

DISTRICT COURT, ARAPAHOE COUNTY, COLORADO

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7325 S. Potomac Street
Centennial, Colorado 80112

Plaintiff: Thomas L. Minick, in his sole capacity as
Liquidating Trustee for the Liquidating Trust of
Nighthawk Royalties LLC and Affiliated Debtors

v.

Defendant: Sigma³ Integrated Reservoir Solutions, Inc.

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Liquidating Trustee for the Liquidating Trust of Nighthawk Royalties LLC
and Affiliated Debtors*

COMPLAINT

For his Complaint against Sigma³ Integrated Reservoir Solutions, Inc. (“Defendant” or “Sigma”), Plaintiff Thomas L. Minick (“Plaintiff” or “Trustee”), in his sole capacity as Liquidating Trustee for the Liquidating Trust of Nighthawk Royalties LLC and Affiliated Debtors (“Nighthawk”), alleges and states as follows:

NATURE OF ACTION

1. Nighthawk was a United States-focused oil and gas company with operations in the Denver-Julesburg Basin of eastern Colorado. After experiencing an initial period of success producing oil in the Arikaree Creek Field area of the Basin (“Arikaree Creek”) from early 2012 to mid-2014, production levelled off, compelling Nighthawk to consider how it could try to increase output.

2. Nighthawk had two options. It could drill new wells in undeveloped acreage in or near Arikaree Creek. Or it could inject water into the developed area of Arikaree Creek to increase pressure and maximize production of the remaining oil through existing wells—a process called “waterflooding.”

3. To help decide which option was best, Nighthawk retained Sigma, an engineering consulting firm promoting itself as being experienced in helping energy companies identify the most productive recovery methods available. Under the contract the parties executed in or around August 2014, Sigma agreed to prepare a reservoir simulation model utilizing Nighthawk’s historic production and other data along with a pre-existing geologic model that measured the key attributes of Arikaree Creek. Sigma’s model would forecast production twenty years into the future using both the traditional recovery scenario then in place and a recovery scenario utilizing the waterflood.

4. By late 2015, Sigma had generated a model it represented as valid and reliable that forecasted a substantial increase in oil production in Arikaree Creek using the waterflood option.

5. During much of 2016, relying on this stamp of approval, Nighthawk spent millions of dollars obtaining regulatory approval, making substantial capital and operational expenditures to implement and operate the waterflood, and paying assorted professional firms and its primary lender fees necessary to get the project funded.

6. In November 2016, with regulatory approval in hand and Arikaree Creek primed to go, Nighthawk began the waterflood and waited in anticipation for the increased production Sigma’s model forecasted. But it never came.

7. The reason for this was as unfortunate as it was simple. Unbeknownst to Nighthawk at the time, Sigma manipulated key data inputs and made unjustified assumptions in the model—clearly contrary to its obligations under the contract—that caused the model to drastically overstate the waterflood’s forecasted production. ***Sigma’s engineer later admitted at a post-mortem meeting in late 2017 that he could not make the model forecast increased production utilizing a waterflood. So, without telling Nighthawk, he improperly altered the data inputs and made unjustifiable assumptions to force the model to artificially produce a favorable waterflood forecast. At the meeting, he agreed that “the entire model forecast for the water flood had no credibility and that the entire process” was “crap.”*** He further admitted that Sigma ultimately directed the result because it was eager to get more reservoir simulation modelling work and the profits that would come with it. The engineer’s supervisor, who had no experience in reservoir simulations and rubber-stamped everything he prepared, did nothing to stop it.

8. After Sigma’s startling admission, Nighthawk hired an independent engineering firm, iReservoir, first to examine whether Arikaree Creek was even a good candidate for waterflooding, and

then to forensically review Sigma's model to determine exactly where it may have gone wrong. iReservoir concluded as a threshold matter that Arikaree Creek was not a good waterflood candidate. The firm then identified various fatal errors with Sigma's model—all of which the key Sigma employee previously admitted—that caused it to produce an unrealistic production forecast. ***Indeed, when iReservoir ran Sigma's model without a waterflood, the forecasted production was virtually the same as what the model forecasted with the waterflood activated.*** This observation alone confirmed that waterflooding could not have increased production and, thus, that the model was a sham. The model, moreover, contained additional serious data alterations that would have caused it to significantly overstate any production forecast had Arikaree Creek even been capable of responding favorably to a waterflood in the first place. In short, the forensic review confirmed what Sigma admitted—that the model, which Nighthawk used to plan for and ultimately execute the waterflood, was fatally flawed and useless.

9. Because Nighthawk expended all of its remaining capital on the failed waterflood project with nothing to show for it, Nighthawk's senior secured lender, Commonwealth Bank of Australia ("CBA"), called in the remaining significant balance on the loan that it had made to Nighthawk to help finance the waterflood. Not having the money to repay the outstanding balance and continue operations, Nighthawk filed for Chapter 11 bankruptcy protection in May 2018.

10. In November 2018, the bankruptcy court approved Nighthawk's bankruptcy plan and appointed Thomas L. Minick to serve as Liquidating Trustee—Plaintiff in this action—to wind down Nighthawk. In February of this year, the bankruptcy plan became effective, and Plaintiff was appointed to pursue any existing or potential causes of action on behalf of Nighthawk and its estate.

11. Plaintiff files this Complaint on behalf of Nighthawk against Sigma for its egregious conduct, which amounts to a willful and wanton breach of contract, to recover the substantial damages reasonably and foreseeably caused by it.

12. To prevail on a willful and wanton breach of contract claim under Colorado law, Plaintiff must show by a preponderance of the evidence: (a) the existence of a contract; (b) Nighthawk substantially performed its obligations under the contract; (c) Sigma failed to substantially perform its obligations under the contract; (d) Sigma's failure was intentional or reckless; and (e) the resulting damages Nighthawk suffered, which were foreseeable to Sigma when the contract was performed and were a natural and probable result of the breach. As Plaintiff alleges and will prove, each element is satisfied, and Sigma should be forced pay the significant damages Nighthawk suffered.

13. Plaintiff's claim, moreover, is timely. Under Colorado law, a plaintiff faces a three-year statute of limitations for a breach of contract claim unless equitable tolling applies. Because Sigma fraudulently concealed the existence of its misconduct until at least September 5, 2017—when its project lead first admitted to Nighthawk personnel that he rigged the model to generate an unrealistic production forecast—equitable tolling applies and gives Plaintiff three years from the date of its discovery of this misconduct, or until at least September 5, 2020, to file this Complaint.

PARTIES

Plaintiff

14. Nighthawk Energy plc was a United States-focused energy company formerly listed on the London Stock Exchange and headquartered in London, United Kingdom. A substantial portion of the company's operations, executed by subsidiaries Nighthawk Royalties LLC and Nighthawk Production LLC, focused on parts of the Denver-Julesberg Basin located in Lincoln County, Colorado.

15. Nighthawk Royalties LLC was a Delaware corporation, with its principal place of business in Arapahoe County, Colorado, at 1805 Shea Center Drive, Suite 290, Highlands Ranch, Colorado 80129.

16. Nighthawk Royalties LLC was a directly and wholly owned subsidiary of Nighthawk Energy plc.

17. Nighthawk Production LLC was a Delaware corporation, with its principal place of business in Arapahoe County, Colorado, at 1805 Shea Center Drive, Suite 290, Highlands Ranch, Colorado 80129.

18. Nighthawk Production LLC was the operating unit of the Nighthawk Energy plc and an affiliate of Nighthawk Royalties LLC. Its principal business activity was the exploration, development and sale of oil and gas. It operated exclusively in Colorado, holding interests in over 150,000 net mineral acres in and around Lincoln County.

19. Nighthawk Energy plc, Nighthawk Royalties LLC, Nighthawk Production LLC and all affiliated entities are referenced herein as Nighthawk.

20. Nighthawk experienced a period of financial success soon after its wells in the Arikaree Creek Field in Lincoln County began producing oil in 2012. Later, however, Nighthawk's business became adversely affected by a period of macroeconomic and oil and gas industry distress, which resulted in depressed oil prices beginning in 2014 and 2015. Nighthawk's business became further and fatally distressed by the waterflooding project that ultimately started in late 2016 and failed to increase production. These events ultimately caused Nighthawk to default on its loan facility with its senior secured lender, CBA, to engage an investment banker to arrange the sale of substantially all of its assets to another oil and gas exploration and production company, and to file for bankruptcy protection.

21. On April 30, 2018, Nighthawk Royalties LLC and Nighthawk Energy plc filed voluntary petitions for relief under Chapter 11 of the United States Bankruptcy Code, 11 U.S.C. §§ 101, *et seq.*, in the United States District Court for the District of Delaware ("Court"). On May 15, 2018, these entities' affiliates, Nighthawk Production and OilQuest USA, LLC (another affiliate of Nighthawk Royalties LLC), filed their own voluntary petitions for relief under Chapter 11 in the same Court. The bankruptcy petitions of all four Nighthawk entities were then consolidated into one proceeding for procedural purposes under the case caption *In re: Nighthawk Royalties LLC, et al.*, Case No. 18-10989 (BLS) (Bankr. D. Del.).

22. On October 10, 2018, Nighthawk Royalties LLC and its affiliated debtors and debtors in possession (*i.e.*, the related Nighthawk entities noted above) filed the First Amended Joint Chapter 11 Plan of Liquidation. Among other things, this Plan sought Court approval to establish a Liquidating Trust and appoint a Liquidating Trustee.

23. On November 28, 2018, the Court entered an Order (a) confirming the First Amended Joint Chapter 11 Plan of Nighthawk Royalties LLC and its Affiliated Debtors and Debtors in Possession (“Plan”), (b) establishing the Liquidating Trust, (c) appointing Commenda Asset Resolution Partners, LLC to serve as advisors to the Liquidating Trust, and (d) appointing Thomas L. Minick to serve as Liquidating Trustee—the Plaintiff in this Complaint—to wind down the debtors’ estates on behalf of the Liquidating Trust.

24. On February 6, 2019, the Plan became effective, substantially all of the Debtors’ assets were transferred to the Liquidating Trust, and the Liquidating Trustee was appointed to pursue any existing or potential causes of action on behalf of the debtors and their estates.

25. Pursuant to the Plan and the Order confirming the Plan, the Liquidating Trustee is authorized and has the sole right to pursue any existing or potential causes of action on behalf of Debtors through the Liquidating Trust. *See, e.g.*, Plan § 7.02 (“The Liquidating Trustee has the full authority subject, in each case, to the provisions of the Plan and the Liquidating Trust Agreement, to take any steps necessary to administer the Plan, including without limitation, the duty and obligation to liquidate Liquidating Trust Assets, to make Distributions therefrom and to pursue, settle or abandon any Claims and Causes of Action, including, without limitation, Avoidance Actions, Claims and Causes of Action.”); Plan § 8.07 (“Any and all rights to conduct investigations and institute litigation with respect to Causes of Action, Avoidance Actions or claims not released by the Debtors shall vest with the Liquidating Trust and shall continue until the dissolution of the Liquidating Trust, as if neither the Confirmation Date nor the Effective Date had occurred.”).

26. Plaintiff, therefore, is the proper party to bring the claims asserted in the Complaint against Defendant.

Defendant

27. Defendant Sigma³ Integrated Reservoir Solutions, Inc., also known and referenced at various times as Sigma³ Integrated Reservoir Solutions Corp. and Sigma Cubed Inc., is a Delaware corporation with its principal place of business at 4700 West Sam Houston Parkway North, Suite 150, Houston, Texas 77041. For clarity, the Complaint refers to this party as “Sigma.”

28. Sigma is an engineering consulting firm whose stated purpose is to help oil and gas companies determine how to best enhance production. Sigma’s website states that its “team focuses on being trusted advisors to our clients through working integrity, high science, and building partnerships.” The website further states that “[c]ompanies look to us to help fill in the blanks to answer the question of what completions strategy works best and to refine their earth model to have the most accurate understanding of the subsurface, especially at the reservoir level.” Sigma does this, according to its website, by “delivering turn-key” services to its clients.

29. Sigma is a privately held company. It is owned by private equity firm Symphony Technology Group (“STG”), which is based in Palo Alto, California. STG has sole or majority ownership stakes in nearly 20 other companies.

