GEORGIA INSTITUTE OF TECHNOLOGY OFFICE OF CONTRACT ADMINISTRATION SPONSORED PROJECT INITIATION

		Date:	1/6/81
Project Title: Al lot	tment Grant for the Geo	rgia Mining and Min	eral Resources Institute
Project No: E-19-5	502		
Project Director: Dr.	. J. E. Husted		
Sponsor: U. S. Do	epartment of the Interi		ace Mining; Washington, D.C. 20240
Agreement Period:	From12/4	/80 Until	6/30/81 (Perf.) 9/30/81 (Reports)
Type Agreement: A	llotment Grant No. G511	4003	
(54,200 54,200 GIT (E-19-219) 28,400 TOTAL		
	uarterly Technical & Fi inal Technical & Financ		orts;
Sponsor Contact Person	(s):		
Technical Matte	rs	Contractua (thru O	
Dr. Lawrence Chas Office of Surface U. S. Department 1951 Constitution Washington, D. C	e Mining of the Interior n Avenue, N.W.	Dr. David R. Mar Assistant Direct Services and Office of Surfac U. S. Department 1951 Constitution Washington, D. C	cor, Technical I Research te Mining to of Interior on Avenue, N.W.
Defense Priority Rating:	None	•	(
•	nemical Engineering		(School/National)
COPIES TO:			
Project Director Division Chief (EES) School/Laboratory Director—EES Accounting Office Procurement Office	rtor	Library, Technical Reports Sec EES Information Office EES Reports & Procedures Project File (OCA) Project Code (GTRI) Other OCA Reseat	ction

Security Coordinator (OCA)
-Reports Coordinator (OCA)

SPONSORED PROJECT TERMINATION SHEET

·	Date _	3/2/82
Project Title: Allotment Grant	for GA Mining & Mineral	Resources Institute
Project No: E-19-502		
Project Director: Dr. J. E. Hus	ted	
Sponsor: U.S. DOI/OSM		
Effective Termination Date:	9/30/81	
Clearance of Accounting Charges:	12/31/81 (Rpts)	
Grant/Contract Closeout Actions R		
Final Fiscal Report Final Report of I Govt. Property In Classified Material Other	rt nventions ventory & Related Certificat Certificate	e (see enclosed form required)
Assigned to: Chemic	cal Engineering	(School/Laboratory)
COPIES TO:		
Administrative Coordinator Research Property Management Accounting Procurement/FES Supply Services	Research Security Services Reports Coordinator (OCA Legal Services (OCA) Library	EES Public Relations (2) Computer Input Project File Other



Office of Surface Mining
Division of Technical Services & Research

State Mining & Mineral Resources and Research Institutes

Washington, D.C. 20240

Quarterly SMMRRI Reports

Grant Recipient	Type of Report R	eporting Period	Control Number(s)
eorgia Institute of Technology	Quarterly Technical	12/4/81-3/31/81	G-05114003
Project Title / Program			
Investigator(s) / Fellowships Recipients			
ohn E. Husted, Director			i de la companya de
Performing Organization:			
eorgia Mining and Mineral Resources	Institute		
Summary:			

This report includes the latter part of December 1980 in order to put reporting on a quarterly calendar basis. December was primarily a month of Christmas Holidays, vacation and recuperation for the Director. Beginning in January the Director returned to work full time.

On February 3rd, GMMRI served as hosts for a one day meeting. The first hald was devoted to the Sunbelt Consortium of Mineral Institues and the second half to OSM district business reporesented by states in the Sunbelt Consortium plus Iowa.

The Director was a guest of the Crushed Stone Association of Georgia at their annual meeting. They had offered assistance to the GMMRI. Most equipment had been ordered by the end of the quarter.



Office of Surface Mining

Division of Technical Services & Research

State Mining & Mineral Resources and Research Institutes

Washington, D.C. 20240

Quarterly SMMRRI Reports

Grant Recipient Type of Report Reporting Period Control Number(s)

Georgia Institute of Technology

Quarterly Technical 1/1/81-3/31/81

G-51004001

Project Title/Program

Scholarship - Fellowship Program

Investigator(s) / Fellowships Recipients

Mr. Jim Kimball (Met) Continuing fellowship in amount of \$1866 per quarter

Mr. Randall Chapman (Cer. Engr.) Continuing fellowship in amount of \$1866 per quarter

Ms. Teresa Bryan (Ch.E.) Fellowship in amount of \$1866

Ms. Carolyn Moore (C.E.) Scholarship in amount of \$291.50

Performing Organization:

Summanc...

Mr. Terry Patterson (Ch.E.) Scholarship in amount of \$291.50

Mr. Lee Mohnkern (Ch.E.) Continuing scholarship in amount of \$291.50

Mr. Jeffrey Reid (Geol.-Univ. of Ga.) Ph.D. candidate 2nd of 3 qtrs. @ \$5963 for 3 quarters

Mr. Thomas Brazell (Geol.-Univ. of Ga.) M.S. candidate, 2nd of 3 qtrs. @ \$5600 for 3 quarters

Mr. Daniel Lovingood (Geol. Univ. of Ga.) M.S. candidate, 2nd of 3 qtrs. @ \$5600 for 3 quarters

Mr. William O'Leary (Geol.-Univ. of Ga.) M.S. candidate, 2nd of 3 gtrs. @ \$5600 for 3 quarters

