Section 4

U.S. CRUDE MARKETS AND VALUES

Presented to Minerals Management Service

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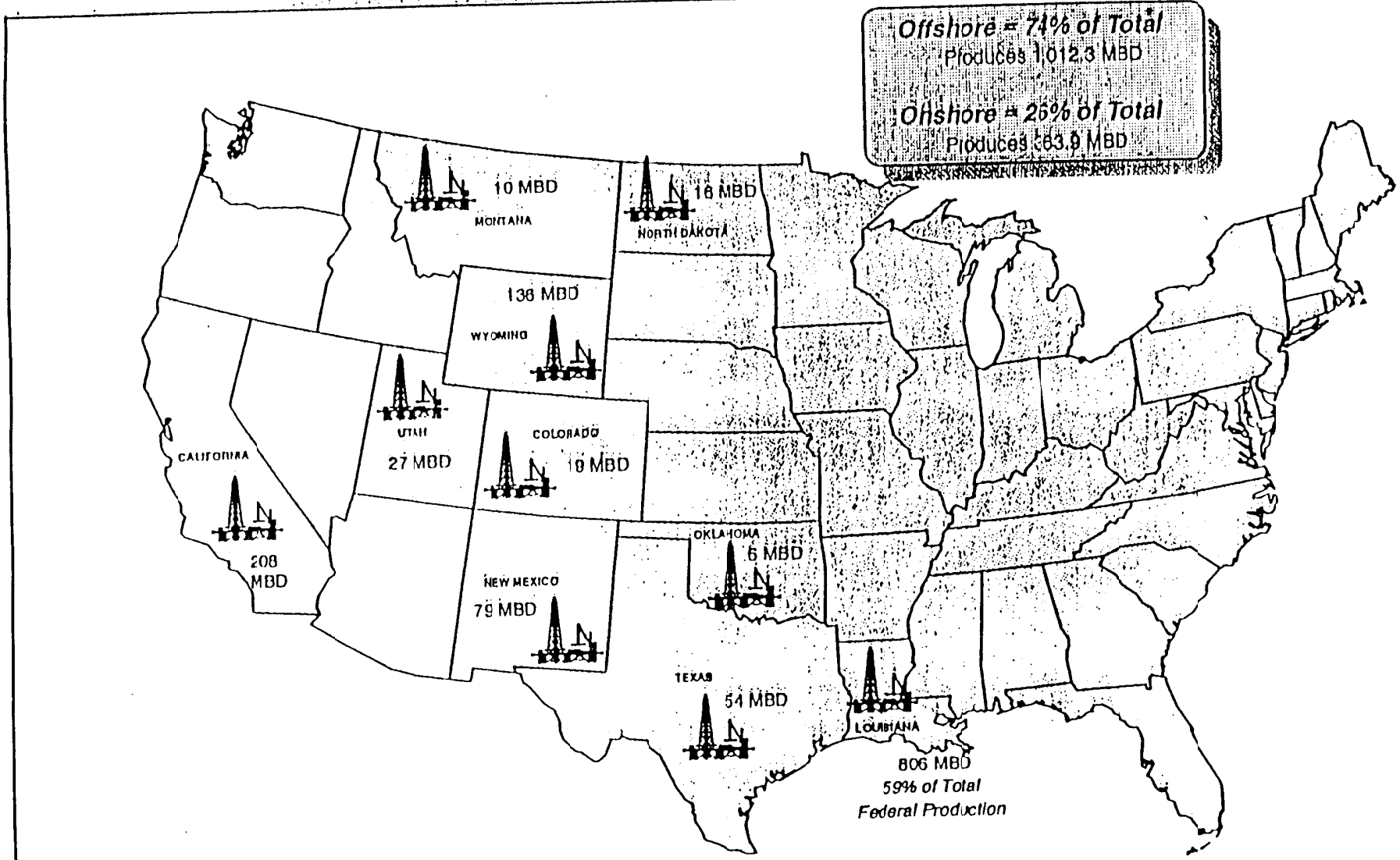
TOP TEN PRODUCING STATES ACCOUNT FOR MORE THAN 99 PERCENT OF FEDERAL VOLUMES
(1994 Production)