30. During the period of time relevant to the claims asserted in this Complaint, Sigma had an office in Arapahoe County, at 2 Inverness Drive East, Suite 201, Englewood, Colorado 80112. This office previously was the headquarters of Apex Petroleum Engineering Inc. (“Apex”), which Sigma acquired in early 2012, before the events giving rise to the claims in the Complaint. The key employees of Sigma at the time who worked on the Nighthawk waterflooding project, Kit Bloomfield and Denny Migl, worked out of this office. In 2018, Sigma’s Colorado employees, including Bloomfield and Migl, left the company and reformed as Apex at the same location.

JURISDICTION AND VENUE

31. Jurisdiction is proper in this Court pursuant to C.R.S. § 13-1-124 because Defendant, through its employees and agents, transacted business within this state.

32. Jurisdiction also is proper pursuant to Section 17 of the September 30, 2014 Master Service Agreement between Nighthawk and Sigma, which along with the Proposal discussed below, forms the relevant contract. That section provides that “the parties agree that venue for any litigation arising under this Agreement shall be exclusively in Arapahoe County, Colorado.” The only court located in Arapahoe County, Colorado is this one.

33. Venue is proper in this Court pursuant to C.R.C.P. 98(c)(5), which provides that “[a]n action upon a contract for services may also be tried in the county in which the services were to be performed.” Nighthawk and the Sigma office that performed work pursuant to the contract were both located in Arapahoe County.

34. Venue also is proper under Section 17 of the September 30, 2014 Master Service Agreement. That section provides that “the parties agree that venue for any litigation arising under this Agreement shall be exclusively in Arapahoe County, Colorado.”

GENERAL ALLEGATIONS

Nighthawk’s Development of the Arikaree Creek Field

35. In January 2012, Nighthawk acquired a sizeable acreage position in and around Lincoln County, Colorado for the purpose of oil and gas exploration and production. The acreage was located in the southern portion of the Denver-Julesburg Basin, a large geologic structure containing hydrocarbons underlying eastern Colorado and parts of several neighboring states, including Wyoming and Nebraska.

36. In October 2012, Nighthawk spudded its first well, named the Steamboat Hansen 8-10. The Steamboat Hansen 8-10 was the discovery well for the Spergen dolomite reservoir underlying what became known as the Arikaree Creek Field.

37. The geographic location of the Arikaree Creek Field is shown here:

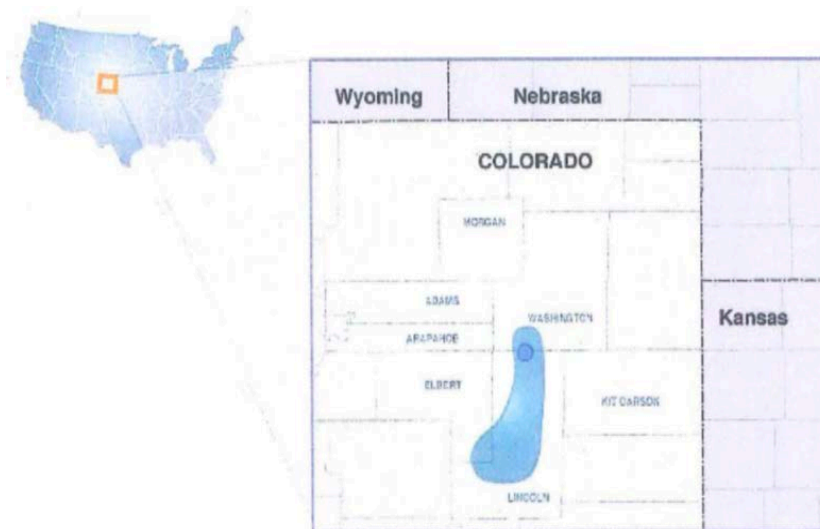


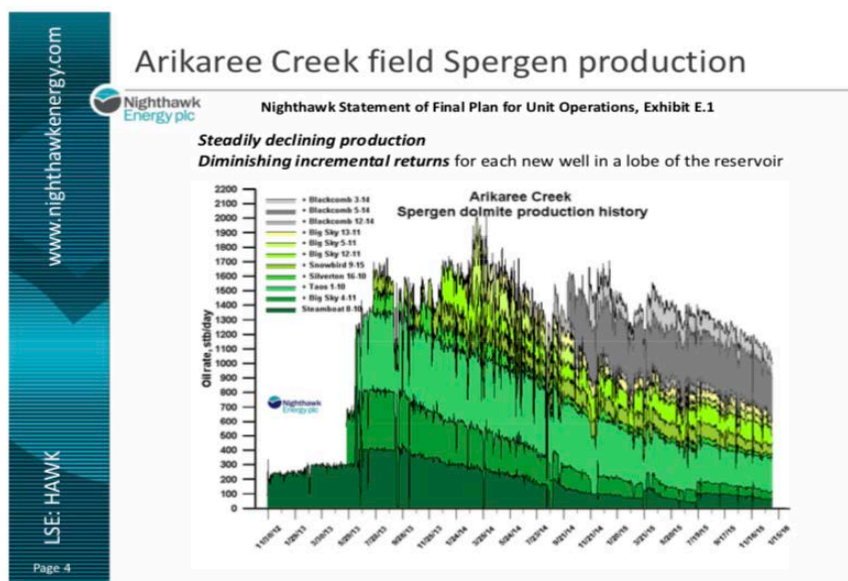
Figure 1 location of Arikaree creek

38. In the Spring of 2013, Nighthawk engaged in further development of Arikaree Creek, resulting in the spudding and continuing production of 11 wells.

39. Nighthawk enjoyed impressive oil production volumes from its wells in Arikaree Creek in the ensuing months. By March 2014, it had hit a new monthly production record of approximately 1,900 bbls (oilfield barrels) per day.

40. The next month, one industry analyst commented on Nighthawk’s success, attributing its “tremendous growth” “to its low cost and oily wells that have high IRR [Internal Rate of Return] and fast payouts” and it being “a very well-run company with a sound financial plan.”

41. As 2014 proceeded, however, the production rates for each well in Arikaree Creek began to drop, causing Nighthawk to experience diminishing incremental returns, as illustrated below:



42. Nighthawk management considered what the company could do to reverse this trend and increase oil production in Arikaree Creek.

43. Nighthawk had two choices: (1) drill new wells in different areas in or around Arikaree Creek, or (2) inject water into the areas covered by the existing wells, which would force the remaining oil in those areas out through the wells—a process known as waterflooding.

44. To evaluate the waterflood option, Nighthawk thought it wise to enlist the services of an outside consulting firm that appeared experienced in simulating forecasted productions from waterfloods to help it determine whether Arikaree Creek was a good candidate for such an operation.

The Contract

45. In the Summer of 2014, Nighthawk issued requests for proposals from multiple energy consulting companies—Sigma, iReservoir and Schlumberger—to provide reservoir model simulation services in connection with the contemplated waterflood project.

46. On August 11, 2014, Dr. David Faulder, Nighthawk’s Reservoir Engineering Manager, e-mailed Kit Bloomfield, Sigma’s Advisory Reservoir Engineer, and Peter O’Connor, Sigma’s Vice President of Business Development, to see if Sigma was interested in submitting an RFP for the waterflooding project.

47. On August 13, 2014, Sigma’s O’Connor responded to Mr. Faulder, thanking him “for the opportunity to offer our bid for the Arikaree Creek reservoir simulation,” and attaching Sigma’s proposal titled “Reservoir Engineering Study, Mississippian Spergen Formation, Lincoln County, Colorado” (“Proposal”).

48. The Proposal’s Executive Summary section summarized what Nighthawk needed for the contemplated waterflood: “Nighthawk Production LLC (Nighthawk) are [sic] considering field scale modeling and reservoir simulation of the Mississippian Spergen Formation of the Arikaree Creek oilfield located in Lincoln Colorado. . . . A reservoir simulation study is needed to better quantify the active pore volume, identify potential infill locations, characterize the reservoir drive mechanism (fluid expansion, reservoir compaction, water influx, etc.), estimate the reservoir recovery to an optimized reservoir management plan, and forecast future production under alternative reservoir management scenarios.”

49. The Proposal’s Scope of Work section made various representations about what Sigma would do for the reservoir simulation model, and it also recognized the critical role that its work would have on the viability of the project. Specifically, this section provided:

- Sigma3 proposes to honor existing reservoir initial condition simulations and history matched field exploitation to evaluate the reservoir and existing drilling and completion and exploitation strategies employed by Nighthawk in the Spergen formation hydrocarbon reserve. A detailed engineering report will be prepared and presented.
- The conceptual model of this oil reservoir is the foundation on which all evaluation of the resource capacity and field development planning is based. The conceptual model

is based on an integration of geological, geophysical and geochemical data as well as reservoir characteristics determined from well drilling, testing, production and monitoring. All of these data and other subsurface studies including previously constructed reservoir models must be reviewed for incorporation into a conceptual model. The data and information provided by Nighthawk will be integrated into a functional geological 3-D electronic format for review and manipulation.

- The conceptual understanding of the reservoir will be transformed into a format for input into the reservoir simulation model. The simulation model input will be presented in tables and figures and will be a deliverable.

50. The Project Tasks, listed in the Scope of Work section, included the following assignments that Sigma represented it would perform as part of the reservoir simulation model:

- Integrate the geophysical and geologic data to develop a geologic model of the reservoir.
- Build a numerical model of the reservoir integrating the geologic and engineering data.
- History match of each well, using the daily data. Primary match parameters are oil, water and gas rates, producing fluid levels, and reservoir pressure history.
- Perform sensitivity to water influx, this may require some consideration of the regional hydrologic scenarios.
- Forecast future production for a base case and up to three alternative reservoir management scenarios.
- Prepare a final report with a final presentation to Nighthawk.

51. The Proposal's Deliverables section stated that Sigma would issue a final report documenting its major conclusions and recommendations, including:

- A calibrated model of the reservoir.
- Base Case production forecast.
- Three Alternative reservoir management scenarios.
- Final report and work product in digital format.
- Final calibrated model, alternative scenario simulation decks in digital format, and other interim work product.
- Interim and final presentations to Nighthawk.

52. Under the Proposal, Nighthawk would provide certain types of well data and reservoir information required to complete the reservoir simulation model.

53. The Proposal's Pricing section provided that the estimated cost for Sigma's services would be \$72,500, and the Project Timeline section stated that the duration would be four (4) months.

54. Finally, under the Commercial Terms and Conditions section of the Proposal, Sigma stated that "this proposal and any related services shall be governed by the Master Service Agreement signed by Nighthawk Production and Sigma3 Integrated Reservoir Solutions Inc."

55. On August 14, 2014, Mr. Faulder replied to Mr. Conor: "Thank you for your response. We will be reviewing the responses and be making a decision next week."

56. On or about the following week, Nighthawk and Sigma agreed to the terms and conditions set forth in the Proposal.

57. On September 30, 2014, Nighthawk and Sigma executed the Master Service Agreement referenced above, with Nighthawk Production LLC Director and COO Chuck Wilson and Sigma CEO Jorge Machnizh as the signatories.

58. Pursuant to the Master Service Agreement, the agreed-upon Proposal that Nighthawk accepted was "treated as an extension of this Agreement and is a binding contract for rendering of Services and compensation for said Services."

59. Nighthawk hired Sigma pursuant to the terms and conditions set forth in the contract for several reasons. Sigma's bid was the lowest of all the candidates; Sigma could start the soonest; and Nighthawk, through Dr. Faulder, had worked with Sigma, and Mr. Bloomfield in particular, several times in the past without issue. Finally, and most importantly, Sigma represented that it could issue the promised deliverable—a reservoir simulation model—pursuant to the terms and conditions provided in the Proposal.

Sigma's Work on the Contract

60. On May 28, 2015, Nighthawk convened a meeting with approximately a dozen Sigma employees, including Denny Migl and Kit Bloomfield, and a handful of Nighthawk personnel in a conference room in Nighthawk's Highlands Ranch, Colorado office. Sigma discussed detailed proposals, supported by PowerPoint presentations, for how it believed it should go about formulating the reservoir simulation model for the Arikaree Creek waterflood project.

