

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

SCHEDULE 13G

UNDER THE SECURITIES EXCHANGE ACT OF 1934

(Amendment No. 5)\*

ENTEGRIS, INC.

-----  
(Name of Issuer)

COMMON STOCK, \$0.01 Par Value

-----  
(Title of Class of Securities)

29362U104

-----  
(CUSIP Number)

October 24, 2011

-----  
(Date of Event which Requires Filing of this Statement)

CHECK THE APPROPRIATE BOX TO DESIGNATE THE RULE PURSUANT TO WHICH THIS SCHEDULE IS FILED:

☐ RULE 13D-1(B)

☒ RULE 13D-1(C)

☐ RULE 13D-1(D)

\*THE REMAINDER OF THIS COVER PAGE SHALL BE FILLED OUT FOR A REPORTING PERSON'S INITIAL FILING ON THIS FORM WITH RESPECT TO THE SUBJECT CLASS OF SECURITIES, AND FOR ANY SUBSEQUENT AMENDMENT CONTAINING INFORMATION WHICH WOULD ALTER DISCLOSURES PROVIDED IN A PRIOR COVER PAGE.

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 (THE "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).

Page 1 of 11 Pages

CUSIP NO. 29362U104  
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1 NAMES OF REPORTING PERSONS  
I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY)

Bay Resource Partners, L.P.

-----  
2 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS)  
(a) ☒

(b) ☐

-----  
3 SEC USE ONLY

-----  
4 CITIZENSHIP OR PLACE OF ORGANIZATION

Delaware

		5	SOLE VOTING POWER	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH			NONE	
	6	SHARED VOTING POWER		
		1,710,100		
		7	SOLE DISPOSITIVE POWER	
			NONE	
		8	SHARED DISPOSITIVE POWER	
			1,710,100	
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON			
			1,710,100	
10	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES [ ] (SEE INSTRUCTIONS)			
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9		1.3%	
12	TYPE OF REPORTING PERSON (SEE INSTRUCTIONS) PN			

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1 NAMES OF REPORTING PERSONS  
I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY)

Bay II Resource Partners, L.P.  
-----

2 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS)  
(a) ☒ [X]  
(b) ☐ [ ]  
-----

3 SEC USE ONLY  
-----

4 CITIZENSHIP OR PLACE OF ORGANIZATION  
-----

Delaware  
-----

5 SOLE VOTING POWER

NUMBER OF  
SHARES  
BENEFICIALLY  
OWNED BY  
EACH  
REPORTING  
PERSON  
WITH

NONE  
-----

6 SHARED VOTING POWER

3,975,900  
-----

7 SOLE DISPOSITIVE POWER

NONE  
-----

8 SHARED DISPOSITIVE POWER

3,975,900  
-----

9 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON  
-----

3,975,900  
-----

10 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES  
[ ] (SEE INSTRUCTIONS)  
-----

11 PERCENTAGE OF CLASS REPRESENTED BY AMOUNT IN ROW 9 3.0%  
-----

12 TYPE OF REPORTING PERSON (SEE INSTRUCTIONS)  
PN  
-----

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-----  
1 NAMES OF REPORTING PERSONS  
I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY)

Bay Resource Partners Offshore Master Fund, L.P.  
-----

2 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS)  
(a) ☒ [X]  
(b) ☐ [ ]  
-----

3 SEC USE ONLY  
-----

4 CITIZENSHIP OR PLACE OF ORGANIZATION  
-----

Cayman Islands  
-----

5 SOLE VOTING POWER

NUMBER OF  
SHARES  
BENEFICIALLY

NONE

OWNED BY  
EACH  
REPORTING  
PERSON  
WITH

6 SHARED VOTING POWER

7,285,000  
-----

7 SOLE DISPOSITIVE POWER

NONE  
-----

8 SHARED DISPOSITIVE POWER

7,285,000  
-----

9 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON  
-----

7,285,000  
-----

10 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES  
[ ] (SEE INSTRUCTIONS)  
-----

