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PM₁₀ 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.
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Beaverton, Oregon 97005

July 15, 1987

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Prepared for

South Coast Air Quality Management District
9150 Flair Drive
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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 I 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

SCAB Source Category	SCAB		Size ^a	NEA	EPA	Ref.
	Lib.No.	Mnemonic		Lib.No.	Lib.No.	
MOTOR 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
Depulveda Tunnel Vehicle	1-06	MVSTC	FC	5476		1
Unleaded Gasoline Exhaust FT	1-07	MVULGF	FCT*	5395		1
Unleaded Gasoline Exhaust SS	1-08	MVUGS	FCT*	5396		1
Leaded Gasoline Exhaust FT	1-09	MVLGF	FCT*	5397		1
Leaded Gasoline Exhaust SS	1-10	MVLGS	FCT*	5398		1
Light Duty Diesel Exhaust FT	1-11	MVLDDF	FCT*	5399		1
Light Duty Diesel Exhaust SS	1-12	MVLDDS	FCT*	5400		1
Heavy Duty Diesel Exhaust FT	1-13	MVHDDF	FCT*	5401		1
Heavy Duty Diesel Exhaust SS	1-14	MVHDDS	FCT*	5402		1
Shoe Sole Wear	1-15	MVTW	T	5058		2
Crack Lining Semi-Metal	1-16	MVBLSM	T	5473		1
Crack Lining Asbestos	1-17	MVBLAS	T	5472		3
Motor Oil	1-18	MVMO	T	5471		3
EEWA ROAD DUST						
Lasada, 110	1-19	FRDPAS	FCT*	5453		1
Artesia, 91	1-20	FRDART	FCT*	5454		1
Freeway Profile Composite	1-21	FRSCAB	FCT*	5493		1
UNPAVED ROAD DUST						
Long Beach Boulevard	1-22	PRDLBB	FCT*	5455		1
Long Beach Sample Composite	1-23	PRLBSC	FCT*	5456		1
Long Beach Profile Composite	1-24	PRLBPC	FCT*	5488		1
La Cienega Boulevard	1-25	PRDLGB	FCT*	5457		1
Lawthorne Sample Composite	1-26	PRDHSC	FCT*	5458		1
Lawthorne Profile Composite	1-27	PRDHPC	FCT*	5489		1
Victory Boulevard	1-28	PRDVB	FCT*	5459		1
Warbank Sample Composite	1-29	PRDBSC	FCT*	5460		1
Warbank Profile Composite	1-30	PRDBPC	FCT*	5490		1
North Main Street	1-31	PRDNMS	FCT*	5461		1
Los Angeles Sample Composite	1-32	PRLASC	FCT*	5462		1
Los Angeles Profile Composite	1-33	PRLAPC	FCT*	5491		1
South Harbor Boulevard	1-34	PRDSHB	FCT*	5463		1
Laheim Sample Composite	1-35	PRDASC	FCT*	5464		1
Laheim Profile Composite	1-36	PRDAPC	FCT*	5492		1
Overseas Sample Composite	1-37	PRDRSC	FCT*	5465		1
Depulveda Tunnel	1-38	PRSTC	FCT*	5466		1
SCAB 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	SRVRS	FCT*	5468		1
withorne 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
liment	1-47	SSEDIM	T	5282		4
neous Rock	1-48	SIGNER	T	5315		4
th'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		-
osum (CaSO ₄ ·2H ₂ O)	1-52	CDGYPS	T	5117		-
ae (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
rk C. hng, SCAB, 1987	1-56	CDRKCR	FCT*	5449		1
ding	1-57	CDWELD	F	5470		19
DUAL OIL COMBUSTION						
San 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
mercial, PACS, 1977	1-61	ROILCO	FCT	5038	13501	7
ILLATE OIL COMBUSTION						
stillate Oil Comb., PACS	1-62	DOILPO	FCT	5066		7
MOLEUM 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
aters & Boilers, Brazil, 1984	1-66	PRHBBR	FCT	5221		8
ae Calcining, SCAB, 1987	1-67	PRCCSD	FCT*	5448		1
en Coke Dust, Brazil, 1984	1-68	PRGCDB	FCT	5231		8
ae Cooler, Brazil, 1984	1-69	PRCCBR	FCT	5220		8

Table 1
-Continued-

LAB Source Category	SCAB		Size ^a	NEA	EPA	Ref.
	Lib.No.	Mnemonic		Lib.No.	Lib.No.	
GENERAL 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 ·2H ₂ O)	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
STEEL PROCESSING						
Iron, Primary Process, PACS	2-15	MALPAC	FCT	5032		7
Iron, Primary Potline, STACS	2-16	MALPOT	FCT	5063		2
Iron, Foundry Reverb Furnace	2-17	MALPRF	FCT	5428	20101	9
Iron, Rec. Dross Rec. Furn.	2-18	MALSDR	FCT	5393		6
Iron, 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
Chromomanganese	2-24	MFEMNF	FCT	5030	28401	7
Cast Iron Cupola	2-25	MFECU	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)						
opper, Prim. Herrershoff Roaster Calcine Dust	2-37	MCUPCR	FCT*	5388		10
opper, Second.Oxide Kiln Stk.	2-38	MCUSOK	T	5129		12
opper, Second.Pyrometal Stk. Reg. Charge	2-39	MCUSRC	T	5130		12
opper, 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
CITY POWER PLANTS						
idual Oil Comp. 1,2,3	3-01	UPPRO	FCT	5334		5
al Fired, Philadelphia	3-02	UPPCF	FCT	5244		6
CELLANEOUS BOILERS						
ite Wood (Hogged Fuel)	3-03	WWBOIL	FT	5062	12704	2
L FABRICATING						
ding	3-04	MFWELD	F	5470		19
ad 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.
PAINT COATING						
Paint Spray Booth	3-13	SCPSB	FCT	5439	25403	9
OFF-ROAD VEHICLES						
Trains	3-14	TRAIN	FCT	5445		7
Aircraft	3-15	AIRCR	C	5446	34001	16
FERTILIZER PRODUCTION						
Phosphate Rock	3-16	PHOSRK	FC	5208		8
Super Phosphate Plant	3-17	SPHOSP	FCT	5223		8
Am. Nitrate Prill Tower	3-18	AMNIPT	T	5224		8
Am. Sulfate Production	3-19	AMSULP	T	5225		8
Ammonium Phosphate	3-20	DAMPHO	FCT	5226		8
Sodium Tripolyphosphate	3-21	SOTRIP	FC	5230		8
Super Phosphate Granulation	3-22	SPHOGN	FCT	5222		8
NPK Fertilizer	3-23	NPKFER	T	5237		8
Urea Fertilizer	3-24	UREAFE	FCT	5442	25404	9
CHEMICAL PROCESS LOSS						
Sulfuric Acid Manufacturing	3-25	BORICA	FCT	5443	25405	9
CELLULOSES						
Asphalt Roofing Mfg.	3-26	ASPHRO	FCT	5441	25402	9
Residential Space Heating, Coal	3-27	RSHCOL	T	5440	43201	18
Wood Sanding Cyclone	3-28	WODUST	FCT	5061	22202	15
Municipal Incinerator	3-29	MINCIN	FCT	5099		6
Secondary Nitrate	3-30	SNO3	FCT	5126		
Secondary Amm. Sulfate	3-31	SAS04	FCT	5095		
Sulfuric Acid	3-32	H2SO4	FCT	5199		
Secondary Carbon	3-33	SCARBO	FCT	5127		
Paper Shredder	3-34	CARSHD	FT	5067		2

NOTES AND REFERENCES TO TABLE

- a. F: Fine, $< 2.5 \mu\text{m}$
C: Coarse, $> 2.5 \mu\text{m}$ < Inlet cut point indicated by T**,T*,T†, or T
T**: Total particles $< 7 \mu\text{m}$ (PM₇)
T*: Total particles $< 10 \mu\text{m}$ (PM₁₀)
T†: Total particles $< 15 \mu\text{m}$ (PM₁₅)
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

<u>Source Abbreviation/No.</u>	<u>Application</u>	<u>Description</u>
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.

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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, SOS CAB#.DAT, a fine particle source profile file, FSS CAB#.DAT, a coarse particle source profile file, CSS CAB#.DAT, and a total (PM₁₀) particle source profile file, TSS CAB#.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, 1987¹. A summary of the format is provided below:

SOS CAB#.DAT

<u>Column</u>	<u>Format</u>	<u>Contents</u>
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)

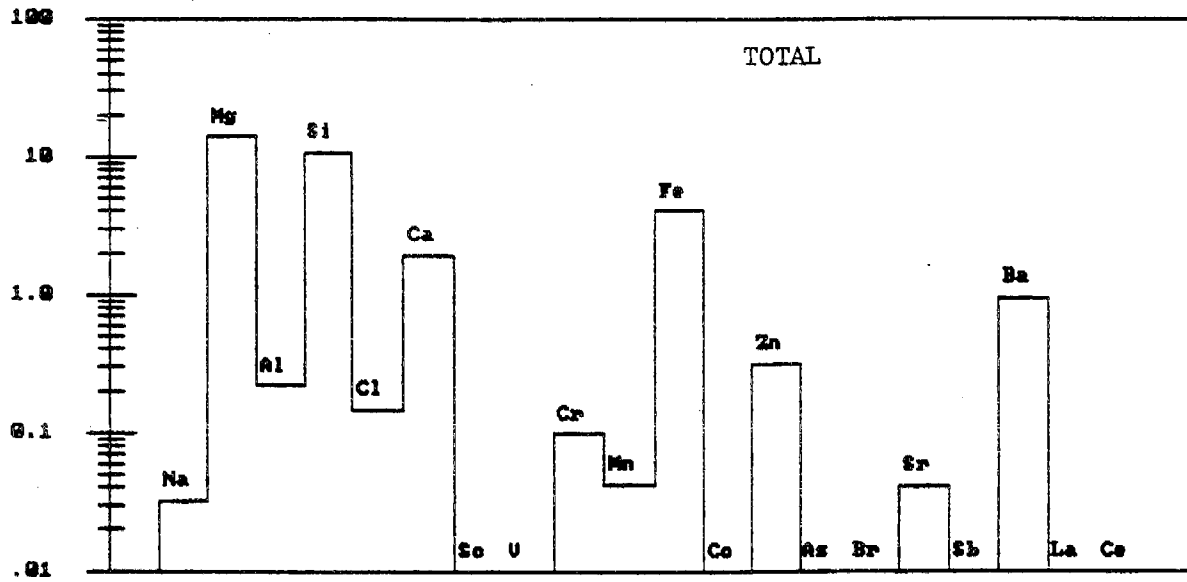
FSS CAB#.DAT, CSS CAB#.DAT, TSS CAB#.DAT

<u>Column</u>	<u>Format</u>	<u>Contents</u>
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

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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)

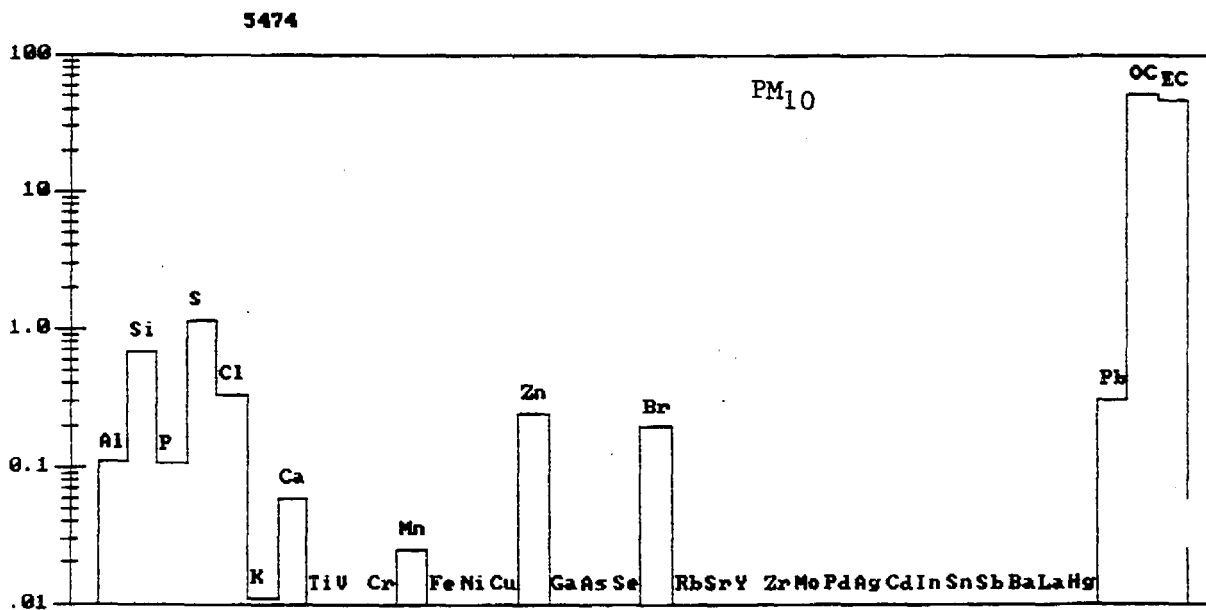
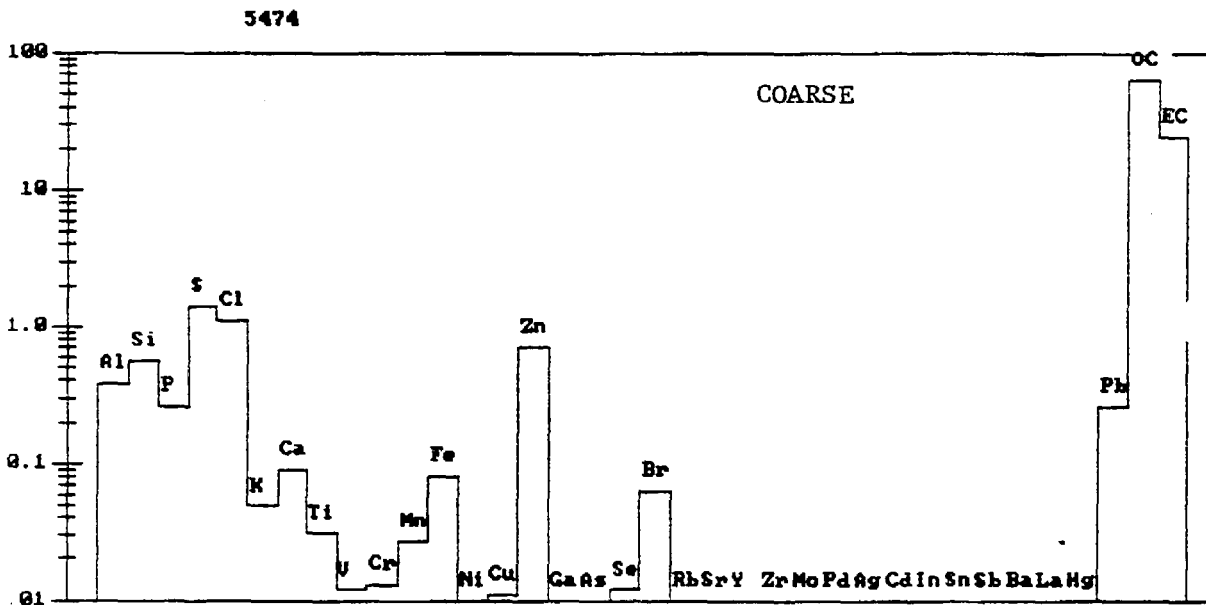
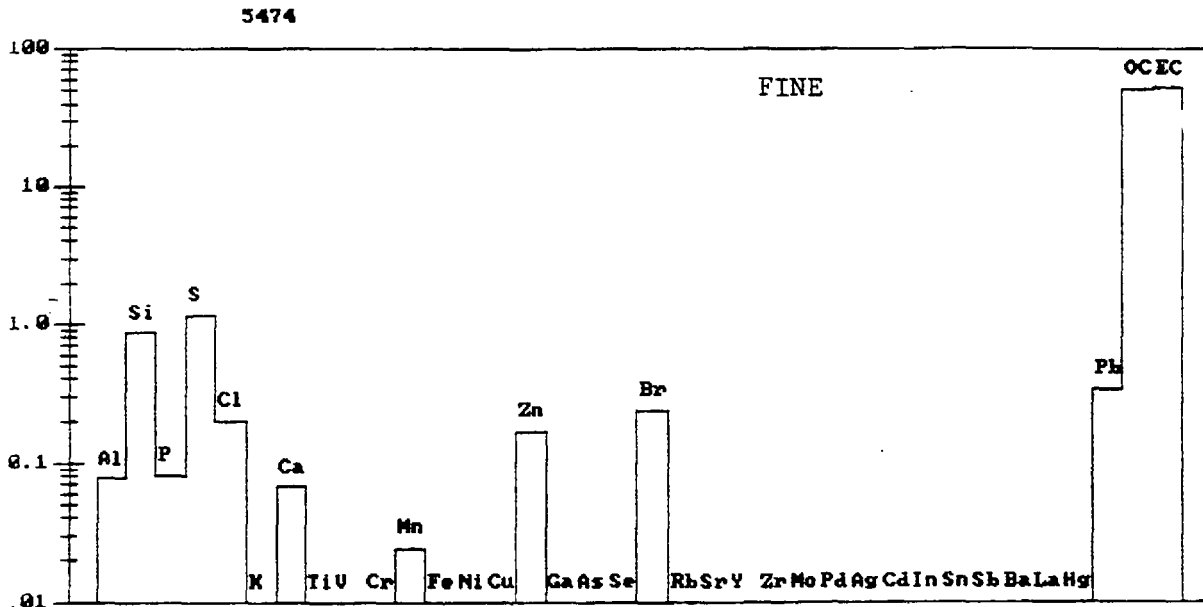
The data files are in standard ASCII and are EPA CMB Ver. 5.9 ready. They can be worked on with a text editor, non-document word processor, or through a computer program to create an airshed library that is site specific for CMB calculations. The "Revised CMB User's Manual" contains detailed information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