Mr. Phillip Potter (Geol.-Univ. of Ga.) M.S. candidate, 2nd of 3 qtrs. @ \$5600 for 3 quarters

FEDERAL CACI	H TRANSACTIONS REPORT		nent and Budget, No. 80-RO182		
-		Is submitted	ganizational element to which this report		
(See instructions on the b	ack. If report is for more than one grant or h completed Standard Form 272–A.)	U.S. Dept. of Inte	rior - Office of		
	_ 	Surface Mining			
2. RECIPIENT ORGANIZATI	ON	4. Federal grant or other identifica-	5. Recipient's account number of identifying number		
		See Attached			
Vame : Googgia I	nstitute of Technology	6. Letter of credit number	7. Last payment voucher number		
Jumber	istitute of Technology	14-18-0530	10		
nd Street :		Give total numb	er for this period		
		8. Payment Vouchers credited to your account	9. Treasury checks received (whether or not deposited)		
Sity, State and ZIP Code: Atlanta, (Georgia 30332	10. PERIOD COVERED	BY THIS REPORT		
FEDERAL EMPLOYER 1DENTIFICATION NO. 5	8-6002023	FROM (month, day, year) 1/1/81	TO (month, day year) 3/31/81		
	a. Cash on hand beginning of reporting period		\$ 8,247.04		
	b. Letter of credit withdrawals				
1. STATUS OF	c. Treasury check payments	43,000.00			
FEDERAL	d. Total receipts (Sum of lines b and c)		43,000.00		
CASH	e. Total cash available (Sum of lines a and d)		51,247.04		
-	f. Gross disbursements		51,312.89		
(See specific	g. Federal share of program income	_			
instructions on the back)	h. Net disbursements (Line f minus line g)		51,312.89		
	i. Adjustments of prior periods				
	j. Cash on hand end of period		\$ 65.85		
. THE AMOUNT SHOWN	13. OTHER INFORMATIO	N			
ON LINE 11J, ABOVE, REPRESENTS CASH RE- QUIREMENTS FOR THE	a. Interest income		\$		
ENSUING $\mid \mid \mid \mid \mid \mid \mid \mid \mid \mid $	b. Advances to subgrantees or subcontractors		\$		

4. REMARKS (Attach additional sheets of plain paper, if more space is required)

5.		CERTIFICATION	
		SIGNATURE	DATE REPORT SUBMITTED
certify to the best of my nowledge and belief that	AUTHODIZED	-	
nis report is true in all re-	AUTHORIZED		4/20/81
pects and that all disburse-	CERTIFYING	TYPED OR PRINTED NAME AND TITLE	
tents have been made for the purpose and conditions	OFFICIAL	David V. Welch, Manager, Grants & Contr	acts Acctg.
f the grant or agreement		(Area Code) (Number)	(Extension)
		TELEPHONE 404 894-4624	

HIS SPACE FOR AGENCY USE

FEDERAL CASH TRANSACTIONS REPORT

(This form is completed and attached to Standard Form 272 only when reporting more than one grant or assistance agreement.)

2. RECIPIENT ORGANIZATION (Give name only as shown in item 2, SF 272)

Georgia Institute of Technology Atlanta, Georgia 30332 Approved by Office of Management and Budget No. 80-RO182

1. FEDERAL SPONSORING AGENCY AND ORGANIZATIONAL ELEMENT TO WHICH THIS REPORT IS SUBMITTED

U.S. Dept. of Interior Office of Surface Mining

3. PERIOD COVERED BY THIS REPORT (As shown on SF 272)

FROM (month, day, year)

TO (Month, day, year)

1/1/81

3/31/81

FEDERAL GRANT OR OTHER IDENTIFICATION NUMBER			
Show a subdivision by other identi- ing numbers if required by the ederal Sponsoring Agency)	RECIPIENT ACCOUNT NUMBER OR OTHER IDENTIFYING NUMBER	NET DISBURSEMENTS (Gross disbursements lens program income received) FOR REPORTING PERIOD	NET DISBURSEMENTS CUMULATIVE NET DISBURSEMENTS
(a)	(b)	(c)	(d)
G-51-06001	T-87-212/T-86-146/ AF-94381	\$ 16,659.54	33,408.83
G-5104003	E-19-584/E-18-584	9,494.59	68,498.26
G-5105019	E-18-624/G-41-614	4,586.14	4,586.14
G-5114003	E-19-502	20,572.62	20,572.62
TOTALS (Should correspond with follows: column (c) the same as line		\$ 51,312.89	\$ 127,065.85

last report. Attach explanation of any differences.)

