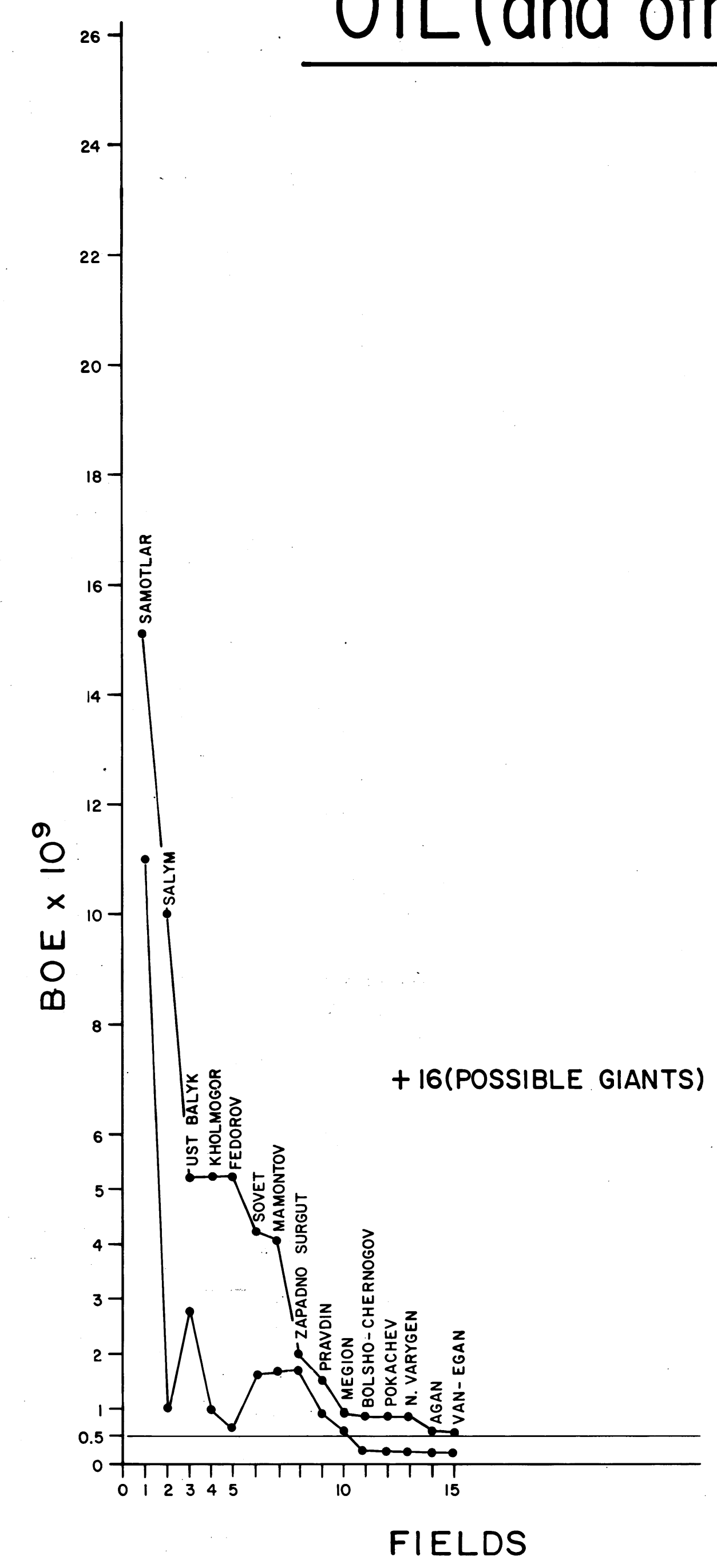


OIL (and other associated gas)



OIL (OFTEN WITH CONDENSATE)

RESERVOIRS
 LOWER CRETACEOUS - BERRIASIAN, VALANGIAN, HAUTERIVIAN, BARREMIAN; - TARKS HORIZON (MEGION AND VARTOV SUITES) OF POLUDIN SERIES.
 MIDDLE CRETACEOUS - APTIAN; - LOWERALYM HORIZON, (ALYM SUITE).
 (LOCALLY HEAVY OIL IN CENOMANIAN AT RUSKOYE)

RESERVES
 OIL x 10⁹ BBLs GAS TCF
 PROVEN 9.8 ?
 AND POSSIBLE 55.5 ? (15*TCF)
 ULTIMATE -

RESOURCES
 SOURCE
 UPPER JURASSIC AND LOWER CRETACEOUS INTERBEDDED SHALES: BAZHENOV SUITE, MEGION SUITE AND VARTOV SUITE. (LOWER CRETACEOUS SOURCE MOST PROBABLY FROM LOWER CRETACEOUS INTERBEDDED SHALES.)