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

SPECIES	P E R C E N T C O M P O S I T I O N					
	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	part	revision	source description	reference	date
code	size	date			
5474	FCT	07/07/87	MOVES-SS(NEA-E,WOB,T42,TVMT)	1	06/87

SPECIES	P E R C E N T C O M P O S I T I O N					
	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		*****	

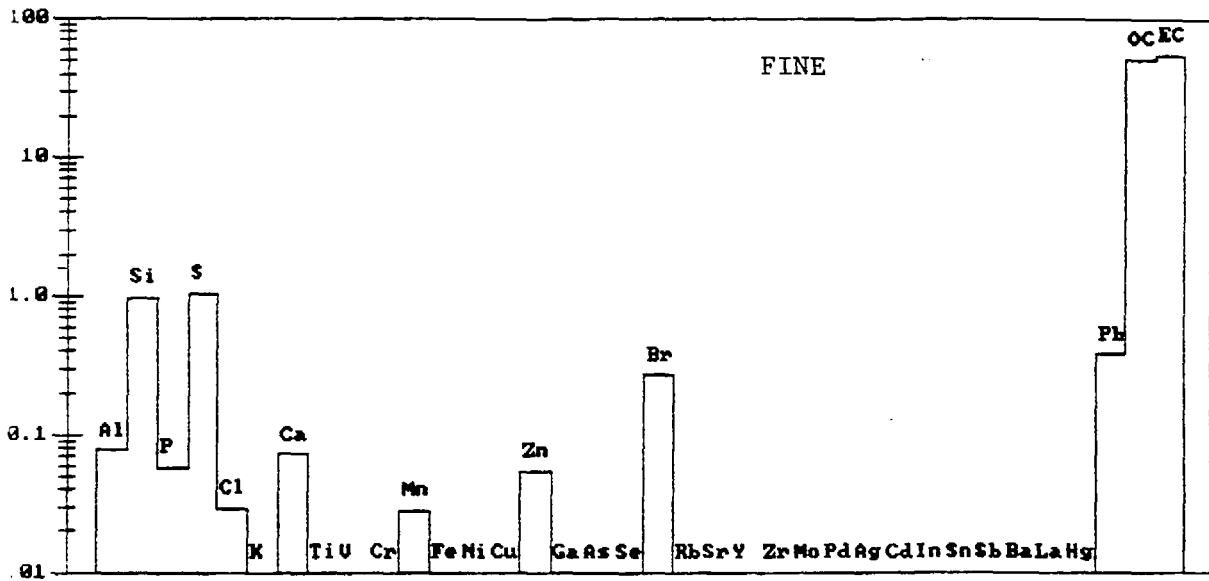


srce	part	revision	code	size	date	source description	reference	date
5475	FCT	07/07/87	MOVES-SS	(NEA-E, WOB, WOT, TVMT)			1	06/87

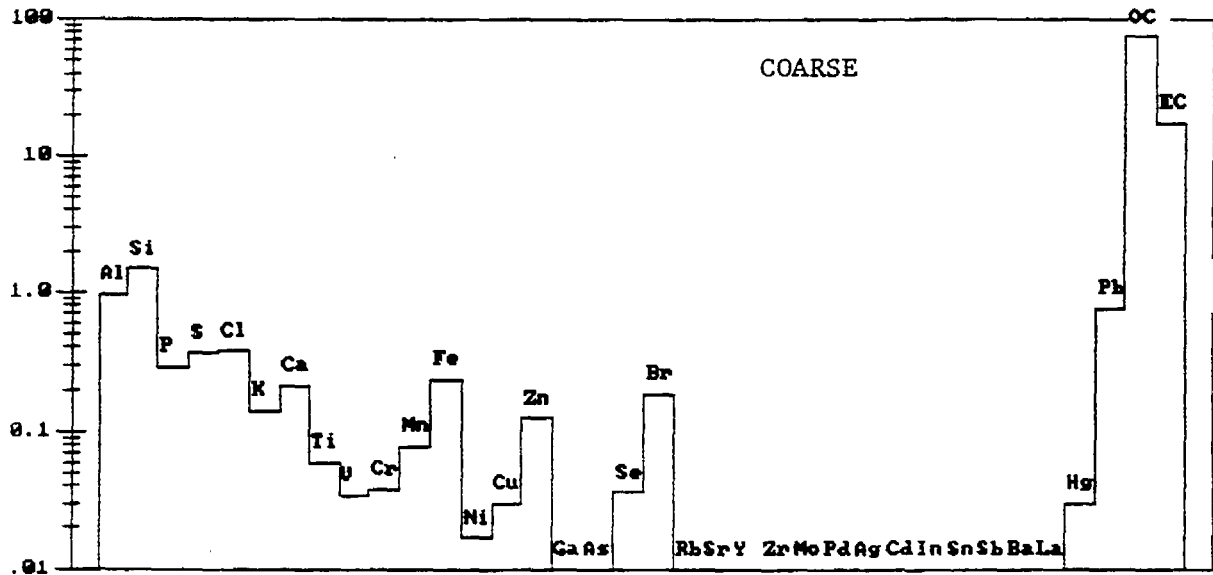
SPECIES	P E R C E N T C O M P O S I T I O N					
	FINE		COARSE		TOTAL	
Al	.0770 +- .0510	.9590 +- .6360	.1160 +- .0540			
Si	.9570 +- 1.3910	1.4840 +- 1.0750	.8430 +- 1.1220			
P	.0570 +- .0200	.2880 +- .2110	.0690 +- .0240			
S	1.0370 +- 1.1820	.3600 +- .4400	.9400 +- 1.0580			
Cl	.0290 +- .0200	.3740 +- .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)

