dugan production corp.

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October 24, 1990

New Mexico Oil Conservation Division
P.O Box 2088
Santa Fe, N.M. 87504-2088

Re: Application to Downhole Commingle Wildcat Gallup and Basin Dakota in Monte Carlo No. 2, M-24-30N-15W.

Gentlemen:

Dugan Production Corporation, P.O. Box 420, Farmington, N.M. 87499, makes application for administrative approval to downhole commingle the Basin Dakota and Wildcat Gallup pools in the following well:

Monte Carlo No.2
800' FSL & 910' FWL
Section 24 - Township 30N - Range 15W
San Juan County, New Mexico
Fee Lease

Attached is a plat showing acreage dedicated to the well and the ownership of offsetting leases.

The Dakota zone is now not capable of production against line pressure. Sufficient well pressure can be developed to unload oil for a few hours if it is shut-in for a long period of time. Artificial lift of the Dakota is being considered to allow continuous production. For this reason a C-116 can not be completed. A decline curve is presented for this zone which shows the erratic nature of Dakota production.

The Gallup interval was recently completed. A bridge plug was set at 5100' to separate the Gallup and Dakota formations. The Gallup was perforated with one shot through 4½" 10.5 lb. casing at each of the following depths: 4523, 4527, 4532, 4536, 4556, 4562, 4580, 4583, 4592, 4596, 4602, 4605, 4608, 4621, 4625, 4628, 4638, 4645, 4657, 4691, 4776, 4800, 4802, 4804, 4807, 4809, 4812, 4813, 4820, 4822, 4824, 4833, 4842, 4844, 4846, 4853, 4866, 4866, 4875, 4880, 4882, 4976, 4997. The interval was broken down with 350 gal. 7½% HCl acid and balled out with 750 gal. 15% HCl acid. It was then fractured with 63,546 gal. 10 lb./1,000 gal. gelled water and 46,000 lb. 20-40 sand. Pump testing showed a

709 E. MURRAY DR. • P. O. BOX 420 • FARMINGTON, N.M. 87499-0420 • PHONE: (505) 325-1821 • FAX# (505) 327-4613

daily production rate of 4 b.o, 4 b.w and 6.3 mcf, with the gas being used for fuel.

Bottom hole pressure for the Dakota is 2,015 psi and 1,796 psi for the Gallup. Pressures were measured at surface with a shut-in time for at least one month for the Dakota and 24 hours for the Gallup. Bottom hole pressures were calculated by using gas gravities from offsetting production intervals, known fluid levels and characteristics, and corrected to mid-point of perforations for each formation.

The Dakota produces a 60° API oil and no water. The Gallup test showed an oil gravity of 40.8°. These oils are compatible. The Gallup was initially tested at 4 bopd and 4 bwpd. A water sample has not been run as some frac water is still probably being produced. The Dakota interval was fractured with fresh water on initial completion and has shown no detrimental effects from that treatment. Gallup waters in the area show chlorides of 42,000 mg/l that will inhibit any possible damage to the Dakota.

Since the Dakota is not capable of producing against line pressure, and the Gallup must be artificially lifted, the commingled production will be greater than the sum of the two zone individually. The 4½" casing will not allow two strings of tubing that will let both zones be produced separately.

Based on well tests, allocation to each zone is recommended as follows:

	Oil	Gas
Gallup	80%	40%
Dakota	20%	60%

These calculations are based on an estimated 30 bopm and 200 mcfm being produced from the Dakota and 120 bopm with 150 mcfm coming from the Gallup.

All offset operators have been notified by certified mail of this application.

