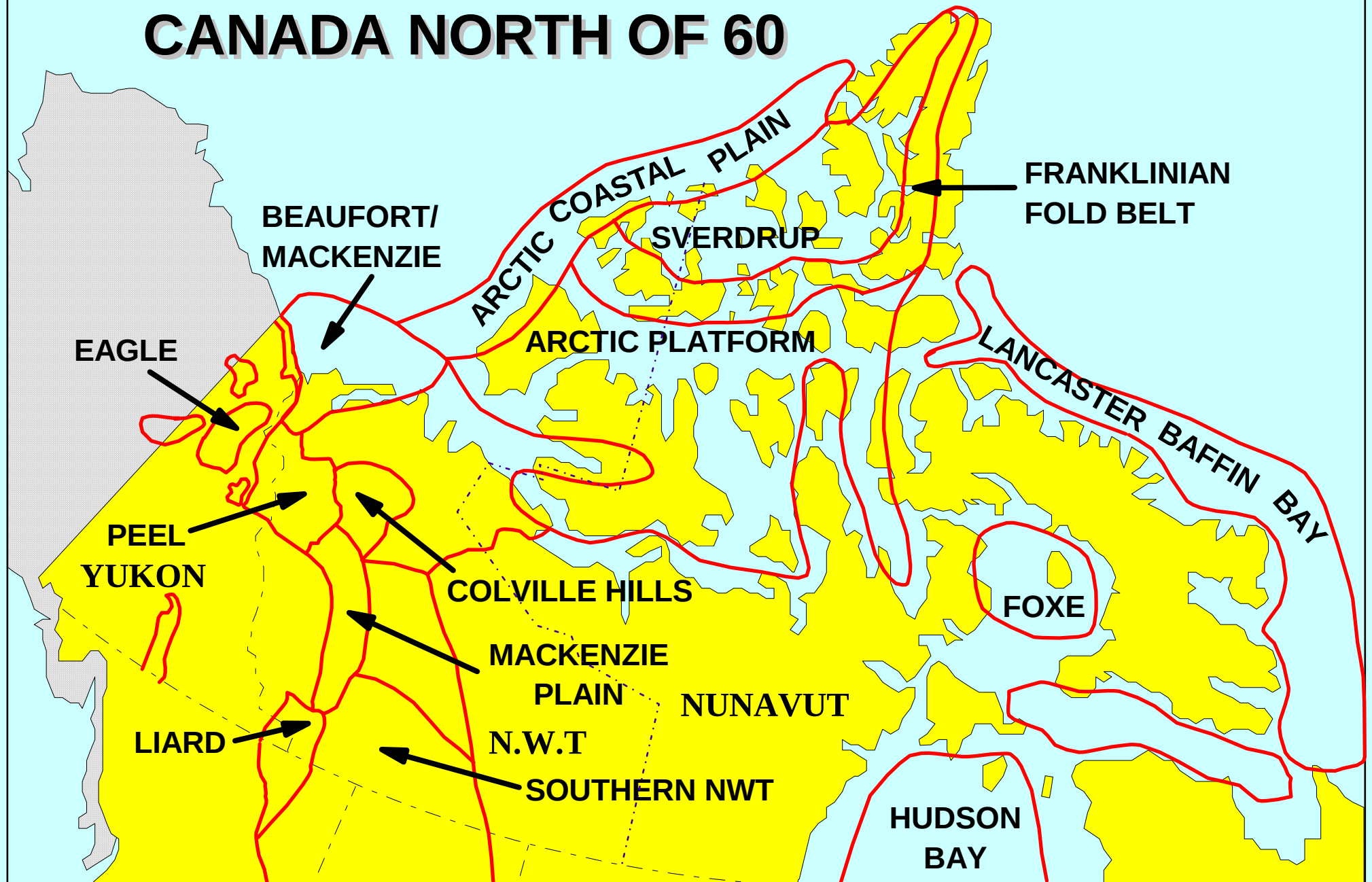


**YELLOWKNIFE
GEOSCIENCE FORUM
NOVEMBER 17, 2010**

**Canada's Discovered
Oil and Gas Resources
North of 60**

Kenneth J. Drummond

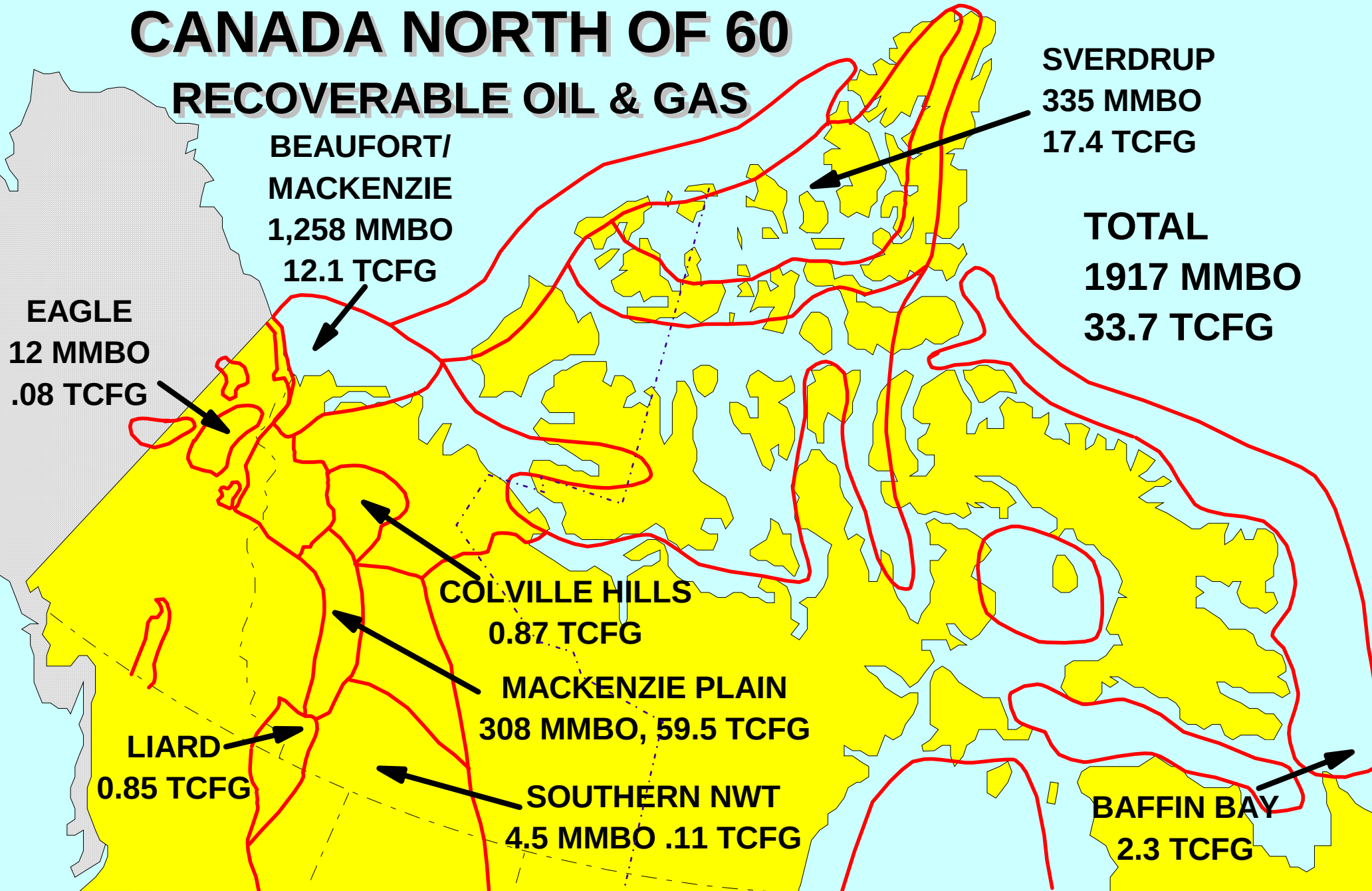
SEDIMENTARY BASINS CANADA NORTH OF 60



DISCOVERED RESOURCES

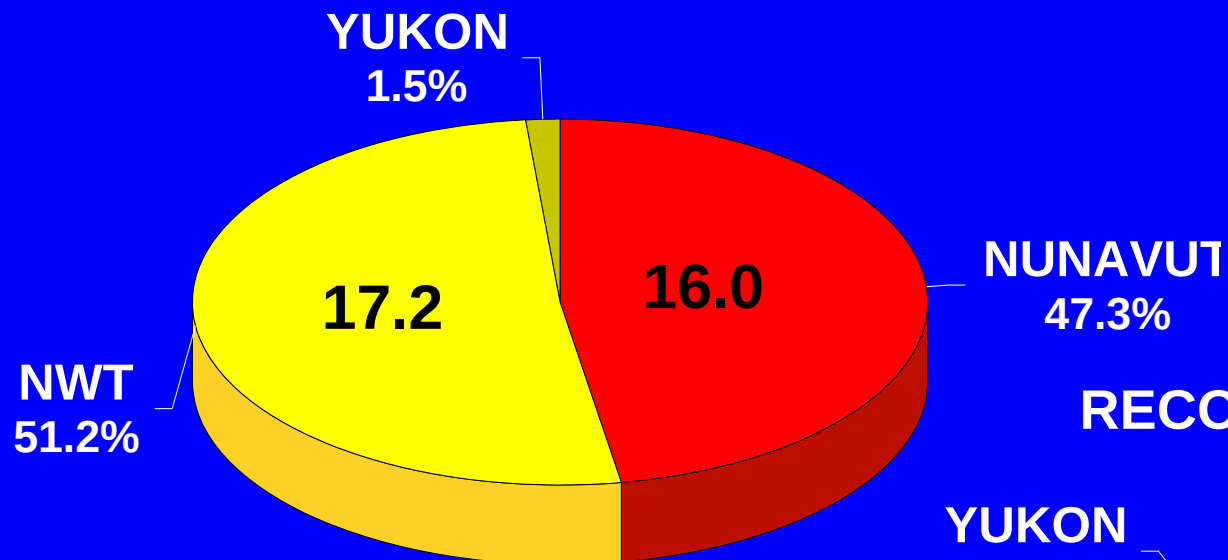
CANADA NORTH OF 60

RECOVERABLE OIL & GAS

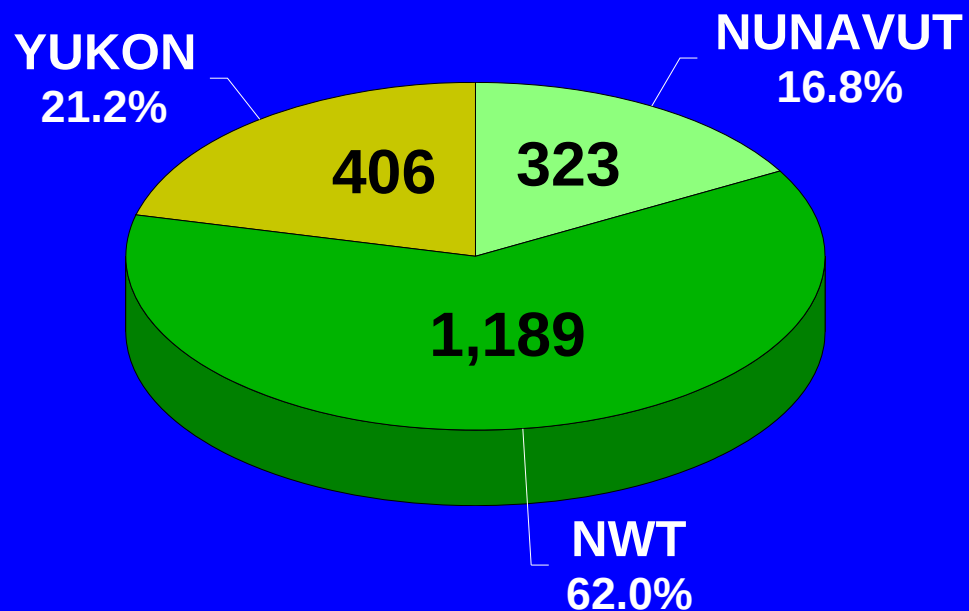


NORTHERN CANADA DISCOVERED OIL AND GAS BY TERRITORY

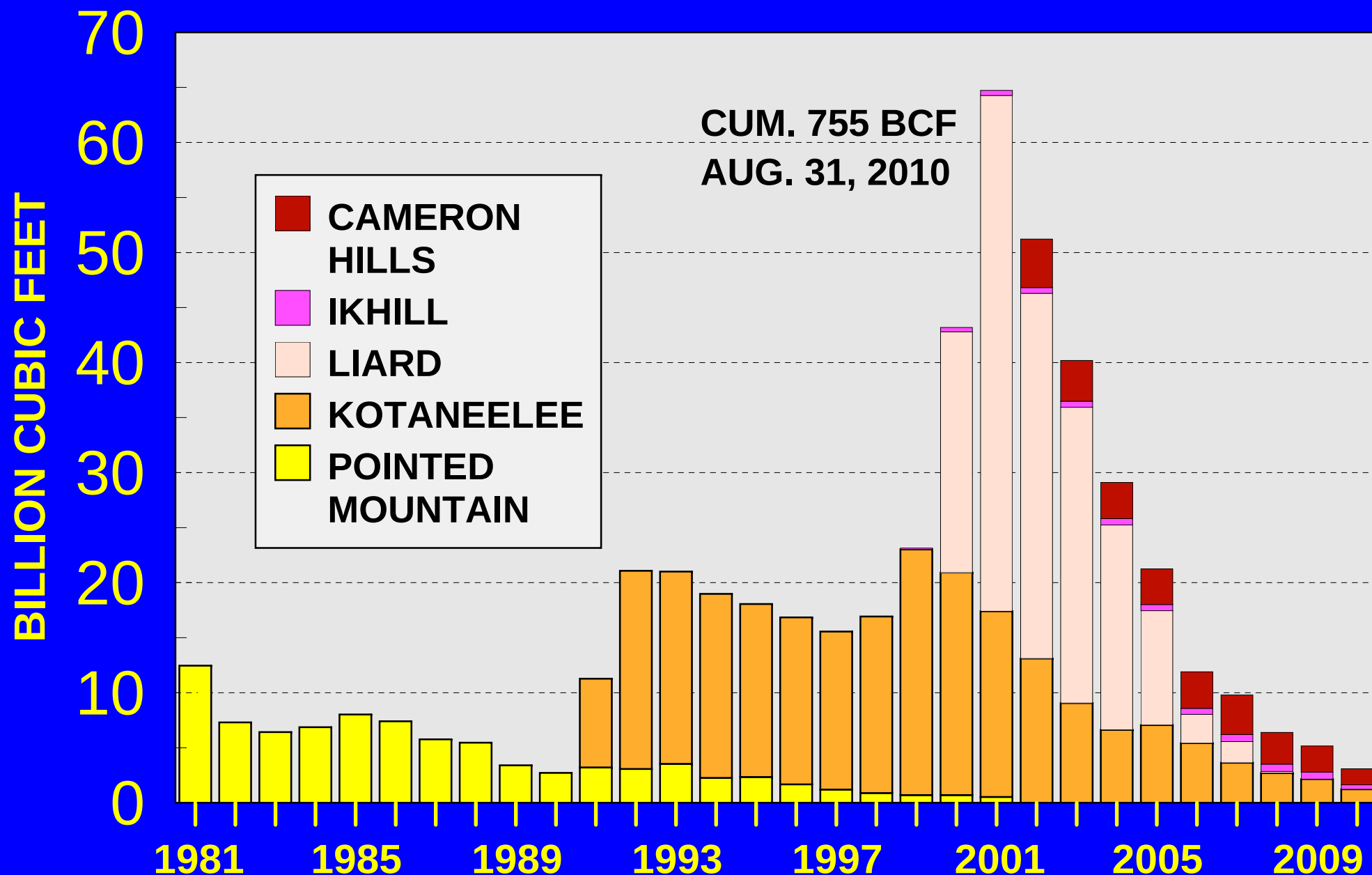
RECOVERABLE GAS (TCF)