FINANCIAL STATUS REPORT (Follow instructions on the back)			DERAL AGENCY AND OR S. Dept. of Int		2. FEDERAL GRANT OR OTHER DENTIFYING OMB Appro				SE OF	PAGES			
3. RECIPIENT ORGANIZATION (Name	and complete addi	ress, including ZIP co	de) 4. Eh	PLOYER IDENTIFICATIO	и иим	BER	5. RECIPIENT ACCOUNT NUM	BER OR IOENTIFYING NUMBER			7. BASIS	*	
Georgia Institute of Technology		. 58	-6002023			E-19-502 (E-19-		YES [ASĤ 🗌 AC	CRUAL	
Atlanta, Georgia 30	332		8.		CT/GR	ANT PERIOD (See instr		·	RICO COVERED BY				
			FROM	(Month, day, year)		TO (Month, da		FROM (Month, day, year)	1	TO (Month, do			
				12/4/80		6/30	1/81	12/4/80	!	3/3	1/81		
10.		(0)	(1)			TATUS OF FUNDS	(4)	(4)	(1)			TOTAL	
PROGRAMS/FUNCTIONS/A	CTIVITIES >	(a)	(6)		(c)		(d)	(e)	<i>ග</i>			(g)	
a. Net outlays previously report	ed	\$	\$		\$		\$	\$	\$		\$	-0-	
b. Total outlays this report perio	od .										20,	572.62	*
c. Less: Program income credit	\$:									
d. Net outlays this report period (Line b minus line c)				!							20,	572.62	
e. Net outlays to date (Line a plus line d)	•										20,	572.62	
f. Less: Non-Federal share of o	utlays											-0-	
g. Total Federal share of outlays (Line e minus line f)											_20,	572.62	
h. Total unliquidated obligations	.										10,	242.03	
 Less: Non-Federal share of un obligations shown on line h 	liquidated												
. Federal share of unliquidated	obligations										10,	242.03	
 Total Federal share of outlays unliquidated obligations 	and										30,	814.65	
. Total cumulative amount of Fe authorized	ederal funds										64	,200.00	
n. Unobligated balance of Federa	l funds										33	,385.35	
a. TYPE OF RATE (Place "X" in appro	opriate box)	PROVISIONAL	XX PREDETERMIN	ED FINAL F		13. CERTIFICATION I certify to the best	of my knowledge and be-	SIGNATURE OF AUTHORIZ	ED CERTIFYING	3	DATE REF	PORT D	
D. RATE	c. BASE	d. 7 \$	OTAL AMOUNT 7,558.40	•. FEDERAL SHARE \$7,558.40	1	that all outlays and	correct and complete and unliquidated obligations	TYPED OR PRINTED NAM	E AND TITLE		4/20/8	NE (Arca o	code,
2. REMARKS: Attach any explanations governing legislation. *Represe	deemed necessary	or information requires recorded i	ired by Federal aponson the account	I managing agency in compliance with		are for the purposes set forth in the award documents.				ļ ·	number ar 04/894	nd extension	າາ) ີ
3/31/81										IDARD FORM	269 (7-76	,	

FINANCIAL STATUS REPORT			1. FEDERAL AGENCY AND ORGANIZATIONAL ELEMENT TO WHICH REPORT IS SUBMITTED					2. FEDERAL GRANT OR OTH NUMBER	OMB Approved No. 80-RO180	PAGE OF	•	
(Follow instructions on t	(Follow instructions on the back) U.S. Dept. of Interior - Office of Surf					f Surface Mining	G-5105019			1	1 PAGES	
3. RECIPIENT ORGANIZATION (Name and complete add	lress, including Z	IP code)	4. EMPLO	YER IDENTIFICATIO			5. RECIPIENT ACCOUNT NUM	BER OR IDENTIFYING NUMBER			ASIS *	
Georgia Institute of Technology		4.		5002023			G-41-614/E-18-624		YES [X CASH	ACCRUAL
Atlanta, Georgia 30332			8.		ECT/GRAI	NT PERIOD (See instr	uctions)	9. P	RIOD COVERED BY			
,				9/1/80		TO (Month, da 9/28/		FROM (Month, day, year) 9/1/80		TO (Month, day, ye 3/31/8	Month, day, year) 3/31/81	
10.					ST	ATUS OF FUNDS						
PROGRAMS/FUNCTIONS/ACTIVITIES >	(a)		(6)		(0)		(d)	(6)	<i>(t)</i>		TOTAL (g)	
a. Net outlays previously reported	\$		\$		\$		\$	\$	\$	\$	-0-	
b. Total outlays this report period						- <u> </u>					4,586.1	14 *
c. Less: Program Income credits			<u> </u>									
d. Net outlays this report period (Line b minus line c)											4,586.	14
e. Net outlays to date (Line a plus line d)						4,					4,586.	14
f. Less: Non-Federal share of outlays											-0-	
g. Total Federal share of outlays (Line e minus line f)											4,586.	14
h. Total unliquidated obligations											1,998.	22
 Less: Non-Federal share of unliquidated obligations shown on line h 											-0-	
. Federal share of unliquidated obligations											1,998.	22
 Total Federal share of outlays and unliquidated obligations 						_					6,584.	36
 Total cumulative amount of Federal funds authorized 											67,798.	00
n. Unobligated balance of Federal funds											61,213.	64
a. TYPE OF RATE (Place "X" in appropriate box)	PROVISIO	NAL XX PREDET	ERMINED	FINAL F		3. CERTIFICATION certify to the best	of my knowledge and be-	SIGNATURE OF AUTHOR	IZED CERTIFYING	G DAT SUB	E REPORT MITTED	
NDIRECT b. RATE c. BASE		d. TOTAL AMOUN	r e	FEDERAL SHARE			correct and complete and				20/81	
2. REMARKS: Attach any explanations deemed necessar	S&W v or information	\$401,50 required by Federal	sponsoring	\$401.50	a	are for the purpose	d unliquidated obligations as set forth in the award	TYPED OR PRINTED NA David V. Welch, M	anager	num	PHONE (An ber and exte	cnsion)
governing legislation. *Represents charge						iocuments.		Grants and Contra	cts Acctount	ting 4 04/	39 4-4 62 4	
869-102 as of 3/31/81									STA	NDARD FORM 269	(7–76) Management a	and Budget

