

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. 14878  
ORDER NO. R-13621

APPLICATION OF ENERGEN RESOURCES CORPORATION FOR  
ESTABLISHMENT OF A SPECIAL INFILL WELL DEVELOPMENT AREA IN  
PORTIONS OF THE GAVILAN-PICTURED CLIFFS POOL, FOR EXCEPTION  
FROM RULE 19.15.15.11 NMAC, APPROVAL OF UNORTHODOX WELL  
LOCATIONS AND FOR DOWNHOLE COMMINGLING, RIO ARriba  
COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This case came on for hearing at 8:15 a.m. on July 12, 2012, at Santa Fe, New Mexico, before Examiner Richard I. Ezeanyim.

NOW, on this 31<sup>st</sup> day of August, 2012, 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 of the subject matter.

(2) Energen Resources Corporation ("Energen" or "Applicant") seeks an order from the Division to approve the following:

(a) the establishment of the Gavilan-Pictured Cliffs Special Infill Well Development Area in portions of the Gavilan-Pictured Cliffs Pool (77360) in Rio Arriba County, New Mexico;

(b) an exception to the well density development limitations applicable to the pool to allow two producing gas wells per 160-acre spacing and proration unit throughout the Special Infill Well Development Area;

(c) unorthodox well locations pursuant to Rule 19.15.15.13 NMAC for certain existing Mesaverde formation wells to be recompleted in the Pictured Cliffs formation;

(d) the dual completion of new wells to be drilled to both formations throughout the area; and

(e) the area-wide downhole commingling of production from the Gavilan-Pictured Cliffs Pool (77360) and the Blanco-Mesaverde Pool (72319), and in the specific case of three pre-existing wells identified herein, the downhole tri-mingling of production from the Pictured Cliffs, Mesaverde and Mancos formations.

(3) Energen appeared at the hearing through counsel and presented the following land, geologic and engineering testimony.

**The Special Infill Well Development Area**

(4) Energen proposes that the following lands in Rio Arriba County located entirely within the northern portion of the Gavilan-Pictured Cliffs Pool be designated as the Gavilan-Pictured Cliffs Special Infill Well Development Area:

**Township 27 North, Range 3 West, NMPM**

Section 11:	All
Section 13:	All
Section 14:	All
Section 15:	S/2
Section 22:	All
Section 23:	All
Section 24:	All
Section 25:	All
Section 26:	All
Section 27:	All
Section 35:	All
Section 36:	All

**Township 26 North, Range 3 West, NMPM**

Section 1:	All
Section 2:	All
Section 3:	E/2
Section 10:	E/2
Section 11:	All
Section 12:	All
Section 13:	All
Section 14:	E/2, NW/4
Section 23:	NE/4
Section 24:	All

(5) The mineral interests underlying the lands described in Paragraph 4, above, (the Special Infill Well Development Area) are all owned in trust for the benefit of the Jicarilla Apache Nation. Energen owns all of the oil and gas lease record title and operating rights at all depths and formations in the lands. The 12,207.60 acres, more or less, under lease to Energen are contiguous and can be efficiently administered as a single Special Infill Well Development Area. Energen owns each of the drilled and undrilled spacing units within the Special Infill Well Development Area, and ownership in all of the formations is common. Energen is the only operator within the Special Infill Well Development Area.

(6) The operators of all spacing units adjoining the proposed Special Infill Well Development Area were notified of this hearing. For those adjoining spacing units where no operator is designated, the leasehold working interest owners were notified. The Jicarilla Apache Nation (JAN), Bureau of Indian Affairs (BIA), and Bureau of Land Management (BLM) were also notified, and notice of the hearing was published in the Rio Grande Sun Newspaper.

(7) On June 28, 2012, prior to the hearing, Energen's land, geologic and engineering staff met with representatives of the Jicarilla Apache Nation, Bureau of Indian Affairs and Bureau of Land Management to explain the infill development program. The Jicarilla Apache Nation and BIA representatives were supportive of this application.

