CALENDAR ITEM
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		E. Tajer
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INFORMATIONAL UPDATE ON CHANGES TO THE STATE'S SHARE OF THE LONG BEACH UNIT'S NET PROFIT REVENUE PURSUANT TO THE OPTIMIZED WATERFLOOD AGREEMENT, WILMINGTON OIL FIELD, LOS ANGELES COUNTY

INTRODUCTION:

The Long Beach Unit (LBU or Unit) is an oil and gas production unit, established in 1965, operating from tidelands legislatively granted to the City of Long Beach (City). The City, as the Unit operator, manages the operation in trust on behalf of the State. Between 1965 and 1992, the State received approximately 96 percent of the net profits generated from oil production in the LBU. In 1992, the LBU participants executed the Optimized Waterflood Program Agreement (OWPA) whereby, among other things, the LBU's private oil company contractor (Field Contractor) agreed to invest $100 million into an enhanced secondary oil recovery program to increase the productive life of the LBU. In exchange, the State received a smaller net profit share (42.5 percent) on the sale of oil incrementally produced as a direct result of the recovery program.

Due to the recent collapse in oil prices, a clause was triggered within the OWPA in September 2016 that altered the proportional share of net profits realized by the State through the sale of oil in the LBU. Prior to September 2016, the State's net profits share in the LBU was approximately 96 percent of the oil produced from wells existing pre-OWPA (i.e., Base Production) and 42.5 percent of the oil produced since (i.e., Incremental Production). The City informed staff that under section 1.02(i) of the OWPA (discussed in further detail below), starting in October 2016 and from then on, Base Production will no longer be calculated and the State's share of all Unit net oil profits will be adjusted to a flat 42.5 percent.

Although the State will receive a smaller share of the total Unit net profits, there may be some offsetting effect because the total Unit costs will be shared more equitably among the parties to the Unit; the State will not be liable for a Base Production revenue deficit of $14.26 million. The Field Contractor, California

Resources Corporation (CRC), may also be incentivized to conduct future development, thereby enhancing the State's revenue stream.

LBU AND THE OWPA'S TWO TIER PRODUCTION SYSTEM:

The LBU is an oil and gas production operation consisting of the pooled mineral interests of the State, the City (both as a trustee to the State and in a proprietorial role) and a mix of private upland owners. The City manages the Unit and CRC, as Field Contractor, manages the daily production and marketing of oil and gas.

Unlike traditional oil and gas leases, the State is not the lessor and does not collect a flat royalty on production. Monthly proceeds from the LBU are distributed from operational net-profits, determined after Unit costs are deducted from Unit revenue each month. From 1965 until 1992, the State's share of the net-profits for the tidelands portion of the Unit was approximately 96 percent with the remaining 4 percent going to the Field Contractor.

In 1992, the OWPA was executed by the State, City, and Field Contractor (ARCO at the time). The OWPA was developed to extend the term of the various operating contracts from the termination date of March 31, 2000, until the end of field life and to induce ARCO to invest capital in an optimized waterflood program to maximize the productive life of the Unit (See Calendar Item 41, November 5, 1991). More specifically, the OWPA agreement required that: ARCO invest at least $100 million in capital expenditures for the application of state-of-the-art technology to locate and produce additional recoverable oil from the LBU; that ARCO quitclaim oil and gas leases PRC 308 and PRC 309; and that ARCO dismiss the unrelated Coal Oil Point litigation involving the State.

To incentivize this financial risk, the City and the State agreed to set up a two-tier system for calculating the shared net-profits for Base Production (tier I) and Incremental Production (tier II). Base Production is considered ongoing oil produced from wells and facilities that existed as of 1992. Incremental Production is oil produced from new wells developed (or old wells that were redrilled) after 1992. The State's net profits share of oil resulting from Base Production remained 96 percent; however, the net profits share of Incremental Production (tier II) was 42.5 percent to the State, 8.5 percent to the City, and 49 percent to the Field Contractor. Since the implementation of the OWPA, the State has received $1.58 billion in incremental net profits, the contractor has received $1.4 billion and the City has received $234 million that otherwise would not have been realized without the OWPA.

