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Subject: **Second Response to Technical Comments to the *Capital Investment Amortization Study for the City of Culver City Portion of the Inglewood Oil Field***

SUMMARY

This *Second Response to Technical Comments to the Capital Investment Amortization Study for the City of Culver City Portion of the Inglewood Oil Field* (the "Second Response") summarizes Baker & O'Brien, Inc.'s ("Baker & O'Brien") review of Sentinel Peak Resources California LLC's ("SPR") second round of comments and its valuation (together referred to below as the "SPR Comments") regarding the City of Culver City's (the "City") portion of the Inglewood Oil Field (the "City IOF"). The SPR Comments were provided in a consultant report dated June 17, 2021, prepared by Mr. Robert Lang, a managing director of Alvarez & Marsal, and entitled *Value Analysis of Sentinel Peak Resources California LLC's Ownership in the Culver City Inglewood Oilfield and Analysis of Culver City's Proposed Accumulated Capital Investment Calculation*. This Second Response addresses the further SPR Comments received on June 17, 2021.

The SPR Comments provide, for the first time publicly, information regarding SPR's actual operations in the City IOF that generally confirm the conclusions

presented in Baker & O'Brien's *Capital Investment Amortization Study for the City of Culver City Portion of the Inglewood Oil Field* (the "ACI Study"), dated May 29, 2020. Even so, the assumptions and methodologies presented in the SPR Comments result in fundamentally flawed conclusions concerning the time to achieve amortization of capital investment ("ACI") for the City IOF. The key conclusions of this Second Response are summarized here and discussed in more detail below.

The ACI Study determines the *time to achieve ACI* for the City IOF, while the SPR Comments present a *valuation* of the City IOF. These are fundamentally different purposes, even if similar elements of cash flow are used in each analysis. A primary difference between these two analyses is the inclusion of field closure costs in the SPR Comments, which includes potential long-term liabilities associated with field closure costs as an element of value. However, field closure costs are not relevant to a cash flow analysis, which is used to determine the time to achieve ACI, unless these costs are incurred as expenditures during the amortization period. The inclusion of closure costs in the SPR Comments is both inconsistent and irrelevant to the determination of ACI.

The various financial and technical assumptions presented in the SPR Comments that could be expected to have an impact on the time to achieve ACI are reviewed below as they relate to: 1) methodology; 2) the ACI for original capital investment; and 3) the ACI for the SPR acquisition. To the extent that the SPR Comments provide new information about the City IOF that was not previously available, such information generally validates the publicly-available historical information utilized in the ACI Study. The SPR Comments confirm that the information and assumptions used in the ACI Study are reasonable and, when properly applied, validate the time to achieve ACI that is determined by the ACI Study.

As shown in **Table 1** below, the time to achieve ACI does not change significantly based on any individual factor when the assumptions presented in the SPR Comments are substituted in the income model used in the ACI Study. The individual assumptions in the SPR Comments that are summarized in **Table 1** are discussed in

further detail below. Ultimately, the SPR Comments demonstrate that capital investment in an oil and gas development achieves ACI within approximately five years.

Table 1: Comparison of ACI Results as Determined from 2017 Acquisition Date

Analysis Factor	ACI Study		SPR Comments		Change in ACI Years ²
	Assumption	ACI Achieved ¹	Assumption	ACI Achieved ¹	
Target Rate of Return	8.0%	2020	16.0%	2022	2
Income Tax Rates - State / Federal	9.0% / 35%-21%	2020	13.3% / 37.0%	2021	1
Ad Valorem Tax Rate	Included	2020	4.9%	2020	0
Severance Tax Rate - Oil / Gas	Included	2020	\$0.68/B / \$0.068/MCF	2020	0
SPR City IOF Purchase Price	\$4,650,000	2020	\$2,245,160	2018	(2)
Crude Oil Price - Strip Prices, \$/B ³	\$78.41	2020	\$58.69	2021	1
Crude Oil Price - \$75 per barrel, \$/B ³	\$78.41	2020	\$73.69	2021	1
Natural Gas Price, \$/Mcf	\$3.77	2020	\$3.12	2020	0
Operating Costs, \$/B	\$28.14	2020	\$28.00	2021	1
Produced Water Operating Cost, \$/B	\$0.260	2020	\$0.076	2019	(1)
General & Administrative Costs, \$/B	None	2020	\$4.23	2020	0
Maintenance and Facility Capital, \$/B	Included	2020	\$1.50	2020	0
Recompletion and Workover Capital, \$	\$3,400,000	2020	\$450,000	2019	(1)
Cumulative Impact of Acquisition Assumptions		2020		2021	1

¹ Derived using SPR's acquisition date of January 2017 as the starting date.

² The difference in the number of years to achieve ACI using SPR Comments assumptions versus per the ACI Study.

³ The SPR Comments crude oil price scenarios are mutually exclusive, either scenario results in a cumulative impact on ACI of one year.

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BACKGROUND

The Inglewood Oil Field ("IOF") was developed and operated through multiple owners over a period of nearly 100 years. The 78-acre City IOF contains less than 10 percent (%) of the total producing wells within the approximately 1,000-acre IOF,

produces less than 5% of the total crude oil produced by the IOF, and none of the central processing facilities are located within the City IOF. SPR has drilled no new production wells in the IOF since it became the operator in 2017. Only six production wells were drilled in the City IOF between 1977 and 2002, and no new wells have been drilled in nearly 20 years.

Baker & O'Brien prepared its ACI Study, on behalf of the City. The income analysis presented in the ACI Study offsets capital investment with receipt of income in a discounted cash flow analysis to determine the time required for amortization of capital investment. In other words, the ACI Study determines that ACI is achieved when capital investment and a rate of return on investment is offset by cumulative income. The ACI Study evaluated two capital investment scenarios, including: 1) a scenario that evaluates amortization of the initial or original capital investment in wells located in the City IOF; and 2) a secondary scenario that substitutes SPR's acquisition cost of the City IOF in 2017 as a proxy for the original capital investment in wells drilled in the City IOF.

