY:

15 Q I'm sorry. One redirect question. If you were
16 to rearrange the Burge northwest unit just with respect to
17 the Physical therapy. Pleasant shale to include -- to
18 overlap the Burge south unit and include the Burge well
19 pad, that would be a violation of the current leasehold
20 situation, wouldn't it?

21 A I think what you're asking there would be just
22 because of the current unit that we've already placed
23 those leases in.

24 Q Right.

1 A Yes. We would have to do something with that
2 southern unit.

3 MR. HERLIHY: Thank you. I have no further
4 questions.

5 (Witness excused.)

6 CHAIRMAN LAY: No further witnesses?

7 MR. HERLIHY: No, sir

8 CHAIRMAN LAY: Okay. Like to go off the record
9 then, if everyone would be so kind as to allow us to
10 deliberate.

11 (WHEREUPON, a discussion was had
12 off the record.)

13 CHAIRMAN LAY: Let's go back on the record. Do
14 I have a motion?

15 COMMISSIONER RADABAUGH: I have a motion, Mr.
16 Chairman. I make a motion to deny the request. Although
17 we encourage pad development for the purpose of minimizing
18 surface disturbance, by Code we have a paramount duty to
19 safeguard, protect and enforce the correlative rights of
20 operators and royalty owners and a pool of oil and gas
21 along the entire length of the well bore. As proposed,
22 this request does not accomplish this task.

23 COMMISSIONER MARTIN: Second.

24 CHAIRMAN LAY: I have a motion and a second.

1 Any further discussion? All those in favor of the motion,
2 aye. Opposed, nay. Motion carried.

3 MR. HERLIHY: Mr. Chairman, can I explore the
4 details of the ruling?

5 CHAIRMAN LAY: Certainly, within certain levity.
6 We're not going to discuss our--

7 MR. HERLIHY: Sure. To whom would I address
8 those questions? To you?

9 CHAIRMAN LAY: I mean, you can address it to the
10 Board and--

11 MR. HERLIHY: What's the authority for the
12 ability of this Commission to rule on correlative rights?

13 CHAIRMAN LAY: In the Declaration of Public
14 Policy Legislature Findings under 22(C)9-1(a)(4). Also, I
15 believe it is part of 22(C)-97(a)-- No. --7(b), excuse
16 me, (b)(1).

17 MR. HERLIHY: And can I explore with the
18 Commission at what point the well bore as proposed for the
19 501H well came too close?

20 COMMISSIONER RADABAUGH: It's not that it came
21 too close. What the problem is, that you've got a section
22 of the well bore back to the pad that there are mineral
23 owners that are not going to receive any revenue from the
24 production.

1 CHAIRMAN LAY: And thereby, I'll expand upon
2 Bob's explanation. Under your plan, we're setting a
3 precedent where the well bore is not contained within the
4 unit, and the owners of those minerals could potentially
5 be sterilized and not participate in any revenue from the
6 Utica unit because you're only incorporating what is being
7 completed, not the entire length of the lateral.

8 MR. HERLIHY: Thank you. You're getting to the
9 crux of my question, which is--

10 CHAIRMAN LAY: Yes.

11 MR. HERLIHY: --I was wondering whether the
12 Commission's ruling was based on the number of feet of
13 offset in the Physical therapy. Pleasant shale or whether
14 it's the fact that you have more than one unit involved.
15 And it sounds like it's the fact that you have more than
16 one unit involved.

17 COMMISSIONER RADABAUGH: Well, it's not really
18 that you have more than one unit. You've got a section of
19 mineral owners that are not going to be compensated.

20 CHAIRMAN LAY: If I might show you exactly what
21 we discussed -- not what we discussed but a--

22 MR. HERLIHY: Sure. Thank you.

23 CHAIRMAN LAY: For example, let's say you drill
24 a section well from this pad in the Utica. Then you've

1 acquired this (indicating) tract. Then your drilling path
2 goes here (indicating) and goes this (indicating) way.
3 And you use the same criteria that you've done. You're
4 saying that none of these (indicating) people are being
5 produced.

6 However, you're holding their minerals
7 with-- Or you have to have the right to drill through
8 their minerals to achieve your length in this (indicating)
9 lateral plus the second lateral.

10 However, if you don't include them in the
11 revenue from this well or from this well (indicating)
12 because of the way you've got your pad, you're not going
13 to drill another Utica well through there because of the
14 fact that you've got too many well bores coming down
15 through there.

16 So these people on this particular tract
17 right here (indicating), which the well is located and
18 which a majority of the -- no, not the majority -- a big
19 part of your curve exists, you're holding their minerals
20 with that surface location, but they're not receiving any
21 royalty.

22 So anything within four hundred-- What we
23 were discussing, anything within four hundred feet of that
24 pad and the entire length should be included in the unit.

1 Now, if the units overlap, so be it. If you've got six
2 wells on this pad-- If you've got a 640 acre unit and you
3 include -- one guy gets one acre in four different wells,
4 it's decimal dust. I mean, one out of a 640 acre unit--
5 So he gets a little extra interest. He's getting-- It's
6 a very small piece to have the surface disturbance.

7 MR. HERLIHY: Mr. Chairman, have you bumped--
8 Has the Commission bumped into that situation before,
9 where you have a well pad that's divided up among
10 different units?

11 CHAIRMAN LAY: Yes. Well, not the Commission.
12 We have had that in Coalbed.

13 MR. HERLIHY: Yeah.

14 CHAIRMAN LAY: But never -- never in this
15 situation. But I gotta tell you. We have never had a
16 unit proposed or a well proposed outside of the unit
17 before. We've never ruled on this type of situation, or
18 at least in my tenure of eighteen years.

19 MR. HERLIHY: Right. Okay. Okay. Well, I
20 appreciate that explanation. Thank you. I just wanted to
21 be clear on how the Commission reached its conclusion.

22 CHAIRMAN LAY: Any other-- I mean, did I
23 represent our concerns?

24 COMMISSIONER RADABAUGH: Yeah. I mean, the big

1 concern is some people being left out of the picture, and
2 we need to protect their rights that they receive revenues
3 and aren't sterilized down the road.

4 CHAIRMAN LAY: And I think you're going to find
5 our paramount responsibility is correlative rights. And
6 we're going to be very picky going forward that we don't
7 -- you know, that we are not inclusive of everyone that
8 should be included in the development, that we don't
9 strand acreage and that we don't sterilize acreage.

10 MR. HERLIHY: Thank you. And just so I-- One
11 other thought-- So the commission wouldn't be opposed to
12 units divided based on stratigraphic depths?

13 CHAIRMAN LAY: Absolutely not. I mean, there's
14 no-- We could-- We could have a unit in the Marcellus
15 that covers-- Of course, we've got no jurisdiction, so
16 let's go to--

17 MR. HERLIHY: Right.

18 CHAIRMAN LAY: --areas we have jurisdiction.
19 Let's assume that we have a Utica pad and we have a
20 Rogersville pad. Those units could-- You know, one could
21 lay this (indicating) and one could lay this (indicating)
22 on top of each other.

23 COMMISSIONER MARTIN: From the same pad.

24 CHAIRMAN LAY: But the same pad.

1 COMMISSIONER RADABAUGH: Right, yeah. But you'd
2 have different units--

3 CHAIRMAN LAY: But you'd have different units
4 because the laterals go different directions. They're
5 different lengths. They're in different reservoirs.

6 So the units could be different, completely
7 different. Just because you have a unit there, it doesn't
8 preclude you from developing the Utica. So it doesn't
9 preclude you from changing the orientation or existence or
10 size, shape, whatever of the unit in the Utica.

