

South Dakota Science and Technology Authority

**Board Meeting
September 22, 2016**



630 East Summit Street
Lead, SD 57754

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Call to Order – Chairperson Casey Peterson

1A. Call Roll

Dr. Ani Aprahamian
Mr. Paul Christen (re-appointed Aug 5, 2016)
Mr. Dana Dykhouse
Ms. Pat Lebrun (re-appointed Aug 5, 2016)
Mr. Casey Peterson
Mr. Ron Wheeler
Dr. Robert Wilson
Dr. Heather Wilson

1B. Introduce Guests

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Approve Agenda—Chairperson Casey Peterson

Attached is the SDSTA Board agenda for the September 22, 2016 meeting.

Recommended Action:

Motion to approve agenda as presented.

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AGENDA

South Dakota Science and Technology Authority
630 East Summit Street, Lead, South Dakota
Meeting of the Board of Directors
Thursday, September 22, 2016 at 8:00 AM (MT)

****Yates Education & Outreach Conference Room****

Public (Open) Session: 1-866-740-1260, Access Code: 7228650, www.readytalk.com

SDSTA Mission: *To advance compelling underground, multidisciplinary research in a safe work environment and to inspire and educate through science, technology and engineering.*

Title	Report	Recommendations
1. Call to Order A. Call Roll B. Introduce Guests	-- Chair Casey Peterson	<i>Informational</i>
2. Approve Agenda	-- Chair Casey Peterson	<i>Motion to approve agenda</i>
3. Approve Minutes	-- Chair Casey Peterson	<i>Motion to approve June 16 and June 29 Minutes</i>
4. Conflicts of Interest Disclosure and Waiver	-- Mr. Tim Engel	<i>Grant waiver or decline to grant waiver</i>
5. State Board of Internal Controls Update	-- Mr. Tim Engel	<i>Informational</i>
6. Audit Committee Update	-- Ms. Pat Lebrun	<i>Motion to request proposal for external audit for FY 2016</i>
7. Financial Report A. Financial Statements B. FY End Inventory Listing C. FY End Per Diem Listing	-- Mr. Mike Headley -- Ms. Nancy Geary	<i>All informational</i>
8. Report from Executive Director A. SDSTA Quarterly Update B. Declaration of Surplus Property C. WWTP Improvements D. Davis-Bahcall Update E. E&O Bldg Conceptual Design	-- Mr. Mike Headley -- Mr. Ken Noren -- Dr. Brianna Mount -- Ms. Pam Hamilton/ Mr. Steve Dangermond	<i>Motion to accept report as presented</i> <i>All informational</i> <i>Presentation</i> <i>Presentation</i> <i>Presentation</i>
9. Executive Session <i>(closed meeting)</i>	-- Chair Casey Peterson	<i>Motion to accept executive director's report</i> <i>Motion to enter executive session to discuss personnel matters and to consult with legal counsel concerning contractual matters</i>
10. Report from Executive Session	-- Chair Casey Peterson	<i>Motion to accept executive session report</i>
11. Ellison Hill Option	-- Mr. Tim Engel	<i>No recommendation</i>
12. SDSTA Policies and Procedures	-- Mr. Mike Headley	<i>Motion to approve updated Policies and Procedures as presented</i>
13. Confirm date and time of next meeting	-- Chair Casey Peterson	<i>Thursday, December 15, 2016 at 9:00am (MT)</i>
14. Board Comments		
15. Adjourn	-- Chair Casey Peterson	<i>Motion to adjourn</i>

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 24 hours prior to this meeting. Telephone: (605) 722-8650.

AGENDA

SDSTA Board Member Terms of Service, Committees and Schedule

Board Members and Terms of Service			
	Board Members	Appointed	Term Expires
1.	Dr. Ani Aprahamian	Re-appointed December 10, 2015	December 9, 2018
2.	Mr. Paul Christen	Re-appointed August 5, 2016	August 8, 2022
3.	Mr. Dana Dykhouse, Vice-Chair	Re-appointed August 1, 2014	August 14, 2020
4.	Ms. Patricia Lebrun, Secretary-Treasurer	Re-appointed August 16, 2010	August 8, 2022
5.	Mr. Casey Peterson, Chair	Re-appointed August 25, 2015	August 8, 2021
6.	Mr. Ron Wheeler, Vice-Chair	Re-appointed April 10, 2014	April 9, 2020
7.	Dr. Robert Wilson	August 24, 2015	August 8, 2021
8.	Dr. Heather Wilson, ex-officio member	SDSM&T President appointed July 1, 2014	
Committees and Members (2016)			
	Audit Committee Members:	Nominating Committee Members:	
	➤ Pat Lebrun-Chair	➤ Ani Aprahamian	
	➤ Paul Christen	➤ Dana Dykhouse	
2016 Board Schedule			
	March 17, 2016	9:00 am (MT)	Admin Bldg
	June 16, 2016	8:00 am (MT)	E&O Bldg
	September 22, 2016	8:00 am (MT)	E&O Bldg
	December 15, 2016	9:00 am (MT)	

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Approve Minutes—Chairperson Casey Peterson

Attached are the SDSTA Board Minutes for the following meetings:

- June 16, 2016 (annual)
- June 29, 2016 (telephonic)

Recommended Action:

Motion to approve the Minutes of the June 16 and June 29, 2016 meetings as presented.

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South Dakota Science and Technology Authority Board of Directors
Meeting Minutes
Thursday, June 16, 2016
Lead, South Dakota

The Board of Directors of the South Dakota Science and Technology Authority (SDSTA) convened at 8:09AM Mountain Time (MT) on Thursday, June 16, 2016 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.

MEMBERS OF THE BOARD IN ATTENDANCE IN PERSON

Mr. Paul Christen
Vice Chairperson Dana Dykhouse
Secretary/Treasurer Patricia Lebrun
Chairperson Casey Peterson
Vice Chairperson Ron Wheeler
Dr. Heather Wilson

MEMBERS OF THE BOARD IN ATTENDANCE BY TELEPHONE

Dr. Ani Aprahamian (by phone)
Dr. Robert Wilson (by phone)

SDSTA STAFF

Ms. Michele Baumann, Contracts Specialist
Ms. Billi Bierle, Sanford Lab Homestake Visitor Center Executive Director
Mr. Tim Engel, Legal Counsel
Ms. Nancy Geary, Chief Financial Officer
Mr. Mike Headley, Executive Director
Ms. Sharon Hemmingson, Business Services & Contracts Manager
Ms. Mandy Knight, Administrative Services Manager
Mr. KC Russell, Cultural Diversity Coordinator

ALSO PRESENT DURING ALL OR PART OF THE MEETING

Dr. June Apaza, Education and Outreach Director (BHSU)
Ms. Muffy Christen, Board member's spouse

ITEM 1. CALL TO ORDER

ITEM 1A. Roll Call

Chairperson Peterson called the meeting to order at 8:09 AM (MT). Roll call was held. All members were present in person except Dr. Aprahamian and Dr. Robert Wilson, who joined by telephone.

ITEM 2. APPROVE AGENDA

Chairperson Peterson asked for a motion to approve the agenda.

Motion by Mr. Wheeler and second by Mr. Christen to approve the agenda as presented. Motion passed unanimously.

ITEM 3. CONFLICT OF INTEREST DISCLOSURE

SDSTA Legal Counsel Mr. Tim Engel reported that the 2016 Legislature constituted a new state board called the Board of Internal Control. It has rule-making authority and its intention is to adopt a standard of conduct for all state employees under its jurisdiction, which includes this board. The Board of Internal

Control had their inaugural meeting on May 2. SDSTA Executive Director Mr. Mike Headley, SDSTA Chief Financial Officer Ms. Nancy Geary and Mr. Engel attended. It was mentioned during that meeting that it would be good practice for all state boards and commissions to have a conflict of interest disclosure at the beginning of their agenda at every meeting. Mr. Engel suggested if nothing is stated at the beginning of each SDSTA board meeting, then we will assume there is nothing to disclose. The state board has not yet adopted their conflict of interest policy or standards of conduct, but he believes they will have those documents in place within the next few months.

He also reported that House Bill 1214, which, generally speaking, makes the conflict of interest rules that apply to state employees (and discussed at the March 17 board meeting) also apply to SDSTA board members, will become effective July 1, 2016.

Mr. Wheeler reminded the board that he does have a conflict of interest with his SDSTA contract as the External Affairs Director which was discussed at a previous board meeting and approved. He said he does follow the SDSTA conflict of interest policy and no action is needed until his contract comes up for renewal in the next three years. Dr. Heather Wilson asked how to handle South Dakota School of Mines and Technology (SDSM&T) research projects that are housed in the Sanford Underground Research Facility? Mr. Engel replied that the statute is not in place yet and Dr. Heather is a non-voting board member. Mr. Engel suggested that if any board member is in doubt, they should disclose. Mr. Engel said it would be appropriate to revise the SDSTA conflict of interest policy after the state has finalized their internal controls.

ITEM 1B. INTRODUCE GUESTS

Chairperson Peterson said he neglected to ask audience members to introduce themselves at the beginning of the meeting and asked them to do so at this point.

ITEM 4. APPROVE MINUTES

Chairperson Peterson asked for comments, changes or corrections to the Minutes of the March 17, 2016 and April 19, 2016 meetings. Chairperson Peterson noted Mr. Headley's name was misspelled on page 4 of the March 17 meeting.

Motion by Mr. Wheeler and second by Ms. Lebrun to approve the Minutes of the March 17, 2016 and April 19, 2016 meetings as corrected. Motion passed unanimously.

ITEM 5. AUDIT COMMITTEE REPORT

ITEM 5A. Appoint Members to Audit Committee

Chairperson Peterson said he spoke to Ms. Lebrun and Mr. Christen and they agreed to accept appointment to serve on the Audit Committee for another year with Ms. Lebrun continuing as the Chair. Chairperson Peterson voiced his appreciation of their past, present and continued service.

ITEM 5B. Accept Audit Report Fiscal Year Ended June 30, 2016

Ms. Lebrun said the board had discussed the Audit Report Fiscal Year Ended June 30, 2015 at the March 17 meeting and said it is a clean report. She submitted the report for acceptance.

Motion by Mr. Wheeler and second by Mr. Dykhouse to accept the audit report fiscal year ended June 30, 2015 as presented. Motion passed unanimously.

ITEM 6. FINANCIAL REPORT

ITEM 6A. Financial Statements

Mr. Headley introduced Ms. Geary. She reported monthly budgets are on track and noted that at the end of June the Jonas science building renovation and Sanford Lab Homestake Visitor Center construction

will be finalized and denoted as contributions. With these two projects listed as contributions, total assets will be lowered by approximately \$8 million. Ms. Geary also said the SDSTA will be transferring the operations contract from Lawrence Berkeley National Laboratory (LBNL) to Fermilab. Completion of this contract will be October 1, 2016. Also, the Ross Shaft rehabilitation contract with LBNL is effective through the end of December and that will also be transferred to Fermilab.

ITEM 6B. Fiscal Year 2017 Budget

Mr. Christen asked Ms. Geary to clarify what is included in the Board of Director's line item in the FY 2017 budget; she replied that it includes board stipends and travel, but the largest portion is due to the Lewis Burke Associates advocacy contract. She said the Visitor Center budget is down as a portion will be transitioning to the Homestake Visitor Center, Inc., on January 1, 2017. As the Visitor Center increases profit, the goal is to transition all of it to the Homestake Visitor Center, Inc. In regard to the federal funding, \$34 million has been estimated for total contracts and with the FY 2017 CAPEX budget, new funds being requested are \$4.9 million. Carryover funds are estimated at \$2 million for a total budget of approximately \$7 million. Chairperson Peterson asked where are the future funds and grants reflected for xenon purchase in the budget and Ms. Geary replied it is in the LZ portion.

Motion by Mr. Dykhouse and second by Mr. Christen to approve the FY 2017 budget. Motion passed unanimously.

ITEM 6C. Internal Controls Update

Mr. Headley reiterated Mr. Engel's comments about the state's internal controls first meeting and said they had discussed state wide code of ethics and code of conduct documents. Mr. Headley said the Internal Control Board plans to have a meeting each month. Ms. Geary has been designated as the SDSTA internal control officer and plans to attend these meetings along with Mr. Engel. Mr. Engel added that this is a priority of the Governor and the Governor urged every state agency to send a representative to future meetings.

ITEM 6D. May, Adam, Gerdes & Thompson Hourly Rate Increase

Mr. Headley said he had received a letter from Mr. Engel requesting a rate increase since overhead at the law firm has increased over the years and that the last increase was in 2009. Mr. Wheeler said the last pay increase was seven years ago and he feels that Mr. Engel has done an excellent job for the SDSTA. Dr. Robert Wilson asked about the bidding process and Mr. Engel clarified that state bid laws do not apply to SDSTA, and even under state bid laws, they do not apply to professional services contracts.

Motion by Mr. Wheeler and second by Mr. Christen to accept and hourly pay increase as presented. Motion passed by a vote of six yes and Mr. Wheeler voting "no."

ITEM 7. REPORT FROM THE EXECUTIVE DIRECTOR

ITEM 7C. Davis-Bahcall Scholars

Mr. Headley skipped to Item 7C and introduced Dr. Brianna Mount, Black Hills State University Research Assistant, who leads the Davis-Bahcall Scholars program. Dr. Mount thanked the board and asked each student to stand up, introduce themselves and declare their majors:

James Mayclin, Plankinton—Computer Science at Stanford University;
Theodore Savina, Sioux Falls—Physics and Engineering at University of Minnesota;
Hadassah Meyer, Madison—Physics and Astronomy at Brigham Young University;
Gina Selig, Rapid City—Biology at University of Hawaii;
Lucas Stephagen, Groton—Computer Science at University of South Dakota;
Sowmya Ragothaman, Vermillion—Mechanical Engineering at University of Kansas;
Alex Wiley, Arizona—Chemistry and Physics at Black Hills State University;

Trey Waldrop, Miller—Chemistry and Physics at Augustana University.

The board congratulated the scholars and wished them well.

ITEM 7A. SDSTA May Monthly Report and Sanford Lab Update

Mr. Headley began with a slide presentation and discussed safety performance. He said the Environment, Safety and Health Oversight Committee (ESHOC) will visit the lab July 6-8 and conduct a safety review. Mr. Headley then said the LZ activities are moving forward and that LZ had a Department of Energy (DOE) Critical Decision-2 (CD-2) Review in April 26-28, 2016; DOE would be considering the approval later this year. Mr. Headley said the University of South Dakota Foundation has agreed on a \$2 million loan to fund the remaining 500,000 liters of xenon. Also, the design has been finished for the surface warehouse modification and two bids from local contractors were received. They came in significantly higher than expected, but after meeting with each bidder, numerous value engineering items and specifications have been identified to bring the cost down. After a bidder has been selected, a short telephonic board meeting will need to be scheduled to approve this project, which would start late summer.

In regard to agency funding, the House and Senate are supportive of Sanford Lab and experiments but they are still trying to sort through the path forward.

Mr. Headley said there are a total of eight interns working at SDSTA in various departments this summer. He said the E&O Department is developing additional curriculum units and making great progress. Also, there are several maintenance projects underway, including the Yates parking lot repair, the Administration and Foundry Building roofing projects, and work on a tunnel from the Yates yard underground to the Yates Shaft.

In addition, Mr. Headley said the Long-Baseline Neutrino Facility/Deep Underground Neutrino Experiment (LBNF-DUNE) designs and plans are advancing. DOE is considering a CD-3A approval in late summer for far-site construction in 2017. He said the DUNE collaboration's membership continues to grow and is at 850+ members, 149 institutions and 29 countries. SDSM&T hosted a DUNE collaboration meeting in May with over 169 attendees. There were many positive comments about the meeting and the underground tours arranged at Sanford Lab.

Next, Mr. Headley said easements are in place to install a conveyor system. Excavated rock will be placed in the Open Cut using this conveyor system. The SDSTA is working with the South Dakota Department of Environment and Natural Resource (DENR) on a revision to the existing Homestake mining permit for the Open Cut and also awaiting a 60 percent design of the conveyor system next month to discuss with DENR. The provision is expected to be in place by the end of the calendar year.

He said Large Underground Xenon (LUX) completed its 300-day data run and is now in the 'end-game' calibration phase. MAJORANA (MJD) continues to make progress decommissioning and electrowinning has begun to reclaim any copper left behind in the acid baths. He said MJD is a DOE-funded project and an Operations Readiness Review is planned the last week in July to be held at Sanford Lab.

In regard to the Ross Campus laboratories, Mr. Headley said the Compact Accelerator for Performing Astrophysical Research (CASPAR) is completing final electrical hookups, safety reviews and a new radiation safety policy developed that has been reviewed by experts in that field. Dr. Robert Wilson asked about continued funding for CASPAR and its implications at Sanford Lab. Mr. Headley replied that the original proposal submitted by SDSM&T to the National Science Foundation was not approved, but reconsideration of a smaller budget was approved for approximately \$130,000 a year for three years. He said the \$130,000 does include Sanford Lab operations expenses such as electricity.

Mr. Headley said Dr. Mount is also director of the Black Hills State University Underground Campus (BHUC) and she has been working with Berkeley on the Low Background Counters as well as two additional counters that will be installed by end of this summer.

Mr. Headley said the Cultural Advisory Committee (CAC) last met in February and SDSTA Cultural Diversity Coordinator Mr. KC Russell is the lab's main point of contact. During that meeting, the CAC generated a list of items/recommendations upon which they would like to see the SDSTA make progress. An action plan was pulled together and returned to CAC, and the SDSTA is providing a monthly summary to the CAC. One of the recommendations from CAC is to request a board member participate in their meetings. Mr. Headley said Ms. Lebrun has expressed interest; this would provide good communication between the SDSTA board and the CAC. Another recommendation is to include money in the indirect budget for E&O-related activities as the lab moves forward. Mr. Headley said in the FY2017 budget, \$200,000 has been set aside for this program.

Mr. Headley said the lab is making great progress on the Strategic Plan approved by the Board last year; several bullet points were discussed. He said an update will be provided at each meeting. Chairperson Peterson said he was pleased to see the advancement.

Ms. Lebrun followed up on the question she asked about at the last board meeting as to whether or not the Sanford Lab logo had been registered. Mr. Headley and Mr. Engel both replied yes and that the logo was registered last month. Mr. Headley discussed progress made by the Communications and Information Technology Offices as well as other major items including the Ross Shaft rehabilitation project, bolting at the triangle between Ross and Yates Shafts, and the water inflow project.

ITEM 7D. Facilities Master Plan

Mr. Headley briefly discussed the Facilities Master Plan (FMP) and asked the board to refer to the 'nearly-final' hard copy provided to them. He said the lab worked with Steve Dangermond of Dangermond Keene Architecture, who had helped develop the initial Deep Underground Science and Engineering Lab (DUSEL) FMP, to update it. He said the FMP does a great job providing context of the site, the challenges of the site and how to deal with the site going forward. He discussed the Ellison Hill property briefly, plans for the Education and Outreach Building, and the development of more efficient machine shop and warehouse capabilities. Mr. Headley said a request for proposal has been released for a designer to develop a conceptual design and cost estimate for the machine shop. He concluded the FMP discussion stating long term, after the Ross Shaft refurbishment has been completed, SDSTA will need to look at a game plan for the Yates Shaft.

Chairperson Peterson asked if the Ellison Hill property were acquired, could there be space available where indigenous people could hold a ceremony, if that were an opportunity in the future? Mr. Headley said staff will look into it.

ITEM 7B. Declaration of Surplus—Printers

Mr. Headley said the SDSTA had three copiers that were at end of life and thus declared surplus. A&B Business Solutions has provided leased replacement copiers under a Managed Services Agreement with the SDSTA.

ITEM 7E. Updated Risk Transfer Protocols

Mr. Engel provided a brief history of the original Property Donation Agreement detailing types of insurance required by each Contract and Project Sponsor and said it was driven by dollar values and the minimum general liabilities were very high; \$1 million to \$5 million. This was not practical for smaller contractors. The Risk Transfer Protocols (RTP) were created several years ago by the SDSTA with consultation from an outside risk management firm. These protocols give the SDSTA's management

more flexibility to make changes in certain circumstances. Mr. Engel went through the proposed changes with the board.

Dr. Aprahamian left the meeting at 9:30 AM.

He reported that limits were not lowered and requirements were not removed. He concluded that the updated Risk Transfer Protocol has been reviewed by the Office of Risk Management and they are comfortable with it. He said the process is that the RTP has to be provided to Homestake but they neither approve or disapprove. Homestake has confirmed receipt and it is ready to be approved by the board.

Motion by Mr. Wheeler and second by Mr. Dykhouse to approve the Risk Transfer Protocols as revised. Motion passed unanimously.

Motion by Mr. Wheeler and second by Mr. Christen to accept the Executive Director's report. Motion passed unanimously.

The board recessed at 9:55 AM and reconvened at 10:08 AM.

ITEM 8. CONTRACTS

ITEM 8A. USD Foundation Loan Agreement for Additional Xenon Purchase

Mr. Wheeler reported that last week the USD Foundation's executive committee approved a \$2 million proposal that will be on the same terms as the SDSU Foundation. The draft promissory note and loan agreement have been sent to Mr. Steve Brown, the President of the SDSU Foundation, for review and a motion is requested to accept the final loan agreement as well as to procure xenon.

Motion by Mr. Dykhouse and second by Ms. Lebrun to accept the loan agreement from the University of South Dakota Foundation, authorize the Chair in consultation with Legal Counsel to finalize the terms of the documents and for the Chair to sign the loan agreement and promissory note. Motion passed unanimously.

Chairperson Peterson thanked Mr. Wheeler for working on this. Mr. Wheeler thanked Mr. Dykhouse and Mr. Christen for their help as well as Mr. Tony Venhuizen from the Governor's office.

Motion by Mr. Wheeler and second by Ms. Lebrun to authorize the Executive Director to procure up to 500,000 liters of xenon once the loan documents are executed. Motion passed unanimously.

ITEM 8B. Ellison Hill Option

Mr. Engel asked Mr. Headley to explain to the board why the SDSTA would like to purchase Ellison Hill. Mr. Headley said the option to purchase has been discussed throughout the years and near term, the SDSTA would like to use the flat area as lay down space for operations and near term construction, in the longer term as a main access to the lab. Mr. Engel then discussed the Ellison Hill Option document and said the purchase option is \$600,000 and the SDSTA would receive a credit for the option purchase price already paid, which is \$45,000. The deadline to exercise this option is November 1, 2018. He said there is asbestos, lead paint and other items that would require remediation at an estimated cost of \$285,000.00, which cost includes an appropriate contingency. Under the terms of the option, Homestake has agreed to share in some of the remediation cost. SDSTA is also exploring state and federal grant funds for remediation costs. It may also be required that a Contractor hired by the funding source be allowed access to the property to conduct a Phase 1 and a Phase 2 environmental assessment. He said Homestake indicated that they do not want to manage any remediation. The other issue is the timing of the exercise of the option because some remediation may need to be completed before the SDSTA takes ownership of the property. Mr. Engel said the source of funds would be the remainder of the Sanford gift funds and SDSTA is waiting for Mr. Sanford to formally concur on the use of the funds for that purpose.

Mr. Dykhouse said he had talked to Mr. Sanford and he said it should not be a problem, but the document will not be signed and returned until late June.

Motion by Mr. Wheeler and second by Ms. Lebrun to authorize the Chair, in consultation with the Executive Director and Legal Counsel, to exercise the option for the purchase of the Ellison Hill property as such time and upon such terms as the Chair deems appropriate. By roll call vote, the motion passed unanimously.

ITEM 8C. External Contracts

Mr. Headley submitted a summary of external contracts for information only.

ITEM 9. EXECUTIVE SESSION

Motion by Mr. Dykhouse and second by Mr. Christen to enter into executive session to discuss personnel matters and to consult with legal counsel concerning contractual matters. By roll call vote, the motion passed unanimously.

The board recessed at 10:27 AM for Executive Session and reconvened at 10:47 AM.

ITEM 10. REPORT FROM EXECUTIVE SESSION

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

Motion by Ms. Lebrun and second by Mr. Christen to approve the executive session report. Motion passed unanimously.

ITEM 11. POLICIES AND PROCEDURES

ITEM 11A. Annual Review of Policies and Procedures

Mr. Headley discussed that the SDSTA has been reviewing policies and procedures on a quarterly basis and that no further policy changes are being presented at this time.

ITEM 11B. Sign Annual Statements

Administrative Services Manager Ms. Mandy Knight collected annual statements signed by each board member affirming compliance with SDSTA Policy 3:27 Financial Conflict of Interest.

ITEM 11C. Briefing of New Conflict of Interest Law

Mr. Engel discussed House Bill 1214 as it relates to the new conflict of interest law. He said it is effective July 1, 2016 and applies to a number of boards including the SDSTA board. Similar legislation adopted in 2015 only applied to state employees; the legislation adopted in 2016 applies to state boards and commissions. The statute applies only if a board member derives a direct benefit from a contract with the SDSTA or the state, or if the contract involves the SDSTA or another entity with responsibility of subject matter similar to the SDSTA such as research arms of the colleges and universities. He said direct benefit means if you: 1. Own 5 percent or more of the contracting entity then a conflict of interest exists. 2. Derive income from the contract or the entity that is a party to the contract 3. Acquire property under the contract. 4. Serve on the Board of Directors of the entity that benefits from the contract. Mr. Engel said one of the four categories mentioned above is what it takes to create a conflict.

Mr. Engel requested that each board member send him an email with a list of items that could be a conflict and he will review them and help them determine if they need to request a waiver. He explained that if a written disclosure was required, it is filed with the Bureau of Human Resources for state employees, and if it is within the 2016 Legislation, it will be filed with the Auditor General, which is the Legislator's Auditor. In regard to penalties, it is a Class 1 misdemeanor. Guidance documents from the Governor's office were emailed to the Board last week and Mr. Engel said the documents outline the

process as well as a decision matrix. Mr. Engel requested that an item for conflict of interest disclosures and waivers be included on the agenda for the next meeting.

ITEM 12. ANNUAL REPORT OF FERMI RESEARCH ALLIANCE (FRA)/SDSTA CONFLICT OF INTEREST MITIGATION PLAN

Mr. Engel said that Mr. Headley has a dual role as the Executive Director of the SDSTA and as the Far Site Division Head reporting to Fermilab. He said this could result in a conflict of interest. In order to mitigate and manage any such conflicts, last year a Conflict of Interest Mitigation plan was created by the Fermilab General Counsel Mr. John Myer and Mr. Engel. The plan recognizes Mr. Headley has conflicts, provides examples of conflicts and establishes how they would be mitigated. The plan also has a reporting requirement in that Mr. Headley would send an email to Mr. Myer and Mr. Engel describing the conflict and how Mr. Headley would mitigate it. What has been discovered over time is that Mr. Headley has removed himself from the conversation before a conflict has ever arisen. Due to this, it is recommended that the plan be revised to state that Mr. Headley would provide a list of potential conflicts he removed himself from each month to the board. Mr. Engel would then provide the summary to Mr. Myer.

ITEM 13. REPORT FROM NOMINATING COMMITTEE

Mr. Dykhouse reported that he and Dr. Ani Aprahamian, comprising the Nominating Committee, teleconferenced on May 20 to discuss nominations. Mr. Dykhouse proposed the following slate of officers for the fiscal year beginning July 1, 2016:

Chairperson: Mr. Casey Peterson
Vice-Chairperson: Mr. Dana Dykhouse
Vice-Chairperson: Mr. Ron Wheeler
Secretary Treasurer: Ms. Patricia Lebrun

ITEM 14. ELECT OFFICERS

Chairperson Peterson asked if there were nominations from the floor. There were none and following the prescribed election procedure a motion was made:

Motion by Mr. Christen and second by Mr. Dykhouse to accept the report from the nominating committee and to elect the slate of officers as presented. Motion passed unanimously.

ITEM 15. CONFIRM DATE AND TIME OF NEXT MEETING

Chairperson Peterson asked if anyone had concerns with the next board meeting scheduled for Thursday, September 22, 2016. The board said they prefer an earlier meeting start and agreed to meet at 8:00 AM (MT).

ITEM 16. BOARD COMMENTS

Dr. Heather Wilson mentioned the DUNE collaboration that was held at SDSM&T in May and said there will be another site visit from the National Institute for Occupational Health Administration (NIOSH) hosted by SDSM&T.

Mr. Wheeler said it was a good meeting and appreciates all the board help from Ms. Knight and welcomed new SDSTA Contracts Specialist Michele Baumann on board.

Mr. Dykhouse thanked Mr. Headley and the SDSTA staff for hosting the South Dakota Chamber of Commerce and Industry Board of Directors yesterday for an underground tour. He said the comments he heard were that they were impressed with the Sanford Lab.

Mr. Christen said the Sanford Lab needs to continue getting the word out about work being performed at the facility to the eastern side of the state. He also said that he has sat on some major boards in the United States and this report is the most detailed report he has ever seen and is well done. However, he said he would like to see the report condensed down, if feasible. Mr. Headley commented that the board report does serve as a dual purpose as a similar report is also provided to the DOE on monthly activities at the lab.

Ms. Lebrun said this was a good meeting and discussion on serious issues. She said the staff is doing an amazing job.

Dr. Bob Wilson said he attended the DUNE collaboration last month and thanked the SDSM&T for hosting it. Dr. Bob Wilson said as a new board member, he would like to express his appreciation to the board officers for their support as well as with the xenon initiative and its successful outcome.

Mr. Headley reminded the board that the Facilities Master Plan will be reprinted after typos are corrected and the board will be sent 'final' copies in the mail in the next few weeks. He also thanked Ms. Knight and Ms. Baumann for their support with the board meeting. He also thanked the board and said with the SDSTA in its tenth year, it's amazing how bright the future looks. Lastly, he thanked the SDSTA team and said they are an amazing group of folks who are making it happen each day.

Chairperson Peterson said he echoed what Mr. Headley said and cheers to the team. He asked the board members if they liked the new board meeting location in the Education and Outreach Conference room and they all agreed. He expressed a preference for the E&O conference room instead of the Administration Building's 2nd Floor Vault, and Ms. Knight said she would relocate future board meetings. He then reminded the board of the luncheon at the Visitor Center with the SD Chamber board.

ITEM 17. ADJOURN

Chairperson Peterson asked if anyone had any other questions or comments, then called for a motion to adjourn.

Motion by Ms. Lebrun and second by Mr. Dykhouse to adjourn. Motion passed unanimously.

Meeting adjourned at 11:35 AM.

South Dakota Science and Technology Authority Board of Directors
Special Telephonic Meeting Minutes
Wednesday, June 29, 2016
Lead, South Dakota

The Board of Directors of the South Dakota Science and Technology Authority convened at 1:04 PM Mountain Time (MT) on Wednesday, June 29, 2016, via teleconference. Listening posts for the public were established at the office of the SDSTA at 630 E. Summit Street, Lead, South Dakota, and at the conference room of the South Dakota Department of Tourism and State Development, 711 East Wells Avenue, Pierre, South Dakota.

MEMBERS OF THE BOARD IN ATTENDANCE BY TELEPHONE

Mr. Paul Christen
Mr. Dana Dykhouse, Vice-Chairperson
Ms. Patricia Lebrun, Secretary/Treasurer
Mr. Ron Wheeler, Vice-Chairperson

MEMBERS OF THE BOARD WHO WERE NOT IN ATTENDANCE

Dr. Ani Aprahamian
Mr. Casey Peterson, Chairperson
Dr. Heather Wilson
Dr. Robert Wilson

SDSTA STAFF IN ATTENDANCE

Ms. Michele Baumann, Contracts Specialist
Mr. Tim Engel, Legal Counsel (*by telephone*)
Ms. Nancy Geary, Chief Financial Officer
Mr. Mike Headley, Executive Director (*by telephone*)
Ms. Mandy Knight, Administrative Services Manager

ITEM 1. CALL TO ORDER

Vice-Chairperson Mr. Ron Wheeler called the meeting to order. All members were present by roll call except Dr. Ani Aprahamian, Chairperson Casey Peterson, Dr. Heather Wilson and Dr. Robert Wilson.

Vice-Chairperson Wheeler asked participants at the listening posts in Pierre and Lead to identify themselves. There was no response at the Pierre listening post. Only the staff persons listed above were present at the Lead listening post.

ITEM 2. APPROVE AGENDA

Vice-Chairperson Wheeler requested a motion to approve the agenda.

Motion by Mr. Christen and second Mr. Dykhouse to accept the agenda as presented. By roll call vote, the motion passed unanimously.

ITEM 3. DISCLOSURE UNDER HOUSE BILL 1214

SDSTA Legal Counsel Mr. Tim Engel introduced the topic and called the board's attention to the Request for State Board Waiver submitted by ex-officio, non-voting board member Dr. Heather Wilson.

Mr. Engel reported that his investigation revealed that there are no direct contractual relationships between SDSTA and either Dr. Heather Wilson or the South Dakota School of Mines & Technology (SDSM&T) that would require a waiver request at this time.

The waiver request submitted by Dr. Heather Wilson discloses several contracts which do not constitute conflicts of interest in the usual sense, but are deemed to be conflicts under the statute. Acting on behalf of Dr. Heather Wilson, Mr. Engel referred to the board materials and said there are approximately 30 contracts between the SDSM&T and other entities. Mr. Engel said Dr. Heather Wilson is only required to disclose these and request this waiver because she receives a salary from the SDSM&T. Mr. Engel said to his knowledge, Dr. Heather Wilson does not have any direct interest in any of the contracts provided. The statute requires that she disclose them because of that indirect relationship and that the board provide a waiver.

Vice-Chairperson Wheeler said he read through the contract list provided and agrees with Mr. Engel. The law requires that the president of the SDSM&T be an ex-officio board member, and Vice-Chairperson Wheeler said he does not see any conflict.

Vice-Chairperson Wheeler said he did not have any questions and knows Dr. Heather Wilson will be available if a question arose. He asked if any other board members have any questions for Dr. Heather Wilson after reviewing all the materials. Mr. Christen, Ms. Lebrun and Mr. Dykhous each replied they had no questions for Dr. Wilson.

ITEM 4. CONSIDERATION OF WAIVER

Mr. Engel suggested that the board adopt the proposed motion with the addendum that the board would authorize Vice-Chairperson Dykhous to sign the waiver form required by the statute. Mr. Engel said on behalf of Dr. Heather Wilson, he had described the general nature of the conflicts and a list of the contracts was provided to the board.

Motion by Mr. Christen and second by Ms. Lebrun to find that the disclosed transactions and terms of the contracts are fair, reasonable and not contrary to the public interest, grant a waiver for all such transactions and contracts, and authorize Vice-Chair Dana Dykhous to sign the State Board Disclosure Laws Waiver Authorization Pursuant to SDCL 3-23-3. By roll call vote, the motion passed unanimously.

ITEM 5. ADJOURN

Vice-Chairperson Wheeler requested a motion to adjourn.

Motion by Mr. Dykhous and second by Mr. Christen to adjourn. The motion passed unanimously.

The meeting adjourned at 1:15 PM (MT) on June 29, 2016.

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Conflict of Interest Disclosure and Waiver—Mr. Tim Engel

Recommended Action:

Grant waiver or decline to grant waiver.

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REQUEST FOR AUTHORIZATION (WAIVER)
SDCL Ch. 3-23
THIS IS A PUBLIC DOCUMENT

Date: September 12, 2016
Employee Name: Heather Wilson
Institution: South Dakota School of Mines & Technology
Department: Office of the President
Position No: A00160249
Title: President

Brief explanation of your potential conflict of interest:

I serve as an ex officio non-voting member of the Board of Directors of the South Dakota Science and Technology Authority ("SDSTA"). The School of Mines and Technology is a party to research-related contracts with federal agencies and other state agencies, boards and offices, including contracts with other public colleges and universities in South Dakota. The number of contracts currently in effect is approximately 17, and provide funding for various research activities being undertaken at the School of Mines.

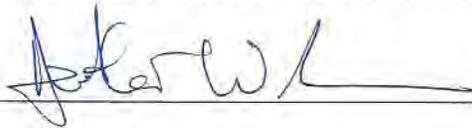
Brief explanation of your role in the award, administration or supervision of a contract with an outside party or your current or anticipated business transaction with a state agency (other than a contract of employment):

My involvement in the transactions, arrangements or relationships disclosed herein is solely by way of my inherent supervisory capacity over all South Dakota School of Mines employees. I do not receive any direct payments on account of any the disclosed transactions, arrangements or relationships.

Brief explanation of why you believe a waiver should be granted:

The Legislature has determined that it is in the interests of the state to encourage relationships between SDSTA and South Dakota universities by making the President of the School of Mines an ex officio member of the SDSTA board of directors. I serve as a non-voting member of the SDSTA Board. None of the transactions, arrangements or relationships disclosed herein involve contracts with SDSTA.

Signature of Board Member Requesting Waiver: _____



FOR INSTITUTIONAL/BHR USE ONLY:

Date received by board acting on request: _____

Signature and Title of authorized Official: _____

Date acted upon: _____

Authorization granted? Y / N

If authorization is conditional, so note here (Y / N), list conditions on separate sheet and attach to this document.