Baker & O'Brien presented the ACI Study at two public meetings, which included the Oil Drilling Subcommittee Community Meeting held on June 4, 2020, and the City Council Special Meeting held on August 13, 2020. During these public meetings, Baker & O'Brien consultants responded to questions from members of the City Council and the public. During the course of the public comment period for those 2020 meetings, the City received two comment letters that addressed the technical merits of the ACI Study. In its *Response to Technical Comments to the Capital Investment Amortization Study for the City of Culver City Portion of the Inglewood Oil Field* (the "First Response"), dated June 8, 2021 and presented to the City Council Special Meeting on June 17, 2021, Baker & O'Brien addressed written technical comments received in association with the 2020 meetings, which included comments from SPR. The First Response concluded that none of the issues raised in those comments changed the conclusions of the ACI Study.

On June 17, 2021, the day that the City Council met to consider adoption of an Oil Termination Ordinance, SPR delivered through its legal representative, Alston & Bird

LLP, additional technical comments addressing the merits of the ACI Study and providing a valuation of the City IOF. This Second Response addresses the further SPR Comments received on June 17, 2021.

The purpose of this Second Response is to review the methodology, assumptions, and alternative analysis presented in the SPR Comments to the extent that these relate to the ACI Study. Based on our review of the SPR Comments, Baker & O'Brien reaffirms that none of the issues that have been raised in the SPR Comments change the conclusions presented in the ACI Study.

In summary, the SPR Comments include certain errors in methodology that are inappropriate to utilize in the income analysis used to determine the amortization of capital investment. The SPR Comments also introduce certain assumptions that are different from those used in the ACI Study and which are demonstrably incorrect or unreasonable. Despite these flaws, the SPR Comments confirm the key conclusions of the ACI Study: 1) an original capital investment in an oil and gas development achieved ACI within five years; and 2) the time to achieve ACI for SPR's acquisition of the City IOF does not change significantly when the assumptions that are used in the SPR Comments are substituted in the ACI Study income analysis. While the approach presented in the SPR Comments is flawed and generally overstates the time to achieve ACI, the SPR Comments are useful in that it presents, for the first time publicly and accessible for the City's consideration, certain data related to SPR's actual operations in the IOF. Although generally incomplete and unsubstantiated, this information provides benchmarks that are comparable to factors used in the ACI Study. However, the SPR Comments present no new information that changes the conclusions of the ACI Study, which remain valid and relevant. This is affirmed in the discussion below.

ERRORS IN METHODOLOGY

The SPR Comments contain certain errors in methodology that result in incorrect conclusions about the time to achieve ACI. These errors include: 1) the calculation of depreciation, depletion, and amortization ("DDA"); and 2) future closure costs as liabilities.

DEPRECIATION, DEPLETION, AND AMORTIZATION

The SPR Comments estimate that the total amount of DDA is equal to 5% of the annual revenues for the City IOF. See SPR Comments, ¶56. The SPR Comments do not identify DDA costs separately and appear to overstate these costs. The SPR Comments provide no justification for calculating DDA based on annual revenues and provide no justification for disregarding the recovery of capital investment. The SPR Comments make two errors in the calculation of DDA as follows:

First, the SPR Comments calculate DDA based upon revenues from the City IOF. See SPR Comments, ¶56. Depreciation is normally calculated to represent the recovery of capital investment in plant, property, and equipment using appropriate depreciation schedules. The SPR Comments identify the annual capital investment in the City IOF between 2016 and 2056, including the acquisition investment, maintenance capital, recompletion capital, abandonment capital, and capital expenditures for remediation and the removal of facilities. See SPR Comments, Exhibits 1 and 2. While the SPR Comments list annual capital investments, its calculation of DDA is not based on these investments, but, instead, is based on a percentage of revenues.

Second, the SPR Comments calculate DDA as 5% of revenues, but this rate is not found in relevant Internal Revenue Service (“IRS”) depreciation schedules. For example, the IRS depreciation schedule for drilling costs allows deductions of 25% of investment per year for four years after capitalization. A separate IRS depreciation schedule that is applied to workover costs and plug and abandonment capital investments provides for depreciation of these capital investments. The SPR Comments provide no source for the 5% per year DDA rate, which is not recognized by the IRS for calculating DDA for income tax purposes.

Because of these errors, the SPR Comments significantly understate the cash flow from the City IOF, which thereby overstates the time required to achieve ACI. For this reason, the SPR Comments provide an unreliable estimate of time to achieve ACI for SPR’s investment in the City IOF.

FIELD CLOSURE COSTS

The SPR Comments appear to calculate the time to achieve ACI for SPR's acquisition of the City IOF by deducting future liabilities for field closure costs from current cash flows, which is incorrect for the purpose of determining the time to achieve ACI. For example, the SPR Comments list an "Internal Rate of Return with End-of-Life ("EOL") Costs" that deducts non-cash future liabilities from current cash flow. See SPR Comments, Exhibits 1 and 2.

The SPR Comments account for field closure costs, including remediation costs, facility removal costs, and abandonment costs, as liabilities. The SPR Comments deduct these liabilities from the cash flows, beginning in the first year of the cash flow analysis. See SPR Comments, ¶¶57-58. The SPR Comments provide no justification for the treatment of closure costs as liabilities in a cash flow analysis.

The SPR Comments also characterize field closure costs as capital investments. In a cash flow analysis, capital expenditures are normally accounted for at the time that funds are invested and capitalized. In addition, DDA for capital investment is normally calculated using an applicable depreciation schedule and beginning at the time when the investment is incurred and capitalized. For both capital investment and depreciation, the SPR Comments fail to account for these expenditures in its discounted cash flow analysis as they are incurred.

