



DEPARTMENT

CHRISTOPHER J. GARNER
DIRECTOR2400 EAST SPRING STREET · LONG BEACH, CA 90806
(562) 570-2000 · FAX (562) 570-2050

www.lbgo.org

March 4, 2014

HONORABLE MAYOR AND CITY COUNCIL
City of Long Beach
California**RECOMMENDATION:**

Approve and adopt the Long Beach Unit Annual Plan (July 1, 2014 - June 30, 2015).
(Citywide)

DISCUSSION

In accordance with Chapter 138 of the Statutes of 1964, First Extraordinary Session, an Annual Plan of Development and Operations and Budget for the Long Beach Unit must be adopted by the City of Long Beach and approved by the State Lands Commission.

Chapter 941, California Legislature, 1991 Sessions, amended Chapter 138 and requires the City and the Contractor, Occidental Long Beach, Inc. (OLBI), to prepare a one-year Annual Plan, which includes an itemized budget of intended expenditures.

The Annual Plan provides for the further development of the Long Beach Unit through the Agreement for Implementation of an Optimized Waterflood Program that was entered into in November 1991 as part of the above legislation. Preparation is a joint effort by the staffs of the City of Long Beach, Gas and Oil Department (Unit Operator), OLBI (Field Contractor), and THUMS Long Beach Company (Agent for Field Contractor). A copy of the Annual Plan is attached.

This matter was reviewed by Deputy City Attorney Richard Anthony on January 16, 2014 and Budget Management Officer Victoria Bell on January 23, 2014.

TIMING CONSIDERATIONS

Chapter 941, California Legislature, 1991 Sessions, also requires that the City submit formal copies of the Plan to the State Lands Commission for approval no later than March 22, 2014. To meet this requirement, City Council approval is requested on March 4, 2014.

HONORABLE MAYOR AND CITY COUNCIL
March 4, 2014
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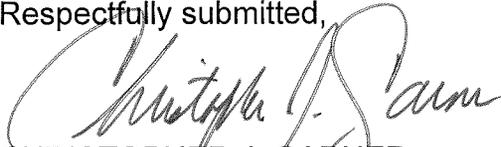
FISCAL IMPACT

City Council adoption of the Annual Plan for transmission to the California State Lands Commission has no fiscal or local job impact.

SUGGESTED ACTION:

Approve recommendation.

Respectfully submitted,



CHRISTOPHER J. GARNER
DIRECTOR OF LONG BEACH GAS AND OIL

CJG:KT:ra

Attachment: Long Beach Unit Annual Plan

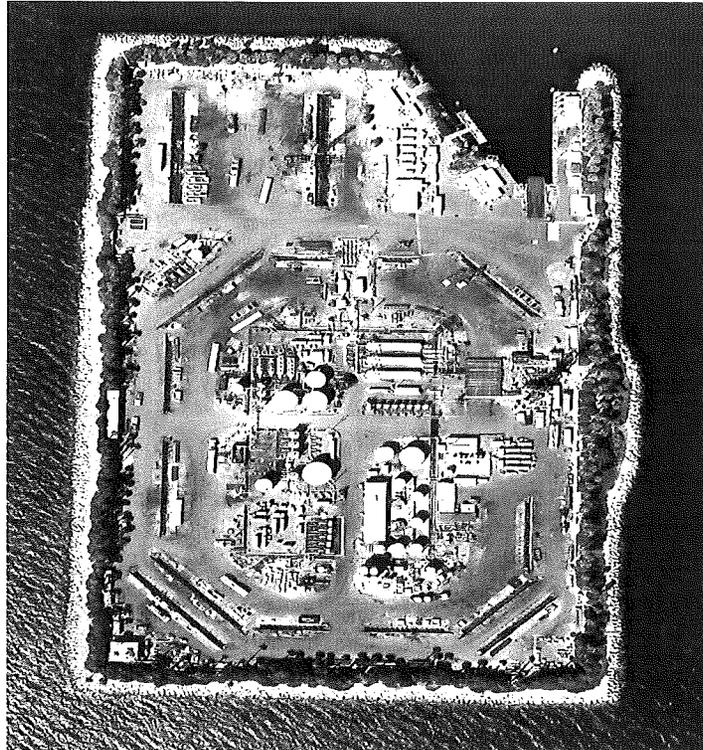
APPROVED:



