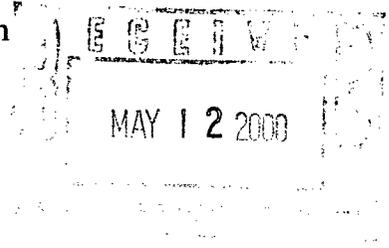


NSL 6/1/00



Carbon Energy Corporation  
Bonneville Fuels Corporation  
CEC Resources Ltd.



May 11, 2000

State of New Mexico  
Oil Conservation Division  
2040 Pacheco  
Santa Fe, New Mexico 87505

Attention: Mr. Michael E. Stogner

RE: Application for Administrative Approval  
Unorthodox Well Location  
Salbar 16 State #1 Well

Dear Mr. Stogner:

Bonneville Fuels Corporation (Bonneville) does hereby request Administrative Approval of an unorthodox location for recompleting the following well in the Wolfcamp Formation:

Salbar 16 State #1  
2456' FNL, 1023' FWL, Unit E  
Section 16, T16S, R36E, N.M.P.M.  
Lea County, New Mexico

The well is located within one mile of the North Shoe Bar-Wolfcamp Pool, Lea County, New Mexico.

The Salbar 16 State #1 well was initially completed in the Strawn formation. Approval for an unorthodox Northeast Shoe Bar-Strawn pool location was given under Order R-10937.

Due to poor economic performance of the Strawn formation, and in the interest of conservation of oil and gas and to prevent waste and protect correlative rights, Bonneville is requesting administrative approval to use the existing wellbore to recomplete the Salbar 16 State #1 in the Wolfcamp formation. Bonneville does not believe that the prospective zones for Wolfcamp production have sufficient productivity to merit the drilling of an independent well at an orthodox location. In the interest of conformance with previous Order No. R-10937, Bonneville Fuels Corporation requests that the subject well allowable restriction be not less than 90% of the North Shoe Bar Wolfcamp allowable, as the North East Shoe Bar Strawn was restricted to 90% of its pool allowable.

Bonneville is also seeking approval to temporarily abandon the Strawn formation production. Bonneville would ultimately apply to commingle the Strawn formation production and Wolfcamp formation production at an appropriate time in the future. Ownership of the Strawn production and the Wolfcamp production are identical.

State of New Mexico  
May 11, 2000  
Page two

Please find the following documents for your use in considering the approval of this application:

1. A plat showing the spacing unit, the proposed unorthodox well location, and the adjoining spacing unit towards which the unorthodox well location encroaches.
2. A list of all affected persons as defined in Rule 1207.A(2) and an Affidavit of Mailing attesting that notification was sent to the affected parties.
3. A copy of New Mexico Form C-102 (Well Location and Acreage Dedication Plat).
4. A copy of the Application for Permit to Drill, Deepen, or Plug Back the Salbar 16 State #1 well.

Thank you for your consideration and assistance in this regard. If this filing is incomplete or you need any additional information, please call me at your earliest convenience at 303-863-1555, extension 234.

Very truly yours,

BONNEVILLE FUELS CORPORATION

A handwritten signature in black ink, appearing to read 'Sharon McDonald', written over a horizontal line.

Sharon McDonald  
Landman

enclosures

District I  
 PO Box 1968, Hobbs, NM 88241-1968  
 District II  
 PO Drawer DD, Artesia, NM 88211-0719  
 District III  
 1000 Rio Brazos Rd., Aztec, NM 87410  
 District IV  
 PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico  
 Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION  
 PO Box 2088  
 Santa Fe, NM 87504-2088

Form C-102  
 Revised February 10, 1994  
 Instructions on back  
 Submit to Appropriate District Office  
 State Lease - 4 Copies  
 Fee Lease - 3 Copies

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30 -025- 34263		Pool Code	Pool Name North Shoe Bar: Wolfcamp	
Property Code 25055	Property Name Salbar "16" State			Well Number #1
OGRID No. 02678	Operator Name Bonneville Fuels Corp.		1700 Broadway Ste 1150 Denver, Co. 80290	Elevation 3918'

10 Surface Location

UL or lot no.	Section	Township	Range	Lot Ida	Feet from the	North/South line	Feet from the	East/West line	County
E	16	16 S.	36 E.		2456	North	1023	West	LEA

