



South Dakota Science and Technology Authority

630 E. Summit St., Lead, SD 57754

September 24, 2019

Board of Directors
South Dakota Science and Technology Authority
Lead, South Dakota

It is my privilege to present the accompanying financial statements for the component unit of the State of South Dakota, SOUTH DAKOTA SCIENCE AND TECHNOLOGY AUTHORITY, as of and for the year ended June 30, 2019. We believe the information, as presented, is accurate in all material respects and with the disclosures enable the reader to gain an adequate understanding of the Authority's financial affairs for the applicable year.

The management of SOUTH DAKOTA SCIENCE AND TECHNOLOGY AUTHORITY is responsible for the preparation and fair presentation of the financial statements in accordance with accounting principles generally accepted in the United States of America and for designing, implementing, and maintaining internal control relevant to the preparation and fair presentation of the financial statements.

The management's discussion and analysis, the schedule of operating expenses, and the schedule of expenditures of federal awards are presented for purposes of additional analysis. The management's discussion and analysis, although not a required part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of the financial reporting and for placing the basic financial statements in an appropriate operational, economic, or historical context. The schedule of operating expenses is not a required part of the basic financial statements. The schedule of expenditures of federal awards is presented for purposes of additional analysis as required by U.S. Office of Management and Budget Uniform Grant Guidance 2CFR Part 200, Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards, and is not a required part of the basic financial statements. The supplementary information has been compiled from information that is the representation of management. We have reviewed the supplementary information for accuracy.

Sincerely

A handwritten signature in black ink that reads "Nancy C. Geary". The signature is written in a cursive style with a large initial "N" and "G".

Nancy C. Geary
Chief Financial Officer

SOUTH DAKOTA SCIENCE
AND TECHNOLOGY AUTHORITY
(A BUSINESS TYPE ENTERPRISE ACTIVITY COMPONENT UNIT OF
THE STATE OF SOUTH DAKOTA)

ANNUAL FINANCIAL REPORT
JUNE 30, 2019

SOUTH DAKOTA SCIENCE AND TECHNOLOGY AUTHORITY

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SOUTH DAKOTA SCIENCE AND TECHNOLOGY AUTHORITY

MANAGEMENT'S DISCUSSION AND ANALYSIS JUNE 30, 2019

This section of the South Dakota Science and Technology Authority's (SDSTA's) annual financial report presents management's discussion and analysis of the SDSTA's financial performance during the fiscal year ended June 30, 2019 (FY 2019). This analysis should be read in conjunction with the financial statements and notes to the financial statements.

The SDSTA's financial statements include the operations of funds that the SDSTA has established to achieve its goal of converting its acquired Homestake Mine property into an underground science and engineering laboratory. The property was donated to the SDSTA by Barrick Gold Corporation in May 2006.

The activity of the SDSTA is accounted for as a proprietary fund type. The SDSTA is a component unit of the State of South Dakota and its financial statements are included in the Comprehensive Annual Financial Report of the State of South Dakota.

Included in the financial statements presented is a current year comparison to prior year balance sheet summary, revenue and expense summary, and capital assets. Further reports reflect current year detailed statement of net position, statement of revenue, expense and changes in net position, cash flow, and schedule of operating expenses. Comparisons of current year to prior year are important to display increases and decreases in various elements of the financial reports for the SDSTA. Current year detailed reports provide significant detail for statement of net position, revenues, expenses and cash flows for the SDSTA.

SOUTH DAKOTA SCIENCE AND TECHNOLOGY AUTHORITY

MANAGEMENT'S DISCUSSION AND ANALYSIS (CONTINUED) JUNE 30, 2019

FINANCIAL HIGHLIGHTS:

- Total Assets at year-end increased to \$113,548,125.
- Current Assets increased by \$5,455,470, primarily due to the receipt of funds from the State of South Dakota, Governor's Office of Economic Development (GOED) in the amount of \$4,000,000 to be used for the design and construction of a new Maintenance Support Facility (MSF). Furthermore, Accounts Receivable as of the June 30, 2019 statement is higher by \$1,061,939 for additional open receivables on contracts.
- Capital Assets decreased by \$1,558,104 net of depreciation expense. Page 5 details the major capital asset additions and deletions. Furthermore, page 16 summarizes the changes in capital assets by major categories. Notable differences include changes to Improvements in Progress for the LUX/Zeplin (LZ) facility upgrades and the LZ water tank modifications that are complete. Increases to Improvements in Progress include the beginning of the work on the new MSF. Other increases to Capital Assets include wireless touch screens, network switches, forklift, utility pickup, and HVAC units for surface and underground. Deletions include a video recorder and locomotive controller that are no longer operable and the sale of a shotcrete robotic system that is no longer necessary.
- Net Pension Asset decreased slightly to \$10,366. The State's retirement system is fully funded (see Note 6 – page 18). The SDSTA's total contributions to the South Dakota Retirement System (SDRS) increased slightly (up by \$77,019) from 2018 to 2019. This was due primarily to an increase in personnel. GASB standards allow entities to use a pension measurement date up to one year prior to the entities reporting period. Therefore, the SDSTA is using a June 30, 2018 pension measurement date for our fiscal year end June 30, 2019 statements. GOED funding of \$2,000,000 received in 2017 along with loans from various South Dakota Foundations have enabled the SDSTA to purchase xenon to be used in the future LZ experiment. As of June 2019, \$8,164,350 of xenon has been purchased. In summary, Net Pension Asset and Xenon Purchased have increased by \$1,616,514.
- Pension Related Deferred Outflows is also related to our retirement plan with SDRS. The amounts recorded relate to our proportionate share of the differences between expected and actual experience in pension earnings along with the SDSTA's pension contributions made subsequent to June 30, 2018. The total Deferred Outflows of Resources equals \$3,933,542.
- Total Liabilities at year end increased to \$9,181,137. Accounts Payable is higher due to owing more for contractual services and materials when comparing the two time periods. Moreover, liabilities increased by \$1,000,000 as an additional loan from the South Dakota State University Foundation for further xenon purchases. The loans from South Dakota foundations are eleven-year, unsecured nonrecourse loans with 2.5% simple interest to be paid quarterly to the lenders. The loans will be repaid at the end of the LZ experiment (estimated to be October 2026) from the sale proceeds of the xenon previously purchased.
- Pension Related Deferred Inflows is also connected to our retirement plan with SDRS. The recorded amount relates to our portion of the difference between projected and actual earnings on pension plan investments. Our portion equals \$783,421.
- Total Restricted Net Position increased to \$17,824,243, primarily due to the \$4,000,000 received for the new MSF. However, the experiment funding set aside for xenon procurement and interest payments has decreased due to xenon procurements. Likewise, the restricted net pension has also decreased.
- Unrestricted Net Position increased by \$2,353,397 to \$9,139,568.
- Total Net Position at year end increased by \$2,998,485 to \$107,517,109.
- Charges for Services increased slightly to \$185,534. Revenue from Homestake increased due to an increase in the amount of water being treated and discharged for Homestake.

SOUTH DAKOTA SCIENCE AND TECHNOLOGY AUTHORITY

MANAGEMENT'S DISCUSSION AND ANALYSIS (CONTINUED)

JUNE 30, 2019

FINANCIAL HIGHLIGHTS (Continued)

- Operating Grants increased to \$26,499,519. The revenue received in this classification includes \$21,895,103 received from Fermi National Laboratory, \$4,401,631 from Lawrence Berkeley National Laboratory, and \$202,785 from the Great Plains Education Foundation and various smaller universities.
- State Grant Revenue increased to \$4,000,000 for the GOED funding to be used for the design and construction of a new MSF.
- Investment Earnings increased to \$773,114 compared to \$36,585 in the previous year as an increase in funds were being held on behalf of the SDSTA by the State Investment Council.
- Total Program Expenses for the SDSTA were \$28,546,084 which represents an increase of 17.46% percent from the previous year. Included in Total Program Expenses are Operating Expenses which increased by \$5,215,387 to \$28,275,423. Of the total expenses in this category, the major expenses were personal services – 52.8 percent, contractual services – 21.9 percent, and supplies, materials, and other operating expenses – 17.6 percent. Most of the increase in Operating Expenses is due to an increase in personnel as well as purchasing various equipment for the future Generation 2 (LZ) experiment.
- Net Position increased by \$2,998,485 for fiscal year 2019.