11 MR. HERLIHY: I appreciate that.

12 CHAIRMAN LAY: Any other questions?

13 MR. HERLIHY: If you could entertain one more--
14 Mr. Bill Reed is also an employee of Southwestern. Could
15 he ask a question?

16 CHAIRMAN LAY: Yeah. I will allow him to ask a
17 question. He's not testifying. He's asking a question.
18 So, yeah.

19 MR. REED: And I guess the clarification I was
20 asking about is your concern was participation in
21 royalties and production from the unit. An example that
22 popped into my head was: Let's say that you have a pad
23 location on, we'll call it, a hundred acre lease. It's a
24 nice, big lease.

1 Say fifty percent of the lease is in the
2 unit you're going to produce from. Fifty percent falls
3 outside, and the pad falls outside of that unit. Would
4 that-- Would that affect your thinking on that at all
5 where that surface owner and mineral owner is benefitting
6 from royalties from that well even though a hundred
7 percent of their tract is not included within that unit?

8 CHAIRMAN LAY: No. I mean, I think it depends
9 upon the testimony, which I will tell you that was another
10 area that I was not comfortable with. You didn't know how
11 much separation you had mechanically between the two well
12 bores. Hundreds of feet? Thousands of feet? I don't
13 know. Our job is to protect the public as well.

14 If there's a chance we miss and intersect
15 that other well bore with its being completed, I mean, it
16 could be-- It could be catastrophic. I think that was
17 part of it. But I think, also, testimony as to what the
18 half length is-- I mean, what is the permeability, your
19 best guess? Even if you're using published data, where
20 did it come from? Who established that data?

21 No different than we would use in a force
22 pooling area. Because basically, you're asking us to
23 force pool this -- not force pool it, but to establish a
24 pool because we would have allowed you to drill outside of

1 the unit. That's what we're not comfortable with.

2 MR. REED: Then the fact that it's a voluntary
3 unit doesn't matter.

4 CHAIRMAN LAY: Doesn't matter because you're
5 still outside the unit.

6 MR. REED: Thank you.

7 MR. HERLIHY: Thank you. I appreciate your
8 detail and your--

9 CHAIRMAN LAY: And I apologize. We might have
10 been able to shortcut this, but I've looked at your plat
11 probably a dozen times, and I said let's go to hearing,
12 because I didn't understand what you were trying to tell
13 me.

14 MR. HERLIHY: Fair enough.

15 CHAIRMAN LAY: Anything else for the record?
16 Okay.

17 (WHEREUPON, the hearing was adjourned.)

18

19

20

21

22

23

24

REPORTER'S CERTIFICATE

STATE OF WEST VIRGINIA

COUNTY OF KANAWHA, to wit:

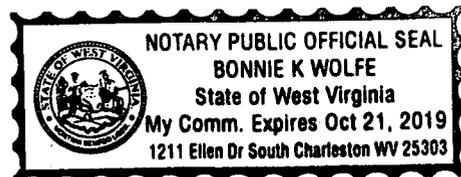
I, BONNIE K. WOLFE, Certified Court Reporter and Notary Public of West Virginia, do hereby certify that the foregoing is, to the best of my skill and ability, a true and accurate transcript of all the proceedings as set forth in the caption hereof.

Given under my hand this 28th day of August, 2014.

My commission expires October 21, 2019.

Bonnie K Wolfe

Certified Court Reporter



References

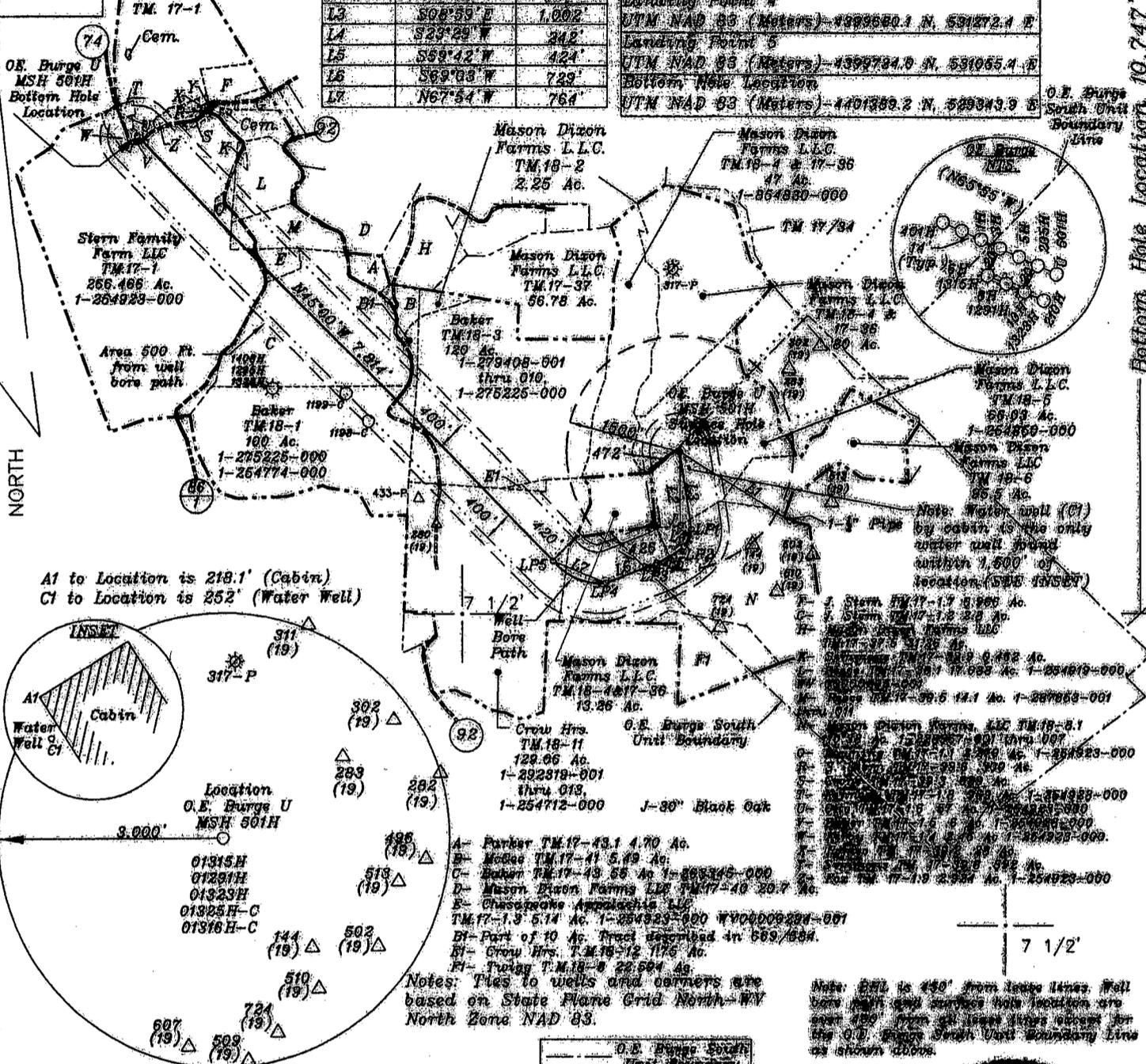
22' Sycamore
Location
Size 57' x 281.7'

Note: This cabin is the only dwelling within 626' of the center of the pad.

