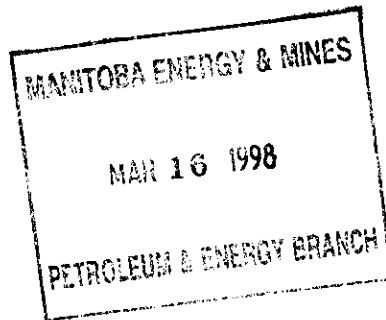


Drilling Completions & Workovers



# Chevron

03/13/98



**Chevron Canada Resources**

500 Fifth Avenue S.W.  
Calgary, Alberta T2P 0L7  
Phone (403) 234-5464  
Fax (403) 234-5512

**P.B. (Paul) MacMillan**  
**Drilling Team Leader**

Manitoba Department of Energy and Mines  
Petroleum Branch  
360 - 1395 Ellice Avenue  
Winnipeg, Manitoba  
R3G 3P2

- 1997 Virden Rosela Unit # 1 and # 2 Pressure Surveys by  
Mike Davies Well test analyst at 234 - 5103

A copy of this transmittal will be kept in our files.

If you have any questions regarding the above, please contact **Melody Chardon at 234-5509.**

Thank You.

March 5, 1998

**1997 Virden Rosela Unit #1 and #2 Pressure Surveys**

**Unit #1**

15-24-10-26

15-25-10-26

07-25-10-26

05-30-10-25

11-25-10-26

**Unit #2**

12-05-11-25

10-06-11-25

16-06-11-25

**Joe Taylor**

**Kevin Anderson**

**Summary**

The subject wells were shut in during the months of September and October, 1997 to determine average reservoir pressure. Each well was shut in and the surface pressure was measured using a pressure gauge from the wellhead. The results of the test are summarized in the tables below:

**Unit #1 Tests**

<i>Well Location</i>	<i>Well Type</i>	<i>Final Recorded Pressure (kPa)</i>
15-24-10-26	Injector	8,599
15-25-10-26	Injector	7,013
07-25-10-26	Injector	7,649
05-30-10-25	Injector	9,653
11-25-10-26	Injector	7,936

**Unit #2 Tests**

<i>Well Location</i>	<i>Well Type</i>	<i>Final Recorded Pressure (kPa)</i>
12-05-11-25	Injector	8,712
10-06-11-25	Injector	6,713
16-06-11-25	Injector	9,117

All pressures are determined by adding the hydrostatic head of the water column to the measured well head pressure. All pressures are final pressures which were deemed to have built up to within +/- 200 KPa of the actual bottom hole pressure. Both build up summaries are included as attachments.

If you have any questions about this analysis, please contact Mike Davies at 234-5103.



Mike Davies

Well Test Analyst

pc. P.W. Bateman  
Producing Records

## **Attachment**

### **Tabulated Pressure Readings**

# Virden Rosela Unit #1

## Pressure Buildup Survey

Well (Injector)	Date / Time	Tbg. Press (kPa)	Mid Point Perfs (m)	Cumulative Tim	Est. BHP (kPa)
15-24-10-26 Injector	9/13/97 0:00	4500	615.4	0:00:00	10899
	9/14/97 0:00	4600	615.4	24:00:00	11199
Avg. Inj. Rate = xxx	9/15/97 0:00	3500	615.4	48:00:00	9899
m3 WPD @ xxx kPa	9/16/97 0:00	3300	615.4	72:00:00	9699
	9/17/97 0:00	3100	615.4	96:00:00	9499
	9/18/97 0:00	3000	615.4	120:00:00	9399
	9/19/97 0:00	2900	615.4	144:00:00	9299
	9/20/97 0:00	2800	615.4	168:00:00	9199
	9/21/97 0:00	2800	615.4	192:00:00	9199
	9/22/97 0:00	2700	615.4	216:00:00	9099
	9/23/97 0:00	2700	615.4	240:00:00	9099
	9/24/97 0:00	2700	615.4	264:00:00	9099
	9/25/97 0:00	2600	615.4	288:00:00	8999
	9/26/97 0:00	2600	615.4	312:00:00	8999
	9/27/97 0:00	2500	615.4	336:00:00	8899
	9/28/97 0:00	2500	615.4	360:00:00	8899
	10/1/97 0:00	2500	615.4	432:00:00	8899
	10/3/97 0:00	2500	615.4	480:00:00	8899
	10/5/97 0:00	2400	615.4	528:00:00	8799
	10/7/97 0:00	2200	615.4	576:00:00	8599
	10/9/97 0:00	2100	615.4	624:00:00	8499
	10/11/97 0:00	2100	615.4	672:00:00	8499
	10/13/97 0:00	2300	615.4	720:00:00	8699
	10/15/97 0:00	2200	615.4	768:00:00	8599
	10/17/97 0:00	2400	615.4	816:00:00	8799
	10/19/97 0:00	2400	615.4	864:00:00	8799
	10/22/97 0:00	2200	615.4	936:00:00	8599