PATRICK H. WEST
CITY MANAGER

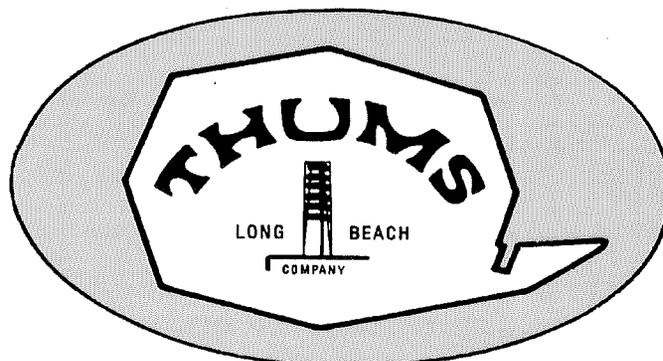
Long Beach Unit

THUMS Long Beach Company (Agent for Field Contractor)



ANNUAL PLAN

July 1, 2014 through June 30, 2015



ANNUAL PLAN

July 1, 2014 through June 30, 2015

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Part I

Introduction

This Annual Plan ("Plan") was developed to reflect anticipated activity levels during the fiscal period from July 1, 2014 through June 30, 2015 ("FY15"). It is being submitted as required by Section 5(a) of Chapter 138, Statutes of 1964, First Extraordinary Session, and as revised by passage of Assembly Bill 227 (Chapter 941, Statutes of 1991) and the Optimized Waterflood Program Agreement executed by the State of California, the City of Long Beach, and Oxy Long Beach, Inc. ("OLBI"), the Field Contractor.

This Plan provides for drilling, producing, water injection, and other associated activities from offshore and onshore locations. The budget for these activities is grouped into the following five major categories:

Plan Category	Fiscal Year 2014 – 2015 (\$ Million)
Development Drilling	\$ 138.6
Operating Expense	\$ 102.7
Facilities, Maintenance, and Plant	\$ 82.6
Unit Field Labor and Administrative	\$ 57.7
Taxes, Permits, and Administrative Overhead	\$ 54.4
Total	\$435.9

A. Plan Basis

This Plan was developed based on the parameters outlined in the Program Plan for the period July 2013 through June 2018 and provides current and updated estimates of volumes, drilling activity and expenditures for FY15.

Volumes

Oil and gas production volumes are predicted to average 24.0 Mbopd and 8.4 MMcfd, respectively, in FY15. Water production for the period is expected to average 1,040 Mbwpd and water injection is expected to average 1,121 Mbwpd.

Revenue and Expenses

A projected oil price of \$70.00/bbl Wilmington and gas price of \$4.00/mcf will result in revenues of \$625 million. Budgeted expenses for FY15 total \$436 million. Projected net profit in FY15 is \$189 million.

Drilling

This Plan allows for drilling approximately 78 new and redrilled development and/or replacement wells. The plan is to use approximately three drilling rigs. The rig utilization could potentially change due to variations in oil price and program performance. Workover rigs will perform drilling preparation and completion work.

The locations of production and injection wells to be drilled or redrilled are consistent with those given in the Program Plan (see attached Part II, Schedule 2B).

Maintenance

Most of the major facility projects anticipated during the Plan period are required to maintain current equipment capabilities or to enhance operations. Other projects will be necessary to take advantage of improvement opportunities and to address changes in the oil field operating environment.

OLBI has a Mechanical Integrity and Quality Assurance (MIQA) program to assess and maintain critical equipment in order to protect the environment to the maximum extent possible. The MIQA program is designed to meet internal and regulatory requirements and provide a high level of equipment integrity to reduce risk and increase reliability. Key elements include:

- Identification, evaluation, and determination of what equipment and/or process components are critical (i.e. their failure or malfunction could adversely affect the safety of personnel, operations, and/or the environment).

