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PM_{10} SOURCE COMPOSITION LIBRARY FOR THE SOUTH COAST AIR BASIN

VOLUME II

SOURCE PROFILE LIBRARY

FINAL REPORT

Prepared for:
South Coast Air Quality Management District
9150 Flair Drive
El Monte, CA 91731

Prepared by:
NEA, Inc.
10950 S.W. 5th Street, Suite 380
Beaverton, Oregon 97005

July 15, 1987

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South Coast Air Quality Management District
9150 Flair Drive
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Project Officer: Arthur Davidson

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The statements and conclusions in this report are those of the authors and not necessarily those of the South Coast Air Quality Management District. The mention of commercial products, their source, or their use in connection with material reported herein is not to be construed as either an actual or an implied endorsement of such products.

PREFACE

This set of source profiles forms the South Coast Air Basin (SCAB) Source Profile Library. It is a combination of recently determined source profiles developed specifically for the SCAB and profiles selected from the literature for their applicability to the SCAB. This is Volume II of a three volume document prepared for Mr. Art Davidson of the South Coast Air Quality Management District (SCAQMD). As noted in the acknowledgements to these three volumes, this library is the result of a joint effort by the SCAQMD, the California Air Resources Board's Haagen Smit Laboratory, and NEA.

Volume 1 provides the technical discussion and documentation supporting the new profiles developed as part of this study. Volume III contains the Appendices.

Volume II contains the source profile library in hard copy format and on floppy disks in a format compatible with the EPA CMB software. This volume also contains a brief discussion of the profiles and a description of how to use the software. Use of this library does not require Volumes I and III. The reader wishing more details on how the new profiles were developed should consult Volume I. The reader is encouraged to review the references to the literature source profiles if there is any question as to their appropriateness.

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1.0 GUIDE TO LIBRARY TABLES AND PROFILES

1.1 Organization of Library

The source profiles contained in this library are listed in Table 1. They are listed in functional categories in a sequence based on expected relative importance. Those categories listed at the front of the table are, in general, expected to be more important than those listed at the back of the library.

The SCAB library numbers are grouped into three general categories, each prefixed with a numerical 1, 2, or 3. This prefix number refers to the floppy disk which contains the profile. The first set of profiles (1-01 to 1-69) contains all of the highest priority sources developed as part of this project.

The Mnemonic listed next to the SCAB library number is a unique name for each source which will appear next to the source contribution in CMB reports. As such, it is designed to provide descriptive information that will help the user to quickly identify the source from the abbreviated CMB source contribution report. All of the motor vehicle related profiles, for example, start with M; freeway road dust profiles start with FRD; paved road dust profiles start with PR; and so on. It is recommended that the user become familiar with these codes when first using the library.

A profile can be quickly found by locating it in Table 1 and noting its SCAB library number. The profiles are listed in numerical sequence based on this number which is printed at the top right hand corner of each tabular printout of the profile. Also listed in this top right hand corner is the profile mnemonic.

Table 1 also lists the size fractions for which source profiles are available, an NEA master library profile number, an EPA library

Table 1

SUMMARY OF SOURCE PROFILE CODES, REFERENCES, AND ORIGINS

CAB Source Category	SCAB Lib.No.	Mnemonic	Size[a]	NEA Lib.No.	EPA Lib.No.	Ref.
TOR VEHICLES, On-Road						
IOVES-SS(NEA-E,WOB,T42,TVMT)	1-01	MOVES1*	FCT	5474		1
IOVES-SS(NEA-E,WOB,WOT,TVMT)	1-02	MOVES2*	FCT	5475		1
IOVES-SCAB(ARB-E,WOB,WOT,CM)	1-03	MOVES3*	FCT	5403		1
IOVES-SCAB(NEA-E,WOB,WOT,CM)	1-04	MOVES4*	FCT	5404		1
IOVES-SCAB(NEA-E,WB1,T42,CM)	1-05	MOVES5*	FCT	5487		1
epulveda Tunnel Vehicle	1-06	MVSTC	FC	5476		1
nleaded Gasoline Exhaust FT	1-07	MVULGF	FCT*	5395		1
nleaded Gasoline Exhaust SS	1-08	MVUGS	FCT*	5396		1
eaded Gasoline Exhaust FT	1-09	MVLGF	FCT*	5397		1
eaded Gasoline Exhaust SS	1-10	MVLGS	FCT*	5398		1
ight Duty Diesel Exhaust FT	1-11	MVLDDF	FCT*	5399		1
ight Duty Diesel Exhaust SS	1-12	MVLDDS	FCT*	5400		1
eavy Duty Diesel Exhaust FT	1-13	MVHDDF	FCT*	5401		1
eavy Duty Diesel Exhaust SS	1-14	MVHDDS	FCT*	5402		1
ire Wear	1-15	MVTW	T	5058		2
rake Lining Semi-Metal	1-16	MVBLSM	T	5473		1
rake Lining Asbestos	1-17	MVBLAS	T	5472		3
otor Oil	1-18	MVMO	T	5471		3
EEWAY ROAD DUST						
asadena, 110	1-19	FRDPAS	FCT*	5453		1
rtesia, 91	1-20	FRDART	FCT*	5454		1
reeway Profile Composite	1-21	FRSCAB	FCT*	5493		1
VED ROAD DUST						
ong Beach Boulevard	1-22	PRDLBB	FCT*	5455		1
ong Beach Sample Composite	1-23	PRLBSC	FCT*	5456		1
ong Beach Profile Composite	1-24	PRLBPC	FCT*	5488		1
a Cienega Boulevard	1-25	PRDLCB	FCT*	5457		1
awthorne Sample Composite	1-26	PRDHSC	FCT*	5458		1
awthorne Profile Composite	1-27	PRDHPC	FCT*	5489		1
ctory Boulevard	1-28	PRDVB	FCT*	5459		1
rbank Sample Composite	1-29	PRDBSC	FCT*	5460		1
rbank Profile Composite	1-30	PRDBPC	FCT*	5490		1
rth Main Street	1-31	PRDNMS	FCT*	5461		1
s Angeles Sample Composite	1-32	PRLASC	FCT*	5462		1
s Angeles Profile Composite	1-33	PRLAPC	FCT*	5491		1
uth Harbor Boulevard	1-34	PRDSHB	FCT*	5463		1
aheim Sample Composite	1-35	PRDASC	FCT*	5464		1
aheim Profile Composite	1-36	PRDAPC	FCT*	5492		1
verside Sample Composite	1-37	PRDRSC	FCT*	5465		1
pulveda Tunnel	1-38	PRSTC	FCT*	5466		1
AB Profile Composite	1-39	PRSCAB	FCT*	5494		1

Table 1
-Continued-

B Source Category	SCAB Lib.No.	Mnemonic	Size[a]	NEA Lib.No.	EPA Lib.No.	Ref.
AVED ROAD DUST						
verside	1-40	UPRDRS	FCT*	5467		1
L						
verside Sample Composite	1-41	SRVRSD	FCT*	5468		1
wthorne Composite	1-42	SHAWCO	FCT*	5469		1
AB Soil Profile Composite	1-43	SLSCAB	FCT*	5495		1
nestone, Crustal	1-44	SLIMST	T	5093		17
ale, Crustal	1-45	SSHALE	T	5092		17
ndstone, Crustal	1-46	SSANDS	T	5307		4
diment	1-47	SSEDIM	T	5282		4
neous Rock	1-48	SIGNER	T	5315		4
rth's Crust	1-49	SEARTC	T	5314		4
STRUCTION/DEMOLITION						
ndblasting & Plastering	1-50	CDSAPL	FCT*	5450		1
rtland Cement Dust, NBS	1-51	CDCEMT	T	5074		-
sum ($CaSO_4 \cdot 2H_2O$)	1-52	CDGYPS	T	5117		-
ne (CaO)	1-53	CDLIME	T	5116		
avation, I405/El Segundo	1-54	CDEXCA	FCT*	5451		1
avation, Haul Rd, I405/ES	1-55	CDEXHL	FCT*	5452		1
k C hing, SCAB, 1987	1-56	CDRKCR	FCT*	5449		1
ding	1-57	CDWELD	F	5470		19
IDUAL OIL COMBUSTION						
n Diego Pwr.Plt.,1986(123)	1-58	ROILSD	FCT*	5334		5
l. Pwr.Plt., Eddystone	1-59	ROILEP	FCT*	5100		6
l. Pwr.Plt, Schuylkill	1-60	ROILPS	FCT**	5101		6
mmercial, PACS, 1977	1-61	ROILCO	FCT	5038	13501	7
ILLATE OIL COMBUSTION						
stillate Oil Comb., PACS	1-62	DOILPO	FCT	5066		7
OLEUM REFINING						
alytic Cracker, SCAB, 1987	1-63	PFCCFC	FCT*	5447		1
alytic Cracker, Brazil, 1985	1-64	PFCCBR	FC	5217		8
alytic Cracker, Phil., 1984	1-65	PFCCPH	FCT	5387		6
ters & Boilers, Brazil, 1984	1-66	PRHBBR	FCT	5221		8
e Calcining, SCAB, 1987	1-67	PRCCSD	FCT*	5448		1
en Coke Dust, Brazil, 1984	1-68	PRGCDB	FCT	5231		8
e Cooler, Brazil, 1984	1-69	PRCCBR	FCT	5220		8

Table 1
-Continued-

CAB Source Category	SCAB Lib.No.	Mnemonic	Size[a]	NEA Lib.No.	EPA Lib.No.	Ref.
INERAL PROCESSING						
Glass Mfg., PACS, 1977	2-01	MPGLPA	FCT	5029		7
Glass Mfg., Seattle, 1984	2-02	MPGLSE	FT	5073	27102	2
Portland Cement Dust, NBS	2-03	MPPCEM	FTC	5074		-
Port. Cement Kiln (gas fired)	2-04	MPPOGA	FCT	5394	27201	9
Port. Cement Kiln (coal fired)	2-05	MPPCCO	FT	5072	27203	2
Cement Ball Mill,Brazil,1984	2-06	MPPCEM	T	5233		8
Gypsum ($CaSO_4 \cdot 2H_2O$)	2-07	MPGYPS	T	5117		-
Gypsum ESP Dust	2-08	MPGYDU	FC	5211		8
Rock Crushing,Port.,1977	2-09	MPRCPO	FCT	5064		7
Asphalt Production, Portland	2-10	MPAPPO	FCT	5065		7
Lime Kiln, Brazil, 1984	2-11	MPLKBR	FCT	5218		8
Calcium Carbide Furnace	2-12	MPCACF	FCT	5027	25201	7
Carborundum, Silicon Carbide	2-13	MPSICR	FCT	5028		7
Silica Manufacturing	2-14	MPSIMA	FC	5429	25401	16
TAL PROCESSING						
Alum.,Primary Process,PACS	2-15	MALPAC	FCT	5032		7
Alum.,Primary Potline,STACS	2-16	MALPOT	FCT	5063		2
Alum.,Foundry Reverb Furnace	2-17	MALPRF	FCT	5428	20101	9
Alum. Sec. Dross Rec. Furn.	2-18	MALSDR	FCT	5393		6
Alum. Handling (STACS)	2-19	MALHAN	FCT	5059		2
Iron Ore Dust (Sinter Plant)	2-20	MFEORE	FCT	5215		8
Steel Desulfurization BH/Dust	2-21	MSTEDS	FCT	5214		8
Basic Oxygen Furnace	2-22	MSTBOF	T	5234		8
Steel Electric Arc Furnace	2-23	MSTEAF	FCT	5031	28304	7
Ferromanganese	2-24	MFEMNF	FCT	5030	28401	7
Cast Iron Cupola	2-25	MFECCU	T	5430	28202	16
Steel Sinter Plant	2-26	MSTSIN	FCT	5431	28301	9
Steel Open Hearth Furnace	2-27	MSTOHF	FCT	5432	28302	9
Steel Basic Oxygen Furnace	2-28	MBOFST	FCT	5433	28303	9
Steel Heat Treating (Salt Quench)	2-29	MSTHTQ	T	5434	28601	9
Copper,Prim.Reverb Furnace	2-30	MCUPRF	F	5435	29202	13
Copper,Prim.Reverb Furnace Slag Tap	2-31	MCUPTS	FCT*	5390		10
Copper,Prim.Reverb Furnace Slag Skim & Slag Pour	2-32	MCUPSS	FCT*	5383		11
Copper,Prim. Converter Secondary Hood	2-33	MCUPHC	FCT*	5391		10
Copper,Prim. Converter Secondary Hood	2-34	MCUPCH	FCT*	5385		11
Copper,Prim. Matte Tap	2-35	MCUPMT	FCT*	5369		11
Copper,Prim. Process Stack	2-36	MCUPFL	FCT*	5389		10

Table 1
-Continued-

B Source Category	SCAB Lib.No.	Mnemonic	Size[a]	NEA Lib.No.	EPA Lib.No.	Ref.
AL PROCESSING (Continued)						
pper,Prim. Herreshoff Roaster Calcine Dust	2-37	MCUPCR	FCT*	5388		10
pper,Second.Oxide Kiln Stk.	2-38	MCUSOK	T	5129		12
pper,Second.Pyrometal Stk. Reg. Charge	2-39	MCUSRC	T	5130		12
pper,Second.Pyrometal Stk. Cathode Charge	2-40	MCUSPC	T	5131		12
nc Oxice Kiln Discharge	2-41	MZNOKD	T	5137	20501	12
timony Roasting	2-42	MSBROA	FC	5392		6
ad,Prim.Process Stk,1980	2-43	MPBPPS	FCT	5161	29302	12
ad,Prim.Blast Furnace Upset	2-44	MPBPBU	FCT	5436	29305	12
ad, Primary Slag Pour	2-45	MPBPSP	T	5140		12
ad, Prim. Speiss Pit Stack	2-46	MPBPIT	T	5143		12
ad, Primary Dross Building	2-47	MPBPDG	FCT	5138		12
ad,Secon.Sanitary Bag House	2-48	M2PBBH	T	5121		14
ad,Secon. Reverb Furnace	2-49	M2PBRF	T	5122		14
ad,Secon.Melting Pot Fug.	2-50	M2PBMP	T	5123		14
ad,Secon.Melting Pot BH Stk.	2-51	M2PBST	T	5124		14
ad,Secon. Yard Dust	2-52	M2PBYD	FT	5125		5
LITY POWER PLANTS						
sidual Oil Comp. 1,2,3	3-01	UPPRO	FCT	5334		5
l Fired, Philadelphia	3-02	UPPCF	FCT	5244		6
ELLANEOUS BOILERS						
te Wood (Hogged Fuel)	3-03	WWBOIL	FT	5062	12704	2
L FABRICATING						
ding	3-04	MFWELD	F	5470		19
d Blasting	3-05	MFSAND	T	5077		14
vanizing (ZnO)	3-06	MFGALV	T	5118		14
AND AGRICULTURE						
ur Mill (PACS)	3-07	FLOUR	FCT	5444		7
in Elevator (PACS)	3-08	GRAIN	FCT	5060		7
NE AEROSOL						
ine Aerosol (PACS)	3-09	MARINE	FCT	5042	43101	7
TATIVE BURNING						
d Stoves/Fireplace omposite, MACS	3-10	VBCOMP	FC	5015		15
sh Burning	3-11	VBSLAS	FC	5437	43202	16
ld Burning, PACS	3-12	VBFIEL	FC	5438	42304	16

Table 1
-Continued-

AB Source Category	SCAB Lib.No.	Mnemonic	Size[a]	NEA Lib.No.	EPA Lib.No.	Ref.
RFACE COATING						
aint Spray Booth	3-13	SCPSB	FCT	5439	25403	9
F-ROAD VEHICLES						
rains	3-14	TRAIN	FCT	5445		7
ircraft	3-15	AIRCR	C	5446	34001	16
TILIZER PRODUCTION						
osphate Rock	3-16	PHOSRK	FC	5208		8
per Phosphate Plant	3-17	SPHOSP	FCT	5223		8
m. Nitrate Prill Tower	3-18	AMNIPT	T	5224		8
m. Sulfate Production	3-19	AMSULP	T	5225		8
ammonium Phosphate	3-20	DAMPHO	FCT	5226		8
dium Tripolyphosphate	3-21	SOTRIP	FC	5230		8
per Phosphate Granulation	3-22	SPHOGN	FCT	5222		8
K Fertilizer	3-23	NPKFER	T	5237		8
ea Fertilizer	3-24	UREAFE	FCT	5442	25404	9
MICAL PROCESS LOSS						
ric Acid Manufacturing	3-25	BORICA	FCT	5443	25405	9
CEL EOUS						
phalt Roofing Mfg.	3-26	ASPHRO	FCT	5441	25402	9
sidential Space Heating, Coal	3-27	RSHCOL	T	5440	43201	18
od Sanding Cyclone	3-28	WODUST	FCT	5061	22202	15
nicipal Incinerator	3-29	MINCIN	FCT	5099		6
condary Nitrate	3-30	SNO3	FCT	5126		
condary Amm. Sulfate	3-31	SAS04	FCT	5095		
lfuric Acid	3-32	H2S04	FCT	5199		
condary Carbon	3-33	SCARBO	FCT	5127		
r Shredder	3-34	CARSHD	FT	5067		2

NOTES AND REFERENCES TO TABLE

a. F: Fine, < 2.5 μm
C: Coarse, > 2.5 μm < Inlet cut point indicated by T**,T*,T†, or T
T**: Total particles < 7 μm (PM_7)
T*: Total particles < 10 μm (PM_{10})
T†: Total particles < 15 μm (PM_{15})
T: Total suspended particles (TSP)

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number, and a reference to the original source of the profile. The sizes are defined in the notes to this table and the references are listed after the notes.

Each profile is presented in two formats, tabular and histogram. The tabular form of the profile is listed first. It contains the source codes, description, dates, and reference information at the top of the page. The bottom portion of the page lists the species characterized in the profile on the left hand side of the table. The percent chemical composition for fine, coarse, and total particles is listed next, along with their uncertainties. The uncertainties listed for the new profiles developed as part of this work are the larger of the analytical uncertainty, the standard error (standard deviation of the mean) if more than one profile was used, or the propagated uncertainty. The uncertainties in the other profiles are not always clear but are generally based on similar criteria.

The sum of the individual components are listed at the bottom of each profile. In general, it has very little significance because it doesn't include species typically not measured such as oxygen and sometimes will count species such as S twice if both sulfate and S are measured. If the sum is greater than 100%, asterisks will appear next to the sum. When the sum is greater than 100%, it is almost always within the uncertainty, even when unmeasured species are included. If a particular source for which the sum of its components exceeds 100% is a significant contributor, the user may want to normalize the profile to 100% to obtain a more realistic estimate of the source contribution.

The histogram form of the profile is presented on the back of each profile table. It is a logarithmic plot of the concentration of each species measured in the profile. These plots are useful to gain a quick familiarity with the profile and helps to identify the key fitting species. If one of NEA's CMB programs is being used, these same profiles can be generated with the software at the time of the CMB fitting and compared to the ambient profile.

1.2 Notes and Comments

1.2.1 Motor Vehicles

The motor vehicle profiles include composite profiles and profiles associated with individual emission categories within this general group. The first five profiles listed are composite profiles developed from the individual profiles and their emission rates. The procedure used to calculate these profiles is described in Volume I and the NEA MOVES program is described in Appendix A. The source names are explained in Table 2.

The first two composite profiles are based on steady state (SS) tailpipe emission rates and profiles. These composite profiles were meant to simulate the composite vehicle emissions in the tunnel. The other three composite profiles are based on federal test procedure (FT) and emission rates in the South Coast Air Basin (SCAB). These profiles are designed to simulate the average SCAB vehicle emissions profile.

The SCAB composite profile depends on the vehicle miles traveled by the different vehicle categories such as light duty diesel vehicles and emission factors. The three optional SCAB profiles presented include different source categories and use different emissions factors. Profiles 1-03 to 1-04 include only tailpipe emissions. The separation of tire and brake wear from the tailpipe emissions was done because the relative tailpipe to wear product emission rates are not well known. These wear components, however, are included in the composite profile 1-05. This profile, however, includes only the contribution from asbestos brakes (1-27) because the emission rates for the semi-metal brakes are not well defined. The semi-metal brake profile, however, is unique enough that it can probably be quantified as an independent source category. One of the main limitations to the composite profiles that include only tailpipe

Table 2

LIST OF COMPOSITE SOURCE PROFILES
DEVELOPED FOR THE SCAB

Source Abbreviation/No.	Application	Description
MOVES-SS, (NEA-E,WOB,T42-TVMT) 1-01	Tunnel	Steady state exhaust profiles were used with AP42 tire wear and VMT relevant to the tunnel
MOVES-SS (NEA-E,WOB,WOT,TVMT) 1-02	Tunnel	Steady state exhaust profiles were used with no brakes or tire wear and VMT relevant to the tunnel
MOVES-FTP (ARB-E,WOB,WOT,CM) 1-03	SCAB	Federal test procedure exhaust profiles were used with no brake or tire wear, and California Air Resources Board (CARB) emission factors and VMT
MOVES-FTP (NEA-E,WOB,WOT,CM) 1-04	SCAB	Federal test procedure exhaust profiles were used with no brake or tire wear, NEA measured emission factors, and CARB VMT
MOVES-FTP (NEA-E,WBI,T42,CM) 1-05		Federal test procedure exhaust profiles were used with asbestos brake wear, AP42 tire wear, NEA emission factors, and CARB VMT

emissions is the relatively large uncertainty in the vehicle miles traveled by vehicles using leaded gasoline and the emissions rates of light and medium duty vehicles using leaded gasoline.

Two sets of emission rates were used, 1) emission rates based on a California Air Resources Board emission inventory for 1985, and 2) the emission rates measured in this study and described in Volume I.

1.2.2 Freeway, Paved, and Unpaved Road Dust

These source categories are described in Volume I. There are two different kinds of composite profiles in these source categories. One category called a sample composite, is based on one aerosolization and analysis of a composite sample composed of known fractions of dust from different roads. The other composite category is called a profile composite. For example, the Long Beach profile composite is the average of the Long Beach Boulevard profile and the Long Beach Sample Composite profile. The uncertainties listed for the two individual profiles that were used to form this composite profile are analytical uncertainties, while the uncertainty in the profile composite is the larger of the standard error or the propagated uncertainty. The profile composite for each site is recommended in the CMB analysis since it provides a more realistic estimate of uncertainties due to source variability.

1.2.3 Soil, Construction, and Demolition

The profiles in these source categories are primarily from the literature. The SCAB soil profile composite is made up of the Hawthorne and Riverside composites. The Hawthorne soil profile is a composite of the two excavation profiles which were collected in Hawthorne. In this case, they were listed in both categories since the library user normally would not look under construction and

demolition for a soil profile, yet the excavation samples were just excavated soil. The sand blasting and plastering, and rock crushing profiles are the only other new profiles in this category.

1.2.4 Oil Combustion

Five oil combustion profiles are presented. The most relevant residual oil profile is the San Diego Power Plant profile. It was determined in 1986, is representative of west coast oil, and is based on the measurement of four boilers and over twenty-five replicate samples during a six day period.

1.2.5 Petroleum Refining

Two new profiles were developed in this source category: a fluid catalytic converter (cracker) and coke calcining. The other profiles are from the literature.

1.2.6 Other Profiles

The profiles listed in the 2- and 3- prefix series are from the literature and are provided for completeness. The detail for each of these profiles can be found in the stated references. If one of these sources is found to make a significant contribution, the reader should consider making direct measurements of the specific source near the monitor.

2.0 GUIDE TO LIBRARY SOFTWARE

Table 1, Summary of Source Profile Codes, is a list of source profiles being provided by NEA. The list contains a source description, SCAB library number, source name mnemonic, particle sizes, NEA source library number, and the reference number of the source origin. Hard copy source composition and histograms are provided, as well as three sets of data on floppy disks.

The three sets (SCAB1, SCAB2, and SCAB3) contain a source name file, SOSCAB#.DAT, a fine particle source profile file, FSSCAB#.DAT, a coarse particle source profile file, CSSCAB#.DAT, and a total (PM_{10}) particle source profile file, TSSCAB#.DAT. The SCAB library number identifies the set number and source number in the data files. For example, 1-15 is the SCAB1 data set, source number 15 (Tire Wear).

Detailed information on the format of the data files is outlined in Section 3 of "Revised CMB User's Manual", January, 1987[1]. A summary of the format is provided below:

SOSCAB#.DAT

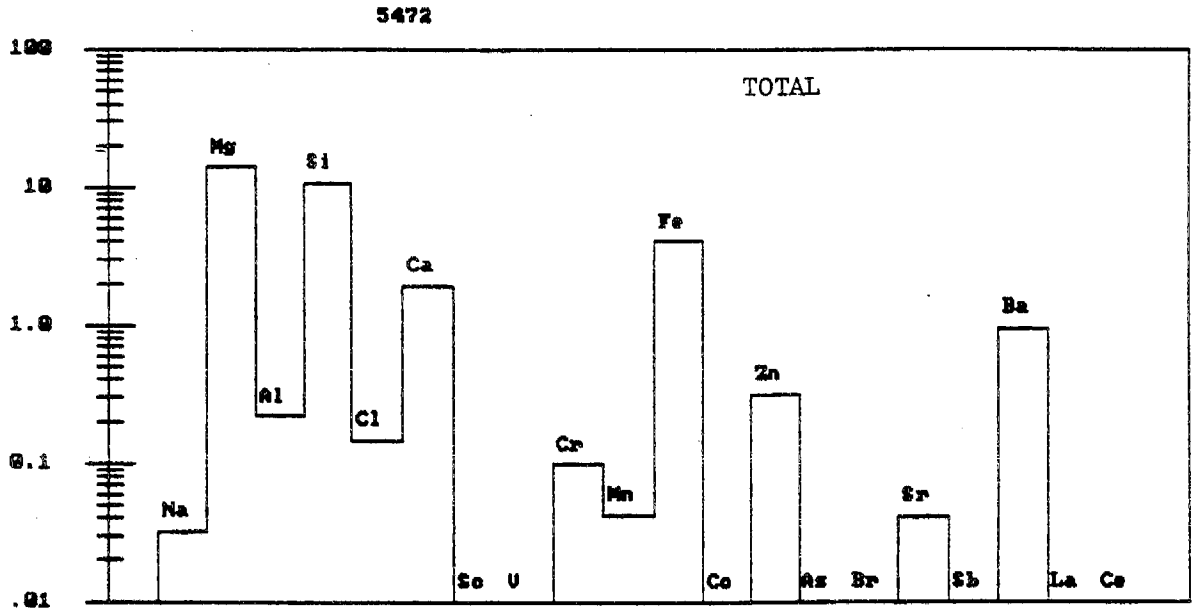
Column	Format	Contents
1-2	I2	Source code number
5-12	A8	Source name mnemonic
15	A1	* For initial CMB fit
16-80	A64	Comments (NEA library source description)

FSSCAB#.DAT, CSSCAB#.DAT, TSSCAB#.DAT

Column	Format	Contents
1-2	I2	Source code number
5-6	I2	Species code number

1. Axetell, Ken, "Revised CMB User's Manual", U.S. Environmental Protection Agency, January, 1987.

BRAKE LINING ASBESTOS



9-16	F8.6	Fraction of species
19-26	F8.6	Uncertainty of species
27-80	A53	Comments (species mnemonic, particle size, source mnemonic, NEA library source description)

The data files are in standard ASCII and are EPA CMB Ver. 5.9 ready. They can be worked on with a text editor, non-document word processor, or through a computer program to create an airshed library that is site specific for CMB calculations. The "Revised CMB User's Manual" contains detailed information on the source data files and their use in the EPA CMB program.

srce code	part size	revsion date	source description	reference	date
5474	FCT	07/21/87	MOVES-SS(NEA-E,WOB,T42,TVMT)	1	06/87

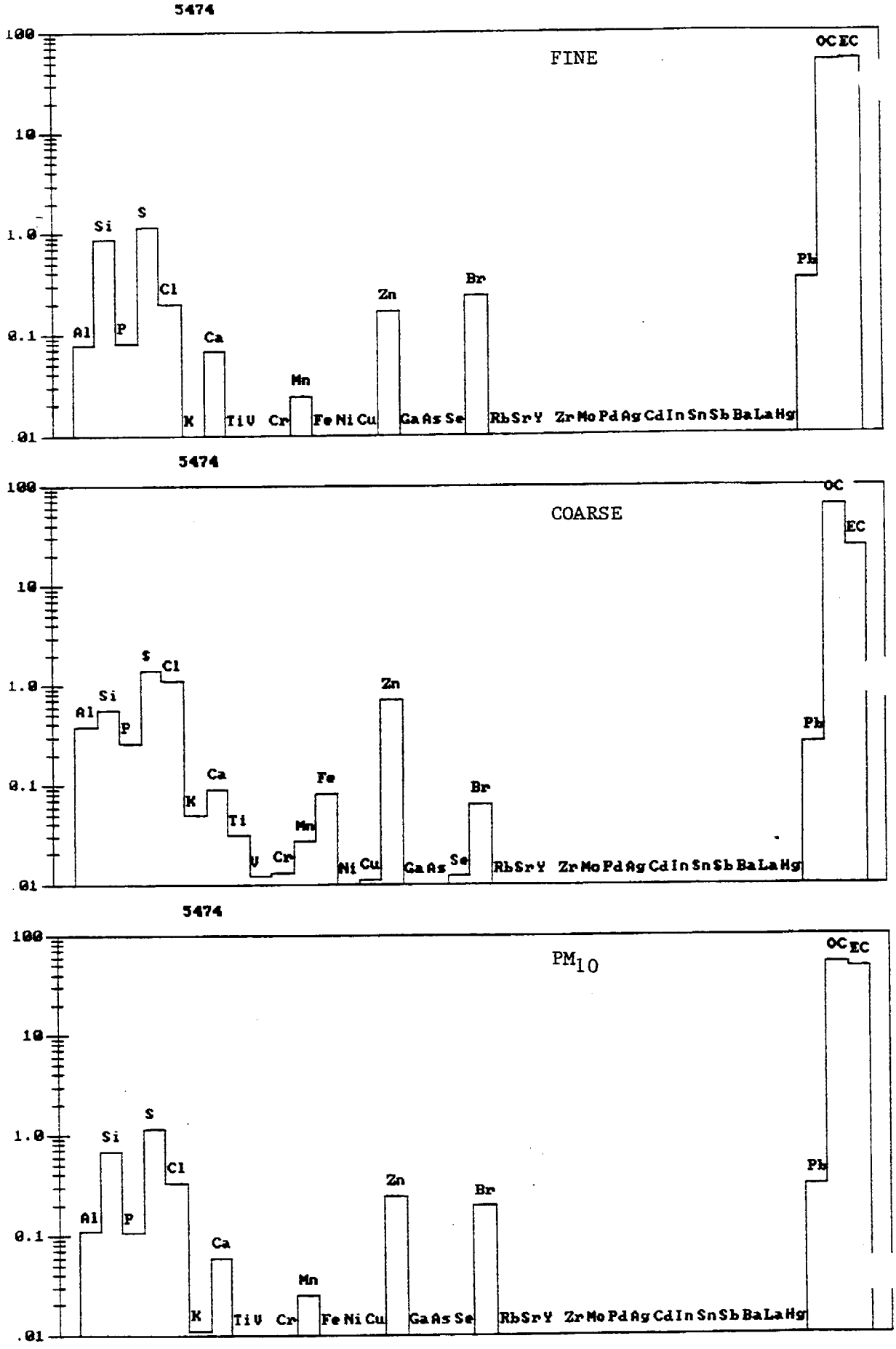
PERCENT COMPOSITION

SPECIES	FINE	COARSE	TOTAL
Al	.0760 +- .0390	.1790 +- .1230	.0950 +- .0430
Si	.6450 +- .9240	.2190 +- .1660	.4510 +- .5850
P	.1240 +- .1030	.2550 +- .3150	.1590 +- .1530
S	1.3640 +- .9260	1.7960 +- 1.8750	1.4590 +- .9560
Cl	.5350 +- .4730	1.3670 +- 1.6010	.7650 +- .7240
K	.0050 +- .0060	.0170 +- .0170	.0070 +- .0040
Ca	.0560 +- .0530	.0460 +- .0300	.0470 +- .0320
Ti	.0060 +- .0040	.0210 +- .0170	.0100 +- .0060
V	.0010 +- .0010	.0040 +- .0040	.0010 +- .0010
Cr	.0000 +- .0010	.0050 +- .0040	.0010 +- .0010
Mn	.0180 +- .0160	.0090 +- .0070	.0160 +- .0140
Fe	.0010 +- .0030	.0270 +- .0250	.0070 +- .0040
Ni	.0000 +- .0010	.0020 +- .0020	.0010 +- .0010
Cu	.0030 +- .0020	.0040 +- .0040	.0030 +- .0020
Zn	.3850 +- .2210	.9130 +- .9080	.5320 +- .3600
Ga	.0010 +- .0020	.0000 +- .0010	.0010 +- .0010
As	.0030 +- .0080	.0000 +- .0070	.0020 +- .0050
Se	.0000 +- .0010	.0040 +- .0040	.0010 +- .0010
Br	.1740 +- .1060	.0220 +- .0170	.1220 +- .0800
Rb	.0000 +- .0020	.0000 +- .0020	.0000 +- .0010
Sr	.0030 +- .0040	.0090 +- .0120	.0050 +- .0050
Y	.0000 +- .0030	.0000 +- .0030	.0000 +- .0020
Zr	.0000 +- .0130	.0000 +- .0110	.0000 +- .0070
Mo	.0000 +- .0080	.0000 +- .0070	.0000 +- .0040
Pd	.0000 +- .0080	.0000 +- .0070	.0000 +- .0040
Ag	.0000 +- .0100	.0000 +- .0090	.0000 +- .0050
Cd	.0000 +- .0130	.0000 +- .0110	.0000 +- .0070
In	.0000 +- .0170	.0000 +- .0150	.0000 +- .0090
Sn	.0000 +- .0200	.0000 +- .0170	.0000 +- .0110
Sb	.0000 +- .0450	.0000 +- .0380	.0000 +- .0240
Ba	.0010 +- .0850	.0020 +- .0720	.0010 +- .0450
La	.0000 +- .1550	.0000 +- .1340	.0000 +- .0820
Hg	.0000 +- .0010	.0040 +- .0040	.0010 +- .0010
Pb	.2450 +- .1490	.0880 +- .0650	.1950 +- .1280
OC	52.7280 +-21.5780	60.2600 +-53.9670	54.1470 +-25.2470
EC	45.4040 +-16.4810	27.3510 +-27.0840	39.9070 +-17.0210
Sum	*******	92.6040	97.9360

srce code	part size	revsion date	source description	reference	date
5474	FCT	07/07/87	MOVES-SS(NEA-E,WOB,T42,TVMT)	1	06/87

PERCENT COMPOSITION

SPECIES	FINE	COARSE	TOTAL
Al	.0770 +- .0450	.3830 +- .2590	.1080 +- .0450
Si	.8520 +- 1.2290	.5500 +- .4090	.6870 +- .9030
P	.0800 +- .0370	.2630 +- .2270	.1050 +- .0600
S	1.1470 +- 1.0550	1.4210 +- 1.1800	1.1460 +- .8910
Cl	.1990 +- .1530	1.1070 +- 1.0470	.3320 +- .2620
K	.0070 +- .0070	.0490 +- .0430	.0110 +- .0060
Ca	.0670 +- .0700	.0900 +- .0540	.0600 +- .0470
Ti	.0030 +- .0030	.0310 +- .0200	.0060 +- .0030
V	.0010 +- .0020	.0120 +- .0100	.0020 +- .0010
Cr	.0000 +- .0020	.0130 +- .0100	.0020 +- .0020
Mn	.0240 +- .0210	.0270 +- .0170	.0250 +- .0200
Fe	.0010 +- .0040	.0810 +- .0650	.0100 +- .0050
Ni	.0000 +- .0020	.0060 +- .0050	.0010 +- .0010
Cu	.0040 +- .0030	.0110 +- .0090	.0050 +- .0020
Zn	.1650 +- .0710	.7070 +- .5540	.2450 +- .1190
Ga	.0020 +- .0020	.0010 +- .0030	.0010 +- .0010
As	.0040 +- .0100	.0000 +- .0210	.0030 +- .0090
Se	.0000 +- .0020	.0120 +- .0100	.0020 +- .0010
Br	.2340 +- .1330	.0640 +- .0460	.1940 +- .1080
Rb	.0000 +- .0030	.0000 +- .0050	.0000 +- .0020
Sr	.0010 +- .0030	.0070 +- .0090	.0020 +- .0030
Y	.0000 +- .0040	.0000 +- .0070	.0000 +- .0020
Zr	.0000 +- .0170	.0000 +- .0310	.0000 +- .0110
Mo	.0000 +- .0100	.0000 +- .0200	.0000 +- .0060
Pd	.0000 +- .0110	.0000 +- .0200	.0000 +- .0070
Ag	.0000 +- .0140	.0000 +- .0260	.0000 +- .0090
Cd	.0000 +- .0180	.0000 +- .0330	.0000 +- .0110
In	.0000 +- .0230	.0000 +- .0440	.0000 +- .0140
Sn	.0000 +- .0280	.0000 +- .0510	.0000 +- .0170
Sb	.0000 +- .0610	.0000 +- .1130	.0000 +- .0380
Ba	.0000 +- .1140	.0010 +- .2120	.0000 +- .0710
La	.0000 +- .2090	.0000 +- .3970	.0000 +- .1300
Hg	.0000 +- .0020	.0100 +- .0090	.0010 +- .0010
Pb	.3300 +- .1810	.2610 +- .1670	.3090 +- .1660
OC	50.7920 +-21.6560	64.0880 +-36.7880	51.6970 +-18.4370
EC	51.2060 +-17.3900	24.7140 +-17.3240	46.5180 +-15.8290
Sum	*******	93.9090	*******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FINE
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5474
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0.1
.01
COARSE
Al Si P S Cl K Ca Ti V Cr Mn Fe Ni Cu Zn Ga As Se Br Rb Sr Y Zr Mo Pd Ag Cd In Sn Sb Ba La Hg Pb OC EC
5474
100
10
1.0
0.1
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PM10
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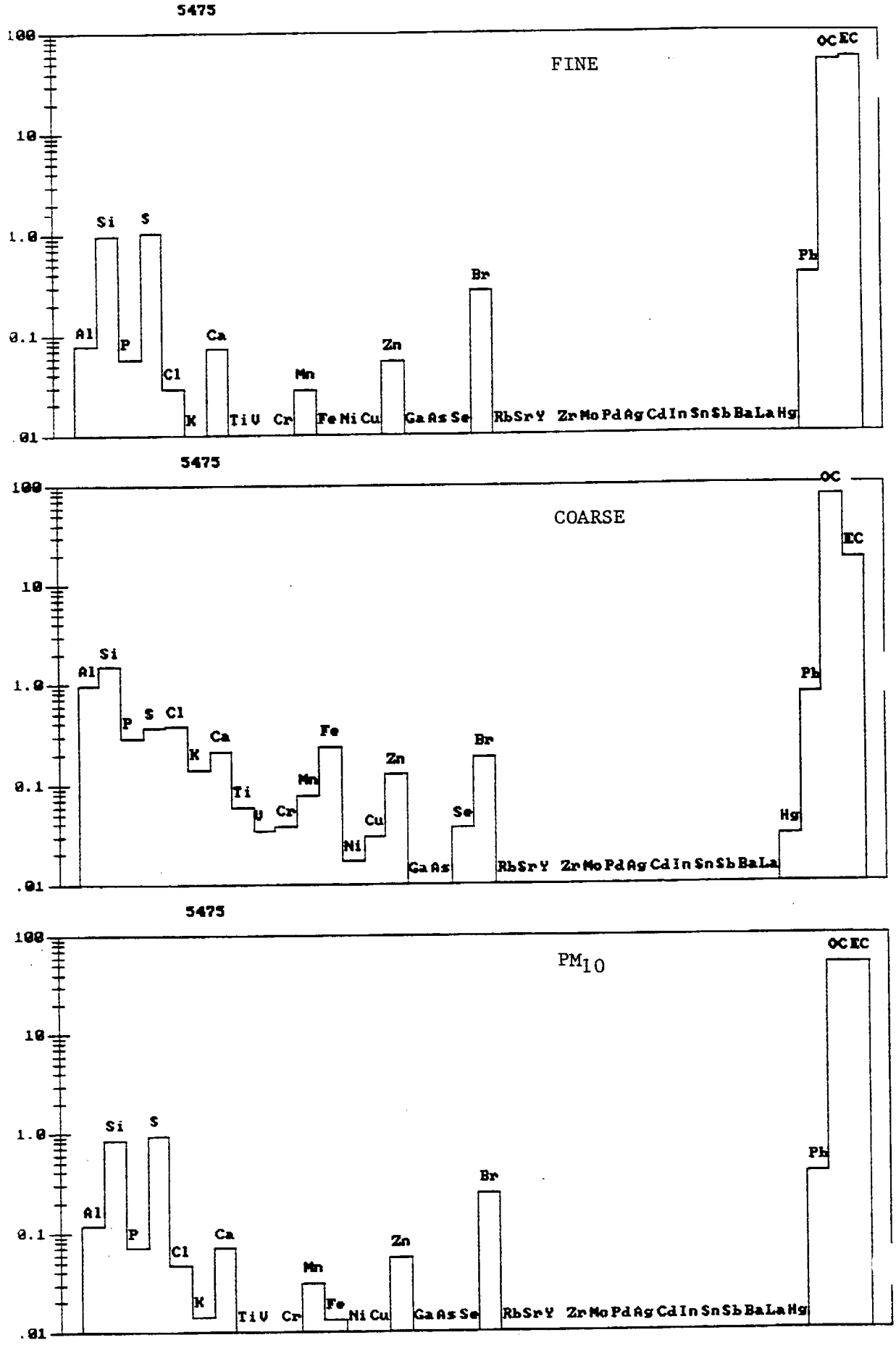
srce code	part size	revsion date	source description	reference	date
5475	FCT	07/07/87	MOVES-SS(NEA-E,WOB,WOT,TVMT)	1	06/87

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Al	.0770 +- .0510	.9590 +- .6360	.1160 +- .0540
Si	.9570 +- 1.3910	1.4840 +- 1.0750	.8430 +- 1.1220
P	.0570 +- .0200	.2880 +- .2110	.0690 +- .0240
S	1.0370 +- 1.1820	.3600 +- .4400	.9400 +- 1.0580
Cl	.0290 +- .0200	.3740 +- .2720	.0460 +- .0220
K	.0080 +- .0080	.1400 +- .1100	.0140 +- .0080
Ca	.0720 +- .0790	.2130 +- .1320	.0690 +- .0580
Ti	.0010 +- .0030	.0590 +- .0440	.0040 +- .0030
V	.0010 +- .0020	.0340 +- .0260	.0020 +- .0020
Cr	.0000 +- .0020	.0380 +- .0280	.0020 +- .0020
Mn	.0280 +- .0240	.0780 +- .0410	.0310 +- .0240
Fe	.0010 +- .0050	.2330 +- .1650	.0130 +- .0060
Ni	.0000 +- .0020	.0170 +- .0140	.0010 +- .0010
Cu	.0050 +- .0030	.0300 +- .0240	.0060 +- .0030
Zn	.0530 +- .0280	.1250 +- .0880	.0560 +- .0300
Ga	.0020 +- .0020	.0020 +- .0070	.0010 +- .0020
As	.0040 +- .0120	.0000 +- .0610	.0040 +- .0110
Se	.0000 +- .0020	.0360 +- .0250	.0020 +- .0010
Br	.2640 +- .1520	.1840 +- .1200	.2420 +- .1340
Rb	.0000 +- .0030	.0000 +- .0140	.0000 +- .0020
Sr	.0000 +- .0030	.0000 +- .0160	.0000 +- .0020
Y	.0000 +- .0040	.0000 +- .0200	.0000 +- .0030
Zr	.0000 +- .0190	.0000 +- .0900	.0000 +- .0130
Mo	.0000 +- .0120	.0000 +- .0580	.0000 +- .0080
Pd	.0000 +- .0120	.0000 +- .0570	.0000 +- .0080
Ag	.0000 +- .0160	.0000 +- .0750	.0000 +- .0110
Cd	.0000 +- .0200	.0000 +- .0950	.0000 +- .0140
In	.0000 +- .0260	.0000 +- .1260	.0000 +- .0180
Sn	.0000 +- .0310	.0000 +- .1460	.0000 +- .0210
Sb	.0000 +- .0690	.0000 +- .3250	.0000 +- .0480
Ba	.0000 +- .1290	.0000 +- .6090	.0000 +- .0890
La	.0000 +- .2360	.0000 +- 1.1380	.0000 +- .1620
Hg	.0000 +- .0020	.0300 +- .0220	.0020 +- .0020
Pb	.3730 +- .2070	.7490 +- .4250	.3850 +- .2060
OC	49.8090 +-24.1510	74.8900 +-39.5910	50.0810 +-20.9490
EC	54.1530 +-19.7830	17.2750 +- 9.5310	50.8780 +-18.9060
Sum	*******	97.5980	*******

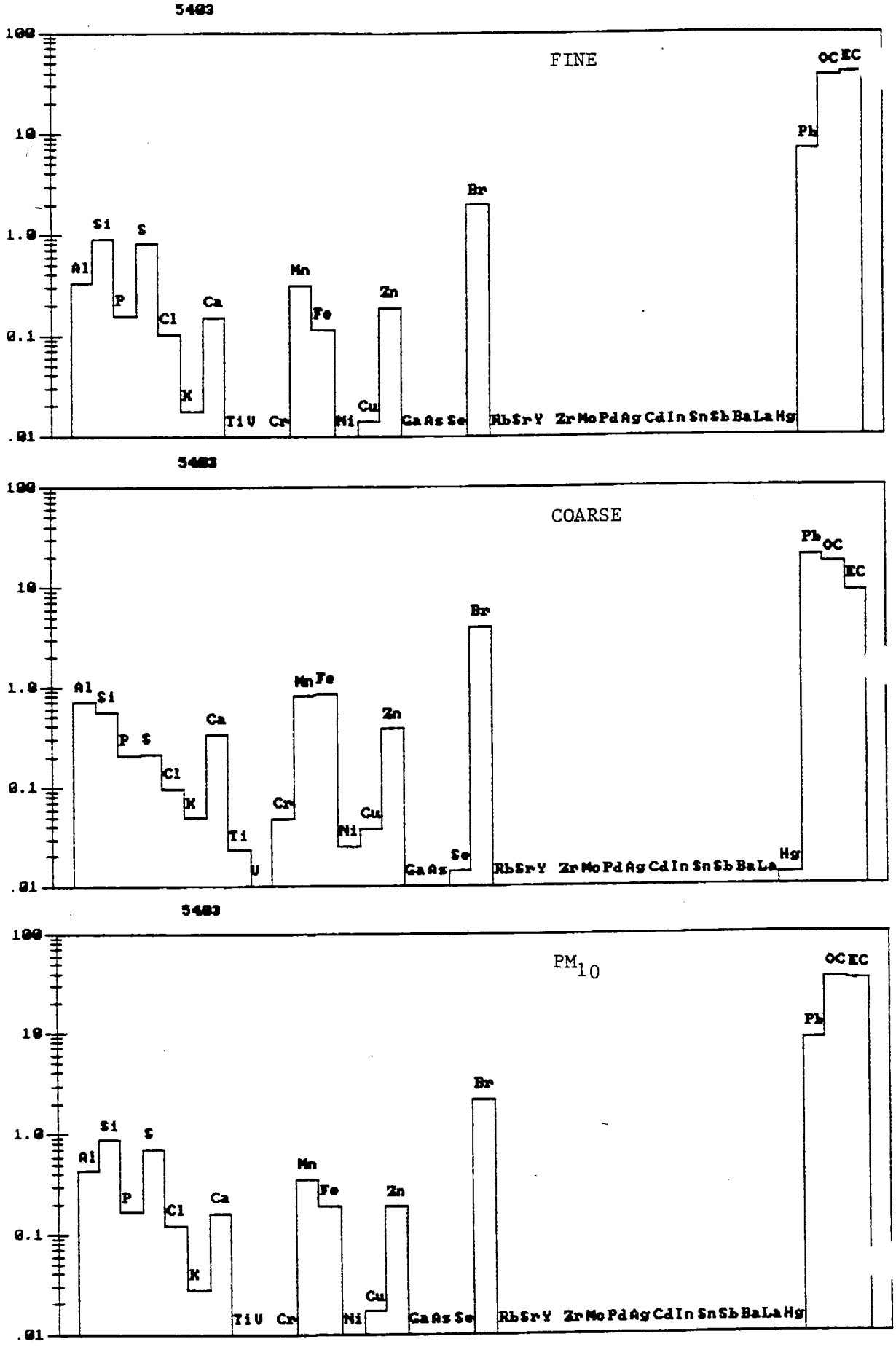
MOVES-SS(NEA-E,WOB,WOT,TVMT)



srce code	part size	revsion date	source description	reference	date
5403	FCT	07/07/87	MOVES-SCAB(ARB-E,WOB,WOT,CM)	1	06/87

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Al	.3320 +- .2160	.7120 +- .5130	.4300 +- .2290
Si	.9080 +- .4070	.5540 +- .2390	.8550 +- .3460
P	.1550 +- .0690	.2070 +- .1010	.1630 +- .0540
S	.7990 +- .5620	.2140 +- 1.3880	.7140 +- .5390
Cl	.1020 +- .0850	.0960 +- .2300	.1220 +- .0910
K	.0180 +- .0100	.0490 +- .0330	.0280 +- .0100
Ca	.1500 +- .0400	.3290 +- .1260	.1600 +- .0400
Ti	.0030 +- .0020	.0230 +- .0810	.0070 +- .0140
V	.0050 +- .0030	.0060 +- .0320	.0050 +- .0060
Cr	.0010 +- .0020	.0480 +- .0200	.0090 +- .0020
Mn	.3060 +- .2070	.7960 +- .3090	.3530 +- .2160
Fe	.1150 +- .0360	.8420 +- .2510	.1920 +- .0510
Ni	.0040 +- .0020	.0250 +- .0080	.0080 +- .0030
Cu	.0140 +- .0060	.0380 +- .0130	.0170 +- .0050
Zn	.1840 +- .0620	.3730 +- .1070	.1880 +- .0520
Ga	.0100 +- .0130	.0040 +- .0480	.0090 +- .0130
As	.0030 +- .2160	.0000 +- .8070	.0030 +- .2100
Se	.0000 +- .0020	.0140 +- .0100	.0040 +- .0020
Br	1.9580 +- .8390	3.9700 +- 1.8700	2.2190 +- .9830
Rb	.0020 +- .0140	.0000 +- .0560	.0020 +- .0150
Sr	.0000 +- .0030	.0000 +- .0080	.0000 +- .0030
Y	.0000 +- .0130	.0000 +- .0560	.0000 +- .0130
Zr	.0000 +- .0150	.0000 +- .0370	.0000 +- .0170
Mo	.0000 +- .0090	.0000 +- .0220	.0000 +- .0100
Pd	.0000 +- .0090	.0000 +- .0250	.0000 +- .0100
Ag	.0040 +- .0120	.0000 +- .0280	.0030 +- .0130
Cd	.0000 +- .0160	.0000 +- .0460	.0000 +- .0190
In	.0000 +- .0200	.0000 +- .0460	.0000 +- .0220
Sn	.0000 +- .0240	.0000 +- .0590	.0000 +- .0270
Sb	.0000 +- .0530	.0000 +- .1250	.0000 +- .0600
Ba	.0000 +- .0990	.0000 +- .2350	.0000 +- .1110
La	.0000 +- .1800	.0000 +- .4280	.0000 +- .2030
Hg	.0010 +- .0020	.0130 +- .0070	.0020 +- .0020
Pb	6.7600 +- 2.9980	19.9420 +- 7.5230	8.4950 +- 3.7650
OC	36.4740 +- 8.6840	16.4560 +- 9.9620	34.7220 +- 9.3200
EC	38.7670 +- 7.2160	8.7430 +- 4.7100	33.4490 +- 6.5540
Sum	87.0750	53.4540	82.1590

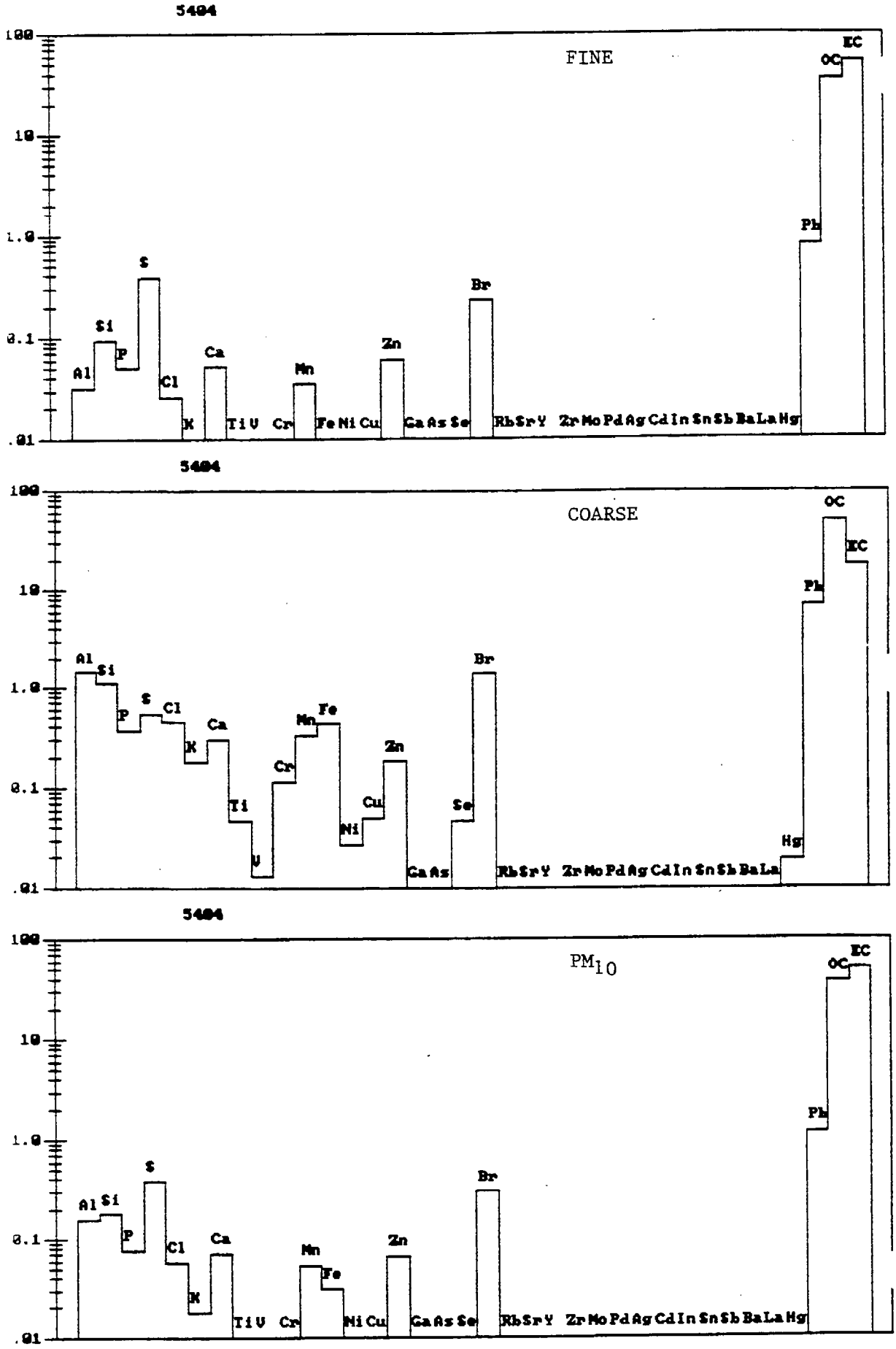
MOVES-SCAB(ARB-E,WOB,WOT,CM)



srce code	part size	revsion date	source description	reference	date
5404	FCT	07/07/87	MOVES-SCAB(NEA-E,WOB,WOT,CM)	1	06/87

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Al	.0320 +- .0450	1.4310 +- 1.9450	.1550 +- .1610
Si	.0930 +- .0670	1.0900 +- 1.4670	.1750 +- .1420
P	.0490 +- .0500	.3670 +- .4750	.0750 +- .0800
S	.3790 +- .4000	.5360 +- .8940	.3810 +- .4000
Cl	.0260 +- .0300	.4420 +- .6810	.0580 +- .0680
K	.0020 +- .0090	.1790 +- .2570	.0180 +- .0220
Ca	.0510 +- .0550	.3010 +- .3290	.0710 +- .0780
Ti	.0020 +- .0040	.0470 +- .4350	.0080 +- .0320
V	.0020 +- .0030	.0130 +- .1710	.0030 +- .0130
Cr	.0000 +- .0030	.1130 +- .1550	.0100 +- .0120
Mn	.0350 +- .0520	.3330 +- .3420	.0540 +- .0660
Fe	.0090 +- .0100	.4290 +- .3800	.0310 +- .0260
Ni	.0020 +- .0030	.0270 +- .0340	.0040 +- .0050
Cu	.0020 +- .0030	.0500 +- .0680	.0050 +- .0060
Zn	.0600 +- .0620	.1820 +- .1600	.0660 +- .0660
Ga	.0010 +- .0030	.0010 +- .0190	.0010 +- .0030
As	.0000 +- .0260	.0000 +- .2690	.0010 +- .0280
Se	.0000 +- .0020	.0470 +- .0650	.0050 +- .0070
Br	.2240 +- .3050	1.3900 +- 1.6890	.2930 +- .3860
Rb	.0000 +- .0040	.0000 +- .0310	.0000 +- .0050
Sr	.0000 +- .0050	.0000 +- .0330	.0000 +- .0050
Y	.0000 +- .0060	.0000 +- .0950	.0000 +- .0090
Zr	.0000 +- .0250	.0000 +- .1740	.0000 +- .0290
Mo	.0000 +- .0160	.0000 +- .1140	.0000 +- .0190
Pd	.0000 +- .0160	.0000 +- .1070	.0000 +- .0180
Ag	.0080 +- .0240	.0000 +- .1430	.0070 +- .0260
Cd	.0000 +- .0280	.0000 +- .1910	.0000 +- .0320
In	.0000 +- .0350	.0000 +- .2350	.0000 +- .0400
Sn	.0000 +- .0420	.0000 +- .2850	.0000 +- .0480
Sb	.0000 +- .0940	.0000 +- .6400	.0000 +- .1080
Ba	.0000 +- .1740	.0000 +- 1.2080	.0000 +- .2000
La	.0000 +- .3170	.0000 +- 2.2000	.0000 +- .3670
Hg	.0000 +- .0030	.0190 +- .0300	.0020 +- .0040
Pb	.7790 +- 1.0690	7.0920 +- 8.2390	1.1540 +- 1.4840
OC	34.8310 +-40.8570	50.9780 +-75.1390	36.2620 +-42.1680
EC	51.9110 +-59.3530	18.0520 +-20.4500	49.7030 +-56.1510
Sum	88.4980	83.1190	88.5420

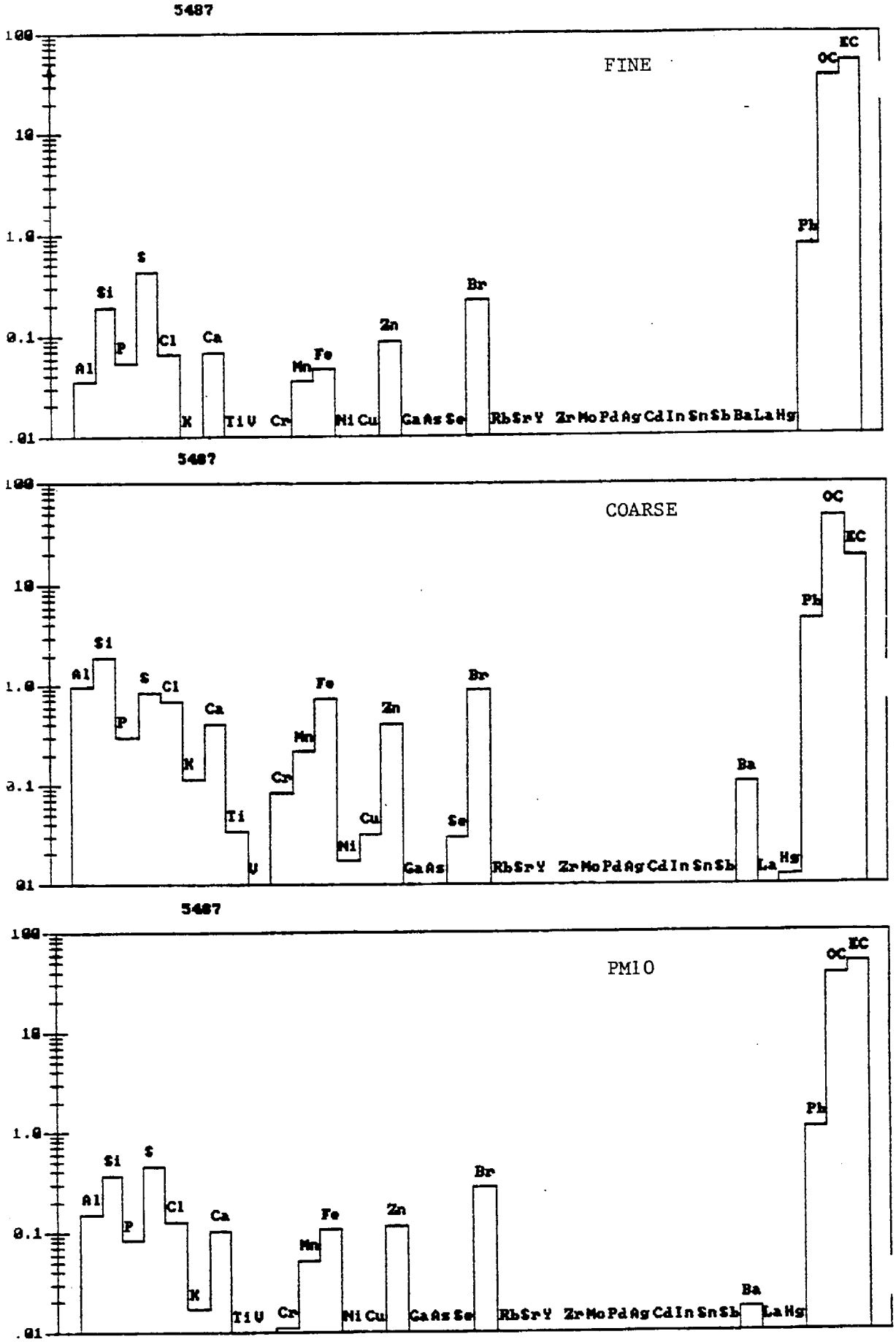
MOVES-SCAB(NEA-E,WOB,WOT,CM)



srce code	part size	revsion date	source description	reference	date
5487	FCT	07/21/87	MOVES-SCAB(NEA-E,WB1,T42,CM)	1	07/87

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Al	.0350 +- .0430	.9490 +- 1.1650	.1520 +- .1470
Si	.1920 +- .1140	1.9270 +- 1.2170	.3700 +- .2250
P	.0530 +- .0480	.2960 +- .2950	.0820 +- .0750
S	.4170 +- .3840	.8440 +- .6690	.4480 +- .3750
Cl	.0650 +- .0530	.6770 +- .5470	.1270 +- .1000
K	.0020 +- .0080	.1130 +- .1540	.0170 +- .0200
Ca	.0680 +- .0570	.4110 +- .3090	.1030 +- .0840
Ti	.0020 +- .0040	.0340 +- .2750	.0090 +- .0300
V	.0020 +- .0030	.0080 +- .1080	.0030 +- .0120
Cr	.0010 +- .0030	.0830 +- .0930	.0110 +- .0110
Mn	.0350 +- .0500	.2160 +- .2010	.0520 +- .0600
Fe	.0460 +- .0370	.7250 +- .3940	.1050 +- .0740
Ni	.0020 +- .0030	.0170 +- .0200	.0040 +- .0050
Cu	.0020 +- .0030	.0320 +- .0410	.0050 +- .0050
Zn	.0870 +- .0640	.4090 +- .2000	.1140 +- .0740
Ga	.0010 +- .0030	.0010 +- .0120	.0010 +- .0030
As	.0000 +- .0250	.0000 +- .1700	.0010 +- .0260
Se	.0000 +- .0020	.0300 +- .0390	.0050 +- .0070
Br	.2160 +- .2900	.8800 +- .9940	.2740 +- .3520
Rb	.0000 +- .0040	.0000 +- .0200	.0000 +- .0040
Sr	.0010 +- .0040	.0070 +- .0210	.0010 +- .0050
Y	.0000 +- .0060	.0000 +- .0600	.0000 +- .0080
Zr	.0000 +- .0250	.0000 +- .1100	.0000 +- .0280
Mo	.0000 +- .0150	.0000 +- .0720	.0000 +- .0180
Pd	.0000 +- .0150	.0000 +- .0680	.0000 +- .0170
Ag	.0080 +- .0230	.0000 +- .0910	.0060 +- .0240
Cd	.0000 +- .0270	.0000 +- .1210	.0000 +- .0300
In	.0000 +- .0330	.0000 +- .1490	.0000 +- .0370
Sn	.0000 +- .0400	.0000 +- .1800	.0000 +- .0450
Sb	.0000 +- .0900	.0000 +- .4050	.0000 +- .1010
Ba	.0090 +- .1680	.1050 +- .7690	.0170 +- .1880
La	.0000 +- .3060	.0000 +- 1.3920	.0000 +- .3430
Hg	.0000 +- .0030	.0120 +- .0180	.0020 +- .0040
Pb	.7520 +- 1.0180	4.4880 +- 4.8310	1.0780 +- 1.3540
OC	35.1060 +-38.8830	47.0560 +-46.6240	36.6010 +-38.4630
EC	50.8310 +-56.4500	18.7070 +-13.5640	47.7880 +-51.1210
Sum	87.9330	78.0270	87.3760

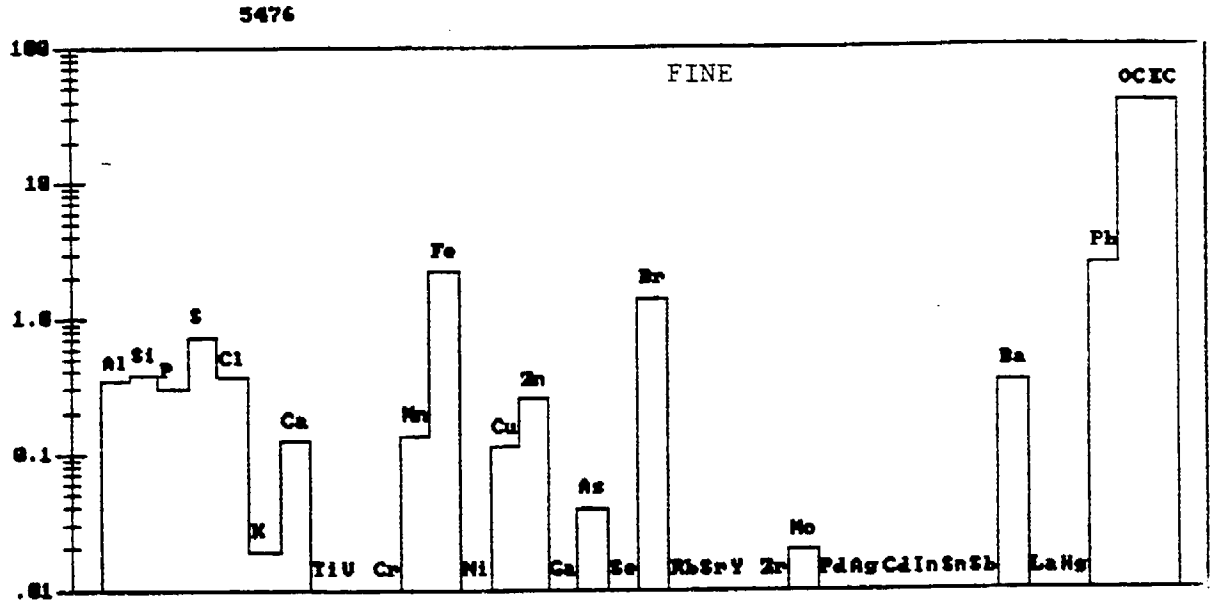
MOVES-SCAB(NEA-E,WB1,T42,CM)

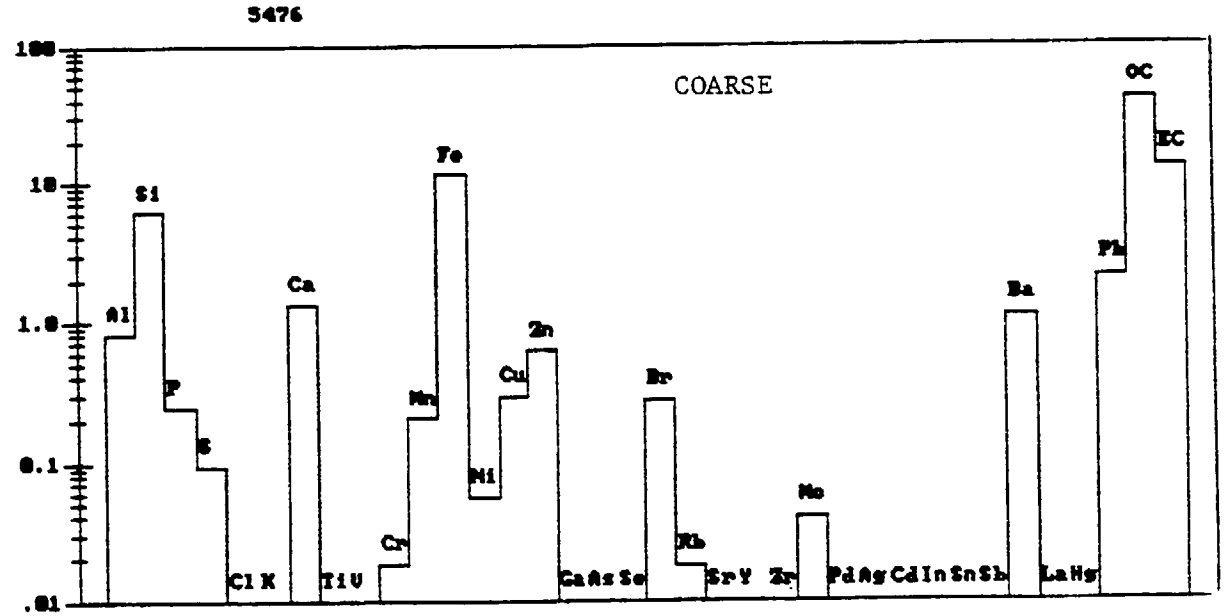


srce code	part size	revsion date	source description	reference	date
5476	FC	07/14/87	Tunnel On-Road Motor Vehicle	1	06/87

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Al	.3377 +- .1307	.8160 +- 2.1543	
Si	.3827 +- .2245	6.0532 +-14.0863	
P	.2929 +- .0536	.2405 +- .5216	
S	.7314 +- .3035	.0920 +- 1.6431	
Cl	.3631 +- .3242	.0000 +-20.7482	
K	.0193 +- .0210	.0000 +- .7843	
Ca	.1250 +- .0480	1.3272 +- 2.7186	
Ti	.0041 +- .0111	.0082 +- .1319	
V	.0000 +- .0038	.0000 +- .0686	
Cr	.0044 +- .0039	.0184 +- .0473	
Mn	.1340 +- .0171	.2008 +- .4262	
Fe	2.2183 +- .2765	11.3379 +-23.0810	
Ni	.0096 +- .0028	.0559 +- .1106	
Cu	.1118 +- .0143	.2909 +- .6112	
Zn	.2465 +- .0307	.6064 +- 1.1496	
Ga	.0027 +- .0051	.0033 +- .0117	
As	.0390 +- .0817	.0000 +- .1080	
Se	.0000 +- .0024	.0023 +- .0070	
Br	1.3551 +- .1644	.2688 +- .6335	
Rb	.0000 +- .0110	.0176 +- .0500	
Sr	.0000 +- .0054	.0000 +- .4804	
Y	.0000 +- .0078	.0000 +- .0145	
Zr	.0000 +- .0258	.0000 +- .0654	
Mo	.0195 +- .0179	.0389 +- .0617	
Pd	.0000 +- .0159	.0000 +- .0365	
Ag	.0000 +- .0208	.0000 +- .0479	
Cd	.0000 +- .0275	.0000 +- .0639	
In	.0000 +- .0345	.0000 +- .0797	
Sn	.0000 +- .0418	.0000 +- .0963	
Sb	.0000 +- .0918	.0000 +- .2155	
Ba	.3282 +- .0560	1.0768 +- 1.9048	
La	.0000 +- .3176	.0000 +- .7222	
Hg	.0000 +- .0031	.0016 +- .0070	
Pb	2.4366 +- .2975	2.0488 +- 3.9517	
OC	38.5859 +- 5.5504	39.1636 +-61.7037	
EC	38.1189 +- 4.9093	12.6561 +-24.2750	
Sum	85.8667	76.3252	

TUNNEL ON-ROAD MOTOR VEHICLE

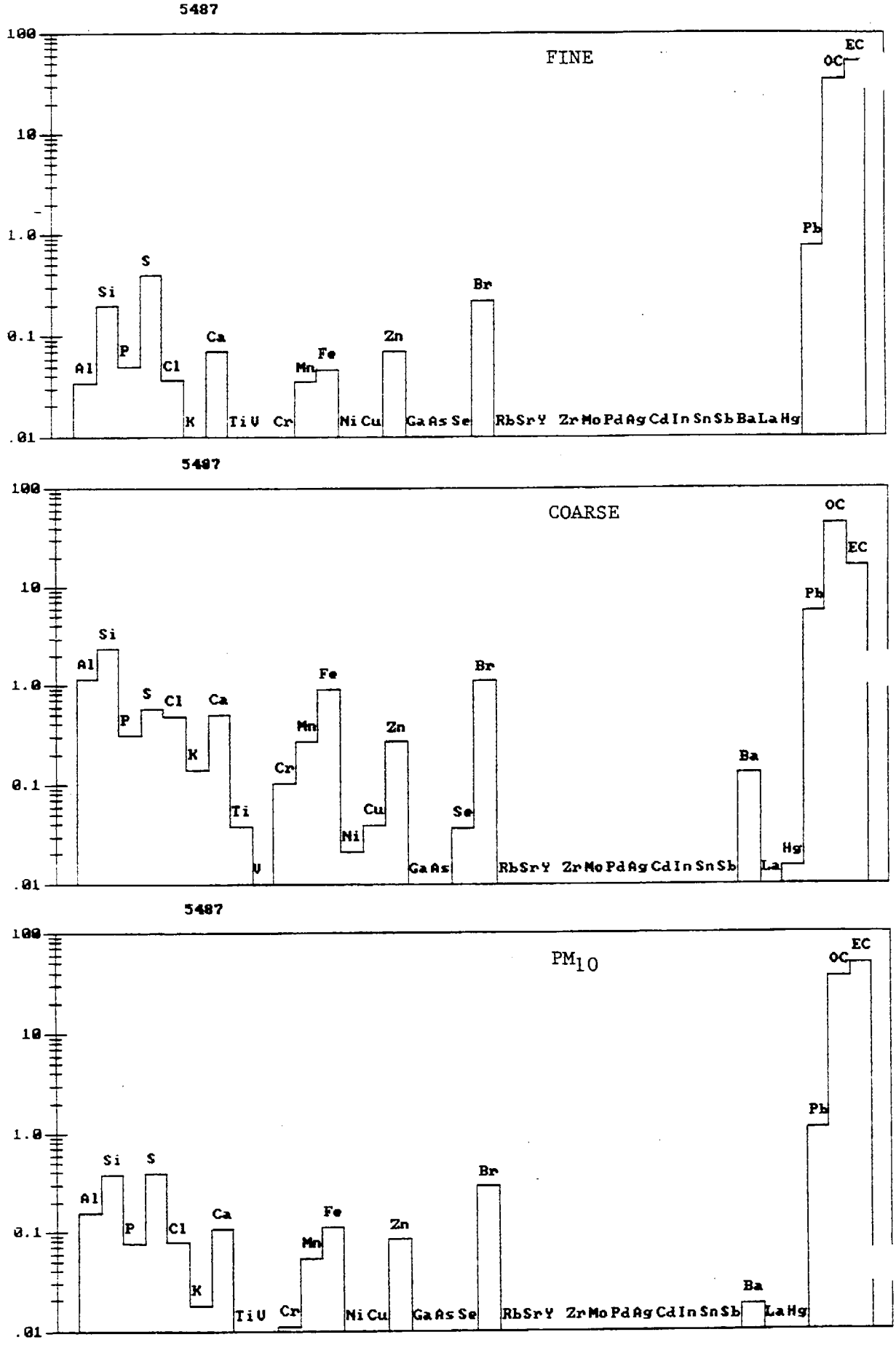




srce code	part size	revsion date	source description	reference	date
5487	FCT	07/07/87	MOVES-SCAB(NEA-E,WB1,T42,CM)	1	07/87

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Al	.0340 +- .0440	1.1550 +- 1.4590	.1550 +- .1540
Si	.1940 +- .1170	2.3680 +- 1.5550	.3810 +- .2390
P	.0500 +- .0490	.3060 +- .3570	.0760 +- .0770
S	.3860 +- .3910	.5750 +- .6940	.3930 +- .3830
Cl	.0360 +- .0320	.4830 +- .5270	.0770 +- .0680
K	.0020 +- .0090	.1400 +- .1930	.0180 +- .0210
Ca	.0690 +- .0590	.5020 +- .3890	.1060 +- .0880
Ti	.0020 +- .0040	.0380 +- .3400	.0080 +- .0310
V	.0020 +- .0030	.0100 +- .1340	.0030 +- .0120
Cr	.0010 +- .0030	.1020 +- .1170	.0110 +- .0120
Mn	.0350 +- .0510	.2670 +- .2530	.0540 +- .0630
Fe	.0470 +- .0380	.8960 +- .5070	.1090 +- .0780
Ni	.0020 +- .0030	.0210 +- .0260	.0040 +- .0050
Cu	.0020 +- .0030	.0390 +- .0510	.0050 +- .0060
Zn	.0690 +- .0610	.2660 +- .1360	.0820 +- .0640
Ga	.0010 +- .0030	.0010 +- .0150	.0010 +- .0030
As	.0000 +- .0250	.0000 +- .2100	.0010 +- .0270
Se	.0000 +- .0020	.0370 +- .0490	.0050 +- .0070
Br	.2200 +- .2980	1.0870 +- 1.2510	.2840 +- .3690
Rb	.0000 +- .0040	.0000 +- .0240	.0000 +- .0050
Sr	.0000 +- .0050	.0070 +- .0260	.0010 +- .0050
Y	.0000 +- .0060	.0000 +- .0740	.0000 +- .0090
Zr	.0000 +- .0250	.0000 +- .1360	.0000 +- .0290
Mo	.0000 +- .0160	.0000 +- .0890	.0000 +- .0180
Pd	.0000 +- .0160	.0000 +- .0840	.0000 +- .0170
Ag	.0080 +- .0230	.0000 +- .1120	.0070 +- .0250
Cd	.0000 +- .0270	.0000 +- .1490	.0000 +- .0310
In	.0000 +- .0340	.0000 +- .1840	.0000 +- .0390
Sn	.0000 +- .0410	.0000 +- .2230	.0000 +- .0470
Sb	.0000 +- .0920	.0000 +- .5000	.0000 +- .1040
Ba	.0090 +- .1710	.1290 +- .9500	.0180 +- .1950
La	.0000 +- .3120	.0000 +- 1.7190	.0000 +- .3550
Hg	.0000 +- .0030	.0150 +- .0230	.0020 +- .0040
Pb	.7660 +- 1.0450	5.5430 +- 6.0860	1.1170 +- 1.4200
OC	34.6520 +-39.9300	44.4130 +-56.8330	35.8180 +-40.3100
EC	51.2640 +-58.0040	16.3580 +-15.5790	48.4770 +-53.6690
Sum	87.8510	74.7580	87.2130

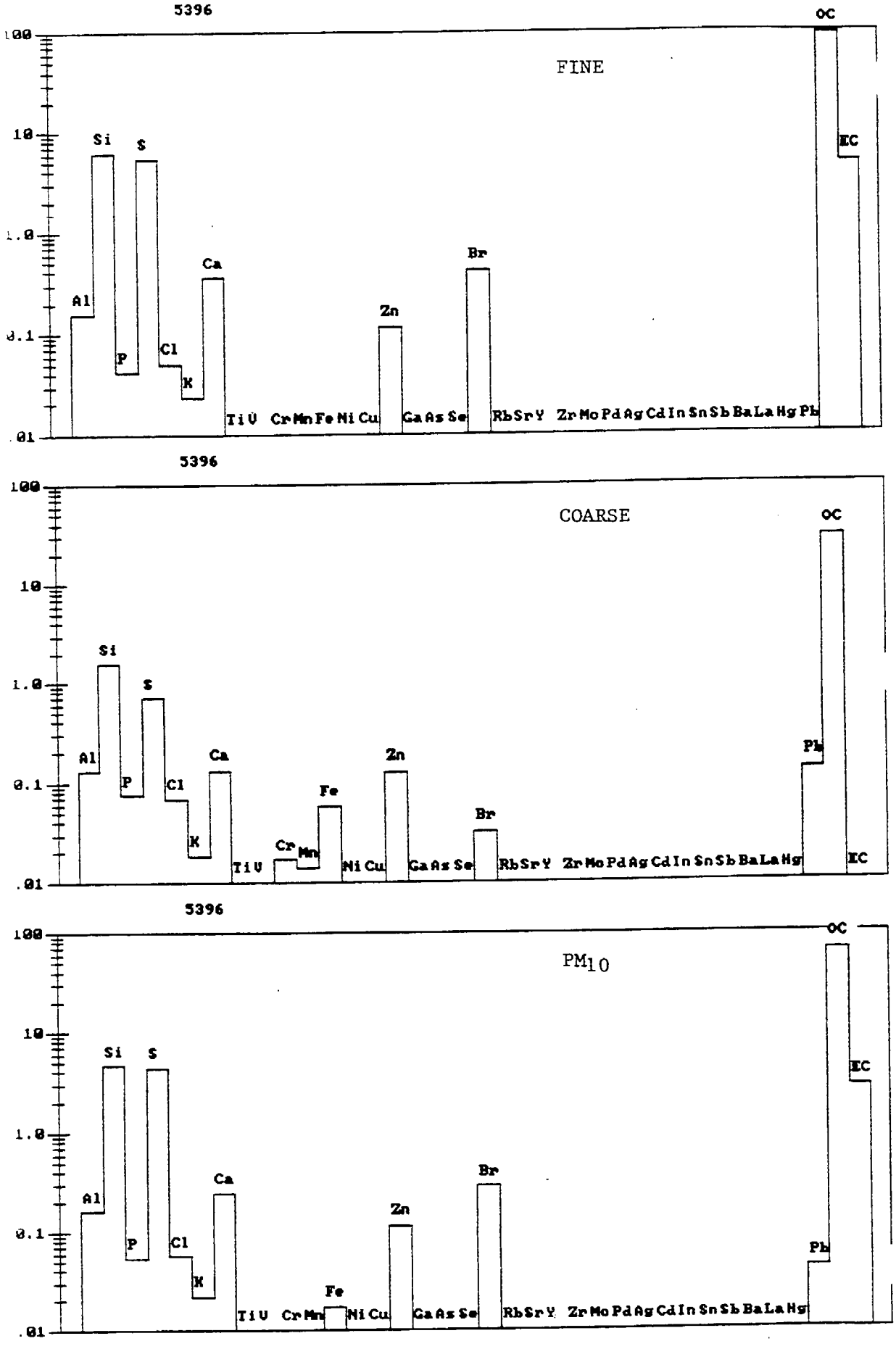
MOVES-SCAB(NEA-E,WB1,T42,CM)



srce code	part size	revsion date	source description	reference	date
5396	FCT	07/07/87	UNLEADED, steady state SCAB	1	04/87

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Al	.1542 +- .1311	.1294 +- .0706	.1578 +- .0795
Si	6.2373 +- 3.9705	1.5551 +- .8041	4.6184 +- 2.9514
P	.0412 +- .0356	.0741 +- .0517	.0531 +- .0258
S	5.3926 +- 2.7318	.6937 +- .5539	4.3463 +- 2.6465
Cl	.0500 +- .1054	.0675 +- .0406	.0565 +- .0608
K	.0235 +- .0454	.0183 +- .0119	.0217 +- .0261
Ca	.3479 +- .2318	.1316 +- .0559	.2450 +- .1034
Ti	.0052 +- .0171	.0066 +- .0273	.0055 +- .0131
V	.0032 +- .0129	.0070 +- .0112	.0042 +- .0081
Cr	.0000 +- .0129	.0170 +- .0080	.0061 +- .0076
Mn	.0000 +- .0167	.0141 +- .0074	.0049 +- .0096
Fe	.0000 +- .0365	.0567 +- .0236	.0172 +- .0214
Ni	.0000 +- .0143	.0037 +- .0034	.0009 +- .0080
Cu	.0058 +- .0164	.0030 +- .0041	.0049 +- .0093
Zn	.1149 +- .0492	.1254 +- .0594	.1128 +- .0404
Ga	.0074 +- .0129	.0006 +- .0024	.0039 +- .0065
As	.0000 +- .0363	.0000 +- .0085	.0000 +- .0205
Se	.0000 +- .0128	.0072 +- .0039	.0024 +- .0073
Br	.4094 +- .3129	.0321 +- .0142	.2854 +- .2142
Rb	.0000 +- .0210	.0000 +- .0049	.0000 +- .0121
Sr	.0000 +- .0256	.0000 +- .0059	.0000 +- .0145
Y	.0000 +- .0315	.0000 +- .0073	.0000 +- .0178
Zr	.0000 +- .1428	.0000 +- .0337	.0000 +- .0810
Mo	.0000 +- .0868	.0000 +- .0199	.0000 +- .0492
Pd	.0000 +- .0886	.0000 +- .0207	.0000 +- .0503
Ag	.0000 +- .1166	.0000 +- .0271	.0000 +- .0660
Cd	.0000 +- .1529	.0000 +- .0360	.0000 +- .0868
In	.0000 +- .1922	.0000 +- .0449	.0000 +- .1089
Sn	.0000 +- .2329	.0000 +- .0544	.0000 +- .1321
Sb	.0000 +- .5170	.0000 +- .1344	.0000 +- .2942
Ba	.0000 +- .9678	.0000 +- .2251	.0000 +- .5487
La	.0000 +- 1.7630	.0000 +- .4083	.0000 +- .9993
Hg	.0000 +- .0162	.0042 +- .0047	.0017 +- .0092
Pb	.0000 +- .0555	.1304 +- .0489	.0412 +- .0329
OC	92.9074 +-51.7382	29.2593 +-25.5889	66.1925 +-27.5460
EC	4.8333 +- 6.8012	.0000 +- 6.4826	2.7619 +- 4.5699
Sum	*******	32.3370	78.9443

UNLEADED, Steady State

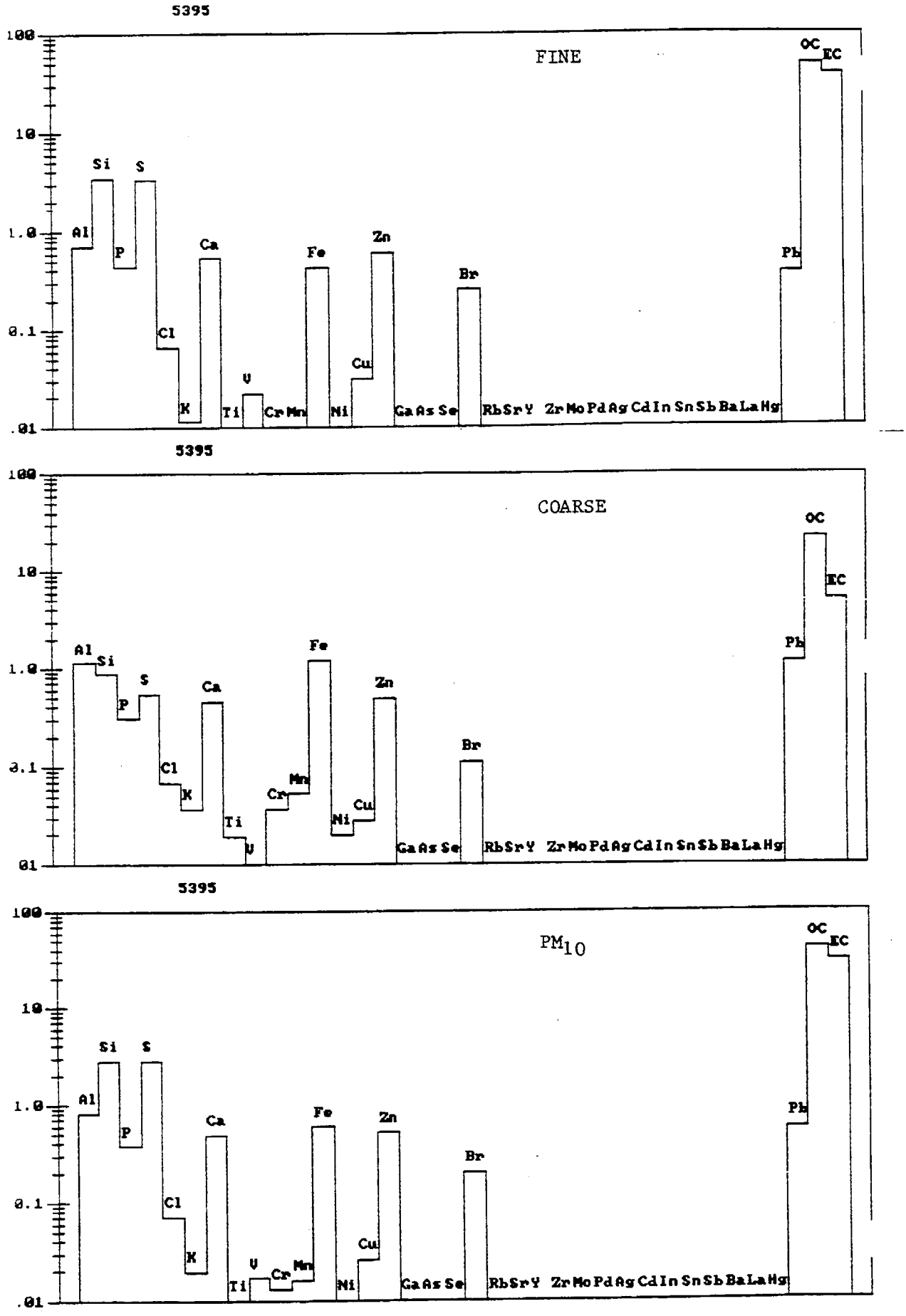


srce code	part size	revsion date	source description	reference	date
5395	FCT	07/07/87	UNLEADED, federal test SCAB	1	04/87

PERCENT COMPOSITION

SPECIES	FINE	COARSE	TOTAL
Al	.6993 +- .2807	1.1285 +- .3753	.8151 +- .2839
Si	3.4266 +- 1.7549	.8564 +- .3503	2.7926 +- 1.4080
P	.4405 +- .1639	.3046 +- .0883	.3731 +- .1191
S	3.2549 +- 2.0250	.5344 +- .2227	2.8302 +- 1.8751
Cl	.0664 +- .0335	.0678 +- .0309	.0708 +- .0288
K	.0112 +- .0078	.0368 +- .0112	.0198 +- .0114
Ca	.5261 +- .1408	.4480 +- .1369	.4791 +- .1249
Ti	.0035 +- .0019	.0193 +- .0064	.0068 +- .0045
V	.0220 +- .0110	.0061 +- .0030	.0170 +- .0081
Cr	.0045 +- .0042	.0369 +- .0086	.0131 +- .0044
Mn	.0042 +- .0030	.0526 +- .0126	.0161 +- .0047
Fe	.4214 +- .1241	1.1783 +- .3089	.5829 +- .1475
Ni	.0003 +- .0002	.0199 +- .0048	.0051 +- .0035
Cu	.0306 +- .0238	.0277 +- .0065	.0263 +- .0161
Zn	.5921 +- .2625	.4849 +- .1486	.5088 +- .1879
Ga	.0007 +- .0005	.0018 +- .0029	.0009 +- .0027
As	.0000 +- .0001	.0000 +- .0346	.0000 +- .0162
Se	.0000 +- .0001	.0071 +- .0027	.0015 +- .0031
Br	.2488 +- .1144	.1093 +- .0395	.2000 +- .0788
Rb	.0000 +- .0001	.0000 +- .0035	.0000 +- .0055
Sr	.0000 +- .0001	.0000 +- .0037	.0000 +- .0063
Y	.0000 +- .0001	.0000 +- .0051	.0000 +- .0079
Zr	.0000 +- .0001	.0000 +- .0213	.0000 +- .0352
Mo	.0000 +- .0001	.0000 +- .0129	.0000 +- .0216
Pd	.0000 +- .0001	.0000 +- .0131	.0000 +- .0217
Ag	.0000 +- .0001	.0000 +- .0173	.0000 +- .0287
Cd	.0000 +- .0001	.0000 +- .0224	.0000 +- .0378
In	.0000 +- .0001	.0000 +- .0285	.0000 +- .0471
Sn	.0000 +- .0001	.0000 +- .0345	.0000 +- .0574
Sb	.0000 +- .0001	.0000 +- .0765	.0000 +- .1278
Ba	.0000 +- .0001	.0000 +- .1425	.0000 +- .2380
La	.0000 +- .0001	.0000 +- .2617	.0000 +- .4358
Hg	.0012 +- .0008	.0051 +- .0029	.0021 +- .0040
Pb	.3635 +- .1376	1.1393 +- .3538	.5575 +- .2164
OC	49.2017 +- 9.8932	22.2077 +- 8.8914	41.3308 +- 8.7177
EC	38.6297 +- 8.1057	4.9933 +- 3.1333	30.0761 +- 9.2332
Sum	97.9492	33.6658	80.7257

UNLEADED, Federal Test

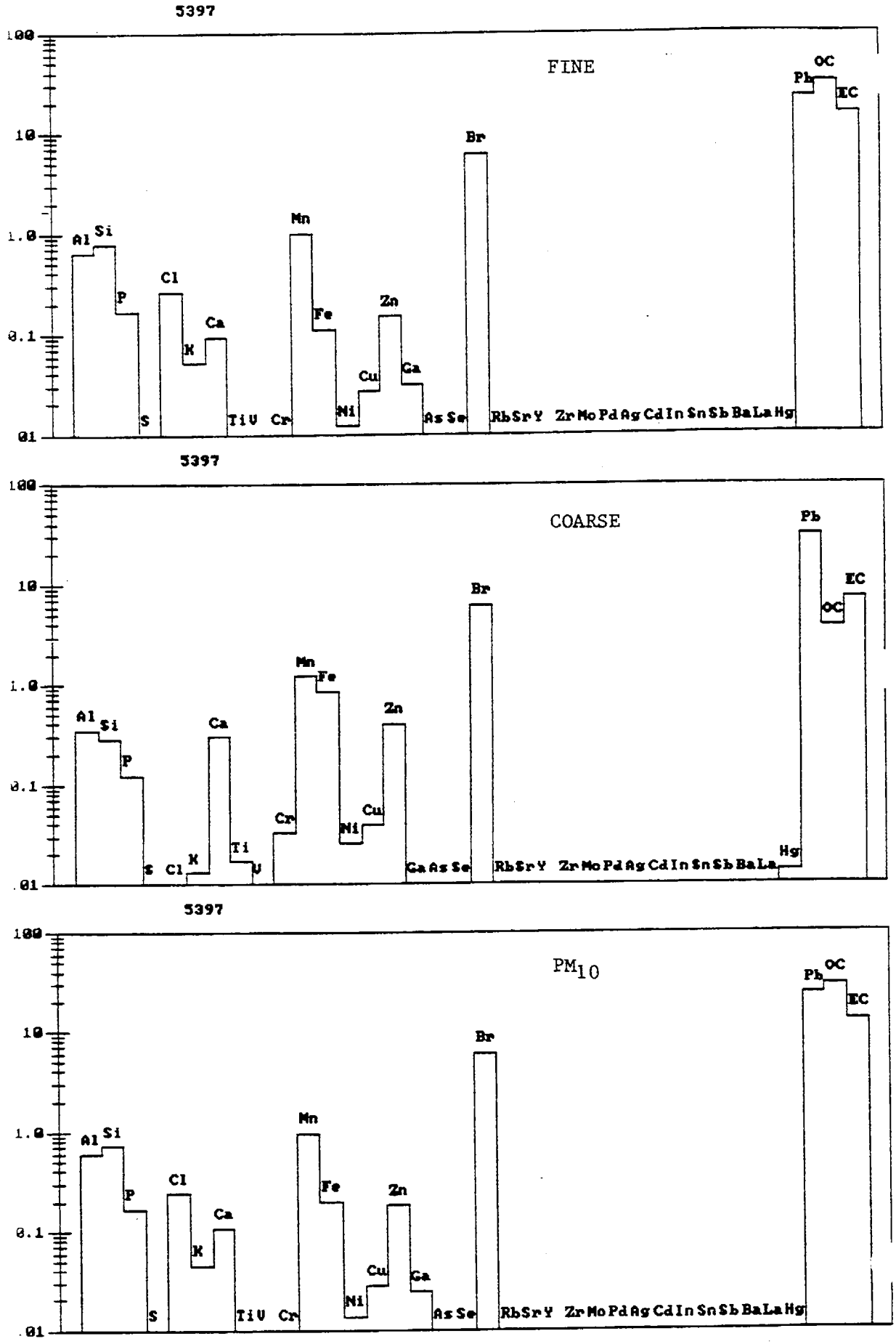


srce code	part size	revsion date	source description	reference	date
5397	FCT	08/08/87	LEADED, federal test SCAB	1	04/87

PERCENT COMPOSITION

SPECIES	FINE	COARSE	TOTAL
Al	.6415 +- .6415	.3422 +- .6991	.5992 +- .5773
Si	.7856 +- .4601	.2816 +- .2013	.7197 +- .3583
P	.1674 +- .1802	.1223 +- .1218	.1678 +- .1109
S	.0000 +- 1.2081	.0000 +- 2.1640	.0000 +- 1.0121
Cl	.2624 +- .2624	.0000 +- .3359	.2383 +- .2383
K	.0511 +- .0254	.0128 +- .0236	.0446 +- .0214
Ca	.0918 +- .0288	.2945 +- .1514	.1069 +- .0341
Ti	.0040 +- .0023	.0170 +- .0210	.0043 +- .0049
V	.0018 +- .0017	.0044 +- .0083	.0018 +- .0022
Cr	.0012 +- .0018	.0326 +- .0111	.0055 +- .0022
Mn	.9873 +- .6120	1.2045 +- .3039	.9559 +- .5337
Fe	.1113 +- .0451	.8489 +- .2298	.1975 +- .0513
Ni	.0120 +- .0046	.0255 +- .0074	.0134 +- .0051
Cu	.0264 +- .0056	.0385 +- .0084	.0278 +- .0056
Zn	.1483 +- .0395	.3921 +- .0852	.1809 +- .0406
Ga	.0311 +- .0414	.0053 +- .0746	.0244 +- .0344
As	.0093 +- .6977	.0000 +- 1.2619	.0089 +- .5809
Se	.0000 +- .0061	.0065 +- .0107	.0026 +- .0051
Br	6.1834 +- 2.1128	6.1473 +- 2.2119	6.0207 +- 2.1370
Rb	.0052 +- .0456	.0000 +- .0873	.0048 +- .0397
Sr	.0000 +- .0050	.0000 +- .0075	.0000 +- .0042
Y	.0000 +- .0412	.0000 +- .0832	.0000 +- .0345
Zr	.0000 +- .0219	.0000 +- .0280	.0000 +- .0181
Mo	.0000 +- .0108	.0000 +- .0096	.0000 +- .0088
Pd	.0000 +- .0115	.0000 +- .0225	.0000 +- .0123
Ag	.0000 +- .0146	.0000 +- .0137	.0000 +- .0121
Cd	.0000 +- .0200	.0000 +- .0464	.0000 +- .0236
In	.0000 +- .0242	.0000 +- .0216	.0000 +- .0199
Sn	.0000 +- .0293	.0000 +- .0397	.0000 +- .0268
Sb	.0000 +- .0639	.0000 +- .0554	.0000 +- .0523
Ba	.0000 +- .1195	.0000 +- .1030	.0000 +- .0977
La	.0000 +- .2203	.0000 +- .1902	.0000 +- .1802
Hg	.0015 +- .0048	.0136 +- .0084	.0031 +- .0040
Pb	21.6486 +- 7.6498	30.6310 +- 6.8840	23.1220 +- 8.1656
OC	31.3744 +-19.8383	3.7681 +- 3.3089	28.8997 +-19.9465
EC	15.0527 +- 2.4341	7.2203 +- 5.5383	12.7359 +- 4.5216
Sum	77.5983	51.4090	74.0857

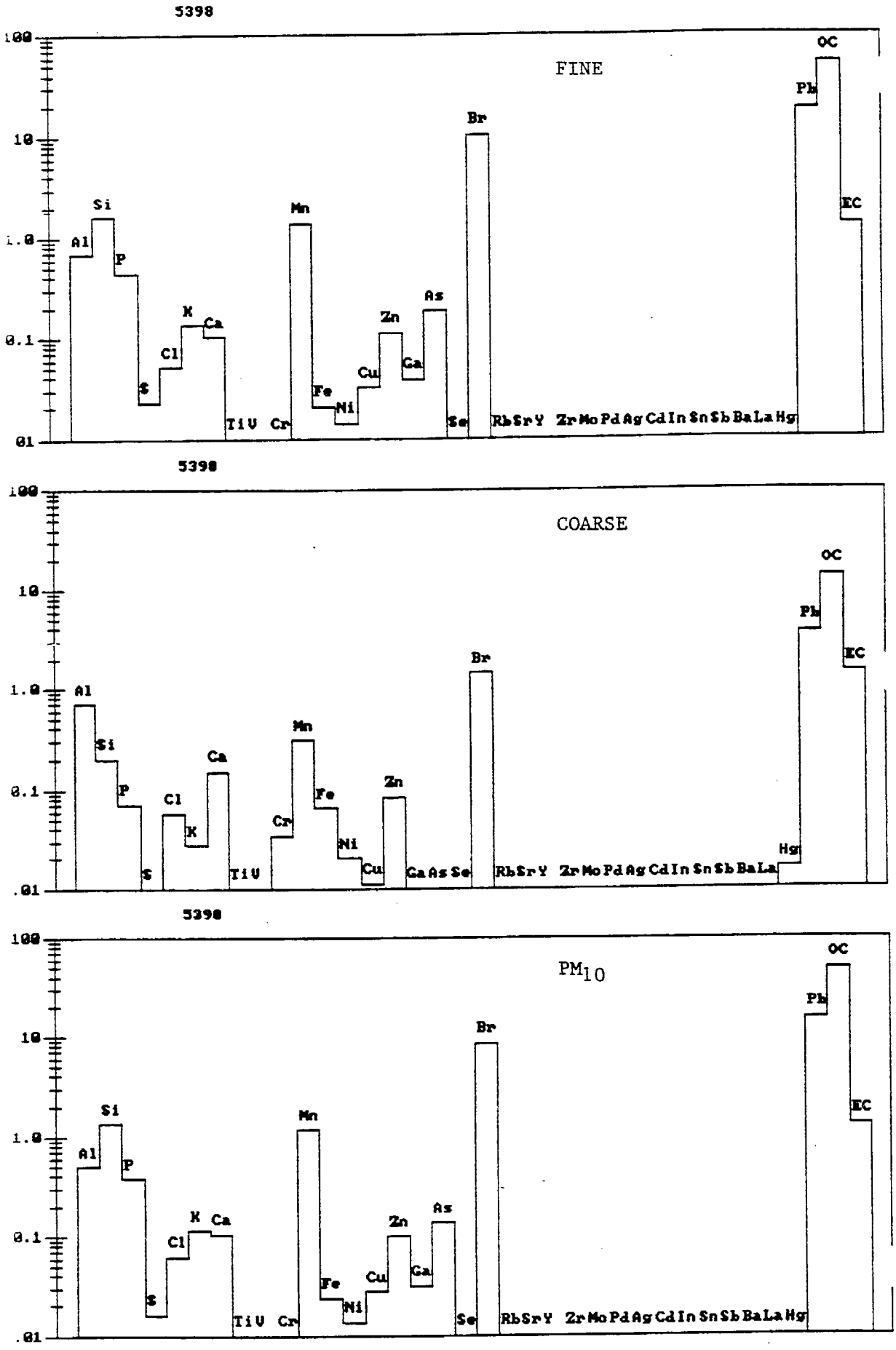
LEADED, Federal Test



srce code	part size	revsion date	source description	reference	date
5398	FCT	07/07/87	LEADED, steady state SCAB	1	04/87

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Al	.6697 +- 1.1463	.6927 +- 1.1716	.4915 +- .9530
Si	1.5878 +- .6408	.1986 +- .1909	1.3350 +- .5828
P	.4348 +- .1347	.0697 +- .1649	.3736 +- .1304
S	.0224 +- .9076	.0000 +- 1.4388	.0159 +- .7616
Cl	.0507 +- .1546	.0576 +- .2338	.0621 +- .1274
K	.1328 +- .0568	.0275 +- .0227	.1124 +- .0384
Ca	.1016 +- .0575	.1492 +- .1747	.1028 +- .0605
Ti	.0028 +- .0085	.0079 +- .0612	.0032 +- .0154
V	.0037 +- .0065	.0070 +- .0254	.0040 +- .0073
Cr	.0007 +- .0067	.0344 +- .0196	.0067 +- .0051
Mn	1.3450 +- .8783	.3031 +- .1892	1.1688 +- .8084
Fe	.0204 +- .0250	.0648 +- .0644	.0234 +- .0201
Ni	.0141 +- .0073	.0201 +- .0178	.0135 +- .0052
Cu	.0313 +- .0089	.0110 +- .0114	.0274 +- .0066
Zn	.1091 +- .0149	.0835 +- .0784	.0976 +- .0220
Ga	.0377 +- .0315	.0050 +- .0501	.0307 +- .0263
As	.1820 +- .5047	.0000 +- .8287	.1332 +- .4261
Se	.0000 +- .0079	.0045 +- .0088	.0014 +- .0060
Br	10.3652 +- 1.1864	1.4290 +- 1.1873	8.4454 +- 1.0998
Rb	.0000 +- .0677	.0000 +- .0875	.0000 +- .0551
Sr	.0000 +- .0131	.0000 +- .0096	.0000 +- .0096
Y	.0011 +- .0353	.0000 +- .0514	.0010 +- .0289
Zr	.0000 +- .0723	.0000 +- .0475	.0000 +- .0525
Mo	.0000 +- .0422	.0000 +- .0281	.0000 +- .0306
Pd	.0000 +- .0437	.0000 +- .0280	.0000 +- .0317
Ag	.0000 +- .0577	.0000 +- .0368	.0000 +- .0418
Cd	.0000 +- .0762	.0000 +- .0478	.0000 +- .0552
In	.0000 +- .0941	.0000 +- .0601	.0000 +- .0682
Sn	.0000 +- .1152	.0000 +- .0726	.0000 +- .0833
Sb	.0000 +- .2525	.0000 +- .1602	.0000 +- .1827
Ba	.0000 +- .4763	.0000 +- .3017	.0000 +- .3450
La	.0000 +- .8675	.0000 +- .5479	.0000 +- .6287
Hg	.0014 +- .0098	.0158 +- .0165	.0030 +- .0073
Pb	17.9917 +- 1.8857	3.7056 +- 2.9785	15.0562 +- 2.4468
OC	51.8472 +- 4.4239	13.7912 +-12.3626	48.9879 +- 4.8730
EC	1.3222 +- 1.0299	1.4286 +- 2.2589	1.2972 +- 1.2255
Sum	86.2754	22.1068	77.7939

LEADED, Steady State



3.0 SOURCE COMPOSITION TABLES AND PROFILES

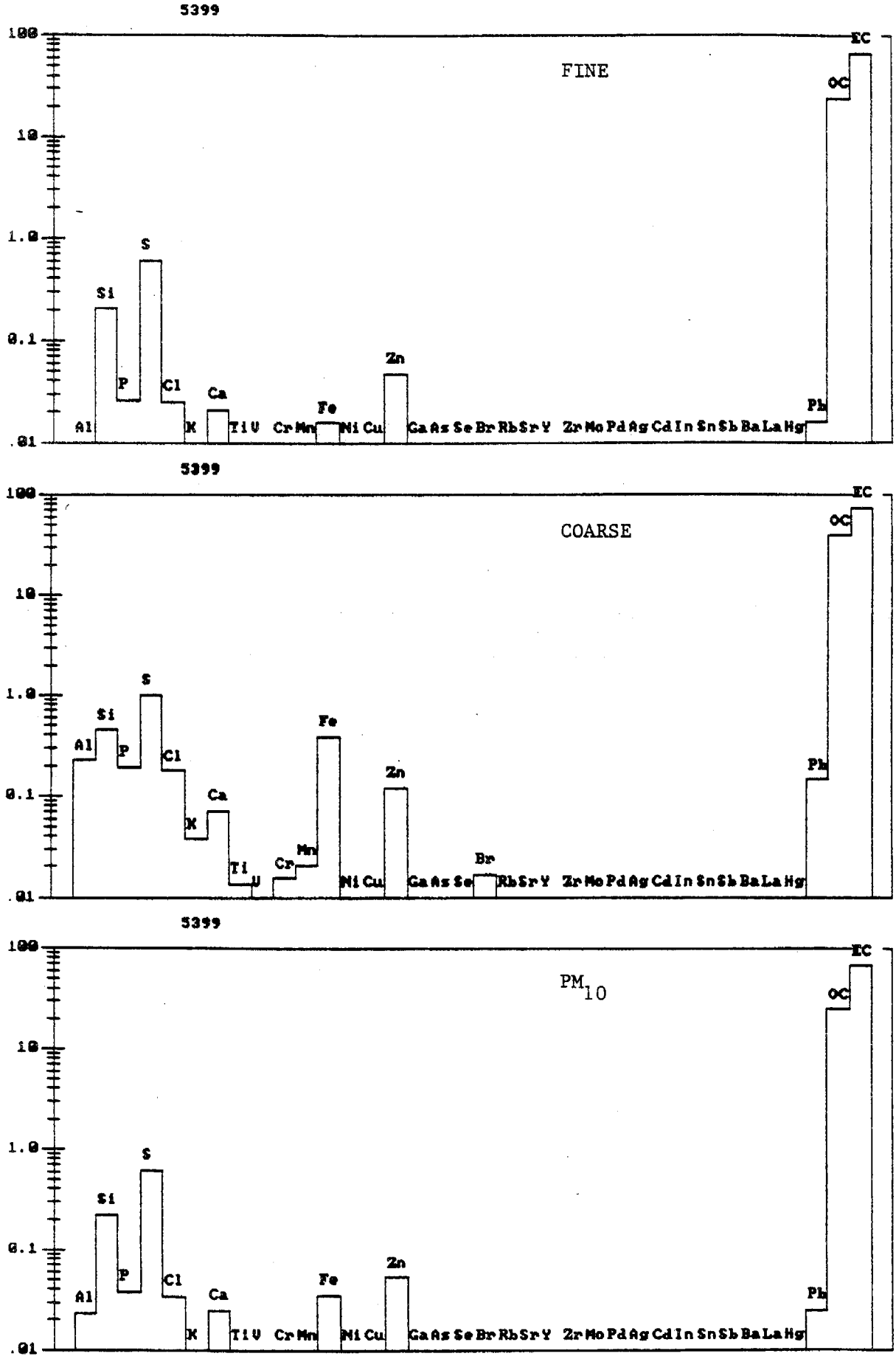
The profiles included in this library are grouped by source category as listed in Table 1 and listed in numerical sequence by its unique SCAB-library number. Each section is divided in the library for ease of locating the profiles.

srce code	part size	revsion date	source description	reference	dat
5399	FCT	07/07/87	DIESEL federal test SCAB	1	04/87

PERCENT COMPOSITION

SPECIES	FINE	COARSE	TOTAL
Al	.0072 +- .0039	.2242 +- .1013	.0232 +- .0101
Si	.2019 +- .1769	.4441 +- .1063	.2173 +- .1706
P	.0259 +- .0153	.1913 +- .0636	.0378 +- .0181
S	.5885 +- .1680	1.0020 +- .2698	.6171 +- .1812
Cl	.0252 +- .0142	.1756 +- .0177	.0341 +- .0135
K	.0048 +- .0024	.0373 +- .0155	.0073 +- .0035
Ca	.0210 +- .0142	.0706 +- .0226	.0250 +- .0148
Ti	.0002 +- .0002	.0136 +- .0233	.0011 +- .0018
V	.0000 +- .0002	.0057 +- .0093	.0005 +- .0007
Cr	.0000 +- .0002	.0153 +- .0066	.0011 +- .0005
Mn	.0000 +- .0002	.0206 +- .0054	.0015 +- .0006
Fe	.0158 +- .0062	.3808 +- .1302	.0354 +- .0069
Ni	.0001 +- .0002	.0084 +- .0031	.0007 +- .0003
Cu	.0013 +- .0003	.0081 +- .0020	.0018 +- .0004
Zn	.0470 +- .0272	.1180 +- .0678	.0527 +- .0307
Ga	.0001 +- .0002	.0001 +- .0013	.0001 +- .0002
As	.0015 +- .0012	.0000 +- .0059	.0014 +- .0011
Se	.0000 +- .0002	.0081 +- .0029	.0006 +- .0003
Br	.0048 +- .0010	.0165 +- .0083	.0059 +- .0009
Rb	.0000 +- .0003	.0000 +- .0026	.0000 +- .0003
Sr	.0000 +- .0004	.0000 +- .0032	.0000 +- .0004
Y	.0000 +- .0004	.0000 +- .0039	.0000 +- .0005
Zr	.0000 +- .0020	.0000 +- .0176	.0000 +- .0023
Mo	.0001 +- .0012	.0000 +- .0116	.0001 +- .0014
Pd	.0000 +- .0012	.0000 +- .0110	.0000 +- .0014
Ag	.0000 +- .0016	.0000 +- .0143	.0000 +- .0019
Cd	.0000 +- .0021	.0000 +- .0190	.0000 +- .0025
In	.0000 +- .0027	.0000 +- .0239	.0000 +- .0031
Sn	.0000 +- .0032	.0000 +- .0290	.0000 +- .0037
Sb	.0000 +- .0071	.0000 +- .0635	.0000 +- .0082
Ba	.0000 +- .0134	.0000 +- .1205	.0000 +- .0155
La	.0000 +- .0245	.0000 +- .2220	.0000 +- .0286
Hg	.0000 +- .0002	.0023 +- .0019	.0002 +- .0003
Pb	.0160 +- .0127	.1430 +- .0408	.0254 +- .0148
OC	23.6347 +- 5.4898	38.9033 +- 3.4838	24.9938 +- 4.8735
EC	65.8618 +-12.9707	74.0300 +- 6.8567	67.3841 +-12.2129
Sum	90.4579	*******	93.4682

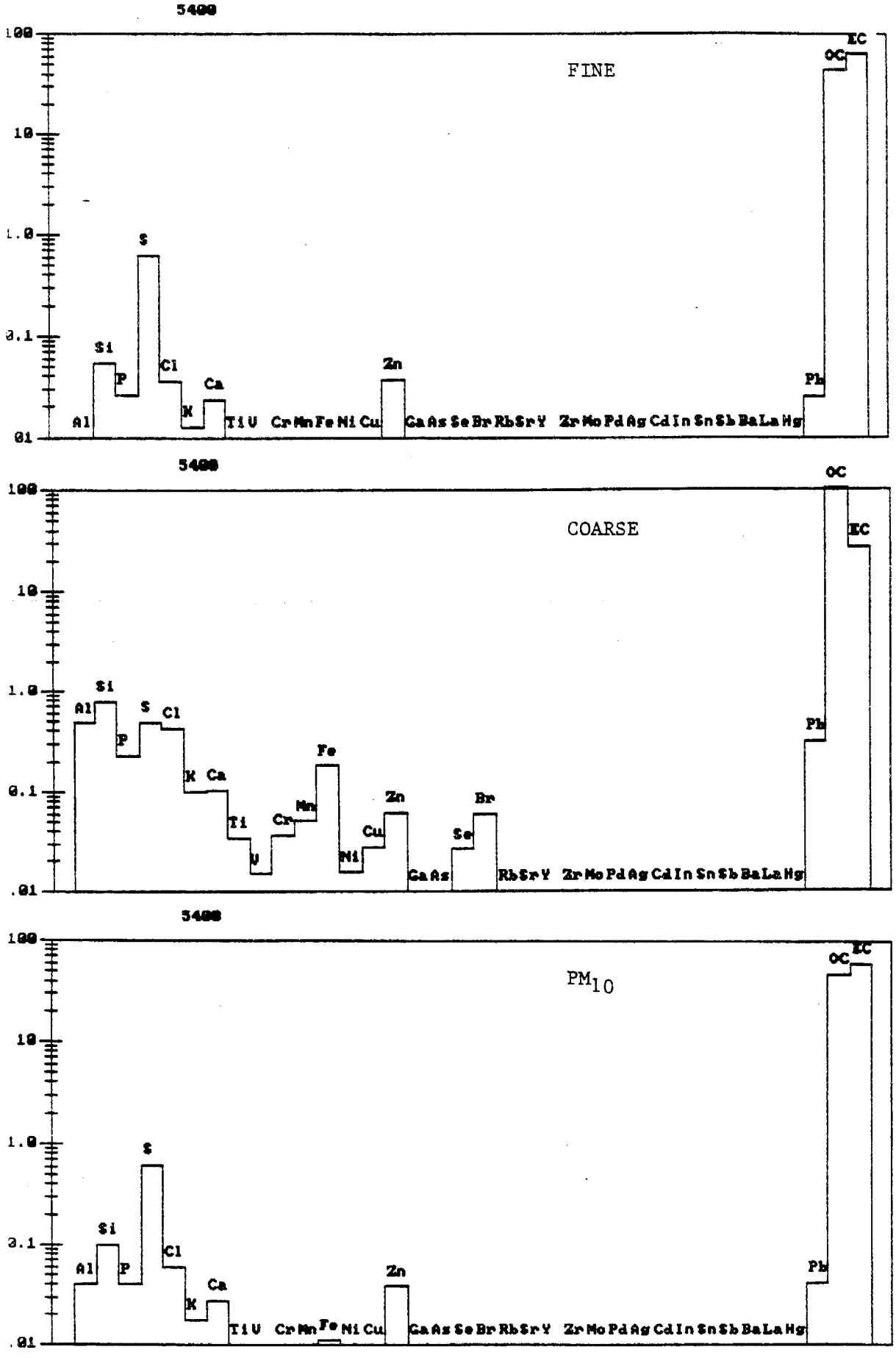
DIESEL, Federal Test



srce code	part size	revsion date	source description	reference	dat
5400	FCT	07/07/87	DIESEL, steady state SCAB	1	04/87

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Al	.0089 +- .0068	.4740 +- .2479	.0399 +- .0131
Si	.0533 +- .0284	.7801 +- .2363	.0988 +- .0384
P	.0260 +- .0078	.2289 +- .1222	.0398 +- .0156
S	.6204 +- .2393	.4842 +- .1872	.6116 +- .2341
Cl	.0352 +- .0118	.4266 +- .1658	.0598 +- .0072
K	.0127 +- .0080	.0988 +- .0396	.0180 +- .0102
Ca	.0233 +- .0142	.1028 +- .0366	.0280 +- .0158
Ti	.0001 +- .0009	.0344 +- .0687	.0025 +- .0029
V	.0001 +- .0007	.0148 +- .0280	.0011 +- .0013
Cr	.0000 +- .0007	.0365 +- .0093	.0022 +- .0008
Mn	.0000 +- .0009	.0508 +- .0193	.0031 +- .0014
Fe	.0021 +- .0021	.1811 +- .0789	.0109 +- .0050
Ni	.0000 +- .0007	.0156 +- .0081	.0011 +- .0008
Cu	.0018 +- .0009	.0280 +- .0115	.0035 +- .0010
Zn	.0371 +- .0110	.0612 +- .0185	.0386 +- .0115
Ga	.0003 +- .0006	.0049 +- .0057	.0005 +- .0006
As	.0023 +- .0020	.0000 +- .0193	.0022 +- .0023
Se	.0000 +- .0007	.0264 +- .0083	.0016 +- .0007
Br	.0018 +- .0014	.0592 +- .0191	.0054 +- .0010
Rb	.0000 +- .0012	.0000 +- .0102	.0000 +- .0013
Sr	.0000 +- .0014	.0000 +- .0134	.0000 +- .0015
Y	.0000 +- .0017	.0000 +- .0155	.0000 +- .0019
Zr	.0000 +- .0076	.0000 +- .0712	.0000 +- .0085
Mo	.0000 +- .0046	.0000 +- .0452	.0000 +- .0053
Pd	.0000 +- .0047	.0000 +- .0451	.0000 +- .0053
Ag	.0000 +- .0061	.0000 +- .0584	.0000 +- .0069
Cd	.0000 +- .0080	.0000 +- .0780	.0000 +- .0091
In	.0000 +- .0101	.0000 +- .0968	.0000 +- .0114
Sn	.0000 +- .0123	.0000 +- .1163	.0000 +- .0138
Sb	.0000 +- .0270	.0000 +- .2597	.0000 +- .0305
Ba	.0000 +- .0514	.0000 +- .4890	.0000 +- .0578
La	.0000 +- .0939	.0000 +- .9057	.0000 +- .1062
Hg	.0000 +- .0009	.0100 +- .0082	.0006 +- .0010
Pb	.0251 +- .0174	.3105 +- .0922	.0422 +- .0231
OC	43.3578 +- 2.1029	102.1752 +-36.0826	47.4679 +- 2.3485
EC	62.7457 +- 7.0506	26.8505 +- 8.7465	60.1602 +- 6.7873
Sum	*******	*******	*******

