

**Bermuda Institute of
Ocean Sciences (BIOS), Inc.**

Financial Statements and
Uniform Guidance Schedules
Together With Independent Auditors' Reports

December 31, 2018 and 2017

Bermuda Institute of Ocean Sciences (BIOS), Inc.

Financial Statements and
Uniform Guidance Schedules
Together With Independent Auditors' Reports

December 31, 2018 and 2017

TABLE OF CONTENTS	Page
Independent Auditors' Report	
FINANCIAL STATEMENTS	
Statements of Financial Position	3
Statements of Activities	4-5
Statements of Functional Expenses	6-7
Statements of Cash Flows	8
Notes to Financial Statements	9-18
UNIFORM GUIDANCE REPORTS AND SCHEDULES	
Schedule of Expenditures of Federal Awards	19-20
Notes to Schedule of Expenditures of Federal Awards	21
Report on Internal Control Over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance With <i>Government Auditing Standards</i>	
Report on Compliance for Each Major Federal Program and Report on Internal Control Over Compliance Required by the Uniform Guidance	
Schedule of Findings and Questioned Costs	26

Independent Auditors' Report

Board of Trustees
Bermuda Institute of Ocean Sciences (BIOS), Inc.

Report on the Financial Statements

We have audited the accompanying financial statements of Bermuda Institute of Ocean Sciences (BIOS), Inc. ("BIOS"), which comprise the statements of financial position as of December 31, 2018 and 2017, and the related statements of activities, functional expenses and cash flows for the years then ended, and the related notes to the financial statements.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Bermuda Institute of Ocean Sciences (BIOS), Inc. as of December 31, 2018 and 2017, and the changes in its net assets and its cash flows for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Other Matters

Change in Accounting Principle

As discussed in Note 2 to the financial statements, during the year ended December 31, 2018, BIOS adopted new accounting guidance resulting in a change in the manner in which it presents net assets and reports certain aspects of its financial statements. Our opinion is not modified with respect to this matter.

Report on Supplementary Information

Our audits were conducted for the purpose of forming an opinion on the financial statements as a whole. The accompanying schedule of expenditures of federal awards on pages 19 and 20 is presented for purposes of additional analysis as required by Title 2 U.S. *Code of Federal Regulations* Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards*, and is not a required part of the financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the financial statements. The information has been subjected to the auditing procedures applied in the audit of the financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the financial statements or to the financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the information is fairly stated, in all material respects, in relation to the financial statements as a whole.

Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated May 10, 2019 on our consideration of BIOS's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of BIOS's internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering BIOS's internal control over financial reporting and compliance.

PKF O'Connor Davies, LLP

May 10, 2019

Bermuda Institute of Ocean Sciences (BIOS), Inc.

Statements of Financial Position

	December 31,	
	<u>2018</u>	<u>2017</u>
ASSETS		
Cash and cash equivalents	\$ 1,824,950	\$ 2,857,760
Grants and accounts receivable	604,180	576,938
Contributions receivable, net (Note 4)	1,702,301	3,176,915
Inventory and prepaid expenses	96,622	313,670
Investments (Note 5)	16,021,206	17,406,118
Property and equipment, net (Note 6)	<u>18,346,376</u>	<u>18,754,675</u>
	<u>\$ 38,595,635</u>	<u>\$ 43,086,076</u>
 LIABILITIES AND NET ASSETS		
Liabilities		
Accounts payable and accrued expenses	\$ 910,962	\$ 1,273,233
Grants and other advances	773,797	394,518
Loans payable (Note 8)	<u>6,826,407</u>	<u>6,869,177</u>
Total Liabilities	<u>8,511,166</u>	<u>8,536,928</u>
Net Assets		
Without donor restrictions	10,368,256	11,421,176
With donor restrictions (Note 11)	<u>19,716,213</u>	<u>23,127,972</u>
Total Net Assets	<u>30,084,469</u>	<u>34,549,148</u>
	<u>\$ 38,595,635</u>	<u>\$ 43,086,076</u>

See notes to financial statements

Bermuda Institute of Ocean Sciences (BIOS), Inc.

Statement of Activities
Year Ended December 31, 2018
(with summarized totals for the year ended December 31, 2017)

	2018			2017
	Without Donor Restrictions	With Donor Restrictions	Total	Total
REVENUE AND OTHER SUPPORT				
Contributions	\$ 641,707	\$ 1,008,526	\$ 1,650,233	\$ 6,943,266
Grants and contracts				
U.S. government and corporations	8,729,835	112,509	8,842,344	11,480,307
Bermuda government	306,856	-	306,856	286,419
Tuition, guest services and other income	1,502,410	18,124	1,520,534	1,978,786
Investment return	(133,944)	(792,751)	(926,695)	2,016,794
Net assets released from restrictions (Note 11)	3,758,167	(3,758,167)	-	-
Total Revenue and Other Support	<u>14,805,031</u>	<u>(3,411,759)</u>	<u>11,393,272</u>	<u>22,705,572</u>
EXPENSES				
Program Services				
Scientific research	12,068,247	-	12,068,247	13,207,922
Education	1,574,050	-	1,574,050	1,887,002
Guest and residential services	355,271	-	355,271	87,419
Total Program Services	13,997,568	-	13,997,568	15,182,343
Development and public relations	606,942	-	606,942	631,419
Management and general	1,253,441	-	1,253,441	1,962,286
Total Expenses	<u>15,857,951</u>	<u>-</u>	<u>15,857,951</u>	<u>17,776,048</u>
Change in Net Assets	(1,052,920)	(3,411,759)	(4,464,679)	4,929,524
NET ASSETS				
Beginning of year	<u>11,421,176</u>	<u>23,127,972</u>	<u>34,549,148</u>	<u>29,619,624</u>
End of year	<u>\$ 10,368,256</u>	<u>\$ 19,716,213</u>	<u>\$ 30,084,469</u>	<u>\$ 34,549,148</u>

See notes to financial statements

Bermuda Institute of Ocean Sciences (BIOS), Inc.