- A process to ensure equipment and components comply with material specifications, design and construction codes or standards thus providing a measure of safety and reliability.
- Methodologies for inspecting, testing and maintaining the equipment and documenting such action.

The MIQA program is an integral piece of the overall flow of maintenance, from inspection/testing through maintenance and, when necessary, repairs or replacement. The program is supported through the use of a comprehensive database and work order system that provides control and management of all maintenance activities.

Many projects will be undertaken to repair or replace equipment that has outlived its useful life. Items needing to be repaired or replaced include, but are not limited to, facilities piping, tanks, and vessels. These projects are consistent with past activities to keep the Unit facilities in safe operating condition and reflect a forecast forward field life of 30-40 years.

Abandonment

Wells and facilities with no further economic use will be abandoned to reduce current and future Unit liability. This Plan provides funds for plugging wells to surface, in-zone, and conditional abandonments.

Safety, Environmental, and Regulatory Compliance

OLBI is committed to conducting all aspects of its business in a manner that provides for the safety and health of employees, contractors and the public, and safeguards the environment in which it operates. Key safety programs include incident reporting and investigation, safety meetings and training, Management of Change (MOC), Process Hazard Reviews (PHR's), emergency response planning and drills, and a behavior based safety observation program. Key aspects of the environmental program include compliance with all laws and regulations, including South Coast Air Quality Management District (AQMD) requirements, waste management and minimization, spill prevention plans and Business Emergency Plans (BEP's).

The effectiveness and compliance of the above programs are assured through various internal audit programs. In addition, numerous agencies conduct periodic audits, including the CA State Lands Commission, Department of Transportation, State Fire Marshal, AQMD, Environmental Protection Agency, Long Beach Fire and Health Departments, Port of Long Beach and City of Long Beach Gas & Oil Department.

Emergency response planning and preparedness is bolstered by partnering with Marine Spill Response Corporation (MSRC). MSRC is an independent, non-

profit, national spill response company dedicated to rapid response to environmental incidents. MSRC has a major west coast base of operations in the Port of Long Beach and its equipment and expertise are readily available for emergencies and are incorporated in onsite training exercises. The training exercises also involve a close working relationship with the United States Coast Guard and California Department of Fish and Game.

Environmental and community outreach is also a fundamental part of THUMS program and each of the Islands is currently designated 'Corporate Lands for Learning' sites by the Wildlife Habitat Council. This designation is awarded to facilities that provide for public education and involvement through wildlife related projects and learning opportunities on the facilities.

Projects relating to safety, environmental issues, or other situations necessary for meeting compliance with code, permit, or regulatory requirements will continue to be implemented under this Plan in accordance with all Unit agreements. In addition, OLBI places additional emphasis on risk and system reviews and operational safeguards to assure reliable and compliant environmental performance.

Economic Review

Project expenditures during the Plan period are subject to economic review through the Determination and Authority for Expenditure (AFE) processes. All existing wells are frequently reviewed in light of changing crude prices to determine if they are economic to operate. Well servicing work is justified on economics and other conditions consistent with good engineering, business, and operating practices.

OLBI remains committed to careful management of subsidence related to its oil and gas production through strict adherence to existing regulations and voidage rules.

B. Economic Projections

(Data in Millions of Dollars)

	BUDGET FIRST QUARTER FY15	BUDGET SECOND QUARTER FY15	BUDGET THIRD QUARTER FY15	BUDGET FOURTH QUARTER FY15	BUDGET TOTAL FY15
<u>ESTIMATED REVENUE</u>					
Oil Revenue	\$156.3	\$155.4	\$150.3	\$151.2	\$613.1
Gas Revenue	\$3.1	\$3.1	\$3.0	\$3.0	\$12.3
TOTAL REVENUE	\$159.5	\$158.5	\$153.3	\$154.2	\$625.4
<u>ESTIMATED EXPENDITURES</u>					
Development Drilling	\$34.5	\$34.0	\$33.1	\$37.1	\$138.6
Operating Expense	\$25.8	\$25.0	\$25.6	\$26.3	\$102.7
Facilities & Maintenance	\$19.7	\$21.1	\$21.1	\$20.6	\$82.6
Unit Field Labor & Administration	\$12.5	\$20.5	\$12.3	\$12.3	\$57.7
Taxes, Permits & Overhead	\$14.0	\$13.4	\$13.5	\$13.5	\$54.4
TOTAL EXPENDITURES	\$106.5	\$114.0	\$105.6	\$109.8	\$435.9
<u>NET PROFIT</u>	\$52.9	\$44.4	\$47.7	\$44.4	\$189.5

