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

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

CASE NO. 12004 ORDER NO. R-11082

APPLICATION OF STEVENS & TULL, INC. FOR A NON-STANDARD SUBSURFACE GAS WELL LOCATION/PRODUCING AREA AND A NON-STANDARD GAS SPACING AND PRORATION UNIT, EDDY COUNTY, NEW MEXICO.

#### ORDER OF THE DIVISION

## BY THE DIVISION:

This case came on for hearing at 8:15 a.m. on July 9, 1998 at Santa Fe, New Mexico, before Examiner Michael E. Stogner.

NOW, on this 10th day of November, 1998, the Division Director, having considered the testimony, the record and the recommendations of the Examiner,

### **FINDS THAT**:

- (1) Due public notice has been given and the Division has jurisdiction of this case and its subject matter.
- Township 20-1/2 South, Range 22 East, NMPM, Eddy County, New Mexico is an irregularly sized and shaped township due to the convergence of meridians and is six miles in width (east/west axes) and approximately one-half mile in length (north/south axes). Section 31 of Township 20-1/2 South, Range 22 East, NMPM, Eddy County, New Mexico consists of: (i) Lot 1 with 27.38 acres; (ii) Lot 2 with 26.61 acres; (iii) Lot 3 with 26.46 acres; (iv) Lot 4 with 13.19 acres; (v) Lot 5 with 20.15 acres; and (vi) the SE/4 SW/4 with 40 acres and the S/2 SE/4 with 80 acres, which are considered to be regular subdivisions (aliquot parts) of this section. Section 31 therefore encompasses a total area of 233.79 acres. See Division Order No. R-10803, issued in consolidated Case Nos. 11716, 11717, 11739, 11740, 11741, and 11753, which describes this irregularity in greater detail.
- (3) The applicant, Stevens & Tull, Inc., in accordance with Division Rules 104.F and 111.C(2), seeks approval of a non-standard subsurface gas well location/producing area

for any and all formations and/or pools developed on 320-acre spacing from the surface to the base of the Morrow formation, which presently include the Undesignated Indian Loafer Draw-Upper Pennsylvanian Gas Pool, Undesignated Little Box Canyon-Strawn Gas Pool, Undesignated Little Box Canyon-Atoka Gas Pool, and Undesignated Little Box Canyon-Morrow Gas Pool, for its proposed Sweet Thing Federal Unit Well No. 2 (**API No. 30-015-30338**) to be drilled from a surface location 660 feet from the North and West lines (Lot 5/Unit M) of irregular Section 31, Township 20-1/2 South, Range 22 East, NMPM, Eddy County, New Mexico.

- (4) The Wolfcamp formation is the uppermost interval within this area of Eddy County, New Mexico having 320-acre spacing.
- (5) All of the formations and/or pools within the vertical interval from the top of the Wolfcamp formation to the base of the Morrow formation underlying Section 31 are subject to Division Rules 104.B(1)(a) and 104.C(2)(b), which provide for 320-acre gas spacing and proration units with wells to be located no closer than 1650 feet from the nearest end boundary, nor closer than 660 feet from the nearest side boundary, nor closer than 330 feet to any quarter-quarter section or subdivision inner boundary.
- (6) The evidence and testimony presented at the hearing indicate that deep gas wells drilled in this immediate area experience a significant and predictable drilling drift in a westerly direction.
- (7) Directly offsetting Section 31 to the west in Section 36, Township 20-1/2 South, Range 21 East, NMPM, Eddy County, New Mexico, Stevens & Tull, Inc. drilled its Sweet Thing State "36" Well No. 1 (API No. 30-015-30004) at an unorthodox gas well location 850 feet from the North line and 300 feet from the West line (Unit P) of Section 36 [approved by Division Administrative Order NSL-3901(NSP), as amended]. This well is currently completed as a gas well in the Morrow formation at a depth of 7,977 feet. The subsurface location within the Morrow formation of the Sweet Thing State "36" Well No. 1 is estimated to be 476 feet from the East line of Section 31.
- (8) The applicant intends to drill its proposed Sweet Thing Federal Unit Well No. 2 into the Morrow formation in order to position its bottomhole location an equal distance from the section line between Sections 31 and 36 as the estimated Morrow subsurface location of the Sweet Thing State "36" Well No. 1.
- (9) The proposed unorthodox target window for the Sweet Thing Federal Unit Well No. 2 within the Morrow formation is a rectangular area 50 feet wide and 200 feet long located in Section 31 that is: (i) no closer than 660 feet to, nor further than 860 feet from, the North line of Section 31; and (ii) no closer than 435 feet to, nor further than 485 feet from,

the West line of Section 31.