Well (Injector)	Date / Time	Tbg. Press (kPa)	Mid Point Perfs (m)	Cumulative Tim	Est. BHP (kPa)
15-25-10-26 Injector	9/16/97 0:00	3000	597.5	0:00:00	9213
	10/1/97 0:00	1100	597.5	360:00:00	7313
Avg. Inj. Rate =	10/16/97 0:00	800	597.5	720:00:00	7013
m3 WPD @ xxx kPa					

Well (Injector)	Date / Time	Tbg. Press (kPa)	Mid Point Perfs (m)	Cumulative Tim	Est. BHP (kPa)
07-25-10-26 Injector	9/13/97 0:00	4800	581.72	0:00:00	10849
	9/14/97 0:00	3200	581.72	24:00:00	9249
Avg. Inj. Rate = xx	9/15/97 0:00	3000	581.72	48:00:00	9049
m3 WPD @ xxx kPa	9/16/97 0:00	2800	581.72	72:00:00	8849
	9/17/97 0:00	2700	581.72	96:00:00	8749
	9/18/97 0:00	2600	581.72	120:00:00	8649
	9/19/97 0:00	2500	581.72	144:00:00	8549
	9/20/97 0:00	2400	581.72	168:00:00	8449
	9/21/97 0:00	2400	581.72	192:00:00	8449
	9/22/97 0:00	2300	581.72	216:00:00	8349
	9/23/97 0:00	2300	581.72	240:00:00	8349
	9/24/97 0:00	2200	581.72	264:00:00	8249
	9/25/97 0:00	2200	581.72	288:00:00	8249
	9/26/97 0:00	2200	581.72	312:00:00	8249
	9/27/97 0:00	2200	581.72	336:00:00	8249
	9/28/97 0:00	2000	581.72	360:00:00	8049
	10/1/97 0:00	2000	581.72	432:00:00	8049
	10/3/97 0:00	1800	581.72	480:00:00	7849
	10/5/97 0:00	2000	581.72	528:00:00	8049
	10/7/97 0:00	1800	581.72	576:00:00	7849
	10/9/97 0:00	1800	581.72	624:00:00	7849
	10/11/97 0:00	1800	581.72	672:00:00	7849
	10/13/97 0:00	1800	581.72	720:00:00	7849
	10/15/97 0:00	1800	581.72	768:00:00	7849
	10/17/97 0:00	1800	581.72	816:00:00	7849
	10/19/97 0:00	1800	581.72	864:00:00	7849
	10/22/97 0:00	1600	581.72	936:00:00	7649

Well (Injector)	Date / Time	Tbg. Press (kPa)	Mid Point Perfs (m)	Cumulative Tim	Est. BHP (kPa)
05-30-10-25 Injector	9/16/97 0:00	4200	610.9	0:00:00	10553
	10/1/97 0:00	3500	610.9	360:00:00	9653
Avg. Inj. Rate = xxx	10/16/97 0:00	3300	610.9	720:00:00	9653
m3 WPD @ xxx kPa					

