

MICHIGAN TECHNOLOGICAL UNIVERSITY

SINGLE AUDIT REPORT

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INDEPENDENT AUDITORS' REPORT AND ON COMPLIANCE AND OTHER MATTERS ON INTERNAL CONTROL OVER FINANCIAL REPORTING BASED ON AN AUDIT OF FINANCIAL STATEMENTS PERFORMED IN ACCORDANCE WITH GOVERNMENT AUDITING STANDARDS

November 4, 2005

Board of Control Michigan Technological University Houghton, Michigan

We have audited the financial statements of *Michigan Technological University* as of and for the year ended June 30, 2005 and have issued our report thereon dated November 4, 2005. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial statements contained in Government Auditing Standards, issued by the Comptroller General of the United States.

Internal Control over Financial Reporting

In planning and performing our audit, we considered *Michigan Technological University's* internal control over financial reporting in order to determine our auditing procedures for the purpose of expressing our opinion on the financial statements and not to provide an opinion on the internal control over financial reporting. Our consideration of the internal control over financial reporting would not necessarily disclose all matters in the internal control over financial reporting that might be material weaknesses. A material weakness is a reportable condition in which the design or operation of one or more of the internal control components does not reduce to a relatively low level the risk that misstatements caused by error or fraud in amounts that would be material in relation to the financial statements being audited may occur and not be detected within a timely period by employees in the normal course of performing their assigned functions. We noted no matters involving the internal control over financial reporting and its operation that we consider to be material weaknesses.

Compliance and Other Matters

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

This report is intended solely for the information and use of the Board of Control and management, and is not intended to be and should not be used by anyone other than these specified parties.

Rehmann Lohan

An Independent Member of Baker Tilly International

INDEPENDENT AUDITORS' REPORT ON COMPLIANCE WITH REQUIREMENTS APPLICABLE TO EACH MAJOR PROGRAM AND INTERNAL CONTROL OVER COMPLIANCE IN ACCORDANCE WITH OMB CIRCULAR A – 133

November 4, 2005

Board of Control Michigan Technological University Houghton, Michigan

Compliance

We have audited the compliance of Michigan Technological University with the types of compliance requirements described in the U.S. Office of Management and Budget (OMB) Circular A-133 Compliance Supplement that are applicable to each of its major federal programs for the year ended June 30, 2005. Michigan Technological University's major federal programs are identified in the summary of auditor's results section of the accompanying schedule of findings and questioned costs. Compliance with the requirements of laws, regulations, contracts, and grants applicable to each of its major federal programs is the responsibility of Michigan Technological University's management. Our responsibility is to express an opinion on Michigan Technological University's compliance based on our audit.

We conducted our audit of compliance in accordance with auditing standards generally accepted in the United States of America; the standards applicable to financial statements contained in Government Auditing Standards, issued by the Comptroller General of the United States; and OMB Circular A-133, Audits of States, Local Governments, and Non-Profit Organizations. standards and OMB Circular A-133 require that we plan and perform the audit to obtain reasonable assurance about whether noncompliance with the types of compliance requirements referred to above that could have a direct and material effect on a major federal program occurred. An audit includes examining, on a test basis, evidence about *Michigan Technological University's* compliance with those requirements and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion. Our audit does not provide a legal determination on Michigan Technological University's compliance with those requirements.

In our opinion, Michigan Technological University complied, in all material respects, with the requirements referred to above that are applicable to each of its major federal programs for the year ended June 30, 2005.

Internal Control over Compliance

The management of *Michigan Technological University* is responsible for establishing and maintaining effective internal control over compliance with requirements of laws, regulations, contracts and grants applicable to federal programs. In planning and performing our audit, we considered *Michigan Technological University's* internal control over requirements that could have a direct and material effect on a major federal program in order to determine our auditing procedures for the purpose of expressing our opinion on compliance and to test and report on internal control over compliance in accordance with OMB Circular A-133.

Our consideration of the internal control over compliance would not necessarily disclose all matters in the internal control that might be material weaknesses. A material weakness is a reportable condition in which the design or operation of one or more of the internal control components does not reduce to a relatively low level the risk that noncompliance with applicable requirements of laws, regulations, contracts and grants caused by error or fraud that would be material in relation to a major federal program being audited may occur and not be detected within a timely period by employees in the normal course of performing their assigned functions. We noted no matters involving the internal control over compliance and its operation that we consider to be material weaknesses.

Schedule of Expenditures of Federal Awards

We have audited the financial statements of *Michigan Technological University* as of and for the year ended June 30, 2005 and have issued our report thereon dated November 4, 2005. Our audit was performed for the purpose of forming an opinion on the financial statements taken as a whole. The accompanying schedule of expenditures of federal awards is presented for purposes of additional analysis as required by OMB Circular A-133 and is not a required part of the financial statements. Such information has been subjected to the auditing procedures applied in the audit of the financial statements and, in our opinion, is fairly stated, in all material respects, in relation to the financial statements taken as a whole.

This report is intended solely for the information and use of the Board of Control, management, federal awarding agencies and pass-through entities, and is not intended to be and should not be used by anyone other than these specified parties.

Rehmann Lohson

RESEARCH AND DEVELOPMENT CLUSTER - CFDA NUMBER AVAILABLE - DIRECT AWARDS

Program	title/mo	ior subdivision	

Program title/major subdivision			
Federal Agency/CFDA# Grant/contract title	Pass thru entity if applicable	Contract #	Expenditures
U.S. Department of Agriculture			
10,202 Cooperative forestry research			
MS - 04 - Rsch Admin	n/a	FY04 MCINTIRE STENNIS	\$ 44,828
MS-FY04-Canada Yew	n/a	FY04 MCINTIRE STENNIS	2,148
MS-FY04-Mortality Model	n/a	FY04 MCINTIRE STENNIS	1,863
MS-04-Sarracenia Purpurea	n/a	FY04 MCINTIRE STENNIS	722
MS-FY04-West Up Land Use	n/a	FY04 MCINTIRE STENNIS	3,476
MS/BRC-FY04-Molecular Genetics	n/a	FY04 MCINTIRE STENNIS	4,338
MS-FY04-Wood Stake Decomp.	n/a	FY04 MCINTIRE STENNIS	717
MS-FY04-Greenhouse Gases	n/a	FY04 MCINTIRE STENNIS	7,000
MS-FY04-Carbon Cycling	n/a	FY04 MCINTIRE STENNIS	1,650
MS-FY04-Mold Growth	n/a	FY04 MCINTIRE STENNIS	2,558
MS-FY04-Pennsylvania Sedge	n/a	FY04 MCINTIRE STENNIS	4,493
MS-FY04-Sale-Thimbleberry	n/a	FY04 MCINTIRE STENNIS	997
MS-FY04-Wolf/Moose Monitor	n/a	FY04 MCINTIRE STENNIS	5,566
MS-FY04-Hrdwd Defect Image	n/a	FY04 MCINTIRE STENNIS	6,656
MS-FY04-Jack Pine Forests	n/a	FY04 MCINTIRE STENNIS	1,665
MS/BRC-FY04-Cryopreservation	n/a	FY04 MCINTIRE STENNIS	3,055
MS-FY04-Plague of Maples	n/a	FY04 MCINTIRE STENNIS	2,222
MS/BRC - Tree Biotechnology	n/a	FY04 MCINTIRE STENNIS	3,184
MS-FY05-BRC-Tree Biotech	n/a	FY05 MCINTIRE-STENNIS	4,442
MS-05-Sarracenia Purpurea	n/a	FY05 MCINTIRE-STENNIS	2,852
MS-FY05-Research Admin.	n/a	FY05 MCINTIRE-STENNIS	71,584
MS-FY05- Canada Yew	n/a	FY05 MCINTIRE-STENNIS	6,220
MS-FY05-Mortality Model	n/a	FY05 MCINTIRE-STENNIS	6,313
MS-05-Local Land Use Plan	n/a	FY05 MCINTIRE-STENNIS	4,910
MS/BRC-FY05-Molecular Gene	n/a	FY05 MCINTIRE-STENNIS	6,963
MS-FY05-Carbon Cycling	n/a	FY05 MCINTIRE-STENNIS	7,040
MS-FY05 - Mold Growth	n/a	FY05 MCINTIRE-STENNIS	4,475
MS-FY05-Pennsylvania Sedge	n/a	FY05 MCINTIRE-STENNIS	3,941
MS-FY05-Sale Thimbleberry	n/a	FY05 MCINTIRE-STENNIS	3,242
MS-FY05-Wolf/Moose Monitor	n/a	FY05 MCINTIRE-STENNIS	942
MS-FY05-Log Bucker Train	n/a	FY05 MCINTIRE-STENNIS	7,690
MS-FY05-Jack Pine Forests	n/a	FY05 MCINTIRE-STENNIS	2,426
MS/BRC-FY05-Tree Germplasm	n/a	FY05 MCINTIRE-STENNIS	7,008
MS-FY05-Acer Platanoides	n/a	FY05 MCINTIRE-STENNIS	1,311
MS-FY05-Fiber Production	n/a	FY05 MCINTIRE-STENNIS	5,002
MS-FY05-Veg & Dis Reg	n/a	FY05 MCINTIRE-STENNIS	4,534
			248,033

Continued

Program	title/mainr	subdivision
I I UZI AIII	uuc/major	SUDUITISION

Federal A	gency/CFDA# Grant/contract title	Pass thru entity if applicable	Contract #	Expenditures
10.206	Grants for agricultural research - Competitive resea	rch grants		
	USAGR-Wood Composite Panels	n/a	2001-35504-10042	1,833
	USAGR-PBC/Molecular Dissection	n/a	2003-35103-12906	60,540
	USAGR/ESC-Resp-Fine Root Chemistry	n/a	2001-35107-11262	90,696
	USAGR-PBC/Syringyl Monolignol Gener	n/a	2002-35301-12048	59,568
	USAGR-PBC/Functional Gene Discovery	n/a	2004-35300-14687	37,941
	USAGR/ESC-Ecophysiological Response	n/a	2004-35102-14782	40,060
	USAGR/BRC - Real-Time PCR System	n/a	2005-35103-15251	12,500
	USAGR/BRC -GRA-Genetic Engrg Trees	n/a	2005-35103-15256	14,438
	USAGR-GRA-Functional Gene Discovery	n/a	2004-35300-14687	4,231
				321,806
10.219	Biotechnology risk assessment research			
	USAGR-PBC/Ecol Consequences Aspen	n/a	00-39210-9812	4,871
	USAGR/ESC-PBC/Ecol Conseq Aspen	n/a	00-39210-9812	6,584
				11,455
).652	Forestry research			
	USAGR/ESC-Carbon & Nitrogen Cycling	n/a	04-CA-11242343-069	5,526
	USAGR/ESC-Carbon & Nitrogen Cycling	n/a	04-CA-11242343-069	62,225
	USAGR-Incipient Decay Hdwd Timber	n/a	04-CA-11242343-046	800
	USAGR/ESC-Carbon & Nitrogen Cycling	n/a	04-CA-11242343-069	28,264
.664	Cooperative forestry assistance			96,815
	USAGR-Detection Emerald Ash Borer	n/a	03-DG-11244225-084-MOD NO. A1	2,340
	USAGR/ESC-Eval Health of Ash Trees	n/a	03-CA-11244225-577-MOD NO. A3	31,951
	USAGR/ESC -Detect Emerald Ash Borer	n/a	04-CA-11244225-321-MOD NO. A1	174,841
	USAGR/ESC-Eval Health of Ash Trees	n/a	03-CA-11244225-577-MOD NO. A3	76,683
	USAGR/ESC-Interactions in Red Pine	n/a	05-CA-11244225-153	27,811
	USAGR/ESC-GRA-Eval Health Ash Trees	n/a	03-CA-11244225-577-MOD NO. A3	2,079
				315,706
0.772	Empowerment zones programs			
	USAGR-Recycle Value Added Parts	n/a	03-DG-11244225-476-MOD A1	3,191