61. In particular, Sigma personnel addressed the proposed reservoir simulation model, conveying that its main goals for the model were to honor the data provided to Sigma, to provide a robust reservoir management tool to support Nighthawk's field operations, and to forecast reservoir production in Arikaree Creek.¹

¹ In addition to discussing its plans for the reservoir simulation model covered by the Proposal, Sigma also pitched Nighthawk on two related proposals that it believed would be worthwhile for the project: a seismic analysis and a "sweet spot" analysis. Nighthawk purchased these services at a cost of approximately \$200,000, but Sigma did not complete these deliverables to Nighthawk's satisfaction.

62. Soon after Sigma began work on the reservoir simulation model, it laid off a significant number of its employees, likely a by-product of the global downturn in commodity oil prices. Some of the laid-off personnel, including one based in Houston who was slated to work on the project, had experience in performing waterflood simulations of the type Nighthawk had hired Sigma to do.

63. One of the few employees, if not the only employee, at Sigma with any prior experience in reservoir simulations who survived the layoffs was Kit Bloomfield. Mr. Bloomfield, an advisory engineer residing in Sigma's Englewood office, had day-to-day responsibility for the Arikaree Creek Field reservoir simulation model.

64. Denny Migl, another layoff survivor residing in Sigma's Englewood office, was the nominal head of the reservoir simulation model for Sigma. Although Mr. Migl had no experience with reservoir simulations, he ostensibly supervised and signed off on Mr. Bloomfield's work.

65. Despite the layoffs, Sigma purportedly remained committed to completing the reservoir simulation model for Nighthawk pursuant to the terms of the contract on a timely basis, with Migl and Bloomfield leading the charge. Sigma never stated that the layoffs would affect the quality of the product it would deliver to Nighthawk or the timing by which it would deliver the product to Nighthawk.

66. Nighthawk would need to receive approval of the planned waterflood project from the Colorado Oil and Gas Conservation Commission ("COGCC") and purchase and install various pieces of equipment and materials and otherwise ready Arikaree Creek before it could execute the project.

67. Sigma knew at the start of and during the course of its work, based on numerous written and oral communications with Nighthawk personnel as well as its general experience in the industry, that Nighthawk would rely on Sigma's production forecasts from its reservoir simulation model in deciding whether to proceed with the project and spend significant sums of money in the process.

68. Before Sigma could begin work on the model, it needed to and did receive from Nighthawk numerous data sets and a geologic model of the Spergen formation underlying Arikaree Creek.

69. Nighthawk provided Sigma with the types of data Sigma needed pursuant to the contract, including historical production data, core data, well logs, petrophysical analysis, pressure transient results, and 3-D seismic data.

70. Nighthawk also provided Sigma with a geologic model prepared by Joan Tilden, President of Algonquin Resources Inc. This model utilized the Petrel software package to measure Arikaree Creek's key geologic features relevant to oil and gas production—including porosity, permeability and saturation. A key goal of this model was to accurately characterize the geologic heterogeneity of Arikaree Creek, recognizing that different areas of the field necessarily would contain different levels of porosity, permeability and saturation. This information was relevant to the performance of any waterflood.

71. Ms. Tilden has a reputation in the oil and gas industry for preparing first-rate geologic models. No one from Sigma complained about the quality of her geologic model, and no one from Sigma ever contacted her with any questions or comments about the model. Even after the waterflood was implemented unsuccessfully, the relevant Sigma personnel did not criticize her model in any way, agreeing that the model was top-notch.

72. Sigma's reservoir simulation model needed to honor the various data sets and the observations contained in the geologic model to accurately account for the characteristics of Arikaree Creek and thus forecast how a waterflood realistically would perform. This prerequisite was so important and necessary that it was expressly stated in the contract, as noted above.

73. With the input data and geologic model in hand, Sigma began working on the reservoir simulation model in earnest in the Spring of 2015.

74. Kit Bloomfield was the Sigma engineer who had day-to-day responsibility for working on preparing and refining the reservoir simulation model that would forecast oil production levels on an annual basis twenty (20) years into the future. A significant portion of his modelling work involved a process called history matching.

75. History matching involves adjusting the model of a reservoir until it closely reproduces the past behavior of the reservoir. The historical production (*i.e.*, oil and water rates) and pressures are matched as closely as possible. Once a model has been history matched, it can be used to simulate future reservoir behavior with a higher degree of confidence, particularly if the adjustments are constrained by known geological properties in the reservoir, which Ms. Tilden's geologic model provided. The accuracy of history matching, of course, depends on the quality and integrity of the input data and geologic model.

76. Sigma's history matching work took considerably longer than Nighthawk anticipated. This necessitated frequent check-ins from Dr. Faulder to ensure that Sigma was doing what it needed to do and had all of the necessary data.

77. Sigma had all of the data and other information it needed to complete the history matching process and otherwise complete its work on the reservoir simulation model, and it never claimed otherwise to Nighthawk.

78. Mr. Bloomfield routinely provided Dr. Faulder output data that the history matching was generating, but he did not provide him with access to the input data or software he was using. The output data frequently did not appear to match the key data inputs from the geologic model, and this necessitated numerous exchanges between Dr. Faulder and Mr. Bloomfield to ensure the history matching progressed to the point where Sigma could perform the next steps needed to finalize the model so that production forecasting work could commence.

79. Nighthawk personnel, chiefly Dr. Faulder, spent numerous weeks from the Fall of 2015 into the Winter of 2016 working with Mr. Bloomfield and other Sigma employees to complete the history matching process and initialize the reservoir simulation model.

80. During this period, Sigma repeatedly overpromised to Nighthawk when it would be able to finish the history matching process and deliver the completed reservoir simulation model, with the deadline repeatedly getting pushed back. These delays were primarily due to Mr. Bloomfield's

difficulties in producing sufficient history matches and his lack of initiative in communicating with Nighthawk personnel.

81. Nonetheless, neither Mr. Bloomfield, Mr. Migl, nor anyone else from Sigma told anyone from Nighthawk at any time that the challenges they were encountering with the model were unexpected or insurmountable.

82. Nighthawk documents from this period, including those below, illustrate the issues Sigma was experiencing and the delays this caused with the model's delivery:

- Aug. 12, 2015 Faulder Calendar Entry: Sigma Cubed Meeting
 - Review seismic results/WF potential at AC
 - AC waterflood topics
 - Limited capital – upside?
 - Fast track simulation study
 - Sigma Cubed results – incremental recovery
 - 4-6 weeks away
- Sept. 21, 2015 Faulder Calendar Entry: Call Kit Bloomfield
 - Status of study?
 - WF results → Mid-day tomorrow
- Sept. 22, 2015 Faulder Calendar Entry: Study results by Oct. 2 for COGCC filing
- Oct. 20, 2015 Faulder Calendar Entry:
 - Need Kit's output on base case recovery
- Oct. 30, 2015 Faulder Calendar Entry: Call Denny Migl
 - Kit needs assistance
 - Assured that results will be in by Nov. 21
- Nov. 4, 2015 "Arikaree Creek Water Flood Project" PowerPoint:
 - Sigma³ reservoir simulation study
 - Updated reservoir model study
 - Model results will be used to estimate water flood recovery
 - Results by end of September
- Nov. 4, 2015 Faulder Calendar Entry: meet w/ Sigma on model study
 - Emphasize key role Sigma Cubed plays → need hard, dependable results to complete process
- Nov. 5, 2015 "Arikaree Creek Water Flood Project" PowerPoint:
 - Sigma³ reservoir simulation study - Issues
 - Need internal QA/QC
 - History match of oil and water rates
 - Model transition from rate constraint (HM) to pressure constraint (forecast)

- Simulation cards causing unwanted side effects
 - Water flood optimization
- Nov. 10, 2015 E-mail Chain among Faulder, Wilson, Bloomfield and Migl:
 - Faulder: “Denny, just checking on how the primary match is proceeding.”
 - Migl: “Last simulation commenced Sunday, 11/8. Prelim results look good.... Final run should be completed sometime Tuesday morning with final report to you on or before COB, Wednesday, 11/11. More later....”
 - Nov. 12, 2015 E-mail Chain among Faulder, Wilson, Bloomfield and Migl:
 - Migl: “David, please find attached the requested simulation results for 4 injection wells, 750 BWPD injection rate....”
 - Faulder: “Denny, has anybody reviewed the primary simulation results and compared the historical oil production with the simulation before sending out? The primary results have October 2015 Spergen production at 849 stb/d vs. 1200 actual. Please look at the historical production and make sure the cums match (or close) at the end of the historical period. Model cums as of October are 1,015,759 stb vs. actual of 1,308,461 stb. This is 30% low!!!”
 - Faulder: “This is why in the water flood review (Nov. 5) I emphasized the deliverables and required plots. If you plot the model and historical cums (oil and water) well by well, this would quickly point this out and I shouldn’t have to.”
 - Faulder: “This is not working yet and I’m getting pressured for some results. I expect the results to be vetted before sending out or at least the warts noted an action plan to correct for the next run. We are running out of time.”
 - Nov. 14, 2015 Faulder Handwritten Notes:
 - Kit – next set of results ~ 1:30 pm
 - Nov. 15, 2015 E-mail Chain among Faulder, Wilson, Bloomfield and Migl:
 - Faulder: “Kit, comments on the last run attached. Believe the key feature is now to better bracket the behavior of the two faults.... Need aggregated field oil and water, rate vs. time and cum vs. time plots next time. Chuck cannot read an XPS file, can you send pdfs in the future? Take a big breath, relax. Will check in the a.m., I get up about 5, emails are fine. With a bit of luck we can have a first pass water flood run off at noon tomorrow?”
 - Bloomfield: “I agree with characterizing the fault behavior. Still struggling with water behavior.”
 - Faulder: “Kit, making progress, find attached review and notes. Really need aggregated field plots in next plot dump for oil and water, rates and cum. Individual water rates are slowly improving, think this is mostly related to fault perm descriptions (open and tight) and aquifer strength.... Suspect that field water rates are close, need field cum plots.... Send next round out when done, noon-ish?”
 - Nov. 21-29, 2015 E-mail Chain among Faulder, Wilson, Bloomfield and Migl:
 - Faulder: “Kit, attached for water flood review. Still contingent on a better match of water rates under primary to go too far down this path.... Prepare a spread

sheet...primary vs. the two water flood cases by time. Want to start getting a sense of where to get the best initial response to water injection.”

- Faulder: “Kit, will be on the road all day. Will review this evening or early next morn. Continue on the path. Do you have a waterflood run with the two injectors @1500 each run?”
- Faulder: “Can you send me the text file or spreadsheet with the rates and cums for the latest primary and the best water flood case? Rick is worried that the water flood will not achieve 40% cum Spergen recovery.”
- Bloomfield: Sends Faulder requested information, adding “Almost declaring victory.”
- Faulder: “Kit, getting close. Field aggregated water is probably real close. Just a few problem wells, same with WOR trends. Need latest wf run for review plots and text files.”
- Bloomfield: “Thanks for the comments.”
- Faulder: “Kit, getting really close, just a couple of wells water production to bring on home.”

83. Ultimately, by late December 2015, Sigma seemingly had sufficiently history matched the past production data and got the model to generate reliable production forecasts.

84. This was because—unbeknownst to Dr. Faulder, Mr. Wilson, and everyone else at Nighthawk—Mr. Bloomfield had improperly manipulated input data and made unjustifiable assumptions to complete the history matching process and enable the model to run and generate a seemingly positive production response to a waterflood scenario. At a meeting nearly two years later (discussed below), Mr. Bloomfield would admit to Nighthawk personnel how and why he rigged the model by doing these things. A subsequent forensic review of Sigma’s work by an independent firm (also discussed below) confirmed that the model unrealistically forecasted increased production due to these egregious modelling errors Mr. Bloomfield admitted committing.

85. Sigma incorporated the results of its reservoir simulation model into a report it drafted in mid-January 2016 that it knew Nighthawk would submit to the COGCC as part of its application to implement the waterflood in Arikaree Creek.

86. In the ensuing months of 2016, Nighthawk personnel, none the wiser to Sigma’s misconduct, continued to enlist Sigma to help the company fine-tune various aspects of the model and obtain final approval from the COGCC to implement the waterflood.