Statement of Activities
Year Ended December 31, 2017

	2017		
	Without Donor Restrictions	With Donor Restrictions	Total
REVENUE AND OTHER SUPPORT			
Contributions	\$ 1,601,788	\$ 5,341,478	\$ 6,943,266
Grants and contracts			
U.S. government and corporations	11,375,739	104,568	11,480,307
Bermuda government	286,419	-	286,419
Tuition, guest services and other income	1,905,184	73,602	1,978,786
Investment return	380,841	1,635,953	2,016,794
Net assets released from restrictions (Note 11)	3,901,202	(3,901,202)	-
Total Revenue and Other Support	<u>19,451,173</u>	<u>3,254,399</u>	<u>22,705,572</u>
EXPENSES			
Program Services			
Scientific research	13,207,922	-	13,207,922
Education	1,887,002	-	1,887,002
Guest and residential services	87,419	-	87,419
Total Program Services	<u>15,182,343</u>	<u>-</u>	<u>15,182,343</u>
Development and public relations	631,419	-	631,419
Management and general	1,962,286	-	1,962,286
Total Expenses	<u>17,776,048</u>	<u>-</u>	<u>17,776,048</u>
Change in Net Assets	1,675,125	3,254,399	4,929,524
NET ASSETS			
Beginning of year	<u>9,746,051</u>	<u>19,873,573</u>	<u>29,619,624</u>
End of year	<u>\$ 11,421,176</u>	<u>\$ 23,127,972</u>	<u>\$ 34,549,148</u>

Bermuda Institute of Ocean Sciences (BIOS), Inc.

Statement of Functional Expenses

Year Ended December 31, 2018

(with summarized totals for the year ended December 31, 2017)

	2018			Total	2017 Total
	Program Services	Management and General	Development and Public Relations		
Salaries	\$ 4,892,349	\$ 595,774	\$ 489,006	\$ 5,977,129	\$ 6,090,289
Subrecipient contracts	2,380,720	-	-	2,380,720	3,039,721
Depreciation	1,801,180	113,215	-	1,914,395	1,599,843
Occupancy	1,272,670	-	-	1,272,670	1,471,422
Employee benefits	876,656	119,876	71,824	1,068,356	1,197,353
Supplies	968,544	18,938	1,428	988,910	1,082,989
Utilities and fuel	613,628	110,270	2,873	726,771	952,974
Travel and lodging	421,820	16,797	8,427	447,044	645,943
Equipment repairs and maintenance	286,127	103,944	17,284	407,355	610,341
Postage and shipping	300,901	2,583	251	303,735	360,078
Insurance	62,771	48,253	-	111,024	294,259
Interest and bank fees	-	88,048	-	88,048	210,205
Professional fees and services	59,440	25,101	-	84,541	117,473
Miscellaneous	47,004	3,197	2,228	52,429	47,242
Printing and publishing	5,641	-	12,478	18,119	38,093
Entertainment	8,117	7,445	1,143	16,705	17,823
Total Expenses	\$ 13,997,568	\$ 1,253,441	\$ 606,942	\$ 15,857,951	\$ 17,776,048

Bermuda Institute of Ocean Sciences (BIOS), Inc.

Statement of Functional Expenses
Year Ended December 31, 2017

	<u>Program Services</u>	<u>Management and General</u>	<u>Development and Public Relations</u>	<u>Total</u>
Salaries	\$ 4,852,339	\$ 757,944	\$ 480,006	\$ 6,090,289
Subrecipient contracts	3,039,721	-	-	3,039,721
Depreciation	1,409,140	190,703	-	1,599,843
Occupancy	1,471,422	-	-	1,471,422
Employee benefits	1,100,938	82,370	14,045	1,197,353
Supplies	857,951	154,558	70,480	1,082,989
Utilities and fuel	930,424	20,201	2,349	952,974
Travel and lodging	514,299	127,559	4,085	645,943
Equipment repairs and maintenance	571,197	18,392	20,752	610,341
Postage and shipping	19,722	339,361	995	360,078
Insurance	290,014	3,031	1,214	294,259
Interest and bank fees	8,033	202,172	-	210,205
Professional fees and services	61,422	56,051	-	117,473
Miscellaneous	44,869	1,659	714	47,242
Printing and publishing	7,113	8,285	22,695	38,093
Entertainment	3,739	-	14,084	17,823
	<u> </u>	<u> </u>	<u> </u>	<u> </u>
Total Expenses	<u>\$ 15,182,343</u>	<u>\$ 1,962,286</u>	<u>\$ 631,419</u>	<u>\$ 17,776,048</u>

See notes to financial statements

Bermuda Institute of Ocean Sciences (BIOS), Inc.