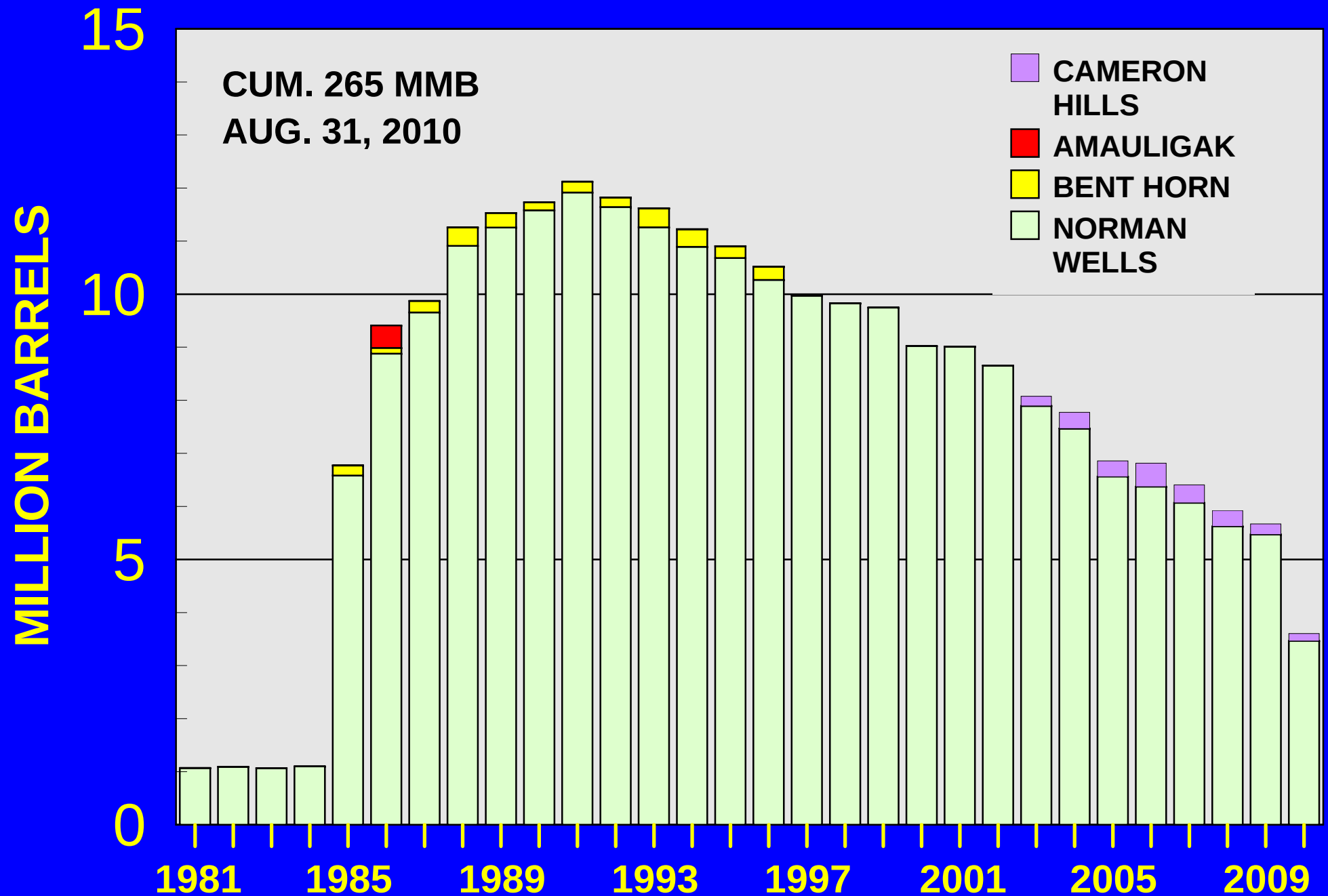
RECOVERABLE OIL (MMB)



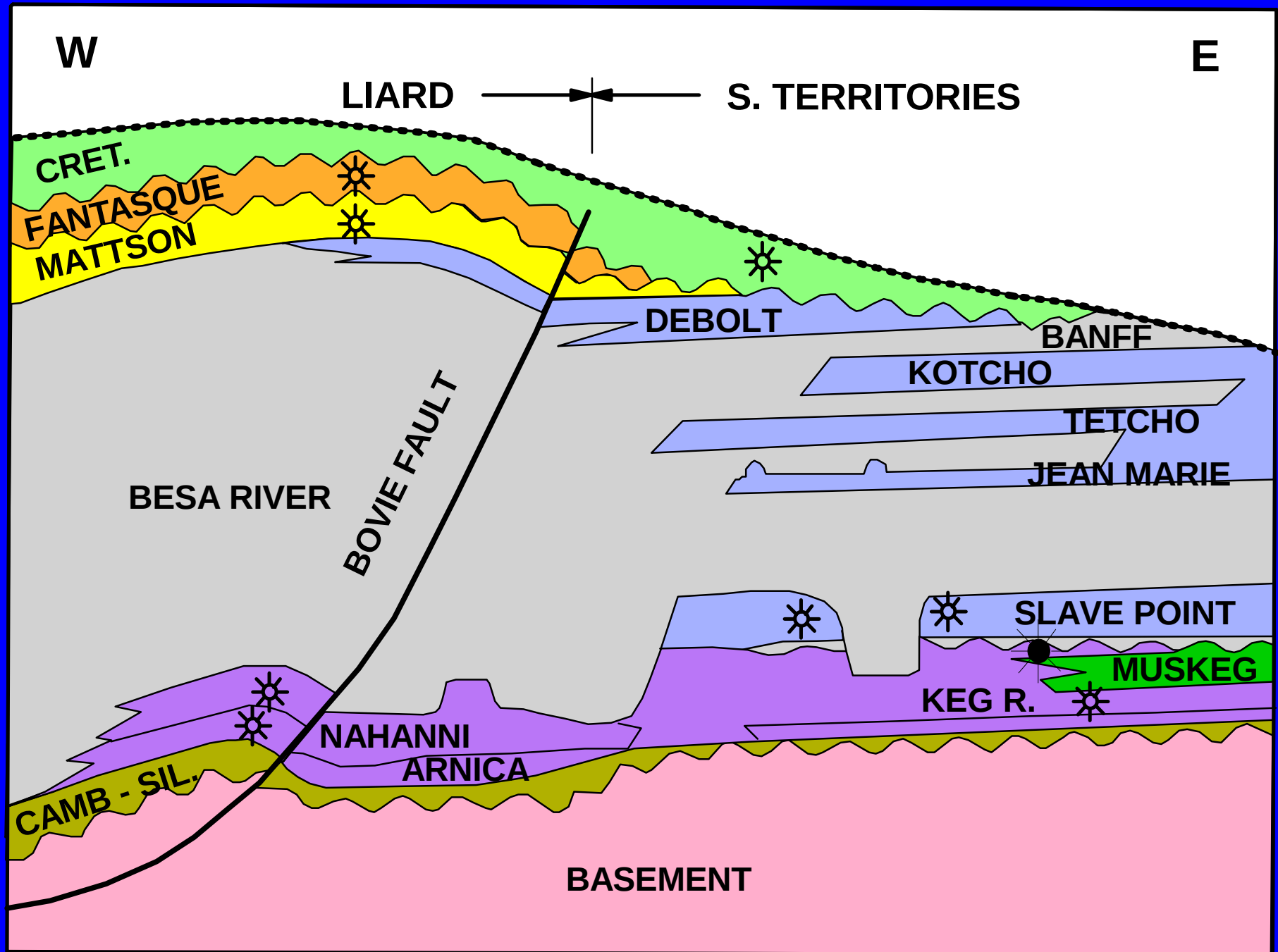
CANADA NORTH OF 60 ANNUAL GAS PRODUCTION



CANADA NORTH OF 60 ANNUAL OIL PRODUCTION



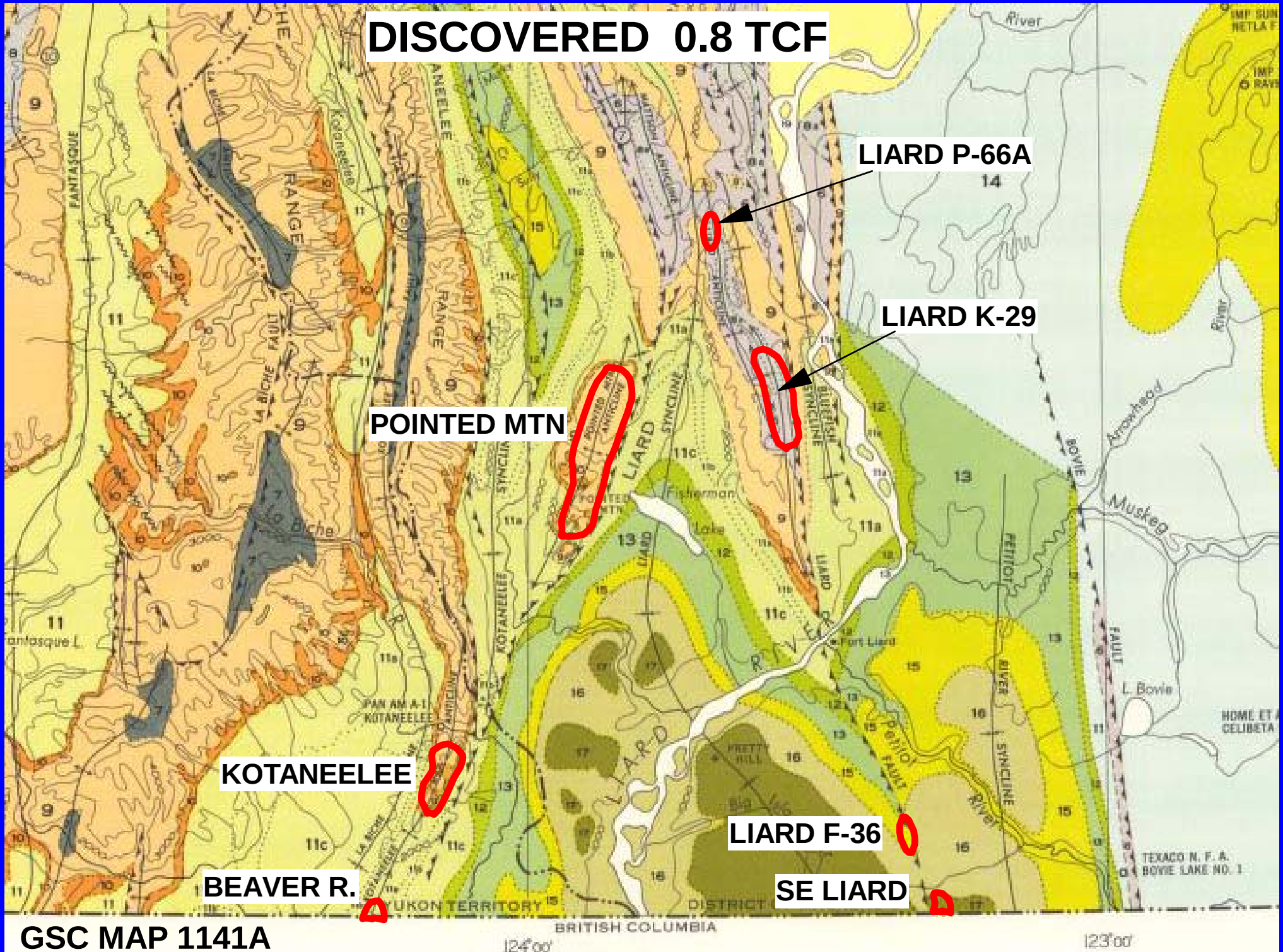
LIARD - S. TERRITORIES SCHEMATIC SECTION