Appeal requested? Y / N

Appeal received by the Board:

Date appeal acted upon:

Authorization granted on appeal? Y / N

Received by Auditor General: _____

Status
Desc:Active

Category	Grant #	Grant Title	Proposal #
Federal	MA1600061	Digitization TCN: Collaborative Research: The Cretaceous World: Digitizing Fossils to Reconstruct Evolving Ecosystems in the Western Interior Seaway	MP1600044
	MA1700001	Collaborative Research: On making wave energy an economical and reliable power source for ocean measurement applications	MP1600143
	MA1700006	Collaborative Research: Unifying Mathematical and Statistical Approaches for Modeling Animal Movement and Resource Selection	MP1600086
	MA1700009	SuperCDMS SNOLAB Project Support	MP1600168
	MA1700013	Photon Activation Analysis (PAA) of Heavy Metal Impurities in Prepared Samples	MP1700011
	MA1700014	Advanced Bioelectrochemical Module (BEM) for Waste-to-Electricity Generation during Long-term Space Exploration	MP1600154
	MA1700015	Combined Mechanical and Optical Experimental Setup	MP1600051
	MA1700016	Sustaining Urban Waters through Green Infrastructure Planning and Development	MP1600073
	MA1700017	Underground Study of Stellar Neutron Sources for Trans-Fe Element Production in Stars	MP1600068
	MA1700018	S-STEM: Culture and Attitude II	MP1600024
State	MA1600062	Center for Acceleration of Research and Development on Electrospun Nanofibers (CARDEN)	MP1600167
	MA1600063	Surface Engineering Research Center (SERC)	MP1600128
	MA1700005	Center for Advanced Sensors (CAS)	MP1600200
	MA1700007	LCA Modeling for SD Oilseed Initiative	MP1600215
	MA1700010	SDBOR FY17 Research and Development Innovation Grants Program	MP1600222
	MA1700011	CRGP Track 1: Biomechanics of Vascular Smooth Muscle Cell in Atherosclerosis	MP1600177
	MA1700012	Physics-Based Modeling to Advance Research of Innovative Composite Joining Technologies	MP1600182

Proposal Title	PI Name	Org Desc	Agency Uid
Digitization TCN: Collaborative Research: The Cretaceous World: Digitizing Fossils to Reconstruct Evolving Ecosystems in the Western Interior Seaway	Laurie Anderson	Museum of Geology	26753
Collaborative Research: On making wave energy an economical and reliable power source for ocean measurement applications	Umesh Korde	Mechanical Engineering	26455
Collaborative Research: Unifying Mathematical and Statistical Approaches for Modeling Animal Movement and Resource Selection	Martha Garlick	Math & Computer Science	26455
SuperCDMS SNOLAB Project Support	Richard Schnee	Physics	201969
Photon Activation Analysis (PAA) of Heavy Metal Impurities in Prepared Samples	Douglas Wells	Physics	203974
Advanced Bioelectrochemical Module (BEM) for Waste-to-Electricity Generation during Long-term Space Exploration	Venkata Gadhamshetty	Civil & Environmental Engineering	26410
Combined Mechanical and Optical Experimental Setup	Cassandra Degen	Mechanical Engineering	26057
Sustaining Urban Waters through Green Infrastructure Planning and Development	Jennifer Benning	Civil & Environmental Engineering	26807
Underground Study of Stellar Neutron Sources for Trans-Fe Element Production in Stars	Frank Strieder	Physics	26455
S-STEM: Culture and Attitude II	Michael West	Materials & Metallurgical Eng	26455
Center for Acceleration of Research and Development on Electrospun Nanofibers (CARDEN)	Hao Fong	Chemistry and Applied Bio Science	26577
Surface Engineering Research Center (SERC)	Grant Crawford	Surface Engineering Rsch Ctr (SERC)	26577
Center for Advanced Sensors (CAS)	Hao Fong	Chemistry and Applied Bio Science	26683
South Dakota Oilseed Initiative	James Stone	Civil & Environmental Engineering	26683
SDBOR FY17 Research and Development Innovation Grants Program	Jan Puszynski	Research Affairs	26577
Biomechanics of vascular smooth muscle cell in atherosclerosis	Hao Fong	Chemistry and Applied Bio Science	26768
Physics-Based Modeling to Advance Research of Innovative Composite Joining Technologies	Cassandra Degen	Mechanical Engineering	26577

Agency #	Agency Name	Curr Yr Amt	Cumulative Amt	Project Start	Project End	Status
A00025597	University Of Kansas	\$104,491.00	\$104,491.00	01-Jul-2016	30-Jun-2019	A
A00025934	National Science Foundation	\$167,379.00	\$167,379.00	01-Jul-2016	30-Jun-2018	A
A00025934	National Science Foundation	\$110,000.00	\$110,000.00	01-Aug-2016	31-Jul-2019	A
A00201930	SLAC National Accelerator Laboratory	\$47,789.00	\$47,789.00	01-Jul-2016	30-Sep-2016	A
A00203934	National Security Technologies, Inc	\$5,000.00	\$5,000.00	29-Aug-2016	28-Sep-2016	A
A00025453	National Aeronautics And Space Admin	\$0.00	\$0.00	22-Aug-2016	23-Nov-2016	A
A00025216	Air Force Office Of Scientific Research	\$268,828.00	\$268,828.00	01-Sep-2016	31-Aug-2017	A
A00025847	Us Environmental Protection Agency	\$58,996.00	\$58,996.00	01-Sep-2016	31-Jan-2018	A
A00025934	National Science Foundation	\$168,000.00	\$168,000.00	01-Sep-2016	31-Aug-2019	A
A00025934	National Science Foundation	\$982,102.00	\$982,102.00	01-Sep-2016	31-Aug-2021	A
A00025487	Sd Board Of Regents	\$75,000.00	\$75,000.00	01-Jul-2016	30-Jun-2017	A
A00025487	Sd Board Of Regents	\$294,102.00	\$294,102.00	01-Jul-2016	30-Jun-2017	A
A00025554	South Dakota State University	\$12,000.00	\$12,000.00	01-Jul-2016	31-May-2017	A
A00025554	South Dakota State University	\$50,000.00	\$50,000.00	01-Jul-2016	30-Jun-2017	A
A00025487	Sd Board Of Regents	\$200,000.00	\$200,000.00	22-Aug-2016	15-Jun-2018	A
A00025823	University of South Dakota	\$22,500.00	\$22,500.00	22-Aug-2016	21-Aug-2017	A
A00025487	Sd Board Of Regents	\$99,425.00	\$99,425.00	22-Aug-2016	21-Aug-2017	A

Grant #	Grant Title	PI Name	Org Desc	Agency Uid	Agency Name	Category	Project Start	Project End	Cumulative Amt
MA1600061	Digitization TCN: Collaborative Research: The Cretaceous World: Digitizing Fossils to Reconstruct	Laurie Anderson	Museum of Geology	26753	University Of Kansas	Federal	01-Jul-2016	30-Jun-2019	\$104,491.00
MA1700001	Collaborative Research: On making wave energy an economical and reliable power source for ocean measurement applications	Umesh Korde	Mechanical Engineering	26455	National Science Foundation	Federal	01-Jul-2016	30-Jun-2018	\$167,379.00
MA1700006	Collaborative Research: Unifying Mathematical and Statistical Approaches for Modeling Animal Movement and Resource Selection	Martha Garlick	Math & Computer Science	26455	National Science Foundation	Federal	01-Aug-2016	31-Jul-2019	\$110,000.00
MA1700009	SuperCDMS SNOLAB Project Support	Richard Schnee	Physics	201969	SLAC National Accelerator	Federal	01-Jul-2016	30-Sep-2016	\$47,789.00
MA1700013	Photon Activation Analysis (PAA) of Heavy Metal Impurities in Prepared Samples	Douglas Wells	Physics	203974	National Security Technologies, Inc	Federal	29-Aug-2016	28-Sep-2016	\$5,000.00
MA1700014	Advanced Bioelectrochemical Module (BEM) for Waste-to-Electricity Generation during Long-term Space	Venkata Gadhamshetty	Civil & Environmental Engineering	26410	National Aeronautics And Space Administration	Federal	22-Aug-2016	23-Nov-2016	\$0.00
MA1700015	Combined Mechanical and Optical Experimental Setup	Cassandra Degen	Mechanical Engineering	26057	Air Force Office Of Scientific	Federal	01-Sep-2016	31-Aug-2017	\$268,828.00
MA1700016	Sustaining Urban Waters through Green Infrastructure Planning and Development	Jennifer Benning	Civil & Environmental Engineering	26807	US Environmental Protection Agency	Federal	01-Sep-2016	31-Jan-2018	\$58,996.00
MA1700017	Underground Study of Stellar Neutron Sources for Trans-Fe Element Production in Stars	Frank Strieder	Physics	26455	National Science Foundation	Federal	01-Sep-2016	31-Aug-2019	\$168,000.00
MA1700018	S-STEM: Culture and Attitude II	Michael West	Materials & Metallurgical Eng	26455	National Science Foundation	Federal	01-Sep-2016	31-Aug-2021	\$982,102.00
MA1600062	Center for Acceleration of Research and Development on Electrospun Nanofibers (CARDEN)	Hao Fong	Chemistry and Applied Bio Science	26577	Sd Board Of Regents	State	01-Jul-2016	30-Jun-2017	\$75,000.00
MA1600063	Surface Engineering Research Center (SERC)	Grant Crawford	Surface Engineering Rsch Ctr (SEI	26577	Sd Board Of Regents	State	01-Jul-2016	30-Jun-2017	\$294,102.00
MA1700005	Center for Advanced Sensors (CAS)	Hao Fong	Chemistry and Applied Bio Science	26683	South Dakota State	State	01-Jul-2016	31-May-2017	\$12,000.00
MA1700007	LCA Modeling for SD Oilseed Initiative	James Stone	Civil & Environmental Engineering	26683	South Dakota State	State	01-Jul-2016	30-Jun-2017	\$50,000.00
MA1700010	SDBOR FY17 Research and Development Innovation Grants Program	Jan Puszynski	Research Affairs	26577	Sd Board Of Regents	State	22-Aug-2016	15-Jun-2018	\$200,000.00
MA1700011	CRGP Track 1: Biomechanics of Vascular Smooth Muscle Cell in Atherosclerosis	Hao Fong	Chemistry and Applied Bio Science	26768	University of South Dakota	State	22-Aug-2016	21-Aug-2017	\$22,500.00
MA1700012	Physics-Based Modeling to Advance Research of Innovative Composite Joining Technologies	Cassandra Degen	Mechanical Engineering	26577	Sd Board Of Regents	State	22-Aug-2016	21-Aug-2017	\$99,425.00

BOR Grant Matrix, Date 01-jUL-2016 Report Date: 12-SEP-16

State Board of Internal Controls Update—Mr. Tim Engel

Recommended Action:
Informational.

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Audit Committee Update—Ms. Pat Lebrun

SDSTA Audit Committee Meeting

September 9, 2016

Participants:

Ms. Pat Lebrun, SDSTA Board of Director / Audit Committee Chair
Mr. Paul Christen, SDSTA Board of Director / Audit Committee Member
Mr. Al Schaefer, SD Department of Legislative Audit, Auditor-in-Charge
Ms. Nancy Geary, SDSTA Chief Financial Officer

A pre-audit teleconference was held September 9, 2016 with discussions on the following:

1. Greetings were exchanged and discussions were held concerning the scheduling of the upcoming FY2016 audit. Mr. Schaefer noted that since an analysis of funding sources shows that an increased amount of funding is coming through programs with Fermilab, the upcoming audit would be another Federal Compliance Audit like last year's audit. He will be auditing grants received through Fermilab.
2. Mr. Schaefer noted that once the Fall River County audit is complete that he would arrive September. 19. He will not have an assistant like last year, but feels that the audit can be completed by the November 1 deadline with the report being available by November 8, in time to be included in the State Comprehensive Annual Financial Report (CAFR). This also should allow enough time for the report to be available and presented to the SDSTA Board of Directors at the December 15 meeting and then a request for approval at the March 2017 Board meeting.
3. Mr. Schaefer asked if anyone had any concerns or if there was any suspected fraud. No concerns or suspected fraud were noted. If the Board has any issues or concerns, Mr. Schaefer can be contacted at his email, Al.Schaefer@state.sd.us.
4. Mr. Schaefer noted that the rates for FY2017 have not been issued yet, but that the rate per hour would be close to the FY2016 rate of \$63.50/hr.
5. Mr. Schaefer will send out an "Engagement Letter" to Ms. Lebrun for her review and signature.

Recommended Action:
Informational.

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SOUTH DAKOTA SCIENCE AND TECHNOLOGY AUTHORITY AUDIT COMMITTEE CHARTER

STATEMENT OF MISSION

The mission of the South Dakota Science and Technology Authority (SDSTA) Audit Committee is to be the pro-active steward for oversight of the financial reporting and disclosure process for SDSTA, including the investigation of claimed breaches of ethics, theft, fraud, embezzlement and reports of whistle-blowers. Our responsibility is to the SDSTA Board of Directors to report independently on the results of the oversight so as to assist in maintaining and enhancing the quality of the financial reporting. The Audit Committee is committed to communication between and among directors, the external auditor and Chief Financial Officer (CFO).

A. The Audit Committee has the following responsibilities and duties:

1. Appointment

- Annually be appointed by the SDSTA Board of Directors at their annual meeting in June.
- At least one member will be deemed a “financial expert,” as defined by applicable law and regulation.

2. Review

- Annually review and update this Charter.
- Annually determine the independence of Audit Committee members through a certification by the SDSTA Board of Director’s Chairperson.
- Review the SDSTA’s annual financial statements and any reports or other financial information submitted to or from any governmental body, or the public, including any certification, report, opinion or review rendered by the external auditor or the SDSTA CFO.
- Review any report or memo or other communication from Federal and State regulators and reviewers, and attend as many entrance and exit conferences as possible.

3. External Auditors/CFO/Independent Counsel/Other Advisors

- The Audit Committee shall have the independent authority to engage any legal counsel or other advisors it deems necessary to carry out its duties.
- Periodically consult with the external auditor out of the presence of management about internal controls and the fullness and accuracy of the company’s financial statements.
- Make the selection, retention, and review the performance of, the external auditor, considering independence and effectiveness and approve the fees paid to the external auditor as well as the proposed fee. On an annual basis, the Audit Committee should review and discuss with the external auditor all significant relationships the external auditor has with the company to determine the auditor’s independence and consider the appropriateness of the non-audit services prior to their engagement.
- Periodically meet with the CFO on the results of exams, and be available to CFO for appropriate communications at any time they desire the meeting.

4. Financial Reporting Process

- In consultation with the external auditor, review the integrity of the SDSTA’s financial reporting processes.

SOUTH DAKOTA SCIENCE AND TECHNOLOGY AUTHORITY

AUDIT COMMITTEE CHARTER

- Consider the external auditor's judgments about the quality and appropriateness of the SDSTA's accounting principles, as applied in its financial reports and as promulgated by the Governmental Accounting Standards Board.
- Consider and forward to the SDSTA Board of Directors, if appropriate, recommendations for major changes to the SDSTA's auditing and accounting principles and practices as suggested by the external auditor, management or the CFO.
- Establish regular and separate systems of reporting to the Audit Committee by management and the external auditor regarding any significant judgments made in management's preparation of the financial statements and the Audit Committee's view of each as to appropriateness of such judgments.
- Following completion of the annual audit, review separately with management and the external auditor any significant difficulties encountered during the course of the audit, including any restrictions on the scope of work, or access to required information.
- Review and resolve any significant disagreement among management and the external auditor in connection with the preparation of the financial statements. Review in detail the passed audit adjustments and the materiality levels used by the external auditor, and the impact of Management's estimates used in the financial statement preparation.
- Review with the external auditor and management the extent to which changes or improvements in financial or accounting practices, as approved by the Audit Committee in prior reports or meetings, have been implemented.

5. Ethical and Legal Compliance

- Establish, review and update periodically a Conflict of Interest Policy and ensure that management has established a system to enforce this Policy.
- Review management's monitoring of compliance with the SDSTA's Conflict of Interest Policy, and verify that management has the proper review system in place to ensure that financial statements, reports, and other financial information disseminated to governmental organizations, and the public, satisfy legal requirements.
- Review with SDSTA's retained legal counsel any legal matter that could have a significant impact on the SDSTA's financial statements.
- Periodically review individual committee member education and obtain resources, seminars and materials to keep the level of member's education current.
- Perform any other activities consistent with this Charter, the SDSTA's By-Laws and governing law, as the Audit Committee or the SDSTA Board of Directors deems necessary or appropriate.

6. Reporting

In order to facilitate the proper execution of its duties and responsibilities, the Audit Committee shall conduct its reviews and investigations in a confidential manner. The Audit Committee shall report to the SDSTA Board the results of the Financial Reporting Process, consultations with External Auditors, the CFO or other Advisors, or any other issues they deem important for the SDSTA Board to meet its responsibilities. These reports shall include, but not be limited to, the results of the annual external audit or any internal audit on financial reports or compliance (including difficulties or disagreements encountered, if any, past

SOUTH DAKOTA SCIENCE AND TECHNOLOGY AUTHORITY

AUDIT COMMITTEE CHARTER

adjustments, materiality defined by the auditor, any legal matter having a material impact on the report, management letter comments, etc.), the integrity of the financial reporting system, the appropriateness of the accounting principles applied to the financial reports, the status of internal controls, any suggested change to any of the above systems the Audit Committee thinks should be made, any significant report or communication from any other matter that the Audit Committee deems critical information needed by the SDSTA Board. To the extent permitted by applicable law, the Audit Committee's reports to the Board of Directors shall be delivered in closed session.

The Audit Committee shall strive to provide the Board with the information it needs to manage the reporting and accounting for the SDSTA as well as utilize the reports to manage all of the other risks it faces. These reports will be made when information is received and available. The Annual Schedule below outlines some of the reporting dates anticipated.

7. Budget Process

The Audit Committee will meet with the CFO in March to establish the annual budget for the Audit Committee to cover costs for audit fees, legal fees, consulting fees, continuing education travel and costs and miscellaneous costs.

B. Annual Schedule

The Audit Committee will meet at its discretion but the following is a guideline for business to be conducted during the year:

December-January – Meet with external auditors to discuss preliminary audit findings, letters to management, passed adjustments, materiality, management estimates, and quality and appropriateness of accounting principles.

March-June – Present audit findings, letter of comments and other appropriate information to the SDSTA's Board of Directors at SDSTA annual meeting. Meet to update issues on hiring other outside auditors for review, as deemed necessary, of such areas as EDP, compliance, etc.

September – Request proposal for external audit. Meet with CFO.

October/November/December – Meet with CFO to review any issues regarding the audit. Meet to engage external financial auditor on entrance conference. Review all SDSTA regulators' reports (State and/or Federal). Certify as to committee member's independence.

C. Limitations on the Committee's Role:

While the Audit Committee has the responsibilities and powers as stated above, it is not the Committee's duty to audit the SDSTA's financial statements or to determine that the SDSTA's financial statements are complete and accurate in accordance with generally accepted accounting principles (GAAP), as promulgated by the Governmental Accounting Standards Board. These are the responsibilities of management and the independent auditors.

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Financial Report—Mr. Mike Headley

Financial Report

- 7A. Financial Statements—found under Agenda Item #8A SDSTA Quarterly Update in the August monthly report; Appendix B.
- 7B. FY End Inventory Listing—informational.
- 7C. FY End Per Diem Listing—informational.

Recommended Action:

6A. Motion to accept the Financial Report as presented.

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SD Science & Technology Authority

Year to Date Reconciliation - 7/1/2015 through 6/30/2016

June 30, 2016

Year to Date 7/1/2015 through 6/30/2016

Cost of Fixed Assets

Accumulated Depreciation

000 - SD Science & Technology Authority

Sys ID	Description	Acquire	In Service	Beginning	Additions	Retired	Ending	Beginning	YTD 6/30/2016	Retired	Ending
110 - Automobiles											
77	2003 Chevy Astro AWD	7/15/2008	7/15/2008	9,079.90			9,079.90	8,172.00			8,172.00
78	2003 Ford F250 63-1658	1/16/2009	1/16/2009	11,890.17			11,890.17	9,810.97	890.00		10,700.97
79	2000 Ford F150 V8 Whit	2/16/2009	2/16/2009	7,273.42			7,273.42	5,921.72	624.00		6,545.72
81	2001 Dodge W/Maintena	2/25/2009	2/25/2009	12,329.88			12,329.88	10,038.42	1,059.00		11,097.42
347	1999 Chevy Suburban W	8/11/2009	8/11/2009	6,618.17			6,618.17	5,035.00	851.00		5,886.00
348	2001 Dodge 2500 W/Mai	8/12/2009	8/12/2009	8,906.71			8,906.71	6,775.00	1,145.00		7,920.00
349	2004 Ford Explorer Sport	6/4/2010	6/4/2010	13,306.83			13,306.83	8,698.00	1,711.00		10,409.00
570	2009 Chevy G3500 Van	9/8/2014	9/8/2014	16,900.00			16,900.00	1,811.00	2,173.00		3,984.00
				86,305.08	0.00	0.00	86,305.08	56,262.11	8,453.00	0.00	64,715.11
120 - Building											
10	Ross Hoist Room	4/14/2006	4/14/2006	436,796.20			436,796.20	88,799.72	8,736.00		97,535.72
14	Ross Head Frame & Crus	4/14/2006	4/14/2006	421,551.65			421,551.65	85,699.90	8,431.00		94,130.90
19	Yates Head Frame & Cru	4/14/2006	4/14/2006	496,154.18			496,154.18	100,866.06	9,923.00		110,789.06
24	Mine Office - Admin Bld	4/14/2006	4/14/2006	461,316.99			461,316.99	93,782.23	9,226.00		103,008.23
25	Yates Hoist/MG Set Room	4/14/2006	4/14/2006	797,826.88			797,826.88	162,198.43	15,957.00		178,155.43
26	Ross Substation Building	4/14/2006	4/14/2006	13,615.43			13,615.43	2,766.12	272.00		3,038.12
27	Ross Boiler	4/14/2006	4/14/2006	23,236.99			23,236.99	4,725.57	465.00		5,190.57
28	Ross Core Shed	4/14/2006	4/14/2006	6,785.02			6,785.02	1,381.17	136.00		1,517.17
29	Ross Dry	4/14/2006	4/14/2006	142,961.96			142,961.96	29,062.27	2,859.00		31,921.27
30	Ross Pipe Shop	4/14/2006	4/14/2006	50,830.92			50,830.92	10,336.05	1,017.00		11,353.05
31	LHD Warehouse	4/14/2006	4/14/2006	51,988.23			51,988.23	10,570.45	1,040.00		11,610.45
32	Ross Tramway Shed	4/14/2006	4/14/2006	68,757.90			68,757.90	13,977.31	1,375.00		15,352.31
33	Ross Air Tanks	4/14/2006	4/14/2006	7,760.79			7,760.79	1,576.45	155.00		1,731.45
34	Ross Ramp	4/14/2006	4/14/2006	7,091.37			7,091.37	1,442.69	142.00		1,584.69
35	Oro Hondo Fan Building	4/14/2006	4/14/2006	6,807.71			6,807.71	1,383.06	136.00		1,519.06
36	Oro Hondo Substation Bld	4/14/2006	4/14/2006	6,807.71			6,807.71	1,383.06	136.00		1,519.06
37	Shaft Heater Room @ #5	4/14/2006	4/14/2006	6,240.40			6,240.40	1,269.81	125.00		1,394.81
38	Tramway Roundhouse	4/14/2006	4/14/2006	7,624.64			7,624.64	1,547.11	152.00		1,699.11
39	Main Warehouse	4/14/2006	4/14/2006	142,224.46			142,224.46	28,910.84	2,844.00		31,754.84
41	Bottle Gas Storage	4/14/2006	4/14/2006	20,967.75			20,967.75	4,260.55	419.00		4,679.55
42	Tramway	4/14/2006	4/14/2006	177,908.22			177,908.22	36,167.19	3,558.00		39,725.19

Cost of Fixed Assets

Accumulated Depreciation

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Sys ID Description	Acquire	In Service	Beginning	Additions	Retired	Ending	Beginning	YTD 6/30/2016	Retired	Ending
120 - Building										
43 Iron House	4/14/2006	4/14/2006	60,044.02			60,044.02	12,207.48	1,201.00		13,408.48
44 Machine Shop	4/14/2006	4/14/2006	257,142.32			257,142.32	52,277.13	5,143.00		57,420.13
45 Foundry	4/14/2006	4/14/2006	162,810.11			162,810.11	33,097.56	3,256.00		36,353.56
46 Battery Repair Building	4/14/2006	4/14/2006	26,141.62			26,141.62	5,315.51	523.00		5,838.51
47 Bit Shop	4/14/2006	4/14/2006	5,446.17			5,446.17	1,107.65	109.00		1,216.65
48 Paint Shop	4/14/2006	4/14/2006	7,715.41			7,715.41	1,566.67	154.00		1,720.67
50 East Substation Building	4/14/2006	4/14/2006	6,807.71			6,807.71	1,383.06	136.00		1,519.06
51 Wash Rack	4/14/2006	4/14/2006	7,148.10			7,148.10	1,453.41	143.00		1,596.41
52 Steady Head Tank	4/14/2006	4/14/2006	8,271.37			8,271.37	1,678.98	165.00		1,843.98
53 Yates Safety & Dry	4/14/2006	4/14/2006	215,259.87			215,259.87	43,760.46	4,305.00		48,065.46
54 Yates Power Substation E	4/14/2006	4/14/2006	11,436.96			11,436.96	2,326.66	229.00		2,555.66
55 Yates Bosses Office	4/14/2006	4/14/2006	6,490.02			6,490.02	1,320.60	130.00		1,450.60
57 Yates Lamp Room	4/14/2006	4/14/2006	10,620.03			10,620.03	2,156.61	212.00		2,368.61
58 Yates Dust Collector	4/14/2006	4/14/2006	3,630.78			3,630.78	740.43	73.00		813.43
59 Yates Sawmill	4/14/2006	4/14/2006	33,947.79			33,947.79	6,901.74	679.00		7,580.74
60 Used Oil Storage Tank	4/14/2006	4/14/2006	2,042.31			2,042.31	416.12	41.00		457.12
61 Yates Cooling Tower	4/14/2006	4/14/2006	5,446.17			5,446.17	1,107.65	109.00		1,216.65
62 Yates Compressor	4/14/2006	4/14/2006	173,180.53			173,180.53	35,209.38	3,464.00		38,673.38
63 Motor Repair Shop	4/14/2006	4/14/2006	17,473.13			17,473.13	3,549.46	349.00		3,898.46
64 WW Influent Building	4/14/2006	4/14/2006	645,487.44			645,487.44	131,227.04	12,910.00		144,137.04
65 WW Lab/Fishhouse	4/14/2006	4/14/2006	134,476.55			134,476.55	27,341.47	2,690.00		30,031.47
66 WW Mechanical Building	4/14/2006	4/14/2006	727,249.18			727,249.18	147,847.53	14,545.00		162,392.53
67 WW Warehouse	4/14/2006	4/14/2006	174,012.66			174,012.66	35,374.70	3,480.00		38,854.70
68 WW Sandfilter Building	4/14/2006	4/14/2006	917,399.02			917,399.02	186,504.40	18,348.00		204,852.40
338 Building Closing Costs	1/31/2007	1/31/2007	63,820.42			63,820.42	11,250.67	1,276.00		12,526.67
73 WW Protec Building 56X	12/1/2008	12/1/2008	64,632.77			64,632.77	17,018.10	2,585.00		19,603.10
74 WW Valve Building 9XI	12/16/2008	12/16/2008	15,178.78			15,178.78	1,975.79	304.00		2,279.79
75 WW Pole Frame Building	2/5/2009	2/5/2009	104,518.82			104,518.82	13,410.99	2,090.00		15,500.99
			7,223,085.46	0.00	0.00	7,223,085.46	1,461,633.29	145,753.00	0.00	1,607,386.29
130 - Computer Hardware										
83 2950 Windows Server 20	5/30/2009	5/30/2009	5,033.00			5,033.00	5,033.00			5,033.00
84 2950 Windows Server 20	5/30/2009	5/30/2009	7,294.02			7,294.02	7,294.00			7,294.00
85 2950 Windows Server 20	5/30/2009	5/30/2009	5,033.00			5,033.00	5,033.00			5,033.00
86 2950 Windows Server 20	5/30/2009	5/30/2009	6,911.21		(6,911.21)	0.00	6,911.21		(6,911.21)	0.00
87 2950 Windows Web Serv	5/30/2009	5/30/2009	5,424.45		(5,424.45)	0.00	5,424.45		(5,424.45)	0.00

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Sys ID	Description	Acquire	In Service	Beginning	Additions	Retired	Ending	Beginning	YTD 6/30/2016	Retired	Ending
130 - Computer Hardware											
88	Rack Server RACK	5/30/2009	5/30/2009	5,700.94			5,700.94	5,700.02			5,700.02
89	Rack Server RACK	5/30/2009	5/30/2009	5,700.94			5,700.94	5,700.02			5,700.02
90	2950 Windows Server 20	5/30/2009	5/30/2009	5,033.00		(5,033.00)	0.00	5,033.00		(5,033.00)	0.00
91	DL2000 Windows Server	5/30/2009	5/30/2009	19,609.68			19,609.68	19,609.00			19,609.00
92	DL2000 Windows Server	5/30/2009	5/30/2009	14,861.57			14,861.57	14,860.69			14,860.69
95	Router Kit 7609-2SUP72	5/30/2009	5/30/2009	56,935.00			56,935.00	56,934.92			56,934.92
96	Catalyst 48-Port 10/100/1	5/30/2009	5/30/2009	8,910.00			8,910.00	8,910.00			8,910.00
97	Catalyst 48-Port 10/100/1	5/30/2009	5/30/2009	8,938.50			8,938.50	8,937.98			8,937.98
98	SSG 550M System 1GB 1	5/30/2009	5/30/2009	7,350.00			7,350.00	7,350.00			7,350.00
99	SA2500 Secure Access 2:	5/30/2009	5/30/2009	7,906.50			7,906.50	7,905.78			7,905.78
100	41213 Management Swit:	5/30/2009	5/30/2009	6,196.90			6,196.90	6,196.28			6,196.28
101	41213 Management Swit:	5/30/2009	5/30/2009	6,196.90			6,196.90	6,196.28			6,196.28
102	41213 Management Swit:	5/30/2009	5/30/2009	6,196.90			6,196.90	6,196.28			6,196.28
103	41213 Management Swit:	5/30/2009	5/30/2009	6,196.90			6,196.90	6,196.28			6,196.28
104	41213 Management Swit:	5/30/2009	5/30/2009	6,196.90			6,196.90	6,196.28			6,196.28
105	41213 Management Swit:	5/30/2009	5/30/2009	6,196.90			6,196.90	6,196.28			6,196.28
106	41517 48 Port TX 12800	5/30/2009	5/30/2009	6,510.00			6,510.00	6,510.00			6,510.00
107	41517 48 Port TX 12800	5/30/2009	5/30/2009	6,510.00			6,510.00	6,510.00			6,510.00
108	41517 48 Port TX 12800	5/30/2009	5/30/2009	6,510.00			6,510.00	6,510.00			6,510.00
109	41544 48 Port GBIC 128:	5/30/2009	5/30/2009	9,916.90			9,916.90	9,916.28			9,916.28
110	41544 48 Port GBIC 128:	5/30/2009	5/30/2009	9,916.90			9,916.90	9,916.28			9,916.28
111	41544 48 Port GBIC 128:	5/30/2009	5/30/2009	9,916.90			9,916.90	9,916.28			9,916.28
112	41517 BD 12800 Managt:	5/30/2009	5/30/2009	6,510.00			6,510.00	6,510.00			6,510.00
113	41517 BD 12800 Managt:	5/30/2009	5/30/2009	6,510.00			6,510.00	6,510.00			6,510.00
114	SSG 550M System 1GB 1	5/30/2009	5/30/2009	7,350.00			7,350.00	7,350.00			7,350.00
115	SA2500 Secure Access 2:	5/30/2009	5/30/2009	7,906.50			7,906.50	7,905.78			7,905.78
116	41544 BD 12800 Managt:	5/30/2009	5/30/2009	9,916.90			9,916.90	9,916.28			9,916.28
93	2950 Windows Server 20	6/30/2009	6/30/2009	6,448.96		(6,448.96)	0.00	6,448.96		(6,448.96)	0.00
94	Cosign Appliance Windo	6/30/2009	6/30/2009	8,600.00			8,600.00	8,600.00			8,600.00
350	Virtual Windows Server	6/1/2010	6/1/2010	8,840.42		(8,840.42)	0.00	8,840.42		(8,840.42)	0.00
351	Server Rack	6/30/2010	6/30/2010	7,986.99			7,986.99	7,986.00			7,986.00
352	PLC Mine Monitoring Sy	6/30/2010	6/30/2010	7,910.20			7,910.20	7,910.00			7,910.00
429	PLC Mine Monitoring Sy	7/15/2010	7/15/2010	2,343.71			2,343.71	2,343.00			2,343.00
433	PLC Mine Monitoring Sy	4/1/2011	4/1/2011	19,866.94			19,866.94	16,885.00	2,981.00		19,866.00
549	Apple MP 3.5 1TB 32GB	3/31/2014	3/31/2014	5,170.42			5,170.42	1,292.00	1,034.00		2,326.00

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Sys ID	Description	Acquire	In Service	Beginning	Additions	Retired	Ending	Beginning	YTD 6/30/2016	Retired	Ending
130 - Computer Hardware											
583	Power Edge Server System	6/30/2015	6/30/2015	6,898.07			6,898.07	5,584.16	875.94		6,460.10
586	Dell Equal Logic PS1000	6/30/2015	6/30/2015	31,121.72			31,121.72	21,859.34	4,631.19		26,490.53
587	PowerVault MD1000 Storage	6/30/2015	6/30/2015	8,131.40			8,131.40	4,646.49	1,161.64		5,808.13
588	PowerVault MD1000 Storage	6/30/2015	6/30/2015	8,131.40			8,131.40	4,646.49	1,161.64		5,808.13
600	Virtual HP Server	6/29/2015	6/30/2015	17,362.50			17,362.50		3,472.00		3,472.00
601	Virtual HP Server	6/29/2015	6/30/2015	17,362.50			17,362.50		3,472.00		3,472.00
621	Server-HP DL360Gen9 8	8/21/2015	8/21/2015		11,014.87		11,014.87		1,836.00		1,836.00
622	Server HP DL360 Gen9 8	8/21/2015	8/21/2015		11,014.88		11,014.88		1,836.00		1,836.00
623	Switch - HP 3800-24G S	8/21/2015	8/21/2015		7,522.00		7,522.00		1,254.00		1,254.00
624	Switch 5800-24G Switch	8/21/2015	8/21/2015		7,522.00		7,522.00		1,254.00		1,254.00
645	Toshiba Server (Applicat	6/14/2016	6/14/2016		5,528.00		5,528.00		92.00		92.00
				451,472.54	42,601.75	(32,658.04)	461,416.25	392,327.51	25,061.41	(32,658.04)	384,730.88
140 - Equipment & Fixtures											
119	Telephone Equipment	6/1/2006	6/1/2006	3,927.47			3,927.47	3,926.69			3,926.69
120	Kubota RTV900T6H Util	10/31/2006	10/31/2006	16,535.00			16,535.00	14,333.33	1,654.00		15,987.33
121	John Deere 304J Wheel L	11/30/2006	11/30/2006	89,701.26			89,701.26	76,992.83	8,970.00		85,962.83
122	Solomon Corp 1000kva,1	3/16/2007	3/16/2007	8,017.33			8,017.33	2,650.43	200.00		2,850.43
179	Softstart Controllers 700F	6/30/2007	6/30/2007	167,350.00			167,350.00	78,098.67	11,157.00		89,255.67
123	Oxygen Booster Pumps (7/1/2007	7/1/2007	21,400.00			21,400.00	17,120.00	2,140.00		19,260.00
124	Command Modules Com	7/1/2007	7/1/2007	18,589.00			18,589.00	18,589.00			18,589.00
125	Self-Contained Breathing	7/1/2007	7/1/2007	97,720.00			97,720.00	97,720.00			97,720.00
207	Motor GE 700HP HL840	9/24/2007	9/24/2007	28,370.67			28,370.67	9,926.53	1,418.00		11,344.53
154	700HP Kirk Timberyard :	11/29/2007	11/29/2007	25,860.76			25,860.76	6,034.03	862.00		6,896.03
168	Transformer 225 KVA TI	12/17/2007	12/17/2007	12,355.22			12,355.22	2,162.88	309.00		2,471.88
126	Safety Apparatus (7 pack	12/31/2007	12/31/2007	48,860.00			48,860.00	36,645.00	4,886.00		41,531.00
196	Ross Headframe Air Unit	12/31/2007	12/31/2007	10,817.00			10,817.00	7,573.70	1,082.00		8,655.70
331	Tsurumi Pumps LH675-6	2/4/2008	2/4/2008	22,279.36			22,279.36	6,237.18	891.00		7,128.18
213	Transformer GE 500KVA	2/27/2008	2/27/2008	7,350.00			7,350.00	1,287.75	184.00		1,471.75
220	Transformer GE 500KVA	2/27/2008	2/27/2008	7,350.00			7,350.00	1,287.75	184.00		1,471.75
221	Transformer Howard Ind	2/27/2008	2/27/2008	7,350.00			7,350.00	1,287.75	184.00		1,471.75
223	Transformer Howard Ind	2/27/2008	2/27/2008	7,350.00			7,350.00	1,287.75	184.00		1,471.75
224	Transformer Solomon 100	2/27/2008	2/27/2008	5,900.00			5,900.00	1,035.50	148.00		1,183.50
225	Transformer Solomon 100	2/27/2008	2/27/2008	5,900.00			5,900.00	1,035.50	148.00		1,183.50
226	Transformer Solomon 100	2/27/2008	2/27/2008	5,900.00			5,900.00	1,035.50	148.00		1,183.50
227	Transformer Howard Ind	2/27/2008	2/27/2008	7,350.00			7,350.00	1,287.75	184.00		1,471.75