DIESEL, Steady State

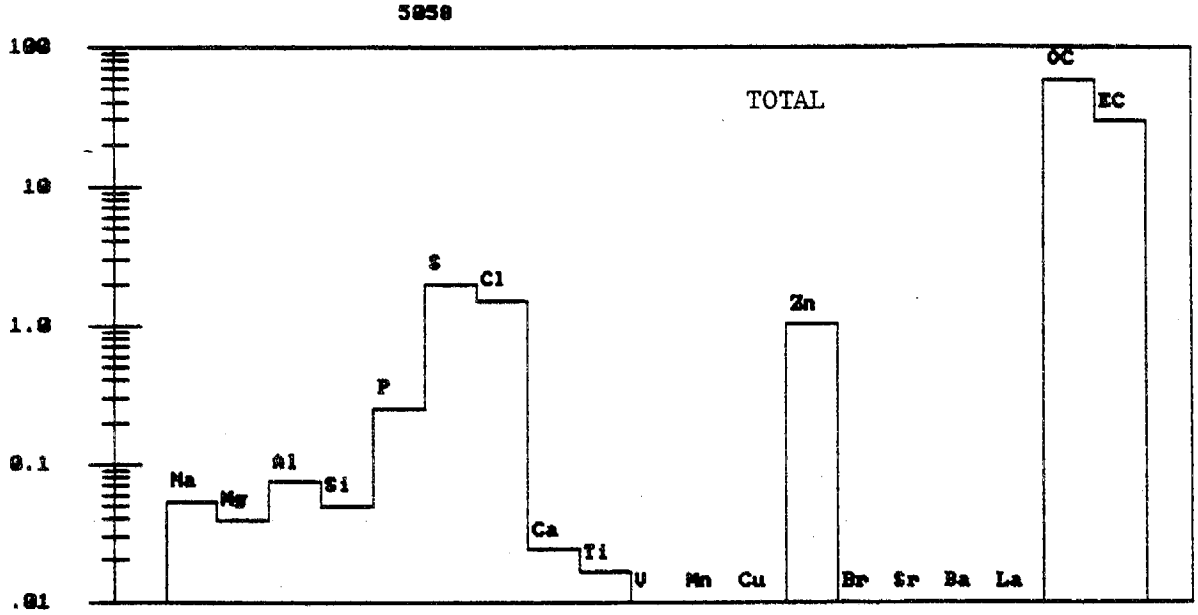


srce code	part size	revsion date	source description	reference	dat
5401	FCT	07/07/87	H.D. DIESEL federal test SCAB	1	04/87

PERCENT COMPOSITION

SPECIES	FINE	COARSE	TOTAL
Al	.0032 +- .0257	1.9090 +- 1.5975	.1367 +- .0343
Si	.0181 +- .0184	1.4173 +- 1.2526	.1097 +- .0429
P	.0423 +- .0092	.4636 +- .3941	.0709 +- .0120
S	.3427 +- .0553	.6501 +- .7817	.3470 +- .0655
Cl	.0155 +- .0222	.6220 +- .6322	.0511 +- .0385
K	.0000 +- .0096	.2508 +- .2167	.0181 +- .0108
Ca	.0481 +- .0078	.3217 +- .2458	.0692 +- .0099
Ti	.0017 +- .0037	.0610 +- .6302	.0093 +- .0354
V	.0016 +- .0026	.0165 +- .2483	.0036 +- .0142
Cr	.0000 +- .0029	.1518 +- .1290	.0109 +- .0037
Mn	.0000 +- .0033	.1122 +- .0863	.0113 +- .0065
Fe	.0000 +- .0075	.2739 +- .2815	.0153 +- .0153
Ni	.0015 +- .0029	.0297 +- .0318	.0041 +- .0034
Cu	.0007 +- .0032	.0594 +- .0654	.0040 +- .0038
Zn	.0529 +- .0174	.1122 +- .1091	.0554 +- .0228
Ga	.0000 +- .0021	.0000 +- .0165	.0000 +- .0024
As	.0000 +- .0075	.0000 +- .0660	.0000 +- .0089
Se	.0000 +- .0026	.0660 +- .0508	.0061 +- .0030
Br	.0000 +- .0033	.1353 +- .1002	.0119 +- .0041
Rb	.0000 +- .0044	.0000 +- .0366	.0000 +- .0052
Sr	.0000 +- .0053	.0000 +- .0476	.0000 +- .0064
Y	.0000 +- .0067	.0000 +- .1361	.0000 +- .0105
Zr	.0000 +- .0295	.0000 +- .2535	.0000 +- .0346
Mo	.0000 +- .0183	.0000 +- .1657	.0000 +- .0221
Pd	.0000 +- .0183	.0000 +- .1565	.0000 +- .0212
Ag	.0092 +- .0245	.0000 +- .2087	.0080 +- .0285
Cd	.0000 +- .0320	.0000 +- .2783	.0000 +- .0374
In	.0000 +- .0402	.0000 +- .3423	.0000 +- .0470
Sn	.0000 +- .0484	.0000 +- .4155	.0000 +- .0565
Sb	.0000 +- .1085	.0000 +- .9327	.0000 +- .1264
Ba	.0000 +- .2016	.0000 +- 1.7597	.0000 +- .2351
La	.0000 +- .3679	.0000 +- 3.2054	.0000 +- .4308
Hg	.0000 +- .0033	.0231 +- .0327	.0018 +- .0039
Pb	.0000 +- .0114	.8827 +- .6317	.0809 +- .0312
OC	36.0462 +- 3.4061	67.9800 +-71.3838	37.8302 +- 4.0752
EC	52.0580 +- 4.6443	15.8400 +-20.2029	50.0346 +- 5.1548
Sum	88.6417	91.3783	88.8901

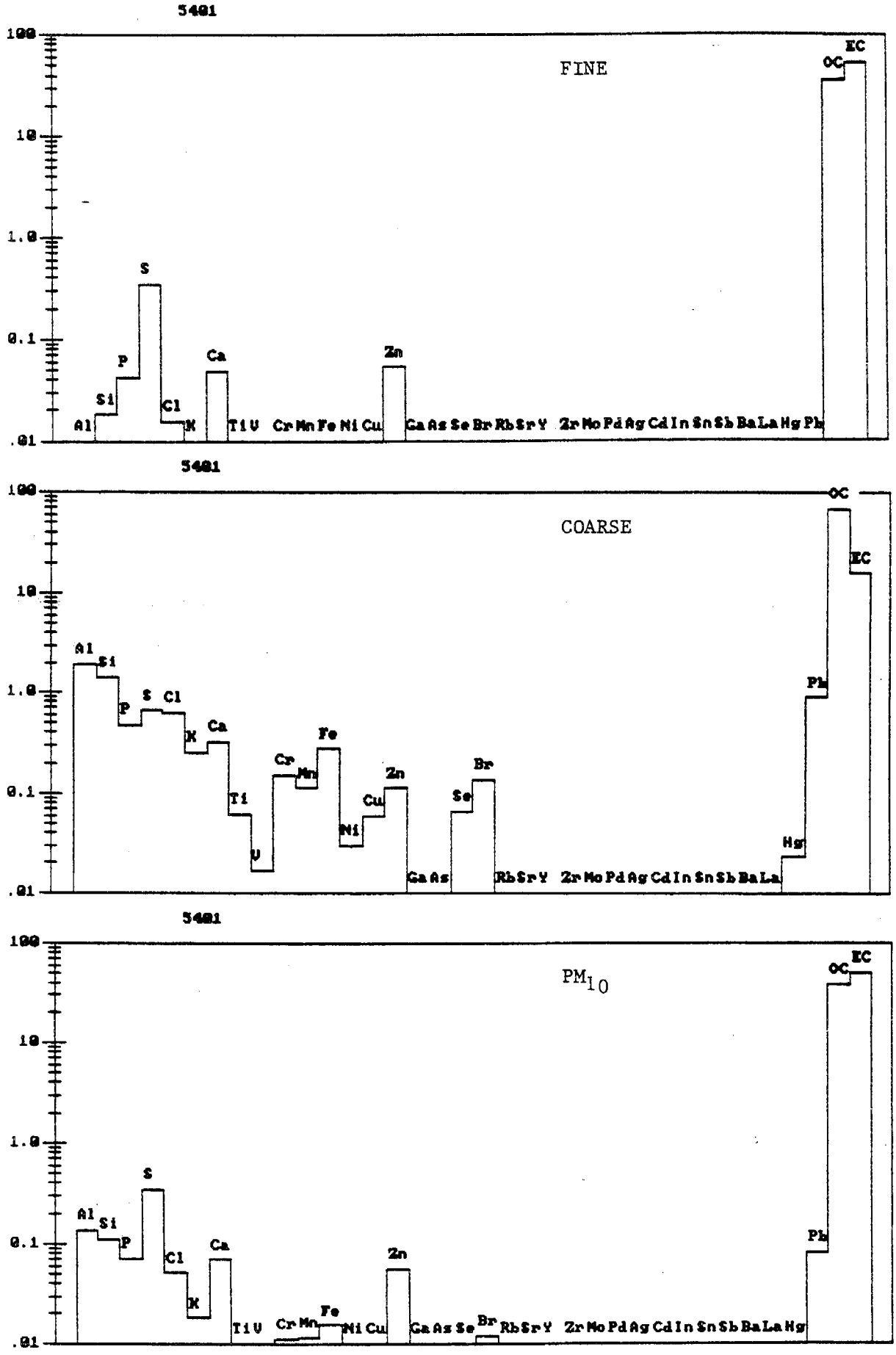
TIRE WEAR


5050
100
10
1.0
0.1
.01
TOTAL
Na
Mg
Al
Si
P
S
Cl
Ca
Ti
V
Mn
Cu
Zn
Br
Sr
Ba
La
OC
EC

srce code	part size	revsion date	source description	reference	dat
5402	FCT	07/07/87	H.D. DIESEL, steady state SCAB	1	04/87

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Al	.0648 +- .0326	1.6532 +- .8967	.1174 +- .0170
Si	.1909 +- .0307	1.8403 +- 1.0134	.2450 +- .0166
P	.0587 +- .0087	.4667 +- .3293	.0710 +- .0091
S	.3486 +- .0272	.1667 +- .3654	.3421 +- .0311
Cl	.0220 +- .0094	.5854 +- .4291	.0389 +- .0112
K	.0000 +- .0028	.2430 +- .1780	.0073 +- .0032
Ca	.0329 +- .0060	.3071 +- .1550	.0423 +- .0031
Ti	.0000 +- .0011	.1059 +- .0612	.0035 +- .0013
V	.0001 +- .0008	.0600 +- .0390	.0020 +- .0009
Cr	.0000 +- .0008	.0521 +- .0438	.0015 +- .0010
Mn	.0000 +- .0010	.0941 +- .0512	.0032 +- .0012
Fe	.0007 +- .0023	.3784 +- .2537	.0122 +- .0028
Ni	.0000 +- .0008	.0261 +- .0226	.0008 +- .0010
Cu	.0046 +- .0020	.0489 +- .0413	.0059 +- .0023
Zn	.0445 +- .0021	.1513 +- .0878	.0479 +- .0023
Ga	.0000 +- .0007	.0024 +- .0123	.0001 +- .0007
As	.0000 +- .0022	.0000 +- .0529	.0000 +- .0027
Se	.0000 +- .0008	.0600 +- .0382	.0019 +- .0009
Br	.0004 +- .0010	.1457 +- .0934	.0049 +- .0012
Rb	.0000 +- .0013	.0000 +- .0269	.0000 +- .0015
Sr	.0000 +- .0016	.0000 +- .0324	.0000 +- .0019
Y	.0000 +- .0020	.0000 +- .0408	.0000 +- .0023
Zr	.0000 +- .0089	.0000 +- .1827	.0000 +- .0103
Mo	.0000 +- .0055	.0000 +- .1186	.0000 +- .0065
Pd	.0000 +- .0057	.0000 +- .1149	.0000 +- .0065
Ag	.0000 +- .0073	.0000 +- .1521	.0000 +- .0085
Cd	.0000 +- .0096	.0000 +- .1929	.0000 +- .0111
In	.0000 +- .0120	.0000 +- .2556	.0000 +- .0140
Sn	.0000 +- .0145	.0000 +- .2968	.0000 +- .0168
Sb	.0000 +- .0321	.0000 +- .6593	.0000 +- .0372
Ba	.0000 +- .0604	.0000 +- 1.2373	.0000 +- .0698
La	.0000 +- .1108	.0000 +- 2.3126	.0000 +- .1284
Hg	.0002 +- .0011	.0534 +- .0325	.0020 +- .0012
Pb	.0000 +- .0035	.8608 +- .4744	.0281 +- .0067
Sum	.7684	7.3015	.9780

H.D. DIESEL, Federal Test



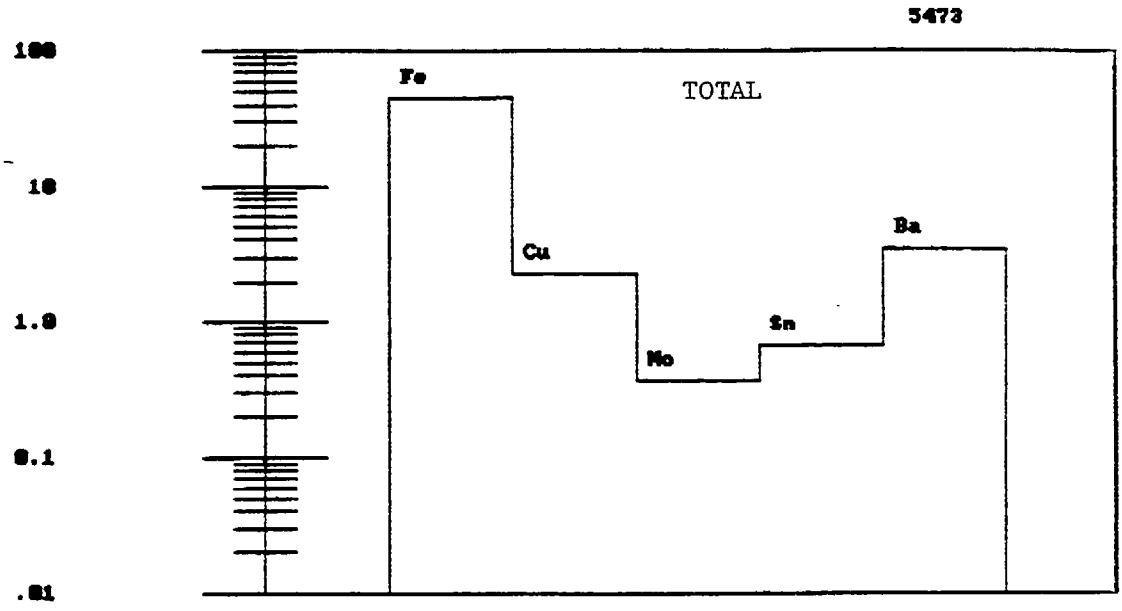
srce code	part size	revsion date	source description	reference	date
5058	T	06/25/87	Tire Wear	2	00/74

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Na			.0537 +- .0125
Mg			.0394 +- .0077
Al			.0743 +- .0220
Si			.0500 +- .0500
P			.2500 +- .2500
S			1.9889 +- .6935
Cl			1.5000 +- 1.0000
Ca			.0239 +- .0083
Ti			.0164 +- .0048
V			.0004 +- .0002
Mn			.0003 +- .0001
Cu			.0004 +- .0001
Zn			1.0182 +- .0469
Br			.0005 +- .0001
Sr			.0100 +- .0080
Ba			.0020 +- .0017
La			.0003 +- .0001
OC			58.3000 +-15.0000
EC			28.7000 +-10.0000
Sum			92.0287

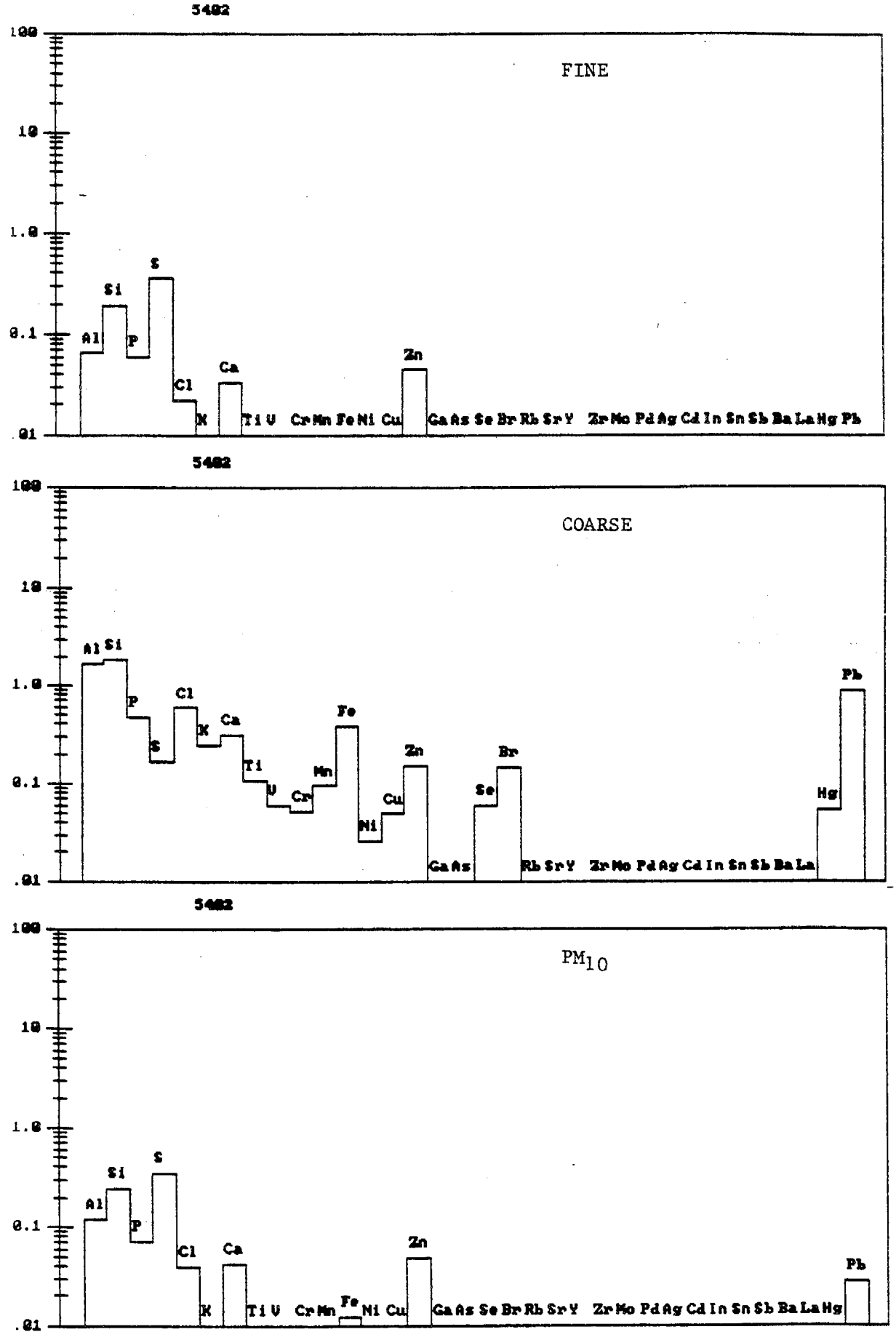
srce code	part size	revsion date	source description	reference	date
5473	T	05/06/87	Semimetal Disk Brake Pads	1	05/87

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Fe			45.9000 +- 3.9000
Cu			2.2600 +- .1800
Mo			.3700 +- .0500
Sn			.6600 +- .0500
Ba			3.4500 +- .1900
Sum			52.6400

SEMI-METAL DISK BRAKE PADS



H.D. DIESEL, Steady State



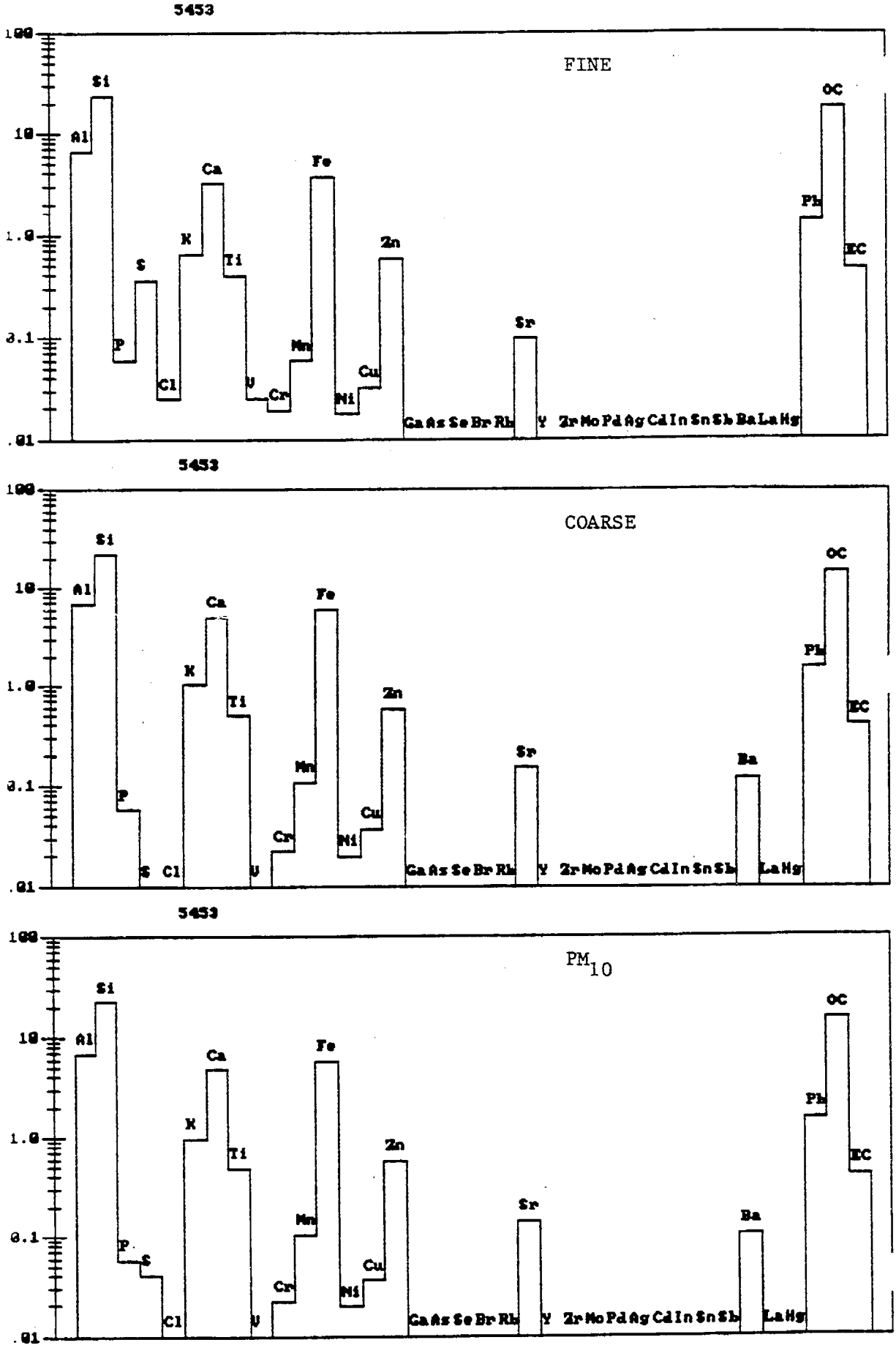
srce code	part size	revsion date	source description	reference	date
5472	T	06/25/87	Brake Lining Asbestos	3	00/74

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Na			.0320 +- .0080
Mg			13.8000 +- .2000
Al			.2150 +- .0550
Si			10.8000 +- 2.1600
Cl			.1450 +- .0150
Ca			1.8950 +- 1.7050
Sc			.0006 +- .0002
V			.0008 +- .0001
Cr			.0977 +- .0222
Mn			.0425 +- .0025
Fe			4.0000 +- 1.0951
Co			.0068 +- .0016
Zn			.3103 +- .0743
As			.0013 +- .0001
Br			.0000 +- .0002
Sr			.0410 +- .0040
Sb			.0002 +- .0001
Ba			.9216 +- .4737
La			.0001 +- .0001
Ce			.0008 +- .0002
Sum			32.3107

srce code	part size	revsion date	source description	reference	date
5453	FCT	07/09/87	Pasadena Freeway road dust	1	04/87

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Al	6.5706 +- .9856	6.9198 +- 1.0380	6.8798 +- .9261
Si	23.7029 +- 3.5554	22.3151 +- 3.3473	22.4739 +- 2.9921
P	.0593 +- .0118	.0564 +- .0113	.0567 +- .0101
S	.3562 +- .0178	.0000 +- .0000	.0407 +- .0020
Cl	.0246 +- .0012	.0000 +- .0000	.0028 +- .0001
K	.6432 +- .0322	1.0166 +- .0508	.9739 +- .0452
Ca	3.1485 +- .1574	4.9839 +- .2492	4.7739 +- .2214
Ti	.3915 +- .0200	.4932 +- .0271	.4816 +- .0241
V	.0251 +- .0044	.0063 +- .0063	.0085 +- .0056
Cr	.0191 +- .0015	.0222 +- .0020	.0218 +- .0018
Mn	.0586 +- .0032	.1075 +- .0055	.1019 +- .0049
Fe	3.7041 +- .1866	5.9969 +- .3016	5.7346 +- .2679
Ni	.0176 +- .0012	.0197 +- .0011	.0195 +- .0010
Cu	.0320 +- .0019	.0365 +- .0019	.0360 +- .0017
Zn	.5705 +- .0288	.5801 +- .0292	.5790 +- .0260
Ga	.0000 +- .0046	.0012 +- .0050	.0010 +- .0045
As	.0054 +- .0740	.0000 +- .0839	.0006 +- .0748
Se	.0000 +- .0008	.0000 +- .0008	.0000 +- .0007
Br	.0037 +- .0011	.0011 +- .0011	.0014 +- .0010
Rb	.0041 +- .0009	.0091 +- .0008	.0085 +- .0007
Sr	.0940 +- .0049	.1478 +- .0075	.1417 +- .0066
Y	.0036 +- .0044	.0049 +- .0049	.0047 +- .0044
Zr	.0085 +- .0069	.0000 +- .0086	.0010 +- .0077
Mo	.0000 +- .0031	.0000 +- .0020	.0000 +- .0018
Pd	.0000 +- .0029	.0000 +- .0017	.0000 +- .0015
Ag	.0000 +- .0036	.0010 +- .0021	.0009 +- .0019
Cd	.0000 +- .0048	.0030 +- .0030	.0027 +- .0027
In	.0000 +- .0060	.0000 +- .0034	.0000 +- .0031
Sn	.0000 +- .0072	.0000 +- .0041	.0000 +- .0038
Sb	.0000 +- .0154	.0000 +- .0090	.0000 +- .0081
Ba	.0000 +- .0305	.1170 +- .0185	.1036 +- .0167
La	.0000 +- .0538	.0000 +- .0300	.0000 +- .0273
Hg	.0000 +- .0008	.0000 +- .0006	.0000 +- .0006
Pb	1.3436 +- .0678	1.5263 +- .0767	1.5054 +- .0684
OC	17.5739 +- 1.5971	14.5020 +- 1.2882	14.8535 +- 1.1554
EC	.4509 +- .1304	.4010 +- .0737	.4067 +- .0670
Sum	58.8116	59.2687	59.2164

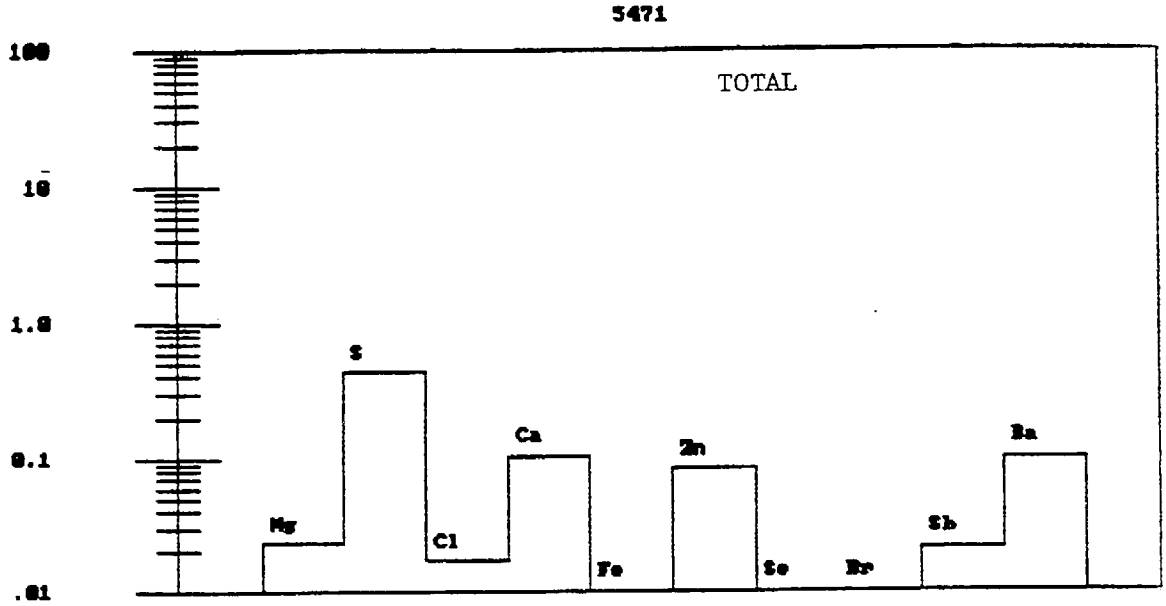
PASADENA FREEWAY ROAD DUST



srce code	part size	revsion date	source description	reference	date
5471	T	05/04/87	Motor Oil	3	00/74

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Mg			.0230 +- .0400
S			.4300 +- .2300
Cl			.0170 +- .0240
Ca			.1030 +- .1090
Fe			.0002 +- .0001
Zn			.0820 +- .0730
Se			.0025 +- .0010
Br			.0001 +- .0001
Sb			.0210 +- .0210
Ba			.0990 +- .1560
Sum			.7778

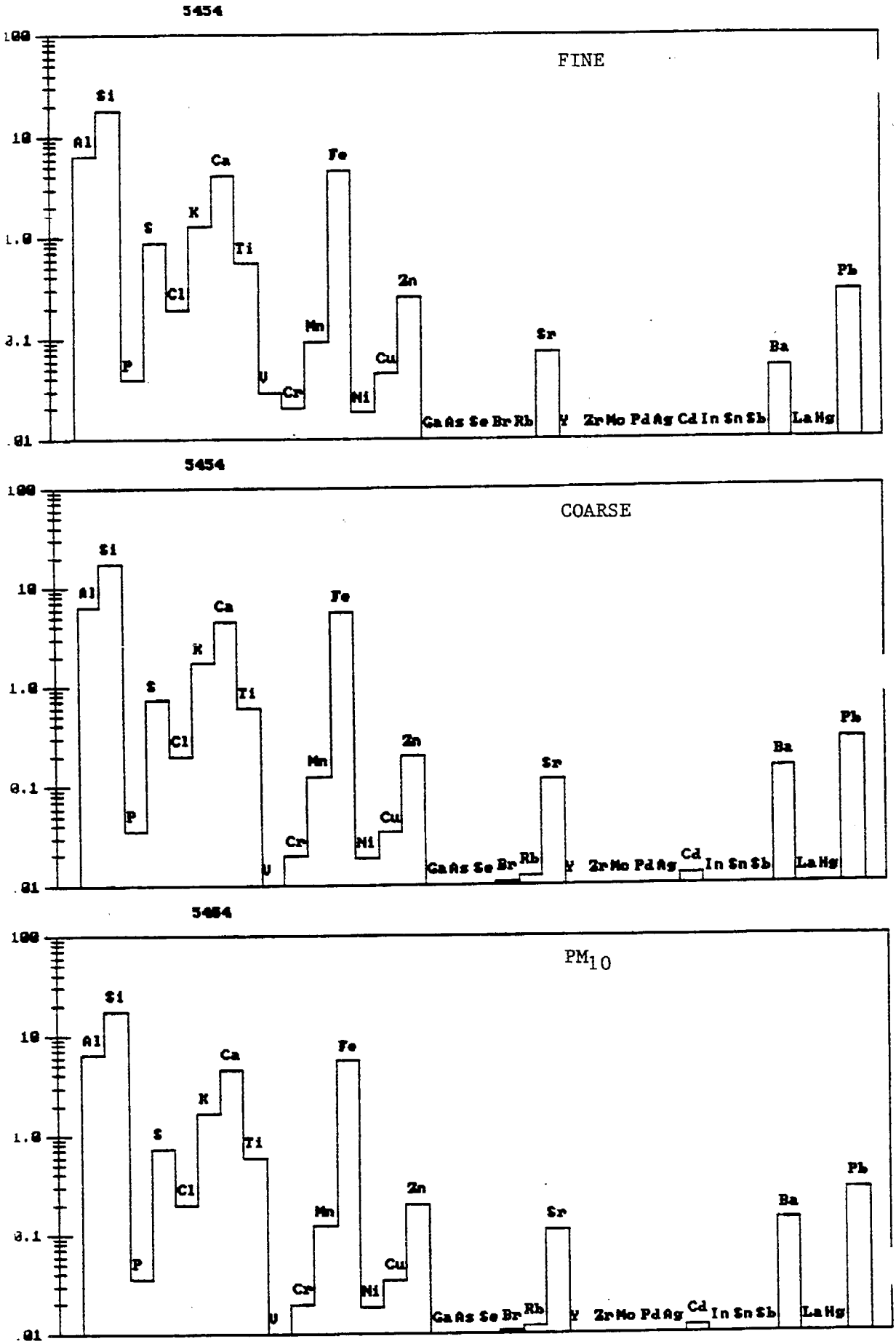
MOTOR OIL



srce code	part size	revsion date	source description	reference	date
5454	FCT	07/09/87	Artesia Freeway road dust	1	04/87

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Al	6.3712 +- .9556	6.4604 +- .9691	6.4539 +- .9005
Si	17.9945 +- 2.6992	17.4861 +- 2.6229	17.5235 +- 2.4381
P	.0386 +- .0077	.0352 +- .0070	.0354 +- .0065
S	.8738 +- .0436	.7180 +- .0359	.7295 +- .0334
Cl	.1900 +- .0095	.2002 +- .0100	.1994 +- .0093
K	1.2422 +- .0621	1.6912 +- .0846	1.6581 +- .0785
Ca	4.0808 +- .2041	4.5120 +- .2256	4.4803 +- .2095
Ti	.5440 +- .0280	.5925 +- .0327	.5889 +- .0304
V	.0291 +- .0060	.0015 +- .0073	.0036 +- .0068
Cr	.0203 +- .0020	.0195 +- .0020	.0195 +- .0018
Mn	.0936 +- .0052	.1221 +- .0062	.1200 +- .0058
Fe	4.5304 +- .2285	5.5337 +- .2783	5.4599 +- .2584
Ni	.0181 +- .0015	.0186 +- .0011	.0185 +- .0010
Cu	.0442 +- .0027	.0336 +- .0018	.0344 +- .0017
Zn	.2526 +- .0131	.1950 +- .0099	.1993 +- .0092
Ga	.0000 +- .0014	.0010 +- .0010	.0010 +- .0010
As	.0016 +- .0163	.0000 +- .0154	.0001 +- .0143
Se	.0000 +- .0007	.0003 +- .0003	.0003 +- .0003
Br	.0082 +- .0011	.0106 +- .0007	.0105 +- .0006
Rb	.0064 +- .0013	.0123 +- .0008	.0118 +- .0007
Sr	.0722 +- .0040	.1122 +- .0057	.1093 +- .0053
Y	.0000 +- .0020	.0012 +- .0012	.0011 +- .0011
Zr	.0045 +- .0086	.0000 +- .0068	.0003 +- .0064
Mo	.0000 +- .0052	.0000 +- .0020	.0000 +- .0018
Pd	.0000 +- .0048	.0000 +- .0018	.0000 +- .0017
Ag	.0000 +- .0065	.0000 +- .0023	.0000 +- .0022
Cd	.0000 +- .0083	.0126 +- .0032	.0117 +- .0030
In	.0000 +- .0101	.0000 +- .0037	.0000 +- .0035
Sn	.0000 +- .0125	.0000 +- .0046	.0000 +- .0043
Sb	.0000 +- .0272	.0000 +- .0099	.0000 +- .0094
Ba	.0515 +- .0515	.1454 +- .0201	.1385 +- .0190
La	.0000 +- .0926	.0000 +- .0326	.0000 +- .0310
Hg	.0020 +- .0010	.0004 +- .0004	.0005 +- .0004
Pb	.2879 +- .0154	.2780 +- .0141	.2787 +- .0131
Sum	36.7576	38.1937	38.0881

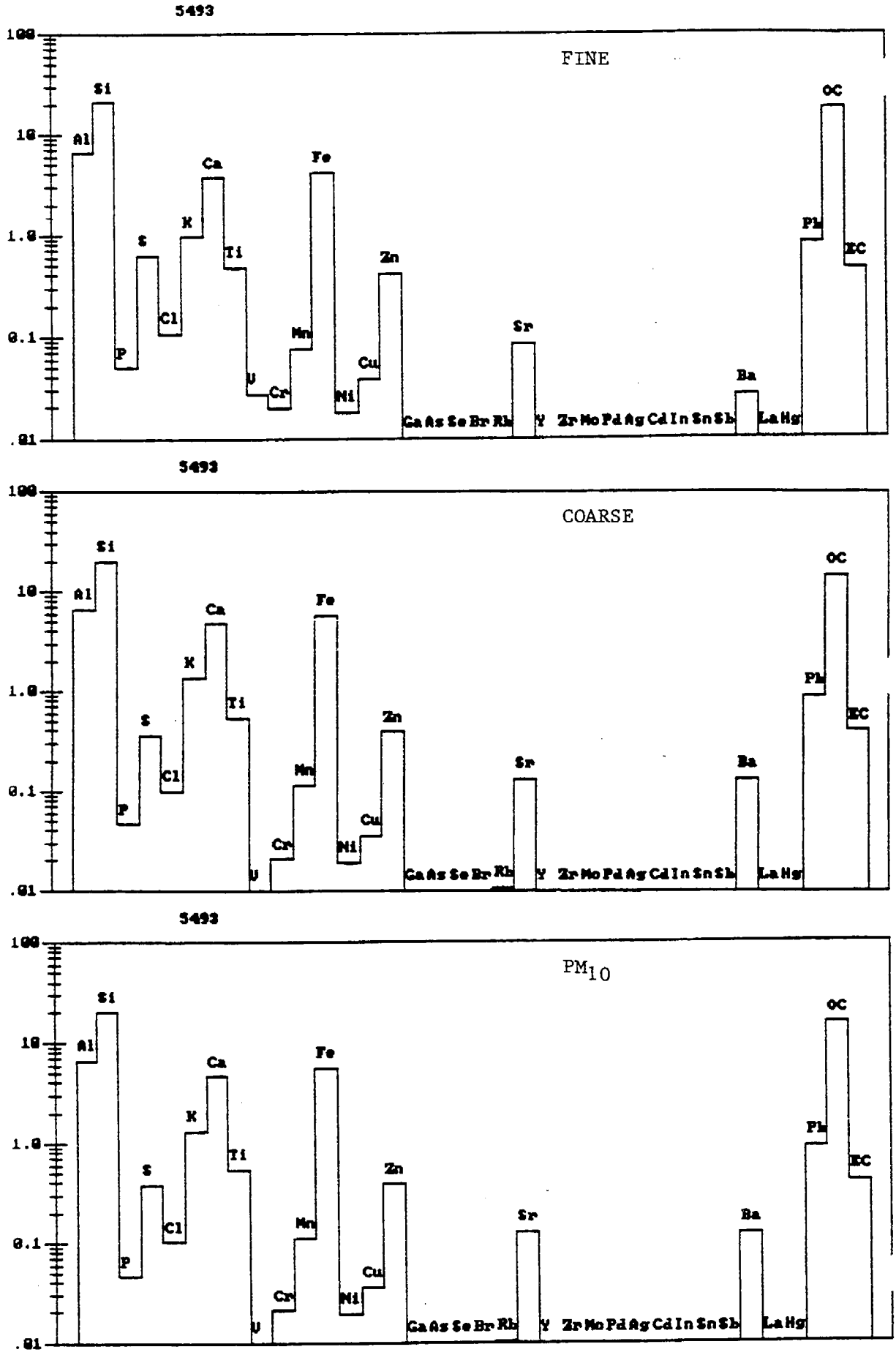
ARTESIA FREEWAY ROAD DUST



srce code	part size	revsion date	source description	reference	date
5493	FCT	07/09/87	Freeway prd Profile composite	1	07/87

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Al	6.4709 +- .7095	6.6901 +- .7102	6.6668 +- .6463
Si	20.8487 +- 2.8542	19.9006 +- 2.4145	19.9987 +- 2.4752
P	.0490 +- .0103	.0458 +- .0106	.0461 +- .0106
S	.6150 +- .2588	.3590 +- .3590	.3851 +- .3444
Cl	.1073 +- .0827	.1001 +- .1001	.1011 +- .0983
K	.9427 +- .2995	1.3539 +- .3373	1.3160 +- .3421
Ca	3.6146 +- .4661	4.7480 +- .2360	4.6271 +- .1532
Ti	.4677 +- .0762	.5429 +- .0496	.5353 +- .0537
V	.0271 +- .0038	.0039 +- .0048	.0060 +- .0044
Cr	.0197 +- .0013	.0208 +- .0014	.0207 +- .0013
Mn	.0761 +- .0175	.1148 +- .0073	.1110 +- .0090
Fe	4.1173 +- .4131	5.7653 +- .2316	5.5973 +- .1870
Ni	.0179 +- .0011	.0192 +- .0008	.0190 +- .0007
Cu	.0381 +- .0061	.0351 +- .0014	.0352 +- .0012
Zn	.4116 +- .1589	.3876 +- .1925	.3891 +- .1899
Ga	.0000 +- .0024	.0011 +- .0026	.0010 +- .0023
As	.0035 +- .0379	.0000 +- .0427	.0004 +- .0381
Se	.0000 +- .0005	.0001 +- .0004	.0001 +- .0004
Br	.0059 +- .0022	.0059 +- .0048	.0059 +- .0045
Rb	.0053 +- .0011	.0107 +- .0016	.0102 +- .0017
Sr	.0831 +- .0109	.1300 +- .0178	.1255 +- .0162
Y	.0018 +- .0024	.0030 +- .0025	.0029 +- .0022
Zr	.0065 +- .0055	.0000 +- .0055	.0007 +- .0050
Mo	.0000 +- .0030	.0000 +- .0014	.0000 +- .0013
Pd	.0000 +- .0028	.0000 +- .0012	.0000 +- .0011
Ag	.0000 +- .0037	.0005 +- .0016	.0004 +- .0015
Cd	.0000 +- .0048	.0078 +- .0048	.0072 +- .0045
In	.0000 +- .0059	.0000 +- .0025	.0000 +- .0023
Sn	.0000 +- .0072	.0000 +- .0031	.0000 +- .0029
Sb	.0000 +- .0156	.0000 +- .0067	.0000 +- .0062
Ba	.0258 +- .0300	.1312 +- .0142	.1210 +- .0174
La	.0000 +- .0535	.0000 +- .0222	.0000 +- .0207
Hg	.0010 +- .0010	.0002 +- .0004	.0003 +- .0004
Pb	.8157 +- .5279	.9021 +- .6241	.8921 +- .6133
OC	17.5739 +- 1.6663	14.5020 +- 1.2892	14.8535 +- 1.1571
EC	.4509 +- .1309	.4010 +- .0738	.4067 +- .0670
Sum	56.7971	56.1827	56.2824

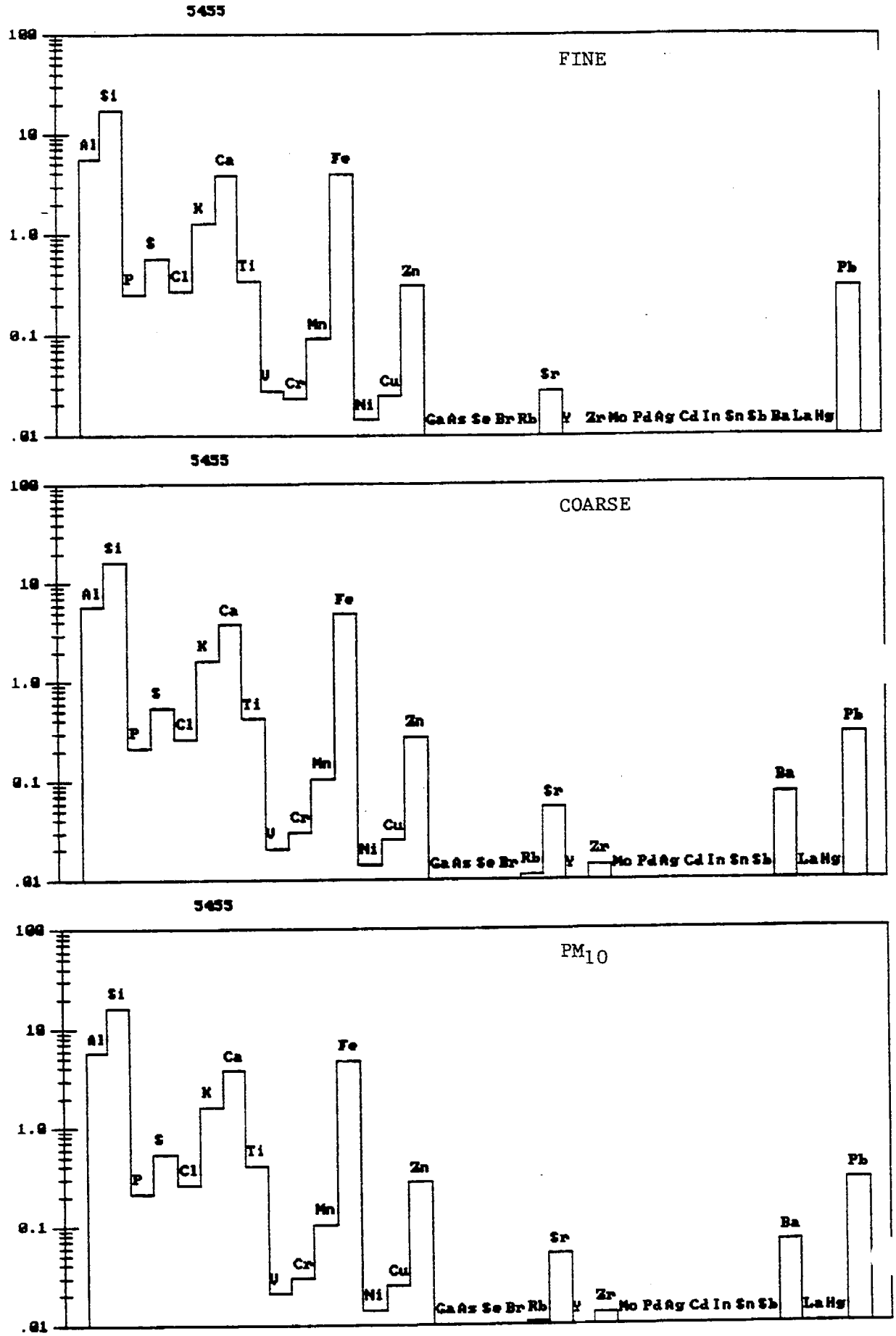
FREEWAY PROFILE COMPOSITE



srce code	part size	revsion date	source description	reference	date
5455	FCT	07/09/87	Long Beach Blvd paved rd dust	Sherman, J.R.	04/87

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Al	5.6108 +- .8417	5.6812 +- .8522	5.6762 +- .7938
Si	17.1737 +- 2.5760	16.0878 +- 2.4132	16.1650 +- 2.2491
P	.2502 +- .0501	.2103 +- .0421	.2131 +- .0392
S	.5759 +- .0288	.5313 +- .0266	.5345 +- .0248
Cl	.2675 +- .0133	.2576 +- .0129	.2583 +- .0120
K	1.2595 +- .0630	1.6329 +- .0817	1.6064 +- .0760
Ca	3.8356 +- .1918	3.7468 +- .1873	3.7531 +- .1746
Ti	.3470 +- .0182	.4148 +- .0228	.4100 +- .0212
V	.0280 +- .0043	.0203 +- .0056	.0208 +- .0052
Cr	.0235 +- .0021	.0298 +- .0018	.0294 +- .0016
Mn	.0913 +- .0052	.1037 +- .0053	.1028 +- .0049
Fe	3.9670 +- .2002	4.7787 +- .2404	4.7210 +- .2238
Ni	.0142 +- .0017	.0140 +- .0009	.0140 +- .0008
Cu	.0248 +- .0021	.0246 +- .0014	.0247 +- .0013
Zn	.3056 +- .0157	.2729 +- .0138	.2752 +- .0129
Ga	.0000 +- .0015	.0000 +- .0016	.0000 +- .0015
As	.0044 +- .0172	.0000 +- .0157	.0003 +- .0146
Se	.0000 +- .0011	.0000 +- .0003	.0000 +- .0003
Br	.0050 +- .0015	.0092 +- .0006	.0089 +- .0006
Rb	.0022 +- .0019	.0111 +- .0007	.0104 +- .0007
Sr	.0277 +- .0028	.0528 +- .0027	.0510 +- .0025
Y	.0000 +- .0029	.0000 +- .0012	.0000 +- .0011
Zr	.0000 +- .0122	.0141 +- .0044	.0131 +- .0041
Mo	.0000 +- .0075	.0000 +- .0020	.0000 +- .0019
Pd	.0000 +- .0076	.0000 +- .0019	.0000 +- .0018
Ag	.0000 +- .0098	.0000 +- .0024	.0000 +- .0024
Cd	.0000 +- .0129	.0000 +- .0032	.0000 +- .0031
In	.0000 +- .0161	.0000 +- .0039	.0000 +- .0038
Sn	.0000 +- .0197	.0069 +- .0048	.0064 +- .0047
Sb	.0000 +- .0430	.0000 +- .0105	.0000 +- .0103
Ba	.0000 +- .0810	.0723 +- .0204	.0672 +- .0198
La	.0000 +- .1472	.0000 +- .0346	.0000 +- .0338
Hg	.0000 +- .0014	.0000 +- .0004	.0000 +- .0004
Pb	.3024 +- .0165	.2836 +- .0144	.2850 +- .0135
Sum	34.1164	34.2569	34.2469

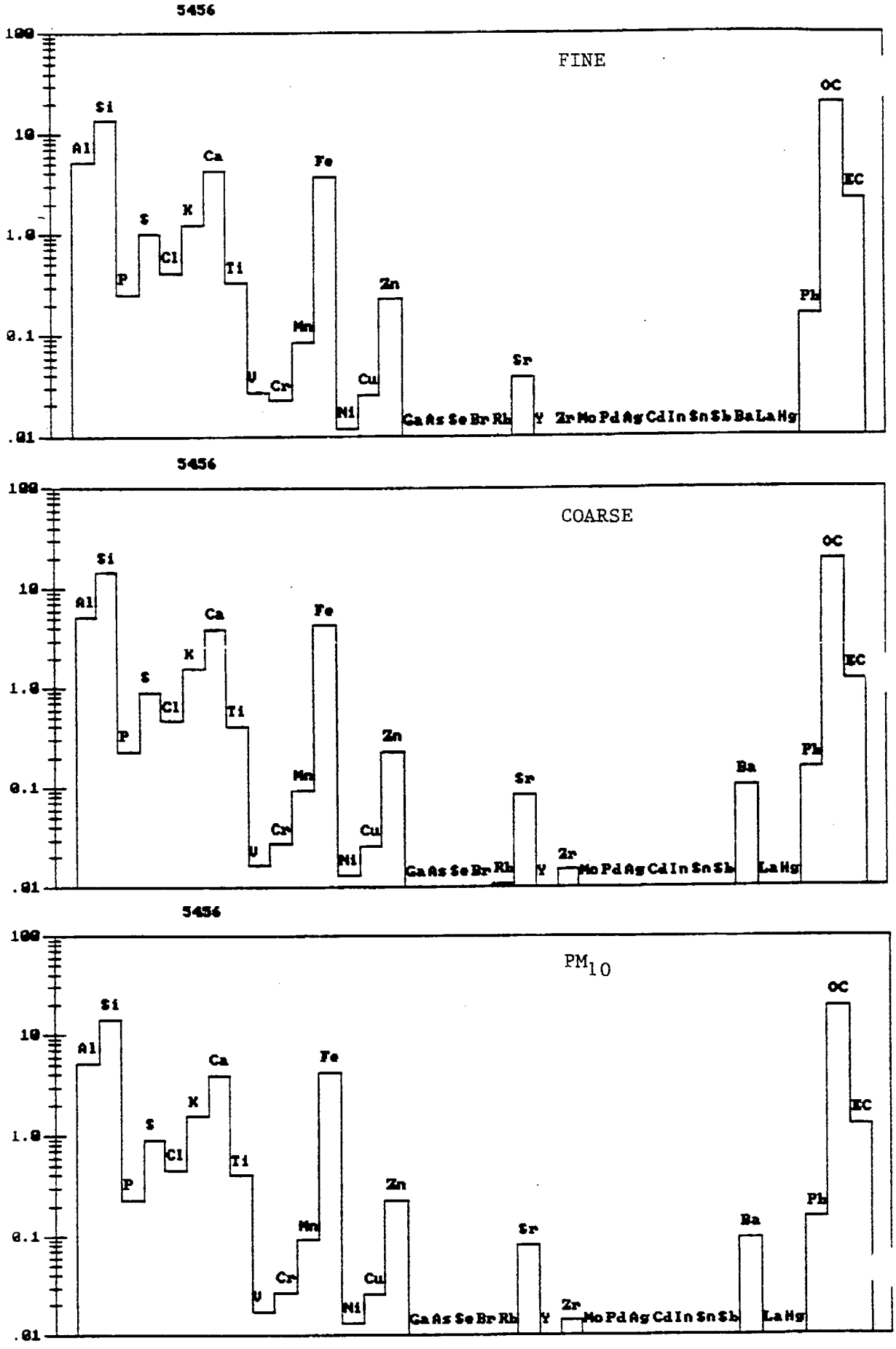
LONG BEACH BLVD. PAVED ROAD DUST



srce code	part size	revsion date	source description	reference	date
5456	FCT	07/09/87	Long Beach prd sample comp.	1	04/87

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Al	5.1850 +- .7778	5.1810 +- .7771	5.1813 +- .7286
Si	13.4590 +- 2.0188	14.3061 +- 2.1459	14.2513 +- 2.0113
P	.2544 +- .0510	.2274 +- .0455	.2291 +- .0427
S	1.0019 +- .0501	.9028 +- .0451	.9092 +- .0423
Cl	.4057 +- .0203	.4597 +- .0230	.4562 +- .0215
K	1.2221 +- .0611	1.5514 +- .0776	1.5301 +- .0727
Ca	4.1929 +- .2097	3.9286 +- .1964	3.9457 +- .1842
Ti	.3276 +- .0173	.4044 +- .0220	.3995 +- .0206
V	.0267 +- .0042	.0164 +- .0052	.0171 +- .0049
Cr	.0222 +- .0020	.0273 +- .0016	.0270 +- .0015
Mn	.0830 +- .0048	.0922 +- .0047	.0916 +- .0044
Fe	3.6922 +- .1865	4.3138 +- .2170	4.2736 +- .2033
Ni	.0119 +- .0016	.0132 +- .0008	.0131 +- .0008
Cu	.0248 +- .0021	.0259 +- .0014	.0258 +- .0014
Zn	.2233 +- .0117	.2255 +- .0114	.2254 +- .0107
Ga	.0012 +- .0012	.0000 +- .0017	.0001 +- .0016
As	.0081 +- .0094	.0000 +- .0085	.0005 +- .0079
Se	.0000 +- .0011	.0000 +- .0011	.0000 +- .0010
Br	.0066 +- .0016	.0085 +- .0006	.0084 +- .0005
Rb	.0016 +- .0020	.0105 +- .0007	.0099 +- .0006
Sr	.0379 +- .0031	.0834 +- .0042	.0805 +- .0040
Y	.0000 +- .0029	.0000 +- .0008	.0000 +- .0008
Zr	.0000 +- .0130	.0147 +- .0053	.0138 +- .0050
Mo	.0000 +- .0080	.0000 +- .0017	.0000 +- .0016
Pd	.0000 +- .0080	.0000 +- .0016	.0000 +- .0016
Ag	.0000 +- .0104	.0000 +- .0021	.0000 +- .0021
Cd	.0000 +- .0139	.0080 +- .0027	.0074 +- .0027
In	.0000 +- .0171	.0000 +- .0033	.0000 +- .0033
Sn	.0000 +- .0208	.0080 +- .0040	.0075 +- .0040
Sb	.0000 +- .0458	.0000 +- .0087	.0000 +- .0087
Ba	.0000 +- .0860	.1039 +- .0177	.0971 +- .0175
La	.0000 +- .1567	.0000 +- .0290	.0000 +- .0290
Hg	.0000 +- .0015	.0000 +- .0003	.0000 +- .0003
Pb	.1555 +- .0099	.1523 +- .0079	.1525 +- .0074
OC	19.6257 +- 3.1844	18.9586 +- 1.4647	19.0018 +- 1.3853
EC	2.2133 +- .4065	1.1876 +- .1000	1.2540 +- .0972
Sum	52.1826	52.2114	52.2096

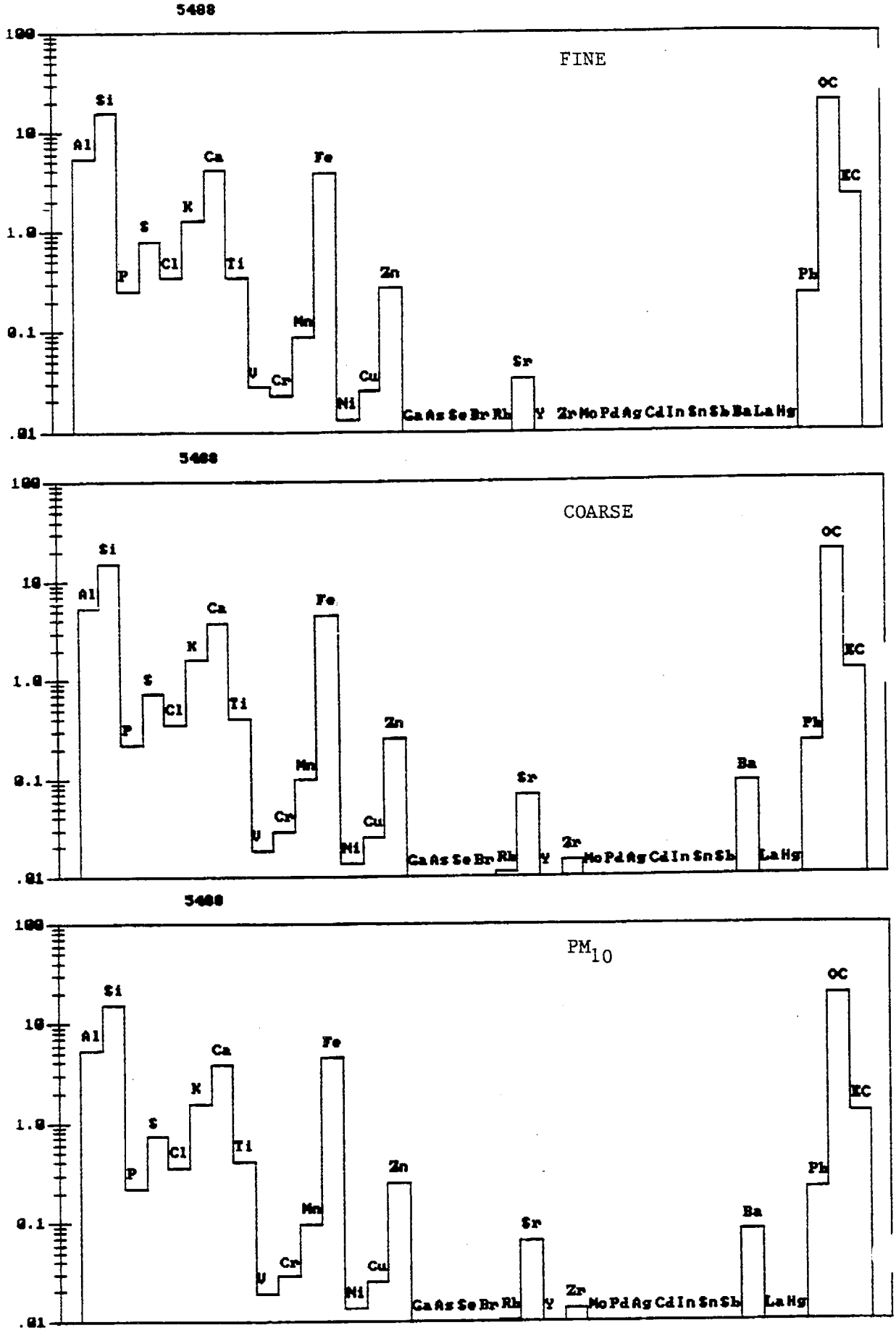
LONG BEACH SAMPLE COMPOSITE



srce code	part size	revsion date	source description	reference	date
5488	FCT	07/09/87	Long Beach prd Profile comp.	1	07/87

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Al	5.3979 +- .6112	5.4311 +- .5769	5.4287 +- .5391
Si	15.3163 +- 1.8574	15.1969 +- 1.6152	15.2081 +- 1.5097
P	.2523 +- .0371	.2188 +- .0310	.2211 +- .0290
S	.7889 +- .2130	.7171 +- .1857	.7218 +- .1873
Cl	.3366 +- .0691	.3587 +- .1011	.3573 +- .0990
K	1.2408 +- .0657	1.5922 +- .0565	1.5683 +- .0529
Ca	4.0143 +- .2128	3.8377 +- .1362	3.8494 +- .1277
Ti	.3373 +- .0183	.4096 +- .0159	.4047 +- .0148
V	.0274 +- .0032	.0184 +- .0038	.0190 +- .0036
Cr	.0229 +- .0017	.0286 +- .0012	.0282 +- .0012
Mn	.0871 +- .0049	.0980 +- .0057	.0972 +- .0056
Fe	3.8296 +- .2037	4.5462 +- .2324	4.4973 +- .2237
Ni	.0130 +- .0013	.0136 +- .0006	.0136 +- .0006
Cu	.0248 +- .0018	.0253 +- .0010	.0252 +- .0009
Zn	.2644 +- .0412	.2492 +- .0237	.2503 +- .0249
Ga	.0006 +- .0010	.0000 +- .0012	.0000 +- .0011
As	.0063 +- .0098	.0000 +- .0089	.0004 +- .0083
Se	.0000 +- .0008	.0000 +- .0005	.0000 +- .0005
Br	.0058 +- .0011	.0089 +- .0004	.0086 +- .0004
Rb	.0019 +- .0014	.0108 +- .0005	.0102 +- .0005
Sr	.0328 +- .0051	.0681 +- .0153	.0657 +- .0147
Y	.0000 +- .0020	.0000 +- .0007	.0000 +- .0007
Zr	.0000 +- .0089	.0144 +- .0034	.0135 +- .0032
Mo	.0000 +- .0055	.0000 +- .0013	.0000 +- .0013
Pd	.0000 +- .0055	.0000 +- .0012	.0000 +- .0012
Ag	.0000 +- .0071	.0000 +- .0016	.0000 +- .0016
Cd	.0000 +- .0095	.0040 +- .0040	.0037 +- .0037
In	.0000 +- .0117	.0000 +- .0026	.0000 +- .0025
Sn	.0000 +- .0143	.0074 +- .0031	.0069 +- .0031
Sb	.0000 +- .0314	.0000 +- .0068	.0000 +- .0067
Ba	.0000 +- .0591	.0881 +- .0158	.0822 +- .0150
La	.0000 +- .1075	.0000 +- .0226	.0000 +- .0223
Hg	.0000 +- .0010	.0000 +- .0003	.0000 +- .0003
Pb	.2289 +- .0734	.2180 +- .0657	.2188 +- .0662
OC	19.6257 +- 3.3699	18.9586 +- 1.4665	19.0018 +- 1.3887
EC	2.2133 +- .4251	1.1876 +- .1001	1.2540 +- .0974
Sum	54.0689	53.3073	53.3560

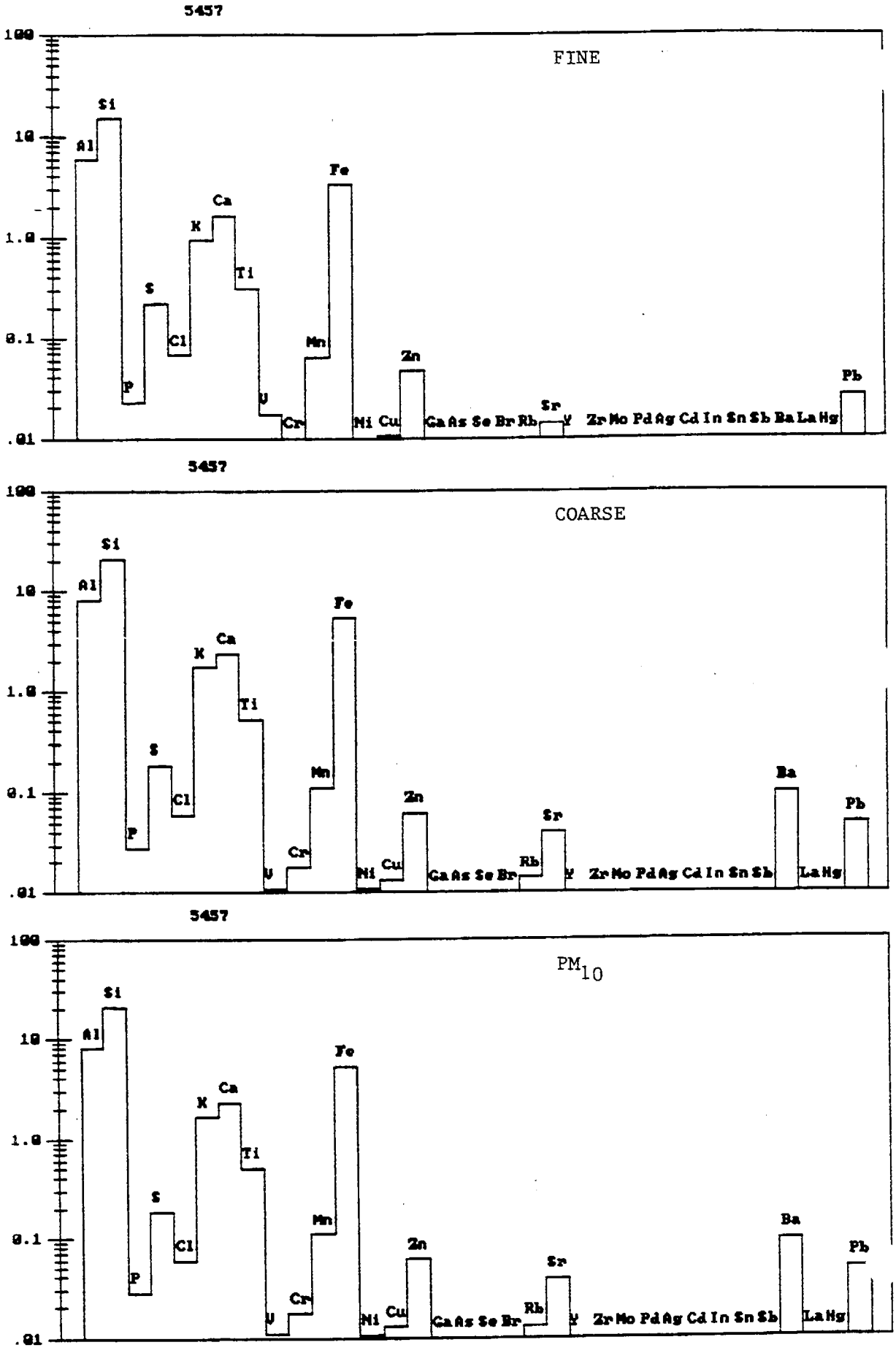
LONG BEACH PROFILE COMPOSITE



srce code	part size	revsion date	source description	reference	date
5457	FCT	07/09/87	La Cienega Blvd. paved Rd dust	1	04/87

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Al	5.8370 +- .8755	8.0959 +- 1.2144	7.9574 +- 1.1412
Si	14.8508 +- 2.2276	20.7686 +- 3.1153	20.4057 +- 2.9274
P	.0228 +- .0046	.0279 +- .0056	.0276 +- .0053
S	.2200 +- .0110	.1835 +- .0092	.1858 +- .0086
Cl	.0673 +- .0034	.0587 +- .0029	.0592 +- .0028
K	.9150 +- .0458	1.6975 +- .0849	1.6495 +- .0797
Ca	1.6216 +- .0811	2.3355 +- .1168	2.2917 +- .1097
Ti	.3084 +- .0162	.5172 +- .0280	.5044 +- .0263
V	.0171 +- .0037	.0106 +- .0063	.0110 +- .0059
Cr	.0092 +- .0014	.0180 +- .0017	.0175 +- .0016
Mn	.0633 +- .0037	.1110 +- .0056	.1081 +- .0053
Fe	3.2679 +- .1650	5.3017 +- .2666	5.1770 +- .2505
Ni	.0073 +- .0010	.0107 +- .0007	.0105 +- .0006
Cu	.0104 +- .0011	.0131 +- .0008	.0129 +- .0007
Zn	.0459 +- .0027	.0615 +- .0032	.0605 +- .0030
Ga	.0000 +- .0006	.0000 +- .0003	.0000 +- .0003
As	.0032 +- .0024	.0000 +- .0028	.0002 +- .0027
Se	.0000 +- .0006	.0000 +- .0002	.0000 +- .0002
Br	.0019 +- .0009	.0042 +- .0004	.0041 +- .0003
Rb	.0028 +- .0011	.0138 +- .0008	.0131 +- .0007
Sr	.0141 +- .0016	.0399 +- .0021	.0383 +- .0019
Y	.0000 +- .0016	.0007 +- .0007	.0007 +- .0007
Zr	.0000 +- .0072	.0049 +- .0035	.0046 +- .0033
Mo	.0000 +- .0049	.0000 +- .0018	.0000 +- .0017
Pd	.0000 +- .0044	.0000 +- .0016	.0000 +- .0015
Ag	.0000 +- .0060	.0000 +- .0020	.0000 +- .0019
Cd	.0000 +- .0077	.0000 +- .0028	.0000 +- .0026
In	.0000 +- .0096	.0000 +- .0034	.0000 +- .0032
Sn	.0000 +- .0114	.0041 +- .0041	.0038 +- .0039
Sb	.0000 +- .0250	.0051 +- .0087	.0048 +- .0083
Ba	.0000 +- .0477	.0990 +- .0178	.0930 +- .0169
La	.0000 +- .0869	.0000 +- .0293	.0000 +- .0280
Hg	.0000 +- .0008	.0000 +- .0003	.0000 +- .0003
Pb	.0262 +- .0034	.0493 +- .0027	.0479 +- .0026
Sum	27.3120	39.4324	38.6891

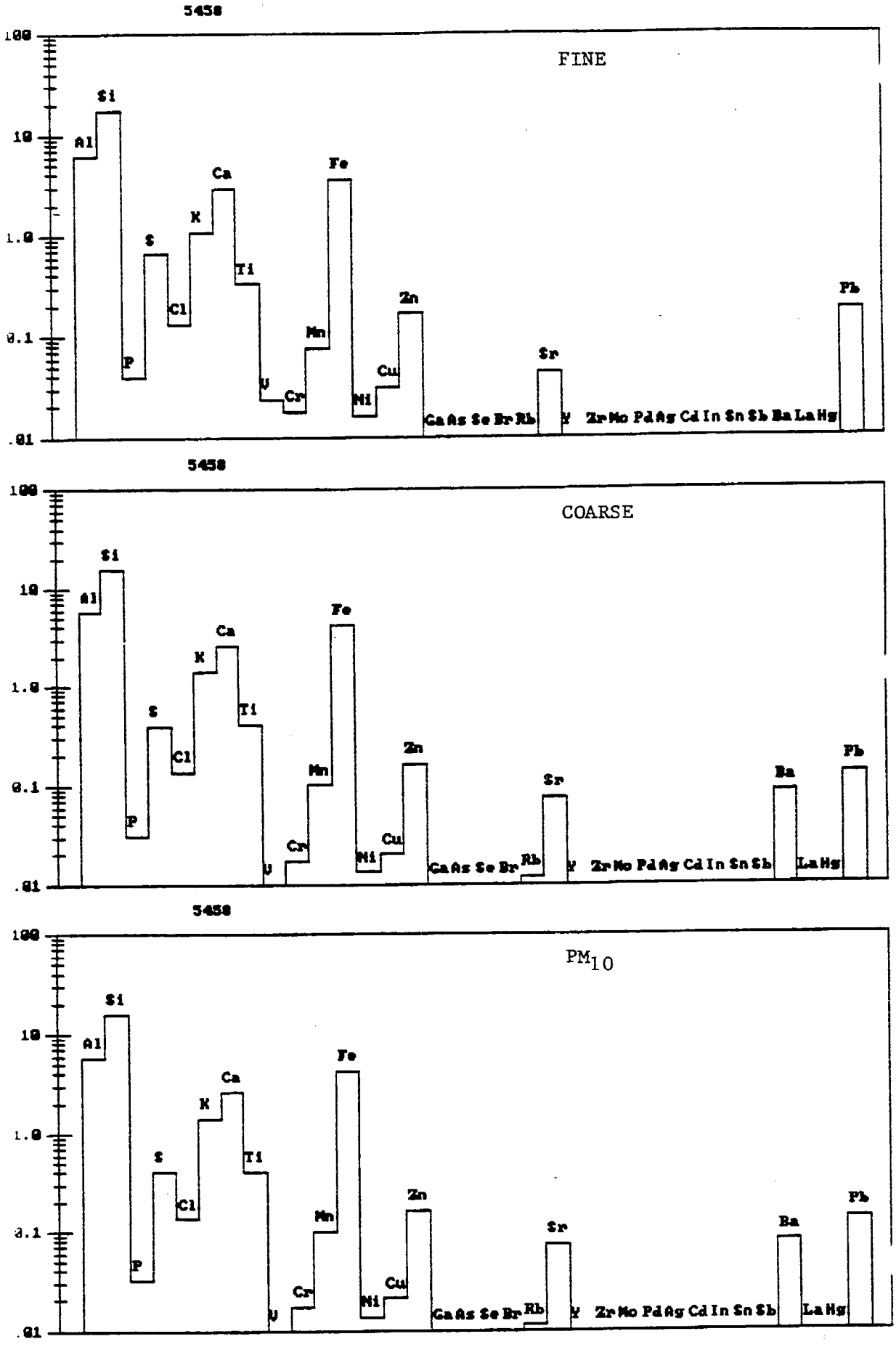
LA CIENEGA BLVD. PAVED ROAD DUST



srce code	part size	revsion date	source description	reference	date
5458	FCT	07/09/87	Hawthorne prd sample composite	1	04/87

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Al	6.1464 +- .9219	5.8104 +- .8716	5.8304 +- .8215
Si	17.4108 +- 2.6116	15.6334 +- 2.3450	15.7391 +- 2.2110
P	.0396 +- .0079	.0312 +- .0062	.0317 +- .0059
S	.6481 +- .0324	.3976 +- .0199	.4125 +- .0188
Cl	.1300 +- .0065	.1341 +- .0067	.1338 +- .0063
K	1.0803 +- .0540	1.4136 +- .0707	1.3938 +- .0666
Ca	2.8639 +- .1431	2.6183 +- .1309	2.6329 +- .1234
Ti	.3255 +- .0172	.4081 +- .0230	.4032 +- .0216
V	.0235 +- .0040	.0090 +- .0054	.0099 +- .0051
Cr	.0178 +- .0018	.0170 +- .0015	.0171 +- .0015
Mn	.0762 +- .0044	.1011 +- .0051	.0996 +- .0048
Fe	3.5297 +- .1783	4.2447 +- .2135	4.2022 +- .2011
Ni	.0162 +- .0015	.0132 +- .0008	.0134 +- .0008
Cu	.0312 +- .0022	.0201 +- .0012	.0208 +- .0011
Zn	.1636 +- .0087	.1617 +- .0082	.1618 +- .0077
Ga	.0000 +- .0010	.0000 +- .0006	.0000 +- .0005
As	.0037 +- .0105	.0000 +- .0074	.0002 +- .0069
Se	.0000 +- .0008	.0000 +- .0002	.0000 +- .0002
Br	.0083 +- .0012	.0081 +- .0006	.0081 +- .0005
Rb	.0044 +- .0013	.0117 +- .0007	.0112 +- .0007
Sr	.0439 +- .0029	.0756 +- .0039	.0737 +- .0036
Y	.0000 +- .0020	.0008 +- .0008	.0008 +- .0008
Zr	.0000 +- .0087	.0077 +- .0051	.0072 +- .0048
Mo	.0000 +- .0057	.0000 +- .0019	.0000 +- .0018
Pd	.0000 +- .0054	.0000 +- .0018	.0000 +- .0017
Ag	.0000 +- .0070	.0000 +- .0023	.0000 +- .0022
Cd	.0000 +- .0090	.0000 +- .0030	.0000 +- .0028
In	.0000 +- .0110	.0000 +- .0037	.0000 +- .0035
Sn	.0000 +- .0137	.0000 +- .0045	.0000 +- .0043
Sb	.0000 +- .0298	.0000 +- .0096	.0000 +- .0092
Ba	.0000 +- .0564	.0848 +- .0187	.0798 +- .0179
La	.0000 +- .1020	.0036 +- .0322	.0034 +- .0309
Hg	.0002 +- .0009	.0004 +- .0004	.0004 +- .0003
Pb	.1797 +- .0102	.1323 +- .0069	.1352 +- .0065
Sum	32.7431	31.3387	31.4222

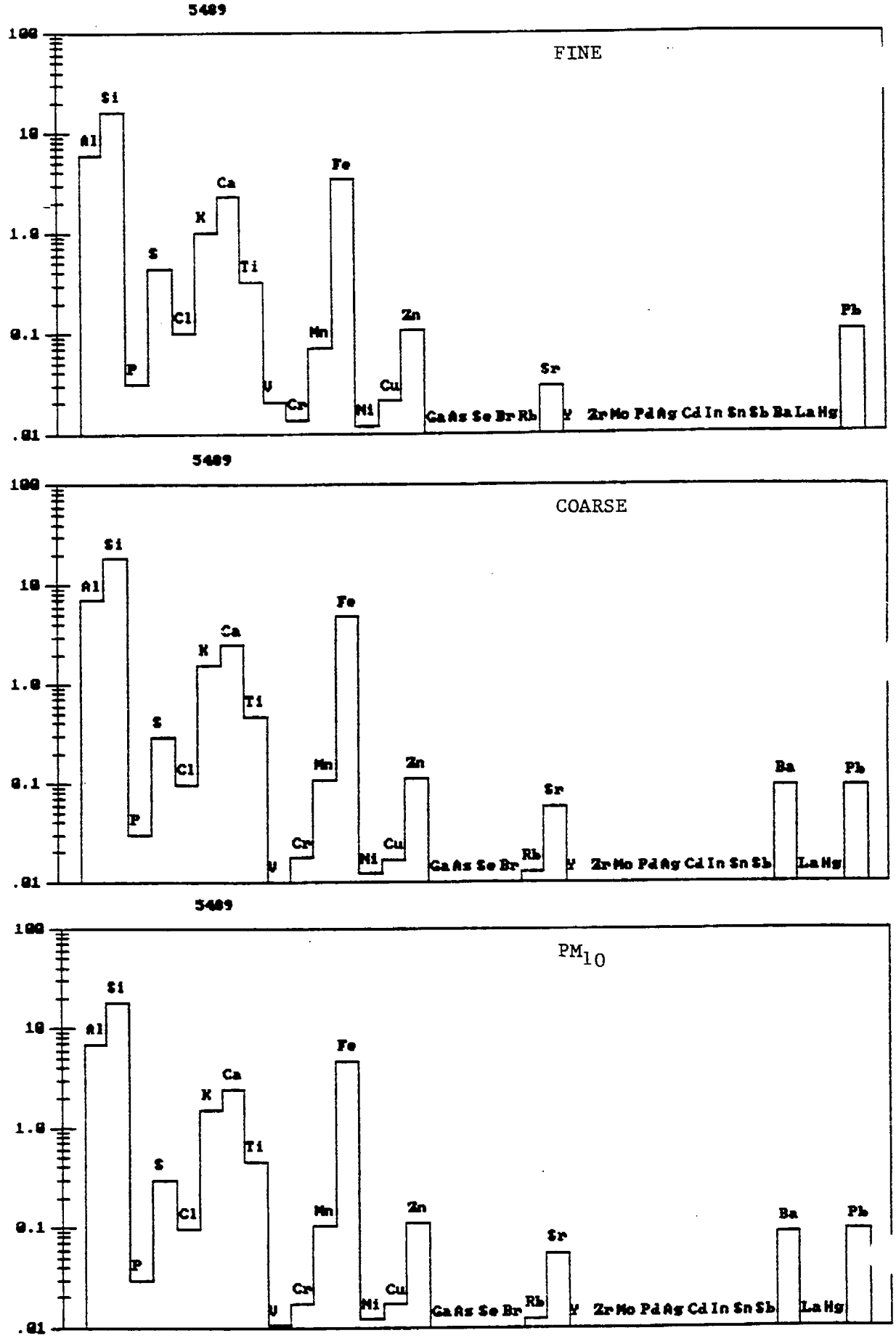
HAWTHORNE SAMPLE COMPOSITE



srce code	part size	revsion date	source description	reference	date
5489	FCT	07/09/87	Hawthorne prd Profile compos.	1	07/87

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Al	5.9917 +- .6757	6.9532 +- 1.1427	6.8939 +- 1.0635
Si	16.1308 +- 1.8259	18.2010 +- 2.5676	18.0724 +- 2.3333
P	.0312 +- .0084	.0295 +- .0042	.0296 +- .0039
S	.4340 +- .2140	.2906 +- .1071	.2992 +- .1134
Cl	.0986 +- .0314	.0964 +- .0377	.0965 +- .0373
K	.9976 +- .0827	1.5556 +- .1419	1.5216 +- .1278
Ca	2.2428 +- .6211	2.4769 +- .1414	2.4623 +- .1706
Ti	.3170 +- .0169	.4626 +- .0546	.4538 +- .0506
V	.0203 +- .0032	.0098 +- .0042	.0104 +- .0039
Cr	.0135 +- .0043	.0175 +- .0012	.0173 +- .0011
Mn	.0698 +- .0065	.1061 +- .0050	.1038 +- .0042
Fe	3.3988 +- .1781	4.7732 +- .5285	4.6896 +- .4874
Ni	.0118 +- .0045	.0120 +- .0013	.0120 +- .0015
Cu	.0208 +- .0104	.0166 +- .0035	.0169 +- .0040
Zn	.1047 +- .0588	.1116 +- .0501	.1112 +- .0507
Ga	.0000 +- .0006	.0000 +- .0003	.0000 +- .0003
As	.0034 +- .0054	.0000 +- .0039	.0002 +- .0037
Se	.0000 +- .0005	.0000 +- .0002	.0000 +- .0002
Br	.0051 +- .0032	.0062 +- .0019	.0061 +- .0020
Rb	.0036 +- .0008	.0127 +- .0011	.0122 +- .0009
Sr	.0290 +- .0149	.0577 +- .0178	.0560 +- .0177
Y	.0000 +- .0013	.0008 +- .0006	.0007 +- .0005
Zr	.0000 +- .0057	.0063 +- .0031	.0059 +- .0029
Mo	.0000 +- .0037	.0000 +- .0013	.0000 +- .0012
Pd	.0000 +- .0035	.0000 +- .0012	.0000 +- .0011
Ag	.0000 +- .0046	.0000 +- .0015	.0000 +- .0015
Cd	.0000 +- .0059	.0000 +- .0020	.0000 +- .0019
In	.0000 +- .0073	.0000 +- .0025	.0000 +- .0024
Sn	.0000 +- .0089	.0020 +- .0030	.0019 +- .0029
Sb	.0000 +- .0194	.0026 +- .0065	.0024 +- .0062
Ba	.0000 +- .0369	.0919 +- .0129	.0864 +- .0123
La	.0000 +- .0670	.0018 +- .0218	.0017 +- .0208
Hg	.0001 +- .0006	.0002 +- .0002	.0002 +- .0002
Pb	.1029 +- .0768	.0908 +- .0415	.0915 +- .0436
Sum	30.0275	35.3856	35.0557

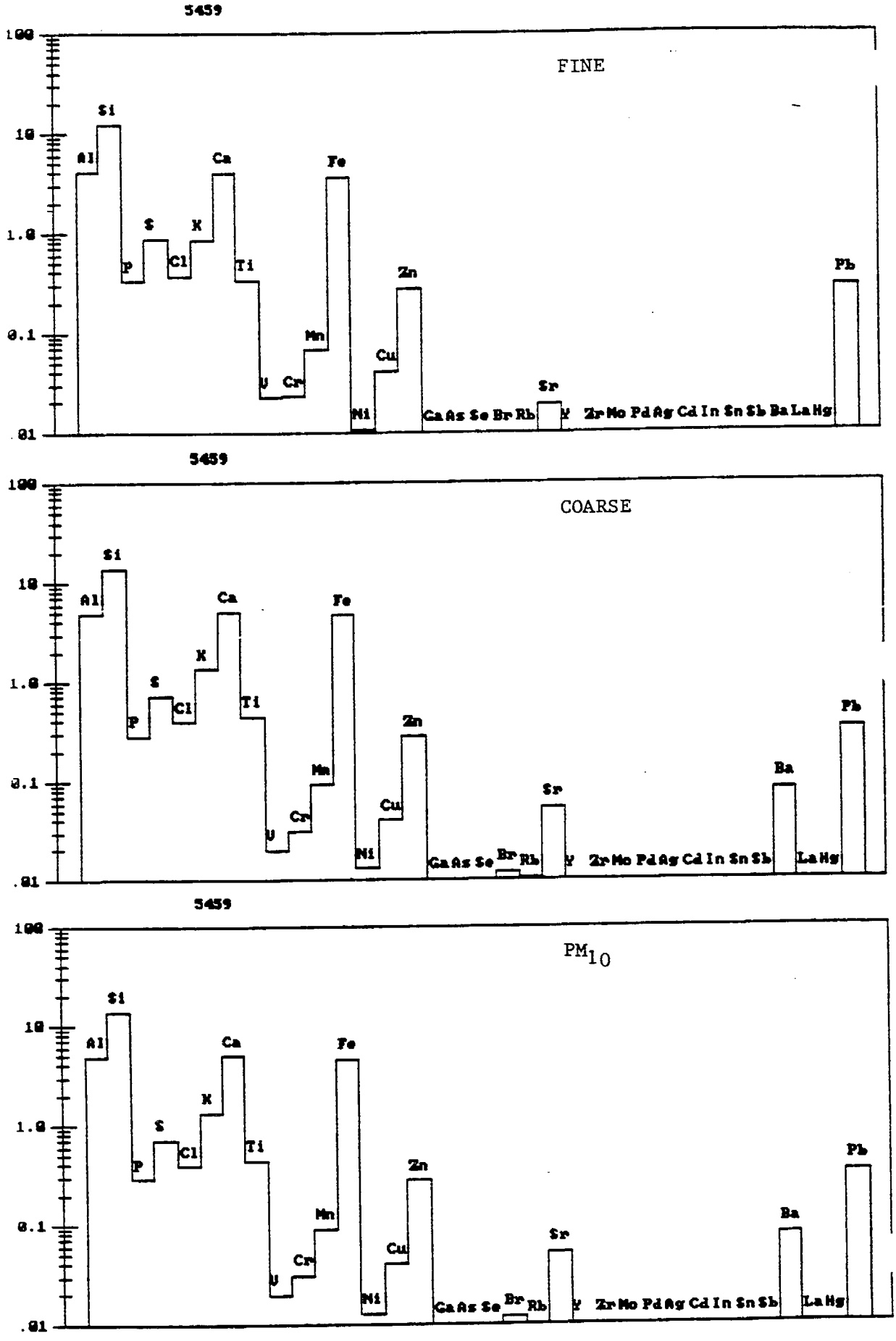
HAWTHORNE PROFILE COMPOSITE



srce code	part size	revsion date	source description	reference	date
5459	FCT	07/09/87	Victory Blvd. paved road dust	1	04/87

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Al	4.0616 +- .6092	4.9129 +- .7369	4.8799 +- .7087
Si	12.4349 +- 1.8653	13.6022 +- 2.0403	13.5570 +- 1.9625
P	.3252 +- .0651	.2825 +- .0565	.2842 +- .0544
S	.8641 +- .0432	.7001 +- .0350	.7065 +- .0337
Cl	.3684 +- .0184	.3889 +- .0194	.3881 +- .0187
K	.8363 +- .0418	1.3317 +- .0666	1.3124 +- .0640
Ca	3.9411 +- .1971	4.9864 +- .2493	4.9459 +- .2398
Ti	.3306 +- .0174	.4408 +- .0233	.4365 +- .0224
V	.0222 +- .0041	.0196 +- .0053	.0197 +- .0051
Cr	.0230 +- .0020	.0309 +- .0017	.0306 +- .0017
Mn	.0669 +- .0040	.0916 +- .0046	.0906 +- .0045
Fe	3.5375 +- .1788	4.6176 +- .2322	4.5757 +- .2233
Ni	.0106 +- .0014	.0128 +- .0007	.0127 +- .0007
Cu	.0406 +- .0028	.0399 +- .0021	.0400 +- .0020
Zn	.2674 +- .0139	.2750 +- .0138	.2747 +- .0133
Ga	.0010 +- .0015	.0000 +- .0012	.0000 +- .0011
As	.0086 +- .0161	.0000 +- .0184	.0003 +- .0177
Se	.0000 +- .0009	.0000 +- .0002	.0000 +- .0002
Br	.0082 +- .0014	.0118 +- .0007	.0117 +- .0007
Rb	.0000 +- .0016	.0102 +- .0006	.0098 +- .0006
Sr	.0190 +- .0023	.0536 +- .0027	.0522 +- .0026
Y	.0000 +- .0025	.0000 +- .0012	.0000 +- .0012
Zr	.0000 +- .0109	.0089 +- .0037	.0086 +- .0036
Mo	.0000 +- .0062	.0033 +- .0017	.0032 +- .0016
Pd	.0000 +- .0064	.0000 +- .0014	.0000 +- .0014
Ag	.0000 +- .0087	.0000 +- .0018	.0000 +- .0017
Cd	.0000 +- .0112	.0000 +- .0024	.0000 +- .0023
In	.0000 +- .0138	.0000 +- .0030	.0000 +- .0029
Sn	.0000 +- .0169	.0000 +- .0035	.0000 +- .0035
Sb	.0000 +- .0369	.0000 +- .0077	.0000 +- .0075
Ba	.0000 +- .0702	.0813 +- .0154	.0782 +- .0151
La	.0000 +- .1252	.0000 +- .0258	.0000 +- .0252
Hg	.0004 +- .0013	.0000 +- .0004	.0000 +- .0003
Pb	.2810 +- .0154	.3337 +- .0169	.3317 +- .0162
Sum	27.4486	32.2357	32.0500

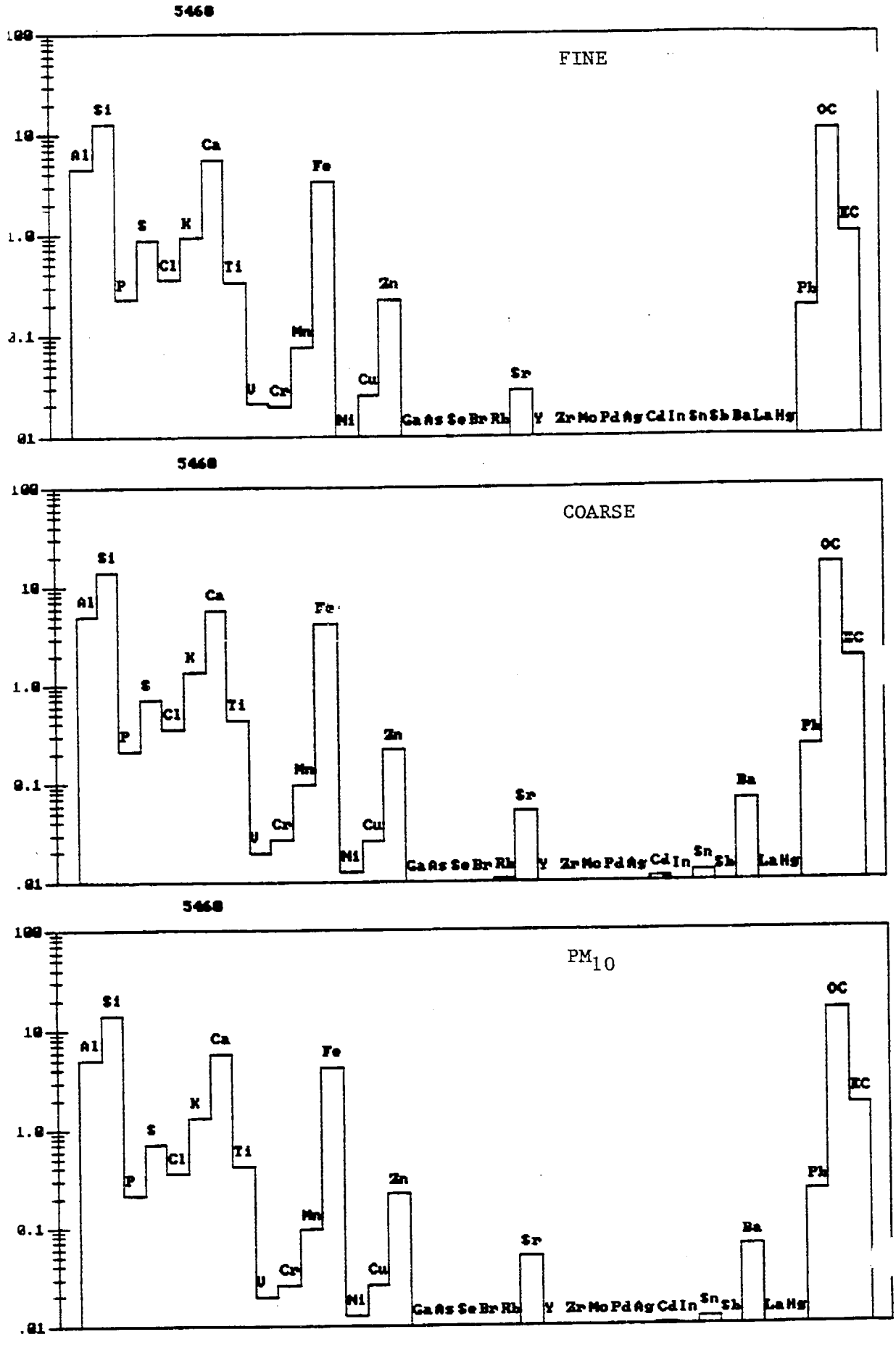
VICTORY BLVD. PAVED ROAD DUST



srce code	part size	revsion date	source description	reference	date
5460	FCT	07/09/87	Burbank prd sample composite	1	04/87

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Al	4.5108 +- .6766	5.0341 +- .7551	5.0021 +- .7101
Si	12.6658 +- 1.8999	14.0874 +- 2.1131	14.0003 +- 1.9870
P	.2233 +- .0447	.2130 +- .0426	.2136 +- .0401
S	.8720 +- .0436	.7029 +- .0351	.7133 +- .0331
Cl	.3483 +- .0174	.3552 +- .0178	.3548 +- .0167
K	.9181 +- .0459	1.3521 +- .0676	1.3255 +- .0635
Ca	5.5422 +- .2772	5.7322 +- .2866	5.7206 +- .2696
Ti	.3339 +- .0176	.4321 +- .0233	.4261 +- .0219
V	.0207 +- .0041	.0198 +- .0055	.0199 +- .0052
Cr	.0195 +- .0019	.0267 +- .0016	.0262 +- .0015
Mn	.0759 +- .0045	.0953 +- .0049	.0941 +- .0046
Fe	3.3190 +- .1678	4.2802 +- .2153	4.2213 +- .2024
Ni	.0087 +- .0015	.0128 +- .0008	.0125 +- .0007
Cu	.0251 +- .0021	.0262 +- .0015	.0262 +- .0014
Zn	.2170 +- .0115	.2154 +- .0109	.2155 +- .0103
Ga	.0011 +- .0012	.0000 +- .0019	.0001 +- .0018
As	.0047 +- .0107	.0000 +- .0125	.0003 +- .0117
Se	.0000 +- .0011	.0000 +- .0003	.0000 +- .0003
Br	.0044 +- .0015	.0087 +- .0006	.0084 +- .0005
Rb	.0000 +- .0018	.0104 +- .0007	.0098 +- .0006
Sr	.0278 +- .0027	.0506 +- .0026	.0492 +- .0025
Y	.0000 +- .0027	.0000 +- .0010	.0000 +- .0010
Zr	.0000 +- .0124	.0000 +- .0039	.0000 +- .0038
Mo	.0000 +- .0073	.0000 +- .0018	.0000 +- .0018
Pd	.0000 +- .0075	.0000 +- .0017	.0000 +- .0016
Ag	.0000 +- .0098	.0000 +- .0022	.0000 +- .0022
Cd	.0000 +- .0129	.0108 +- .0031	.0101 +- .0030
In	.0000 +- .0161	.0000 +- .0036	.0000 +- .0035
Sn	.0000 +- .0193	.0125 +- .0045	.0117 +- .0044
Sb	.0000 +- .0425	.0000 +- .0096	.0000 +- .0094
Ba	.0000 +- .0796	.0665 +- .0186	.0624 +- .0181
La	.0000 +- .1448	.0000 +- .0316	.0000 +- .0310
Hg	.0000 +- .0013	.0000 +- .0004	.0000 +- .0004
Pb	.1808 +- .0108	.2253 +- .0115	.2226 +- .0108
OC	10.6469 +- 1.6689	15.9778 +- 2.1617	15.6512 +- 2.0318
EC	.9989 +- .2071	1.7779 +- .2245	1.7302 +- .2112
Sum	40.9648	50.7260	50.1279

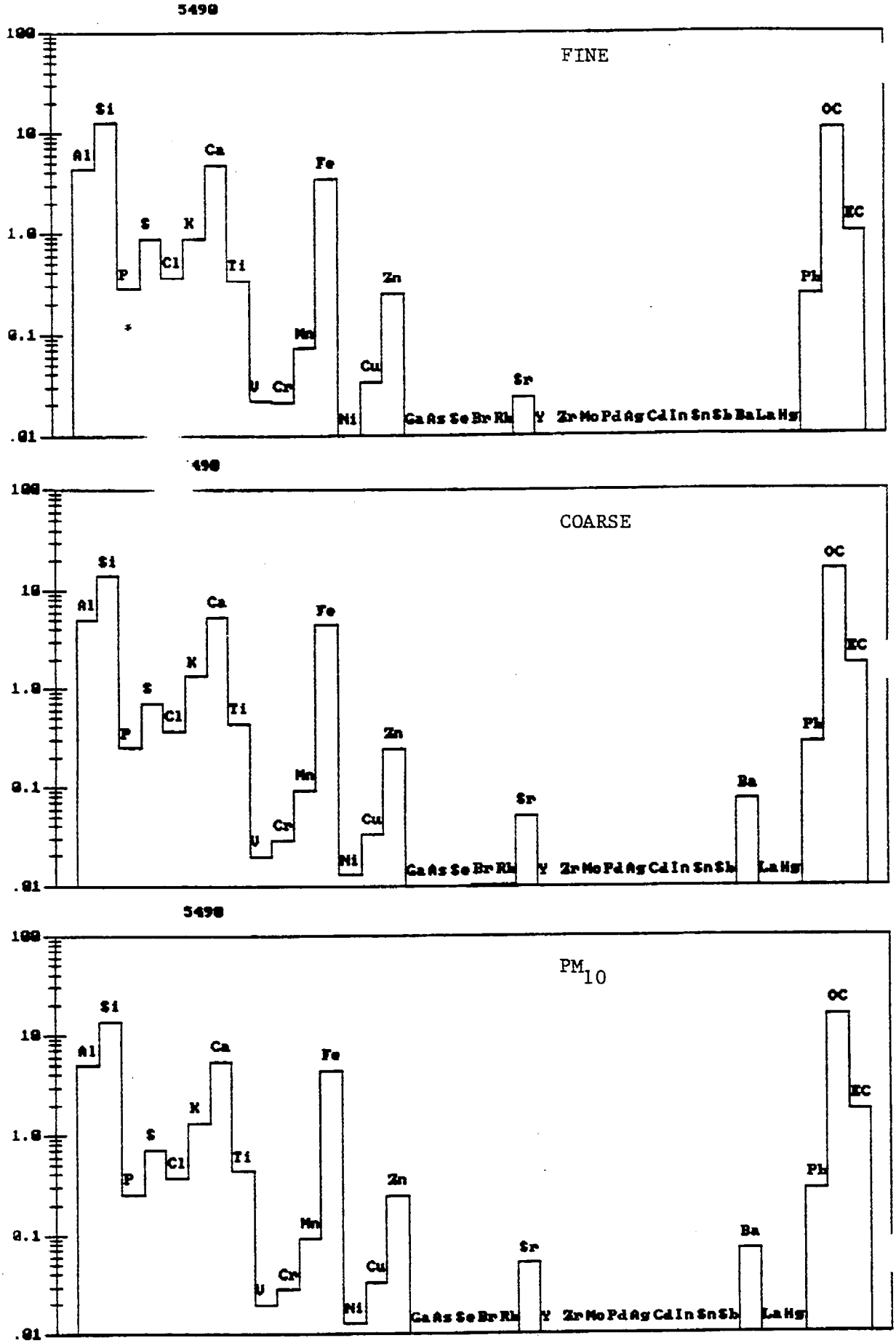
BURBANK SAMPLE COMPOSITE



srce code	part size	revsion date	source description	reference	date
5490	FCT	07/09/87	Burbank prd Profile composite	1	07/87

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Al	4.2862 +- .4920	4.9735 +- .5277	4.9410 +- .5019
Si	12.5503 +- 1.4389	13.8448 +- 1.4691	13.7786 +- 1.3971
P	.2743 +- .0510	.2478 +- .0354	.2489 +- .0353
S	.8680 +- .0487	.7015 +- .0249	.7099 +- .0237
Cl	.3584 +- .0201	.3721 +- .0168	.3714 +- .0166
K	.8772 +- .0492	1.3419 +- .0475	1.3190 +- .0453
Ca	4.7417 +- .8006	5.3593 +- .3729	5.3332 +- .3874
Ti	.3323 +- .0190	.4364 +- .0165	.4313 +- .0157
V	.0215 +- .0031	.0197 +- .0038	.0198 +- .0036
Cr	.0213 +- .0017	.0288 +- .0021	.0284 +- .0022
Mn	.0714 +- .0045	.0934 +- .0034	.0923 +- .0032
Fe	3.4283 +- .1933	4.4489 +- .1687	4.3985 +- .1772
Ni	.0096 +- .0011	.0128 +- .0005	.0126 +- .0005
Cu	.0328 +- .0077	.0331 +- .0068	.0331 +- .0069
Zn	.2422 +- .0252	.2452 +- .0298	.2451 +- .0296
Ga	.0010 +- .0010	.0000 +- .0011	.0001 +- .0011
As	.0066 +- .0097	.0000 +- .0111	.0003 +- .0106
Se	.0000 +- .0007	.0000 +- .0002	.0000 +- .0002
Br	.0063 +- .0019	.0102 +- .0016	.0100 +- .0016
Rb	.0000 +- .0012	.0103 +- .0005	.0098 +- .0005
Sr	.0234 +- .0044	.0521 +- .0019	.0507 +- .0018
Y	.0000 +- .0018	.0000 +- .0008	.0000 +- .0008
Zr	.0000 +- .0083	.0045 +- .0045	.0043 +- .0043
Mo	.0000 +- .0048	.0017 +- .0017	.0016 +- .0016
Pd	.0000 +- .0049	.0000 +- .0011	.0000 +- .0011
Ag	.0000 +- .0065	.0000 +- .0014	.0000 +- .0014
Cd	.0000 +- .0085	.0054 +- .0054	.0050 +- .0050
In	.0000 +- .0106	.0000 +- .0023	.0000 +- .0023
Sn	.0000 +- .0128	.0063 +- .0063	.0059 +- .0059
Sb	.0000 +- .0281	.0000 +- .0062	.0000 +- .0060
Ba	.0000 +- .0531	.0739 +- .0121	.0703 +- .0118
La	.0000 +- .0957	.0000 +- .0204	.0000 +- .0200
Hg	.0002 +- .0009	.0000 +- .0003	.0000 +- .0002
Pb	.2309 +- .0501	.2795 +- .0542	.2771 +- .0545
OC	10.6469 +- 1.7893	15.9778 +- 2.1626	15.6512 +- 2.0335
EC	.9989 +- .2158	1.7779 +- .2246	1.7302 +- .2113
Sum	40.0297	50.3588	49.7796

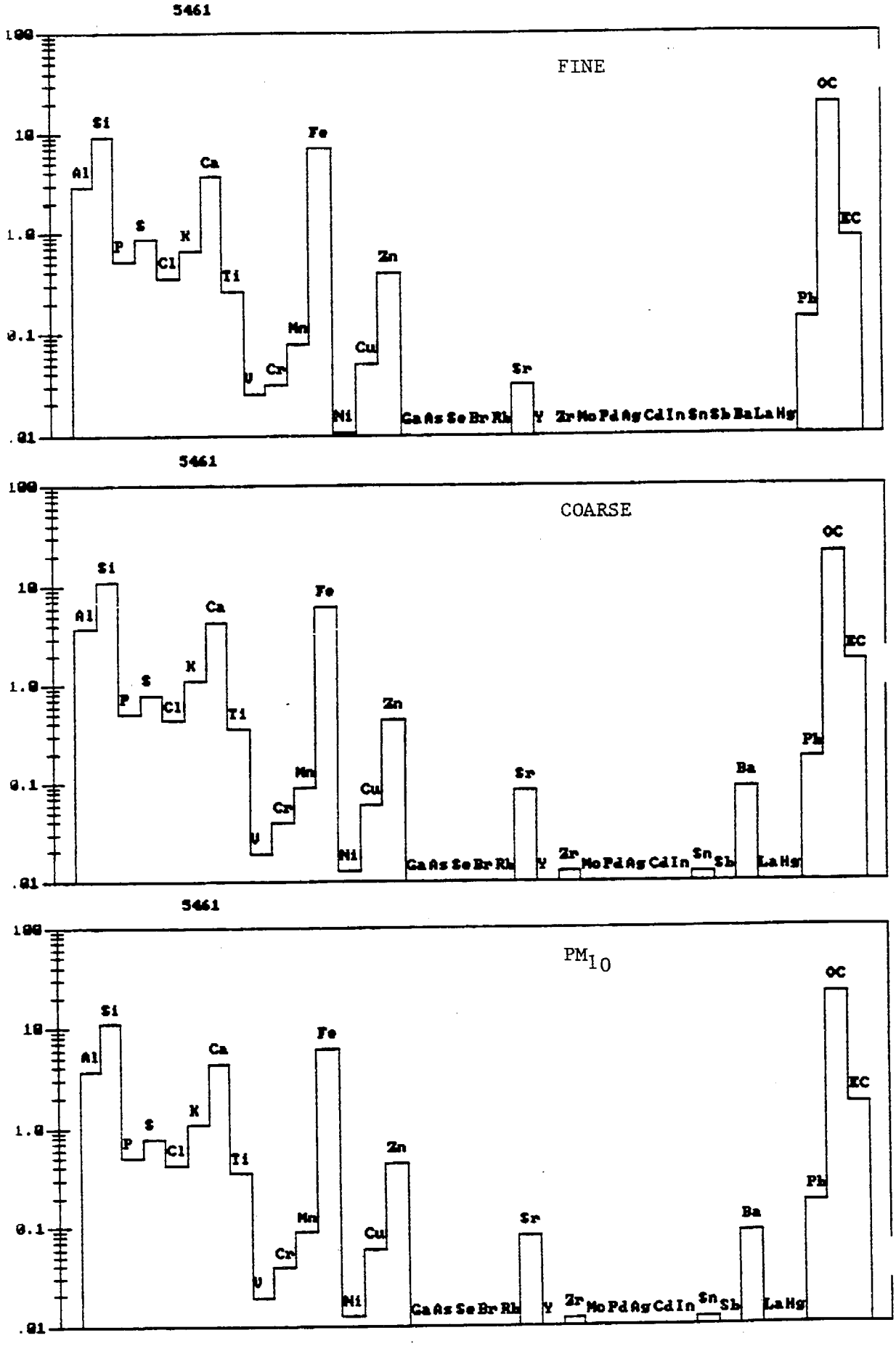
BURBANK PROFILE COMPOSITE



srce code	part size	revsion date	source description	reference	date
5461	FCT	07/09/87	North Main Str. paved rd dust	1	04/87

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Al	2.8929 +- .4340	3.7340 +- .5601	3.6894 +- .5309
Si	9.4390 +- 1.4159	10.9871 +- 1.6481	10.9051 +- 1.5626
P	.5237 +- .1048	.4962 +- .0992	.4977 +- .0942
S	.8524 +- .0426	.7815 +- .0391	.7853 +- .0371
Cl	.3524 +- .0176	.4278 +- .0214	.4238 +- .0203
K	.6626 +- .0331	1.1072 +- .0554	1.0836 +- .0524
Ca	3.6093 +- .1804	4.4050 +- .2202	4.3628 +- .2088
Ti	.2579 +- .0138	.3541 +- .0195	.3490 +- .0185
V	.0249 +- .0035	.0190 +- .0048	.0193 +- .0045
Cr	.0308 +- .0023	.0393 +- .0021	.0388 +- .0020
Mn	.0779 +- .0045	.0888 +- .0045	.0882 +- .0043
Fe	7.1199 +- .3587	6.1312 +- .3083	6.1836 +- .2926
Ni	.0107 +- .0015	.0125 +- .0008	.0124 +- .0007
Cu	.0496 +- .0032	.0593 +- .0031	.0588 +- .0029
Zn	.3983 +- .0205	.4369 +- .0220	.4349 +- .0209
Ga	.0005 +- .0012	.0000 +- .0012	.0000 +- .0012
As	.0060 +- .0084	.0000 +- .0097	.0003 +- .0092
Se	.0000 +- .0010	.0000 +- .0002	.0000 +- .0002
Br	.0018 +- .0013	.0060 +- .0005	.0058 +- .0004
Rb	.0000 +- .0016	.0088 +- .0006	.0083 +- .0006
Sr	.0302 +- .0027	.0836 +- .0043	.0808 +- .0040
Y	.0000 +- .0024	.0000 +- .0009	.0000 +- .0008
Zr	.0000 +- .0116	.0125 +- .0053	.0119 +- .0050
Mo	.0000 +- .0065	.0036 +- .0018	.0034 +- .0017
Pd	.0000 +- .0068	.0000 +- .0016	.0000 +- .0016
Ag	.0000 +- .0088	.0000 +- .0021	.0000 +- .0020
Cd	.0000 +- .0116	.0000 +- .0028	.0000 +- .0028
In	.0000 +- .0143	.0000 +- .0034	.0000 +- .0033
Sn	.0000 +- .0174	.0123 +- .0043	.0117 +- .0041
Sb	.0000 +- .0385	.0000 +- .0091	.0000 +- .0089
Ba	.0000 +- .0728	.0906 +- .0178	.0858 +- .0173
La	.0000 +- .1299	.0000 +- .0301	.0000 +- .0293
Hg	.0000 +- .0012	.0000 +- .0004	.0000 +- .0003
Pb	.1365 +- .0087	.1752 +- .0090	.1732 +- .0085
OC	19.2666 +- 5.4540	21.5220 +- 1.6297	21.4026 +- 1.5702
EC	.8579 +- .4290	1.7175 +- .1373	1.6720 +- .1320
Sum	46.6019	52.7121	52.3884

NORTH MAIN STREET PAVED ROAD DUST



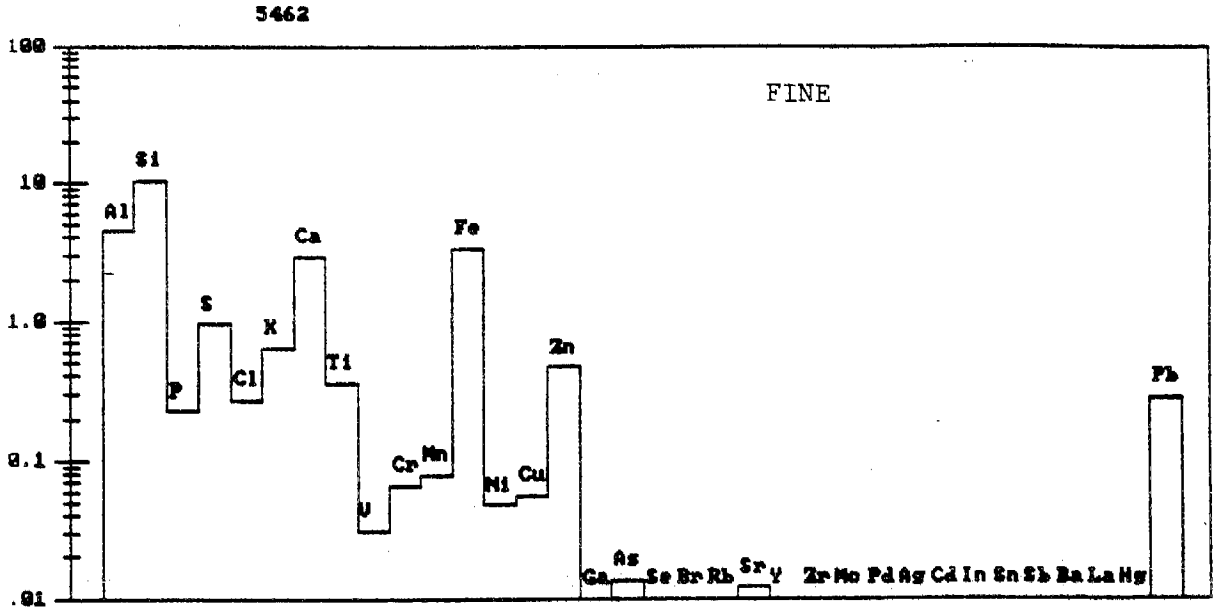
srce code	part size	revsion date	source description	reference	date
5462	FCT	07/09/87	Los Angeles prd sample comp.	1	04/87

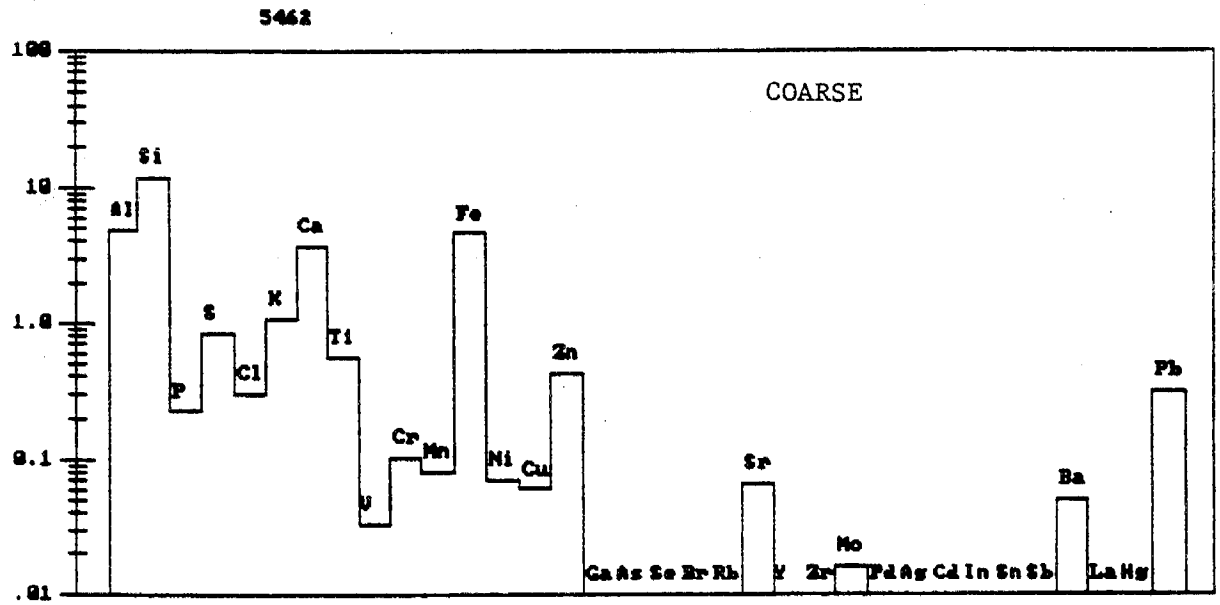
SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Al	4.4562 +- .6685	4.8594 +- .7289	4.8427 +- .6992
Si	10.3983 +- 1.5597	11.8893 +- 1.7834	11.8274 +- 1.7106
P	.2229 +- .0446	.2239 +- .0448	.2239 +- .0430
S	.9429 +- .0472	.8384 +- .0419	.8428 +- .0402
Cl	.2699 +- .0135	.3001 +- .0150	.2988 +- .0144
K	.6406 +- .0321	1.0586 +- .0529	1.0412 +- .0507
Ca	2.8770 +- .1438	3.7151 +- .1858	3.6803 +- .1781
Ti	.3521 +- .0188	.5602 +- .0293	.5516 +- .0281
V	.0310 +- .0047	.0334 +- .0066	.0333 +- .0064
Cr	.0660 +- .0042	.1029 +- .0053	.1014 +- .0051
Mn	.0773 +- .0048	.0800 +- .0043	.0799 +- .0041
Fe	3.3005 +- .1671	4.6205 +- .2324	4.5657 +- .2228
Ni	.0477 +- .0034	.0701 +- .0036	.0692 +- .0035
Cu	.0556 +- .0037	.0607 +- .0032	.0605 +- .0031
Zn	.4579 +- .0236	.4256 +- .0214	.4269 +- .0206
Ga	.0000 +- .0018	.0000 +- .0015	.0000 +- .0014
As	.0136 +- .0164	.0000 +- .0169	.0006 +- .0163
Se	.0000 +- .0011	.0000 +- .0003	.0000 +- .0003
Br	.0015 +- .0016	.0064 +- .0005	.0062 +- .0005
Rb	.0000 +- .0019	.0085 +- .0006	.0082 +- .0006
Sr	.0120 +- .0026	.0660 +- .0034	.0638 +- .0033
Y	.0000 +- .0031	.0000 +- .0012	.0000 +- .0012
Zr	.0000 +- .0138	.0052 +- .0045	.0050 +- .0044
Mo	.0000 +- .0076	.0160 +- .0025	.0153 +- .0025
Pd	.0000 +- .0083	.0000 +- .0017	.0000 +- .0017
Ag	.0000 +- .0104	.0000 +- .0022	.0000 +- .0022
Cd	.0000 +- .0140	.0000 +- .0030	.0000 +- .0029
In	.0000 +- .0169	.0000 +- .0036	.0000 +- .0035
Sn	.0000 +- .0207	.0067 +- .0044	.0065 +- .0043
Sb	.0000 +- .0459	.0000 +- .0094	.0000 +- .0092
Ba	.0000 +- .0848	.0496 +- .0185	.0475 +- .0181
La	.0000 +- .1568	.0000 +- .0319	.0000 +- .0313
Hg	.0000 +- .0016	.0000 +- .0004	.0000 +- .0004
Pb	.2822 +- .0160	.3068 +- .0156	.3058 +- .0149
Sum	24.5052	29.3036	29.1044

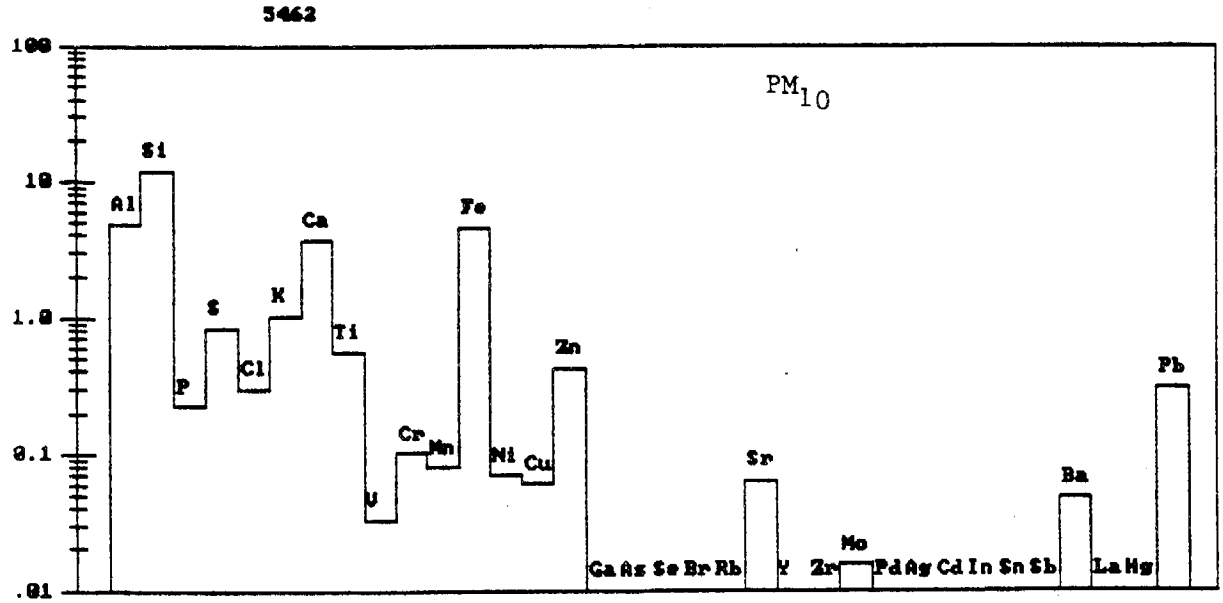
srce code	part size	revsion date	source description	reference	dat
5491	FCT	07/09/87	Los Angeles prd Profile comp.	1	07/87