THE OWPA'S PROVISION FOR ENDING THE TWO TIER SYSTEM:

The language within the OWPA anticipated that Base Production would eventually be exhausted, with all future net-profits being divided on the incremental (42.5/8.5/49 percent) basis. Under the OWPA, a computer program was used to determine the total amount of production and share of Unit costs that should be attributed as Base Production. The OWPA provides that once the costs to produce Base Production oil start to consistently exceed the revenue generated by that oil, then the entire two-tier net-profits system will cease and all future net profits will be calculated on the incremental 42.5 percent/8.5 percent 49 percent split.[1]

As a backstop, in case the computer program still calculated a net-profits for Base Production by January 1, 2020, it was programed to automatically reduce the oil attributed to Base Production on a quarterly basis to hasten the end of the two tier system.[2] Since the 2015 collapse in oil prices, Base Production net-profits have been negative most months, and the State realized no net-profits from Base Production.

THE TWO TIER SYSTEM ENDED IN SEPTEMBER 2016

By letter dated November 2, 2016, the City informed the Commission that Section 1.02(i) was triggered in the September 2016 production month (attached as Exhibit A).[3] Staff had worked with the City throughout 2016 to determine if and when Section 1.02(i) of the OWPA would be triggered, causing the State's future LBU net-profits to adjust to a flat 42.5 percent share. Staff sought to confirm the City's approach to calculating the end of Base Production and determine if reasonable accounting methods were available to extend the life of the two-tier system.

At staff's request, the City analyzed the effect of applying Unit costs under different accounting scenarios to determine whether any scenario prevented or delayed the triggering of section 1.02(i). Because of depressed oil prices and revenue, under each scenario the City analyzed, Section 1.02(i) was triggered in either September or October 2016. Staff's internal analysis reached similar conclusions.

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[1] OWPA, Section 1.02(i). "If at any time after Fiscal Year 2000, the aggregate Base Costs for any 24 consecutive months are equal to or exceed the aggregate Base Revenues for such period . . . Incremental Revenue shall be equal to Actual revenues."

[2] OWPA, Exhibit A, Section 3.2.

[3] Monthly oil production figures are calculated and reported on a 1-month delay.

POTENTIAL IMPLICATIONS:

On its face, the end of the two-tier production system will result in the State receiving a smaller total proportion of the LBU's net-profits. In addition, the State will likely realize less monthly oil revenue under high oil price scenarios.[4] Since the OWPA was executed in 1992, the State benefited from the persistence of Base Production; however, incremental (tier II) production was created to incentivize Unit investment and development by the Field Contractor in order to extend the productive life of the Unit. The Field Contractor would assume more Unit costs, but would also receive more of the net-profit share as a result.

There are factors that may offset future revenue reductions. Historically, certain Unit costs were fully attributed to Base Production, meaning they were deducted from the State's base net profits, of which the State received 96 percent. With the end of the two-tier system, those costs will now be applied in proportion to the incremental or tier II allocation. Consequently, those costs will be carried by the parties more equitably. This should create marginal savings to the State otherwise not attained if the two-tier system continued.

The end of Base Production calculation also eliminates liability ofapproximately $14.26 million or more that the State would otherwise be liable for if Base Production continued. Under the OWPA, negative balances on the State's monthly base net profits carry over month-to-month. Recently, the accumulated negative base net profit had grown to approximately $14 to15 million. Monthly positive base net profits are used to pay down, or offset, the accumulated negative base net profit until the balance reaches zero. Because this negative base net profit was growing, it was unlikely that the State would receive any amount of base net profits until the price of oil improved to allow positive base returns to pay down the accrued negative base net profit. Now that Base Production has ended, however, this accumulated negative base net profit has vanished along with theState's obligation to pay down that remaining negative balance.

