RAILROAD COMMISSION OF TEXAS

OIL AND GAS DOCKET NO. 08-0319479

APPLICATION OF SHELL WESTERN E&P (774719) TO CONSIDER AMENDING FIELD RULES FOR THE SANDBAR (BONE SPRING) FIELD, OR IN THE ALTERNATIVE, A BLANKET FIELD WIDE EXCEPTION TO STATEWIDE RULE 13, SANDBAR (BONE SPRING) FIELD, CULBERSON, LOVING, PECOS, REEVES, WARD AND WINKLER COUNTIES, TEXAS

FINAL ORDER

The Commission finds that after statutory notice of the application made by Shell Western E&P (Operator No. 774719), in the above-numbered docket heard on July 23, 2019, the presiding Technical Examiner and Administrative Law Judge ("Examiners") have made and filed an Examiner's report and recommendation containing findings of fact and conclusions of law, for which service was not required; that the proposed application is in compliance with all statutory requirements; and that this proceeding was duly submitted to the Railroad Commission of Texas at conference held in its offices in Austin, Texas.

The Commission, after review and due consideration of the Examiners' report and recommendation, the findings of fact and conclusions of law contained therein, hereby adopts as its own the findings of fact and conclusions of law contained therein, and incorporates said findings of fact and conclusions of law as if fully set out and separately stated herein.

Therefore, it is **ORDERED** by the Railroad Commission of Texas that the Field Rules for the Sandbar (Bone Spring) Field (Field No. 80544500) in Culberson, Loving, Pecos, Reeves, Ward and Winkler Counties, Texas, adopted on November 30, 2010, in the Final Order for Oil & Gas Docket No. 08-02676238, as amended most recently on August 25, 2015 in Oil & Gas Docket No. 08-0295961, are hereby amended and set out in their entirety as follows:

RULE 1: The entire correlative interval from 8,007 feet to 11,067 feet as shown on the log of the Anadarko E&P Onshore LLC - Sandbar 54-2-39 Lease, Well No. 1 (API No. 42-301-31431), Section 39, Block 54 T2, T&P RR Co Survey, A-87, Loving County, Texas, shall be designated as a single reservoir for proration purposes and be designated as the Sandbar (Bone Spring) Field.

RULE 2: No well for oil or gas shall hereafter be drilled nearer than THREE HUNDRED THIRTY (330) feet to any property line, lease line, or subdivision line. There is no minimum between well spacing limitation. The aforementioned distances in the above rule are minimum distances to allow an operator flexibility in locating a well; and the above spacing rule and the other rules to follow are for the purpose of permitting only one well to each drilling and proration unit. Provided however, that the Commission will grant exceptions to permit drilling within shorter distances and drilling more wells than herein

prescribed, whenever the Commission shall have determined that such exceptions are necessary either to prevent waste or to prevent the confiscation of property. When exception to these rules is desired, application therefor shall be filed and will be acted upon in accordance with the provisions of Commission Statewide Rules 37 and 38, which applicable provisions of said rules are incorporated herein by reference.

In applying this rule, the general order of the Commission with relation to the subdivision of property shall be observed.

Provided, however, that for purposes of spacing for horizontal wells, the following shall apply:

- a. A take point in a horizontal drainhole well is any point along a horizontal drainhole where oil and/or gas can be produced into the wellbore from the reservoir/field interval. The first take point may be at a different location than the penetration point, and the last take point may be at a location different than the terminus point.
- b. No horizontal drainhole well for oil or gas shall hereafter be drilled such that any take point may be nearer than TWO HUNDRED (200) feet in a non-perpendicular distance from the orientation of the horizontal drainhole to any property line, lease line or subdivision line.
- c. For each horizontal drainhole well, the perpendicular distance from any take point on such horizontal drainhole between the first take point and the last take point to any point on any property line, lease line, or subdivision line shall be a minimum of THREE HUNDRED THIRTY (330) feet.

In addition to the penetration point and the terminus of the wellbore required to be identified on the drilling permit application (Form W-1H) and plat, the first and last take points must also be identified on the drilling permit application (remarks section) and plat. Operators shall file an as-drilled plat showing the path, penetration point, terminus and the first and last take points of all drainholes in horizontal wells, regardless of allocation formula.

