

AMENDMENTS TO
PLAN FOR UNIT OPERATION
GOVERNING THE UNITIZED MANAGEMENT
OPERATION AND FURTHER DEVELOPMENT OF
VIRDEN-ROSELEA UNIT NO. 2

1971

AMENDMENTS TO
PLAN FOR UNIT OPERATION
GOVERNING THE UNITIZED MANAGEMENT
OPERATION AND FURTHER DEVELOPMENT OF
VIRDEN-ROSELEA UNIT NO. 2

1. Paragraph (d) of Section 1.02 is rescinded, and the following substituted therefor:

"Effective Date"

(d) "Effective Date" means:

- i) for Tracts numbered 7-5, 9-5, 10-5, 15-5, 16-5, 12-6, 13-6, 5-7, 6-36, 8-1, 9-1, 10-1, 15-1, 16-1, 1-12, 2-12, 7-12 and 8-12, the hour of 7:00 o'clock in the forenoon, Central Standard Time, on the first day of April, A.D. 197~~8~~¹;
- ii) for all other Tracts, the hour of 7:00 o'clock in the forenoon, Central Standard Time, on the first day of July, A.D. 1966.

2. Paragraph (w) of Section 1.02 is rescinded, and the following substituted therefor:

"Well"

(w) "Well" means:

- i) any well within the Unit Area which has been drilled to the Virden or Scallion Members of the Lodgepole Formation of the Mississippian Age for the production of Oil and Gas which at some time since such

drilling has produced a minimum of three (3) barrels of Oil per day for at least one (1) month's duration;

- ii) those wells located on Legal Subdivision Seven (7) of Section Five (5), Township Eleven, Range Twenty-five West of the Principal Meridian, on Legal Subdivision Two (2) of Section Twelve (12), Township Eleven, Range Twenty-six, West of the Principal Meridian and on Legal Subdivision Seven (7) of Section Twelve (12), Township Eleven, Range Twenty-six, West of the Principal Meridian;

- 3. Part III is rescinded, and the following substituted therefor:

Tract
Participation

3.01 The Tract Participation of each Tract is shown in Part XXIV hereof.

3.02 The Tract Participation for all Tracts, except Tracts numbered 7-5, 9-5, 10-5, 15-5, 16-5, 12-6, 13-6, 5-7, 6-36, 8-1, 9-1, 10-1, 15-1, 16-1, 1-12, 2-12, 7-12 and 8-12 (hereinafter called "the eighteen excepted Tracts"), was determined by adding one-half (1/2) of the current production factor calculated pursuant to paragraph 3.02 (a) hereof to one-half (1/2) of the average monthly Oil production factor

penalized for water production arrived at pursuant to paragraph 3.02 (b) hereof, and reducing the sum arrived at as aforesaid by one (1) minus the total percentage participation of the eighteen excepted Tracts, namely: 1.0000000 minus 0.3269501.

(a) A current production factor;

such factor is the percentage calculated by dividing the Oil production of such Tract during the interval May 1st, 1965 to October 31st, 1965 by the Oil production for all Tracts other than the eighteen excepted Tracts above mentioned, during the same interval and multiplying by 100;

(b) An average monthly Oil production factor penalized for water production, such factor is arrived at by;

i) determining average monthly Oil production of the Tract by dividing its cumulative Oil production to October 31st, 1965 by the number of calendar months since the Well on such Tract first went on production, provided that the first calendar month shall not be counted as such unless the Oil production from the Well on any such Tract for that calendar month was greater than

- one-half of the Oil production from the Well thereon for the next succeeding month;
- ii) calculating a fractional water cut for the Tract by dividing the water production for the interval set out in paragraph 3.02 (a) hereof by the sum of its water and Oil production for the same period; PROVIDED, THAT, with respect to any Tract which did not produce during the interval referred to, the fractional water cut shall be calculated by dividing the water production for such Tract during the consecutive six month period that ends with the last recorded production by the sum of such Tract's water and Oil production for the same period;
- iii) multiplying the average monthly Oil production for the Tract obtained in paragraph 3.02(b)(i) hereof by the fraction one minus the water cut appropriate to the Tract as determined in paragraph 3.02 (b)(ii) hereof;
- iv) dividing the product obtained in paragraph 3.02 (b) (iii) hereof for the Tract by the sum of all the products obtained in paragraph 3.02 (b) (iii) hereof for all the Tracts, other than the eighteen excepted

Tracts, and multiplying by one hundred (100).

3.03 The Tract Participation for Tracts numbered 9-5, 10-5, 15-5, 16-5, 12-6, 13-6, 8-1, 9-1, 10-1, 15-1, 16-1, 1-12, 8-12, 5-7 and 6-36 was determined by adding one-half (1/2) of the current production factor calculated pursuant to paragraph 3.03 (a) hereof to one-half (1/2) of the average monthly Oil production factor penalized for water production arrived at pursuant to paragraph 3.03 (b) hereof, and reducing the sum arrived at as aforesaid by one (1) minus the total percentage participation of Tracts 7-5, 2-12 and 7-12, namely: 1.0000000 minus 0.0030000.

(a) A current production factor;

such factor is the percentage calculated by dividing the Oil production of each Tract during the current production interval as set out in paragraph 3.03 (c) hereof, by the current Oil production for all the Tracts and multiplying by 100;

(b) An average monthly Oil production factor penalized for water production, such factor is arrived at by;

i) determining average monthly Oil production

of each Tract by dividing its cumulative Oil production to the cumulative Oil production date as set out in paragraph 3.03 (c) hereof by the number of calendar months since the Well on such Tract first went on production, provided that the first calendar month shall not be counted as such unless the Oil production from the Well on such Tract for that calendar month was greater than one-half (1/2) of the Oil production from the Well thereon for the next succeeding month;

- ii) calculating a fractional water cut for the Tract by dividing the water production for the interval set out in paragraph 3.03(c) hereof by the sum of its water and Oil production for the same period; PROVIDED, THAT, with respect to those Tracts which did not produce during the interval referred to, the fractional water cut shall be calculated by dividing the water production for each such Tract during the consecutive six month period that ends with the last recorded production by the sum of such Tract's water and Oil production for the

said period;

iii) multiplying the average monthly Oil production for the Tract obtained in paragraph 3.03 (b) (i) hereof by the fraction one minus the water cut appropriate to the Tract as determined in paragraph 3.03 (b) (ii) hereof;

iv) dividing the product obtained in paragraph 3.03 (b) (iii) hereof for the Tract by the sum of all the products obtained in paragraph 3.03 (b) (iii) hereof for all the Tracts, other than Tracts 7-5, 2-12 and 7-12, and multiplying by one hundred (100).