An additional variable is that an increased net profit share may spur CRC to further invest in Unit development to maximize production. The original intent of the OWPA was to induce additional investment by the Field Contractor by increasing its net profit share. Although staff is unaware of any development projects beyond those submitted in the Unit's current 5-year Program Plan,

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[4] See Exhibit B, figure 6, analyzing the potential revenue differential between the two tier (base and incremental) compared with the one tier (incremental) system.

additional development above what would otherwise occur might, through increased oil sales, offset any reduction in State revenue.

EXHIBITS:

A. Letter from the City of Long Beach, dated November 2, 2016

B. Figures and Tables

Exhibit A

W 17168

CITY OF LONG BEACH
Gas & Oil
DEPARTMENT

ROBERT DOWELL
DIRECTOR

2400 EAST SPRING STREET · LONG BEACH, CA 90806
(562) 570-2000 · www.lbgo.org

November 2, 2016

Ms. Marina Voskanian, Chief
Division of Mineral Resources Management
California State Lands Commission
200 Oceangate, 12th Floor
Long Beach, CA 90802-4331

SUBJECT: California State Lands Commission's Base Net Profit Termination

Dear Ms. Voskanian:

This letter is to inform you that the State's base net profit terminated in the month of September 2016. As you are aware, the Agreement for Implementation of an Optimized Waterflood Program (OWPA) for the Long Beach Unit, Article 1.01(i) specifies:

> *"If at any time after fiscal year 2000, the aggregate base costs for any period of 24 consecutive months are equal to or exceed the aggregate base revenues for such period, the State's base profits shall be equal to zero through the duration of Article 2."*

We had discussed the impending termination of the State's base profits in a recent meeting on August 30, 2016. Beginning with the October 2016 accounting, there shall be no requirement to calculate the State's base net profit. The State's carried negative base profit will be set to zero. Additionally, there will no longer be an obligation to determine extraordinary expenses. The State's existing and future abandonment liability will continue to be governed by Article 2.18 of the OWPA.

The termination of the State's base net profit is a substantial change the OWPA. The City will discuss possible changes to the accounting reports at the next scheduled quarterly accounting committee meeting. This will provide an opportunity to make any needed modifications to the reports.

The termination of State's base profit is a direct result of the lower oil price environment we have experienced since 2014. We hope to continue working together for the successful development of the Long Beach Unit for many years to come. Please contact me should you have any questions.

Sincerely,

Robert Dowell
Director

cc: Bob Barnes, CRC

EXHIBIT B

W 17168

Base Production, Revenue, Cost and Net Profit

Since the beginning of the OWPA (January 1992), the LBU Base production has reached approximately 191 million barrels of oil. During this period, it generated $1.7 billion of net profit for the three parties, namely, the Commission, City and the Contractor, which is currently California Resources Corporation. Figure 1 shows the historic Base oil production rate as calculated by the computer's FORTRAN program pursuant to the OWPA. In the third quarter of 2016, the Base oil production was approximately 9,800 Barrels per day, which accounted for 40 percent of the total oil production of the Long Beach Unit.