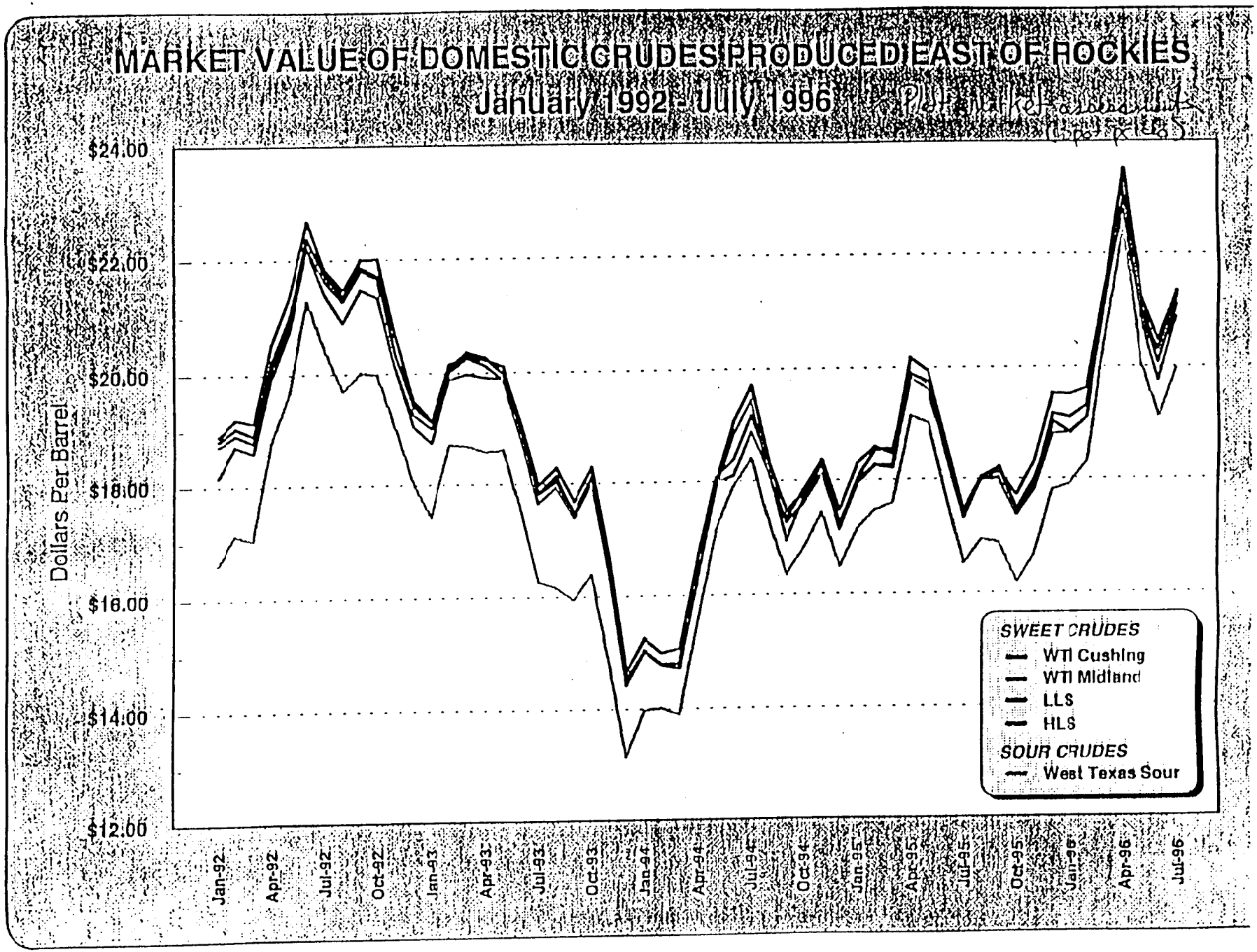


Geographic Crude Markets

- Geographic areas within markets are characterized by:
  - Common supply/demand conditions
  - Free flow of crude and refined products within each market
- Separate geographic markets have:
  - Little movement of crude and refined products between markets
- There are two geographic markets:
  - West Coast
  - East of Rockies

Market Value of Crudes Within the Same Market

- Market value of similar quality crudes are similar at any given location
- Differences in market value between different crudes within the same market result from differences in delivery location and quality
- Market value of crude at lease can be determined based on market value of widely traded crudes within the same market adjusted for quality and location differences


MARKET VALUE OF DOMESTIC CRUDES PRODUCED EAST OF ROCKIES
January 1992 - July 1996
Dollars Per Barrel
$24.00
$22.00
$20.00
$18.00
$16.00
$14.00
$12.00
Jan-92
Apr-92
Jul-92
Oct-92
Jan-93
Apr-93
Jul-93
Oct-93
Jan-94
Apr-94
Jul-94
Oct-94
Jan-95
Apr-95
Jul-95
Oct-95
Jan-96
Apr-96
Jul-96
SWEET CRUDES
WTI Cushing
WTI Midland
LLS
HLS
SOUR CRUDES
West Texas Sour