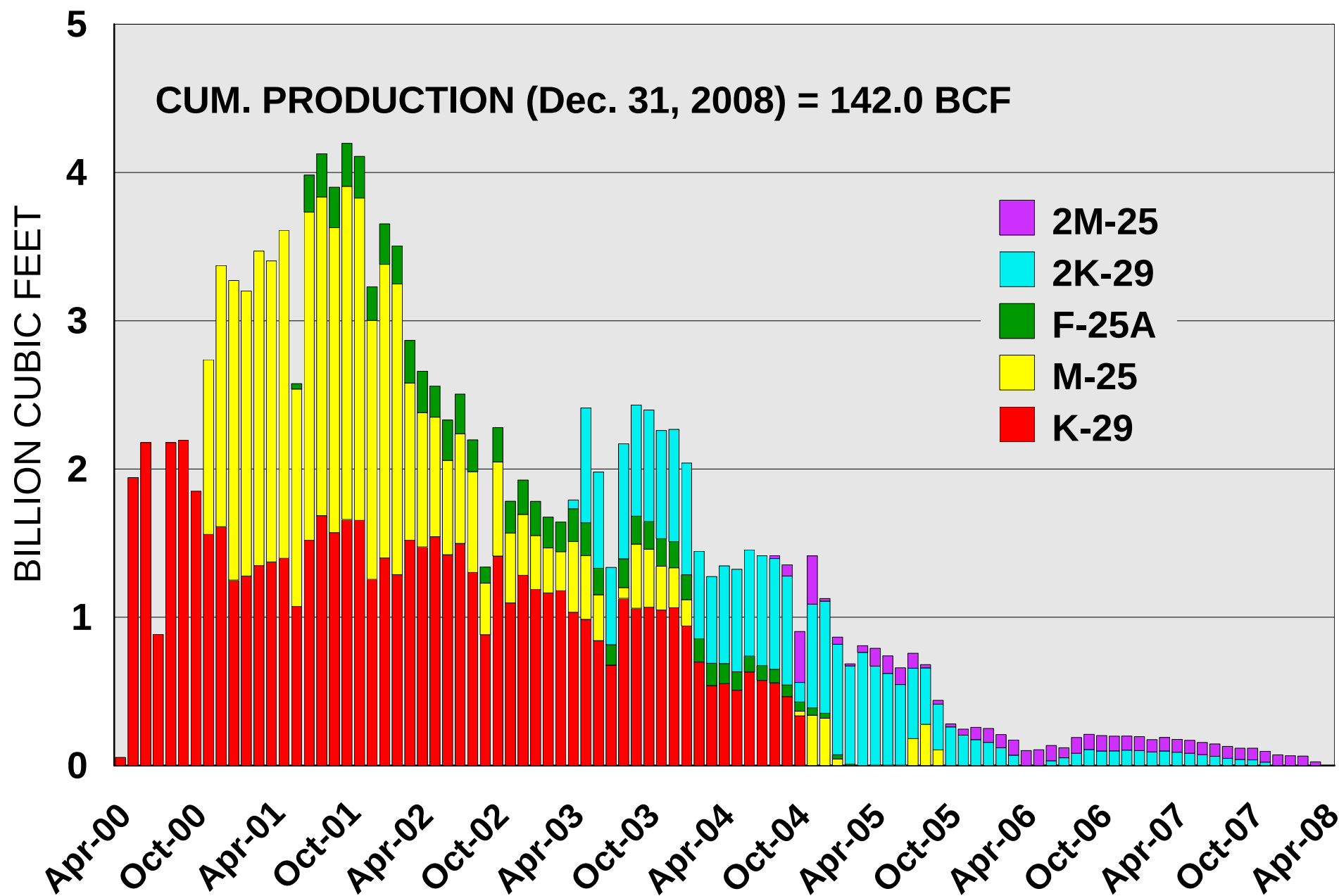
Modified from NOGD, 1995

GAS FIELDS OF THE LIARD FOLD BELT

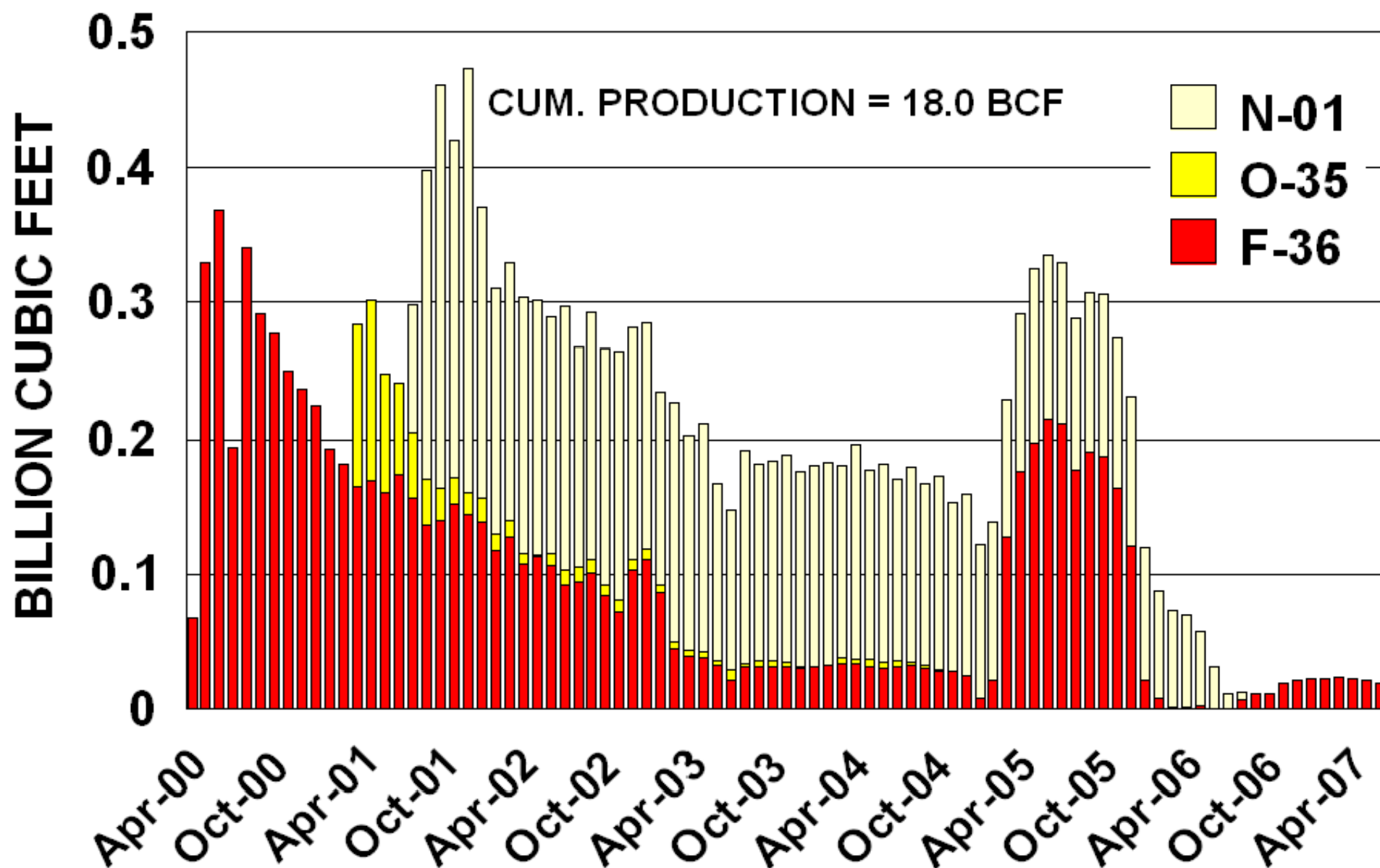
DISCOVERED 0.8 TCF



PARAMOUNT LIARD GAS FIELD PRODUCTION



PARAMOUNT FT LIARD & FT LIARD S.E. GAS FIELD PRODUCTION

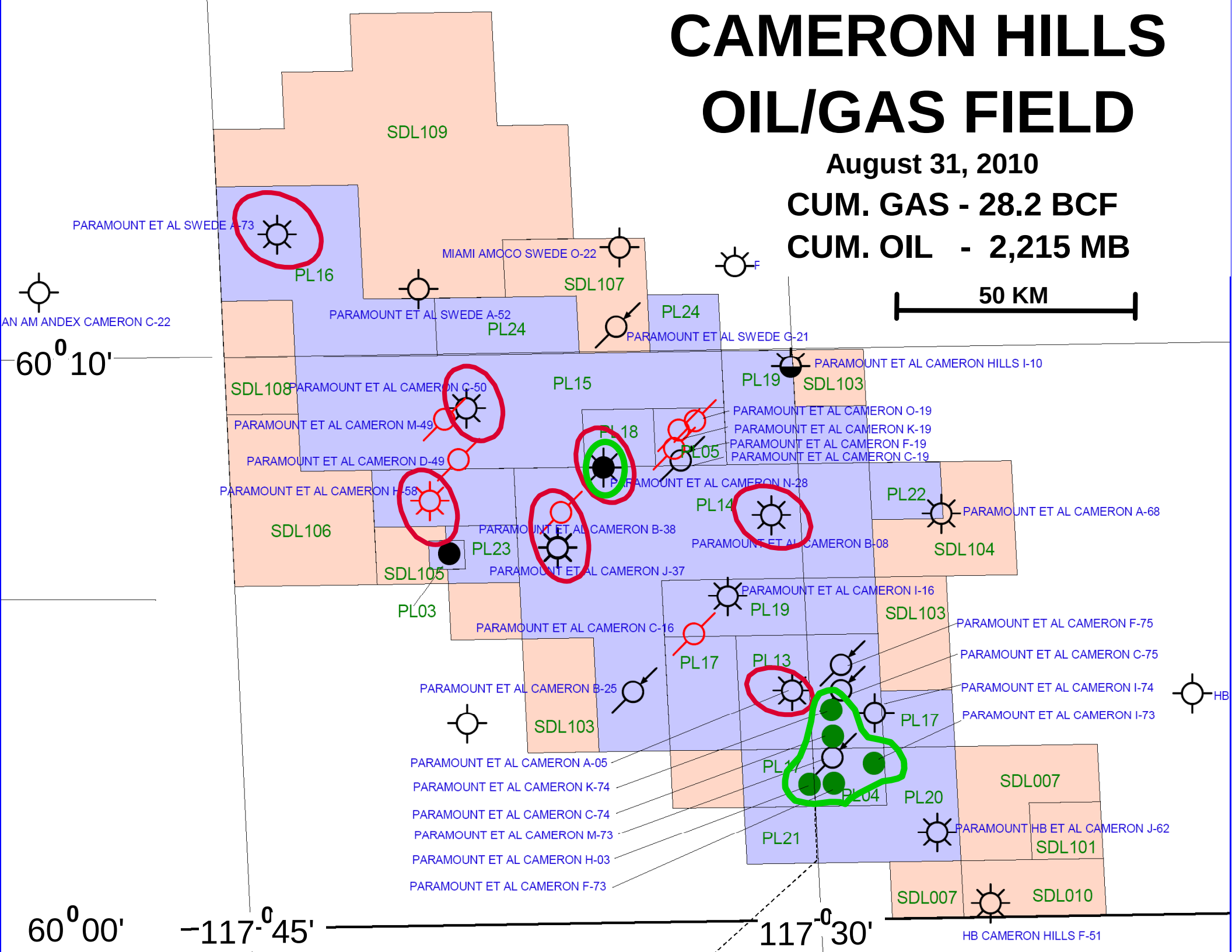


CAMERON HILLS OIL/GAS FIELD

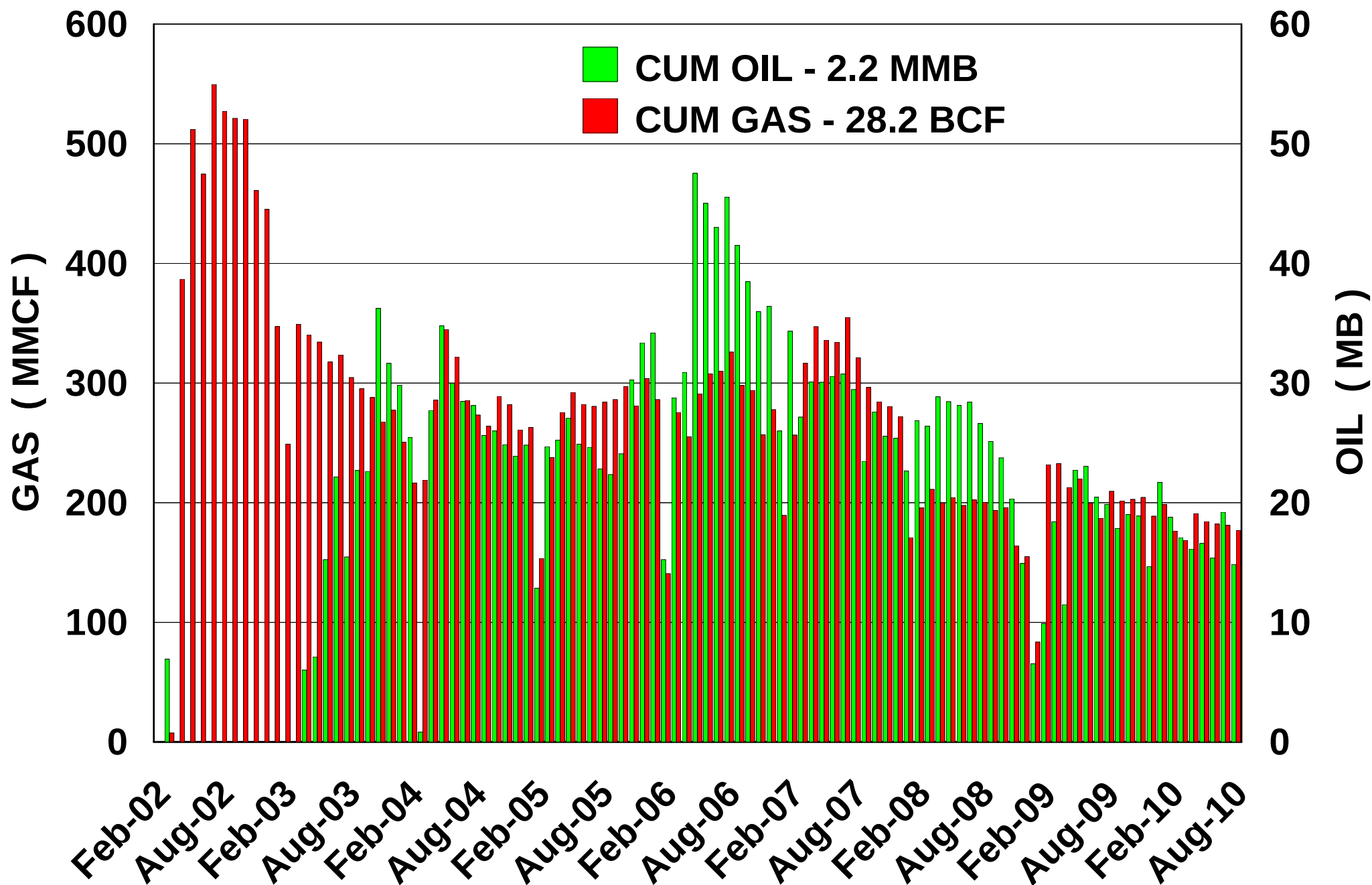
August 31, 2010

CUM. GAS - 28.2 BCF

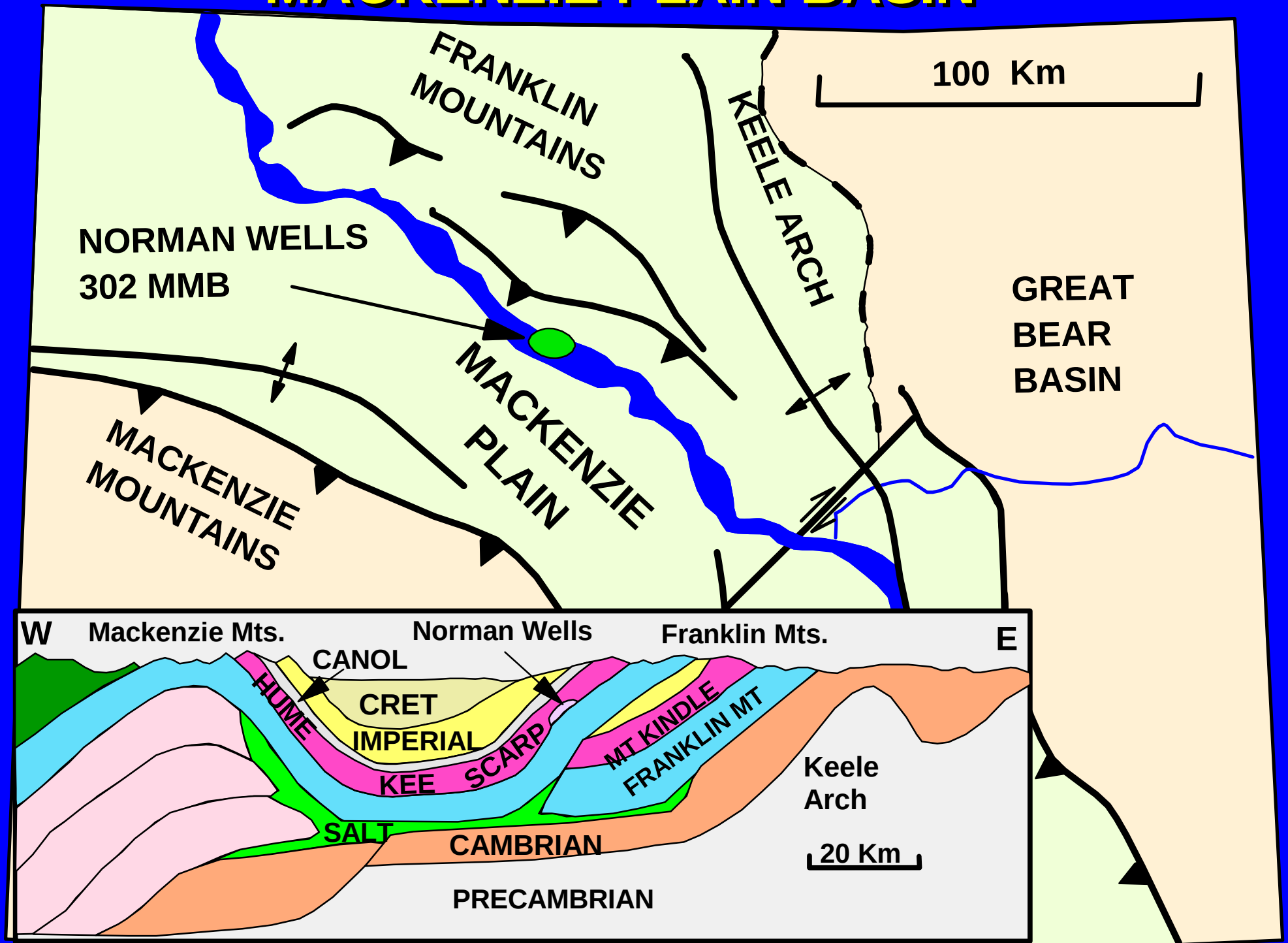
CUM. OIL - 2,215 MB



CAMERON HILLS - OIL & GAS PRODUCTION