Cost of Fixed Assets

Accumulated Depreciation

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Sys ID Description	Acquire	In Service	Beginning	Additions	Retired	Ending	Beginning	YTD 6/30/2016	Retired	Ending
140 - Equipment & Fixtures										
228 Transformer GE 75KVA	2/27/2008	2/27/2008	5,800.00			5,800.00	1,015.00	145.00		1,160.00
229 Transformer GE 75KVA	2/27/2008	2/27/2008	5,800.00			5,800.00	1,015.00	145.00		1,160.00
230 Transformer GE 75KVA	2/27/2008	2/27/2008	5,800.00			5,800.00	1,015.00	145.00		1,160.00
218 Transformer GE 500KVA	2/28/2008	2/28/2008	7,350.00			7,350.00	1,287.75	184.00		1,471.75
129 3 Ton Locomotive Batter	2/29/2008	2/29/2008	7,884.00			7,884.00	7,884.00			7,884.00
178 Skid Tanks 4X4X12 (4)	3/6/2008	3/6/2008	24,872.90			24,872.90	6,964.92	995.00		7,959.92
201 Pump Ingersoll Rand 037	3/12/2008	3/12/2008	91,206.72			91,206.72	25,536.27	3,648.00		29,184.27
211 Transformer GE 500KVA	3/25/2008	3/25/2008	7,350.00			7,350.00	1,287.75	184.00		1,471.75
212 Transformer GE 500KVA	3/25/2008	3/25/2008	7,350.00			7,350.00	1,287.75	184.00		1,471.75
214 Transformer Westinghou:	3/25/2008	3/25/2008	7,350.00			7,350.00	1,287.75	184.00		1,471.75
216 Transformer Westinghou:	3/25/2008	3/25/2008	7,350.00			7,350.00	1,287.75	184.00		1,471.75
217 Transformer Westinghou:	3/25/2008	3/25/2008	7,350.00			7,350.00	1,287.75	184.00		1,471.75
219 Transformer GE 500KVA	3/25/2008	3/25/2008	7,350.00			7,350.00	1,287.75	184.00		1,471.75
130 Kyocera Color Copier KN	4/30/2008	4/30/2008	6,749.00		(6,749.00)	0.00	6,749.00		(6,749.00)	0.00
131 Kyocera Color Copier KN	4/30/2008	4/30/2008	7,081.00		(7,081.00)	0.00	7,081.00		(7,081.00)	0.00
144 Cranes	4/30/2008	4/30/2008	100,509.34			100,509.34	9,380.12	1,340.00		10,720.12
204 Motor GE 700HP FM84C	5/6/2008	5/6/2008	32,772.50			32,772.50	11,472.63	1,639.00		13,111.63
190 Troll 9500 Water Sample	5/14/2008	5/14/2008	8,325.92			8,325.92	5,824.59	832.00		6,656.59
180 Axial Flow Mine Fan 15C	5/30/2008	5/30/2008	53,484.75			53,484.75	18,718.24	2,674.00		21,392.24
127 Draeger Tester 6100	5/31/2008	5/31/2008	6,010.95			6,010.95	6,010.95			6,010.95
142 Base Interface 4 channel	6/18/2008	6/18/2008	6,011.00			6,011.00	4,207.10	601.00		4,808.10
132 Telephone System Additi	6/30/2008	6/30/2008	11,371.31			11,371.31	7,959.00	1,137.00		9,096.00
166 Ross Hoist (2)	6/30/2008	6/30/2008	121,842.89			121,842.89	11,374.57	1,625.00		12,999.57
169 Transformer GE 5MVA 1	7/1/2008	7/1/2008	5,000.00			5,000.00	875.00	125.00		1,000.00
171 Transformer GE 1500KV	7/1/2008	7/1/2008	5,000.00			5,000.00	875.00	125.00		1,000.00
172 Transformer GE 10,000K	7/1/2008	7/1/2008	10,000.00			10,000.00	1,750.00	250.00		2,000.00
173 Transformer GE 20,000K	7/1/2008	7/1/2008	15,000.00			15,000.00	2,625.00	375.00		3,000.00
174 Transformer GE 10,000 F	7/1/2008	7/1/2008	10,000.00			10,000.00	1,750.00	250.00		2,000.00
175 Transformer GE 10,000K	7/1/2008	7/1/2008	10,000.00			10,000.00	1,750.00	250.00		2,000.00
247 MG Sets (2) Yates	7/1/2008	7/1/2008	60,000.00			60,000.00	5,600.00	800.00		6,400.00
235 FLYGT Centrifugal Pumj	7/23/2008	7/23/2008	11,997.23			11,997.23	3,319.90	480.00		3,799.90
197 Ross Hoist Bldg (3) Boile	7/31/2008	7/31/2008	125,245.77			125,245.77	86,624.86	12,524.00		99,148.86
167 Security Monitoring Gate	8/1/2008	8/1/2008	23,126.00			23,126.00	15,997.88	2,313.00		18,310.88
202 Pump Ingersoll Rand 213	8/1/2008	8/1/2008	22,508.00			22,508.00	6,225.29	900.00		7,125.29
203 Pump Ingersoll Rand 675	8/1/2008	8/1/2008	130,646.97			130,646.97	36,146.39	5,226.00		41,372.39

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Sys ID Description	Acquire	In Service	Beginning	Additions	Retired	Ending	Beginning	YTD 6/30/2016	Retired	Ending
140 - Equipment & Fixtures										
234 Diesel Generator - WWTI	8/1/2008	8/1/2008	5,000.00			5,000.00	3,458.33	500.00		3,958.33
236 FLYGT 10HP Pumps (2)	8/1/2008	8/1/2008	12,000.00			12,000.00	3,320.00	480.00		3,800.00
237 FLYGT 15HP Pumps (2)	8/1/2008	8/1/2008	18,000.00			18,000.00	4,980.00	720.00		5,700.00
239 Pilot RBC	8/1/2008	8/1/2008	5,000.00		(5,000.00)	0.00	691.67	33.00	(724.67)	0.00
240 Root Blowers (2)	8/1/2008	8/1/2008	10,000.00		(10,000.00)	0.00	6,916.67	583.00	(7,499.67)	0.00
241 Rotating Biological Cont.	8/1/2008	8/1/2008	206,014.95			206,014.95	28,496.94	4,120.00		32,616.94
242 Sand Filter Galiger Pump	8/1/2008	8/1/2008	15,000.00			15,000.00	4,150.00	600.00		4,750.00
243 Sand Filters (3) WWTP	8/1/2008	8/1/2008	45,000.00			45,000.00	6,225.00	900.00		7,125.00
245 Soda Ash System	8/1/2008	8/1/2008	9,573.70			9,573.70	1,321.52	191.00		1,512.52
188 Electric Winch (WE271)	8/15/2008	8/15/2008	47,187.00			47,187.00	6,529.10	944.00		7,473.10
231 Fume Hood for Lab Cabin	8/22/2008	8/22/2008	5,989.95			5,989.95	4,093.16	599.00		4,692.16
205 Motor GE 700HP FM84C	8/25/2008	8/25/2008	38,004.39			38,004.39	12,983.52	1,900.00		14,883.52
156 MG Sets (2) Ross	8/31/2008	8/31/2008	60,000.00			60,000.00	5,466.67	800.00		6,266.67
194 Yates Hoists (2)	8/31/2008	8/31/2008	89,168.26			89,168.26	8,124.76	1,189.00		9,313.76
209 Motor GE 700HP HL840	9/22/2008	9/22/2008	31,362.30			31,362.30	10,584.09	1,568.00		12,152.09
150 Kubota GL7000 Generator	10/21/2008	10/21/2008	5,300.00			5,300.00	3,533.33	530.00		4,063.33
232 Cornell Pumps W/Baldor	10/29/2008	10/29/2008	27,102.98			27,102.98	7,226.75	1,084.00		8,310.75
157 Miller Trailblazer 3020 W	11/5/2008	11/5/2008	7,430.00			7,430.00	4,953.33	743.00		5,696.33
137 40 Unit Cap Lamp Chrg	11/20/2008	11/20/2008	5,253.00			5,253.00	3,456.43	525.00		3,981.43
206 Motor GE 700HP FM835	11/24/2008	11/24/2008	35,025.30			35,025.30	11,527.57	1,751.00		13,278.57
149 FSM-60S Fusion Splice F	11/28/2008	11/28/2008	19,810.00			19,810.00	8,696.39	1,321.00		10,017.39
136 Admin. Bldg. Heating/Cc	11/30/2008	11/30/2008	32,493.88			32,493.88	21,389.48	3,249.00		24,638.48
244 Seepex 200 GPM Pump	12/15/2008	12/15/2008	16,316.24			16,316.24	4,298.71	653.00		4,951.71
238 Hoffman 3R Wall Mount	12/24/2008	12/24/2008	11,657.72			11,657.72	5,050.59	777.00		5,827.59
148 Franklin 8" Sand Fighter	12/29/2008	12/29/2008	44,457.42			44,457.42	14,449.44	2,223.00		16,672.44
161 1,000,000BTU Indirect F	12/30/2008	12/30/2008	15,537.00			15,537.00	10,100.85	1,554.00		11,654.85
143 (1) Benshaw Softstart 700	1/6/2009	1/6/2009	35,257.43			35,257.43	15,275.25	2,350.00		17,625.25
162 VFD Pump Controller 15	2/2/2009	2/2/2009	23,100.00			23,100.00	9,881.67	1,540.00		11,421.67
163 VFD Pump Controller 20	2/2/2009	2/2/2009	46,200.00			46,200.00	19,763.33	3,080.00		22,843.33
160 Portable Air Conditioner	2/6/2009	2/6/2009	11,325.40			11,325.40	7,263.89	1,132.00		8,395.89
146 Float Valves for Yates (1)	2/9/2009	2/9/2009	114,346.31			114,346.31	73,374.43	11,435.00		84,809.43
145 Crane #6 Winze Undergrn	2/19/2009	2/19/2009	10,631.95			10,631.95	899.25	142.00		1,041.25
134 Panasonic PTF200TU Wi	2/24/2009	2/24/2009	7,353.83		(7,353.83)	0.00	4,655.13	184.00	(4,839.13)	0.00
200 Pump Ingersoll Rand 107	2/25/2009	2/25/2009	122,676.93			122,676.93	31,077.69	4,907.00		35,984.69
208 Motor GE 700HP ZRH28	3/5/2009	3/5/2009	27,154.00			27,154.00	8,600.57	1,358.00		9,958.57

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Sys ID Description	Acquire	In Service	Beginning	Additions	Retired	Ending	Beginning	YTD 6/30/2016	Retired	Ending
140 - Equipment & Fixtures										
158 3000HP American David	3/6/2009	3/6/2009	78,752.15			78,752.15	16,625.02	2,625.00		19,250.02
199 Pump Ingersoll Rand 100	3/28/2009	3/28/2009	147,258.51			147,258.51	36,812.59	5,890.00		42,702.59
192 Western Tornado Sand Sj	4/1/2009	4/1/2009	5,168.50			5,168.50	3,231.21	517.00		3,748.21
193 Western Ultramount Pro I	4/1/2009	4/1/2009	5,247.63			5,247.63	3,281.19	525.00		3,806.19
147 Danfoss Flowmatic Check	4/2/2009	4/2/2009	6,919.11			6,919.11	4,324.98	692.00		5,016.98
198 Pump Ingersoll Rand 372	4/30/2009	4/30/2009	55,987.45			55,987.45	13,807.25	2,239.00		16,046.25
191 Watertank Carbon steel 9	5/8/2009	5/8/2009	12,880.41			12,880.41	3,175.87	515.00		3,690.87
164 VFD 150 HP Control Panel	5/14/2009	5/14/2009	12,705.00			12,705.00	5,223.17	847.00		6,070.17
181 Trojan 3.25 Locomotive	6/10/2009	6/10/2009	51,615.60			51,615.60	14,180.23	2,331.00		16,511.23
182 Battery for Trojan Locom	6/10/2009	6/10/2009	11,000.00			11,000.00	9,556.95	1,443.00		10,999.95
153 Huron 560 Wall Tank and	6/11/2009	6/11/2009	6,098.08			6,098.08	1,855.41	305.00		2,160.41
138 Ansul Inergen Fire Suppr	6/23/2009	6/23/2009	12,919.00			12,919.00	5,166.00	861.00		6,027.00
155 Lift Bag Kit Light US&R	6/25/2009	6/25/2009	16,750.00			16,750.00	10,050.00	1,675.00		11,725.00
135 Telephone Expansion	6/26/2009	6/26/2009	28,249.27			28,249.27	16,950.00	2,825.00		19,775.00
139 2008 Artic Cat 700 Diesel	6/30/2009	6/30/2009	10,244.54		(10,244.54)	0.00	8,340.00		(8,340.00)	0.00
140 2008 Artic Cat 700 Diesel	6/30/2009	6/30/2009	10,244.54			10,244.54	8,340.00	1,392.00		9,732.00
141 2008 Artic Cat 700 Diesel	6/30/2009	6/30/2009	10,244.55			10,244.55	8,340.00	1,392.00		9,732.00
151 Portable Generator 100KVA	6/30/2009	6/30/2009	27,100.00			27,100.00	16,260.00	2,710.00		18,970.00
195 Ross Fuel Tank/Stand/Cc	6/30/2009	6/30/2009	21,100.39			21,100.39	12,660.00	2,110.00		14,770.00
353 JD Skid Steer 315 W/CE	7/18/2009	7/18/2009	23,241.00			23,241.00	13,750.00	2,324.00		16,074.00
354 Trojan 3.25 Locomotive	8/28/2009	8/28/2009	51,192.71			51,192.71	13,475.00	2,310.00		15,785.00
355 .36Cell/72 Volt Battery f	8/28/2009	8/28/2009	11,000.00			11,000.00	11,000.00			11,000.00
356 Sanyo Air Conditioning S	9/1/2009	9/1/2009	41,401.66			41,401.66	24,150.00	4,140.00		28,290.00
357 F-16A Dry Ice Blast Unit	9/17/2009	9/17/2009	17,750.00			17,750.00	10,206.00	1,775.00		11,981.00
358 High Voltage Cable Testi	9/23/2009	9/23/2009	7,920.00			7,920.00	4,554.00	792.00		5,346.00
396 Panasonic Data Video Pri	9/30/2009	9/30/2009	6,797.47		(6,797.47)	0.00	6,797.47		(6,797.47)	0.00
359 Water Meter LUX Surface	10/1/2009	10/1/2009	6,011.30			6,011.30	3,456.00	601.00		4,057.00
360 Wall Mounted Enclosure	10/1/2009	10/1/2009	7,200.00			7,200.00	2,760.00	480.00		3,240.00
361 8-1/2' Western Ultramour	10/1/2009	10/1/2009	5,309.25			5,309.25	3,053.00	531.00		3,584.00
362 Benshaw Sofistart 700HF	10/1/2009	10/1/2009	35,257.43			35,257.43	13,513.00	2,350.00		15,863.00
364 Vertical Diesel Symo Pov	10/22/2009	10/22/2009	8,665.05			8,665.05	4,908.00	866.00		5,774.00
365 Vertical Diesel Symo Pov	10/22/2009	10/22/2009	5,721.30			5,721.30	3,241.00	572.00		3,813.00
366 Wall Mounted Enclosure	11/1/2009	11/1/2009	7,200.00			7,200.00	2,720.00	480.00		3,200.00
367 Spendrup 350HP Fan at C	11/1/2009	11/1/2009	83,092.63			83,092.63	23,545.00	4,155.00		27,700.00
368 500KVA Transformer 3 P	11/1/2009	11/1/2009	18,465.41			18,465.41	2,618.00	462.00		3,080.00

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Sys ID Description	Acquire	In Service	Beginning	Additions	Retired	Ending	Beginning	YTD 6/30/2016	Retired	Ending
140 - Equipment & Fixtures										
369 Baldor VFD Motors 350F	11/1/2009	11/1/2009	61,000.00			61,000.00	17,283.00	3,050.00		20,333.00
370 Benshaw Switch Disconn	11/1/2009	11/1/2009	8,791.96			8,791.96	3,321.00	586.00		3,907.00
371 GE700HP GE Pump Mot	11/1/2009	11/1/2009	31,986.00			31,986.00	9,061.00	1,599.00		10,660.00
372 350HP Spendrup Fan at #	11/10/2009	11/10/2009	106,641.04			106,641.04	30,215.00	5,332.00		35,547.00
374 S&C PMX Modular Met:	12/1/2009	12/1/2009	27,059.00			27,059.00	10,072.00	1,804.00		11,876.00
375 GE 8000 Series Breaker I	12/3/2009	12/3/2009	6,464.69			6,464.69	2,406.00	431.00		2,837.00
376 GE Spectra Series Switch	12/3/2009	12/3/2009	7,239.85			7,239.85	2,697.00	483.00		3,180.00
377 (2) A Bradley Powerflex .	12/3/2009	12/3/2009	15,068.40			15,068.40	5,611.00	1,005.00		6,616.00
378 Multi Media Sand Filter :	12/3/2009	12/3/2009	615,021.84			615,021.84	68,675.00	12,300.00		80,975.00
397 Telephone System Upgra	12/7/2009	12/7/2009	17,712.14			17,712.14	9,888.00	1,771.00		11,659.00
379 Johnson Controls HVAC	1/1/2010	1/1/2010	18,921.00			18,921.00	10,406.00	1,892.00		12,298.00
380 Johnson Controls HVAC	1/1/2010	1/1/2010	20,427.00			20,427.00	11,236.00	2,043.00		13,279.00
381 HVAC Air Handling Uni	1/1/2010	1/1/2010	20,862.92			20,862.92	11,473.00	2,086.00		13,559.00
382 Chemical Outdoor Stora	1/15/2010	1/15/2010	28,869.55			28,869.55	7,937.00	1,443.00		9,380.00
383 HydraulicClamb/Pneuma	1/25/2010	1/25/2010	26,940.00			26,940.00	14,592.00	2,694.00		17,286.00
384 Fire Pump	2/1/2010	2/1/2010	13,163.08			13,163.08	7,128.00	1,316.00		8,444.00
385 Jockey Pump	2/1/2010	2/1/2010	13,163.08			13,163.08	7,128.00	1,316.00		8,444.00
386 HY-25XLT 2-1/2" Sq Dr	2/4/2010	2/4/2010	13,957.43			13,957.43	7,562.00	1,396.00		8,958.00
399 Telephone System LUX S	2/15/2010	2/15/2010	9,218.04			9,218.04	4,994.00	922.00		5,916.00
387 Wall Mounted Enclosure	3/1/2010	3/1/2010	7,200.00			7,200.00	2,560.00	480.00		3,040.00
388 S&C PMX Modular Met:	3/1/2010	3/1/2010	27,059.00			27,059.00	9,621.00	1,804.00		11,425.00
389 GE Switchgear	3/1/2010	3/1/2010	58,844.32			58,844.32	20,923.00	3,923.00		24,846.00
390 MQ Generator 15KW Mc	3/1/2010	3/1/2010	10,117.00			10,117.00	5,397.00	1,012.00		6,409.00
391 Atlas Copco XAS 185 CF	3/1/2010	3/1/2010	8,924.50			8,924.50	4,757.00	892.00		5,649.00
392 Atlas Copco XAS 185 CF	3/1/2010	3/1/2010	8,924.50			8,924.50	4,757.00	892.00		5,649.00
393 115V PSI Hytorc Pump	3/30/2010	3/30/2010	5,108.37			5,108.37	2,683.00	511.00		3,194.00
394 Clean Room	5/31/2010	5/31/2010	116,000.00			116,000.00	58,967.00	11,600.00		70,567.00
395 S&C Metal Enclosed Fus	6/30/2010	6/30/2010	7,200.00			7,200.00	2,400.00	480.00		2,880.00
398 Telephone System Upgra	6/30/2010	6/30/2010	8,451.00			8,451.00	4,225.00	845.00		5,070.00
400 Telephone System Ross I	6/30/2010	6/30/2010	6,683.90			6,683.90	3,340.00	668.00		4,008.00
426 S&C Wall-Mounted Met:	7/1/2010	7/1/2010	7,200.00			7,200.00	2,400.00	480.00		2,880.00
430 Chem Grout Machine Pui	7/29/2010	7/29/2010	5,500.00			5,500.00	2,704.00	550.00		3,254.00
420 Bobcat Skidsteer S300 D	8/2/2010	8/2/2010	33,030.64			33,030.64	16,240.00	3,303.00		19,543.00
423 Air Compressor 125HP F	9/1/2010	9/1/2010	18,515.00			18,515.00	8,951.00	1,852.00		10,803.00
422 JD Angle Broom for Skid	9/3/2010	9/3/2010	5,925.00			5,925.00	2,862.00	592.00		3,454.00

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Sys ID	Description	Acquire	In Service	Beginning	Additions	Retired	Ending	Beginning	YTD 6/30/2016	Retired	Ending
140 - Equipment & Fixtures											
421	S&C PMX Modular Met	9/16/2010	9/16/2010	27,059.00			27,059.00	8,569.00	1,804.00		10,373.00
439	Ross Dry Phone/Data Sys	9/24/2010	9/24/2010	9,183.36			9,183.36	4,361.00	918.00		5,279.00
440	Ross Shaft UG Phone/Da	10/25/2010	10/25/2010	8,550.63			8,550.63	3,990.00	855.00		4,845.00
441	Yates E&O Phone/Data S	11/30/2010	11/30/2010	12,314.24			12,314.24	5,642.00	1,231.00		6,873.00
424	Radon Monitor Alphagua	12/1/2010	12/1/2010	15,028.98			15,028.98	6,889.00	1,503.00		8,392.00
416	Locomotive 1975 8 Ton #	1/27/2011	1/27/2011	130,000.00			130,000.00	82,022.00	18,571.00		100,593.00
417	Locomotive 1975 8 Ton #	1/27/2011	1/27/2011	130,000.00			130,000.00	82,022.00	18,571.00		100,593.00
418	Loader 2007 LT 210 #07-	1/27/2011	1/27/2011	195,000.00			195,000.00	86,125.00	19,500.00		105,625.00
427	Shotcrete Mixing Auger	2/28/2011	2/28/2011	18,450.00			18,450.00	7,995.00	1,845.00		9,840.00
438	Admin Building Phone/D	3/1/2011	3/1/2011	3,876.26			3,876.26	1,681.00	388.00		2,069.00
432	Loader 2007 LT350 #07-	5/31/2011	5/31/2011	230,000.00			230,000.00	93,917.00	23,000.00		116,917.00
451	JD XAS 375 CFM Air Cc	9/1/2011	9/1/2011	27,900.00			27,900.00	10,695.00	2,790.00		13,485.00
469	Transformer 45KVA 600	9/1/2011	9/1/2011	5,298.00			5,298.00	506.00	132.00		638.00
453	Battery Charger for 9-Tor	1/1/2012	1/1/2012	6,127.78			6,127.78	2,145.00	613.00		2,758.00
455	TEI 260 Hydraulic Percus	1/1/2012	1/1/2012	32,949.71			32,949.71	11,532.00	3,295.00		14,827.00
454	Lefon Portable Electric P-	1/4/2012	1/4/2012	8,218.50			8,218.50	2,877.00	822.00		3,699.00
461	Lull 54' Telescopic Forkli	1/12/2012	1/12/2012	52,500.00			52,500.00	18,375.00	5,250.00		23,625.00
456	Ross Shaft Work Deck	1/20/2012	1/20/2012	16,395.00			16,395.00	5,603.00	1,640.00		7,243.00
459	JD 315 Skid Steer W/Buc	2/10/2012	2/10/2012	25,234.00			25,234.00	8,620.00	2,523.00		11,143.00
457	GE 1500KVA 480/277V	3/1/2012	3/1/2012	102,230.90			102,230.90	8,520.00	2,556.00		11,076.00
458	GE Switchboard 1500KV	3/1/2012	3/1/2012	20,762.10			20,762.10	4,613.00	1,384.00		5,997.00
462	Yates Hoist South Cage	5/1/2012	5/1/2012	123,484.05			123,484.05	39,102.00	12,348.00		51,450.00
480	Rope Dog System Yates :	5/1/2012	5/1/2012	69,642.40			69,642.40	22,053.00	6,964.00		29,017.00
599	Yates Rope Dog System	5/1/2012	5/1/2012	227,216.99			227,216.99	47,969.00	11,949.87		59,918.87
463	Caterpillar Diesel Genera	5/3/2012	5/3/2012	54,313.83			54,313.83	17,198.00	5,431.00		22,629.00
464	Profi 1-Ton Air Hoist 25'	5/8/2012	5/8/2012	6,970.00			6,970.00	2,207.00	697.00		2,904.00
465	Profi 1-Ton Air Hoist 25'	5/8/2012	5/8/2012	6,970.00			6,970.00	2,207.00	697.00		2,904.00
470	S&C Metal Enclosed Swi	6/1/2012	6/1/2012	21,656.40			21,656.40	4,452.00	1,444.00		5,896.00
471	S&C Metal Enclosed Swi	6/1/2012	6/1/2012	21,656.40			21,656.40	4,452.00	1,444.00		5,896.00
472	S&C Metal Enclosed Swi	6/1/2012	6/1/2012	21,656.40			21,656.40	4,452.00	1,444.00		5,896.00
473	S&C Metal Enclosed Swi	6/1/2012	6/1/2012	21,656.40			21,656.40	4,452.00	1,444.00		5,896.00
474	S&C Metal Enclosed Swi	6/1/2012	6/1/2012	21,656.40			21,656.40	4,452.00	1,444.00		5,896.00
475	Multilin PQM II Meter fo	6/1/2012	6/1/2012	5,389.00			5,389.00	1,107.00	359.00		1,466.00
466	Scanstation C10 Laser Sc	6/5/2012	6/5/2012	59,609.44			59,609.44	18,380.00	5,961.00		24,341.00
467	Refuge Chamber 6X6X11	6/19/2012	6/19/2012	38,105.00			38,105.00	5,715.00	1,905.00		7,620.00

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Sys ID Description	Acquire	In Service	Beginning	Additions	Retired	Ending	Beginning	YTD 6/30/2016	Retired	Ending
140 - Equipment & Fixtures										
468 Refuge Chamber 6X6X1	6/19/2012	6/19/2012	38,105.00			38,105.00	5,715.00	1,905.00		7,620.00
496 Justice Fire & Safety Pan	7/1/2012	7/1/2012	7,588.00			7,588.00	1,518.00	506.00		2,024.00
497 Quincy Air Regulator	7/1/2012	7/1/2012	17,788.76			17,788.76	5,337.00	1,779.00		7,116.00
498 Cornell McKeon Rollup I	7/1/2012	7/1/2012	8,980.00			8,980.00	1,797.00	599.00		2,396.00
499 Rheem Water Heater	7/1/2012	7/1/2012	10,070.00			10,070.00	3,021.00	1,007.00		4,028.00
500 Johnson Controls Air Har	7/1/2012	7/1/2012	25,071.00			25,071.00	7,521.00	2,507.00		10,028.00
501 Johnson Controls Air Har	7/1/2012	7/1/2012	21,529.00			21,529.00	6,459.00	2,153.00		8,612.00
502 Johnson Controls Air Har	7/1/2012	7/1/2012	21,529.00			21,529.00	6,459.00	2,153.00		8,612.00
503 Johnson Controls Air Ha	7/1/2012	7/1/2012	17,039.00			17,039.00	5,112.00	1,704.00		6,816.00
504 Johnson Controls Chiller	7/1/2012	7/1/2012	17,245.00			17,245.00	5,172.00	1,724.00		6,896.00
505 Johnson Controls Chiller	7/1/2012	7/1/2012	17,245.00			17,245.00	5,172.00	1,724.00		6,896.00
506 Johnson Controls Air Har	7/1/2012	7/1/2012	17,436.00			17,436.00	5,232.00	1,744.00		6,976.00
525 Line Power Transformers	7/1/2012	7/1/2012	5,000.00			5,000.00	375.00	125.00		500.00
526 LN Tank Concrete Pad	8/1/2012	8/1/2012	7,920.00			7,920.00	1,155.00	396.00		1,551.00
484 R&M Hoist 7.5 Ton	8/2/2012	8/2/2012	19,510.50			19,510.50	5,690.00	1,951.00		7,641.00
485 R&M Hoist 10 Ton	8/2/2012	8/2/2012	21,560.50			21,560.50	6,288.00	2,156.00		8,444.00
490 Skyclimber Suspended W	9/6/2012	9/6/2012	67,172.86			67,172.86	19,032.00	6,717.00		25,749.00
491 Skyclimber Electric Hoist	9/6/2012	9/6/2012	6,586.85			6,586.85	1,867.00	659.00		2,526.00
492 Skyclimber Electric Hoist	9/6/2012	9/6/2012	6,586.85			6,586.85	1,867.00	659.00		2,526.00
493 Skyclimber Electric Hoist	9/6/2012	9/6/2012	6,586.85			6,586.85	1,867.00	659.00		2,526.00
494 Skyclimber Electric Hoist	9/6/2012	9/6/2012	6,586.85			6,586.85	1,867.00	659.00		2,526.00
489 Ross Cage Work Deck	9/12/2012	9/12/2012	70,226.22			70,226.22	28,424.00	10,032.00		38,456.00
486 LUX Water Treatment Sy	9/25/2012	9/25/2012	147,582.73			147,582.73	27,057.00	9,839.00		36,896.00
483 North Skip Work Deck (I	9/28/2012	9/28/2012	30,837.94			30,837.94	12,114.00	4,405.00		16,519.00
487 Jib Crane Ceiling Mount	10/1/2012	10/1/2012	28,175.00			28,175.00	7,749.00	2,818.00		10,567.00
488 Jib Crane Ceiling Mount	10/1/2012	10/1/2012	30,450.00			30,450.00	8,374.00	3,045.00		11,419.00
508 S205 Skidsteer W/Forks	10/19/2012	10/19/2012	21,000.00			21,000.00	5,600.00	2,100.00		7,700.00
495 LUX Water Tank 4850	10/22/2012	10/22/2012	364,225.82			364,225.82	64,752.00	24,282.00		89,034.00
524 Line Power Transformer	12/10/2012	12/10/2012	8,000.00			8,000.00	517.00	200.00		717.00
512 Profi 1Ton Air Hoist 25'	1/16/2013	1/16/2013	7,415.07			7,415.07	1,791.00	741.00		2,532.00
513 Caterpillar Diesel Genera	2/1/2013	2/1/2013	28,434.00			28,434.00	6,871.00	2,843.00		9,714.00
516 4850 Refuge Area Coolin	2/1/2013	2/1/2013	9,085.66			9,085.66	2,195.00	908.00		3,103.00
517 4850 Refuge Area Coolin	2/1/2013	2/1/2013	9,085.67			9,085.67	2,195.00	908.00		3,103.00
518 4850 Refuge Area Coolin	2/1/2013	2/1/2013	9,085.67			9,085.67	2,195.00	908.00		3,103.00
519 MS Scrubbing Systems E	2/1/2013	2/1/2013	17,040.00			17,040.00	4,118.00	1,704.00		5,822.00

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Sys ID Description	Acquire	In Service	Beginning	Additions	Retired	Ending	Beginning	YTD 6/30/2016	Retired	Ending
140 - Equipment & Fixtures										
520 MS Scrubbing Systems E	2/1/2013	2/1/2013	17,040.00			17,040.00	4,118.00	1,704.00		5,822.00
515 Ross Headframe Garage J	2/26/2013	2/26/2013	22,621.00			22,621.00	5,278.00	2,262.00		7,540.00
523 Modification to Ross Wo	4/16/2013	4/16/2013	7,010.22			7,010.22	2,169.00	1,001.00		3,170.00
528 25HP Diesel Hydraulic P	6/15/2013	6/15/2013	11,070.85			11,070.85	2,306.00	1,107.00		3,413.00
536 IT Generator Concrete Pa	8/1/2013	8/1/2013	6,640.00			6,640.00	636.00	332.00		968.00
538 Yates Loading Dock	9/9/2013	9/9/2013	7,040.00			7,040.00	517.00	282.00		799.00
540 IT Generator Install	10/31/2013	10/31/2013	28,056.44			28,056.44	4,676.00	2,806.00		7,482.00
554 Hitachi CPWU9410 Proje	1/18/2014	1/18/2014	13,228.18			13,228.18	1,874.00	1,323.00		3,197.00
542 Chem Grout Machine Pui	3/10/2014	3/10/2014	5,909.59			5,909.59	788.00	591.00		1,379.00
547 Bolter J.H. Fletcher & Co	4/25/2014	4/25/2014	546,642.95			546,642.95	25,510.00	21,866.00		47,376.00
550 Big Blue 300 Pro Kubota	5/2/2014	5/2/2014	10,445.00			10,445.00	1,218.00	1,044.00		2,262.00
551 Big Blue 300 Pro Kubota	5/2/2014	5/2/2014	10,445.00			10,445.00	1,218.00	1,044.00		2,262.00
548 2014 Toolmaster Trailer	5/8/2014	5/8/2014	11,200.00			11,200.00	1,307.00	1,120.00		2,427.00
553 Ultrasonic Flaw Detector	6/9/2014	6/9/2014	11,742.78			11,742.78	1,272.00	1,174.00		2,446.00
579 Line Power Skid Transfor	7/1/2014	7/1/2014	5,000.00			5,000.00	125.00	125.00		250.00
580 Line Power Skid Transfor	7/1/2014	7/1/2014	8,000.00			8,000.00	200.00	200.00		400.00
566 Davis Campus Dehumidi	7/22/2014	7/22/2014	508,965.03			508,965.03	46,655.00	50,896.00		97,551.00
565 Fisher 2" Valves (2)	8/8/2014	8/8/2014	13,554.96			13,554.96	1,242.00	1,355.00		2,597.00
568 Canon EOS C100 Cinem	8/8/2014	8/8/2014	5,499.00			5,499.00	1,008.00	1,100.00		2,108.00
569 WTP Mix Tank	8/27/2014	8/27/2014	110,641.63			110,641.63	3,688.00	4,426.00		8,114.00
572 HVAC Unit - Adm. Builc	10/10/2014	10/10/2014	17,358.78			17,358.78	1,302.00	1,736.00		3,038.00
571 Concrete Bucket Dumas l	10/22/2014	10/22/2014	18,509.51			18,509.51	1,763.00	2,644.00		4,407.00
573 Cement Hopper E-Z Fabr	10/22/2014	10/22/2014	18,195.00			18,195.00	1,733.00	2,599.00		4,332.00
577 Pressure Tank 660Gal.on	11/5/2014	11/5/2014	6,081.27			6,081.27	405.00	608.00		1,013.00
574 Yates Work Platform (Sk	12/22/2014	12/22/2014	30,419.20			30,419.20	1,521.00	3,042.00		4,563.00
575 Them Winch (Helical-Be	12/23/2014	12/23/2014	7,909.00			7,909.00	395.00	791.00		1,186.00
581 Mining Controls Portable	1/1/2015	1/1/2015	5,000.00			5,000.00	62.00	125.00		187.00
576 Profi 1-Ton Air Hoist 25'	1/26/2015	1/26/2015	7,675.00			7,675.00	320.00	768.00		1,088.00
578 JLG Electric Scissor Lift	2/24/2015	2/24/2015	20,470.00			20,470.00	682.00	2,047.00		2,729.00
582 Toshiba e-STUDIO 3530	6/30/2015	6/30/2015	7,002.00		(7,002.00)	0.00	5,584.98	472.34	(6,057.32)	0.00
584 Network Video Recorder	6/30/2015	6/30/2015	5,984.00			5,984.00	3,546.11	541.75		4,087.86
585 Shot Tech Robotic Arm S	6/30/2015	6/30/2015	171,390.00			171,390.00	114,404.53	11,397.09		125,801.62
589 Topcon GPT Data Collec	6/30/2015	6/30/2015	9,850.00			9,850.00	3,775.79	1,012.37		4,788.16
590 Wolverine 25D Hydraulic	6/30/2015	6/30/2015	12,816.00			12,816.00	4,094.00	1,090.25		5,184.25
591 Micro 1000 Data Logger	6/30/2015	6/30/2015	7,705.14			7,705.14	4,402.96	1,100.73		5,503.69

