



N/R

PC

Midland Division
Exploration Production

Conoco Inc.
10 Desta Drive, Suite 100W
Midland, TX 79705-4500
(915) 686-5400

EXPLORATION DIVISION
10 DESTA DRIVE
MIDLAND, TEXAS 79705-4500
TELEPHONE 915-686-5400

October 25, 1993

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

**Request for Administrative Approval to
Surface Commingle the Mesaverde and
Dakota production from the Conoco's
Federal #6 well Located in Unit B,
Section 6, T-29N, R-11W**

*Given permission to commingle
from Dakota*

Dear Mr. LeMay:

Conoco Inc. requests administrative approval to surface commingle Mesaverde and Dakota production from its Federal #6 well, shown in Unit B of Section 6 on the attached map, EXHIBIT A. Although this well is completed in both the Dakota and Mesaverde formations, the Mesaverde has not produced since 1987. The Dakota has produced for the last 6 years under a packer. The surface facility has only one separator and tank that has been used for the Dakota formation which flowed an average of 65 MCFGPD over the last half of 1992 as shown by EXHIBIT B.

In May, 1993, the lower Dakota production was temporarily abandoned so that the Mesaverde could be returned to production to secure enough historical production data for use in an allocation formula. Without surface commingling approval, a separate surface producing facility would have to be purchased and installed. The lower producing rate from the Dakota, 65 MCFGPD as shown by EXHIBIT C, would not economically justify such an expenditure and the Dakota would have to be abandoned in favor of producing the higher rate Mesaverde formation.

Therefore, to maximize the recovery from both the Dakota and Mesaverde formations at this well location, it is proposed to dually produce these zones with two tubing strings, and then to surface commingle them through the same separator, compressor, and sales meter.

The following EXHIBITS, data, statements, and calculations are submitted in support of this application:

1. EXHIBIT A is a well location map with the subject well indicated by the black arrow in Section 6.
2. EXHIBIT B is a production plot of the Dakota production illustrating its steady 65 MCFGPD rate for this well.
3. EXHIBIT C is a production plot of the Mesaverde production since it was returned to production in May, 1993. The average rate for these four months of production has been 129.25 MCFGPD.
4. EXHIBITS D & E are gas analyses for the Dakota and Mesa Verde production, respectively, which were run on 12/9/92.

5. EXHIBIT F is a diagram of the proposed producing facilities required for a surface commingled scenario.
6. It is recommended that the average producing rate for the Dakota over the last 6 months of 1992 (65 MCFGPD) and the average producing rate for the 4 months of Mesaverde production that are currently available (129 MCFGPD) be used in an allocation formula for surface commingling these two pools.

<u>Dakota</u>		<u>Mesaverde</u>		<u>Total</u>
129 MCFGPD	+	65 MCFGPD	=	194.25 MCFGPD
66.5 %	+	33.5 %	=	100.0 %

Production has been very steady from both formations and should result in a reasonably accurate allocation to these two pools.

7. The gas analyses for these two producing streams are within 8% on a BTU basis and the gas price per MCF should be essentially the same. Therefore, since the anticipated gas price for both are equal, the value of the commingled stream would be unchanged compared to separate sales.
8. Working Interests are equal in both formations:

Southland Royalty Co. (47.81733 %) Conoco Inc. (52.1827 %)
P.O. Box 840656
Dallas, TX 75284

The minerals are federally owned in both formations:

Minerals Management Service
Onshore Federal #17555
P.O. Box 5810
Denver, CO 80217

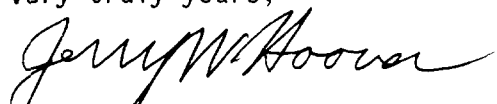
Each of these W.I. and R.I. owners has been furnished a copy of this application by certified mail.