STANDARD FORM 269 (7-76)
Prescribed by Office of Management and Budget
Cir. No. A-110

FINANCIAL STATUS REPORT (Follow instructions on the lack)			1. FEDERAL AGENCY AND ORGANIZATIONAL ELEMENT TO WHICH REPORT IS SUBMITTED U.S. Dept. of Interior - Office of Surface Mining C-5104003 OMB Approximately Company Compa						
3. RECIPIENT ORGANIZATION (Name and com, leta address including IP end.) Georgia Institute of Technology Atlanta, Georgia 30332		4. EMPLOYER IDENTIFICATE 58-6002023 8. PRI		5. RECIPIENT ACCOUNT NUI E-19-584/E-18-584 OD (See instructions)		6 FINAL REPORT YES X NO ERIOD COVERED BY THIS	7. DASIS * (CASH ACCRUATE REPORT		
		FROM (Month, day, year) 12/4/79		TO (Month, day, year) 2/3/81			TO (Month, day, year) 3/31/81 *		
10.			STATUS (OF FUNDS					
PROGRAMS/FUNCTIONS/ACTIVITIES >	(a)	(6)	(0)	(d)	(e)	(1)	TOTAL (g)		
a. Net outlays previously reported	\$	\$	\$	\$	\$	\$	\$ 99,340.99		
b. Total outlays this report period							9,494.59 *		
c. Less: Program income credits									
d. Net outlays this report period (Line b minus line c)							9,494.59		
e. Net outlays to date (Line a plus line d)							108,835.58		
f. Less: Non-Federal share of outlays							40,337.32		
g. Total Federal share of outlays (Line e minus line f)							68,498.26		
h. Total unliquidated obligations						•	41,020.00		
 Less: Non-Federal share of unliquidated obligations shown on line h 									
j. Federal share of unliquidated obligations							41,020.00		
k. Total Federal share of outlays and unliquidated obligations							109,518.26		
Total cumulative amount of Federal funds authorized							110,000.00		
m. Unobligated balance of Federal funds							481.74		
INDIRECT	PROVISIONAL X PRED	ETERMINED FINAL U	liadabaa.	FICATION to the best of my knowledge and be- this report is correct and complete and	SIGNATURE OF AUTHOR	IZED CERTIFYING	DATE REPORT SUBMITTED 4/20/81		
As of 7/1/80 73%	S&W \$37,386.	58 \$20,949.74	that all are for	outlays and unliquidated obligations the purposes set forth in the award	INS TYPED OR PRINTED NAME AND TITLE		TELEPHONE (Area code, number and extension)		
*Represents charges	recorded in the a	ccounting records a	as of document		Grants & Contracts	Acctg.	404/894-4624		
269-102 3/31/81. All char	ges were incurred	prior co 2/3/61:				STANDARD Prescribed	FORM 269 (7-76)		

Description of the same of the

Cir. No. A-110

FINANCIAL STATUS REPORT (Follow instructions on the back)				U.S. Dept. of Interior - Office of Surface Mining 2. FEDERAL GRANT OR OTHER IDENTIFYING NO. 80-R0180 G-5106001 OMB Approved No. 80-R0180 I						
3. RECIPIENT ORGANIZATION (Name and complete address, including ZIP code) Georgia Institute of Technology		4. EMPLOYER IDENTII 58-6002023			UNT NUMBER OR IDENTIFYING NU 7-212/AF-94381	MBER 6. FINAL REPORT YES X NO PERIOD COVERED BY THIS				
Atla	nta, Georgia 30332		FROM (Month, day, yet 9/1/79		TO (Month, day, year) 9/30/82	FROM (Month, day, year 1/1/81	FROM (Month, day, year) TO (Mo			
. 10.				STATU	S OF FUNDS					
PRO	OGRAMS/FUNCTIONS/ACTIVITIES >	(a)	(6)	(0)	(d)	(6)	(f)	TOTAL (g)		
a. Net	outlays previously reported	\$	\$	\$\$	\$	\$	\$	\$ 16,749.29		
b. Tota	outlays this report period							16,659.54 *		
	: Program income credits									
(Lin	outlays this report period ne b minus line c)							16,659.54		
	outlays to date e a plus line d)							33,408.83		
	: Non-Federal share of outlays							-0-		
	Federal share of outlays e e minus line f)							33,408.83		
· ———	unliquidated obligations							12,602.50		
	: Non-Federal share of unliquidated ations shown on line h									
	ral share of unliquidated obligations							12,602.50		
	l Federal share of outlays and juidated obligations							46,011.33		
	l cumulative amount of Federal funds orized							160,000.00		
m. Unot	oligated balance of Federal funds							113,988.67		
11.	s. TYPE OF RATE N/ (Place "X" in appropriate box)	A PROVISIONAL PRE	EDETERMINED TINAL		RTIFICATION ify to the best of my knowledge a		HORIZED CERTIFYING	DATE REPORT SUBMITTED		
INDIRECT EXPENSE	b. RATE C. BASE	d. TOTAL AM		SHARE liefth	at this report is correct and comple	ete and	•	4/20/81		
12. RLMAF	RKS: Attach any explanations deemed necessa	ry or information required by Fe	deral sponsoring agency in cor	are fe	all outlays and unliquidated obling or the purposes set forth in the ments.			TELEPHONE (Arca code, number and extension)		
249 102					nenta.	Grants & Contra		404/894-4624		