Federal Ac	Program title/major subdivision	Pass thru entity if applicable	Contract #	Expenditures
0.673	Wood in transporation program	Tuss till a chitty if applicable	Contract	Expenditures
	USAGR-Rd Pine/Eastern Hemlock Bridg	n/a	04-DG-11244225-469	5,927
10.680	Forest health protection			
	USAGR-Garlic Mustard invasion in Mi	n/a	05-DG-11244225-044	350
	USAGR/ESC -Mi/Wis Emerald Ash Borer	n/a	05-CA-11244225-071	139,435
	USAGR-GRA-Garlic Mustard Invasion	n/a	05-DG-11244225-044	329
				140,114
	eptartment of Commerce			
11.431	Climate and atmospheric research			
	USCOM-RSI/ Year 2 - PICO-NARE Site	n/a	NA16GP1658-AMD NO. 2	372
	USCOM-RSI-FT/MBL Measurements-Azore	n/a	NA03OAR4310002-AMD NO. 2	202,634
	USCOM-RSI-YEAR 2-Climate Forecasts	n/a	NA16GP2947-AMD NO. 2	21,071
	USCOM-RSI/ Year 3 - PICO NARE Site	n/a	NA16GP1658-AMD NO. 2	83,279 307,355
1.609	Measurement and engineering research and standard	s		307,333
	NIST/IME-Carbon-Nanotube/Polymers	n/a	70NANB3H1130	2,319
U.S. Do	epartment of Defense Basic and applied scientific research			
	OFFIC-IME/Breathing Photonic Cryst	n/a	N00014-03-1-0038-MOD P00002	71,485
	OFFIC-IME/Breathing Photonic Cryst	n/a	N00014-03-1-0038-MOD P00002	28,284
	OFFIC/IME-Support for NQR Explosive	n/a	N00173-04-1-G011-MOD # P00001	49,293
	OFFIC-IME-GRA-Photonic Crystals	n/a	N00014-03-1-0038-MOD P00002	32,684
	OFFIC-IME-GRA-Photonic Crystals	n/a	N00014-03-1-0038-MOD P00002	17,906
2.630	Basic, applied, and advanced research in science and o	engineering		199,653
	USAIR-Ground-Test Facility/Thruster	n/a	F49620-03-1-0300	27

	Agency/CFDA# Grant/contract title	Pass thru entity if applicable	Contract #	Expenditures	
12.800	Air force defense research sciences program				
	USAIR/IME-YR1-Liquid-Metal Anode	n/a	F49620-03-1-0027-MOD P00002	519	
	USAIR-YR1-Nanosatellite Demonstrate	n/a	F49620-03-1-0139-MOD P0002	7,265	
	USAIR-Multi-Channel LADAR Process.	n/a	F08630-03-1-0015-MOD P00001	5,651	
	USAIR-Nanotube-Reinforced Polymer	n/a	F49620-03-1-0442-MOD P00001	27,463	
	USAIR-YR2-Nanosatellite Demonstrate	n/a	F49620-03-1-0139-MOD P0002	19,557	
	USAIR/IME-YR2-Liquid-Metal Anode	n/a	F49620-03-1-0027-MOD P00002	37,567	
	USAIR-YR1-PECASE: Bismuth Thruster	n/a	FA9550-05-1-0001	95,406	
	USAIR-YR3-Nanosatellite Demonstrate	n/a	F49620-03-1-0139-MOD P0002	11,533	
	USAIR/IME-YR3-Liquid-Metal Anode	n/a	F49620-03-1-0027-MOD P00002	31,828	
	USAIR/IME-GRA-Liquid-Metal Anode	n/a	F49620-03-1-0027-MOD P00002	18,402	
				255,192	
12.901	Mathmatical sciences grant program				
	NATIO-Codes, Designs, Finite Geometry	n/a	MDA904-03-1-0088-MOD P00001	21,293	
	NATIO-Symmetric Objects in Coding	n/a	H98230-05-1-0088	13,917	
				35,210	
	USFIS-Firebreaks at Seney NWR	n/a	AGRMNT NO. 301813J066	10,304	
5.808	U.S. Geological Survey - Research and data acquisiti	on			
	USGEO - Year 4 - Boreal Ecosystem	n/a	00CRAG0041-AMD 0005	19,148	
	USGEO - Year 4 - Boreal Ecosystem nal Science Foundation		00CRAG0041-AMD 0005	19,148	
	USGEO - Year 4 - Boreal Ecosystem nal Science Foundation Engineering grants	n/a			
	USGEO - Year 4 - Boreal Ecosystem nal Science Foundation Engineering grants NSF-Projects to Assist Disabled	n/a n/a	BES-0079969-AMD 010	14,465	
	USGEO - Year 4 - Boreal Ecosystem nal Science Foundation Engineering grants NSF-Projects to Assist Disabled NSF/CLASM-Selection Indstrl Coating	n/a n/a n/a	BES-0079969-AMD 010 DMI-0084903	14,465 46,988	
	USGEO - Year 4 - Boreal Ecosystem nal Science Foundation Engineering grants NSF-Projects to Assist Disabled NSF/CLASM-Selection Indstrl Coating NSF-REU-Projects to Assist Disabled	n/a n/a n/a n/a	BES-0079969-AMD 010 DMI-0084903 BES-0079969-AMD 010	14,465 46,988 3	
	USGEO - Year 4 - Boreal Ecosystem nal Science Foundation Engineering grants NSF-Projects to Assist Disabled NSF/CLASM-Selection Indstrl Coating NSF-REU-Projects to Assist Disabled NSF/SFI-Metrics Envir Remediation	n/a n/a n/a n/a n/a	BES-0079969-AMD 010 DMI-0084903 BES-0079969-AMD 010 BES-0083112	14,465 46,988 3 5,815	
	USGEO - Year 4 - Boreal Ecosystem nal Science Foundation Engineering grants NSF-Projects to Assist Disabled NSF/CLASM-Selection Indstrl Coating NSF-REU-Projects to Assist Disabled NSF/SFI-Metrics Envir Remediation NSF-Internal Condensing Flows	n/a n/a n/a n/a n/a n/a	BES-0079969-AMD 010 DMI-0084903 BES-0079969-AMD 010 BES-0083112 CTS-0086988-AMD 002	14,465 46,988 3 5,815 (1,388)	
<u>Natior</u> 17.041	USGEO - Year 4 - Boreal Ecosystem nal Science Foundation Engineering grants NSF-Projects to Assist Disabled NSF/CLASM-Selection Indstrl Coating NSF-REU-Projects to Assist Disabled NSF/SFI-Metrics Envir Remediation NSF-Internal Condensing Flows NSF-IME/Planar Magn Photonic Crystl	n/a n/a n/a n/a n/a n/a n/a n/a	BES-0079969-AMD 010 DMI-0084903 BES-0079969-AMD 010 BES-0083112 CTS-0086988-AMD 002 ECS-0115315-AMD 004	14,465 46,988 3 5,815 (1,388) 5,573	
	USGEO - Year 4 - Boreal Ecosystem nal Science Foundation Engineering grants NSF-Projects to Assist Disabled NSF/CLASM-Selection Indstrl Coating NSF-REU-Projects to Assist Disabled NSF/SFI-Metrics Envir Remediation NSF-Internal Condensing Flows NSF-IME/Planar Magn Photonic Crystl NSF-IME/Planar Magn Photonic Crystl	n/a n/a n/a n/a n/a n/a n/a n/a n/a	BES-0079969-AMD 010 DMI-0084903 BES-0079969-AMD 010 BES-0083112 CTS-0086988-AMD 002 ECS-0115315-AMD 004 ECS-0115315-AMD 004	14,465 46,988 3 5,815 (1,388) 5,573 7,604	
	USGEO - Year 4 - Boreal Ecosystem mal Science Foundation Engineering grants NSF-Projects to Assist Disabled NSF/CLASM-Selection Indstrl Coating NSF-REU-Projects to Assist Disabled NSF/SFI-Metrics Envir Remediation NSF-Internal Condensing Flows NSF-IME/Planar Magn Photonic Crystl NSF-IME/Planar Magn Photonic Crystl NSF-(REU) Internal Condensing Flows	n/a	BES-0079969-AMD 010 DMI-0084903 BES-0079969-AMD 010 BES-0083112 CTS-0086988-AMD 002 ECS-0115315-AMD 004 ECS-0115315-AMD 004 CTS-0086988-AMD 002	14,465 46,988 3 5,815 (1,388) 5,573 7,604 54	
	USGEO - Year 4 - Boreal Ecosystem Pal Science Foundation Engineering grants NSF-Projects to Assist Disabled NSF/CLASM-Selection Indstrl Coating NSF-REU-Projects to Assist Disabled NSF/SFI-Metrics Envir Remediation NSF-Internal Condensing Flows NSF-IME/Planar Magn Photonic Crystl NSF-IME/Planar Magn Photonic Crystl NSF-(REU) Internal Condensing Flows NSF-IME/(REU/RET)-Photonic Crystals	n/a n/a n/a n/a n/a n/a n/a n/a n/a	BES-0079969-AMD 010 DMI-0084903 BES-0079969-AMD 010 BES-0083112 CTS-0086988-AMD 002 ECS-0115315-AMD 004 ECS-0115315-AMD 004 CTS-0086988-AMD 002 ECS-0115315-AMD 004	14,465 46,988 3 5,815 (1,388) 5,573 7,604 54 2,526	
	USGEO - Year 4 - Boreal Ecosystem mal Science Foundation Engineering grants NSF-Projects to Assist Disabled NSF/CLASM-Selection Indstrl Coating NSF-REU-Projects to Assist Disabled NSF/SFI-Metrics Envir Remediation NSF-Internal Condensing Flows NSF-IME/Planar Magn Photonic Crystl NSF-IME/Planar Magn Photonic Crystl NSF-(REU) Internal Condensing Flows	n/a	BES-0079969-AMD 010 DMI-0084903 BES-0079969-AMD 010 BES-0083112 CTS-0086988-AMD 002 ECS-0115315-AMD 004 ECS-0115315-AMD 004 CTS-0086988-AMD 002	14,465 46,988 3 5,815 (1,388) 5,573 7,604 54	Contin

