

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

SCHEDULE 13D

Under the Securities Exchange Act of 1934

Mach Natural Resources LP

(Name of Issuer)

Common units representing limited partner interests

(Title of Class of Securities)

55445L100

(CUSIP Number)

**William Wallace McMullen
1201 Louisiana Street, Suite 3308,
Houston, TX, 77002
713-400-8200**

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

06/10/2025

(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. 55445L100

1	Name of reporting person BCE-Mach Aggregator LLC
2	Check the appropriate box if a member of a Group (See Instructions) <input type="checkbox"/> (a) <input type="checkbox"/> (b)
3	SEC use only
4	Source of funds (See Instructions) OO

5	Check if disclosure of legal proceedings is required pursuant to Items 2(d) or 2(e) <input type="checkbox"/>	
6	Citizenship or place of organization DELAWARE	
Number of Shares Beneficially Owned by Each Reporting Person With:	7	Sole Voting Power 0.00
	8	Shared Voting Power 74,805,939.00
	9	Sole Dispositive Power 0.00
	10	Shared Dispositive Power 74,805,939.00
11	Aggregate amount beneficially owned by each reporting person 74,805,939.00	
12	Check if the aggregate amount in Row (11) excludes certain shares (See Instructions) <input type="checkbox"/>	
13	Percent of class represented by amount in Row (11) 63.2 %	
14	Type of Reporting Person (See Instructions) OO	

Comment for
Type of
Reporting
Person:

Based on 118,336,367 common units representing limited partner interests ("Common Units") outstanding as of May 2, 2025, as reported by Mach Natural Resources LP (the "Issuer") on its Form 10-Q filed with the U.S. Securities and Exchange Commission (the "Commission") on May 8, 2025.

SCHEDULE 13D

CUSIP No.	55445L100
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1	Name of reporting person Bayou City Energy Management LLC
2	Check the appropriate box if a member of a Group (See Instructions) <input type="checkbox"/> (a) <input type="checkbox"/> (b)
3	SEC use only
4	Source of funds (See Instructions) OO
5	Check if disclosure of legal proceedings is required pursuant to Items 2(d) or 2(e) <input type="checkbox"/>
6	Citizenship or place of organization DELAWARE

Number of Shares Beneficially Owned by Each Reporting Person With:	7	Sole Voting Power 0.00
	8	Shared Voting Power 74,812,939.00
	9	Sole Dispositive Power 0.00
	10	Shared Dispositive Power 74,812,939.00
11	Aggregate amount beneficially owned by each reporting person 74,812,939.00	
12	Check if the aggregate amount in Row (11) excludes certain shares (See Instructions) <input type="checkbox"/>	
13	Percent of class represented by amount in Row (11) 63.2 %	
14	Type of Reporting Person (See Instructions) OO	

Comment for Type of Reporting Person: Based on 118,336,367 common units representing limited partner interests ("Common Units") outstanding as of May 2, 2025, as reported by Mach Natural Resources LP (the "Issuer") on its Form 10-Q filed with the U.S. Securities and Exchange Commission (the "Commission") on May 8, 2025.

SCHEDULE 13D

CUSIP No.	55445L100
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1	Name of reporting person William Wallace McMullen	
2	Check the appropriate box if a member of a Group (See Instructions) <input type="checkbox"/> (a) <input type="checkbox"/> (b)	
3	SEC use only	
4	Source of funds (See Instructions) OO	
5	Check if disclosure of legal proceedings is required pursuant to Items 2(d) or 2(e) <input type="checkbox"/>	
6	Citizenship or place of organization UNITED STATES	
Number of Shares Beneficially Owned by Each Reporting Person With:	7	Sole Voting Power 0.00
	8	Shared Voting Power 74,812,939.00
	9	Sole Dispositive Power 0.00

	10	Shared Dispositive Power 74,812,939.00
11	Aggregate amount beneficially owned by each reporting person 74,812,939.00	
12	Check if the aggregate amount in Row (11) excludes certain shares (See Instructions) <input type="checkbox"/>	
13	Percent of class represented by amount in Row (11) 63.2 %	
14	Type of Reporting Person (See Instructions) IN	

Comment for Type of Reporting Person: Based on 118,336,367 common units representing limited partner interests ("Common Units") outstanding as of May 2, 2025, as reported by Mach Natural Resources LP (the "Issuer") on its Form 10-Q filed with the U.S. Securities and Exchange Commission (the "Commission") on May 8, 2025.

