
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

SCHEDULE 13D

Under the Securities Exchange Act of 1934

(Amendment No. 6)*

HighPeak Energy, Inc.

(Name of Issuer)

Common Stock, par value \$0.0001

(Title of Class of Securities)

43114Q105

(CUSIP Number)

Jack Hightower
701 Cinnabar Court,
Westworth Village, TX, 76114
(817) 894-2909

(Name, Address and Telephone Number of Person Authorized to Receive Notices and Communications)

09/15/2025

(Date of Event Which Requires Filing of This Statement)

If the filing person has previously filed a statement on Schedule 13G to report the acquisition that is the subject of this Schedule 13D, and is filing this schedule because of §§ 240.13d-1(e), 240.13d-1(f) or 240.13d-1(g), check the following box.

The information required on the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

SCHEDULE 13D

CUSIP No. 43114Q105

Name of reporting person

1

HIGHTOWER JACK

2

Check the appropriate box if a member of a Group (See Instructions)

(a)

(b)

3 SEC use only
Source of funds (See Instructions)

4 OO, BK, PF
5 Check if disclosure of legal proceedings is required pursuant to Items 2(d) or 2(e)

Citizenship or place of organization

6 UNITED STATES

Sole Voting Power

7

13,084,131.00

Number of Shares Beneficially

Shared Voting Power

8

0.00

Owned by Each Reporting

Sole Dispositive Power

9

13,084,131.00

Person With:

Shared Dispositive Power

10

0.00

Aggregate amount beneficially owned by each reporting person

11 13,084,131.00

Check if the aggregate amount in Row (11) excludes certain shares (See Instructions)

12

Percent of class represented by amount in Row (11)

13 9.8 %

Type of Reporting Person (See Instructions)

14 IN

Comment for Type of Reporting Person: 1. Includes (i) 7,117,995 shares of common stock of the Issuer, par value \$0.0001 per share (the "Common Stock"), issuable upon the exercise of stock options that have been vested as of the date hereof and (ii) 1,385,500 shares of restricted stock units that fully vested as of the Mr. Hightower's retirement from the Company, of which 545,195 shares of Common Stock were withheld by the Company to satisfy Mr. Hightower's tax withholding obligations, resulting in a net issuance to Mr. Hightower of 840,305 shares of Common Stock (See Item 3). 2. Includes (i) 2,336 shares of Common Stock beneficially owned by Mr. Hightower's family member. 3. Based on 126,132,288 shares of Common Stock outstanding as of August 31, 2025.

SCHEDULE 13D

Item 1. Security and Issuer

Title of Class of Securities:

(a) Common Stock, par value \$0.0001

Name of Issuer:

(b) HighPeak Energy, Inc.

Address of Issuer's Principal Executive Offices:

(c) 421 W. 3RD STREET, SUITE 1000, FORT WORTH, TEXAS , 76102.

Item 1 Comment: This Amendment No. 6 to the Statement of Beneficial Ownership on Schedule 13D (this "Amendment") amends the Statement of Beneficial Ownership on Schedule 13D filed by Jack Hightower on August 31, 2020, as amended and supplemented from time to time (the "Schedule 13D"), with respect to the Common Stock of the Company. The Schedule 13D is no longer a joint filing with HighPeak Energy Partners, LP, a Delaware limited partnership,

HighPeak Energy Partners II, LP, a Delaware limited partnership and HighPeak Pure Acquisition, LLC, a Delaware limited liability company ("Sponsor" and, together with the foregoing entities, the "HighPeak Funds") and is being filed solely by Mr. Hightower, in his individual capacity. Capitalized terms used but not defined in this Amendment shall have the meanings set forth on the Schedule 13D. Except as amended and supplemented by this Amendment, the Schedule 13D remains unchanged.