RESEARCH AND DEVELOPMENT CLUSTER - CFDA NUMBER AVAILABLE - DIRECT AWARDS

Program title/ma	ior subdivision

Program title/major subdivision			
Federal Agency/CFDA# Grant/contract title	Pass thru entity if applicable	Contract #	Expenditures
NSF-GOALI-Ultrafine Grained Ceramic	n/a	CMS-0324461-AMD 002	81,115
NSF - High Speed Digital Imaging	n/a	CTS-0321003	803
NSF-Curriculum-Service Sector Engrg	n/a	EEC-0343187	36,089
NSF-NEES/E-Defense Collaboration	n/a	CMS-0349433-AMD 001	15,799
NSF - (REU) Product Modularity	n/a	DMI-0323497-AMD 001	9,785
NSF - Rayleigh-Taylor Instability	n/a	CTS-0325743	32,230
NSF-CAREER: Fluid Dynamics	n/a	CTS-0348058	57,302
NSF-REU-Projects to Assist Disabled	n/a	BES-0079969-AMD 010	4,759
NSF-Electr Engg for Non-EE Majors	n/a	EEC-0415962-AMD 002	62,631
NSF-Electr Engg for Non-EE Majors	n/a	EEC-0415962-AMD 002	6,143
NSF-Electr Engg for Non-EE Majors	n/a	EEC-0415962-AMD 002	4,891
NSF-Electr Engg for Non-EE Majors	n/a	EEC-0415962-AMD 002	2,835
NSF-Electr Engg for Non-EE Majors	n/a	EEC-0415962-AMD 002	5,641
NSF-Electr Engg for Non-EE Majors	n/a	EEC-0415962-AMD 002	9,745
NSF/SFI - BE/MUSES:Renewable Energy	n/a	ECS-0439089	17,957
NSF/SFI - BE/MUSES:Renewable Energy	n/a	ECS-0439089	37,517
NSF/SFI - BE/MUSES:Renewable Energy	n/a	ECS-0439089	4,825
NSF/SFI - BE/MUSES:Renewable Energy	n/a	ECS-0439089	5,026
NSF/SFI - BE/MUSES:Renewable Energy	n/a	ECS-0439089	4,464
NSF/SFI - BE/MUSES:Renewable Energy	n/a	ECS-0439089	10,925
NSF/SFI - BE/MUSES:Renewable Energy	n/a	ECS-0439089	4,710
NSF/SFI - BE/MUSES:Renewable Energy	n/a	ECS-0439089	11,628
NSF- ITR: Mobile Remote Monitoring	n/a	ECS-0427430-AMD 001	28,847
NSF - ITR: Mobile Remote Monitoring	n/a	ECS-0427430-AMD 001	16,313
NSF - Undergrad Enterprise #1	n/a	ECS-0427430-AMD 001	2,291
NSF - Undergrad Enterprise #2	n/a	ECS-0427430-AMD 001	1,915
NSF - Undergrad Enterprise #3	n/a	ECS-0427430-AMD 001	1,312
NSF-Undergrad Fabricated Equipment	n/a	ECS-0427430-AMD 001	2,200
NSF-REU-Elect Eng for Non-EE Majors	n/a	EEC-0415962-AMD 002	8,927
NSF- REU - Mobile Remote Monitoring	n/a	ECS-0427430-AMD 001	2,200
NSF/SFI - REU in Sustainability	n/a	EEC-0453174	26,277
NSF/SFI - Thermoplastic Resins	n/a	DMI-0456537	22,183
NSF - REU - GOALI: Grained Ceramics	n/a	CMS-0324461-AMD 002	2,251
NSF-GRA-ITR: Mobile Remote Monitor	n/a	ECS-0427430-AMD 001	2,663
NSF-GRA-ITR-Mobile Remote Monitor	n/a	ECS-0427430-AMD 001	12,436
NSF/SFI - GRA -Thermoplastic Resins	n/a	DMI-0456537	6,067
NSF - CAREER: GRA	n/a	CTS-0348058	6,710
NSF-GRA-Eelctr Engg for Non EE	n/a	EEC-0415962-AMD 002	812
			807,448

Continued

ederal A	Program title/major subdivision gency/CFDA# Grant/contract title	Pass thru entity if applicable	Contract #	Expenditures
7.049	Mathmatical and physical sciences	V A.K		1
	NSF-Model for Polymeric Fluids	n/a	DMS-0096847	866
	NSF-Adaptive Optical Telescopes	n/a	AST-0123466	186,068
	NSF-ITR: Computing Sky in Real Time	n/a	AST-0218991-AMD 001	568
	NSF/IME-General Ensemble Algorithms	n/a	CHE-0313618	44,544
	NSF-IME/Equilibrium Thermodynamics	n/a	DMR-0348895-AMD 001	72,118
	NSF-Properties Lathanide & Actinide	n/a	PHY-0354793-AMD 001	50,916
	NSF-IME - Heterogeneous Nucleation	n/a	CHE-0410007-AMD 001	38,061
	NSF-IME/Participant Support-Travel	n/a	DMR-0348895-AMD 001	3,299
	NSF/IME-CAREER:Frontier Carbon Mtls	n/a	DMR-0447555	29,858
	NSF/IME-GRA-Frontier Carbon Mat'ls	n/a	DMR-0447555	7,030
				433,327
7.050	Geosciences			
	NSF-Laboratory Studies of Clouds	n/a	ATM-9984294-AMD 005	46,196
	NSF/RSI-Correlated Stochastic Proc.	n/a	ATM-0106271-AMD 003	46,964
	NSF-RSI/Volcanic Cloud-Atmosphere	n/a	EAR-0106875-AMD 003	(1,574)
	NSF - Nature & Origin of Calderas	n/a	EAR-0125631-AMD 003	21,596
	NSF-RSI/Volcanic Cloud-Atmosphere	n/a	EAR-0106875-AMD 003	211
	NSF-RSI/Nitrogen Oxides-N. Atlantic	n/a	ATM-0215843-AMD 001	152,966
	NSF - Phase Doppler Interferometer	n/a	ATM-0320953-AMD 001	114,820
	NSF/RSI-Gas Correlation Camera	n/a	EAR-0321869-AMD 001	(10,329)
	NSF/RSI-Hi Temporal Resolution Data	n/a	EAR-0337120	47,938
	NSF/RSI-Hi Temporal Resolution Data	n/a	EAR-0337120	2,401
	NSF-Collab Rsch: Mono Lake Event	n/a	EAR-0439155	15,892
	NSF-RSI/Magnitude Turbidity Plumes	n/a	OCE-9726680-AMD 004	300
	NSF-RSI/Impact of Keweenaw Current	n/a	OCE-9712872-AMD 008	(1,671)
	NSF-RSI/Impact of Keweenaw Current	n/a	OCE-9712872-AMD 008	4,554
	NSF-Impact of the Keweenaw Current	n/a	OCE-9712872-AMD 008	(607)
	NSF-GRA-Lab Studies Clouds	n/a	ATM-9984294-AMD 005	3,389
				443,044

RESEARCH AND DEVELOPMENT CLUSTER - CFDA NUMBER AVAILABLE - DIRECT AWARDS

	Program title/major subdivision			
Federal Ag	gency/CFDA# Grant/contract title	Pass thru entity if applicable	Contract #	Expenditures
47.070	Computer and information science and engineering	• • • • • • • • • • • • • • • • • • • •		•
	NSF-CAREER: Distributed Computation	n/a	CCR-9984682-AMD 003	19,563
	NSF - CAREER: Memory Controller	n/a	CCF-0133777-AMD 003	64,848
	NSF - Optimization DSP Architecture	n/a	CCR-0209036	62,802
	NSF-(REU)- CAREER:Memory Controller	n/a	CCF-0133777-AMD 003	2,110
	NSF - CAREER:Signal Processing Rsch	n/a	CCR-0238174-AMD 002	62,163
	NSF - US-Russian Collaborative Rsch	n/a	CCF-0310632-AMD 001	39,469
	NSF - US-Russian Collaborative Rsch	n/a	CCF-0310632-AMD 001	14,805
	NSF-ITR: Exposing Compiler to Hdwe	n/a	CCR-0312892-AMD 001	106,577
	NSF-CAREER:Future Level Parallelism	n/a	CCF-0347592-AMD 001	50,232
	NSF - NER:Quantum Dot-Based Enzymes	n/a	CCF-0403269	52,169
	NSF-Undergrad Software Eng Curricul	n/a	CCF-0417548-AMD 002	200,273
	NSF- REU -Exposing Compiler to Hdwe	n/a	CCR-0312892-AMD 001	3,342
	NSF - REU - US-Russian Research	n/a	CCF-0310632-AMD 001	1,016
	CAREER: GRA Future Level Parall	n/a	CCF-0347592-AMD 001	14,596
	NSF-CAREER-GRA-Signal Process Rsch	n/a	CCR-0238174-AMD 002	8,011
	NSF -GRA- CAREER: Memory Controller	n/a	CCF-0133777-AMD 003	3,280
	NATIO-ITR: GRA Exp Compiler to Hdwr	n/a	CCR-0312892-AMD 001	176
				705,433
47.074	Biological sciences			
	NSF/ESC-Multi-trophic Level Dynamic	n/a	DEB-9903671-AMD 004	(792)
	NSF/ESC-Major Research Instrument	n/a	DBI-0079566	20,154
	NSF/ESC- Plant-Microbe Interactions	n/a	DEB-0075397-AMD 006	30,508
	NSF-RSI/Aquatic Food Webs	n/a	DEB-0083731-AMD 003	558
	NSF/ESC-Multi-trophic Level Dynamic	n/a	DEB-9903671-AMD 004	4,754
	NSF-Exopolymer Prod-Benthic Diatoms	n/a	IBN-0110875-AMD 005	105,167
	NSF - (REU) Exopolymer Production	n/a	IBN-0110875-AMD 005	(707)
	NSF/ESC-(REU)Plant-Microbe Interact	n/a	DEB-0075397-AMD 006	2,424
	NSF-PBC/CAREER:Cellulose Biosynthes	n/a	IBN-0236492-AMD 002	129,391
	NSF/ESC-Nitrogen Satur/Altered Eco	n/a	DEB-0315138-AMD 001 & 0002	203,691
	NSF/ESC - REU Site for Ecosystems	n/a	DBI-0353973	14,836
	NSF/ESC - Participant Support (REU)	n/a	DBI-0353973	63,467
	NSF - (REU) Exopolymer Production	n/a	IBN-0110875-AMD 005	6,749
	NSF/ESC-Interactions Wolves/Moosε	n/a	DEB-0424562-AMD 001	94,846
	NSF/BRC - Glycoside Metabolism	n/a	DBI-0421756	204,982
	NSF/BRC - Glycoside Metabolism	n/a	DBI-0421756	104,908
	NSF/BRC - Glycoside Metabolism	n/a	DBI-0421756	6,361
	NSF-GRA-Nitrogen Satuation	n/a	DEB-0315138-AMD 001 & 0002	21,956
	NSF-PBC-GRA Cellulose Biosynthesis	n/a	IBN-0236492-AMD 002	9,727
				1,022,977

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Federal A	Program title/major subdivision gency/CFDA# Grant/contract title	Pass thru entity if applicable	Contract #	Expenditures
	•	mu thirty is applicable		Dapondiumos
47.075	Social, behavorial, and economic sciences			
	NSF-Volcanoes-Guatemala/El Salvado	n/a	INT-0118587-AMD 001	7,109
	NSF-NUE:Undergrad Expl. Nano-Scienc	n/a	SES-0304439-AMD 001	11,338
	NSF - NUE: Undergrad Stipends	n/a	SES-0304439-AMD 001	7,311
	NSF - NUE: Speakers Travel	n/a	SES-0304439-AMD 001	1,382
	NSF - US-Argentina/Chile Research	n/a	OISE-0405634	39,000
	NSF-Industrial Archaeology-Arctic	n/a	SES-0427450	8,371 74,511
17.076	Education and human resources			
	NSF-Geology Utah's Nat'l Parks	n/a	DUE-9950213-AMD 004	207
	NSF/SFI - Engg in Pre-College Ec	n/a	DUE-9953189 AMD 004	(3)
	NSF-Op Lab/Simulation Ctr-Envir Eng	n/a	DUE-0088282	8,602
	NSF-Integrate Computing w/Geometry	n/a	DUE-0127401	47,547
	NSF-CONCAM Undergraduate Education	n/a	DUE-0231070-AMD 001	2,009
	NSF-IGERT/SFI-Sustainable Futures	n/a	DGE-0333401-AMD 002	198,803
	NSF-IGERT/SFI-Participant Support	n/a	DGE-0333401-AMD 002	261,489
	NSF - GSE/RES Removing Barriers	n/a	HRD-0429020-AMD 001	37,995
	NSF/RSI-Masters Stdnts Geo Hazards	n/a	EAR-0451447	56,161
	NSF - GSE/RES Removing Barriers	n/a	HRD-0429020-AMD 001	17,458
	NSF - GSE/RES Removing Barriers	n/a	HRD-0429020-AMD 001	18,611
	NSF - GSE/RES - Participant Support	n/a	HRD-0429020-AMD 001	17,670
	NSF- RET -GSE/RES Removing Barriers	n/a	HRD-0429020-AMD 001	2,500 669,048
II C E	nvironmental Protection Agency			009,048
<u>0.8. E.</u> 66.469	Great lakes program			
	EPA/RSI-Tech PBT Flux Determination	n/a	GL-96520401-0	28,514
66.515	Greater opportunity research program			
	USENE/MuSTI-Biocide Leaching	n/a	GR-832371010-0	3,810
	epartment of Energy			
31.035	Research and development in energy conservation			
	USENE/IMP-Improve of Wear Component	n/a	DE-FC26-01NT41055-AMD M003	(3,574)
	USENE-Comminution Circuit Thru-put	n/a	DE-FC2626-01NT41062-AMD M006	100,560
	MTU-Charlotte Nurnberger Assistant	n/a	DE-FC2626-01NT41062-AMD M006	4,233 101,220
81.036	Inventions and innovations			
	USENE/IMP-Enabling Tool for Glass	n/a	DE-FG36-02G012062-AMD M001	43,764
	_			