Statements of Cash Flows

	Year Ended December 31,	
	2018	2017
CASH FLOWS FROM OPERATING ACTIVITIES		
Change in net assets	\$ (4,464,679)	\$ 4,929,524
Adjustments to reconcile change in net assets to net cash from operating activities		
Net depreciation (appreciation) in fair value of investments	1,206,140	(1,813,011)
Depreciation	1,914,395	1,599,843
Loss on disposal of property and equipment	-	98,362
Contributions, grants and contracts classified as financing activities	(560,633)	(2,693,754)
Change in discount of unconditional promises to give	(76,601)	(120,901)
Changes in operating assets and liabilities (Note 13)	1,758,028	1,404,655
Net Cash from Operating Activities	(223,350)	3,404,718
CASH FLOWS FROM INVESTING ACTIVITIES		
Proceeds from sale of investments	819,127	752,855
Purchases of investments	(640,355)	(1,841,041)
Expenditures for property and equipment	(1,506,095)	(4,418,380)
Net Cash from Investing Activities	(1,327,323)	(5,506,566)
CASH FLOWS FROM FINANCING ACTIVITIES		
Permanently restricted contributions	25,800	276,352
Grants and contracts used for fixed asset acquisition	534,833	2,417,402
New borrowings under loans payable	-	8,307,428
Repayment of loans payable	(42,770)	(6,896,619)
Net Cash from Financing Activities	517,863	4,104,563
Net Change in Cash and Cash Equivalents	(1,032,810)	2,002,715
CASH AND CASH EQUIVALENTS		
Beginning of year	2,857,760	855,045
End of year	\$ 1,824,950	\$ 2,857,760

Bermuda Institute of Ocean Sciences (BIOS), Inc.

Notes to Financial Statements
December 31, 2018 and 2017

1. Organization

Bermuda Institute of Ocean Sciences (BIOS), Inc., formerly The Bermuda Biological Station for Research, Inc., founded in 1903, was incorporated in the State of New York in 1926 as a U.S. not-for-profit research organization. BIOS is exempt from U.S. income taxes pursuant to Sections 501(c)(3) and 509(a) of the Internal Revenue Code. BIOS is also a Bermuda Registered Charity (Reg #116).

BIOS's mission is to seek and share fundamental knowledge of the oceans through state-of-the-art scientific research, world-class field expeditions, and comprehensive educational experiences.

The research conducted at BIOS is relevant to the waters surrounding Bermuda, as well as the global Earth system, and is multidisciplinary, spanning the biological, chemical, geological, and physical sciences. BIOS researchers are active partners in regional and international research collaborations that are working to address some of the most pressing issues of our time including climate change, marine conservation, ecosystem health, and natural-disaster risk assessment.

2. Summary of Significant Accounting Policies

Basis of Accounting and Use of Estimates

The financial statements are prepared in conformity with accounting principles generally accepted in the United States of America (US GAAP), which requires management to make estimates and judgments that affect the reported amounts of assets and liabilities and disclosures of contingencies at the date of the financial statements and reported amounts of revenues and expenses recognized during the reporting period. Actual results could differ from those estimates.

Functional Allocation of Expenses

The financial statements report certain categories of expenses that are attributed to more than one program or supporting function. Therefore, expenses require allocation on a reasonable basis that is consistently applied. Salaries are allocated on the basis of staff estimates of time and effort. Direct program costs such as grants, occupancy, interest, fuel, and professional fees are allocated directly to the programs. All other costs that are not charged directly to a program are allocated based on actual usage, metric application or contractual requirements.

Change in Accounting Principle

BIOS adopted new guidance regarding the Presentation of Financial Statements for Not-for-Profit Entities. This guidance requires BIOS to collapse the three-category (unrestricted, temporarily restricted, and permanently restricted) classification of net assets into two categories: with donor restrictions and without donor restrictions. In addition, the new guidance requires BIOS to make certain expanded disclosures relating to (1) the liquidity of financial assets, and (2) expenses by both their natural and functional classification in one location in the financial statements. As a result of implementing this standard prior year amounts for temporarily restricted and permanently restricted net assets were combined as net assets with donor restrictions.

Bermuda Institute of Ocean Sciences (BIOS), Inc.

Notes to Financial Statements
December 31, 2018 and 2017

2. Summary of Significant Accounting Policies (*continued*)

Financial Statement Presentation

BIOS is required to report information regarding its financial position and activities according to the following net asset classifications:

Net assets without donor restrictions: Net assets that are not subject to donor-imposed restrictions and may be expended for any purpose in performing the primary objectives of BIOS. These net assets may be used at the discretion of BIOS management and board of trustees.

Net assets with donor restrictions: Net assets subject to stipulations imposed by donors and grantors. Donor restrictions with stipulations that they be used for a particular purpose or for a specified time period are temporary in nature until the purpose or stipulated time restriction is met. Other donor restrictions are perpetual in nature creating endowment funds that provide a permanent source of income.

Donor restricted contributions are reported as increases in net assets with donor restrictions. When a restriction expires, net assets are classified from net assets with donor restrictions to net assets without donor restrictions in the statement of activities.

Foreign Currency

BIOS's functional currency is the U.S. dollar. There are no foreign currency transaction gains or losses from transacting in the Bermuda dollar because it is on parity with the U.S. dollar.

Contributions

Contributions, including unconditional promises to give, are recognized as revenue in the period received or pledged. BIOS reports gifts as restricted support if they are received with donor stipulations that limit the use of the donated assets, or if they are restricted as support for future periods. When donor restrictions expire, that is, when a stipulated time restriction ends or purpose restriction is accomplished, net assets with donor restrictions are reclassified to net assets without donor restrictions and reported in the statements of activities as net assets released from restrictions. Contributions of assets other than cash are recorded at their estimated fair value and are recorded as an increase in net assets without donor restrictions unless the donor places restrictions on their use. Contributions due after one year are reported at their discounted net present value. Amortization of the discount is recorded annually as additional contribution revenue over the anticipated collection period of the pledge.

Cash Equivalents

All highly liquid investments, with maturities of three months or less at the time of purchase are considered cash equivalents.

Bermuda Institute of Ocean Sciences (BIOS), Inc.

Notes to Financial Statements
December 31, 2018 and 2017

2. Summary of Significant Accounting Policies (*continued*)

Allowance for Uncollectible Receivables

An allowance for uncollectible receivables is estimated based on a combination of write-off history, aging analysis and any specific known troubled accounts. Management believes all receivables are fully collectible, therefore, no allowance for doubtful accounts is recognized at year-end.