SOUTH DAKOTA SCIENCE AND TECHNOLOGY AUTHORITY

MANAGEMENT'S DISCUSSION AND ANALYSIS (CONTINUED)

JUNE 30, 2019

FINANCIAL STATEMENT ELEMENTS:

NET POSITION

	2019	2018	Dollar Change	Percent Change
Current Assets	\$ 24,820,111	\$ 19,364,641	\$ 5,455,470	28.17%
Capital Assets	80,553,298	82,111,402	(1,558,104)	-1.90%
Net Pension Asset and Xenon Purchased	8,174,716	6,558,202	1,616,514	24.65%
Total Assets	113,548,125	108,034,245	5,513,880	5.10%
Pension Related Deferred Outflows	3,933,542	4,795,625	(862,083)	-17.98%
Long-Term Liabilities Outstanding	6,604,470	5,541,864	1,062,606	19.17%
Other Liabilities	2,576,667	1,917,640	659,027	34.37%
Total Liabilities	9,181,137	7,459,504	1,721,633	23.08%
Pension Related Deferred Inflows	783,421	851,742	(68,321)	-8.02%
Net Position:				
Net Investment in Capital Assets	80,553,298	82,111,402	(1,558,104)	-1.90%
Restricted	17,824,243	15,621,051	2,203,192	14.10%
Unrestricted	9,139,568	6,786,171	2,353,397	34.68%
Total Net Position	\$ 107,517,109	\$ 104,518,624	\$ 2,998,485	2.87%

CHANGE IN NET POSITION

	2019	2018	Dollar Change	Percent Change
Revenues				
Program Revenues:				
Charges for Services	\$ 185,534	\$ 127,643	\$ 57,891	45.35%
Operating Grants	26,499,519	22,734,706	3,764,813	16.56%
Miscellaneous	86,402	188,487	(102,085)	-54.16%
State Grant Revenue	4,000,000	-	4,000,000	100.00%
General Revenues:				
Investment Earnings	773,114	36,585	736,529	2013.20%
Total Revenue	31,544,569	23,087,421	8,457,148	36.63%
Program Expenses:				
Science and Technology Authority	28,546,084	24,303,546	4,242,538	17.46%
Total Expense	28,546,084	24,303,546	4,242,538	17.46%
Change in Net Position	2,998,485	(1,216,125)	4,214,610	-346.56%
Net Position-Beginning	104,518,624	105,734,749	(1,216,125)	-1.15%
Net Position-Ending	\$ 107,517,109	\$ 104,518,624	\$ 2,998,485	2.87%

By June 30, 2019, the SDSTA had invested \$80,553,298 in a broad range of capital assets, including computer equipment, land, buildings, improvements to infrastructure and the underground, and various machinery and equipment. \$20,551,152 of this \$80,553,298 (approximately 25% of this total value) was donated by Barrick Gold. This amount represents a net decrease (including additions and deductions) of \$1,558,104, or 1.9 percent, over the last year.

SOUTH DAKOTA SCIENCE AND TECHNOLOGY AUTHORITY

MANAGEMENT'S DISCUSSION AND ANALYSIS (CONTINUED)

JUNE 30, 2019

CAPITAL ASSETS (Net of Depreciation)

	2019	2018	Change
Improvements	\$ 29,815,809	\$ 30,514,601	\$ (698,792)
Underground	17,936,956	17,936,956	\$ -
Buildings	6,041,652	6,205,356	\$ (163,704)
Computer Equipment	100,708	124,844	\$ (24,136)
Equipment	5,239,727	5,688,195	\$ (448,468)
Construction in Progress	17,911,409	18,083,869	\$ (172,460)
Land	1,814,136	1,814,136	\$ -
Infrastructure	1,564,237	1,614,919	\$ (50,682)
Furniture	20,197	24,972	\$ (4,775)
Archive Material	70,000	70,000	\$ -
Auto	38,467	33,554	\$ 4,913
Total Capital Assets	\$ 80,553,298	\$ 82,111,402	\$ (1,558,104)

This year's major capital asset additions and deletions included:

Purchased Capital Assets:

(3) Hitachi Projector/Lens/Wireless Touch Screens	\$ 45,436
(2) Cisco Network Switches 10-Gig	16,250
Doosan Gas Forklift (warehouse usage)	16,625
(2) HVAC Rooftop Units (E & O Building)	26,269
(2) Mini Split HVAC Units (4850'L Refuge Chamber)	14,287
2002 Chevy 2500 Utility Pickup	10,000

Equipment (Current Year Reclassifications):

LZ Water Tank Modifications	123,442
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Improvements in Progress (Current Year Reclassifications):

LZ Water Tank Modifications	(123,442)
LZ Underground Facility Upgrades	(295,191)

Improvements (Current Year Additions & Reclassifications):

LZ Underground Facility Upgrades	295,191
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Improvements in Progress (Current Year Additions):

Maintenance Support Facility	246,173
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Equipment (Current Year Deletions):

Underground Pump Room Video Recorder	(5,984)
Shotcrete Technology Robotic System	(171,390)
Locomotive Controller	(4,500)

SOUTH DAKOTA SCIENCE AND TECHNOLOGY AUTHORITY

MANAGEMENT'S DISCUSSION AND ANALYSIS (CONTINUED)

JUNE 30, 2019

LONG-TERM DEBT

At the year-end, the SDSTA had \$6,604,470 in other long-term obligations. This is an increase of 19.17 percent as shown below.

	2019	2018	Total Dollar Change	Total Percentage Change
Compensated Absences	\$ 604,470	\$ 541,864	\$ 62,606	11.55%
Xenon Notes Payable	6,000,000	5,000,000	1,000,000	20.00%
Total Long-Term Debt	\$ 6,604,470	\$ 5,541,864	\$ 1,062,606	19.17%

- (1) The SDSTA is liable for the accrued vacation leave payable to all full-time employees. In addition, the SDSTA is liable for a portion of the earned sick leave of employees who have been employed for seven consecutive years. The \$62,606 increase in compensated absences is due to an increase in the corresponding amount of leave accumulated and outstanding at the end of the year for employees. Included in the increase is the xenon notes payable to the University of South Dakota Foundation. Note (4) Long-Term Debt in the Notes to Financial Statements on page 17 details the activity for the period for compensated absences and the xenon note payable.

ECONOMIC FACTORS

- A report released from the Particle Physics Project Prioritization Panel (P5) in May 2014, outlined the 10-year strategic plan for high-energy physics in the United States. The report provides strong support for science programs envisioned for the Sanford Underground Research Facility (SURF) including research into neutrinos and dark matter, both of which are being researched at Sanford Lab. This panel formally advises both the DOE Office of Science and the National Science Foundation (NSF) on support for physics. We expect this report to play a key role in the federal government funding process for years to come. The SDSTA is better positioned to receive continued funding for Operations in the future.
- The SDSTA's Board of Directors approved a capital budget for fiscal year 2019 of \$4,563,053 towards the xenon procurement for the LZ experiment and upgrades to surface and underground facilities for the future G2-LZ experiment. Additional projects included the design of a new Maintenance Support Facility. Actual expenditures for the year totaled \$2,123,327. The LZ experiment upgrades to facilities were completed. Actual expenses were lower than budgeted as not all projects are complete. The SDSTA's fiscal year 2020 capital budget provides for spending \$7,189,826. Projects include the final procurement of xenon for the LZ experiment, a small amount for inclinometer testing at the Sanford Lab Homestake Visitor Center, and the design and construction of the new Maintenance Support Facility. Funding for xenon procurement and the upgrades for the LZ experiment was secured with the signing of Letter Agreement #1586 in August 2015 with the GOED and through separate funding from Foundations. The total funding of \$6,000,000 has been received from GOED as well as \$6,000,000 from the Foundations. The final \$1,000,000 from the South Dakota State University Foundation was received in December of 2018. The SDSTA's Board of Directors also approved a budget of \$604,946 for fiscal year 2020 in favor of SDSTA supported activities.

SOUTH DAKOTA SCIENCE AND TECHNOLOGY AUTHORITY

MANAGEMENT'S DISCUSSION AND ANALYSIS (CONTINUED)

JUNE 30, 2019

ECONOMIC FACTORS (Continued)

- The SURF Services contract with Fermi National Accelerator Laboratory (FNAL) to manage and operate the facility for the federal fiscal year October 2018 – September 2019 originally was budgeted at \$17,992,729. Actual expenditures were \$16,319,812 through August 31, 2019. Actual expenditures have been lower than budgeted each month due to some large equipment purchases held until the final quarter of the federal fiscal year. This contract only extends through Sept. 30, 2019 as we are transitioning to a five-year Cooperative Agreement with the Department of Energy's (DOE) Office of Science. Negotiations are ongoing to finalize before the end of September 2019. The Ross Shaft rehabilitation project funding continues with FNAL as well as a contract for Ross Shaft Logistics Support. This contract involves our support to the Long-Baseline Neutrino Facility (LBNF) construction efforts and the buildout of the large underground caverns at SURF for this experiment.
- In late 2012, the DOE approved the Long Baseline Neutrino Experiment (LBNE) to proceed with preliminary designs to construct a large neutrino detector at SURF. In October 2014, the United States along with international partners agreed that the Sanford Lab was to remain the host for the LBNE related detectors. After further meetings, the LBNE collaboration officially dissolved and transferred all experiment responsibilities to a new collaboration referred to as the associated Deep Underground Neutrino Experiment (DUNE) consisting of United States and International support. The facility to host DUNE, called the Long Baseline Neutrino Facility (LBNF), will send neutrinos through the earth from Fermilab in Batavia, Illinois to SURF in Lead, SD. More recent developments (September 2016) involve the DOE formally approving plans for construction at SURF. The first step of installing LBNF systems to transport 875,000 tons of rock to the surface began in January 2019. Underground activities to house the neutrino detectors and related utilities is expected to begin in 2021. DOE Support for professional engineering management services continues into fiscal year 2020 for this LBNF project.
- Further funding was received in fiscal year 2019 through LBNL in support of various experiments. Included was support for the LZ investigations as well as a geothermal analysis project labeled SIGMA-V. These awards reimbursed the SDSTA for expenses incurred in support of the various experiments for materials and supplies as well as a percentage of the salaries of the design team members for their project management skills essential to the work being performed. Support continues in fiscal year 2020 for these same activities through LBNL.
- Additional funding was received during the fiscal year from various institutions including Oak Ridge National Laboratory, South Dakota Schools of Mines & Technology, and Black Hills State University. Funds were received at SURF to support the Majorana experiment located at the 4850-foot level Davis Campus, as well as various other experiments on the underground levels. Support continues in fiscal year 2020 from these various universities.
- A Memorandum of Understanding (MOU) was signed in November 2014 between the SDSTA and a commercial organization – Xilinx, Inc. to establish an experiment located near the Davis Campus. Their testing measures failure rates and modes in electronic chips. We are charging them for lab space, experiment access fees, and SURF scientific support. This agreement will continue into fiscal year 2020.