11 Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Ida	Feet from the	North/South line	Feet from the	East/West line	County

12 Dedicated Acres 160	13 Joint or Infill	14 Consolidation Code	15 Order No. Previous: For Northeast Shoe Bar Strawn Oil: Strawn Fm.: R - 10937
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

	<p>17 OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief</p> <p><i>R.A. Schwering</i></p> <p>Signature        R.A. Schwering, P.E.        Printed Name        Operations Manager: Permian        Title        Date 5/11/2000</p>
	<p>18 SURVEYOR CERTIFICATION</p> <p>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</p> <p>Date of Survey        Signature and Seal of Professional Surveyer:        Certificate Number</p>

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
811 South First, Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural Resources

Form C-101  
Revised March 17, 1999

Oil Conservation Division  
2040 South Pacheco  
Santa Fe, NM 87505

Submit to appropriate District Office  
State Lease - 6 Copies  
Fee Lease - 5 Copies

AMENDED REPORT

**APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE**

<sup>1</sup> Operator Name and Address Bonneville Fuels Corp. 1700 Broadway Suite 1150 Denver, Colorado 80290		<sup>2</sup> OGRID Number 02678
		<sup>3</sup> API Number 30 - 025 - 34263
<sup>3</sup> Property Code 25055	<sup>5</sup> Property Name Salbar "16" State	<sup>6</sup> Well No. # 1

<sup>7</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	16	16 S.	36 E.		2456'	North	1023'	West	LEA

<sup>8</sup> Proposed Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
<sup>9</sup> Proposed Pool 1 North Shoe Bar Wolfcamp					<sup>10</sup> Proposed Pool 2				

<sup>11</sup> Work Type Code Plugback/TA	<sup>12</sup> Well Type Code Oil	<sup>13</sup> Cable/Rotary Pulling Unit	<sup>14</sup> Lease Type Code State Lease	<sup>15</sup> Ground Level Elevation GR 3918' KB 3937'
<sup>16</sup> Multiple Single: Wolfcamp	<sup>17</sup> Proposed Depth TD'd @ 12,730'	<sup>18</sup> Formation Wolfcamp	<sup>19</sup> Contractor Key Energy: P.U.	<sup>20</sup> Spud Date Start: 6/1/2000

<sup>21</sup> Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weigh/foot	Setting Depth	Sacks of Cement	Estimated TOC
17- 1/2"	13- 3/8"	54.5#	482'	470 sx.:	Circ. @ Surf.
12- 1/4"	9- 5/8"	47# & 40#	4,275'	1610 sx.:	Circ. @ Surf.
7- 7/8"	5-1/2"	17#	12,730'	1st Stg.:680sx.	TOC @ 9600'.
				DV Tool @ 9232'	
				2nd Stg.:760sx.	TOC @ 3250'.

<sup>22</sup> Describe the proposed program. If this application is to DEEPEN or PLUG BACK, give the data on the present productive zone and proposed new productive zone.  
Describe the blowout prevention program, if any. Use additional sheets if necessary. BOPE: 7-1/16" 5000 psi. Double Ram Hydraulic.

- POOH w/ pump/rods. ~~Run BHP~~ build-up f/ Strawn BHP. NU BOPE & POOH Tbg. Assembly.
- Temp. Abandon Hi Water Cut Strawn Fm. production (Strawn Perfs.: 11,557' - 11,567':OA). Set HOWCO Fas-Dril Composite Plug @ 11,450' & dump bail 3 sx. cement on top. Load & test casing to 1500# w/ 4% KCl water.
- Perforate, acidize as necessary, and test various Wolfcamp Fm. Intervals from 10,460' to 11,060'. Assess productivity. Commingle w/ Strawn as soon as practical. Apply f/ commingle permit & submit plan prior to COMMINGLE ops.

<sup>23</sup> I hereby certify that the information given above is true and complete to the best of my knowledge and belief.

Signature: *R.A. Schwering*

Printed name: R.A. Schwering, P.E.