Inventory

Inventory is reported at the lower of cost or market (first in, first out) and consists of gift shop merchandise, cafeteria, laboratory and SCUBA supplies held for resale.

Fair Value Measurements

BIOS follows US GAAP guidance on *Fair Value Measurements* which defines fair value and establishes a fair value hierarchy organized into three levels based upon the input assumptions used in pricing assets. Level 1 inputs have the highest reliability and are related to assets with unadjusted quoted prices in active markets. Level 2 inputs relate to assets with other than quoted prices in active markets which may include quoted prices for similar assets or liabilities or other inputs which can be corroborated by observable market data. Level 3 inputs are unobservable and are used to the extent that observable inputs do not exist.

Investment Valuation and Income Recognition

Investments are carried at fair value. The fair value of the investment funds are reported at the net asset value as reported by management of the respective funds.

Purchases and sales of securities are recorded on a trade-date basis. Interest income is recorded on the accrual basis and dividends are recorded on the ex-dividend date. Realized and unrealized gains and losses are included in the determination of the change in net assets.

Grant support and revenue recognition

Grants at BIOS are either reimbursement of costs limited by the maximums stated in the grant or are fixed price contracts. Support under grants for reimbursement of costs is recognized in the same period and in an amount equivalent to the aggregate of the incurred underlying costs. Revenue from fixed price grants is recognized proportionately over the life of the grant.

Property and Equipment

Purchases of property and equipment are recorded at cost. Gifts or contributions of property and equipment are recognized at fair value at the time received. Property and equipment are depreciated using the straight-line method over the estimated useful lives of the assets. When items are disposed, the cost and accumulated depreciation are eliminated from the records of account, and a gain or loss is reported in current income. Repair and maintenance charges that do not increase the lives of the assets are expensed as incurred.

Bermuda Institute of Ocean Sciences (BIOS), Inc.

Notes to Financial Statements
December 31, 2018 and 2017

2. Summary of Significant Accounting Policies (*continued*)

Accounting for Uncertainty in Income Taxes

BIOS recognizes the effect of income tax positions only when they are more likely than not to be sustained. Management has determined that BIOS had no uncertain income tax positions that require financial statement recognition or disclosure. BIOS is no longer subject to examination by the applicable taxing jurisdictions for periods prior to 2015.

Subsequent Events

Management evaluated subsequent events for disclosure and/or recognition in the financial statements through May 10, 2019, the date financial statements were available for issuance. Management's evaluation noted no matters requiring recognition or additional disclosure.

3. Concentrations of Financial Risk

Financial instruments that are exposed to concentrations of financial risk consist primarily of cash, managed investment funds, donated common stock, contributions and contributions receivable. Management believes the diversification and quality of managed investment funds minimizes risk concentration regarding investments other than fluctuations in the financial markets in general. At December 31, 2018, contributions receivable due from one donor totaled approximately \$1,643,000. At December 31, 2017, contributions receivable due from two donors totaled approximately \$3,225,000.

For the year ended December 31, 2018 contributions from one donor totaled approximately 11% of contributions. For the year ended December 31, 2017 contributions from three donors totaled approximately 44% of contributions.

4. Contributions Receivable

Contributions receivable at December 31 are expected to be collected as follows:

	<u>2018</u>	<u>2017</u>
Amount expected to be collected in:		
One year or less	\$ 1,683,662	\$ 1,626,260
Years two through five	<u>19,571</u>	<u>1,628,188</u>
	1,703,233	3,254,448
Less:		
Discount (5% per annum) to present value	<u>(932)</u>	<u>(77,533)</u>
	<u>\$ 1,702,301</u>	<u>\$ 3,176,915</u>

Bermuda Institute of Ocean Sciences (BIOS), Inc.

Notes to Financial Statements
December 31, 2018 and 2017

5. Investments

BIOS investments consist of funds managed by Commonfund and The Vanguard Group, Inc. Following are the investments at December 31, grouped by the fair value hierarchy for those investments measured at fair value on a recurring basis:

	2018		
	Level 1	Level 2	Total
Vanguard Federal Money Market Fund	\$ 2,383,689	\$ -	\$ 2,383,689
Commonfund:			
Global Multi-Asset Portfolio, LLC	-	13,637,517	13,637,517
	\$ 2,383,689	\$ 13,637,517	\$ 16,021,206
	2017		
	Level 1	Level 2	Total
Vanguard Federal Money Market Fund	\$ 2,336,119	\$ -	\$ 2,336,119
Commonfund:			
Global Multi-Asset Portfolio, LLC	-	15,069,999	15,069,999
	\$ 2,336,119	\$ 15,069,999	\$ 17,406,118

6. Property and Equipment

Property and equipment, carried at cost, is comprised of the following at December 31:

	Useful Lives	2018	2017
Land and improvements		\$ 486,850	\$ 486,850
Buildings and improvements	20-40 years	17,565,560	16,878,347
Furniture, fixtures and equipment	5-15 years	8,692,829	7,869,590
RV Atlantic Explorer	25 years	11,421,105	11,099,995
Other fixed assets	5-25 years	758,392	758,392
Construction in progress		-	325,466
		38,924,736	37,418,640
Accumulated depreciation		(20,578,360)	(18,663,965)
		\$ 18,346,376	\$ 18,754,675

7. Sponsored Projects

Approximately 80% and 52% of revenues in each of 2018 and 2017 are awards for sponsored projects (governments and other sources). The awards generally provide for recovery of both direct and indirect costs. The indirect costs covered by the awards are determined as a negotiated or agreed-upon percentage of direct costs with certain exclusions.

Bermuda Institute of Ocean Sciences (BIOS), Inc.

