



Chevron Canada Resources

P.O. Box 100, Virden, Manitoba R0M 2C0

Phone (204) 748-1334 Fax (204) 748-6762

1990-09-28

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

ATTENTION: Mr. John Fox

Dear Sir:

RE: Daly Unit #4 Pressure Survey

Chevron Canada Resources, as operator of the subject unit, requests exemption from the requirement of conducting annual reservoir pressure surveys.

Comprehensive annual pressure surveys have been conducted in Daly Unit #4 since 1988 and were required due to the initiation of waterflooding. We request exemption from future annual surveys for the following reasons:

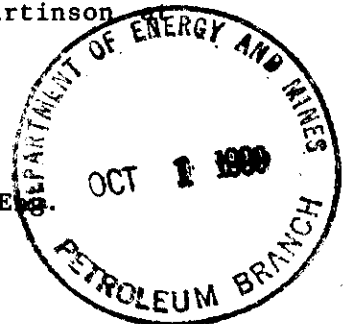
1. Expansion of the waterflood has been delayed indefinitely because of poor economics and dissappointing results from 15D-27 WIW.
2. 15 wells are shut in annually for a minimum of two weeks. Lost production (avg. 14.5m³ OPD) due to lengthly shut in periods results in reductions in revenues for both Chevron and the Crown.
3. Pressure survey results are of no value to waterflood management. The waterflood at 15D-27 WIW is presently monitored by production, injection and voidage in the pilot area.
4. The pressure surveys conducted during the last three years have been done on the same wells and have indicated relatively consistent results. Differences have been predictably noted around areas of pressure support such as 15D-27 and wells close to Daly Unit #3 waterflood.

Attached are results for the last three year's surveys. If any additional information is required please contact Tom Ruml or Lyle Martinson 748-1334 or at the letterhead address.

Yours truly,

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

LAM/tjs
Attachment



Three Year Subsurface Pressure Survey Results

well	1988	1987	1990
7-25-9-28	990	645	440
13-25-9-28	950	940	1170
10-26-9-28	3715	3965	4160
10-27-9-28	7830	8280	6910
15-27-9-28	-	340	780
15D-27-9-28	-	9490	13670
16-27-9-28	1395	1130	1550
1-34-9-28	1195	575	4750
2-34-9-28	-	600	710
1-35-9-28	-	5975	7440
10-35-9-28	-	-	14365
2-35-9-28	7020	6380	6580
5-35-9-28	1305	975	1100
7-35-9-28	-	8450	9310
8-35-9-28	1200	745	1350
13-35-9-28	495	440	650
12-36-9-28	3940	3900	3000
4-1-10-28	9180	9100	7910
3-2-10-28	1100	710	1580

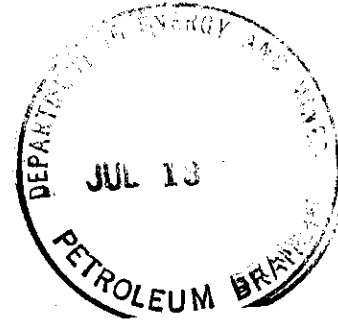


Chevron Canada Resources

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

1990-07-10

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



Attention: Mr. John Fox

Dear Sir:

Re: Daly Unit #4 - 1990 Subsurface Pressure Survey

FILE
← here


Chevron Canada Resources, as operator of Daly Unit #4,
information regarding the results of the 1990 Annual Sur

- 1) List of wells and the method of survey used.
- 2) Calculated reservoir pressures from the 1990 Survey as well as results from the previous year.
- 3) A map of Daly Unit #4 showing these pressures.

In general, reservoir pressures in Daly Unit #4 are low and erratic as there are no areas of consistent pressure. 15D-27 WIW appears to be providing some support to adjacent wells.

Should you have any questions regarding the enclosed information, please contact Mr. T. J. Ruml or Mr. K. Anderson at 748-1334 or at the letterhead address.