C. MAJOR PLANNING ASSUMPTIONS

	BUDGET FIRST QUARTER FY15	BUDGET SECOND QUARTER FY15	BUDGET THIRD QUARTER FY15	BUDGET FOURTH QUARTER FY15	BUDGET TOTAL FY15
<u>OIL PRODUCTION</u>					
PRODUCED (1000 BBL)	2,233	2,220	2,146	2,160	8,759
(AVERAGE B/D)	✓ 24,276 ✓	✓ 24,126 ✓	✓ 23,849 ✓	✓ 23,732	✓ 23,996
<u>GAS PRODUCTION</u>					
PRODUCED (1000 MCF)	782	777	751	756	3,066
(AVERAGE MCF/D)	✓ 8,497 ✓	✓ 8,444 ✓	✓ 8,347 ✓	✓ 8,306	✓ 8,399
<u>WATER PRODUCTION</u>					
PRODUCED (1000 BBL)	95,378	95,512	93,519	95,069	379,478
(AVERAGE B/D)	✓ 1,036,720 ✓	✓ 1,038,172 ✓	✓ 1,039,102 ✓	✓ 1,044,711	✓ 1,039,676
<u>WATER INJECTION</u>					
INJECTED (1000 BBL)	102,589	102,808	101,128	102,601	409,126
(AVERAGE B/D)	✓ 1,115,095 ✓	✓ 1,117,479 ✓	✓ 1,123,644 ✓	✓ 1,127,484	✓ 1,120,926
OIL PRICE (\$/BBL)	\$70.00	\$70.00	\$70.00	\$70.00	\$70.00
GAS PRICE (\$/MCF)	\$4.00	\$4.00	\$4.00	\$4.00	\$4.00

Part II

Program Plan Schedules

Schedule 2 A

Range of Production and Injection FY 2015

Long Beach Unit Program Plan, July 2013-June 2018

FISCAL YEAR	RANGE OF PRODUCTION AND INJECTION RATES							
	OIL MBOPD		WATER MBWPD		GAS MMCFPD		INJECTION MBWPD	
2014/15	22.1	- 24.4	1,062	- 1,173	7.5	- 8.3	1,149	- 1,270

FISCAL YEAR	RANGE OF INJECTION PRESSURES			
	TAR PSI	RANGER PSI	TERMINAL PSI	U. P./FORD PSI
2014/15	UP TO 1500	UP TO 2500	UP TO 2500	UP TO 3000

Schedule 2 B
Anticipated New and Redrilled Wells
Fiscal Year 14/15
Long Beach Unit Program Plan, July 2013-June 2018