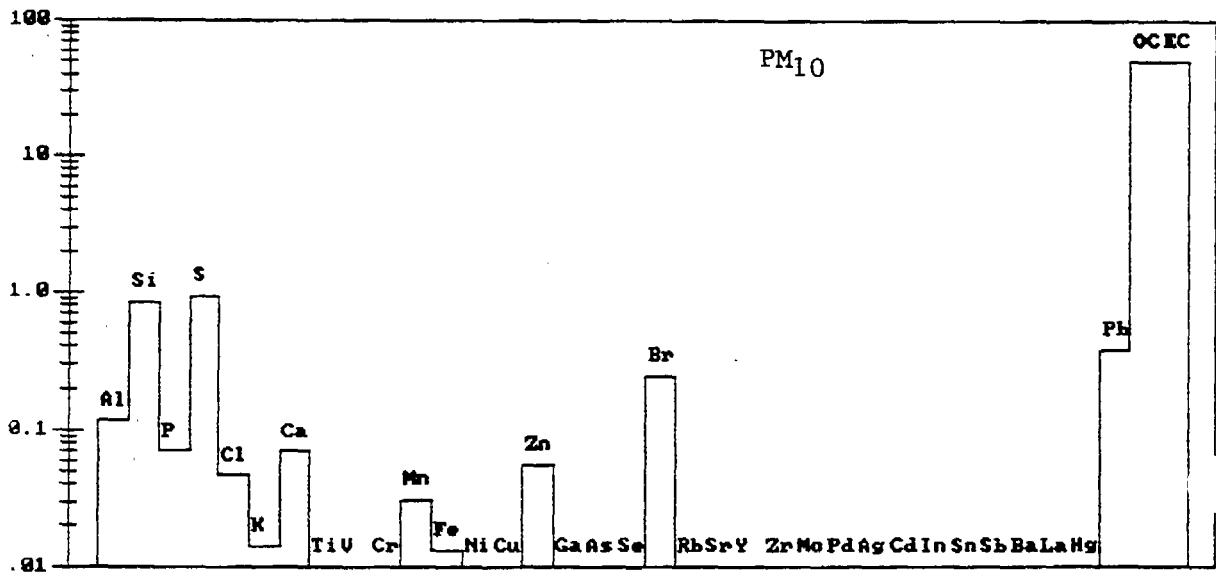
5475



5475



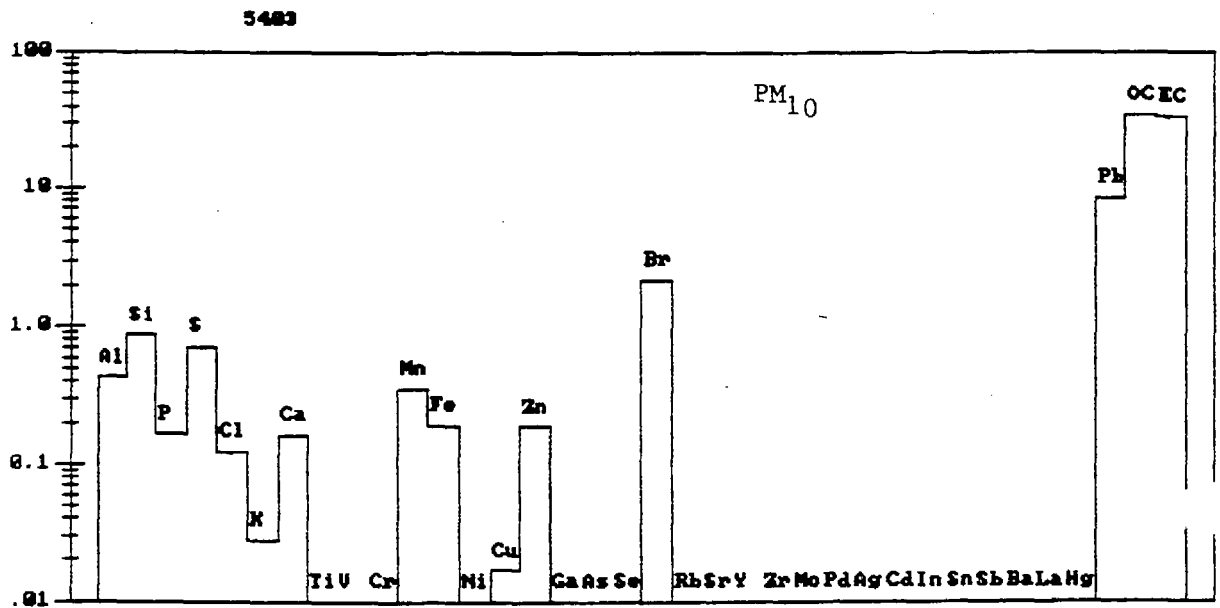
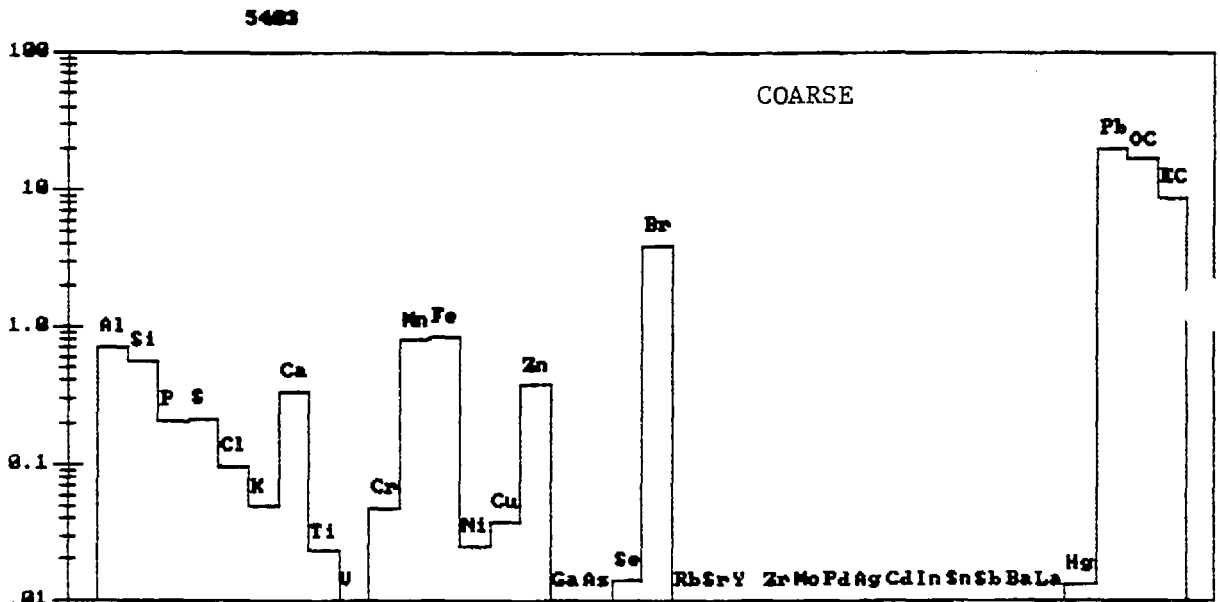
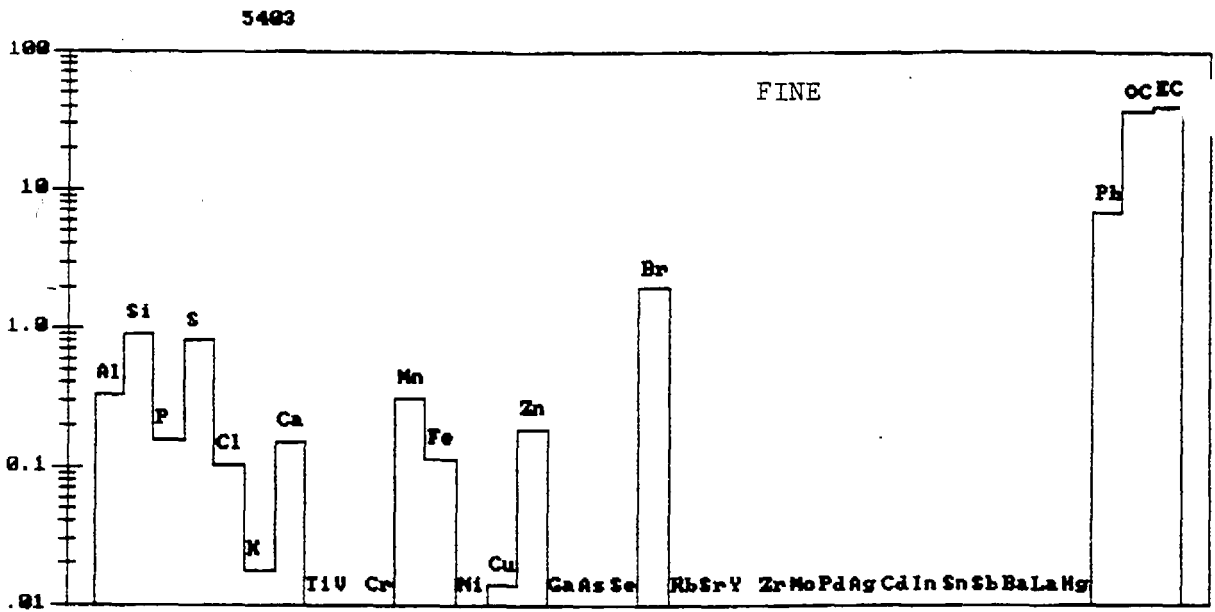
5475



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

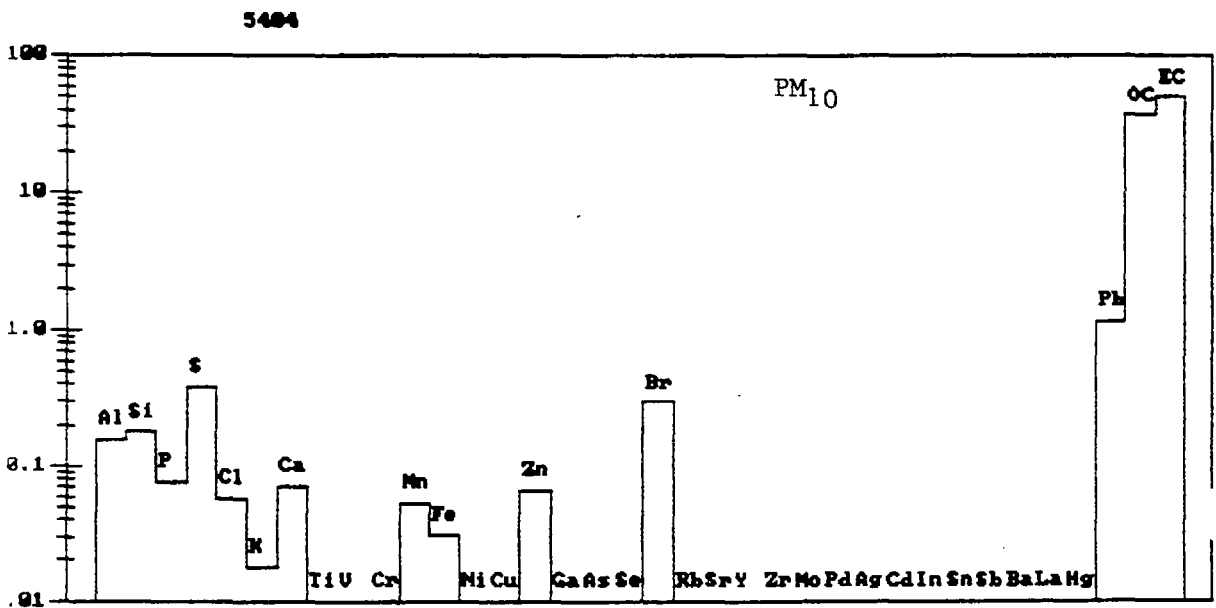
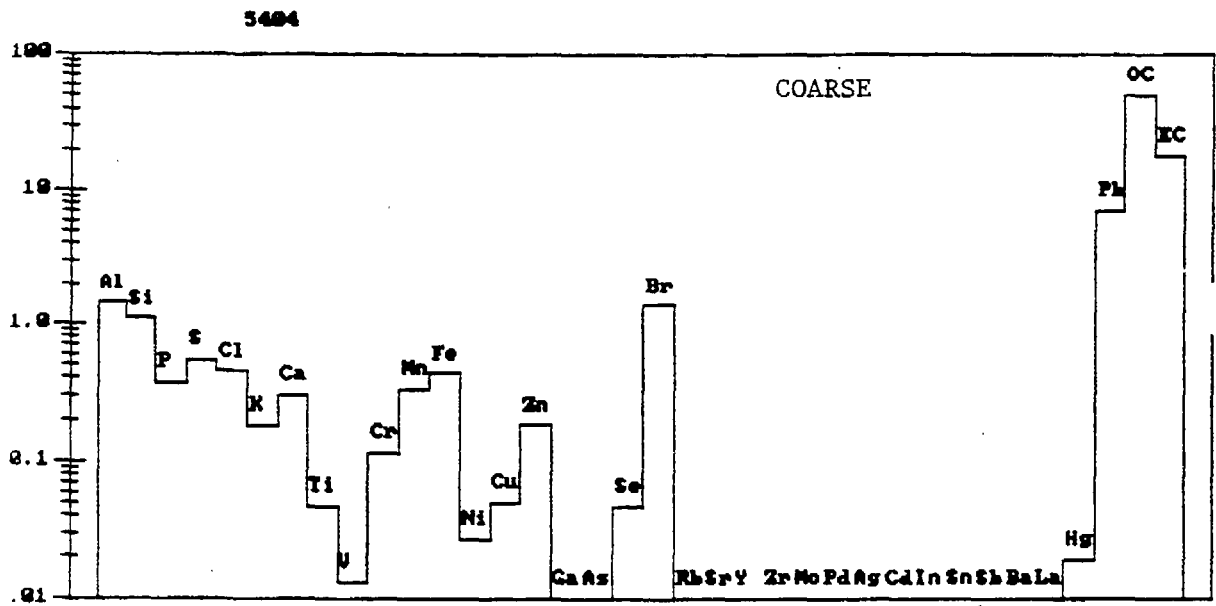
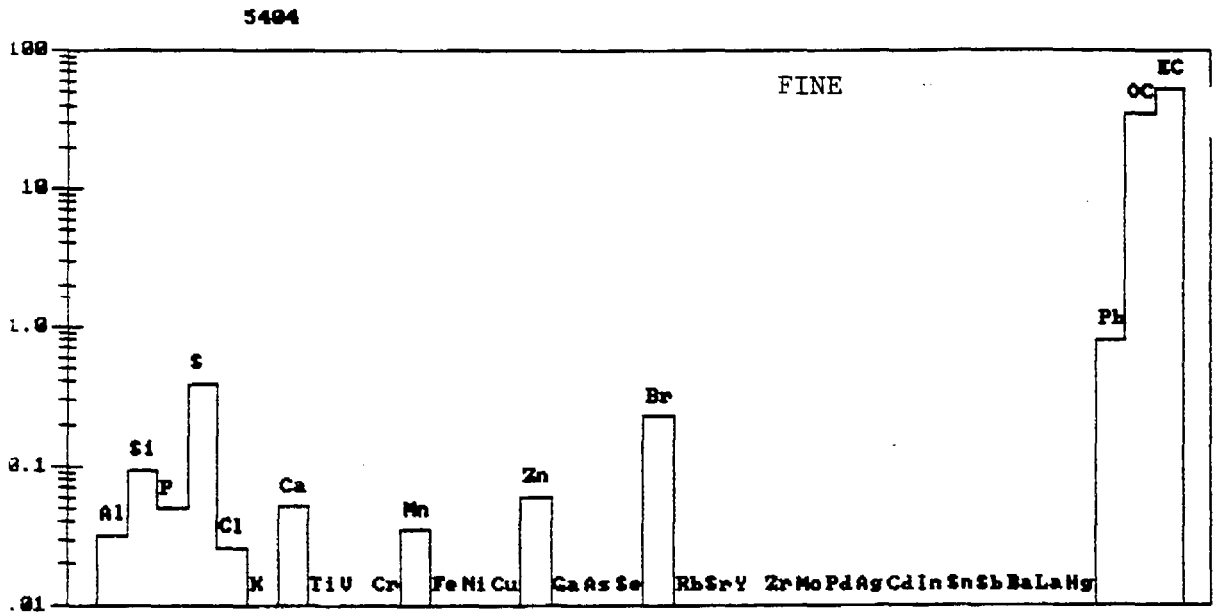
SPECIES	P E R C E N T C O M P O S I T I O N					
	FINE		COARSE		TOTAL	
Al	.3320 +-	.2160	.7120 +-	.5130	.4300 +-	.2290
Si	.9080 +-	.4070	.5540 +-	.2390	.8550 +-	.3460
P	.1550 +-	.0690	.2070 +-	.1010	.1630 +-	.0540
S	.7990 +-	.5620	.2140 +-	1.3880	.7140 +-	.5390
Cl	.1020 +-	.0850	.0960 +-	.2300	.1220 +-	.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	part	revison	code	size	date	source description	reference	date
5404	FCT	07/07/87				MOVES-SCAB(NEA-E,WOB,WOT,CM)	1	06/87

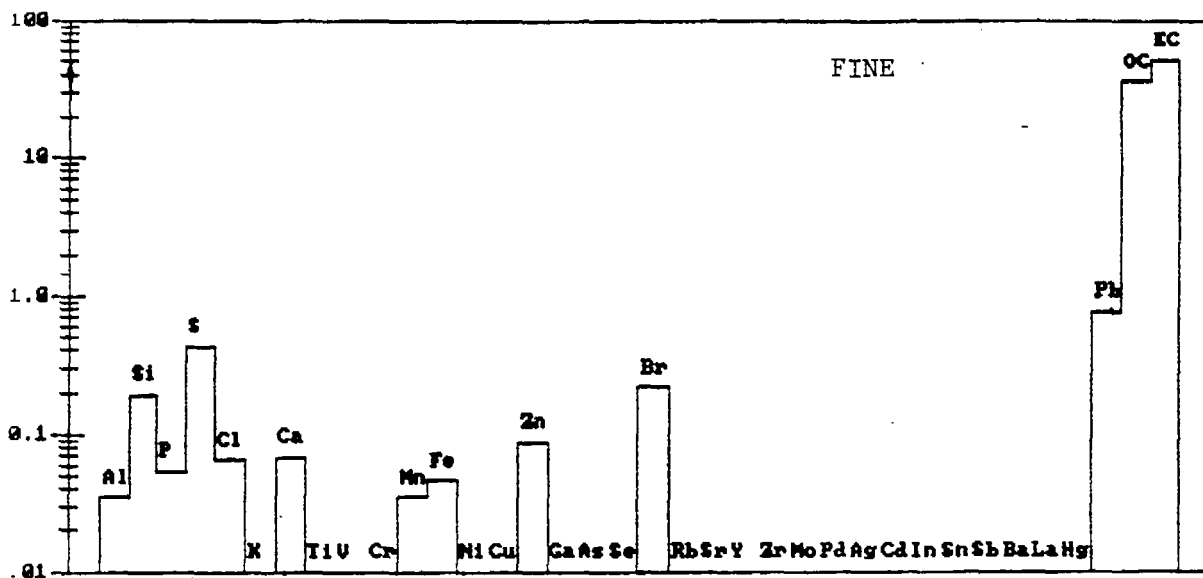
SPECIES	P E R C E N T C O M P O S I T I O N					
	FINE		COARSE		TOTAL	
Al	.0320 +-	.0450	1.4310 +-	1.9450	.1550 +-	.1610
Si	.0930 +-	.0670	1.0900 +-	1.4670	.1750 +-	.1420
P	.0490 +-	.0500	.3670 +-	.4750	.0750 +-	.0800
S	.3790 +-	.4000	.5360 +-	.8940	.3810 +-	.4000
Cl	.0260 +-	.0300	.4420 +-	.6810	.0580 +-	.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	