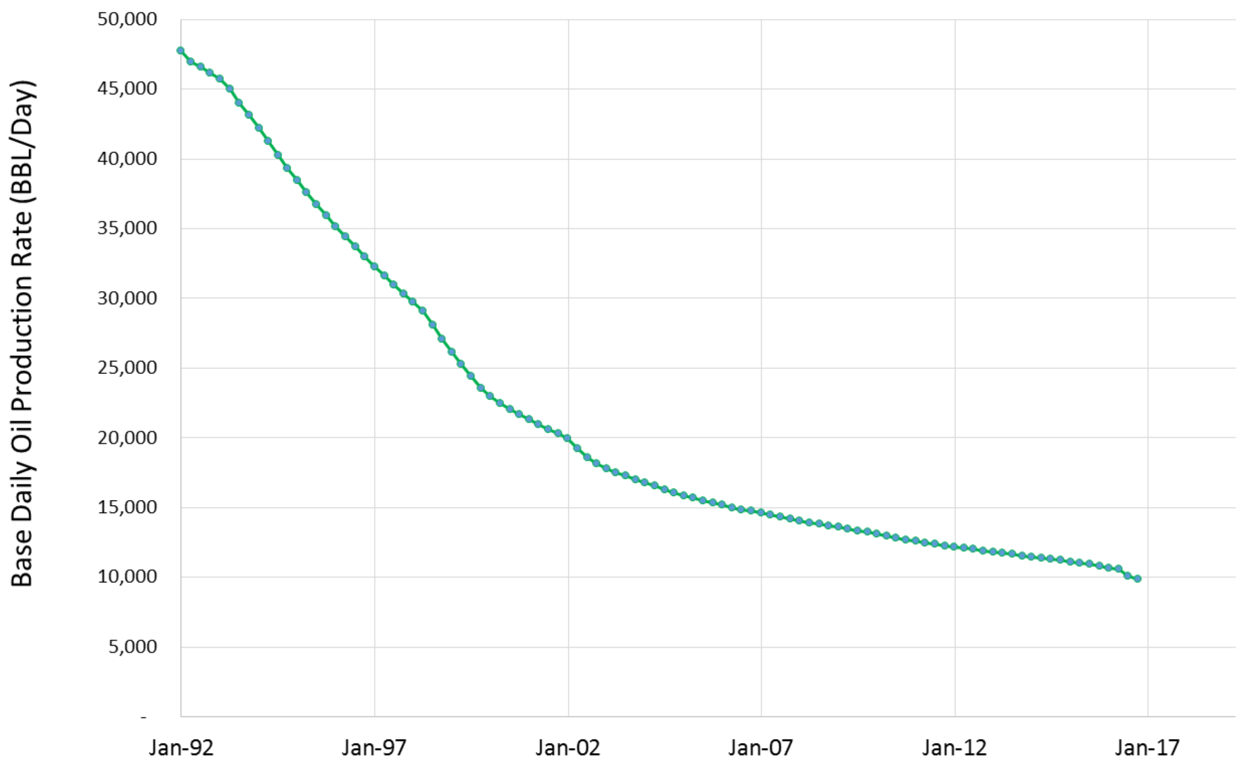


Figure 1: Base Oil Production Rate since the beginning of OWPA

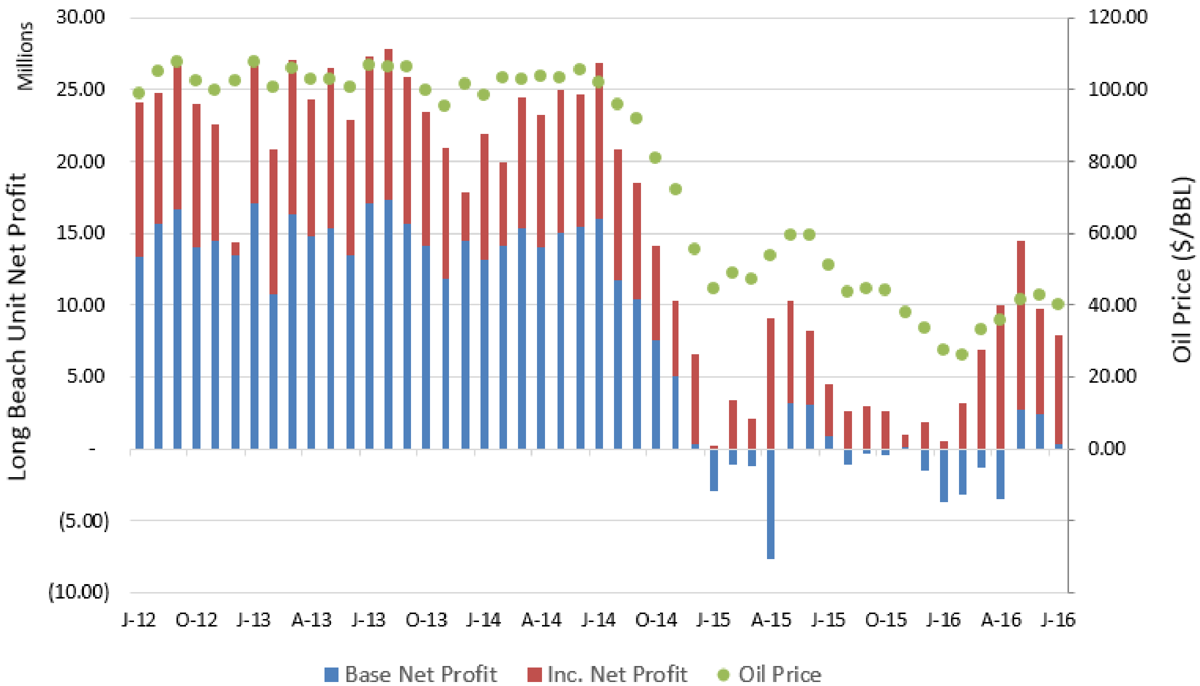