Reservoir	CRB	Producers					Injectors				
		Grissom	White	Chaffee	Freeman	Pier J	Grissom	White	Chaffee	Freeman	Pier J
		Min - Max									
Tar SG Ranger West	35	0 - 1	0 - 2				0 - 1	0 - 1			
	1	0 - 4					0 - 5				
	2	0 - 7	0 - 1				0 - 2	0 - 1			0 - 3
	3	0 - 4	0 - 1					0 - 1			0 - 1
	4		0 - 1		0 - 1	0 - 1		0 - 1			0 - 3
	5				0 - 2	0 - 7				0 - 2	0 - 3
	7				0 - 4					0 - 2	
	8										
	9		0 - 1					0 - 1			
	10		0 - 1					0 - 1			
	11		0 - 1					0 - 1			
	12		0 - 1					0 - 1			
	13		0 - 1			0 - 1		0 - 1			
	36					0 - 2					0 - 1
37					0 - 1						
Ranger East	14		0 - 1					0 - 1			
	15		0 - 1		0 - 4			0 - 1		0 - 2	
	16		0 - 1					0 - 1			
	17			0 - 1					0 - 1		
	18			0 - 1					0 - 1		
	20			0 - 1					0 - 1		
	21			0 - 1	0 - 2				0 - 1		
	22			0 - 1					0 - 1		
	32			0 - 1					0 - 1		
	33			0 - 2					0 - 1		
Terminal	24		0 - 1					0 - 1			
	38	0 - 2				0 - 1	0 - 1				
	39	0 - 2	0 - 1				0 - 1	0 - 1			
	40	0 - 1	0 - 1				0 - 1	0 - 1			
	41					0 - 2					0 - 1
	42										
	43			0 - 1	0 - 1				0 - 1	0 - 1	
47			0 - 1					0 - 1			
UP Ford	26			0 - 1					0 - 1		
	27		0 - 1	0 - 1	0 - 1			0 - 1	0 - 1		
	30				0 - 2						
	31		0 - 1					0 - 1			
	44										
	45			0 - 1					0 - 1		
46		0 - 1		0 - 2			0 - 1		0 - 1		
237	30			0 - 1	0 - 2				0 - 1		
		Total					Total				
		0 - 90					0 - 59				

Part III

Itemized Budget of Expenditures

A. Development Drilling **\$138.6MM**

The Development Drilling category of expenditures encompasses all new well and replacement well drilling activity, as well as maintenance and replacement of drilling equipment within the Unit. Funds for development drilling are based on the assumption that 78 wells will be developed and/or replaced during the Plan year using approximately 3 drilling rigs.

Drilling and completing new wells, as well as re-drilling and recompleting existing wells, account for 98 percent of the funding provided in this Category. Included in these activities is funding for rig move-in, drilling and casing, completion activities, drilling rig in-zone plugs and conditional abandonments, and unscheduled activity (fishing operations, cement squeezing, special logging, contract drilling services).

Exact specifications regarding the distribution of wells, bottom hole locations, and completion intervals will be determined by OLBI. These decisions will be influenced by contributions from reservoir engineering personnel, results from ongoing engineering studies, and new well performance. This information will be reviewed and approved in accordance with the various unit agreements during regularly scheduled meetings.

B. Operating Expense **\$102.7MM**

The Operating Expense category of expenditures encompasses the ongoing costs of day-to-day well production and injection operations necessary for producing, processing, and delivering crude oil and gas, and for all electric power charges. Expenses for this category are based on estimated oil production of 24.0 Mbopd, estimated gas production of 8.4 MMcfpd, water injection requirement of 1,121 Mbwpd, and water production of 1,040 Mbwpd. Anticipated operating expenses were based on operating four workover rigs per month for servicing an average active well count of 771 producers and 473 injectors. These rigs will also be used for the completion of 26 investment wellwork projects. Abandonment well count will be determined as a function of drilling activity and the number of idle wells with no future use identified.

The day-to-day costs for production and injection well subsurface operations represent approximately 46 percent of the funding provided in this category. Included are funds for recompletions, routine well work, well conversions, in-zone

plugs, conditional abandonments, and other charges incurred for well maintenance.

Electricity makes up 54 percent of the funds in this Category. Cost for electric power is based on estimated kilowatt usage of 714,635,000 KWh at an average rate of \$0.075/KWh. This cost includes all sources of Unit electrical power, including all costs associated with the power plant and electric utility purchases.

C. Facilities, Maintenance, and Plant \$82.6MM

The Facilities, Maintenance, and Plant category of expenditures encompasses costs for maintenance, repairs, upgrades, additions of surface facilities and pipelines, and costs for general field services.

Approximately 51 percent of the funding in this category is for general field and operating costs. This includes, but is not limited to, charges for general labor, equipment rentals, and materials for general maintenance (painting, welding, electrical, etc.) of all Unit systems, such as oil gathering, treating, storage, and transfer; gas gathering and treating; scale and corrosion control; produced water handling; waste disposal; leasehold improvements; electrical system; fresh water system; fire protection and safety; marine operations; and automotive equipment. Funds are also provided for chemical purchases and laboratory-related charges for chemical treatment of produced and injected fluids; gas processing charges; make-up water; security; transportation; small tools; and other miscellaneous field activities.

