



# United States Department of the Interior

BUREAU OF LAND MANAGEMENT  
SAN JUAN RESOURCE AREA  
FEDERAL BUILDING  
701 CAMINO DEL RIO  
DURANGO, COLORADO 81301



IN REPLY REFER TO:

7/18/90  
SC

3100 (163)

JUL 17 1990

JUL 23 1990

Wintershall Energy  
Attention: Mr. Fred Clausen  
230 West North Street  
Cortez, Colorado 81321

Dear Mr. Clausen:

We appreciate the opportunity we had to meet with you regarding your proposal for a Verde Gallup directional well on the Ute Mountain Ute reservation. This office has no objections to the directional well as proposed. However, please be advised that a formal Application for Permit to Drill will be necessary before authorization can be given to commence operations.

If you have any questions regarding the above, please contact Jim Lovato at (303) 247-4082.

Sincerely,

*Sally Wisely*  
Sally Wisely  
Area Manager

BEFORE EXAMINER CATANACH	
OIL CONSERVATION DIVISION	
BASF	EXHIBIT NO. 8
CASE NO.	10023

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. 10023  
Order No. R-9255

APPLICATION OF BASF CORPORATION FOR A  
HORIZONTAL DIRECTIONAL DRILLING PILOT  
PROJECT, SPECIAL OPERATING RULES  
THEREFOR, NON-STANDARD OIL PRORATION  
UNIT AND AN UNORTHODOX OIL WELL LOCATION,  
SAN JUAN COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on July 25, 1990, at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this 22nd day of August, 1990, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS THAT:

(1) Due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.

CASE NO. 10023  
Order No. R-9255  
Page -2-

(2) The applicant, BASF Corporation, seeks the formation of either a 120-acre non-standard oil proration unit comprising the S/2 SW/4 and the SW/4 SE/4 of Section 28, or an 80-acre non-standard oil proration unit comprising the S/2 SW/4 of said Section 28, both in Township 31 North, Range 14 West, as projected into the unsurveyed Ute Mountain Indian Reservation, San Juan County, New Mexico, for the purpose of initiating a horizontal directional drilling pilot project in the Undesignated Verde-Gallup Oil Pool. The applicant proposes to drill its Ute Mt. Tribal "28" Well No. 14, located at a surface location 1250 feet from the South line and 110 feet from the West line (Unit M) of said Section 28 in the following unconventional manner:

Drill vertically to a depth of approximately 3820 feet, kick off from vertical and commence a medium radius curve in an east-southeasterly direction building angle to approximately 90 degrees to encounter the Gallup formation at a true vertical depth of approximately 4460 feet, continue drilling horizontally a distance of approximately 1000 feet and bottoming said wellbore in the adjoining quarter-quarter section (Unit N) at an approximate location 1004 feet from the South line and 2542 feet from the West line of said Section 28.

(3) The applicant further seeks special rules and provisions within the pilot project area including the designation of a prescribed area limiting the horizontal displacement of the proposed wellbore such that it cannot be closer than 70 feet from the outer boundary of its assigned proration unit, and a special allowable provision for a double or triple size proration unit.

(4) At the time of the hearing, it was determined that the proposed surface location was described incorrectly in the docket for this case due to inadvertence, and that the actual proposed surface well location is 1250 feet from the South line and 1100 feet from the West line (Unit M) of said Section 28.

CASE NO. 10023  
Order No. R-9255  
Page -3-

(5) The Division has determined that re-advertisement is not necessary in this case inasmuch as the correct surface location is less unorthodox than the location described in the docket, and the applicant is the owner of all offsetting acreage and therefore no other operator is affected.

(6) The evidence presented indicates that the Verde-Gallup Oil Pool, which was created in 1957 and has been extensively developed since that time, is currently a depleted field with very few producing wells still active.

(7) Through its evidence and testimony, the applicant demonstrated that the proposed horizontal wellbore, which is experimental in nature, should encounter a substantially greater number of natural fractures within the Gallup formation than would a conventional wellbore, which may ultimately result in the recovery of a greater amount of oil from the proposed proration unit, thereby preventing waste.

(8) The applicant currently owns all of the affected offset acreage and in fact controls a substantial amount of acreage surrounding the proposed project area.

(9) The evidence indicates that the horizontal portion of the wellbore, as currently proposed, will traverse the SE/4 SW/4 of said Section 28, and will not extend into the SW/4 SE/4 of said Section 28.

(10) At the hearing, the applicant testified that the horizontal portion of the wellbore may be extended beyond the terminus described in Finding No. (2) above and requested that any order approving the proposed project provide for flexibility in expanding the project area and project allowable.

(11) The project area should initially be limited to the S/2 SW/4 of said Section 28. The project allowable should be equal to top unit allowable for the Verde-Gallup Oil Pool (80 barrels of oil per day) times two or 160 barrels of oil per day.

