# South Dakota Science and Technology Authority

# **Board Meeting** March 24, 2022



630 East Summit Street Lead, SD 57754 Root Jank

#### Call to Order—Chairperson Casey Peterson

#### 1A. Call Roll

- Dr. Ani Aprahamian Mr. Dana Dykhouse Dr. Chris Fall Ms. Pat Lebrun Mr. Roger Musick Mr. Casey Peterson Mr. Ron Wheeler Dr. James Rankin, ex-officio member
- 1B. Introduce guests-ask to announce name and affiliation
- 1C. Public comment form (submit forms prior to start of board meeting)

Procedure for Public Comment Periods

Pursuant to SDCL 1-25-1 as amended by House Bill 1172 in the 2018 Legislative Session the procedure for conducting public comment periods during meetings of the South Dakota Science and Technology Authority (SDSTA) shall be as follows:

The chair of the SDSTA shall reserve a period for public comment, limited at the chair's discretion, at each meeting.

Before the beginning of the meeting, all persons who wish to make comments during the comment period shall indicate their desire to do so on a form that will be provided by the Executive Director. The form shall indicate the person's name, city of residence and generally describe the matter or matters on which the person wishes to comment.

The amount of time allocated to each interested person who wishes to make comments will be determined at the chair's discretion at each meeting. Comments must be limited to matters which are under the jurisdiction of the SDSTA.

All persons making public comments at meetings of the SDSTA must do so in a manner that maintains civility. Comments which contain offensive language or profanity will not be tolerated.



## Approve Agenda—Chairperson Casey Peterson

Attached is the SDSTA Board agenda for the March 24, 2022 meeting.

See recommended motion below.





## AGENDA

#### South Dakota Science and Technology Authority 630 East Summit Street, Lead, South Dakota Meeting of the Board of Directors Thursday, March 24, 2022 at 8:00 AM (MT) \*\*Yates Education & Outreach Conference Room\*\*

Public (Open) Session: 1-669-900-6833, Meeting ID: 605 722 4022, Passcode: 8650, https://zoom.us/join

SDSTA Mission: We advance world class science and inspire learning across generations.

NOTICE: Members of the public may listen to the meeting by calling 1-669-900-6833 and entering Meeting ID code: 605 722 4022. Please mute your phone after joining.

	Title	Report	Recommendations
1.	Call to order	Chair Casey Peterson	
	A. Call roll		1A. Confirm quorum by calling roll
	<b>B.</b> Introduce guests		<i>1B. Ask guests to announce their name/</i> <i>affiliation</i>
	C. Public comment form		<i>IC. Reminder request to submit public comment form(s)</i>
2.	Approve agenda	Chair Casey Peterson	Motion to approve agenda
3.	Approve minutes	Chair Casey Peterson	<i>Motion to approve the December 16, 2021 minutes</i>
4.	Conflict of interest disclosure	Mr. Tim Engel	Informational
5.	Conflict of interest disclosure and waiver under SDCL CH. 3-23	Mr. Tim Engel	
6.	SURF Foundation (SURFF) status update	Mr. Mike Headley Ms. Staci Miller	Informational
7.	Report from Audit Committee	Ms. Pat Lebrun	
	A. Audit Committee meeting update		7 <i>A. See board packet for audit committee</i> minutes
	<b>B.</b> Acceptance of Audit Report-fiscal year ended June 30, 2021		7B. Motion to accept Audit Report Fiscal Year Ended June 30, 2021 as reviewed and discussed at December 16, 2021 board meeting

8. Financial Report-- Mr. Mike HeadleyA. February Financial statements-- Ms. Nancy Geary

Please do not place or accept cell phone calls during this meeting. A copy of this agenda has been posted in a manner visible to the public at the entrance to the South Dakota Science and Technology Authority office located at 630 East Summit Street, Lead, South Dakota at least 72 hours prior to this meeting. Telephone: (605) 722-8650.



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	Title	Report	Recommendations
	<b>B.</b> Checks Resolution No. 2022-01		<i>8B. Motion to adopt Resolution No. 2022-01</i>
			Motion to accept report as presented
9.	Report from Executive Director A. Declarations of Surplus (5)	Mr. Mike Headley	Informational
	<b>B.</b> SDSTA quarterly update		Informational
	C. Yates Shaft update	Ms. Wendy Staub	Informational
	<b>D.</b> Science update	Dr. Jaret Heise	Informational
			Motion to accept executive director's report
10.	Executive session (closed meeting)	Chair Casey Peterson	Motion to enter executive session to discuss personnel matters and to consult with legal counsel concerning contractual and legal matters—SDCL 1-25-2(1), (3) and (4); 19- 19-502.
11.	Report from executive session	Chair Casey Peterson	Motion to accept executive session report
12.	SDSTA policies and procedures	Mr. Mike Headley	Motion to approve the following updated policies: 1) Alcohol, Controlled Substances and Testing, 2) Firearms, Explosives and Other Weapons, 3) Open Door and 4) Record Retention Policy (Informational—updated procedures approved by executive director Headley include: Accounting and Audit, Code of Business Ethics, Open Door and Social
			Media Procedures)
13.	Select Nominating Committee	Chair Casey Peterson	Chairperson to appoint members of nominating committee for election of officers at annual meeting
14.	Confirm date and time of next meeting	Chair Casey Peterson	Thursday, June 16, 2022 at 8:00am (MT)— Annual Meeting
15.	Public comments	Chair Casey Peterson	
16.	Board comments	Chair Casey Peterson	
17.	Adjourn	Chair Casey Peterson	Motion to adjourn

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#### SDSTA Board Member Terms of Service, Committees and Schedule

	Board Members and Terms of Service						
	<b>Board Members</b>	Appointed	Term Expires				
1.	Dr. Ani Aprahamian	Re-appointed January 7, 2022	December 9, 2027				
2.	Mr. Dana Dykhouse, Vice-Chair	Re-appointed August 15, 2020	August 14, 2026				
3.	Ms. Patricia Lebrun, Secretary- Treasurer	Re-appointed August 5, 2016	August 8, 2022				
4.	Dr. Chris Fall	Appointed December 1, 2021	August 8, 2027				
5.	Mr. Roger Musick	Appointed September 19, 2018	August 21, 2022				
6.	Mr. Casey Peterson, Chair	Re-appointed December 1, 2021	August 8, 2027				
7.	Mr. Ron Wheeler	Re-appointed April 28, 2020	April 9, 2025				
8.	Dr. James Rankin, ex-officio member	SDSM&T President as of Jan 8, 2018					
	Committees and Members (2021-2022)						
	Audit Committee Members	Nominating Committee Members					
	(September):	(March):					
	<ul> <li>Pat Lebrun-Chair, tbd</li> </ul>	<ul> <li>Dana Dykhouse</li> </ul>					
	<ul> <li>Dana Dykhouse, tbd</li> </ul>	<ul> <li>Roger Musick</li> </ul>					
	<ul> <li>Casey Peterson, ex-officio, tbd</li> </ul>						
	2022 Board Schedule						
	Thursday, March 24 2022	8:00 am (MT)	E&O Bldg				
	Thursday, June 16, 2022	8:00 am (MT), annual	E&O Bldg				
	Thursday, September 22, 2022	8:00 am (MT)	E&O Bldg				
	Thursday, December 15, 2022	9:00 am (MT)	E&O Bldg				

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## Approve Minutes—Chairperson Casey Peterson

Attached are the December 16, 2021 Board Minutes for approval.

See recommended motion below.



#### South Dakota Science and Technology Authority Board of Directors Meeting Minutes Thursday, December 16, 2021 Lead, South Dakota

The Board of Directors of the South Dakota Science and Technology Authority (SDSTA) convened at 9:00 AM Mountain Time (MT) on Thursday, December 16, 2021, in the Education and Outreach (E&O) Building Conference Room at the South Dakota Science and Technology Authority, 630 East Summit Street, Lead, South Dakota. To maintain physical distance due to the COVID-19 pandemic, cloth face masks were required, and a conference number was posted on the agenda with an invitation for members of the public to participate in the meeting by telephone.

#### MEMBERS OF THE BOARD IN ATTENDANCE

Vice Chairperson Dana Dykhouse (by phone) Dr. Chris Fall (by phone) Secretary/Treasurer Patricia Lebrun (by phone) Mr. Roger Musick (by phone) Chairperson Casey Peterson (in person) Mr. Ron Wheeler (by phone) Dr. James Rankin, ex-officio (by phone)

#### MEMBERS OF THE BOARD ABSENT

Dr. Ani Aprahamian

#### SDSTA STAFF

Mr. Tim Engel, General Counsel (in person)

Ms. Nancy Geary, Chief Financial Officer (in person)

Mr. Mike Headley, Executive Director (in person)

Dr. Jaret Heise, Science Liaison Director (in person)

Ms. Mandy Knight, Administrative Services Manager (in person)

Mr. William McElroy, Deputy Director of Operations (in person)

Ms. Staci Miller, SURF Foundation Director (in person)

Mr. Thomas Newman, Director of Information Technology (in person)

Ms. Constance Walter, Communications Director (in person)

Ms. Natasha Wheeler, Administrative Assistant (in person)

Ms. Deb Wolf, Education and Public Relations Director/IDEA Program Manager (in person)

#### ALSO PRESENT DURING ALL OR PART OF THE MEETING

Mr. Syd De Vries, Senior Principal Engineer, Fermilab (by phone)
Ms. Elizabeth Freer, dialogue LLC Principal and Owner (in person)
Ms. Wendy Pitlick, Black Hills Pioneer Journalist (by phone)
Mr. Mark Miller, General Counsel and Interim Chief of Staff, Office of the Governor (by phone)
Mr. Terry Miller, incoming Chief Financial Officer, SDSTA (in person)
Dr. Peggy Norris, Education & Outreach Deputy Director (BHSU) (in person)
Ms. Elizabeth Sailer, Vice President for External Relations, Dakota Territory Resource Corp (by phone)
Dr. Ben Sayler, Sanford Science Education Center Director (BHSU)
Mr. Patrick Weber, South Dakota Services Division Head, Fermilab (by phone)
Mr. Joshua Willhite, Long-Baseline Neutrino Facility (LBNF) Far Site Conventional Facilities Project Manager (in person)
Ms. Nicol Reiner, Education & Outreach Director (BHSU) (in person)

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## **ITEM 1. CALL TO ORDER**

Chairperson Casey Peterson called the meeting to order at 9:00 AM (MT). Roll call was held. Mr. Dana Dykhouse, Dr. Chris Fall, Ms. Pat Lebrun, Mr. Roger Musick, Mr. Ron Wheeler and Dr. Jim Rankin joined by phone. Chairperson Peterson was present in person. Dr. Ani Aprahamian was absent.

Chairperson Peterson then asked audience members to introduce themselves. New hire Mr. Terry Miller announced he will start at SDSTA on January 3 as the new Chief Financial Officer (Ms. Nancy Geary will retire in June 2022). New hire Mr. Thomas Newman, Information Technology Director, also introduced himself. Chairperson Peterson then said if anyone from the audience had any questions or comments for the board to address, to please complete the public comment form located at the sign-in table and time will be given at the end of the agenda to discuss. He reported no comment forms were submitted.

#### **ITEM 2. APPROVE AGENDA**

Chairperson Peterson asked if there were any modifications to the agenda. Hearing none, he asked for a motion to approve the agenda.

Motion by Ms. Lebrun and seconded by Mr. Musick to approve the agenda as presented. Motion passed unanimously by roll call vote.

#### **ITEM 3. APPROVE MINUTES**

Chairperson Peterson asked for any comments on the September 17 or September 23, 2021 Minutes. Hearing none, he asked for a motion to approve the minutes.

Motion by Mr. Wheeler and seconded by Mr. Dykhouse to approve the September 17, 2021 and September 23, 2021 minutes as presented. Motion passed unanimously by roll call vote.

#### **ITEM 4. GENERAL CONFLICT OF INTEREST DISCLOSURE**

SDSTA Legal Counsel Mr. Tim Engel invited members of the board to disclose anything that might be construed to be a conflict of interest with respect to items under consideration at today's meeting.

No conflicts of interest were disclosed.

#### ITEM 5. DISCLOSURES AND WAIVER UNDER SDCL CH. 3-23

Mr. Engel reported he polled all board members with respect to disclosures required by SDCL Ch. 3-23 and none were disclosed by any board member.

#### **ITEM 6. SURF FOUNDATION**

#### **ITEM 6A. SURF FOUNDATION STATUS UPDATE**

Ms. Staci Miller said the SURF Foundation has been recognized with the GuideStar Platinum Seal of Transparency, which honors sharing accurate, unbiased background information, financial statements, goals and other data that allows potential donors, funders and stakeholders to make educated decisions about nonprofits and the work they do. She said \$428,468.88 has been raised towards the \$800,00.00 goal for the Sacred Circle Garden, a place that will protect our environment, our rich history and the values that connect us. She said limited-edition prints have been created to support the project, with 100 prints each of the Badlands, Bear Butte, Bear Lodge (Devil's Tower) and Black Elk Peak. Ms. Miller said donors who contribute \$1,500.00 have their choice of one print, and donors who contribute \$5,000.00 can receive the set of four. She said information about the prints was rolled out to the public in November 2021.

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Ms. Miller reviewed the SURF Foundation's four key impact areas, including Inspiring Future Students, Beyond the Classroom – Into the Community, the Institute for Underground Science at SURF and United in One Space. She said the SURF Foundation had 54 constituents in 2020 and 117 constituents in 2021, showing an average gain of 5.25 donors per month over the last year.

Ms. Miller said SURF Foundation accomplishments over the past year include adding three new board members in September and completing board orientations in November; holding a donor retention rate of 58% as of December 10, 2021 compared to the national average of 43%; and participating in Giving Tuesday, which included two videos of support provided by SURF Foundation board members, 89% of donors being new donors, and a Giving Tuesday employee appreciation breakfast hosted by the SURF Foundation on November 30. She said she spent three days in Sioux Falls presenting to Rotary Club west, Rotary Club north and multiple potential donors, and the SURF Foundation hosts a monthly "From the Underground Up" at SURF as a live/virtual combination coffee hour to build employee engagement. Mr. Dykhouse commented he attended one of Ms. Miller's public talks in Sioux Falls and she told a good story in a positive way. He encouraged Ms. Miller to continue giving these presentations to service groups across the state.

#### ITEM 6B. INSTITUTE FOR UNDERGROUND SCIENCE AT SURF

Ms. Elizabeth Freer shared a summary for the development of the Institute for Underground Science at SURF, produced by her company, dialogue LLC. She outlined the process, including an Institute scoping document completed in July 2021; a building program and siting study completed by Arup; a labor, non-labor and program budget development with SDSTA staff; a construction budget, total project budget and schedule completed by Oppenheim Lewis, Inc.; a comparison of operational budgets with similar institutes; and the presentation to the SDSTA Board on summary findings and recommendations at the December 2021 Board meeting.

Ms. Freer said the scoping study considered a range of options in sizing and capacity while meeting several key program elements defined in the study and identified several potential locations on site at SURF for the Institute, with the most preferred being Ellison Hill. She said budget estimates considered ranges within staffing, non-labor and operations costs, science programs and education programs, with a total operations budget estimate ranging between \$12.5 million and \$22.6 million. Ms. Freer said a budget estimate assuming 87 staff positions would range between a \$7.1 million and \$11 million annually for staffing; non-labor operations costs would range between \$3.3 million and \$5 million annually; science program costs would range between \$1.7 million and \$4.8 million annually and education costs would range between \$365,000 and \$1.7 million annually. Ms. Freer also discussed broad ranges of construction cost estimates.

Ms. Freer shared operating budget data from several other institutes, noting similarities and differences in potential income, such as institutes which used shared resources with universities.

The recommendations Ms. Freer presented in conclusion of the scoping study included: to hire an Institute director, refine programming and cost estimates, hire fundraising staff and establish a three-phase fundraising plan with endowment goals, to further define expenses related to operations, programs and staffing, and establish a project team and initial development process as soon as possible.

Chairperson Peterson asked what was the biggest surprise working on the scope? Ms. Freer replied she did not expect how closely aligned their budget would be to the scale of other larger institutions. Dr. Fall thanked Ms. Freer for answering his questions in regard to this topic during the Foundation Board meeting held yesterday, December 15.

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## **ITEM 7. REPORT FROM THE AUDIT COMMITTEE**

## ITEM 7A. AUDIT COMMITTEE MEETING UPDATE

Ms. Lebrun said the Audit Committee reviewed and submitted the audit report to all board members for review, to discuss approval at the next regularly scheduled board meeting in March 2022.

### ITEM 7B. AUDIT REPORT-FISCAL YEAR ENDED JUNE 30, 2021

Ms. Lebrun said she was happy to say the audit report—completed in November 2021 and included in the board packet—was a clean audit and no exceptions were included in the report. She said the Audit Committee met by conference call on November 29, 2021, and an unmodified opinion has been shared with the board. Ms. Lebrun thanked Ms. Geary and SD Department of Legislative Audit Mr. Al Schaefer, Auditor-in-Charge, for providing good information in a timely manner.

Ms. Lebrun said the State of South Dakota will no longer be handling the SDSTA audit since SURF is not primarily funded by state funds; funds are derived from external sources such as federal agreements with the Department of Energy (DOE) and other sources. She said SDSTA will advertise a Request for Proposal (RFP) to find a third-party auditor. Chairperson Peterson suggested releasing an RFP by March 2022 instead of waiting until June due to the current high demand for auditing professionals. The board, Ms. Geary and Mr. Headley agreed to set up a meeting to discuss an RFP and present it at the March 2022 board meeting.

Motion by Ms. Lebrun and seconded by Mr. Musick to accept the Audit Committee Report and to discuss Audit Report approval at the next regularly scheduled board meeting per statute. Motion passed unanimously.

### **ITEM 8. FINANICAL REPORT**

## ITEM 8A. NOVEMBER FINANCIAL STATEMENTS

Ms. Geary presented the balance sheet and income statement provided in the board packet. She said SDSTA has received additional Cooperative Agreement (CA) funding for the logistics contract through Fermilab and the University of California Berkley LUX-ZEPLIN (LZ) contract. Ms. Geary said the last quarter had an overrun of \$236,000.00, but it balances out with and underrun reflected in the CA for the contract-to-date amount; and an underrun spend plan is in place for the contract. She said December is a three-pay period month, which has been accounted for. Ms. Geary said great strides have been made toward Infrastructure Improvement Projects because of the mild weather so far this season, allowing the Yates Waterline project and the Wastewater Treatment Plant Gravity Flow projects to progress. She said SDSTA is hiring for staff positions that include: a new Chief Financial Officer, and two Human Resources positions and employees for the Sanford Lab Homestake Visitor Center (SLHVC), the latter being contingent upon the board's approval of acquiring the SLHVC under SDSTA. Chairperson Peterson asked several questions regarding the comparative financial statements which were answered by Ms. Geary.

Motion by Mr. Musick and seconded by Mr. Dykhouse to accept the financial report as presented. Motion passed unanimously.

## ITEM 9. REPORT FROM THE EXECUTIVE DIRECTOR

## ITEM 9A. DECLARATION OF SURPLUS – FOUR (4)

Mr. Headley directed the board to the four Declarations of Surplus included in the board packet and asked for questions or comments. None were raised.

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Mr. Headley then went out of agenda order and asked Mr. Joshua Willhite to provide an update on the LBNF project as a DOE review of the LBNF project is being conducted parallel to the SDSTA board meeting and Mr. Willhite had limited availability to provide an update. Mr. Headley thanked Mr. Willhite and the Long-Baseline Neutrino Facility (LBNF) team for hosting a successful townhall in Lead, South Dakota on December 15, 2021 to address dust blowing out of the Open Cut.

#### **ITEM 9D. LBNF UPDATE**

Mr. Willhite shared a model of the LBNF site, currently under construction on the 4850 Level, which is being excavated to create two detector caverns and a central utility cavern for the Deep Underground Neutrino Experiment (DUNE). He said Fermilab has subcontracted Thyssen Mining Company (TMI) for excavation, and TMI has been working on site since April 2021. Mr. Willhite said the drilling of a new ventilation shaft, using a raise bore machine, has been completed and is now being shotcreted (lined with concrete), and will provide greater ventilation underground. He said current efforts are focused on the South Access Drift, which allows access from the Yates Shaft to the Ross Shaft underground. Mr. Willhite said about 13%, by volume, of the total project has been excavated.

Mr. Willhite said temporary supplemental heaters have been added at both the Yates and Ross Shafts to ensure no ice buildup due to ventilation being added, and permanent heaters are planned for installation next spring.

Mr. Willhite said TMI has been on site for a full year without a recordable injury or incident, has shown significant community involvement, and has worked nimbly around obstacles as they have come up.

Mr. Willhite said the Lead community expressed concern to Fermilab about high levels of noise, and to mitigate the issue, they worked with Kiewit Alberici Joint Venture to install a muffler on a dust collector fan, reducing the noise by 12 decibels; provided education to personnel to minimize noise at night; and installed special backup alarms on equipment to minimize community impact while still ensuring construction safety.

He said Fermilab has been addressing the community's concern about dust blowing out of the Open Cut. He said controls in place to-date include water sprays on material transported on the conveyor belt, plans for updated design for the "superchute," and a fogger and large sprinklers covering the dirt pile with water mist. Additionally, he said current efforts include hosting a community townhall to share information, applying tackifier to bind dust particles, contracting for a drone which will apply binder to the dust pile, using continuous visual observation to determine if transport of material needs to be shut down to reduce dust, and developing procedures for monitoring and stoppages, for example, during high-wind events. Mr. Willhite said Fermilab will also be addressing the issue of material deposited on foliage along the edge of the Open Cut to ensure the health of the plants. He added that the ground stability was studied prior to construction of the conveyor and the dirt deposit should not negatively impact structure.

The Board asked a few questions regarding the stability of the rock in the Open Cut which were answered by Mr. Willhite.

#### ITEM 9B. SDSTA QUARTERLY UPDATE

Mr. Headley said SDSTA is now in the third year of the CA, the direct contractual relationship between SDSTA and DOE, and the relationship between SDSTA and DOE remains strong. He said current infrastructure improvements on site are modernizing SURF and increasing reliability to support construction and current/future science at SURF. He said CA funding for infrastructure improvement projects was \$9.4 million in Fiscal Year (FY) 2020, \$6.3 million in FY21 and is at \$5.3 million for FY22.

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Mr. Headley said SDSTA support for LBNF construction is proceeding according to plan with 24hour/7-day a week support. He said the Ross Shaft is in its final stages for full certification, and SDSTA is continuing to transport personnel and loads to the 4850L in support of construction and science. He said the Yates Shaft was in rehabilitation mode for several months and will resume operations today, December 16, 2021.

Mr. Headley said the LZ dark matter experiment is in transition from commissioning to a five-year data taking run, and long-term planning is advancing for science and facilities at SURF. He said the new SURF User Association held its first meeting in the fourth quarter, and a new Science Program Advisory Committee was formed and is planning their first meeting for January 5 and 6, 2022. Mr. Headley said a planning study for science lab space on the 4850L has started with Stantec and should be complete by the end of the year; building and budget planning are underway for the Institute; and planning is underway to submit a proposal in June 2022 for SURF to become a DOE User Facility. Dr. Fall asked Mr. Headley to elaborate on the proposal submitted to become a DOE User Facility and he did so.

Chairperson Peterson suggested sending a thank you letter to Dr. Thomas Glasmacher, Laboratory Director and Project Director for the Facility for Rare Isotope Beams, recognizing his support of SURF, and Mr. Headley said he would draft a letter on behalf of the SDSTA Board and employees.

#### ITEM 9C. E&O UPDATE

Ms. Nicol Reiner shared a table of data illustrating the number of student interactions for the Education and Outreach (E&O) Department, including a total of 5,745 student contacts during the 2020-2021 school year (through COVID restrictions) and a total of 8,147 student contacts in the first quarter of the current 2021-2022 school year (as of November 30, 2021). Ms. Reiner shared a graphic illustrating the distribution of contacts with schools, showing a dispersal of curriculum unit use, and face-to-face and virtual interactions across South Dakota, as well as at a school in Minnesota and a school in North Dakota.

The E&O team sends out curriculum units related to a variety of topics, and Ms. Reiner illustrated these with a web graphic, saying there are currently 17 different units available, aligning specifically with South Dakota science standards and designed to be age-appropriate for students. She said the program has received positive feedback from educators, and she shared several quotes from teachers highlighting positive comments.

Ms. Reiner said the E&O team reached out to several higher education institutions throughout South Dakota to gauge interest in creating collaborative partnerships, and the E&O program is now working with six post-secondary schools, including the University of South Dakota, South Dakota State University, Augustana University, Dakota State University, Black Hills State University and Northern State University.

Ms. Reiner said the E&O program does a lot of work to support educators, including upcoming events in the districts of Harrisburg, Spearfish and Lead-Deadwood, online science and math pedagogy courses with Black Hills State University, and a South Dakota Science, Technology, Engineering and Math conference. She said current planning for summer 2022 includes three-dimensional professional development for an in-person program and a virtual program, four South Dakota Established Program to Stimulate Competitive Research (EPSCoR) programs, two elementary computational thinking professional development sessions, a pilot math workshop and two SDMath/SDSCi leadership training sessions.

Ms. Reiner said Dr. Peggy Norris, E&O Deputy Director, will retire February 11, 2022, after 13 years with the program and serving as an instrumental member of E&O, developing programming, connecting with rural and underserved communities, writing curriculum units, developing presentations, sharing a

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wealth of information and building up the Davis-Bahcall scholarship and internship programs. Ms. Reiner said Dr. Norris's legacy will live on through SURF's E&O program and she will be greatly missed.

Motion by Dr. Fall and seconded by Mr. Musick to accept the Executive Director's report as presented. Motion passed unanimously.

## **ITEM 10. DISCUSS REGISTRATION OF LOBBYISTS**

Mr. Engel explained that every year, the board authorizes several persons to register as lobbyists for SDSTA. He said he is not aware of any initiatives at this time, but lobbyists monitor what is going on in the legislature. Mr. Engel recommended Mr. Headley, himself and Mr. Doug Abraham, a partner in Mr. Engel's firm, be designated as SDSTA lobbyists.

Motion by Mr. Wheeler and seconded by Mr. Musick to designate Mike Headley, Tim Engel and Doug Abraham as lobbyists for the SDSTA for the 2022 Legislative Session. Motion passed unanimously.

## **ITEM 11. EXECUTIVE SESSION**

Motion by Mr. Wheeler and seconded by Mr. Dykhouse to enter into executive session to discuss personnel matters and to consult with legal counsel concerning legal and contractual matters as permitted by SDCL 1-25-2(1), (3) and (4). Motion passed unanimously.

The board recessed at 10:25 AM for a ten-minute break followed by executive session.

The board reconvened in open session at 11:21 AM.

## **ITEM 12. REPORT FROM EXECUTIVE SESSION**

Chairperson Peterson reported that the board discussed contractual matters and consulted with legal counsel concerning legal and contractual matters. No action was taken.

Motion by Mr. Musick and seconded by Mr. Wheeler to approve the executive session report. Motion passed unanimously.

Mr. Dykhouse and Dr. Fall left the meeting after Executive Session.

## ITEM 13. 2022 COMMERCIAL GENERAL LIABILITY RENEWAL

Mr. Engel said the current market is "hard" and premiums are going up every year. He said options are limited and insurance is required per various contracts and agreements with SDSTA, and renewals are still in-process. Mr. Engel stated no action is needed if an agreement can be reached within the approved budget; a special meeting will be needed if premiums exceed the approved budget.

Chairperson Peterson said no action is required for the time being.

#### ITEM 14. SANFORD LAB HOMESTAKE VISITOR CENTER – TRANSFER OF OWNERSHIP

Mr. Headley said SDSTA has been in discussion and negotiation with the SLHVC and has reached a deal that is ready for SDSTA board approval. Mr. Headley said this deal would transfer the building, funded by Mr. Denny Sanford, at no cost and SDSTA would purchase the remaining inventory, furniture, fixtures and the land the building sits on, with an estimated purchase price of \$88,986.00. Mr. Headley recognized Lead Chamber Board President Marsha Nichols and her fellow board members for their help throughout the process. Mr. Headley recommended approval of the sale.

Mr. Engel said Homestake has an option on the land the SLHVC sits on and there is an easement that needs to be transferred. He said Homestake's approval is required for closing on the Purchase Agreement and those documents have been completed.

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Chairperson Peterson said SDSTA is committed to the City of Lead, that SDSTA constructed the SLHVC and has an absolute interest in maintaining it as a showpiece for the area. He said he appreciates all the work that has been done to this point so SDSTA can maintain and grow the SLHVC. He said the SLHVC will also be a strong and natural fit with the progression of developing an Institute at SURF.

Motion by Mr. Wheeler and seconded by Mr. Musick to authorize the purchase of the land and inventory, to accept the transfer of the Visitor Center building, to authorize the Chairperson, the Executive Director and General Counsel to negotiate the final terms of the Purchase Agreement, and to authorize the Executive Director to sign the Purchase Agreement. Motion passed unanimously by roll call vote.

### ITEM 15. CONFIRM DATE AND TIME OF NEXT MEETING, ANNOUNCE 2022 SCHEDULE

Chairperson Peterson reminded the board of the next meeting, scheduled for March 24, 2022 at 8:00 AM (MT) in the E&O Conference room and via Zoom. He referenced the agenda and announced the 2022 board meeting schedule: Thursday, March 24 at 8:00 AM (MT), Thursday, June 16 at 8:00 AM (MT), Thursday, September 22 at 8:00 AM (MT) and Thursday, December 15 at 9:00 AM (MT).

Mr. Wheeler left the meeting at 11:20 AM. A quorum was no longer present after Mr. Wheeler's exit.

#### **ITEM 16. PUBLIC COMMENTS**

Chairperson Peterson said he did not receive any public comment request forms and there were no questions from the audience.

#### **ITEM 17. BOARD COMMENTS**

Ms. Lebrun said it was a good meeting and it's always good to see the progress happening, and she welcomed new board member, Dr. Fall.

Mr. Musick said it was a good meeting, he appreciates everyone's work and he wished everyone a Merry Christmas.

Dr. Rankin said he appreciates the information, applauds the team and the great work they're doing, and said thank you.

Mr. Engel said thank you to everyone and Merry Christmas.

Mr. Headley thanked Ms. Knight and Ms. Wheeler for the handling the logistics of the board meeting, thanked all the speakers, and made note of the SURF year-end recap posted online—he recommended the board take a minute to view the video. He recognized the team, including the SDSTA staff and partners, and he said it's been a tremendous year and he appreciates the board and their support. Mr. Headley wished everyone a great holiday.

Chairperson Peterson thanked Ms. Geary, Ms. Lebrun and Mr. Dykhouse as the audit committee, and said he appreciates their work.

Chairperson Peterson made a statement concerning the dust coming out of the Open Cut:

"SDSTA has always looked at itself as the landlord of the former Homestake gold mine. We provide space for various entities and for experiments. We don't charge for the space; we are funded by the DOE and other sources. One of our tenants is Fermilab and the big international experiment LBNF/DUNE, and as such, we are a partner with them. I want to make it clear that SDSTA is 100% in support of the health and safety of our neighbors, of the constituents, the people here on site working, and we will always be interested in the protection of the environment. We will continue to do so. It's unfortunate what has happened. I am speaking for the executive team, and I think we are happy with the events of the last few days. They have indicated very strong support and work to correct what's been taking place.

Page 8 of 9

We, as an executive team, immediately moved to help clean the park and start visiting with the business owner who was having issues. We hired an environmental specialist to review plans that Fermilab presented at the forum last night (*December 15, 2021*). The DUNE project is critical to the success of the City of Lead and the Sanford Underground Research Facility. I am certain that Fermilab is resolved to fix the problem and will continue to do that. Chris Mossey (Fermilab Deputy Director for LBNF) and I met on Monday when he arrived, and he gave me his assurances. As we take over the ownership and operations of the Visitor Center, that is another step in our commitment to the area. It's important to tell the story of the City of Lead, the history of the Homestake mine and the underground science at SURF. We are in deep discussion about how to continue that, and that discussion is centered around a world-class science institute. It will be a jewel in the hills. We are very excited about proceeding with that."