Title: Operations Manager: Permian

Date: 5/11/2000

Phone: ext.213  
(303) 863-1555

OIL CONSERVATION DIVISION

Approved by:

Title:

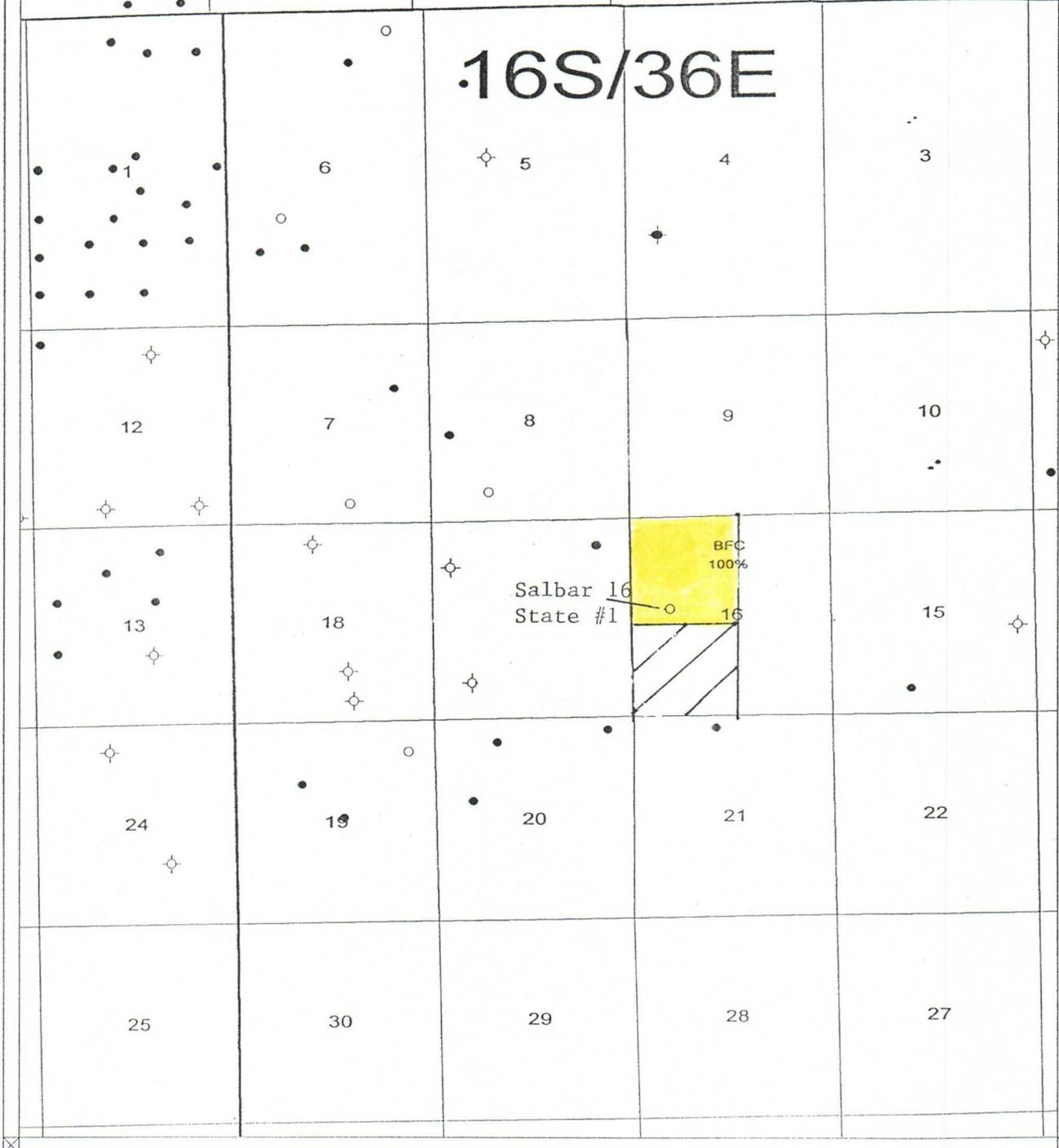
Approval Date:

Expiration Date:

Conditions of Approval:

Attached

# 16S/36E



Spacing Unit Salbar 16 State #1



Encroached upon Spacing Unit

Bonneville Fuels Corp.

