U.S. Environmental Protection Agency Region V

Superfund Document Management System (SDMS)

Lab Data Reference Sheet

Please contact the Superfund Records Manager for further information.

I. Unscannable item due to format

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II. Image Quality (Pages follow / No. of pages ____)

___ Resolution / Contrast

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

Cooler ID # EEU 129

CHAIN OF CUSTODY RECORD

REGION 5
230 South Dearborn Street
Chicago, Illinois 60604

PROJ. NO.: FOF8611-148
PROJECT NAME: IN0451/CASE 9307/SAS # 3758E
SAMPLERS: (Signature) [signature]

Superfund 4978

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	1 liter plastic CN	1 liter plastic total metals					REMARKS Low Conc. OTR	ITR	MATRIX
RW1	4/5/88	1115		X	RW1	2	1	1					EW316	88FA16531	WATER
DUP	4/5/88	1115		X	DUPLICATE	2	1	1					EW317	88FA16831 4/6/88 WK	WATER
RW2	4/5/88	1200		X	RW2	2	1	1					EW318	88FA16532	WATER
RW3	4/5/88	1220		X	RW3	2	1	1					EW319	88FA16533	WATER
RW4	4/5/88	1315		X	RW4	2	1	1					EW320	88FA16534	WATER
RW5	4/5/88	1440		X	RW5	2	1	1					EW321	88FA16535	WATER
RW6	4/5/88	1545		X	RW6	2	1	1					EW322	88FA16536	WATER
RW7	4/5/88	1615		X	RW7	2	1	1					EW323	88FA16537	WATER
DH	4/5/88	1235		X	BLANK	2	1	1					EW324	88FA16538	WATER

Lot #'s - All 1 liter plastics except the BLANK: C8048024
BLANK lot #'s - metals - C8042234
CN - C8048024
Metal waters have not been filtered

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[signature]	4/5/88 1900	[signature]			
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature) [signature]	Date / Time 4/6/88 10:13AM	Remarks Shipped via Federal Express to CRL Airbill # - 5857267382 C.O.C. #'s - 10602, 10603	

Distribution: White — Accompanies Shipment; Pink — Coordinator Field Files; Yellow — Laboratory File

5-13245

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

Coder ID # T T U 129

CHAIN OF CUSTODY RECORD

REGION 5
230 South Dearborn Street
Chicago, Illinois 60604

PROJ. NO.	PROJECT NAME
08811-148	IN0451 / CASE 9307 / SAS# 3758E

SAMPLERS: (Signature)

Supersed ~~5492~~ 4978 4/21/88 WB

REMARKS: Low Conc.

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	1 liter plastic CN	1 liter plastic total metals					QTR	TR	MATRIX
FW1	4/5/88	1115		X	FW1	2	1	1					FW316	88FA16531	WATER
DUP	4/5/88	1115		X	DUPLICATE	2	1	1					FW317	88FA16531	WATER
FW2	4/5/88	1208		X	FW2	2	1	1					FW318	88FA16532	WATER
FW3	4/5/88	1270		X	FW3	2	1	1					FW319	88FA16533	WATER
FW4	4/5/88	1215		X	FW4	2	1	1					FW320	88FA16534	WATER
FW5	4/5/88	1410		X	FW5	2	1	1					FW321	88FA16535	WATER
FW6	4/5/88	1515		X	FW6	2	1	1					FW322	88FA16536	WATER
FW7	4/5/88	1615		X	FW7	2	1	1					FW323	88FA16537	WATER
DH	4/5/88	1735		X	FIELD BLANK	2	1	1					FW324	88FA16541	WATER

Cont#5 - All 1 liter plastics except this FIELD BLANK: C804805Y

FIELD BLANK for #'s - MI#'s - 804723Y

CN - C804805Y

Metal waters have not been filtered

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[signature]	4/5/88 1900				
Relinquished by: (Signature)	**Date / Time**	**Received by: (Signature)**	**Relinquished by: (Signature)**	**Date / Time**	**Received by: (Signature)**
Relinquished by: (Signature)	**Date / Time**	**Received for Laboratory by: (Signature)**	**Date / Time**	**Remarks** Shipped via Federal Express to CLL AWB # - 5857767532 C.O.C. #'s - 10602, 10603	

Distribution: White — Accompanies Shipment; Pink — Coordinator Field Files; Yellow — Laboratory File

5-12945

ACTIVITY # C76100

ENVIRONMENTAL PROTECTION AGENCY
FOR THE TEAM: MINERALS - NUTRIENTS

DIVISION/BRANCH SUPERFUND (FIT) SAMPLE DATE 4/5/88 LAB ARRIVAL DATE 4/6/88 DUE DATE 4/27/88

DU NUMBER 4905 DATA SET NUMBER 4978 STUDY LINDEN ROAD PRIORITY N CONTRACTOR N

CRL LOG NUMBER	SAMPLE DESCRIPTION	CRL TAG#	WATER PHENOLICS UG PHENOL/L MIN 74818	WATER CYANIDE UG CN/L MIN 74919	WATER GROSS ALPHA P CI/L MIN 75020	WATER CR^{+6} UG CR^{+6}/L MIN 74616	WATER MERCURY UG HG/L MIN 74717
88FA16S31	RW1	5-077045		X			
88FA16D31	DUPLICATE	5-077052		X			
88FA16S32	RW2	5-077059		X			
88FA16S33	RW3	5-077071		X			
88FA16S34	RW4	5-077078		X			
88FA16S35	RW5	5-077085		X			
88FA16S36	RW6	5-077092		X			
88FA16S37	RW7	5-077099		X			
88FA16R04	BLANK	5-077206		X			

ACTIVITY # C76100

ENVIRONMENTAL PROTECTION AGENCY
FOR THE TEAM: METALS

DIVISION/BRANCH SUPERFUND (FIT) SAMPLE DATE 4/5/88 LAB ARRIVAL DATE 4/6/88 DUE DATE 4/27/88

DU NUMBER Y905 DATA SET NUMBER 4978 STUDY LINDEN ROAD PRIORITY N CONTRACTOR N

CRL LOG NUMBER	SAMPLE DESCRIPTION	CRL TAG #	TOTAL METALS WATER TOTAL ICAP UG/L MET111	TOTAL METALS WATER AS UG/L MET161	TOTAL METALS WATER PB UG/L MET1191	TOTAL METALS WATER SB UG/L MET1201	TOTAL METALS WATER SE UG/L MET1211	TOTAL METALS WATER TL UG/L MET1221
88FA16S31	RW1	5-077044	X	X	X	X	X	X
88FA16D31	DUPLICATE	5-077051	X	X	X	X	X	X
88FA16S32	RW2	5-077058	X	X	X	X	X	X
88FA16S33	RW3	5-077070	X	X	X	X	X	X
88FA16S34	RW4	5-077077	X	X	X	X	X	X
88FA16S35	RW5	5-077084	X	X	X	X	X	X
88FA16S36	RW6	5-077091	X	X	X	X	X	X
88FA16S37	RW7	5-077098	X	X	X	X	X	X
88FA16R04	BLANK	5-077205	X	X	X	X	X	X

ACTIVITY#C76100 (9)

ENVIRONMENTAL PROTECTION AGENCY
FOR THE TEAM: METALS

DIVISION/BRANCH SUPERFUND (FIT) SAMPLING DATE 4/5/88 LAB ARRIVAL DATE 4/6/88 DUE DATE 4/27/88

DU NUMBER Y905 DATASET NUMBER 4978 STUDY LINDEN ROAD PRIORITY N CONTRACTOR N

CRL LOG NUMBER	SAMPLE DESCRIPTION	MATRIX WATER TEST CO UNITS UG/L MET235826
88FA16	CRLTAG#	
S31	RW1 5-077044	X
D31	DUPLICATE 5-077051	X
S32	RW2 5-077058	X
S33	RW3 5-077070	X
S34	RW4 5-077077	X
S35	RW5 5-077084	X
S36	RW6 5-077091	X
S37	RW7 5-077098	X
R04	BLANK 5-077205	X

CRL V.2: 3/85

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION 5
CHICAGO, ILLINOIS

DATE 19 APR 1988

SUBJECT Review of Region 5 data for Linden Road

FROM Curtis Ross, Director
Region 5 Central Regional Laboratory

To Data User:

Attached are the results for

CRL Data Set Numbers: SF 4978
Sample Numbers: 88FA16531 - 537 / R04
Parameter(s) CN
Laboratory CRL

Results Status

(X) DATA ACCEPTABLE FOR USE*
( ) DATA QUALIFIED AS TO USE
( ) DATA UNACCEPTABLE FOR USE

* For data acceptability requirements refer to the method capability statement for the methods referenced

Comments by the Quality Control Coordinator.

If there are any questions regarding the data, refer them to Steve Parker, the Quality Control Coordinator, at 353-3805.

Please sign and date this form below, and return it with any comments to

Sylvia Griffin
Data Management Coordinator
Region 5 Central Regional Laboratory
(5SCRL)

RECEIVED BY/DATE:

Comments

DATA SET	SITE	DU/ACT
SF4978	Linden Road	Y905/C76100

SAMPLES	PARAMETER(S)
88FA16531-537/R04	CN

SAMPLED	RECEIVED	DUE	LAB
4/5/88	4/6/88	4/27/88	CRL

SHIPPED	DATA RECEIVED	CONTRACT
—	N/A	—

TEAM LEADER	SECTION CHIEF	QC COORD	DATA COORD
PP 4/18/88			Ag 4-19-88

Comments By Reviewer

DATA MANAGEMENT COORDINATOR

RECEIVED TRANSMITTED

CLERICAL SUPPORT

RECEIVED COMPLETED

(✓) REVIEWED ( ) UNREVIEWED PP 4/18/88 TEAM LEADER/DATE

( ) REVIEWED ( ) UNREVIEWED SECTION CHIEF/DATE

( ) REVIEWED ( ) UNREVIEWED QC COORDINATOR/DATE

REVIEWED BY CONTRACT COORDINATOR/DATE

RECEIVED 4-19-88 TRANSMITTED 4-19-88 DATA MANAGEMENT COORDINATOR Sylvia Puffer

QC QUALITY CONTROL COORDINATOR

ACTIVITY # C76100
OK-BP
4/18/88

ENVIRONMENTAL PROTECTION AGENCY
FOR THE TEAM: MINERALS - NUTRIENTS

DIVISION/BRANCH SUPERFUND (FIT) SAMPLE DATE 4/5/88 LAB ARRIVAL DATE 4/6/88 DUE DATE 4/27/88

DU NUMBER 4905 DATA SET NUMBER 4978 STUDY LINDEN ROAD PRIORITY N CONTRACTOR N

CRL LOG NUMBER	SAMPLE DESCRIPTION	CRL TAG#	WATER PHENOLICS UG PHENOL/L MIN 74818	WATER CYANIDE UG CN/L MIN 74919	WATER GROSS ALPHA P CI/L MIN 75020	WATER CR^{+6} UG CR^{+6}/L MIN 74616	WATER MERCURY UG HG/L MIN 74717
88FA16S31	RW1	5-077045		X K5			
88FA16D31	DUPLICATE	5-077052		X K5			
88FA16S32	RW2	5-077059		X K5			
88FA16S33	RW3	5-077071		X K5			
88FA16S34	RW4	5-077078		X K5			
88FA16S35	RW5	5-077085		X K5			
88FA16S36	RW6	5-077092		X K5			
88FA16S37	RW7	5-077099		X K5			
88FA16R04	BLANK	5-077206		X K5			
				R A Bass			
				4-15-88			
	The above samples were screened using auto UV method #						
			method	335-3			

* REGRESSION ANALYSIS * CSC VERSION 2.00 *

NAME OF ANALYST ---: RAP
PARAMETER NAME -----: CN
DATE OF ANALYSIS --: 01-03-1980

DATA SET NUMBER ---: 4978/4991
DU NUMBER ----------:

DEGREE OF FIT : 1

EQUATION : CONCENTRATION = -1.21227E-01
+5.62771E-01 * SIGNAL

COEFFICIENT OF DETERMINATION : .9993498

T-A-B-L-E O-F S-T-A-N-D-A-R-D-S

STANDARD	SIGNAL	CONCENTRATION	CALCULATED
1	+0.000	+0.000	-0.122
2	+9.500	+5.000	+5.225
3	+17.000	+10.000	+9.445
4	+46.000	+25.000	+25.766
5	+88.500	+50.000	+49.684

T-A-B-L-E O-F S-A-M-P-L-E-S

SAMPLE I.D.	SIGNAL	CONCENTRATION	
BL	+0.000	-0.122	≤15
CS (TV=20)	+37.000	+20.701	LIMIT 20±5
88FA16S31	+3.500	+1.848	
88FA16S32	+0.500	+0.160	
88FA16S33	+0.500	+0.160	
88FA16S34	+0.500	+0.160	
88FA16S35	+2.000	+1.004	
88FA16S36	+0.000	-0.122	
88FA16S37	+0.500	+0.160	
88FA16D31	+0.500	+0.160	
88FA16R04	+0.000	-0.122	
88CM09R01	+0.000	-0.122	
DUP S33	+0.500	+0.160	
SPK S32 (+25)	+51.000	+28.580	LIMIT 25±5
BL	+0.500	+0.160	
CS	+37.000	+20.701	

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION 5
CHICAGO, ILLINOIS

18 APR 1988

DATE:

SUBJECT: **Review of Region 5 data for** Linden Road

FROM: **Curtis Ross, Director**
Region 5 Central Regional Laboratory

To: **Data User:**

S. Griffin
12

U.S. ENVIRONMENTAL
REGIONAL LAB

Attached are the results for:

CRL Data Set Numbers: SF4978
Sample Numbers: 88FA16531-R04
Parameter(s): ICP
Laboratory: CRL

Results Status:

( ) **DATA ACCEPTABLE FOR USE***
(X) **DATA QUALIFIED AS TO USE**
( ) **DATA UNACCEPTABLE FOR USE**

* For data acceptability requirements, refer to the method capability statement for the methods referenced.

Comments by the Quality Control Coordinator:

See Comment

If there are any questions regarding the data, refer them to Steve Parker, the Quality Control Coordinator, at 353-3805.

Please sign and date this form below and return it with any comments to:

Sylvia Griffin
Data Management Coordinator
Region 5 Central Regional Laboratory
(5SCRL)

RECEIVED BY/DATE: .....
Comments:

cc: **Contractor's Reprentative**

Filed by/date:

DATA SET	SITE	DU/ACT.
SF 4978	Linden Road	Y905/C76ZZ

SAMPLES	PARAMETER(S)
88FA16 531, D31, 532, 533, 534, 535, 536, 537, R04	ICP

SAMPLED	RECEIVED	DUE	LAB
5 Apr 88	6 Apr 88	27 Apr 88	CRL

SHIPPED	DATA RECEIVED	CONTRACT
NA →		

TEAM LEADER	SECTION CHIEF	QC COORD.	DATA COORD.
JVM 15 Apr 88			Dg 4-18-88

Comments By Reviewer: Dick Dilg's first run on his own
V, Ti high on QC but all samples are < d.l. so
allowed JVM

DATA MANAGEMENT COORDINATOR

RECEIVED **TRANSMITTED**

CLERICAL SUPPORT

RECEIVED **COMPLETED**

(X) REVIEWED ( ) UNREVIEWED **TEAM LEADER/DATE** John V. Moon 15 Apr 88

( ) REVIEWED ( ) UNREVIEWED **SECTION CHIEF/DATE**

( ) REVIEWED ( ) UNREVIEWED **QC COORDINATOR/DATE**

REVIEWED BY CONTRACT COORDINATOR/DATE

RECEIVED 4-18-88 **TRANSMITTED** 4-18-88 **DATA MANAGEMENT COORDINATOR** Sylvia Duffin

CC: QUALITY CONTROL COORDINATOR

JLM
15 Apr-88

RJD 4-14-88

LINDEN ROAD 8TFA05 WU ZZ
Y905
C761 ZZ

DATA SET : SF4978

ELEMENT	FA16R04	FA16S31	FA16D31	FA16S32
AG ug/l	< 6.00	< 6.00	< 6.00	< 6.00
AL	< 80.0	< 80.0	< 80.0	< 80.0
B	< 80.	83.	< 80.	165.
BA	< 6.0	26.9	27.2	37.1
BE	< 1.00	< 1.00	< 1.00	< 1.00
CO	< 6.00	< 6.00	< 6.00	< 6.00
CR	< 8.00	< 8.00	< 8.00	< 8.00
CU	< 6.0	12.7	12.9	44.9
FE	< 80.	102.	< 80.	119.
LI	< 10.0	10.0	< 10.0	12.9
MN	< 5.00	< 5.00	< 5.00	< 5.00
MO	< 15.0	< 15.0	< 15.0	< 15.0
NI	< 15.0	< 15.0	< 15.0	< 15.0
SN	< 40.0	< 40.0	< 40.0	< 40.0
SR	< 10.	78.	78.	106.
TI	< 25.0	< 25.0	< 25.0	< 25.0
V	< 5.00	< 5.00	< 5.00	< 5.00
Y	< 5.00	< 5.00	< 5.00	< 5.00
ZN	< 40.	761.	710.	2150.
mg/l				
CA	< 0.	78.	78.	104.
K	< 5.00	< 5.00	< 5.00	< 5.00
MG	< 0.1	26.6	26.4	37.8
NA	< 1.0	18.6	18.4	20.3

QJD 4-14-88

Jun 15/BCH

LINDEN ROAD

DL1:[001,054]RUN612.BRN 14-APR-88 09:51:26 PAGE 3

DATA SET : SF4978

ELEMENT		FA16S33		FA16S34		FA16S35		FA16S36
AG ug/L	<	6.00	<	6.00	<	6.00	<	6.00
AL	<	80.0	<	80.0	<	80.0	<	80.0
B	<	80.0	<	80.0	<	80.0	<	80.0
BA		25.9		33.2		29.4		14.8
BE	<	1.00	<	1.00	<	1.00	<	1.00
CO	<	6.00	<	6.00	<	6.00	<	6.00
CR	<	8.00	<	8.00	<	8.00	<	8.00
CU	<	6.0		6.5		7.3		31.9
FE	<	80.0	<	80.0	<	80.0	<	80.0
LI	<	10.0	<	10.0	<	10.0	<	10.0
MN	<	5.00	<	5.00	<	5.00	<	5.00
MO	<	15.0	<	15.0	<	15.0	<	15.0
NI	<	15.0	<	15.0	<	15.0	<	15.0
SN	<	40.0	<	40.0	<	40.0	<	40.0
SR		74.8		67.6		63.5		43.5
TI	<	25.0	<	25.0	<	25.0	<	25.0
V	<	5.00	<	5.00	<	5.00	<	5.00
Y	<	5.00	<	5.00	<	5.00	<	5.00
ZN		793.	<	40.		431.		207.
mg/L								
CA		77.9		73.0		66.4		47.0
K	<	5.00	<	5.00	<	5.00	<	5.00
MG		27.0		28.2		19.2		13.5
NA		17.1		3.48		21.3		5.94

Jun
15 April

4-14-88

LINDEN ROAD

DATA SET : SF4978

ELEMENT		FA16S37
AG ug/l	<	6.00
AL	<	80.0
B		85.9
BA		40.5
BE	<	1.00
CO	<	6.00
CR	<	8.00
CU		21.8
FE		498.
LI	<	10.0
MN		5.49
MO	<	15.0
NI	<	15.0
SN	<	40.0
SR		63.4
TI	<	25.0
V	<	5.00
Y	<	5.00
ZN		608.
mg/l		
CA		63.2
K	<	5.00
MG		19.3
NA		32.4

DATA SET : METALS

JVM 15 Apr 88

ELEMENT		DET LIM	BLANK00	BLANK01
AG	ug/l	6.000	-1.010	0.254
AL		80.000	-5.240	0.154
B		80.00	-3.53	-3.92
BA		6.000	-0.572	-0.305
BE		1.000	0.255	0.242
CO		6.000	-1.430	0.447
CR		8.000	1.760	0.762
CU		6.000	-0.190	0.237
FE		80.00	-0.55	-1.71
LI		10.000	0.992	-0.983
MN		5.000	0.190	-0.036
MO		15.00	2.46	2.34
NI		15.00	-6.47	-8.63
SN		40.0	3.1	-10.6
SR		10.000	-0.053	-0.170
TI		25.000	0.201	-0.531
V		5.00	2.62	1.63
Y		5.000	-0.254	0.212
ZN		40.000	-0.655	0.958
CA	mg/l	0.500	-0.002	-0.000
CA		0.500	-0.005	-0.012
K		5.00	-0.92	-1.83
MG		0.100	-0.001	-0.001
NA		1.000	-0.001	-0.019
AL		20.000	0.001	-0.009
FE		20.000	-0.030	-0.076
ZN		20.000	-0.032	-0.185

Vanadium checked with WP ampule and all samples values < detection limit

All values +/- detection limits.

4-14-88

JVM
15 Apr 88

DATA SET : PREPBLNK

ELEMENT	DET LIM	BLANK12
AG mg/l	6.000	-0.885
AL	80.0	15.5
B	80.0	24.3
BA	6.000	0.420
BE	1.000	0.243
CO	6.000	-0.047
CR	8.000	-0.000
CU	6.00	1.52
FE	80.0	11.9
LI	10.000	0.143
MN	5.000	0.507
MO	15.00	5.02
NI	15.00	-6.01
SN	40.00	-6.42
SR	10.000	0.364
TI	25.0	12.0
V	5.00	2.05
Y	5.000	0.042
ZN	40.00	5.47
CA mg/l	0.500	0.050
CA	0.500	0.042
K	5.00	-1.33
MG	0.100	0.014
NA	1.000	0.246
AL	20.000	0.021
FE	20.000	0.024
ZN	20.000	-0.008

All +/- detection limits.

4-14-88

DL1:[001,054]RUN612.BRN 14-APR-88 09:33:46 PAGE 5

DATA SET : METALS SAMPLE ID : SILVERQ

JVM 15 Apr 88

ELEMENT	TRUE	MEASURED	% DEV
AG ug/l	49.50	47.20	-4.56

DL1:[001,054]RUN612.BRN 14-APR-88 09:35:00 PAGE 6

DATA SET : METALS SAMPLE ID : SILVERQ

ELEMENT	TRUE	MEASURED	% DEV
AG ug/l	49.500	49.000	-0.987

All values +/- 10%.

RJD 4-14-88

Jm
15 Apr 88

DL1:[001,054]RUN612.BRN 14-APR-88 09:28:50 PAGE 1

DATA SET : METALS SAMPLE ID : AQC.086

ELEMENT		TRUE	MEASURED	% DEV
~~AG~~	mg/l	~~50.~~	~~163.~~	~~229.~~
AL		4750.00	4650.00	-2.18
B		1080.000	1080.000	0.417
BA		1520.000	1530.000	0.362
BE		745.000	747.000	0.261
CO		992.00	1010.00	1.49
CR		1590.000	1580.000	-0.791
CU		1190.000	1190.000	-0.318
FE		3860.00	3990.00	3.32
LI		818.000	813.000	-0.686
MN		1360.00	1380.00	1.25
MO		809.000	812.000	0.325
NI		1210.000	1200.000	-0.769
SN		2420.000	2400.000	-0.728
SR		903.00	914.00	1.21
TI		1240.00	1320.00	5.84 *
V		750.0	861.0	14.8 *
Y		792.00	806.00	1.80
ZN		2850.00	2900.00	1.59
CA	mg/l	13.40	13.70	2.10
CA		13.40	13.10	-2.53
K		97.60	93.60	-4.07
MG		5.250	5.290	0.733
NA		18.30	18.80	3.14
~~AL~~		~~4.37~~	~~4.40~~	~~-7.79~~
~~FE~~		~~4.28~~	~~3.98~~	~~-7.05~~
~~ZN~~		~~2.26~~	~~2.03~~	~~-4.76~~

All values +/- 5% except Ti and V.

QJD 4-14-88

DATA SET : METALS SAMPLE ID : AQC.086

15 Apr 88

ELEMENT	TRUE	MEASURED	% DEV
~~AG~~ ug/l	~~50.~~	~~165.~~	~~233.~~
AL	4750.00	4700.00	-1.11
B	1080.00	1100.00	2.02
BA	1520.00	1560.00	2.60
BE	745.00	754.00	1.20
CO	992.00	1020.00	2.74
CR	1590.000	1590.000	-0.397
CU	1190.00	1210.00	1.10
FE	3860.00	4040.00	4.54
LI	818.000	821.000	0.377
MN	1360.00	1390.00	2.14
MO	809.00	817.00	1.04
NI	1210.000	1220.000	0.782
SN	2420.000	2410.000	-0.251
SR	903.00	933.00	3.34
TI	1240.00	1340.00	7.44
V	750.0	869.0	15.9*
Y	792.00	820.00	3.62
ZN	2850.00	2940.00	2.86
CA mg/l	13.40	14.00	4.02
CA	13.40	13.20	-1.84
K	97.60	89.70	-8.07
MG	5.25	5.33	1.57
NA	18.30	19.00	4.28
~~AL~~	~~4.77~~	~~4.42~~	~~-7.41~~
FE	4.28	3.94	-7.89
ZN	2.76	2.59	-6.22

All values +/- 10% except V.

RJD 4-14-88

Jw
15 Apr 88

DATA SET : CHECK

ELEMENT	DET LIM	HIGHAQC	HIGHAQC
AG ug/l	6.00	-3.28	-3.75
AL	80.	95600.	98400.
B	80.000	2.150	0.433
BA	6.000	0.458	0.801
BE	1.000	0.760	0.851
CO	6.000	-1.460	-0.330
CR	8.00	-1.13	1.59
CU	6.0	-17.0	-17.1
FE	80.	98100.	101000.
LI	10.0	10.3	10.2
MN	5.0	36.6	37.7
MO	15.0	-17.5	-21.0
NI	15.00	-8.01	-5.08
SN	40.0	-6.5	-26.3
SR	10.00	1.88	1.95
TI	25.00	9.48	9.13
V	5.0	25.3	24.4
Y	5.000	0.381	0.254
ZN	40.	93400.	95900.
CA mg/l	0.	130.	130.
CA	0.5	95.3	97.8
K	5.00	-1.62	-2.59
MG	0.1	72.7	74.8
NA	1.000	0.040	0.075
AL	20.0	89.2 *	91.3
FE	20.0	92.7	95.3
ZN	20.0	92.3	94.6

All high AQC value +/- 10% except Al on first (initial) check.

DJ.D 4-14-88

Jvm
95 Ppm

DL1:[001,054]RUN612.BRN 14-APR-88 09:49:42 PAGE 1

DATA SET : SF4978 SAMPLE ID : FA16S34

ELEMENT		Det lim	SAMPLE	DUPLICATE	AVERAGE	R P D
AG	ug/l	6.0	3.	-1.	1.	308.
AL			-169.000	-170.000	-170.000	-0.448
B		80.0	52.8	38.3	45.6	31.7
BA			33.20	33.60	33.40	1.38
BE		1.0	0.1	0.1	0.1	15.9
CO		6.0	0.7	0.4	0.6	38.3
CR		8.0	-1.	0.	-1.	-256.
CU		6.0	6.5	4.9	5.7	28.3
FE		80	29.1	24.9	27.0	15.4
LI			9.62	9.89	9.75	2.76
MN			1.28	1.39	1.34	8.79
MO		15.0	2.	-1.	0.	615.
NI		15.0	-10.0	-4.6	-7.3	-73.7
SN		40.0	-3.	12.	5.	314.
SR			67.60	68.60	68.10	1.43
TI			14.900	15.000	14.900	0.788
V			1.670	1.660	1.660	0.413
Y		5.0	0.	0.	0.	200.
ZN			9.54	8.83	9.18	7.73
~~CA~~	~~mg/l~~		~~65.100~~	~~65.300~~	~~65.200~~	~~0.434~~
CA	mg/l		73.00	73.80	73.40	1.14
K		5.0	-0.	-0.	-0.	-144.
MG			28.20	28.50	28.40	1.19
NA			3.480	3.500	3.490	0.640
~~AL~~			~~0.04~~	~~0.04~~	~~0.04~~	~~4.1~~
~~BE~~			~~0.3~~	~~0.3~~	~~0.3~~	~~16.4~~
~~ZN~~			~~-0.~~	~~0.~~	~~0.~~	~~705.~~

All values ± 10% or ± detection limit.

RJD 4-14-88

Jm
15 Apr 88

DL1:[001,054]RUN612.BRN 14-APR-88 09:55:59 PAGE 1

DATA SET : SF4978 SAMPLE ID : FA16S34

ELEMENT	SAMPLE	SPIKE	SPIKE ADDED	% RECOVERY
AG ug/l	2.6	46.8	50.0	88.3
AL	-169.0	538.0	800.0	88.4
B	52.8	773.0	800.0	90.0
BA	33.2	233.0	200.0	99.9
BE	0.	10.	10.	102.
CO	0.7	100.0	100.0	99.7
CR	-1.	100.	100.	102.
CU	6.5	54.0	50.0	95.0
FE	29.1	815.0	800.0	98.3
LI	10.	64.	54.	101.
MN	1.	102.	100.	101.
MO	2.	107.	100.	105.
NI	-10.0	137.0	150.0	97.8
SN	-3.	419.	400.	105.
SR	68.	1100.	1000.	103.
TI	15.	121.	100.	106.
V	2.	57.	50.	111.
Y	0.	51.	50.	102.
ZN	10.	410.	400.	100.
~~SA~~ mg/l	~~65.~~	~~130.~~	~~50.~~	~~130.~~
CA	73.0	119.0	50.0	91.1
K	-0.2	18.8	20.0	95.4
MG	28.2	52.5	25.0	97.3
NA	3.	55.	50.	104.
~~AL~~	~~0.94~~	~~0.80~~	~~22.0~~	~~3.35~~
~~FE~~	0.3	1.2	1.0	96.4
~~ZN~~	-0.012	0.318	100.000	0.330

All spikes +/- 15%.

RJD 4-14-88

Jvm
15 Apr

U.S. Environmental Protection Agency
Environmental Monitoring and Support Laboratory - Cincinnati

WATER POLLUTION QUALITY CONTROL CHECK SAMPLES

True Values for TRACE METALS I

When diluted to volume according to instructions, the samples contain the following compounds at concentrations expressed as µg/liter. The mean recovery ($\bar{X}$) and the standard deviation (S) are listed below along with the true value and the 95% confidence interval. The true value represents the actual weighing and subsequent dilutions. The 95% confidence interval represents the mean recovery plus or minus two standard deviations ($\bar{X}$ + 2S) and was developed from regression equations from Performance Evaluation Studies.