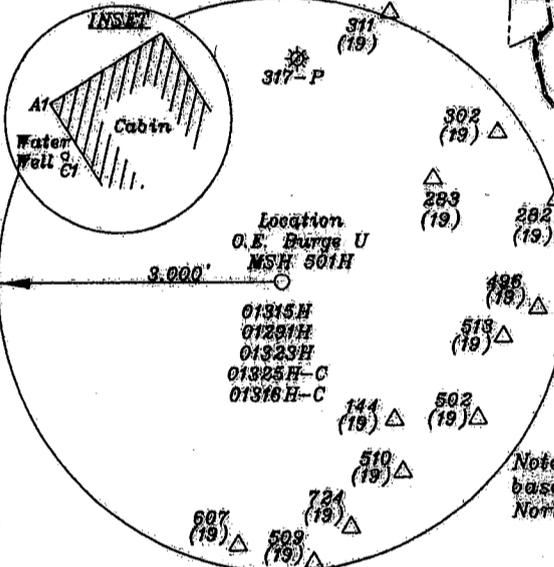
Note: All wells within 500' of the horizontal leg are shown on this plat based upon information taken from DEP mapping, well plats & aerial photos.

NUMBER	DIRECTION	DISTANCE
E1	N58°53' E	1,705'
L2	N00°59' W	858'
L3	S02°59' E	1,002'
L4	S23°29' W	342'
L5	S59°42' W	424'
L6	S69°03' W	723'
L7	N67°54' W	764'

Surface Hole Location	
UTM NAD 83 (Meters)	4400183.2 N, 591561.4 E
Landing Point 1	
UTM NAD 83 (Meters)	4399789.2 N, 591617.1 E
Landing Point 2	
UTM NAD 83 (Meters)	4399700.0 N, 591588.8 E
Landing Point 3	
UTM NAD 83 (Meters)	4399789.0 N, 591678.4 E
Landing Point 4	
UTM NAD 83 (Meters)	4399650.1 N, 591272.1 E
Landing Point 5	
UTM NAD 83 (Meters)	4399794.0 N, 591655.4 E
Bottom Hole Location	
UTM NAD 83 (Meters)	4401383.2 N, 592313.9 E



A1 to Location is 218.1' (Cabin)
C1 to Location is 252' (Water Well)



- A- Barber TM17-43.1 4.70 Ac.
- B- McGee TM17-41 5.49 Ac.
- C- Baker TM17-43 55 Ac 1-254345-000
- D- Mason Dixon Farms LLC TM17-40 20.7 Ac.
- E- Chesapeake Appalachia L.L.C. TM17-1.3 5.74 Ac. 1-254323-000 WY00009289-001
- E1- Part of 10 Ac. Tract described in 569/564.
- E2- Crow Hrs. T.M.18-12 1175 Ac.
- E3- Treacy T.M.18-2 22,664 Ac.

Notes: Ties to wells and corners are based on State Plane Grid North-NY North Zone NAD 83.

Note: 500' is 450' from lease lines. Well bore path and surface hole location are seen 500' from all lease lines except for the O.E. Burge South Unit Boundary line as shown above.

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

FILE NO. _____
 DRAWING NO. 1
 SCALE 1" = 2000'
 MINIMUM DEGREE OF ACCURACY 1 in 200
 PROVEN SOURCE OF ELEVATION GRS
submeter unit

I THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE RULES ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.

(SIGNED) David J. Jackson
 R.P.E. _____ L.L.S. 708



STATE OF WEST VIRGINIA
 Division of Environmental Protection
 OFFICE OF OIL AND GAS

DATE May 20 2015
 OPERATOR'S WELL NO. O.E. Burge U MSH 501H
 API WELL NO. _____

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
 (IF "GAS") PRODUCTION STORAGE DEEP SHALLOW _____

LOCATION: ELEVATION 1,342' WATER SHED Laurel Run
 DISTRICT Liberty COUNTY Marshall
 QUADRANGLE Glen Easton 7 1/2'

SURFACE OWNER Mason Dixon Farms L.L.C. ACREAGE 66.03 ac.
 OIL & GAS ROYALTY OWNER O. E. Burge et al. LEASE ACREAGE 669.055 ac.

LEASE NO. See Above

PROPOSED WORK: DRILL CONVERT _____ DRILL DEEPER _____ REDRILL _____ FRACTURE OR STIMULATE PLUG OFF OLD FORMATION _____ PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____

PLUG AND ABANDON _____ CLEAN OUT AND REPLUG _____

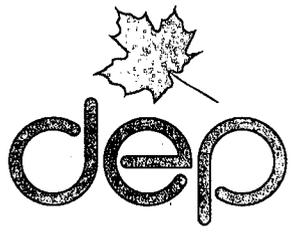
TARGET FORMATION Utica ESTIMATED DEPTH MD= 21,169'; TVD= 12,205'
 WELL OPERATOR SWN Production Co. LLC DESIGNATED AGENT Doc Southall
 ADDRESS P.O. Box 1300 Jane Lew, WV 26378 ADDRESS P.O. Box 1300 Jane Lew, WV 26378

Longitude 80-37-30 W

Bottom Hole Location 10,747'

Surface Hole Location 14,873'

Ex. 1



west virginia department of environmental protection

Oil and Gas Conservation Commission
601 57th Street, SE Charleston, WV 25304
(304)926-0499, Ext 1656

Earl Ray Tomblin, Governor
Barry K. Lay, Chairman
www.wvdep.org

**BEFORE THE OIL AND GAS CONSERVATION COMMISSION
OF THE STATE OF WEST VIRGINIA**

IN THE MATTER OF THE REQUEST BY SWN PRODUCTION
CO., LLC FOR AN EXCEPTION TO RULE 39CSR1-4.2
REGARDING THE DRILLING OF A PROPOSED WELL
IDENTIFIED AS THE O. E. BURGE U MSH 501H TO BE
LOCATED IN LIBERTY DISTRICT, MARSHALL COUNTY,
WEST VIRGINIA.

DOCKET NO. 234
CAUSE NO. 224

NOTICE OF HEARING

SWN Production Co., LLC ("SWN") has requested the WV Oil and Gas Conservation Commission review and approve a request for an exception to the spacing requirements as set forth in CSR §39-1-4.2; for a well identified as the O. E. Burge U MSH 501 H. The proposed location is within 400' of the unit boundary and therefore, SWN must obtain an exception to the rule.

The matter has been scheduled as stated below:

DATE: August 18, 2015

TIME: 10:00 a.m.

PLACE: Department of Environmental Protection
Oil and Gas Conservation Commission
601 57th Street, SE
Charleston, WV 25304

IN THE NAME OF THE STATE OF WEST VIRGINIA

OIL AND GAS CONSERVATION COMMISSION
OF THE STATE OF WEST VIRGINIA

By: Barry K Lay
Barry K. Lay, Chairman

Dated this 21st day of July, 2015, at Charleston, West Virginia.

Promoting a healthy environment.

Docket # 234-224
Certified Mail

SWN Production Company
Attention: DEE SOUTHHALL
Post Office Box 1300
Jane Lew, WV 26378

Spillman Thomas & Battle
Attention: William Herlihy
Post Office Box 273
Charleston, WV 25321-0273

91 7199 9991 7035 6612 6480

91 7199 9991 7035 6612 6473

Zachary M Blair
3 Arcadian AC
Glen Dale, WV 26038

Mason Dixon Farms LLC
Post Office Box 360911
Melbourne, FL 32936

91 7199 9991 7035 6612 6466

91 7199 9991 7035 6612 6459

Raines, Cindy J

From: adlaw@wvsos.com
Sent: Tuesday, July 21, 2015 9:45 AM
To: Raines, Cindy J
Subject: Meeting Notice Submission



Secretary of State
Bldg. 1, Suite 157-K
1900 Kanawha Blvd. East
Charleston, WV 25305-0770

Natalie E. Tennant
Secretary Of State
State Of West Virginia

Phone: 304-861-8600
Vis
www

Your meeting notice has been submitted. SOS staff will review and post your notice. You will receive another e-mail at that time.

If you have any questions, please contact our office during normal business hours for assistance.