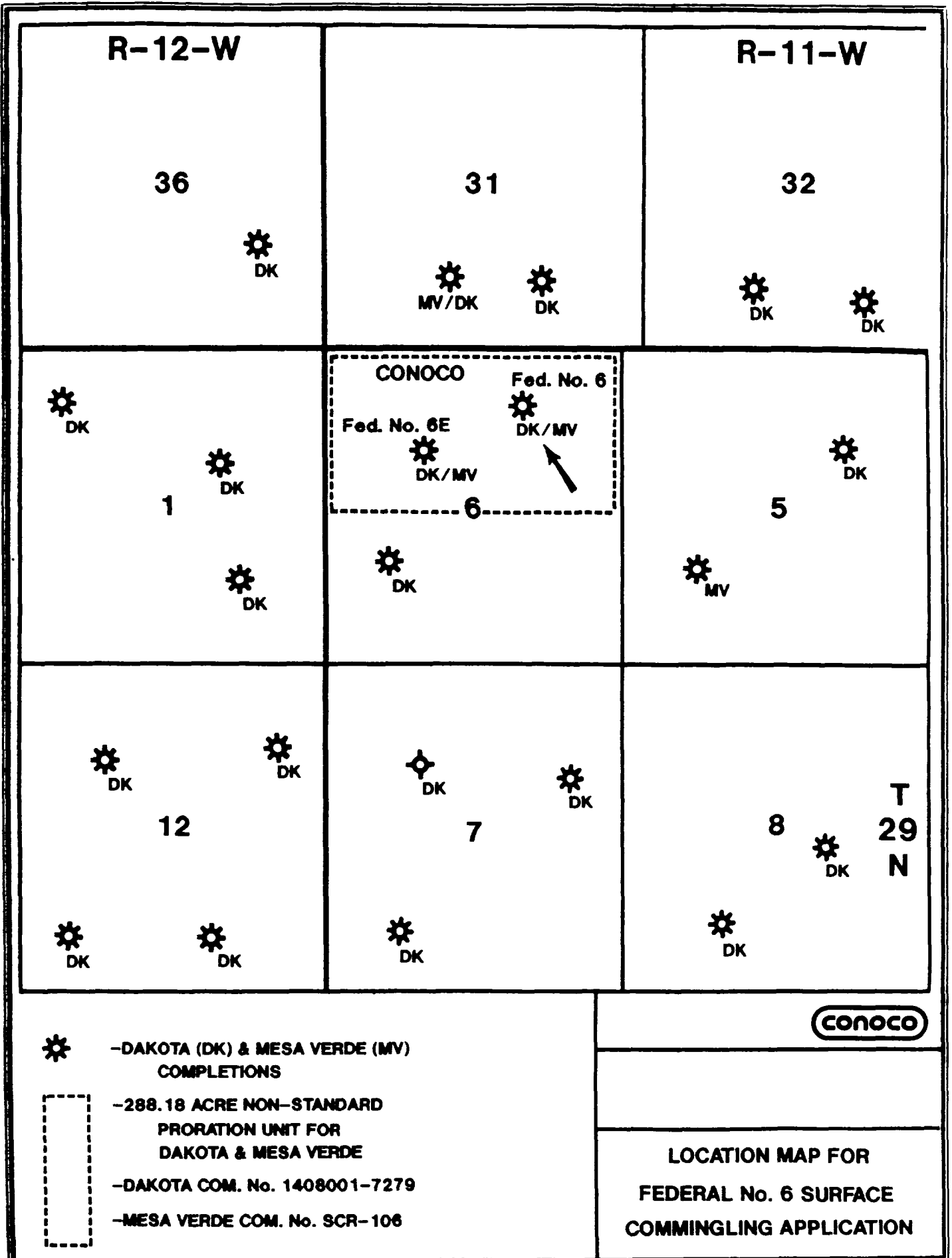
9. As shown in the legend of EXHIBIT A, the N/2 Section 6 is communitized for production from each pool by the following agreements:

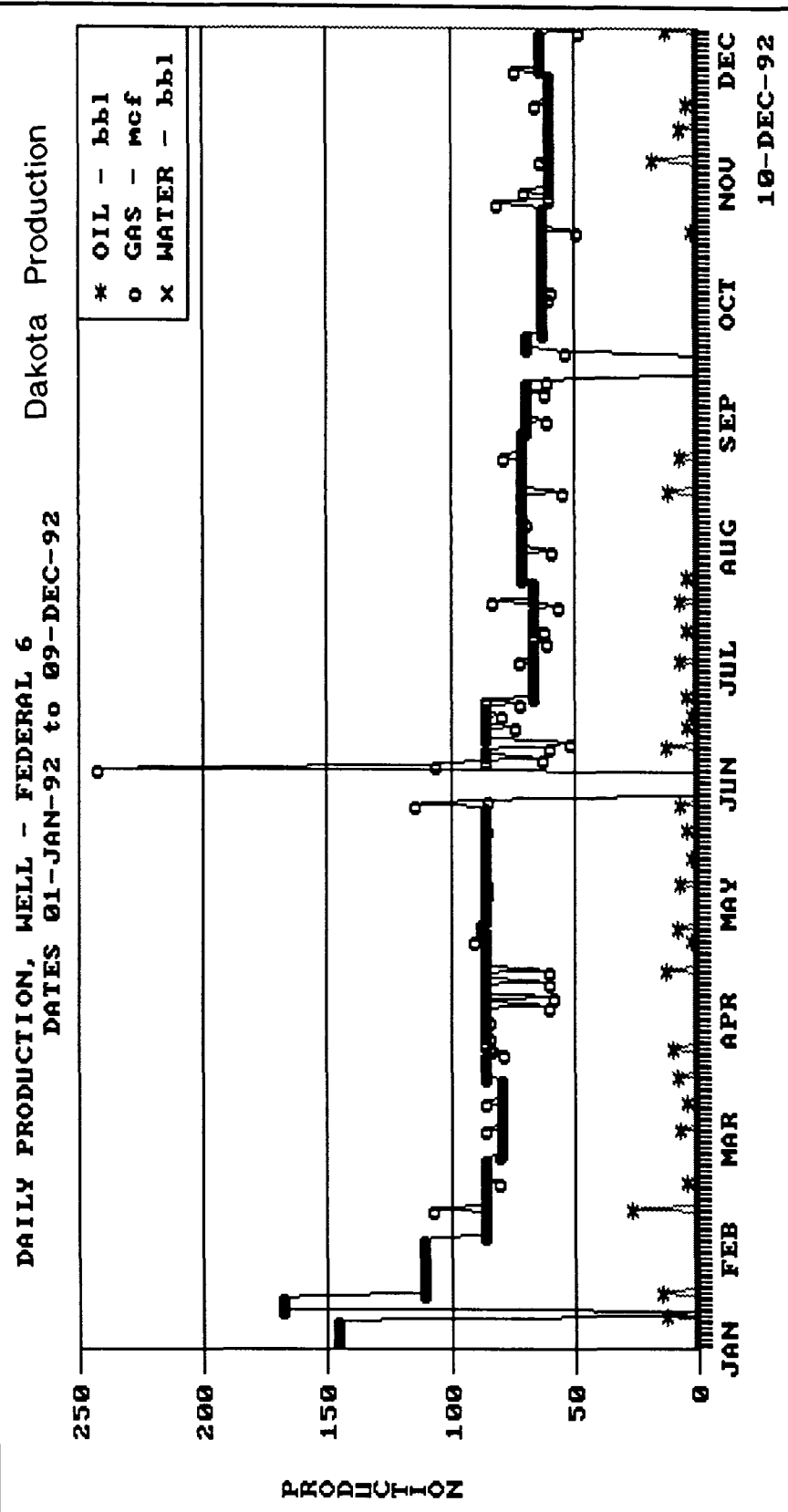
Dakota Com. No. 1408001-7279
Mesaverde Com. No. SCR-106

Since this is a federal lease, a copy of this application and its attachments will also be submitted to the Farmington office of the United States Bureau of Land Management for approval.