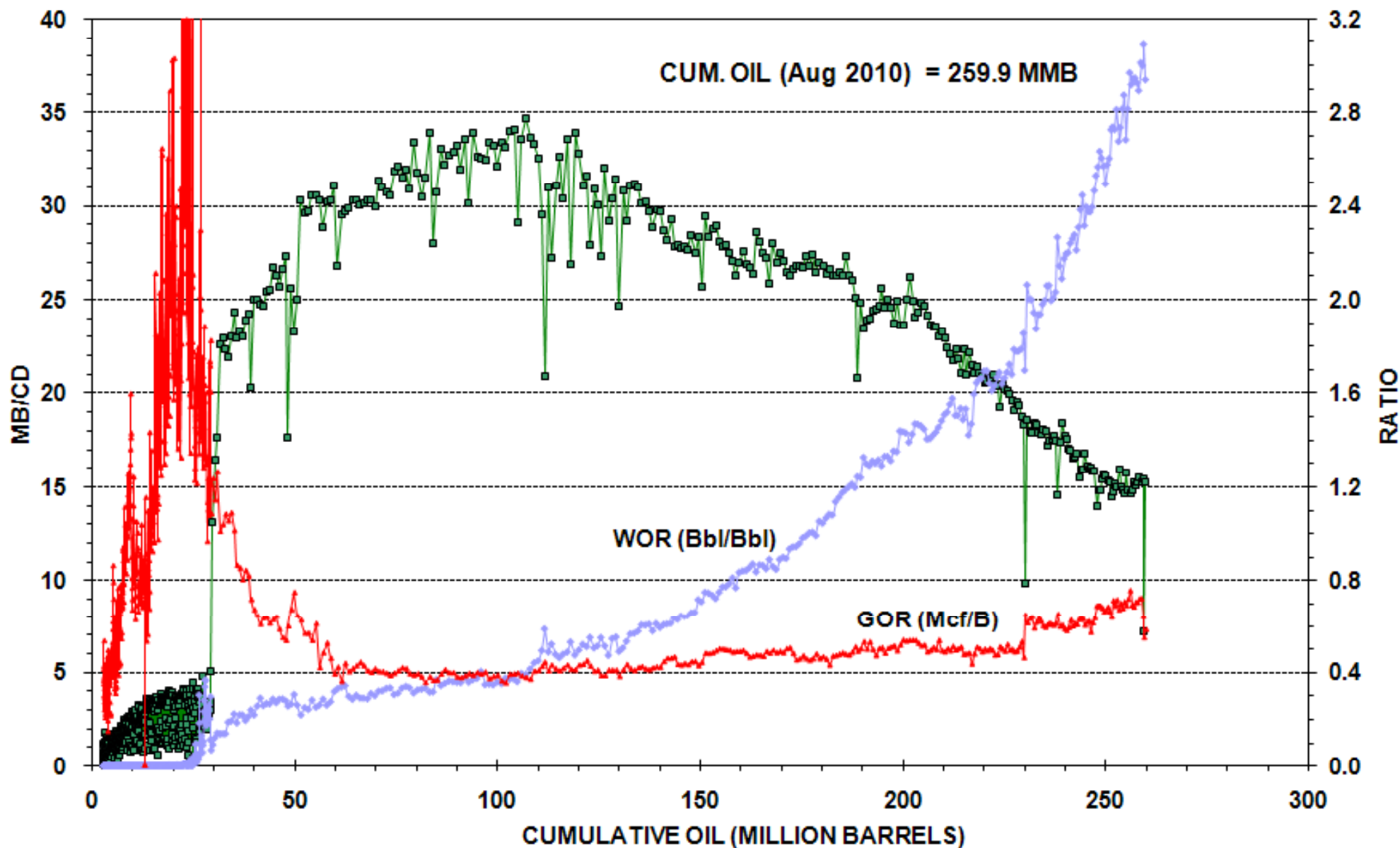
MACKENZIE PLAIN BASIN



Modified from NOGD, 1995

NORMAN WELLS OIL PRODUCTION

NORMAN WELLS OIL PRODUCTION
FIELD CUM - RATE PLOT



2 Zones
20 mmcf/d gas
6,000 b/d cond

2 DST's
5 mmcf/d gas

GSC Map 1498A
Memoir 398

20 mmcf/d gas

6,000 b/d cond

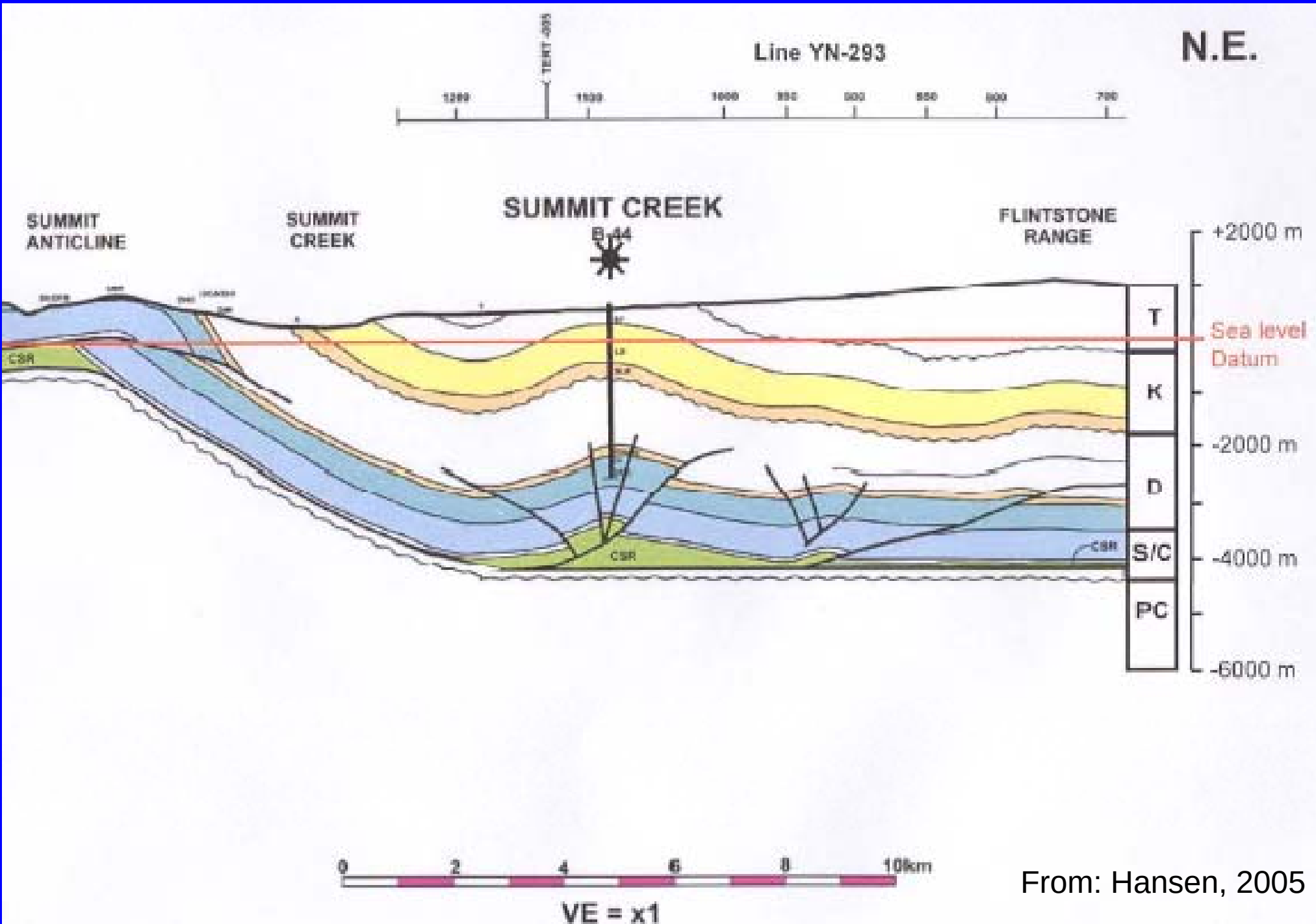
2 DST's

5 mmcf/d gas

GSC Map 1498A

Memoir 398

SUMMIT CREEK B-44 DISCOVERY



From: Hansen, 2005

SUMMIT CREEK B-44 and STEWART D-57 CONTINGENT RESOURCES (McDaniel, July 2008)