The content is as follows:

cindy.j.raines@wv.gov

Oil and Gas Conservation Commission

08/18/2015 10:00 AM

Department of Environmental Protection Oil and Gas Conservation Commission 601 57th Street, SE
Charleston, WV 25304 304-926-0499 Ext 1656

Hearing - In the matter of the request by SWN Production Co., LLC for an excetpion to Rule 39CSR 1-4.2 regarding the drilling of a proposed well identified as the O. E. Burge U MSH 501H to be located in Liberty District, Marshall County, West Virginia.

Raines, Cindy J

From: Raines, Cindy J
Sent: Tuesday, July 21, 2015 10:45 AM
To: 'mdsvecho@gmail.com'
Subject: Class II legal ad
Attachments: Docket 234-224.pdf

Please print the attachment as a Class II legal ad in the Moundsville Daily Echo on Tuesday, July 28 and again on Tuesday, August 4. I have also cut and pasted the notice below. Invoice and certification should be mailed to the address below. **PLEASE CONFIRM RECEIPT OF THIS REQUEST.**

Thank you,
Cindy Raines
Oil and Gas Conservation Commission
610 57th Street, SE
Charleston, WV 25304
304-926-0499 ext 1656

**BEFORE THE OIL AND GAS CONSERVATION COMMISSION
OF THE STATE OF WEST VIRGINIA**

IN THE MATTER OF THE REQUEST BY SWN PRODUCTION
CO., LLC FOR AN EXCEPTION TO RULE 39CSR1-4.2
REGARDING THE DRILLING OF A PROPOSED WELL
NO. 224
IDENTIFIED AS THE O. E. BURGE U MSH 501H TO BE
LOCATED IN LIBERTY DISTRICT, MARSHALL COUNTY,
WEST VIRGINIA.

DOCKET NO. 234
CAUSE

NOTICE OF HEARING

SWN Production Co., LLC ("SWN") has requested the WV Oil and Gas Conservation Commission review and approve a request for an exception to the spacing requirements as set forth in CSR §39-1-4.2; for a well identified as the O. E. Burge U MSH 501 H. The proposed location is within 400' of the unit boundary and therefore, SWN must obtain an exception to the rule.

The matter has been scheduled as stated below:

DATE: August 18, 2015

TIME: 10:00 a.m.

PLACE: Department of Environmental Protection
Oil and Gas Conservation Commission
601 57th Street, SE

Charleston, WV 25304

IN THE NAME OF THE STATE OF WEST VIRGINIA

OIL AND GAS CONSERVATION COMMISSION
OF THE STATE OF WEST VIRGINIA

By: _____
Barry K. Lay, Chairman

Dated this 21st day of July, 2015, at Charleston, West Virginia.



SPILMAN THOMAS & BATTLE, PLLC

ATTORNEYS AT LAW

(304) 340-3838
wherlihy@spilmanlaw.com

June 22, 2015

Via Hand Delivery

Ms. Cindy Raines, Executive Assistant
West Virginia Oil and Gas Conservation Commission
Office of Oil and Gas
West Virginia Department of Environmental Protection
601 57th Street, S.E.
Charleston, West Virginia 25304

Re: Request for hearing on Spacing Variance for
O.E. Burge U MSH 501H Well Work Permit Application
Liberty District, Marshall County, West Virginia

Dear Ms. Raines:

SWN Production Co. LLC ("SWN") has filed an application to obtain a well work permit for the O.E. Burge U MSH 501H Well, API No. 047-051-01853, ("Well") located in the Liberty District of Marshall County West Virginia. SWN is requesting a variance from the 400 foot setback from lease and unit boundaries required by W. Va. CSR § 39-1-4.2 for the Well. In accordance with W.Va. CSR § 39-1-4.2, SWN requests a hearing with the West Virginia Oil and Gas Conservation Commission to consider the application by SWN which includes this variance.

As depicted in the plat attached hereto, the drilling pad and top end (but non-producing) parts of the well bore for the Well penetrate the boundaries of the O. E. Burge South Unit and related lease boundaries, as well as coming closer than 400 feet to the boundaries of the O.E. Burge Northwestern Unit. The enclosed plat also contains a list of contacts for the affected offset operators as required by W. Va. CSR § 39-1-4.10.

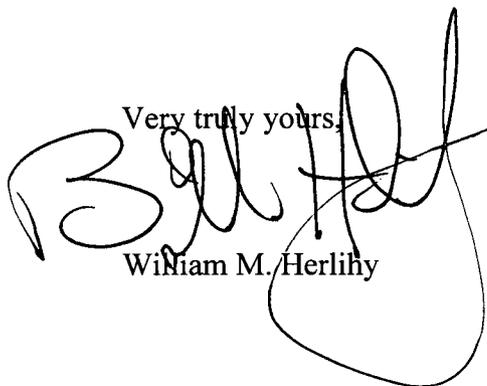
SWN is drilling the Well from the existing O.E. Burge well pad, to reduce the surface disturbance, equipment-traffic congestion, pipeline duplication, and environmental impact of completing the Well. The existing O.E. Burge well pad will be used at a later date to drill and complete additional horizontal wells to various formations. Drilling multiple horizontal wells from the existing O.E. Burge well pad, will minimize environmental impacts, eliminate additional surface disturbances, lessen roadway traffic and avoid unnecessary duplication of pipeline systems and surface vessels in the area.

Ms. Cindy Raines, Executive Assistant
June 22, 2015
Page 2

The most efficient development of the target formations for SWN will involve the violation of the 400 foot set-back, and SWN requires a variance from this limitation to efficiently develop and produce this resource. Based on the best available technology and geologic information, the drilling plan by SWN for the horizontal legs of wells being developed on the O.E. Burge well pad will develop the shale gas resources in the target formations with the least amount of wasted resources.

Please do not hesitate to contact me with any questions about the position of SWN on the Well. We request a hearing on the set-back variances described in my correspondence at your earliest scheduled date.

Very truly yours,



William M. Herlihy

WMH:7389095

Enclosure

cc: Scott Crump, Regulatory Manager, SWN (w/encl.) (via e-mail)



Ex. 5

west virginia department of environmental protection

Oil and Gas Conservation Commission
601 57th Street, SE Charleston, WV 25304
(304)926-0499, Ext 1656

Earl Ray Tomblin, Governor
Barry K. Lay, Chairman
dep.wv.gov

July 15, 2015

CNX Gas Company, LLC
1000 Consol Energy Drive
Canonsburg, PA 15317

RE: Intentional Deviation of New Deep Well
SWN Production Co. LLC
O. E. Burge U MSH 501 H

Dear Sir:

Please be advised that SWN Production Co., LLC has applied to the Oil and Gas Conservation Commission for approval to intentionally deviate a new deep well. The Code of State Regulations Title 39 Section 1.4.10 requires that the Commission notify the offset operators of the applicants' intent to deviate the proposed well. You are receiving this notice because you are listed as an offset operator (unleased mineral owner is also an "offset operator") to the proposed well. Any offset operator has ten days to object to the Commissions' granting approval to the proposed deviation. If you file an objection, the Commission will schedule a hearing and you will be notified of the date and time to attend.

A copy of the location plat is enclosed for your review. If no objection(s) are received by July 28, 2015 the application will be processed in the normal manner.

If you have any questions please call me at (304) 926-0499, extension 1656.