ACI FOR ORIGINAL CAPITAL INVESTMENT

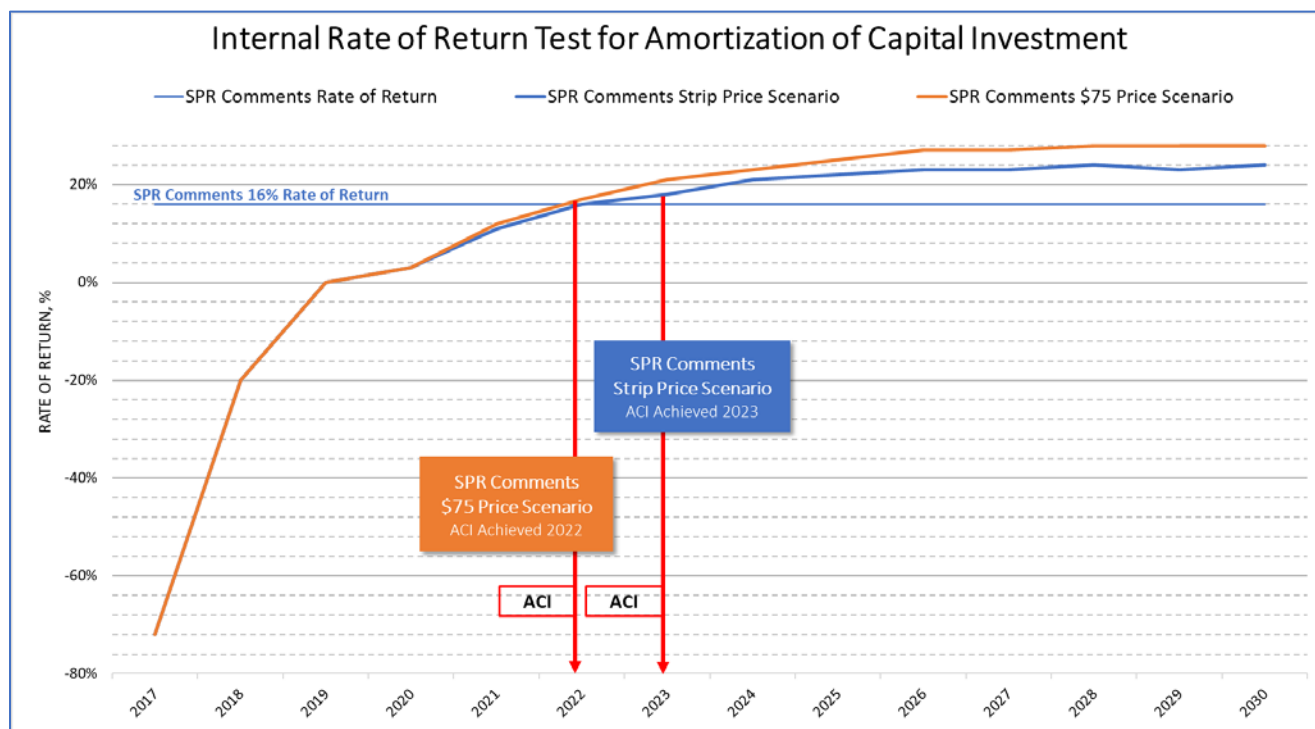
The SPR Comments fail to address ACI for the original capital investment in the City IOF which was made decades before SPR's acquisition. The original capital investment is the fundamental measure for determining ACI. The *valuation* analysis presented in the SPR Comments does, however, provide relevant insights into SPR's long-term economics for this oil field, which confirm conclusions about the ACI of the original capital investment, as discussed below.

The SPR Comments provide a cash flow analysis, albeit flawed, for the City IOF that extends 40 years from SPR's purchase of the City IOF in 2016 to closure of the

field at the end of the forecast period in 2056. This cash flow analysis begins with SPR's acquisition of the City IOF and concludes with the closure and remediation of oil operations in the City IOF at the end of the forecasted period. The cash flow analysis provided in the SPR Comments is a life-cycle analysis of income and capital expenditures over 40 years into the future specifically for oil operations that SPR plans to conduct within the City IOF. This new information can be interpreted as SPR's long-term assessment of cash flows from the City IOF, which generates cumulative returns on capital investment.

Cumulative returns on capital investment, as presented in Exhibits 1 and 2 of the SPR Comments, are summarized in **Figure 1** below using a similar time frame as presented in the ACI Study. See ACI Study, Exhibit J. In **Figure 1**, cumulative rates of return for the two different crude oil price scenarios presented in the SPR Comments are compared to SPR's target rate of return of 16%. **Figure 1** demonstrates that cumulative returns on investment from SPR's life-cycle analysis achieves ACI no later than 2023, regardless of the target rate of return, and using all of the assumptions incorporated in the SPR Comments that generally understate income and overstate the time to achieve ACI.

FIGURE 1



The cumulative returns from SPR’s cash flow analysis demonstrate that ACI is achieved within five years in all cases, which is similar to the time to achieve ACI determined in the ACI Study. See ACI Study, Exhibit M. SPR’s cash flow analysis also demonstrates that future field closure costs do not change the time to achieve ACI over the life of an oil field. As shown in **Figure 1**, cumulative Internal Rate of Returns (“IRRs”) in SPR’s cash flow analysis level off at between 20% and 25% within the first 10 years of the analysis and do not decline below the target rate of return of 16% when closure costs are incurred during the last 10 years of the cash flow analysis. The SPR Comments confirm that closure costs have little impact on cumulative returns achieved over a 40-year life of an oil field.

The cumulative returns from SPR’s cash flow analysis also confirm the time to achieve ACI for original capital costs in wells drilled in the City IOF. SPR’s life-cycle analysis for the City IOF is analogous to the analysis of ACI of original capital costs presented in the ACI Study. The ACI Study considered capital investment and

cumulative income for six wells drilled in the IOF since 1977 which, in aggregate, achieved ACI within five years. See First Response, p. 13. In addition, the ACI Study demonstrated that wells drilled in the City IOF prior to 1977 had similar production economics as wells drilled between 1977 and 2002. See First Response, p. 15-16. The SPR Comments present a long-term cash flow analysis of SPR's acquisition of the City IOF which confirms the conclusion of the ACI Study; that the original capital investment in wells drilled in the City IOF since 1977 had achieved ACI long before 2016.

