

MINUTE ITEM

55

This Calendar Item No. 55
 was submitted for information
 only, no action thereon
 be necessary.

INFORMATIVE CALENDAR ITEM

55.

8/80
 Thompson

REVIEW OF PILOT SCALE DEMONSTRATION
 OF MICELLAR-POLYMER WATERFLOODING TECHNIQUES
 FOR ENHANCED OIL RECOVERY, WILMINGTON OIL FIELD

The demonstration project is being conducted with a 50/50 joint venture cost sharing by the City of Long Beach and the Federal Department of Energy (DOE) of the first \$7,000,000 of expenditures. The DOE's 50% commitment of \$3,500,000 in cost has been fulfilled. The DOE does not share in any revenue from the oil produced. This enhanced recovery pilot is in a small portion of the HXa sub-pool of the Upper Terminal Zone in Fault Block VB of the Wilmington Field. The pilot pattern is a line drive: four injectors (backed by a sealing fault) driving oil toward six producers. This portion of the reservoir was fully depleted, being at the economic limit, when the pilot demonstration was started in mid-1978. As of the previous information report (February 28, 1980 Meeting), the injection of the micellar slug had been completed and was being followed by a buffer slug of polymer and injection water mixture. Currently the polymer slug is still being injected and will be completed in late 1981, to be followed with injection water.

The forecasted dramatic production response started in January 1980, and continues to date. The project average oil rate at the end of 1979 was 55 B/D, then beginning in January 1980 increased to 188 B/D by June 1980. The producing water/oil ratio response is similarly encouraging over the same period: from 90 barrels of water for each barrel of oil down to 19 barrels of water per barrel of oil. This has also been accompanied by a noticeable decrease in the produced water rate. The timing and nature of the response is in good agreement with theoretical and laboratory expectations. Minor breakthrough of micellar and tracer chemicals in two wells in May 1980, suggests that the rapid oil rate increase might be expected to level off in future months. It is too early to guess at the economic success of this project. The response to date is encouraging in a technical sense. The pilot demonstration will not be economic and this was known at the time the project was initiated. The potential future expansion of this type of tertiary recovery project in the Wilmington Field is not too promising, however the results of this field test by the end of the year should allow a definitive analysis.

A 57, 58

S 27, 31

CALENDAR PAGE	286
MINUTE PAGE	1951

CALENDAR ITEM NO. 55. (CONTD)

The staff will continue semi-annual informative reports on this project.

CALENDAR PAGE	287
MINUTE PAGE	1952