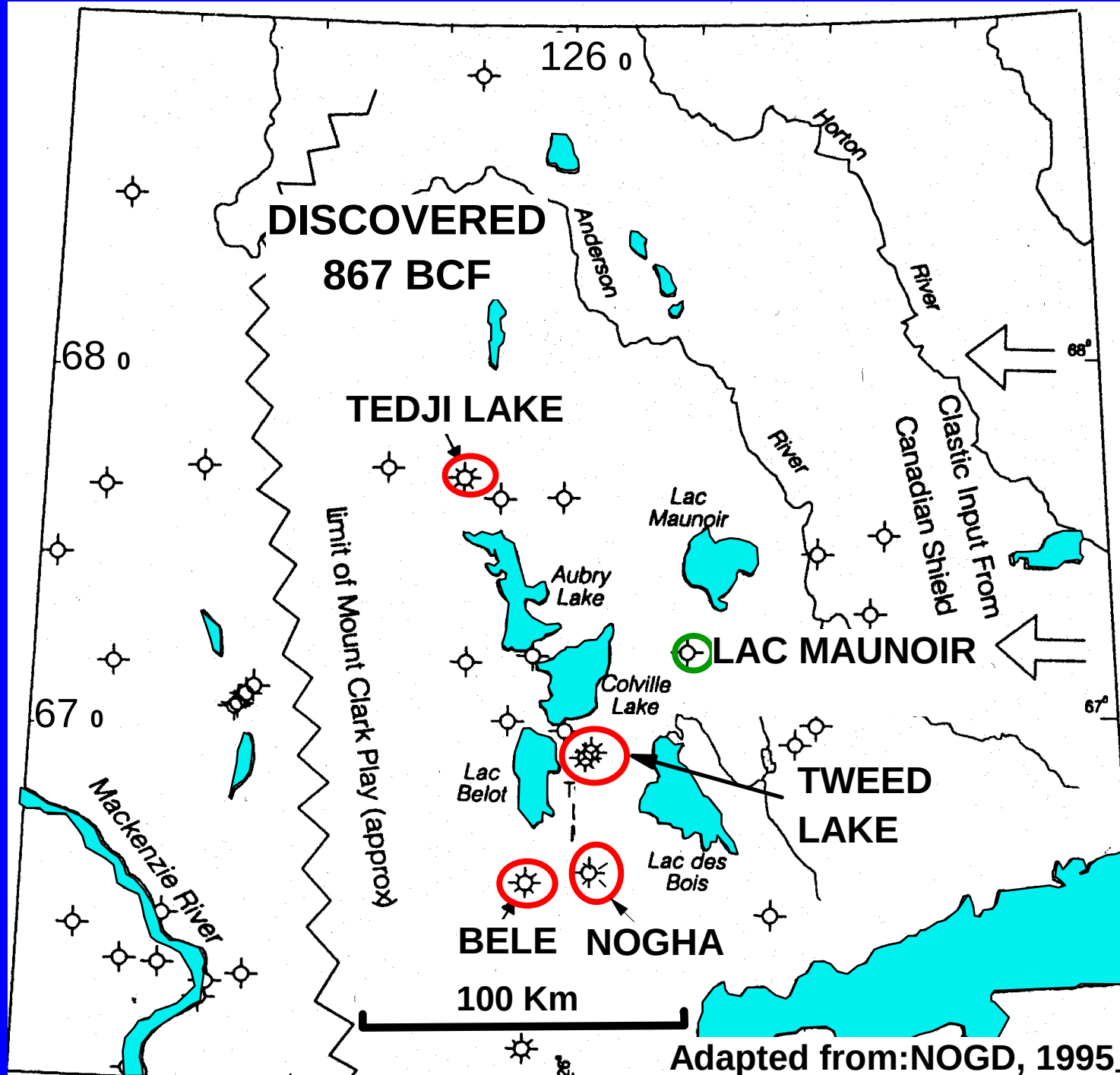
SUMMIT CREEK B-44

	LOW	BEST ESTIMATE	HIGH
GAS (BCF)	9.0	38.7	267.5
COND (MB)	1,416	6,077	27,033

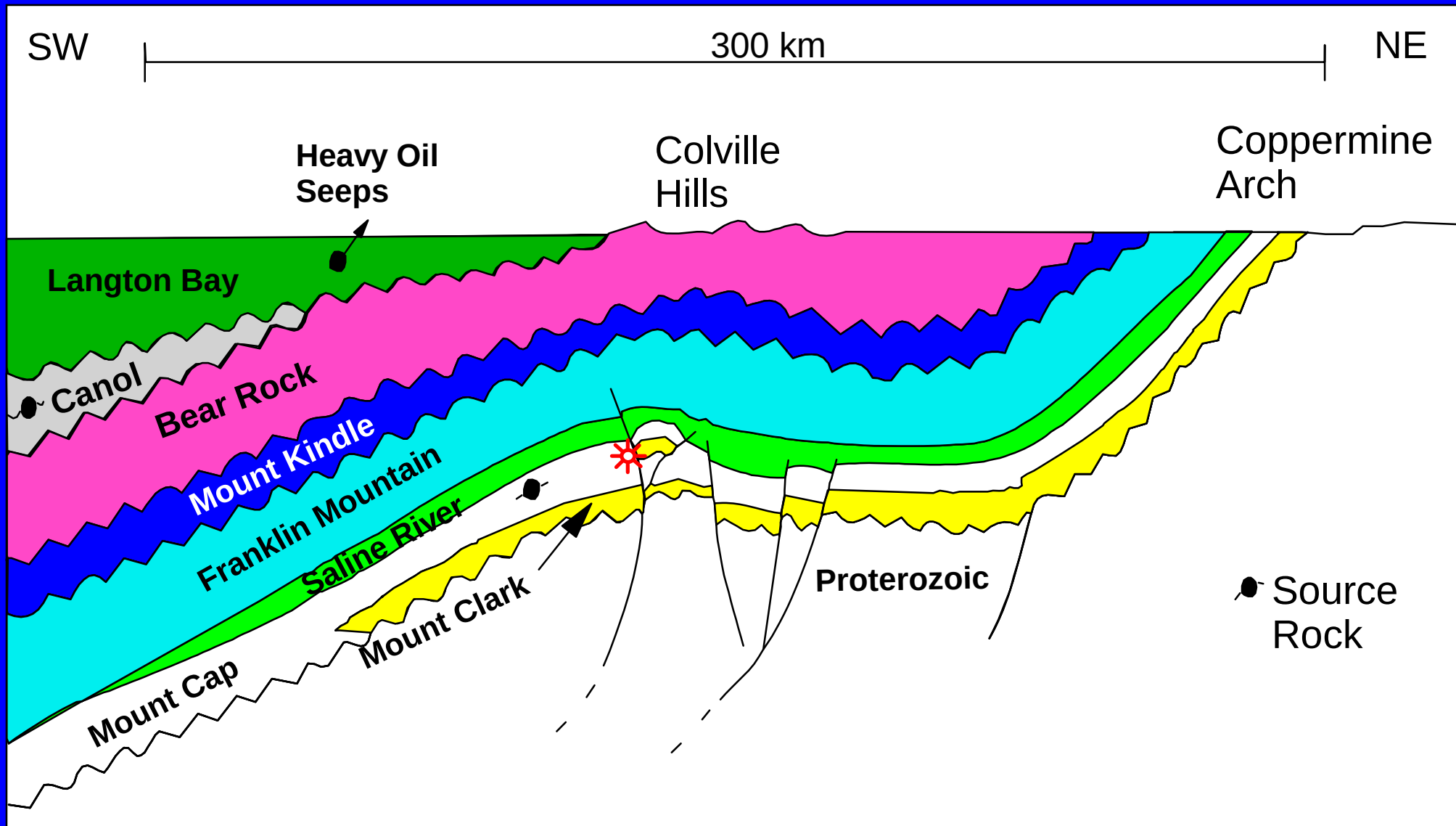
STEWART D-57

	LOW	BEST ESTIMATE	HIGH
GAS (BCF)	6.2	20.8	63.2

COLVILLE HILLS, NWT SHOWING LOCATION OF CAMBRIAN SANDSTONE GAS DISCOVERIES

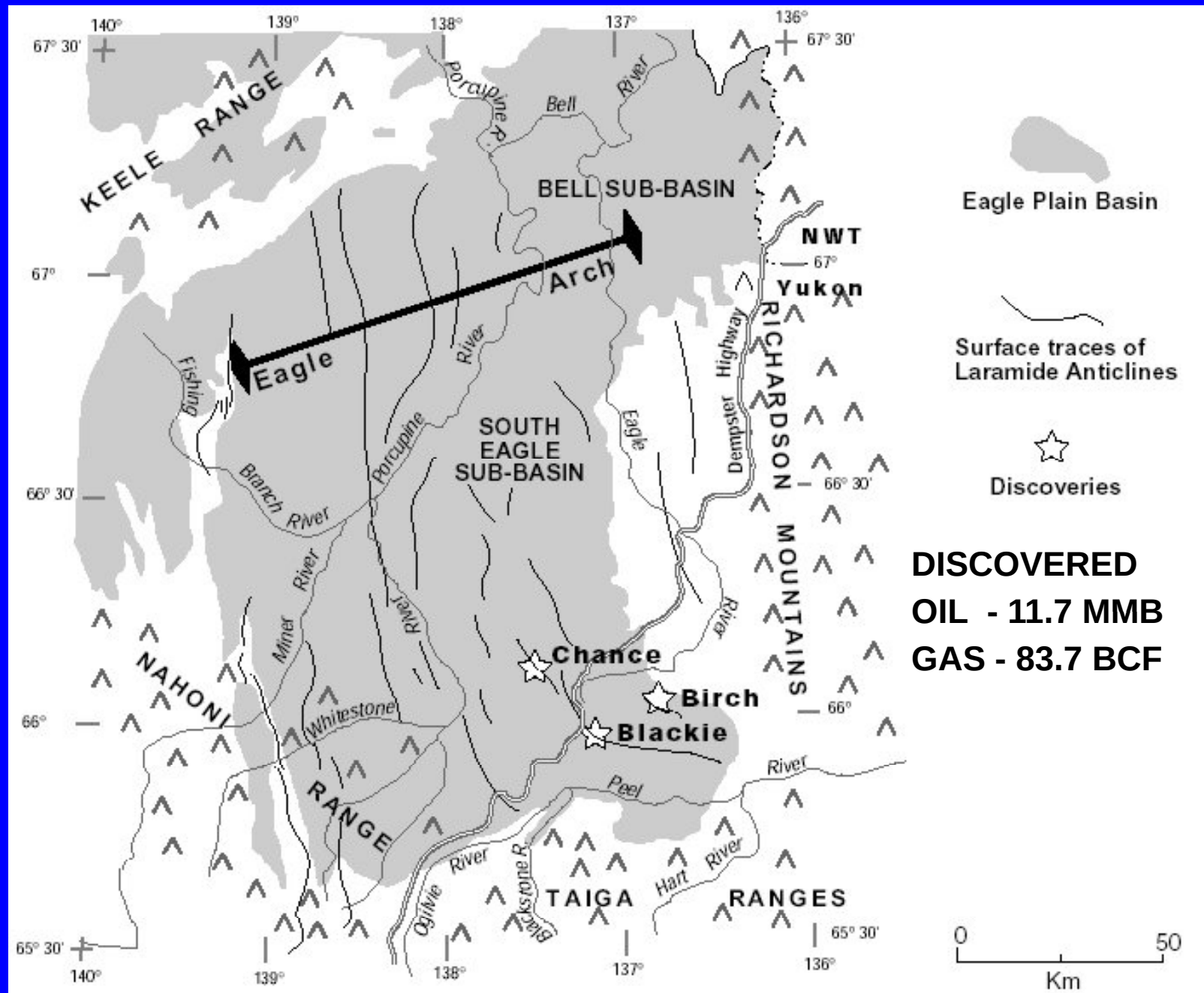


SCHEMATIC SECTION, COLVILLE HILLS AREA



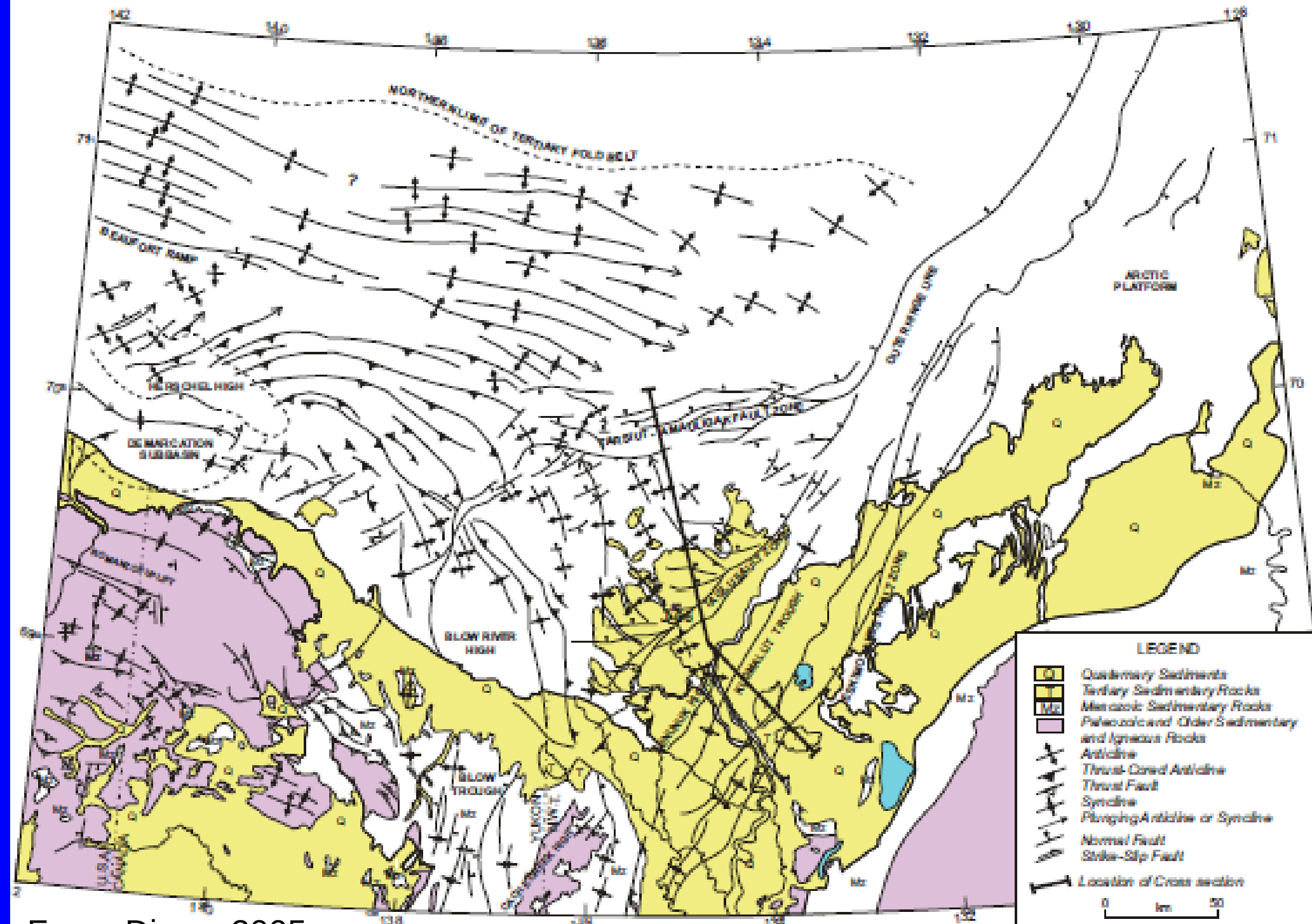
Modified from NOGD, 1995

EAGLE PLAIN BASIN



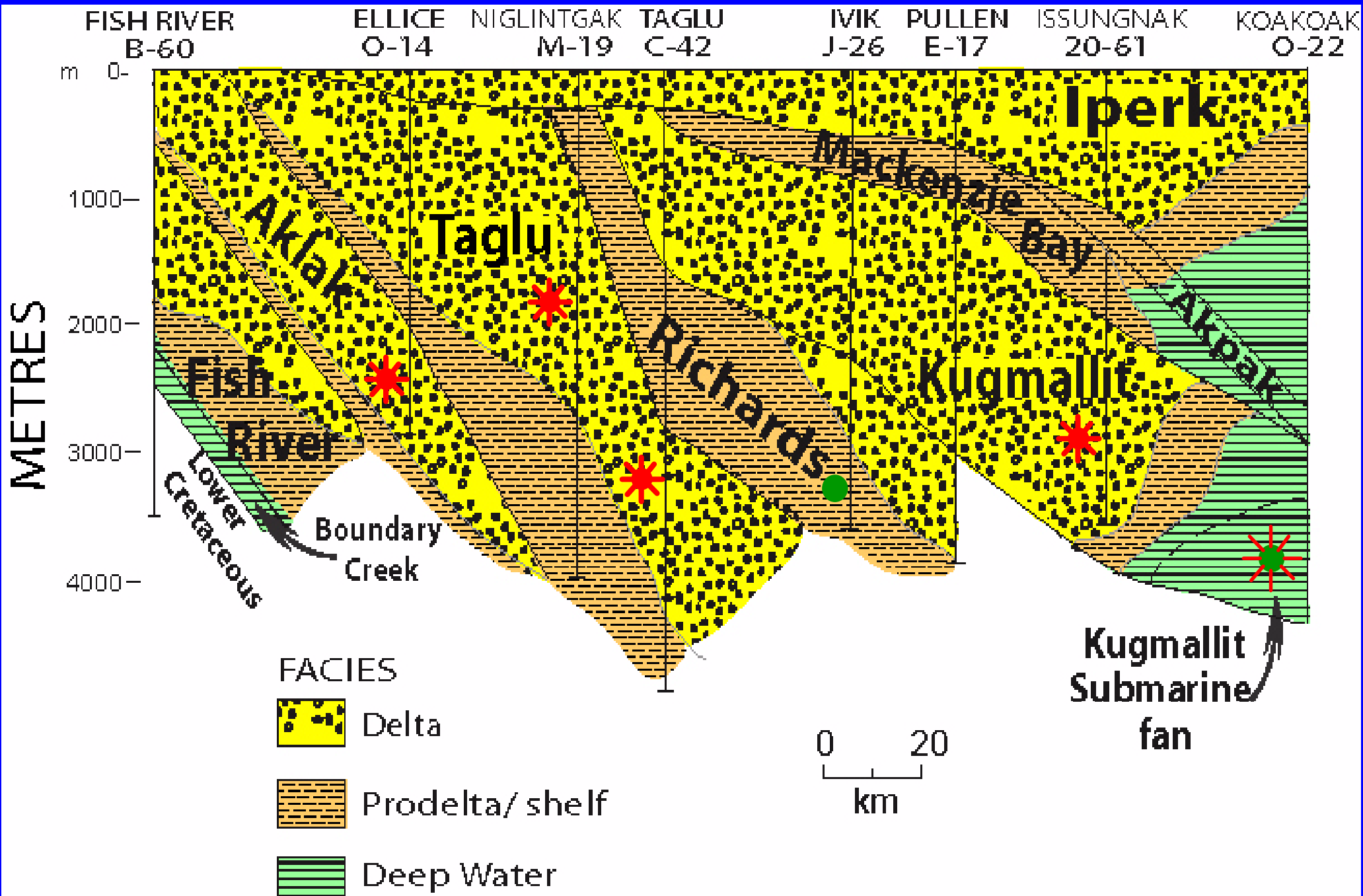
Modified from Yukon Ec. Dev., NEB, 1994