Well (Injector)	Date / Time	Tbg. Press (kPa)	Mid Point Perfs (m)	Cumulative Tim	Est. BHP (kPa)
11-25-10-26 Injector	9/13/97 0:00	2600	590.1	0:00:00	8736
	9/14/97 0:00	2000	590.1	24:00:00	8136
Avg. Inj. Rate = xx	9/15/97 0:00	1900	590.1	48:00:00	8036
m3 WPD @ xxx kPa	9/16/97 0:00	2000	590.1	72:00:00	8136
	9/17/97 0:00	1900	590.1	96:00:00	8036
	9/18/97 0:00	1900	590.1	120:00:00	8036
	9/19/97 0:00	1900	590.1	144:00:00	8036
	9/20/97 0:00	1900	590.1	168:00:00	8036
	9/21/97 0:00	1900	590.1	192:00:00	8036
	9/22/97 0:00	1800	590.1	216:00:00	7936
	9/23/97 0:00	1800	590.1	240:00:00	7936
	9/24/97 0:00	1800	590.1	264:00:00	7936
	9/25/97 0:00	1800	590.1	288:00:00	7936
	9/26/97 0:00	1800	590.1	312:00:00	7936
	9/27/97 0:00	1800	590.1	336:00:00	7936
	9/28/97 0:00	1800	590.1	360:00:00	7936
	10/1/97 0:00	1800	590.1	432:00:00	7936
	10/3/97 0:00	1800	590.1	480:00:00	7936
	10/5/97 0:00	1800	590.1	528:00:00	7936
	10/7/97 0:00	1800	590.1	576:00:00	7936
	10/9/97 0:00	1800	590.1	624:00:00	7936
	10/11/97 0:00	1800	590.1	672:00:00	7936
	10/13/97 0:00	1800	590.1	720:00:00	7936
	10/15/97 0:00	1800	590.1	768:00:00	7936
	10/17/97 0:00	1800	590.1	816:00:00	7936
	10/19/97 0:00	1800	590.1	864:00:00	7936
	10/22/97 0:00	1800	590.1	936:00:00	7936

# Virden Rosela Unit #2

## Pressure Buildup Survey

<u>Well (Injector)</u>	<u>Date / Time</u>	<u>Tbg. Press (kPa)</u>	<u>Mid Point Perfs (m)</u>	<u>Cumulative Time</u>	<u>Est. BHP (kPa)</u>
12-05-11-25 Injector  Avg. Inj. Rate = xxx m3 WPD @ xxxx kPA	9/13/97 0:00	?	587.8	0:00:00	#VALUE!
	9/15/97 0:00	2800	587.8	48:00:00	8912
	9/30/97 0:00	2600	587.8	408:00:00	8712

<u>Well (Injector)</u>	<u>Date / Time</u>	<u>Tbg. Press (kPa)</u>	<u>Mid Point Perfs (m)</u>	<u>Cumulative Time</u>	<u>Est. BHP (kPa)</u>
10-06-11-25 Injector  Avg. Inj. Rate = m3 WPD @ xxx kPA	9/13/97 0:00	?	587.9	0:00:00	#VALUE!
	9/15/97 0:00	1200	587.9	48:00:00	7313
	9/30/97 0:00	600	587.9	408:00:00	6713

<u>Well (Injector)</u>	<u>Date / Time</u>	<u>Tbg. Press (kPa)</u>	<u>Mid Point Perfs (m)</u>	<u>Cumulative Time</u>	<u>Est. BHP (kPa)</u>
16-06-11-25 Injector  Avg. Inj. Rate = xx m3 WPD @ xxxx kPA	9/13/97 0:00	?	588.25	0:00:00	#VALUE!
	9/15/97 0:00	3300	588.25	48:00:00	9417
	9/30/97 0:00	3000	588.25	408:00:00	9117



**Chevron**

December 9, 1993

**Chevron Canada Resources**  
P.O. Box 100  
Virden, Manitoba ROM 2C0  
Phone (204) 748-1334  
Fax (204) 748-6762

Department of Energy and Mines  
Petroleum Branch  
Attention: Mr. John Fox  
555 - 330 Graham Avenue  
Winnipeg, Manitoba  
R3C 4E3

Dear Sir:

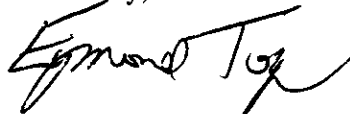
RE: Virden Roselea Unit #1 1993 Subsurface Pressure Survey Results

Chevron Canada Resources, as operator of Virden Roselea Unit #1 submit the following information for the 1993 Subsurface Pressure Survey:

1. List of wells.
2. Calculated reservoir pressures for 1993 as well as results from the previous survey conducted in 1990.
3. Map displaying the survey area and 1993 pressures.