Sincerely,

Cindy Raines
Executive Assistant

encl: as stated

Promoting a healthy environment



west virginia department of environmental protection

Oil and Gas Conservation Commission
601 57th Street, SE Charleston, WV 25304
(304)926-0499, Ext 1656

Earl Ray Tomblin, Governor
Barry K. Lay, Chairman
dep.wv.gov

July 15, 2015

Noble Energy, Inc.
1000 Noble Energy Drive
Houston, TX 77070

RE: Intentional Deviation of New Deep Well
SWN Production Co. LLC
O. E. Burge U MSH 501 H

Dear Sir:

Please be advised that SWN Production Co., LLC has applied to the Oil and Gas Conservation Commission for approval to intentionally deviate a new deep well. The Code of State Regulations Title 39 Section 1.4.10 requires that the Commission notify the offset operators of the applicants' intent to deviate the proposed well. You are receiving this notice because you are listed as an offset operator (unleased mineral owner is also an "offset operator") to the proposed well. Any offset operator has ten days to object to the Commissions' granting approval to the proposed deviation. If you file an objection, the Commission will schedule a hearing and you will be notified of the date and time to attend.

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If you have any questions please call me at (304) 926-0499, extension 1656.

Sincerely,

Cindy Raines
Executive Assistant

encl: as stated



west virginia department of environmental protection

Oil and Gas Conservation Commission
601 57th Street, SE Charleston, WV 25304
(304)926-0499, Ext 1656

Earl Ray Tomblin, Governor
Barry K. Lay, Chairman
dep.wv.gov

July 15, 2015

Joe Scarberry
Office of Land and Streams
WV Division of Natural Resources
324 4th Ave, Room 200
South Charleston, WV 25303

RE: Intentional Deviation of New Deep Well
SWN Production Co. LLC
O. E. Burge U MSH 501 H

Dear Sir:

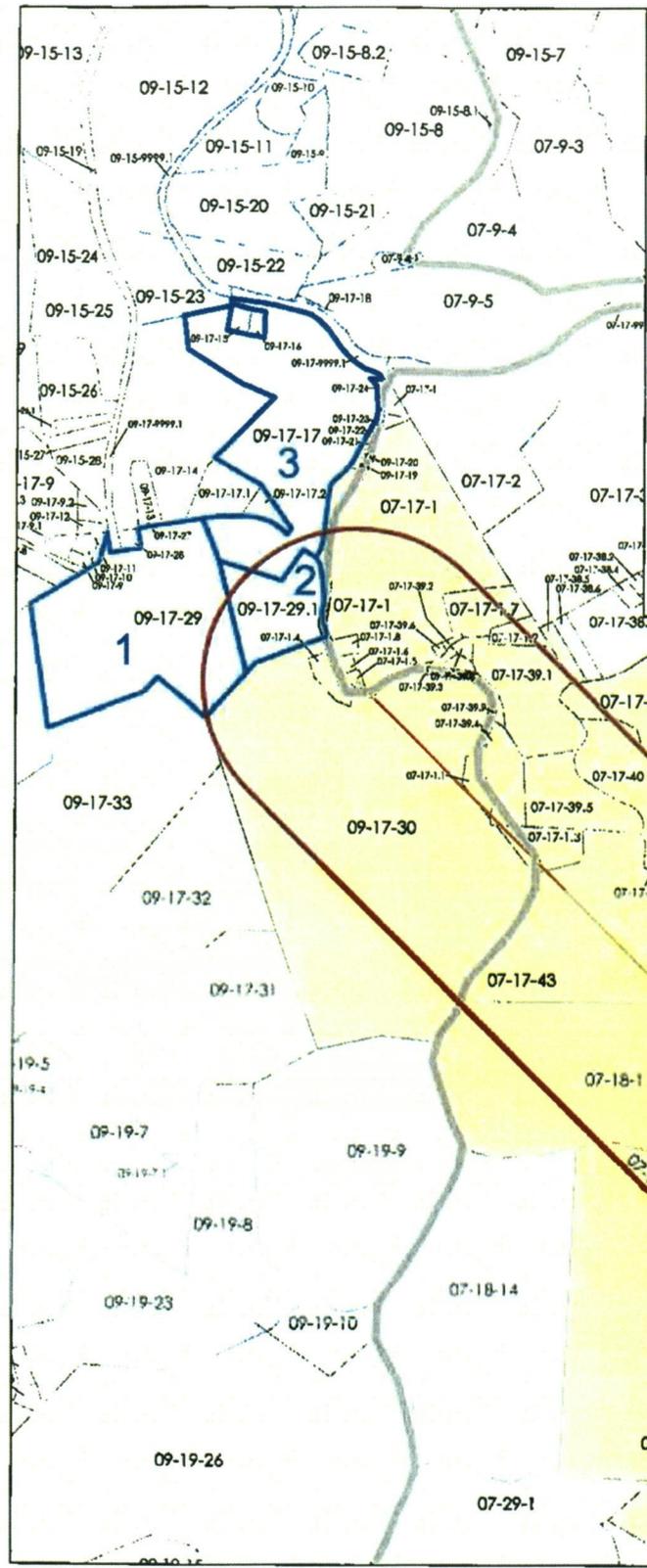
Please be advised that SWN Production Co., LLC has applied to the Oil and Gas Conservation Commission for approval to intentionally deviate a new deep well. The Code of State Regulations Title 39 Section 1.4.10 requires that the Commission notify the offset operators of the applicants' intent to deviate the proposed well. You are receiving this notice because you are listed as an offset operator (unleased mineral owner is also an "offset operator") to the proposed well. Any offset operator has ten days to object to the Commissions' granting approval to the proposed deviation. If you file an objection, the Commission will schedule a hearing and you will be notified of the date and time to attend.

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If you have any questions please call me at (304) 926-0499, extension 1656.

Sincerely,

Cindy Raines
Executive Assistant



TRACT NUMBER	TMP	LESSOR	LANDOWNER	LESSEE	ADDRESS
1	09-17-29	Nathan Sheperd	N / A	CNX	CNX Gas Company, LLC 1000 CONSOL Energy Drive Canonsburg, Pennsylvania 15317
1	09-17-29	Nathan Sheperd	N / A	NOBLE	Noble Energy, Inc. 1000 Noble Energy Way Houston, Texas 77070
2	09-17-29.1	Nathan Sheperd	N / A	CNX	CNX Gas Company, LLC 1000 CONSOL Energy Drive Canonsburg, Pennsylvania 15317
2	09-17-29.1	Nathan Sheperd	N / A	NOBLE	Noble Energy, Inc. 1000 Noble Energy Way Houston, Texas 77070
3	09-17-17	Nathan Sheperd	N / A	CNX	CNX Gas Company, LLC 1000 CONSOL Energy Drive Canonsburg, Pennsylvania 15317
3	09-17-17	Nathan Sheperd	N / A	NOBLE	Noble Energy, Inc. 1000 Noble Energy Way Houston, Texas 77070
4	Part of 07-17-36	N / A	State of West Virginia	N / A	Joe Scarberry Office of Land and Streams WV Division of Natural Resources