(8) The Gavilan-Pictured Cliffs Pool is an "unprorated" gas pool, and is currently governed by Division's Statewide Rules, which provide for 160-acre well spacing and proration units, and require wells to be located no closer than 660 feet to the outer boundary of their assigned units nor closer than 10 feet to any quarter-quarter section line or subdivision inner boundary. These rules do not provide for the drilling, recompletion, and production of a second gas well within a single 160-acre gas spacing unit.

(9) Order No. R-10987-A issued in Case No. 12069 on February 1, 1999, established Special Pool Rules for the Blanco-Mesaverde Pool (**72319**), which is a prorated gas pool. Those rules provide for 320-acre standard gas proration units and allow for an initial well and up to three infill wells. Well locations are also subject to a 660 foot setback requirement and may be no closer than 10 feet to any quarter-quarter section line or subdivision inner boundary.

(10) The Gavilan-Pictured Cliffs Pool and the Blanco-Mesaverde Pool are not a pool combination that is pre-approved for commingling under Rule 19.15.12.11. E NMAC.

(11) In 2003, Energen, Burlington Resources Oil & Gas Company, and BP-Amoco participated in a pilot infill development study on portions of eight San Juan Basin Pictured Cliffs pool, including the Gavilan-Pictured Cliffs Pool, authorized by the Division in Order No. R-11848. Subsequently, in 2011, the Division issued Order No. R-

13347-A approving the establishment of an infill pilot project study area in portions of the Gavilan, Tapacito and South Blanco-Pictured Cliffs Pools operated by Energen. In connection with the pilot project, Energen drilled or recompleted a number of infill wells in 160-acre units located within the Gavilan-Pictured Cliffs Pool and has been successful in finding good quality reservoir and production with its infill development.

(12) Energen has determined that the Pictured Cliffs formation in the area is located deeper than other Pictured Cliffs producing areas in the San Juan Basin. It has also found higher original and remaining bottomhole pressures in the Special Infill Development Area. Energen has concluded that there are additional Pictured Cliffs reserves available to infill development that were not otherwise being efficiently recovered by the original single wells in each of the spacing units it evaluated.

(13) Within the Special Infill Well Development Area, Energen currently operates two (2) wells producing from the Pictured Cliffs formation only, and forty-seven (47) Mesaverde wells which were previously approved for the commingling of production from both the Pictured Cliffs and Mesaverde formations. None of the wells is located any closer than 660 feet to the outer boundary of the Special Infill Well Development Area.

(14) Energen also operates the following fifty-one (51) existing Mesaverde formation wells located in the proposed Special Infill Well Development Area, and plans to add completions in the Pictured Cliffs formation and operate them as new infill wells:

API No.	Well Name	NS Footage	N Dir	EW Footage	EW Dir	Sec	Twp	Rge	Prod Fm
30039265480000	Jicarilla 95 #3C	2340	FNL	990	FWL	35	27N	3W	Mancos/ Mesaverde
30039265510000	Jicarilla 96 #6B	2155	FSL	1845	FWL	2	26N	3W	Mesaverde
30039265710000	Jicarilla 96 #7B	2330	FNL	1145	FWL	1	26N	3W	Mesaverde
30039265880000	Jicarilla 94 #6B	2075	FNL	770	FEL	27	27N	3W	Mesaverde
30039268430000	Jicarilla 96 #8C	2480	FSL	1750	FWL	12	26N	3W	Mesaverde
30039268470000	Jicarilla 115E #14B	2400	FNL	680	FEL	10	26N	3W	Mesaverde
30039268530000	Jicarilla 94 #1C	2400	FSL	1650	FEL	22	27N	3W	Mesaverde
30039268880000	Jicarilla 96 #4Y	1560	FSL	2340	FEL	1	26N	3W	Mesaverde
30039268910000	Jicarilla 96 #7C	2360	FSL	1980	FWL	1	26N	3W	Mesaverde
30039268920000	Jicarilla 95 #6C	660	FSL	2500	FEL	36	27N	3W	Mancos/ Mesaverde
30039269140000	Jicarilla 95 #4C	2405	FNL	1650	FWL	26	27N	3W	Mesaverde
30039273110000	Jicarilla 96 #5C	660	FSL	2600	FWL	11	26N	3W	Mesaverde
30039274370000	Jicarilla 99 #7C	2010	FSL	1600	FWL	13	26N	3W	Mesaverde
30039274830000	Jicarilla 94 #2R	2350	FSL	1125	FWL	27	27N	3W	Mesaverde
30039276720000	Jicarilla 95 #5C	2140	FNL	105	FWL	25	27N	3W	Mesaverde
30039301530000	Jicarilla 96 #4B	2500	FNL	1420	FEL	1	26N	3W	Mesaverde