(c) The interval referred to in paragraph 3.03 (a) hereof is hereinafter called "the current production period" and the date referred to in paragraph 3.03 (b) (i) hereof is hereinafter called "the cumulative Oil production date" and are as hereinafter set out:

Tract No.	Current Production Interval	Cumulative Oil Production Date
9-5	October 1, 1968 to March 31, 1969	March 31, 1969
10-5	October 1, 1968 to March 31, 1969	March 31, 1969
15-5	October 1, 1968 to March 31, 1969	March 31, 1969

<u>Tract No.</u>	<u>Current Production Interval</u>	<u>Cumulative Oil Production Date</u>
16-5	October 1, 1968 to March 31, 1969	March 31, 1969
12-6	October 1, 1968 to March 31, 1969	March 31, 1969
13-6	October 1, 1968 to March 31, 1969	March 31, 1969
5-7	March 1, 1969 to August 31, 1969	August 31, 1969
6-36	March 1, 1969 to August 31, 1969	August 31, 1969
8-1	October 1, 1968 to March 31, 1969	March 31, 1969
9-1	October 1, 1968 to March 31, 1969	March 31, 1969
10-1	October 1, 1968 to March 31, 1969	March 31, 1969
15-1	October 1, 1968 to March 31, 1969	March 31, 1969
16-1	October 1, 1968 to March 31, 1969	March 31, 1969
1-12	October 1, 1968 to March 31, 1969	March 31, 1969
8-12	October 1, 1968 to March 31, 1969	March 31, 1969

3.04 The total of the Tract Participations for all Tracts shall at all times equal one hundred percent (100%).

3.05 This Part III is explanatory and the Tract Participations shown in Part XXIV shall be deemed to be correctly made in accordance with this Part III.

4. Part XXI is rescinded, and the new Part XXI hereunder is substituted therefor:

PART XXI

WELLS DELIVERED TO UNIT OPERATOR PURSUANT TO PART X

1822 Bralorne Virden 5-31-10-25	Chevron Virden Prov. 12-5-11-25
1609 Continental Virden 12-31-10-25	Chevron Virden Prov. 13-5-11-25
1784 Continental Virden 13-31-10-25	Chevron Virden Prov. 14-5-11-25
2183 Bralorne Virden 6-36-10-26 —	Chevron Virden 15-5-11-25 —
1695 K & N Virden 7-36-10-26	Chevron Virden 16-5-11-25 —
1828 K & N Virden SWD 8-36-10-26	Chevron Virden Prov. 1-6-11-25
1774 Chevron Virden Prov. 9-36-10-26	Chevron Virden Prov. 2-6-11-25
Chevron Virden Prov. 10-36-10-26	Chevron Virden 3-6-11-25
Shannon Virden 11-36-10-26	Chevron Virden 5-6-11-25
Shannon Virden 12-36-10-26	Chevron Virden 6-6-11-25
Chevron Virden 14-36-10-26	Chevron Virden Prov. 7-6-11-25
Chevron Virden Prov. 15-36-10-26	Chevron Virden Prov. 8-6-11-25
Chevron Virden Prov. 16-36-10-26	Chevron Virden Prov. 9-6-11-25
Chevron Virden 4-5-11-25	Chevron Virden Prov. 10-6-11-25
Chevron Virden 5-5-11-25	Chevron Virden Prov. 11-6-11-25
Chevron Virden 7-5-11-25 —	Chevron Virden Roselea Prov. 12-6-11-25 —
Chevron Virden 9-5-11-25 —	Chevron Virden Prov. 13-6-11-25 —
Chevron Virden 10-5-11-25 —	Chevron Virden Prov. 14-6-11-25
Chevron Virden Prov. 11-5-11-25	Chevron Virden Prov. 15-6-11-25

Chevron Virden Prov. 16-6-11-25	Chevron Virden 9-1-11-26 ~
Bralorne Virden 1-7-11-25	Chevron Virden 10-1-11-26 ~
Bralorne Virden 2-7-11-25	Chevron Virden 15-1-11-26 ~
Bralorne Virden 3-7-11-25	Chevron Virden 16-1-11-26 ~
Bralorne Virden 4-7-11-25	Chevron Virden 1-12-11-26 ~
Chevron Bralorne Virden 5-7-11-25 ~	Chevron Virden 2-12-11-26 ~
Chevron Virden 3-8-11-25	Chevron Bralorne Virden 7-12-11-26 ~
Chevron Virden 4-8-11-25	Chevron Bralorne Virden 8-12-11-26 ~
Chevron et al Virden 8-1-11-26 ~	