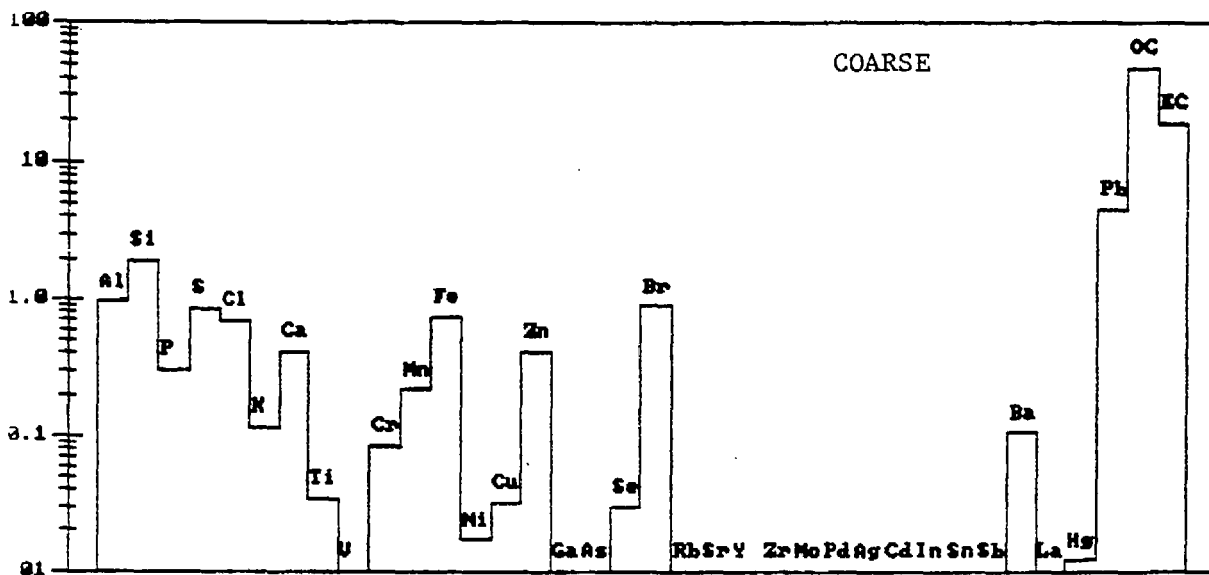
srce	part	revision	code	size	date	source description	reference	date
5487	FCT	07/21/87				MOVES-SCAB(NEA-E,WB1,T42,CM)	1	07/87

SPECIES	P E R C E N T C O M P O S I T I O N					
	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	

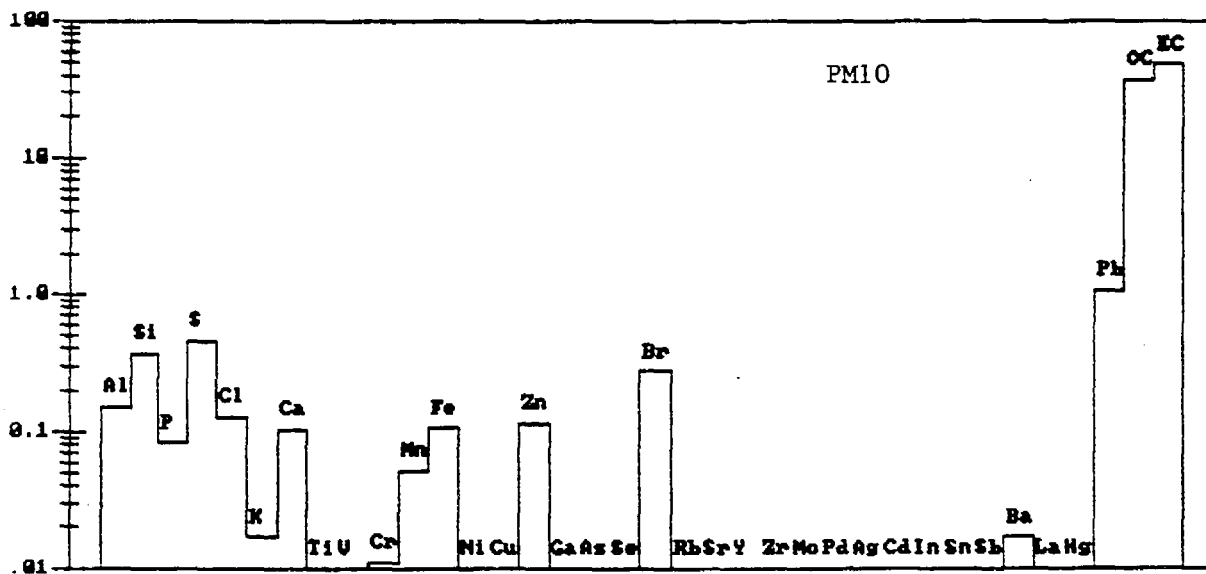
5487



5487



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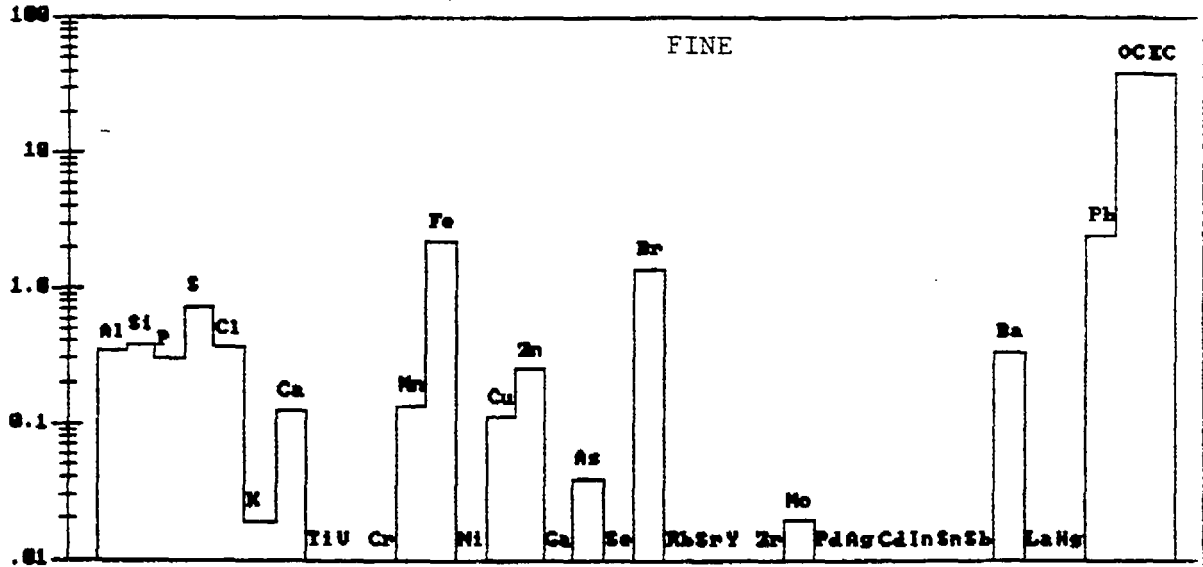


srce	part	revision	source description	reference	date
code	size	date			
5476	FC	07/14/87	Tunnel On-Road Motor Vehicle	1	06/87

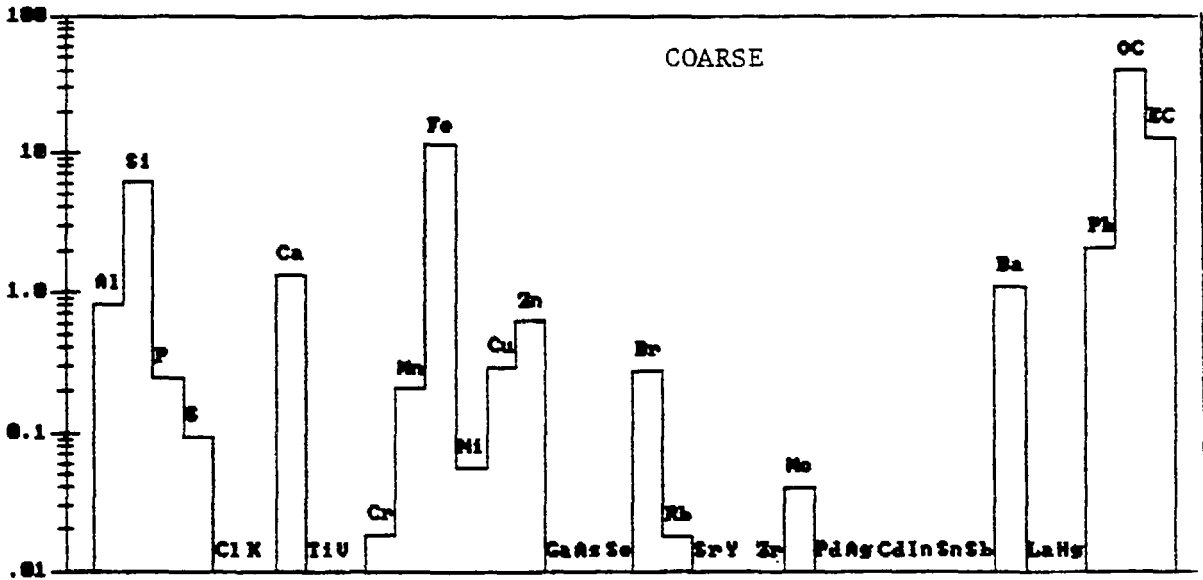
SPECIES	P E R C E N T C O M P O S I T I O N		
	FINE	COARSE	TOTAL
Al	.3377 +- .1307	.8160 +- .21543	
Si	.3827 +- .2245	6.0532 +-14.0863	
P	.2929 +- .0536	.2405 +- .5216	
S	.7314 +- .3035	.0920 +- 1.6431	
Cl	.3631 +- .3242	.0000 +-20.7482	
K	.0193 +- .0210	.0000 +- .7843	
Ca	.1250 +- .0480	1.3272 +- 2.7186	
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

5476



5476

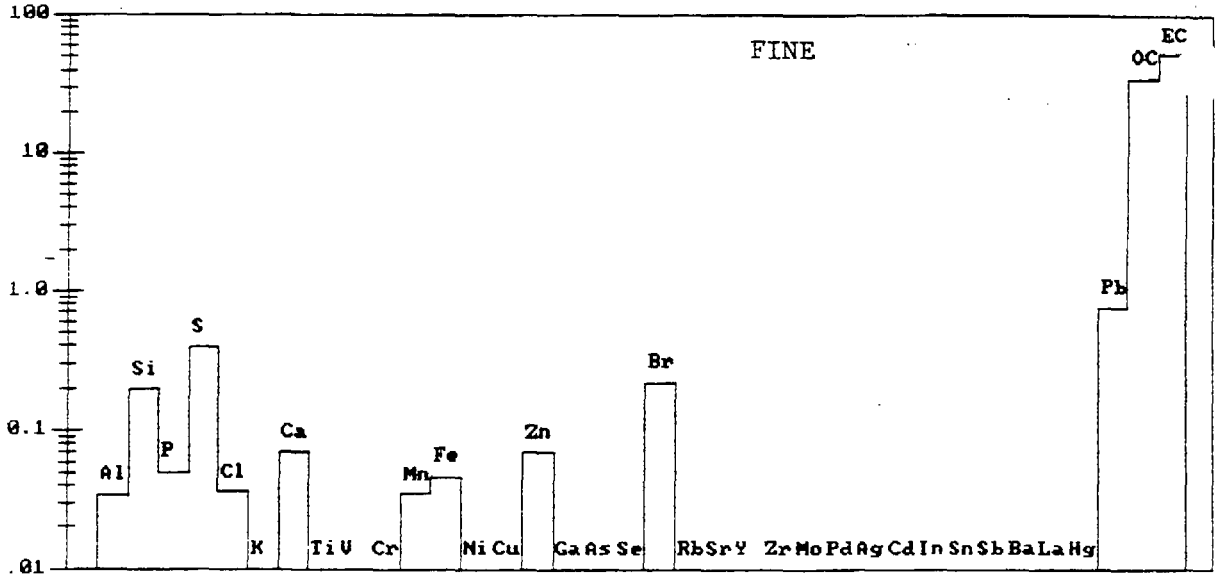


srce	part	revision	code	size	date	source description	reference	date
5487	FCT	07/07/87				MOVES-SCAB(NEA-E,WB1,T42,CM)	1	07/87

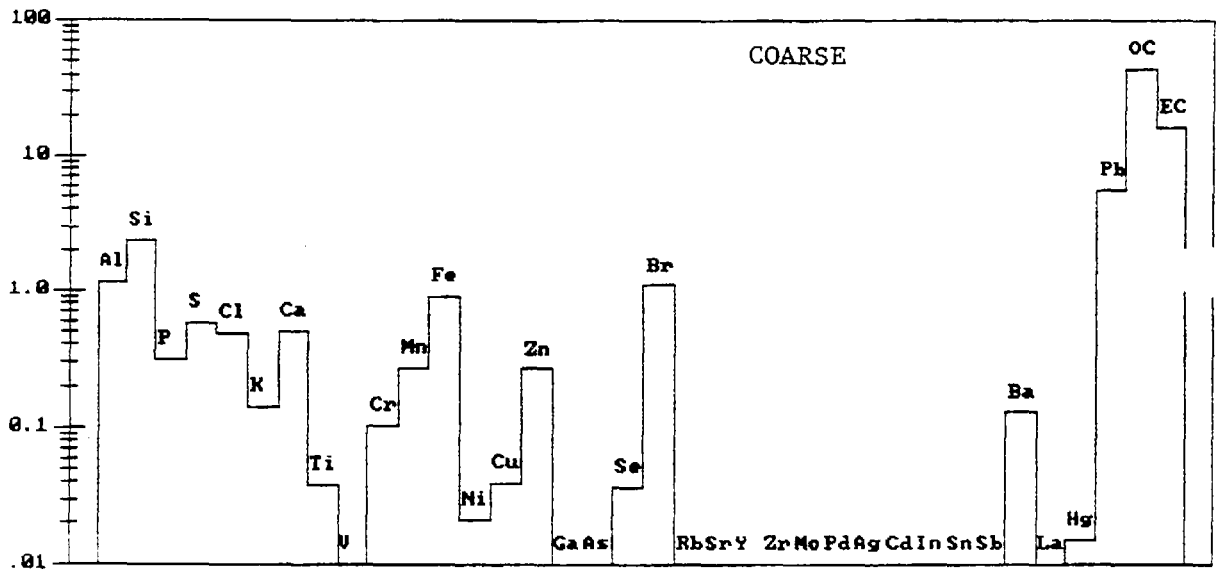
SPECIES	P E R C E N T C O M P O S I T I O N					
	FINE		COARSE		TOTAL	
Al	.0340 +-	.0440	1.1550 +-	1.4590	.1550 +-	.1540
Si	.1940 +-	.1170	2.3680 +-	1.5550	.3810 +-	.2390
P	.0500 +-	.0490	.3060 +-	.3570	.0760 +-	.0770
S	.3860 +-	.3910	.5750 +-	.6940	.3930 +-	.3830
Cl	.0360 +-	.0320	.4830 +-	.5270	.0770 +-	.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)