Chairperson Peterson wished everyone a Merry Christmas, Happy New Year and Happy Holiday.

#### **ITEM 16. ADJOURN**

Chairperson Peterson called for a motion to adjourn.

Motion by Ms. Lebrun and seconded by Mr. Musick. Motion passed unanimously.

Meeting adjourned at 11:34 AM.

Rose fundation

#### South Dakota Science and Technology Authority March Board Meeting

## Conflict of Interest Disclosure—Mr. Tim Engel

Invite members of the board to disclose anything that might be construed to be a conflict of interest relative to their role on the board.



#### South Dakota Science and Technology Authority March Board Meeting

Disclosures Under SDCL CH. 3-23—Mr. Tim Engel



## SURF Foundation—Mr. Mike Headley

SURF Foundation status update, Director Ms. Staci Miller, informational.



### Report from Audit Committee—Ms. Patricia Lebrun

7A. Audit Committee meeting minutes, attached.

7B. Final SDSTA Audit Report-Fiscal Year Ended June 30, 2021, attached for discussion.

See recommended motion below.





# **Audit Committee Meeting**

February 28, 2022

Participants:

Ms. Pat Lebrun, SDSTA Board of Director and Audit Committee Chair Ms. Rae Morlan, Vice President Administration on behalf of Mr. Dana Dykhouse, SDSTA Board of Director and Audit Committee Member Ms. Nancy Geary, SDSTA Chief Financial Officer Mr. Terry Miller, SDSTA Chief Financial Officer

A teleconference was held February 28, 2022 to discuss the Request for Proposal (RFP) to obtain the services of a public accounting firm to conduct financial and compliance audits of the South Dakota Science and Technology Authority (SDSTA) for the fiscal years ending June 30, 2022, 2023 and 2024.

The following items were discussed:

- 1. Greetings were exchanged, and Rae informed us that Dana Dykhouse had another obligation and she was participating on his behalf.
- 2. Rae stated that Dana had reviewed the proposed RFP over the past weekend, and he provided his approval for Rae to pass on.
- 3. Pat stated that she also had an opportunity to review the proposed RFP and provided her approval for the RFP.
- 4. It was discussed that once we have developed the Criteria and Rubric to be used for our decision on an Audit Firm, we would send it to Pat and Dana for review. SDSTA will issue the RFP later in the day on 2/28/2022.

Meeting adjourned.

Real parts

# SOUTH DAKOTA SCIENCE AND TECHNOLOGY AUTHORITY

## AUDIT REPORT

## Fiscal Year Ended June 30, 2021



State of South Dakota Department of Legislative Audit 427 South Chapelle °/₀ 500 East Capitol Pierre, SD 57501-5070

#### SOUTH DAKOTA SCIENCE AND TECHNOLOGY AUTHORITY AUTHORITY OFFICIALS June 30, 2021

Board of Directors:

Casey Peterson, Chairperson Dana Dykhouse, Vice-Chairperson Ron Wheeler, Vice-Chairperson Patricia Lebrun, Secretary/Treasurer Dr. Robert Wilson, Member Dr. Ani Aprahamian, Member Robert Musick, Member Dr. James Rankin, Ex-Officio Member

Executive Director:

Michael Headley

Chief Financial Officer:

Nancy Geary

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427 SOUTH CHAPELLE C/O 500 EAST CAPITOL PIERRE, SD 57501-5070 (605) 773-3595

> RUSSELL A. OLSON AUDITOR GENERAL

#### INDEPENDENT AUDITOR'S 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*

The Honorable Kristi Noem Governor of South Dakota

and

Board of Directors South Dakota Science and Technology Authority

We have audited, 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, the financial statements of the South Dakota Science and Technology Authority (Authority), a business-type activities component unit of the State of South Dakota, as of and for the year ended June 30, 2021, and the related notes to the financial statements, which collectively comprise the Authority's basic financial statements and have issued our report thereon dated November 29, 2021.

#### **Internal Control Over Financial Reporting**

In planning and performing our audit of the financial statements, we considered the Authority's internal control over financial reporting (internal control) as a basis for determining 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 the Authority's internal control. Accordingly, we do not express an opinion on the effectiveness of the Authority'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 Authority'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 such that there is a reasonable possibility that a material misstatement of the Authority'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 the Authority'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 financial statements. 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 Authority'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. As required by South Dakota Codified Law 4-11-11, this report is a matter of public record and its distribution is not limited.

usuell A. Olson

Russell A. Olson Auditor General

November 29, 2021



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> RUSSELL A. OLSON AUDITOR GENERAL

### INDEPENDENT AUDITOR'S REPORT ON COMPLIANCE FOR EACH MAJOR FEDERAL PROGRAM AND REPORT ON INTERNAL CONTROL OVER COMPLIANCE REQUIRED BY THE UNIFORM GUIDANCE

The Honorable Kristi Noem Governor of South Dakota

and

Board of Directors South Dakota Science and Technology Authority

## **Report on Compliance for Each Major Federal Program**

We have audited the South Dakota Science and Technology Authority's (Authority), a business-type activities component unit of the State of South Dakota, compliance with the types of compliance requirements described in the *U.S. Office of Management and Budget (OMB) Compliance Supplement* that could have a direct and material effect on each of the Authority's major federal programs for the year ended June 30, 2021. The Authority's major federal programs are identified in the State of South Dakota Single Audit and included in the summary of auditor's results section of the accompanying Schedule of Current Audit Findings and Questioned Costs.

## Management's Responsibility

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

## Auditor's Responsibility

Our responsibility is to express an opinion on compliance for each of the Authority'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 the audit 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). 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 the Authority'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 on the Authority's compliance.

## **Opinion on Each Major Federal Program**

In our opinion, the Authority 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 June 30, 2021.

## **Report on Internal Control Over Compliance**

Management of the Authority 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 the Authority'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 the Authority'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 a 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 deficiency, or a combination of deficiency 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 is a deficiency or a combination of deficiencies, in internal control over compliance with a type of 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.

## **Purpose of this Report**

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 purposes. As required by South Dakota Codified Law 4-11-11, this report is a matter of public record and its distribution is not limited.

Pinell A. Olson

Russell A. Olson Auditor General

November 29, 2021

#### SOUTH DAKTOA SCIENCE AND TECHNOLOGY AUTHORITY SCHEDULE OF PRIOR AND CURRENT AUDIT FINDINGS AND QUESTIONED COSTS

## SCHEDULE OF PRIOR AUDIT FINDINGS

### Prior Federal Audit Findings:

The prior audit report contained no written federal audit findings.

### **Prior Other Audit Findings:**

The prior audit report contained no written other audit findings.

## SCHEDULE OF CURRENT AUDIT FINDINGS AND QUESTIONED COSTS

#### Summary of the Independent Auditor's Results:

#### **Financial Statements**

- **a.** An unmodified opinion was issued on the financial statements.
- **b.** No material weaknesses or significant deficiencies were disclosed by our audit of the financial statements.
- c. Our audit did not disclose any noncompliance which was material to the financial statements.

#### Federal Awards

- **d.** An unmodified opinion was issued on compliance with the requirements applicable to major programs.
- e. Our audit did not disclose any audit findings that are required to be reported in accordance with 2 CFR 200.516(a).
- f. The federal awards tested as major programs were:

81.049 SURF (Sanford Underground Research Facility) Operations Support

- **g.** The dollar threshold used to distinguish between Type A and Type B federal award programs was \$10,500,000 as determined for the State of South Dakota Single Audit for fiscal year 2021.
- **h.** The South Dakota Science and Technology Authority, as a component unit of the State of South Dakota, did not qualify as a low-risk auditee.

## **Current Federal Audit Findings:**

There are no written current federal compliance audit findings to report.

## **Current Other Audit Findings:**

There are no written current other audit findings to report.



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> RUSSELL A. OLSON AUDITOR GENERAL

## INDEPENDENT AUDITOR'S REPORT

The Honorable Kristi Noem Governor of South Dakota

and

Board of Directors South Dakota Science and Technology Authority

## **Report on the Financial Statements**

We have audited the accompanying financial statements of the South Dakota Science and Technology Authority (Authority), a business-type activities component unit of the State of South Dakota, as of and for the year ended June 30, 2021, and the related notes to the financial statements, which collectively comprise the Authority's basic financial statements as listed in the Table of Contents.

## Management's Responsibility for the Financial Statements

The Authority's 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 controls relevant to the preparation and fair presentation of financial statements that are free from material misstatements, whether due to fraud or error.

## Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit 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 of 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 auditor's 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 Authority'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 Authority'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 the Authority as of June 30, 2021, and the changes in its financial position and its cash flows for the year then ended in accordance with accounting principles generally accepted in the United States of America.

## **Other Matters**

### Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the Management's Discussion and Analysis (MD&A) on pages 8-15, the Schedule of Proportionate Share of the Net Pension Liability (Asset) on page 33, and the Schedule of the Authority Contributions on page 34 be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information provide any assurance.

## Supplementary Information

Our audit was conducted for the purpose of forming an opinion on the financial statements that collectively comprise the Authority's basic financial statements. The Schedule of Expenditures of Federal Awards, which as required by *Title 2 U.S. Code of Federal Regulations (CFR) Part 200, Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* (Uniform Guidance) and the Schedule of Operating Expenses listed in the Table of Contents are presented for purposes of additional analysis and are not a required part of the basic financial statements. The 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. Such 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 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 basic 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 November 29, 2021 on our consideration of the Authority's internal control over financial reporting and our tests of its compliance with certain provisions of laws, regulations, contracts, 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 the Authority'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 the Authority's internal control over financial reporting and compliance.

Russell A. Olson

Russell A. Olson Auditor General

November 29, 2021

## MANAGEMENT'S DISCUSSION AND ANALYSIS JUNE 30, 2021

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, 2021 (FY 2021). 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 maintaining the Sanford Underground Research Facility (SURF) in support of the science mission under the agreement with the Department of Energy's (DOE's) Office of Science. 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.

## MANAGEMENT'S DISCUSSION AND ANALYSIS (CONTINUED) JUNE 30, 2021

#### FINANCIAL HIGHLIGHTS:

- Total Assets at year-end increased to \$116,759,176.
- Current Assets decreased by \$2,593,247. Cash on Deposit with State Treasurer decreased by slightly over \$5,000,000 primarily for the construction of the new Maintenance Support Facility (MSF). Yet, Cash in the Local Bank increased by \$1,671,113 due to funds received from federal contracts late in the month on open accounts receivable. Inventory of Supplies also increased by \$832,740 for fixed assets added to Inventory of Supplies.
- Capital Assets increased by \$3,521,386, net of depreciation expense. Page 12 details the major capital asset additions and deletions. Furthermore, page 23 summarizes the changes in capital assets by major categories. Most notable was the completion of the new MSF building by Dean Kurtz Construction. Additional property purchased under the Operations subcontract with Fermi Research Alliance (FRA) was abandoned by the Department of Energy (DOE) Fermi Site Office in October 2020 and thus transferred to the SDSTA. This transfer was the result of the closure of the contract with FRA that supported the operations of the SDSTA facility. The current funding to manage and operate the facility comes from a Cooperative Agreement with the DOE Office of Science that was effective September 30, 2019. Additional property purchased under this agreement is kept separate under the Capital Assets category, as this property has become vested in the SDSTA upon acquisition.
- Net Pension Asset decreased to \$24,607. The State's retirement system is fully funded (see Note 6 page 25). The SDSTA's total contributions to the South Dakota Retirement System (SDRS) increased by \$94,967 from 2020 to 2021. This was due primarily to an increase in personnel wages. 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, 2020 pension measurement date for our fiscal year end June 30, 2021 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. Xenon purchased remains the same as last year at \$8,934,350 as of June 30, 2021. In summary, Net Pension Asset and Xenon Purchased have decreased by \$27,844.
- 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, 2020. The total Deferred Outflows of Resources have increased to \$4,111,205.
- Total Liabilities at year end increased slightly to \$9,565,974. Accounts payable is slightly lower when comparing the two time periods. However, liabilities associated with employee leave and benefits increased due to additional personnel wages and increases in vacation and sick accruals.
- 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 has increased to \$3,467,899.
- Total Restricted Net Position decreased to \$11,132,462. This decrease is primarily due to spending the funds restricted for the MSF for final construction costs and outfitting of the facility. Likewise, the restricted net pension has decreased. However, an addition to our Restricted Net Position includes \$409,860 associated with the Sanford Underground Research Facility Foundation (SURFF). In February 2020, we received IRS approval for the newly formed SURFF as a tax exempt entity under Internal Revenue Code (IRC) Section 501 (c) (3).
- Unrestricted Net Position increased by \$1,391,290 to \$12,476,862.
- Total Net Position at year end decreased by \$193,037 to \$107,836,508.
- Charges for Services increased slightly to \$370,420. Revenue from Homestake increased due to an increase in the amount of water being treated and discharged for Homestake. Additional income was received from private corporations, Caterpillar Global Mining LLC for rental charges as well as Kiewit/Alberici and Thyssen Mining, subcontractors with Fermi National Accelerator Laboratory (FNAL) that has been contracted to excavate the rock for the large experimental facility underground at the 4850 foot level (4850L) for the Long Baseline Neutrino Facility (LBNF).

## MANAGEMENT'S DISCUSSION AND ANALYSIS (CONTINUED) JUNE 30, 2021

#### FINANCIAL HIGHLIGHTS (Continued)

- Operating Grants increased to \$33,963,788. The revenue received in this classification includes \$27,473,773 from the Cooperative Agreement with DOE, \$4,725,965 from FRA, \$1,718,606 from Lawrence Berkeley National Laboratory (LBNL), and \$45,444 from various smaller universities.
- Miscellaneous revenue increased to \$482,810 primarily due to an increase in revenue from the SURFF.
- Capital Grants and Contributions decreased to \$1,563,103. This amount is related to the various property that was transferred by the Department of Energy (DOE) Fermi Site Office to the SDSTA as well as property acquired during the prior fiscal year from the Cooperative Agreement.
- Investment Earnings for fiscal year 2021 are negative at \$274,708. The unrealized appreciation and undistributed earnings that were reversed from the prior year when compared to the current year unrealized appreciation and undistributed earnings results in a negative investment earnings. Yet, investment earnings of \$226,226 were received on the cash on deposit with State Treasurer. This actual allocation compared to last year decreased by \$163,011 due to a lower amount of cash being deposited for investment with the State Treasurer.
- Total Program Expenses for the SDSTA were \$36,298,450 which represents an increase of 8.7% percent from the previous year. Included in Total Program Expenses are Operating Expenses which increased by \$3,054,058 to \$35,882,057. Personal Services represent 56.7 percent of the Operating Expenses; Contractual Services represent 25.2 percent; and Supplies, Materials, and Other Expenses represent 11.3 percent of these expenses. Most of the increase in Operating Expenses is due to increased activity in the Infrastructure Improvement Projects (IIP) funded through the Cooperative Agreement as well as increases in employee salaries.
- Net Position decreased by \$193,037 for fiscal year 2021.

## MANAGEMENT'S DISCUSSION AND ANALYSIS (CONTINUED) JUNE 30, 2021

### FINANCIAL STATEMENT ELEMENTS:

#### **NET POSITION**

NET FOSITION				Dollar	Percent
	2021		2020	Change	Change
	2021		2020	Change	Change
Current Assets	\$ 23,573,034	\$	26,166,281	\$ (2,593,247)	-9.91%
Capital Assets	84,227,184	+	80,705,798	3,521,386	4.36%
Net Pension Asset and Xenon Purchased	8,958,957		8,986,801	(27,844)	-0.31%
Total Assets	116,759,175		115,858,880	900,295	0.78%
Pension Related Deferred Outflows	4,111,205		2,943,364	1,167,841	39.68%
Long-Term Liabilities Outstanding	6,812,442		6,757,826	54,616	0.81%
Other Liabilities	2,753,532		2,748,288	5,244	0.19%
Total Liabilities	9,565,974		9,506,114	59,860	0.63%
Pension Related Deferred Inflows	3,467,899		1,266,585	2,201,314	173.80%
Net Position:					
Net Investment in Capital Assets	84,227,184		80,705,798	3,521,386	4.36%
Restricted	11,132,462		16,238,175	(5,105,713)	-31.44%
Unrestricted	12,476,862		11,085,572	1,391,290	12.55%
Total Net Position	\$ 107,836,508	\$	108,029,545	\$ (193,037)	-0.18%
CHANGE IN NET POSITION					
				Dollar	Percent
	2021		2020	Change	Change
Revenues					
Program Revenues:					
Charges for Services	\$ 370,420	\$	278,160	\$ 92,260	33.17%
Operating Grants	33,963,788		29,814,412	4,149,376	13.92%
Miscellaneous	482,810		127,020	355,790	280.11%
Capital Grants and Contributions	1,563,103		2,926,197	(1,363,094)	-46.58%
General Revenues:					
Investment Earnings	(274,708)		760,390	(1,035,098)	-136.13%
Total Revenue	36,105,413		33,906,179	2,199,234	6.49%
Program Expenses:					
Science and Technology Authority	36,298,450		33,393,743	2,904,707	8.70%
Total Expense	36,298,450		33,393,743	2,904,707	8.70%
Change in Net Position	(193,037)		512,436	(705,473)	-137.67%
Net Position-Beginning	108,029,545		107,517,109	512,436	0.48%
Net Position-Ending	\$ 107,836,508	\$	108,029,545	\$ (193,037)	-0.18%
		-			

By June 30, 2021, the SDSTA had invested \$84,227,184 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 \$84,227,184 (approximately 24% of this total value) was donated by Barrick Gold. This amount represents a net increase (including additions and deductions) of \$3,521,386, or 4.36 percent, over the last year.

## MANAGEMENT'S DISCUSSION AND ANALYSIS (CONTINUED) JUNE 30, 2021

#### 2021 2020 Change Improvements \$ 45,214,485 \$ 46,547,569 \$ (1,333,084) Underground 17,936,955 17,936,955 Buildings 11,298,152 5,568,049 5,730,103 **Computer Equipment** 115,866 169,598 (53,732)Equipment 4,356,768 4,752,599 (395,831) Construction in Progress 1,824,308 (1,824,308)-Land 1,814,136 1,814,136 \_ Infrastructure 1,504,096 (52,456) 1,556,552 Furniture 11,225 15,711 (4, 486)Archive Material 70,000 70,000 -Auto 205,147 159,837 45,310 DOE Property Transfer 1,700,354 290,484 1,409,870 **Total Capital Assets** \$ 84,227,184 80,705,798 \$ 3,521,386 \$

### **CAPITAL ASSETS (Net of Depreciation)**

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

#### Purchased Capital Assets:

(2) 150KVA Transformers, Hydraulic Air Press, 7.5HP Air Compressor, 10 Ton Bridge Crane	\$	141,175
Elevator, Forklift, Laser Alignment System, Ellis Bandsaw, (3) HVAC Units, Plotter		163,816
(2) Vehicles - 2011 Chevy Pickup w/Utility Box, 2021 Dodge Ram Pickup		69,660
Equipment (Current Year Reclassifications):		
Ross Cage Work Deck, Skyclimber Suspended Work Deck	(	(153,794)
(4) Skyclimber Electric 208V Hoists, (2) Ceiling Mounted Jib Cranes		(84,972)
(4) Profi 1 Ton Air Hoists		(29,030)
Buildings (Current Year Reclassifications):		
Maintenance Support Facility	5,	,885,479
Improvements in Progress (Current Year Additions):		
Maintenance Support Facility	4,	,061,171
Improvements in Progress (Current Year Reclassifications):		
Maintenance Support Facility Completed	(5,	,885,479)
Computer Equipment, Machinery and Equipment (Current Year Deletions):		
Various Computer Nexus Switches (end of life)	(	(216,255)
Ross Skip Work Deck, Ross MG Sets		(97,848)
(2) Refuge Chambers and Scrubbing System (end of life)	(	(110,290)
Telescopic Lull		(52,500)
DOE Property Transfer:		
Davis Campus Chiller, UTV Tracks, Bobcat Tool Cat, (2) Kubota UTV's, Sander, Utility Truck,		
Sampler, Laser Flow System, Loco. Battery, Radon Monitors, (3) 36 Hr. Refuge Chambers,		
Laser Scanner, Cryostat, (4) Mobius Cooling Systems, Ross Hoist Rope, Fusion Splicer,		
Submersible Cable, (3) 8 Ton Locomotives w/Batteries, Flygt Pump, Refuge Chamber, Elect. Hoist		
Pressure Transducer, (2) 5T Chain Hoists, Flood Barrier, (2) 125HP Compressors w/Building		
(2) Escape Powerseats, Lab Sink, 185CFM Air Compressor, Telescopic Fork Telehandler, Analyzer	1,	,585,992

## MANAGEMENT'S DISCUSSION AND ANALYSIS (CONTINUED) JUNE 30, 2021

#### LONG-TERM DEBT

At the year-end, the SDSTA had \$6,812,442 in other long-term obligations. This is an increase of .81 percent as shown below.

	 2021	2020	Total Dollar Change	Total Percentage Change
Compensated Absences Xenon Notes Payable	\$ 812,442 6,000,000	\$ 757,826 6,000,000	\$ 54,616	7.21% 0.00%
Total Long-Term Debt	\$ 6,812,442	\$ 6,757,826	\$ 54,616	0.81%

- 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 \$54,616 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. There was not an increase in the xenon notes payable in fiscal year 2021. Note (4) Long-Term Debt in the Notes to Financial Statements on page 24 details the activity for the period for compensated absences and the xenon note payable.
- On October 31, 2019 the SDSTA signed a Promissory Note with the First Interstate Bank for \$5,000,000. This agreement represents a variable rate revolving line of credit. Collateral for this line of credit includes the SDSTA's Account Receivable. The SDSTA put this loan in place if government funding were to be slowed due to a government shutdown. The SDSTA has not drawn down any funding from this line of credit. The maturity date is October 31, 2021 at which time we will renew for another one-year term.

#### **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 to be located at SURF, including research into neutrinos and dark matter, both of which are being researched at SURF. 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 2021 of \$5,068,074 towards interest payments to the three SD Foundations that we have loans with for xenon procurement as well as the construction and outfitting phase of a new Maintenance Support Facility (MSF), and inclinometer maintenance at the Sanford Lab Homestake Visitor Center. Actual expenditures for the year totaled \$4,698,783. Actual expenses were lower than budgeted for final outfitting of the MSF which will take place in July and August of 2021. The SDSTA's fiscal year 2022 capital budget has been eliminated as all capital type projects have been completed. Interest payments for the xenon loans funded through the \$2,000,000 received in 2017 from GOED, along with insurance on xenon, a small amount for inclinometer testing and display upgrades at the Sanford Lab Homestake Visitor Center, and the final outfitting of the new MSF will be included in the SDSTA's operating budget. The SDSTA's Board of Directors approved an operating budget of \$1,254,905 for fiscal year 2022 in favor of SDSTA supported activities

## MANAGEMENT'S DISCUSSION AND ANALYSIS (CONTINUED) JUNE 30, 2021

#### **ECONOMIC FACTORS (Continued)**

- The SDSTA transitioned to a five-year Cooperative Agreement with the Department of Energy's (DOE) Office of Science in September 2019 including a budget of \$119,200,000 for five years for SURF Operations. We are in the second year of this award with a current budget of \$22,750,000. An additional \$10,362,482 has been received to date for Infrastructure Improvement Projects (IIP). Contract to date expenditures through the end of September are at \$43,645,408 for the Operations portion and \$6,110,966 for the IIP portion.
- The Ross Shaft rehabilitation project with FNAL was completed and expired as of July 31, 2021. The LBNF/DUNE Logistics Support Services contract continues with our support to the Long-Baseline Neutrino Facility (LBNF)/ Deep Underground Neutrino Experiment (DUNE) construction efforts with 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 SURF 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 excavate rock in order to house the neutrino detectors and related utilities began in June 2021. DOE Support for professional engineering management services continues into fiscal year 2022 for this LBNF effort.
- Further funding was received in fiscal year 2021 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 2022 for these same activities through LBNL.
- Additional funding was received during the fiscal year from Oak Ridge National Laboratory and South Dakota Schools of Mines & Technology. Funds were received at SURF to support the Majorana experiment located at the 4850L Davis Campus, as well as the CASPAR experiment located on the same underground level. Support continues in fiscal year 2022 from Oak Ridge. The CASPAR experiment was decommissioned in April 2021. Most of their equipment remains in the current 4850L for future use in their experiment at SURF. This experiment could resume as early as 2024.
- Additional funding was received from RESPEC Company LLC that has a small DOE award for a Thermal Breakout Project. This funding shall end as of September 30, 2021. Further, funding was received from the Kiewit/Alberici Joint Venture and Thyssen Mining Inc. for equipment rentals and miscellaneous items associated with the DUNE project. Amounts charged were then credited to the Cooperative Agreement as the equipment maintenance charges were covered under that funding. An additional agreement was signed with Thyssen Mining Inc. in March 2021 to lease the Ross Pipe Shop and the Ross Maintenance Shop during their excavation of the cavern for the DUNE project. The term of the lease commenced July 1, 2021 and will end upon the completion of the LBNF construction phase 1B, which is estimated to be February 28, 2024.
- A lease agreement was signed on September 15, 2020 whereby Caterpillar Global Mining LLC is leasing two existing rooms located on the SURF 1700-foot level underground. The initial term of the lease began on October 1, 2020 and shall continue until September 30, 2030. The vendor will be developing and testing new mining technology for the industry and intends to commercially sell the newly developed technology. The base

## MANAGEMENT'S DISCUSSION AND ANALYSIS (CONCLUDED) JUNE 30, 2021

#### **ECONOMIC FACTORS (Continued)**

rent of \$150,000 per annum is considered "Program Income" by the DOE Cooperative Agreement and is added to the funds committed to the award and will be used to further eligible SURF Operations projects.

- A Letter Agreement dated February 24, 2014 between the SDSTA and Black Hills State University (BHSU) provided 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 2019 and again in May 2020 and May 2021 for \$660,000 each year for additional one-year periods. The full period of performance now extends from June 2014 through June 2022. 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.
- An additional Letter Agreement between SDSTA and BHSU was initiated in August 2020 to administer and advance the success of the SURF Artist in Residence (AiR) program. \$38,000 was committed by the SDSTA towards collaborative efforts in artistic works and activities. The agreement was amended in August 2021 for an additional year of support for \$38,000. This agreement is funded through SDSTA funds.
- 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.

## STATEMENT OF NET POSITION JUNE 30, 2021

## ASSETS

Current Assets	
Cash in Local Bank and Petty Cash	\$ 5,387,104
Cash on Deposit with State Treasurer	11,560,210
Accounts Receivable	2,719,719
Interest Receivable	31,856
Prepaid Expenses	591,767
Inventory of Supplies & Warehouse	3,282,378
Total Current Assets	23,573,034
Noncurrent Assets	
Xenon Purchased (note 5)	8,934,350
Net Pension Asset	24,607
Land	1,814,136
Underground	17,936,955
Buildings, Machinery, Equipment, Infrastructure, & DOE Property Transferred (Net) (Note 3)	64,476,094
Total Noncurrent Assets	93,186,142
TOTAL ASSETS	116,759,176
Deferred Outflows of Resources	
Pension Related Deferred Outflows	4,111,205
LIABILITIES	
Current Liabilities	
Accounts Payable	953,517
Accrued Wages and Benefits	987,573
Accrued Leave, Benefits (Note 4)	812,442
Total Current Liabilities	2,753,532
Long-Term Liabilities	
Accrued Leave, Benefits (Note 4)	812,442
Long-Term Xenon Notes Payable	6,000,000
Total Long-Term Liabilities	6,812,442
TOTAL LIABILITIES	9,565,974
Deferred Inflows of Resources	
Pension Related Deferred Inflows	3,467,899
NET POSITION	
Invested in Capital Assets	84,227,184
Restricted for:	
Mine Closure	1,540,275
Maintenance Support Facility	126,714
Experiments	881,130
Indemnification	7,500,000
Sanford Center for Science Education	6,570
Pension	667,913
Foundation	409,860
Unrestricted Net Position	12,476,862
TOTAL NET POSITION	\$ 107,836,508

The accompanying notes are an integral part of this statement.

### STATEMENT OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION FOR THE YEAR ENDED JUNE 30, 2021

Operating Revenue	
Charges for Goods and Services	\$ 370,420
Operating Grants	33,963,788
Miscellaneous	482,810
Total Operating Revenue	 34,817,018
Operating Expenses	
Personal Services	20,358,220
Travel	80,268
Contractual Services	9,025,288
Supplies, Materials and Other Operating Expenses	4,058,716
Depreciation Expense	2,359,565
Total Operating Expenses	 35,882,057
Operating Loss	(1,065,039)
	 ()))
Nonoperating Revenues/Expenses	
Interest Revenue	(274,708)
Contributions	232,720
Other Expense	(416,393)
Total Nonoperating Revenues/Expenses	 (458,381)
Capital Grants and Contributions	 1,330,383
Change in Net Position	(193,037)
Net Position Beginning of Year	 108,029,545
Net Position End of Year	\$ 107,836,508

The accompanying notes are an integral part of this statement.

## STATEMENT OF CASH FLOWS FOR THE YEAR ENDED JUNE 30, 2021

Cash Flows from Operating Activities:	
Other Operating Cash Receipts	\$ 838,984
Cash Receipts from Operating Grants	33,829,601
Cash Payments to Employees for Services	(18,959,646)
Cash Payments to Suppliers of Goods and Services	(13,082,958)
Net Cash Used by Operating Activities	2,625,981
Cash Flows from Noncapital Financing Activities:	
Interest/Insurance Paid on Xenon	(303,396)
Grants & Donations Paid	(2,423)
Net Cash Used by Noncapital Financing Activities	(305,819)
Cash Flows from Capital and Related Financing Activities:	
Purchase of Capital Assets	(5,565,298)
Net Cash Used by Capital and Related Financing Activities	(5,565,298)
Cash Flows from Investing Activities:	
Interest Earnings	(232,011)
Net Cash Provided by Investing Activities	(232,011)
Net increase in Cash and Cash Equivalents	(3,477,147)
Cash and Cash Equivalents at Beginning of Year	20,424,461
Cash and Cash Equivalents at End of Year	\$ 16,947,314

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

Operating Loss	\$ (1,065,039)
Adjustments to Reconcile Operating Loss to Net Cash Used in Operating Activities:	
Depreciation & Amortization Expense	2,359,565
Change in Assets and Liabilities:	
Receivables	(148,433)
Prepaid Expenses	57,505
Inventory of Supplies	1,139
Net Pension Asset	27,844
Decrease(Increase) in Deferred Outflow of Resources - Pension	(1,167,841)
Increase (Decrease) Deferred Inflow of Resources - Pension	2,201,313
Accounts and Other Payables	22,669
Accrued Wages Payable	228,026
Accrued Leave Payable	109,233
Net Cash Used in Operating Activities	\$ 2,625,981

Continued on next page

### STATEMENT OF CASH FLOWS (CONTINUED) FOR THE YEAR ENDED JUNE 30, 2021

Cash and Cash Equivalents:	
Cash in Local Bank	\$ 5,387,054
Petty Cash	50
Cash with State Treasurer	11,560,210
Total Cash and Cash Equivalents	\$ 16,947,314
Non-Cash Capital and Related Financing Activities:	
Loss on Disposal of Assets	\$ 107,508
Donated Capital Assets from DOE	763,718
Donated Inventory of Supplies	799,385
Total Non-Cash Activities	\$ 1,670,611

The accompanying notes are an integral part of this statement.

### NOTES TO FINANCIAL STATEMENTS JUNE 30, 2021

#### (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 statement are included in the Comprehensive Annual Financial Report of the State of South Dakota.

The Sanford Underground Research Facility Foundation (SURFF) is a legally separate, tax exempt component unit of the SDSTA. The SURFF was established as a fundraising organization to supplement resources for the SDSTA programs related to education, internships, public outreach, and the development of the SURF Institute. Thus, the services the SURFF provides is for the SDSTA. The sitting Chairperson of the SDSTA serves as a voting Director on an ex officio basis and is included in the total number of Directors as listed by the Bylaws. Two board members from the SDSTA are also on the Board of the SURF Foundation. The SDSTA is also responsible for any outstanding debt.