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Sys ID Description	Acquire	In Service	Beginning	Additions	Retired	Ending	Beginning	YTD 6/30/2016	Retired	Ending
140 - Equipment & Fixtures										
592 Micro 1000 Data Logger	6/30/2015	6/30/2015	7,705.14			7,705.14	4,402.96	1,100.73		5,503.69
593 Mini Track Loader	6/30/2015	6/30/2015	22,546.19			22,546.19	7,515.34	2,312.44		9,827.78
594 Vertical Diesel Symo Pov	6/30/2015	6/30/2015	14,023.44			14,023.44	6,844.83	1,104.40		7,949.23
595 IT Generac Generator	6/30/2015	6/30/2015	26,208.14			26,208.14	9,984.03	2,317.73		12,301.76
596 Kubota RTV Utility	6/30/2015	6/30/2015	11,542.33			11,542.33	3,060.44	1,211.70		4,272.14
597 Kubota RTV Utility	6/30/2015	6/30/2015	11,542.33			11,542.33	3,060.44	1,211.70		4,272.14
598 HD Video Conferencing	6/30/2015	6/30/2015	13,990.26			13,990.26	7,383.78	1,321.30		8,705.08
636 Neutron Doors (2)Lead R	7/1/2015	7/1/2015		89,520.00		89,520.00		8,952.00		8,952.00
640 DDX Preaction Valve Re	7/22/2015	7/22/2015		12,801.00		12,801.00		1,173.00		1,173.00
637 Lighting Inverter Ross Ca	7/31/2015	7/31/2015		10,000.00		10,000.00		917.00		917.00
638 Transformer 300KVA 12-	7/31/2015	7/31/2015		20,572.35		20,572.35		471.00		471.00
639 Fire Alarm Panel Ross Ca	7/31/2015	7/31/2015		18,291.60		18,291.60		1,118.00		1,118.00
610 S&CMetal Encl.Switchge	8/1/2015	8/1/2015		81,000.00		81,000.00		4,950.00		4,950.00
629 AHU-1-Ross Campus Air	9/9/2015	9/9/2015		12,695.62		12,695.62		1,058.00		1,058.00
630 AHU-2-Ross Campus Ai	9/9/2015	9/9/2015		12,695.62		12,695.62		1,058.00		1,058.00
631 DOAS-1Ross Campus Ai	9/9/2015	9/9/2015		11,691.80		11,691.80		974.00		974.00
632 Chiller CH-1 Ross Camp	9/9/2015	9/9/2015		57,680.96		57,680.96		4,807.00		4,807.00
633 AHU-1 BSUCleanroom /	9/9/2015	9/9/2015		20,988.00		20,988.00		1,749.00		1,749.00
634 Heat Exchanger Ross Car	9/9/2015	9/9/2015		26,581.62		26,581.62		2,215.00		2,215.00
635 Liq.NitrogenDistri.Syster	9/9/2015	9/9/2015		22,654.00		22,654.00		1,888.00		1,888.00
612 Polycom16ChannelMicM	10/14/2015	10/14/2015		8,030.30		8,030.30		1,204.00		1,204.00
613 3-Series Digital Media Pr	10/14/2015	10/14/2015		7,464.30		7,464.30		1,120.00		1,120.00
614 Polycom EagleEyeVCam	10/14/2015	10/14/2015		12,259.30		12,259.30		1,839.00		1,839.00
615 Hitachi CPWU9411 Proje	10/14/2015	10/14/2015		13,803.30		13,803.30		2,070.00		2,070.00
616 SMART Board 84 Flat Pa	10/14/2015	10/14/2015		16,331.32		16,331.32		2,450.00		2,450.00
617 Polycom 16 Channel Mic	10/14/2015	10/14/2015		8,030.30		8,030.30		1,204.00		1,204.00
618 Polycom 16Channel Micl	10/14/2015	10/14/2015		8,030.30		8,030.30		1,204.00		1,204.00
619 Crestron 3 Series Digital	10/14/2015	10/14/2015		7,464.30		7,464.30		1,120.00		1,120.00
620 Polycom Eagle Eye V Ca	10/14/2015	10/14/2015		12,259.30		12,259.30		1,839.00		1,839.00
611 Yates Skip Bonnet E-Z F.	10/24/2015	10/24/2015		30,147.20		30,147.20		2,010.00		2,010.00
628 ET Globe Valve - Fisher	2/8/2016	2/8/2016		8,978.72		8,978.72		374.00		374.00
625 LG 79" TV	3/14/2016	3/14/2016		8,040.11		8,040.11		536.00		536.00
626 Cable Puller Assembly	3/16/2016	3/16/2016		5,763.01		5,763.01		144.00		144.00
651 Yates Skip Bonnet W/De	3/25/2016	3/25/2016		16,040.25		16,040.25		401.00		401.00
627 IVAC PV500 Vacuum Sy	5/27/2016	5/27/2016		47,984.50		47,984.50		400.00		400.00

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Sys ID	Description	Acquire	In Service	Beginning	Additions	Retired	Ending	Beginning	YTD 6/30/2016	Retired	Ending
140 - Equipment & Fixtures											
				9,820,876.78	607,799.08	(60,227.84)	10,368,448.02	3,000,950.52	703,014.40	(48,088.26)	3,655,876.66
150 - Furniture & Fixtures											
249	Blinds	6/1/2006	6/1/2006	1,877.92			1,877.92	1,877.25			1,877.25
250	6X8 Workstations - Adm	12/31/2008	12/31/2008	67,297.83			67,297.83	29,159.26	4,486.00		33,645.26
251	Blinds - Admin Bldg	2/1/2009	2/1/2009	5,035.75			5,035.75	3,233.82	504.00		3,737.82
				74,211.50	0.00	0.00	74,211.50	34,270.33	4,990.00	0.00	39,260.33
160 - Improvements											
189	Carpet - Admin Bldg	4/25/2006	4/25/2006	6,589.30			6,589.30	6,589.29			6,589.29
283	Office Remodel - Admin	6/1/2006	6/1/2006	19,584.00			19,584.00	17,786.40	1,798.00		19,584.40
284	Office Remodel/Painting	6/1/2006	6/1/2006	10,898.27			10,898.27	9,900.31	998.00		10,898.31
285	Yates Building Renovatic	2/14/2007	2/14/2007	16,714.32			16,714.32	2,945.43	334.00		3,279.43
263	Power Line East Sub Stat	7/27/2007	7/27/2007	31,222.00			31,222.00	4,368.44	624.00		4,992.44
269	Ross Guard Station	5/31/2008	5/31/2008	8,617.06			8,617.06	1,204.34	172.00		1,376.34
271	Ross Hoist Building	6/30/2008	6/30/2008	197,674.59			197,674.59	27,671.49	3,953.00		31,624.49
286	Kitchen Improvements -	6/30/2008	6/30/2008	5,792.72			5,792.72	811.85	116.00		927.85
259	Gas Line System (Existin	7/1/2008	7/1/2008	5,795.00			5,795.00	1,623.80	232.00		1,855.80
261	Parking Lot - Admin Are	7/1/2008	7/1/2008	60,000.00			60,000.00	21,000.00	3,000.00		24,000.00
264	Power Line Oro Hondo 6'	7/1/2008	7/1/2008	8,250.00			8,250.00	1,155.00	165.00		1,320.00
265	Power Line Ross 69KV P	7/1/2008	7/1/2008	25,000.00			25,000.00	3,500.00	500.00		4,000.00
267	Rail System Undergrounc	7/1/2008	7/1/2008	61,267.89			61,267.89	8,575.36	1,225.00		9,800.36
275	Ross Yard (Gravel Yard)	7/1/2008	7/1/2008	22,277.00			22,277.00	3,898.93	557.00		4,455.93
282	Yates Yard (Gravel Yard)	7/1/2008	7/1/2008	16,282.20			16,282.20	2,849.06	407.00		3,256.06
277	Yates Gas Line	11/24/2008	11/24/2008	17,695.65			17,695.65	4,660.90	708.00		5,368.90
288	Carpet/Vinyl - Admin Blk	1/1/2009	1/1/2009	53,826.21			53,826.21	34,989.31	5,383.00		40,372.31
256	Communications - Ross S	2/18/2009	2/18/2009	10,340.00			10,340.00	4,363.78	689.00		5,052.78
257	Communications - Yates	2/18/2009	2/18/2009	57,716.63			57,716.63	24,370.59	3,848.00		28,218.59
266	Propane Storage Building	2/25/2009	2/25/2009	16,200.00			16,200.00	2,052.00	324.00		2,376.00
270	Ross Headframe Crusher	3/1/2009	3/1/2009	26,409.12			26,409.12	3,344.06	528.00		3,872.06
278	Yates Headframe/Crushe	3/1/2009	3/1/2009	33,519.74			33,519.74	4,243.46	670.00		4,913.46
280	Yates Safety/Dry Buildin	3/1/2009	3/1/2009	52,177.41			52,177.41	6,611.85	1,044.00		7,655.85
260	IT Room Electrical/Instal	3/4/2009	3/4/2009	41,618.32			41,618.32	13,179.64	2,081.00		15,260.64
279	Yates Hoist Building	4/14/2009	4/14/2009	159,110.28			159,110.28	19,887.55	3,182.00		23,069.55
272	Ross Pump System	6/12/2009	6/12/2009	963,663.60			963,663.60	234,494.00	38,547.00		273,041.00
258	Fiber Optic Network Syst	6/30/2009	6/30/2009	17,541.98			17,541.98	5,262.00	877.00		6,139.00
262	Power Distribution	6/30/2009	6/30/2009	783,887.52			783,887.52	94,068.00	15,678.00		109,746.00

Cost of Fixed Assets

Accumulated Depreciation

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Sys ID Description	Acquire	In Service	Beginning	Additions	Retired	Ending	Beginning	YTD 6/30/2016	Retired	Ending
160 - Improvements										
268 Ross Dry Building	6/30/2009	6/30/2009	63,368.30			63,368.30	7,602.00	1,267.00		8,869.00
273 Ross Shaft	6/30/2009	6/30/2009	9,773,260.40			9,773,260.40	1,172,790.00	195,465.00		1,368,255.00
274 Ross Substation	6/30/2009	6/30/2009	277,760.27			277,760.27	33,330.00	5,555.00		38,885.00
276 WWTP Improvements	6/30/2009	6/30/2009	660,400.84			660,400.84	79,248.00	13,208.00		92,456.00
281 Yates Shaft	6/30/2009	6/30/2009	4,694,581.28			4,694,581.28	563,352.00	93,892.00		657,244.00
287 Admin Bldg Improvemen	6/30/2009	6/30/2009	382,643.40			382,643.40	45,918.00	7,653.00		53,571.00
407 Ross Substation Upgrade	3/1/2010	3/1/2010	79,000.94			79,000.94	8,427.00	1,580.00		10,007.00
409 Yates Shaft	4/1/2010	4/1/2010	2,185,614.49			2,185,614.49	229,488.00	43,712.00		273,200.00
402 LUX Surface Lab	5/1/2010	5/1/2010	1,563,830.79			1,563,830.79	161,598.00	31,277.00		192,875.00
403 Oro Hondo Substation Uj	5/15/2010	5/15/2010	85,015.90			85,015.90	8,783.00	1,700.00		10,483.00
404 Pole Frame Building	6/1/2010	6/1/2010	14,183.70			14,183.70	1,444.00	284.00		1,728.00
408 Yates Fencing	6/15/2010	6/15/2010	10,469.70			10,469.70	2,659.00	523.00		3,182.00
401 Fiber Optic Network Syst	6/30/2010	6/30/2010	19,495.55			19,495.55	4,875.00	975.00		5,850.00
405 Power Distribution Upgr	6/30/2010	6/30/2010	341,565.29			341,565.29	34,155.00	6,831.00		40,986.00
406 Ross Pumping System	6/30/2010	6/30/2010	159,652.84			159,652.84	31,930.00	6,386.00		38,316.00
447 Yates Parking Lot Resurf	9/24/2010	9/24/2010	259,641.41			259,641.41	123,329.00	25,964.00		149,293.00
445 Majorana Shotcreting Imj	10/15/2010	10/15/2010	268,602.24			268,602.24	42,527.00	8,953.00		51,480.00
428 Ross Dry Renovations	10/30/2010	10/30/2010	243,726.84			243,726.84	22,750.00	4,875.00		27,625.00
431 Yates E&O Dry Renovati	11/30/2010	11/30/2010	214,711.49			214,711.49	19,681.00	4,294.00		23,975.00
434 Communications Improv	6/30/2011	6/30/2011	89,807.33			89,807.33	23,948.00	5,987.00		29,935.00
435 Power Distribution Impro	6/30/2011	6/30/2011	108,274.04			108,274.04	8,660.00	2,165.00		10,825.00
436 Fiber Optic Network Syst	6/30/2011	6/30/2011	24,228.00			24,228.00	4,844.00	1,211.00		6,055.00
437 Ross Pump System Imprc	6/30/2011	6/30/2011	17,311.87			17,311.87	2,768.00	692.00		3,460.00
443 Davis Shotcreting Improv	6/30/2011	7/1/2011	857,538.24			857,538.24	114,340.00	28,585.00		142,925.00
481 Improvements to Yates R	5/1/2012	5/1/2012	42,785.45			42,785.45	2,711.00	856.00		3,567.00
510 Davis Campus Laborator	11/30/2012	11/30/2012	8,453,584.87			8,453,584.87	727,947.00	281,786.00		1,009,733.00
527 Ross Gas Line	1/14/2013	1/14/2013	15,873.11			15,873.11	1,587.00	635.00		2,222.00
521 4850 Refuge Area	2/1/2013	2/1/2013	175,941.14			175,941.14	21,259.00	8,797.00		30,056.00
642 Ross Campus Shotcrete F	7/1/2015	7/1/2015		419,793.13		419,793.13		13,993.00		13,993.00
643 Ross Campus Laboratory	9/9/2015	9/9/2015		2,541,235.84		2,541,235.84		70,590.00		70,590.00
644 Ross Water Suppression :	2/8/2016	2/8/2016		232,972.47		232,972.47		3,883.00		3,883.00
			33,812,540.53	3,194,001.44	0.00	37,006,541.97	4,067,356.84	961,214.00	0.00	5,028,570.84
170 - Improvements in Progress										
477 Improvements in Progress	6/30/2012	6/30/2012	934,406.24			934,406.24				0.00
529 Improvement in Progress	6/30/2013	6/30/2013	1,635,423.51			1,635,423.51				0.00

000 - SD Science & Technology Authority

Sys ID	Description	Acquire	In Service	Beginning	Additions	Retired	Ending	Beginning	YTD 6/30/2016	Retired	Ending
170 - Improvements in Progress											
535	Ross Shaft Labor/SCC/EI	6/30/2013	6/30/2013	1,096,843.28			1,096,843.28				0.00
557	Ross Shaft Rehab FY14	6/30/2014	6/30/2014	3,873,268.01			3,873,268.01				0.00
561	CASPAR Experiment De	6/30/2014	6/30/2014	30,234.06			30,234.06				0.00
562	CASPAR Facility Develo	6/30/2014	6/30/2014	279,209.33		(279,209.33)	0.00				0.00
563	Ross Rehab FY14 SCC/L	6/30/2014	6/30/2014	1,216,243.78			1,216,243.78				0.00
564	CASPAR Facility Dev FY	6/30/2014	6/30/2014	58,490.80		(58,490.80)	0.00				0.00
604	Ross Shaft Rehab FY201	6/30/2015	6/30/2015	6,331,306.42			6,331,306.42				0.00
605	Sanford Visitor Center	6/30/2015	6/30/2015	4,460,206.48		(4,460,206.48)	0.00				0.00
606	CASPAR/BHSU UG Fac	6/30/2015	6/30/2015	2,356,853.77		(2,356,853.77)	0.00				0.00
607	Yates 2nd Skip Bonnet	6/30/2015	6/30/2015	12,047.98		(12,047.98)	0.00				0.00
608	CASPAR Experiment De	6/30/2015	6/30/2015	668,419.00			668,419.00				0.00
609	Jonas Renovation FY15	6/30/2015	6/30/2015	1,383,790.71		(1,383,790.71)	0.00				0.00
647	Water Inflow Pipe System	6/30/2016	6/30/2016		209,827.94		209,827.94				0.00
648	Ross Rehab Rehab FY16	6/30/2016	6/30/2016		1,141,668.38		1,141,668.38				0.00
649	Ross Rehab FY16 Labor/	6/30/2016	6/30/2016		1,436,075.93		1,436,075.93				0.00
650	LZ Facility Upgrades	6/30/2016	6/30/2016		545,396.00		545,396.00				0.00
652	CASPAR Experiment De	6/30/2016	6/30/2016		139,821.86		139,821.86				0.00
				24,336,743.37	3,472,790.11	(8,550,599.07)	19,258,934.41	0.00	0.00	0.00	0.00
180 - Infrastructure											
294	Road Gravel WWTP East	7/1/2008	7/1/2008	48,846.60			48,846.60	8,547.17	1,221.00		9,768.17
296	Road Gravel Yates Hillside	7/1/2008	7/1/2008	5,159.00			5,159.00	902.98	129.00		1,031.98
298	Sewer Line System	7/1/2008	7/1/2008	14,850.00			14,850.00	4,158.00	594.00		4,752.00
300	Water Line System (Historic)	7/1/2008	7/1/2008	38,150.00			38,150.00	10,682.00	1,526.00		12,208.00
301	Water Line System (Other)	7/1/2008	7/1/2008	25,675.00			25,675.00	7,189.00	1,027.00		8,216.00
292	Concrete Cooling Basins	8/1/2008	8/1/2008	25,000.00			25,000.00	3,458.33	500.00		3,958.33
293	Concrete Vault System	8/1/2008	8/1/2008	25,000.00			25,000.00	3,458.33	500.00		3,958.33
290	Mill Reservoir	10/30/2008	10/30/2008	117,540.85			117,540.85	15,673.21	2,351.00		18,024.21
297	Sewer Line - Backwash Tank	11/1/2008	11/1/2008	155,156.08			155,156.08	41,373.50	6,206.00		47,579.50
291	Clarifier - WWTP	11/25/2008	11/25/2008	117,245.74			117,245.74	15,437.87	2,345.00		17,782.87
414	Grizzly Gulch Decant Pipe	1/1/2011	1/1/2011	1,060,808.89			1,060,808.89	95,472.00	21,216.00		116,688.00
415	Ross Potable Water Line	1/1/2011	1/1/2011	24,810.00			24,810.00	4,464.00	992.00		5,456.00
				1,658,242.16	0.00	0.00	1,658,242.16	210,816.39	38,607.00	0.00	249,423.39
190 - Land											
304	Land - Donated by Home	4/14/2006	4/14/2006	1,511,000.00			1,511,000.00				0.00
305	Land - Closing Costs	1/31/2007	1/31/2007	13,435.39			13,435.39				0.00

Cost of Fixed Assets

Accumulated Depreciation

000 - SD Science & Technology Authority

Sys ID Description	Acquire	In Service	Beginning	Additions	Retired	Ending	Beginning	YTD 6/30/2016	Retired	Ending
190 - Land										
306 Land - Phase I Enviromer	6/30/2008	6/30/2008	4,000.00			4,000.00				0.00
307 Land - Phase II Site Asse:	12/23/2008	12/23/2008	5,602.65			5,602.65				0.00
603 Ellison Option	6/30/2015	6/30/2015	45,260.00			45,260.00				0.00
			1,579,298.04	0.00	0.00	1,579,298.04	0.00	0.00	0.00	0.00
200 - Other Non Dep										
309 Archive Materials - Gold	7/1/2008	7/1/2008	20,000.00			20,000.00				0.00
310 Archive Materials	7/1/2008	7/1/2008	50,000.00			50,000.00				0.00
			70,000.00	0.00	0.00	70,000.00	0.00	0.00	0.00	0.00
210 - Underground										
311 Underground - Closing C	1/31/2007	1/31/2007	90,686.99			90,686.99				0.00
312 Underground	1/31/2007	1/31/2007	10,658,650.00			10,658,650.00				0.00
			10,749,336.99	0.00	0.00	10,749,336.99	0.00	0.00	0.00	0.00
220 - Underground Improvements										
410 Improvements - Undergrc	6/30/2010	6/30/2010	1,210,109.78			1,210,109.78				0.00
444 Improvement Majorana E	10/31/2010	10/31/2010	159,204.14			159,204.14				0.00
446 Improvement Hazard Mit	5/31/2011	5/31/2011	60,774.93			60,774.93				0.00
442 Improvements Davis Exca	6/30/2011	7/1/2011	4,460,860.74			4,460,860.74				0.00
479 Improvement to UG Haze	6/30/2012	6/30/2012	69,223.43			69,223.43				0.00
530 Improvements-Haz.Mit.2	6/30/2013	6/30/2013	51,019.29			51,019.29				0.00
556 Hazard Mitigation Inprov	6/30/2014	6/30/2014	294,893.16			294,893.16				0.00
567 D.Campus Excav.Dehum	7/22/2014	7/22/2014	31,530.99			31,530.99				0.00
602 Hazard Mitigation 2015	6/30/2015	6/30/2015	163,874.47			163,874.47				0.00
641 Ross Campus Excavation	7/1/2015	7/1/2015		329,557.51		329,557.51				0.00
646 Hazard Mitigation Yates	6/21/2016	6/21/2016		187,570.00		187,570.00				0.00
			6,501,490.93	517,127.51	0.00	7,018,618.44	0.00	0.00	0.00	0.00

Cost of Fixed Assets

Accumulated Depreciation

Summary

000 - SD Science & Technology Authority								
	Beginning	Additions	Retired	Ending	Beginning	YTD 6/30/2016	Retired	Ending
110 - Automobiles	86,305.08	0.00	0.00	86,305.08	56,262.11	8,453.00	0.00	64,715.11
120 - Building	7,223,085.46	0.00	0.00	7,223,085.46	1,461,633.29	145,753.00	0.00	1,607,386.29
130 - Computer Hardware	451,472.54	42,601.75	(32,658.04)	461,416.25	392,327.51	25,061.41	(32,658.04)	384,730.88
140 - Equipment & Fixtures	9,820,876.78	607,799.08	(60,227.84)	10,368,448.02	3,000,950.52	703,014.40	(48,088.26)	3,655,876.66
150 - Furniture & Fixtures	74,211.50	0.00	0.00	74,211.50	34,270.33	4,990.00	0.00	39,260.33
160 - Improvements	33,812,540.53	3,194,001.44	0.00	37,006,541.97	4,067,356.84	961,214.00	0.00	5,028,570.84
170 - Improvements in Progress	24,336,743.37	3,472,790.11	(8,550,599.07)	19,258,934.41	0.00	0.00	0.00	0.00
180 - Infrastructure	1,658,242.16	0.00	0.00	1,658,242.16	210,816.39	38,607.00	0.00	249,423.39
190 - Land	1,579,298.04	0.00	0.00	1,579,298.04	0.00	0.00	0.00	0.00
200 - Other Non Dep	70,000.00	0.00	0.00	70,000.00	0.00	0.00	0.00	0.00
210 - Underground	10,749,336.99	0.00	0.00	10,749,336.99	0.00	0.00	0.00	0.00
220 - Underground Improvements	6,501,490.93	517,127.51	0.00	7,018,618.44	0.00	0.00	0.00	0.00
	<u>96,363,603.38</u>	<u>7,834,319.89</u>	<u>(8,643,484.95)</u>	<u>95,554,438.32</u>	<u>9,223,616.99</u>	<u>1,887,092.81</u>	<u>(80,746.30)</u>	<u>11,029,963.50</u>

SD Science and Technology Authority
Consolidated Report 6/30/16
Inventory of Supplies

<u>Inventory of Supplies</u>	<u>Balance 6/30/2013</u>	<u>Additions</u> 2014	<u>Deletions 2014</u>	<u>Balance</u> 6/30/2014	<u>Additions</u> 2015	<u>Deletions</u> 2015	<u>Balance 6/30/2015</u>	<u>Additions</u> 2016	<u>Deletions 2016</u>	<u>Balance 2016</u>
Foundry Motors/Tuggers/Switches/Skips	\$ 779,000.00			\$ 779,000.00			\$ 779,000.00			\$ 779,000.00
Transformers in Foundry	\$ 112,346.30			\$ 112,346.30	\$ 18,000.00		\$ 94,346.30			\$ 94,346.30
Transformers in Machine Shop	\$ 114,650.00			\$ 114,650.00			\$ 114,650.00			\$ 114,650.00
(from 8Winze) 6800/8000 Pump/Motor Spares	\$ 23,975.00			\$ 23,975.00			\$ 23,975.00			\$ 23,975.00
Ropes	\$ 15,900.00			\$ 15,900.00	\$ 6,057.14		\$ 9,842.86			\$ 9,842.86
Transformers Refurbished (Machine Shop)	\$ 17,400.00			\$ 17,400.00			\$ 17,400.00			\$ 17,400.00
Shaft Level Pumps (from Homestake)	\$ 283,536.36			\$ 283,536.36			\$ 283,536.36			\$ 283,536.36
Benshaw Softstart Starters (3)	\$ 105,772.27			\$ 105,772.27			\$ 105,772.27			\$ 105,772.27
Used Joy Fans (2)	\$ 13,372.00			\$ 13,372.00			\$ 13,372.00			\$ 13,372.00
S&CMetal Enclosed Switchgear (1 set of 3)	\$ -			\$ -			\$ -			\$ -
S&CWall Mounted Metal Enclosed Fuse Mounting	\$ -			\$ -			\$ -			\$ -
Ross Maint. Transformer S#1M0179357	\$ -			\$ -			\$ -			\$ -
Baldor Motor (5000LSpare) S#S9069457-001 001	\$ 6,240.00			\$ 6,240.00			\$ 6,240.00			\$ 6,240.00
S&CMetal Enclosed Switchgear (5Units)	\$ -			\$ -			\$ -			\$ -
S&C PGM II Multilin Meter for above in Bay 3	\$ -			\$ -			\$ -			\$ -
Flygt Pump (Yates Sump Spare) S#1070147	\$ 22,870.00			\$ 22,870.00			\$ 22,870.00			\$ 22,870.00
Sandpiper Air Powered Dbl Diaph.PumpS#1905122	\$ 5,328.08			\$ 5,328.08			\$ 5,328.08			\$ 5,328.08
Cable from Improvements Progress	\$ 354,853.92			\$ 354,853.92			\$ 354,853.92			\$ 354,853.92
Tsurumi Pumps	\$ 197,229.22		\$ 126,715.43	\$ 70,513.79			\$ 70,513.79			\$ 70,513.79
Refuge Chambers (2)	\$ 143,369.48			\$ 143,369.48			\$ 143,369.48	\$ 143,369.48		\$ -
10,000KVA Transformer S# 161916B	\$ 10,000.00			\$ 10,000.00			\$ 10,000.00			\$ 10,000.00
Termination Cabinets (4) for Ross Pump System	\$ 15,914.48			\$ 15,914.48			\$ 15,914.48			\$ 15,914.48
#5 Shaft Axial Flow Mine Fan S# 3533	\$ 47,245.51			\$ 47,245.51			\$ 47,245.51			\$ 47,245.51
DAD Pump S#882157	\$ 140,191.41			\$ 140,191.41			\$ 140,191.41			\$ 140,191.41
DAD Pump S#882158	\$ 131,559.36			\$ 131,559.36			\$ 131,559.36			\$ 131,559.36
(2) Siemen Motors Malloy (for2 X 11 DAD Pumps)	\$ 94,011.92			\$ 94,011.92			\$ 94,011.92			\$ 94,011.92
Sky Climber Electric 208V Hoist	\$ 5,880.13			\$ 5,880.13			\$ 5,880.13			\$ 5,880.13
AC Generator 1974 kato S#73392	\$ 40,036.00			\$ 40,036.00			\$ 40,036.00			\$ 40,036.00
Delta Optical Comparator	\$ 21,783.37			\$ 21,783.37			\$ 21,783.37			\$ 21,783.37
200 - 10Ft. Lengths 20"Diameter Piping (Waterinflow)					\$ 65,300.00		\$ 65,300.00		\$ 65,300.00	\$ -
IVAC PV500 Vacuum System							\$ -	\$ 47,984.50	\$ 47,984.50	\$ -
Totals	\$ 2,702,464.79	0	\$ 126,715.43	\$ 2,575,749.36	\$ 65,300.00	\$ 24,057.14	\$ 2,616,992.22	\$ 47,984.50	\$ 256,653.98	\$ 2,408,322.74

**PROPERTY MANAGEMENT SYSTEM ASSESSMENT
PROPERTY REPORT CERTIFICATE
PROPERTY REPORT**

Subcontract Number: 6994297

Date: April 19, 2016

Subcontractor Property Identification Number	Qty	Property Description, Manufacturer Name, Agreement No.	DOE/LBNL Property Number	Serial Number	Model Number	Location	Acquisition Date	Condition Code	Grams	Unit Cost	Total Cost
1	1	Fluke Three Phase Quality Analyzer Meter [PO #3019]	6761832	12990014	435	Director of Facility Infrastructure's office	2012-03	1	n/a	\$ 5,895.00	\$ 5,895.00
2	1	Flygt Submersible Power Cable (150' @\$ 38.82/ft.) [PO #2929]	Orange Tag	none	FLY94-21-11	SDSTA/Yates Shaft 4850L	2012-02	1	n/a	\$ 5,823.00	\$ 5,823.00
3	1	Allen Bradley Flex Solid State Con-troller [PO #2860]	6761818	none	2752991	SDSTA/Yates Shaft 4850L	2012-01	1	n/a	\$ 5,375.00	\$ 5,375.00
4	1	Dell Equal Logic SAN [PO #2959]	6761825	S0DMKS1	PS4100Xi SCSI	SDSTA Admin Bldg Server Room	2012-03	1	n/a	\$ 38,950.00	\$ 38,950.00
5	1	Thern Ceiling Mount Winch [PO #2896]	Orange Tag	4012-64281	4WS6M12	SDSTA 4850L Yates Station	2012-05	1	n/a	\$ 6,360.00	\$ 6,360.00
5	1	Thern Single Speed Control [PO #2896]	Orange Tag	none	10S7E4	SDSTA 4850L Yates Station	2012-05	1	n/a	\$ 1,055.00	\$ 1,055.00
6	1	Corning 96 Count Figure 8 Fiber Optic Cable (5000' @\$ 1.93/ft) [PO #3163]	Orange Tag	none	096-EUA-T4101D20	SDSTA/Yates Shaft	2012-06	1	n/a	\$ 9,650.00	\$ 9,650.00
7	1	Commercial Evolution Series 8' "Pivot Gate" [PO #3524]	Orange Tag	ES810-01007	CGC-ES810	SDSTA/Ross	2012-10	1	n/a	\$ 15,489.50	\$ 15,489.50
8	1	Flygt Submersible Pump with Agitator 50' Cable (No Control) 30 hp [PO #3699]	Orange Tag	1280005	5100.251A	SDSTA/Ross Shaft-5000L	2013-01	1	n/a	\$ 20,500.00	\$ 20,500.00

9	1	R&M 5-ton Electric Chain Hoist [PO #4043]	Orange Tag	10026149	LM25-5-015LM12T2C1	SDSTA 4850L Governor's Corner	2013-05	1	n/a	\$ 5,133.00	\$ 5,133.00
10	1	Vigilant VM Panel (REMICA mic & mounting box, Ethernet & NOC Cards, VM Control switches, Duct Detector, 2-RLCD-C Annumicators) [PO #13064]	6774245	none	Vigilant VM-RCCM/D (Part #260512)	4850L Davis Campus Fire Alarm System	2013-06	1	n/a	\$ 18,333.70	\$ 18,333.70
11 CORR	1	Staticon Battery Charger [PO #4138]	Orange Tag	S/N 032961	MPL36F600M1	1700L Yates Station	2013-07	1	n/a	\$ 5,689.00	\$ 5,689.00
12	1	Fujikura 70S Fusion Splicer w/Cleaver & Battery Drop (PO #4252)	6774177	VG239CX06DPEN4CZ	Stock #AFL FSM-70S/S015591	Ross Hoist Cyber Tool Room	2013-07	1	n/a	\$ 15,752.93	\$ 15,752.93
13	1	Baldor 400 hp, 547 amp Power Module (PO #4321)	Orange Tag	550210008EF	VSIPF4400-9L	5 Shaft	2013-08	1	n/a	\$8,800.00	\$8,800.00
14	1	Flygt Submersible Pump Model 2670, 27 hp (PO #4310)	6774160	1350012	Model 2670	2600' Yates Pump Station	2013-08	1	n/a	\$12,556.00	\$12,556.00
15	1	Sullair 185 Portable Air Compressor 2013 SU 185DLQ (PO 4206)	6774153	Air Compressor SN 201308070067 John Deere Engine SN PE4024R129152	Model 49HP/185/B DLQ/ID14 EPA	UG Hazard Mitigation	2013-08	1	n/a	\$13,507.00	\$13,507.00
16	1	Fluke OptiFiber Pro OTDR Fiber Testing Tool (PO #4302)	6777741	2298662	Factory Build to Order	Ross Hoist Cyber Tool Room	2013-08	1	n/a	\$13,178.88	\$13,178.88
17	1	Cornell 6H-F16 Frame Mounted Pump/Motor Assembly (PO 4324)	UG-no tag (see 11.7.2013 email)	Pump/Motor Assembly SN 187888; 100 HP Motor SN A1309122094	6H-F16	SDSTA/YRoss Shaft 2600L	2013-10	1	n/a	\$20,823.75	\$20,823.75
18	1	Cornell 6H-F16K Spare Pump (PO 4324)	Orange Tag	Pump End only SN 187892	6H-F16K	Warehouse (until needed)	2013-10	1	n/a	\$6,867.90	\$6,867.90
19	1	Maestro Vigilante AQS Air Quality Station (PO 4326)	Orange Tag	none	VAQS-PF-PF-G002-NR-NR-NR-NR-MB-IM-SP1-SP2-SP3	Oro Hondo Fan	2013-11	1	n/a	\$7,175.00	\$7,175.00
20	1	Wheelift Transporter Model (Auto Guided) Daya Bay vehicle - Mod 20)	DOE# 6690569 (GFP)	none	Model C5280	Yates Crusher Room	2014-01	4	n/a	\$919,808.00	\$919,808.00

21	1	Movex Twin Track 66 Track-O-lift, stair climber, remote, sides/backrest (PO 4739)	6777727	Serial Number 14011421CA045236-2	Twin-Track 66	4850L Yates Shaft Davis Campus	2014-02	1	n/a	\$ 25,455.00	\$25,455.00
22	2	Titan Air Make-Up Units Natural Gas, 50,000 CFM, 3,620,000 BTU [PO 4613]	#1 - 6777703 #2 - 6777710	Unit #1 - 5N 15028 Unit #2 - SN 15029	Unit #1 - Model TA-133 NG HLH DA Unit #2 - Model TA-133 NG HRH DA	#1 - Ross Shaft #2 - Yates Shaft	2014-02	1	n/a	\$ 31,215.00	\$ 62,430.00
23	1	CAF-960-5 Blow-Through/Wall Supply-Air Package Fan (PO 4833)	Orange Tag	Serial Number E3792	Model CAF-960-5 Filtered Supply Fan	Temporary Clean Room - Ross 4850L	2014-03	1	n/a	\$ 6,995.00	\$ 6,995.00
24	1	Big Blue 300 Pro Kubota CC/CV (1800 RPM) Welder (PO 4981)	6777659	Serial Number ME160009E	MIL907521	Hazard Mitigation Crew 4850L	2014-05	1	n/a	\$ 10,445.00	\$ 10,445.00
25	1	Olympus 1000i Digital Ultrasonic Flaw Detector (PO 5199)	6783087	Serial Number 140220804	EOCH 1000i	4850L	2014-06	1	n/a	\$ 11,715.00	\$ 11,715.00
Withdrawn 7.10.2014 funding source changed to CAPEX											
26	2	Warren Battery mtd in Std Trojan Battery Box (PO 5495)	Orange Tags	Batteries: SN 73362 & 73363	36C 72V 510AH	UG locations	2014-10	1	n/a	\$ 9,583.00	\$ 19,166.00
27	1	Bobcat SB200 Snowblower X 78 attachment (PO 5836)	Orange Tag	713004771	SB200	Surface - WWTP	2015-02	1	n/a	\$ 6,133.00	\$ 6,133.00
28	1	Benson Medical CCA-200mini Plus System Audiometer	Orange Tag	68205	CCA-200mini (Item #500303-13)	E&O Bldg.	2015-04	1	n/a	\$ 5,990.00	\$ 5,990.00
29	3	Fisher 2" 300RF ETCVII Industrial Water Boxes	Orange Tag	15933881	ET-771-75297	Yates Shaft	2015-12	1	n/a	\$ 6,376.00	\$ 19,128.00
30	1	2016 John Deere 324K loader w/bucket, chains, spare		1LU324KXLZB040867	324K	Surface	2016-02	1	n/a	\$ 104,791.61	\$ 104,791.61
31	1	2016 DYMAX Inc Forks-48 for JD 324K loader		WG52706	DYMAX 48	Surface	2016-02	1	n/a	\$ 5,365.39	\$ 5,365.39
31-a	1	Block heater for #30	n/a	8800239723	Powerplan B/F	Surface	2016-03	1	n/a	\$ 754.96	\$ 754.96
32	1	5 ton R&M ECH 20 ft Lift	orange tag	11233881	LK25C042500		2016-04	1	n/a	\$ 5,300.00	\$ 5,300.00

\$ 1,428,676.62

At the close of an agreement, ALL Government Furnished Property (GFP) and Subcontractor Acquired Property (SAP) including materials must be accounted for regardless of the value of the property.