Exhibit 2 – Proposed O.E. Burge U MSH 501H
Marshall County, West Virginia

June 11, 2015

Map Projection: State Plane North American Datum 1927 West Virginia North

Scale = 1:21,000

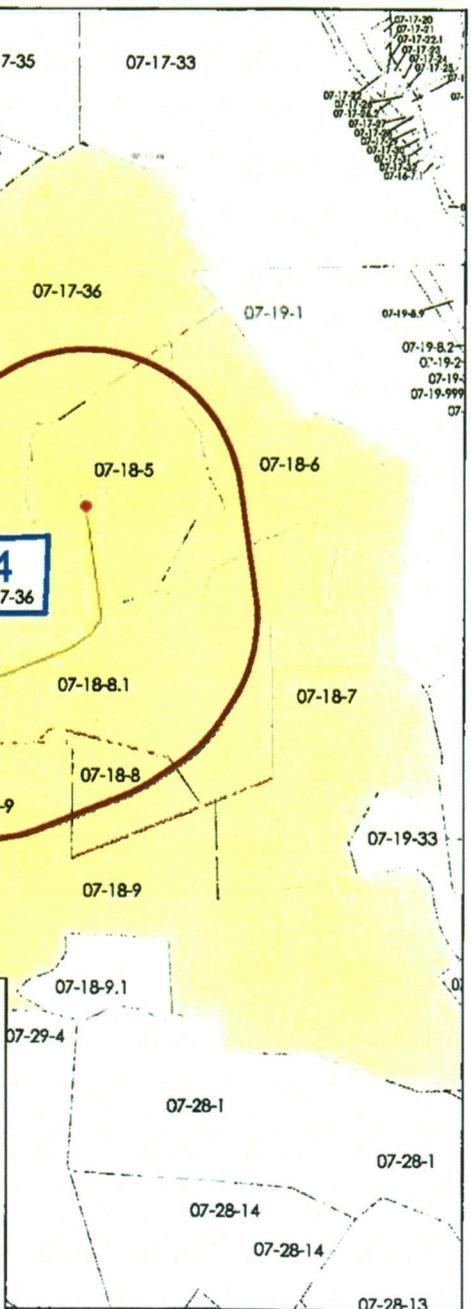
Prepared By: **PENTERRA SERVICES**

swn
Southwestern Energy

Legend:

- 1,500' Buffer
- SWN leases
- Well Pad
- Well Path

VICINITY MAP
Marshall County, West Virginia



Ex. 6

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
WELL WORK PERMIT APPLICATION

1) Well Operator: SWN Production Co., LLC 494512924 51-Marshall Liberty Glen Easton
Operator ID County District Quadrangle

2) Operator's Well Number: OE Burge U MSH 501H Well Pad Name: OE Burge MSH Pad

3) Farm Name/Surface Owner: Mason Dixon Farms, LLC Public Road Access: 921

4) Elevation, current ground: 1342' Elevation, proposed post-construction: 1342'

5) Well Type (a) Gas Oil Underground Storage
Other

(b) If Gas Shallow: Deep
Horizontal

6) Existing Pad: Yes or No yes

Ju 6/10/15

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Associated Pressure(s):
Target Formation- Utica, Target Top TVD- 12,270', Target Base TVD- 12,338', Anticipated Thickness- 220', Associated Pressure- 11,000#

8) Proposed Total Vertical Depth: 12,477' 12,306'

9) Formation at Total Vertical Depth: Utica Shale

10) Proposed Total Measured Depth: ~~21,000'~~ 21,170'

11) Proposed Horizontal Leg Length: 7800'

12) Approximate Fresh Water Strata Depths: 104'

13) Method to Determine Fresh Water Depths: from nearby water wells

14) Approximate Saltwater Depths: 360'

15) Approximate Coal Seam Depths: 1113'

16) Approximate Depth to Possible Void (coal mine, karst, other): None that we are aware of

RECEIVED
Office of Oil and Gas

17) Does Proposed well location contain coal seams directly overlying or adjacent to an active mine? Yes No

JUN 18 2015

(a) If Yes, provide Mine Info: Name: _____
Depth: _____
Seam: _____
Owner: _____

WV Department of
Environmental Protection

18)

CASING AND TUBING PROGRAM

TYPE	Size (in)	New or Used	Grade	Weight per ft. (lb/ft)	FOOTAGE: For Drilling (ft)	INTERVALS: Left in Well (ft)	CEMENT: Fill-up (Cu. Ft.)/CTS
Conductor	26"	New	H-40	94#	100'	100'	CTS
Fresh Water	20"	New	J-55	94#	300'	300'	635 sx/CTS
Coal	13 3/8"	New	J-55	48#	2613'	2613'	2070 sx/CTS
Intermediate	9 5/8"	New	N-80	40#	9000'	9000'	1535 sx/CTS
Production	5 1/2"	New	HCP-110	23#	21,900'	21,900'	Lead 999 sx tall 2087 sx/100' Inside Inlet
Tubing							
Liners							

Handwritten signature and date: 6/10/15

TYPE	Size (in)	Wellbore Diameter (in)	Wall Thickness (in)	Burst Pressure (psi)	Max. Associated Surface Pressure (psi)	Cement Type	Cement Yield (cu. ft./k)
Conductor	26"	30"	0.75	2780	81	Class A	1.19/50% Excess
Fresh Water	20"	24"	0.438	2110	633	Class A	1.19/50% Excess
Coal	13 3/8"	17.5"	0.33	2730	1768	Class A	1.19/50% Excess
Intermediate	9 5/8"	12 1/4"	0.395	5750	3898	Class A	1.68/1.25
Production	5 1/2"	8 3/4"	0.415	14520	9918	Class A	1.68/1.25
Tubing							
Liners							

PACKERS

Kind:	10K Arrowset AS1-X			
Sizes:	5 1/2"			
Depths Set:				

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Office of Oil and Gas

JUN 18 2015

19) Describe proposed well work, including the drilling and plugging back of any pilot hole:

Drill to the Trenton and then plug back with solid cement from TD to the kick off point and then drill horizontally into the Utica.. **If we should encounter a void place basket above and below void area- balance cement to bottom of void and grout from basket to surface. Run casing not less than 20' below void nor more than 50'-75' below void. (*If freshwater is encountered deeper than anticipated it must be protected, set casing 50'-75' below and cts.)

20) Describe fracturing/stimulating methods in detail, including anticipated max pressure and max rate:

Well will be perforated within the target formation and stimulated with a slurry of water, sand, and chemical additives at a high rate. This will be performed in stages with the plug and perf method along the wellbore until the entire lateral has been stimulated within the target formation. All stage plugs are then drilled out and the well is flowed back to surface. The well is produced through surface facilities consisting of high pressure production unites, vertical separation units, water and oil storage tanks. Max press and anticipated max rate- 9000 lbs @ 80 barrels a minute.

21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 13.4

22) Area to be disturbed for well pad only, less access road (acres): 7.6

23) Describe centralizer placement for each casing string:

All casing strings will be ran with a centralizer at a minimum of 1 per every 3 joints of casing.

24) Describe all cement additives associated with each cement type:

See Attachment ***

25) Proposed borehole conditioning procedures:

All boreholes will be conditioned with circulation and rotation for a minimum of one bottoms up and continuing until operator is satisfied with borehole conditions.

Revised

*Note: Attach additional sheets as needed.

References
22" Sycamore
Location
1-254774-000

Note: This cabin is the only dwelling within 625' of the center of the pad.

Note: All wells within 500' of the horizontal leg are shown on this plat based upon information taken from DEP mapping, well plats & aerial photos.

NUMBER	DIRECTION	DISTANCE
L1	N58°53' W	1,705'
L2	N00°59' W	938'
L3	S08°59' E	1,002'
L4	S23°29' W	242'
L5	S59°42' W	424'
L6	S69°03' W	729'
L7	N87°54' W	784'

