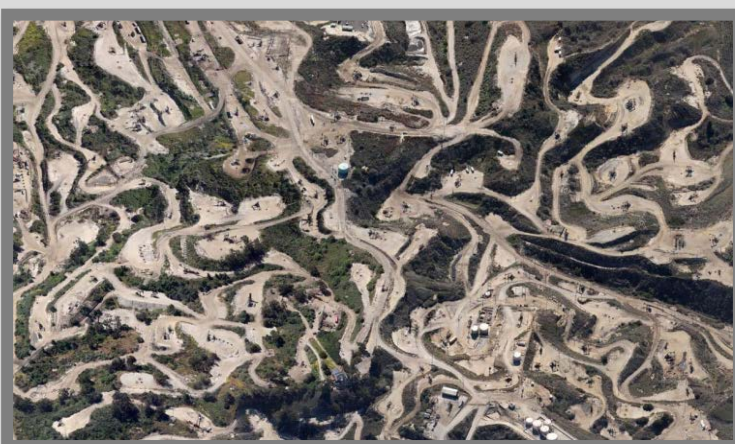


**Capital Investment
Amortization Study for the
City of Culver City Portion of
the Inglewood Oil Field**



Prepared by:
William D. Cheek
Donald L. Flessner
Charles G. Kemp



May 29, 2020



BAKER & O'BRIEN
INCORPORATED

TABLE OF CONTENTS

| | | |
|-----------|--|-----------|
| 1. | LEGAL NOTICE | 1 |
| 2. | INTRODUCTION | 2 |
| | 2.1 QUALIFICATIONS | 2 |
| | 2.2 SCOPE OF WORK | 3 |
| | 2.3 STRUCTURE OF REPORT | 3 |
| 3. | EXECUTIVE SUMMARY | 5 |
| 4. | BACKGROUND | 7 |
| | 4.1 INGLEWOOD OIL FIELD | 7 |
| | 4.2 CITY IOF | 9 |
| 5. | INCOME MODEL | 11 |
| | 5.1 METHODOLOGY | 11 |
| | 5.2 APPLICATION | 11 |
| | 5.3 TESTS FOR AMORTIZATION OF CAPITAL INVESTMENT | 12 |
| | 5.4 BASELINE ASSUMPTIONS | 13 |
| | 5.4.1 INFORMATION SOURCES | 14 |
| | 5.4.2 INITIAL CAPITAL INVESTMENT | 15 |
| | 5.4.3 SUSTAINING CAPITAL INVESTMENT | 16 |
| | 5.4.4 PLUG AND ABANDONMENT COSTS | 16 |
| | 5.4.5 PRODUCTION VOLUMES | 16 |
| | 5.4.6 NETBACK CRUDE OIL PRICES | 17 |
| | 5.4.7 NETBACK NATURAL GAS PRICES | 18 |
| | 5.4.8 ROYALTIES | 18 |
| | 5.4.9 OPERATING COSTS | 19 |
| | 5.4.10 INCOME TAXES | 20 |
| | 5.4.11 INDUSTRY RATE OF RETURN ON INVESTMENT | 21 |
| 6. | SPR ACQUISITION | 22 |
| | 6.1 INITIAL CAPITAL INVESTMENT | 22 |
| | 6.1.1 INCOME INDICATION OF VALUE | 23 |
| | 6.1.2 COST INDICATION OF VALUE | 23 |
| | 6.1.3 MARKET INDICATION OF VALUE | 23 |
| | 6.1.4 FAIR MARKET VALUE | 24 |
| | 6.2 SUSTAINING CAPITAL INVESTMENT | 26 |
| | 6.3 MODEL RESULTS | 26 |

TABLE OF CONTENTS

| | | |
|-----------|---|-----------|
| 7. | DRILLING AND COMPLETION INVESTMENT | 27 |
| 7.1 | WELLS DRILLED SINCE 1977 | 27 |
| 7.2 | WELLS DRILLED PRIOR TO 1977 | 30 |
| 7.2.1 | HISTORICAL CONTEXT | 30 |
| 7.2.2 | ANALYSIS | 31 |
| 7.2.3 | CONCLUSION..... | 33 |
| 7.3 | SUMMARY..... | 33 |
| 8. | SENSITIVITY ANALYSIS | 34 |

LIST OF EXHIBITS

Exhibit A: Glossary

Exhibit B: Consultant Qualifications and Experience

Exhibit C: Reference Materials

Exhibit D: Map of City IOF

Exhibit E: Wells Located in City IOF

Exhibit F: Production History and Forecast

Exhibit G: Inglewood Crude Oil and Natural Gas Prices

Exhibit H: Industry Sector WACC for Oil & Gas Production and Exploration

Exhibit I: Allocation of FCX Transaction Value

Exhibit J: IRR Test for Amortization of Capital Investment

Exhibit K: NPV Test for Amortization of Capital Investment

Exhibit L: Summary of Individual Well Amortization Analysis

Exhibit M: Economics for Wells Drilled Prior to 1977

TABLE OF CONTENTS

Exhibit N: Base Case Assumptions and ACI

Exhibit O: Sensitivity Case: SPR Acquisition Cost of \$5.34 million

Exhibit P: Sensitivity Case: Crude Oil Quality Discount

Exhibit Q: Sensitivity Case: Return on Capital

1. LEGAL NOTICE

The City of Culver City (the “City”), located in Los Angeles County, California, retained Baker & O’Brien, Inc. (“Baker & O’Brien”) to prepare a study of the amortization of capital investment in the Culver City portion of the Inglewood Oil Field. This report presents the basis and conclusions of this study as of the Effective Date. Baker & O’Brien makes no warranties; either expressed or implied, and assumes no liability with respect to the use of any information or methods disclosed herein.

The analysis, opinions, and findings in this report are based on the experience, expertise, and skill of Baker & O’Brien consultants, as well as their research, analysis, discussions, and related work to date. In preparing this report, Baker & O’Brien has relied upon public and proprietary information available for use in this assignment. All conclusions, forecasts, and projections presented in this report represent Baker & O’Brien’s best judgment based upon information available as of the Effective Date of this report, and are inherently uncertain due to the potential impact of factors or future events that are unforeseeable or which are beyond Baker & O’Brien’s control. Baker & O’Brien reserves the right to supplement or amend this report if additional information should subsequently become available that is material to the conclusions presented herein.

Baker & O’Brien prepared this report for the sole benefit of the City. Any reproduction, distribution, or use of this information for other purposes requires Baker & O’Brien’s prior written consent. Baker & O’Brien expressly disclaims all liability for the use, reproduction, or disclosure of this information to, or distribution by, any third party.

2. INTRODUCTION

Baker & O'Brien has been retained by the City to prepare a study of the amortization of capital investment in oil and gas operations located in the approximately 78-acre portion of the Inglewood Oil Field ("IOF") that is located in the City (the "City IOF"). The oil and gas facilities within the IOF are owned and operated by Sentinel Peak Resources LLC ("SPR"). SPR acquired its interest in the City IOF in 2017 from Freeport McMoRan Oil and Gas LLC ("FCX") as part of a portfolio of California oil and gas assets. SPR is a private company that is an affiliate of Quantum Energy Partners, a private equity investor. The information developed by this study will be considered by the City in its review of the possible termination of oil and gas operations within the City IOF.

The Effective Date of this study is January 1, 2020. The Effective Date represents the cut-off date for information used in the study as the basis for representing historical oil and gas operations and projections of future operations in the City IOF.

This report refers to a number of terms and abbreviations that are used in the oil and gas industry. For convenience, a Glossary is provided in **Exhibit A** that lists many of these terms and abbreviations and provides a brief definition for each.

2.1 QUALIFICATIONS

Baker & O'Brien is an independent professional consulting firm that serves clients with interests in the upstream and downstream oil and gas industries. The firm was founded in 1993 and has completed more than 1,500 assignments in the United States ("U.S.") and around the world. These engagements have included asset valuations, due diligence studies for transactions, land use issues, commercial disputes, and construction disputes. In these assignments, Baker & O'Brien consultants have provided expert services to law firms, lenders, insurers, municipalities, operating companies, and manufacturers of transportation fuels and chemical products.

Baker & O'Brien consultants are experienced engineering and finance professionals who offer significant technical and commercial expertise in the oil and gas industry. The firm's consultants have provided technical and commercial support in resolving a variety of valuation

and land use assignments in California and other U.S. and local jurisdictions, including disputes involving ad valorem taxes, buffer land, rights of way, and land use regulations.

This report was jointly prepared by Mr. William Cheek, Mr. Donald Flessner, and Mr. Charles Kemp. Baker & O'Brien also retained Mr. Donald LeBlanc to provide independent subject-matter expertise in reservoir engineering and management. The qualifications of Baker & O'Brien consultants are provided in **Exhibit B**.

2.2 SCOPE OF WORK

Baker & O'Brien has been engaged to prepare an income model for use in determining amortization of capital investment ("ACI") in existing oil and gas production facilities within the City IOF based upon financial principles. In addition to preparing the income model, Baker & O'Brien's scope of work includes the collection and validation of technical and commercial data used as the basis for determining capital expenditures, revenues, royalties, operating costs, and reasonable returns on capital investment for oil and gas operations in the City IOF.

Baker & O'Brien's analysis and conclusions are presented in this report. In preparing this report, Baker & O'Brien has relied upon public and proprietary information available about oil and gas operations in the City IOF that was available at the Effective Date. Reference materials that have been considered in developing the ACI analysis and preparing this report are listed in **Exhibit C**.

2.3 STRUCTURE OF REPORT

The basis for the income analysis and the conclusions from this analysis are set forth in the remainder of this report, which is organized into the following sections.

- Section 3 provides an Executive Summary of the study;
- Section 4 provides background information about the history and operation of the IOF;
- Section 5 summarizes the methodology and baseline assumptions used in the income model to determine the time required for ACI;

- Section 6 summarizes an analysis of the amortization of capital investment for SPR's acquisition of the City IOF and specific assumptions related to this analysis;
- Section 7 summarizes an analysis of the amortization of initial capital investment to drill and complete wells in the City IOF and specific assumptions related to this analysis; and
- Section 8 summarizes sensitivity cases that were developed to test certain assumptions used in the income model.

3. EXECUTIVE SUMMARY

Baker & O'Brien has been retained by the City to prepare a study of the amortization of capital investment ("ACI") in oil and gas production facilities existing as of the Effective Date within the approximately 78-acre portion of the IOF that is located within the City.

SPR acquired the City IOF in January 2017 when it purchased a portfolio of California oil and gas properties from FCX. At the time of the acquisition, there were 41 wells located within the City IOF and supporting infrastructure. During 2017, 21 wells were in operation to produce oil and gas, 10 production wells were idle, and 10 wells were used for injection of water into the reservoir. These wells were drilled and completed between 1925 and 2002.

This study uses a standard financial analysis to determine the time required for ACI. An income model is used to account for capital investment and variables that determine net income for facilities in the City IOF, which are organized into annual income statements. Financial metrics are calculated for each annual period to test for ACI. ACI occurs when cumulative income from an investment is sufficient to offset the initial capital investment and to provide a return on that investment to the owner. The income model uses the Internal Rate of Return and Net Present Value as tests to determine when ACI would occur.

In one scenario, the income model is used to determine the time required for ACI for SPR's capital acquisition of the City IOF. SPR's capital investment in the City IOF was a small portion of the acquisition price that SPR paid in 2017 to acquire FCX's portfolio of California oil and gas production properties. Since there is no public allocation of the acquisition price that was attributable to the City IOF, the income model uses a fair market value of \$4.65 million for the City IOF, which is an indicative value for an arm's-length exchange of the property between a willing buyer and a willing seller. The income model determines that ACI would occur within four years of SPR's purchase of the City IOF.

In a second scenario, the income model is used to determine the time required for ACI for costs by other operators to drill and complete individual wells in the City IOF since 1977. This analysis confirms that ACI for individual wells is typically achieved within a few years, although there is significant variability among individual wells. For the six production wells drilled in the

City IOF since 1977, four wells achieved ACI within five years, while two wells generated returns that fell short of the targets. When individual wells are considered together, these results show that high returns from performing wells offset poor returns from marginal wells. These findings confirm that it is appropriate to aggregate individual wells to determine the time required for ACI for facilities within the City IOF. These results for original investment in individual wells also confirm that the time required to achieve ACI for SPR's acquisition of the property is reasonable.

The use of the income model was limited to wells drilled since 1977 because historical data was incomplete or not available to determine income or capital investment for wells drilled prior to 1977. For these wells, operating economics were evaluated for different periods to determine the time for ACI in historical periods. When wells drilled during various historical periods are aggregated, wells drilled prior to 1977 have similar economics as the individual wells evaluated with the income model. Even though capital investment between 1925 and 1977 occurred during a range of market conditions, the economic performance of these wells indicates that wells drilled prior to 1977 achieved ACI within the first several years of operation and well before 2016.

Finally, a sensitivity analysis was conducted to test the impact of potential changes in key baseline assumptions on the time required to achieve ACI for SPR's acquisition of the City IOF. Within reasonable ranges of baseline assumptions, the ACI has a modest sensitivity to changes in SPR's acquisition cost, but ACI has little sensitivity to changes in the crude oil quality discount or the industry return on capital.

4. BACKGROUND

The IOF surface boundary covers approximately 1,000 acres of land in the Baldwin Hills area of Los Angeles County and represents one of the largest contiguous urban oil fields in the U.S.¹ Most of the land within the IOF is in an unincorporated area of Los Angeles County (the “County IOF”). Approximately 78 acres of the IOF is located within the City, which borders the IOF on its northern and western boundaries.² The land within the boundaries of the City IOF is owned by numerous entities.³ A map that shows the boundaries of the City IOF and the locations of oil and water injection wells is presented in **Exhibit D**.

4.1 INGLEWOOD OIL FIELD

Oil and natural gas resources were discovered within the current boundaries of the IOF in 1924. The Standard Oil Company of California (a predecessor to Chevron Corp., “Chevron”) began to produce commercial quantities of oil from the field in 1925, with oil and gas production continuing to present day. Between 1924 and 1977, numerous operators produced oil and natural gas from the IOF.⁴

Chevron had consolidated ownership and became the sole operator of the IOF by the late 1970s. Stocker Resources purchased Chevron’s interests in the IOF in 1991.⁵ Plains Resources, Inc. (a predecessor to Plains Exploration & Production, “PXP”) acquired Stocker Resources in 1992.⁶ FCX acquired PXP in 2013.⁷ SPR became the sole operator of the IOF when it acquired FCX’s interest in the IOF and other California oil fields in a portfolio transaction that closed on January 1, 2017.⁸

While subject to common State regulatory requirements, the County IOF and City IOF have separate local regulatory requirements. Oil and gas operations in the County IOF are

¹ Analysis of Oil and Gas Well Stimulation Treatments in California, Section 11, Jun 2015, pg. 11.0-4.

² Final Environmental Impact Report, Baldwin Hills Community Standards District, Oct 2008; pg. 1-1, pg. 3-4.

³ Final Environmental Impact Report, Baldwin Hills Community Standards District, Oct 2008; pg. 1-1, pg. 2-4, 2-5.

⁴ <https://inglewoodoilfield.com/history-future/history-inglewood-oilfield>.

⁵ <https://inglewoodoilfield.com/history-future/history-inglewood-oilfield>.

⁶ <https://www.upi.com/Archives/1992/05/13/Plains-Resources-to-acquire-Stocker-Resources/8780705729600/>

⁷ <https://investors.fcx.com/investors/news-releases/news-release-details/2013/FCX-Completes-Acquisition-of-Plains-Exploration--Production-Co/default.aspx>.

⁸ <https://sentinelpeakresources.com/240-2/>.

regulated by the Baldwin Hills Community Standards District (CSD), which became effective in November 2008, while oil and gas operations in the City IOF are regulated separately by the City. The County requires SPR to submit an annual *Drilling, Re-drilling, Well Abandonment, and Well Pad Restoration Plan* (“Plan”) each November. These plans provide overview information about the IOF as well as specific plans for drilling new wells, plug and abandonment of wells, and other field activities within the County IOF.

In November 2017, SPR issued its first plan under the CSD for field activities in the County IOF during 2018 (the “2018 Plan”). In the 2018 Plan, SPR stated that the IOF produced 5,520 barrels per day (“B/D”) of crude oil in 2017.⁹ Although SPR noted that it was unlikely to drill new wells in 2018, the 2018 Plan proposed to drill 9 new wells, to redrill 1 well, and to plug and abandon 13 wells.¹⁰ The 2018 Plan also noted that the CSD allows the operator to drill up to 53 new wells each year until 2028, as long as the total number of new wells in the CSD does not exceed 500 from inception of the CSD.¹¹

In November 2019, SPR issued its most recent plan under the CSD for field activities in the County IOF during 2020 (the “2020 Plan”). The 2020 Plan stated that the IOF produced 5,200 B/D of crude oil in 2019, 6% less than in 2017.¹² SPR noted that it was unlikely to drill any new wells in the County IOF during 2020, but proposed to drill 9 new wells, to redrill 1 well, and to plug and abandon 12 wells.¹³ The 2020 Plan showed that 132 wells had been drilled in the County IOF since inception of the CSD in 2008 and that no new wells had been drilled since 2014.¹⁴ The 2020 Plan also showed that 27 wells had been plugged and abandoned between 2014 and September of 2019, of which 2 were abandoned during 2018 and 7 were abandoned in 2019.¹⁵ Comparing SPR’s 2018 Plan and 2020 Plan for plug and abandonment, four of the wells proposed for abandonment in 2018 had been carried over to the 2020 Plan.¹⁶ Although SPR planned to complete an in-depth reservoir assessment during 2018 as a basis for its drilling

⁹ 2018 Drilling, Re-drilling, Well Abandonment, and Well Pad Restoration Plan, SPR, Nov 2017; pg 1.