Utilizing two separate crude oil price scenarios, the SPR Comments claim that the City IOF is unlikely to achieve ACI under its low crude price scenario, but would achieve ACI in approximately 19 years under its \$75 crude price scenario. See SPR Comments, ¶34. As shown in Exhibit E of the ACI Study, the last well in the City IOF was drilled in 2002, and the average age of all of the wells in the City IOF is 58 years. The cost of drilling wells is, by far, the single largest cost that must be amortized over time. Given that crude oil prices have been above \$75 for multiple years and that the drilling costs would have been much lower than today's costs, the SPR Comments reinforce that the original capital investments in the City IOF were recovered years ago.

ACI OF SPR ACQUISITION

The ACI Study presents two amortization scenarios, that of the original investment (prior to SPR's acquisition in January 2017) and, as a secondary comparison scenario, that of SPR's capital investment to acquire its interests in the City IOF. The SPR Comments only address the value of SPR's capital investment for the City IOF (a *valuation*); which is distinctly different from, and is not, a measurement of the amortization of capital investment.

The SPR Comments address a wide range of technical and financial assumptions, as well as issues that are outside the scope of the ACI Study. In particular, the *valuation* of the City IOF presented in the SPR Comments is not relevant to the amortization of capital investment. Nevertheless, the SPR Comments present data, which was not previously available, that confirms that the information and assumptions used in the ACI Study were reasonable.

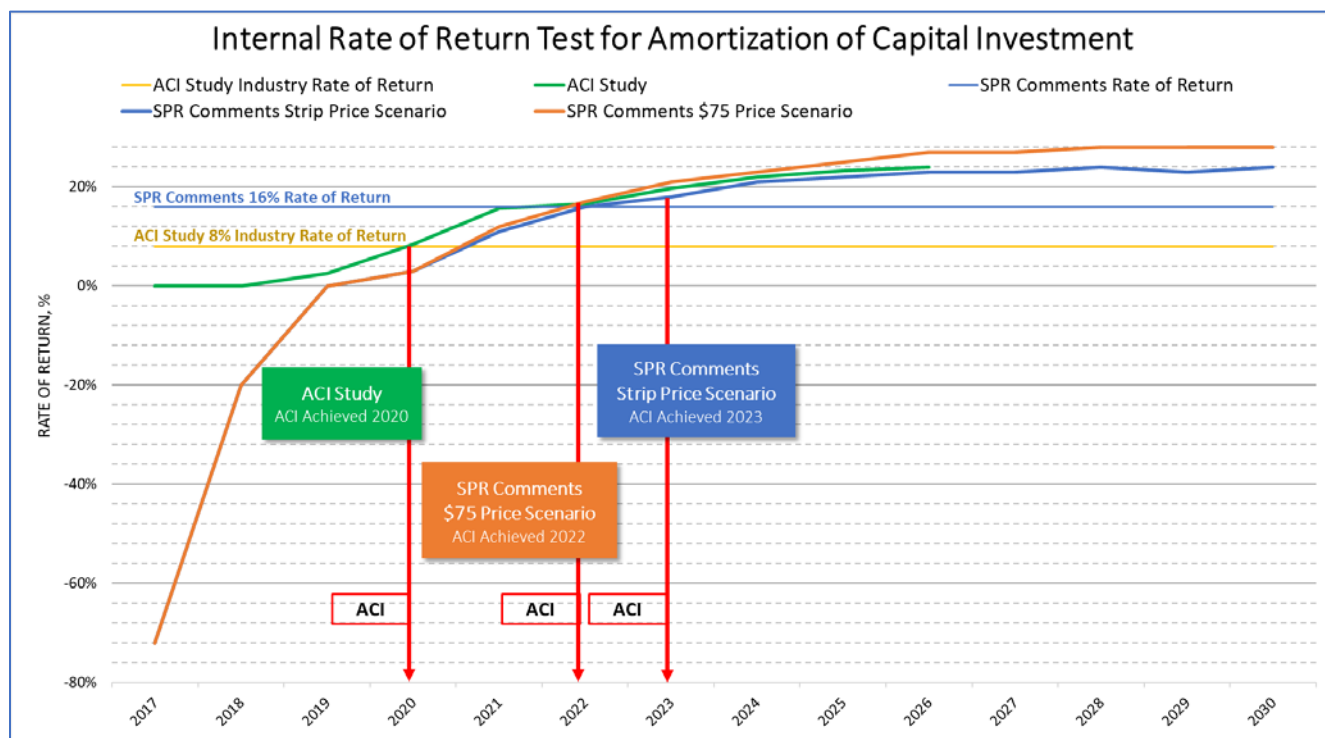
The SPR Comments claim to rely upon SPR's historical operating information and assumptions for capital investment, revenues, and operating expenses. Some of SPR's model assumptions are generated by the ARIES Petroleum Economics and Reserves software package ("ARIES").¹ SPR's cash flow analysis begins in 2016 and extends for 40 years to 2056. The SPR Comments assume that by 2056, all oil wells in the City IOF are plugged and abandoned and the oil field is remediated at a cost of approximately \$10 million. See SPR Comments, Exhibit 3. The SPR Comments use key assumptions in its cash flow analysis that are summarized in **Table 1** above. Some of this information in the SPR Comments represents SPR projections of prices and operating costs, while other information represents new historical information about SPR's costs of acquiring and operating the City IOF.

The comparison of ACI results presented in **Table 1** shows the impact of each of the key assumptions in the SPR Comments on the time to achieve ACI that was determined in the ACI Study secondary scenario. This comparison represents a series of sensitivity cases using the ACI model, as discussed below. Even if all of the key assumptions presented in the SPR Comments are assumed to be correct, the cumulative impact of these changes would increase the time to achieve ACI of SPR's acquisition costs only by roughly one year, from 2020 to 2021, as summarized in **Table 1**.