Notes to Financial Statements
December 31, 2018 and 2017

8. Loans Payable

Loans payable consist of the following at December 31:

	<u>2018</u>	<u>2017</u>
Bank of NT Butterfield term loan, secured by mortgage on real property and research vessel, to refinance pre-existing debt and fund capital expenditures on the research facility. Payable in monthly installments of interest only (1.75% above the U.S. three-month London Interbank Offered Rate ("LIBOR"), 4.55% at December 31, 2018) through March 2019, then payable of monthly installments of \$45,416 plus interest, due March 2022.	\$5,750,000	\$ 5,750,000
Loan payable (unsecured) to Air Care Limited pursuant to the Energy Performance Contract, payable in monthly installments of \$10,438, including interest at 7.5%, due March, 2032.	<u>1,076,407</u>	<u>1,119,177</u>
	<u>\$6,826,407</u>	<u>\$ 6,869,177</u>

Aggregate maturities of loans payable approximate \$409,000 in 2019, \$595,000 in 2020, \$599,000 in 2021, \$4,354,000 in 2022, \$62,000 in 2023 and \$807,000 thereafter. Interest expense totaled approximately \$340,000 and \$207,000 for years ended December 31, 2018 and 2017.

9. Pension Plan

BIOS maintains a contributory pension plan for employees ages 23 and over who have worked at least 720 hours in any calendar year. Participation in the plan is mandatory for Bermudians and spouses of Bermudians until they are 65 years old. The plan is voluntary for all other employees. Each participating employee may contribute to the plan up to a maximum of 10% of their gross salary. Mandatory participants must contribute 5%. BIOS matches the employee contribution of 5% of gross salary in accordance with the plan documents and the Bermuda Occupational Pensions Act 1998. Pension expense for the years ended December 31, 2018 and 2017 approximated \$228,371 and \$231,000.

Bermuda Institute of Ocean Sciences (BIOS), Inc.

Notes to Financial Statements
December 31, 2018 and 2017

10. Endowment Funds

Donor-restricted funds whose purpose is to provide long-term support for BIOS and its charitable programs are endowment funds. Net assets of endowment funds are classified as net assets with donor restrictions or net assets without donor restrictions which classification is determined by the directions of donors, where applicable, and the provisions of the laws of the State of New York. Absent donor stipulations to the contrary, the provisions of New York State law do not impose restrictions on the income or capital appreciation derived from the original gift.

On September 17, 2010, New York State adopted its version of the Uniform Prudent Management of Institutional Funds Act (NYPMIFA). NYPMIFA includes provisions that differ from previous law, including the elimination of the historic dollar value rule with respect to endowment spending, establishment of new standards governing the expenditure and modification of restrictions on endowment funds, and revision of the prudence standard for the management and investment of endowment funds.

Interpretation of Law

BIOS interprets NYPMIFA as requiring the preservation of the fair value of the original gift as of the date of the gift absent explicit donor stipulations to the contrary. As a result of this interpretation, BIOS classifies as permanently restricted net assets (a) the original value of gifts donated to the permanent endowment, (b) the original value of subsequent gifts donated to the permanent endowment, and (c) accumulations to the permanent endowment made in accordance with the direction of the applicable donor gift instrument at the time the accumulation is added to the fund. The remaining portion of the donor restricted endowment fund that is not classified in permanently restricted net assets is classified as temporarily restricted net assets until those amounts are appropriated for expenditure. Management has reviewed all BIOS funds and determined that net asset reclassification was not necessary.

Investment Return Objectives

BIOS has adopted investment and spending policies for the BIOS endowment fund (the Fund) with the core objective to provide a reliable source of long-term financial support. It is the desire of the trustees that the Fund achieves a balance of growth and stability and thereby, over the long run, earns a competitive rate available in the capital markets at the risk level prescribed for the Fund.

Investment Philosophy

The Fund has a long-term investment horizon and the trustees believe that asset allocation is the major determinant of investment performance. The asset allocation plan is based on a number of factors, including – projected spending needs, maintenance of sufficient liquidity to meet spending payments, and return objectives and risk tolerances. The asset allocation plan provides for diversification of assets to maximize the investment return and manage the endowment investments consistent with market conditions. Investments are made through recognized third-party providers of multimanager strategies.

Bermuda Institute of Ocean Sciences (BIOS), Inc.

Notes to Financial Statements
December 31, 2018 and 2017

10. Endowment Funds (continued)

Spending Policy

It is BIOS policy to annually distribute up to 5% of a three-year moving average of the Fund's market value as of June 30 of each year. This distribution will be sanctioned by the applicable laws of the state of New York. In 2018 and 2017, the full 5% was eligible for distribution to support the operations of BIOS.

Cumulative investment returns in excess of the spending rate that are not donor-restricted are board designated unrestricted endowment funds. Temporarily restricted endowment funds represent cumulative investment returns which must be spent in accordance with the donors' intent. Permanently restricted endowments must be maintained in perpetuity.

Activity Summary

The following summarizes activity in endowment funds for years ended December 31:

	<u>Without Donor Restrictions</u>	<u>With Donor Restrictions</u>	<u>Total</u>
2018			
Balance at January 1, 2018	\$ 1,541,784	\$ 13,758,392	\$ 15,300,176
Contributions	-	25,800	25,800
Investment income	43,098	195,548	238,646
Capital depreciation	(217,806)	(988,300)	(1,206,106)
Appropriated for expenditure	<u>(128,304)</u>	<u>(566,895)</u>	<u>(695,199)</u>
Balance at December 31, 2018	<u>\$ 1,238,772</u>	<u>\$ 12,424,545</u>	<u>\$ 13,663,317</u>
2017			
Balance at January 1, 2017	\$ 1,306,173	\$ 12,426,218	\$ 13,732,391
Contributions	-	276,352	276,352
Investment income	34,804	155,420	190,224
Capital appreciation	332,450	1,480,533	1,812,983
Appropriated for expenditure	<u>(131,643)</u>	<u>(580,131)</u>	<u>(711,774)</u>
Balance at December 31, 2017	<u>\$ 1,541,784</u>	<u>\$ 13,758,392</u>	<u>\$ 15,300,176</u>

Bermuda Institute of Ocean Sciences (BIOS), Inc.