Item 2. Identity and Background

- (a) This Schedule 13D is filed by Jack Hightower, a United States citizen. On September 15, 2025, Mr. Hightower retired from managing the HighPeak Funds which collectively own approximately 64.4% of the shares of common stock of the Company. Following Mr. Hightower's retirement, the HighPeak Funds are managed by a committee comprised of Mr. Hollis, Daniel Silver and Ryan Hightower.
- (b) The principal business address of Mr. Hightower is 701 Cinnabar Court, Westworth Village, Texas 76114.
- (c) Retired Executive.
- (d) None.
- (e) None.
- (f) The information from the response in subpart (a) of this section is incorporated by reference herein.

Item 3. Source and Amount of Funds or Other Consideration

This Amendment amends and supplements Item 3 of the Schedule 13D to disclose the following: On December 21, 2022, Mr. Hightower purchased 14,601 shares of Common Stock on the open market in multiple transactions at prices ranging from \$21.94 to \$22.00, inclusive. The weighted average price per share was \$21.98, and the aggregate cash consideration was approximately \$321,000 with a combination of personal and borrowed funds. On December 22, 2022, Mr. Hightower purchased 35,399 shares of Common Stock on the open market in multiple transactions at prices ranging from \$21.67 to \$22.00, inclusive. The weighted average price per share was \$21.88, and the aggregate cash consideration was approximately \$775,000 with a combination of personal and borrowed funds. On January 4, 2023, Mr. Hightower purchased 131,539 shares of Common Stock on the open market in multiple transactions at a price of \$22 per share. The aggregate cash consideration was approximately \$2,894,000 with a combination of personal and borrowed funds. On July 21, 2023, the Company closed an underwritten offering of 14,835,000 shares of Common Stock (the "July 2023 Offering"). In connection with the July 2023 Offering, Mr. Hightower purchased 952,380 shares of Common Stock at the purchase price of \$10.50 per share with a combination of personal and borrowed funds. The Company intends to use the net proceeds from the July 2023 Offering for working capital, including a portion of the currently due accounts discussed in the final prospectus supplement filed with the U.S. Securities and Exchange Commission on July 21, 2023, and to otherwise enhance near-term liquidity. On September 19, 2023, Mr. Hightower purchased 224,001 shares of Common Stock on the open market in multiple transactions at prices ranging from \$16.36 to \$16.75, inclusive. The weighted average price per share was \$16.59, and the aggregate cash consideration was approximately \$3.7 million with a combination of personal and borrowed funds. On September 20, 2023, Mr. Hightower purchased 275,999 shares of Common Stock on the open market in multiple transactions at prices ranging from \$16.32 to \$16.60, inclusive. The weighted average price per share was \$16.55, and the aggregate cash consideration was approximately \$4.6 million with a combination of personal and borrowed funds. On December 21, 2023, Mr. Hightower purchased 50,442 shares of Common Stock on the open market in multiple transactions at prices ranging from \$14.14 to \$14.20, inclusive. The weighted average price per share was \$14.19, and the aggregate cash consideration was approximately \$715,700 in personal funds. On December 22, 2023, Mr. Hightower purchased 100,000 shares of Common Stock on the open market in multiple transactions at prices ranging from \$14.39 to \$14.50, inclusive. The weighted average price per share was \$14.47, and the aggregate cash consideration was approximately \$1.4 million in personal funds. On December 27, 2023, Mr. Hightower purchased 9,315 shares of Common Stock on the open market in multiple transactions at prices ranging from \$14.96 to \$15.00, inclusive. The weighted average price per share was \$15.00, and the aggregate cash consideration was approximately \$137,000 in personal funds. On December 28, 2023, Mr. Hightower purchased 104,715 shares of Common Stock on the open market in multiple transactions at prices ranging from \$14.58 to \$15.00, inclusive. The weighted average price per share was \$14.78, and the aggregate cash consideration was approximately \$1.5 million in personal funds. On December 29, 2023, Mr. Hightower purchased 50,000 shares of Common Stock on the open market in multiple transactions at prices ranging from \$14.62 to \$14.75, inclusive. The weighted average price per share was \$14.69, and the aggregate cash consideration was approximately \$734,000 in personal funds. On August 27, 2024, Mr. Hightower purchased 50,000 shares of Common Stock on the open market in multiple transactions at prices ranging from \$15.34 to \$15.50, inclusive. The weighted average price per share was \$15.50, and the aggregate cash consideration was approximately \$775,000 with a combination of personal and borrowed funds. On August 28, 2024, Mr. Hightower purchased 64,744 shares of Common Stock on the open market in multiple transactions at prices ranging from \$15.23 to \$15.50, inclusive. The weighted average price per share was \$15.41, and the aggregate cash consideration was approximately \$1.0 million with a combination of personal and borrowed funds. On August 29, 2024, Mr. Hightower purchased 17,743 shares of Common Stock on the open market in multiple transactions at prices ranging from \$15.39 to \$15.78, inclusive. The weighted average price per share was \$15.50, and the aggregate cash consideration was approximately \$275,000 with a combination of personal and borrowed funds. On August 30, 2024, Mr. Hightower purchased 17,827 shares of Common Stock on the open market in multiple transactions at prices ranging from \$15.90 to \$15.98, inclusive. The weighted average price per share was \$15.95, and the aggregate cash consideration was approximately \$284,000 with a combination of personal and borrowed funds. On September 3, 2024, Mr. Hightower purchased 36,078 shares of Common Stock on the open market in multiple transactions at prices ranging from \$15.19 to \$15.30, inclusive. The weighted average price per share was \$15.25, and the aggregate cash consideration was approximately \$550,000 with a combination of personal and borrowed funds. On November 8, 2024, Mr. Hightower