CAP
 TIME OF MATURATION
 TIME OF TRAP FORMATION
 SAME AS ABOVE - INTERBEDDED.
 MIDDLE TO LATE TERTIARY THROUGH RECENT.

TIME OF MIGRATION
 MOST TRAPS ARE LARGE BASEMENT CONTROLLED ARCHES WHICH SHOW GROWTH FROM JURASSIC TO THE PRESENT - GREATEST GROWTH RATES LATE CRETACEOUS TO RECENT.
 LATE TERTIARY TO RECENT. SOME EVIDENCE (SAMOTLAR) OF 4 PERIODS OF MIGRATION SPECULATIVE POSSIBILITY OF 1. PRE-PLEISTOCENE HIGH GRAVITY CRUDE MIGRATION FROM CLOSELY RELATED SOURCE SHALES (ON STRUCTURE), 2. UP-DIP REGIONAL MIGRATION OF LOW GRAVITY CRUDE DURING PLEISTOCENE GLACIAL STAGES WITH DEEPER OIL WINDOW, 3. INITIALLY LOCAL MIGRATION OF HIGH GRAVITY CRUDE AFTER PLEISTOCENE, AND 4. INFLOX OF UP-DIP REGIONAL MIGRATION OF LOW GRAVITY CRUDE AT BASE OF OIL COLUMN, IN RECENT MIGRATION PHASE.

EXPULSION EFFICIENCY
 (NO FIGURES AVAILABLE ON SOURCE ROCK VOLUME) WITH ESTIMATED 1000' NET AND 2.5% ORGANIC CARBON BY WEIGHT OF CRETACEOUS SOURCE SHALES AND 140 x 10¹² SBLS FOR JURASSIC (CLARKE 1980) INDICATES AN EXTREMELY LOW EXPULSION EFFICIENCY OF 0.155 TO 1% (DEPENDING ON JURASSIC AND CRETACEOUS OIL IN FORMER AND THE MORE PROBABLE SOURCE OF MOST OIL LIMITED TO CRETACEOUS IN LATER).

LEGEND

- ▲ AREA OF APTIAN RESERVOIRS (ALYM - A - PRODUCTIVE ZONES)
- AREA OF VALANGIAN - BERRIASIAN RESERVOIRS (UPPER VARTOV SUITE)
- AREA OF B8 (EQUIVALENT) VALANGIAN RESERVOIR (LOWER VARTOV SUITE)
- AREA OF B10 (EQUIVALENT) VALANGIAN RESERVOIR (MEGION SUITE)

REGIONAL ARCH
 S = SURGUT ARCH
 NV = NIZHNE - VARTOV ARCH

RESERVOIR AGE	K = CRETACEOUS, LOW = LOWER GEN = CENOMANIAN
% OF RESERVES OIL	++ = ALMOST ALL OIL + = HIGH OR MAJOR % - = LOW %
RELATION OF RESERVES TO OIL WINDOW	MI = MINOR MA = MAJOR BELOW = BELOW OIL WINDOW LEAK = LEAKAGE

0 50 100 150 200
 KILOMETERS

This map was prepared under contract to the U.S. Geological Survey and has not been reviewed for conformity with USGS editorial standards and stratigraphic nomenclature. Opinions and conclusions expressed herein do not necessarily represent those of the USGS.
 International boundary representation is not necessarily authoritative.

OIL AND GAS MAPS AND SECTIONS OF THE WEST SIBERIAN BASIN
 BY
 H. DOUGLAS KLEMME
 DATE: 1984 (information as of 1981)