Program title/major subdivision			
leral Agency/CFDA# Grant/contract title	Pass thru entity if applicable	Contract #	Expenditures
.049 Office of science financial assistance program			_
USENE/ESC-YR 2-Aspen FACE-FACTS II	n/a	DE-FG02-95ER62125-AMD A018	(323)
DOE-Year 11-Hyperfine Structure	n/a	DE-FG02-92ER14282-AMD A013	(632)
USENE/ESC-YR3-Aspen FACE-FACTS II	n/a	DE-FG02-95ER62125-AMD A018	(2,135)
DOE - Year 12 - Hyperfine Structure	n/a	DE-FG02-92ER14282-AMD A013	21,274
USENE/ESC-YR4-Aspen FACE-FACTS II	n/a	DE-FG02-95ER62125-AMD A018	791,968
USENE/ESC-YR1-Carbon Sequestrian	n/a	DE-FG02-04ER63792 AMEND A002	148,746
USENE-Mi Tech Center-Nanostructure	n/a	DE-FG02-04ER63821	153,522
USENE-Mi Tech Center-Nanostructure	n/a	DE-FG02-04ER63821	240,764
USENE-Mi Tech Center-Nanostructure	n/a	DE-FG02-04ER63821	131,921
USENE-Mi Tech Center-Nanostructure	n/a	DE-FG02-04ER63821	77,395
USENE-Mi Tech Center-Nanostructure	n/a	DE-FG02-04ER63821	125,770
USENE-Mi Tech Center-Nanostructure	n/a	DE-FG02-04ER63821	7,480
USENE-Mi Tech Center-Nanostructure	n/a	DE-FG02-04ER63821	9,267
DOE - Year 13 - Hyperfine Structure	n/a	DE-FG02-92ER14282-AMD A013	22,205
USENE/ESC-YR2-Carbon Sequestration	n/a	DE-FG02-04ER63792 AMEND A002	25,261
USENE/ESC-YR2-Carbon Sequestration	n/a	DE-FG02-04ER63792 AMEND A002	7,082
USENE/ESC-YR 5-Aspen FACE-FACTS II	n/a	DE-FG02-95ER62125-AMD A018	314,408
USENE/RSI-Seismic Amplitude-Data	n/a	DE-FG02-05ER15674-AMD A000	13,581
DOE-YR13 - GRA-Hyperfine Structure	n/a	DE-FG02-92ER14282-AMD A013	15,555
			2,103,108
86 Conservation research and development			
USENE-Grad Auto Tech Ed (GATE) Prgm	n/a	DE-FC26-98CH10951-AMD A008	5,762
USENE- GATE Program Fellowships	n/a	DE-FC26-98CH10951-AMD A008	82,622
USENE/IMP-Tubes-Produce of Ethylene	n/a	DE-FC36-01ID14255-AMD M005	142,532
USENE/IMP-Novel Direct Steel Making	n/a	DE-FC36-01ID14209-AMD A007	69,066
USENE-Ignition Improvement-Lean Gas	n/a	DE-FC26-02NT41443-AMD A004	(7,854)
USENE/IMP-Microwave ElectrolyteCel	n/a	DE-FC36-02ID14402-AMD A004	60,792
USENE/IMP-Microwave ElectrolyteCel	n/a	DE-FC36-02ID14402-AMD A004	(946)
USENE/IMP-Steel Slag Iron Content	n/a	DE-FC36-01ID14046-AMD M005	20,411
USENE-PBC-Genetic Manipulation	n/a	DE-FC36-03ID14440-AMD A004	445,174
USENE-ATDC/Ignition Improve LeanGas	n/a	DE-FC26-02NT41443-AMD A004	33,016
USENE/IMP-Microwave ElectrolyteCel	n/a	DE-FC36-02ID14402-AMD A004	32,284
USENE- GRA -Microwave Assisted Cell	n/a	DE-FC36-02ID14402-AMD A004	4,183
			887,043

Federal A	Program title/major subdivision gency/CFDA# Grant/contract title	Pass thru entity if applicable	Contract #	Expenditures
1.087	Renewable energy research and development	* **		•
)1. 007	USENE/SFI-Bgt #1-AgglomerationOre	n/a	DE-FC26-03NT41924-AMD A004	226,495
	USENE - Extraction of Iron from Ore	n/a	DE-FG26-03NT41938-AMD A000	18,092
	USENE/SFI-Single-Step Ironmaking	n/a	DE-FG26-03NT41930-AMD M001	29,538
	USENE/SFI-Bgt #2-Agglomeration Ore	n/a	DE-FC26-03NT41924-AMD A004	55,984
	USENE-Perhydride-Hydrogen Storage	n/a	DE-FG36-05GO15003	39,847
	CD21.2 Tempulae II, alogen Storage	27, 42	22 1 600 00 60 10000	369,956
.089	Fossil energy research and development			
	USENE-Calibration/Test Sonic Stimul	n/a	DE-FC26-01BC15165	254,055
	USENE-Crosswell Seismic Amplitude	n/a	DE-FC26-04NT15508-AMD A001	164,599
				418,655
.107	Oil recovery demonstration			
.107	USENE-YR1/YR2-Shallow Carbon Rsvr.	n/a	DE-FC26-00BC15122-AMD M004	39
	USENE-YR3/YR4-Shallow Carbon Rsvr.	n/a	DE-FC26-00BC15122-AMD M004 DE-FC26-00BC15122-AMD M004	27,099
	USENE-Implementing Cyclic CO2 Flood	n/a	DE-FC26-02NT15441-AMD M005	555,446
	USENE-YR5-Shallow Carbon Reservoir	n/a	DE-FC26-00BC15122-AMD M004	38,902
	OSENE-TRS-Shahow Carbon Reservoir	11/ a	DE-1 C20-00BC13122-AMD 141004	621,486
	epartment of Education Fund for the improvement of postsecondary education	tion		
	USEDU-YEAR1-ExCit: Expanding Cities		P116N030005-04-ACTION NO. 02	12,086
	USEDU-YEAR2-ExCit:Expanding Cities	n/a	P116N030005-04-ACTION NO. 02	8,849
				20,935
200	Graduate assistance in areas of national need			
	USEDU/SFI-YR2 GAANN:Env Engg Fell	low n/a	P200A000425-02 ACTION NO. 06	1,259
	USEDU/SFI-YR3 GAANN:Env Engg Fell	low n/a	P200A000425-02 ACTION NO. 06	2,564
	USEDU-YEAR 3 GAANN:Geology Fello	ws n/a	P200A000420-02 ACTION NO. 05	8
	USEDU-Year3 GAANN:Engine Fellowsh	ip n/a	P200A010413-03-ACTION NO. 09	74,972
				78,803
I.S. Do	repartment of Health and Human Services Cell biology and biophysics research			
J.041	NIH/IME-YEAR1-Structural Transition	n/a	1 R01 GM062838-01A2	36,798
	NIH/IME-YEAR1-Structural Transition NIH/IME-YEAR2-Structural Transition	n/a n/a	1 R01 GM062838-01A2 1 R01 GM062838-01A2	36,798 137,187
	NIH/IME-YEAR2-Structural Transition NIH/IME-YEAR3-Structural Transition			
	NIE/UVIE- YEAR 3-NITUCHITAL TRANSITION	n/a	1 R01 GM062838-01A2	1,668

Program title/major subdivision			
Federal Agency/CFDA# Grant/contract title	Pass thru entity if applicable	Contract #	Expenditures
93.846 Arthritus, musculoskeletal and skin diseases research			
NIH/IME Blk Bear Bone Mechanics-YR1	n/a	1 R15 AR050420-01	25,095
NIH/BRC-Blk Bear Bone Mechanics-YR2	n/a	1 R15 AR050420-01	28,680
NIH/BRC - Meniscal Horn Attachment	n/a	1 R15 AR051906-01	1,614
NIH/BRC-GRA-Meniscal Horn Attachmnt	n/a	1 R15 AR051906-01	3,607
			58,995
93.866 Aging research			
NIH/BRC - Map Complex Disease Genes	n/a	1 R03 AG024491-01	57,368
NIH - Synthesis of Novel inhibitors	n/a	1 R15 AG025777-01	13,464
			70,832
TOTAL RESEARCH AND DEVELOPMENT CLUS	STER - CFDA NUMBER	AVAILABLE - DIRECT AWARDS	11.110.818

Program title/major subdivision Grant/contract title	Pass thru entity if applicable	Contract #	Expenditures	
U.S. Department of Agriculture				
U.S. Forest Service				
USAGR-Archaeol Collect-Ottawa Nat'l	n/a	01-CS-11090700-005-MOD NO. 5	\$ 787	
USAGR-Archaeol Coll-Hiawatha Nat'l	n/a	03-CS-110910-00-17	89	
USAGR - NDE Methods	n/a	PNW03-DG-11261975-137-MOD NO.3	5,591	
USAGR-Woody Debris in Streams	n/a	03-JV-11231300-074-MOD NO. 1	2,445	
USAGR-Carbon Storage in Forests	n/a	00-JV-11231300-086	51	
USAGR-Carbon Allocation-Red Pine	n/a	01-JV-11231300-071	4,672	
USAGR-Above-Ground Crbn Allocation	n/a	01-JV-11231300-074	556	
USAGR/ESC - Manage FACE Experiment	n/a	01-JV-11231300-085-MOD NO. 7	53,196	
USAGR-Carbon & Nitrogen Dynamics	n/a	01-JV-11231300-072-MOD NO. 2	195	
USAGR-Wood Decomposition by Environ	n/a	01-JV-11222062-242-MOD NO. 4	34,163	
USAGR/ESC-CO2 Flux-Aspen FACE Exper	n/a	02-JV-11231300-052-MOD NO. 2	20,954	
USAGR-Mapping Fire Location/Extent	n/a	01-JV-11231300-098-MOD NO. 4	23,339	
USAGR-Influence Climate-Wood Decomp	n/a	03-JV-11231300-041-MOD NO. 1	2,020	
USAGR-Mgmt Local Scour-Stream Rehab	n/a	AGRMT NO. 58-6408-3-0002	6,558	
USAGR-Ecologist Lecture Series	n/a	03-CS-11231300-040	1,241	
USAGR-Woody Debris in Streams	n/a	03-JV-11231300-074-MOD NO. 1	33,030	
USAGR/ESC-Plants, Carbon Allocat.	n/a	03-JV-11231300-073-MOD NO.1	23,198	
USAGR/ESC-Decay Rts of Crbn in Leaf	n/a	03-JV-11231300-076-MOD NO. 1	22	
USAGR-Construct Six Timber bridges	n/a	03-DG-11244225-114-MOD NO. A2	34,207	
USAGR-Grading/Scaling Log Database	n/a	03-CA-11242343-127	(165)	
USAGR-Quality Tongue/Groove Panels	n/a	03-DG-11244225-115-MOD A1	6,127	
USAGR/ESC-Measure Belowgrd Process	n/a	03-CS-11231300-098	10,026	
USAGR-Fiber Production/Soil Prod.	n/a	03-JV-11231300-067-MOD NO. 2	26,720	
USAGR - Modelling Tree Mortality	n/a	04-JV-11222063-168	7,960	
USAGR/ESC-Plants, Carbon Allocat.	n/a	03-JV-11231300-073-MOD NO.1	2,363	
USAGR-Carbon/Nitrogen Cycle Rsch.	n/a	04-CR-11231300-027-MOD NO. 1	16,027	
USAGR-National Register Nominations	n/a	04-CS-11090700-010	19,189	
USAGR-Fire Risk-Mark Twain Forest	n/a	04-JV-11231300-038-MOD NO. 1	44,548	
USAGR-Historical/Modern Vegetation	n/a	04-PA-11090100-020	130,309	
USAGR-Communities Risk to Wildfire	n/a	SRS 04-JV-11330136-161	22,202	
USAGR-Wood Decomposition by Environ	n/a	01-JV-11222062-242-MOD NO. 4	1,527	
USAGR-Archaeol CollHiawatha Nat'l	n/a	05-CS-11091000-021	196	
USAGR-GRA-Carbon/Nitrogen Cycle Rsc	n/a	04-CR-11231300-027-MOD NO. 1	32,544	
· ·			565,888	Continued