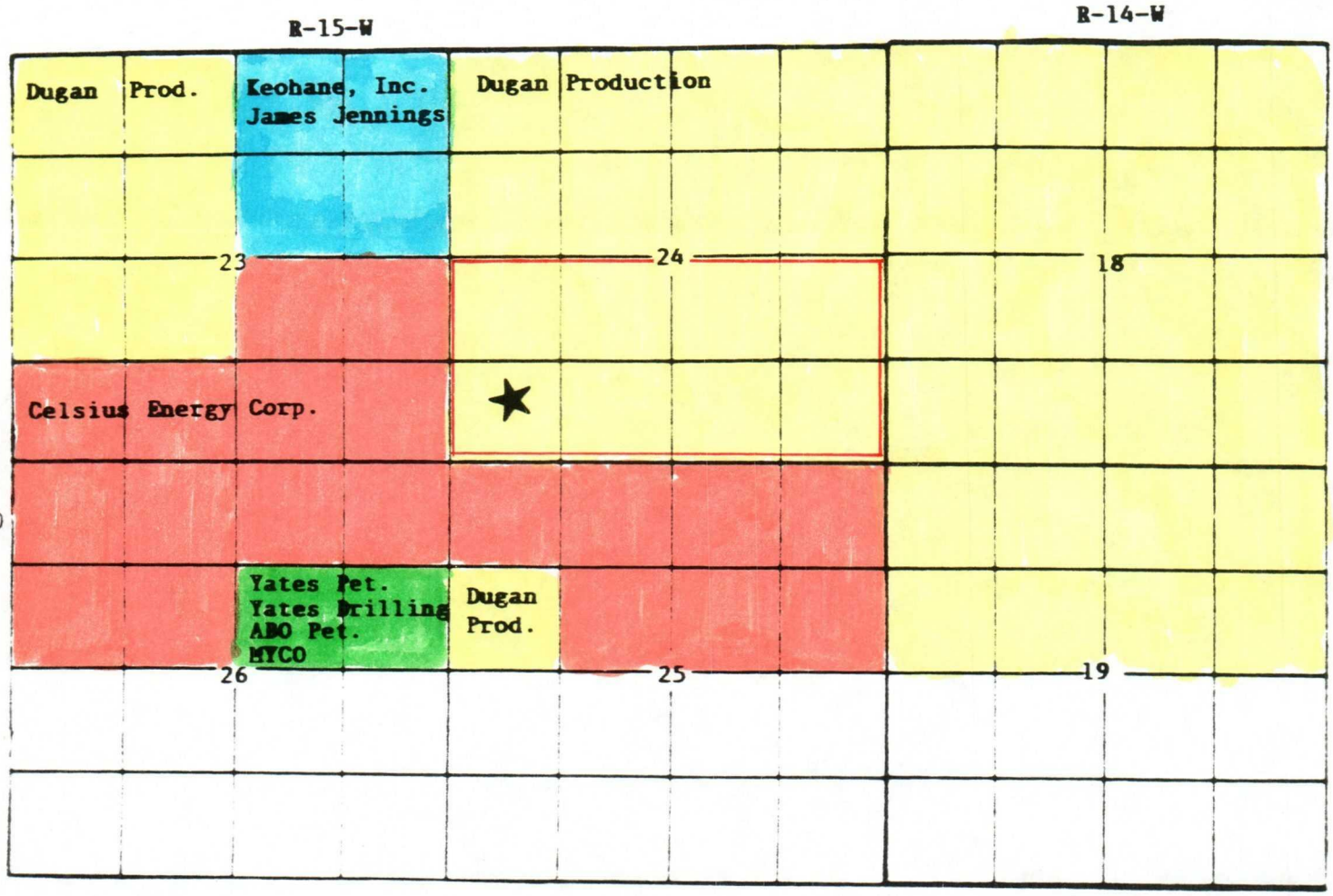
Sincerely,

John Alexander

John Alexander
Petroleum Engineer

cc: NMOCD, Aztec
Offsett Operators

APPLICATION TO DOWNHOLE COMMINGLE DAKOTA & GALLUP
DUGAN PRODUCTION CORP.
Monte Carlo #2
Offset Operators



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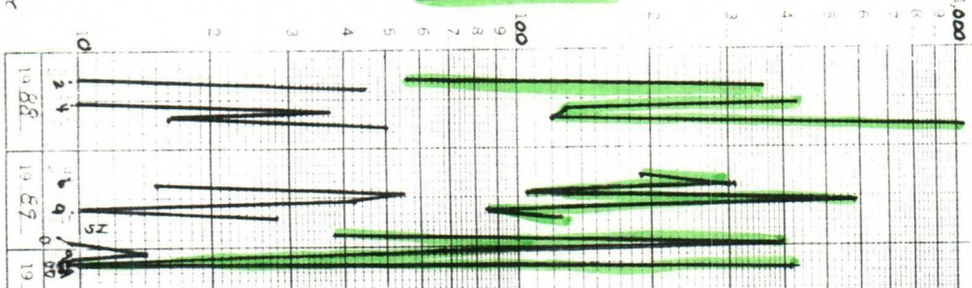
Condensate - bbls/Mo.

Gas - Mcf/mo



DUGAN PRODUCTION CORP

Monte Carlo #2
Basin Dakota
M-24-30-15

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
AZTEC DISTRICT OFFICE

OIL CONSERVATION DIVISION
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GARREY CARRUTHERS
GOVERNOR

1000 RIO BRAZOS ROAD
AZTEC, NEW MEXICO 87410
(505) 334-6178

Date: 12-11-90

DHC-781

Oil Conservation Division
P.O. Box 2088
Santa Fe, NM 87504-2088

Re: Proposed MC_____
Proposed DHC X
Proposed NSL_____
Proposed SWD_____
Proposed WFX_____
Proposed PMX_____

Gentlemen:

I have examined the application dated Oct 26, 1990
for the Onyx Prod. Corp. Monte Carlo #2
Operator Lease & Well No.
M-24-30N-15W and my recommendations are as follows:
Unit, S-T-R

Approve