5. Part XXII is rescinded, and the new Part XXII hereunder is substituted therefor:

PART XXII

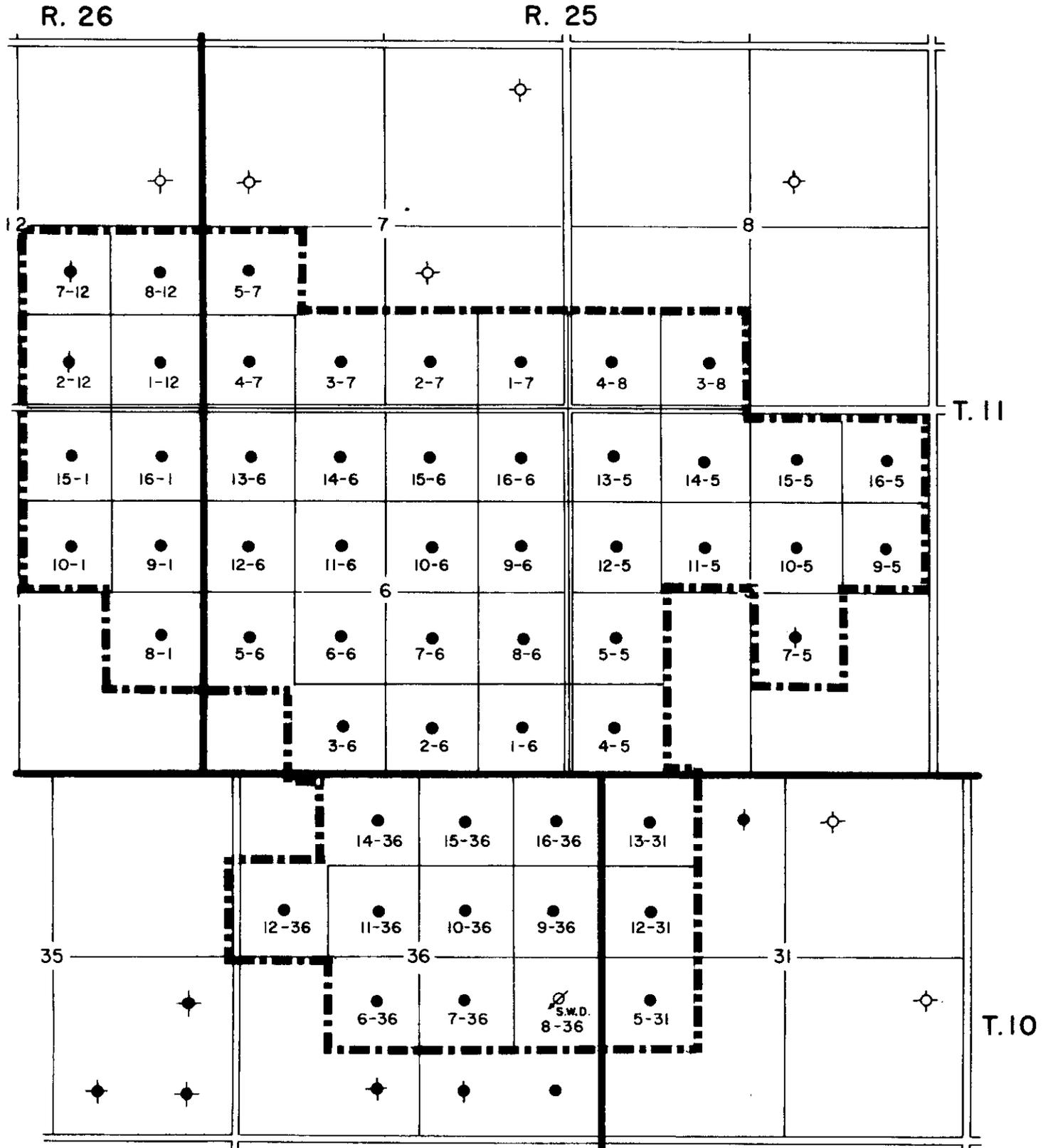
THE LANDS IN THE PROVINCE OF MANITOBA WHICH COMPRISE THE VIRDEN-ROSELEA UNIT NO. 2 ARE AS FOLLOWS:

<u>TRACT NUMBER</u>	<u>LEGAL DESCRIPTION</u>	<u>TRACT NUMBER</u>	<u>LEGAL DESCRIPTION</u>
	<u>TOWNSHIP 10 RANGE 25 WPM</u>		<u>TOWNSHIP 10 RANGE 26 WPM</u>
5-31	Lsd. 5, Section 31	10-36	Lsd. 10, Section 36
12-31	Lsd. 12, Section 31	11-36	Lsd. 11, Section 36
13-31	Lsd. 13, Section 31	12-36	Lsd. 12, Section 36
	<u>TOWNSHIP 10 RANGE 26 WPM</u>	14-36	Lsd. 14, Section 36
6-36	Lsd. 6, Section 36	15-36	Lsd. 15, Section 36
7-36	Lsd. 7, Section 36	16-36	Lsd. 16, Section 36
3-36	Lsd. 8, Section 36		<u>TOWNSHIP 11 RANGE 25 WPM</u>
9-36	Lsd. 9, Section 36	4-5	Lsd. 4, Section 5

<u>TRACT NUMBER</u>	<u>LEGAL DESCRIPTION</u>	<u>TRACT NUMBER</u>	<u>LEGAL DESCRIPTION</u>
	<u>TOWNSHIP 11 RANGE 25 WPM</u>		<u>TOWNSHIP 11 RANGE 25 WPM</u>
5-5	Lsd. 5, Section 5	13-6	Lsd. 13, Section 6
7-5	Lsd. 7, Section 5	14-6	Lsd. 14, Section 6
9-5	Lsd. 9, Section 5	15-6	Lsd. 15, Section 6
10-5	Lsd. 10, Section 5	16-6	Lsd. 16, Section 6
11-5	Lsd. 11, Section 5	1-7	Lsd. 1, Section 7
12-5	Lsd. 12, Section 5	2-7	Lsd. 2, Section 7
13-5	Lsd. 13, Section 5	3-7	Lsd. 3, Section 7
14-5	Lsd. 14, Section 5	4-7	Lsd. 4, Section 7
15-5	Lsd. 15, Section 5	5-7	Lsd. 5, Section 7
16-5	Lsd. 16, Section 5	3-8	Lsd. 3, Section 8
1-6	Lsd. 1, Section 6	4-8	Lsd. 4, Section 8
2-6	Lsd. 2, Section 6		<u>TOWNSHIP 11 RANGE 26 WPM</u>
3-6	Lsd. 3, Section 6	8-1	Lsd. 8, Section 1
5-6	Lsd. 5, Section 6	9-1	Lsd. 9, Section 1
6-6	Lsd. 6, Section 6	10-1	Lsd. 10, Section 1
7-6	Lsd. 7, Section 6	15-1	Lsd. 15, Section 1
8-6	Lsd. 8, Section 6	16-1	Lsd. 16, Section 1
9-6	Lsd. 9, Section 6	1-12	Lsd. 1, Section 12
10-6	Lsd. 10, Section 6	2-12	Lsd. 2, Section 12
11-6	Lsd. 11, Section 6	7-12	Lsd. 7, Section 12
12-6	Lsd. 12, Section 6	8-12	Lsd. 8, Section 12