¹⁰ 2018 Drilling, Re-drilling, Well Abandonment, and Well Pad Restoration Plan, SPR, Nov 2017; pg 5.

¹¹ 2018 Drilling, Re-drilling, Well Abandonment, and Well Pad Restoration Plan, SPR, Nov 2017; pg 4.

¹² 2020 Drilling, Re-drilling, Well Abandonment, and Well Pad Restoration Plan, SPR, Nov 2017; pg 1.

¹³ 2020 Drilling, Re-drilling, Well Abandonment, and Well Pad Restoration Plan, SPR, Nov 2017; pg 1.

¹⁴ 2020 Drilling, Re-drilling, Well Abandonment, and Well Pad Restoration Plan, SPR, Nov 2017; pg 5.

¹⁵ 2020 Drilling, Re-drilling, Well Abandonment, and Well Pad Restoration Plan, SPR, Nov 2017; pg 13-17.

¹⁶ 2018 Drilling, Re-drilling, Well Abandonment, and Well Pad Restoration Plan, SPR, Nov 2017, pg 13; 2020 Drilling, Re-drilling, Well Abandonment, and Well Pad Restoration Plan, SPR, Nov 2017, pg 13.

program in the County IOF,¹⁷ no such plan for development of the County IOF has been proposed.

In addition to production and water injection wells, surface equipment used in oil and gas production activities includes pump jacks, water injection pumps, pipelines, roadways, small buildings, and tanks. This equipment is located throughout the IOF, although most of this surface equipment is located in the County IOF. Facilities used to prepare crude oil and natural gas to marketable quality for delivery to pipelines is also located in the County IOF. Surface equipment located in the City IOF includes pump jacks, water injection pumps, pipelines, roadways, small buildings, and four tanks.

4.2 CITY IOF

SPR has not issued any drilling plans for the City IOF that present information about historical production, planned drilling of new wells, or planned abandonment of wells. This study relies on data available from the California Department of Conservation’s Geologic Energy Management Division (“CalGEM”) for the status of wells and production volumes of oil, natural gas, and water produced from each well in the City IOF.¹⁸

Operators are required to report the status of each California oil well to CalGEM, and this information is available to the public through the CalGEM public portal.¹⁹ The CalGEM data provides a monthly “snap shot” of individual well status and activity, as this information is reported by the oil field operator. As of January 1, 2020, this information was available for wells in the City IOF from 1977 through April 2018. CalGEM provides information for the 41 production and injection wells that were located in the City IOF during 2016, which is summarized in **Exhibit E**.

The CalGEM database shows that the status of wells within the City IOF has changed over time.²⁰ In 2013, 25 wells in the City IOF produced oil and gas, while 6 wells were idle or

¹⁷ 2018 Drilling, Re-drilling, Well Abandonment, and Well Pad Restoration Plan, SPR, Nov 2017; pg 1.

¹⁸ Data obtained from the CalGEM public portal as of January 2020 provided incomplete historical data prior to 1977 and incomplete data since April 2018. Well data after April 2018 was unavailable while CalGEM performed updates to its public portal.

¹⁹ CalGEM was known as the Division of Oil, Gas, and Geothermal Resources (“DOGGR”) prior to January 2020.

²⁰ <https://www.conservation.ca.gov/calgem/Pages/Index.aspx>.

shut-in (these wells were available but did not produce oil or gas), and 10 wells were used for water injection. During SPR's first year of operation in 2017, 21 wells produced oil and gas, 10 wells were idle, and 10 wells were used for water injection. CalGEM reports that the last new oil well drilled within the City IOF was completed in 2002.²¹

During 2017, the 21 production wells located in the City IOF produced about 211 B/D of crude oil, 16 barrels of oil equivalent per day²² ("BOE/D") of natural gas, and 12,023 B/D of water. The 211 B/D of crude oil produced from wells in the City IOF represented about 3.8% of the 5,520 B/D of crude oil produced from the IOF in 2017.²³ As a percentage of the 12,250 B/D of total production fluids produced from wells in the City IOF in 2017, crude oil was less than 2% and water comprised more than 98% of fluids produced from wells in the City IOF.

SPR has provided no plan to the City that proposes a program for the future development of oil and gas operations in the City IOF. Based on the annual plans that SPR has issued to the County under the CSD, it appears unlikely that SPR will drill new wells in the City IOF or plans to plug and abandon wells that are currently idle or shut in.

²¹ <https://www.conservation.ca.gov/calgem/Pages/Index.aspx>.

²² Natural gas is measured in cubic feet and converted to barrels of oil equivalent, or BOE, based on the relative heating value of crude oil and natural gas.

²³ 2018 Drilling, Re-drilling, Well Abandonment, and Well Pad Restoration Plan, SPR, Nov 2017; pg 1.

5. INCOME MODEL

This study uses a standard financial analysis to determine the time required for ACI in oil and gas production facilities within the City IOF. This financial analysis has been organized into an income model that can be utilized to validate the assumptions used and to evaluate potential changes in assumptions. The methodology, application, test for ACI, and baseline assumptions used in the income model are summarized in the following discussion.

5.1 METHODOLOGY

Amortization is a common accounting concept that refers to the allocation of a capital account over time. For the amortization of a loan, the loan is often amortized by making regular payments of principal and interest over a fixed term. For investments in capital assets, the investment is amortized for accounting and tax purposes by allocating the capital investment to specific periods over the life of the asset. In these examples, the initial value of the loan or the capital investment are known and the purpose is to determine the amount of payment or accounting depreciation for each period.

The income analysis in this study uses the same conceptual framework of offsetting a capital investment with periodic receipt of income to determine the time required for ACI. ACI occurs when cumulative income from an investment is sufficient to offset the initial capital investment and provide a return on that investment to the owner. In this analysis, the initial capital investment and the periodic income are known, or can be reasonably estimated, and the purpose is to determine the time required for ACI.

5.2 APPLICATION

In the application of an income model to a simple use, such as a sign or billboard, the time required for ACI may be determined by offsetting the capital investment to install the fixture with rental income until the land owner achieves a fair rate of return. Net income (rent less expenses and taxes) is accumulated until the cumulative net income exceeds the original capital investment and a fair rate of return, at which time ACI has occurred.

In the application of an income model to complex uses, such as an oil field, the analysis often involves many more variables over longer periods of time. An income analysis of an oil field may consider the impact of distinct ownership rights for surface use and mineral extraction, and changes in ownership of these rights. An income analysis of oil and gas facilities also considers numerous variables that change over time, both historically and into the future. These variables include the following:

- Capital investments;
- Sustaining capital investments required to maintain production capacity;
- Revenues;
- Changes in revenues due to market events or changes in production;
- Operating expenses;
- Income taxes; and
- Market rates of return.

For complex situations, an income model is often used to account for capital investment and variables that determine net income. Historical information and projections are organized into annual income statements. The income statements begin with revenues and deduct operating expenses, income taxes, and sustaining capital investment to determine net cash flow available to offset all capital investment and to provide a fair rate of return on capital. Financial metrics are calculated for each annual period to test for ACI.

5.3 TESTS FOR AMORTIZATION OF CAPITAL INVESTMENT

An income model for oil and gas facilities is organized around financial concepts used in discounted cash flow analysis. A discounted cash flow analysis is commonly used in the oil and gas industry to evaluate capital investments, to make operating decisions, and to evaluate exit strategies. The tests for economic viability generally used in discounted cash flow analysis can also be applied as tests for occurrence of ACI. These tests include the Internal Rate of Return (“IRR”) and the Net Present Value (“NPV”).

When the IRR is used as a test, ACI occurs in the year when the IRR exceeds a market return on capital for companies in the oil and gas industry. The income model calculates a cumulative IRR for each year of the analysis. A market return on capital is determined by reviewing financial results for a peer group of companies with similar businesses. ACI occurs when the cumulative IRR from the time of the original investment exceeds the market return on capital for oil and gas companies.

When the NPV is used as a test, ACI occurs in the year when the NPV exceeds zero. The income model calculates a cumulative NPV for each year of the analysis by discounting income from the time of the original investment. The discount rate used to determine NPV is the market return on capital for oil and gas companies. ACI occurs when the cumulative NPV exceeds zero.

The market return on capital provides for a return of capital investment and a fair rate return on capital. For this study, the market return is an industry rate of return characteristic of oil and gas production companies. The IRR and NPV tests are expected to provide the same conclusion for ACI, since the definition of IRR is the return on capital when NPV is equal to zero. However, these tests provide different insights into ACI. The comparison of IRR to a market return on capital provides a relative measure that can change from time to time. The NPV serves as an absolute measure of ACI from year to year when the market return on capital is used to discount cash flows.

5.4 BASELINE ASSUMPTIONS

An income model used for analysis of oil and gas facilities requires certain baseline assumptions. Specific information about the oil and gas facilities is needed to prepare a representative income model, including the amount of initial capital investment and net cash flow based upon production rates, crude oil quality, netback prices for crude oil and natural gas royalty costs, operating costs, and sustaining capital expenditures. Historical information, projections of future operations, and changes in market environments are also used in developing the baseline assumptions for an income model.

Baker & O'Brien has prepared the income model for this study using public information to develop baseline assumptions. This public information includes data that is specific to the wells that are operated in the City IOF and public disclosures by other operators with similar

operations in California. Where public information was not available (such as future production rates from wells in the City IOF), Baker & O'Brien has developed reasonable estimates based upon our consultants' experience and proprietary information available to us.

Proprietary information about the oil and gas operations in the City IOF was not available from SPR for this study. While such information would have been helpful, it is not necessary for development of the income model used in this study. If SPR records were available, they would have been used for validation purposes and possibly to extend the analysis to historical periods prior to the availability of public data for the City IOF.

5.4.1 INFORMATION SOURCES

Public information used in developing the baseline assumptions for the income model includes the following:²⁴

- CalGEM's public portal, which provides historical production data for individual wells in the City IOF for the period from 1977 through 2017;²⁵
- Public reports of capital investment and operating costs issued by other operators of water-flood fields in California, including CRC and PXP;
- Historical market prices published by World Bank, the U.S. Federal Reserve, and S&P Global Platts;
- Price forecasts published by the U.S. Department of Energy's U.S. Energy Information Administration ("EIA");
- Income tax rates and depreciation schedules published by the U.S. Internal Revenue Service ("IRS") and the State of California; and
- Inflation indices published by the U.S. Department of Commerce, Bureau of Economic Analysis.

²⁴ Public information includes general reference information as well as information available to Baker & O'Brien and other subscribers under license.

²⁵ <https://www.conservation.ca.gov/calgem/Pages/Index.aspx>.

Certain proprietary information was used in combination with our consultants' experience and engineering judgement to develop certain baseline assumptions for the income model. This information includes the following:

- Capital expenditures were estimated for drilling and completion costs, workover costs, and plug and abandonment costs;
- Future production rates from individual wells were estimated using a proprietary software package often used in petroleum engineering applications, including reservoir management;
- Operating costs were estimated for oil and gas production and for water injection; and
- The quality of Inglewood crude oil.

Data obtained from CalGEM's public portal for the wells located in the City IOF is detailed and forms the basis for historical and projected production rates of oil, natural gas, and water in the income model. The CalGEM public portal provides individual well data from 1977 through April 2018 in a searchable database format, as it was reported by operators. The CalGEM records for the City IOF contain some minor anomalies in well status and production rates, which appear to be reporting errors that are not material to this study.

5.4.2 INITIAL CAPITAL INVESTMENT

Initial capital investment generally refers to the owner's original investment to acquire mineral rights and commence production of oil and gas. This study considers two scenarios for initial capital investment. In the first scenario, SPR's initial capital investment in the City IOF occurred when it closed its acquisition with FCX in 2017. In the second scenario, initial capital investment is the original costs to drill and complete the wells and infrastructure in the City IOF that were made by previous operators between 1925 and 2016.

Since there is no common basis in the amount and timing of the initial capital investment during SPR's ownership and initial capital investment in the actual drilling and completion of wells in the IOF prior to SPR's ownership, the initial capital investment is evaluated separately for each scenario.

5.4.3 SUSTAINING CAPITAL INVESTMENT

Sustaining capital investment is required for every oil and gas property to maintain its productive capacity. For the City IOF, sustaining capital investment in well workovers is required to replace and renew surface and down-hole equipment to maintain mechanical integrity and production rates.

Historical and projected sustaining capital investment is included in the income model by making an allowance for a workover in each producing well at seven-year intervals. CalGEM production data for individual wells between 1977 and 2018 was analyzed to determine that a seven-year workover interval is characteristic of wells in the City IOF. The income model uses workover costs that are estimated to be \$180,000 per well in 2018,²⁶ with adjustment for cost escalation prior to and subsequent to 2018.²⁷

5.4.4 PLUG AND ABANDONMENT COSTS

Plug and abandonment costs are required to safely and permanently remove a well from service and to restore the immediate area to its natural condition. These costs are considered to be capital investment.

The income model used to determine the timing of ACI does not include plug and abandonment costs based upon SPR's actual activity. The income model only considers wells in the City IOF that were in production or available for production when SPR purchased the IOF. CalGEM indicates that these wells remained in production or available for production into early 2018, and SPR has proposed no plan to plug and abandon any wells in the City IOF.

5.4.5 PRODUCTION VOLUMES

Historical production volumes of crude oil and natural gas are reported by CalGEM between 1977 and April 2018 for individual wells in the City IOF. This information was compiled in the income model to calculate the total amount of crude oil and natural gas produced from the City IOF.

²⁶ *Value-Driven November Corporate Presentation*, California Resources Corp., Nov 2018, pg 40.

²⁷ Cost factors were adjusted for escalation using the Personal Consumption Expenditures: Chain-type Price Index, published by the U.S. Department of Commerce, Bureau of Economic Analysis.

Future production volumes of crude oil and natural gas were projected using a software package often used in oil and gas reservoir management. The projections rely upon historical production volumes reported by CalGEM that are used to calculate future volumes based on a characteristic decline curve. Projections were checked to confirm that well economics support workover and operating costs needed to produce the projected volumes.

The income model uses the production history and forecast for crude oil and natural gas shown in **Exhibit F**.

5.4.6 NETBACK CRUDE OIL PRICES

Netback prices for crude oil are the prices received for delivery at the County IOF. Inglewood crude oil is injected into a Chevron pipeline for delivery to Los Angeles area refineries.

There is no independent market price assessment for Inglewood crude oil. Historical prices are available for Line 63 crude oil delivered from the San Joaquin Valley by Plains All American Pipeline to its terminal in Long Beach, California. Inglewood crude is assumed to be priced competitively with Line 63 crude delivered to Long Beach, with adjustments for differences in quality. Inglewood crude quality has been reported as 24.4 degrees API (“°API”)²⁸ with a sulfur content of 1.77%. Inglewood crude is lower quality and less valuable than Line 63 crude, which is reported to be 28 °API with a sulfur content of 1.02%. The income model assumes that Inglewood crude is discounted by \$1.75 per barrel (“/B”) from the price for Line 63 crude to represent the difference in market value for crude quality. The netback price received by SPR for Inglewood crude is estimated to be the price for Line 63 crude at Long Beach, less the quality discount, less an estimated pipeline transportation cost of \$0.25/B to move Inglewood crude approximately 20 miles from the IOF to Long Beach.

Inglewood crude oil prices are projected based upon future prices for Brent crude oil provided in the Department of Energy’s Annual Energy Outlook for 2019 (“AEO 2019”). Brent crude prices serve as a global benchmark for crude oil prices. The outlook for Brent prices is

²⁸ The abbreviation “°API” refers to API Gravity, which is a standard method of measuring the density of crude oil and petroleum products.

used to project Line 63 prices, which are discounted to determine projected netback prices for Inglewood crude oil.

Netback prices for Inglewood crude oil are shown in **Exhibit G**.

5.4.7 NETBACK NATURAL GAS PRICES

Netback prices for natural gas are the prices received for delivery at the County IOF. Inglewood natural gas is treated to pipeline quality and injected into the Southern California Natural Gas Co. (“SoCalGas”) system. Historical price assessments for natural gas are available for delivery to the SoCalGas “City Gate,” which is a virtual trading location. No discounts are applied to Inglewood natural gas for transportation or quality for delivery at City Gate.

Natural gas prices are projected based upon future prices for natural gas delivered at Henry Hub provided in the AEO 2019. Henry Hub serves as a benchmark for North American natural gas prices. The outlook for Henry Hub natural gas is used to project City Gate natural gas prices. No adjustments are applied to projected City Gate prices to project netback prices for Inglewood natural gas.

Netback prices for Inglewood natural gas are shown in **Exhibit G**.