purchased 17,262 shares of Common Stock on the open market in multiple transactions at prices ranging from \$13.95 to \$14.10, inclusive. The weighted average price per share was \$14.03, and the aggregate cash consideration was approximately \$ 242,000 with a combination of personal and borrowed funds. With respect to Mr. Hightower's beneficial ownership of the securities of the Company set forth in rows 7 through 13 on the cover page of this Schedule 13D, 3,591,017 shares of Common Stock held by Mr. Hightower directly are pledged to secure bank loans and a portion of Mr. Hightower's interests in HighPeak Energy Partners, LP and HighPeak Energy Partners GP, LP which are entitled to 6,312,015 shares of Common Stock are pledged to secure bank loans and which would be required to be distributed via a pro rata distribution upon any foreclosure of those interests. It is possible that if Mr. Hightower makes additional purchases in the open market directly, he may also pledge those shares to secure bank loans. In connection with Mr. Hightower's retirement, the Company accelerated the vesting of 1,385,500 shares of Mr. Hightower's Restricted Stock (as defined in the Company's Second Amended and awarded under that certain Restricted Stock Agreement, dated November 4, 2021, between the Company and Mr. Hightower), of which 545,195 shares of Common Stock were withheld by the Company to satisfy Mr. Hightower's tax withholding obligations, resulting in a net issuance to Mr. Hightower of 840,305 shares of Common Stock. In connection with Mr. Hightower's retirement from managing the HighPeak Funds, HighPeak Pure Acquisition, LLC agreed to distribute 1,532,478 shares of Common Stock to Mr. Hightower.

Item 4. Purpose of Transaction

This Amendment amends and supplements the first paragraph Item 4 of the Schedule 13D to disclose the following: The response to Item 3 of this Schedule 13D is incorporated by reference herein. Mr. Hightower acquired the Securities for investment purposes.

Item 5. Interest in Securities of the Issuer

- (a) (a) and (b) The information contained in rows 7, 8, 9, 10, 11 and 13 on the cover page of this Schedule 13D is incorporated by reference herein.
- (b) (a) and (b) The information contained in rows 7, 8, 9, 10, 11 and 13 on the cover page of this Schedule 13D is incorporated by reference herein.
- (c) The responses to Item 3 and Item 4 of this Schedule 13D are incorporated by reference herein. Except as disclosed herein, Mr. Hightower has not effected any transactions in Common Stock during the past 60 days.
- (d) This Item 5(d) is not applicable.

SIGNATURE

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

HIGHTOWER JACK

Signature: /s/ Jack Hightower

Name/Title: Jack Hightower

Date: 09/17/2025