Grant/contract title	Pass thru entity if applicable	Contract #	Expenditures	
	иррисимс	Contract II	Expenditures	
. Department of Defense				
ional Security Agency				
USDEF-CSERI/NSR Unified Parallel C	n/a	MDA904-03-C-0483-MOD NO. P0002	86,054	
USDEF-CSERI/NSR Unified Parallel C	n/a	MDA904-03-C-0483-MOD NO. P0002	3,407	
USDEF-CSERI/NSR-YEAR 2-Parallel C	n/a	MDA904-03-C-0483-MOD NO. P0002	354,778	
			444,238	
. Army				
TACOM - Alternative Fuels Group	n/a	DAAE07-03-P-L751-MOD P00001	13,128	
TACOM - Alternative Fuels Group	n/a	DAAE07-03-P-L751-MOD P00001	3,241	
TACOM - Surge - Work Directive 014	n/a	DAAE07-00-C-L052-MOD P00011	32,187	
TACOM - SURGE - Work Directive 015	n/a	DAAE07-00-C-L052-MOD P00012	58,009	
TACOM - SURGE - Work Directive 016	n/a	DAAE07-00-C-L052-MOD P00014	20,438	
TACOM - SURGE - Work Directive 017	n/a	DAAE07-00-C-L052-MOD P00013	31,500	
TACOM - SURGE - Work Directive 018	n/a	DAAE07-00-C-L052-MOD P00013	24,370	
TACOM - Countermeasure STO-SURGE, WD01	n/a	W56HZV-04-C-0643	383,641	
TACOM - Dolly Kit Modification	n/a	W56HZV-05-P-0253-MOD # P0001	73,712	
TACOM - Assured Mobility - WD002	n/a	W56HZV-04-C-0643-MOD P00001	38,671	
TACOM - Assured Mobility - WD003	n/a	W56HZV-04-C-0643-MOD P0001	16,176	
TACOM - Assured Mobility #STO -WD004	n/a	W56HZV-04-C-0643-MOD P00002	79,398	
TACOM - Quick Release MechWD019	n/a	DAAE07-00-C-L052-MOD P00016	16,805	
TACOM - Bradley Track System - WD020	n/a	DAAE07-00-C-L052-MOD P00016	16,292	
USARM - Testing of Amorphous Metals	n/a	DAAD19-01-1-0492-MOD P0004	48,931	
USARM - Nano Center-DARPA	n/a	DAAD17-03-C-0115-MOD P00001	100,038	
USARM - Nano Center-DARPA	n/a	DAAD17-03-C-0115-MOD P00001	124,239	
USARM - Nano Center-DARPA	n/a	DAAD17-03-C-0115-MOD P00001	91,029	
USARM - RSI/Overlake Rainfall Estimat	n/a	W911XK-04-P-0040-MOD P00001	25,989	
USARM/IME/NSR-Nano Center-DARPA	n/a	DAAD17-03-C-0115-MOD P00001	196,295	
USARM/IME/NSR-Nano Center-DARPA	n/a	DAAD17-03-C-0115-MOD P00001	33,234 1,427,324	Continu

Program title/major subdivision Grant/contract title	Pass thru entity if applicable	Contract #	Expenditures	
U.S. Army Tank Automotive Command				
USARM-04 Clean Snowmobile Challange	n/a	W56HZV-04-P-L684	2,373	
USARM-Research Truck Engine Mounts	n/a	W56HZV-04-C-L522-MOD P00001	63,225 65,598	
U.S. Army - Cold Regions Research Engineering Lab			03,376	
USARM/CRREL(NSR)-Antarctic Crevasse	n/a	W913E5-04-P-0026-MOD P00001	33	
USARM/CRREL(NSR)-Antarctic Crevasse	n/a	W913E5-04-P-0026-MOD P00001	66	
USARM/CRREL-So Pole Traverse Proj.	n/a	W913E5-05-P-0007	42,229	
USARM/CRREL - Winter Test at KRC	n/a	W913E5-05-P-0031	29,731	
			72,059	
U.S. Navy				
NAVAL-Fungal Decay Resistance	n/a	N47408-98-M-3017-MOD P00001	954	
USNAV-Hydraulic Pump Measurement	n/a	N00167-03-M-0618-MOD P00003	1,853 2,807	
U.S. Department of the Interior				
National Park Service				
USPAR-Great Lakes Inventory Netwrk	n/a	H6310010001-AGRMT 005-MOD 001	4,436	
USPAR/ESC-Yr 2- Bio Diversity SLBE	n/a	H6310010001-TASK 002-MOD 004	599	
USPAR/ESC-Loon Monitor-Isle Royale	n/a	H6310010001-TASK 011-MOD 003	678	
USPAR/ESC-Bats in Great Lks Netwrk	n/a	2105-2000-NII-TASK AGRMT NO.12	(574)	
USPAR/MTTI-Transport Syst-Kew Nat'l	n/a	H6310010001-J641003K669/017-01	24,494	
USPAR/ESC- Genetic Wolf Mat'l.	n/a	H6310010001 - J631003N007/016	5,028	
USPAR - GIS for ISRO & KEWE Nat'l.	n/a	H6000C02000-J631003N012-MOD 1	9,534	
USPAR/ESC-Wolf-Moose IR Nat Pk	n/a	J631004N004	10,005	
USPAR- Isle Royale Institute	n/a	H6000C02000-J631004A021-MOD 3	82	
USPAR - Mapping Coal Creek District	n/a	TASK AGRMT NO. J9840-04-0029	25,745	
USPAR/ESC - Wolf-Moose Monitoring	n/a	HC6000C02000 -J631004N002/0001	9,644	
USPAR-Renew Potential Pitcher Plant	n/a	HC6000C02000 - J630004GL01	4,873	
USPAR-Exotic Plant Species Gr Lakes	n/a	HC6000C02000 - J2105040050	4,597	
USPAR-Old/New Dormitory-Mission 66	n/a	HC6000C02000 - J6068040115	3,853	
USPAR-Long-Range Plan Keweenaw NHP	n/a	HC6000C02000 - J641004K625	3,000	
USPAR/ESC - Wolf-Moose Monitoring	n/a	H6000C02000-J631005N004	24,011 130,004	Continued

Program title/major subdivision Grant/contract title	Pass thru entity if applicable	Contract #	Expenditures	
U.S. Fish & Wildlife Service				
USFIS - Canada Yew Restoration	n/a	314104M208	700	
USFIS-Assessment of Lake Sturgeon	n/a	AGRMNT NO. 301811J205-MOD 2	41,137	
USFIS - Assessment of Lake Sturgeon	n/a	30181-5-J053	12,000 53,837	
U.S. Department of Transportation				
Federal Aviation Administration				
FAA-Elastomeric Anti-Icing Overlays	n/a	DTFACT03P10501	(55)	
Federal Highway Administration				
USTRA/MTTI-Aggregate Rsch-Pavements	n/a	DTFH61-02-C-00074-TSK ORDER #1	20,285	
USTRA/MTTI-Resilient Modulus-Task#2	n/a	DTFH61-02-C-00074-TSK ORDER #2	148,835	
USTRA/MTTI-Tribal Tech Asst Center	n/a	DTFH61-04-H-00005-AMD 5	324,903	
USTRA/MTTI-Aggregate Character-Tsk3	n/a	DTFH61-02-C00074-TSK ORDER #3	155,873	
			649,896	
National Aeronautics and Space Administration	1			
N/A no subdivisions	-			
NASA-RSI/Lab Studies Ice Nucleation	n/a	NAG5-10568-SUPPLEMENT 0003	19,816	
NASA-RSI - Validation of TOMS	n/a	NAG5-11062-SUPPL 0004	33,516	
NASA/IME-YR1-Next-Gener Ion Engine	n/a	NCC3-1030-SUPPL NO. 1	126	
NASA-CSERI/Evaluate ESTO CT Project	n/a	NAG5-13385-SUPPLEMENT 1	18,906	
NASA-YEAR 2-Gas-Turbine Combustor	n/a	NAG3-2759-SUPPL NO. 3	(438)	
NASA/RSI-Volcano SO2-Satellite Data	n/a	NAG5-13783	67,058	
NASA/IME-YR2-Next-Genar Ion Engine	n/a	NCC3-1030-SUPPL NO. 1	32,860	
NASA - Carbon Nanotubes	n/a	NNJ04HC96G	3,691	
USNAS/RSI/NSR-Picture of Day 2003	n/a	NNG04GG99G	49,768	
USNAS/RSI-Quantify Volcano Emission	n/a	NNG04GJ67G	56,787	
NASA-RSI-Validation of TOMS	n/a	NAG5-11062-SUPPL 0004	31,960	
NASA-/NSR-YR3-GAS-Turbine Combustor	n/a	NAG3-2759-SUPPLEMEMT NO. 3	33,474	
USNAS-Equivalent-Continuum Modeling	n/a	NNL04AA85G	23,552	
USNAS-NSR-Micro Grav/Terrest Enviro	n/a	NNC04GB52G-SUPPL NO. 1	100,915	
NASA/RSI-Ice Nucleation	n/a	NNG04GR41G	31,190	
USNAS-ADV ACCT-Dynamics Heat Trsf	n/a	NNC05GA09G	17,291	
NASA-GRA-Equiv-Continuum Modeling	n/a	NNL04AA85G	24,585	
NASA-GRA-Ice Nucleantion of Org Cmp	n/a	NNG04GR41G	9,624	
USNAS/NSR - GRA - Micro Gravity	n/a	NNC04GB52G-SUPPL NO. 1	22,579	
			577,260	Continued

Program title/major subdivision Grant/contract title	Pass thru entity if applicable	Contract #	Expenditures	
National Science Foundation				
N/A no subdivisions				
NSF-YEAR1-IPA-Jackie Huntoon	n/a	GEO-0353279-001, 002	31,558	
NSF-YEAR2-IPA-Jackie Huntoon	n/a	GEO-0353279-001, 002	109,031	
NSF-Post Doc Research Fellowship	n/a	DGE-0411426	34,926	
			175,514	
J.S. Department of Energy				
N/A no subdivisions				
USENE - RSI / YEAR 5 - High Energy	n/a	DE-FG02-99ER41107-AMD A006	(71)	
USENE/RSI - YEAR 6 - High Energy	n/a	DE-FG02-99ER41107-AMD A006	146,489	
USENE/RSI - YEAR 7 - High Energy	n/a	DE-FG02-99ER41107-AMD A006	57,674	
USENE/RSI - GRA - YR7-High Energy	n/a	DE-FG02-99ER41107-AMD A006	2,924	
			207,017	
U.S. Environmental Protection Agency				
N/A no subdivisions				
EPA/SFI-P3 Design Project	n/a	SU-83181801-0	4,251	

