



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

DIVISION OF  
CORPORATION FINANCE

June 8, 2016

Mail Stop 4631

Via E-Mail

Randy May  
Chief Executive Officer  
Ecoark Holdings, Inc.  
3333 Pinnacle Hills Parkway I Suite 220  
Rogers, AR 72758

**Re: Ecoark Holdings, Inc.  
Amendment No. 1 to Registration Statement on Form S-1  
Filed May 13, 2016  
File No. 333-211045  
Form 10-K for Fiscal Year Ended December 31, 2015  
File No. 000-53361  
Amendment No. 2 to Current Report on Form 8-K filed May 10, 2016  
File No. 000-53361**

Dear Mr. May:

We have reviewed your registration statement and have the following comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter by amending your registration statement and providing the requested information. If you do not believe our comments apply to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing any amendment to your registration statement and the information you provide in response to these comments, we may have additional comments.

Fee Table

1. Please revise your fee table to reflect that the number 8,673,250 reflects the total number of shares of common stock.
2. Please tell us how you determined that the price of the common stock not underlying the warrants would be \$4.00, and clarify which paragraph of Rule 457 you are relying upon to calculate the registration fee. In this regard, we note that these shares may be resold at market prices prevailing at the time of sale, and that, according to your disclosure, the closing price of your Common Stock on May 11, 2016 was \$15.00.

Prospectus Cover Page

3. Please reconcile your disclosure that the closing price of your common stock on May 11, 2016 was \$15.00 with your disclosure on page 17 that the closing price was \$18.00.
4. Please disclose the number of units sold along with the dollar value of the proceeds received by date the proceeds were received. Please refer to your disclosures on pages 4 and F-46.
5. We note your statement that the warrants initially entitle the holders to purchase shares of common stock at an exercise price of \$5 per share. Please expand your disclosure to discuss the instances in which the per share exercise price may be adjusted.
6. Please disclose how you used the proceeds from the unit private placement here and within the Use of Proceeds section on page 16.

Prospectus Summary, page 1

Our Company, page 1

7. Please expand your discussion of Pioneer Products to provide a more descriptive explanation of the products that they sell and/or the services they provide.

Acquisition of Ecoark, Inc., page 1

8. We note your disclosure, "Upon the closing of the Merger Agreement, Ecoark and Magnolia Solar, Inc. will continue as subsidiaries and businesses of Ecoark Holdings." Please revise your disclosure, if true, to reflect the merger as already having closed. Please make similar revisions where appropriate in your registration statement.

The Offering, page 3

9. Please expand the disclosures in footnote 1 to clarify what you mean by the statement that the 36,008,687 shares of common stock outstanding prior to this offering is based on 29,672,062 shares of common stock outstanding.
10. Please reconcile disclosures in the table and footnote (1) as to the number of shares that are outstanding prior to the offering. Based on your disclosure on the cover page that 4,336,625 shares offered by the prospectus are already outstanding, it is unclear why the amount in the table (which includes shares covered by the registration statement) exceeds the amount currently outstanding (as reflected in the footnote) by 6,336,625 shares.

Risk Factors, page 4

We have experienced losses since our founding..., page 4

11. We note your statement that you have funded your operations principally through the sale of capital stock and debt instruments and cash generated from operations. However, we note that Ecoark, Inc., the accounting predecessor as of March 24, 2016, generated negative operating cash flows for all periods presented that far exceed the positive operating cash flows that Magnolia Solar Corporation generated during fiscal year 2015. As such, it is unclear how this statement is an appropriate reflection of your principal funding for your operations. Please revise or advise.

We cannot predict our future results..., page 4

12. Please expand your disclosure to clarify which entity you are referring to as your predecessor. Please also clarify which entity began recognizing revenues in 2012.

Selling Securityholders, page 10

13. We note that the total amount of common shares listed in the table of selling securityholders is less than the total amount of common shares being registered. Please advise.

Market For Our Common Stock, page 17

14. Please revise your disclosure to state that you filed an application for your common stock to be listed on The Nasdaq Capital Market, as indicated in your press release dated May 17, 2016.

Management's Discussion and Analysis of Financial Condition . . . , page 18

15. We note your disclosure on page 19 that you anticipate the Merger will be completed in March 2016. Please reconcile this disclosure with your disclosure on page 1 that the Merger was completed.

Magnolia Solar Results of Operations, page 18

Ecoark Results of Continuing Operations for the Years Ended . . . , page 20

16. Please expand your disclosure throughout these sections to provide more detail regarding the reasons why your results changed between the periods presented for Magnolia Solar and Ecoark. In this regard, we note that you attribute an increase in revenues of Ecoark to "expanded operations, including a significant increase in service revenues and product sales." See Item 303 of Regulation S-K and the Division of Corporation Finance Staff Report on Staff Observations in the Review of Smaller Reporting Company IPOs.