*Represents charges recorded in the accounting records as of 3/31/81

The second second

STANDARD FORM 269 (7-76)
Prescribed by Office of Management and Budget
Cir. No. A-110



Office of Surface Mining

Division of Technical Services & Research

State Mining & Mineral Resources and Research Institutes

Washington, D.C. 20240

Quarterly SMMRRI Reports

······································			
Grant Recipient	Type of Report	Reporting Period	Cantral Number(s)
Georgia Institute of Technology	Quarterly Technical	4/1/81-6/30/81	G-05114003
Project Title / Program			
investigator(s) / Fellowships Recipients			
John E. Husted, Director		÷	1
Performing Organization:			
Georgia Mining and Mineral Resource	es Institute		
Summary:			

During the subject period the Director worked half time as Director, with the remaining time devoted to teaching a course each in Mineral Separation and Fossil Fuels.

Time was spent on reviewing equipment needs and tracking progress of 1982 Congressional budget action in relation to the Mineral Institutes.

On May 26th and 27th a meeting of the Association of Mineral Institute Directors was attended in Arlington, VA.

Preparation for the GMMRI External Advisory Board meeting, July 8th, included circulating questionnaire and tabulating results. The results are attached.

This contract was extended at no additional costs until September 30, 1981.

Industry's Reponses to GMNRI Questionaire

Questionaire mailed March 23, 1981 to 140 companies.

- 107 No response (No response from 28 Ga. Mining Assoc. Members)
- 19 Returned (Companies out of business)
- <u>24</u> Responses

 $\overline{140}$

Of the responses:

- 15 have a need for mineral trained people
- 13 have a need for Chemical Engineers trained in mineral processing with at least 1 annually some periodically every 5 to 6 years
- 17 have a need for Civil Engineers with geotechnical training with at least 1 annually some periodically every 5 to 6 years
 - 5 have a need for Extractive Metallurgists with a background in mineral engineering course work

Number and kind of engineers employed:

Ceramic		13
Chemical		21
Civil		8
Comercial		1
Economic ge	ologist	2
Electrical		4
Industrial		13
Mechanical		26
Mineral		_9
T	otal	* 123

(*One company reported that it employed 25 engineers but did not specify which kind.)

Comments on brochure:

The few comments were favorable.

Suggestions:

More mining courses

Courses related to mine reclamation need to be added

Course in government and state regulations needs to be added



Office of Surface Mining

Division of Technical Services & Research State Mining & Mineral Resources and Research Institutes

Washington, D.C. 20240

Quarterly SMMRRI Reports

Grant Recipient

Type of Report

Reporting Period

Control Number(s)

Georgia Institute of Technology

Quarterly Technical 4/1/81-6/30/81

G-51004001

Project Title/Program

Scholarship - Fellowship Program

Investigator(s) / Fellowships Recipients

Mr. Jim Kimball (met.) Coninuing fellowship in amount of \$1866 per quarter

Mr. Randall Chapman (Cer. Engr.) Continuing fellowship in amount of \$1866 per quarter

Ms. Teresa Bryan (Ch.E.) Continuing fellowship in amount of \$1866 per quarter

Ms. Carolyn Moore (C.e.) Continuing scholarship in amount of \$291.50 per quarter

Performing Organization:

Summano

Mr. Terry Patterson (Ch.E.) Continuing scholarship in amount of \$291.50 per quarter

Mr. Lee Mohnkern (Ch.E.) Continuing scholarship in amount of \$291.50 per quarter

Mr. Jeffrey Redi (Geol.-Univ. of Ga.) Ph.D. candidate- \$5963 for 3 quarters

Mr. Thomas Brazell (Geol.-Univ. of Ga.) M.S. candidate - \$5600 for 3 quarters

Mr. Daniel Lovingood (Geol.-Univ. of Ga.) M.S. candidate - \$5600 for 3 quarters

Mr. William O'Leary (Geol.-Univ. of Ga.) M.S. candidate - \$5600 for 3 quarters

Mr. Phillip Potter (Geol.-Univ. of Ga.) M.S. candidate - \$5600 for 3 quarters

	TO MONOTIONS BEDORE	Approved ffice of Manager	nent and Budget, No. 80-R0182			
	H TRANSACTIONS REPORT	Federal sponsoring agency and or is submitted	ganizational alement to which this report			
(See instructions on the lassistance agreement, atta	back. If report is for more than one grant or ch completed Standard Form 272–A.)	U. S. Dept. of Surface Minis	Interior - Office of			
2. RECIPIENT ORGANIZAT	ION	4. Federal grant or other identifica- tion number See Attached	- 5. Recipient's account number o identifying number			
Name : Georgia	Institute of Technology	6. Letter of credit number	7. Last payment voucher number			
Number		14-18-0530	13			
and Street .			er for this period			
		8. Payment Vouchers credited to your account	9. Treasury checks received (whether or not deposited)			
City, State and ZIP Code: Atlanta,	Georgia 30332		D BY THIS REPORT			
3. FEDERAL EMPLOYER IDENTIFICATION NO.	58-6002023	FROM (month, day, year) 4/1/81	TO (month, day year) 6/30/81			
	a. Cash on hand beginning of reporting period		\$ (65.85)			
	b. Letter of credit withdrawals					
11. STATUS OF	c. Treasury check payments		56,000.00			
FEDERAL	d. Total receipts (Sum of lines b and c)		56,000.00			
CASH	e. Total cash available (Sum of lines a and d)	55,934.15				
	f. Gross disbursements		45,817.94			
(See specific	g. Federal share of program income					
instructions on the back)	h. Net disbursements (Line f minus line g)	45,817.94				
	i. Adjustments of prior periods					
	j. Cash on hand end of period		\$ 10,116.21			
12. THE AMOUNT SHOWN ON LINE 11J, ABOVE.	13. OTHER INFORMATIO	N				
REPRESENTS CASH REQUIREMENTS FOR THE	a. Interest income		\$			
ENSUING 3 Days	b. Advances to subgrantees or subcontractors	\$				