Federal Agency/CFDA#	Program title/major subdivision Grant/contract title	Pass thru entity if applicable	Contract #	Expenditures
	ent of Agriculture	· 11		
	nology risk assessent research			
10,213	ORGEO-BRC-Fld Evl Semi-Dwarf	Oregon State University	SUBGRANT #C0306A-A	\$ 25,126
10.652 Forestry	y research			
·	REGEN-Transverse Vibra Technique	Regents of the University of Minnesota	D1876500014(1637-187-6500)	1,582
Department o				
11.417 Sea Gra	ant Support			
	UNIVE-RIS-Ecosystem Mosaic	Michigan State University	GRANT DATED 6/23/05	1,419
U.S. Departme	ent of Defense			
12.300 Basic an	nd applied scientific research			
	WASHI-IME/Fundmntl Propty Energetic	Washington State University	G001118 AMENDMENT # 1-7	(1,220)
	WASHI-IMEFnd Prp Enr Mtls	Washington State University	G001118 AMENDMENT # 1-7	174,664
10 (20 P. I				173,444
12.630 Basic, a	pplied and advanced research in science and e			• • • •
	UNIVE-IME-Year 4 Theo Stdy Dfct/Dop	Stanford University	PY-1372 AMEND 1,2,3,4,5,6	2,849
	STANF-IME-NSR-Yr 4,5,6 Th Stdy	Stanford University	PY-1372 AMEND 1,2,3,4,5,6	80,402
12.800 Air ford	e defense research sciences program			83,251
12.000 All 1010	UNIVE-Sci/Eng Carbon Foams	Ohio University	UT12219/OU3191	294
IIS Denartm	ent of Interior			
15.611 Wildlife				
15.011 WHUIR	MINAT-Constr/Evl Sight MI Moose Sur	Michigan Department of Natural Resources	PO # 751P5200789	16,262
	MINAT-White Tld Deer Hemlock Stands	Michigan Department of Natural Resources	PO #751P5200789 PO #751P5201288	12,549
	MINAT-White Tid Beef Heiniock Stands MINAT-Dvl Sharp Tailed Grouse	Michigan Department of Natural Resources	PO # 751P5201287	16,346
	Mari Dvi Shaip Tanea Grouse	mengan beparanent of Matural Resources	10 /3113201207	45,157

Federal Agency/			Pass thru entity if applicable	Contract #	Expenditures
			ass thru entity if applicable	Contract #	Expenditures
	epartment of Transportation Air transportation centers of exce				
20.109	UNIVE-Anit-icing Chic		University of Illinois	SUB 2003-00724-2/A9469	3,713
20.515	State planning and research prog	ram			
20.010	UNIVE-MTTI-JHNSN-		University of Wyoming	JNNSN48200SUB	(64)
	UNIVE-MTTI-SHRDN	•	University of Wyoming	SHRDN 48800 SUB	(64)
		,	, , ,		(128)
Nations	al Endowment for the Huma	nities			
_	Museum Assessment Program	<u>mues</u>			
45.502	HOUGH-GRA-Cal & H	ecla Stamp Mill	Houghton County Historical Society	AGREE 040703	12,756
	HOUGH-Calumet & He	•	Houghton County Historical Society	AGREE 040703	3,395
					16,151
					
Nationa	al Science Foundation				
47.041	Engineering grants				
	UNIVE-Spr Ent En Rsro	ch Ctr	University of Michigan	SUBCONTRACT # F004025	9,936
	UNIVE-WIMS Edu Tsk	Prt Cst	University of Michigan	SUBCONTRACT # F004025	119
	UNIVE-WIMS Educ Ts	k Sps	University of Michigan	SUBCONTRACT # F004025	31,959
	UNIVE-WIMS Mer Tk		University of Michigan	SUBCONTRACT # F004025	120,204
	UNIVE-Sensors Tsk Sp		University of Michigan	SUBCONTRACT # F004025	344,177
	UNIVE-WIMS Sponsor		University of Michigan	SUBCONTRACT # F004025	76,589
	MTU-Jianlin Liang Assi	stnt	University of Michigan	SUBCONTRACT # F004025	8,010
47.040	Madematical and about 1	_			590,993
47.049	Mathmatical and physical science		H	00161624	10.506
	UNIVE-SPNSR-Cls Exa		University of California Santa Cruz	S0161634	19,596
	UNIVE-Perform/Stblty	Kamian Filter	University of California Santa Cruz	SUB AWARD # S0176848	12,175 31,771
47 076	Education and human resources				31,//1
47.070	UNIVE-Great Lks Wood	d Manuf Partners	University of Minnesota - Duluth	1638-187-6487-7901	
47.076	Education and human resources UNIVE-Great Lks Wood	d Manuf Partners	University of Minnesota - Duluth	1638-187-6487-7901	

Federal		Program title/major subdivision			
Agency/(Grant/contract title	Pass thru entity if applicable	Contract #	Expenditures
U.S. En	<u>nvironm</u>	ental Protection Agency			
66.500	Environr	mental protection consolidation research			
		CONSO-PBC/Sponsor Design Promoturs	Consortium Plant Biotechnology Research Inc	EPA82947901-129	21,181
<u>U.S. De</u>	epartme:	<u>nt of Energy</u>			
81.049	Office of	science financial assistance program			
		MICHI/ESC- Below Grnd Plants/Soil	University of Michigan	V51573/F000354 AMEND 9	164,551
04.00=					
81.087	Renewab	ole engery research and development			
		UNIVE-Total Ore Prcs Integr/Management	University of Missouri - Rolla	SUB CONTRACT # 000793-03	12,431
<u>U.S. De</u>	epartme:	nt of Health and Human Services			
93.172	Human g	genome research			
		UNIVE-LD Mapping Using Haplotype Bl	Unversity of Chicago - Loyola	SUBCONTRACT DATED 4/22/05	13,028
<u>U.S. Ag</u>	gency for	r International Development			
98.012	USAID I	Development Partnerships for University Coop	peration and Development		
		AMERI-TrainCore Wat Rs Exp	American Council on Education	AGREEMENT DATED 2/20/03	132,979
TOTAI	L RESE	ARCH AND DEVELOPMENT CLUS	TER - CFDA NUMBER AVAILABLE	C - PASSTHROUGH	\$ 1,324,686 Conclu

Federal	Program title/major subdivision			
Agency/CFDA#	Grant/contract title	Pass thru entity if applicable	Contract #	Expenditures
U.S. Departme	ent of Agriculture			
Unknow	n .			
	LIMES-Heat Ster Tms Six Szes 5 Hrdw	Limestone Bluffs RC & D Inc.	AGREEMENT DATED 6/1/03	\$ 10,251
	UNIVE-Entomogy & Pathology Collect	University of California	SA3630 AMENDMENT 1	3,651
	NORTH/BRC-eng of Cellulose Biosynt	Northern Caroline State University	SUBAWAR #03-1893-01	3,198
				17,099
U.S Departme	ent of Defense			
	k Automotive Command			
	GSENG-LV 100 Eng/MIA@ Integration S	GS Engineering	P0# 1013/GSE AGREEMETN #30520	(11,033)
	GSENG-Centergruide Wear Testing	GS Engineering	CO #040340	698
	GSENG-Centerguide Wear Testing	GS Engineering	CO #040340	1,697
	Confidential Agreement	James Hardie Building Products	PO # 2796789	8,694
	SURME-Alum Metal Matrix Trck Dev	Surmet Ceramics Corp.	PO # 522641	20,800
	SURME-Aluminum Metal Mtrx Trk Devel	Surmet Ceramics Corp.	PO # 522641	49,710
	THERM-STOP WORK ORDER IN EFFECT	Thermoanalytics Inc.	THERMOANALYTICS PROJ.# E10441	21,702
	THERM-Human Contact Model Thermo En	Thermoanalytics Inc.	AGREE # TAI-04-0121	45,024
				137,292
U.S. Arn				
	RESEA/IME-Spnsr-Nanomat'ls	Research and Development Labs	SUB CONTRACT 47105-00-01 AMD 2	49,055
U.S. Arn	ny Research Office			
	ACADE-Rsch/Engineer Apprenticeship	Academy of Applied Science	LETTER 5-10-05 CHECK 4397	780
U.S. Nav	у			
	TELLU/IMP-Thermoelectric Alloys	Tellurex Corporation	N00014-05-M-0045	10,560
	BMTDE-Crane Test Bed Development	BMT Designers and Planners Inc.	PO # 04-0027	76,149
	BMTDE-Syst Idnt Hydrst Trs	BMT Designers and Planners Inc.	PO #04-0015	73,506
	ROLLS-Spnr-High Sea Transfer	Rolls Royce Naval Marine	PO # 945067	113,802
	BMTDE-GRA	BMT Desingers and Planners Inc.	PO #04-0015	15,152
				289,169

Federal	Program title/major subdivision				
Agency/CFDA#	Grant/contract title	Pass thru entity if applicable	Contract #	Expenditures	
U.S. Air	Force				
	QORTE-Millimeter Wave Dosimetry	Qortek, Inc.	FA8650-05-M-6506	13,187	
	UNIVE-Atm Prp Hgh Engy Lsr	UCLA	0205-G-DB131	228,584	
	UNIVE-GRA-Atms Hgh Engy Lsi	University of California at Los Angeles	0205-G-DB131	677	
ъ.	4 6D 6			242,448	
Departm	ent of Defense	Don't March 117 day	DO #107207	7.010	
	BATTE-Lab Test of Deicing Chemicals	Battelle Memorial Institute	PO #187207	5,810	
	PHYSI-PSI Phs II STTR Hypspct Tsk	Physical Sciences, Inc.	PSI CONT W911SR-040C PO#34947	36,001	
	THERM-RadTherm/iSight Integration	Thermoanalytics Inc.	E10521 MOD 1 LINE ITEM 002	8,062	
	THERM-Rad/Therm/iSight Intergration	Thermoanalytics Inc.	E10521/TAI-04-0903	13,718	
	THEM-3 D Voxel-Base Bio-Ht Tnsfr Cd	Thermoanalytics Inc.	TAI-02-0325	10,618	
	THERM-3-D Voxel - Bsd Mdl Human The	Thermoanalytics Inc.	TAI 02-0325 MOD 3	12,184	
	UNITE-United Defense LP	United Defense LP	PO #PT18090-00	560	
	UNITE-Turning Testing	United Technologies Research Center	CO #041216	1,500	
	ZYVEX-Multifunct Nxt-Gener Crg Nano	Zyvex Corporation	AGREEMENT # 041180	16,872	
	UNITE-IME-Constit Mdl Propul Sys Pr	United Technologies Corp	CONTRACT # 24100	95,985	
				201,309	
U.S. Departm Departm	nent of Fish & Wildlife MINAT-Gry Wof Pop Mod/Est	Michigan DNR		122,302	
	ent of Transportation Highway Administration				
rederai		Towns and the December December	UD 10 04D MOD 1.5	397	
	NATIO-TC-Durability of Early-Openin MIPOL-MTTI-Schl Prgm Safe Non-Eng	Transportation Research Board Michigan State Police	HR 18-04B MOD 1-5 PROJECT # RS-04-03	3,628	
	c c	e	PROJECT # RS-04-03 PROJECT # RS-04-03 FY05	· · · · · · · · · · · · · · · · · · ·	
	MIPOL-MTTI-Schl Prg Intersec Safety	Michigan State Police		1,612	
	MIPOL-MTTI-Partic-Shel-Instret Sfty	Michigan State Police MDOT	PROJECT # RS-04-03 FY05 JOB # 72377	13,200	
	MITRA-TC-MERL-2002/2003			10,237	
	MITRA-MTTI-04 Video Prod Completion	MDOT	# 2004-0086 JOB # 772150	40,242	
	MITRA-Log Truck Study II	MDOT	JOB # 76930, 2003-0063 AUTH 10	52,095	
	MITRA-MTTI-Log Truck Study II	MDOT	JOB # 76930, 2003-0063 AUTH 10	1,192	
	MITRA-TC Phase II Spec for Hot Mix	MDOT	JOB # 568080/549570/00MTU5-1-6	40,167	
	MITRA-MTTI-Research Record 2005	MDOT	CONTRACT2003-0063/JOB # 76915	7,456	
	MITRA-MTTI-TDG-LTAP 2004	MDOT	31126	18,616	a
	MITRA/TDG-MTTI-LTAP 2003	MDOT	JOB # 73523/73524/73525	(6,295)	Contin