#### 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. Likewise, the SURFF 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

#### NOTES TO FINANCIAL STATEMENTS (CONTINUED) JUNE 30, 2021

#### (1) Summary of Significant Accounting Policies (Continued)

#### e. Capital Assets (Continued)

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.

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:

	Cap	italization	Depreciation	Estimated
	Tl	nreshold	Method	Useful Life
Land and Land Rights	A	ll 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	10-50 yrs.
Automobiles, Furniture, Machinery and Equipment		5,000	Straight-line	2-75 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."

## NOTES TO FINANCIAL STATEMENTS (CONTINUED) JUNE 30, 2021

#### (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, 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, 2021.

## NOTES TO FINANCIAL STATEMENTS (CONTINUED) JUNE 30, 2021

## (3) Changes in Capital Assets

A summary of changes in capital assets for the year ended June 30, 2021 is as follows:

	J	Balance une 30, 2020	R	eclassified*		Increases	]	Decreases	J	Balance une 30, 2021
<b>Business-Type Activities:</b>									-	
Capital Assets, not Being										
Depreciated:	•	1 01 1 10 /	<b></b>		<b></b>		<b>•</b>		•	1.01.1.10.6
Land	\$	1,814,136	\$	-	\$	-	\$	-	\$	1,814,136
Underground Archive Materials		17,936,955		-		-		-		17,936,955 70,000
Construction Work in		70,000		-		-		-		70,000
Progress (Note 8)		1,824,308		(5,885,479)		4,061,171				-
Total Capital Assets, not		1,024,300		(3,003,479)		4,001,171		-		-
Being Depreciated		21,645,399		(5,885,479)		4,061,171		-		19,821,091
Capital Assets, Being										
Depreciated:										
DOE Property Transferred		290,484		-		1,585,992				1,876,476
Automobiles		237,336		-		69,660				306,996
Buildings		7,704,177		5,885,479						13,589,656
Furniture		74,212		-		-		-		74,212
Computer Equipment		570,933		-		-		216,255		354,678
Improvements		55,625,517								55,625,517
Infrastructure		2,003,189		-						2,003,189
Machinery and Equipment		10,688,917		(190,600)		304,991		337,835		10,465,473
Total Capital Assets, Being										
Depreciated		77,194,765		5,694,879		1,960,643		554,090		84,296,197
Total Capital Assets, Before										
Depreciation		98,840,164		(190,600)		6,021,814		554,090		104,117,288
Less Accumlated Depreciation:										
DOE Property Transferred		-		-		176,122		-		176,122
Automobiles		77,499		-		24,350				101,849
Buildings		2,136,128		-		155,376				2,291,504
Computer Equipment		401,335				53,732		216,255		238,812
Furniture		58,501		-		4,486				62,987
Improvements		9,077,948		-		1,333,084				10,411,032
Infrastructure		446,637		-		52,456				499,093
Machinery and Equipment		5,936,318		(157,246)		559,959		230,326		6,108,705
<b>Total Accumlated Depreciation</b>	l	18,134,366		(157,246)		2,359,565		446,581		19,890,104
Capital Assets, Net	\$	80,705,798	\$	(33,354)	\$	3,662,249	\$	107,509	\$	84,227,184

\*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 the correct category as they were placed into service.

## NOTES TO FINANCIAL STATEMENTS (CONTINUED) JUNE 30, 2021

#### (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 Xenon Notes Payable	\$	1,515,652 6,000,000	\$	856,646 -	\$	747,414 -	\$	1,624,884 6,000,000	\$	812,442 -
	\$	7,515,652	\$	856,646	\$	747,414	\$	7,624,884	\$	812,442

#### 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, 2021, are as follows:

	Xenon Not	tes I	Payable		Totals				
	Interest		Principal		Interest		Principal		
2022 \$	150,000	\$	-	\$	150,000	\$	-		
2023	150,000		-		150,000		-		
2024	150,000		-		150,000		-		
2025	150,000		-		150,000		-		
2026	150,000		-		150,000		-		
2027	62,500		6,000,000		62,500		6,000,000		
Total \$	812,500	\$	6,000,000	\$	812,500	\$	6,000,000		

#### (5) Xenon Purchases

Xenon purchased is valued at a cost per liter with additional freight, customs, and analysis charges. Total xenon purchased to date is \$8,934,350 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
2020	140,000	770,000	5.50/liter
Total Purchased	1,520,295	\$8,934,350	\$ 5.88/liter

## NOTES TO FINANCIAL STATEMENTS (CONTINUED) JUNE 30, 2021

#### (6) Retirement/Pension Plan (Continued)

#### **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 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 80. Class B Foundation public safety members can retire with an unreduced annual retirement benefit 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, 2021, 2020, and 2019 was \$841,062, \$746,095, and \$631,417, respectively, equal to the required contributions each year.

#### NOTES TO FINANCIAL STATEMENTS (CONTINUED) JUNE 30, 2021

#### <u>Pension Liabilities (Assets), Pension Expense (Revenue), and Deferred Outflows of Resources and Deferred</u> <u>Inflows of Resources to Pensions:</u>

As of June 30, 2020, SDRS is 100.04% 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, 2020 and reported by the SDSTA as of June 30, 2021 are as follows:

Proportionate share of pension liability	\$69,650,697					
Less Proportionate share of net pension restricted for pension benefits	69,675,304					
Proportionate share of net pension liability (asset)	\$ (24,607)					

At June 30, 2021, the SDSTA reported a liability (asset) of \$ (24,607) for its proportionate share of the net pension liability (asset). The net pension liability (asset) was measured as of June 30, 2020, 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, 2020, the SDSTA's proportion was .5665885% which is an increase of .0716401% from its proportion measured as of June 30, 2019.

For the year ended June 30, 2021, the SDSTA recognized pension expense of \$1,061,315. At June 30, 2021, the SDSTA reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	Deferred Outflows Of Resources	Deferred Inflows Of Resources
Difference between expected and actual experience.	\$ 94,135	\$ 19,277
Changes in assumption.	792,605	3,196,622
Net Difference between projected and actual earnings on pension plan investments.	2,287,084	
Changes in proportion and difference between SDSTA contributions and proportionate share of contributions.	96,319	252,000
SDSTA contributions subsequent to the measurement date.	841,062	-0-
TOTAL	\$ 4,111,205	\$ 3,467,899

\$841,062 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, 2022. 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:

## NOTES TO FINANCIAL STATEMENTS (CONTINUED) JUNE 30, 2021

#### (6) Retirement/Pension Plan (Continued)

Year Ended June 30:	
2022	\$ (300,196)
2023	(288,452)
2024	(24,130)
2025	415,022
TOTAL	\$ (197,756)

#### Actuarial Assumptions:

The total pension liability (asset) in the June 30, 2020 actuarial valuation was determined using the following actuarial assumptions, applied to all periods included in the measurement:

Inflation	2.25 %
Salary Increases	6.50% at entry to 3.00% after 25 years of service
Discount Rate	6.50% net of plan investment expense
Future COLAs	1.41%

Mortality rates were based on 97% of the RP-2014 Mortality Table, adjusted to 2006 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, adjusted to 2006 and projected generationally with Scale MP-2016.

The actuarial assumptions used in the June 30, 2020 valuation were based on the results of an actuarial experience study for the period of July 1, 2011 to June 30, 2016.

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 for each major asset class included in the pension plan's target asset allocation as of June 30, 2020 (see the discussion of the pension plan's investment policy) are summarized in the following table using geometric means:

Asset Class	Target <u>Allocation</u>	Long-Term Expected <u>Real Rate of Return</u>
Global Equity	58.0%	5.1%
Fixed Income	30.0%	1.5%
Real Estate	10.0%	6.2%
Cash	2.0%	1.0%
Total	100%	

### NOTES TO FINANCIAL STATEMENTS (CONTINUED) JUNE 30, 2021

#### (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:

		Current	
	1%	Discount	1%
	Decrease	Rate	Increase
SDSTA's proportionate share of the net			
pension liability (asset)	\$9,545,818	\$ (24,607)	\$(7,853,026)

#### 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, 2021, 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. However, the recently erected MSF is 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.

#### 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, employee dishonesty, cybersecurity, 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.

## NOTES TO FINANCIAL STATEMENTS (CONTINUED) JUNE 30, 2021

#### (7) Risk Management (continued)

#### Worker's Compensation:

For the policy renewal date of January 1, 2021 through January 1, 2022, 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 construction of 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 SURF 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. 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 2021, a balance of \$6,853 remained as Gift No. 2 funds. This will be used for updating of displays at the Sanford Lab Homestake Visitor Center.

## NOTES TO FINANCIAL STATEMENTS (CONTINUED) JUNE 30, 2021

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

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 \$257,854 and \$242,769 respectively. Revenue was higher this last year due to the number of gallons treated being higher. The terms of the agreement were amended in September 2020 adjusting the price per 1000 gallons to \$.75 and extending this price and the contract to September 30, 2030. Estimated revenues for the upcoming year are at \$225,000.

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. The conveyance system has been constructed and waste rock is being transported into the Open Cut starting June 2021.

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 the LUX-ZEPLIN (LZ) dark matter experiment, 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 total of 1,520,295 liters of xenon have been purchased for experiment use. The processed xenon has all been received at SURF and is being used in the LZ experiment.

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 legacy facilities were dated and needed to be replaced.. 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 and outfitting of the new facility. This was necessary to ensure that it will be completed on schedule. An additional amendment to Letter Agreement #1659 was signed in June 2020 to extend the period of performance to June 30, 2021. This was necessary due to a work stoppage during March and April 2020 due to concerns related to the COVID-19 pandemic. The building construction was completed in June 2021. However, approximately \$127,000 had not been spent as of year end due to delays in shipments of various outfitting equipment. An additional amendment was signed in June 2021 to extend the period of performance to September 30, 2021. As of the middle of September, all funds have been spent on the final outfitting of the new building.

A contract with RCS Construction, Inc. was signed in June 2021 for the replacement of the potable water lines to the Yates Complex. The current contract amount is \$1,397,289 and will be completed by June 2022.

### NOTES TO FINANCIAL STATEMENTS (CONTINUED) JUNE 30, 2021

#### (9) Significant Contingencies - Litigation

At June 30, 2021 the SDSTA was involved in one lawsuit. No determination can be made at this time regarding the potential outcome of this lawsuit. However, as discussed in the Risk Management note, the SDSTA has liability coverage for itself and its employees through the Captive Insurance Company. Therefore, no material effects are anticipated to the SDSTA concerning the potential outcome of this lawsuit.

#### (10) 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. As of June 30, 2021 construction work in progress was at zero as the Maintenance Support Facility building was completed at fiscal year end. The contract with Dean Kurtz Construction for this project was completed.

#### (11) Continuing Operations

On September 30, 2019, the SDSTA transitioned to a five-year Cooperative Agreement with the DOE's Office of Science – Integrated Support Center. This will fund the SDSTA's operations for SURF. The federal fiscal year 2022 budget totals \$23,800,000. The five-year total equals \$119,200,000 to support the facility operations. Additionally, the SDSTA has received to date \$10,362,482 for Infrastructure Improvement Projects (IIP). We have proposed for fiscal year 2022 approximately \$8.8 million of infrastructure improvements that will awarded separately. LBNF/DUNE Logistics Support Services continues with FNAL through March 31, 2024. Additionally, SDSTA support for the LZ experiment operations efforts and the SIGMA-V project have both been extended to September 2022.

#### (12) 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 the Executive Director role to the position of 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, 2020 – June 30, 2021, he was paid \$48,000 for his consulting services. Mr. Wheeler will assist in directing the state and federal government affairs programs for the SDSTA.

# NOTES TO FINANCIAL STATEMENTS (CONTINUED) JUNE 30, 2021

#### (13) Blended Component Unit Condensed Financial Information

#### SANFORD UNDERGROUND RESEARCH FACILITY FOUNDATION CONDENSED STATEMENT OF NET POSITION JUNE 30, 2021

#### **ASSETS**

Current Assets		
Cash in Local Bank	\$	294,860
Accounts Receivable		15,000
Contributions Receivable		75,000
Total Current Assets		384,860
TOTAL ASSETS		384,860
NET POSITION		
Restricted for:		
Davis-Bachall		75,000
Garden		284,454
Interns		10,405
Public Outreach		15,000
Unrestricted Net Position		1
TOTAL NET POSITION	\$	384,860
JUNE 30, 2021 Restricted Revenue	۵	204.220
Garden	\$	304,228
Interns		14,461
Public Outreach		14,461 19,177
Public Outreach STEM Education		14,461 19,177 45,177
Public Outreach STEM Education Miscellaneous and Unrestricted Revenue		14,461 19,177 45,177 15,967
Public Outreach STEM Education Miscellaneous and Unrestricted Revenue		14,461 19,177 45,177 15,967
Public Outreach STEM Education Miscellaneous and Unrestricted Revenue Total Revenue Expenses		14,461 19,177 45,177 15,967 <b>399,010</b>
Public Outreach STEM Education Miscellaneous and Unrestricted Revenue Total Revenue Expenses Miscellaneous Expenses	\$	14,461 19,177 45,177 15,967 <b>399,010</b> 9,136
Public Outreach STEM Education Miscellaneous and Unrestricted Revenue Total Revenue Expenses Miscellaneous Expenses Payments to Primary Government	\$	14,461 19,177 45,177 15,967 <b>399,010</b> 9,136 80,015
Public Outreach         STEM Education         Miscellaneous and Unrestricted Revenue         Total Revenue         Expenses         Miscellaneous Expenses         Payments to Primary Government	\$	14,461 19,177 45,177 15,967 <b>399,010</b> 9,136
Public Outreach         STEM Education         Miscellaneous and Unrestricted Revenue         Total Revenue         Expenses         Miscellaneous Expenses         Payments to Primary Government         Total Expenses	\$	14,461 19,177 45,177 15,967 <b>399,010</b> 9,136 80,015 <b>89,151</b>
Public Outreach         STEM Education         Miscellaneous and Unrestricted Revenue         Total Revenue         Expenses         Miscellaneous Expenses         Payments to Primary Government         Total Expenses         Change in Net Position	\$	14,461 19,177 45,177 15,967 <b>399,010</b> 9,136 80,015
Public Outreach STEM Education Miscellaneous and Unrestricted Revenue Total Revenue Expenses Miscellaneous Expenses Payments to Primary Government Total Expenses Change in Net Position Net Position Beginning of Year	\$	14,461 19,177 45,177 15,967 <b>399,010</b> 9,136 80,015 <b>89,151</b> <b>309,859</b> 75,001
Public Outreach         STEM Education         Miscellaneous and Unrestricted Revenue         Total Revenue         Expenses         Miscellaneous Expenses         Payments to Primary Government         Total Expenses         Change in Net Position         Net Position Beginning of Year         Net Position End of Year		14,461 19,177 45,177 15,967 <b>399,010</b> 9,136 80,015 <b>89,151</b> <b>309,859</b>
Public Outreach         STEM Education         Miscellaneous and Unrestricted Revenue         Total Revenue         Expenses         Miscellaneous Expenses         Payments to Primary Government         Total Expenses         Change in Net Position         Net Position Beginning of Year         Net Position End of Year         CONDENSED STATEMENT OF CASH FLOWS		14,461 19,177 45,177 15,967 <b>399,010</b> 9,136 80,015 <b>89,151</b> <b>309,859</b> 75,001
Public Outreach         STEM Education         Miscellaneous and Unrestricted Revenue         Total Revenue         Expenses         Miscellaneous Expenses         Payments to Primary Government         Total Expenses         Change in Net Position         Net Position Beginning of Year         Net Position End of Year         CONDENSED STATEMENT OF CASH FLOWS         JUNE 30, 2021		14,461 19,177 45,177 15,967 <b>399,010</b> 9,136 80,015 <b>89,151</b> <b>309,859</b> 75,001
Public Outreach         STEM Education         Miscellaneous and Unrestricted Revenue         Total Revenue         Expenses         Miscellaneous Expenses         Payments to Primary Government         Total Expenses         Change in Net Position         Net Position Beginning of Year         Net Position End of Year         CONDENSED STATEMENT OF CASH FLOWS         JUNE 30, 2021		14,461 19,177 45,177 15,967 <b>399,010</b> 9,136 80,015 <b>89,151</b> <b>309,859</b> 75,001
Public Outreach         STEM Education         Miscellaneous and Unrestricted Revenue         Total Revenue         Expenses         Miscellaneous Expenses         Payments to Primary Government         Total Expenses         Change in Net Position         Net Position Beginning of Year         Net Position End of Year         CONDENSED STATEMENT OF CASH FLOWS         JUNE 30, 2021         Cash Provided from Operating Activites	<u>\$</u>	14,461 19,177 45,177 15,967 <b>399,010</b> 9,136 80,015 <b>89,151</b> <b>309,859</b> 75,001 <b>384,860</b>

Cash and Cash Equivalents at Beginning of Year	1
Cash and Cash Equivalents at End of Year	\$ 294,860

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

### South Dakota Retirement System

Last 10 Fiscal Years \*

	2021	2020	2019	2018	2017	2016	2015
SDSTA's proportion of the net pension liability (asset)	0.5665885%	0.4949484%	0.4444633%	0.4881662%	0.5027360%	0.5089089%	0.5287996%
SDSTA's proportionate share of net pension liability (asset) SDSTA's covered employer payroll	\$ (24,607) \$ \$ 12,193,592 \$		\$ (10,366) \$ \$ 8,995,993 \$				
SDSTA's proportionate share of the net pension liability (asset) as a percentageof its			. , , .				
covered-employee payroll Plan fiduciary net position as a	0.20%	0.51%	0.12%	0.46%	18.35%	23.87%	42.86%
percentage of the total pension liability (asset)	100.04%	100.09%	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

## SCHEDULE OF THE AUTHORITY CONTRIBUTIONS

## South Dakota Retirement System

Last 10 Fiscal Years

	 2021	2020	2019	2018	2017	2016	2015
Contractually required contribution	\$ 841,062	\$ 746,095	\$ 631,417	\$ 554,398	\$ 595,112	\$ 573,626	\$ 557,420
contractually required contribution	\$ 841,062	\$ 746,095	\$ 631,417	\$ 554,398	\$ 595,112	\$ 573,626	\$ 557,420
Contribution deficiency (excess)	\$ -	\$ -	\$ 	\$ -	\$ -	\$ -	\$ 
SDSTA's covered-employee payroll	\$ 13,727,913	\$ 12,193,592	\$ 10,237,119	\$ 8,995,993	\$ 9,596,007	\$ 9,256,007	\$ 9,042,866
Contributions as a percentage of covered-employee payroll	6.13%	6.12%	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 from Prior Valuation:**

The June 30, 2020 Actuarial Valuation reflects no changes in actuarial methods from the June 30, 2019 Actuarial Valuation. One change in actuarial assumptions and two plan provision changes are reflected and described below.

The details of the changes since the last valuation are as follows:

#### **Benefit Provision Changes:**

Legislation enacted in 2020 established a Qualified Benefit Preservation Arrangement (QBPA) under Section 415(m) of the Internal Revenue Code (IRC). The QBPA is effective July 1, 2020 and pays a portion of SDRS benefits that are restricted by IRC Section 415(b). The total benefits paid from SDRS and the QBPA will be limited to the applicable 415(b) annual limit, unreduced for early commencement if Members retire prior to age 62 and actuarially increased for late retirement up to age 70 if Members retire after age 65. The Actuarial Valuation considers benefits payable from both SDRS and the QBPA.

Legislation enacted in 2020 also brought the assets and the liabilities of the South Dakota Department of Labor and Regulation Plan into SDRS effective July 1, 2020. With the exception of the accounting results presented in Section 6 of this report, all exhibits include the assets, liabilities, and member counts of the former Department of Labor and Regulation Plan Members.

#### **Actuarial Assumption Changes:**

The SDRS COLA equals 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, 2019 and exists again this year as of June 30, 2020. Future COLAs are assumed to equal the current restricted maximum COLA which was 1.88% as of June 30, 2019 and is 1.41% as of June 30, 2020.

The changes in actuarial assumptions due to the 1.41% restricted maximum COLA decreased the Actuarial Accrued Liability by \$595 million, or 4.6% of the Actuarial Accrued Liability based on the 1.88% restricted maximum COLA.

Actuarial assumptions are reviewed in depth periodically, with the next experience analysis anticipated before the June 30, 2022 Actuarial Valuation and any recommended changes anticipated to be first implemented in the June 30, 2022 Actuarial Valuation.

#### **Actuarial Method Changes:**

No changes in actuarial methods were made since the prior valuation.

### SUPPLEMENTAL INFORMATION

#### SOUTH DAKOTA SCIENCE AND TECHNOLOGY AUTHORITY

#### SCHEDULE OF OPERATING EXPENSES FOR THE YEAR ENDED JUNE 30, 2021

Personal Services	
Employee Salaries	\$ 12,294,322
Employee Benefits	8,063,898
Total Personal Services	20,358,220
Travel	
Meals and Lodging	17,854
Auto and Fleet Services	54,754
Air - Commercial and Charter	5,620
Incidentals to Travel	276
Non-Employee Travel	1,764
Meals (Not Overnight)	-
Total Travel	80,268
Contractual Services	
Equipment Rental	177,453
Contractual - Other	3,577,589
Insurance	1,086,099
Lobbying	215,000
Computer Services	419,126
Telecommunications	77,690
Monitoring and Programming	29,737
Legal Consultant	128,620
Training	99,674
Consultant Fees - Accounting and Auditing	17,759
Promotion and Advancement	14,044
Dues and Memberships	13,555
Utilities	2,252,408
Maintenance and Repairs	916,534
Total Contractual Services	9,025,288
Supplies, Materials and Other Operating Expenses	
Maintenance and Repairs	1,557,801
Other Supplies and Equipment	2,415,643
Other Expenses	6,034
Office Supplies and Equipment	27,495
Licenses and Permits	42,140
Workshop and Registration Fees	3,444
Postage	4,288
Bank Charges	1,871
Total Supplies, Materials and Other Operating Expenses	 4,058,716
Depreciation Expense	2,359,565
Total Operating Expenses	\$ 35,882,057

#### SOUTH DAKOTA SCIENCE AND TECHNOLOGY AUTHORITY

#### SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS FOR THE YEAR ENDED JUNE 30, 2021

FOR THE YEAR ENDED JUNE 30, 2021	Pass-Through Numbers	CFDA Numbers	Amount
U.S. Department of Energy Pass-Through the Regents of the University of California LUX/Zeplin (LZ) Experiment Operations - Engineer/Research Supp.	7525117	81.UNKNOWN	\$ 1,327,926
U.S. Department of Energy Pass-Through the Regents of the University of California LBNL SIGMA-V Project	7371823	81.UNKNOWN	418,403
U.S. Department of Energy Pass-Through Oak Ridge National Laboratory Experiment Support for Majorana Demonstrator	4000144149	81.UNKNOWN	24,831
U.S. Department of Energy Pass-Through Oak Ridge National Laboratory Experiment Support for Majorana Demonstrator	4000185715	81.UNKNOWN	8,115
U.S. Department of Energy Pass-Through Fermi National Accelerator Laboratory SURF (Sanford Underground Research Facility) Operations Support	629760	81.UNKNOWN	379,349
U.S. Department of Energy Pass-Through Fermi National Accelerator Laboratory SURF (Sanford Underground Research Facility) Ross Shaft Rehab	630223	81.UNKNOWN	1,344,226
U.S. Department of Energy Pass-Through Fermi National Accelerator Laboratory SURF (Sanford Underground Research Facility) Ross S.Logistics	654406	81.UNKNOWN	1,884,413
U.S. Department of Energy Pass-Through Fermi National Accelerator Laboratory SURF(Sanford Underground Research Facility)LBNF/DUNE Support	674969	81.UNKNOWN	739,495
U.S. Department of Energy Pass-Through Fermi National Accelerator Laboratory SURF (Sanford Underground Research Facility) Oro Hondo Fan Rec.	658475	81.UNKNOWN	1,254
U.S. Department of Energy Pass-Through Fermi National Accelerator Laboratory SURF (Sanford Underground Research Facility)Ross H.Bearing Rec.	658208	81.UNKNOWN	39,431
U.S. Department of Energy Pass-Through Fermi National Accelerator Laboratory SURF(Sanford Underground Research Facility)LBNF Prof.Staff Serv.	671265	81.UNKNOWN	228,407
U.S. Department of Energy Pass-Through RESPEC Thermal Breakout Project	03506A	81.UNKNOWN	10,881
National Science Foundation: Pass-Through South Dakota School of Mines & Technology Mathematical and Physical Sciences Research Grant	РНҮ-1615197	47.049	2,198

#### SOUTH DAKOTA SCIENCE AND TECHNOLOGY AUTHORITY

#### SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS (CONTINUED) FOR THE YEAR ENDED JUNE 30, 2021

	Pass-Through Numbers	CFDA Numbers	Amount
U.S. Department of Energy Office of Science - Chicago Office of Acquisition/Assistance	DE-SC0020216	81.049	27,087,799
Total			\$ 33,496,727

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

# NOTES TO SCHEDULE OF EXPENDITURE OF FEDERAL AWARDS JUNE 30, 2021

#### Note 1: Basis of Presentation

The accompanying Schedule of Expenditures of Federal Awards (the "Schedule") includes the federal award activity of theSDSTA under programs of the federal government for the year ended June 30, 2021. 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**

There were no federal surplus property items received by the SDSTA for the year ended June 30, 2021.

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#### Financial Report—Mr. Mike Headley

- 8A. Financial summaries for November 2021, Ms. Nancy Geary-attached.
- 8B. Checks Resolution No. 2022-01, Ms. Nancy Geary-attached.

See recommended motion below.



#### DIVISION: ALL

#### BALANCE SHEET

#### ASSETS

	AS OF 02/28/22
CURRENT ASSETS	
First Interstate Checking	\$ 4,891,583.13
Total in Local Checking	 4,891,583.13
SD Treas: Indemnification	7,500,000.00
SD Treas: Mine Closure	1,520,425.48
SD Treas: Operating	1,304,075.96
SD Treas: Sanford Gift #2	-
SD Treas: Experiments	793,465.53
Total with SD Treasurer	 11,117,966.97
Billed A/R	3,084,825.93
Unbilled A/R	(0.10)
Other A/R	290,997.73
Inventory - Supplies	3,233,197.57
Inventory - Warehouse	313,247.28
Other Current Assets	1,442,097.59
Total Current Assets	24,373,916.10
FIXED ASSETS	
Land, Underground & Other	12,743,473.13
Bldgs & Infrastructure	19,386,433.19
Improvements	62,813,135.62
Computer Equipment	354,677.81
Equipment & Fixtures	11,100,543.79
DOE Property Transfer	4,221,314.91
Accum Depr & Amort	(21,203,956.88)
DOE Prop. Accum Deprec.	(393,267.82)
Total Fixed Assets	
OTHER ASSETS	
Work in Process	-
Pension Deferred Outflows	4,135,812.00
Xenon Purchased	8,934,350.39
Total Other Assets	13,070,162.39
TOTAL ASSETS	======================================
	¢ 120,402,24 ========

#### DIVISION: ALL

#### BALANCE SHEET

#### LIABILITIES & EQUITY

	AS OF 02/28/22
CURRENT LIABILITIES	
Accounts Payable Other Payables	\$   1,671,762.43 6,816.29
Total Accounts Payable Accrued Payroll Liab	 1,678,578.72 1,909,856.48
Total Current Liabilities	3,588,435.20
OTHER LIABILITIES	
LT Xenon Notes Payable Pension Deferred Inflows	6,000,000.00
Pension Deferred Innows	3,467,898.62
Total Other Liabilities	9,467,898.62
EQUITY	
Restricted: Indemnificati	7,500,000.00
Restricted: Mine Closure Restricted: Sanford Gift2	1,520,425.48
Restricted: Pension	- 667,913.38
Restricted: Experim. Int.	793,465.53
Restricted: Foundation	-
Total Restricted Funds	 10,481,804.39
Investment in Gen FA	89,022,353.75
Unrestricted Funds	13,905,940.28
Total Equity	113,410,098.42
TOTAL LIABILITIES & EQUITY	<b>===========</b> \$ 126,466,432.24
TOTAL LIABILITIES & EQUITY	

ALL

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### STATEMENT OF INCOME

#### FOR THE PERIOD ENDING 02/28/22

	YR-TO-DATE
REVENUE DOE Subcontracts NSF/NASA Subcontracts State Revenue Checking Interest Interest Income	\$ 25,599,093.75 - 1,376.50 74,449.00
TOTAL REVENUE	 25,674,919.25
DIRECT COSTS Direct Labor Board of Directors Capital Outlay >\$5K Contractual Svcs Inventory Supplies Travel - Domestic Travel - Domestic Travel - Foreign Utilities Other Direct Costs Unallow/Unbill Costs	5,704,275.15 5,078.52 3,027,079.74 3,164,044.93 187,153.03 1,544,042.97 28,651.28 - 1,553,632.51 107,421.19 239,410.18
TOTAL DIRECT COSTS	 15,560,789.50
INDIRECT COSTS Fringe Benefits Overhead TOTAL INDIRECT COSTS	4,691,376.05 6,200,976.81  10,892,352.86
GROSS PROFIT/LOSS ( )FROM OPERATIONS	 (778,223.11)
OTHER INCOME Water Treatment Miscellaneous Income Other Operating Income	 168,202.30 119,898.19 183,923.74 
TOTAL OTHER INCOME	472,024.23
OTHER EXPENSES Misc. Expenses & Donations Loss (Gain) on Sale of FA Other Unallowable Expense Reclass Incr Net Assets	(6,478,194.98) (3,600.29) 217,145.82 4,795,169.53
TOTAL OTHER EXPENSES	(1,469,479.92)
NET INCOME/LOSS ( )	\$

DIVISION: ALL

COMPARATIVE BALANCE SHEET

ASSETS

	AS OF 02/28/22		AS OF 02/28/21		\$ CHANGE	% CHANGE
CURRENT ASSETS						
First Interstate Checking	\$ 4,891,583.13	\$	3,391,432.35	\$	1,500,150.78	44.23%
First Interstate Other			1,420.64	·	(1,420.64)	-100.00%
Total in Local Checking	4,891,583.13		3,392,852.99		1,498,730.14	 44.17%
SD Treas: Indemnification	7,500,000.00		7,500,000.00		-	0.00%
SD Treas: Mine Closure	1,520,425.48		1,497,441.53		22,983.95	1.53%
SD Treas: Operating	1,304,075.96		1,116,445.61		187,630.35	16.81%
SD Treas: Sanford Gift #2	-		6,569.97		(6,569.97)	-100.00%
SD Treas: Spec Sess - Lab			2,175,759.00		(2,175,759.00)	-100.00%
SD Treas: Experiments	793,465.53		919,001.75		(125,536.22)	-13.66%
Total with SD Treasurer	11,117,966.97		13,215,217.86		(2,097,250.89)	-15.87%
Billed A/R	3,084,825.93		2,664,561.75		420,264.18	15.77%
Unbilled A/R	(0.10)		132,006.31		(132,006.41)	-100.00%
Other A/R	290,997.73		814,642.00		(523,644.27)	-64.28%
Inventory - Supplies	3,233,197.57		3,337,210.59		(104,013.02)	-3.12%
Inventory - Warehouse	313,247.28		27,330.13		285,917.15	1046.16%
Other Current Assets	1,442,097.59		965,683.90		476,413.69	49.33%
Total Current Assets	24,373,916.10		24,549,505.53		(175,589.43)	-0.72%
FIXED ASSETS						
Land, Underground & Other	12,743,473.13		12,633,473.13		110,000.00	0.87%
Bldgs & Infrastructure	19,386,433.19		9,707,365.56		9,679,067.63	99.71%
Improvements	62,813,135.62		64,637,443.82		(1,824,308.20)	-2.82%
Computer Equipment	354,677.81		570,932.90		(216,255.09)	-37.88%
Equipment & Fixtures	11,100,543.79		10,640,819.96		459,723.83	4.32%
DOE Property Transfer	4,221,314.91		1,471,727.33		2,749,587.58	186.83%
Accum Depr & Amort	(21,203,956.88)		(19,274,959.28)		(1,928,997.60)	10.01%
DOE Prop. Accum Deprec.	(393,267.82)		(104,196.77)		(289,071.05)	277.43%
Total Fixed Assets	89,022,353.75		80,282,606.65		8,739,747.10	10.89%
OTHER ASSETS						
Work in Process	-		3,029,340.38		(3,029,340.38)	-100.00%
Pension Deferred Outflows	4,135,812.00		2,995,814.75		1,139,997.25	38.05%
Xenon Purchased	8,934,350.39		8,930,401.09		3,949.30	0.04%
Total Other Assets	13,070,162.39		14,955,556.22		(1,885,393.83)	-12.61%
		*		==		
TOTAL ASSETS	\$ 126,466,432.24	\$	119,787,668.40	\$	6,678,763.84	5.58%