Approximately 49 percent of the funding in this Category is for facilities repair and improvement projects. Approximately 28% of the repair project category is focused on inspection, maintenance and repair in support of the MIQA program. This work includes regulated pipeline inspection surveys and evaluation, inspection and repair of cathodic protection systems, and infrastructure piping integrity inspections not covered by regulatory control.

Improvement projects include spending for Freeman injection pump, Chaffee well cellars, oil transfer pump and other infrastructure related investments that position the Unit for longevity.

D. Unit Field Labor and Administrative \$57.7MM

The Unit Field Labor and Administrative category of expenditures encompasses costs for Unit personnel and other Unit support activities.

Funding for Unit personnel includes costs of salaries, wages, benefits, training, and expenses of all OLBI employees. These costs represent approximately 93 percent of the Category total.

Funding for Unit support activities includes, but is not limited to, costs for professional and temporary services necessary for the completion of support activities; charges for data processing; computer hardware and software; communications; office rent; general office equipment and materials; drafting and reprographic services; DOT drug and alcohol testing; special management projects; and other miscellaneous support charges.

E. Taxes, Permits, and Administrative Overhead \$54.4MM

The Taxes, Permits, and Administrative Overhead category of expenditures includes funds for specific taxes, permits, licenses, land leases, and all administrative overhead costs for the Unit.

Funding is provided for taxes levied on personal property, mining rights, and oil production; for the Petroleum and Gas Fund Assessment; annual well permits and renewals; Conservation Committee of California Oil and Gas Producers Assessment; California Oil Spill Response, Prevention, and Administration fee; land leases; and pipeline right-of-way costs. These costs represent approximately 67 percent of the Category total.

Funding is also provided in this Category for all Administrative Overhead (including Unit Operator billable costs and OLBI billable costs) as called for in Exhibit F of the Unit Operating Agreement.

PART IV

Definitions

This Annual Plan may be Modified or Supplemented after review by the State Lands Commission for consistency with the current Program Plan. All Modifications and Supplements to this plan will be presented by the Long Beach Gas and Oil Department, City of Long Beach, acting with the consent of OLBI, to the State Lands Commission in accordance with Article 2.06 of the Optimized Waterflood Program Agreement.

In addition, on or before October 1, 2015 the City of Long Beach shall present to the State Lands Commission a final report and closing statement of the FY15 Annual Plan, in accordance with the provision in Section 10 of Chapter 138.

A. Modifications

The City of Long Beach, acting with the consent of OLBI, has the authority to cause the expenditures of funds for Unit Operations in excess of the amount set forth in the budget included in the Annual Plan, provided, however, that no such expenditure shall be incurred that would result in any category of expenditures set forth in the budget to exceed 120 percent of the budgeted amount for that category. A budget modification would be required for any expenditures which would cause a budget category to exceed its budgeted amount by 120 percent.

Any transfer of funds between budget categories or an augmentation or decrease of the entire budget may be accomplished by a budget modification in accordance with section 5(g) of Chapter 138 and Article 2.06 of the Optimized Waterflood Program Agreement.

Investment, facilities, and management expense projects commenced in prior budget periods, which are to be continued during the current budget period, may be added to this budget by a modification in accordance with Article 2.06 of the Optimized Waterflood Program Agreement.

B. Supplements

This Annual Plan contains all the investment and expense projects reasonably anticipated at the time the Plan was drafted and for which adequate detailed studies existed. Any significant and uncommon expenses not originally contemplated may be added to this budget or transferred by a supplement in accordance with Article 2.06 of the Optimized Waterflood Program Agreement.

The amount of the supplement shall include sufficient funds to complete the projects.

C. Final Report and Closing Statement

The final report and closing statement for FY15 shall contain a reconciliation by category as finally modified and the actual accomplishments, including:

1. New wells and redrills by zone.
2. Facilities and capital projects.
3. Production by zone.
4. Injection by zone.