5.4.8 ROYALTIES

Owners of mineral rights earn a royalty on commercial volumes of oil and gas produced from their property. Royalty terms are provided in lease agreements between landowners and oil and gas companies, which vary from lease to lease and are often confidential. The income model deducts royalties on oil and gas production from revenues to determine net cash flow.

A listing of IOF landowners in 2008 shows that at least six landowners owned parcels within the City IOF, but the listing does not indicate if these landowners also owned mineral rights.²⁹ No further information is readily available that provides royalty rates or other terms of leases between landowners and SPR or its predecessors. No public information is available

²⁹ Final Environmental Impact Report, Baldwin Hills Community Standards District, Oct 2008; pg. 2-4, 2-5.

about royalties that have actually been paid to landowners for oil and gas production from the City IOF.

The income model assumes a 15% royalty rate as an allowance for royalties and other land lease costs paid to owners of mineral rights. This discount is applied to the market value of oil and natural gas produced from the City IOF. This rate is within the range of a 12.5% royalty rate that is generally applicable to federal leases and the 16.66% royalty rate applicable to leases for oil and gas extraction for California state lands.

To the extent that SPR acquired mineral rights in the City IOF in 2017, royalties would not be applied to oil and gas produced from SPR's ownership interest. If SPR's ownership interests include mineral rights, the income model is conservative since it applies the royalty rate to all production, extending the time required to achieve ACI.

5.4.9 OPERATING COSTS

Oil field operating costs include labor, utilities, operating materials, maintenance materials, spare parts, general and administrative expenses, insurance, property taxes, and permits. The income model deducts operating costs from available income, which are estimated as the cost per barrel of crude oil, the cost per BOE for natural gas, and the cost per barrel of produced water. These estimated operating costs for the City IOF include costs for operations to separate production fluids into oil, gas, and produced water, as well as to treat crude oil and natural gas for delivery to local pipelines, which are all conducted in the County IOF.

CRC owns and operates oil and gas field developments in California, some of which are similar to the IOF. In a presentation to investors, CRC reported operating costs in 2018 for its oil and gas operations in California. CRC reported that operating expenses for an infill well were \$8/BOE³⁰ and total operating expenses for a waterflood redevelopment well were \$19/BOE.³¹ These wells are similar in operation to the wells in the City IOF.

The income model uses estimated operating costs of \$8.00/B for oil production, \$8.00/BOE for gas production, and \$0.25/B for water injection as of 2018, with adjustments for

³⁰ *Value-Driven November Corporate Presentation*, California Resources Corp., Nov 2018., pg 57.

³¹ *Value-Driven November Corporate Presentation*, California Resources Corp., Nov 2018., pg 53.

cost escalation prior to and subsequent to 2018. These operating costs amount to total operating costs of \$24/BOE, which are conservative when compared to total operating expenses of \$19/BOE reported by CRC.

5.4.10 INCOME TAXES

Income taxes are deducted from income to determine the cash flow available for ACI. The income model deducts federal and state income taxes from revenues produced by the City IOF. Income before taxes is adjusted for depreciation of capital investment and for tax loss carry-forward (where applicable). The analysis assumes a federal income tax rate of 35% prior to 2018 and 21% in 2018 and later years, which represent the highest corporate federal tax brackets in effect. The income model assumes a California income tax rate of 9%, which is the highest corporate tax bracket in effect.

Two depreciation schedules are used in the income model for calculation of income taxes. The following depreciation schedules are provided by the IRS:

- *Drilling of new wells*: The IRS provides a depreciation schedule for drilling of new oil and gas wells, which provides a straight-line depreciation schedule over four years; and
- *Other capital investment, including work-overs and plug and abandonment of wells*: The IRS provides its Modified Accelerated Cost Recovery System (“MACRS”) depreciation schedule that is applicable for most business and investment property placed in service after 1986. The MACRS schedule for “*assets used by petroleum and natural gas producers for drilling wells and production of petroleum and natural gas, including gathering pipelines and related storage facilities...separation equipment, compression or pumping equipment, and liquid holding or storage facilities...*”³² provides an accelerated depreciation schedule over eight years.

It is noted that these depreciation schedules allocate capital investment over a defined period for purposes of determining applicable deductions for income tax purposes. In the

³² IRS MACRS Asset Class 13.2.

income model, deduction of depreciation to determine taxable income increases the amount of net cash flow and reduces the time required to achieve ACI.

5.4.11 INDUSTRY RATE OF RETURN ON INVESTMENT

As noted above, the tests for ACI are compared to an industry rate of return on investment. The industry return on investment is a total rate of return that is generally realized by oil and gas production companies.

A “market” industry rate of return on investment is estimated by evaluating the weighted average cost of capital (“WACC”) typical of production and exploration companies in the oil and gas industry. The WACC represents the combined cost of equity capital and debt capital used to finance a company. Equity capital earns a market return on equity and debt capital receives market rates of interest.

Estimates of the WACC for oil and gas companies are available from various public sources. One analysis of WACC for oil production and exploration companies considers 269 public companies, which are mainly structured as corporations.³³ For this group, the WACC has ranged between 7% and 8.5% since 2016, as shown in **Exhibit H**.³⁴ The income model assumes an industry rate of return of 8%, which is above the average of companies engaged in oil and gas operations from 2016 through 2019. This industry rate of return is characteristic of returns on capital investment to an owner that is organized as a corporation that pays income taxes on net operating income.

It is noted that SPR is organized as a limited liability company (“LLC”), which is a “pass-through” corporate structure sometimes used by companies engaged in oil and gas operations. As a pass-through corporation, an LLC does not pay corporate income taxes, but distributes income to LLC partners that pay income taxes based on each partners’ particular tax situation.³⁵ The income model is not structured to calculate ACI for a pass-through corporate structure, which would also require further changes to calculations of income taxes, as well as information about cash distributions to SPR partners that is not available to the public.

³³ http://pages.stern.nyu.edu/~adamodar/New_Home_Page/.

³⁴ http://pages.stern.nyu.edu/~adamodar/New_Home_Page/.

³⁵ *MLP Primer Fifth Edition*, Wells Fargo Securities, October 31, 2013; pg. 19.

6. SPR ACQUISITION

The income model was used to determine the time required for ACI for SPR's capital investment to acquire its interest in the City IOF and projected sustaining capital investment after the acquisition. This analysis developed annual cash flow statements that begin with SPR's initial investment in 2016 and continue through 2026. The income model uses the baseline assumptions listed in Section 5.4 above for this analysis, except as noted in the following discussion.

The City IOF was a small portion of SPR's much larger acquisition of a portfolio of FCX's interests in the IOF and other California onshore oil and gas properties, which included properties in the Los Angeles Basin, coastal zones, and the San Joaquin Basin that produced a total of 28,000 B/D of crude oil.³⁶ Oil production of 211 B/D from the City IOF in 2017 amounted to 0.75% of the total crude oil produced from the FCX properties. No public information is available that provides an allocation of SPR's purchase price to either of the IOF or the City IOF. Baker & O'Brien has valued SPR's initial capital investment to purchase the City IOF as an arm's length transaction between a buyer and seller in accordance with California State Board of Equalization guidelines for determining the fair market value of oil and gas production properties.³⁷

6.1 INITIAL CAPITAL INVESTMENT

SPR's initial capital investment is the portion of its acquisition price that can be attributed to the City IOF. Since there is no public information concerning an allocation of the acquisition price to the City IOF, SPR's initial cost to acquire this portion of the IOF is estimated by considering the three standard indications of value, using the income approach, the cost approach, and the market approach.

³⁶ <https://www.globenewswire.com/news-release/2016/10/14/1194556/0/en/Sentinel-Peak-Resources-Announces-the-Acquisition-of-Freeport-McMoRan-...>

³⁷ California State Board of Equalization, Assessor's Handbook Section 566 Assessment of Petroleum Properties, August 1996.

6.1.1 INCOME INDICATION OF VALUE

The income approach evaluates the present value of future income from a property at the time of the transaction using a discounted cash flow analysis. For the City IOF, this analysis considers projections of oil and gas production, the outlook for commodity prices, and projections of operating costs and capital expenditures for 10 years from the purchase date. Projections were developed based upon the market outlook in 2016, when SPR announced its intention to acquire the FCX properties. Projected annual net cash flow is discounted to present value as of January 1, 2017, using the oil and gas industry return on capital of 8%. The present value of this discounted cash flow analysis provides an income indication of value for the City IOF of \$5.34 million as of January 1, 2017.

6.1.2 COST INDICATION OF VALUE

The cost approach determines a deferred replacement value (“DRV”) for a property, which is the value to a buyer of deferring capital investment in new facilities until the service life of existing facilities is exhausted. The cost approach considers the original capital cost of facilities in place and the remaining life of these facilities based upon the current condition and normal maintenance activities. For the oil and gas production wells in the City IOF, the functional replacement value was \$15.1 million in 2017, and the DRV cost indication of value was \$3.00 million. It is noted that Baker & O’Brien consultants have not visited the site as of the Effective Date, and this analysis assumes that the wells are in normal condition relative to in-service dates reported by CalGEM.

6.1.3 MARKET INDICATION OF VALUE

The market approach evaluates the value of a property by reference to sales prices for similar properties that were sold near the valuation date. For the City IOF, Baker & O’Brien researched: 1) transactions of small oil and gas properties in California that produce heavy-sour crude oil; and 2) transactions involving transfer of ownership in the IOF.

A search for transactions involving properties similar to the City IOF identified a small number of potential comparisons. However, there is insufficient public information available to establish comparability or to make suitable adjustments to cash equivalent prices (“CEP”) and no useful sales comparisons were identified.

Review of transactions involving transfers of ownership in the IOF provided no allocations of purchase prices to the City IOF. However, public information is available that can be used to estimate a CEP realized for SPR's purchase of the FCX California properties. The CEP may be allocated based upon crude oil production, as shown in **Exhibit I** and summarized below:

- The parties announced a total sales price for the FCX portfolio properties of \$742 million, including contingent payments, but omitting the value of liabilities transferred to SPR.
- The announced price is adjusted to CEP as follows: 1) contingent payments for 2019 and 2020 are deducted since the floor price of Brent crude was not achieved;³⁸ and 2) the transfer of liability for abandonment is added to the sales price. These adjustments are offsetting and the CEP for the FCX properties was \$742 million.
- The CEP is allocated to the City IOF, according to crude oil production. For 2017, crude production from the City IOF represented 0.75% of the total crude production of 28,000 B/D from the FCX portfolio properties.

This analysis provides a market indication of value of \$5.59 million for the City IOF, based upon its pro-rata share of total crude oil production from the FCX properties.

6.1.4 FAIR MARKET VALUE

The three indications of value are weighted to determine a conclusion of fair market value for the property:

- The income indication of value is based on projected income from the production of oil and gas from wells in the City IOF at the time of the acquisition, using information available to SPR or any buyer in 2016. This information includes the market value of oil and gas production, operating costs that are higher than typical

³⁸These adjustments are retrospective as of the Effective Date. In September 2019, quoted prices for futures contracts for delivery for Brent crude oil indicated prices of less than \$70/B during 2020. See *This Week in Petroleum*, EIA, Oct. 9, 2019.

costs for water flood operations, typical levels of sustaining capital, and an industry return on capital.

- The DRV indication of value is based on the cost to replace the oil and gas production wells in the City IOF and the remaining life of existing wells using information available to SPR or any buyer in 2016 from CalGEM. It is noted that the DRV does not reflect any impact on value from production declines, depletion of reserves, or the ratio of oil to water production. The DRV also implicitly assumes that economics are sufficient to replace facilities. Assuming that wells in the City IOF are in normal condition for their age, nearly all were operating far beyond the typical service life in 2017. The DRV indication of value is consistent with little remaining life in these assets without new capital investment.

- The market indication of value for the City IOF is based on the CEP that SPR paid for a much larger portfolio of properties. The allocation of 0.75% of the value to the City IOF assumes that the production from these wells is equivalent in value to the 99% of production generated by all of the other properties. However, the high water cut, above average operating costs, and the need for capital investment associated with wells in the City IOF indicates that the market indication of value may be less reliable for the City IOF than for other properties that SPR acquired.

The conclusion of the fair market value of the City IOF in an arm's-length transaction on January 1, 2017, is \$4,642,000, as shown in the table below. This conclusion equally weights the three indications of value and reflects the age and status of wells in the City IOF. The income model uses \$4.65 million to represent SPR's initial capital investment in the City IOF.

| | <i>Indicated, \$</i> | <i>Weighting, %</i> | <i>Value, \$</i> |
|------------------------|----------------------|---------------------|------------------|
| <i>Income</i> | 5,341,000 | 33.3 | 1,778,553 |
| <i>Cost</i> | 2,997,000 | 33.4 | 1,000,998 |
| <i>Market</i> | 5,592,000 | 33.3 | 1,862,136 |
| <i>Weighted</i> | | 100 | 4,641,687 |

6.2 SUSTAINING CAPITAL INVESTMENT

The income model includes sustaining capital investment in workovers during the projection period. These workovers are related to 1) returning idle wells to oil and gas production; and 2) renovation of operating production wells at seven-year intervals.

6.3 MODEL RESULTS

The income model demonstrates that ACI for SPR's capital investment in the City IOF is achieved during 2020, within four years of the acquisition date. Achievement of ACI within four years of SPR's acquisition is demonstrated by the cumulative IRR exceeding the industry rate of return during 2020 (as shown in **Exhibit J**) and by the cumulative NPV achieving a positive value during 2020 (as shown in **Exhibit K**).

7. DRILLING AND COMPLETION INVESTMENT

Initial capital investment to drill and complete production wells in the City IOF is also evaluated, beginning with the first wells in 1925 and extending to the last wells that were drilled in 2002. To evaluate ACI for existing oil and gas facilities in the City IOF, an income model would consider the following historical information:

- The 95-year history of oil and gas operations;
- Multiple changes of ownership interests;
- Records of capital investment for drilling and completion, workovers, well stimulations, and plug and abandonment;
- Records of oil and gas production rates, revenue realized for sales of crude oil and natural gas, and operating expenses; and
- Operation of the City IOF as a small part of a much larger oil field development.

For wells drilled since 1977, this information is available or can be reasonably estimated. The income model was used to determine the time required to achieve ACI for six individual production wells drilled in the City IOF at various times since 1977.

For wells drilled prior to 1977, public records needed to develop baseline assumptions for capital investment and revenue extending back to 1925 are generally incomplete or unavailable for use in an income model. However, estimates of capital investment, production volumes, oil prices, and operating costs are used in an income model to develop aggregate economics for wells completed during various periods prior to 1977. These economics can be compared to similar benchmarks for the six wells completed since 1977 to determine if payback of capital investment for older wells is similar to that for newer wells.

7.1 WELLS DRILLED SINCE 1977

The income model was used to determine the time required to achieve ACI for individual wells in the City IOF that were drilled and completed in the City IOF since 1977. Since these wells were completed and began production during the period in which historical records are

generally available, baseline assumptions needed for an income model are available or can be reasonably estimated. Baseline assumptions for this analysis include the following:

- Capital costs are current costs adjusted for escalation in costs reported by EIA for drilling and completion of the wells and workovers;³⁹
- Production rates for crude oil, natural gas, and water are from CalGEM;
- Netback values for crude oil and natural gas are based on price assessments; and
- Operating costs are current costs adjusted for inflation.

The results of this analysis are summarized below and tabulated in **Exhibit L**.

- For two wells completed in 1977 and 1979, ACI was achieved within three years;
- For two wells completed in 1982 and 1985, ACI was not achieved; and
- For two wells completed in 2002, ACI was achieved within five years.

These results illustrate that productive wells achieve ACI quickly, while unproductive wells may never realize ACI. Several metrics are presented in **Exhibit L** that are based upon the average of the first five years of operation for each of the wells.

- O&G BBL: This is the average volume of crude oil and natural gas for each of the first five years of operation. Oil production is strongly correlated with IRR. Wells that produce more oil and gas achieve higher IRR.
- Water BBL: This is the average volume of water produced for each of the first five years of operation. Higher water production results in higher operating costs.

³⁹ U.S. Nominal Cost per Foot of Crude Oil Wells Drilled, EIA, December 17, 2019.

- Water Cut %: This is the portion of water produced from well fluids.⁴⁰ Wells that have lower water cuts achieve higher IRR.
- Oil Price, \$/B: This is the average netback price for Inglewood crude over the first five years of operation.
- Capex Avg. \$/B Oil: This is the investment cost divided by the volume of oil and gas produced over the first five years of operation.
- Opex \$/B Oil: This is the total of operating costs and royalties divided by the volume of oil and gas produced over the first five years of operation.
- Oil Price / Capex + Opex: This ratio divides the oil price by total expenses for the first five years of operation. This ratio is highly correlated with IRR. Wells with a higher ratio of oil price to total expenses achieve higher IRR.
- Simple Payback Yr: This is the ratio of capital investment to average earnings during the first five years before interest, taxes, depreciation, and amortization. Simple payback usually occurs more quickly than ACI since simple payback does not consider tax effects or return on capital investment.