Parameter	Sample	True Value	$\bar{X}$	S	95% Confidence Interval
Al	1	107	135	23.3	88.9 - 182
	2	729	745	63.5	618 - 872
As	1	26.7	26.7	3.6	19.5 - 33.9
	2	235	234	25.9	182 - 286
Be	1	29.0	29.3	2.4	24.5 - 34.1
	2	235	232	12.5	207 - 257
Cd	1	9.1	8.7	1.0	6.7 - 10.8
	2	39.0	36.9	2.9	31.0 - 42.8
Cr	1	6.8	7.0	1.1	4.7 - 9.2
	2	261	258	24.2	209 - 306
Co	1	42.6	42.3	3.1	36.1 - 48.5
	2	261	259	15.0	229 - 289
Cu	1	8.9	9.6	1.8	6.1 - 13.1
	2	339	335	16.7	302 - 369
Fe	1	20.9	22.2	5.0	12.2 - 32.2
	2	797	789	46.7	695 - 882
Pb	1	42.7	43.7	5.0	33.7 - 53.7
	2	435	430	30.6	369 - 492
Mn	1	12.9	12.7	2.2	8.2 - 17.2
	2	348	346	20.6	304 - 387
Hg	1	0.67	0.69	0.19	0.3 - 1.1
	2	8.73	8.50	1.29	5.9 - 11.1
Ni	1	17.1	17.3	2.9	11.5 - 23.0
	2	207	206	14.5	177 - 235
Se	1	10.9	10.2	1.9	6.5 - 13.9
	2	50.2	46.9	7.7	31.5 - 62.4
V	1	129	130	15.0	99.9 - 160
	2	846	864	68.9	726 - 1002
Zn	1	9.8	10.7	3.6	3.6 - 17.8
	2	418	415	17.2	381 - 449

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WP
284

JWM
75 Pr'd

Run No. 612

Prep. by R. DILG Date 4-12-88 Anal. by R. DILG Date 4-13-88

Beaker No.	Data Set	Sample	Notes	Beaker No	Data Set	Sample	Notes
1	SF4978	FA16 S31		26			
2		FA16 D31		27			
3		FA16 S32		28			
4		S33		29			
5		S34		30			
6		S34	Dup	31			
7		S34	Spike	32			
8		S35		33			
9		S36		34			
10		S37		35			
11		FA16 R04		36			
12			BLANK	37			
13				38			
14				39			
15				40			
16				41			
17				42			
18				43			
19				44			
20				45			
21				46			
22				47			
23				48			
24				49			
25				50			

LINDEN ROAD

8TFA05 WUZZ
Y905
C76133

Run 612

BRN EDT
page 1

```
P
000017 000013 000007 177777
@DL
   DEVICE TT001: NOT IN CONFIGURATION
DEVICE TT002: NOT IN CONFIGURATION
DEVICE TT003: NOT IN CONFIGURATION

  RSX-11M V3.2 BL26   124K   MAPPED
>RED DL:=SY:
>RED DL:=LB:
>MOU DL:MRK3SYS
>@DL:[1,2]STARTUP
>;
>;                JARRELL-ASH SAIL IV      V1.40
>;
>;
>;       THIS VERSION WILL ASSIGN CALIBRATION, SCANNING, AND LOGGING FILES
>;       TO THE ALTERNATE DISK DRIVE (THROUGH REASSIGNMENT OF SY1:).  PLEASE
>;       INSURE THAT A DATA (SCRATCH) DISK IS LOADED BEFORE PROCEEDING, OR
>;       ASSIGN SY1: BACK TO SY0:.
>;
>* PLEASE ENTER DATE AND TIME (DD-MMM-YY HH:MM) [S]: 14-APR-88 08:15
>* PLEASE ENTER LINE WIDTH OF CONSOLE DEV [D R:86.-132. D:86.]:
>* DOES INSTRUMENT CONTAIN AN AUTOSAMPLER? [Y/N]:N
MOUNT ** VOLUME INFORMATION **
CLASS      = FILES 11
DEVICE     = DL1:
LABEL      = SCRATCH
UIC        = [1,1]
VOL PRO    = [RWED,RWED,RWED,RWED]
FILE PRO   = [RWED,RWED,RWED,R]
```

```
CMAR        = LJ
ACP NAME    = F11ACP
>$
>$
>$
>$
>$                SAIL PROCESSOR V1.11
>$
>$
>* ARE YOU WORKING FROM A CRT (VIDEO) TERMINAL? [Y/N]:N
>$
>$
>$
>$                        - MAIN MENU -
>$      CATEGORIES:
>$
>$                1.  EXIT (TO MONITOR CONSOLE ROUTINE - MCR)
>$                2.  OPERATE INSTRUMENT
>$                3.  EDIT CONTROL TABLES OR FILES
>$                4.  GENERATE REPORT(S)
>$                5.  PLOT ANALYTICAL RESULTS
>$                6.  CALIBRATE SPECTROMETER
>$                7.  PERFORM FILE MAINTENANCE
>$                8.  PERFORM DISK MAINTENANCE
>$                9.  HELP
>$
>$
>* PLEASE ENTER YOUR CATEGORY CHOICE [D R:1.-9.]: 1
>@ <EOF>
>PIP
MCR -- ILLEGAL FUNCTION
>PIP
PIP>DL1:/DF
PIP>BRNSRTRPT.TMP$1=BRNSRTRPT.WTR$1/SU
PIP>^Z
>RUN BRNEDT


INPUT FILE NAME ? RUN612

     TYPES OF VIEW


     FULL  VIEW  --  [FU]
     BRIEF VIEW  --  [BR]
     NONE        --  [NO]


ENTER THE TYPE OF VIEW [FU|BR|NO] : FU

     TEXT STRING                    BLOCK NO.       ERROR

 METALS/BLANK00/B                 2
 METALS/AQC.086/C                 4
 METALS/SILVERQ/C                 6
 METALS/HIGHAQC/C                 8
 METALS/BLANK01/B                10
 METALS/BLANK02/B                12
 METALS/HIH.AQC/C                14
 METALS/SILVER./C                16
 METALS/HIGH.QC/C                18
 METALS/BLNK.00/B                20
 METALS/AQC-086/C                22
 METALS/SILV.RQ/C                24
 METALS/HIGH.QC/C                26
 SF4978/FA16S31/S                28
```

```
SF4978/FA16S31/S                30
SF4978/FA16S32/S                32
SF4978/FA16S33/S                34
SF4978/FA16S34/S                36
SF4978/FA16S34/D                38
SF4978/FA16S34/P                40
SF4978/FA16S35/S                42
SF4978/FA16S36/S                44
SF4978/FA16S37/S                46
SF.4978/FA16S37/S                 48
SF4978/FA16R04/S                50
PREPBLNK/BLANK12/B                  52
METALS/BLNK.01/B                54
METALS/AQC-086/C                56
METALS/SILV.RQ/C                58
METALS/HIGH.QC/C                60
```

```
STRING [IN]=STRING

STRING [IN]     : String to be changed
         =      : Must be part of INPUT to delimit the string
STRING          : Data set [*]/Sample ID [*]/QC ID [*]
            /'s   Must appear on right of '=' sign
            *'s   Apply only if /'s appear in STRING [IN]
'.' [Period]    : To terminate Text Editing Session
```

```
TX>METALS/BLANK00/B=REMOVE/BLANK00/B
     TEXT CHANGED IN BLOCK NO. --   2  : REMOVE/BLANK00/B
TX>METALS/SILVER^U
METALS/AQC.086/C=REMOVE/AQC.086/C
     TEXT CHANGED IN BLOCK NO. --   4  : REMOVE/AQC.086/C
TX>METALS/SILVERQ/C=REMOVE/SILVERQ/C
     TEXT CHANGED IN BLOCK NO. --   6  : REMOVE/SILVERQ/C
TX>METALS/HIGHAQC/C=REMOVE/HIGHAQC/C
     TEXT CHANGED IN BLOCK NO. --   8  : REMOVE/HIGHAQC/C
TX>METALS/BLANK01/B=REMOVE/BLANK01/B
     TEXT CHANGED IN BLOCK NO. --  10  : REMOVE/BLANK01/B
TX>METALS/BLANK02/B=REMOVE/BLANK02/B
     TEXT CHANGED IN BLOCK NO. --  12  : REMOVE/BLANK02/B
TX>METAS/HIH.AQC/C^U
METALS/HIH.AQC/C=REMOVE/HIH.AQC/C
     TEXT CHANGED IN BLOCK NO. --  14  : REMOVE/HIH.AQC/C
TX>METALS/SILVER./C=METALS/\/SLATEM\^R
METALS/SILVER./C=REMOVE/SILVER./C
     TEXT CHANGED IN BLOCK NO. --  16  : REMOVE/SILVER./C
TX>METALS/G\G\HIGH.QC/C=^R
METALS/HIGH.QC/C=REMOVE/HIGH.QC/C
     TEXT CHANGED IN BLOCK NO. --  18  : REMOVE/HIGH.QC/C
TX>METALS/BLNK.00/B=METALS/BLANK00/B
     TEXT CHANGED IN BLOCK NO. --  20  : METALS/BLANK00/B
TX>METALS/AQC.086\680.\^R
METALS/AQC-086/C=METALS/AQC.086/C
     TEXT CHANGED IN BLOCK NO. --  22  : METALS/AQC.086/C
TX>METALS/SILVER\RE\.RQ/C=^R
METALS/SILV.RQ/C=METALS/SILVERQ/C
     TEXT CHANGED IN BLOCK NO. --  24  : METALS/SILVERQ/C
TX>METALS/HIGH.QC/C=METALS/HIGHAQC/C
     TEXT CHANGED IN BLOCK NO. --  26  : METALS/HIGHAQC/C
TX>METALS/BLNK.01/B=METALS/BLANK01/B
     TEXT CHANGED IN BLOCK NO. --  54  : METALS/BLANK01/B
TX>METALS/AQC-086/C=METALS/AQC.086/C
```

```
     TEXT CHANGED IN BLOCK NO. --   56   : METALS/AQC.086/C
TX>METALS/SILVER\RE\.RQ/C=^R
METALS/SILV.RQ/C=METALS/SILVERQ/C
     TEXT CHANGED IN BLOCK NO. --   58   : METALS/SILVERQ/C
TX>METALS/HIGH.QC/C=METALS/HIGHAQC/C
     TEXT CHANGED IN BLOCK NO. --   60   : METALS/HIGHAQC/C
TX>.



     DO YOU WANT TO EXIT [N!Y] : Y
>RUN BRNRPT

     DO YOU WANT BLANK        REPORT [Y!N] : Y

     DO YOU WANT CHECK SAMPLE REPORT [Y!N] : Y

     DO YOU WANT DUPLICATE    REPORT [Y!N] : Y

     DO YOU WANT SAMPLE       REPORT [Y!N] : Y

     DO YOU WANT SPIKE        REPORT [Y!N] : Y


USE SET SPIKE VALUES [S] OR VALUES FROM A BURN FILE [F] : S
 CHECK SAMPLE DATA HANDLING TO BE DONE
     ENTER THE BURN FILNAME


INPUT FILE NAME ? RUN612

1-4 : THESE MASKS ARE CURRENTLY NOT SET UP
5   : INPUT ELEMENTS TO BE REPORTED
6   : INPUT ELEMENTS NOT TO BE REPORTED



     ENTER THE MASK NUMBER (1..6 ONLY) : 6
      ENTER ELEMENT(s) NOT TO BE REPORTED
     MSK>LV
     MSK>PB
     MSK>AS
     MSK>CD
     MSK>


     ENTER THE NUMBER OF SIGNIFICANT DIGITS (1..3) : 3
NUMBER OF RECORDS TO BE SORTED     35
```

RUN 612

```
000017 000013 000007 177777
@DL
   DEVICE TT001: NOT IN CONFIGURATION
DEVICE TT002: NOT IN CONFIGURATION
DEVICE TT003: NOT IN CONFIGURATION

  RSX-11M V3.2 BL26   124K   MAPPED
>RED DL:=SY:
>RED DL:=LB:
>MOU DL:MRK3SYS
>@DL:[1,2]STARTUP
>;
>;              JARRELL-ASH SAIL IV     V1.40
>;
>;
>;      THIS VERSION WILL ASSIGN CALIBRATION, SCANNING, AND LOGGING FILES
>;      TO THE ALTERNATE DISK DRIVE (THROUGH REASSIGNMENT OF SY1:).  PLEASE
>;      INSURE THAT A DATA (SCRATCH) DISK IS LOADED BEFORE PROCEEDING, OR
>;      ASSIGN SY1: BACK TO SY0:.
>;
>* PLEASE ENTER DATE AND TIME (DD-MMM-YY HH:MM) [S]: 13-APR-88 08:15
>* PLEASE ENTER LINE WIDTH OF CONSOLE DEV [D R:86.-132. D:86.]:
>* DOES INSTRUMENT CONTAIN AN AUTOSAMPLER? [Y/N]:N
MOUNT ** VOLUME INFORMATION **
CLASS      = FILES 11
DEVICE     = DL1:
LABEL      = SCRATCH
UIC        = [1,1]
VOL PRO    = [RWED,RWED,RWED,RWED]
FILE PRO   = [RWED,RWED,RWED,R]
CHAR       = []
ACP NAME   = F11ACP
```

```
>;
>;
>;
>;
>;                SAIL PROCESSOR V1.11
>;
>;
>* ARE YOU WORKING FROM A CRT (VIDEO) TERMINAL? [Y/N]:N
>;
>;
>;
>;                        - MAIN MENU -
>;     CATEGORIES:
>;
>;              1.  EXIT (TO MONITOR CONSOLE ROUTINE - MCR)
>;              2.  OPERATE INSTRUMENT
>;              3.  EDIT CONTROL TABLES OR FILES
>;              4.  GENERATE REPORT(S)
>;              5.  PLOT ANALYTICAL RESULTS
>;              6.  CALIBRATE SPECTROMETER
>;              7.  PERFORM FILE MAINTENANCE
>;              8.  PERFORM DISK MAINTENANCE
>;              9.  HELP
>;
>;
>* PLEASE ENTER YOUR CATEGORY CHOICE [D R:1.-9.]: 1
>@ <EOF>
>CTE
CONTROL TABLE EDITOR     V2.0


CTE>
(CR)EATE, (ED)IT, (PR)INT, OR (EX)IT? ED

ACT? SED4

GROUP? 4

MAX ROW 25


1 LCN 2 $K1

1 K1 - .19130 0.

1 K1  .00000 ++

2 K1  .00000

3 K1 5.56800 0.

4 K1  .22400 0.

5 K1  .44700 0.

6 K1  .28590 0.

7 K1 - .01720 0.

8 K1  .00832 0.

9 K1  .00000 0.

10 K1  .00000 0.
```

```
11 K1 - .00280 0.

12 K1 - .17760 0.

13 K1  .18400 0.

14 K1 - .10800 0.

15 K1  .02969 0.

16 K1 -2.22700 0.

17 K1  .00443 0.

18 K1 - .02400 0.

19 K1 - .19490 0.

20 K1 - .05420 0.

21 K1 - .00420 0.

22 K1  .00509 0.

23 K1  .12823 0.

24 K1  .00000 0.

25 K1  .00000 0.

1 K1  .00000 ^Z
GROUP? ^Z
ACT? ^Z

CTE>
(CR)EATE, (ED)IT, (PR)INT, OR (EX)IT? PR

ACT? SED4

GROUP? 4

PRINT ALL? Y
ACT SED4  LENGTH 3102

GROUP 4  LENGTH 308
```

ROW	LCN	ELEMENT	K1	K2
1	2	FE	.00000	.00000
2	2	V	.00000	.00000
3	4	AL	.00000	.00000
4	4	FE	.00000	.00000
5	5	FE	.00000	.00000
6	7	FE	.00000	.00000
7	8	FE	.00000	.00000
8	8	AS	.00000	.00000
9	8	NI	.00000	.00000
10	9	NI	.00000	.00000
11	10	FE	.00000	.00000
12	11	FE	.00000	.00000
13	14	FE	.00000	.00000
14	15	FE	.00000	.00000
15	17	CU	.00000	.00000
16	17	AL	.00000	.00000
17	17	FE	.00000	.00000

18	18	AL	[illegible]	.00000
19	18	FE	.00000	.00000
20	21	FE	.00000	.00000
21	21	CR	.00000	.00000
22	23	CU	.00000	.00000
23	23	FE	.00000	.00000
24	23	NI	.00000	.00000
25	26	K	.00000	.00000

```
GROUP? ^Z
ACT? ^Z

CTE>
(CR)EATE, (ED)IT, (PR)INT, OR (EX)IT? EX

>SAT
Sample Analysis Task     uPOLY version: v2.0
AA
Enter ACT's name>SED4
SAT>@GO
D2
DR
EC
SAT --End of command file
SAT>PF
        Profile which Physical Channel ?>13
        Profile which Physical Channel ?>
SAT>IS
BLNK TEN1 TEN2 TEN3 TEN4 CAZN ALFE
SAT>@LOOKC
Enter Text String>BLNK

BURN # 1          SED4     13-APR-88 10:17:18
BLNK
5302.5
1.7546   18.700   10.029   -6.824   .00001   -.4689   -1.186   .57759   -.2350   1.0303
13.386   -4.917   -.8853   -4.752   -1.966   5.3124   8.3520   -.9987   -2.365   -.7107
-.4814   1.8982   .06711   .03686   -.5101   .00821   .01371   -.0529   -.1477   -.2071

BURN # 2          SED4     13-APR-88 10:17:43
BLNK
5304.0
2.4438   14.555   -8.853   -7.343   -.1135   -.3506   2.3291   3.3495   -4.111   1.0300
14.275   -4.586   -.7392   -6.673   -3.327   1.7690   17.065   -.9006   -2.240   1.5790
-.4811   1.9391   .06661   .03813   -.5815   .00707   .02861   -.0477   -.1152   -.0879

BURN # 3          SED4     13-APR-88 10:18:08
BLNK
5302.5
1.9836   20.621   16.048   -4.240   1.0215   -.3481   -.2000   -.3235   4.5238   1.0303
13.386   -3.438   -.5764   -4.218   -2.873   5.3124   -1.671   -.7917   -1.986   2.5270
-.1047   2.1880   .06657   .04665   -.1491   .00649   .04629   -.0358   -.1205   -.0954

AVERAGE N=3       SED4     13-APR-88 10:18:17
BLNK
  LV
5303.0
  AG       AL       AS       B        BA       BE       CD       CO       CR       CU
2.0607   17.959   5.7415   -6.136   .30266   -.3892   .31425   1.2012   .05914   1.0302
  FE       LI       MN       MO       NI       PB       SN       SR       TI       V
13.682   -4.314   -.7336   -5.214   -2.722   4.1313   7.9152   -.8970   -2.197   1.1317
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   T        ZN       CA       CA       K        MG       NA       AL       FE       ZN
-.3557   2.0084   .06676   .04055   -.4136   .00726   .02954   -.0454   -.1278   -.1301
SAT --End of command file
SAT>@LLK^U
SAT>@LOOKC
Enter Text String>BLNK

BURN # 1          SED4     13-APR-88 10:21:42
BLNK
5303.0
.38161   11.603   -8.025   -7.481   .56742   -.4295   -.3716   -1.086   .99868   1.5921
10.683   -1.972   -.5019   -2.402   -6.956   30.099   20.553   -.8452   -1.540   .86857
-.6069   2.5299   .06289   .04339   -.4926   .00798   .03199   -.0387   -.0245   -.1341

BURN # 2          SED4     13-APR-88 10:22:07
BLNK
5304.0
-.5322   6.4270   -6.512   -7.666   -.2269   -.3506   -.1145   -1.917   2.7606   1.1704
10.329   -4.586   -.6620   -6.352   -1.966   -3.542   3.9947   -.9006   -2.089   1.8158
-.4811   1.5916   .06335   .03908   .11774   .00660   .01550   -.0387   -.0695   -.1207

BURN # 3          SED4     13-APR-88 10:22:32
BLNK
5303.0
-.0763   10.051   1.3375   -6.674   .56742   -.3489   -1.058   1.2014   -4.465   2.2945
8.7884   -2.711   -.6950   -4.111   -11.49   -14.16   -2.978   -.7935   -1.162   3.6322
-.4813   2.0664   .06300   .04750   .13912   .00602   .02940   -.0432   -.0695   -.0760

AVERAGE N=3       SED4     13-APR-88 10:22:41
BLNK
  LV
5303.3
  AG       AL       AS       B        BA       BE       CD       CO       CR       CU
-.0756   9.3601   -4.400   -7.274   .30263   -.3763   -.5146   -.6005   -.2351   1.6857
  FE       LI       MN       MO       NI       PB       SN       SR       TI       V
9.9335   -3.090   -.6196   -4.289   -6.805   4.1309   7.1899   -.8464   -1.597   2.1055
   Y       ZN       CA       CA       K        MG       NA       AL       FE       ZN
-.5231   2.0626   .06308   .04332   -.0786   .00687   .02563   -.0402   -.0545   -.1103
SAT --End of command file
SAT>@LOOKC
Enter Text String>BLNK

BURN # 1          SED4     13-APR-88 10:32:13
BLNK
5302.0
-1.223   -1.847   16.548   -8.266   -.5675   -.4680   -.5860   .85489   -2.703   -.5152
-3.175   -5.643   -.9597   -.2663   -4.234   -15.94   20.120   -1.049   -2.886   .23688
-.8583   .57117   .07884   .04359   -1.182   .00900   .00278   -.0603   -.1702   -.2012

BURN # 2          SED4     13-APR-88 10:32:38
BLNK
5304.0
-.8756   1.9937   4.8542   -6.697   .11344   -.4312   -.5003   -2.957   -3.407   -.3746
-2.299   -4.217   -.8164   -2.990   -.1520   -17.70   -4.719   -.7971   -2.164   .07899
-.3556   .43308   .07861   .05203   -.6830   .00754   .02563   -.0507   -.1735   -.1639

BURN # 3          SED4     13-APR-88 10:33:03
BLNK
5304.0
1.5281   11.008   -16.37   -7.020   .22690   -.3506   2.3720   .30040   .64617   1.8727
-1.667   -3.477   -.5076   -2.189   -1.966   1.7690   14.886   -.7971   -2.240   2.6053
-.2301   1.7074   .07861   .05708   -.2544   .00672   .03676   -.0492   -.1927   -.1147

AVERAGE N=3       SED4     13-APR-88 10:33:13
BLNK
  LV
5303.7
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5303.3
  AG       AL       AS        B       BA       BE       CD       CO       CR       CU
-.1903   3.7184   1.6759   -7.328   -.0757   -.4166   .42858   -.6004   -1.821   .32765
  FE       LI       MN       MO       NI       PB       SN       SR       TI        V
-2.380   -4.446   -.7612   -1.815   -2.117   -10.62   10.096   -.8810   -2.430   .97371
   Y       ZN       CA       CA        K       MG       NA       AL       FE       ZN
-.4813   .90389   .07869   .05090   -.7065   .00775   .02172   -.0534   -.1788   -.1599
SAT --End of command file
SAT>NS
ENTER STANDARD NAME>BLNK
SAT>@LOOKC
Enter Text String>TEN1

BURN # 1          SED4     13-APR-88 10:34:54
TEN1
5303.0
972.58   -24.98   28.756   37.245   .34045   -.3489   2.4583   -2.472   .46997   1.0302
39.416   -1.972   .34750   -2.296   3.9318   1.7703   8.3518   -.3795   -1.768   .71065
-.6069   4.2679   9.8486   9.4368   -.2895   .00143   .02344   -.0447   -.0563   -.0864

BURN # 2          SED4     13-APR-88 10:35:19
TEN1
5302.0
976.31   -24.47   2.5016   38.245   .00002   -.4278   -1.272   .23097   -.5877   -.3747
37.249   -2.685   .27604   -1.121   7.5633   8.8551   .50730   -.2723   -2.053   1.9743
-.6071   4.4536   9.8879   9.4546   -.6857   .00020   .02503   -.0410   -.0828   -.1207

BURN # 3          SED4     13-APR-88 10:35:44
TEN1
5302.5
970.72   -16.70   7.3536   39.037   .00001   -.3078   .95776   1.5480   2.2325   1.5922
38.175   -2.698   .42762   1.4419   7.5622   -15.94   -14.96   -.1706   -1.456   -.0790
-.4814   4.7953   9.8253   9.4627   -.1943   -.0004   .03616   -.0425   -.0285   .01788

AVERAGE N=3       SED4     13-APR-88 10:35:54
TEN1
  LV
5302.5
  AG       AL       AS        B       BA       BE       CD       CO       CR       CU
973.20   -22.05   12.870   38.176   .11350   -.3615   .71465   -.2310   .70494   .74925
  FE       LI       MN       MO       NI       PB       SN       SR       TI        V
38.280   -2.452   .35039   -.6581   6.3524   -1.770   -2.034   -.2741   -1.759   .86867
   Y       ZN       CA       CA        K       MG       NA       AL       FE       ZN
-.5651   4.5056   9.8539   9.4514   -.3898   .00041   .02821   -.0427   -.0559   -.0631
SAT --End of command file
SAT>NS
ENTER STANDARD NAME>TEN1
SAT>@LOOKC
Enter Text String>TEN2

BURN # 1          SED4     13-APR-88 10:37:32
TEN2
5303.0
-.9922   210.62   9337.3   32.401   10.781   .49656   56.742   9381.6   9573.0   -9.927
5.9466   9944.2   .73361   9328.2   4.8391   9238.7   9289.9   9741.9   1.6414   -221.8
9526.3   4.3838   .08350   .17134   -.5490   9.3969   94.078   .11027   1.0928   -.2250

BURN # 2          SED4     13-APR-88 10:37:57
TEN2
5303.0
-1.221   213.43   9384.7   33.370   12.256   .61734   55.498   9385.3   9535.4   -8.803
4.5258   9933.8   .73361   9389.3   5.7464   9251.1   9264.2   9735.4   1.7171   -225.6
9520.8   4.4417   .08239   .16976   -.7746   9.4134   93.874   .11623   1.0808   -.2250

BURN # 3          SED4     13-APR-88 10:38:22
TEN2
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5303.0
-.0763   219.12   9446.3   32.724   11.916   .53682   53.697   9399.1   9564.5   -9.646
4.9994   9957.1   .77222   9393.7   11.190   9263.4   9260.3   9755.4   1.7171   -228.6
9539.0   3.6886   .08233   .17229   -1.034   9.4282   94.133   .11325   1.0649   -.2146

AVERAGE N=3      SED4     13-APR-88 10:38:31
TEN2
  LV
5303.0
  AG       AL       AS       B       BA       BE       CD       CO       CR       CU
-.7632   214.39   9389.4   32.831   11.651   .55024   55.312   9388.7   9557.6   -9.459
  FE       LI       MN       MO       NI       PB       SN       SR       TI       V
5.1573   9945.0   .74648   9370.4   7.2586   9251.1   9271.5   9744.2   1.6919   -225.3
   Y       ZN       CA       CA       K       MG       NA       AL       FE       ZN
9528.7   4.1714   .08274   .17113   -.7858   9.4129   94.028   .11325   1.0795   -.2215
SAT --End of command file
SAT>NS
ENTER STANDARD NAME>TEN2
SAT>@LOOKC
Enter Text String>TEN3

BURN # 1         SED4     13-APR-88 10:40:05
TEN3
5299.5
-82.34   9.6181   127.63   9514.5   1.7035   9474.0   9439.9   -1.919   -174.8   9702.1
59.790   -1.138   9502.5   .53651   9409.6   313.60   1.8127   1.4977   -1.704   9456.7
1.7796   9362.8   .02747   .03968   102.73   .00576   .01450   .24885   1.4577   9.1955

BURN # 2         SED4     13-APR-88 10:40:30
TEN3
5299.5
-84.17   2.6667   100.36   9505.0   .79499   9484.7   9464.1   -3.584   -167.8   9706.3
57.105   -1.878   9507.9   -.6388   9378.7   320.68   -3.420   .87629   -1.250   9458.4
1.2770   9361.9   .02771   .03209   102.45   .00394   .01669   .25705   1.4186   9.1746

BURN # 3         SED4     13-APR-88 10:40:54
TEN3
5302.5
-83.43   .88754   112.86   9477.9   .68098   9466.1   9436.6   -5.176   -161.7   9685.4
57.596   -1.959   9481.4   1.9758   9335.3   299.25   -10.39   .24341   -1.456   9454.9
1.0255   9360.9   .02741   .04065   102.35   .00263   .00715   .24736   1.4146   9.2044

AVERAGE N=3      SED4     13-APR-88 10:41:04
TEN3
  LV
5300.5
  AG       AL       AS       B       BA       BE       CD       CO       CR       CU
-83.31   4.3908   113.61   9499.2   1.0598   9474.9   9446.8   -3.560   -168.1   9697.9
  FE       LI       MN       MO       NI       PB       SN       SR       TI       V
58.164   -1.658   9497.2   .62452   9374.6   311.18   -3.998   .87246   -1.470   9456.7
   Y       ZN       CA       CA       K       MG       NA       AL       FE       ZN
1.3607   9361.9   .02753   .03747   102.51   .00411   .01278   .25108   1.4303   9.1915
SAT --End of command file
SAT>NS
ENTER STANDARD NAME>TENS\S\3^R
ENTER STANDARD NAME>TEN3
SAT>@LOOKC
Enter Text String>TEN4

BURN # 1         SED4     13-APR-88 10:42:30
TEN4
5301.0
-5.577   9558.4   63.876   291.23   9695.9   5.6960   3.1887   20.824   -2.351   .18741
9360.4   -2.658   3.9898   -6.354   -2.419   30.112   34.943   2.2163   9462.4   5.7662
.02074   5.1030   .11049   .12471   -.7096   .02957   .31849   9.6254   8.9390   -.1982
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BURN # 2          SED4     13-APR-88 10:42:33
TEN4
5300.5
-3.861   9561.7   77.762   276.08   9680.9   4.6904   1.5161   23.114   2.5858   1.5929
9355.9   -2.645   2.6797   -7.102   -5.142   -31.88   29.714   2.2184   9462.3   4.8188
.14631   4.6453   .11051   .12672   -.8062   .02852   .33180   9.6813   8.9576   -.1013

BURN # 3          SED4     13-APR-88 10:43:19
TEN4
5302.5
-4.886   9589.4   66.544   271.41   9689.4   4.4837   -.5860   20.680   -3.408   1.0303
9356.2   -2.328   2.5514   1.2283   -1.966   -28.33   29.706   2.2100   9473.3   4.0273
.14645   4.8532   .11077   .12501   -.1943   .02787   .32922   9.6507   8.9728   -.0954

AVERAGE N=3       SED4     13-APR-88 10:43:29
TEN4
  LV
5301.3
  AG       AL       AS       B        BA       BE       CD       CO       CR       CU
-4.775   9569.8   69.394   279.57   9688.7   4.9567   1.3729   21.539   -1.058   .93686
  FE       LI       MN       MO       NI       PB       SN       SR       TI       V
9357.5   -2.544   3.0737   -4.076   -3.175   -10.03   31.454   2.2149   9466.0   4.8708
   Y       ZN       CA       CA       K        MG       NA       AL       FE       ZN
.10450   4.8672   .11059   .12548   -.5700   .02865   .32650   9.6525   8.9565   -.1316
SAT --End of command file
SAT>NS
ENTER STANDARD NAME>TEN4
SAT>@LOOKC
Enter Text String>CAZN
Data overflow, LCN:24
Data overflow, LCN:24

BURN # 1          SED4     13-APR-88 10:44:52
CAZN
5301.5
-.5373   -794.7   -6.030   100.77   23.725   1.1035   1.3870   2.2415   -1.645   1.4520
20.531   21.738   2.0555   7.6908   3.4803   -17.71   7.0448   29.752   14.627   22.984
.52318   >*****   *130.2   373.17   -.4437   .00497   .18199   .03278   .10067   386.44
Data overflow, LCN:24
Data overflow, LCN:24

BURN # 2          SED4     13-APR-88 10:45:19
CAZN
5302.5
-1.566   -817.7   4.0095   99.269   23.493   .85988   2.1585   1.6867   -9.400   2.1542
19.544   20.967   1.8950   24.667   -2.873   -15.94   30.577   29.743   12.788   24.243
.89990   >*****   *130.2   372.59   -.5778   .00365   .18875   .02310   .08278   385.76
Data overflow, LCN:24
Data overflow, LCN:24

BURN # 3          SED4     13-APR-88 10:45:45
CAZN
5301.5
-1.224   -838.4   5.3415   98.020   22.363   .70073   -.1570   2.2415   -2.351   1.5926
17.215   20.998   1.6693   7.3170   -6.049   -8.854   -1.673   29.649   12.051   24.248
.64877   >*****   *130.2   371.75   -1.403   .00307   .18398   .01192   .05431   386.99

AVERAGE N=3       SED4     13-APR-88 10:45:55
CAZN
  LV
5301.8
  AG       AL       AS       B        BA       BE       CD       CO       CR       CU
-1.109   -816.9   1.1068   99.352   23.194   .88803   1.1295   2.0566   -4.465   1.7329
  FE       LI       MN       MO       NI       PB       SN       SR       TI       V
19.097   21.234   1.8733   13.225   -1.814   -14.17   11.983   29.715   13.155   23.825
   Y       ZN       CA       CA       K        MG       NA       AL       FE       ZN
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.69062  >*****  [illegible]  372.50  -.8081  .00390  .18491  .02280  .07925  386.40
SAT --End of command file
SAT>NS
ENTER STANDARD NAME>CAZN
SAT>@LOOKC
Enter Text String>ALFE

BURN # 1          SED4     13-APR-88 10:47:44
ALFE
5302.5
-74.38  >*****  2204.2  122.20  61.628  101.28  -5.732  2.7957  6.8151  -72.31
>*****  -.4794  55.299  -39.78  -9.679  -812.8  -79.68  2.1065  6.4995  -16.66
.58596  155.79  .09253  .10258  -.3522  .00745  -.0028  386.19  377.16  .03874

BURN # 2          SED4     13-APR-88 10:48:08
ALFE
5302.5
-73.70  >*****  2221.1  117.19  61.628  102.09  -6.975  -3.581  -8.519  -71.46
>*****  -.4794  55.376  -35.99  -20.57  -834.0  -91.44  2.1065  6.3480  -16.66
.77432  141.48  .07534  .09057  -.1379  .00608  .00159  385.90  377.80  .14007

BURN # 3          SED4     13-APR-88 10:48:33
ALFE
5302.5
-73.47  >*****  2154.7  117.03  61.174  101.84  -6.461  -1.086  -5.170  -69.78
>*****  .26007  55.106  -42.98  -5.142  -842.9  -81.64  2.2100  6.4237  -15.08
.64875  134.06  .06660  .07762  .09905  .00549  -.0077  385.92  377.17  .07600

AVERAGE N=3       SED4     13-APR-88 10:48:43
ALFE
  LV
5302.5
  AG      AL      AS      B       BA      BE      CD      CO      CR      CU
-73.85  >*****  2193.4  118.81  61.476  101.74  -6.389  -.6239  -2.291  -71.18
  FE      LI      MN      MO      NI      PB      SN      SR      TI      V
>*****  -.2329  55.260  -39.58  -11.80  -829.9  -84.25  2.1410  6.4237  -16.14
   Y      ZN      CA      CA      K       MG      NA      AL      FE      ZN
.66968  143.78  .07815  .09025  -.1303  .00634  -.0030  386.00  377.38  .08494
SAT --End of command file
SAT>NS
ENTER STANDARD NAME>ALFE
SAT>SS
ENTER VALUE(S)>
SAT>TSWA
SAT>@LOOKC
Enter Text String>CU FOR IEC

BURN # 1          SED4     13-APR-88 10:50:53
CU FOR IEC
5300.5
.58275  52.461  27.061  44.930  .42976  .41604  -.1657  1.1069  4.2411  10058.
53.209  2.5536  .36913  3.4771  2.0990  338.52  -5.177  .09908  1.7080  .39039
.26314  58.238  -.0367  -.0347  .05651  -.0110  -.0199  .05588  .07417  .12219

BURN # 2          SED4     13-APR-88 10:51:17
CU FOR IEC
5299.0
1.2861  51.165  6.0283  48.039  1.8365  .50390  -.2562  .95915  4.2416  10047.
43.322  2.5941  .45941  2.3955  .64771  327.14  4.2398  .31724  2.3775  -.1107
.39478  56.043  -.0381  -.0310  .04911  -.0123  -.0141  .06407  .12517  .15348

BURN # 3          SED4     13-APR-88 10:51:42
CU FOR IEC
5299.5
1.7578  38.017  10.130  47.173  .78147  .41792  .78833  2.1411  .92079  10075.
38.573  2.5806  .29372  -.6259  -2.257  348.15  -5.177  .20908  2.0475  .22349
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-.2644   54.793   -.0397   -.0365   .05323   -.0129   -.0109   .06482   .06810   .16820

AVERAGE N=3      SED4     13-APR-88 10:51:52
CU FOR IEC
  LV
5299.7
  AG       AL       AS       B        BA       BE       CD       CO       CR       CU
1.2089   47.214   14.407   46.714   1.0159   .44595   .12213   1.4024   3.1345   10060.
  FE       LI       MN       MO       NI       PB       SN       SR       TI       V
45.035   2.5761   .37409   1.7489   .16311   337.94   -2.038   .20847   2.0443   .16773
   Y       ZN       CA       CA       K        MG       NA       AL       FE       ZN
.13117   56.358   -.0382   -.0340   .05362   -.0121   -.0150   .06159   .09515   .15398
SAT --End of command file
SAT>@LOOKC
Enter Text Strins>AL FOR IEC

BURN # 1         SED4     13-APR-88 10:54:24
AL FOR IEC
5302.0
-.5907   >*****   2293.5   104.17   60.645   .49822   -.0752   -7.753   3.8718   1.3042
81.479   3.2566   25.650   5.3557   -2.257   -862.3   -3.294   2.1117   7.4408   4.0650
.13158   40.748   -.0533   -.0479   -.4498   .00020   .04371   396.74   .10199   .01341

BURN # 2         SED4     13-APR-88 10:54:49
AL FOR IEC
5301.0
.34840   >*****   2251.4   108.12   60.891   .50011   -4.162   -4.358   5.1631   1.0147
82.545   1.7967   25.742   -1.766   -10.97   -881.6   -16.00   2.0096   6.9809   4.5671
.26322   41.139   -.0532   -.0555   -.0358   -.0012   .06020   399.95   .13775   .02682

BURN # 3         SED4     13-APR-88 10:55:14
AL FOR IEC
5299.0
1.5215   >*****   2236.2   108.89   61.383   .50390   -1.165   -3.769   -1.662   1.3052
79.952   4.0816   25.764   .11525   -9.036   -870.5   8.9483   2.2304   7.9022   6.2405
.39478   40.683   -.0551   -.0466   .07099   -.0018   .07053   398.20   .11524   .09835

AVERAGE N=3      SED4     13-APR-88 10:55:23
AL FOR IEC
  LV
5300.7
  AG       AL       AS       B        BA       BE       CD       CO       CR       CU
.42639   >*****   2260.4   107.06   60.973   .50074   -1.801   -5.293   2.4575   1.2080
  FE       LI       MN       MO       NI       PB       SN       SR       TI       V
81.325   3.0450   25.719   1.2350   -7.421   -871.5   -3.450   2.1172   7.4413   4.9576
   Y       ZN       CA       CA       K        MG       NA       AL       FE       ZN
.26319   40.856   -.0539   -.0500   -.1382   -.0009   .05815   398.30   .11833   .04619
SAT --End of command file
SAT>@LOOKD
Enter Text Strins>AL FOR IEC

BURN # 1         SED4     13-APR-88 10:56:25
AL FOR IEC
5301.5
.11408   >*****   2290.4   106.74   60.651   .54167   -2.254   -3.766   .55252   -1.014
72.564   2.5267   25.900   -4.501   -4.677   -877.7   -16.47   2.0607   7.8511   2.7290
.39509   35.805   -.0570   -.0458   -.2592   -.0007   .05146   398.09   .13378   .13709

BURN # 2         SED4     13-APR-88 10:56:50
AL FOR IEC
5301.5
.11408   >*****   2212.3   105.04   61.823   .49917   .19732   -7.163   7.1913   .72476
71.383   1.0399   25.818   -6.894   -11.94   -877.7   -33.89   1.9545   7.7711   4.9008
.52690   36.733   -.0567   -.0566   -.3904   -.0018   .06060   401.45   .19603   .05960

BURN # 3         SED4     13-APR-88 10:57:15
AL FOR IEC
```

```
AL FOR IEC
5302.5
-.1192   >*****  2263.0   102.96   61.460   .49727   -.3477   -2.658   10.694   1.0143
72.512   1.7565   25.889   3.7030   -2.257   -915.8   -4.236   2.2159   7.7507   4.5656
.13166   34.796   -.0576   -.0511   -.1158   -.0024   .07053   401.27   .18080   .12219

AVERAGE N=3      SED4     13-APR-88 10:57:25
AL FOR IEC
  LV
5301.8
  AG       AL       AS       B        BA       BE       CD       CO       CR       CU
.03633   >*****   2255.2   104.91   61.311   .51270   -.8016   -4.529   6.1458   .24167
  FE       LI       MN       MO       NI       PB       SN       SR       TI       V
72.153   1.7744   25.869   -2.564   -6.290   -890.4   -18.20   2.0770   7.7910   4.0651
   Y       ZN       CA       CA       K        MG       NA       AL       FE       ZN
.35122   35.778   -.0571   -.0511   -.2551   -.0016   .06086   400.27   .17020   .10629
ID= :
VI,WI=1.0000 : 400.
VF,WF=1.0000 :
UF=1.0000 :
UNITS= :
ALL ENTRIES OK? Y/N : Y

AVERAGE N=3      SED4     13-APR-88 10:58:27
AL FOR IEC
VI,WI=400.0000   VF,WF=1.0000     UF=1.0000        DF=.0025
  LV
5301.8
  AG       AL       AS       B        BA       BE       CD       CO       CR       CU
.00009   >900.5   5.6381   .26228   .15328   .00128   -.0020   -.0113   .01536   .00060
  FE       LI       MN       MO       NI       PB       SN       SR       TI       V
.18038   .00444   .06467   -.0064   -.0157   -2.226   -.0455   .00519   .01948   .01016
   Y       ZN       CA       CA       K        MG       NA       AL       FE       ZN
.00088   .08945   -.0001   -.0001   -.0006   -.0000   .00015   1.0007   .00043   .00027
SAT --End of command file
SAT>FE \ EF\^U
SAT>@LOOKD
Enter Text String>FE FOR IEC

BURN # 1         SED4     13-APR-88 10:59:51
FE FOR IEC
5300.5
-74.25   79.513   86.928   195.49   2.5391   107.03   -4.889   5.3905   5.3478   -69.71
>*****   2.9254   74.064   -42.68   -1.289   -17.22   -84.26   .73660   1.5479   -22.92
.65863   49.817   -.0533   -.0245   -.0091   -.0023   .03874   .22724   401.71   -.0179

BURN # 2         SED4     13-APR-88 11:00:16
FE FOR IEC
5301.5
-77.18   76.096   97.251   197.97   2.4214   107.01   -7.612   3.3222   4.6096   -70.57
>*****   1.7833   74.451   -44.56   -2.741   -53.54   -116.2   .67964   .88845   -22.50
1.1200   51.653   -.0527   -.0196   -.0078   -.0036   .02762   .21160   403.30   -.0536

BURN # 3         SED4     13-APR-88 11:00:41
FE FOR IEC
5301.0
-76.13   64.589   109.37   195.46   2.3045   107.02   -8.067   4.9470   1.6589   -69.85
>*****   4.0272   73.973   -42.05   -2.257   -21.04   -89.43   .94717   1.6183   -23.17
.79048   50.735   -.0536   -.0178   .41246   -.0044   .02662   .20936   401.91   .06557

AVERAGE N=3      SED4     13-APR-88 11:00:50
FE FOR IEC
  LV
5301.0
  AG       AL       AS       B        BA       BE       CD       CO       CR       CU
-75.85   73.399   97.850   196.31   2.4217   107.02   -6.856   4.5532   3.8721   -70.04
```

```
  FE        LI        MN        MO        NI        PB        SN        SR        TI         V
>*****  2.9120    74.163    -43.10    -2.096    -30.60    -96.64   .78780    1.3516    -22.86
   Y        ZN        CA        CA         K        MG        NA        AL        FE        ZN
.85637   50.735   -.0532    -.0206   .13186   -.0034   .03099   .21607    402.31   -.0020
ID= :
VI,WI=400.0000 :
VF,WF=1.0000 :
UF=1.0000 :
UNITS= :
ALL ENTRIES OK? Y/N : Y

AVERAGE N=3      SED4     13-APR-88 11:01:38
FE FOR IEC
VI,WI=400.0000  VF,WF=1.0000     UF=1.0000        DF=.0025
  LV
5301.0
  AG        AL        AS         B        BA        BE        CD        CO        CR        CU
-.1896   .18350   .24463   .49076   .00605   .26755   -.0171   .01138   .00968   -.1751
  FE        LI        MN        MO        NI        PB        SN        SR        TI         V
>824.0   .00728   .18541   -.1077   -.0052   -.0765   -.2416   .00197   .00338   -.0572
   Y        ZN        CA        CA         K        MG        NA        AL        FE        ZN
.00214   .12684   -.0001   -.0001   .00033   -.0000   .00008   .00054   1.0058   -.0000
SAT --End of command file
SAT>@LOOKC
Enter Text String>AS FOR IEC

BURN # 1         SED4     13-APR-88 11:02:48
AS FOR IEC
5301.5
-.1212   44.026   10012.   55.431   11.794   .32916   87.235   -1.551   8.2978   -.4344
82.855   .29643   .11922   2.5644   -2.257   9.5598   10.354   .14847   .72839   1.0584
-.3957   98.208   .02361   .02824   -.0297   -.0090   .00536   .05215   .17484   .12517

BURN # 2         SED4     13-APR-88 11:03:13
AS FOR IEC
5303.0
1.0580   32.500   10021.   58.266   12.611   .24139   84.941   -.3694   -4.240   .43471
60.679   1.7431   .27299   1.8797   -12.42   -1.911   -8.235   .19596   1.3398   2.2270
-.0659   97.791   .02364   .02892   -.3938   -.0106   .02722   .04843   .15696   .20862

BURN # 3         SED4     13-APR-88 11:03:37
AS FOR IEC
5303.0
.94037   38.062   9987.2   57.417   11.674   .28388   86.847   -3.396   -2.028   -.1447
53.426   2.4863   .35429   -1.310   .64552   5.7354   -32.94   .24907   1.3398   -.2782
-.1318   96.615   .02336   .03231   .27283   -.0111   .01212   .05141   .16491   .23097

AVERAGE N=3      SED4     13-APR-88 11:03:47
AS FOR IEC
  LV
5302.5
  AG        AL        AS         B        BA        BE        CD        CO        CR        CU
.62571   38.196   10007.   57.038   12.026   .28481   86.341   -1.772   .67650   -.0481
  FE        LI        MN        MO        NI        PB        SN        SR        TI         V
65.653   1.5086   .24883   1.0446   -4.677   4.4613   -10.27   .19783   1.1360   1.0024
   Y        ZN        CA        CA         K        MG        NA        AL        FE        ZN
-.1978   97.538   .02354   .02982   -.0502   -.0102   .01490   .05066   .16557   .18825
SAT --End of command file
SAT>@LOOKC
Enter Text String>CR FOR IEC

BURN # 1         SED4     13-APR-88 11:05:36
CR FOR IEC
5302.5
-1.178   15.661   26.709   51.149   .42958   .28480   -.6201   4.6506   10205.   .43479
24.435   1.7565   .35726   -1.196   -5.161   5.7354   -11.76   .09162   4.2300   -42.29
```

```
.13188   3.1046   -.0724   -.0497   .14832   -.0097   .13512   .03533   .30877   .03427

BURN # 2          SED4     13-APR-88 11:06:01
CR FOR IEC
5301.5
1.0553   20.148   60.197   50.334   .78116   .28665   1.3778   5.6850   10189.   .86966
18.742   4.0136   .52585   5.9831   .64634   13.384   -12.24   .14847   4.4098   -39.95
.39509   3.1174   -.0720   -.0491   .51692   -.0105   .14643   .04023   .39935   .20266

BURN # 3          SED4     13-APR-88 11:06:25
CR FOR IEC
5301.5
-.1212   9.5610   34.545   52.373   -.9763   .32916   -.7107   5.2420   10242.   .14516
12.668   1.7833   .44452   -3.931   -1.773   -32.51   -.4705   .09535   4.0897   -43.21
-.2639   3.4269   -.0722   -.0525   -.0843   -.0114   .13888   .03725   .39207   .12517

AVERAGE N=3       SED4     13-APR-88 11:06:35
CR FOR IEC
  LV
5301.8
  AG       AL       AS       B        BA       BE       CD       CO       CR       CU
-.0813   15.123   40.484   51.285   .07816   .30020   .01566   5.1926   10212.   .48320
  FE       LI       MN       MO       NI       PB       SN       SR       TI       V
18.615   2.5178   .44254   .28526   -2.096   -4.463   -8.157   .11181   4.2432   -41.82
   Y       ZN       CA       CA       K        MG       NA       AL       FE       ZN
.08761   3.2164   -.0722   -.0505   .19305   -.0105   .13947   .03700   .39273   .12070
SAT --End of command file
SAT>EX
BYE

>CTE
CONTROL TABLE EDITOR      V2.0


CTE>
(CR)EATE, (ED)IT, (PR)INT, OR (EX)IT? ED

ACT? SED4

GROUP? 4

MAX ROW 25


1 LCN 2 $K1

1 K1   .00000 -.1896

1 K1 - .18960 ++

2 K1   .00000

3 K1   .00000 5.6381

4 K1   .00000 .24463

5 K1   .00000 .49076

6 K1   .00000 .26755

7 K1   .00000 -.0171

8 K1   .00000 .0086341

- ...    -----
```

```
9 K1  .00000

10 K1  .00000

11 K1  .00000 .00968

12 K1  .00000

13 K1  .00000 -.1751

14 K1  .00000 .18541

15 K1  .00000 -.1077

16 K1  .00000 .033794

17 K1  .00000 -2.226

18 K1  .00000 -.0765

19 K1  .00000 -.0455

20 K1  .00000 1\1\-.2416

21 K1  .00000 -.0572

22 K1  .00000 -.004182

23 K1  .00000 .0056358

24 K1  .00000 .00012684

25 K1  .00000

1 K1 - .18960 ^Z
GROUP? ^Z
ACT? ^Z

CTE>
(CR)EATE, (ED)IT, (PR)INT, OR (EX)IT? PR

ACT? SED4

GROUP? 4

PRINT ALL? Y
ACT SED4  LENGTH 3102

GROUP 4  LENGTH 308

ROW  LCN  ELEMENT        K1           K2

1     2      FE      - .18960      .00000
2     2       V       .00000       .00000
3     4      AL      5.63810       .00000
4     4      FE       .24463       .00000
5     5      FE       .49076       .00000
6     7      FE       .26755       .00000
7     8      FE      - .01710      .00000
8     8      AS       .00863       .00000
9     8      NI       .00000       .00000
10    9      NI       .00000       .00000
11   10      FE       .00968       .00000
12   11      FE       .00000       .00000
13   14      FE      - .17510      .00000
14   15      FE       .18541       .00000
```