If the applicant has represented in the drilling application that there will be one or more no perf zones or "NPZ's" (portions of the wellbore within the field interval without take points), then the as-drilled plat filed after completion of the well shall be certified by a person with knowledge of the facts pertinent to the application that the plat is accurately drawn to scale and correctly reflects all pertinent and required data. In addition to the standard required data, the certified plat shall include the as-drilled track of the wellbore, the location of each take point on the wellbore, the boundaries of any wholly or partially unleased tracts within a Rule 37 distance of the wellbore to

the nearest take point on the wellbore.

A properly permitted horizontal drainhole will be considered to be in compliance with the spacing rules set forth herein if the as-drilled location falls within a rectangle established as follows:

- a. Two sides of the rectangle are parallel to the permitted drainhole and 50 feet on either side of the drainhole;
- b. The other two sides of the rectangle are perpendicular to the sides described in (a) above, with one of those sides passing through the first take point and the other side passing through the last take point.

Any point of a horizontal drainhole outside of the described rectangle must conform to the permitted distance of the property line, lease line or subdivision line measured perpendicular from the wellbore.

For any well permitted in this field, the penetration point need not be located on the same lease, pooled unit or unitized tract on which the well is permitted and may be located on an Offsite Tract. When the penetration point is located on such Offsite Tract, the applicant for such a drilling permit must give 21 days notice by certified mail, return receipt requested to the mineral owners of the Offsite Tract. For the purposes of this rule, the mineral owners of the Offsite Tract are (1) the designated operator; (2) all lessees of record for the Offsite Tract where there is no designated operator; and (3) all owners of unleased mineral interests where there is no designated operator or lessee. In providing such notice, applicant must provide the mineral owners of the Offsite Tract with a plat clearly depicting the projected path of the entire wellbore. In the event the applicant is unable, after due diligence, to locate the whereabouts of any person to whom notice is required by this rule, the applicant must publish notice of this application pursuant to the Commission's Rules of Practice and Procedure. If any mineral owner of the Offsite Tract objects to the location of the penetration point, the applicant may request a hearing to demonstrate the necessity of the location of the penetration point of the well to prevent waste or to protect correlative rights. Notice of Offsite Tract penetration is not required if (a) written waivers of objection are received from all mineral owners of the Offsite Tract; or, (b) the applicant is the only mineral owner of the Offsite Tract. To mitigate the potential for well collisions, applicant shall promptly provide copies of any directional surveys to the parties entitled to notice under this section, upon request.

RULE 3a: The acreage assigned to the individual oil well for the purpose of allocating allowable oil production thereto shall be known as a proration unit. The standard drilling and proration units are established hereby to be THREE HUNDRED TWENTY (320) acres. No proration unit shall consist of more than THREE HUNDRED TWENTY (320) acres except as hereinafter provided. All proration units shall consist of continuous and contiguous acreage which can reasonably be considered to be productive of oil. No double assignment of acreage will be accepted.

If after the drilling of the last well on any lease and the assignment of acreage to each well thereon in accordance with the regulations of the Commission there remains an additional unassigned acreage of less than THREE HUNDRED TWENTY (320) acres, then and in such event the remaining unassigned acreage up to and including a total of TWENTY (20) acres may be assigned as tolerance acreage to the last well drilled on such lease or may be distributed among any group of wells located thereon, so long as the proration units resulting from the inclusion of such additional acreage meet the limitations prescribed by the Commission.

An operator, at his option, shall be permitted to form optional drilling and fractional proration units of TWENTY (20) acres, with a proportional acreage allowable credit for a well on fractional proration units.

RULE 3b: The acreage assigned to the individual gas well shall be known as a proration unit. The standard drilling and proration units are established hereby to be THREE HUNDRED TWENTY (320) acres. No proration unit shall consist of more than THREE HUNDRED TWENTY (320) acres; provided that, tolerance acreage of ten (10) percent shall be allowed for each standard proration unit so that an amount not to exceed a maximum of THREE HUNDRED FIFTY TWO (352) acres may be assigned. Each proration unit containing less than THREE HUNDRED TWENTY (320) acres shall be a fractional proration unit. All proration units shall consist of continuous and contiguous acreage which can reasonably be considered to be productive of gas. No double assignment of acreage will be accepted.

An operator, at his option, shall be permitted to form optional drilling and fractional proration units of TWENTY(20) acres, with a proportional acreage allowable credit for a well on fractional proration units.