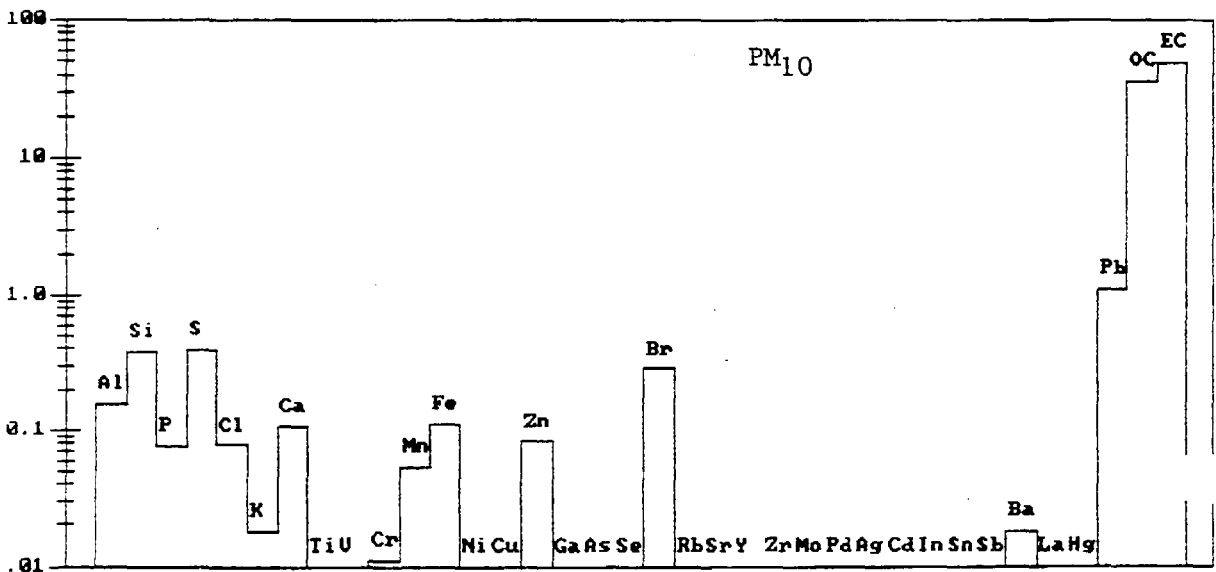
5487



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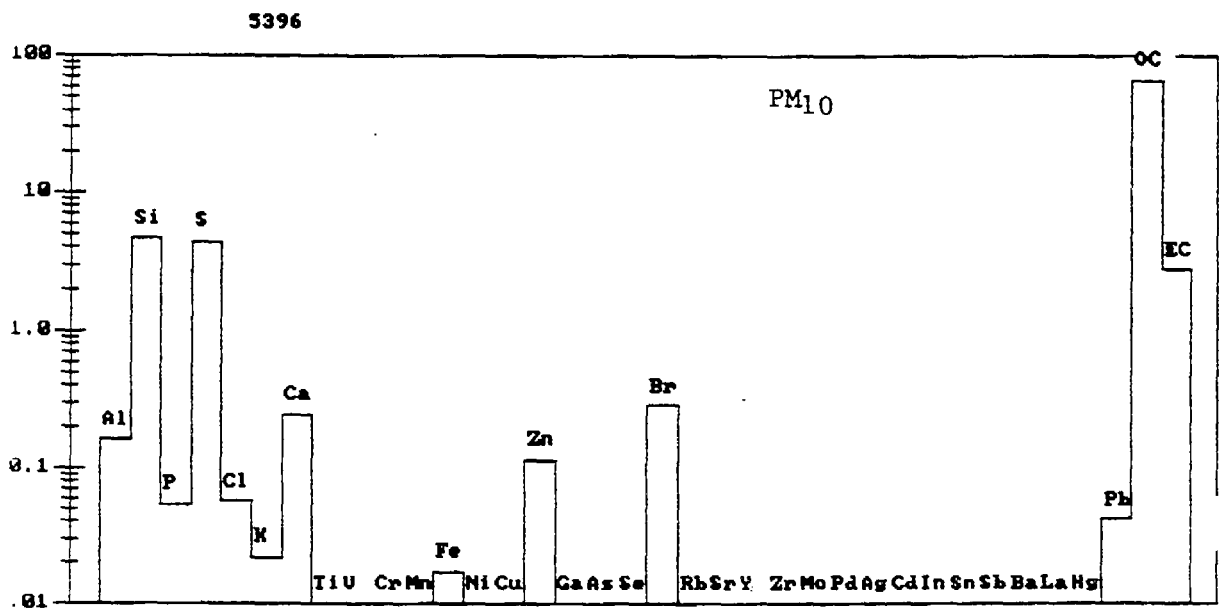
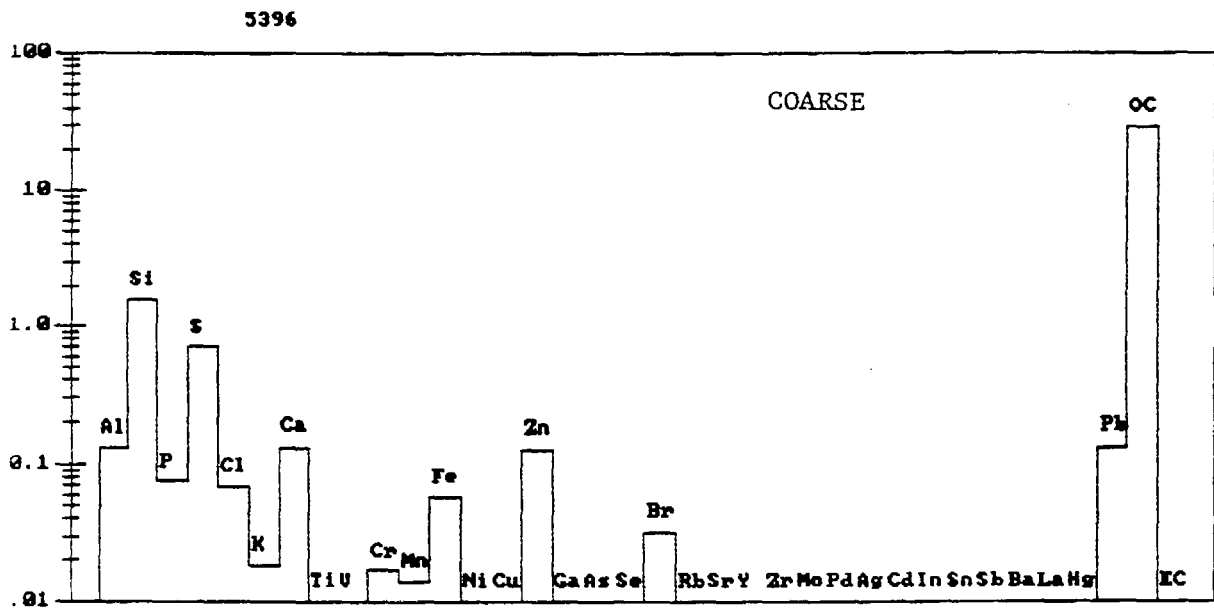
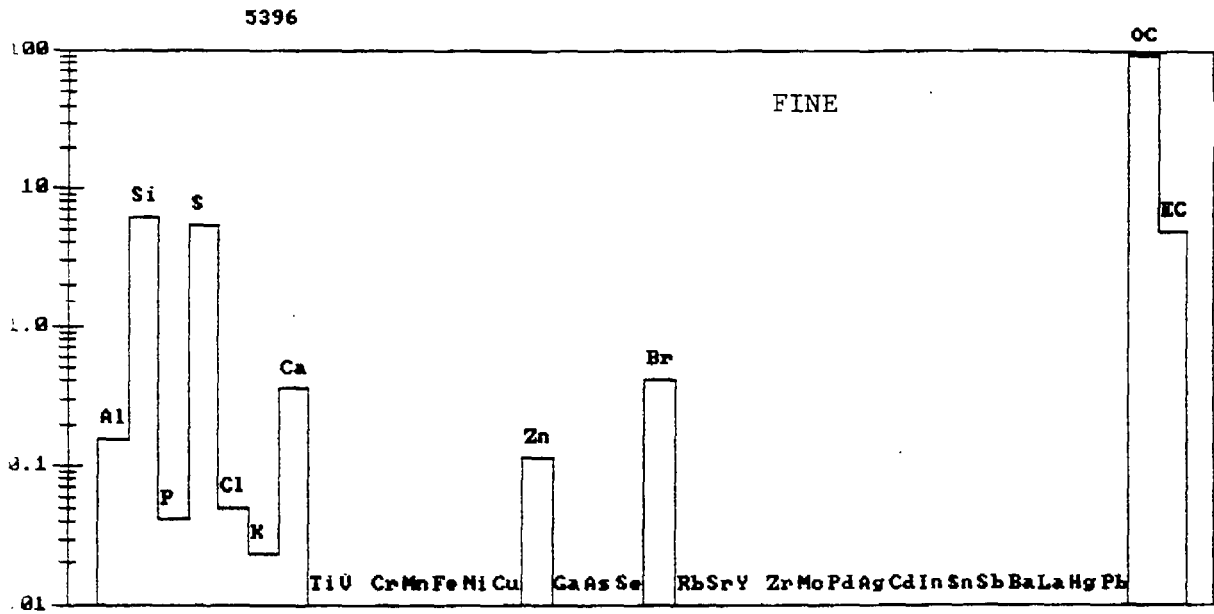
5487



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

SPECIES	P E R C E N T C O M P O S I T I O N					
	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	

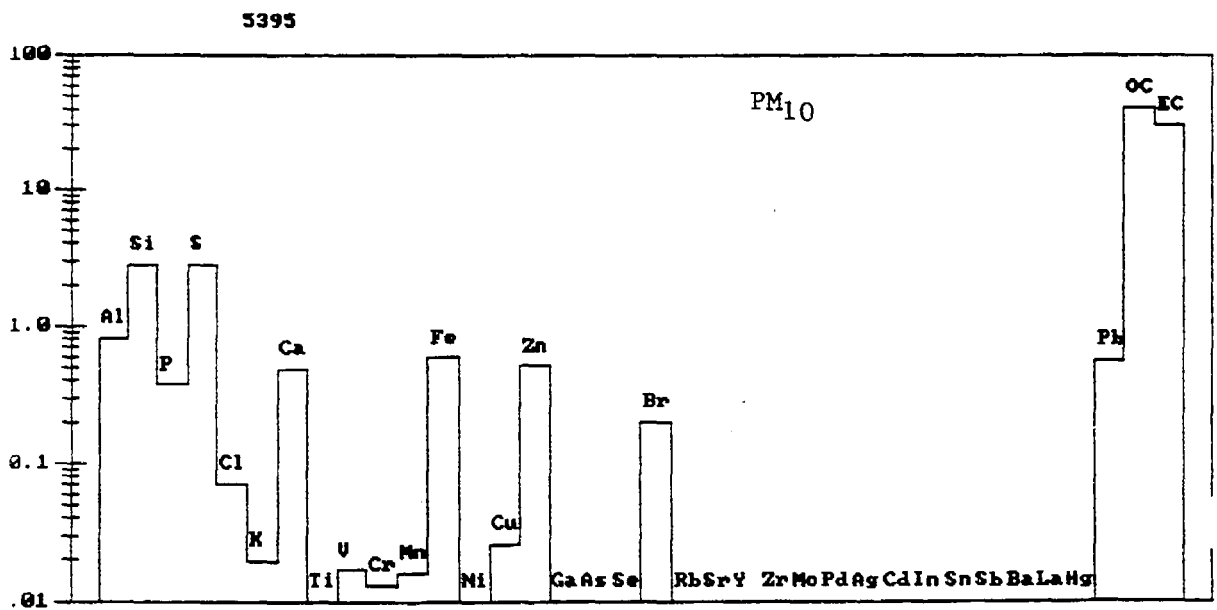
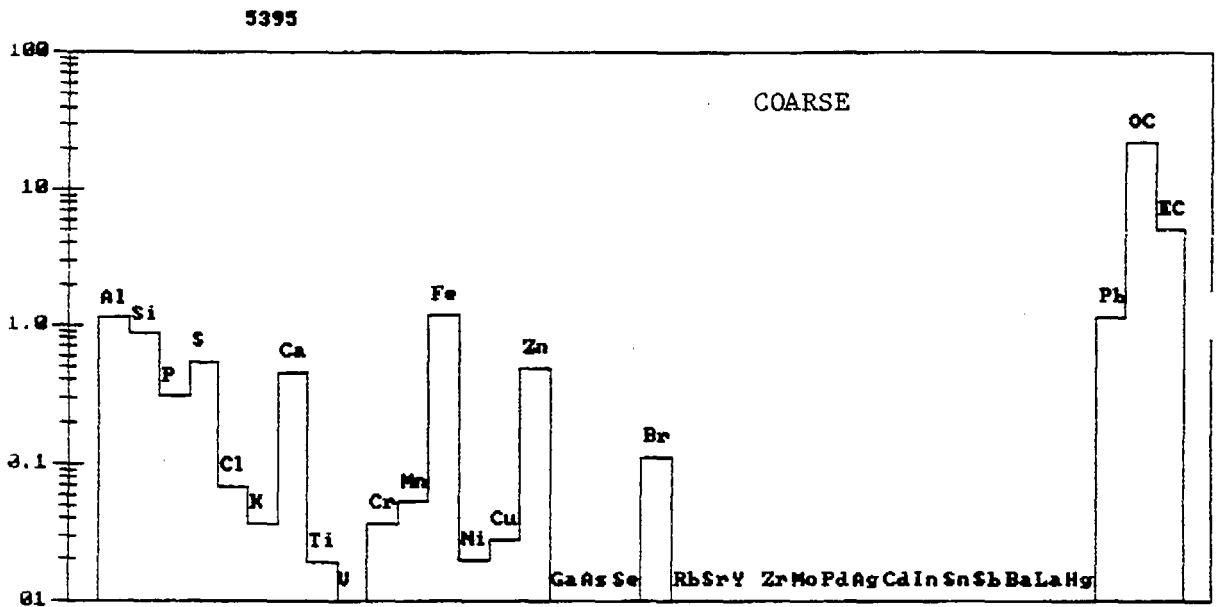
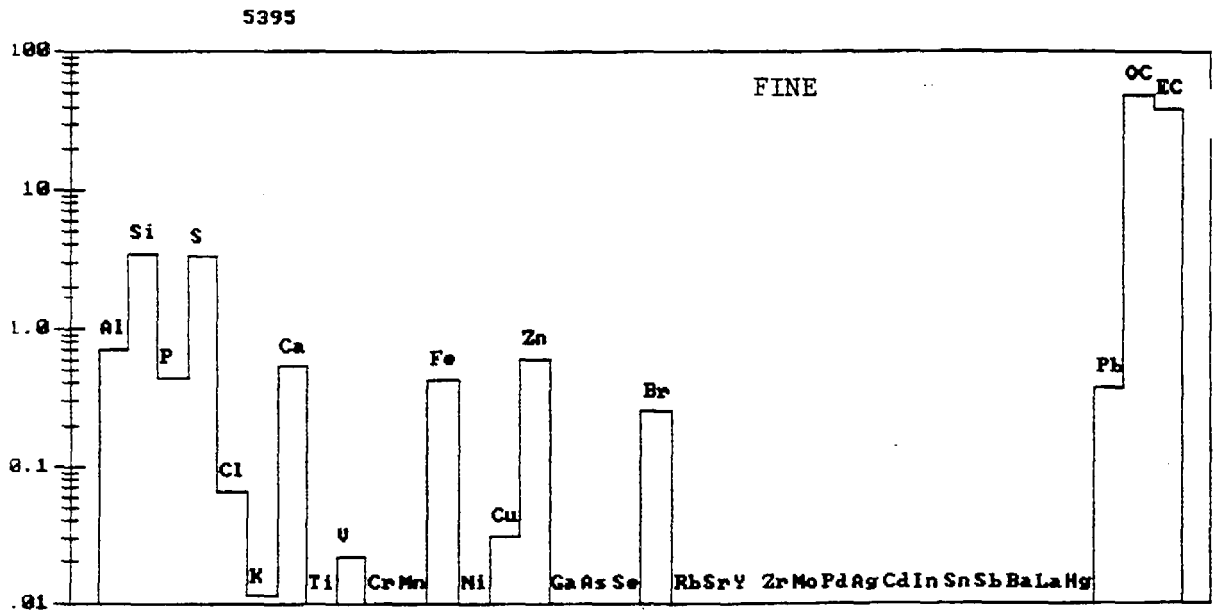
UNLEADED, Steady State