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Al	3.6746 +- .7816	4.2967 +- .5627	4.2661 +- .5766
Si	9.9187 +- 1.1696	11.4382 +- 1.2145	11.3662 +- 1.1590
P	.3733 +- .1504	.3600 +- .1361	.3608 +- .1369
S	.8977 +- .0560	.8100 +- .0287	.8140 +- .0287
Cl	.3111 +- .0412	.3639 +- .0638	.3613 +- .0625
K	.6516 +- .0401	1.0829 +- .0384	1.0624 +- .0367
Ca	3.2431 +- .3661	4.0600 +- .3450	4.0216 +- .3413
Ti	.3050 +- .0471	.4572 +- .1031	.4503 +- .1013
V	.0279 +- .0033	.0262 +- .0072	.0263 +- .0070
Cr	.0484 +- .0176	.0711 +- .0318	.0701 +- .0313
Mn	.0776 +- .0051	.0844 +- .0044	.0841 +- .0042
Fe	5.2102 +- 1.9097	5.3759 +- .7553	5.3746 +- .8089
Ni	.0292 +- .0185	.0413 +- .0288	.0408 +- .0284
Cu	.0526 +- .0036	.0600 +- .0022	.0597 +- .0021
Zn	.4281 +- .0298	.4313 +- .0154	.4309 +- .0147
Ga	.0002 +- .0011	.0000 +- .0010	.0000 +- .0009
As	.0098 +- .0092	.0000 +- .0098	.0004 +- .0093
Se	.0000 +- .0007	.0000 +- .0002	.0000 +- .0002
Br	.0016 +- .0011	.0062 +- .0003	.0060 +- .0003
Rb	.0000 +- .0013	.0087 +- .0004	.0082 +- .0004
Sr	.0211 +- .0091	.0748 +- .0088	.0723 +- .0085
Y	.0000 +- .0020	.0000 +- .0007	.0000 +- .0007
Zr	.0000 +- .0090	.0089 +- .0037	.0084 +- .0034
Mo	.0000 +- .0050	.0098 +- .0062	.0094 +- .0060
Pd	.0000 +- .0054	.0000 +- .0012	.0000 +- .0011
Ag	.0000 +- .0068	.0000 +- .0015	.0000 +- .0015
Cd	.0000 +- .0091	.0000 +- .0020	.0000 +- .0020
In	.0000 +- .0111	.0000 +- .0025	.0000 +- .0024
Sn	.0000 +- .0135	.0095 +- .0031	.0091 +- .0030
Sb	.0000 +- .0299	.0000 +- .0066	.0000 +- .0064
Ba	.0000 +- .0559	.0701 +- .0205	.0667 +- .0192
La	.0000 +- .1018	.0000 +- .0219	.0000 +- .0214
Hg	.0000 +- .0010	.0000 +- .0003	.0000 +- .0003
Pb	.2094 +- .0728	.2410 +- .0658	.2395 +- .0663
OC	19.2666 +- 5.5791	21.5220 +- 1.6314	21.4026 +- 1.5732
EC	.8579 +- .4321	1.7175 +- .1374	1.6720 +- .1322
Sum	45.6157	52.6276	52.2838

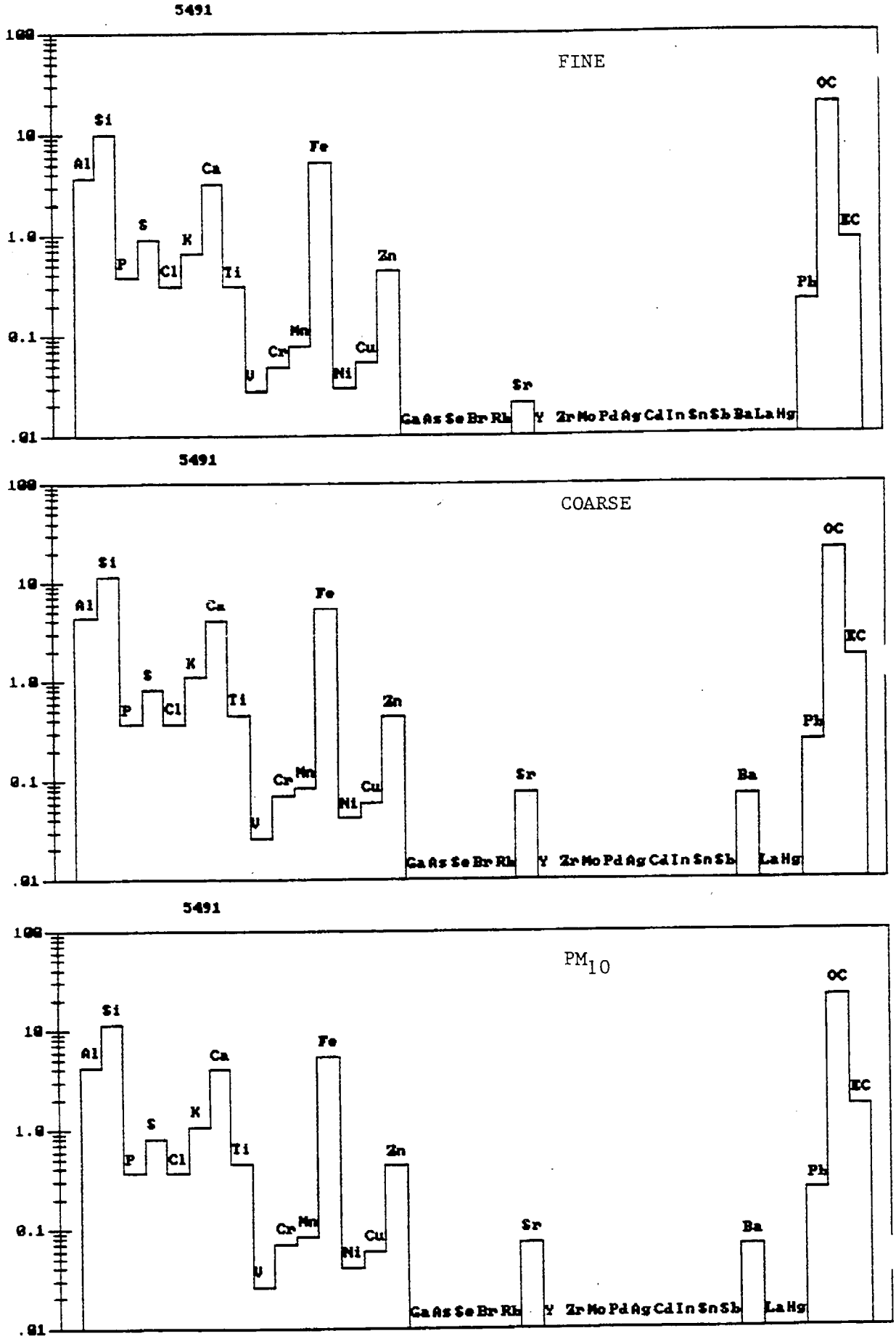
LOS ANGELES SAMPLE COMPOSITE







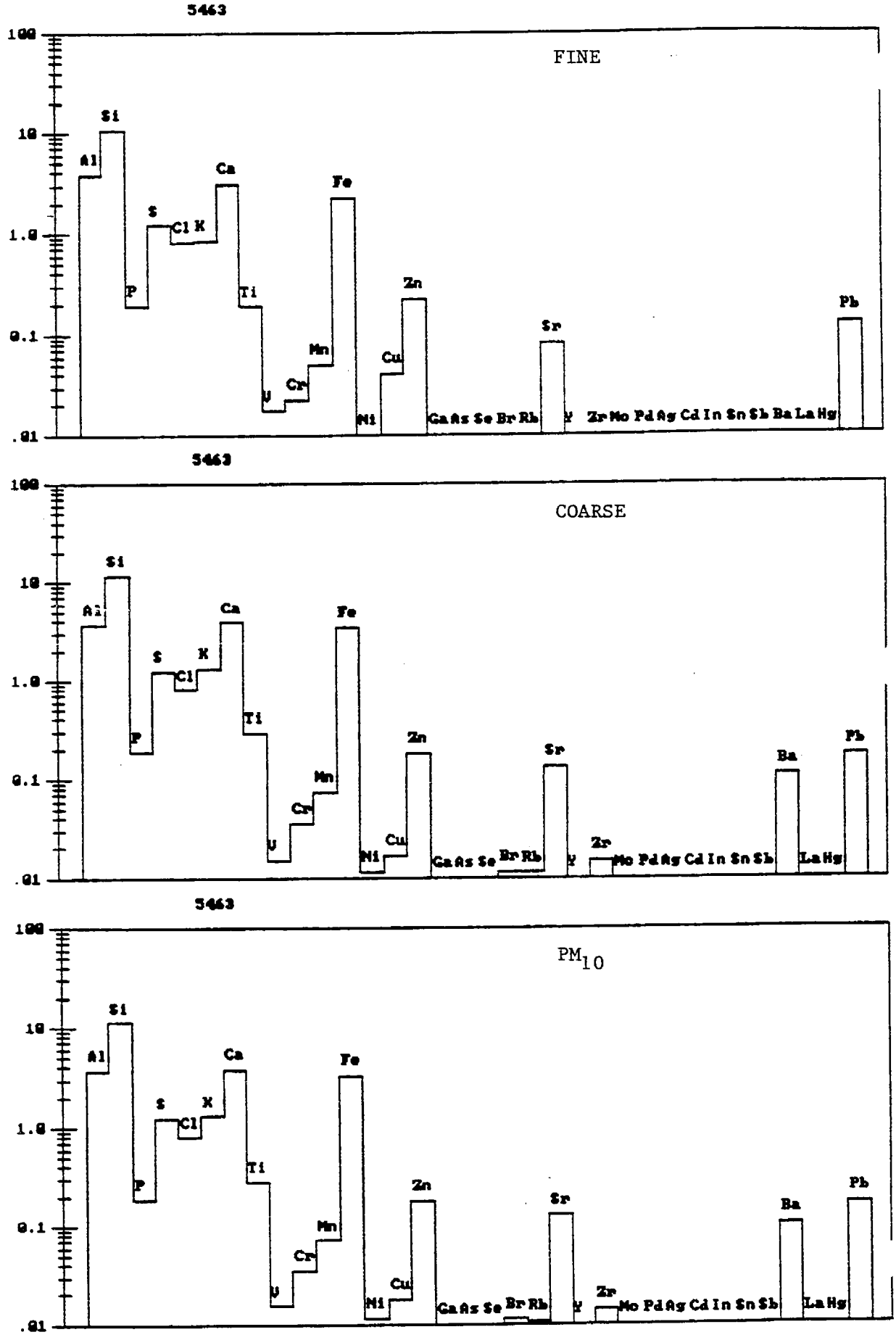
LOS ANGELES PROFILE COMPOSITE



srce code	part size	revsion date	source description	reference	date
5463	FCT	07/09/87	South Harbor Blvd paved road	1	04/87

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Al	3.8208 +- .5732	3.7202 +- .5580	3.7258 +- .5281
Si	10.6447 +- 1.5968	11.3780 +- 1.7067	11.3374 +- 1.6147
P	.1913 +- .0383	.1852 +- .0370	.1855 +- .0351
S	1.2087 +- .0604	1.2367 +- .0618	1.2352 +- .0585
Cl	.8182 +- .0409	.7972 +- .0398	.7984 +- .0377
K	.8471 +- .0423	1.3195 +- .0660	1.2934 +- .0624
Ca	3.1075 +- .1553	3.8641 +- .1932	3.8223 +- .1827
Ti	.1883 +- .0106	.2880 +- .0170	.2825 +- .0161
V	.0174 +- .0029	.0150 +- .0046	.0152 +- .0043
Cr	.0228 +- .0022	.0358 +- .0020	.0351 +- .0019
Mn	.0501 +- .0035	.0734 +- .0038	.0721 +- .0036
Fe	2.2682 +- .1151	3.4163 +- .1719	3.3528 +- .1625
Ni	.0078 +- .0015	.0115 +- .0007	.0113 +- .0007
Cu	.0408 +- .0029	.0165 +- .0010	.0178 +- .0009
Zn	.2197 +- .0117	.1784 +- .0091	.1807 +- .0086
Ga	.0001 +- .0013	.0000 +- .0010	.0000 +- .0010
As	.0017 +- .0080	.0000 +- .0094	.0001 +- .0089
Se	.0000 +- .0013	.0000 +- .0002	.0000 +- .0002
Br	.0066 +- .0017	.0114 +- .0007	.0111 +- .0007
Rb	.0000 +- .0021	.0112 +- .0007	.0106 +- .0007
Sr	.0807 +- .0050	.1316 +- .0066	.1288 +- .0063
Y	.0000 +- .0032	.0000 +- .0009	.0000 +- .0009
Zr	.0000 +- .0152	.0149 +- .0077	.0141 +- .0073
Mo	.0000 +- .0086	.0000 +- .0017	.0000 +- .0017
Pd	.0000 +- .0089	.0035 +- .0018	.0033 +- .0017
Ag	.0000 +- .0115	.0046 +- .0023	.0043 +- .0023
Cd	.0000 +- .0150	.0052 +- .0030	.0049 +- .0030
In	.0000 +- .0188	.0000 +- .0037	.0000 +- .0037
Sn	.0000 +- .0228	.0084 +- .0045	.0079 +- .0044
Sb	.0000 +- .0503	.0000 +- .0099	.0000 +- .0098
Ba	.0000 +- .0939	.1080 +- .0196	.1020 +- .0192
La	.0000 +- .1710	.0000 +- .0327	.0000 +- .0323
Hg	.0000 +- .0017	.0000 +- .0004	.0000 +- .0003
Pb	.1261 +- .0092	.1689 +- .0087	.1665 +- .0082
Sum	23.6685	27.0035	26.8191

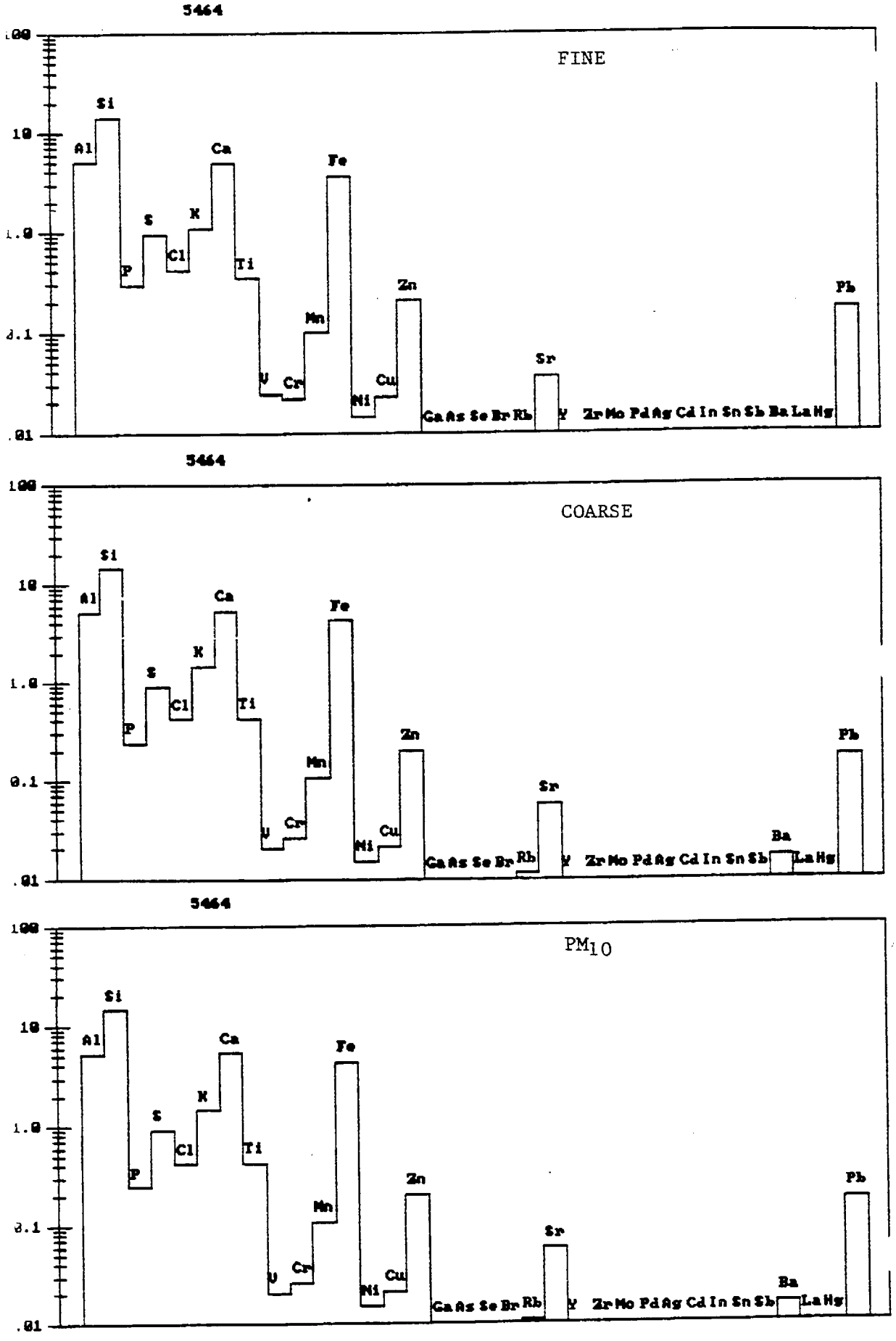
SOUTH HARBOR BLVD. PAVED ROAD



srce code	part size	revsion date	source description	reference	date
5464	FCT	07/09/87	Anaheim prd sample composite	1	04/87

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Al	4.9936 +- .7491	5.2587 +- .7888	5.2429 +- .7430
Si	14.0289 +- 2.1043	14.4206 +- 2.1631	14.3972 +- 2.0377
P	.2901 +- .0580	.2368 +- .0474	.2400 +- .0447
S	.9407 +- .0470	.8994 +- .0450	.9019 +- .0424
Cl	.4119 +- .0206	.4140 +- .0207	.4139 +- .0195
K	1.0733 +- .0536	1.4614 +- .0731	1.4382 +- .0688
Ca	4.8897 +- .2444	5.3251 +- .2663	5.2991 +- .2508
Ti	.3377 +- .0175	.4239 +- .0223	.4187 +- .0210
V	.0241 +- .0040	.0203 +- .0050	.0205 +- .0047
Cr	.0221 +- .0016	.0261 +- .0015	.0259 +- .0014
Mn	.0976 +- .0052	.1071 +- .0054	.1065 +- .0051
Fe	3.5502 +- .1790	4.3062 +- .2165	4.2610 +- .2039
Ni	.0146 +- .0012	.0151 +- .0009	.0151 +- .0008
Cu	.0227 +- .0015	.0209 +- .0011	.0211 +- .0011
Zn	.2017 +- .0104	.1961 +- .0099	.1964 +- .0093
Ga	.0000 +- .0012	.0000 +- .0021	.0000 +- .0019
As	.0052 +- .0095	.0000 +- .0096	.0003 +- .0091
Se	.0000 +- .0005	.0000 +- .0002	.0000 +- .0002
Br	.0047 +- .0008	.0070 +- .0005	.0068 +- .0004
Rb	.0012 +- .0010	.0112 +- .0006	.0106 +- .0006
Sr	.0353 +- .0022	.0577 +- .0029	.0564 +- .0028
Y	.0000 +- .0015	.0000 +- .0008	.0000 +- .0008
Zr	.0000 +- .0074	.0097 +- .0037	.0091 +- .0035
Mo	.0000 +- .0038	.0029 +- .0014	.0027 +- .0014
Pd	.0000 +- .0041	.0000 +- .0013	.0000 +- .0012
Ag	.0000 +- .0052	.0000 +- .0016	.0000 +- .0015
Cd	.0000 +- .0069	.0038 +- .0022	.0036 +- .0021
In	.0000 +- .0084	.0000 +- .0026	.0000 +- .0025
Sn	.0000 +- .0102	.0064 +- .0032	.0060 +- .0031
Sb	.0000 +- .0227	.0000 +- .0069	.0000 +- .0066
Ba	.0000 +- .0424	.0165 +- .0139	.0155 +- .0133
La	.0000 +- .0763	.0000 +- .0229	.0000 +- .0220
Hg	.0003 +- .0008	.0012 +- .0003	.0011 +- .0003
Pb	.1669 +- .0092	.1741 +- .0089	.1736 +- .0083
Sum	31.1124	33.4222	33.2841

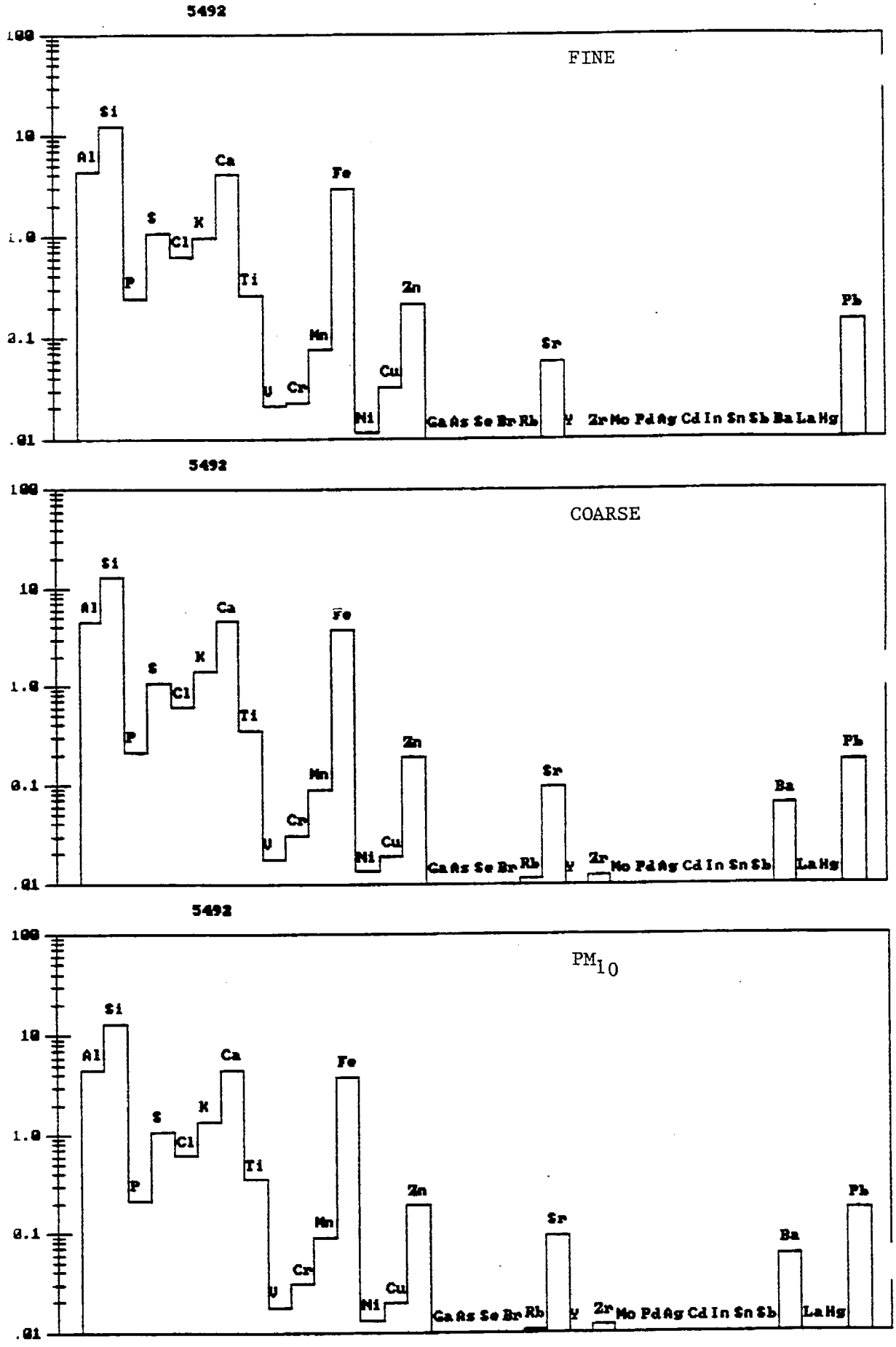
ANAHEIM SAMPLE COMPOSITE



srce code	part size	revsion date	source description	reference	date
5492	FCT	07/09/87	Anaheim prd Profile composite	1	07/87

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Al	4.4072 +- .5864	4.4895 +- .7692	4.4843 +- .7585
Si	12.3368 +- 1.6921	12.8993 +- 1.5213	12.8673 +- 1.5299
P	.2407 +- .0494	.2110 +- .0301	.2128 +- .0284
S	1.0747 +- .1340	1.0681 +- .1687	1.0685 +- .1667
Cl	.6150 +- .2032	.6056 +- .1916	.6061 +- .1922
K	.9602 +- .1131	1.3904 +- .0710	1.3658 +- .0724
Ca	3.9986 +- .8911	4.5946 +- .7305	4.5607 +- .7384
Ti	.2630 +- .0747	.3559 +- .0679	.3506 +- .0681
V	.0207 +- .0033	.0177 +- .0034	.0178 +- .0032
Cr	.0225 +- .0017	.0310 +- .0048	.0305 +- .0046
Mn	.0739 +- .0238	.0902 +- .0169	.0893 +- .0172
Fe	2.9092 +- .6410	3.8613 +- .4449	3.8069 +- .4541
Ni	.0112 +- .0034	.0133 +- .0018	.0132 +- .0019
Cu	.0318 +- .0090	.0187 +- .0022	.0195 +- .0016
Zn	.2107 +- .0116	.1872 +- .0089	.1886 +- .0079
Ga	.0001 +- .0009	.0000 +- .0011	.0000 +- .0011
As	.0034 +- .0062	.0000 +- .0067	.0002 +- .0063
Se	.0000 +- .0007	.0000 +- .0002	.0000 +- .0002
Br	.0057 +- .0010	.0092 +- .0022	.0090 +- .0022
Rb	.0006 +- .0012	.0112 +- .0005	.0106 +- .0005
Sr	.0580 +- .0227	.0946 +- .0369	.0926 +- .0362
Y	.0000 +- .0018	.0000 +- .0006	.0000 +- .0006
Zr	.0000 +- .0084	.0123 +- .0043	.0116 +- .0041
Mo	.0000 +- .0047	.0014 +- .0014	.0013 +- .0013
Pd	.0000 +- .0049	.0018 +- .0018	.0017 +- .0017
Ag	.0000 +- .0063	.0023 +- .0023	.0022 +- .0022
Cd	.0000 +- .0083	.0045 +- .0019	.0043 +- .0018
In	.0000 +- .0103	.0000 +- .0023	.0000 +- .0022
Sn	.0000 +- .0125	.0074 +- .0028	.0070 +- .0027
Sb	.0000 +- .0276	.0000 +- .0060	.0000 +- .0059
Ba	.0000 +- .0515	.0622 +- .0457	.0587 +- .0432
La	.0000 +- .0936	.0000 +- .0199	.0000 +- .0195
Hg	.0002 +- .0009	.0006 +- .0006	.0006 +- .0006
Pb	.1465 +- .0204	.1715 +- .0062	.1701 +- .0059
Sum	27.3907	30.2128	30.0518

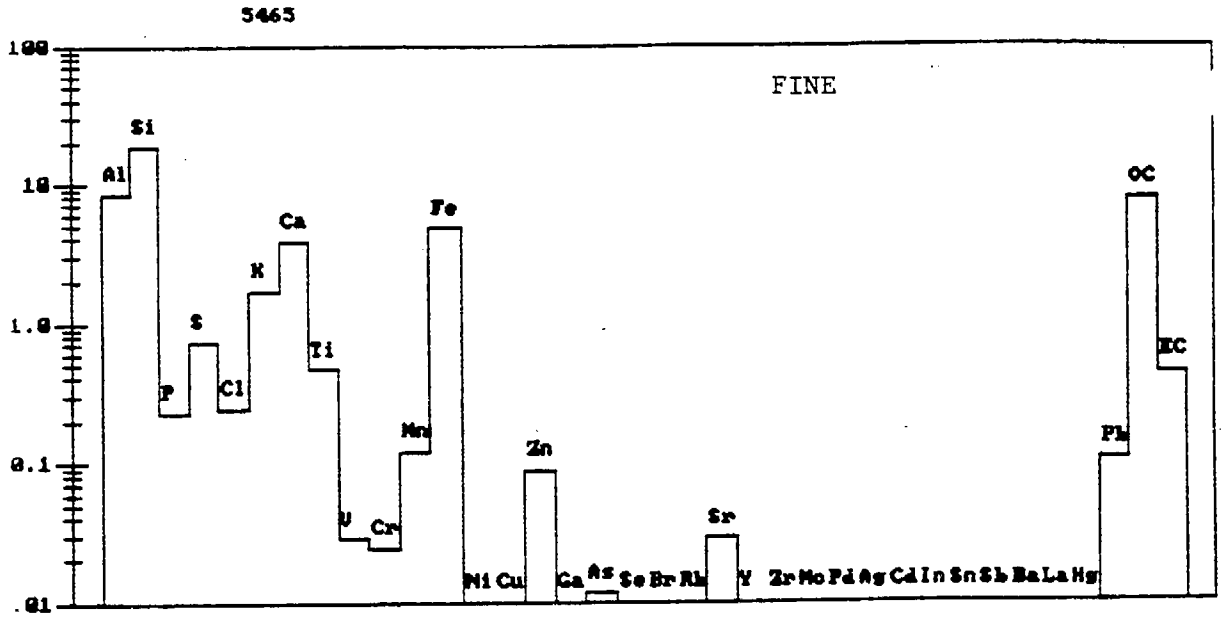
ANAHEIM PROFILE COMPOSITE

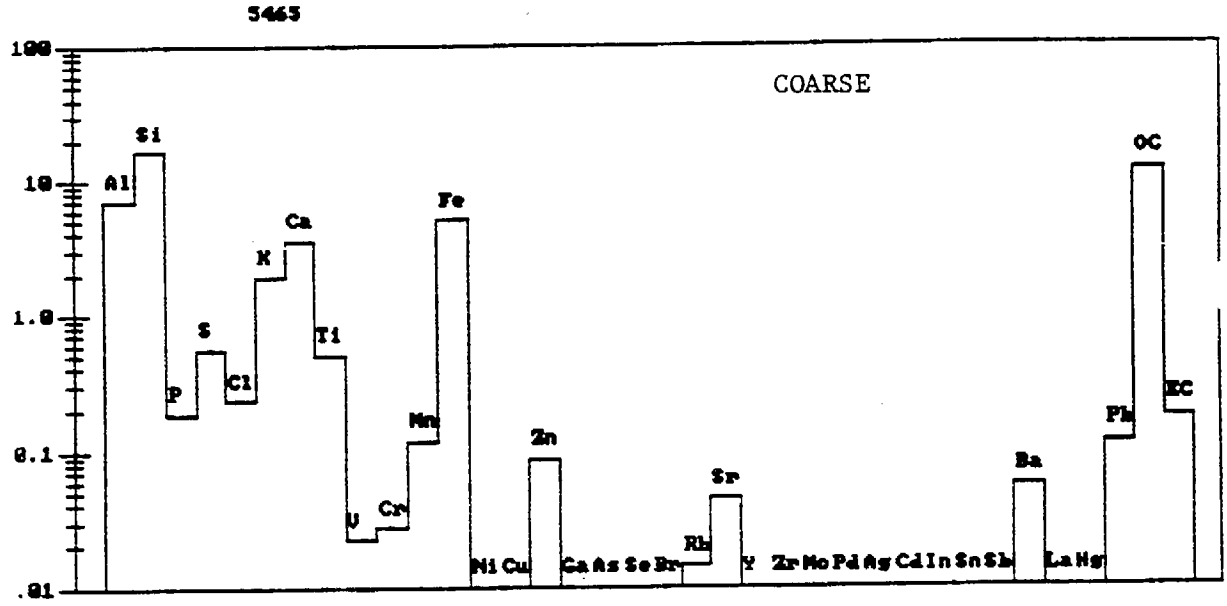


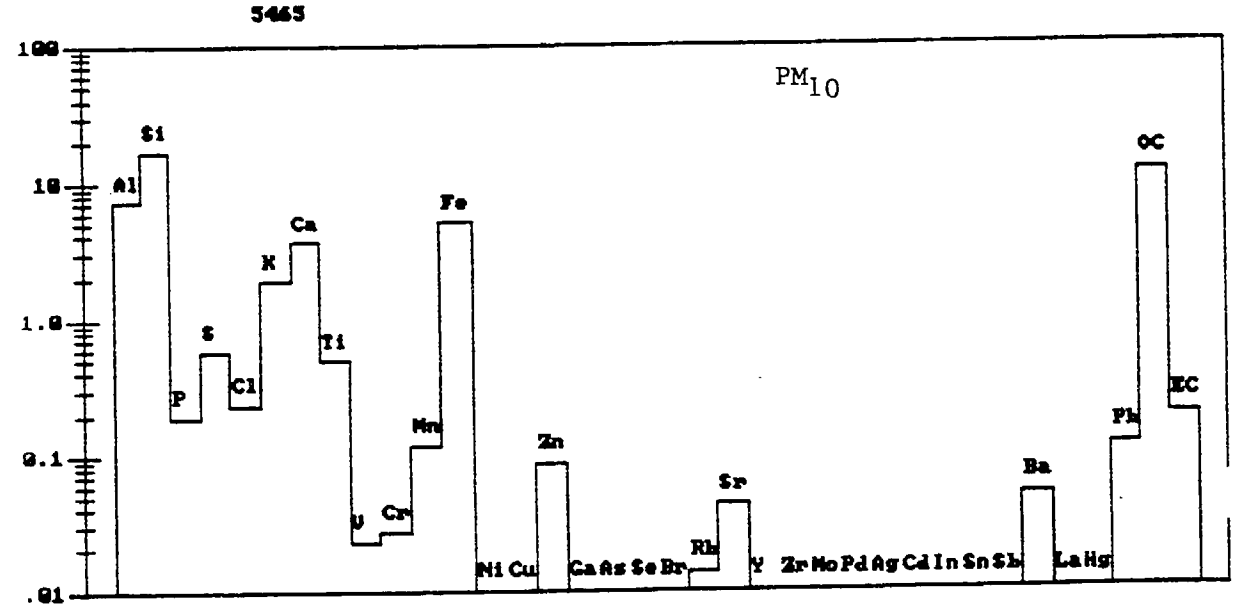
srce code	part size	revsion date	source description	reference	date
5465	FCT	07/09/87	Riverside prd sample composite	1	04/87

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Al	8.3200 +- 1.2480	7.1225 +- 1.0684	7.2127 +- .9923
Si	18.5969 +- 2.7896	16.4702 +- 2.4705	16.6304 +- 2.2941
P	.2278 +- .0456	.1869 +- .0374	.1900 +- .0347
S	.7389 +- .0370	.5548 +- .0277	.5687 +- .0258
Cl	.2406 +- .0120	.2320 +- .0116	.2327 +- .0108
K	1.6670 +- .0833	1.9126 +- .0956	1.8941 +- .0887
Ca	3.7928 +- .1896	3.5898 +- .1795	3.6051 +- .1666
Ti	.4578 +- .0235	.4962 +- .0261	.4933 +- .0242
V	.0283 +- .0052	.0223 +- .0059	.0228 +- .0054
Cr	.0245 +- .0019	.0273 +- .0016	.0271 +- .0015
Mn	.1174 +- .0063	.1193 +- .0061	.1192 +- .0056
Fe	4.7892 +- .2413	5.1172 +- .2573	5.0925 +- .2386
Ni	.0083 +- .0012	.0084 +- .0006	.0084 +- .0005
Cu	.0096 +- .0012	.0097 +- .0006	.0097 +- .0006
Zn	.0870 +- .0048	.0859 +- .0044	.0860 +- .0041
Ga	.0000 +- .0025	.0000 +- .0021	.0000 +- .0020
As	.0116 +- .0065	.0000 +- .0064	.0009 +- .0059
Se	.0000 +- .0008	.0000 +- .0002	.0000 +- .0002
Br	.0025 +- .0010	.0067 +- .0005	.0064 +- .0004
Rb	.0052 +- .0013	.0142 +- .0008	.0135 +- .0008
Sr	.0283 +- .0022	.0441 +- .0023	.0429 +- .0021
Y	.0000 +- .0020	.0000 +- .0008	.0000 +- .0008
Zr	.0000 +- .0088	.0000 +- .0036	.0000 +- .0034
Mo	.0000 +- .0053	.0000 +- .0018	.0000 +- .0017
Pd	.0000 +- .0054	.0000 +- .0015	.0000 +- .0015
Ag	.0000 +- .0070	.0000 +- .0021	.0000 +- .0020
Cd	.0000 +- .0093	.0000 +- .0027	.0000 +- .0026
In	.0000 +- .0114	.0000 +- .0032	.0000 +- .0031
Sn	.0000 +- .0139	.0000 +- .0040	.0000 +- .0039
Sb	.0000 +- .0307	.0000 +- .0087	.0000 +- .0084
Ba	.0000 +- .0575	.0546 +- .0171	.0505 +- .0164
La	.0000 +- .1046	.0000 +- .0292	.0000 +- .0281
Hg	.0000 +- .0010	.0000 +- .0003	.0000 +- .0003
Pb	.1012 +- .0068	.1143 +- .0059	.1133 +- .0055
OC	7.4781 +- 1.5273	11.8008 +- .9483	11.4752 +- .8844
EC	.4194 +- .1741	.1736 +- .0508	.1921 +- .0488
Sum	47.1525	48.1636	48.0874

RIVERSIDE SAMPLE COMPOSITE



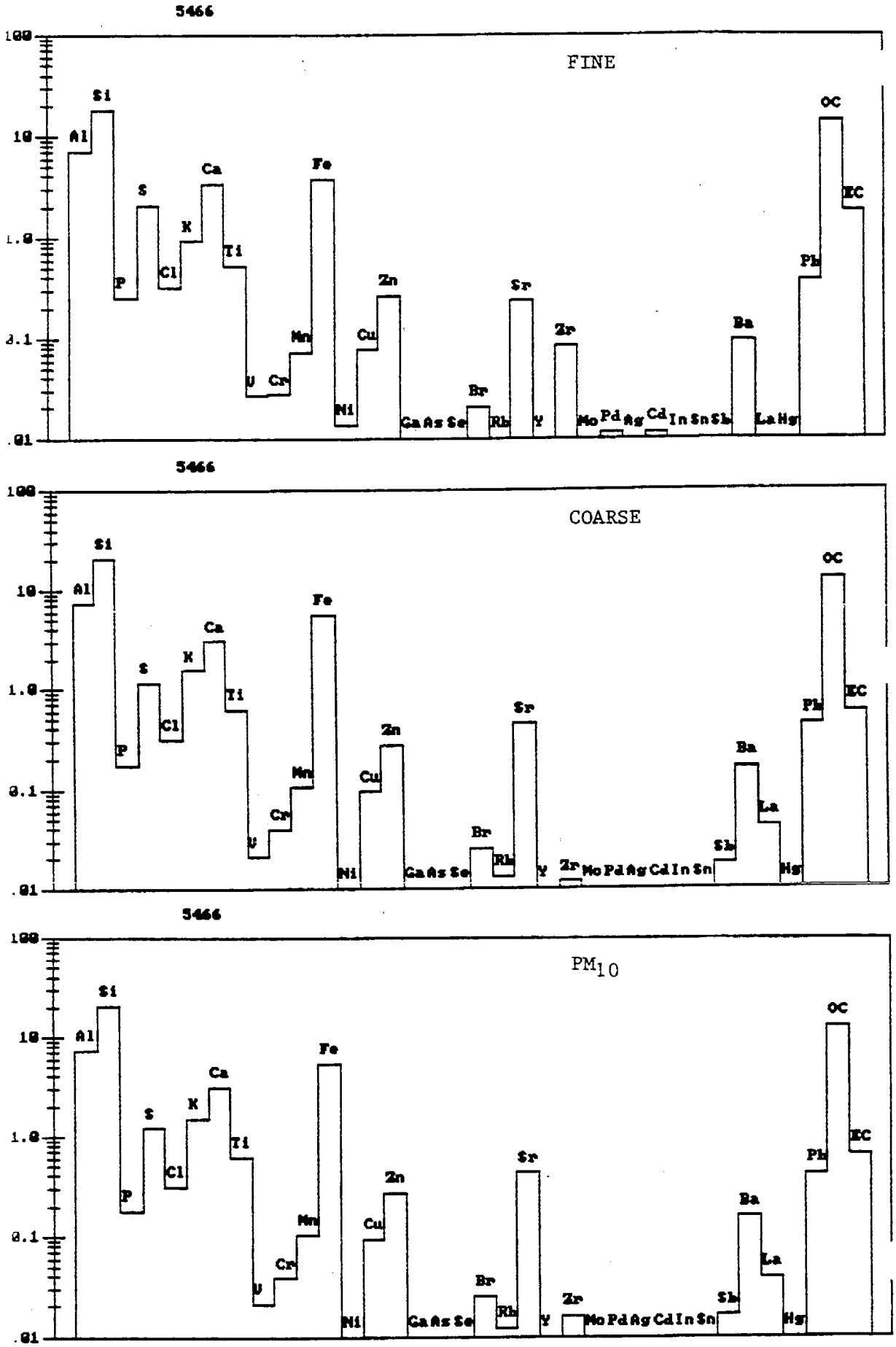




srce code	part size	revsion date	source description	reference	date
5466	FCT	04/14/87	Sepulveda Tunnel paved rd dust	1	04/87

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Al	7.0867 +- .3566	7.3530 +- .3682	7.3361 +- .3456
Si	17.8532 +- .8941	20.8426 +- 1.0445	20.6530 +- .9799
P	.2498 +- .0502	.1744 +- .0350	.1792 +- .0329
S	2.0663 +- .1163	1.1451 +- .0721	1.2036 +- .0679
Cl	.3173 +- .0218	.3117 +- .0179	.3120 +- .0168
K	.9167 +- .0480	1.5318 +- .0771	1.4928 +- .0723
Ca	3.3376 +- .1683	3.0577 +- .1535	3.0755 +- .1441
Ti	.5174 +- .0267	.6203 +- .0328	.6137 +- .0308
V	.0263 +- .0058	.0209 +- .0074	.0212 +- .0070
Cr	.0274 +- .0021	.0392 +- .0023	.0385 +- .0021
Mn	.0724 +- .0041	.1042 +- .0053	.1022 +- .0050
Fe	3.6732 +- .1855	5.5304 +- .2781	5.4126 +- .2608
Ni	.0134 +- .0013	.0086 +- .0009	.0089 +- .0009
Cu	.0768 +- .0043	.0949 +- .0049	.0937 +- .0046
Zn	.2629 +- .0136	.2685 +- .0136	.2682 +- .0127
Ga	.0010 +- .0016	.0025 +- .0015	.0024 +- .0014
As	.0031 +- .0207	.0000 +- .0236	.0002 +- .0222
Se	.0000 +- .0008	.0014 +- .0003	.0013 +- .0003
Br	.0203 +- .0017	.0252 +- .0014	.0249 +- .0013
Rb	.0000 +- .0013	.0131 +- .0009	.0123 +- .0008
Sr	.2311 +- .0119	.4426 +- .0222	.4292 +- .0208
Y	.0000 +- .0022	.0000 +- .0016	.0000 +- .0015
Zr	.0827 +- .0161	.0116 +- .0240	.0161 +- .0225
Mo	.0000 +- .0051	.0000 +- .0020	.0000 +- .0019
Pd	.0112 +- .0056	.0000 +- .0018	.0007 +- .0017
Ag	.0094 +- .0072	.0000 +- .0023	.0006 +- .0022
Cd	.0115 +- .0094	.0063 +- .0031	.0066 +- .0030
In	.0037 +- .0115	.0000 +- .0038	.0002 +- .0036
Sn	.0031 +- .0139	.0000 +- .0045	.0002 +- .0043
Sb	.0000 +- .0307	.0175 +- .0099	.0164 +- .0095
Ba	.0909 +- .0589	.1624 +- .0207	.1579 +- .0197
La	.0000 +- .1046	.0420 +- .0329	.0393 +- .0316
Hg	.0008 +- .0011	.0019 +- .0004	.0019 +- .0004
Pb	.3679 +- .0194	.4286 +- .0217	.4248 +- .0203
OC	13.7797 +- 2.7582	12.8052 +- .9163	12.8670 +- .8758
EC	1.7532 +- .5807	.5786 +- .0497	.6531 +- .0593
Sum	52.8670	55.6423	55.4663

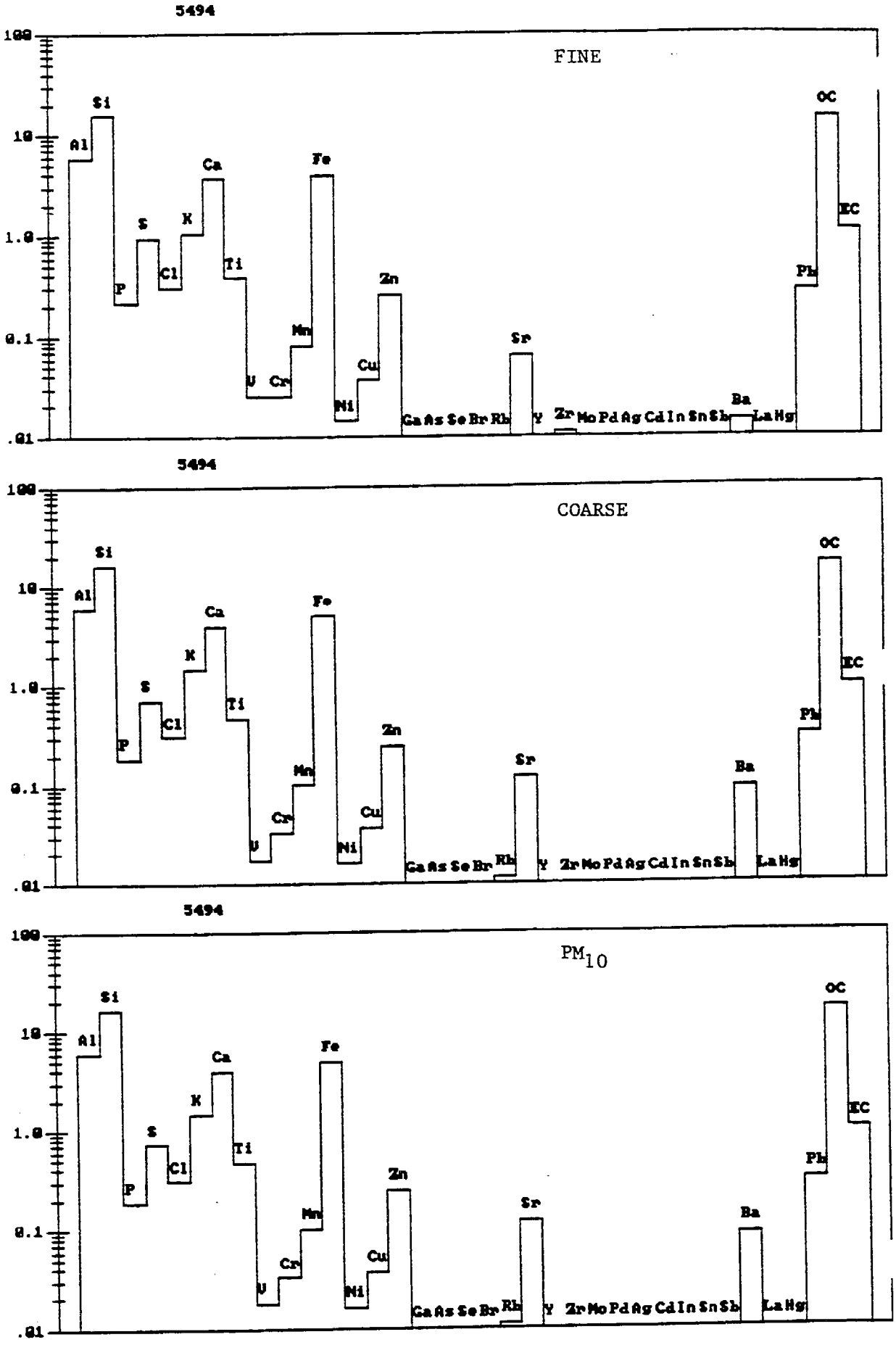
SEPULVEDA TUNNEL PAVED ROAD DUST



srce code	part size	revsion date	source description	reference	date
5494	FCT	07/09/87	SCAB prd Profile composite	1	07/87

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Al	5.7044 +- .5563	5.9137 +- .4427	5.9037 +- .4468
Si	15.4440 +- 1.2956	16.0992 +- 1.1905	16.0718 +- 1.1888
P	.2123 +- .0408	.1843 +- .0378	.1861 +- .0379
S	.9354 +- .1752	.7058 +- .1078	.7213 +- .1099
Cl	.2981 +- .0576	.3051 +- .0586	.3048 +- .0584
K	1.0317 +- .1072	1.4702 +- .0854	1.4425 +- .0856
Ca	3.6232 +- .2572	3.9655 +- .3316	3.9419 +- .3234
Ti	.3747 +- .0327	.4726 +- .0288	.4666 +- .0287
V	.0249 +- .0014	.0174 +- .0025	.0179 +- .0023
Cr	.0250 +- .0036	.0330 +- .0059	.0326 +- .0058
Mn	.0807 +- .0056	.1013 +- .0043	.0999 +- .0041
Fe	3.9195 +- .2694	4.9273 +- .2251	4.8587 +- .2176
Ni	.0143 +- .0024	.0161 +- .0038	.0161 +- .0037
Cu	.0359 +- .0074	.0367 +- .0099	.0366 +- .0098
Zn	.2514 +- .0438	.2458 +- .0427	.2462 +- .0427
Ga	.0004 +- .0005	.0004 +- .0005	.0004 +- .0005
As	.0060 +- .0059	.0000 +- .0066	.0004 +- .0060
Se	.0000 +- .0002	.0002 +- .0002	.0002 +- .0002
Br	.0066 +- .0020	.0098 +- .0023	.0096 +- .0023
Rb	.0021 +- .0008	.0115 +- .0006	.0109 +- .0006
Sr	.0633 +- .0251	.1205 +- .0470	.1169 +- .0456
Y	.0002 +- .0007	.0005 +- .0004	.0004 +- .0004
Zr	.0111 +- .0103	.0072 +- .0033	.0076 +- .0031
Mo	.0000 +- .0017	.0016 +- .0012	.0015 +- .0011
Pd	.0014 +- .0017	.0002 +- .0005	.0003 +- .0005
Ag	.0012 +- .0022	.0003 +- .0006	.0004 +- .0006
Cd	.0014 +- .0029	.0035 +- .0012	.0033 +- .0012
In	.0005 +- .0036	.0000 +- .0010	.0000 +- .0009
Sn	.0004 +- .0044	.0041 +- .0014	.0039 +- .0013
Sb	.0000 +- .0096	.0025 +- .0026	.0023 +- .0025
Ba	.0146 +- .0182	.0918 +- .0131	.0867 +- .0127
La	.0000 +- .0329	.0055 +- .0086	.0051 +- .0083
Hg	.0003 +- .0003	.0004 +- .0002	.0004 +- .0002
Pb	.2754 +- .0830	.3057 +- .0930	.3034 +- .0918
OC	14.7285 +- 2.0232	15.9277 +- 1.5199	15.8752 +- 1.5257
EC	1.1156 +- .2954	.9727 +- .2811	.9847 +- .2691
Sum	48.2045	51.9601	51.7603

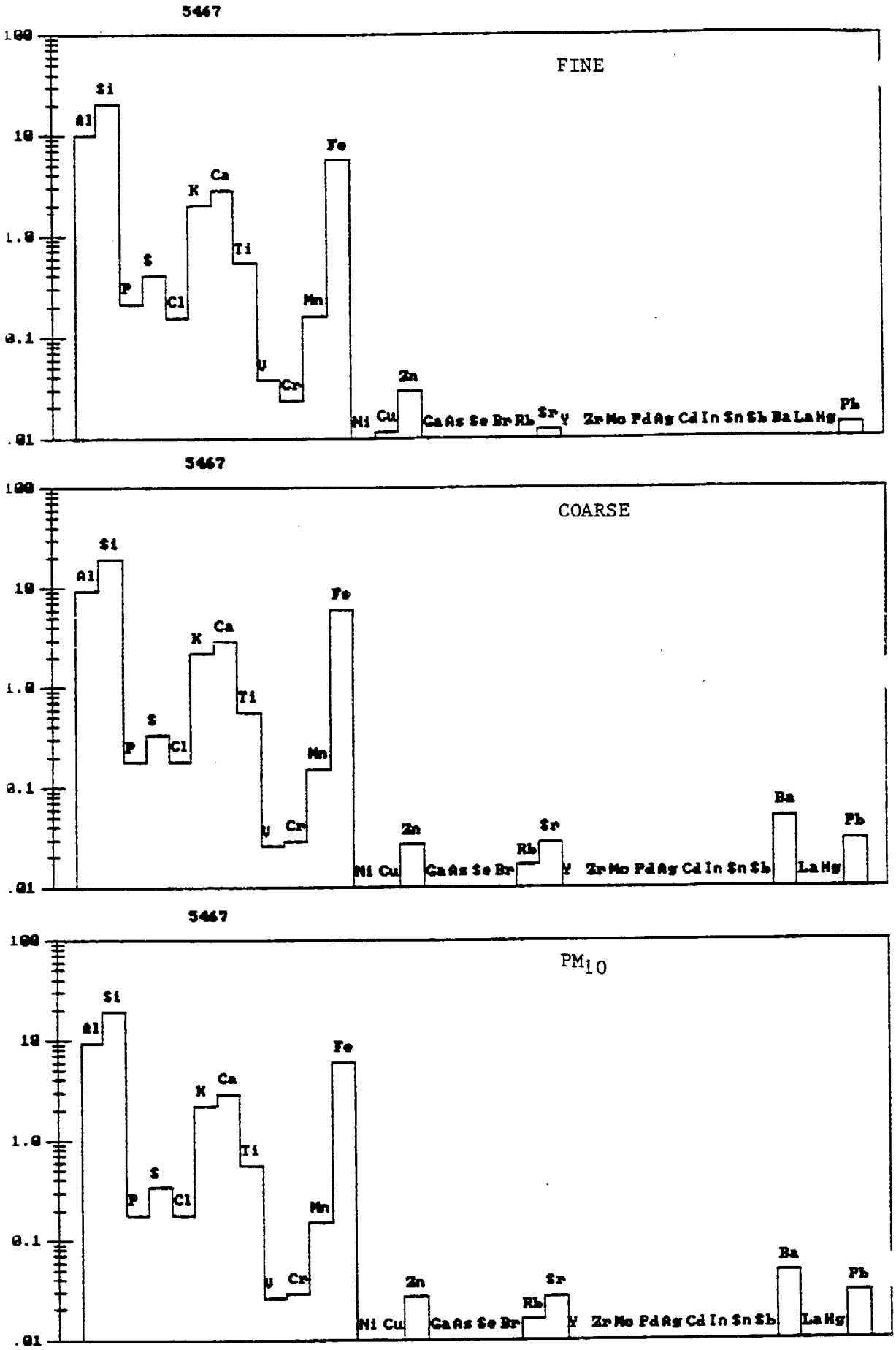
SCAB PROFILE COMPOSITE



srce code	part size	revsion date	source description	reference	date
5467	FCT	07/09/87	Riverside unpaved rd composite	1	04/87

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Al	9.8903 +- 1.4835	9.2309 +- 1.3846	9.2665 +- 1.3123
Si	20.3601 +- 3.0540	19.1896 +- 2.8784	19.2529 +- 2.7279
P	.2124 +- .0425	.1753 +- .0351	.1773 +- .0332
S	.4056 +- .0203	.3316 +- .0166	.3356 +- .0157
Cl	.1570 +- .0079	.1785 +- .0089	.1774 +- .0085
K	1.9811 +- .0990	2.2265 +- .1113	2.2133 +- .1055
Ca	2.8305 +- .1415	2.9003 +- .1450	2.8965 +- .1374
Ti	.5285 +- .0271	.5555 +- .0285	.5540 +- .0270
V	.0375 +- .0060	.0254 +- .0061	.0261 +- .0058
Cr	.0235 +- .0020	.0289 +- .0017	.0286 +- .0016
Mn	.1592 +- .0084	.1496 +- .0075	.1501 +- .0071
Fe	5.6711 +- .2857	5.9553 +- .2994	5.9400 +- .2837
Ni	.0093 +- .0013	.0071 +- .0005	.0072 +- .0004
Cu	.0113 +- .0015	.0069 +- .0005	.0071 +- .0004
Zn	.0284 +- .0019	.0264 +- .0014	.0265 +- .0013
Ga	.0026 +- .0008	.0000 +- .0025	.0001 +- .0024
As	.0082 +- .0027	.0000 +- .0017	.0004 +- .0017
Se	.0000 +- .0009	.0000 +- .0002	.0000 +- .0002
Br	.0015 +- .0013	.0034 +- .0003	.0033 +- .0003
Rb	.0072 +- .0016	.0163 +- .0009	.0158 +- .0008
Sr	.0120 +- .0021	.0278 +- .0015	.0269 +- .0014
Y	.0000 +- .0024	.0064 +- .0006	.0060 +- .0006
Zr	.0000 +- .0106	.0000 +- .0026	.0000 +- .0025
Mo	.0000 +- .0066	.0000 +- .0014	.0000 +- .0013
Pd	.0000 +- .0066	.0000 +- .0012	.0000 +- .0012
Ag	.0000 +- .0086	.0000 +- .0016	.0000 +- .0016
Cd	.0000 +- .0115	.0000 +- .0021	.0000 +- .0021
In	.0000 +- .0142	.0000 +- .0026	.0000 +- .0026
Sn	.0000 +- .0172	.0000 +- .0030	.0000 +- .0030
Sb	.0000 +- .0377	.0000 +- .0068	.0000 +- .0067
Ba	.0000 +- .0707	.0503 +- .0131	.0476 +- .0130
La	.0000 +- .1284	.0000 +- .0222	.0000 +- .0221
Hg	.0005 +- .0013	.0000 +- .0003	.0000 +- .0003
Pb	.0133 +- .0044	.0302 +- .0017	.0293 +- .0017
Sum	42.3515	41.1224	41.1888

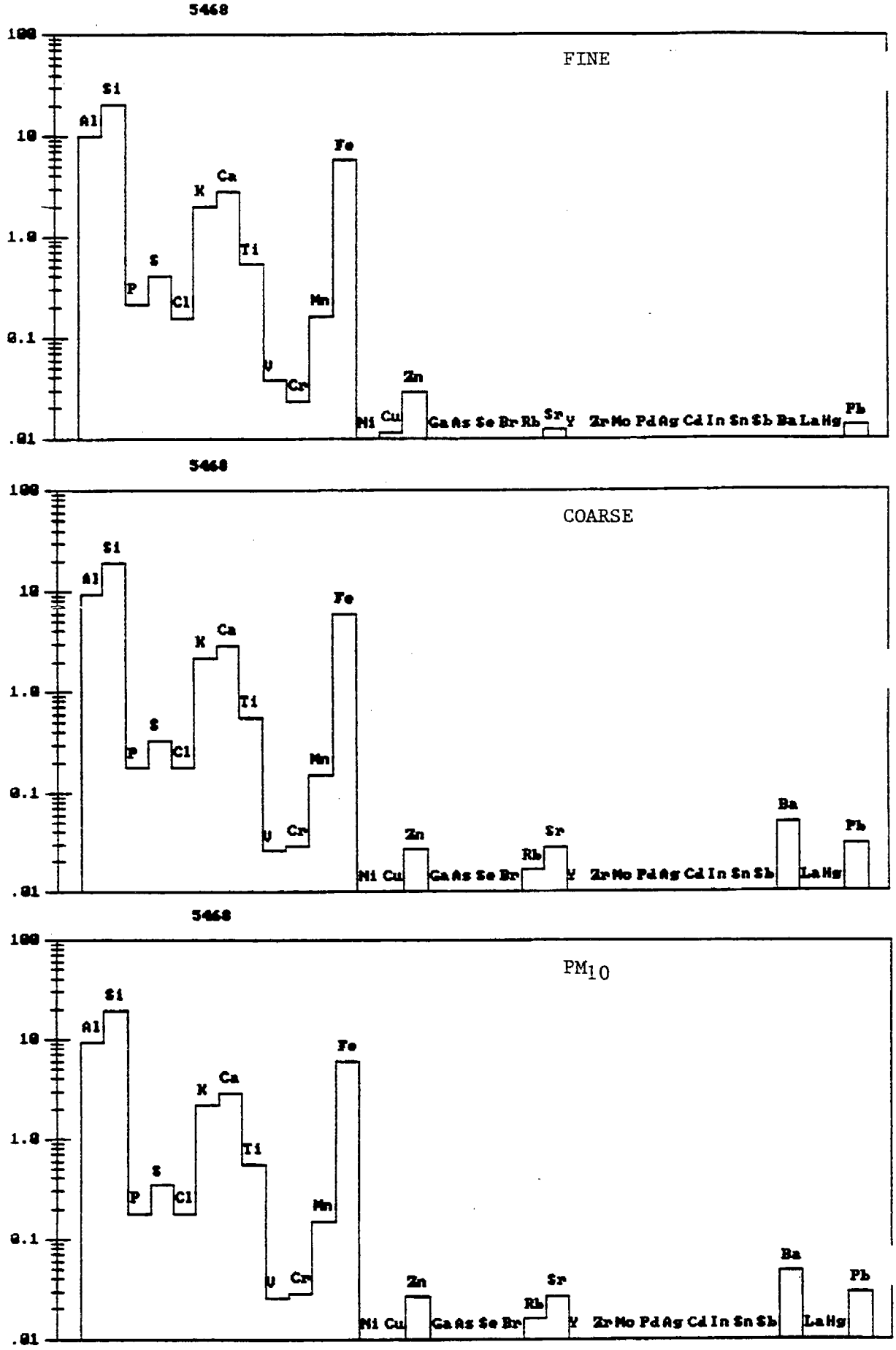
RIVERSIDE UNPAVED ROAD DUST COMPOSITE



srce code	part size	revsion date	source description	reference	date
5468	FCT	07/09/87	Riverside soil composite	1	04/87

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Al	9.8903 +- 1.4835	9.2309 +- 1.3846	9.2665 +- 1.3123
Si	20.3601 +- 3.0540	19.1896 +- 2.8784	19.2529 +- 2.7279
P	.2124 +- .0425	.1753 +- .0351	.1773 +- .0332
S	.4056 +- .0203	.3316 +- .0166	.3356 +- .0157
Cl	.1570 +- .0079	.1785 +- .0089	.1774 +- .0085
K	1.9811 +- .0990	2.2265 +- .1113	2.2133 +- .1055
Ca	2.8305 +- .1415	2.9003 +- .1450	2.8965 +- .1374
Ti	.5285 +- .0271	.5555 +- .0285	.5540 +- .0270
V	.0375 +- .0060	.0254 +- .0061	.0261 +- .0058
Cr	.0235 +- .0020	.0289 +- .0017	.0286 +- .0016
Mn	.1592 +- .0084	.1496 +- .0075	.1501 +- .0071
Fe	5.6711 +- .2857	5.9553 +- .2994	5.9400 +- .2837
Ni	.0093 +- .0013	.0071 +- .0005	.0072 +- .0004
Cu	.0113 +- .0015	.0069 +- .0005	.0071 +- .0004
Zn	.0284 +- .0019	.0264 +- .0014	.0265 +- .0013
Ga	.0026 +- .0008	.0000 +- .0025	.0001 +- .0024
As	.0082 +- .0027	.0000 +- .0017	.0004 +- .0017
Se	.0000 +- .0009	.0000 +- .0002	.0000 +- .0002
Br	.0015 +- .0013	.0034 +- .0003	.0033 +- .0003
Rb	.0072 +- .0016	.0163 +- .0009	.0158 +- .0008
Sr	.0120 +- .0021	.0278 +- .0015	.0269 +- .0014
Y	.0000 +- .0024	.0064 +- .0006	.0060 +- .0006
Zr	.0000 +- .0106	.0000 +- .0026	.0000 +- .0025
Mo	.0000 +- .0066	.0000 +- .0014	.0000 +- .0013
Pd	.0000 +- .0066	.0000 +- .0012	.0000 +- .0012
Ag	.0000 +- .0086	.0000 +- .0016	.0000 +- .0016
Cd	.0000 +- .0115	.0000 +- .0021	.0000 +- .0021
In	.0000 +- .0142	.0000 +- .0026	.0000 +- .0026
Sn	.0000 +- .0172	.0000 +- .0030	.0000 +- .0030
Sb	.0000 +- .0377	.0000 +- .0068	.0000 +- .0067
Ba	.0000 +- .0707	.0503 +- .0131	.0476 +- .0130
La	.0000 +- .1284	.0000 +- .0222	.0000 +- .0221
Hg	.0005 +- .0013	.0000 +- .0003	.0000 +- .0003
Pb	.0133 +- .0044	.0302 +- .0017	.0293 +- .0017
Sum	42.3515	41.1224	41.1888

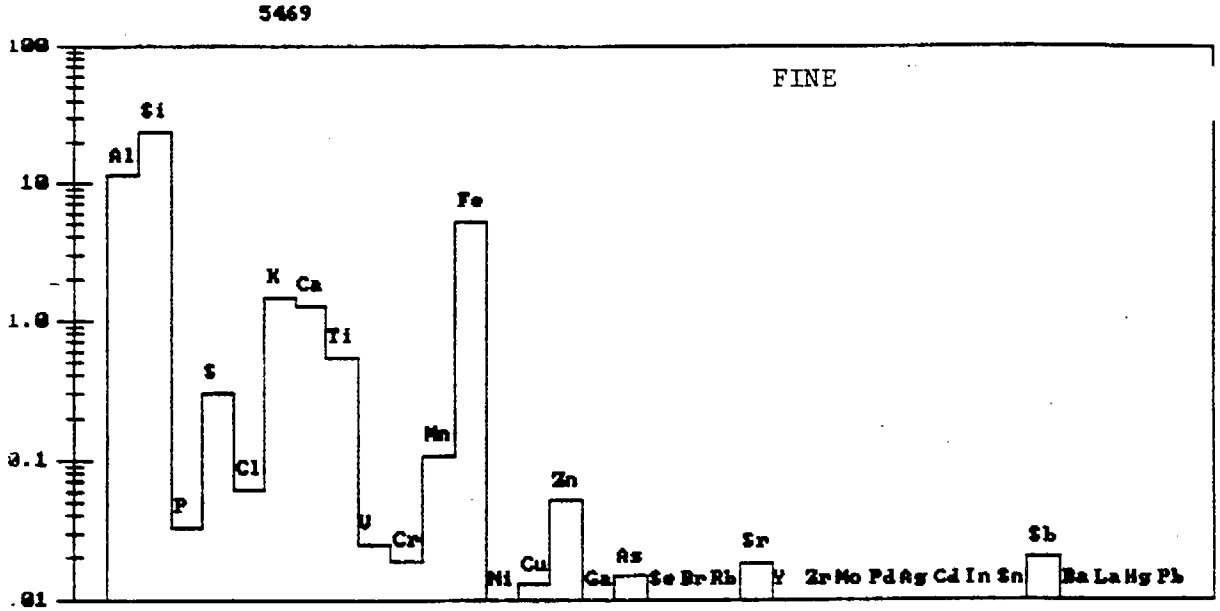
RIVERSIDE SAMPLE COMPOSITE

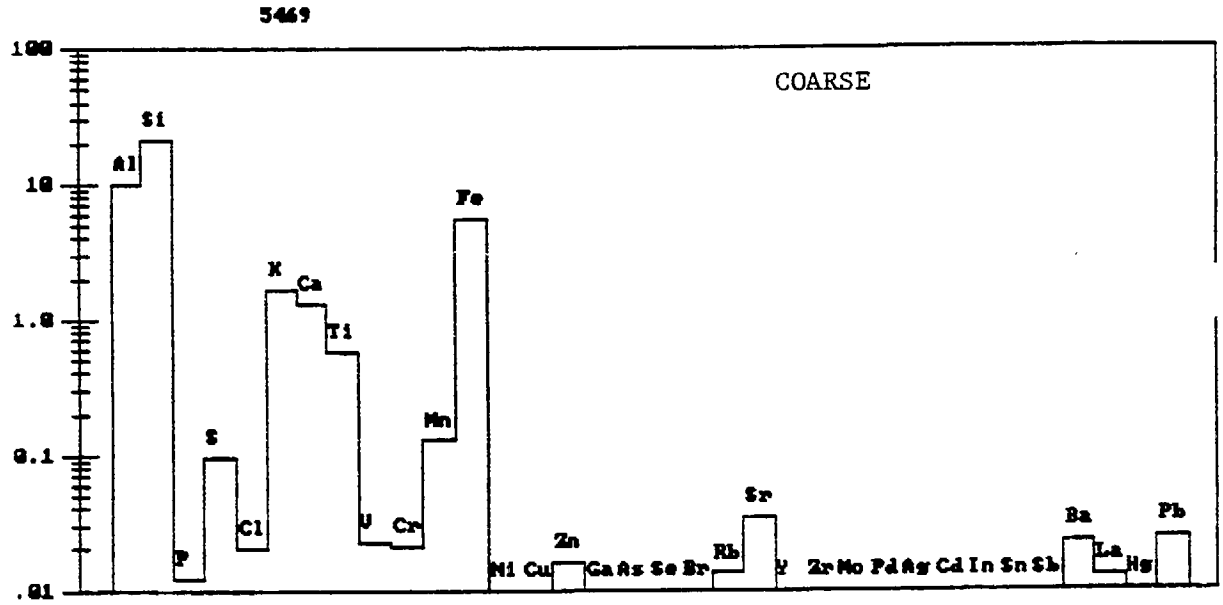


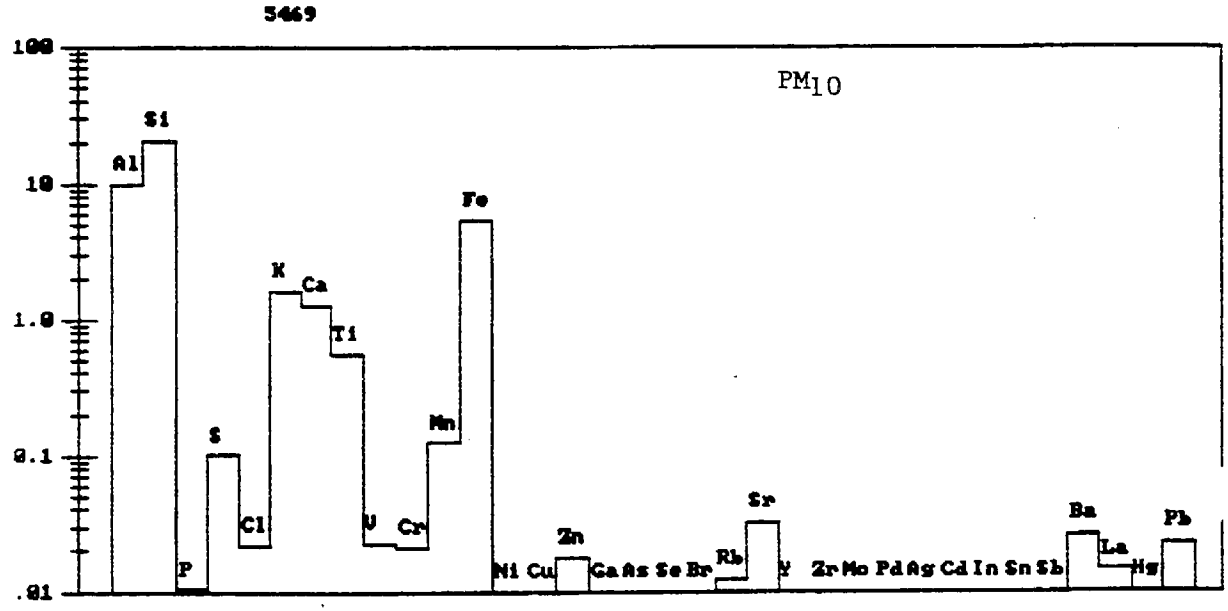
srce code	part size	revsion date	source description	reference	date
5469	FCT	07/09/87	Hawthorne soil composite	1	04/87

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Al	11.2766 +- 1.2985	10.0206 +- 1.0636	9.8897 +- 2.3019
Si	23.5750 +- 2.7165	21.2178 +- 2.2512	20.8019 +- 4.2909
P	.0332 +- .0049	.0123 +- .0123	.0105 +- .0088
S	.3001 +- .0498	.0950 +- .0128	.1008 +- .0049
Cl	.0612 +- .0261	.0202 +- .0010	.0220 +- .0064
K	1.4703 +- .0839	1.6831 +- .0597	1.6215 +- .3080
Ca	1.2781 +- .0924	1.3185 +- .0468	1.2745 +- .2394
Ti	.5405 +- .0375	.5811 +- .0305	.5580 +- .0898
V	.0252 +- .0055	.0228 +- .0047	.0227 +- .0062
Cr	.0189 +- .0037	.0214 +- .0015	.0210 +- .0053
Mn	.1068 +- .0072	.1291 +- .0048	.1240 +- .0233
Fe	5.1777 +- .2977	5.5934 +- .1999	5.4172 +- 1.0930
Ni	.0065 +- .0027	.0081 +- .0006	.0079 +- .0017
Cu	.0128 +- .0048	.0050 +- .0013	.0056 +- .0025
Zn	.0510 +- .0281	.0161 +- .0017	.0179 +- .0063
Ga	.0006 +- .0009	.0000 +- .0020	.0000 +- .0020
As	.0148 +- .0067	.0000 +- .0013	.0008 +- .0012
Se	.0000 +- .0010	.0000 +- .0003	.0000 +- .0002
Br	.0001 +- .0013	.0020 +- .0020	.0014 +- .0014
Rb	.0012 +- .0017	.0133 +- .0007	.0122 +- .0026
Sr	.0186 +- .0025	.0344 +- .0027	.0322 +- .0045
Y	.0000 +- .0025	.0005 +- .0007	.0005 +- .0007
Zr	.0000 +- .0118	.0000 +- .0034	.0000 +- .0031
Mo	.0000 +- .0070	.0000 +- .0019	.0000 +- .0018
Pd	.0000 +- .0078	.0000 +- .0019	.0000 +- .0018
Ag	.0000 +- .0092	.0000 +- .0024	.0000 +- .0022
Cd	.0000 +- .0123	.0000 +- .0033	.0000 +- .0030
In	.0000 +- .0155	.0000 +- .0040	.0000 +- .0037
Sn	.0000 +- .0178	.0000 +- .0048	.0000 +- .0043
Sb	.0200 +- .0392	.0082 +- .0103	.0069 +- .0094
Ba	.0000 +- .0750	.0228 +- .0228	.0257 +- .0257
La	.0000 +- .1360	.0127 +- .0343	.0143 +- .0310
Hg	.0000 +- .0012	.0000 +- .0004	.0000 +- .0003
Pb	.0056 +- .0056	.0243 +- .0016	.0227 +- .0046
Sum	43.9948	40.8627	40.0119

HAWTHORNE SOIL COMPOSITE



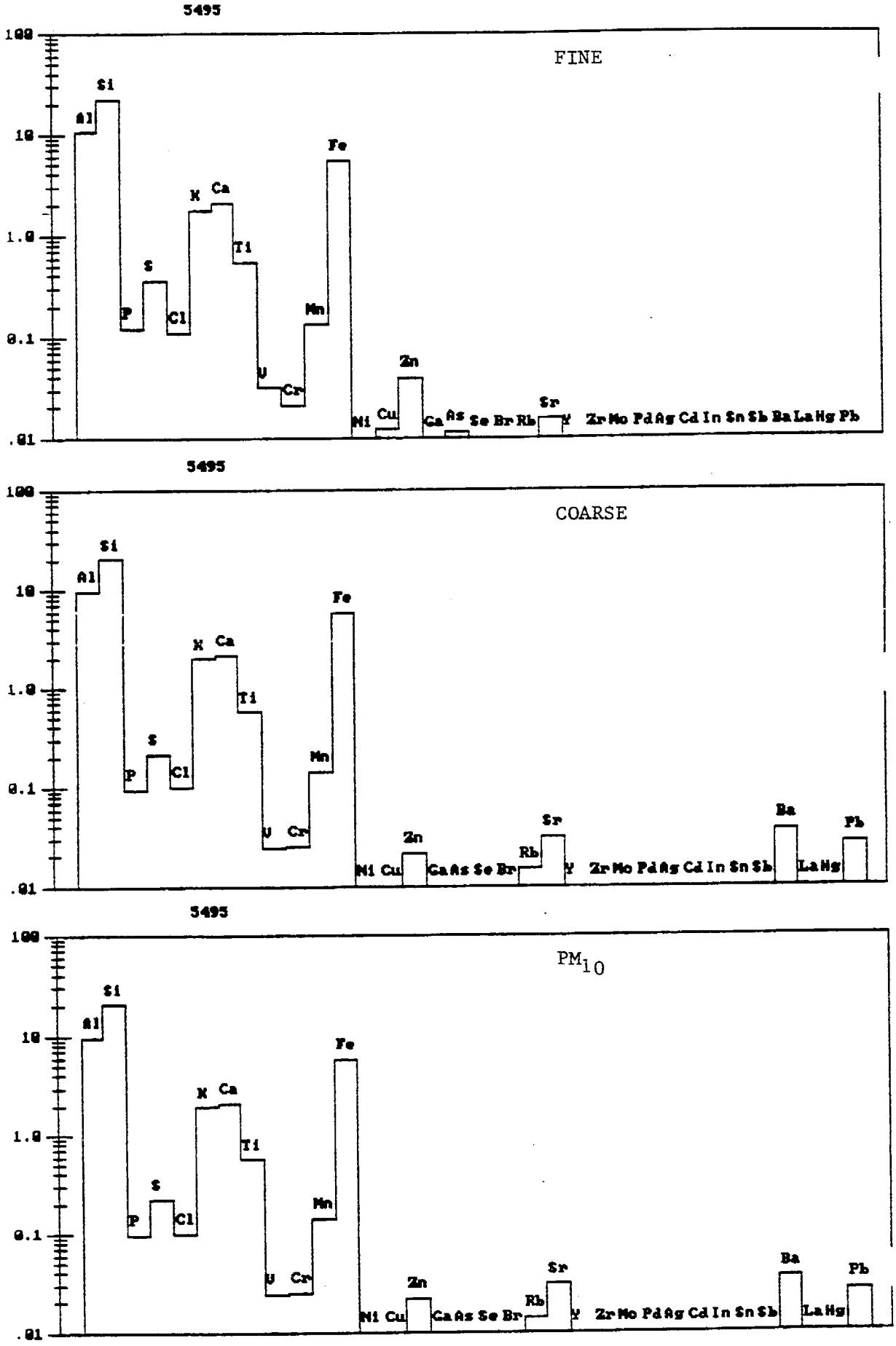




srce code	part size	revsion date	source description	reference	date
5495	FCT	07/09/87	SCAB Soil Profile composite	1	07/87

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Al	10.5834 +- 1.0111	9.6257 +- .8731	9.6826 +- .8271
Si	21.9675 +- 2.0954	20.2037 +- 1.8273	20.3097 +- 1.7306
P	.1228 +- .0896	.0938 +- .0815	.0953 +- .0820
S	.3528 +- .0527	.2133 +- .1183	.2213 +- .1142
Cl	.1091 +- .0479	.0993 +- .0791	.0998 +- .0776
K	1.7257 +- .2554	1.9548 +- .2717	1.9424 +- .2708
Ca	2.0543 +- .7762	2.1094 +- .7909	2.1054 +- .7910
Ti	.5345 +- .0261	.5683 +- .0209	.5664 +- .0203
V	.0313 +- .0061	.0241 +- .0039	.0245 +- .0037
Cr	.0212 +- .0023	.0251 +- .0037	.0249 +- .0036
Mn	.1330 +- .0262	.1393 +- .0103	.1390 +- .0111
Fe	5.4244 +- .2467	5.7743 +- .1809	5.7549 +- .1851
Ni	.0079 +- .0015	.0076 +- .0005	.0076 +- .0005
Cu	.0120 +- .0025	.0059 +- .0009	.0062 +- .0008
Zn	.0397 +- .0141	.0212 +- .0051	.0221 +- .0043
Ga	.0016 +- .0010	.0000 +- .0016	.0000 +- .0015
As	.0115 +- .0036	.0000 +- .0011	.0005 +- .0010
Se	.0000 +- .0007	.0000 +- .0002	.0000 +- .0002
Br	.0008 +- .0009	.0027 +- .0010	.0026 +- .0010
Rb	.0042 +- .0030	.0148 +- .0015	.0141 +- .0017
Sr	.0153 +- .0033	.0311 +- .0033	.0302 +- .0033
Y	.0000 +- .0017	.0034 +- .0029	.0032 +- .0028
Zr	.0000 +- .0079	.0000 +- .0021	.0000 +- .0021
Mo	.0000 +- .0048	.0000 +- .0012	.0000 +- .0011
Pd	.0000 +- .0051	.0000 +- .0011	.0000 +- .0011
Ag	.0000 +- .0063	.0000 +- .0014	.0000 +- .0014
Cd	.0000 +- .0084	.0000 +- .0020	.0000 +- .0019
In	.0000 +- .0105	.0000 +- .0024	.0000 +- .0023
Sn	.0000 +- .0124	.0000 +- .0028	.0000 +- .0027
Sb	.0100 +- .0272	.0041 +- .0062	.0045 +- .0060
Ba	.0000 +- .0515	.0365 +- .0138	.0347 +- .0129
La	.0000 +- .0935	.0063 +- .0204	.0060 +- .0199
Hg	.0002 +- .0009	.0000 +- .0002	.0000 +- .0002
Pb	.0094 +- .0038	.0272 +- .0029	.0263 +- .0030
Sum	43.1726	40.9919	41.1242

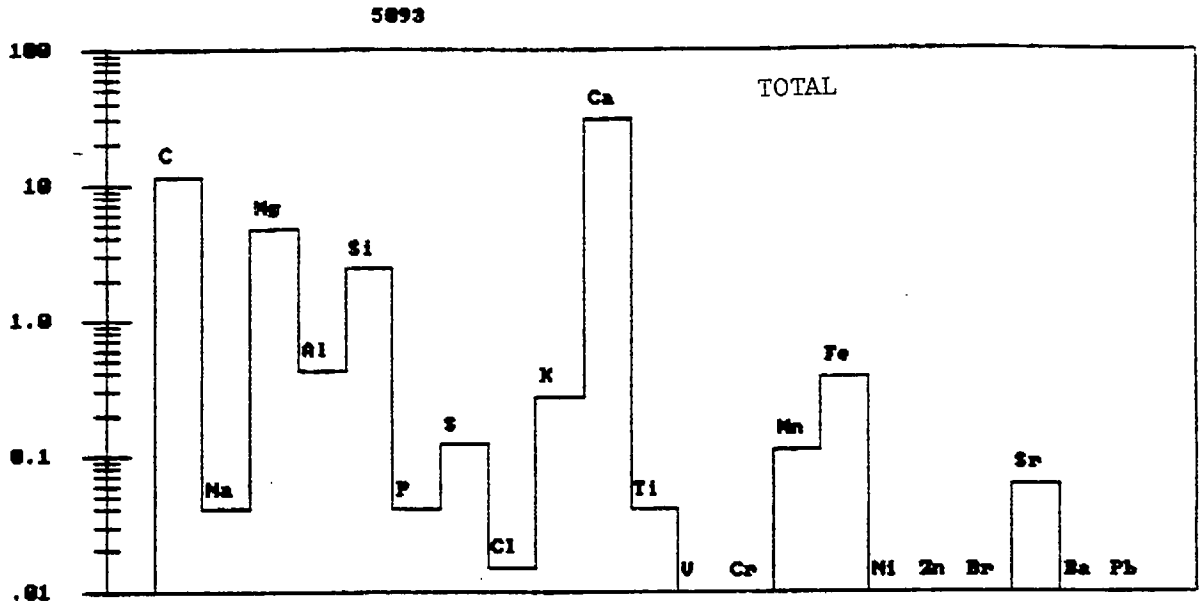
SCAB SOIL PROFILE COMPOSITE



srce code	part size	revsion date	source description	reference	date
5093	T	04/15/87	LIMESTONE, CRUSTAL	17	00/66

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
C			11.4000 +- 1.1400
Na			.0400 +- .0040
Mg			4.7000 +- .4700
Al			.4200 +- .0420
Si			2.4000 +- .2400
P			.0400 +- .0040
S			.1200 +- .0120
Cl			.0150 +- .0015
K			.2700 +- .0270
Ca			30.2000 +- 3.0200
Ti			.0400 +- .0040
V			.0020 +- .0002
Cr			.0010 +- .0001
Mn			.1100 +- .0110
Fe			.3800 +- .0380
Ni			.0020 +- .0002
Zn			.0020 +- .0002
Br			.0010 +- .0001
Sr			.0610 +- .0061
Ba			.0010 +- .0001
Pb			.0010 +- .0001
Sum			50.2060

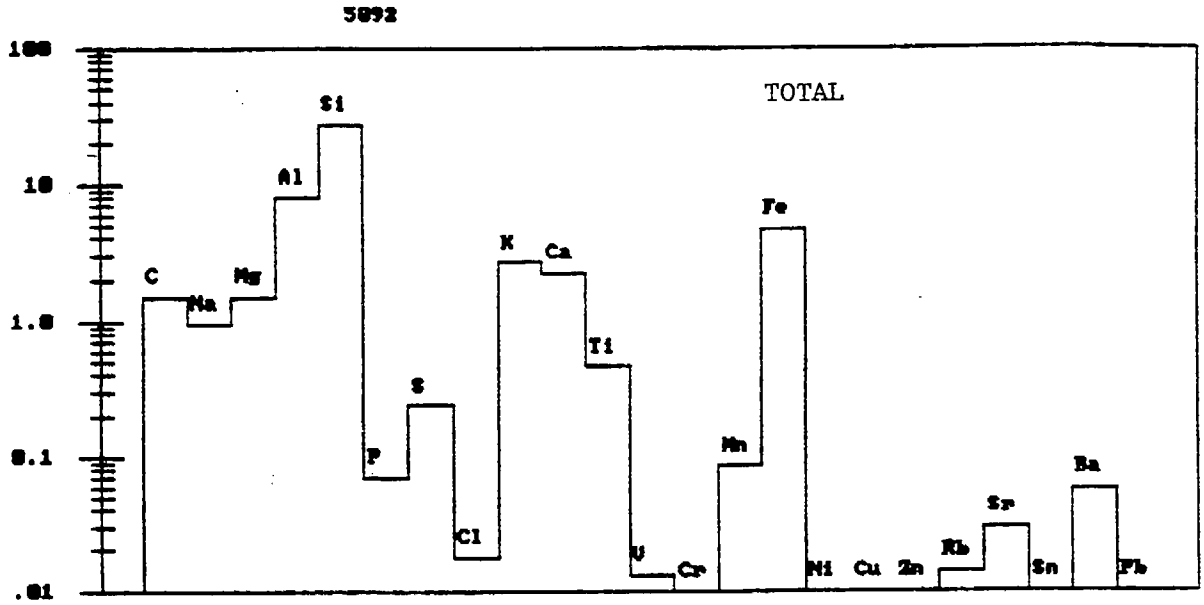
LIMESTONE, CRUSTAL



srce code	part size	revsion date	source description	reference	date
5092	T	04/15/87	SHALE, CRUSTAL	17	00/66

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
C			1.5000 +- .1500
Na			.9600 +- .0960
Mg			1.5000 +- .1500
Al			8.0000 +- .8000
Si			27.3000 +- 2.7300
P			.0700 +- .0070
S			.2400 +- .0240
Cl			.0180 +- .0018
K			2.6600 +- .2660
Ca			2.2100 +- .2210
Ti			.4600 +- .0460
V			.0130 +- .0013
Cr			.0090 +- .0009
Mn			.0850 +- .0085
Fe			4.7200 +- .4720
Ni			.0070 +- .0007
Cu			.0050 +- .0005
Zn			.0100 +- .0010
Rb			.0140 +- .0014
Sr			.0300 +- .0030
Sn			.0010 +- .0001
Ba			.0580 +- .0058
Pb			.0020 +- .0002
Sum			49.8720

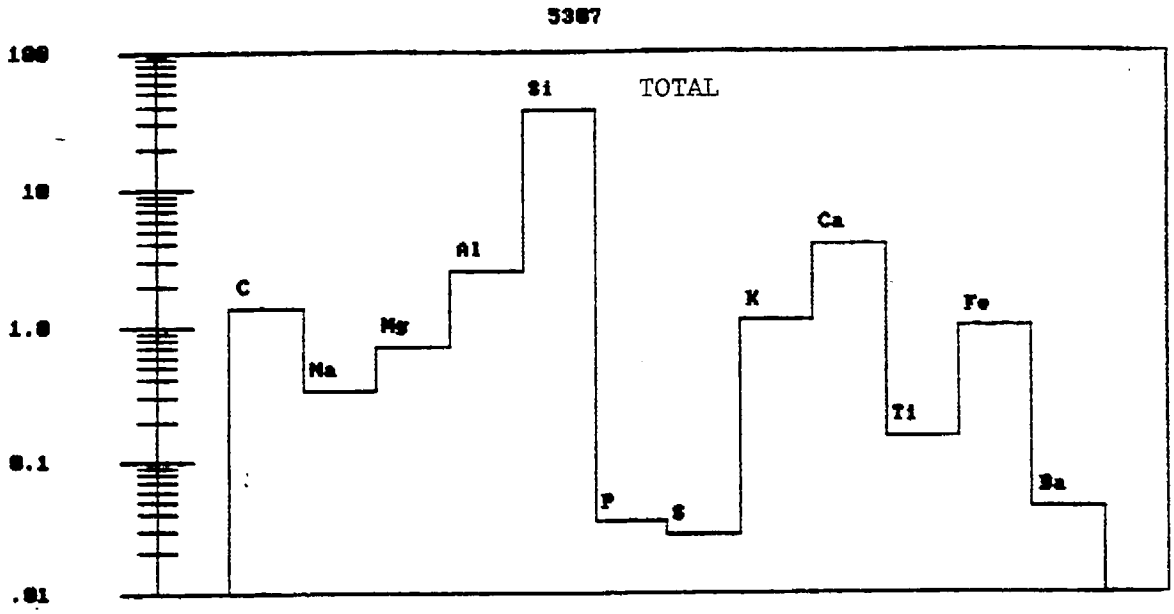
SHALE, CRUSTAL



srce code	part size	revsion date	source description	reference	date
5307	T	03/17/87	SANDSTONE, CRUSTAL 65th CRC	4	

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
C			1.3732 +- .2746
Na			.3339 +- .0668
Mg			.6995 +- .1399
Al			2.5233 +- .5047
Si			36.5801 +- 7.3160
P			.0349 +- .0070
S			.0280 +- .0056
K			1.0873 +- .2175
Ca			3.9325 +- .7865
Ti			.1498 +- .0300
Fe			.9810 +- .1962
Ba			.0448 +- .0090
Sum			47.7683

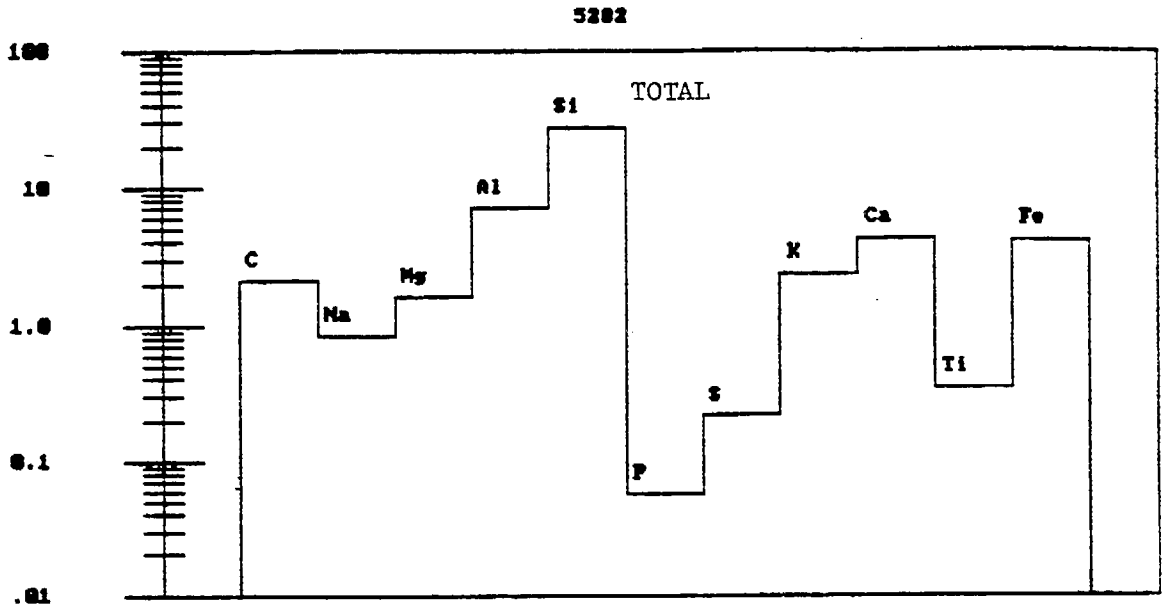
SANDSTONE, CRUSTAL 65TH CRC



srce code	part size	revsion date	source description	reference	date
5282	T	03/17/87	SEDIMENT, CRUSTAL 65th CRC	4	

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
C			2.1287 +- .4257
Na			.8385 +- .1677
Mg			1.5980 +- .3196
Al			7.0833 +- 1.4167
Si			27.0627 +- 5.4125
P			.0567 +- .0113
S			.2160 +- .0432
K			2.3738 +- .4748
Ca			4.2113 +- .8423
Ti			.3414 +- .0683
Fe			4.0417 +- .8083
Sum			49.9521

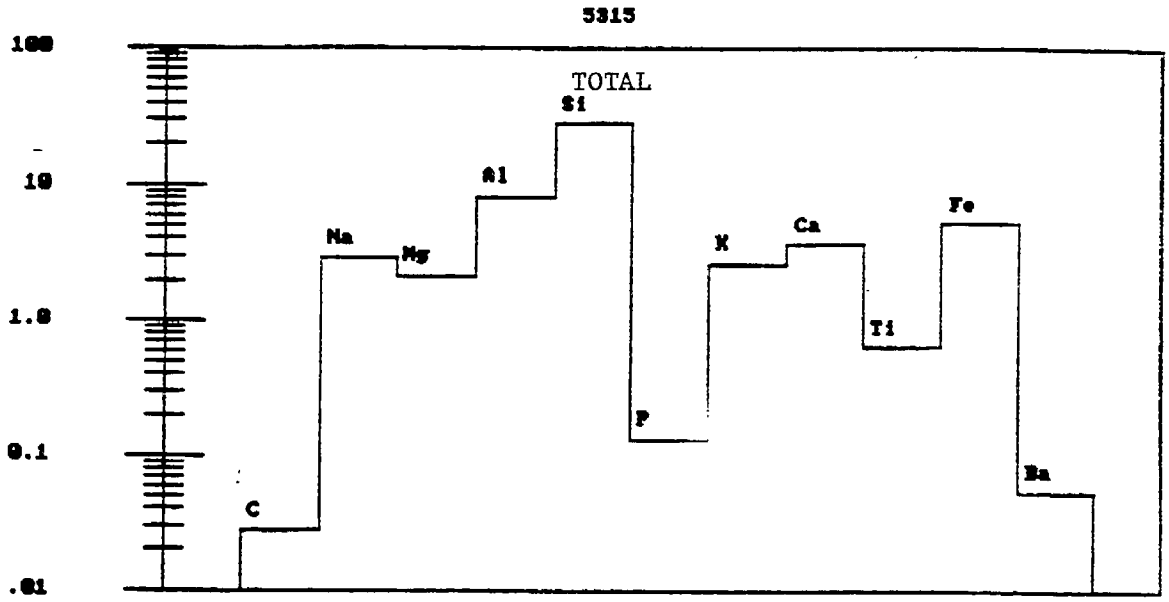
SEDIMENT, CRUSTAL 65TH CRC



srce code	part size	revsion date	source description	reference	date
5315	T	03/17/87	IGNEOUS ROCK 65th CRC	4	

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
C			.0273 +- .0055
Na			2.8493 +- .5699
Mg			2.1045 +- .4209
Al			8.1149 +- 1.6230
Si			27.6184 +- 5.5237
P			.1308 +- .0262
K			2.5979 +- .5196
Ca			3.6322 +- .7264
Ti			.6290 +- .1258
Fe			5.1055 +- 1.0211
Ba			.0538 +- .0108
Sum			52.8636

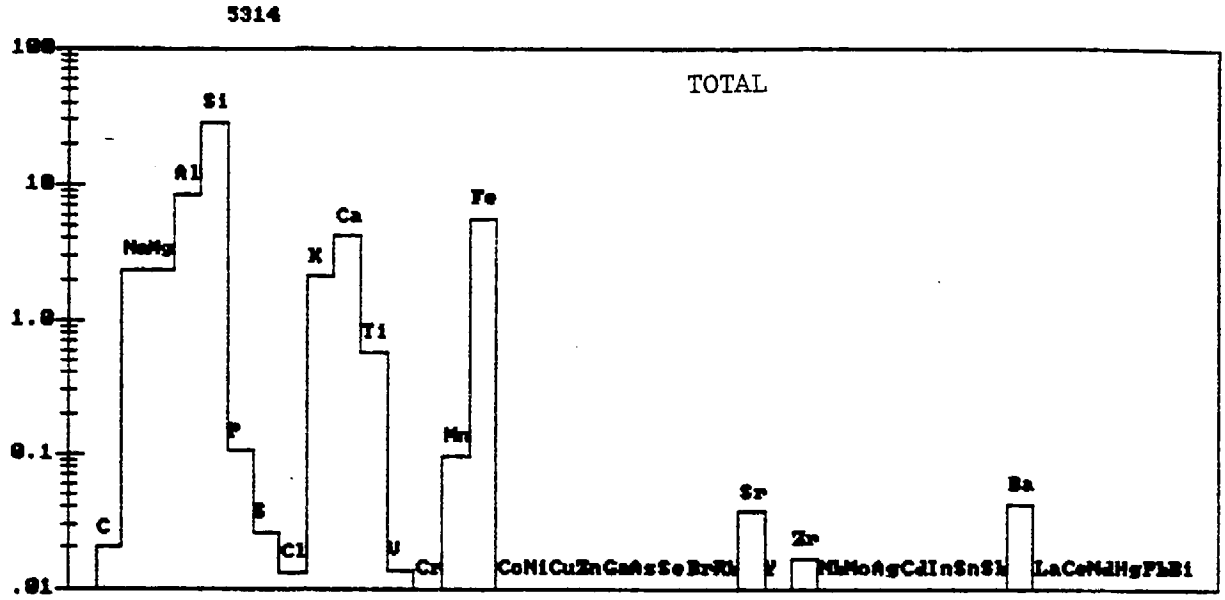
IGNEOUS ROCK



srce code	part size	revsion date	source description	reference	date
5314	T	03/17/87	EARTH'S CRUST 65th CRC	4	

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
C			.0200 +- .0060
Na			2.3600 +- .7080
Mg			2.3300 +- .6990
Al			8.3200 +- 2.4960
Si			28.2000 +- 8.4600
P			.1050 +- .0315
S			.0260 +- .0078
Cl			.0130 +- .0039
K			2.0900 +- .6270
Ca			4.1500 +- 1.2450
Ti			.5700 +- .1710
V			.0135 +- .0041
Cr			.0100 +- .0030
Mn			.0950 +- .0285
Fe			5.6300 +- 1.6890
Co			.0025 +- .0008
Ni			.0075 +- .0023
Cu			.0055 +- .0016
Zn			.0070 +- .0021
Ga			.0015 +- .0005
As			.0002 +- .0001
Se			.0000 +- .0001
Br			.0003 +- .0001
Rb			.0090 +- .0027
Sr			.0375 +- .0113
Y			.0033 +- .0010
Zr			.0165 +- .0050
Nb			.0020 +- .0006
Mo			.0002 +- .0001
Ag			.0000 +- .0001
Cd			.0000 +- .0001
In			.0000 +- .0001
Sn			.0002 +- .0001
Sb			.0000 +- .0001
Ba			.0425 +- .0128
La			.0030 +- .0009
Ce			.0060 +- .0018
Nd			.0028 +- .0008
Hg			.0000 +- .0001
Pb			.0013 +- .0004
Bi			.0000 +- .0001
Sum			54.0813

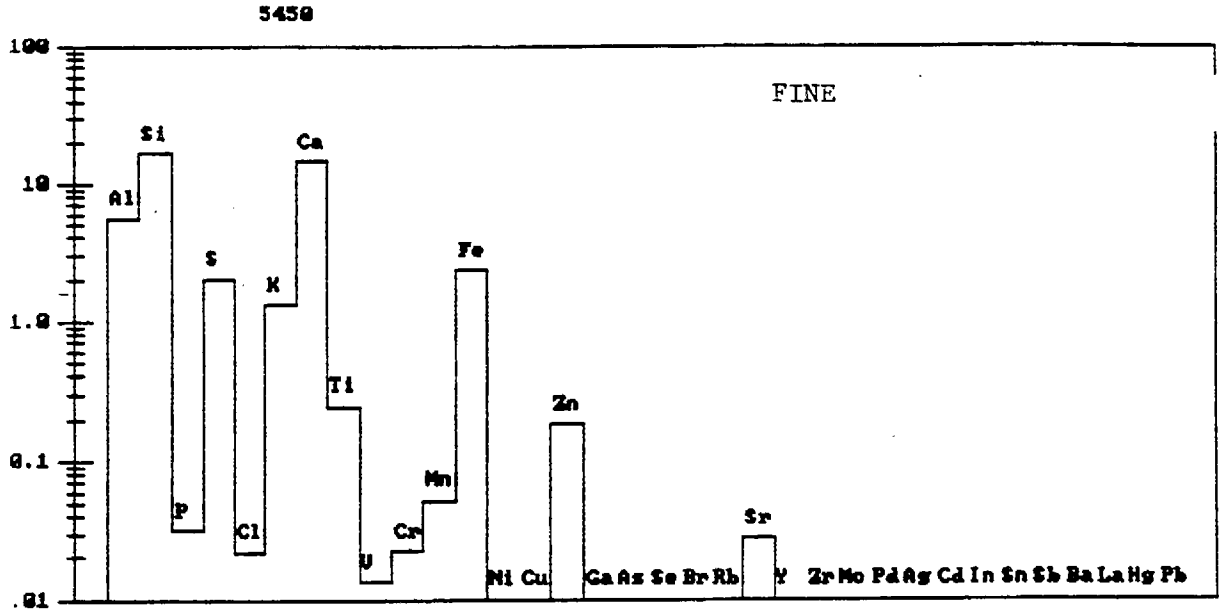
EARTH'S CRUST 65TH CRC

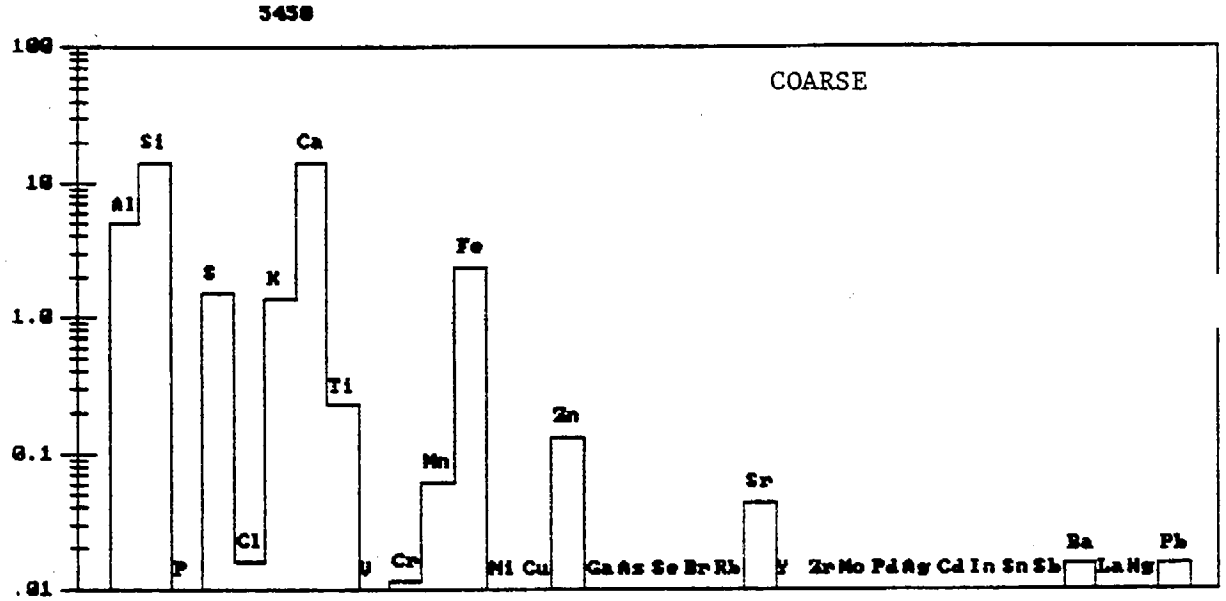


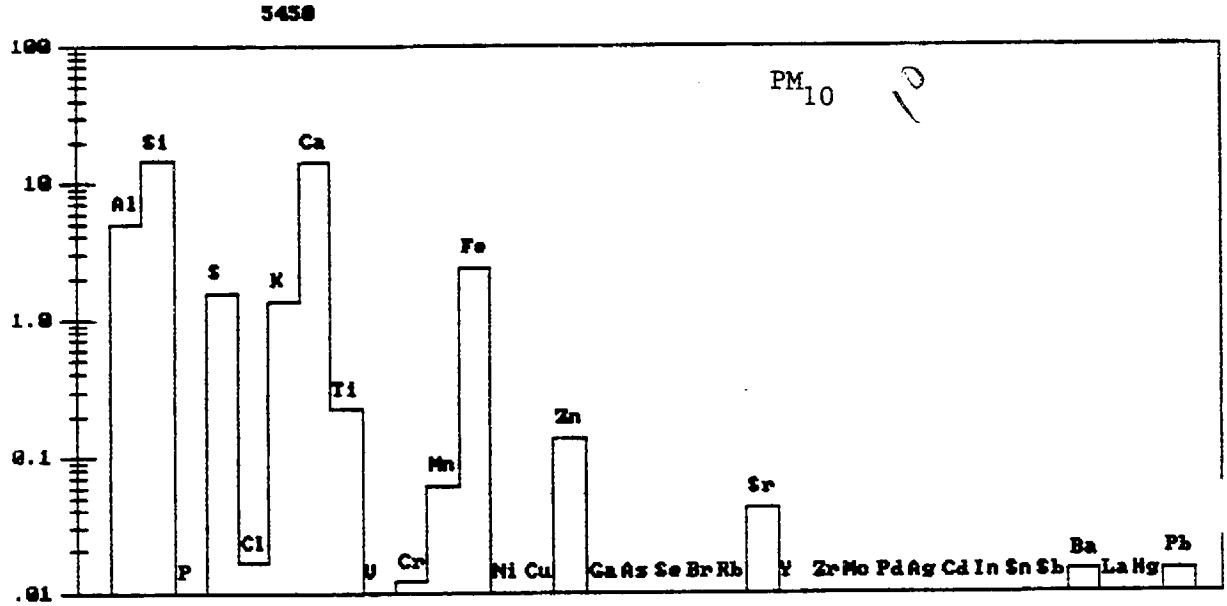
srce code	part size	revsion date	source description	reference	date
5450	FCT	07/09/87	Sandblasting & Plastering	1	04/87

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Al	5.5528 +- .8329	4.9440 +- .7416	4.9835 +- .6955
Si	16.4427 +- 2.4664	14.2102 +- 2.1315	14.3552 +- 1.9995
P	.0314 +- .0063	.0000 +- .0000	.0020 +- .0004
S	1.9819 +- .0991	1.5239 +- .0762	1.5536 +- .0715
Cl	.0219 +- .0011	.0160 +- .0008	.0164 +- .0008
K	1.2876 +- .0644	1.3531 +- .0677	1.3488 +- .0634
Ca	14.3495 +- .7175	14.2115 +- .7106	14.2205 +- .6661
Ti	.2450 +- .0137	.2226 +- .0132	.2240 +- .0124
V	.0133 +- .0034	.0046 +- .0035	.0052 +- .0033
Cr	.0222 +- .0021	.0113 +- .0014	.0120 +- .0013
Mn	.0511 +- .0035	.0621 +- .0033	.0614 +- .0031
Fe	2.3245 +- .1183	2.3769 +- .1198	2.3735 +- .1123
Ni	.0044 +- .0010	.0045 +- .0004	.0044 +- .0004
Cu	.0071 +- .0012	.0075 +- .0006	.0075 +- .0005
Zn	.1807 +- .0098	.1311 +- .0068	.1344 +- .0063
Ga	.0000 +- .0008	.0000 +- .0019	.0000 +- .0018
As	.0063 +- .0021	.0000 +- .0011	.0004 +- .0010
Se	.0001 +- .0007	.0000 +- .0002	.0000 +- .0002
Br	.0004 +- .0009	.0027 +- .0003	.0026 +- .0003
Rb	.0000 +- .0012	.0093 +- .0006	.0087 +- .0006
Sr	.0275 +- .0022	.0431 +- .0023	.0421 +- .0021
Y	.0000 +- .0017	.0006 +- .0006	.0006 +- .0006
Zr	.0000 +- .0082	.0058 +- .0034	.0054 +- .0033
Mo	.0000 +- .0052	.0000 +- .0017	.0000 +- .0016
Pd	.0000 +- .0053	.0000 +- .0015	.0000 +- .0015
Ag	.0000 +- .0067	.0000 +- .0020	.0000 +- .0019
Cd	.0000 +- .0082	.0000 +- .0024	.0000 +- .0023
In	.0000 +- .0112	.0000 +- .0029	.0000 +- .0028
Sn	.0000 +- .0125	.0000 +- .0035	.0000 +- .0033
Sb	.0000 +- .0279	.0000 +- .0078	.0000 +- .0075
Ba	.0000 +- .0519	.0152 +- .0152	.0142 +- .0146
La	.0000 +- .0919	.0000 +- .0253	.0000 +- .0244
Hg	.0008 +- .0010	.0000 +- .0003	.0001 +- .0003
Pb	.0049 +- .0032	.0153 +- .0012	.0146 +- .0012
Sum	42.5563	39.1714	39.3913

SANDBLASTING & PLASTERING







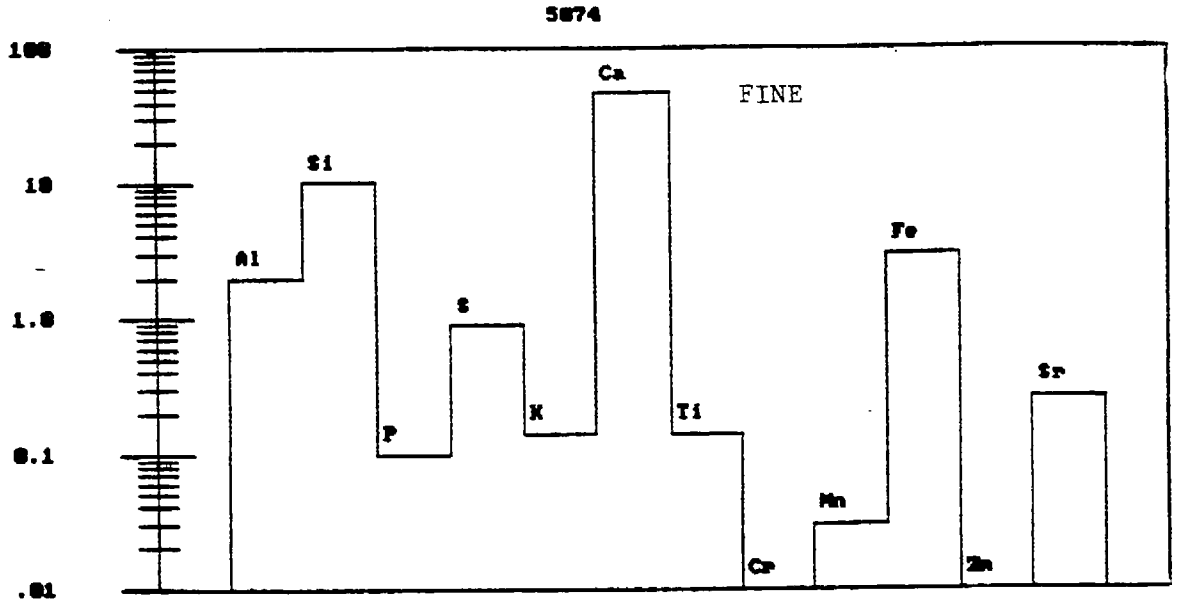
srce code	part size	revsion date	source description	reference	date
5074	FCT	03/19/87	NBS cement dust (SRM 633)	NBS catalog	02/84

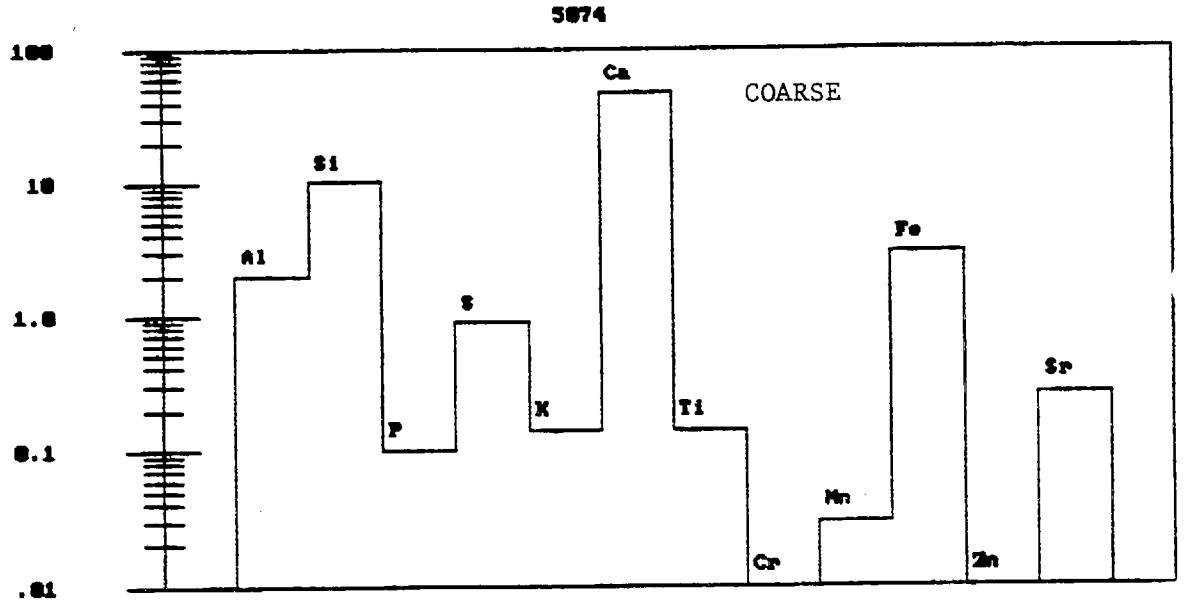
PERCENT COMPOSITION

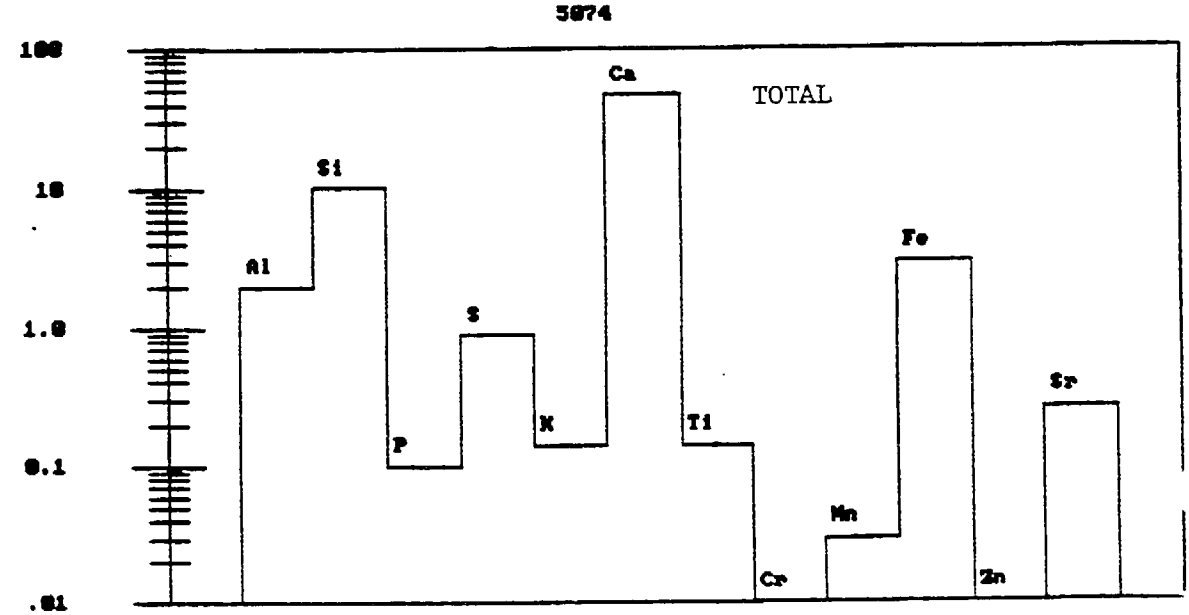
SPECIES	FINE	COARSE	TOTAL
Al	2.0000 +- .4000	2.0000 +- .4000	2.0000 +- .4000
Si	10.2000 +- 2.0000	10.2000 +- 2.0000	10.2000 +- 2.0000
P	.1000 +- .0200	.1000 +- .0200	.1000 +- .0200
S	.8800 +- .1700	.8800 +- .1700	.8800 +- .1700
K	.1400 +- .0280	.1400 +- .0280	.1400 +- .0280
Ca	46.1000 +- 4.6100	46.1000 +- 4.6100	46.1000 +- 4.6100
Ti	.1400 +- .0280	.1400 +- .0280	.1400 +- .0280
Cr	.0070 +- .0014	.0070 +- .0014	.0070 +- .0014
Mn	.0300 +- .0060	.0300 +- .0060	.0300 +- .0060
Fe	2.9400 +- .5800	2.9400 +- .5800	2.9400 +- .5800
Zn	.0080 +- .0016	.0080 +- .0016	.0080 +- .0016
Sr	.2600 +- .0520	.2600 +- .0520	.2600 +- .0520
Sum	62.8050	62.8050	62.8050

FINE Σ2.Sum
COARSE 72.5

NBS CEMENT DUST (SRM 633)





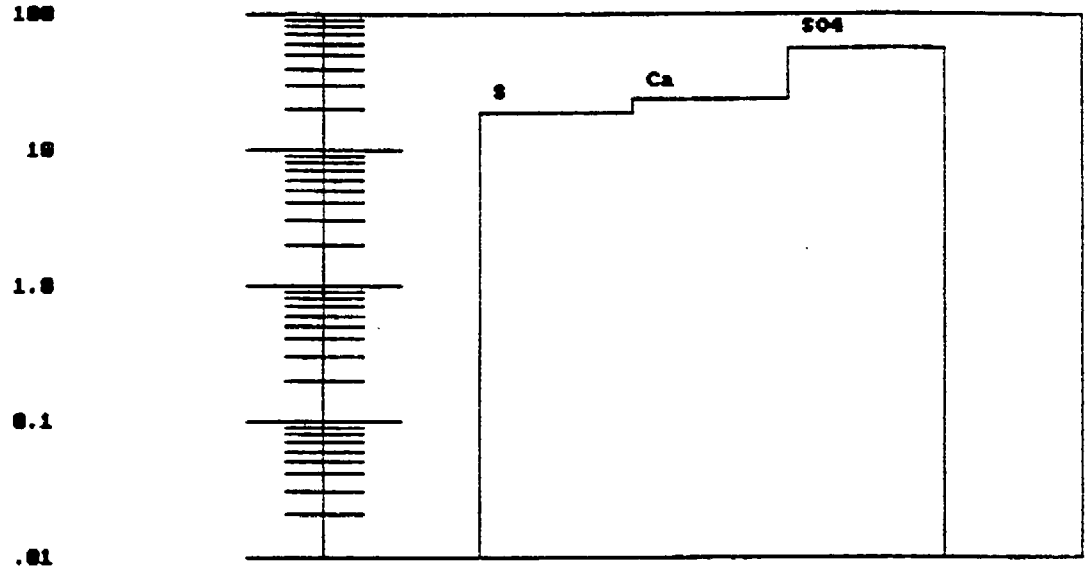


srce code	part size	revsion date	source description	reference	date
5117	T	09/26/83	gypsum handling (CaSO4.2H2O)		09/83