In **Figure 2** below, cumulative returns on capital investment presented in the SPR Comments for two different crude oil price scenario assumptions (the blue and orange lines) are summarized together with the cumulative returns presented in the ACI Study (the green line). **Figure 2** demonstrates that cumulative returns on investment from SPR's valuation of the City IOF achieve ACI no later than 2023, within three years of the 2020 ACI date presented in the ACI Study. However, the cumulative returns presented in the SPR Comments are overstated because it includes the errors in methodology related to calculation of DDA and deduction of future liabilities from cash flow.

¹ ARIES Petroleum Economic Software is licensed from Halliburton Inc., through its affiliate Landmark.

FIGURE 2



In the following discussion, the various assumptions presented in the SPR Comments are reviewed and compared to the assumptions used in the ACI Study.

ARIES SOFTWARE

The ACI Study relies on historical production of oil and gas from wells in the City IOF, projected decline curves, operating costs based on production volumes, and market prices for oil and natural gas. See ACI Study, pages 14-15. The SPR Comments state that the valuation of cash flow relies upon SPR's historical income and operating expenses and utilizes the proprietary ARIES software package to generate future cash flows based on certain assumptions. See SPR Comments, ¶¶37-38.

The licensor describes ARIES as providing “...enterprise-wide property and data management, production and reserve forecasting (using decline curves or other methods), and proven economic evaluations for operations, engineering, and business teams.”² The cash flow projections in SPR Comments for June 2021 through 2056 are

² <https://www.landmark.solutions/ARIES-Petroleum-Economics>.

based on information generated from ARIES, which SPR appears to use in its ordinary course of business for purposes of developing and managing oil field development and operations in the IOF. See SPR Comments, ¶137. The reliance of the SPR Comments on ARIES is inappropriate for determining the time to achieve ACI of the City IOF, because the purpose of ARIES is to forecast various operating assumptions used to determine the value of an oil field development program, which primarily relies on projections of future income, operating costs, and capital investment, rather than historical capital investment.

For purposes of this Second Response, the ARIES results presented in the SPR Comments have been taken at face value, to the extent possible. On this basis, the revenue projections from ARIES generally validate the revenue projections used in the ACI Study.

DATA REQUIREMENTS

The ACI Study relied upon historical production data for oil, natural gas, and water from individual wells in the City IOF that are available from the California Geological Energy Management Division (“CalGEM”), SPR’s drilling plans that are available from the Baldwin Hills Community Standards District (“CSD”), and other public and proprietary data. See ACI Study, pages 14-15. The SPR Comments incorrectly assert that the ACI Study is based on unsupported assumptions, and that data required to perform an accurate calculation was not available to prepare the ACI Study. See SPR Comments, ¶24-30. These assertions are incorrect because historical information regarding well operations located in the City IOF and drilling plans for the IOF is readily available from public sources, is adequate, and is appropriate to develop the income analysis presented in the ACI Study. As summarized above in **Table 1** and discussed below, the new information and various assumptions presented in the SPR Comments validate the analysis in the ACI Study. Even when all of the assumptions presented in the SPR Comments are substituted in the income model utilized for the ACI Study, SPR’s acquisition of the City IOF still achieves ACI within five years.

TARGET RATE OF RETURN

The ACI Study used a target rate of return of 8% that represents the cost of capital for companies involved in oil exploration and production. See ACI Study, page 21. The SPR Comments assume that a reasonable rate of return for SPR's investment is 16% and uses this target rate of return to determine if ACI has been achieved. See SPR Comments, ¶¶65-66.

The SPR Comments purport to use a weighted average cost of capital ("WACC") plus an estimate of asset specific risk for the City IOF as the basis for identifying 16% as the target rate of return, but do not disclose a derivation of these components or the means of arriving at 16% as the target rate of return. The target rate of return used in the SPR Comments is twice that used in the ACI Study and is 30% above the highest cost of equity reported for oil and gas companies since 2016. See ACI Study, Exhibit H. In comparison to peers, the rate of return used in the SPR Comments is unreasonably high for an established oil and gas production company.

The SPR Comments state that the IRR and Net Present Value ("NPV") calculations are inextricably connected and are not independent calculations. See SPR Comments, ¶¶21-22. While it is true that an IRR and an NPV can be determined for the same series of cash flows, the SPR Comments are incorrect that these measures are inextricably connected, since each of these calculations is independent from the other. Fundamentally, the IRR calculates a rate of return on an investment and is based upon an assumption that the NPV is equal to zero. In contrast, the NPV calculates a dollar value for future cash flows without reference to IRR. In addition, there are different aspects to these calculations that make each more or less useful in certain circumstances.

The ACI Study evaluated changes in the rate of return as a sensitivity case in its secondary scenario comparison analysis of SPR's acquisition. As a sensitivity case, the 8% industry WACC in the ACI Study was replaced with a 12% cost of equity, which resulted in extending the time to achieve ACI from 2020 to 2021, a change of about one year. See ACI Study, pages 34-35. When the SPR Comments target rate of return of

16% is substituted for the 8% industry WACC, the time to achieve ACI is only extended from 2020 to 2022, a change of about two years. Even if the extraordinary discount rate presented in the SPR Comments is used, ACI is still achieved within five years of SPR's acquisition.

INCOME TAX RATES

The ACI Study uses the highest marginal corporate tax rates to determine the time to achieve ACI. See ACI Study, pages 20-21. Like the ACI Study, the SPR Comments deduct income taxes from revenue to determine cash flow from the City IOF. The SPR Comments assume a federal income tax rate of 37% and a State of California income tax rate of 13.3%, for a combined income tax rate of 50.3%. See SPR Comments, ¶56.

