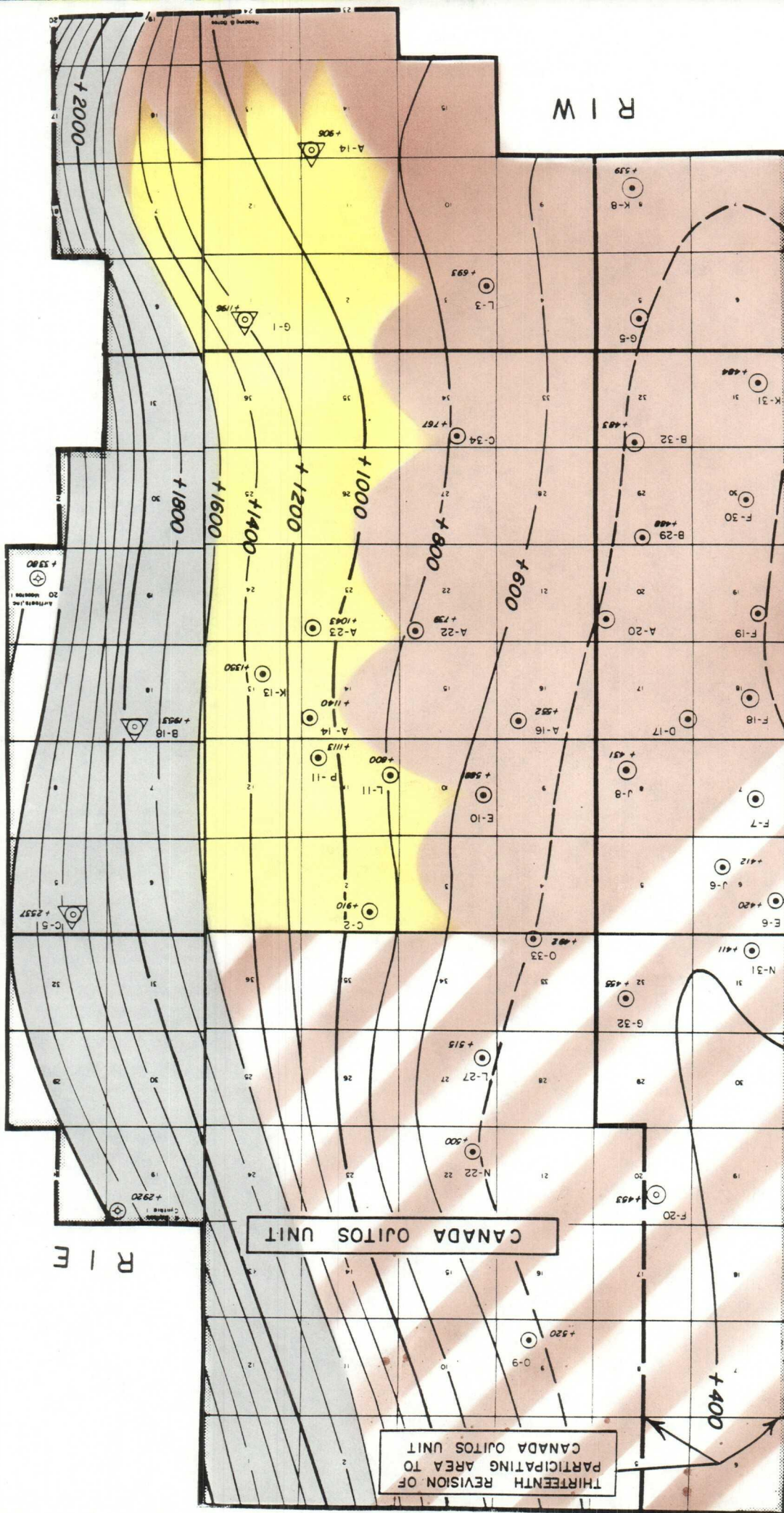


N 24 T

N 25 T

N 26 T

R 1 W



CANADA QUITOS UNIT

THIRTEENTH REVISION OF  
PARTICIPATING AREA TO  
CANADA QUITOS UNIT

CANADA OJITOS UNIT  
C ZONE FLUID SATURATION  
AND  
POTENTIAL FOR FUTURE OIL RECOVERY

The plat on the facing page shows the interpreted reservoir fluid saturations as of 1988.

- |                            |  |
|----------------------------|--|
| <u>Gray area:</u>          | The initial gas cap area of tight formation.   |
| <u>Yellow area:</u>        | The area in which oil has been substantially displaced by gas.                         |
| <u>Solid brown area:</u>   | The area believed to be primarily oil saturated.                                       |
| <u>Striped brown area:</u> | The area which is underlain by exceptionally tight or non-productive C zone formation. |

Part of the solid brown area carries C zone oil with high transmissibility and part of it has low transmissibility.

It is believed that a substantial volume of oil remains to be recovered in the solid brown shaded area. To keep production rates within the gravity drainage potential, oil production from the brown shaded area should not exceed 2,500 BOPD; and this should be withdrawn from wells in the west two rows of sections.

Undoubtedly additional productive wells could be drilled in that part of the solid brown area which lies between the downdip recovery wells and the gas cap. Such wells, however - if they were produced - would serve only to reduce the potential ultimate recovery from the reservoir by exceeding the gravity drainage rate.

The high rate of reservoir withdrawal in Gavilan is causing gas breakthrough in the A and B zones. The C zone pressures are also affected; but the communication of the C zone with Gavilan's A and B zones is indirect - through vertical fractures - providing some degree of protection for the C zone.

Future reservoir management will require monitoring this gas production and striking a balance between pressure maintenance and migration in determining the amount of gas to be returned to the reservoir. Central to this issue is the matter of pressure maintenance credit for gas returned to the reservoir.