These metrics confirm that the time required for ACI depends mainly upon high production rates and the ratio of oil prices to total expenses over the first several years of operation. Although two of the six wells drilled in the early 1980s did not achieve the target industry return on capital used in this analysis, these wells were ultimately profitable, generating IRR of between 5.0% and 6.5% by 2016. When compared to the other wells that achieved ACI within five years, these two wells produced much less oil, produced much more water, and started operation during a period of low oil prices.

Four of the six wells achieved ACI within an average time of three years. The simple payback for these four wells averaged 1.7 years. Although completed at different times and with much different capital investment and operating expenses, oil prices averaged twice the total

⁴⁰ The water cut is the fraction of production fluids from the well that is water. For example, a 96.5% water cut means that 96.5% of the production fluids are water.

expenses during the first five years of operation, and these wells delivered an average IRR in excess of 40%. For these wells, ACI occurred no later than 2006.

7.2 WELLS DRILLED PRIOR TO 1977

Development of an income model to evaluate initial investment in drilling and completion costs requires the same type of information used to evaluate SPR's initial capital investment, including capital investment, production rates, operating expenses, and industry rates of return. For wells in the City IOF drilled between 1925 and 1977, much of this information is not available and independent data is generally not available to validate estimates prior to 1980.

Oil and gas production economics in California have been subject to competing market forces since the IOF began to produce oil in 1925. First, demand for crude oil and market prices for crude oil in California have trended upwards since the 1950s, supporting capital investment in expanding production of oil and gas. Second, technological advancements in the science of finding oil, evaluating reservoirs, and managing production from reservoirs have raised costs for these activities, but have also increased the success rate of new wells and the economic life of old wells. Third, increased regulatory and operational oversight by federal, state, and local governments have resulted in rising cost burdens for operators to manage regulatory affairs.

7.2.1 HISTORICAL CONTEXT

For purposes of evaluating initial economics for wells drilled in the City IOF between 1925 and 1977, it is useful to consider the following periods:

- *1925 to 1949*: During this period, demand for petroleum expanded with increasing number of light vehicles and response to two world wars. Drilling for oil and gas depended mainly upon an operator's individual experience and skill in developing and operating a particular oil field. During this time, numerous individual operators drilled for oil in the IOF. Although records are not available for specific wells, peak oil production of 90,000 B/D of crude oil was produced from the IOF in 1925,⁴¹ 15 times production levels in 2017. Regulatory burdens were minimal and localized. Drilling costs and operating costs were much less than modern costs, and are

⁴¹ Final Environmental Impact Report, Baldwin Hills Community Standards District, Oct 2008; pg. 1-1, pg. ES-5.

estimated to have been 50% of modern costs during this period, after adjustment for inflation.

- 1950 to 1976: During this period, demand for petroleum expanded with post-war economic activity, while price levels were low by modern standards. Significant technical advancement in petroleum engineering applications increased drilling costs per well, but provided large economic benefits, including a higher success rate and improved recovery of oil and natural gas. Regulatory frameworks for resource management were established during this time, but there was little regulatory burden related to environmental protection. During this period, ownership rights in the IOF were consolidated with Chevron becoming the sole operator during the 1970s. Drilling costs and operating costs had increased from levels prior to 1950, and are estimated to have been 75% of modern costs during this period, after adjustment for inflation.
- 1977 to 2016: This is the modern period, beginning with the OPEC oil embargo, continuing with development of world-wide trade in petroleum, and more recently subject to extensive regulation related to water quality, air quality, and carbon dioxide emissions. Demand for petroleum increased globally during this time with economic development, resulting in periods of high prices followed by periods of low prices in response to market disruptions and geopolitical events. Technical advancements in oil field development continued with computer-aided reservoir visualization and management tools. With passage of much more restrictive environmental protections to preserve clean water and clean air in the late 1970s, implementation of increasingly stringent regulations has resulted in much higher cost burdens for regulatory compliance at all levels of government. Modern costs for drilling and oil field operations are assumed to be characteristic of this period with adjustment for inflation.

7.2.2 ANALYSIS

Since detailed information is not available, wells drilled prior to 1977 are analyzed in the aggregate, with 6 wells drilled from 1925 to 1949 and 16 wells drilled from 1950 to 1976. The second period was subdivided to evaluate 6 wells drilled from 1950 to 1959 and 10 wells drilled

from 1960 to 1977. Although wells are drilled at different times during these periods, production was estimated from the first year of operation for each well and then aggregated for all of the wells drilled during the period. Metrics are calculated for each group of wells, including IRR, the ratio of oil price to total expenses, and simple payback. These metrics may be compared to the same metrics for the individual wells drilled between 1977 and 2002.

For all of the wells, production of crude oil, natural gas, and water was estimated for the first fifteen years of operation based upon actual production rates for the five-year period from 1977 to 1982. A “type-curve” was used for estimating production rates for each of the wells using historical production data reported by CalGEM for four of the six wells drilled between 1977 and 2002. Production from each of these wells during the first fifteen years of operation was normalized to the first year of production and the aggregated production was used to estimate the relationship of production over time. This relationship is the type-curve for these wells. Although the type-curve used in this analysis is similar to type-curves published for waterflood operations in other fields, this type-curve represents the relationship of initial production to long-term production for wells drilled in the City IOF subsequent to 1977.

To value estimated production rates, netback prices and operating costs were estimated by “back-casting” from more recent data. Back-casting assumes that trends observed in available historical data can be applied retrospectively. Assumptions used in this analysis for estimating historical market prices and operating costs are summarized:

- Netback prices: Netback prices for Inglewood crude oil and natural gas were back-casted using reported market prices for benchmark commodities, including WTI crude, Brent crude, and Henry Hub natural gas. Differentials to benchmarks were trended for inflation and estimated prior to 1950.
- Operating Costs: Operating costs in 1977 were back-casted by adjusting for historical inflation. In addition, operating costs were reduced from modern costs by 25% from 1950 to 1977 and by 50% from 1925 to 1949.
- Drilling and Completion Costs: Drilling costs in 1977 were back-casted by adjusting for historical inflation. In addition, operating costs were reduced from modern costs by 25% from 1950 to 1977 and by 50% from 1925 to 1949.

7.2.3 CONCLUSION

This analysis demonstrates that wells in the City IOF that were drilled prior to 1977 have similar economics to the six individual wells evaluated using the income model. The results of this analysis are summarized in **Exhibit M** and shows that the simple payback on the older wells was about five years. Other metrics, including water cut and the ratio of oil price to total expenses, are similar to the four individual wells drilled after 1977 that achieved ACI. This analysis demonstrates that initial investment in the City IOF between 1925 and 1977 achieved ACI well before 2016.

7.3 SUMMARY

The income model was used to determine the time required for ACI for six individual wells in the City IOF that were drilled after 1977. These wells were evaluated because complete production history was available for fifteen years following well completion and other information was available to support baseline assumptions for most of the period. This analysis confirms that ACI in drilling and completion of oil wells in the City IOF has typically been achieved within a short time, although there is significant variability among individual wells. While IRR for two of the wells did not exceed the target industry rate of return, four of the six wells achieved ACI within five years. It is reasonable to expect that performance of individual wells will be variable, but will achieve ACI in aggregate.

This expectation is confirmed by analysis of economics for wells in the City IOF that were drilled prior to 1977. For wells drilled in each of the four periods evaluated, the simple payback was less than six years and the aggregate production volumes were sufficient to generate returns in excess of current industry rates of return. The detailed economic factors for the aggregate performance of older wells are comparable to the six individual wells that are evaluated using the income model, indicating that the older wells achieved ACI in a similar period of time.

8. SENSITIVITY ANALYSIS

The income model was used to test the impact of changes in key assumptions used in determining the time required to achieve ACI for SPR's acquisition of the City IOF. The Base Case assumptions used in the model are shown in **Exhibit N**. The following sensitivities were evaluated:

SPR Acquisition Cost: The income model was used to test the impact of a change in SPR's initial capital investment on the time required to achieve ACI. The fair market value of \$4.65 million for the City IOF was replaced with the income indication of value of \$5.34 million. Using a market value of \$5.34 million, ACI occurs during 2021 and is achieved within five years of SPR's acquisition, as shown in **Exhibit O**. This analysis demonstrates that the time to achieve ACI has modest sensitivity to reasonable changes in the acquisition cost.

Crude Oil Quality Discount: The income model was used to test the impact of a change in the quality discount for Inglewood crude oil on the time required to achieve ACI. The quality discount for Inglewood crude of \$1.75/B was replaced with a potential quality discount of \$0.50/B. The discount of \$0.50/B was selected based on declining production rates for San Joaquin Basin crudes and higher netback prices for Los Angeles Basin crudes relative to Line 63 crude. The lower quality discount increases the income indication of value and the weighted conclusion of value for the City IOF from \$4.65 million to \$4.73 million. Using a quality discount for Inglewood crude of \$0.50/B, ACI occurs during 2020 and is achieved within four years of SPR's acquisition, as shown in **Exhibit P**. This analysis demonstrates that the time required to achieve ACI has little sensitivity to reasonable changes in the crude quality discount.

Return on Capital: The income model was used to test the impact of changes in the rate of return on capital on the time required to achieve ACI. The 8% industry rate of return in the income model was replaced with a rate of return of 12%, which was selected as the highest cost of equity for oil and gas companies since 2016.⁴² The higher industry rate of return reduces the income indication of value and the weighted conclusion of value for the City IOF from \$4.65 million to \$4.27 million. Using a rate of return on capital of 12%, ACI occurs during 2021 and is

⁴² See Exhibit H.

achieved within five years of SPR's acquisition, as shown in **Exhibit Q**. Although the graphs in **Exhibit Q** appear to indicate ACI during 2020, the model calculates an IRR of 11.9% and an NPV of \$(8,000) during 2020, both of which are slightly short of the targets. This analysis demonstrates that the time required to achieve ACI has little sensitivity to reasonable changes in the rate of return.

EXHIBIT A: ABBREVIATIONS AND GLOSSARY

ABBREVIATIONS

| | |
|------------|--|
| °API | API Gravity |
| /B | Per Barrel |
| /BOE | Per Barrel of Oil Equivalent |
| ACI | Amortization of Capital Investment |
| AEO | Department of Energy's Annual Energy Outlook |
| API | American Petroleum Institute |
| B/D | Barrels per day |
| BBL | Barrel containing 42 U.S. gallons |
| BOE | Barrel of Oil Equivalent |
| BOE/D | Barrels of Oil Equivalent per day |
| CalGEM | California Department of Conservation's California Geologic Energy Management Division |
| CAPEX | Capital Expenditures |
| CEP | Cash Equivalent Price |
| City | City of Culver City |
| City IOF | Culver City portion of the Inglewood Oil Field |
| County IOF | Los Angeles County portion of the Inglewood Oil Field |
| CRC | California Resources Corporation |
| CSD | Baldwin Hills Community Standards District |
| DOGGR | California Department of Conservation's Division of Oil, Gas, and Geothermal Resources |
| DRV | Deferred Replacement Value |
| EIA | The U.S. Energy Information Administration, a division of the U.S. Department of Energy. |
| FCX | Freeport-McMoRan Oil & Gas LLC |
| IOF | Inglewood Oil Field |
| IRR | Internal Rate of Return |
| IRS | Internal Revenue Service |

| | |
|----------|--|
| LLC | Limited Liability Company |
| MACRS | Modified Accelerated Cost Recovery System |
| NPV | Net Present Value |
| O&G | Oil & Gas |
| OPEX | Operating Expenses |
| Plan | Drilling, Re-drilling, Well Abandonment, and Well Pad Restoration Plan |
| PXP | Plains Exploration & Production Company |
| SoCalGas | Southern California Gas Company |
| SPR | Sentinel Peak Resources LLC |
| WACC | Weighted Cost of Capital |
| WTI | West Texas Intermediate |

GLOSSARY

American Petroleum Institute (API): U.S. trade association for the oil and natural gas industry.

Annual Energy Outlook (AEO): An annual report published by the U.S. Energy Information Administration (EIA) that provides an outlook for energy markets.

API Gravity ($^{\circ}$ API): Measurement of the density of a petroleum liquid compared to the density of water.

Back-cast: A projection backwards in history based on trends in available data. Back-casts are prepared in cases where historical data is not readily available.

Baldwin Hills Community Standards District (CSD): The Baldwin Hills CSD was adopted by the Los Angeles County Board of Supervisors to establish regulations for oil and gas production operations in the unincorporated County portion of the Inglewood Oil Field. The City of Culver City portion of the IOF is not subject to the Baldwin Hills CSD regulations.

Barrel of Oil Equivalent (BOE): A measure of energy equivalent to burning one barrel of crude oil. BOE is commonly used to compare the energy contents of differing types of energy.

Brent Crude Oil: Crude oil produced and delivered at the Brent Complex located in the North Sea. Brent crude is the leading global price benchmark for crude oil and is used to set the price for two-thirds of internationally traded crude oil.

Bureau of Economic Analysis (BEA): The Bureau of Economic Analysis is a division of the U.S. Department of Commerce.

California Geologic Energy Management Division (CalGEM): CalGEM is the California oversight agency responsible for the regulation of the drilling, operation, and permanent closure of energy resource (i.e., oil, natural gas and geothermal) wells throughout the state. Formerly known as the Division of Oil, Gas, and Geothermal Resources.

California Resources Corporation (CRC): A publicly-traded oil and natural gas exploration and production company that develops properties exclusively in the State of California, primarily in the San Joaquin, Los Angeles, Ventura and Sacramento oil basins. CRC is California's largest oil and natural gas producer.

California State Board of Equalization (SBOE): The public agency charged with tax administration and fee collection in the State of California.

Capital Investment: Money spent by businesses to acquire assets that produce income.

Cash Equivalent Price (CEP): The sales price for a property that is measured in cash or money. In market transactions the CEP recognizes non-cash consideration in a transaction, such as the buyer's assumption of long-term debt obligations or environmental liabilities, as cash at the time of the transaction. The CEP is the cash value of all consideration exchanged in the purchase of a property.

Chevron Corporation: One of the successor companies to the Standard Oil Company (of California). Chevron is headquartered in San Ramon, California, and was a

principal operator of the Inglewood Oil Field between 1977 and 1991. Chevron's interests in the Inglewood Oil Field were purchased by Stocker Resources.

Citygate (SoCalGas Citygate or California Citygate): Citygate is any point at which the mainline natural gas transmission system connects to a local transmission and distribution system. SoCalGas Citygate or California Citygate are not physical locations, but represent virtual trading points on the California Gas Transmission (CGT) system that is referenced as a delivery point for natural gas. The SoCalGas Citygate and California Citygate price assessments are often referenced as benchmark prices for natural gas in California.

City IOF: The approximately 78-acre portion of the IOF within the boundary of the City of Culver City.

City of Culver City: The City of Culver City is a municipal corporation within the County of Los Angeles, California.

Corporation: A corporation is a company or group of people collection of individuals or a that is authorized by a state government to act as a single entity (legally a person) and recognized as such in law.

County IOF: The approximately 900-acre portion of the Inglewood Oil Field contained within the County of Los Angeles, exclusive of the City IOF.

Crude Oil: A naturally occurring complex mixture of hydrocarbon found in geological formations beneath the Earth's surface. It is referred to as a crude oil because it must be refined to produce various types of fuels and products.

Cumulative Internal Rate of Return (Cumulative IRR): The internal rate of return generated by an asset at a specified point in time based on the cumulative net cash flows generated from the time of investment.

Cumulative Net Present Value (Cumulative NPV): The present value of the net cash flows for an asset at a specified point in time based on the cumulative net cash flows generated from the time of investment.

Decline Curve: The trend in production of oil, natural gas, and water from an operating production well.

Deferred Replacement Value (DRV): The value to an owner of deferring capital investment until the remaining service life of an existing asset has been exhausted.

Discounted Cash Flow Analysis: An analysis that discounts future cashflows to present value. A discount rate is applied to cashflows to determine present value that represents the return of and return on capital investment.

Division of Oil, Gas, and Geothermal Resources (DOGGR): Effective January 1, 2020, DOGGR was reorganized into the California Geologic Energy Management Division (CalGEM).

Drilling, Re-drilling, Well Abandonment, and Well Pad Restoration Plan (Plan):
The Baldwin Hills Community Standards District requires the Operator of the Inglewood Oil Field to prepare and submit an annual Drilling, Redrilling, Well Abandonment, and Well Pad Restoration Plan. The plan describes all oil field activities that may be conducted during the upcoming calendar year. The requirements of this Plan are set forth in Section 22.310.050.Z of the Los Angeles County's Code of Ordinances.

Economic Life: The amount of time an asset is able to generate income in excess of maintenance and operating costs.

Effective Date: January 1, 2020, the cut-off date for information used in the amortization study as the basis for representing historical oil and gas operations and projections of future operations in the City IOF.

Fair Market Value: The value in exchange of a property between a willing buyer and a willing seller in an arm's length, open market transaction.

Fair Rate of Return: The rate of return that a regulatory agency allows rate-regulated companies to achieve on capital invested in the assets providing the regulated service.

Freeport-McMoRan Oil & Gas LLC (FCX): A principal operator on the Inglewood Oil Field in Los Angeles County between 2013 and 2016. FCX acquired Plains Exploration & Production Company's (PXP) interests in the Inglewood Oil Field in 2013.

Henry Hub: A distribution hub for natural gas in Erath, Louisiana that is owned by Sabine Pipe Line LLC. It serves as the delivery location for natural gas futures traded on the New York Mercantile Exchange (NYMEX).