Business, page 22

Business Model, page 23

Ecoark Holdings, page 23

17. Please revise your disclosure describing each of Intellex, Eco3D and Pioneer Products to provide investors with more detail regarding the nature of the products and services offered by each subsidiary and how it generates revenues. In this regard, we note disclosure in MD&A on page 20 that the increase in sales in 2015 was principally due to an increase in the sales of plastic products made from recycled or other material. However, there is no discussion of these products in your business section. It is also unclear who uses your products and services, including the cloud-based data platform and the fresh food management solution, and how. Please revise this section significantly to describe Ecoark's business in greater detail.

Description of Magnolia Solar, Inc., page 23

18. Please revise your disclosure, if material, to include a discussion of the raw materials necessary to Magnolia Solar. See Item 101(h)(4)(v) of Regulation S-K.

Government Subsidies and Incentives, page 26

19. We note your discussion of the risks and challenges associated with solar power in the second paragraph on page 26. Please revise your Risk Factor section to include a discussion of such risks and challenges.

Management, page 28

20. Please revise the biographical descriptions of your directors and significant employees to include the business experience of each director and significant employee during the past five years. See Item 401(e) of Regulation S-K.

Corporate Governance, page 30

21. Please reconcile your disclosure that your board currently consists of five directors with your disclosure on page 28 that you have eight directors.

Corporate Governance Guidelines, page 31

22. Please reconcile your disclosure that your guidelines are reviewed by the nominating and corporate governance committee with your disclosure on page 30 that the board intends to establish a nominating and corporate governance committee.

Certain Relationships and Related Person Transactions, page 33

23. We note your disclosure in the summary compensation table on page 32 that \$173,000 was paid to Landis & Associates PLLC. Please revise your disclosure in this section to include a discussion of such payments to Landis & Associates PLLC and the relationship between Landis & Associates PLLC and Greg Landis. See Item 404 of Regulation S-K.
24. We note your disclosure on page 23 regarding your license agreement with Magnolia Optical, a company controlled by your President and your Chief Financial Officer. Please tell us whether you have considered providing disclosure about this arrangement in the “Certain Relationships . . .” section of the prospectus. Please also file a copy of the license agreement as an exhibit to the registration statement. Please see Item 601(b)(10)(ii)(A) of Regulation S-K.

Consolidated Financial Statements, page F-1

25. Please include updated financial statements for the interim period ending March 31, 2016 and corresponding prior year period in accordance with Article 8-08 of Regulation S-X. As part of updating, please address each of the following:
  - The 1-for-250 reverse stock split should be retroactively reflected in Magnolia Solar Corporation’s historical audited financial statements in accordance with SAB Topic 4:C. For Ecoark, Inc.’s historical audited financial statements, please also retroactively restate the historical equity and loss per share for the equivalent number of shares received in the merger.
  - Include either a separate statement or footnote disclosure for the changes in stockholders’ equity (deficit) per ASC 505-10-50-2 ensuring compliance with the guidance in ASC 805-40-45-2.
  - Include the disclosures required by ASC 805-10-50-4, ASC 805-20-50-3, and ASC 805-30-50-3, as appropriate, for the acquisition of Sable Polymer Solutions, LLC.
26. We note that you completed the acquisition of Sable Polymer Solutions, LLC on May 3, 2016, with the issuance of 2,000,000 shares of common stock. We further note that you have not provided the financial statements required by Article 8-04 of Regulation S-X for this business or pro forma financial information in accordance with Article 11 of Regulation S-X in your Form S-1. Please provide us with the calculations you prepared in accordance with Article 8-04(b) of Regulation S-X that demonstrates none of the conditions exceeded the 20% threshold. In this regard, we note that the closing price of your common stock has ranged between \$15 per share and \$22 per share between March 24, 2016 and May 3, 2016, which would result in a purchase price range of \$30 million and \$44 million.

Note 8 – Commitments and Contingencies, page F-22

27. We note that you owe the contractor that is helping you develop your products \$1,251,885. While we understand that payment of the liability does not occur until you recognize product sales, it is unclear how you determined that this does not meet the definition of a liability that requires recognition in your consolidated financial statements. Please provide us with your analysis of your accounting of the costs for the services provided to you, including the specific reference to the authoritative literature that supports your accounting.

Consolidated Statements of Operations, page F-30

28. We note your line item, Salaries and salary related costs, including stock based compensation. Please tell us if you have included these types of costs in cost of product sales and cost of services. If not, revise your presentation to include the portion of salaries and salary related costs associated with the cost of product sales and services.