SOUTH DAKOTA SCIENCE AND TECHNOLOGY AUTHORITY

MANAGEMENT'S DISCUSSION AND ANALYSIS (CONCLUDED) JUNE 30, 2019

ECONOMIC FACTORS (Continued)

- A Letter Agreement dated February 24, 2014 between the SDSTA and Black Hills State University (BHSU) provides up to \$300,000 per year for three years from the SDSTA to BHSU to administer the Sanford Science Education Center. Matching funds of \$150,000 per year by BHSU is documented. An amended agreement dated June 6, 2017 committed an additional \$275,000 toward education and outreach priorities for the period July 2017 – June 2018. The agreement was amended as of June 8, 2018 for \$275,000 for the period July 2018 – June 2019. Furthermore, the agreement was amended as of July 30, 2019 for \$660,000 for the period of July 2019 – June 2020. The full period of performance now extends from June 2014 through June 2020. Funding for this agreement originated from a Letter Agreement #1524 between the GOED and the SDSTA. The first \$300,000 from the Governor's office was received in September 2014 and was extended to BHSU on a reimbursement schedule. Years two and three funding of \$300,000 and \$250,000 were received from GOED. The balance of year three funding of \$50,000 was received in June of 2017. Additional support of \$125,000 per year for four years for education programs was received from Great Plains Education Foundation. The final support from Great Plains Education Foundation was received in July 2018 for fiscal year 2019 education program support. The funding going forward for the Sanford Science Education Center program through BHSU is included in the indirect expenses of the Cooperative Agreement with the DOE Office of Science. This type of funding is encouraged as Cooperative Agreements require the support of a public purpose.
- The SDSTA is compliant with all legal and environmental regulations.

CONTACTING THE SDSTA'S FINANCIAL MANAGEMENT

This financial report is designed to provide our citizens, taxpayers, customers, and investors and creditors with a general overview of the SDSTA's finances and to demonstrate the SDSTA's accountability for the money it receives. If you have any questions about this report or need additional information, contact the South Dakota Science and Technology Authority, 630 East Summit Street, Lead, SD 57754.

SOUTH DAKOTA SCIENCE AND TECHNOLOGY AUTHORITY

**STATEMENT OF NET POSITION
JUNE 30, 2019**

ASSETS

Current Assets

Cash in Local Bank and Petty Cash	\$ 1,909,538
Cash on Deposit with State Treasurer	15,862,441
Accounts Receivable	4,261,671
Interest Receivable	79,157
Prepaid Expenses	357,735
Inventory of Supplies & Warehouse	2,349,569
Total Current Assets	24,820,111

Noncurrent Assets

Xenon Purchased (note 5)	8,164,350
Net Pension Asset	10,366
Land	1,814,136
Underground	17,936,956
Improvements in Progress	17,911,409
Buildings, Machinery, Equipment and Infrastructure (Net) (Note 3)	42,890,797
Total Noncurrent Assets	88,728,014

TOTAL ASSETS **113,548,125**

Deferred Outflows of Resources

Pension Related Deferred Outflows	3,933,542
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LIABILITIES

Current Liabilities

Accounts Payable	1,386,450
Accrued Wages and Benefits	585,747
Accrued Leave, Benefits (Note 4)	604,470
Total Current Liabilities	2,576,667

Long-Term Liabilities

Accrued Leave, Benefits (Note 4)	604,470
Long-Term Xenon Notes Payable	6,000,000
Total Long-Term Liabilities	6,604,470

TOTAL LIABILITIES **9,181,137**

Deferred Inflows of Resources

Pension Related Deferred Inflows	783,421
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NET POSITION

Invested in Capital Assets	80,553,298
Restricted for:	
Mine Closure	1,489,102
Maintenance Support Facility	3,831,159
Experiments	1,793,667
Indemnification	7,500,000
Sanford Center for Science Education	49,828
Pension	3,160,487
Unrestricted Net Position	9,139,568

TOTAL NET POSITION **\$ 107,517,109**

The accompanying notes are an integral part of this statement.

SOUTH DAKOTA SCIENCE AND TECHNOLOGY AUTHORITY

**STATEMENT OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION
FOR THE YEAR ENDED JUNE 30, 2019**

Operating Revenue	
Charges for Goods and Services	\$ 185,534
Operating Grants	26,499,519
Miscellaneous	86,402
Total Operating Revenue	26,771,455
Operating Expenses	
Personal Services	14,938,333
Travel	211,100
Contractual Services	6,205,057
Supplies, Materials and Other Operating Expenses	4,990,039
Depreciation Expense	1,930,894
Total Operating Expenses	28,275,423
Operating Loss	(1,503,968)
Nonoperating Revenues/Expenses	
State Grant Revenue	4,000,000
Interest Revenue	773,114
Other Expense	(270,661)
Total Nonoperating Revenues/Expenses	4,502,453
Change in Net Position	2,998,485
Net Position -- Beginning of Year	104,518,624
Net Position -- End of Year	\$ 107,517,109

The accompanying notes are an integral part of this statement.

SOUTH DAKOTA SCIENCE AND TECHNOLOGY AUTHORITY

**STATEMENT OF CASH FLOWS
FOR THE YEAR ENDED JUNE 30, 2019**

Cash Flows from Operating Activities:

Other Operating Cash Receipts	\$	273,205
Cash Receipts from Operating Grants	\$	25,436,311
Cash Payments to Employees for Services	\$	(13,860,628)
Cash Payments to Suppliers of Goods and Services	\$	(10,932,859)
Net Cash Used in Operating Activities	\$	916,029

Cash Flows from Noncapital Financing Activities:

Grant Revenue	\$	4,000,000
Proceeds from Xenon Notes Payable	\$	1,000,000
Xenon Purchases	\$	(1,650,450)
Interest/Insurance Paid on Xenon	\$	(137,873)
Grants & Donations Paid	\$	(60,998)
Net Cash Used in Noncapital Financing Activities	\$	3,150,679

Cash Flows from Capital and Related Financing Activities:

Proceeds from Sale of Capital Assets	\$	3,000
Purchase of Capital Assets	\$	(343,979)
Net Cash Used in Capital and Related Financing Activities	\$	(340,979)

Cash Flows from Investing Activities:

Interest Earnings	\$	741,217
Net Cash Provided by Investing Activities	\$	741,217

Net decrease in Cash and Cash Equivalents **\$ 4,466,946**

Cash and Cash Equivalents at Beginning of Year \$ 13,305,033

Cash and Cash Equivalents at End of Year **\$ 17,771,979**

Reconciliation of Operating Loss to Net Cash Used in Operating Activities:

Operating Loss	\$	(1,503,968)
<i>Adjustments to Reconcile Operating Loss to Net Cash Used in Operating Activities:</i>		
Depreciation & Amortization Expense	\$	1,930,894
<i>Change in Assets and Liabilities:</i>		
Receivables	\$	(1,061,938)
Prepaid Expenses	\$	45,080
Inventory of Supplies	\$	10,524
Net Pension Asset	\$	33,936
Decrease(Increase) in Deferred Outflow of Resources - Pension	\$	862,083
Increase (Decrease) Deferred Inflow of Resources - Pension	\$	(68,321)
Accounts and Other Payables	\$	417,732
Accrued Wages Payable	\$	124,794
Accrued Leave Payable	\$	125,213
Net Cash Used in Operating Activities	\$	916,029

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SOUTH DAKOTA SCIENCE AND TECHNOLOGY AUTHORITY

**STATEMENT OF CASH FLOWS (CONTINUED)
FOR THE YEAR ENDED JUNE 30, 2019**

Cash and Cash Equivalents:

Cash in Local Bank	\$	1,909,488
Petty Cash	\$	50
Cash with State Treasurer	\$	15,862,441
Total Cash and Cash Equivalents	\$	17,771,979

Non-Cash Capital and Related Financing Activities:

Write off of Inventory	\$	46,756
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The accompanying notes are an integral part of this statement.