Idle Well: As defined by CalGEM, a production well that has not been used for two years or more, but has not been plugged and abandoned.

Income Model: A simulation of the financial relationships between capital investment associated with a particular asset and income generated by the asset.

Industry Return on Capital: The total return on capital characteristic of companies operating in an industry sector.

Initial Capital Investment: Expenditures associated with creation or acquisition of an asset. For example, costs to drill and complete a production well to produce oil and gas is an initial capital investment.

Injection Well: A well that is used to inject water into a reservoir. Injection wells are used in water-flood operations as a means to enhance oil recovery.

Inglewood Oil Field (IOF): The approximate 1000-acre oil field located within and straddling the jurisdiction of the City of Culver City and the unincorporated area of the County of Los Angeles known as Baldwin Hills. Sentinel Peak Resources currently operates the Inglewood Oil Field.

Internal Rate of Return (IRR): The Internal Rate of Return is the rate required to discount future cash flows to a Net Present Value of zero.

Limited Liability Company (LLC): A form of business structure that pays no corporate income tax. LLC income is passed through to owners, which pay income taxes based on individual tax situations. The LLC is provided with the limited liability protection of a traditional corporation.

Line 63 Crude Oil: Crude oil delivered by the Plains All American Pipeline System to Los Angeles refineries and its terminal in Long Beach. Line 63 crude oil is a blend of crude oils produced in the San Joaquin Valley and the outer continental shelf offshore of California to refineries.

Maintenance: The diagnosis, repair or replacement of machinery, equipment, apparatus, structures, and facilities used in connection with oil and gas operations. Maintenance does not include costs to drill new wells, to redrill wells, or to rework existing wells.

Market Return on Capital: The total return on capital earned in aggregate by companies in a particular market sector.

Mineral Rights: Property rights to exploit an area for the minerals contained within a property beneath the Earth's surface.

Modified Accelerated Cost Recovery System (MACRS): The Modified Accelerated Cost Recovery System provided in the U.S. Internal Revenue Service tax code for calculating depreciation for income tax purposes.

Netback Price: The price realized by the seller for crude oil or natural gas at its location of production.

Net Cash Flow: The amount of cash generated after deducting operating expenses, interest expenses, income taxes, and capital expenditures from revenues.

Net Present Value (NPV): The cumulative value of future net cash flows generated by an asset, discounted to a specific time.

Oil: Crude oil or a petroleum liquid derived from crude oil.

Operating Costs and Expenses: Cash expenses associated with operation of an asset or a business. Operating costs typically include costs for labor, marketing, general, and administrative overhead, insurance, property taxes, operating materials, and maintenance.

Pass-Through Corporation: A pass-through corporation does not pay income taxes, but distributes (or passes through) income to owners of the pass-through corporation, which pay income taxes based on their particular individual tax situation.

Petroleum: A mineral deposit that naturally occurs beneath the earth's surface. Petroleum includes crude oil, natural gas, and natural gas liquids that may be extracted from rock formations.

Plains Resources, Inc.: A predecessor to Plains Exploration & Production Company (PXP). Plains Resources, Inc. acquired Stocker Resources' interests in the Inglewood Oil Field in 1992.

Plains Exploration & Production Company (PXP): A petroleum and natural gas exploration and production company based in Houston, Texas. PXP was a principal operator of the Inglewood Oil Field between 2002 and 2013. In 2013, Freeport-McMoRan Oil & Gas LLC acquired PXP, then owner/operator of the Inglewood Oil Field.

Plug and Abandon: The permanent plugging of a production well that includes the removal of all equipment related to the well and restoration of the well site to natural conditions. Plug and Abandon activities in California are regulated by CalGEM.

Price Assessment: The price of a commodity reported by a service organization that surveys market participants at a particular market location. Price assessments are often used to settle contracts that require market pricing.

Produced Water: Water that is produced from oil and gas wells. The fluids from a well typically include a mixture of crude oil, natural gas, and water, which must be separated for treatment and disposal.

Rate of Return: The profit on an investment over a period of time, expressed as a proportion of the original investment.

Remaining Life: The amount of time that an asset is expected to remain in operation without extensive renovation or replacement, based on its age and condition.

Royalty: The portion of oil and gas resource or revenue that the owner of the mineral rights is entitled to receive from production. Oil and gas operators enter into leases with owners of mineral rights that gives the operator permission to extract oil and gas and provide a monetary royalty payment to the owner.

Sensitivity Analysis: Simulation analysis in which key quantitative assumptions and computations (such as an underlying a decision, estimate, or project) are changed systematically to assess their effect on the final outcome.

Service Life: The amount of time an asset may physically remain in operation without extensive renovation or replacement.

Shut-in Well: A production well where surface equipment, wellhead, or subsurface equipment have been closed to halt the flow either into or out of the well. A shut-in well may be returned to operation.

Southern California Gas Company (SoCalGas): The Southern California Gas Company is the primary provider of natural gas to the region of Southern California.

Sentinel Peak Resources LLC (SPR): Sentinel Peak Resources LLC, the current operator of the Inglewood Oil Field.

Standard Oil Company of California: Considered the original developer to first commercially produce oil from the Inglewood Oil Field and a predecessor company of Chevron Corporation.

Stocker Resources: A principal operator of the Inglewood Oil Field between 1991 and 2002. Stocker Resources purchased Chevron Corporation's interests in the Inglewood Oil Field in 1991.

Sustaining Capital Investment: Capital investment required to maintain the productive capacity of an asset.

Tax Loss Carry-Forward: An accounting method that allows a company to carry forward losses from prior tax years to offset future profits, affording the firm an opportunity to lower its future income tax obligation.

Water Cut: The fraction of production fluids from a well that is water.

Waterflood: A method used in oil and gas production where water is injected into a reservoir to increase well pressure and displace petroleum to production wells.

Weighted Average Cost of Capital (WACC): A rate of return at which a firm is able to finance the purchase and operation of assets. It is typically comprised of the cost of equity capital and the cost debt capital, weighted by the relative proportions of capital used in the business.

Well: A hole sunk into the earth for use in oil and gas operations. A production well produces reservoir fluids including crude oil, natural gas, and water. An injection well is used to inject water or steam into a reservoir. A disposal well is used to dispose of waste fluids into deep rock formations. Each type of well is specifically engineered for its intended purpose.

West Texas Intermediate (WTI): A light, sweet crude oil priced at Cushing, Oklahoma that serves as a benchmark price for crude oil in North America.

Workover: Major renovations to an existing oil or gas well, which may include liner replacement or renewal and replacement of completion or production hardware in order to restore mechanical integrity and extend the life of a well.

EXHIBIT B



DONALD L. FLESSNER

President

CAREER HIGHLIGHTS

Don Flessner is President of Baker & O'Brien, Inc., and serves on the firm's Board of Directors. He has more than 30 years of technical and commercial experience in the petroleum, chemicals, and fertilizers industries. After beginning his career in specialty chemicals, Don's experience at Sohio and BP Oil included technical services, capital project evaluation and management, operations management, wholesale marketing, supply logistics, and strategic planning. Don's responsibilities at BP Oil included implementation of several refinery capital projects and the preparation of capital investment strategies for its five U.S. refineries.

Since becoming a consultant in 1992, Don has completed a wide range of assignments in the upstream oil & gas, refining and marketing, gas processing, chemicals, and fertilizer industries. These engagements have included due diligence on behalf of investors and financial institutions for acquisitions and construction projects around the world. He has prepared valuations of refinery, transportation, and chemical manufacturing assets for companies, financial institutions, and government agencies. He has served as a consulting expert and testifying expert in litigation involving major construction projects, commercial matters, product quality and testing, insurance claims, and industry standards and practices on behalf of operating companies, contractors, and insurers involved in the hydrocarbon and chemical process industries. Don has testified as an expert witness in depositions, public hearings, jury trials, and international arbitrations.

PREVIOUS POSITIONS

1992-1994: Purvin & Gertz, Inc.,
Associate Consultant

1979-1992: BP Oil/Standard Oil Co. of Ohio,
Technical Specialist, Refining Department
Operations Planner, Products Supply & Trading
Senior Process Engineer, Refining Department

1977-1979: Scott & Fetzer Corp.,
Plant Chemist

SERVICES

- Expert Witness and Dispute Support
- Asset Valuations
- Technology Assessment
- Engineering, Procurement, and Construction (EPC)
- Commercial Contracts
- Standard of Care
- Due Diligence and Advisor to Lenders and Investors

INDUSTRIES

- Petrochemical / Chemical
- Oil and Gas Production
- Gas Processing
- Petroleum Refining
- Additional Process Industries
- Renewable / Alternative Energy

EXPERIENCE

- Gas to Liquids
- Fertilizers
- Arbitration
- Expert Witness/Testimony
- Ad Valorem Taxes
- Environmental
- Intellectual Property
- Toxic Tort
- Offshore
- LNG
- Gasification
- EPC-related
- Industry Practice/Standard of Care
- Forensic Analysis
- Commercial Terms Review

EDUCATION

- Cleveland State University, M.B.A. Finance (1989)
- Cleveland State University, Post Graduate Work - Chemical Engineering (1979)
- Mount Union College, B.S. Chemistry and Biology (1977) Magna Cum Laude



CHARLES G. KEMP

Vice President, Business Development Manager

CAREER HIGHLIGHTS

Charles Kemp's expertise combines experience at three major energy corporations in natural gas/oil production, refining, petrochemicals, natural gas liquids, economics, planning, training, human resources, and engineering.

Charles' consulting assignments have included petroleum asset valuations, shale oil refining/logistics, purchase price allocations, and expert testimony presented in international arbitration, district, and federal courts regarding supply disputes, plant operations, natural gas production, business interruption, safety, and environmental issues. His work includes advising legal teams on costs related to numerous business interruption claims in the Exploration & Production and related industries. Charles has experience in fire investigation, pipeline operations, hydrocarbon measurement, prudent operations, and safety procedures.

Prior to joining Baker & O'Brien, Charles provided leadership in strategic planning, economic modeling, price setting mechanisms, business development, logistics management, fuel specifications, competitive analysis, and cost reduction. In a career of over 25 years, Charles gained significant hands-on experience in petrochemical supply chain management, refinery linear programs, feedstock optimization, and turnaround planning.

PREVIOUS POSITIONS

2007-2008: Valero Energy Corp.,
Director-Planning, Economics and Laboratory

1998-2007: CITGO Refining and Chemicals,
Strategic Planning Engineer
Economics Analyst

1989-1998: Koch Industries,
Director-Business Development, Koch Hydrocarbon Co.
Business Associate-Koch Capital Services
Business and Economics Consultant-Koch Corporate Development Group
Project Manager-Koch Chemical Co.
Process Engineer-Koch Refining Co.

SERVICES

- Expert Witness and Dispute Support
- Asset Valuations
- Strategic Consulting and Industry Advisory Services
- Merger and Acquisition Support
- Property Damage and Business Interruption Insurance Claims
- Markets and Strategy
- Due Diligence and Advisor to Lenders and Investors

INDUSTRIES

- Petrochemical / Chemical
- Transportation and Storage
- Oil and Gas Production
- Petroleum Refining
- Gas Processing

EXPERIENCE

- Arbitration
- Expert Witness/Testimony
- Ad Valorem Taxes
- LP/Planning Practice
- Physical Asset Appraisal
- Business Interruption
- Offshore
- Pipeline
- Product Quality
- Project Feasibility
- Pricing
- Commercial Terms Review
- Crude Oil Valuation

EDUCATION

- Kellogg School of Management
Executive Education, Corporate Entrepreneurship (1996)
- Oklahoma State University, B.S.
Chemical Engineering (1989)



WILLIAM D. CHEEK

Analyst

CAREER HIGHLIGHTS

After graduating in 2002, William joined The Perryman Group as an Economic Analyst. He was responsible for creating and preparing economic damage models, impact assessments, and forecast models for a diversity of clients. William, under the direction of Dr. Ray M. Perryman, primarily worked on economic and liquidated damage models for antitrust litigation. In addition, William was a contributor to *The Perryman Report*, which provided economic analysis of topics relating to the economies of the United States and Texas.

In 2004, William joined Parks Associates, a market research and consulting firm focused on digital product and service market segments. While at Parks Associates, William conducted primary consumer survey research, authored syndicated primary research reports, conducted company briefings, provided consulting services for Fortune 500 companies, and presented at industry seminars and conferences.

Since joining Baker & O'Brien in June 2005, William has completed a wide range of assignments in the upstream, midstream, refining, and chemical industries. These projects have included asset valuation, cost of capital calculation, business interruption, purchase price allocations, and due diligence projects for industry and litigation purposes. He has assisted in the preparation of valuations of upstream, midstream, and downstream assets for companies, financial institutions, and for government agencies. Additionally, he has co-authored expert valuation reports of upstream, midstream, and refining assets. William has testified as an expert witness regarding the cost of capital in property tax hearings.

PREVIOUS POSITIONS

2004 - 2005: Parks Associates,
Analyst

2002 - 2004: The Perryman Group,
Economic Analyst

EDUCATION

- Southern Methodist University, Cox School of Business, M.B.A. (2009)
- Baylor University, B.A. (2002)

Exhibit C

Reference Materials

| Seq No. | Title | Date | Organization |
|----------------|---|-------------------|------------------------|
| 1 | Plains Resources to Acquire Stocker Resources | May 13, 1992 | |
| 2 | Assessor's Handbook Section 566 Assessment of Petroleum Properties | August-96 | California SBOE |
| 3 | Final Environmental Impact Report, Baldwin Hills Community Standards District | October-08 | |
| 4 | IOF Hydraulic Fracturing Report | July 13, 2012 | Halliburton |
| 5 | FCX Completes Acquisition of Plains Exploration & Production Co. | May 31, 2013 | |
| 6 | MLP Primer Fifth Edition | October 31, 2013 | Wells Fargo Securities |
| 7 | Analysis of Oil and Gas Well Stimulation Treatments in California, EIR Section 11 | June-15 | |
| 8 | Annual Energy Outlook 2016 | May-16 | EIA |
| 9 | FCX Announces Agreement to Sell Onshore California Oil & Gas Properties | October 14, 2016 | |
| 10 | SPR Announces the Acquisition of FCX Onshore California Assets for \$742 Million | October 14, 2016 | |
| 11 | Sentinel Peak Resources Announces Closing of Acquisition of FCX Properties | January 3, 2017 | |
| 12 | 2018 Drilling, Re-drilling, Well Abandonment, and Well Pad Restoration Plan | November-17 | SPR |
| 13 | Value-Driven November Corporate Presentation | November-18 | CRC |
| 14 | Annual Energy Outlook 2019 | January-19 | EIA |
| 15 | World Bank Commodity Price Data | September 4, 2019 | World Bank |
| 16 | This Week In Petroleum | October 9, 2019 | EIA |
| 17 | 2020 Drilling, Re-drilling, Well Abandonment, and Well Pad Restoration Plan | November-19 | SPR |
| 18 | U.S. Nominal Cost per Foot of Crude Oil Wells Drilled | December 17, 2019 | EIA |
| 19 | History of Inglewood Oil Field | May 27, 2020 | SPR |
| 20 | CalGem Public Portal Website: https://www.conservation.ca.gov/calgem/Pages/Index.aspx | | CalGem |
| 21 | Natural Gas City Gate Price in California | | EIA |
| 22 | Aswath Damodaran, Ph.D., http://pages.stern.nyu.edu/~adamodar/New_Home_Page/ | | NYU Stern School |
| 23 | Platts Price Assessments | | SPG Global |
| 24 | Personal Consumption Expenditures Chain-type Price Index | | US Dept. Commerce |

