

BEFORE THE INDUSTRIAL COMMISSION

OF THE STATE OF NORTH DAKOTA

CASE NO. 4068

ORDER NO. 4624

IN THE MATTER OF A HEARING CALLED ON A
MOTION OF THE COMMISSION TO CONSIDER THE
APPLICATION OF CONOCO INC. FOR AN ORDER TO
PERMIT THE FLARING OF GAS PRODUCED FROM
CERTAIN OIL WELLS LOCATED IN THE DICKINSON-
HEATH SAND UNIT, STARK COUNTY, NORTH
DAKOTA, AS AN EXCEPTION TO SECTION 38-08-06.4
NORTH DAKOTA CENTURY CODE.

ORDER OF THE COMMISSION

BY THE COMMISSION:

Pursuant to legal notice this cause came on for hearing at 8:00 a.m.
on the 28th day of May, 1986, in Bismarck, North Dakota, before an examiner
appointed by the Industrial Commission of North Dakota, hereinafter referred
to as the "Commission."

NOW, on this 9th day of June, 1986, the Commission, a quorum being
present, having considered the testimony adduced and the exhibits received at
said hearing, and being fully advised in the premises,

FINDS:

(1) That due public notice having been given as required by law, the
Commission has jurisdiction of this cause and the subject matter thereof.

(2) That Section 38-08-06.4 of the North Dakota Century Code states:

As permitted under rules of the industrial
commission, gas produced with crude oil from
an oil well may be flared during a one-year
period from the date of first production from
the well, or until June 30, 1986, for wells in
production prior to July 1, 1985. Thereafter,
flaring of gas from the well must cease and the
well must either be capped or connected to a
gas gathering line. For a well operated in
violation of this section, the producer shall
pay royalties to royalty owners and gross
production tax imposed under section 57-51-02
upon the value of the flared gas. The
industrial commission shall enforce this section
and, for each well operator found to be in
violation of this section, shall determine the
value of flared gas for purposes of payment of
gross production tax and royalties under this
section and its determination is final. A
producer may obtain an exemption from this
section from the industrial commission upon
application and a showing that connection of
the well to a natural gas gathering line is

economically infeasible at the time of the application or in the foreseeable future or that a market for the gas is not available.

(3) That applicant is the owner or operator ("producer") of the following wells in the Dickinson Heath Sand Unit, Stark County, North Dakota:

DHSU #1, Section 14, T.140N., R.96W.
DHSU #4, Section 20, T.140N., R.96W.
DHSU #6, Section 22, T.140N., R.96W.
DHSU #7, Section 23, T.140N., R.96W.
DHSU #10, Section 20, T.140N., R.96W.
DHSU #12, Section 23, T.140N., R.97W.
DHSU #13, Section 26, T.140N., R.97W.
DHSU #17, Section 28, T.140N., R.96W.
DHSU #18, Section 27, T.140N., R.96W.
DHSU #20, Section 29, T.140N., R.96W.
DHSU #21, Section 29, T.140N., R.96W.
DHSU #30, Section 36, T.140N., R.97W.
DHSU #32, Section 31, T.140N., R.96W.
DHSU #37, Section 31, T.140N., R.96W.
DHSU #38, Section 36, T.140N., R.97W.
DHSU #42, Section 3, T.139N., R.97W.
DHSU #48, Section 33, T.140N., R.97W.
DHSU #50, Section 21, T.140N., R.96W.
DHSU #53, Section 21, T.140N., R.96W.
DHSU #58, Section 2, T.139N., R.97W.
DHSU #59, Section 3, T.139N., R.97W.
DHSU #62, Section 32, T.140N., R.96W.
DHSU #63, Section 22, T.140N., R.96W.
DHSU #64, Section 27, T.140N., R.97W.
DHSU #65, Section 27, T.140N., R.97W.
DHSU #66, Section 19, T.140N., R.96W.

(4) That the Dickinson Heath Sand Unit is an oil reservoir, but gas is produced in association with crude oil at the wellhead as a by-product of oil production.

(5) That by previous order of the Commission, said wells are currently

authorized to flare so that all owners of interests in the wells described herein may receive the maximum benefits of the oil and gas production in such a manner that will prevent waste and protect correlative rights.

(6) That the wells are currently not connected to a gas gathering facility and that all casinghead gas being produced by the wells and not being used for lease operations is being flared.

(7) That the applicant has submitted evidence that under current market conditions the surplus casinghead gas presently being produced by the wells and the estimated recoverable reserves from the wells are insufficient to recoup the costs of installing and operating a gas gathering facility.

(8) That if the applicant's request in this matter is not granted, royalties and tax must be paid on the flared gas from the above described wells, or flaring must cease and the wells must be "capped", resulting in the loss of oil production and the loss of the benefits of that production by all owners of interest in the wells and the State of North Dakota.

(9) That considering the amount of surplus gas being produced by the wells and the amount of estimated recoverable reserves from the wells, it is economically infeasible at this time, or in the foreseeable future, to connect the wells to a gas gathering facility.