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
S			18.6000 +- 1.8600
Ca			23.3000 +- 2.3300
SO4			55.8000 +- 5.5800
Sum			97.7000

GYPSUM HANDLING ($CaSO_4 \cdot 2H_2O$)

5117 TOTAL

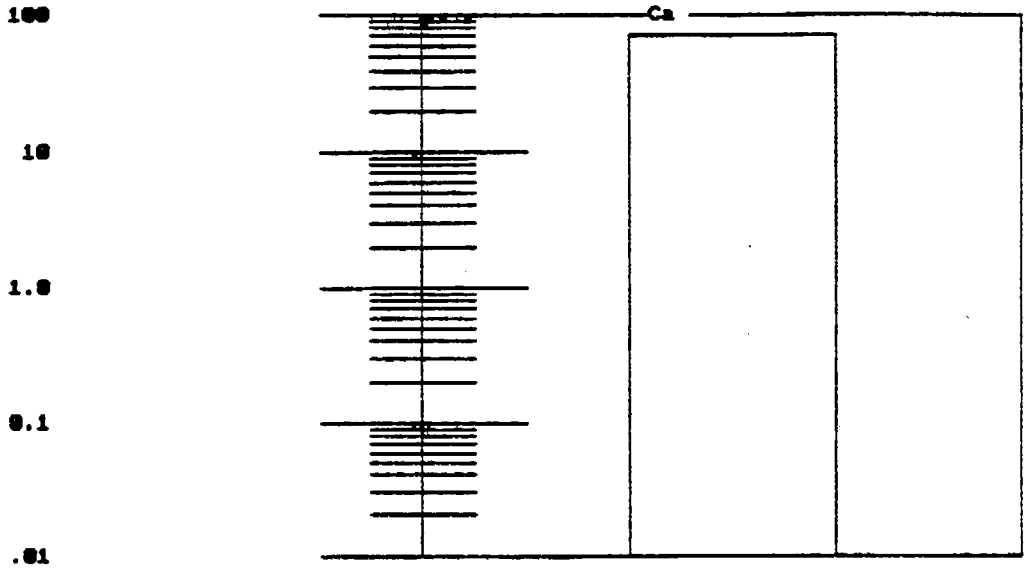


srce code	part size	revsion date	source description	reference	date
5116	T	09/26/83	lime handling (CaO)		09/83

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Ca			71.0000 +- 7.1000
Sum			71.0000

LIME HANDLING (CaO)

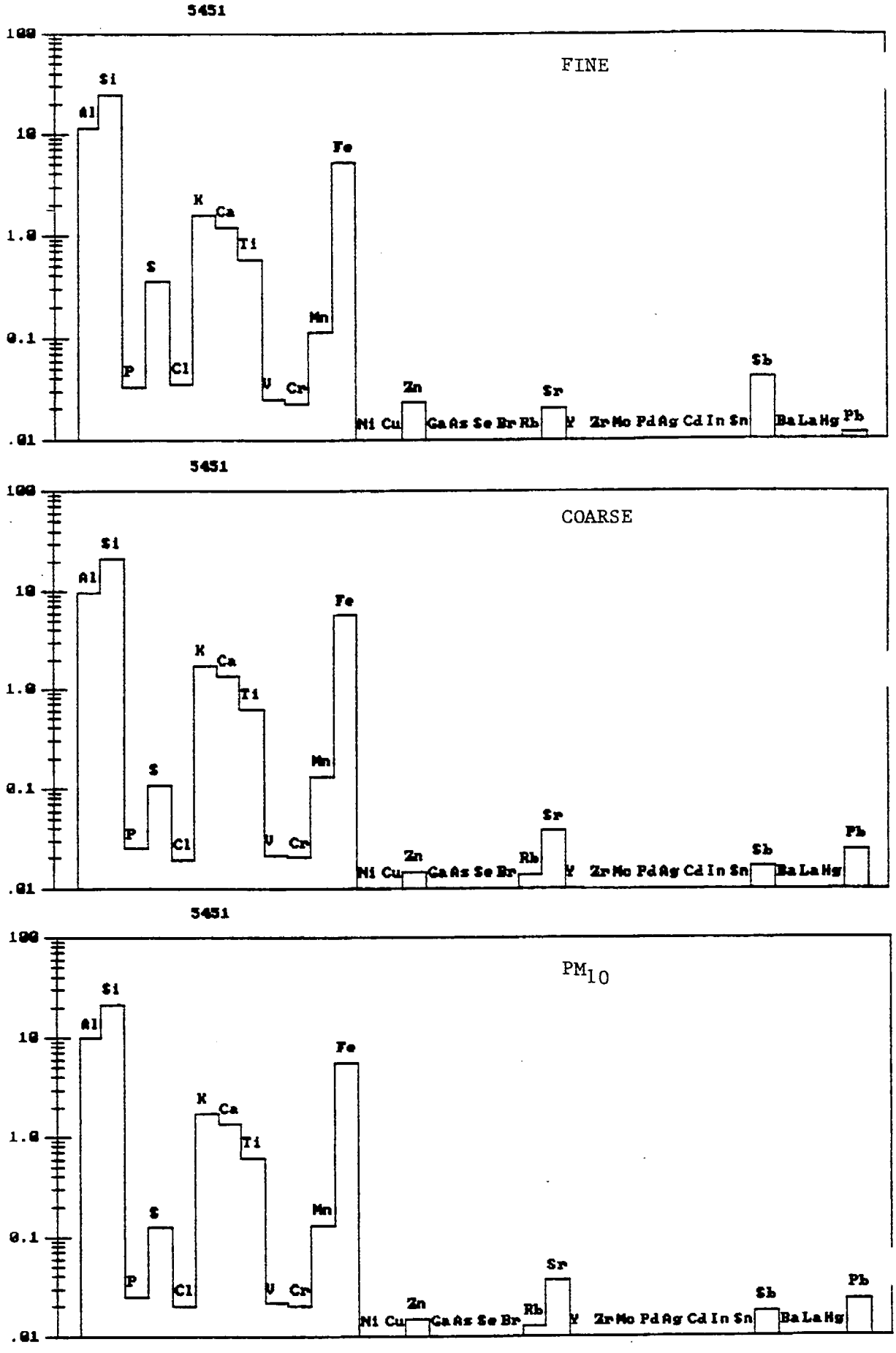
5116 TOTAL



srce code	part size	revsion date	source description	reference	date
5451	FCT	07/09/87	Excavation, I405/E1 Segundo	1	04/87

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Al	11.5125 +- 1.7269	9.7489 +- 1.4623	9.8727 +- 1.3651
Si	24.7096 +- 3.7065	21.2392 +- 3.1859	21.4828 +- 2.9737
P	.0330 +- .0066	.0246 +- .0049	.0252 +- .0046
S	.3499 +- .0175	.1078 +- .0054	.1248 +- .0052
Cl	.0351 +- .0017	.0192 +- .0010	.0203 +- .0009
K	1.5476 +- .0774	1.7213 +- .0861	1.7091 +- .0802
Ca	1.1857 +- .0593	1.3590 +- .0679	1.3468 +- .0633
Ti	.5780 +- .0324	.6116 +- .0324	.6092 +- .0302
V	.0253 +- .0078	.0212 +- .0070	.0215 +- .0065
Cr	.0226 +- .0035	.0202 +- .0022	.0203 +- .0020
Mn	.1124 +- .0077	.1325 +- .0071	.1311 +- .0066
Fe	5.2431 +- .2674	5.6552 +- .2852	5.6263 +- .2658
Ni	.0092 +- .0021	.0080 +- .0009	.0081 +- .0008
Cu	.0081 +- .0021	.0037 +- .0007	.0040 +- .0007
Zn	.0230 +- .0027	.0144 +- .0012	.0150 +- .0011
Ga	.0011 +- .0012	.0000 +- .0024	.0001 +- .0023
As	.0081 +- .0041	.0000 +- .0019	.0006 +- .0018
Se	.0000 +- .0012	.0000 +- .0004	.0000 +- .0004
Br	.0002 +- .0017	.0040 +- .0006	.0038 +- .0006
Rb	.0000 +- .0022	.0135 +- .0011	.0125 +- .0010
Sr	.0204 +- .0032	.0372 +- .0022	.0360 +- .0021
Y	.0000 +- .0033	.0000 +- .0012	.0000 +- .0011
Zr	.0000 +- .0156	.0000 +- .0054	.0000 +- .0052
Mo	.0000 +- .0092	.0000 +- .0029	.0000 +- .0028
Pd	.0000 +- .0097	.0000 +- .0031	.0000 +- .0029
Ag	.0000 +- .0122	.0000 +- .0038	.0000 +- .0037
Cd	.0000 +- .0167	.0000 +- .0053	.0000 +- .0051
In	.0000 +- .0204	.0000 +- .0064	.0000 +- .0061
Sn	.0000 +- .0236	.0000 +- .0077	.0000 +- .0074
Sb	.0399 +- .0548	.0163 +- .0165	.0180 +- .0158
Ba	.0000 +- .0986	.0000 +- .0316	.0000 +- .0302
La	.0000 +- .1827	.0000 +- .0554	.0000 +- .0531
Hg	.0000 +- .0016	.0000 +- .0006	.0000 +- .0006
Pb	.0112 +- .0064	.0244 +- .0024	.0235 +- .0023
Sum	45.4760	40.7822	41.1116

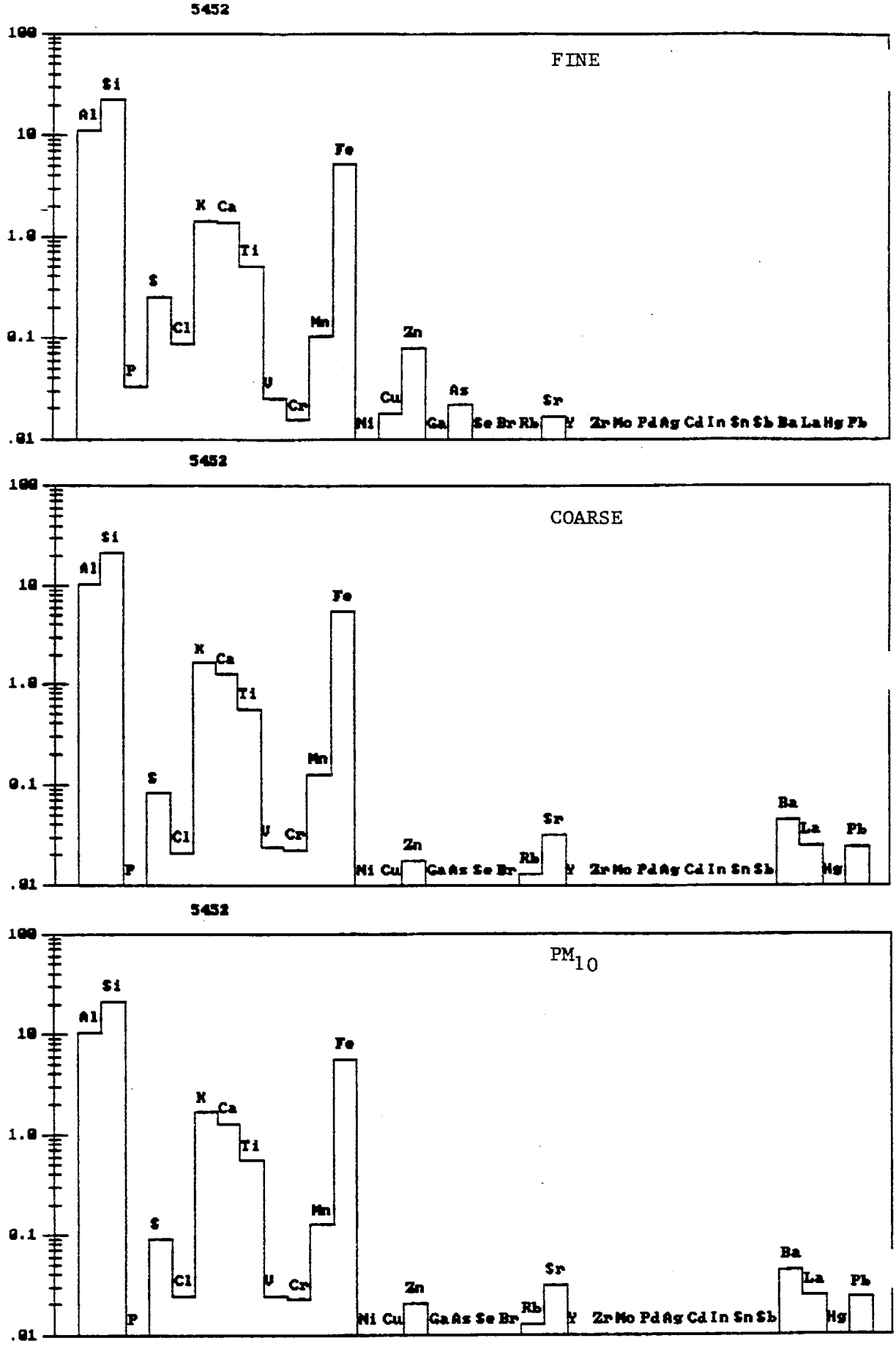
EXCAVATION, I-405/EL SEGUNDO



srce code	part size	revsion date	source description	reference	date
5452	FCT	07/09/87	Excavation, Haul road,I405/ES	1	04/87

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Al	11.0408 +- 1.6562	10.2923 +- 1.5438	10.3248 +- 1.4785
Si	22.4405 +- 3.3661	21.1963 +- 3.1794	21.2503 +- 3.0449
P	.0334 +- .0067	.0000 +- .0000	.0015 +- .0003
S	.2503 +- .0125	.0822 +- .0041	.0895 +- .0040
Cl	.0873 +- .0043	.0212 +- .0011	.0241 +- .0010
K	1.3929 +- .0697	1.6450 +- .0822	1.6340 +- .0787
Ca	1.3705 +- .0685	1.2780 +- .0639	1.2820 +- .0612
Ti	.5031 +- .0288	.5507 +- .0298	.5486 +- .0285
V	.0251 +- .0073	.0244 +- .0064	.0244 +- .0061
Cr	.0153 +- .0034	.0226 +- .0020	.0223 +- .0019
Mn	.1012 +- .0073	.1258 +- .0066	.1248 +- .0063
Fe	5.1123 +- .2609	5.5315 +- .2786	5.5133 +- .2667
Ni	.0039 +- .0018	.0083 +- .0008	.0081 +- .0007
Cu	.0176 +- .0029	.0063 +- .0007	.0068 +- .0006
Zn	.0791 +- .0058	.0178 +- .0012	.0205 +- .0012
Ga	.0000 +- .0014	.0000 +- .0032	.0000 +- .0031
As	.0214 +- .0043	.0000 +- .0017	.0009 +- .0016
Se	.0000 +- .0016	.0000 +- .0003	.0000 +- .0003
Br	.0000 +- .0019	.0000 +- .0004	.0000 +- .0004
Rb	.0023 +- .0026	.0130 +- .0009	.0126 +- .0009
Sr	.0168 +- .0035	.0317 +- .0018	.0311 +- .0017
Y	.0000 +- .0038	.0009 +- .0009	.0009 +- .0009
Zr	.0000 +- .0177	.0000 +- .0042	.0000 +- .0041
Mo	.0000 +- .0106	.0000 +- .0025	.0000 +- .0024
Pd	.0000 +- .0123	.0000 +- .0023	.0000 +- .0023
Ag	.0000 +- .0138	.0000 +- .0029	.0000 +- .0029
Cd	.0000 +- .0180	.0000 +- .0040	.0000 +- .0039
In	.0000 +- .0234	.0000 +- .0049	.0000 +- .0048
Sn	.0000 +- .0268	.0000 +- .0057	.0000 +- .0056
Sb	.0000 +- .0561	.0000 +- .0124	.0000 +- .0121
Ba	.0000 +- .1129	.0456 +- .0237	.0436 +- .0232
La	.0000 +- .2015	.0253 +- .0404	.0242 +- .0396
Hg	.0000 +- .0018	.0000 +- .0004	.0000 +- .0004
Pb	.0000 +- .0065	.0241 +- .0020	.0231 +- .0019
Sum	42.5138	40.9432	41.0114

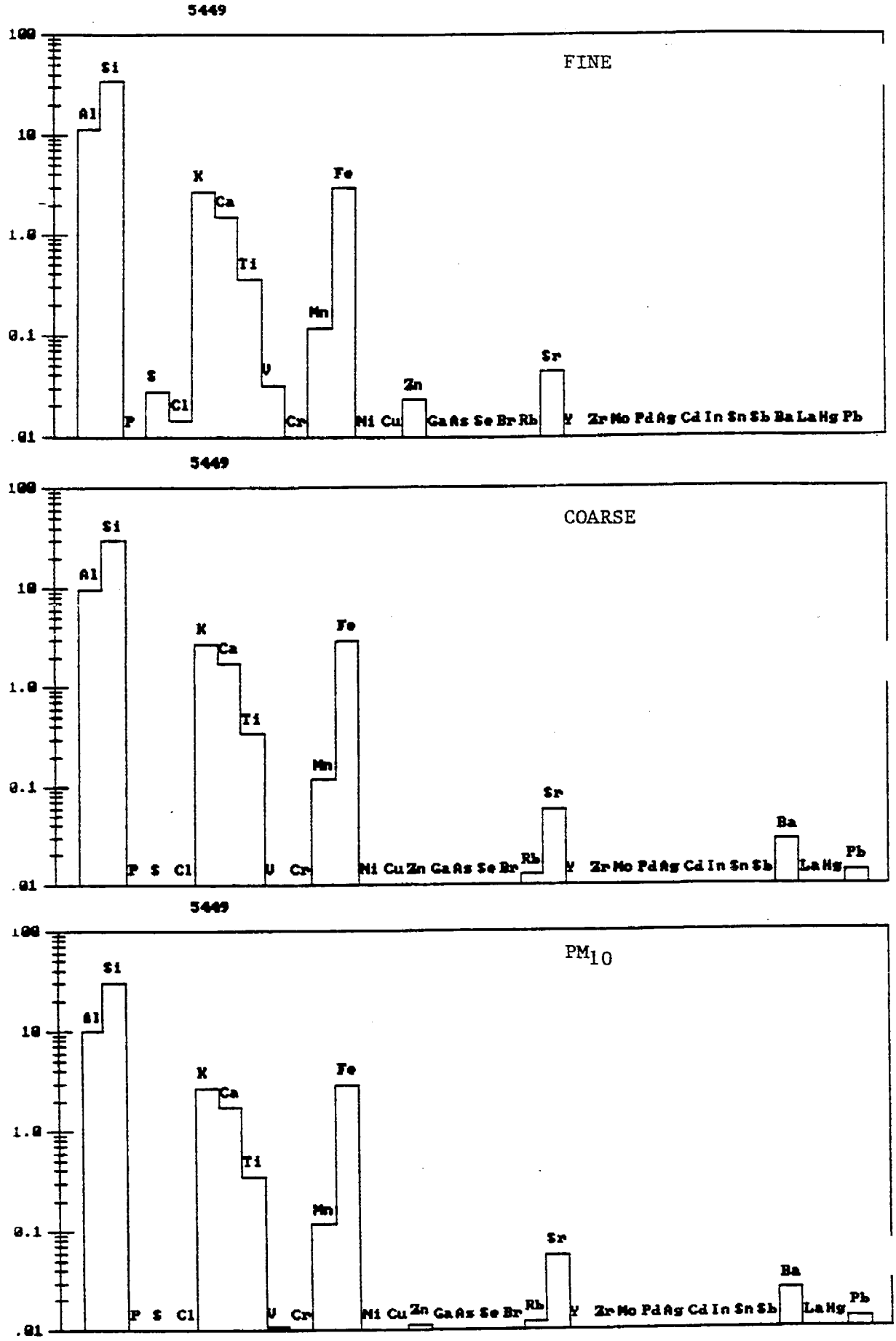
EXCAVATION, HAUL ROAD, I-405/ES



srce code	part size	revsion date	source description	reference	date
5449	FCT	07/09/87	Rock Crushing 1987 SCAB	1	04/87

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Al	11.5390 +- 1.7308	9.6806 +- 1.4521	9.8570 +- 1.3245
Si	34.0028 +- 5.1004	29.4138 +- 4.4121	29.8494 +- 4.0225
P	.0000 +- .0000	.0000 +- .0000	.0000 +- .0000
S	.0276 +- .0014	.0000 +- .0000	.0026 +- .0001
Cl	.0143 +- .0007	.0000 +- .0000	.0014 +- .0001
K	2.7148 +- .1357	2.7210 +- .1360	2.7204 +- .1238
Ca	1.5088 +- .0754	1.7320 +- .0866	1.7108 +- .0787
Ti	.3587 +- .0198	.3391 +- .0216	.3410 +- .0197
V	.0320 +- .0052	.0082 +- .0062	.0105 +- .0056
Cr	.0042 +- .0018	.0067 +- .0013	.0064 +- .0012
Mn	.1187 +- .0070	.1165 +- .0062	.1167 +- .0056
Fe	2.9578 +- .1507	2.9076 +- .1468	2.9123 +- .1336
Ni	.0025 +- .0011	.0034 +- .0005	.0033 +- .0005
Cu	.0072 +- .0014	.0049 +- .0006	.0051 +- .0006
Zn	.0230 +- .0021	.0098 +- .0008	.0111 +- .0008
Ga	.0000 +- .0008	.0000 +- .0020	.0000 +- .0018
As	.0028 +- .0023	.0000 +- .0012	.0003 +- .0011
Se	.0000 +- .0008	.0000 +- .0004	.0000 +- .0003
Br	.0000 +- .0011	.0000 +- .0004	.0000 +- .0004
Rb	.0060 +- .0015	.0124 +- .0009	.0118 +- .0008
Sr	.0428 +- .0031	.0573 +- .0031	.0559 +- .0028
Y	.0000 +- .0022	.0000 +- .0009	.0000 +- .0009
Zr	.0000 +- .0101	.0000 +- .0051	.0000 +- .0047
Mo	.0000 +- .0063	.0000 +- .0024	.0000 +- .0022
Pd	.0000 +- .0061	.0000 +- .0024	.0000 +- .0023
Ag	.0000 +- .0080	.0000 +- .0031	.0000 +- .0029
Cd	.0000 +- .0116	.0000 +- .0040	.0000 +- .0038
In	.0000 +- .0124	.0000 +- .0049	.0000 +- .0046
Sn	.0000 +- .0154	.0000 +- .0057	.0000 +- .0054
Sb	.0000 +- .0338	.0000 +- .0129	.0000 +- .0121
Ba	.0000 +- .0630	.0273 +- .0273	.0247 +- .0254
La	.0000 +- .1166	.0000 +- .0429	.0000 +- .0403
Hg	.0003 +- .0011	.0000 +- .0005	.0000 +- .0004
Pb	.0030 +- .0039	.0136 +- .0016	.0126 +- .0015
Sum	53.3663	47.0541	47.6534

ROCK CRUSHING

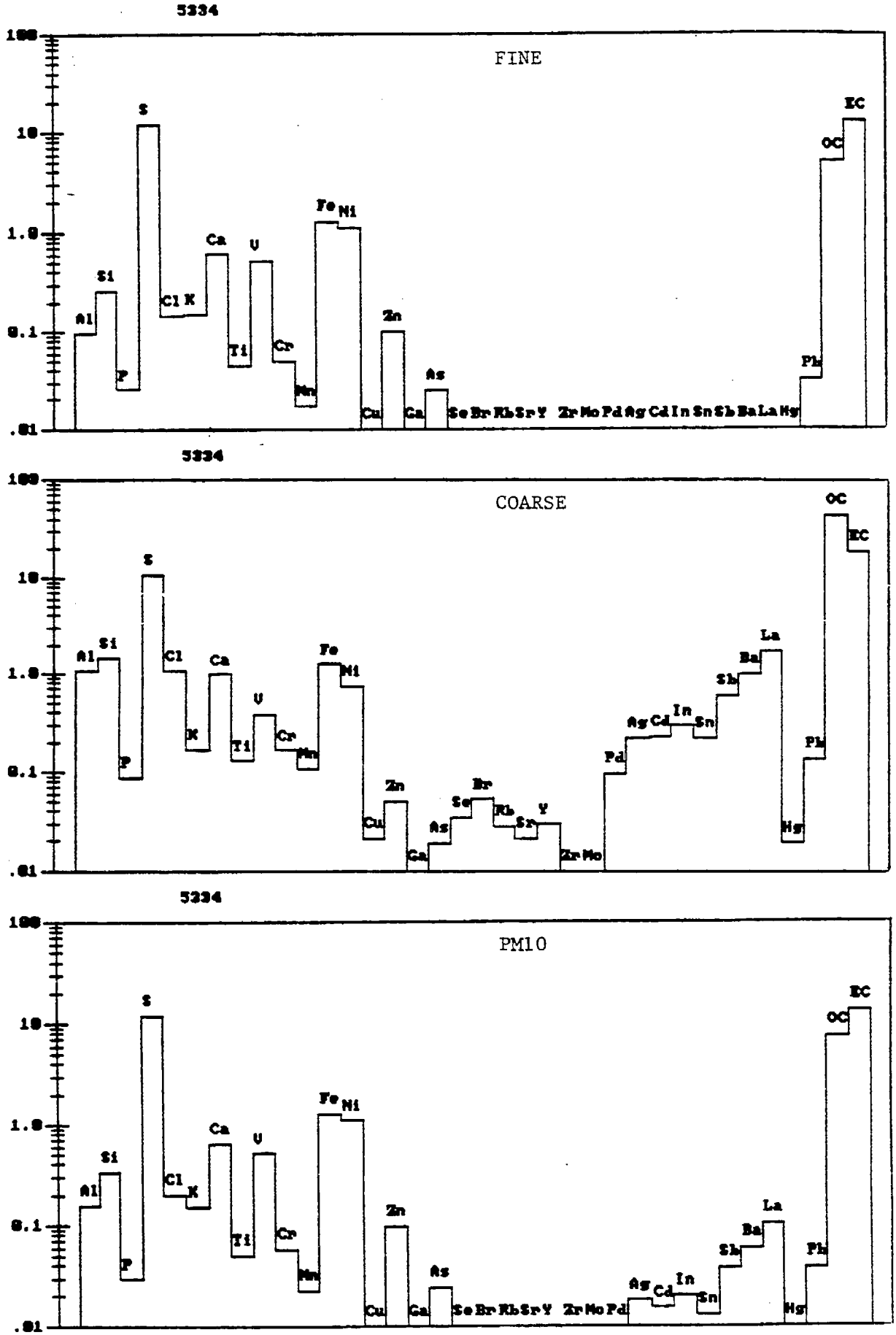


srce code	part size	revsion date	source description	reference	date
5334	FCT	12/26/86	SDGE blrs. #1,2,3 compst., oil	5	01/87

PERCENT COMPOSITION

SPECIES	FINE	COARSE	TOTAL
Al	.0971 +- .1392	1.0629 +- .5940	.1550 +- .1356
Si	.2627 +- .1521	1.4476 +- .4668	.3338 +- .1457
P	.0255 +- .0315	.0866 +- .0906	.0292 +- .0301
S	11.8576 +- 1.0710	10.7577 +- 3.2266	11.7916 +- 1.0252
Cl	.1444 +- .1219	1.0562 +- .6291	.1991 +- .1206
K	.1490 +- .0676	.1650 +- .1271	.1500 +- .0640
Ca	.6086 +- .1722	.9783 +- .2678	.6308 +- .1627
Ti	.0453 +- .0155	.1284 +- .0653	.0503 +- .0151
V	.5192 +- .1456	.3813 +- .1052	.5109 +- .1370
Cr	.0504 +- .0243	.1638 +- .0606	.0572 +- .0231
Mn	.0174 +- .0072	.1067 +- .0634	.0228 +- .0078
Fe	1.2672 +- .6745	1.2535 +- .6002	1.2664 +- .6351
Ni	1.1149 +- .4246	.7280 +- .1105	1.0917 +- .3992
Cu	.0071 +- .0067	.0211 +- .0344	.0079 +- .0066
Zn	.0998 +- .0302	.0502 +- .0389	.0968 +- .0285
Ga	.0045 +- .0042	.0066 +- .0105	.0046 +- .0040
As	.0249 +- .0076	.0190 +- .0290	.0245 +- .0074
Se	.0022 +- .0023	.0343 +- .0313	.0041 +- .0029
Br	.0013 +- .0019	.0525 +- .0577	.0044 +- .0039
Rb	.0000 +- .0029	.0279 +- .0503	.0017 +- .0041
Sr	.0005 +- .0015	.0212 +- .0411	.0017 +- .0028
Y	.0000 +- .0045	.0293 +- .0567	.0018 +- .0054
Zr	.0062 +- .0133	.0056 +- .0206	.0062 +- .0126
Mo	.0002 +- .0007	.0000 +- .1798	.0002 +- .0108
Pd	.0014 +- .0054	.0962 +- .1446	.0071 +- .0101
Ag	.0054 +- .0071	.2182 +- .2470	.0182 +- .0163
Cd	.0017 +- .0029	.2265 +- .1932	.0152 +- .0119
In	.0026 +- .0051	.2926 +- .2626	.0200 +- .0165
Sn	.0001 +- .0005	.2178 +- .3256	.0132 +- .0195
Sb	.0019 +- .0069	.5983 +- .7701	.0377 +- .0467
Ba	.0000 +- .1341	.9964 +- 1.4486	.0598 +- .1531
La	.0000 +- .2443	1.7284 +- 2.6599	.1037 +- .2797
Hg	.0001 +- .0002	.0194 +- .0176	.0013 +- .0011
Pb	.0319 +- .0143	.1362 +- .1643	.0382 +- .0167
OC	5.0000 +- 2.5000	44.0000 +-16.5000	7.3000 +- 2.6000
EC	12.8000 +- 9.3000	18.7000 +-15.0000	13.2000 +- 8.8000
Sum	34.1511	85.8137	37.2571

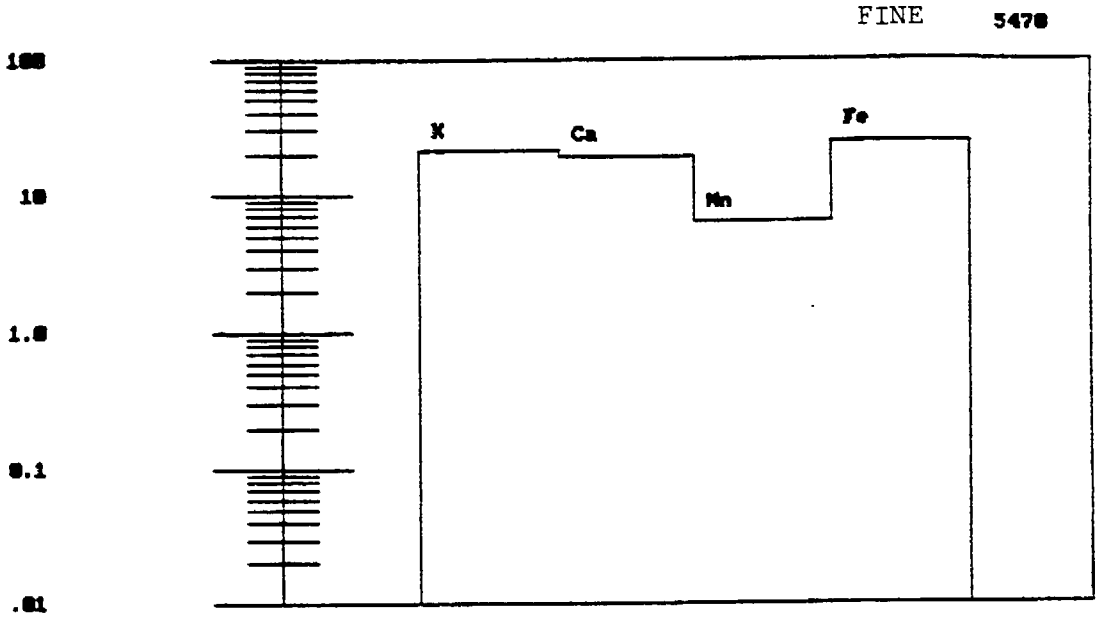
SDGE BLRS. #1,2,3 COMPST., OIL



srce code	part size	revsion date	source description	reference	date
5470	F	04/20/87	WELDING APPROXIMATION U-MINE	19	02/73

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
K	20.9000 +- 2.0900		
Ca	19.4000 +- 1.9400		
Mn	6.2800 +- .6280		
Fe	24.6000 +- 2.4600		
Sum	71.1800		

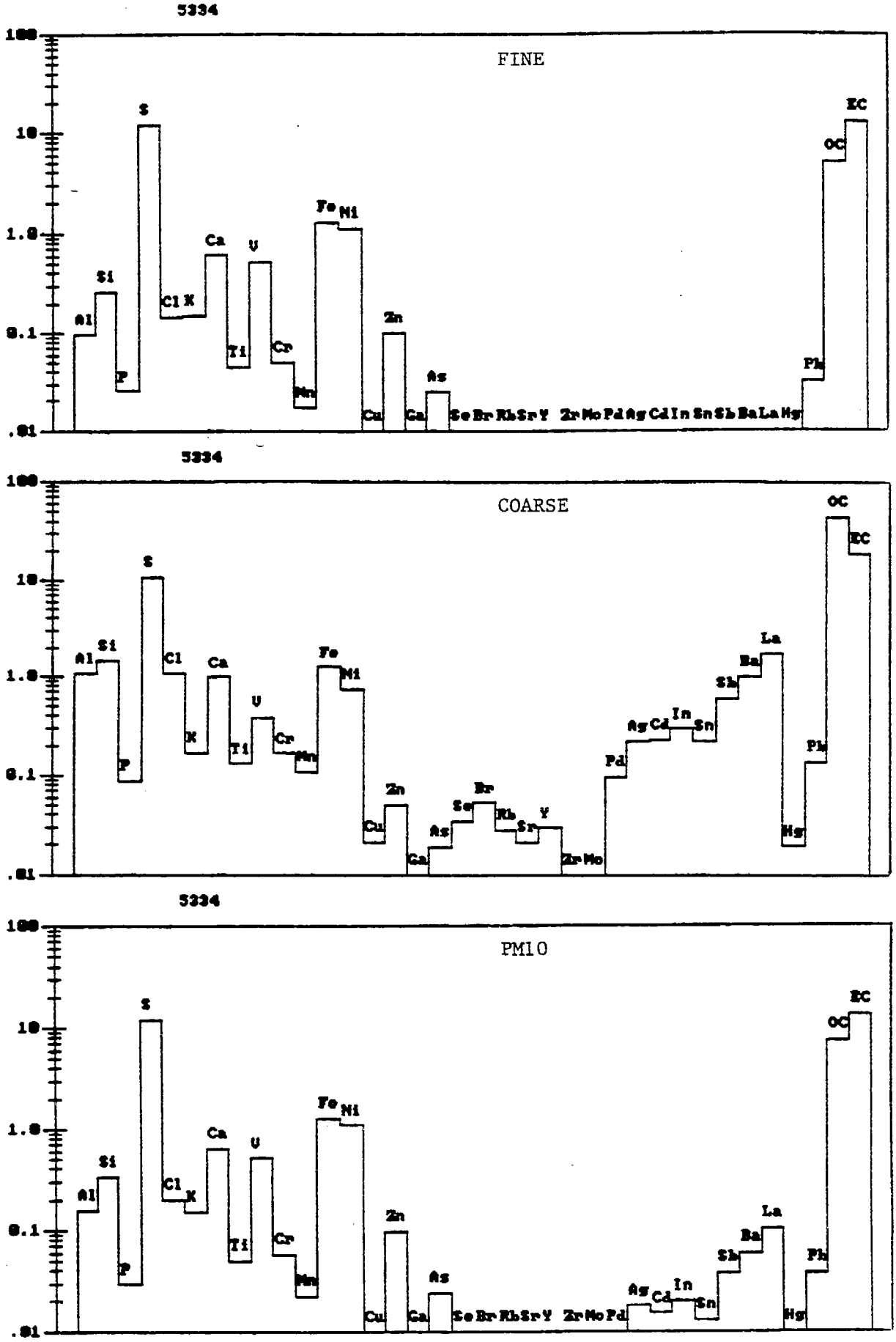
WELDING APPROXIMATION U-MINE



srce code	part size	revsion date	source description	reference	date
5334	FCT	12/26/86	SDGE blrs. #1,2,3 compst., oil	5	01/87

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Al	.0971 +- .1392	1.0629 +- .5940	.1550 +- .1356
Si	.2627 +- .1521	1.4476 +- .4668	.3338 +- .1457
P	.0255 +- .0315	.0866 +- .0906	.0292 +- .0301
S	11.8576 +- 1.0710	10.7577 +- 3.2266	11.7916 +- 1.0252
Cl	.1444 +- .1219	1.0562 +- .6291	.1991 +- .1206
K	.1490 +- .0676	.1650 +- .1271	.1500 +- .0640
Ca	.6086 +- .1722	.9783 +- .2678	.6308 +- .1627
Ti	.0453 +- .0155	.1284 +- .0653	.0503 +- .0151
V	.5192 +- .1456	.3813 +- .1052	.5109 +- .1370
Cr	.0504 +- .0243	.1638 +- .0606	.0572 +- .0231
Mn	.0174 +- .0072	.1067 +- .0634	.0228 +- .0078
Fe	1.2672 +- .6745	1.2535 +- .6002	1.2664 +- .6351
Ni	1.1149 +- .4246	.7280 +- .1105	1.0917 +- .3992
Cu	.0071 +- .0067	.0211 +- .0344	.0079 +- .0066
Zn	.0998 +- .0302	.0502 +- .0389	.0968 +- .0285
Ga	.0045 +- .0042	.0066 +- .0105	.0046 +- .0040
As	.0249 +- .0076	.0190 +- .0290	.0245 +- .0074
Se	.0022 +- .0023	.0343 +- .0313	.0041 +- .0029
Br	.0013 +- .0019	.0525 +- .0577	.0044 +- .0039
Rb	.0000 +- .0029	.0279 +- .0503	.0017 +- .0041
Sr	.0005 +- .0015	.0212 +- .0411	.0017 +- .0028
Y	.0000 +- .0045	.0293 +- .0567	.0018 +- .0054
Zr	.0062 +- .0133	.0056 +- .0206	.0062 +- .0126
Mo	.0002 +- .0007	.0000 +- .1798	.0002 +- .0108
Pd	.0014 +- .0054	.0962 +- .1446	.0071 +- .0101
Ag	.0054 +- .0071	.2182 +- .2470	.0182 +- .0163
Cd	.0017 +- .0029	.2265 +- .1932	.0152 +- .0119
In	.0026 +- .0051	.2926 +- .2626	.0200 +- .0165
Sn	.0001 +- .0005	.2178 +- .3256	.0132 +- .0195
Sb	.0019 +- .0069	.5983 +- .7701	.0377 +- .0467
Ba	.0000 +- .1341	.9964 +- 1.4486	.0598 +- .1531
La	.0000 +- .2443	1.7284 +- 2.6599	.1037 +- .2797
Hg	.0001 +- .0002	.0194 +- .0176	.0013 +- .0011
Pb	.0319 +- .0143	.1362 +- .1643	.0382 +- .0167
OC	5.0000 +- 2.5000	44.0000 +-16.5000	7.3000 +- 2.6000
EC	12.8000 +- 9.3000	18.7000 +-15.0000	13.2000 +- 8.8000
Sum	34.1511	85.8137	37.2571

SDGE BLRS. #1,2,3 COMPST., OIL

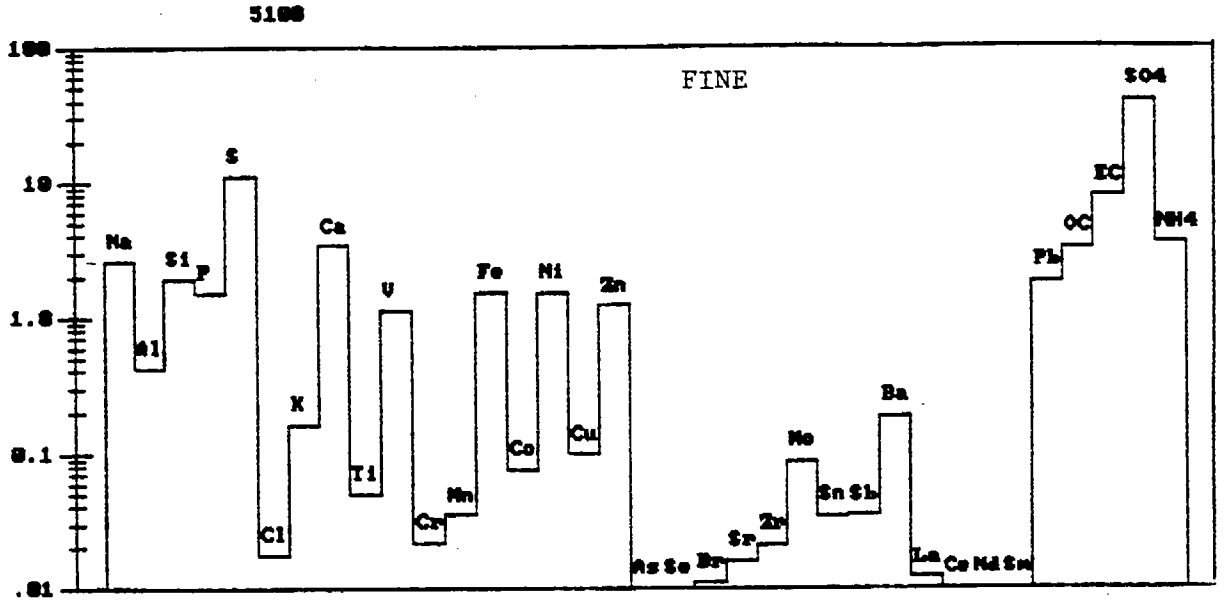


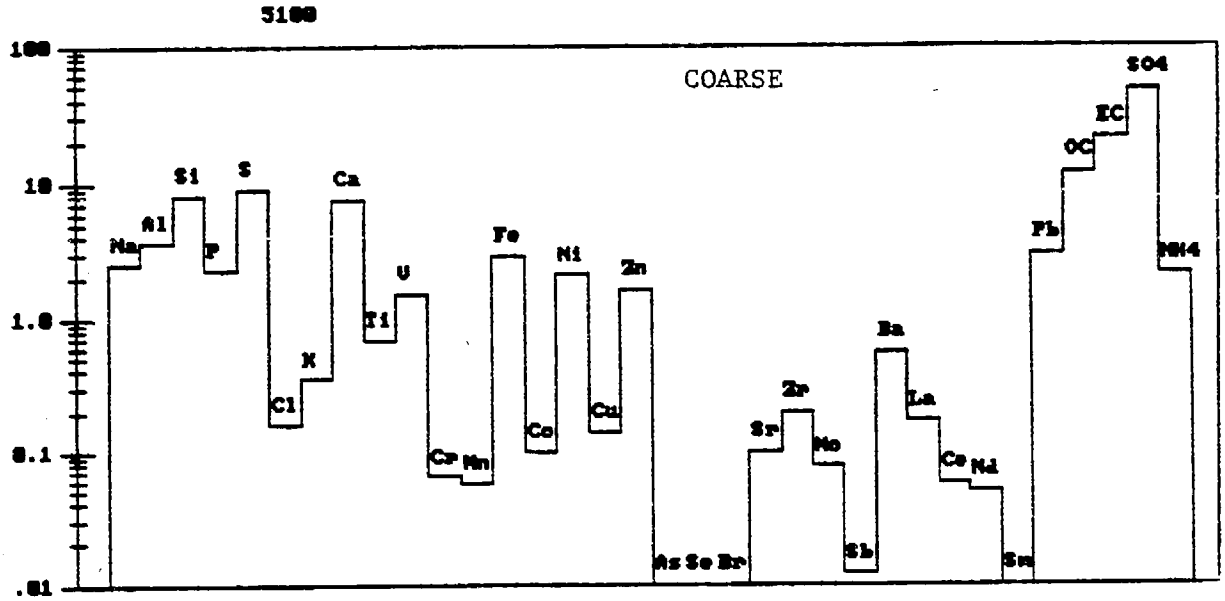
srce code	part size	revsion date	source description	reference	date
5100	FCT	03/18/87	EDDYSTONE OIL-FIRED POWER PLNT	6	03/87

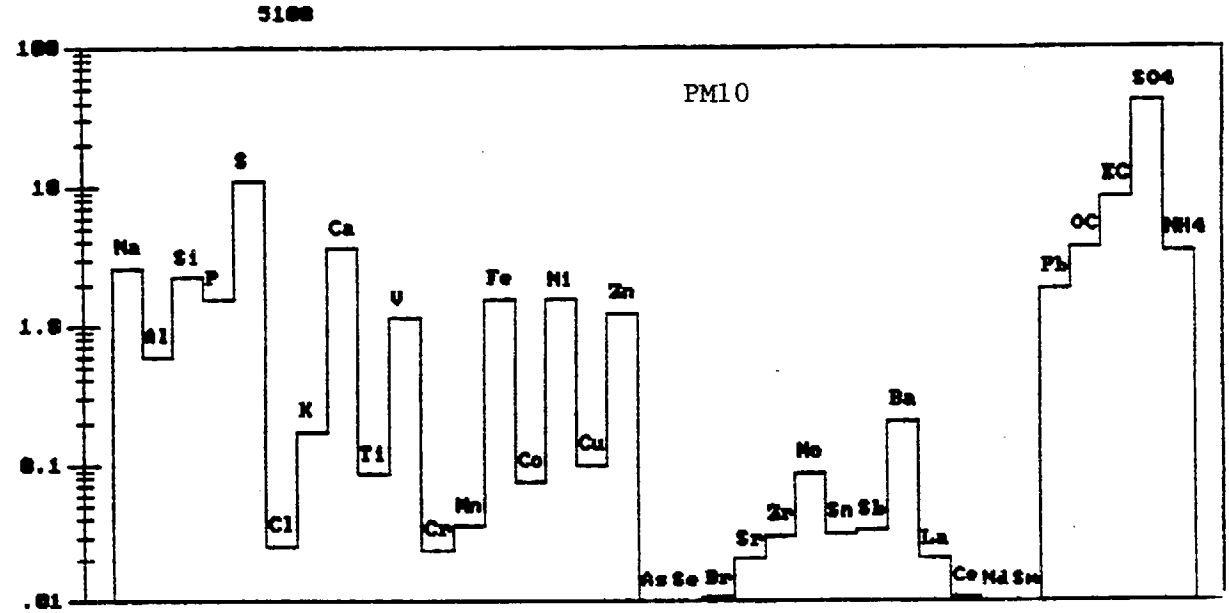
PERCENT COMPOSITION

SPECIES	FINE	COARSE	TOTAL
Na	2.6000 +- .6000	2.5000 +- 1.1000	2.5944 +- .6672
Al	.4200 +- .0800	3.7000 +- .3000	.6022 +- .1039
Si	1.9000 +- .6000	8.2000 +- 1.5000	2.2500 +- .6367
P	1.5000 +- .4000	2.3000 +- .2000	1.5444 +- .4292
S	11.0000 +- 2.0000	9.0000 +- 1.0000	10.8889 +- 2.3891
Cl	.0180 +- .0080	.1600 +- .0900	.0259 +- .0095
K	.1600 +- .0500	.3500 +- .0500	.1706 +- .0522
Ca	3.4000 +- .9000	7.6000 +- 3.8000	3.6333 +- .9939
Ti	.0500 +- .0500	.6900 +- .1400	.0856 +- .0488
V	1.1000 +- .3000	1.5000 +- .8000	1.1222 +- .3229
Cr	.0220 +- .0010	.0650 +- .0160	.0244 +- .0034
Mn	.0350 +- .0040	.0570 +- .0180	.0362 +- .0062
Fe	1.5000 +- .2000	2.9000 +- .4000	1.5778 +- .2801
Co	.0750 +- .0140	.1000 +- .0200	.0764 +- .0167
Ni	1.5000 +- .5000	2.1000 +- .2000	1.5333 +- .5140
Cu	.0980 +- .0320	.1400 +- .0200	.1003 +- .0330
Zn	1.2000 +- .3000	1.6000 +- .5000	1.2222 +- .3274
As	.0031 +- .0007	.0039 +- .0033	.0031 +- .0008
Se	.0022 +- .0005	.0027 +- .0007	.0022 +- .0006
Br	.0110 +- .0060	.0024 +- .0012	.0105 +- .0058
Sr	.0160 +- .0050	.1000 +- .0130	.0207 +- .0054
Zr	.0210 +- .0210	.2000 +- .1100	.0309 +- .0211
Mo	.0870 +- .0180	.0770 +- .0220	.0864 +- .0206
Sn	.0340 +- .0220		.0321 +- .0212
Sb	.0350 +- .0380	.0120 +- .0130	.0337 +- .0362
Ba	.1860 +- .0090	.5500 +- .2600	.2062 +- .0311
La	.0120 +- .0020	.1700 +- .0200	.0208 +- .0032
Ce	.0078 +- .0022	.0580 +- .0070	.0106 +- .0025
Nd	.0027 +- .0001	.0500 +- .0210	.0053 +- .0013
Sm	.0003 +- .0001	.0042 +- .0005	.0005 +- .0001
Pb	1.8000 +- .6000	3.0000 +- .4000	1.8667 +- .6177
OC	3.2000 +- .5000	12.0000 +- 8.0000	3.6889 +- .7958
EC	7.7000 +- 1.5000	21.0000 +- 1.0000	8.4389 +- 1.7816
SO4	40.0000 +- 3.0000	47.0000 +- 4.0000	40.3889 +- 6.0745
NH4	3.5000 +- 1.6000	2.1000 +- .7000	3.4222 +- 1.5807
Sum	83.1961	129.8052	85.7567

EDDYSTONE OIL-FIRED POWER PLANT





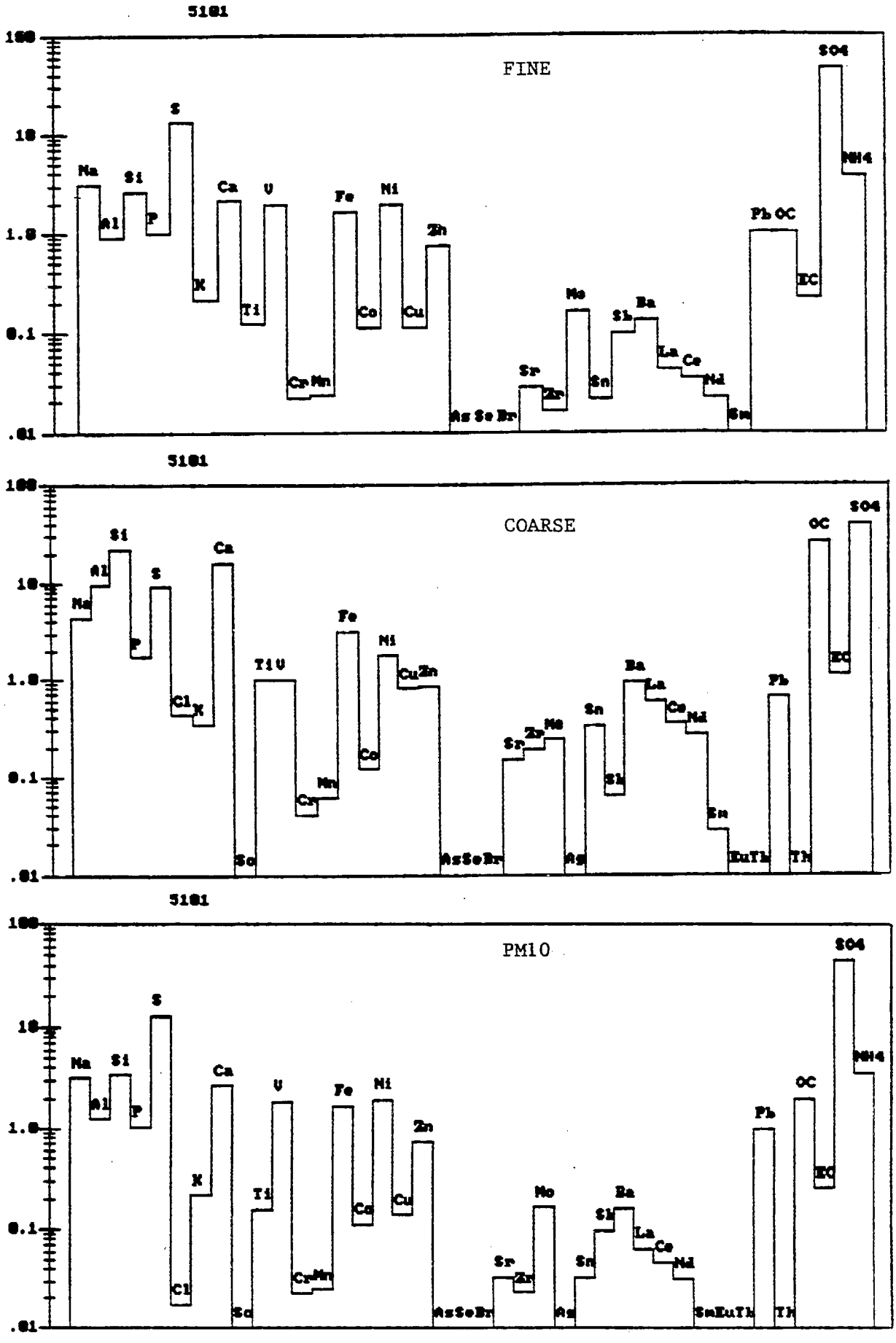


srce code	part size	revsion date	source description	reference	date
5101	FCT	03/18/87	SCHULYKILL OIL-FIRED POWER PLT	6	03/87

PERCENT COMPOSITION

SPECIES	FINE	COARSE	TOTAL
Na	3.1000 +- .9000	4.4000 +- 4.3000	3.1520 +- .9779
Al	.8900 +- .0700	9.7000 +- 1.4000	1.2424 +- .1708
Si	2.6000 +- .4000	22.0000 +- 6.0000	3.3760 +- .6102
P	1.0000 +- .1000	1.7000 +- .6000	1.0280 +- .1696
S	13.0000 +- 1.0000	9.2000 +- 4.0000	12.8480 +- 2.0065
Cl		.4300 +- .2600	.0172 +- .0105
K	.2100 +- .0300	.3400 +- .1100	.2152 +- .0410
Ca	2.1000 +- .9000	16.0000 +- 2.0000	2.6560 +- .9266
Sc		.0005 +- .0001	.0000 +- .0001
Ti	.1200 +- .0200	1.0000 +- .2000	.1552 +- .0281
V	1.9000 +- .3000	1.0000 +- 1.8000	1.8640 +- .3917
Cr	.0220 +- .0070	.0410 +- .0130	.0228 +- .0074
Mn	.0230 +- .0080	.0620 +- .0170	.0246 +- .0084
Fe	1.6000 +- .4000	3.2000 +- .5000	1.6640 +- .4438
Co	.1100 +- .0100	.1200 +- .0300	.1104 +- .0178
Ni	1.9000 +- .2000	1.8000 +- .5000	1.8960 +- .3220
Cu	.1100 +- .0500	.8000 +- .8000	.1376 +- .0601
Zn	.7300 +- .2900	.8400 +- .1100	.7344 +- .2956
As	.0054 +- .0013	.0080 +- .0070	.0055 +- .0015
Se	.0023 +- .0005	.0008 +- .0014	.0022 +- .0006
Br	.0044 +- .0002	.0065 +- .0039	.0045 +- .0007
Sr	.0280 +- .0070	.1500 +- .0400	.0329 +- .0081
Zr	.0160 +- .0130	.1900 +- .0500	.0230 +- .0129
Mo	.1600 +- .0200	.2400 +- .1600	.1632 +- .0298
Ag		.0097 +- .0037	.0004 +- .0002
Sn	.0210 +- .0080	.3300 +- .3100	.0334 +- .0151
Sb	.0970 +- .0080	.0640 +- .0340	.0957 +- .0152
Ba	.1300 +- .0050	.9400 +- .0600	.1624 +- .0207
La	.0420 +- .0030	.5900 +- .1400	.0639 +- .0097
Ce	.0340 +- .0020	.3500 +- .0200	.0466 +- .0059
Nd	.0220 +- .0020	.2700 +- .0300	.0319 +- .0044
Sm	.0019 +- .0002	.0280 +- .0070	.0029 +- .0005
Eu		.0006 +- .0002	.0000 +- .0001
Tb		.0007 +- .0004	.0000 +- .0001
Pb	1.0000 +- .2000	.6500 +- .3400	.9860 +- .2350
Th		.0020 +- .0002	.0001 +- .0001
OC	1.0000 +- .5000	26.0000 +-16.0000	2.0000 +- .8283
EC	.2200 +- .1700	1.1000 +- 1.1000	.2552 +- .1721
SO4	45.0000 +- 7.0000	40.0000 +-30.0000	44.8000 +- 9.1519
NH4	3.7000 +- 1.7000		3.5520 +- 1.7047
Sum	80.8990	143.5638	83.4056

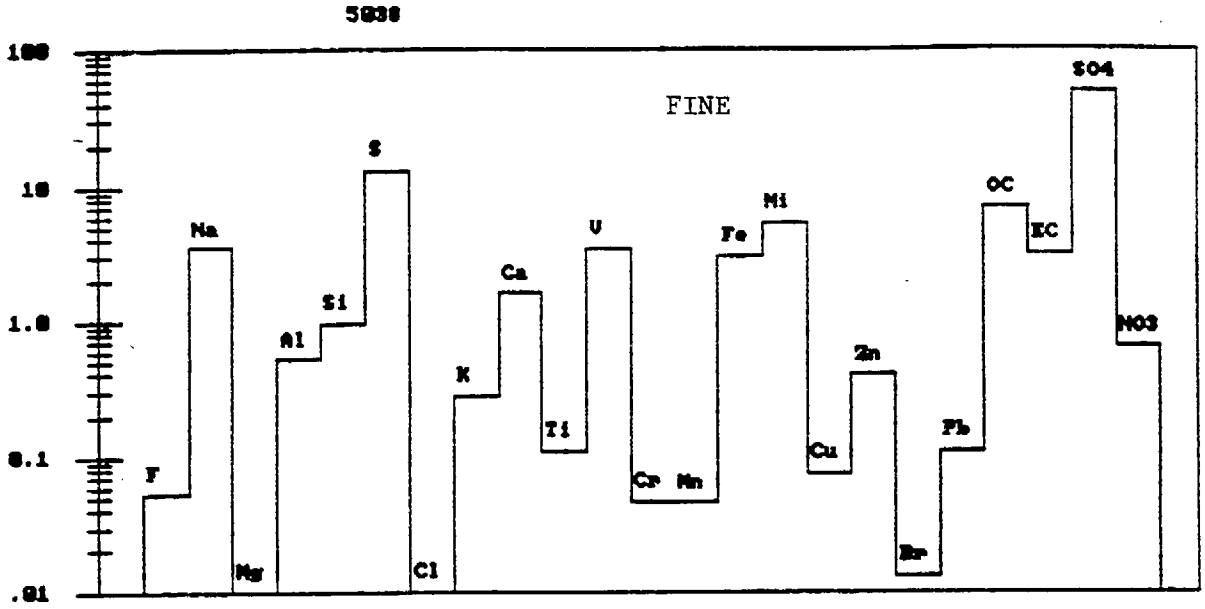
SCHULYKILL OIL-FIRED POWER PLANT



srce code	part size	revsion date	source description	reference	date
5038	F	02/01/79	residual oil combustion	7	02/79

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
F	.0530 +- .0190		
Na	3.5000 +- 1.7000		
Mg	.0000 +- 3.0000		
Al	.5300 +- .2400		
Si	.9600 +- .4800		
S	13.3000 +- 2.4000		
Cl	.0000 +- .1000		
K	.2800 +- .1000		
Ca	1.5800 +- .6400		
Ti	.1100 +- .0380		
V	3.4400 +- .7500		
Cr	.0470 +- .0150		
Mn	.0460 +- .0130		
Fe	2.9700 +- .6100		
Ni	5.3600 +- 1.2100		
Cu	.0750 +- .0250		
Zn	.4000 +- .1800		
Br	.0130 +- .0210		
Pb	.1100 +- .0640		
OC	7.0000 +- 6.2000		
EC	3.1000 +- 2.5000		
SO4	48.1000 +-11.9000		
NO3	.6500 +- .4400		
Sum	91.6240		

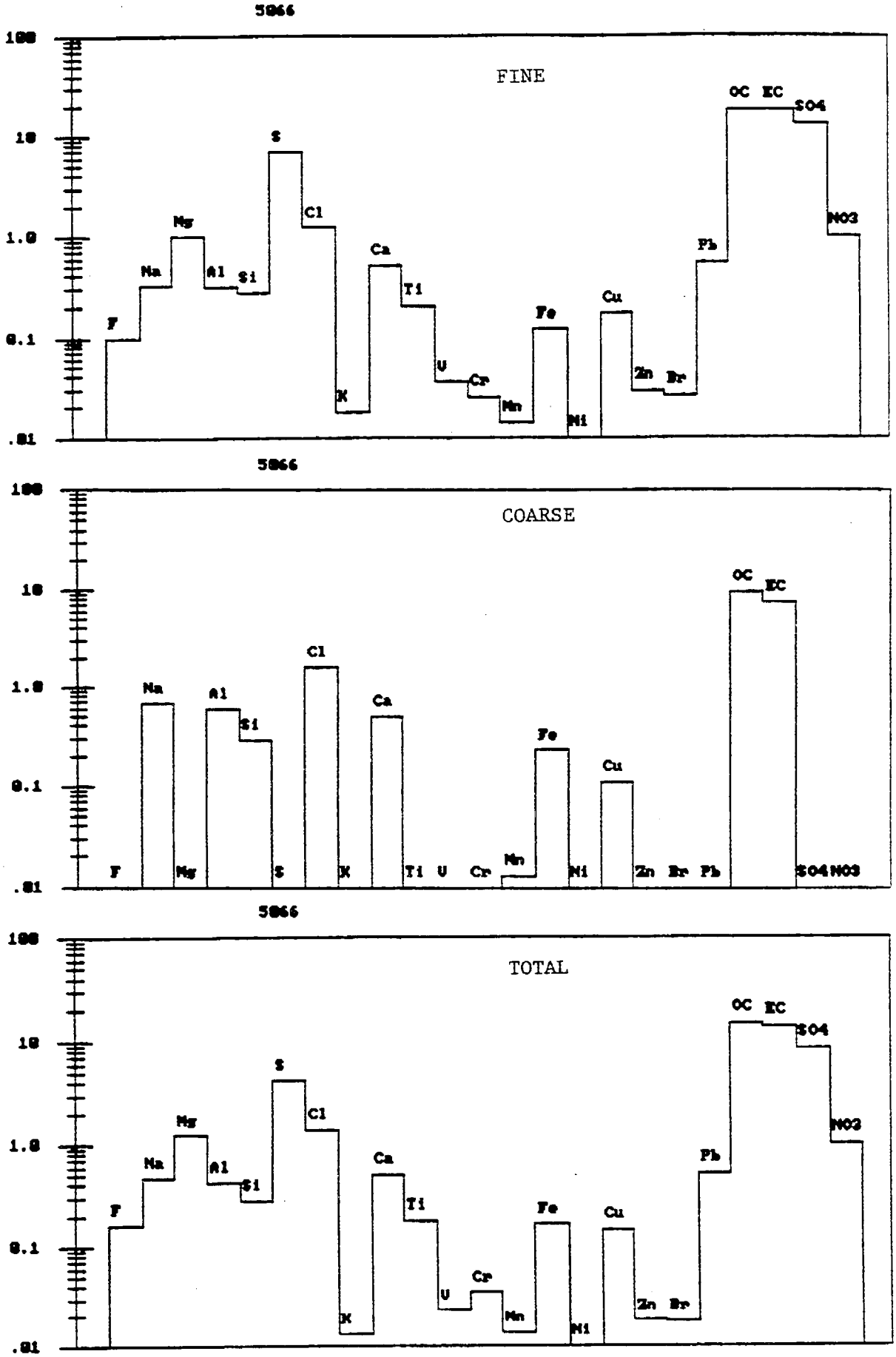
RESIDUAL OIL COMBUSTION



srce code	part size	revsion date	source description	reference	date
5066	FCT	04/10/87	distillate oil combustion	7	09/83

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
F	.1000 +- .1000	.0000 +- .5000	.1600 +- .1166
Na	.3200 +- .2300	.6900 +- 1.1000	.4680 +- .4611
Mg	1.0000 +- 1.0000	.0000 +- 3.0000	1.2000 +- .8485
Al	.3100 +- .2100	.5900 +- .5900	.4220 +- .2675
Si	.2700 +- .3200	.2900 +- .3800	.2780 +- .2449
S	6.9300 +- 2.6200	.0000 +- .0100	4.1600 +- 1.5720
Cl	1.2000 +- .9000	1.6000 +- .8200	1.3600 +- .6318
K	.0180 +- .0130	.0000 +- .0120	.0132 +- .0082
Ca	.5000 +- .5500	.5000 +- .3200	.5000 +- .3540
Ti	.2000 +- .2000	.0000 +- .3000	.1800 +- .1342
V	.0350 +- .0810	.0000 +- .0100	.0230 +- .0486
Cr	.0250 +- .0250	.0000 +- .1000	.0350 +- .0250
Mn	.0140 +- .0100	.0130 +- .0200	.0136 +- .0100
Fe	.1200 +- .1100	.2300 +- .2100	.1640 +- .1068
Ni	.0090 +- .0050	.0000 +- .0200	.0094 +- .0050
Cu	.1700 +- .0590	.1100 +- .0430	.1460 +- .0394
Zn	.0290 +- .0190	.0000 +- .0050	.0182 +- .0114
Br	.0260 +- .0280	.0000 +- .0100	.0176 +- .0169
Pb	.5400 +- .5100	.0000 +- 1.0000	.5240 +- .3656
OC	18.0000 +- 5.6600	9.6000 +- 6.7000	14.6400 +- 4.3261
EC	17.8000 +-22.9000	7.6000 +- 5.1000	13.7200 +-13.8906
SO4	13.2000 +- 8.7000	.0000 +- 3.0000	8.5200 +- 5.2544
NO3	1.0000 +- .5000	.0000 +- 2.0000	1.0000 +- .5000
Sum	61.8160	21.2230	47.5720

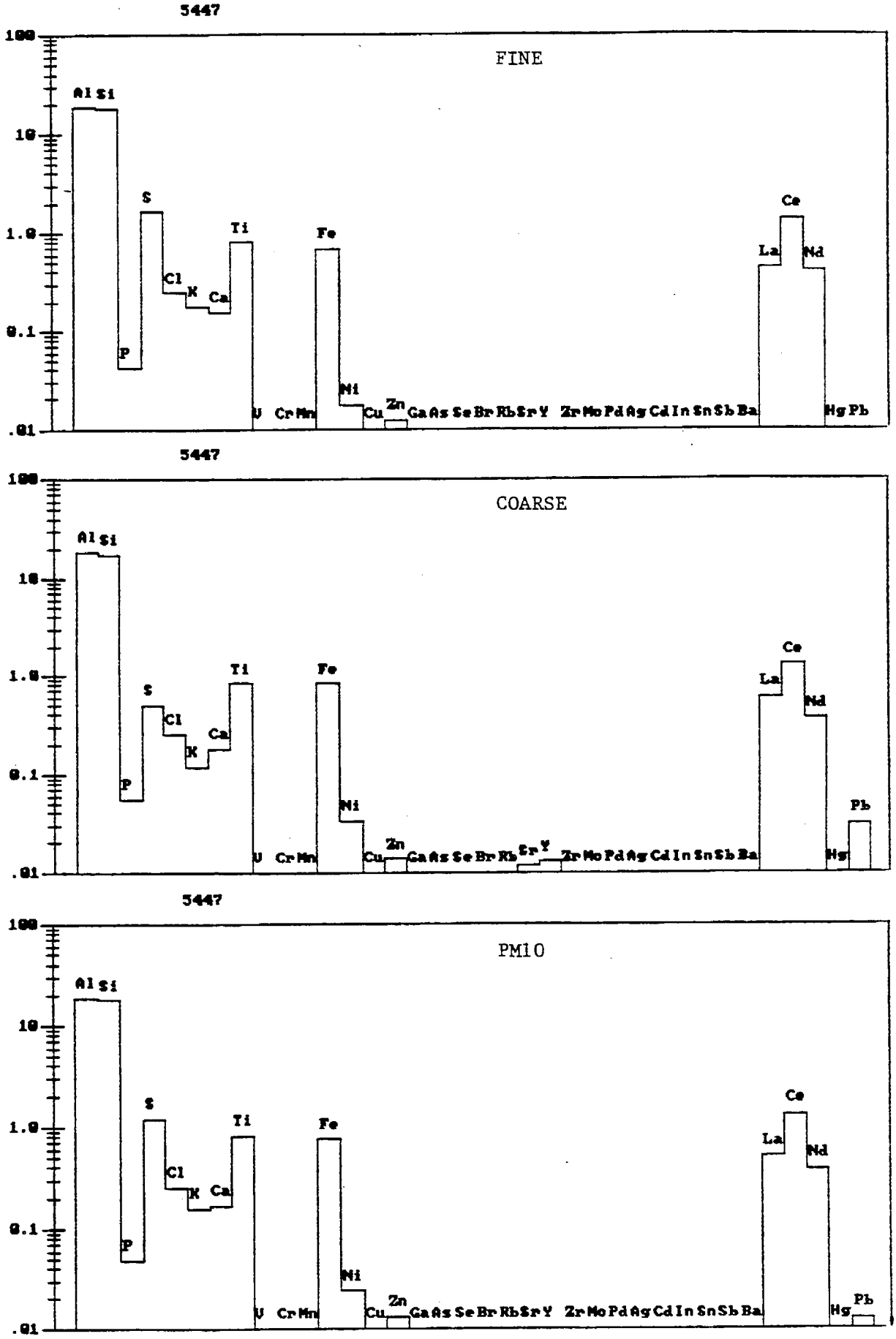
DISTILLATE OIL COMBUSTION



srce code	part size	revsion date	source description	reference	date
5447	FCT	05/22/87	Catalytic Cracker 1987 SCAB	1	04/87

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Al	18.3766 +- 2.4264	18.7612 +- 3.1536	18.4805 +- 2.6539
Si	17.8451 +- 2.4791	17.3948 +- 2.8075	17.6277 +- 2.5690
P	.0416 +- .0239	.0553 +- .0089	.0480 +- .0139
S	1.6468 +- .3796	.5040 +- .0923	1.1886 +- .2892
Cl	.2464 +- .0693	.2527 +- .0611	.2515 +- .0405
K	.1791 +- .0161	.1187 +- .0174	.1542 +- .0157
Ca	.1557 +- .0244	.1773 +- .0332	.1653 +- .0247
Ti	.7993 +- .0933	.8254 +- .1632	.8064 +- .1206
V	.0000 +- .1989	.0000 +- .2394	.0000 +- .1524
Cr	.0000 +- .0782	.0000 +- .0962	.0000 +- .0606
Mn	.0000 +- .0300	.0000 +- .0392	.0000 +- .0238
Fe	.6877 +- .1125	.8218 +- .0939	.7435 +- .0963
Ni	.0172 +- .0095	.0328 +- .0039	.0239 +- .0046
Cu	.0005 +- .0018	.0009 +- .0019	.0008 +- .0011
Zn	.0123 +- .0067	.0138 +- .0026	.0131 +- .0034
Ga	.0025 +- .0024	.0032 +- .0006	.0029 +- .0015
As	.0100 +- .0068	.0000 +- .0012	.0061 +- .0043
Se	.0064 +- .0023	.0057 +- .0013	.0060 +- .0017
Br	.0033 +- .0043	.0085 +- .0011	.0053 +- .0028
Rb	.0000 +- .0024	.0000 +- .0005	.0000 +- .0014
Sr	.0000 +- .0030	.0116 +- .0040	.0047 +- .0018
Y	.0000 +- .0036	.0128 +- .0033	.0051 +- .0021
Zr	.0000 +- .0153	.0000 +- .0036	.0000 +- .0088
Mo	.0000 +- .0098	.0000 +- .0024	.0000 +- .0056
Pd	.0000 +- .0098	.0000 +- .0023	.0000 +- .0056
Ag	.0000 +- .0132	.0000 +- .0030	.0000 +- .0075
Cd	.0000 +- .0169	.0000 +- .0040	.0000 +- .0097
In	.0000 +- .0212	.0000 +- .0050	.0000 +- .0121
Sn	.0000 +- .0254	.0000 +- .0059	.0000 +- .0145
Sb	.0000 +- .0566	.0000 +- .0132	.0000 +- .0324
Ba	.0000 +- .1050	.0000 +- .0247	.0000 +- .0601
La	.4307 +- .3184	.5941 +- .2661	.5119 +- .1818
Ce	1.3573 +- .1216	1.2845 +- .2801	1.3162 +- .1429
Nd	.4043 +- .0599	.3606 +- .0745	.3819 +- .0415
Hg	.0006 +- .0018	.0011 +- .0004	.0008 +- .0010
Pb	.0000 +- .0061	.0309 +- .0061	.0126 +- .0036
Sum	42.2234	41.2717	41.7570

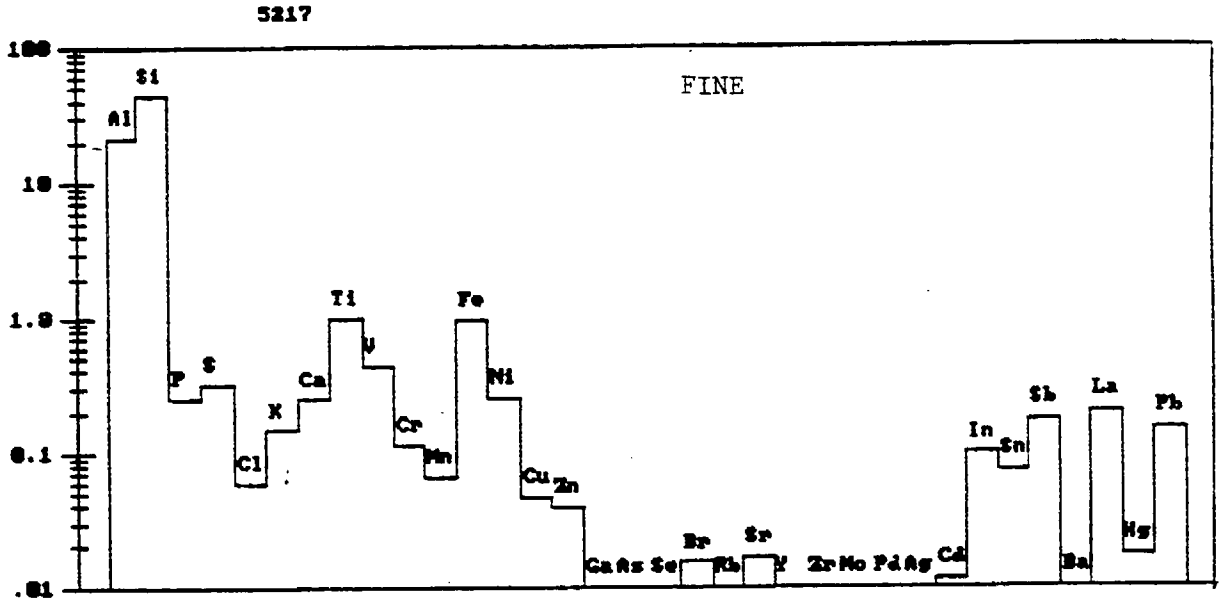
CATALYTIC CRACKER 1987 SCAB

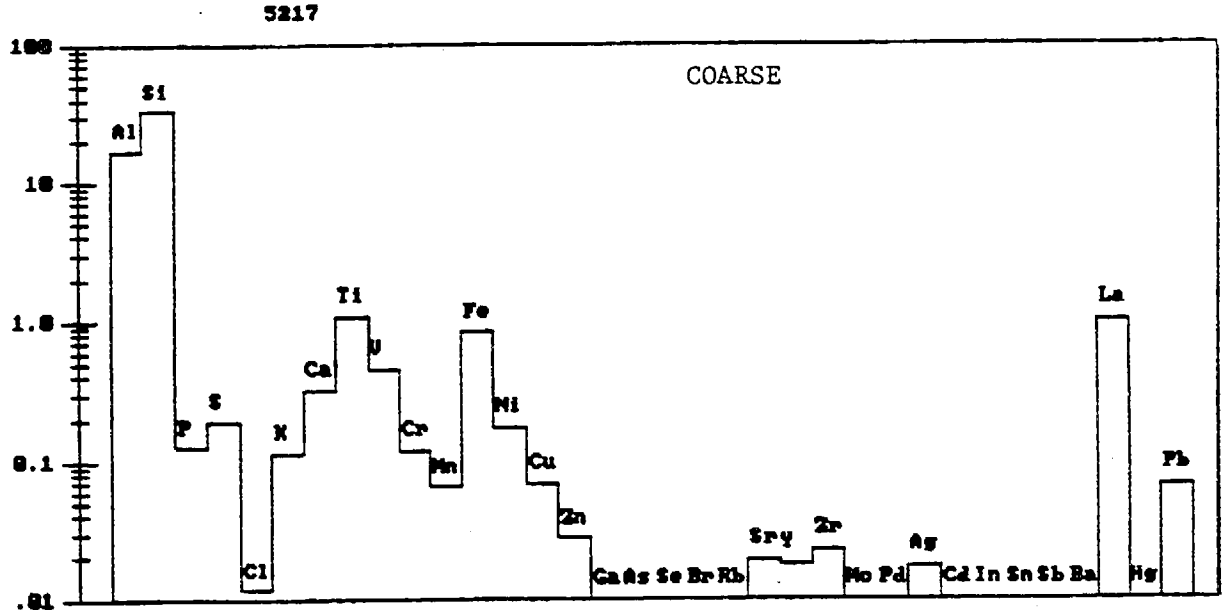


srce code	part size	revsion date	source description	reference	date
5217	FC	03/01/85	cat. crckng. recycled catalyst	8	03/85

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Al	21.4123 +- 2.1412	16.9110 +- 1.6911	
Si	43.4618 +- 4.3462	32.6519 +- 3.2652	
P	.2492 +- .0518	.1248 +- .0253	
S	.3239 +- .0774	.1917 +- .0259	
Cl	.0588 +- .0276	.0116 +- .0095	
K	.1475 +- .0216	.1151 +- .0115	
Ca	.2472 +- .0247	.3191 +- .0319	
Ti	.9980 +- .0998	1.0645 +- .1065	
V	.4409 +- .0441	.4474 +- .0447	
Cr	.1130 +- .0133	.1178 +- .0118	
Mn	.0654 +- .0083	.0645 +- .0065	
Fe	.9561 +- .0956	.8287 +- .0829	
Ni	.2512 +- .0251	.1713 +- .0171	
Cu	.0472 +- .0093	.0675 +- .0067	
Zn	.0395 +- .0066	.0273 +- .0030	
Ga	.0000 +- .0047	.0043 +- .0016	
As	.0000 +- .0166	.0000 +- .0055	
Se	.0000 +- .0043	.0005 +- .0011	
Br	.0153 +- .0060	.0025 +- .0013	
Rb	.0000 +- .0063	.0069 +- .0017	
Sr	.0166 +- .0083	.0191 +- .0025	
Y	.0030 +- .0093	.0177 +- .0028	
Zr	.0000 +- .0399	.0225 +- .0113	
Mo	.0000 +- .0299	.0000 +- .0081	
Pd	.0000 +- .0279	.0000 +- .0076	
Ag	.0000 +- .0415	.0172 +- .0110	
Cd	.0113 +- .0548	.0055 +- .0153	
In	.0980 +- .0608	.0011 +- .0165	
Sn	.0724 +- .0744	.0083 +- .0217	
Sb	.1738 +- .1259	.0086 +- .0360	
Ba	.0000 +- .3518	.0000 +- .0969	
La	.1960 +- .5256	.9950 +- .2700	
Hg	.0173 +- .0080	.0015 +- .0022	
Pb	.1502 +- .0236	.0656 +- .0071	
Sum	69.5658	54.2906	

CAT. CRACKING. RECYCLED CATALYST

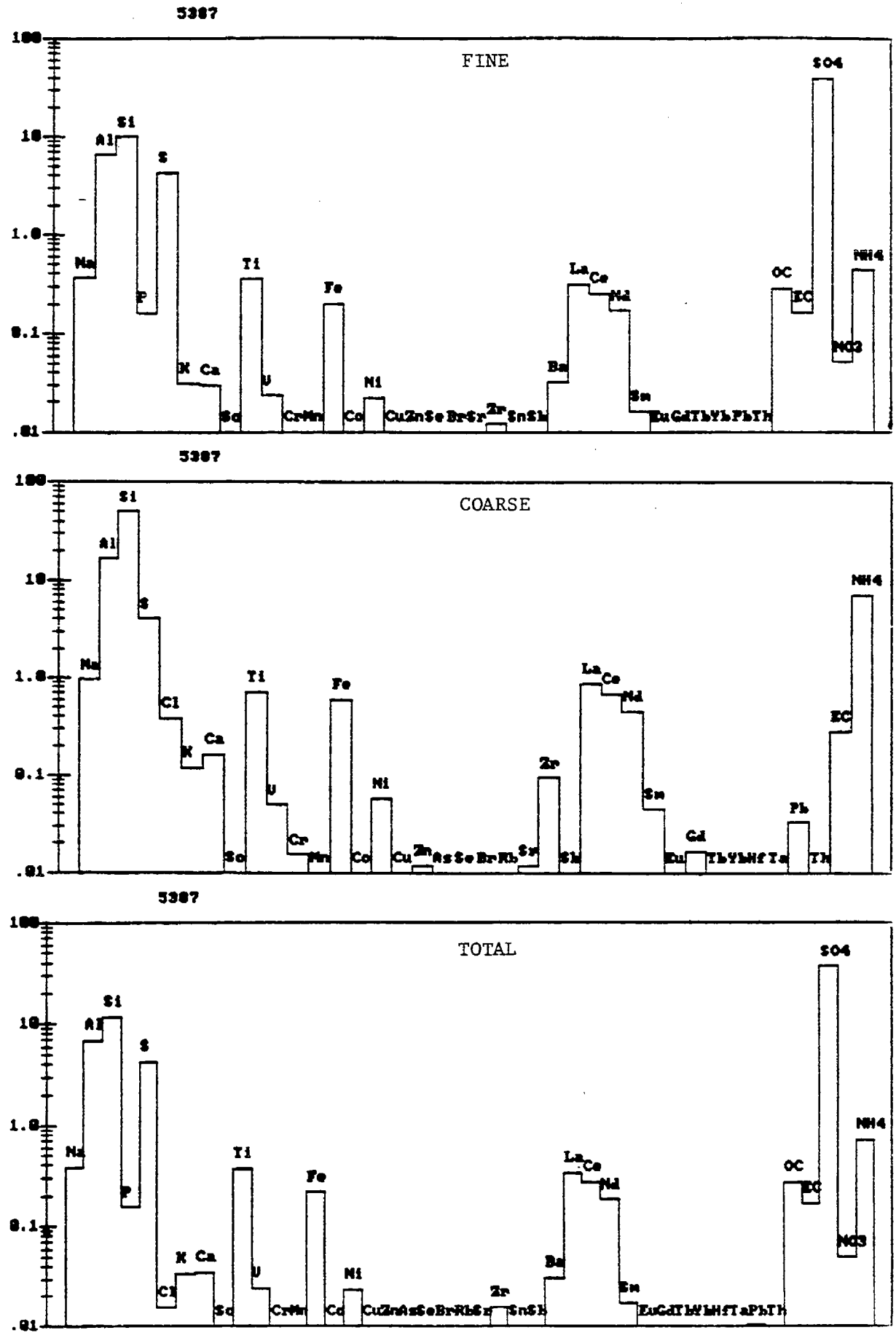




srce code	part size	revsion date	source description	reference	date
5387	FCT	03/19/87	Catalytic Cracker, Phil. 1984	6	03/87

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Na	.3600 +- .0400	.9440 +- .1180	.3839 +- .0636
Al	6.5000 +- 1.1000	16.5200 +- 2.3600	6.9107 +- 1.3964
Si	9.8000 +- 1.3000	49.5600 +- 2.9500	11.4295 +- 1.9115
P	.1600 +- .0300		.1534 +- .0358
S	4.2000 +- .5000	4.0120 +- 1.8290	4.1923 +- .7479
Cl		.3835 +- .1534	.0157 +- .0065
K	.0310 +- .0050	.1180 +- .0177	.0346 +- .0066
Ca	.0300 +- .0040	.1593 +- .0354	.0353 +- .0060
Sc	.0003 +- .0001	.0007 +- .0001	.0003 +- .0001
Ti	.3500 +- .0900	.7080 +- .7080	.3647 +- .1032
V	.0230 +- .0070	.0490 +- .0271	.0241 +- .0075
Cr	.0056 +- .0007	.0153 +- .0018	.0060 +- .0010
Mn	.0011 +- .0003	.0045 +- .0010	.0012 +- .0003
Fe	.2000 +- .0300	.5900 +- .0300	.2160 +- .0403
Co	.0014 +- .0002	.0040 +- .0005	.0015 +- .0003
Ni	.0220 +- .0030	.0578 +- .0100	.0235 +- .0042
Cu	.0014 +- .0008	.0083 +- .0065	.0017 +- .0008
Zn	.0024 +- .0006	.0118 +- .0006	.0028 +- .0007
As		.0035 +- .0014	.0001 +- .0001
Se	.0014 +- .0002	.0014 +- .0003	.0014 +- .0003
Br	.0006 +- .0001	.0038 +- .0011	.0007 +- .0001
Rb		.0071 +- .0030	.0003 +- .0001
Sr	.0036 +- .0006	.0118 +- .0006	.0039 +- .0008
Zr	.0120 +- .0040	.0944 +- .0295	.0154 +- .0044
Sn	.0051 +- .0022		.0049 +- .0022
Sb	.0007 +- .0001	.0018 +- .0030	.0007 +- .0002
Ba	.0320 +- .0040		.0307 +- .0057
La	.3100 +- .0400	.8732 +- .0413	.3331 +- .0581
Ce	.2500 +- .0400	.6844 +- .0413	.2678 +- .0520
Nd	.1700 +- .0200	.4543 +- .0354	.1817 +- .0306
Sm	.0160 +- .0020	.0448 +- .0024	.0172 +- .0030
Eu	.0005 +- .0001	.0012 +- .0001	.0005 +- .0001
Gd	.0066 +- .0009	.0165 +- .0030	.0070 +- .0013
Tb	.0008 +- .0001	.0023 +- .0001	.0009 +- .0001
Yb	.0004 +- .0001	.0008 +- .0002	.0004 +- .0001
Hf		.0003 +- .0001	.0000 +- .0001
Ta		.0001 +- .0001	.0000 +- .0001
Pb	.0091 +- .0021	.0325 +- .0130	.0101 +- .0025
Th	.0006 +- .0001	.0015 +- .0001	.0006 +- .0001
OC	.2800 +- .9900		.2685 +- .9502
EC	.1600 +- .0500	.2773 +- .0708	.1648 +- .0528
SO4	38.0000 +- 4.0000		36.4426 +- 6.3412
NO3	.0510 +- .0220		.0489 +- .0222
NH4	.4300 +- .2200	7.0800 +- 1.7700	.7025 +- .2367
Sum	61.4286	82.7392	62.3019

CATALYTIC CRACKER, PHIL. 1984

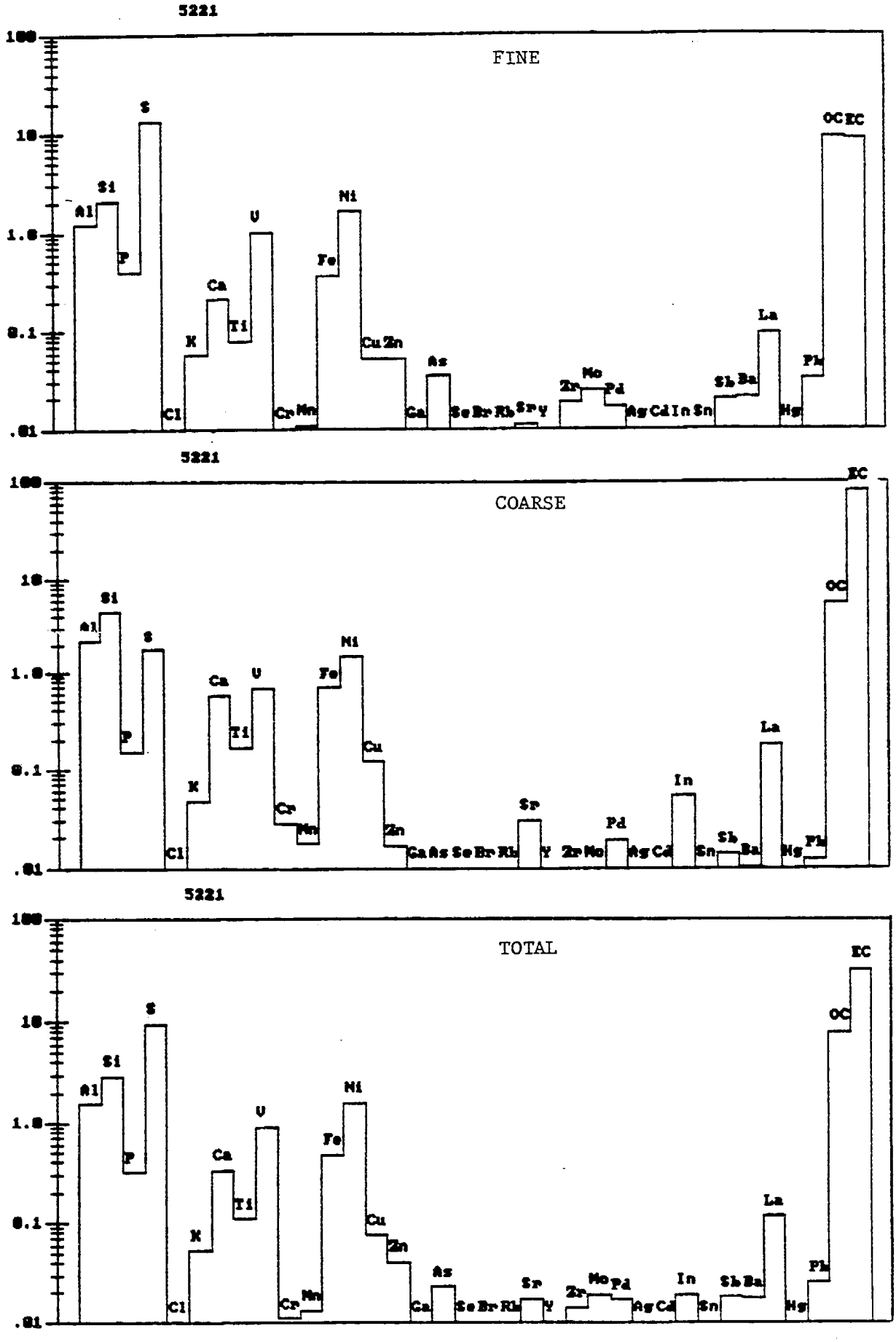


srce code	part size	revsion date	source description	reference	date
5221	FCT	03/01/85	oil boiler, Cubatao, T<15	8	03/85

PERCENT COMPOSITION

SPECIES	FINE	COARSE	TOTAL
Al	1.2032 +- .1203	2.2167 +- .2217	1.5408 +- .1541
Si	2.0768 +- .2077	4.5053 +- .4505	2.8789 +- .2879
P	.3980 +- .0726	.1506 +- .0502	.3158 +- .0651
S	13.0736 +- 1.3074	1.7611 +- .2798	9.3213 +- .9321
Cl	.0000 +- .0557	.0000 +- .0282	.0000 +- .0465
K	.0562 +- .0057	.0461 +- .0083	.0526 +- .0064
Ca	.2076 +- .0208	.5713 +- .0571	.3293 +- .0427
Ti	.0788 +- .0089	.1678 +- .0168	.1080 +- .0108
V	1.0035 +- .1003	.6892 +- .0689	.8980 +- .0898
Cr	.0026 +- .0120	.0277 +- .0129	.0108 +- .0123
Mn	.0107 +- .0021	.0175 +- .0037	.0129 +- .0025
Fe	.3571 +- .0357	.6959 +- .0696	.4703 +- .0470
Ni	1.5950 +- .1595	1.5083 +- .1508	1.5637 +- .1564
Cu	.0512 +- .0080	.1200 +- .0132	.0740 +- .0097
Zn	.0523 +- .0052	.0165 +- .0037	.0405 +- .0040
Ga	.0081 +- .0015	.0018 +- .0021	.0060 +- .0017
As	.0336 +- .0045	.0018 +- .0061	.0230 +- .0050
Se	.0038 +- .0012	.0016 +- .0021	.0030 +- .0015
Br	.0049 +- .0015	.0052 +- .0027	.0050 +- .0019
Rb	.0031 +- .0017	.0024 +- .0031	.0029 +- .0022
Sr	.0111 +- .0023	.0298 +- .0046	.0174 +- .0031
Y	.0033 +- .0044	.0041 +- .0058	.0036 +- .0049
Zr	.0181 +- .0147	.0062 +- .0197	.0140 +- .0137
Mo	.0243 +- .0084	.0082 +- .0149	.0190 +- .0106
Pd	.0167 +- .0165	.0189 +- .0119	.0170 +- .0096
Ag	.0010 +- .0105	.0011 +- .0195	.0010 +- .0135
Cd	.0004 +- .0145	.0000 +- .0260	.0003 +- .0183
In	.0013 +- .0143	.0525 +- .0283	.0190 +- .0190
Sn	.0026 +- .0182	.0028 +- .0337	.0027 +- .0233
Sb	.0193 +- .0307	.0137 +- .0561	.0182 +- .0392
Ba	.0202 +- .0849	.0103 +- .1552	.0179 +- .1084
La	.0935 +- .1240	.1769 +- .2297	.1166 +- .1591
Hg	.0014 +- .0021	.0023 +- .0039	.0017 +- .0027
Pb	.0321 +- .0056	.0122 +- .0093	.0255 +- .0068
OC	8.9600 +- .8960	5.6300 +- .5630	7.8500 +- .7850
EC	8.6900 +- .8690	80.2000 +- 8.0200	32.5000 +- 3.2500
Sum	38.1154	98.6759	58.2807

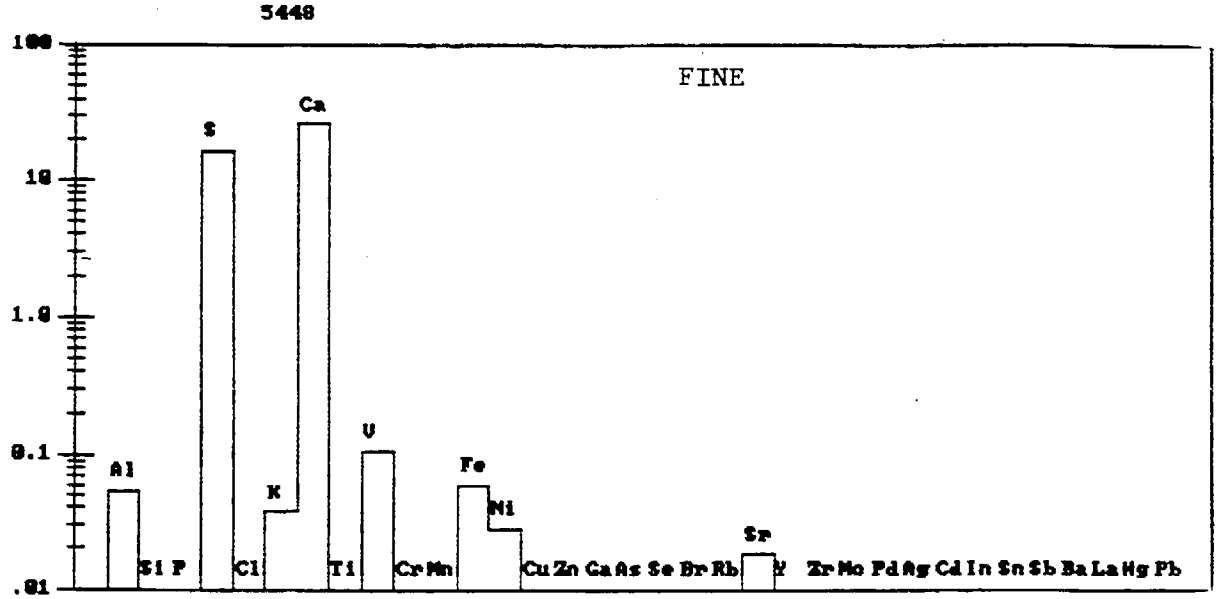
OIL BOILER, CUBATAO, T<15

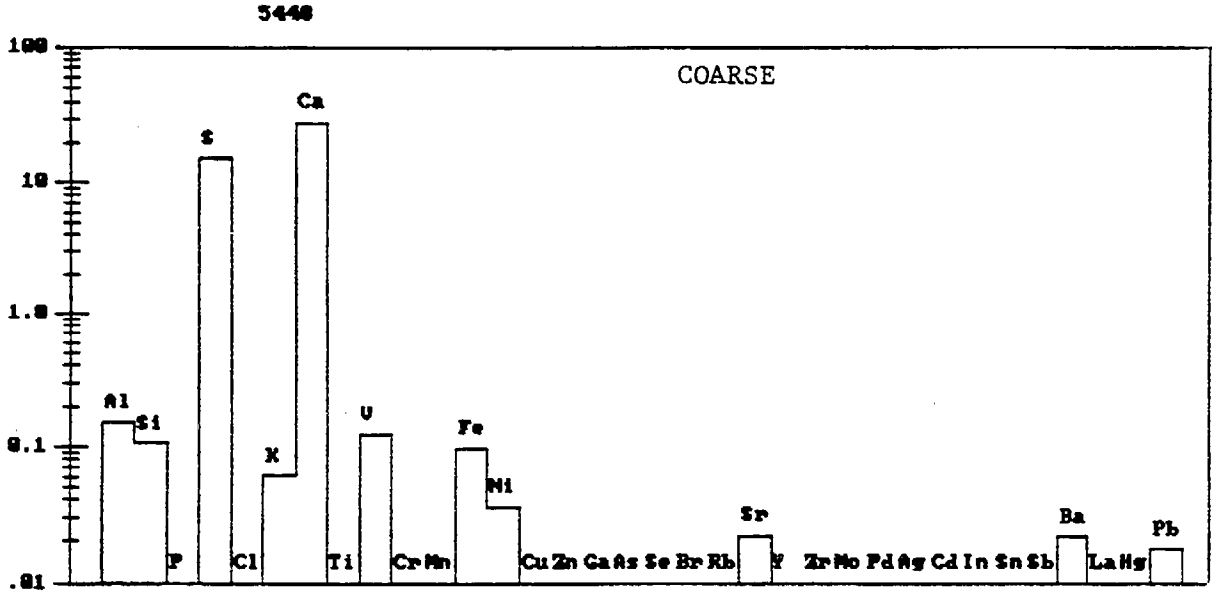


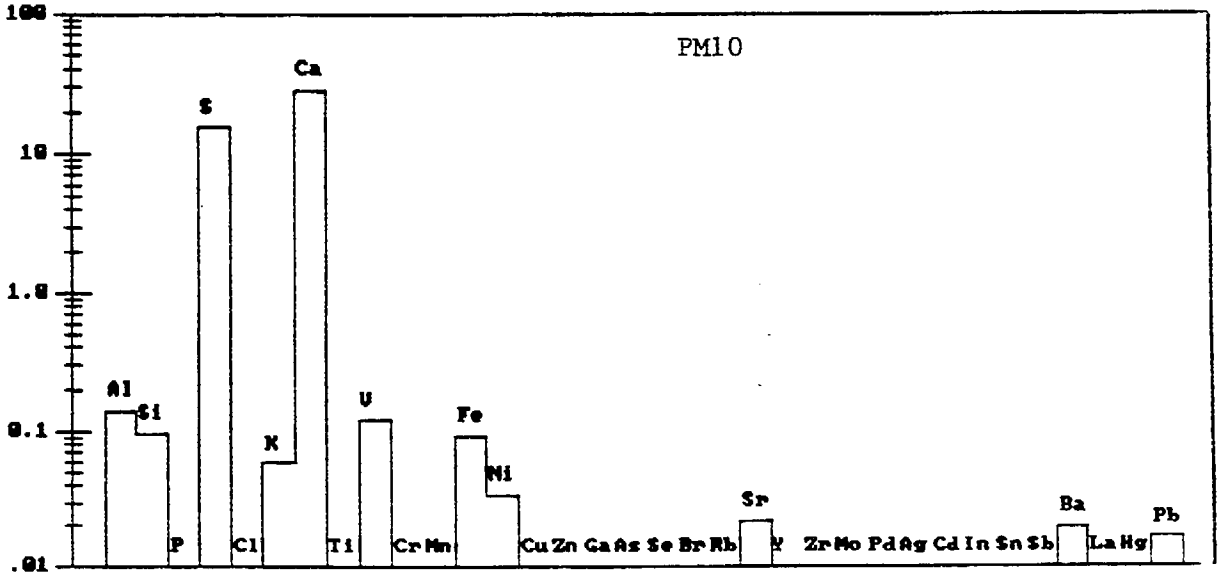
srce code	part size	revsion date	source description	reference	date
5448	FCT	05/27/87	Coke Calcining 1987 SCAB	1	04/87

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Al	.0540 +- .0540	.1496 +- .0508	.1409 +- .0464
Si	.0000 +- .0473	.1049 +- .0474	.0954 +- .0433
P	.0000 +- .0598	.0000 +- .0524	.0000 +- .0480
S	16.1840 +- .8240	15.2720 +- .8155	15.3551 +- .7449
Cl	.0000 +- .0390	.0000 +- .0326	.0000 +- .0298
K	.0374 +- .0374	.0605 +- .0385	.0584 +- .0351
Ca	25.7784 +- 1.2934	28.1537 +- 1.4103	27.9372 +- 1.2872
Ti	.0086 +- .0022	.0063 +- .0013	.0066 +- .0012
V	.1053 +- .0068	.1219 +- .0066	.1204 +- .0060
Cr	.0000 +- .0022	.0017 +- .0017	.0015 +- .0015
Mn	.0000 +- .0016	.0059 +- .0007	.0054 +- .0006
Fe	.0588 +- .0054	.0958 +- .0055	.0925 +- .0051
Ni	.0278 +- .0026	.0352 +- .0022	.0345 +- .0020
Cu	.0000 +- .0012	.0023 +- .0006	.0021 +- .0005
Zn	.0051 +- .0012	.0064 +- .0007	.0063 +- .0006
Ga	.0000 +- .0008	.0000 +- .0003	.0000 +- .0003
As	.0000 +- .0027	.0000 +- .0014	.0000 +- .0013
Se	.0000 +- .0011	.0000 +- .0004	.0000 +- .0003
Br	.0016 +- .0014	.0035 +- .0005	.0033 +- .0005
Rb	.0000 +- .0016	.0006 +- .0006	.0006 +- .0006
Sr	.0181 +- .0025	.0221 +- .0014	.0217 +- .0013
Y	.0000 +- .0025	.0000 +- .0009	.0000 +- .0008
Zr	.0000 +- .0112	.0000 +- .0041	.0000 +- .0039
Mo	.0000 +- .0073	.0000 +- .0025	.0000 +- .0024
Pd	.0000 +- .0075	.0000 +- .0026	.0000 +- .0025
Ag	.0000 +- .0092	.0000 +- .0032	.0000 +- .0030
Cd	.0000 +- .0119	.0000 +- .0043	.0000 +- .0041
In	.0000 +- .0151	.0000 +- .0051	.0000 +- .0049
Sn	.0000 +- .0182	.0000 +- .0060	.0000 +- .0057
Sb	.0000 +- .0410	.0000 +- .0134	.0000 +- .0128
Ba	.0000 +- .0732	.0215 +- .0241	.0196 +- .0229
La	.0000 +- .1359	.0000 +- .0439	.0000 +- .0418
Hg	.0000 +- .0014	.0000 +- .0005	.0000 +- .0005
Pb	.0053 +- .0046	.0175 +- .0018	.0164 +- .0017
Sum	42.2841	44.0816	43.9178

COKE CALCINING 1987 SCAB



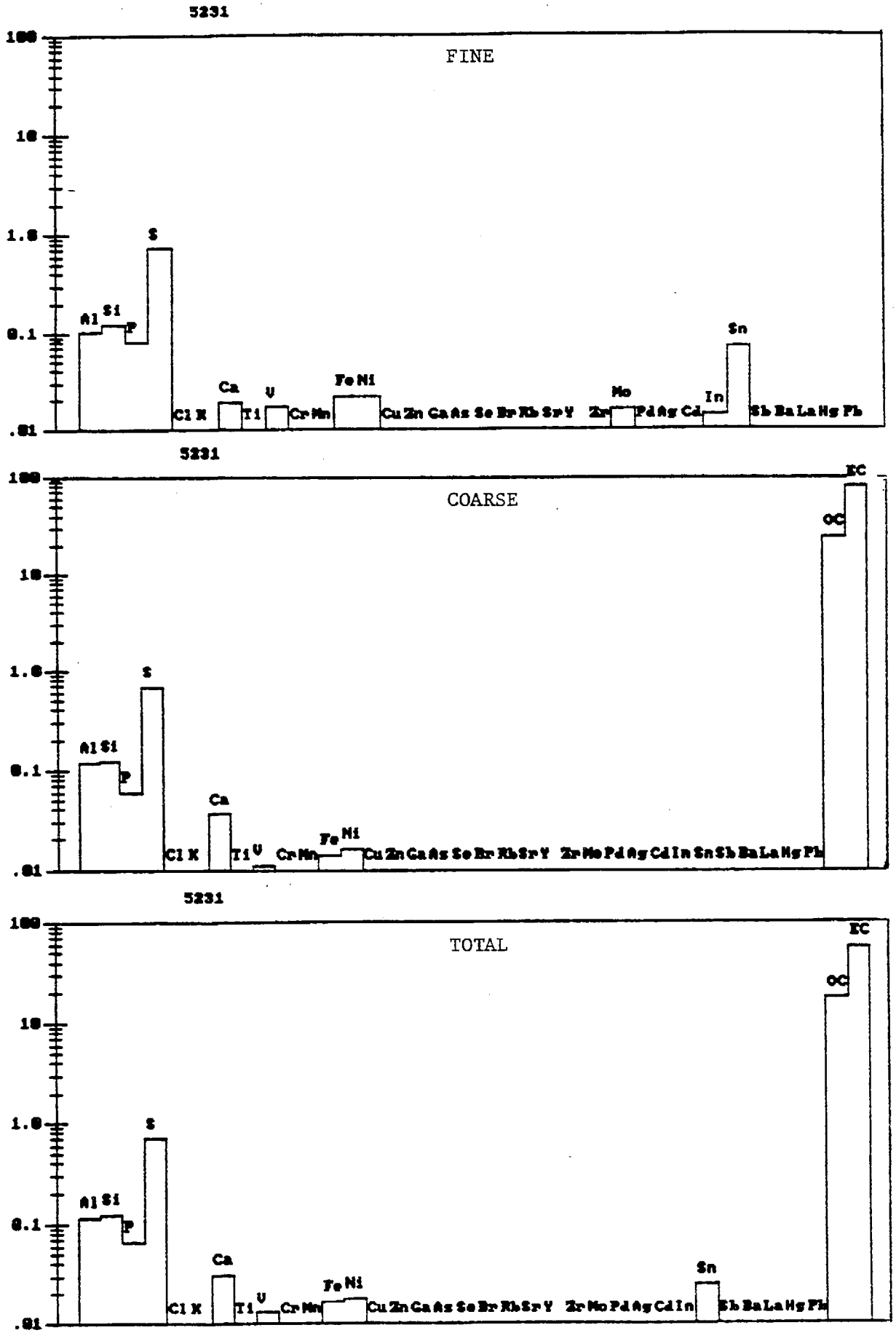




srce code	part size	revsion date	source description	reference	date
5231	FCT	03/19/87	green coke dust, raw material	8	03/85

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Al	.1010 +- .0150	.1190 +- .0119	.1134 +- .0105
Si	.1230 +- .0123	.1220 +- .0122	.1223 +- .0107
P	.0800 +- .0170	.0590 +- .0120	.0655 +- .0103
S	.7230 +- .0723	.6870 +- .0687	.6982 +- .0610
Cl	.0010 +- .0110	.0000 +- .0070	.0003 +- .0059
K	.0000 +- .0040	.0000 +- .0030	.0000 +- .0024
Ca	.0190 +- .0040	.0360 +- .0040	.0307 +- .0032
Ti	.0000 +- .0020	.0000 +- .0010	.0000 +- .0009
V	.0170 +- .0030	.0110 +- .0011	.0129 +- .0014
Cr	.0000 +- .0020	.0000 +- .0010	.0000 +- .0009
Mn	.0010 +- .0020	.0000 +- .0010	.0003 +- .0009
Fe	.0220 +- .0070	.0140 +- .0030	.0165 +- .0031
Ni	.0220 +- .0030	.0160 +- .0020	.0179 +- .0019
Cu	.0040 +- .0030	.0100 +- .0020	.0081 +- .0017
Zn	.0060 +- .0020	.0020 +- .0010	.0032 +- .0010
Ga	.0000 +- .0020	.0000 +- .0010	.0000 +- .0009
As	.0000 +- .0040	.0000 +- .0020	.0000 +- .0019
Se	.0020 +- .0020	.0000 +- .0010	.0006 +- .0009
Br	.0000 +- .0020	.0010 +- .0010	.0007 +- .0009
Rb	.0000 +- .0030	.0010 +- .0010	.0007 +- .0012
Sr	.0000 +- .0030	.0010 +- .0010	.0007 +- .0012
Y	.0000 +- .0040	.0000 +- .0020	.0000 +- .0019
Zr	.0000 +- .0160	.0000 +- .0080	.0000 +- .0074
Mo	.0160 +- .0130	.0000 +- .0060	.0050 +- .0058
Pd	.0000 +- .0120	.0000 +- .0050	.0000 +- .0051
Ag	.0000 +- .0170	.0000 +- .0070	.0000 +- .0072
Cd	.0000 +- .0210	.0000 +- .0110	.0000 +- .0100
In	.0140 +- .0230	.0000 +- .0120	.0043 +- .0109
Sn	.0710 +- .0310	.0040 +- .0160	.0248 +- .0148
Sb	.0000 +- .0470	.0000 +- .0260	.0000 +- .0231
Ba	.0000 +- .1420	.0000 +- .0720	.0000 +- .0664
La	.0000 +- .2020	.0000 +- .1050	.0000 +- .0958
Hg	.0030 +- .0030	.0000 +- .0010	.0009 +- .0012
Pb	.0020 +- .0070	.0090 +- .0040	.0068 +- .0035
OC		24.6000 +- 4.9200	16.9655 +- 3.4337
EC		80.5000 +-16.1000	55.5172 +-11.2363
Sum	1.2270	*******	73.6165

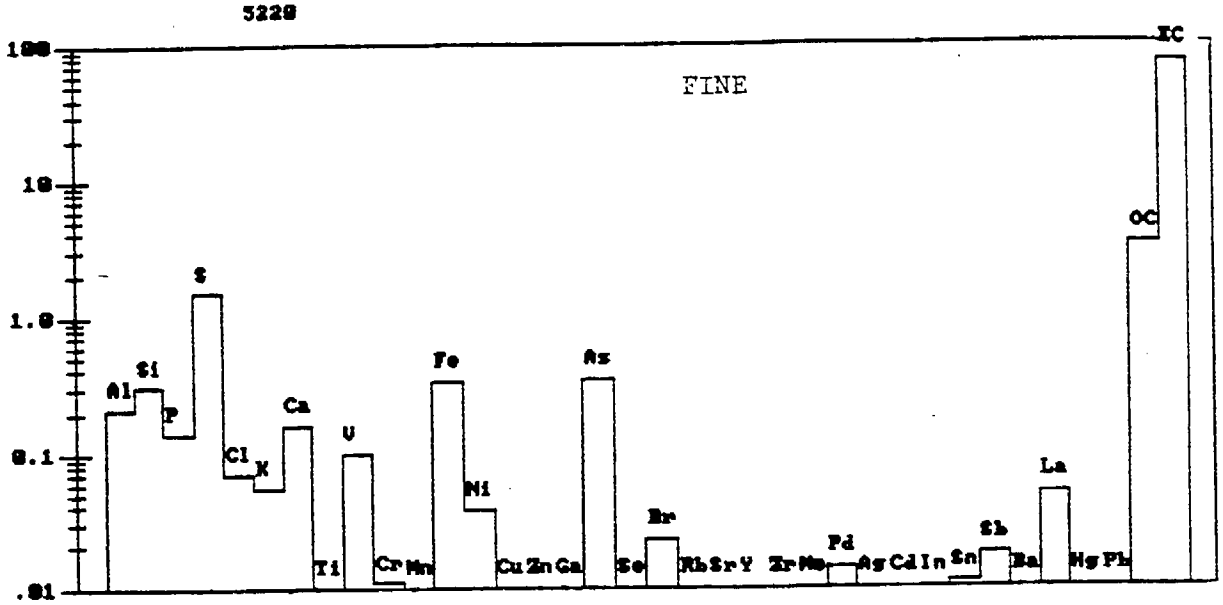
GREEN COKE DUST, RAW MATERIAL

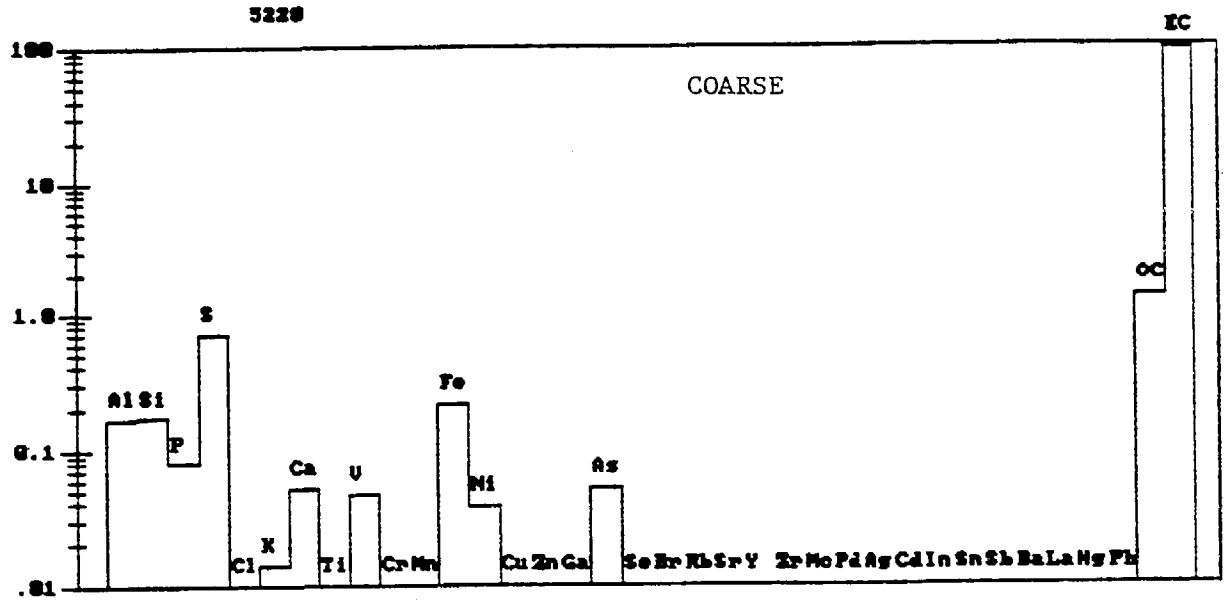


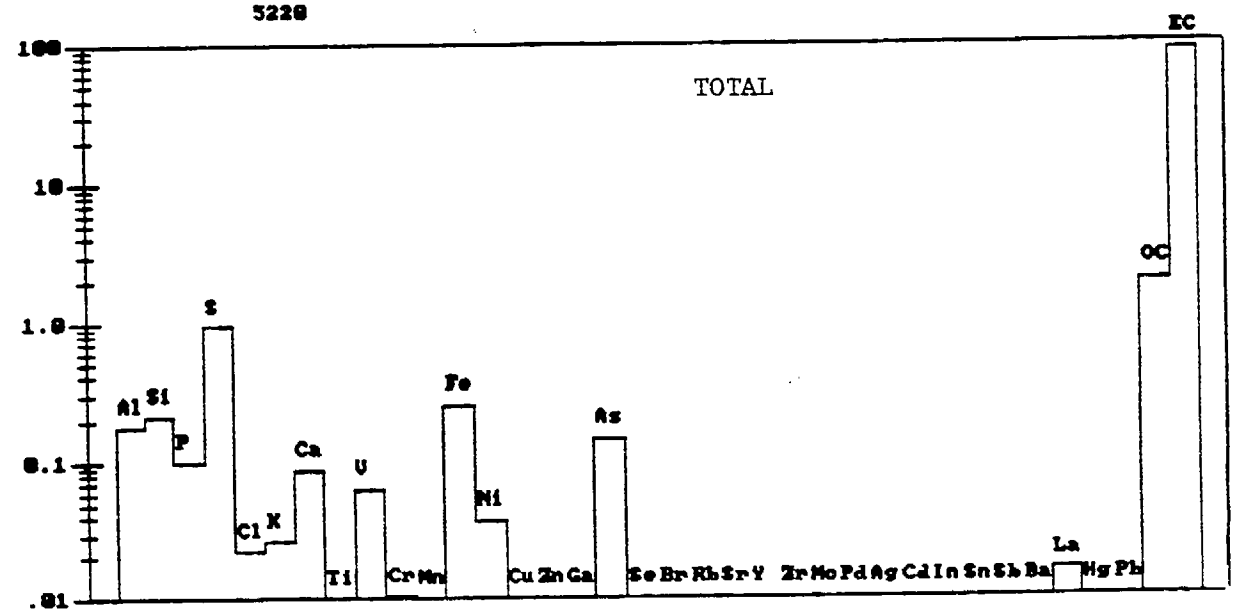
srce code	part size	revsion date	source description	reference	date
5220	FCT	03/01/85	coke cooler, Cubatao, T<15	8	03/85

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Al	.2106 +- .0211	.1661 +- .0418	.1802 +- .0300
Si	.3039 +- .0562	.1690 +- .0169	.2113 +- .0262
P	.1418 +- .0262	.0795 +- .0175	.0991 +- .0202
S	1.4850 +- .1485	.7021 +- .0702	.9487 +- .0949
Cl	.0712 +- .1007	.0000 +- .0052	.0227 +- .0321
K	.0555 +- .0074	.0140 +- .0020	.0270 +- .0029
Ca	.1613 +- .0161	.0523 +- .0052	.0866 +- .0087
Ti	.0095 +- .0016	.0039 +- .0008	.0057 +- .0011
V	.0996 +- .0122	.0471 +- .0047	.0636 +- .0064
Cr	.0108 +- .0021	.0099 +- .0013	.0102 +- .0015
Mn	.0066 +- .0073	.0034 +- .0048	.0044 +- .0056
Fe	.3286 +- .0652	.2132 +- .0572	.2495 +- .0604
Ni	.0378 +- .0038	.0378 +- .0038	.0378 +- .0038
Cu	.0027 +- .0014	.0001 +- .0008	.0009 +- .0010
Zn	.0071 +- .0025	.0008 +- .0005	.0028 +- .0010
Ga	.0012 +- .0009	.0000 +- .0004	.0004 +- .0006
As	.3449 +- .2189	.0512 +- .0305	.1441 +- .0915
Se	.0035 +- .0011	.0011 +- .0005	.0019 +- .0007
Br	.0227 +- .0095	.0035 +- .0017	.0095 +- .0043
Rb	.0000 +- .0014	.0004 +- .0008	.0002 +- .0010
Sr	.0039 +- .0018	.0005 +- .0010	.0015 +- .0012
Y	.0000 +- .0020	.0000 +- .0011	.0000 +- .0014
Zr	.0064 +- .0088	.0000 +- .0047	.0020 +- .0060
Mo	.0056 +- .0067	.0043 +- .0037	.0047 +- .0047
Pd	.0142 +- .0084	.0045 +- .0064	.0076 +- .0070
Ag	.0000 +- .0085	.0000 +- .0045	.0000 +- .0058
Cd	.0003 +- .0119	.0000 +- .0063	.0001 +- .0081
In	.0073 +- .0121	.0001 +- .0065	.0023 +- .0082
Sn	.0108 +- .0153	.0000 +- .0082	.0034 +- .0104
Sb	.0175 +- .0254	.0000 +- .0130	.0054 +- .0169
Ba	.0000 +- .0690	.0000 +- .0377	.0000 +- .0475
La	.0505 +- .1020	.0000 +- .0551	.0158 +- .0698
Hg	.0050 +- .0020	.0006 +- .0010	.0020 +- .0013
Pb	.0071 +- .0041	.0009 +- .0022	.0028 +- .0028
OC	3.2800 +- .3280	1.3000 +- .1300	1.9200 +- .1920
EC	73.9000 +- 7.3900	94.7000 +- 9.4700	88.1000 +- 8.8100
Sum	80.6127	97.5663	92.1744