Lea County, New Mexico  
Benchmark Prospect

Philip Wood		5/5/99
lwd	Scale 1:50000	benchmark.gpf

## **NAMES AND ADDRESSES OF OFFSET OWNERS**

Salbar 16 State #1 Well  
Application for Unorthodox Location

In accordance with Rule 1207.A(2)(b), the following is a summary of each operator or lessee of record in the adjoining spacing units towards which the unorthodox location encroaches for the Salbar 16 State #1 well.

### **T16S-R36E-Section 16: SW/4**

Unleased Mineral Owner:  
New Mexico State Land Office  
P.O. Box 1148  
Santa Fe, New Mexico 87504-1148  
Attention: Jami Bailey

AFFIDAVIT OF MAILING

STATE OF COLORADO

CITY & COUNTY OF DENVER

I, Sharon R. McDonald, Landman, employed by Bonneville Fuels Corporation, being first duly sworn, deposes and says:

A Notice of Unorthodox Location Application for the Salbar 16 State #1 Well by Bonneville Fuels Corporation to the offset owners and operators was deposited on May 11, 2000, in the U. S. Mail for delivery, as certified mail, to each of the following named parties at the addresses shown below:

New Mexico State Land Office  
P.O. Box 1148  
Santa Fe, New Mexico 87504-1148  
Attention: Jami Bailey, Director

Affiant Further Sayeth Not.

  
Sharon R. McDonald, Landman

SUBSCRIBED AND SWORN TO BEFORE ME, IN MY PRESENCE, THIS 11th day of May, 2000, a Notary Public in and for the State of Colorado.

  
Deborah A. Geary

My Commission Expires: 9/30/2000



Carbon Energy Corporation  
Bonneville Fuels Corporation  
CEC Resources Ltd.

May 11, 2000

New Mexico State Land Office  
P. O. Box 1148  
Santa Fe, New Mexico 87504-1148

Attention: Jami Bailey, Director

RE: Notice of Unorthodox Location  
And Request for Waiver of Objection  
Salbar 16 State #1 Well  
2456' FNL, 1023' FWL, Unit E of Section 16-T16S-R36E  
Lea County, New Mexico

Ladies and Gentlemen:

Notice is hereby given, pursuant to the applicable State of New Mexico Oil Conservation Division regulations, that Bonneville Fuels Corporation is seeking administrative approval to recomplete the Salbar 16 State #1 Well in the Wolfcamp Formation. The proposed spacing unit for the Wolfcamp is the NW/4 of Section 16. The well is located at an unorthodox location for the Wolfcamp. Due to poor economic performance of the Strawn formation in the Salbar 16 State #1 well, and in the interest of conservation of oil and gas and to prevent waste and protect correlative rights, Bonneville is requesting administrative approval to use the existing wellbore to recomplete the Salbar 16 State #1 in the Wolfcamp formation. Bonneville does not believe that the prospective zones for Wolfcamp production have sufficient productivity to merit the drilling of an independent well at an orthodox location. In the interest of conformance with previous Order No. R-10937, Bonneville is requesting that the subject well allowable restriction be not less than 90% of the North Shoe Bar Wolfcamp allowable, as the North East Shoe Bar Strawn was restricted to 90% of its pool allowable.

Bonneville is also seeking approval to temporarily abandon the Strawn formation production. Bonneville would ultimately apply to commingle the Strawn formation production and Wolfcamp formation production at an appropriate time in the future. Ownership of the Strawn production and the Wolfcamp production are identical.

Providing you have no objection to Bonneville's application, Bonneville respectfully requests your execution of this Waiver of Objection in triplicate, within the required 20 day notice period. Please mail a fully executed original of this waiver to the State of New Mexico Oil Conservation Division in the enclosed self-addressed envelope, return an executed copy to Bonneville Fuels Corporation, and retain the third copy for your files. Should you fail to file a protest in accordance with the rules and regulations of the New Mexico Oil Conservation Division within the 20-day notice period, then the NMOCD will consider that you have waived objection to this proposed administrative approval of the unorthodox location.

New Mexico State Land Office  
May 11, 2000  
Page Two

Thank you for your consideration in this regard. If you have any technical questions concerning this matter, please contact Bob Schwering, the project engineer, at 303-863-1555, extension 213.

Very truly yours,

Bonneville Fuels Corporation

A handwritten signature in black ink, appearing to read 'Sharon McDonald', written in a cursive style.