Residual Materials: Remaining property that may be incorporated into or attached to a property item. It includes, but is not limited to precious metals, raw or processed materials, parts, components, assemblies or supplies

CONDITION CODES		
<i>For the purpose of indicating Condition of Property, please use the following codes:</i>		
<u>Condition Code</u>	<u>Brief Description</u>	<u>Expanded Definition</u>
1	Excellent	Property which is in new condition or unused condition and can be used immediately without modifications or repairs.
4	Usable	Property which shows some wear, but can be used without significant repair.
7	Repairable	Property which is unusable in its current condition but can be economically repaired.
X	Salvage	Property which has value in excess of its basic material content but repair or rehabilitation is impractical and/or uneconomical.
S	Scrap	Property which has no value except for its basic material content.

PER DIEM PAYMENTS MADE TO BOARD MEMBERS IN FY 2016

<u>Date</u>	<u>Name</u>	<u>Purpose</u>	<u>Amount</u>
07/03/15	Dr. Ani Aprahamian	Travel day for SDSTA Board Meeting	\$75.00
07/03/15	Paul Christen	Travel day for SDSTA Board Meeting	\$75.00
07/03/15	Dana Dykhouse	Travel day for SDSTA Board Meeting	\$75.00
07/17/15	Casey Peterson	Buzz Aldrin tour	\$75.00
07/31/15	Casey Peterson	Strategic Planning phone call	\$75.00
08/14/15	Casey Peterson	Teleconference with Geary and Wheeler	\$75.00
08/28/15	Pat Lebrun	Davis Ring Dedication	\$75.00
08/28/15	Casey Peterson	Meeting with Mike & New Lab Director	\$75.00
09/11/15	Casey Peterson	Met with TME and MH at various times to discuss SDSTA business	\$75.00
09/25/15	Paul Christen	Audit Cmte mtg, attended BoD mtg and travel day	\$225.00
09/25/15	Pat Lebrun	Audti Cmte mtg, attended BoD mtg	\$150.00
09/25/15	Casey Peterson	Attended BoD mtg	\$75.00
09/25/15	Robert Wilson	Attended BoD mtg and travel day	\$150.00
10/09/15	Dr. Ani Aprahamian	Telephonic BoD Mtg	\$75.00
10/09/15	Paul Christen	Telephonic BoD Mtg	\$75.00
10/09/15	Dana Dykhouse	Telephonic BoD Mtg	\$75.00
10/09/15	Pat Lebrun	Telephonic BoD Mtg	\$75.00
10/09/15	Casey Peterson	Telephonic BoD Mtg, SDFC loan discussions	\$150.00
10/09/15	Robert Wilson	Telephonic BoD Mtg	\$75.00
11/06/15	Robert Wilson	LBNF Director's Review, joined by phone	\$75.00
12/04/15	Casey Peterson	Telephonic BoD Mtg, DOE Review	\$75.00
12/04/15	Robert Wilson	Travel Days, DOE Review	\$300.00
12/18/15	Paul Christen	Audit Cmte Meeting, BoD Meeting	\$150.00
12/18/15	Pat Lebrun	Audit Cmte Meeting, BoD Meeting	\$150.00
12/18/15	Casey Peterson	Follow up to BoD mtg, BoD Meeting	\$150.00
12/18/15	Robert Wilson	BoD Meeting	\$75.00
01/01/16	Dr. Ani Aprahamian	Telephonic BoD Mtg	\$75.00
01/01/16	Paul Christen	Telephonic BoD Mtg	\$75.00
01/01/16	Dana Dykhouse	Telephonic BoD Mtg	\$75.00
01/01/16	Pat Lebrun	Telephonic BoD Mtg	\$75.00
01/01/16	Casey Peterson	Telephonic BoD Mtg	\$75.00
01/01/16	Robert Wilson	Telephonic BoD Mtg	\$75.00
01/15/16	Casey Peterson	Teleconferences/email with Sharon; signing of agreements	\$75.00
02/12/16	Casey Peterson	Reviewed and signed agreements & purchase orders	\$75.00
03/11/16	Paul Christen	Audit Committee Teleconference	\$75.00
03/11/16	Pat Lebrun	Audit Committee Teleconference	\$75.00
03/25/16	Dr. Ani Aprahamian	BoD Meeting	\$75.00
03/25/16	Pat Lebrun	BoD Meeting	\$75.00
03/25/16	Casey Peterson	BoD Meeting	\$75.00
03/25/16	Robert Wilson	BoD Meeting	\$75.00
04/22/16	Dr. Ani Aprahamian	Telephonic BoD Meeting	\$75.00
04/22/16	Paul Christen	Telephonic BoD Meeting	\$75.00
04/22/16	Pat Lebrun	Telephonic BoD Meeting	\$75.00

PER DIEM PAYMENTS MADE TO BOARD MEMBERS IN FY 2016

<u>Date</u>	<u>Name</u>	<u>Purpose</u>	<u>Amount</u>
04/22/16	Casey Peterson	Telephonic BoD Meeting	\$75.00
04/22/16	Robert Wilson	Telephonic BoD Meeting	\$75.00
05/20/16	Dr. Ani Aprahamian	Nominating Committee Teleconference	\$75.00
05/20/16	Dana Dykhous	Attending BHUC Grand Opening in Spearfish	\$150.00
05/20/16	Pat Lebrun	Attending BHUC Grand Opening in Spearfish	\$75.00
06/03/16	Dr. Ani Aprahamian	Nominating Committee Meeting	\$75.00
06/03/16	Dana Dykhous	Nominating Committee Meeting	\$75.00
06/03/16	Pat Lebrun	REACH Committee Meeting	\$150.00
06/03/16	Casey Peterson	board business	\$150.00
06/17/16	Dr. Ani Aprahamian	Annual SDSTA BoD Meeting (Joined by Phone)	\$75.00
06/17/16	Paul Christen	Annual SDSTA BoD Meeting at lab plus travel day	\$150.00
06/17/16	Dana Dykhous	Annual SDSTA BoD Meeting at lab plus travel day	\$150.00
06/17/16	Pat Lebrun	Annual SDSTA BoD Meeting	\$75.00
06/17/16	Casey Peterson	Annual SDSTA BoD Meeting	\$75.00
06/17/16	Robert Wilson	Annual SDSTA BoD Meeting (Joined by Phone)	\$75.00

Total \$5,550.00

Ani Aprahamian

07/03/15	Dr. Ani Aprahamian	Travel day for SDSTA Board Meeting	\$75.00
10/09/15	Dr. Ani Aprahamian	Telephonic BoD Mtg	\$75.00
01/01/16	Dr. Ani Aprahamian	Telephonic BoD Mtg	\$75.00
03/25/16	Dr. Ani Aprahamian	BoD Meeting	\$75.00
04/22/16	Dr. Ani Aprahamian	Telephonic BoD Meeting	\$75.00
05/20/16	Dr. Ani Aprahamian	Nominating Committee Teleconference	\$75.00
06/03/16	Dr. Ani Aprahamian	Nominating Committee Meeting	\$75.00
06/17/16	Dr. Ani Aprahamian	Annual SDSTA BoD Meeting (Joined by Phone)	\$75.00

Aprahamian Total \$600.00

Paul Christen

07/03/15	Paul Christen	Travel day for SDSTA Board Meeting	\$75.00
09/25/15	Paul Christen	Audit Cmte mtg, attended BoD mtg and travel day	\$225.00
10/09/15	Paul Christen	Telephonic BoD Mtg	\$75.00
12/18/15	Paul Christen	Audit Cmte Meeting, BoD Meeting	\$150.00
01/01/16	Paul Christen	Telephonic BoD Mtg	\$75.00
03/11/16	Paul Christen	Audit Committee Teleconference	\$75.00
04/22/16	Paul Christen	Telephonic BoD Meeting	\$75.00
06/17/16	Paul Christen	Annual SDSTA BoD Meeting at lab plus travel day	\$150.00

Christen Total \$900.00

PER DIEM PAYMENTS MADE TO BOARD MEMBERS IN FY 2016

<u>Date</u>	<u>Name</u>	<u>Purpose</u>	<u>Amount</u>
<u>DANA DYKHOUSE</u>			
07/03/15	Dana Dykhouse	Travel day for SDSTA Board Meeting	\$75.00
10/09/15	Dana Dykhouse	Telephonic BoD Mtg	\$75.00
01/01/16	Dana Dykhouse	Telephonic BoD Mtg	\$75.00
05/20/16	Dana Dykhouse	Attending BHUC Grand Opening in Spearfish	\$150.00
06/03/16	Dana Dykhouse	Nominating Committee Meeting	\$75.00
06/17/16	Dana Dykhouse	Annual SDSTA BoD Meeting at lab plus travel day	\$150.00
		Dykhouse Total	\$600.00
<u>PAT LEBRUN</u>			
08/28/15	Pat Lebrun	Davis Ring Dedication	\$75.00
09/25/15	Pat Lebrun	Audti Cmte mtg, attended BoD mtg	\$150.00
10/09/15	Pat Lebrun	Telephonic BoD Mtg	\$75.00
12/18/15	Pat Lebrun	Audit Cmte Meeting, BoD Meeting	\$150.00
01/01/16	Pat Lebrun	Telephonic BoD Mtg	\$75.00
03/11/16	Pat Lebrun	Audit Committee Teleconference	\$75.00
03/25/16	Pat Lebrun	BoD Meeting	\$75.00
04/22/16	Pat Lebrun	Telephonic BoD Meeting	\$75.00
05/20/16	Pat Lebrun	Attending BHUC Grand Opening in Spearfish	\$75.00
06/03/16	Pat Lebrun	REACH Committee Meeting	\$150.00
06/17/16	Pat Lebrun	Annual SDSTA BoD Meeting	\$75.00
		Lebrun Total	\$1,050.00
<u>CASEY PETERSON</u>			
07/17/15	Casey Peterson	Buzz Aldrin tour	\$75.00
07/31/15	Casey Peterson	Strategic Planning phone call	\$75.00
08/14/15	Casey Peterson	Teleconference with Geary and Wheeler	\$75.00
08/28/15	Casey Peterson	Meeting with Mike & New Lab Director	\$75.00
09/11/15	Casey Peterson	Met with TME and MH at various times to discuss SDSTA business	\$75.00
09/25/15	Casey Peterson	Attended BoD mtg	\$75.00
10/09/15	Casey Peterson	Telephonic BoD Mtg, SDFC loan discussions	\$150.00
12/04/15	Casey Peterson	Telephonic BoD Mtg, DOE Review	\$75.00
12/18/15	Casey Peterson	Follow up to BoD mtg, BoD Meeting	\$150.00
01/01/16	Casey Peterson	Telephonic BoD Mtg	\$75.00
01/15/16	Casey Peterson	Teleconferences/email with Sharon; signing of agreements	\$75.00
02/12/16	Casey Peterson	Reviewed and signed agreements & purchase orders	\$75.00
03/25/16	Casey Peterson	BoD Meeting	\$75.00
04/22/16	Casey Peterson	Telephonic BoD Meeting	\$75.00
06/03/16	Casey Peterson	board business	\$150.00
06/17/16	Casey Peterson	Annual SDSTA BoD Meeting	\$75.00
		Peterson Total	\$1,425.00

PER DIEM PAYMENTS MADE TO BOARD MEMBERS IN FY 2016

<u>Date</u>	<u>Name</u>	<u>Purpose</u>	<u>Amount</u>
		<u>Robert Wilson</u>	
09/25/15	Robert Wilson	Attended BoD mtg and travel day	\$150.00
10/09/15	Robert Wilson	Telephonic BoD Mtg	\$75.00
11/06/15	Robert Wilson	LBNF Director's Review, joined by phone	\$75.00
12/04/15	Robert Wilson	Travel Days, DOE Review	\$300.00
12/18/15	Robert Wilson	BoD Meeting	\$75.00
01/01/16	Robert Wilson	Telephonic BoD Mtg	\$75.00
03/25/16	Robert Wilson	BoD Meeting	\$75.00
04/22/16	Robert Wilson	Telephonic BoD Meeting	\$75.00
06/17/16	Robert Wilson	Annual SDSTA BoD Meeting (Joined by Phone)	\$75.00
		Wilson Total	\$975.00

Executive Director's Report—Mr. Mike Headley

The Executive Director's Report includes the following:

- 8A. SDSTA Quarterly Update—August monthly report attached.
- 8B. Declaration of Surplus—Concrete Culverts—attached (informational only).
- 8C. Waste Water Treatment Plan Improvements—Mr. Ken Noren presentation.
- 8D. 2016 Davis Bahcall Scholar Update—Dr. Brianna Mount presentation (attached as Appendix A at the end of the SDSTA August Monthly Report).
- 8E. E&O Building Conceptual Design—Ms. Pam Hamilton and Mr. Steve Dangermond

Recommended Action:

Motion to accept the Executive Director's Report as presented.

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August Monthly Report

Submitted by Mike Headley

SDSTA Executive Director

Sanford Underground Research Facility Laboratory Director

September 14, 2016

Science

Science Director Jaret Heise has been appointed to the South Dakota Research and Commercialization Council (RCC) and attended his first meeting in August. The council's mission is to foster scientific and engineering capacities in the state.

Condensation in various areas, especially at the Ross Campus, continues to be monitored. Mitigation strategies are actively being explored.

The latest results from laboratory corrosion monitoring were received in August, with all areas characterized in the lowest category. Having said that, levels in the CASPAR laboratory continue to be somewhat elevated. Monitoring data will continue to be collected and will establish a solid baseline prior to LBNF excavation.

Regular Davis Campus evacuation drills/discussions were conducted in August focusing on the emergency procedures in case of a fire in various locations, including the Big X and the LUX Control Room. Special training sessions were also held to demonstrate the use of self-contained self-rescuers (actual units that had expired were used versus the standard trainer units).

Large Underground Xenon—LUX

A formal write-up of the latest LUX WIMP-search results based on 332 live days presented at the summer conferences was submitted for publication: <http://arxiv.org/abs/1608.07648>.

Following the necessary documentation and review, authorization for the final LUX internal calibration program was issued by Sanford Lab in early August. While the start of internal calibrations marked the end of the neutron generator campaign that had been ongoing since early June, additional neutron data were collected in August.

An inventory of items underground at the Davis Campus was compiled in August to support decommissioning efforts that will begin in earnest by mid-September. LUX submitted a draft decommissioning plan, and there have been some iterations on content to support formal authorization.

In August, the average LUX crew consisted of approximately five people for a combined total of 700 hours.

MAJORANA DEMONSTRATOR—MJD

With both modules installed in the main shield at the end of July, detectors in both cryostats were cooled and biased in August. Commissioning continues with electronics tuning and noise testing. Also included in the August commissioning activities was a set of planned power outages of various durations for the MJD laboratories to test various automatic shutdown procedures for equipment in the MAJORANA laboratory space (especially vacuum pump operation).

An updated version of the MJD paper describing muon flux measurements in the Davis Campus was submitted for publication (the update has not yet been posted to the arXiv repository).

Electroforming equipment (including chemicals) was moved from the Ross Campus to the Davis Campus as decommissioning of the Ross laboratory continues. A new batch of copper nuggets is expected to arrive for MJD, and containers have been transported to the surface to help with the initial processing.

MAJORANA's effort for August consisted of an average crew of just over six people combining for a total of 1157 hours for the month. The MJD collaboration meeting was held in Denver in August.

Low-Background Counting

Most of the final hardware for the upgraded nitrogen purge system arrived in August. Once all components are in place, SDSTA engineering will inspect the entire liquid nitrogen and purge system in preparation for full automated operation. A standard set of sealed calibration sources was received per Sanford Lab procedure. BHUC already has a source safe in the underground laboratory, and use will be authorized following a plan for how BHUC personnel will receive radiation safety training going forward.

Authorization was issued in August for production operation of the four low-background counters currently installed in the BHUC cleanroom: Maeve, Morgan, Mordred, and SOLO. The authorization recognizes that

entry into the Mordred shield will involve the manual handling of approximately 20 lead bricks for which a dedicated cart will be used to improve ergonomic hazards; it is expected to be in use for approximately one year until funds for the fabrication of standard shield entry system can be identified. As part of preparations ramping up for a year-long counting campaign expected to begin in a few months, the process for transported LZ photomultiplier tubes (PMTs) from Brown University to BHUC was successfully tested in August with a mock unit.

Compact Accelerator System for Performing Astrophysical Research—CASPAR

CASPAR staffed few shifts in August, but there was some progress with beamline alignment, including adjustments to the accelerator tank elevation. An authorization request for ion source commissioning is expected in September.

LUX-ZEPLIN—LZ

The LZ project reached an important milestone when DOE approved CD-2/3b on August 9. Experiment planning documentation is being gathered for some LZ-specific activities such as radon studies (both surface and underground) as well as a test of new LZ electronics using the operating LUX detector and eventually screening tests for the LZ liquid scintillator inside the Davis Campus water-shielding tank. Additional xenon has been purchased and delivered to SLAC, bringing the total amount delivered to 436,363 liters. A further 100,000 liters is expected to be delivered in September (FY 2016), with the remaining 1,133,637 liters due in FY 2017 for a grand total of 1,670,000 liters.

Other Current Research Activities

Physics: Planning continues for the Deep Underground Gravity Laboratory (DUGL) decommissioning activities that will begin in September with surface sites (including those off Sanford Lab property). The radio antenna installed on the roof of the Administration building establishing network communication with various surface sites will also be removed as it will no longer be needed; the GPS antenna is expected to remain in place until the end of the calendar year when the remaining underground installations will be decommissioned.

Geology: With drilling in the 4850L West Drift complete in July, the five holes for the Permeability (k) and Induced Seismicity Management for Energy Technologies (kISMET) project were flushed in early August to pave the way for scientific studies through the remainder of the month. Work was authorized in a series of steps. Authorization for pressurization was issued after a review of the associated procedures and equipment. Water pressure was applied in the central drill hole at specific intervals informed by inspection of the drill core. After several successful applications, one of the packers lodged in the lower portion (~70 m from the collar) of the central hole and could not be retrieved. However, the group was able to continue studies of several induced fractures in the upper portion of the hole. Stress and other geotechnical data will be shared with the LBNF project once the analysis is complete. By the end of August, all equipment had been removed from the 4850L site. The kISMET project is evaluating whether to engage the drilling contractor to extract the stuck packer; in the meantime, kISMET personnel are developing their formal decommissioning plan, including installing low-profile enclosures on all holes. The majority of kISMET drill core is expected to remain at Sanford Lab.

The Rock Melt project continues steady progress. The drilling contractor completed drilling and back-reaming the first three holes between the 1550L and the 1700L and the first of the final three holes was also completed by the end of August. Once drilling is complete, the next phase of the project involves performing hydraulic (water) conductivity tests using a packer system prior to rock melting. Heating tests for each hole are expected to last roughly six weeks; Rock Melt efforts will continue into 2017.

Biology: BHSU biologists in conjunction with BHUC and SDSTA Education and Outreach personnel deployed microscope slides to collect biofilms from various areas on the 4850L.

Engineering: Xilinx continues to test two chip arrays on the 4850L and has indicated interest in renewing arrangements for another year (at least).

Underground Access

Ross Shaft

Ross Shaft steel installation continued with the completion of sets 226–331. The 3650L station is totally refurbished and chair sets installed. The Ross crews also continued to assist the Rock Melt experiment on the 1550L and 1700L with no interruption to schedule.

Yates Shaft

A total of 179 loads were handled through the shaft in August (73 of the total loads was Liquid Nitrogen delivery). Top Down Maintenance (TDM) continued in the skip and cage compartments. The Yates crews also completed refurbishing the 3350L station.

Underground Maintenance Crew (UMC)

The UMC continued installing ground support using the Fletcher bolter along the South side of the 4850L West Lab Access Drift, working toward the Yates Shaft direction. Ground support installation in the East Lab Access Drift on the 4850L continues to work toward the Yates Shaft from the #4 Winze Wye direction. Crews assisted with the Rock Melt drilling project on the 1550L/1700L, conducted an Annual Level Inspection (ALI) of the tramway, and removed pipe and old utilities on the 2000L in preparation for continuation of the water inflow project.

Facility Infrastructure

Davis and Ross Campus Maintenance

The Facility Infrastructure team monitored and assisted with new equipment installation and ensured the manufacturer standards were met. Residue acid from copper cleaning was transported to the surface. Air handling equipment preventive maintenance actions continue with Johnson Controls, and fire alarm system assessments continue and corrections are being performed quarterly by the vendor. The Compact Accelerator System for Performing Astrophysical Research (CASPAR) equipment is being installed and will be tested in preparation for future commissioning. Planning is underway for LUX decommissioning.

Surface Facility Maintenance Building and Grounds

The SDSTA completed all seven (7) day, thirty (30) day, and annual (360) day preventative maintenance activities. Boart drill and jackleg repairs continue. The Yates Headframe maintenance hoist replacement continues. The Administration parking lot repairs are 92% complete, and the Administration Building re-roof project is scheduled for completion by the end of September. A storage room for the Large Underground Xenon-ZEPLIN (LZ) experiment in the lower Foundry Building has been completed. Summer maintenance activities continue, and fall and winter site preparations have begun.

Dewatering

Ross Shaft pump repairs continue replacing degrading and leaking portions of the column. The dewatering pump bearings on the 1250L are being closely monitored due to concerns of accelerated bearing degradation. Pump replacement on the 5000L has been completed and monitoring will continue. At the Ross Shaft, installation of new piping and valve assembly at the 3200L as well as the gland seal water piping from the Ross Shaft to 2450L pump room continues. Thrust blocks were removed and reinstalled on the 3650L; 6-foot deep holes are being drilled rock bolts placed in strategic locations.

Waste Water Treatment Plant (WWTP)

At the end of August, the water level in the underground pool was at 5,664 feet. The net loss for the month was 14 feet. Near term plans are to try to maintain a 300 GPM average pump rate from the underground in order to keep the underground pool level at a manageable level. Design and installation of a new indoor geo tube system to dewater the sludge and make disposal easier and more economical continues. The WWTP started a pilot test using a bio block filter system that is being developed on site. The WWTP has not discharged any water to the sanitary sewer for over 65 days. Instead, the water is being recycled through the WWTP.

Transportation and Mobile Equipment

The team performed vehicle preventative maintenance actions and repairs to fleet and site vehicles. In addition, the team maintained underground locomotives, support equipment and continue to test and evaluate different bolter consumable parts, such as striker bars, hoses and stabilizer brackets.

Electrical and Cyber Infrastructure

The team continues to support the Ross Shaft rehabilitation project with the relocation of power cables in the shaft as the new steel is installed. The team continues to work reviewing and modifying 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. Fiber optic cables are being extended to the pump room levels to allow for installation of new phones.

Engineering

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

Arup submitted a change order to replace a sub-subcontractor working on the conveyor design. SDSTA will issue the corresponding task order in September after Fermilab provides their concurrence.

Comments on the LBNF 60% final pre-excavation design, cost and schedule submittals were provided to Arup. Engineering staff also reviewed the draft water-inflow study report, provided comments and participated in a review teleconference with SRK and Arup.

A cost estimate for replacing the ropes in the Ross Shaft was developed and submitted to Fermilab for review. It is not clear if that is a task that will fall within the LBNF Reliability Project scope or the Department of Energy (DOE) funded operations scope.

Arup submitted a report evaluating the application of rope-break strength to the Ross Headframe analysis. Engineering staff will participate in the review of that report and the resulting assessments.

Ross Shaft steel shipments resumed in early August along with steel installation activities.

BHSU Underground Campus (BHUC)

Engineering staff assessed options to increase the size of the Class 1000 cleanroom space to accommodate additional counters and assisted with re-plumbing the nitrogen purge system.

LUX-ZEPLIN (LZ)

Engineering staff continued to work with the LZ collaboration and the contractor selected for the surface infrastructure project, Dean-Kurtz Construction of Rapid City to refine value engineering alternatives and lower the construction cost. Dean-Kurtz provided a revised bid, the contract was issued, and Dean-Kurtz mobilized on the week of September 5. Construction of the surface facilities is expected to begin in September. The engineering team also contributed to the design of cryogenic, vacuum and control systems. The hiring process continues for an experiment technician funded by LZ.

Facility Infrastructure

Key projects include assessing alternatives for dewatering system maintenance and upgrades, design and fabrication of a new bonnet for the Yates cage, evaluation of options for expanded toilet facilities on the 4850L and support for the water-inflow mitigation project.

Engineering staff are also managing facility maintenance projects including repairs to the Administration parking lot and the Yates Tunnel ground support system. Parking lot repairs continued with installation of retaining-wall sections, sidewalk, curb and gutter, and safety barriers. The Yates Tunnel project is substantially complete, with a door to be installed at the Yates Ramp in early September. Roof repairs on the Administration building are nearly complete. That project is expected to be finished in September.

Environment, Safety and Health

Environmental Communication

South Dakota Department of Environment and Natural Resources (DENR) personnel visited the site in August to better understand the operation of the Waste Water Treatment Plant (WWTP) in advance of issuing a new water discharge (NPDES) permit.

Environmental Compliance

Water

Waste Water Discharge Summary through September 2, 2016:

- *Total water discharged through outfall 001 since June 5, 2008: **5,625,697,237 gallons***
- *Total Underground water treated since June 5, 2008: **3,287,542,449 gallons***
- *Total Tailing water treated since June 5, 2008: **2,496,404,473 gallons***
- *Total water discharged to sewer since June 5, 2008: **105,071,340 gallons***

The DENR was provided a letter concerning permanent process changes to the WWTP. The changes included by-passing the 90-foot clarifier and recycling water, previously discharge to sewer, back into the WWTP. The WWTP process flow diagrams were revised to reflect the changes and submitted with the letter.

The July Discharge Monitoring Report (DMR) was completed in the month of August. There were no violations. The DMR was electronically filed utilizing the NetDMR reporting tool. The DMR Quality Assurance reporting was submitted to the DENR.

The Davis Campus wash water was sampled for coliform/bacteria in August. There was no evidence of coliform.

The annual biological monitoring was performed in August. Overall the results were very good. The number of trout (162/100meters) upstream of our discharge in Whitewood Creek was the same as downstream of our discharge (160/100 meters). Preliminary macroinvertebrate data also was favorable. The taxa (or type) and numbers appeared similar downstream of Sanford Lab's discharge in Whitewood Creek to upstream (of the discharge) site.

Water quality sampling was performed in Gold Run and Whitewood Creeks in tandem with biological monitoring.

The WWTP Laboratory Quality Control/Quality Assurance (QC/QA) Audit was completed in August.

Air

Data continues to be collected for stationary internal combustion engines.

Solid Waste

The electronics recycling vendor (SEAM, based in Sioux Falls) collected excess electronic components to recycling. On site, 130 hard drives were shredded.

Programmatic Agreement / Environmental Assessment Actions

The South Dakota Historical Preservation's Section 106 Form describing the construction of the Long Baseline Neutrino Facility (LBNF) Cryogen Support building and the Ross Dry remodel was sent out (electronically and by mail) to the Programmatic Agreement (PA) Signatories (tribes, government officials) to satisfy the consultation aspect of the PA.

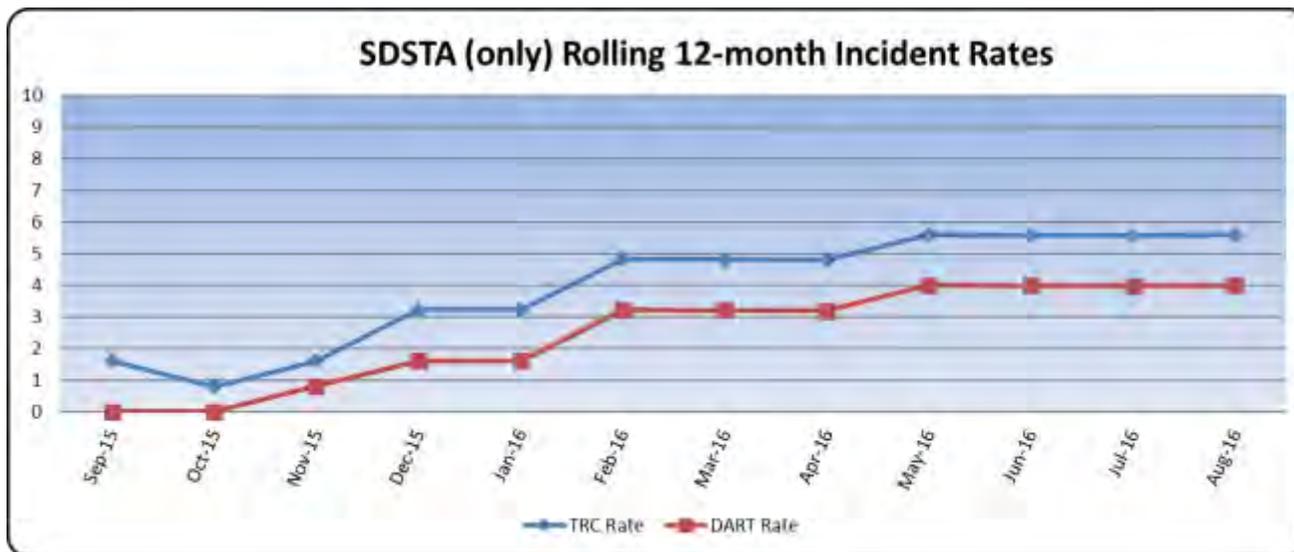
The Technical Revision for placing LBNF rock in the Open Cut was completed and has been reviewed by Barrick. Final changes are being made at this time.

Environmental Support Tasks

Two scopes of work were finalized to complete a Phase I and II assessment in accordance with the American Society for Testing and Materials (ASTM) standards for the Ellison Hill property. A pre-bid contractor's meeting was held on August 30.

Recycled materials continued to be collected and removed offsite in accordance with the sustainability directive.

Health and Safety Summary



TRC (Total Recordable Case) = more than first aid treatment was given.

DART (Days Away Restricted Transferred) = more than first aid treatment was given AND restrictions were job-limiting or the employee could not work (subset of a TRC). *Rates are subject to change

August 2016 DARTS/TRC

- Pending: Incident awaiting review by medical doctor

August 2016 First Aid Cases

- August 23: Cut to hand; band aid required

August 2016 Category 1 or 2 Events

- No events to report

August 2016 Category 3 Events

- No events to report

August 2016 Items of Interest

1. Received EHSOC final report from the July review; November review date pending
2. Hosted Office of Risk Management personnel for monthly review
3. New Radiation/Experiment Health and Safety Manager started August 29
4. Replaced eyewash station at 4850L TCR with updated model
5. Assisted with inspection of tramway
6. Distributed Flash Report on surface garbage can fire
7. Created a list of all confined spaces onsite
8. Conducted explosives inventory on 2600L and 4850L
9. Completed noise monitoring report for Yates Toplander Bobcat operation and UMC jackleg drilling
10. Performed audiograms for ERT and HCP personnel; earplug fit tests conducted for both crews

11. Conducted Annual Refresher Training for Operations Personnel
12. Completed 4850L Powder and Cap magazine inventory for August
13. Performed sling/beam strap inspections for personnel
14. Completed noise monitoring report for 4850L motor conductor
15. Performed monthly preventative maintenance on the 4850L Refuge Chamber filters and air handling units
16. Conducted a safety sweep of the Administration and E&O buildings

Education and Outreach (E&O)

Two new staff members, Becky Bundy and Kari Webb joined the Education and Outreach (E&O) Department on August 15 as Science Education Specialists. Becky will be working with the department full time. Kari joins us from Northwest Iowa and will be working with the department 70% time.

Summer Activities

Students from the Box Elder Job Corps camp visited Sanford Lab for a day to learn about research. The group included a number of young refugees from a variety of countries who are living in South Dakota.

Students from the BHSU Research Experience for Undergraduates (REU) Program participated in a tour of the WWTP with Julie on August 3.

A group of high school students from various Caribbean nations whom were in the country on a State Department-sponsored Ambassadors program spent a day at Sanford Lab on August 22.

E&O Deputy Director Peggy Norris gave a talk at the Historic Homestake Opera House celebration of Victorian Days / Steampunk Ball on the transformation of science from the 19th to the 21st century as well as the transformation of the Homestake Gold mine of the 19th century to a world class science lab of the 21st century.

Cultural Activities

Cultural and Diversity Coordinator KC Russell made a tour of the state and talked to administrators and staff at many tribal schools about the E&O programs. He visited Sitting Bull College, the Education Director for the Standing Rock Sioux Schools, and principals and science teachers at Lower Brule and Estelline.

Curriculum Units

With the fall semester just beginning, two curriculum units are already out in the schools. Hayti is using the *Exploring the Unseen* unit, and when they are done, the kit will go to De Smet. Lead-Deadwood is using the *We are Made of Starstuff* unit in four sections of high school chemistry to start the school year.

Three to four material kits have been assembled for each unit and a procedure put in place to ship or deliver the material kits as teachers request them through an online form.

The *Perplexing Puddles* unit was awaiting some biofilm samples from the underground. These were collected with the help of BHSU scientists, and slides will be prepared in the coming weeks.

Science Education Specialists Kari and Becky have taken over the lead roles in finishing two new curriculum units. Kari is working on an elementary unit that has a working title of *Science and Measurement*; Becky is working on a middle school unit with a working title of *Waterworks*.

Classroom presentations

The new elementary assembly program, *Electromagnets and Particle Accelerators*, about the LBNF/DUNE experiment, has gone through two rounds of review by the E&O staff and is being finalized. Julie is taking the lead on that program.

The new middle school assembly program, *Is Dark Matter a WIMP?*, has been reviewed once and is currently under revision by Peggy. The staff is doing a final review of all the assembly programs on September 8 prior to training and launching them with contract teachers for the upcoming school year.

K-12 Field Trips to Sanford Lab

There have been a few inquiries and requests so far for the fall field trip season, which is scheduled to run from mid-September through mid-October.

Miscellaneous

The annual report for the Davis-Bahcall Scholars Program is included as Appendix A.

A supplement of \$70,000 was received from the National Science Foundation (NSF) Physics Division for E&O planning.

The SDSMT Physics Department submitted a proposal to NSF for a Research Experience for Undergraduates program on underground physics. Peggy is co-Principal Investigator for the proposal, and Cultural Coordinator KC Russell is tasked to help recruit participants from tribal colleges.

Group	Students					Educators			Community		
	K-5	6-8	9-12	Undergraduate	Graduate	K-12 Educator	Univ. Faculty/Staff	Informal	Parents	Sanford Lab Staff	General Public
ONSITE ACTIVITIES											
Job Corps			11			2					
BHSU REU Students				6			1				
Student Ambassadors			13					2	1		
Subtotal	0	0	24	6	0	2	1	2	1	0	0
CURRICULUM UNITS (COMPLETED)											
Subtotal	0	0	0	0	0	0	0	0	0	0	0
ASSEMBLY PROGRAMS											
Subtotal	0	0	0	0	0	0	0	0	0	0	0
OTHER											
Victorian Days/ Steampunk Ball											20
Subtotal	0	0	0	0	0	0	0	0	0	0	20
Grand Total	0	0	24	6	0	2	1	2	1	0	20
Grand Total: 56 students, educators and general public											

Table 2. Estimated Audience Served – August 2016

Communications

The Communications Department participated in discussions regarding the release of information about the CD-3a review for LBNF/DUNE. Also, the team is working with the Environment, Safety and Health Department (ESH) to develop and host a crisis communication workshop.

Creative Services Developer Matt Kapust and Cultural Diversity Coordinator K.C. Russell are exploring ways to get Tribal students involved in Drupal open source web development. The team will be working with a Drupal developer who has recent experience with mentoring tribal members in Canada. In addition, the team is working on a Lab Design article with BHSU. Communications is also working with IEEE (Institute of Electrical and Electronic Engineers) to host an award ceremony for John Thune at Sanford Lab. Sen. Thune received an R&D award from the organization late September or early October.

Community Outreach/Media/Site Visits

Connie is working with Executive Director Mike Headley and Science Director Jaret Heise to schedule nine presentations around the state of South Dakota in late 2016 and early 2017.

Digital Signage

Matt and Connie are working with a vendor to develop and add content to new digital signage located throughout the property. Digital signs will be placed in the reception area, the Yates ramp, the Davis Common Corridor, the Ross Dry, the WWTP, and the #6 Winze Ross Campus entrance. This project's purpose is to provide digital signage at key locations on the Sanford Lab site to help communicate information of interest to the general Sanford Lab population. The information provided will be applicable to SDSTA employees, researchers, and Sanford Lab visitors and will address current laboratory status, work plans and safety information. In some locations, more site specific information will be presented as appropriate.

Video, Web, Graphics

The website redesign Request for Proposal (RFP) was completed and posted. Matt and ESH Technical Support Lead Peter Girtz worked on evaluating the Blackboard learning management system that can be used for safety training and met with Blackboard representatives on August 23. Proposals are being sent to the ESH Department. Matt provided photos and edited the Education and Outreach Building Concept Book and worked with a vendor to have hard copies produced.