SOUTH DAKOTA SCIENCE AND TECHNOLOGY AUTHORITY

NOTES TO FINANCIAL STATEMENTS

JUNE 30, 2019

(1) Summary of Significant Accounting Policies

a. Reporting Entity

The South Dakota Science and Technology Authority (SDSTA) was created and organized by Chapter 1-16H of the South Dakota Codified Laws. The purposes of the SDSTA are to foster and facilitate scientific and technology investigation, experimentation, and development by creating a mechanism through which laboratory, experimental and development facilities may be acquired, developed, constructed, maintained, operated, and decommissioned. The initial focus of the SDSTA is to support the transfer of the Homestake Gold Mine in Lead, South Dakota for development by the research community to become the world's premier Underground Science and Engineering Laboratory; more specifically, the Sanford Underground Research Facility (SURF). Additional focus is maintained by the SDSTA for an education and outreach program detailing the progress.

The SDSTA is a business type component unit of the State of South Dakota (the State). As such, the accompanying financial statements are included in the Comprehensive Annual Financial Report of the State of South Dakota.

b. Fund Accounting

The SDSTA Fund is accounted for as an enterprise fund. Enterprise funds are used to account for operations (a) that are financed and operated in a manner similar to private business enterprises, where the intent of the governing body is that the costs (expenses, including depreciation) of providing goods or services to the general public on a continuing basis be financed or recovered primarily through user charges; or (b) where the governing body has decided that periodic determination of revenues earned, expenses incurred, and/or net income is appropriate for capital maintenance, public policy, management control, accountability, or other purposes.

c. Basis of Accounting

The SDSTA Fund follows the accrual basis of accounting. Revenues are recognized when they are earned, and expenses are recognized when they are incurred.

d. Inventory of Supplies

Inventory of supplies consists primarily of expendable equipment/supplies, donated and purchased, not yet in service. Donated inventory of supplies are revalued at their estimated fair value on date of donation. Purchased equipment values are reported at cost. Reported cost values include ancillary charges necessary to place the asset into its intended location and condition for use at a later date.

e. Capital Assets

Capital assets include land, buildings, machinery and equipment, and all other tangible or intangible assets that are used in operations and that have initial useful lives extending beyond a single reporting period. Infrastructure assets are long-lived capital assets that normally are stationary in nature and normally can be preserved for a significantly greater number of years than most capital assets.

Capital assets are recorded at historical cost. Donated capital assets are valued at their estimated fair value on the date donated. Reported cost values include ancillary charges necessary to place the asset into its intended location and condition for use. Subsequent to initial capitalization, improvements or betterments that are significant, and which extend the useful life of a capital asset are also capitalized.

SOUTH DAKOTA SCIENCE AND TECHNOLOGY AUTHORITY

NOTES TO FINANCIAL STATEMENTS (CONTINUED)

JUNE 30, 2019

(1) Summary of Significant Accounting Policies (Continued)

e. Capital Assets (Continued)

Depreciation of all exhaustible capital assets is recorded as an expense in the Statement of Revenues, Expenses, and Changes in Net Position, with net capital assets reflected in the Statement of Net Position. Accumulated depreciation is reported on the Statement of Net Position.

Capitalization thresholds (the dollar values above which asset acquisitions are added to the capital asset accounts), depreciation methods, and estimated useful lives of capital assets reported in the SDSTA's financial statements are as follows:

	Capitalization Threshold	Depreciation Method	Estimated Useful Life
Land and Land Rights	All Land	N/A	N/A
Improvements	\$ 5,000	Straight-line	10-50 yrs.
Infrastructure	5,000	Straight-line	25-50 yrs.
Buildings	5,000	Straight-line	25-50 yrs.
Automobiles, Furniture, Machinery and Equipment	5,000	Straight-line	5-75 yrs.

f. Revenue and Expense Classifications

In the Statement of Revenues, Expenses, and Changes in Net Position, revenues and expenses are classified in a manner consistent with how they are classified in the Statement of Cash Flows. That is, transactions for which related cash flows are reported as capital and related financing activities, non-capital financing activities, or investing activities are not reported as components of operating revenue or expenses. The Authority's proprietary fund distinguishes between operating and non-operating revenues and expenses. Operating revenues and expenses of the SDSTA consist of reimbursement of the costs of operations from Homestake Mining Company and other entities, and the costs of providing those services, including depreciation. All other revenues and expenses are reported as non-operating.

g. Cash and Cash Equivalents

Cash includes cash on hand, demand deposits, and participating interest in the State's internal investment pool held by the State Treasurer. The amount held in the State's internal investment pool is reported at fair value. The SDSTA essentially has access to the entire amount of their cash resources on demand. Accordingly, equity in the cash management pool is considered to be cash and cash equivalents for the purpose of the Statement of Cash Flows.

h. Equity Classifications

Equity is classified as net position and is displayed in three components:

1. Net investment in capital assets consists of capital assets, including restricted capital assets, net of accumulated depreciation (if applicable) and reduced by the outstanding balances of any bonds, mortgages, notes, or other borrowings that are attributable to the acquisition, construction, or improvements of those assets.
2. Restricted net position consists of net position with constraints placed on their use either by (a) external groups such as creditors, grantors, contributors, or laws and regulations of other governments; or (b) law through constitutional provisions or enabling legislation.
3. Unrestricted net position all other net position that do not meet the definition of "restricted" or "net investment in capital assets."

SOUTH DAKOTA SCIENCE AND TECHNOLOGY AUTHORITY

NOTES TO FINANCIAL STATEMENTS (CONTINUED)

JUNE 30, 2019

(1) Summary of Significant Accounting Policies (Concluded)

i. Application of Net Position

It is the SDSTA's policy to first use restricted net position, prior to the use of unrestricted net position, when an expense is incurred for purposes for which both restricted and unrestricted net position are available.

j. Accrued Leave

Compensated absences consist of vacation and sick leave earned. The vacation leave is earned by full-time employees at the rate of 4.62 hours per pay period, increasing to 6.16 hours per pay period after 15 years of service. The vacation leave may accumulate only to a maximum of twice the annual accrual. Upon retirement or resignation, only full-time employees with 180 days of continuous service will be paid for accumulated vacation leave. Sick leave is earned at the rate of 4.32 hours per pay period. Upon termination, some employees are entitled to receive compensation for a portion of their sick leave balance. Those with seven years of service or more will receive compensation at the rate of 25 percent of their balance up to a maximum of 480 hours.

k. Pensions

For purposes of measuring the net pension liability (asset), deferred outflows of resources and deferred inflows of resources related to pensions, and pension expense (revenue), information about the fiduciary net position of the South Dakota Retirement System (SDRS) and additions to/deletions from SDRS's fiduciary net position have been determined on the same basis as they are reported by SDRS. The SDSTA's contributions and net pension liability (asset) are recognized on an accrual basis of accounting.

(2) Deposits and Investments

Deposits

The majority of the SDSTA's cash is on deposit with the State Treasurer. Such funds are invested through the South Dakota Investment Council. Management of the State's internal investment pool is the statutory responsibility of the South Dakota Investment Council (SDIC). The investment policy and required risk disclosures for the State's internal investment pool are presented in the audit report of the South Dakota Investment Council, which can be obtained by contacting the Department of Legislative Audit, 427 South Chapelle, c/o 500 East Capitol, Pierre, South Dakota 57501.

Custodial credit risk is the risk that in the event of a bank failure, the SDSTA's deposits may not be returned to it. The SDSTA does not have a deposit policy for custodial credit risk. None of the SDSTA's deposits were exposed to custodial credit risk.

Investments

In general, SDCL 1-16H-18 permits funds to be invested in (a) direct obligations of, or obligations the principal of the interest on which are fully guaranteed or insured by, the United States of America; or (b) obligations of any solvent insurance company or other corporation or business entity if rated in the two highest classifications established by a standard rating service or insurance companies or a nationally recognized rating agency; or (c) short term discount obligations of the Federal National Mortgage Association; or (d) obligations of any state of the United States or any political subdivision, public instrumentality, or public authority of any state of the United States, which obligations are not callable before the principal is to be paid, are fully secured as to both sufficiency and timely payment by, and payable solely from, obligations described in (a). The SDSTA did not have any investments as of June 30, 2019.