DIVISION: ALL

#### COMPARATIVE BALANCE SHEET

#### LIABILITIES & EQUITY

		AS OF 02/28/22		AS OF 02/28/21		\$ CHANGE	% CHANGE
CURRENT LIABILITIES							
Accounts Payable	\$	,671,762.43	\$	1,194,143.35		477,619.08	40.00%
Other Payables		6,816.29		8,841.84		(2,025.55)	-22.91%
Total Accounts Payable	,	,678,578.72		1,202,985.19		475,593.53	39.53%
Accrued Payroll Liab		,909,856.48		1,795,169.22		114,687.26	6.39%
Total Current Liabilities	;	3,588,435.20		2,998,154.41		590,280.79	19.69%
OTHER LIABILITIES							
LT Xenon Notes	(	6,000,000.00		6,000,000.00		-	0.00%
Pension Deferred Inflows	:	3,467,898.62		1,266,585.88		2,201,312.74	173.80%
Total Other Liabilities	9	9,467,898.62		7,266,585.88		2,201,312.74	30.29%
TOTAL LIABILITIES	1:	3,056,333.82		10,264,740.29		2,791,593.53	27.20%
EQUITY							
Restricted: Indemnificati	-	7,500,000.00		7,500,000.00		-	0.00%
Restricted: Lab		-		2,175,759.00		(2,175,759.00)	-100.00%
Restricted: Mine Closure		1,520,425.48		1,497,441.53		22,983.95	1.53%
Restricted: Sanford Gift2		-		6,569.97		(6,569.97)	-100.00%
Restricted: Pension		667,913.38		1,729,228.87		(1,061,315.49)	-61.38%
Restricted: Experim. Int.		793,465.53		919,001.75		(125,536.22)	-13.66%
Restricted: Foundation		-		219.45		(219.45)	-100.00%
Total Restricted Funds	10	),481,804.39		13,828,220.57		(3,346,416.18)	-24.20%
Investment in Gen FA	8	9,022,353.75		80,282,606.65		8,739,747.10	10.89%
Unrestricted Funds	1:	3,905,940.28		15,412,100.89		(1,506,160.61)	-9.77%
TOTAL EQUITY	11:	3,410,098.42		109,522,928.11		3,887,170.31	3.55%
TOTAL LIABILITIES & EQUITY		======= 6,466,432.24	: \$	 119,787,668.40	== \$	6,678,763.84	======================================

#### SOUTH DAKOTA SCIENCE & TECHNOLOGY

PAGE 0001

#### COMPARATIVE STATEMENT OF INCOME

#### FOR THE PERIOD ENDING 02/28/22

		YEAR	.=====:	PRIOR YEAR	====		
		TO DATE		TO DATE		\$ CHANGE	% CHANGE
			=====:	من اعتبار بعني إعدار إعدار اعدار إعدار العلم العلم العلم العلم الجمار إعدار العلم الع 	====:	= = = = = = = = = = = = = = = = = = =	
REVENUE DOE Subcontracts	ሱ	05 500 000 75	¢	00 000 000 07	¢	0.070.005.00	0 700/
NSF/NASA Subcontracts	\$	25,599,093.75	\$	23,328,288.07	\$	2,270,805.68	9.73%
State Revenue		-		1,967.60		(1,967.60)	-100.00% 0.00%
Checking Interest		- 1,376.50		- 944.67		- 431.83	45.71%
Interest Income		74,449.00		95,656.00		(21,207.00)	-22.17%
TOTAL REVENUE		25,674,919.25		23,426,856.34		2,248,062.91	9.60%
DIRECT COSTS							
Direct Labor		5,704,275.15		5,438,664.57		265,610.58	4.88%
Board of Directors		5,078.52		3,390.56		1,687.96	49.78%
Capital Outlay >\$5K		3,027,079.74		2,086,818.62		940,261.12	45.06%
Contractual Svcs		3,164,044.93		2,401,832.92		762,212.01	31.73%
Inventory		187,153.03		114,012.50		73,140.53	64.15%
Supplies		1,544,042.97		807,431.14		736,611.83	91.23%
Travel - Domestic		28,651.28		2,941.62		25,709.66	874.00%
Travel - Foreign				(149.16)		149.16	0.00%
Utilities		1,553,632.51		1,522,976.14		30,656.37	2.01%
Other Direct Costs		107,421.19		19,232.45		88,188.74	458.54%
Unallow/Unbill Costs		239,410.18		198,636.02		40,774.16	20.53%
TOTAL DIRECT COSTS		15,560,789.50		12,595,787.38		2,965,002.12	23.54%
INDIRECT COSTS							
Fringe Benefits		4,691,376.05		4,507,188.60		184,187.45	4.09%
Overhead		6,200,976.81		6,079,638.77		121,338.04	2.00%
TOTAL INDIRECT COSTS		10,892,352.86		10,586,827.37		305,525.49	2.89%
GROSS PROFIT/LOSS ()		 (778,223.11)		244,241.59		(1,022,464.70)	517.81%
		المراجع من مراجع من					
OTHER INCOME Water Treatment		400 000 00		400 004 00		(44,004,78)	7 000/
Miscellaneous Income		168,202.30		182,804.08		(14,601.78)	-7.99%
		119,898.19		17,522.50		102,375.69	584.25%
Other Operating Income		183,923.74		34,117.76		149,805.98 	439.09%
TOTAL OTHER INCOME		472,024.23		234,444.34		237,579.89	101.34%
OTHER EXPENSES							
Misc. Expenses & Donations		(6,478,194.98)		(1,252,355.79)		(5,225,839.19)	417.28%
Loss (Gain) on Sale of FA		(3,600.29)		58,461.30		(62,061.59)	-106.16%
Other Unallowable Expense		217,145.82		104,196.77		112,949.05	108,40%
Reclass Incr Net Assets		4,795,169.53		(423,191.63)		5,218,361.16	-1233.10%
TOTAL OTHER EXPENSES		(1,469,479.92)		(1,512,889.35)		43,409.43	-2.87%
NET INCOME/LOSS ( )	\$	======================================	\$	======================================	\$	======================================	======================================
	·	===========			1	==========	=========

#### South Dakota Science & Technology Authority Available Resources 2/28/2022

Cash Total Checking	\$ 4,891,583
Cash With State Treasurer	\$ 11,117,967
Total Cash	\$ 16,009,550
Less: Restricted Funds	
Indemnification/Mine Closure/Special Session Lab	\$ (9,020,425)
Experiments (Xenon, Interest,Infrastructure)	\$ (793,466)
Total Cash Available for Infrastructure Upgrades and Authority Operations	\$ 6,195,659
Plus: Accounts Receivable Billed	\$ 3,084,826
Accounts Receivable Unbilled	\$ (0)
Less: Current Liabilities (Accounts Payable & Accrued Payroll)	\$ (3,588,435)
(not including accts. pay. For MSF funding)	 
Available Cash and Receivables	\$ 5,692,050

# SDSTA Operating Budget Summary FY2022 Actual vs Budget February 2022 & YTD

	Feb. 2022	Budget	\$ Over/Under Budget	% of Budget	Actual YTD	YTD Budget	\$ Over/Under Budget	% of Budget	% Remaining
									100%
SDSTA (Authority) Direct Charges									
Board of Directors	\$17,998.00	\$19,334.00	\$1,336.00	93.09%	\$160,568.00	\$168,665.00	\$8,097.00	95.20%	4.80%
Executive Office	\$33,422.00	\$49,481.00	\$16,059.00	67.55%	\$776,182.00	\$699,981.00	-\$76,201.00	110.89%	-10.89%
Science Center E & O	\$2,632.00	\$500.00	-\$2,132.00	526.4%	\$51,828.00	\$52,517.00	\$689.00	98.69%	1.31%
Science Liaison	-\$745.00	\$0.00	\$745.00	100.0%	-\$1,346.00	\$0.00	\$1,346.00	100.00%	0.00%
SLHVC (Visitor Center)	\$34,945.00	\$0.00	-\$34,945.00	100.0%	\$88,530.00	\$0.00	-\$88,530.00	100.00%	0.00%
Subtotal	\$88,252.00	\$69,315.00	-\$18,937.00	127.32%	\$1,075,762.00	\$921,163.00	-\$154,599.00	116.78%	-16.78%
Federal/State Funding - Direct Charges									
Fermi C#671265 Prof. St.Services	\$4,804.00	\$5,000.00	\$196.00	96.08%	\$33,049.00	\$48,000.00	\$14,951.00	68.85%	31.15%
Fermi C#674969 Ross Logist.Supp.	\$255,905.00	\$250,000.00	-\$5,905.00	102.36%	\$1,857,513.00	\$2,448,325.00	\$590,812.00	75.87%	24.13%
Fermi Misc. Contracts	\$0.00	\$0.00	\$0.00	0.0%	\$3,942.00	\$35,000.00	\$31,058.00	11.26%	88.74%
Office of Science Coop.Agree	\$1,464,602.00	\$1,304,959.00	-\$159,643.00	112.23%	\$10,773,029.00	\$10,270,747.00	-\$502,282.00	104.89%	-4.89%
Office of Science IIP Projects	\$638,673.00	\$638,673.00	\$0.00	100.0%	\$4,560,022.00	\$4,560,022.00	\$0.00	100.00%	0.00%
LBNL SIGMA-V C#7371823	\$7,278.00	\$10,000.00	\$2,722.00	72.78%	\$159,646.00	\$220,000.00	\$60,354.00	72.57%	27.43%
LBNL LZExp.Operat.C#7525117	\$50,647.00	\$55,000.00	\$4,353.00	92.09%	\$325,380.00	\$405,000.00	\$79,620.00	80.34%	19.66%
MJD (Majorana) ORNL144149	\$1,478.00	\$2,000.00	\$522.00	73.9%	\$9,978.00	\$16,000.00	\$6,022.00	62.36%	37.64%
<ul> <li>Kiewit/Thyssen/DakotaT.</li> </ul>	\$2,036.00	\$4,000.00	\$1,964.00	50.9%	\$21,484.00	\$32,700.00	\$11,216.00	65.70%	34.30%
<ul> <li>Caterpillar Inc.</li> </ul>	\$94,997.00	\$94,997.00	\$0.00	100.0%	\$94,997.00	\$94,997.00	\$0.00	100.00%	0.00%
RESPEC Thermal Breakout	\$0.00	\$0.00	\$0.00	0.0%	\$11,522.00	\$30,000.00	\$18,478.00	38,41%	61.59%
Subtotal	\$2,520,420.00	\$2,364,629.00	-\$155,791.00	106.59%	\$17,850,562.00	\$18,160,791.00	\$310,229.00	98.29%	1.71%
Indirect Expenses									
Indirect Charges Personnel	\$455,206.00	\$481,393.00	\$26,187.00	94.56%	\$3,599,562.00	\$4,146,648.00	\$547,086.00	86.81%	13.19%
Indirect Charges Other	\$803,000.00	\$462,514.00	-\$340,486.00	173.62%	\$4,057,398.00	\$4,311,873.00	\$254,475.00	94.10%	5.90%
Subtotal	\$1,258,206.00	\$943,907.00	-\$314,299.00	133.3%	\$7,656,960.00	\$8,458,521.00	\$801,561.00	90.52%	9.48%
Totals	\$3,866,878.00	\$3,377,851.00	-\$489,027.00	114.48%	\$26,583,284.00	\$27,540,475.00	\$957,191.00	96.52%	3,48%
<ul> <li>Private Corporations (Commercial Group)</li> </ul>	(a								

#### SOUTH DAKOTA SCIENCE AND TECHNOLOGY AUTHORITY

#### **RESOLUTION NO. 2022 - 01**

WHEREAS, Article VI, Section 5 of the Bylaws of the South Dakota Science and Technology Authority (the "SDSTA") provides that "[a]ll bills, notes, checks or other instruments for the payment of money shall be signed and countersigned by such officers and in such manner as may be prescribed by resolution of the Directors";

WHEREAS, as a matter of good corporate governance and appropriate internal controls, the SDSTA believes the number of persons authorized to sign checks and other instruments for the payment of money should be limited; and

WHEREAS, the SDSTA believes the most appropriate persons to be authorized to sign checks and other instruments for the payment of money are the Executive Director, the Chief Financial Officer, the Chairperson of the Board of Directors, and the Secretary/Treasurer of the Board of Directors;

NOW, THEREFORE, at a meeting duly noticed and held on March 24, 2022, at which a quorum was present, by a vote of \_\_\_\_\_ for and \_\_\_\_\_ against, it is hereby RESOLVED by the Board of Directors of the SDSTA as follows:

1. The holders of the following offices are authorized to sign checks and other instruments for the payment of money on behalf of the SDSTA: the Executive Director, the Chief Financial Officer, the Chairperson of the Board of Directors; and the Secretary/Treasurer of the Board of Directors.

2. Any financial institution acting in reliance on this Resolution may rely on a written certification signed by either the Chairperson or the Secretary/Treasurer and either the Executive Director or the Chief Financial Officer as to the identity of the persons holding the above-described offices.

3. As of the date of adoption of this Resolution, the holders of the foregoing offices are as follows:

- a. Executive Director Michael J. Headley
- b. Chief Financial Officer Terry Miller
- c. Chairperson of the Board Casey C. Peterson
- d. Secretary/Treasurer Patricia Lebrun

Adopted the 24<sup>th</sup> day of March, 2022.

Secretary/Treasurer

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#### Executive Director's Report—Mr. Mike Headley

The Executive Director's Report includes the following:

- 9A. Declarations of surplus (5)—Battery tester, transformer wheel lift, anemometers, pedestal grinder and groundskeeping equipment.
- 9B. SDSTA quarterly update—progress report attached, *informational*.
- 9C. Yates Shaft update—Hoists & Shafts Director Ms. Wendy Straub, presentation.
- 9D. Science update—Science Director Dr. Jaret Heise, presentation.

See recommended motion below.





#### **DECLARATION OF SURPLUS PROPERTY**

The South Dakota Science and Technology Authority (SDSTA) owns a Midtronic electronic battery tester (Asset No.: TS-TMB15-01), purchased in 2008 at a cost of less than \$5,000.00. The battery tester has failed and is not cost effective to repair or replace. It has no value and it will be scrapped.

Having no further use for this property, I hereby declare the Midtronic electronic battery tester to be Surplus Property.

Dated at Lead, South Dakota this 20th day of January, 2022.

Mike Headley SDSTA Executive Director



#### **DECLARATION OF SURPLUS PROPERTY**

The South Dakota Science and Technology Authority (SDSTA) owns a 2010 transporter wheel lift. The SDSTA aquired the equipment from the SD Federal Property Agency in May of 2016 through a donation program and paid a \$500 transfer fee. The compliance restriction period set by the agency was met and compliance forms completed verifying the status of the equipment. No further compliance restrictions exist for this equipment.

The SDSTA initially planned to use the wheel lift to transport experiment equipment. The SDSTA discovered that smaller mobile equipment was better suited for this work scope, and the wheel lift was too large to use in daily operations. However, the diesel powered electric generator attached to the transporter wheel lift was removed and is currently being used underground for multiple purposes. If the wheel lift had been used over its useful life of 10 years, it would have been fully depreciated in 2020. The transporter wheel lift has no value and will be surplused using the standard bid process.

Having no further use for this property, I hereby declare the 2010 transporter wheel lift to be Surplus Property.

Dated at Lead, South Dakota this 10<sup>th</sup> day of February, 2022.

Mike Headley SDSTA Executive Director



#### **DECLARATION OF SURPLUS PROPERTY**

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Having no further use for this property, I hereby declare the 2010 transporter wheel lift to be Surplus Property.

Dated at Lead, South Dakota this 10<sup>th</sup> day of February, 2022.

Mike Headley SDSTA Executive Director



#### **DECLARATION OF SURPLUS PROPERTY**

The South Dakota Science and Technology Authority (SDSTA) owns the following ventilation test tool items:

- DAVIS Anemometer Model A/24 10374-59 Asset No. TS-TMB02-03
- ALNOR Digital Anemometer kit with case Model AXD620 Asset No. TS-TMB02-01
- VELOCITY Digital Anemometer kit with case Model LV 107 No Asset Tag

These Anemometers are no longer supported for calibration and will be surplused using the standard bid process.

Having no further use for this property, I hereby declare the above listed items to be Surplus Property.

Dated at Lead, South Dakota this 7<sup>th</sup> day of March, 2022.

Mike Headley SDSTA Executive Director



#### **DECLARATION OF SURPLUS PROPERTY**

The South Dakota Science and Technology Authority (SDSTA) owns a 12" Pedestal Grinder (no ID tags or information found). The legacy tool was in the Ross head frame crusher room. It has no value and it will be scrapped.

Having no further use for this property, I hereby declare the legacy Pedestal Grinder to be Surplus Property.

Dated at Lead, South Dakota this 7th day of March, 2022.

Mike Headley SDSTA Executive Director



#### **DECLARATION OF SURPLUS PROPERTY**

The South Dakota Science and Technology Authority (SDSTA) owns the following groundskeeping equipment that have reached their end-of-life cycle. It is not cost effective to repair the mower and trimmer or sell them. The equipment will be scrapped:

- POULAN 625 PRO Mower Asset No.: TL-TMS07-18
- HUSQVARNA 323 Trimmer Asset No.: TL-TMS07-01

SDSTA also owns the below equipment that were never assigned an asset number and are deemed scrap because the equipment cannot be put into service:

- Gardner Denver 5 Ton Pneumatic Chain Hoist w/ Traveler
- WEN Power 3500 Generator

Having no further use for this property, I hereby declare the above listed items to be Surplus Property.

Dated at Lead, South Dakota this 14<sup>th</sup> day of March, 2022.

Mike Headley SDSTA Executive Director



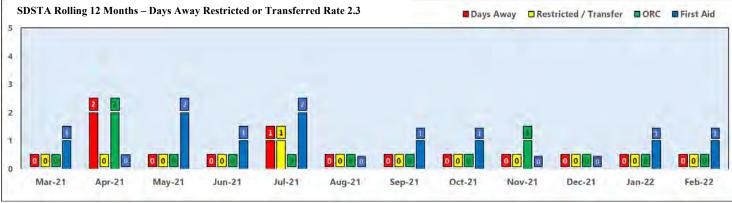
## December 2021 – February 2022 Progress Report Submitted March 16, 2022

Submitted to: South Dakota Science and Technology Authority Board of Directors

Mike Headley SDSTA Executive Director Sanford Underground Research Facility Laboratory Director

### Environment, Safety and Health (ESH) Status

#### Health and Safety Status



Other Recordable Cases (ORC)

#### December 2021 thru February 2022: Recordable Cases

• No events to report.

#### December 2021 thru February 2022: First Aid Cases

- 01/18: SDSTA ~ Strain to back; Medical evaluation conducted by onsite occupational health nurse. Overthe-counter pain relief administered.
- 02/15: SDSTA ~ Same level fall; Medical evaluation conducted by onsite occupational health nurse. Ice applied.

#### **ESH Support**

New full-time Emergency Response Team (ERT) field member and Security Guard positions posted.

- ESH Manual updates:
  - Emergency Management Standard sent to Fermi Research Alliance (FRA) for review.
  - o Incident Reporting and Investigation Standard in SDSTA final review.
  - Creating new Work Instruction for Job Hazard Analysis/Standard Operating Procedure (JHA/SOP).
  - Updating Work Planning and Control Standard.
  - Human Performance Improvement (HPI) investigation reports:
    - 4850L water valve failure.
      - Back strain.
      - Winch rope failure.
      - Operational interruption to Ross Skipping System.
- ERT Full-time members fulfilled their Mine Safety and Health Administration (MSHA) annual training requirements.
- Distributed the results from Safety and Support Perception Survey; currently evaluating opportunities for improvement.
- Continue to conduct weekly safety walks of the Long-Baseline Neutrino Facility/Deep Underground Neutrino Facility (LBNF/DUNE) construction spaces with TMI/FRA/KAJV.
- Worked with Operations team to develop alternate solution for completing slung loads.
- Completed off-site audiometric testing for hearing conservation program participants.
- Advanced the completion of Integrated Management System (IMS) documents to support the International Organization for Standardization (ISO) process 13 new forms approved.
- Worked with Procurement to gather price quotes on type II indoor storage options for explosives.
- Released updated SOP on the Davis Campus refuge chamber; expanding capacity to 39 personnel.
- Finalized Occupational Health & Safety (OHS) and Environmental Key Performance Indicators (KPIs) and briefed to Top Management at February ISO Management Review.

- Conducted ergonomic assessments in the Davis Campus area.
- Conducted safety assessment of Sanford Lab Homestake Visitor Center (SLHVC) facility.
  - Began developing Department of Transportation (DOT) mandated training for staff (trolley drivers).

#### **Upcoming Activities/Trainings**

- Cardiopulmonary Resuscitation (CPR) and First Aid Certification Training (March April).
- South Dakota Office of Risk Management quarterly assessment (March).
- Members of ERT will attend rope rescue training in Salt Lake City (March).
- SDSTA Annual Refresher Training release (March).

#### Health and Wellness Initiatives

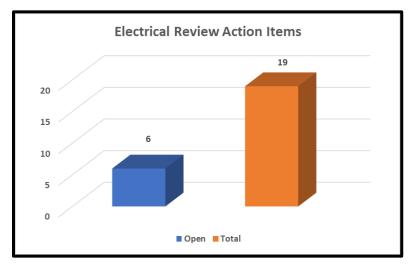
• Walking Challenge: Walking the 17 National Labs Initiative (March 14 – April 22).

#### **Environmental Support**

- The monthly Discharge Monitoring Reports for South Dakota National Pollution Discharge Elimination System (SD NPDES) Permit were prepared and submitted to the state. There were no compliance issues. The state is preparing a revised permit that will be issued in the future.
- By-Pass of Polishing Filter System at WWTP was implemented again to facilitate continued work on the Gravity Flow Project. A By-Pass request was implemented under SD NPDES Permit through SD Department of Agriculture and Natural Resources (SD DANR). This Gravity Flow Project was completed at SURF.
- The 2021 Tier II report was prepared and submitted to SD-DANR, the local Emergency Planning Committee and the Lead Fire Department.
- The Water Rights Annual Report for No. 1880-1 was prepared and submitted to SD-DANR.
- The site Spill Prevention Control Countermeasures (SPCC) Plan was reviewed and updated to reflect minor modifications.
- Environmental KPIs were established.
- Completed objective planning spreadsheets for three (3) KPIs and four (4) Significant Aspects.
- Scheduled and completed the annual HAZWOPER refresher training at SDSTA provided by SD Association of Environmental Professionals (AEP).
- Provided feedback for transfer of mineral rights on small parcels of land from Homestake to SDSTA adjacent to mineral rights on lands already owned by SDSTA.
- Provided feedback for Environment Liability Insurance renewal.
- Provided training discussion for spill clean-up activities for the site at ERT Annual Refresher Training.
- Completed a chemical inventory and boiler inspection review at SLHVC.

#### Third Party Review Recommendations Status

• Awaiting September 2021 ESHAC review final report.



### Surface and Underground Operations Status

#### Yates Shaft

Work Accomplishments

- Yates Shaft return to operations safely accomplished target date; cage schedule implemented.
- Temporary shaft heater arrived and installed.
- Blocking inspection and repair schedule completed.
- Shaft baseline survey completed.
- Pipebetween 1100L and 1700L removed.
- January All Hands meeting Yates Shaft update provided.

#### Upcoming Activities

- Complete Top Down Maintenance (TDM) through set No. 419 (or 2750L).
- Support rail contractors on the 1700L.
- Replacement of shaft guides.

#### **Ross Shaft**

Work Accomplishments

- Re-torquing on saddle bolts 1 and 2 completed.
- TMI winch failure on the 4850L while moving beams after slinging under the cage. SDSTA identified different equipment for this task.
- New cage counterweight drawings finalized, and fabrication has begun.
- Second temporary shaft heater installed.
- Legacy wear identified below the scrolls, maintenance inspecting monthly.

#### Upcoming Activities

- Install new cage counterweight.
- Install new skip guide runner wheels.
- Inspect TPI guide.
- Saddle bolt re-torquing on saddles 5 and 6.

#### **Hoist Maintenance**

Work Accomplishments

- Ross cage hoist bearings changed out.
- Seimag commissioned cage hoist for 1,000 fpm for materials only.
- Received rebuilt Yates's generator (this is the spare).
- Seimag made program adjustments on the Ross skip hoist to support single load skipping, as needed.

#### **Upcoming Activities**

- Ross ore hoist rope cut.
- Bi-annual hoist rope non-destructive testing (NDT).
- Tiley accelerometer tests to increase the cage speed when conveying personnel.
- Perform preventive maintenance activities—ongoing.

#### **Underground Hazard Mitigation**

- Crews continued access through Ross Shaft for Phase #2 of the Water Wall Infrastructure improvement Project.
- Completed ground support installation in the transportation corridor on the 1700L.
- Installed five ventilation walls in various levels and enhanced ventilation controls in the 17 Ledge motor barn area.
- Supported grouting SIGMA-V holes on the 4100L.
- Continued installing ground support and installing base course on the 4100L.
- Began installing MineStar personnel tracking system in the Yates Shaft.

Upcoming Activities

- Complete Phase #2 of the Water Wall Infrastructure Improvement Project.
- Continue installing MineStar personnel tracking system in the Yates and Ross Shafts.
- Install on-demand regulator at the 2000L Oro Hondo bulkhead.
- Continue advancing the SIGMA-V project and installing ground support on the 4100L.
- Begin cleaning out dewatering sump on the 3650L.

#### **Surface Operations and Utilities Support**

#### **Davis and Ross Campus**

Work Accomplishments

- Quarterly air handling equipment and fire alarm preventive maintenance activities continued with vendors.
- Oxygen monitors in the Davis Campus have been calibrated and some replaced to ensure any low oxygen events are detected and alarm notifications are sounded.
- Accommodations and equipment have been added to the common corridor enabling the area to be used as a refuge chamber.
- Fiber optic cable installed and terminated in ramp system from 4100L to 4850L for a University of Wisconsin experiment.

Upcoming Activities

- Continue support of LZ operations.
- Continue support of SIGMA-V outfitting on the 4100L.
- Continue support of RESPEC activities on the 4100L.

#### Surface Facilities/Buildings and Grounds

Work Accomplishments

- The SDSTA completed all seven (7) day, thirty (30) day, and annual (360) day preventative maintenance activities. Boart drill and jackleg repairs continue.
- In support of SURF recycling efforts, spent batteries are being gathered for future shipping, 16 gaylords of material were shipped off site. An additional 20 gaylords were filled with recycle material.
- Support of the upgrades to the Ross Hoists continued.
- Storm water discharge areas throughout the site were inspected and repaired.
- To date 2,398 items have been added as "assets" into ManagerPlus, the asset management system.
- A new shaft compressor unit was installed on the North side of the Ross Headframe for redundancy to the air supply in the shaft and various levels.
- The SLHVC has been added to the maintenance roster.

#### Upcoming Activities

- Perform preventive maintenance activities—ongoing.
- Assist with logistics associated with sitewide security upgrades.
- Continue to refine operations in the ROC.
- Continue with snow removal efforts.
- Continue with weekly training for employees sitewide on ManagerPlus.

#### Dewatering

- Performed preventative maintenance on pumps and pumping apparatus.
- Serviced walkways alongside the underground water treatment facility; fabricated and installed allowing an ergonomic approach when performing maintenance activities.
- Monitoring of the pressure reducing manifolds on the 4850L continues.
- Supported the Gravity Bypass project at the WWTP.

Upcoming Activities

- Work with the Engineering Team on the 3650L Pump Room and Pump Replacement Project.
- Schedule preventative maintenance.
- Complete installation of Yates sump pump vertical discharge line.
- Continue to assist FRA/KAJV/TMI with relocation and temporary installation of water and air lines.

#### Waste Water Treatment Plant (WWTP)

Work Accomplishments

- As of March 1, the water level in the underground pool was at 6,140 feet. This is the deepest the pool has ever been pumped down since the re-opening of the facility. The net gain for the quarter was 39 feet. Underground water infiltration maintains at approximately 1100 gallons per minute (gpm). A large portion of the infiltration was captured on the 2000L and pumped to the surface thereby reducing the amount of water that normally would report to the deep underground pool.
- Modifications to the control system to allow specific functions to be operated from off-site advanced as planned—there were seven off hour call-outs for the quarter. The WWTP has not discharged any water to the sanitary sewer for over four years. The team continues to balance water sources to manage temperatures.
- The WWTP passed the first quarter Whole Effluent Toxicity (WET) test.

#### Upcoming Activities

- Continue to monitor and sample the underground wastewater treatment plant located on the 4850L.
- Continue winter operations.
- Operate utilizing the Gravity Bypass system reducing the need for several pumps.
- Prepare for Gravity Inflow Project.
- Enhanced turbidity in the underground water has increased the number of backwashes in the Yardney filters to twice daily.

#### **Transportation and Mobile Equipment**

Work Accomplishments

- The team performed vehicle preventative maintenance actions and repairs to fleet vehicles.
- Underground locomotives, support equipment including air compressors, loaders and rail cars were maintained.
- Summer maintenance equipment was inspected.

#### Upcoming Activities

- Continue repairs on the walk behind skid steers and two-yards loader located on the 1700L and 4850L.
- Prepare snow removal equipment.
- Monitor the Ingersoll Rand air compressor at the Ross Headframe.

#### **Electrical and Cyber Infrastructure**

- The team continues to review and modify the underground communications infrastructure to ensure each level has voice over IP (VoIP) and FEMCO (i.e. twisted pair) phones at each underground facility level.
- Continued installing cameras at the WWTP to enhance offsite views for operators.
- Efforts continued to add redundant fiber optic cable paths in the Ross and Yates Shaft on the 800L, 1700L and 4100L.
- Continued to assist with the Oro Hondo variable frequency drive troubleshooting.
- Various preventative maintenance activities were performed.
- The team continued to work with KAJV to establish construction power on the 4850L near the Ross Station as well as other levels.
- Upgrades to the Yates 4100L and 1700L stations continued.
- Achieved installation milestones on the 1700L rehabilitation project.
- Minestar installation has begun in the Yates Shaft.

Upcoming Activities

- Continue to replace and install fiber optic cable in Ross and Yates Shafts.
- Continue camera upgrades to pump rooms and WWTP.
- Set new milestones on the 1700L Rehabilitation Project.