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

SPECIES	P E R C E N T C O M P O S I T I O N					
	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			

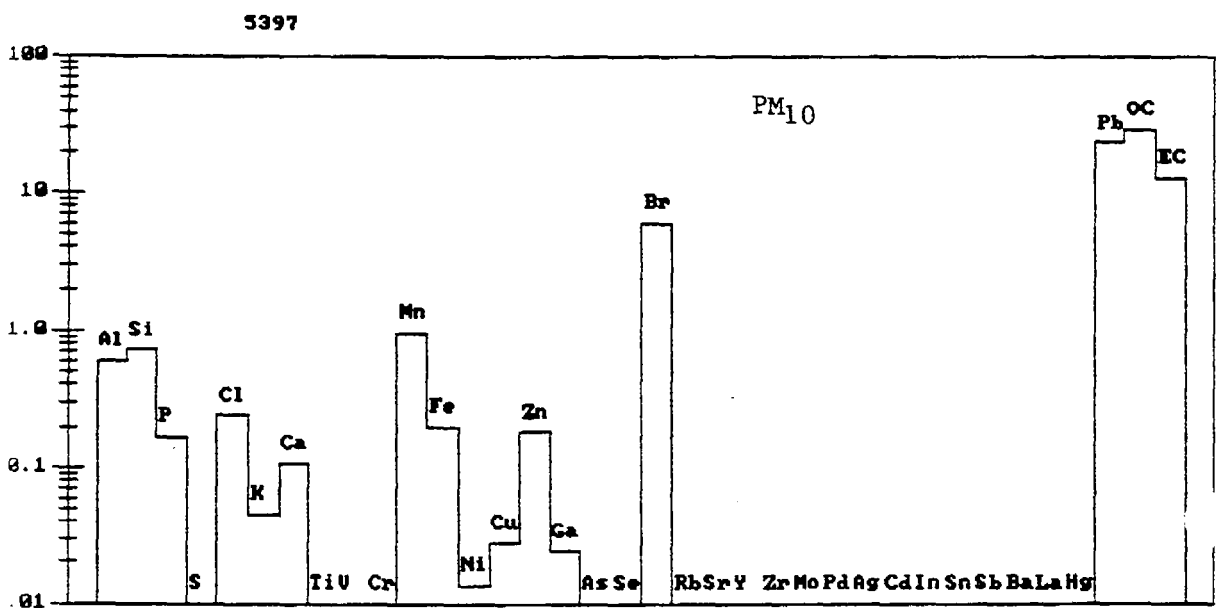
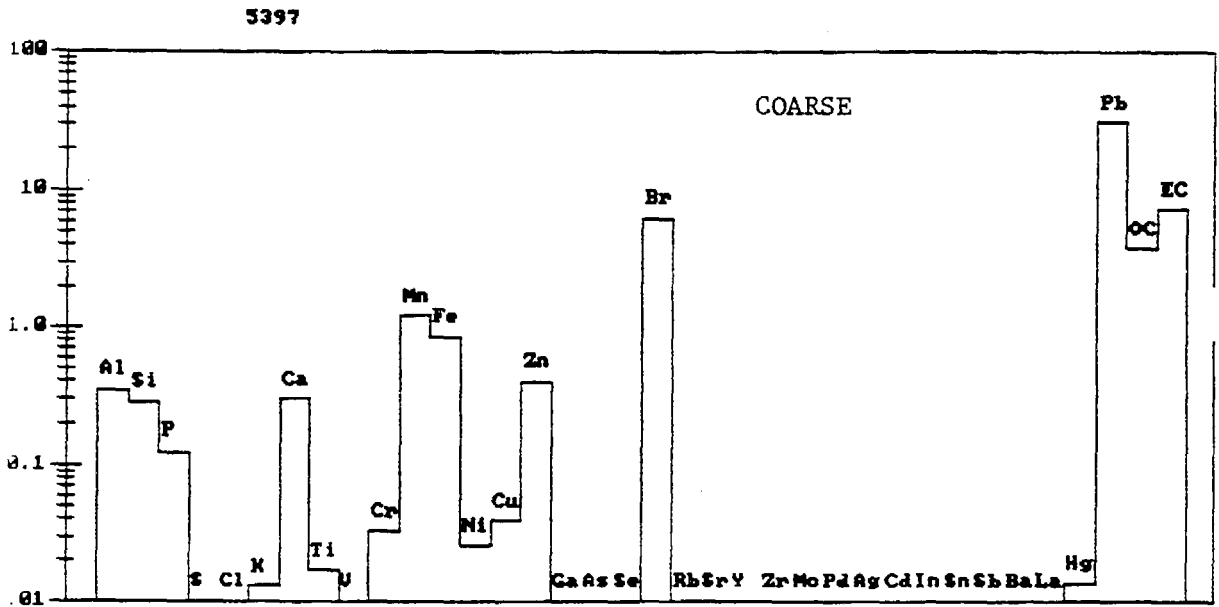
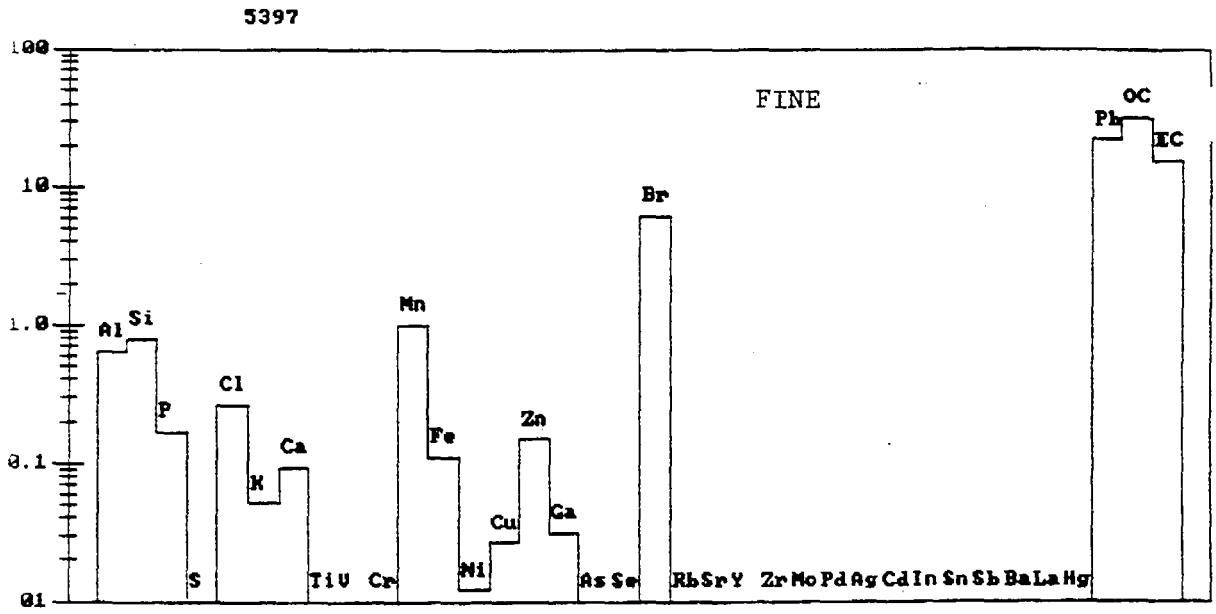
UNLEADED, Federal Test



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

SPECIES	P E R C E N T C O M P O S I T I O N					
	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

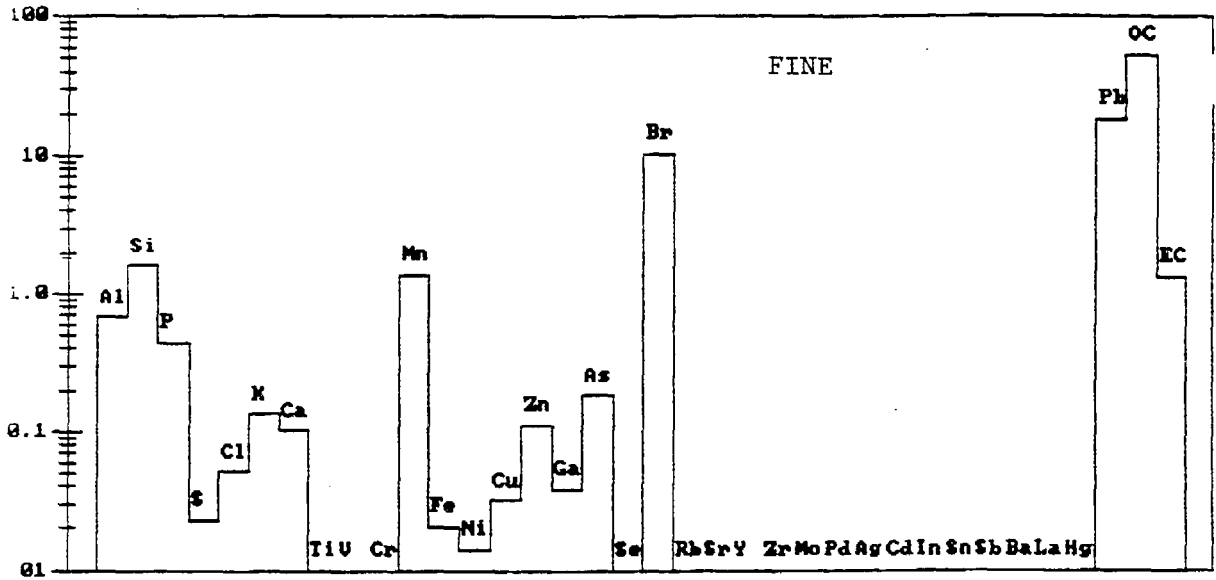


srce	part	revision	code	size	date	source description	reference	date
5398	FCT	07/07/87	LEADED,	steady	state	SCAB	1	04/87

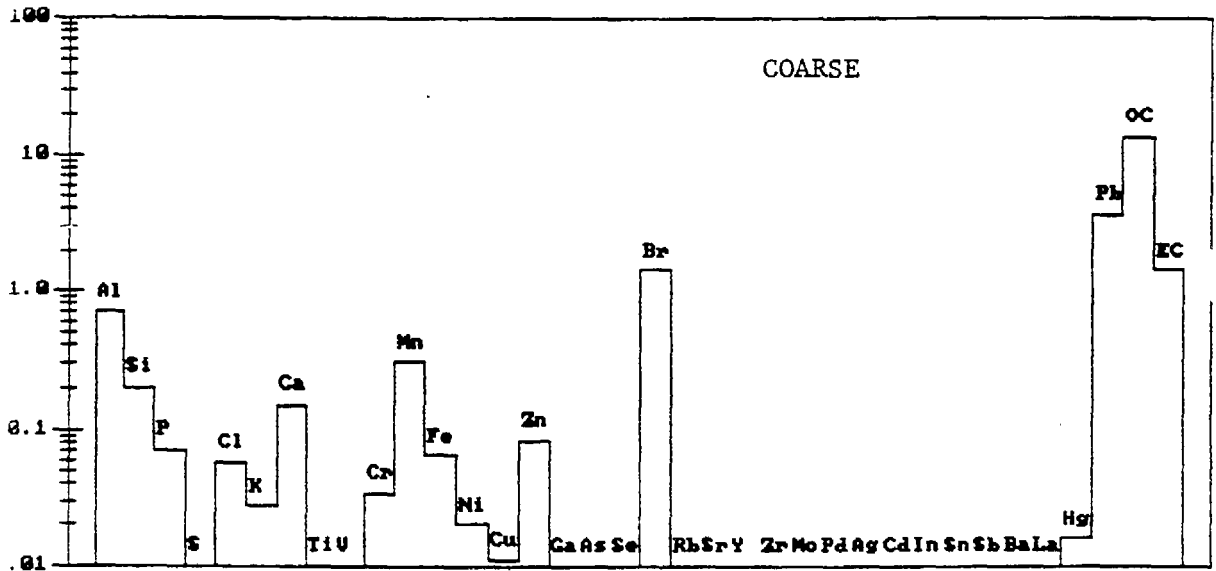
SPECIES	P E R C E N T C O M P O S I T I O N					
	FINE		COARSE		TOTAL	
Al	.6697 +- 1.1463	.6927 +- 1.1716	.4915 +- .9530			
Si	1.5878 +- .6408	.1986 +- .1909	1.3350 +- .5828			
P	.4348 +- .1347	.0697 +- .1649	.3736 +- .1304			
S	.0224 +- .9076	.0000 +- 1.4388	.0159 +- .7616			
Cl	.0507 +- .1546	.0576 +- .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