Note 1: Organization and Summary of Significant Accounting Policies, page F-33

Reclassification, page F-33

29. Please expand your disclosure to explain what the specific reclassifications were along with the dollar amount of the reclassification.

Cash, page F-34

30. Please expand your disclosures to clarify that the demand deposits and money market funds have a maturity of three months or less from the date of purchase, if correct.

Property and Equipment and Long-Lived Assets, page F-34

31. Please expand your disclosure of the estimated useful lives of your property and equipment to provide the years by major asset class as disclosed in Note 3.
32. We note your disclosure that it was not necessary to record any impairment charges for fiscal years 2015 and 2014. Please expand your disclosure to clarify if any of your asset groups were tested for recoverability along with the carrying value of those asset groups tested and the headroom between the undiscounted cash flows and the carrying value, to the extent tested.

Subsequent Events, page F-35

33. Please disclose the date through which subsequent events have been evaluated in accordance with ASC 855-10-50-1(a).

Revenue Recognition, page F-35

34. Please expand your disclosures to quantify the extent to which revenue has been recognized for each of your policies for each period presented.

Segment Information, page F-37

35. Please expand your disclosure to clarify if you have two or more operating segments that are being aggregated into one reportable segment based on the guidance in ASC 280-10-50-11, or if you only have one operating segment based on the guidance in ASC 280-10-50-1 through 50-9. If you have multiple operating segments that are being aggregated, please also expand your disclosures to clarify that all of the requirements in ASC 280-10-50-11 have been met and to provide the information required by ASC 280-10-50-21. If you believe that you only have one operating segment, please provide an explanation as to why your CODMs have decided to manage the performance and resource allocation of your business on a whole.
36. Please provide the disclosures required by ASC 280-10-50-40 for each type of product and service provided.

Note 4: Intangible Assets, page F-39

37. Please disclose the amount of amortization for each of the next five years per ASC 350-30-50-2.a.3.

Pro Forma Unaudited Consolidated Financial Statements, page F-47

38. Please expand your presentation to include the impact of the proceeds from the private offering in which 4,336,625 units were sold during fiscal year 2016 along with the use of the proceeds.

Form 10-K for Fiscal Year Ended December 31, 2015

Item 9A. Controls and Procedures, page 22

39. Please amend your Form 10-K to disclose the framework used by management to evaluate the effectiveness of your internal control over financial reporting and to provide management's conclusion as to whether internal control over financial reporting is or is not effective, including disclosure of any material weaknesses identified. Please refer to Items 308(a)(2) and 308(a)(3) of Regulation S-K for guidance.

Amendment No. 2 to Current Report on Form 8-K Filed May 10, 2016

40. Please amend the Form 8-K to provide the appropriate consent for the report of independent registered public accounting firm for Ecoark, Inc.'s consolidated financial statements that are included as an exhibit.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that the filing includes the information the Securities Act of 1933 and all applicable Securities Act rules require. Since the company and its management are in possession of all facts relating to a company's disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

Notwithstanding our comments, in the event you request acceleration of the effective date of the pending registration statement, please provide a written statement from the company acknowledging that:

- should the Commission or the staff, acting pursuant to delegated authority, declare the filing effective, it does not foreclose the Commission from taking any action with respect to the filing;
- the action of the Commission or the staff, acting pursuant to delegated authority, in declaring the filing effective, does not relieve the company from its full responsibility for the adequacy and accuracy of the disclosure in the filing; and
- the company may not assert staff comments and the declaration of effectiveness as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

Please refer to Rules 460 and 461 regarding requests for acceleration. We will consider a written request for acceleration of the effective date of the registration statement as confirmation of the fact that those requesting acceleration are aware of their respective responsibilities under the Securities Act of 1933 and the Securities Exchange Act of 1934 as they relate to the proposed public offering of the securities specified in the above registration statement. Please allow adequate time for us to review any amendment prior to the requested effective date of the registration statement.



Randy May  
Ecoark Holdings, Inc.  
June 8, 2016  
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You may contact Tracey Houser (Staff Accountant) at 202-551-3736 or Al Pavot (Staff Accountant) at 202-551-3738 if you have questions regarding comments on the financial statements and related matters. Please contact Frank Pigott (Staff Attorney) at 202-551-3570 or me at 202-551-3765 with any other questions.

Sincerely,

/s/Pamela Long

Pamela Long  
Assistant Director  
Office of Manufacturing and  
Construction

cc: Peter DiChiara, Esq.  
Carmel, Milazzo & DiChiara LLP