COKE COOLER, CUBATAO, T<15



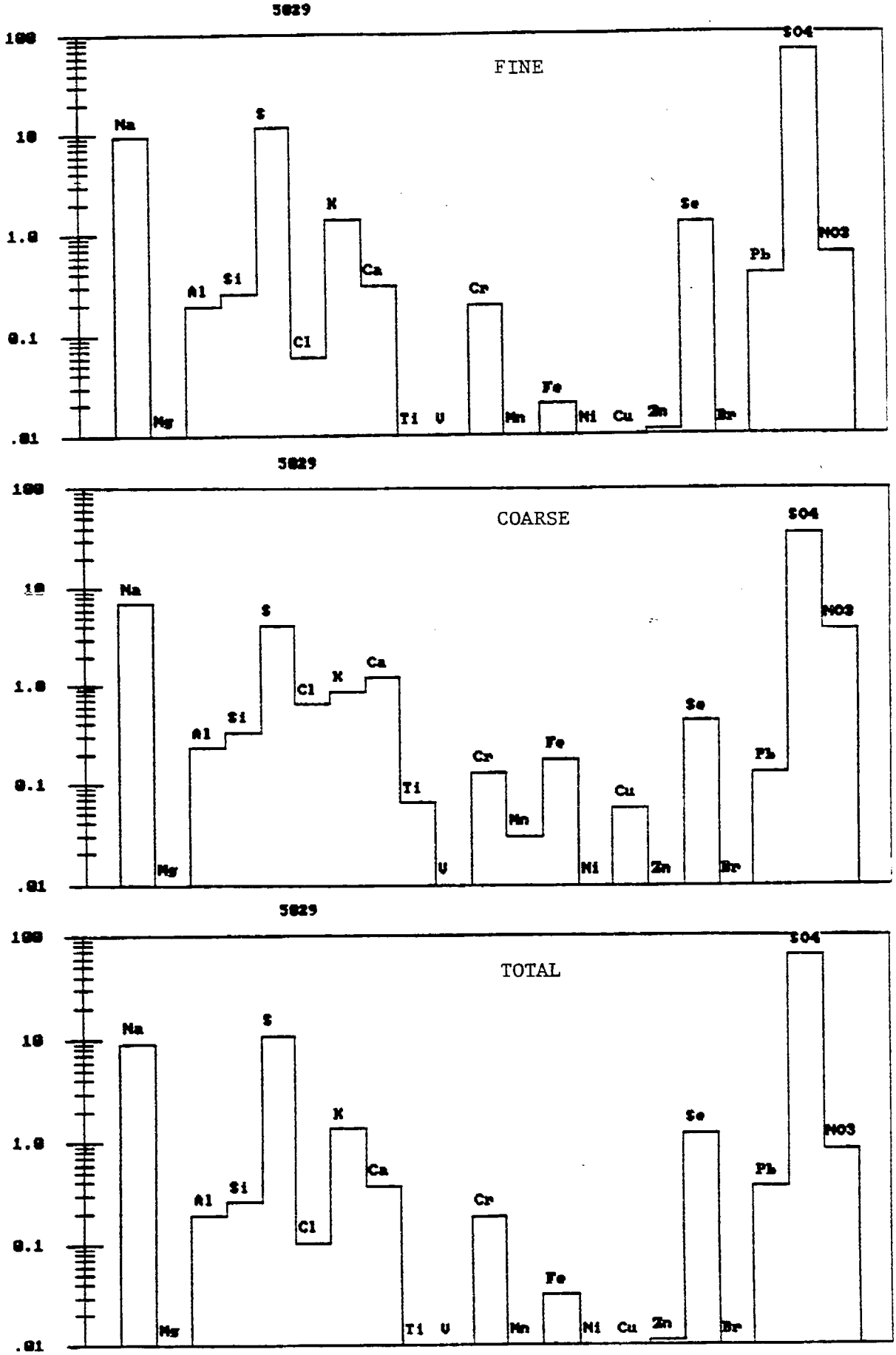




srce code	part size	revsion date	source description	reference	date
5029	FCT	03/18/87	glass furnace	7	02/79

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Na	9.2000 +- 1.0000	6.9500 +- 2.6200	9.0393 +- 1.5270
Mg	.0000 +- 1.0000	.0000 +- 2.0000	.0000 +- .9395
Al	.1900 +- .0140	.2300 +- .0230	.1929 +- .0283
Si	.2500 +- .0700	.3300 +- .2900	.2557 +- .0759
S	11.3000 +- 2.3000	4.2000 +- 3.7000	10.7929 +- 2.5955
Cl	.0600 +- .0060	.6500 +- .1700	.1021 +- .0173
K	1.3700 +- .2800	.8600 +- .0850	1.3336 +- .3149
Ca	.3000 +- .0300	1.2300 +- .1800	.3664 +- .0536
Ti	.0000 +- .0050	.0650 +- .0490	.0046 +- .0058
V	.0047 +- .0002	.0000 +- .0050	.0044 +- .0007
Cr	.1900 +- .0350	.1300 +- .0560	.1857 +- .0410
Mn	.0021 +- .0007	.0300 +- .0099	.0041 +- .0011
Fe	.0200 +- .0020	.1800 +- .0180	.0314 +- .0041
Ni	.0000 +- .0100	.0000 +- .0200	.0000 +- .0094
Cu	.0047 +- .0017	.0570 +- .0170	.0084 +- .0022
Zn	.0110 +- .0019	.0100 +- .0010	.0109 +- .0023
Se	1.2300 +- .1800	.4300 +- .2300	1.1729 +- .2305
Br	.0063 +- .0053	.0000 +- .5000	.0058 +- .0361
Pb	.3800 +- .0600	.1300 +- .0130	.3621 +- .0740
SO4	65.0000 +- 9.9000	35.5000 +-13.4000	62.8929 +-12.4884
NO3	.6200 +- .3500	3.8000 +- 1.1000	.8471 +- .3483
Sum	90.1388	54.7820	87.6132

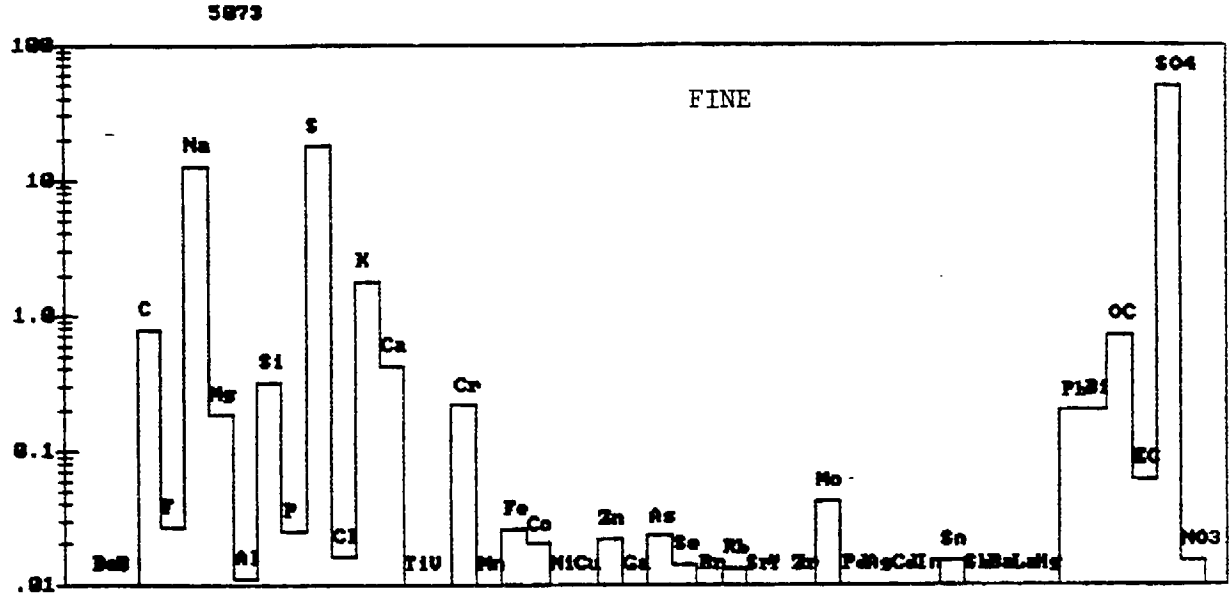
GLASS FURNACE

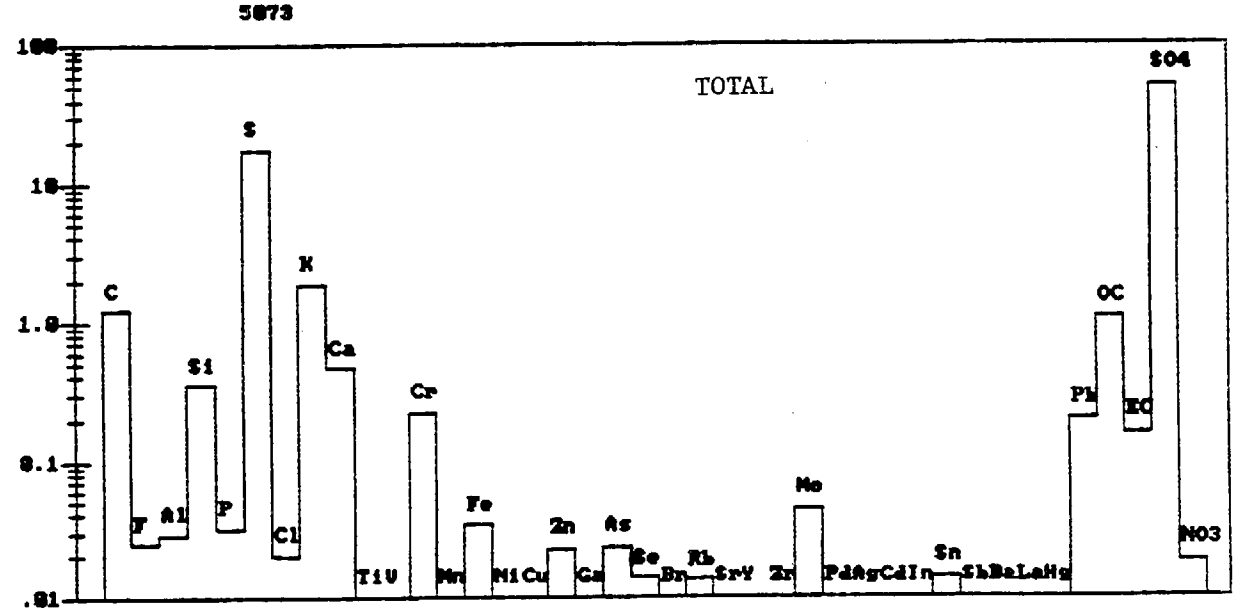


srce code	part size	revsion date	source description	reference	date
5073	F T	09/26/83	glass furnace	2	09/83

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Be	.0030 +- .0030		
B	.0100 +- .0100		
C	.7800 +- .0800		1.2112 +- .1211
F	.0270 +- .0060		.0247 +- .0054
Na	12.8000 +- 1.2800		
Mg	.1830 +- .0183		
Al	.0110 +- .0110		.0285 +- .0103
Si	.3200 +- .0600		.3475 +- .0553
P	.0250 +- .0250		.0316 +- .0237
S	17.6000 +- 1.7600		17.5120 +- 1.7512
Cl	.0160 +- .0030		.0203 +- .0066
K	1.8000 +- .1800		1.8352 +- .1835
Ca	.4270 +- .0427		.4614 +- .0461
Ti	.0040 +- .0004		.0049 +- .0009
V	.0060 +- .0006		.0064 +- .0006
Cr	.2150 +- .0215		.2182 +- .0218
Mn	.0030 +- .0010		.0030 +- .0009
Fe	.0260 +- .0026		.0338 +- .0059
Co	.0200 +- .0200		
Ni	.0040 +- .0004		.0043 +- .0006
Cu	.0010 +- .0003		.0010 +- .0003
Zn	.0220 +- .0022		.0227 +- .0023
Ga	.0002 +- .0002		.0002 +- .0002
As	.0230 +- .0023		.0235 +- .0023
Se	.0140 +- .0030		.0137 +- .0027
Br	.0040 +- .0004		.0040 +- .0004
Rb	.0130 +- .0013		.0133 +- .0013
Sr	.0030 +- .0004		.0033 +- .0006
Y	.0005 +- .0005		.0006 +- .0005
Zr	.0010 +- .0010		.0013 +- .0013
Mo	.0420 +- .0042		.0436 +- .0044
Pd	.0010 +- .0010		.0011 +- .0010
Ag	.0010 +- .0010		.0013 +- .0010
Cd	.0030 +- .0020		.0033 +- .0019
In	.0010 +- .0010		.0020 +- .0016
Sn	.0150 +- .0030		.0141 +- .0030
Sb	.0020 +- .0020		.0022 +- .0028
Ba	.0026 +- .0013		.0092 +- .0081
La	.0085 +- .0085		.0093 +- .0123
Hg	.0005 +- .0005		.0006 +- .0005
Pb	.1950 +- .0195		.1944 +- .0194
Bi	.2000 +- .2000		
OC	.7100 +- .0800		1.0499 +- .1050
EC	.0620 +- .0800		.1542 +- .1049
SO4	48.9000 +- 7.3000		50.3410 +- 6.5788
NO3	.0150 +- .0030		.0185 +- .0058
Sum	84.5203		73.6713

GLASS FURNACE

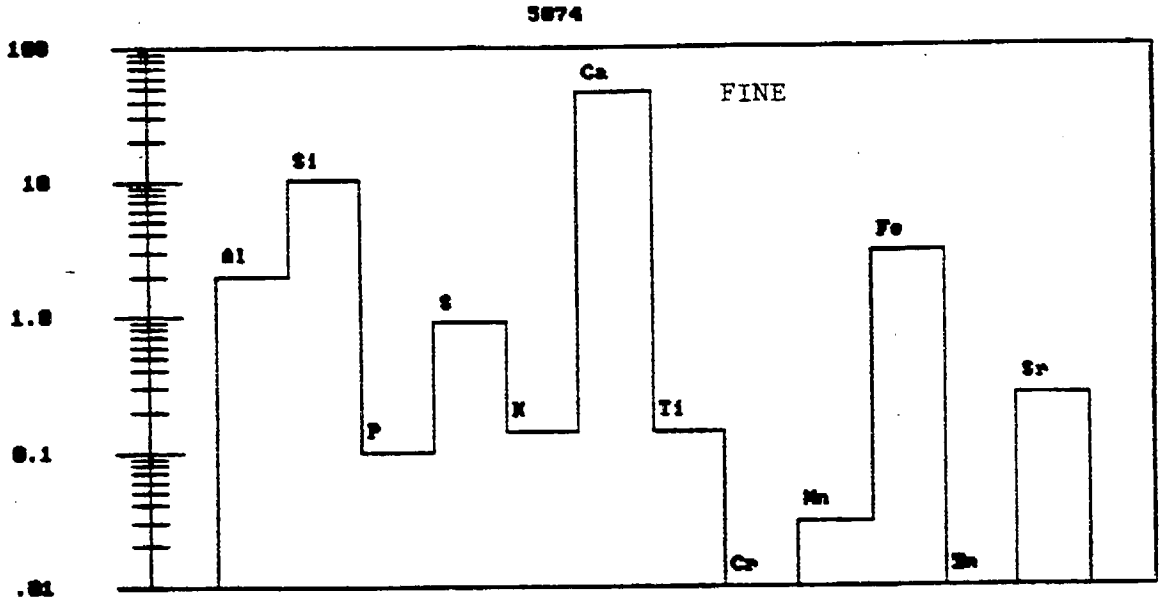


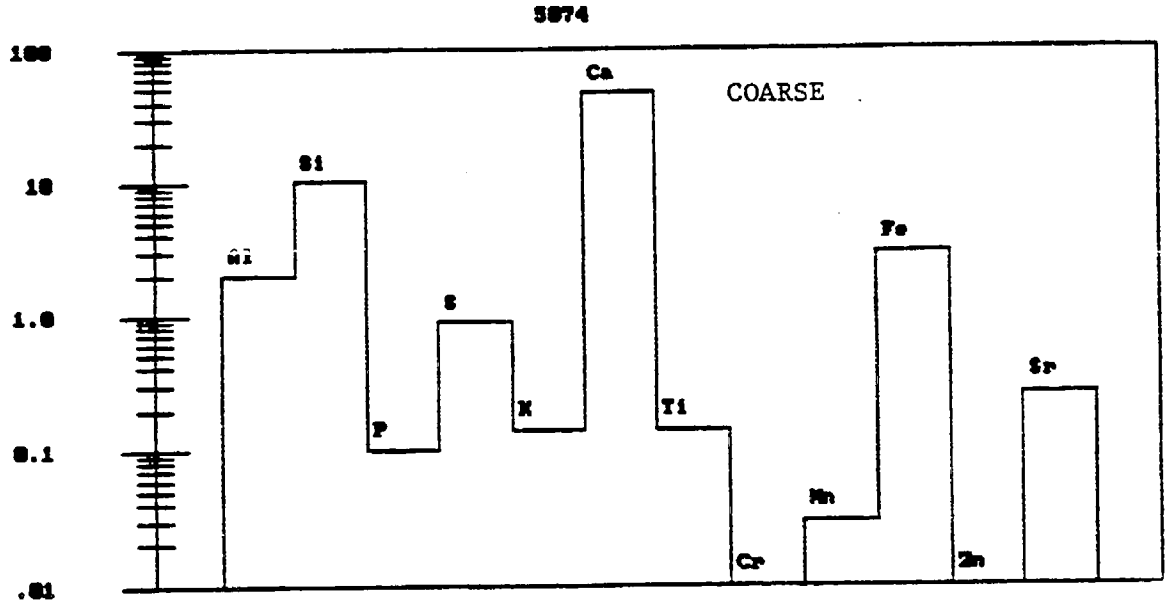


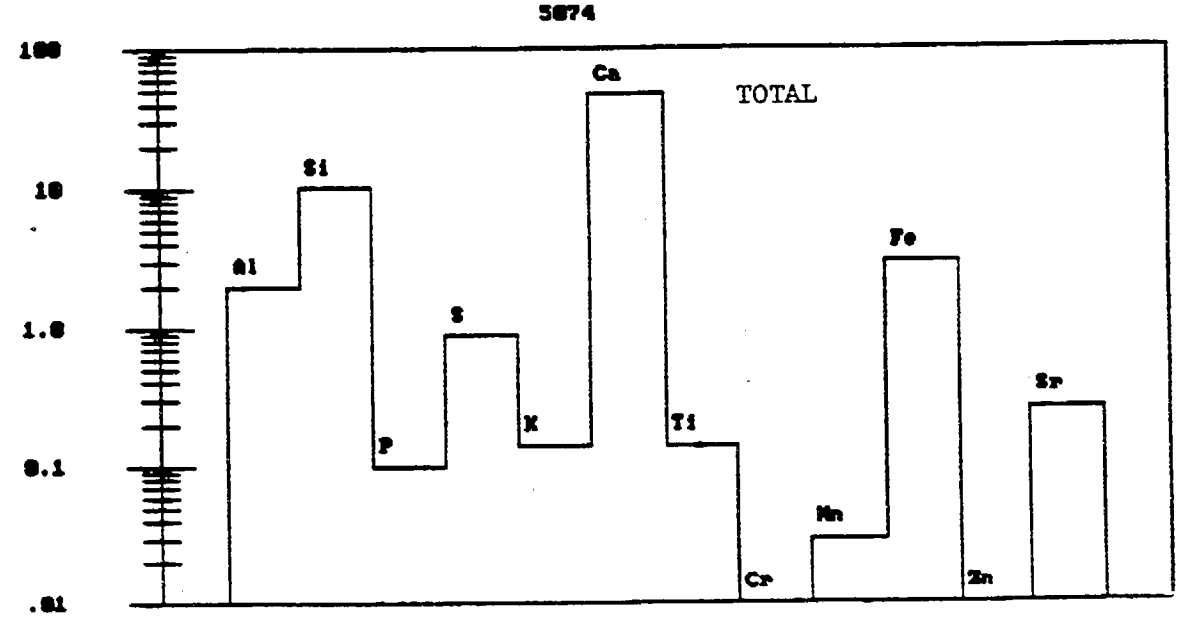
srce code	part size	revsion date	source description	reference	date
5074	FCT	03/19/87	NBS cement dust (SRM 633)	NBS catalog	02/84

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Al	2.0000 +- .4000	2.0000 +- .4000	2.0000 +- .4000
Si	10.2000 +- 2.0000	10.2000 +- 2.0000	10.2000 +- 2.0000
P	.1000 +- .0200	.1000 +- .0200	.1000 +- .0200
S	.8800 +- .1700	.8800 +- .1700	.8800 +- .1700
K	.1400 +- .0280	.1400 +- .0280	.1400 +- .0280
Ca	46.1000 +- 4.6100	46.1000 +- 4.6100	46.1000 +- 4.6100
Ti	.1400 +- .0280	.1400 +- .0280	.1400 +- .0280
Cr	.0070 +- .0014	.0070 +- .0014	.0070 +- .0014
Mn	.0300 +- .0060	.0300 +- .0060	.0300 +- .0060
Fe	2.9400 +- .5800	2.9400 +- .5800	2.9400 +- .5800
Zn	.0080 +- .0016	.0080 +- .0016	.0080 +- .0016
Sr	.2600 +- .0520	.2600 +- .0520	.2600 +- .0520
Sum	62.8050	62.8050	62.8050

NBS CEMENT DUST (SRM 633)





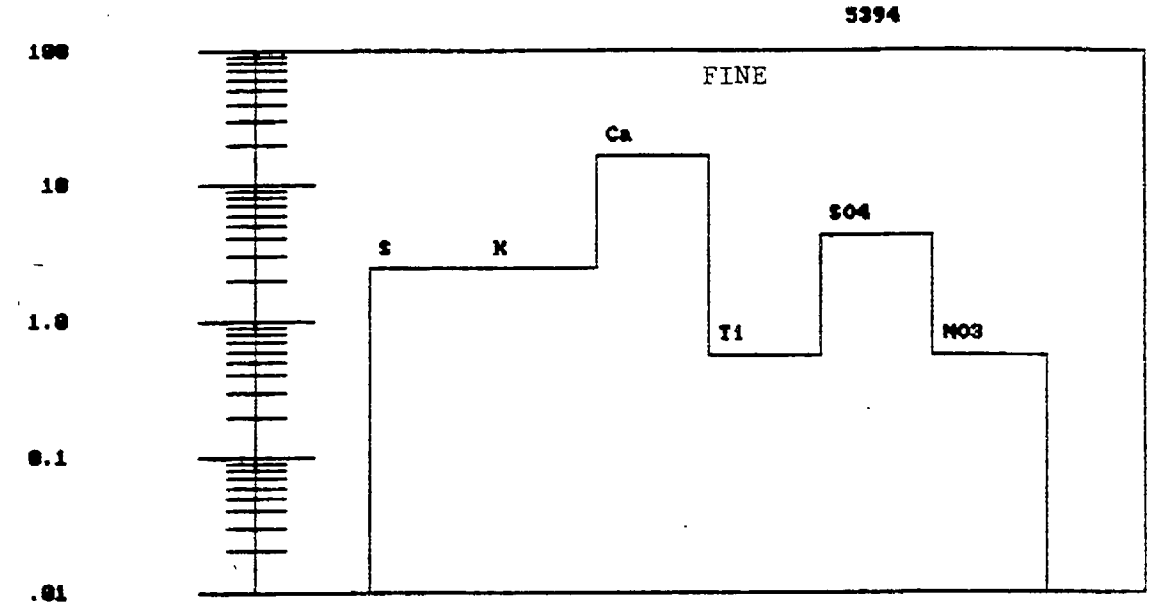


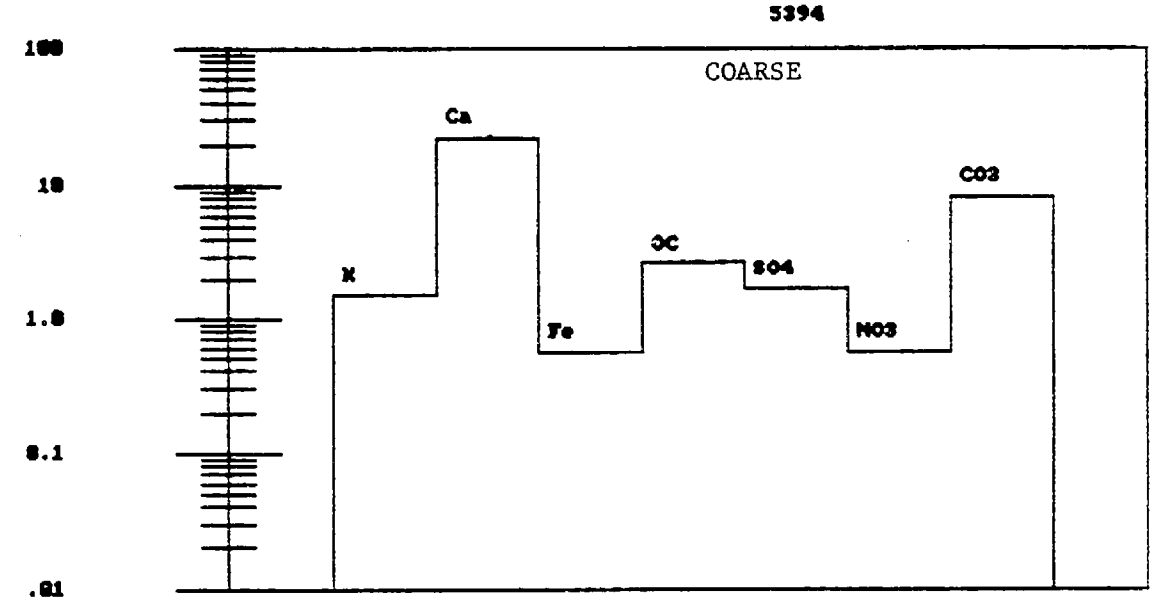
srce code	part size	revsion date	source description	reference	date
5394	FCT	03/19/87	Portland Cement Kilm (gas)	9	00/79

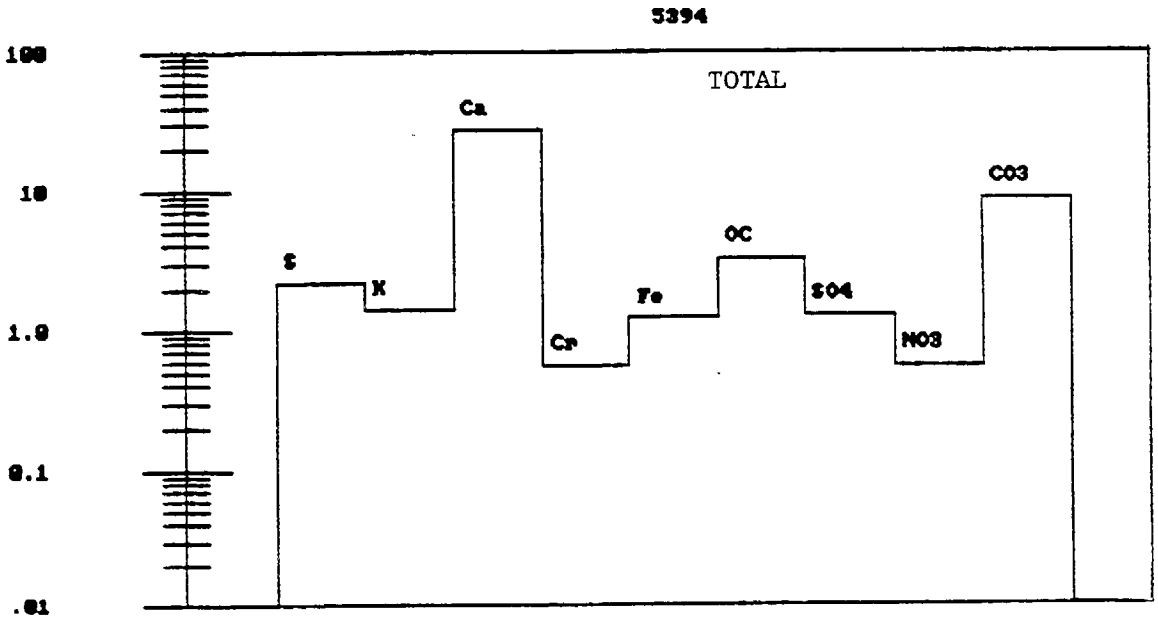
PERCENT COMPOSITION

SPECIES	FINE	COARSE	TOTAL
S	2.4000 +- .4000		2.2000 +- .8000
K	2.4000 +- .4000	1.5000 +- .3000	1.4000 +- .3000
Ca	16.1000 +- 3.0000	22.0000 +- 3.0000	27.0000 +- 3.0000
Ti	.5500 +- .1650		
Cr			.5500 +- .1650
Fe		.5500 +- .1650	1.2000 +- .1000
OC		2.6600 +- .7980	3.2200 +- .9660
SO4	4.2700 +- 1.2810	1.6800 +- .5040	1.2600 +- .3780
NO3	.5500 +- .1650	.5500 +- .1650	.5500 +- .1650
CO3		8.1000 +- 2.4300	8.7900 +- 2.6370
Sum	26.2700	37.0400	46.1700

PORTLAND CEMENT KILN (GAS)



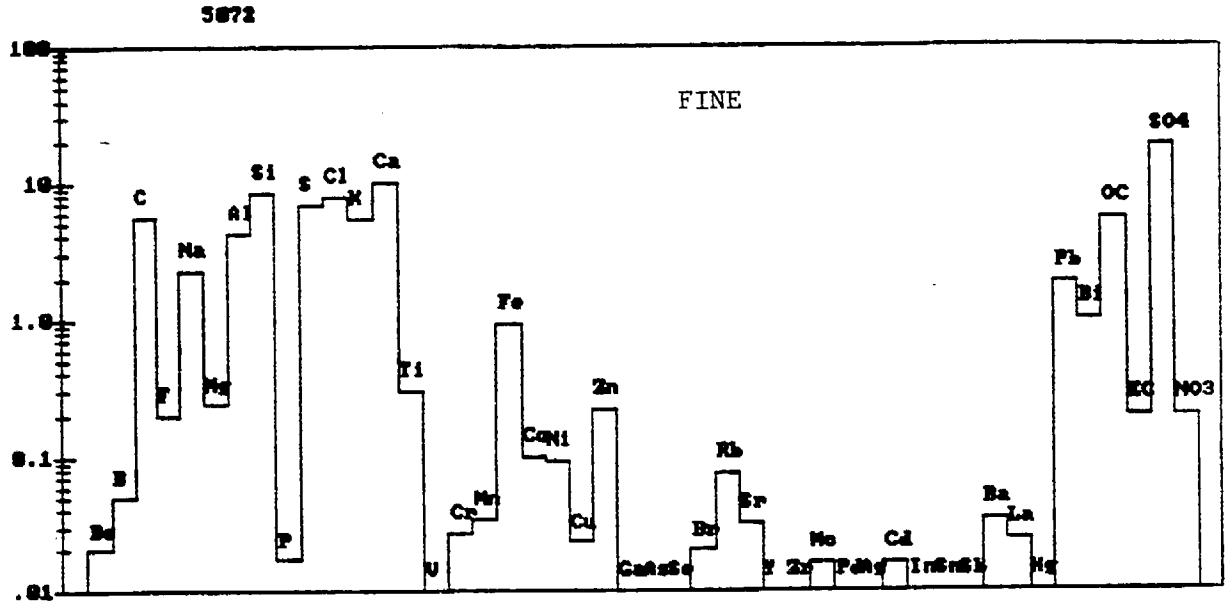




srce code	part size	revsion date	source description	reference	date
5072	F T	09/26/83	cement kiln	2	09/83

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Be	.0200 +- .0200		
B	.0500 +- .0500		
C	5.6000 +- .6000		6.7340 +- .6734
F	.2000 +- .0280		.2000 +- .1086
Na	2.2900 +- .4600		
Mg	.2400 +- .0240		
Al	4.2800 +- .4300		4.1060 +- .4106
Si	8.4400 +- .8440		8.8960 +- 1.3621
P	.0170 +- .0750		.0290 +- .0487
S	6.8000 +- 1.4000		5.0000 +- .9121
Cl	7.8000 +- 1.9000		4.3920 +- .7706
K	5.4000 +- 1.5000		3.7920 +- .6218
Ca	10.0000 +- 1.3000		14.8000 +- 1.4800
Ti	.2980 +- .0360		.3016 +- .0317
V	.0100 +- .0020		.0112 +- .0014
Cr	.0270 +- .0240		.0156 +- .0097
Mn	.0340 +- .0190		.0274 +- .0080
Fe	.9300 +- .1400		1.0380 +- .1038
Co	.1000 +- .1000		
Ni	.0930 +- .0960		.0426 +- .0385
Cu	.0230 +- .0040		.0170 +- .0018
Zn	.2170 +- .0220		.2026 +- .0203
Ga	.0020 +- .0020		.0014 +- .0010
As	.0040 +- .0100		.0046 +- .0058
Se	.0100 +- .0030		.0088 +- .0017
Br	.0200 +- .0060		.0122 +- .0025
Rb	.0750 +- .0190		.0552 +- .0080
Sr	.0320 +- .0032		.0374 +- .0037
Y	.0010 +- .0010		.0010 +- .0013
Zr	.0060 +- .0090		.0039 +- .0039
Mo	.0160 +- .0150		.0178 +- .0124
Pd	.0050 +- .0090		.0026 +- .0040
Ag	.0060 +- .0040		.0030 +- .0029
Cd	.0160 +- .0150		.0100 +- .0073
In	.0060 +- .0080		.0045 +- .0038
Sn	.0040 +- .0040		.0040 +- .0029
Sb	.0010 +- .0110		.0040 +- .0057
Ba	.0340 +- .0070		.0259 +- .0126
La	.0240 +- .0240		.0246 +- .0178
Hg	.0010 +- .0010		.0010 +- .0007
Pb	1.8200 +- .2800		1.3460 +- .1365
Bi	1.0000 +- 1.0000		
OC	5.4000 +- .6000		6.6540 +- .6654
EC	.2000 +- .4000		.1880 +- .2884
SO4	18.3000 +- 6.4000		14.5200 +- 7.6416
NO3	.2000 +- .0400		.7400 +- .6602
Sum	80.0520		73.2749

CEMENT KILN


5872
FINE
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1.0
0.1
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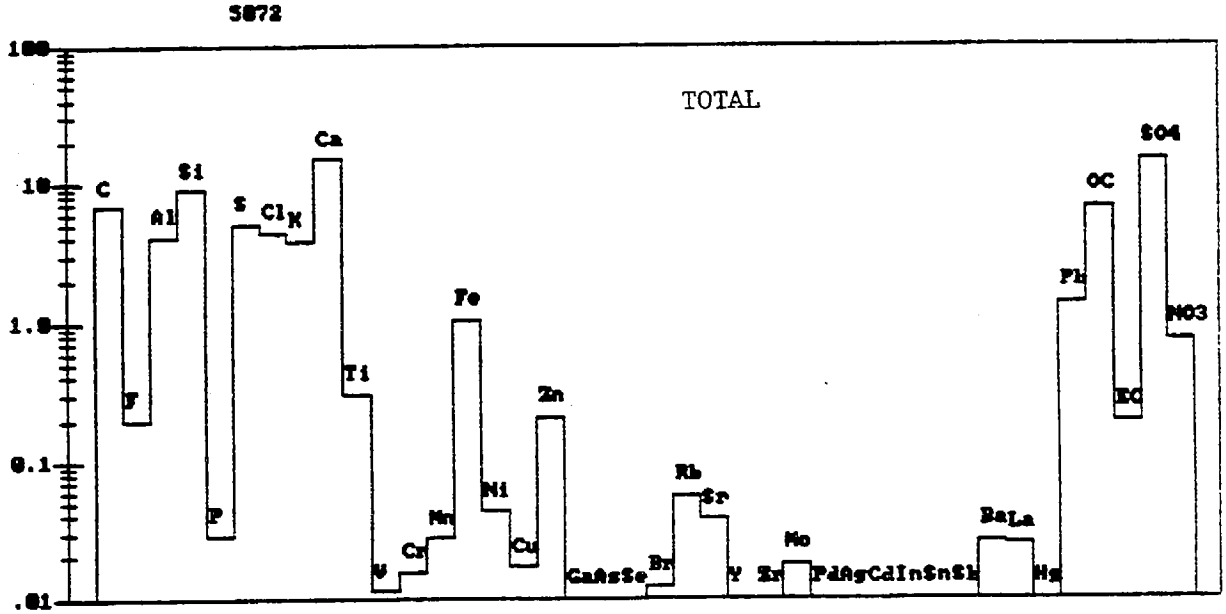
C
Na
Al
Si
S
Cl
K
Ca
Ti
Fe
Zn
Rb
Sr
Ba
La
Pb
Bi
OC
EC
SO4
NO3


5872
TOTAL
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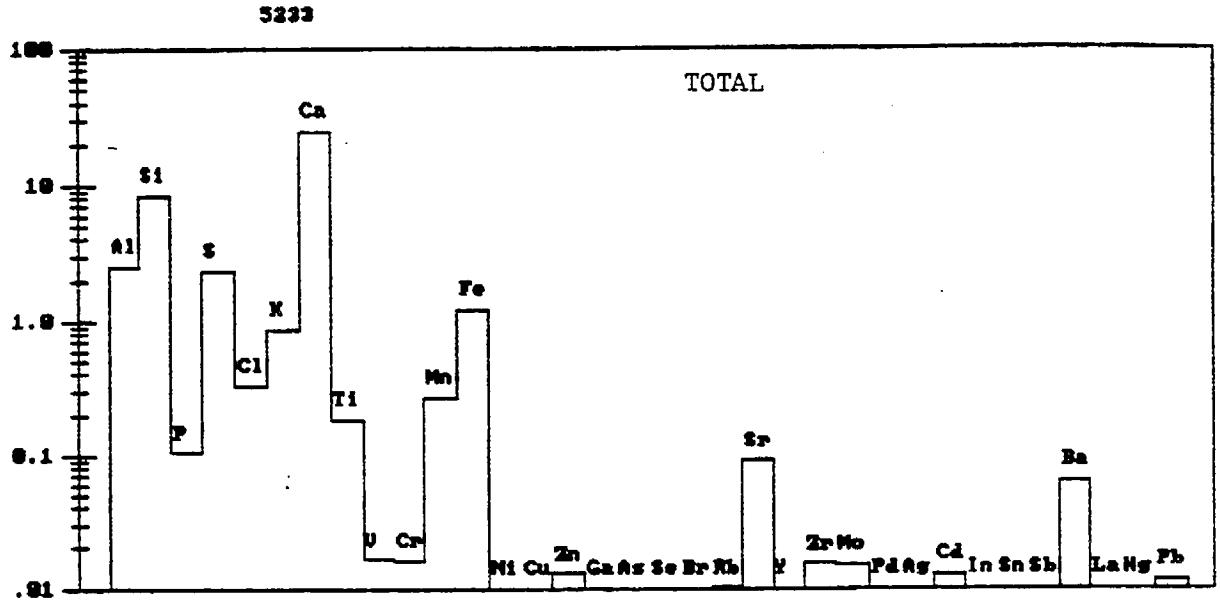
1.0
0.1
.01
C
Al
Si
S
Cl
K
Ca
Ti
Fe
Mn
Ni
Cu
Zn
Rb
Sr
Mo
Ba
La
Pb
OC
EC
SO4
NO3

srce code	part size	revsion date	source description	reference	date
5233	T	03/01/85	cement ball mill, Cubatao	8	03/85

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Al			2.5418 +- .6387
Si			8.3631 +- 2.3316
P			.1045 +- .0294
S			2.3566 +- .4796
Cl			.3283 +- .0492
K			.8728 +- .1309
Ca			24.1749 +- 3.6262
Ti			.1863 +- .0287
V			.0163 +- .0037
Cr			.0162 +- .0024
Mn			.2726 +- .0409
Fe			1.2213 +- .1832
Ni			.0043 +- .0012
Cu			.0003 +- .0005
Zn			.0128 +- .0019
Ga			.0011 +- .0004
As			.0018 +- .0013
Se			.0013 +- .0004
Br			.0018 +- .0005
Rb			.0101 +- .0015
Sr			.0908 +- .0136
Y			.0095 +- .0014
Zr			.0153 +- .0054
Mo			.0149 +- .0026
Pd			.0048 +- .0023
Ag			.0083 +- .0030
Cd			.0126 +- .0046
In			.0000 +- .0045
Sn			.0045 +- .0051
Sb			.0000 +- .0090
Ba			.0630 +- .0242
La			.0005 +- .0338
Hg			.0023 +- .0007
Pb			.0114 +- .0018
Sum			40.7261

CEMENT BALL MILL, CUBATAO

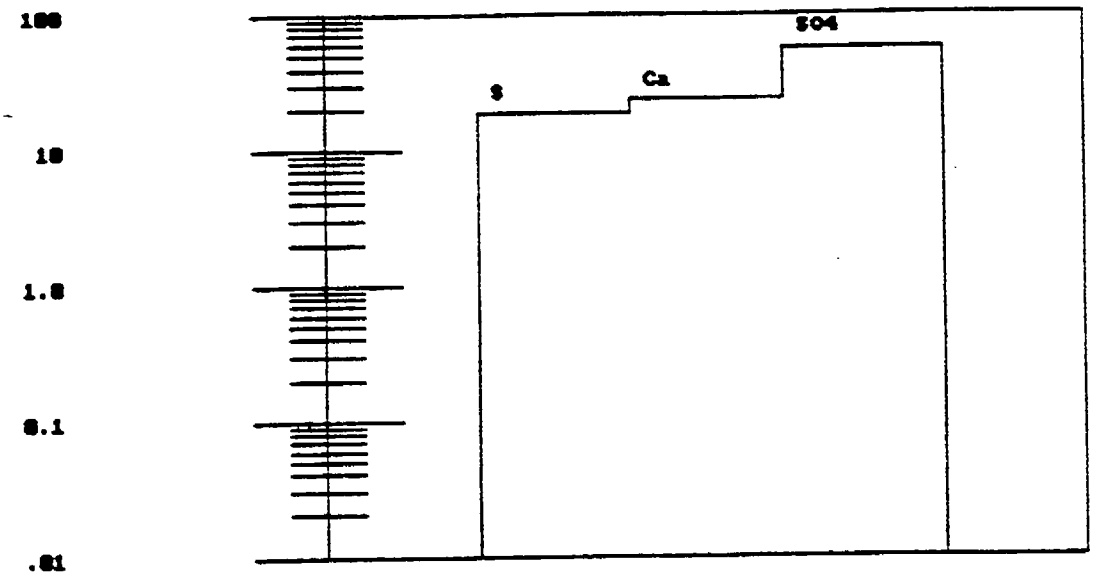


srce code	part size	revsion date	source description	reference	date
5117	T	09/26/83	gypsum handling (CaSO4.2H2O)		09/83

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
S			18.6000 +- 1.8600
Ca			23.3000 +- 2.3300
SO4			55.8000 +- 5.5800
Sum			97.7000

GYPSUM HANDLING ($CaSO_4 \cdot 2H_2O$)

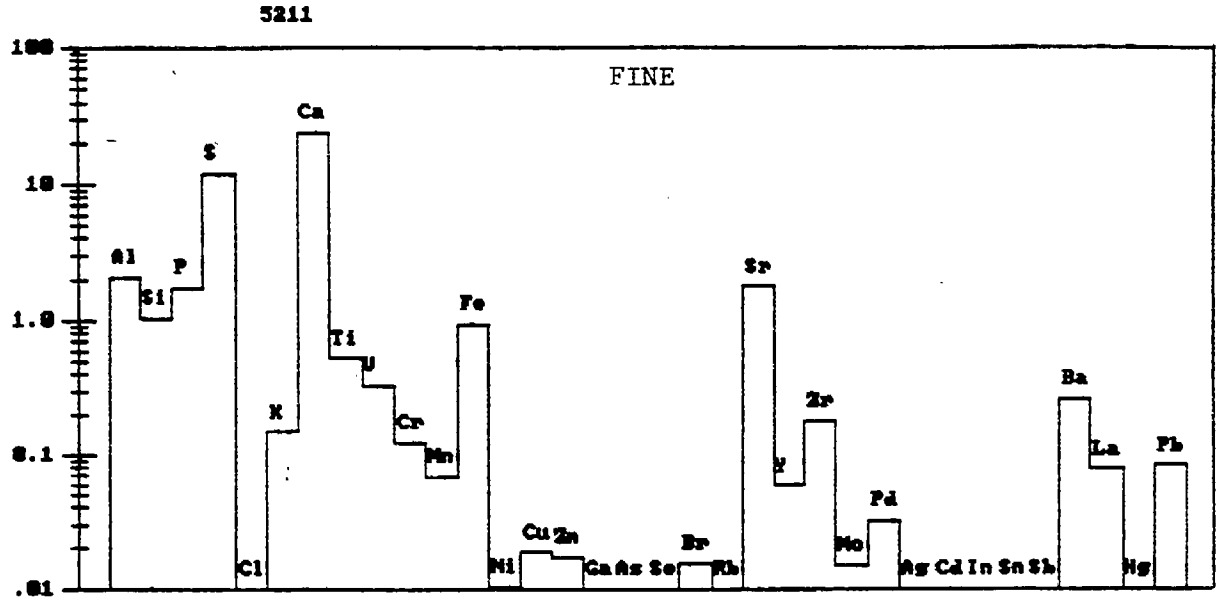
5117 TOTAL

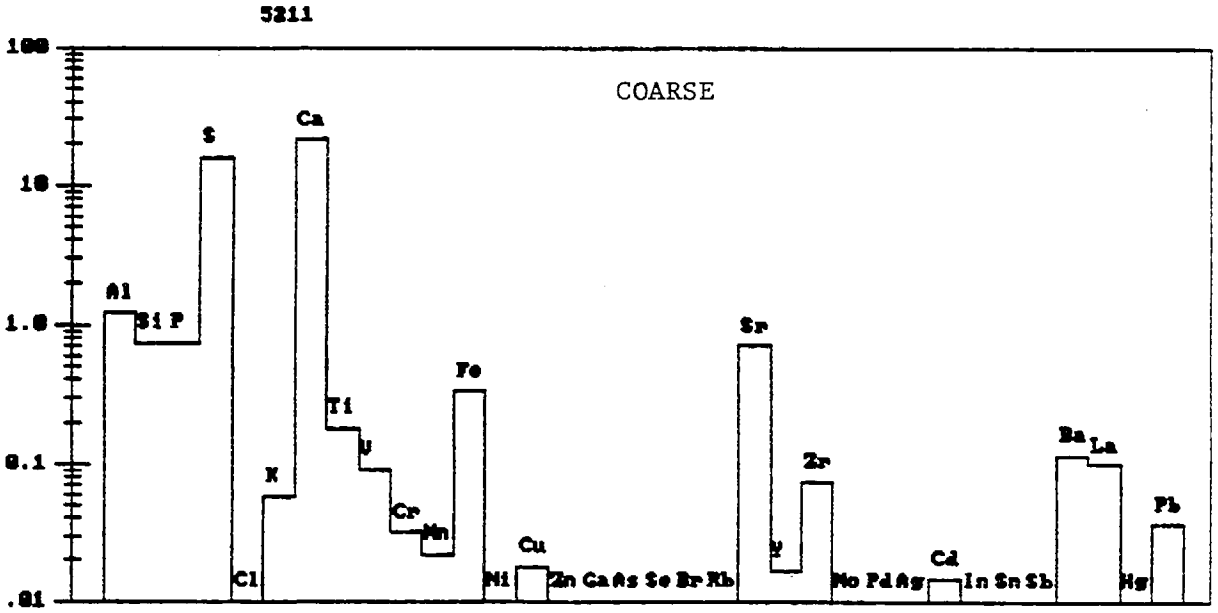


srce code	part size	revsion date	source description	reference	date
5211	FC	03/01/85	gypsum dust--kiln elc. prcptr.	8	03/85

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Al	2.0441 +- .2044	1.2004 +- .1200	
Si	1.0358 +- .2826	.7278 +- .1270	
P	1.7332 +- .3481	.7357 +- .1487	
S	11.7831 +- 1.1783	15.4556 +- 1.5456	
Cl	.0000 +- .0625	.0000 +- .0730	
K	.1476 +- .0372	.0580 +- .0280	
Ca	23.7915 +- 2.3791	20.9379 +- 2.0938	
Ti	.5302 +- .0530	.1786 +- .0179	
V	.3340 +- .0334	.0893 +- .0089	
Cr	.1228 +- .0123	.0315 +- .0031	
Mn	.0675 +- .0068	.0221 +- .0022	
Fe	.9275 +- .0927	.3268 +- .0327	
Ni	.0104 +- .0037	.0019 +- .0012	
Cu	.0188 +- .0044	.0180 +- .0021	
Zn	.0173 +- .0034	.0065 +- .0013	
Ga	.0032 +- .0023	.0013 +- .0009	
As	.0000 +- .0085	.0000 +- .0033	
Se	.0017 +- .0025	.0013 +- .0008	
Br	.0154 +- .0035	.0036 +- .0010	
Rb	.0065 +- .0035	.0066 +- .0012	
Sr	1.7675 +- .1768	.6970 +- .0697	
Y	.0583 +- .0065	.0167 +- .0021	
Zr	.1776 +- .0854	.0725 +- .0333	
Mo	.0151 +- .0164	.0050 +- .0057	
Pd	.0322 +- .0149	.0000 +- .0055	
Ag	.0000 +- .0203	.0093 +- .0075	
Cd	.0000 +- .0293	.0144 +- .0111	
In	.0000 +- .0322	.0000 +- .0111	
Sn	.0000 +- .0352	.0000 +- .0148	
Sb	.0000 +- .0660	.0000 +- .0237	
Ba	.2601 +- .1893	.1143 +- .0721	
La	.0767 +- .2697	.0980 +- .1032	
Hg	.0087 +- .0049	.0036 +- .0017	
Pb	.0826 +- .0122	.0359 +- .0045	
Sum	45.0690	40.8695	

GYPSUM DUST--KILN ELC. PRCPTR.

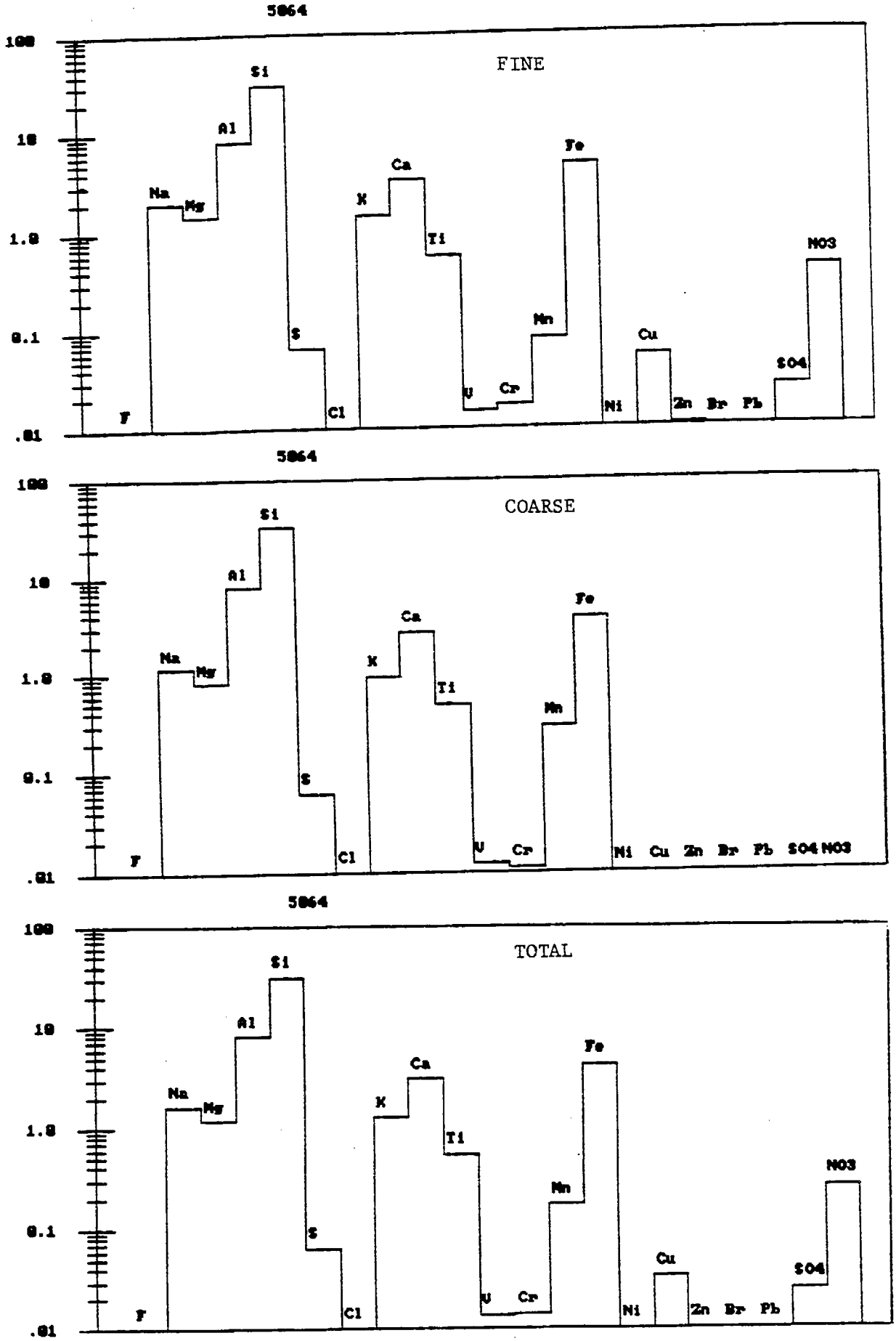




srce code	part size	revsion date	source description	reference	date
5064	FCT	04/10/87	rock crusher	7	09/83

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
F	.0050 +- .0050	.0000 +- .0100	.0050 +- .0036
Na	1.9500 +- .3200	1.1200 +- .4500	1.6014 +- .2649
Mg	1.4300 +- .1460	.8000 +- .3000	1.1654 +- .1518
Al	8.0700 +- .8100	7.9900 +- 1.3000	8.0364 +- .8036
Si	29.9400 +- 2.9940	32.7100 +- 1.4100	31.1034 +- 3.1103
S	.0660 +- .0220	.0610 +- .0021	.0639 +- .0130
Cl	.0050 +- .0050	.0000 +- .0100	.0050 +- .0036
K	1.4600 +- .7400	.9400 +- .1400	1.2416 +- .4332
Ca	3.2700 +- .4200	2.7200 +- .2700	3.0390 +- .3039
Ti	.5600 +- .0560	.4900 +- .0760	.5306 +- .0531
V	.0146 +- .0022	.0120 +- .0044	.0135 +- .0022
Cr	.0164 +- .0016	.0110 +- .0031	.0141 +- .0016
Mn	.0810 +- .0081	.2900 +- .3600	.1688 +- .1513
Fe	4.5900 +- .4700	3.7900 +- .4700	4.2540 +- .4254
Ni	.0039 +- .0004	.0037 +- .0016	.0038 +- .0007
Cu	.0530 +- .0780	.0065 +- .0022	.0335 +- .0452
Zn	.0102 +- .0033	.0061 +- .0013	.0085 +- .0020
Br	.0038 +- .0036	.0000 +- .0100	.0043 +- .0030
Pb	.0061 +- .0065	.0032 +- .0020	.0049 +- .0039
SO4	.0250 +- .0250	.0000 +- .0500	.0250 +- .0179
NO3	.4100 +- .2300	.0000 +- .1000	.2588 +- .1350
Sum	51.9700	50.9535	51.5809

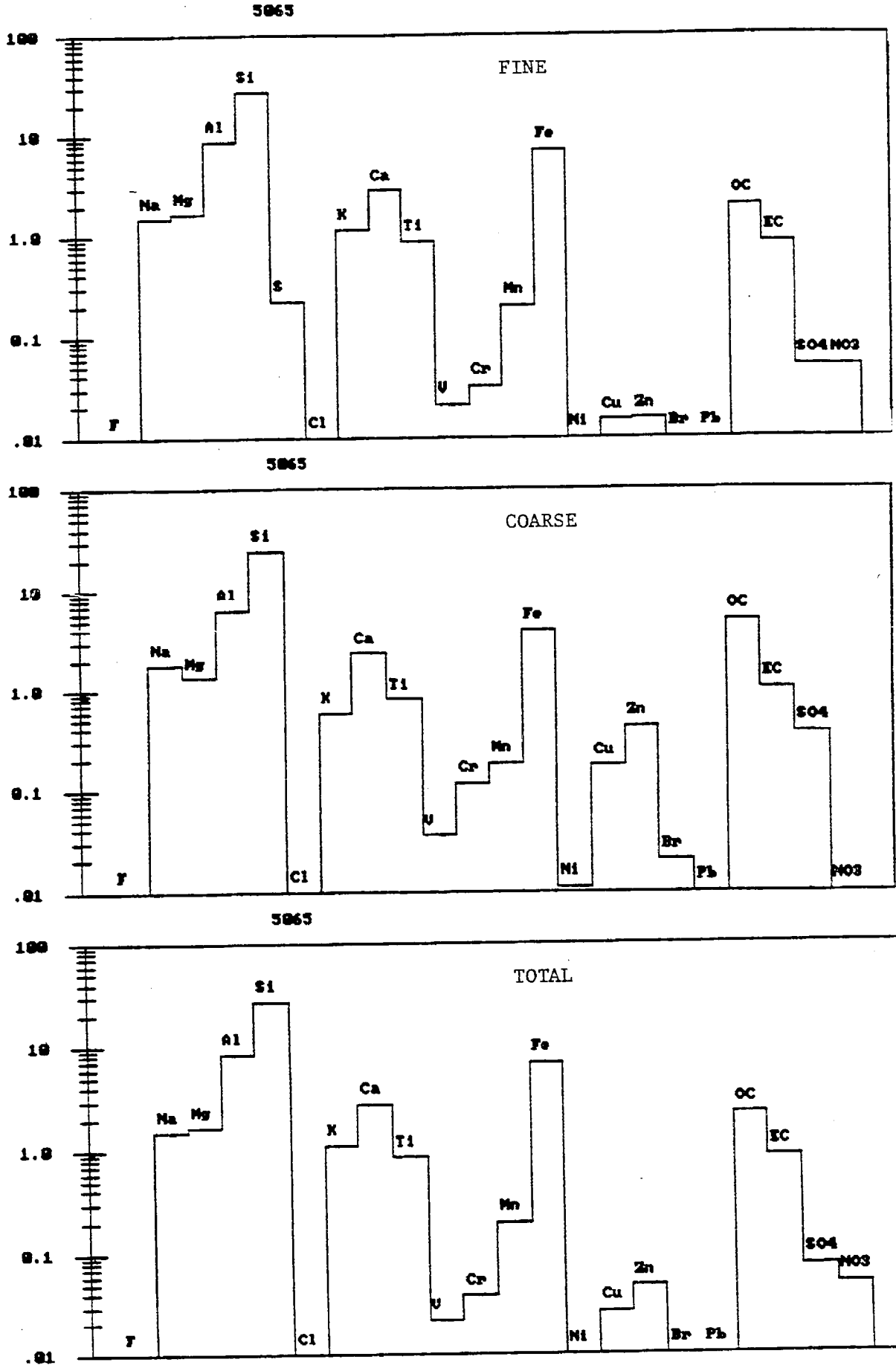
ROCK CRUSHER



srce code	part size	revsion date	source description	reference	date
5065	FCT	04/10/87	asphalt production	7	09/83

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
F	.0050 +- .0050	.0000 +- .0100	.0050 +- .0046
Na	1.4900 +- .1490	1.8000 +- 1.5200	1.5148 +- .1832
Mg	1.6800 +- .2100	1.3300 +- .8900	1.6520 +- .2059
Al	8.6600 +- .8700	6.3900 +- 1.2300	8.4784 +- .8478
Si	27.1300 +- 2.7130	24.6500 +- 3.5100	26.9316 +- 2.6932
S	.2200 +- .1700		
Cl	.0050 +- .0050	.0000 +- .0100	.0050 +- .0046
K	1.1400 +- .1140	.5700 +- .0970	1.0944 +- .1094
Ca	2.8600 +- .2900	2.3200 +- .3900	2.8168 +- .2817
Ti	.8600 +- .2600	.8000 +- .8400	.8552 +- .2485
V	.0210 +- .0029	.0350 +- .0330	.0221 +- .0038
Cr	.0320 +- .0032	.1150 +- .0115	.0386 +- .0039
Mn	.2000 +- .1400	.1800 +- .1600	.1984 +- .1294
Fe	7.0400 +- .7040	3.9500 +- .2800	6.7928 +- .6793
Ni	.0069 +- .0007	.0110 +- .0011	.0072 +- .0007
Cu	.0148 +- .0015	.1700 +- .1100	.0272 +- .0089
Zn	.0152 +- .0026	.4200 +- .4400	.0476 +- .0353
Br	.0080 +- .0008	.0200 +- .0020	.0090 +- .0009
Pb	.0050 +- .0050	.0000 +- .0200	.0054 +- .0047
OC	1.9900 +- 1.0300	5.0000 +- 1.0000	2.2308 +- .9510
EC	.8400 +- .4500	1.0400 +- .2100	.8560 +- .4143
SO4	.0500 +- .0500	.3700 +- .5500	.0756 +- .0637
NO3	.0500 +- .0500	.0000 +- .1000	.0500 +- .0462
Sum	54.3229	49.1710	53.7139

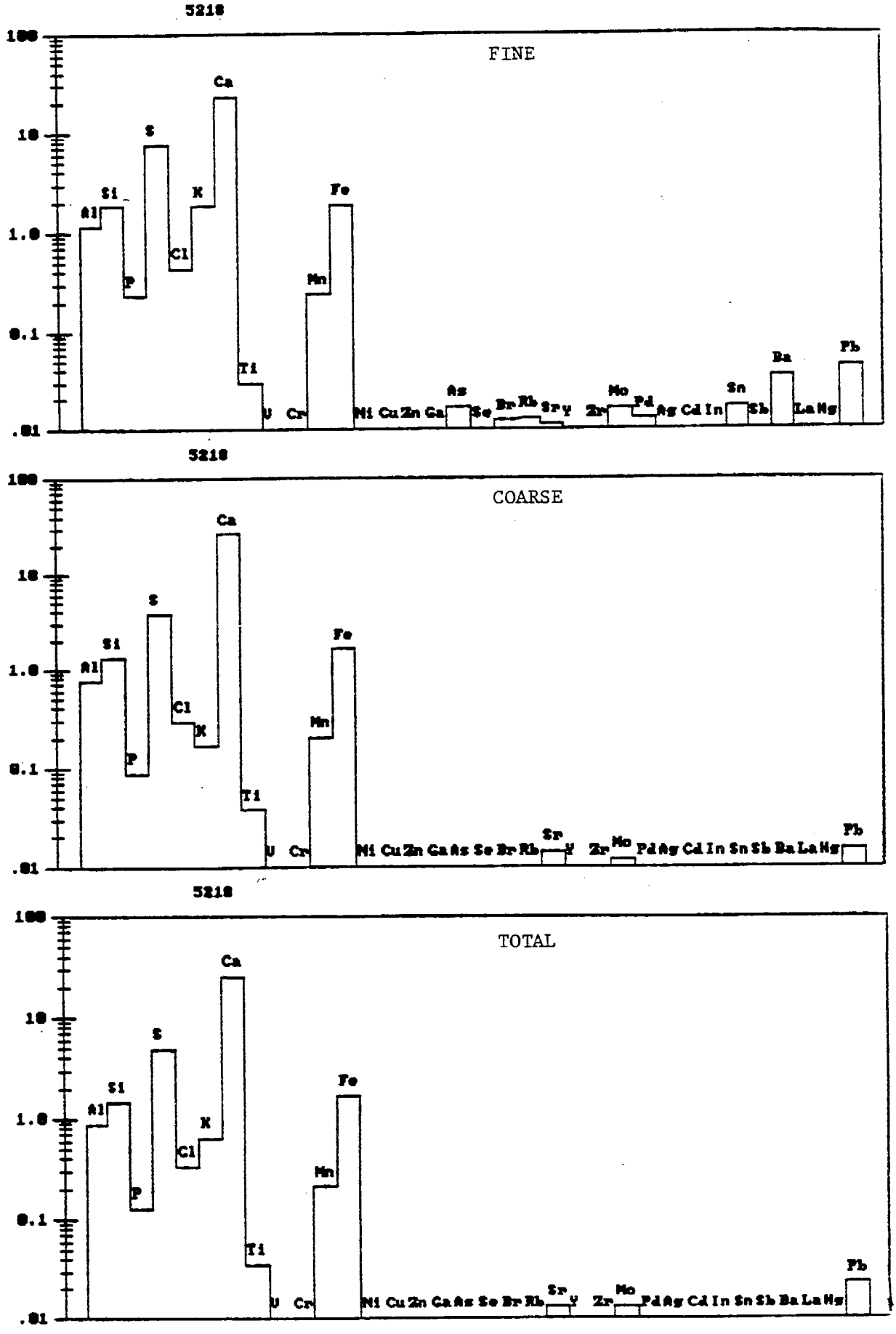
ASPHALT PRODUCTION



srce code	part size	revsion date	source description	reference	date
5218	FCT	03/01/85	lime kiln, Cubatao, T<15	8	03/85

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Al	1.1381 +- .1138	.7653 +- .0765	.8682 +- .0868
Si	1.8116 +- .2221	1.2999 +- .1300	1.4403 +- .1440
P	.2310 +- .0468	.0877 +- .0310	.1275 +- .0354
S	7.5310 +- .7531	3.8192 +- .3819	4.8514 +- .4851
Cl	.4385 +- .2179	.2865 +- .0335	.3295 +- .0861
K	1.8250 +- 1.3222	.1660 +- .0370	.6325 +- .3897
Ca	22.5796 +- 2.2580	26.6511 +- 2.6651	25.5101 +- 2.5510
Ti	.0296 +- .0071	.0374 +- .0037	.0352 +- .0047
V	.0061 +- .0009	.0050 +- .0007	.0053 +- .0007
Cr	.0084 +- .0028	.0076 +- .0008	.0078 +- .0008
Mn	.2402 +- .0448	.1978 +- .0198	.2093 +- .0209
Fe	1.8704 +- .4049	1.5903 +- .1590	1.6663 +- .1666
Ni	.0044 +- .0008	.0047 +- .0014	.0046 +- .0008
Cu	.0074 +- .0028	.0070 +- .0009	.0071 +- .0014
Zn	.0066 +- .0009	.0052 +- .0005	.0056 +- .0006
Ga	.0010 +- .0006	.0008 +- .0003	.0009 +- .0004
As	.0168 +- .0032	.0043 +- .0014	.0077 +- .0019
Se	.0023 +- .0016	.0009 +- .0004	.0013 +- .0007
Br	.0120 +- .0024	.0027 +- .0004	.0053 +- .0008
Rb	.0125 +- .0074	.0026 +- .0005	.0054 +- .0021
Sr	.0109 +- .0032	.0141 +- .0014	.0132 +- .0013
Y	.0016 +- .0022	.0033 +- .0007	.0028 +- .0008
Zr	.0058 +- .0083	.0046 +- .0027	.0049 +- .0035
Mo	.0161 +- .0043	.0118 +- .0022	.0130 +- .0028
Pd	.0123 +- .0037	.0086 +- .0019	.0097 +- .0024
Ag	.0098 +- .0053	.0045 +- .0026	.0060 +- .0033
Cd	.0012 +- .0075	.0007 +- .0037	.0008 +- .0047
In	.0060 +- .0076	.0072 +- .0038	.0068 +- .0049
Sn	.0168 +- .0091	.0042 +- .0044	.0077 +- .0057
Sb	.0030 +- .0158	.0000 +- .0076	.0008 +- .0099
Ba	.0345 +- .0483	.0000 +- .0201	.0093 +- .0262
La	.0000 +- .0641	.0000 +- .0304	.0000 +- .0398
Hg	.0057 +- .0013	.0027 +- .0014	.0035 +- .0012
Pb	.0436 +- .0096	.0150 +- .0017	.0230 +- .0042
Sum	37.9400	35.0186	35.8227

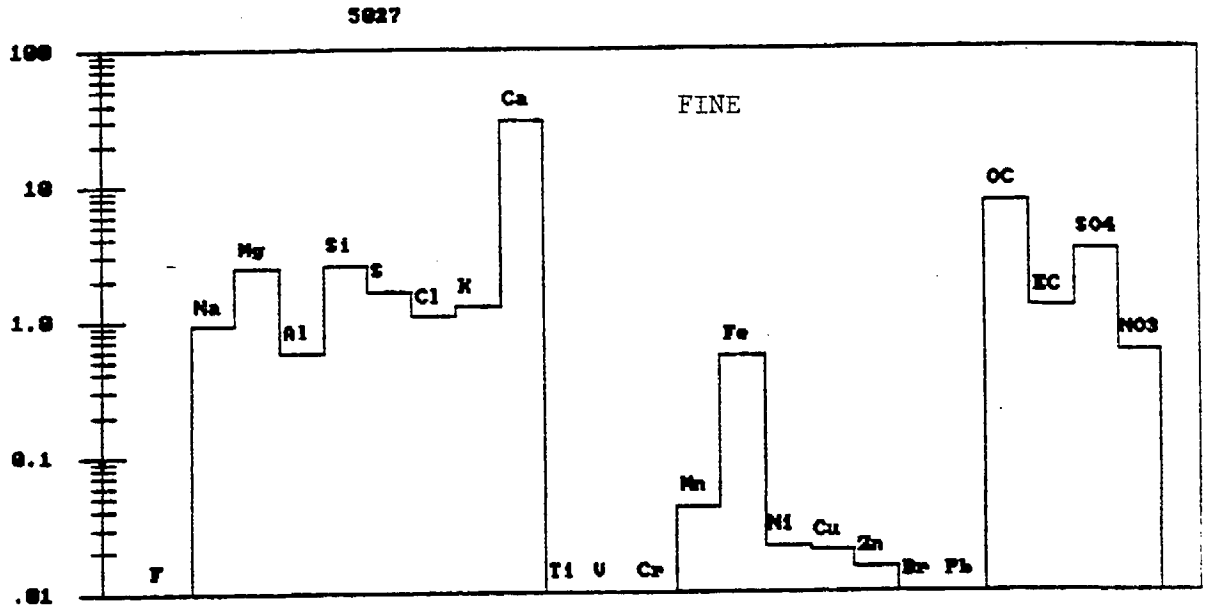
LIME KILN, CUBATAO, T<15

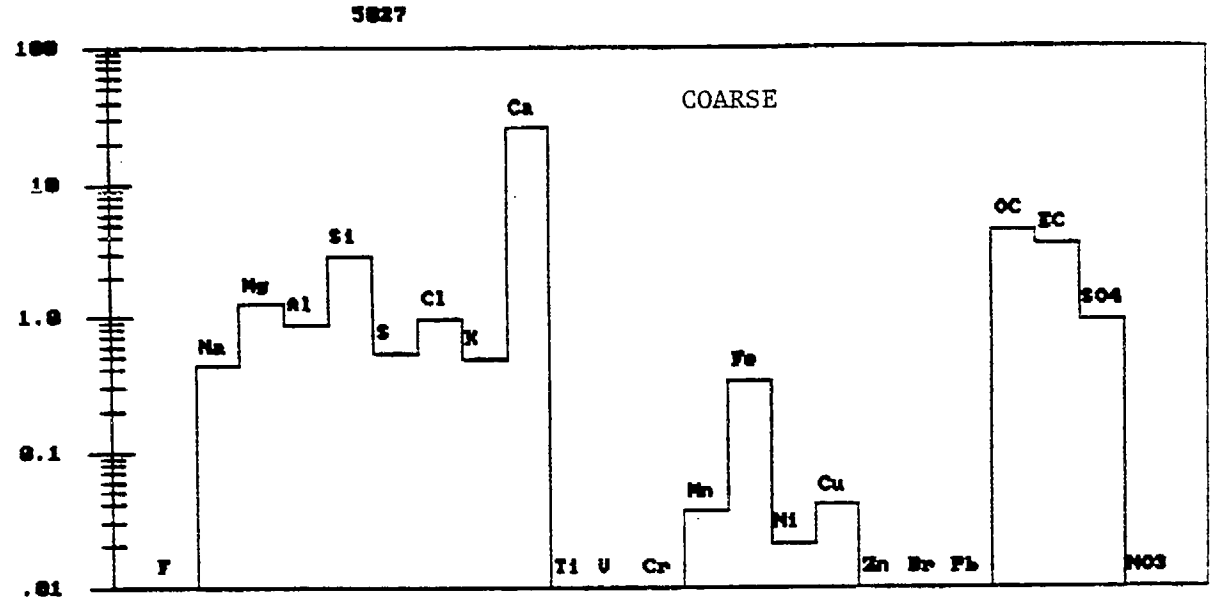


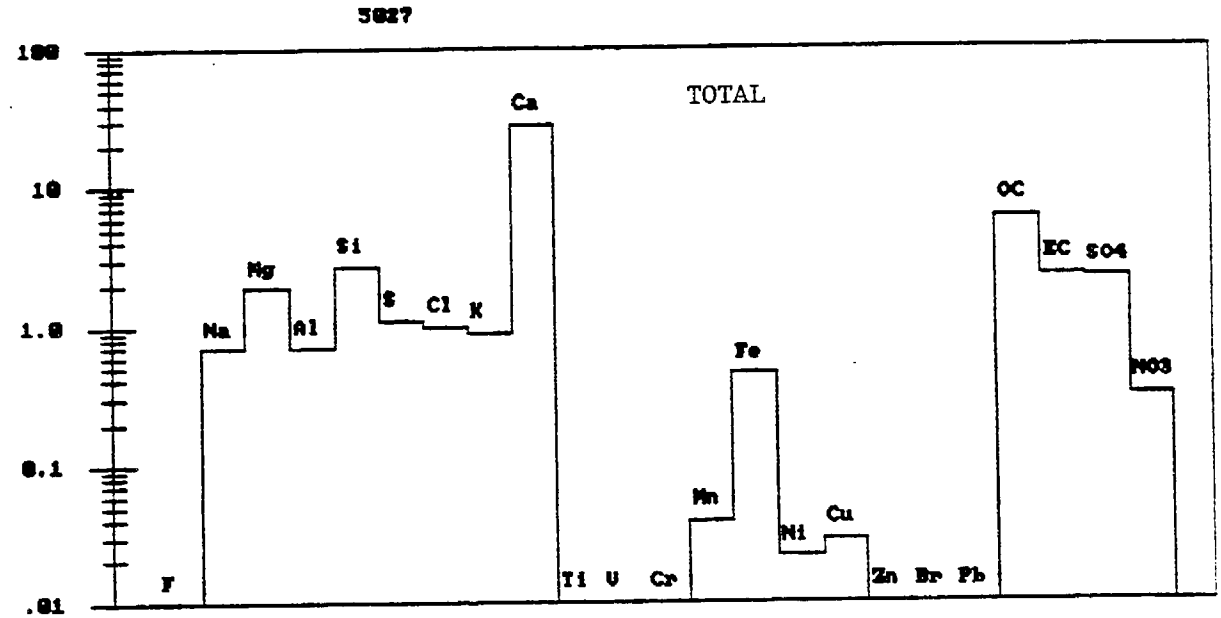
srce code	part size	revsion date	source description	reference	date
5027	FCT	03/19/87	carbide furnace (Ca source)	7	02/79

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
F	.0000 +- .1000	.0000 +- .2000	.0000 +- .1060
Na	.9200 +- .1000	.4300 +- .0500	.6973 +- .0864
Mg	2.4000 +- .3500	1.2500 +- .3500	1.8773 +- .2990
Al	.5800 +- .1100	.8600 +- .1300	.7073 +- .0979
Si	2.5000 +- .0700	2.9000 +- 1.3000	2.6818 +- .6250
S	1.6000 +- .4200	.5400 +- .5700	1.1182 +- .3619
Cl	1.0500 +- .0700	.9600 +- .6300	1.0091 +- .2996
K	1.2500 +- .3500	.4800 +- .3000	.9000 +- .2492
Ca	30.0000 +- 4.0000	25.8000 +- 8.7000	28.0909 +- 5.0422
Ti	.0000 +- .0200	.0000 +- .0200	.0000 +- .0142
V	.0060 +- .0005	.0090 +- .0009	.0074 +- .0007
Cr	.0000 +- .0100	.0000 +- .0100	.0000 +- .0071
Mn	.0420 +- .0035	.0360 +- .0100	.0393 +- .0058
Fe	.5400 +- .0800	.3300 +- .1300	.4445 +- .0828
Ni	.0220 +- .0080	.0210 +- .0060	.0215 +- .0054
Cu	.0200 +- .0110	.0400 +- .0040	.0291 +- .0066
Zn	.0150 +- .0070	.0000 +- .0100	.0082 +- .0060
Br	.0000 +- .0100	.0000 +- .0100	.0000 +- .0071
Pb	.0080 +- .0040	.0000 +- .0200	.0044 +- .0094
OC	7.3000 +- 1.3000	4.5000 +- .7800	6.0273 +- .9461
EC	1.2000 +- .2800	3.6000 +- 1.8000	2.2909 +- .8442
SO4	3.2000 +- .4200	.9300 +- 1.1000	2.1682 +- .5890
NO3	.5700 +- .2400	.0000 +- .5000	.3109 +- .2647
Sum	53.2230	42.6860	48.4336

CARBIDE FURNACE (Ca source)



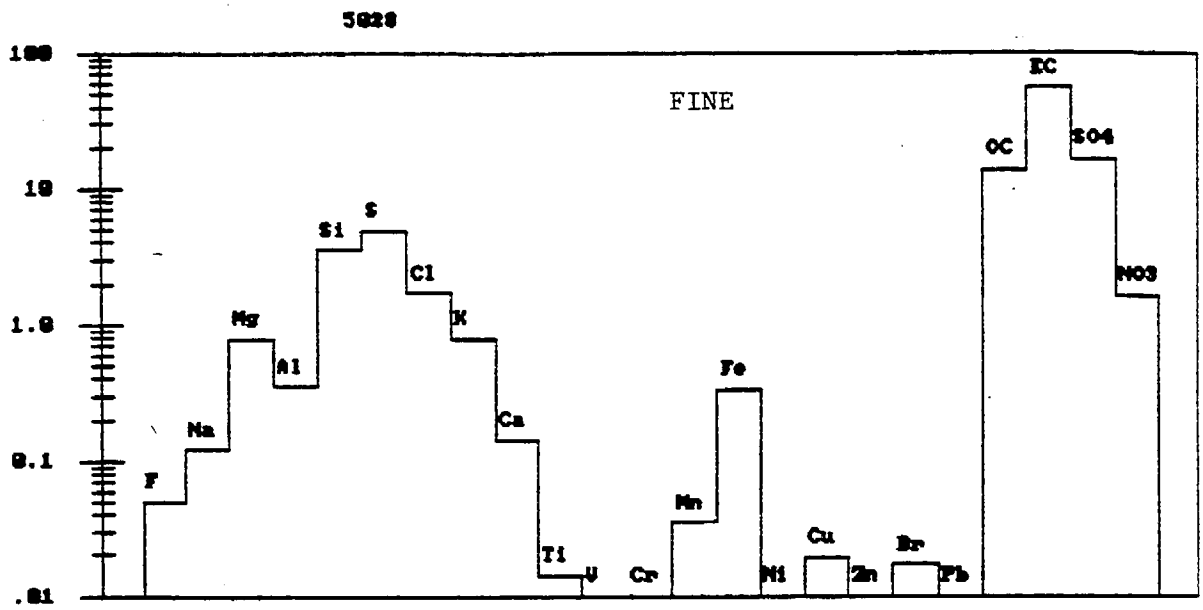


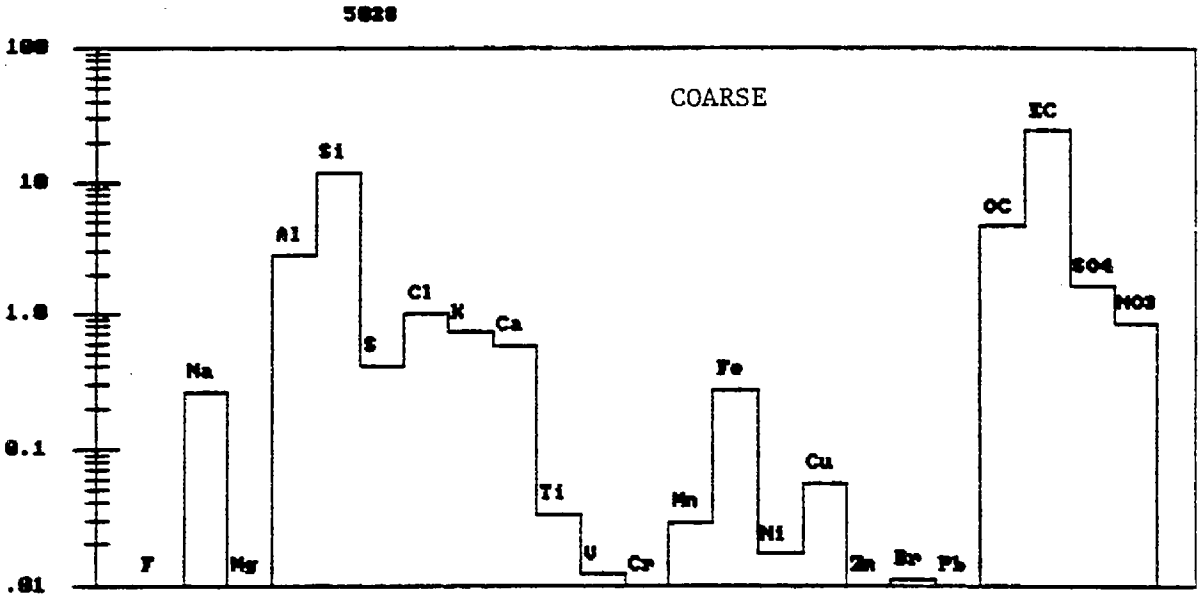


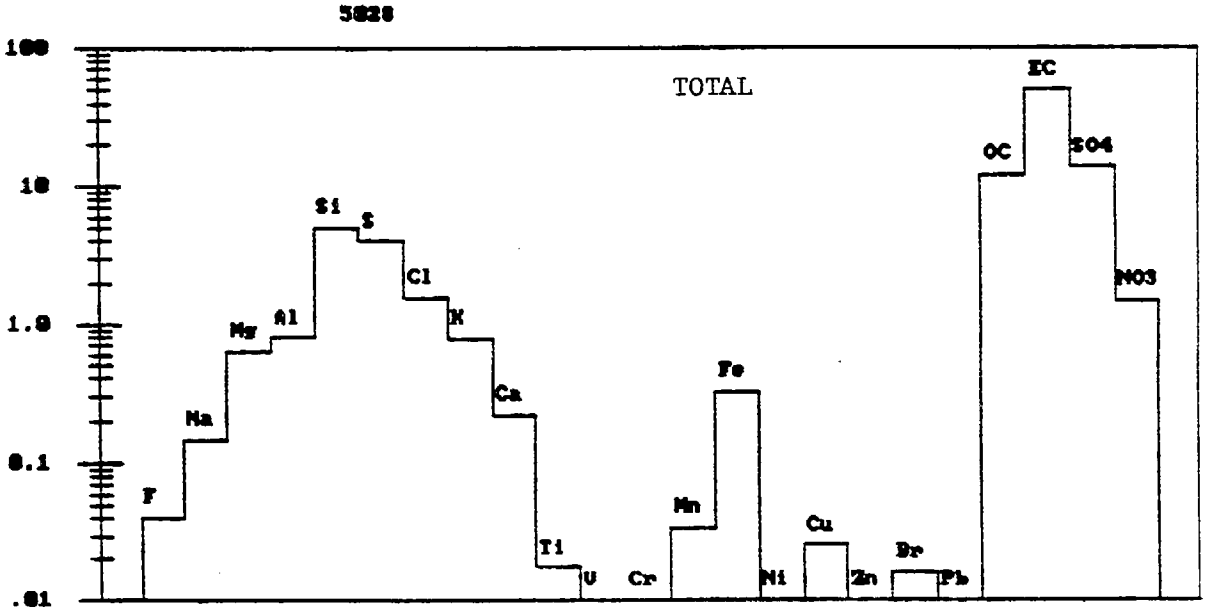
srce code	part size	revsion date	source description	reference	date
5028	FCT	03/19/87	carborundum	7	02/79

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
F	.0500 +- .0300	.0000 +- .4000	.0409 +- .0769
Na	.1200 +- .1000	.2600 +- .1700	.1455 +- .0888
Mg	.7800 +- 1.2000	.0000 +- .4000	.6382 +- .9880
Al	.3500 +- .4000	2.8000 +- 4.3000	.7955 +- .8505
Si	3.5000 +- 4.3000	12.0000 +-15.0000	5.0455 +- 4.4797
S	4.8000 +- 6.6000	.4100 +- .3100	4.0018 +- 5.4244
Cl	1.7000 +- 1.5000	.9900 +- .4300	1.5709 +- 1.2443
K	.7900 +- 1.1000	.7200 +- 1.1000	.7773 +- .9264
Ca	.1400 +- .1300	.5700 +- .4900	.2182 +- .1404
Ti	.0140 +- .0190	.0330 +- .0190	.0175 +- .0160
V	.0070 +- .0080	.0120 +- .0100	.0079 +- .0068
Cr	.0090 +- .0110	.0040 +- .0070	.0081 +- .0091
Mn	.0350 +- .0410	.0290 +- .0250	.0339 +- .0341
Fe	.3300 +- .6100	.2700 +- .2100	.3191 +- .5020
Ni	.0040 +- .0070	.0170 +- .0230	.0064 +- .0071
Cu	.0190 +- .0230	.0550 +- .0180	.0255 +- .0193
Zn	.0040 +- .0040	.0000 +- .0100	.0033 +- .0038
Br	.0170 +- .0100	.0110 +- .0090	.0159 +- .0086
Pb	.0000 +- .0100	.0000 +- .0100	.0000 +- .0084
OC	13.6000 +- 7.4000	4.6000 +- 2.3000	11.9636 +- 6.2473
EC	55.0000 +-56.0000	24.0000 +-15.0000	49.3636 +-46.2959
SO4	16.0000 +-25.0000	1.6000 +- 1.8300	13.3818 +-20.5283
NO3	1.6000 +- 2.1000	.8300 +- .4800	1.4600 +- 1.7295
Sum	98.8690	49.2110	89.8404

CARBORUNDUM



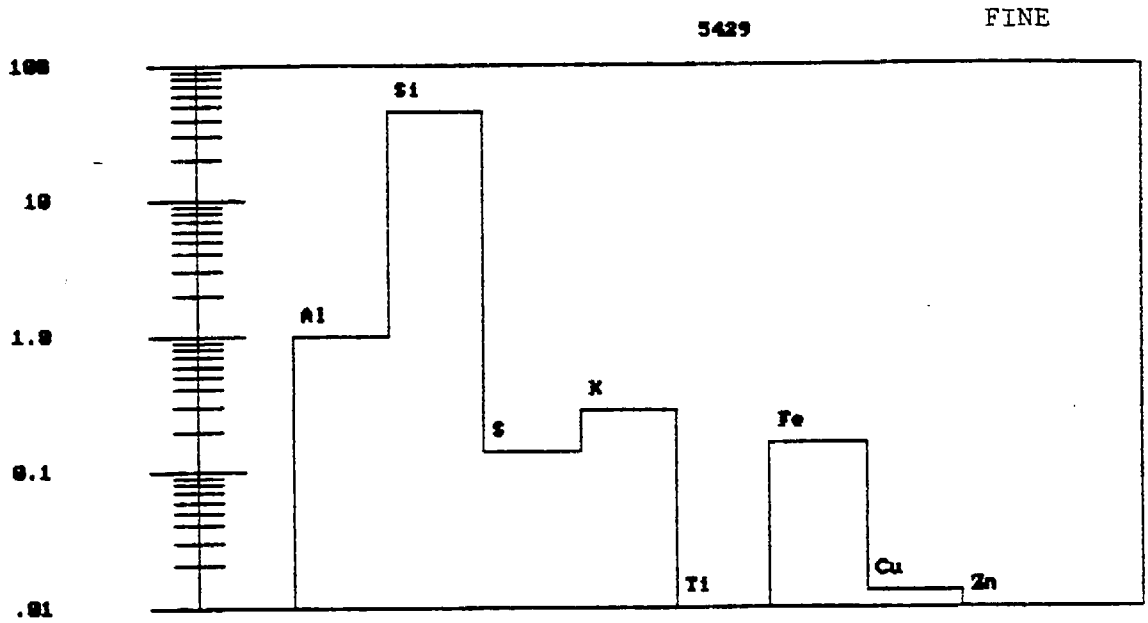


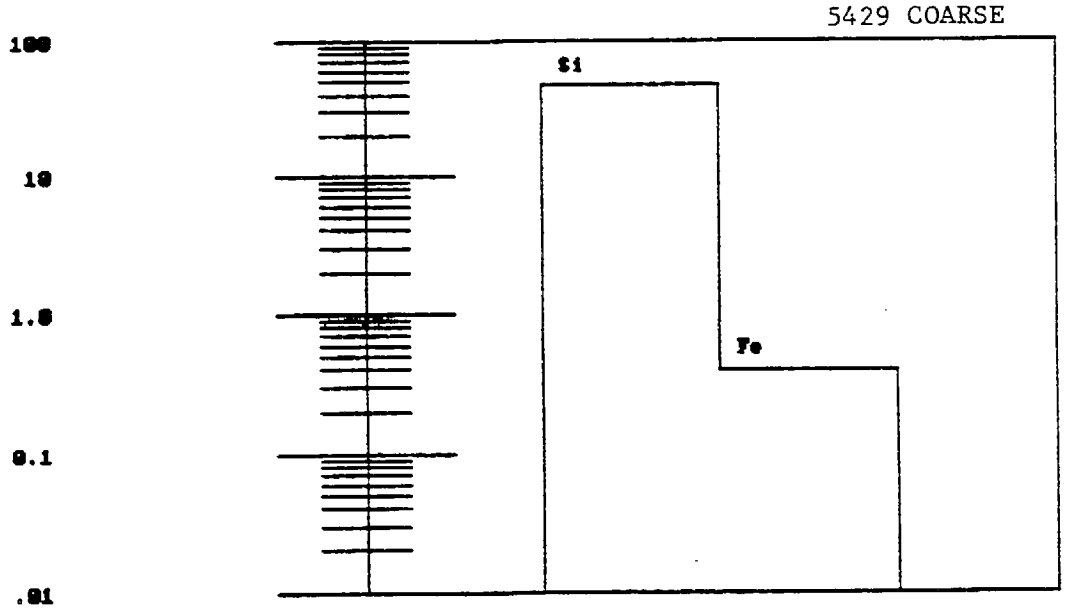


srce code	part size	revsion date	source description	reference	date
5429	FC	04/10/87	Silica Manufacturing	16	00/79

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Al	.9900 +- .2000		
Si	45.3200 +- 9.1200	46.3600 +- 9.2700	
S	.1400 +- .0300		
K	.2800 +- .0600		
Ti	.0050 +- .0010		
Fe	.1600 +- .0300	.3900 +- .0780	
Cu	.0130 +- .0030		
Zn	.0030 +- .0010		
Sum	46.9110	46.7500	

SILICA MANUFACTURING

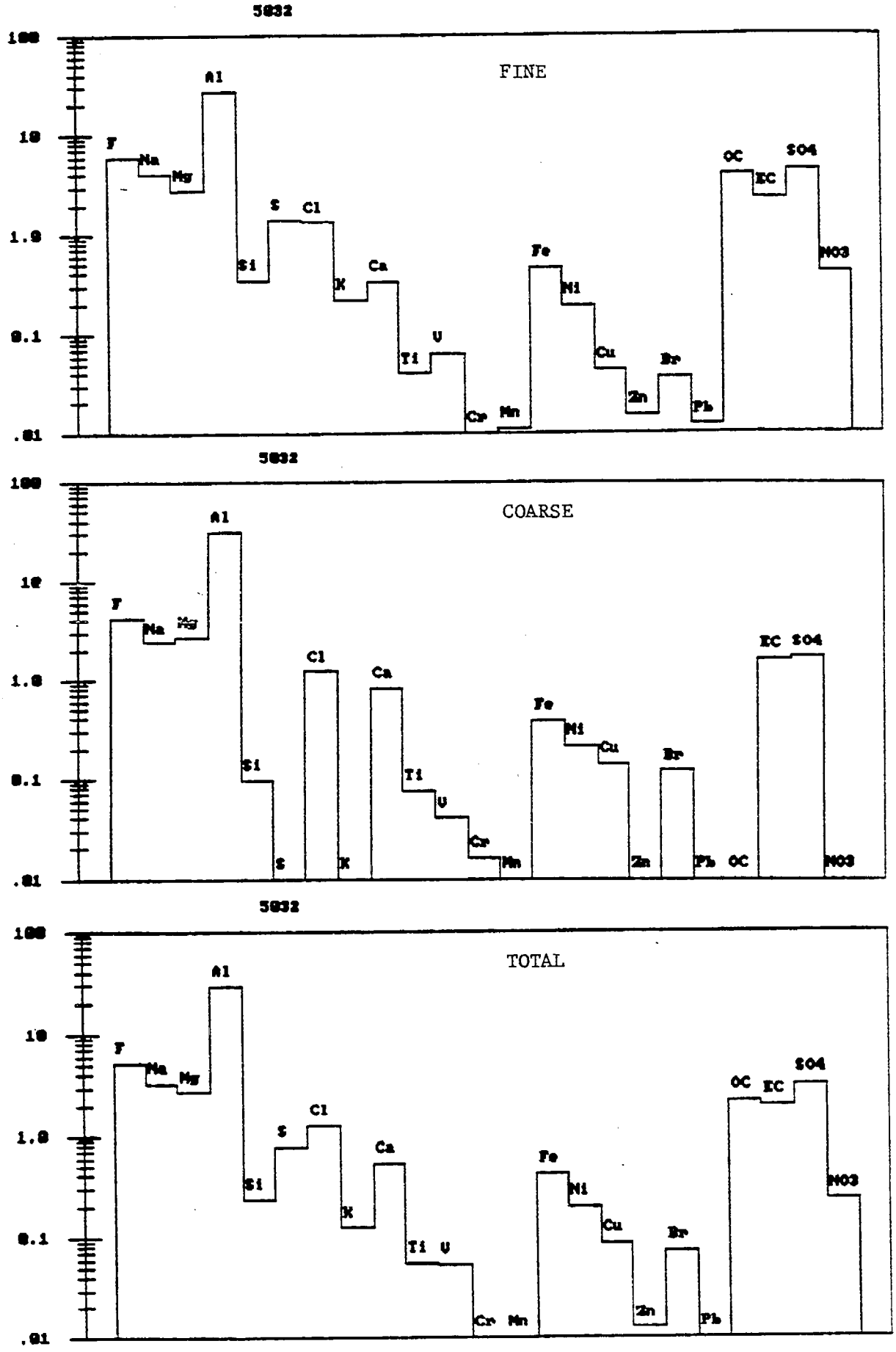




srce code	part size	revsion date	source description	reference	date
5032	FCT	03/19/87	aluminum processing	7	02/79

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
F	6.0000 +- 2.3000	4.2000 +- 1.9000	5.2174 +- 1.6045
Na	4.1000 +- 1.7000	2.4000 +- .6000	3.3609 +- 1.0398
Mg	2.8000 +- 1.8000	2.7000 +- .5500	2.7565 +- 1.0685
Al	27.0000 +- 8.0000	31.3000 +- 4.9000	28.8696 +- 5.4751
Si	.3400 +- .3400	.0970 +- .0800	.2343 +- .1967
S	1.4000 +- .2000	.0000 +- .3000	.7913 +- .1951
Cl	1.3300 +- .8400	1.2000 +- .1500	1.2735 +- .4904
K	.2200 +- .0600	.0000 +- .1000	.1243 +- .0570
Ca	.3300 +- .0300	.8100 +- .3400	.5387 +- .1530
Ti	.0400 +- .0300	.0760 +- .0410	.0557 +- .0249
V	.0640 +- .0360	.0400 +- .0110	.0536 +- .0214
Cr	.0000 +- .0100	.0160 +- .0180	.0070 +- .0097
Mn	.0110 +- .0080	.0000 +- .0200	.0062 +- .0098
Fe	.4500 +- .2900	.3800 +- .1500	.4196 +- .1798
Ni	.1900 +- .0850	.2100 +- .0600	.1987 +- .0568
Cu	.0440 +- .0070	.1400 +- .0400	.0857 +- .0186
Zn	.0150 +- .0110	.0090 +- .0040	.0124 +- .0065
Br	.0370 +- .0540	.1200 +- .2000	.0731 +- .0923
Pb	.0120 +- .0100	.0000 +- .1000	.0068 +- .0439
OC	3.9000 +- 3.9000	.0000 +- 2.0000	2.2043 +- 2.3832
EC	2.3000 +- 1.0000	1.6000 +- 1.5000	1.9957 +- .8800
SO4	4.4000 +- 3.9000	1.7000 +- 1.1000	3.2261 +- 2.2766
NO3	.4100 +- .1800	.0000 +- 2.0000	.2317 +- .8759
Sum	55.3930	46.9980	51.7431

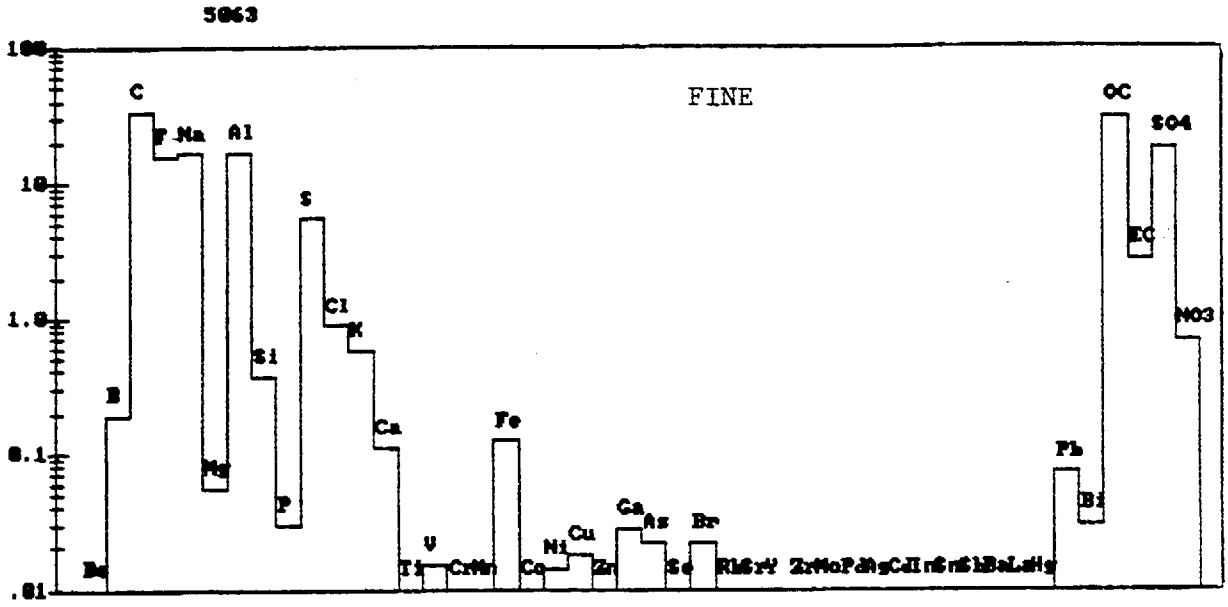
ALUMINUM PROCESSING

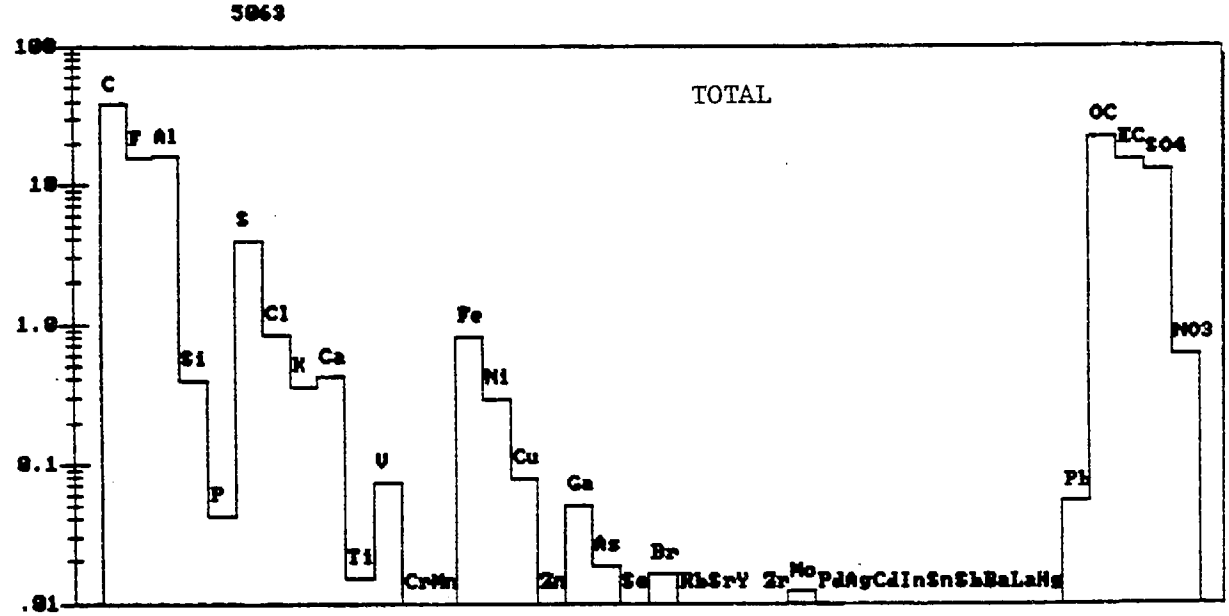


srce code	part size	revsion date	source description	reference	date
5063	F T	03/19/87	aluminum potline baghouse	2	09/83

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Be	.0005 +- .0005		
B	.1900 +- .0200		
C	33.0000 +- 5.0000		37.6000 +- 4.2022
F	15.5000 +- 5.9000		15.4540 +- 3.3872
Na	16.5000 +- 1.7000		
Mg	.0550 +- .0060		
Al	16.8000 +- 1.7000		15.9260 +- 1.6574
Si	.3700 +- .0400		.3976 +- .0467
P	.0300 +- .0300		.0424 +- .0186
S	5.5000 +- 3.8000		3.9084 +- 2.0654
Cl	.8800 +- .1600		.8340 +- .3378
K	.5700 +- .4700		.3584 +- .2541
Ca	.1100 +- .1400		.4141 +- .0835
Ti	.0025 +- .0006		.0151 +- .0023
V	.0150 +- .0040		.0730 +- .0126
Cr	.0005 +- .0004		.0030 +- .0005
Mn	.0080 +- .0110		.0045 +- .0059
Fe	.1240 +- .0950		.8122 +- .2807
Co	.0016 +- .0016		
Ni	.0140 +- .0080		.2882 +- .0783
Cu	.0180 +- .0080		.0778 +- .0106
Zn	.0070 +- .0010		.0065 +- .0028
Ga	.0280 +- .0180		.0501 +- .0140
As	.0220 +- .0140		.0183 +- .0079
Se	.0027 +- .0009		.0021 +- .0005
Br	.0220 +- .0080		.0160 +- .0043
Rb	.0050 +- .0010		.0040 +- .0006
Sr	.0002 +- .0003		.0033 +- .0005
Y	.0001 +- .0001		.0001 +- .0002
Zr	.0005 +- .0005		.0005 +- .0004
Mo	.0060 +- .0060		.0120 +- .0049
Pd	.0002 +- .0002		.0002 +- .0001
Ag	.0005 +- .0005		.0005 +- .0004
Cd	.0030 +- .0010		.0025 +- .0015
In	.0005 +- .0005		.0005 +- .0004
Sn	.0005 +- .0005		.0005 +- .0004
Sb	.0010 +- .0030		.0010 +- .0019
Ba	.0010 +- .0007		.0019 +- .0014
La	.0040 +- .0040		.0040 +- .0028
Hg	.0005 +- .0005		.0005 +- .0004
Pb	.0720 +- .0260		.0527 +- .0141
Bi	.0300 +- .0300		
OC	30.0000 +- 5.0000		22.1800 +- 3.0322
EC	2.6800 +- .3200		15.2472 +- 2.7654
SO4	18.1000 +- 9.3000		12.7640 +- 5.0430
NO3	.6900 +- .1300		.5934 +- .0865
Sum	*******		*******

ALUMINUM POTLINE BAGHOUSE

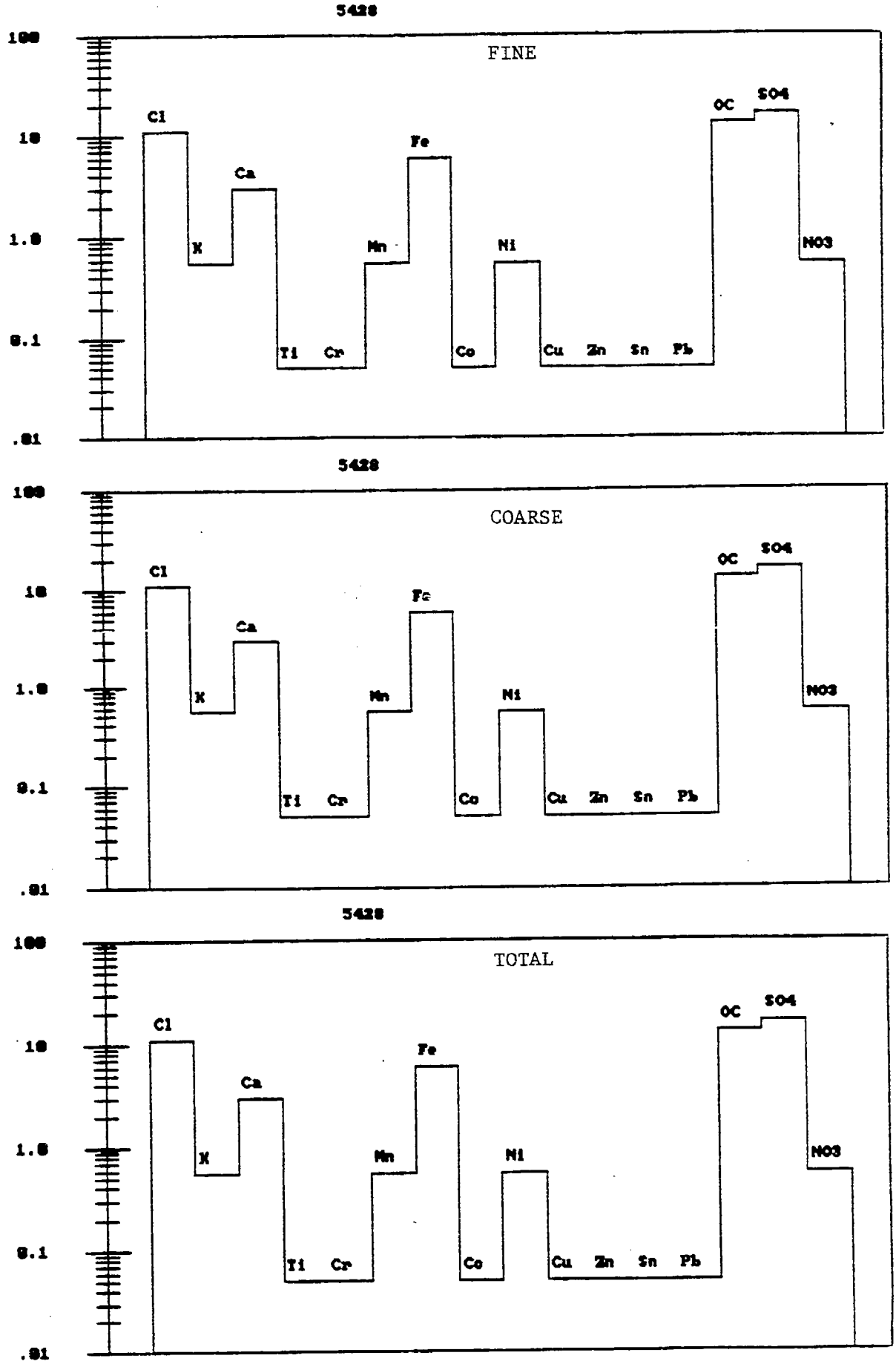




srce code	part size	revsion date	source description	reference	date
5428	FCT	04/10/87	Aluminum Reverb. Furnace	9	00/79

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Cl	11.0000 +- 3.3000	11.0000 +- 3.3000	11.0000 +- 3.3000
K	.5500 +- .1650	.5500 +- .1650	.5500 +- .1650
Ca	3.0000 +- .9000	3.0000 +- .9000	3.0000 +- .9000
Ti	.0500 +- .0150	.0500 +- .0150	.0500 +- .0150
Cr	.0500 +- .0150	.0500 +- .0150	.0500 +- .0150
Mn	.5500 +- .1650	.5500 +- .1650	.5500 +- .1650
Fe	6.0000 +- 1.8000	6.0000 +- 1.8000	6.0000 +- 1.8000
Co	.0500 +- .0150	.0500 +- .0150	.0500 +- .0150
Ni	.5500 +- .1650	.5500 +- .1650	.5500 +- .1650
Cu	.0500 +- .0150	.0500 +- .0150	.0500 +- .0150
Zn	.0500 +- .0150	.0500 +- .0150	.0500 +- .0150
Sn	.0500 +- .0150	.0500 +- .0150	.0500 +- .0150
Pb	.0500 +- .0150	.0500 +- .0150	.0500 +- .0150
OC	13.0000 +- 3.9000	13.0000 +- 3.9000	13.0000 +- 3.9000
SO4	16.0000 +- 4.8000	16.0000 +- 4.8000	16.0000 +- 4.8000
NO3	.5500 +- .1650	.5500 +- .1650	.5500 +- .1650
Sum	51.5500	51.5500	51.5500

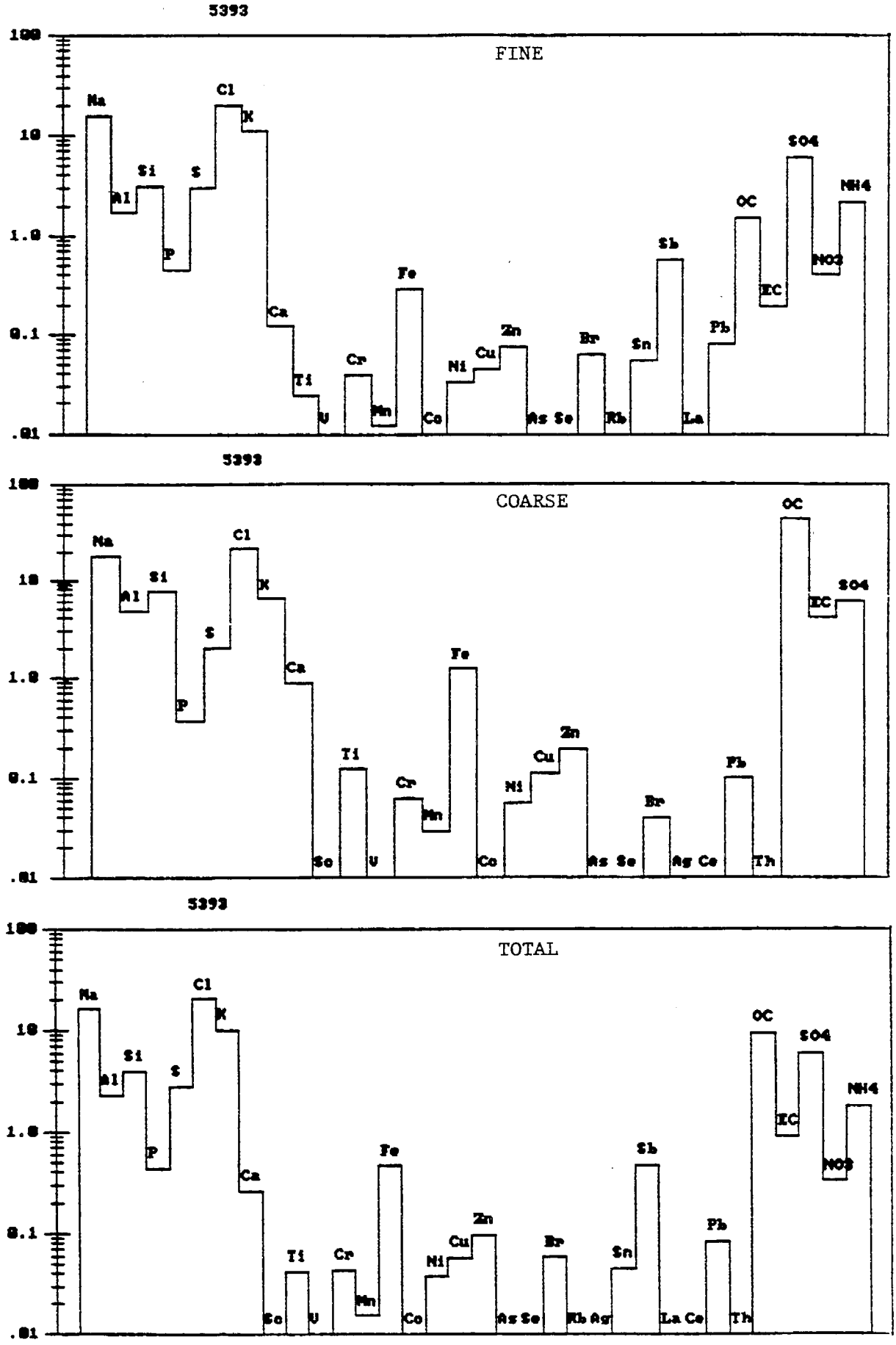
ALUMINUM REVERB. FURNACE



srce code	part size	revsion date	source description	reference	date
5393	FCT	03/19/87	Secondary Aluminum Dross Furn.	6	03/87

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Na	15.5000 +- 1.6000	18.0000 +- 4.4000	15.9717 +- 2.3738
Al	1.7000 +- .2000	4.7000 +- .8000	2.2660 +- .3193
Si	3.1000 +- 2.2000	7.6000 +- 3.7000	3.9491 +- 1.9594
P	.4500 +- .2700	.3700 +- .1100	.4349 +- .2258
S	3.0000 +- 4.0000	2.0000 +- .2000	2.8113 +- 3.2626
Cl	20.0000 +- 4.0000	21.0000 +- 5.0000	20.1887 +- 4.0912
K	10.9000 +- 1.5000	6.3000 +- 4.5000	10.0321 +- 1.9096
Ca	.1200 +- .0900	.8700 +- .2600	.2615 +- .0910
Sc		.0002 +- .0001	.0000 +- .0001
Ti	.0240 +- .0030	.1200 +- .0400	.0421 +- .0089
V	.0035 +- .0007	.0064 +- .0043	.0040 +- .0011
Cr	.0390 +- .0040	.0610 +- .0070	.0432 +- .0059
Mn	.0120 +- .0010	.0290 +- .0110	.0152 +- .0027
Fe	.2900 +- .0900	1.2000 +- .2000	.4617 +- .0933
Co	.0013 +- .0002	.0056 +- .0006	.0021 +- .0003
Ni	.0330 +- .0030	.0560 +- .0290	.0373 +- .0072
Cu	.0450 +- .0200	.1100 +- .0300	.0573 +- .0182
Zn	.0750 +- .0075	.1900 +- .0200	.0967 +- .0122
As	.0015 +- .0006	.0016 +- .0010	.0015 +- .0006
Se	.0063 +- .0010	.0091 +- .0011	.0068 +- .0011
Br	.0630 +- .0070	.0390 +- .0080	.0585 +- .0091
Rb	.0093 +- .0037		.0075 +- .0032
Ag		.0084 +- .0013	.0016 +- .0003
Sn	.0550 +- .0540		.0446 +- .0442
Sb	.5700 +- .0600		.4625 +- .0769
La	.0016 +- .0005		.0013 +- .0004
Ce		.0020 +- .0010	.0004 +- .0002
Pb	.0810 +- .0140	.0980 +- .0310	.0842 +- .0159
Th		.0003 +- .0001	.0001 +- .0001
OC	1.5000 +- 1.4000	43.0000 +-33.0000	9.3302 +- 6.3754
EC	.1900 +- .0700	4.0000 +- 1.4000	.9089 +- .2805
SO4	5.9000 +- 2.0000	6.0000 +- 6.0000	5.9189 +- 2.0915
NO3	.4000 +- .3600		.3245 +- .2951
NH4	2.2000 +- .9000		1.7849 +- .7655
Sum	66.2705	*******	75.6113

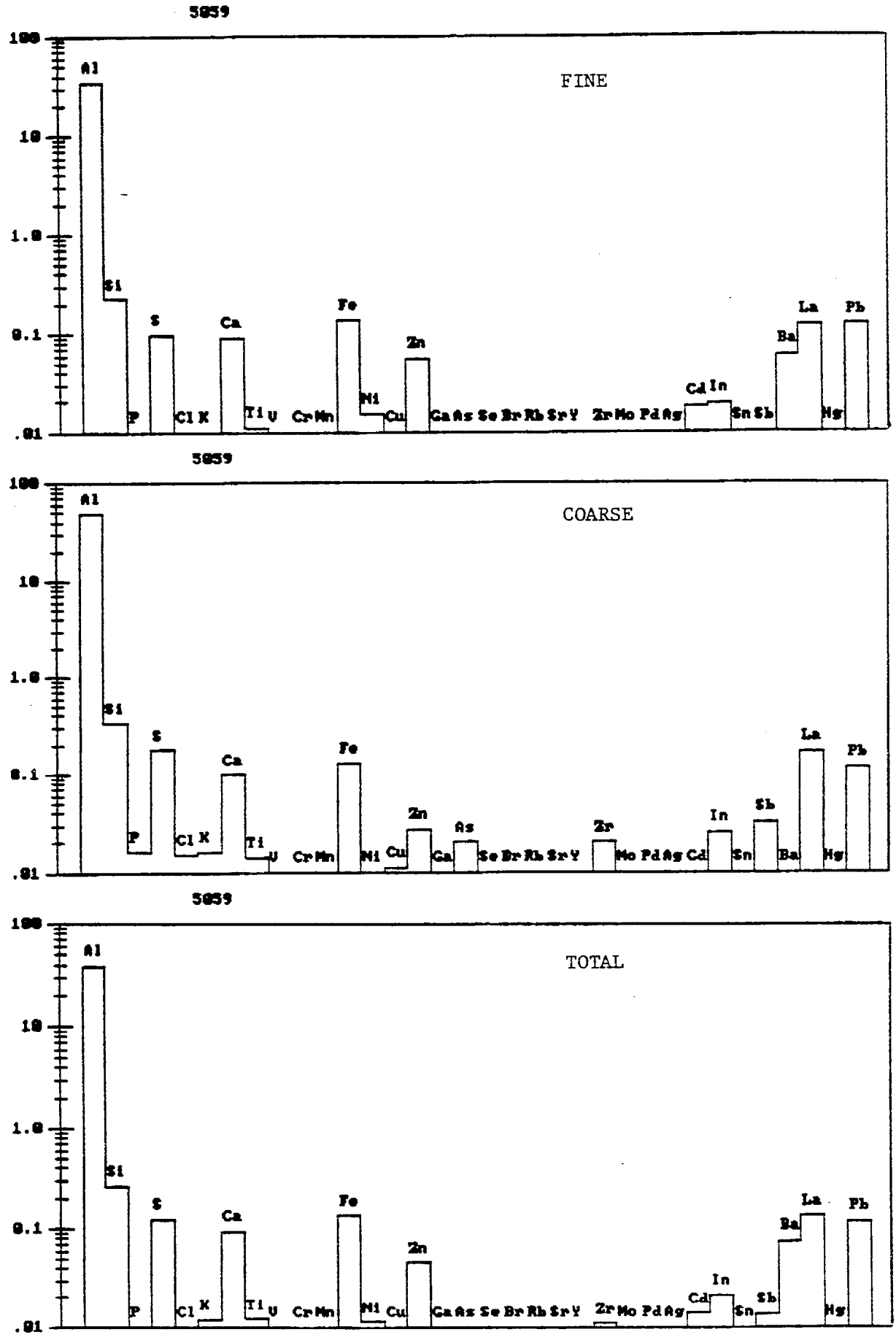
SECONDARY ALUMINUM DROSS FURN.



srce code	part size	revsion date	source description	reference	date
5059	FCT	03/19/87	alumina handling	2	09/83