14. REMARKS (Attach additional sheets of plain paper, if more space is required)

15.	_		CERTIFICA	TION			
		SIGNATURE				DATE REPORT SUBMITTED	
I certify to the best of my knowledge and belief that this report is true in all re- spects and that all disburse- ments have been made for the purpose and conditions	AUTHORIZED CERTIFYING		RINTED NAME A	ND TITLE		7/28/81	
	OFFICIAL	David V. Welch, Manager, Grants & Contracts Acctg.					
of the grant or agreement		TELEPHONE	(Area Code) 404	(Number) 894-4624		(Extension)	

THIS SPACE FOR AGENCY USE

FEDERAL CASH TRANSACTIONS REPORT

(This form is completed and attached to Standard Form 272 only when reporting more than one grant or assistance agreement.)

2. RECIPIENT ORGANIZATION (Give name only as shown in item 2, SF 272)

Georgia Institute of Technology Atlanta, Georgia 30332 Approved by Office of Management and Budget No. 80-R0182

FEDERAL SPONSORING AGENCY AND ORGANIZATIONAL ELEMENT TO WHICH THIS REPORT IS SUBMITTED

U. S. Dept. of Interior Office of Surface Mining

3. PERIOD COVERED BY THIS REPORT (As shown on SF 272)

FROM (month, day, year) 4/1/81 TO (Month, day, year) 6/30/81

FEDERAL GRANT OR OTHER IDENTIFICATION NUMBER	RECIPIENT ACCOUNT NUMBER OR OTHER		NET DISBURSEMENTS	
Show a subdivision by other identi- ying numbers if required by the ederal Sponsoring Agency)	OR OTHER IDENTIFYING NUMBER	NET DISBURSEMENTS (Gross disbursements less program in- come received) FOR REPORTING PERIOD	CUMULATIVE NET DISBURSEMENTS	
(a)	(b)	(c)	(d)	
		\$	\$	
G-5106001	T-87-212/T-86-146/ AF-94381	14,644.38	48,053.21	
G-5104003	E-19-584/E-18-584	•00	68,498.26	
G-5105019	E-18-624/G-41-614	10,285.66	14,871.80	
G-5114003	E-19-502	20,887.90	41,460.52	
i. TOTALS (Should correspond with follows: column (c) the same as line	amounts shown on SF 272 as	\$ 45,817. 94	\$ 172,883.79	

last report. Attach explanation of any differences.)

FINANCIAL STATUS REPORT		RT	1. FEDERAL AGENCY AND ORGANIZATIONAL				WHICH REPORT IS SUBMITTED	2. FEDERAL GRANT OR OTHE NUMBER	OMB Appro No. 80-RO	180	OF		
	(Follow instructions on	the back)		U.S. Dept	t. of Inte	rior	- Office of	Surface Mining	G-5106001	_		1	1 PAGE
3. RECIPIENT ORGANIZATION (Name and complete address, including ZIP code)		ZIP code)		IDENTIFICATION	NUMB			BER OR IDENTIFYING NUMBER 6. FINAL REPO			7. BASIS	_	
Cont	gia Institute of Technolo	ισν		58-6002		T/004		T-86-146/T-86-212/			X NO		H ACCRUA
	inta, Georgia 30332	763	L	8.		I/GKA	NT PERIOD (See instr			RIOD COVERED I			
ACIO	inca, ocorpia 30332			FROM (Month, 9/1	day. year) L/79		TO (Month, do 9/30	19, year) 1/82	FROM (Month, day, year) 4/1/81		TO (Month, de	19. year) 0/81	
10.						ST	ATUS OF FUNDS						
PRO	GRAMS/FUNCTIONS/ACTIVITIES >	(a)		(b)		(c)		(d)	(e)	<i>(f)</i>			TAL (g)
a. Net	outlays previously reported	\$		\$		\$		\$	\$	\$		\$ 33,40	8.83
b. Tota	outlays this report period											14,64	4.38
c. Less	: Program income credits												
	outlays this report period e b minus line c)											14,64	4.38
	outlays to date e a plus line d)									_		48,05	3.21
	: Non-Federal share of outlays												.00
_	Federal share of outlays e e minus line f)											48,05	3.21
	unliquidated obligations			n									.00
	: Non-Federal share of unliquidated ations shown on line h												
j. F ede	ral share of unliquidated obligations												.00
	Federal share of outlays and uidated obligations											48,05	3.21
	cumulative amount of Federal funds prized											160,00	0.00
m. Unot	ligated balance of Federal funds										_	111,94	<u> 6.79</u>
II. NDIRECT	a. TYPE OF RATE (Place "X" in appropriate box)	A PROVISI	ONAL PREDETE	EDETERMINED FINAL FIXED			lief that this report is correct and complete and		SIGNATURE OF AUTHOR OFFICIAL		DATE REPO SUBMITTED		
EXPENSE	b. RATE c. BASE		d. TOTAL AMOUNT e. FEDERAL SHARE							7/28/81			
2. REMAR	KS: Attach any explanations deemed necessa	ry or informatio	n required by Federal	sponsoring agen	cy in compliance t		•	d unliquidated obligations as set forth in the award	Third or PRINTED NAME AND TITLE David V. Welch, Manager			TELEPHONE $number$ and	(Area code, extension)
governi	ng legislation.			•	-		accuments.		Grants & Contract			404/894	. -4 624