The August Communications Photos are included as Appendix B.

To view albums in the Sanford Lab Photo Gallery go to: <http://pics.sanfordlab.org/f216003594>

News coverage

- Sep. 05: [Finding life, deep below the Black Hills](#) by Michael Mortared, The Plainsman
- Sep. 01: [Physics confronts its heart of darkness: Cracks showing in dominant explanation for dark matter](#) by Lee Billings, Scientific American
- Aug. 29: [What is a Neutrino Horn?](#) by Molly Olmsted, Fermilab
- Aug. 24: [Researchers moving forward with neutrino experiments](#) by Staff Writers, Phys.org
- Aug. 23: [Neutrino Experiments Utilize ORNL Experts, Equipment to Explore the Unknown](#) by ORNL, Newswise
- Aug. 23: [Four S.D. colleges earn research innovation grants](#) by Megan Raposa, Argus Leader
- Aug. 21: [Top of the class](#) by Staff reporters, Rapid City Journal
- Aug. 18: [Massive Sanford Lab experiment warrants transportation discussions](#) by Jaci Conrad Pearson, Black Hills Pioneer
- Aug. 15: [Mysterious matter: NIU physicists join effort to beam neutrinos 800 miles through the earth](#) by Staff writers, NIU Newsroom
- Aug. 04: [Elusive neutrinos and hypothetical 'dark sector' particles could hold answers to cosmic mysteries](#) by SLAC communications, Phys.org
- Aug. 02: [Physicist Trio Amplifies SLAC Research on Mysterious Forms of Matter](#) by Staff writers, SLAC National Accelerator Lab

Contracts Status

SURF Operations-Lawrence Berkeley National Laboratory (LBNL): SDSTA received Modification No. 41 to Subcontract No. 6994297, adding incremental funding of \$1,404,000; and Modification No. 42, deobligating \$400,000 from the M-G set repair supplement and adding \$178,473 to fully fund the subcontract through September 30, 2016.

SURF Services-Fermilab: Technical and cost proposals were submitted to Fermilab to establish a bridge subcontract for SURF Services for the performance period October 1-December 31, 2016. The proposals are currently under review by Fermilab, and a subcontract for this work is expected in late September.

Another Request for Proposal (RFP) is expected soon for the five-year period following the bridge subcontract.

Ross Shaft Subcontract (LBNL): SDSTA received Modification No. 5 to Subcontract No. 7262800, authorizing G.L. Tiley & Associates to engineer design changes for the Ross Shaft to accommodate materials planned for the Long Baseline Neutrino Facility (LBNF).

A Request for Proposal (RFP) is expected soon from Fermilab to continue funding the Ross Shaft Refurbishment project once the LBNL subcontract ends December 31, 2016.

Large Underground Xenon (LUX): SDSTA received Modifications No. 20 and No. 21 to Subcontract No. 6973786, adding \$85,143 and \$61,848 respectively to support operations and decommissioning.

LUX-ZEPLIN (LZ): SDSTA received Modification No. 3 to Subcontract No. 6255146, adding \$649,999 in incremental funds.

Long Baseline Neutrino Facility (LBNF)-Fermilab: SDSTA received purchase order (PO) revisions to Professional Staff Services PO 625500 and PO 625501 authorizing new fully burdened labor rates following the FY 2016 fringe benefit and indirect cost analyses.

SDSTA: An RFP was issued for the Ellison Property Environmental Assessment. A RFP was also issued for Graphics and Drupal Design and Development to enhance the SDSTA website.

A Notice of Surplus Property was posted for public bidding, resulting in the sale of four concrete manhole sections that were no longer required for service.

August subcontracts:

No #	Stinson Leonard Street LLP	Letter	Insurance Counselor	\$ 5,000
2015-30	Baker Timber Products	CO#1	Timber Trimming & Roadway Maintenance	\$ -
2016-08	RCS Construction	CO #2	Parking Lot and Sidewalk Improvements	\$ 1,878
2016-25	GEI Consultants, Inc.	Contract	Aquatic Monitoring	\$ 43,900
LA	Black Hills State University		E&O Support (SDSTA Funded)	\$ 200,000
2016-14	American Engineering Testing	CO#1	Construction Materials Testing	\$ 5,931
2016-26	TBD	RFP	Environment Site Assessment Ellison Tract	\$ -
2016-27	TBD	RFP	Graphic and Drupal Design and Development	\$ -
2016-07	Ainsworth Benning Construction	CO #1	Foundry and Re-Roofing	\$ 15,848
2016-07	Ainsworth Benning Construction	CO #2	Foundry and Re-Roofing	\$ 5,790
2016-08	RCS Construction	CO #3	Parking Lot and Sidewalk Improvements	\$ 31,409

Purchase Orders: 149 POs were issued in August totaling **\$116,182**.

Warehouse Inventory: Warehouse inventory on August 31st, 2016 totaled **\$218,207**.

Information Technology Projects

A complete user and computer account review was done to eliminate stale accounts and old hardware.

All new wireless access points (WAP) on surface and underground were installed this month, with the software upgrade for the controller scheduled for next month.

All network gear procurement and configuration (WAPS, phones, and switches) were completed for the LZ satellite building, Permeability (k) and Induced Seismicity Management for Energy Technologies (kISMET) and Rock Melt experiment groups.

All old and end-of-life server and computer gear were removed from the server room and hauled to the foundry building to complete the reclamation and recycle project.

A new digital signage project was launched this month to help improve campus wide communications. Updated content, identity standards and branding is forthcoming from the Communications Department.

Daily Activities

IT continues to monitor and review wireless and general network activity and counts, network hardware readiness, VPN Remote Access logs, and establishes new VPN and DocuShare accounts for individuals and User groups, as requested.



**Daily Activities (measured in Work Orders)
August 31, 2016**

August Events

For the month of August, logistical and administrative support were provided for the following:

- Aug 1: General Safety Basic Training; Monthly Management Review Meeting
- Aug 2: FRA/SDSTA General Counsels AM Underground Tour and PM Meeting
- Aug 3: Pat Lebrun Family Tour at Visitor Center and Yates Hoistroom (*C Walter*)
- Aug 18: Fire Suppression System Meeting
- Aug 18, 25 & 26: Annual Refresher Training
- Aug 23: Legislative Assistant to Sen Rounds Peter Eckrich, Underground Tour (*Headley*); Office of Risk Management Meeting (*Schroeder*)
- Aug 30: SD District Rep. Jim Bolin (*C Walter*)
- Aug 31: Safety Committee Meeting

Planning continues for upcoming meetings at Sanford Lab:

- Sep 7: Immunization Clinic (1st Floor East); Sep 8: USD/NIST-MEP Outreach Program Underground Tour (*C Walter/Headley*)
- Sep 17-18: LUX Collaboration Meeting (*Gaitskell*)
- Sep 19: LZ Meeting (*Gilchriese*); Sep 22: SDSTA BoD Meeting; Sep 20: LBNF Reliability Projects Meeting (*McCluskey*)
- Oct 1: SURF Friends and Family Underground Tours; Oct 7: SURF All Hands Meeting (*Headley*)
- Oct 15: SURF Friends and Family Underground Tours
- Oct 26: Cultural Advisory Committee Meeting; Oct 27: U.S. Homeland Security Visit and Underground Tour
- Nov 5: SURF Friends and Family Underground Tours

Monthly Researcher hours were tracked and Science training records processed. Monthly invoices were coded for the Finance Department. Safety messages and other important news continue to be updated on a daily basis on digital displays throughout the facility.

The August Visitor Log Report was submitted electronically to the SD Fusion Center/Homeland Security utilizing the database reporting tool. In August, a total of 485 people visited the lab; a decrease of 178 people from last month.

Finance and Human Resources

Included in the Financial Report are the following:

- DOE SDSTA FY 2017 SPA Curve as of August 2016
- SDSTA Staffing Plan by Funding Source as of August 2016
- Financial Summary is included as Appendix C
 - Balance Sheet as of August 31, 2016
 - Comprehensive Statement of Income August 2016
 - Comparative Balance Sheet – August 2016 vs. August 2015
 - Comparative Statement of Income – August 2016 vs. August 2015
 - Available Resources as of August 2016
 - Operating Budget Summary
 - CAPEX Budget Summary
 - August 2016 and YTD CAPEX Budget – actual vs. budget

Department of Energy (DOE) SDSTA FY 2017 Scheduled Performed Actual (SPA) Curve

This graph represents an analysis of the DOE Subcontract No. 6994297 Operations scheduled funding compared to actual. The report shows funding through September 2016 along with information related to Funded-to-Date dollars, Scheduled dollars, Performed dollars and Actual dollars by month. Actual dollars represent actual invoices for the months sent to Lawrence Berkeley National Laboratory (LBNL) for reimbursement. For August, the invoices totaled \$893,676, which is lower than the anticipated reimbursements of \$1,224,549 by \$330,873. Since the inception of this subcontract in February 2012, the actual expenses are at \$62,708,225 which is lower than the budget of \$63,418,706 by \$710,481.

Balance Sheet Items

Cash in Local Checking—Total on hand at August 31, 2016 was \$1,420,185; down from last month by \$95,062. Funds on hand were necessary to pay employee medical/life/vision insurance all due September 1, 2016. The balance also contains funds received from federal contracts late in the month on open accounts receivable.

Cash with State Treasurer—Total balance of \$14,120,817. This balance has decreased from last month by \$365,094. This reduction is a combination of receiving the interest proration from fiscal year 2016 at \$235,273 and drawing down funds for August payables at \$600,367.

Billed Accounts Receivable (A/R)—Billed A/R represents any open invoices based on contracts from sources such as LBNL, Fermilab, other smaller contracts from other universities and Barrick/Homestake Mining Company. Total is at \$2,339,211; up from last month by \$94,559. Included in the balance are open invoices to LBNL for \$1,490,472; representing invoices for the Large Underground Xenon (LUX) subcontract, LUX-ZEPLIN (LZ) engineering support, the Ross Shaft Rehabilitation work and invoices for the Operations subcontract No. 6994297. Additional open invoices include \$816,802 from Fermilab, \$5,859 from small university subcontracts, as well as open invoices from Barrick equaling \$25,571. Additionally, there is an open receivable for \$507 from Xilinx, Inc., the commercial organization that has established an experiment located near the 4850L Davis Campus.

Unbilled A/R—Balance at \$168,526. Unbilled A/R represents items that have not been billed on various contracts. The payroll from pay end date August 26, 2016 (paid to employees September 2, 2016) was not invoiced in July on various contracts. This amount will be invoiced in September. August's balance has decreased by \$297,314.

Other A/R—Current balance of \$161,546. This balance represents any Interest Receivable and Miscellaneous Accounts Receivable. The balance decreased by \$5,914 which is a result of receiving our fiscal year 2016 interest, plus the interest accrual for August, and activity for noncontract receivables.

Inventory/Supplies—Balance at \$2,408,323 for fixed assets being stored but not in service. The balance has not changed from July.

Inventory Warehouse/Personal Protective Equipment (PPE)—Current balance of \$1,641,223. This balance represents the warehouse inventory that was purchased by SDSTA prior to federal funding and xenon gas inventory for experiment use. This balance has decreased slightly (\$23) for warehouse inventory usage during the month. Also included are purchases of xenon received in fiscal year 2016 and one from fiscal year 2014.

Other Current Assets—This listing on the balance sheet represents the balances of both prepaid insurance – \$371,787 and prepaid other – \$91,863. Total balance of \$463,650 is down from last month by \$31,752. This decrease represents the monthly insurance expense along with expensing various prepaid items in August.

Fixed Assets—Total of \$84,205,360 (net of depreciation through August 31, 2016). Fixed assets are unchanged for the month except for depreciation which results in a decrease of \$159,557.

Work in Progress—This balance represents the current fiscal year progress being made using Sanford/ SDSTA Funds to support the budgeted projects on the CAPEX budget less any items that are being capitalized within the Fixed Asset designation. Current balance has increased by 648,539 to \$784,156.

Capital Lease—This balance of 313,898 represents the deep pump system capital lease. The balance has decreased by \$15,153. The lease through AmWest, Inc. was renegotiated to include transference of property to us at the end of the lease term in January 2018. The rental payments are being directly charged to the LBNL federal subcontract. Per the subcontract, the pumping system will become the property of the federal government at the end of the lease period. The equipment will be fully expensed over the period of the lease at which time it will be removed (along with the lease liability) from the SDSTA's balance sheet.

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 Net Pension Asset is a restricted asset. Thus the equity created would also be restricted (restricted for pension benefits). The balance shown as a noncurrent asset is \$6,287,854 created by fiscal year 2016 final entries. This balance decreased by 888,624 primarily because our proportionate share of the State's total pension account decreased over the last year by 1.9%.

Investment in Captive Insurance—This account classification reflected the transfer of \$2,500,000 from our Cash held with the State (Indemnification Fund) to the Captive Insurance Company. The balance has been eliminated as of the fiscal year end 2016 after discussions with Bureau of Finance & Management. The State is recording their contribution to the Captive as a grant expense. The Captive is reporting the cash they received from the State including our portion as a capital contribution and since we are legally separate entities it is not appropriate for the Authority to include this on our balance sheet and likewise the restricted category. Therefore, the transfer was adjusted in June 2016 as a contribution expense.

Total Assets—Total of \$114,314,748. This balance is down from last month by \$3,615,395; which represents the net activity as listed above.

Accounts Payable—Our Total Accounts Payable balance of \$1,638,160 at the end of the month compared to last month has decreased by \$155,218. This decrease is immaterial.

Accrued Payroll Liabilities—Current balance of \$1,277,204 has decreased by \$16,723 from last month. This represents the net change between earned vacation and vacation taken and other changes in other employee benefit-related liabilities.

Long Term Accrued Employee Benefit/Lease—This balance of \$313,899 denotes the liability associated with the capital lease for the deep pump system from AmWest, Inc. This balance has decreased by \$15,153 for the months' reduction in the lease amount owed.

Long Term Xenon Notes Payable—This designation represents the \$2M of funding received from the South Dakota Community Foundation (SDCF) for the purpose of purchasing xenon for experiment use at Sanford Lab. Three purchases of 100,000 liters each of xenon were received in November 2015, February 2016 and July

2016.

Pension Deferred Inflows—This classification reflects the requirements of GASB No. 68 and No. 71, as discussed earlier. The balance of \$3,184,802 represents the net difference between projected and actual investment earnings on our pension plan with the South Dakota Retirement System. This balance has decreased for the FY 2016 information provided by SDRS.

Total Liabilities—Total Liabilities decreased by \$1,414,665 (from \$9,828,728 to \$8,414,064), which reflects the net activity listed above.

Total Equity—Decrease to \$105,900,685 from the previous month \$108,101,415.

Total Liabilities & Equity—Decrease to \$114,314,748 from the previous month of \$117,930,143.

Statement of Income Items

On the SDSTA's Statement of Income, the DOE Subcontracts are consolidated into one line item on the report. Included in this amount are various subcontracts from LBNL, Fermi National Accelerator Laboratory (FNAL), a private company – RESPEC, as well as a small contract for the MAJORANA project with the University of North Carolina. Total revenue for this fiscal year through August 2016 is \$4,500,950 (increase from July of \$2,790,944).

National Science Foundation (NSF)/National Aeronautics & Space Administration (NASA) Subcontracts—Total revenue for fiscal year 2016 from this particular funding is \$141. The balance represents revenue from small subawards through University of Minnesota and Northwestern University from NASA. The balance is unchanged from July.

State Revenue—Year-to-date State Revenue equals \$12,000. This amount was received from the State to fund Davis Bahcall scholars work experience internships from this past summer.

Contributions & Donations—The Great Plains Education Foundation contributed \$125,000 for the education efforts at the SDSTA.

Interest income recorded for the current fiscal year on State Funds is at \$17,879. This represents interest accruing at 0.75% 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 \$3,591,757 for the year. Indirect Costs including fringe benefits are at \$1,691,431. Costs are higher than revenue by \$627,195. Yet, the unbilled payroll from pay end date 8/26/16 of \$168,526 has not been reflected in revenue. As explained earlier this will be accomplished in September. Other Income is at \$67,683 which represents miscellaneous income received from the commercial company - Xilinx and small amounts for water treated and electric usage for Barrick.

Net loss through August is at \$240,397.

Comparative Balance Sheet

Significant differences include Total in Local Checking which is lower by \$277,632. Total Cash with State Treasurer is lower by \$978,922 from this time last year as funds were expended over the 12-month period. Yet, the new Experiments account has an increase of \$3,589,305 for funds received to be used toward xenon purchases, interest payments to investors and to assist with infrastructure upgrades for experiments. Other notable differences exist for Inventory—Warehouse which has increased by \$1,272,118 for recording the various purchases of xenon. Total Fixed Assets have decreased by \$2,637,168 primarily due to recording the gifts of the Sanford Lab Homestake Visitor Center and the Sanford Science Education Center at BHSU. Work in Progress has decreased from this time last year by \$1,493,799 represented by a decrease in activity in our CAPEX projects when comparing the two time frames. "Investment Captive Insurance" which was eliminated (discussed earlier) results in another decrease of \$2,500,000 to "Other Assets". In summary, Total Assets have decreased by \$7,313,981. Total Current Liabilities have decreased by \$505,341 from this time last year, primarily due to a decrease in Accounts Payable. Total Other Liabilities have increased by \$593,877 primarily

due to the designation for Long Term Xenon Notes Payable. Total Equity has decreased by \$7,402,517 from this time last year. In summary, Total Liabilities & Equity have decreased by \$7,313,981. Restricted and Unrestricted Funds as well as Investment in General Fixed Assets are all lower than this same time last year.

Comparative Profit/Loss

Total Revenue for year-to-date August 2016 compared to year-to-date August 2015 has increased by \$1,227,145. DOE subcontract revenue has increased by 37.7%. Interest Income is lower for year-to-date August 2016 due to a lower cash balance with the State compared to last year. Direct Costs and Indirect Costs for year-to-date August 2016 compared to this time last year show a combined increase of \$1,211,339 (29.7% increase), primarily due to the purchase of xenon for LBNL which was charged back on an existing contract as well as Overhead. Overhead for August 2016 contains costs for the Yates Complex Parking Lot Repairs as well as the month's costs for the Yates Admin. Building Roof Repairs. Other Income is slightly lower for the comparative time periods primarily due to treating less of Homestake's water. However, Net Loss for the comparative time periods shows a decrease of \$100,405 which reflects the net activity as listed above.

Available Resources

This report reflects our available cash/accounts receivable after noting the restricted cash balances in the Indemnification and Mine Closure accounts, and funds held for Experiments - xenon purchase, experiment infrastructure upgrades and interest for investors. I have restructured this report to better reflect our available cash and (short term) accounts receivable as compared to our current liabilities including Accrued Payroll Liabilities. It is important to include receivables as the majority of the items in Accounts Payable are invoiced on our current federal contracts. \$3,221,616 is available after noting our current obligations. It is also important to note that our Accrued Payroll Liabilities include accrued vacation and sick pay. Therefore, the current report better reflects our available resources compared to current obligations.

Operating Budget Analysis

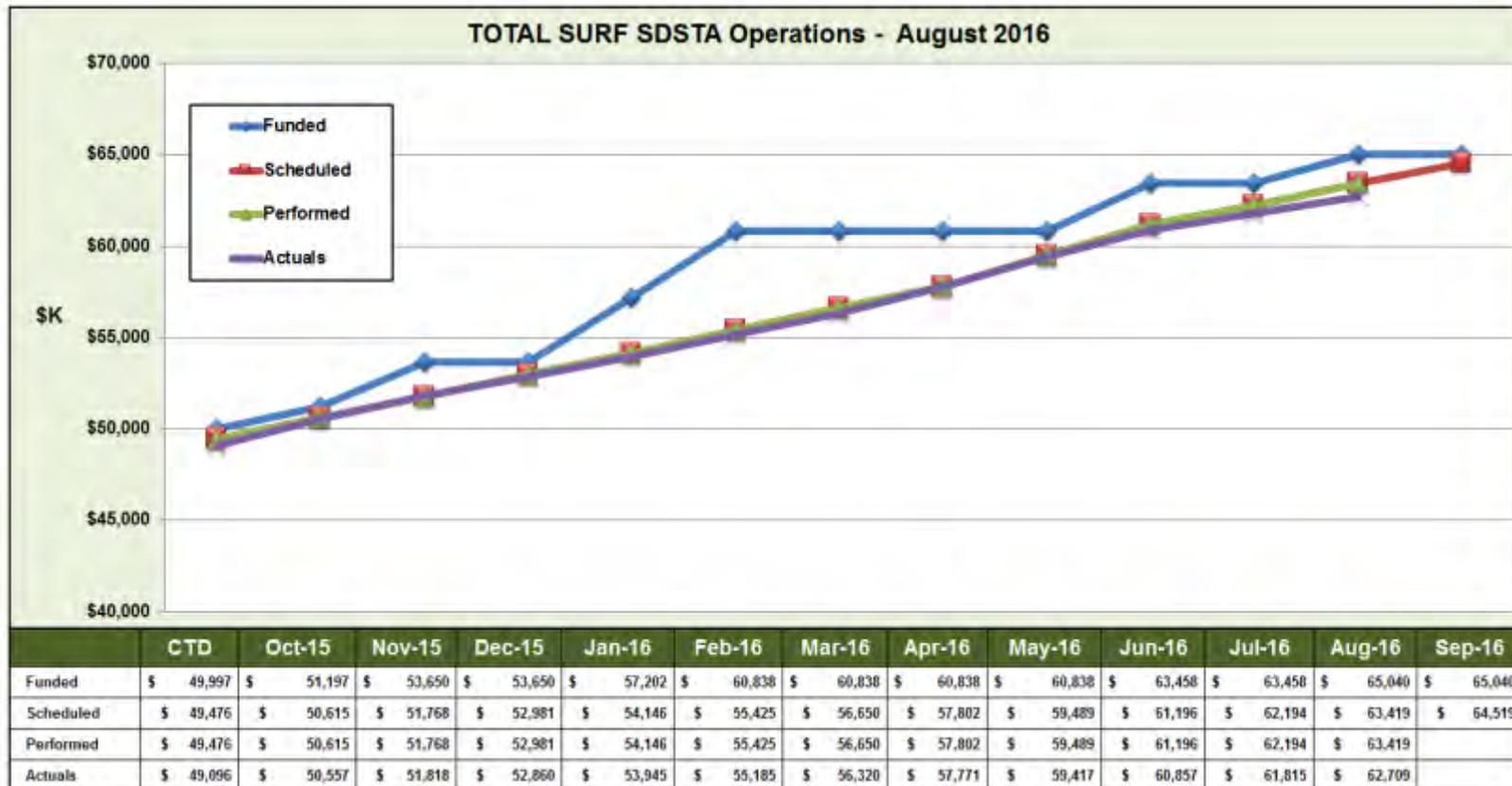
This report is separated into three sections: SDSTA-funded activities, Federal & State funded activities and Indirect expenses that benefit various activities. Very few areas are over budget for the month and by immaterial amounts. The Executive Office and Science Center E & O have negative expenses for the month as funds have been collected paying for Neutrino Day and Davis Bahcall expenses. Indirect Charges Other are over budget primarily due to the parking lot repairs and the repairs to the administration building roof. RCS Construction has almost completed the parking lot project. Total operating expenses are under budget for August 2016 by \$310,897. Year-to-date figures are under budget by \$641,931.

Capital Expenditure Budget Analysis

Our current capital expenditure projects have been condensed and are listed from CAP2014-01—CAP2017-02 with various breaks in the numbering sequence. Total project dollars have been reduced to \$6,850,095, which represents the approved budget from the June 2016 Board meeting. All projects with the exception of the LZ Surface & Facility Upgrades and LZ Xenon Gas Purchase are funded by the balance of Sanford Funds as directed by the Fifth Amendment to the Homestake Gift Agreement and funding from private fund raising activities. Funding for the LZ Surface & Facility Upgrades and LZ Xenon Gas Purchase was secured from the State of South Dakota (GOED) granting \$6,000,000 over three years. Additionally, loan documents have been executed for \$2,000,000 each from the South Dakota Community Foundation, the South Dakota State University Foundation, and the University of South Dakota Foundation for xenon purchases. In August 2016, we spent \$583,538 on our CAPEX projects out of the budgeted \$584,583. Year-to-date we have spent \$615,156 on these projects.

Human Resources

We currently have 126 full time employees and 16 temporary staff, primarily Emergency Response Team members. Infrastructure Technicians Matthew Vodopich and Talon Tucker were terminated in August. Both positions will be backfilled. Facilities Technician Jeff Essink passed away on August 17. His position will also be backfilled. The open engineering position is still in the process of being backfilled. Laboratory Director Walter Weinig was laid off September 9 and the position eliminated.



**DOE SDSTA FY 2016 SPA Curve
August 2016**

Source/WBS	Oct-15	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16
SDSTA	3.20	3.20	3.20	1.20								
Administration	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20
Communication	2.00	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DOE OPERATIONS	76.55	76.55	76.55	77.55	77.55	77.85	77.85	77.85	77.65	78.00	78.00	77.00
Administration	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.00
EHS	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00
Engineering	5.15	5.15	5.15	5.15	5.15	5.15	5.15	5.15	5.15	5.15	5.15	4.90
Science	3.80	3.80	3.80	4.80	4.80	4.80	4.80	4.80	4.80	5.15	5.15	5.15
Operations												
Management	5.00	5.00	5.00	5.00	5.00	5.00	5.00	6.00	6.00	6.00	6.00	6.00
Ross Shaft	3.10	3.10	3.10	3.10	3.10	3.40	3.40	2.40	2.20	2.20	2.20	2.20
Yates Shaft	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00
Hoist Operations	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
Hoist Maintenance	2.86	2.86	2.86	2.86	2.86	2.86	2.86	2.86	2.26	2.26	2.26	2.26
Ventilation	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.36	0.36	0.36	0.36
Hazard Mitigation	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
Water Treatment	5.20	5.20	5.20	5.20	5.20	5.20	5.20	5.20	5.20	5.20	5.20	5.20
Dewatering	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Electrical Power Distribution	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25
Cyberinfrastructure	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25
Buildings and Grounds	5.93	5.93	5.93	5.93	5.93	5.93	5.93	5.93	5.68	5.68	5.68	5.68
Equipment Maintenance	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.30	1.30	1.30	1.30
Davis Campus	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	2.45	2.45	2.45	2.45
SDSTA CAPEX	29.25	29.25	29.25	0.35	0.35	0.35	0.35	0.35	0.35	0.00	0.00	0.00
ROSS SHAFT (DOE)				28.00	28.00	31.60						
GEN 2 LZ	1.25	1.25	1.25	2.25	2.25	2.25	2.00	2.00	2.00	2.00	2.00	2.00
LBNF / DUNE	2.40											
LUX OPERATIONS	0.10											
INDIRECT	14.10	14.10	14.10	16.10	16.10	16.10	17.10	17.10	17.10	17.10	16.10	16.10
Grand Total	126.85	126.85	126.85	127.95	127.95	131.85	132.60	132.60	132.40	132.40	131.40	130.40

**SDSTA Staffing Plan by Funding Source
August 2016**

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Appendix A

Davis-Bahcall Scholars
2016 Program Report
September 3, 2016



Since 2009, the Davis-Bahcall Scholars Program has provided rising college freshmen and sophomores from across South Dakota with rich learning experiences at the Sanford Underground Research Facility and around the world. The program is led by Sanford Lab in partnership with Black Hills State University. The program also receives generous support, both in-kind and financial, from numerous other laboratories and universities, the State of South Dakota, South Dakota Space Grant Consortium, and corporate donors.

The 2016 Davis-Bahcall Scholars Program was another excellent success. Eight scholars participated over five weeks – from June 5 through July 10. The program began with two weeks at Sanford Lab, followed by a drive to Chicago, a week in Italy, and finally back to Sanford Lab. Highlights from South Dakota to Chicago included visits to a 3M facility in eastern South Dakota, a Microsoft facility in Fargo, physics facilities at University of Minnesota and University of Wisconsin, and tours of both Fermilab and Argonne National Lab. In Italy, the group toured a laboratory and cultural attractions in Rome and the Gran Sasso National Laboratory in L'Aquila. When students returned from Italy, they facilitated education activities as part of Neutrino Day, and on the following day, as part of a farewell luncheon, each made a presentation to an audience of their families, program coordinators, and leaders from Sanford Lab and BHSU.

With help from Sanford Lab's Education and Outreach Team and a Davis-Bahcall Advisory Committee, this year's program was coordinated by Dr. Brianna Mount, Assistant Professor of Physics Research at Black Hills State University. Mr. Steve Gabriel, a physics teacher from Spearfish High School, also participated as a co-chaperone. Direct costs of the program totaled \$58,824. Funding sources included \$22,244 from the South Dakota Science and Technology Authority, \$15,000 from First Premier Bankcard, \$11,600 from BHSU, and \$10,000 from the South Dakota Space Grant Consortium. Hundreds of hours of in-kind support were also invested by Sanford Lab's Education and Outreach Team, additional Sanford Lab staff, the Sanford Science Education Center, BHSU, Augustana University, and faculty and staff at all of the participating institutions and facilities.

A summary of participant feedback for 2016 is attached. These data provide strong evidence that the program is well designed and that it was well implemented, impactful, and greatly appreciated by the participants. Longitudinal data tables summarizing participant demographics from 2009 through 2016 are also attached, together with a table that tracks academic paths and career trajectories of the program's 105 alumni.



Davis-Bahcall Scholars Program
2016 Participant Feedback
September 2, 2016

One week after the conclusion of the 2016 Davis-Bahcall Scholars Program, participants were asked to reflect back on the full five weeks and provide anonymous feedback. The program ended on July 10, and an online survey was activated on July 18. By August 12, all eight of the scholars had completed the survey.

In an effort to maximize candor, the survey was administered by the director of the Sanford Science Education Center rather than by the program coordinator. The students had met the director of the Center, but only briefly, whereas they had spent a full five weeks together with the program coordinator.

The survey consisted of fourteen questions. The first three questions were free-response. The next eight questions asked for a rating on a 5-point scale and allowed for comments. The final three questions were free-response. All respondents appeared to have given the survey considerable thought and to complete it thoroughly. The shortest response time was 7 minutes. Typical response times fell between 10 and 30 minutes. A few longer response times suggest that those surveys were completed over multiple sittings.

The feedback that follows is quite affirming. Ratings were consistently high and comments positive. There are constructive suggestions about refinements for the future, but overall, this feedback provides strong evidence that the program is well designed as it stands, was well implemented, and was much appreciated by the participants.

1. What were the most impactful activities and/or program elements over the 5 weeks? Please be specific and tell us why.

The following response is representative, *"Talking to the physicists, engineers, etc.- Lectures were very helpful in learning basic particle physics, which is something I knew little about it. Hearing how daily life was in a plant/company and what career paths they had chosen was interesting and provided good advice for us. Fermi and Argonne National Labs were very worth the visit since they are nationally known, competitive labs that are pioneering scientific breakthroughs. Companies like 3M and Microsoft should stay in the program; although they aren't physics oriented, they cater to the DB scholars who aren't physics majors and also are generally quite interesting to tour. Italy's labs were very fascinating; although most of the experiments are similar to ones we had already seen in the US, the way Italians structure and design the experiments as well as the work environment and bureaucracy was definitely worth seeing."*

The following elements appeared in multiple responses:

- Time spent at Sanford Underground Research Facility
 - In-depth lectures about physics
 - Learning about Sanford Lab experiments
 - Panel of theoretical physicists
- Travel to other science and engineering facilities in the US
 - Fermilab, Argonne, 3M, Microsoft
- Going to Italy and touring Gran Sasso
- Appreciation of academic and career advice from science and engineering professors and other STEM professionals.

2. What activities and/or program elements might you suggest we consider discarding or replacing. Please be specific and tell us why.

Responses to this question were much shorter than for the preceding one, but the majority of scholars did make a concerted effort to offer some constructive criticism.

One comment that showed up a few times was about repetition from one tour or presentation to another. The tour guides and other presenters were often unaware of what the group had already learned about. Some amount of repetition is certainly to be expected and even beneficial, but it's worth taking this comment to heart and ensure presenters have a good understanding of what the students have already experienced and heard about. Also, presenters shouldn't be shy about opening with some amount of conversation with the group to help gauge the group's background.

Most of the other comments were singletons. In most cases, an activity that one participant mentioned as replaceable was one that appeared as a favorite for another on the preceding question.

Two scholars made comments of this sort, *"I think everything we did was awesome and looking back at it now I wouldn't change anything."*

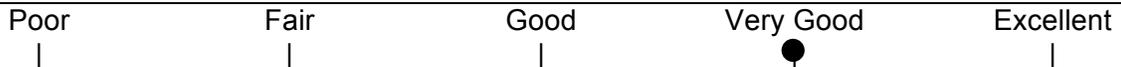
3. In what ways and to what degree do you feel that the overall program impacted you?

The following comment encapsulates the sentiments of many, *"This program did several things for me. First of all, it showed me the investment that the state is willing to put into my education and future. I know that this must have been an incredibly expensive program, and I am extremely grateful to all the contributors that made such an incredible scholarship possible. I think this is a very important scholarship for South Dakota in particular to show the possibilities for STEM majors even in our small state. It also allowed me to see more clearly into the world of professional physics (and other STEM careers as well). The scholarship helped me to learn more about my likes and dislikes within the STEM fields. Finally, the program left me with a hunger to begin my studies in my chosen STEM majors in order to continue inching myself forward into the future of science. Needless to say, this program has had an extremely powerful impact on me and on my future."*

Another scholar said, *"The program has completely changed my perspective on what is possible for STEM majors, especially in South Dakota. I learned so much, and had opportunities to talk to some of the leading researchers in the world. This program has definitely impacted me that greatly."*

4. Balance of Educational Activities

Please think about the proportion of time spent doing various types of educational activities - listening to lectures, participating in seminars, taking tours, participating at Neutrino Day, etc. Overall, the balance of the educational activities was...

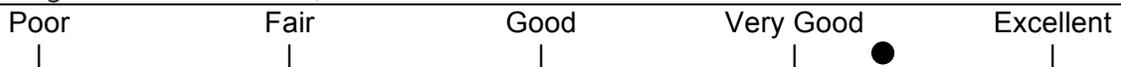


Comments about the balance of educational activities were all quite positive. As one student summed it up, *"Balance of activities: it was well done."*

Another said, *"The varied educational activities helped the new knowledge to soak in and really solidify."*

5. Balance of Activities - All

Please think about the proportion of time spent doing various types of activities across the entire program - educational activities, travel, social, recreation, free-time. Was there too much of something? Too little? Overall, the balance of activities was...

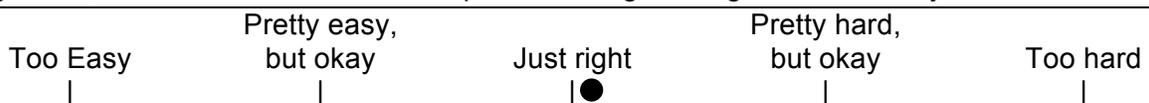


Again, there was a bit of constructive criticism, but comments were extremely positive overall.

It was the perfect balance between education and leisure time!