SOUTH DAKOTA SCIENCE AND TECHNOLOGY AUTHORITY

NOTES TO FINANCIAL STATEMENTS (CONTINUED)

JUNE 30, 2019

(3) Changes in Capital Assets

A summary of changes in capital assets for the year ended June 30, 2019 is as follows:

	Balance				Balance
	June 30, 2018	Reclassified*	Increases	Decreases	June 30, 2019
Business-Type Activities:					
Capital Assets, not Being Depreciated:					
Land	\$ 1,814,136	\$ -	\$ -	\$ -	\$ 1,814,136
Underground	17,936,956	-	-	-	17,936,956
Archive Materials	70,000	-	-	-	70,000
Construction Work in Progress (Note 8)	18,083,869	(418,633)	246,173	-	17,911,409
Total Capital Assets, not Being Depreciated	37,904,961	(418,633)	246,173	-	37,732,501
Capital Assets, Being Depreciated:					
Equipment Under Capital Lease	-	-	-	-	-
Automobiles	108,962	-	10,000	-	118,962
Buildings	8,120,617	-	-	-	8,120,617
Furniture	74,212	-	-	-	74,212
Computer Equipment	431,565	-	16,250	-	447,815
Improvements	37,513,267	295,191	-	-	37,808,458
Infrastructure	1,958,862	-	-	-	1,958,862
Machinery and Equipment	10,594,964	123,442	102,617	181,874	10,639,149
Total Capital Assets, Being Depreciated	58,802,449	418,633	128,867	181,874	59,168,075
Total Capital Assets, Before Depreciation	96,707,410	-	375,040	181,874	96,900,576
Less Accumulated Depreciation:					
Equipment Under Capital Lease	-	-	-	-	-
Automobiles	75,408	-	5,087	-	80,495
Buildings	1,915,261	-	163,704	-	2,078,965
Computer Equipment	306,721	-	40,386	-	347,107
Furniture	49,240	-	4,775	-	54,015
Improvements	6,998,666	-	993,983	-	7,992,649
Infrastructure	343,943	-	50,682	-	394,625
Machinery and Equipment	4,906,769	-	672,277	179,624	5,399,422
Total Accumulated Depreciation	14,596,008	-	1,930,894	179,624	16,347,278
Capital Assets, Net	\$ 82,111,402	\$ -	\$ (1,555,854)	\$ 2,250	\$ 80,553,298

*Reclassifications are due to the SDSTA performing analysis of assets that were previously grouped in construction work in progress costs. Various items were transferred to improvements, and machinery and equipment as they were placed into service.

SOUTH DAKOTA SCIENCE AND TECHNOLOGY AUTHORITY

NOTES TO FINANCIAL STATEMENTS (CONTINUED)
JUNE 30, 2019

(4) Long-Term Debt

A summary of changes in long-term debt follows:

	Beginning Balance	Additions	Deletions	Ending Balance	Due Within One Year
Accrued Compensated Absences	\$ 1,083,728	\$ 681,714	\$ 556,502	\$ 1,208,940	\$ 604,470
Xenon Notes Payable	5,000,000	1,000,000	-	6,000,000	-
	<u>\$ 6,083,728</u>	<u>\$ 1,681,714</u>	<u>\$ 556,502</u>	<u>\$ 7,208,940</u>	<u>\$ 604,470</u>

Xenon Notes Payable

Loan Agreements with S.D. Community Foundation (SDCF), S.D. State University Foundation (SDSUF), and University of S.D. Foundation (USDF) to purchase xenon.

Repayment of Xenon Notes Payable

Each Foundation's share of the xenon shall be sold at a time such that the loans will be paid by the maturity date provided by the loan documents. Furthermore, if the SDSTA sells the xenon for more than the cost to purchase it, the Foundations shall be paid the full principal amount payable plus an amount equal to the Average Return times the number of liters of xenon purchased using Foundation Funds. The "Average Return" means the total price received for the sale of all xenon owned by SDSTA within the Project minus the amount paid to all Foundations providing funding, with the difference then divided by the total number of liters sold. Furthermore, if the SDSTA fails to pay any payment required on or before the due date, the Foundations may declare the entire remaining balance immediately due and payable.

The loans are 11 year, unsecured non recourse loans with 2.5% simple interest paid quarterly. The SDCF note is due on October 1, 2026. The SDSUF and USDF notes are due December 1, 2026.

Also see Note 8. \$ 6,000,000

The annual requirements to amortize long-term debt outstanding as of June 30, 2019, are as follows:

	Xenon Notes Payable		Totals	
	Interest	Principal	Interest	Principal
2020	150,000	-	150,000	-
2021	150,000	-	150,000	-
2022	150,000	-	150,000	-
2023	150,000	-	150,000	-
2024	150,000	-	150,000	-
2025-2027	362,500	6,000,000	362,500	6,000,000
Total	<u>\$ 1,112,500</u>	<u>\$ 6,000,000</u>	<u>\$ 1,112,500</u>	<u>\$ 6,000,000</u>

(5) Xenon Purchased

Xenon purchased is valued at a cost per liter with additional freight, customs, and analysis charges. Total xenon purchased to date is \$8,164,350 as shown by the detail below.

Fiscal Year	# of Liters	Total Cost	Average Cost/Liter
2014	20,000	\$332,855	\$16.64/liter
2016	200,000	1,273,808	6.37/liter
2017	600,295	3,433,693	5.72/liter
2018	260,000	1,473,544	5.67/liter
2019	300,000	1,650,450	5.50/liter
Total Purchased	<u>1,380,295</u>	<u>\$8,164,350</u>	<u>\$ 5.91/liter</u>

SOUTH DAKOTA SCIENCE AND TECHNOLOGY AUTHORITY

NOTES TO FINANCIAL STATEMENTS (CONTINUED)

JUNE 30, 2019

(6) Retirement/Pension Plan

Plan Information:

All employees, working more than 20 hours per week during the year, participate in the South Dakota Retirement System (SDRS), a cost sharing, multiple employer defined benefit pension plan administered by SDRS to provide retirement benefits for employees of the State of South Dakota and its political subdivisions. The SDRS provides retirement, disability, and survivors' benefits. The right to receive retirement benefits vests after three years of credited service. Authority for establishing, administering and amending plan provisions are found in SDCL 3-12. The SDRS issues a publicly available financial report that includes financial statements and required supplementary information. That report may be obtained at <http://www.sdrs.sd.gov/publications/> or by writing to the SDRS, P.O. Box 1098, Pierre, SD 57501-1098 or by calling (605) 773-3731.

Benefits Provided:

SDRS has three different classes of employees, Class A general members, class B public safety and judicial members, and Class C Cement Plant Retirement Fund members.

Members that were hired before July 1, 2017 are Foundation members. Class A Foundation members and Class B Foundation members who retire after age 65 with three years of contributory service are entitled to an unreduced annual retirement benefit. An unreduced annual retirement benefit is also available after age 55 for Class A Foundation members where the sum of age and credited service is equal to or greater than 85 or after age 55 for Class B Foundation judicial members where the sum of age and credited service is equal to or greater than 80. Class B Foundation public safety members can retire with an unreduced annual retirement benefit after age 55 with three years of contributory service. An unreduced annual retirement benefit is also available after age 45 for Class B Foundation public safety members where the sum of age and credited service is equal to or greater than 75. All Foundation retirement benefits that do not meet the above criteria may be payable at a reduced level.

Members that were hired on/after July 1, 2017, are Generational members. Class A Generational members and Class B Generational judicial members who retire after age 67 with three years of contributory service are entitled to an unreduced annual retirement benefit. Class B Generational public safety members can retire with an unreduced annual retirement benefit after age 57 with three years of contributory service. At retirement, married Generational members may elect a single-life benefit, a 60 percent joint and survivor benefit, or a 100 percent joint and survivor benefit. All Generational retirement benefits that do not meet the above criteria may be payable at a reduced level. Generational members will also have a variable retirement account (VRA) established, in which they will receive up to 1.5 percent of compensation funded by part of the employer contribution. VRA's will receive investment earnings based on investment returns.

Legislation enacted in 2017 established the current COLA process. At each valuation date:

- Baseline actuarial accrued liabilities will be calculated assuming the COLA is equal to the long-term inflation assumption of 2.25%.
- If the fair value of assets is greater or equal to the baseline actuarial accrued liabilities, the COLA will be:
 - The increase in the 3rd quarter CPI-W, no less than 0.5% and no greater than 3.5%.
- If the fair value of assets is less than the baseline actuarial accrued liabilities, the COLA will be:
 - The increase in the 3rd quarter CPI-W, no less than 0.5% and no greater than a restricted maximum such that, that if the restricted maximum is assumed for future COLA's, the fair value of assets will be greater or equal to the accrued liabilities.

All benefits except those depending on the Member's Accumulated Contributions are annually increased by the Cost-of-Living Adjustment.

Contributions:

Per SDCL3-12, contribution requirements of the active employees and the participating employers are established and may be amended by the SDRS Board. Covered employees are required by state statute to contribute the following percentages of their salary to the plan; Class A Members 6.0% of salary; Class B Judicial Members, 9.0% of salary; and Class B Public Safety Members, 8.0% of salary. State Statute also requires the employer to contribute an amount equal to the employee's contribution. The SDSTA's share of contributions to the SDRS for the fiscal years ended June 30, 2019, 2018, and 2017 was \$631,417, \$554,398, and \$595,112, respectively, equal to the required contributions each year.