#### **Engineering Support**

Work Accomplishments

- The Ross/Yates Hoist Room Building Roof Drains & Re-Pointing Request for Proposal (RFP) has been advertised and proposals are due in early March. The project is planned to be performed this summer.
- A SURF 4850L Laboratory Expansion Feasibility Assessment was completed by Stantec for the existing SDSTAproduced expansion plans. A final report documenting Stantec's assessment/recommended next steps, coupled with budgetary costs and schedule, was delivered.
- The final report for the WWTP rotating biological contactor (RBC) replacement scoping study project via TSP/Banner Engineering has been issued. The next step is to contract for the design of the selected technology option.
- The Yates Complex Waterline Project was completed and made operational. This project completely replaced the potable water distribution system on the Yates Complex and brought the system up to present codes.
- Coordinated with Black Hills Energy to bring a new 3-phase power line extension to the Ellison area of SURF.
- Development of new CAD files was completed for all underground level maps to include annual-levelinspections, ventilation and emergency response plan layers, consolidating maps for each level into a single CAD file.
- A design task order was awarded to Ferber/HDR for the East Switchyard Cable Replacement Project. Submission of the Project Design Technical Review Package to DOE was also completed. Replacement of the 27-year old cable is needed to ensure the reliability of power to the Yates Complex, underground science and LBNF conveyor. The 60% design is under review.
- The Final Design contract for the Sacred Circle Garden has been awarded and work has begun. Final design is due in June 2022 for potential bid this summer, pending funding availability.
- The contract was awarded to RCS Construction for the first phase of the Access Control project, which includes three buildings and both entrance gates.
- For the WWTP Gravity Flow Upgrades project, the underground portion of new pipe to bypass the clarifier loop was completed. The plant is now fully gravity fed which saves on O&M and electrical costs.
- The final design of the new exhibit panels was received from Formations Inc. Fabrication has begun and installation is planned for May 2022.
- The 60% design was completed for the new Oro Hondo Backup Fan. The contractor, Howden, has issued Purchase Orders (POs) for major long lead components with a plan of installing the new 100% backup fan this summer.
- Design of the 3650L Pump Room Rehabilation has reached the 95% stage. The plan is to procure new pumps and motors this year with the rehabilitation planned for FY23 once the long-lead time pumps are delivered.

#### **Quality Assurance / Quality Control Status**

Work Accomplishments

• Change Control Request Submittals and Approvals:

CCR No.	Title	Status	Approval Date
512	Ventilation Standard and Forms	Approved	12/1/2021
513	IMSM Documents F & P	Approved	12/14/2021
514	Management Review L10 Meeting Work Instruction	Approved	12/13/2021
515	Top Management Change	Approved	12/28/2021
516	Org Charts	Approved	1/14/2022
520	Form/Procedure changes and New Template and Form	Approved	1/11/2022
521	Visitor Center Affected Documents	Approved	1/18/2022

CCR No.	Title	Status	Approval Date
522	COVID-19 Doc	Approved	1/3/2022
523	Information Technology Service Agreement	Approved	1/24/2022
524	Update Emergency Reporting System Flow Diagram	Approved	1/26/2022
525	Update SURF to SDSTA - IMSM Attachment	Approved	2/15/2022
526	CCR for Job Description Form Change	Approved	2/14/2022
527	Update SURF to SDSTA - IMSM Forms	Approved	2/15/2022
528	Update SURF to SDSTA - IMSM Templates	Approved	2/15/2022
529	Update SURF to SDSTA - IMSM FD, Manual & WI	Approved	2/15/2022
530	Update SURF to SDSTA - Executive Leadership	Approved	2/15/2022
531	Update SURF to SDSTA - ESH	Approved	2/9/2022
532	Update SURF to SDSTA - IMSM Procedures	Approved	2/15/2022
533	Update SURF to SDSTA - IT	Approved	2/9/2022
534	Update SURF to SDSTA - QA/QC	Approved	2/9/2022
535	Update SURF to SDSTA - UO	Approved	2/10/2022
536	CCR for IMSM Procedure P-840	Approved	2/22/2022
537	Personal Fall Protection Equipment Inspection Process	Approved	2/9/2022
540	Roles and Responsibilities of Command Staff Forms	Approved	2/14/2022
541	Convert Incident Log & OSHA Report to Register	Approved	2/23/2022

• ISO Section Training developed and released:

Developed and Released ISO Section Training				
Section	Title	Date Released		
4	Context of the Organization	11/5/2021		
5	Leadership	1/14/2022		
7.1	Resources	1/14/2022		
7.2	Competence	1/14/2022		
7.3	Awareness	1/14/2022		
7.4	Communication	1/14/2022		
7.5	Documented Information	1/14/2022		
9.1	Monitoring, Measurement, Analysis & Evaluation	2/17/2022		
9.2	Internal Audits	2/22/2022		
9.3	Management Review	2/17/2022		
10	Improvement	2/17/2022		

• The Waterline Installation Yates Complex Project was completed. The Fall Protection Harness Inspection Process was completed.

#### Upcoming Activities

• Upcoming ISO Section Training to be developed and released:

Upcoming Development and Release of ISO Section Training					
Section	Title				
6.1	Actions to address risks and opportunities				
6.2	Objectives and planning to achieve them				
6.3	Planning for changes				

Upcoming Development and Release of ISO Section Training			
Section	Title		
8.1	Operational planning and control		
8.2	Requirements for products and services		
8.25	Emergency Preparedness and Response		
8.3	Design and development of products and services		
8.4	Control of externally provided processes, products, and services		
8.5	Product and service provision		
8.6	Release of products and services		
8.7	Control of nonconforming outputs		

- Access Control Project—Phase I starts in March.
- 3650L Pump Room Rehabilitation Project (95% review).
- Oro Hondo Fan Project.
- Punchlist work to be completed for the WWTP Gravity Flow upgrades Project.
- Ross/Yates Hoistrooms Roof Drains, Tuckpointing Project.
- Completion of Saddles 1, 2, 5, 6 & 7 Torquing (Saddles 1, 2 Completed).

#### Science Support Status

- The first Science Program Advisory Committee (SPAC) meeting was held virtually January 5-6, resulting in 16 recommendations. One committee member is unable to continue due to ongoing commitments, and options for a replacement are being considered. Another SPAC meeting will be scheduled in 2022.
- Elections closed in early January for four open positions with the SURF User Association Executive Committee. Officers (Chair and Secretary) were selected at the quarterly meeting in February and posted on the public website. A registration process for expanding the Association membership will be ratified at the next meeting.
- Following September's Vision Workshop, there have been discussions about SURF machine shop use by researchers as well as an initial evaluation of shafts to host experiments requiring significant vertical lengths.
- SURF and SD Mines are co-hosting the international workshop on Low Radioactivity Techniques (LRT2022) June 14-17 at SD Mines, with site visits of the SURF facility; abstract submission opened February 15: <u>https://indico.sanfordlab.org/e/LRT2022</u>. Preparations are also underway for the Conference on Science at SURF planned for May 11-13: <u>https://indico.sanfordlab.org/e/CoSSURF2022</u>. Both events are currently planned to be in-person. Planning is underway to commemorate the 10-year anniversary of the Davis Campus.
- Survey data were submitted as part of the Snowmass process regarding support capabilities offered by SURF. A SURF whitepaper is in preparation for submission in March. An additional SURF report was submitted in February to the International Union of Pure and Applied Physics (IUPAP) working group on international cooperation in nuclear physics (including global underground laboratories).
- Science Department staff supported various presentations, including an American Physical Society colloquium as well as a SURF Deep Talks Nobel Day presentation featured the Ray Davis Chlorine Experiment.
- Facility highlights: Refuge Chamber provisions in the Davis Campus were increased to support up to 39 people while access across the 4850L continues to be restricted due to LBNF construction. Davis Campus chillers were swapped since an associated system registers electrical noise on LZ detector systems. A proactive bearing change was also performed on the return system of one of the Davis Campus air handlers.
- Interruptions: Regular Yates Shaft access was restored December 16. Impacts due to the failure of an air handler supply fan for the Davis Cavern in early February were mitigated in a series of steps, but there was an unexpected increase in radon levels in the LZ water shield. Airflow impacts related to LBNF operations (blasting and raisebore shotcreting) are being managed; a recent airflow regulator enlargement has helped.

#### LUX-ZEPLIN-LZ

• Xenon (Xe) circulation in nominal mode since mid-Nov, with some fine-tuning of nitrogen purge. Remote sampling established prior to start of limited-access period. Xenon purity remains high.

- Detector commissioning is complete and WIMP-search data underway, logging approximately 60 days by the end of February. Some high voltage adjustments were made in December to improve stability, which will require a full suite of calibrations before the end of first science run (currently projected for April 2022).
- Calibration efforts continue, including DD neutron generator operation in January and preparations for the Xe-131m injection panel source. The AmLi neutron source was successfully returned to the University of Alabama for routine checks (expected to return to SURF in March). Some issues with the calibration source deployment system are being addressed (e.g., one unit requires a new motor).
- One (of two) Xe circulation compressors is offline for maintenance, which is taking longer than planned due to leaks. Maintenance is being performed on the Xe recovery compressors (one is complete, the other requires a head replacement), and cryocooler maintenance was performed with the vendor technician onsite in February.
- Outer detector adjustments included nitrogen purge rates and the addition of small amount of liquid scintillator.
- A 500% increase in SURF Information Technology (IT) network traffic from 2020 to 2021 is mostly attributed to LZ.
- An initial meeting was held with advocates for a next-generation liquid xenon observatory for dark matter and neutrino physics, combining LZ and European dark matter collaborators: <u>http://arxiv.org/abs/2203.02309</u>.

#### MAJORANA DEMONSTRATOR-MJD

- Module 1 was partially dismantled to recover welded copper components (mainly cryostat hoop and crossarm) that may have contributed additional backgrounds above assay and modeling predictions.
- In addition to final detector calibrations, radon background studies were conducted using various nitrogen purge rates for the main shield.
- Following work in September, copper machining resumed in February with a number of copper-plated mandrels in the queue as well as the Module 1 forensics cuts and fabrication of parts for the upcoming tantalum (Ta)-180m studies.
- Parts for a fourth copper electroforming bath are underground at the Davis Campus. During the installation, some aging parts will be changed out in existing baths. Evaluation of LEGEND electroforming needs is underway and may require up to eight baths that would be operated at SURF. Electrowinning activities continue at the surface WWTP (the process was unexpectedly interrupted in February, but operation has since been reestablished).
- Liquid nitrogen deliveries that used to occur 2-3 times per week, have been successful sustained at a frequency of once per week to reduce interruptions to Yates Shaft maintenance.
- The Ta-180m rare decay search Experiment Planning Statement (EPS) was approved by SURF, with work expected to begin in March. Discussions are converging on an updated Memorandum of Understanding (MOU) that includes the Ta-180m scope.

#### Low-Background Counting

Black Hills State University Underground Campus-BHUC:

- BHSU and SDSTA personnel continue to perform sample swaps, data analysis and liquid nitrogen support.
- High voltage and cooling issues continue with the nEXO Ge-IV detector at the vendor, and troubleshooting for the associated cryocooler is being performed at the Univ of Alabama (both systems were shipped offsite in November). Discussions with SURF engineers continue regarding the re-designed Ge-IV lifting system.
- Lawrence Livermore National Lab (LLNL) personnel completed installation and commissioning of their dualcrystal system (the RHYM detector had been installed previously), including a procedure to reestablish the cryostat vacuum. Both crystals are operating, initial calibrations have been performed, and background rates look fine.

#### SIGMA-V

- SURF approved the EPS and issued authorization for 4100L stimulation and flow activities that are expected to begin in late March. In addition, SURF approved a sheath to be used with optical fiber cables that do not meet the SURF low smoke zero halogen jacket requirement.
- A pressure safety walk-through inspection conducted by representatives from Sandia National Laboratories and SURF (no issues, but there was a suggestion for a noise assessment once pump systems are operating).
- Following modifications to the grout recipe, monitoring equipment was grouted in place within four drill holes, and the grouting contractor was demobilized. The grout curing is being monitored and is expected to be ready for pressure activities in March.

• SDSTA staff assisted with utilities, including 208V power for a pump to handle the thicker grout formula as well as additional network switches and phones for the two main 4100L sites. Troubleshooting with collaboration representatives resolved a subtle SURF VPN issue that had likely been in place for several years.

#### Compact Accelerator System for Performing Astrophysical Research—CASPAR

• With no funding to move CASPAR to the 2300L (and concerns about sufficient depth), CASPAR leaders are thinking ahead to re-starting 4850L activities on the ~FY24 timescale (after the LBNF drill/blast phase is done).

#### **Other Current Research Activities**

Physics

• There was an expression of interest from a University of South Dakota-led group regarding underground crystal growth (representatives are considering a 2023 NSF proposal targeting a shallow level such as the 300L).

Biology

• A letter of support was provided for a NASA Established Program to Stimulate Competitive Research (EPSCoR) project using microorganisms to produce drinkable water.

#### Geology

- Dakota Territory Resource Corporation: Small teams of geologists continue to access the surface Core Archive.
- 3D Distributed Acoustic Sensing: A total of 3100 m (10,170 ft) of optical fiber cable was installed in two phases on the 4550L and ramp (~2500 ft up ramp toward 4100L and ~2000 ft downward toward 4850L), with significant assistance from SDSTA staff. The fiber leverages a SIGMA-V laser system that will be installed in March.

#### Engineering

- Thermal Breakout: Testing in the 4100L horizontal hole is expected to begin in Spring/Summer, whereas a new tool expected to be ready in Fall 2022 will be used in the vertical hole. Geophone data are collected regularly.
- Post-Blasting Monitoring: In December, equipment was installed in several locations: airflow monitors in the LBNF Central Utility Cavern (CUC), gas sensors / data acquisition near the CUC, and power near No. 6 Winze. Equipment was removed prior to CUC breakthrough into the Pilot Drift, and re-installation is TBD.
- Other: Extensometer data were collected by SDSTA staff and shared with University of Utah experts.

#### **Quarterly Work Plan Variances**

- The Quarter (December February) shows an overall overrun of \$590,123.
- Labor for the three months shows an overrun of \$177,023. This overrun is due in part for having a three-payroll month in December. Labor is back on track for this fiscal year.
- Nonlabor for the three months shows an overrun of \$413,100. All items are on the FY21 Underrun Spend Plan to utilize unspent funds from previous quarters. This overrun was due to the arrival of various Ross hoist spare equipment as well as receiving the Yates Ore Hoist DC Generator that was rebuilt. Additional work completed on the Refuge Chamber Davis Campus Upgrade, the Yates Shaft Concept Study and the 4850L Cavern Study added to this overrun. Included are purchases of supplies for the Yates Shaft Utility top-down maintenance project.

#### **Financial Status**

Included in the Financial Report are the following:

- Cooperative Agreement SURF Services FY2022 (federal fiscal year) SPA Curve as of February 2022 (included as Appendix A at the end of the report)
  - Financial Summary (included as Appendix B at the end of the report)
  - 1) Balance Sheet as of February 2022
  - 2) Comprehensive Statement of Income February 2022
  - 3) Comparative Balance Sheet February 2022 vs. February 2021
  - 4) Comparative Statement of Income February 2022 vs. February 2021
  - 5) Available Resources as of February 2022
  - 6) Operating Budget Summary

#### Cooperative Agreement (CA) SURF Services FY2022 Scheduled Performed Actual (SPA) Curve

• The SPA curve presented in Appendix A provides a summary of the CA-SURF Services Award No. DE-SC0020216 scheduled financial performance compared to the actual costs. The report shows funding through September 2022 along with information related to Funded-to-Date dollars, Scheduled dollars, and Actual dollars by month. Actual dollars represent actual invoices for the months sent to the DOE Office of Science for reimbursement. For February, the invoices totaled \$2,204,803 which is higher than the anticipated reimbursements of \$1,952,098 by \$252,705. Cumulative expenses are at \$54,366,013 which is lower than the budgeted \$54,730,683 by \$364,669. Large projects, purchasing and hiring are on track.

#### **Balance Sheet Items**

- Cash in Local Checking—Total on hand February 2022 was \$4,891,583; down from last month by \$138,678. Funds on hand were necessary to pay employee medical/life/vision insurance due March 1. The balance also contains funds received from federal contracts late in the month on open accounts receivable.
- Cash with State Treasurer—Total balance of \$11,117,967; down from last month by \$4,570. This reduction represents transferring the Sanford Gift No. 2 to the local checking to cover some Sanford Lab Homestake Visitor Center (SLHVC) costs related to upgrading displays.
- Billed Accounts Receivable (A/R)—Billed A/R represents any open invoices based on contracts from sources such as the DOE Office of Science, LBNL, Fermilab, other smaller contracts from other universities/private entities, and Barrick-Homestake Mining Company. Total is at \$3,084,826; up from last month by \$369,788. Included in the balance are open invoices to LBNL for \$162,053, representing invoices for the LUX-ZEPLIN (LZ) experiment support contract and the SIGMA-V experiment support. Additional open invoices include \$652,553 from Fermilab primarily from the SURF Services subcontract and a contract for Ross Shaft Logistics Support. Furthermore, the open balance from the Cooperative Agreement is at \$2,254,685. Additionally, there are open invoices for \$4,114 from small university subcontracts, and \$11,421 from Barrick/Homestake, Dakota Territory Resource Corp (DTRC), and Thyssen Mining Inc. (TMI).
- Unbilled A/R—Balance (\$0.10). Unbilled A/R represents items that have not been billed on various contracts. February's balance has decreased by \$137,440. This balance represents fractions of cents on various contracts. This will be adjusted before year end.
- Other A/R—Current balance of \$290,998. This balance represents any Interest Receivable and Miscellaneous Accounts Receivable. The balance increased by \$9,425. Activity for this month includes recording the interest accrual for February.
- Inventory/Supplies—Balance at \$3,233,198, for fixed assets being stored but not in service. This balance is unchanged from last month.
- Inventory Warehouse/Personal Protective Equipment (PPE)—Current balance of \$313,247. This balance represents the warehouse inventory that was purchased by SDSTA prior to federal funding as well as the warehouse inventory purchased with federal funds. An additional inventory category for the SLHVC inventory is now included in this balance. The balance has increased by \$54,530 primarily due to adding the SLHVC inventory that was acquired during the purchase. All three inventories have separate account balances that are traced. Yet they are summarized on the balance sheet under one category.
- Other Current Assets—This listing on the balance sheet represents the balances of both prepaid insurance– \$1,273,189 and prepaid other–\$168,909. Total balance of \$1,442,098 is higher from last month by \$197,567. This increase is primarily due to the xenon insurance coverage being renewed in February.
- Fixed Assets—Current balance of \$89,022,354. Fixed assets activity since last month includes recording the indirect funds purchase of four previously leased vehicles \$121,322; and the receipt of a mine refuge chamber donated from the KAJV \$62,447. The net decrease of \$38,705 since last month includes depreciation on SDSTA fixed assets. Depreciation for the DOE Property Transfer items is separated as this amount will not be included in our indirect cost recovery on contracts. Since the last quarterly reporting to the Board, the SDSTA acquired the SLHVC land, building and other assets for a total of \$3,963,259.
- Pension Deferred Outflows—This designation on our Balance Sheet reflects the requirements related to the Governmental Accounting Standards Board (GASB) No. 68 and No. 71 in reference to pensions. SDSTA is required to report the net pension asset or liability on the face of our financials along with related deferred inflows and outflows. The State's retirement system is now fully funded. The Net Pension Asset is a restricted asset. Thus, the equity created is also restricted. The balance Pension Deferred Outflows shown as a noncurrent asset is \$4,135,812 created by FY2021 final entries. The balance has increased from the previous year by \$1,139,997.
- Xenon Purchased—Balance of \$8,934,350 represents the value of xenon purchased for use by experiments. The xenon inventory is considered a non-current asset and includes all the purchases through fiscal year 2020. The processed xenon has all been shipped from Stanford University to SDSTA for use in the LZ experiment. It is now in their closed loop system.

- Total Assets—Total of \$126,466,432. This balance has increased from last month by \$311,917 which represents the net activity as listed above.
- Accounts Payable—Our Total Accounts Payable balance of \$1,678,579 at the end of the month compared to last month has increased by \$340,228. This is primarily due to an invoice received from Howden Canada, Inc. for \$515,814 related to the upgrade of the Oro Honda Ventilation System.
- Accrued Payroll Liabilities—Current balance of \$1,909,856 has increased slightly by \$34,146 from last month. This represents the net change between earned vacation and vacation taken and other changes in employee benefit-related liabilities.
- Long Term Xenon Notes Payable—This designation represents \$2M of funding received from the South Dakota Community Foundation, \$2M received from the University of South Dakota Foundation, and \$2M received from the South Dakota State University Foundation. The \$6,000,000 balance was designated for purchasing xenon for experiment use at SURF. The balance is unchanged from last month.
- Pension Deferred Inflows—This classification reflects the requirements of GASB No. 68 and No. 71, as discussed earlier. The balance of \$3,467,899 represents our portion of the difference between projected and actual earnings on pension plan investments with the South Dakota Retirement System.
- Total Liabilities—Total Liabilities increased by \$374,374 (from \$12,681,960 to \$13,056,334), which reflects the net activity listed above.
- Total Equity—Decrease to \$113,410,098 from the previous month \$113,472,555.
- Total Liabilities & Equity—Increase to \$126,466,432 from the previous month of \$126,154,515.

#### **Statement of Income Items**

- On the SDSTA's Statement of Income, the DOE Subcontracts are consolidated into one line on the report. Included in this amount are various subcontracts from LBNL, Fermi National Accelerator Laboratory (FNAL), the Cooperative Agreement with the DOE Office of Science, as well as a small contract for the MAJORANA project with Oak Ridge National Laboratory. Total revenue through February is \$25,599,094 (increase from January of 3,419,067).
- Interest income recorded for the current fiscal year on State Funds is at \$74,449. This represents interest accruing at 1% on the cash held by the state on behalf of the SDSTA.
- Direct Costs are then listed on the Statement of Income. The classifications for Unallowable Costs and Indirect Costs are listed as well on this report to follow the federal contracting format. Direct Costs/Unallowable Costs are at \$15,560,790 for the current fiscal year. Indirect Costs including fringe benefits are at \$10,892,353. Costs are higher than revenue by \$778,223.
- Other Income is at \$472,024 which primarily represents miscellaneous income received from TMI, Caterpillar Inc., scrap metal receipts, the donated refuge chamber from KAJV, and small amounts from Barrick.
- Miscellaneous Expenses and Donations is at \$(6,478,195) for current year fixed assets that were purchased on federal funds through the Cooperative Agreement and for the acquisition of the SLHVC building and other assets.
- Net gain through February after Reclass Increase in Net Assets is at \$1,163,281.

#### **Comparative Balance Sheet**

- Total in Local Checking is higher by \$1,498,730 due to receiving more funds from contracts in Accounts Receivable when comparing the two-time frames. Payments on the Cooperative Agreement are being received on a much quicker basis than from SDSTA's other contracts.
- Total Cash with State Treasurer is lower by \$2,097,251 from this time last year as funds have been used for the construction of the ROC along with using Experiment funds for xenon related expenses.
- Fixed Assets are higher by \$8,739,747 when comparing the two-time frames, particularly due to including the fixed assets purchased on the Cooperative Agreement federal funds as well as finalizing the Ross Complex waterline and the Yates Hoist MG set refurbishment. Also included is the cost of the new Rounds Operations Center (ROC) that was completed in June 2021, as well as the acquisition of the SLHVC land, building and other assets.
- Work in Process has decreased by \$3,029,340 when comparing the two-time frames, as the work performed on building the ROC is complete.
- Pension Deferred Outflows is higher by \$1,139,997 due to fiscal year 2021 entries.
- In summary, Total Assets have increased by \$6,678,764.

- Total Current Liabilities are slightly higher by \$590,281 when comparing the two-time frames. Total Accounts Payable is higher due to an increase in activity on projects, particularly for the upgrade of the Oro Hondo Ventilation System.
- Other Liabilities—Pension Deferred Inflows have also increased for fiscal year 2021 entries increase of \$2,201,313.
- Total Restricted Funds are lower by \$3,346,416 due to the use of these funds for related expenses.
- Investment in General Fixed Assets has increased by \$8,739,747 for the various additions of fixed assets and projects purchased on federal funds, the completion of the ROC funded by State Future Funds, and for the SLHVC acquisition.
- Unrestricted Funds are lower by \$1,506,161 when comparing the two-time frames.
- Total Equity has increased by \$3,887,170 from this time last year.
- In summary, Total Liabilities & Equity have increased by \$6,678,764.

#### **Comparative Profit/Loss**

• Total Revenue for year-to-date February 2022 compared to year-to-date February 2021 has increased by \$2,248,063. This increase is due to increased activity on DOE contracts. Direct Costs and Indirect Costs for year-to-date February 2022 compared to this time last year show a combined increase of \$3,270,528 (a 14.1 percent increase). Net Income/Loss for the comparative time periods shows a slight decrease in income of \$828,294.

#### **Available Resources**

• This report reflects SDSTA's available cash/accounts receivable after noting the restricted cash balances in the Indemnification, Mine Closure, and Special Session Lab accounts, and funds held for Experiments—interest for investors. This report reflects available cash and (short term) accounts receivable as compared to current liabilities including accrued payroll liabilities. After noting current obligations, \$5,692,050 is available. It is also important to note that the accrued payroll liabilities include accrued vacation and sick pay. Therefore, the report reflects SDSTA's available resources compared to current obligations.

#### **Operating Budget Analysis**

- This report is separated into three sections: SDSTA-funded activities, Federal, State, and Commercial funded activities and Indirect expenses that benefit various activities. Total operating expenses are over budget for February by \$489,027.
- Year-to-date figures are under budget by \$957,191.
- With the finalization of the construction for the ROC, we have eliminated the capital expenditure budget all together going into FY2022. Therefore, all expenses related to interest payments to xenon foundation investors will be included in the SDSTA Operating Budget Analysis going forward. The current FY2022 budget includes these expenditures.

#### Human Resources

The SDSTA currently has 180 full time employees and 14 temporary staff. New hires in December, January and February include: Chief Financial Officer (CFO) Terry Miller, SLHVC employees—Kelly Kirk, Ursula Ward, Perry Oien, Charlene McCoy, and Kristina Webb—and HR Generalist Ashlyn Pearson. Contracts Specialist Michele Baumann resigned during this same period. Current positions being recruited include: IT Systems/Security Administrator, Security Guard, QA/QC Document Control Coordinator, Contracts Specialist, Emergency Response Team Field Member, Communications Marketing Specialist, Industrial Electrician and Infrastructure Technician/Logistics Coordinator.



### **Professional Staff Services - Subcontract No. 607915**

#### Long-Baseline Neutrino Facility (LBNF) and Deep Underground Neutrino Facility (DUNE)

- In support of LBNF excavations, a plan and procured materials has been developed for expanding the Davis Campus Temporary Refuge Chamber capacity from 20 to 39 personnel.
- The development and approval was completed for the electrical grounding system testing procedures used by TMI to validate the electrical grounding system installation for DUNE. The DUNE detectors will be highly sensitive to electrical "noise." It is critical that a proper electrical grounding system is installed during LBNF construction because there is no way to correct any issues after the cavern excavation is complete.
- Working with representatives from the LBNF/DUNE collaboration on the requirements, a mobile gantry was designed in-house to allow for the lifting and installation of key components into the cryostat assembly.



# LZ Operations Phase I - Subcontract No. 7525117

#### **Other Experiment Support**

#### LUX-ZEPLIN (LZ)

- Beginning in December, planning for the completion of the 4500hr maintenance interval work for the Xenon Circulation Compressor #2 was started including development of onsite processes and tools required. The 4500hr interval work included the replacement/rebuilding of check valve assemblies and replacing the diaphragm assemblies. The project will be completed in March.
- Cryocooler No. 1 Maintenance and Repair The 6000hr maintenance interval work was completed, working alongside a service technician from Stirling Cryogenics, B.V. The interval work included the disassembly, cleaning and reassembly of the cryocooler cold head assembly and replacement of the rear crankshaft seal.



## **Indirect Funded Activities Status**

#### **Contracts Status**

U.S. Department of Energy (DOE) subcontracts to SDSTA

- SDSTA received Modification No. 20 for Incremental Funding.
- SDSTA submitted a request for funding and technical review of the Project Design to Replace Power Cable to East Switchyard.

Fermi Research Alliance

• SDSTA received subcontract No. 685922 for LBNF/DUNE-US SDSTA Operations Support Services.

Oak Ridge National Laboratory

• No additional actions this period.

Lawrence Berkeley National Laboratory

• No additional actions this period.

#### Summary of Contracts Awarded by SDSTA in Dec 2021 - Feb 2022:

Contract	Contractor/Vendor	Type	A in Dec 2021 – Feb 2022: Project
No.		J I	- <b>y</b>
2019-28	Jacobs Welding	CO #16	Ross guide runners
2019-39	North Central Supply	CO #5	Doors, Latches and Handles Update
2020-12	True Clean	CO #7	Seal floor and clean windows
2019-29	CVD Construction	CO #52	Boom truck and driver
2019-28	Jacobs Welding	CO #15	Change WBS
2021-02	Marco	CO #2	Add SLHVC printer
2022-06	Agility Business Continuity	New	Software Service and Support
2021-08	Stephen Peot	CO #1	Drone Services
2016-22	BlackMesh	CO #5	New annual cost, waiting on quote
2019-28	Jacobs Welding	CO #17	Quote for Collar Screens
2020-16	Western States Fire	CO #6	Add to Fire Pump Packing
2021-04	RCS	CO #3	Upgrade curb and gutter
2021-04	RCS	CO #4	Install pipeline through tunnels
2019-29	CVD	CO #51	Repair broken window ROC warehouse
2021-34	Sanford Occupational Medicine	New	Draft Contract sent
2022-02	JP Mine Consulting	New	Contract Executed
2019-39	North Central Supply	CO #4	Re-key and fix doors SLHVC
2019-28	Jacobs Welding	CO #15	Skip Runner repairs
2022-03	Designworks	New	Sacred Garden
2019-33	M&M Sanitation	CO #	Snow Removal
2021-19	RCS	CO #	WWTP Piping
2019-30	Wolff's Plumbing and Heating	CO #8	Replace heating unit Ross Dry
2016-13	Black Hills Urgent Care	CO #10	Remove drug screening
2016-13	Black Hills Urgent Care	CO #11	Change contract representative at BHUC
2021-02	Marco	CO #1	Swap printer for Ross Toplander
2020-16	Western States Fire Protection	CO #6	Repack fire pump
2022-04	Vast Broadband	New	SLHVC Communications
2021-22	RCS	New	Access Control System
2020-07	Ferber	Task Order #3	Yates Campus Sidewalk
2021-32	Formations	New	Update Visitor Center

• Purchase Orders (POs): 593 POs were issued December 1 – February 28 totaling \$955,086.89.

• Warehouse Inventory: Warehouse inventory as of February 28, 2022 totaled \$265,931.21

#### Inclusion, Diversity, Equity and Access (IDEA) Status

- Developed, in collaboration with Fermilab and LBNL, a draft paper for the Snowmass Particle Physics Community Engagement Frontier white paper pertaining to impacts on local communities. The SURF case study explores educational opportunities and cultural connections with Isna Wica Owayawa (Loneman School) in Oglala, SD.
- The second IDEA sponsored "coffee break" was hosted by the Education and Outreach team on December 17. The event collected \$230 through a cookie competition which was donated to the Sacred Circle Garden campaign. Subsequent coffee breaks were placed on hold due to the pandemic and rising COVID-19 cases in the area. A March coffee break, hosted by Finance, is planned.
- Grab-and-go Valentine's Treats were distributed to field staff across SURF as most are unable to attend the coffee breaks due to the nature of their jobs.
- The IDEA team worked with E&O to develop additional opportunities to reach tribal schools and schools serving primarily Native students.
- Photos and other information about management walkdowns will be shared at future All Hands meetings and highlight examples of exemplary core values in action.
- The IDEA team worked with E&O to promote contact with tribal schools and institutions in recruiting applicants for Davis-Bahcall and summer internships.
- Action plan responses were developed for 19 recommendations from the Cultural Advisory Committee (CAC), which will be submitted in March 2022.
- The IDEA Office hosted additional trainings for supervisors to discuss topics related to employee voice, including psychological safety and empathy.
- With implementation of a new employee onboarding survey, the IDEA team will begin to relay aggregated results to management at subsequent IDEA trainings.
- Director of Outreach and Culture Deb Wolf and E&O Director Nicol Reiner continue to conduct teacher professional development trainings centered on equity.

#### **Cultural Liaison Updates**

- Efforts continued to reach out to Native artists (sculptors, jewelry designers, etc.) to collaborate work at the Sacred Circle Garden and SLHVC.
- A meeting was held with the Northern Hills Master Gardeners to discuss opportunities to collaborate at the Sacred Circle Garden.
- Planning began for the next CAC Review to be held on April 12 at SURF.