STRUCTURAL TRENDS IN THE BEAUFORT-MACKENZIE AREA



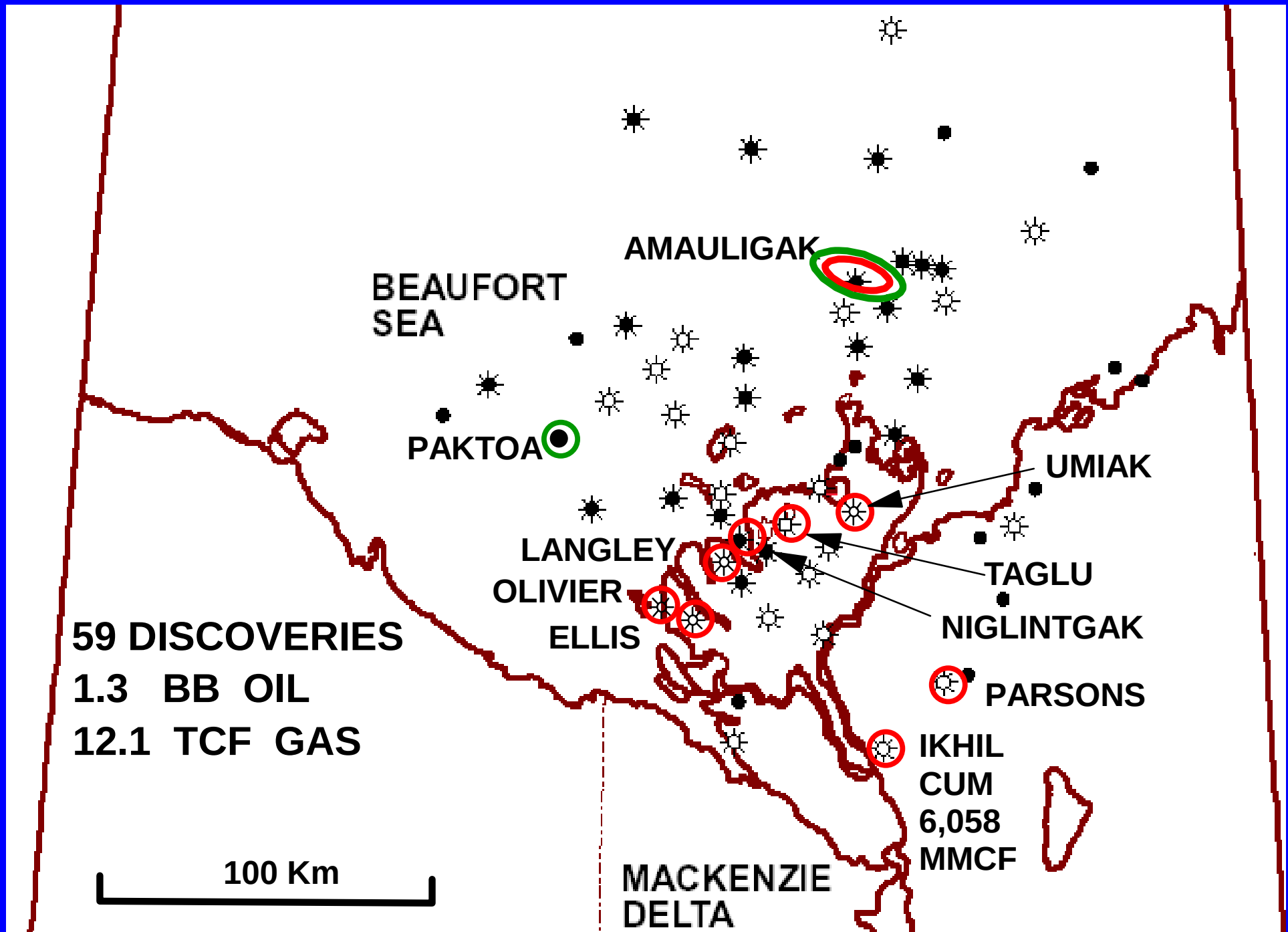
From: Dixon, 2005

BEAUFORT - MACKENZIE DEPOSITIONAL FACIES

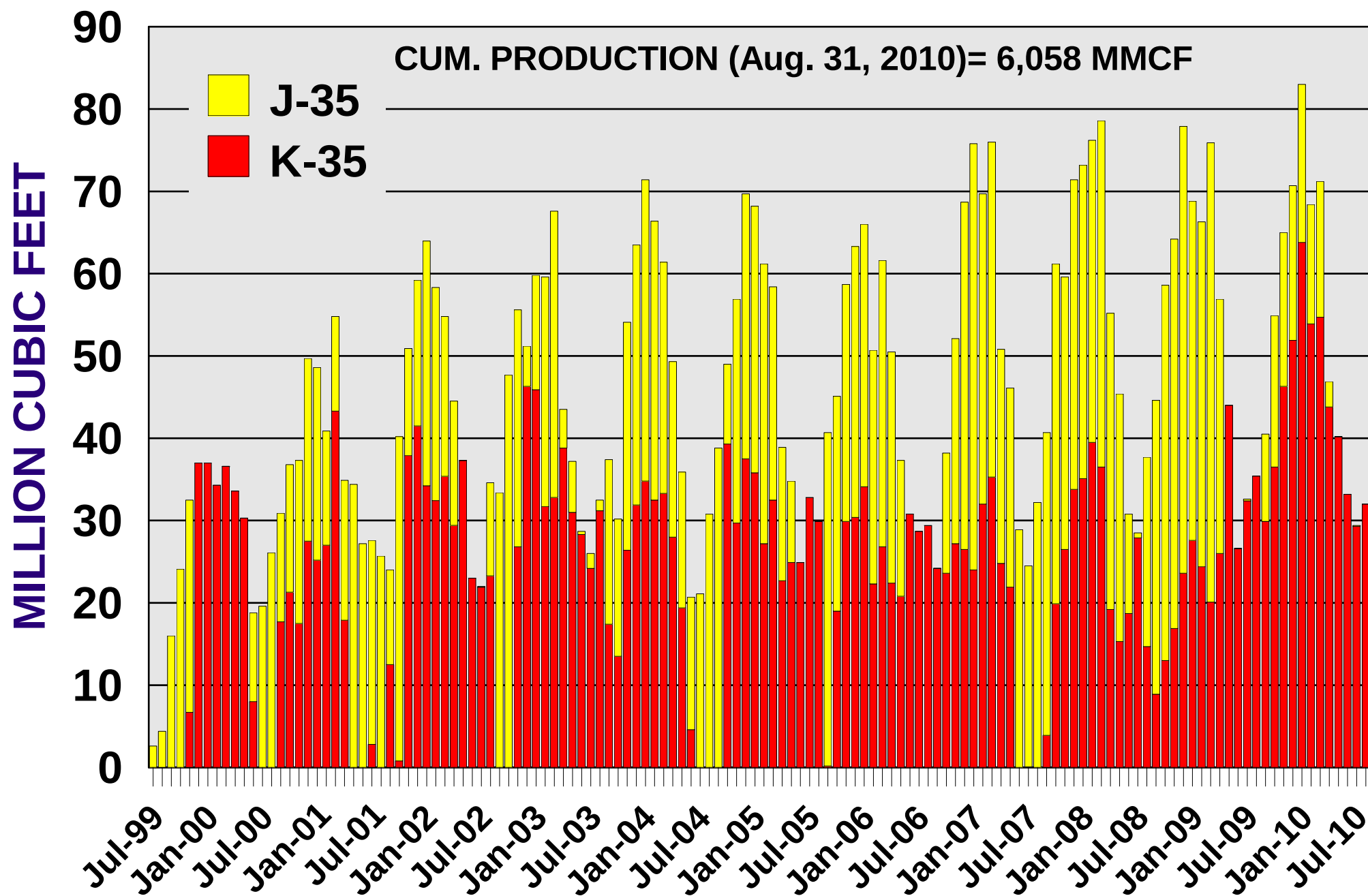


Modified From: Dixon et al, 1992

BEAUFORT - MACKENZIE BASIN DISCOVERED OIL AND GAS FIELDS

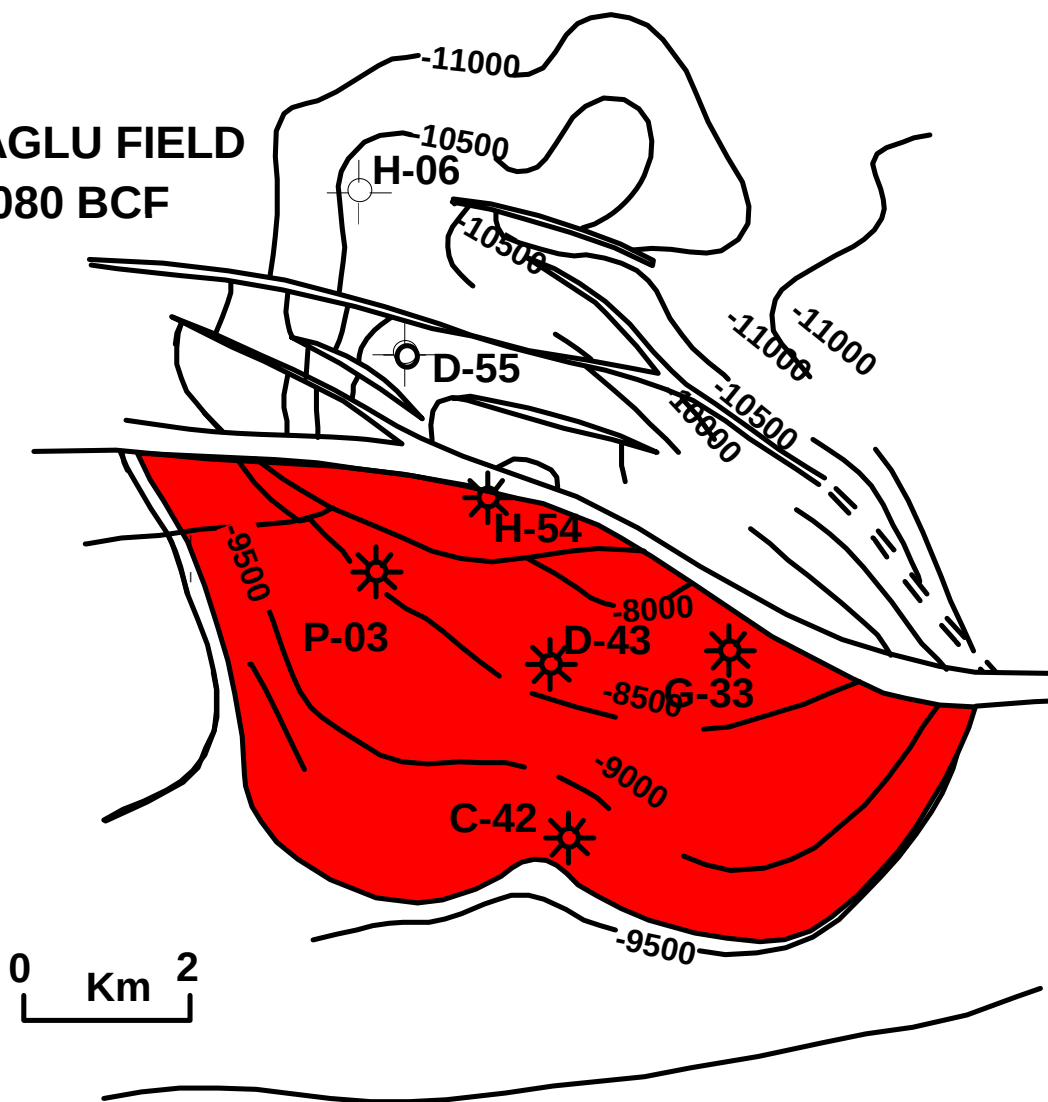


IKHIL GAS FIELD PRODUCTION

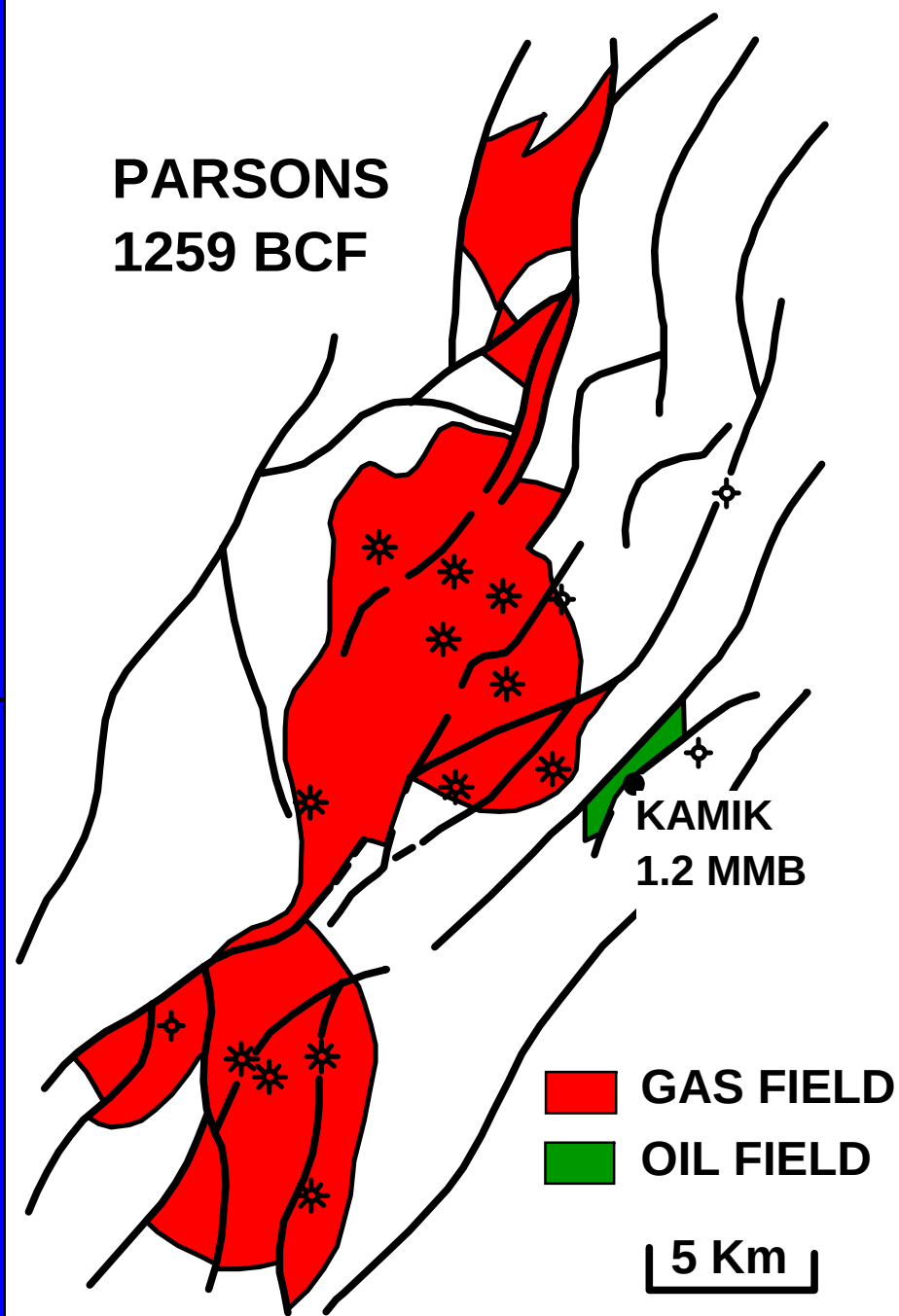


PARSONS LAKE & TAGLU GAS FIELDS

TAGLU FIELD
2,080 BCF



PARSONS
1259 BCF



Adapted from: G.R MORRELL, 1996

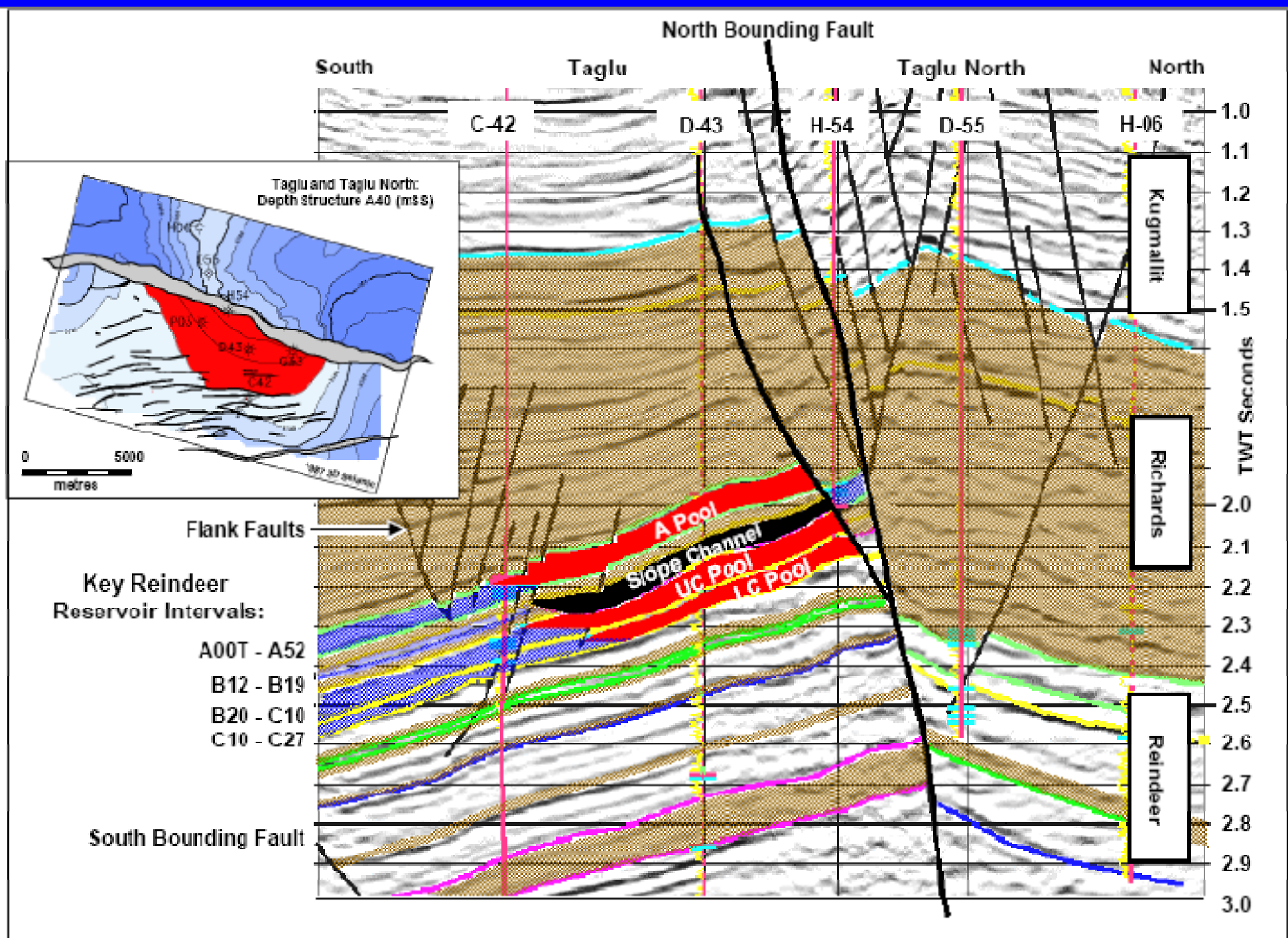
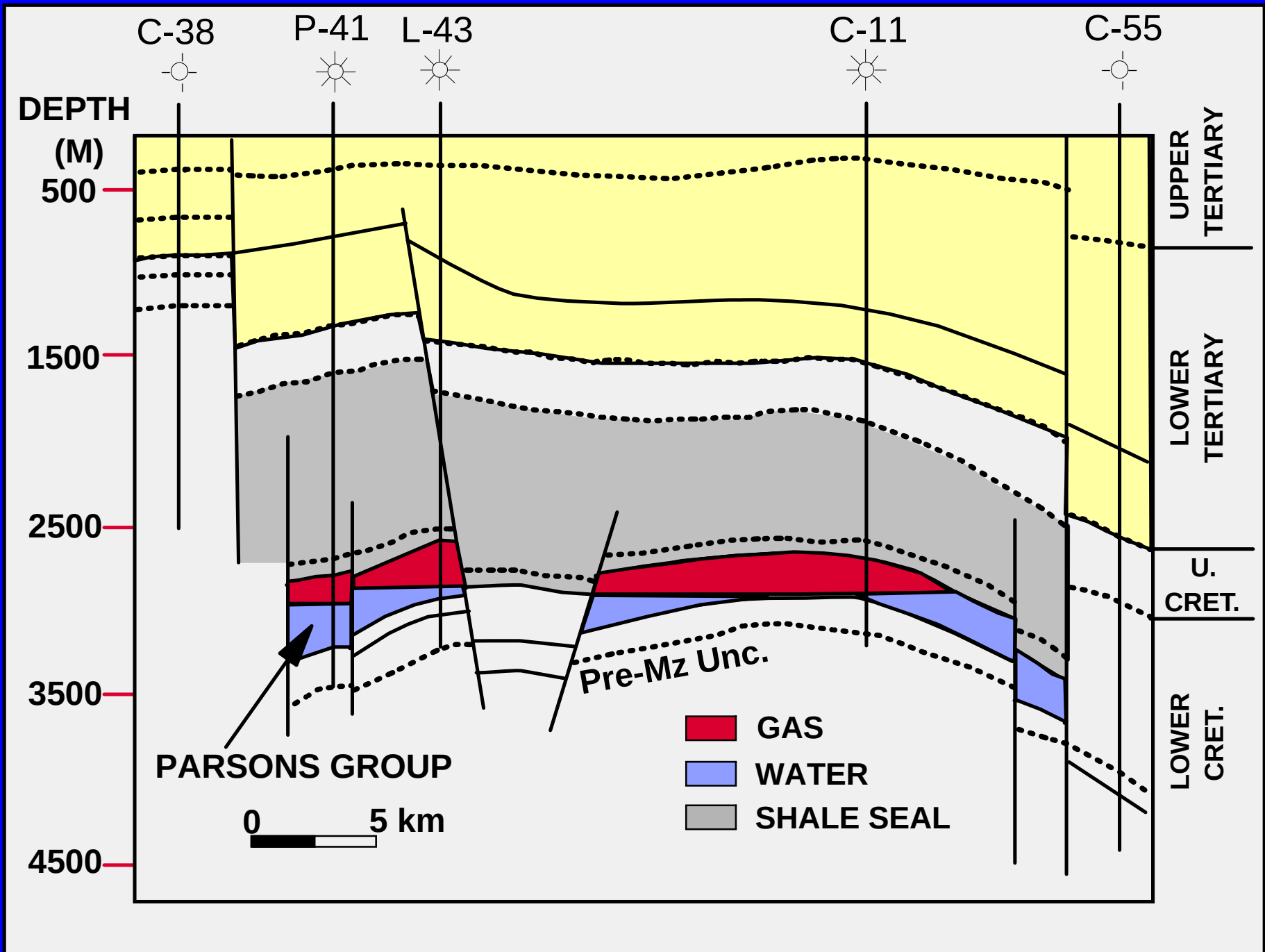