SOUTH DAKOTA SCIENCE AND TECHNOLOGY AUTHORITY

**NOTES TO FINANCIAL STATEMENTS (CONTINUED)
JUNE 30, 2019**

(6) Retirement/Pension Plan (Continued)

Pension Liabilities (Assets), Pension Expense (Revenue), and Deferred Outflows of Resources and Deferred Inflows of Resources to Pensions:

At June 30, 2018, SDRS is 100.02% funded and accordingly has a net pension asset. The proportionate share of the components of the net pension asset of the South Dakota Retirement System for the SDSTA as of the measurement period ending June 30, 2018 and reported by the SDSTA as of June 30, 2019 are as follows:

Proportionate share of pension liability	\$54,372,916
Less Proportionate share of net pension restricted for pension benefits	54,383,282

Proportionate share of net pension liability (asset)	\$ (10,366)
	=====

At June 30, 2019, the SDSTA reported a liability (asset) of \$ (10,366) for its proportionate share of the net pension liability (asset). The net pension liability (asset) was measured as of June 30, 2018, and the total pension liability (asset) used to calculate the net pension asset was based on a projection of the SDSTA's share of contributions to the pension plan relative to the contributions of all participating entities. At June 30, 2018, the SDSTA's proportion was .44446330% which is a decrease of .0437029% from its proportion measured as of June 30, 2017.

For the year ended June 30, 2019, the SDSTA recognized pension expense (reduction of pension expense) of \$827,698. At June 30, 2019, the SDSTA reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	<u>Deferred Outflows Of Resources</u>	<u>Deferred Inflows Of Resources</u>
Difference between expected and actual experience.	\$ 391,793	\$ -0-
Changes in assumption.	2,631,724	-0-
Net Difference between projected and actual earnings on pension plan investments.		783,421
Changes in proportion and difference between SDSTA contributions and proportionate share of contributions.	278,608	-0-
SDSTA contributions subsequent to the measurement date.	631,417	-0-
	-----	-----
TOTAL	\$ 3,933,542	\$ 783,421
	=====	=====

\$631,417 reported as deferred outflow of resources related to pensions resulting from the SDSTA's contributions subsequent to the measurement date will be recognized as a reduction of the net pension liability in the year ending June 30, 2020. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in pension expense (revenue) as follows:

SOUTH DAKOTA SCIENCE AND TECHNOLOGY AUTHORITY

**NOTES TO FINANCIAL STATEMENTS (CONTINUED)
JUNE 30, 2019**

(6) Retirement/Pension Plan (Continued)

Year Ended June 30:	
2020	\$1,512,041
2021	1,135,161
2022	(63,114)
2023	(65,384)

TOTAL	\$2,518,704
	=====

Actuarial Assumptions:

The total pension liability (asset) in the June 30, 2018 actuarial valuation was determined using the following actuarial assumptions, applied to all periods included in the measurement:

Inflation	2.25 %
Salary Increases	Graded by years of service, from 6.50% at entry to 3.00% after 25 years of service
Discount Rate	6.50% net of plan investment expense

Mortality rates were based on 97% of the RP-2014 Mortality Table, projected generationally with Scale MP-2016, white collar rates for females and total dataset rates for males. Mortality rates for disabled members were based on the RP-2014 Disabled Retiree Mortality Table, projected generationally with Scale MP-2016.

A detailed experience analysis covering the period from June 30, 2011 to June 30, 2016, was conducted and appropriate modifications in the economic and demographic assumptions were made effective with the June 30, 2017 actuarial valuation.

Investment portfolio management is the statutory responsibility of the South Dakota Investment Council (SDIC), which may utilize the services of external money managers for management of a portion of the portfolio. SDIC is governed by the Prudent Man Rule (i.e., the council should use the same degree of care as a prudent man). Current SDIC investment policies dictate limits on the percentage of assets invested in various types of vehicles (equities, fixed income securities, real estate, cash, private equity, etc.). The long-term expected rate of return on pension plan investments was determined using a method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighing the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of real rates of return for each major asset class included in the pension plan's target asset allocation as of June 30, 2017 (see the discussion of the pension plan's investment policy) are summarized in the following table using geometric means:

<u>Asset Class</u>	<u>Target Allocation</u>	<u>Long-Term Expected Real Rate of Return</u>
Global Equity	58.0%	4.8%
Fixed Income	30.0%	1.8%
Real Estate	10.0%	4.6%
Cash	2.0%	0.7%

Total	100%	
	=====	

SOUTH DAKOTA SCIENCE AND TECHNOLOGY AUTHORITY

**NOTES TO FINANCIAL STATEMENTS (CONTINUED)
JUNE 30, 2019**

(6) Retirement/Pension Plan (Concluded)

Discount Rate:

The discount rate used to measure the total pension liability (asset) was 6.50%. The projection of cash flows used to determine the discount rate assumed that plan member contributions will be made at the current contribution rate and that matching employer contributions will be made at rates equal to the member rate. Based on these assumptions, the pension plan's fiduciary net position was projected to be available to make all future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability (asset).

Sensitivity of (liability) to changes in the discount rate:

The following presents the SDSTA's proportionate share of the net pension liability (asset) calculated using the discount rate of 6.50% as well as what the SDSTA's proportionate share of the net pension liability (asset) would be if it were calculated using a discount rate that is 1-percentage point lower (5.50%) or 1-percentage point higher (7.50%) than the current rate:

	<u>1%</u> <u>Decrease</u>	<u>Current</u> <u>Discount</u> <u>Rate</u>	<u>1%</u> <u>Increase</u>
SDSTA's proportionate share of the net pension liability (asset)	\$7,829,171	\$ (10,366)	\$(6,387,404)

Pension Plan Fiduciary Net Position:

Detailed information about the plan's fiduciary net position is available in the separately issued SDRS financial report.

(7) Risk Management

The SDSTA is exposed to various risks of loss related to torts; theft of, damage to, and destruction of assets; errors and omissions; injuries to employees; and natural disasters. There were no insurance claims exceeding insurance coverage during the past three years. During the period ended June 30, 2019, the SDSTA managed its risks as follows:

Building Structure Charges:

The buildings and permanent structures owned by the SDSTA are not covered by commercial insurance.

Personal Property Insurance:

The SDSTA purchases insurance for the contents of the administration building from a commercial insurance carrier, however, the contents of the SDSTA's other buildings are not insured.

Employee Health Insurance:

The SDSTA purchases health insurance for its employees from a commercial insurance carrier. Settled claims resulting from these risks have not exceeded the liability coverage during the past three years.

SOUTH DAKOTA SCIENCE AND TECHNOLOGY AUTHORITY

NOTES TO FINANCIAL STATEMENTS (CONTINUED)

JUNE 30, 2019

(7) Risk Management (Continued)

Liability Insurance:

The SDSTA purchases liability insurance for risks related to torts, theft or damage of property, errors and omissions of public officials, employee practices liability coverage, and professional engineers' coverage through its participation in the South Dakota Authority Captive Insurance Company, a component unit of the State of South Dakota. Additional liability coverage including auto liability coverage and environmental liability is purchased from commercial insurance carriers. Settled claims resulting from these risks have not exceeded the liability coverage during the past three years.

Worker's Compensation:

For the policy renewal date of December 1, 2019 through December 1, 2020, the SDSTA continued to purchase workmen's compensation through a commercial insurance carrier. Settled claims resulting from these risks have not exceeded the liability coverage during the past three years.

Unemployment Benefits:

The SDSTA provides coverage for unemployment benefits by paying into the Unemployment Compensation Fund established by state law and managed by the State of South Dakota.

(8) Significant Commitments, Contracts, and Subsequent Events

On December 23, 2009, the SDSTA received \$20,000,000 designated as Sanford Gift No.2. Gift No.2 was originally established for the Sanford Center for Science Education. Two amendments to the Homestake Gift Agreement were signed in June 2010 and October 2011, respectively, whereby it was agreed to use \$15 million of this \$20 million for infrastructure and safety upgrades at the Underground Davis Campus and for replacing steel and other rehabilitation of the Ross Shaft. In early August 2012, the SDSTA signed a third amendment to the Gift Agreement and received the remaining \$15 million of Gift No.2 called for by Section 2 of the Gift Agreement. The Gift No.2 balance of \$20 million was to be held in a restricted fund whereby the principal was not to be expended until a written approval of a business and operational plan for the Sanford Center for Science Education was received from Mr. Sanford. Furthermore, the third amendment allowed the SDSTA to utilize and expend interest and other earnings on Gift No.2 restricted funds. In May, 2013, the SDSTA signed a fourth amendment to the Gift Agreement whereby it was agreed to expend up to \$7,000,000 of Gift No.2 for the construction or remodeling of the Yates Dry Building (located at SURF), the remodeling or replacement of the Lead Homestake Visitor's Center and the remodeling of Jonas Hall (located on the campus of Black Hills State University in Spearfish, SD). This authorization was conditioned on the SDSTA raising \$1.5 million from other sources for the Black Hills State University project and \$1 million for the Sanford Lab Homestake Visitor's Center (SLHVC) in Lead. The SDSTA secured a \$2 million Future Fund grant from the State of South Dakota in October 2013 and an additional \$500,000 was received in July 2014 from Great Plains Education Foundation that satisfied this monetary obligation. Both outside facilities agreed in writing to incorporate and use the name "Sanford" in the naming of the facilities. Operating agreements are in place which reasonably provide for the ongoing operations of the respective facilities by the Homestake Visitor Center, Inc. and Black Hills State University. Given the construction budget of the SLHVC and the Jonas Science Building renovation costs, it was not possible to undertake the upgrades to the Yates Dry. These details were reported in the Fifth Amendment to the Homestake Gift Agreement in February 2015. Furthermore, any part of Gift No.2 not used for the three construction projects may be used for the construction and operation of additional underground laboratory space at SURF to accommodate other experiments, and for related infrastructure to access or support the new laboratory space through the shafts. After the above projects were finished approximately \$1,000,000 remained. On June 23, 2016 the sixth amendment was signed allowing the SDSTA to use the remaining funds to purchase real estate known as "Ellison Hill" and to conduct needed environmental assessments and remediation of the property. This will provide needed storage and construction material laydown space for the LBNF and DUNE projects. The "Ellison Hill" property was purchased in May 2017.