11 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9 5.4%  
-----

12 TYPE OF REPORTING PERSON (SEE INSTRUCTIONS)  
PN  
-----

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1 NAMES OF REPORTING PERSONS  
I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY)

GMT Exploration Company LLC

-----  
2 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS)  
(a) ☒

(b) ☐

-----  
3 SEC USE ONLY

-----  
4 CITIZENSHIP OR PLACE OF ORGANIZATION

State of Delaware

-----  
5 SOLE VOTING POWER

NUMBER OF  
SHARES

NONE

BENEFICIALLY  
OWNED BY  
EACH  
REPORTING  
PERSON  
WITH

-----  
6 SHARED VOTING POWER

28,400

-----  
7 SOLE DISPOSITIVE POWER

NONE

-----  
8 SHARED DISPOSITIVE POWER

28,400

-----  
9 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

28,400

-----  
10 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES  
[ ] (SEE INSTRUCTIONS)

-----  
11 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9 0.0%

-----  
12 TYPE OF REPORTING PERSON (SEE INSTRUCTIONS)  
00

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-----  
1 NAMES OF REPORTING PERSONS  
I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY)

GMT Capital Corp.  
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2 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS)  
(a) ☒ [X]  
(b) ☐ [ ]  
-----

3 SEC USE ONLY  
-----

4 CITIZENSHIP OR PLACE OF ORGANIZATION  
-----

State of Georgia  
-----

5 SOLE VOTING POWER

NUMBER OF  
SHARES  
BENEFICIALLY

NONE

OWNED BY  
EACH  
REPORTING  
PERSON  
WITH

6 SHARED VOTING POWER

13,493,600  
-----

7 SOLE DISPOSITIVE POWER

NONE  
-----

8 SHARED DISPOSITIVE POWER

13,493,600  
-----

9 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

13,493,600  
-----

10 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES  
[ ] (SEE INSTRUCTIONS)  
-----

11 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9 10.0%  
-----

12 TYPE OF REPORTING PERSON (SEE INSTRUCTIONS)  
CO  
-----

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1 NAMES OF REPORTING PERSONS  
I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY)

Thomas E. Claugus

-----  
2 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS)  
(a) ☒  
(b) ☐

-----  
3 SEC USE ONLY

-----  
4 CITIZENSHIP OR PLACE OF ORGANIZATION

United States

-----  
5 SOLE VOTING POWER

NUMBER OF  
SHARES 385,300BENEFICIALLY  
OWNED BY  
EACH  
REPORTING  
PERSON  
WITH

-----  
6 SHARED VOTING POWER

13,493,600

-----  
7 SOLE DISPOSITIVE POWER

385,300

-----  
8 SHARED DISPOSITIVE POWER

13,493,600

-----  
9 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

13,878,900

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10 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES  
[ ] (SEE INSTRUCTIONS)

-----  
11 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9 10.3%

-----  
12 TYPE OF REPORTING PERSON (SEE INSTRUCTIONS)

IN

ITEM 1(A) NAME OF ISSUER:  
ENTEGRIS, INC.

ITEM 1(B) ADDRESS OF ISSUER'S PRINCIPAL EXECUTIVE OFFICES:  
  
129 Concord Road  
Billerica, Massachusetts 01821

ITEM 2(a) NAME OF PERSON FILING:

- (i) Bay Resource Partners, L.P. (Bay), with respect to shares of Common Stock directly owned by it.
- (ii) Bay II Resource Partners, L.P. (Bay II), with respect to shares of Common Stock directly owned by it.
- (iii) Bay Resource Partners Offshore Master Fund, L.P. (Offshore Fund) with respect to shares of Common Stock directly owned by it, as the successor to Bay Resource Partners Offshore Fund, Ltd.
- (iv) GMT Exploration Company LLC (GMT Exploration) with respect to shares of Common Stock directly owned by it.
- (v) GMT Capital Corp. (GMT Capital) with respect to shares of Common Stock beneficially owned by it.
- (vi) Thomas E. Claugus, (Mr. Claugus), with respect to the shares of Common Stock directly owned by him and directly owned by each of Bay, Bay II, the Offshore Fund, GMT Capital separate client accounts and GMT Exploration.