Sharon McDonald  
Landman

The undersigned does hereby waive objection to the administrative approval of the aforementioned matter.

New Mexico State Land Office

By: \_\_\_\_\_  
Title: \_\_\_\_\_  
Date: \_\_\_\_\_

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

IN THE MATTER OF THE HEARING  
CALLED BY THE OIL CONSERVATION  
DIVISION FOR THE PURPOSE OF  
CONSIDERING:

CASE NO. 11894  
Order No. R-10937

APPLICATION OF CHESAPEAKE OPERATING  
INC. FOR AN UNORTHODOX OIL WELL  
LOCATION, LEA COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on December 4, 1997, at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this 7<sup>th</sup> day of January, 1998, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS THAT:

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

(2) The applicant, Chesapeake Operating, Inc., seeks authority to drill its Salbar "16" Well No. 1 at an unorthodox oil well location 2456 feet from the North line and 1028 feet from the West line (Unit E) of Section 16, Township 16 South, Range 36 East, NMPM, Lea County, New Mexico, to test the Strawn formation. The SW/4 NW/4 of Section 16 is to be dedicated to the subject well forming a standard 40-acre oil spacing and proration unit.

(3) At the time of the hearing, the applicant testified that the actual proposed location of the Salbar "16" Well No. 1 is 2456 feet from the North line and 1023 feet from the West line (Unit E) of Section 16. In addition, subsequent to filing the application for this case, it was determined that the proposed well is located within one mile of the Northeast Shoe Bar-Strawn Pool which is currently governed by Temporary Special Rules and Regulations as promulgated by Division Order No. R-10848 which require standard 80-acre spacing and proration units with wells to be located no closer than 330 feet from the outer boundary of the spacing unit. As a result, applicant now seeks to dedicate the S/2 NW/4 of Section 16 to the subject well thereby forming a standard 80-acre oil spacing and proration unit for said pool.

(4) At the time of the hearing, the Division determined that re-advertisement of this case to correct the proposed well location and dedicated acreage is unnecessary inasmuch as the only affected offset operator, Yates Petroleum Corporation, was present at the hearing.

(5) Yates Petroleum Corporation, the affected offset operator to the south of the proposed unorthodox location, appeared at the hearing in opposition to the application.

(6) The Salbar "16" Well No. 1 is proposed to be located 184 feet from the southern boundary of its spacing unit which would encroach towards acreage owned by Yates.

(7) In support of its application, Chesapeake presented the following 3-D seismic data:

- a) a Strawn amplitude map which was generated to show the farthest reasonable limits of productive reservoir within the Strawn formation;
- b) an east-west vertical seismic profile line 96 showing the profile of the Strawn formation parallel to the southern boundary of the spacing unit along a line 110 feet within the Yates tract;
- c) a north-south vertical seismic profile trace 129 showing the profile of the Strawn formation through the proposed location and into the Yates tract;
- d) a net pay isopach map showing the relative location and thickness of the Strawn reservoir within the Strawn formation; and,
- e) an interpretation of the stratigraphic nature of the Strawn reservoir.

(8) The applicant's geologic and geophysical evidence and testimony indicates that:

- a) there is a small Strawn structure contained mostly within the S/2 NW/4 of Section 16 which is generally oriented in an east-west direction;
- b) the Strawn structure is very limited in extent and the majority of this structure is contained within the SW/4 NW/4 of Section 16;

- c) a very small portion of the Strawn structure is located on acreage owned by Yates within the N/2 SW/4 of Section 16;
- d) the proposed unorthodox location is necessary in order to penetrate the Strawn formation in the area of maximum porosity development and thickness within the reservoir;
- e) any attempt to locate the proposed Salbar "16" Well No. 1 at a standard oil well location will substantially increase the risk of drilling a dry hole.

(9) Yates, which is in possession of its own 3-D seismic data, presented a top of Strawn time structure map which it utilized to demonstrate that a standard oil well location within the SW/4 NW/4 of Section 16 is located structurally higher within the Strawn reservoir than the unorthodox location proposed to be drilled by Chesapeake. Yates concluded from its evidence that the proposed unorthodox location is unnecessary and requested that Chesapeake's application be denied.