The acreage assignable to the individual horizontal oil or gas well shall be determined by the following table:

Horizontal Drainhole	Maximum Proration Unit
Length, feet	Size, acres
0' - 1,500'	320
1,501' - 3,000'	480
3,001' - 4,500'	640
4,501' - 6,000'	800
6,001' - 7,500'	960
7,501' - 9,000'	1120
etc 1,500'	etc 160-acre increment

For the purpose of assigning additional acreage to a horizontal drainhole well pursuant to the table listed in this Order, the distance from the first take point to the last take point in the horizontal drainhole shall be used in such determination, in lieu of the distance from penetration point to terminus.

For the determination of acreage credit in this field, operators shall file for each oil or gas well in this field a Form P-15 Statement of Productivity of Acreage Assigned to Proration Units. On that form or an attachment thereto, the operator shall list the number of acres that are being assigned to each well on the lease or unit for proration purposes, in lieu of amended Form P-15's. For oil or gas wells, operators shall be required to file, along with the Form P-15, a plat of the lease, unit or property; provided that such plat shall not be required to show individual proration units. Operators may, however, file such proration unit plats for individual wells in the field if they so choose. There is no maximum diagonal limitation in this field.

RULE 4a: The maximum daily oil allowable for each well in the subject field shall be the 1965 Yardstick Allowable. The actual allowable for an individual well shall be determined by the sum total of the two following values:

- a. Each well shall be assigned an allowable equal to the top allowable established for a well having a proration unit containing the maximum acreage authorized exclusive of tolerance acreage multiplied by 50% and by then multiplying this value by a fraction, the numerator of which is the acreage assigned to the well and the denominator of which is the maximum acreage authorized for a proration unit exclusive of tolerance acreage.
- b. Each well shall be assigned an allowable equal to 50% of the maximum daily oil allowable above.

Each oil well shall have unlimited net gas-oil ratio authority.

RULE 4b: The subject field shall be classified as associated-prorated. The daily allowable production of gas from individual wells completed in the subject field shall be determined by allocating the allowable production, after deductions have been made for wells which are incapable of producing their gas allowables, among the individual wells in the following manner:

- a. FIFTY percent (50%) of the total field allowable shall be allocated among the individual wells in the proportion that the acreage assigned such well for allowable purposes bears to the summation of the acreage with respect to all proratable wells producing from this field.
- b. FIFTY percent (50%) of the field's total allowable shall be allocated equally among all the individual proratable wells producing from the field.

RULE 5: A flowing oil well will be granted administratively, without necessity of filing fees unless the Commission requires filing fees in the future for Statewide Rule 13(b)(5)(a) exceptions, a six month exception to Statewide Rule 13(b)(5)(a) regarding the requirement of having to be produced through tubing. A revised completion report will be filed once the oil well has been equipped with the required tubing string to reflect the actual completion configuration. This exception would be applicable for new drills, reworks, recompletions or

for new fracture stimulation treatments for any flowing oil well in the field. For good cause shown, an operator may obtain administratively, without necessity of filing fees unless the Commission requires filing fees in the future for Statewide Rule 13(b)(5)(a) exceptions, an extension for an additional three months. If the request for an extension of time is denied, the operator may request a hearing.

RULE 6: An oil well will be granted administratively, without necessity of filing fees unless the Commission requires filing fees in the future for Statewide Rule 51(a) exceptions, a six month exception to the provisions of Statewide Rule 51(a) regarding the 10 day rule for filing the potential test after testing of the well. This will allow for the backdating of allowables on the oil wells without requiring a waiver to be secured from all field operators. This rule will grant the Commission the authority to issue an allowable back to the initial completion date for all oil wells in the field to prevent unnecessary shut-ins to alleviate potential overproduction issues related to the completion paperwork filings and producing the oil wells without tubing. If an extension of time is granted under Rule 5, the exception to Statewide Rule 51(a) under this rule is automatically extended for the additional time.