15	17	CU	- .10770	.00000
16	17	AL	.03379	.00000
17	17	FE	-2.22600	.00000
18	18	AL	- .07650	.00000
19	18	FE	- .04550	.00000
20	21	FE	- .24160	.00000
21	21	CR	- .05720	.00000
22	23	CU	- .00418	.00000
23	23	FE	.00564	.00000
24	23	NI	.00013	.00000
25	26	K	.00000	.00000

```
GROUP? ^Z
ACT? ^Z

CTE>
(CR)EATE, (ED)IT, (PR)INT, OR (EX)IT? EX

>SAT
Sample Analysis Task     uPOLY version: v2.0
AA
Enter ACT's name>SED4
SAT>@GO
D2
DR
EC
SAT --End of command file
SAT>LO+
FILENAME? >RUN^U
FILENAME? >RUN 612
FCS ERROR -- 312
SAT --Error-file OPEN/CLOSE
SAT>LO+
FILENAME? >RUN612
Enter: SAMPLE NAME>
       CLASS NAME>
SAT>@LOOKC
Enter Text String>BLNK

BURN # 1          SED4     13-APR-88 12:34:43
BLNK
5301.5
1.3224   7.7836   4.2551   3.3602   .66400   .36915   1.2531   -1.920   7.1897   .43496
16.717   1.7833   .39265   3.1030   -6.613   4.2436   -9.874   .20158   1.6888   4.2668
-.1321   -.3478   -.0199   -.0138   -1.090   .00047   -.0407   .02533   .16822   .05960

BURN # 2          SED4     13-APR-88 12:35:10
BLNK
5302.5
-.2106   -9.063   -12.66   2.3306   .19530   .46024   -1.689   3.1003   6.2672   -3.042
7.5666   1.7565   .54412   -4.184   .16193   42.040   -21.17   .25094   1.3494   -.7214
.13166   -.2511   -.0196   -.0107   -.9246   -.0008   -.0399   .02608   .13842   .06706

BURN # 3          SED4     13-APR-88 12:35:36
BLNK
5299.5
.25075   -3.187   19.721   3.7734   -.0390   .42801   -1.878   1.5501   -.1873   -1.594
7.6854   3.3243   .64037   2.5436   -10.97   28.788   -7.994   .31536   1.9675   -3.017
.39485   -.4555   -.0196   -.0127   -.7649   -.0016   -.0348   .03204   .12120   -.0089

AVERAGE N=3       SED4     13-APR-88 12:35:52
```

```
BLNK
  LV
5301.2
  AG       AL       AS        B       BA       BE       CD       CO       CR       CU
.45421   -1.489   3.7734   3.1547   .27344   .41913   -.7712   .90998   4.4232   -1.400
  FE       LI       MN       MO       NI       PB       SN       SR       TI        V
10.656   2.2880   .52571   .48746   -5.808   25.024   -13.01   .25596   1.6686   .17619
   Y       ZN       CA       CA        K       MG       NA       AL       FE       ZN
.13146   -.3515   -.0197   -.0124   -.9265   -.0007   -.0385   .02782   .14261   .03924
SAT --End of command file
SAT>@SEEC
Enter Text String>METALS/BLANK00/B

BURN # 1          SED4     13-APR-88 12:37:26
METALS/BLANK00/B
5300.5
1.5562   -3.884   15.369   1.3455   .42976   .45570   -1.068   -.2224   -.1873   -1.304
-1.129   2.5536   .60217   -5.559   -6.130   36.572   19.311   .20533   1.5479   -.7490
.39497   .15213   -.0190   -.0021   -.9931   -.0004   -.0350   .04396   .16954   .11623

BURN # 2          SED4     13-APR-88 12:37:52
METALS/BLANK00/B
5300.5
-1.634   -17.02   5.3516   1.0395   -.3905   .38910   -.0285   -2.586   3.8712   -3.333
-3.492   2.9254   .38676   -1.785   -3.226   20.900   -8.936   .09908   1.3878   -1.369
-.1323   -.2279   -.0184   -.0123   -1.430   -.0018   -.0425   .02235   .10067   .01192

BURN # 3          SED4     13-APR-88 12:38:19
METALS/BLANK00/B
5300.5
-.3334   -4.734   12.292   4.5920   .19539   .46544   -2.449   1.5501   4.2398   .14527
-2.479   2.5536   .63647   -4.754   -11.45   40.473   -46.12   .20533   1.3878   1.5005
-.1323   -.4601   -.0189   -.0062   -1.037   -.0026   -.0372   .02235   .13312   .07302

AVERAGE N=3       SED4     13-APR-88 12:38:34
METALS/BLANK00/B
  LV
5300.5
  AG       AL       AS        B       BA       BE       CD       CO       CR       CU
-.1370   -8.547   11.004   2.3257   .07821   .43675   -1.182   -.4194   2.6413   -1.497
  FE       LI       MN       MO       NI       PB       SN       SR       TI        V
-2.367   2.6776   .54180   -4.032   -6.937   32.649   -11.92   .16991   1.4412   -.2058
   Y       ZN       CA       CA        K       MG       NA       AL       FE       ZN
.04343   -.1786   -.0187   -.0068   -1.153   -.0016   -.0382   .02955   .13444   .06706
SAT --End of command file
SAT>@SEEC
Enter Text String>METALS/AQC.086/C

BURN # 1          SED4     13-APR-88 12:41:41
METALS/AQC.086/C
5301.0
161.40   4623.0   850.76   1084.6   1536.9   752.97   432.79   1019.5   1594.2   1197.1
3991.7   809.98   1388.9   817.11   1215.0   3104.3   2374.4   920.23   1320.9   857.55
813.96   2948.7   13.790   13.869   88.255   5.3524   18.746   4.5761   4.2266   2.8521

BURN # 2          SED4     13-APR-88 12:42:07
METALS/AQC.086/C
5301.0
162.34   4631.7   877.70   1092.9   1543.8   753.06   438.19   1023.7   1591.9   1199.3
4003.8   812.21   1392.0   813.35   1219.4   3100.7   2363.1   923.63   1324.8   862.35
816.93   2951.6   13.847   13.892   88.583   5.3656   18.786   4.6000   4.2134   2.8074

BURN # 3          SED4     13-APR-88 12:42:34
METALS/AQC.086/C
5300.0
163.20   4628.8   844.82   1098.2   1546.8   755.48   433.15   1025.0   1582.5   1203.4
```

```
4012.4   812.39   1394.0   818.62   1217.7   3157.3   2401.0   928.25   1328.2   862.63
818.86   2955.2   13.867   13.913   88.566   5.3723   18.804   4.6134   4.2631   2.8223

AVERAGE N=3      SED4     13-APR-88 12:42:50
METALS/AQC.086/C
  LV
5300.7
  AG       AL       AS       B        BA       BE       CD       CO       CR       CU
162.31   4627.8   857.76   1091.9   1542.5   753.84   434.71   1022.7   1589.5   1200.0
  FE       LI       MN       MO       NI       PB       SN       SR       TI       V
4002.6   811.53   1391.6   816.36   1217.3   3120.8   2379.5   923.37   1324.6   860.84
   Y       ZN       CA       CA       K        MG       NA       AL       FE       ZN
816.58   2951.9   13.834   13.891   88.468   5.3634   18.779   4.5965   4.2344   2.8272
SAT --End of command file
SAT>METALS/SILVERQ/C^U
SAT>@SEEC
Enter Text String>METALS/SILVERQ/C

BURN # 1         SED4     13-APR-88 12:44:34
METALS/SILVERQ/C
5299.0
49.334   548.98   3.9270   62.931   50.130   .55315   -.1970   3.9141   -2.402   .14543
-3.098   4.0816   .97102   -1.335   -1.289   -1.622   -22.08   .95495   2.0572   .61995
-.1327   1.4145   -.0409   -.0320   -.1696   .00108   .08027   .55656   .13378   .16540

BURN # 2         SED4     13-APR-88 12:45:00
METALS/SILVERQ/C
5298.5
47.693   542.38   -5.789   67.191   50.838   .71961   .61414   2.8800   3.5023   -.8694
-3.248   3.3514   1.1398   -2.706   4.0376   5.9586   -10.78   1.2758   2.5473   .12618
.13097   1.3537   -.0415   -.0281   -.0117   -.0004   .09437   .57146   .15100   .21011

BURN # 3         SED4     13-APR-88 12:45:27
METALS/SILVERQ/C
5298.5
48.633   530.01   14.048   67.024   49.666   .50839   -1.465   2.1412   4.4249   -.7244
-3.754   4.8391   .89476   6.0745   -.3205   -1.691   -20.67   .95689   2.8676   .67914
-.0009   1.3548   -.0425   -.0268   .20707   -.0015   .10312   .56252   .14570   .18775

AVERAGE N=3      SED4     13-APR-88 12:45:42
METALS/SILVERQ/C
  LV
5298.7
  AG       AL       AS       B        BA       BE       CD       CO       CR       CU
48.553   540.46   4.0618   65.715   50.211   .59372   -.3494   2.9785   1.8418   -.4828
  FE       LI       MN       MO       NI       PB       SN       SR       TI       V
-3.367   4.0907   1.0019   .67792   .80937   .88187   -17.84   1.0625   2.4907   .47509
   Y       ZN       CA       CA       K        MG       NA       AL       FE       ZN
-.0009   1.3743   -.0416   -.0290   .00858   -.0003   .09259   .56351   .14349   .18775
SAT --End of command file
SAT>@SEEC
Enter Text String>METALS/HIGHAQC/C

BURN # 1         SED4     13-APR-88 12:51:42
METALS/HIGHAQC/C
5300.0
-1.509   >*****   65.032   4.3601   .89859   .45274   -1.874   1.9194   -5.558   -19.57
>*****   12.234   38.245   -16.67   3.0676   22.629   -18.59   2.0137   10.684   27.327
.32899   >*****   >112.4   101.36   -1.994   >66.48   -.0046   92.822   97.592   97.226

BURN # 2         SED4     13-APR-88 12:52:09
METALS/HIGHAQC/C
5299.0
-.5870   >*****   29.655   4.2962   1.1332   .35589   .98418   1.5501   -9.623   -18.27
>*****   13.007   38.554   -21.33   -.8048   27.773   -15.26   2.2304   10.865   28.565
.39478   >*****   >106.8   101.86   -1.876   >67.28   .00119   92.896   98.138   98.116
```

```
BURN # 3          SED4     13-APR-88 12:52:35
METALS/HIGHAQC/C
5300.0
-.0247   >*****  36.281   5.7388   .42980   .31281   -1.472   -.5180   2.5490   -17.83
>*****   12.978  38.705   -18.62   1.6154   42.244   -27.46   2.2262   11.004   28.701
.26307   >*****  *130.2   102.18   -1.863   >66.93   .00755   93.200   98.592   98.267

AVERAGE N=3       SED4     13-APR-88 12:52:51
METALS/HIGHAQC/C
  LV
5299.7
  AG       AL       AS       B        BA       BE       CD       CO       CR       CU
-.7068   >*****  43.656   4.7984   .82053   .37381   -.7875   .98385   -4.211   -18.55
  FE       LI       MN       MO       NI       PB       SN       SR       TI       V
>*****   12.740  38.501   -18.87   1.2927   30.882   -20.44   2.1568   10.851   28.198
   Y       ZN       CA       CA       K        MG       NA       AL       FE       ZN
.32895   >*****  *116.5   101.80   -1.911   >66.89   .00139   92.973   98.107   97.870
SAT --End of command file
SAT>@LOOKC^U
SAT>IS
BLNK TEN1 TEN2 TEN3 TEN4 CAZN ALFE
SAT>@LOOKC
Enter Text String>BLNK

BURN # 1          SED4     13-APR-88 13:04:07
BLNK
5300.0
.85069   1.7597   -5.213   .67450   .07822   .45470   -.2538   -1.257   -.9254   -.7243
26.399   3.3107   .60644   .53806   3.5517   -1.601   -.2239   .10094   1.0772   -.7895
-.0006   1.4597   -.0190   -.0176   -1.535   .00321   -.0467   .02757   .17683   .02980

BURN # 2          SED4     13-APR-88 13:04:34
BLNK
5299.0
-.0973   1.6848   32.188   3.7703   -.2734   .37792   -2.803   -1.109   2.2107   -2.174
12.094   2.5941   .56756   -2.250   -8.068   5.8407   -24.00   .15781   1.7369   -1.117
-.2645   2.3966   -.0189   -.0147   -1.559   .00152   -.0324   .03204   .15299   .04321

BURN # 3          SED4     13-APR-88 13:05:00
BLNK
5299.0
-.0962   -3.804   -.9974   3.9374   .19546   .46137   -.1086   -.0751   -1.664   -2.609
10.068   2.2222   .48724   .37080   1.6161   -20.98   22.378   .15781   1.4167   .41752
-.1327   .78310   -.0189   -.0174   -1.373   .00038   -.0481   .03800   .15895   .05513

AVERAGE N=3       SED4     13-APR-88 13:05:16
BLNK
  LV
5299.3
  AG       AL       AS       B        BA       BE       CD       CO       CR       CU
.21906   -.1200   8.6592   2.7941   .00009   .43133   -1.055   -.8137   -.1262   -1.836
  FE       LI       MN       MO       NI       PB       SN       SR       TI       V
16.187   2.7090   .55375   -.4472   -.9666   -5.579   -.6161   .13886   1.4103   -.4964
   Y       ZN       CA       CA       K        MG       NA       AL       FE       ZN
-.1326   1.5465   -.0190   -.0165   -1.489   .00170   *-.042   .03253   .16292   .04272
SAT --End of command file
SAT>NS
ENTER STANDARD NAME>BLNK
SAT>@LOOKC
Enter Text String>TEN2

BURN # 1          SED4     13-APR-88 13:07:07
TEN2
5298.5
-.7958   223.13   10267.   41.229   11.918   1.0549   -19.87   10337.   10374.   -11.60
```

```
13.127   9946.7   2.2608   10297.   8.8799   10424.   10083.   10230.   5.4301   355.82
10308.   6.0705   .00605   .13351   -1.630   10.126   100.25   .20415   1.4411   -.0671

BURN # 2          SED4     13-APR-88 13:07:34
TEN2
5300.5
1.2435   224.12   10380.   42.095   13.203   1.0020   -23.64   10377.   10425.   ******
14.058   9956.3   2.3615   10290.   14.684   10453.   10139.   10244.   5.0699   361.98
10319.   7.8449   .00652   .13336   -1.999   10.156   100.29   .20042   1.6232   -.1326

BURN # 3          SED4     13-APR-88 13:08:00
TEN2
5299.0
-.2867   231.46   10346.   42.476   12.621   .91634   -26.78   10398.   10457.   -8.843
11.419   9977.0   2.3327   10337.   7.4263   10393.   10180.   10278.   5.0998   363.42
10361.   7.1894   .00661   .13543   -1.821   10.181   100.46   .19148   1.6371   -.1013

AVERAGE N=3       SED4     13-APR-88 13:08:16
TEN2
  LV
5299.3
  AG       AL       AS       B        BA       BE       CD       CO       CR       CU
.05366   226.24   10331.   41.933   12.581   .99107   -23.43   10371.   10419.   -10.15
  FE       LI       MN       MO       NI       PB       SN       SR       TI       V
12.868   9960.0   2.3183   10308.   10.330   10423.   10134.   10251.   5.1999   360.34
   Y       ZN       CA       CA       K        MG       NA       AL       FE       ZN
10329.   7.0350   .00640   .13410   -1.817   10.154   100.33   .19868   1.5672   -.1003
SAT --End of command file
SAT>NS
ENTER STANDARD NAME>TEN2
SAT>@LOOKC
Enter Text Strins>TEN3

BURN # 1          SED4     13-APR-88 13:10:57
TEN3
5299.0
-87.37   4.5453   102.14   10139.   .89876   10185.   10156.   -5.837   -172.2   10113.
71.174   4.0816   10229.   .19294   10304.   1401.1   -14.49   2.1772   1.4967   10216.
2.3068   10280.   -.0514   -.0133   87.827   .00164   -.0044   .32708   1.7332   9.8258

BURN # 2          SED4     13-APR-88 13:11:23
TEN3
5300.0
-87.11   .83211   129.02   10231.   .54700   10234.   10214.   -3.989   -181.0   10157.
71.460   4.0544   10277.   2.4668   10349.   1388.6   25.763   1.9074   1.5575   10245.
1.4496   10316.   -.0510   -.0115   87.210   .00012   .00536   .32857   1.7630   9.8430

BURN # 3          SED4     13-APR-88 13:11:50
TEN3
5300.5
-86.38   10.492   73.399   10216.   1.6016   10224.   10213.   -6.500   -172.1   10158.
71.097   2.5536   10271.   5.5315   10367.   1406.0   -20.60   1.4804   1.7080   10262.
1.3178   10321.   -.0510   -.0143   87.951   -.0013   -.0129   .32932   1.8292   9.7647

AVERAGE N=3       SED4     13-APR-88 13:12:06
TEN3
  LV
5299.8
  AG       AL       AS       B        BA       BE       CD       CO       CR       CU
-86.95   5.2899   101.52   10195.   1.0158   10214.   10194.   -5.442   -175.1   10143.
  FE       LI       MN       MO       NI       PB       SN       SR       TI       V
71.244   3.5632   10259.   2.7304   10340.   1398.5   -3.110   1.8550   1.5874   10241.
   Y       ZN       CA       CA       K        MG       NA       AL       FE       ZN
1.6914   10306.   -.0511   -.0130   87.663   .00015   -.0040   .32832   1.7751   9.8112
SAT --End of command file
SAT>SS
```

```
ENTER VALUE(S)>
HIGH Standard values missing for LCN:2
HIGH Standard values missing for LCN:3
HIGH Standard values missing for LCN:5
HIGH Standard values missing for LCN:6
HIGH Standard values missing for LCN:7
HIGH Standard values missing for LCN:8
HIGH Standard values missing for LCN:11
HIGH Standard values missing for LCN:12
HIGH Standard values missing for LCN:14
HIGH Standard values missing for LCN:16
HIGH Standard values missing for LCN:20
HIGH Standard values missing for LCN:21
HIGH Standard values missing for LCN:23
HIGH Standard values missing for LCN:24
HIGH Standard values missing for LCN:25
HIGH Standard values missing for LCN:26
HIGH Standard values missing for LCN:29
HIGH Standard values missing for LCN:30
HIGH Standard values missing for LCN:31
SAT>@LOOKC
Enter Text String>TEN3

BURN # 1          SED4     13-APR-88 13:16:48
TEN3
5301.5
-84.73   13.193   95.275   10104.   1.8356   10084.   10033.   -6.336   -171.1   10043.
72.395   -1.303   10121.   -3.675   10214.   1378.9   1.1855   .26846   1.0485   10098.
.76607   10169.   -.0510   -.0179   86.263   -.0018   .00934   .32037   1.7332   9.7051

BURN # 2          SED4     13-APR-88 13:17:14
TEN3
5302.0
-85.41   3.7639   91.934   10172.   .66393   10150.   10144.   -9.040   -170.3   10102.
70.176   -2.436   10198.   -2.642   10274.   1389.1   -19.71   .26662   1.5191   10165.
.63852   10261.   -.0508   -.0133   86.600   -.0034   .01132   .32634   1.8246   9.7916

BURN # 3          SED4     13-APR-88 13:17:41
TEN3
5302.5
-87.17   9.7889   73.596   10156.   1.0153   10149.   10139.   -6.049   -168.2   10084.
72.006   -.9566   10193.   3.6634   10348.   1372.4   -10.88   .36839   1.8295   10174.
.51099   10252.   -.0508   -.0124   86.565   -.0040   .02841   .33528   1.7967   9.9100

AVERAGE N=3       SED4     13-APR-88 13:17:57
TEN3
  LV
5302.0
  AG       AL       AS       B        BA       BE       CD       CO       CR       CU
-85.77   8.9153   86.935   10144.   1.1716   10128.   10106.   -7.142   -169.9   10076.
  FE       LI       MN       MO       NI       PB       SN       SR       TI       V
71.525   -1.565   10171.   -.8844   10278.   1380.1   -9.801   .30116   1.4657   10146.
   Y       ZN       CA       CA       K        MG       NA       AL       FE       ZN
.63853   10227.   -.0509   -.0145   86.476   -.0031   .01636   .32733   1.7848   9.8022
SAT --End of command file
SAT>NS
ENTER STANDARD NAME>TEN3
SAT>SS
ENTER VALUE(S)>17 20 21 26
HIGH Standard values missing for LCN:20
SAT>@LOOKC
Enter Text String>TEN2

BURN # 1          SED4     13-APR-88 13:21:14
TEN2
5300.0
```

```
.62033   229.79   9999.2   76.327   11.913   2.3280   -16.38   9981.7   9932.0   7.421
11.041   9942.3   3.2284   9947.6   5.4881   10004.   9986.0   9973.6   4.9998   344.09
9984.7   7.6085   .00574   .13179   -.5748   9.9722   99.400   .19744   1.4457   -.0983

BURN # 2          SED4     13-APR-88 13:21:40
TEN2
5301.0
-2.546   225.42   10094.   72.898   11.678   2.2268   -18.45   10051.   10110.   -10.87
11.001   10067.   3.2298   10031.   10.327   10055.   10096.   10068.   5.2201   353.68
10069.   6.9071   .00664   .13561   -.3864   10.054   100.46   .19222   1.4901   -.1073

BURN # 3          SED4     13-APR-88 13:22:07
TEN2
5299.0
.39939   229.14   10095.   68.875   12.621   2.0503   -17.12   10100.   10098.   -7.103
9.7308   10022.   3.0871   10073.   20.015   10105.   10061.   10058.   5.5802   352.42
10063.   7.0718   .00653   .14018   -.2907   10.080   100.15   .20415   1.5312   -.0238

AVERAGE N=3       SED4     13-APR-88 13:22:23
TEN2
  LV
5300.0
  AG       AL       AS       B        BA       BE       CD       CO       CR       CU
-.5086   228.11   10063.   72.766   12.071   2.2010   -17.39   10044.   10053.   -9.131
  FE       LI       MN       MO       NI       PB       SN       SR       TI       V
10.591   10011.   3.1818   10017.   11.943   10055.   10048.   10033.   5.2667   350.06
   Y       ZN       CA       CA       K        MG       NA       AL       FE       ZN
10039.   7.1958   .00631   .13586   -.4173   10.035   100.00   .19794   1.4890   -.0765
SAT --End of command file
SAT>NS
ENTER STANDARD NAME>TEN2
SAT>SS
ENTER VALUE(S)>20
HIGH Standard values missing for LCN:20
SAT>TSWA
SAT>@LOOKC
Enter Text String>METALS/HIGHAQC/C

BURN # 1          SED4     13-APR-88 13:25:26
METALS/HIGHAQC/C
5300.5
166.28   4707.1   833.75   1119.1   1571.3   768.67   444.97   1008.5   1542.9   1220.6
4111.5   822.39   1417.8   809.64   1227.2   3061.4   2375.6   918.15   1353.9   862.63
809.45   3011.8   14.162   14.219   99.874   5.2922   18.849   4.6521   4.4233   2.8431

BURN # 2          SED4     13-APR-88 13:25:52
METALS/HIGHAQC/C
5301.5
163.53   4673.7   818.48   1107.8   1560.1   764.30   440.88   1004.2   1535.0   1211.5
4093.3   819.60   1409.6   798.67   1244.4   3023.1   2366.8   909.89   1343.8   859.63
802.91   2986.5   14.044   14.140   98.888   5.2617   18.728   4.6119   4.3531   2.8834

BURN # 3          SED4     13-APR-88 13:26:19
METALS/HIGHAQC/C
5298.5
164.08   4695.9   831.60   1125.0   1568.2   764.66   441.02   1006.0   1562.6   1214.2
4093.2   819.40   1411.6   807.31   1237.4   3087.3   2431.1   914.56   1348.5   858.51
805.15   2994.9   14.107   14.199   99.386   5.2785   18.810   4.6335   4.3193   2.9370

AVERAGE N=3       SED4     13-APR-88 13:26:35
METALS/HIGHAQC/C
  LV
5300.2
  AG       AL       AS       B        BA       BE       CD       CO       CR       CU
164.63   4692.2   827.94   1117.3   1566.5   765.88   442.29   1006.2   1546.9   1215.4
  FE       LI       MN       MO       NI       PB       SN       SR       TI       V
```

```
4099.4   820.46     [illegible]   805.21   1236.3   3057.3   2391.1   914.20   1348.8   880.26
   Y       ZN        CA       CA       K       MG       NA       AL       FE       ZN
805.84   2997.8   14.104   14.186   99.383   5.2774   18.796   4.6325   4.3653   2.8878
SAT --End of command file
SAT>@LOOKC
Enter Text String>METALS/SILVERQ/C

BURN # 1          SED4     13-APR-88 13:28:29
METALS/SILVERQ/C
5299.0
49.102   384.15   1.2627   74.141   51.537   .80333   1.7341   .56967   .64763   .14543
-3.773   .25806   1.1370   4.5248   5.4896   18.689   2.9812   1.2627   2.5376   .32072
.63823   .73223   -.0454   -.0316   .77853   -.0006   .11782   .41202   .15232   .13113

BURN # 2          SED4     13-APR-88 13:28:56
METALS/SILVERQ/C
5299.5
49.336   379.86   -13.10   69.696   51.063   .88384   -2.003   4.5582   5.2514   -.1445
-3.792   2.8586   1.2990   .87244   -3.226   22.356   3.6785   1.3645   2.6880   1.7392
1.1489   1.2834   -.0458   -.0338   1.2082   -.0020   .10848   .41798   .16557   .21905

BURN # 3          SED4     13-APR-88 13:29:22
METALS/SILVERQ/C
5300.0
49.577   384.08   -12.21   69.484   51.644   .78489   -.6015   2.7064   .64737   .14532
-3.642   2.0980   1.0197   4.1805   -1.289   40.839   8.0925   1.2070   3.1586   2.3101
.63833   1.5876   -.0466   -.0329   .46941   -.0032   .11106   .41127   .21391   .21756

AVERAGE N=3       SED4     13-APR-88 13:29:37
METALS/SILVERQ/C
  LV
5299.5
  AG       AL       AS       B       BA       BE       CD       CO       CR       CU
49.338   382.70   -8.015   71.107   51.415   .82402   -.2900   2.6114   2.1821   .04874
  FE       LI       MN       MO       NI       PB       SN       SR       TI       V
-3.736   1.7382   1.1519   3.1926   .32489   27.295   4.9174   1.2781   2.7948   1.4567
   Y       ZN       CA       CA       K       MG       NA       AL       FE       ZN
.80847   1.2011   -.0459   -.0328   .81873   -.0019   .11245   .41376   .17727   .18924
SAT --End of command file
SAT>
```

```
BLNK IS TEN1 TEN2 TEN3 TEN4 CAZN ALFE
SAT>@LOOKC
Enter Text String>BLNK

BURN # 1          SED4     13-APR-88 13:38:35
BLNK
5298.0
.83892   2.2284   -16.31   9.2449   .78170   .55488   -.0221   2.7067   1.5330   -.7244
-2.554   -.0883   .69236   2.6487   2.5854   11.229   -21.91   .17770   1.7562   2.1779
.25508   .30752   -.0197   -.0063   -.2926   -.0022   .00874   .03725   .13444   .07302

BURN # 2          SED4     13-APR-88 13:39:01
BLNK
5299.0
.15705   -6.124   9.3724   8.4806   .89876   .52126   .57565   .14230   5.2508   -2.464
-1.579   -.1154   .78848   -1.908   8.3947   9.4703   -2.153   .17402   1.8971   -.3791
.25525   .90619   -.0192   -.0038   -.2658   -.0037   -.0085   .04098   .25299   .08792

BURN # 3          SED4     13-APR-88 13:39:28
```

```
BLNK
5299.0
.16986   -4.964   -1.348   7.0876   -.0390   .50318   -2.102   .28476   1.0002   -.2895
-3.098   -.4889   .84099   -2.363   4.5212   30.038   11.788   .17402   2.0572   -.6060
.12759   -.1995   -.0192   -.0065   .20662   -.0046   -.0030   .04098   .32054   .08792

AVERAGE N=3      SED4     13-APR-88 13:39:43
BLNK
  LV
5298.7
  AG       AL       AS       B        BA       BE       CD       CO       CR       CU
.38861   -2.953   -2.761   8.2710   .54716   .52644   -.5160   1.0446   2.5947   -1.159
  FE       LI       MN       MO       NI       PB       SN       SR       TI       V
-2.410   -.2309   .77394   -.5410   5.1671   16.912   -4.091   .17525   1.9035   .39759
   Y       ZN       CA       CA       K        MG       NA       AL       FE       ZN
.21264   .33808   -.0194   -.0055   -.1173   -.0035   -.0009   .03974   .23599   .08295
SAT --End of command file
SAT>NS
ENTER STANDARD NAME>BLNK
SAT>@LOOKC
Enter Text String>TEN1

BURN # 1         SED4     13-APR-88 13:41:08
TEN1
5299.0
1015.5   -27.46   -45.24   57.410   -.0390   .55067   1.2751   .42722   -3.958   -.4344
71.174   1.3785   1.7328   -1.807   .64771   .62336   -9.120   .79613   2.3775   -1.141
-.0001   4.1361   10.317   10.470   .23148   -.0068   .03914   .04843   .30200   .09239

BURN # 2         SED4     13-APR-88 13:41:35
TEN1
5300.0
1016.5   -19.42   3.9445   54.993   .66420   .50517   -.5578   1.4245   9.3219   .43520
68.253   .60434   1.8086   3.0577   -5.162   19.073   -1.453   .79234   2.3581   1.5121
.19160   3.7562   10.354   10.537   .32025   -.0080   .02921   .05290   .30597   .06258

BURN # 3         SED4     13-APR-88 13:42:01
TEN1
5300.0
1019.0   -27.38   -2.074   58.065   .42980   .46957   -.8696   1.2821   7.0205   -.7243
69.772   1.7246   1.7227   3.5048   -1.289   -10.46   -7.494   .89600   2.4381   1.7033
.00015   5.3611   10.350   10.513   -.0527   -.0087   .03676   .04992   .28014   .07451

AVERAGE N=3      SED4     13-APR-88 13:42:17
TEN1
  LV
5299.7
  AG       AL       AS       B        BA       BE       CD       CO       CR       CU
1017.0   -24.75   -14.45   56.823   .35167   .50847   -.0507   1.0446   4.1281   -.2412
  FE       LI       MN       MO       NI       PB       SN       SR       TI       V
69.733   1.2358   1.7547   1.5852   -1.934   3.0782   -6.022   .82816   2.3912   .69151
   Y       ZN       CA       CA       K        MG       NA       AL       FE       ZN
.06390   4.4178   10.340   10.506   .16635   -.0078   *.0350   .05042   .29604   .07649
SAT --End of command file
SAT>NS
ENTER STANDARD NAME>TEN1
SAT>@LOOKC
Enter Text String>TEN2

BURN # 1         SED4     13-APR-88 13:43:40
TEN2
5299.0
2.3956   240.97   10106.   47.130   13.324   1.2491   -20.40   10083.   10055.   -9.422
7.0300   9919.2   2.3504   10044.   24.857   10046.   10076.   10002.   5.8204   359.00
10033.   6.0707   .00739   .14426   -.6140   10.063   99.086   .22054   1.5060   -.0134
```

```
BURN # 2          SED4     13-APR-88 13:44:07
TEN2
5299.0
.15357   225.27   10062.   43.575   12.855   1.1295   -20.47   10087.   10075.   -10.87
7.0300   9965.2   2.3859   10033.   15.658   10101.   10121.   10033.   5.2599   356.54
10059.   5.8182   .00675   .13882   -.8999   10.060   99.525   .20415   1.4762   -.0790

BURN # 3          SED4     13-APR-88 13:44:33
TEN2
5299.0
1.5850   237.10   10090.   43.526   13.324   1.1878   -21.48   10116.   10138.   -9.422
7.7052   9965.2   2.4034   10087.   8.3947   10135.   10174.   10046.   5.9005   351.45
10070.   6.6298   .00633   .14086   -.6140   10.090   99.699   .21905   1.5762   -.0462

AVERAGE N=3       SED4     13-APR-88 13:44:49
TEN2
  LV
5299.0
  AG       AL       AS       B       BA       BE       CD       CO       CR       CU
1.3780   234.45   10086.   44.744   13.168   1.1888   -20.78   10095.   10090.   -9.906
  FE       LI       MN       MO       NI       PB       SN       SR       TI       V
7.2551   9949.8   2.3799   10055.   16.303   10094.   10124.   10027.   5.6603   355.66
   Y       ZN       CA       CA       K       MG       NA       AL       FE       ZN
10054.   6.1729   .00682   .14131   -.7093   10.071   99.437   .21458   1.5195   -.0462
SAT --End of command file
SAT>NS
ENTER STANDARD NAME>TEN2
SAT>@LOORC
Enter Text String>TEN3

BURN # 1          SED4     13-APR-88 13:46:16
TEN3
5297.5
-87.39   12.206   84.742   10238.   1.1335   10279.   10264.   -3.421   -169.1   10172.
70.914   .67238   10323.   -1.749   10474.   1407.8   12.812   2.5650   2.2464   10146.
2.6812   10438.   -.0509   -.0089   98.955   -.0017   .02662   .35837   1.7775   9.9331

BURN # 2          SED4     13-APR-88 13:46:43
TEN3
5299.0
-87.70   11.194   68.538   10260.   1.3676   10261.   10269.   -1.211   -172.2   10182.
69.655   2.4990   10314.   6.3702   10465.   1401.6   2.8205   1.8330   2.2173   10144.
2.0425   10447.   -.0507   -.0051   98.364   -.0037   .03477   .34869   1.8312   9.9599

BURN # 3          SED4     13-APR-88 13:47:10
TEN3
5299.0
-88.65   6.3235   95.797   10308.   .42989   10304.   10284.   -9.687   -165.6   10230.
71.680   -.8624   10342.   6.2647   10515.   1388.3   -1.594   1.3146   1.8971   10173.
1.4042   10480.   -.0507   -.0089   99.073   -.0047   .02940   .35316   1.8034   9.9927

AVERAGE N=3       SED4     13-APR-88 13:47:25
TEN3
  LV
5298.5
  AG       AL       AS       B       BA       BE       CD       CO       CR       CU
-87.91   9.9078   83.026   10269.   .97702   10281.   10272.   -4.773   -169.0   10195.
  FE       LI       MN       MO       NI       PB       SN       SR       TI       V