Should you have any questions please contact Eymond Toupin or Kevin Anderson at 748-1334 or at the letterhead address.

Yours truly,

  
for J. E. CAUSGROVE, P. Eng.  
Virden Business Unit Manager

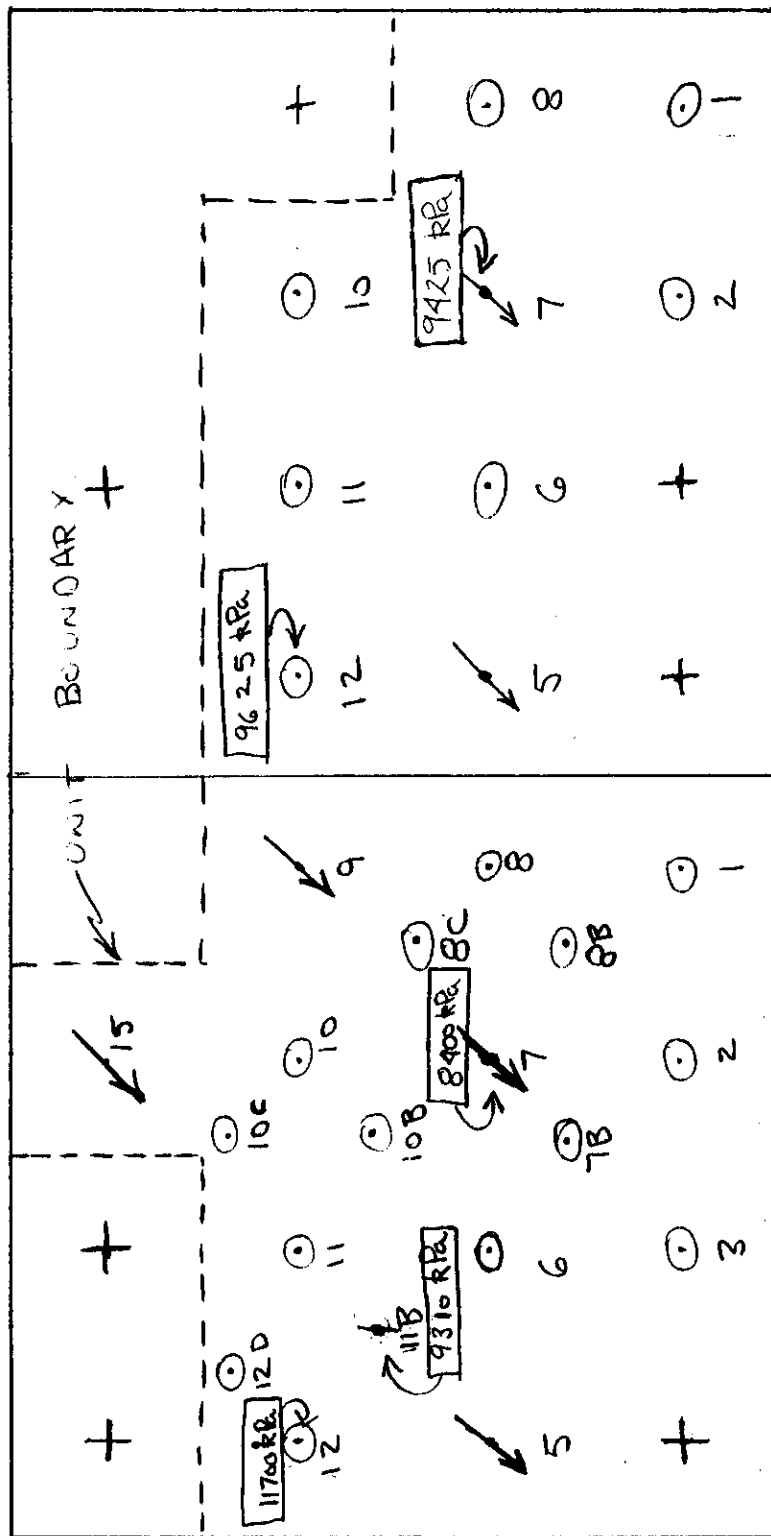
ET/tjs

1990

11-20-10-25	9200 kPa
13-21-10-25	8875 kPa
2-28-10-25	8100 kPa

Virden Roselea Unit #1

<u>Well Location</u>	<u>Status of Well</u>	BHP (kPa)		<u>Date Completed</u>
		<u>1990</u>	<u>1993</u>	
7-29-10-25	Injector	-	9425	1993-12-06
10-29-10-25	Producer	8565	-	-
12-29-10-25	Producer	-	9625	1993-12-06
7-30-10-25	Injector	-	8400	1993-12-06
11B-30-10-25	Suspended Producer	-	9390	1993-11-18
12-30-10-25	Producer	10290	11700	1993-12-03



SECTION 30

SECTION 29





## Chevron Canada Resources

P.O. Box 100, Virden, Manitoba R0M 2C0  
Phone (204) 748-1334 Fax (204) 748-6762