Yours truly,


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

TJR/clm
Enclosures

1990 Subsurface Pressure Survey

<u>Well</u>	<u>Method</u>	<u>Datum Depth Pressure(kPa)</u>	
		<u>1990</u>	<u>1989</u>
7-25-9-28	Sonolog	440	645
13-25-9-28	Sonolog	1 170	940
10-26-9-28	Sonolog	4 160	3 965
10-27-9-28	Sonolog	6 910	8 280
15-27-9-28	Sonolog	780	340
15D-27-9-28	Surface fall off	13 670	9 490
16-27-9-28	Sonolog	1 550	1 130
1-34-9-28	Sonolog	4 750	575
2-34-9-28	Sonolog	710	600
1-35-9-28	Sonolog	7 440	5 975
1C-35-9-28	Surface fall off	14 365	-
2-35-9-28	Sonolog	6 580	6 380
5-35-9-28	Sonolog	1 100	975
7-35-9-28	Sonolog	9 310	8 450
8-35-9-28	Sonolog	1 350	745
13-35-9-28	Sonolog	650	440
12-36-9-28	Sonolog	3 000	3 900
4-1-10-28	Sonolog	7 910	9 100
3-2-10-28	Sonolog	1 580	710

Datum Depth: -237.7m subsea

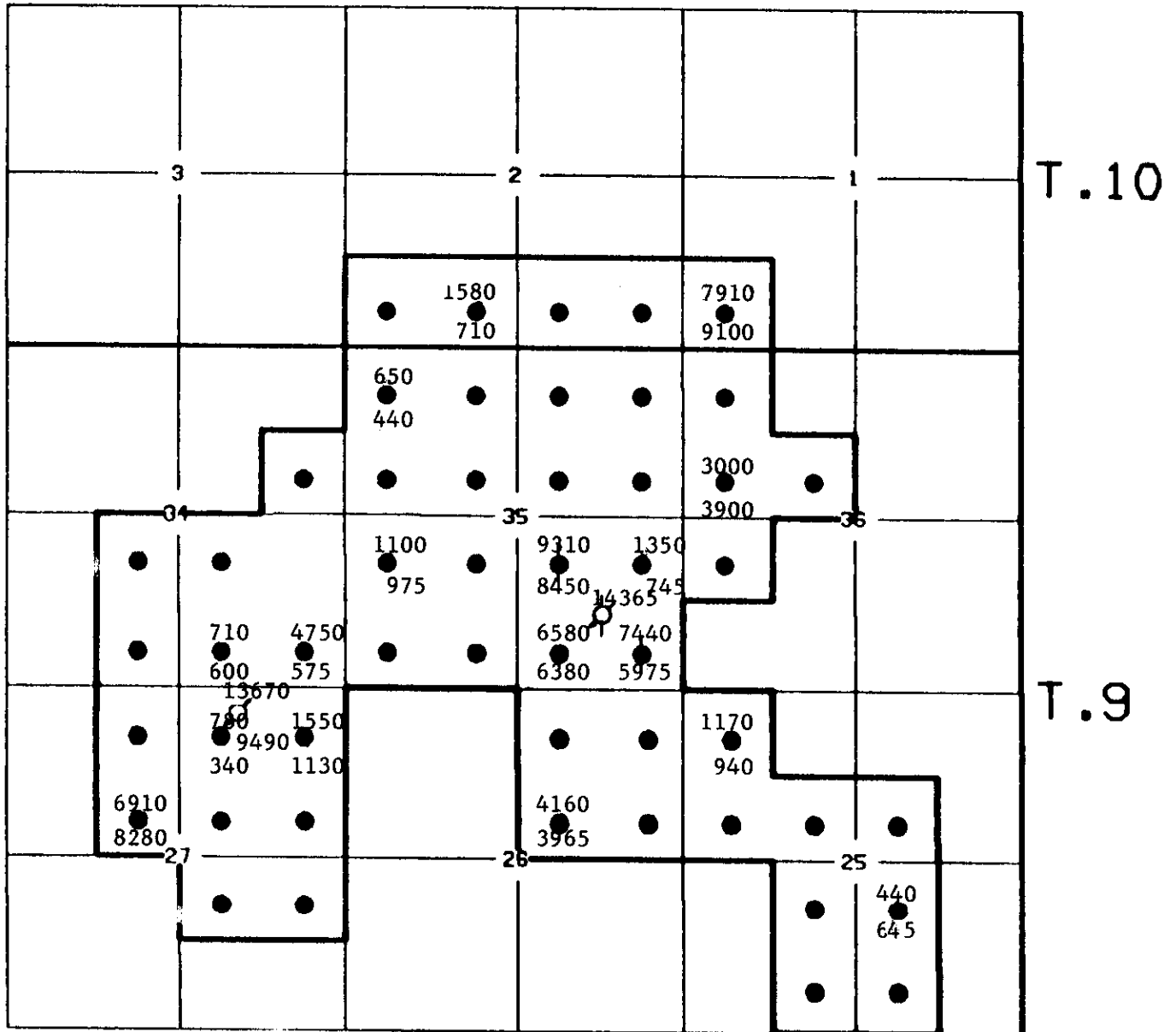
FIGURE 1

DALY UNIT NO. 4
AREA MAP

CHEVRON CANADA
RESOURCES
DALY UNIT #4 - 1990
SUBSURFACE PRESSURE
SURVEY RESULTS

1990-7-10

R.28WPM



R.28WPM

1990 Pressure(kPa)

1989 Pressure(kPa)

UNIT OUTLINE

● OIL WELL

○ INJECTION WELL

⊗ DISPOSAL 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

1990-01-31

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

ATTENTION: Mr. John Fox

Dear Sir:

RE: Daly Unit #4 - 1990 Subsurface Pressure Survey

Chevron Canada Resources, as operator of Daly Unit #4, submits the following information regarding the 1990 Subsurface Pressure Survey:

1. List of wells to be surveyed.
2. Measurement technique.
3. Well status.

The method of pressure measurement will remain the same as 1989; producing wells will be shut-in and fluid levels taken until pressure build-up is less than 5% per week. The sonolog method will also be used for the 2 currently suspended wells.

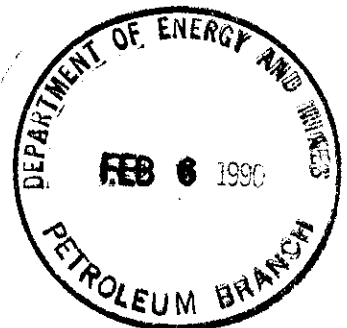
The same wells surveyed in 1989 will be re-surveyed with the addition of 1C-35 WIW.

This year's survey is scheduled for May and June. If additional information is required, please contact Tom Ruml or John Cooke at 748-1334 or at the letterhead address.

Yours truly,

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

TR/tjs
Encls.



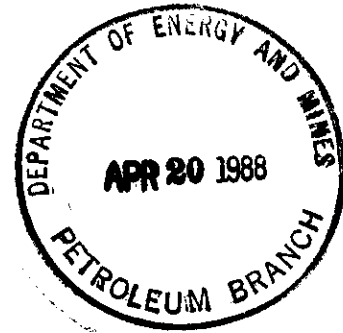
Daly Unit #4

1990 Subsurface Pressure Survey

<u>Well</u>	<u>Method</u>	<u>Status</u>
7-25-9-28	Sonolog	Producer
13-25-9-28	Sonolog	Producer
10-26-9-28	Sonolog	Producer
10-27-9-28	Sonolog	Producer
15-27-9-28	Sonolog	Producer
15D-27-9-28	Surface fall off	Injector
16-27-9-28	Sonolog	Producer
1-34-9-28	Sonolog	Producer
2-34-9-28	Sonolog	Producer
1-35-9-28	Sonolog	Suspended
1C-35-9-28	Surface fall off	Injector
2-35-9-28	Sonolog	Producer
5-35-9-28	Sonolog	Producer
7-35-9-28	Sonolog	Suspended
8-35-9-28	Sonolog	Producer
13-35-9-28	Sonolog	Producer
12-36-9-28	Sonolog	Producer
4-1-10-28	Sonolog	Producer
3-2-10-28	Sonolog	Producer



Chevron Canada Resources Limited



Box 100
Virden, MB.
R0M 2C0

1988-04-18

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

Attention: Mr. L.R. Dubreuil

Dear Sir:

Re: Daly Unit #4 - Subsurface Pressure Survey

As Daly Unit #4 has finally become unitized a subsurface pressure survey will be performed as soon as possible. This will establish a pressure data base prior to implementing any water injection. The amended list of proposed wells, submitted 1986-09-19 will be the list of wells used for the pressure survey. Enclosed is the information in Chevron's original proposal dated 1986-06-09 with the amendments requested 1986-09-19. We trust this proposal will be satisfactory.

Should you have any questions or concerns please contact C.B. Haverluck or J. Cooke at 748-1334 or the letterhead address.