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Al	34.1960 +- 3.4196	48.1550 +- 4.8155	38.6629 +- 3.8663
Si	.2240 +- .0290	.3330 +- .0500	.2589 +- .0259
P	.0030 +- .0030	.0160 +- .0110	.0072 +- .0041
S	.0960 +- .0290	.1760 +- .0530	.1216 +- .0260
Cl	.0040 +- .0100	.0150 +- .0190	.0075 +- .0091
K	.0100 +- .0040	.0160 +- .0080	.0119 +- .0037
Ca	.0890 +- .0089	.0980 +- .0110	.0919 +- .0092
Ti	.0110 +- .0020	.0140 +- .0040	.0120 +- .0019
V	.0060 +- .0010	.0080 +- .0030	.0066 +- .0012
Cr	.0030 +- .0010	.0020 +- .0030	.0027 +- .0012
Mn	.0030 +- .0020	.0030 +- .0030	.0030 +- .0017
Fe	.1370 +- .0137	.1270 +- .0140	.1338 +- .0134
Ni	.0150 +- .0020	.0030 +- .0030	.0112 +- .0017
Cu	.0050 +- .0020	.0110 +- .0040	.0069 +- .0019
Zn	.0550 +- .0055	.0270 +- .0040	.0460 +- .0046
Ga	.0080 +- .0020	.0100 +- .0030	.0086 +- .0017
As	.0040 +- .0060	.0200 +- .0090	.0091 +- .0050
Se	.0020 +- .0020	.0010 +- .0030	.0017 +- .0017
Br	.0050 +- .0020	.0070 +- .0030	.0056 +- .0017
Rb	.0010 +- .0010	.0000 +- .0040	.0013 +- .0009
Sr	.0010 +- .0020	.0000 +- .0050	.0015 +- .0016
Y	.0020 +- .0030	.0000 +- .0060	.0023 +- .0023
Zr	.0065 +- .0065	.0200 +- .0240	.0108 +- .0089
Mo	.0050 +- .0050	.0000 +- .0190	.0064 +- .0046
Pd	.0080 +- .0070	.0000 +- .0130	.0075 +- .0052
Ag	.0050 +- .0050	.0100 +- .0200	.0066 +- .0072
Cd	.0180 +- .0170	.0050 +- .0320	.0138 +- .0154
In	.0190 +- .0170	.0250 +- .0330	.0209 +- .0157
Sn	.0095 +- .0095	.0070 +- .0390	.0087 +- .0141
Sb	.0050 +- .0290	.0320 +- .0570	.0136 +- .0269
Ba	.0600 +- .1060	.0000 +- .2170	.0755 +- .0800
La	.1180 +- .1300	.1670 +- .2550	.1337 +- .1203
Hg	.0020 +- .0030	.0020 +- .0050	.0020 +- .0026
Pb	.1200 +- .0120	.1130 +- .0150	.1178 +- .0118
Sum	35.2560	49.4230	39.8315

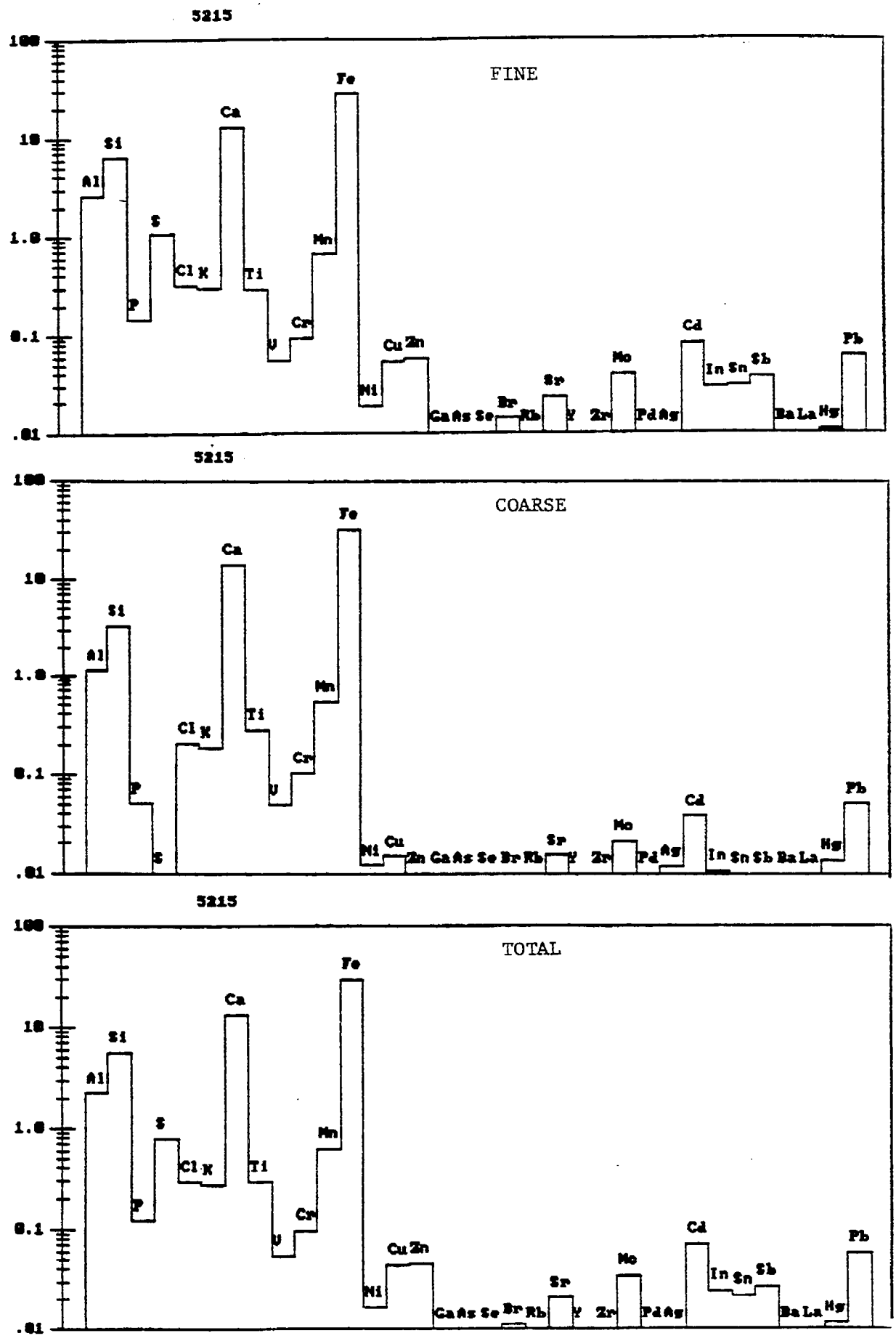
ALUMINA HANDLING



srce code	part size	revsion date	source description	reference	date
5215	FCT	03/19/87	iron ore dust--sinter r. mat.	8	03/85

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Al	2.6343 +- .2634	1.1385 +- .1139	2.2438 +- .3227
Si	6.4470 +- .6447	3.3084 +- .3308	5.6275 +- .7964
P	.1450 +- .0331	.0508 +- .0166	.1204 +- .0285
S	1.0500 +- .1050	.0000 +- .1013	.7758 +- .1266
Cl	.3187 +- .0365	.2055 +- .0257	.2891 +- .0422
K	.2996 +- .0321	.1864 +- .0217	.2700 +- .0385
Ca	12.6554 +- 1.2655	14.1740 +- 1.4174	13.0519 +- 1.6781
Ti	.2897 +- .0290	.2795 +- .0280	.2870 +- .0377
V	.0552 +- .0071	.0493 +- .0049	.0537 +- .0078
Cr	.0937 +- .0094	.1026 +- .0103	.0960 +- .0124
Mn	.6518 +- .0652	.5359 +- .0536	.6215 +- .0833
Fe	27.4911 +- 2.7491	32.5111 +- 3.2511	28.8018 +- 3.6745
Ni	.0183 +- .0040	.0120 +- .0014	.0167 +- .0035
Cu	.0534 +- .0069	.0148 +- .0015	.0433 +- .0072
Zn	.0575 +- .0063	.0080 +- .0011	.0446 +- .0071
Ga	.0000 +- .0030	.0000 +- .0006	.0000 +- .0022
As	.0000 +- .0089	.0000 +- .0034	.0000 +- .0066
Se	.0006 +- .0030	.0022 +- .0006	.0010 +- .0022
Br	.0137 +- .0040	.0029 +- .0007	.0109 +- .0032
Rb	.0054 +- .0044	.0077 +- .0009	.0060 +- .0033
Sr	.0226 +- .0058	.0152 +- .0015	.0207 +- .0049
Y	.0091 +- .0063	.0070 +- .0013	.0086 +- .0048
Zr	.0000 +- .0272	.0093 +- .0053	.0024 +- .0201
Mo	.0389 +- .0210	.0213 +- .0042	.0343 +- .0160
Pd	.0000 +- .0194	.0067 +- .0042	.0017 +- .0144
Ag	.0000 +- .0262	.0118 +- .0053	.0031 +- .0194
Cd	.0817 +- .0397	.0386 +- .0085	.0704 +- .0305
In	.0292 +- .0387	.0106 +- .0080	.0243 +- .0288
Sn	.0298 +- .0486	.0001 +- .0100	.0220 +- .0361
Sb	.0365 +- .0798	.0001 +- .0167	.0270 +- .0592
Ba	.0000 +- .2341	.0000 +- .0462	.0000 +- .1734
La	.0000 +- .3373	.0000 +- .0665	.0000 +- .2498
Hg	.0105 +- .0050	.0134 +- .0019	.0113 +- .0039
Pb	.0601 +- .0139	.0507 +- .0051	.0576 +- .0120
Sum	52.5986	52.7743	52.6444

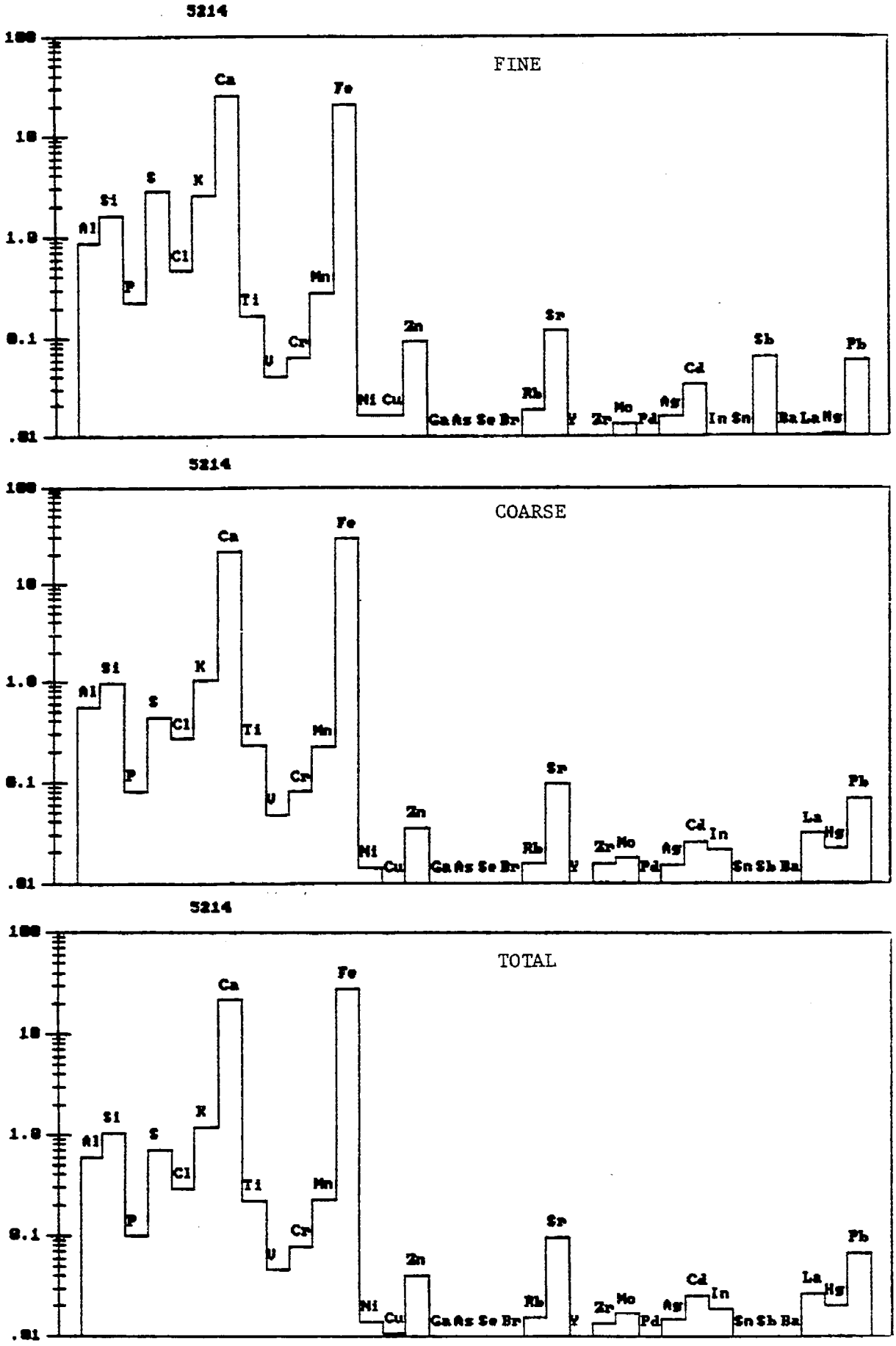
IRON ORE DUST--SINTER R. MAT.



srce code	part size	revsion date	source description	reference	date
5214	FCT	03/19/87	steel desulfrtn. baghouse dust	8	03/85

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Al	.8775 +- .0877	.5613 +- .0561	.5977 +- .0521
Si	1.6282 +- .1628	.9665 +- .0967	1.0426 +- .0904
P	.2261 +- .0530	.0810 +- .0246	.0977 +- .0228
S	2.7391 +- .2739	.4367 +- .1149	.7016 +- .1113
Cl	.4577 +- .0458	.2650 +- .0286	.2872 +- .0266
K	2.5389 +- .2539	1.0197 +- .1020	1.1945 +- .1002
Ca	25.4448 +- 2.5445	21.3130 +- 2.1313	21.7883 +- 1.9472
Ti	.1648 +- .0165	.2265 +- .0227	.2194 +- .0204
V	.0407 +- .0054	.0466 +- .0047	.0459 +- .0043
Cr	.0636 +- .0064	.0792 +- .0079	.0774 +- .0071
Mn	.2773 +- .0277	.2210 +- .0221	.2275 +- .0202
Fe	20.5370 +- 2.0537	29.2766 +- 2.9277	28.2712 +- 2.6325
Ni	.0159 +- .0036	.0139 +- .0014	.0141 +- .0013
Cu	.0159 +- .0045	.0099 +- .0011	.0106 +- .0011
Zn	.0912 +- .0091	.0340 +- .0034	.0406 +- .0034
Ga	.0020 +- .0029	.0008 +- .0006	.0009 +- .0006
As	.0000 +- .0084	.0000 +- .0042	.0000 +- .0038
Se	.0041 +- .0029	.0019 +- .0005	.0022 +- .0006
Br	.0057 +- .0034	.0039 +- .0006	.0041 +- .0007
Rb	.0186 +- .0045	.0153 +- .0015	.0157 +- .0015
Sr	.1161 +- .0116	.0945 +- .0095	.0970 +- .0087
Y	.0032 +- .0057	.0037 +- .0010	.0036 +- .0011
Zr	.0000 +- .0254	.0154 +- .0063	.0136 +- .0063
Mo	.0130 +- .0186	.0175 +- .0034	.0170 +- .0037
Pd	.0000 +- .0175	.0084 +- .0035	.0074 +- .0037
Ag	.0152 +- .0261	.0148 +- .0044	.0148 +- .0049
Cd	.0334 +- .0339	.0252 +- .0065	.0261 +- .0070
In	.0068 +- .0343	.0208 +- .0067	.0192 +- .0071
Sn	.0080 +- .0432	.0089 +- .0082	.0088 +- .0088
Sb	.0632 +- .0732	.0000 +- .0132	.0073 +- .0144
Ba	.0000 +- .2127	.0000 +- .0362	.0000 +- .0403
La	.0000 +- .3014	.0303 +- .0545	.0268 +- .0594
Hg	.0104 +- .0046	.0215 +- .0022	.0202 +- .0020
Pb	.0586 +- .0127	.0688 +- .0069	.0676 +- .0064
Sum	55.4770	54.9029	54.9686

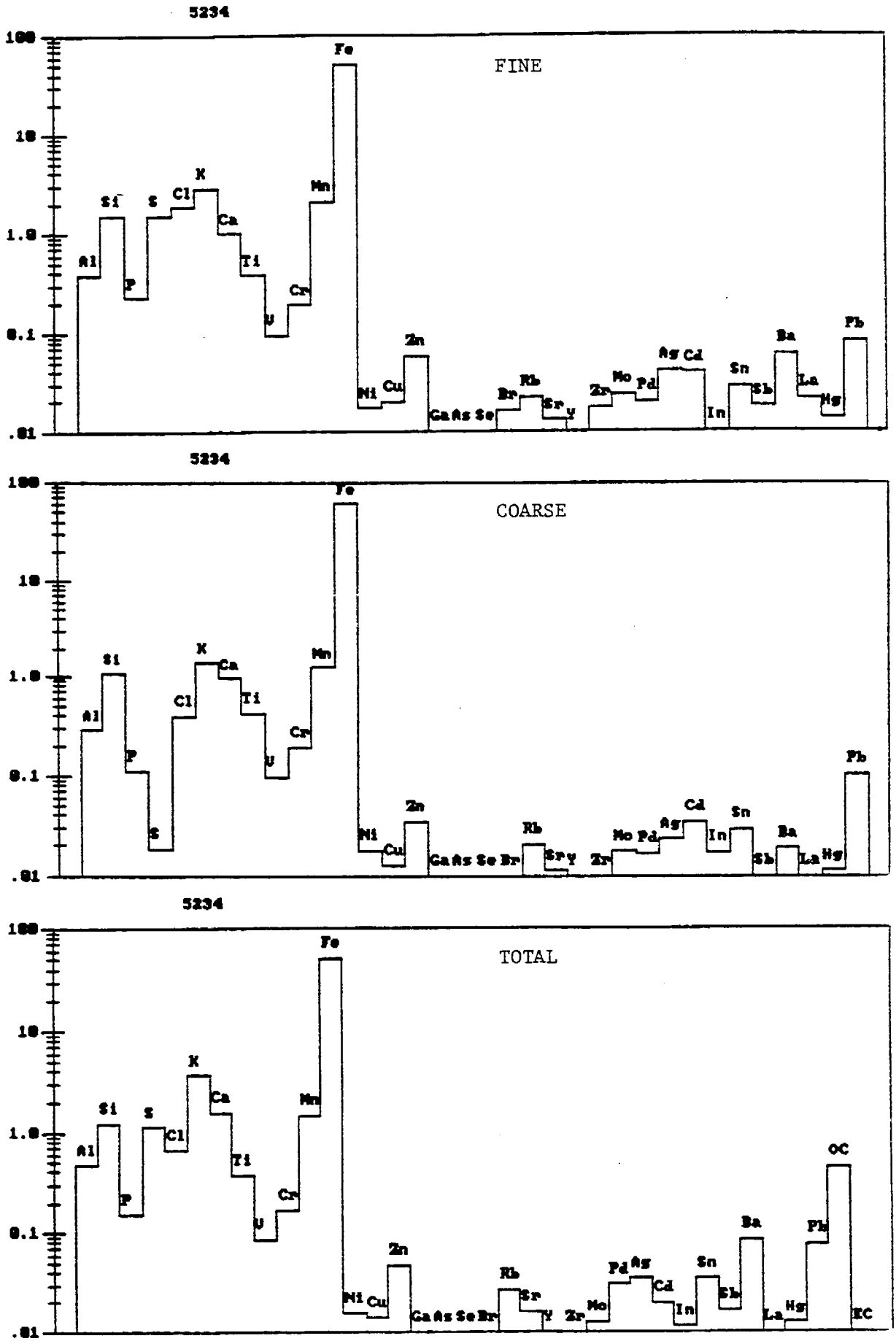
STEEL DESULFRTN. BAGHOUSE DUST



srce code	part size	revsion date	source description	reference	date
5234	FCT	03/01/85	basic oxygen furnc., Cubatao	8	03/85

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Al	.3834 +- .0552	.2849 +- .0919	.4651 +- .1618
Si	1.4997 +- .6475	1.0596 +- .6370	1.2286 +- .5448
P	.2231 +- .0450	.1112 +- .0513	.1489 +- .0558
S	1.5252 +- 1.1257	.0186 +- .1982	1.1287 +- 1.2613
Cl	1.8192 +- .8246	.3977 +- .3938	.6541 +- .5036
K	2.8031 +- .5544	1.4213 +- .5359	3.6363 +- 2.8033
Ca	.9813 +- .6119	.9439 +- .8506	1.5448 +- .7577
Ti	.3754 +- .1023	.4205 +- .0456	.3688 +- .1595
V	.0933 +- .0137	.0971 +- .0141	.0845 +- .0331
Cr	.1887 +- .0189	.1914 +- .0211	.1671 +- .0460
Mn	2.0730 +- 1.1377	1.2495 +- .6218	1.4704 +- .3375
Fe	50.1312 +-15.1780	60.5915 +- 6.0592	50.1987 +-20.9793
Ni	.0169 +- .0052	.0177 +- .0025	.0155 +- .0051
Cu	.0200 +- .0088	.0127 +- .0034	.0139 +- .0053
Zn	.0574 +- .0240	.0339 +- .0234	.0465 +- .0325
Ga	.0067 +- .0055	.0031 +- .0034	.0047 +- .0031
As	.0019 +- .0066	.0000 +- .0075	.0029 +- .0074
Se	.0025 +- .0014	.0029 +- .0013	.0023 +- .0017
Br	.0162 +- .0087	.0057 +- .0016	.0091 +- .0033
Rb	.0219 +- .0043	.0204 +- .0077	.0269 +- .0108
Sr	.0129 +- .0032	.0112 +- .0039	.0162 +- .0033
Y	.0022 +- .0031	.0003 +- .0026	.0018 +- .0036
Zr	.0171 +- .0118	.0067 +- .0103	.0053 +- .0142
Mo	.0237 +- .0094	.0175 +- .0083	.0125 +- .0119
Pd	.0195 +- .0077	.0167 +- .0085	.0303 +- .0167
Ag	.0404 +- .0119	.0230 +- .0098	.0347 +- .0150
Cd	.0385 +- .0543	.0346 +- .0155	.0197 +- .0204
In	.0035 +- .0171	.0172 +- .0156	.0115 +- .0214
Sn	.0276 +- .0204	.0291 +- .0183	.0349 +- .0254
Sb	.0176 +- .0333	.0047 +- .0296	.0165 +- .0419
Ba	.0590 +- .0897	.0187 +- .0783	.0832 +- .1122
La	.0210 +- .1377	.0098 +- .1195	.0000 +- .1683
Hg	.0135 +- .0030	.0112 +- .0041	.0124 +- .0072
Pb	.0809 +- .0087	.1022 +- .0454	.0757 +- .0694
OC			.4400 +- .0440
EC			.0000 +- .0300
Sum	62.6174	67.1867	62.0124

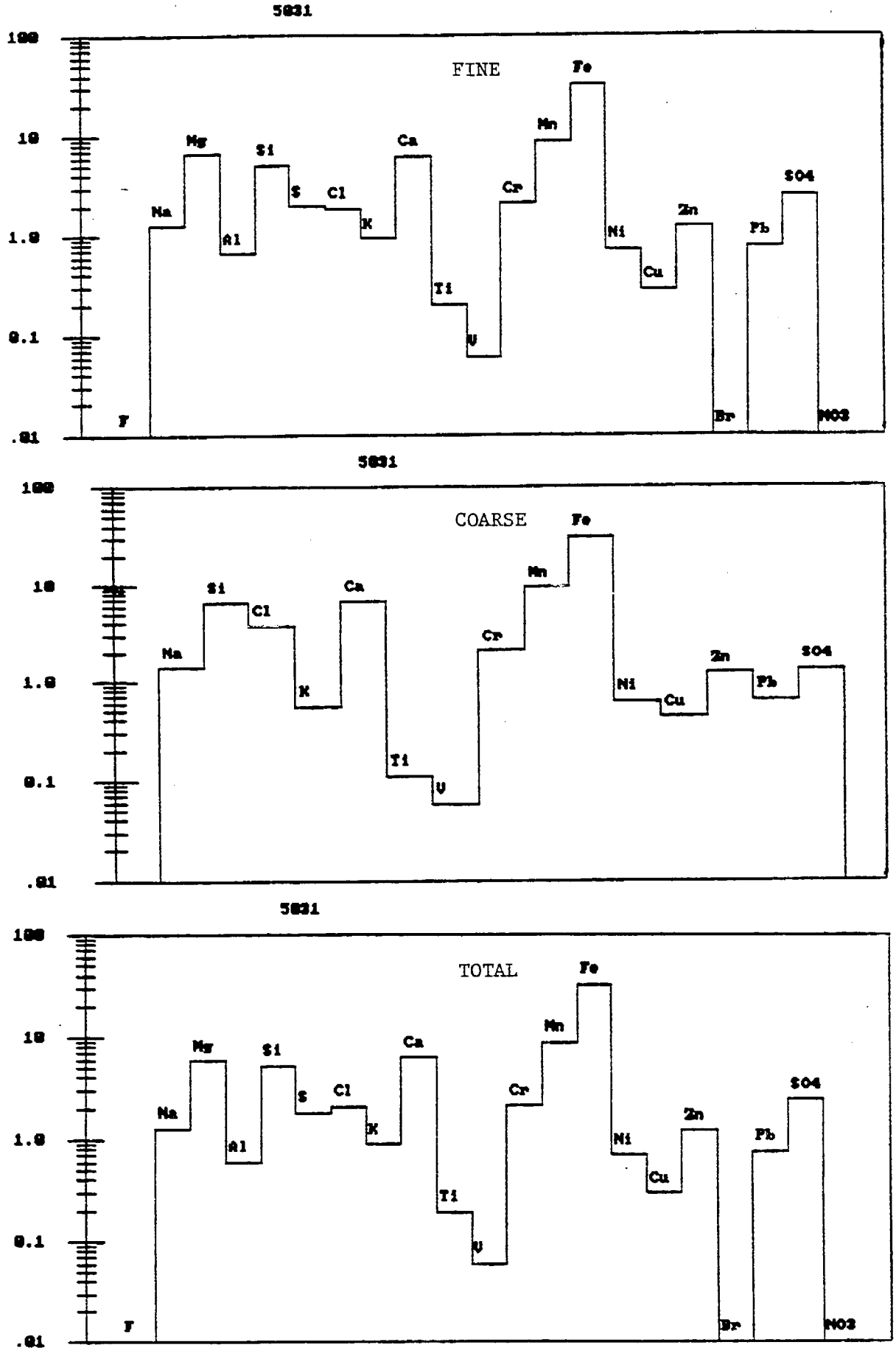
BASIC OXYGEN FURNC., CUBATAO



srce code	part size	revsion date	source description	reference	date
5031	FCT	03/18/87	steel electric arc	7	02/79

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
F	.0000 +- .5000		.0000 +- .4533
Na	1.2600 +- .4800	1.4000 +- .4200	1.2731 +- .4661
Mg	6.5000 +- .7100		5.8925 +- 1.0232
Al	.6500 +- .1600		.5893 +- .1654
Si	5.0000 +- .2100	6.6000 +- 1.9800	5.1495 +- .7028
S	1.9600 +- .0700		1.7768 +- .2481
Cl	1.8500 +- .7800	3.8000 +- 1.1400	2.0322 +- .7572
K	.9200 +- .0700	.5600 +- .1680	.8864 +- .1330
Ca	6.2000 +- .5700	6.9000 +- 2.0700	6.2654 +- .9711
Ti	.2000 +- .0200	.1100 +- .0330	.1916 +- .0311
V	.0600 +- .0100	.0580 +- .0174	.0598 +- .0120
Cr	2.1000 +- 1.4000	2.1000 +- .6300	2.1000 +- 1.2987
Mn	8.7000 +- .9000	9.5000 +- 2.8500	8.7748 +- 1.4112
Fe	32.0000 +- 3.0000	30.8000 +- 9.2400	31.8879 +- 4.9914
Ni	.7000 +- .0700	.6200 +- .1860	.6925 +- .1109
Cu	.2800 +- .0300	.4300 +- .1290	.2940 +- .0473
Zn	1.2000 +- .1200	1.2000 +- .3600	1.2000 +- .1914
Br	.0000 +- .1000		.0000 +- .0907
Pb	.7600 +- .0700	.6400 +- .1920	.7488 +- .1171
SO4	2.5000 +- 1.3000	1.3000 +- .3900	2.3879 +- 1.2200
NO3	.0000 +- 1.4000		.0000 +- 1.2692
Sum	72.8400	66.0180	72.2025

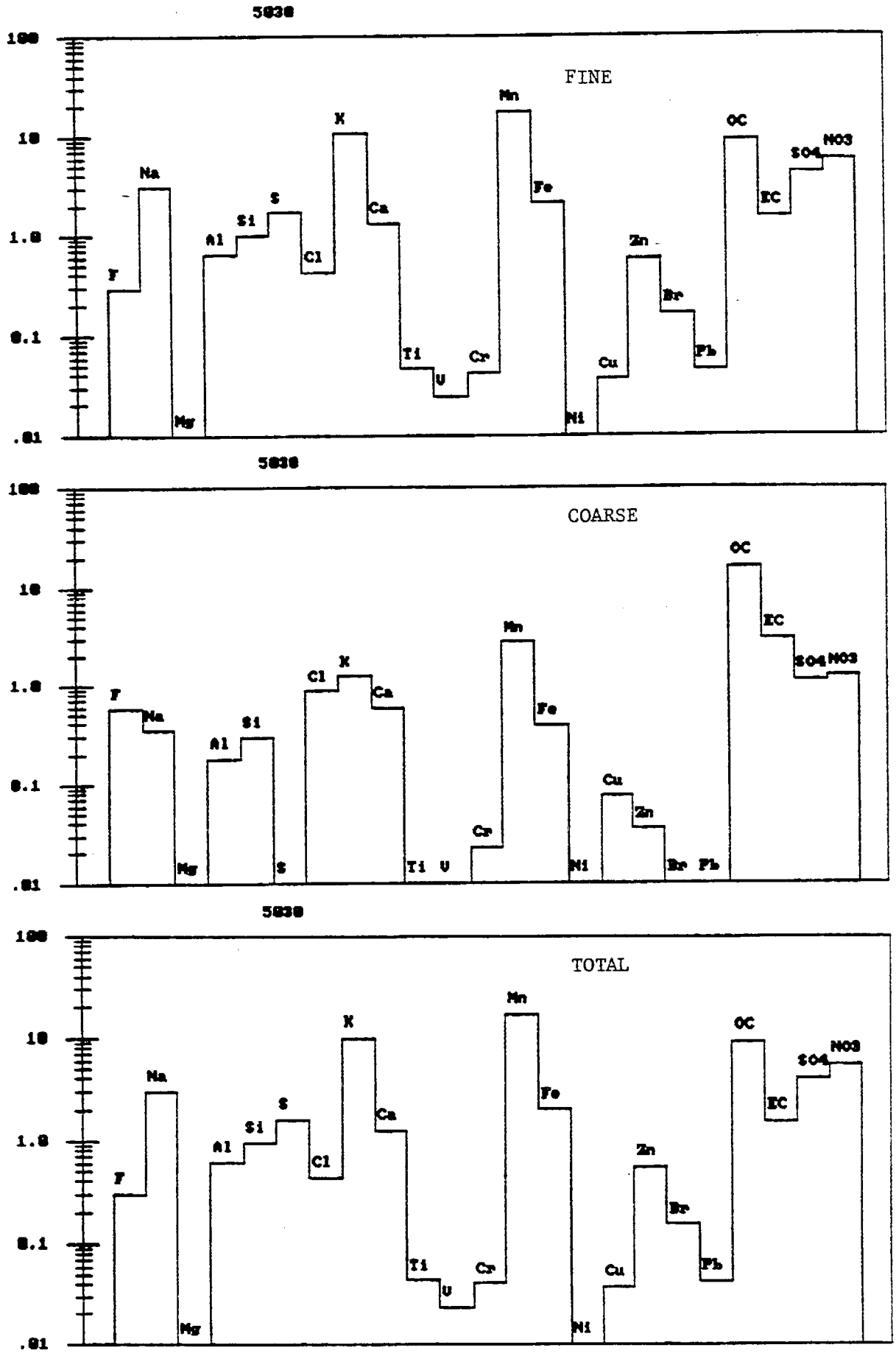
STEEL ELECTRIC ARC



srce code	part size	revsion date	source description	reference	date
5030	FCT	03/18/87	ferromanganese	7	02/79

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
F	.2900 +- .0800	.5700 +- .3200	.3015 +- .0876
Na	3.1000 +- .3000	.3400 +- .1600	2.9869 +- .5032
Mg	.0000 +- 4.0000	.0000 +- 2.0000	.0000 +- 3.8369
Al	.6400 +- .1300	.1800 +- .1100	.6211 +- .1513
Si	.9900 +- .3000	.2900 +- .2700	.9613 +- .3169
S	1.7000 +- .3500	.0000 +- .0100	1.6303 +- .4046
Cl	.4200 +- .1600	.8500 +- .2100	.4376 +- .1643
K	10.5000 +- 3.9000	1.2000 +- .2800	10.1189 +- 3.9931
Ca	1.3000 +- .1400	.5700 +- .0780	1.2701 +- .2200
Ti	.0460 +- .0070	.0000 +- .5000	.0441 +- .0224
V	.0240 +- .0190	.0088 +- .0088	.0234 +- .0185
Cr	.0420 +- .0028	.0225 +- .0250	.0412 +- .0063
Mn	17.3000 +- .9900	2.7500 +- .3500	16.7037 +- 2.4941
Fe	2.1000 +- 1.4000	.3800 +- .0280	2.0295 +- 1.3715
Ni	.0000 +- .0050	.0000 +- .0200	.0000 +- .0049
Cu	.0360 +- .0040	.0740 +- .0300	.0376 +- .0064
Zn	.5800 +- .2500	.0350 +- .0014	.5577 +- .2519
Br	.1600 +- .2200	.0000 +- .2000	.1534 +- .2122
Pb	.0450 +- .0160	.0000 +- .0500	.0432 +- .0166
OC	9.0000 +- .0900	16.0000 +- 1.6000	9.2869 +- 1.2450
EC	1.5000 +- .1500	3.0000 +- .3000	1.5615 +- .2529
SO4	4.2000 +- .4000	1.1000 +- .2700	4.0730 +- .6798
NO3	5.7000 +- 2.8000	1.2000 +- .7100	5.5156 +- 2.7911
Sum	59.6730	28.5703	58.3985

FERROMANGANESE



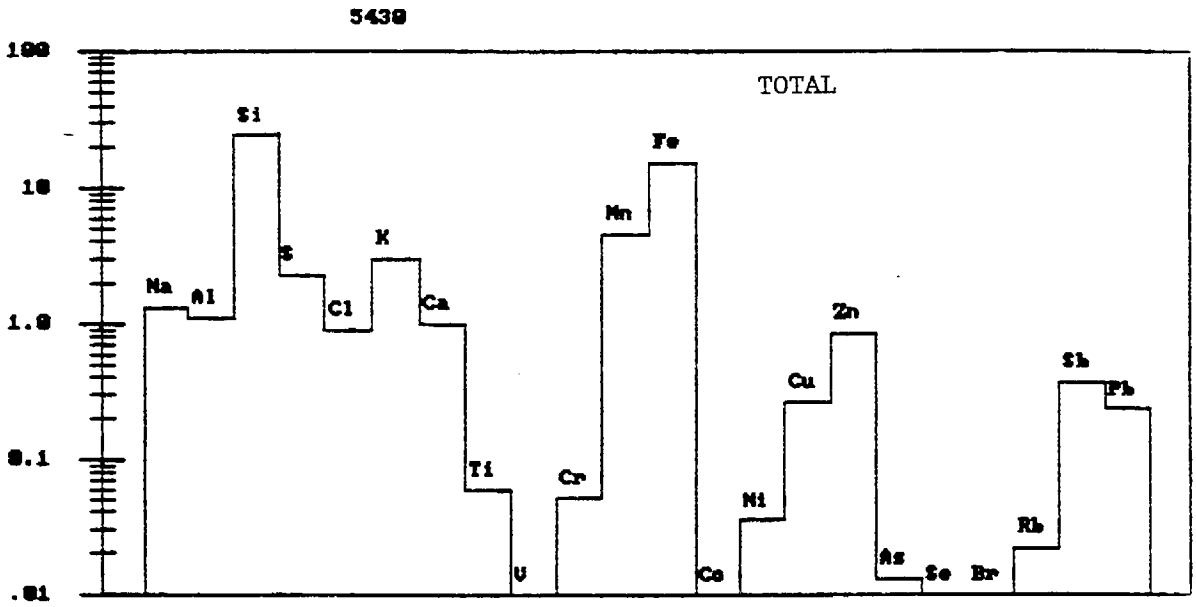
srce code	part size	revsion date	source description	reference	date
5430	T	04/10/87	Cast Iron Cupola	16	00/79

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Na			1.3000 +- .3900
Al			1.1000 +- .3300
Si			24.0000 +- 7.2000
S			2.3000 +- .6900
Cl			.8900 +- .2670
K			3.0000 +- .9000
Ca			1.0000 +- .3000
Ti			.0600 +- .0180
V			.0090 +- .0030
Cr			.0520 +- .0160
Mn			4.5000 +- 1.3500
Fe			15.0000 +- 4.5000
Co			.0040 +- .0010
Ni			.0350 +- .0110
Cu			.2600 +- .0780
Zn			.8300 +- .2490
As			.0130 +- .0040
Se			.0020 +- .0010
Br			.0090 +- .0030
Rb			.0220 +- .0070
Sb			.3700 +- .1110
Pb			.2300 +- .0690
Sum			54.9860

srce code	part size	revsion date	source description	reference	date
5431	FCT	04/10/87	Steel Sinter Plant	9	00/79

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
S	6.6000 +- 1.9800	2.6000 +- .7800	6.3300 +- 1.8990
Cl	17.0000 +- 5.1000	14.0000 +- 4.2000	28.0000 +- 8.4000
K	20.0000 +- 6.0000	9.0000 +- 2.7000	19.0000 +- 5.7000
Ca	.5500 +- .1650	1.0000 +- .3000	.5500 +- .1650
V	.5500 +- .1650		
Cr	3.0000 +- .9000	.5500 +- .1650	3.0000 +- .9000
Mn	.5500 +- .1650	.5500 +- .1650	.5500 +- .1650
Fe	13.0000 +- 3.9000	20.0000 +- 6.0000	14.0000 +- 4.2000
Ni	.5500 +- .1650		
Cu	2.0000 +- .6000	2.0000 +- .6000	2.0000 +- .6000
Zn	.5500 +- .1650	.5500 +- .1650	.5500 +- .1650
As	.5500 +- .1650	.5500 +- .1650	.5500 +- .1650
Se	.0500 +- .0150	.0500 +- .0150	.0500 +- .0150
Br	.5500 +- .1650	.5500 +- .1650	.5500 +- .1650
Rb	.5500 +- .1650	.5500 +- .1650	.5500 +- .1650
Sr	.0500 +- .0150		.0500 +- .0150
Zr	.0500 +- .0150		.0500 +- .0150
Ag	.0500 +- .0150	.0500 +- .0150	.0500 +- .0150
Cd	.5500 +- .1650	.5500 +- .1650	.5500 +- .1650
Sn	.0500 +- .0150		
Sb	.0500 +- .0150		
Ce	.5500 +- .1650	.5500 +- .1650	.5500 +- .1650
Pb	11.0000 +- 3.3000	13.0000 +- 3.9000	10.0000 +- 3.0000
SO4	20.0000 +- 6.0000	8.0000 +- 2.4000	19.0000 +- 5.7000
Sum	98.4000	74.1000	*******

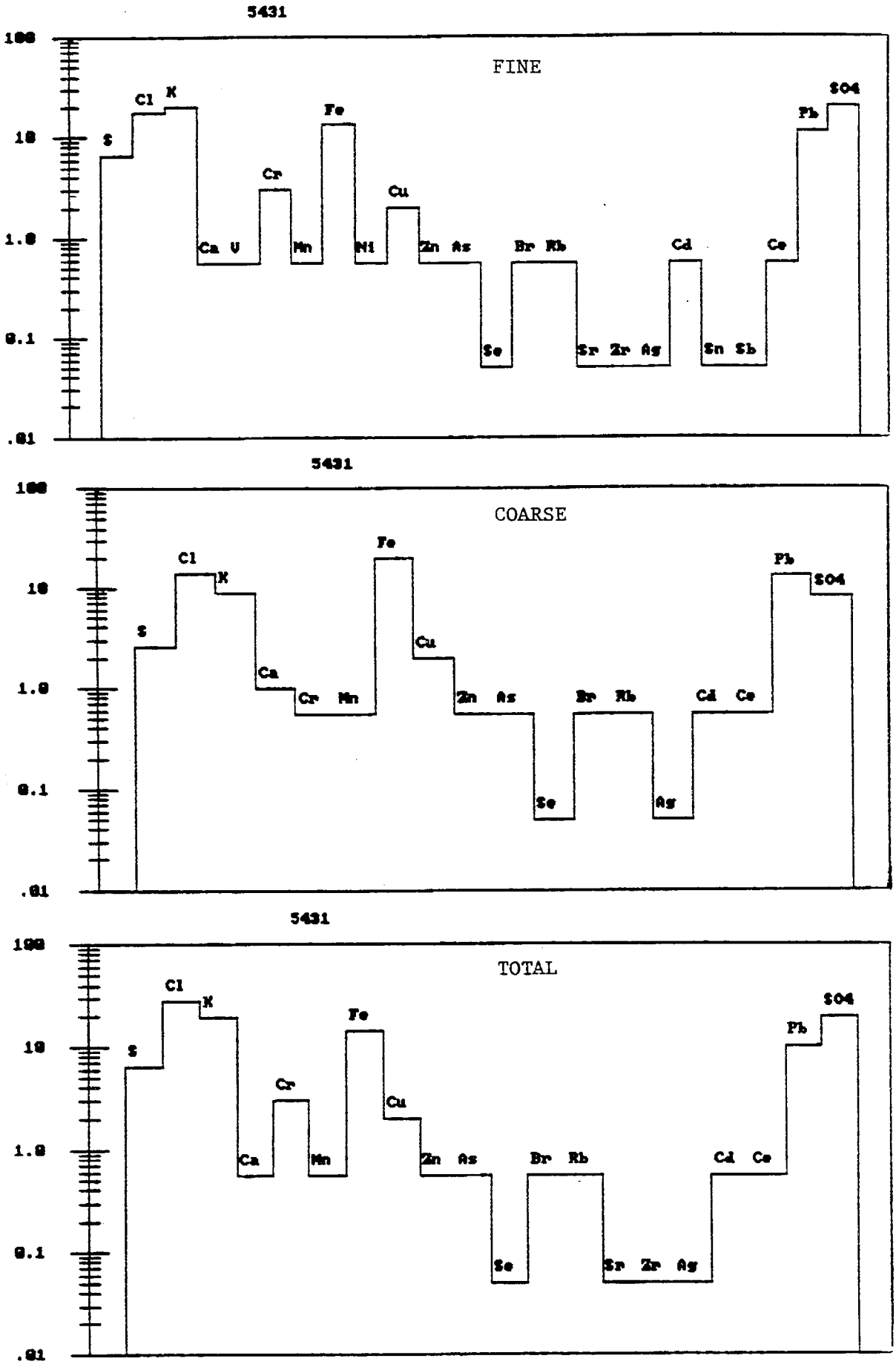
CAST IRON CUPOLA



srce code	part size	revsion date	source description	reference	date
5432	FCT	04/10/87	Steel Open Hearth Furnace	9	00/79

ES	PERCENT COMPOSITION FINE	COARSE	TOTAL
S	13.3000 +- 3.9900	3.0000 +- .9000	13.3000 +- 3.9900
K	5.0000 +- 1.5000	5.0000 +- 1.5000	5.0000 +- 1.5000
Ca	.5500 +- .1650	.5500 +- .1650	.5500 +- .1650
V	.5500 +- .1650	.5500 +- .1650	.5500 +- .1650
Cr	2.0000 +- .6000	.5500 +- .1650	2.0000 +- .6000
Mn	.5500 +- .1650	.5500 +- .1650	.5500 +- .1650
Fe	11.0000 +- 3.3000	16.0000 +- 4.8000	11.0000 +- 3.3000
Ni	.5500 +- .1650	.5500 +- .1650	.5500 +- .1650
Cu	.5500 +- .1650	.5500 +- .1650	.5500 +- .1650
As	.0500 +- .0150	.0500 +- .0150	.0500 +- .0150
Br	.0500 +- .0150	.0500 +- .0150	.0500 +- .0150
Rb	.0500 +- .0150	.0500 +- .0150	.0500 +- .0150
Ag	.0500 +- .0150	.0500 +- .0150	.0500 +- .0150
Cd	.0500 +- .0150	.0500 +- .0150	.0500 +- .0150
Sn	.0500 +- .0150	.0500 +- .0150	.0500 +- .0150
Sb	.0500 +- .0150	.0500 +- .0150	.0500 +- .0150
Pb	.5500 +- .1650	.5500 +- .1650	.5500 +- .1650
SO4	40.0000 +-12.0000	35.0000 +-10.5000	40.0000 +-12.0000
NO3	.5500 +- .1650	.5500 +- .1650	.5500 +- .1650
Sum	75.5000	63.7500	75.5000

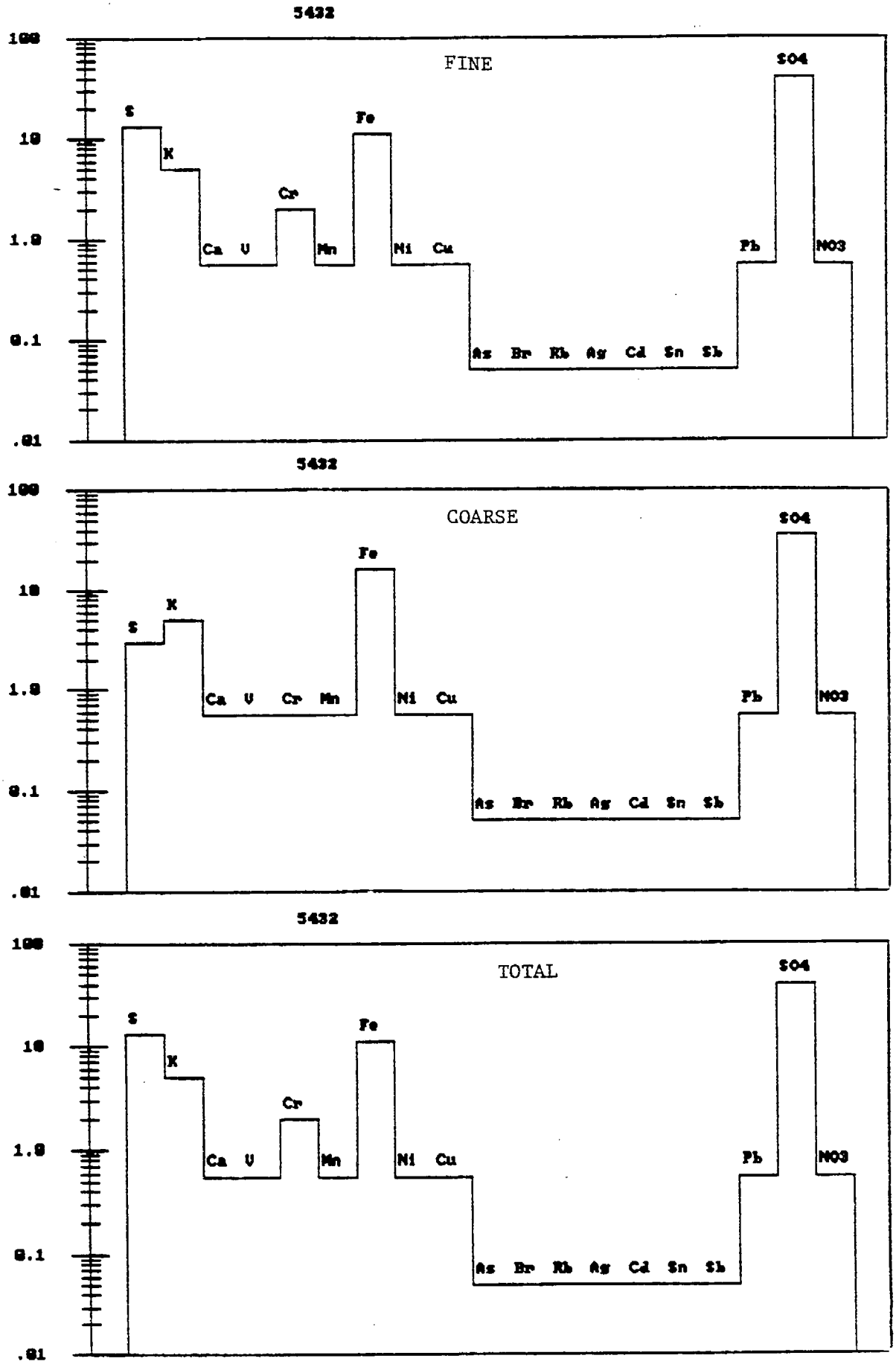
STEEL SINTER PLANT



srce code	part size	revsion date	source description	reference	date
5433	FCT	04/10/87	Steel Basic Oxygen Furnace	9	00/79

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Si	9.9000 +- 2.9700	9.9000 +- 2.9700	9.9000 +- 2.9700
S	13.3300 +- 3.9990	13.3300 +- 3.9990	13.3300 +- 3.9990
K	5.0000 +- 1.5000	5.0000 +- 1.5000	5.0000 +- 1.5000
Ca	.5500 +- .1650	.5500 +- .1650	.5500 +- .1650
V	.5500 +- .1650	.5500 +- .1650	.5500 +- .1650
Cr	2.0000 +- .6000	2.0000 +- .6000	2.0000 +- .6000
Mn	.5500 +- .1650	.5500 +- .1650	.5500 +- .1650
Fe	11.0000 +- 3.3000	11.0000 +- 3.3000	11.0000 +- 3.3000
Ni	.5500 +- .1650	.5500 +- .1650	.5500 +- .1650
Cu	.5500 +- .1650	.5500 +- .1650	.5500 +- .1650
As	.0500 +- .0150	.0500 +- .0150	.0500 +- .0150
Br	.0500 +- .0150	.0500 +- .0150	.0500 +- .0150
Rb	.0500 +- .0150	.0500 +- .0150	.0500 +- .0150
Ag	.0500 +- .0150	.0500 +- .0150	.0500 +- .0150
Cd	.0500 +- .0150	.0500 +- .0150	.0500 +- .0150
Sn	.0500 +- .0150	.0500 +- .0150	.0500 +- .0150
Sb	.0500 +- .0150	.0500 +- .0150	.0500 +- .0150
Pb	.5500 +- .1650	.5500 +- .1650	.5500 +- .1650
OC	20.0000 +- 6.0000	20.0000 +- 6.0000	20.0000 +- 6.0000
SO4	40.0000 +-12.0000	40.0000 +-12.0000	40.0000 +-12.0000
NO3	.5500 +- .1650	.5500 +- .1650	.5500 +- .1650
Sum	*******	*******	*******

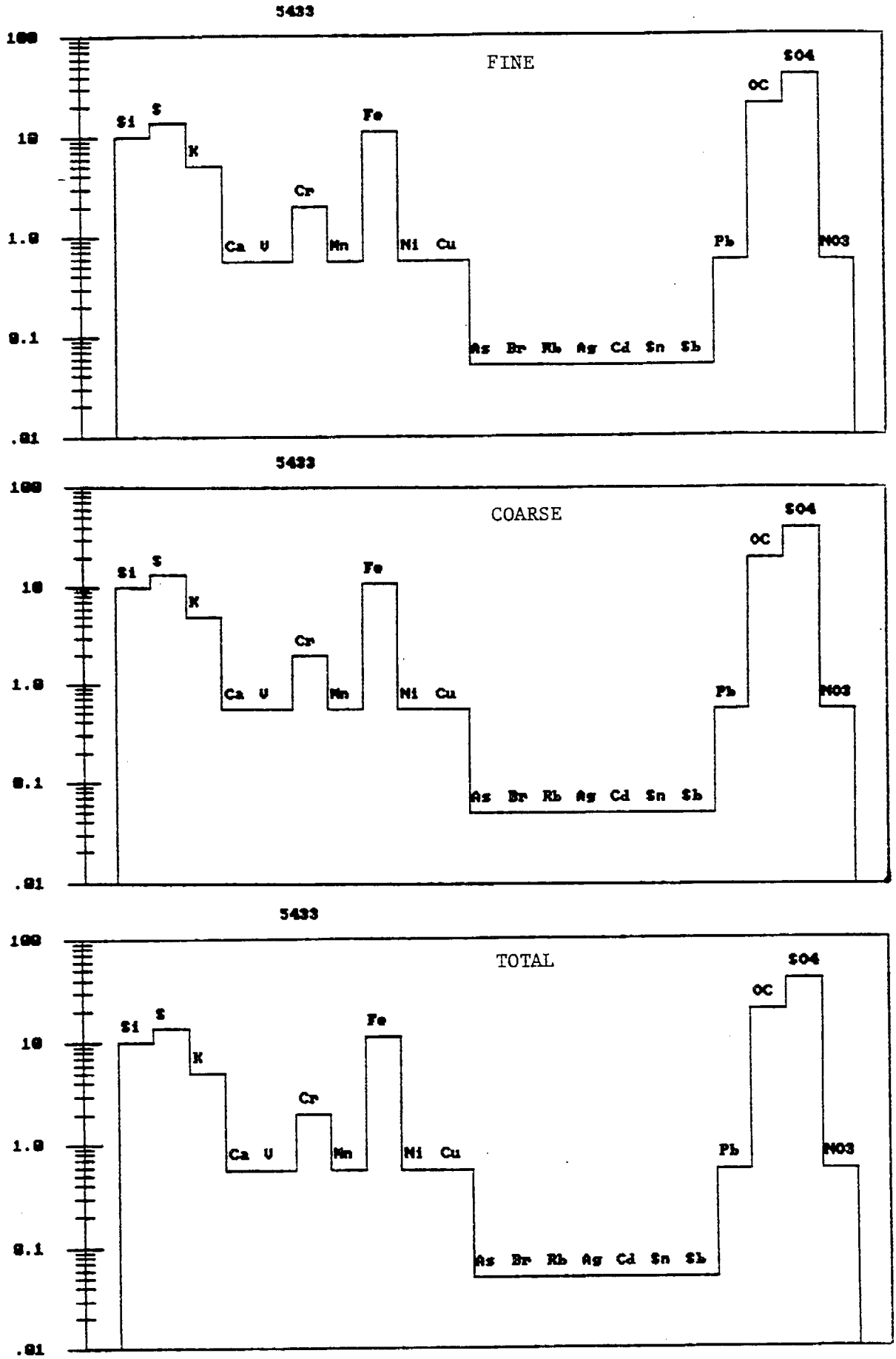
STEEL OPEN HEARTH FURNACE



srce code	part size	revsion date	source description	reference	date
5434	T	04/10/87	Steel Heat Treating salt quenc	9	00/79

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Cl			30.0000 +- 9.0000
K			4.0000 +- 1.2000
Ca			.5500 +- .1650
Cr			.5500 +- .1650
Fe			9.0000 +- 2.7000
Ni			2.0000 +- .6000
Cu			.0500 +- .0150
Zn			.0500 +- .0150
Br			.0500 +- .0150
Cd			.0500 +- .0150
Ba			.5500 +- .1650
Pb			.0500 +- .0150
OC			6.0000 +- 1.8000
SO4			32.0000 +- 9.6000
NO3			.5500 +- .1650
Sum			85.4500

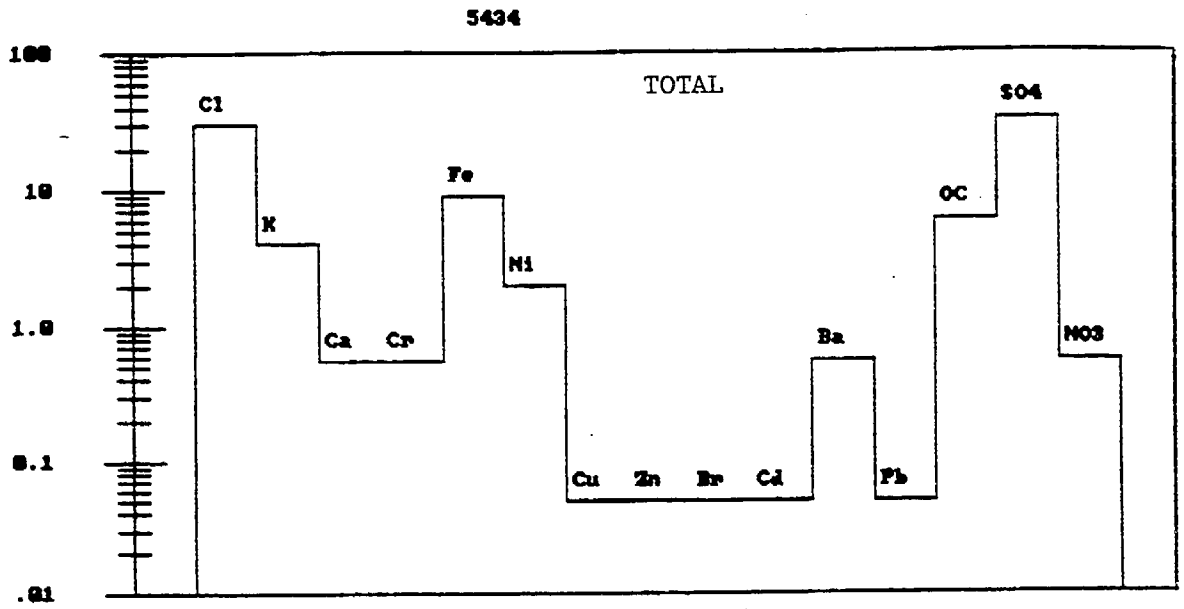
STEEL BASIC OXYGEN FURNACE



srce code	part size	revsion date	source description	reference	date
5435	F	04/10/87	Copper Primary Reverb Furnace	13	00/78

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Be	.0070 +- .0020		
F	4.9500 +- 1.4850		
S	.7920 +- .2380		
Cr	.0070 +- .0020		
Ni	.0560 +- .0170		
Cu	.6600 +- .1980		
Zn	.0470 +- .0140		
As	92.4490 +-27.7300		
Se	.6400 +- .1920		
Cd	.0100 +- .0030		
Sb	.2170 +- .0650		
Pb	.0490 +- .0150		
Sum	99.8840		

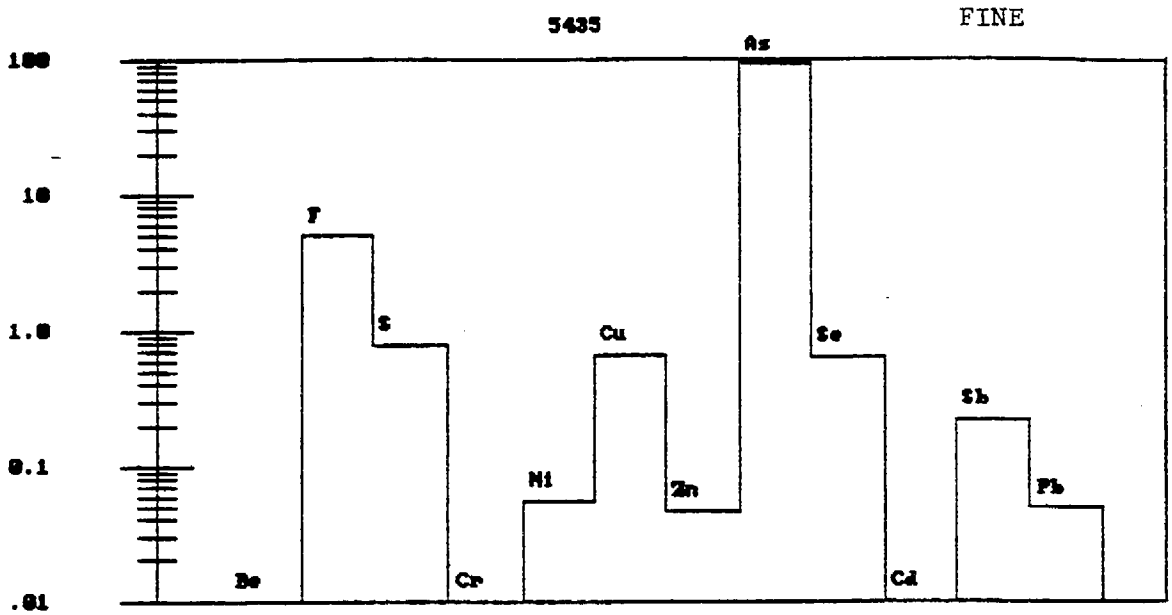
STEEL HEAT TREATING SALT QUENC



srce code	part size	revsion date	source description	reference	date
5390	FCT	03/19/87	Reverbatory Furnace Slag Tap	10	06/85

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Al	.0000 +- .2000	.0000 +- 1.0000	.0000 +- .2169
Si	.0000 +- .2000	.0000 +- 1.0000	.0000 +- .2169
S	.0000 +- 1.0000	.0000 +- 5.0000	.0000 +- 1.0846
Cl	.0000 +- .2000	.0000 +- .5000	.0000 +- .1858
K	.0000 +- .5000	.0000 +- 2.0000	.0000 +- .5064
Ca	.0000 +- .5000	.0000 +- .8000	.0000 +- .4475
Ti	.0000 +- .3000	.0000 +- .0600	.0000 +- .2613
V	.0000 +- .0100	.0000 +- .0200	.0000 +- .0091
Cr	.0000 +- .0100	.0000 +- .0100	.0000 +- .0088
Mn	.0000 +- .0100	.0000 +- .0300	.0000 +- .0095
Fe	.1900 +- .0160	.3800 +- .0600	.2146 +- .0296
Ni	.0000 +- .0300	.0000 +- .0500	.0000 +- .0269
Cu	.1500 +- .0050	.1670 +- .0100	.1522 +- .0192
Zn	1.7000 +- .0500	.8200 +- .0900	1.5862 +- .2074
As	60.0000 +- 3.6000	71.0000 +- 2.0000	61.4230 +- 8.1103
Se	.0000 +- .2000	.0000 +- .3000	.0000 +- .1784
Br	.0000 +- .2000	.0000 +- .9000	.0000 +- .2095
Rb	.0000 +- .1000	.0000 +- .3000	.0000 +- .0953
Sr	.0000 +- .1000	.0000 +- .0500	.0000 +- .0873
Y	.0000 +- .1000	.0000 +- .2000	.0000 +- .0908
Mo	.0920 +- .0050	.1100 +- .0100	.0943 +- .0123
Ag	.0110 +- .0015	.0000 +- .0300	.0096 +- .0043
Cd	.6300 +- .2200	.5300 +- .4600	.6171 +- .2148
In	.0120 +- .0010	.0000 +- .0200	.0104 +- .0031
Sn	.1300 +- .0210	.2100 +- .0200	.1403 +- .0249
Sb	1.1000 +- .0290	.9800 +- .0800	1.0845 +- .1372
Te	.0900 +- .0220	.1300 +- .0100	.0952 +- .0223
Hg	.0000 +- .3000	.0000 +- .5000	.0000 +- .2691
Pb	6.0000 +- .7900	8.0000 +- .4000	6.2587 +- 1.0225
Bi	.3700 +- .1000		.3221 +- .0970
Sum	70.4750	82.3270	72.0082

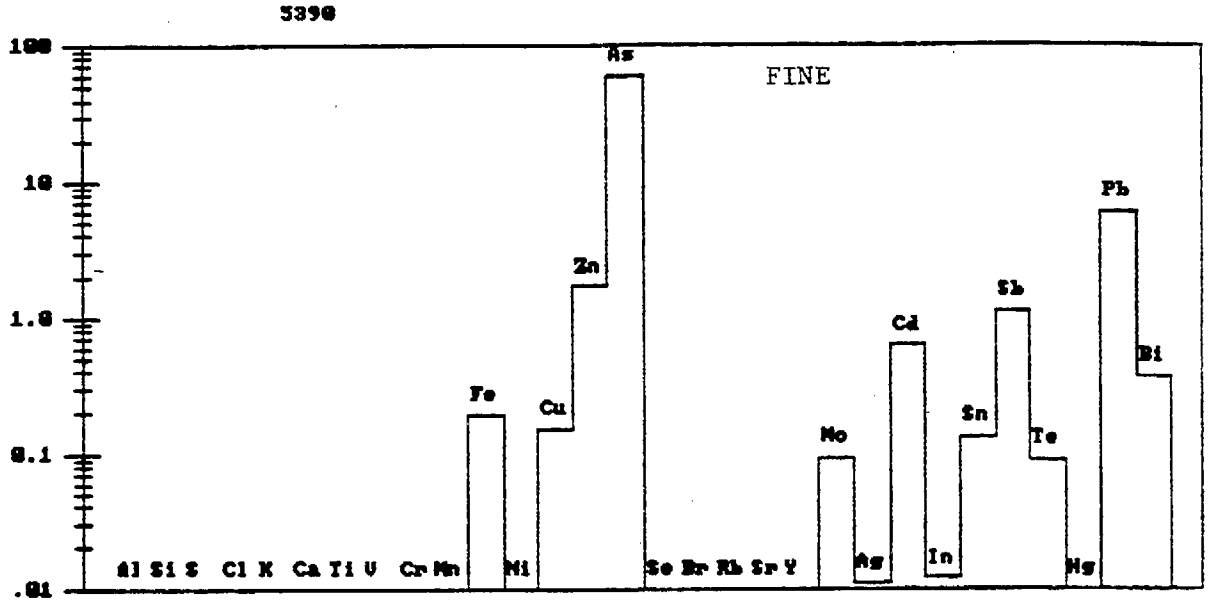
COPPER PRIMARY REVERB FURNACE

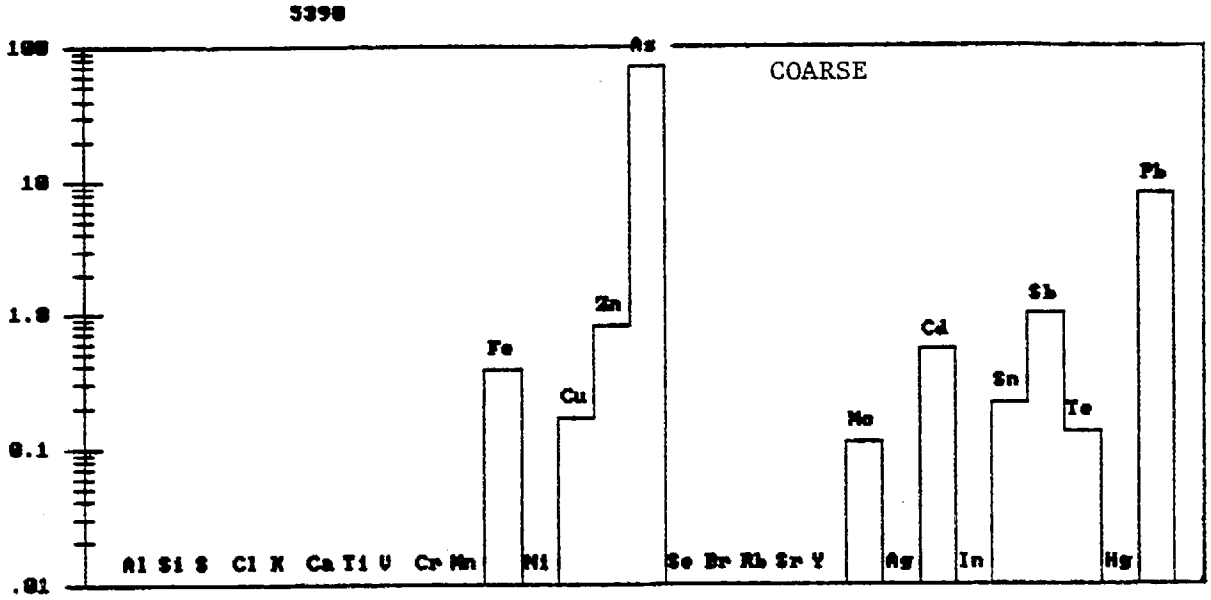


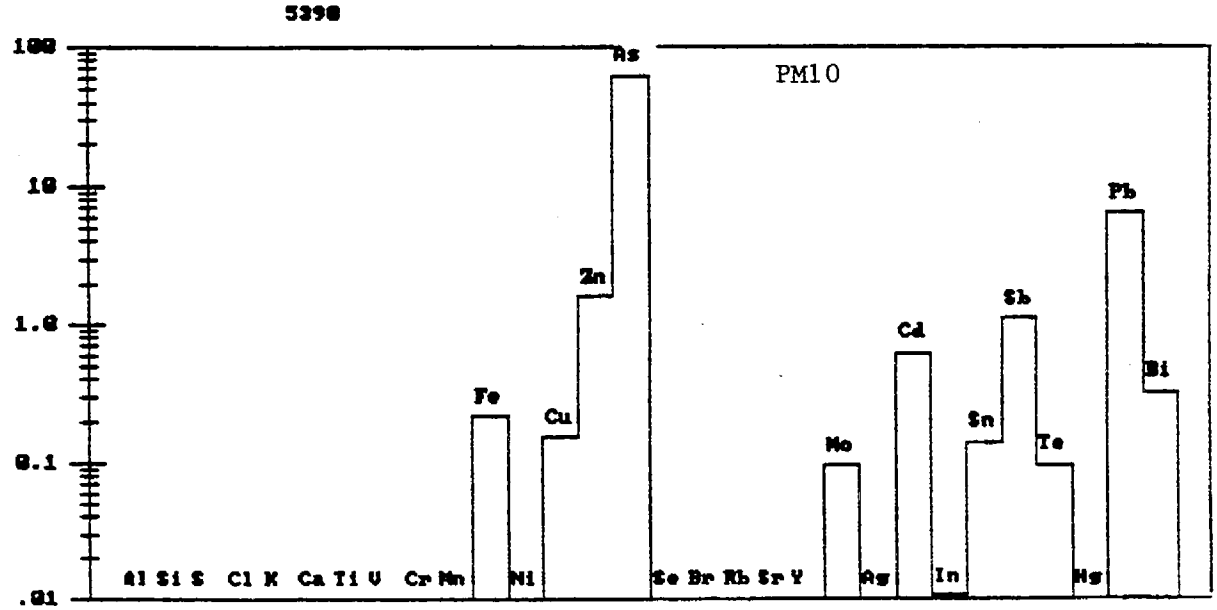
srce code	part size	revsion date	source description	reference	date
5383	FCT	03/11/87	SLAG SKIM AND POUR COMPOSITE	11	03/87

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Al	.0000 +- .0807	.0304 +- .7329	.0020 +- .0892
Si	.0000 +- .2962	3.5928 +- .3593	.2330 +- .2788
P	.0000 +- .0973	.0000 +- .2909	.0000 +- .0929
S	.0497 +- 1.3505	.0000 +- 2.5958	.0465 +- 1.2741
Cl	.0000 +- .2087	.0000 +- .3454	.0000 +- .1964
K	.3607 +- .0493	.4345 +- .0855	.3655 +- .0668
Ca	.0000 +- .3380	.1226 +- 1.1507	.0080 +- .3248
Ti	.0096 +- .0092	.0591 +- .0552	.0128 +- .0094
V	.0033 +- .0029	.1752 +- .0207	.0144 +- .0033
Cr	.0000 +- .0125	.0854 +- .0194	.0055 +- .0118
Mn	.0095 +- .0035	.0204 +- .0048	.0102 +- .0035
Fe	.6633 +- .0663	6.4010 +- .6401	1.0354 +- .1371
Ni	.0000 +- .0489	.1150 +- .0566	.0075 +- .0459
Cu	.1939 +- .0194	6.7954 +- .6795	.6220 +- .0774
Zn	24.4545 +- 2.4455	13.2792 +- 1.3747	23.7298 +- 3.9233
Ga	.0000 +- .0745	.0087 +- .1164	.0006 +- .0701
As	15.7254 +- 1.5725	11.7322 +- 1.6005	15.4664 +- 2.5353
Se	.0000 +- .0713	.0000 +- .1458	.0000 +- .0673
Br	.0000 +- .8552	.0000 +- 1.4607	.0000 +- .8053
Rb	.0000 +- .0116	.0000 +- .0198	.0000 +- .0109
Sr	.0038 +- .0040	.0011 +- .0077	.0036 +- .0038
Y	.0207 +- .0535	.0070 +- .0797	.0198 +- .0504
Zr	.0009 +- .0156	.0000 +- .0820	.0008 +- .0155
Mo	.3682 +- .0368	.3769 +- .0377	.3688 +- .0597
Pd	.0000 +- .0005	.0000 +- .0027	.0000 +- .0005
Ag	.0000 +- .0036	.0031 +- .0171	.0002 +- .0035
Cd	1.8401 +- .1840	1.0451 +- .2314	1.7885 +- .2957
In	.0609 +- .0071	.0829 +- .0252	.0623 +- .0106
Sn	.7212 +- .0721	.4047 +- .0773	.7007 +- .1158
Sb	1.6482 +- .1648	1.0862 +- .2153	1.6118 +- .2654
Ba	.0000 +- .0078	.0000 +- .0420	.0000 +- .0078
La	.0000 +- .0144	.0000 +- .0778	.0000 +- .0144
Hg	.0000 +- .0766	.0000 +- .1446	.0000 +- .0722
Pb	21.9510 +- 2.1951	13.7627 +- 1.3763	21.4200 +- 3.5282
Sum	68.0848	59.6216	67.5361

REVERBATORY FURNACE SLAG TAP



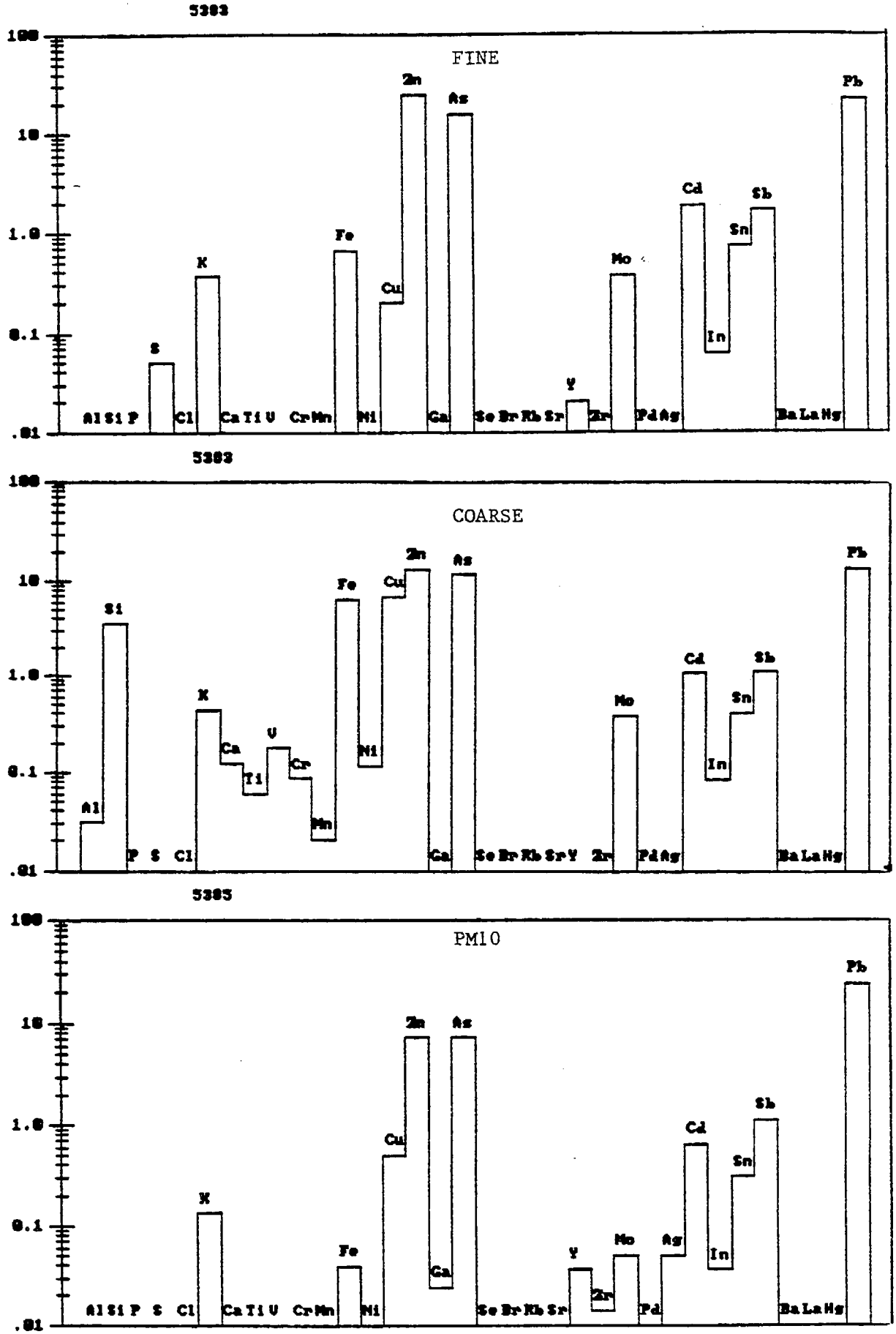




srce code	part size	revsion date	source description	reference	date
5391	FCT	03/19/87	Converter Secondary Hood RTACS	10	06/85

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Al	.0000 +- .2000	.0000 +- 3.0000	.0000 +- .4130
Si	.0000 +- .2000	.0000 +-10.0000	.0000 +- 1.2591
S	.0000 +- 2.0000	.0000 +-30.0000	.0000 +- 4.1300
Cl	.0000 +- .2000	.0000 +- 5.0000	.0000 +- .6476
K	.0000 +- .4000	.0000 +- 5.0000	.0000 +- .7150
Ca	.0000 +- .1000	.0000 +- 2.0000	.0000 +- .2643
Ti	.0000 +- .0200	.0000 +- .2000	.0000 +- .0305
V	.0000 +- .0200	.0000 +- .0500	.0000 +- .0186
Cr	.0000 +- .0200	.0000 +- .0500	.0000 +- .0186
Mn	.0000 +- .0200		.0000 +- .0175
Fe	.2600 +- .1900	7.1000 +- 1.2000	1.1129 +- .2451
Ni	.0000 +- .0300		.0000 +- .0263
Cu	1.1000 +- 1.1000	9.4000 +- 1.5000	2.1349 +- 1.0031
Zn	2.6000 +- 2.6000	.0000 +- 2.0000	2.2758 +- 2.3093
As	26.0000 +-11.0000	.0000 +-22.0000	22.7581 +-10.4584
Se	.0000 +- .2000	.0000 +- .4000	.0000 +- .1820
Br	.0000 +- .2000	.0000 +- 1.0000	.0000 +- .2149
Rb	.0000 +- .0600	.0000 +- .3000	.0000 +- .0645
Sr	.0000 +- .0500	.0000 +- .2000	.0000 +- .0504
Y	.0000 +- .0900	.0000 +- 2.0000	.0000 +- .2615
Mo	.0000 +- .1000	.0000 +- .2000	.0000 +- .0910
Ag	.2600 +- .3600	.1600 +- .0400	.2475 +- .3167
Cd	.6000 +- .8700	.2600 +- .0500	.5576 +- .7649
In	.1400 +- .1200	.0000 +- .0500	.1225 +- .1065
Sn	.5300 +- .3200	.4200 +- .0800	.5163 +- .2877
Sb	3.1000 +- 2.2000	1.7300 +- .3000	2.9292 +- 1.9619
Te	.0720 +- .0380	.0000 +- .0200	.0630 +- .0344
Hg	.0000 +- .2000		.0000 +- .1751
Pb	28.0000 +-13.0000	.0000 +-20.0000	24.5087 +-12.0959
Bi	1.0000 +- .9200		.8753 +- .8136
Sum	63.6620	19.0700	58.1018

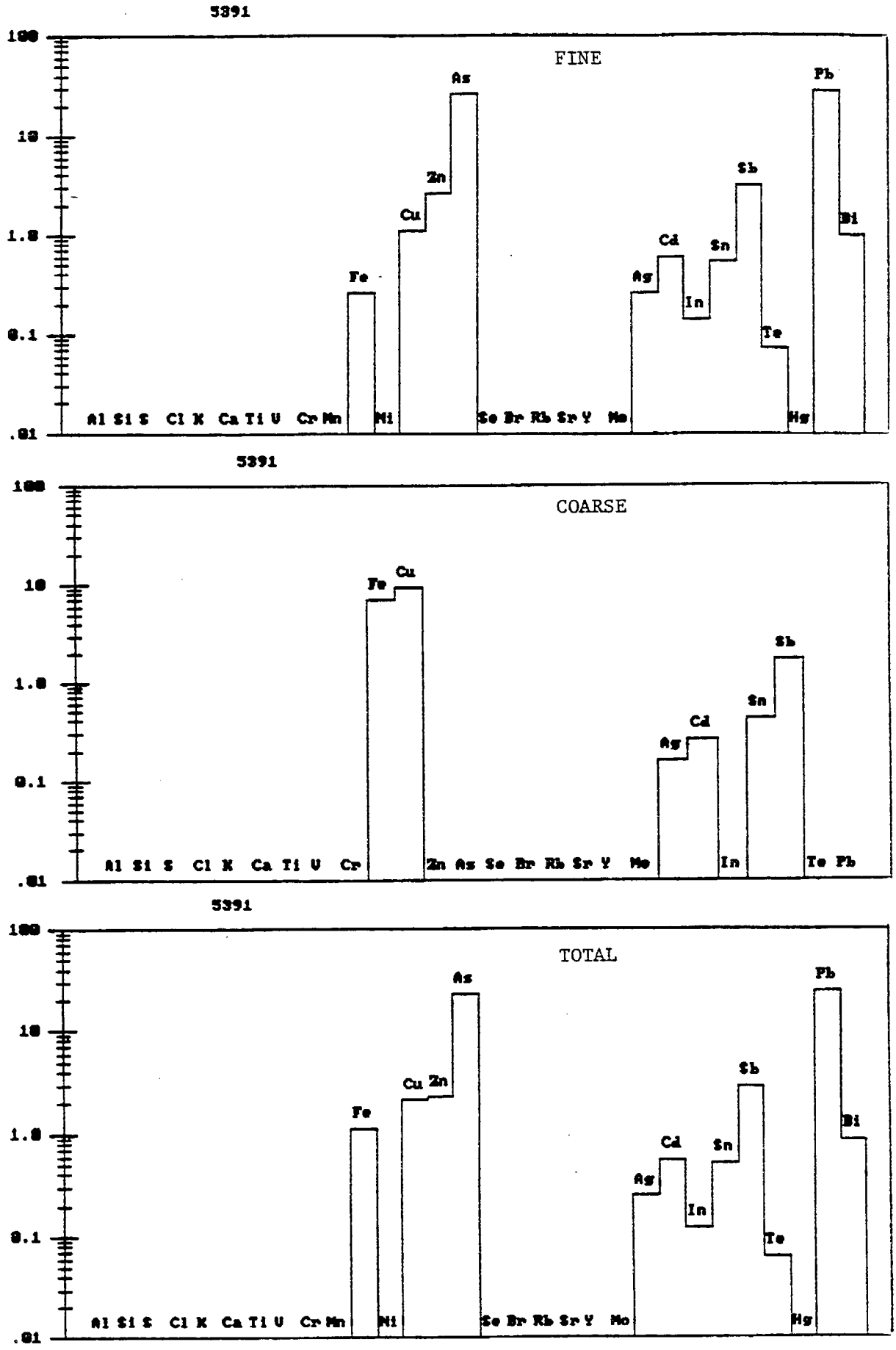
SLAG SKIM AND POUR COMPOSITE



srce code	part size	revsion date	source description	reference	date
5385	FCT	03/27/87	SECONDARY CONVERTER COMPOSITE	11	03/87

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Al	.0000 +- .0391	.0000 +- .5029	.0000 +- .0487
Si	.0000 +- .2313	.0000 +- 1.9987	.0000 +- .2514
P	.0000 +- .0867	.0000 +- .4955	.0000 +- .0871
S	.0000 +- 1.3932	.0000 +- 4.0307	.0000 +- 1.3292
Cl	.0000 +- .2150	.0000 +- .6777	.0000 +- .2059
K	.1334 +- .0170	.3101 +- .0430	.1447 +- .0161
Ca	.0000 +- .1449	.0000 +- .7552	.0000 +- .1440
Ti	.0000 +- .0029	.0000 +- .0198	.0000 +- .0030
V	.0000 +- .0012	.0000 +- .0078	.0000 +- .0012
Cr	.0000 +- .0045	.0000 +- .0181	.0000 +- .0044
Mn	.0000 +- .0035	.0000 +- .0171	.0000 +- .0035
Fe	.0392 +- .0039	.2826 +- .0283	.0547 +- .0028
Ni	.0066 +- .0015	.0087 +- .0050	.0067 +- .0014
Cu	.4994 +- .0499	1.3232 +- .1323	.5520 +- .0293
Zn	7.2501 +- .7250	8.5461 +- .8546	7.3325 +- .4297
Ga	.0244 +- .0346	.0000 +- .0905	.0228 +- .0329
As	7.2286 +- .8312	10.5336 +- 2.6077	7.4395 +- .7956
Se	.0000 +- .0585	.0000 +- .1955	.0000 +- .0561
Br	.0000 +- .3589	.0000 +- 1.1746	.0000 +- .3443
Rb	.0000 +- .0063	.0000 +- .0204	.0000 +- .0061
Sr	.0000 +- .0040	.0008 +- .0126	.0000 +- .0038
Y	.0368 +- .0459	.0641 +- .1422	.0386 +- .0439
Zr	.0140 +- .0141	.0149 +- .0564	.0140 +- .0137
Mo	.0496 +- .0050	.0947 +- .0101	.0525 +- .0032
Pd	.0000 +- .0003	.0000 +- .0020	.0000 +- .0003
Ag	.0503 +- .0050	.0328 +- .0164	.0492 +- .0037
Cd	.6305 +- .0631	.8247 +- .1461	.6429 +- .0415
In	.0362 +- .0036	.0484 +- .0183	.0370 +- .0031
Sn	.3046 +- .0305	.4445 +- .0680	.3136 +- .0185
Sb	1.1065 +- .1107	1.5765 +- .2543	1.1365 +- .0742
Ba	.0000 +- .0044	.0000 +- .0296	.0000 +- .0045
La	.0000 +- .0082	.0000 +- .0554	.0000 +- .0085
Hg	.0000 +- .0252	.0000 +- .0943	.0000 +- .0243
Pb	23.5582 +- 2.3558	28.9957 +- 2.8996	23.9043 +- 1.3689
Sum	40.9685	53.1013	41.7415

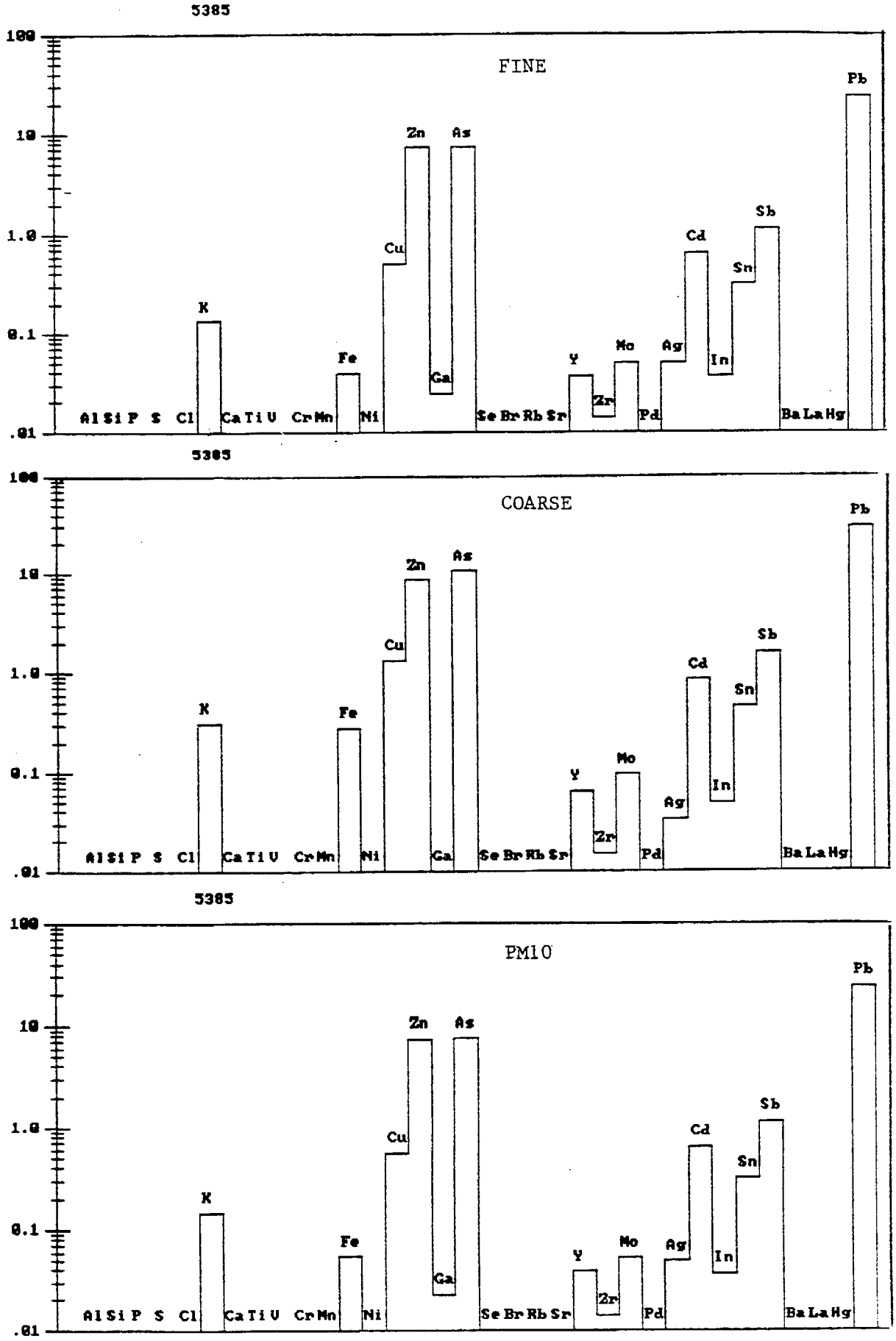
CONVERTER SECONDARY HOOD RTACS



srce code	part size	revsion date	source description	reference	date
5369	FCT	03/27/87	MATTE & SLAG TAP;FLASH FURNACE	11	03/87

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Al	.0000 +- .2283	.0000 +- .6908	.0000 +- .2183
Si	.0000 +- .2041	2.1882 +- .3610	.1365 +- .1927
P	.0000 +- .0880	.0000 +- .1666	.0000 +- .0831
S	.0000 +- 1.1951	.4671 +- 3.4552	.0291 +- 1.1411
Cl	.0000 +- .1848	.0000 +- .5356	.0000 +- .1765
K	.3308 +- .0331	.5825 +- .1189	.3465 +- .0319
Ca	.0000 +- .5077	.0000 +- 2.1037	.0000 +- .4938
Ti	.0000 +- .0197	.0000 +- .2218	.0000 +- .0231
V	.0000 +- .0070	.0000 +- .0455	.0000 +- .0072
Cr	.0179 +- .0020	.1228 +- .0123	.0245 +- .0021
Mn	.0129 +- .0018	.0415 +- .0087	.0146 +- .0018
Fe	2.6881 +- .2688	7.0851 +- .7085	2.9624 +- .2559
Ni	.0000 +- .0041	.0234 +- .0149	.0015 +- .0040
Cu	3.3537 +- .3354	8.4197 +- .8420	3.6697 +- .3188
Zn	9.7665 +- .9766	7.8123 +- 1.4034	9.6446 +- .9199
Ga	.0000 +- .0866	.0000 +- .2651	.0000 +- .0829
As	32.7850 +- 3.2785	31.8226 +- 5.1735	32.7250 +- 3.0909
Se	.0000 +- .0978	.0000 +- .3427	.0000 +- .0942
Br	2.5322 +- .2532	.0000 +- 5.9609	2.3743 +- .4411
Rb	.0000 +- .0320	.0000 +- .0896	.0000 +- .0306
Sr	.0000 +- .0036	.0000 +- .0142	.0000 +- .0035
Y	.0000 +- .1067	.0000 +- .2735	.0000 +- .1015
Zr	.0000 +- .0690	.0000 +- .2211	.0000 +- .0661
Mo	.1606 +- .0161	.1535 +- .0305	.1602 +- .0152
Pd	.0000 +- .0005	.0000 +- .0043	.0000 +- .0006
Ag	.0243 +- .0044	.0855 +- .0292	.0282 +- .0045
Cd	1.6787 +- .1687	1.2574 +- .4648	1.6524 +- .1608
In	.0305 +- .0056	.0000 +- .0373	.0286 +- .0058
Sn	.4233 +- .0432	.4270 +- .1363	.4235 +- .0414
Sb	1.9908 +- .2291	2.0143 +- .6583	1.9922 +- .2187
Ba	.0000 +- .0078	.0000 +- .0668	.0000 +- .0084
La	.0000 +- .0144	.0000 +- .1239	.0000 +- .0155
Hg	.0000 +- .1955	.0000 +- .5924	.0000 +- .1870
Pb	12.4640 +- 1.2464	11.5960 +- 1.7910	12.4099 +- 1.1740
Sum	68.2594	74.0988	68.6236

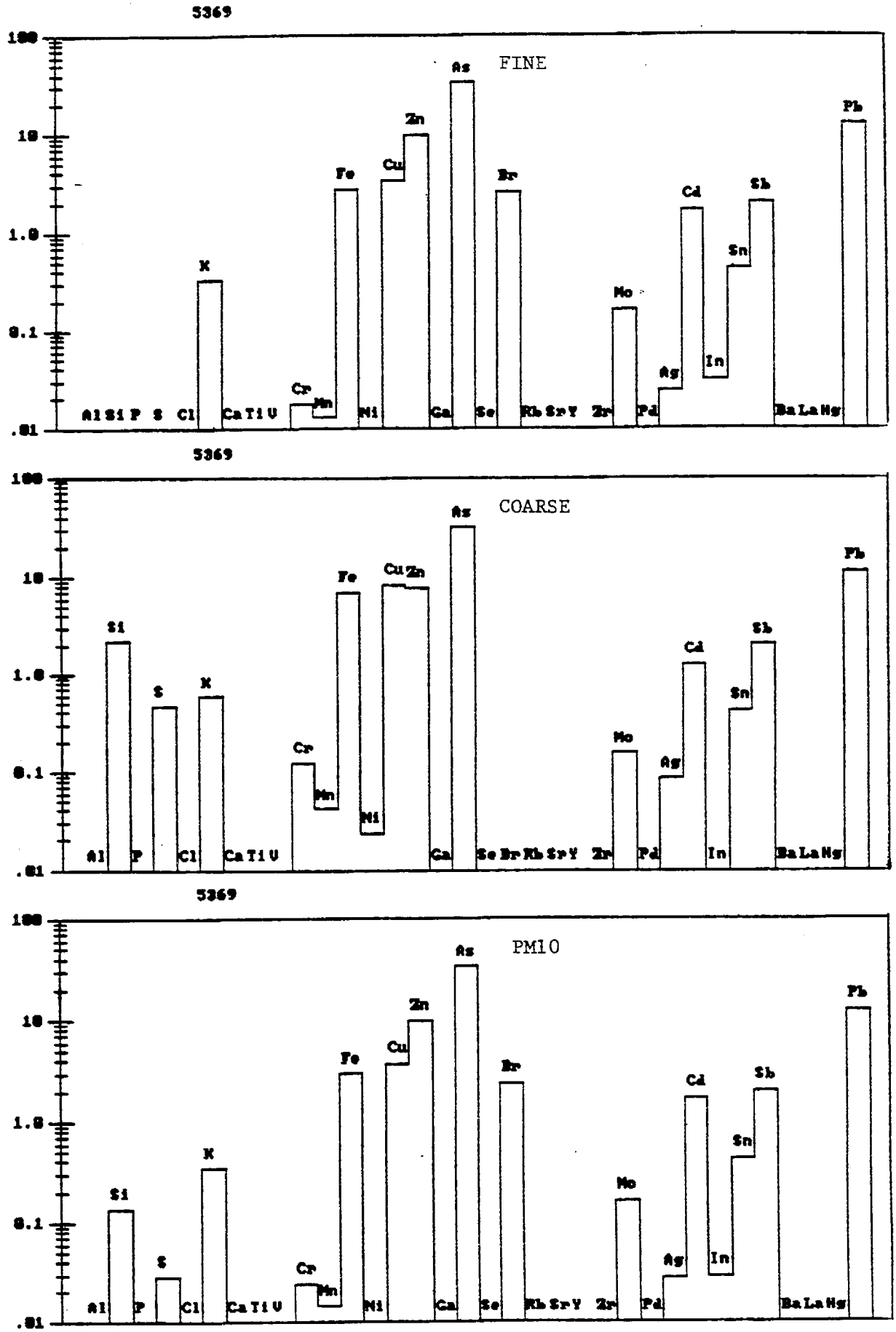
SECONDARY CONVERTER COMPOSITE



srce code	part size	revsion date	source description	reference	date
5389	FCT	03/19/87	Copper Process Stack RTACS	10	06/85

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Al	.0000 +- .2000	.0000 +- 2.0000	.0000 +- .4426
Si	.0000 +- .2000	.0000 +- 1.0000	.0000 +- .2605
S	.0000 +- 2.0000	.0000 +- 2.0000	.0000 +- 1.6397
Cl	.0000 +- .3000	.0000 +- .5000	.0000 +- .2595
K	.0000 +- .5000	.0000 +- .5000	.0000 +- .4099
Ca	.0000 +- .8000	.0000 +- 2.0000	.0000 +- .7574
Ti	.0000 +- .1000	.0000 +- .2000	.0000 +- .0895
V	.0160 +- .0005	.0150 +- .0030	.0158 +- .0019
Cr	.0140 +- .0008	.0170 +- .0050	.0146 +- .0020
Mn	.0085 +- .0044	.0150 +- .0030	.0098 +- .0037
Fe	.2900 +- .0200	.4000 +- .0600	.3127 +- .0394
Ni	.0400 +- .0082	.0700 +- .0200	.0462 +- .0091
Cu	3.0000 +- .2600	2.4000 +- .2000	2.8760 +- .3911
Zn	4.2000 +- 1.4000	4.0000 +- 1.4000	4.1587 +- 1.2399
As	24.0000 +- 2.6000	38.0000 +- 9.0000	26.8926 +- 3.9864
Se	.0000 +- .1000	.0000 +- .2000	.0000 +- .0895
Br	.0000 +- .3000	.0000 +- 1.0000	.0000 +- .3152
Rb	.0000 +- .1000	.0000 +- .1000	.0000 +- .0820
Sr	.0000 +- .1000	.0000 +- .1000	.0000 +- .0820
Y	.0000 +- .1000	.0000 +- .1000	.0000 +- .0820
Mo	.1000 +- .0120	.1340 +- .0350	.1070 +- .0167
Ag	.1200 +- .0150	.1200 +- .0500	.1200 +- .0207
Cd	.5100 +- .1500	.4600 +- .0800	.4997 +- .1328
In	.0230 +- .0050	.0000 +- .0200	.0182 +- .0062
Sn	.4000 +- .0630	.3900 +- .0700	.3979 +- .0686
Sb	6.0000 +- .5800	5.6000 +- .4000	5.9174 +- .8158
Te	.1700 +- .0250	.1800 +- .0300	.1721 +- .0283
Hg	.0000 +- .2000	.0000 +- .5000	.0000 +- .1893
Pb	18.0000 +- .9300	16.0000 +- 2.0000	17.5868 +- 2.1683
Bi	.4000 +- .0820		.3174 +- .0766
Sum	57.2915	67.8010	59.4629

SLAG SKIM AND POUR COMPOSITE

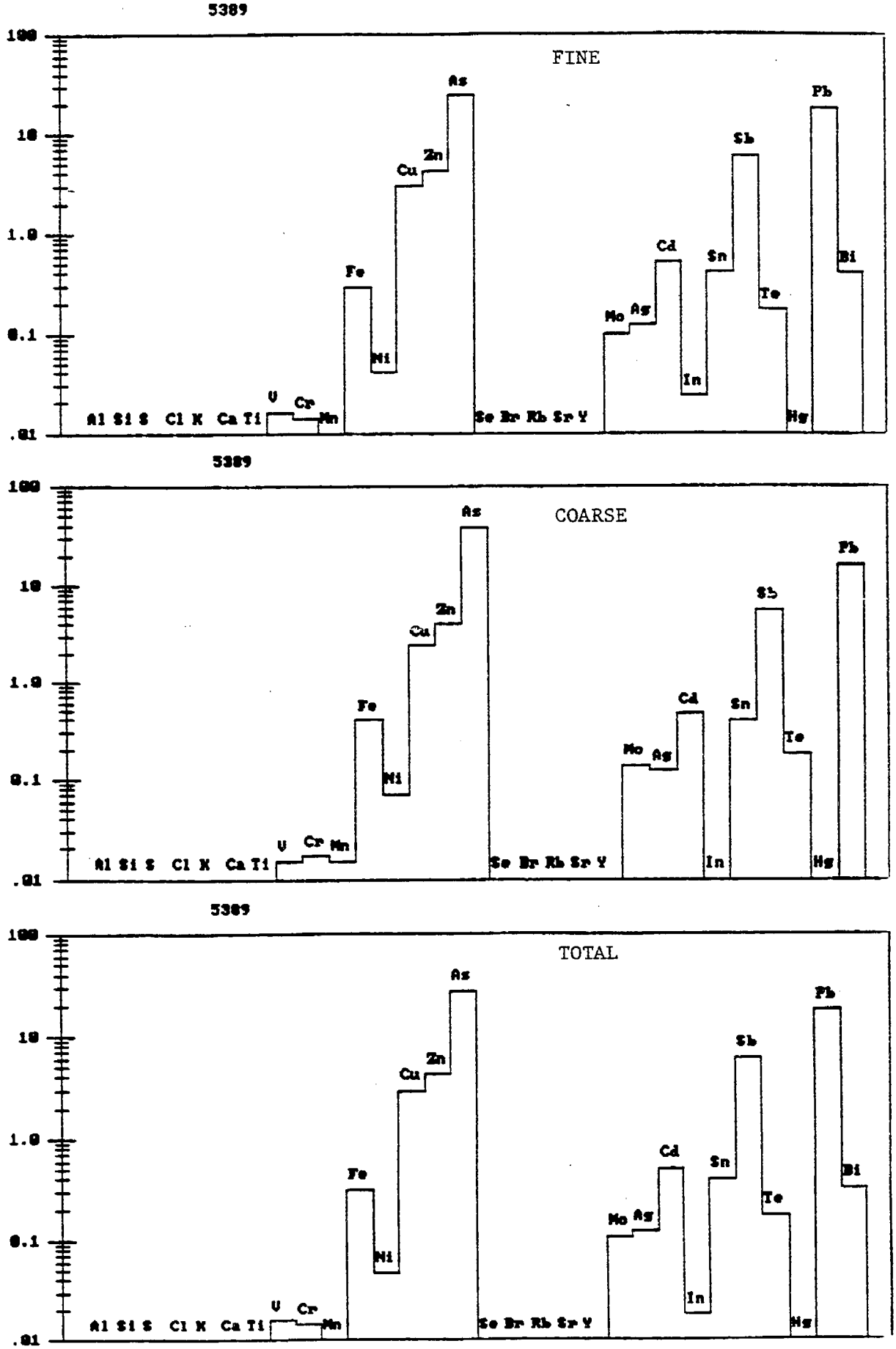


srce code	part size	revsion date	source description	reference	date
5388	FCT	03/19/87	Herrechoff Roaster Calcine	10	06/85

PERCENT COMPOSITION

SPECIES	FINE	COARSE	TOTAL
Al	6.3000 +- .6000	2.4000 +- .2000	2.6208 +- .1956
Si	13.5000 +- 1.2000	4.8000 +- .5000	5.2925 +- .4836
S	9.8000 +- .9000	8.1000 +- .3000	8.1962 +- .2965
Cl	.0000 +- .1000	.0000 +- .1000	.0000 +- .0945
K	1.0100 +- .1000	.4200 +- .0800	.4534 +- .0759
Ca	2.0000 +- .1700	1.6200 +- .1100	1.6415 +- .1052
Ti	.2600 +- .0500	.1600 +- .0400	.1657 +- .0379
V	.0000 +- .0500	.0000 +- .0400	.0000 +- .0378
Cr	.0660 +- .0150	.0400 +- .0200	.0415 +- .0189
Mn	.1370 +- .0150	.0810 +- .0180	.0842 +- .0170
Fe	18.6000 +- 1.5000	13.0000 +- .6000	13.3170 +- .5868
Ni	.1100 +- .0500	.0000 +- .0800	.0062 +- .0755
Cu	18.6000 +- 1.5000	18.4000 +- 1.9000	18.4113 +- 1.8006
Zn	1.0900 +- .1200	1.0200 +- .0800	1.0240 +- .0762
As	4.2000 +- .4000	3.7000 +- .6000	3.7283 +- .5674
Se	.0000 +- .0500	.0000 +- .0300	.0000 +- .0284
Br	.0000 +- .3000	.0000 +- .2000	.0000 +- .1894
Rb	.0000 +- .0400	.0000 +- .0500	.0000 +- .0472
Sr	.0500 +- .0200	.0000 +- .0400	.0028 +- .0378
Y	.0000 +- .0300	.0000 +- .0400	.0000 +- .0378
Mo	.1600 +- .0500	.1200 +- .0400	.1223 +- .0379
Ag	.0000 +- .2000	.0420 +- .0100	.0396 +- .0147
Cd	.0000 +- .2000	.0000 +- .0200	.0000 +- .0220
In	.0000 +- .2000	.0000 +- .0200	.0000 +- .0220
Sn	.0000 +- .2000	.0000 +- .0200	.0000 +- .0220
Sb	.3400 +- .1600	.0760 +- .0210	.0909 +- .0219
Te	.0000 +- .2000	.0000 +- .1000	.0000 +- .0950
Hg	.0000 +- .1000	.0000 +- .0400	.0000 +- .0382
Pb	2.1300 +- .1800	1.7500 +- .1000	1.7715 +- .0962
Bi	.3000 +- .1000	.0600 +- .0300	.0736 +- .0289
Sum	78.6530	55.7890	57.0833

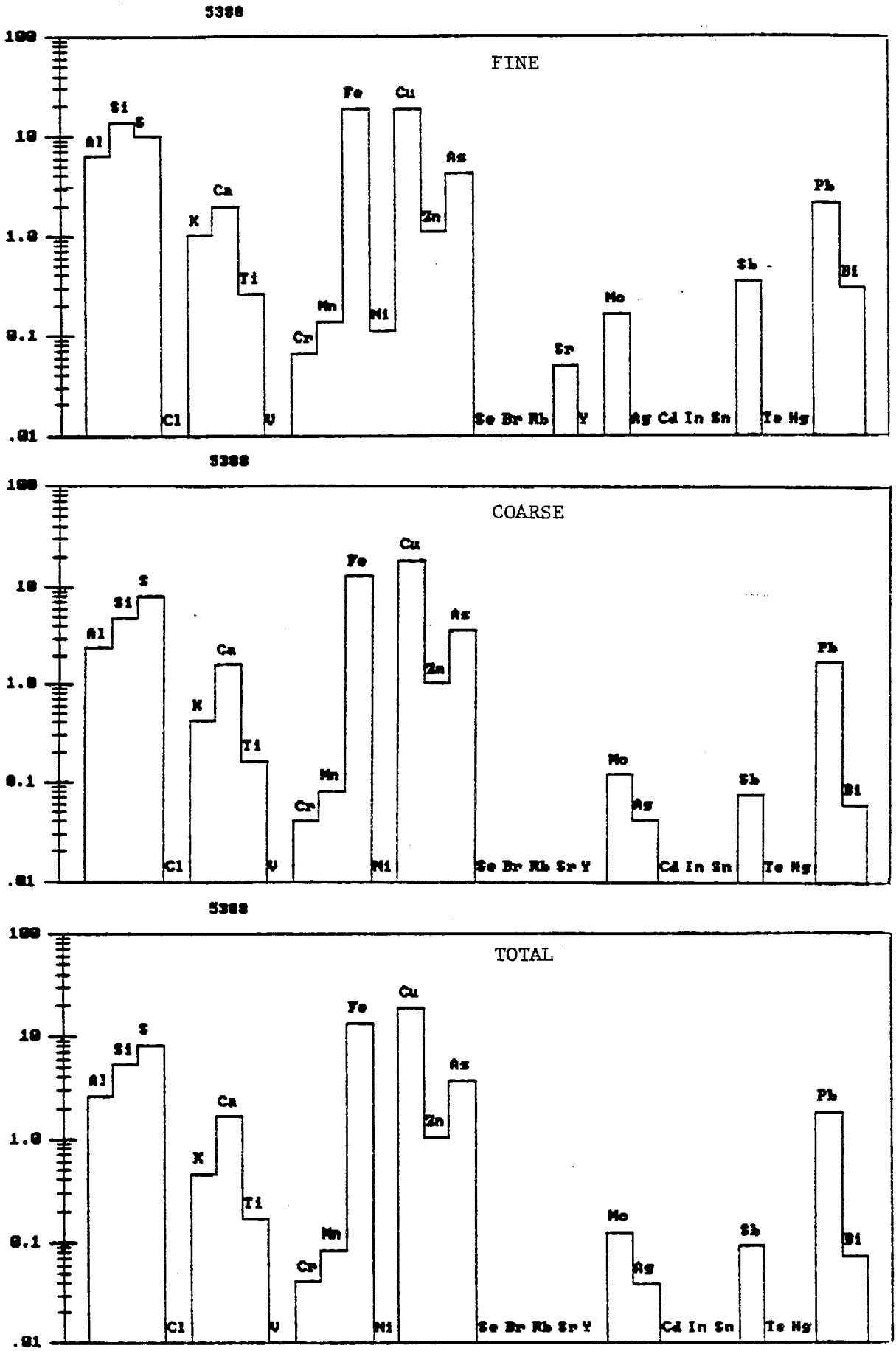
COPPER PROCESS STACK RTACS



srce code	part size	revsion date	source description	reference	date
5129	T	11/26/84	copper kiln stack	12	11/84

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Al			.3050 +- .2170
Si			.7460 +- .4340
P			.1740 +- .1090
S			4.0140 +- 3.2740
Cl			.9670 +- .4150
K			.2970 +- .2860
Ca			1.8080 +- 1.5510
Ti			.0000 +- .0020
V			.0000 +- .0020
Cr			.0060 +- .0080
Mn			.0700 +- .0610
Fe			.1980 +- .1180
Ni			.0970 +- .1300
Cu			16.5000 +-13.2090
Zn			.2400 +- .2520
Ga			.0000 +- .0040
As			.0100 +- .0580
Se			.0120 +- .0220
Br			.0740 +- .0290
Rb			.0000 +- .0030
Sr			.0010 +- .0220
Y			.0060 +- .0170
Zr			.0000 +- .0140
Mo			.0000 +- .0110
Pd			.0210 +- .0550
Ag			.0000 +- .0210
Cd			.0490 +- .1060
In			.0280 +- .0020
Sn			.0200 +- .1080
Sb			.0000 +- .0390
Ba			.0000 +- .1340
La			.0000 +- .2160
Hg			.0000 +- .0070
Pb			.2890 +- .2680
Sum			25.9320

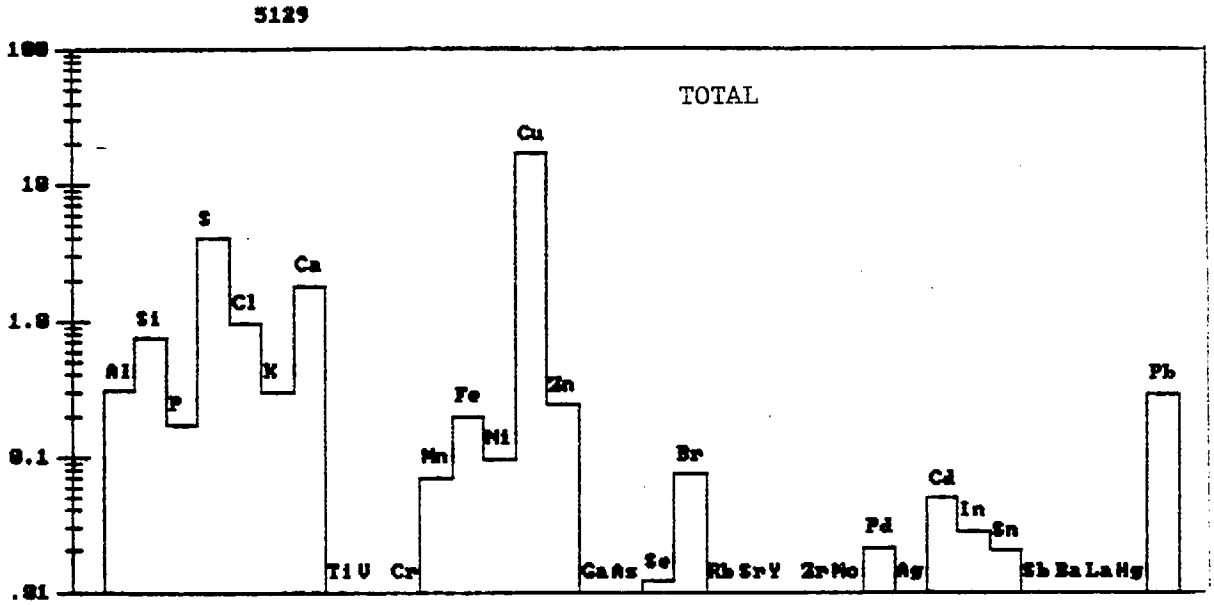
HERRECHOFF ROASTER CALCINE



srce code	part size	revsion date	source description	reference	date
5130	T	11/26/84	pyrometal. stack #1, reg. chrg	12	11/84

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Al			.0000 +- .1910
Si			.0000 +- .5110
P			.0000 +- .0640
S			.3480 +- .5790
Cl			2.0040 +- .4010
K			.3200 +- .0640
Ca			.5940 +- .1190
Ti			.0000 +- .0060
V			.0000 +- .0060
Cr			.0000 +- .0060
Mn			.0000 +- .0060
Fe			.3120 +- .0620
Ni			.0930 +- .0190
Cu			18.7550 +- 3.7510
Zn			2.7450 +- .5490
Ga			.0270 +- .0350
As			.1350 +- .4100
Se			.1570 +- .0310
Br			.0170 +- .0110
Rb			.0000 +- .0080
Sr			.0000 +- .0090
Y			.0000 +- .0300
Zr			.0000 +- .0390
Mo			.0000 +- .0320
Pd			.0000 +- .0320
Ag			.0000 +- .0320
Cd			.0000 +- .0570
In			.0000 +- .0630
Sn			.5320 +- .1150
Sb			.0000 +- .0970
Ba			.0000 +- .3190
La			.0000 +- .6380
Hg			.0000 +- .0100
Pb			7.1590 +- 1.4320
Sum			33.1980

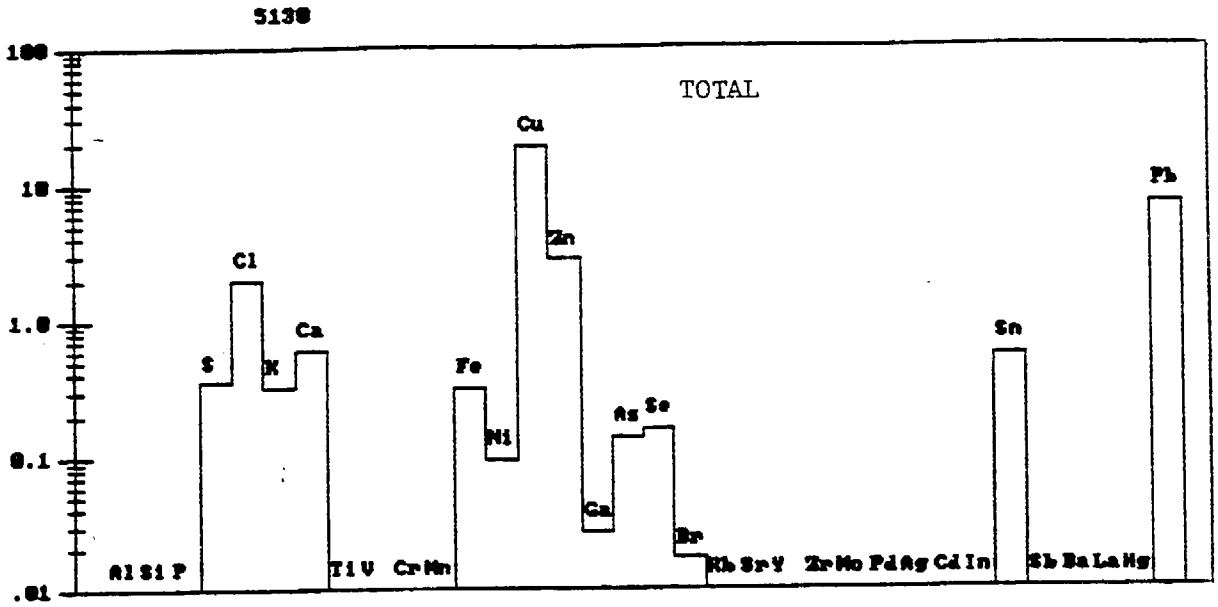
COPPER KILN STACK



srce code	part size	revsion date	source description	reference	date
5131	T	11/26/84	pyrometal. stack #2 cathode ch	12	11/84

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Al			.0000 +- .0760
Si			.0000 +- .1520
P			.0000 +- .0300
S			.1870 +- .1820
Cl			.3730 +- .0750
K			.1520 +- .0610
Ca			.2730 +- .0760
Ti			.0000 +- .0080
V			.0000 +- .0050
Cr			.0000 +- .0030
Mn			.0070 +- .0020
Fe			.1760 +- .0350
Ni			.0000 +- .0150
Cu			15.4350 +- 3.0870
Zn			1.6720 +- .3340
Ga			.0000 +- .0150
As			.0150 +- .1420
Se			.0000 +- .0080
Br			.0370 +- .0070
Rb			.0010 +- .0020
Sr			.0000 +- .0030
Y			.0000 +- .0100
Zr			.0040 +- .0080
Mo			.0460 +- .0150
Pd			.0000 +- .0080
Ag			.0000 +- .0120
Cd			.0000 +- .0300
In			.0000 +- .0150
Sn			.3490 +- .0700
Sb			.0000 +- .0150
Ba			.0000 +- .0760
La			.0000 +- .1220
Hg			.0000 +- .0080
Pb			2.5210 +- .5040
Sum			21.2480

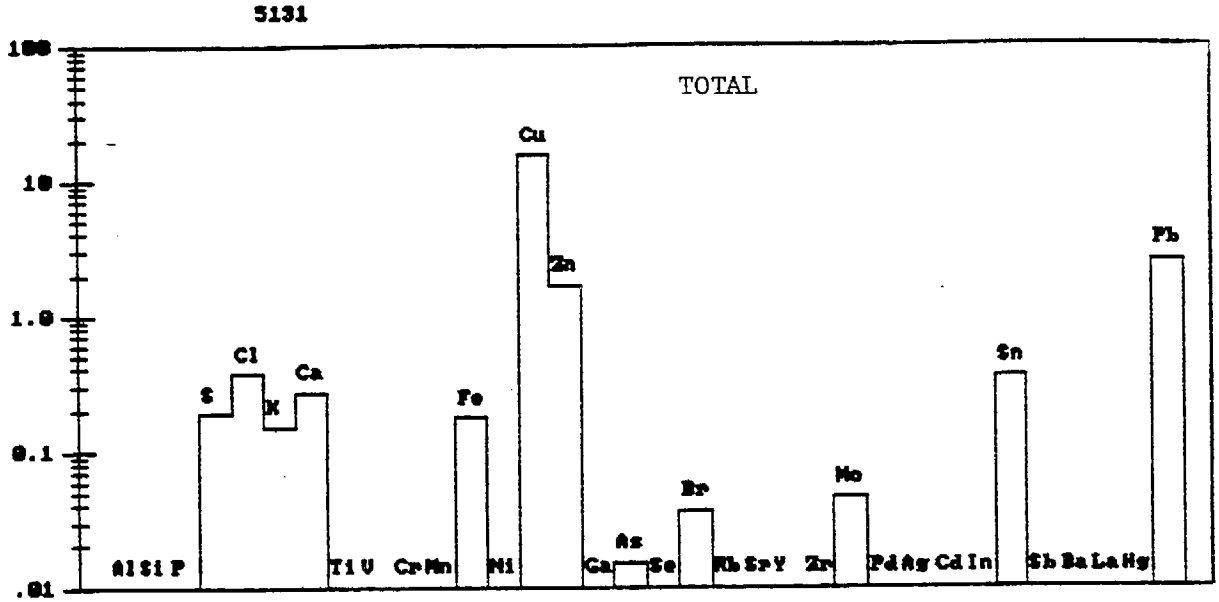
PYROMETAL, STACK #1, REGULAR CHARGE



srce code	part size	revsion date	source description	reference	date
5137	T	11/26/84	zinc kiln discharge	12	11/84

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Al			.4230 +- .0846
Si			.5740 +- .1148
P			.1880 +- .0376
S			3.2900 +- .6580
Cl			.4270 +- .0854
K			.6150 +- .1230
Ca			.2310 +- .0462
Ti			.0310 +- .0062
V			.0110 +- .0022
Cr			.0180 +- .0036
Mn			.0210 +- .0042
Fe			.1880 +- .0376
Ni			.1060 +- .0212
Cu			.2540 +- .0508
Zn			63.1820 +-12.6364
Ga			.0780 +- .0300
As			1.1840 +- .2368
Se			.3770 +- .0754
Br			.1200 +- .0240
Rb			.0000 +- .0030
Sr			.0030 +- .0040
Y			.0000 +- .0100
Zr			.0120 +- .0150
Pd			.0550 +- .0110
Ag			.0360 +- .0100
Cd			.0800 +- .0180
In			.0330 +- .0160
Sn			.4240 +- .0848
Sb			.3910 +- .0782
Ba			.0000 +- .0780
La			.0250 +- .1170
Hg			.0640 +- .0128
Pb			11.6640 +- 2.3328
Sum			84.1050