Notes to Financial Statements
December 31, 2018 and 2017

11. Net Assets With Donor Restrictions

Net assets with donor restrictions are available for the purposes listed:

	<u>2018</u>	<u>2017</u>
Scientific research	\$ 7,468,329	\$ 10,305,921
Education	1,720,990	2,258,951
Laboratory building	154,794	216,800
Future periods and administrative	<u>290,000</u>	<u>290,000</u>
	<u>\$ 9,634,113</u>	<u>\$ 13,071,672</u>

Investment return from net assets held and subject to BIOS spending policy and appropriation is available to support the indicated activities at December 31:

	<u>2018</u>	<u>2017</u>
Scientific research	\$ 5,180,993	\$ 5,180,293
Education	3,423,136	3,398,036
Laboratory building	350,000	350,000
General operations	<u>1,127,971</u>	<u>1,127,971</u>
	<u>\$ 10,082,100</u>	<u>\$ 10,056,300</u>

Net assets released from restriction consist of the following for the years ended December 31:

	<u>2018</u>	<u>2017</u>
Scientific research	\$ 2,978,016	\$ 3,134,871
Education	753,894	739,391
Laboratory building	<u>26,257</u>	<u>26,940</u>
	<u>\$ 3,758,167</u>	<u>\$ 3,901,202</u>

Bermuda Institute of Ocean Sciences (BIOS), Inc.

Notes to Financial Statements
December 31, 2018 and 2017

12. Liquidity and Availability of Financial Assets

Financial assets available for general expenditure, that is, without donor or other restrictions limiting their use, within one year of the statements of financial position date, comprise the following:

	<u>2018</u>	<u>2017</u>
Cash and cash equivalents	\$ 1,824,950	\$ 2,857,760
Grants and accounts receivable	604,180	576,938
Investments	<u>2,357,889</u>	<u>2,105,942</u>
	<u>\$ 4,787,019</u>	<u>\$ 5,540,640</u>

BIOS monitors the availability of resources to meet its operating needs and contractual commitments, while also striving to maximize the investment of its available funds. For purpose of analyzing resources available to meet general expenditures over a 12-month period, BIOS considers all expenditures related to its ongoing mission related activities, as well as services undertaken to support these activities, to be general expenditures.

13. Statements of Cash Flows

	<u>Year Ended December 31,</u>	
	<u>2018</u>	<u>2017</u>
Changes in operating assets and liabilities:		
(Increase) decrease in		
Grants and accounts receivable	\$ (27,242)	\$ 86,480
Contributions receivable	1,551,215	1,398,977
Inventory and prepaid expenses	217,048	(196,520)
Increase (decrease) in		
Accounts payable and accrued expenses	(362,272)	96,216
Grants and other advances	<u>379,279</u>	<u>19,502</u>
Changes in operating assets and liabilities	<u>\$ 1,758,028</u>	<u>\$ 1,404,655</u>
Supplemental cash flow information:		
Cash paid during the year for interest	\$ 339,844	\$ 207,199
Noncash transactions		
Equipment and services donated to BIOS	10,432	1,217,945

* * * * *

Bermuda Institute of Ocean Sciences (BIOS), Inc.

Uniform Guidance Reports and Schedules

December 31, 2018

Bermuda Institute of Ocean Sciences (BIOS), Inc.

Schedule of Expenditures of Federal Awards
Year Ended December 31, 2018

<u>Federal Grantor/Pass-through Grantor/Program or Cluster Title</u>	<u>Federal CFDA Number</u>	<u>Grant Number</u>	<u>Pass-Through Entity Identification Number</u>	<u>Passed Through to Subrecipients</u>	<u>Total Federal Expenditures</u>
Research and Development – Cluster:					
National Science Foundation:					
Geosciences					
Direct:					
Ship Operations - R/V Atlantic Explorer	47.050	OCE-1212814	N/A	\$ -	\$ 1,000,000
Collaborative Research: The Bermuda Atlantic Time-Series Study: Sustained Biogeochemical, Ecosystem and Ocean Change Observations and Linkages in the Subtropical North Atlantic	47.050	OCE-1258622	N/A	5,416	1,209,677
Oceanographic Technical Services, 2012-2016: R/V Atlantic Explorer	47.050	OCE-1216322	N/A	-	206,919
Collaborative Research: Ocean Acidification: Establishing the Links between Offshore Biogeochemistry, Coral Reef Metabolism and Acidification	47.050	OCE-1416670	N/A	-	225,681
REU Site: Fall Semester Student Research in Oceanography and Marine Science at BIOS	47.050	OCE-1460686	N/A	-	25,009
Time Series Particle Flux Measurements in the Sargasso Sea	47.050	OCE-1536644	N/A	416,416	596,819
Collaborative Research: Identifying the Role of Basin-scale Climate Variability in the Decline of Atlantic Corals	47.050	OCE-1536547	N/A	-	4,227
Collaborative Research: The Oleander project: High-Resolution observations of the dynamic ocean between New Jersey and Bermuda	47.050	OCE-1536517	N/A	-	41,610
The Panulirus Hydrographic Stations (Hydrostation S): Years 65-69	47.050	OCE-1633125	N/A	-	115,479
Operation of a Community Marine-Atmospheric Sampling Facility at Tudor Hill, Bermuda	47.050	OCE-1735504	N/A	-	73,988
Operation of a Community Marine-Atmospheric Sampling Facility at Tudor Hill, Bermuda	47.050	OCE-1829686	N/A	-	12,349
Collaborative Research: Direct Characterization of Adaptive Nutrient Stress Responses in the Sargasso Sea using Protein Biomarkers and a Biogeochemical AUV	47.050	OCE-1657885	N/A	-	2,023
Collaborative Research: Biogeochemical and Physical Conditioning of Sub-Antarctic Mode Water in the Southern Ocean	47.050	OCE-1735783	N/A	-	82,582
2017 Shipboard Scientific Support Equipment R/V Atlantic Explorer	47.050	OCE-1725158	N/A	-	80,133
2017 Oceanographic Instrumentation R/V Atlantic Explorer	47.050	OCE-1725160	N/A	-	106,854
Fall Semester Student Research in Oceanography and Marine Science at BIOS	47.050	OCE-1757475	N/A	-	119,778
2018 Shipboard Scientific Support Equipment: RV Atlantic Explorer	47.050	OCE-1823057	N/A	-	11,898
2018 Oceanographic Instrumentation: RV Atlantic Explorer	47.050	OCE-1823894	N/A	-	23,952
Oceanographic Technical Services, Bermuda Institute of Ocean Sciences (BIOS), 2018-2	47.050	OCE-1823636	N/A	-	425,312
Ship Operations R/V Atlantic Explorer	47.050	OCE-1822492	N/A	-	2,597,692
Collaborative Research: Diel physiological rhythms in a tropical oceanic copepod	47.050	OCE-1829318	N/A	14,586	33,618
Collaborative Research: The Bermuda Atlantic Time-Series Study: Sustained Biogeochemical, Ecosystem, and Ocean Change Observations and Linkages in the North Atlantic (Years 31-35)	47.050	OCE-1756105	N/A	-	38,387
Biological Sciences					
Direct:					
Environmental Change Research Facility at BIOS	47.074	DBI-1624380	N/A	-	2,671
Total National Science Foundation				<u>436,418</u>	<u>7,036,658</u>