70.750   .76965   10326.   3.6287   10485.   1399.2   4.6796   1.9042   2.1203   10154.
   Y       ZN       CA       CA       K       MG       NA       AL       FE       ZN
2.0426   10455.   -.0508   -.0076   98.798   -.0033   .03027   .35341   1.8040   9.9619
SAT --End of command file
SAT>NS
ENTER STANDARD NAME>TEN3
SAT>@LOORC
Enter Text String>TEN4
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BURN # 1          SED4     13-APR-88 13:48:41
TEN4
5298.0
-3.384   10069.   -3.824   344.35   10242.   5.6587   2.9037   26.359   2.3217   4.4954
10359.   -.0883   8.9155   1.8982   -.3203   41.088   40.648   3.3407   10300.   8.0993
.76582   9.5656   .03905   .09288   -.5537   .02425   .38087   9.9756   10.149   .00149

BURN # 2          SED4     13-APR-88 13:49:07
TEN4
5299.0
-2.653   10039.   32.235   315.64   10188.   3.8812   .04976   23.719   4.0914   2.8998
10348.   .63155   7.0570   -1.055   4.5212   52.178   2.3166   3.4920   10283.   9.0500
1.0212   8.3052   .03868   .09740   -.2658   .02311   .36875   10.004   10.263   .05513

BURN # 3          SED4     13-APR-88 13:49:34
TEN4
5298.0
-3.361   10137.   -4.672   313.17   10311.   3.4565   2.3679   26.216   .19510   2.1755
10423.   .65877   6.8213   3.3132   -1.289   63.133   26.022   3.3926   10367.   7.0199
1.0212   8.0686   .04017   .09832   -.5661   .02276   .39597   10.059   10.273   .02980

AVERAGE N=3       SED4     13-APR-88 13:49:49
TEN4
  LV
5298.3
  AG       AL       AS       B        BA       BE       CD       CO       CR       CU
-3.133   10082.   7.9130   324.39   10247.   4.3321   1.7738   25.431   2.2027   3.1902
  FE       LI       MN       MO       NI       PB       SN       SR       TI       V
10377.   .40066   7.5980   1.3855   .97069   52.133   22.995   3.4084   10317.   8.0564
   Y       ZN       CA       CA       K        MG       NA       AL       FE       ZN
.93607   8.6465   .03930   .09620   -.4619   .02337   .38187   10.013   10.228   .02881
SAT --End of command file
SAT>NS
ENTER STANDARD NAME>TEN4
SAT>@LOOKC
Enter Text String>CAZN
Data overflow, LCN:24
Data overflow, LCN:24

BURN # 1          SED4     13-APR-88 13:51:08
CAZN
5300.0
-2.174   -748.5   6.2216   129.74   27.268   2.1057   1.2856   2.1367   3.4787   2.7542
31.631   25.250   3.6895   18.417   1.6154   -4.402   -21.19   33.240   20.130   28.507
1.6594   >*****   *130.2   >440.4   -1.022   -.0011   .22193   .10580   .36226   432.66
Data overflow, LCN:24
Data overflow, LCN:24

BURN # 2          SED4     13-APR-88 13:51:36
CAZN
5299.0
-2.879   -722.7   11.385   129.61   25.749   1.8910   .92382   2.8490   -.7712   3.0448
29.987   23.041   3.7802   25.441   -.8048   26.854   -26.77   33.042   18.872   26.956
1.4042   >*****   *130.2   >439.1   -.4896   -.0021   .21259   .10729   .37816   432.12
Data overflow, LCN:24
Data overflow, LCN:24

BURN # 3          SED4     13-APR-88 13:52:05
CAZN
5299.0
-1.108   -762.2   -3.175   123.99   24.811   1.7551   2.6399   1.2820   9.4993   1.8850
28.974   23.787   3.3381   33.675   3.5528   4.7794   -6.786   33.042   17.430   28.045
1.2765   >*****   *130.2   >438.7   -.8626   -.0026   .21478   .11623   .40929   432.46

AVERAGE N=3       SED4     13-APR-88 13:52:20
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CAZN
  LV
5299.3
  AG       AL       AS       B       BA       BE       CD       CO       CR       CU
-2.054   -744.5   4.8105   127.78   25.943   1.9173   1.6164   2.0892   4.0689   2.5614
  FE       LI       MN       MO       NI       PB       SN       SR       TI       V
30.197   24.026   3.6026   25.844   1.4544   9.0769   -18.25   33.108   18.811   27.836
   Y       ZN       CA       CA       K       MG       NA       AL       FE       ZN
1.4467   >*****   *130.2   >439.4   -.7915   -.0016   .21643   .10977   .38324   432.41
SAT --End of command file
SAT>NS
ENTER STANDARD NAME>CAZN
SAT>@LOOKC
Enter Text String>ALFE

BURN # 1          SED4     13-APR-88 13:53:35
ALFE
5298.0
-1.769   >*****   -67.42   -62.59   66.084   -3.409   1.1682   -4.702   4.5644   -79.02
>*****   2.9001   140.00   -123.5   4.5225   62.231   -74.60   3.3926   11.126   89.418
1.2765   208.45   .05268   .10035   -.5040   .00058   .02325   418.11   437.16   .14007

BURN # 2          SED4     13-APR-88 13:54:02
ALFE
5298.0
-3.122   >*****   -81.76   -66.15   65.967   -5.045   1.6986   2.2792   -.0136   -77.72
>*****   2.9001   139.43   -124.9   -3.226   1.1857   -35.65   3.3926   11.687   89.387
1.4042   163.00   .00467   .05824   -.5661   -.0007   .02702   415.66   434.37   .14603

BURN # 3          SED4     13-APR-88 13:54:28
ALFE
5299.0
-2.809   >*****   -103.7   -69.28   65.837   -4.200   3.7990   -.7124   1.3757   -77.85
>*****   3.6194   140.23   -125.2   -3.710   51.586   -84.69   3.3883   11.345   86.195
1.4680   156.94   -.0011   .05190   -.3031   -.0011   .03159   416.49   437.17   .14305

AVERAGE N=3       SED4     13-APR-88 13:54:44
ALFE
  LV
5298.3
  AG       AL       AS       B       BA       BE       CD       CO       CR       CU
-2.567   >*****   -84.28   -66.01   65.963   -4.218   2.2219   -1.045   1.9755   -78.20
  FE       LI       MN       MO       NI       PB       SN       SR       TI       V
>*****   3.1399   139.89   -124.5   -.8045   38.334   -64.98   3.3911   11.386   88.333
   Y       ZN       CA       CA       K       MG       NA       AL       FE       ZN
1.3829   176.13   .01877   .07016   -.4577   -.0004   .02729   416.75   436.23   .14305
SAT --End of command file
SAT>NS
ENTER STANDARD NAME>ALFE
SAT>SS
ENTER VALUE(S)>
SAT>TSWA
SAT>@SEEC
Enter Text String>METALS/BLANK01/B

BURN # 1          SED4     13-APR-88 13:57:08
METALS/BLANK01/B
5300.0
2.5651   54.802   11.345   3.4584   1.1436   .34736   .44850   1.5052   -1.580   .99526
57.188   1.5900   .37452   1.4869   -17.25   9.3940   28.982   .09850   .90637   1.7644
.42341   24.707   .02569   .02549   .01502   -.0006   .00854   .05886   .08345   .05364

BURN # 2          SED4     13-APR-88 13:57:35
METALS/BLANK01/B
5299.0
.58731   45.078   -5.101   2.5113   .57195   .23655   -1.267   -.6116   2.1063   .99531
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46.501   -.2593   -.0210   -3.344   -2.926   -1.624   -12.30   -.0012   .77002   2.2084
.04238   22.708   .02327   .02013   -.1754   -.0019   .00119   .03353   .04106   .05066

BURN # 3          SED4     13-APR-88 13:58:02
METALS/BLANK01/B
5299.0
-1.155   31.508   -18.22   -.7861   .11435   .32777   -1.331   1.2230   5.0911   -.9953
37.394   .86676   .13102   -.8635   -14.48   -16.48   -4.508   -.0529   .45952   -1.758
.16936   18.317   .01974   .01333   -.6530   -.0025   .00556   .02459   .00927   -.0224

AVERAGE N=3       SED4     13-APR-88 13:58:17
METALS/BLANK01/B
  LV
5299.3
  AG       AL       AS       B       BA       BE       CD       CO       CR       CU
.66565   43.796   -3.991   1.7279   .60997   .30389   -.7166   .70555   1.8723   .33176
  FE       LI       MN       MO       NI       PB       SN       SR       TI       V
47.028   .73249   .16151   -.9069   -11.55   -2.903   4.0567   .01478   .71197   .73833
   Y       ZN       CA       CA       K       MG       NA       AL       FE       ZN
.21172   21.911   .02290   .01965   -.2711   -.0017   .00510   .03899   .04459   .02732
SAT --End of command file
SAT>@SEEC
Enter Text String>METALS/BLANK02/B

BURN # 1          SED4     13-APR-88 13:59:29
METALS/BLANK02/B
5298.5
-.2324   19.244   .42815   -.7677   -.3432   .12511   -.6081   -.0472   2.6337   -.4266
20.500   2.3820   .21066   -1.961   -10.32   14.518   .30877   .10403   .62419   .36584
.16929   11.810   .01073   .00972   .01855   -.0023   .00795   .02533   -.0026   .05811

BURN # 2          SED4     13-APR-88 13:59:56
METALS/BLANK02/B
5298.0
-.2343   9.8156   10.899   .73837   -.1144   .21002   .00902   -1.176   .17575   1.4220
18.243   1.6450   -.0631   5.5748   -10.78   -5.327   6.5024   .00245   .63361   1.3579
.04221   10.640   .00924   .00920   -.2904   -.0035   -.0030   .01937   -.0073   .05364

BURN # 3          SED4     13-APR-88 14:00:22
METALS/BLANK02/B
5299.0
-.6888   13.569   5.3977   -.1326   .11435   .32281   -1.181   -1.599   -2.634   -.1422
15.275   1.2421   .25247   -.3720   -3.388   -19.99   -8.177   .10218   .77002   1.6912
.04238   8.8418   .00726   .00962   .05089   -.0040   .02305   .02310   .02782   .01043

AVERAGE N=3       SED4     13-APR-88 14:00:38
METALS/BLANK02/B
  LV
5298.5
  AG       AL       AS       B       BA       BE       CD       CO       CR       CU
-.3852   14.210   5.5750   -.0540   -.1144   .21931   -.5934   -.9410   .05863   .28440
  FE       LI       MN       MO       NI       PB       SN       SR       TI       V
18.006   1.7564   .13336   1.0805   -8.163   -3.599   -.4552   .06955   .67594   1.1383
   Y       ZN       CA       CA       K       MG       NA       AL       FE       ZN
.08463   10.431   .00908   .00951   -.0736   -.0033   .00934   .02260   .00596   .04073
SAT --End of command file
SAT>METALS/HIH.AQC/C^U
SAT>@SEEC
Enter Text String>METALS/HIH.AQC/C

BURN # 1          SED4     13-APR-88 14:02:41
METALS/HIH.AQC/C
5299.0
161.59   4660.2   827.82   1079.9   1526.9   749.17   437.48   1010.3   1572.9   1193.4
3997.7   822.15   1375.6   811.05   1196.0   3073.1   2440.0   913.20   1310.9   854.77
805.33   2895.3   13.693   13.075   98.054   5.2887   18.823   4.4674   4.0531   2.7254
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BURN # 2          SED4     13-APR-88 14:03:08
METALS/HIH.AQC/C
5299.0
161.57   4669.7   821.98   1084.6   1529.6   749.74   438.68   1005.9   1551.9   1196.3
3995.6   818.39   1374.2   807.06   1208.0   3078.6   2410.9   914.86   1313.9   855.64
805.08   2892.7   13.706   13.053   97.488   5.2816   18.901   4.4473   3.9293   2.7046

BURN # 3          SED4     13-APR-88 14:03:34
METALS/HIH.AQC/C
5300.0
163.28   4687.8   839.16   1098.8   1538.3   751.38   437.21   1005.6   1553.0   1202.5
4010.1   825.72   1376.1   808.61   1202.3   3056.9   2384.7   919.02   1317.6   856.12
808.23   2896.5   13.775   13.074   98.037   5.2908   18.998   4.4666   3.9366   2.6822

AVERAGE N=3       SED4     13-APR-88 14:03:50
METALS/HIH.AQC/C
  LV
5299.3
  AG       AL       AS       B        BA       BE       CD       CO       CR       CU
162.14   4672.5   829.65   1087.8   1531.6   750.10   437.79   1007.3   1559.3   1197.4
  FE       LI       MN       MO       NI       PB       SN       SR       TI       V
4001.1   822.09   1375.3   808.91   1202.1   3069.5   2411.9   915.69   1314.1   855.51
   Y       ZN       CA       CA       K        MG       NA       AL       FE       ZN
806.22   2894.8   13.725   13.068   97.860   5.2870   18.907   4.4604   3.9730   2.7041
SAT --End of command file
SAT>@SEEC
Enter Text Strins>METALS/SILVER./C

BURN # 1          SED4     13-APR-88 14:05:35
METALS/SILVER./C
5299.0
47.241   379.79   -20.80   62.990   49.764   .32813   -2.370   -1.035   2.6333   .56876
5.8427   1.6175   .60359   2.0513   -4.313   -5.397   -13.66   .82604   1.3134   -1.251
.42331   4.6984   -.0216   -.0157   1.1067   .00105   .11663   .36061   .00795   .17434

BURN # 2          SED4     13-APR-88 14:06:02
METALS/SILVER./C
5300.0
48.879   371.67   -6.650   59.246   49.754   .37418   1.6216   .65859   -2.634   1.4217
5.6427   3.0911   .77796   1.9167   .30633   16.834   11.120   .92561   2.1481   1.7982
.29646   3.6223   -.0231   -.0190   .55540   -.0006   .12219   .36582   .13775   .23246

BURN # 3          SED4     13-APR-88 14:06:28
METALS/SILVER./C
5301.0
49.554   382.94   -8.484   58.082   50.202   .22424   -.8835   2.6337   2.2806   .71094
3.8170   2.3130   .20924   2.9177   -5.699   38.454   -18.01   .71503   1.1203   -.1220
.29658   3.6082   -.0239   -.0248   .68278   -.0015   .12517   .36135   .07285   .05066

AVERAGE N=3       SED4     13-APR-88 14:06:44
METALS/SILVER./C
  LV
5300.0
  AG       AL       AS       B        BA       BE       CD       CO       CR       CU
48.558   378.14   -11.98   60.106   49.907   .30885   -.5440   .75243   .75994   .90048
  FE       LI       MN       MO       NI       PB       SN       SR       TI       V
5.1008   2.3405   .53026   2.2952   -3.235   16.630   -6.847   .82223   1.5273   .14173
   Y       ZN       CA       CA       K        MG       NA       AL       FE       ZN
.33878   3.9763   -.0229   -.0198   .78163   -.0004   .12133   .36259   .07285   .15249
SAT --End of command file
SAT>@SEEC
Enter Text Strins>METALS/HIGH.QC/C

BURN # 1          SED4     13-APR-88 14:08:54
METALS/HIGH.QC/C
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5299.0
-2.306   >*****  39.927   3.5026   1.2583   1.1257   -1.704   .23516   3.1389   -16.64
>*****   10.626  36.800   -18.74   -12.63   -14.84   -9.422   2.0669   9.4640   23.885
.80425   >*****  *130.2   95.567   -1.156   >71.37   .08146   90.439   92.870   92.535

BURN # 2          SED4     13-APR-88 14:09:20
METALS/HIGH.QC/C
5300.0
-3.423   >*****  -19.18   4.8679   .11422   1.3590   -1.765   3.1278   -1.427   -16.63
>*****   10.972  37.138   -23.28   -2.927   3.8216   -29.59   2.1663   9.9092   21.078
.29646   >*****  *130.2   95.942   -.4877   >71.41   .08663   90.458   93.055   92.813

BURN # 3          SED4     13-APR-88 14:09:47
METALS/HIGH.QC/C
5301.0
-1.981   >*****  71.263   2.4250   .22845   1.0813   -.2767   -.4699   -.3826   -16.63
>*****   10.192  37.436   -11.95   -7.085   -27.02   -6.569   2.0588   9.7334   25.230
.80430   >*****  *130.2   96.423   -1.026   >71.46   .07868   91.048   93.913   93.418

AVERAGE N=3       SED4     13-APR-88 14:10:02
METALS/HIGH.QC/C
  LV
5300.0
  AG       AL       AS       B        BA       BE       CD       CO       CR       CU
-2.570   >*****  30.671   3.5985   .53367   1.1886   -1.249   .96435   .44297   -16.63
  FE       LI       MN       MO       NI       PB       SN       SR       TI       V
>*****   10.597  37.125   -17.99   -7.547   -12.68   -15.19   2.0974   9.7022   23.398
   Y       ZN       CA       CA       K        MG       NA       AL       FE       ZN
.63500   >*****  *130.2   95.977   -.8898   >71.41   .08225   90.648   93.279   92.922
SAT --End of command file
SAT>IS
BLNK TEN1 TEN2 TEN3 TEN4 CAZN ALFE
SAT>@LOOKC
Enter Text String>TEN2

BURN # 1          SED4     13-APR-88 14:16:30
TEN2
5300.0
.42467   213.08   9091.4   33.149   11.781   .63828   -20.16   9025.5   9011.0   -11.23
24.667   9067.4   1.2450   9006.4   7.2354   8924.8   8917.9   9124.6   3.3899   296.67
9100.3   11.026   .02068   .10584   -1.053   9.0045   90.234   .13560   1.0053   -.2235

BURN # 2          SED4     13-APR-88 14:16:57
TEN2
5298.0
-.6878   236.63   10090.   38.552   12.472   .73817   -17.83   10085.   10119.   -8.675
22.309   10110.   1.4603   10059.   10.476   10020.   10088.   10154.   3.2734   359.86
10140.   9.9955   .02867   .13195   -.7681   10.088   101.05   .16540   1.2656   -.1982

BURN # 3          SED4     13-APR-88 14:17:23
TEN2
5300.0
-.5669   233.17   10111.   34.013   11.552   .73281   -17.94   10120.   10155.   -9.524
19.789   10125.   1.5278   10110.   7.2354   10138.   10110.   10167.   3.7003   354.56
10162.   8.9587   .02792   .13490   -.9275   10.111   101.19   .16466   1.2702   -.1520

AVERAGE N=3       SED4     13-APR-88 14:17:39
TEN2
  LV
5299.3
  AG       AL       AS       B        BA       BE       CD       CO       CR       CU
-.2767   227.63   9764.2   35.238   11.935   .70309   -18.64   9743.7   9761.6   -9.810
  FE       LI       MN       MO       NI       PB       SN       SR       TI       V
22.255   9767.2   1.4110   9725.1   8.3155   9694.4   9705.5   9815.1   3.4545   337.03
   Y       ZN       CA       CA       K        MG       NA       AL       FE       ZN
9800.7   9.9933   .02576   .12423   -.9163   9.7347   97.492   .15522   1.1804   -.1912
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SAT --End of command file
SAT>@LOOKC
Enter Text String>WP284#2

BURN # 1          SED4     13-APR-88 14:20:48
WP284#2
5298.0
-8.178   708.13   268.13   40.909   .00006   240.03   39.683   271.88   264.60   341.17
807.49   2.3958   354.95   6.4054   196.25   499.46   18.524   1.0367   1.0994   880.28
.74072   424.27   -.0297   -.0174   .26279   -.0013   .46849   .70557   .85235   .51856

BURN # 2          SED4     13-APR-88 14:21:14
WP284#2
5299.0
-9.221   708.91   265.60   41.053   -1.030   239.41   42.614   274.30   250.51   338.54
807.63   2.3682   353.97   -1.620   200.83   480.82   -6.713   1.0329   1.0029   877.04
.55029   423.16   -.0296   -.0231   -.0748   -.0028   .48220   .69216   .82784   .43958

BURN # 3          SED4     13-APR-88 14:21:41
WP284#2
5299.0
-6.884   702.63   242.93   40.501   -.6864   238.68   40.690   274.23   255.42   336.27
803.24   3.8696   352.93   1.7683   201.75   526.36   -5.790   1.0329   1.0029   875.57
.93123   424.04   -.0298   -.0136   .46568   -.0038   .47743   .70259   .94109   .43511

AVERAGE N=3       SED4     13-APR-88 14:21:56
WP284#2
  LV
5298.7
  AG       AL       AS       B        BA       BE       CD       CO       CR       CU
-8.094   706.56   258.89   40.821   -.5720   239.38   40.996   273.47   256.85   338.66
  FE       LI       MN       MO       NI       PB       SN       SR       TI       V
806.12   2.8779   353.95   2.1845   199.61   502.21   2.0070   1.0342   1.0351   877.63
   Y       ZN       CA       CA       K        MG       NA       AL       FE       ZN
.74075   423.82   -.0297   -.0180   .21789   -.0026   .47604   .70011   .87376   .46442
SAT --End of command file
SAT>IS
BLNK TEN1 TEN2 TEN3 TEN4 CAZN ALFE
SAT>@LOOKC
Enter Text String>TEN^U
Enter Text String>BLNK

BURN # 1          SED4     13-APR-88 14:34:56
BLNK
5298.0
.23444   -.2294   -22.49   -2.258   -.6865   .07813   .20936   .51733   -.5269   -.1423
-1.928   -1.358   -.1762   -.5908   -7.547   18.250   -1.528   -.2561   -.4533   .35300
.16922   -1.335   -.0035   -.0149   -1.045   .00096   -.0149   -.0089   .02186   -.1878

BURN # 2          SED4     13-APR-88 14:35:23
BLNK
5298.0
.47195   -4.063   -13.08   -3.599   -.3432   .06980   .48241   2.6346   1.2287   .99537
-2.416   -.9830   -.2496   -3.347   -5.236   -1.595   10.862   -.1010   -.2981   .29897
.29622   -1.449   -.0035   -.0103   -.8687   -.0007   -.0215   -.0104   .05298   -.1118

BURN # 3          SED4     13-APR-88 14:35:50
BLNK
5298.0
-.6921   -6.364   -6.412   -3.086   -.3432   .16104   -1.698   1.6465   -2.985   -.7112
-4.205   -.6076   -.0581   -.4807   -8.933   3.6149   .99558   -.1010   -.6086   -1.083
-.3388   -2.167   -.0036   -.0131   -.6172   -.0015   -.0171   -.0075   .02119   -.0760

AVERAGE N=3       SED4     13-APR-88 14:36:05
BLNK
  LV
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5298.0
  AG       AL       AS        B       BA       BE       CD       CO       CR       CU
.00476   -3.552   -13.99   -2.981   -.4576   .10299   -.3356   1.5995   -.7611   .04729
  FE       LI       MN       MO       NI       PB       SN       SR       TI        V
-2.850   -.9830   -.1613   -1.473   -7.239   6.7565   3.4431   -.1527   -.4533   -.1438
   Y       ZN       CA       CA        K       MG       NA       AL       FE       ZN
.04221   -1.650   -.0035   -.0127   -.8435   -.0004   -.0178   -.0089   .03201   -.1252
SAT --End of command file
SAT>NS
ENTER STANDARD NAME>BLNK
SAT>@LOOKC
Enter Text String>TEN3

BURN # 1          SED4     13-APR-88 14:37:24
TEN3
5300.0
-87.49   1.9139   140.20   8.7971   -.1145   -.1167   -2.632   1.3641   -7.034   1.2796
1.5776   .83942   .59706   -.8930   -3.851   19.531   -10.39   .20189   .28549   9923.1
-.2114   6.7542   -.0021   .00200   -.3117   -.0002   .08106   .23842   1.3543   -.0298

BURN # 2          SED4     13-APR-88 14:37:51
TEN3
5299.0
-87.96   3.2957   117.85   6.4927   -.5720   -.2456   -.3160   .94079   -.8911   -.9953
-.0121   1.6175   .84376   -1.393   -1.078   -11.61   9.1036   .20559   1.3910   9898.2
.16936   7.7640   -.0025   .00684   -.8415   -.0016   .08901   .23022   1.3795   .13858

BURN # 3          SED4     13-APR-88 14:38:17
TEN3
5299.0
-87.52   5.9790   148.19   5.8681   -.0001   -.1008   -.2698   -1.388   -.3637   1.2797
2.2648   1.6175   .51499   5.6608   -2.464   19.419   -8.562   .20559   .45952   9959.7
-.2116   7.5372   -.0020   .00405   -.8290   -.0023   .07927   .22426   1.3020   -.0179

AVERAGE N=3       SED4     13-APR-88 14:38:32
TEN3
  LV
5299.3
  AG       AL       AS        B       BA       BE       CD       CO       CR       CU
-87.66   3.7296   135.41   7.0526   -.2289   -.1544   -1.072   .30570   -2.763   .52133
  FE       LI       MN       MO       NI       PB       SN       SR       TI        V
1.2767   1.3581   .65193   1.1251   -2.465   9.1121   -3.283   .20436   .71201   9927.0
   Y       ZN       CA       CA        K       MG       NA       AL       FE       ZN
-.0845   7.3518   -.0022   .00430   -.6607   -.0014   .08312   .23097   1.3453   .03030
SAT --End of command file
SAT>NS
ENTER STANDARD NAME>TEN3
SAT>SS
ENTER VALUE(S)>21
SAT>TSWA
SAT>@SEEC
Enter Text String>METALS/BLNK.00/B

BURN # 1          SED4     13-APR-88 14:41:18
METALS/BLNK.00/B
5298.0
-.4677   -4.677   -8.527   -2.405   .34332   .25387   -1.239   -1.035   2.6341   .28431
.02423   .51869   .13234   5.2465   -1.539   20.031   -1.299   .00245   .32305   4.2256
.04221   -.5043   -.0024   -.0050   -.8184   -.0001   -.0020   .00522   -.0166   -.0045

BURN # 2          SED4     13-APR-88 14:41:45
METALS/BLNK.00/B
5299.0
-2.312   -4.217   -20.84   -2.778   -1.716   .24275   -1.220   -3.011   1.9310   -.4265
-.9879   3.1189   .25073   .28972   -10.78   -23.68   -9.096   -.1046   .30427   1.9091
-.5290   -.7547   -.0019   -.0046   -.8541   -.0014   .00993   .00447   .01788   -.0328
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BURN # 3          SED4     13-APR-88 14:42:11
METALS/BLNK.00/B
5300.0
-.2461   -6.824   -10.49   -5.400   -.3433   .26973   -1.399   -.2585   .70298   -.4263
-.6989   -.6617   .18657   1.8490   -7.085   -12.99   19.566   -.0566   -.0249   1.7308
-.2748   -.7067   -.0018   -.0063   -1.078   -.0023   -.0121   -.0052   -.0901   -.0596

AVERAGE N=3       SED4     13-APR-88 14:42:27
METALS/BLNK.00/B
  LV
5299.0
  AG       AL       AS        B       BA       BE       CD       CO       CR       CU
-1.008   -5.239   -13.29   -3.528   -.5720   .25545   -1.286   -1.435   1.7560   -.1895
  FE       LI       MN       MO       NI       PB       SN       SR       TI        V
-.5542   .99196   .18988   2.4617   -6.468   -5.548   3.0569   -.0529   .20079   2.6218
   Y       ZN       CA       CA        K       MG       NA       AL       FE       ZN
-.2539   -.6552   -.0020   -.0053   -.9169   -.0013   -.0014   .00149   -.0296   -.0323
SAT --End of command file
SAT>@SEEC
Enter Text String>METALS/AQC-086/C

BURN # 1          SED4     13-APR-88 14:43:49
METALS/AQC-086/C
5298.0
163.23   4643.9   830.60   1083.5   1527.7   748.18   436.30   1005.3   1576.4   1188.7
3994.6   811.07   1378.6   815.29   1208.3   3100.3   2396.6   913.89   1316.8   863.43
805.11   2899.5   13.701   13.143   93.419   5.2967   18.788   4.4003   3.9876   2.6464

BURN # 2          SED4     13-APR-88 14:44:16
METALS/AQC-086/C
5298.0
161.60   4644.4   827.36   1074.9   1525.8   746.37   430.84   1006.5   1588.7   1187.2
3987.7   811.82   1378.1   812.22   1204.1   3060.0   2405.8   911.72   1313.3   858.98
804.53   2899.6   13.685   13.091   93.670   5.2862   18.821   4.4003   3.9293   2.6062

BURN # 3          SED4     13-APR-88 14:44:42
METALS/AQC-086/C
5299.0
163.55   4654.7   833.71   1085.7   1535.6   747.57   434.86   1009.3   1573.1   1193.5
3989.4   815.39   1376.3   807.05   1179.9   3069.4   2395.7   916.77   1318.5   860.74
808.25   2898.3   13.749   13.091   93.805   5.2855   18.890   4.3951   4.0180   2.6330

AVERAGE N=3       SED4     13-APR-88 14:44:58
METALS/AQC-086/C
  LV
5298.3
  AG       AL       AS        B       BA       BE       CD       CO       CR       CU
162.79   4647.7   830.56   1081.4   1529.7   747.37   434.00   1007.0   1579.4   1189.8
  FE       LI       MN       MO       NI       PB       SN       SR       TI        V
3990.6   812.76   1377.7   811.52   1197.4   3076.6   2399.4   914.13   1316.2   861.05
   Y       ZN       CA       CA        K       MG       NA       AL       FE       ZN
805.96   2899.1   13.712   13.108   93.631   5.2895   18.833   4.3986   3.9783   2.6286
SAT --End of command file
SAT>@SEEC
Enter Text String>METALS/SILV.RQ/C

BURN # 1          SED4     13-APR-88 14:49:05
METALS/SILV.RQ/C
5299.0
46.541   491.65   -36.49   55.550   49.077   .25285   .50627   1.7875   5.0914   -.7109
2.1021   1.6175   .59872   -3.938   -7.085   -20.17   -2.181   .72264   1.5463   1.1020
-.0846   2.3834   -.0304   -.0262   -.0622   .00231   .10033   .47535   -.0199   .11176

BURN # 2          SED4     13-APR-88 14:49:32
METALS/SILV.RQ/C
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5298.0
47.709   493.66   13.165   56.241   50.231   .29205   .16640   1.2937   -1.405   1.2798
1.9762   2.3958   .44969   5.7943   -8.009   -30.85   13.419   .82987   1.2547   1.4685
.16922   2.4629   -.0304   -.0257   .11192   .00070   .09795   .46715   -.0046   .01788

BURN # 3          SED4     13-APR-88 14:49:58
METALS/SILV.RQ/C
5298.0
47.473   498.87   4.2344   58.571   48.858   .29807   -.9951   -.6119   -3.160   -1.564
-.3011   1.6450   .44575   -5.422   -9.857   1.5776   2.4067   .62301   .94417   .71003
-.0848   1.5035   -.0306   -.0319   .01135   -.0002   .08980   .47386   -.0272   -.0089

AVERAGE N=3       SED4     13-APR-88 14:50:14
METALS/SILV.RQ/C
  LV
5298.3
  AG       AL       AS       B       BA       BE       CD       CO       CR       CU
47.241   494.73   -6.364   56.787   49.389   .28099   -.1075   .82311   .17551   -.3319
  FE       LI       MN       MO       NI       PB       SN       SR       TI       V
1.2591   1.8861   .49806   -1.188   -8.317   -16.48   4.5484   .72517   1.2484   1.0935
   Y       ZN       CA       CA       K       MG       NA       AL       FE       ZN
-.0001   2.1166   -.0305   -.0280   .02035   .00094   .09603   .47212   -.0172   .04023
SAT --End of command file
SAT>@SEEC
Enter Text String>METALS/HIGH.QC/C

BURN # 1          SED4     13-APR-88 14:51:34
METALS/HIGH.QC/C
5298.0
-3.849   >*****   39.763   .44209   .34332   .51454   -1.186   -3.011   -4.754   -16.64
>*****   9.9044   36.358   -9.080   -6.623   -23.85   -10.50   1.8642   9.1740   25.566
.16922   >*****   *130.2   94.828   -1.397   >72.67   .04053   88.850   92.087   91.762

BURN # 2          SED4     13-APR-88 14:52:00
METALS/HIGH.QC/C
5298.0
-2.805   >*****   -23.19   1.4608   .57216   .84369   -.2781   -3.223   -.7218   -16.64
>*****   10.280   36.625   -18.55   -15.40   -33.40   .10406   1.9159   9.7951   25.458
.42322   >*****   *130.2   95.365   -1.409   >72.75   .03397   89.153   92.712   92.334

BURN # 3          SED4     13-APR-88 14:52:27
METALS/HIGH.QC/C
5298.0
-3.175   >*****   42.060   4.5355   .45774   .92028   -.7889   1.8583   2.0829   -17.78
>*****   10.655   36.710   -24.91   -2.001   -3.308   -9.020   1.8642   9.4845   24.920
.55022   >*****   *130.2   95.834   -2.050   >72.78   .04649   89.548   93.199   92.715

AVERAGE N=3       SED4     13-APR-88 14:52:42
METALS/HIGH.QC/C
  LV
5298.0
  AG       AL       AS       B       BA       BE       CD       CO       CR       CU
-3.276   >*****   19.544   2.1461   .45774   .75950   -.7511   -1.459   -1.131   -17.02
  FE       LI       MN       MO       NI       PB       SN       SR       TI       V
>*****   10.280   36.564   -17.51   -8.009   -20.19   -6.472   1.8814   9.4845   25.315
   Y       ZN       CA       CA       K       MG       NA       AL       FE       ZN
.38089   >*****   *130.2   95.343   -1.619   >72.73   .04033   89.184   92.666   92.270
SAT --End of command file
SAT>@SEEC
Enter Text String>SF4978/FA16S31/S

BURN # 1          SED4     13-APR-88 14:55:25
SF4978/FA16S31/S
5299.0
.18357   -175.0   .28771   84.189   26.884   .23546   -1.441   5.1745   -3.339   12.797
105.70   10.626   3.1071   -.5975   -3.851   -3.299   -8.159   77.865   15.364   2.9939
```