IT IS THEREFORE ORDERED:

(1) That the applicant is hereby allowed to flare surplus casinghead gas produced with crude oil from the Dickinson Heath Sand Unit through the wells listed in (3) of the findings as an exception to the provisions of Section 38-08-06.4 of the North Dakota Century Code.

(2) That this order shall remain in full force and effect until further order of the Commission.

Dated this 9th day of June, 1986.

INDUSTRIAL COMMISSION
STATE OF NORTH DAKOTA

/s/ George A. Sinner _
George A. Sinner, Governor

Nicholas J. Spaeth, Attorney General

/s/ Kent Jones _
Kent Jones, Commissioner of Agriculture

STATE OF NORTH DAKOTA
COUNTY OF BURLEIGH

AFFIDAVIT OF
MAILING

I, Evie Reisenauer, being duly sworn upon oath, depose and say: That on the 18th day of June, 1986, I enclosed in separate envelopes true and correct copies of the attached Order No. 4624 of the North Dakota Industrial Commission, and deposited the same with the United States Postal Service in Bismarck, North Dakota, with postage thereon fully paid, directed to the following persons, all of whom appeared at the hearing of the Industrial Commission in Case No. 4068:

Conoco Inc.
G.C. True
907 N Poplar
Casper, WY 82601

Conoco Inc.
Mark K. Mosley
907 N Poplar
Casper, WY 82601

Evie Reisenauer

Evie Reisenauer
Oil & Gas Division

On this 20th day of June, 1986, before me personally appeared Evie Reisenauer to me known as the person described in and who executed the foregoing instrument and acknowledged that (s)he executed the same as his/her free act and deed.

Raren Huttenkust

Notary Public

State of ND County of Burleigh
My Commission expires 5-13-88



BEFORE THE INDUSTRIAL COMMISSION
OF THE STATE OF NORTH DAKOTA

IN THE MATTER OF THE APPLICATION OF CONOCO INC.)
FOR AN ORDER OF THE COMMISSION EXEMPTING THE)
DICKINSON-HEATH SAND UNIT WELLS, LOCATED IN)
SELECTED LANDS IN STARK COUNTY, NORTH DAKOTA, FROM)
THE PROVISIONS OF SECTION 38-08-06.4 OF THE NORTH)
DAKOTA CENTURY CODE, RELATING TO THE FLARING OF GAS)
PRODUCED IN ASSOCIATION WITH CRUDE OIL)

APPLICATION

COMES NOW, Conoco Inc., a Delaware Corporation (hereinafter called "Applicant"), authorized to do business in the State of North Dakota, and respectfully alleges as follows:

1. Applicant is the Unit Operator of Dickinson-Heath Sand Unit, located in Stark County, North Dakota. Presently there are 25 active producing wells located within the Unit boundaries. The specific lands committed to the Unit are given below:

<u>Township</u>	<u>Range</u>	<u>Sections</u>
140N	96W	14,15,20,21,22,23,28,29,30,31,32 16: S $\frac{1}{2}$ &NW $\frac{1}{4}$ 17: S $\frac{1}{4}$ &NE $\frac{1}{4}$ 19: S $\frac{1}{2}$ &NE $\frac{1}{4}$ 27: W $\frac{1}{2}$ 33: N $\frac{1}{2}$ &SW $\frac{1}{4}$
140N	97W	25,26,27,33,34,35,36 22: SE $\frac{1}{4}$ 23: S $\frac{1}{2}$ 24: S $\frac{1}{2}$
139N	97W	2 1: N $\frac{1}{2}$ 3: N $\frac{1}{2}$ &SE $\frac{1}{4}$ 4: NE $\frac{1}{4}$
139N	96W	5: N $\frac{1}{2}$

2. That gas is produced in association with crude oil from said Unit wells.
3. That due to the volume of gas produced, connection of the Unit wells to a natural gas gathering line is economically unfeasible at the present time and in the foreseeable future. Further, that a market for the gas is currently not available.
4. That Applicant is desirous that the Commission enter its order granting an exemption from the provisions of Section 38-08-06.4 of the North Dakota Century Code, relating to the flaring of gas produced in association with crude oil, for the aforementioned wells located within Dickinson-Heath Sand Unit.

WHEREFORE, Applicant respectfully requests that this matter be set for hearing and that thereafter the Commission enter its order granting the relief requested.

Respectfully submitted,
Conoco Inc., Applicant

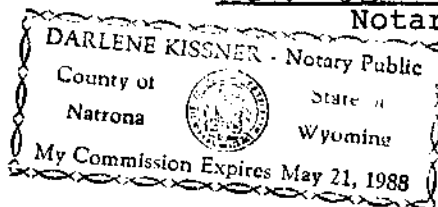
By: Mark K. Mosley
Mark K. Mosley
Division Manager

STATE OF WYOMING)
) ss
COUNTY OF NATRONA)

Subscribed and sworn to before me this 23rd day of April, 1986
by Mark K. Mosley, Conoco Inc.