1990-10-22

Department of Energy & Mines  
Petroleum Branch  
555-330 Graham Avenue  
Winnipeg, Manitoba  
R3C 4E3

Attention: Mr. John Fox

Dear Sir:

Re: Virden Roselea Unit #1, 2 and 3 - 1990 Triannual  
Subsurface Pressure Survey Results

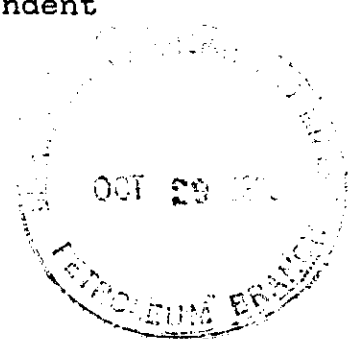
Chevron Canada Resources, as operator of Virden Roselea #1, 2 and 3, submit the following information for the 1990 Tri-annual Subsurface Pressure Survey:

- 1) List of wells and the method of survey used (Pages 2-4).
- 2) Calculated reservoir pressures for 1990 as well as results from the previous survey conducted in 1987 (Pages 2-4).
- 3) Maps of the above units displaying the 1990 and 1987 pressures (Pages 5-7).

Should you have any questions please contact Jerry Kohut or Kevin Anderson at 748-1334 or at the letterhead address.