Figure 2: LBU Base and Incremental Net Profits (July 2012-July 2016)

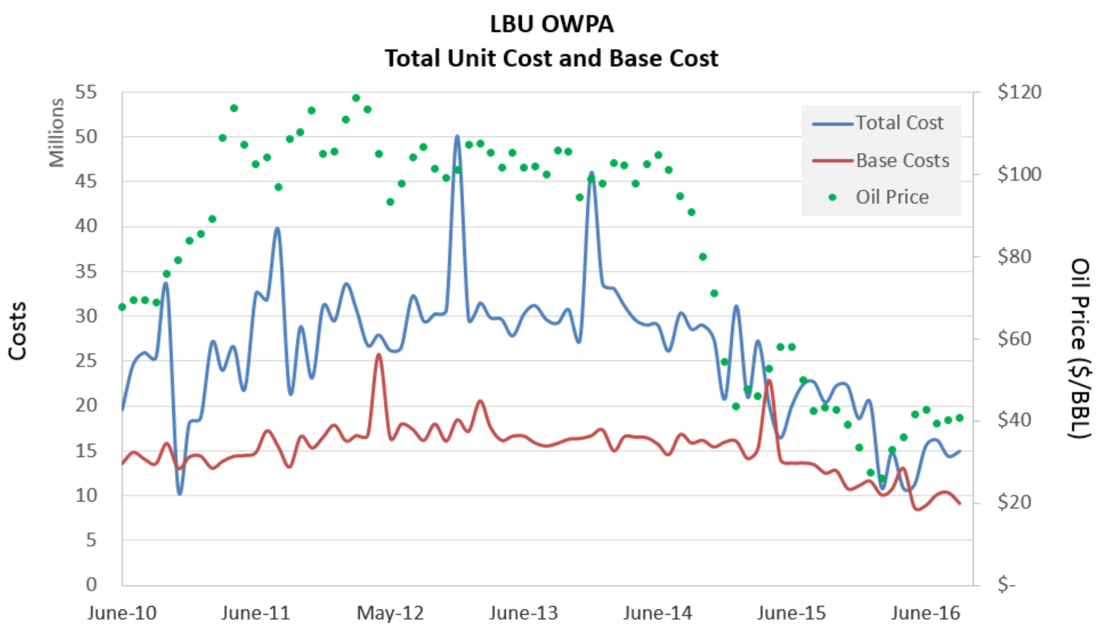
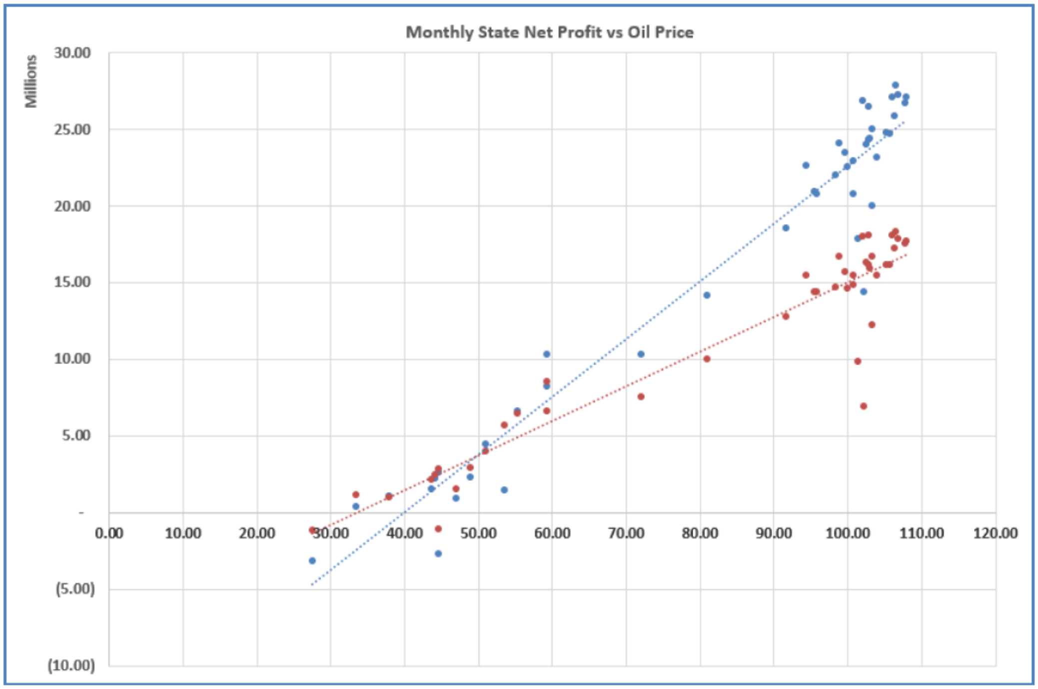