RULE 7: For oil and gas wells, Stacked Lateral Wells within the correlative interval for the field that are drilled from different wellbores may be considered a single well for regulatory purposes, as provided below

- i) A horizontal drainhole well qualifies as a Stacked Lateral Well under the following conditions:
 - a) There are two or more horizontal drainhole wells on the same lease or pooled unit within the correlative interval for the field;
 - b) Horizontal drainholes are drilled from different surface locations;
 - c) Each point of a Stacked Lateral Well's horizontal drainholes shall be no more than 300 feet in a horizontal direction from any point along the horizontal drainhole of the record well that is establishing the Stacked Lateral Well. This distance is measured perpendicular to the orientation of the horizontal drainhole and can be illustrated by the projection of each horizontal drainhole in the Stacked Lateral Well into a common horizontal plane as seen on a location plat. Where one drainhole of a Stacked Lateral is longer than that of another drainhole of the Stacked Lateral, the 300 feet maximum shall be measured between the longer lateral and a projection of the shorter lateral along the same path as the existing lateral; and
 - d) There shall be no maximum or minimum distance limitations between horizontal drainholes of a Stacked Lateral Well in a vertical direction.
- ii) A Stacked Lateral Well, including all surface locations and horizontal

drainholes comprising such Stacked Lateral Well, shall be considered as a single well for density and allowable purposes.

- a) All points between the first Take Point and the Last Take Point on all drainholes of a Stacked Lateral Well, including all Take Points on any horizontal drainhole that is longer than the Record Well, must fall within a box with a surface area equal to the number of acres to be assigned to the Stacked Lateral Well for allowable purposes. Two sides of the box will be formed by the two horizontal laterals that are the farthest apart in a horizontal direction, which shall be no greater than the 300-foot requirement in item 1 above.
- b) For the purpose of assigning additional acreage to the Stacked Lateral Well pursuant to the table in Rule 3b: above, the horizontal drainhole displacement shall be calculated based on the distance from the first take point to the last take point in the horizontal drainhole for the Record Well, regardless of the horizontal drainhole displacement of other horizontal drainholes of the Stacked Lateral Well.
- iii) Each surface location of a Stacked Lateral Well must be permitted separately and assigned an API number. In permitting a Stacked Lateral Well, the operator shall identify each surface location of such well with the designation "SL" in the well's lease name and also describe the well as a Stacked Lateral Well in the "Remarks" of the Form W-1 drilling permit application. The operator shall also identify on the plat any other existing, or applied for, horizontal drainholes comprising the Stacked Lateral Well being permitted.
- iv) To be a regular location, each horizontal drainhole of a Stacked Lateral Well must comply with (i) the field's minimum spacing distance as to any lease, pooled unit or property line, and (ii) the field's minimum between well spacing distance as to any different well, including all horizontal drainholes of any other Stacked Lateral Well, on the same lease or pooled unit in the field. Operators may seek exceptions to Rules 37 and 38 for Stacked Lateral Wells in accordance with the Commission's rules, or any applicable rule for this field.
- v) Operators shall file separate completion forms for each surface location of the Stacked Lateral Well. Operators shall also file a certified as-drilled location plat for each surface location of a Stacked Lateral Well showing each horizontal drainhole from that surface location, confirming the well's qualification as a Stacked Lateral Well and showing the maximum distances in a horizontal direction between each horizontal drainhole of the Stacked Lateral Well.

- vi) In addition to the completions forms for each surface location of a Stacked Lateral Well, the operator must file a separate Form G-1 or Form W-2 for record purposes only for the Commission's Proration Department to build a fictitious "Record Well" for the Stacked Lateral Well. This Record Well will be identified with the words "SL Record" included in the lease name. The Record Well will be assigned an API number and Gas Well ID or Oil Lease number and listed on the proration schedule with an allowable if applicable.
- vii) In addition to the Record Well, each surface location of a Stacked Lateral Well will be listed on the proration schedule, but no allowable shall be assigned for an individual surface location. Each surface location of a Stacked Lateral Well shall be required to have a separate G-10 or W-10 test and the sum of all horizontal drainhole test rates shall be reported as the test rate for the Record Well.

Operators shall report all production from horizontal drainholes included as a Stacked Lateral Well on Form PR to the Record Well. Production reported for a Record Well is the total production from the horizontal drainholes comprising the Stacked Lateral Well. Operators shall measure the production from each surface location of a Stacked Lateral Well. Operators may measure full well stream with the measurement adjusted for the allocation of condensate based on the gas to liquid ratio established by the most recent G-10 well test rate for that surface location. The gas and condensate production will be identified by individual API number and recorded and reported on the "Supplementary Attachment to Form PR".