The SPR Comments do not provide the basis for these income tax rates, both of which overstate the highest marginal tax rates for corporations operating in California. However, in its prior comments, SPR asserted that it is a "pass through entity" for which income is taxed to individual taxpayers at personal income tax rates. In our First Response, it was noted that SPR's position had no merit because pass-through entities typically have income tax advantages, and personal income tax rates can vary significantly depending on several factors, including domicile. The ACI Study's use of marginal federal and state income tax rates for California corporations is a conservative estimate of income tax obligations for the City IOF. The further SPR Comments provide no additional information to support the use of personal income tax rates in a cash flow analysis for the City IOF.

If the marginal corporate tax rates used in the ACI Study are replaced with the income tax rates assumed in the SPR Comments, including a federal rate of 37% and a California rate of 13.3%, the time to achieve ACI is extended by one year to 2021.

AD VALOREM TAXES

The ACI Study assumes that ad valorem taxes are included in the estimated operating costs. The SPR Comments deduct ad valorem (property) taxes in its income

model to determine cash flow. The SPR Comments assume historical ad valorem taxes through May 2021 and project ad valorem taxes after 2021 assuming a tax rate of 4.9%. See SPR Comments, ¶53.

Under California law, property tax rates are capped at 1% of a property's assessed value, with any increase limited to a maximum of 2% annually.³ The SPR Comments provide no basis for the assumed property tax rate of 4.9%. However, to evaluate the impact of ad valorem taxes in the ACI Study separately from operating costs, we have assumed: 1) the SPR Comments rate of 4.9%; and 2) the acquisition price used in the ACI Study. On this conservative basis, deducting ad valorem taxes from income (in addition to the operating costs already in the ACI Study cash flow) results in no material change in the time to achieve ACI.

SEVERANCE TAXES

The ACI Study assumes that severance taxes are included in the estimated operating costs. The SPR Comments make deductions in its income model for severance taxes, which are taxes imposed on the extraction of non-renewable natural resources in California. The SPR Comments assume historical severance taxes through May 2021 and project severance tax rates after 2021 of approximately \$0.68 per barrel of oil and \$0.068 per thousand cubic feet of natural gas produced. See SPR Comments, ¶54.

Under California law, severance tax rates are determined annually and change from year to year. The SPR Comments provide no basis for the assumed severance tax rate. However, deducting statutory severance taxes used in the SPR Comments from income (in addition to the operating costs already in the ACI Study cash flow) results in no material change in the time to achieve ACI.

SPR PURCHASE PRICE

The ACI Study used a fair market value of \$4.65 million for SPR's acquisition of the City IOF. See ACI Study, page 25. The SPR Comments disclose that SPR has

³ <https://www.boe.ca.gov/proptaxes/pdf/pub29.pdf>

allocated a purchase price of \$2.25 million to its acquisition of the City IOF. See SPR Comments, ¶42.

As noted in the ACI Study, SPR acquired the City IOF as a part of a much larger portfolio of California oil and gas properties in 2017. In providing this new information, the SPR Comments present no specifics as to methods used to allocate a portion of the total acquisition amount to the City IOF. As a sensitivity case, the ACI Study evaluated a higher purchase price for the City IOF, but did not evaluate a lower purchase price. See ACI Study, page 34. Substituting the lower purchase price presented in the SPR Comments in the ACI Study shortens the time to achieve ACI by two years, to 2018.

CRUDE OIL AND NATURAL GAS PRICES

The ACI Study uses average prices of about \$78 per barrel for Inglewood crude oil and \$3.77 per thousand cubic feet (“Mcf”) for natural gas over the period of 2017 to 2026. See ACI Study, Exhibit G. The SPR Comments provide a cash flow analysis for each of two price scenarios for crude oil and one price scenario for natural gas.

- In one crude price scenario, the SPR Comments use “strip prices” for Brent crude for 2021 to 2028 (which average \$63 per barrel during this period) and then project crude prices of about \$59 per barrel from 2028 to 2056, for an average reference crude price of about \$60 per barrel. See SPR Comments, ¶39.
- In the second crude price scenario, the SPR Comments assume reference crude oil prices of \$75 per barrel for 40 years from 2016 through 2056. See SPR Comments, ¶40.
- For both crude price scenarios, the SPR Comments: 1) add a “price basis differential” of \$1.00 per barrel; and 2) deduct a “marketing differential” of \$2.31 per barrel from the reference prices to determine the netback value of Inglewood crude oil. See SPR Comments, ¶50.
- The SPR Comments assume that Inglewood natural gas is priced at a premium to market prices for natural gas reported at Henry Hub in Louisiana. See SPR Comments, ¶50.

Both of the crude price scenarios presented in the SPR Comments project prices for crude oil below those used in the ACI Study. With the adjustments for price differential and marketing differential, the SPR Comments project average prices for

Inglewood crude oil of \$58.69 per barrel in the first price scenario and \$73.69 per barrel in the second price scenario. These prices for Inglewood crude are \$19.31 per barrel and \$4.31 per barrel less, or between 75% and 95% of the prices assumed in the ACI Study. The SPR Comments present no justification for using Brent crude as a reference price for Inglewood crude, the “price basis” adjustment, or the “marketing differential” adjustment used to value Inglewood crude oil.

The SPR Comments assume a premium of \$0.16 per Mcf to the Henry Hub price,⁴ but provide no natural gas prices, no basis for using the reference price, and no basis for the price premium used to value Inglewood natural gas. In 2017, the Henry Hub price for natural gas averaged \$2.96 per Mcf, which implies a price of \$3.12 per Mcf for Inglewood natural gas based on the premium presented in the SPR Comments. While natural gas prices in Southern California are typically higher than Henry Hub prices, the actual premium was \$0.34 per Mcf in the 2016-2017 time period, which correspond to natural gas prices in Southern California of about \$3.30 per Mcf in 2017. See ACI Study, Exhibit G.

Substituting the lower Inglewood crude prices used in the SPR Comments (based on either crude oil price scenario) for the crude oil prices used in the ACI Study extends the time to achieve ACI by one year to 2021. Substituting the natural gas values used in the SPR Comments for natural gas values used in the ACI Study results in no material change in the time to achieve ACI.

