

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

**APPLICATION OF FAE II OPERATING, LLC
FOR PRE-APPROVAL OF DOWNHOLE
COMMINGLING OF PRODUCTION FROM THE
YATES, SEVEN RIVERS, QUEEN, AND
GRAYBURG FORMATIONS ON AN AREA-WIDE
BASIS, LEA COUNTY, NEW MEXICO**

Case No. _____

APPLICATION

In accordance with 19.15.12.11(D) NMAC, FAE II Operating, LLC (“FAE”) (OGRID No. 329326) requests that the New Mexico Oil Conservation Division (“Division”) issue an order pre-approving downhole commingling of production from the Yates, Seven Rivers, Queen, and Grayburg formations on an area-wide basis in Lea County that includes: Township 20 South, Ranges 36 and 37 East; Township 21 South, Ranges 35 and 36 East; Township 22 South, Ranges 35 and 36 East; Township 23 South, Ranges 35, 36, and 37 East; Township 24 South, Ranges 36 and 37 East; Township 25 South, Ranges 36 and 37 East; and Township 26 South, Range 37 East (“Commingling Area”). In support of its Application, FAE states the following.

1. FAE is an operator of wells in the Yates, Seven Rivers, Queen, and Grayburg formations located within the Commingling Area.

2. Within the Commingling Area, the approximate intervals of the Yates, Seven Rivers, Queen, and Grayburg formations are set out below, as shown on the State A A/C #116 well log (API #30-025-28396):

- Yates – 3119’ to 3315’
- Seven Rivers – 3315’ to 3740’
- Queen – 3740’ to 4020’
- Grayburg – 4020’ to 4363’

3. FAE currently operates approximately 200 oil wells in the Commingling Area that produce from the Yates, Seven Rivers, Queen, and Grayburg formations. A table that identifies the pools from which these wells produce, and that FAE seeks to commingle, is attached as Exhibit A

4. FAE has submitted numerous Applications for Approval of Downhole Commingling within the Commingling Area through Form C-107-A and intends to submit many more such applications in the future.

5. Rule 19.15.12.11(D)(2) NMAC authorizes the Division to establish pre-approved pools and areas for downhole commingling such that these pool combinations and areas qualify for a streamlined approval process through the submission of Form C-103. Pre-approval status may be granted if sufficient data exists for multiple formations or pools that have previously been commingled. Pre-approval status allows approval of downhole commingling applications without having to repeatedly present certain data required by Form C-107-A.

6. The Division routinely administratively approves the downhole commingling of production from the Yates, Seven Rivers, Queen, and Grayburg formations within the Commingling Area.

7. At hearing, FAE will present evidence to demonstrate that there is sufficient precedent and data available to pre-approve the downhole commingling of production from the Yates, Seven Rivers, Queen, and Grayburg formations within the Commingling Area. Specifically, in accordance with Division Rule 19.15.12.11(A) NMAC, FAE will establish that:

- 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.
- 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.

8. At hearing, FAE will also provide: the data required by Form C-107-A; a list of the names and addresses of operators in the pools; previous orders authorizing commingling for the pools and area; and a map showing the location of wells in the pools or area that identifies wells that have been approved for commingling.

9. There is sufficient data within the Yates, Seven Rivers, Queen, and Grayburg formations within the Commingling Area to support the granting of exceptions from the criteria required by Rule 19.15.12.11(A) or as set forth on Form C-107-A.

10. In the absence of pre-approval, administrative applications for downhole commingling of production must be submitted, processed, and approved on a well-by-well basis. The processing of downhole commingling applications for each well completed in the Yates, Seven Rivers, Queen, and

Grayburg formations within the Commingling Area will be an administrative burden to the Division and to FAE.

11. The pre-approved combinations for downhole commingling cited above will extend the economic life of the existing wells and thereby increase ultimate recovery from these formations.

12. In addition, the pre-approved combinations for downhole commingling cited above should apply to new wells and recompleted wells within the Yates, Seven Rivers, Queen, and Grayburg formations within the Commingling Area because production from one or more of these zones is marginal based upon criteria FAE will submit at hearing.

13. Pre-approval of downhole commingling of production from the Yates, Seven Rivers, Queen, and Grayburg formations on an area-wide basis is in the best interest of conservation, the prevention of waste and the protection of correlative rights.

14. FAE will provide notice of this Application to all operators within the pools identified in Exhibit A, as well as the New Mexico State Land Office and the Bureau of Land Management.