Surface Hole Location
UTM NAD 83 (Meters)-4400168.9 N, 631584.4 E

Landing Point 1
UTM NAD 83 (Meters)-4399868.2 N, 631617.1 E

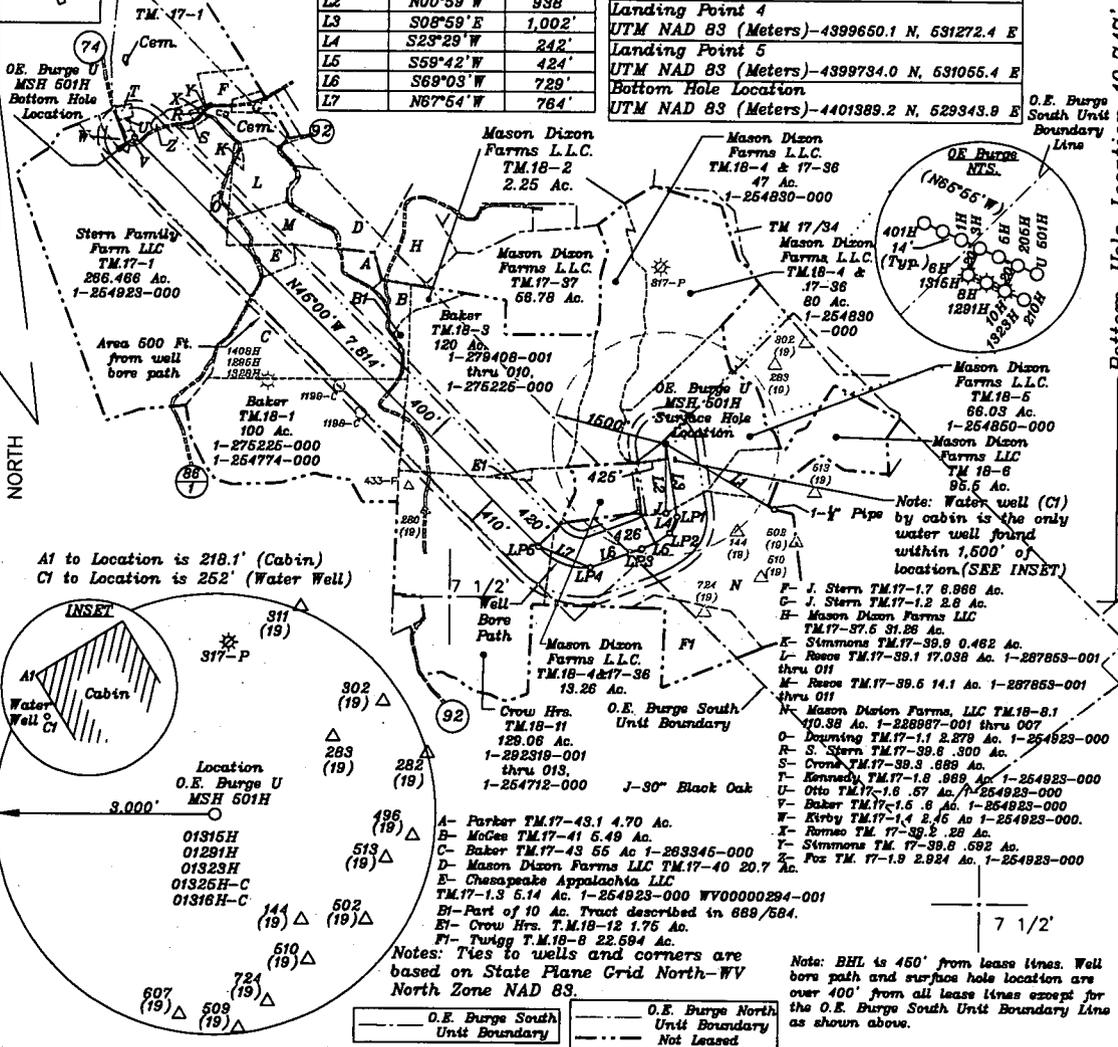
Landing Point 2
UTM NAD 83 (Meters)-4399800.0 N, 631588.8 E

Landing Point 3
UTM NAD 83 (Meters)-4399733.0 N, 631478.4 E

Landing Point 4
UTM NAD 83 (Meters)-4399650.1 N, 631272.4 E

Landing Point 5
UTM NAD 83 (Meters)-4399734.0 N, 631055.4 E

Bottom Hole Location
UTM NAD 83 (Meters)-4401389.2 N, 629343.9 E



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

FILE NO. _____
DRAWING NO. 1
SCALE 1" = 2000'
MINIMUM DEGREE OF ACCURACY 1 in. 200
PROVEN SOURCE OF ELEVATION GPS
submeter unit

I THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE RULES ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.

(SIGNED) _____
R.P.E. _____ L.L.S. 708

STATE OF WEST VIRGINIA
Division of Environmental Protection
OFFICE OF OIL AND GAS

DATE July 15, 2015
OPERATOR'S WELL NO. O.E. Burge U MSH 501H
API WELL NO. _____

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
(IF "GAS") PRODUCTION X STORAGE DEEP X SHALLOW _____

LOCATION: ELEVATION 1,342' WATER SHED Laurel Run
DISTRICT Liberty COUNTY Marshall
QUADRANGLE Glen Easton 7 1/2'

SURFACE OWNER Mason Dixon Farms L.L.C. ACREAGE 66.03 ac.
OIL & GAS ROYALTY OWNER O. E. Burge et al LEASE ACREAGE 869.055 ac.
LEASE NO. See Above

PROPOSED WORK: DRILL X CONVERT _____ DRILL DEEPER _____ REDRILL _____ FRACTURE OR STIMULATE X PLUG OFF OLD FORMATION _____ PERFORATE NEW FORMATION X OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____

PLUG AND ABANDON _____ CLEAN OUT AND REPLUG _____
TARGET FORMATION Utica ESTIMATED DEPTH MD= 21,169'; TYD= 12,306'
WELL OPERATOR SWN Production Co. LLC DESIGNATED AGENT Dee Southall
ADDRESS P.O. Box 1300 Jane Lew, WV 26378 ADDRESS P.O. Box 1300 Jane Lew, WV 26378

Bottom Hole Location 10,747'
Surface Hole Location 14,873'
LONGITUDE 80-37-30 W

Southwestern Energy Company

Proposed Drilling Program

NOTE: This

Well : O E BURGE U MSH 501H

Re-entry Rig : TBD

Field : PANHANDLE FIELD

Prospect : PANHANDLE

County : MARSHALL

State : WV



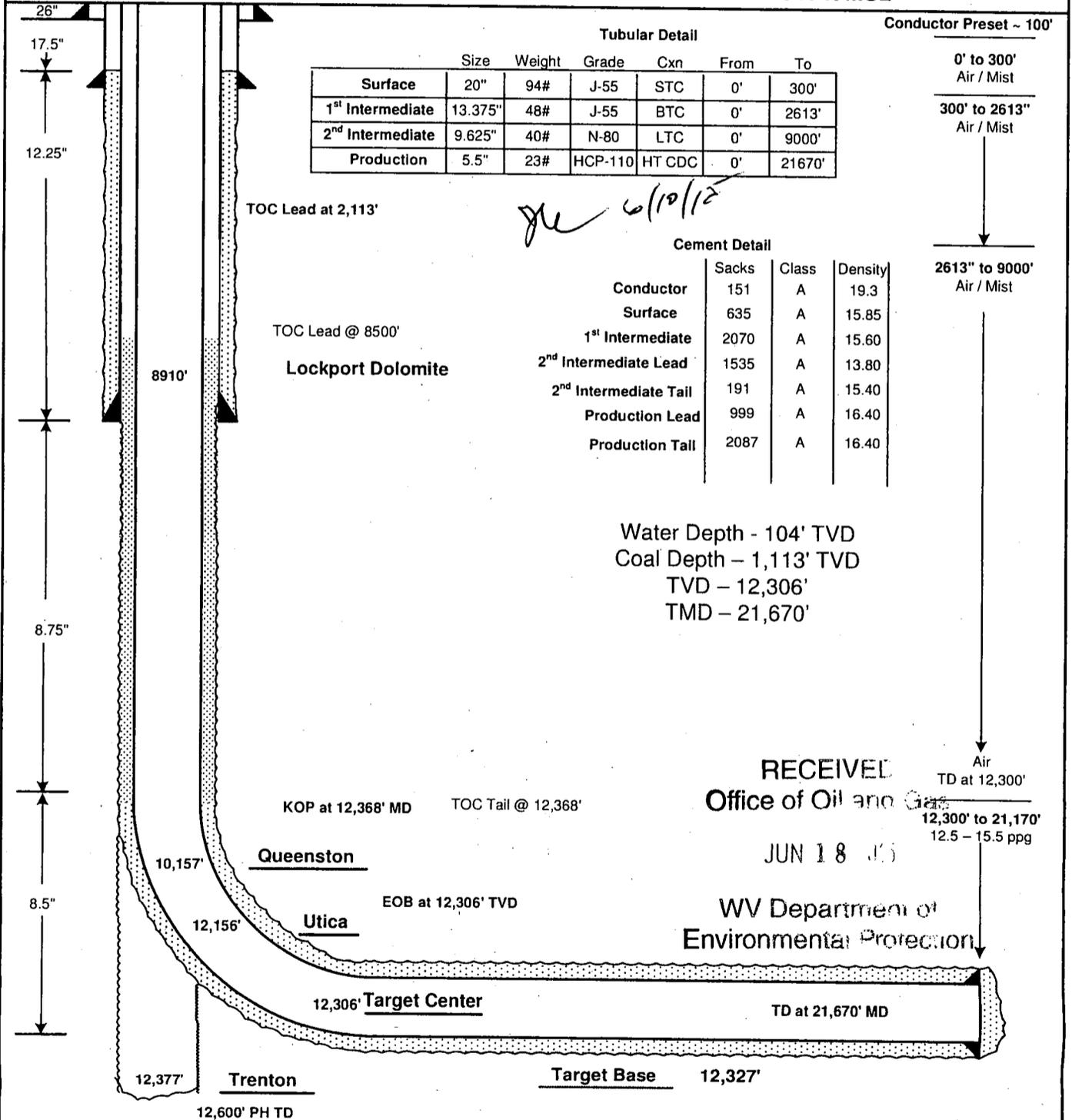
SHL : 39.750845 Latitude -80.631555 Longitude