OPERATING COSTS

The ACI Study used total operating costs of \$23.77 per barrel between 2017 and 2020, which were calculated by multiplying operating costs per barrel for oil, natural gas, and water to the production volumes for each year. See ACI Study, pages 19-20. The SPR Comments use historical operating expenses to 2021 and forecast operating expenses after 2021. See SPR Comments, ¶37. In addition, the SPR Comments add an allocation of IOF general and administrative costs to the City IOF. See SPR

⁴ For pricing purposes, one thousand cubic feet of natural gas are approximately equivalent to 1 million Btu.

Comments, ¶55.

The SPR Comments report that total historical operating costs for the City IOF averaged \$28 per barrel from 2017 through 2020, about 18% higher than the total operating costs used in the ACI Study of \$11.80 per barrel. See SPR Comments, ¶52. The SPR Comments project variable operating costs of \$9.92 per barrel through 2028 and \$11.45 per barrel from 2028 to 2056. See SPR Comments, ¶51-52. The SPR Comments also add \$0.076 per barrel of produced water to these variable operating costs. See SPR Comments, ¶52. Using the average production rates in the ACI Study between 2017 and 2020, fixed operating costs are estimated to be about \$11.80 per barrel after deducting variable costs from total operating costs. Substituting the higher historical operating costs presented in the SPR Comments into the ACI Study results in extending the time required to achieve ACI by one year to 2021.

The SPR Comments project much higher operating costs after 2021 than historical operating costs. The SPR Comments project total operating costs after 2021 that range from about \$46 per barrel to more than \$60 per barrel, based on production volumes used in the ACI Study. These projected operating costs appear to be disconnected from historical operating costs of \$28 per barrel for the City IOF (2017 to 2021) as provided by SPR Comments, ¶52. These are also significantly higher than operating costs reported by other operators of waterflood developments in Southern California. The SPR Comments provide no basis for the large increase in projected operating costs, which is unreasonable.

The ACI Study calculates costs for disposing of produced water by multiplying production rates by \$0.25 per barrel. See ACI Study, page 19. The SPR Comments provide a historical cost for disposing of produced water of \$0.076 per barrel. See SPR Comments, ¶52. This is new information, which indicates that SPR's costs for reinjecting produced water are much less than the cost used in the ACI Study. When the SPR Comments' costs for reinjecting produced water are substituted in the ACI Study, the time required to achieve ACI is shortened by one year to 2019.

The ACI Study did not include an allocation of general and administrative costs for the City IOF because these costs are not directly attributable to the City IOF. The SPR Comments deduct general and administrative costs to the City IOF as an additional operating expense, which is an allocation of the overall IOF's general and administrative costs. The SPR Comments deduct \$1.18 million of general and administrative costs between 2017 and 2020, which amounts to \$4.23 per barrel of production, based on the production volumes used in the ACI Study. See SPR Comments, ¶55. The SPR Comments provide no basis for this allocation of general and administrative costs. This allocation implies total general and administrative costs for the entire IOF that exceed \$47 million annually, which is unreasonably high.

The ACI Study assumes that general and administrative costs that may currently be allocated to the IOF would continue to be incurred by SPR after the closure of the wells within the City IOF. The allocation of general and administrative costs to the City IOF is unreasonable because it is unlikely that the total general and administrative costs for the IOF would change significantly if the wells within the City IOF were closed. The City IOF contains only 31 production wells, 10 injection wells, and none of the central processing facilities that are located outside of the City IOF. Even so, when the assumption for general and administrative costs allocated to the City IOF in the SPR Comments is added to the operating costs in the ACI Study, there is no material change in the time required to achieve ACI.

CAPITAL INVESTMENT

The ACI Study includes the costs for maintenance capital and completion capital in the cash flow analysis. See ACI Study, page 16. The SPR Comments include costs for maintenance capital and recompletion capital, as well as field closure expenditures for well plug and abandonment, remediation, and the removal of surface facilities in the cash flow analysis, which are characterized as capital investment.

The ACI Study assumes that facility and maintenance capital investment are included in operating expenses, but these would be minimal since there are few surface facilities within the IOF other than pipelines, storage tanks, and pumps. The SPR

Comments allocate facility and maintenance capital for the City IOF based upon field-wide expenditures for the IOF. See SPR Comments, ¶43. The SPR Comments assume an allocation of between \$1 and \$2 per barrel of production, but provide no basis for allocation of these ratioed expenditures to the City IOF. It is likely that SPR would continue to incur most of the expenditures that the SPR Comments allocates to the City IOF in the event it was closed; as a result, these expenditures are not attributable to operations in the City IOF. Even so, adding the assumption for facility and maintenance capital in the SPR Comments to the operating costs already included in the ACI Study results in no material change in the time required to achieve ACI.

The ACI Study assumes that 18 workovers or recompletions will be performed between 2017 and 2026, with total expenditures of about \$3.4 million. The SPR Comments include capital expenditures for these activities in the City IOF, with total expenditures of about \$450,000 between 2024 and 2056, but do not identify the number of workovers. See SPR Comments, Exhibits 1 and 2. The SPR Comments provide no basis for these expenditures and do not identify the number of wells that would receive workovers, the cost of a workover, or the impact on production rates of such investment. If the capital investment included in the SPR Comments for workovers between 2017 and 2026 is substituted in the ACI Study, the time to achieve ACI would be shortened by one year, to 2019.

The ACI Study uses an expenditure of \$375,000 per well to plug and abandon wells in the City IOF. The SPR Comments provide a cost of \$180,000 to plug and abandon wells in the City IOF beginning in 2025, but provides no details for these costs. See SPR Comments, ¶46, Exhibits 1 and 2. The SPR Comments assume plug and abandonment costs that are less than half of those assumed in the ACI Study. However, future plug and abandonment costs would have no impact on an ACI analysis because the City IOF achieves ACI within five years. Those costs would be incurred at a time after which the City IOF has achieved ACI.