WHEREFORE, Applicant requests this Application be set for hearing before a duly appointed examiner of the Oil Conservation Division on July 7, 2022 and that, after notice and hearing, the Division enter an Order pre-approving downhole commingling of production from the Yates, Seven Rivers, Queen, and Grayburg formations within the Commingling Area.

Respectfully submitted,

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DHC Formations: YATES-SEVEN RIVERS-QUEEN-GRAYBURG								
Area:		TypeWell: State A A/C 1 #116 (API: 30-025-28396)						
Township & Range(s)		TOP-BTM	Formation					
20S	36E, 37E	3119-3315'	YATES					
21S	35E, 36E	3315-3740'	SEVEN RIVERS					
22S	35E, 36E	3740-4020'	QUEEN					
23S	35E, 36E, 37E	4020-4363'	GRAYBURG					
24S	36E, 37E							
25S	36E, 37E							
26S	37E							
Pools:								
YATES		SEVEN RIVERS			QUEEN		GRAYBURG	
Code	Pool Name	Code	Pool Name	Code	Pool Name	Code	Pool Name	
22800	EUMONT;YATES-7 RVRS-QUEEN (OIL)	22800	EUMONT;YATES-7 RVRS-QUEEN (OIL)	18810	DOLLARHIDE;QUEEN	03040	ARROWHEAD;GRAYBURG	
33820	JALMAT;TAN-YATES-7 RVRS (OIL)	24130	EUNICE;SEVEN RIVERS-QUEEN, SOUTH	22800	EUMONT;YATES-7 RVRS-QUEEN (OIL)	23000	EUNICE MONUMENT;GRAYBURG-SAN ANDRES	
52250	RHODES;YATES-SEVEN RIVERS	33820	JALMAT;TAN-YATES-7 RVRS (OIL)	24130	EUNICE;SEVEN RIVERS-QUEEN, SOUTH	37240	LANGLIE MATTIX;7 RVRS-Q-GRAYBURG	
53770	SAN SIMON;YATES	37240	LANGLIE MATTIX;7 RVRS-Q-GRAYBURG	37240	LANGLIE MATTIX;7 RVRS-Q-GRAYBURG	50350	PENROSE SKELLY;GRAYBURG	
53790	SAN SIMON;YATES, NORTH (ASSOC)	52250	RHODES;YATES-SEVEN RIVERS	38760	LEONARD;QUEEN, SOUTH	57380	SKAGGS;GRAYBURG	
55560	SCARBOROUGH;YATES-SEVEN RIVERS	55560	SCARBOROUGH;YATES-SEVEN RIVERS	76480	EUMONT;YATES-7 RVRS-QUEEN (GAS)	96108	SWD;GRAYBURG	
56610	SIOUX;TANSILL-YATES-SEVEN RIVERS	64600	WILSON;YATES-SEVEN RIVERS (ASSOC)	96117	SWD;QUEEN	96111	SWD;GRAYBURG-SAN ANDRES-GLORIETA	
64600	WILSON;YATES-SEVEN RIVERS (ASSOC)	76480	EUMONT;YATES-7 RVRS-QUEEN (GAS)	96132	SWD;SEVEN RIVERS-QUEEN	97447	SWD;QUEEN-GRAYBURG-SAN ANDRES	
76480	EUMONT;YATES-7 RVRS-QUEEN (GAS)	79240	JALMAT;TAN-YATES-7 RVRS (GAS)	97447	SWD;QUEEN-GRAYBURG-SAN ANDRES	97518	ARROWHEAD;GRAYBURG, SOUTHWEST	
79240	JALMAT;TAN-YATES-7 RVRS (GAS)	83810	RHODES;YATES-SEVEN RIVERS (GAS)			97564	ARROWHEAD;GRAYBURG, SOUTH	
83810	RHODES;YATES-SEVEN RIVERS (GAS)	96131	SWD;SEVEN RIVERS					
96090	SWD;YATES	96132	SWD;SEVEN RIVERS-QUEEN					
96141	SWD;YATES-SEVEN RIVERS	96141	SWD;YATES-SEVEN RIVERS					
96397	SAN SIMON;YATES, WEST	96981	WSW;SEVEN RIVERS					
97726	URSSEY TANK;YATES-SEVEN RIVERS	97726	URSSEY TANK;YATES-SEVEN RIVERS					

EXHIBIT A