SCHEDULE 13D

Item 1. Security and Issuer

- (a) **Title of Class of Securities:**
Common units representing limited partner interests
- (b) **Name of Issuer:**
Mach Natural Resources LP
- (c) **Address of Issuer's Principal Executive Offices:**
14201 Wireless Way, Suite 300, Oklahoma City, OKLAHOMA , 73134.

Item 2. Identity and Background

- (a) This statement is filed by the entities and persons listed below, all of whom together are referred to herein as the "Reporting Persons":
- (i) BCE-Mach Aggregator LLC ("BCE Aggregator")
 - (ii) Bayou City Energy Management LLC ("BCEM")
 - (iii) William Wallace McMullen ("Mr. McMullen")
- (b) 1201 Louisiana Street, Suite 3308 Houston, Texas 77002
- (c) The principal occupation of Mr. McMullen is acting as the managing partner of BCEM, which indirectly manages BCE Aggregator. Mr. McMullen is also currently serving as a director on the board of directors of the Issuer (the "Board"). BCEM is a fund manager engaged in the purchase, holding and sale of securities for investment purposes.
- (d) No.
- (e) No.
- (f) See responses to Item 6 on each cover page.

Item 3. Source and Amount of Funds or Other Consideration

The information set forth or incorporated by reference in Items 4 and 6 of this Schedule 13D is incorporated by reference into this Item 3.

Item 4. Purpose of Transaction

Prior to the closing of the Issuer's initial public offering (the "IPO"), the Reporting Persons acquired 68,226,633 Common Units in exchange for equity securities of the predecessor of the Issuer. In connection with the IPO, the following agreements were entered into governing certain rights of the Reporting Persons:

(i) the Amended and Restated Agreement of Limited Partnership of Mach Natural Resources LP, which among other things, provided the Reporting Persons (i) customary registration rights and (ii) through its controlling interest in the Issuer's general partner, certain governance rights; and

(ii) the Amended and Restated Limited Liability Company Agreement of Mach Natural Resources GP, LLC (the "GP LLCA"), which governs the board of directors (the "Board") that controls the Issuer. The Reporting Persons have the right to appoint a majority of the Board.

The foregoing descriptions of the Partnership Agreement and GP LLCA do not purport to be complete and are qualified in their entirety by the full text of the respective agreements.

ty by the full text thereof, copies of which are attached as Exhibit 2 and Exhibit 3 hereto, respectively, and incorporated herein by reference.

In December 2024, the Reporting Persons purchased an additional 899,487 Common Units in open market transactions, at prices ranging from \$14.61 to \$15.75 per Common Unit. On February 7, 2025, the Reporting Persons purchased an additional 5,161,290 Common Units in an underwritten offering at a price of \$15.50 per Common Unit. All such Common Units were previously reported on a Schedule 13G filed by the Reporting Persons on November 2, 2023, and as subsequently amended on May 13, 2025. The information set forth or incorporated by reference in Item 5(c) of this Schedule 13D is incorporated by reference into this Item 4.

The Reporting Persons or their affiliates intend to review their investment in the Issuer on an ongoing basis and may seek to increase or decrease their position in the issuer including purchasing additional Common Units and/or other equity, debt, notes or other financial instruments related to the Issuer. In addition, the Reporting Persons or their affiliates may seek to sell or otherwise dispose of some or all securities of the Issuer, including the reported Common Units and/or other equity, debt, notes or other financial instruments related to the Issuer or Common Units (which may include rights or securities exercisable or convertible into securities of the Issuer), and/or acquire some or all of such Issuer securities or financial instruments (which may include distributing some or all of such securities to such Reporting Person's respective members, stockholders, partners or beneficiaries, as applicable, transferring shares of common stock to affiliated transferees, or the entry into a total return swap, asset swap or repurchase transaction) from time to time, in each case, in open market or private transactions, block sales or otherwise. The Reporting Persons or their affiliates may engage from time to time in ordinary course transactions with financial institutions with respect to the securities described herein.