#### **Education and Outreach (E&O) Status**

#### K-12 Education and Outreach

Curriculum units

- Curriculum unit usage remains strong. The E&O team has been busy replenishing kits to turn them around and send them back out to the next teacher and group of students. Thus far this semester, 60 curriculum units have been completed in schools in South Dakota. Most of the curriculum units have been used in South Dakota, one has been used with students in North Dakota, and two others with districts in Wyoming. Curriculum units have impacted 2,608 students so far this school year.
- A curriculum unit review tool has been created, and the process is underway to evaluate each of SURF's curriculum units in the areas of three-dimensional learning, opportunities for inclusive engagement, inquiry, relevance, and authentic connections to the science of SURF. After units are evaluated, recommendations and assignments will be made for revisions.

Field trips (onsite)

• There were no field trips during the winter quarter. Field trip requests are coming in for the spring and summer, with events currently scheduled for Lead-Deadwood, Custer, Belle Fourche, Kadoka, Bison, South Park Elementary (Rapid City Area Schools), American Indian Services Summer Camp and undergraduate education majors from BHSU.

	2015- 2016	2016- 2017	2017- 2018	2018- 2019	2019- 2020	2020- 2021	2021- 2022 *
Curriculum Units	934	3504	2286	3598	3236	3384	2608
Presentations	8734	8157	6304	6704	3704	2005	10914
Field trips	595	660	796	1117	254	58	0
Other	10	891	825	1055	918	298	760
Total	10273	13212	10211	12474	8112	5745	14282

Table 2. K-12 Students: Fiscal year final numbers (July 1 – June 30)

\*July 1, 2021 through February 28, 2022

#### **Communications Status**

- Developed content and design for the Sacred Circle Garden brochure.
- Participated in the SLHVC transition effort.
- Continued to work with management to update information on SLHVC web and social media platforms.
- Submitted final edits on the SLHVC exhibits to Formations.
- Selected a vendor to develop a new SURF website that will increase functionality.
- Completed a strategic marketing plan for SURF, which is in final editing stage.
- Participated in discussions regarding the new Steve Mitchell manuscript.
- Updated and submitted the Crisis Communications Plan.
- Continued to attend regular Interactions Collaboration meetings to promote SURF on an international level.

#### Community Outreach/Media/Site Visits/Presentations.

- Communications put on three virtual outreach events, reaching more than 150 people:
  - Nobel Day: Science Director Jaret Heise discussed Ray Davis' contributions to neutrino research.
  - o January: SIGMA-V discussed geothermal research at SURF in "The Heat Beneath Your Feet."
  - February: Education and Outreach explored the science behind the dynamic nature of heat in "A Love/Heat Relationship."
- With the SURF Foundation, Communications organized and presented the Donor Recognition event; 28 people attended.
- Communications Director Constance Walter spoke at the Black Hills Press and Forum on January 28.

#### Upcoming Community Outreach/Media/Site Visits/Presentations

- Planning for 2022 Neutrino Day is underway; Keynote speaker will be Dianna Cowern, "Physics Girl."
- March 15-16: Constance and Communications Specialist Erin Broberg will present at the 2022 Women in Science Conference at SD Mines.
- March 16: Constance will participate in a panel discussion: "Building the Future of Defense Tech in the Black Hills."

#### Video, Web, Graphics

- Developed logos for SLHVC and Neutrino Day.
- Developed a year-in-review video.
- Developed brochure content for the SURF Foundation.
- Communications is developing a rack card for the SLHVC.
- New video and animations continue to be created to illustrate articles that are used on a variety of platforms, including social media, PowerPoint presentations and the website.
- New features are being created and all experiment pages are being updated for the SURF website.
- Fresh content is being created weekly for all social media platforms.
- Albums in the SURF Photo Gallery may be viewed at: <u>http://pics.sanfordlab.org</u>.
- General web maintenance, digital signage content; media assistance to science collaborations and educational institutions are ongoing.

Photos of recent events/milestones are included as Appendix C.

#### **News Coverage**

- Bringing a world of opportunity to rural classrooms, by Erin Lorraine Broberg, Rapid City Journal, Feb. 18, 2022.
- <u>SURF crews remove snow in South Dakota's snowiest town</u>, by Erin Broberg, Rapid City Journal, Feb. 10, 2022.
- <u>The pioneering women of stellar astronomy</u>, by Erin Bow, Inside the Perimeter, Feb. 8, 2022.
- Norris retires as deputy director of education and outreach for SURF, Rapid City Journal's Northern Hills Briefs, Feb. 3, 2022.
- <u>DUNE scholar named 2021 AAAS fellow</u>, University of Chicago News, Jan. 26, 2022.
- <u>SURF crews complete stabilization project in the Yates Shaft</u>, by Erin Lorraine Broberg, Rapid City Journal, Jan. 27, 2022.
- <u>The James Webb telescope could help solve the mystery of dark matter</u>, by Leto Sapunar, Popular Science, Jan. 7, 2022.
- Collaboration seeks hidden cracks in rock, Erin Lorraine Broberg, Rapid City Journal, Jan. 6, 2022.
- Kirk, Ward take leadership positions at SLHVC, by Wendy Pitlick, Black Hills Pioneer, Jan. 13, 2022.
- <u>Institute for Underground Science moving from idea to concept</u>, by Wendy Pitlick, Black Hills Pioneer, Dec. 22, 2021.

#### **Information Technology Status**

#### Projects

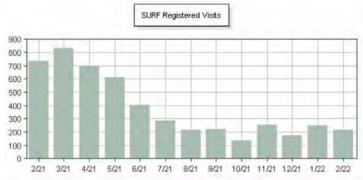
- Expanded cellular connectivity at the Wastewater Treatment Plant with signal boosters.
- The Maestro power monitoring server has been successfully virtualized and moved to the datacenter.
- Sophos MTR (Managed Threat Response) security software has been implemented for all SDSTA users.
- Completed multi-factor authentication (MFA) rollout for Microsoft 365 access.
- Implemented Local Area Password Solution (LAPS) to manage local administrator passwords for all SDSTA users.
- Signed contract with Business Continuity partner to build Business Continuity program/plan.
- Implemented initial proof of concept for data loss prevention (DLP) on Sophos endpoint clients
- Mapped out CAT network and provided support for troubleshooting and system upgrades.
- Onboarded 16 Cisco switches to support the MineTech deployment in the Yates and Ross Shafts.
- Began implementation of Local Administrator Password Solution
- Acquired Active Directory Pro Toolkit, which led to the removal of unnecessary privileges on 22 users.

#### **Daily Activities**

In addition to work order activity, IT monitors and reviews wireless and general network activity and counts, network hardware readiness, VPN Remote Access logs, Firewall logs, and establishes new VPN and Docushare accounts for individuals and user groups, as requested.

#### **December 2021 – February 28 Events**

- The Administrative Services team registered 635 visits December 1 through February 28. Access badge requests continued to be processed and monthly badging reports distributed.
- The Visitor Registration Monthly Reports were submitted electronically to the SD Fusion Center/Homeland Security utilizing the SURF database reporting tool.
- The Monthly SURF Foreign National Visits Reports and Restricted Party Screening Audits were generated and distributed.



Number of New Visitors, Users and Contractors On-Site

#### **Administrative Services Activities**

- Laboratory Receptionist Amanda Berry continued work on the following activities: Purchase orders invoiced and closed in ManagerPlus; monthly office supply orders received and sorted; documents scanned and laminated for various departments; access badges printed and logged; monthly reports uploaded to DocuShare; breakroom and espresso machine regularly cleaned; conference rooms scheduled; researcher hours tracked; safety waivers witnessed; addresses and postage applied to packages; and visitors logged in the database.
- Administrative Support Amelia Pearson continued to assist ESH with tracking incidents and filing reports; logged safety waivers and training certificates; logged new users into the learning management system, Bridge; assisted with document formatting; collected and logged leading indicator data; managed locker assignments for SDSTA employees, users and contractors; assisted with evacuation drill exercises; created work orders; provided assistance as backup receptionist; and joined as a new member of the SDSTA Working Wellness Group.
- Administrative Assistant Natasha Wheeler continued to assist ESH to review SURF Bridge training courses and
  review ESH Chapters; assisted QA/QC to review ISO documents; recorded board meeting minutes for SDSTA and
  SURFF boards' quarterly meetings; posted daily status update recordings; and served as occasional backup to front
  desk reception. Natasha continued to provide administrative support to the SURF Foundation Director Staci Miller
  including creating end-of-the-year tax receipt letters, drafting grant applications, editing ethnobotanical garden
  materials and assisting with and the annual Donor Appreciation event.
- Administrative Services Manager Mandy Knight continued to assist with the Entrepreneurial Operating System (EOS) workshops with Consultant Mike Roth and the SDSTA Executive Leadership team. The EOS quarterly summit on January 4 was conducted onsite at SURF. The next quarterly planning summit is scheduled onsite March 30. Administrative and logistical support were provided for the December 6 ORM quarterly site visit, January 12 SURF All Hands meeting and the February 19 Winterfest fireworks viewing party held at SLHVC and advanced the completion of IMS documents to support the ISO process (Position Descriptions, Telephone Lists, Emergency Personnel Lists SDSTA Policy and Policy Procedure templates). The Administrative Services team continues to scribe for several SURF weekly department leadership meetings (L10s).
- The SDSTA Board of Directors regularly scheduled meeting was held on December 16, 2021. Board material and meeting minutes were posted to the Boards & Commissions portal. Preparations began for the next quarterly SDSTA Board of Directors meeting to be held on March 24. The Alcohol, Controlled Substances and Testing Policy; Firearms, Explosives and Other Weapons Policy; Open Door Policy and RecordsRetention Policy were updated. Legal counsel has reviewed them and the policies will be included in the board packet and approval requested.



# SANFORD LAB HOMESTAKE VISITOR CENTER

#### Sanford Lab Homestake Visitor Center (SLHVC) Status

#### **Visitor Center Transition to SDSTA**

- SDSTA officially acquired the Sanford Lab Homestake Visitor Center (SLHVC) on January 7.
- The director, visitor experience manager and three guest service associates have been hired and onboarded. Continuing education programs are being designed for future trainings.
- Considerable deferred maintenance has occurred to prepare the building and trolley for the tourist season. A few examples include, carpets have been cleaned, the floor sealed and broken windows replaced.
- A new SLHVC logo has been designed and implemented.
- An employee operations procedure manual is in development for internal use and training.
- A Facility Use and Rental Agreement has been developed.
- Summer planning is in the works, with focus on preparing for trolley tours, hiring of additional summer staff (trolley drivers and tour guides), and expanding the visitor experience.

#### **Programming and Outreach**

- The SLHVC partnered with the SURF Foundation to host a sold-out Winterfest Fireworks Viewing event.
- The SLHVC partnered with E&O to host its first field trip for over 50 Lead-Deadwood 6<sup>th</sup> graders. Other field trips are scheduled throughout March, April and May.
- The SLHVC regularly hosts several meetings, including those of the Golden Gang (a group of retired volunteers working with the Lead Chamber), and the Northern Hills Prospectors. Requests to host other meetings at the SLHVC are regularly received.
- The visitor experience manager attended several vendor shows to bring in new products to the museum store.
- Coordination is occurring with the Historic Homestake Opera House, Black Hills Mining Museum, the Lead Chamber of Commerce and regional travel and tourism organizations to plan for summer advertising and cooperative programming.



# SURF FOUNDATION 501(c)(3)

#### **SURF Foundation Status**

Work Accomplishments

- Sacred Circle Garden Campaign:
  - The campaign continues with a total of \$440,002.17 raised as of February 28, 2022.
  - Five grants were written for a total amount of \$55,000.
  - 100% design is underway.
- One grant was written to support Education & Outreach teacher professional development in the amount of \$20,000.
- 2022 Neutrino Day sponsorship letters were sent.
- Donor update:
  - The donor retention rate is at 62% compared to the national average of 43% as of February 28, 2022.
  - SURF Foundation gained 27 new donors this quarter.
- The SURF Foundation Annual report was released and can be found here: https://www.sanfordlab.org/sites/default/files/documents/media/2021 Annual Report\_1.pdf
- SURF Foundation Director Staci Miller presented to the following civic organizations on the Sacred Circle Garden and SURF Foundation:
  - Rapid City Rotary Club,
  - o Spearfish Kiwanis, and
  - Northern Hills Master Garden Club.
- The donor stewardship matrix has been followed with thank you phone calls, handwritten thank you notes, 30-day and quarterly impact letters as well as donor-versary letters being sent to all donors.
- The SURF Foundation in collaboration with the Sanford Lab Homestake Visitor Center hosted a Fireworks Viewing event on February 19, 2022 with 60 people in attendance
- The SURF Foundation's annual Donor Appreciation (virtual) event was held on February 24, 2022 with 28 people in attendance.

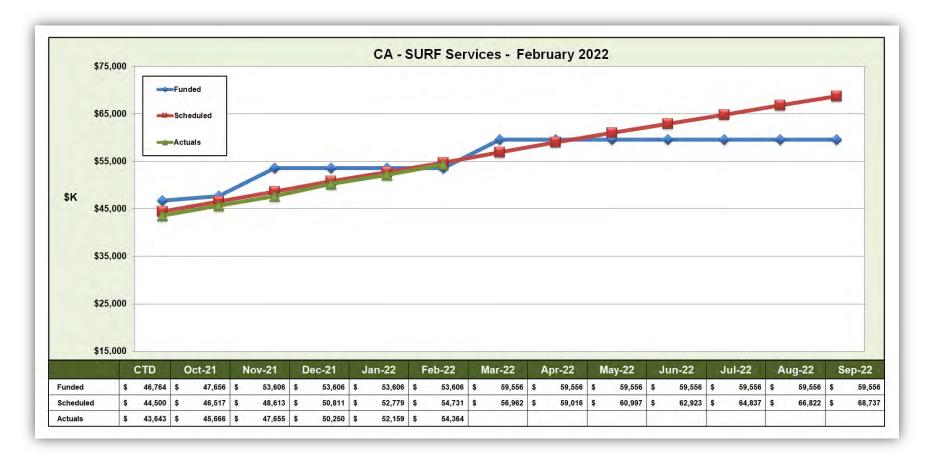
Upcoming Activities

- The planning of SURF's annual Employee Giving Campaign is underway and will be held March 28 April 3.
- SURF Foundation, in collaboration with Lead Chamber of Commerce, will be holding a networking event on March 23, 2022 at the Sanford Lab Homestake Visitor Center.
- SURF Foundation 990 is complete and will be presented at the March 24 SURF Foundation Board meeting.
- SURF Foundation Director Staci Miller will travel to Sioux Falls March 28-30, 2022 to meet with potential donors and present to Sioux Falls Downtown Rotary Club.



# APPENDIX

#### Business Services Department Appendix A



DOE SDSTA Fiscal Year 2021 SPA Curve

2000 the first

### Appendix B—Financial Summaries

REPORT DATE 03/09/22

SOUTH DAKOTA SCIENCE & TECHNOLOGY

13:00

PAGE 0001

DIVISION: ALL

#### BALANCE SHEET

ASSETS

	AS OF 02/28/22
CURRENT ASSETS	
First Interstate Checking	\$ 4,891,583.13
Total in Local Checking	4,891,583.13
SD Treas: Indemnification	7,500,000.00
SD Treas: Mine Closure	1,520,425.48
SD Treas: Operating	1,304,075.96
SD Treas: Sanford Gift #2	-
SD Treas: Experiments	793,465.53
Total with SD Treasurer	 11,117,966.97
Billed A/R	3,084,825.93
Unbilled A/R	(0.10)
Other A/R	290,997.73
Inventory - Supplies	3,233,197.57
Inventory - Warehouse	313,247.28
Other Current Assets	1,442,097.59
Total Current Assets	24,373,916.10
FIXED ASSETS	
Land, Underground & Other	12,743,473.13
Bldgs & Infrastructure	19,386,433.19
Improvements	62,813,135.62
Computer Equipment	354,677.81
Equipment & Fixtures	11,100,543.79
DOE Property Transfer	4,221,314.91
Accum Depr & Amort	(21,203,956.88)
DOE Prop. Accum Deprec.	(393,267.82)
Total Fixed Assets	89,022,353.75
OTHER ASSETS	
Work in Process	
Pension Deferred Outflows	4,135,812.00
Xenon Purchased	8,934,350.39
Total Other Assets	13,070,162.39
TOTAL ASSETS	======================================

#### DIVISION: ALL

#### BALANCE SHEET

#### LIABILITIES & EQUITY

	AS OF 02/28/22
CURRENT LIABILITIES Accounts Payable	\$ 1,671,762.43
Other Payables	6,816.29
Total Accounts Payable Accrued Payroll Liab	1,678,578.72 1,909,856.48
Total Current Liabilities	3,588,435.20
OTHER LIABILITIES LT Xenon Notes Payable Pension Deferred Inflows	6,000,000.00 3,467,898.62
Total Other Liabilities	9,467,898.62
EQUITY	
Restricted: Indemnificati Restricted: Mine Closure Restricted: Sanford Gift2	7,500,000.00 1,520,425.48
Restricted: Pension Restricted: Experim. Int. Restricted: Foundation	667,913.38 793,465.53 -
Total Restricted Funds	10,481,804.39
Investment in Gen FA Unrestricted Funds	89,022,353.75 13,905,940.28
Total Equity	113,410,098.42
TOTAL LIABILITIES & EQUITY	\$ =========== 126,466,432.24 ==========

ALL

13:30

### STATEMENT OF INCOME

#### FOR THE PERIOD ENDING 02/28/22

	YR-TO-DAT	E
REVENUE DOE Subcontracts	\$ 25,599,093.7	5
NSF/NASA Subcontracts	φ 20,099,090.7	J
State Revenue	-	
Checking Interest	1,376.5	0
Interest Income	74,449.0	0
TOTAL REVENUE	25,674,919.2	:5
DIRECT COSTS		
Direct Labor	5,704,275.1	5
Board of Directors	5,078.5	
Capital Outlay >\$5K	3,027,079.7	'4
Contractual Svcs	3,164,044.9	
Inventory	187,153.0	
Supplies	1,544,042.9	
Travel - Domestic Travel - Foreign	28,651.2	8
Utilities	- 1,553,632.5	(1
Other Direct Costs	107,421.1	
Unallow/Unbill Costs	239,410.1	
TOTAL DIRECT COSTS	15,560,789.5	
INDIRECT COSTS Fringe Benefits	4 604 276 6	15
Overhead	4,691,376.0 6,200,976.8	
overredu		· · ·
TOTAL INDIRECT COSTS	10,892,352.8 	36
GROSS PROFIT/LOSS ( )FROM OPERATIONS	(778,223.1	
OTHER INCOME		
Water Treatment	168,202.3	
Miscellaneous Income	119,898.1	
Other Operating Income	183,923.7	′4
TOTAL OTHER INCOME	472,024.2	23
OTHER EXPENSES		
Misc. Expenses & Donations	(6,478,194.9	<del>)</del> 8)
Loss (Gain) on Sale of FA	(3,600.2	•
Other Unallowable Expense	217,145.8	
Reclass Incr Net Assets	4,795,169.5	53
TOTAL OTHER EXPENSES	(1,469,479.8	 32)
NET INCOME/LOSS ( )	======================================	
	ψ 1,103,201.0	· T

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DIVISION: ALL

COMPARATIVE BALANCE SHEET

ASSETS

	AS OF 02/28/22		AS OF 02/28/21		\$ CHANGE	% CHANGE
CURRENT ASSETS						
First Interstate Checking	\$ 4,891,583.13	\$	3,391,432.35	\$	1,500,150.78	44.23%
First Interstate Other			1,420.64	·	(1,420.64)	-100.00%
Total in Local Checking	4,891,583.13		3,392,852.99		1,498,730.14	 44.17%
SD Treas: Indemnification	7,500,000.00		7,500,000.00		-	0.00%
SD Treas: Mine Closure	1,520,425.48		1,497,441.53		22,983.95	1.53%
SD Treas: Operating	1,304,075.96		1,116,445.61		187,630.35	16.81%
SD Treas: Sanford Gift #2	-		6,569.97		(6,569.97)	-100.00%
SD Treas: Spec Sess - Lab			2,175,759.00		(2,175,759.00)	-100.00%
SD Treas: Experiments	793,465.53		919,001.75		(125,536.22)	-13.66%
Total with SD Treasurer	11,117,966.97		13,215,217.86		(2,097,250.89)	-15.87%
Billed A/R	3,084,825.93		2,664,561.75		420,264.18	15.77%
Unbilled A/R	(0.10)		132,006.31		(132,006.41)	-100.00%
Other A/R	290,997.73		814,642.00		(523,644.27)	-64.28%
Inventory - Supplies	3,233,197.57		3,337,210.59		(104,013.02)	-3.12%
Inventory - Warehouse	313,247.28		27,330.13		285,917.15	1046.16%
Other Current Assets	1,442,097.59		965,683.90		476,413.69	49.33%
Total Current Assets	24,373,916.10		24,549,505.53		(175,589.43)	-0.72%
FIXED ASSETS						
Land, Underground & Other	12,743,473.13		12,633,473.13		110,000.00	0.87%
Bldgs & Infrastructure	19,386,433.19		9,707,365.56		9,679,067.63	99.71%
Improvements	62,813,135.62		64,637,443.82		(1,824,308.20)	-2.82%
Computer Equipment	354,677.81		570,932.90		(216,255.09)	-37.88%
Equipment & Fixtures	11,100,543.79		10,640,819.96		459,723.83	4.32%
DOE Property Transfer	4,221,314.91		1,471,727.33		2,749,587.58	186.83%
Accum Depr & Amort	(21,203,956.88)		(19,274,959.28)		(1,928,997.60)	10.01%
DOE Prop. Accum Deprec.	(393,267.82)		(104,196.77)		(289,071.05)	277.43%
Total Fixed Assets	89,022,353.75		80,282,606.65		8,739,747.10	10.89%
OTHER ASSETS						
Work in Process	-		3,029,340.38		(3,029,340.38)	-100.00%
Pension Deferred Outflows	4,135,812.00		2,995,814.75		1,139,997.25	38.05%
Xenon Purchased	8,934,350.39		8,930,401.09		3,949.30	0.04%
Total Other Assets	13,070,162.39		14,955,556.22		(1,885,393.83)	-12.61%
		*		==		
TOTAL ASSETS	\$ 126,466,432.24	\$	119,787,668.40	\$	6,678,763.84	5.58%

DIVISION: ALL

#### COMPARATIVE BALANCE SHEET

#### LIABILITIES & EQUITY

		AS OF 02/28/22		AS OF 02/28/21		\$ CHANGE	% CHANGE
CURRENT LIABILITIES							
Accounts Payable	\$	,671,762.43	\$	1,194,143.35		477,619.08	40.00%
Other Payables		6,816.29		8,841.84		(2,025.55)	-22.91%
Total Accounts Payable	,	,678,578.72		1,202,985.19		475,593.53	39.53%
Accrued Payroll Liab		,909,856.48		1,795,169.22		114,687.26	6.39%
Total Current Liabilities	;	3,588,435.20		2,998,154.41		590,280.79	19.69%
OTHER LIABILITIES							
LT Xenon Notes	(	6,000,000.00		6,000,000.00		-	0.00%
Pension Deferred Inflows	:	3,467,898.62		1,266,585.88		2,201,312.74	173.80%
Total Other Liabilities	9	9,467,898.62		7,266,585.88		2,201,312.74	30.29%
TOTAL LIABILITIES	1:	3,056,333.82		10,264,740.29		2,791,593.53	27.20%
EQUITY							
Restricted: Indemnificati	-	7,500,000.00		7,500,000.00		-	0.00%
Restricted: Lab		-		2,175,759.00		(2,175,759.00)	-100.00%
Restricted: Mine Closure		1,520,425.48		1,497,441.53		22,983.95	1.53%
Restricted: Sanford Gift2		-		6,569.97		(6,569.97)	-100.00%
Restricted: Pension		667,913.38		1,729,228.87		(1,061,315.49)	-61.38%
Restricted: Experim. Int.		793,465.53		919,001.75		(125,536.22)	-13.66%
Restricted: Foundation		-		219.45		(219.45)	-100.00%
Total Restricted Funds	10	),481,804.39		13,828,220.57		(3,346,416.18)	-24.20%
Investment in Gen FA	8	9,022,353.75		80,282,606.65		8,739,747.10	10.89%
Unrestricted Funds	1:	3,905,940.28		15,412,100.89		(1,506,160.61)	-9.77%
TOTAL EQUITY	11:	3,410,098.42		109,522,928.11		3,887,170.31	3.55%
TOTAL LIABILITIES & EQUITY		======= 6,466,432.24	: \$	 119,787,668.40	== \$	6,678,763.84	======================================

#### SOUTH DAKOTA SCIENCE & TECHNOLOGY

PAGE 0001

#### COMPARATIVE STATEMENT OF INCOME

#### FOR THE PERIOD ENDING 02/28/22

		YEAR		PRIOR YEAR			
		TO DATE		TO DATE		\$ CHANGE	% CHANGE
REVENUE							
DOE Subcontracts	\$	25,599,093.75	\$	23,328,288.07	\$	2,270,805.68	9.73%
NSF/NASA Subcontracts	Ψ		Ψ	1,967.60	Ψ	(1,967.60)	-100.00%
State Revenue		-		-		-	0.00%
Checking Interest		1,376.50		944.67		431.83	45.71%
Interest Income		74,449.00		95,656.00		(21,207.00)	-22.17%
TOTAL REVENUE		25,674,919.25		23,426,856.34		2,248,062.91	9.60%
DIRECT COSTS							
Direct Labor		5,704,275.15		5,438,664.57		265,610.58	4.88%
Board of Directors		5,078.52		3,390.56		1,687.96	49.78%
Capital Outlay >\$5K		3,027,079.74		2,086,818.62		940,261.12	45.06%
Contractual Svcs		3,164,044.93		2,401,832.92		762,212.01	31.73%
Inventory		187,153.03		114,012.50		73,140.53	64.15%
Supplies		1,544,042.97		807,431.14		736,611.83	91.23%
Travel - Domestic		28,651.28		2,941.62		25,709.66	874.00%
Travel - Foreign		-		(149.16)		149.16	0.00%
Utilities		1,553,632.51		1,522,976.14		30,656.37	2.01%
Other Direct Costs		107,421.19		19,232.45		88,188.74	458.54%
Unallow/Unbill Costs		239,410.18		198,636.02		40,774.16	20.53%
TOTAL DIRECT COSTS		15,560,789.50		12,595,787.38		2,965,002.12	23.54%
INDIRECT COSTS							
Fringe Benefits		4,691,376.05		4,507,188.60		184,187.45	4.09%
Overhead		6,200,976.81		6,079,638.77		121,338.04	2.00%
TOTAL INDIRECT COSTS		10,892,352.86		10,586,827.37		305,525.49	2.89%
GROSS PROFIT/LOSS ()		(778,223.11)		244,241.59		(1,022,464.70)	517.81%
OTHER INCOME							
Water Treatment		168,202.30		182,804.08		(14,601.78)	-7.99%
Miscellaneous Income		119,898.19		17,522.50		102,375.69	584.25%
Other Operating Income		183,923.74		34,117.76		149,805.98	439.09%
TOTAL OTHER INCOME		472,024.23		234,444.34		237,579.89	 101.34%
		, - · · ·				· · · · <b>,</b> · · · · · · ·	
OTHER EXPENSES		(0.470.404.00)		(4 050 055 70)		(5.005.000.40)	447.000
Misc. Expenses & Donations		(6,478,194.98)		(1,252,355.79)		(5,225,839.19)	417.28%
Loss (Gain) on Sale of FA		(3,600.29)		58,461.30		(62,061.59)	-106.16%
Other Unallowable Expense		217,145.82		104,196.77		112,949.05	108.40%
Reclass Incr Net Assets		4,795,169.53		(423,191.63)		5,218,361.16 	-1233.10%
TOTAL OTHER EXPENSES		(1,469,479.92)		(1,512,889.35) ========		43,409.43	-2.87%
NET INCOME/LOSS ( )	\$	1,163,281.04	\$	======================================	\$	(828,294.24)	-41.59%

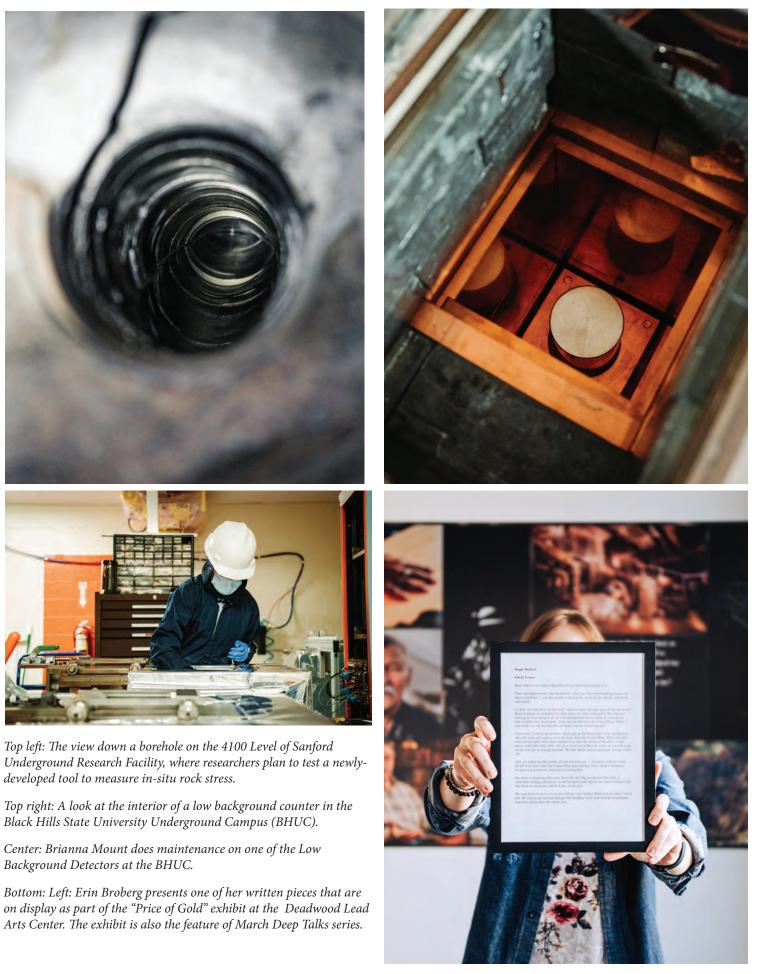
#### South Dakota Science & Technology Authority Available Resources 2/28/2022

Cash Total Checking	\$ 4,891,583
Cash With State Treasurer	\$ 11,117,967
Total Cash	\$ 16,009,550
Less: Restricted Funds	
Indemnification/Mine Closure/Special Session Lab	\$ (9,020,425)
Experiments (Xenon, Interest,Infrastructure)	\$ (793,466)
Total Cash Available for Infrastructure Upgrades and Authority Operations	\$ 6,195,659
Plus: Accounts Receivable Billed	\$ 3,084,826
Accounts Receivable Unbilled	\$ (0)
Less: Current Liabilities (Accounts Payable & Accrued Payroll)	\$ (3,588,435)
(not including accts. pay. For MSF funding)	 
Available Cash and Receivables	\$ 5,692,050

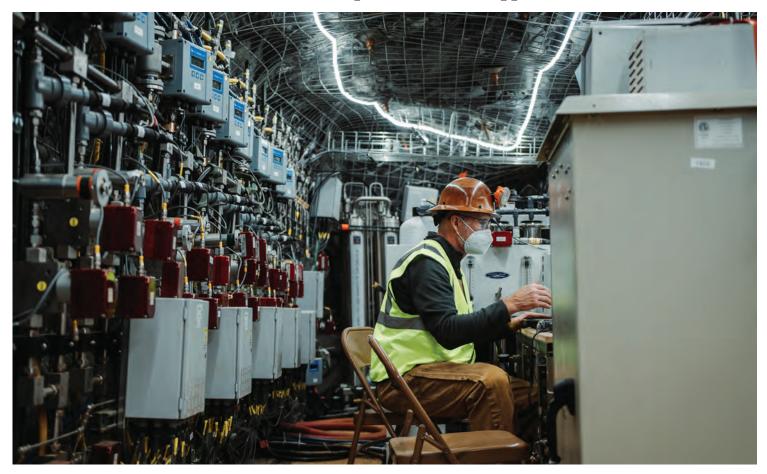
# SDSTA Operating Budget Summary FY2022 Actual vs Budget February 2022 & YTD