30039068500000	Jicarilla 95 #7	900	FNL	990	FEL	36	27N	3W	Mesaverde
30039070210000	Jicarilla 94 #4	790	FNL	790	FEL	23	27N	3W	Mesaverde
30039211270000	Jicarilla 95 #7A	990	FNL	990	FWL	36	27N	3W	Mesaverde
30039212360000	Jicarilla 96 #7A	990	FNL	790	FWL	1	26N	3W	Mesaverde
30039212370000	Jicarilla 96 #2A	990	FSL	990	FEL	2	26N	3W	Mesaverde
30039212590000	Jicarilla 96 #1A	990	FSL	990	FEL	11	26N	3W	Mesaverde
30039212600000	Jicarilla 95 #8A	990	FSL	990	FEL	26	27N	3W	Mesaverde
30039212730000	Jicarilla 96 #8A	990	FNL	1190	FWL	12	26N	3W	Mesaverde
30039214820000	Jicarilla 94 #4A	1190	FSL	1090	FEL	23	27N	3W	Mesaverde
30039214840000	Jicarilla 94 #2A	990	FNL	1190	FWL	27	27N	3W	Mesaverde
30039228000000	Jicarilla 89 #5A	1520	FSL	790	FEL	14	27N	3W	Mesaverde
30039228110000	Jicarilla 94 #8	790	FNL	890	FWL	24	27N	3W	Mesaverde
30039262620000	Johnston Shear #1A	1735	FSL	1105	FEL	3	26N	3W	Mancos/ Mesaverde
30039262690000	Jicarilla 99 #3A	1835	FSL	1620	FEL	13	26N	3W	Mesaverde
30039263540000	Jicarilla 96 #3B	660	FSL	1980	FEL	12	26N	3W	Mesaverde
30039263550000	Jicarilla 94 #5B	1980	FSL	1785	FWL	23	27N	3W	Mesaverde
30039265460000	Jicarilla 94 #6C	1065	FSL	1455	FEL	27	27N	3W	Mesaverde
30039265490000	Jicarilla 96 #6C	990	FNL	1970	FWL	2	26N	3W	Mesaverde
30039265730000	Jicarilla 96 #1B	720	FNL	1775	FEL	11	26N	3W	Mesaverde
30039265740000	Jicarilla 95 #6B	1980	FSL	800	FWL	36	27N	3W	Mesaverde
30039265860000	Jicarilla 95 #1C	1285	FNL	1940	FEL	35	27N	3W	Mesaverde
30039268270000	Jicarilla 96 #2C	1750	FNL	1825	FEL	2	26N	3W	Mesaverde
30039268440000	Jicarilla 99 #7B	790	FNL	1600	FWL	13	26N	3W	Mesaverde
30039268450000	Johnston Shear #1C	660	FSL	660	FEL	3	26N	3W	Mesaverde
30039268460000	Johnston Shear #1B	660	FNL	660	FEL	3	26N	3W	Mesaverde
30039268520000	Jicarilla 95 #4B	915	FSL	1975	FWL	26	27N	3W	Mesaverde
30039268560000	Jicarilla 94 #2B	660	FSL	1975	FWL	27	27N	3W	Mesaverde
30039268870000	Jicarilla 94 #4B	1980	FSL	1980	FEL	23	27N	3W	Mesaverde
30039268890000	Jicarilla 95 #5B	660	FSL	1975	FWL	25	27N	3W	Mesaverde
30039268900000	Jicarilla 95 #8C	1865	FNL	1795	FEL	26	27N	3W	Mesaverde
30039274130000	Jicarilla 94 #2C	1600	FNL	1980	FWL	27	27N	3W	Mesaverde
30039274380000	Jicarilla 94 #1B	1600	FNL	660	FEL	22	27N	3W	Mesaverde
30039274820000	Jicarilla 94 #3B	660	FSL	1980	FWL	22	27N	3W	Mesaverde
30039275280000	Jicarilla 96 #3R	660	FNL	2500	FEL	12	26N	3W	Mesaverde
30039301640000	Jicarilla 94 #4C	1000	FNL	1950	FEL	23	27N	3W	