29834 760.48 >67.70 77.917 1.2575 26.502 18.460 .06337 .33452 .62290

BURN # 2 SED4 13-APR-88 14:55:51
SF4978/FA16S31/S
5298.0

.63961	-187.0	-20.49	81.262	27.232	.03798	1.0818	.94079	2.8063	12.657
99.900	8.7781	2.8327	-1.912	-8.933	36.698	13.402	78.711	14.919	3.0131
.29622	765.49	>71.55	78.388	1.0548	26.670	18.692	.04843	.32650	.69290

BURN # 3 SED4 13-APR-88 14:56:18
SF4978/FA16S31/S
5299.0

-.4083	-168.3	-7.465	84.886	26.541	.17099	-.0928	1.6464	2.9817	12.654
99.520	10.626	3.0163	2.2197	-8.009	34.779	3.3055	78.072	15.053	2.5234
.16936	756.51	>68.07	78.051	1.1821	26.530	18.515	.04768	.28610	.75698

AVERAGE N=3 SED4 13-APR-88 14:56:33
SF4978/FA16S31/S
LV
5298.7

AG	AL	AS	B	BA	BE	CD	CO	CR	CU
.13831	-176.8	-9.223	*83.45	26.886	.14814	-.1506	2.5873	.81638	12.703
FE	LI	MN	MO	NI	PB	SN	SR	TI	V
101.71	10.010	2.9854	-.0967	-6.931	22.726	2.8497	78.216	15.112	2.8435
Y	ZN	CA	CA	K	MG	NA	AL	FE	ZN
.25397	760.83	>69.11	78.119	1.1648	26.567	18.556	.05389	.32231	.75748

SAT --End of command file
SAT>@SEEC
Enter Text String>SF4978/FA16D31/S

BURN # 1 SED4 13-APR-88 14:57:59
SF4978/FA16D31/S
5298.0

1.2117	-196.8	25.413	66.368	27.804	.04773	1.3482	2.2112	4.3870	13.510
79.567	9.9044	2.7475	2.8246	-6.160	22.137	5.8294	78.091	14.919	2.0342
.55022	709.45	>67.98	77.719	1.1428	26.418	18.409	.04247	.29008	.69290

BURN # 2 SED4 13-APR-88 14:58:26
SF4978/FA16D31/S
5298.0

.28442	-187.9	13.949	70.016	27.804	.17307	1.8009	3.4815	-8.958	13.510
80.380	9.9044	2.6285	-4.820	-10.78	22.127	-8.854	78.091	15.385	.53552
.67722	710.10	>68.66	77.688	.76565	26.451	18.441	.04247	.28544	.63181

BURN # 3 SED4 13-APR-88 14:58:52
SF4978/FA16D31/S
5297.0

.17173	-178.6	25.044	66.727	25.979	.16789	-1.921	-1.600	-.5298	11.806
77.829	9.9334	2.6394	3.8664	-7.085	25.650	-4.953	77.902	15.251	.04512
.16907	710.54	>68.02	77.638	1.0406	26.422	18.330	.04619	.31193	.73612

AVERAGE N=3 SED4 13-APR-88 14:59:08
SF4978/FA16D31/S
LV
5297.7

AG	AL	AS	B	BA	BE	CD	CO	CR	CU
.55596	-187.8	21.469	67.704	27.196	.12956	.40935	1.3641	-1.700	12.942
FE	LI	MN	MO	NI	PB	SN	SR	TI	V
79.259	9.9141	2.6718	.62371	-8.009	23.305	-2.659	78.028	15.185	.87160
Y	ZN	CA	CA	K	MG	NA	AL	FE	ZN
.46550	710.03	>68.22	77.682	.98301	26.430	18.394	.04371	.29582	.68694

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BURN # 1 SED4 13-APR-88 15:00:36

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SF4978/FA16S32/S
5299.0
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120.17   12.127   4.6195   1.5861   -9.857   22.195   6.9822   106.10   15.364   1.6246
-.0846   2145.9   *130.2   103.99   .93074   37.847   20.289   .04247   .44107   2.0817

BURN # 2          SED4     13-APR-88 15:01:03
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5300.0
-1.065   -256.7   .77345   163.92   36.601   -.0470   1.8727   2.0696   .17094   44.211
118.49   12.849   4.4612   -3.204   -10.32   -28.78   5.8354   105.66   15.342   2.0817
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BURN # 3          SED4     13-APR-88 15:01:29
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-1.173   -229.1   -22.74   165.89   37.173   .02543   1.6785   .23530   -2.287   45.633
119.63   13.599   4.4680   3.6064   -13.55   .59356   3.7740   105.97   15.342   1.8688
-.3383   2147.0   *130.2   104.14   1.0204   37.801   20.301   .04768   .51392   1.9506

AVERAGE N=3       SED4     13-APR-88 15:01:45
SF4978/FA16S32/S
  LV
5299.7
  AG       AL       AS       B        BA       BE       CD       CO       CR       CU
-.9110   -239.6   -4.395   164.60   37.061   .00841   1.5049   .42330   -.4141   44.877
  FE       LI       MN       MO       NI       PB       SN       SR       TI       V
119.43   12.858   4.5162   .66276   -11.24   -1.997   5.5305   105.91   15.349   1.8584
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BURN # 1          SED4     13-APR-88 15:03:06
SF4978/FA16S33/S
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2.8362   -210.8   -1.433   65.697   26.660   .08449   -.5867   2.0700   -3.163   6.6838
77.778   9.1535   3.9722   -1.139   -4.312   17.797   19.366   74.471   14.609   1.7696
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BURN # 2          SED4     13-APR-88 15:03:32
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.41584   -190.5   -6.304   64.244   25.730   .07050   -1.517   .51757   1.9271   4.9749
77.137   9.0668   3.7216   4.8474   -3.390   35.875   26.234   75.193   14.855   1.8224
-.4015   794.01   >74.69   78.101   .30584   27.053   17.226   .02384   .33842   .68545

BURN # 3          SED4     13-APR-88 15:03:59
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5299.0
-.1777   -194.9   31.951   63.685   25.168   .17241   -.0795   -3.364   -4.040   4.6921
77.402   9.8753   3.8428   -3.333   4.9280   -15.26   -.8243   74.867   14.743   -1.305
.04238   794.68   >71.67   77.826   .74221   27.052   17.171   .03651   .28080   .74059

AVERAGE N=3       SED4     13-APR-88 15:04:14
SF4978/FA16S33/S
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5299.3
  AG       AL       AS       B        BA       BE       CD       CO       CR       CU
1.0248   -198.7   8.0714   64.542   25.853   .10913   -.7276   -.2586   -1.759   5.4503
  FE       LI       MN       MO       NI       PB       SN       SR       TI       V
77.439   9.3652   3.8455   .12506   -.9246   12.804   14.925   74.843   14.735   .76227
   Y       ZN       CA       CA       K        MG       NA       AL       FE       ZN
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BURN # 1          SED4     13-APR-88 15:05:41
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2.4768   -173.2   -25.37   53.570   32.941   .01910   1.7848   .37640   .52438   7.2502
29.545   9.0957   1.2272   3.7693   -6.161   3.1078   -14.13   67.560   14.721   1.7976
.10603   9.9248   >65.05   72.749   -.3997   28.193   3.4755   .04172   .22848   -.0700

BURN # 2          SED4     13-APR-88 15:06:08
SF4978/FA16S34/S
5299.0
2.5984   -179.6   29.910   53.090   34.205   .17613   -.1948   3.7633   -2.811   6.6827
29.099   9.8753   1.2793   3.6530   -12.63   10.418   1.4687   67.525   15.208   .96392
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BURN # 3          SED4     13-APR-88 15:06:35
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5299.0
2.8345   -155.0   -22.12   51.753   32.375   .08703   -.5853   -2.164   -1.934   5.5452
28.611   9.8753   1.3229   -1.576   -11.24   -.5780   4.6811   67.835   14.743   2.2433
-.3386   9.4574   >65.10   73.220   -.3262   28.250   3.4988   .03651   .29074   -.0060

AVERAGE N=3       SED4     13-APR-88 15:06:50
SF4978/FA16S34/S
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5299.3
  AG       AL       AS       B        BA       BE       CD       CO       CR       CU
2.6366   -169.3   -5.860   52.804   33.174   .09408   .33490   .65858   -1.407   6.4927
  FE       LI       MN       MO       NI       PB       SN       SR       TI       V
29.085   9.6155   1.2765   1.9489   -10.01   4.3161   -2.659   67.640   14.891   1.6683
  Y        ZN       CA       CA       K        MG       NA       AL       FE       ZN
.00011   9.5359   >65.06   72.964   -.2334   28.197   3.4824   .03775   .26204   -.0119
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24.383   10.626   1.4474   .67244   -2.464   -2.319   16.151   68.559   14.898   3.0274
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BURN # 2          SED4     13-APR-88 15:08:38
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BURN # 3          SED4     13-APR-88 15:09:05
SF4978/FA16S34/D
5299.0
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.23285   8.8616   >65.35   73.618   -.1251   28.532   3.5172   .03949   .29802   .03129

AVERAGE N=3       SED4     13-APR-88 15:09:20
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5298.7
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  FE       LI       MN       MO       NI       PB       SN       SR       TI       V
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24.939   9.8850   1.3938   -.9925   -4.621   9.7131   12.022   68.616   15.008   1.8614
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BURN # 1          SED4     13-APR-88 15:11:04
SF4978/FA16S34/P
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46.550   536.45   32.544   774.21   233.19   10.267   24.741   99.606   104.11   54.467
816.76   63.215   101.86   103.69   140.33   917.47   424.62   1104.2   120.90   56.500
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BURN # 2          SED4     13-APR-88 15:11:31
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5299.0
47.354   535.35   13.963   774.20   232.35   10.262   23.703   99.799   99.879   53.604
814.13   63.927   102.15   107.74   129.68   931.78   396.09   1100.2   120.31   59.512
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BURN # 3          SED4     13-APR-88 15:11:57
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5300.0
46.428   541.91   12.884   771.03   233.10   10.290   26.007   101.54   96.701   53.878
814.76   65.764   102.05   108.48   140.27   939.00   435.70   1101.8   121.05   55.822
50.824   411.76   *130.2   118.64   18.865   >52.52   55.467   .79721   1.2510   .33975

AVERAGE N=3       SED4     13-APR-88 15:12:13
SF4978/FA16S34/P
  LV
5299.0
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46.778   537.90   19.797   773.15   232.88   10.273   24.817   100.32   100.23   53.983
  FE       LI       MN       MO       NI       PB       SN       SR       TI       V
815.22   64.302   102.02   106.64   136.76   929.42   418.80   1102.0   120.75   57.278
   Y       ZN       CA       CA       K        MG       NA       AL       FE       ZN
50.876   410.49   *130.2   118.51   18.846   >52.52   55.448   .79597   1.2265   .31839
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BURN # 1          SED4     13-APR-88 15:13:50
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63.789   5.3992   3.5605   1.0800   -8.933   42.982   -32.49   63.507   14.919   .57187
.61372   430.48   >64.12   66.345   2.1737   19.199   21.289   .03129   .20663   .38594

BURN # 2          SED4     13-APR-88 15:14:17
SF4978/FA16S35/S
5299.0
-1.124   -150.6   -10.76   51.478   29.401   .11751   -1.481   -.8938   -2.986   8.3889
61.463   6.1218   3.2336   1.2501   -8.933   -26.02   -25.14   63.492   14.743   1.9925
.04238   431.35   >64.15   66.298   2.3134   19.185   21.373   .03055   .17683   .36359

BURN # 3          SED4     13-APR-88 15:14:44
SF4978/FA16S35/S
5298.0
-.3073   -154.4   -8.111   47.516   29.177   .10823   .13279   -.9648   .17356   7.5371
62.813   8.4027   3.7202   1.9028   1.2334   3.1193   3.3026   63.507   15.385   .87851
.04221   431.14   >64.18   66.470   2.3748   19.235   21.318   .04247   .21855   .40680

AVERAGE N=3       SED4     13-APR-88 15:14:59
SF4978/FA16S35/S
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5299.7
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  FE       LI       MN       MO       NI       PB       SN       SR       TI        V
62.688   6.6412   3.5048   1.4110   -5.544   6.6935   -18.11   63.502   15.016   1.1476
   Y       ZN       CA       CA        K       MG       NA       AL       FE       ZN
.23277   430.99   >64.15   66.371   2.2873   19.207   21.326   .03477   .20067   .38544
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BURN # 1          SED4     13-APR-88 15:16:30
SF4978/FA16S36/S
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-.0871   -119.2   4.6139   49.865   14.875   .20709   -.6415   2.0700   3.6859   32.709
73.549   5.0238   2.5274   5.5991   -8.471   12.982   8.3464   43.856   14.298   1.9622
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BURN # 2          SED4     13-APR-88 15:16:57
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5300.0
-.8959   -113.1   6.6787   45.827   14.526   .20665   -1.323   1.6463   -5.443   31.417
72.147   4.9676   2.7490   -1.494   -5.237   21.914   -3.124   43.315   14.566   1.3547
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BURN # 3          SED4     13-APR-88 15:17:23
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72.147   6.0934   2.5970   2.8990   -13.09   25.657   5.5916   43.315   14.721   4.2706
.29646   207.31   >53.24   46.847   1.1963   13.451   5.9059   .02459   .17749   .18179

AVERAGE N=3       SED4     13-APR-88 15:17:39
SF4978/FA16S36/S
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5299.3
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72.614   5.3616   2.6245   2.3348   -8.933   20.185   3.6048   43.495   14.528   2.5292
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.21174   207.48   >53.44   46.973   1.4215   13.499   5.9441   .03104   .16049   .18875
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BURN # 1          SED4     13-APR-88 15:19:08
SF4978/FA16S37/S
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497.32   7.6232   5.4257   -.9628   -6.623   26.955   6.0685   63.181   14.432   .83403
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BURN # 2          SED4     13-APR-88 15:19:34
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3.7038   -248.4   -2.729   82.781   41.420   .25243   .09298   1.6465   4.0327   21.189
478.91   8.4027   5.4040   -1.084   -7.085   45.528   -19.39   60.301   15.230   3.9668
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BURN # 3          SED4     13-APR-88 15:20:01
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-8.941   -722.7   -51.29   46.726   16.133   .69764   -1.480   -17.13   -3.165   17.492
259.96   10.655   4.0829   7.0778   10.32   -38.92   -2.646   33.306   11.503   9.2371
-5.292   313.22   >28.22   31.981   2.7143   9.5925   16.371   .10058   .48942   .76443
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Bad injection serum

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SF4978/FA16S37/S
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5298.3
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  FE        LI        MN        MO        NI        PB        SN        SR        TI         V
412.06   8.8937   4.9708   1.6768   -8.009   11.186   -5.323   52.263   13.722   4.[illegible]3
   Y        ZN        CA        CA         K        MG        NA        AL        FE        ZN
-1.482   500.13   >51.27   51.864   2.5680   15.733   2[illegible]   .05787   [illegible]   [illegible]5416
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SAT>@SEEC
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BURN # 1         SED4     13-APR-88 15:21:33
SF.4978/FA16S37/S
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.81006   -151.1   14.948   85.410   40.616   .12666   .07299   2.9167   5.2613   23.178
497.06   6.1359   5.6769   8.5396   -6.623   -1.611   15.248   63.189   15.219   2.8138
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BURN # 2         SED4     13-APR-88 15:21:59
SF.4978/FA16S37/S
5299.0
1.0386   -146.4   -9.872   85.731   40.726   .13120   -.3322   3.0577   .16991   22.323
497.32   8.3739   5.3546   -1.356   .30773   36.496   29.467   63.285   14.975   2.5174
.16936   606.98   >63.76   63.196   1.9112   19.249   32.387   .03651   .58942   .52601

BURN # 3         SED4     13-APR-88 15:22:26
SF.4978/FA16S37/S
5300.0
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498.66   6.8440   5.4317   2.1575   -4.313   -16.50   -3.562   63.683   14.100   1.3609
-.0844   607.55   >63.85   63.209   1.6236   19.315   32.522   .02459   .61856   .47833

AVERAGE N=3      SED4     13-APR-88 15:22:41
SF.4978/FA16S37/S
  LV
5299.2
  AG        AL        AS         B        BA        BE        CD        CO        CR        CU
.50182   -144.1   .13447   85.881   40.496   .14023   .30382   2.6813   2.2180   21.849
  FE        LI        MN        MO        NI        PB        SN        SR        TI         V
497.68   7.1179   5.4877   3.1137   -3.543   6.1301   13.718   63.386   14.765   2.2307
   Y        ZN        CA        CA         K        MG        NA        AL        FE        ZN
.10591   607.71   >63.76   63.170   1.9554   19.261   32.371   .03154   .60598   .51906
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BURN # 1         SED4     13-APR-88 15:24:59
SF4978/FA16R04/S
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13.363   .89412   .56513   6.8423   -3.388   2.1282   10.173   .51959   13.056   .72167
.04221   6.2033   .10075   .09206   -1.661   .02454   .28968   .02533   -.0205   -.0551

BURN # 2         SED4     13-APR-88 15:25:25
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14.013   .89412   .44888   -1.135   -11.71   -41.84   -29.29   .46787   13.211   -1.132
.16922   5.5419   .09771   .09021   -1.170   .02221   .28968   .02235   -.0093   -.0760

BURN # 3         SED4     13-APR-88 15:25:52
SF4978/FA16R04/S
5299.0
```

```
5298.0
-2.202   3.6813   -28.51   29.400   -.2288   .16795   1.1454   .51733   -.1755   2.1331
14.013   .89412   .37088   -5.756   -11.71   7.5055   .07947   .41616   12.745   -2.948
-.3388   5.0739   .09737   .08835   -1.485   .02121   .27994   .02831   -.0046   -.0089

AVERAGE N=3      SED4     13-APR-88 15:26:07
SF4978/FA16R04/S
  LV
5298.0
  AG       AL       AS       B       BA       BE       CD       CO       CR       CU
-1.046   13.292   -3.280   30.232   .61030   .19736   1.3991   1.3642   -1.931   2.0383
  FE       LI       MN       MO       NI       PB       SN       SR       TI       V
13.796   .89412   .46163   -.0163   -8.933   -10.73   -6.345   .46787   13.004   -1.119
   Y       ZN       CA       CA       K       MG       NA       AL       FE       ZN
-.0425   5.6064   .09861   .09021   -1.439   .02265   .28643   .02533   -.0115   -.0467
SAT --End of command file
SAT>@SEEC
Enter Text Strins>PREPBLNK/BLANK12/B

BURN # 1         SED4     13-APR-88 15:33:50
PREPBLNK/BLANK12/B
5298.0
-.4570   19.017   10.854   23.745   .80100   .32154   .01022   1.7877   .17529   3.2708
12.712   .14325   .53627   8.0962   -14.02   2.2624   -13.45   .41616   11.969   5.4854
-.0848   5.6711   .04967   .04260   -1.296   .01551   .24855   .02533   .03974   -.0551

BURN # 2         SED4     13-APR-88 15:34:16
PREPBLNK/BLANK12/B
5298.0
-.6927   7.5919   8.8058   23.425   .57216   .16192   .02753   -1.882   2.1070   .42652
11.899   .14325   .49304   1.1700   -1.539   -3.557   10.634   .31273   11.969   1.2669
.04221   5.0653   .04995   .04105   -1.070   .01391   .24855   .02533   .01788   .03874

BURN # 3         SED4     13-APR-88 15:34:43
PREPBLNK/BLANK12/B
5298.0
-1.504   19.860   -5.158   25.746   -.1144   .24590   -1.532   -.0473   -2.283   .85315
11.085   .14325   .49223   5.7910   -2.464   -5.343   -16.44   .36444   12.124   -.6168
.16922   5.6597   .04967   .04352   -1.610   .01312   .24199   .01341   .01325   -.0089

AVERAGE N=3      SED4     13-APR-88 15:34:58
PREPBLNK/BLANK12/B
  LV
5298.0
  AG       AL       AS       B       BA       BE       CD       CO       CR       CU
-.8847   15.490   4.8338   24.305   .41960   .24312   -.4982   -.0473   -.0001   1.5168
  FE       LI       MN       MO       NI       PB       SN       SR       TI       V
11.899   .14325   .50718   5.0190   -6.006   -2.212   -6.420   .36444   12.021   2.0452
   Y       ZN       CA       CA       K       MG       NA       AL       FE       ZN
.04221   5.4654   .04976   .04239   -1.325   .01418   .24637   .02136   .02362   -.0084
SAT --End of command file
SAT>@SEEC
Enter Text Strins>METALS/BLNK.01/B

BURN # 1         SED4     13-APR-88 15:37:14
METALS/BLNK.01/B
5298.0
.79525   3.1445   21.205   -4.696   -.3432   .26929   -1.098   .23503   -.8771   .14210
-1.277   -1.358   -.0354   -.2980   -6.160   12.602   -3.598   -.2044   -.9968   1.8082
.29622   .20694   -.0003   -.0174   -2.176   .00047   -.0183   -.0149   -.0742   -.1982