Exhibit D

Map of City IOF

Well status as of December 2018

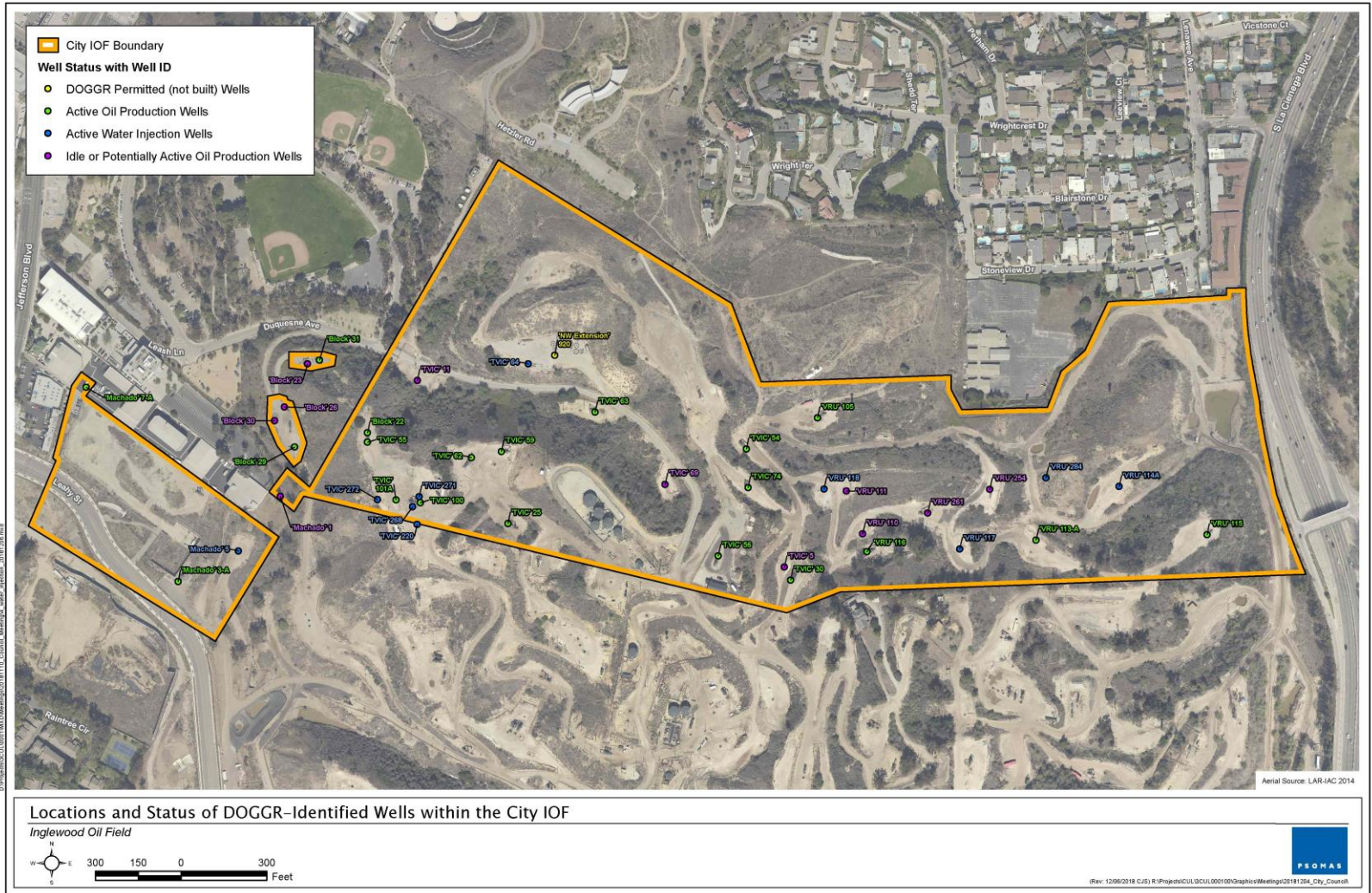


Exhibit E

CITY OF CULVER CITY
CAPITAL INVESTMENT AMORTIZATION STUDY

Listing of Wells in Culver City
Well Status as of 2016

Well Identification

CalGEM Data

| Model # | Drill Year | 2016 Status | CalGEM Docs | API # | Lease Name | Well # | Operator Name | County Name | Field Name | Area Name | Area Code | District # | Section | Township | Range | Base Meridian | Latitude | Longitude |
|---------|------------|-------------|-------------|----------|------------|--------|--|-------------|------------|-----------|-----------|------------|---------|----------|-------|---------------|--------------|----------------|
| 3700248 | 1966 | Operating | Yes | 03700248 | TVIC | 59 | Sentinel Peak Resources California LLC | Los Angeles | Inglewood | Any Area | 00 | 1 | 7 | 02S | 14W | SB | 34.013046374 | -118.382934168 |
| 3700249 | 1966 | Operating | Yes | 03700249 | TVIC | 63 | Sentinel Peak Resources California LLC | Los Angeles | Inglewood | Any Area | 00 | 1 | 7 | 02S | 14W | SB | 34.013428911 | -118.381852035 |
| 3707468 | 1947 | Operating | Yes | 03707468 | Block | 22 | Sentinel Peak Resources California LLC | Los Angeles | Inglewood | Any Area | 00 | 1 | 7 | 02S | 14W | SB | 34.01322237 | -118.384481215 |
| 3707469 | 1941 | Idle | Yes | 03707469 | Block | 23 | Sentinel Peak Resources California LLC | Los Angeles | Inglewood | Any Area | 00 | 1 | 7 | 02S | 14W | SB | 34.013882724 | -118.385177459 |
| 3707472 | 1953 | Idle | Yes | 03707472 | Block | 26 | Sentinel Peak Resources California LLC | Los Angeles | Inglewood | Any Area | 00 | 1 | 7 | 02S | 14W | SB | 34.01346482 | -118.38544087 |
| 3707475 | 1961 | Operating | Yes | 03707475 | Block | 29 | Sentinel Peak Resources California LLC | Los Angeles | Inglewood | Any Area | 00 | 1 | 7 | 02S | 14W | SB | 34.013080309 | -118.385322593 |
| 3707476 | 1963 | Idle | Yes | 03707476 | Block | 30 | Sentinel Peak Resources California LLC | Los Angeles | Inglewood | Any Area | 00 | 1 | 7 | 02S | 14W | SB | 34.013334161 | -118.385552524 |
| 3707477 | 1964 | Operating | Yes | 03707477 | Block | 31 | Sentinel Peak Resources California LLC | Los Angeles | Inglewood | Any Area | 00 | 1 | 7 | 02S | 14W | SB | 34.013918791 | -118.385040271 |
| 3707867 | 1941 | Idle | Yes | 03707867 | Machado | 1 | Sentinel Peak Resources California LLC | Los Angeles | Inglewood | Any Area | 00 | 1 | 7 | 02S | 14W | SB | 34.012606179 | -118.385484864 |
| 3707873 | 1941 | Operating | Yes | 03707873 | Machado | 3-A | Sentinel Peak Resources California LLC | Los Angeles | Inglewood | Any Area | 00 | 1 | 7 | 02S | 14W | SB | 34.011784052 | -118.386663436 |
| 3707876 | 1957 | Injection | Yes | 03707876 | Machado | 5 | Sentinel Peak Resources California LLC | Los Angeles | Inglewood | Any Area | 00 | 1 | 7 | 02S | 14W | SB | 34.012079452 | -118.385966601 |
| 3707881 | 1952 | Operating | Yes | 03707881 | Machado | 7-A | Sentinel Peak Resources California LLC | Los Angeles | Inglewood | Any Area | 00 | 1 | 7 | 02S | 14W | SB | 34.013648338 | -118.387732487 |
| 3708129 | 1954 | Operating | Yes | 03708129 | VRU | 105 | Sentinel Peak Resources California LLC | Los Angeles | Inglewood | Any Area | 00 | 1 | 7 | 02S | 14W | SB | 34.013380198 | -118.379281486 |
| 3709080 | 1926 | Idle | Yes | 03709080 | VRU | 111 | Sentinel Peak Resources California LLC | Los Angeles | Inglewood | Any Area | 0 | 1 | 7 | 02S | 14W | SB | 34.012677596 | -118.378946071 |
| 3709082 | 1979 | Operating | Yes | 03709082 | VRU | 113-A | Sentinel Peak Resources California LLC | Los Angeles | Inglewood | Any Area | 00 | 1 | 8 | 02S | 14W | SB | 34.01221268 | -118.376751489 |
| 3709083 | 1977 | Injection | Yes | 03709083 | VRU | 114A | Sentinel Peak Resources California LLC | Los Angeles | Inglewood | Any Area | 00 | 1 | 8 | 02S | 14W | SB | 34.012731485 | -118.375922225 |
| 3709084 | 1977 | Idle | Yes | 03709084 | VRU | 115 | Sentinel Peak Resources California LLC | Los Angeles | Inglewood | Any Area | 00 | 1 | 8 | 02S | 14W | SB | 34.01226998 | -118.374775336 |
| 3709086 | 1953 | Operating | Yes | 03709086 | VRU | 116 | Sentinel Peak Resources California LLC | Los Angeles | Inglewood | Any Area | 00 | 1 | 8 | 02S | 14W | SB | 34.012096325 | -118.378702719 |
| 3709087 | 1954 | Injection | Yes | 03709087 | VRU | 117 | Sentinel Peak Resources California LLC | Los Angeles | Inglewood | Any Area | 00 | 1 | 8 | 02S | 14W | SB | 34.01212473 | -118.3776319 |
| 3709088 | 1954 | Injection | Yes | 03709088 | VRU | 118 | Sentinel Peak Resources California LLC | Los Angeles | Inglewood | Any Area | 00 | 1 | 7 | 02S | 14W | SB | 34.01269724 | -118.3792035 |
| 3709090 | 1925 | Idle | Yes | 03709090 | VRU | 111 | Sentinel Peak Resources California LLC | Los Angeles | Inglewood | Any Area | 00 | 1 | 7 | 02S | 14W | SB | 34.012677596 | -118.378946071 |
| 3709097 | 1926 | Idle | Yes | 03709097 | TVIC | 5 | Sentinel Peak Resources California LLC | Los Angeles | Inglewood | Any Area | 00 | 1 | 7 | 02S | 14W | SB | 34.011944135 | -118.37965694 |
| 3709101 | 1926 | Idle | Yes | 03709101 | TVIC | 11 | Sentinel Peak Resources California LLC | Los Angeles | Inglewood | Any Area | 00 | 1 | 7 | 02S | 14W | SB | 34.01372627 | -118.383906155 |
| 3709113 | 1925 | Operating | Yes | 03709113 | TVIC | 25 | Sentinel Peak Resources California LLC | Los Angeles | Inglewood | Any Area | 00 | 1 | 7 | 02S | 14W | SB | 34.012352837 | -118.38285481 |
| 3709118 | 1953 | Operating | Yes | 03709118 | TVIC | 30 | Sentinel Peak Resources California LLC | Los Angeles | Inglewood | Any Area | 00 | 1 | 7 | 02S | 14W | SB | 34.011819565 | -118.379585629 |
| 3709139 | 1961 | Operating | Yes | 03709139 | TVIC | 55 | Sentinel Peak Resources California LLC | Los Angeles | Inglewood | Any Area | 00 | 1 | 7 | 02S | 14W | SB | 34.013130572 | -118.384480037 |
| 3709140 | 1962 | Operating | Yes | 03709140 | TVIC | 56 | Sentinel Peak Resources California LLC | Los Angeles | Inglewood | Any Area | 00 | 1 | 7 | 02S | 14W | SB | 34.01204947 | -118.380421955 |
| 3709145 | 1957 | Operating | Yes | 03709145 | TVIC | 62 | Sentinel Peak Resources California LLC | Los Angeles | Inglewood | Any Area | 00 | 1 | 7 | 02S | 14W | SB | 34.012986001 | -118.38327733 |
| 3709149 | 1966 | Operating | Yes | 03709149 | TVIC | 74 | Sentinel Peak Resources California LLC | Los Angeles | Inglewood | Any Area | 00 | 1 | 7 | 02S | 14W | SB | 34.012706729 | -118.380081407 |
| 3720042 | 1967 | Injection | Yes | 03720042 | TVIC | 64 | Sentinel Peak Resources California LLC | Los Angeles | Inglewood | Any Area | 00 | 1 | 7 | 02S | 14W | SB | 34.013890759 | -118.382625834 |
| 3720069 | 1967 | Operating | Yes | 03720069 | TVIC | 54 | Sentinel Peak Resources California LLC | Los Angeles | Inglewood | Any Area | 00 | 1 | 7 | 02S | 14W | SB | 34.013078006 | -118.380101738 |
| 3720462 | 1968 | Idle | Yes | 03720462 | TVIC | 69 | Sentinel Peak Resources California LLC | Los Angeles | Inglewood | Any Area | 00 | 1 | 7 | 02S | 14W | SB | 34.012736232 | -118.381038844 |
| 3722281 | 1980 | Injection | | 03722281 | TVIC | 220 | Sentinel Peak Resources California LLC | Los Angeles | Inglewood | Any Area | 00 | 1 | 7 | 02S | 14W | SB | 34.01234122 | -118.383903094 |
| 3722541 | 1982 | Idle | Yes | 03722541 | VRU | 254 | Sentinel Peak Resources California LLC | Los Angeles | Inglewood | Any Area | 00 | 1 | 8 | 02S | 14W | SB | 34.012701135 | -118.37728821 |
| 3723170 | 1985 | Idle | Yes | 03723170 | VRU | 261 | Sentinel Peak Resources California LLC | Los Angeles | Inglewood | Any Area | 00 | 1 | 8 | 02S | 14W | SB | 34.012470902 | -118.378002869 |
| 3725079 | 1998 | Injection | | 03725079 | TVIC | 268 | Sentinel Peak Resources California LLC | Los Angeles | Inglewood | Any Area | 00 | 1 | 7 | 02S | 14W | SB | 34.012512605 | -118.383956364 |
| 3725221 | 2000 | Injection | | 03725221 | VRU | 284 | Sentinel Peak Resources California LLC | Los Angeles | Inglewood | Any Area | 00 | 1 | 8 | 02S | 14W | SB | 34.012811 | -118.376637 |
| 3725222 | 2000 | Injection | | 03725222 | TVIC | 271 | Sentinel Peak Resources California LLC | Los Angeles | Inglewood | Any Area | 00 | 1 | 7 | 02S | 14W | SB | 34.012608 | -118.383881 |
| 3725256 | 2000 | Injection | | 03725256 | TVIC | 272 | Sentinel Peak Resources California LLC | Los Angeles | Inglewood | Any Area | 00 | 1 | 7 | 02S | 14W | SB | 34.01258 | -118.384362 |
| 3725342 | 2002 | Operating | Yes | 03725342 | TVIC | 100 | Sentinel Peak Resources California LLC | Los Angeles | Inglewood | Any Area | 00 | 1 | 7 | 02S | 14W | SB | 34.012549725 | -118.383866459 |
| 3725375 | 2002 | Operating | Yes | 03725375 | TVIC | 101A | Sentinel Peak Resources California LLC | Los Angeles | Inglewood | Any Area | 00 | 1 | 7 | 02S | 14W | SB | 34.012577086 | -118.384146957 |