(15) In addition to the re-completions of the existing Mesaverde formation wells, Energen plans to drill the following new Mesaverde wells, which it also proposes

to dually complete and commingle downhole with production from the Pictured Cliffs formation:

API No.	Well Name	NS Footage	NS Dir	EW Footage	EW Dir	Sec	Twp	Rge
NA	Jicarilla 94 #3C	1350	FNL	1350	FWL	22	27N	3W
NA	Jicarilla 99 #2B	1350	FNL	1350	FEL	14	26N	3W
NA	Jicarilla 96 #3D	1350	FSL	1350	FEL	12	26N	3W
NA	Jicarilla 96 #3B	1350	FNL	1350	FEL	13	26N	3W
NA	Jicarilla 96 #3C	1350	FSL	1350	FEL	13	26N	3W
NA	Jicarilla 96 #3C	1350	FNL	1350	FEL	12	26N	3W
NA	Jicarilla 99 #2C	1350	FSL	1350	FEL	14	26N	3W

(16) In addition to the re-completions of the existing Mesaverde wells and the new wells identified in Finding Paragraphs (14) and (15) above, Energen seeks approval for the dual completion and downhole commingling of any future Mesaverde and Pictured Cliffs formation wells it may drill at any available location throughout the Special Infill Well Development Area.

(17) Except for new Mesaverde formation wells that would not be drilled on existing pads, adding infill completions to the existing Mesaverde wells and facilities will cause no additional surface disturbance.

#### **Infill development**

(18) Based on the results from the 2003 and 2011 pilot projects, Energen determined that Pictured Cliffs formation reserves can be efficiently and economically developed, without waste or violating correlative rights, by drilling new wells or recompleting existing Blanco-Mesaverde wells on 160-acre spacing and proration units.

(19) Further, waste will not be incurred and correlative rights will be protected by adding commingled production from the Pictured Cliffs formation and producing the dually completed wells as additional infill wells in each of the quarter-section spacing units Energen operates within the Gavilan-Pictured Cliffs Pool.

(20) The 2011 Pilot Project demonstrated that the **average increase** in the Estimated Ultimate Recovery (EUR) per 160-acre spacing and proration unit attributable to infill development was 448 million cubic feet (448 MMcf).

(21) The 2003 Pilot Project demonstrated that the **average increase** in the Estimated Ultimate Recovery (EUR) per 160-acre spacing and proration unit attributable to infill development was 45 million cubic feet (45 MMcf).

(22) The bottomhole pressures from the 2003 and 2011 Pilot Projects were obtained from down-hole gauges measuring both pre-fracture and post-fracture data on 30-day pressure build-up tests followed by pressure fall-off tests. The highest pressures

(about 1270 pounds per square inch-psi) were observed in the wells offsetting the areas with lowest cumulative production, while the lowest pressures (about 427 psi) were observed in the wells offsetting the areas with the highest cumulative production.

(23). The original bottomhole pressures in the proposed Special Infill Well Development Area were approximately 1270 psi. Correspondingly, Energen's bottomhole pressure analysis indicates that with historic development densities of one well per 160-acre unit, only forty-seven (47%) percent of the available Pictured Cliffs gas reserves have been depleted. By comparison, increasing the well density in the Pictured Cliffs formation will recover approximately ninety (90%) percent of the gas reserves.

(24) The engineering analysis for the Gavilan-Pictured Cliffs area establishes that increasing well density to two wells per 160-acre spacing and proration unit would recover additional reserves, and that the current one well per 160-acre unit results in a low percentage of the gas in place being produced.

(25) The ability to add infill Pictured Cliffs formation completions to Mesaverde formation wells would provide additional economic support to justify the drilling of new Mesaverde wells throughout the area. Further, approval of infill development in the area will likely result in increased severance tax revenues for the State of New Mexico and increased royalty revenues for the Jicarilla Apache Nation.