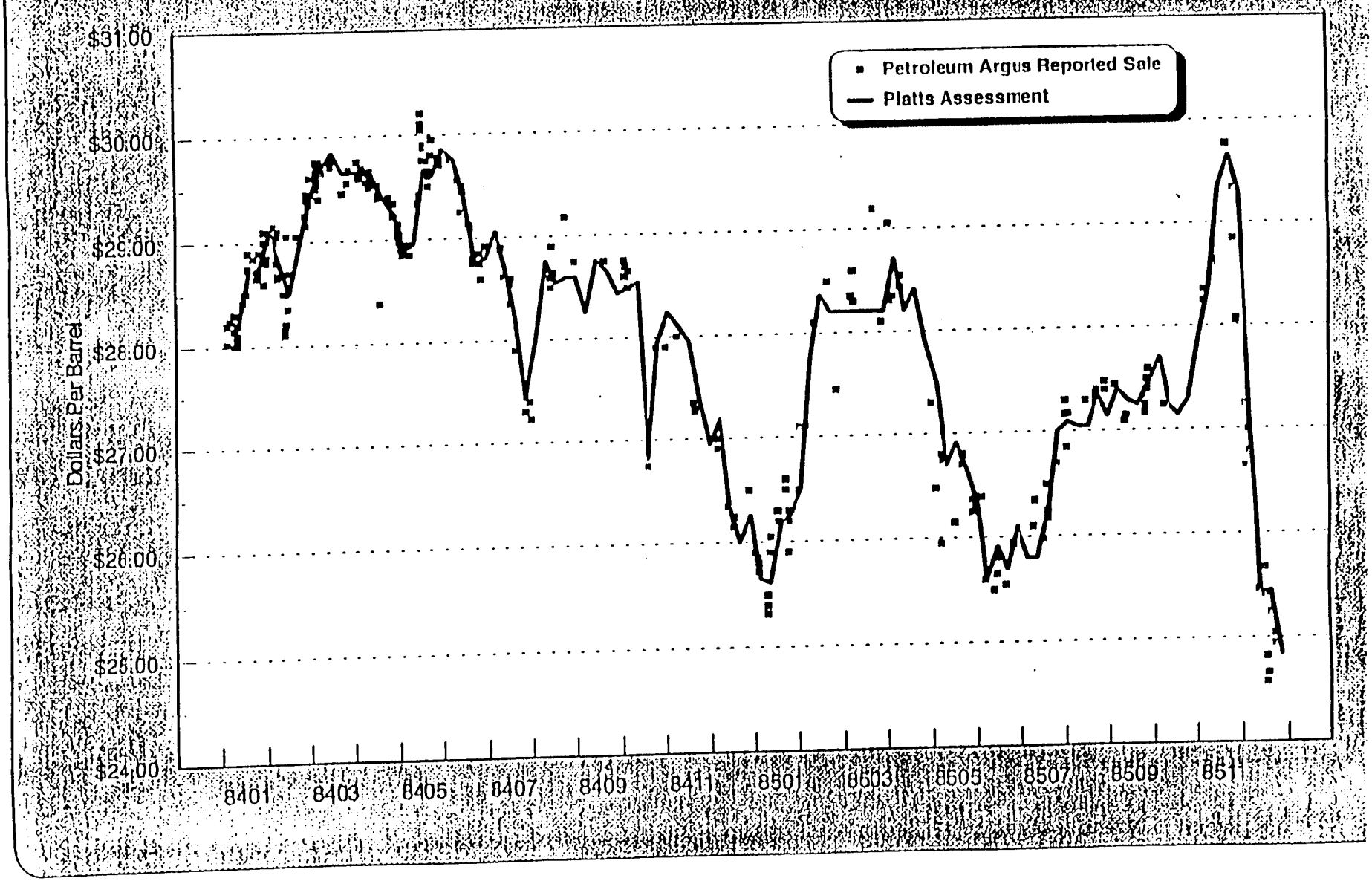
Measures of Value

- Market Assessments (e.g., Platt's)
- NYMEX Light Sweet Contract
- Posted Prices
- Postings Plus

Market Assessments

- Assessments based on current market activity
- Published for a number of crudes / locations -- Sweet / Intermediate / Sour -- Texas / Louisiana
- Accurate measures of current market activity. Evidence includes:
  - acceptance within industry
  - used to price foreign imports
  - track actual transactions
  - used in contracts

COMPARISON OF GULF COAST ANS SALES REPORTED BY PETROLEUM ARGUS WITH PLATTS WEEKLY ANS MARKET ASSESSMENT 1984 - 1985



NYMEX Light Sweet Contract

- Recognized as the benchmark for crude values East of Rockies
- Recognized as accurate measure of market value for WTI at Cushing
- Tracks cash market for WTI at Cushing
- Large volume / very liquid market