6. Part XXIII is rescinded, and the new Part XXIII hereunder is substituted therefor:

PART ~~XXIII~~
 MAP OF UNIT AREA



LEGEND

- OILWELL
- ⊙ SALTWATER DISPOSAL
- 1-6 NUMBERED TRACT
- UNIT BOUNDARY

7. Part XXIV is rescinded, and the new Part XXIV hereunder is substituted therefor:

<u>PART XXIV</u>			
<u>TRACT NUMBER</u>	<u>TRACT PARTICIPATION</u>	<u>TRACT NUMBER</u>	<u>TRACT PARTICIPATION</u>
4-5	0.70255	12-6	4.92991
5-5	1.18745	13-6	1.58022
7-5	0.10000	14-6	0.61673
9-5	0.64269	15-6	0.93719
10-5	1.63506	16-6	1.31315
11-5	0.91435	1-7	1.54443
12-5	0.45162	2-7	3.39162
13-5	2.27647	3-7	1.88514
14-5	2.54566	4-7	1.02439
15-5	2.98609	5-7	0.36929
16-5	0.92105	3-8	0.25202
1-6	3.82583	4-8	1.01610
2-6	3.43351	8-1	1.21525
3-6	0.81173	9-1	3.02750
5-6	1.20808	10-1	1.86657
6-6	1.23651	15-1	1.13251
7-6	3.61651	16-1	5.26741
8-6	3.41536	1-12	2.72027
9-6	0.83739	2-12	0.10000
10-6	2.69255	7-12	0.10000
11-6	1.91405	8-12	3.87810

<u>TRACT NUMBER</u>	<u>TRACT PARTICIPATION</u>	<u>TRACT NUMBER</u>	<u>TRACT PARTICIPATION</u>
5-31	0.20303	10-36	2.36354
12-31	0.80051	11-36	1.07106
13-31	0.81503	12-36	2.70898
6-36	0.22309	14-36	0.21259
7-36	2.31757	15-36	4.89495
8-36	0.00853	16-36	3.87984
9-36	4.97897		

8. Clause (a) of subparagraph (iii) of paragraph (k) of Section 26.07 is rescinded, and the following substituted therefor:

(a) \$3,450.00 per month for all producing operations.

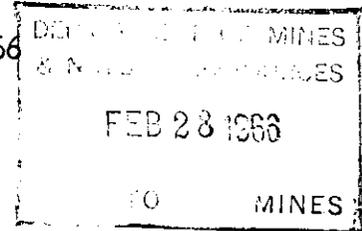
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CHEVRON STANDARD LIMITED

MEDICAL ARTS BUILDING, 329A - 6TH AVENUE S.W., CALGARY, ALBERTA.

February 22, 1966



The Oil and Natural Gas Conservation Board
Department of Mines and Natural Resources
Legislative Building
Province of Manitoba
Winnipeg 1, Manitoba

Dear Sirs:

Chevron Standard Limited, under and pursuant to The Mines Act, Revised Statutes of Manitoba 1954, and amendments thereto, hereby, on behalf of itself and other Working Interest Owners in the Virden-Roselea Field, requests the Board to hold a hearing to consider and approve the following:

1. "PLAN FOR UNIT OPERATION GOVERNING THE UNITIZED MANAGEMENT OPERATION AND FURTHER DEVELOPMENT OF VIRDEN-ROSELEA UNIT NO. 2" pursuant to Section 73 of The Mines Act.
2. "PROPOSAL FOR PRESSURE MAINTENANCE BY WATERFLOODING" pursuant to Section 59 of The Mines Act.
3. "APPLICATION FOR A UNIT MAXIMUM PERMISSIBLE RATE OF PRODUCTION" pursuant to Section 59 of The Mines Act.

Enclosed please find ten copies of each of the following:

1. "PLAN FOR UNIT OPERATION GOVERNING THE UNITIZED MANAGEMENT OPERATION AND DEVELOPMENT OF VIRDEN-ROSELEA UNIT NO. 2".
2. "PROPOSAL FOR PRESSURE MAINTENANCE BY WATERFLOODING" which includes:
 - (a) APPENDIX I - Investigation of the Feasibility of Waterflooding.
 - (b) APPENDIX II - Details of Operation to be Conducted in Proposed Unit Area.
3. "APPLICATION FOR A UNIT MAXIMUM PERMISSIBLE RATE OF PRODUCTION".

At the hearing, we would also like to refer the Board to the following references:

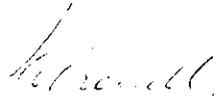
1. Engineering Report entitled "Waterflood Evaluation - Proposed Virden-Roselea Unit No. 2 - Virden-Roselea Field, Manitoba - June 1965".
2. "Rate Cumulative Decline Curves - Virden-Roselea Field".
3. "Primary History and Prediction Curves" for all wells and leases in the proposed Unit area.

In addition we are also enclosing the following information:

1. A list of Royalty Owners in the proposed Unit area, which may assist the Board in sending out notices of the hearing.
2. Discussion of Virden-Roselea Unitization and Participation Formula for the Proposed Virden-Roselea Unit No. 2.

An early consideration of our request would be greatly appreciated.

Yours very truly,



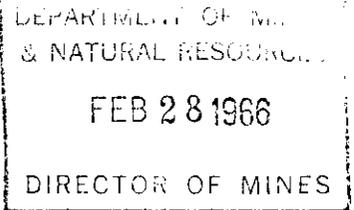
J. G. TROWELL, Chairman pro-tem
Proposed Virden-Roselea Unit No. 2
Operating Committee

Encl.



CHEVRON STANDARD LIMITED

MEDICAL ARTS BUILDING, 329A - 6TH AVENUE S.W., CALGARY, ALBERTA



February 25, 1966

Proposed Virden-Roselea Unit No. 2
Our File No. 54,803

The Oil and Natural Gas Conservation Board,
Department of Mines and Natural Resources,
Legislative Building,
Province of Manitoba,
Winnipeg 1, Manitoba.

Gentlemen:

You will recall our request of February 22, 1966 for a hearing relative to the proposed Virden-Roselea Unit No. 2.