The foregoing persons are hereinafter sometimes collectively referred to as the Reporting Persons. Any disclosures herein with respect to persons other than the Reporting Persons are made on information and believe after making inquiry to the appropriate party.

ITEM 2(b) ADDRESS OF PRINCIPAL BUSINESS OFFICE, OR IF NONE, RESIDENCE:  
  
The address of the business office of each of the Reporting Persons is 2300 Windy Ridge Pkwy, Suite 550 South, Atlanta, Georgia 30339.

ITEM 2(c) CITIZENSHIP:  
  
Bay and Bay II are limited partnerships organized under the laws of the State of Delaware. The Offshore Fund is an exempted limited partnership organized under the laws of the Cayman Islands. GMT Exploration is a Delaware limited liability company. GMT Capital is a Georgia corporation. Mr. Claugus is a United States citizen.

ITEM 2(d) TITLE OF CLASS OF SECURITIES:  
Common Stock, \$0.01 par value



ITEM 2(e) CUSIP NUMBER:

29362U104

ITEM 3. IF THIS STATEMENT IS FILED PURSUANT TO SS.240.13D-1(B) OR SS. 240.13d-2(B) or (C), CHECK WHETHER THE PERSON FILING IS A:

- (a) ☐ Broker or dealer registered under section 15 of the Act (15 U.S.C. 78o).
- (b) ☐ Bank as defined in section 3(a)(6) of the Act (15 U.S.C. 78c).
- (c) ☐ Insurance company as defined in section 3(a)(19) of the Act (15 U.S.C. 78c).
- (d) ☐ Investment company registered under section 8 of the Investment Company Act of 1940 (15 U.S.C. 80a-8).
- (e) ☐ An investment adviser in accordance with ss.240.13d-1(b)(1)(ii)(E);
- (f) ☐ An employee benefit plan or endowment fund in accordance with ss.240.13d-1(b)(1)(ii)(F);
- (g) ☐ A parent holding company or control person in accordance with ss.240.13d-1(b)(1)(ii)(G);
- (h) ☐ A savings associations as defined in Section 3(b) of the Federal Deposit Insurance Act (12 U.S.C. 1813);
- (i) ☐ A church plan that is excluded from the definition of an investment company under section 3(c)(14) of the Investment Company Act of 1940 (15 U.S.C. 80a-3);
- (j) ☐ Group, in accordance with ss.240.13d-1(b)(1)(ii)(J).

ITEM 4. OWNERSHIP:

This Amendment No. 5 amends and supplements Amendment No. 4 (Amendment No. 4) to Schedule 13G filed with the Securities and Exchange Commission (SEC) on September 14, 2011, which amended and supplemented Amendment No. 3 (Amendment No. 3) to Schedule 13G filed with the SEC on January 5, 2011, which amended and supplemented Amendment No. 2 (Amendment No. 2) to Schedule 13G filed with the SEC on November 09, 2010, which amended and supplemented Amendment No. 1 (Amendment No. 1) to Schedule 13G filed with the SEC on October 8, 2010, which amended and supplemented the Schedule 13G originally filed with the SEC on September 16, 2010. This Statement is being filed with respect to an aggregate of 13,878,900 shares of Common Stock, resulting in beneficial ownership of Common Stock as follows:

- 1. Bay Resource Partners, L.P.,
    - (a) Amount Beneficially owned: 1,710,100
    - (b) Percent of Class: 1.3%
- The percentages used herein and in the rest of Item 4 are

calculated based on 135,000,973 shares of Common Stock outstanding as of July 19, 2011, as disclosed in the Issuer's Quarterly Report (10-Q) for the quarterly period ended July 2, 2011, filed with the SEC on July 29, 2011.