SOUTH DAKOTA SCIENCE AND TECHNOLOGY AUTHORITY

NOTES TO FINANCIAL STATEMENTS (CONTINUED)

JUNE 30, 2019

(8) Significant Commitments, Contracts, and Subsequent Events (Continued)

The cost of this remediation was shared equally by the SDSTA and Homestake Mining Company per the purchase agreement. With additional change orders, the contract amount was decreased to \$302,319. Remediation of the property was completed in November 2017. At fiscal year end, a balance of \$49,828 remained as Gift No. 2 funds. This will be used for operations and support for the underground laboratory space at SURF and updating of displays at the Sanford Lab Homestake Visitor Center.

In February 2010, the SDSTA entered into a contract with AmWest, Inc. – Hydro Resources in the amount of \$1,540,000 for the installation and maintenance of a deep level pump system. Subsequent change orders increased the contract amount to \$1,782,500 and extended the date through December 31, 2011. Another change order signed in May 2012 increased the contract amount to \$4,482,500 with a period of performance through December 31, 2017. The leased pump system is designed to dewater the mine from approximately the 5000' level to approximately the 7800' level. With the current vision of the DOE to not develop science laboratories past the 4850' level, the scope of this contract has been revised. Further negotiations with AmWest, Inc. resulted in the signing of another addendum to the contract effective January 1, 2013. This addendum reduced the monthly lease charges by \$2,500 per month for the years of 2013 to the end of the lease. The lease expired on December 31, 2017, at which time the leased property became the property of the lessee without any additional payment per the contract. It became the property of the Federal Government as these capital asset-type costs are being charged direct to the subcontract with FRA. An additional contract was entered into with Hydro Resources for the purchase and installation of a replacement deep level pump system for the future when the current pump needs replacement. This contract has a current cost of \$158,053 extending to December 17, 2020. A new pump, motor, and pump column have been purchased. The pump and motor are being stored at Hydro Resources until the current pump needs replacement.

A contract was signed in early January 2014 with the South Dakota School of Mines and Technology (SDSM&T) to be the lead institution for the accelerator project known as (CASPAR) Compact Acceleration System Performing Astrophysical Research. With an additional change the contract total was \$999,334 which was finalized in November 2017. This project is located at the Ross Campus laboratory at the 4850' Level. Another underground facility was completed as a laboratory for Black Hills State University to support low background counting activities, biology study workstations, and other future small-scale experiments. Contracts have been signed with both institutions whereby each will pay the SDSTA for reasonable energy costs and any other specific needed supplies.

The SDSTA's long-term cooperative agreement with Homestake Mining Company of California continues. The SDSTA agrees to combine Homestake's wastewater from Grizzly Gulch with the mine wastewater, as well as treat, and discharge the water. For the first year of this agreement, Homestake agreed to pay the SDSTA an amount ranging from \$.58 to \$.84 per 1000 gallons based on average total gallons treated per minute per month. Revenue from this agreement for the past two years was \$119,181 and \$173,422 respectively. Revenue was higher this last year due to the number of gallons treated being higher. This negotiated treatment price will be renegotiated once per year for the length of the contract. The negotiated price was renewed for the current year. Estimated revenues for the upcoming year are at \$125,000. The term of the contract runs to September 30, 2020.

A lease between the SDSTA and DOE for land (above ground) and space (underground) for the LBNF was signed on March 29, 2016. The term of the lease goes through April 30, 2036 but shall remain in force thereafter from year to year without further notice but shall in no event extend beyond a total of 65 years. Additional amendments to this lease executed in June 2017 and May 2018 (Amendment #1 and Amendment #2) added additional space in the Ross Dry Facility in support of the Long Baseline Neutrino Facility. An easement was signed with Homestake Mining Company for the construction and maintenance of conveyor facilities for the transportation of excavated rock to the Open Cut (open mine pit) owned by Homestake. The LBNF will include a large experimental facility underground at the 4850'L. Waste rock excavated from that level will be deposited into the Open Cut. An additional easement was negotiated with the City of Lead across their property to construct, maintain, and operate this overhead conveyance system.

SOUTH DAKOTA SCIENCE AND TECHNOLOGY AUTHORITY

NOTES TO FINANCIAL STATEMENTS (CONTINUED)

JUNE 30, 2019

(8) Significant Commitments, Contracts, and Subsequent Events (Continued)

Homestake Mining Company agreed with the signing of the Third Amendment to the Property Donation Agreement in August 2015 to release \$2,500,000 from the Indemnification Fund for the SDSTA to fund the captive insurance company. The original appropriation for the indemnification fund found at 2004 SD Session Laws, Chapter 14, Section 1 was revised by the State Legislature per Legislative Session 2015 HB 1186, to allow the use of up to \$2,500,000 to provide initial capital and pay expenses for the SDSTA's purposes in the captive insurance company.

Letter Agreement #1586 was signed in August 2015 between the GOED and the SDSTA whereby the State is granting up to \$6,000,000 between July 14, 2015 and September 30, 2018. The State has chosen to engage in a partnership with the SDSTA, the South Dakota Community Foundation, the South Dakota State University Foundation, and the University of South Dakota Foundation to assist with the costs of infrastructure/laboratory upgrades, procurement of xenon for future "Dark Matter" experiments, and interest payments to these foundations. The full \$6,000,000 has been received from the State as well as \$2,000,000 each from the South Dakota Community Foundation, the University of South Dakota Foundation, and the South Dakota State University Foundation. Loan agreements are in place between the SDSTA and the three foundations for a total of \$6,000,000 to be used for the purchase of xenon for the future LZ experiment. The loans extend to the last quarter of 2026. They are unsecured nonrecourse loans with 2.5% simple interest to be paid quarterly to each lender. The loans will be repaid at the end of the LZ experiment (approximately October 2026) from the sale proceeds of the xenon previously purchased. A purchase order for xenon is still open for an additional 140,000 liters at a total price of \$770,000 with Praxair Distribution.

Letter Agreement #1640 was signed in October 2019 between the GOED and the SDSTA. The SDSTA received \$4,000,000 to design, build, and maintain a new Maintenance Support Facility (MSF). The current facilities are dated, requiring substantial upgrades. Therefore, the State of South Dakota provided funding to assist in the construction of a new MSF. This is appropriate to accomplish the SDSTA's present and future requirements. Additionally, GOED Letter Agreement #1659 was signed in June 2019 for an additional \$2,500,000 to assist in the construction of the new facility. This was necessary to ensure that it will be completed on schedule.

(9) Construction Work in Process

The SDSTA accumulates the costs of construction projects in Construction Work in Progress until the projects are completed and/or placed in service. Some of the ongoing improvement projects are capitalized as they progress. The \$17,911,409 of construction work in progress at June 30, 2019, consisted of \$17,665,235 of accumulated costs for the Ross Shaft rehabilitation project and \$246,173 for the MSF. The costs accumulated consist of amounts under contract in addition to materials and other expenses purchased by the SDSTA. The remaining commitment on existing contracts at June 30, 2019 is \$856,237 for the demolition, design, and asbestos remediation of the MSF. An additional contract will be negotiated in fiscal year 2020 for the actual construction project. Funds from GOED Letter Agreement #1640 and #1659 will be used for this effort.

(10) Continuing Operations

The SDSTA is transitioning to a five-year Cooperative Agreement with the DOE's Office of Science – Integrated Support Center. This will fund the SDSTA's operations of the SURF. The federal fiscal year 2020 budget totals \$21,750,000. The five-year total equals \$120,605,674 to support the facility including critical upgrades. Additionally, the SDSTA has proposed for fiscal year 2020 approximately \$4M of infrastructure improvements that will awarded separately. The Ross Shaft rehabilitation project funding continues with FNAL as well as the contract for Ross Shaft Logistics Support. Additionally, SDSTA support for the LZ experiment engineering support and installation efforts has been extended to September 2020.