(12) No part of the horizontal portion of the wellbore should be located closer than 70 feet from the outer boundary of the project area.

CASE NO. 10023  
Order No. R-9255  
Page -4-

(13) The Division Director should have the authority to administratively approve extension of the horizontal portion of the subject wellbore, expansion of the project area to include additional 40-acre proration units, and an increase in the project allowable provided that:

- a) Expansion of the project area to include additional 40-acre units should be approved only if the horizontal portion of the wellbore traverses all or part of such additional units;
- b) No part of the extended horizontal portion of the subject wellbore should be located closer than 70 feet to the outer boundary of the expanded project area;
- c) The project allowable should be equal to top unit allowable for the Verde-Gallup Oil Pool times the number of 40-acre units within the project area.

(14) Approval of the proposed pilot project should result in the recovery of an additional amount of oil from the project area which may not otherwise be recovered, thereby preventing waste, and will not violate correlative rights.

(15) The applicant should be required to conduct a directional survey on the vertical portion of the wellbore prior to commencing directional drilling operations, and on the horizontal portion of the wellbore subsequent to directional drilling operations in order that the direction, extent, and terminus of said wellbore may be determined to be in compliance with the proposed bottomhole location.

(16) The applicant should further be required to submit copies of said directional surveys to the Santa Fe and Aztec district offices of the Division.

(17) The applicant should notify the supervisor of the Aztec district office of the Division of the date and time of commencement of directional drilling operations and of the conductance of any directional surveys on the proposed well in order that these operations may be witnessed.

CASE NO. 10023  
Order No. R-9255  
Page -5-

IT IS THEREFORE ORDERED THAT:

(1) The application of BASF Corporation for a horizontal directional drilling pilot project in the S/2 SW/4 of Section 28, Township 31 North, Range 14 West, as projected into the unsurveyed Ute Mountain Indian Reservation, Undesignated Verde-Gallup Oil Pool, San Juan County, New Mexico, is hereby approved.

(2) The applicant is further authorized to drill its Ute Mt. Tribal "28" Well No. 14 at an unorthodox surface location 1250 feet from the South line and 1100 feet from the West line (Unit M) of said Section 28 in the following unconventional manner:

Drill vertically to a depth of approximately 3820 feet, kick off from vertical and commence a medium radius curve in an east-southeasterly direction building angle to approximately 90 degrees to encounter the Gallup formation at a true vertical depth of approximately 4460 feet, continue drilling horizontally a distance of approximately 1000 feet and bottoming said wellbore in the adjoining quarter-quarter section (Unit N) at an approximate location 1004 feet from the South line and 2542 feet from the West line of said Section 28.

PROVIDED HOWEVER THAT, the horizontal portion of the subject well shall be located no closer than 70 feet from the outer boundary of the project area.

(3) The project allowable shall be 160 barrels of oil per day.

(4) The Division Director shall have the authority to administratively approve extension of the horizontal portion of the subject wellbore, expansion of the project area to include additional 40-acre proration units, and an increase in the project allowable provided that:

- a) Expansion of the project area to include additional 40-acre units shall be approved only if the horizontal portion of the wellbore traverses all or part of such additional units;

CASE NO. 10023  
Order No. R-9255  
Page -6-

- b) No part of the extended horizontal portion of the subject well shall be located closer than 70 feet to the outer boundary of the expanded project area;
- c) The project allowable shall be equal to top unit allowable for the Verde-Gallup Oil Pool times the number of 40-acre units within the project area.

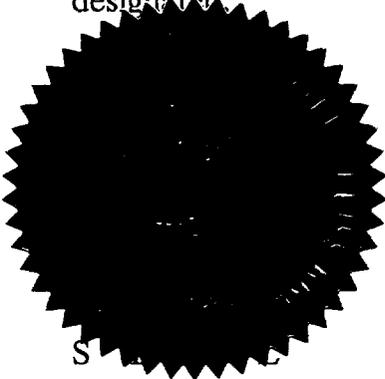
(3) The applicant shall be required to conduct a directional survey on the vertical portion of the wellbore prior to commencing directional drilling operations, and on the horizontal portion of the wellbore subsequent to directional drilling operations in order that the direction, extent, and terminus of said wellbore may be determined to be in compliance with the proposed bottomhole location.

(4) The applicant shall further be required to submit copies of said directional surveys to the Santa Fe and Aztec district offices of the Division.

(5) The applicant shall notify the supervisor of the Aztec district office of the Division of the date and time of commencement of directional drilling operations and of the conductance of any directional surveys on the proposed well in order that these operations may be witnessed.

(6) Jurisdiction of this cause 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

WILLIAM J. LEMAY  
Director