Regulatory Approval Process

87. In October 2015, with Sigma’s reservoir modelling work underway and already showing positive indicators of the waterflood’s viability, Nighthawk started the process of applying to the COGCC to establish the Arikaree Creek State Unit for the purpose of implementing the waterflood project. The application process for the Arikaree Creek State Unit lasted through March 2016 before being voluntarily modified by Nighthawk (discussed below).

88. Nighthawk cited and relied on Sigma’s reservoir simulation modelling work throughout the COGCC application process. As discussed below, Nighthawk submitted Sigma’s reservoir simulation model report, and subsequent slight derivations of it, to the COGCC as part of

its application to obtain regulatory approval for the waterflood. Nighthawk heavily relied on Sigma's analysis in obtaining approval for and implementing the waterflood, and the COGCC similarly placed substantial emphasis on Sigma's waterflood forecast in approving Nighthawk's application.

89. On January 12, 2016, Nighthawk submitted Sigma's reservoir model simulation report as part of a filing with the COGCC. In the filing, Nighthawk stated that it had "completed a water flood simulation," and attached as an exhibit Sigma's report, prepared by Mr. Bloomfield, titled "Water Flood Enhanced Oil Recovery Review, Interim Report Number I, for Arikaree Creek Field, DJ Basin, Nighthawk Production LLC, Spergen Dolomite."

90. The Sigma report stated that a "reservoir simulation study was conducted of the Arikaree Creek Field," that the "simulation model was used to history match production history of 11 wells," and that the "model was then used to forecast production for the feasibility of secondary/enhanced oil recovery methods." The report then noted: "The numerical model was able to history match the production history from the Arikaree reservoir with an estimated ultimate recovery of 4,381 Mstb with 16,953 Mstb originally in place resulting in 25.8 percent recovery. The enhanced recovery was then initiated by converting 2 producers to injection wells in a line drive style. The additional recovery over a twenty-year period is 2,275 Mstb increased incremental recovery of 13.4% or an EUR [estimated ultimate recovery] of 6,656 Mstb, 39.2% recovery." The report concluded that the "conceptual Arikaree Creek Field model that incorporates production history for the Spergen formation of the resource suggests the Arikaree Creek Field is an excellent candidate for secondary recovery" and that the "two injector scenario gave the most favorable response[.]"

91. On January 29, 2016, Nighthawk submitted to the COGCC its Statement of Final Plan for Unit Operations. In the section discussing its "Injection Plan," Nighthawk expressly referenced the "Sigma³ study" and stated that the recommended two-well injection scenario "forecasts an ultimate recovery through year end 2035 of 6.66 MMstb, 39.2% recovery," which was "anticipated to boost recovery . . . above 30%, as high as 40% or more."

92. On February 1, 2016, Nighthawk filed a statement with the COGCC containing its final plan for operations of the Arikaree Creek State Unit. Nighthawk again noted that its waterflood plan was "supported by the Sigma³ study" and provided "[a]dditional discussion about the Sigma³ study" in an attached addendum. The addendum described Sigma's methodology, noting that its simulation model incorporated the geologic model and that its "history matching process confirmed the predictive accuracy of the model for evaluation of the water flood cases."

93. On February 23, 2016, Sigma prepared an updated version of the January 12, 2016 report prepared by Mr. Bloomfield discussed above. This report, titled "Water Flood Enhanced Oil Recovery Review, Interim Report Number II, for Arikaree Creek Field, DJ Basin, Nighthawk Production LLC, Spergen Dolomite," was identical to the Interim I report in all material respects, and continued to make the same representations contained in the Interim I report.

94. Sigma's Interim II report, like the Interim I report, noted that "[t]he additional recovery over a twenty year period is 2,260 Mstb increased incremental recovery of 13.3% or an EUR of 6,641 Mstb and combined 39.2% recovery." The report summed up its confident forecast: "The conclusion that we have determined based on our extensive work and the conceptual Arikaree Creek Field model that incorporates production history for the Spergen formation for the resource suggests the Arikaree Creek Field is an excellent candidate for secondary recovery."

95. The report also provided the following charts showing the forecasted increased production from waterflooding compared to the forecasted base case (primary) recovery:

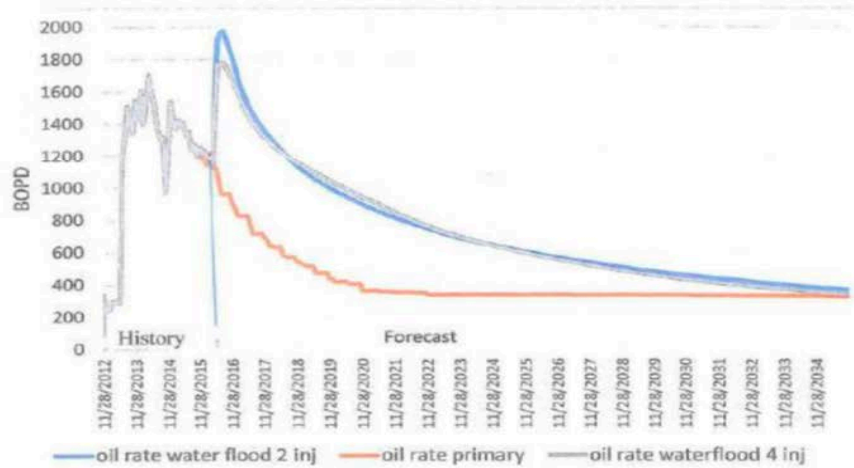


Figure 3: Rate history match of the Arikaree Field study area. Rate history of waterflood started at the end of primary production

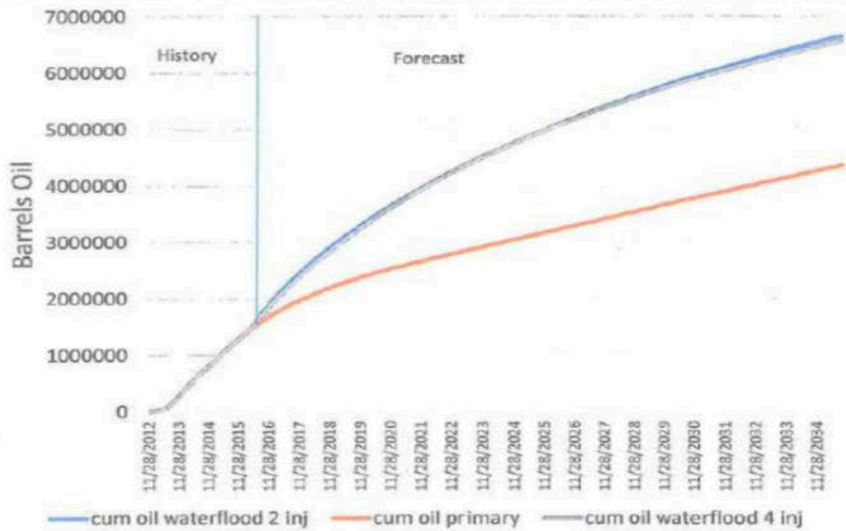
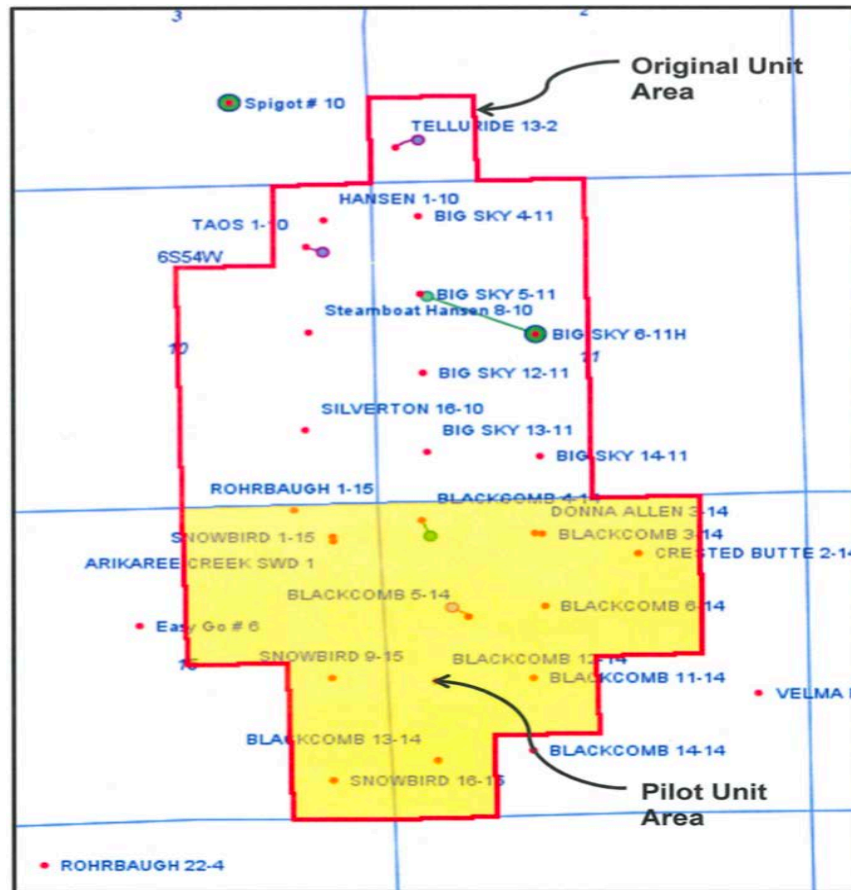


Figure 4: Cumulative recovery match. Cumulative recovery of primary and secondary recovery

96. On March 8, 2016, the COGCC approved Nighthawk’s application for the waterflooding project across the entire Arikaree Creek Field, subject to the company obtaining 80% approval of the landowners who leased the land within the field to it (known as non-working interest owners) within six months. In its order, the COGCC referenced the “simulation report” that Nighthawk submitted “from its consultant,” Sigma.

97. In the ensuing weeks, however, Nighthawk failed to obtain approval from the requisite 80% of non-working interest owners due to a small number of holdouts with acreage in the Northern part of Arikaree Creek.

98. On April 28, 2016, Nighthawk amended its application by restricting the proposed waterflood to the Southern part of the field, called the Arikaree Creek Field Southern Pilot Unit or the Arikaree Creek Field Pilot Unit, as shown below:



99. In its amended application, Nighthawk represented that the revised waterflood plan, which would involve two injection wells in the Pilot Unit area on the southern portion of the Spergen dolomite reservoir, was still “supported by the Sigma3 study submitted by Nighthawk in Docket No. 151200763”—the February 23, 2016 Sigma report prepared by Mr. Bloomfield discussed above. Nighthawk noted that it “expect[ed] the same oil mobility and recoverability response as that modelled in the Sigma3 study for the Southern portion of the Original Unit Area Plan.”

100. On June 6, 2016, the COGCC granted final approval for Nighthawk to conduct waterflooding operations in the Arikaree Creek Field Pilot Unit.

101. In the accompanying order, the COGCC credited the testimony of “[e]ngineering testimony and exhibits presented by David Faulder, Reservoir Engineering Manager for Nighthawk, [which] showed how Nighthawk designed the waterflood recovery for the Pilot Unit Area,” in finding that the “proposed water-flood unit operations for the Arikaree Creek Pilot Unit [we]re reasonably necessary to increase ultimate recovery of oil, gas and associated hydrocarbons” as well as prevent waste and protect correlative rights. Dr. Faulder’s testimony and exhibits relied substantially on Sigma’s reservoir simulation model and corresponding production forecasts.

102. Sigma knew that Nighthawk would rely upon and submit to the COGCC the reservoir simulation model reports and analysis that Sigma prepared in connection with the waterflood application. Sigma personnel, including Migl and Bloomfield, had numerous conversations and exchanges with Nighthawk employees, including Mr. Wilson and Dr. Faulder, about these COGCC submissions.

103. Sigma falsely certified in these submissions, which it knew would be filed with the COGCC, that its models and the underlying data used in their preparation were true and accurate. For example, in addition to the above reports prepared by Mr. Bloomfield, Denny Migl signed a February 23, 2016 letter that Nighthawk filed with the COGCC soon thereafter that corrected a seemingly minor error by Sigma while claiming that no other errors existed and attesting to the accuracy of the waterflood production forecasts. In the letter, Mr. Migl wrote: “The results of the Telluride 13-2 location error did not cause a substantial change in the result of either the two-injector waterflood case or the four-injector waterflood case. All remaining data input was reviewed and is correct.”