Yours truly,

for L. A. Martinson  
Area Superintendent  
Virden



# VIRDEN ROSELEA UNIT #1

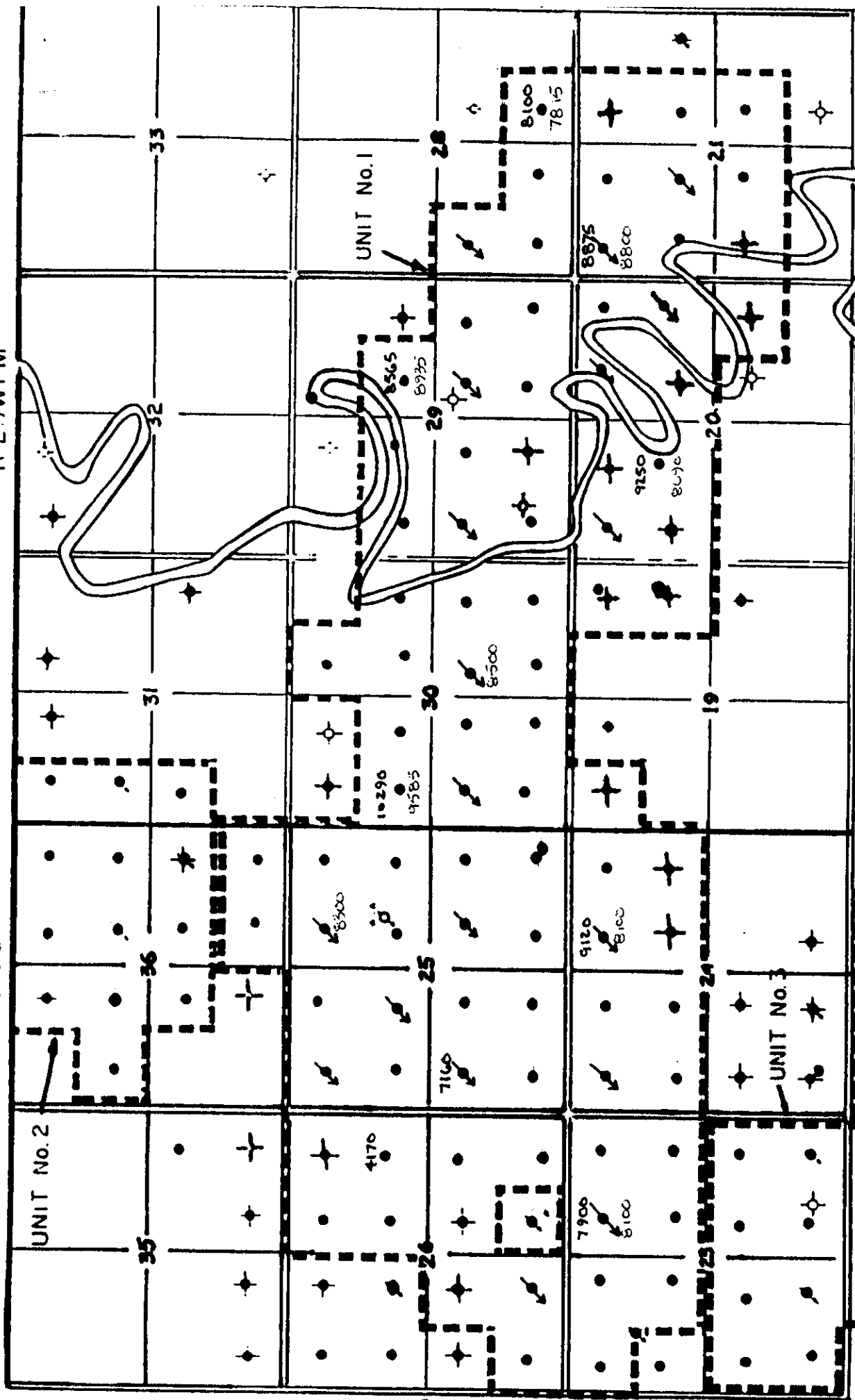
Results of the 1990 Triannual Pressure Survey:

<u>WELL LOCATION</u>	<u>TYPE OF SURVEY</u>	<u>DATUM DEPTH PRESSURES</u> (kPa)		<u>DATE COMPLETED</u>
		<u>1987</u>	<u>1990</u>	
11-20-10-25	Sonolog	8690	9250	90-05-07
13-21-10-25WIW	Fall Off Test	8800	8875	90-08-21
02-28-10-25	Sonolog	7815	8100	90-05-07
10-29-10-25	Sonolog	8935	8565	90-05-07
07-30-10-25WIW	Fall Off Test	8500	*N/A	*N/A
12-30-10-25	Sonolog	9585	10290	90-05-07
15-23-10-26WIW	Fall Off Test	8100	7900	90-05-14
15-24-10-26WIW	Fall Off Test	8100	9120	90-07-30
05-25-10-26WIW	Fall Off Test	----	7160	90-08-20
15-25-10-26WIW	Fall Off Test	8300	*N/A	*N/A
09-26-10-26	Sonolog	-----	4170	90-05-07

\*N/A - unable to complete BHP survey at these locations due to  
unexpected water handling limitations at the 10-25-10-26 WPM  
Water Plant.

R 25 W 4 PM

R 26



Scale 1" = 1/2 mile

FIGURE 1

# VIRDE ROSELEA UNIT NO. 1

DATUM DEPTH PRESSURES

- 1990

- 1987

AS OF 1990-01

## LEGEND

- UNIT BOUNDARY
- INJECTION WELL
- SWD WELL
- SUSPENDED WELL
- ABANDONED WELL



Energy and Mines

Petroleum

555 — 330 Graham Avenue  
Winnipeg, Manitoba, CANADA  
R3C 4E3

(204) 945-6577

February 6, 1990

Chevron Canada Resources  
Box 100  
Virden, Manitoba  
ROM 2C0

Attention: Mr. John Cooke

Dear John:

Re: Annual Pressure Surveys  
Virden Roselea Unit No. 1  
Virden Roselea Unit No. 2  
Virden Roselea Unit No. 3  
Daly Unit No. 3  
Daly Unit No. 4

Your proposed 1990 pressure survey plans for the subject Units are hereby acknowledged and approved.