l /CFDA#	Program title/major subdivision Grant/contract title	Pass thru entity if applicable	Contract #	Expenditures
	MITRA/MTTI/TDG-2004 Roadsoft	MDOT	2004-0053 JOB # 78248	261,338
	MITRA-MTTI/LRFD Load Cllibration	MDOT	MASTER 2003-0063/JOB # 56815	24,158
	MITRA-MTTI-04 Video Prod Completion	MDOT	PO # 591N5200823	11.098
	MITRA-Lab Model Perf PreWetted Soli	MDOT	2003-0063, JOB #81023, AUTH#11	31,790
	MITRA-MTTI-Rpd Cnst Sol Prstres Sys	MDOT	2003-6003 AUTH 13/JOB# 76984	8,875
	MITRA-MTTI-MCLS 2004	MDOT	CONTRACT 2003-0709 JOB #40617C	15,148
	MITRA-MTTI-Resil Mod Lim Grad/Var	MDOT	JOB # 80324	53,495
	MITRA/MTTI-Compacted Hot Mix Aspha	MDOT	MDOT #2003-0063 JOB 79121	67,058
	MITRA/MTTI-Moisture Dmg on Asphalt	MDOT	MDOT 2003-0063 JOB #76941	55,251
	NATIO-Counter Meas Protect Bridge	National Academy of Sciences	CONTRACT # HR24-18A	196,521
	SOUTH-MTTI-Lng Effcts Mag Magnes	South Dakota DOT	CONTRAT # 310802	116,267
	UNIVE-MTTI-Dev Modules Temp HMA	MDOT	PRIME CONTRACT 0092-03-14	10,000
	WITRA-MTTI-Sps-Tst WI Asphalt Mix	Wisconsin DOT	PROJECT ID 009-04-07	52,474
	WITRA/MTTI-Eval Meth Air Void Sys	Wisconsin DOT	PROJECT ID 0092-03-16	90,734
	MITRA-MTTI-GRA-Moisture Dmg Asphalt	MDOT	MDOT 2003-0063 JOB #76941	54,485
	WITRA-MTTI-GRA-Tst Wisc Asphalt	Wisconsin DOT	PROJECT ID 009-04-07	7,766
	•			1,239,003
Federal A	Aviation Administration			
	INNOV/MTTI-Conc Mix & Pavement Cons	Innovative Pavement Research Foundation	IPRF-FAA-01-G-002-03-3	75,964
	nautics and Space Administration ubdivisions			
	MAUNA-Near Infrared Imager	Mauna Kea Infrared	NIKI0001 AMENDMENT # 4	(5,738)
	UNIVE-Develop Bio nano Enzymes	University of Michigan	CHK #1031528, SPACE GRANT	4,430
	UNIVE-Study of Drop Breakup	University of Michigan	SPACE GRT CHK #1201263	5,000
	UNIVE/IMP-CS-Carbon Nanotubes	University of Michigan	SPACE GRT CHK #1201263	213
	UNIVE/IMP-Carbon Nanotubes	University of Michigan	SPACE GRT CHK #1201263	381
	UNIVE-Rout Process of Terr & Therm	University of Michigan	CHECK # 465763	(16)
	UNIVE-New Bifunct Cat Carb/Diox Rec	University of Michigan	CHECK # 834013	134
	UNIVE-Dev/Dep Mini-UV Spectrometer	University of Michigan	CHECK # 834013	2,212
	CIVIVE BEV/Bep Willing V Spectrometer			
	UNIVE-Infra Spectro Ice Nucleation	University of Michigan	CHECK # 834013	312 6,929

gency/CFDA#	Program title/major subdivision Grant/contract title	Pass thru entity if applicable	Contract #	Expenditure
		Pass thru entity if applicable	Contract #	Expenditure
	ce Foundation			
N/A no si	ubdivisions UCAID-04/05 NSF Middleware Init	UCAID	INTERNET 2 AGREEMENT	83,966
		UCAID	INTERNET 2 AGREEMENT INTERNET 2 AGREEMENT	,
	UCAID-03/04 Middleware Initiative			15,875
	EDUCA-NSF Middleware Init	EDUCAUSE	020431	(3,464
	UNIVE-Teachers Erth Scnce Inst	Tennesse Technology University	PO # C12712	(247
	UNIVE-Deter Elect/Neutrino Rst Ms	University of Texas	UTA03-036 AMENDMENT 2	35,479
				131,608
	nental Protection Agency			
N/A no s	ubdivisions			
	NEETF-A Safe Water First Approach	NEETF	AGREEMENT # 98-08H	877
S. Departm	ent of Energy			
N/A no s	ubdivisions			
	CONSO-BRC-Spnsr-Modif Gibberellin M	Consortium Plant Biotechnology Research Inc.	CPBR AGREE # G012026	10,062
	EATON/CISSIC-Routing Protocols	Eaton Corporation	PO #0011-31975	1,131
	FIRMI-RSI Auger Observatory Souther	FERMILAB	PO 521464/543254/552828MOD 1-4	12,227
	GENER-Dev Partic Filter/Matlab/Sim	General Motors Corp.	TCS51365	35,066
	JOHND-Model Paricu Trap/Diesel Eng	John Deere	PO #871943PE	63,518
	PACIF-PERC-Par Est/Advan/Trns Mdls	Pacific Engineering Corp	CONT # 00001136	231
	UESIN-IME/Layer Splitting Oxide Mat	UES Inc.	S-721-000-002	66,346
	UESIN-IME/Layer Splitting Oxide Mat	UES Inc.	S-721-000-002	28,307
	UNIVE-Structual Charact Battery Mtl	University of Chicago	OF-00544 MOD 1-4	11,616
	KEWEE-Direct Solidif Alum Alloys	UT Battelle Inc.	SUB # 4000034376	24,000
	UTBAL-Plast Lmt for Struct Ceramics	UT Battelle	SUBCONTRACT #4000031515	24,501
	NORTH/ESC-Dwn/Up Lig Bio	North Carolina State University	SUBAWARD #03-1125-01	117,455
	NORTH/ESC-Down & Up Lignin Biosyn	North Carolina State University	SUBAWARD #03-1125-01	29,613
	NORTH/ESC-GRA-Dn & Up Lignon Biosyn	North Carolina State University	SUBAWARD #03-1125-01	2,077
	UESIN-IME-GRA Layer Splitting Oxide	UES Inc.	S-721-000-002	21,714
				447,864
ational Insti	tute for Health			
	ubdivisions			
	PENNS-ADV ACCT-Analysis Blood Pumps	Pennsylvania State University	SUBRECIPIENT AGRMNT 10/12/04	9,108

STUDENT FINANCIAL AID CLUSTER - DIRECT AWARDS

	Program title/major subdivision			
Federal Agency/CFDA#	Grant/contract title	Pass thru entity if applicable	Contract #	Expenditures
U.S. Department of E	Education Control of the Control of	n/a	n/a	
84.033	Federal work-study program	n/a	n/a	\$ 296,206
84.038	Federal perkins loans program	n/a	n/a	3,313,139
84.063	Federal pell grant program	n/a	n/a	2,873,652
84.066	Federal supplemental education opportunity grant	n/a	n/a	225,770
84.268	Federal direct student loans program	n/a	n/a	16,229,966
TOTAL STUDENT I	FINANCIAL AID CLUSTER - DIRECT	AWARDS		22,938,733

MICHIGAN TECHNOLOGICAL UNIVERSITY

SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS

FOR THE YEAR ENDED JUNE 30, 2005

FEDERAL AWARD PROGRAMS NOT INCLUDED IN RESEARCH AND DEVELOPMENT OR STUDENT FINANCIAL AID CLUSTERS - CFDA NUMBER AVAILABLE

Federal Agency/CFDA#	Program title/major subdivision Grant/contract title	Pass thru entity if applicable	Contract #	Expenditures
	ent of Agriculture	Tuss thru therey is applicable	Contract "	2Apendiures
	ative forestry assistance			
F	MINAT-Manag MI Schl Forests	Michigan Department of Natural Resources	OEG GRANT # 05-04	\$ 276
	· ·			
HG D				
	ent of Commerce For public works and economic developmen	t facilities		
11.500 Grants	Advanced Technology Design ATDC/EDA		06-01-04694	621,890
	Advanced Technology Design ATDC/EDA	. II/a	00-01-04094	021,890
U.S. Departme	ent of Interior			
15.929 Save An	nerica's treasures			
	USPAR-Relocation A.E. Seaman Museum	n/a	26-04-ML-0037	1,917_
U.S. Departme	ont of Labor			
	alth and safety grants			
17,000 11,22220 110	USLAB-FY2004-YEAR3-Mi Mine Safety	n/a	E4R3001919-MOD 2	101,056
	USLAB-FY2005-YEAR4-Mi Mine Safety		E4R4001919-MOD 3	137,016
				238,072
	ent of Transportation			
20.215 Highway	y training and education			
	USTRA/MTTI-Kristina Fields Assist	n/a	DDEGRD-04-X-00410	28,444
Notional Endo	ayment for the Unmanities			
	<u>wment for the Humanities</u> on of humanities - Division of preservation	and access		
110mou	NEH - Preservation Needs Assessmen	National Endowment for the Humanities	PA-50219-04	1,304 Continu

FEDERAL AWARD PROGRAMS NOT INCLUDED IN RESEARCH AND DEVELOPMENT OR STUDENT FINANCIAL AID CLUSTERS - CFDA NUMBER AVAILABLE

/CED 4 #	Program title/major subdivision Grant/contract title	D41	C4	E 124
gency/CFDA#		Pass thru entity if applicable	Contract #	Expenditures
	ce Foundation			
7.076 Education	on and human resources			
	NSF-Engineering in Pre-College Ed	n/a	DUE-9953189 AMD 004	3,778
	NSF-Knowledge Mgmt Infrastructure	n/a	EHR-0125380	122,388
	NSF-Grad/Undergrad Engg Initiatives	n/a	DUE-0220500	74,171
	NSF-Geology Utah's Nat'l Parks	n/a	DUE-9950213-AMD 004	13,923
	TENNE-MAIN-Tchr Erth Sci	Tennessee Tech	SUBCONTRACT DATED 6/30/05	20,388
	TENNE-IMP-Sponor-Tchrs Erth Sci	Tennessee Tech	SUB CONTRACT DATED 6/7/04	59,450
	TENNE-IMP-Participt-Tchrs Earth Sci	Tennessee Tech	SUB CONTRACT DATED 6/7/04	80,076
	TENNE-IMP-Red Metal Tchrs Erth Sci	Tennessee Tech	SUB CONTRACT DATED 6/7/04	29,688
				403,862
J.S. Environn	nental Protection Agency			
6.510 Surveys	, studies, investigation and special purpose	grants within in the office of research an	d development	
	EPA-36th Annual Air Pollution Wkshp	n/a	X3-83150501-0	5,000
	_			<u> </u>
6.606 Surveys	, studies, investigation and special purpose	grants		
	EPA/SFI-Torch Lk Remediation Moni	n/a	X-96535201-0	15,827
6.951 Environ	mental education grants			
	EPA - Earth Week Incentive Program	n/a	NE-96505201-0	876
LS. Denartme	ent of Education			
	nal education - basic grants to states			
no io vocation	MIEDU-Underwriting Support MI YES	Michigan Department of Labor and Econo	omio Growti 0/3/400/40101	20,000
	WIEDO-Onderwriting Support WIT TES	Michigan Department of Labor and Econo	onic Grown 043430/40131	20,000
4.116 Fund for	r the improvement of postsecondary educat	ion		
	USEDU-YR 4-N. Am Mobility-Higher Ed	n/a	P116N000021-03-ACTION NO. 07	7,390
	USEDU/RSI-EHAZ:Earth Hazards Consor		P116N040003-ACTION NO. 04	1,567
				8,957
4.200 Graduat	te assistance in areas of national needs			·
4.200 Gradua	te assistance in areas of national needs			

