

**Application for Downhole Commingling
Lechuguilla Canyon AJ Federal #1
Unit O Sec. 8-T24S-R24E
Eddy County, New Mexico**

Reason for Application: Yates Petroleum Corporation respectfully requests approval to commingle the Morrow from 10026' to 10096' with the Atoka from 9657' to 9728'. Our intention is to maximize gas recovery from the Morrow and Atoka and prevent mineral resource waste.

1> Name and Address of the Operator:

Yates Petroleum Corporation
105 South Fourth Street
Artesia, NM 88210
ATTN: Brian Collins

2> Lease Name, Well Number, Well Location, Name of the Pools to be Commingled:

Lechuguilla Canyon AJ Federal #1
Unit O Sec. 8-T24S-R24E
660' FSL & 1980' FEL
Pools: Crooked Creek Morrow
Undesignated Atoka

3> A plat of the area showing the acreage dedicated to the well and the ownership of all offsetting leases.

See Attachment A (map)

4> A current (within 30 days) 24-hour productivity test on Division Form C-116 showing the amount of oil, gas, and water produced from each zone.

See Attached Workover Report (Attachment B) and Monthly Production Reports (Attachment C)

Morrow capable of producing 55 MCFD.
Atoka capable of producing 35 MCFD.

5> A production decline curve for both zones showing that for a period of at least one year a steady rate of decline has been established for each zone which will permit a reasonable allocation of the commingled production to each zone for statistical purposes. (This requirement may be dispensed with in the case of a newly completed or recently completed well which has little or no production history. However, a complete description of treating testing, etc., of each zone, and a prognostication of future production from each zone shall be submitted.)

Prognostication of future production assumes that Morrow declines at 15%/yr. and Atoka declines at 50%/yr.

Morrow: Start at 55 MCFPD and decline to 10 MCFPD

$$N_1 = \frac{-365 (10-55)}{\ln (1-.15)} = 101,065 \text{ MCF}$$