Very truly yours,

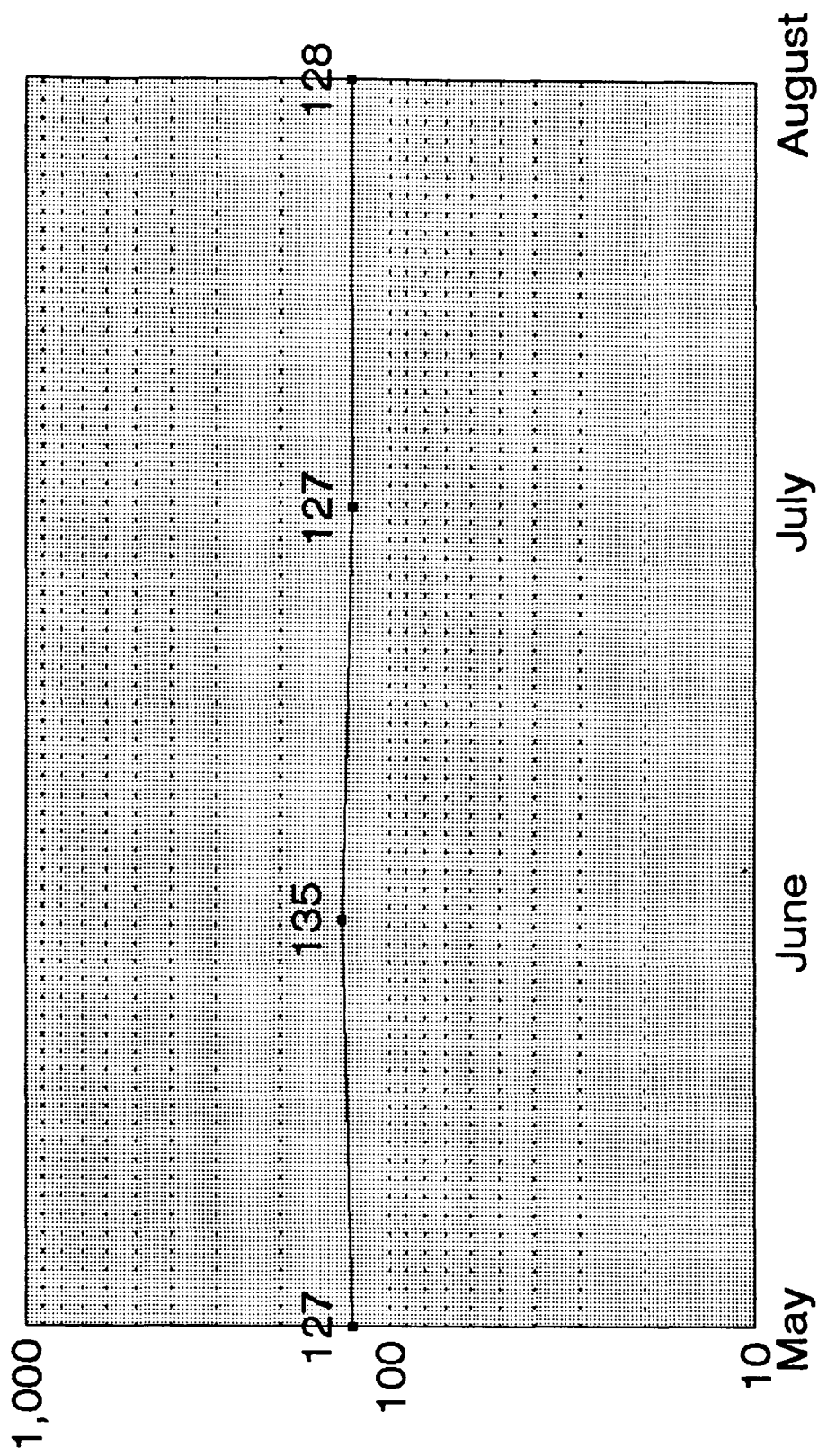

Jerry W. Hoover
Senior Conservation Coordinator





Federal #6 - Mesaverde Production

Average Daily Production



(Averages corrected to reflect downtime)



1115 FARMINGTON AVE. - FARMINGTON, NM 87401

(505) 325-6622

ANALYSIS NO. CON20203

WELL/LEASE INFORMATION

COMPANY: CONOCO, INC.