## Downhole commingling

(26) Energen seeks blanket authorization for the downhole commingling of production from the Pictured Cliffs formation and the Mesaverde formation throughout the Gavilan-Pictured Cliffs Special Infill Development Area, identified in Finding paragraph (4) above. This would include the existing Mesaverde formation wells to be re-completed in the Pictured Cliffs formation, the new wells identified in Finding Paragraphs (14) and (15), and in any new Mesaverde formation wells to be drilled anywhere in the Special Infill Well Development Area.

(27) Energen also seeks authorization for downhole tri-mingling of production from the Pictured Cliffs, Mesaverde and Mancos formation for the following three (3) wells which are currently approved for downhole commingling of production from the Mesaverde and Mancos formation:

API No. No.	Well Name	Location	Order
30039262620000	Johnston Shear #1A	1A 1735 FSL 1105 FEL 3 26N 3W	DHC-2741
30039265480000	Jicarilla 95 #3C	3C 2340 FNL 990 FWL 35 27N 3W	DHC-3883
30039268920000	Jicarilla 95 #6C	6C 660 FSL 2500 FEL 36 27N 3W	DHC-3231

(28) Energen operates forty-seven (47) wells in the Gavilan field that have been previously approved for downhole commingling and there is sufficient evidence and experience to establish the following information from the operation of these wells.

- (a) The fluids from the Pictured Cliffs and Mesaverde zones are compatible.
- (b) Commingling does not present a risk of reservoir damage.
- (c) Commingling will not jeopardize the efficiency of present or future operations in the pools to be commingled.
- (d) For all of the identified wells, the bottom perforation in the lower zone is within 150% of the depth of the top perforation in the upper zone.
- (e) There is adequate bottomhole pressure and other information indicating that the pressure gradient in the Mesaverde formation is at or below 0.15 psi per foot of depth.
- (f) Shut in or flowing well bore pressures will not exceed any commingled formation's fracture parting pressure.
- (g) The relative British Thermal Units (BTU) values for Pictured Cliffs and Mesaverde formation gas are within a reasonable range of 1100 to 1200 BTU and commingling will not reduce the value of production.
- (h) The correlative rights of other owners within the pools will not be adversely affected. Specifically, within the Special Infill Well Development Area, there are no other interest owners, so protection of correlative rights is not an issue.

(29) Energen proposes to allocate production between the Pictured Cliffs and Mesaverde formations using a "subtraction method". For dually completed wells, it is Energen's practice to isolate the Mesaverde formation by a bridge plug and then produce Pictured Cliffs gas for sixty days to obtain a stabilized flow rate before removing the plug and commingling the two formations. The increased production after commingling is attributed to the Mesaverde formation and is used as the basis for allocating production between the two formations on a percentage basis for the remaining producing life of the well.

(30) Experience in the area indicated that adding Pictured Cliffs formation gas to the commingled production from the Mesaverde and Mancos formations will satisfy all the criteria of Rule 19.15.12.11 A. NMAC. Further, the subtraction method can be utilized for the inclusion and attribution of Pictured Cliffs gas to production from the Mesaverde and Mancos formations.

#### **Unorthodox well locations**

(31) Sixteen (16) of the Mesaverde formation wells which Energen proposes to re-complete to add Pictured Cliffs formation production will result in unorthodox locations for the Gavilan-Pictured Cliffs Pool. These wells and their locations are as follow:



Well Name	Location	Footage	Dir	Footage	Dir	Sec	Twp	Rge
JICARILLA 95 #3C	SE SW NW	2340	FNL	990	FWL	35	27N	3W
JICARILLA 96 #6B	NW NE SW	2155	FSL	1845	FWL	2	26N	3W
JICARILLA 96 #7B	SE SW NW	2330	FNL	1145	FWL	1	26N	3W
JICARILLA 94 #6B	SW SE NE	2075	FNL	770	FEL	27	27N	3W
JICARILLA 96 #8C	NW NE SW	2480	FSL	1750	FWL	12	26N	3W
JICARILLA 115E #14B	SW SE NE	2400	FNL	680	FEL	10	26N	3W
JICARILLA 94 #1C	NE NW SE	2400	FSL	1650	FEL	22	27N	3W
JICARILLA 96 #4Y	SW NW SE	1560	FSL	2340	FEL	1	26N	3W
JICARILLA 96 #7C	N2 NE SW	2360	FSL	1980	FWL	1	26N	3W
JICARILLA 95 #6C	W2 SW SE	660	FSL	2500	FEL	36	27N	3W
JICARILLA 95 #4C	SW SE NW	2405	FNL	1650	FWL	26	27N	3W
JICARILLA 96 #5C	E2 SE SW	660	FSL	2600	FWL	11	26N	3W
JICARILLA 99 #7C	NW NE SW	2010	FSL	1600	FWL	13	26N	3W
JICARILLA 94 #2R	NE NW SW	2350	FSL	1125	FWL	27	27N	3W
JICARILLA 95 #5C	SW SW NW	2140	FNL	105	FWL	25	27N	3W
JICARILLA 96 #4B	SE SW NE	2500	FNL	1420	FEL	1	26N	3W

(32) Energen is the owner of the leases and operator of the offsetting unit toward which the unorthodox locations encroach in each case, and therefore no correlative rights will be affected. The mineral interest ownership underlying each of the offsetting units in the Special Infill Well Development area is identical.

(33) None of the unorthodox locations is closer than 660 feet to the outer boundaries of the proposed Special Infill Well Development Area, and therefore the correlative rights of offsetting operators and interest owners will not be adversely affected.

(34) NM&O Operating Company appeared at the hearing through counsel but did not oppose the granting of this application. Representatives of the Jicarilla Apache Nation and the Bureau of Indian Affairs (BIA) appeared at the hearing, made comments, but did not oppose the granting of this application. No other party appeared at the hearing to oppose this application.

**The Division Concludes as Follows:**

(35) In the interest of conservation, prevention of waste, and protection of correlative rights, there is need to establish the Gavilan-Pictured Cliffs Special Infill Well Development Area in portions of the Gavilan-Pictured Cliffs Pool. Ownership in the Gavilan-Pictured Cliffs Special Infill Well Development Area is common and identical, and Energen is the only working interest owner in this Area.

(36) The results of the 2003 and 2011 Infill Pilot Project in this area demonstrate that additional reserves will be recovered by drilling a new well, or re-completing a well in the 160-acre spacing and proration units in the Gavilan-Pictured

Cliffs Infill Well Development Area. These additional reserves would not have been recovered without any form of infill development in this area.

(37) Pursuant to Division Rule 19.15.12.11 A NMAC, the Director may grant an exception to Rule 19.15.12.9 NMAC to permit the commingling of multiple producing pools in existing or proposed well bores when the following conditions are met:

(a) The fluids from each pool are compatible and combining the fluids will not damage the pools.

(b) The commingling will not jeopardize the efficiency of present or future secondary recovery operations in the pools to be commingled.

(c) The bottom perforation of the lower zone is within 150 percent of the depth of the top perforation in the upper zone and the lower zone is at or below normal pressure with normal pressure assumed to be 0.433 psi per foot of depth. If the pools to be commingled are not within this vertical interval, then evidence is required to demonstrate that commingling will not result in shut in or flowing well bore pressures in excess of any commingled pool's fracture parting pressure. The fracture parting pressure is assumed to be 0.65 psi per foot of depth unless the applicant submits other measured or calculated pressure data acceptable to the division.

(d) The commingling will not result in the permanent loss of reserves due to cross-flow in the well bore.

(e) Fluid-sensitive formations that may be subject to damage from water or other produced liquids are protected from contact with the liquids produced from other pools in the well.

(f) If any of the pools being commingled is prorated, or the well's production has been restricted by Division order in any manner, the allocated production from each producing pool in the commingled well bore shall not exceed the top oil or gas allowable rate for a well in that pool or rate restriction applicable to the well.

(g) The commingling will not reduce the value of the total remaining production.

(h) Correlative rights will not be violated.

(38) The engineering evidence presented by the applicant at the hearing demonstrates that the above criteria will be met in any downhole commingling, or trimming operations in the Gavilan-Pictured Cliffs Special Infill Well Development Area.