Exhibit F Oil and Gas Production History and Forecast

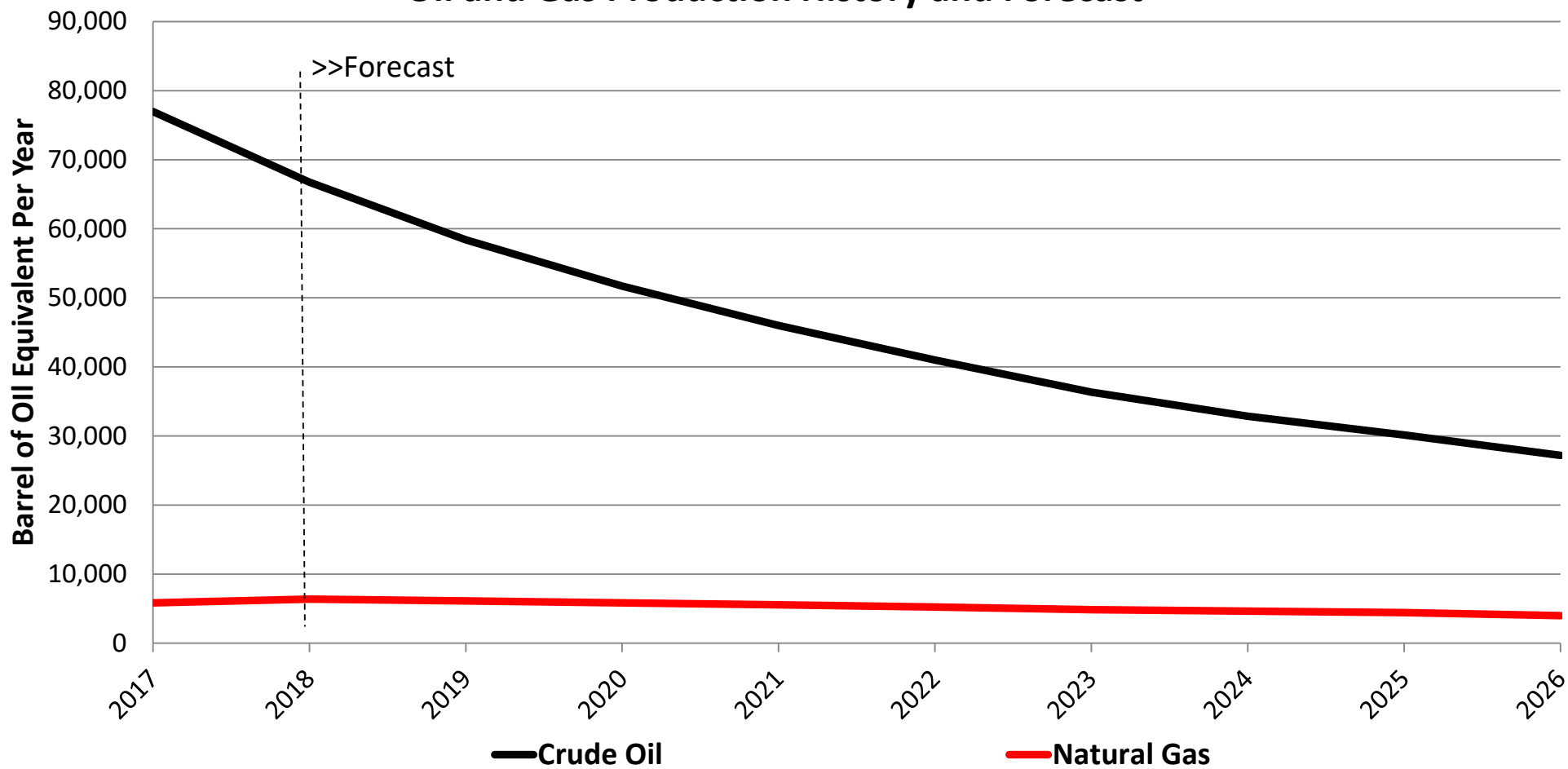


Exhibit G Netback Price History and Forecast

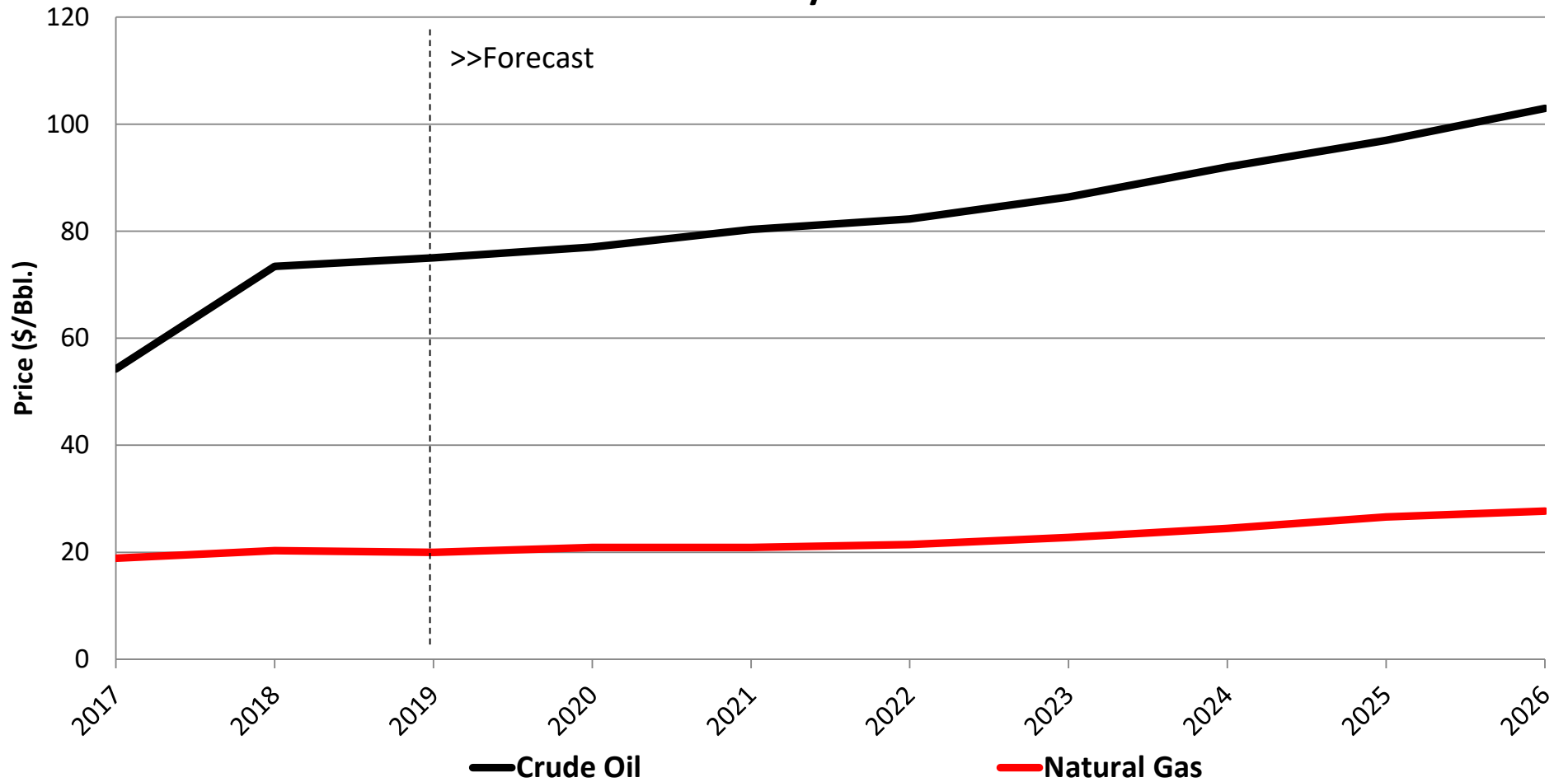


Exhibit H
Industry Sector WACC as of January 1
Oil & Gas Production and Exploration

| Year | Cost of Equity | Equity % | Cost of Debt ¹ | Debt % | WACC |
|-------------|-----------------------|-----------------|----------------------------------|---------------|-------------|
| 2016 | 12.05% | 54.80% | 3.91% | 45.20% | 8.37% |
| 2017 | 10.29% | 68.03% | 3.12% | 31.97% | 8.00% |
| 2018 | 8.80% | 70.47% | 5.25% | 29.53% | 7.76% |
| 2019 | 11.34% | 64.44% | 3.42% | 35.56% | 8.52% |
| 2020 | 9.61% | 63.94% | 2.75% | 36.06% | 7.14% |

Note 1: After-tax cost of debt.

Exhibit I

Allocation of FCX Transaction Value

| | <i>Announced Price</i> | | <i>Adjusted Price</i> | |
|--|------------------------|---------------|-----------------------|--------------------------|
| Transaction Value ¹ | | | | |
| Price at Closing | 592,000,000 | | 592,000,000 | |
| Contingent Price | | | | |
| 2018 | 50,000,000 | Brent >\$70/B | 50,000,000 | Brent=71.04 ² |
| 2019 | 50,000,000 | Brent >\$70/B | 0 | Brent=64.26 ² |
| 2020 | 50,000,000 | Brent >\$70/B | 0 | Brent=58.00 ³ |
| Assumed Liabilities | | | | |
| Abandonment | | | 100,000,000 | |
| Cash Equivalent Price | <u>742,000,000</u> | | <u>742,000,000</u> | |
| Crude Oil Production, B/D | | | | |
| FCX Properties ⁴ | 28,000 | 100.00% | 28,000 | 100.00% |
| IOF ⁵ | 5,520 | 19.71% | 5,520 | 19.71% |
| City IOF ⁶ | 211 | 0.75% | 211 | 0.75% |
| Allocation of Cash Equivalent Price | | | | |
| FCX Properties | 742,000,000 | 100.00% | 742,000,000 | 100.00% |
| IOF | 146,280,000 | 19.71% | 146,280,000 | 19.71% |
| City IOF | 5,591,500 | 0.75% | 5,591,500 | 0.75% |

Sources:

1. *Freeport-McMoRan Announces Agreement to Sell Onshore California Oil & Gas Properties for \$742 Million, Including Contingent Consideration* ; Oct. 14, 2016
2. Platt's price assessment for Dated Brent.
3. *This Week in Petroleum* , EIA, Oct. 9, 2019
4. *Sentinel Peak Resources Announces the Acquisition of FreeportMcMoRan's Onshore California Assets for \$742 Million* ; Oct 14, 2016
5. 2018 Drilling, Re-drilling, Well abandonment, and Well Pad Restoration Plan, SPR, Nov 2017; pg 1
6. CalGEM

Exhibit J IRR Test for Amortization of Capital Investment

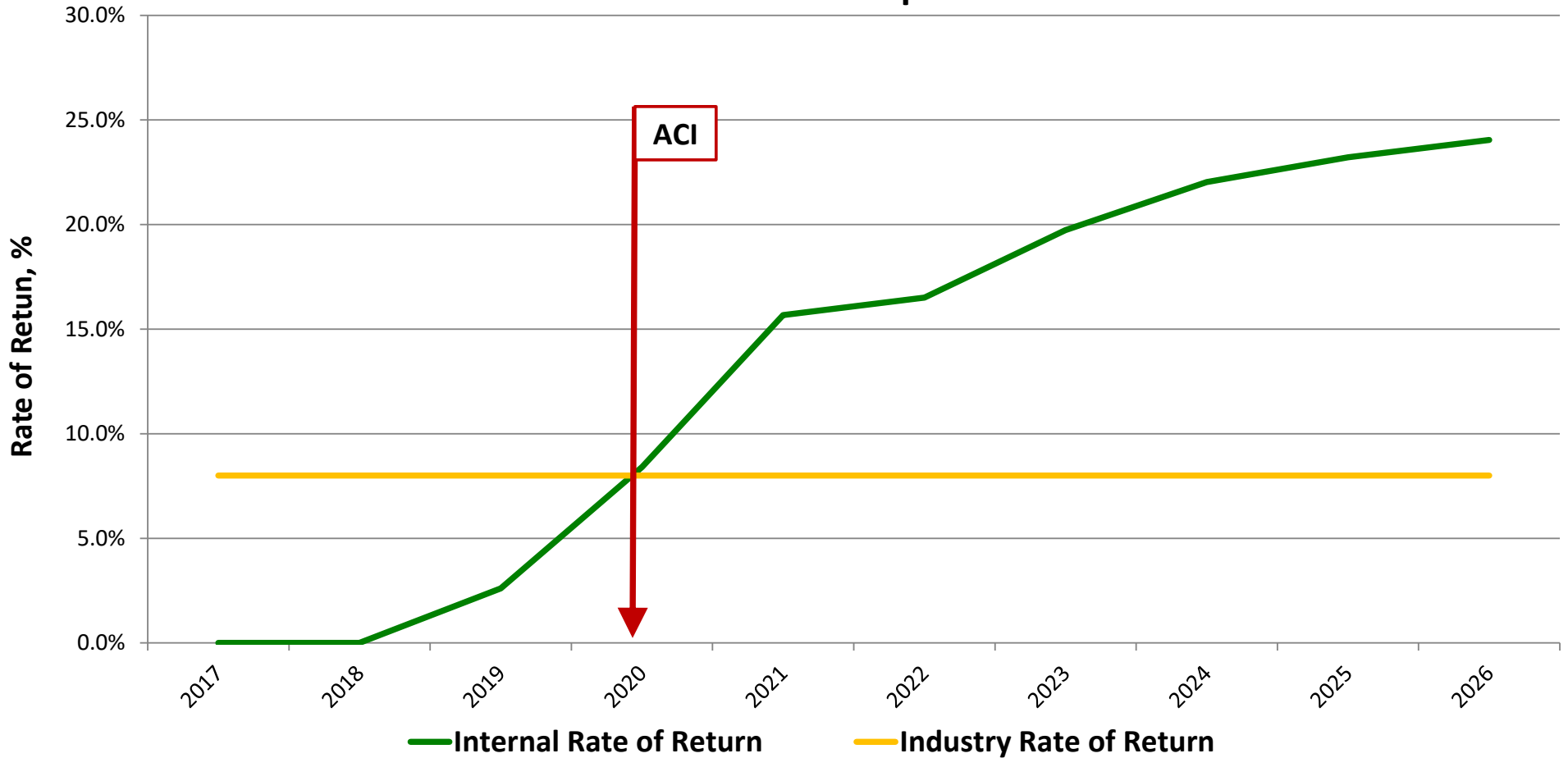


Exhibit K NPV Test for Amortization of Capital Investment

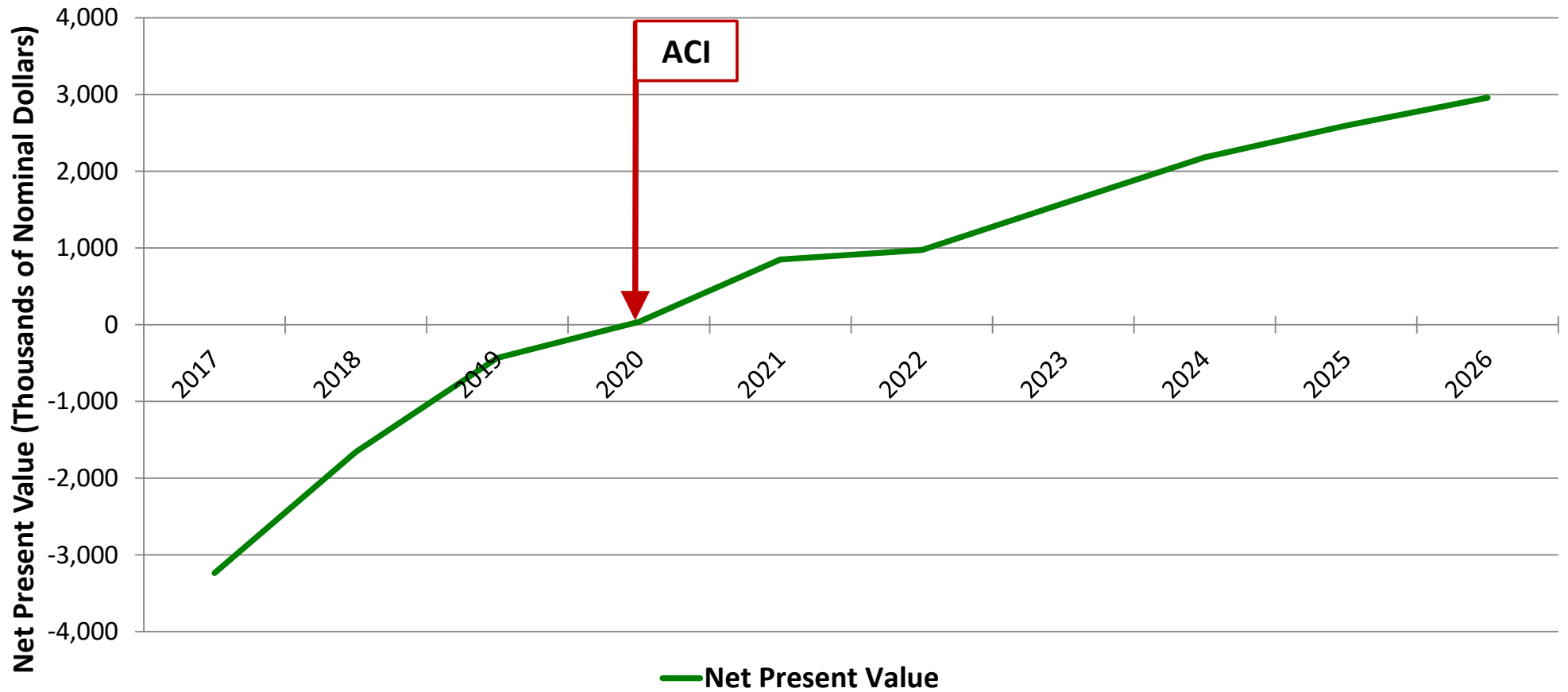


Exhibit L
Amortization of Capital Investment for Individual Wells

| <i>Well No</i> | <i>Complete</i> | <i>Amort</i> | <i>Years</i> | <i>2016</i> <i>IRR</i> | <i>First 5 yrs</i> | | | | | | | |
|----------------|-----------------|--------------|--------------|---------------------------|------------------------------|----------------------------|------------------------------|---------------------------------|--------------------------------------|--------------------------------|--|------------------------------------|
| | | | | | <i>O&G</i> <i>BBL</i> | <i>Water</i> <i>BBL</i> | <i>Water Cut</i> <i>%</i> | <i>Oil Price</i> <i>\$/B</i> | <i>Capex</i> <i>Avg. \$/B Oil</i> | <i>Opex</i> <i>\$/B Oil</i> | <i>Oil Price/</i> <i>Capex + Opex</i> | <i>Simple Payback</i> <i>Yr</i> |
| 3709084 | 1977 | 1979 | 3 | 36.0% | 13,086 | 105,514 | 89.0% | 25.59 | 4.25 | 7.59 | 2.2 | 1 |
| 3709082 | 1979 | 1980 | 2 | 52.8% | 16,003 | 241,377 | 93.8% | 31.24 | 4.36 | 9.50 | 2.3 | 1 |
| 3722541 | 1982 | None | None | 5.1% | 6,518 | 309,739 | 97.9% | 23.56 | 9.77 | 11.77 | 1.1 | 4 |
| 3723170 | 1985 | None | None | 6.4% | 9,770 | 395,551 | 97.6% | 15.56 | 7.18 | 11.82 | 0.8 | 19 |
| 3725342 | 2002 | 2004 | 3 | 47.7% | 18,204 | 211,772 | 92.1% | 38.78 | 6.30 | 13.83 | 1.9 | 2 |
| 3725375 | 2002 | 2006 | 5 | 30.2% | 10,158 | 266,794 | 96.3% | 38.78 | 11.29 | 17.04 | 1.4 | 3 |

Exhibit M
Economics for Wells Drilled Prior to 1977

| <i>Period</i> | <i>Wells</i> | <i>Year 15 IRR</i> | <i>First 5 yrs</i> | | | | | | | <i>Simple Payback Yr</i> |
|---------------|--------------|------------------------|------------------------|----------------------|------------------------|---------------------------|--------------------------------|--------------------------|------------------------------------|------------------------------|
| | | | <i>O&G BBL</i> | <i>Water BBL</i> | <i>Water Cut %</i> | <i>Oil Price \$/B</i> | <i>Capex Avg. \$/B Oil</i> | <i>Opex \$/B Oil</i> | <i>Oil Price/ Capex + Opex</i> | |
| 1925-1949 | 9 | 14.2% | 66,940 | 472,682 | 87.6% | 1.42 | 1.01 | 0.66 | 0.8 | 5 |
| 1950-1976 | 16 | 14.2% | 202,761 | 3,217,333 | 94.1% | 3.85 | 1.89 | 2.12 | 1.0 | 5 |
| 1950-1959 | 6 | 15.0% | 86,934 | 666,545 | 88.5% | 2.74 | 1.36 | 1.47 | 1.0 | 5 |
| 1960-1976 | 10 | 11.9% | 115,827 | 2,550,788 | 95.7% | 4.52 | 2.29 | 2.61 | 0.9 | 6 |