BURN # 2         SED4     13-APR-88 15:37:40
METALS/BLNK.01/B
5298.0
-1.640   1.5342   20.545   -4.357   -.6865   .19063   -.8717   .30561   2.9860   -.4268
-1.928   -.9830   -.2745   1.1349   -6.160   5.2212   -23.56   -.2044   -.6086   .80182
```

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-.0848   1.2711   -.0001   -.0140   -1.749   -.0011   -.0334   -.0160   .0074   .2170

BURN # 3          SED4     13-APR-88 15:38:07
METALS/BLNK.01/B
5298.0
1.6078   -4.217   13.046   -2.713   .11448   .26663   -1.470   .79964   .17630   .99537
-1.928   -.6076   .20281   6.1904   -13.55   18.180   -4.513   -.1010   .01249   2.2788
.42322   1.3963   -.0009   -.0044   -1.573   -.0019   -.0052   .00522   -.0642   -.1371

AVERAGE N=3       SED4     13-APR-88 15:38:22
METALS/BLNK.01/B
  LV
5298.0
  AG       AL       AS       B       BA       BE       CD       CO       CR       CU
.25450   .15403   18.266   -3.922   -.3051   .24218   -1.147   .44676   .76171   .23690
  FE       LI       MN       MO       NI       PB       SN       SR       TI       V
-1.711   -.9830   -.0357   2.3424   -8.625   12.001   -10.56   -.1699   -.5310   1.6296
   Y       ZN       CA       CA       K       MG       NA       AL       FE       ZN
.21155   .95813   -.0004   -.0119   -1.832   -.0008   -.0189   -.0094   -.0759   -.1848
SAT --End of command file
SAT>META^U
SAT>@SEEC
Enter Text String>METALS/AQC-086/C

BURN # 1          SED4     13-APR-88 15:40:20
METALS/AQC-086/C
5298.0
164.50   4708.2   830.07   1100.9   1565.2   755.09   438.38   1020.5   1575.9   1206.5
4045.2   818.58   1392.2   816.89   1213.8   3149.5   2427.4   934.11   1337.0   873.02
820.54   2936.8   13.980   13.239   90.175   5.3484   19.097   4.4338   3.9571   2.6211

BURN # 2          SED4     13-APR-88 15:40:47
METALS/AQC-086/C
5298.0
165.42   4688.6   845.23   1096.0   1564.1   753.03   439.49   1020.8   1591.8   1207.8
4025.5   825.33   1387.9   823.82   1203.2   3105.9   2396.4   933.44   1336.6   868.55
821.04   2933.9   13.971   13.196   89.497   5.3226   19.065   4.4167   3.9412   2.5645

BURN # 3          SED4     13-APR-88 15:41:14
METALS/AQC-086/C
5300.0
164.43   4697.6   841.93   1099.1   1562.3   754.89   437.18   1017.1   1589.3   1205.9
4041.9   820.46   1389.6   811.14   1231.4   3108.2   2409.0   932.62   1334.3   865.99
819.40   2935.7   13.959   13.170   89.504   5.3285   18.961   4.3996   3.9293   2.5794

AVERAGE N=3       SED4     13-APR-88 15:41:29
METALS/AQC-086/C
  LV
5298.7
  AG       AL       AS       B       BA       BE       CD       CO       CR       CU
164.78   4698.1   839.08   1098.7   1563.9   754.34   438.35   1019.5   1585.7   1206.8
  FE       LI       MN       MO       NI       PB       SN       SR       TI       V
4037.5   821.46   1389.9   817.29   1216.1   3121.2   2410.9   933.39   1336.0   869.19
   Y       ZN       CA       CA       K       MG       NA       AL       FE       ZN
820.33   2935.5   13.970   13.202   89.725   5.3332   19.041   4.4167   3.9425   2.5883
SAT --End of command file
SAT>@SEEC
Enter Text String>METALS/SILV.RQ/C

BURN # 1          SED4     13-APR-88 15:43:24
METALS/SILV.RQ/C
5299.0
48.737   1057.7   2.5997   58.210   51.594   .38242   .21261   1.7875   -2.282   2.4172
5.8427   2.3682   .75273   .24554   -8.471   1.9585   .60929   .61923   1.1581   -.1403
.67727   2.9299   -.0183   -.0262   -1.156   .00298   .13351   .97752   -.0404   -.0477
```

```
BURN # 2          SED4     13-APR-88 15:43:50
METALS/SILV.RQ/C
5298.0
50.255   1014.3   -19.02   57.902   52.405   .50101   -.1308   -.8942   4.0387   3.2708
5.2295   2.3958   .60593   1.2306   -16.33   5.7575   -4.897   .72644   1.2547   3.9806
.29622   2.4724   -.0190   -.0168   -.8184   .00143   .11841   .95516   -.0126   -.0507

BURN # 3          SED4     13-APR-88 15:44:17
METALS/SILV.RQ/C
5300.0
48.041   1050.0   -26.50   57.495   50.784   .41316   -.5083   1.2230   -2.633   .42663
5.1549   .08885   .51609   4.4729   -5.237   40.052   -3.058   .61544   .90637   .49974
.29646   3.1458   -.0182   -.0243   -.7390   .00079   .11643   .97975   -.0079   -.0447

AVERAGE N=3       SED4     13-APR-88 15:44:32
METALS/SILV.RQ/C
  LV
5299.0
  AG       AL       AS       B        BA       BE       CD       CO       CR       CU
49.011   1040.7   -14.31   57.869   51.594   .43220   -.1422   .70545   -.2919   2.0382
  FE       LI       MN       MO       NI       PB       SN       SR       TI       V
5.4090   1.6176   .62492   1.9830   -10.01   15.923   -2.449   .65370   1.1064   1.4467
  Y        ZN       CA       CA       K        MG       NA       AL       FE       ZN
.42331   2.8494   -.0185   -.0224   -.9044   .00173   .12279   .97081   -.0203   -.0477
SAT --End of command file
SAT>@S33^U
SAT>@SEEC
Enter Text String>METALS/HIGH.QC/C

BURN # 1          SED4     13-APR-88 15:45:48
METALS/HIGH.QC/C
5298.0
-3.736   >*****   44.673   .57475   .34332   .69160   1.2453   .09388   1.3678   -17.92
>*****   9.9044   37.414   -16.13   -8.471   -27.75   -40.31   1.8642   8.8634   24.056
.35972   >*****   *130.2   96.902   -2.717   >74.72   .07153   90.606   94.518   94.002

BURN # 2          SED4     13-APR-88 15:46:15
METALS/HIGH.QC/C
5299.0
-3.477   >*****   4.1574   3.8304   1.2583   .98793   .81150   -.5410   4.5204   -16.07
>*****   11.377   37.767   -25.17   -3.388   -13.16   -20.28   1.9635   9.3088   25.063
.42331   >*****   *130.2   97.790   -2.589   >74.80   .07272   91.066   95.240   94.570

BURN # 3          SED4     13-APR-88 15:46:41
METALS/HIGH.QC/C
5296.5
-4.035   >*****   37.694   -3.105   .80139   .87333   -.1722   -.5417   -1.105   -17.21
>*****   9.1969   38.011   -21.69   -3.387   -18.93   -18.34   2.0254   9.2047   24.120
-.0216   >*****   *130.2   98.595   -2.475   >74.94   .08106   92.078   96.042   95.270

AVERAGE N=3       SED4     13-APR-88 15:46:57
METALS/HIGH.QC/C
  LV
5297.8
  AG       AL       AS       B        BA       BE       CD       CO       CR       CU
-3.750   >*****   28.841   .43343   .80102   .85095   .62822   -.3296   1.5943   -17.07
  FE       LI       MN       MO       NI       PB       SN       SR       TI       V
>*****   10.159   37.730   -21.00   -5.082   -19.95   -26.31   1.9510   9.1256   24.413
  Y        ZN       CA       CA       K        MG       NA       AL       FE       ZN
.25383   >*****   *130.2   97.762   -2.593   >74.82   .07510   91.250   95.266   94.614
SAT --End of command file
SAT>@LOOKC
Enter Text String>TUB

BURN # 1          SED4     13-APR-88 15:48:27
TUB
```

```
5299.0
-.4512   28.518   19.248   -1.142   .45755   .81062   .11480   .09404   7.1973   1.2797
25.033   4.6203   1.0066   3.3615   -7.085   -34.33   -8.632   1.0329   2.1673   2.0573
1.0582   32.187   -.0083   -.0018   -.6530   .03366   .02086   .05364   .05960   .15795

BURN # 2          SED4     13-APR-88 15:48:54
TUB
5299.0
-.9184   12.572   -26.23   -3.120   -.6864   .73357   -1.129   -.1176   -1.931   .99531
16.739   3.8696   1.0029   5.2352   -15.40   -14.38   .08299   .98116   1.7015   1.3669
1.0582   25.434   -.0151   -.0077   -.6027   .02527   .01530   .04768   .03841   .12815

BURN # 3          SED4     13-APR-88 15:49:20
TUB
5298.0
-.3375   21.547   -16.32   -3.105   .11448   .64734   -1.037   2.0700   -1.581   -.7112
15.965   3.1467   .85490   -.7077   -2.464   31.020   -4.504   1.0367   1.4876   1.5554
.67722   25.678   -.0157   -.0168   -.5292   .02370   .00795   .04843   .05894   .05811

AVERAGE N=3       SED4     13-APR-88 15:49:35
TUB
  LV
5298.7
  AG       AL       AS       B        BA       BE       CD       CO       CR       CU
-.5690   20.879   -7.766   -2.455   -.0381   .73051   -.6838   .68213   1.2283   .52127
  FE       LI       MN       MO       NI       PB       SN       SR       TI       V
19.246   3.8789   .95482   2.6297   -8.317   -5.897   -4.351   1.0169   1.7855   1.6598
   Y       ZN       CA       CA       K        MG       NA       AL       FE       ZN
.93121   27.767   -.0130   -.0088   -.5950   .02754   .01470   .04992   .05232   .11474
SAT --End of command file
SAT>@LOOKC
Enter Text String>10PPM V LOT 0985DHB

BURN # 1          SED4     13-APR-88 15:58:56
10PPM V LOT 0985DHB
5295.5
-85.95   2.0757   133.58   .29446   .22928   -.1524   .52219   2.0705   -1.945   .99550
10.205   -1.667   .46772   -.9498   -2.461   34.122   -15.91   -.0401   -.0960   10005.
.16886   9.3592   -.0051   -.0082   -2.012   .00161   .00536   .21458   1.3649   -.0805

BURN # 2          SED4     13-APR-88 15:59:22
10PPM V LOT 0985DHB
5296.5
-86.16   -1.915   93.854   3.9179   .11467   -.1113   .06840   1.9291   -.8912   .71094
5.9364   -.9425   .46081   .37169   -2.925   -4.191   -5.811   .00795   .19592   10069.
.16900   9.4633   -.0047   -.0103   -2.211   -.0000   .02245   .21383   1.3590   -.2161

BURN # 3          SED4     13-APR-88 15:59:49
10PPM V LOT 0985DHB
5295.5
-86.41   3.3031   85.440   .63084   .68718   -.1083   .62796   -.1890   .51407   -.1427
4.3464   .96252   .62369   .37270   -2.924   8.4641   25.863   -.1436   -.2514   10065.
.16886   8.7618   -.0048   -.0119   -2.339   -.0009   .01530   .22054   1.3550   -.2638

AVERAGE N=3       SED4     13-APR-88 16:00:04
10PPM V LOT 0985DHB
  LV
5295.8
  AG       AL       AS       B        BA       BE       CD       CO       CR       CU
-86.17   1.1547   104.29   1.6144   .34371   -.1240   .40618   1.2702   -.7742   .52124
  FE       LI       MN       MO       NI       PB       SN       SR       TI       V
6.8293   -.5489   .51741   -.0685   -2.770   12.798   1.3803   -.0586   -.0505   10046.
   Y       ZN       CA       CA       K        MG       NA       AL       FE       ZN
.16890   9.1948   -.0049   -.0102   -2.187   .00022   .01437   .21632   1.3596   -.1868
SAT --End of command file
SAT>@LOOKC
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Enter Text Strins>10PPM V LOT 2-19-MP

BURN # 1 SED4 13-APR-88 16:01:27
10PPM V LOT 2-19-MP
5295.5

-89.65	-9.278	135.95	-2.688	-1.259	-.1105	-.3389	-3.437	-1.594	-.0005
-.8613	.21132	.54623	-4.911	-7.085	1.2077	-5.352	-.0919	-.2514	10065.
-.2759	8.5258	-.0098	-.0119	-2.276	-.0001	-.0207	.22054	1.3630	-.1103

BURN # 2 SED4 13-APR-88 16:01:54
10PPM V LOT 2-19-MP
5295.5

-88.72	-4.215	126.16	-.3962	-.3431	.03950	-.7843	-.0477	.68910	-.1427
.76613	.96252	.71414	8.5046	-2.461	23.190	-6.268	.01163	.21469	10073.
-.0853	8.4057	-.0102	-.0058	-1.748	-.0016	-.0056	.22352	1.4212	-.1624

BURN # 3 SED4 13-APR-88 16:02:20
10PPM V LOT 2-19-MP
5296.5

-89.16	-2.145	128.87	.91396	-.6865	.04288	-.5871	.51721	-4.404	-.9961
1.0550	-.5670	.62591	4.5452	-6.160	23.049	-3.284	-.0438	.35124	10039.
.16900	8.5674	-.0104	-.0078	-2.362	-.0023	-.0091	.22575	1.4014	-.1952

AVERAGE N=3 SED4 13-APR-88 16:02:36
10PPM V LOT 2-19-MP
LV
5295.8

AG	AL	AS	B	BA	BE	CD	CO	CR	CU
-89.18	-5.213	130.32	-.7235	-.7628	-.0094	-.5701	-.9892	-1.770	-.3798
FE	LI	MN	MO	NI	PB	SN	SR	TI	V
.31996	.20229	.62876	2.7128	-5.235	15.816	-4.968	-.0413	.10486	10059.
Y	ZN	CA	CA	K	MG	NA	AL	FE	ZN
-.0640	8.4996	-.0101	-.0085	-2.129	-.0014	-.0118	.22327	1.3952	-.1560

SAT ==End of command file
SAT>@LOOKC
Enter Text Strins>TEN2 PLUS AG

BURN # 1 SED4 13-APR-88 16:04:05
TEN2 PLUS AG
5297.0

948.03	232.00	10205.	40.758	10.872	.91601	-14.52	10264.	10209.	-7.539
12.914	10008.	1.6173	10021.	8.6302	10197.	10026.	10188.	3.6810	376.21
10240.	10.725	.03097	.13620	-2.392	10.120	101.15	.18626	1.2272	-.2265

BURN # 2 SED4 13-APR-88 16:04:32
TEN2 PLUS AG
5298.0

952.14	234.71	10202.	40.547	12.014	1.0316	-16.23	10283.	10196.	-9.102
13.037	9998.1	1.9306	10024.	12.324	10186.	9989.7	10209.	3.9721	374.90
10271.	9.6973	.03115	.14092	-2.591	10.141	101.19	.18030	1.2510	-.2399

BURN # 3 SED4 13-APR-88 16:04:59
TEN2 PLUS AG
5297.0

951.28	239.13	10225.	40.742	13.619	.94853	-12.65	10301.	10246.	-7.539
13.727	9982.8	1.8990	10035.	6.3191	10199.	9984.0	10193.	4.2246	386.01
10261.	11.555	.03117	.13836	-2.304	10.149	101.01	.17658	1.2603	-.1654

AVERAGE N=3 SED4 13-APR-88 16:05:14
TEN2 PLUS AG
LV
5297.3

AG	AL	AS	B	BA	BE	CD	CO	CR	CU
950.48	235.28	10211.	40.682	12.168	.96539	-14.47	10282.	10217.	-8.060
FE	LI	MN	MO	NI	PB	SN	SR	TI	V
13.226	9996.4	1.8156	10027.	9.0911	10194.	9999.9	10197.	3.9592	379.04

```
   Y        ZN       CA       CA       K        MG       NA       AL       FE       ZN
10257.   10.659   .03110   .13849   -2.429   10.137   101.12   .18105   1.2462   -.2106
SAT --End of command file
SAT>@LOOKC
Enter Text Strins>AQC.086

BURN # 1          SED4     13-APR-88 16:06:40
AQC.086
5298.0
163.80   4720.6   854.15   1103.7   1575.3   754.76   439.55   1022.9   1593.8   1209.1
4053.9   829.09   1394.1   817.39   1244.8   3128.0   2393.9   940.63   1341.1   868.17
826.00   2951.5   14.046   13.293   88.717   5.3570   19.086   4.4122   3.9525   2.5749

BURN # 2          SED4     13-APR-88 16:07:07
AQC.086
5298.5
163.33   4715.9   825.88   1101.8   1574.3   756.83   439.17   1019.9   1608.4   1211.0
4064.4   829.75   1395.8   809.82   1209.5   3127.9   2420.7   941.32   1342.8   873.10
826.30   2951.3   14.068   13.298   88.904   5.3630   19.112   4.4346   3.9842   2.4810

BURN # 3          SED4     13-APR-88 16:07:33
AQC.086
5298.0
164.04   4689.1   825.51   1093.8   1560.0   751.36   439.09   1011.8   1591.5   1200.1
4031.2   821.20   1385.1   811.22   1205.0   3117.9   2402.1   931.99   1332.9   864.05
819.39   2933.0   13.935   13.242   87.963   5.3320   18.911   4.3921   3.9803   2.6166

AVERAGE N=3       SED4     13-APR-88 16:07:49
AQC.086
  LV
5298.2
  AG       AL       AS       B        BA       BE       CD       CO       CR       CU
163.72   4708.5   835.18   1099.8   1569.9   754.32   439.27   1018.2   1597.9   1206.7
  FE       LI       MN       MO       NI       PB       SN       SR       TI       V
4049.9   826.68   1391.7   812.81   1219.8   3124.6   2405.6   937.98   1338.9   868.44
   Y       ZN       CA       CA       K        MG       NA       AL       FE       ZN
823.90   2945.3   14.017   13.278   88.528   5.3507   19.036   4.4130   3.9723   2.5575
SAT --End of command file
SAT>LO-
SAT>EX
BYE