104. Nighthawk not only relied on Sigma’s model in asserting to the COGCC that the proposed waterflood would increase production significantly and thus justified approval, it also touted Sigma’s forecasts in public statements.

105. For instance, an October 23, 2015 Oil & Gas 360 article titled “Nighthawk Targets Waterfloods in the DJ” stated that “[b]ased upon the analysis of the project and the completion of flow models, Nighthawk estimates that the OIP [oil in place] to potentially be up to 16.6 million barrels with estimated ultimate recovery expected to increase from 17% to between 30-40% with the water flood.” The article also quoted Nighthawk’s Mr. McCullough, who noted: “The updated estimates associated with the Arikaree Creek Water Flood Project are extremely significant.”

106. In a May 4, 2016 press release, Nighthawk commented that the estimated ultimate recovery from the waterflood project was projected to be between 30%-40%—the range Sigma calculated.

107. On June 8, 2016, Nighthawk “announce[d] an update to the water flood project,” reporting that the company had received unconditional approval from the COGCC one day earlier for the Arikaree Creek Field Pilot Unit project. It also quoted the company’s chairman, Rick McCullough, who remarked that “[t]he preliminary estimates associated with the Pilot are significant.”

Nighthawk Implements Waterflood

108. In June 2016, after receiving COGCC approval, Nighthawk decided to proceed with the waterflood due to the promising production forecasts from Sigma’s reservoir simulation model.

109. An internal Nighthawk PowerPoint presentation created soon after the company received COGCC approval reported on the financial benefits it believed it stood to receive as a result of the waterflood. In particular, the presentation noted that “[m]anagement estimates recovery of 1.5

to 2.3 Mmbo of additional oil recovery during life of project,” and that “[i]ncremental PV10² reserve potential at current pricing” was “in excess of \$20 million.”

110. Without Sigma’s forecast of substantial increased production from the waterflood, Nighthawk would not have pursued the waterflood.

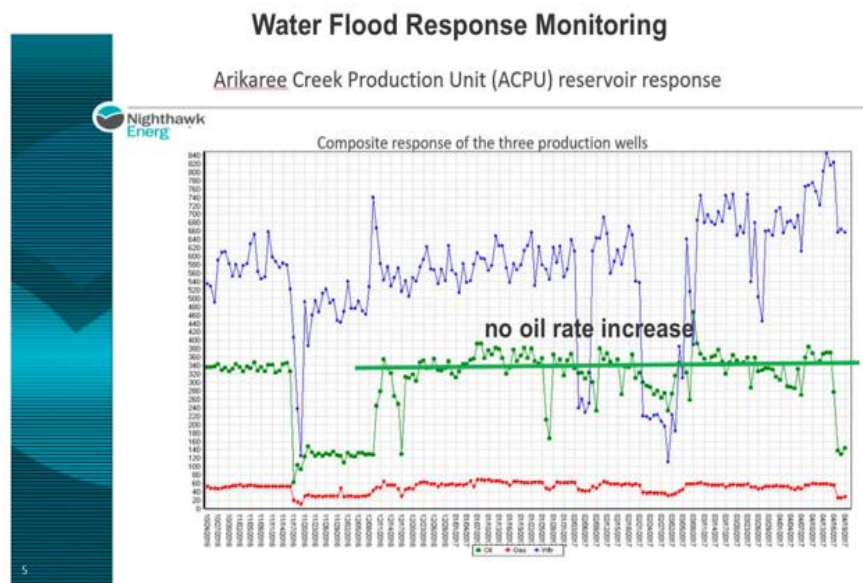
111. Nighthawk spent the next few months of 2016 readying Arikaree Creek for waterflooding by, among other things, purchasing and renting from assorted vendors various types of equipment and materials, such as production pumps, gathering and injection lines, and polymer and propane facilities. Nighthawk also spent money having equipment installed or resized as necessary.

112. In November 2016, relying on Sigma’s forecasts and having built and readied the injection wells and the rest of Arikaree Creek, Nighthawk implemented the waterflood.

113. The substantial additional oil production that Sigma’s reservoir simulation model forecasted from the waterflood, simply put, did not happen.

114. By the Spring of 2017, Nighthawk experienced a very modest initial uptick in oil production, but nothing of the kind Sigma’s model had forecasted. This uptick, moreover, quickly dropped, and the oil production rates levelled out.

115. The following chart from April 19, 2017 illustrates the disappointing results the waterflood had produced as of that date:



² PV10 is the present value of estimated future oil and gas revenues net of estimated direct expenses and discounted at an annual rate of 10%. PV10 is helpful in estimating the present value of a company’s proven oil and gas reserves.

116. Around this time, Nighthawk's Mr. Wilson and Dr. Faulder met with Sigma's Migl and Bloomfield to express their concerns over the waterflood's very disappointing results. Mr. Migl told them that he would stay on top of the project and promised to get it fixed.

117. But nothing got fixed, and the waterflood continued to fail to increase produce at all, never mind anywhere close to the level Sigma's model had projected.

118. Unable to determine why the waterflood was not performing as expected, Dr. Faulder tried multiple times to get the model's software program and input data from Bloomfield and Migl. He was repeatedly rebuffed.³ For instance, one of Dr. Faulder's handwritten notes indicates that on August 29, 2017, he "[a]sked Denny for all runs," but the response was "not yet."

119. Dr. Faulder spent the next few months in the Spring and Summer of 2017 trying to replicate the output of Sigma's model utilizing all the data Nighthawk had provided to Sigma. He was unable to do so. What he was able to do was discover a number of critical deficiencies, including inexplicable data inputs for the critical features of permeability, porosity, water contact level, and bottom hole pressure.

120. By August 2017, Dr. Faulder had come to believe there may have been a serious problem with Sigma's model. He communicated these concerns to Mr. Wilson, and they then requested an in-person meeting with Sigma's Migl and Bloomfield to discuss the issue.

The September 5, 2017 Meeting

121. On September 5, 2017, Sigma's Mr. Bloomfield met with Nighthawk's Mr. Wilson and Dr. Faulder at Nighthawk's Highlands Ranch office to discuss the waterflood's disappointing results as well as the problems Mr. Faulder had been having replicating Sigma's model output.

122. Despite the fact that the Nighthawk representatives told Mr. Migl that the meeting was critically important and that his presence was necessary, Mr. Migl cancelled at the last minute, claiming he had a scheduling conflict and leaving his subordinate, Mr. Bloomfield, to attend for Sigma.

123. In preparation for the meeting, Mr. Faulder drafted a two-page outline of questions he planned to ask Mr. Bloomfield (and Mr. Migl) about Sigma's work on the model and why the waterflood had not worked as planned. Mr. Wilson, who received a copy of this outline from Mr. Faulder before the meeting, planned to and did take detailed notes of the meeting, while letting Dr. Faulder do most of the talking for Nighthawk.

124. The meeting was scheduled to start at 10 a.m., but Mr. Bloomfield arrived about 40 minutes late. Mr. Faulder began the meeting by running down the list of questions from his outline.

125. Mr. Faulder first asked Mr. Bloomfield if he or anyone else at Sigma encountered any problems with the availability or content of the input data that Nighthawk provided to Sigma. Mr. Bloomfield answered in the negative, stating that "the geological model was good, the production data

³ Due to the increasing financial difficulties it was experiencing, Nighthawk terminated various employees, including Mr. Faulder, during this period. Nighthawk soon re-hired Mr. Faulder in a third-party consulting capacity so he could continue to assist the company with the waterflood project.

delivered was all good, and all the reservoir engineering data was good, and that overall the complete data set he had to work with was more than adequate.”⁴

126. When asked if he made any adjustments to the historical data or made any corrections to the data to generate history matches, “Kit stated he did not make any data corrections. Then he caveated by stating he could not get a good history match on produced water, therefore he employed a water multiplier to some of the wells.”

127. Mr. Bloomfield also stated that “he had to lower the oil water contact (OWC)” level in the geologic model “by 8’ in order to get history matches on the wells.” Mr. Faulder then “asked Kit if he had any overwrites on any of the input data and all he said was no.” Mr. Bloomfield would soon contradict this answer as well.

128. Mr. Bloomfield stated that he used “non-smoothed” permeability data although Mr. Faulder “stated he had sent the smoothed data⁵ to him and asked why did you not use it, the run time on the model would have been hours instead of days. Kit did not answer or reply to this statement.”

129. The topic turned to model forecasting, “and here is where things got real interesting.” After reviewing the process used to generate the model’s base case forecast, ***Mr. Faulder “asked Kit to describe the process for injection [waterflood] case forecast, and Kit stated that he adjusted the fluid constraints to 1,000 bpd in order to achieve the big uplift.” “So [Mr. Wilson] asked him how he achieved the big kick once again, and he said he just dialed it in.”***

130. In other words, Mr. Bloomfield admitted to gaming the model to generate a promising forecast by manipulating key data inputs, including fluid rates, pressure, oil water contact levels and permeability, to make the history match work and enable the model to run and produce desired results.

131. Mr. Wilson and Dr. Faulder were incredulous. ***Mr. Wilson responded to Mr. Bloomfield, “so you are telling me the entire model forecast for the water flood has no credibility and that the entire process with COGCC, our BOD’s, shareholders, investors, and the Bank is crap?” Mr. Bloomfield “said yes.” Mr. Bloomfield was then “reminded that when [Sigma] came in it was stated that they could model this very accurately, precisely, and be able to tell Nighthawk where to put injectors and if we needed any more producers to optimize the flood.” Mr. Bloomfield “said [Sigma] did not do this.”***

132. Mr. Wilson and Dr. Faulder “went WOW. David [Faulder] then came with the questions, did you have both internal and external support, and [Mr. Bloomfield] said yes. Did you have sufficient autonomy to conduct the study and [Mr. Bloomfield] said no, and indicated that he was under a lot of pressure and that Nighthawk was pushing the answer.”

133. Taking issue with the false accusation that Nighthawk somehow influenced the model’s results, Mr. Wilson “then asked him who was directing the results, he did not answer this question.” ***Mr. Bloomfield ultimately conceded “that Sigma Cubed directed the results.”***

⁴ All of the quoted excerpts are taken from Mr. Wilson’s contemporaneous notes of the meeting.

⁵ Data smoothing uses an algorithm to remove noise from a data set, allowing important patterns to stand out.

134. *“At this point David brought out his uplift curve”*—shown in Paragraph 95 above—*“and asked what do you think the curve should really look like?”* *Mr. Bloomfield “stated that it would most likely have a modest uplift, a longer plateau and then drop off.”* In other words, Sigma always knew that the significant production increase it forecasted for the waterflood was illusory.

135. Growing increasingly uncomfortable, Mr. Bloomfield remarked that he felt “he was under an oral examination.” To which Mr. Wilson “quickly replied, yes you are.” Bloomfield “turned white as a sheet,” and abruptly left. This was the last time anyone from Nighthawk has heard from Mr. Bloomfield or anyone else at Sigma about the waterflood.⁶

136. In sum, Mr. Bloomfield admitted that he fabricated the reservoir simulation model forecasts that Nighthawk relied upon to obtain approval from the COGCC and to implement the waterflood. Mr. Bloomfield did not engage in this misconduct because of any mandate he received from Nighthawk. In reality, he did this to increase his own company’s profits while hiding his own professional shortcomings. Mr. Migl failed to properly supervise Mr. Bloomfield’s work at every turn for the same reasons.

137. Sigma, for its part, wanted to expand its reservoir simulation work in the United States and enjoy the profits that would come with it. But the company had laid off a significant portion of its staff with relevant experience. Mr. Bloomfield, as one of the few if not only staff remaining after the layoffs with relevant experience, had to shoulder nearly all of the responsibility for this undertaking, and his manager, Mr. Migl, lacked the necessary experience to meaningfully supervise his work. As Mr. Bloomfield continued to face challenges with the model, he decided to take matters into his own hands by “dialing in” the results. Consequently, Sigma recklessly failed to staff and supervise the project.