FEDERAL AWARD PROGRAMS NOT INCLUDED IN RESEARCH AND DEVELOPMENT OR STUDENT FINANCIAL AID CLUSTERS - CFDA NUMBER AVAILABLE

Federal	Program title/major subdivision			
Agency/CFDA#	Grant/contract title	Pass thru entity if applicable	Contract #	Expenditures
84.367B Improvi	ng teacher quality state grants			
	MIEDU-Imp Tchr Qual 04/05 Appl Sci	Michigan Department of Education	050290-405	13,911
	MIEDU-Imp Tchr Qual Appl Sci	Michigan Department of Education	050290-405	21,204
	MIEDU-04/05 Imp Tchr Qual Appl Math	Michigan Department of Education	050290-304	9,083
	MIEDU-Imp Tchr Qual Appl Math 04/05	Michigan Department of Education	050290-304	14,163
	MIEDU-Spnsr Imp Tchr Qual Social St	Michigan Department of Education	030290-909	(1,076)
	MIEDU-GRAPCEP-Improv Tchr Quality	Michigan Department of Education	030290-909	14,998
	MIEDU-CCISD-Improv Tchr Quality	Michigan Department of Education	030290-909	11,639
	MIEDU-Spnsr Improv Tchr Qual 05/06	Michigan Department of Education	04290-305	56,462
	MIEDU-CCISD-Improv Teach Quality	Michigan Department of Education	04290-305	11,046
	MIEDU-Imp Tchr Quality 05/06	Michigan Department of Education	040290-210	64,158
	MIEDU-GRAPCEP-Impr Tchr Qual 05/06	Michigan Department of Education	040290-210	1,775
	MIEDU-CCISD-Impr Tchr Quality 05/06	Michigan Department of Education	040290-210	8,160
				225,523
TOTAL FEDE	ERAL AWARD PROGRAM NOT I	NCLUDED IN RESEARCH AND	DEVELOPMENT OR STUDENT	
FINANCIAL	AID CLUSTERS -CFDA NUMBER	AVAILABLE		1,631,605

MICHIGAN TECHNOLOGICAL UNIVERSITY SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS

FOR THE YEAR ENDED JUNE 30, 2005

FEDERAL AWARD PROGRAMS NOT INCLUDED IN RESEARCH AND DEVELOPMENT OR STUDENT FINANCIAL AID CLUSTERS - CFDA NUMBER NOT AVAILABLE

Federal Program title/major subdivis Agency/CFDA# Grant/contract title		ble Contract #	Expenditures
	Pass thru entity if applical	oie Contract#	Expenditures
U.S. Department of Agriculture U.S. Forest Service			
0.001 = 0.0000 0.000	10010	10.5511.50000	Φ 0.00π
USAGR-Study Silviculture (P.		43-56A1-5-8022	\$ 8,887
WESTE-WUPHTN Sign Proj	Impl Plan Western UP Heritage Trail	CO #031047	5,028 13,915
			13,915
U.S. Department of Defense			
U.S. Air Force			
USAIR - IPA #507-Air Force	Academy n/a	IPA # 507 DATED 05/05/05	5,792
U.S. Army - Tank Automotive Command			
TACOM - CSC 2005 Report	n/a	W56HZV-05-P-L512	3,259
TACOM - CSC 2003 Report	11/ 4	W30112 V-03-1 -E312	
U.S. Department of Interior			
National Park Service			
YELLO-Clean Snowmobile C	hallenge 04 n/a	P1571042020	189
YELLO-Yellowstone-CSC Re	ē	P1571050534	1,839
			2,028
U.S. Department of Transporation			
Federal Highway Admin			
USTRA-MTTI-Intersection Sa	nfety n/a	ORDER # 23-03-002600-013-0	000 6,962
MITRA-MTTI-MUTDC 2005	MDOT	# 2003-0063 AUTH12 JOB 595	597C 15,646
MITRA-MTTI-2005 MERL	MDOT	2005-0014 AUTH 1 JOB #8037	70 11,374
MITRA-MTTI-Const Warrant	y Symposium MDOT	CHK# 4803179	55
MITRA-MTTI-TDG-LTAP 20	004 P2 MDOT	JOB # 80366/80372/81272	249,810
MITRA-MTTI-TDG-2005 Ro	adsoft MDOT	# 2004-0053-ATH Z2 JOB #82	726 308,711_
			592,557

Continued

MICHIGAN TECHNOLOGICAL UNIVERSITY SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS

FOR THE YEAR ENDED JUNE 30, 2005

FEDERAL AWARD PROGRAMS NOT INCLUDED IN RESEARCH AND DEVELOPMENT OR STUDENT FINANCIAL AID CLUSTERS - CFDA NUMBER NOT AVAILABLE

Federal	Program title/major subdivision	Dog there artify if anylinghly	Combract #	F	
Agency/CFDA#	Grant/contract title	Pass thru entity if applicable	Contract #	Expenditures	
	autics and Space Administration				
N/A no s	subdivisions				
	UNIVE-Joseph Esquibel-Carb Diox Fix	University of Michigan	SPACE GRT CHK#1040905	2,500	
	UNIVE-Adam DeConinch-Carb Nanotubes	University of Michigan	SPACE GRT CHK #1040905	2,500	
	UNIVE-Jason Makela-Inflatable Boom	University of Michigan	SPACE GRT CHK#1040905	2,500	
	UNIVE-Jacob Fugal-Holographic Detec	University of Michigan	SPACE GRT CHK#1040905	5,000	
	UNIVE-David Dame-Inflatable Boom	University of Michigan	SPACE GRT CHK#1040905	2,500	
	UNIVE-Dean Massey-Bismuth Plasma	University of Michigan	SPACE GRT CHK #1040905	5,000	
	UNIVE-Kirk Anderson-Vacuum Arc Thru	University of Michigan	SPACE GRT CHK #1055102	42	
	UNIVE-V. Bluth-Opt Data Collection	University of Michigan	SPACE GRT CHK #1201262	160	
	UNIVE-C Robinson-Biomass Burning	University of Michigan	SPACE GRT CHK #1201262	2,020	
	UNIVE-A Maki-Hibn & Bear Bones	University of Michigan	SPACE GRT CHK #1201262	1,632	
	UNIVE-M McGee Effect of Hibernation	University of Michigan	SPACE GRT CHK #1201262	2,500	
	UNIVE-D Miller-Porous Densities	University of Michigan	SPACE GRT CHK #1201262	256	
	UNIVE-J Fugal-HOLODEC II	University of Michigan	SPACE GRT CHK #1201262	1,880	
	UNIVE-Quant Hydreogeological Contro	University of Michigan	CHECK #834014	51	
	UNIVE-Rdar Refl & Rain Est fr Space	University of Michigan	CHECK #834014	522	
	UNIVE-MI Space Grant Constm Admin C	University of Michigan	CHECK # 1099750	1,495	
	UNIVE-MI Spc Grnt Const Admin	University of Michigan	CHECK # 868549	1,910	
	UNIVE-Summer Aerospace Eng-Sponsor	University of Michigan	SPACE GRANT CH#1047510	5,000	
	UNIVE-Pre College Prg for Minor-SP	University of Michigan	SPACE GRT CHK #1048061	5,000	
	UNIVE-Women & Min Pre College-SP	University of Michigan	SPACE GRT CHK #1048063	6,937	
				49,406	
<u> Vational Scienc</u>	<u>e Foundation</u>				
N/A no s	subdivisions				
	DAPCE-1 Tst/MTU Engineering Enterpr	DAPCEP	DAPCEP AGREEMENT	1,697	
	DAPCEP-I Test/MTU Engineering Enter	DAPCEP	DAPCEP AGREEMENT	4,710	
	NSF-Matthew Drewek Fellows	n/a	DGE-0004144	37,737	
	NSF-J Fugal Fellow 04-05	n/a	DGE-0004144	37,985	
	NSF - Jacob Fugal Fellowship	n/a	DGE-0004144	2,292	
				84,421	Continu

FEDERAL AWARD PROGRAMS NOT INCLUDED IN RESEARCH AND DEVELOPMENT OR STUDENT FINANCIAL AID CLUSTERS - CFDA NUMBER NOT AVAILABLE

Federal	Program title/major subdivision	5 J. W. 10 W. 11	G	- W	
Agency/CFDA#	Grant/contract title	Pass thru entity if applicable	Contract #	Expenditures	
U.S. Department	t of Education				
Unknown	ı				
	Robert C. Byrd Honors	n/a	n/a	36,450	
	MIEDU-CCISD-Improv Tchr Quality	Michigan Department of Education	GRANT # 030290-917	7,230	
	MIEDU-GRAPCEP-Imp Tchr Quality	Michigan Department of Education	GRANT # 030290-917	17,494	
	MIEDU-Impr Teach Quality - Science	Michigan Department of Education	GRANT # 030290-917	(2,327)	
	COPPE-Tch Ameri History Ntl Stories	Copper Country Intermediate School District	Check \$1591	8,254	
				67,101	
TOTAL FEDER	AL AWARD PROGRAMS NOT I	NCLUDED IN RESEARCH AND DEVE	LOPMENT OR STUDENT		
_	D CLUSTERS - CFDA NUMBER			818,479	
TOTAL EXPEN	DITURES OF FEDERAL AWARI	OS		\$ 45,170,767	Con

Michigan Technological University Schedule of Findings and Questioned Costs For the Year Ended June 30, 2005

SECTION 1 - SUMMARY OF AUDITORS RESULTS:

Financial Statements

Type of Auditor's report issued:

Unqualified

Internal control over financial reporting:

Material weakness identified?

Reportable conditions identified not

considered to be material weaknesses?

None reported

Noncompliance material to financial statements

noted?

Federal Awards

Internal control over major programs:

Material weaknesses identified?

Reportable conditions identified not

considered to be material weaknesses?

None reported

Type of auditor's report issued on compliance

for major programs:

Unqualified

Any audit findings disclosed that are required

to be reported in accordance with Circular A-133, Section .510(a) ?

Identification of major programs:

CFDA # Name of Program

84.033, 84.038, 84.063, 84.066, 84.268 Student financial assistance cluster

No

Various Research and development cluster

Dollar threshold to distinguish

between type A and type B programs: \$768,830

Michigan Technological University Schedule of Findings and Questioned Costs For the Year Ended June 30, 2005

Auditee qualified as a low risk auditee?

Yes

SECTION II – FINANCIAL STATEMENT FINDINGS

No financial statement findings are reported.

SECTION III – FEDERAL AWARD FINDINGS AND QUESTIONED COSTS

No federal award findings or questioned costs are reported.

SECTION IV – PRIOR YEAR FINDINGS AND QUESTIONED COSTS

No prior year findings or questioned costs were reported.