

As filed with the Securities and Exchange Commission on March 30, 2023

Registration No. 333-227321
Registration No. 333-240198

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549**

**POST-EFFECTIVE AMENDMENT TO
FORM S-8 REGISTRATION STATEMENTS
UNDER THE SECURITIES ACT OF 1933**

KLX ENERGY SERVICES HOLDINGS, INC.

(Exact Name of Registrant as Specified in Its Charter)

Delaware
(State or Other Jurisdiction
of Incorporation or Organization)

36-4904146
(I.R.S. Employer
Identification No.)

**3040 Post Oak Boulevard, 15th Floor,
Houston, TX 77056
(832) 844-1015**

(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

KLX ENERGY SERVICES HOLDINGS, INC. EMPLOYEE STOCK PURCHASE PLAN
(Full title of the plan)

Christopher J. Baker
President, Chief Executive Officer and Director
3040 Post Oak Boulevard, 15th Floor,
Houston, TX 77056
(832) 844-1015

(Name, address, including zip code, and telephone number, including area code, of agent for service)

Approximate date of commencement of proposed sale to the public: Not applicable

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box.

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Securities and Exchange Commission pursuant to Rule 462(e) under the Securities Act, check the following box.

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer Accelerated filer

Non-accelerated filer Smaller reporting company

Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for comply with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of Securities Act

EXPLANATORY NOTE — DEREGISTRATION OF SECURITIES

Effective December 31, 2022, the KLX Energy Services Holdings, Inc. Employee Stock Purchase Plan (the “Plan”) was terminated. As a result, KLX Energy Services Holdings, Inc., a Delaware corporation (the “Registrant”), is filing this Post-Effective Amendment (this “Post-Effective Amendment”) with respect to the following Form S-8 Registration Statements (collectively, the “Registration Statements”) that relate to the Plan and were previously filed by the Registrant with the Securities and Exchange Commission:

- Form S-8 Registration Statement No. 333-227321 (the “First Registration Statement”), filed on September 13, 2018, that originally registered 200,000 shares of the Registrant’s common stock, par value \$0.01 per share (“Registrant Common Stock”), in respect of the Plan (and also registered additional shares of Registrant Common Stock that do not relate to the Plan); and
- Form S-8 Registration Statement No. 333-240198 (the “Second Registration Statement”), filed on July 30, 2020, that originally registered 300,000 shares of Registrant Common Stock in respect of the Plan.

The Registrant, by filing this Post-Effective Amendment, hereby terminates the effectiveness of the First Registration Statement with respect to the Plan and terminates the effectiveness of the Second Registration Statement entirely and removes from registration any and all shares of Registrant Common Stock that relate to the Plan that are registered but unsold or otherwise unissued under the Registration Statements as of the date hereof. This filing is made in accordance with an undertaking made by the Registrant in Part II of the Registration Statements to remove from registration by means of a post-effective amendment any securities that had been registered for issuance but remain unsold at the termination of the offering. For the avoidance of doubt, this Post-Effective Amendment does not affect the effectiveness of the First Registration Statement with respect to shares of Registrant Common Stock that are registered but do not relate to the Plan.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended (the "Securities Act"), the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this Post-Effective Amendment to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Houston, State of Texas, on March 30, 2023.

KLX ENERGY SERVICES HOLDINGS, INC.

By: /s/ Christopher J. Baker

Name: Christopher J. Baker

Title: President, Chief Executive Officer and Director

Note: Pursuant to Rule 478 of the Securities Act, no other person is required to sign this Post-Effective Amendment to the Registration Statements.