(10) In the event Chesapeake's application is approved, and in order to assure that its correlative rights are protected, Yates requested that the Salbar "16" Well No. 1 be assessed a production penalty of either:

- a) 60% (40% allowable), being the percentage of the acreage in this Strawn reservoir underlying the SW/4 of Section 16 as indicated by Yates' geologic evidence, which is operated by Yates; or,
- b) 44% (56 % allowable) being the footage encroachment from a standard location towards the offsetting Yates operated tract.

(11) Yates recommended utilizing a 60% production penalty (40% allowable) based upon its interpretation of the Strawn reservoir configuration. Yates also requested that the proposed production penalty be applied to the number of days in each production month (i.e. allow the well to produce 0.40 x the number of days in each month).

(12) Upon consideration of the evidence and testimony presented by both parties in this case, the Division finds that:

- a) Chesapeake presented extensive and sufficient geophysical and geologic evidence and testimony to justify drilling its Salbar "16" Well No. 1 at the proposed unorthodox location;
- b) Chesapeake's methods of interpreting its 3-D seismic data appear to be highly reliable as evidenced from the fact that it has drilled ten successful Strawn wells in succession in this area;
- c) Chesapeake's geophysical and geologic evidence and testimony demonstrates that the vast majority of this Strawn reservoir is located on its acreage within the S/2 NW/4 of Section 16, and that only a very small portion of the reservoir is located on Yates' acreage in the N/2 SW/4;
- d) the geologic evidence and testimony presented by Yates is insufficient to demonstrate that:
  - i) 60% of this Strawn reservoir is located on its acreage within the SW/4 of Section 16 and 40% of this Strawn reservoir is located on Chesapeake's acreage within the S/2 NW/4 of Section 16;
  - ii) a standard oil well location within the SW/4 NW/4 of Section 16 is geologically preferable to the location proposed by the applicant;
  - iii) the Strawn structure proposed to be drilled by the applicant is in communication with a Strawn structure which is located within the SW/4 of Section 16, which structure will likely be drilled by Yates; and,
  - iv) its correlative rights will be violated unless the proposed unorthodox location is denied or the Salbar '16" Well No. 1, if approved, is assessed a production penalty of 60% or 44%.

(13) The application of Chesapeake should be approved.

(14) Given that a small portion of this Strawn reservoir is located within Yates' acreage in the N/2 SW/4 of Section 16, and that the proposed location encroaches towards Yates' acreage, a production penalty should be assessed against the Salbar "16" Well No. 1 in order to protect the correlative rights of Yates.

(15) The production penalty imposed on the Salbar "16" Well No. 1 should be based upon the location and general configuration of the Strawn structure as determined from applicant's geophysical and geologic data.

(16) Based upon the Division's interpretation, it appears that at least 9/10 of the Strawn reservoir is contained within the applicant's proposed proration unit. The Salbar "16" Well No. 1 should therefore be assessed a production penalty of 10% (90% allowable).

(17) The production penalty should be assessed against the depth bracket allowable for the Northeast Shoe Bar-Strawn Pool, which is currently set at 365 barrels of oil per day.

(18) No other offset operator and/or interest owner appeared at the hearing in opposition to the application.

(19) Approval of the proposed unorthodox location, subject to the above-described production penalty, will afford the applicant the opportunity to produce its just and equitable share of the oil in the affected pool, will prevent the economic loss caused by the drilling of unnecessary wells, avoid the augmentation of risk arising from the drilling of an excessive number of wells and will otherwise prevent waste and protect correlative rights.

**IT IS THEREFORE ORDERED THAT:**

(1) The applicant, Chesapeake Operating, Inc., is hereby authorized to drill its Salbar "16" Well No. 1 at an unorthodox oil well location 2456 feet from the North line and 1023 feet from the West line (Unit E) of Section 16, Township 16 South, Range 36 East, NMPM, Northeast Shoe Bar-Strawn Pool, Lea County, New Mexico. The S/2 NW/4 of Section 16 shall be dedicated to the subject well forming a standard 80-acre oil spacing and proration unit for said pool.

(2) The Salbar "16" Well No. 1 is hereby assessed a production penalty of 10% (90% allowable). The production penalty shall be applied to the depth bracket allowable for the Northeast Shoe Bar-Strawn Pool.

(3) Jurisdiction is hereby retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION



**KATHLEEN A. GARLAND**  
Acting Director

S E A L