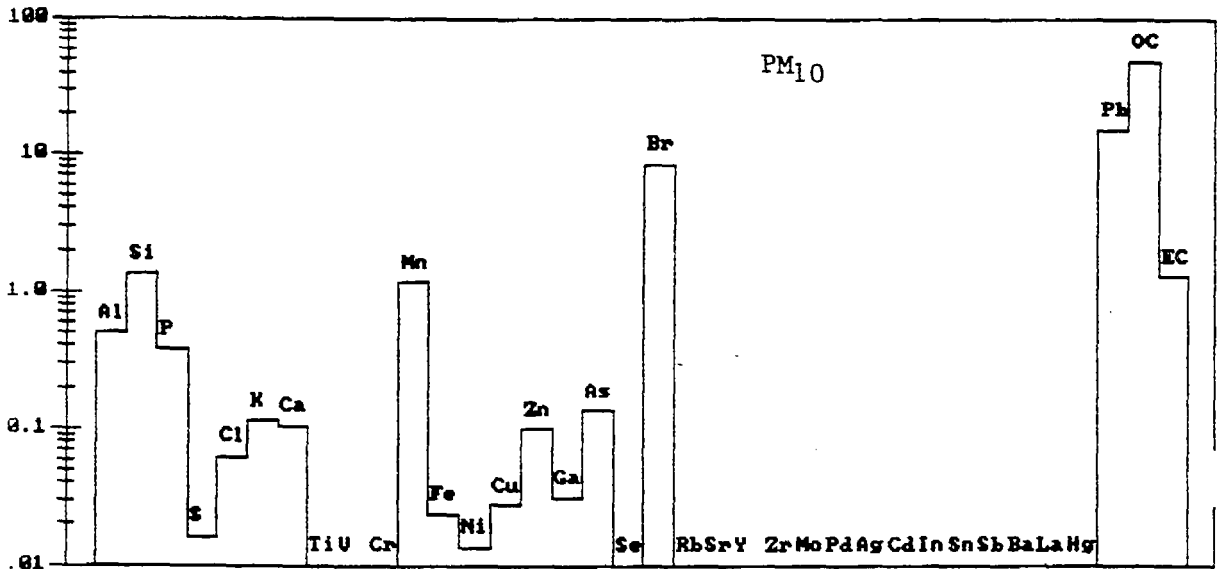
5398



5398



5398



3.0 SOURCE COMPOSITION TABLES AND PROFILES

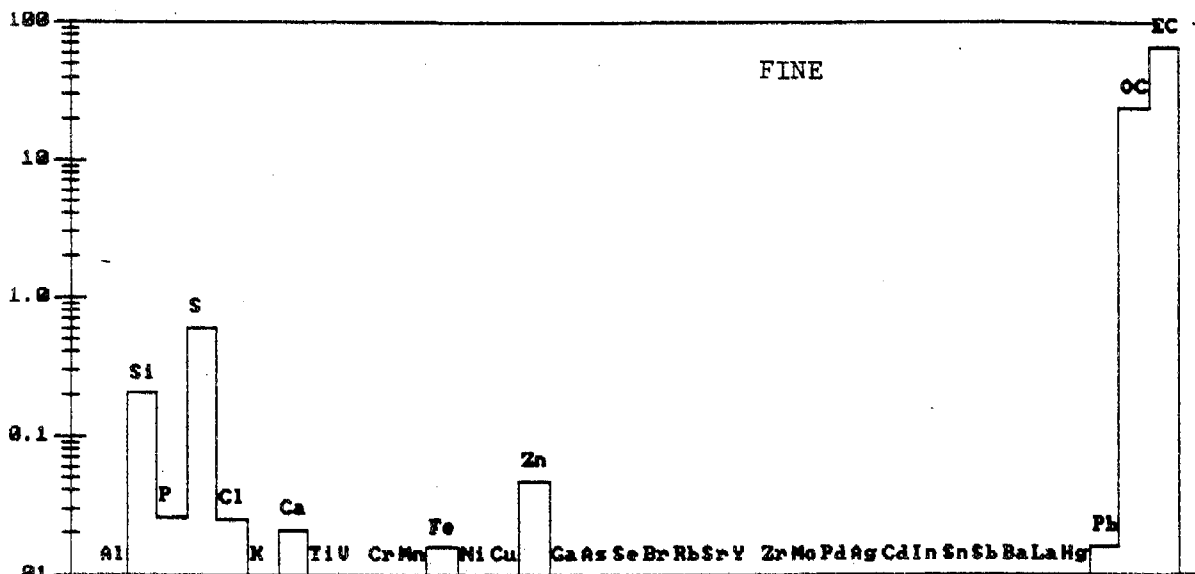
The profiles included in this library are grouped by source category as listed in Table 1 and listed in numerical sequence by its unique SCAB-library number. Each section is divided in the library for ease of locating the profiles.

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

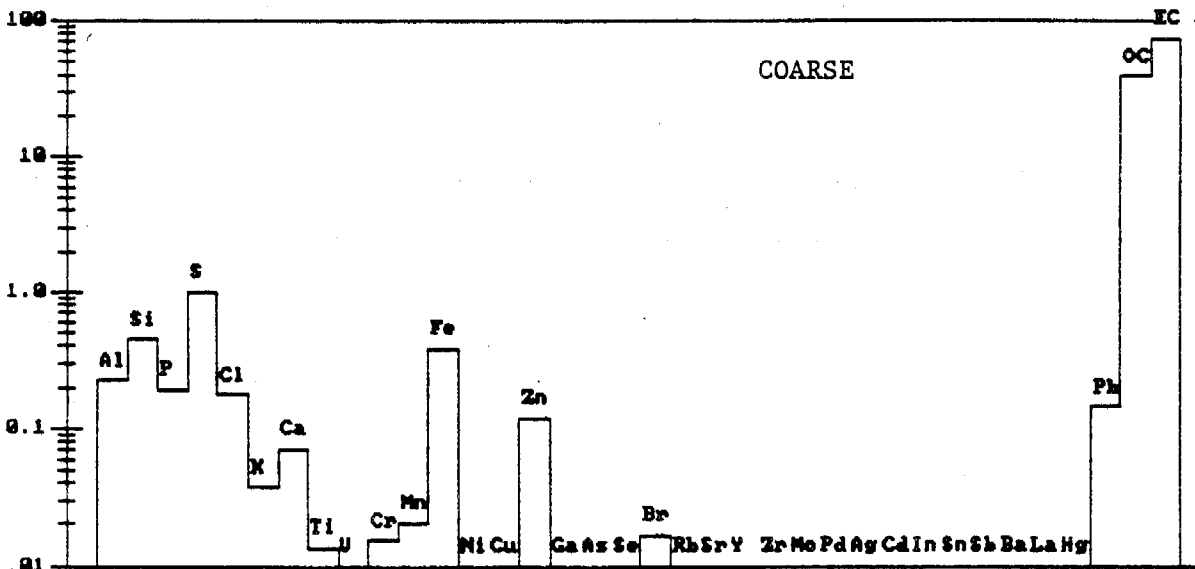
SPECIES	P E R C E N T C O M P O S I T I O N					
	FINE		COARSE		TOTAL	
Al	.0072 +-	.0039	.2242 +-	.1013	.0232 +-	.0101
Si	.2019 +-	.1769	.4441 +-	.1063	.2173 +-	.1706
P	.0259 +-	.0153	.1913 +-	.0636	.0378 +-	.0181
S	.5885 +-	.1680	1.0020 +-	.2698	.6171 +-	.1812
Cl	.0252 +-	.0142	.1756 +-	.0177	.0341 +-	.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

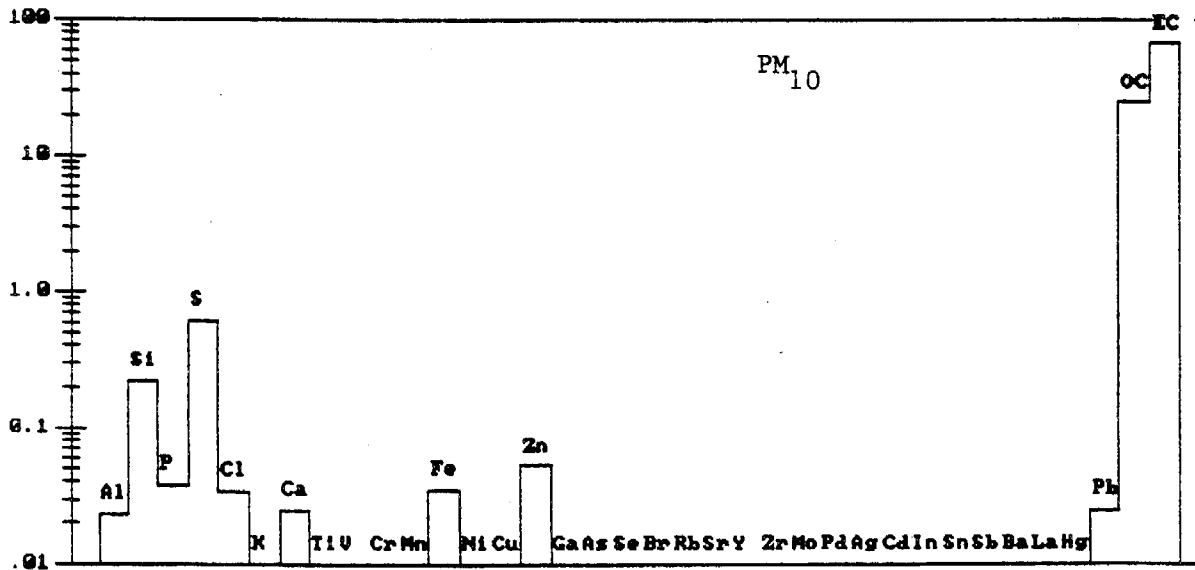
5399



5399



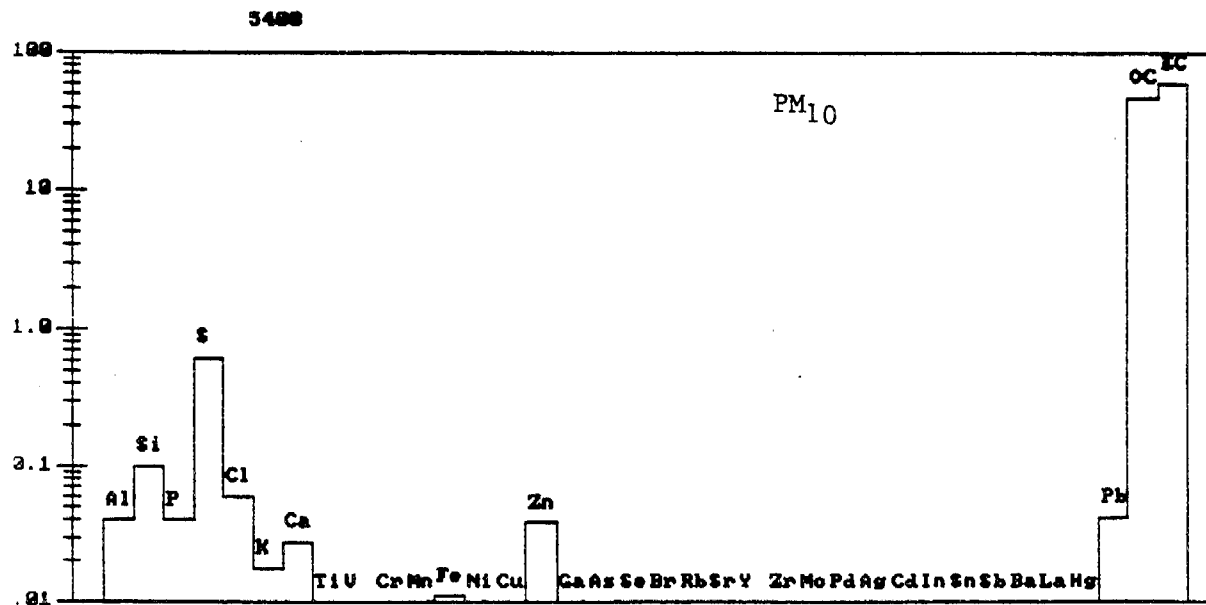
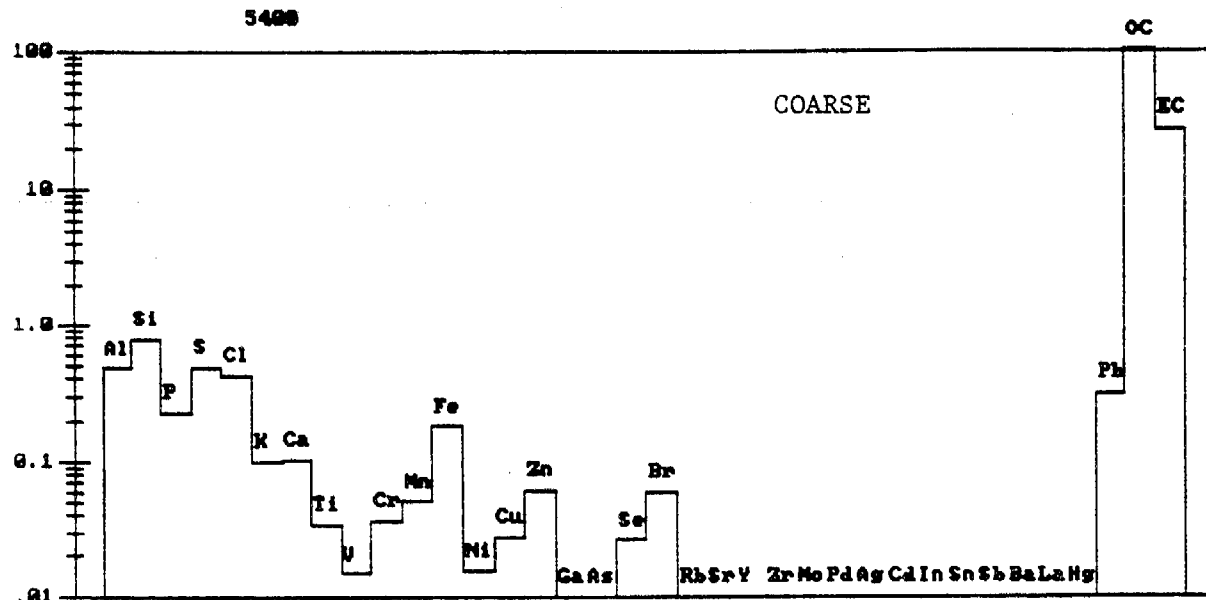
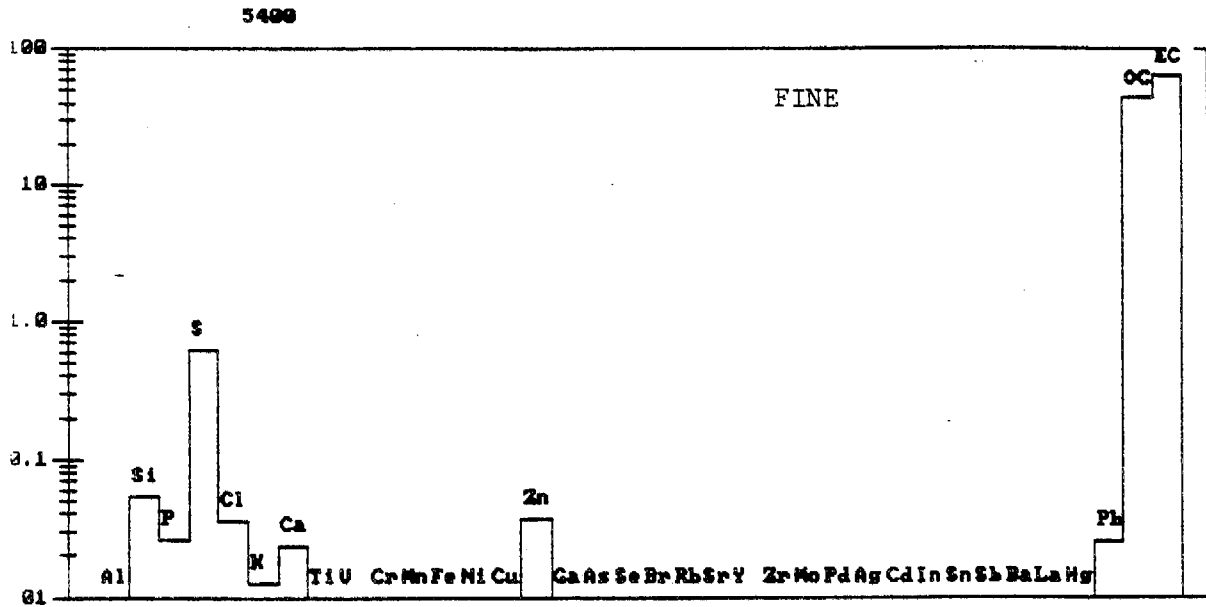
5399