6. Level of Difficulty

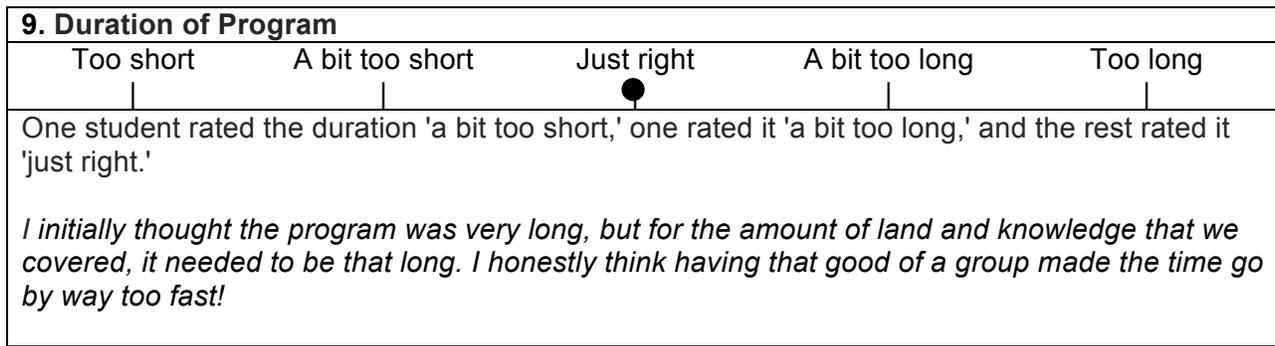
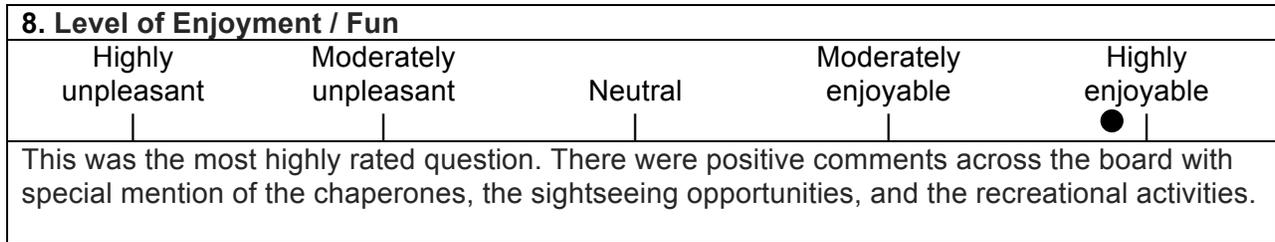
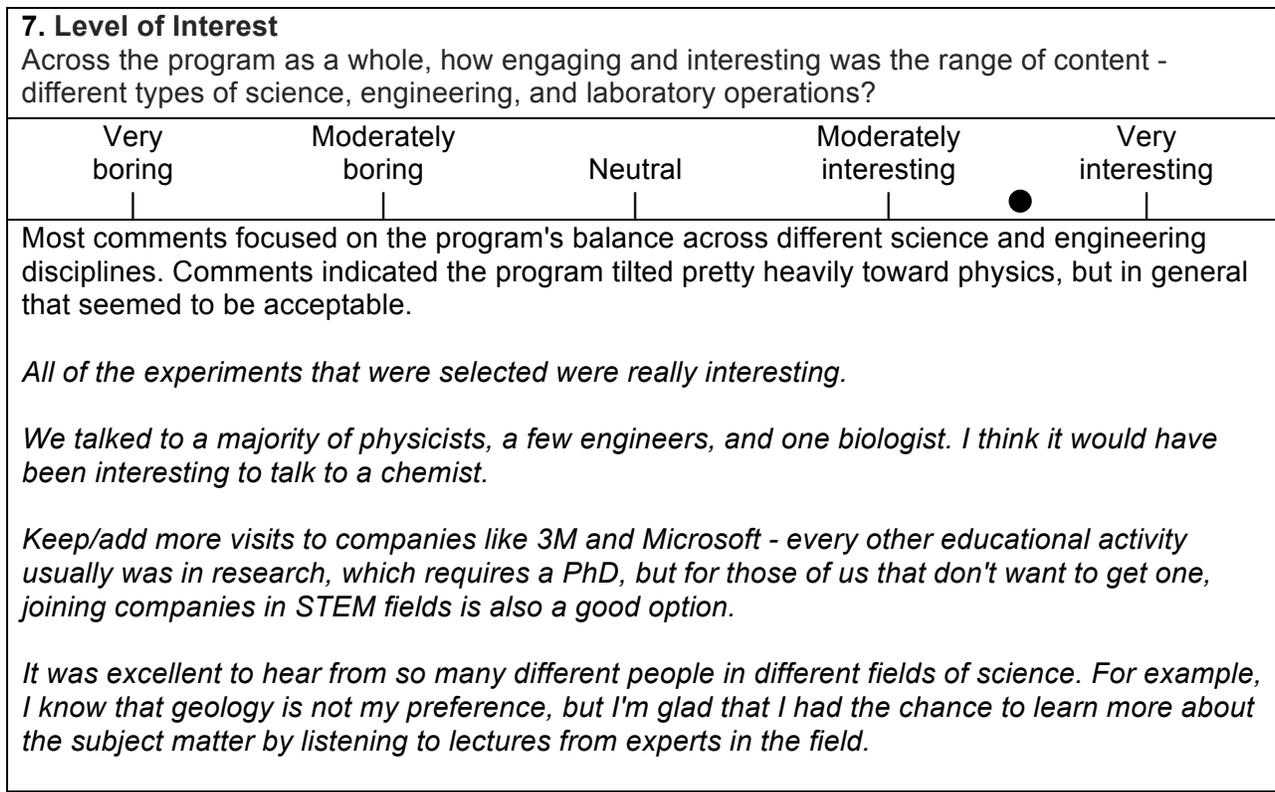
In general, were lectures and activities pitched at a good cognitive level for you?



Seven scholars rated the level of difficulty as 'just right,' and one rated it as 'pretty hard, but okay.' Erring a bit on the hard side seems appropriate for this audience. The following quotes capture the range of comments.

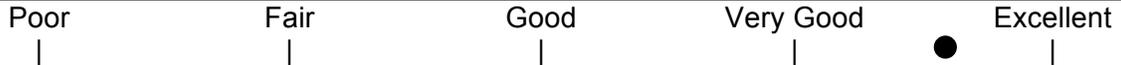
All of the lecturers were incredible in what they do and were able to communicate even the most complicated of subjects in an effective way that made sense.

Some things were a bit easy, some a bit hard, but I think the mix keep things refreshing.



10. Accommodations / Organization / Logistics

This category includes things like food, housing, travel, and scheduling.

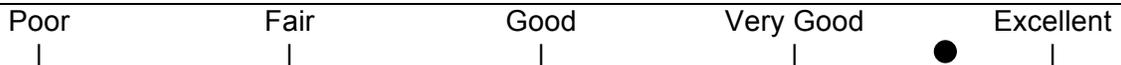


The organization and logistics of the program were very impressive and ran very smoothly.

Everything was great! I have absolutely zero complaints when it comes to lodging, food, or scheduling!

11. Overall Quality of the Program

Was this a good use of your time? Would you recommend it to a friend? Thinking across all aspects of the program - educational, social, and organizational - how would you rate the 5 weeks...



All of the comments about overall quality were very positive.

The program overall was amazing and is definitely a once in a lifetime opportunity, and it being so early in my educational carter made it that much more impactful.

I had so much fun and wouldn't trade my experiences this summer for anything!

12. Timing of Program

Organizers were curious if students might have preferred for the program to happen earlier or later in the summer (actual dates were June 5 - July 10). One students indicated earlier would have been preferable, but the other seven felt the timing of the program was good, and many used the word "perfect." Different academic calendars of different high schools and colleges make moving the program closer to the beginning or end of the summer tricky.

13. Internship Opportunities

All of the Davis-Bahcall Scholars were offered the opportunity to pair a short internship with the 5-week program. Most took advantage of the opportunity. As one student said, *"It's a great bonus to the program."* Another said, *"The internship was icing on the cake."*

14. Any additional comments?

This program is absolutely incredible. I could not be more thankful to all who helped make this possible, and I hope that everyone who contributed can see how valuable the experience is and how grateful all of us are to have participated.

Thank you to everyone who made this incredible opportunity possible.

Davis-Bahcall Scholars

Program Attributes, Demographics, and Student Tracking

Table A. Components of Program by Year

YEAR	Number of Students	EUROPE			DOE National Labs			U.S. Universities					Facilities		
		CERN	Gran Sasso	Frascati	Brookhaven	Fermilab	Argonne	Princeton	Chicago	Notre Dame	Wisconsin	Stony Brook	Sanford Lab	Soudan	NOVA
2008 (pilot)	2		✓					✓							
2009 (DB)	10	✓	✓	✓				✓				✓			
2009 (SS)*	17				✓	✓	✓				✓	✓			
2010 (DB)	10	✓	✓	✓				✓				✓			
2010 (SS)	10					✓	✓					✓			
2011	10					✓	✓	✓			✓	✓	✓	✓	
2012	10		✓	✓		✓	✓		✓	✓		✓			
2013	9		✓	✓		✓	✓			✓		✓			
2014	10		✓	✓		✓	✓			✓		✓	✓	✓	
2015	9		✓	✓		✓	✓			✓		✓	✓	✓	
2016	8		✓	✓		✓	✓			✓		✓	✓		
Totals	105	20	68	66	8	75	75	32	10	20	37	8	103	37	29

* 8 students went to Brookhaven National Lab + State University of New York at Stony Brook; 9 students went to Fermilab and Argonne.

Table B. Gender Distribution of Students

Year	# Students	Female		Male	
		#	%	#	%
2008	2	1	50	1	50
2009	27	8	30	19	70
2010	20	8	40	12	60
2011	10	5	50	5	50
2012	10	4	40	6	60
2013	9	4	44	5	56
2014	10	6	60	4	40
2015	9	3	33	6	67
2016	8	4	50	4	50
Total	105	43	41	62	59

Table C. Ethnicity of Students

Year	# Students	Caucasian		American Indian		African American		Hispanic		Asian American	
		#	%	#	%	#	%	#	%	#	%
2008	2	1	50	1	50	0	0	0	0	0	0
2009	27	25	93	1	3.5	0	0	0	0	1	3.5
2010	20	19	95	0	0	1	5	0	0	0	0
2011	10	9	90	0	0	0	0	0	0	1	10
2012	10	8	80	1	10	0	0	1	10	0	0
2013	9	8	89	0	0	0	0	0	0	1	11
2014	10	8	80	0	0	0	0	1	10	1	10
2015	9	8	89	1	11	0	0	0	0	0	0
2016	8	7	88	0	0	0	0	0	0	1	12
Total	105	93	89	4	3.7	1	0.8	2	1.8	5	4.7

Table D: Tracking of Program Alumni - College Graduates

Student	Program Year	College	Grad Year	Major	Career Path	Location
1	2008	SDSU	2013	ElectricalEng/ Physics	Other	Benedictine Order, Norfolk, NE
2	2008	SDSU				
3	2009	BHSU	2012		Nursing School	USD
4	2009	Montana St	2013	Chem/Bio Engineering	Workforce	Nalco, Bozeman, MT
5	2009	Univ of Penn- sylvania	2013	Architecture	Workforce	Joeb Moore&Partners, PA
6	2009	SDSMT	2013	Industrial Eng/Manage ment	Workforce	Hormel Foods, Rapid City, SD
7	2009	SDSU	2013	MechEng/Sp anish	Workforce	Walt Disney World, Orlando, FL
8	2009	Univ of Iowa	2013	Biochem/Mic roBio	Graduate School (MD/PhD)	Univ of Washington, Seattle, WA
9	2009	SDSMT	2012	Chemical Engineering	Workforce	Dow Chemical, Midland, MI
10	2009	Univ of Minnesota	2012	Chemistry		
11	2009	SDSU	2013	Math/Physics	Graduate School (MS, 2015)	Department of Mathematics, SDSU
12	2009	Montana St	2013	Physics	Graduate School (PhD)	Rochester Inst of Technology, Rochester, NY
13	2009	SDSMT	2013	Civil Engineering	Workforce	State of South Dakota, Pierre, SD
14	2009	SDSU				
15	2009	Cornell Univ (NY)	2013	Environment al Research Associate	Workforce (working on masters)	Diversified Landscapes, Orange County, CA
16	2009	Univ Nebraska	2013	Software Engineering	Workforce	MarketSphere, Lincoln, NE
17	2009	Carleton College (MN)	2013	Environment al/Biochem	Workforce	Dana Farber Cancer Inst, Boston, MA

Table D: Tracking of Program Alumni - College Graduates (continued)

Student	Program Year	College	Grad Year	Major	Career Path	Location
18	2009	Hope College (MI)	2013	Biochem/Molecular Bio	Graduate School (PhD)	Molecular Biology Dept, Univ of Michigan
19	2009	Univ Sioux Falls	2013	Biology	Graduate School (PhD)	Cell/Molecular Biology, Colorado State
20	2009	SDSU	2013	Biology/Spanish		
21	2009	Padova, IT	2013	Civil Engineering		
22	2009	Augustana	2012	Phys/Math/Chem	Graduate School (PhD)	Physics, Univ of Minnesota
23	2009	SDSU	2013	Mechanical Engineering	Workforce	Rochester, MN
24	2009	USD	2012	Chemistry	Professional School (MD)	USD
25	2009	SDSMT	2012	Electrical Engineering	Workforce	QEP Resources, WY
26	2009	UNLV (NV)	2013	Film	Workforce	Shoreline Entertainment, NV
27	2009	Creighton (NE)	2013	Math/Physics	Graduate School (PhD)	Physics Department, Creighton Univ, NE
28	2009	Augustana	2012	Biology/Engineering	Other	Peace Corps, Africa
29	2009	SDSU	2012	Biology	Nursing School/Workforce	St Luke's Hospital, SD
30	2010	Univ Nebraska	2014	Computer Engineering	Workforce	Microsoft, Redmond, WA
31	2010	Montana St	2013	Physics	Graduate School (PhD)	Dept of Physics,
32	2010	St Thomas (MN)	2014	Mechanical Engineering		
33	2010	BHSU	2013	Biology&Chemistry	Science Education	Teaching, SD
34	2010	Washington Univ (MO)	2014	Political Science	Professional School (MBA)	Washington Univ., St Louis, MO
35	2010	SDSU	2014	Electrical Engineering		

Table D: Tracking of Program Alumni - College Graduates (continued)

Student	Program Year	College	Grad Year	Major	Career Path	Location
36	2010	USD	2013	Physics/Math	Graduate School (PhD)	Dept of Mathematics, USD
37	2010	SDSMT	2014	Mechanical Engineering	Workforce	Parker-Hanlin, McCook, NE
38	2010	Concordia College (MN)	2014	Math/Physics	Graduate School (PhD)	Univ of Notre Dame, IN
39	2010	Colorado School of Mines	2014	Environmental Engineering	Workforce	Alan Plummer Associates, Ft Worth, TX
40	2010	SDSMT	2013	Industrial Eng/Eng Management	Workforce	Peabody Energy, Gillette, WY
41	2010	SDSMT	2015	Chemical Engineering	Graduate School (PhD)	Dept of Materials Sci, Purdue University, IN
42	2010	SDSU	2014	Civil Engineering	Graduate School (MS)	Dept of Civil Eng, SDSU
43	2010	Mt Martyr College	2012	Biology		
44	2010	SDSU	2014	Civil Engineering	Graduate School	Dept of Civil Engineering Colorado School of Mines, CO
45	2010	Purdue Univ (IN)	2014	Mech Eng/Physics	Workforce	ExxonMobil, Houston, TX
46	2010	St. John's (MN)	2014	Biology/Spanish		
47	2010	SDSMT	2014	Chemical Engineering	Workforce	Dow AgroSciences,
48	2010	Augustana	2013	Physics	Graduate School (PhD)	Dept of Physics, Univ of Colorado, CO
49	2010	SDSU	2013	Music		
51	2011	SDSU	2016	Civil Engineering		
52	2011	SDSMT	2015	Chemical Engineering	Workforce	Davisco Foods, Jerome, ID
53	2011	Augustana	2014	Biology		

Table D: Tracking of Program Alumni - College Graduates (continued)

Student	Program Year	College	Grad Year	Major	Career Path	Location
54	2011	Iowa State	2015	Chemical Engineering		
55	2011	Univ of Illinois	2016	Computer Engineering	Graduate School	Comp Eng, Univ of Illinois
56	2011	Drake (IA)	2015	Physics		
57	2011	Augustana	2015	Biochemistry	Professional School (MD)	USD
58	2011	SDSMT	2016	Chemical Engineering	Workforce	POET, Sioux Falls, SD
59	2011	Univ of Minnesota	2015	Aerospace Engineering		
61	2012	Wartburg (IA)	2016	Biology/Spanish	Workforce	Grand Prairie Foods, Sioux Falls, SD
62	2012	UC Berkeley (CA)	2016	Physics	Graduate School (mathematics)	Berlin Mathematical School, Berlin, DE
63	2012	Univ of Oklahoma	2016	Engineering Physics	Workforce	IntriCon Corp, Minneapolis, MN
64	2012	Augustana	2016	Chemistry/Physics		
65	2012	Univ of Colorado	2016	Aerospace Engineering	Workforce	NASA Jet Propulsion Lab, Pasadena, CA
67	2012	Northern State	2015	Biology	Intern	USDA Biotechnology, Orlando, FL
68	2012	SDSMT	2015	Computer Science	Workforce	Software Engineer Innovative Systems
70	2013	SDSMT	2016	Chemistry		
73	2013	SDSMT	2016	Mathematics		
77	2013	USD	2016	Physics		

Table E: Tracking of Program Alumni - Current Undergraduates

Student	Program Year	College	Expected Grad. Yr.	Major	Recent Internships
50	2011	Drake (IA)	2016		
60	2012	SDSMT	2016	Biological & Chemical Engineering	NASA Johnson Space Center - 2013
69	2012	SDSU	2016		OSSPEEC (pre-engineering) - 2013
71	2013	SDSMT	2017	Computer Engineering	Innovative Systems - 2013 SDSMT - 2014 Omnitech, Inc- 2015
72	2013	Univ of Minnesota	2017		3M Aberdeen - 2013
74	2013	Montana St	2017	Mechanical Engineering	
75	2013	Augustana	2017	Physics/Math	Augustana -2013, 2014 Iowa State - 2015
76	2013	SDSU	2017	Mechanical Engineering	
78	2013	SDSMT	2017	Electrical Engineering	Sanford Lab – 2013, 2014
79	2014	Iowa State	2018	Mechanical Engineering	
80	2014	BHSU	2018	Env&Physical Science	
81	2014	Univ of Rochester (NY)	2018	Physics	
82	2014	SDSMT	2018	Biological Engineering	Nanofiber Tech - 2014
83	2014	Univ of Chicago (IL)	2018		
84	2014	SDSU	2018	Civil/Env Engineering	Vantage Point Systems - 2014
85	2014	Augustana	2018	Physics	Augustana – 2014, 2015

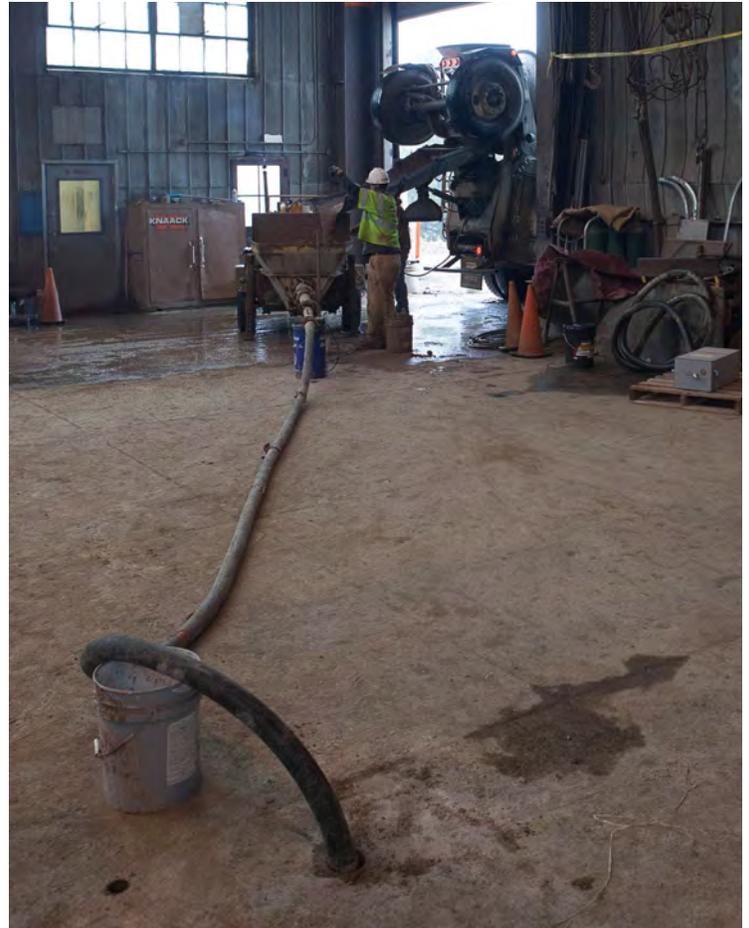
Table E: Tracking of Program Alumni - Current Undergraduates (continued)

Student	Program Year	College	Expected Grad. Yr.	Major	Recent Internships
86	2014	SDSMT	2017	Physics	SDSMT - 2014 Fermilab - 2015
87	2014	Yale Univ (CT)	2018	Chemistry	SD BioTech – 2014 Yale Univ - 2015
88	2014	BHSU	2017	Env&Physical Science	USD Cubed - 2014
89	2015	SDSMT	2018	Chemical Engineering	CalxAqua, LLC - 2015
90	2015	Univ of Washington (WA)	2018	Geological Engineering	
91	2015	SDSMT	2019	Computer Science	
92	2015	SDSMT	2019	Physics, Engineering	Adams Thermal - 2015
93	2015	SDSMT	2019	Physics	3M - 2015
94	2015	SDSU	2018	Mechanical Engineering	
95	2015	Northwestern (IL)	2019	Biochemical Engineering	
96	2015	Stanford (CA)	2019	Mathematics	Stanford - 2016
97	2015	Univ of Michigan	2019	Neuroscience	Alumend - 2015
98	2016	Stanford (CA)	2020	Computer Science	
99	2016	Augustana	2020	Physics	Augustana - 2016
100	2016	Univ of Kansas (KS)	2020	Engineering	USD - 2016
101	2016	Brigham Young (UT)	2020	Physics	BHSU - 2016
102	2016	Univ of Minnesota (MN)	2020	Engineering/Physics	USD - 2016
103	2016	Univ of Hawaii (HA)	2020	Environmental Science	Respec - 2016
104	2016	BHSU	2019	Chemistry/Physics	
105	2016	USD	2019	Computer Science	3M - 2016

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Appendix B

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Top: Black Hills Video provided this aerial view of the Ross and Yates shafts, Lead and the Open Cut.

Center: The Yates Tunnel is reinforced while being backfilled from above.

Right: Concrete is pumped through an access hole in the Yates Crusher Room to reinforce the Yates Tunnel.



Top: Each KISMET drill hole is photographed and logged by lowering an optical televiewer. The KISMET experiment drilled a series of holes on the 4850 Level to study the effects of fracturing rock.



Center and below. Construction crews work on the Yates road and parking area. New sidewalks and retaining walls make parking and walkways safer as well as add to the aesthetics of the Sanford Lab's entrance.



Appendix C

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DIVISION: ALL

BALANCE SHEET

ASSETS

AS OF
08/31/16

CURRENT ASSETS

First Interstate Checking	\$	1,404,971.22
First Interstate Other		15,213.61

Total in Local Checking		1,420,184.83
SD Treas: Indemnification		7,500,000.00
SD Treas: Mine Closure		1,398,522.89
SD Treas: Operating		361,693.54
SD Treas: Sanford Gift #2		1,271,295.97
SD Treas: Experiments		3,589,304.84

Total with SD Treasurer		14,120,817.24
Billed A/R		2,339,211.26
Unbilled A/R		168,526.37
Other A/R		161,545.77
Inventory - Supplies		2,408,322.74
Inventory - Warehouse		1,641,222.63
Other Current Assets		463,649.77

Total Current Assets		22,723,480.61

FIXED ASSETS

Land, Underground & Other		12,398,635.03
Bldgs & Infrastructure		8,881,327.62
Improvements		63,284,094.82
Computer Equipment		461,416.25
Equipment & Fixtures		10,528,964.60
Accum Depr & Amort		(11,349,078.30)

Total Fixed Assets		84,205,360.02

OTHER ASSETS

Work in Process		784,156.03
Equipment - Capital Lease		313,897.83
Pension Deferred Outflows		6,287,854.00

Total Other Assets		7,385,907.86

TOTAL ASSETS

=====

\$ 114,314,748.49

=====

DIVISION: ALL

BALANCE SHEET

LIABILITIES & EQUITY

AS OF
08/31/16

CURRENT LIABILITIES		
Accounts Payable	\$	1,434,301.01
Other Payables		203,858.85

Total Accounts Payable		1,638,159.86
Accrued Payroll Liab		1,277,203.92

Total Current Liabilities		2,915,363.78
OTHER LIABILITIES		
LT Accrued EB/Lease		313,897.83
LT Xenon Notes Payable		2,000,000.00
Pension Deferred Inflows		3,184,802.00

Total Other Liabilities		5,498,699.83
EQUITY		
Restricted: Indemnificati		7,500,000.00
Restricted: Mine Closure		1,398,522.89
Restricted: Sanford Gift2		1,136,796.00
Restricted: Pension		3,103,052.00
Restricted: Experim. Int.		3,589,304.84

Total Restricted Funds		16,727,675.73
Investment in Gen FA		84,205,360.02
Unrestricted Funds		4,967,649.13

Total Equity		105,900,684.88
TOTAL LIABILITIES & EQUITY		=====
	\$	114,314,748.49
		=====

ALL

STATEMENT OF INCOME

FOR THE PERIOD ENDING 08/31/16

	YR-TO-DATE

REVENUE	
DOE Subcontracts	\$ 4,500,949.74
NSF/NASA Subcontracts	140.50
State Revenue	12,000.00
Contributions & Donations	125,000.00
Checking Interest	23.61
Interest Income	17,879.32

TOTAL REVENUE	4,655,993.17
DIRECT COSTS	
Direct Labor	1,136,435.31
ERT Labor	2,659.50
Board of Directors	131.28
Capital Outlay >\$5K	550,000.00
Contractual Svcs	1,200,989.93
Inventory	28,024.19
Supplies	274,898.00
Travel - Domestic	5,269.83
Travel - Foreign	45,868.52
Utilities	250,705.17
Other Direct Costs	40,041.00
Unallow/Unbill Costs	56,734.35

TOTAL DIRECT COSTS	3,591,757.08
INDIRECT COSTS	
Fringe Benefits	546,294.70
Overhead	1,145,136.62

TOTAL INDIRECT COSTS	1,691,431.32

GROSS PROFIT (LOSS) FROM OPERATIONS	(627,195.23)

OTHER INCOME	
Water Treatment	43,682.15
Miscellaneous Income	23,494.19
Other Operating Income	506.60

TOTAL OTHER INCOME	67,682.94
OTHER EXPENSES	
Reclass Incr Net Assets	(319,114.80)

TOTAL OTHER EXPENSES	(319,114.80)

NET INCOME/LOSS ()	(240,397.49)
	=====

DIVISION: ALL

COMPARATIVE BALANCE SHEET

ASSETS

	AS OF 08/31/16	AS OF 08/31/15	\$ CHANGE	% CHANGE
CURRENT ASSETS				
First Interstate Checking	\$ 1,404,971.22	\$ 1,668,735.76	\$ (263,764.54)	-15.81%
First Interstate Other	15,213.61	29,081.27	(13,867.66)	-47.69%
	-----	-----	-----	-----
Total in Local Checking	1,420,184.83	1,697,817.03	(277,632.20)	-16.35%
SD Treas: Indemnification	7,500,000.00	7,617,868.59	(117,868.59)	-1.55%
SD Treas: Insurance	-	0.01	(0.01)	-100.00%
SD Treas: Mine Closure	1,398,522.89	1,378,755.95	19,766.94	1.43%
SD Treas: Operating	361,693.54	41,204.29	320,489.25	777.81%
SD Treas: Sanford	-	1,212,764.30	(1,212,764.30)	-100.00%
SD Treas: Sanford Gift #2	1,271,295.97	3,106,530.44	(1,835,234.47)	-59.08%
SD Treas: SB196 Transfer	-	1,742,615.57	(1,742,615.57)	-100.00%
SD Treas: Experiments	3,589,304.84	-	3,589,304.84	100.00%
	-----	-----	-----	-----
Total with SD Treasurer	14,120,817.24	15,099,739.15	(978,921.91)	-6.48%
Billed A/R	2,339,211.26	2,175,425.43	163,785.83	7.53%
Unbilled A/R	168,526.37	41,656.30	126,870.07	304.56%
Other A/R	161,545.77	90,069.38	71,476.39	79.36%
Inventory - Supplies	2,408,322.74	2,616,992.22	(208,669.48)	-7.97%
Inventory - Warehouse	1,641,222.63	369,104.49	1,272,118.14	344.65%
Other Current Assets	463,649.77	248,515.62	215,134.15	86.57%
	-----	-----	-----	-----
Total Current Assets	22,723,480.61	22,339,319.62	384,160.99	1.72%
FIXED ASSETS				
Land, Underground & Other	12,398,635.03	12,398,635.03	-	0.00%
Bldgs & Infrastructure	8,881,327.62	8,881,327.62	-	0.00%
Improvements	63,284,094.82	64,569,774.83	(1,285,680.01)	-1.99%
Computer Equipment	461,416.25	451,472.54	9,943.71	2.20%
Equipment & Fixtures	10,528,964.60	10,052,148.82	476,815.78	4.74%
Accum Depr & Amort	(11,349,078.30)	(9,510,831.14)	(1,838,247.16)	19.33%
	-----	-----	-----	-----
Total Fixed Assets	84,205,360.02	86,842,527.70	(2,637,167.68)	-3.04%
OTHER ASSETS				
Work in Process	784,156.03	2,277,954.56	(1,493,798.53)	100.00%
Equipment - Capital Lease	313,897.83	492,449.69	(178,551.86)	-36.26%
Pension Deferred Outflows	6,287,854.00	7,176,478.00	(888,624.00)	-12.38%
Investment Captive Insurance	-	2,500,000.00	(2,500,000.00)	100.00%
	-----	-----	-----	-----
Total Other Assets	7,385,907.86	12,446,882.25	(5,060,974.39)	-40.66%
	=====	=====	=====	=====
TOTAL ASSETS	\$ 114,314,748.49	\$ 121,628,729.57	\$ (7,313,981.08)	-6.01%
	=====	=====	=====	=====

DIVISION: ALL

COMPARATIVE BALANCE SHEET

LIABILITIES & EQUITY

	AS OF 08/31/16	AS OF 08/31/15	\$ CHANGE	% CHANGE
CURRENT LIABILITIES				
Accounts Payable	\$ 1,434,301.01	\$ 2,284,582.81	\$ (850,281.80)	-37.22%
Other Payables	203,858.85	85,669.32	118,189.53	137.96%
	-----	-----	-----	-----
Total Accounts Payable	1,638,159.86	2,370,252.13	(732,092.27)	-30.89%
Accrued Payroll Liab	1,277,203.92	1,050,452.54	226,751.38	21.59%
	-----	-----	-----	-----
Total Current Liabilities	2,915,363.78	3,420,704.67	(505,340.89)	-14.77%
OTHER LIABILITIES				
LT Accrued EB/Lease	313,897.83	492,449.69	(178,551.86)	-36.26%
LT Xenon Notes	2,000,000.00	-	2,000,000.00	100.00%
Pension Deferred Inflows	3,184,802.00	4,412,373.00	(1,227,571.00)	-27.82%
	-----	-----	-----	-----
Total Other Liabilities	5,498,699.83	4,904,822.69	593,877.14	12.11%
	-----	-----	-----	-----
TOTAL LIABILITIES	8,414,063.61	8,325,527.36	88,536.25	1.06%
EQUITY				
Restricted: Indemnificati	7,500,000.00	7,500,000.00	-	0.00%
Restricted: Captive	-	2,500,000.00	(2,500,000.00)	-100.00%
Restricted: Sanford I.Lab	-	2,897,391.48	(2,897,391.48)	-100.00%
Restricted: Mine Closure	1,398,522.89	1,378,755.95	19,766.94	1.43%
Restricted: Sanford Gift2	1,136,796.00	2,979,083.00	(1,842,287.00)	-61.84%
Restricted: Pension	3,103,052.00	2,764,105.00	338,947.00	12.26%
Restricted: Experim. Int.	3,589,304.84	-	3,589,304.84	100.00%
	-----	-----	-----	-----
Total Restricted Funds	16,727,675.73	20,019,335.43	(3,291,659.70)	-16.44%
Investment in Gen FA	84,205,360.02	86,923,527.70	(2,718,167.68)	-3.13%
Unrestricted Funds	4,967,649.13	6,360,339.08	(1,392,689.95)	-21.90%
	-----	-----	-----	-----
TOTAL EQUITY	105,900,684.88	113,303,202.21	(7,402,517.33)	-6.53%
	=====	=====	=====	=====
TOTAL LIABILITIES & EQUITY	\$ 114,314,748.49	\$ 121,628,729.57	\$ (7,313,981.08)	-6.01%
	=====	=====	=====	=====

COMPARATIVE STATEMENT OF INCOME

FOR THE PERIOD ENDING 08/31/16

	YEAR TO DATE	PRIOR YEAR TO DATE	\$ CHANGE	% CHANGE
REVENUE				
DOE Subcontracts	\$ 4,500,949.74	\$ 3,268,622.73	\$ 1,232,327.01	37.70%
NSF/NASA Subcontracts	140.50	-	140.50	100.00%
State Revenue	12,000.00	14,751.57	(2,751.57)	-18.65%
Contributions & Donations	125,000.00	125,000.00	-	0.00%
Checking Interest	23.61	19.25	4.36	22.65%
Interest Income	17,879.32	20,454.50	(2,575.18)	-12.59%
TOTAL REVENUE	4,655,993.17	3,428,848.05	1,227,145.12	35.79%
DIRECT COSTS				
Direct Labor	1,136,435.31	1,191,403.35	(54,968.04)	-4.61%
ERT Labor	2,659.50	4,517.64	(1,858.14)	-41.13%
Board of Directors	131.28	639.89	(508.61)	-79.48%
Capital Outlay >\$5K	550,000.00	-	550,000.00	100.00%
Contractual Svcs	1,200,989.93	1,163,953.85	37,036.08	3.18%
Inventory	28,024.19	57,288.62	(29,264.43)	-51.08%
Supplies	274,898.00	120,011.65	154,886.35	129.06%
Travel - Domestic	5,269.83	20,593.89	(15,324.06)	-74.41%
Travel - Foreign	45,868.52	26,585.95	19,282.57	72.53%
Utilities	250,705.17	365,506.86	(114,801.69)	-31.41%
Other Direct Costs	40,041.00	42,738.15	(2,697.15)	-6.31%
Unallow/Unbill Costs	56,734.35	68,578.28	(11,843.93)	-17.27%
TOTAL DIRECT COSTS	3,591,757.08	3,061,818.13	529,938.95	17.31%
INDIRECT COSTS				
Fringe Benefits	546,294.70	483,003.09	63,291.61	13.10%
Overhead	1,145,136.62	527,028.48	618,108.14	117.28%
TOTAL INDIRECT COSTS	1,691,431.32	1,010,031.57	681,399.75	67.46%
GROSS PROFIT	(627,195.23)	(643,001.65)	15,806.42	15.63%
OTHER INCOME				
Water Treatment	43,682.15	72,789.06	(29,106.91)	-39.99%
Miscellaneous Income	23,494.19	23,203.80	290.39	1.25%
Other Operating Income	506.60	563.90	(57.30)	-10.16%
TOTAL OTHER INCOME	67,682.94	96,556.76	(28,873.82)	-29.90%
OTHER EXPENSES				
Loss(Gain) on Sale of FA	-	1,904.54		
Reclass Incr Net Assets	(319,114.80)	(207,546.78)	(111,568.02)	53.76%
TOTAL OTHER EXPENSES	(319,114.80)	(205,642.24)	(113,472.56)	55.18%
NET INCOME/LOSS ()	\$ (240,397.49)	\$ (340,802.65)	\$ 100,405.16	27.94%

South Dakota Science & Technology Authority
Available Resources
8/31/2016

Cash Total Checking/Savings	\$	1,420,185
Cash With State Treasurer	\$	<u>14,120,817</u>
Total Cash	\$	15,541,002
Less: Restricted Funds		
Indemnification/Mine Closure	\$	(8,898,523)
Experiments (Xenon, Interest, Infrastructure)	\$	<u>(4,135,222)</u>
Total Cash Available for Infrastructure Upgrades and Operations	\$	2,507,257
Plus: Accounts Receivable Billed	\$	2,339,211
Accounts Receivable Unbilled	\$	168,526
Less: Current Liabilities (Accounts Payable & Accrued Payroll)	\$	<u>(1,793,378)</u>
Available Cash	\$	<u><u>3,221,616</u></u>