Please be advised that we have now been advised that the list of Royalty Owners we sent you was incomplete in that it did not show the following as being Royalty Owners for Tracts 3-8 and 4-8:

Mary Isobel Glendenning
c/o Canada Permanent Trust Company

Frederick Reynold Bryant
c/o Canada Permanent Trust Company

Dora Holmes
Carnegie, Oklahoma
U.S.A.

Trusting this omission will cause you no inconvenience.

Yours very truly,


J. G. TROWELL, Chairman pro-tem
Proposed Virden-Roselea Unit No. 2
Operating Committee.

SAM/ps

DEPARTMENT OF MINES AND NATURAL RESOURCES
ROUTE SLIP

TO	<u>Mr. F. S. Gamey</u>	FROM	<u>Mr. H. J. Gobert</u>
TO		FROM	

- | | | |
|--|--|--|
| <input type="checkbox"/> For your approval or revision | <input type="checkbox"/> Reply direct with copy to me | <input type="checkbox"/> Please sign |
| <input type="checkbox"/> For your information | <input type="checkbox"/> Please supply data for my reply | <input type="checkbox"/> Please return |
| <input type="checkbox"/> Please take action | <input type="checkbox"/> Return with comments and/or recommendations | <input type="checkbox"/> Please see me |
| <input type="checkbox"/> Extracts of minutes for your information and action | <input type="checkbox"/> Investigate and report | <input type="checkbox"/> Please phone |
| <input type="checkbox"/> Please draft reply for signature of | | |

Date March 14, 1966. Subject _____

Message _____

MNR-A-94

Use reverse side if necessary

MCDANIEL CONSULTANTS (1965) LTD.

Oil and Gas Reservoir Evaluations

R. R. MCDANIEL, P.ENG.
G. C. KNUTSON, P.ENG.
R. E. HUGHES, P.ENG.
F. V. MAJOCHA, P.ENG.

305 HUMFORD BLDG.
608 SEVENTH STREET S.W.
CALGARY, ALBERTA
TELEPHONE 262-5506

J. J. KNEBLES, JR., P.GEOL.

March 12, 1966

Department of Mines and Natural Resources
Province of Manitoba
901 Norquay Building
Winnipeg 1, Manitoba

Attention Mr. M. J. Gobert

Dear Bert,

We have reviewed the proposal of California Standard Limited for the unitization of the Virden-Roselea Unit No. 2. Although we again find certain variations such as were indicated in the Virden-Roselea Unit No. 1, it would appear that the proposed method of unitizing this field is of a realistic nature.

Other than a few details which we would like to discuss with you immediately prior to the hearing we do not have any serious points of question at this time. However, should you have any questions with respect to any of the information on this proposal the writer could plan to arrive in either Winnipeg or Virden a day ahead of the hearing. Should we not hear from you the writer will plan to arrive by CPR on the morning of the hearing (March 31, 1966).

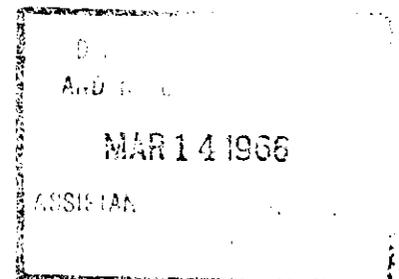
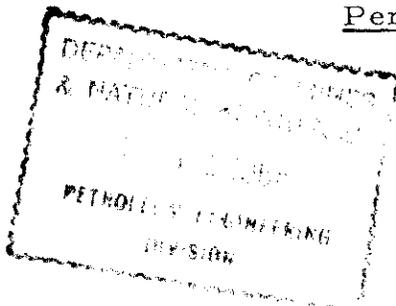
Sincerely yours,

MCDANIEL CONSULTANTS (1965) LTD.

Per: 

R. R. McDaniel, P. Eng.

RRM/js

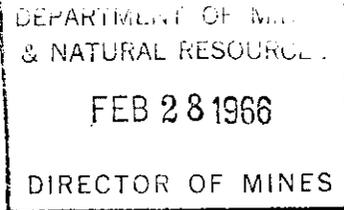




CHEVRON STANDARD LIMITED

MEDICAL ARTS BUILDING, 329A - 6TH AVENUE S.W., CALGARY, ALBERTA

February 25, 1966



Proposed Virden-Roselea Unit No. 2
Our File No. 54,803

The Oil and Natural Gas Conservation Board,
Department of Mines and Natural Resources,
Legislative Building,
Province of Manitoba,
Winnipeg 1, Manitoba.

Gentlemen:

You will recall our request of February 22, 1966 for a hearing relative to the proposed Virden-Roselea Unit No. 2.

Please be advised that we have now been advised that the list of Royalty Owners we sent you was incomplete in that it did not show the following as being Royalty Owners for Tracts 3-8 and 4-8:

Mary Isobel Glendenning
c/o Canada Permanent Trust Company

Frederick Reynold Bryant
c/o Canada Permanent Trust Company

Dora Holmes
Carnegie, Oklahoma
U.S.A.

Trusting this omission will cause you no inconvenience.

Yours very truly,


J. G. TROWELL, Chairman pro-tem
Proposed Virden-Roselea Unit No. 2
Operating Committee.

SAM/ps

COPY

November 25, 1965

Chevron Standard Limited,
Medical Arts Building,
329A-6th Avenue, S.W.,
Calgary, Alberta.

Att: Mr. D.A. McKae, Chairman
Viriden-Roselea Unit No.2
Legal Committee.

Proposed Unitization
Viriden-Roselea Unit No.2
Your File No.54,803

Dear Sir:

We have reviewed Draft #1 of the Plan for Unit Operation Governing the Unitized Management Operation and Further Development of Viriden-Roselea Unit No.2, and we note that Part XXIV, which will set out the Tract Participations, is to be forwarded later.

We do not have any comments to make with respect to the draft plan at this time.

Yours very truly,


H.J. Gobert
Member.