138. In their decades of work in the oil and gas industry, no one at Nighthawk had ever seen or experienced anything like what Sigma did.

Independent Review of Sigma’s Work

139. A week after the September 5, 2017 meeting, Nighthawk’s Dr. Faulder and Mr. Wilson engaged iReservoir to conduct an independent review of Sigma’s reservoir simulation model work.

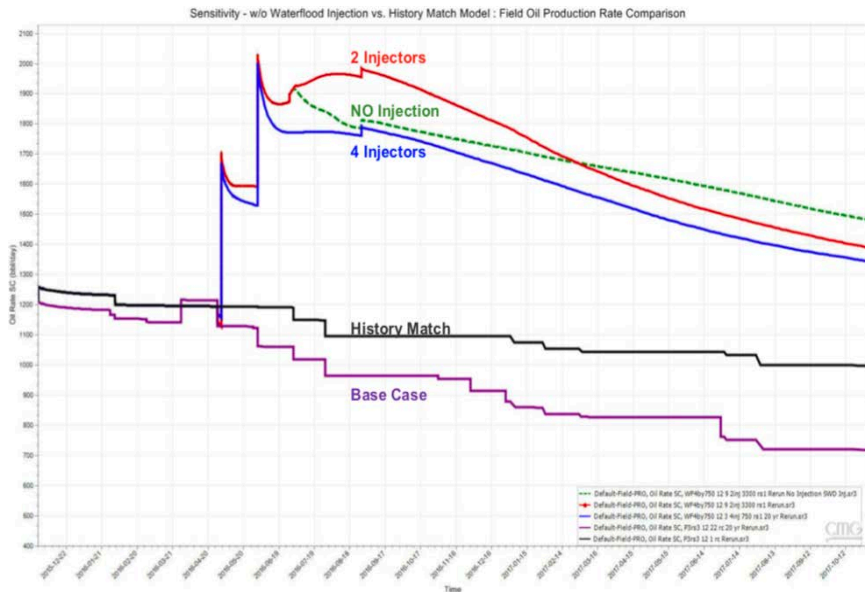
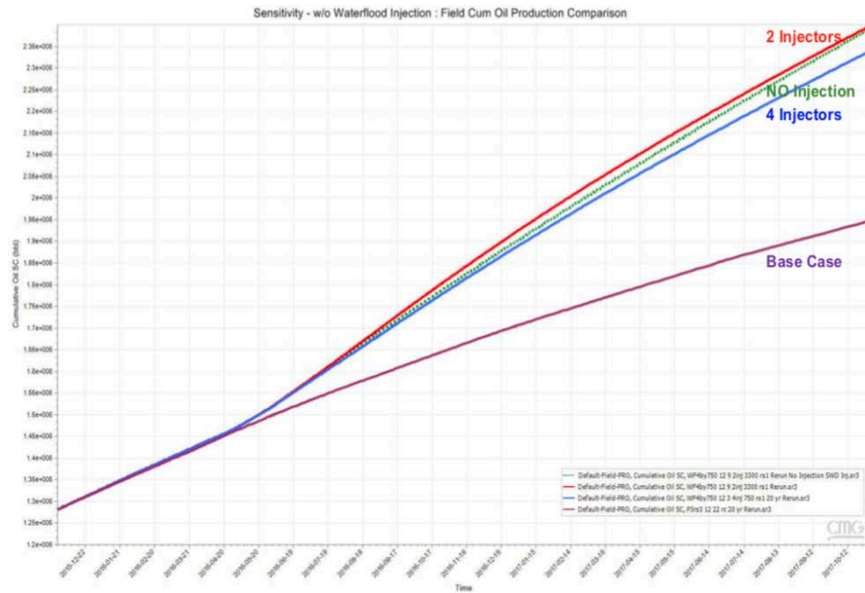
140. iReservoir was tasked with determining if Arikaree Creek was in fact a good candidate for waterflooding utilizing the available data and modelling in light of the results experienced up until that point. Nighthawk, through Dr. Faulder, eventually obtained the model’s input data in CMG (Computer Modelling Group) IMEX software format from Sigma and provided this to iReservoir so it could prepare its own model.

141. iReservoir submitted its deliverable to Nighthawk on November 20, 2017. iReservoir concluded that the Arikaree Creek Field was not a suitable candidate for waterflooding, thus contradicting the core finding of Sigma’s report and underlying model.

⁶ In early 2018, Migl, Bloomfield, and the rest of Sigma’s Englewood, Colorado office, separated from Sigma and reformed Apex Petroleum Engineering, the company that Sigma acquired in March 2012.

142. iReservoir later performed a forensic technical review of Sigma’s reservoir simulation model, which is discussed below. The review confirmed that while the geologic model handed off to Sigma was sound, Sigma’s reservoir simulation model contained critical unjustifiable assumptions and data alterations that resulted in an unreliable and unrealistic production forecast for the waterflood.

143. First and foremost, iReservoir ran Sigma’s model while turning off the key water injection variables of injection rate and bottom hole pressure—*i.e.*, with no waterflood—which Mr. Bloomfield admitted to “dialing in” to generate the increased production forecast. The production forecasted with water injection turned off should have resulted in a deep decline in forecasted production, similar to what the base case (do nothing) scenario predicted. However, ***the forecasted production with the waterflood turned off produced a nearly identical forecast to what Sigma’s model predicted with the waterflood turned on***, as shown in the charts below:



144. iReservoir thus concluded that there was “no true waterflood response” and that Sigma’s “predicted oil response is an artifact of their prediction model assumptions” of an inordinately high liquid injection rate of 1,000 bbl/day and an unjustifiably low bottom hole pressure of 28 psi. Stated more succinctly, the forecasted production increase was a direct response to the faulty inputs that Sigma generated, not to any waterflood. Consequently, as iReservoir noted, Sigma’s model was “fatally flawed and useless.”

145. There were other significant errors iReservoir observed that would have made the model seriously flawed even if the fatal errors discussed above had not been made. Sigma committed various “assumption and initialization errors in setting up the Sigma3 CMG flow-simulation models, all of which contributed to over predicting a waterflood oil response.” These included alterations to PVT (fluid pressure-volume-temperature), OWC (oil water contact level), OOIP (original oil in place), aquifer size and aquifer connectivity data contained in Ms. Tilden’s geologic model. “These early CMG model changes”—which Mr. Bloomfield admitted to improperly altering—“affected future waterflood prediction cases.”

146. More granularly, iReservoir’s review observed the following serious errors that Sigma committed in the course of the history matching process and initialization of the forecast model:

- Sigma’s waterflood model was initialized with an incorrect oil-water contact (OWC) level of -2,907 feet true vertical depth subsea (TVD) instead of the correct -2,892 feet TVD obtained from well log analysis.⁷ This resulted in showing considerably more oil in place in the reservoir than really existed.
- Sigma’s model used an infinite-acting Carter-Tracy aquifer water influx model connected to all bottom cells (when it should have used a Fetkovitch model), and it did not take into account the existence of numerous faults in the formation that allowed vertical fluid migration at various points. This enabled the model to show greater water influx into the formation than could have occurred in reality.
- Sigma’s model improperly included oil in place from the layers of rock above the Spergen formation, which caused the model to predict that more oil could be forced out by the waterflood than was really possible.
- Sigma’s model modified the permeability data locally near the producing wells at various times to achieve matches on historical oil and water production rates. This permeability data is a static reservoir property and cannot be altered across time. This manipulation allowed the model to predict that the areas near the wells could take in more oil than they really could.
- Sigma’s model set vertical permeability data equal to horizontal permeability data, meaning that fluid would flow vertically as easily as it would flow horizontally. This alteration was unsupportable because it did not take into account that the underground

⁷ This difference of 15 feet, which is quite substantial and egregious in the eyes of experienced reservoir engineers, is nearly double the difference to which Mr. Bloomfield admitted overstating at the September 5, 2017 meeting.

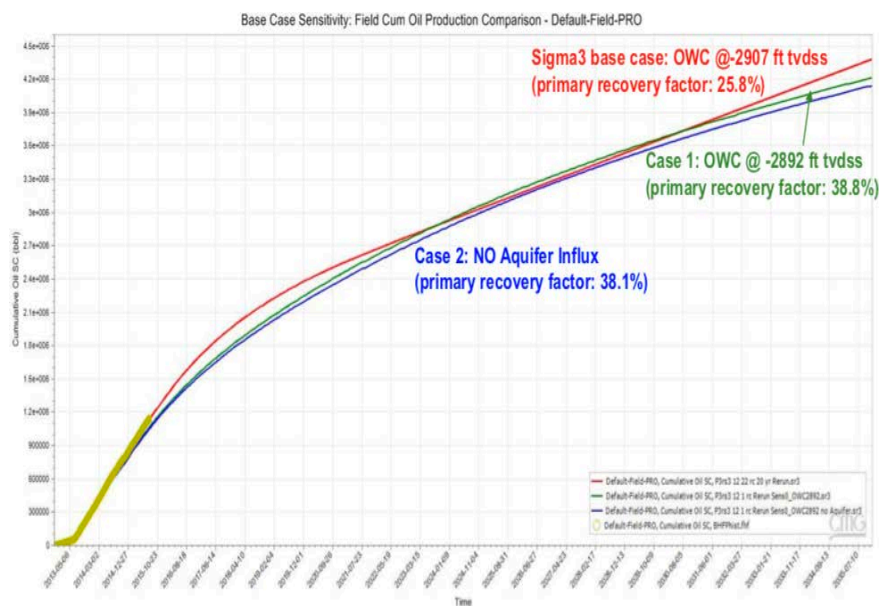
rock stratigraphy was heterogeneous and thus necessarily would prevent a perfectly homogeneous flow. This alteration enabled the model to allow for a greater pressure support from underlying aquifer layers of the formation than actually could happen.

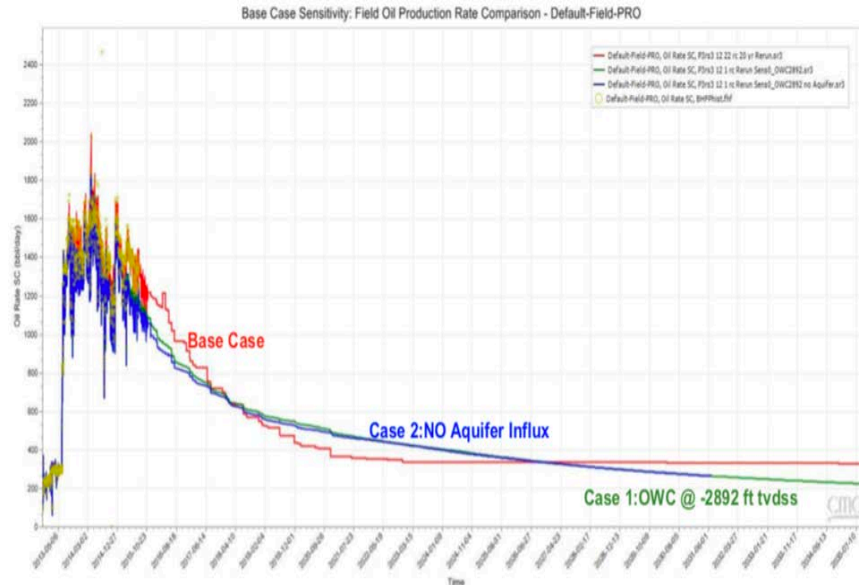
147. iReservoir re-ran Sigma’s model two additional times after correcting for the two most significant errors described immediately above—the wrong OWC level and the inappropriate aquifer water influx model. The results for each run confirmed once again that Arikaree Creek was incapable of an improved production response from a waterflood.

148. On the first corrected run, iReservoir used the proper OWC depth and removed the upper non-Spergen zone rock layers above the Tripolite layers. These changes resulted in a reduction of the total OOIP stated in Sigma’s report by about 46% and caused the corrected run to predict a primary oil recovery of 4.215 million stock tank barrels of oil (or a 38.8% recovery factor, which did not represent a meaningful increase over the true base case recovery factor).

149. On the second corrected run, iReservoir did not utilize the infinite-acting Carter-Tracy aquifer influx model and, thus, attach the underlying aquifer contemplated by that model. This change caused the corrected run to predict a primary oil recovery of 4.146 million stock tank barrels of oil (or a 38.1% recovery factor), a substantially similar result to that of the first corrected run.