Yours truly,

CB Haverluck

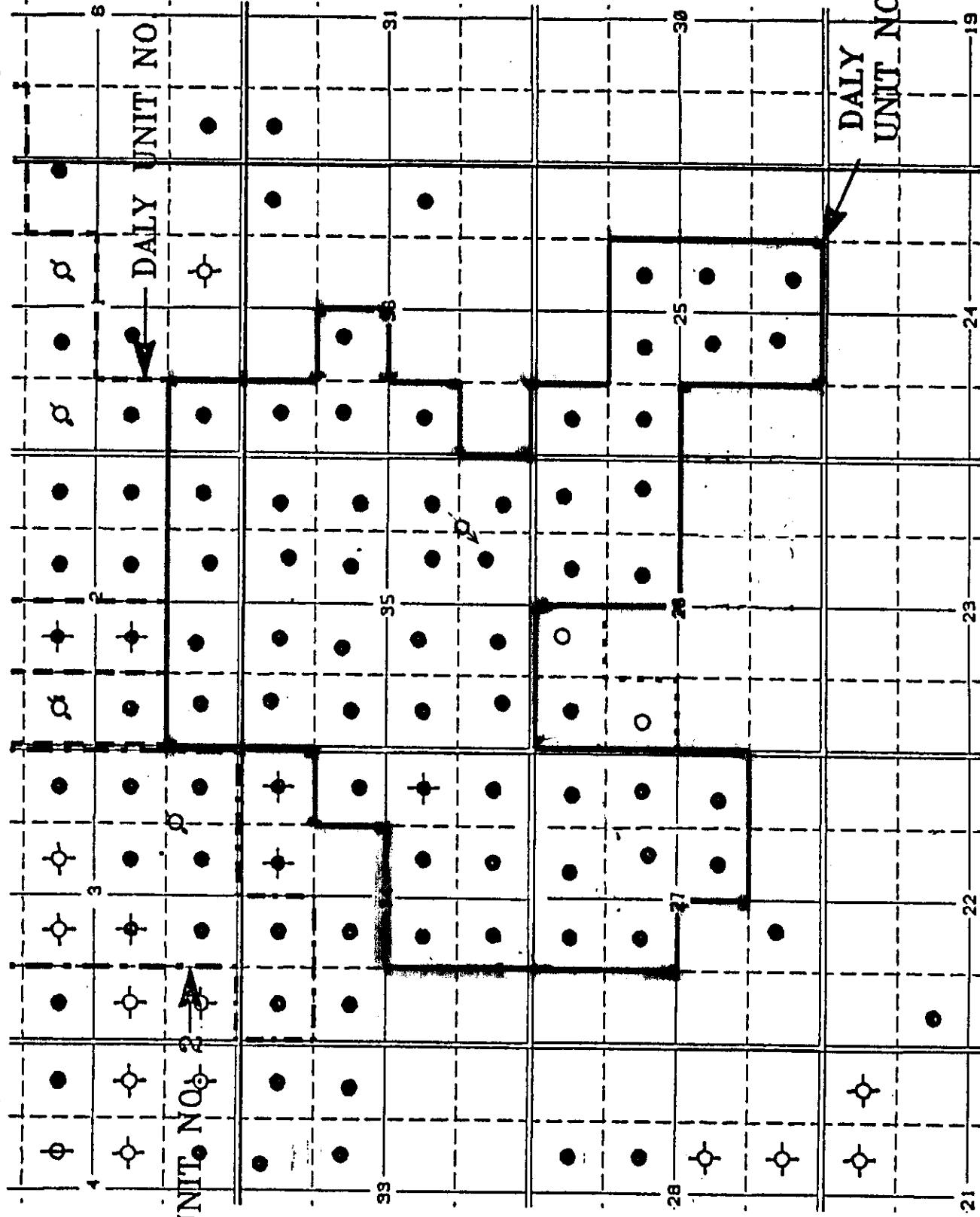
for L.A. Martinson P. Eng.
Area Superintendent
Virden

Daly Unit #4 Pressure Survey

<u>Well</u>	<u>Type of Survey</u>	<u>Well Status</u>
7-25-9-28 WPM	Sonolog	Producing
13-25-9-28	Sonolog	Producing
10-26-9-28	Sonolog	Producing
10-27-9-28	Pressure Bomb/Sonolog	Producing
16-27-9-28	Sonolog	Producing
1-34-9-28	Pressure Bomb/Sonolog	Producing
2-35-9-28	Sonolog	Producing
5-35-9-28	Sonolog	Producing
8-35-9-28	Pressure Bomb/Sonolog	Producing
13-35-9-28	Sonolog	Producing
12-36-9-28	Sonolog	Producing
4-1-10-28	Sonolog	Producing
3-2-10-28	Sonolog	Producing

R.28WPM

R.27WPM



WELL LEGEND

- OIL
- DRILLING
- ⊗ PROPOSED WATER INJECTOR
- ⊙ SUSPENDED OIL
- ⬢ ABANDONED OIL

DALY UNIT NO. 4

T.10

DALY UNIT NO. 2

T.10

DALY UNIT NO. 3

T.9

T.9

DALY UNIT NO. 4