MJG/js
c.c. Mr. J.G.Cowan, Q.C.
Mr. J.S.Richards
Mr. F.S. Gamey



CHEVRON STANDARD LIMITED

MEDICAL ARTS BUILDING, 329A - 6TH AVENUE S.W., CALGARY, ALBERTA

March 2, 1966

McDaniel Consultants (1965) Ltd.
608 - 7th Street Southwest
Calgary, Alberta

Attention: Mr. R. R. McDaniel:

Dear Sir:

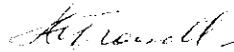
As per your conversation with our Mr. McCrae, we enclose herewith three copies of each of the following:

1. Report entitled "Waterflood Evaluation, Proposed Virden-Roselea Unit No. 2, Virden-Roselea Field, Manitoba", dated June, 1965.
2. Rate cumulative decline curves for each well in the proposed unit area.
3. Rate Time decline curves with primary and waterflood production forecasts:
 - (a) for each well
 - (b) for arbitrarily designated leases (a table of lease description is attached)
 - (c) for the total proposed unit area

Please note that the "Equity Period" as indicated on each of the Rate Time curves is in error. It should be May 1, 1965 to October 31, 1965 inclusive.

If we can be of further assistance, kindly contact the undersigned.

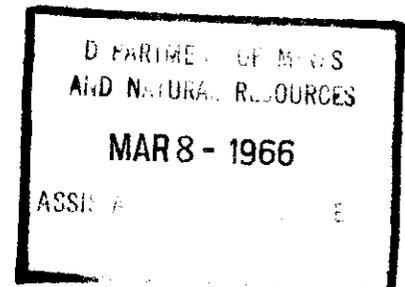
Yours very truly,



J. G. TROWELL, Chairman pro-tem
Proposed Virden-Roselea Unit No. 2
Operating Committee

Encl.

c.c. Mr. M. J. Gobert ✓
Oil and Natural Gas Conservation Board
Winnipeg 1, Manitoba
With 1 set of enclosures.

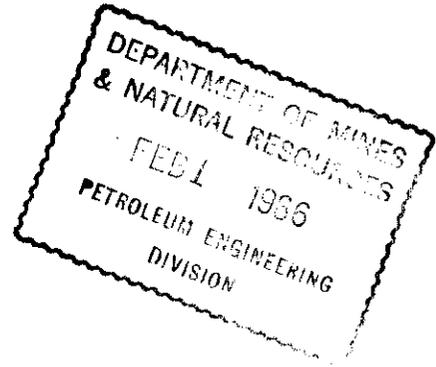


PROPOSED VIRDEN-ROSELEA UNIT NO. 2

Lease Description for Rate Vs Time Curves

<u>Lease No.</u>	<u>Tracts Within Lease</u>
1. ✓	Lsd.s 3, 5 and 6-6-11-25
2. ✓	Lsd.s 11 and 14-6-11-25
3. ✓	Lsd.s 1, 2, 7, 8, 9, 10, 15 and 16-6-11-25
4. ✓	Lsd.s 1, 2, 3 and 4-7-11-25
5. ✓	Lsd.s 4 and 5-11-25
6. ✓	Lsd.s 11, 12, 13 and 14-5-11-25
7. ✓	Lsd.s 3 and 4-8-11-25
8. ✓	Lsd.s 9, 10, 15 and 16-36-10-26
9. ✓	Lsd.s 11 and 12-36-10-26
10. ✓	Lsd.s 12 and 13-31-10-25
11. ✓	Lsd. 14-36-10-26
12. ✓	Lsd. 5-31-10-25
13. ✓	Lsd.s 7 and 8-36-10-26

COPY



January 31, 1966.

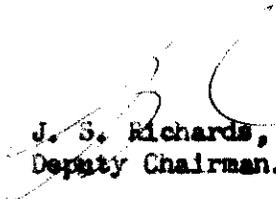
Mr. S. A. McCrae,
 Chairman,
 Virden-Roselea Unit No. 2,
 Legal Committee,
 c/o Chevron Standard Limited,
 Medical Arts Building,
 3291 - 6th Avenue S.W.,
 Calgary, Alberta.

Dear Mr. McCrae:

Mr. J. G. Cowan, Q.C., has asked me to advise you that the amendment, to subsection (b) of Section 14.01 of the Plan for Unit Operation, in respect to Virden-Roselea Unit No. 2, forwarded with your letter of January 20, 1966, is satisfactory.

The Board also agrees that the provisions of subsection (4) (k) (i) A and B of Section 73 of The Mines Act remove any necessity for an amendment to Section 8.07 of the Plan.

Yours very truly,


 J. S. Richards,
 Deputy Chairman.

JSR/or

c.c. to: Mr. J. G. Cowan, Q.C.,
 Chairman.

Mr. M. J. Gobert,
 Member.

Mr. F. S. Gamey,
 Reservoir Engineer.

January 26, 1966.

J. S. Richards,
Director of Mines.

Mr. W. G. Cobert,
Assistant Deputy Minister.

Proposed Initialization

Virack - Resecla Unit No. 2.

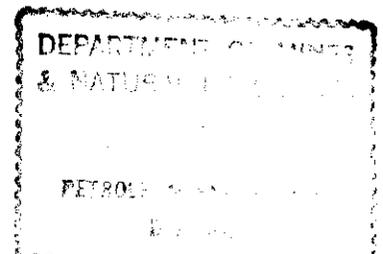
I agree with the statement in your memo of January 25th that Mr. B. A. McGrac's draft Section 14.01 of the Plan appears to protect the royalty owners. I assume you have received a copy of Mr. Cowan's memo, of the same date, in which he also concurs.

I also agree with Mr. McGrac's statement that subsection (4) (k) (i) A and B of Section 73 of the Mines Act provides that in the event the Unit Operator invokes his lien rights the Royalty Owner's share of production would not be placed in trust. However, this subsection provides that only the working interests owner's share of production shall be sold and does not provide for the sale of the Royalty share of production. For this reason it would appear to me that Section 8.07 should contain a provision similar to 14.01 whereby all production will be sold and the Royalty share paid out. I have mentioned this point to Mr. Cowan and he states that, at present, he does not have the time to check my interpretation of subsection (4) (k) (i) A and B of Section 73. However, he agrees that if you concur it should be suggested to Mr. McGrac that Section 8.07 be changed accordingly.

JSR/or

J. S. Richards.

p. c. to: Mr. F. S. Gamey,
Reservoir Engineer.