Figure 2-3: Representative 3-D Traverse across Taglu Field

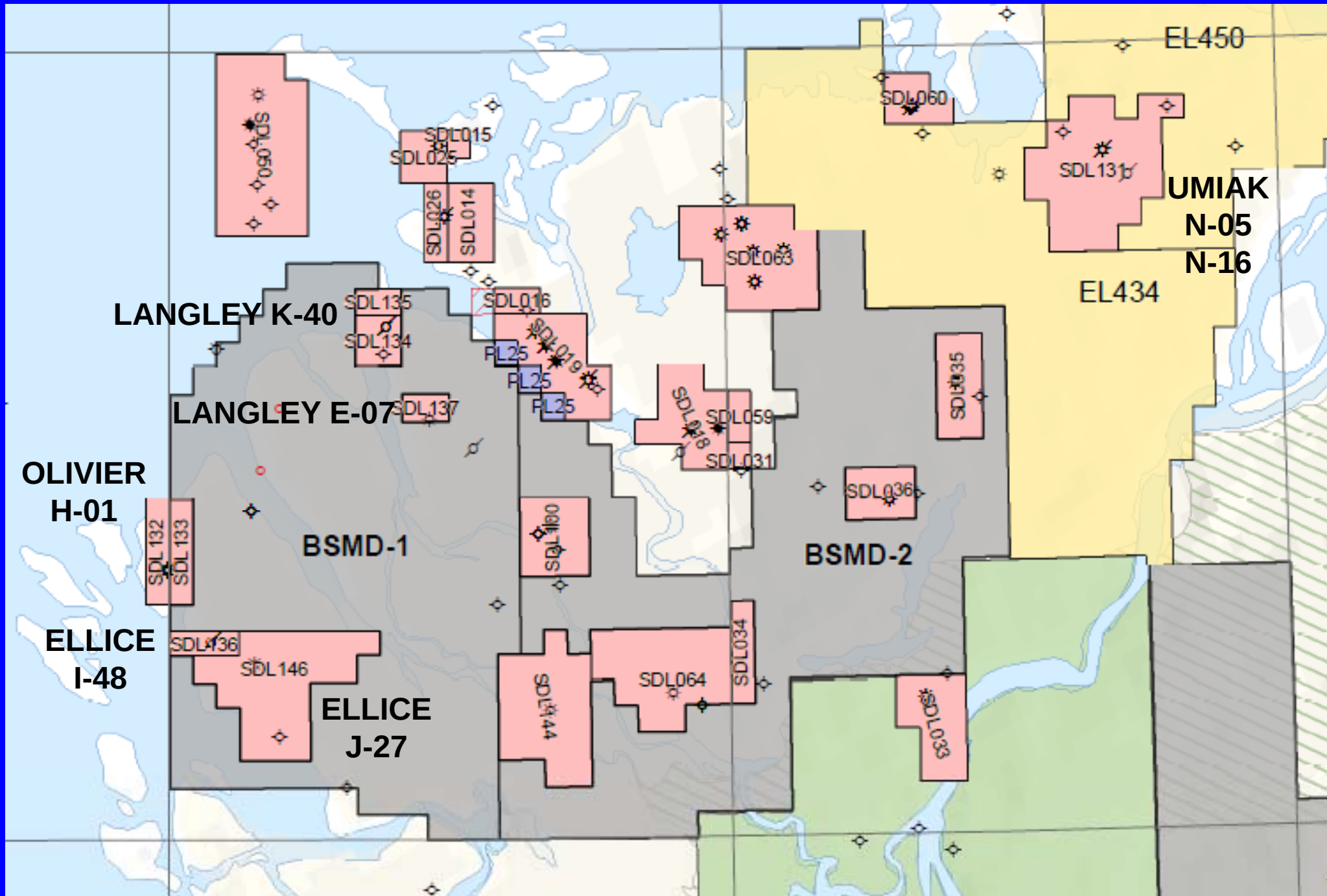
PARSONS LAKE GAS FIELD



Adapted from: R.A. Meneley, 1986

MACKENZIE DELTA – DISCOVERIES 2001-2009

TOTAL - 1.4 TCF RECOVERABLE GAS



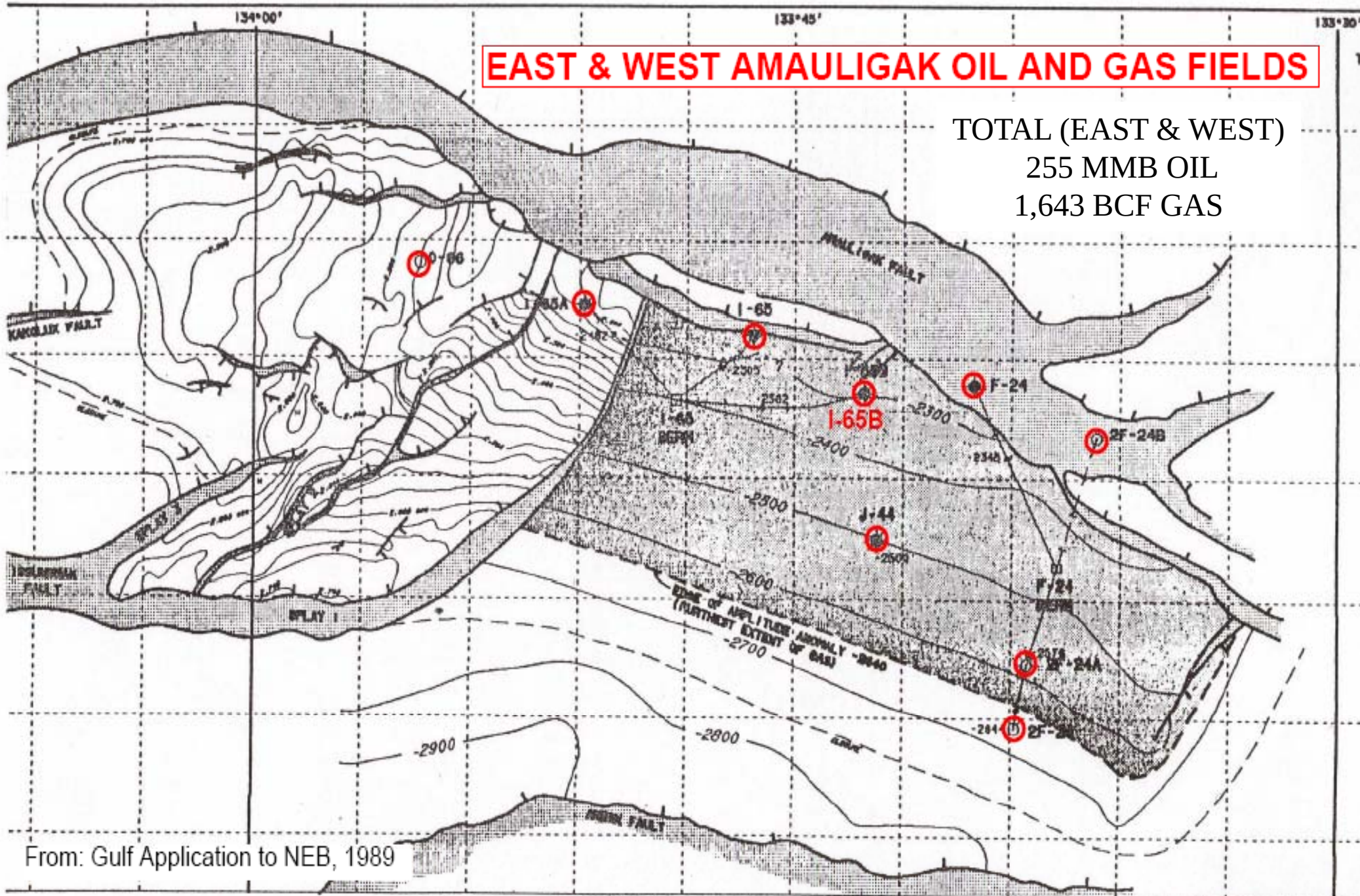
BEAUFORT SEA – DEVON PAKTOA C-60

2006 DISCOVERY - 240 MMB RECOVERABLE OIL

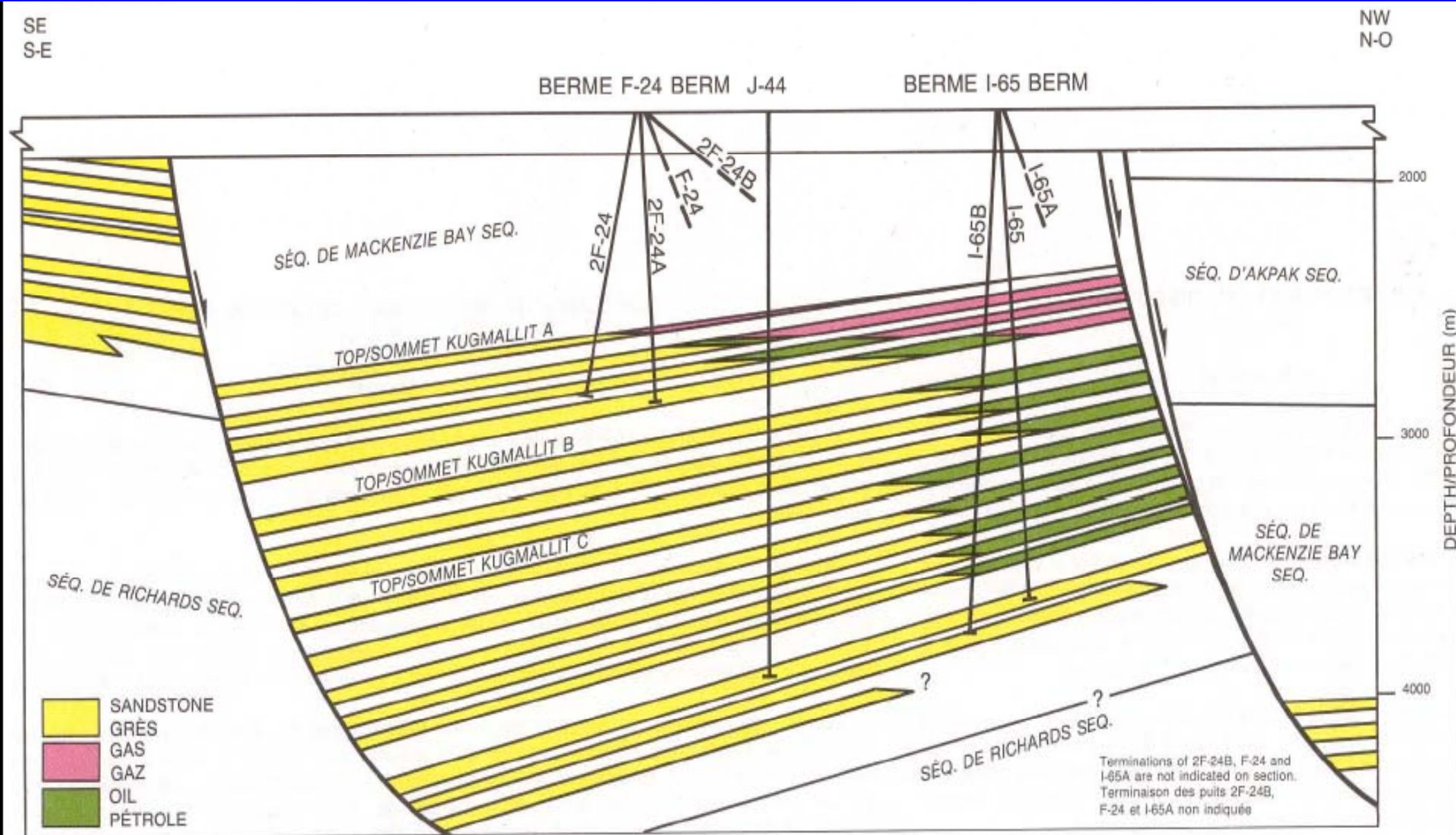


EAST & WEST AMAULIGAK OIL AND GAS FIELDS

TOTAL (EAST & WEST)
255 MMB OIL
1,643 BCF GAS



AMAILIGAK OIL AND GAS DISCOVERY

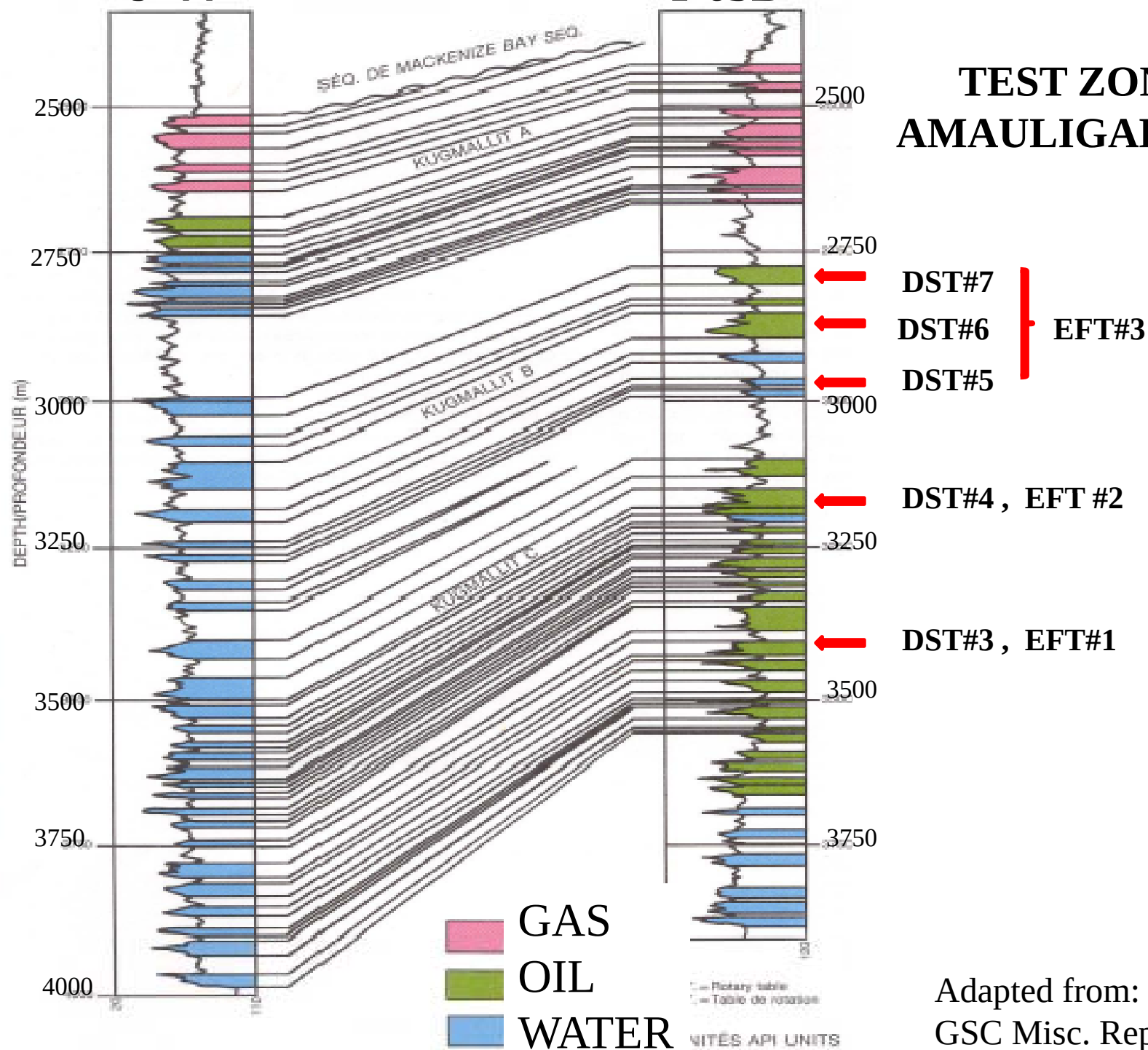


From: Morrell, 1996
Beaufort-Mackenzie Atlas,
GSC Misc. Report 59

J-44

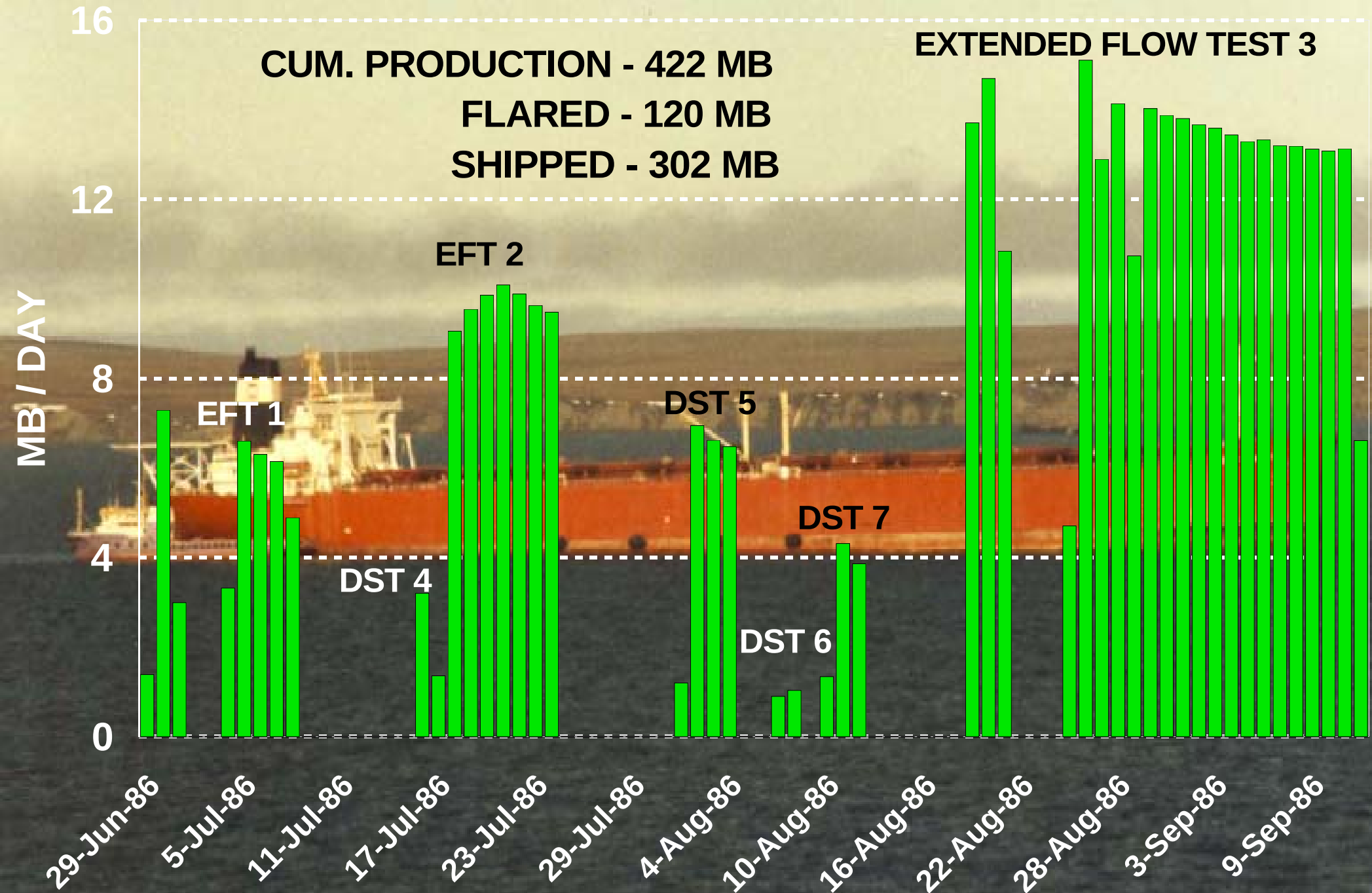
AMAILIGAK

I-65B



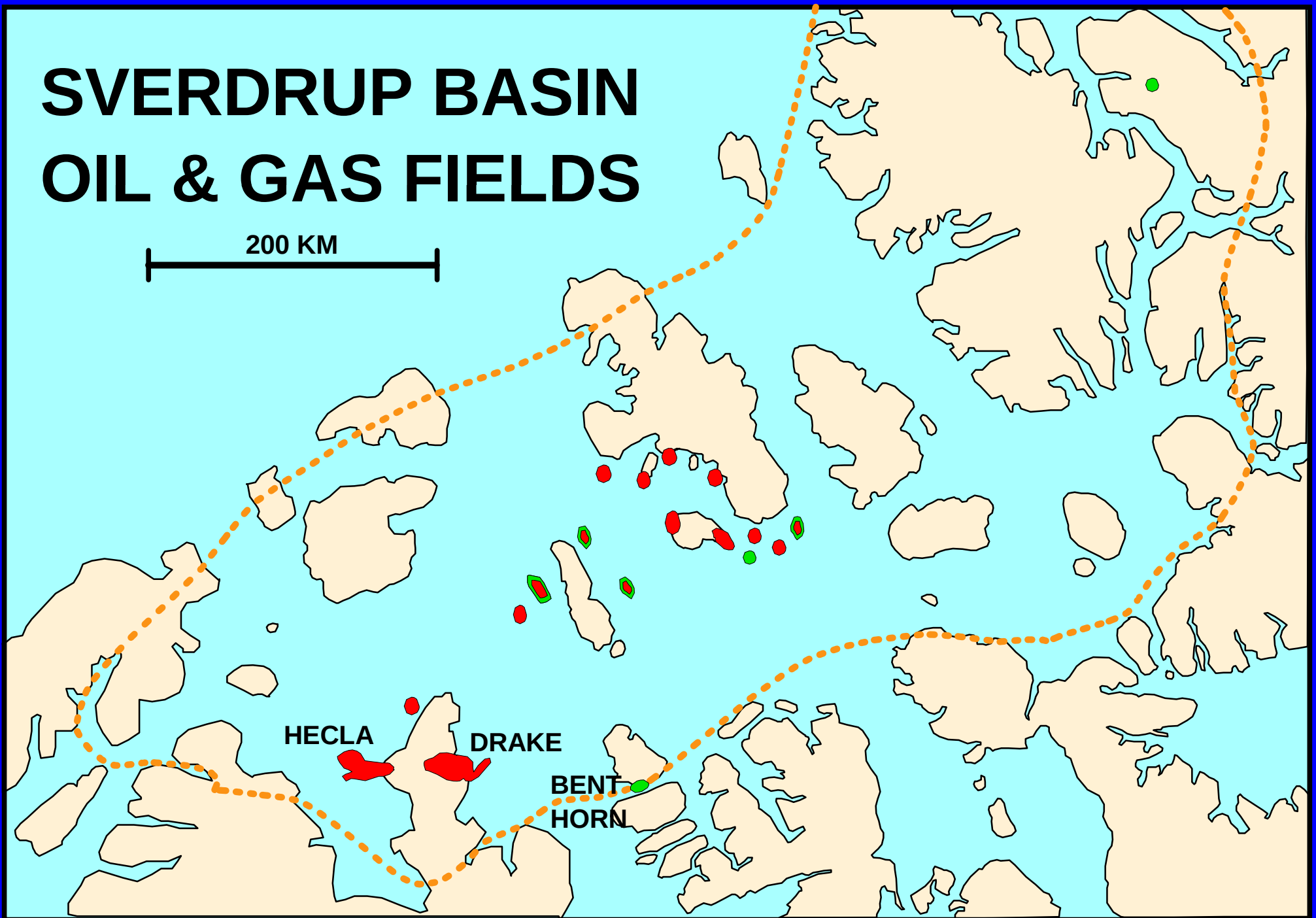
Adapted from: Morrell, 1996
GSC Misc. Report 59

GULF et al AMAULIGAK I-65B OIL PRODUCTION



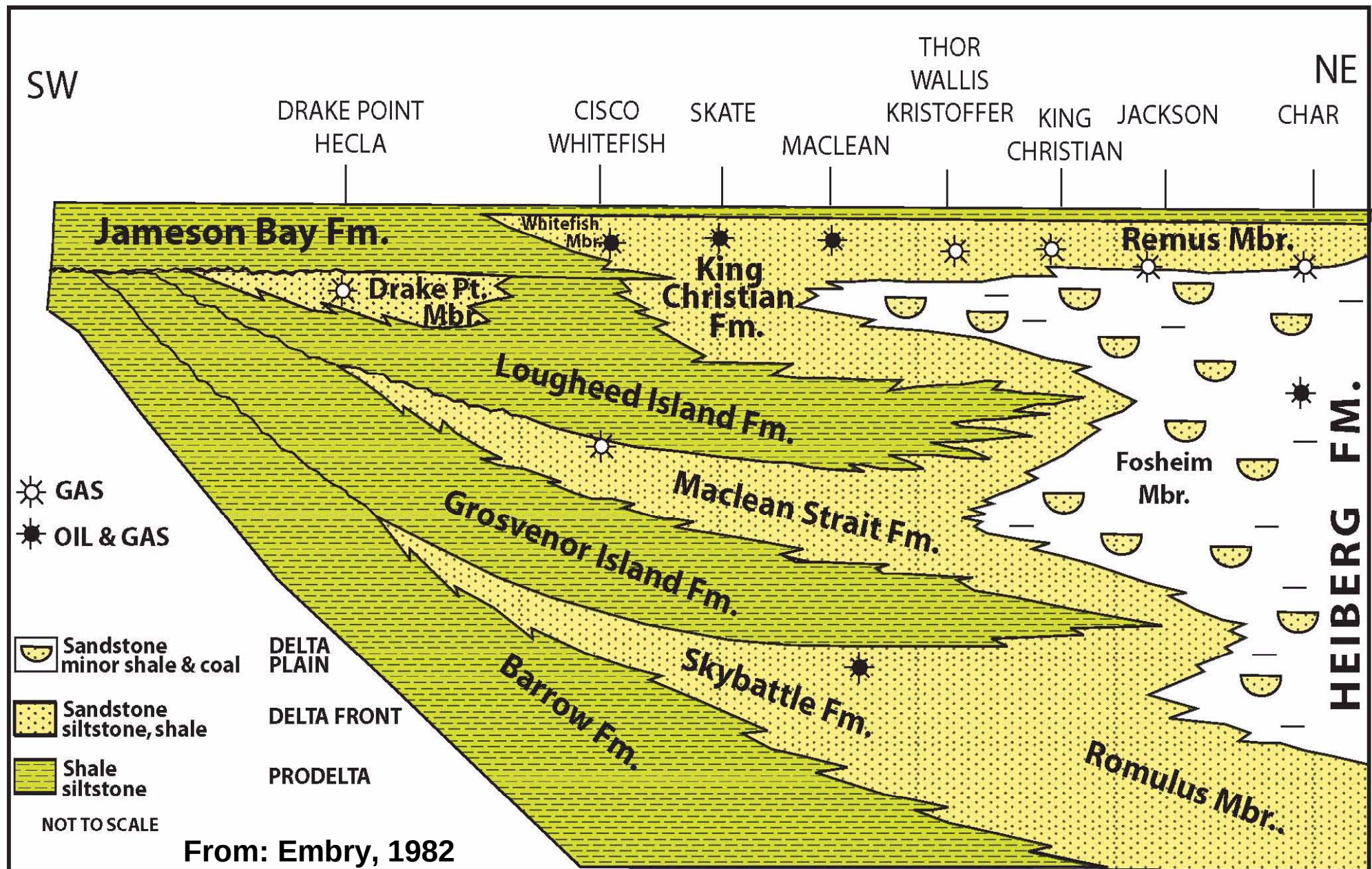
SVERDRUP BASIN OIL & GAS FIELDS

200 KM

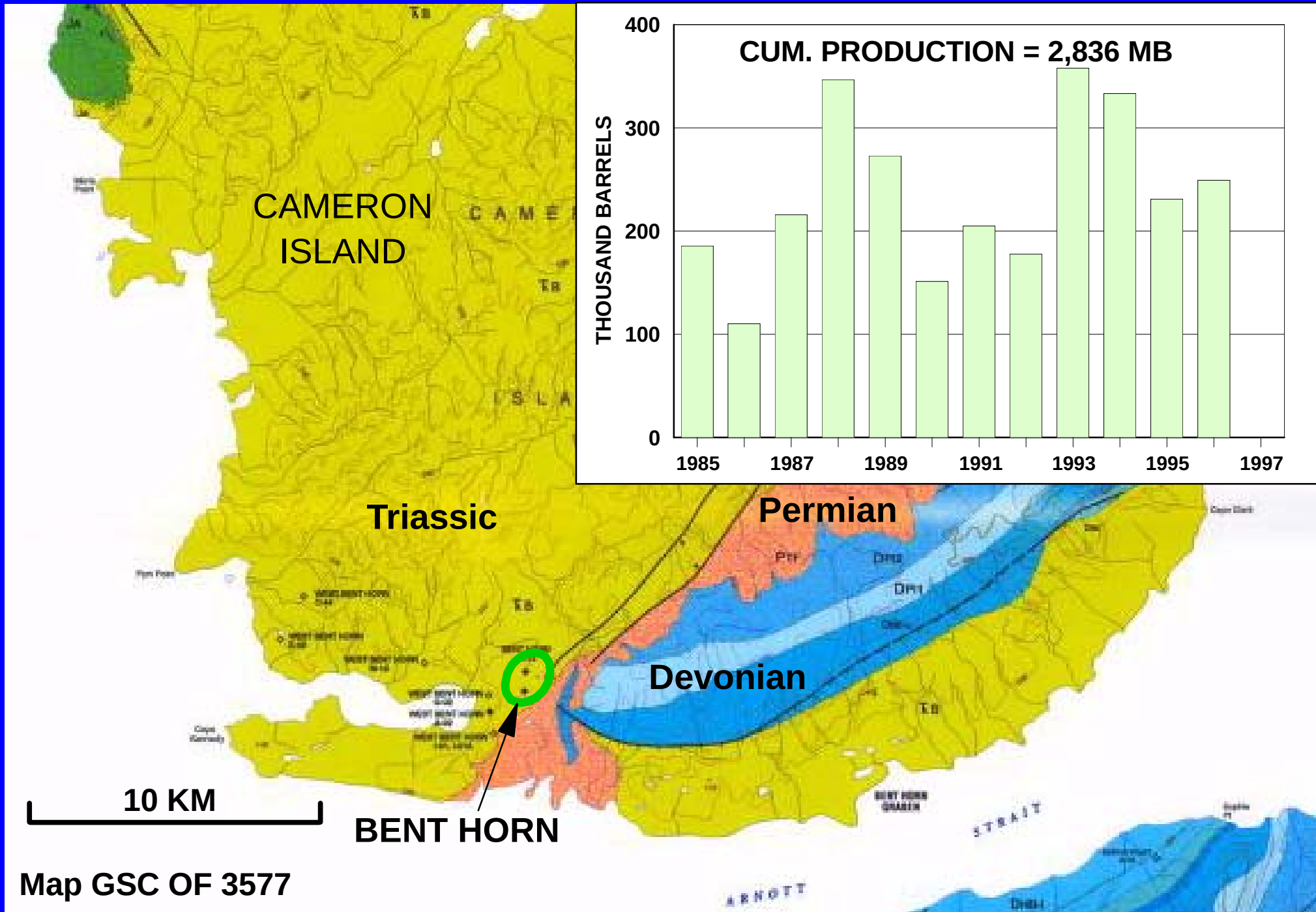