BHL : 39.761919 Latitude -80.657419 Longitude

KB Elev : 1363 ft MSL

KB : 22 ft AGL

GL Elev : 1341 ft MSL



Tubular Detail

	Size	Weight	Grade	Cxn	From	To
Surface	20"	94#	J-55	STC	0'	300'
1 st Intermediate	13.375"	48#	J-55	BTC	0'	2613'
2 nd Intermediate	9.625"	40#	N-80	LTC	0'	9000'
Production	5.5"	23#	HCP-110	HT CDC	0'	21670'

Handwritten signature and date: 6/10/12

Cement Detail

	Sacks	Class	Density
Conductor	151	A	19.3
Surface	635	A	15.85
1 st Intermediate	2070	A	15.60
2 nd Intermediate Lead	1535	A	13.80
2 nd Intermediate Tail	191	A	15.40
Production Lead	999	A	16.40
Production Tail	2087	A	16.40

RECEIVED
Office of Oil and Gas
JUN 18 2012
WV Department of
Environmental Protection

Data source: K:\EandPWVD\Team Data\Wells\New Well Folder Template\Drilling Program\Master SWN Well Input Sheet v E-0-1.xlsm



Ex. 8

STATE OF WEST VIRGINIA
OFFICE OF THE GOVERNOR
1900 KANAWHA BOULEVARD, EAST
CHARLESTON, WV 25305
(304) 558-2000

EARL RAY TOMBLIN
GOVERNOR

August 10, 2015

Robert A. Fala, Director
Division of Natural Resources
324 Fourth Avenue, Room 200
South Charleston, WV 25303-1228

Re: Underwood Wildlife Management Area (Marshall Co.) – Oil & Natural Gas Leasing

Dear Director Fala:

This is in response to your May 26, 2015, request under W. Va. Code § 20-1-7(14) for approval to solicit sealed bids from the public for a lease to develop the oil and natural gas interests underlying approximately 13.25 acres of the above-referenced wildlife management area. I hereby approve your request, subject to the division ensuring, at a minimum, that:

1. The bidding process is competitive and accords with § 20-1-7(14);
2. The bidders are responsible and qualified to hold the lease;
3. The minerals will be developed in an orderly, diligent, and timely manner;
4. The minerals will be developed in compliance with applicable environmental protection laws and regulations;
5. The state shall receive rents, royalties, and other compensation equal to or greater than the fair market value of the minerals leased;
6. The state's royalty shall be free of volumetric and cost deductions (*i.e.*, the lessee shall bear all costs incurred in exploring for, producing, marketing, and transporting the minerals to the point of sale), unless the circumstances warrant the state bearing a portion of the deductions;
7. The lessee shall be liable for royalty payments on minerals lost or wasted because of negligence or failure to comply with the lease or the law;

OFFICE OF THE GOVERNOR

Fala

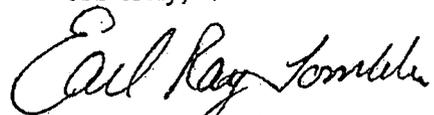
August 10, 2015

Page 2

8. The lessee shall drill and produce wells necessary to protect the property from drainage or pay compensatory royalty for drainage;
9. The lessee shall regularly furnish detailed statements to the division showing the amount and quality of all minerals extracted and sold, the proceeds therefrom, and the amount used for production purposes or unavoidably lost;
10. The proposed development of mineral interests is in the best economic interests of the state and will not impede the division's opportunities to develop other mineral interests in the area;
11. The proposed development of minerals will not limit temporarily or permanently the area's availability, in any manner, for the use of fish or wildlife, or temporarily or permanently alter or degrade fish or wildlife habitats, regardless of scale. *See, e.g.*, 50 C.F.R. 80.134; *see also* Mem. of Fish & Wildlife Service – "Protecting our Conservation Legacy: Ongoing Protection of Lands Acquired with Wildlife and Sport Fish Restoration Grant Funds and License Revenue" (Aug. 14, 2014); and
12. The proposed development will not impact or require the use of the surface of the wildlife management area.

Although the resulting lease will include other important terms and conditions, I believe the foregoing solicitation and lease requirements are of key importance to ensure that the state receives a fair and reasonable deal. Please see that these requirements are adhered to and highlighted in the solicitation process. If they prove unworkable based on the particular circumstances at issue, please advise. Further, please keep my General Counsel, Peter G. Markham, informed of the status of this matter.

Sincerely,



Earl Ray Tomblin
Governor

Cc:

J. Keith Burdette, Cabinet Secretary, Department of Commerce
Joshua Jarrell, Esq., General Counsel, Department of Commerce
Robert Kiss, Cabinet Secretary, Department of Revenue



DIVISION OF NATURAL RESOURCES

324 Fourth Avenue, Room 200
South Charleston WV 25303-1228

TDD (304) 558-1439

TDD 1-800-354-6087

Fax (304) 558-6048

Telephone (304) 558-3225

Earl Ray Tomblin
Governor

Robert A. Fala
Director

May 26, 2015

The Honorable Earl Ray Tomblin
Governor of West Virginia
Office of the Governor
State Capitol Complex
1900 Kanawha Boulevard, East
Charleston, West Virginia 25305

Attention: Peter Marcum

RE: Underwood WMA
Oil & Gas Leasing

Dear Governor Tomblin:

In accordance with Chapter 20, Article 1, Section 7, Item 14, of the Code of West Virginia, the Division of Natural Resources, hereby requests your approval to put out for public competitive bid 13.25 acres, m/l of the oil & gas resources at Underwood WMA in Marshall County, West Virginia.

The advertising and bidding procedure will all be carried out in compliance with West Virginia Code Chapter 59, Article 3, Section One.

Your favorable consideration of this request will be appreciated.

Sincerely,

Robert A. Fala

Director

APPROVED:

DATE:

August 10th, 2015

RF: js