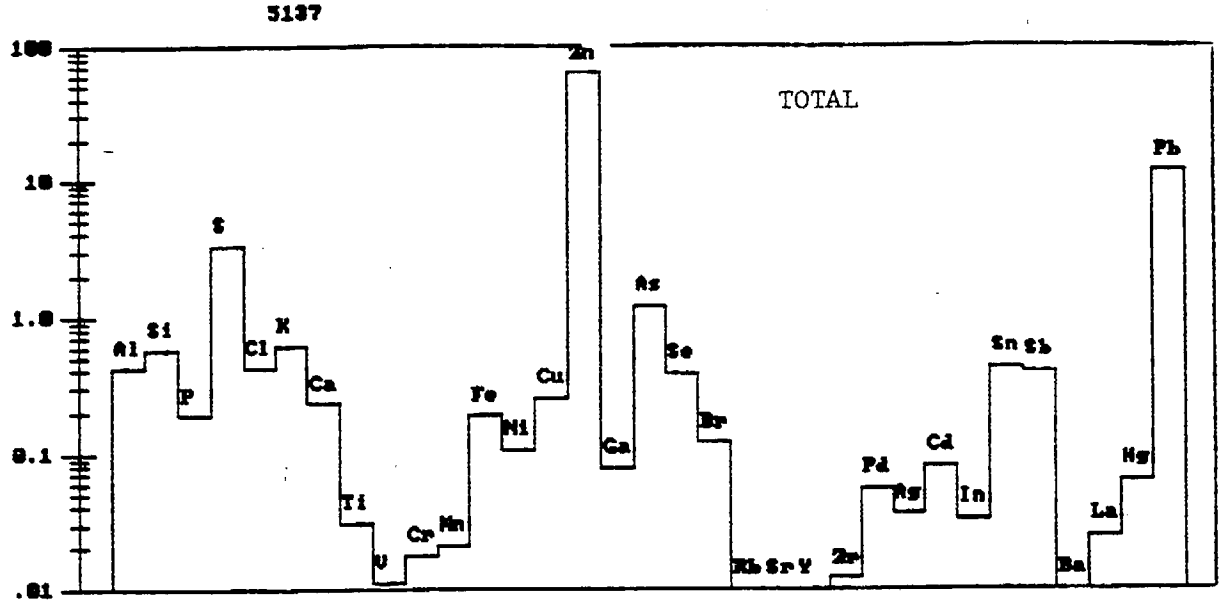
PYROMETAL, STACK #2, CATHODE CHARGE



srce code	part size	revsion date	source description	reference	date
5392	FC	03/19/87	Antimony Roaster	6	03/87

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Al	.0300 +- .0530	.3300 +- .5000	
Si		.7500 +- .8100	
S	1.2800 +- .0700	1.3000 +- .1000	
Cl	.0110 +- .0180	.9900 +- .1300	
Ti		1.0000 +- .6000	
V	.0005 +- .0004	.0015 +- .0033	
Mn	.0006 +- .0001	.0008 +- .0009	
Ni	.0138 +- .0008	.0120 +- .0030	
Br	.0220 +- .0010	.0280 +- .0010	
Sn	.5300 +- .0300		
Sb	74.0000 +- 4.0000	76.0000 +-13.0000	
Pb	.1700 +- .0400	.1100 +- .0200	
OC	1.0000 +- .6000	4.8000 +- 1.6000	
EC	.0990 +- .0140	.2300 +- .2800	
SO4	.6600 +- .3300	2.1000 +- 1.0000	
NH4	.0520 +- .0120		
Sum	77.8689	87.6523	

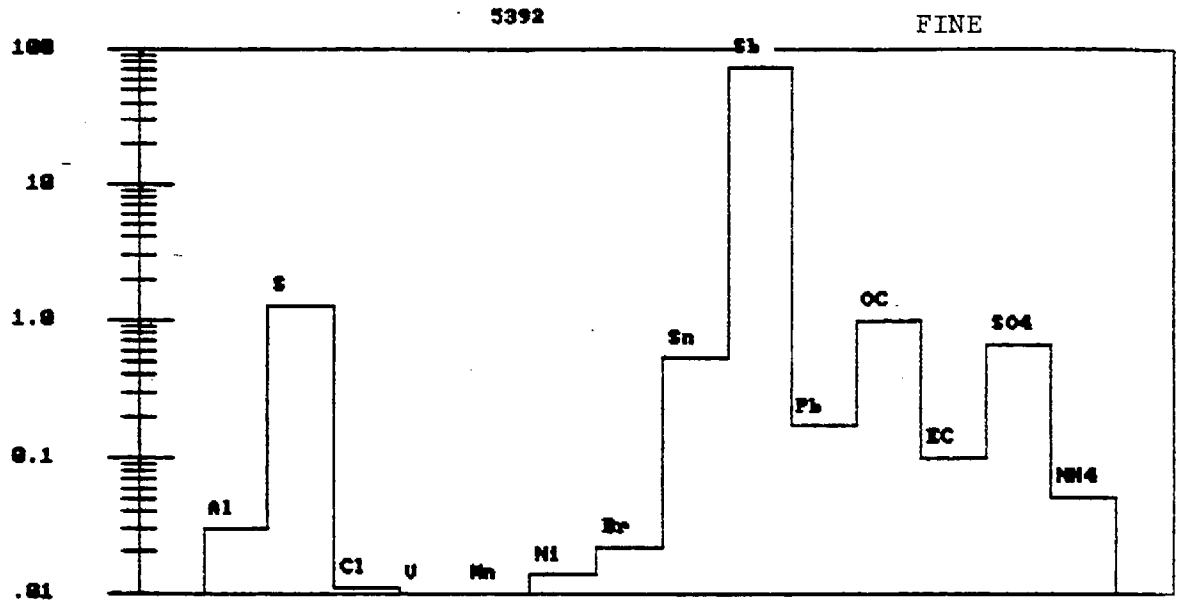
ZINC KILN DISCHARGE

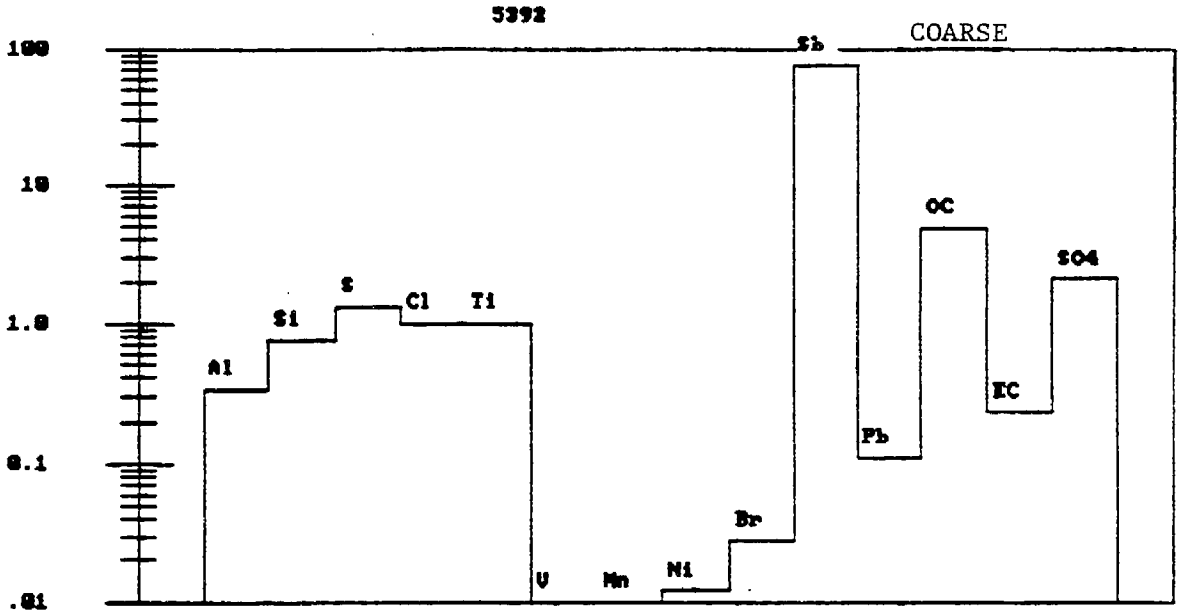


srce code	part size	revsion date	source description	reference	date
5161	FCT	04/10/87	baghouse stack, 1980 sample	12	11/84

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Al	.1000 +- .1000	.1000 +- .1000	.1000 +- .0710
Si	.2000 +- .2000	.2000 +- .2000	.2000 +- .1410
P	.7640 +- .0764	.7300 +- .7300	.7580 +- .0760
S	13.2690 +- 1.4460	13.1890 +- 1.6070	13.2550 +- 1.3250
Cl	5.0000 +- .8000	4.7000 +- .5000	4.9490 +- .4950
K	2.0750 +- .2075	2.1790 +- .2179	2.0930 +- .2090
Ca	.5500 +- .0550	.5400 +- .0700	.5480 +- .0550
Ti	.0270 +- .0027	.0380 +- .0070	.0290 +- .0087
V	.0010 +- .0010	.0040 +- .0010	
Cr	.0200 +- .0020	.0310 +- .0060	.0220 +- .0066
Mn	.0070 +- .0010	.0080 +- .0010	
Fe	.1310 +- .0131	.1630 +- .0210	.1360 +- .0140
Ni	.0600 +- .0060	.0550 +- .0080	.0590 +- .0177
Cu	.3540 +- .0354	.3550 +- .0355	.3540 +- .0350
Zn	15.2170 +- 1.5217	14.9170 +- 1.4917	15.1660 +- 1.5170
As	3.0470 +- .3047	3.3470 +- .3347	3.0980 +- .3100
Se	.0370 +- .0080	.0180 +- .0100	.0340 +- .0102
Br	.1300 +- .0300	.1200 +- .0200	.1280 +- .0180
Sr	.0100 +- .0070	.0060 +- .0110	
Pd	.2010 +- .0201	.0250 +- .0240	.1710 +- .0170
Ag	.1660 +- .0166	.1460 +- .0400	.1630 +- .0210
Cd	23.5030 +- 2.3503	21.3080 +- 2.1308	23.1300 +- 2.3130
In	.0150 +- .0030	.0500 +- .0100	.0210 +- .0063
Sn	.5010 +- .0501	.4820 +- .0810	.1240 +- .0820
Sb	.1370 +- .0650	.0590 +- .1510	.4980 +- .0500
Ba	.1780 +- .0660	.2160 +- .3080	.1840 +- .1570
Hg	.0220 +- .0130	.0250 +- .0200	.0220 +- .0120
Pb	30.8670 +- 3.0867	29.6830 +- 2.9683	30.6660 +- 3.0670
Sum	96.5890	92.6940	95.9080

ANTIMONY ROASTER

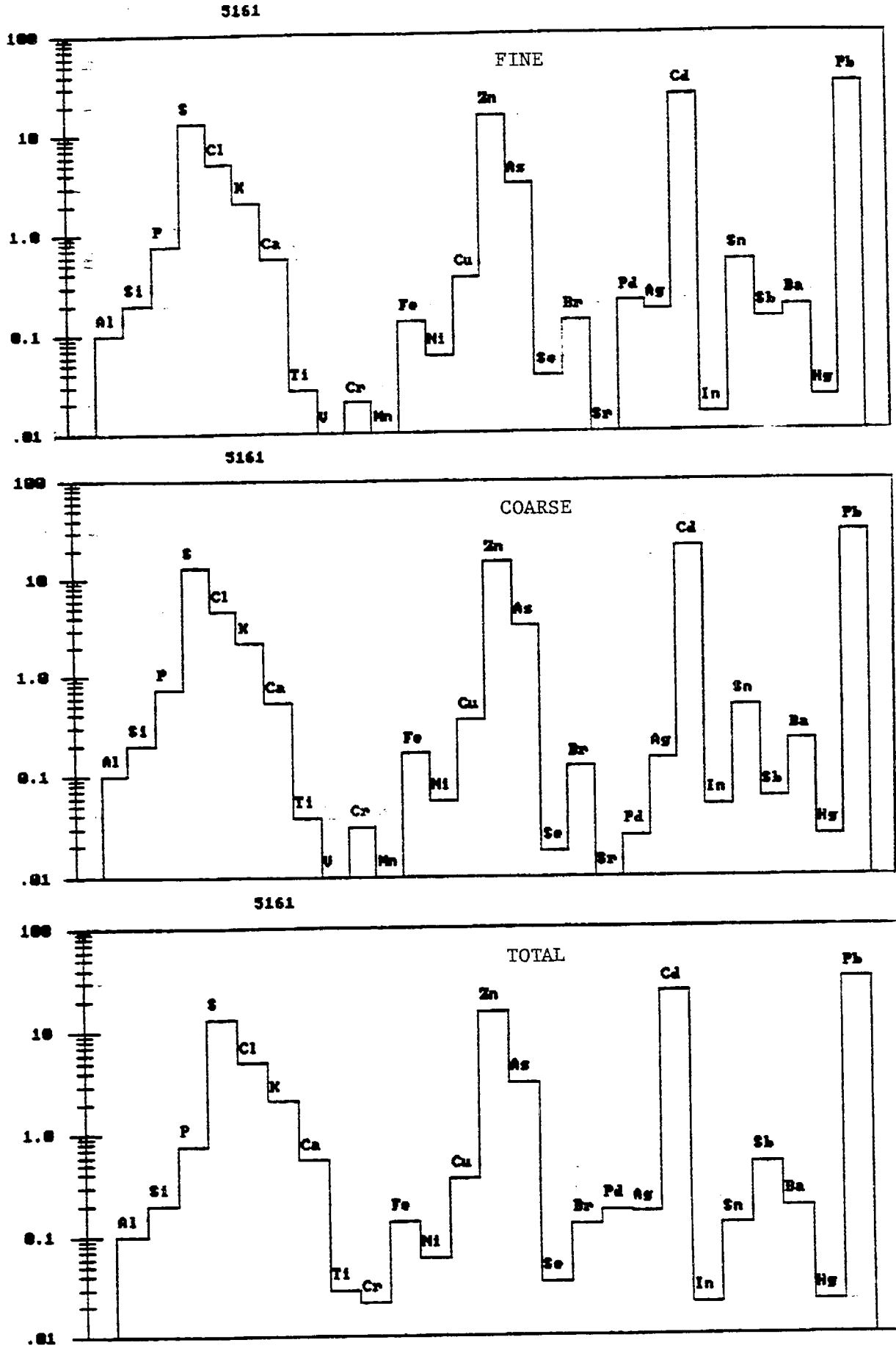




srce code	part size	revsion date	source description	reference	date
5436	FCT	04/10/87	Lead Prim. Blast Furnace Upset	12	00/82

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Al		.2200 +- .0500	
Si	.0300 +- .0090	.5000 +- .2000	.0300 +- .0090
P	.9590 +- .0960	.6420 +- .0640	.6880 +- .0690
S	19.4000 +- 2.0770	11.8850 +- 1.4630	14.0580 +- 1.9010
Cl	3.8800 +- 1.0000	2.0000 +- .5000	4.0000 +- 1.0000
K	2.3210 +- .2320	1.4660 +- .1470	1.5100 +- .1510
Ca	.5000 +- .1000	.5000 +- .0730	.5000 +- .1000
Ti	.0330 +- .0099	.0500 +- .0150	.0600 +- .0180
Cr	.0170 +- .0051	.0200 +- .0060	.0230 +- .0069
Fe	.1240 +- .0120	.9420 +- .0940	1.6240 +- .1620
Ni	.0630 +- .0189	.0570 +- .0171	.0670 +- .0201
Cu	.1840 +- .0180	.4140 +- .0410	.6770 +- .0680
Zn	7.4200 +- .7540	14.9180 +- 1.4920	6.1840 +- .6180
As	3.3490 +- .3350	1.5410 +- .1620	2.8550 +- .2850
Se	.0720 +- .0216	.0230 +- .0069	.0740 +- .0110
Br	.1100 +- .0300	.0320 +- .0096	.1100 +- .0300
Sr	.0350 +- .0105	.0370 +- .0111	.0620 +- .0186
Pd	.3080 +- .0310	.0630 +- .0210	.1440 +- .0140
Ag	.1520 +- .0150	.0790 +- .0290	.1170 +- .0120
Cd	16.2400 +- 1.6470	7.8720 +- .7870	10.2020 +- 1.0200
In	.0300 +- .0090	.0300 +- .0090	.0300 +- .0090
Sn	.5850 +- .0580	.2890 +- .0580	.3630 +- .0360
Sb	.2970 +- .0500	.2170 +- .1080	.3990 +- .0560
Ba	.1440 +- .0500	.0000 +- .2300	.2130 +- .0560
Hg	.1170 +- .0180	.0690 +- .0200	.0350 +- .0180
Pb	43.6300 +- 4.3950	29.5070 +- 2.9510	42.6870 +- 4.2690
Sum	*******	73.3730	86.7120

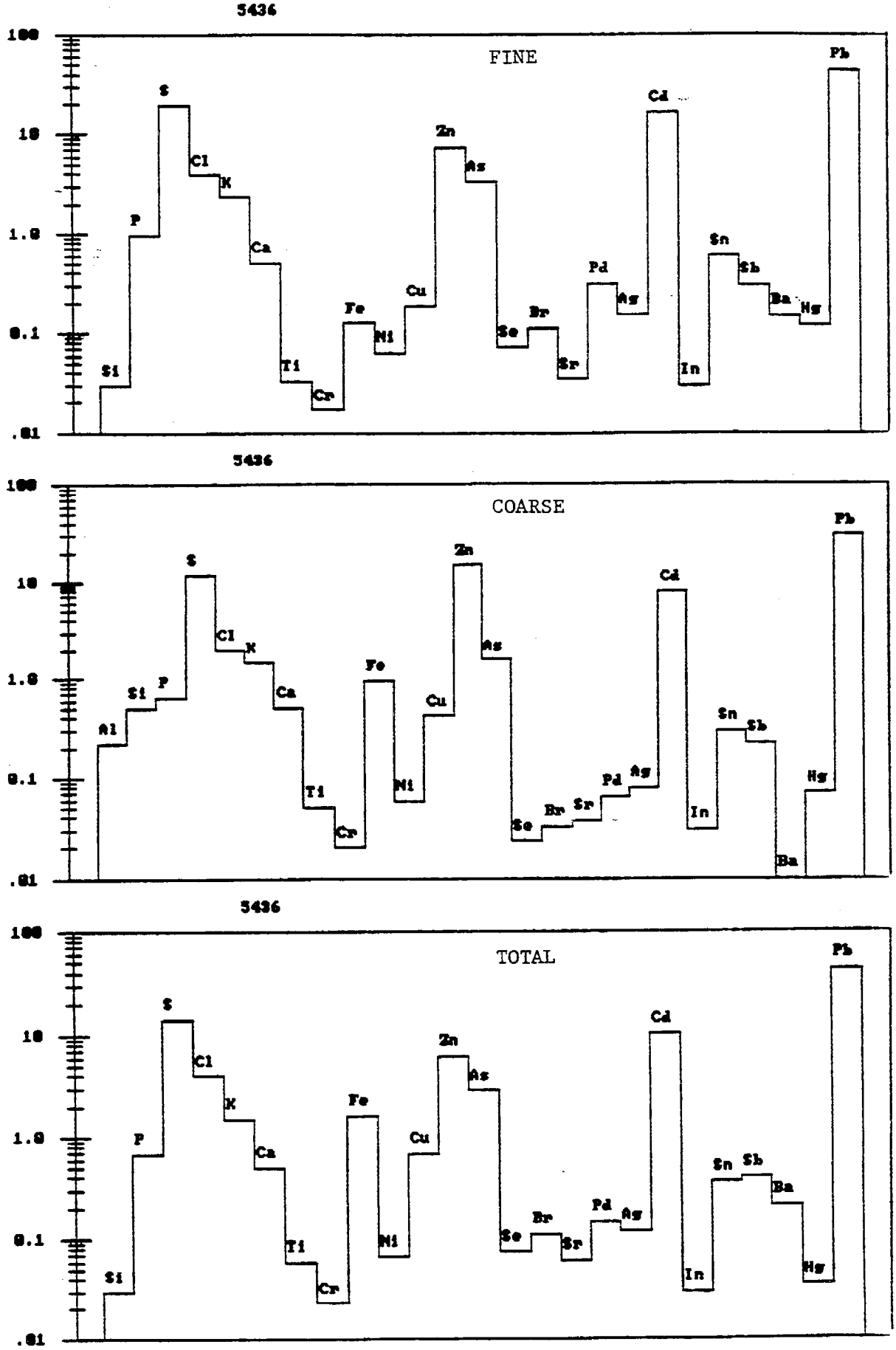
BAGHOUSE STACK, 1980 SAMPLE



srce code	part size	revsion date	source description	reference	date
5140	T	11/26/84	slag pour	12	11/84

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Al			.0000 +- .0230
Si			.0000 +- .0110
P			.0000 +- .0110
S			.0000 +- 1.5060
Cl			.0000 +- .3110
K			.9590 +- .5570
Ca			.0908 +- .1040
Ti			.0000 +- .0020
V			.0000 +- .0010
Cr			.0425 +- .0823
Mn			.0441 +- .0813
Fe			.3190 +- .0390
Ni			.0000 +- .0100
Cu			.0842 +- .1810
Zn			48.5560 +-11.8560
Ga			.0342 +- .1230
As			.0601 +- 1.6260
Se			.0000 +- .0110
Br			.0000 +- .0160
Rb			.0210 +- .1250
Sr			.0000 +- .0100
Y			.0000 +- .0790
Zr			.0145 +- .0340
Mo			.0000 +- .0070
Pd			.0000 +- .0230
Ag			.0000 +- .0110
Cd			.0000 +- .0230
In			.0134 +- .0620
Sn			.0000 +- .0450
Sb			.0000 +- .0230
Ba			.0000 +- .0450
La			.0000 +- .0450
Hg			.0148 +- .0420
Pb			27.4170 +- 2.8210
Sum			77.6706

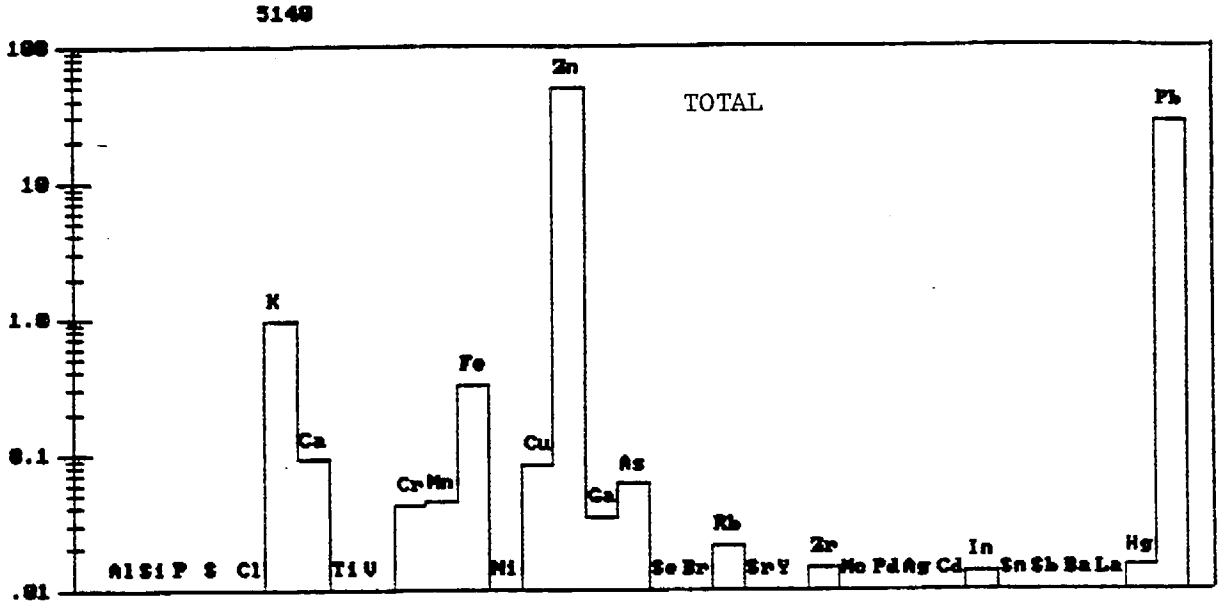
LEAD PRIM. BLAST FURNACE UPSET



srce code	part size	revsion date	source description	reference	date
5143	T	11/26/84	speiss pit stack	12	11/84

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Al			.7350 +- .1470
Si			2.6130 +- .5230
P			.2330 +- .0470
S			3.7160 +- .7430
Cl			.0000 +- .0480
K			.0740 +- .0150
Ca			1.2890 +- .2580
Ti			.0770 +- .0150
V			.0110 +- .0020
Cr			.0220 +- .0040
Mn			.0360 +- .0070
Fe			2.3660 +- .4730
Ni			.7550 +- .1510
Cu			37.9190 +- 7.5840
Zn			1.1090 +- .2220
Ga			.0110 +- .0110
As			6.4600 +- 1.2920
Se			.0400 +- .0080
Br			.5960 +- .1190
Rb			.0000 +- .0020
Sr			.0110 +- .0040
Y			.0000 +- .0110
Zr			.0230 +- .0160
Pd			.2060 +- .0410
Ag			.5260 +- .1050
Cd			.3390 +- .0680
In			.0920 +- .0180
Sn			.6490 +- .1300
Sb			3.6410 +- .7280
Ba			.0380 +- .0250
La			.0740 +- .0390
Hg			.0240 +- .0070
Pb			17.8800 +- 3.5760
Sum			81.5650

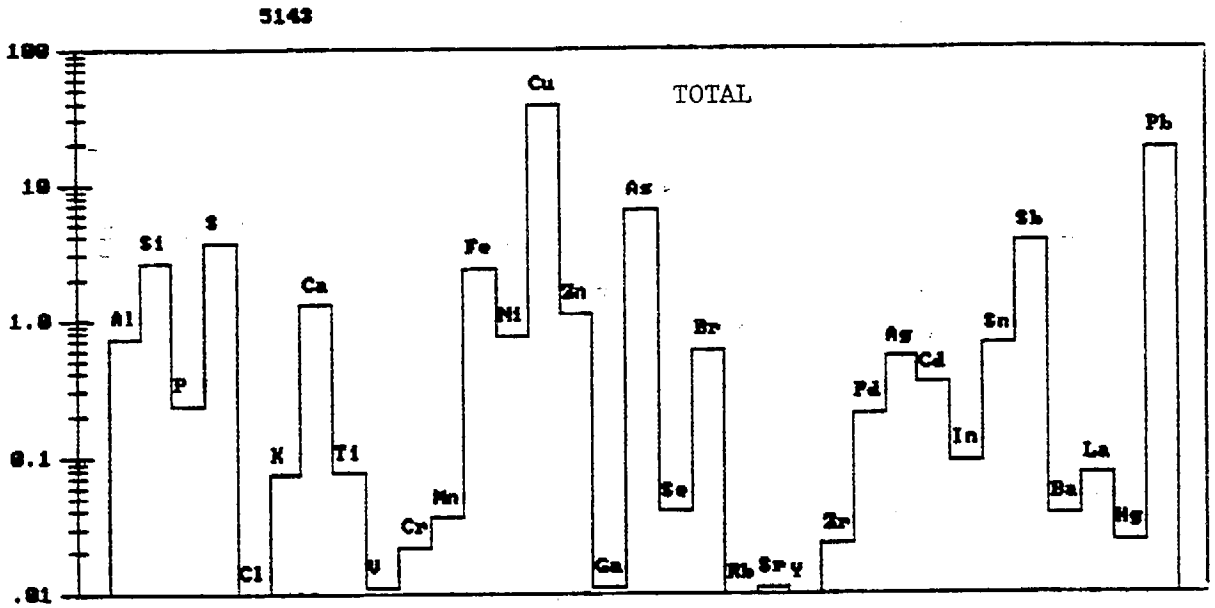
SLAG POUR


5140
100
10
1.0
0.1
.01
TOTAL
Al Si P S Cl K Ca Ti V Cr Mn Fe Ni Cu Zn Ga As Se Br Rb Sr Y Zr Mo Pd Ag Cd In Sn Sb Ba La Hg Pb

srce code	part size	revsion date	source description	reference	date
5138	FCT	04/10/87	dross building	12	11/84

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Al	.0000 +- .0780	.0000 +- .1110	.0000 +- .0639
Si	.0000 +- .0240	.0000 +- .0560	.0000 +- .0238
P	.0000 +- .0160	.0000 +- .0230	.0000 +- .0132
S	.0000 +- .4160	.0000 +- .6350	.0000 +- .3480
Cl	.0000 +- .1470	.0000 +- .1300	.0000 +- .1098
K	.0000 +- .0400	.0000 +- .0450	.0000 +- .0310
Ca	.0000 +- .0800	.0000 +- .1130	.0000 +- .0654
Ti	.0000 +- .0080	.0000 +- .0110	.0000 +- .0065
V	.0000 +- .0020	.0049 +- .0210	.0015 +- .0065
Cr	.0030 +- .0080	.0000 +- .0030	.0021 +- .0057
Mn	.0000 +- .0030	.0000 +- .0060	.0000 +- .0028
Fe	.4820 +- .6340	1.4310 +- .8200	.7696 +- .5109
Ni	.0230 +- .0420	.0731 +- .1020	.0382 +- .0427
Cu	.1790 +- .0520	1.8890 +- .4570	.6972 +- .1517
Zn	.7450 +- .2000	.6720 +- .2350	.7229 +- .1724
Ga	.0270 +- .0920	.0352 +- .1460	.0295 +- .0780
As	58.2890 +- 9.8310	6.7550 +- 5.1520	42.6726 +- 8.6450
Se	.0000 +- .0160	.0000 +- .0280	.0000 +- .0140
Br	.0000 +- .1940	.0000 +- .0650	.0000 +- .1366
Rb	.0000 +- .0420	.0000 +- .0160	.0000 +- .0297
Sr	.0070 +- .0120	.0155 +- .0550	.0096 +- .0187
Y	.0260 +- .0880	.0000 +- .0390	.0181 +- .0625
Zr	.0180 +- .0090	.0388 +- .1280	.0243 +- .0393
Mo	.0510 +- .0260	.0327 +- .0890	.0455 +- .0328
Pd	.0000 +- .0020	.0165 +- .0560	.0050 +- .0170
Ag	.0810 +- .0750	.2900 +- .1550	.1443 +- .0712
Cd	.5480 +- .2970	.1330 +- .2350	.4222 +- .2242
In	.0280 +- .0840	.0471 +- .1900	.0338 +- .0822
Sn	.2330 +- .4000	.8420 +- .3200	.4175 +- .2970
Sb	5.8710 +- 4.0880	1.0774 +- .8550	4.4184 +- 2.9064
Ba	.0652 +- .0600	.0000 +- .0280	.0454 +- .0430
La	.1220 +- .1410	.0000 +- .0280	.0850 +- .0992
Hg	.0000 +- .0240	.0396 +- .1550	.0120 +- .0499
Pb	13.2562 +- 9.6930	15.7910 +- 5.8470	14.0243 +- 7.1125
Sum	80.0544	29.1838	64.6390

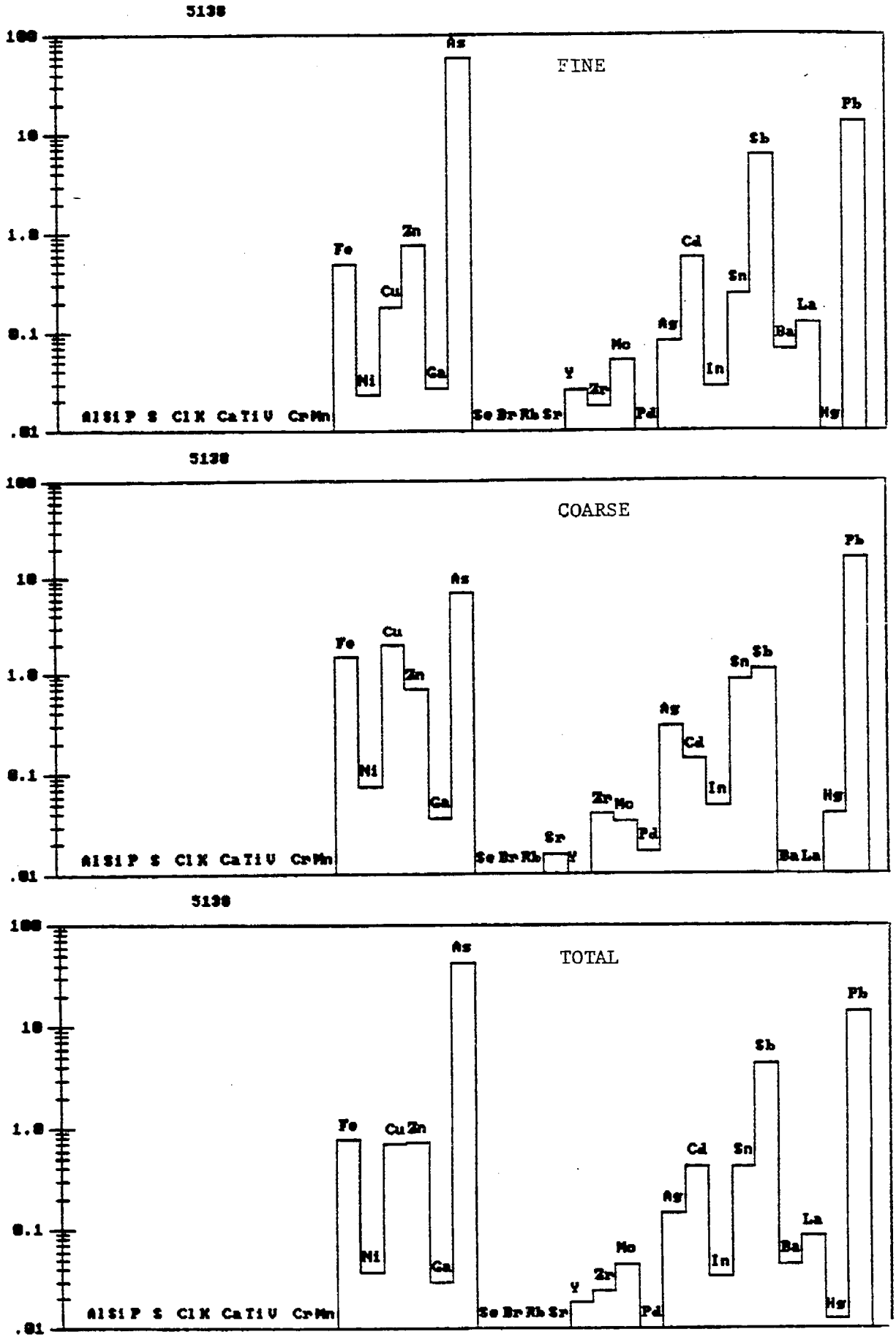
SPEISS PIT STACK



srce code	part size	revsion date	source description	reference	date
5121	T	09/26/83	sanitary baghouse	14	09/83

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Na			.1200 +- .0240
Mg			.0150 +- .0150
Al			.1500 +- .0300
Si			.0720 +- .0144
P			.0100 +- .0100
Cl			.3800 +- .0760
K			.3900 +- .1200
Ca			.0390 +- .0200
Ti			.0110 +- .0080
V			.0004 +- .0001
Cr			.0150 +- .0030
Mn			.0310 +- .0062
Fe			4.3200 +- .8640
Co			.0022 +- .0006
Ni			.0210 +- .0042
Cu			.1200 +- .0240
Zn			.0320 +- .0130
As			.0345 +- .0115
Se			.0047 +- .0023
Br			.0042 +- .0009
Rb			.0010 +- .0010
Sr			.0040 +- .0030
Pd			.0138 +- .0138
Ag			.0004 +- .0005
Cd			.0100 +- .0100
In			.0008 +- .0002
Sn			.1058 +- .1058
Sb			.8400 +- .1680
Ba			.0350 +- .0350
Hg			.0030 +- .0050
Pb			11.5000 +- 1.2000
Sum			18.2858

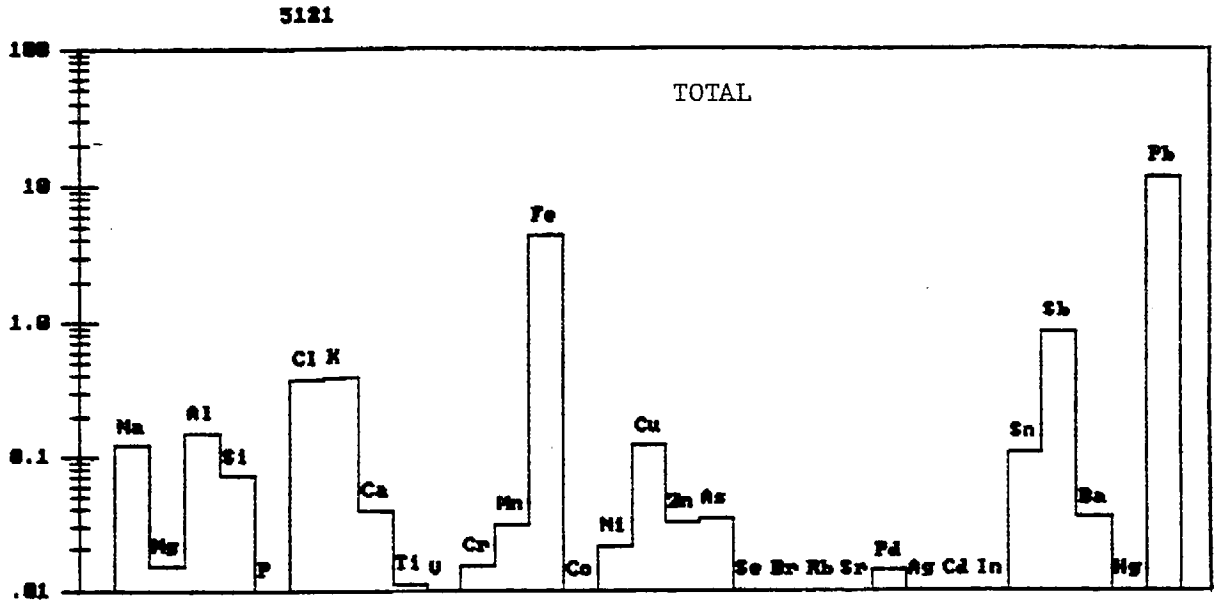
DROSS BUILDING



srce code	part size	revsion date	source description	reference	date
5122	T	09/26/83	reverberatory furnace	14	09/83

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Na			1.0432 +- .2086
Mg			.0537 +- .0537
Al			.3226 +- .0645
Si			.3979 +- .0796
P			.2151 +- .2151
S			2.1181 +- .4218
Cl			1.3121 +- .2624
K			.3011 +- .0645
Ca			.6883 +- .1377
Ti			.0054 +- .0054
V			.0051 +- .0010
Cr			.1183 +- .0323
Mn			.0333 +- .0067
Fe			.9464 +- .1893
Co			.0016 +- .0016
Ni			.0215 +- .0215
Cu			.2689 +- .0538
Zn			.1721 +- .0344
As			.3549 +- .0710
Se			.0495 +- .0129
Br			.2904 +- .0581
Rb			.0215 +- .0430
Sr			.0269 +- .0269
Pd			.2796 +- .1506
Ag			.0215 +- .0215
Cd			.6453 +- .4302
In			.0001 +- .0001
Sn			.0645 +- .4087
Sb			1.8928 +- .3786
Ba			.8066 +- .8066
Hg			.1075 +- .0430
Pb			11.4000 +- 1.1830
Sum			23.9858

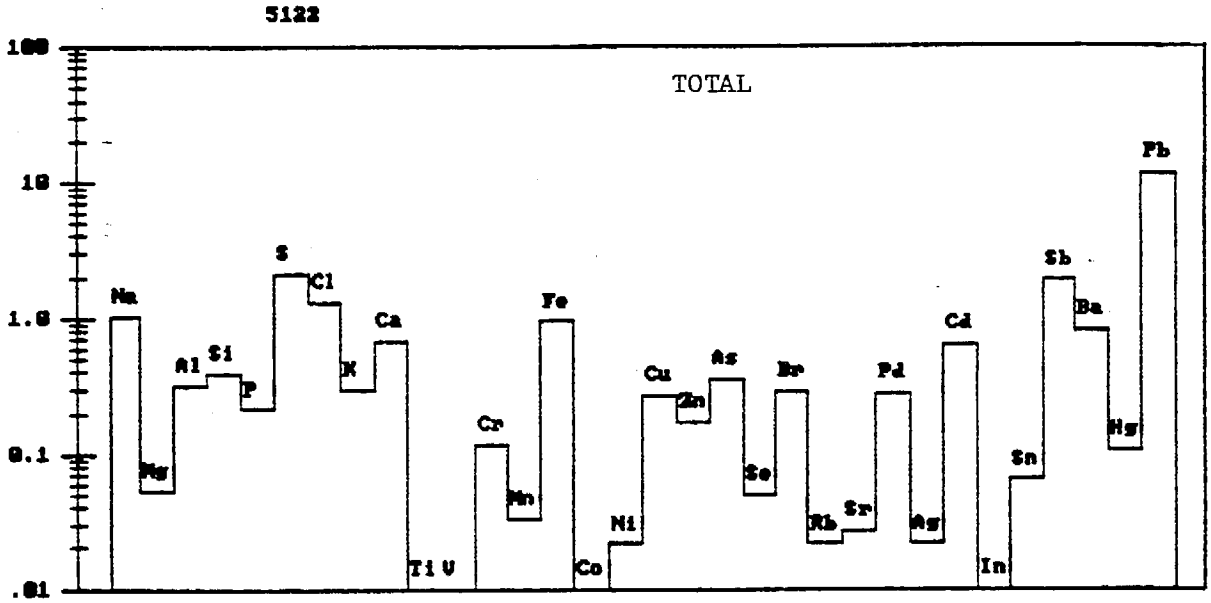
SANITARY BAGHOUSE



srce code	part size	revsion date	source description	reference	date
5123	T	09/26/83	lead melting pot - fugitive	14	09/83

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Na			.5588 +- .1118
Mg			.3529 +- .0765
Al			1.5294 +- .3059
Si			1.4118 +- .2824
P			.1117 +- .1117
S			.2300 +- .2300
Cl			.5059 +- .1012
K			.0647 +- .0294
Ca			.2176 +- .0471
Ti			.0394 +- .0135
V			.0018 +- .0006
Cr			.0059 +- .0118
Mn			.0100 +- .0020
Fe			.3294 +- .0659
Co			.0009 +- .0009
Ni			.0176 +- .0118
Cu			.1294 +- .0259
Zn			.0553 +- .0111
As			.2118 +- .0424
Se			.0029 +- .0029
Br			.0071 +- .0014
Rb			.0117 +- .0117
Sr			.0117 +- .0117
Pd			.0882 +- .0706
Ag			.0014 +- .0014
Cd			.0353 +- .0294
In			.0006 +- .0006
Sn			.1706 +- .1706
Sb			1.2941 +- .2588
Ba			.5882 +- .5882
Hg			.0235 +- .0235
Pb			10.0000 +- 1.1765
Sum			18.0196

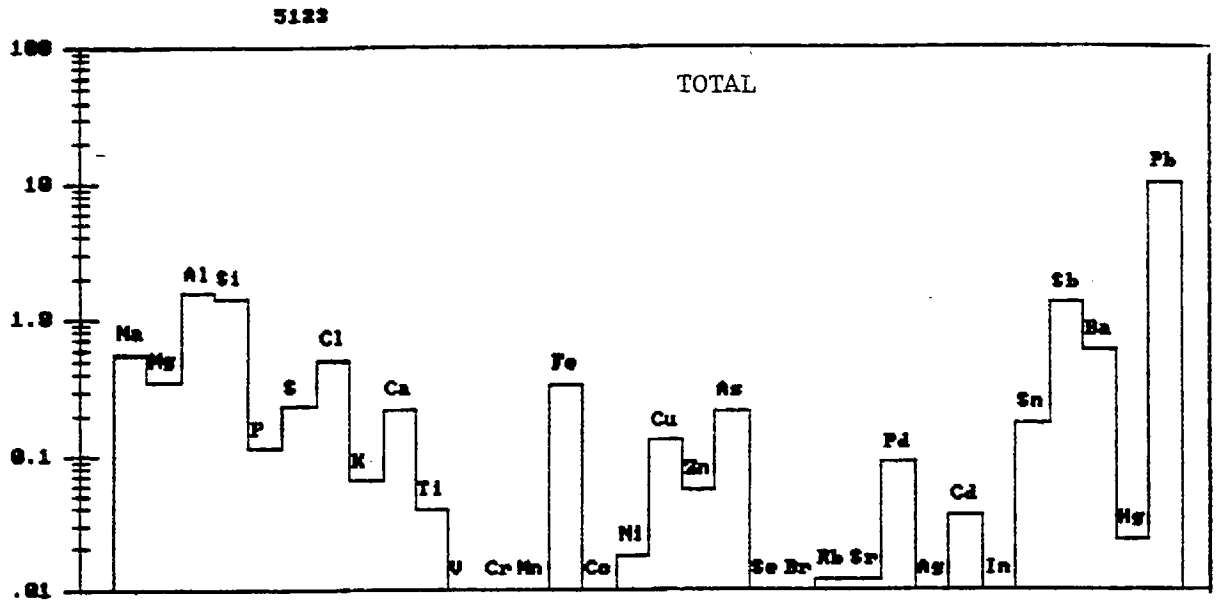
REVERVERATORY FURNACE



srce code	part size	revsion date	source description	reference	date
5124	T	09/26/83	lead melting pot baghse stack	14	09/83

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Na			.2045 +- .0409
Mg			.0633 +- .0268
Al			.2434 +- .0487
Si			.2337 +- .0467
P			.0973 +- .0973
S			.1665 +- .1665
Cl			.3651 +- .0730
K			.0828 +- .0166
Ca			.0389 +- .0195
Ti			.0170 +- .0063
V			.0002 +- .0002
Cr			.0073 +- .0049
Mn			.0020 +- .0004
Fe			.1753 +- .0351
Co			.0002 +- .0002
Ni			.0190 +- .0058
Cu			.0195 +- .0049
Zn			.0341 +- .0068
As			.0358 +- .0071
Se			.0011 +- .0011
Br			.0316 +- .0063
Rb			.0048 +- .0048
Sr			.0048 +- .0048
Pd			.0097 +- .0341
Ag			.0005 +- .0005
Cd			.0036 +- .0036
In			.0002 +- .0002
Sn			.0730 +- .0974
Sb			.0803 +- .0161
Ba			.1217 +- .1217
Hg			.0195 +- .0146
Pb			11.1000 +- 1.1197
Sum			13.2567

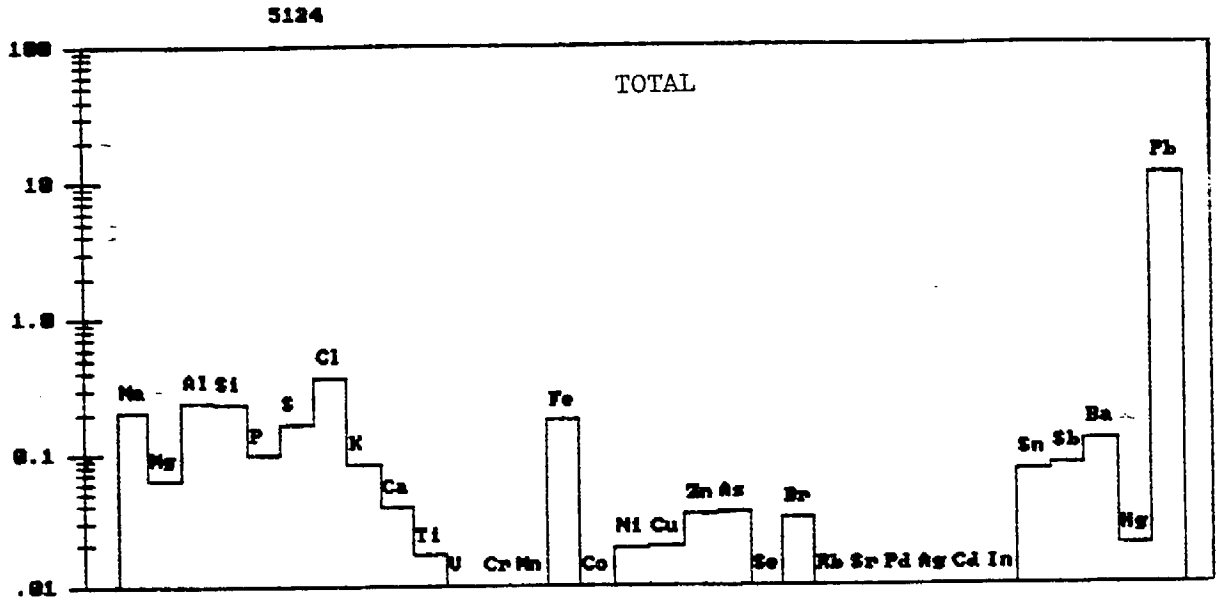
LEAD MELTING POT - FUGITIVE



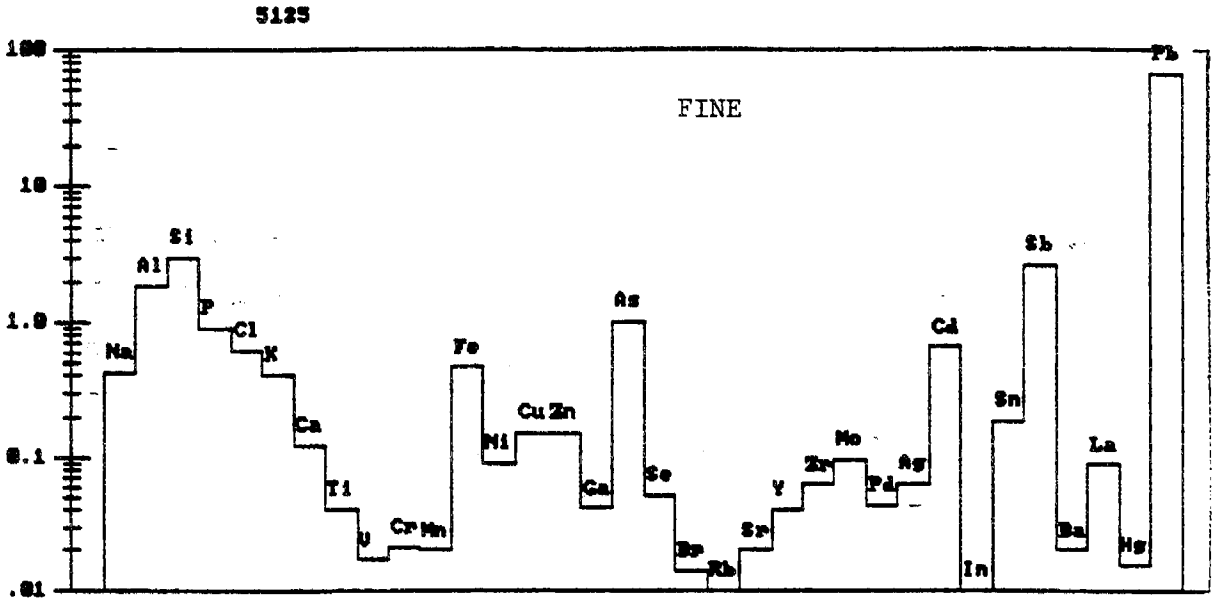
srce code	part size	revsion date	source description	reference	date
5125	F T	09/26/83	resuspended yard dust	5	09/83

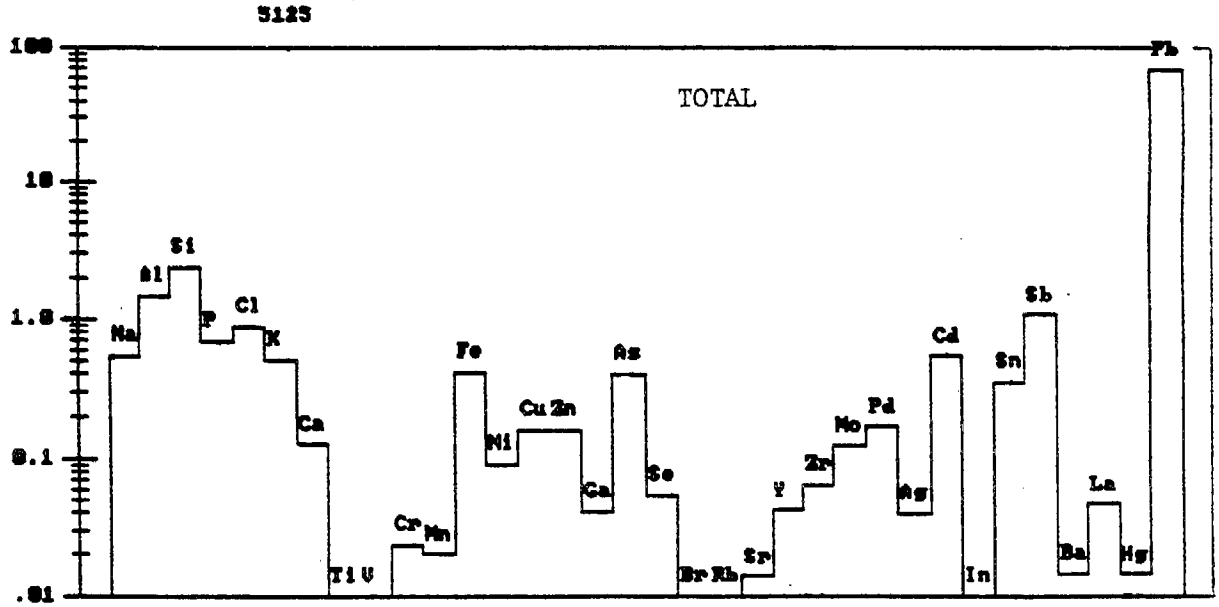
SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Na	.4200 +- .0840		.5330 +- .0910
Al	1.8660 +- .3732		1.4655 +- .2286
Si	2.9710 +- .5942		2.3674 +- .3704
P	.9090 +- .1830		.6807 +- .1052
Cl	.6100 +- .1200		.8723 +- .1506
K	.4060 +- .0812		.5000 +- .0847
Ca	.1220 +- .0540		.1244 +- .0366
Ti	.0410 +- .0082		.0090 +- .0018
V	.0170 +- .0034		.0051 +- .0017
Cr	.0210 +- .0042		.0234 +- .0039
Mn	.0200 +- .0040		.0200 +- .0033
Fe	.4580 +- .0916		.4082 +- .0653
Ni	.0900 +- .0180		.0900 +- .0147
Cu	.1510 +- .0302		.1557 +- .0256
Zn	.1500 +- .0300		.1563 +- .0257
Ga	.0415 +- .0415		.0411 +- .0335
As	1.0000 +- .2000		.3972 +- .0561
Se	.0520 +- .0520		.0532 +- .0437
Br	.0140 +- .0030		.0095 +- .0015
Rb	.0075 +- .0075		.0075 +- .0061
Sr	.0200 +- .0200		.0137 +- .0163
Y	.0410 +- .0410		.0414 +- .0339
Zr	.0625 +- .0625		.0633 +- .0519
Mo	.0970 +- .0194		.1207 +- .0205
Pd	.0440 +- .0440		.1633 +- .1543
Ag	.0640 +- .0160		.0391 +- .0259
Cd	.6500 +- .6200		.5268 +- .4114
In	.0004 +- .0001		.0002 +- .0001
Sn	.1855 +- .1855		.3471 +- .3106
Sb	2.6000 +- .5200		1.0548 +- .1494
Ba	.0200 +- .0100		.0145 +- .0050
La	.0880 +- .0880		.0457 +- .0329
Hg	.0155 +- .0155		.0143 +- .0115
Pb	66.6300 +- 6.6630		68.0907 +- 6.8091
Sum	79.8849		78.4551

LEAD MELTING POT BAGHOUSE STACK



RESUSPENDED YARD DUST

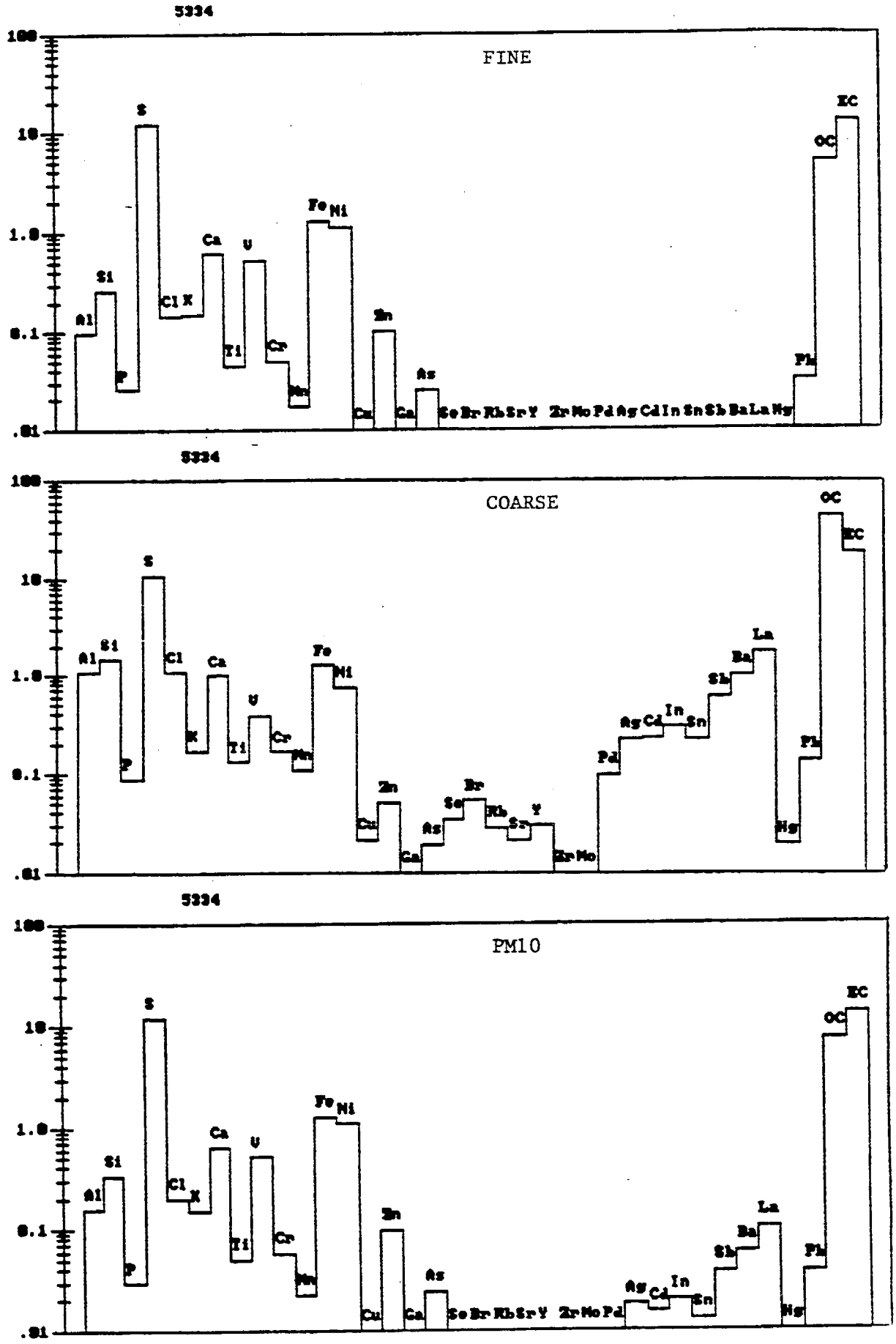




srce code	part size	revsion date	source description	reference	date
5334	FCT	12/26/86	SDGE blrs. #1,2,3 compst., oil	5	01/87

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Al	.0971 +- .1392	1.0629 +- .5940	.1550 +- .1356
Si	.2627 +- .1521	1.4476 +- .4668	.3338 +- .1457
P	.0255 +- .0315	.0866 +- .0906	.0292 +- .0301
S	11.8576 +- 1.0710	10.7577 +- 3.2266	11.7916 +- 1.0252
Cl	.1444 +- .1219	1.0562 +- .6291	.1991 +- .1206
K	.1490 +- .0676	.1650 +- .1271	.1500 +- .0640
Ca	.6086 +- .1722	.9783 +- .2678	.6308 +- .1627
Ti	.0453 +- .0155	.1284 +- .0653	.0503 +- .0151
V	.5192 +- .1456	.3813 +- .1052	.5109 +- .1370
Cr	.0504 +- .0243	.1638 +- .0606	.0572 +- .0231
Mn	.0174 +- .0072	.1067 +- .0634	.0228 +- .0078
Fe	1.2672 +- .6745	1.2535 +- .6002	1.2664 +- .6351
Ni	1.1149 +- .4246	.7280 +- .1105	1.0917 +- .3992
Cu	.0071 +- .0067	.0211 +- .0344	.0079 +- .0066
Zn	.0998 +- .0302	.0502 +- .0389	.0968 +- .0285
Ga	.0045 +- .0042	.0066 +- .0105	.0046 +- .0040
As	.0249 +- .0076	.0190 +- .0290	.0245 +- .0074
Se	.0022 +- .0023	.0343 +- .0313	.0041 +- .0029
Br	.0013 +- .0019	.0525 +- .0577	.0044 +- .0039
Rb	.0000 +- .0029	.0279 +- .0503	.0017 +- .0041
Sr	.0005 +- .0015	.0212 +- .0411	.0017 +- .0028
Y	.0000 +- .0045	.0293 +- .0567	.0018 +- .0054
Zr	.0062 +- .0133	.0056 +- .0206	.0062 +- .0126
Mo	.0002 +- .0007	.0000 +- .1798	.0002 +- .0108
Pd	.0014 +- .0054	.0962 +- .1446	.0071 +- .0101
Ag	.0054 +- .0071	.2182 +- .2470	.0182 +- .0163
Cd	.0017 +- .0029	.2265 +- .1932	.0152 +- .0119
In	.0026 +- .0051	.2926 +- .2626	.0200 +- .0165
Sn	.0001 +- .0005	.2178 +- .3256	.0132 +- .0195
Sb	.0019 +- .0069	.5983 +- .7701	.0377 +- .0467
Ba	.0000 +- .1341	.9964 +- 1.4486	.0598 +- .1531
La	.0000 +- .2443	1.7284 +- 2.6599	.1037 +- .2797
Hg	.0001 +- .0002	.0194 +- .0176	.0013 +- .0011
Pb	.0319 +- .0143	.1362 +- .1643	.0382 +- .0167
OC	5.0000 +- 2.5000	44.0000 +-16.5000	7.3000 +- 2.6000
EC	12.8000 +- 9.3000	18.7000 +-15.0000	13.2000 +- 8.8000
Sum	34.1511	85.8137	37.2571

SDGE BLRS. #1,2,3 COMPST., OIL

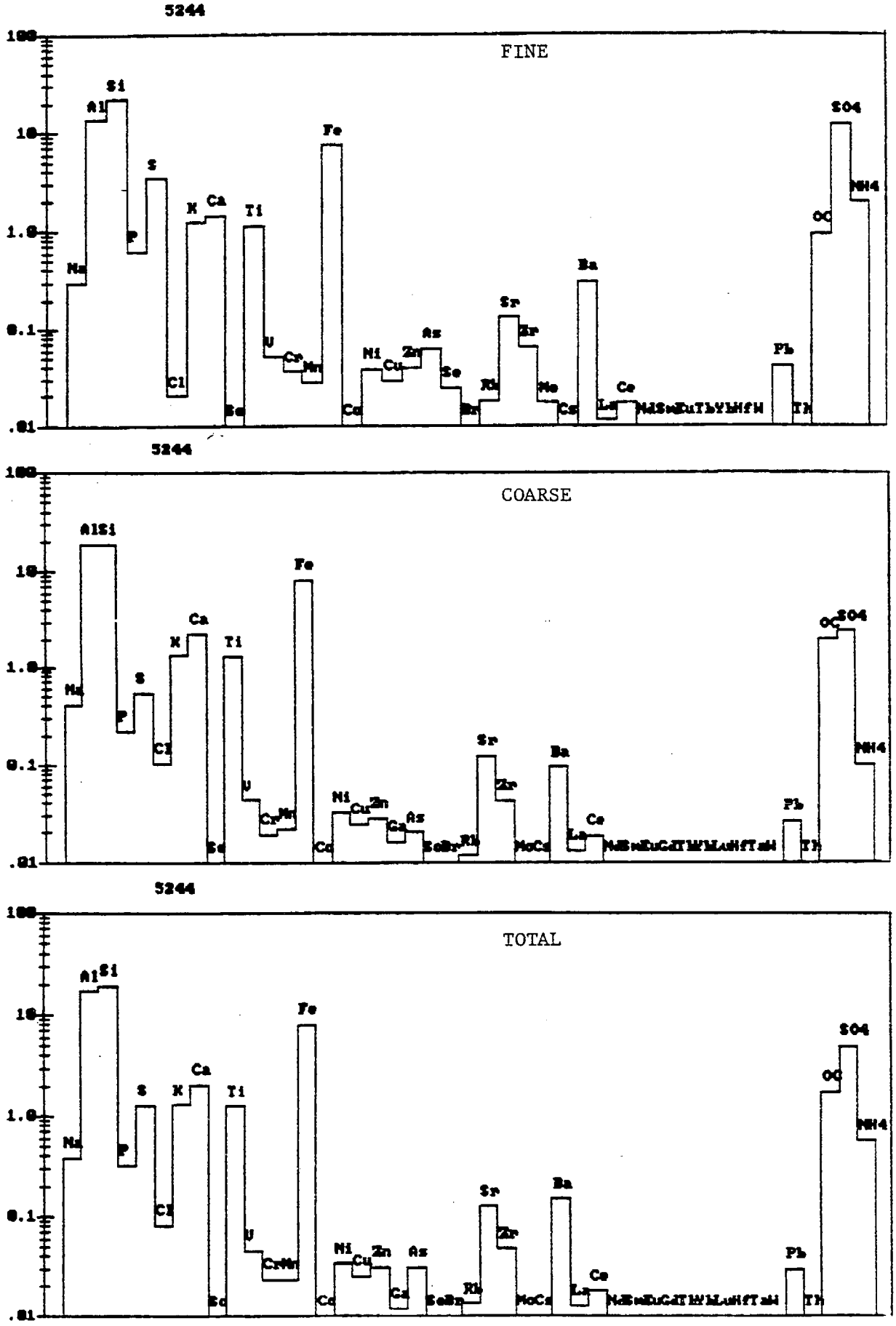


srce code	part size	revsion date	source description	reference	date
5244	FCT	03/18/87	EDDYSTONE COAL-FIRED POWER PL.	6	03/87

PERCENT COMPOSITION

SPECIES	FINE	COARSE	TOTAL
Na	.3000 +- .0200	.4100 +- .0200	.3815 +- .0201
Al	13.4000 +- 1.5000	18.4000 +- 2.7000	17.1037 +- 2.1139
Si	21.8000 +- 1.6000	18.5000 +- 2.8000	19.3556 +- 2.2461
P	.6200 +- .0600	.2200 +- .0400	.3237 +- .0381
S	3.4000 +- .6000	.5400 +- .0700	1.2815 +- .1891
Cl	.0200 +- .0110	.1030 +- .0050	.0815 +- .0052
K	1.2000 +- .0900	1.3300 +- .0800	1.2963 +- .0784
Ca	1.4000 +- .5000	2.3000 +- .3000	2.0667 +- .2653
Sc	.0040 +- .0002	.0044 +- .0002	.0043 +- .0002
Ti	1.1000 +- .1000	1.3000 +- .2000	1.2481 +- .1565
V	.0510 +- .0140	.0430 +- .0090	.0451 +- .0078
Cr	.0360 +- .0120	.0190 +- .0010	.0234 +- .0034
Mn	.0280 +- .0010	.0220 +- .0010	.0236 +- .0012
Fe	7.2000 +- .4000	8.1000 +- .4000	7.8667 +- .4183
Co	.0088 +- .0010	.0080 +- .0004	.0082 +- .0005
Ni	.0380 +- .0050	.0320 +- .0020	.0336 +- .0024
Cu	.0290 +- .0020	.0240 +- .0010	.0253 +- .0013
Zn	.0390 +- .0050	.0280 +- .0020	.0309 +- .0024
Ga		.0160 +- .0060	.0119 +- .0045
As	.0610 +- .0080	.0200 +- .0070	.0306 +- .0059
Se	.0240 +- .0020	.0024 +- .0001	.0080 +- .0008
Br	.0033 +- .0005	.0005 +- .0006	.0012 +- .0005
Rb	.0180 +- .0080	.0116 +- .0006	.0133 +- .0022
Sr	.1290 +- .0060	.1230 +- .0250	.1246 +- .0192
Zr	.0630 +- .0140	.0420 +- .0140	.0474 +- .0112
Mo	.0170 +- .0060	.0070 +- .0006	.0096 +- .0017
Cs	.0009 +- .0001	.0009 +- .0001	.0009 +- .0001
Ba	.3000 +- .1900	.0940 +- .0160	.1474 +- .0514
La	.0112 +- .0006	.0132 +- .0007	.0127 +- .0007
Ce	.0170 +- .0010	.0186 +- .0005	.0182 +- .0008
Nd	.0073 +- .0024	.0073 +- .0013	.0073 +- .0012
Sm	.0022 +- .0001	.0025 +- .0001	.0024 +- .0001
Eu	.0005 +- .0001	.0005 +- .0001	.0005 +- .0001
Gd		.0040 +- .0015	.0030 +- .0011
Tb	.0003 +- .0001	.0004 +- .0001	.0004 +- .0001
Yb	.0010 +- .0002	.0011 +- .0001	.0011 +- .0001
Lu		.0002 +- .0001	.0001 +- .0001
Hf	.0005 +- .0001	.0007 +- .0001	.0006 +- .0001
Ta		.0002 +- .0001	.0001 +- .0001
W	.0019 +- .0008	.0014 +- .0002	.0015 +- .0003
Pb	.0410 +- .0040	.0260 +- .0010	.0299 +- .0018
Th	.0023 +- .0002	.0026 +- .0001	.0025 +- .0001
OC	.8900 +- .1200	2.0000 +- .1000	1.7122 +- .0946
SO4	11.9000 +- .6000	2.4000 +- .2000	4.8630 +- .3965
NH4	1.8900 +- .0900	.1000 +- .0200	.5641 +- .0581
Sum	66.0552	56.2795	58.8142

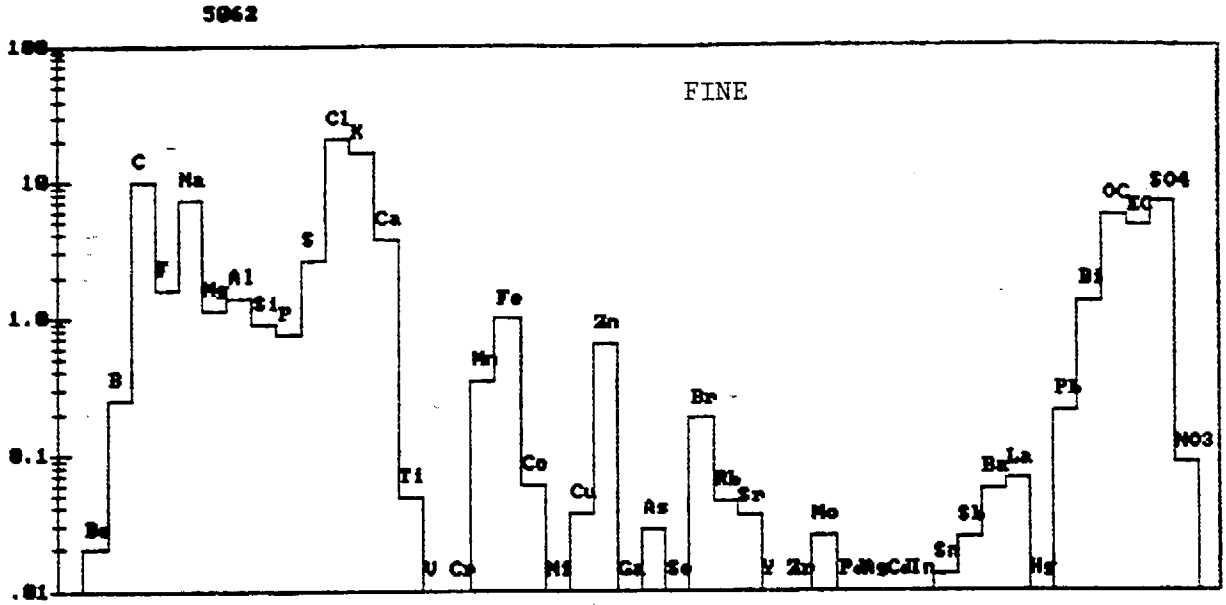
EDDYSTONE COAL-FIRED POWER PL.

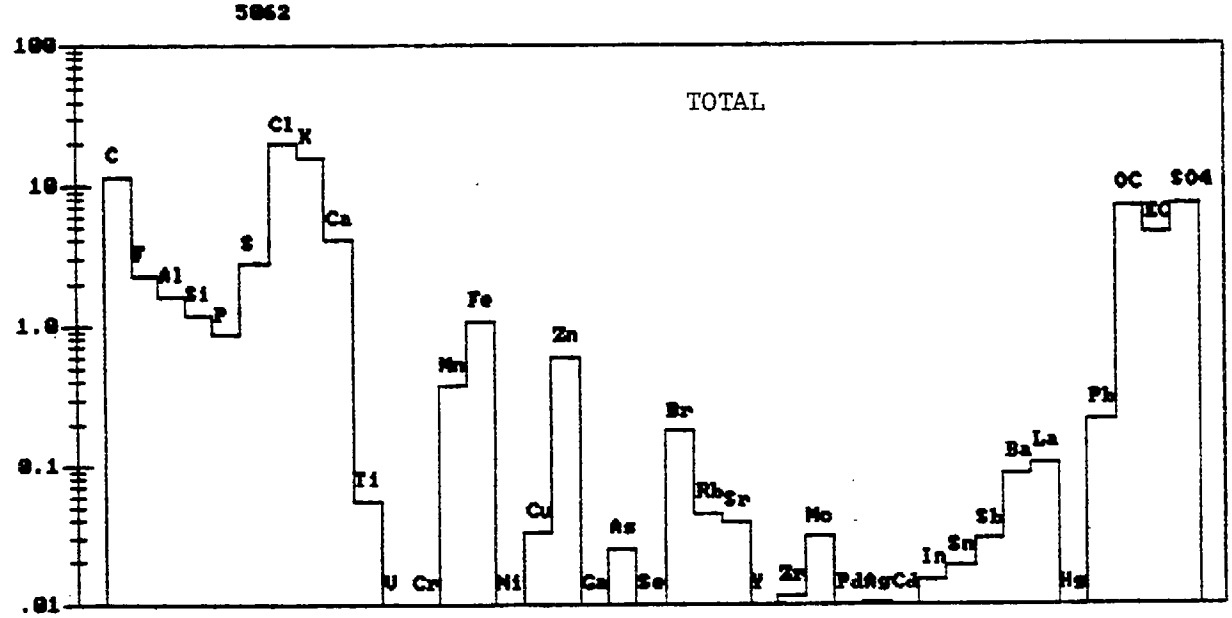


srce code	part size	revsion date	source description	reference	date
5062	F T	09/26/83	hogged fuel boiler (STACS)	2	09/83

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Be	.0200 +- .0200		
B	.2500 +- .1300		
C	10.1000 +- 1.0100		11.4350 +- 1.2379
F	1.6000 +- .4000		2.2750 +- .3779
Na	7.2600 +- .7300		
Mg	1.1400 +- .1140		
Al	1.4100 +- .9900		1.6035 +- .8575
Si	.9100 +- .5500		1.1755 +- .4700
P	.7600 +- .2500		.8560 +- .2135
S	2.6000 +- .2600		2.7425 +- .2742
Cl	20.4000 +- 2.2000		19.5300 +- 2.1520
K	16.3000 +- 3.3000		15.5050 +- 2.9899
Ca	3.7000 +- 2.1000		4.1200 +- 1.7926
Ti	.0480 +- .0210		.0558 +- .0180
V	.0050 +- .0060		.0093 +- .0053
Cr	.0080 +- .0020		.0087 +- .0020
Mn	.3400 +- .1700		.3731 +- .1448
Fe	.9800 +- .4300		1.0715 +- .3663
Co	.0600 +- .0600		
Ni	.0050 +- .0050		.0047 +- .0043
Cu	.0370 +- .0070		.0334 +- .0061
Zn	.6400 +- .2100		.6010 +- .1786
Ga	.0010 +- .0020		.0011 +- .0017
As	.0280 +- .0070		.0251 +- .0061
Se	.0020 +- .0020		.0021 +- .0018
Br	.1810 +- .0200		.1747 +- .0198
Rb	.0450 +- .0060		.0448 +- .0054
Sr	.0350 +- .0160		.0396 +- .0138
Y	.0020 +- .0020		.0027 +- .0020
Zr	.0080 +- .0080		.0114 +- .0082
Mo	.0250 +- .0130		.0302 +- .0306
Pd	.0040 +- .0040		.0061 +- .0043
Ag	.0070 +- .0070		.0101 +- .0073
Cd	.0020 +- .0200		.0075 +- .0180
In	.0100 +- .0100		.0149 +- .0107
Sn	.0130 +- .0130		.0187 +- .0134
Sb	.0240 +- .0340		.0294 +- .0450
Ba	.0550 +- .0550		.0872 +- .0619
La	.0650 +- .0650		.1032 +- .0732
Hg	.0040 +- .0030		.0047 +- .0030
Pb	.2060 +- .0330		.2099 +- .0315
Bi	1.3000 +- 1.3000		
OC	5.6000 +- .6000		7.0700 +- .8580
EC	4.6000 +- .6000		4.4500 +- .5360
SO4	7.0000 +- 1.1000		7.2850 +- .9819
NO3	.0850 +- .0850		
Sum	87.8750		81.0284

HOGGED FUEL BOILER (STACS)

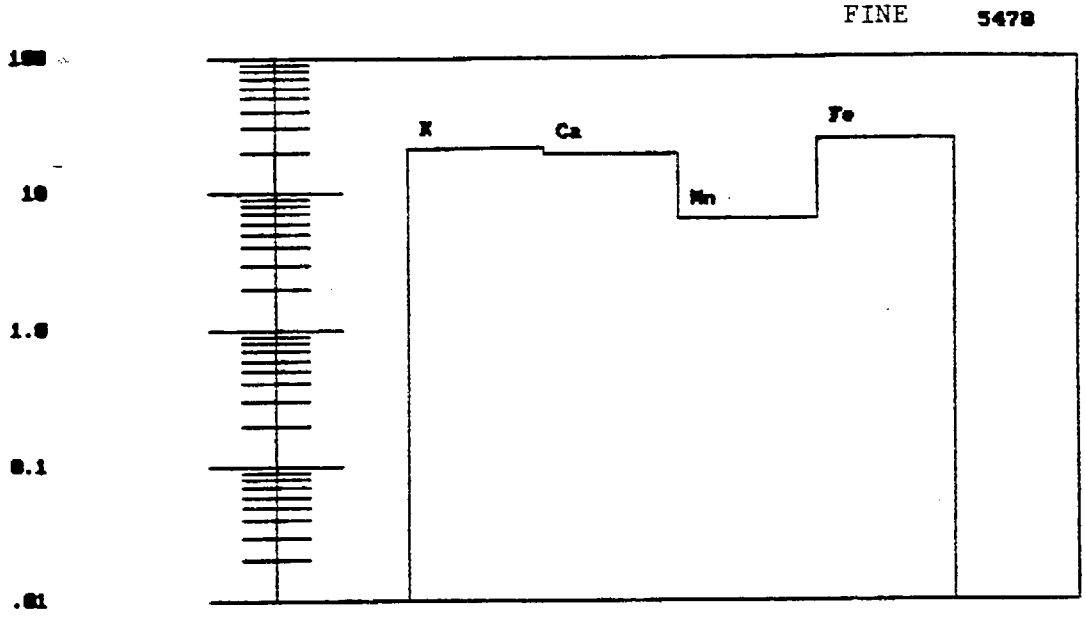




srce code	part size	revsion date	source description	reference	date
5470	F	04/20/87	WELDING APPROXIMATION U-MINE	19	02/73

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
K	20.9000 +- 2.0900		
Ca	19.4000 +- 1.9400		
Mn	6.2800 +- .6280		
Fe	24.6000 +- 2.4600		
Sum	71.1800		

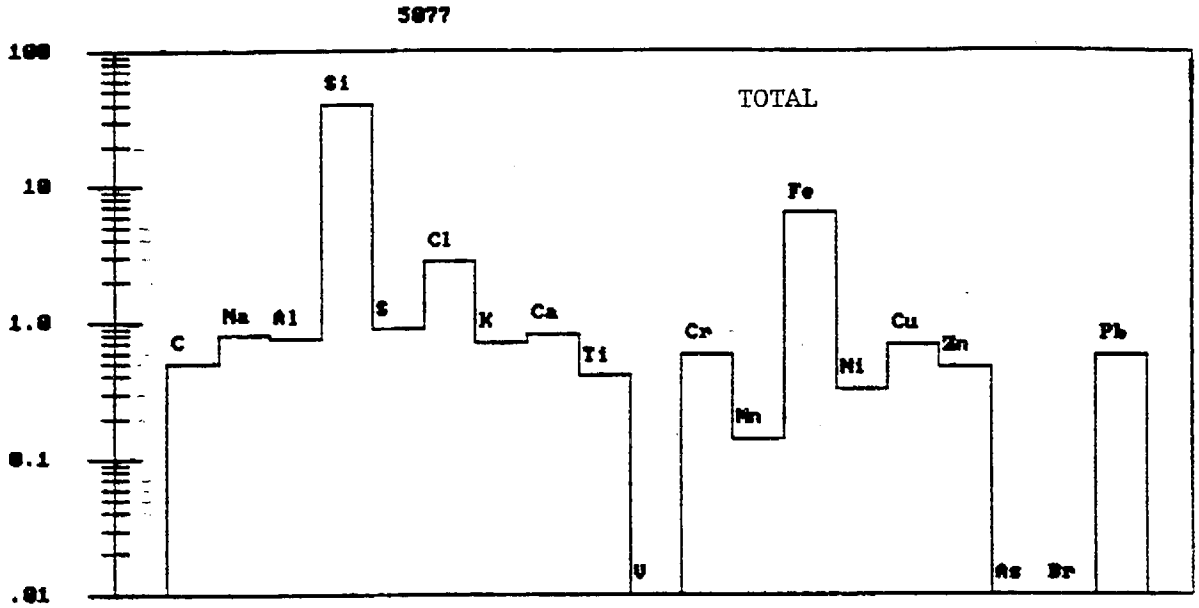
WELDING APPROXIMATION U-MINE



srce code	part size	revsion date	source description	reference	date
5077	T	09/26/83	sandblasting	14	09/83

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
C			.5000 +- .0500
Na			.8000 +- .0800
Al			.7500 +- .0750
Si			40.0000 +- 4.0000
S			.8800 +- .0880
Cl			2.8000 +- .2800
K			.7000 +- .0700
Ca			.8200 +- .0820
Ti			.4000 +- .0400
V			.0031 +- .0003
Cr			.5800 +- .0580
Mn			.1400 +- .0140
Fe			6.3000 +- .6300
Ni			.3200 +- .0320
Cu			.6900 +- .0690
Zn			.4700 +- .0470
As			.0099 +- .0010
Br			.0047 +- .0005
Pb			.5800 +- .0580
Sum			56.7477

SANDBLASTING

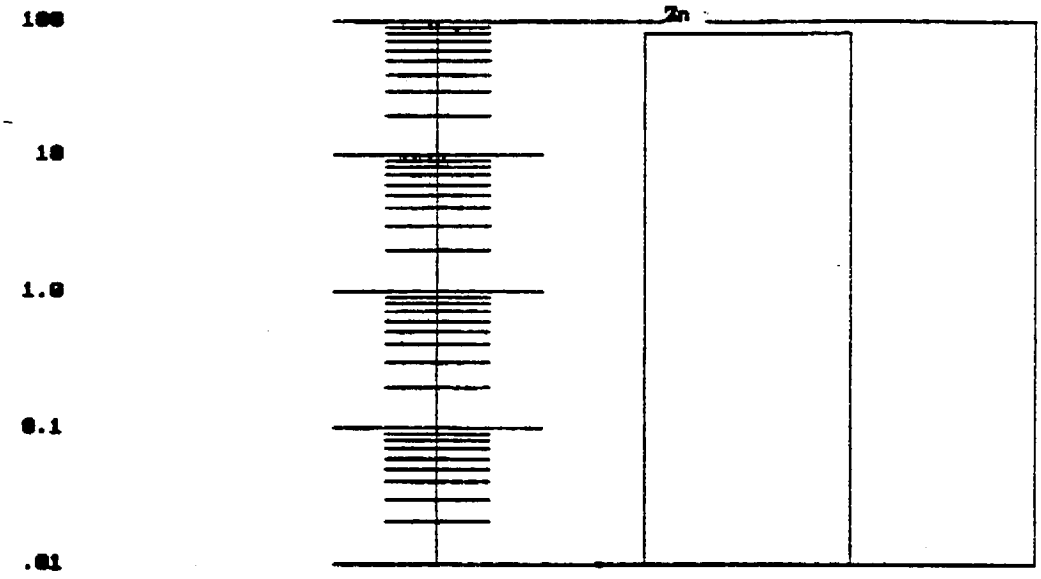


srce code	part size	revsion date	source description	reference	date
5118	T	09/26/83	galvanizing (ZnO)	14	09/83

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Zn			80.0000 +- 8.0000
Sum			80.0000

GALVANIZING (ZnO)

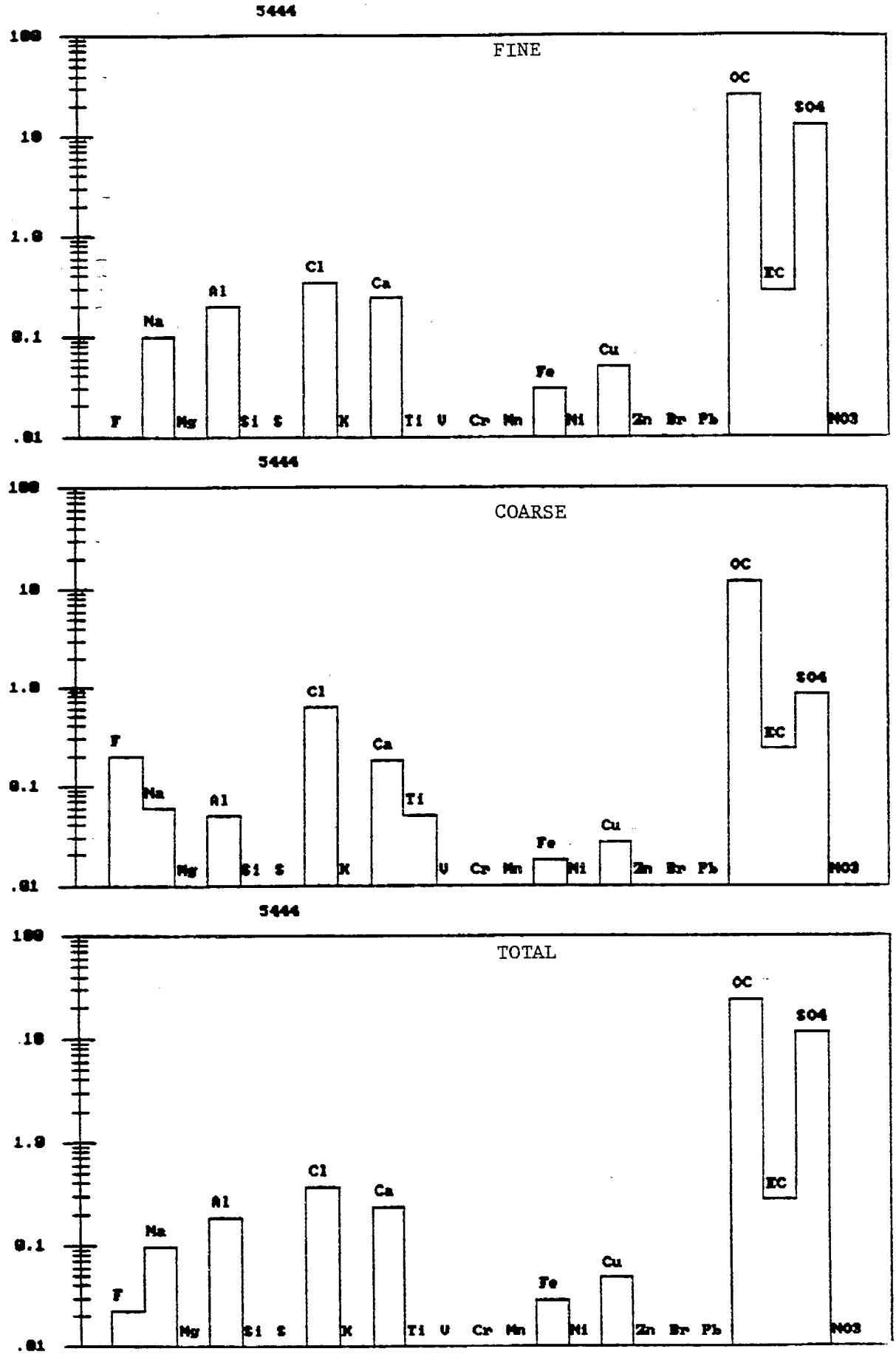
5118 TOTAL



srce code	part size	revsion date	source description	reference	date
5444	FCT	04/13/87	Flour Processing	7	00/79

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
F	.0000 +- .2000	.2000 +- .0400	.0225 +- .1776
Na	.1000 +- .0200	.0600 +- .0120	.0955 +- .0216
Mg	.0000 +- 1.0000	.0000 +- 2.0000	.0000 +- .9156
Al	.2000 +- .0400	.0500 +- .0100	.1831 +- .0429
Si	.0000 +- .1000	.0000 +- .1000	.0000 +- .0895
S	.0000 +- .1000	.0000 +- .1000	.0000 +- .0895
Cl	.3400 +- .0680	.6100 +- .1220	.3703 +- .0763
K	.0000 +- .0300	.0000 +- .1000	.0000 +- .0289
Ca	.2400 +- .0480	.1800 +- .0360	.2333 +- .0521
Ti	.0000 +- .0500	.0500 +- .0100	.0056 +- .0444
V	.0000 +- .0100	.0000 +- .0100	.0000 +- .0089
Cr	.0000 +- .0100	.0000 +- .0100	.0000 +- .0089
Mn	.0000 +- .0100	.0100 +- .0020	.0011 +- .0089
Fe	.0300 +- .0060	.0180 +- .0036	.0287 +- .0065
Ni	.0000 +- .0100	.0000 +- .0100	.0000 +- .0089
Cu	.0500 +- .0100	.0270 +- .0054	.0474 +- .0108
Zn	.0000 +- .0100	.0000 +- .0100	.0000 +- .0089
Br	.0000 +- .0100	.0070 +- .0014	.0008 +- .0089
Pb	.0000 +- .0500	.0000 +- .0100	.0000 +- .0444
OC	25.3000 +- 5.0600	11.8000 +- 2.3600	23.7831 +- 5.4538
EC	.2800 +- .0560	.2300 +- .0460	.2744 +- .0609
SO4	12.6000 +- 2.5200	.8300 +- .1660	11.2775 +- 2.6938
NO3	.0000 +- .6000	.0000 +- 1.0000	.0000 +- .5443
Sum	39.1400	14.0720	36.3233

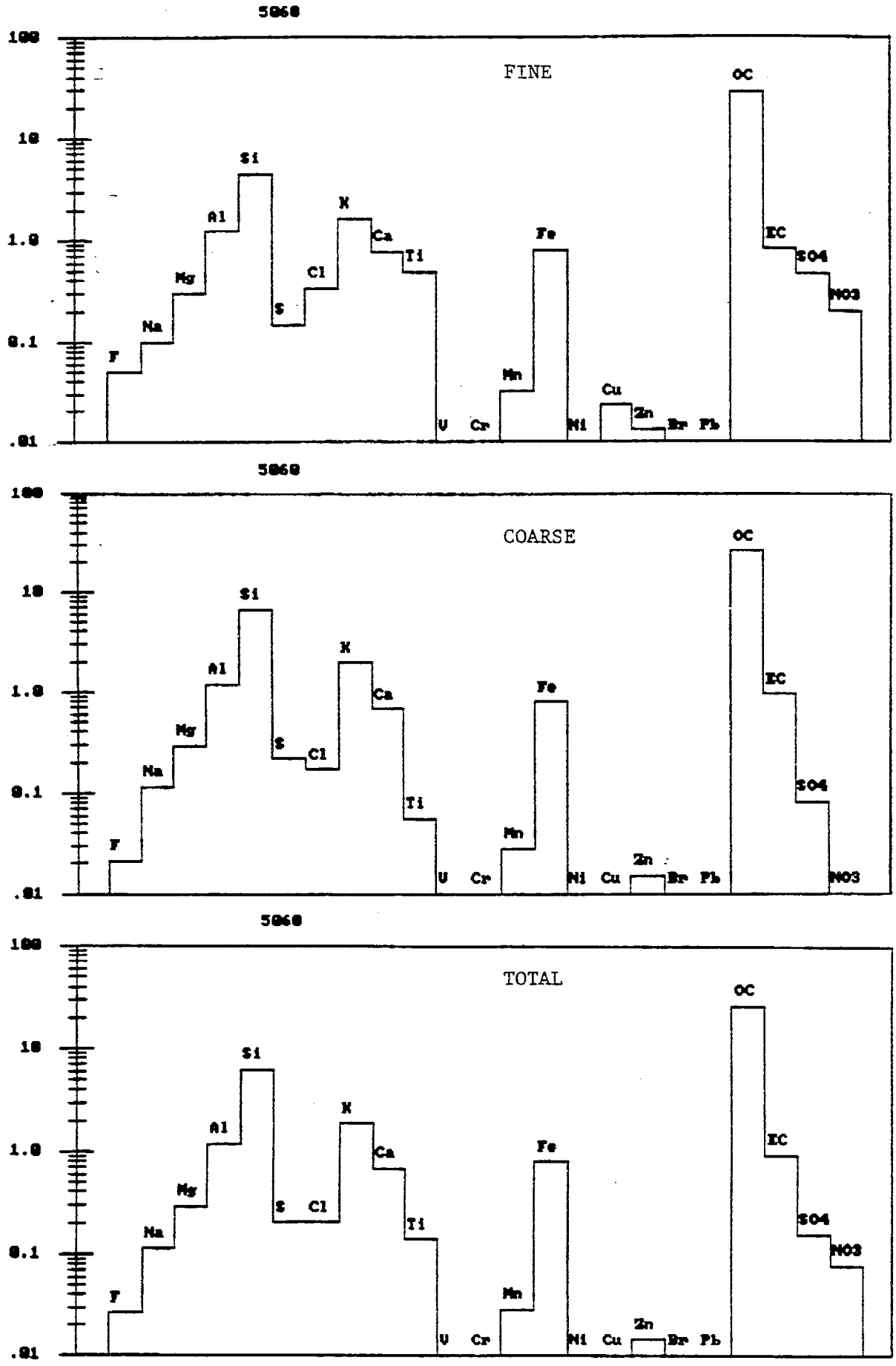
FLOUR PROCESSING



srce code	part size	revsion date	source description	reference	date
5060	FCT	04/10/87	grain elevator (STACS)	7	09/83

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
F	.0500 +- .0500	.0210 +- .0080	.0265 +- .0115
Na	.1000 +- .0400	.1150 +- .0210	.1121 +- .0186
Mg	.3000 +- .0640	.2900 +- .0570	.2919 +- .0477
Al	1.2000 +- .1200	1.1800 +- .1060	1.1838 +- .1184
Si	4.3500 +- .4350	6.5500 +- .0710	6.1320 +- .6132
S	.1450 +- .0150	.2150 +- .0071	.2017 +- .0202
Cl	.3300 +- .0350	.1700 +- .0210	.2004 +- .0200
K	1.6000 +- .1600	1.9500 +- .0710	1.8835 +- .1883
Ca	.7600 +- .0760	.6750 +- .0071	.6911 +- .0691
Ti	.4900 +- .0490	.0550 +- .0064	.1376 +- .0138
V	.0008 +- .0004	.0008 +- .0004	.0008 +- .0003
Cr	.0004 +- .0004	.0000 +- .0010	.0005 +- .0004
Mn	.0320 +- .0032	.0280 +- .0021	.0288 +- .0029
Fe	.7800 +- .0780	.8000 +- .0210	.7962 +- .0796
Ni	.0005 +- .0005	.0000 +- .0010	.0005 +- .0004
Cu	.0230 +- .0042	.0000 +- .0100	.0084 +- .0041
Zn	.0130 +- .0071	.0150 +- .0014	.0146 +- .0018
Br	.0070 +- .0010	.0020 +- .0002	.0029 +- .0003
Pb	.0020 +- .0020	.0000 +- .0050	.0024 +- .0021
OC	27.8000 +-10.7000	25.7000 +- 6.7000	26.0990 +- 5.7953
EC	.8000 +- .4200	.9500 +- .6400	.9215 +- .5245
SO4	.4700 +- .1700	.0800 +- .0570	.1541 +- .0563
NO3	.2000 +- .2000	.0000 +- .1000	.0785 +- .0555
Sum	39.4537	38.7968	38.9688

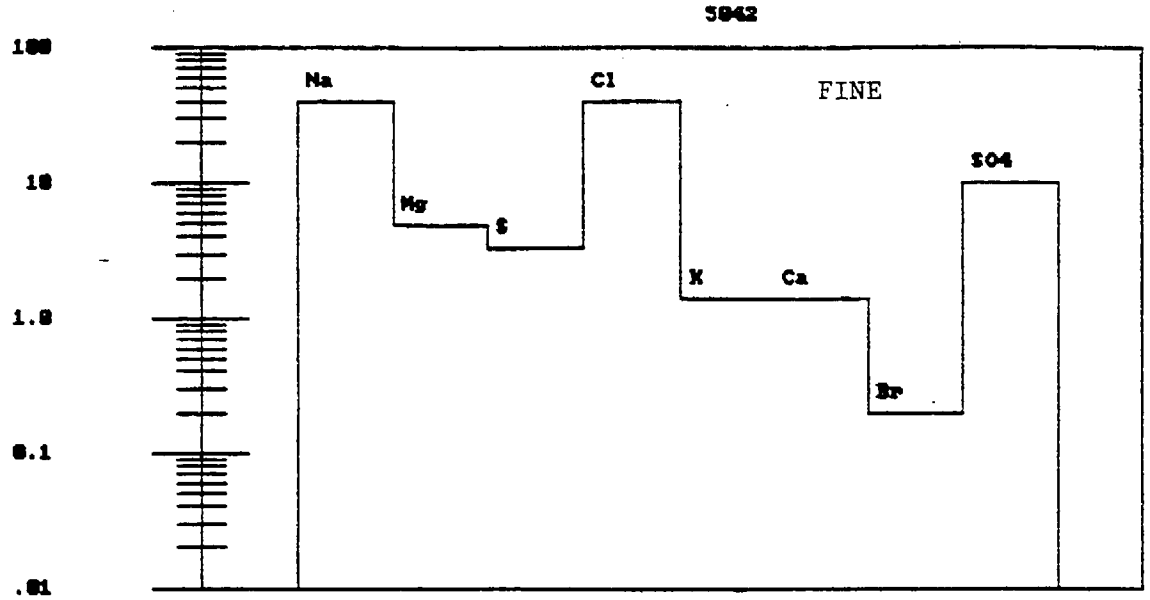
GRAIN ELEVATOR (STACS)

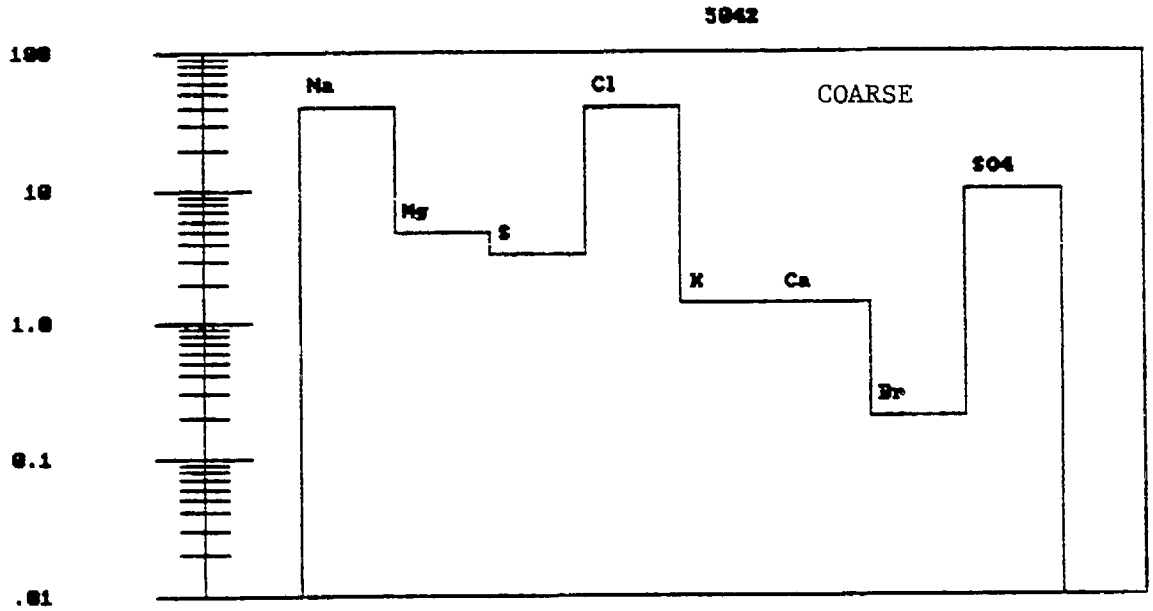


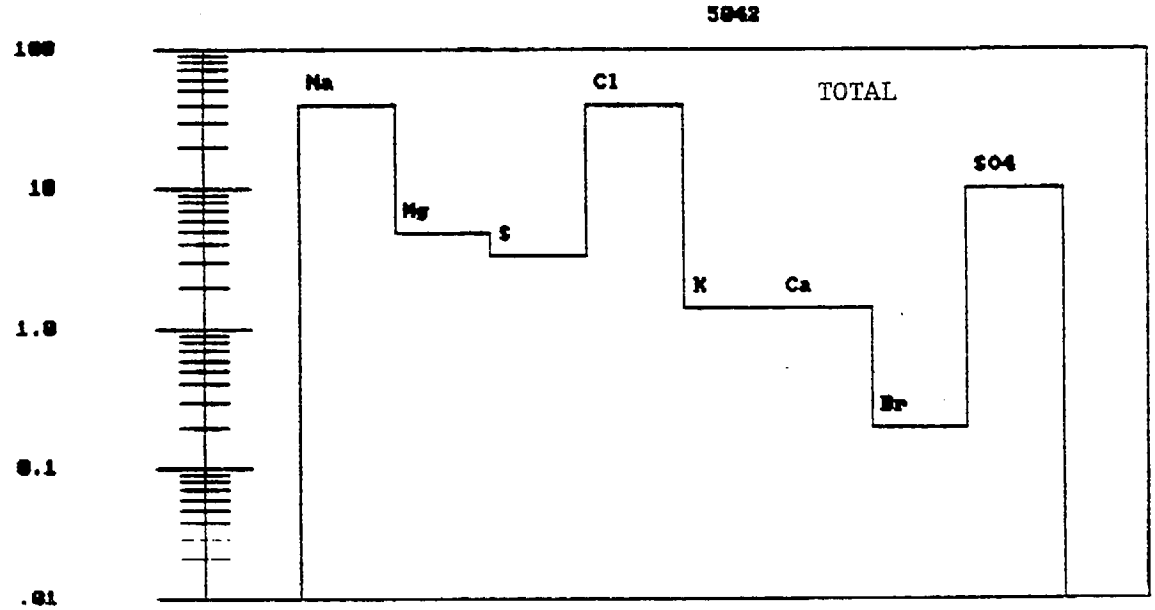
srce code	part size	revsion date	source description	reference	date
5042	FCT	04/10/87	marine air	7	02/79

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Na	40.0000 +- 4.0000	40.0000 +- 4.0000	40.0000 +- 4.0000
Mg	4.8000 +- .9000	4.8000 +- .9000	4.8000 +- .9000
S	3.3000 +- 1.3000	3.3000 +- 1.3000	3.3000 +- 1.3000
Cl	40.0000 +-10.0000	40.0000 +-10.0000	40.0000 +-10.0000
K	1.4000 +- .2000	1.4000 +- .2000	1.4000 +- .2000
Ca	1.4000 +- .2000	1.4000 +- .2000	1.4000 +- .2000
Br	.2000 +- .0500	.2000 +- .0500	.2000 +- .0500
SO4	10.0000 +- 4.0000	10.0000 +- 4.0000	10.0000 +- 4.0000
Sum	101.1000	101.1000	101.1000

MARINE AIR


5042
100
10
1.0
0.1
.01
Na
Mg
S
Cl
K
Ca
Br
SO4
FINE

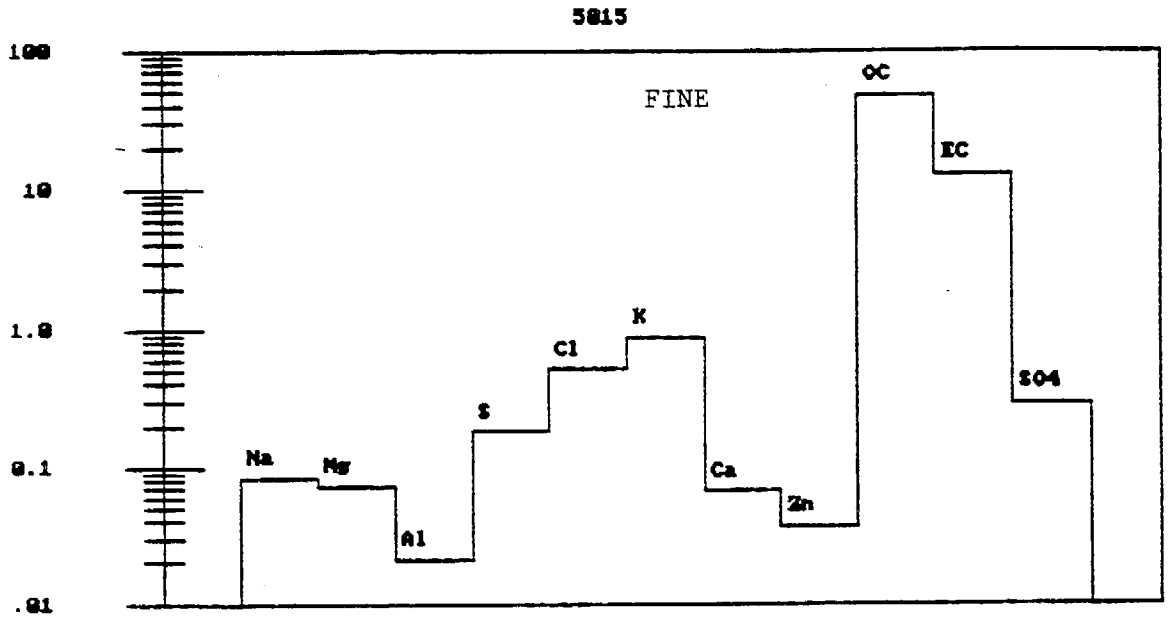

5042
100
10
1.0
0.1
.01
Na
Mg
S
Cl
K
Ca
Br
SO4
COARSE


5042
100
10
1.0
0.1
.01
Na
Mg
S
Cl
K
Ca
Br
SO4
TOTAL

srce code	part size	revsion date	source description	reference	date
5015	F	02/03/81	residential wood combustion	15	02/81

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Na	.0830 +- .0120		
Mg	.0730 +- .0170		
Al	.0210 +- .0100		
S	.1820 +- .0190		
Cl	.5090 +- .0310		
K	.8600 +- .0960		
Ca	.0670 +- .0057		
Zn	.0370 +- .0021		
OC	47.5000 +-13.8000		
EC	12.8000 +- 8.4000		
SO4	.2890 +- .0210		
Sum	62.4210		

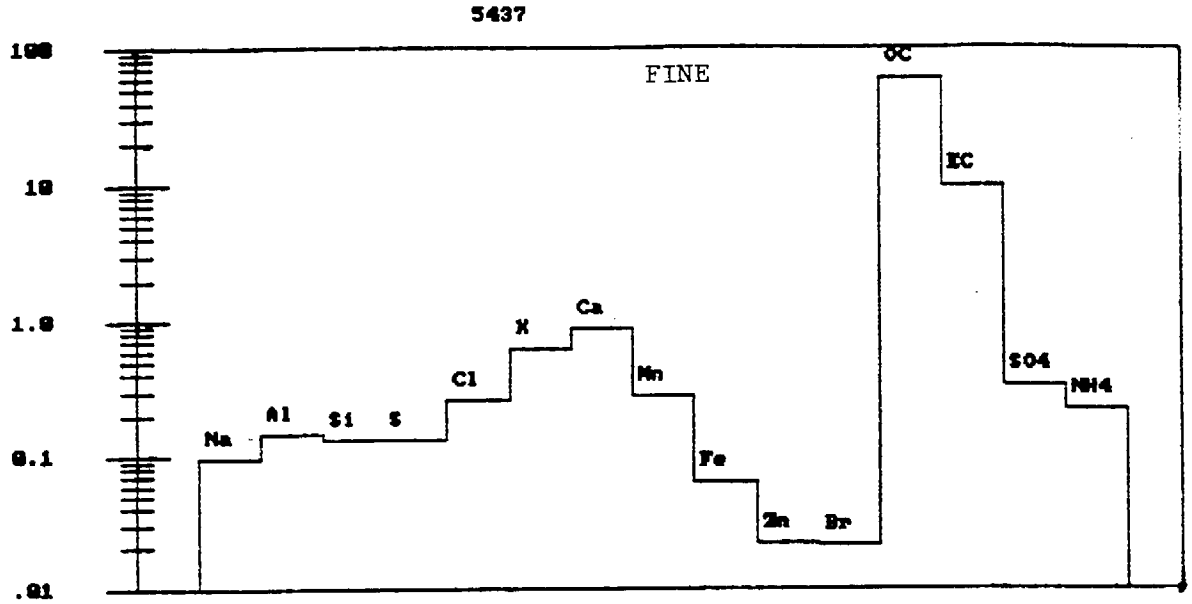
RESIDENTIAL WOOD COMBUSTION

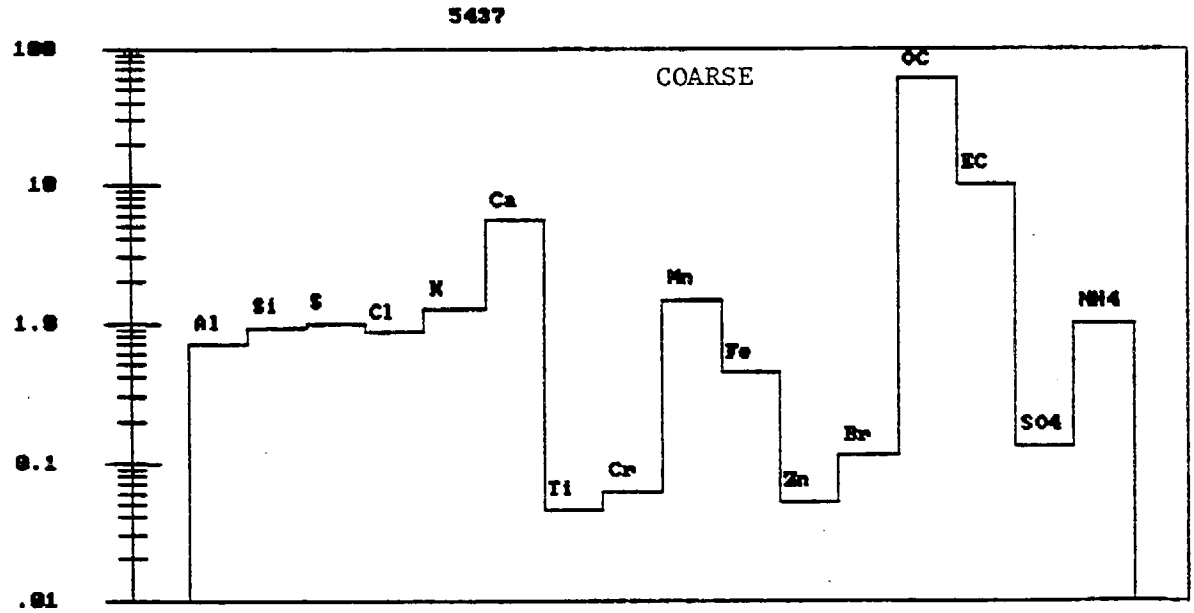


srce code	part size	revsion date	source description	reference	date
5437	FC	04/10/87	Slash Burning	16	02/81

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Na	.0960 +- .0350		
Al	.1440 +- .0660	.7050 +- .2050	
Si	.1320 +- .0410	.9300 +- .0990	
S	.1320 +- .0500	.9900 +- .4380	
Cl	.2580 +- .1180	.8500 +- 1.2000	
K	.6200 +- .2350	1.2500 +- .2120	
Ca	.8680 +- .2880	5.5000 +- .6000	
Ti		.0450 +- .0640	
Cr		.0620 +- .0250	
Mn	.2800 +- .1200	1.4500 +- .2120	
Fe	.0640 +- .0420	.4300 +- .1560	
Zn	.0220 +- .0160	.0520 +- .0250	
Br	.0210 +- .0063	.1120 +- .0670	
OC	59.2500 +-10.5600	59.0000 +-10.0000	
EC	9.7500 +- 3.5900	10.0000 +- 3.0000	
SO4	.3280 +- .0890	.1300 +- .1840	
NH4	.2200 +- .0800	1.0000 +- .5600	
Sum	72.1850	82.5060	

SLASH BURNING

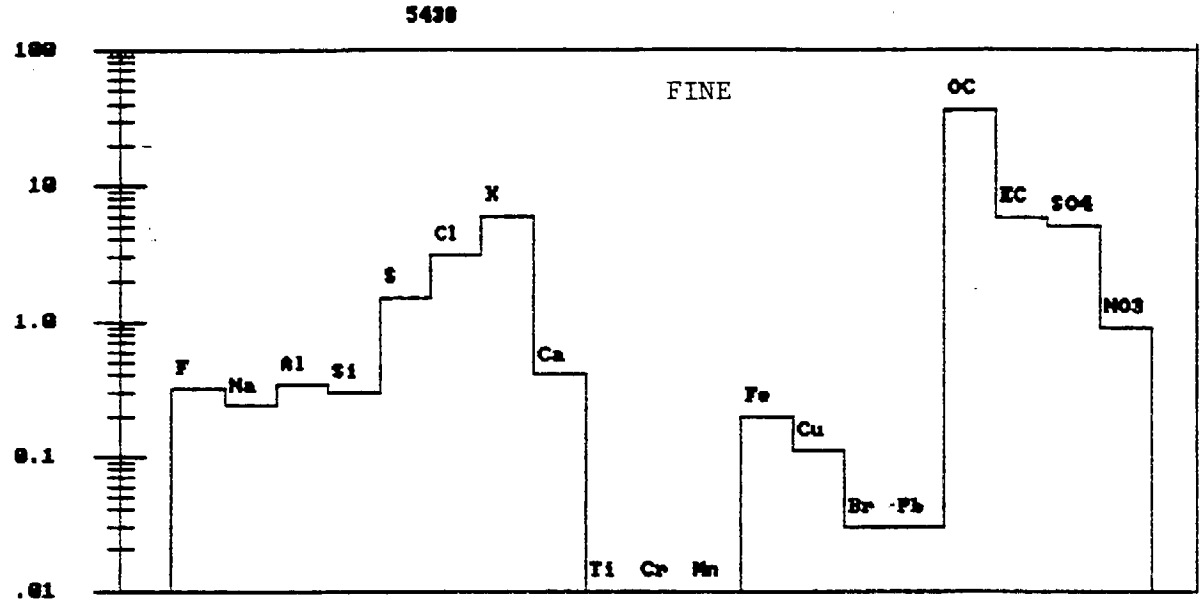


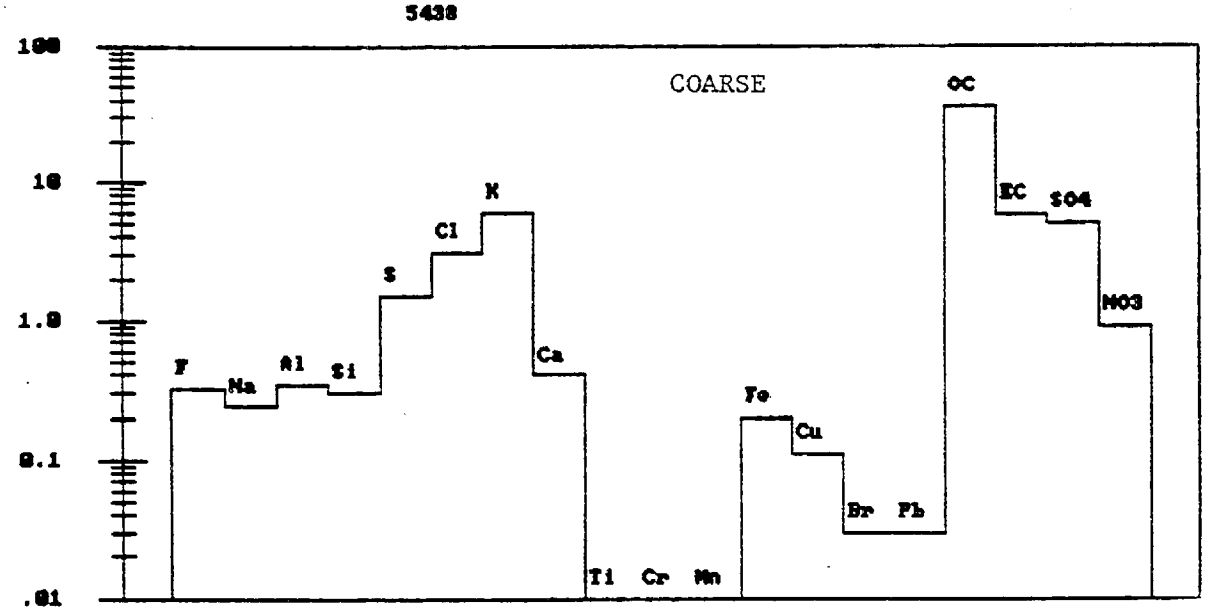


srce code	part size	revsion date	source description	reference	date
5438	FC	04/10/87	Field Burning	16	00/79

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
F	.3200 +- .1500	.3200 +- .1500	
Na	.2400 +- .3400	.2400 +- .3400	
Al	.3400 +- .3000	.3400 +- .3000	
Si	.3000 +- .2000	.3000 +- .2000	
S	1.5000 +- .7000	1.5000 +- .7000	
Cl	3.1000 +- 2.0000	3.1000 +- 2.0000	
K	5.9000 +- 2.5000	5.9000 +- 2.5000	
Ca	.4000 +- .3000	.4000 +- .3000	
Ti	.0050 +- .0050	.0050 +- .0050	
Cr	.0050 +- .0070	.0050 +- .0070	
Mn	.0040 +- .0050	.0040 +- .0050	
Fe	.2000 +- .6000	.2000 +- .6000	
Cu	.1100 +- .4000	.1100 +- .4000	
Br	.0300 +- .0400	.0300 +- .0400	
Pb	.0300 +- .0400	.0300 +- .0400	
OC	35.6000 +-10.7500	35.6000 +-10.7500	
EC	5.8000 +- 1.7400	5.8000 +- 1.7400	
SO4	5.0000 +- 4.3000	5.0000 +- 4.3000	
NO3	.8900 +- .9000	.8900 +- .9000	
Sum	59.7740	59.7740	