Yours sincerely,

A handwritten signature in dark ink, appearing to read "L. R. Dubreuil". The signature is written in a cursive style with some ink bleed-through from the reverse side of the page.

L. R. Dubreuil  
Director



## Chevron Canada Resources

P.O. Box 100, Virden, Manitoba R0M 2C0  
Phone (204) 748-1334 Fax (204) 748-6762

1990-02-01

Manitoba Department of Energy & Mines  
Petroleum Branch  
555-330 Graham Avenue  
Winnipeg, Manitoba  
R3C 4E3

Attention: Mr. John Fox

Dear Sir:

Re: 1990 Subsurface Pressure Survey  
Virden Roselea Unit #1  
Virden Roselea Unit #2  
Virden Roselea Unit #3

Chevron Canada Resources as operator of the above units submit the attached proposals for the 1990 Triannual Subsurface Pressure Surveys. Please find the following included:

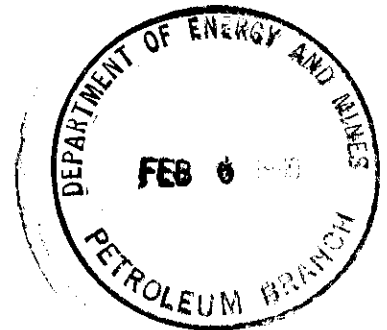
- 1) List of wells to be surveyed
- 2) Type of survey to be conducted
- 3) Present well status

The pressure survey method will remain the same as in the past; producing wells will be shut-in and sonologed and injection wells will be monitored by pressure recorder. Survey will conclude when the changes in fluid level/pressure are less than 5% per week.

If additional information is required, please contact John Cooke or Jerry Kohut at the letterhead address.

Sincerely yours,

for L. A. Martinson P.Eng.  
Area Superintendent  
Virden



Proposed 1990 Subsurface Pressure Survey Program:

<u>Well</u>	<u>Type Of Survey</u>	<u>Well Status</u>
<b>VRU #1:</b>		
11-20-10-25	Sonolog	Producing
13-21-10-25 WIW	Fall Off Test	Injection
02-28-10-25	Sonolog	Producing
10-29-10-25	Sonolog	Producing
07-30-10-25 WIW	Fall Off Test	Injection
12-30-10-25	Sonolog	Producing
15-23-10-26 WIW	Fall Off Test	Injection
15-24-10-26 WIW	Fall Off Test	Injection
05-25-10-26 WIW	Fall Off Test	Injection
15-25-10-26 WIW	Fall Off Test	Injection
09-26-10-26	Sonolog	Producing
<b>VRU #2:</b>		
11-36-10-26	Sonolog	Producing
15-36-10-26	Sonolog	Producing
12-05-11-25 WIW	Fall Off Test	Injection
10-05-11-25 WIW	Fall Off Test	Injection
03-06-11-26	Sonolog	Producing
04-08-11-25 WIW	Fall Off Test	Injection
10-01-11-26	Sonolog	Producing
12-06-11-25	Sonolog	Producing
04-07-11-25 WIW	Fall Off Test	Injection
<b>VRU #3:</b>		
10-07-10-25 WIW	Fall Off Test	Injection
04-18-10-25 WIW	Fall Off Test	Injection
06-01-10-26 WIW	Fall Off Test	Injection
14-02-10-26 WIW	Fall Off Test	Injection
06-10-10-26 WIW	Fall Off Test	Injection
11-11-10-26	Sonolog	Producing
05-12-10-26	Sonolog	Producing
12D-13-10-26	Sonolog	Producing
07-23-10-26	Sonolog	Producing
11-14-10-26	Sonolog	Producing