See independent auditors' report and notes to schedule of expenditures of federal awards

Bermuda Institute of Ocean Sciences (BIOS), Inc.

Schedule of Expenditures of Federal Awards
Year Ended December 31, 2018
(Continued)

<u>Federal Grantor/Pass-through Grantor/Program or Cluster Title</u>	<u>Federal CFDA Number</u>	<u>Grant Number</u>	<u>Pass-Through Entity Identification Number</u>	<u>Passed Through to Subrecipients</u>	<u>Total Federal Expenditures</u>
Research and Development – Cluster (continued):					
Department of Commerce, National Oceanic and Atmospheric Administration (NOAA) Cooperative Institutes					
Pass-through funds:					
University of Miami NOAA Cooperative Institutes - Surface Water CO2 Measurements from Ships	11.432	NA15OAR4320064	S17-17	-	<u>77,645</u>
Total National Oceanic and Atmospheric Administration, Department of Commerce				-	<u>77,645</u>
Department of Commerce, Integrated Ocean Observing System (IOOS)					
Pass-through funds:					
University of Maryland Center for Environmental Science The Alliance for Coastal Technologies (ACT) National Scale Efforts Towards Verification and Validation of Observing Technologies	11.012	NA16NOS0120017	SA07525796 PO54084	-	<u>44,786</u>
Total Integrated Ocean Observing System, Department of Commerce				-	<u>44,786</u>
National Aeronautics and Space Administration					
Science					
Direct:					
Research Opportunities in Space and Earth Science (ROSES-2014)	43.001	NNX15AR99G	N/A	8,746	64,775
NRA/Research Opportunities in Space and Earth Sciences-2013	43.001	NNX16AB05G	N/A	632,898	1,007,222
Science					
Pass-through funds:					
Virginia Institute of Marine Science Zooplankton-Mediated Export Pathways: Quantifying Fecal Pellet Export and Active Transport by Diel and Ontogenetic Vertical Migration in the North Pacific and Atlantic Oceans	43.001	80NSSC17K0654	721102-712683	-	<u>82,415</u>
Total National Aeronautics and Space Administration				<u>641,644</u>	<u>1,154,412</u>
Total Expenditures of Federal Awards				\$ <u>1,078,062</u>	\$ <u>8,313,501</u>

See independent auditors' report and notes to schedule of expenditures of federal awards

Bermuda Institute of Ocean Sciences (BIOS), Inc.

Notes to Schedule of Expenditures of Federal Awards
Year Ended December 31, 2018

1 Basis of Presentation

The accompanying Schedule of Expenditures of Federal Awards (the "Schedule") includes the federal award activity of Bermuda Institute of Ocean Sciences (BIOS), Inc. ("BIOS") under programs of the federal government for the year ended December 31, 2018. The information in this schedule is presented in accordance with the requirements of Title 2 U.S. Code of Federal Regulations Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* ("Uniform Guidance"). Because the Schedule presents only a selected portion of the operations of BIOS, it is not intended to and does not present the financial position, changes in net assets or cash flows of BIOS.

2. Summary of Significant Accounting Policies

Expenditures reported on the Schedule are reported on the accrual basis of accounting. Such expenditures are recognized following the cost principles contained the Uniform Guidance, wherein certain types of expenditures are not allowable or are limited as to reimbursement. Pass-through entity identifying numbers are presented where available.

3. Indirect Cost Rate

BIOS has elected not to use the 10-percent de minimis indirect cost rate allowed under the Uniform Guidance.

4. Prior Year Federal Expenditures

BIOS included \$66,120 in the December 31, 2018 SEFA for expenditures incurred in the prior year that were not approved until 2018.