SOUTH DAKOTA SCIENCE AND TECHNOLOGY AUTHORITY

**NOTES TO FINANCIAL STATEMENTS (CONTINUED)
JUNE 30, 2019**

(11) Related Party Transactions

Mr. Ron Wheeler was appointed to the Board of Directors by the Governor effective July 1, 2013 and is a current member of the Board of Directors. As of July 1, 2013, Ron Wheeler transitioned from Executive Director to the Director of Governmental & External Affairs for the SDSTA. Mr. Wheeler was a full-time employee of the SDSTA until January 3, 2014, at which time he retired from full-time employment. Effective January 3, 2014, the SDSTA signed a contract with Mr. Wheeler as a consultant for the SDSTA. The contract, including amendments, is for \$539,000 and extends to January 15, 2022. For the period of July 1, 2018 – June 30, 2019, he was paid \$61,676 for his consulting services. Mr. Wheeler will assist in directing the state and federal government affairs programs for the SDSTA.

REQUIRED SUPPLEMENTARY INFORMATION OTHER THAN MD&A

SCHEDULE OF PROPORTIONATE SHARE OF THE NET PENSION LIABILITY (ASSET)

South Dakota Retirement System

Last 10 Fiscal Years *

	2019	2018	2017	2016	2015
SDSTA's proportion of the net pension liability (asset)	0.4444633%	0.4881662%	0.5027360%	0.5089089%	0.5287996%
SDSTA's proportionate share of net pension liability (asset)	\$ (10,366)	\$ (44,302)	\$ 1,698,193	\$ (2,158,428)	\$ (3,809,788)
SDSTA's covered employer payroll	\$ 8,995,993	\$ 9,596,007	\$ 9,256,007	\$ 9,042,866	\$ 8,888,749
SDSTA's proportionate share of the net pension liability (asset) as a percentage of its covered-employee payroll	0.12%	0.46%	18.35%	23.87%	42.86%
Plan fiduciary net position as a percentage of the total pension liability (asset)	100.02%	100.10%	96.89%	104.10%	107.30%

* The amounts presented for each fiscal year were determined as of the measurement date of the collective net pension liability (asset) which is 6/30 of previous fiscal year. Until a full 10-year trend is compiled, the SDSTA will present information for those years for which information is available.

SCHEDULE OF THE AUTHORITY CONTRIBUTIONS

South Dakota Retirement System

Last 10 Fiscal Years

	2019	2018	2017	2016	2015
Contractually required contribution	\$ 631,417	\$ 554,398	\$ 595,112	\$ 573,626	\$ 557,420
Contributions in relation to the contractually required contribution	\$ 631,417	\$ 554,398	\$ 595,112	\$ 573,626	\$ 557,420
Contribution deficiency (excess)	\$ -	\$ -	\$ -	\$ -	\$ -
SDSTA's covered-employee payroll	\$10,237,119	\$ 8,995,993	\$ 9,596,007	\$ 9,256,007	\$ 9,042,866
Contributions as a percentage of covered-employee payroll	6.17%	6.16%	6.20%	6.20%	6.16%

* Until a full 10-year trend is compiled, the SDSTA will present information for those years for which information is available.

SOUTH DAKOTA SCIENCE AND TECHNOLOGY AUTHORITY
NOTES TO THE REQUIRED SUPPLEMENTARY INFORMATION
Schedule of the Proportionate Share of the Net Pension Liability (Asset) and
Schedule of the SDSTA Contributions.

Changes of benefit terms:

No significant changes.

Changes of assumptions:

Legislation enacted in 2017 modified the SDRS COLA. For COLAs first applicable in 2018, the SDRS COLA will equal the percentage increase in the most recent third calendar quarter CPI-W over the prior year, no less than 0.5% and no greater than 3.5%. However, if the FVFR assuming the long-term COLA is equal to the baseline COLA assumption (currently 2.25%) is less than 100%, the maximum COLA payable will be limited to the increase that if assumed on a long-term basis, results in a FVFR equal to or exceeding 100%. That condition existed as of June 30, 2017 and exists again this year as of June 30, 2018. Future COLAs are assumed to equal the current restricted maximum COLA which was 1.89% as of June 30, 2017 and is 2.03% as of June 30, 2018.

The changes in actuarial assumptions increased the Actuarial Accrued Liability by 1.5% of the Actuarial Accrued Liability based on the 1.89% COLA, reflecting the current and assumed future restricted maximum COLA of 2.03%.

SUPPLEMENTAL INFORMATION

SOUTH DAKOTA SCIENCE AND TECHNOLOGY AUTHORITY

**SCHEDULE OF OPERATING EXPENSES
FOR THE YEAR ENDED JUNE 30, 2019**

Personal Services	
Employee Salaries	\$ 9,195,623
Employee Benefits	5,742,710
Total Personal Services	14,938,333
Travel	
Meals and Lodging	57,307
Auto and Fleet Services	52,203
Air - Commercial and Charter	65,371
Incidentals to Travel	5,076
Non-Employee Travel	31,111
Meals (Not Overnight)	32
Total Travel	211,100
Contractual Services	
Equipment Rental	181,990
Contractual - Other	2,512,850
Insurance	427,262
Lobbying	215,000
Computer Services	306,015
Telecommunications	54,843
Monitoring and Programming	57,303
Legal Consultant	77,023
Training	35,142
Consultant Fees - Accounting and Auditing	11,911
Promotion and Advancement	32,134
Dues and Memberships	4,977
Utilities	2,052,630
Maintenance and Repairs	235,977
Total Contractual Services	6,205,057
Supplies, Materials and Other Operating Expenses	
Maintenance and Repairs	1,505,316
Other Supplies and Equipment	3,377,123
Other Expenses	5,742
Office Supplies and Equipment	25,900
Licenses and Permits	43,085
Workshop and Registration Fees	27,298
Postage	4,286
Bank Charges	1,289
Total Supplies, Materials and Other Operating Expenses	4,990,039
Depreciation Expense	1,930,894
Total Operating Expenses	\$ 28,275,423

SOUTH DAKOTA SCIENCE AND TECHNOLOGY AUTHORITY

**SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS
FOR THE YEAR ENDED JUNE 30, 2019**

	Pass-Through Numbers	CFDA Numbers	Amount
<i>U.S. Department of Energy</i>			
Pass-Through the Regents of the University of California LUX/Zeplin (LZ) Cryogenic System Integration and Installation	7255146	81.7255146	\$ 3,762,010
<i>U.S. Department of Energy</i>			
Pass-Through the Regents of the University of California LUX/Zeplin (LZ) Infrastructure Construction - Davis Lab	7351116	81.7351116	\$ 355,538
<i>U.S. Department of Energy</i>			
Pass-Through the Regents of the University of California LUX/Zeplin (LZ) Engineering Support Experiment Operations	7355157	81.7355157	\$ 331,843
<i>U.S. Department of Energy</i>			
Pass-Through the Regents of the University of California LBNL SIGMA-V Project	7371823	81.7371823	\$ 144,889
<i>U.S. Department of Energy</i>			
Pass-Through Oak Ridge National Laboratory Experiment Support for Majorana Demonstrator	4000144149	81.4000144149	\$ 34,020
<i>U.S. Department of Energy</i>			
Pass-Through Fermi National Accelerator Laboratory SURF (Sanford Underground Research Facility) Operations Support	629760	81.629760	\$ 16,310,354
<i>U.S. Department of Energy</i>			
Pass-Through Fermi National Accelerator Laboratory SURF (Sanford Underground Research Facility) Ross Shaft Rehab	630223	81.630223	\$ 3,619,941
<i>U.S. Department of Energy</i>			
Pass-Through Fermi National Accelerator Laboratory SURF (Sanford Underground Research Facility) Ross S.Logistics	654406	81.654406	\$ 507,452
<i>National Science Foundation:</i>			
Pass-Through South Dakota School of Mines & Technology Mathematical and Physical Sciences Research Grant	PHY-1615197	47.049	\$ 41,601
<i>U.S. General Services Administration:</i>			
Pass-Through South Dakota Federal Property Agency		39.003	\$ 9,718
Total			\$ 25,117,367

Note: The schedule of expenditures of federal awards is presented on the cash basis of accounting.

SOUTH DAKOTA SCIENCE AND TECHNOLOGY AUTHORITY

**NOTES TO SCHEDULE OF EXPENDITURE OF FEDERAL AWARDS
JUNE 30, 2019**

Note 1: *Basis of Presentation*

The accompanying Schedule of Expenditures of Federal Awards (the "Schedule") includes the federal award activity of the SDSTA under programs of the federal government for the year ended June 30, 2019. 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 the SDSTA, it is not intended to and does not present the financial position, changes in net position, or cash flows of the SDSTA.

Note 2: *Summary of Significant Accounting Policies*

Expenditures reported on the Schedule are reported on the cash basis of accounting. Such expenditures are recognized following the cost principles contained in the Uniform Guidance, wherein certain types of expenditures are not allowable or are limited as to reimbursement. Negative amounts shown on the Schedule represent adjustments or credits made in the normal course of business to amounts reported as expenditures in prior years. The SDSTA has elected not to use the 10-percent indirect cost rate as allowed under the Uniform Guidance

Note 3: *Federal Surplus Property*

The amount reported represents 23.3% of the original acquisition cost of the federal surplus property received by the SDSTA.