Any transaction that any of the Reporting Persons or their affiliates may pursue may be made at any time and from time to time without prior notice and will depend on a variety of factors, including, without limitation, the price and availability of the Issuer's securities or other financial instruments; an ongoing evaluation of the Issuer's business, financial condition, operations and prospects; general industry and economic conditions; the securities markets in general; tax considerations; the Reporting Persons' or such affiliates' trading and investment strategies, other investment and business opportunities, applicable legal and/or contractual restrictions and liquidity requirements; and other factors deemed relevant by such Reporting Persons and such affiliates.

Item 5. Interest in Securities of the Issuer

- (a) The information set forth in lines 11 and 13 of each of the cover pages hereto is incorporated by reference into this Item 5.
- (b) The information set forth on lines 7 through 10 of each of the cover pages hereto is incorporated by reference into this Item 5.

74,805,939 of the reported securities are directly held by BCE Aggregator, which is indirectly managed by BCEM. Mr. McMullen is the managing partner of BCEM. Accordingly, each of the Reporting Persons may be deemed to share voting and investment control, and therefore beneficial ownership, of the reported securities.
- (c) During the prior 60 days, the Reporting Persons have effected the following transactions related to the Common Units:

June 10, 2025: purchased 79,218 Common Units at a weighted average price per unit of \$13.58.
June 11, 2025: purchased 72,411 Common Units at a weighted average price per unit of \$14.01.
June 12, 2025: purchased 93,500 Common Units at a weighted average price per unit of \$ 14.29.
June 13, 2025: purchased 135,500 Common Units at a weighted average price per unit of \$14.72.
June 16, 2025: purchased 144,900 Common Units at a weighted average price per unit of \$14.96.
- (d) Except as otherwise described in this Schedule 13D, no other person has the right to receive or the power to direct the receipt of dividends from, or the proceeds from the sale of, securities covered by this Schedule 13D.
- (e) Not applicable.

Item 6. Contracts, Arrangements, Understandings or Relationships With Respect to Securities of the Issuer

The information set forth or incorporated by reference in Item 4 of this Schedule 13D is incorporated by reference into this Item 6.

Item 7. Material to be Filed as Exhibits.

- 1 Joint Filing Agreement.
- 2 Amended and Restated Agreement of Limited Partnership of Mach Natural Resources LP (incorporated by reference to Exhibit 3.1 of the Partnership's Form 8-K filed on October 27, 2023).
- 3 Amended and Restated Limited Liability Company Agreement of the General Partner (incorporated by reference to Exhibit 3.3 of the Partnership's Form 10-Q filed on December 7, 2023).

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.

BCE-Mach Aggregator LLC

Signature: /s/ William W. McMullen
Name/Title: William W. McMullen, Authorized Signatory
Date: 06/17/2025

Bayou City Energy Management LLC

Signature: /s/ William W. McMullen
Name/Title: William W. McMullen, Authorized Signatory
Date: 06/17/2025

William Wallace McMullen

Signature: /s/ William W. McMullen

Name/Title: William W. McMullen

Date: 06/17/2025

JOINT FILING AGREEMENT

This will confirm the agreement by and among the undersigned that the Schedule 13D filed with the Securities and Exchange Commission on or about the date hereof with respect to the beneficial ownership by the undersigned of the Common Units representing limited partner interests of Mach Natural Resources LP (this “Agreement”), is being filed, and all amendments thereto will be filed, by BCE-Mach Aggregator LLC as designated filer on behalf of each of the persons and entities named below that is named as a reporting person in such filing in accordance with Rule 13d-1(k) under the Securities Exchange Act of 1934, as amended. This Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

Dated: June 17, 2025

BCE-MACH AGGREGATOR LLC

/s/ William W. McMullen

Name: William W. McMullen

Title: Authorized Signatory

BAYOU CITY ENERGY MANAGEMENT LLC

/s/ William W. McMullen

Name: William W. McMullen

Title: Managing Partner

/s/ William W. McMullen

Name: William W. McMullen