January 25, 1966

J. G. Cowan,
Chairman,
Oil and Natural Gas Conservation
Board.

Mr. J. S. Richards,

Director of Mines,

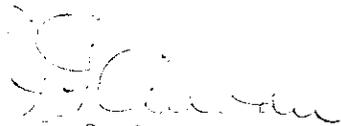
DEPARTMENT OF MINES
& NATURAL RESOURCES
JAN 27 1966
DIRECTOR OF MINES

Proposed Unitization - Virden-Roselea Unit No. 2

You have received a copy of Mr. McCrae's letter to me of
January 20th.

Although two items appear to have been discussed when Mr.
McCrae was recently in Winnipeg, it now appears that he is satisfied
that Section 8.07 of the Plan is satisfactory and that he now con-
firms his request to an amendment of subsection (b) of section 14.01.

It would appear to me, therefore, that it would be in order
to substitute the amendment to section 14.01 (Part XIV) suggested by
Mr. McCrae, and I would appreciate it if you would so advise him.


J. G. Cowan.

JCC/mr

c.c. - H. J. Gobert

p. c. to: > Mr. F. S. Gamey, Reservoir Engineer.

INTER-DEPARTMENTAL MEMORANDUM

TO: Mr. M. J. Gobert
Assistant Deputy Minister



DATE: January 19, 1966
TO: Mr. J. D. Richards
Director of Mines

SUBJECT: Proposed Unitization
Virren-Roselea Unit No. 2

DEPARTMENT OF MINES
& NATURAL RESOURCES
JAN 25 1966
DIRECTOR

Mr. S.A. Kocak's draft Section 14.01 of the Plan appears to protect the royalty owner and would prevent a delay in payment of Crown Royalty as we have had in the case of Franz interests in Virren-Roselea Unit No. 1.

What is your opinion? Possibly you might wish to discuss this with Mr. Cowan.

M. J. Gobert
M. J. Gobert

MJG/js

p. c. to: Mr. F. S. Gancey,
Reservoir Engineer.



Chevron Canada Resources Limited

500 - Fifth Avenue S.W., Calgary, Alberta T2P 0L7

1987-06-01

R. A. Pashelka
General Counsel

Plans for Unit Operation
Virден-Roselea Unit No. 1
Virден-Roselea Unit No. 2
Virден-Roselea Unit No. 3

The Oil and Natural Gas Conservation Board,
Room 309 Legislative Building,
Winnipeg, Manitoba.
R3C 0V8

Attention: Mr. Charles S. Kang, Chairman

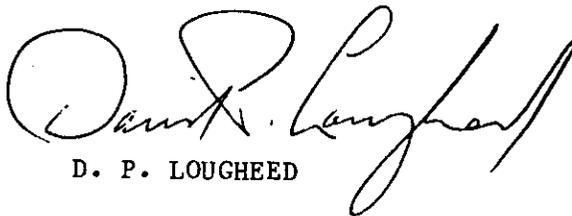
Dear Mr. Kang:

It has come to our attention that the new pages sent to you with our letters of 1987-05-27 for each of the subject Plans did not reflect changes made to subparagraph (c) of Section 26.07 (k) (iii) by Unitization Orders Nos. 26, 27, and 28 respectively. Accordingly we have revised:

- Page 69 - Virден Roselea Unit No. 1;
- Page 68 - Virден Roselea Unit No. 2; and
- Page 76 - Virден Roselea Unit No. 3;

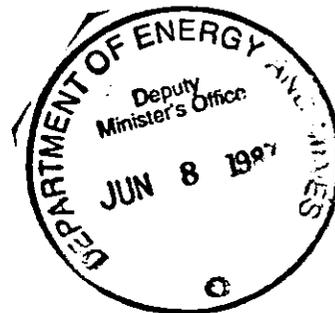
and enclose two (2) copies of each for substitution into the copies sent to you previously.

Yours very truly,



D. P. LOUGHEED

/ps
Encls.



- (ii) Cost of maintaining and operating an area office and all necessary camps, including housing facilities for employees if necessary. The expense of, less any revenue from, these facilities shall include depreciation or a fair monthly rental in lieu of depreciation on investment.
- (iii) Any other costs of operating the division and/or principal office of the Unit Operator.

The rates, which are subject to review annually, as set forth in paragraph (j) of Section 6.03 are as follows:

- (a) \$6,000 per month plus 5% of the operating costs for all producing operations.
 - (b) For each drilling well, wells being plugged back, completed, production tested, capped, abandoned, deepened, redrilled or reconditioned (except routine cleanout and pump or rod pulling operation) or wells being converted to source, injection, observation or producing wells:
 - 3% of the first \$50,000.00 of the expenditure; plus
 - 2% of the next \$100,000.00 of the expenditure; plus
 - 1% of the expenditure exceeding \$150,000.00.
 - (c) The charge in respect to construction of Unit Facilities, including, but not limited to, water injection plant, battery consolidation, injection pipeline systems and water supply systems shall be calculated on direct expenditures on the following basis:
 - 5% of expenditures up to \$50,000.00, plus
 - 3% of expenditures over \$50,000.00 and up to \$150,000.00, plus
 - 1% of all expenditures over \$150,000.00.
- (1) A charge to cover the cost of handling material into and in Unit Operator's warehouse shall be assessed on new and used materials furnished from



Chevron Canada Resources Limited

500 - Fifth Avenue S.W., Calgary, Alberta T2P 0L7

1987-05-27

R. A. Pashelka
General Counsel

Plan for Unit Operation
Virden-Roselea Unit No. 2

The Oil and Natural Gas Conservation Board,
Room 309 Legislative Building,
Winnipeg, Manitoba.
R3C 0V8

Attention: Mr. Charles S. Kang, Chairman

Dear Mr. Kang:

We wish to advise that the Operating Committee, by Mail Ballot No. 87-1, has approved amendments to subparagraphs (a) and (b) of Section 26.07 (k) (iii), effective May 1, 1987, in accordance with Section 6.03 (j) of the Plan for Unit Operation, as amended by Unitization Order No. 27.

Two (2) copies of each of revised pages 68 and 68(a) to the Plan, reflecting these amendments, are enclosed herewith for your records.

Yours very truly,

D. P. LOUGHEED

/ps
Encls.