Darlene Kissner
Notary Public

My Commission Expires:





Mark K. Mosley
Division Manager
Production Department

Conoco Inc.
907 North Poplar
Casper, WY 82601
(307) 234-7311



April 23, 1986

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

North Dakota Industrial Commission
Oil & Gas Division
900 East Boulevard
Bismarck, North Dakota 58505

Attention: F. E. Wilborn
Deputy Enforcement Officer

Gentlemen:

RE: Applications for Gas Flaring Exemptions

Enclosed with this letter are seven applications for exemptions from the provisions of Section 38-08-06.4 of the North Dakota Century Code, as it relates to the flaring of gas produced in association with crude oil. These seven applications cover all Conoco-operated field in North Dakota in which gas is flared. Conoco requests that the North Dakota Industrial Commission review these applications and set them for review at the May 21, 1986 Commission hearings. Three copies of each application is enclosed.

Should any questions arise concerning this matter, please contact Mr. Paul Schulz, of this office at the letterhead address and phone number.

Yours very truly,

Mark K. Mosley
Division Manager

PES:rae

cc: Fleck, Mather, Strutz & Mayer, Ltd.
Suite 600 - 700 East Broadway
Post Office Box 2798
Bismarck, North Dakota 58502
Attention: Ernest R. Fleck

NORTH DAKOTA INDUSTRIAL COMMISSION
GAS FLARING HEARING
CASE NO. 4068

Dickinson Heath Sand Unit, Stark County, North Dakota including:

<u>Township</u>	<u>Range</u>	<u>Sections</u>
140N	96W	14,15,20,21,22,23,28,29,30,31,32 16: S $\frac{1}{2}$ &NW $\frac{1}{4}$ 17: S $\frac{1}{4}$ &NE $\frac{1}{4}$ 19: S $\frac{1}{2}$ &NE $\frac{1}{4}$ 27: W $\frac{1}{2}$ 33: N $\frac{1}{2}$ &SW $\frac{1}{4}$
140N	97W	25,26,27,33,34,35,36 22: SE $\frac{1}{4}$ 23: S $\frac{1}{2}$ 24: S $\frac{1}{2}$
139N	97W	2 1: N $\frac{1}{2}$ 3: N $\frac{1}{2}$ &SE $\frac{1}{4}$ 4: NE $\frac{1}{4}$
139N	96W	5: N $\frac{1}{2}$

CURRENT PRODUCTION RATE: Oil 1,932 BOPD
Water 5,658 BOPD
Gas 197 MCFGPD

RECOVERABLE RESERVES:

Current GOR SCF/B:	102 SCF/BO
Remaining Gas Reserves (after lease use):	540,000 MCF

ECONOMICS:

Gas Sales Price:	No Value
Value of Gas Reserves:	No Value
Closest Gas Sales Connection:	At Heater Treater
Gas Pipeline Cost:	0 (delivery line enters lease)

COMMENTS:

The produced gas is of low quality (57% Nitrogen). It cannot be used to fire the heater treaters so it is used as a gas blanket for vessel corrosion protection and vented. Gas is purchased for field use. No sales potential exists for this gas.



"Let our Interest in Measurement be our Concern"

PRECISION SERVICE INC.

Flow Measurement Engineers

Analysis Results Summary

Casper, WY 82601

Run No. 2065-1

Date Run 3/29/84

Date Sampled 3/29/84

Analysis For: CONOCO, INC.

Lease: DICKINSON HEATH SAND UNIT

Location

Purpose: SPOT

Sampling Temp. °F

Volume/day

Pressure on Bomb 40

Producer: CONOCO

County: STARK State: N.D.

Sampled By: KATHY WELLS

Atmos Temp. °F

Formation: HEATH

PSIG: Line Pressure 53.5 PSIA PSIG

Gas Component

Analysis

Press. Base: 14.696

Mol. %

Liq. %

GPM
Per MCF

Carbon Dioxide CO₂

4.828

Oxygen O₂

56.788

Nitrogen N₂

Hydrogen Sulfide H₂S

Methane C₁

23.885

Ethane C₂

5.994

Propane C₃

4.250

Iso-Butane IC₄

.507

Nor-Butane NC₄

1.898

Iso-Pentane IC₅

.410

Nor-Pentane NC₅

.842

Hexanes plus

.598

Hexanes C₆

Heptanes

Heptanes Plus C₇+

Total

100.000

4.260

Pentane + G.P.M.

Propane + GPM

26-lb Gasoline

.729

2.660

BTU Dry

617

BTU Wet

606*

Calc. Specific Gravity

.983

@ Std. Press. 14.696

BTU Dry

617

BTU Wet

606*

Calc. Vap. Press. #/Sq.In.

Reid Vap. Press. #/Sq.In.

Z Factor

.9982

N Value

1.3352

Ave Mol Wt

28.4421

Ave Cu Ft/Gal

Run by D.E.S.

Calculated By D.E.S.

* .9826 Wet Corr.

Remarks: Oxygen by Orsat---(not detected)

Distribution:

CONOCO
CASPER

FIELD- DICKINSON
LEASE- DICKINSON UNIT PH II

C4 RESERVOIR- HEATH
WELL NO. - 8808

COMPOSITE- W284347

SELS OR MCF/DAY
AVG - PROD/CMTS IN MONTH