- (c) (i) Sole power to vote or direct the vote: -0-
- (ii) Shared power to vote or direct the vote: 1,710,100
- (iii) Sole power to dispose or direct the disposition: -0-
- (iv) Shared power to dispose or direct the disposition: 1,710,100

2. Bay II Resource Partners, L.P.

- (a) Amount Beneficially owned: 3,975,900
- (b) Percent of Class: 3.0%
- (c) (i) Sole power to vote or direct the vote: -0-
- (ii) Shared power to vote or direct the vote: 3,975,900
- (iii) Sole power to dispose or direct the disposition: -0-
- (iv) Shared power to dispose or direct the disposition: 3,975,900

3. Bay Resource Partners Offshore Master Fund, L.P.

- (a) Amount Beneficially owned: 7,285,000
- (b) Percent of Class: 5.4%
- (c) (i) Sole power to vote or direct the vote: -0-
- (ii) Shared power to vote or direct the vote: 7,285,000
- (iii) Sole power to dispose or direct the disposition: -0-
- (iv) Shared power to dispose or direct the disposition: 7,285,000

4. GMT Exploration Company LLC

- (a) Amount Beneficially owned: 28,400
- (b) Percent of Class: 0.0%
- (c) (i) Sole power to vote or direct the vote: -0-
- (ii) Shared power to vote or direct the vote: 28,400
- (iii) Sole power to dispose or direct the disposition: -0-
- (iv) Shared power to dispose or direct the disposition: 28,400

5. GMT Capital Corp.

- (a) Amount Beneficially owned: 13,493,600
- (b) Percent of Class: 10.0%
- (c) (i) Sole power to vote or direct the vote: -0-
- (ii) Shared power to vote or direct the vote: 13,493,600
- (iii) Sole power to dispose or direct the disposition: -0-
- (iv) Shared power to dispose or direct the disposition: 13,493,600

6. Thomas E. Clausus

- (a) Amount Beneficially owned: 13,878,900
- (b) Percent of Class: 10.3%
- (c) (i) Sole power to vote or direct the vote: 385,300
- (ii) Shared power to vote or direct the vote: 13,493,600
- (iii) Sole power to dispose or direct the disposition: 385,300
- (iv) Shared power to dispose or direct the disposition: 13,493,600

ITEM 5. OWNERSHIP OF FIVE PERCENT OR LESS OF A CLASS.  
N/A

ITEM 6. OWNERSHIP OF MORE THAN FIVE PERCENT ON BEHALF OF ANOTHER PERSON.

GMT Capital, the general partner of Bay and Bay II, has the power to direct the affairs of Bay and Bay II, including the voting and disposition of shares. As the discretionary investment manager of the Offshore Fund and certain other accounts, GMT Capital has power to direct the voting and disposition of shares held by the Offshore Fund and such accounts. Mr. Claugus is the President of GMT Capital and in that capacity directs the operations of each of Bay and Bay II and the voting and disposition of shares held by the Offshore Fund and separate client accounts managed by GMT Capital. Mr. Claugus is the Chief Executive Officer of GMT Exploration and as such has the power to direct the affairs of GMT Exploration, including the voting and disposition of shares.

ITEM 7. IDENTIFICATION AND CLASSIFICATION OF THE SUBSIDIARY WHICH ACQUIRED THE SECURITY BEING REPORTED ON BY THE PARENT HOLDING COMPANY OR CONTROL PERSON.

N/A

ITEM 8. IDENTIFICATION AND CLASSIFICATION OF MEMBERS OF THE GROUP.  
See Item 2.

ITEM 9. NOTICE OF DISSOLUTION OF GROUP.  
N/A

ITEM 10. CERTIFICATION.

By signing below I certify that, to the best of my knowledge and belief, the securities referred to above were not acquired and are not held for the purpose of or with the effect of changing or influencing the control of the issuer of the securities and were not acquired and are not held in connection with or as a participant in any transaction having that purpose or effect.

SIGNATURE

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

October 26, 2011

/s/ Thomas E. Claugus

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Thomas E. Claugus, for himself  
and as CEO of GMT Exploration  
Company LLC and as President of  
GMT Capital Corp., for itself and  
as the general partner of (i) Bay  
Resource Partners, L.P. and (ii)  
Bay II Resource Partners, L.P.,  
and as the investment manager  
of (iii) Bay Resource Partners  
Offshore Master Fund, L.P. and  
(iv) certain other accounts.