>
```

Run 612

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION 5
CHICAGO, ILLINOIS

DATE: 28 APR 1988

SUBJECT: **Review of Region 5 data for** Linden Rd.

FROM: **Curtis Ross, Director**
Region 5 Central Regional Laboratory

To: **Data User:**

Attached are the results for:

CRL Data Set Numbers: SF 4978
Sample Numbers: 88FA16531-R04
Parameter(s): Metals
Laboratory: CRL

Results Status:

( ) **DATA ACCEPTABLE FOR USE***
( ) **DATA QUALIFIED AS TO USE**
( ) **DATA UNACCEPTABLE FOR USE**

* For data acceptability requirements, refer to the method capability statement for the methods referenced.

Comments by the Quality Control Coordinator:

If there are any questions regarding the data, refer them to Steve Parker, the Quality Control Coordinator, at 353-3805.

Please sign and date this form below and return it with any comments to:

Sylvia Griffin
Data Management Coordinator
Region 5 Central Regional Laboratory
(5SCRL)

RECEIVED BY/DATE: .....
Comments:

cc: **Contractor's Reprentative**

Filed by/date:

DATA SET	SITE	DU/ACT.
SF4978	Linden Road	Y905/C761ZZ

SAMPLES	PARAMETER(S)
88FA16 531, D31, 532-537, Rox	As, Cd, Pb, Sb, Se, Tl

SAMPLED	RECEIVED	DUE	LAB
5 Apr 88	6 Apr 88	27 Apr 88	CRL

SHIPPED	DATA RECEIVED	CONTRACT
NA	→	

TEAM LEADER	SECTION CHIEF	QC COORD	DATA COORD
Jum 24 Apr 88			Ag 4-28-88

Comments By Reviewer:

DATA MANAGEMENT COORDINATOR

RECEIVED **TRANSMITTED**

CLERICAL SUPPORT

RECEIVED **COMPLETED**

(X) REVIEWED ( ) UNREVIEWED **TEAM LEADER/DATE** 24 Apr 88

( ) REVIEWED ( ) UNREVIEWED **SECTION CHIEF/DATE**

( ) REVIEWED ( ) UNREVIEWED **QC COORDINATOR/DATE**

REVIEWED BY CONTRACT COORDINATOR/DATE

RECEIVED 4-28-88 **TRANSMITTED** 4-28-88 **DATA MANAGEMENT COORDINATOR** Sylvia Ruffin

CC: QUALITY CONTROL COORDINATOR

JVR 26 Apr 88

ACTIVITY # C7612 8TFA05WU22

ENVIRONMENTAL PROTECTION AGENCY
FOR THE TEAM: METALS

DIVISION/BRANCH SUPERFUND (FIT) SAMPLE DATE 4/5/88 LAB ARRIVAL DATE 4/6/88 DUE DATE 4/27/88

DU NUMBER Y905 DATA SET NUMBER 4978 STUDY LINDEN ROAD PRIORITY N CONTRACTOR N

CRL LOG NUMBER	SAMPLE DESCRIPTION	CRL TAG#	TOTAL METALS WATER TOTAL ICAP UG/L MET111	TOTAL METALS WATER AS UG/L MET161	TOTAL METALS WATER PB UG/L MET1191	TOTAL METALS WATER SB UG/L MET1201	TOTAL METALS WATER SE UG/L MET1211	TOTAL METALS WATER TL UG/L MET1221
88FA16S31	RW1	5-077044	X	PM 4-13-88 <2	<2	<2	<2	<2
88FA16D31	DUPLICATE	5-077051	X	PM 4-13-88 <2	<2	<2	<2	<2
88FA16S32	RW2	5-077058	X	PM 4-13-88 <2	<2	<2	<2	<2
88FA16S33	RW3	5-077070	X	PM 4-13-88 <2	<2	<2	<2	<2
88FA16S34	RW4	5-077077	X	MMT 4/15/88 <2	<2	<2	<2	<2
88FA16S35	RW5	5-077084	X	<2	<2	<2	<2	<2
88FA16S36	RW6	5-077091	X	<2	<2	<2	<2	<2
88FA16S37	RW7	5-077098	X	<2	6.4	<2	<2	<2
88FA16R04	BLANK	5-077205	X	PM 4-13-88 <2	<2	<2	<2	<2
						PM	PM	PM
					4/11/88	4-13-88	4-25-88	4-15-88
					H. Phan			

ACTIVITY#C76100 (9)

JVM 26 Apr 88

ENVIRONMENTAL PROTECTION AGENCY
FOR THE TEAM: METALS

DIVISION/BRANCH SUPERFUND (FIT) SAMPLING DATE 4/5/88 LAB ARRIVAL DATE 4/6/88 DUE DATE 4/27/88

DU NUMBER Y905 DATASET NUMBER 4978 STUDY LINDEN ROAD PRIORITY N CONTRACTOR N

CRL LOG NUMBER	SAMPLE DESCRIPTION	MATRIX WATER TEST CO UNITS UG/L MET235826
88FA16	CRLTAG#	
S31	RW1 5-077044	X <0.2
D31	DUPLICATE 5-077051	X <0.2
S32	RW2 5-077058	X 1.6
S33	RW3 5-077070	X <0.2
S34	RW4 5-077077	X <0.2
S35	RW5 5-077084	X <0.2
S36	RW6 5-077091	X <0.2
S37	RW7 5-077098	X 0.2
RU4	BLANK 5-077205	X <0.2
		4/20/88
		H. Pham

CRL V.2: 3/85

Jm
26 Apr 88

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* FLAMELESS * CSC VERSION 1.00 *

NAME OF ANALYST ---: PM
DATE OF ANALYSIS --: 04-11-1988
PARAMETER NAME ----: AS
DATA SET # --------: 4949 4901, SF4978

SAMPLE NO.	CONC.	R VALUE	SLOPE	
QC LAST 23.5 true	21.69264	.9967073	4.490002E-03	-7.6%
S13D 1/3	18.11689	.9883173	.00154	54
S13SP 1/5	38.15312	.9807266	2.220001E-03	
S05 1/2	7.747738	.9978154	2.220001E-03	16
S05 1/2	8.37209	.9962352	.00215	
S13D 1/3	21.11113	.9989345	1.619999E-03	63
S13 SP 1/5	49.42309	.9988924	.00208	
QC 23.5 true	23.54679	.9970283	4.060001E-03	0%
FA16R04	-.668382	.9991618	.00389	
S13SP 1/10	21.77605	.9987048	2.590001E-03	218
S31	-.7629476	.9998292	3.670001E-03	
FA16D31	-.7734815	.9979609	.00362	
S32	-.1470588	.9978442	.0034	
S33	-.2941177	.9982744	.0034	
QC 23.5 true	21.65415	.9953409	.00399	-8.1%

QC LAST

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.096	9.739999E-02	1.399994E-03	1.437366 %
10	.141	.1423	1.300007E-03	.9135678 %
20	.194	.1872	-6.799981E-03	-3.632468 %
30	.228	.2321001	4.10004E-03	1.766497 %

S13D 1/3

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.03	2.790001E-02	-2.099991E-03	-7.526847 %
10	.042	4.330001E-02	1.300011E-03	3.002334 %
20	.055	5.870001E-02	3.700011E-03	6.303254 %
30	.077	7.410001E-02	-2.89999E-03	-3.913616 %

S13SP 1/5

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.082	8.469998E-02	2.699979E-03	3.187697 %
10	.114	.1069	-7.100009E-03	-6.64173 %
20	.123	.1291	6.100007E-03	4.725024 %
30	.153	.1513	-1.699984E-03	-1.123585 %

S05 1/2

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.017	1.719998E-02	1.99981E-04	1.162682 %
10	.041	3.939999E-02	-1.600012E-03	-4.060946 %
20	.059	.0616	2.599996E-03	4.220773 %
30	.085	.0838	-1.199998E-03	-1.431979 %

S05 1/2

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.016	1.799999E-02	1.999991E-03	11.11107 %
10	.043	3.949999E-02	-3.500011E-03	-8.860789 %
20	.06	.061	9.999946E-04	1.639336 %
30	.082	.0825	4.999936E-04	.6060528 %

S13D 1/3

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.035	3.420001E-02	-7.999875E-04	-2.339144 %
10	.049	5.040001E-02	1.400009E-03	2.777795 %
20	.067	.0666	-3.999993E-04	-.6005995 %
30	.083	.0828	-2.000034E-04	-.24155 %

S13 SP 1/5

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.104	.1028	-1.199983E-03	-1.167298 %
10	.122	.1236	1.60002E-03	1.294514 %
20	.144	.1444	4.000217E-04	.2770233 %
30	.166	.1652	-7.999689E-04	-.4842426 %

QC

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.097	9.559998E-02	-1.400024E-03	-1.46446 %
10	.137	.1362	-8.000136E-04	-.5873816 %
20	.171	.1768	5.799994E-03	3.28054 %
30	.221	.2174	-3.599987E-03	-1.655927 %

FA16R04

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.001	-2.600006E-03	-1.600006E-03	61.53855 %
10	.035	.0363	1.299996E-03	3.581257 %
20	.073	.0752	.0022	2.925532 %
30	.116	.1141	-1.899995E-03	-1.665201 %

S13SP 1/10

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.058	5.639998E-02	-1.60002E-03	-2.836915 %
10	.08	.0823	2.299994E-03	2.794647 %
20	.108	.1082	1.999959E-04	.1848391 %

30	.135	.1341	-8.999854E-04	-.67113 %

JWM 26 Apr 87

S31

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.002	-2.800018E-03	-8.000182E-04	28.57189 %
10	.033	3.389999E-02	8.999929E-04	2.654847 %
20	.07	.0706	6.000027E-04	.8498622 %
30	.108	.1073	-6.999895E-04	-.6523666 %

FA16D31

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	0	-2.800003E-03	-2.800003E-03	100 %
10	.03	.0334	.0034	10.17964 %
20	6.800001E-02	.0696	1.599997E-03	2.298847 %
30	.108	.1058	-.0022	-2.079395 %

S32

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.002	-.0005	-.0025	500.0001 %
10	.031	.0335	2.500001E-03	7.46269 %
20	.065	.0675	2.500005E-03	3.703711 %
30	.104	.1015	-2.500005E-03	-2.463059 %

S33

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.002	-9.999999E-04	.001	-100 %
10	.036	3.299999E-02	-3.000006E-03	-9.090929 %
20	.064	6.699999E-02	2.999984E-03	4.477589 %
30	.102	.101	-1.000017E-03	-.9901159 %

QC

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.087	8.640002E-02	-5.999729E-04	-.6944129 %
10	.129	.1263	-2.699971E-03	-2.137744 %
20	.159	.1662	7.200018E-03	4.33214 %
30	.21	.2061	-3.899977E-03	-1.892274 %

JVM
26 Apr 94

Begin Element - AS

0.001
0.000 AZ
-0.003
0.045
0.070
0.114
0.116
0.164
0.199
0.265
-0.002
0.040 std
0.084
0.126
0.115
0.159 QC
0.210
0.257
0.022
0.052
-0.001
0.035 BBenbz
0.078
0.123
0.045
0.053 EK02
0.060 513
0.073
-0.000
0.030 CW06
0.044 505
0.062
~~0.005~~
0.024
0.034 CW06
0.041 505R
0.055
0.029
0.047 EPA
0.067 MSD
0.084
0.114
0.157 QC
0.196
0.242
0.001
0.042 std
0.076
0.128
0.100
0.149
0.192 QC
0.244
0.109
0.148 QC
0.187
0.239
-0.001
0.038 EK02

R07

0.127
0.001 EK02
0.038
0.066 S01
0.110
0.004 EK02
0.034
0.066 D02
0.109
0.034
0.052 S13 1:3
0.067
0.087
0.018
0.045 S05 1:2
0.060
0.087
0.032
0.050 S13 D
0.060 1:3
0.003
0.096
0.001 S13
0.129 1:5
0.156
0.000
0.005 QC
0.157
0.099
0.096
~~0.097~~
0.194 QC
0.228
0.141

Jm
26 April

0.030 S13D
0.042 1:3
0.055
0.077
0.082 S13
0.114 ap
0.123 1:5
0.153
0.017
0.041 S05
0.059 1:2
0.085
0.016
0.043 S05
0.060 1:2
0.082
0.035 S13D
0.049
0.067 1:3
0.083
0.104
0.122 S13
0.144 ap
0.166 1:5
0.097
0.137 QC
0.171
0.221
0.000 Blank
-0.001 F A16
0.035
0.073 R04
0.116
0.058
0.080 S13
0.108 ap 1:10
0.135
-0.002
0.033 S31
0.070
0.108
-0.000
0.030 31
0.068
0.108
0.002
0.031 S32
0.065
0.104
-0.002
0.036 S33
0.064
0.102
0.087
0.129
~~0.158~~ QC
0.159
0.210

10	.048	.0507	2.700001E-03	5.325446 %
20	.097	9.879999E-02	1.799993E-03	1.821856 %
30	.149	.1469	-2.100021E-03	-1.429558 %

JM 26 April

S27

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.003	4.300019E-03	1.300018E-03	30.23286 %
10	.049	4.760001E-02	-1.399994E-03	-2.941163 %
20	.092	9.089999E-02	-1.100004E-03	-1.210125 %
30	.133	.1342	1.199976E-03	.8941698 %

S28

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.014	1.360001E-02	-3.999947E-04	-2.941136 %
10	.057	.0567	-3.000014E-04	-.529103 %
20	.098	9.979999E-02	1.799993E-03	1.803601 %
30	.144	.1429	-1.100004E-03	-.7697717 %

S30

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.023	1.836362E-02	-4.636381E-03	-25.24764 %
10	.065	7.427271E-02	9.272709E-03	12.48468 %
20	.11	.1301818	2.018179E-02	15.50277 %
30	.155	.1301818	-2.481821E-02	-19.06427 %

S30

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.065	-9.576413	-9.641412	100.6788 %
10	.11	1.157746	1.047746	90.49878 %
20	.99	11.89191	10.90191	91.675 %
99	99	96.69176	-2.308235	-2.38721 %

S30

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.023	2.209999E-02	-9.000096E-04	-4.072444 %
10	.065	.0662	1.199998E-03	1.812686 %
20	.11	.1103	3.000051E-04	.2719901 %
30	.155	.1544	-5.999953E-04	-.3885979 %

S30DUP

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.024	.0228	-1.199998E-03	-5.263149 %
10	.067	6.760001E-02	6.000102E-04	.8875889 %
20	.11	.1124	2.400011E-03	2.135241 %
30	.159	.1572	-1.799986E-03	-1.145029 %

SF4 978 in second value

RSD ± 10%

2 ppb = DL

FLAMELESS * CSC VERSION 1.00 *

NAME OF ANALYST ---: MMT
DATE OF ANALYSIS --: 04-15-1988
PARAMETER NAME ----: ARSENIC
DATA SET # --------: 4969

SAMPLE NO.	CONC.	R VALUE	SLOPE	
STDCURVE	-.426011	.9991866	4.460001E-03	
ADCI	24.23768	.9979861	4.459999E-03	-3.0%
ADCII	25.77725	.9977096	4.310001E-03	-9.8%
S26	.5405419	.9991064	.00481	
S27	.993076	.9996642	4.329999E-03	
S28	3.155454	.9997472	.00431	
S30	~~3.28455~~	.9400801	5.590909E-03	
S30	~~-8.921438~~	.9849263	1.073416	
S30	5.011335	.9998609	4.410001E-03	
S30DUP	5.089286	.9994626	4.480001E-03	
ADCII	25.8151	.9999589	4.109999E-03	-9.8%

STDCURVE

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.001	-1.900009E-03	-9.000091E-04	47.36867 %
10	.043	.0427	-3.000088E-04	-.7025968 %
20	.084	8.729999E-02	3.299996E-03	3.780065 %
30	.134	.1319	-2.099991E-03	-1.592108 %

ADCI

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.109	.1081	-8.999929E-04	-.8325558 %
10	.154	.1527	-1.300007E-03	-.8513472 %
20	.192	.1973	5.299986E-03	2.686257 %
30	.245	.2419	-3.100038E-03	-1.281537 %

ADCII

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.111	.1111	9.997189E-05	8.998372E-02 %
10	.157	.1542	-2.800018E-03	-1.815835 %
20	.192	.1973	5.299986E-03	2.686257 %
30	.243	.2404	-2.599999E-03	-1.081531 %

S6

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.005	2.600006E-03	-2.399994E-03	-92.30724 %
10	.048	.0507	2.700001E-03	5.325446 %
20	.097	9.879999E-02	1.799993E-03	1.821856 %
30	.149	[illegible]	[illegible]	

Jm
26 Apr 88

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.106	.1061	1.000091E-04	9.425931E-02 %
10	.147	.1472	1.999885E-04	.1358618 %
20	.185	.1883	-7.000119E-04	-.3717536 %
30	.229	.2294	3.99977E-04	.1743579 %

JWM
26 Apr 88

BEGIN DATA FILE: AS.DF

As

MMT

4/15/88

Begin Element - AS

0.000 AM	
0.031	
0.101	
0.045	STD Curve
0.114	
0.184	
0.108	AQC I
0.174	
0.182	
0.245	
0.111	AQC II
0.157	
0.182	
0.248	
0.105	S26
0.043	
0.087	
0.149	
0.103	S27
0.148	
0.188	
0.188	
0.014	S28
0.057	
0.185	
0.144	
0.023	S30
0.065	
0.110	
0.155	
0.024	S30 Dup
0.057	
0.110	
0.152	
0.105	AQC II
0.147	
0.189	
0.228	
0.001	

JM 26 Apr 88

FLAMELESS * CSC VERSION 1.00 *

NAME OF ANALYST ---: MMT
DATE OF ANALYSIS --: 04-18-1988
PARAMETER NAME ----: ARSENIC
DATA SET # --------: 4969/4978/4979

SAMPLE NO.	CONC.	R VALUE	SLOPE	
PREVAGC true 23.5	25.8151	.9999589	4.109999E-03	-9.8%
4969/S31	4.736844	.998926	4.179999E-03	
4978/S34	-.2068153	.9998996	.00431	
4978/S35	-.3918032	.9993609	4.090001E-03	
4978/S36	-.3135311	.9996584	.00412	
4978/S37	-.4859358	.9991701	3.910001E-03	
AGC true 23.5	23.95626	.9987172	4.120003E-03	-1.96%
4979/S1	-.5197998	.9992533	.00404	
4979/S2	-.2756908	.9990779	.00399	
4979/S3	-2.673552E-02	.9999653	.00374	
4979/S4	-.8585882	.9999235	.00398	
~~4979/S4DUP~~	~~-2.4831~~	~~.9706522~~	~~.00316~~	
4979/S4DUP	-.9375014	.9982953	3.840001E-03	
AGC	24.13043	.997439	.00368	
AGC	25.81163	.9987878	3.779999E-03	0.8%
4979/S5	-.1983037	.9990141	3.530001E-03	-7.2%
4979/S6	-.9550546	.9966065	.00356	
AGC	22.06896	.9999762	3.770001E-03	6.0%

PREVAGC

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.106	.1061	1.000091E-04	9.425331E-02 %
10	.147	.1472	1.999885E-04	.1358618 %
20	.189	.1883	-7.000119E-04	-.3717536 %
30	.229	.2294	3.999773E-04	.1743579 %

4969/S31

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.019	.0198	8.000043E-04	4.040425 %
10	.061	.0616	5.999953E-04	.9740183 %
20	.107	.1034	-3.600009E-03	-3.481634 %
30	.143	.1452	2.199978E-03	1.515136 %

4978/S34

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.002	-8.999939E-04	1.100006E-03	-122.2238 %
10	.045	.0428	-2.800003E-03	-6.635078 %
20	.083	8.529999E-02	2.299994E-03	2.696359 %
30	.129	.1294	-6.000103E-04	-.4673977 %

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.003	-1.600021E-03	1.399979E-03	-87.4975 %
10	.042	3.929998E-02	-2.70002E-03	-6.870282 %
20	7.900001E-02	8.019999E-02	1.199983E-03	1.496239 %
30	.121	.1211	9.999424E-05	8.257163E-02 %

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4978/S36

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.002	-1.299988E-03	7.000123E-04	-53.84761 %
10	.04	3.990001E-02	-9.999052E-05	-.2506028 %
20	.083	.0811	-1.899995E-03	-2.34278 %
30	.121	.1223	.0013	1.06296 %

4978/S37

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	0	-1.900009E-03	-1.900009E-03	100 %
10	.035	.0372	2.199996E-03	5.913969 %
20	.075	.0763	.0013	1.7038 %
30	.117	.1154	-1.599997E-03	-1.386479 %

AGC

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.098	9.869995E-02	6.999523E-04	.7091718 %
10	.139	.1399	8.999705E-04	.6432957 %
20	.185	.1811	-3.899992E-03	-2.153502 %
30	.22	.2223	2.300024E-03	1.034649 %

4979/S1

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.001	-2.099991E-03	-1.099991E-03	52.38074 %
10	.038	3.830001E-02	3.000051E-04	.783303 %
20	.076	.0787	2.700001E-03	3.430751 %
30	.121	.1191	-1.900002E-03	-1.5953 %

4979/S2

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	0	-1.100006E-03	-1.100006E-03	100 %
10	.036	3.879999E-02	2.799992E-03	7.216475 %
20	.081	.0787	-2.300009E-03	-2.922503 %
30	.118	.1186	5.999804E-04	.5058857 %

79/S3

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	0	-9.999084E-05	-9.999084E-05	100 %
10	.037	3.730001E-02	3.000088E-04	.804313 %
20	.075	7.470001E-02	-2.999976E-04	-.4016032 %
30	.112	.1121	[illegible]	[illegible] %

4979/S4

JGM 26 April

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.003	-3.400009E-03	-4.000091E-04	11.76494 %
10	.036	3.619999E-02	1.999922E-04	.5524648 %
20	.075	7.579999E-02	7.999838E-04	1.055388 %
30	.116	.1154	-6.000102E-04	-.5199396 %

4979/S4DUP

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.001	-1.239999E-02	-1.139999E-02	91.93548 %
10	.032	3.920001E-02	7.200007E-03	18.36736 %
20	.071	9.080001E-02	1.980001E-02	21.80617 %
30	.158	.1424	-1.560001E-02	-10.95507 %

4979/S4DUP

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.001	-3.600006E-03	-2.600006E-03	72.22227 %
10	.032	.0348	2.799999E-03	8.045975 %
20	.071	.0732	.0022	3.005464 %
30	.114	.1116	-2.399989E-03	-2.150527 %

AQC

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.088	8.679998E-02	7.999838E-04	.9008828 %
10	.129	.1256	-3.400013E-03	-2.707017 %
20	.158	.1624	4.399985E-03	2.709351 %
30	.201	.1992	-1.800016E-03	-.9036223 %

AQC

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.097	9.530002E-02	-1.699984E-03	-1.783824 %
10	.132	.1331	1.100004E-03	.8264491 %
20	.168	.1709	2.89999E-03	1.696893 %
30	.211	.2087	-2.300024E-03	-1.102072 %

4979/S5

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	0	-7.000122E-04	-7.000122E-04	100 %
10	.035	.0346	-4.000031E-04	-1.156078 %
20	.067	6.990001E-02	2.900005E-03	4.14879 %
30	.107	.1052	-1.799986E-03	-1.711013 %

4979/26

SPIKE	MEASURED	CALC.	ERROR	PER CENT

4979/55

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	0	-7.000122E-04	-7.000122E-04	100 %
10	.035	.0346	-4.000031E-04	-1.156078 %
20	.067	6.990001E-02	2.900005E-03	4.14879 %
30	.107	.1052	-1.799986E-03	-1.711013 %

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4979/26

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.001	-3.399994E-03	-2.399994E-03	70.58818 %
10	.031	.0322	1.200002E-03	3.726713 %
20	.063	.0678	.0048	7.079645 %
30	.107	.1034	-3.600009E-03	-3.481634 %

AQC

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.083	8.319998E-02	1.99981E-04	.2403619 %
10	.121	.1209	-1.000166E-04	-8.272673E-02 %
20	.159	.1586	-4.000068E-04	-.2522111 %
30	.196	.1963	3.000051E-04	.1528299 %

4/15/88
MMT

0.013
0.061
0.107
0.143 } S31 4969

-0.002
0.045
0.083
0.129 } S34 4978

-0.003
0.042
0.079
0.121 } S35

-0.002
0.040
0.085
0.121 } S36

-0.000
0.085
0.075
0.117 } S37

0.086
0.133
0.185
0.220 } AQC

BEGIN DATA FILE: IIAS.DF

4/15/88
MMT

Begin Element - AS

-0.001
0.038
0.075
0.121 } 497951

-0.000
0.036
0.081
0.119 } S2

-0.000
0.037
0.075
0.112 } S3

-0.003
0.035
0.075
0.116 } S4

-0.001
0.032
0.071
0.114 } S4 Dup

0.088
0.129
0.158
0.201 } AQC

-0.002 BLK
0.097 } AQC

0.087	S3
0.075	
0.112	
-0.003	S4
0.035	
0.075	
0.116	
-0.001	S4 Dup
0.032	
0.071	
0.114	
0.088	AQC
0.129	
0.158	
0.201	
-0.002 BLK	
0.097	AQC
0.132	
0.183	
0.211	
0.000	S5
0.035	
0.067	
0.107	
-0.001	S6
0.031	
0.063	
0.107	
0.083	AQC
0.121	
0.159	
0.196	

JKM

* FLAMELESS * CSC VERSION 1.00 *

NAME OF ANALYST ---: HP
DATE OF ANALYSIS --: ~~01-02-1980~~ 4/14/88
PARAMETER NAME ----: CD
DATA SET # ---------: 4978/4979

SAMPLE NO.	CONC.	R VALUE	SLOPE	
BLK	-3.988339E-02	.9975788	.1028	
CS TV=0.78	.7803316	.9999939	.1088	.78/.78 = 100%
88FA16S31	3.201988E-02	.9951098	8.119999E-02	
~~D31~~	~~1.306432E-02~~	~~.9925962~~	~~8.419998E-02~~	
S32	1.5809	.9970355	7.540007E-02	
~~S33~~	~~.150259~~	~~.9930136~~	~~7.720001E-02~~	
S34	-8.080823E-02	.9987779	7.920001E-02	
S37	.2465755	.9997371	.073	
~~S36~~	~~-3.826558E-03~~	~~.9767697~~	~~.0784~~	
~~CS TV=0.78~~	~~.5035565~~	~~.9824966~~	~~.1406~~	
CS TV=0.78	.783364	.9993895	.1094	.78/.78 = 100%
D31	1.742645E-02	.995694	7.459998E-02	
~~88PG01S01~~	~~3.084823E-02~~	~~.9939297~~	~~7.780001E-02~~	
88FA16S33	.1226415	~~.9929058~~	~~.0742~~	
~~S36~~	~~.1538463~~	~~.9918175~~	~~7.799999E-02~~	
S35	.1077285	.9950842	8.539999E-02	
~~88PG01R04~~	~~8.333331E-02~~	~~.9908586~~	~~8.519999E-02~~	
S35 DUP.	.2385205	.9960026	.0784	
~~CS TV=0.78~~	~~.7941176~~	~~.9933065~~	~~9.520002E-02~~	
CS TV=0.78	.783401	.9972581	9.879999E-02	.78/.78 = 100%
~~S33~~	~~.3584904~~	~~.9145636~~	~~6.360001E-02~~	
R04	6.962003E-02	.9972235	7.900001E-02	
~~S01~~	~~.289916~~	~~.9841958~~	~~7.140001E-02~~	
~~S02~~	~~-.166364~~	~~.5226739~~	~~59.48237~~	
~~S02~~	~~9.795326E-02~~	~~.9937496~~	~~.0684~~	
S03	-2.595636E-02	.9996866	.0732	
~~88FA16S33~~	~~.1293604~~	~~.9867308~~	~~6.880001E-02~~	
~~S33~~	~~2.655875E-02~~	~~.9886592~~	~~8.660001E-02~~	
CS TV=0.78	.8195876	.9963001	9.699998E-02	.82/.78 = 105%
88PG01S01	7.162939E-02	.9962184	.0712	
88FA16S33	-2.259875E-02	.9979949	.0708	
88PG01S04	.4643874	.9959106	7.020001E-02	
S05	.2597403	.9985526	.077	
S06	-3.435138E-02	.9984305	7.860003E-02	
S02	-2.514787E-02	.9980972	.0676	
S04 DUP.	.4440897	.9969215	.0626	
CS TV=0.78	.8225805	.9989774	9.920001E-02	.82/.78 = 105%
~~S36~~	~~.9528968~~	~~.9919576~~	~~7.939999E-02~~	
S36	-1.449274E-02	.9993706	.069	
CS TV=0.78	.7071566	.9982066	.1062	.707/.78 = 91%

BLK

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.003	-4.100013E-03	-1.100013E-03	26.82949 %
.5	.049	4.729999E-02	-1.700014E-03	-3.594111 %
1	.092	9.869999E-02	6.699987E-03	6.788234 %
1.5	.154	.1501	-3.900021E-03	-2.598282 %

CS TV=0.78

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.085	8.490004E-02	-9.995699E-05	-.1177349 %
.5	.139	.1393	3.0002E-04	.2153769 %
1	.194	.1937	-3.000051E-04	-.1548813 %
1.5	.248	.2481	9.998679E-05	4.030101E-02 %

88FA16S31

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.006	2.600014E-03	-3.399986E-03	-130.768 %
.5	.036	4.320001E-02	7.20001E-03	16.66669 %
1	.088	.0838	-4.199997E-03	-5.011929 %
1.5	.124	.1244	3.999993E-04	.3215429 %

D31

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.007	1.100016E-03	-5.899985E-03	-536.3546 %
.5	.037	4.320001E-02	6.200005E-03	14.35186 %
1	.08	.0853	5.300001E-03	6.213365 %
1.5	.133	.1274	-5.600006E-03	-4.395609 %

S32

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.118	.1192	1.199946E-03	1.006666 %
.5	.161	.1569	-4.10001E-03	-2.613136 %
1	.19	.1946	4.600019E-03	2.363833 %
1.5	.234	.2323001	-1.699954E-03	-.7317925 %

S33

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.006	1.159999E-02	5.599994E-03	48.27584 %
.5	.058	.0502	-7.799998E-03	-15.53785 %
1	9.000001E-02	8.880001E-02	-1.199998E-03	-1.351349 %
1.5	.124	.1274	3.400013E-03	2.66877 %

S34

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.004	-6.400013E-03	-2.400013E-03	37.50012 %
.5	.03	.0332	3.199997E-03	9.638544 %
1	.072	.0728	8.000061E-04	1.098909 %
1.5	.114	.1124	-1.59999E-03	-1.423478 %

S37

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.019	1.800001E-02	-9.999927E-04	-5.555513 %
.5	.053	5.450001E-02	1.500007E-03	2.752306 %
1	.091	9.100001E-02	7.450581E-09	8.187451E-06 %

1.5	.128	.1275	-5.000085E-04	[illegible] %

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S36

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	8.000001E-03	-3.000021E-04	-8.300003E-03	2766.648 %
.5	.023	.0389	.0159	40.87403 %
1	.085	7.809999E-02	-6.900013E-03	-8.834844 %
1.5	.118	.1173	-7.000119E-04	-.5967706 %

CS TV=0.78

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.081	7.080002E-02	-1.019998E-02	-14.40675 %
.5	.137	.1411	4.10001E-03	2.905748 %
1	.189	.2114	2.239999E-02	10.59602 %
1.5	.298	.2817	-1.630005E-02	-5.786317 %

CS TV=0.78

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.088	8.570001E-02	-2.299987E-03	-2.683765 %
.5	.137	.1404	3.400013E-03	2.421662 %
1	.195	.1951	1.000166E-04	5.126427E-02 %
1.5	.251	.2498	-1.199991E-03	-.4803805 %

D31

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.001	1.300013E-03	2.300013E-03	176.9223 %
.5	.039	3.860001E-02	-3.999956E-04	-1.036258 %
1	.082	.0759	-6.100007E-03	-8.0369 %
1.5	.109	.1132	4.199989E-03	3.710238 %

88PG01S01

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.002	2.399993E-03	4.399993E-03	183.3336 %
.5	.045	.0413	-3.700003E-03	-8.958845 %
1	.086	8.020001E-02	-5.799994E-03	-7.231912 %
1.5	.114	.1191	5.10002E-03	4.282131 %

88FA16S33

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.006	9.099996E-03	3.099996E-03	34.0659 %
.5	.047	4.619999E-02	-8.000061E-04	-1.731615 %
1	.091	.0833	-7.700004E-03	-9.243702 %
1.5	.115	.1204	5.399987E-03	4.48504 %

S36

SPIKE	MEASURED	CALC.	ERROR	PER CENT

0	.006	1.200001E-02	6.000012E-03	50.00005 %
.5	.058	5.100001E-02	-6.999992E-03	-13.72547 %
1	9.399999E-02	8.999999E-02	-4.000001E-03	-4.444445 %
1.5	.124	.129	4.999995E-03	3.875966 %

S35

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.004	9.200012E-03	5.200012E-03	56.5218 %
.5	.059	5.190001E-02	-7.099994E-03	-13.68014 %
1	.096	.0946	-1.400001E-03	-1.479917 %
1.5	.134	.1373	3.299981E-03	2.403483 %

88PG01R04

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.01	7.099998E-03	-2.900002E-03	-40.84511 %
.5	.041	.0497	8.699994E-03	17.50502 %
1	.101	.0923	-8.700006E-03	-9.425792 %
1.5	.132	.1349	2.89999E-03	2.149733 %

S35 DUP.

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.016	.0187	2.700003E-03	14.43852 %
.5	.059	5.790001E-02	-1.099996E-03	-1.899821 %
1	.103	9.710001E-02	-5.899996E-03	-6.076206 %
1.5	.132	.1363	4.299999E-03	3.154804 %

CS TV=0.78

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.073	7.560001E-02	2.600007E-03	3.439162 %
.5	.122	.1232	1.200013E-03	.9740362 %
1	.181	.1708	-1.019996E-02	-5.971875 %
1.5	.212	.2184	6.400034E-03	2.930418 %

CS TV=0.78

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.077	7.740001E-02	4.000142E-04	.5168142 %
.5	.124	.1268	2.800003E-03	2.208204 %
1	.183	.1762	-6.799996E-03	-3.859249 %
1.5	.222	.2256	3.599987E-03	1.595739 %

S33

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.012	2.279999E-02	1.079999E-02	47.36841 %
.5	7.900001E-02	.0546	-2.440001E-02	-44.68867 %
1	.07	8.639999E-02	.0164	18.98148 %
1.5	.121	.1182	-2.800003E-03	-2.368869 %

R04

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.005	5.499983E-03	4.999829E-04	9.090626 %
.5	.043	4.499999E-02	1.999985E-03	4.444413 %
1	9.000001E-02	8.449999E-02	-5.500011E-03	-6.50889 %
1.5	.121	.124	2.999999E-03	2.419354 %

S01

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.026	.0207	-5.299999E-03	-25.60386 %
.5	.045	5.640001E-02	1.140001E-02	20.21278 %
1	.099	9.210001E-02	-6.89999E-03	-7.491845 %
1.5	.127	.1278	8.000136E-04	.6259886 %

S02

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.003	-9.895724	-9.898724	100.0303 %
.5	.048	19.84546	19.79746	99.75812 %
1	.072	49.58664	49.51464	99.8548 %
1	109	49.58664	-59.41336	-119.8173 %

S02

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.003	6.700003E-03	3.700003E-03	55.2239 %
.5	.048	.0409	-7.099998E-03	-17.35941 %
1	.072	7.510001E-02	3.100008E-03	4.12784 %
1.5	.109	.1093	3.000125E-04	.2744854 %

S03

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.001	-1.900005E-03	-9.000053E-04	47.36857 %
.5	.033	.0347	1.699995E-03	4.899122 %
1	.072	.0713	-6.99997E-04	-.9817629 %
1.5	.108	.1079	-1.000091E-04	-9.268688E-02 %

88FA16833

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.014	8.899999E-03	-5.100002E-03	-57.3034 %
.5	.033	4.330001E-02	.0103	23.78754 %
1	.083	7.770001E-02	-5.299986E-03	-6.821087 %
1.5	.112	.1121	1.000166E-04	8.922085E-02 %

S33

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.006	3.299999E-03	-3.700125E-03	-160.8709 %

.5	.046	[illegible]	4.000105E-04	-.8772162 %
1	.077	8.889999E-02	1.189999E-02	13.38582 %
1.5	.14	.1322	-7.799998E-03	-5.90015 %

Jm 16 Ap '88

CS TV=0.78

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.077	7.949998E-02	2.499983E-03	3.144633 %
.5	.128	.128	-2.980232E-08	-2.328307E-05 %
1	.184	.1765	-7.500038E-03	-4.249314 %
1.5	.22	.225	4.999966E-03	2.222207 %

88PG01S01

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.005	5.100012E-03	1.000119E-04	1.961014 %
.5	.038	4.070001E-02	2.700009E-03	6.633927 %
1	.082	.0763	-.0057	-7.47051 %
1.5	.109	.1119	2.900005E-03	2.591604 %

88PA16S33

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.004	-1.599991E-03	2.400009E-03	-150.0014 %
.5	.038	3.380001E-02	-4.199993E-03	-12.42601 %
1	6.800001E-02	.0692	1.199998E-03	1.734101 %
1.5	.104	.1046	5.999953E-04	.5736093 %

88PG01S04

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.03	.0326	2.599998E-03	7.975454 %
.5	.069	.0677	-.0013	-1.920236 %
1	.108	.1028	-5.199991E-03	-5.058357 %
1.5	.134	.1379	3.900007E-03	2.828141 %

S05

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.018	2.000001E-02	2.000006E-03	10.00003 %
.5	.06	5.850001E-02	-1.499992E-03	-2.564088 %
1	.1	.097	-2.999999E-03	-3.092782 %
1.5	.133	.1355	2.500013E-03	1.845028 %

S06

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.003	-2.700019E-03	2.999811E-04	-11.11033 %
.5	.039	3.659999E-02	-2.400007E-03	-6.557398 %
1	.072	7.590001E-02	3.900007E-03	5.138348 %
1.5	.117	.1152	-1.799971E-03	-1.562474 %

S02

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.001	-1.699996E-03	-6.999959E-04	41.17633 %
.5	.033	.0321	-8.999966E-04	-2.803728 %
1	.062	.0659	3.899999E-03	5.918057 %
1.5	.102	9.969999E-02	-2.300002E-03	-2.306923 %

low voltage

S04 DUP.

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.025	2.780001E-02	2.800012E-03	10.07198 %
.5	.062	5.910001E-02	-2.89999E-03	-4.906919 %
1	.093	9.040001E-02	-2.599992E-03	-2.876097 %
1.5	.119	.1217	2.700001E-03	2.218571 %

CS TV=0.78

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.084	.0816	-2.400003E-03	-2.941181 %
.5	.129	.1312	2.200008E-03	1.676835 %
1	.178	.1808	2.800003E-03	1.548674 %
1.5	.233	.2304	-2.599985E-03	-1.128465 %

S36

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.002	4.200006E-03	6.200006E-03	147.619 %
.5	.052	.0439	-8.100003E-03	-18.45103 %
1	.086	.0836	-2.400011E-03	-2.870827 %
1.5	.119	.1233	4.299984E-03	3.487416 %

S36

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	0	-9.99999E-04	-9.99999E-04	100 %
.5	.033	.0335	4.999973E-04	1.492529 %
1	.066	6.799999E-02	1.999989E-03	2.941161 %
1.5	.104	.1025	-1.500018E-03	-1.463432 %

CS TV=0.78

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	7.900001E-02	7.510002E-02	-3.899984E-03	-5.193053 %
.5	.123	.1282	5.200006E-03	4.056167 %
1	.18	.1813	1.299992E-03	.7170393 %
1.5	.237	.2344	-2.600014E-03	-1.109221 %

BEGIN DATA FILE: CD004.DF

Begin Element - CD

-0.005
0.000 AZ
0.001
0.051
0.086
0.149
0.085
0.122
0.189
0.209
-0.000
0.089
0.087
0.122
0.009
0.051
0.088
0.155
0.079
0.129
0.175
0.213
0.081
0.133
0.185
0.203
0.007
-0.003
0.049
0.092
0.154
0.085
0.139
0.194
0.248
0.006
0.036
0.088
0.124
0.007
0.037
0.080
0.133
0.118
0.161
0.190
0.234
0.006
0.058
0.090
0.124
-0.004
0.030
0.072
0.114
0.019
0.053
0.091
0.128

DMK

CS

88FA16

S31

D31

S32

S33

S34

S37

SF 4978/ 4979

Analyst: H. Pham

4/20/88.

Jim
Reports

0.008
0.023
0.085
0.118 } S36

0.081
0.137
0.189
0.298 } CS

0.088
0.137
0.195
0.251 } CS

-0.001
0.039
0.082
0.109 } D31

-0.002
0.045
0.086
0.114 } S01

0.006
0.047
0.091
0.115 } S33

0.006
0.058
0.094
0.124 } S36

0.004
0.059
0.098
0.134 } S35

0.010
0.041
0.101
0.132 } R04

0.016
0.059
0.103
0.132 } S35 Dup.

~~0.094~~ error cmp entry

0.073
0.122
0.181
0.212 } CS

~~0.091~~
~~0.114~~ } error cmps entry.

0.077
0.124
0.183
0.222 } CS.

0.012
0.079
0.070
0.121 } S33

0.005
0.043
0.090
0.121 } R04 KEPG01

0.026
0.045
0.099
0.127 } S01

0.003
0.048
0.072
0.109 S02

-0.001
0.033
0.072
0.108 S03

0.014
0.033
0.083
0.112 S33

0.046
0.077
0.140 S33

0.071
0.135
0.070
0.105
0.075
0.115
0.175 error caps entry

0.077
0.128
0.184
0.220 CS.

88PG01

0.005
0.038
0.082
0.109 S01

88FA16

-0.004
0.038
0.068
0.104 S33

0.030
0.069
0.108
0.134 S04

0.018
0.060
0.100
0.133 S05

-0.003
0.039
0.072
0.117 S06

-0.001
0.033
0.062
0.102 S02

0.025
0.062
0.093
0.119 S04 Dup.

0.084
0.129
0.178
0.233 CS

88FA16

-0.002
0.052
0.086
0.119 S36 Dup.

* FLAMELESS * CSC VERSION 1.00 *

NAME OF ANALYST ----: HP
DATE OF ANALYSIS ---: 04-11-1988
PARAMETER NAME -----: PB
DATA SET # ---------: 4949-4979/4903

JM 26 Apr 88

SAMPLE NO.	CONC.	R VALUE	SLOPE	
BLK	-.3842204	.9997379	9.630001E-03	
CS TV=22.4	21.90002	.9987433	9.999996E-03	21.9/22.4 = 98%
88PW03S40	-7.666833E-02	.9989184	9.129999E-03	
88EK02R07	56.28446	.9981919	9.420006E-03	
~~B01~~	~~15.65371~~	~~.9884904~~	~~.00564~~	
D02	25.41985	.9990341	6.549999E-03	
88PW03S29	.74755	.9986781	8.159998E-03	
~~S26~~	~~44.67261~~	~~.9943621~~	~~6.720002E-03~~	
S27	19.03717	.999264	.00592	
~~CS TV=22.4~~	~~24.57564~~	~~.9942356~~	~~8.130001E-03~~	
CS TV=22.4	21.98429	.9964414	.01018	21.98/22.4 = 98%
88EK02R07 1/2	31.72489	.9988421	.00916	31.7x2 = 63.4
88PW03S28	14.73485	.9996132	5.280001E-03	
S30	22.8713	.9999414	.00505	
S31	7.142851	.9993956	6.300001E-03	
