KIRKLAND & ELLIS LLP

AND AFFILIATED PARTNERSHIPS

609 Main Street Houston, TX 77002 United States

+1 713 836 3600

www.kirkland.com

June 27, 2023

VIA EDGAR

Attention: Cheryl Brown Irene Barberena-Meissner Mark Wojciechowski John Cannarella

United States Securities and Exchange Commission Division of Corporation Finance Office of Energy & Transportation 100 F Street, NE Washington, D.C. 20549

Re: Kodiak Gas Services, Inc. Amendment No. 4 to Registration Statement on Form S-1 Filed June 20, 2023 File No. 333-271050

Ladies and Gentlemen:

Pursuant to the requirements of the Securities Act of 1933, as amended (the "Securities Act"), Kodiak Gas Services, Inc., a Delaware corporation (the "Company"), has today filed with the Securities and Exchange Commission (the "Commission") Amendment No. 5 to its Registration Statement on Form S-1 (the "Registration Statement") concurrently with the submission of this letter.

On behalf of the Company, we are writing to respond to the comments raised in the letter to the Company, dated June 26, 2023, from the staff of the Division of Corporation Finance of the Commission (the "Staff"). The Company's responses below correspond to the captions and numbers of those comments (which are reproduced below in bold and italics). Where applicable, we have referenced in the Company's responses set forth below the appropriate page numbers of the revised prospectus contained in the revised Registration Statement (the "Prospectus") that address the Staff's comment. Capitalized terms used in this letter but not otherwise defined have the meanings assigned to them in the Prospectus.

Amendment No. 4 to Registration Statement on Form S-1 filed June 20, 2023

Austin Bay Area Beijing Boston Brussels Chicago Dallas Hong Kong London Los Angeles Miami Munich New York Paris Salt Lake City Shanghai Washington, D.C.

KIRKLAND & ELLIS LLP

Securities and Exchange Commission June 27, 2023 Page 2

<u>Prospectus Summary</u> <u>Our Principal Stockholder, page 14</u>

1. We note your disclosure on page 14 explaining that on June 20, 2023, your board of directors approved a 590,000-for-1 stock split, which will take effect in connection with the offering, and it appears that you have various conforming representations of the number of shares that will be outstanding upon completing your offering.

Please revise the historical financial statements to recast the share and per share details in the balance sheets, statements of operations, statements of stockholders' equity, and the notes on pages F-15, F-19, F-43, F-48, and F-49, as necessary to reflect or to describe as applicable the effects of the stock split.

Please similarly revise or provide the corresponding details on page 19 of your Prospectus Summary, page 64 of the Pro Forma Financial Statements, as well as the footnote (1) reference on page 67, and pages 74 and 76 of MD&A.

Response:

We acknowledge the Staff's comment and respectfully advise the Staff that the above-referenced stock split will be effected after the effectiveness of the registration statement. As such, the Company respectfully submits that, in accordance with the guidance contained in ASC 260-10-55-12, a recast of the share and per share details in the historical financial statements and the related notes is not required. Consistent with such guidance, the Company has clarified in the forepart of the prospectus the applicable effects of the stock split on pages ii, 60 and 62.

2

KIRKLAND & ELLIS LLP

Securities and Exchange Commission June 27, 2023 Page 3

We hope that the foregoing has been responsive to the Staff's comments. Should you have any questions relating to any of the foregoing, please feel free to contact the undersigned at (713) 836-3786 or, in the undersigned's absence, Jennifer Wu, P.C. at(512) 678-9150 or Atma Kabad at (713) 836-3364.

Sincerely,

/s/ Matthew R. Pacey, P.C. Matthew R. Pacey, P.C.

 cc: Robert M. McKee (Chief Executive Officer, Kodiak Gas Services, Inc.) John Griggs (Executive Vice President and Chief Financial Officer, Kodiak Gas Services, Inc.) Kelly Battle (Executive Vice President, Chief Legal Officer, Chief Compliance Officer and Corporate Secretary, Kodiak Gas Services, Inc.) Ryan J. Maierson (Latham & Watkins LLP) Ramnik S. Dhesi (Latham & Watkins LLP)

3