Figure 3- Long Beach Unit Monthly Total Costs and Base Costs (in Million dollars) and Oil Prices ($/BBL) at the corresponding period.

Table 1: Monthly Base revenue, cost, net profit and 24-month aggregate net profit

LBU OWP 24 Month Aggregate Base

	Production Month/Year		Base Revenues	Base Costs	Base Net Profit	24 Month Sum
Fiscal Year 14/15	July	2014	30,619,516.31	14,583,379.84	16,036,136.47	355,909,789.47
	August	2014	28,526,015.21	16,819,559.75	11,706,455.46	351,936,560.41
	September	2014	26,268,563.15	15,870,188.54	10,398,374.61	345,657,605.26
	October	2014	23,773,080.06	16,173,691.63	7,599,388.43	339,237,989.68
	November	2014	20,529,365.97	15,433,486.09	5,095,879.88	329,885,207.69
	December	2014	16,262,766.88	15,978,825.58	283,941.30	316,658,650.09
	January	2015	13,152,527.73	16,062,156.73	(2,909,629.00)	296,694,710.73
	February	2015	13,076,080.53	14,130,020.33	(1,053,939.80)	284,879,287.04
	March	2015	14,073,951.44	15,249,257.59	(1,175,306.15)	267,413,337.67
	April	2015	15,216,592.82	22,838,206.29	(7,621,613.47)	245,017,579.74
	May	2015	17,257,848.34	14,076,963.60	3,180,884.74	232,843,515.16
	June	2015	16,692,579.54	13,650,067.72	3,042,511.82	222,345,754.01
Fiscal Year 15/16	July	2016	14,551,499.07	13,657,450.31	894,048.76	206,187,157.42
	August	2016	12,344,438.46	13,472,335.17	(1,127,896.71)	187,778,346.06
	September	2016	12,202,289.27	12,524,714.24	(322,424.97)	171,798,769.63
	October	2016	12,385,521.89	12,782,509.83	(396,987.94)	157,275,519.05
	November	2016	10,881,115.83	10,801,099.09	80,016.74	145,540,027.69
	December	2016	9,592,586.78	11,119,702.75	(1,527,115.97)	129,509,303.38
	January	2016	7,903,504.62	11,635,728.58	(3,732,223.96)	112,582,910.97
	February	2016	6,991,304.87	10,114,254.50	(3,122,949.63)	95,284,988.68
	March	2016	9,516,458.42	10,776,032.75	(1,259,574.33)	78,626,898.50
	April	2016	9,569,672.87	13,046,899.06	(3,477,226.19)	61,144,696.32
	May	2016	11,407,744.42	8,697,588.60	2,710,155.82	48,804,408.24
	June	2016	11,374,104.71	8,944,407.40	2,429,697.31	35,730,603.22
Fiscal Year 16/17	July	2016	10,444,799.56	10,150,953.18	293,846.38	19,988,313.13
	August	2016	10,668,284.83	10,374,123.60	294,161.23	8,576,018.90
	September	2016	10,425,925.97	9,176,049.61	1,249,876.36	(572,479.35)