FINANCIAL STATUS REPORT		1. FEDERAL AGENCY	AND ORGANIZATI	ONAL ELEMENT TO V	WHICH REPORT IS SUBMITTED	2. FEDERAL GRANT OR OTHER NUMBER	DENTIFYING	OMB Approv No. 80-RO1		OF			
(Follow instructions on the back)			U. S. Dept.	of Interi	or - Office	of Surface Mining	G-5104003			1	1 PAGES		
3. RECIPIENT ORGANIZATION (Name and complete address, including ZIP code)		4. EMPLOYER IDENTI 58-600202		R	5. RECIPIENT ACCOUNT NUM E-19-584/E-18-58	BER OR IDENTIFYING NUMBER		T X NO	X CASH	ACCRUAL			
	Georgia Institute of Technolog	S.Y	8.	PROJECT/GRAN	T PERIOD (See instr	uctions)	9. PER	CO COVERED BY					
1	Atlanta, Georgia 30332		FROM (Month, day, ye 12/4/79		TO (Month, da 2/3/		FROM (Month, day, year) 4/1/81		TO (Month, da)	(Month, day, year) 6/30/81			
10.		MARK		STA	TUS OF FUNDS								
	PROGRAMS/FUNCTIONS/ACTIVITIES ►	· (a)	(b)	(c)		(d)	(e)	<i>(f)</i>		TO:	TAL 7)		
a.	Net outlays previously reported	\$	\$	\$		\$	\$	\$		\$ 108,83	5.58		
ի ⁻	Total outlays this report period			_					_	71,67	5.47*		
c.	Less: Program income credits												
d.	Net outlays this report period (Line b minus line c)									71,67	5.47		
e.	Net outlays to date (Line a plus line d)									180,51	2.05		
f.	Less: Non-Federal share of outlays		_							112,01	3.79		
g. 	Total Federal share of outlays (Line e minus line f)							,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		68,49	3.26		
h	Total unliquidated obligations									41,02	0,00*		
í.	Less: Non-Federal share of unliquidated obligations shown on line h									<u></u>			
j.	Federal share of unliquidated obligations									41,02	0.00		
	Total Federal share of outlays and unliquidated obligations	- 45%								109,51	3.26		
l. 	Total cumulative amount of Federal funds authorized									110,00	0.00		
m.	Unobligated balance of Federal funds									48	1.74		
	a. TYPE OF RATE		EDETERMINED FINAL	_ 1 I	. CERTIFICATION		SIGNATURE OF AUTHORIZ	ED CERTIFYIN		ATE REPO	RT		
	RECT (Place "X" in appropriate box)	d. TOTAL AM			-	of my knowledge and be- s correct and complete and	OLLIOINE ,			7/28/	81		
12 1	ENSE 12/4/79-6/30/80-76% As of 7/1/80 -73% REMARKS: Attach any explanations deemed necessary	S&W \$67,707	7.13 \$20,949	9.74 ti	hat all outlays and re for the purpose	d unliquidated obligations es set forth in the award	David V. Welch, Manager			TELEPHONE (Area code, number and extension)			
	governing legislation. *Represents charge	es recorded in the	accounting reco	ords as	ocuments.		Grants & Contract	s Acctg.		04/894-	4624		

STANDARD FORM 269 (7-76)
Prescribed by Office of Management and Budget
Cir. No. A-110