SVERDRUP BASIN

STRATIGRAPHIC DISTRIBUTION OF HYDROCARBONS

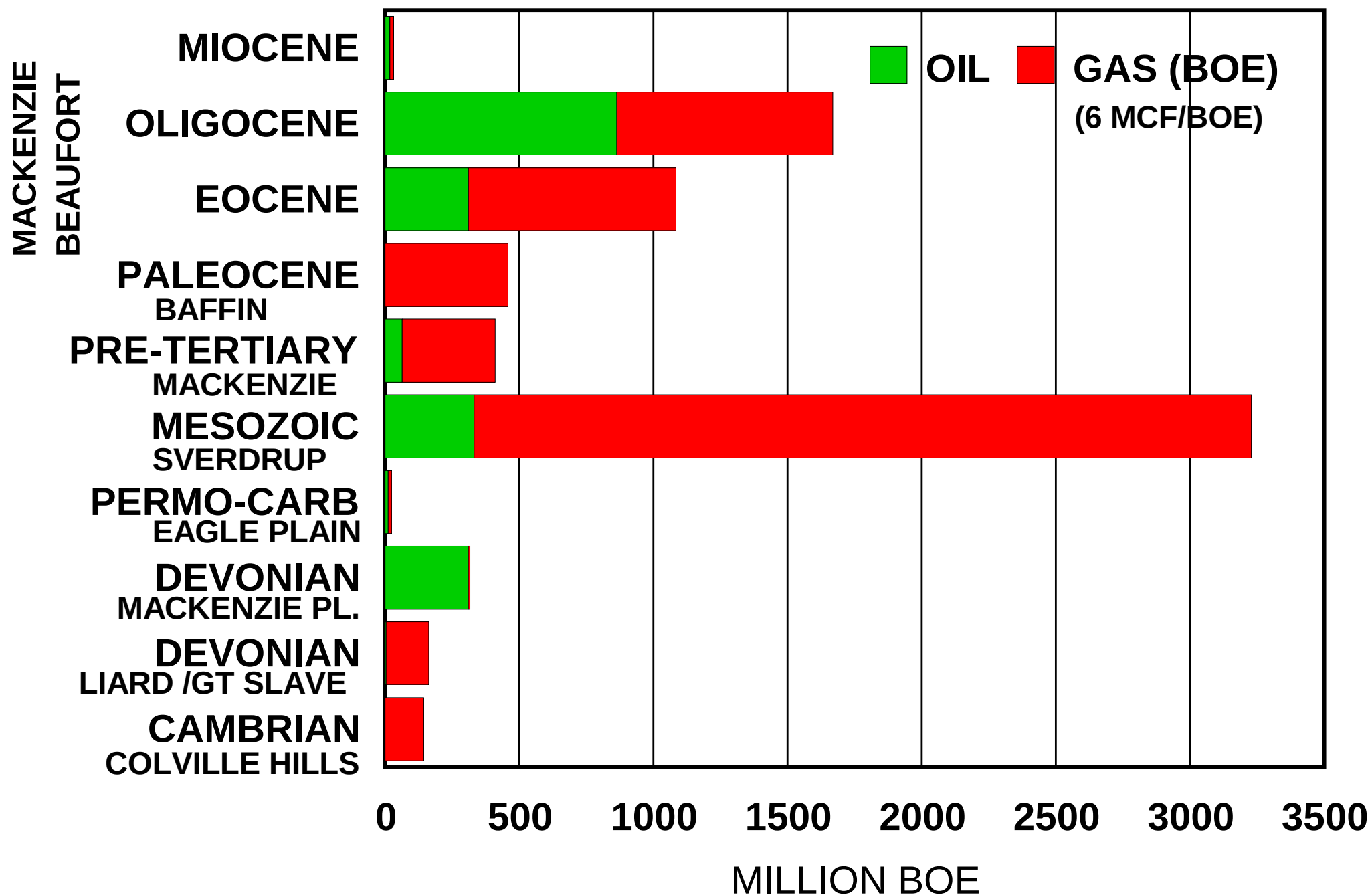


BENT HORN OIL FIELD, ARCTIC ISLANDS



CANADA NORTH OF 60

DISCOVERED RESOURCES BY STRATIGRAPHIC SYSTEM



CANADA NORTH OF 60

RECOVERABLE OIL & GAS

	DISCOVERED OIL (MMB)	DISCOVERED GAS (BCF)
LIARD PLATEAU	0	846
GREAT SLAVE PLAIN	4	114
MACKENZIE PLAIN	308	60
COLVILLE HILLS	0	867
EAGLE PLAINS	12	84
MACKENZIE DELTA	248	7,192
BEAUFORT SEA	1,010	4,868
SVERDRUP BASIN	335	17,383
BAFFIN BAY	0	2,300
TOTAL	1,917	33,714

CONCLUSIONS

- **CANADA'S SEDIMENTARY BASINS NORTH OF 60 HAVE LARGE DISCOVERED RESOURCES OF OIL AND GAS RANGING IN AGE FROM CAMBRIAN TO TERTIARY**
 - **DISCOVERED - 1.9 MMB OF OIL & 33.7 TCF OF NATURAL GAS**
 - **A TOTAL OF 1,510 EXPLORATORY WELLS IN AN AREA OF 965,255 SQUARE MILES
- 1 WELL / 639 SQUARE MILES**
 - **CANADA'S NORTHERN BASINS ARE IMMATURE AND HAVE SIGNIFICANT POTENTIAL FOR FUTURE DISCOVERIES**