150. The production forecasted by the two corrected runs are remarkably similar to the production forecasted in the base case (do nothing) primary recovery scenario, as shown in the charts below:





151. The first two corrected runs predicted higher primary oil recoveries than what is typically seen in carbonate reservoirs. This observation confirmed to iReservoir that Sigma’s modelling of the Arikaree Creek field was too homogeneous and did not properly take into account the heterogeneity of vertical permeability causing restricted fluid flow through complex rock stratigraphy (as discussed above).

152. As a result of the critical errors iReservoir found that Sigma committed—most if not all of which Mr. Bloomfield admitted at the September 5, 2017 meeting—iReservoir independently concluded that Sigma’s model unrealistically predicted a high incremental oil recovery for the waterflood.

153. These may seem like complex considerations to a layperson, but to a company like Sigma that ostensibly specializes in this type of work, these failures are indefensible and would have happened only due to a willful and wanton disregard of the data and the way in which a reservoir simulation model is properly conducted.

154. No oil and gas company, including Nighthawk, ever would have pursued a project with such a poor production forecast, nor would the COGCC ever have allowed anyone to pursue such a project.

Nighthawk Files for Bankruptcy

155. In the Spring of 2017, Nighthawk began to experience difficulties obtaining additional funding that was predicated on a successful waterflood. Around this time, the waterflood had produced a slight uptick in production, still giving Nighthawk some hope the best was yet to come.

156. On April 4, 2017, Nighthawk CFO Kurtis Hooley updated Damien Podagiel, a CBA representative, on the status of Nighthawk’s refinancing efforts. Mr. Hooley noted that while “[w]e currently have three parties interested in” partnering with the company on the loan refinancing,” “results from the initiated water flood project are imperative in getting the facility in place.” Hooley further noted that “[t]wo of the parties have again expressed interest at the PDP level [\$24,608,000] if

CBA was willing to take a haircut on the balance,” and that “the Company holds out hope, however slight, that CBA might continue to be our banking partner going forward.”

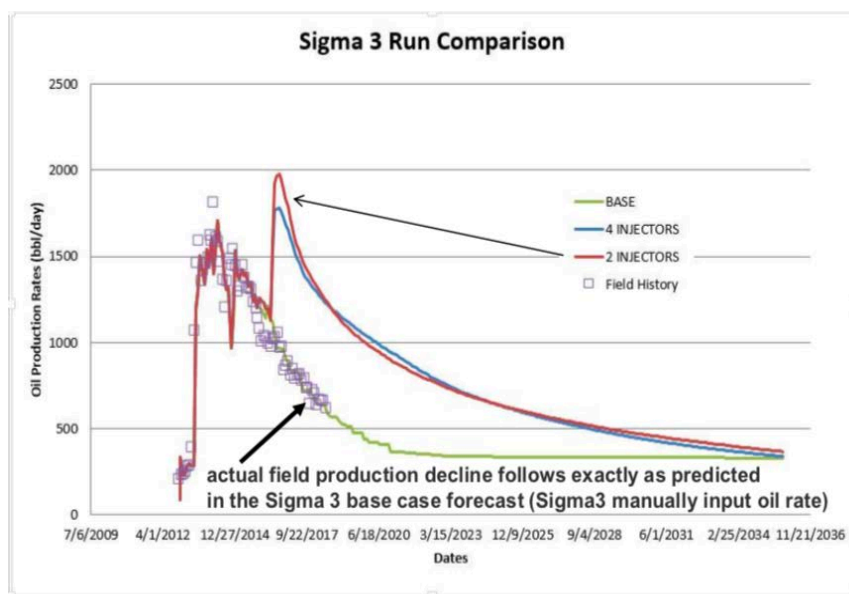
157. On April 18, 2017, another CBA employee, Parker Laville, responded to Mr. Hooley, referring initially to the original Credit Agreement dated Sept. 24, 2014 between Nighthawk and CBA as sole lender. He stated that “since at least November 2015, CBA has made numerous accommodations to facilitate [Nighthawk’s] effort to improve its struggling financial and operational position,” including “amendments to the Credit Agreement to enable [Nighthawk] to raise subordinated capital and develop [Nighthawk’s] water flood pilot project.” He further stated that given the “maturity date fewer than three months away, CBA is disappointed to learn that [Nighthawk] has not arranged the financing necessary to repay the obligations owing under the Credit Agreement in full,” and concluded that CBA was “unwilling to enter into any financing transaction that results in a repayment of the obligations at less than par value . . . on or prior June 30, 2017 in accordance with the express contractual requirements of the Credit Agreement.”

158. Not experiencing the forecasted rise in production going into the Summer of 2017, Nighthawk could not obtain the additional financing, making CBA increasingly concerned about the waterflood’s viability and the impact it would have on Nighthawk’s ability to repay its loan balance.

159. The breaking point for CBA came when it learned that the waterflood was not producing as Sigma had forecasted. Soon afterwards, CBA pulled its funding for all Nighthawk projects, including the development of a drilling project in the nearby Broken Spear Field, and moved to call in its outstanding loans and recoup as much money as it could from Nighthawk.

160. This event quickly forced Nighthawk to begin taking the necessary steps to wind down its business operations. Nighthawk filed for Chapter 11 bankruptcy protection in federal bankruptcy court in Delaware on May 15, 2018.

161. A review of publicly available production data from the mid-2018 timeframe confirmed the complete failure of the waterflood:



162. On November 28, 2018, the bankruptcy court entered an order confirming Nighthawk's operative Chapter 11 bankruptcy plan, establishing a Liquidating Trust to recover all assets and receivables available to satisfy Nighthawk's outstanding debts, and appointing a Liquidating Trustee to effectuate the liquidating trust's purpose.

163. On February 6, 2019, Nighthawk's Chapter 11 bankruptcy plan became effective, substantially all of the Debtors' assets were transferred to the Liquidating Trust, and the Liquidating Trustee was appointed to pursue any existing or potential causes of action on behalf of the debtors and their estates.

Nighthawk Detrimentially Relied on Sigma's Misconduct

164. If Sigma had not willfully and wantonly disregarded its obligations under the contract and informed Nighthawk that the Arikaree Creek Field was not a good candidate for waterflooding—rather than manipulating key data and making unreasonable assumptions to “dial in” an unrealistic production forecast—Nighthawk (and any reasonable company in its position for that matter) would not have proceeded with the waterflood and saved a significant amount of expense, time and effort in the process.

165. Nighthawk had another option, which it could have chosen to execute had it been presented with the truth regarding the waterflood's prospects. Nighthawk was considering was drilling several new wells in the Arikaree Creek Field or in the nearby Broken Spear Field. While this option certainly would have cost a meaningful sum—each well would have cost approximately \$1.5 million to complete—it also likely would have generated a respectable continuous revenue stream for numerous years, much like the original wells in Arikaree Creek had. According to Mr. Wilson and supporting Nighthawk documents, the wells under consideration were estimated to produce between 150 to 500 bopd each day and likely could have generated a 30% return on capital even in the face of low oil prices.⁸

166. Sigma's misconduct, however, caused Nighthawk to reasonably believe that the waterflooding option would significantly increase oil production at a lower cost. As a result, Nighthawk chose to pursue this option in lieu of all other ones.

167. Indeed, Nighthawk noted in its December 23, 2015 Prehearing Statement to the COGCC that it “has prudently assessed the economics of additional drilling and concluded a water flood provides superior economics at lower per barrel costs with reduced risk profile than other alternatives.” The filing also stated that the “proposed water flood is expected to increase the recovery factor in the Unit Area from ~15% to approximately 30% to 40%.” These conclusions were directed by Sigma's willfully deficient work.

168. A September 13, 2016 internal Nighthawk “Planning Package for the Arikaree Creek South Pilot Water Flood Project” spoke further to the “superior economics” of the waterflood. This document stated that “[w]e expect production enhancements to begin almost immediately and expect the project to reach peak production around 1500 stb/d for the 30% recovery factor (1605 Mstb)

⁸ Nighthawk, of course, had yet another option: to simply continue with its primary recovery operations. While this option would have generated incrementally less revenue, it would have incurred none of the significant expenses and effort associated with the doomed waterflood endeavor.

sometime in the third or fourth quarter of 2017.” The document concluded: “We expect the Southern Pilot project to drive increased production and reserve growth during 2017. Depending on whether we achieve 30% or 40% ultimate recovery case (we believe 30% is conservative and appropriate for planning but that something closer to 40% is possible), and depending on the classification of reserves (i.e. PDP or probable) our targeted maximum value for the Southern Pilot as of June 30, 2017 yields an approximate value of \$40-42 Million.” Again, these expectations were driven by Sigma’s willfully deficient work.

169. If Sigma had given Nighthawk an accurate picture of Arikaree Creek’s non-existent waterflood potential, Nighthawk would not have applied, or would have pulled its application, for COGCC approval of the project, and it would not have spent significant sums of money implementing and operating the waterflood.

**Nighthawk Reasonably Incurred Substantial Expenses
Proximately Caused by Sigma’s Misconduct**

170. Nighthawk made significant capital and operating expenditures, lost substantial oil production, and incurred other expenses directly attributable to the implementation and operation of waterflooding in the Arikaree Creek Field. Nighthawk incurred these expenses as a direct and proximate result of Sigma’s willful and wanton conduct.

171. The expenses Nighthawk incurred relating to the approval, implementation and operation of the waterflood that are reasonably attributable to Sigma’s misconduct are estimated to total approximately \$10,000,000 at the very least, and very well may substantially exceed this once all relevant information is discovered.

172. Nighthawk’s former Operations Manager, Harold Mayland, was directly involved with tracking and approving expenses that Nighthawk incurred for the waterflood project. Mr. Mayland prepared the following spreadsheet documenting the categories and amounts of these expenses:

| CAPEX COST INCURRED IN WATERFLOOD | | | |
|--|------------------------------------|-------------|------------------------|
| Well conversion, rig work | | | |
| | | AFE | |
| | Blackcomb 12-14 | WF 16-14 | 387,446 |
| | Snow Bird 16-15 | WF 16-15 | 148,674 |
| | Blackcomb 5-14 | WF 16-18 | 91,141 |
| | Snow Bird 9-15 | WF 16-23 | 86,264 |
| Facilities | | | |
| | Propane facility | WF 16-24 | 338,095.55 |
| | Trenching, pipe, pumps, electrical | WF 16-25 | 1,464,513.25 |
| | Tanks, Free wtr KO | WF 17-12 | 90,260.00 |
| Buildings to house jet pump and injectors | | | |
| | 4- buildings | | 53,521.00 |
| | Freight | | 18,110.00 |
| | | Total Capex | \$ 2,678,024.80 |

| OPEX COST INCURRED IN WATER FLOOD | | | |
|---|------------------------------|--------------|------------------------|
| Engineering | | | |
| | ISBC | WF 16-22 | 9,800.00 |
| | Sigma 3 | | 347,230.00 |
| | | | |
| | | | |
| Rentals | | | |
| | Pumping/polymer | SNF | 983,495.96 |
| | Jet Pumps | Acc/Ferguson | 292,757.17 |
| | Micro-turbine generator | Horizon | 833,604.40 |
| | Heaters | | |
| | | | |
| Polymer | | | |
| | SNF | | 983,495.96 |
| | | | |
| ROW | | | |
| | County | | 1,000.00 |
| | LTE/ Corp of Engineers | | 6,489.07 |
| | Land owners/pipelines | | 16,560.00 |
| | | | |
| Special Provisions | | | |
| | Rorhbaugh make whole | | 1,920,000.00 |
| | Whipple/Knutson | | 1,290.00 |
| | MBA Arkansas | | 48,607.50 |
| | | | |
| Professional fees | | | |
| | Fall Line Energy | | 73,939.00 |
| | Homestead Resources | | 393,212.55 |
| | Beaty & Wozniak PC | | 240,599.34 |
| | i Reservoir | | 120,000.00 |
| | Johnson Matthey/Tracercro | | 30,760.00 |
| | LTE Enviromental | | 5,199.07 |
| | Algonquin Resources | | 18,985.36 |
| | | | |
| Propane costs | | | 327,250.00 |
| | | | |
| | | | |
| Reset Pumping units | | | |
| Decomission plant | Colorado Construction | | 12,198.00 |
| | | | |
| Conversion costs jet pump back to rod pump | | | |
| | Blackcomb 5-14 | | 32,980.00 |
| | Snowbird 9-15 | | 48,173.00 |
| | | | |
| | | Total Opex | \$ 6,747,626.38 |

173. Mr. Mayland also calculated the value of the oil that Nighthawk lost from converting the Snowbird 16-15 and Blackcomb 12-14 producing wells to injector wells, from the inception of the waterflood in early 2017 to November 30, 2017 and at \$40/bbl. This amount totaled \$482,112.00.