- viii) If the field's 100% AOF status should be removed, the Commission's Proration Department shall assign a single gas allowable to each Record Well classified as a gas well. The Commission's Proration Department shall also assign a single oil allowable to each Record Well classified as an oil well. The assigned allowable may be produced from any one or all of the horizontal drainholes comprising the Stacked Lateral Well.
- ix) Operators shall file an individual Form W-3A Notice of Intention to Plug and Abandon and Form W-3 Well Plugging Report for each horizontal drainhole comprising the Stacked Lateral Well as required by Commission rules.
- x) An operator may not file Form P-4 to transfer an individual surface location of a Stacked Lateral Well to another operator. P-4's filed to change the operator will only be accepted for the Record Well if accompanied.

RULE 8: Operators of flowing oil wells may comply with the following casing program as an alternative to Statewide Rule 13(b)(4) (tubing requirements for land wells and bay wells) so long as each participating well meets the requirements of the program as described by this Rule and otherwise satisfies the intent of Statewide Rule 13(a)(1).

- a. For horizontal oil wells cased with tapered long-string production casing from the toe of the well to surface designed for all normal producing well loads, the operator shall comply with the following conditions:
 - the bottom of tubing shall be installed no more than 100 feet (vertical) above the point of transition from the larger diameter production casing to the smaller diameter production casing in the tapered long-string casing;
 - (2) the point of transition described in subsection (1) shall be located no more than 1,200 feet (vertical) above the top of the correlative interval of the field; and
 - (3) the production casing cement shall extend 200 feet above the intermediate casing shoe.
- b. In the event the base of the intermediate casing is above the top of the correlative interval of the field, the operator shall pressure test the annulus of the intermediate casing and production casing to at least 1,200 psi and run a cement evaluation survey to assess radial cement integrity and placement behind the production casing from the top of the correlative interval of the field to at least 200 feet above the base of the intermediate casing.
 - (1) The operator shall submit all pressure test results and cement evaluation surveys electronically to the district director as soon as practicably possible, but no later than 48 hours after receipt of the pressure test results and cement evaluation survey.
 - (2) If the pressure test results or cement evaluation survey indicates insufficient isolation, (sufficient isolation as described in Statewide Rule 13(a)(1)), completion operations may not re-commence until the district director approves a remediation plan, the operator implements the approved plan, and pressure test results and cement evaluation surveys indicate sufficient isolation.
 - (3) Upon the request of the operator, the district director may approve completion operations in the portion of the wellbore where sufficient isolation exists while remediation operations described in subsection (b)(2) are ongoing with the following restrictions:
 - (A) the operator shall monitor all annuli during completion operations;

- (B) if the pressure deviates above or below the level anticipated by pressure or thermal transfer, the operator shall immediately cease completion operations and notify the district director;
- (C) if the operator is required to cease operations pursuant to subsection (b)(3)(B) of this Rule, the operator shall then comply with subsections (b)(1) and (b)(2) described herein.
- c. Unless district director approval is required under subsection (b) of this Rule, Commission approval is not required for an operator participating in and complying with the requirements of the alternative casing program set forth in this Rule.
- d. All exceptions to Statewide Rules as discussed in Rules 5, 6 and 8 of this order shall be applicable to all wells in the field (including any wells for which completion forms were filed prior to the issuance of this order), regardless of when completion forms are filed.

It is further **ORDERED** by the Railroad Commission of Texas that the allocation formula in the Sandbar (Bone Spring) Field shall remain suspended. The allocation formula may be reinstated administratively if the market demand for gas in the Sandbar (Bone Spring) Field drops below 100% of deliverability. If the market demand for gas in the Sandbar (Bone Spring) Field drops below 100% of deliverability while the allocation formula is suspended, the operator shall immediately notify the Commission and the allocation formula shall be immediately reinstated.

Pursuant to the Final Order in Oil & Gas Docket No. 08-0295961, all wells completed with a gas-oil ratio of 3,000 cubic feet per barrel and above in the Sandbar (Bone Spring) Field in Loving County, Texas, are permanently classified as gas wells without the need of further administrative review, effective the date of initial completion.

It is further **ORDERED** by the Railroad Commission of Texas that all overproduction in the Sandbar (Bone Spring) Field, Ward, Winkler, Culberson, Reeves and Loving Counties, Texas, is hereby canceled.

Pursuant to §2001.144(a)(4)(A), of the Texas Government Code, and by agreement of the Parties in writing or on the record, the parties have waived the right to file a motion for rehearing and this Final Order is final and effective on the date the Master Order relating to the Final Order is signed.

Signed on June 16, 2020.

RAILROAD COMMISSION OF TEXAS

(Order approved and signatures affixed by Hearings Division's Unprotested Master Order dated June 16, 2020)