The ACI Study does not include future capital investment to remediate and restore land in the City IOF because the acquisition achieves ACI within five years.

Those costs would be incurred at a time after which the City IOF has achieved ACI. The SPR Comments include capital expenditures to remediate and restore land in the City IOF in 2056, after all wells are plugged and abandoned. The SPR Comments estimate that these costs are between \$1.3 million and \$2.6 million, but provide no scope of work to support these cost estimates. See SPR Comments, ¶73. The SPR Comments also include future capital expenditures to dismantle and remove surface facilities in the City IOF in 2056, after all wells are plugged and abandoned, which is estimated to cost \$224,000. Since these costs are part of future field closure costs, these costs would have no impact on an ACI analysis.

The SPR Comments provide new information about field closure costs which confirms that the costs for these activities assumed in the ACI Study are conservative. If the closure costs presented in the SPR Comments of \$180,000 to plug and abandon each well, \$2 million to remediate and restore the site, and \$224,000 to remove surface facilities are applied to the 41 wells identified in the ACI Study, total expenditures for field closure costs would be approximately \$9.6 million, or about \$234,000 per well. Thus, the new information presented in the SPR Comments confirms that expected well-closure costs are about 60% of the \$375,000 per well for plug and abandonment, which is used in the ACI Study.

The ACI Study identified 41 operating or idle wells in the City IOF at the time of SPR's acquisition based on information reported by CalGEM. See ACI Study, page 5. In addition, at the time of SPR's acquisition of the IOF in January 2017, CalGEM records identify that at least 11 of the production wells located in the City IOF had not produced oil or gas for at least two years, and, in some cases, since 2013. However, the SPR Comments state that there are currently 44 wells within the limits of the City IOF and applies closure costs to all of these wells. See SPR Comments, ¶43. The SPR Comments include \$9.6 million in field closure costs for the City IOF, which appears to be overstated for at least two reasons: 1) the SPR Comments include closure costs for more wells than are reported by CalGEM; and 2) the SPR Comments include closure costs for wells that were idle when it purchased the City IOF and have been idle for nearly 10 years. Using information presented in the SPR Comments to

calculate closure costs for wells reported by CalGEM: 1) closure costs for production wells that were idle at the time of SPR's acquisition are estimated to be about \$2.6 million; and 2) closure costs for production wells and water injection wells that were operating at the time of SPR's acquisition are estimated to be about \$7 million.

The ACI Study does not include field closure costs in the cash flow analysis. The SPR Comments assert that omitting plug and abandonment costs in the income model understates the time required to achieve ACI. See SPR Comments, ¶25. However, the SPR Comments demonstrate that: 1) these costs over a 40-year life of an oil field do not change the time to achieve ACI; and 2) that SPR's acquisition achieves ACI within five years. As noted above, the SPR Comments improperly deduct future liabilities from current cash flow. The SPR Comments provide no new information or analysis showing that field closure costs would change the time to achieve ACI.

CONCLUSIONS

Based upon our review, the SPR Comments generally confirm the conclusions reached in the ACI Study. However, certain assumptions and methodologies used in the SPR Comments are fundamentally flawed, understate income from the City IOF, and overstate the time to achieve ACI. The SPR Comments' conclusions concerning the time to achieve ACI for SPR acquisition capital investment in the City IOF are overstated and are not reliable for the following reasons:

- *The ACI Study determines the time to achieve ACI for original capital investment in the City IOF, while the SPR Comments present a valuation of the City IOF as a proxy for original capital investment.* These are fundamentally different purposes, even if similar elements of cash flow are used in each analysis. A fundamental difference between these two analyses is that field closure costs are not relevant to ACI of original capital investment, but are a factor in the valuation of the City IOF. Future field closure costs are not relevant to a cash flow analysis used to determine the time to achieve ACI, unless they are incurred as actual expenditures prior to ACI being achieved. Future field closure costs are not expenditures that were incurred in the period prior to ACI being achieved (i.e., prior to 2020); however, the SPR Comments incorrectly deduct these future liabilities from current cash flow, which is both inconsistent and irrelevant to the determination of ACI.

- The SPR Comments calculate DDA as an operating cost based upon revenues. The SPR Comments incorrectly: 1) calculate DDA based on revenues; and 2) use a DDA percentage rate that is not recognized by the IRS. This calculation of DDA in the SPR Comments is entirely inappropriate because it does not conform to IRS guidance. The SPR Comments rely on an inappropriate determination and application of DDA, which results in a conclusion, with respect to the time to achieve ACI for the City IOF, that is both incorrect and inappropriate.
- The ACI Study uses a target rate of return of 8% to determine the time to achieve ACI, while the SPR Comments use a target rate of return of 16%. SPR's target rate of return is twice the WACC for peer companies and 30% higher than the cost of equity typical of oil and gas exploration and production companies in the U.S. The use of an unreasonably high rate of return in the SPR Comments results in a conclusion, with respect to the time to achieve ACI for the City IOF, that is both unsupported and inappropriate.
- The ACI Study uses projected operating costs that are similar to historical costs with inflation adjustments, while the SPR Comments project operating costs that are up to twice the historical operating costs. The SPR Comments state that historical operating costs for the City IOF were approximately \$28 per barrel in 2020, and then project operating costs after 2021 in a range of \$46 to \$60 per barrel. SPR's projected operating costs are unreasonably high compared to historical averages and operating costs for the City IOF and those reported by other operators of waterflood developments in Southern California. The SPR Comments use unreasonable projections of operating costs for the City IOF, which results in a conclusion with respect to the time to achieve ACI for the City IOF that is both incorrect and inappropriate.

Even with these errors in methodology and unreasonable assumptions that serve to extend the time to achieve ACI, the cash flow analysis presented in the SPR Comments demonstrates the following: 1) an original capital investment in the City IOF achieves ACI within five years; and 2) SPR's acquisition of the City IOF achieved ACI within five years.

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