- (10) The proposed subsurface location for the Sweet Thing Federal Unit Well No. 2 will serve to: (i) position this wellbore in Section 31 at a more favorable geologic position within the Undesignated Little Box Canyon-Morrow Gas Pool than a well drilled at a standard location within this 233.79-acre spacing unit; and (ii) offset any possible drainage of reserves in Section 31 from the offsetting well in Section 36.
- (11) The applicable drilling window or "producing area" for those zones above the Morrow formation included in this application should include that area that is:
  - (a) no closer than 660 feet to the north and south boundaries of this unit;
  - (b) no closer than 1650 feet to the East line of Section 31; and
  - (c) no closer than 435 feet to the West line of Section 31.
  - (12) No offset and/or interested party objected to this application.
- (13) Approval of this application will afford the applicant the opportunity to produce its just and equitable share of Morrow gas underlying Section 31, will prevent the economic loss caused by the drilling of unnecessary wells, exhibits sound engineering practices by utilizing an existing wellbore, is in the best interest of conservation and will otherwise prevent waste and protect correlative rights.
- (14) The applicant should be required to determine the subsurface location of the kick-off point of the Sweet Thing Federal Unit Well No. 2 prior to directional drilling and should subsequently be required to conduct an accurate wellbore survey during or upon completion of drilling operations from the kick-off point to total depth to determine its true depth and course.
- (15) The applicant should be required to notify the supervisor of the Division's Artesia District Office of the date and time the directional surveys are to be conducted so that they may be witnessed. The applicant should further be required to provide a copy of the directional surveys to the Division's offices in Santa Fe and Artesia upon completion.

# IT IS THEREFORE ORDERED THAT:

- (1) The application of Stevens & Tull, Inc. for a non-standard subsurface gas well location/producing area for any and all formations and/or pools developed on 320-acre spacing from the top of the Wolfcamp formation to the base of the Morrow formation, which presently include the Undesignated Indian Loafer Draw-Upper Pennsylvanian Gas Pool, Undesignated Little Box Canyon-Strawn Gas Pool, Undesignated Little Box Canyon-Atoka Gas Pool, and Undesignated Little Box Canyon-Morrow Gas Pool, for its proposed Sweet Thing Federal Unit Well No. 2 (API No. 30-015-30338) to be drilled from a surface location 660 feet from the North and West lines (Lot 5/Unit M) of irregular Section 31, Township 20-1/2 South, Range 22 East, NMPM, Eddy County, New Mexico, is hereby approved.
- (2) The 233.79 acres comprising all of Section 31 is to be dedicated to this well to form a non-standard 233.79-acre gas spacing and proration unit.
- (3) The target window for this well in the Morrow formation is to be a rectangular area 50 feet wide and 200 feet long in Section 31 that is: (i) no closer than 660 feet to, nor further than 860 feet from, the North line; and (ii) no closer than 435 feet to, nor further than 485 feet from, the West line.
- (4) The applicable drilling window or "producing area" for those zones above the Morrow formation included in this application shall include that area that is:
  - (a) no closer than 660 feet to the north and south boundaries of this unit;
  - (b) no closer than 1650 feet to the East line of Section 31; and
  - (c) no closer than 435 feet to the West line of Section 31.
- (5) Prior to commencing directional drilling operations, the operator shall establish the location of the kick-off point by means of a directional survey acceptable to the Division.

<u>PROVIDED HOWEVER THAT</u> during or upon completion of the directional drilling operations, the applicant shall conduct an accurate wellbore survey from the kick-off point to total depth in order that the subsurface bottomhole location, as well as the wellbore's true depth and course, may be determined.

- (6) The applicant shall notify the supervisor of the Division's Artesia district office of the date and time the wellbore surveys are to be conducted so that they may be witnessed. The applicant shall further provide a copy of the wellbore surveys to the Division's offices in Santa Fe and Artesia upon completion.
- (7) Form C-105 shall be filed in accordance with Division Rule No. 1105 and the operator shall indicate thereon true vertical depth in addition to measured depths for the new sidetracked hole within the Sweet Thing Federal Unit Well No. 2.
- (8) Jurisdiction of this case is retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

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Director

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