(39) Further, Rule 19.15.12.11 D(1) authorizes the Division to pre-approve downhole commingling on an area-wide or pool-wide basis by establishing a reference case where the existence of sufficient data for a lease, pool, formation or geographical area makes it unnecessary for an operator to provide redundant information on Form C-107-A. Further, the Division can specify the criteria for commingling and may provide that C-107-A filings can reflect the Division order number pre-approving commingling for the area or pools involved.

(40) This case should be designated as "**a Reference Case**" for area-wide approval for the Gavilan-Pictured Cliffs Special Infill Well Development Area, for the purpose of downhole commingling or tri-mingling operations. The ownership in all the zones of the Gavilan-Pictured Cliffs Special Infill Well Development area is common and identical in all respects, therefore, no correlative rights will be violated. Accordingly, blanket approval should be granted to the applicant to implement commingling operations in the Gavilan-Pictured Cliffs Special Infill Well Development Area without further approval.

(41) The applicant would be required to file Form C-107-A for informational purposes only with the Aztec District Office. The Form C-107-A will contain the allocation method, the order number and reference case.

(42) This blanket approval will improve processes and procedures, and will reduce the regulatory burdens for both the operator and the Division.

(43) Correlative right is not an issue in this application as there are no other owners of any rights to produce gas anywhere in the Gavilan-Pictured Cliffs Special Infill Development Area, the engineering evidence presented at the hearing is satisfactory, waste will be prevented, therefore, this application should be approved.

**IT IS THEREFORE ORDERED THAT:**

(1) The Application of Energen Resources Corporation to establish the Gavilan-Pictured Cliffs Special Infill Well Development Area described in Finding Paragraph (4) of this Order in Rio Arriba County, New Mexico, is hereby approved.

(2) The Gavilan-Pictured Cliffs Special Infill Well Development Area is excepted from the well development density limitations of Rule 19.15.15.11 C NMAC to allow two producing gas wells per 160-acre spacing and proration unit.

(3) The unorthodox locations in the Pictured Cliffs formation for the sixteen (16) wells described in Finding Paragraph (31) of this Order are approved.

(4) The Applicant is authorized to dually complete new wells to be drilled in both the Pictured Cliffs and Mesaverde formations in the Gavilan-Pictured Cliffs Special Infill Well Development Area.

(5) The Applicant is authorized to commingle oil and gas production from the Mesaverde formation with production from the Pictured Cliffs formation in those wells described in Findings Paragraphs (14) and (15) of this order, as well as in any future Mesaverde and Pictured Cliffs formation wells it may drill at any available location throughout the Gavilan-Pictured Cliffs Special Infill Well Development Area. In addition, the Applicant is authorized to commingle production from the Mesaverde formation, the Pictured Cliffs formation and the Mancos formation in the wells described in Finding Paragraph (27).

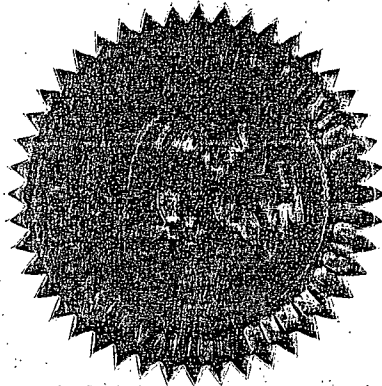
(6) The operator shall notify the Aztec District Office of the Division on determination of the allocation of production among formations by filing a form C-107-A for each well described in Findings Paragraphs (14), (15) and (27) of this Order or any wells which are subsequently drilled in the Gavilan-Pictured Cliffs Special Infill Well Development Area.

(7) In order to reduce the regulatory burdens for both the operator and the Division, the Form C-107-A which shall be filed with the Aztec District Office is for informational purposes only, and no further authorizations or approvals shall be required.

(8) The Form C-107-A shall make reference to this order and shall include the information for the Fixed Percentage Allocation Formula line item and supporting data.

(9) 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.



SEAL

STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION

A handwritten signature in cursive script, appearing to read "Jami Bailey".

JAMI BAILEY  
Director