S31 DUP.	7.292989	.9990683	6.280003E-03	
~~88EK02S01~~	~~53.45217~~	~~.9892418~~	~~.00575~~	
88PW03S26 1/2	19.6682	.9972856	8.739998E-03	19.7x2 = 39.4
CS TV=22.4	24.53306	.9982178	9.529999E-03	24.5/22.4 = 109%
88EK02S01 ~~1/2~~ HP 1/5	5.433439	.9975126	6.459999E-03	5.4x5 = 27.0
88PG01S01	11.15385	.9991136	.0078	
~~S2~~ S03 HP	-7.194245E-02	.9979054	6.949999E-03	
S02	2.972179	.9998222	6.830002E-03	
S06	-.7248511	.9983367	6.760001E-03	
S05	4.94143	.9993575	9.389999E-03	
S05 DUP.	5.011084	.9995725	9.020001E-03	
CS TV=22.4	20.671	.9951855	.01073	20.67/22.4 = 92%
88PG01S04	53.44476	.9969291	7.779999E-03	
88FA16S34	.3993817	.9996535	6.510001E-03	
S37	6.413039	.9995748	4.600001E-03	
S35	-.4606514	.9998269	.00521	
S36	-.4826564	.9983593	6.630001E-03	
S32	1.304348	.9983857	.00575	
S32 DUP.	2.513865	.9990209	5.409999E-03	
CS TV=22.4	22.26514	.9998054	9.579998E-03	22.26/22.4 = 99%
~~88PG01S04 1/2~~	~~28.57143~~	~~.9934879~~	~~8.490002E-03~~	
88FA16S31	1.845873	.9982764	5.580001E-03	
D31	1.417909	.9975308	5.360001E-03	
~~S33~~	~~.9708736~~	~~.9942621~~	~~5.150001E-03~~	
R04	-.3044504	.9991072	8.539999E-03	
S31	.7129462	.9991454	.00533	
88PG01S04 1/2	29.53946	.9986006	7.600003E-03	29.5x2 = 59.0
CS TV=22.4	20.7221	.995893	.00914	20.7/22.4 = 92%
88FA16S33	.3141367	.9997473	.00573	
CS TV=22.4	22.66831	.9997567	8.169998E-03	22.67/22.4 = 101%

BLK

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.004	-3.700043E-03	2.799576E-04	-8.106869 %
10	.093	9.259998E-02	1.599975E-03	1.727835 %
20	.193	.1889	-4.100025E-03	-2.170474 %
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

10	.091	9.259998E-02	1.599975E-03	1.727835 %
20	.193	.1889	-4.100025E-03	-2.170474 %
30	.283	.2852	2.199978E-03	.7713808 %

JMS 26 April

CS TV=22.4

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.213	.2190001	6.000117E-03	2.739778 %
10	.328	.3190001	-8.999944E-03	-2.821298 %
20	.419	.419	2.980232E-08	7.112726E-06 %
30	.516	.519	3.000021E-03	.5780388 %

88PW03S40

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.004	-6.999817E-04	-4.699982E-03	671.4436 %
10	.086	9.060001E-02	4.600011E-03	5.077274 %
20	.177	.1819	4.900009E-03	2.693792 %
30	.278	.2732	-4.800022E-03	-1.756963 %

88EK02R07

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.534	.5302	-3.800035E-03	-.7167173 %
10	.615	.6244	9.40001E-03	1.505447 %
20	.726	.7186001	-7.399977E-03	-1.029777 %
30	.811	.8128001	1.80012E-03	.2214714 %

S01

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.096	8.860001E-02	-7.399991E-03	-8.352134 %
10	.141	.1452	4.200012E-03	2.89257 %
20	.188	.2018	1.380001E-02	6.838459 %
30	.269	.2584	-1.059997E-02	-4.102156 %

D02

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.163	.1665	.0035	2.102102 %
10	.237	.232	-5.00001E-03	-2.155177 %
20	.298	.2975	-5.000234E-04	-.1680751 %
30	.361	.363	1.999974E-03	.5509571 %

88PW03S29

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.004	6.100006E-03	2.100006E-03	34.42629 %
10	9.399999E-02	8.769999E-02	-6.30001E-03	-7.183593 %
20	.163	.1693	6.299958E-03	3.721181 %
30	.253	.2509	-2.100051E-03	-.8370072 %

S26

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.308	.3002	-7.800043E-03	-2.598282 %
10	.36	.3674	7.399947E-03	2.014139 %
20	.426	.4346	8.599997E-03	1.97883 %
30	.51	.5018	-8.19999E-03	-1.634115 %

S27

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.114	.1127	-1.299985E-03	-1.153491 %
10	.172	.1719	-9.998679E-05	-5.816567E-02 %
20	.227	.2311	4.100025E-03	1.774134 %
30	.293	.2903	-2.700001E-03	-.9300727 %

CS TV=22.4

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.21	.1998	-1.020001E-02	-5.10511 %
10	.27	.2811	1.109997E-02	3.94876 %
20	.354	.3624	8.399993E-03	2.317879 %
30	.453	.4437	-9.299994E-03	-2.096009 %

CS TV=22.4

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.215	.2238001	8.800044E-03	3.932101 %
10	.333	.3256001	-7.399947E-03	-2.27271 %
20	.439	.4274001	-1.159996E-02	-2.714075 %
30	.519	.5292001	1.020008E-02	1.927453 %

88EK02R07 172

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.287	.2906	3.599972E-03	1.238807 %
10	.384	.3822	-1.800031E-03	-.4709656 %
20	.481	.4738	-7.200033E-03	-1.519636 %
30	.56	.5654	5.400002E-03	.9550764 %

88PW03S28

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.076	.0778	1.799993E-03	2.313616 %
10	.133	.1306	-2.399996E-03	-1.837669 %
20	.184	.1834	-5.999953E-04	-.3271512 %
30	.235	.2362	1.200005E-03	.5080464 %

S30

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.116	.1155	-4.999638E-04	-.432869 %
10	.165	.166	1.000017E-03	.6024198 %
20	.217	.2165	-4.999787E-04	-.230937 %

30	.267	.267	2.980232E-08	1.116192E-05 %

JVM 26 Apr 88

S31

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.047	4.499997E-02	-2.00003E-03	-4.444515 %
10	.104	.108	3.999978E-03	3.703684 %
20	.173	.171	-2.000004E-03	-1.169593 %
30	.234	.234	0	0 %

S31 DUP.

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.049	4.579999E-02	-3.200013E-03	-6.986931 %
10	.105	.1086	3.600016E-03	3.314932 %
20	.169	.1714	2.400041E-03	1.400257 %
30	.237	.2342001	-2.799943E-03	-1.195535 %

88EK02S01

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.198	.1935	-4.500002E-03	-2.325582 %
10	.252	.251	-1.000017E-03	-.3984131 %
20	.293	.3085	1.549998E-02	5.024305 %
30	.376	.366	-9.999991E-03	-2.732238 %

88PW03S26 1/2

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.173	.1719	-1.099974E-03	-.6398917 %
10	.252	.2593	7.29999E-03	2.815268 %
20	.358	.3467	-1.130006E-02	-3.259319 %
30	.429	.4341	5.099982E-03	1.174841 %

CS TV=22.4

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.233	.2338001	8.000583E-04	.3421976 %
10	.325	.3291001	4.100055E-03	1.245838 %
20	.435	.4244001	-1.059997E-02	-2.497637 %
30	.514	.5197001	5.700052E-03	1.096797 %

88EK02S01 ~~1/2~~ 1/5 mp

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.031	3.510001E-02	4.100006E-03	11.68093 %
10	.108	9.969999E-02	-8.300006E-03	-8.324982 %
20	.16	.1643	4.299999E-03	2.617163 %
30	.229	.2289	-1.000166E-04	-4.369445E-02 %

88PG01S01

SPIKE	MEASURED	CALC.	ERROR	PER CENT

0	9.000001E-02	8.700002E-02	-2.999976E-03	-3.448248 %
10	.163	.165	2.000019E-03	1.212133 %
20	.238	.243	5.00001E-03	2.057617 %
30	.325	.321	-3.999978E-03	-1.246099 %

~~63~~ 503 HP

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.005	-.0005	-.0055	1100 %
10	.062	.069	6.999992E-03	10.14492 %
20	.136	.1385	2.499968E-03	1.805031 %
30	.212	.208	-4.000023E-03	-1.923088 %

S02

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.019	2.029999E-02	1.299989E-03	6.403888 %
10	.091	.0886	-2.399996E-03	-2.708799 %
20	.156	.1569	9.000152E-04	.5736235 %
30	.225	.2252001	2.000481E-04	8.883128E-02 %

S06

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.004	-4.899994E-03	-8.999938E-04	18.36724 %
10	.065	6.270001E-02	-2.299987E-03	-3.66824 %
20	.123	.1303	7.300012E-03	5.602465 %
30	.202	.1979	-4.099995E-03	-2.071751 %

S05

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.048	4.640003E-02	-1.599975E-03	-3.44822 %
10	.141	.1403	-6.999821E-04	-.498918 %
20	.228	.2342	6.200016E-03	2.647317 %
30	.332	.3281	-3.899962E-03	-1.18865 %

S05 DUP.

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.047	4.519999E-02	-1.800016E-03	-3.982337 %
10	.131	.1354	.0044	3.249631 %
20	.229	.2256	-3.399998E-03	-1.507091 %
30	.315	.3158	8.000136E-04	.2533292 %

CS TV=22.4

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.227	.2217999	-5.200073E-03	-2.344488 %
10	.331	.3291	-1.900047E-03	-.5773465 %
20	.417	.4364	.0194	4.445463 %
30	.556	.5437001	-1.229996E-02	-2.262269 %

88FG01B04

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.409	.4158002	6.800145E-03	1.635436 %
10	.505	.4936002	-1.139987E-02	-2.309535 %
20	.569	.5714002	2.40016E-03	.4200489 %
30	.647	.6492001	2.200067E-03	.3388889 %

88FA16S34

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.002	2.599976E-03	5.999755E-04	23.0762 %
10	.07	.0677	-2.300009E-03	-3.397355 %
20	.13	.1328	2.800003E-03	2.108436 %
30	.199	.1979	-1.100004E-03	-.5558382 %

S37

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.028	2.949999E-02	1.499984E-03	5.084696 %
10	.078	7.549999E-02	-2.500013E-03	-3.311275 %
20	.121	.1215	4.999936E-04	.4115174 %
30	.167	.1675	4.999936E-04	.2985036 %

S35

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.002	-2.399994E-03	-3.999937E-04	16.66645 %
10	.05	4.970001E-02	-2.999939E-04	-.6036094 %
20	.1	.1018	1.800008E-03	1.768181 %
30	.155	.1539	-1.099989E-03	-.7147426 %

S36

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.001	-3.200012E-03	-4.200013E-03	131.2499 %
10	.059	.0631	4.100002E-03	6.497627 %
20	.125	.1294	4.400015E-03	3.40032 %
30	.2	.1957	-4.299984E-03	-2.197232 %

S32

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.01	.0075	-.0025	-33.33334 %
10	.064	.065	9.999946E-04	1.538453 %
20	.117	.1225	5.500004E-03	4.489799 %
30	.184	.18	-4.000008E-03	-2.222227 %

S32 DUP.

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.012	1.360001E-02	1.600006E-03	11.76474 %
10	6.800001E-02	.0677	-3.000125E-04	-.44315 %

10	3.600001E-02	.0677	-3.000125E-04	-.44315 %
20	.126	.1218	-4.200019E-03	-3.448292 %
30	.173	.1759	2.899975E-03	1.64865 %

CS TV=22.4

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.211	.2133	2.299994E-03	1.078291 %
10	.312	.3091	-2.900034E-03	-.9382188 %
20	.406	.4049	-1.100034E-03	-.2716803 %
30	.499	.5006999	1.699865E-03	.3394978 %

88PG01S04 1/2

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.23	.2400001	1.000005E-02	4.166687 %
10	.342	.3240001	-1.799995E-02	-5.555538 %
20	.402	.4080001	6.000072E-03	1.470606 %
30	.49	.4920001	2.000094E-03	.406523 %

88FA16S31

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.014	1.029997E-02	-3.700028E-03	-35.9227 %
10	.06	6.609998E-02	6.099981E-03	9.228416 %
20	.123	.1219	-1.100011E-03	-.9023882 %
30	.179	.1777	-1.300007E-03	-.7315741 %

D31

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.003	7.599991E-03	4.599991E-03	60.52627 %
10	.067	.0612	-5.800005E-03	-9.477132 %
20	.117	.1148	-2.199993E-03	-1.91637 %
30	.165	.1684	3.400013E-03	2.01901 %

S33

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.003	.005	.002	40 %
10	.064	5.650001E-02	-7.499997E-03	-13.27433 %
20	.099	.108	9.000018E-03	8.33335 %
30	.163	.1595	-3.499985E-03	-2.194348 %

R04

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	0	-2.600006E-03	-2.600006E-03	100 %
10	.082	8.279998E-02	7.999763E-04	.9661552 %
20	.162	.1682	6.199956E-03	3.686063 %
30	.258	.2536	-4.400045E-03	-1.735034 %

S31

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.002	3.800003E-03	1.800003E-03	47.36846 %
10	.058	5.710001E-02	-8.999929E-04	-1.57617 %
20	.114	.1104	-3.599994E-03	-3.260864 %
30	.161	.1637	2.700016E-03	1.649368 %

JM 26Apr88

88PB01S04 1/2

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.227	.2245	-2.500057E-03	-1.113612 %
10	.294	.3005	6.499976E-03	2.163054 %
20	.382	.3765	-5.499989E-03	-1.46082 %
30	.451	.4525	1.500011E-03	.331494 %

CS TV=22.4

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.192	.1894	-2.599985E-03	-1.372748 %
10	.27	.2808	.0108	3.846155 %
20	.386	.3722	-.0138	-3.707683 %
30	.458	.4636	5.600006E-03	1.207939 %

88FA16S33

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.002	1.800003E-03	-1.999971E-04	-11.11093 %
10	.06	.0591	-9.000003E-04	-1.522843 %
20	.114	.1164	2.399989E-03	2.061846 %
30	.175	.1737	-1.300022E-03	-.7484296 %

CS TV=22.4

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.183	.1852001	2.200067E-03	1.187941 %
10	.27	.2669001	-3.099948E-03	-1.161464 %
20	.349	.3486	-3.99977E-04	-.1147381 %
30	.429	.4303	1.300007E-03	.3021165 %

SSBEGIN DATA FILE: PB003.DF WSB 4903

Begin Element - PB 4949 - 4979

Analyst: H. Pham

4/8/88

-0.008
0.000 AZ
-0.004
0.091
0.193
0.283 } 81K

0.213
0.328
0.419
0.516 } CS

0.004
0.086
0.177
0.278 } 88PW03 S40

0.534
0.615
0.726
0.811 } 88EK02 R07

0.096
0.141
0.188
0.269 } S01

0.163
0.237
0.298
0.361 } D02

0.004
0.094
0.163
0.253 } 88PW03 S29

0.308
0.360
0.426
0.510 } S26

0.114
0.172
0.227
0.293 } S27

0.210
0.270
0.354
0.453 } CS

0.215
0.333
0.439
0.519 } CS

0.287
0.384
0.481
0.560 } 88EK02 R07 1/2

0.076
0.133
0.184
0.235 } 88PW03 S28

0.116
0.165
0.217
0.267 } S30

0.047

JVP 26 Apr 88

0.267
0.047
0.104
0.173
0.234
} S31

0.049
0.105
0.169
0.237
} S31 Dup.

0.198
0.252
0.293
0.376
} error entry caps

0.173
0.252
0.358
0.429
} S26 1/2

0.233
0.325
0.435
0.514
} CS

0.031
0.108
0.160
0.229
} 88EK02 S01 1/5 ne.

0.090
0.163
0.238
0.325
} ~~88PW03~~ HP 88PG01 S01

0.005
0.062
0.136
0.212
} S03

0.019
0.091
0.156
0.225
} S02

-0.004
0.065
0.123
0.202
} S06

0.048
0.141
0.228
0.332
} S05

0.047
0.131
0.229
0.315
} S05 Dup.

0.227
0.331
0.417
0.556
} CS

0.409
0.505
0.569
0.647
} S04

0.002
0.070
0.130
0.199
0.028
} 88FA16 S34

0.121
0.167 } S37

JM 26 Apr 89

-0.002
0.050
0.100
0.155 } S35

0.001
0.059
0.125
0.200 } S36

0.010
0.064
0.117
0.184 } S32

0.012
0.068
0.126
0.173 } S32 Dup

0.211
0.312
0.406
0.499 } CS

0.230
0.342
0.402
0.490 } 88PG01 S04 1/2

0.014
0.060
0.123
0.179 } 88FA16 S31

0.003
0.067
0.117
0.165 } D31

0.003
0.064
0.099
0.163 } S33

0.000
0.082
0.162
0.258 } R04

0.002
0.058
0.114
0.161 } S31

0.227
0.294
0.382
0.451 } 88PG01 S04 1/2

~~0.175~~
~~0.279~~ } error caps entry.

0.192
0.270
0.386
0.458 } CS

0.002
0.060
0.114
0.175
0.183 } 88FA16 S33

0.114
0.161
0.227 } 88PGU1 S04 1/2
0.294
0.382
0.451

~~0.175~~
~~0.279~~ } error caps entry.

0.192
0.270 } CS
0.386
0.458

0.002
0.060 } 88FA16 S33
0.114
0.175

0.183
0.270 } CS.
0.349
0.429

JM
26 Apr 89

JM 26 Apr 88

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* FLAMELESS * CSC VERSION 1.00 *

NAME OF ANALYST ---: PM
DATE OF ANALYSIS --: 04-12-1988
PARAMETER NAME ----: SB
DATA SET # --------: 4949, SF4978

SAMPLE NO.	CONC.	R VALUE	SLOPE	
QC LAST true 20.3	20.13072	.9990191	.00459	0%
EK02R07	-1.038962	.9992138	.00462	
EK02S01	.1669747	.9972339	5.390001E-03	
EK02D02	.4315203	.9997782	.00533	
QC	19.76394	.9998062	4.660002E-03	
FA16R04	-.8108121	.999939	4.440001E-03	-2.7%
FA16S31	-.5700698	.9991716	.00421	
D31	-1.161726	.9975856	.00439	
S32	-1.098657	.999789	.00446	
S33	-1.297074	.9984802	4.780001E-03	
QC	21.82671	.9995452	4.269999E-03	+7.4%
S34	-1.232604	.9993565	.00503	
S35	-1.111111	.9990138	.0045	
S36	-1.170216	.9999548	4.700002E-03	
S37	-1.059909	.9999363	4.340001E-03	
~~QC~~	~~7.474396~~	~~.7785688~~	~~5.761001E-03~~	entry error
QC	20.64302	.9986898	4.510001E-03	+1.5%
BLANK	-.9131384	.9997671	.00449	
S01	-.1709376	.9997809	5.849999E-03	
S01D	-.8403337	.9999577	5.949999E-03	
S01 SP	6.722696	.9999577	5.949999E-03	69% Rec. on spike
QC	22.04544	.9972214	4.400002E-03	+8.4%

QC LAST

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.092	9.240002E-02	4.000217E-04	.4329238 %
10	.137	.1383	1.300037E-03	.940012 %
20	.188	.1842	-3.799975E-03	-2.062961 %
30	.228	.2301	2.100036E-03	.912662 %

EK02R07

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.003	-4.800003E-03	-1.800003E-03	37.50004 %
10	.04	.0414	1.399998E-03	3.381637 %
20	.085	8.759999E-02	2.599992E-03	2.968028 %
30	.136	.1338	-2.200022E-03	-1.644262 %

EK02S01

SPIKE	MEASURED	CALC.	ERROR	PER CENT

10	.051	.0548	3.799997E-03	6.934302 %
20	.116	.1087	-7.299997E-03	-6.715729 %
30	.159	.1626	3.600016E-03	2.214032 %

EK02D02

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.002	2.300003E-03	3.00003E-04	13.04359 %
10	.057	.0556	-1.399998E-03	-2.517981 %
20	.107	.1089	1.900002E-03	1.744722 %
30	.163	.1622	-7.999838E-04	-.4932082 %

QC

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.092	9.209998E-02	9.997189E-05	.1085471 %
10	.138	.1387	6.99997E-04	.5046842 %
20	.187	.1853	-1.699984E-03	-.9174225 %
30	.231	.2319	9.000301E-04	.3881113 %

FA16R04

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.004	-3.600006E-03	3.999942E-04	-11.11093 %
10	.041	.0408	-2.000034E-04	-.4902044 %
20	.086	8.519999E-02	-8.000061E-04	-.9389743 %
30	.129	.1296	5.999953E-04	.4629594 %

FA16S31

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.003	-2.399994E-03	6.000062E-04	-25.00032 %
10	.042	.0397	-2.299998E-03	-5.793446 %
20	7.900001E-02	.0818	2.799995E-03	3.422977 %
30	.125	.1239	-1.100004E-03	-.8878158 %

D31

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.004	-5.099976E-03	-1.099975E-03	21.56825 %
10	.04	3.880002E-02	-1.199979E-03	-3.092729 %
20	.077	8.270001E-02	5.700015E-03	6.892399 %
30	.13	.1266	-3.399998E-03	-2.685623 %

S32

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.004	-4.90001E-03	-9.000092E-04	18.3675 %
10	.039	3.969999E-02	6.999858E-04	1.763189 %
20	.083	8.429998E-02	1.299985E-03	1.542094 %
30	.13	.1289	-1.100019E-03	-.8533893 %

S33

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.003	-6.200013E-03	-3.200012E-03	51.613 %
10	.037	4.159999E-02	4.599992E-03	11.05768 %
20	.089	8.939999E-02	3.999919E-04	.4474183 %
30	.139	.1372	-1.800001E-03	-1.311954 %

QC

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.093	9.320001E-02	2.000108E-04	.2146039 %
10	.135	.1359	8.999854E-04	.662241 %
20	.181	.1786	-2.400011E-03	-1.343791 %
30	.22	.2213	1.299962E-03	.587421 %

S34

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.004	-6.199997E-03	-2.199997E-03	35.48383 %
10	.041	.0441	3.099997E-03	7.029471 %
20	9.399999E-02	9.439999E-02	3.999919E-04	.4237203 %
30	.146	.1447	-1.300007E-03	-.8984154 %

S35

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.004	-.005	-9.999997E-04	19.99999 %
10	.037	.04	2.999999E-03	7.499997 %
20	.088	8.499999E-02	-3.000006E-03	-3.529419 %
30	.129	.13	1.000002E-03	.7692323 %

S36

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.005	-5.500016E-03	-5.000155E-04	9.091164 %
10	.041	.0415	4.999973E-04	1.204813 %
20	.088	8.850001E-02	5.000085E-04	.5649813 %
30	.136	.1355	-4.999936E-04	-.3689989 %

S37

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.005	-4.600006E-03	3.999937E-04	-8.695504 %
10	.039	.0388	-2.000034E-04	-.5154727 %
20	.083	8.220001E-02	-7.999912E-04	-.9732252 %
30	.125	.1256	6.000102E-04	.4777151 %

QC

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	9.399999E-02	.04306	-.05094	-118.3001 %
10	.0139	.10067	8.677001E-02	86.18251 %

20	.179	.15828	-2.071999E-02	-13.09072 %
30	.231	.21589	-1.510999E-02	-6.998928 %

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QC

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	9.399999E-02	9.310001E-02	-8.999929E-04	-.9666948 %
10	.139	.1382	-7.999838E-04	-.5788594 %
20	.179	.1833	4.300013E-03	2.345888 %
30	.231	.2284	-2.599985E-03	-1.138347 %

BLANK

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.003	-4.099991E-03	-1.099991E-03	26.8291 %
10	.039	.0408	1.800001E-03	4.411766 %
20	.086	8.569999E-02	-3.000125E-04	-.350073 %
30	.131	.1306	-4.000217E-04	-.3062954 %

S01

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.002	-9.999848E-04	1.000015E-03	-100.0031 %
10	.058	.0575	-4.999973E-04	-.8695605 %
20	.118	.116	-2.000019E-03	-1.724155 %
30	.173	.1745	1.499966E-03	.8595794 %

S01D

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.005	-4.999985E-03	1.536682E-08	-3.073374E-04 %
10	.055	.0545	-4.999973E-04	-.9174262 %
20	.113	.114	9.999871E-04	.8771818 %
30	.174	.1735	-5.000234E-04	-.2881979 %

S01 SP

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.04	4.000003E-02	2.980232E-08	7.450575E-05 %
10	.1	9.950001E-02	-4.999861E-04	-.5024985 %
20	.158	.159	1.000002E-03	.6289321 %
30	.219	.2185	-5.000085E-04	-.2288368 %

QC

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	9.399999E-02	9.699998E-02	2.999976E-03	3.09276 %
10	.147	.141	-6.000012E-03	-4.255328 %
20	.182	.185	3.000006E-03	1.621625 %
30	.229	.229	1.490116E-08	6.507057E-06 %

JWM
26 Apr

0.092
0.137
0.188 QC
0.228
-0.003
0.040 R07
0.085
0.136
0.001
0.051 QC1
0.116
0.159
-0.004
-0.006 Blank
-0.003
0.002
0.057
0.107 D02
0.163
0.092
0.138 QC
0.187
0.231
-0.004 FA16
0.041 R04
0.086
0.129
-0.003
0.042 S31
0.079
0.125
-0.004
0.040 D31
0.077
0.130
-0.004
0.039 S32
0.083
0.130
-0.003
0.037 S33
0.089
0.139
0.093
0.135 QC
0.181
0.220
-0.004
0.041 S34
0.094
0.146
-0.004
0.037 S35
0.088

JVM
26 April 87

0.129
-0.005
0.041
-0.088 S36
0.136

-0.005 FA16
0.039 S37
0.083
0.125
0.094
0.139
0.179 QC
0.231
~~0.036~~
-0.003
0.039 Blank
0.086
0.131
-0.002
0.058 S01
0.118
0.173
-0.005
0.055 S01 Dup
0.113
0.174
0.040 S01
0.100 Δ8
0.158
0.219
0.094
0.147 QC
0.182
0.229

JVM 26 April

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* FLAMELESS * CSC VERSION 1.00 *

NAME OF ANALYST ---: PM
DATE OF ANALYSIS --: 04-25-1988
PARAMETER NAME ----: SE
DATA SET #.--------: LINDEN

SAMPLE NO.	CONC.	R VALUE	SLOPE	
STD	.1623669	.9987589	.01047	
QC 9.8	9.573449	.9950634	1.055001E-02	-2.3%
FA16S31	-.1185067	.9996984	.01097	
D31	-.2901162	.9997182	.01103	
S32	-1.428572	.9969323	.01015	
S33	.9928333	.9997455	9.770001E-03	
S34	.1969958	.9997166	.01066	
S35	.1749015	.9984182	9.719999E-03	
QC	10.31646	.998991	9.479998E-03	+5.1
S36	-.879627	.9946842	.0108	
S37	1.085511E-02	.9994028	9.210001E-03	
R04	.5698796	.9988182	.00737	
QC	10.70028	.991112	7.140002E-03	
QC	8.387095	.9974055	8.059999E-03	out -14.4 remove last three

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STD

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.007	1.699982E-03	-5.300019E-03	-311.7691 %
10	.102	.1064	.0044	4.135338 %
20	.204	.2111	7.100016E-03	3.363342 %
30	.322	.3158	-6.199986E-03	-1.963263 %

QC 9.8

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.107	.1009999	-6.000065E-03	-5.940662 %
10	.207	.2065	-5.000085E-04	-.2421349 %
20	.293	.312	1.900002E-02	6.089751 %
30	.43	.4175001	-1.249993E-02	-2.993994 %

FA16S31

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.002	-1.300018E-03	-3.300019E-03	253.844 %
10	.104	.1084	4.399985E-03	4.059027 %
20	.217	.2181	1.100004E-03	.5043576 %
30	.33	.3278	-2.199978E-03	-.6711341 %

D31

SPIKE	MEASURED	CALC.	ERROR	PER CENT

0	0	-3.199982E-03	-3.199982E-03	100 %
10	.103	.1071	4.100025E-03	3.82822 %
20	.216	.2174	1.400024E-03	.6439851 %
30	.33	.3277	-2.299994E-03	-.7018596 %

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S32

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.005	-.0145	-.0095	65.51725 %
10	.076	.087	.011	12.64368 %
20	.182	.1885	6.499991E-03	3.448271 %
30	.298	.29	-8.000016E-03	-2.758627 %

S33

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.01	9.699982E-03	-3.000181E-04	-3.092976 %
10	.109	.1074	-1.600012E-03	-1.48977 %
20	.201	.2051	4.09998E-03	1.999015 %
30	.305	.3028	-2.200037E-03	-.7265645 %

S34

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.005	2.099976E-03	-2.900025E-03	-138.098 %
10	.104	.1087	4.69999E-03	4.323818 %
20	.216	.2153	-6.99997E-04	-.3251263 %
30	.323	.3219	-1.100004E-03	-.3417222 %

S35

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	0	1.700043E-03	1.700043E-03	100 %
10	.106	9.890004E-02	-7.099964E-03	-7.17893 %
20	.187	.1961	9.10002E-03	4.640499 %
30	.297	.2933	-3.699958E-03	-1.261493 %

QC

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.103	9.780004E-02	-5.199954E-03	-5.316924 %
10	.186	.1926	6.600023E-03	3.426803 %
20	.285	.2874	2.400011E-03	.8350768 %
30	.386	.3822	-3.800035E-03	-.9942529 %

S36

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.003	-9.499969E-03	-1.249997E-02	131.5791 %
10	.086	9.850001E-02	.0125	12.69036 %
20	.194	.2065	1.249997E-02	6.053257 %
30	.327	.3145	-1.250005E-02	-3.974579 %

JM 26 Apr 88

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* FLAMELESS * CSC VERSION 1.00 *

NAME OF ANALYST ---: PM
DATE OF ANALYSIS --: 04-25-1988
PARAMETER NAME ----: SE
DATA SET #--------: LINDEN

SAMPLE NO.	CONC.	R VALUE	SLOPE
STD	-.3825175	.9991648	.01098
~~QC~~	~~7.335027~~	~~.9992722~~	.01182
QC	9.907227	.9965682	.01078 +1.0%
S36	-.642379	.9984017	.01043
S37	-.7142824	.9995054	9.099999E-03
R04	-.1391674	.9982535	.01006
QC	9.042158	.9999158	.01044 -8.1%

STD

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.003	-4.200043E-03	-1.200043E-03	28.57215 %
10	.1	.1056	5.599976E-03	5.303008 %
20	.223	.2154	-7.60001E-03	-3.528324 %
30	.322	.3252	3.200024E-03	.9840172 %

QC

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.092	8.670001E-02	-5.299986E-03	-6.113016 %
10	.199	.2049	5.900011E-03	2.879459 %
20	.319	.3231	4.099995E-03	1.268955 %
30	.446	.4413	-4.700005E-03	-1.065036 %

QC

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.117	.1067999	-1.020007E-02	-9.550632 %
10	.204	.2146	1.059997E-02	4.93941 %
20	.313	.3224	9.39998E-03	2.915627 %
30	.44	.4302	-9.799987E-03	-2.278007 %

S36

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.004	-6.700013E-03	-2.700012E-03	40.29862 %
10	.089	.0976	8.599997E-03	8.811472 %
20	.211	.2019	-9.09999E-03	-4.507177 %
30	.303	.3062	3.199995E-03	1.045067 %

S37

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.004	9.997559E-05	-3.900025E-03	-3900.977 %
10	.087	9.219998E-02	5.199984E-03	5.639897 %
20	.183	.1843	1.299992E-03	.7053675 %
30	.279	.2764	-2.600014E-03	-.9406709 %

R04

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.002	4.200013E-03	2.200012E-03	52.38109 %
10	.078	7.790001E-02	-9.999424E-05	-.1283623 %
20	.158	.1516	-6.400004E-03	-4.221639 %
30	.221	.2253	4.299999E-03	1.908566 %

QC

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.078	.0764	-1.600005E-03	-2.094247 %
10	.137	.1478	1.080002E-02	7.307184 %
20	.236	.2192	-1.679997E-02	-7.66422 %
30	.283	.2906	7.600039E-03	2.615292 %

QC

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.07	6.759998E-02	-2.400026E-03	-3.550335 %
10	.15	.1482	-1.800031E-03	-1.214596 %
20	.218	.2288	1.079997E-02	4.720269 %
30	.316	.3093999	-6.600082E-03	-2.133188 %

S37

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.003	-6.49997E-03	-3.499969E-03	53.84593 %
10	.08	8.450002E-02	4.500024E-03	5.325471 %
20	.174	.1755	1.500011E-03	.8547068 %
30	.269	.2665	-2.499998E-03	-.9380854 %

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R04

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	0	-1.400024E-03	-1.400024E-03	100 %
10	.092	9.919999E-02	7.199988E-03	7.258053 %
20	.21	.1998	-1.019999E-02	-5.105102 %
30	.296	.3004	4.400015E-03	1.464719 %

QC

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.093	9.440009E-02	1.400083E-03	1.483138 %
10	.2	.1988	-1.199976E-03	-.6036094 %
20	.305	.3032	-1.800031E-03	-.5936776 %
30	.406	.4075999	1.599938E-03	.3925265 %

Jm
26 Apr 88

0.092
0.211
0.306
0.424
0.007
0.102 std
0.204
0.322
0.107
0.207
0.293 QC
0.430
0.002 FA16
0.104 531
0.217
0.330
0.000
0.103 D31
0.216
0.330
-0.005
0.076 532
0.182
0.298
0.010
0.109 533
0.201
0.305
0.005
0.104 534
0.216
0.323
0.000
0.106 535
0.187
0.292
0.103
0.186 QC
0.285
0.386

0.003
0.086 536 Rout
0.194
0.327
0.004
0.087 537
0.183
0.279
0.002
0.078 R04
0.158
0.221
0.078
0.137
0.236
0.283
0.062
0.135

0.229
0.310
0.070
0.150

JM
26 Apr 00

0.005
-0.001
0.004
0.004
0.007
0.006
0.005
0.000 AZ
-0.003
0.100 std
0.223
0.322
0.092
0.199 QC
0.319
0.446
0.117
0.204
0.313 QC
0.440
-0.004
0.089 S36
0.211
0.303
-0.003
0.080
0.174 S37
0.263
0.000
0.092
0.210 R04
0.296
0.093
[illegible]
[illegible]
[illegible]
[illegible]
0.200
0.305
0.406
[illegible]
[illegible]
[illegible]
[illegible]

problems with autosampler

JM 21 Apr 88

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* FLAMELESS * CSC VERSION 1.00 *

NAME OF ANALYST ---: PM
DATE OF ANALYSIS --: 04-15-1988
PARAMETER NAME ----: TL
DATA SET # --------: SF4978

SAMPLE NO.	CONC.	R VALUE	SLOPE
QC LAST true 12.5	12.04678	.9987022	.01197 -3.8%
S34	-.4020984	.9995784	.00572
S35	-1.213236	.999217	.00272
S36	-.2331591	.9999866	.00386
S37	-.5839465	.9987766	2.740001E-03
QC	13.10111	.9995646	.01177 +4.6
S31	-1.356468	.9993738	3.170001E-03
D31	-.7266433	.9989598	.00289
S32	-.4452065	.9993205	2.920001E-03
S33	-.6312273	.9997021	.00301
R04	.2845478	.9990165	.0123
QC	12.70499	.9997411	.01183 +1.4%

QC LAST

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.137	.1442	7.200018E-03	4.993077 %
10	.272	.2639001	-8.099973E-03	-3.069334 %
20	.389	.3836001	-5.399943E-03	-1.407701 %
30	.497	.5033001	6.300062E-03	1.251751 %

S34

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.002	-2.300003E-03	-3.00003E-04	13.04359 %
10	.053	.0549	1.900002E-03	3.460842 %
20	.115	.1121	-2.899997E-03	-2.586973 %
30	.168	.1693	1.300007E-03	.7678719 %

S35

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.002	-3.300003E-03	-1.300003E-03	39.39399 %
10	.022	.0239	1.899999E-03	7.949786 %
20	.051	.0511	1.000017E-04	.195698 %
30	7.900001E-02	7.830001E-02	-6.99997E-04	-.8939935 %

S36

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.001	-8.999939E-04	1.000062E-04	-11.11187 %

10	.038	3.770001E-02	-2.999939E-04	-.7957397 %
20	.076	.0763	3.000051E-04	.3931914 %
30	.115	.1149	-1.000091E-04	-8.704016E-02 %

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537

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.003	-1.600014E-03	1.399986E-03	-87.4984 %
10	.027	.0258	-1.200005E-03	-4.651185 %
20	.055	5.320001E-02	-1.799993E-03	-3.383446 %
30	7.900001E-02	8.060002E-02	1.600012E-03	1.985126 %

QC

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.15	.1542	4.200012E-03	2.723743 %
10	.278	.2719	-6.099969E-03	-2.24346 %
20	.39	.3896001	-3.999472E-04	-.1026558 %
30	.505	.5073001	2.300024E-03	.4533854 %

531

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.004	-4.300003E-03	-3.000028E-04	6.976804 %
10	.026	2.740001E-02	1.400005E-03	5.109507 %
20	.061	5.910002E-02	-1.899988E-03	-3.214868 %
30	9.000001E-02	9.080001E-02	8.000061E-04	.8810639 %

531

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.003	-2.099999E-03	9.000015E-04	-42.85725 %
10	.027	.0268	-2.000053E-04	-.7462884 %
20	.058	5.569999E-02	-2.300009E-03	-4.129281 %
30	.083	8.459999E-02	1.59999E-03	1.891241 %

532

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.002	-1.300003E-03	6.999971E-04	-53.84581 %
10	.028	.0279	-9.999797E-05	-.3584156 %
20	.059	5.710001E-02	-1.899991E-03	-3.32748 %
30	.085	8.630001E-02	1.300015E-03	1.50639 %

533

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.002	-1.899994E-03	1.000062E-04	-5.263503 %
10	.029	.0282	-7.999987E-04	-2.836875 %
20	.057	.0583	1.299996E-03	2.229839 %
30	.089	8.839999E-02	-6.000102E-04	-.6787446 %

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.002	3.499939E-03	5.499939E-03	157.1439 %
10	.131	.1265	-4.500047E-03	-3.557351 %
20	.257	.2495	-7.500038E-03	-3.006028 %
30	.366	.3725	6.499976E-03	1.74496 %

QC

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.147	.1503001	3.300056E-03	2.195645 %
10	.273	.2686001	-4.399956E-03	-1.638107 %
20	.388	.3869	-1.100004E-03	-.2843122 %
30	.5030001	.5052001	2.200008E-03	.4354726 %

0.000	AZ		0.038		
0.001			0.058	1:5	
0.000	AZ		~~0.005~~		
0.003			0.062		
0.000	AZ		-0.000	S05	
-0.001			0.014		
0.121	Std		0.032	1:5	
0.244			0.051		
0.361			0.026		
0.150			0.028	S01	
0.282	QC		0.048	1:5	
0.402			0.065		
0.513			-0.002		
0.056	CW06		0.055		
0.099	S01		-0.001		
0.130			0.168		
0.159			-0.002		
-0.002	Dig		0.023		
0.074	Blank		-0.003		
0.146			0.079		
0.215			-0.003		
-0.005	CW06		0.035		
0.027	S01		-0.002		
0.051			0.004		
0.081			-0.003		
-0.002	CW06		0.023		
0.026	S01		-0.001		
0.054	Dup		0.001		
0.039			-0.003		
0.139			-0.001		
0.261	QC		-0.001		
0.379			-0.001		
0.489					
0.001	Blank Dup				
0.025					
0.038	S13				
0.057	1:5				
0.071					
-0.003	S013				
0.011					
0.030	1:5				
0.041					
-0.003					
0.017	S05				
0.052	1:5				
0.076					
0.000	S13D				
0.012	1:5				
0.032					
0.048					

Problem with autosampler

17.6+1.3 / 20

Jw 26 Apr 88

		0.023	
		0.137	
		0.272	QC
		0.389	
		0.497	

0.506			
0.387			
0.273	QC		
0.139			
0.288			
0.195	R01		
0.103	CW09		
-0.002			
0.060			
0.037	S02		
0.018			
-0.003	CW09		
0.503			
0.388	QC		
0.273			
0.147			
0.366			
0.257	R04		
0.131			
-0.002			
0.089			
0.057	S33		
0.029			
-0.002			
0.085			
0.059	S32		
0.028			
-0.002			
0.083			
0.058			
0.027	D31		
-0.003			
0.090			
0.061	S31		
0.026			
-0.004			
-0.002			
0.505			
0.390	QC		
0.278			
0.150			
0.079			
0.055	S37		
0.027			
-0.003			
0.115			
0.076	S36		
0.038			
-0.001			
0.079			
0.051	S35		
0.022			
-0.002			
0.168			
0.115	S34		
0.053			
-0.002			

	PER CENT	
0017E-03	3.474914	%
0992E-03	-2.062972	%
0962E-03	-1.20845	%
00012E-03	.9843682	%

CALC.	ERROR	PER CENT
.06	3.999997E-03	6.666662 %
9.399999E-02	-5.000003E-03	-5.319152 %
.128	-2.000004E-03	-1.562503 %
.162	2.999991E-03	1.851847 %