FINANCIAL STATUS REPORT		Т					WHICH REPORT IS SUBMITTED	NUMBER	R IDENTIFYING	OMB Appro	0180	PAGE	OF 1		
(Follow instructions on the back) U.S. Dept. of Interi						G-5114003				1	1	PAGES			
3. RECIPIEN	IT ORGANIZATION (Name and complete addr	ess. including Zl	P code)		OYER IDENTIFICATION	ON NUMI	BER	5. RECIPIENT ACCOUNT NUM E-19-502/E-19-21		6. INAL REPO		7. BA	SIS X CASH		
	ia Institute of Technolog	зу		8.	-6002023	JECT/GR/	ANT PERIOD (See inst			RIOD COVERED			E CASH		CRUAL
Atlant	ta, Georgia 30332				Ionth, day, year)		TO (Month, d		FROM (Month, day, year)		TO (Month, e				
				, , , , , , , ,	12/4/80		6/30	· · ·	4/1/81			30/8			
10.					12/4/00	S	TATUS OF FUNDS	7/ U ±	<u> </u>	-		<u></u> -			
PROGR	RAMS/FUNCTIONS/ACTIVITIES >	(a)		<i>(b)</i>		(c)		(d)	(e)	(f)			TOT:		
a. Net out	tlays previously reported	\$		\$		\$		\$	\$	\$		\$	20,57	72.62	2
b. Total or	utlays this report period												85,08	88.90	<u>) </u>
c. Less: P	Program income credits														
(Line b	lays this report period minus line c)												85,08	38.90	0
	tlays to date s plus line d)									·	, managara ,		105,66	1.52	2
	lon-Federal share of outlays												64,20	01.00	<u>) </u>
	ederal share of outlays minus line f)												41,46	0.52	2
	nliquidated obligations												16,43	39.12	2
	lon-Federal share of unliquidated ons shown on line h										The second secon			· · • —	
	share of unliquidated obligations												16,43	39.12	2
unliquio	ederal share of outlays and dated obligations												57,89	9.64	4
I. Total cu authoriz	umulative amount of Federal funds zed										- William or - 18 A		64,20	0.00	0
m. Unoblig	ated balance of Federal funds												6,30	0.36	6
I .	. TYPE OF RATE			, and the same of			13. CERTIFICATION		SIGNATURE OF AUTHORI	ZED CERTIFYI	NG		REPOR	T T	
11. INOIRECT -	(Place "X" in appropriate box)			EDETERMINED FINAL FIXED		FIXED	, coming to the boat of my minemedge and be		OFFICIAL	•		MITTED 28/81			
	b. RATE c. BASE				e. FEDERAL SHARE		lief that this report is correct and complete a that all outlays and unliquidated obligation		· · · · · · · · · · · · · · · · · · ·				<u> </u>		
12 DEMARKS	73%	S&W	\$38,394.1		\$12,938.29	1	•	ses set forth in the award	TYPED OR PRINTED NAM				PHONE (
12. REMARKS: Attach any explanations deemed necessary or information required by Federal sponsoring agency in compliance with governing legislation.					ce with	documents.		David V. Welch, Manager Grants & Contracts Accts.				/894-4			
·									Grants & Contract	S ACCLE					

FINANCIAL STATUS REPORT (Follow instructions on the back)			RT			LEMENT TO WHICH REPORT IS SUBMITTED fice of Surface Mining	2. FEDERAL GRANT OR OTI NUMBER G-5105019		Approved PAGE OF 80-R0180 1 1
	\- ·			EMPLOYER IDENTIFICATIO			JMBER OR IDENTIFYING NUMBER	6. FINAL REPORT	7. BASIS
	PIENT ORGANIZATION (Name and con		all' code)	58-6002023	N NUMBER	G-41-614/E-18		YES X N	
	RGIA INSTITUTE OF TEC	HNULUGY	8.		ECT/GRANT PERI	OD (See instructions)		ERIOD COVERED BY THE	
ATL	ANTA, GEORGIA 30332		FI	ROM (Month, day, year)		TO (Month, day, year)	FROM (Month, day, year)	TO (/	Month, day, year)
				9/1/80		9/28/81	4/1/81		6/30/81
10.					STATUS (F FUNDS			
PRO	OGRAMS/FUNCTIONS/ACTIVITI	ES ► (a)	(b)	(c)	(d)	(e)	(f)	TOTAL (g)
a. Net	outlays previously reported	\$		5	\$	\$	\$	\$	\$ 4,586.14
b. Tota	outlays this report period			-					
	3: Program income credits								
(Lin	outlays this report period ue b minus line c)								10,285.66
	outlays to date ue a plus line d)								14,871.80
	: Non-Federal share of outlays								
	I Federal share of outlays see e minus line f)								14,871.80
h. Tota	l unliquidated obligations								80.00
	: Non-Federal share of unliquida gations shown on line h	ated							
	eral share of unliquidated obliga	tions							80.00
	I Federal share of outlays and quidated obligations								14,951.80
	I cumulative amount of Federal orized	funds							67,798.00
m. Uno	bligated balance of Federal fund	s							52,846.20
11.	a. TYPE OF RATE (Place "X" in appropriate	PE OF RATE Place "X" in appropriate box) PROVISIONAL X PREDI		MINED FINAL	13. CERT	IFICATION to the best of my knowledge and b	SIGNATURE OF AUTHO		DATE REPORT SUBMITTED
NDIRECT EXPENSE	b. RATE C. BASE d. TOTAL AMOU		d. TOTAL AMOUNT	e. FEDERAL SHARE	I	this report is correct and complete ar	L .	·	7/28/81
73% S&W \$4,003.34 \$4,003.34 12. REMARKS: Attach any explanations deemed necessary or information required by Federal sponsoring agency in compliance			are for	outlays and unliquidated obligation the purposes set forth in the awarence			TELEPHONE (Area code, number and extension)		
govern	ing legislation.		-		docume		Grants & Contrac		404/894-4624



Office of Surface Mining

Division of Technical Services & Research

State Mining & Mineral Resources and Research Institutes

Washington, D.C. 20240

Quarterly SMMRRI Reports

Grant Recipient Type of Report Reporting Period Control Number(s) 12/4/80-9/30/81 Georgia Institute of Technology Final Technical G-5114003 Report

Project Title/Program

Allotment Grant for the Georgia Mining and Mineral Resources Institute

investigator(s) / Fellowships Recipients

John E. Husted, Director

Performing Organization:

Georgia Mining and Mineral Resources Institute

Summary:

All personal services charged to this grant were completed during the initial grant period December 4, 1980-June 30, 1981 and are adequately covered without duplication in the two Quarterly Reports for this period.

Other expenditures on this grant were for travel expenses for which the personal services were charged on Grant G-5114017, materials and supplies, and capital expenditures for which prior permission was obtained.

TS 7(3-80)