THE OIL AND NATURAL GAS
CONSERVATION BOARD
WINNIPEG, MANITOBA
JUN - 3 1987
RECEIVED

- (ii) Cost of maintaining and operating an area office and all necessary camps, including housing facilities for employees if necessary. The expense of, less any revenue from, these facilities shall include depreciation or a fair monthly rental in lieu of depreciation on investment.
- (iii) Any other costs of operating the division and/or principal office of the Unit Operator.

The rates, which are subject to review annually, as set forth in paragraph (j) of Section 6.03 are as follows:

- (a) \$3,825 per month plus 5% of the operating costs for all producing operations.
 - (b) For each drilling well, wells being plugged back, completed, production tested, capped, abandoned, deepened, redrilled or reconditioned (except routine cleanout and pump or rod pulling operation) or wells being converted to source, injection, observation or producing wells:
 - 3% of the first \$50,000.00 of the expenditure; plus
 - 2% of the next \$100,000.00 of the expenditure; plus
 - 1% of the expenditure exceeding \$150,000.00.
 - (c) The charge in respect to construction of Unit Facilities, including, but not limited to, water injection plant, battery consolidation, injection pipeline systems and water supply systems shall be calculated on direct expenditures on the following basis:
 - 5% of expenditures up to \$50,000.00, plus
 - 3% of expenditures over \$50,000.00 and up to \$100,000.00, plus
 - 1% of all expenditures over \$100,000.00.
- (1) A charge to cover the cost of handling material into and in Unit Operator's warehouse shall be assessed on new and used materials furnished from

the warehouse on the basis of Two and one-half (1-1/2%) percent of the cost of tubular goods and Major Material and Five (5%) percent of the cost of all other material which shall in each case be deemed to be the actual cost thereof to Unit Operator.

- (m) Rentals, payments in lieu of actual production and royalties, when paid by Unit Operator for the Common Account.

- (ii) Cost of maintaining and operating an area office and all necessary camps, including housing facilities for employees if necessary. The expense of, less any revenue from, these facilities shall include depreciation or a fair monthly rental in lieu of depreciation on investment.
- (iii) Any other costs of operating the division and/or principal office of the Unit Operator.

The rates, which are subject to review annually, as set forth in paragraph (j) of Section 6.03 are as follows:

- (a) \$3,825 per month plus 5% of the operating costs for all producing operations.
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 - 3% of the first \$50,000.00 of the expenditure; plus
 - 2% of the next \$100,000.00 of the expenditure; plus
 - 1% of the expenditure exceeding \$150,000.00.
 - (c) The charge in respect to construction of Unit Facilities, including, but not limited to, water injection plant, battery consolidation, injection pipeline systems and water supply systems shall be calculated on direct expenditures on the following basis:
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 - 3% of expenditures over \$50,000.00 and up to \$100,000.00, plus
 - 1% of all expenditures over \$100,000.00.
- (1) A charge to cover the cost of handling material into and in Unit Operator's warehouse shall be assessed on new and used materials furnished from

the warehouse on the basis of Two and one-half (1-1/2%) percent of the cost of tubular goods and Major Material and Five (5%) percent of the cost of all other material which shall in each case be deemed to be the actual cost thereof to Unit Operator.

- (m) Rentals, payments in lieu of actual production and royalties, when paid by Unit Operator for the Common Account.

DEPARTMENT OF MINES, RESOURCES AND ENVIRONMENTAL MANAGEMENT

ROUTE SLIP

~~TO~~ Mr F. S. Gamey

~~FROM~~ ^{TO} J. S. Roper

TO

FROM

- For your approval or revision
- For your information
- Please take action
- Extracts of minutes for your information and action
- Please draft reply for signature of

- Reply direct with copy to me
- Please supply data for my reply
- Return with comments and/or recommendations
- Investigate and report

DEPT. of MINES, RESOURCES and ENVIRONMENTAL MANAGEMENT
 OCT 26 1973
 ASSISTANT DEPUTY MINISTER'S OFFICE

- Please sign
- Please return
- Please see me
- Please phone

Date October 25, 1973.

Subject Unitization Order No. 15

Message

(1) Certified copies of 15 & 16 enclosed

(2) letter to Gaudet for your signature

Province of Manitoba

Inter-departmental memo

To

Mr. J. S. Roper, A/Senior
Assistant Deputy Minister
Room 302 Legislative Bldg.

Date October 24, 1973

From Jas. T. Cawley, P. Eng.
Deputy Minister

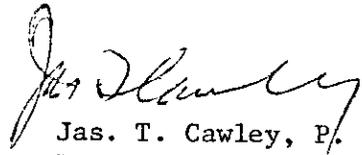
Subject: E. H. Gaudet, Chairman, Virden-Roseleau Unit #2

Please reply directly to Mr. Gaudet, copy to this office
to close file.

100-1033

*ESG: Re per telephonic conversation reply direct
with copy to this office. Thanks.*

/lam


Jas. T. Cawley, P. Eng.
Deputy Minister

DEPT. of MINES, RESOURCES and
ENVIRONMENTAL MANAGEMENT

OCT 24 1973

ASSISTANT DEPUTY
MINISTER'S OFFICE



Chevron Standard Limited
 400 - Fifth Ave. S.W., Calgary, Alberta T2P 0L7

October 19, 1973

Enlargement
Virден-Roselea Unit No. 2

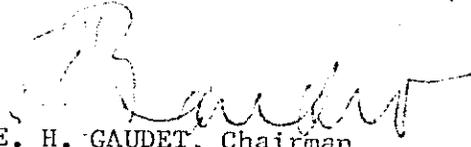
Mr. Jas. T. Cawley,
 Chairman, The Oil and Natural
 Gas Conservation Board,
 Province of Manitoba,
 Winnipeg 1, Manitoba.

Dear Sir:

Copies of the Amendments to the Plan for Unit Operation reflecting the enlargement of the Unit effective October 1, 1973, as you know, should be filed with the Department of Mines and Natural Resources and with the appropriate Land Titles Office. We would be pleased, therefore, if you would let us have four (4) certified copies of Unitization Order No. 15.

We will remit your fee upon your advice of the amount of same.

Yours very truly,


 E. H. GAUDET, Chairman,
 Virден-Roselea Unit No. 2
 Legal Committee.

/ps