Report on Internal Control Over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance With Government Auditing Standards

Independent Auditors' Report

**Board of Trustees
Bermuda Institute of Ocean Sciences (BIOS), Inc.**

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the financial statements of Bermuda Institute of Ocean Sciences (BIOS), Inc. ("BIOS") which comprise the statement of financial position as of December 31, 2018, and the related statements of activities, functional expenses and cash flows for the year then ended, and the related notes to the financial statements, and have issued our report thereon dated May 10, 2019.

Internal Control Over Financial Reporting

In planning and performing our audit of the financial statements, we considered BIOS's internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of BIOS's internal control. Accordingly, we do not express an opinion on the effectiveness of BIOS's internal control.

A deficiency in internal control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. *A material weakness* is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected on a timely basis. *A significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

Compliance and Other Matters

As part of obtaining reasonable assurance about whether BIOS's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the entity's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the entity's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

PKF O'Connor Davies, LLP

May 10, 2019



Report on Compliance for Each Major Federal Program and Report on Internal Control Over Compliance Required by the Uniform Guidance

Independent Auditors' Report

**Board of Trustees
Bermuda Institute of Ocean Sciences (BIOS), Inc.**

Report on Compliance for Each Major Federal Program

We have audited Bermuda Institute of Ocean Sciences (BIOS), Inc.'s ("BIOS") compliance with the types of compliance requirements described in the *OMB Compliance Supplement* that could have a direct and material effect on each of BIOS's major federal programs for the year ended December 31, 2018. BIOS's major federal programs are identified in the summary of auditors' results section of the accompanying schedule of findings and questioned costs.

Management's Responsibility

Management is responsible for compliance with federal statutes, regulations, and the terms and conditions of its federal awards applicable to its federal programs.

Auditors' Responsibility

Our responsibility is to express an opinion on compliance for each of BIOS's major federal programs based on our audit of the types of compliance requirements referred to above. We conducted our audit of compliance in accordance with auditing standards generally accepted in the United States of America; the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States; and Title 2 U.S. *Code of Federal Regulations* Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* ("Uniform Guidance"). Those standards and the Uniform Guidance require that we plan and perform the audit to obtain reasonable assurance about whether noncompliance with the types of compliance requirements referred to above that could have a direct and material effect on a major federal program occurred. An audit includes examining, on a test basis, evidence about BIOS's compliance with those requirements and performing such other procedures as we considered necessary in the circumstances.

We believe that our audit provides a reasonable basis for our opinion on compliance for each major federal program. However, our audit does not provide a legal determination of BIOS's compliance.

Opinion on Each Major Federal Program

In our opinion, BIOS complied, in all material respects, with the types of compliance requirements referred to above that could have a direct and material effect on each of its major federal programs for the year ended December 31, 2018.

Report on Internal Control Over Compliance

Management of BIOS is responsible for establishing and maintaining effective internal control over compliance with the types of compliance requirements referred to above. In planning and performing our audit of compliance, we considered BIOS's internal control over compliance with the types of requirements that could have a direct and material effect on each major federal program to determine the auditing procedures that are appropriate in the circumstances for the purpose of expressing an opinion on compliance for each major federal program and to test and report on internal control over compliance in accordance with the Uniform Guidance, but not for the purpose of expressing an opinion on the effectiveness of internal control over compliance. Accordingly, we do not express an opinion on the effectiveness of BIOS's internal control over compliance.

A deficiency in internal control over compliance exists when the design or operation of a control over compliance does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, noncompliance with a type of compliance requirement of a federal program on a timely basis. *A material weakness in internal control over compliance* is a deficiency, or combination of deficiencies, in internal control over compliance, such that there is a reasonable possibility that material noncompliance with a type of compliance requirement of a federal program will not be prevented, or detected and corrected, on a timely basis. *A significant deficiency in internal control over compliance* is a deficiency, or a combination of deficiencies, in internal control over compliance with a type of compliance requirement of a federal program that is less severe than a material weakness in internal control over compliance, yet important enough to merit attention by those charged with governance.

Our consideration of internal control over compliance was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control over compliance that might be material weaknesses or significant deficiencies. We did not identify any deficiencies in internal control over compliance that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

The purpose of this report on internal control over compliance is solely to describe the scope of our testing of internal control over compliance and the results of that testing based on the requirements of the Uniform Guidance. Accordingly, this report is not suitable for any other purpose.

PKF O'Connor Davies, LLP

May 10, 2019

Bermuda Institute of Ocean Sciences (BIOS), Inc.

Schedule of Findings and Questioned Costs
Year Ended December 31, 2018

Section I - Summary of Auditors' Results

Financial Statements

Type of report the auditor issued on whether the financial statements audited were prepared in accordance with U.S. GAAP: Unmodified

Internal control over financial reporting:

Material weakness(es) identified? yes no

Significant deficiency(ies) identified? yes none reported

Noncompliance material to financial statements noted? yes no

Federal Awards

Internal control over major federal programs:

Material weakness(es) identified? yes no

Significant deficiency(ies) identified? yes none reported

Type of auditors' report issued on compliance for major federal programs: Unmodified

Any audit findings disclosed that are required to be reported in accordance with 2 CFR 200.516(a)? yes no

Identification of major program:

Bermuda Institute of Ocean Sciences (BIOS), Inc.'s major program is research and development. Accordingly, all grants listed on the schedule of expenditures of federal awards are considered a research and development major program cluster. BIOS has no other major programs.

Dollar threshold used to distinguish between Type A and Type B programs: \$750,000

Auditee qualified as low-risk auditee? yes no

Section II - Financial Statement Findings

During our audit, we noted no material findings for the year ended December 31, 2018.

Section III – Federal Award Findings and Questioned Costs

During our audit, we noted no material instances of non-compliance and none of the costs reported in the federal financially assisted programs are questioned or recommended to be disallowed.

Section IV – Prior Year Audit Findings

There were no prior year audit findings.