FIELD BURNING

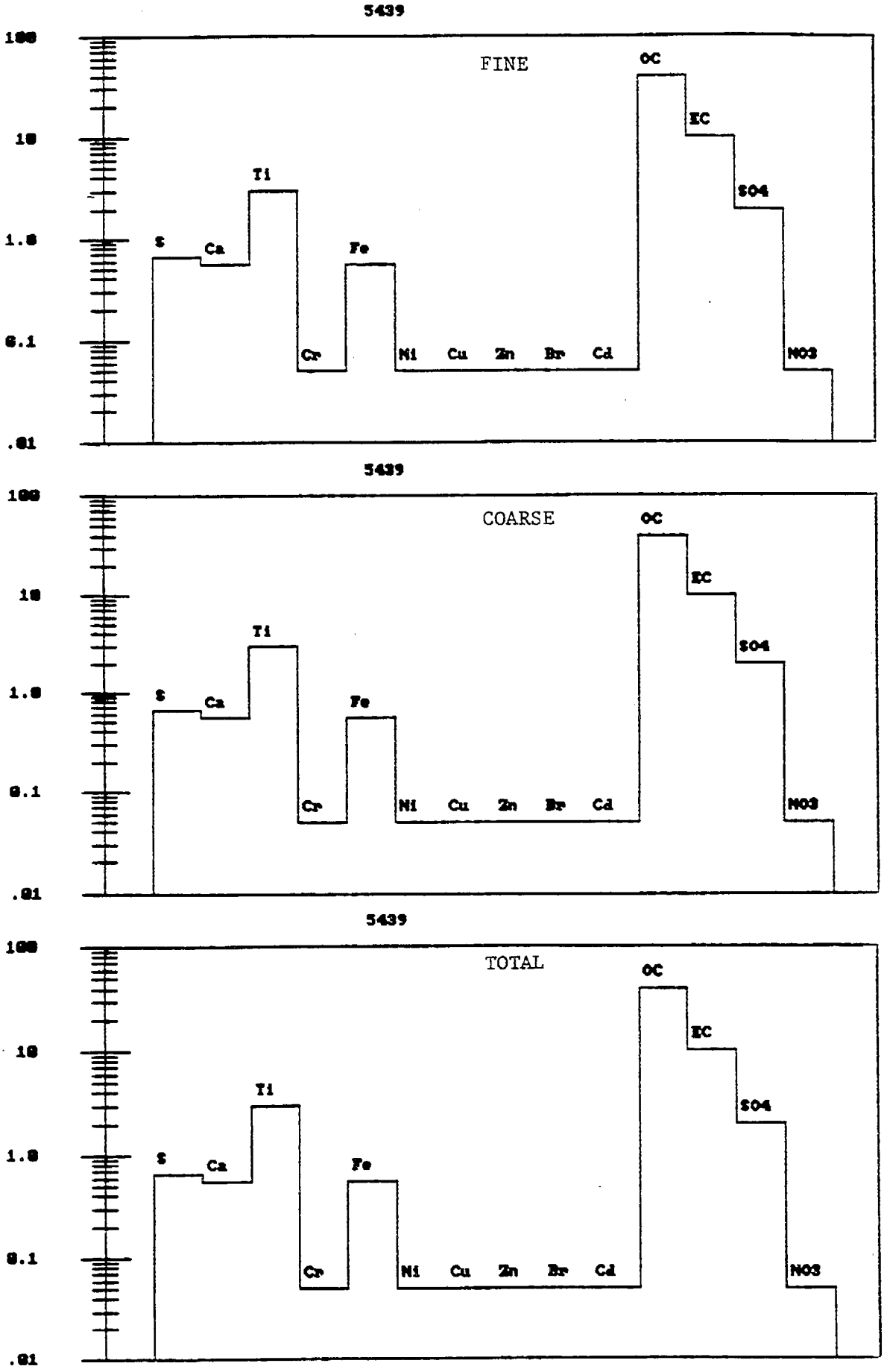




srce code	part size	revsion date	source description	reference	date
5439	FCT	04/10/87	Paint Spray booth	9	00/79

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
S	.6600 +- .1980	.6600 +- .1980	.6600 +- .1980
Ca	.5500 +- .1650	.5500 +- .1650	.5500 +- .1650
Ti	3.0000 +- .9000	3.0000 +- .9000	3.0000 +- .9000
Cr	.0500 +- .0150	.0500 +- .0150	.0500 +- .0150
Fe	.5500 +- .1650	.5500 +- .1650	.5500 +- .1650
Ni	.0500 +- .0150	.0500 +- .0150	.0500 +- .0150
Cu	.0500 +- .0150	.0500 +- .0150	.0500 +- .0150
Zn	.0500 +- .0150	.0500 +- .0150	.0500 +- .0150
Br	.0500 +- .0150	.0500 +- .0150	.0500 +- .0150
Cd	.0500 +- .0150	.0500 +- .0150	.0500 +- .0150
OC	40.0000 +-12.0000	40.0000 +-12.0000	40.0000 +-12.0000
EC	10.0000 +- 3.0000	10.0000 +- 3.0000	10.0000 +- 3.0000
SO4	2.0000 +- .6000	2.0000 +- .6000	2.0000 +- .6000
NO3	.0500 +- .0150	.0500 +- .0150	.0500 +- .0150
Sum	57.1100	57.1100	57.1100

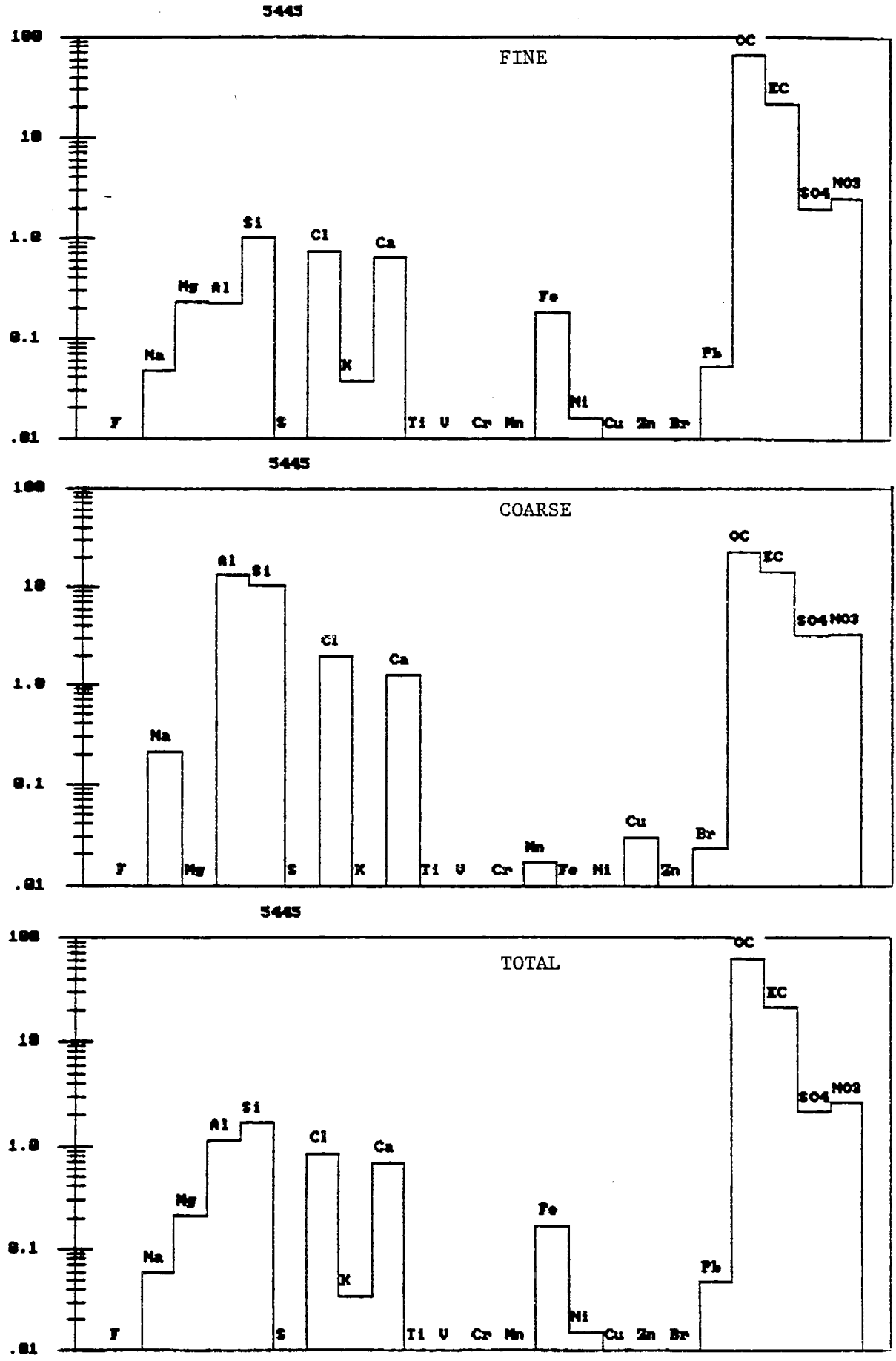
PAINT SPRAY BOOTH



srce code	part size	revsion date	source description	reference	date
5445	FCT	04/13/87	Diesel Train	7	00/79

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
F	.0000 +- .1000	.0000 +- .1000	.0000 +- .0931
Na	.0470 +- .0071	.2100 +- .0640	.0586 +- .0106
Mg	.2250 +- .0350	.0000 +- 2.0000	.2089 +- .1493
Al	.2200 +- .0640	12.9000 +-16.0000	1.1257 +- 1.1493
Si	.9800 +- 1.0700	10.2000 +- 5.9400	1.6386 +- 1.0948
S	.0000 +- .1000	.0000 +- 4.0000	.0000 +- .3004
Cl	.7400 +- .2600	2.0000 +- 1.3000	.8300 +- .2785
K	.0370 +- .0037	.0000 +- 2.0000	.0344 +- .1430
Ca	.6300 +- .0780	1.2700 +- 1.3900	.6757 +- .1499
Ti	.0098 +- .0130	.0000 +- .2000	.0091 +- .0187
V	.0006 +- .0005	.0000 +- .0010	.0006 +- .0005
Cr	.0050 +- .0050	.0000 +- 1.0000	.0046 +- .0716
Mn	.0058 +- .0074	.0170 +- .0180	.0066 +- .0070
Fe	.1800 +- .2500	.0000 +- .4000	.1671 +- .2350
Ni	.0160 +- .0006	.0000 +- .0500	.0149 +- .0041
Cu	.0067 +- .0088	.0300 +- .0030	.0084 +- .0082
Zn	.0000 +- .0100	.0000 +- .1000	.0000 +- .0117
Br	.0000 +- .0050	.0230 +- .0190	.0016 +- .0048
Pb	.0510 +- .0690		.0474 +- .0644
OC	65.3000 +- 6.5300	23.0000 +- 2.3000	62.2786 +-10.3443
EC	21.4000 +- 2.1400	14.0000 +- 1.4000	20.8714 +- 3.4152
SO4	2.0000 +- .2800	3.2000 +- 1.2000	2.0857 +- .3833
NO3	2.5000 +- 1.6000	3.3000 +- 1.3000	2.5571 +- 1.5252
Sum	94.3539	70.1500	92.6250

DIESEL TRAIN

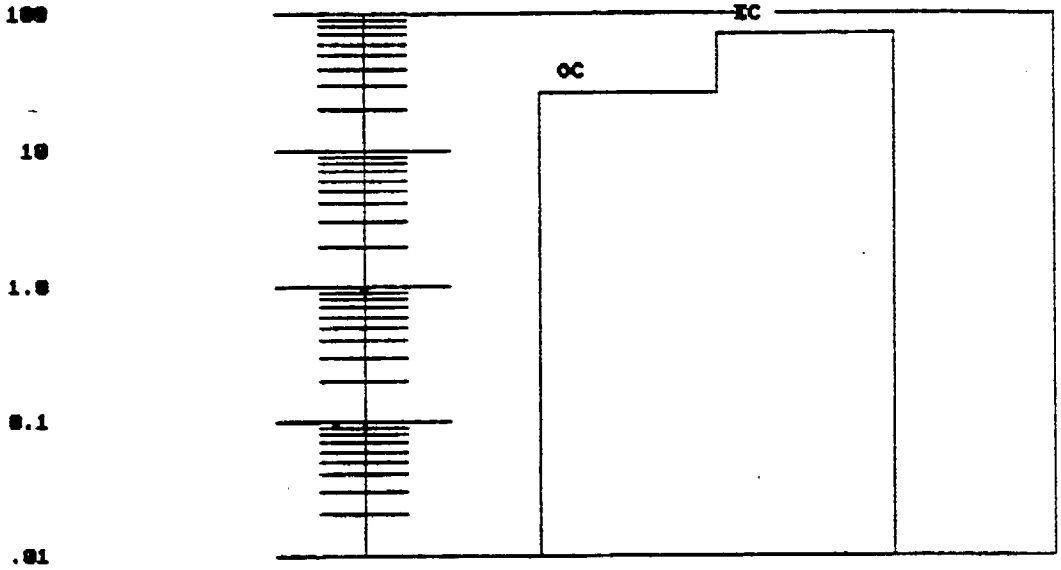


srce code	part size	revsion date	source description	reference	date
5446	C	04/13/87	Jet Aircraft	16	11/84

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
OC		25.9000 +- 7.7700	
EC		70.1000 +-21.0300	
Sum		96.0000	

JET AIRCRAFT

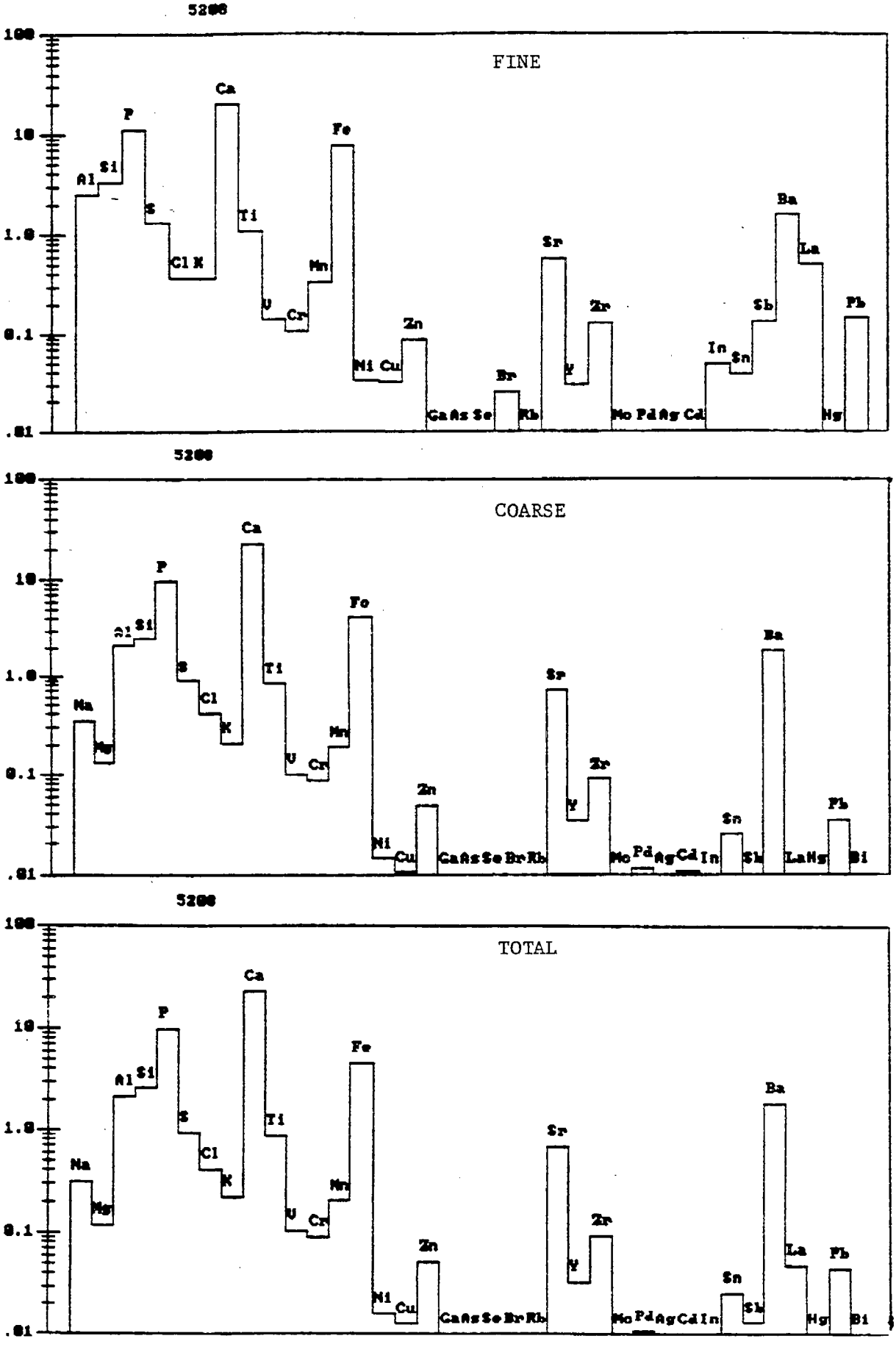
5446 COARSE



srce code	part size	revsion date	source description	reference	date
5208	FCT	04/10/87	phosphate rock (Araxa) dust	8	03/85

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Na		.3400 +- .0200	.3063 +- .0183
Mg		.1300 +- .0100	.1171 +- .0091
Al	2.5434 +- .2543	2.0988 +- .2099	2.1429 +- .1936
Si	3.3491 +- .3349	2.4823 +- .2482	2.5682 +- .2299
P	11.1516 +- 2.2314	9.5468 +- 1.9100	9.7058 +- 1.7410
S	1.2848 +- .1285	.8815 +- .0882	.9215 +- .0820
Cl	.3636 +- .0400	.4114 +- .0411	.4067 +- .0376
K	.3676 +- .0421	.2026 +- .0342	.2190 +- .0314
Ca	19.8717 +- 1.9872	22.9223 +- 2.2922	22.6200 +- 2.0958
Ti	1.0566 +- .1057	.8421 +- .0842	.8634 +- .0778
V	.1378 +- .0339	.0987 +- .0263	.1026 +- .0240
Cr	.1077 +- .0108	.0873 +- .0087	.0893 +- .0080
Mn	.3319 +- .0332	.1878 +- .0188	.2021 +- .0177
Fe	7.5787 +- .7579	4.1620 +- .4162	4.5006 +- .3923
Ni	.0324 +- .0052	.0143 +- .0027	.0161 +- .0025
Cu	.0321 +- .0057	.0105 +- .0027	.0126 +- .0025
Zn	.0864 +- .0086	.0486 +- .0049	.0523 +- .0046
Ga	.0002 +- .0029	.0032 +- .0013	.0029 +- .0012
As	.0000 +- .0127	.0000 +- .0041	.0000 +- .0039
Se	.0009 +- .0027	.0000 +- .0014	.0001 +- .0013
Br	.0249 +- .0043	.0026 +- .0016	.0048 +- .0015
Rb	.0025 +- .0041	.0040 +- .0019	.0039 +- .0018
Sr	.5514 +- .0551	.7056 +- .0706	.6903 +- .0644
Y	.0294 +- .0063	.0338 +- .0036	.0334 +- .0033
Zr	.1265 +- .0391	.0883 +- .0359	.0921 +- .0326
Mo	.0020 +- .0183	.0094 +- .0091	.0087 +- .0084
Pd	.0041 +- .0186	.0113 +- .0087	.0106 +- .0081
Ag	.0000 +- .0226	.0000 +- .0124	.0000 +- .0114
Cd	.0000 +- .0319	.0106 +- .0163	.0095 +- .0150
In	.0486 +- .0362	.0000 +- .0178	.0048 +- .0164
Sn	.0378 +- .0443	.0247 +- .0227	.0260 +- .0209
Sb	.1308 +- .0771	.0000 +- .0364	.0130 +- .0337
Ba	1.5312 +- .2629	1.8728 +- .1873	1.8389 +- .1724
La	.4912 +- .3242	.0000 +- .1723	.0487 +- .1586
Hg	.0054 +- .0043	.0036 +- .0028	.0038 +- .0026
Pb	.1428 +- .0167	.0346 +- .0059	.0453 +- .0058
Bi		.0000 +- .0200	.0000 +- .0180
Sum	51.4251	47.2713	47.6833

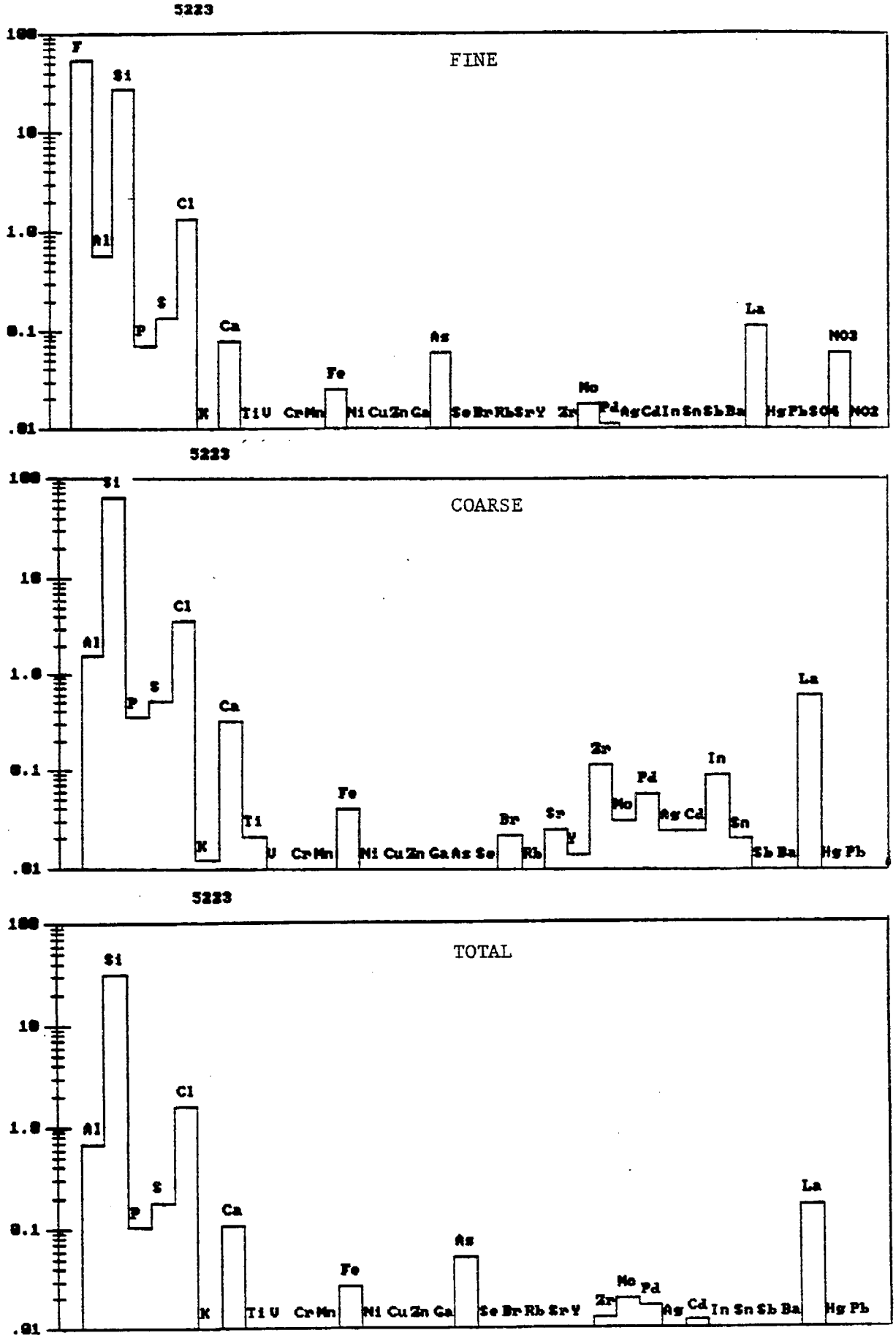
PHOSPHATE ROCK (ARAXA) DUST



srce code	part size	revsion date	source description	reference	date
5223	FCT	03/01/85	suprphos. plant, Cubatao, T<15	8	03/85

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
F	52.9000 +- 5.2900		
Al	.5720 +- .1144	1.5410 +- .3082	.6785 +- .1357
Si	26.6060 +- 2.6606	64.7830 +- 6.4783	30.8128 +- 3.0813
P	.0700 +- .0140	.3500 +- .0870	.1008 +- .0209
S	.1360 +- .0272	.5180 +- .1140	.1778 +- .0356
Cl	1.3090 +- .2618	3.7270 +- .7454	1.5757 +- .3151
K	.0030 +- .0020	.0120 +- .0160	.0042 +- .0039
Ca	.0790 +- .0158	.3220 +- .0644	.1058 +- .0212
Ti	.0030 +- .0010	.0210 +- .0100	.0047 +- .0022
V	.0040 +- .0010	.0030 +- .0060	.0039 +- .0015
Cr	.0000 +- .0010	.0100 +- .0070	.0011 +- .0017
Mn	.0010 +- .0010	.0010 +- .0070	.0013 +- .0017
Fe	.0250 +- .0050	.0410 +- .0230	.0270 +- .0061
Ni	.0010 +- .0010	.0090 +- .0090	.0023 +- .0022
Cu	.0000 +- .0010	.0000 +- .0090	.0000 +- .0022
Zn	.0010 +- .0010	.0040 +- .0070	.0016 +- .0016
Ga	.0000 +- .0010	.0000 +- .0050	.0000 +- .0012
As	.0590 +- .0118	.0000 +- .0170	.0521 +- .0104
Se	.0000 +- .0010	.0000 +- .0070	.0001 +- .0018
Br	.0050 +- .0010	.0220 +- .0090	.0066 +- .0022
Rb	.0000 +- .0010	.0000 +- .0100	.0000 +- .0023
Sr	.0070 +- .0020	.0250 +- .0120	.0087 +- .0030
Y	.0000 +- .0020	.0140 +- .0140	.0015 +- .0034
Zr	.0000 +- .0090	.1140 +- .0620	.0125 +- .0147
Mo	.0180 +- .0070	.0310 +- .0440	.0198 +- .0109
Pd	.0110 +- .0050	.0580 +- .0370	.0165 +- .0088
Ag	.0000 +- .0090	.0240 +- .0620	.0027 +- .0149
Cd	.0100 +- .0130	.0240 +- .0830	.0116 +- .0203
In	.0000 +- .0130	.0890 +- .0910	.0098 +- .0214
Sn	.0000 +- .0160	.0200 +- .1110	.0022 +- .0267
Sb	.0000 +- .0280	.0000 +- .1900	.0000 +- .0458
Ba	.0000 +- .0730	.0000 +- .4990	.0000 +- .1197
La	.1110 +- .1090	.6010 +- .7320	.1648 +- .1777
Hg	.0010 +- .0020	.0000 +- .0120	.0006 +- .0029
Pb	.0090 +- .0040	.0090 +- .0260	.0087 +- .0064
SO4	.0000 +- .0340		
NO3	.0600 +- .0340		
NO2	.0000 +- .1660		
Sum	82.0010	72.3730	33.8157

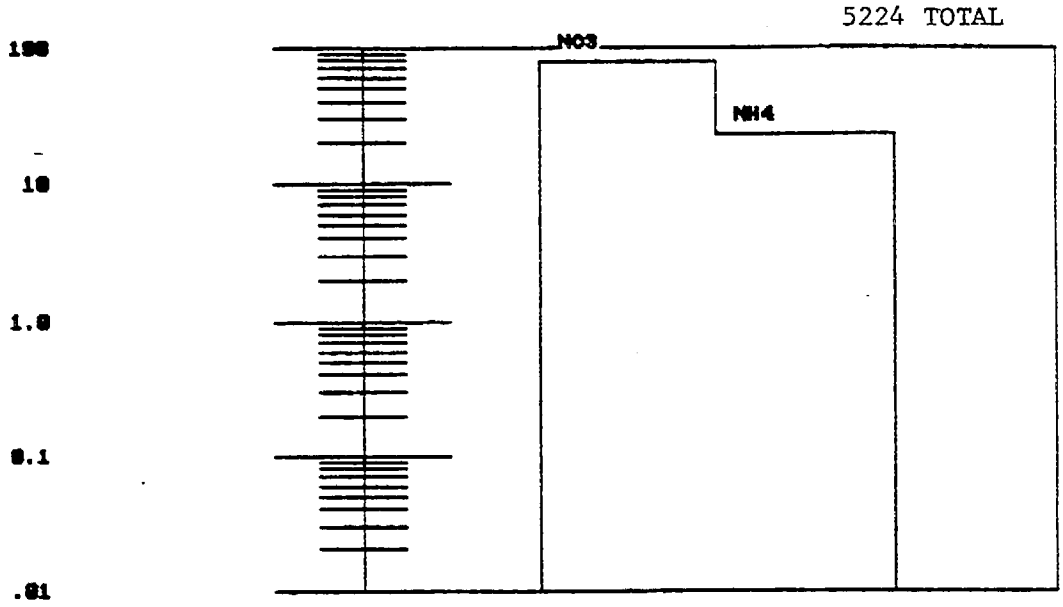
SUPRPHOS. PLANT, CUBATAO, T<15



srce code	part size	revsion date	source description	reference	date
5224	T	03/01/85	NH4NO3 prill tower, Cubatao	8	03/85

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
NO3			77.5000 +- 7.7500
NH4			22.5000 +- 2.2500
Sum			100.0000

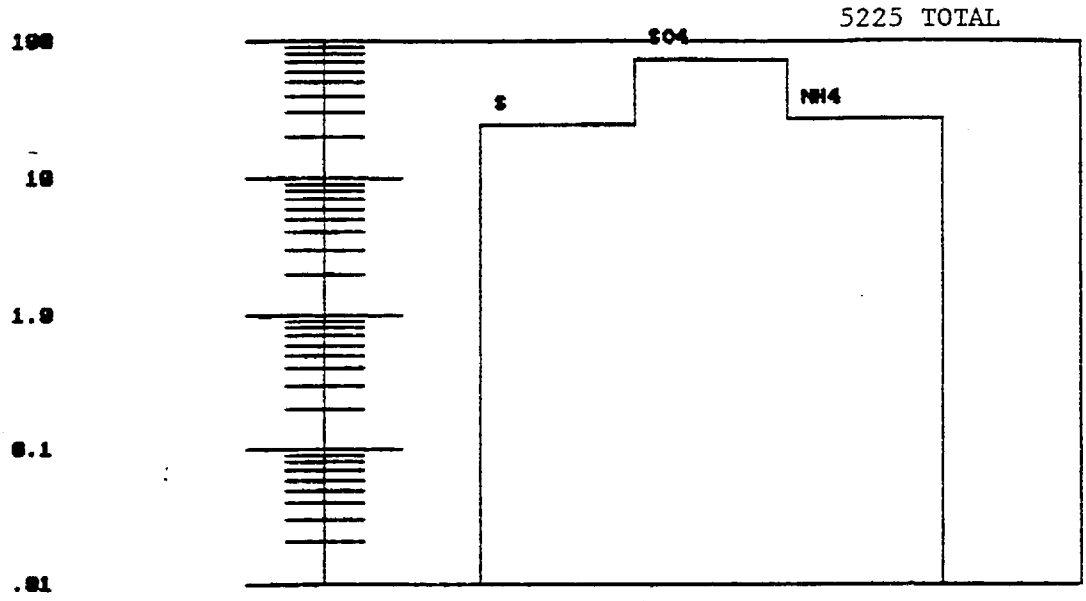
NH4NO3 PRILL TOWER, CUBATAO



srce code	part size	revsion date	source description	reference	date
5225	T	03/01/85	ammonium sulfate, Cubatao	8	03/85

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
S			24.2000 +- 2.4200
SO4			72.7000 +- 7.2700
NH4			27.3000 +- 2.7300
Sum			*******

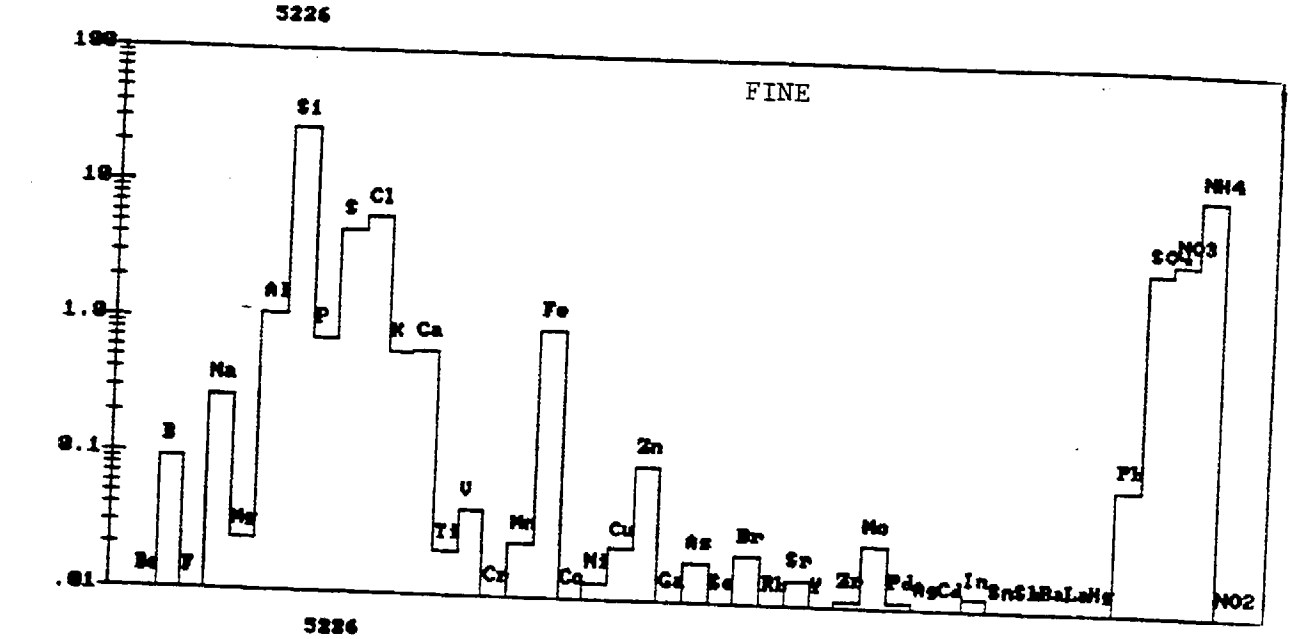
AMMONIUM SULFATE, CUBATAO

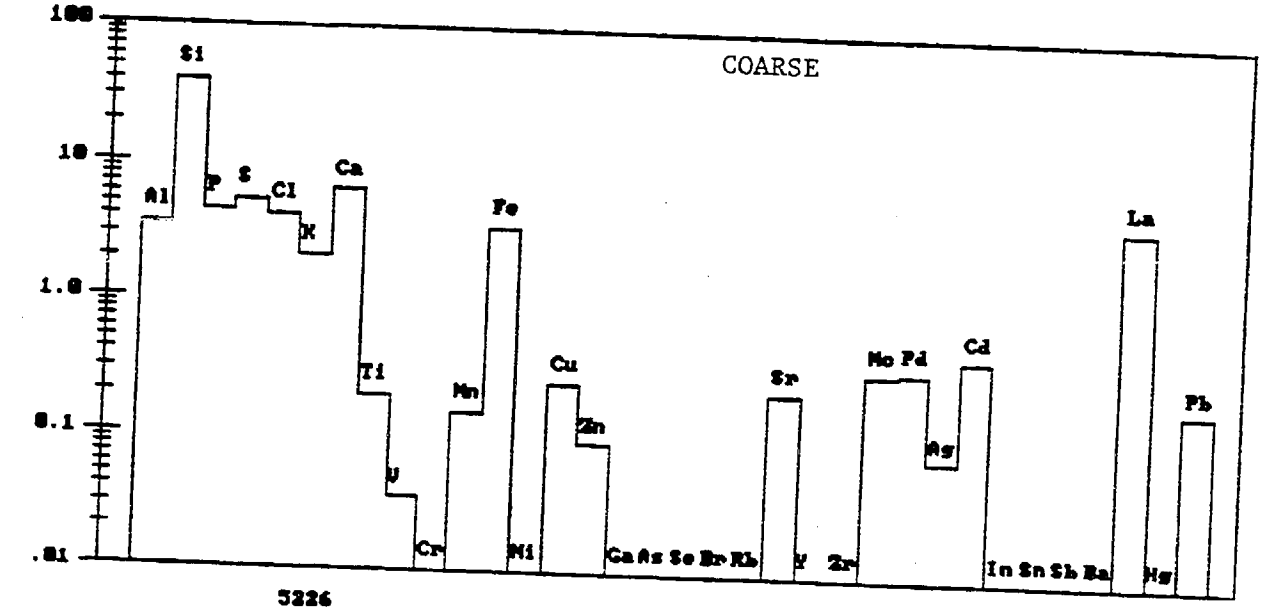


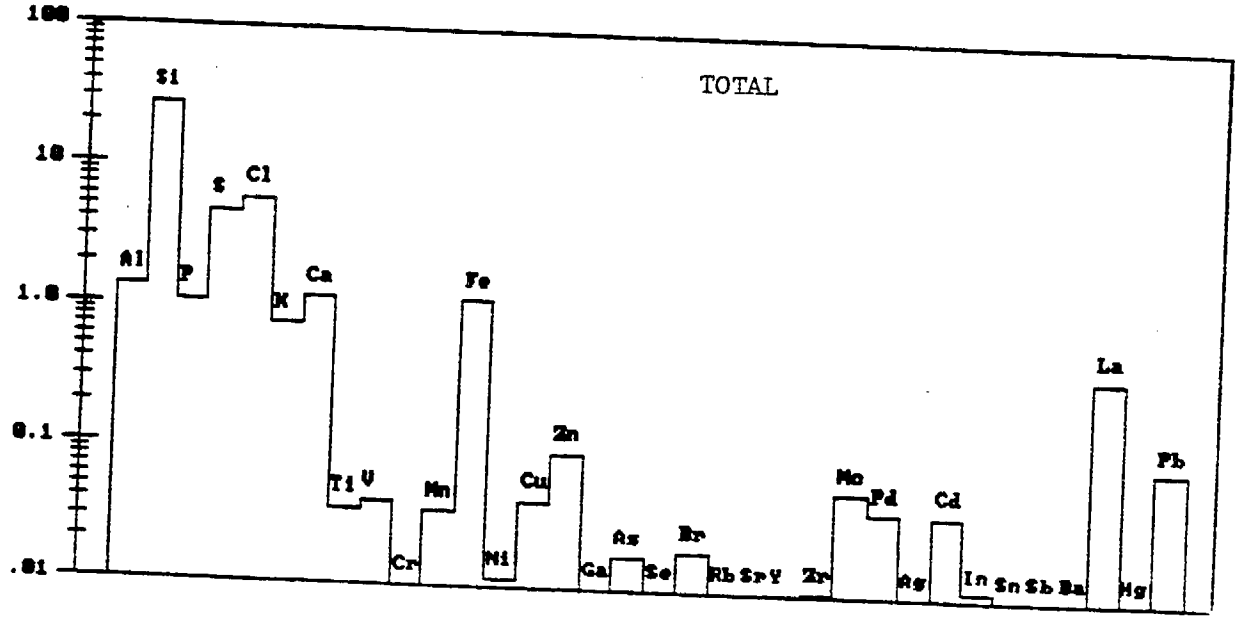
srce code	part size	revsion date	source description	reference	date
5226	FCT	03/01/85	DAP plant, run 2, Cub., T<15	8	03/85

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Be	.0000 +- .0230		
B	.0920 +- .0920		
F	.0000 +- .0920		
Na	.2700 +- .9000		
Mg	.0230 +- .0120		
Al	1.1030 +- .2206	3.5610 +- .8903	1.3297 +- .3324
Si	25.8060 +- 5.1612	39.4410 +- 9.8603	27.0632 +- 6.7658
P	.7250 +- .1450	4.5410 +- 1.3370	1.0772 +- .2693
S	4.6870 +- .9374	5.3270 +- 1.3318	4.7460 +- 1.1865
Cl	5.8680 +- 1.1736	4.2710 +- 1.0680	5.7206 +- 1.4302
K	.6020 +- .1204	2.1050 +- .5263	.7409 +- .1852
Ca	.6170 +- .1234	6.5200 +- 1.6300	1.1617 +- .2904
Ti	.0200 +- .0040	.1990 +- .0560	.0365 +- .0091
V	.0420 +- .0084	.0350 +- .0260	.0413 +- .0103
Cr	.0060 +- .0030	.0000 +- .0250	.0057 +- .0049
Mn	.0240 +- .0048	.1510 +- .0420	.0359 +- .0090
Fe	.9250 +- .1850	3.5510 +- .8877	1.1676 +- .2919
Co	.0000 +- .2100		
Ni	.0130 +- .0040	.0000 +- .0280	.0114 +- .0060
Cu	.0230 +- .0050	.2510 +- .0660	.0437 +- .0109
Zn	.0960 +- .0192	.0910 +- .0410	.0955 +- .0239
Ga	.0010 +- .0020	.0000 +- .0180	.0005 +- .0036
As	.0190 +- .0090	.0000 +- .0640	.0176 +- .0138
Se	.0000 +- .0030	.0000 +- .0270	.0004 +- .0049
Br	.0220 +- .0044	.0000 +- .0290	.0197 +- .0060
Rb	.0000 +- .0030	.0000 +- .0340	.0000 +- .0062
Sr	.0150 +- .0040	.2290 +- .0620	.0034 +- .0081
Y	.0000 +- .0050	.0000 +- .0490	.0000 +- .0088
Zr	.0110 +- .0210	.0000 +- .2120	.0104 +- .0383
Mo	.0280 +- .0150	.3340 +- .1720	.0561 +- .0287
Pd	.0110 +- .0110	.3400 +- .1500	.0413 +- .0230
Ag	.0000 +- .0200	.0770 +- .2200	.0071 +- .0382
Cd	.0000 +- .0270	.4390 +- .3200	.0405 +- .0534
In	.0120 +- .0300	.0000 +- .3020	.0112 +- .0552
Sn	.0000 +- .0370	.0000 +- .3900	.0000 +- .0698
Sb	.0000 +- .0640	.0000 +- .6750	.0000 +- .1204
Ba	.0000 +- .1720	.0000 +- 1.8100	.0000 +- .3230
La	.0000 +- .2390	4.4110 +- 2.7690	.4068 +- .4617
Hg	.0050 +- .0050	.0000 +- .0370	.0047 +- .0076
Pb	.0810 +- .0162	.1940 +- .1050	.0909 +- .0227
SO4	3.2200 +- .8100		
NO3	3.7800 +- .9500		
NH4	11.3300 +- 2.8300		
NO2	.0000 +- .4500		
Sum	59.4770	76.0680	43.9878

DAP PLANT, RUN 2, CUB., T<15



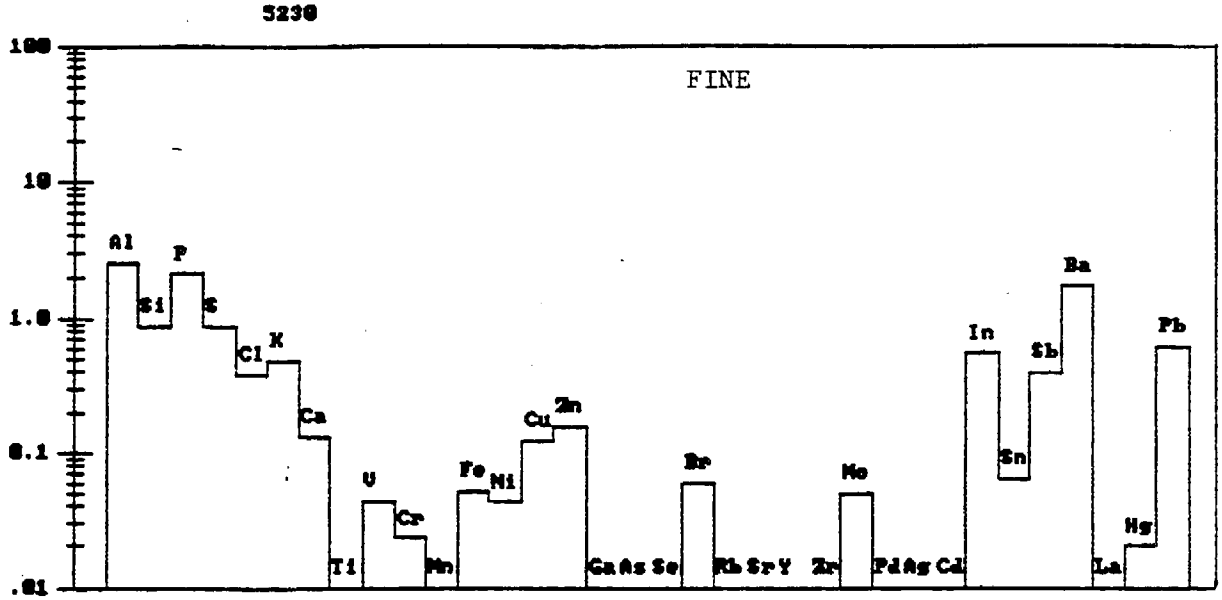


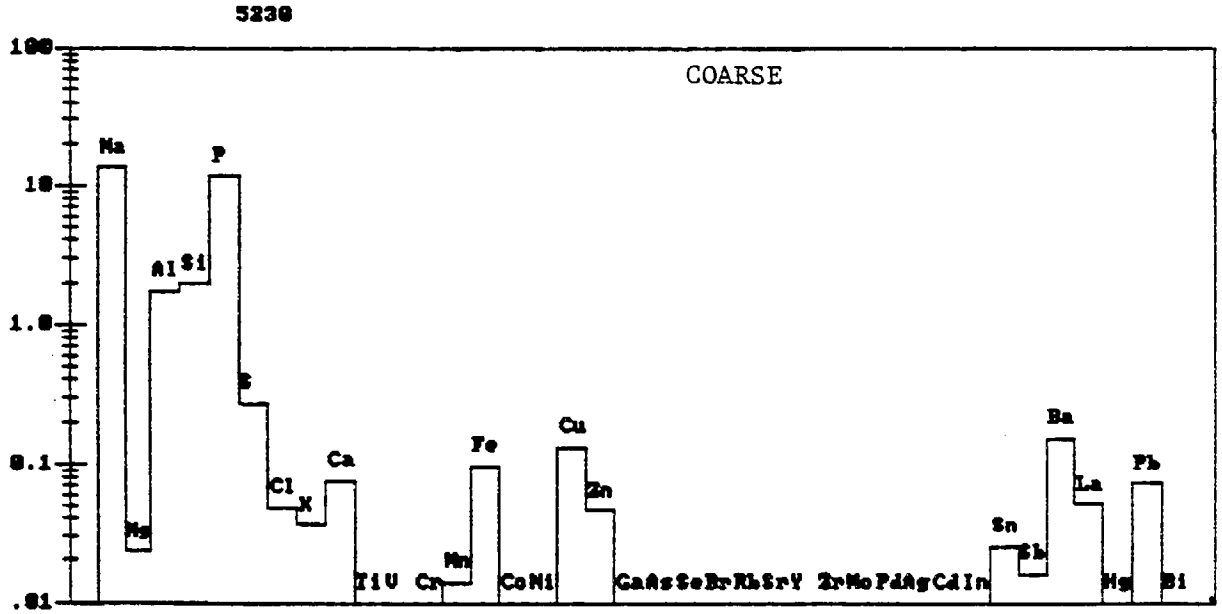


srce code	part size	revsion date	source description	reference	date
5230	FC	03/01/85	Na tripolyphs. cyclone dust	8	03/85

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Na		13.4000 +- 2.6800	
Mg		.0230 +- .0060	
Al	2.5370 +- .3570	1.7320 +- .1732	
Si	.8750 +- .1410	1.9470 +- .1947	
P	2.0860 +- .4860	11.7330 +- 2.3500	
S	.8700 +- .2890	.2700 +- .0330	
Cl	.3800 +- .1180	.0480 +- .0130	
K	.4790 +- .0910	.0360 +- .0060	
Ca	.1310 +- .0390	.0750 +- .0075	
Ti	.0060 +- .0180	.0060 +- .0020	
V	.0440 +- .0160	.0040 +- .0020	
Cr	.0230 +- .0170	.0010 +- .0010	
Mn	.0000 +- .0170	.0140 +- .0020	
Fe	.0520 +- .0530	.0970 +- .0097	
Co		.0020 +- .0005	
Ni	.0430 +- .0180	.0000 +- .0020	
Cu	.1220 +- .0320	.1320 +- .0132	
Zn	.1570 +- .0310	.0460 +- .0046	
Ga	.0000 +- .0140	.0000 +- .0020	
As	.0000 +- .0630	.0050 +- .0060	
Se	.0000 +- .0150	.0010 +- .0010	
Br	.0600 +- .0220	.0030 +- .0020	
Rb	.0000 +- .0230	.0050 +- .0020	
Sr	.0040 +- .0280	.0030 +- .0020	
Y	.0000 +- .0330	.0030 +- .0030	
Zr	.0000 +- .1430	.0000 +- .0130	
Mo	.0500 +- .1110	.0000 +- .0100	
Pd	.0000 +- .1040	.0000 +- .0100	
Ag	.0070 +- .1520	.0030 +- .0130	
Cd	.0000 +- .1880	.0000 +- .0180	
In	.5440 +- .2340	.0060 +- .0210	
Sn	.0630 +- .2590	.0250 +- .0270	
Sb	.3900 +- .4400	.0160 +- .0450	
Ba	1.6960 +- 1.3380	.1500 +- .1280	
La	.0000 +- 1.8360	.0510 +- .1820	
Hg	.0200 +- .0230	.0010 +- .0030	
Pb	.6150 +- .1120	.0720 +- .0080	
Bi		.0000 +- .0050	
Sum	11.2540	29.9100	

Na TRIPOLYPHS. CYCLONE DUST



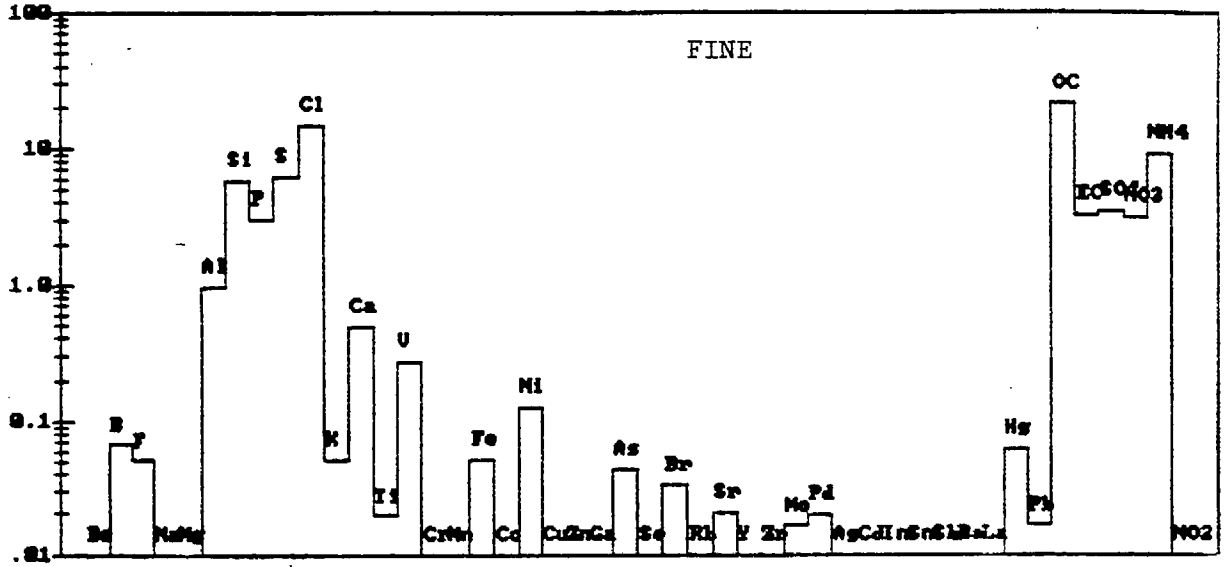


srce code	part size	revsion date	source description	reference	date
5222	FCT	03/01/85	sprphs. granulation, Cub. T<15	8	03/85

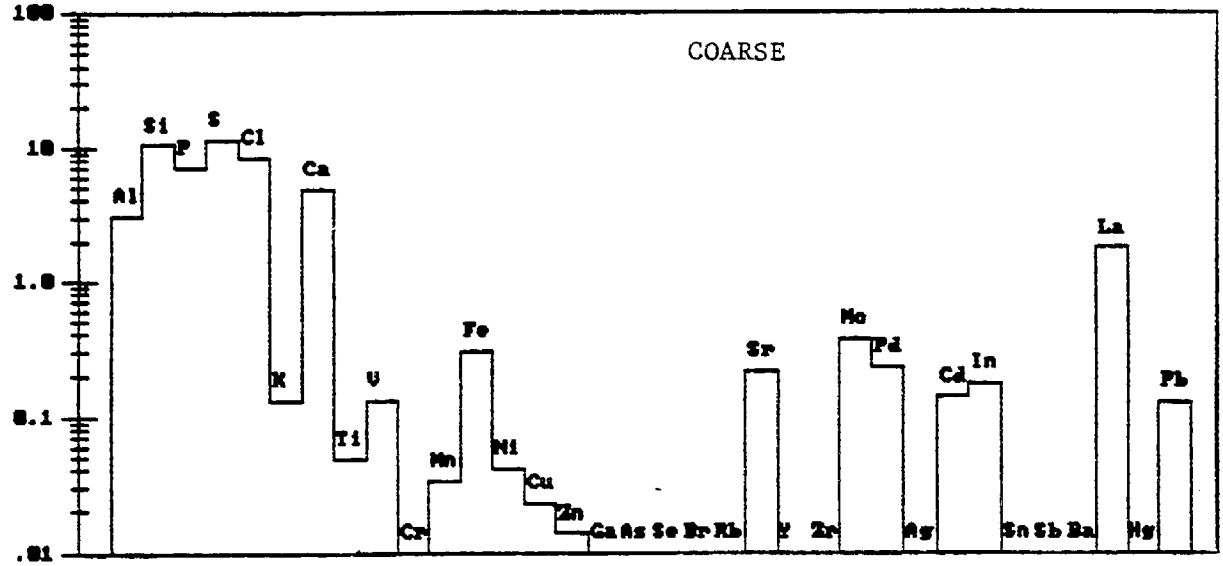
SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Be	.0000 +- .0110		
B	.0670 +- .0450		
F	.0510 +- .0450		
Na	.0000 +- .4400		
Mg	.0000 +- .0057		
Al	.9729 +- .0973	3.1372 +- .7843	1.0461 +- .1046
Si	5.7913 +- 1.4526	10.5624 +- 3.6749	5.9495 +- 1.5147
P	3.0160 +- 1.8055	7.0982 +- 3.9242	3.1568 +- 1.8882
S	6.1117 +- .8128	11.5794 +- 2.8949	6.2947 +- .8405
Cl	14.6758 +- 6.0144	8.4785 +- 7.3125	14.4646 +- 6.0751
K	.0511 +- .0061	.1313 +- .1021	.0538 +- .0094
Ca	.4856 +- .2041	4.8821 +- 3.1628	.6382 +- .3160
Ti	.0193 +- .0032	.0489 +- .0481	.0204 +- .0048
V	.2679 +- .1046	.1320 +- .0940	.2636 +- .0988
Cr	.0000 +- .0039	.0076 +- .0444	.0002 +- .0053
Mn	.0040 +- .0019	.0327 +- .0370	.0050 +- .0027
Fe	.0519 +- .0077	.3019 +- .2238	.0606 +- .0101
Co	.0000 +- .0910		
Ni	.1266 +- .0373	.0405 +- .0722	.1237 +- .0382
Cu	.0016 +- .0022	.0228 +- .0508	.0023 +- .0038
Zn	.0062 +- .0033	.0138 +- .0321	.0064 +- .0026
Ga	.0010 +- .0011	.0051 +- .0250	.0011 +- .0019
As	.0433 +- .0278	.0000 +- .0860	.0418 +- .0267
Se	.0000 +- .0015	.0000 +- .0379	.0000 +- .0027
Br	.0334 +- .0065	.0023 +- .0451	.0324 +- .0062
Rb	.0000 +- .0020	.0000 +- .0491	.0000 +- .0036
Sr	.0205 +- .0027	.2105 +- .0643	.0269 +- .0048
Y	.0000 +- .0026	.0000 +- .0692	.0000 +- .0049
Zr	.0000 +- .0116	.0000 +- .3050	.0000 +- .0214
Mo	.0164 +- .0087	.3673 +- .2300	.0282 +- .0161
Pd	.0199 +- .0073	.2288 +- .2233	.0273 +- .0132
Ag	.0049 +- .0118	.0015 +- .3063	.0048 +- .0217
Cd	.0000 +- .0155	.1373 +- .4216	.0045 +- .0292
In	.0017 +- .0167	.1732 +- .4455	.0072 +- .0311
Sn	.0051 +- .0209	.0000 +- .5466	.0049 +- .0386
Sb	.0000 +- .0373	.0000 +- .9778	.0000 +- .0690
Ba	.0000 +- .0948	.0000 +- 2.5948	.0000 +- .1790
La	.0000 +- .1364	1.7638 +- 3.6545	.0562 +- .2548
Hg	.0615 +- .0065	.0000 +- .0722	.0594 +- .0085
Pb	.0163 +- .0054	.1257 +- .1335	.0201 +- .0097
OC	21.0000 +- 2.1000		
EC	3.2300 +- .3230		
SO4	3.4300 +- .3430		
NO3	3.1400 +- .3140		
NH4	9.1100 +- .9110		
NO2	.0000 +- .2200		
Sum	71.8340	49.4849	32.4010

SPRPHS. GRANULATION, CUB. T<15

5222



5222



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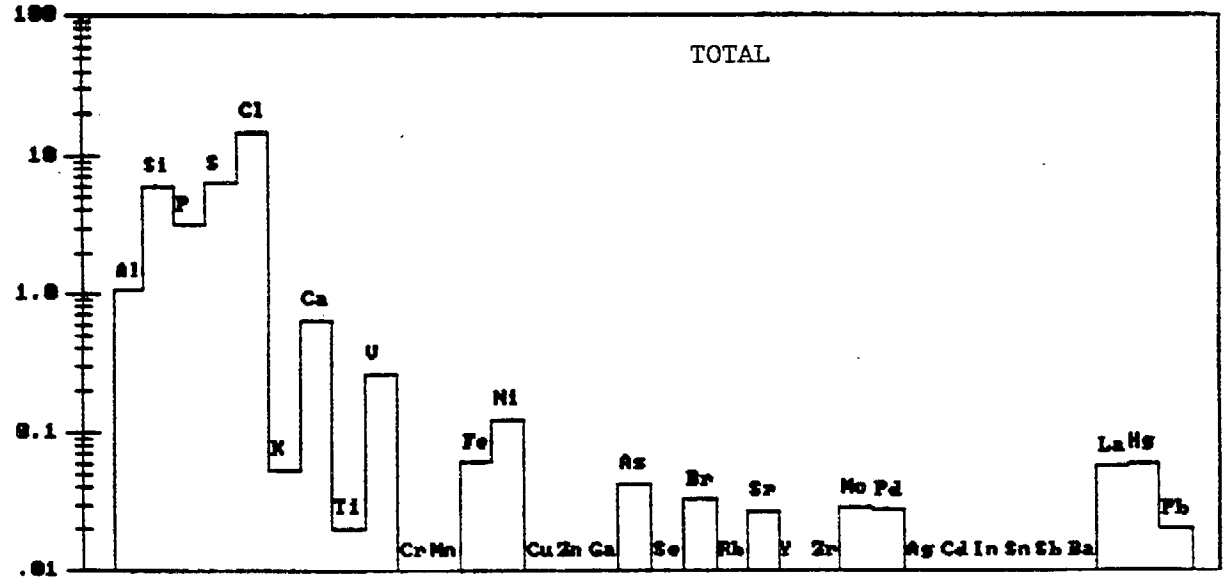
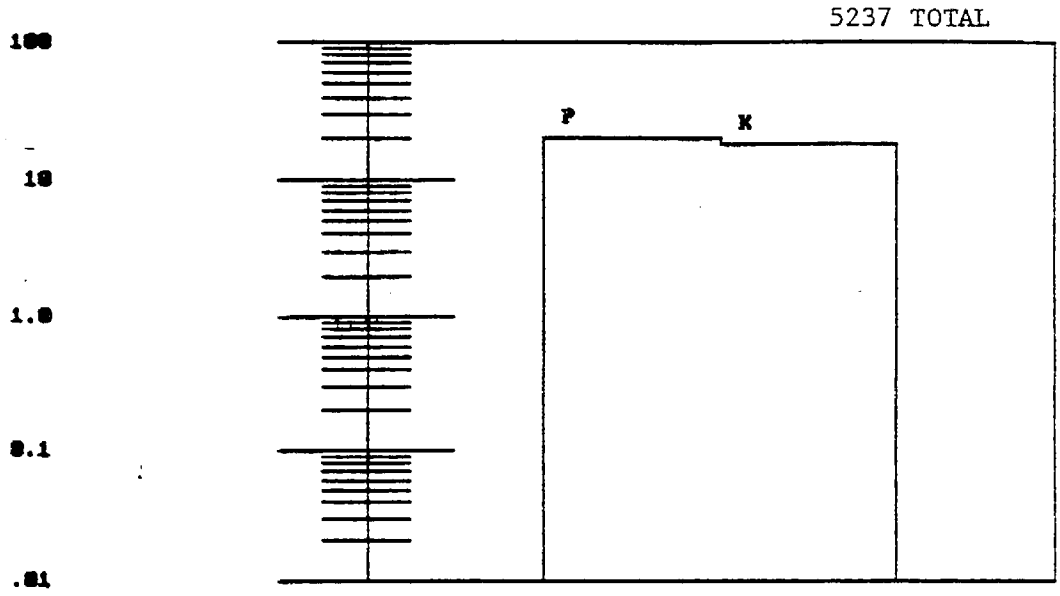


srce code	part size	revsion date	source description	reference	date
5237	T	03/01/85	NPK fertilizer, 2-20-18	8	03/85

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
P			20.0000 +-10.0000
K			18.0000 +-10.0000
Sum			38.0000

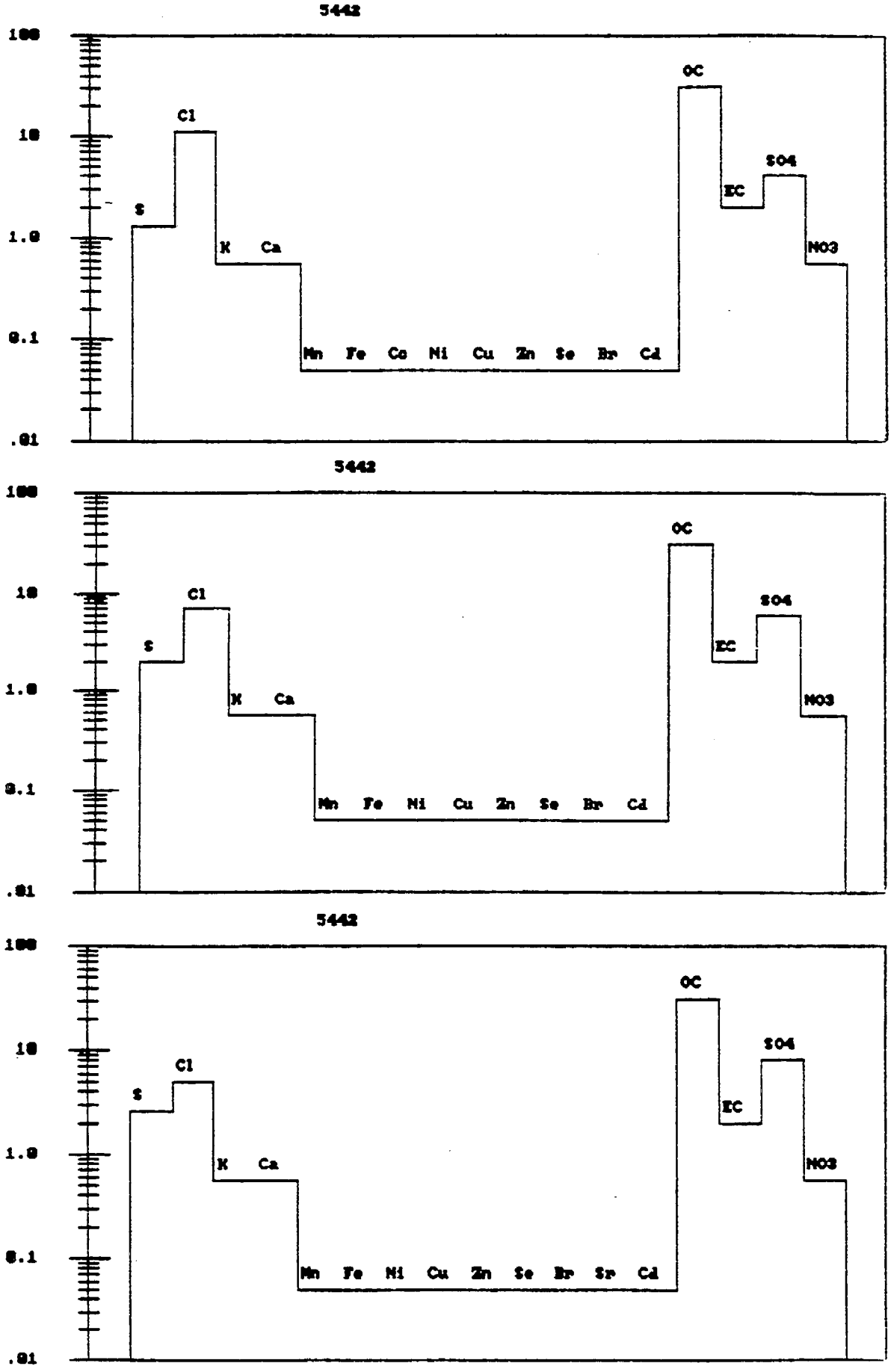
NPK FERTILIZER, 2-20-18



srce code	part size	revsion date	source description	reference	date
5442	FCT	04/10/87	Urea Fertilizer Production	9	00/79

	PERCENT COMPOSITION		
SPECIES	FINE	COARSE	TOTAL
S	1.3000 +- .3900	2.0000 +- .6000	2.6000 +- .7800
Cl	11.0000 +- 3.3000	7.0000 +- 2.1000	5.0000 +- 1.5000
K	.5500 +- .1650	.5500 +- .1650	.5500 +- .1650
Ca	.5500 +- .1650	.5500 +- .1650	.5500 +- .1650
Mn	.0500 +- .0150	.0500 +- .0150	.0500 +- .0150
Fe	.0500 +- .0150	.0500 +- .0150	.0500 +- .0150
Co	.0500 +- .0150		
Ni	.0500 +- .0150	.0500 +- .0150	.0500 +- .0150
Cu	.0500 +- .0150	.0500 +- .0150	.0500 +- .0150
Zn	.0500 +- .0150	.0500 +- .0150	.0500 +- .0150
Se	.0500 +- .0150	.0500 +- .0150	.0500 +- .0150
Br	.0500 +- .0150	.0500 +- .0150	.0500 +- .0150
Sr			.0500 +- .0150
Cd	.0500 +- .0150	.0500 +- .0150	.0500 +- .0150
OC	31.0000 +- 9.3000	31.0000 +- 9.3000	31.0000 +- 9.3000
EC	2.0000 +- .6000	2.0000 +- .6000	2.0000 +- .6000
SO4	4.0000 +- 1.2000	6.0000 +- 1.8000	8.0000 +- 2.4000
NO3	.5500 +- .1650	.5500 +- .1650	.5500 +- .1650
Sum	51.4000	50.0500	50.7000

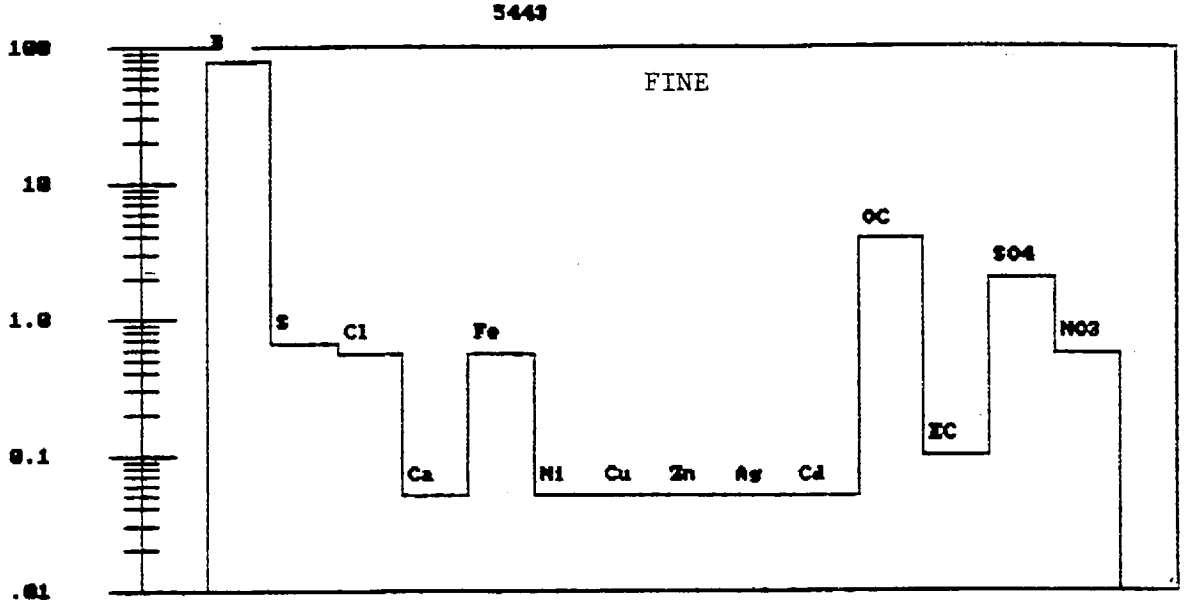
UREA FERTILIZER PRODUCTION

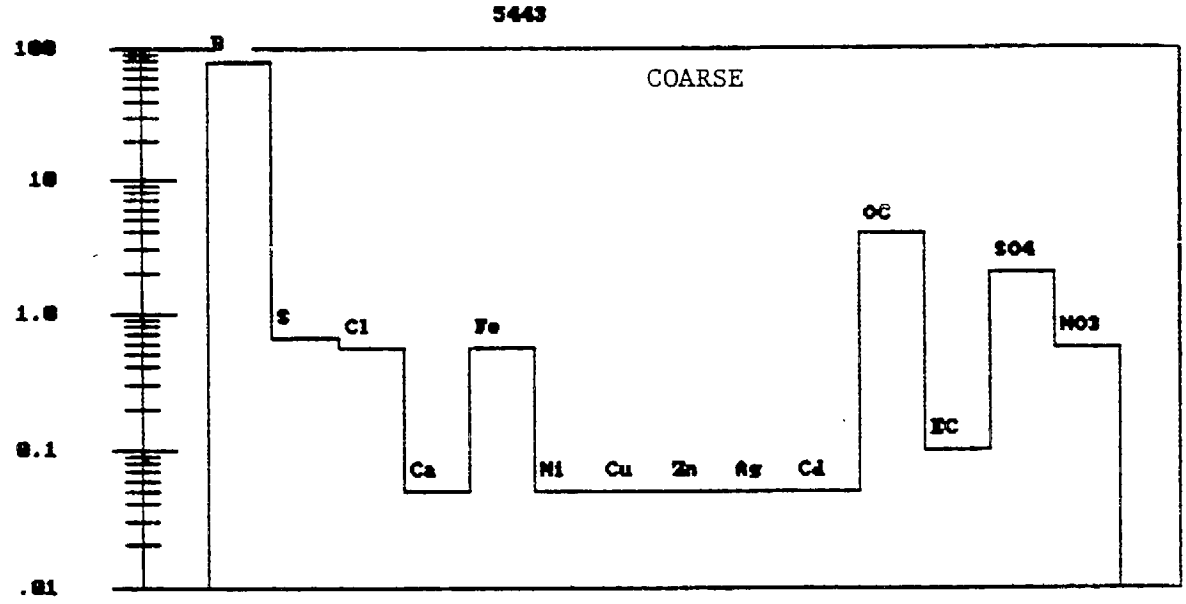


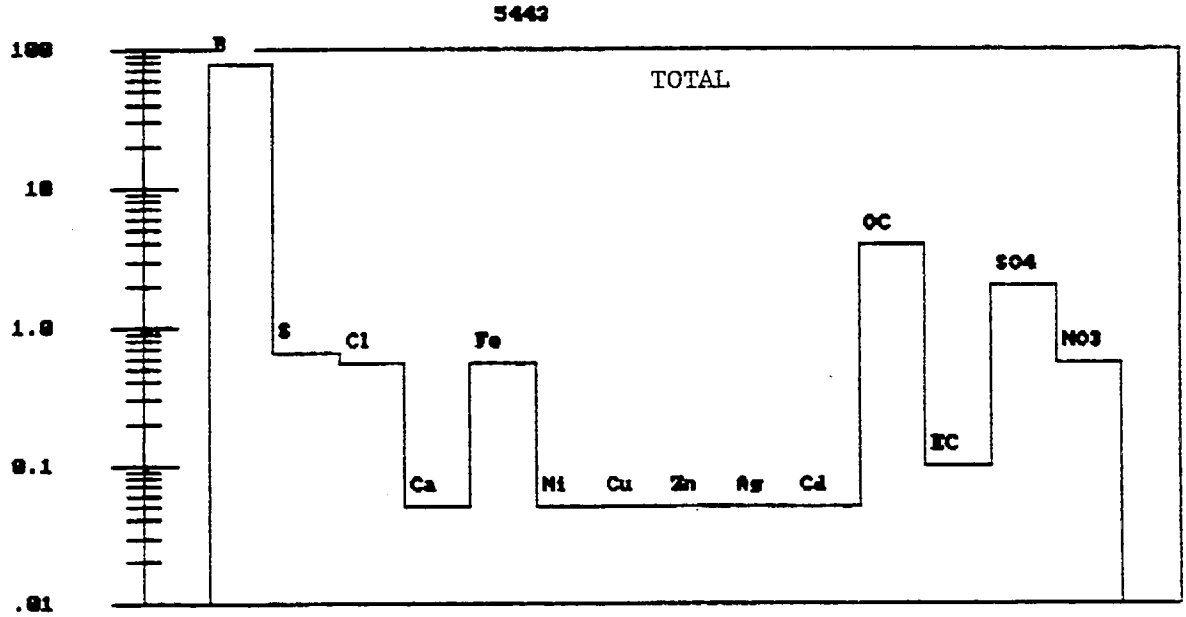
srce code	part size	revsion date	source description	reference	date
5443	FCT	04/10/87	Boric Acid Manufacturing	9	00/79

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
B	77.6400 +-23.2920	77.6400 +-23.2920	77.6400 +-23.2920
S	.6600 +- .1980	.6600 +- .1980	.6600 +- .1980
Cl	.5500 +- .1650	.5500 +- .1650	.5500 +- .1650
Ca	.0500 +- .0150	.0500 +- .0150	.0500 +- .0150
Fe	.5500 +- .1650	.5500 +- .1650	.5500 +- .1650
Ni	.0500 +- .0150	.0500 +- .0150	.0500 +- .0150
Cu	.0500 +- .0150	.0500 +- .0150	.0500 +- .0150
Zn	.0500 +- .0150	.0500 +- .0150	.0500 +- .0150
Ag	.0500 +- .0150	.0500 +- .0150	.0500 +- .0150
Cd	.0500 +- .0150	.0500 +- .0150	.0500 +- .0150
OC	3.9000 +- 1.1700	3.9000 +- 1.1700	3.9000 +- 1.1700
EC	.1000 +- .0300	.1000 +- .0300	.1000 +- .0300
SO4	2.0000 +- .6000	2.0000 +- .6000	2.0000 +- .6000
NO3	.5500 +- .1650	.5500 +- .1650	.5500 +- .1650
Sum	86.2500	86.2500	86.2500

BORIC ACID MANUFACTURING



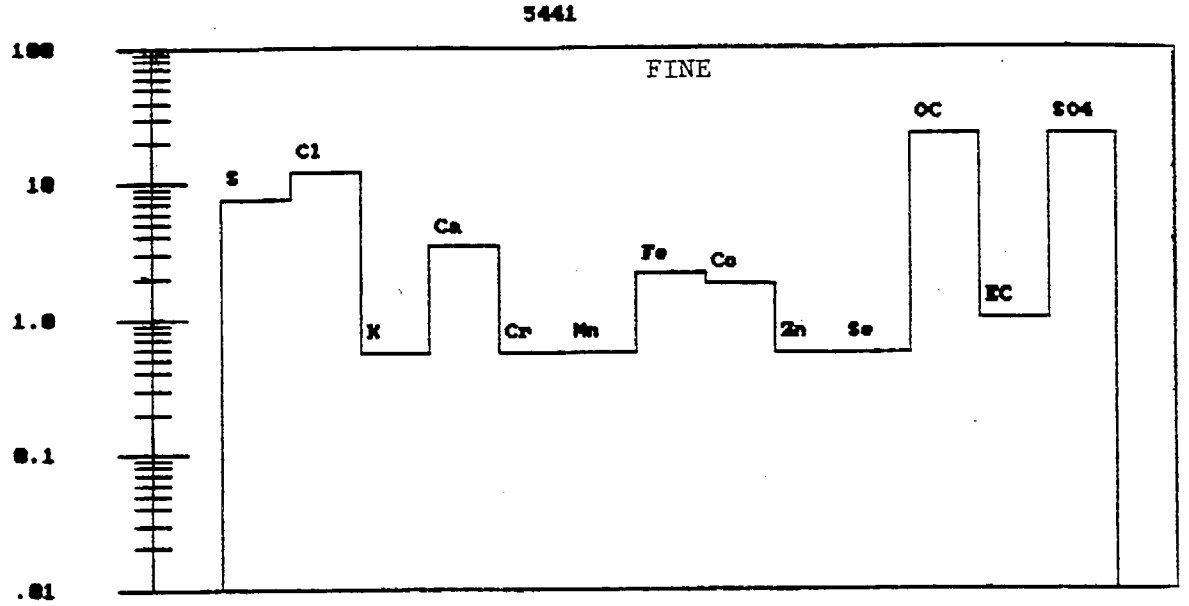


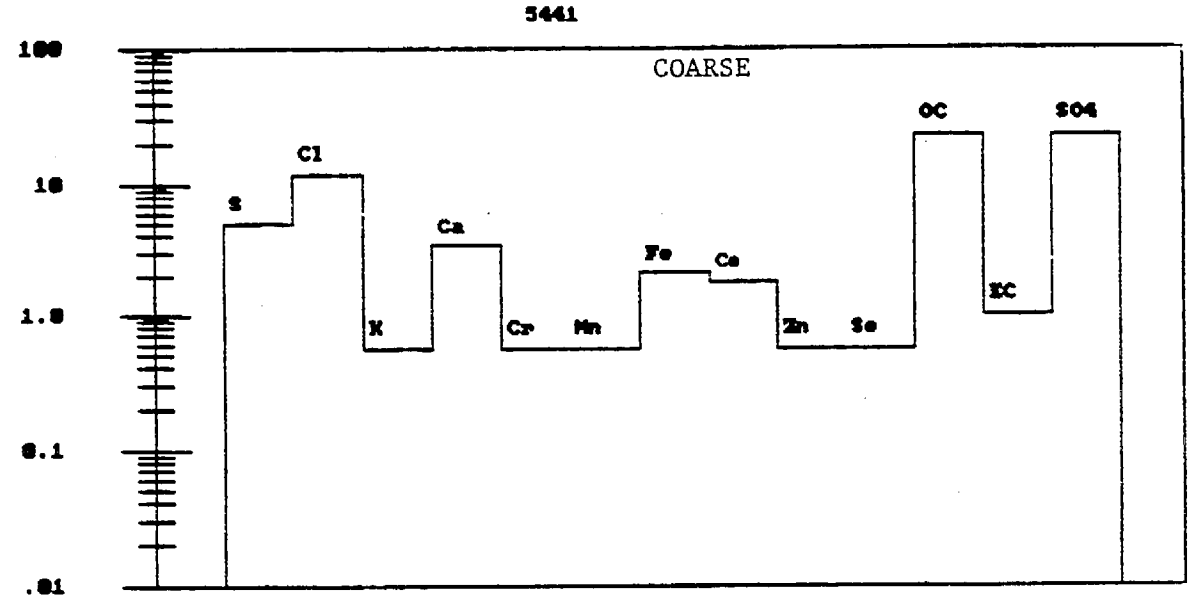


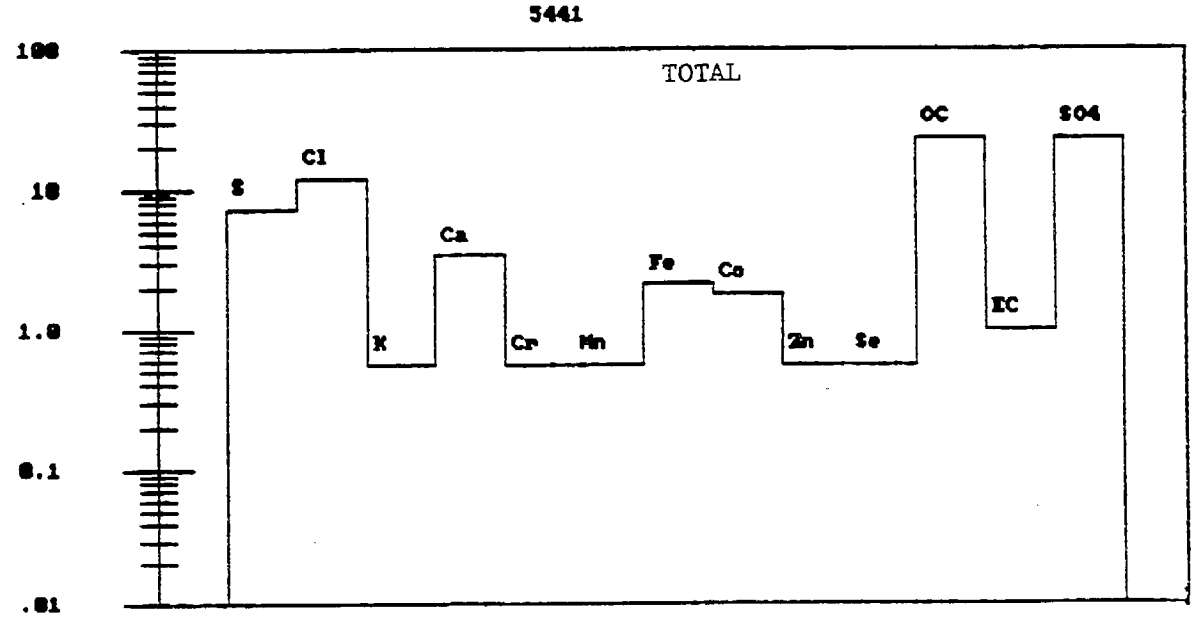
srce code	part size	revsion date	source description	reference	date
5441	FCT	04/10/87	Asphalt Roofing Manufacturing	9	00/79

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
S	7.6000 +- 7.0000	5.0000 +- 7.0000	7.3300 +- 7.0000
Cl	12.0000 +- 3.0000	12.0000 +- 3.0000	12.0000 +- 3.0000
K	.5500 +- .1650	.5500 +- .1650	.5500 +- .1650
Ca	3.4000 +- .7000	3.4000 +- .7000	3.4000 +- .7000
Cr	.5500 +- .1650	.5500 +- .1650	.5500 +- .1650
Mn	.5500 +- .1650	.5500 +- .1650	.5500 +- .1650
Fe	2.1000 +- .3000	2.1000 +- .3000	2.1000 +- .3000
Co	1.8000 +- .3000	1.8000 +- .3000	1.8000 +- .3000
Zn	.5500 +- .1650	.5500 +- .1650	.5500 +- .1650
Se	.5500 +- .1650	.5500 +- .1650	.5500 +- .1650
OC	23.0000 +- 6.9000	23.0000 +- 6.9000	23.0000 +- 6.9000
EC	1.0000 +- .3000	1.0000 +- .3000	1.0000 +- .3000
SO4	23.0000 +- 6.9000	23.0000 +- 6.9000	23.0000 +- 6.9000
Sum	76.6500	74.0500	76.3800

ASPHALT ROOFING MANUFACTURING



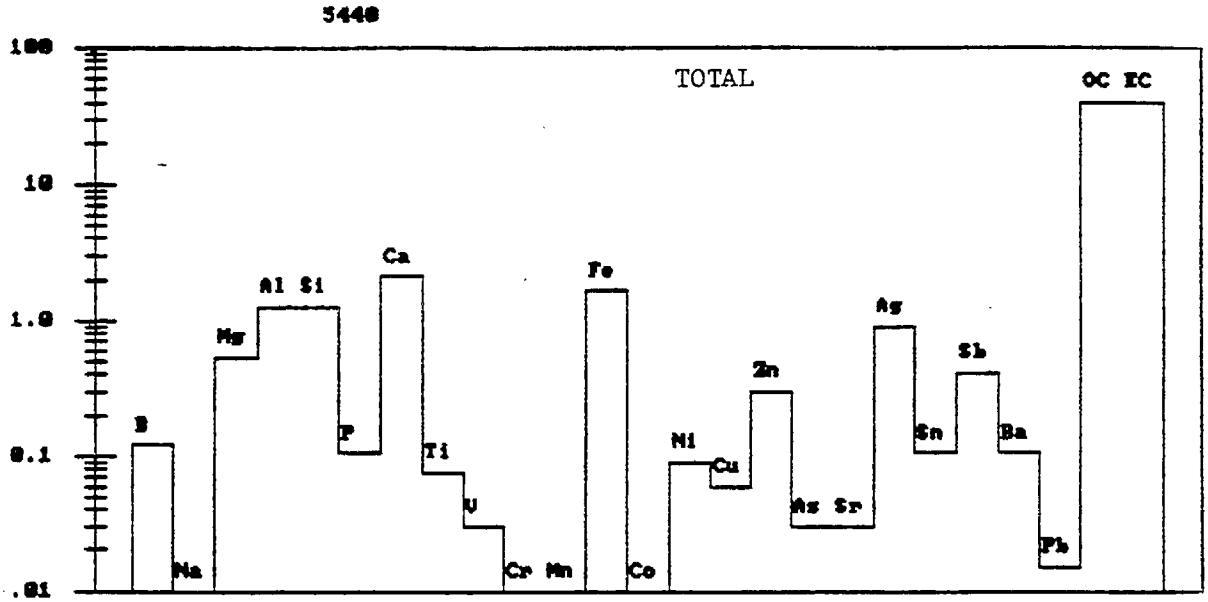




srce code	part size	revsion date	source description	reference	date
5440	T	04/10/87	Residential Space Heating Coal	18	00/81

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
B			.1200 +- .0360
Na			.0070 +- .0020
Mg			.5400 +- .1620
Al			1.2750 +- .3820
Si			1.2750 +- .3820
P			.1050 +- .0320
Ca			2.1000 +- .6300
Ti			.0750 +- .0230
V			.0300 +- .0090
Cr			.0070 +- .0020
Mn			.0070 +- .0020
Fe			1.6500 +- .4950
Co			.0070 +- .0020
Ni			.0900 +- .0270
Cu			.0600 +- .0180
Zn			.3000 +- .0900
As			.0300 +- .0090
Sr			.0300 +- .0090
Ag			.9000 +- .2700
Sn			.1050 +- .0320
Sb			.4050 +- .1220
Ba			.1050 +- .0320
Pb			.0150 +- .0050
OC			40.0000 +-12.0000
EC			40.0000 +-12.0000
Sum			89.2380

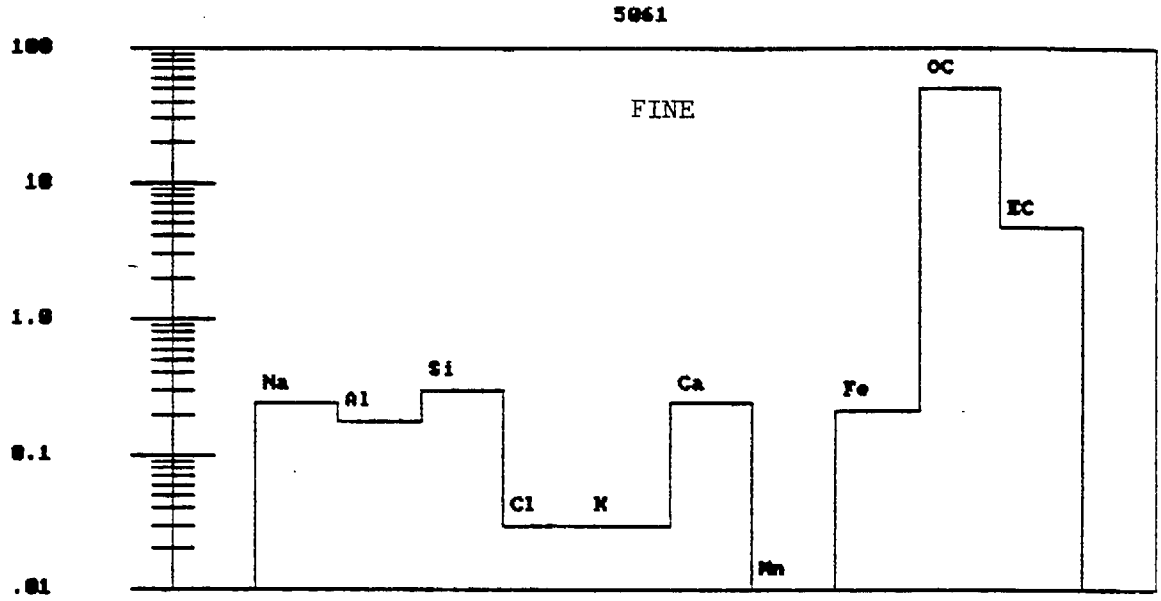
RESIDENTIAL SPACE HEATING COAL

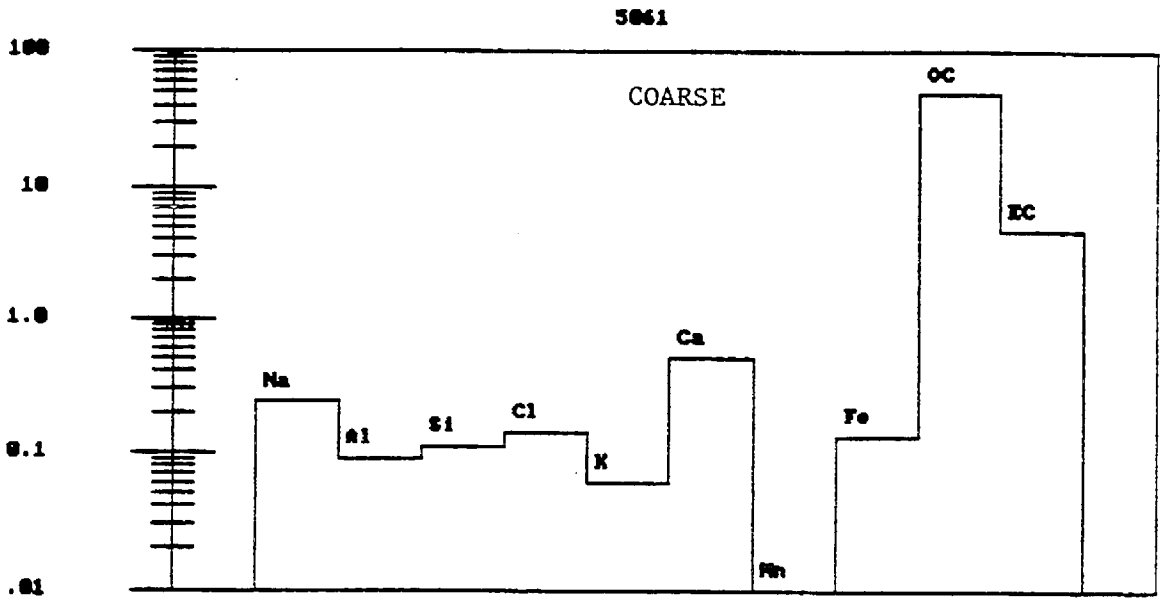


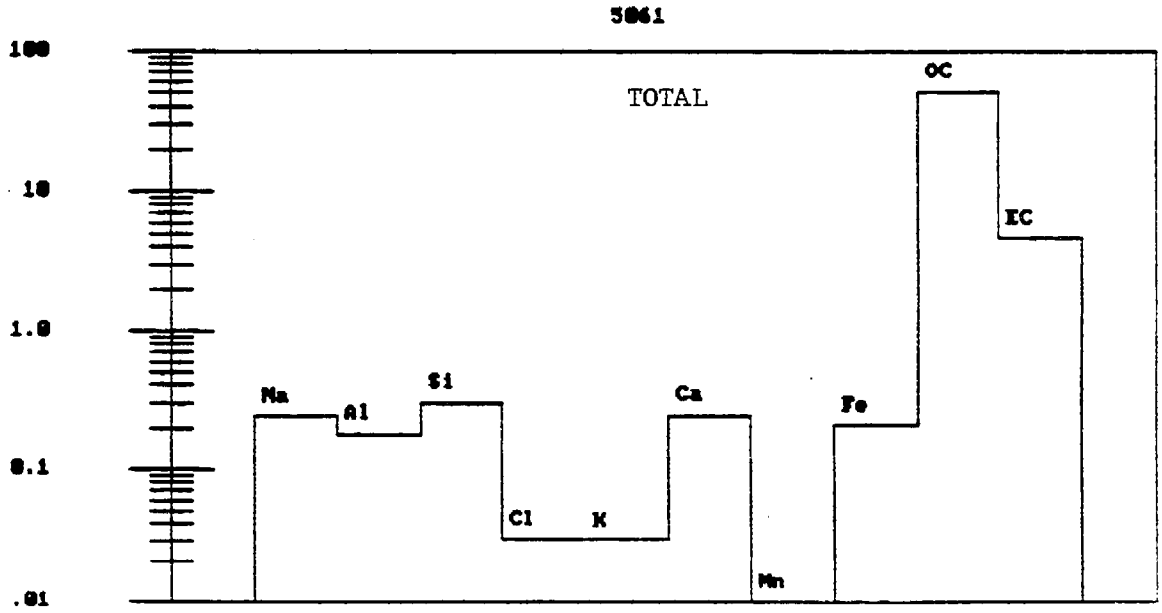
srce code	part size	revsion date	source description	reference	date
5061	FCT	04/10/87	wood cyclone, sanding	15	09/83

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Na	.2400 +- .1400	.2400 +- .1000	.2400 +- .1386
Al	.1800 +- .1300	.0900 +- .0900	.1791 +- .1287
Si	.3000 +- .4000	.1100 +- .1600	.2981 +- .3960
Cl	.0300 +- .0300	.1400 +- .1400	.0311 +- .0297
K	.0300 +- .0400	.0600 +- .0300	.0303 +- .0396
Ca	.2400 +- .1400	.5000 +- .4000	.2426 +- .1387
Mn	.0100 +- .0050	.0100 +- .0030	.0100 +- .0050
Fe	.2100 +- .1800	.1300 +- .1100	.2092 +- .1782
OC	50.0000 +- 5.0000	48.0000 +- 5.0000	49.9800 +- 4.9980
EC	4.6000 +- 1.0000	4.7000 +- 1.5000	4.6010 +- .9901
Sum	55.8400	53.9800	55.8214

WOOD CYCLONE, SANDING



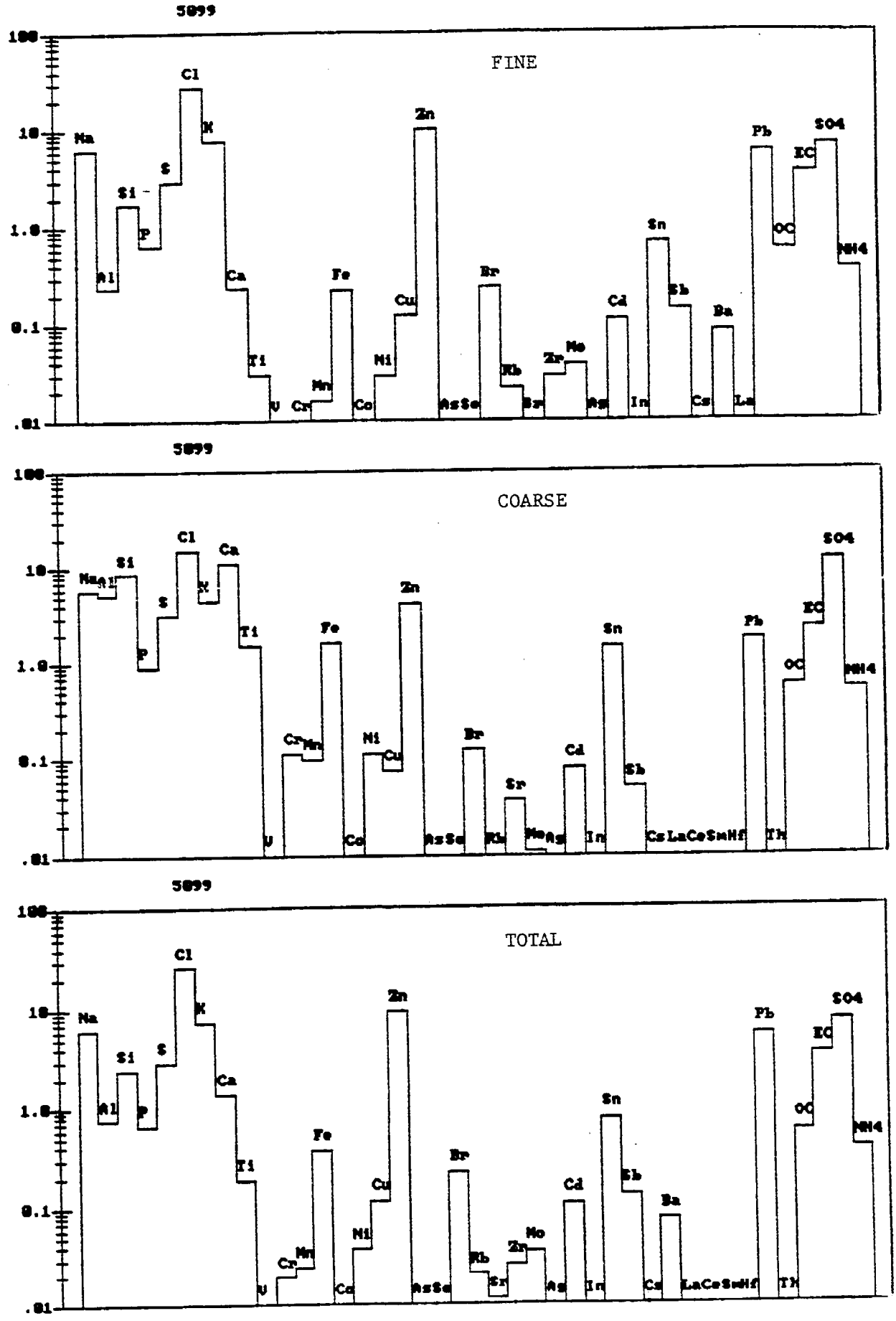




srce code	part size	revsion date	source description	reference	date
5099	FCT	03/19/87	Municipal Incinerator (Phil.)	6	03/87

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
Na	6.2000 +- 3.2000	5.7000 +- .8000	6.1479 +- 2.9726
Al	.2300 +- .1000	5.2000 +- .6000	.7477 +- .1298
Si	1.7000 +- .3000	8.6000 +- 2.0000	2.4187 +- .4310
P	.6300 +- .1200	.9000 +- .1400	.6581 +- .1358
S	2.9000 +- .8000	3.2000 +- .7000	2.9312 +- .8096
Cl	27.0000 +- 4.0000	15.0000 +- 3.0000	25.7500 +- 4.9101
K	7.6000 +- 2.3000	4.5000 +- .6000	7.2771 +- 2.2667
Ca	.2300 +- .1000	11.2000 +- .6000	1.3727 +- .1658
Ti	.0300 +- .0150	1.5000 +- .3000	.1831 +- .0379
V	.0008 +- .0005	.0098 +- .0040	.0017 +- .0006
Cr	.0089 +- .0028	.1100 +- .0400	.0194 +- .0052
Mn	.0160 +- .0030	.0950 +- .0050	.0242 +- .0038
Fe	.2200 +- .0500	1.6000 +- .2000	.3637 +- .0624
Co	.0003 +- .0001	.0026 +- .0006	.0005 +- .0001
Ni	.0290 +- .0040	.1100 +- .0500	.0374 +- .0076
Cu	.1200 +- .0040	.0730 +- .0210	.1151 +- .0155
Zn	9.8000 +- .5000	4.2000 +- 3.3000	9.2167 +- 1.3309
As	.0065 +- .0033	.0062 +- .0055	.0065 +- .0031
Se	.0040 +- .0013	.0066 +- .0024	.0043 +- .0013
Br	.2300 +- .0800	.1200 +- .0500	.2185 +- .0773
Rb	.0220 +- .0040	.0093 +- .0041	.0207 +- .0045
Sr	.0087 +- .0013	.0360 +- .0090	.0115 +- .0020
Zr	.0290 +- .0020		.0260 +- .0039
Mo	.0380 +- .0040	.0110 +- .0050	.0352 +- .0059
Ag	.0070 +- .0013	.0080 +- .0008	.0071 +- .0015
Cd	.1100 +- .0600	.0790 +- .0230	.1068 +- .0555
In	.0005 +- .0001	.0005 +- .0001	.0005 +- .0001
Sn	.6700 +- .1900	1.4600 +- .0800	.7523 +- .1928
Sb	.1400 +- .0800	.0490 +- .0490	.1305 +- .0739
Cs	.0005 +- .0003	.0003 +- .0002	.0005 +- .0003
Ba	.0830 +- .0420		.0744 +- .0389
La	.0001 +- .0001	.0015 +- .0003	.0002 +- .0001
Ce		.0014 +- .0006	.0001 +- .0001
Sm		.0001 +- .0001	.0000 +- .0001
Hf		.0002 +- .0001	.0000 +- .0001
Pb	5.8000 +- 1.2000	1.7000 +- .5000	5.3729 +- 1.2884
Th		.0004 +- .0001	.0000 +- .0001
OC	.5700 +- .2300	.5700 +- .2300	.5700 +- .2196
EC	3.5000 +- .2000	2.3000 +- .5000	3.3750 +- .4738
SO4	6.8000 +- 2.3000	12.0000 +- 3.0000	7.3417 +- 2.2686
NH4	.3600 +- .0700	.5100 +- .2300	.3756 +- .0817
Sum	75.0943	80.8699	75.6955

MUNICIPAL INCINERATOR (PHIL.)



srce code	part size	revsion date	source description	reference	date
5126	F	09/26/83	nitrate		09/83

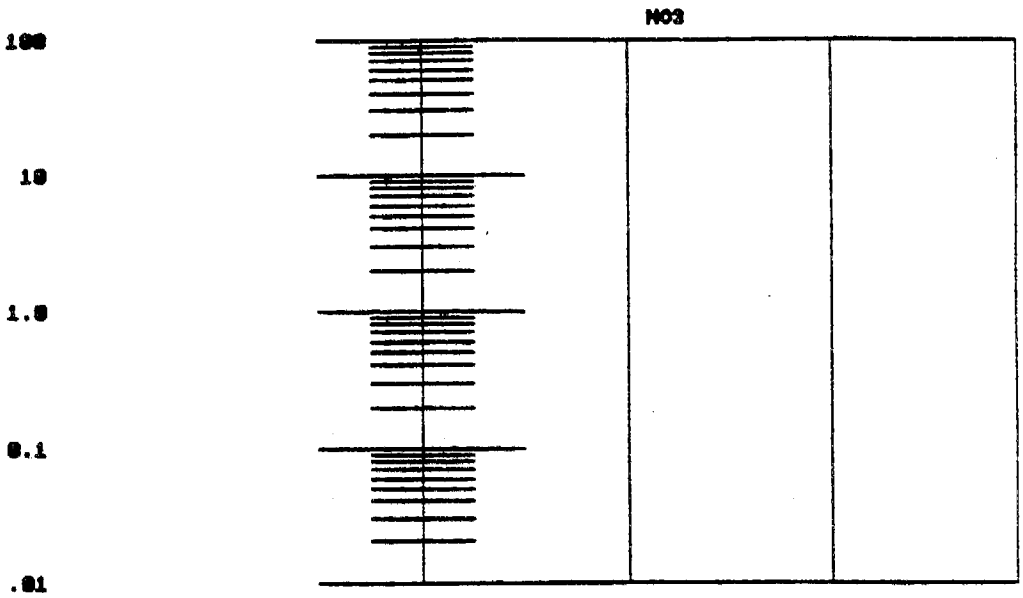
	PERCENT COMPOSITION		
SPECIES	FINE	COARSE	TOTAL
NO3	100.0000 +-10.0000		
Sum	100.0000		

srce code	part size	revsion date	source description	reference	date
5095	T	12/01/81	ammonium sulfate		12/81

SPECIES	PERCENT COMPOSITION FINE	COARSE	TOTAL
S			24.0000 +- 1.0000
SO4			73.0000 +- 3.6000
Sum			97.0000

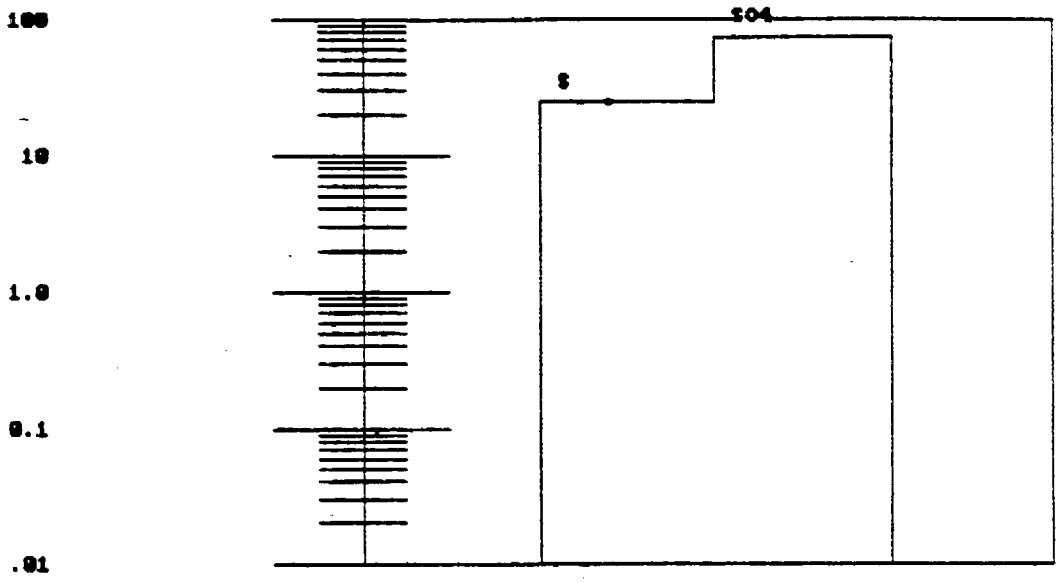
NITRATE

5126 FINE



AMMONIUM SULFATE

5095 TOTAL

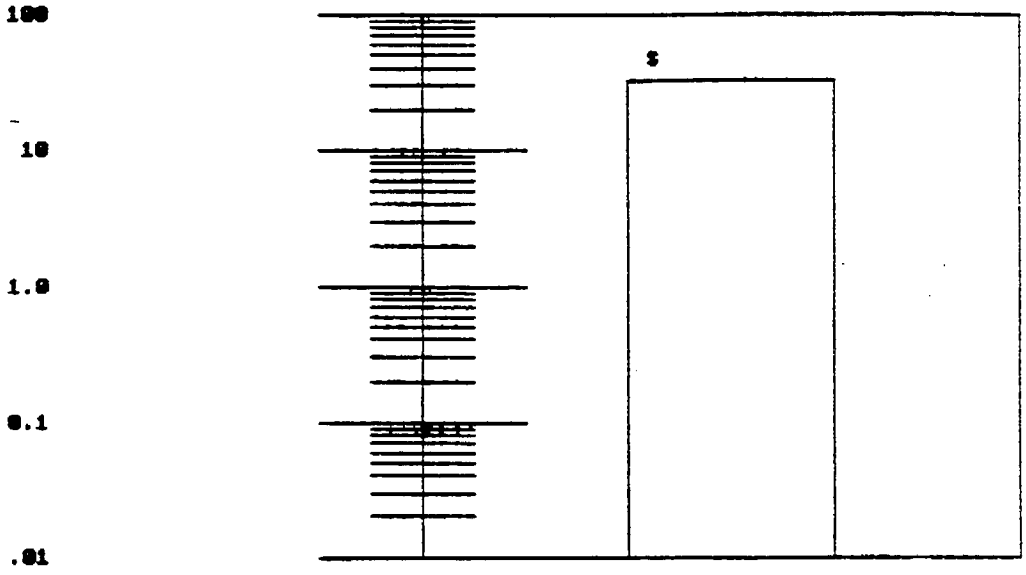


srce code	part size	revsion date	source description	reference	date
5199	F	05/01/84	sulfuric acid		05/84

	PERCENT COMPOSITION		
SPECIES	FINE	COARSE	TOTAL
S	32.6000 +- 3.2600		
Sum	32.6000		

SULFURIC ACID

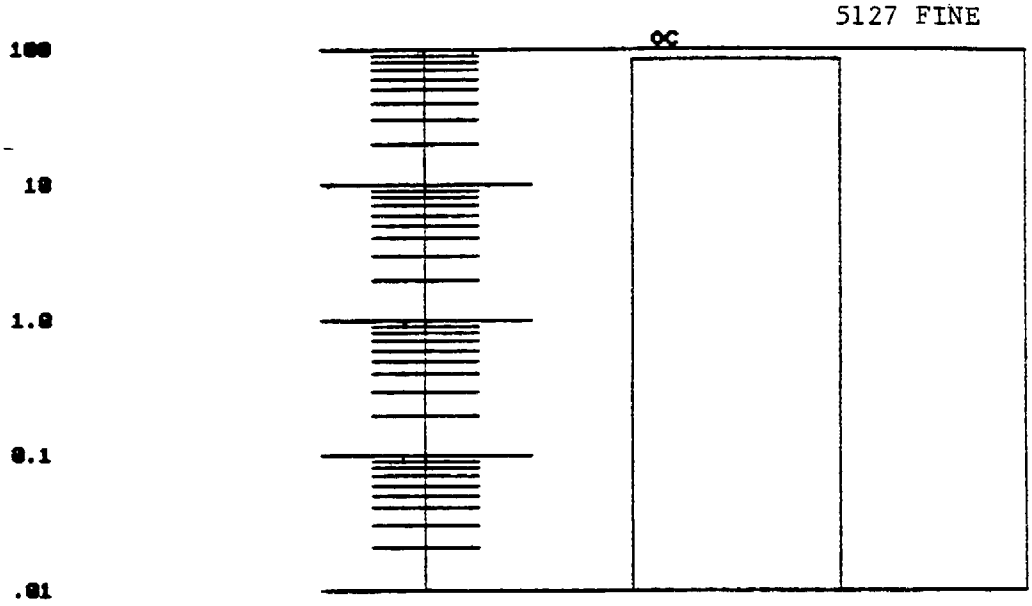
5199 FINE



srce code	part size	revsion date	source description	reference	date
5127	F	09/26/83	secondary organic carbon		09/83

	PERCENT COMPOSITION		
SPECIES	FINE	COARSE	TOTAL
OC	83.0000 +- 8.3000		
Sum	83.0000		

SECONDARY ORGANIC CARBON

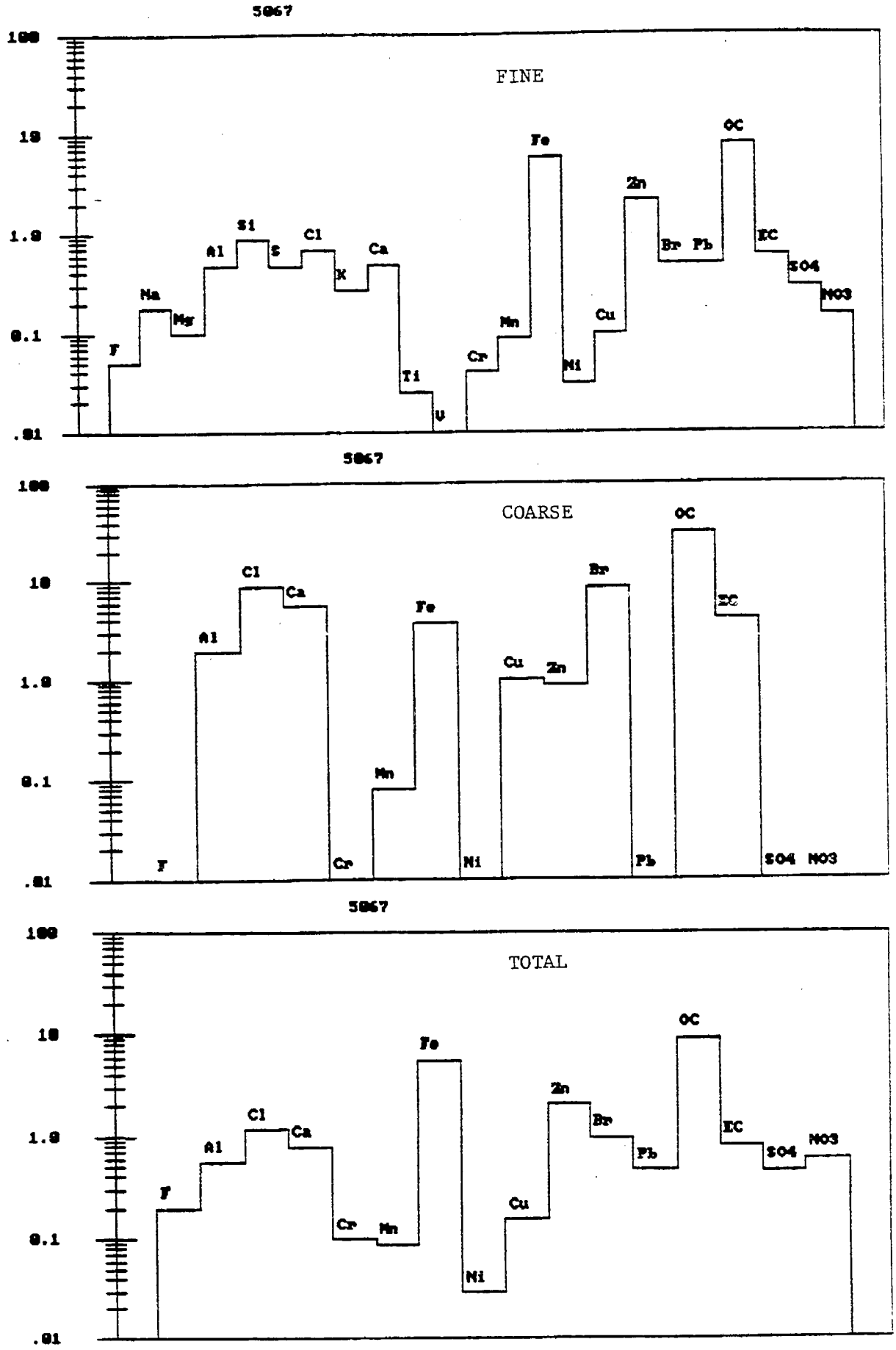


srce code	part size	revsion date	source description	reference	date
5067	FCT	03/19/87	car shredder	2	09/83

PERCENT COMPOSITION

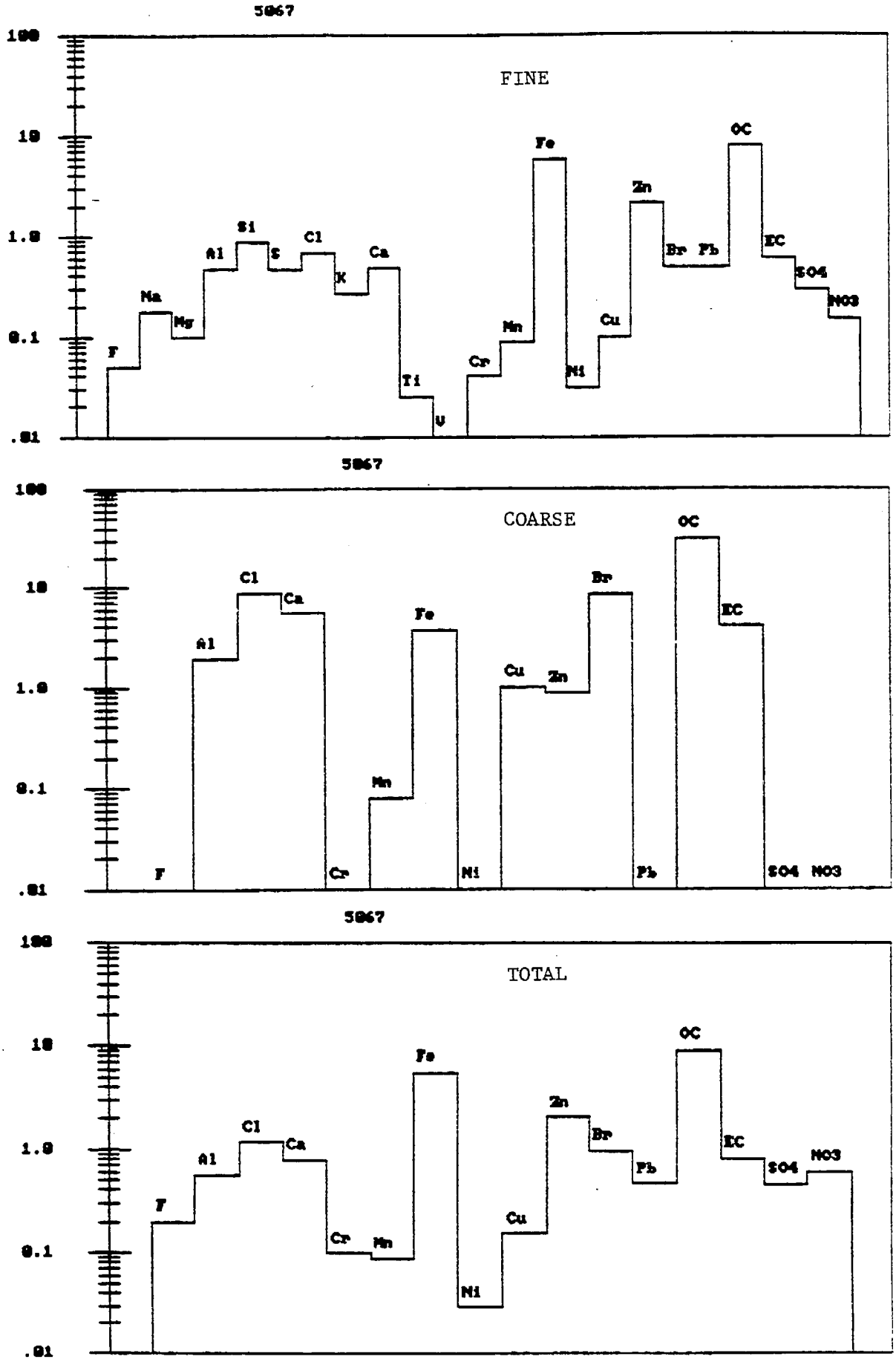
SPECIES	FINE	COARSE	TOTAL
F	.0500 +- .0500	.0000 +- 5.0000	.1970 +- .1572
Na	.1800 +- .2400		
Mg	.1000 +- .1000		
Al	.4700 +- .0640	1.9000 +- .3500	.5558 +- .0637
Si	.8700 +- .1900		
S	.4700 +- .0850		
Cl	.6800 +- .4600	8.7000 +- .7900	1.1612 +- .4355
K	.2700 +- .1800		
Ca	.4800 +- .0570	5.5000 +- .7100	.7812 +- .0781
Ti	.0250 +- .0250		
V	.0005 +- .0005		
Cr	.0400 +- .0040	.0000 +- 2.0000	.0976 +- .0601
Mn	.0880 +- .0450	.0780 +- .1000	.0874 +- .0427
Fe	5.7600 +- .9800	3.7000 +- 1.1000	5.6364 +- .9236
Ni	.0310 +- .0071	.0000 +- .0010	.0292 +- .0067
Cu	.1000 +- .0140	.9900 +- .3000	.1534 +- .0223
Zn	2.1000 +- .2100	.8700 +- .1200	2.0262 +- .2026
Br	.4900 +- .3500	8.4000 +- 1.1000	.9646 +- .3356
Pb	.4900 +- .0490	.0000 +- .0050	.4607 +- .0461
OC	7.7000 +- 3.3000	31.0000 +- 2.8000	9.0980 +- 3.1076
EC	.6000 +- .0600	4.0000 +- 4.2000	.8040 +- .2582
SO4	.2900 +- .0300	.0000 +- 6.0000	.4526 +- .1822
NO3	.1500 +- .1500	.0000 +-15.0000	.5910 +- .4716
Sum	21.4345	65.1380	23.0963

CAR SHREDDER



srce code	part size	revsion date	source description	reference	date
5067	FCT	03/19/87	car shredder	2	09/83

PERCENT COMPOSITION

SPECIES	FINE	COARSE	TOTAL
F	.0500 +- .0500	.0000 +- 5.0000	.1970 +- .1572
Na	.1800 +- .2400		
Mg	.1000 +- .1000		
Al	.4700 +- .0640	1.9000 +- .3500	.5558 +- .0637
Si	.8700 +- .1900		
S	.4700 +- .0850		
Cl	.6800 +- .4600	8.7000 +- .7900	1.1612 +- .4355
K	.2700 +- .1800		
Ca	.4800 +- .0570	5.5000 +- .7100	.7812 +- .0781
Ti	.0250 +- .0250		
V	.0005 +- .0005		
Cr	.0400 +- .0040	.0000 +- 2.0000	.0976 +- .0601
Mn	.0880 +- .0450	.0780 +- .1000	.0874 +- .0427
Fe	5.7600 +- .9800	3.7000 +- 1.1000	5.6364 +- .9236
Ni	.0310 +- .0071	.0000 +- .0010	.0292 +- .0067
Cu	.1000 +- .0140	.9900 +- .3000	.1534 +- .0223
Zn	2.1000 +- .2100	.8700 +- .1200	2.0262 +- .2026
Br	.4900 +- .3500	8.4000 +- 1.1000	.9646 +- .3356
Pb	.4900 +- .0490	.0000 +- .0050	.4607 +- .0461
OC	7.7000 +- 3.3000	31.0000 +- 2.8000	9.0980 +- 3.1076
EC	.6000 +- .0600	4.0000 +- 4.2000	.8040 +- .2582
SO4	.2900 +- .0300	.0000 +- 6.0000	.4526 +- .1822
NO3	.1500 +- .1500	.0000 +-15.0000	.5910 +- .4716
Sum	21.4345	65.1380	23.0963

CAR SHREDDER