174. Nighthawk incurred additional damages due to Sigma's misconduct that will be proven in due course. These include penalties and fees it paid to CBA as a result of the delays experienced

with executing and seeing positive results from the waterflood project, professional fees it paid to Carl Marks Advisors (an energy consulting firm CBA mandated Nighthawk hire to monitor the waterflood results), and additional legal fees it paid its law firm, Beatty & Wozniak, to seek approval from the COGCC to conduct the waterflood and to pursue the investigation of Sigma's work and related potential litigation. These also include lost profits that it reasonably could have earned from pursuing the alternative option of drilling new wells in or around Arikaree Creek.

Nighthawk's Waterflood Expenses Were Foreseeable To Sigma

175. The waterflood expenses that Nighthawk reasonably and directly incurred due to Sigma's misconduct were reasonably foreseeable to Sigma at the time of execution and during the performance of the contract.

176. Given Sigma's experience in the oil and gas industry as a frequent provider of reservoir modelling services to energy companies like Nighthawk, it knew or should have known that Nighthawk would incur the types of expenses detailed above.

177. Sigma personnel, moreover, had numerous communications and meetings with Nighthawk personnel and third parties from the inception of the project through the September 5, 2017 meeting which put them on notice that Nighthawk was incurring and would continue to incur these types of expenses related to the waterflood project.

178. The following expenses Nighthawk reasonably incurred as a direct result of Sigma's misconduct were foreseeable to Sigma at the time of execution and during its performance on the contract:

- a. obtaining regulatory approval from the COGCC to proceed with the waterflood;
- b. implementing and operating the waterflood project in the Arikaree Creek Field;
- c. lost production revenue from the producing wells Sigma advised Nighthawk to convert to injection wells;
- d. penalties related to the CBA loan agreement Nighthawk had to refinance; and
- e. professional fees Nighthawk incurred, including legal, investment bank, and energy consulting fees, following the waterflood's disappointing initial results.

179. Nighthawk also did not pursue the alternative path of drilling new wells in or around Arikaree Creek as a direct result of Sigma's misconduct. This lost opportunity and the profits that would have come with it were foreseeable to Sigma at the time of execution and during its performance on the contract.

CLAIM FOR RELIEF Willful and Wanton Breach of Contract

180. Plaintiff incorporates and realleges Paragraphs 1 through 179 above.

181. The Master Service Agreement, under the section titled “Applicable Law and Venue,” provides that “[t]his Agreement shall be construed and interpreted in accordance with the laws of the State of Colorado, exclusive of any conflicts of laws principles which would direct application of the substantive laws of another jurisdiction.”

182. “Colorado recognizes an action for willful and wanton breach of contract.” *Core-Mark Midcontinent, Inc. v. Sonitrol Corp.*, 300 P.3d 963, 969-71 (Colo. App. 2012) (collecting cases).

183. A party to a contract cannot use a limitation of liability provision to insulate itself from liability and damages caused by willful and wanton misconduct, including a willful and wanton breach of contract. *See, e.g., id.*

184. To prevail on a willful and wanton breach of contract claim under Colorado law, a plaintiff must show by a preponderance of the evidence:

- a. the existence of a contract;
- b. the plaintiff substantially performed its obligations under the contract;
- c. the defendant failed to substantially perform its obligations under the contract;
- d. the defendant’s failure was intentional or reckless; and
- e. the resulting damages the plaintiff suffered, which were foreseeable at the time of the contract and were a natural and probable result of the breach.

185. Each element of this claim is satisfied.

186. *First*, a contract, memorialized in the Proposal and subsequent Master Service Agreement, existed. This contract governed the parties’ rights and obligations concerning the reservoir simulation model that Sigma promised to deliver to Nighthawk in connection with its contemplated waterflood project.

187. *Second*, Nighthawk materially performed all of its obligations under the terms of the contract. Sigma has never claimed otherwise, nor could it. Nighthawk gave Sigma all the required data and other support Sigma needed to complete the reservoir simulation model, and it paid Sigma the money it owed to Sigma on a timely basis.

188. *Third*, Sigma failed to perform material obligations under the contract. As detailed above, the Sigma employee who constructed the reservoir simulation model manipulated key input data and made unjustifiable assumptions for the model, in violation of multiple terms of the contract’s “Scope of Work” and “Project Tasks” sections, among others. Indeed, this Sigma employee admitted, and subsequent third-party forensic analysis confirms, that he did not honor various key data sets and other characteristics of the reservoir in preparing the model. Instead, he manipulated the data and committed other critical misassumptions to make the model work and produce a deliverable that Nighthawk believed was the product of honest and good faith adherence to its obligations under the contract.

189. Nighthawk, by the same token, did not substantially receive the benefit of the bargain pursuant to the contract. Sigma disregarded the main tenets voiced in the “Scope of Work” section of the contract and failed to perform various specified “Project Tasks” in the contract. The ultimate model that Sigma promised to deliver under the terms of the contract was fatally flawed and useless. Nighthawk engaged Sigma to provide it with a reliable model based on actual, existing data and employing valid and reliable methodologies that it could use to determine which, if any, reservoir enhancement strategy to pursue. Nighthawk received none of this.

190. *Fourth*, Sigma’s failure was intentional or, at a minimum, grossly reckless. The key Sigma employee working on the project expressly admitted to multiple Nighthawk personnel, after the fact and only after being confronted, that he disregarded and intentionally altered key sets of data to the model and applied unsupportable assumptions to make the model appear to work and produce desired results. The same employee also admitted that the forecast production curves associated with the waterflood were unrealistic, further demonstrating that Sigma knew at the time it submitted the model to Nighthawk that the model was not prepared pursuant to the terms of the contract and would not increase production as predicted. Subsequent third-party forensic analysis of the model confirms that Sigma committed this misconduct and that proper modelling would have confirmed that Arikaree Creek was not a good candidate for waterflooding.

191. *Fifth*, Nighthawk suffered substantial damages as a proximate result of Sigma’s misconduct, including at least the following:

- a. money paid to Sigma for its work on the reservoir simulation model;
- b. fees paid to lawyers and other professionals for their work in securing approval from the COGCC for the waterflood project;
- c. capital expenditures (CAPEX) related to implementing and operating the waterflood project in Arikaree Creek;
- d. operational expenditures (OPEX) related to implementing and operating the waterflood project in Arikaree Creek;
- e. lost production revenue from the producing wells that Nighthawk converted to injection wells for the waterflood;
- f. financial penalties Nighthawk incurred related to its loan arrangement with CBA that had to be restructured and ultimately cancelled;
- g. professional fees, including legal, investment bank, and energy consulting fees; and
- h. lost profits from the drilling program that it chose to forgo in favor of the waterflood project.

192. *Finally*, the damages that Nighthawk suffered were foreseeable to Sigma at the time of the contract and its performance in light of Sigma’s experience in the industry and actual knowledge of the types of expenditures Nighthawk would incur in connection with the waterflood.

193. Sigma, as a provider of these types of consulting services, knew or should have known that Nighthawk would rely on the model's forecasts to decide whether to proceed with the waterflood, to incur expenses to obtain regulatory approval for the waterflood, to incur expenses to implement and operate the waterflood, and to incur the other expenses listed above reasonably necessary to effectuate the foregoing.

194. Sigma knew in fact, based on meetings and other communications it had with Nighthawk personnel during the performance of the contract, that that Nighthawk would rely on the model's forecasts to decide whether to proceed with the waterflood, to incur expenses to obtain regulatory approval for the waterflood, to incur expenses to implement and operate the waterflood, and to incur the other expenses listed above reasonably necessary to effectuate the foregoing.

FRAUDULENT CONCEALMENT AND EQUITABLE TOLLING

195. Plaintiffs have three years from the date of an alleged breach to bring a breach of contract claim under Colorado law, *see* C.R.S. § 13-80-101(a)(a), unless the doctrine of equitable tolling applies to the statute of limitations.

196. Equitable tolling applies where a defendant wrongfully impedes a plaintiff's ability to bring the claim in timely manner.

197. A defendant wrongfully impedes a plaintiff's ability to bring a claim on a timely basis where it makes the plaintiff ignorant of, or fraudulently conceals, relevant facts that would prejudice the decision whether to file an action. *Dean Witter Reynolds, Inc. v. Hartman*, 911 P.2d 1094, 1096 (Colo. 1996).

198. The elements of fraudulent concealment are: (1) the concealment of a material existing fact that in equity and good conscience should be disclosed; (2) knowledge on the part of the party against whom the claim is asserted that such a fact is being concealed; (3) ignorance of that fact on the part of the one from whom the fact is concealed; (4) the intention that the concealment be acted upon; and (5) action on the concealment resulting in damages. *First Interstate Bank of Fort Collins, N.A. v. Piper Aircraft Corp.*, 744 P.2d 1197, 1200-01 (Colo. 1987).

199. Each element of fraudulent concealment is satisfied.

200. *First*, Sigma concealed the existence of a material fact that it should have disclosed in equity and good conscience when it failed to inform Nighthawk that it disregarded, and manipulated, critical data and important reservoir characteristics it was required to honor in preparing the reservoir simulation model. This concealment—which was admitted by the key Sigma employee and confirmed by forensic analysis—led Nighthawk to believe that the model was the product of reasonable engineering principles and good faith work performed pursuant to the governing contract. This concealment also led Nighthawk to devote a substantial amount of time, money and resources to a project that would fail and lead the company into bankruptcy.

201. *Second*, Sigma knew that this material fact was being concealed. Its point person on the project consciously and intentionally chose to hide this fact, which Sigma was duty-bound to reveal pursuant to the contract, from Nighthawk during Sigma's work on contract, and only admitted to doing so long after the fact when he was confronted about it.

202. *Third*, Nighthawk was ignorant of the concealment until Sigma's point person admitted this during the September 5, 2017 meeting.

203. *Fourth*, Sigma intended that Nighthawk act upon the concealment. Sigma's point person admitted that he manipulated key data inputs and applied critical misassumptions to get the final model to produce desired forecasts that Nighthawk would use to seek permission for and ultimately implement the waterflood in Arikaree Creek.

204. *Finally*, Nighthawk acted on Sigma's concealment by seeking regulatory approval for the waterflood and, following the receipt of such approval, implementing the waterflood. These actions caused substantial monetary damage to Nighthawk.

205. Accordingly, Sigma fraudulently concealed the material facts that would form the basis of Nighthawk's willful and wanton breach of contract claim until at least September 5, 2017. This means that Nighthawk has until September 5, 2020—three years after the discovery of the facts that alerted Nighthawk to the existence of a potential claim against Sigma—to bring this lawsuit.

JURY DEMAND

206. Plaintiff demands a trial by jury on all claims and defenses that may be tried to a jury.

PRAYER FOR RELIEF

Plaintiff prays for entry of judgment in his favor and against Defendant for:

- A. Payment of all monies Plaintiff paid to Defendant pursuant to work performed in connection with the waterflooding project discussed above.
- B. All damages proximately caused by Defendant.
- C. All prejudgment and post-judgment interest allowed by law.
- D. All costs and fees, including attorneys' fees, allowed by law.
- E. Such further relief as the Court deems proper.

Dated: November 26, 2019

BURNS CHAREST LLP

/s/ Christopher J. Cormier

Christopher J. Cormier (#47326)

Daniel Charest

Will Thompson

*Attorneys for Plaintiff Thomas Minick, in his Sole Capacity as
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Royalties LLC and Affiliated Debtors*

Plaintiff's Address

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