	Feb. 2022	Budget	\$ Over/Under Budget	% of Budget	Actual YTD	YTD Budget	\$ Over/Under Budget	% of Budget	% Remaining
			1						100%
SDSTA (Authority) Direct Charges	a series of	Service and			A CONTRACTOR	a citatrad		To The	
Board of Directors	\$17,998.00	\$19,334.00	\$1,336.00	93.09%	\$160,568.00	\$168,665.00	\$8,097.00	95.20%	4.80%
Executive Office	\$33,422.00	\$49,481.00	\$16,059.00	67.55%	\$776,182.00	\$699,981.00	-\$76,201.00		-10.89%
Science Center E & O	\$2,632.00	\$500.00	-\$2,132.00	526.4%	\$51,828.00	\$52,517.00	\$689.00	98.69%	1.31%
Science Liaison	-\$745.00	\$0.00	\$745.00	100.0%	-\$1,346.00	\$0.00	\$1,346.00	100.00%	0.00%
SLHVC (Visitor Center)	\$34,945.00	\$0.00	-\$34,945.00	100.0%	\$88,530.00	\$0.00	-\$88,530.00	100.00%	0.00%
Subtotal	\$88,252.00	\$69,315.00	-\$18,937.00	127.32%	\$1,075,762.00	\$921,163.00	-\$154,599.00	116.78%	-16.78%
Federal/State Funding - Direct Charges									
Fermi C#671265 Prof. St.Services	\$4,804.00	\$5,000.00	\$196.00	96.08%	\$33,049.00	\$48,000.00	\$14,951.00	68.85%	31.15%
Fermi C#674969 Ross Logist.Supp.	\$255,905.00	\$250,000.00	-\$5,905.00	102.36%	\$1,857,513.00	\$2,448,325.00	\$590,812.00	75.87%	24.13%
Fermi Misc. Contracts	\$0.00	\$0.00	\$0.00	0.0%	\$3,942.00	\$35,000.00	\$31,058.00	11.26%	88.74%
Office of Science Coop.Agree	\$1,464,602.00	\$1,304,959.00	-\$159,643.00	112.23%	\$10,773,029.00	\$10,270,747.00	-\$502,282.00	104.89%	-4.89%
Office of Science IIP Projects	\$638,673.00	\$638,673.00	\$0.00	100.0%	\$4,560,022.00	\$4,560,022.00	\$0.00	100.00%	0.00%
LBNL SIGMA-V C#7371823	\$7,278.00	\$10,000.00	\$2,722.00	72.78%	\$159,646.00	\$220,000.00	\$60,354.00	72,57%	27.43%
LBNL LZExp.Operat.C#7525117	\$50,647.00	\$55,000.00	\$4,353.00	92.09%	\$325,380.00	\$405,000.00	\$79,620.00	80.34%	19.66%
MJD (Majorana) ORNL144149	\$1,478.00	\$2,000.00	\$522.00	73.9%	\$9,978.00	\$16,000.00	\$6,022.00	62.36%	37.64%
<ul> <li>Kiewit/Thyssen/DakotaT.</li> </ul>	\$2,036.00	\$4,000.00	\$1,964.00	50.9%	\$21,484.00	\$32,700.00	\$11,216.00	65.70%	34.30%
* Caterpillar Inc.	\$94,997.00	\$94,997.00	\$0.00	100.0%	\$94,997.00	\$94,997.00	\$0.00	100.00%	0.00%
RESPEC Thermal Breakout	\$0.00	\$0.00	\$0.00	0.0%	\$11,522.00	\$30,000.00	\$18,478.00	38,41%	61.59%
Subtotal	\$2,520,420.00	\$2,364,629.00	-\$155,791.00	106.59%	\$17,850,562.00	\$18,160,791.00	\$310,229.00	98.29%	1.71%
Indirect Expenses									
Indirect Charges Personnel	\$455,206.00	\$481,393.00	\$26,187.00	94.56%	\$3,599,562.00	\$4,146,648.00	\$547,086.00	86.81%	13.19%
Indirect Charges Other	\$803,000.00	\$462,514.00	-\$340,486.00	173.62%	\$4,057,398.00	\$4,311,873.00	\$254,475.00	94.10%	5.90%
Subtotal	\$1,258,206.00	\$943,907.00	-\$314,299.00	133.3%	\$7,656,960.00	\$8,458,521.00	\$801,561.00	90.52%	9.48%
Totals	\$3,866,878.00	\$3,377,851.00	-\$489,027.00	114.48%	\$26,583,284.00	\$27,540,475.00	\$957,191.00	96.52%	3,48%
<ul> <li>Private Corporations (Commercial Group</li> </ul>									

#### **Communications Department Photo Appendix C**



#### **Communications Department Photo Appendix C**





LEAD: THE GOLDEN DISTRICT

*Top left: Vince Vermeul, From PNNL works on the systems for the EGS Collaboration experiment on the 4100 Level.* 

Center photos: Six grade students form Lead Deadwood Middle School arrive for the first field trip at the Sanford Lab Homestake Visitor Center led by the SURF Education and Outreach Team.

Bottom: The Journey Museum and Learning Center was Chosen as this year's recipient of the CORES Award, recognizing their passion for and visible commitment to science public outreach.



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DIVISION: ALL

#### COMPARATIVE BALANCE SHEET

#### LIABILITIES & EQUITY

		AS OF 02/28/22	AS OF 02/28/21		\$ CHANGE	% CHANGE
CURRENT LIABILITIES						
Accounts Payable	\$	1,671,762.43	\$ 1,194,143.35		477,619.08	40.00%
Other Payables		6,816.29	8,841.84		(2,025.55)	-22.91%
Total Accounts Payable		1,678,578.72	1,202,985.19		475,593.53	39.53%
Accrued Payroll Liab		1,909,856.48	1,795,169.22		114,687.26	6.39%
Total Current Liabilities		3,588,435.20	2,998,154.41		590,280.79	19.69%
OTHER LIABILITIES						
LT Xenon Notes		6,000,000.00	6,000,000.00		-	0.00%
Pension Deferred Inflows		3,467,898.62	1,266,585.88		2,201,312.74	173.80%
Total Other Liabilities		9,467,898.62	7,266,585.88		2,201,312.74	30.29%
TOTAL LIABILITIES		13,056,333.82	10,264,740.29		2,791,593.53	27.20%
EQUITY						
Restricted: Indemnificati		7,500,000.00	7,500,000.00		-	0.00%
Restricted: Lab		-	2,175,759.00		(2,175,759.00)	-100.00%
Restricted: Mine Closure		1,520,425.48	1,497,441.53		22,983.95	1.53%
Restricted: Sanford Gift2		-	6,569.97		(6,569.97)	-100.00%
Restricted: Pension		667,913.38	1,729,228.87		(1,061,315.49)	-61.38%
Restricted: Experim. Int.		793,465.53	919,001.75		(125,536.22)	-13.66%
Restricted: Foundation		-	219.45		(219.45)	-100.00%
Total Restricted Funds		10,481,804.39	13,828,220.57		(3,346,416.18)	-24.20%
Investment in Gen FA		89,022,353.75	80,282,606.65		8,739,747.10	10.89%
Unrestricted Funds		13,905,940.28	15,412,100.89		(1,506,160.61)	-9.77%
TOTAL EQUITY		113,410,098.42	109,522,928.11		3,887,170.31	3.55%
TOTAL LIABILITIES & EQUITY	= \$	126,466,432.24	\$ ======================================	== \$	6,678,763.84	======================================

#### SOUTH DAKOTA SCIENCE & TECHNOLOGY

PAGE 0001

#### COMPARATIVE STATEMENT OF INCOME

#### FOR THE PERIOD ENDING 02/28/22

		YEAR		PRIOR YEAR			
		TO DATE		TO DATE		\$ CHANGE	% CHANGE
REVENUE							
DOE Subcontracts	\$	25,599,093.75	\$	23,328,288.07	\$	2,270,805.68	9.73%
NSF/NASA Subcontracts	Ψ		Ψ	1,967.60	Ψ	(1,967.60)	-100.00%
State Revenue		-		-		-	0.00%
Checking Interest		1,376.50		944.67		431.83	45.71%
Interest Income		74,449.00		95,656.00		(21,207.00)	-22.17%
TOTAL REVENUE		25,674,919.25		23,426,856.34		2,248,062.91	9.60%
DIRECT COSTS							
Direct Labor		5,704,275.15		5,438,664.57		265,610.58	4.88%
Board of Directors		5,078.52		3,390.56		1,687.96	49.78%
Capital Outlay >\$5K		3,027,079.74		2,086,818.62		940,261.12	45.06%
Contractual Svcs		3,164,044.93		2,401,832.92		762,212.01	31.73%
Inventory		187,153.03		114,012.50		73,140.53	64.15%
Supplies		1,544,042.97		807,431.14		736,611.83	91.23%
Travel - Domestic		28,651.28		2,941.62		25,709.66	874.00%
Travel - Foreign		-		(149.16)		149.16	0.00%
Utilities		1,553,632.51		1,522,976.14		30,656.37	2.01%
Other Direct Costs		107,421.19		19,232.45		88,188.74	458.54%
Unallow/Unbill Costs		239,410.18		198,636.02		40,774.16	20.53%
TOTAL DIRECT COSTS		15,560,789.50		12,595,787.38		2,965,002.12	23.54%
INDIRECT COSTS							
Fringe Benefits		4,691,376.05		4,507,188.60		184,187.45	4.09%
Overhead		6,200,976.81		6,079,638.77		121,338.04	2.00%
TOTAL INDIRECT COSTS		10,892,352.86		10,586,827.37		305,525.49	2.89%
GROSS PROFIT/LOSS ()		(778,223.11)		244,241.59		(1,022,464.70)	517.81%
OTHER INCOME							
Water Treatment		168,202.30		182,804.08		(14,601.78)	-7.99%
Miscellaneous Income		119,898.19		17,522.50		102,375.69	584.25%
Other Operating Income		183,923.74		34,117.76		149,805.98	439.09%
TOTAL OTHER INCOME		472,024.23		234,444.34		237,579.89	 101.34%
		, - · · ·				· · · · <b>,</b> · · · · · · ·	
OTHER EXPENSES		(0.470.404.00)		(4 050 055 70)		(5.005.000.40)	447.000
Misc. Expenses & Donations		(6,478,194.98)		(1,252,355.79)		(5,225,839.19)	417.28%
Loss (Gain) on Sale of FA		(3,600.29)		58,461.30		(62,061.59)	-106.16%
Other Unallowable Expense		217,145.82		104,196.77		112,949.05	108.40%
Reclass Incr Net Assets		4,795,169.53		(423,191.63)		5,218,361.16 	-1233.10%
TOTAL OTHER EXPENSES		(1,469,479.92)		(1,512,889.35) ========		43,409.43	-2.87%
NET INCOME/LOSS ( )	\$	1,163,281.04	\$	======================================	\$	(828,294.24)	-41.59%

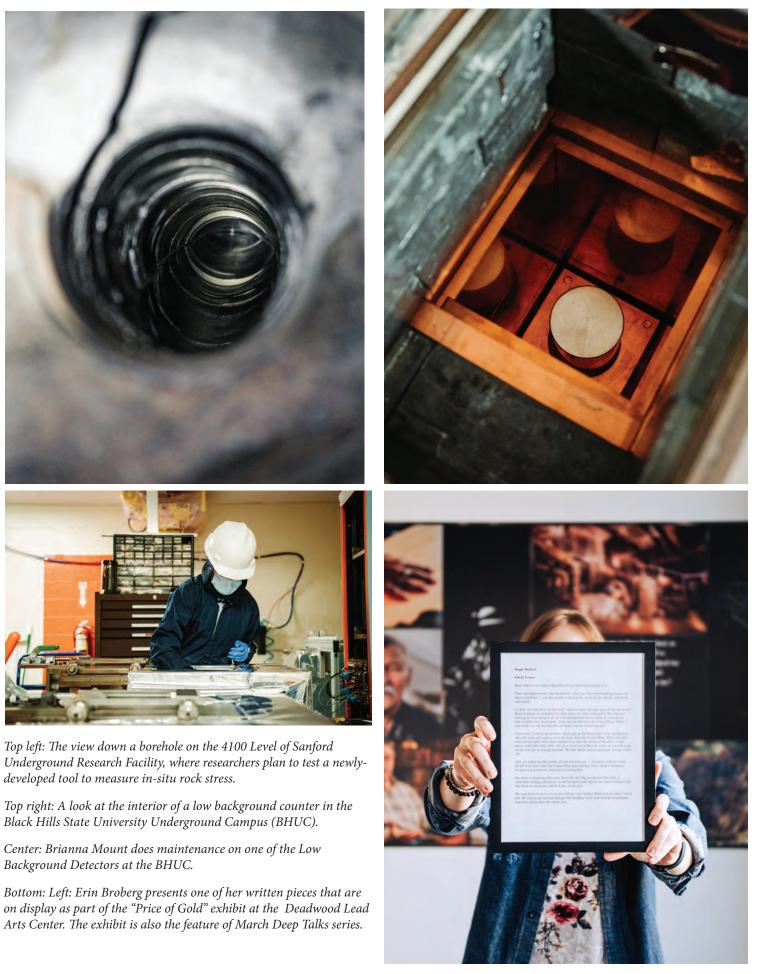
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Plus: Accounts Receivable Billed	\$ 3,084,826
Accounts Receivable Unbilled	\$ (0)
Less: Current Liabilities (Accounts Payable & Accrued Payroll)	\$ (3,588,435)
(not including accts. pay. For MSF funding)	 
Available Cash and Receivables	\$ 5,692,050

# SDSTA Operating Budget Summary FY2022 Actual vs Budget February 2022 & YTD

	Feb. 2022	Budget	\$ Over/Under Budget	% of Budget	Actual YTD	YTD Budget	\$ Over/Under Budget	% of Budget	% Remaining
									100%
SDSTA (Authority) Direct Charges	647 000 00	C40 004 00	C4 000 00	02.000/	C400 500 00	6400 005 00	60 007 00	05 00%	4.80%
Board of Directors	\$17,998.00	\$19,334.00	\$1,336.00	93.09%	\$160,568.00	\$168,665.00	\$8,097.00		
Executive Office	\$33,422.00	\$49,481.00	\$16,059.00	67.55%	\$776,182.00	\$699,981.00	-\$76,201.00		-10.89%
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Science Liaison	-\$745.00	\$0.00	\$745.00	100.0%	-\$1,346.00	\$0.00	\$1,346.00		0.00%
SLHVC (Visitor Center)	\$34,945.00	\$0.00	-\$34,945.00	100.0%	\$88,530.00	\$0.00	-\$88,530.00	100.00%	0.00%
Subtotal	\$88,252.00	\$69,315.00	-\$18,937.00	127.32%	\$1,075,762.00	\$921,163.00	-\$154,599.00	116.78%	-16.78%
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Office of Science Coop.Agree	\$1,464,602.00	\$1,304,959.00	-\$159,643.00	112.23%	\$10,773,029.00	\$10,270,747.00	\$502,282.00	104.89%	-4.89%
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* Caterpillar Inc.	\$94,997.00	\$94,997.00	\$0.00	100.0%	\$94,997.00	\$94,997.00	\$0.00	100.00%	0.00%
RESPEC Thermal Breakout	\$0.00	\$0.00	\$0.00	0.0%	\$11,522.00	\$30,000.00	\$18,478.00	38.41%	61.59%
Subtotal	\$2,520,420.00	\$2,364,629.00	-\$155,791.00	106.59%	\$17,850,562.00	\$18,160,791.00	\$310,229.00	98.29%	1.71%
Indirect Expenses									
Indirect Charges Personnel	\$455,206.00	\$481,393.00	\$26,187.00	94.56%	\$3,599,562.00	\$4,146,648.00	\$547,086.00	86.81%	13.19%
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#### **Communications Department Photo Appendix C**



#### **Communications Department Photo Appendix C**





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*Top left: Vince Vermeul, From PNNL works on the systems for the EGS Collaboration experiment on the 4100 Level.* 

Center photos: Six grade students form Lead Deadwood Middle School arrive for the first field trip at the Sanford Lab Homestake Visitor Center led by the SURF Education and Outreach Team.

Bottom: The Journey Museum and Learning Center was Chosen as this year's recipient of the CORES Award, recognizing their passion for and visible commitment to science public outreach.



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#### Executive Session—Chairperson Casey Peterson

Meeting closed to public during executive session.

See recommended motion below.

#### **Recommended Action:**

Motion to enter executive session to discuss personnel matters and to consult with legal counsel concerning contractual and legal matters—SDCL 1-25-2(1), (3) and (4); 19-19-502.



#### South Dakota Science and Technology Authority March Board Meeting

### Report from Executive Session—Chairperson Casey Peterson

See recommended motion below.

**Recommended Action:** 

"The board consulted with legal counsel concerning contractual and legal matters. No action was taken."

OR



#### SDSTA Policies and Policy-Procedures-Mr. Mike Headley

Attached are the following updated SDSTA Policies reviewed by legal counsel and recommended for approval:

- SDSTA Policy and Policy-Procedure Manual: Section 2 Employee Handbook
  - Alcohol, Controlled Substances and Testing Policy (updated to include employees who operate a commercial motor vehicle and formatting)
  - Firearms, Explosives and Other Weapons Policy (updated to include the SLHVC)
  - Open Door Policy (purpose section revised and formatting)
  - Record Retention Policy (updated to revise retention dates for miscellaneous ESH documents and formatting)

Informational—updated SDSTA Policy-Procedures to include third-party ethics hotline and formatting, all approved by Executive Director Headley include:

- Section 2 Employee Handbook:
  - Open Door Policy-Procedure
  - SDSTA Social Media Policy-Procedure
- Section 3 Business and Finance:
  - Accounting and Audit Policy-Procedure
  - Code of Business Policy-Procedure

#### **Recommended Action:**

Motion to approve the following updated policies: Alcohol, Controlled Substances and Testing; Firearms, Explosives and Other Weapons; Open Door and Record Retention, as presented.





#### South Dakota Science and Technology Authority

#### Alcohol, Controlled Substances and Testing Policy (approval request, Mar 24 board mtg)

#### Statement A.\_\_

The South Dakota Science and Technology Authority (SDSTA) recognizes the importance of protecting the health and safety of all employees and will take reasonable action to create and maintain a workplace free of the risks associated with unlawful use of alcohol and/or controlled substances.

#### **B.** Purpose

All SDSTA Eemployees are prohibited from using or being under the influence of alcohol or controlled substances while on duty. Controlled substances include are those listed in Schedules I - V of the Controlled Substances Act, 21 United States Code (U-S-C-) § 812 and related federal regulations, 21 Code of Federal Regulations (C-F-R)- §§ 1308.11-1308.15, as amended from time-to-time. "Controlled substances" includes, but is not limited to, medical cannabis as provided for under South Dakota Codified Law (SDCL) Ch. 34-20G.

It is the responsibility of each employee to notify their supervisor when taking any prescription or over the counter medication that may impair the employee's ability to perform job duties safely and effectively. The employee's supervisor may reassign job duties or temporarily relieve the employee from duty if the supervisor determines that use of the medicine may impair the employee's ability to perform job duties safely and effectively.

The SDSTA will require drug and alcohol and/or controlled substance testing under certain circumstances that include, but are not limited to the following: pre-employment testing, random testing, post-accident and/or incident testing and reasonable suspicion testing. The SDSTA has established formal procedures for the performance of each of these types of testing.

SDSTA will maintain all information collected in connection with drug and alcohol testing confidential except where disclosure is required by law or requested by the applicant/employee. Information obtained through testing that is unrelated to the use of a controlled substance or alcohol will be held in strict confidence by the Medical Review Officer (MRO)—a licensed physician who is responsible for receiving and reviewing laboratory results generated by the SDSTA's drug controlled substance testing program— and will not be released to SDSTA.

SDSTA and the U.S. Department of Energy ("DOE") are parties to a Cooperative Agreement as that term is used in 2 CFR 182.5 and 2 CFR 186.620. Accordingly, SDSTA is subject to the Drug Free Workplace requirements of 2 CFR Part 182 and 2 CFR Part 902, which require SDSTA to make a good faith effort to maintain a drug-free workplace. As used in the regulations, the term "drug free workplace" means a work environment at which "employees ... are prohibited from engaging in the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance." "Controlled substance" means a controlled substance in schedules I-V of the Controlled Substances Act, which includes marijuana. Despite the



adoption of SDCL Ch. 34-20G, relating to medical marijuana, the use and possession of marijuana remains a crime under federal law, and thus is "unlawful" as that term is used in the Drug Free Workplace regulations. Because SDSTA's funding through the Cooperative Agreement is contingent upon compliance with DOE's Drug Free Workplace requirements, SDCL 34-20G-23 (addressing employer and employee rights and responsibilities with respect to medical cannabis) applies to SDSTA.

In addition, employees who operate a "commercial motor vehicle," as defined in 49 CFR 382.017, are and shall be subject to U.S. Department of Transportation (DOT) alcohol and controlled substance testing requirements set out in 49 CFR Part 382, and 49 CFR Part 40.

Without limiting the generality of the remainder of this policy, it is the policy of SDSTA that no employee may engage in the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance on SDSTA property, including but not limited to medical cannabis, nor may any employee be under the influence of or otherwise impaired by any controlled substance, including medical cannabis, while on duty.

Nothing in this policy shall be construed as creating a contract of employment or any right to notice and a hearing prior to termination or other disciplinary action. All employees of the SDSTA are employed on an at-will basis. SDSTA retains the sole right to change, amend or modify any term or provision of this policy with or without notice.

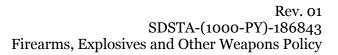
#### C. Related procedures

Alcohol, Controlled Substances and Testing—All Employees Policy-Procedure

<u>Alcohol, Controlled Substances and Testing—Commercial Motor Vehicle Operators</u> <u>Policy–Procedure</u>

#### **Revision History**

Rev	Date	Section	Paragraph	Summary of Change	Authorized by
01	3/8/2022	NA	NA	Initial issue	CCR 543





#### Firearms, Explosives and Other Weapons Policy (approval request at Mar 24 board mtg)

The purpose of the South Dakota Science and Technology Authority (SDSTA) Firearms, Explosives, and Other Weapons Policy is to protect SDSTA infrastructure, property owned by third parties but located on SDSTA property, and SDSTA and non-SDSTA personnel from damage, injury or death.

This policy applies to all stakeholders, including visitors, users, contractors, employees and agents of SDSTA.

#### A. Findings

- Pursuant to SDCL 1-16H-5, SDCL 1-16H-15, and other applicable law, the SDSTA Board of Directors has plenary authority to manage and regulate the real and personal property owned by it or otherwise under its control. The Board of Director's authority includes the power to establish the terms and conditions upon which persons may have access to SDSTA-owned or controlled property.
- 2. There exists sensitive experiment-related and other high value hardware underground and on the surface of the Sanford Underground Research Facility (SURF) that could be significantly damaged or destroyed by an accidental or intentional discharge of a firearm.
- 3. There are from time-to-time significant quantities of explosives stored and/or in use at SURF. These explosives could be triggered by an accidental or intentional discharge of a firearm or the triggering of accidental or intentional explosion of other explosive materials.
- 4. There exists high value exhibits and other hardware at the Sanford Lab Homestake Visitor's Center (SLHVC) that could be significantly damaged or destroyed by an accidental or intentional discharge of a firearm. The SLHVC is often occupied by large numbers of visitors, including children.
- 4.5. The prohibition of <u>firearms, explosives and other</u> weapons, other than <u>the</u> <u>possession of firearms and explosives permitted under this policy</u>, <u>firearms and</u> <u>explosives</u> will promote a safe environment for visitors, users, contractors, employees and agents of SDSTA.

#### **B.** Definitions

- 1. Firearm—a pistol, rifle, shotgun or other device from which a projectile is discharged by an explosive. For the purposes of this policy, the term includes antique and non-functioning devices.
- 2. Explosive—a solid or liquid substance (or mixture of substances) which is in itself is capable by chemical reaction of producing gas at such a temperature and pressure and at such a speed as to cause damage to the surroundings. The term includes

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pyrotechnic substances even when they do not evolve gases. A pyrotechnic substance is a substance or mixture of substances designed to produce an effect by heat, light, sound, gas or smoke or a combination of these as the result of non-detonative selfsustaining exothermic chemical reactions. The term includes binary explosives in any quantity.

3. Other Weapons—any knife, bow and arrow, crossbow, nun chucks, brass knuckles or other device which is capable of causing injury or death, which is commonly considered to be intended for the purpose of self-defense or for causing injury or death, and which is not intended for any other purpose. The term "knife" does not include a workplace tool or a pocketknife with a blade less than 4-inches long.

#### C. Prohibitions

Except as otherwise provided in this subsection  $\underline{CP}$ , no person other than law enforcement or military (including National Guard) personnel engaged in the performance of their duties as such or SDSTA security personnel authorized to do so by the Executive Director may use or possess a freirearm, explosive, or oother wweapon anywhere on SDSTA-owned or controlled property. The prohibition on the use or possession of explosives does not apply to qualified SDSTA, consultant or contractor personnel temporarily in control or possession of, or using, explosives as a part of planned experimental, demolition or construction activities.

#### **D.** Consequences for Violations

- 1. SDSTA employees shall be subject to disciplinary action, up to and including termination, upon the first or any subsequent violation of this policy.
- 2. Non-SDSTA employees may be temporarily or permanently excluded from SDSTA property upon the first or any subsequent violation of this policy.



#### **Revision History**

Rev	Date	Section	Paragraph	Summary of Change	Authorized by
01	3/8/2022	NA	NA	Initial issue	CCR 543



#### South Dakota Science and Technology Authority

#### Open Door Policy (approval request, Mar 24 board mtg)

#### A. Statement

The management of the South Dakota Science and Technology Authority (SDSTA) maintains an  $\Theta$  pen  $\Phi$  oor P oicy to encourage open communication, feedback and discussion about any matter of importance to an employee.

#### B. Purpose

The purpose of the Open Door Policy is to provide a work environment where transparent and honest communication between managers and employees is a day-to-day business practice. Employee input is welcomed, advice is freely given, and issues are brough to the surface early and are candidly shared without fear of retaliation when input is offered in good faith.

Any employee who does not feel comfortable utilizing the process established by the Open Door Policy and Policy-Procedure may contact Human Resources at any time.

Most problems can and should be solved in discussion with the employee's immediate supervisor, which is encouraged as the first effort to solve a problem. If the employee does not receive a satisfactory answer from the immediate supervisor, or feels the matter cannot be discussed with that individual, the employee should take the matter to the next level of management.

Any employee who does not feel comfortable utilizing the process established by this policy may contact the Human Resources Administrator at any time.

#### C. Related procedures

**Open Door Policy-Procedure** 



#### **Revision History**

Rev	Date	Section	Paragraph	Summary of Change	Authorized by
01	3/8/2022	NA	NA	Initial issue	CCR 543



South Dakota Science and Technology Authority

#### Record Retention Policy (approval request, Mar 24 board mtg)

#### A. Statement

In accordance with federal, state and contractual obligations, the South Dakota Science and Technology Authority (SDSTA) will retain limited administrative, environmental, safety and health records according to the following tables:

## Administrative

Type of Record	Retention Period
Accident report/claims (only settled cases)	10 years
Accounts payable checks and vouchers (copies)	10 years
Accounts payable ledgers and schedules	10 years
Accounts receivable ledgers and schedules	10 years
Audit reports	Indefinitely
Bank reconciliations	2 years
Bank statements	3 years
Cash books	Indefinitely
Contracts	10 years
Correspondence (only regarding legal and important matters)	Indefinitely
Deeds, mortgages and bills of sales	Indefinitely
Depreciation schedules	Indefinitely
Employment applications	5 years
Employee timesheets	10 years
Financial statements (only year-end)	Indefinitely
Foreign Nationals Identifications – Badged Users and Contractors	7 years after end of fiscal year
Garnishments	10 years
Government-furnished property (only equipment over \$5K)	3 years
Indirect cost rate proposals	3 years from date of submission



Type of Record	Retention Period
Insurance policies (expired)	7 years
Insurance records, current accident reports, claims policies, etc.	Indefinitely
Inventories of products, materials, supplies	10 years
Invoices (only to customers and from vendors)	10 years
Journals	Indefinitely
Minute books of directors	Indefinitely
Payroll records and summaries	10 years
Personnel files	Indefinitely during employment and 10 years after termination
Petty cash vouchers	3 years
Property appraisals by outside appraisers	Indefinitely
Purchase orders	3 years
Receiving sheets	3 years
Retirement and pension records	Indefinitely
Requisitions	3 years
Scrap and salvage records	10 years
Visitor daily check-in logs and monthly registration logs	5 years
Voucher register and schedules	10 years



### **Environmental**

Type of Record	Retention Period
Biological Reports (only Whole Effluent Toxicity and Stream test results) [National Pollution Discharge Elimination System (NPDES) Permit 0000043]	5 years
Clean Air Act emission test results [40 Code of Federal Regulations (CFR) 61.33]	4 years
Clean Air Act monitoring data and performance tests [40 CFR 61.14]	4 years
Clean Air Act permits [40 CFR 70.6 (9a)(3)]	5 years
Environmental Protection Agency (EPA) underground injection permits [40 CFR 144.12]	Indefinitely
Emergency Planning and Community Right-to-know Act (EPCRA) Tier II Reports [40 CFR 370.25 (d)]	4 years
Hazardous waste exception reports [40 CFR 262.40]	4 years
Hazardous waste inspection results [40 CFR 262.40]	4 years
Hazardous waste manifests [40 CFR 262.40]	4 years
Hazardous waste training records [40 CFR 262.40]	4 years
Land Disposal Restrictions (LDR) waste analysis and documentation [40 CFR 370.25 (d)]	5 years
NPDES monitoring records (DMRs) [40 CFR 122.41]	4 years
NPDES permit application records [40 CFR 122.21]	5 years
NPDES storm water records [40 CFR 216.29]	5 years
Polychlorinated Biphenyl (PCB) manifests and logs (only after final disposal) [40 CFR 761.209]	4 years
Spill Prevention, Control and Countermeasure (SPCC) plans and inspection records [40 CFR 112.7]	4 years
Storm water construction permits [by permit]	Indefinitely
Waste test results [40 CFR 262.40]	4 years
Wastewater Treatment Plant (WWTP) monitoring data and calibration check [40 CFR 61.14]	4 years

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Type of Record	Retention Period
All other permits	Indefinitely

## Safety and Health

Type of Record	Retention Period
Employee Training Records	IndefinitelyRetain for duration of employment plus 3 years
Industrial Hygiene (IH)	Indefinitely
Job Hazard Analyses (JHAs)	<del>7 years</del>
Medical Records (only related to workers' compensation)	Indefinitely
OSHA 300 Logs	5 years
Risk Waivers (2) - "Acknowledgment of Risk" and "Release, Agreement Not to Sue and Waiver"	Indefinitely
Safe Work Permits	7- <u>1</u> year <mark>s</mark>
Standard Operating Procedures (SOPs)	<del>7 years</del>

#### B. Purpose

Records retention is essential for SDSTA operations and compliance.

#### **C. Related Policies and Procedures**

- Confidentiality Policy
- Employment Records and Personal Data Procedure



#### **Revision History**

Rev	Date	Section	Paragraph	Summary of Change	Authorized by
01	3/8/2022	NA	NA	Initial issue	CCR 543

#### Accounting and Audit Policy-Procedure (approved by Executive Dir Headley 2/2/22)

Accounting and audit procedures have been developed by the South Dakota Science and Technology Authority (SDSTA) to <u>ie</u>nsure internal controls, cash management, and compliance with other necessary financial and accounting requirements of applicable federal, state and local regulations.