Exhibit N

CITY OF CULVER CITY
CAPITAL INVESTMENT AMORTIZATION STUDY

Base Case Assumptions and ACI

Model Assumptions

| | |
|--|--------|
| Industry Return on Investment | 8.00% |
| Investment Year | 2016 |
| Initial Capital Investment, \$M | 4,650 |
| Price Adjustments: 2018 Dollars/Bbl | |
| Crude Oil Transportation - Inglewood to LB | 0.25 |
| Crude Oil Quality Differential | (1.75) |
| Natural Gas Quality Differential | 0.00 |
| Btu Equivalent: 5.8 MMBtu per BOE | 0.172 |
| Royalties | |
| Royalty Percentage | 15.00% |
| Operating Costs: 2018\$/Bbl | |
| Oil & Gas Wells | 8.00 |
| Produced Water | 0.25 |
| Capital Expenditures: 2018\$M | |
| Workover Interval (Years) | 7 |
| Workover Cost per Event | 180 |
| Drilling and Completion Cost per Well | 2,500 |
| Plug & Abandonment Cost per Well | 375 |

Model Results

| | |
|--|--------|
| Years for Amortization of Capital Investment | 4 |
| Amortization of Capital Investment by | 2020 |
| Maximum IRR | 24.05% |
| Period 2017-2026 | |
| Total Revenues, \$M | 37,547 |
| Total OPEX, \$M | 19,934 |
| Total CAPEX, \$M | 3,434 |
| Total Taxes, \$M | 3,017 |
| Total Net Cash Flow, \$M | 11,162 |
| Cumulative IRR at 2026 | 24.05% |

Tests for Amortization of Capital Investment

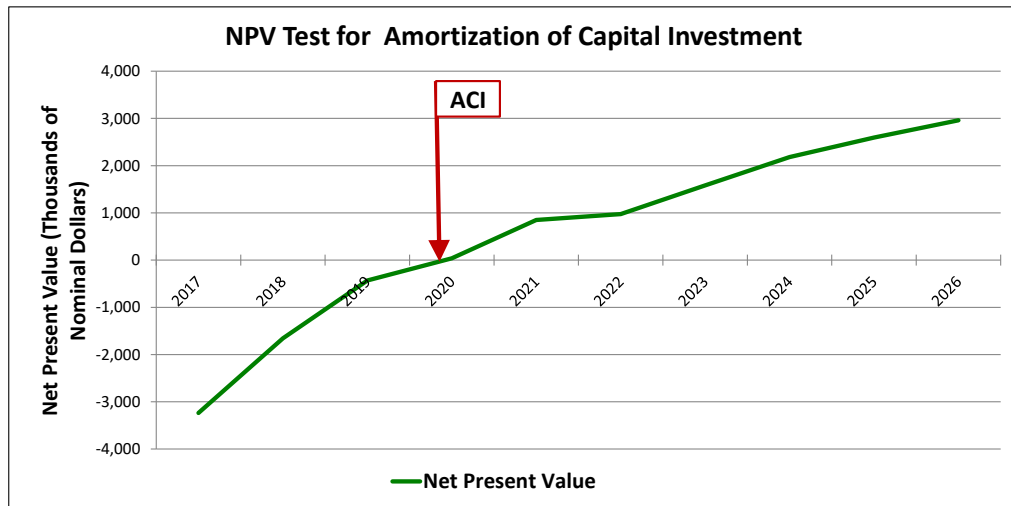
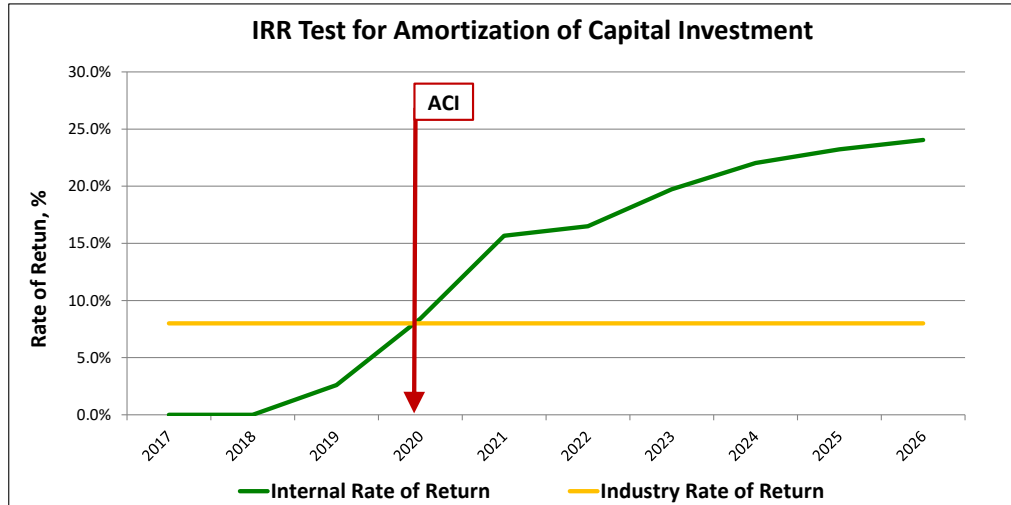


Exhibit O

CITY OF CULVER CITY
CAPITAL INVESTMENT AMORTIZATION STUDY

Sensitivity Case: SPR Acquisition Cost of \$5.34 million

Model Assumptions

| | |
|--|--------|
| Industry Return on Investment | 8.00% |
| Investment Year | 2016 |
| Initial Capital Investment, \$M | 5,340 |
| Price Adjustments: 2018 Dollars/Bbl | |
| Crude Oil Transportation - Inglewood to LB | 0.25 |
| Crude Oil Quality Differential | (1.75) |
| Natural Gas Quality Differential | 0.00 |
| Btu Equivalent: 5.8 MMBtu per BOE | 0.172 |
| Royalties | |
| Royalty Percentage | 15.00% |
| Operating Costs: 2018\$/Bbl | |
| Oil & Gas Wells | 8.00 |
| Produced Water | 0.25 |
| Capital Expenditures: 2018\$M | |
| Workover Interval (Years) | 7 |
| Workover Cost per Event | 180 |
| Drilling and Completion Cost per Well | 2,500 |
| Plug & Abandonment Cost per Well | 375 |

Model Results

| | |
|--|--------|
| Years for Amortization of Capital Investment | 5 |
| Amortization of Capital Investment by | 2021 |
| Maximum IRR | 19.92% |
| Period 2017-2026 | |
| Total Revenues, \$M | 37,547 |
| Total OPEX, \$M | 19,934 |
| Total CAPEX, \$M | 3,434 |
| Total Taxes, \$M | 2,811 |
| Total Net Cash Flow, \$M | 11,368 |
| Cumulative IRR at 2026 | 19.92% |

Tests for Amortization of Capital Investment

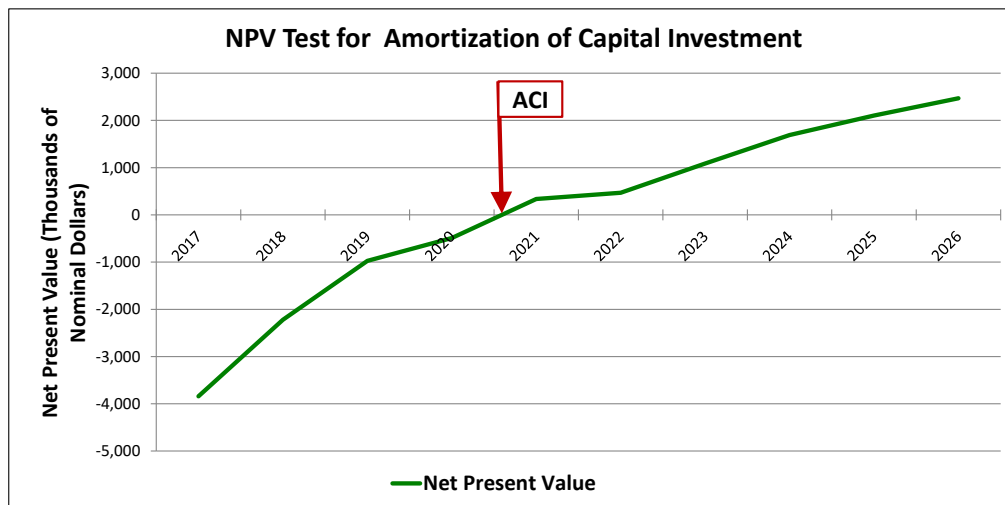
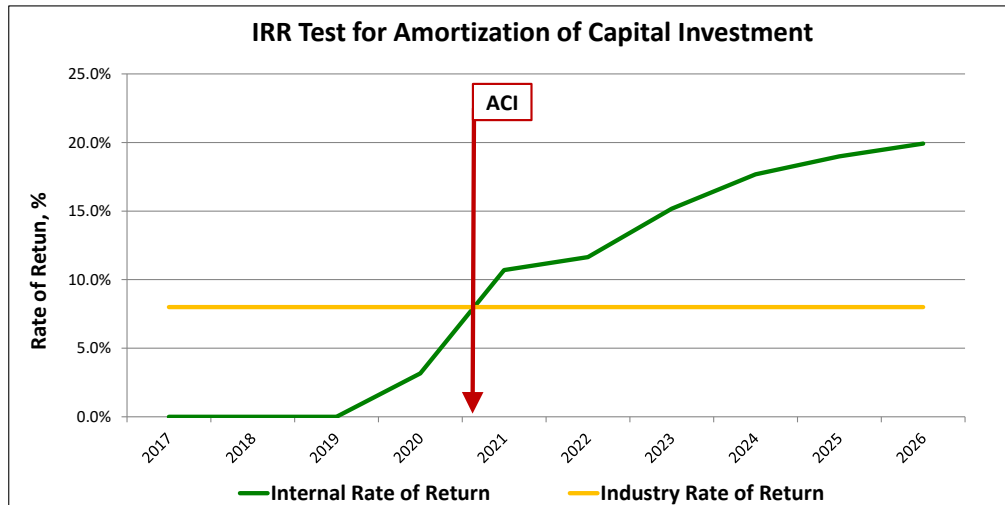


Exhibit P

CITY OF CULVER CITY
CAPITAL INVESTMENT AMORTIZATION STUDY

Sensitivity Case: Crude Oil Quality Discount

Model Assumptions

| | |
|--|--------|
| Industry Return on Investment | 8.00% |
| Investment Year | 2016 |
| Initial Capital Investment, \$M | 4,730 |
| Price Adjustments: 2018 Dollars/Bbl | |
| Crude Oil Transportation - Inglewood to LB | 0.25 |
| Crude Oil Quality Differential | (0.50) |
| Natural Gas Quality Differential | 0.00 |
| Btu Equivalent: 5.8 MMBtu per BOE | 0.172 |
| Royalties | |
| Royalty Percentage | 15.00% |
| Operating Costs: 2018\$/Bbl | |
| Oil & Gas Wells | 8.00 |
| Produced Water | 0.25 |
| Capital Expenditures: 2018\$M | |
| Workover Interval (Years) | 7 |
| Workover Cost per Event | 180 |
| Drilling and Completion Cost per Well | 2,500 |
| Plug & Abandonment Cost per Well | 375 |

Model Results

| | |
|--|--------|
| Years for Amortization of Capital Investment | 4 |
| Amortization of Capital Investment by | 2020 |
| Maximum IRR | 24.71% |
| Period 2017-2026 | |
| Total Revenues, \$M | 38,157 |
| Total OPEX, \$M | 20,025 |
| Total CAPEX, \$M | 3,434 |
| Total Taxes, \$M | 3,148 |
| Total Net Cash Flow, \$M | 11,550 |
| Cumulative IRR at 2026 | 24.71% |

Tests for Amortization of Capital Investment

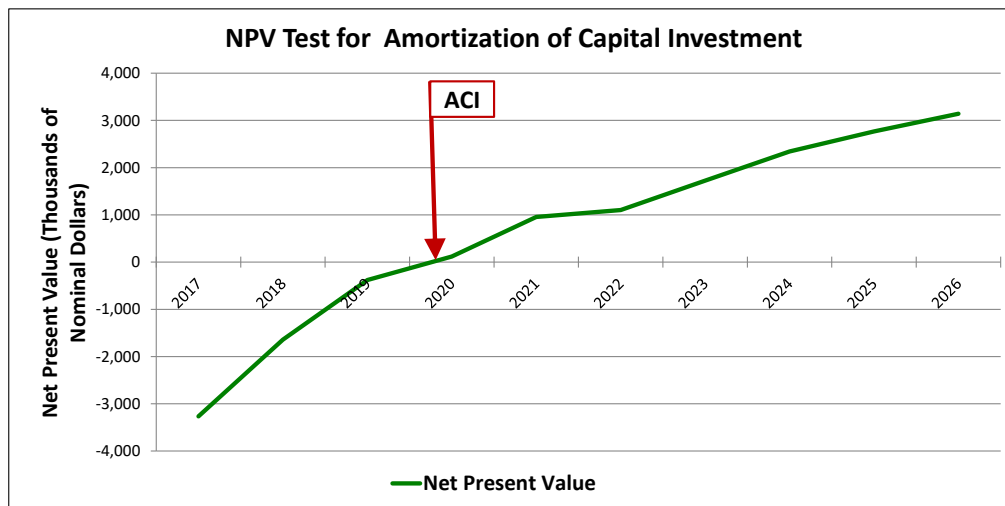
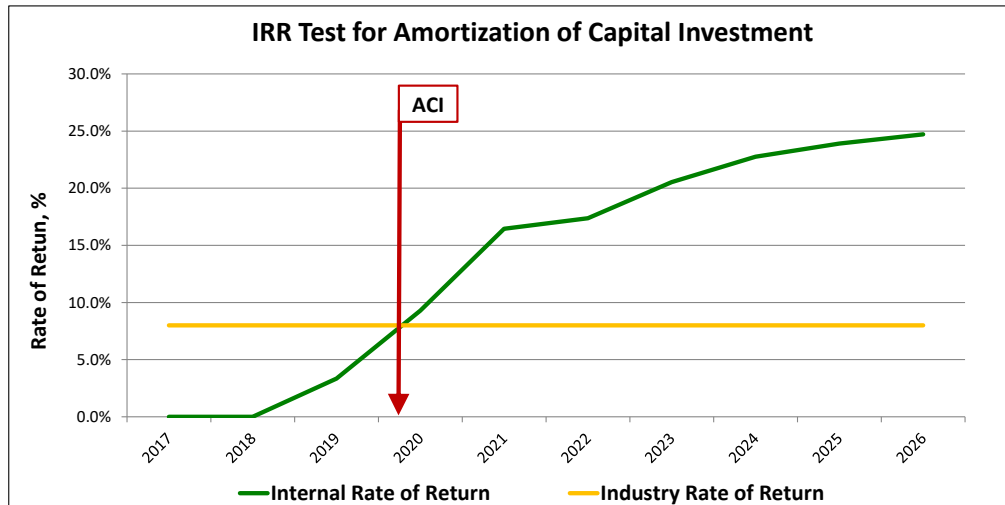


Exhibit Q

CITY OF CULVER CITY
CAPITAL INVESTMENT AMORTIZATION STUDY

Sensitivity Case: Return on Capital

Model Assumptions

| | |
|--|--------|
| Industry Return on Investment | 12.00% |
| Investment Year | 2016 |
| Initial Capital Investment, \$M | 4,270 |
| Price Adjustments: 2018 Dollars/Bbl | |
| Crude Oil Transportation - Inglewood to LB | 0.25 |
| Crude Oil Quality Differential | (1.75) |
| Natural Gas Quality Differential | 0.00 |
| Btu Equivalent: 5.8 MMBtu per BOE | 0.172 |
| Royalties | |
| Royalty Percentage | 15.00% |
| Operating Costs: 2018\$/Bbl | |
| Oil & Gas Wells | 8.00 |
| Produced Water | 0.25 |
| Capital Expenditures: 2018\$M | |
| Workover Interval (Years) | 7 |
| Workover Cost per Event | 180 |
| Drilling and Completion Cost per Well | 2,500 |
| Plug & Abandonment Cost per Well | 375 |

Model Results

| | |
|--|--------|
| Years for Amortization of Capital Investment | 5 |
| Amortization of Capital Investment by | 2021 |
| Maximum IRR | 26.81% |
| Period 2017-2026 | |
| Total Revenues, \$M | 37,547 |
| Total OPEX, \$M | 19,934 |
| Total CAPEX, \$M | 3,434 |
| Total Taxes, \$M | 3,130 |
| Total Net Cash Flow, \$M | 11,049 |
| Cumulative IRR at 2026 | 26.81% |

Tests for Amortization of Capital Investment