SDSTA Operating Budget Summary FY2017
Actual vs Budget
Aug. 2016 & YTD

	\$ Over/Under				\$ Over/Under				
	Aug. 2016	Budget	Budget	% of Budget	Actual YTD	YTD Budget	Budget	% of Budget	% Remaining
100%									
SDSTA (Authority) Direct Charges									
Board of Directors	\$17,917.00	\$19,900.00	\$1,983.00	90.04%	\$35,736.00	\$39,800.00	\$4,064.00	89.79%	10.21%
Executive Office	-\$4,265.00	\$14,880.00	\$19,145.00	0.0%	\$12,751.00	\$29,270.00	\$16,519.00	43.56%	56.44%
Science Center E & O	-\$5,000.00	\$0.00	\$5,000.00	0.0%	\$28,640.00	\$29,749.00	\$1,109.00	96.27%	3.73%
Science Liaison	-\$573.00	\$0.00	\$573.00	0.0%	-\$511.00	\$0.00	\$511.00	0.00%	0.00%
Sanf.L.Visitor C. (Director)	\$4,908.00	\$6,037.00	\$1,129.00	81.3%	\$7,376.00	\$10,289.00	\$2,913.00	71.69%	28.31%
Subtotal	\$12,987.00	\$40,817.00	\$27,830.00	31.82%	\$83,992.00	\$109,108.00	\$25,116.00	76.98%	23.02%
Federal/State Funding - Direct Charges									
Fermi P.O.#620223 Building/Infra.	\$11,814.00	\$15,000.00	\$3,186.00	78.76%	\$11,814.00	\$15,000.00	\$3,186.00	78.76%	21.24%
Fermi P.O.#625500 F.SiteFacil.Servic	\$23,073.00	\$25,292.00	\$2,219.00	91.23%	\$32,173.00	\$47,665.00	\$15,492.00	67.50%	32.50%
Fermi P.O.#625501 Engin.Services	\$22,012.00	\$24,875.00	\$2,863.00	88.49%	\$29,938.00	\$43,480.00	\$13,542.00	68.85%	31.15%
Fermi P.O.#625691 B/Site Final Des.	\$344,058.00	\$350,000.00	\$5,942.00	98.3%	\$344,058.00	\$350,000.00	\$5,942.00	98.30%	1.70%
Fermi P.O.#625692 Pre Excav.F.D.	\$393,138.00	\$400,000.00	\$6,862.00	98.29%	\$393,138.00	\$400,000.00	\$6,862.00	98.28%	1.72%
Fermi P.O.#627228GlobalSurSupp.	\$0.00	\$0.00	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	0.00%	100.00%
Fermi P.O.#627358GlobalSurvey	\$0.00	\$16,808.00	\$16,808.00	0.0%	\$10,559.00	\$33,616.00	\$23,057.00	31.41%	68.59%
Fermi P.O.#628696CMGCPrebid	\$0.00	\$0.00	\$0.00	0.0%	\$354.00	\$360.00	\$6.00	98.33%	1.67%
Fermi P.O.#628702Transformer	\$866.00	\$866.00	\$0.00	100.0%	\$866.00	\$866.00	\$0.00	100.00%	0.00%
LBNL LUX C#6973786	\$13,736.00	\$7,899.00	-\$5,837.00	173.90%	\$21,199.00	\$15,620.00	-\$5,579.00	135.72%	-35.72%
LBNL Operations C#6994297	\$717,972.00	\$983,411.00	\$265,439.00	73.01%	\$1,491,750.00	\$1,787,876.00	\$296,126.00	83.44%	16.56%
LBNL LUX/Zepplin C#7255146	\$581,896.00	\$571,990.00	-\$9,906.00	101.73%	\$591,900.00	\$591,841.00	-\$59.00	100.01%	-0.01%
LBNL Ross Rehab C#7262800	\$359,645.00	\$441,901.00	\$82,256.00	81.39%	\$463,266.00	\$867,561.00	\$404,295.00	53.40%	46.60%
LBNL KISMET Task#7289931	\$9,667.00	\$20,000.00	\$10,333.00	48.34%	\$42,979.00	\$60,000.00	\$17,021.00	71.63%	28.37%
MJD (Majorana) ORNL144149	\$2,206.00	\$2,000.00	-\$206.00	110.3%	\$2,206.00	\$4,000.00	\$1,794.00	55.15%	44.85%
RESPEC C#02703A	\$4,687.00	\$5,000.00	\$313.00	93.74%	\$4,687.00	\$55,000.00	\$50,313.00	8.52%	91.48%
Northwestern Univ. NASA981568	\$0.00	\$200.00	\$200.00	0.0%	\$0.00	\$400.00	\$400.00	0.00%	100.00%
BHSU-UGCampus Gen.Serv.	\$0.00	\$200.00	\$200.00	0.0%	\$0.00	\$400.00	\$400.00	0.00%	100.00%
Sanf.Sci.Ed.Center - GOED Funded	\$16,211.00	\$25,000.00	\$8,789.00	64.84%	\$16,211.00	\$50,000.00	\$33,789.00	32.42%	67.58%
U. of Minn. DUGL#A003778902	\$0.00	\$0.00	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	0.00%	0.00%
SDSM&Tech CASPAR Gen.Serv.	\$0.00	\$0.00	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	0.00%	0.00%
* Xilinx, Inc. P.O.#732495	\$203.00	\$240.00	\$37.00	84.58%	\$203.00	\$480.00	\$277.00	42.29%	57.71%
Subtotal	\$2,501,184.00	\$2,890,682.00	\$389,498.00	86.53%	\$3,457,301.00	\$4,324,165.00	\$866,864.00	79.95%	20.05%
Indirect Expenses									
Indirect Charges Personnel	\$107,225.00	\$133,844.00	\$26,619.00	80.11%	\$164,316.00	\$193,394.00	\$29,078.00	84.96%	15.04%
Indirect Charges Other	\$534,582.00	\$401,532.00	-\$133,050.00	133.14%	\$990,077.00	\$710,950.00	-\$279,127.00	139.26%	-39.26%
Subtotal	\$641,807.00	\$535,376.00	-\$106,431.00	119.88%	\$1,154,393.00	\$904,344.00	-\$250,049.00	127.65%	-27.65%
Totals	\$3,155,978.00	\$3,466,875.00	\$310,897.00	91.03%	\$4,695,686.00	\$5,337,617.00	\$641,931.00	87.97%	12.03%
* Private Corporation (Commercial Group)									

SDSTA CAPEX Budget Summary FY16/17
Actual vs Budget
August 2016 & YTD

<u>Budget Area</u>	<u>Actual Month</u>	<u>FY2016 Monthly Budget</u>	<u>\$ Over/Under Budget</u>	<u>% of Budget</u>	<u>Actual YTD</u>	<u>FY2016 YTD Budget</u>	<u>\$ Over/Under Budget</u>	<u>% of Budget</u>	<u>% Remaining</u>
									100.00%
Operational CAPEX	\$ 583,538.43	\$ 584,583.00	\$ 1,044.57	99.82%	\$ 615,156.03	\$ 6,850,095.00	\$ 6,234,938.97	8.98%	91.02%
TOTAL CAPEX	<u>\$ 583,538.43</u>	<u>\$ 584,583.00</u>	<u>\$ 1,044.57</u>	<u>99.82%</u>	<u>\$ 615,156.03</u>	<u>\$ 6,850,095.00</u>	<u>\$ 6,234,938.97</u>	<u>8.98%</u>	<u>91.02%</u>

SD Science & Technology Authority
Operational CAPEX Budget
Monthly Actual vs Budget

Project #	Project Description	Aug. 2016	Budget	\$ Over/UnderBudget	% of Budget
CAP2014-01	Sanford Visitor Center Sign/Display	\$ 1,139.04	\$ -	\$ (1,139.04)	100.00%
CAP2014-05	CASPAR Experiment Development	\$ 12,636.53	\$ 15,000.00	\$ 2,363.47	84.24%
CAP2016-02	LZ Surface Facility Upgrades	\$ -	\$ -	\$ -	0.00%
CAP2016-03	LZ Xenon Gas	\$ 569,582.17	\$ 569,583.00	\$ 0.83	100.00%
CAP2016-04	Water Inflow Project - Pipe Fusing	\$ 180.69	\$ -	\$ (180.69)	100.00%
CAP2017-01	Ellison Option	\$ -	\$ -	\$ -	0.00%
CAP2017-02	Ellison Option Asbestos Abatement	\$ -	\$ -	\$ -	0.00%
Monthly Totals		\$ 583,538.43	\$ 584,583.00	\$ 1,044.57	99.82%

SD Science & Technology Authority
Operational CAPEX Budget
YTD FY2017 Actual vs Budget

Project #	Project Description	August 2016 YTD	FY2017 Budget	\$ Over/UnderBudget	% of Budget	% Remaining
						100%
CAP2014-01	Sanford Visitor Center Sign/Display	\$1,139.04	\$ 36,623.00	\$ 35,483.96	3.11%	96.89%
CAP2014-05	CASPAR Experiment Development	\$12,636.53	\$ 161,525.00	\$ 148,888.47	7.82%	92.18%
CAP2016-02	LZ Surface Facility Upgrades	\$0.00	\$ 1,086,099.00	\$ 1,086,099.00	0.00%	100.00%
CAP2016-03	LZ Xenon Gas	\$569,998.34	\$ 4,670,064.00	\$ 4,100,065.66	12.21%	87.79%
CAP2016-04	Water Inflow Project - Pipe Fusing	\$31,382.12	\$ 55,472.00	\$ 24,089.88	56.57%	43.43%
CAP2017-01	Ellison Option	\$ -	\$ 555,000.00	\$ 555,000.00	0.00%	100.00%
CAP2017-02	Ellison Option Asbestos Abatement	\$ -	\$ 285,312.00	\$ 285,312.00	0.00%	100.00%
	Totals	\$615,156.03	\$ 6,850,095.00	\$ 6,234,938.97	8.98%	91.02%

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Declaration of Surplus—Mr. Mike Headley

8B. Attached is the Declaration of Surplus—Concrete culverts (informational only).

Recommended Action:
Informational.

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DECLARATION OF SURPLUS PROPERTY

The South Dakota Science and Technology Authority (SDSTA) owns four (4) concrete culvert pieces in storage at the Waste Water Treatment Plant. These items have no operational use and are of no value to the SDSTA.

Having no further use for this property, I hereby declare the four concrete culvert pieces to be Surplus Property. They will be advertised for public bid and sold to interested parties.

Dated at Lead, South Dakota this 4th day of August, 2016.

A handwritten signature in blue ink, appearing to read "Mike Headley".

Mike Headley
SDSTA Executive Director

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Executive Session—Chairperson Casey Peterson

See recommended motion below.

Recommended Action:

Motion to enter into executive session to discuss personnel matters and to consult with legal counsel concerning contractual and legal matters.

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Report from Executive Session—Chairperson Casey Peterson

See recommended motion below.

Recommended Action:

Motion to accept report from Executive Session.

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Ellison Hill Option—Mr. Tim Engel

Recommended Action:
No recommendation.

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Review of New and Updated Policies and Procedures—Mr. Mike Headley / Mr. Tim Engel

ITEM 11. REVIEW OF SDSTA POLICIES AND PROCEDURES

The following policies are recommended for approval:

- Manual Contents Page (*updated*)
- Policy 2.1 Anti-Harassment (*updated*)
- Policy 3:27 Financial Conflict of Interest
- Policy 3:28 Delegation of Authority-Procurement (*updated*)
- Policy 4.2 Outside Employment and Political Activity

The following PROCEDURES are presented for informational purposes only.

- *Procedure 2:5A Use of SDSTA Owned Electronic Owned Equipment (updated)*
- *Procedure 3:1A Accounting and Audit*
- *Procedure 3:28A Delegation of Authority-Procurement (new)*
- *Procedure 5:2A Code of Business Ethics and Conduct (updated)*

Legal Counsel has reviewed the above listed policies and procedure.

Recommended Action:

Motion to approve new and updated policies and procedures as listed above.

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South Dakota Science & Technology Authority

Policies and Procedures Manual

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- 1:2 Policies and Procedures

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 - 2:2A Equal Opportunity and Affirmative Action Procedure
(New March 20, 2015)
- 2:3 Drug & Alcohol Testing
 - 2.3A Drug & Alcohol Testing Procedure
(Updated November 10, 2015)
- 2:4 Security & Site Access
- 2:5 Use of SDSTA-Owned Electronic Equipment, Systems and Protection of Personal Privacy Policy
 - 2.5A Use of SDSTA-Owned Electronic Equipment, Systems and Protection of Personal Privacy Procedure
(~~New November 18, 2014~~ Updated September 12, 2016)
- 2:6 Tobacco-Free Property
 - 2.6A Tobacco-Free Property Procedure
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- 2:10 Annual Review of Policies
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 - Property Donation Agreement *sans* Exhibits (Homestake)
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South Dakota Science & Technology Authority
Policies and Procedures Manual

SUBJECT: Anti-Harassment Policy

NUMBER: 2:1

The South Dakota Science and Technology Authority (SDSTA) and the State of South Dakota will not tolerate harassment or offensive behavior based on race, color, creed, religion, sex, sexual orientation, gender identity, ancestry, national origin, age, disability or political affiliation.

Harassment includes conduct that creates a hostile work environment or results in a "tangible employment action," such as hiring, firing, promotion or failure to promote, demotion, work assignments, or compensation decisions. This prohibition against harassment also encompasses sexual harassment. Sexual harassment includes unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexually harassing nature, when: (1) submission to the harassment is made either explicitly or implicitly a term or condition of employment; (2) submission to or rejection of the harassment is used as the basis for employment decisions affecting an individual, or (3) the harassment has the purpose or effect of unreasonably interfering with an individual's work performance or creating an intimidating, hostile, or offensive working environment.

Employees must not engage in harassment or offensive behavior. Additionally, because of the SDSTA's strong commitment to keeping the workplace free from harassing and offensive behavior, employees must avoid any conduct that could be viewed as harassing or offensive even if the conduct does not violate federal or state law or constitute harassment.

Harassment or offensive behavior may take different forms and may be verbal, nonverbal, or physical in nature. To aid employees in identifying inappropriate conduct, the following examples of harassment or offensive behavior are provided (these examples are not all-inclusive):

- Unwelcome physical contact such as kissing, fondling, hugging, or touching;
- Demands for sexual favors; sexual innuendoes, suggestive comments, jokes of a sexual nature, sexist put-downs, or sexual remarks about a person's body; sexual propositions; or persistent unwanted courting;
- Swearing, offensive gestures, or graphic language made because of a person's race, color, religion, national origin, sex, age or disability;
- Slurs, jokes, or derogatory remarks, email, or other communications relating to race, color, religion, national origin, sex, age, or disability; or
- Calendars, posters, pictures, drawings, display, cartoons, images, lists, e-mails, or computer activity that reflects disparagingly upon race, color, religion, national origin, sex, age or disability.

SOURCE: ~~December 18, 2014~~[September 22, 2016](#) (This revision date supersedes all previous versions).
2:1 Anti-Harassment Policy,

An employee who has a complaint of harassment or offensive behavior by anyone, including supervisors, co-workers, or non-employees, should immediately notify his or her supervisor, a higher-level supervisor, the Human Resources Administrator or the Executive Director of the SDSTA.

The person who receives a harassment complaint shall immediately report the matter to his or her supervisor (or a higher-level supervisor if his or her supervisor is allegedly involved in the harassment) and the personnel representative.

All complaints will be investigated. If the investigation supports charges of harassment or a violation of this policy, appropriate corrective action against the alleged harasser will take place immediately and may include disciplinary action up to and including termination. The SDSTA will protect the confidentiality of harassment allegations to the extent possible, and information about alleged harassment will only be shared with those individuals who need to know about it. While the SDSTA cannot guarantee complete confidentiality since it cannot conduct an effective investigation without revealing certain information to the alleged harasser and potential witnesses, it will keep information as confidential as possible.

The SDSTA will not tolerate adverse treatment of employees because they report harassment, oppose discrimination in the workplace, participate in the complaint process, or provide information related to complaints. If an employee feels that he or she has been subjected to retaliation, the employee should immediately report the alleged retaliation to his or her supervisor, a higher-level supervisor or the SDSTA's Human Resources Administrator.

In addition to reporting alleged harassment to the SDSTA, an employee may file a charge of discrimination based on race, color, religion, national origin, sex, disability, [genetic information](#) or protected activity with the South Dakota Division of Human Rights (Human Rights) or may file a charge of discrimination based on race, color, creed, religion, sex, sexual orientation, gender identity, ancestry, national origin, age, disability, political affiliation, [genetic information](#) or protected activity with the U.S. Equal Employment Opportunity Commission (EEOC). A charge of discrimination based on race, color, creed, religion, sex, sexual orientation, gender identity, ancestry, national origin, age, disability, political affiliation, [genetic information](#) or protected activity must be filed with Human Rights or with the EEOC within 300 days of the violation. A charge of age discrimination must be filed with the EEOC within 180 days of the violation. These deadlines run from the last date of unlawful harassment and not from the date the complaint to ~~the State~~ if resolved.

Please contact the SDSTA's Human Resources Administrator if you have any questions about harassment or this policy.

~~SOURCE: September 22, 2016 (This revision date supersedes all previous versions).
2:1 Anti-Harassment Policy~~

Page 2 of 2

~~SOURCE: December 18, 2014 (This revision date supersedes all previous versions).
2:1 Anti-Harassment Policy, Page 2 of 2~~

**South Dakota Science & Technology Authority
Policies and Procedures Manual**

SUBJECT: Financial Conflict of Interest Policy

NUMBER: 3:27

Article I

Purpose

The purpose of ~~the~~^{is} Financial Conflict of Interest Policy is to protect the South Dakota Science and Technology's (SDSTA's) interest when it is contemplating entering into a transaction or arrangement that might benefit the private interest of a Board Member, officer, or employee. ~~A financial interest is not necessarily a conflict of interest. Under Article III, Section B of this policy, a person who has a financial interest may have a conflict of interest only if the Board of Directors decides that a conflict of interest exists.~~

This policy is intended to supplement, but not replace, any applicable state and federal laws governing conflicts of interest which are applicable to the SDSTA.

Article II

Definitions

- A. Interested Person: Any officer, employee, Director or member of a committee with powers delegated from the Board of Directors, who has a direct or indirect financial interest, as defined below, is an Interested Person.
- B. Financial Interest: A person has a Financial Interest if the person has, directly or indirectly, through business (including membership in a partnership or limited liability company or ownership of stock in a corporation), investment or a member of the person's immediate family:
 - 1. An ownership or investment interest in any entity with which the SDSTA has a transaction or arrangement;
 - 2. A compensation arrangement with the SDSTA or with any entity or individual with which the SDSTA has a transaction or arrangement; or
 - 3. A potential ownership or investment interest in, or compensation arrangement with, any entity or individual with which the SDSTA is negotiating a transaction or arrangement.
- C. Compensation: Compensation includes direct and indirect remuneration as well as gifts or favors that are not insubstantial.

Article III

Procedures

- A. Duty to Disclose: In connection with any actual or possible conflict of interest, an Interested Person must disclose the existence of the ~~f~~^Financial ~~i~~^Interest and be given the opportunity to disclose all material facts to the Board of Directors considering the proposed transaction or arrangement.

SOURCE: ~~December 10, 2015~~^{September 22, 2016} (This revision date supersedes all previous versions).
3:27 Financial Conflict of Interest Policy

- B. Determining Whether a Financial Conflict of Interest Exists: After disclosure of the Financial Interest and all material facts, and after any discussion with the Interested Person, the person shall leave the Board of Directors meeting while the determination of a conflict of interest is discussed and voted upon. The remaining members of the Board of Directors shall decide if a conflict of interest exists.
- C. Procedures for Addressing the Financial Conflict of Interest:
 - 1. An Interested Person may make a presentation at the Board of Directors meeting, but after the presentation, the person shall leave the meeting during the discussion of, and the vote on, the transaction or arrangement involving the possible conflict of interest.
 - 2. The Chairperson shall, if appropriate, appoint a disinterested person or committee to investigate alternatives to the proposed transaction or arrangement.
 - 3. After exercising due diligence, the Board of Directors shall determine whether the SDSTA can obtain with reasonable efforts a more advantageous transaction or arrangement from a person or entity that would not give rise to a conflict of interest.
 - 4. If a more advantageous transaction or arrangement is not reasonably possible under circumstances not producing a conflict of interest, the Board of Directors shall determine by a majority vote of the disinterested Directors whether the transaction or arrangement is in the SDSTA's best interest, for its own benefit, and whether it is fair and reasonable. In conformity with the above determination, it shall make its decision as to whether to enter into the transaction or arrangement.
- D. Violations of the Financial Conflict of Interest Policy
 - 1. If the Board of Directors has reasonable cause to believe a person has failed to disclose actual or possible conflicts of interest, it shall inform the person of the basis for such belief and afford the ~~member~~person an opportunity to explain the alleged failure to disclose.
 - 2. If, after hearing the person's response and after making further investigation as warranted by the circumstances, the Board of Directors determines the person has failed to disclose an actual or possible conflict of interest, it shall take appropriate disciplinary and corrective action.

Article IV

Contracts Supported by Federal Funds

- A. Participation in Award or Administration: Anything in this Policy to the contrary notwithstanding, no employee, officer, Board Member, or agent of the SDSTA shall participate in the selection, or in the award or administration of, a contract supported by federal funds if disqualified pursuant to the terms of this Article IV.
- B. Disqualification: A person is disqualified if the person, any member of his immediate family or a business partner, associate, or co-owner of the person has a financial or other interest in the firm selected for the award. A person is not disqualified if his direct or indirect interest in the firm is insubstantial, such as in the case of ownership of an insubstantial amount of stock in a publicly-traded corporation. The Board of

SOURCE: ~~December 10, 2015~~September 22, 2016 (This revision date supersedes all previous versions).
 3.27 Financial Conflict of Interest Policy

Directors may determine whether other interests are insubstantial on a case-by-case basis.

~~C. No Gratuities: Neither the SDSTA nor any employee, officer or Board Member shall accept any gratuity, favor of anything of monetary value from a contractor, potential contractor, or parties to sub-agreements. This Policy does not prohibit the acceptance of gifts of nominal value (under \$20, or \$50 a year per source) such as business meals, 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. However, employees should exercise discretion in accepting invitations or wearing logo items where they could create the appearance of a conflict of interest. This Policy does not prohibit the acceptance of gifts of nominal intrinsic value, such as business meals.~~

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Article V

SDCL Ch. 3-23

Members of the Board of Directors shall also comply with the provisions of SDCL Ch. 3-23. In the event of a conflict between the terms of this Policy and the terms of SDCL Ch. 3-23, the more restrictive terms shall govern.

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Article VI

Records of Proceedings

The minutes of the Board of Directors and all committees with Board-delegated powers shall contain:

- A. The names of the persons who disclosed or otherwise were found to have a Financial Interest in connection with an actual or possible conflict of interest, the nature of the Financial Interest, any action taken to determine whether a conflict of interest was present, and the Board's decision as to whether a conflict of interest in fact existed.
- B. The names of the persons who were present for discussions and votes relating to the transaction or arrangement, the content of the discussion, including any alternatives to the proposed transaction or arrangement, and a record of any votes taken in connection with the proceedings.

Article VII

Compensation

- A. Board of Directors: A member of the Board of Directors who receives compensation, directly or indirectly, from the SDSTA for services is precluded from voting on matters pertaining to that member's compensation.
- B. Committees: A voting member of any committee whose jurisdiction includes compensation matters and who receives compensation, directly or indirectly, from the SDSTA for services is precluded from voting on matters pertaining to that member's compensation.

SOURCE: ~~December 10, 2015~~ September 22, 2016 (This revision date supersedes all previous versions).
3.27 Financial Conflict of Interest Policy

Page 3 of 4

C. Information Concerning Compensation: No member of the Board of Directors or voting member of any committee whose jurisdiction includes compensation matters and who receives compensation, directly or indirectly, from the SDSTA, either individually or collectively, is prohibited from providing information to any committee regarding compensation.

Article VII ~~Annual Statements~~

Notification of Conflict of Interest Rules

A. Each Director, principal officer, and member of a committee with Board-delegated powers shall annually sign a statement which affirms such person:

1. Has received a copy of the Financial Conflict of Interest Policy;
2. Has read and understands the policy; and
3. Has agreed to comply with the policy.

B. Each employee of SDSTA shall be given notice of this Financial Conflict of Interest Policy and any related or similar policies, procedures, manuals, rules or requirements pursuant to the Employee Awareness Program provided for in Procedure 5:2A, Section F.

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South Dakota Science & Technology Authority
Policies and Procedures Manual

SUBJECT: Delegation of Authority—Procurement Policy

NUMBER: 3:28

- A. The South Dakota Science and Technology (SDSTA) Board of Directors reserves unto itself:
1. The sole authority to approve the annual Operating and Capital Expenditure budget.
 2. The sole authority to authorize the procurement process for any single contract, purchase order or other expenditure of \$5,000,000.00 or more.
 3. The sole authority to accept any single contract or award to SDSTA of \$5,000,000.00 or more.
 4. The sole authority to award any single budgeted contract, purchase order or other expenditure of \$5,000,000.00 or more.
 5. The sole authority to approve any single non-budgeted contract, purchase order or other expenditure of \$500,000.00 or more.
- B. The Board of Directors delegates the authority to approve other procurement and expenditures as follows:
1. The Chairperson shall have the authority to:
 - a. Authorize the procurement process for any single budgeted contract, purchase order or other expenditure of less than \$5,000,000.00.
 - b. Accept any single contract or award to SDSTA of less than \$5,000,000.00.
 - c. Award and execute any single budgeted contract, purchase order or other expenditure of less than \$5,000,000.00.
 - d. Approve, award and execute any single non-budgeted contract, purchase order or other expenditure of less than \$500,000.00.
 2. The Executive Director shall have the authority to:
 - a. Authorize the procurement process for any single budgeted contract, purchase order or other expenditure of less than \$2,500,000.00.
 - b. Accept any single contract or award to SDSTA of less than \$2,500,000.00.
 - c. Award and execute any single budgeted contract, purchase order or other expenditure of less than \$2,500,000.00.
 - d. Approve, award and execute any single non-budgeted contract, purchase order or other expenditure of less than \$250,000.00.
 3. The Lab Director shall have the authority to:
 - a. Authorize the procurement process for any single budgeted expense of less than \$250,000.00.
 - b. Accept any single contract or award to SDSTA of less than \$250,000.00.
 - c. Award and execute any budgeted contract or purchase order of less than \$250,000.00.

SOURCE: ~~March 17~~ **September 22, 2016** (This revision date supersedes all previous versions).
3:28 Delegation of Authority—Procurement Policy

d. After consultation with the Chairperson, or if the Chairperson is unavailable, a Vice Chairperson, which consultation shall be documented by the Laboratory Director, exercise the procurement authority of the Executive Director when the Executive Director is unable to do so due to an actual or potential conflict of interest.

~~d.e.~~ If the Executive Director and Lab Director positions are held by a single individual, the Chief Financial Officer shall have the authority of the Lab Director granted under this subsection B.3-Chief Financial Officer shall perform this duty.

4. Department Directors and managers shall have the authority to:

- a. Authorize the procurement process for any single budgeted expense of less than \$10,000.00.
- b. Award and execute any budgeted contract or purchase order of less than \$10,000.00.

C. All procurement shall take place in conformity with such federal, state, donor-imposed or other competitive bidding and other procurement laws or requirements as may be applicable to the funds and/or contract or purchase order in question. ~~-If~~ no such laws or requirements apply, procurement shall be conducted in the manner most advantageous to the SDSTA, price and other factors considered.

D. Nothing herein shall prohibit a person with a higher level of authorization to authorize procurements or expenditures within the authority of some other person with a lower level of authorization.

E. Contracts, purchase orders and other expenditures may not be arbitrarily divided into smaller contracts, purchase orders or expenditures for the purpose of evading the authorizations provided for in this policy.

~~E.F.~~ Approval of a contract, purchase order or other expenditure as provided in this policy shall also act to authorize approval of bills, invoices, draw requests or other requests for payment under the approved contract, purchase order or other expenditure, provided that the bill, invoice, draw request or other request for payment is approved under a procedure adopted under this policy.

~~F.G.~~ Members of the Board of Directors, management and staff shall comply with the SDSTA's Financial Conflict of Interest Policy 3:27 at all times.

South Dakota Science & Technology Authority
Policies and Procedures Manual

SUBJECT: Outside Employment and Political Activity Policy

NUMBER: 4:2

It is the policy of the South Dakota Science and Technology Authority (SDSTA) that employees may engage in outside employment or political activity that does not conflict with official duties, create a real or apparent conflict of interest, or violate provisions of law or SDSTA policies.

- A. **Outside Employment:** Employees may engage in outside employment provided that, in the opinion of the appointing authority, there is no conflict with working hours, work efficiency, or the interests of the SDSTA, and provided no prohibited conflict of interest would result. Work assignments and schedules will not be modified to allow an employee to perform duties or services unrelated to the SDSTA. Employees wishing to obtain outside employment must discuss it with their supervisor prior to accepting other employment.

- B. **Political Activity:** SDSTA employees are prohibited from using their position to influence or coerce the political action of a person or group of people. Active participation is allowed in political management or in political campaigns except during working hours. Employees may also hold an elective office in political clubs or organizations which do not interfere with the normal performance of job responsibilities, except as prohibited by law. Employees whose positions are partially or wholly funded by federal monies are restricted from political activity by the Hatch Act.

Neither state nor federal law prevents activity of a non-partisan type not specifically identified with a national or state political party. Questions relating to constitutional amendments, referendums, approval of state laws, and other issues of similar character are not deemed specifically identified with a national or state political party. For example, school board elections and many city elections are non-partisan.

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South Dakota Science & Technology Authority
Policies and Procedures Manual

SUBJECT: Use of Company Owned Electronic Equipment, Systems and Protection of Personal Privacy Procedures

NUMBER: 2:5A

South Dakota Science and Technology Authority (SDSTA) employees are expected to exercise sound judgment and display professional behavior in the day-to-day performance of their assigned responsibilities.

The SDSTA has established guidelines designed to protect the SDSTA against improper use of electronic equipment and software and to protect the privacy of its employees. Those rules shall be enforced fairly and consistently to protect SDSTA assets and the personal privacy of employees.

The SDSTA reserves the right to take corrective action, up to and including termination, should use of company owned assets, electronic equipment or systems cause disruption, loss of productivity, or invade the privacy of co-workers.

A. Solicitation/Distribution

In order that employees give their undivided attention to their jobs, the solicitation of support for organizations or the distribution of non-work related material or literature of any kind is prohibited during the employee's work shift. Similarly, off-shift employees may not solicit for organizations or distribute materials or literature of any kind to employees on a scheduled work shift.

Per supervisor's approval, employee solicitations may be left in break rooms or posted on approved public bulletin boards, but under no circumstances will an employee be allowed to solicit person-to-person.

Non-employees may not come on property at any time to solicit for any cause or distribute material or literature of any kind for any purpose not strictly and specifically work-related.

Requests for exceptions to approved procedures must be directed to the Executive Director. No exception shall be valid unless issued in writing by the Executive Director.

B. Telephone Usage

Personal use of the office telephones, SDSTA-owned cell phones or personal cell phones should be limited and brief in duration. Personal long distance calls must be billed to the employee's home telephone or credit card or placed collect.

Use of hand-held mobile phones while driving is prohibited. Employees using mobile phones while in vehicles must remember their primary responsibility is driving safely and obeying the rules of the road. Employees must pull to the side of the road, come

to a complete stop, and put the vehicle in “Park” before dialing or talking on a mobile phone if a hands-free device is not available.

The use of video, photo, text messaging, voicemail, and Internet connectivity must be utilized in a manner that does not interfere with productivity and protects the personal privacy of co-workers. Employees engaging in excessive use of any of the referenced telephone applications will be subject to corrective action up to, and including, termination.

C. Computers, Email, and Internet Usage

The SDSTA maintains a computer network and purchases software for use in the network or develops proprietary software systems for SDSTA use. All computers, software, and the data on the hard drives are the property of the SDSTA. Employees are prohibited from copying any SDSTA software products for home or other use.

No software or hardware, other than the operating system, Adobe or Java updates, is to be installed on the computers unless approved and installed by the Information Technology (IT) office. Software products from any source, other than automatic updates, should also be installed by IT personnel only.

The Internet can be a valuable source of information and research. Email can be an excellent means of communicating with other employees, outside vendors and other businesses. Use of the Internet, however, must be tempered with common sense and good judgment and employees are expected to use these resources in a productive, professional and courteous manner. The SDSTA will not be responsible for unauthorized financial obligations resulting from access to the Internet.

Emails are sometimes misdirected or forwarded and may be viewed by persons other than the intended recipient. Users should write email communications with no less care, judgment and responsibility than that used for letters or internal memoranda written on SDSTA letterhead.

Employees should have no expectation of privacy with regard to email and Internet use, nor should employees expect that files stored on SDSTA computers are, or always will be, private. Viewing or displaying images and/or sending messages that include ethnic slurs, racial comments, off-color jokes or anything that may be reasonably construed as harassment to others is not allowed. The intentional or reckless display of sexually explicit images, messages and cartoons is not allowed. The Internet may not be used for illegal or unethical purposes or for viewing any web sites that are sexual in nature.

If an employee repeatedly receives email messages, the content of which violates, or could reasonably be construed to violate, these procedures, the employee shall report that fact to his or her supervisor.

Violations of SDSTA’s computer, email and Internet procedures may result in disciplinary action up to and including termination.

D. Employee Privacy

No employee shall have any expectation of privacy as to information stored in, created, received, or sent on computers or other electronic media, telephone conversations originated from or received on SDSTA owned equipment, the employee’s workspace or personal belongings brought onto SDSTA property.

SOURCE: Updated September 12, 2016

2:5A Use of Company Owned Electronic Equipment, Systems and Protection of Personal Privacy Procedures

Page 2 of 3

Without limiting the generality of the foregoing, no employee shall have any expectation of privacy as to emails sent or received using an SDSTA email account or on a SDSTA computer. The SDSTA may review the contents of emails at any time with or without the employee's knowledge or permission.

Use of camera phones or camera PDAs are permitted only in public areas of SDSTA facilities. Still or moving images of employees may be captured and used only with their permission. Audio recordings of employees, regardless of the means used to make the recording, may only be made and used with their permission. Employees should have no expectation of privacy with regard to use of these features.

The SDSTA may conduct unannounced searches of employee spaces and property located at or brought to the workplace. Employees may be required to exhibit the contents of their workspace, bags, purses, vehicles, briefcases, packages, tool boxes, lunch boxes, lockers and other such items.

An employee's refusal to allow access or a search may subject the employee to appropriate disciplinary action, up to and including termination, at the sole discretion of the SDSTA.



South Dakota Science & Technology Authority Policies and Procedures Manual

SUBJECT: Accounting and Audit Procedures

NUMBER: 3:1A

Accounting and audit procedures have been developed by the South Dakota Science and Technology Authority (SDSTA) to insure 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 mandated 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 Policy 3:26 Management and Control of Certain Funds 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.

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. 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.
- 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 10th 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 Lawrence Berkeley National Laboratory (LBNL) for the federally funded subcontract, the rate will be used for charging 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 may not 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.

1. Once an invoice approval list is completed and signed by the Executive Director or the Chief Financial Officer, a paper check is written by the bookkeeper or by an individual who has signature authority. The check is then signed by the Chief Financial Officer 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 Chief Financial Officer had previously signed the invoice approval list containing reference to that check.
2. 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 Officer 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. Under 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 following Records Retention Policy 3:31. 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).

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



South Dakota Science & Technology Authority Policies and Procedures Manual

SUBJECT: Delegation of Authority-Procurement Procedures

NUMBER: 3:28A

1. The procurement staff will be responsible for securing approval from individuals with the proper budget authority as specified in Policy 3:28 prior to execution of any contract, purchase order or other procurement.
2. In the event of an actual or potential conflict of interest according to Policy 3:27, procurement staff will NOT seek approval for contracts, purchase orders or other procurements from the conflicted individual. Instead, procurement staff will secure alternate approval as outlined in Policy 3:28.
3. In the event procurement authority is delegated, the procurement staff will maintain a record of the delegator's approval. For example, the Board of Directors may consider an expected contract or purchase order and delegate approval authority for the eventual contract or purchase order to the Executive Director, Board Chairperson or Chief Financial Officer (CFO); or, if the Executive Director might authorize another individual to sign a contract or purchase order if s/he is traveling or otherwise unavailable.
4. Once the procurement has been approved in accordance with Policy 3:28, management and oversight of the contract or purchase order will be assigned or delegated to a Project or Budget Manager by the Executive Director.
5. Invoices submitted for payment on an approved contract, purchase order or other procurement will be routed by the accounts payable staff to the assigned Project or Budget Manager for signature approval. The CFO will review all approved invoices and sign to authorize payment. The CFO will also secure signature authorization from the Executive Director on invoices over \$10,000.00

In the event the Executive Director is conflicted, the CFO's approval will be sufficient to authorize payment according to the procedures specified in 3.1A. The CFO will maintain a written log to identify contracts and invoices that have actual or potential conflicts of interest.



South Dakota Science & Technology Authority Policies and Procedures Manual

SUBJECT: Code of Business Ethics and Conduct Procedure

NUMBER: 5:2A

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, as required by the Federal Acquisition Regulation (FAR) 52.203-13 and other applicable law.

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 you take in the course of 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 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;
2. 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 Procedure 3:12A. 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, you 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 you 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 SDSTA Policy 3:27 Financial Conflict of Interest, 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;
4. 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;
2. Has established an SDSTA Ethics Hotline (*605-722-8650 extension 314*) available 24/7 to ask questions or raise concerns about compliance or business ethics;
3. 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*) 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: www.lighthouse-services.com/sanfordlab

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 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 our 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 Board of Directors.

If you have questions about any matter of compliance or ethics, whether covered by this Code or not, consult with your supervisor, manager, Human Resources Administrator, or the Laboratory Director, or call the SDSTA Ethics Hotline at *605-722-8650 extension 314* to request assistance.

Confirm date and time of next meeting—Chairperson Casey Peterson

The next board meeting will be held on Thursday, December 15, 2016 beginning at 9:00 AM (Mountain Time). Conference room to be determined.

2016 Board Schedule	
March 17, 2016	09:00 am (MT)
June 16, 2016	08:00 am (MT)
September 22, 2016	08:00 am (MT)
December 15, 2016	09:00 am (MT)

SDSTA/Sanford Underground Research Facility
630 E. Summit Street, Lead SD 57754
Education & Outreach Building, large conference room
Questions? Contact Mandy Knight
Direct Line: 605.722.4022
Cell: 605.641.0475

Recommended Action:

None

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Board Comments—Chairperson Casey Peterson

Recommended Action:

None