

MINUTE ITEM

25. WATER INJECTION SYSTEM, UPLAND PORTION, FAULT BLOCKS IV AND V, WILMINGTON FIELD, LOS ANGELES COUNTY, CITY OF LONG BEACH - L.B.W.O. 10,201.

After consideration of Calendar Item 31 attached, and upon motion duly made and unanimously carried, the following resolution was adopted:

THE COMMISSION APPROVES THE EXPENDITURE BY THE LONG BEACH HARBOR DEPARTMENT OF NOT TO EXCEED \$1,000,000 FROM THE CITY OF LONG BEACH SHARE OF TIDELAND OIL REVENUES FOR MUNICIPALLY OWNED WATER-INJECTION FACILITIES TO SERVE THE UPLAND PORTION OF THE FAULT BLOCK V RANGER ZONE UNIT AND A PORTION OF THE FAULT BLOCK IV AREA.

Attachment:

Calendar Item 31 (3 pages)

CALENDAR ITEM

31.

WATER INJECTION SYSTEM, UPLAND PORTION, FAULT BLOCKS IV AND V, WILMINGTON FIELD, LOS ANGELES COUNTY, CITY OF LONG BEACH - L.B.W.O. 10,201.

The Board of Harbor Commissioners of the City of Long Beach has requested State Lands Commission prior approval of the expenditure of \$1,000,000 for a source water system, injection plant, and distribution lines to serve the Fault Block V area and a portion of the Fault Block IV area.

On July 30, 1959 (Minute Item 34, page 5098), the Commission approved the expenditure of not to exceed \$100,000 from the Tideland Oil Fund in the City Treasury of Long Beach for an engineering study of a Fault Block IV and V water-injection system. As the result of the above study, the Commission on September 29, 1960 (Minute Item 25, page 6316), approved the expenditure of not to exceed \$500,000 from the City of Long Beach share of tideland oil revenues for municipally owned water-injection facilities to serve the four upper zones of Fault Block IV.

The Commission on March 26, 1964 (Minute Item 27, pages 9783-87), approved the Unit Agreement and Unit Operating Agreement, Fault Block V, Ranger Zone, together with related documents. The approval of these documents was justified, in part, by the fact that repressuring operations by means of water injection will probably result in increased economic recovery of oil. The purpose of the present request is to facilitate the recovery of oil and possibly to ameliorate subsidence in the upland portion of Fault Block V by means of water injection.

The facilities to be constructed pursuant to this request include source water wells, injection plant, and high-pressure water-distribution lines to the injection wells. The cost of drilling new injection wells or converting existing wells to injection will be a unit expense not included in this request. The plant and distribution system will provide 73,400 barrels of water per day, at pressures ranging from 1600 to 2000 pounds per square inch, to seventeen Fault Block V and two Fault Block IV injection wells. It is estimated that the required facilities can be built at a cost not to exceed one million dollars.

The Working Interest Owners of the Fault Block IV and V Units, at a meeting June 17, 1964, approved the plans and specifications for these water-injection facilities and expressed their intent to enter into a salt-water purchase agreement with the City of Long Beach which will provide for a ten-year amortization of the costs through the sale of salt water.

The Board of Harbor Commissioners of the City of Long Beach, at its meeting of June 29, 1964, approved the plans and specifications for the water-injection plant, source water system, and water-distribution system.

The staff has reviewed the engineering plans and found them feasible, and has determined that repressuring operations facilitated by this proposed water-injection system will probably result in increased economic recovery of oil.

CALENDAR ITEM 31. (CONTD.)

In the opinion of the office of the Attorney General, the use by the City of Long Beach of its own share of tideland oil revenues to finance, engineer, construct, and operate a field-wide injection water-supply system in the Wilmington Oil Field is legally unobjectionable in principle.

IT IS RECOMMENDED THAT THE COMMISSION APPROVE THE EXPENDITURE BY THE LONG BEACH HARBOR DEPARTMENT OF NOT TO EXCEED \$1,000,000 FROM THE CITY OF LONG BEACH SHARE OF TIDELAND OIL REVENUES FOR MUNICIPALLY OWNED WATER-INJECTION FACILITIES TO SERVE THE UPLAND PORTION OF THE FAULT BLOCK V RANGER ZONE UNIT AND A PORTION OF THE FAULT BLOCK IV AREA.

Attachment
Exhibit "A"

EXHIBIT "A"

LONG BEACH WORK ORDER NO. 10,201 - Estimated Costs for Water Injection Plant, Source and Distribution Systems, Fault Block V Area and a Portion of Fault Block IV.

CONTRACTOR-FURNISHED EQUIPMENT AND SERVICES:

	<u>Estimated Cost</u>
Water Injection Plant	\$160,285
Source Water Wells and System	287,095
Injection Well Connections	89,770
Injection Water Distribution System	260,555
Permits and Fees	<u>6,340</u>
Total - Contractor - Furnished Equipment and Services	\$804,045

CITY-FURNISHED EQUIPMENT:

Injection Pumps and Motors, (2)	\$ 69,500
Source Well Pumps, (3)	13,100
Ultra-Violet Radiation Unit for Bacteria Control	<u>78,000</u>
Total - City - Furnished Equipment	\$160,600

GRAND TOTAL - Water Injection Plant, Source and Distribution Systems Estimated Cost	\$964,645
---	-----------