WELL NAME: FEDERAL #6

PRESSURE: 230 PSIG

WELL NO.:

SAMPLE TEMP.: 43 DEG.F

COUNTY:

WELL FLOWING:

FORMATION: DAKOTA

DATE SAMPLED:

METER NO.:

SAMPLED BY: 12/92

REMARKS:

ANALYSIS

COMPONENT	MOLE %	GPM	*B.T.U.	*SP. GR.
NITROGEN	0.276	0.0000	0.000	0.0027
CO2	1.628	0.0000	0.000	0.0247
METHANE	83.656	0.0000	846.85	0.4634
ETHANE	7.406	1.9811	131.36	0.0769
PROPANE	3.419	0.9423	86.22	0.0521
I-BUTANE	0.682	0.2231	22.23	0.0137
N-BUTANE	1.201	0.3786	39.26	0.0241
I-PENTANE	0.555	0.2030	22.25	0.0138
N-PENTANE	0.502	0.1820	20.19	0.0125
HEXANE	0.675	0.2945	34.71	0.0217
TOTAL	100.000	4.2046	1203.07	0.7056

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

COMPRESSIBILITY FACTOR (1/Z) 1.0034

BTU/CU.FT. (DRY) CORRECTED FOR (1/Z) 1207.1

BTU/CU.FT. (WET) CORRECTED FOR (1/Z) 1186.1

REAL SPECIFIC GRAVITY 0.7076

ANALYSIS RUN AT 14.73 PSIA & 60 DEGREES F

CYLINDER PRESSURE: 222 PSIG

CYLINDER NO.:

DATE RUN: 12/09/92

ANALYSIS RUN BY: CHELLE DURBIN

EXHIBIT D



1115 FARMINGTON AVE. - FARMINGTON, NM 87401

(505) 325-6622

ANALYSIS NO. CON20202

WELL/LEASE INFORMATION

COMPANY: CONOCO, INC.

WELL NAME: FEDERAL #6

PRESSURE: 200 PSIG

WELL NO.:

SAMPLE TEMP.: DEG.F

COUNTY: SAN JUAN

WELL FLOWING: NO

FORMATION: MESA VERDE

DATE SAMPLED: 12/8/92

METER NO.:

SAMPLED BY: D.P.

REMARKS: TSI WELL; BLEW TO ATMOSPHERE 15 MINUTES. TOOK
SAMPLE ON OPPOSITE SIDE WHILE BLOWING.

ANALYSIS

COMPONENT	MOLE %	GPM	*B.T.U.	*SP. GR.
NITROGEN	0.518	0.0000	0.000	0.0050
CO2	0.527	0.0000	0.000	0.0080
METHANE	79.059	0.0000	800.33	0.4379
ETHANE	8.979	2.4018	159.26	0.0932
PROPANE	5.873	1.6185	148.10	0.0894
I-BUTANE	1.299	0.4248	42.33	0.0261
N-BUTANE	1.598	0.5039	52.26	0.0321
I-PENTANE	0.750	0.2745	30.08	0.0187
N-PENTANE	0.621	0.2248	24.94	0.0155
HEXANE	0.776	0.3384	39.88	0.0250
TOTAL	100.000	5.7867	1297.18	0.7509

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

COMPRESSIBILITY FACTOR (1/Z) 1.0039

BTU/CU.FT. (DRY) CORRECTED FOR (1/Z) 1302.3

BTU/CU.FT. (WET) CORRECTED FOR (1/Z) 1279.6

REAL SPECIFIC GRAVITY 0.7534

ANALYSIS RUN AT 14.73 PSIA & 60 DEGREES F

CYLINDER PRESSURE: 210 PSIG

CYLINDER NO.: E1404

DATE RUN: 12/09/92

ANALYSIS RUN BY: CHELLE DURBIN

EXHIBIT E

PROPOSED COMMINGLED FACILITY

Federal No. 6