Scenario 1: (BLUE CURVE): Profit accounted as Base and Incremental

Scenario 2: (RED CURVE): Profit accounted as Incremental Only

Figure 4: Two scenarios of State's net profit with and without base net profits.

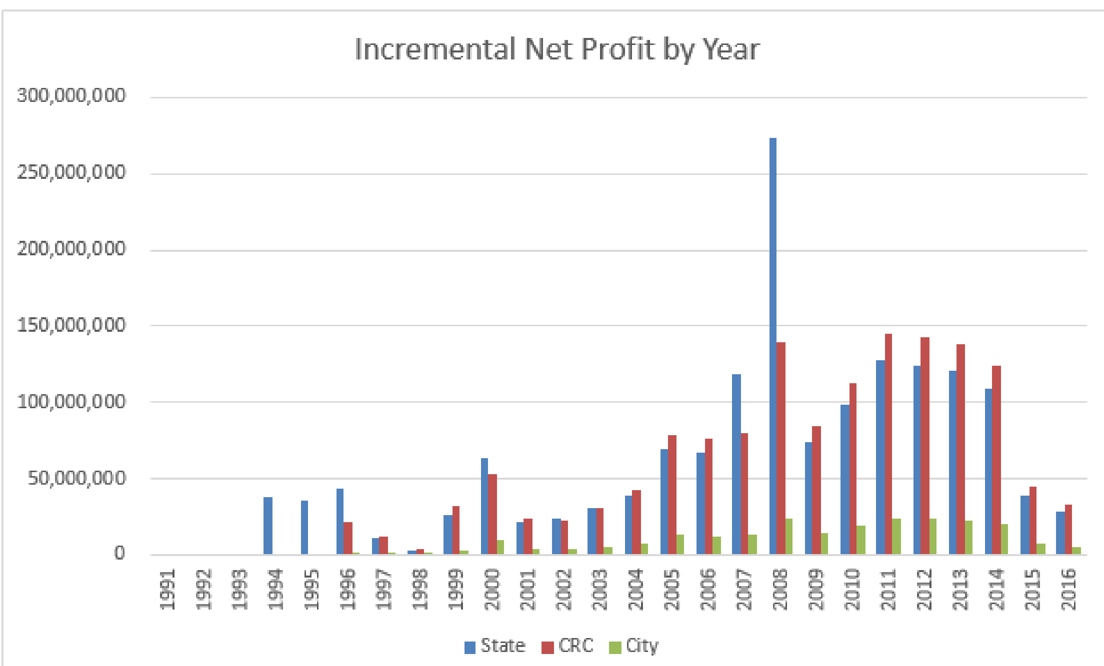


Figure 5: Incremental Net Profits of State, City and Contractor.