#### A. Internal controls

The SDSTA has established and maintains a system of accounting and audit procedures which define basic duties and responsibilities, safeguard SDSTA assets, and identify and correct any errors and irregularities in the financial records on a timely basis.

The Chief Financial Officer (CFO) shall direct and monitor adherence to generally accepted accounting principles to ensure compliance with all applicable laws and regulations.

The Audit Committee, as <u>mandated defined</u> by the SDSTA Audit Committee Charter is the pro-active steward for oversight of the financial reporting and disclosure process for SDSTA. Audit Committee members are appointed annually to fulfill the responsibilities and duties detailed in the Charter.

#### B. SDSTA funds

- 1. SDSTA Management and Control of Certain Funds Policy authorizes the establishment of the Closure Fund, the Indemnification Fund and the General Operating Fund.
  - a. The Closure Fund maintains an unencumbered balance of \$1,000,000.00, reduced only by any sums expended by the SDSTA for closure, reclamation, restoration, remediation and subsequent monitoring of the Assets as required by any Governmental Authority pursuant to any Environmental, Health and Safety Law. Interest earned on the principal of the Closure Fund shall remain in and become a part of the Closure Fund. In the event the balance of the Closure Fund decreases below \$1,000,000.00 for any other reason, the SDSTA shall promptly restore it to a minimum balance of \$1,000,000.00.
  - b. The Indemnification Fund maintains an unencumbered balance of \$7,500,000.00, reduced only by any sums actually spent by the SDSTA for indemnification of the Homestake Indemnified Parties. In the event the balance of the Indemnification Fund decreases below \$7,500,000.00 for any other reason, the SDSTA shall promptly restore the amount of any decrease to the Indemnification Fund. Interest earned on the principal of the Indemnification Fund shall be transferred to the General Operating Fund not less often than annually.
  - c. The General Operating Fund consists of all other accounts and monies established by and appropriated to the SDSTA and other investments in which the SDSTA is authorized to invest its funds.

The General Operating Funds may be used for activities related to general operating costs, rehabilitation, development and operation of the Assets for the purposes established by the SDSTA and consistent with the Agreement, including solicitation of scientific, research and development projects to use the Assets, as defined in the "Property Donation Agreement between and among Homestake Mining Company of California, the State of South Dakota and the South Dakota Science and Technology Authority, dated April 14, 2006" (PDA).

- d. The CFO shall prepare semi-annual certifications showing the balance in each of the Closure, Indemnification and General Operating Funds and shall make them available for public inspection.
- 2. Check and Cash Deposits

The CFO or Executive Director will designate an employee to be the originator. The originator will open the mail and photocopy the cash or check item. When cash or checks are delivered in person, the employee who receives it immediately takes it to the originator. The originator will log the source, amount and date received and then the item will be forwarded to the bookkeeper who then prepares a bank deposit slip. The bookkeeper will stamp any and all checks with a "For Deposit Only" stamp and return the checks and/or cash, along with a completed deposit slip, to the originator. The originator verifies the deposit slip is completed accurately and takes it to the bank holding the SDSTA's account.

In addition, the originator will write pre-numbered duplicate receipts for all cash and checks received and will make certain that when cash is involved the original receipt is given to the individual paying the cash. Duplicate receipts are filed in the CFO's office.

- 3. The SDSTA will request the transfer of funds from the State Treasurer's Office to the SDSTA's local bank account as necessary. Quarterly bank statements for SDSTA's local bank account will be provided to the South Dakota State Auditor and the South Dakota State Treasurer consistent with SDCL 4-4-3.
  - a. SDSTA will prepare a voucher and email it to the State Treasurer's office and to the Bureau of Finance and Management (BFM).
  - b. The SDSTA will mail the signed original voucher to the State Treasurer's office.
  - c. The BFM will load the document onto the State's accounting system.
  - d. The SDSTA will keep copies of these transactions.

4. Reconciliation—A designated employee shall complete a monthly bank account reconciliation statement for funds held in the SDSTA's bank account(s). Once completed, each bank reconciliation is reviewed by another designated employee.

#### C. Proprietary fund

The SDSTA's proprietary fund distinguishes between operating and non-operating revenues and expenses.

- 1. Operating revenues and expenses of the SDSTA consist of charges for the use of the underground facility (when placed in service), reimbursement of the costs of operations from Homestake Mining Company and other entities, and the costs of providing those services and facilities, including depreciation and excluding interest cost.
- 2. All other revenues and expenses are reported as non-operating.

#### D. Asset capitalization

The SDSTA will capitalize all expenditures for assets with a life of greater than one year and a cost of \$5,000 or more. They will be depreciated over their estimated useful life on a straight\_-line basis.

#### E. Fixed asset inventory

- The SDSTA shall maintain an accurate account of all furniture and equipment. As items are purchased (or donated), their date of purchase, source of purchase, cost or fair market value, serial numbers, warranty period, etc. shall be noted. An annual inventory shall be made as close as possible to the last week of June each year, and the property files checked and updated, if necessary.
- 2. Fixed assets with a life greater than one year and a cost of \$5,000 or more that are purchased with federal funds will be accounted for on a separate Subcontractor Acquired Property (SAP) report as well as tagged with a federal property number.

#### F. Budgeting

It is the responsibility of the CFO to oversee the budget process. The CFO will offer general guidance and define the goals of the SDSTA.

- 1. Monies earned by the SDSTA from investments made through the State Investment Council, pursuant to legislation approved by the South Dakota State Legislature, will be budgeted at the Board's discretion.
- 2. Department budgets will be developed with the assistance of Project Controls and Department Directors.

#### G. Financial statements

- 1. The Deltek Accounting System is the foundation of the SDSTA's official accounting records.
- 2. The CFO shall prepare monthly financial statements, including:
  - a balance sheet and a statement of income and expenses;
  - a budget-to-actual report for all accounts included in the annual operating budget; and
  - a cash flow statement.
- 3. The monthly statements will be finalized by the 10<sup>th</sup> business day of the following month.
- 4. The monthly statements shall be reviewed by the Executive Director prior to distribution to the SDSTA Board of Directors.

#### H. Indirect rate analysis

An indirect rate analysis is prepared annually. Upon acceptance by Fermilab for the federally funded subcontract the Department of Energy, the rate will be used for charging the SURF Operations Cooperative Agreement and subcontracts.

#### I. Petty cash

The Petty Cash Fund may be used for reimbursement for purchased items not included on travel expense reimbursement forms or not available from the office supplies inventory. All petty cash slips shall be dated, state the purpose of the expenditure, and be signed by the person receiving the funds. Disbursements greater than \$1 must be accompanied by a sales receipt. Petty cash disbursements are limited to \$50 per occurrence. A log is maintained by the CFO. The fund will be reconciled monthly and replenished by the CFO as needed.

#### J. Invoice and receipt procedures

When an invoice or receipt is received it is date stamped by the employee designated as the originator, included in the 'Monthly Bills to Be Paid' file, and added to the list of bills and budgetary coding to be approved.

The list, and all related invoices and documents, are submitted for approval by the Executive Director or CFO. The originator <u>may not</u> be an authorized signatory. Once the invoices and related documents are reviewed by the Executive Director or CFO and the list of bills is approved by signature of the Executive Director or CFO, the invoices, related documents and the list are ready to be processed for payment by the Accountant.

Approved invoices are paid by paper check, Automated Clearing House (ACH) through online bill pay, or wire transfer.

- Once an invoice approval list is completed and signed by the Executive Director or the <u>Chief Financial OfficerCFO</u>, a paper check is written by the bookkeeper or by an individual who has signature authority. The check is then signed by the <u>Chief Financial</u> <u>OfficerCFO</u> or the Executive Director. A Board member who has signature authority and whose signature is on file with the bank holding the account may sign the check if the Executive Director or <u>Chief Financial OfficerCFO</u> had previously signed the invoice approval list containing reference to that check.
- ACH or Online Bill Pay For payment to be made through ACH or online bill pay the invoice approval procedure is followed. The ACH transfer is activated and an online bank draft or other online bill pay procedure is then approved online by the Chief Financial OfficerCFO or the Executive Director, authorized Board member or authorized personnel.
- 3. Vendor A vendor may authorize the SDSTA to deposit payments directly into the vendor's preferred depository.
- 4. Reimbursement of Incidental Expenses Reimbursement for incidental expenses in excess of \$50 related to SDSTA business, such as film, recording tape, after-hours shipping and mailing, etc., shall be by submitting the reimbursement form prescribed by the SDSTA together with the required documentation of expenses incurred. Reimbursement is limited to \$500 per occurrence. <u>SDSTA will not provide</u> reimbursement for the purchase of alcoholic beverages with federal fundsUnder no circumstances will the SDSTA reimburse for alcoholic beverages.
- 5. Credit Card Payments The monthly invoices for the two SDSTA credit cards are viewed by the CFO. The person within the Finance Department designated as the Accountant will assign each charge to a budget category and include the total amount due on the list of items to be paid as outlined in Section J. Supporting documentation must accompany the credit card statement.
- 6. Paper and electronic files are kept as official SDSTA records <u>the</u> following Records Retention Policy. The invoices and the signed list of bills are filed together.

#### K. Annual audit of financial records

An independent audit of all financial records shall be conducted annually.

The results of the annual audit report shall be provided to the SDSTA Board of Directors.

#### L. Reporting compliance or ethical issues

SDSTA employees have a responsibility to report suspected fraudulent or other dishonest acts to their supervisor, Human Resources Administrator, Executive Director or the SDSTA Board of Directors.

Employees can ask questions or raise concerns about suspected or actual compliance or business ethics issues with their supervisor, manager, Human Resources Administrator, the Executive Director or by calling the SDSTA Ethics Hotline (605-722-8650 extension 314)third-party external ethics hotline.

Employees raising questions and/or concerns in good faith are protected against retaliation.

#### M. Related documents

- Accounting and Audit Policy
- Lighthouse Services, Inc. external third-party hotline and website: 1-844-280-0005, www.lighthouse-services.com/sanfordlab
- Management and Control of Certain Funds Policy
- Open Door Policy and Policy-Procedure
- Records Retention Policy

#### **Revision History**

Rev	Date	Section	Paragraph	Summary of Change	Authorized by
01	3/8/2022	NA	NA	Initial issue	CCR 543

# Code of Business Ethics and Conduct Policy-Procedure (approved by Exec Director Headley 2/2/22)

#### Summary

The South Dakota Science and Technology Authority (SDSTA) is committed to fair, ethical and professional behavior in all of its dealings. The Code of Business Ethics and Conduct Program is established for all SDSTA employees and incorporates existing SDSTA policies and procedures. Principally, this program is composed of the Code of Business Ethics and Conduct described in this Procedure, an ongoing employee awareness program and an internal control system which enables employees to report suspected violations of this Procedure and ensures corrective measures are promptly instituted and carried out.

## A. The SDSTA Code of Business Ethics and Conduct incorporates and is composed of the following:

- 1. The Business Ethics and Employee Conduct and sections of this Procedure;
- 2. The SDSTA Policies and Procedures Manual;
- 3. The SDSTA Procurement Policies and Procedures Handbook—Business Services Department;
- 4. The SDSTA Accounting Manual; and
- 5. The SDSTA Environment, Safety and Health Manual.

#### **B.** Applicability

Except as otherwise provided in this Procedure, all SDSTA employees, officers, directors, managers, volunteers, contractors and agents are required to comply with these standards, together with applicable local, state and federal laws and any applicable grant and contractual requirements. As a person covered by this Procedure, any actions that <u>are takenyou take</u> during your day-to-day activities and in relationships with customers, suppliers, contractors and others is expected to be fully justifiable, to promote fair and open competition for contracted work, and not to be a cause for concern or bring unfavorable publicity or embarrassment to SDSTA if disclosed. These standards apply to your conduct both on and off the job. You Individuals are expected to avoid and report unethical actions, improper conduct and conflicts of interest.

#### C. Business ethics

Members of the SDSTA community are expected to conduct themselves ethically, honestly and with integrity in all dealings, governing our conduct with others both inside and outside the SDSTA community with the principles of fairness, good faith and respect consistent with laws, regulations and SDSTA policies.

SDSTA employees shall:

- 1. Reject any plan, transaction or arrangement involving unlawful conduct;
- Avoid any arrangement, agreement, investment, employment, relationship, act or interest that is, or appears to be, contrary to the best interests of SDSTA or its customers, or that in any way might impair the objective performance of duties or the exercise of independent judgment or action with respect to the interests of the SDSTA or its customers;
- 3. Protect and maintain the security of confidential, proprietary and privileged information related to the SDSTA or associated with its activities. Such information includes that furnished by customers, suppliers, contractors or others under conditions of confidentiality; and
- 4. Provide professional and impartial opinions and judgments and act in accordance with the best interests of the SDSTA and its customers.

Except as otherwise provided by law, persons subject to this Procedure may accept and accumulate for personal use airline, hotel or other loyalty program rewards that the person may earn in connection with SDSTA-related travel, provided that the cost incurred is consistent with SDSTA's mission, best interests and the Travel Approval and Reimbursement—Employees Procedure. Employees may not charge costs and expenses otherwise payable directly by SDSTA or by use of the SDSTA credit card directly to their personal credit card for the purpose of accumulating loyalty program rewards.

#### D. Employee conduct

Because there may not always be existing regulations or standards to guide every situation, <u>youemployees</u> are expected to exercise sound judgment and display professional behavior in the day-to-day performance of company business. SDSTA employees shall:

- 1. Treat others with respect and dignity—your co-workers, clients, vendors and all others with whom employeesyou interact on behalf of the SDSTA;
- 2. Maintain a safe workplace to protect and preserve the well-being of SDSTA staff, the public and the environment;
- 3. Become familiar with and comply with the laws, regulations, and contractual obligations, policies, procedures and professional standards governing the SDSTA's business;
- 4. Be honest in your communications, activities and relationships. All business information and records must be accurate and complete. Failure to provide complete information is just as unacceptable as providing false information;
- 5. Except as otherwise required by law, maintain the confidentiality of the sensitive information of the SDSTA and those with whom SDSTA conducts business;

- 6. Respect the intellectual property rights of others and report promptly all inventions and intellectual property developments to appropriate SDSTA personnel; and
- 7. Cooperate with government agency officials whenever an audit, investigation or corrective action is being pursued.
- 8. If an employee is arrested or charged with any felony, or a misdemeanor involving a sex offense, driving under the influence, assault, theft, or the use, possession or distribution of illegal drugs, the employee shall report the arrest or charge to the employee's immediate supervisor within three (3) business days. Failure to report as required herein may result in disciplinary action, up to and including termination. SDSTA will not take any adverse action based on the mere fact of an arrest or charge. Any action taken will be determined based on the nature and gravity of the underlying facts, conduct and circumstances of the arrest or charge, the nature of the employee's job duties and in consideration of SDSTA's business interests.

#### E. Conflicts of interest

In addition to the requirements of the *Financial Conflict of Interest Policy*, Article IV (C), employees shall:

- 1. Avoid actual conflicts of interest, or the appearance of a conflict, including those that may arise between your SDSTA responsibilities and your personal activities and relationships. If a conflict arises, disclose it to your supervisor or Human Resources Administrator immediately.
- 2. Never request or accept any gratuity, gift or special favor from individuals or organizations with whom SDSTA is doing business or proposing to do business. Items of nominal value (under \$20 or \$50 a year per source) such as logo or promotional advertising novelties routinely used by vendors to market their businesses to the public, or refreshments or meals in connection with attendance at professional meetings or events sponsored by businesses or associations, are not considered gifts and may be accepted. However, employees should exercise discretion in accepting invitations or wearing logo items where they could create the appearance of a conflict of interest;
- 3. Refuse services, loans of equipment or work performed outside SDSTA's contractual obligation which may be offered;
- Avoid giving, offering or promising anything of value to any actual or potential subcontractor or subcontractor employee, directly or indirectly, which could possibly incur an obligation. The solicitation, acceptance, or attempt to accept a "kickback" or bribe are specifically prohibited;
- 5. Not make unauthorized business commitments;
- 6. Comply with established delegations of authority; and

7. Disclose in writing any situation, transaction or relationship that might give rise to an actual or potential conflict of interest to your supervisor, or as described in Section G.

#### F. Employee awareness program

The SDSTA Code of Business Ethics and Conduct Program will foster ongoing awareness to assist employees in the implementation and performance of the Program.

All employees shall:

- 1. Be notified of their duty to comply with the Code of Ethics and Conduct Program at the time of hire and thereafter receive annual reminders of their duty so to do;
- 2. Attend mandatory annual training sessions;
- 3. Have access to an ethics hotline to ask questions or raise concerns about suspected or actual compliance or business ethics issues; and
- 4. Be assured those raising questions and/or concerns in good faith are protected against retaliation.

#### G. Internal control system

To ensure program effectiveness, the SDSTA has established an internal control system that facilitates timely discovery of improper conduct in connection with Government contracts and ensures corrective measures are promptly instituted and carried out. The SDSTA's internal control system:

- 1. Shall provide periodic reviews of SDSTA business practices, procedures, policies, and internal controls for compliance with this Code of Business Ethics and Conduct and the special requirements of Government contracting;
- Has established an <u>third-party external ethics hotline (1-844-280-0005)</u> SDSTA Ethics Hotline (605-722-8650 extension 314) available 24/7 to ask questions or raise concerns about compliance or business ethics;
- Has provided instructions that encourage employees to report suspected instances of improper conduct by speaking to their supervisor, manager, Human Resources Administrator, or the Laboratory Director or contacting the SDSTA Ethics Hotline (605-722-8650 extension 314)third-party external ethics hotline and ensure that reporting employees are protected from retaliation;
- 4. Will conduct internal and external audits, as appropriate;
- 5. Will take disciplinary action for improper conduct, up to and including termination; and

6. Will promptly report violations to the Executive Director, who will determine whether a formal report to the SDSTA Board of Directors and/or a federal agency sponsor is warranted.

When unsure whether an action complies with the SDSTA Code of Business Ethics and Conduct and thus should be reported, ask yourself:

- Is the action legal?
- Is the action ethical?
- Does the action comply with or contradict SDSTA policy?
- Does this action appear inappropriate?
- If it became known, would this action result in embarrassment within or outside the SDSTA or our funding agencies or mission partners?

#### H. Contractors

The rules of ethics and code of conduct applicable to contractors, consultants and other vendors doing business with SDSTA will be specified and enforced through the contract, purchase order or other agreement with the contractor, consultant or vendor.

#### I. External control system

For serious matters that cannot be resolved through the internal control system or advanced through the normal chain of command, employees may file a report externally through any of these methods:

- 1. Toll-Free Telephone:
  - English speaking USA and Canada: 844-280-0005
  - Spanish speaking USA and Canada: 800-216-1288
  - Spanish speaking Mexico: 01-800-681-5340
  - French speaking Canada: 855-725-0002
- 2. Website: <u>www.lighthouse-services.com/sanfordlab</u>
- 3. E-mail: reports@lighthouse-services.com (must include company name with report)
- 4. Fax: (215) 689-3885 (must include company name with report)

SDSTA's legal and ethical obligations go far beyond what is included in this Code of Business Conduct and Ethics. The SDSTA employees must comply with both the letter and the spirit of the many laws and regulations that affect the way the SDSTA does business. The responsibility for meeting our SDSTA legal and ethical obligations, however, cannot be fully defined or guaranteed by any set of written rules. There will be times when the best course of action can only be recognized by ensuring <u>employeeour</u> actions are consistent with SDSTA's values and ethics. In the end, confidence must rest on the honesty, integrity and good sense within each of us.

Nothing in this policy is intended to contradict or supersede applicable federal, state or local law, including, without limitation, SDCL Ch. 3-23 as it applies to members of the SDSTA Board of Directors.

If <u>you have there are</u> questions about any matter of compliance or ethics, whether covered by this Code or not, consult with <u>your the</u> supervisor, manager, Human Resources Administrator, or the Laboratory Director, or call the SDSTA <u>third-party external e</u> thics <u>Hh</u>otline <u>at 605-722-8650 extension 314</u> to request assistance.

- J. Related documents
  - Code of Business Ethics and Conduct Policy
  - External third-party hotline and website: 1-844-280-0005, www.lighthouseservices.com/sanfordlab
  - Travel Approval and Reimbursement—Employees Procedure

#### **Revision History**

Rev	Date	Section	Paragraph	Summary of Change	Authorized by
01	3/8/2022	NA	NA	Initial issue	CCR 543

#### Open Door Policy-Procedure (approved by Executive Director Headley 2/2/22)

#### Summary

The South Dakota Science and Technology Authority's (SDSTA's ) Open Door Procedure complements the SDSTA Policy and includes definitions, responsibilities and guidelines. It provides a list of documents that may be useful for reference.

#### A. Purpose

Open Door purpose – to provide a work environment where open and honest communication between managers and employees is a day to day business practice. Employee input is welcomed, advice is freely given, and issues are surfaced early and are candidly shared without fear of retaliation when input is offered in good faith. An Open Door approach to management is one where a manager is open to discussion with employees about their questions, complaints, suggestions and challenges. Through these discussions, employees may seek counsel, provide or solicit feedback or raise concerns.

#### **B.** Responsibilities

Employees – All employees have the responsibility to address any area of their work causing issues or concerns with a manager.

Management – All members of management have a responsibility to see that open door matters are considered carefully and seriously and that an answer is promptly given. Management also has the responsibility to ensure that no employee is penalized for exercising their privilege to utilize the Open Door Policy.

By listening to employee's problems, complaints, suggestions and observations, the SDSTA is able to address complaints, to improve, and to foster employee understanding of the rationale for practices, processes and decisions.

#### C. Guidelines

Most problems can and should be solved in discussion with the employee's immediate supervisor; this is encouraged as the first effort to solve a problem. The employee is urged to:

- Try to resolve minor disputes with co-workers before reaching out to the manager. Trust and communication should work horizontally as well as vertically in the organization.
- Communicate with the manager whenever possible instead of discussing issues or concerns with the next level of management and/or the Human Resources Office first.
  - The employee can bypass the manager in some cases. For example: if the manager is out of office, involved in a harassment claim or consistently and has willfully violated the organization's Open Door Policy (which the employee can report to the Human Resources Office).
- Request an appointment with the manager in advance, whenever possible, to discuss a workplace issue or delicate matter to avoid interruptions.

When an employee's concerns are not being addressed by their direct management chain of command, the employee has the right to raise their issue of concern directly to the Executive Director. If the Executive Director does not adequately address the issue of concern, the employee can raise their concern to any member of the SDSTA Board of Directors. A third-party external ethics hotline is also available.

#### <u>Summary</u>

The South Dakota Science and Technology Authority's (SDSTA's ) Open Door Procedure complements the SDSTA Policy and includes definitions, responsibilities and guidelines. It provides a list of documents that may be useful for reference.

#### A. Definitions

<u>Open Door – the practice where a manager is open to discussion with employees about their questions, complaints, suggestions and challenges. Through these discussions, employees may seek counsel, provide or solicit feedback or raise concerns.</u>

Lighthhouse Services, Inc. – an independent third-party provider that monitors an external hotline to identify improper activity.

#### **B. Responsibilities**

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Management – All members of management have a responsibility to see that open door matters are considered carefully and seriously and that an answer is promptly given. Management also has the responsibility to ensure that no employee is penalized for exercising their privilege to utilize the Open Door Policy.

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When an employee's concerns are not being addressed by their direct management chain of command, the employee has the right to raise their issue of concern directly to the Executive Director. If the Executive Director does not adequately address the issue of concern, the employee can raise their concern to any member of the SDSTA Board of Directors.

For serious matters that cannot be resolved through the internal control system, an external ethics hotline is also available through Lighthouse Services. The independent provider is committed to protecting the identity of all persons who use the secure reporting system. Although Lighthouse will not disclose a person's identity without their express permission, it is possible that the person's identity may be discovered during an investigation of the matter reported because of information the person had provided.

#### D. Related documents

- Code of Business Ethics and Conduct Policy and Procedure
- External third-party hotline and website: 1-844-280-0005, www.lighthouseservices.com/sanfordlab
- Open Door Policy

#### **Revision History**

Rev	Date	Section	Paragraph	Summary of Change	Authorized by
01	3/8/2022	NA	NA	Initial issue	CCR 543

## **SDSTA** Social Media Policy-Procedure (approved by Executive Director Headley 2/2/22)

#### <u>Summary</u>

This South Dakota Science and Technology Authority (SDSTA) Social Media <u>Policy-</u>Procedure complements the SDSTA Social Media Policy, and includes expectations, responsibilities and instructions for best practices with regard to both SDSTA-managed social media and personal social media accounts. It provides a list of documents that may be useful for reference.

### A. Definitions

**Hate speech**: Speech that dehumanizes, ridicules, or condones or promotes violence against a protected class of people.

**Social Mmedia**: Social media refers to blogs, wikis, microblogs, message boards, chat rooms, electronic newsletters, online forums, social networking sites, and other sites and services that permit users to share information with others in a contemporaneous manner.

### **B.** SDSTA-<u>m</u>Managed <u>s</u>Social <u>m</u>Media <u>a</u>Accounts

Official SDSTA accounts are created and managed under the guidance of the Communications Department. Employees may not create unofficial SURF-related accounts, fan pages or groups. Nor should employees create content that appears to be sanctioned by Sanford Underground Research Facility (SURF) for use on personal social media sites.

Official SDSTA accounts shall comply with the best practices set out in this Procedure.

#### <u>C.</u> Personal <u>s</u>ocial <u>m</u>Media <u>a</u>Accounts

#### General Recommendations

SDSTA employees are ambassadors of SDSTA and SURF and are encouraged to share the good news about SURF. Although social media can sometimes blur the line between professional and personal lives, responsibility does not end when employees are off the clock. Before posting content, consider the core values of SURF, including respect for others.

How employees say something matters just as much as what they say. Employees should not bully, harass or threaten violence against anyone on or outside of social media. If an SDSTA employees finds themself in a disagreement on social media, they should use a respectful tone or disengage. Seek assistance from the Communications Department when issues arise that involve SURF, whether on official or personal pages.

It is recommended that employees add a disclaimer to personal accounts. Employees who identify themselves as part of SDSTA or SURF on their personal accounts, or discuss SURF-related activities on personal accounts, should make it clear they are speaking for themselves and not on behalf of SURF or the SDSTA.

Example: Opinions are mine, not my employer's.

Protection of your the employee's personal privacy and the privacy of others

Social media networks request personal information. Supplying a date of birth, marital status or contact information could lead to identity theft or provide a means for targeted social engineering attacks that attempt to solicit information or access directly. Employees should be careful about what they share and learn how to set privacy protocols.

Apply these same principles when posting about others. Be respectful and do not share anything about a person that could damage that individual's reputation. Such posts could result in lawsuits.

Do not endorse or appear to endorse any products or services on behalf of SDSTA or <u>SURFSanford Lab</u>.

#### Protect SURF information

Share only information that is public. Do not post or discuss anything that is confidential, proprietary, internal to <u>SURF\_SDSTA</u> or to S<u>URF\_DSTA</u> partners or that could lead to a security breach.

Never comment on anything related to legal matters or litigation in which SDSTA or SURF may be involved or concerning parties with whom SDSTA or SURF will be in litigation.

Employees should leave crisis communications to the Communications Department and official SURF spokespersons.

#### Use of social media during work hours

While employees may choose to participate in social networks to help communicate SURF's work to the public, staff should minimize time spent on social networks for personal use during work hours. Online activities should never interfere with official job responsibilities.

Before posting to social media sites, employees should refer to the SDSTA "Use of SDSTA-Owned IT Systems and Protection of Personal Privacy Procedure."

#### Be responsible

Think before posting. Everything an individual posts online can be traced back to that individual. Be sure posts are appropriate. Posts that have been shared with others, documented through screenshots or archived do not go away—even if they are deleted at a later date. Disclaimers that say content reflects an individual's opinions only may not stop someone else from complaining about that online activity or noting the individual works for SURF.

Review content before posting. Is everyone in an image following safety protocols? Is context provided? If uncertain about a post, contact the Communications Department for clarification. And remember, mistakes happen. Admit mistakes and make the correction as quickly as possible.

#### **D.** Use of private social media accounts that could result in disciplinary action

In some instances, the use of a private social media account by an employee may result in disciplinary action. Generally speaking, addressing matters of public concern in a respectful

way is permitted and will not result in disciplinary action. On the other hand, even when addressing matters of public concern, an employee's manner of communicating the employee's views or concerns may subject the employee to disciplinary action if it results in an actual adverse effect on SDSTA's operations. For example, employee commentary which may be considered discriminatory in nature and which has caused or may cause work relationships to deteriorate or which make it difficult for the employee to perform the employee's duties may be subject to disciplinary proceedings by SDSTA.

The failure to protect SURF confidential information or the overuse of social media during working hours may also result in disciplinary action. Matters subject to whistleblower protections should be addressed through SDSTA's whistleblower policy and procedure.

### E. Resources

Employees are encouraged to discuss any concerns about the <u>SDSTA</u>Social Media Policy and this Procedure with their immediate manager or the Communications Department.

If matters of compliance or ethics are involved, employees may choose to call the SDSTA third-party external Eethics Hhotline. for assistance, (605) 722-8650, extention 314. This hotline is confidential, except when nondisclosure is prohibited by law or upon employee request.

While there may not be an answer or resolution for every question or issue that arises, the Social Media Policy and Social Media Procedure are intended to provide SDSTA employees guidance on how to respond on all Social Media Platforms.

### F. Related <u>d</u>Pocuments

- Anti-Harassment Policy
- Inclusion, Diversity, Equity and InclusionAccessibility Policy
- Lighthouse, external third party hotline and website: 1-844-280-0005, www.lighthouseservices.com/sanfordlab
- Open Door Policy & <u>and Policy</u>-Procedure
- Progressive Discipline Policy
- SDSTA Social Media Policy
- Use of SDSTA-Owned IT Systems and Protection of Personal Privacy Policy <u>and</u> <u>Policy-</u>& Procedure
- Whistleblower Policy <u>and Policy</u>-& Procedure
- Workplace Violence Policy <u>and Policy-</u>& Procedure

# **Revision History**

Rev	Date	Section	Paragraph	Summary of Change	Authorized by
01	3/8/2022	NA	NA	Initial issue	CCR 543

2000 - HORAN

## South Dakota Science and Technology Authority March Board Meeting

## Select Nominating Committee—Chairperson Casey Peterson

Chairperson to appoint members of nominating committee for election of officers at the June annual meeting.

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### Confirm date and time of next meeting—Chairperson Casey Peterson

The next board meeting will be held on Thursday, March 24, beginning at 8:00 AM (Mountain Time).

2022 Regular (	2022 Regular Quarterly Board Schedule			
Thu, March 24	08:00 am (MT)			
Thu, June 16	08:00 am (MT)			
Thu, September 22	08:00 am (MT)			
Thu, December 15	09:00 am (MT)			

South Dakota Science and Technology Authority / Sanford Underground Research Facility Education & Outreach Building (large conference room and zoom) 630 E. Summit Street Lead, SD 57754 Questions? Contact Mandy Knight, <u>mknight@sanfordlab.org</u> Direct Line: 605.722.4022, Cell: 605.641.0475 2000 - HORADA

# Public Comments—Chairperson Casey Peterson

15A. Ask guests who did not identify themselves at the beginning of the meeting to do so at this time.

15B. Discuss any public comment request forms submitted.



### **Board Comments—Chairperson Casey Peterson**

- 1. Dr. Ani Aprahamian
- 2. Mr. Dana Dykhouse, Vice-Chairperson
- 3. Dr. Chris Fall
- 4. Ms. Pat Lebrun, Secretary-Treasurer
- 5. Mr. Roger Musick
- 6. Mr. Ron Wheeler
- 7. Dr. Jim Rankin, Ex-officio member
- 8. Mr. Casey Peterson, Chairperson



## Adjourn—Chairperson Casey Peterson

See recommended motion below.

Page intentionally