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

SPECIES	P E R C E N T C O M P O S I T I O N					
	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

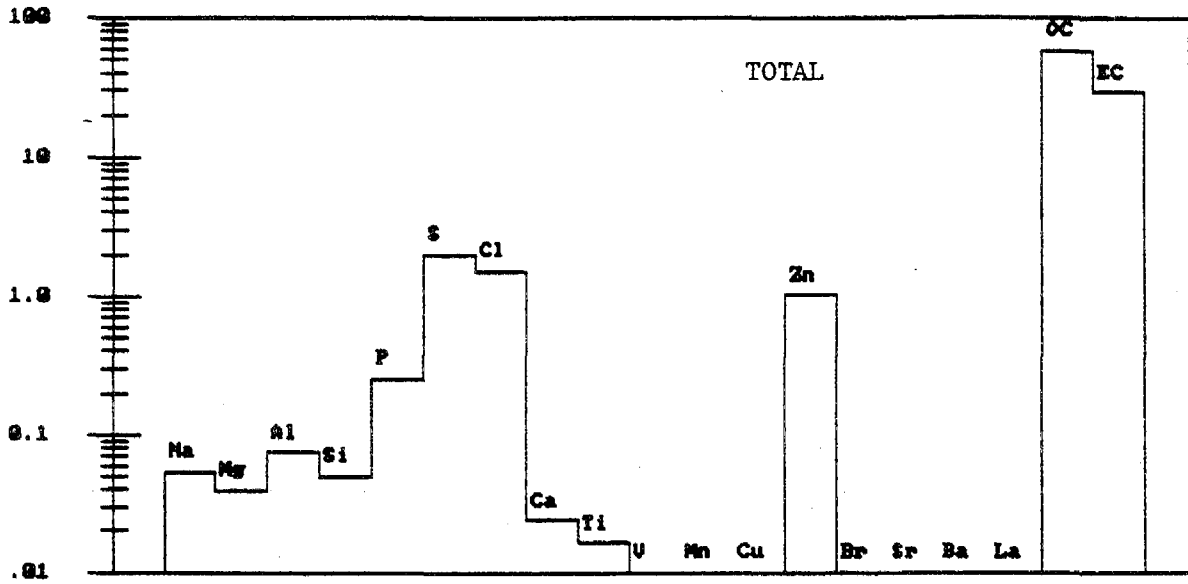


srce	part	revision	source	description	reference	date
code	size	date				
5401	FCT	07/07/87	H.D.	DIESEL federal test	SCAB	1 04/87

SPECIES	P E R C E N T C O M P O S I T I O N					
	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

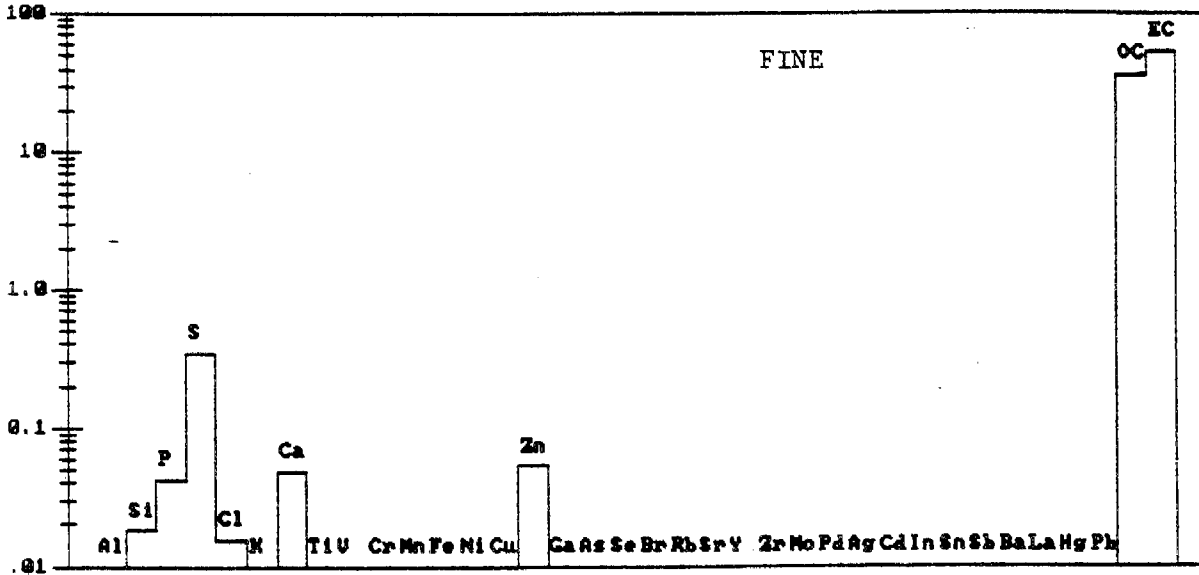
5858



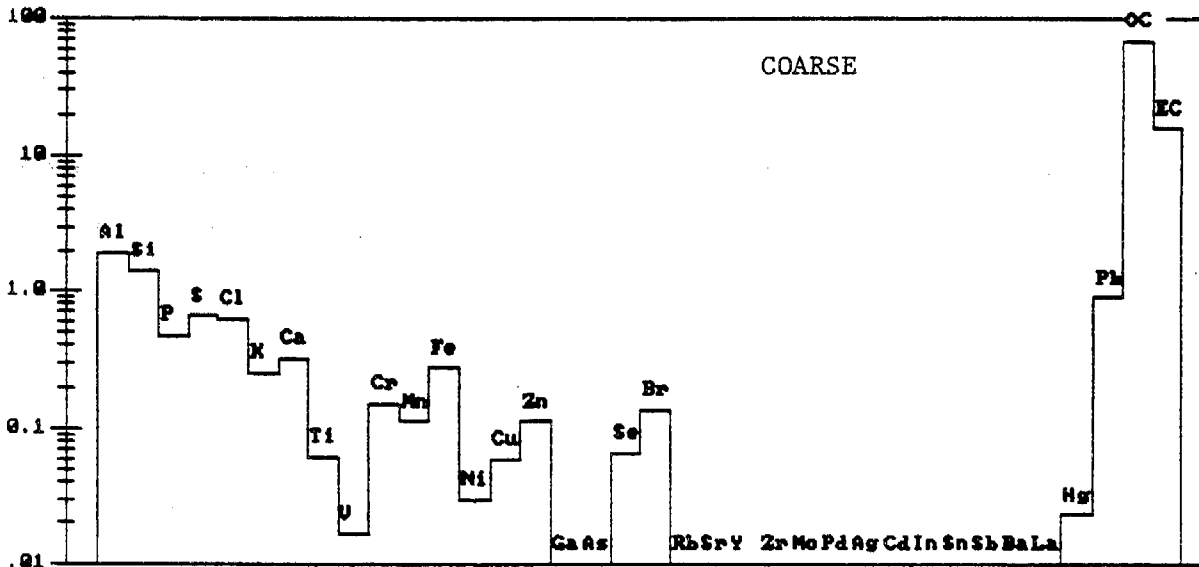
srce	part	revison	source description	reference	date
code	size	date			
5402	FCT	07/07/87	H.D. DIESEL, steady state SCAB	1	04/87

SPECIES	P E R C E N T C O M P O S I T I O N					
	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	

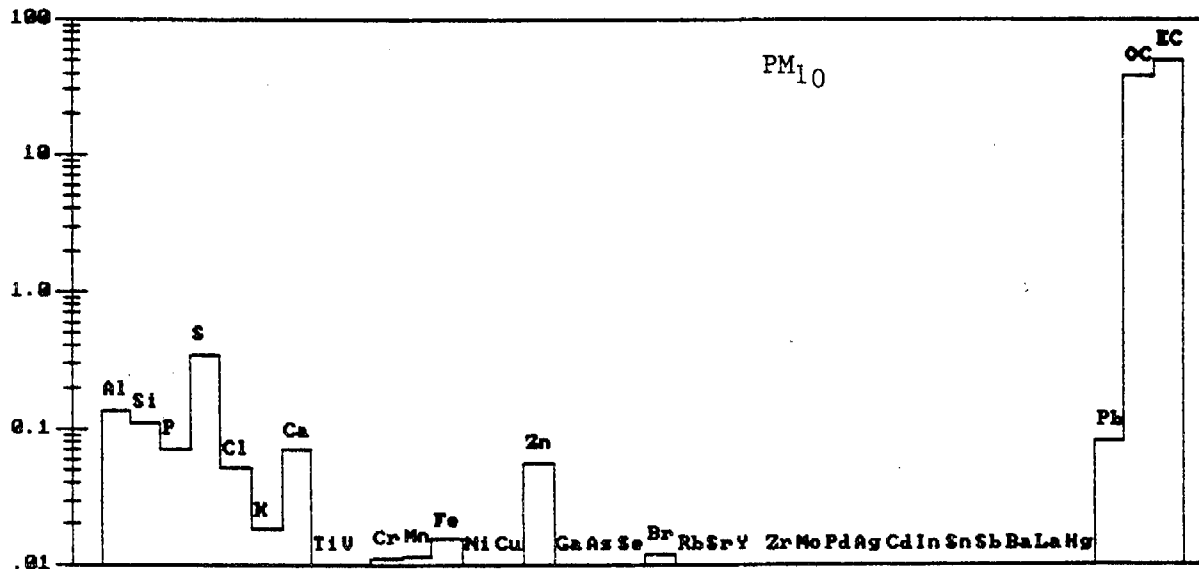
5401



5401



5401



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

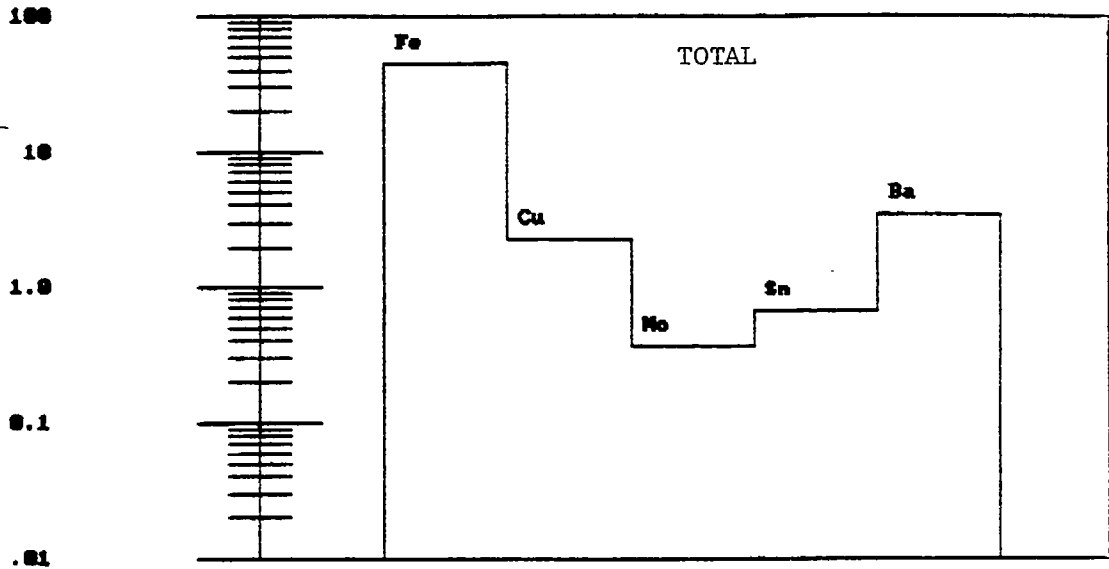
SPECIES	PERCENT COMPOSITION		
	FINE	COARSE	TOTAL
Na			.0537 +- .0125
Mg			.0394 +- .0077
Al			.0743 +- .0220
Si			.0500 +- .0500
P			.2500 +- .2500
S			1.9889 +- .6935
Cl			1.5000 +- 1.0000
Ca			.0239 +- .0083
Ti			.0164 +- .0048
V			.0004 +- .0002
Mn			.0003 +- .0001
Cu			.0004 +- .0001
Zn			1.0182 +- .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	part	revision	source description	reference	date
code	size	date			
5473	T	05/06/87	Semimetal Disk Brake Pads	1	05/87

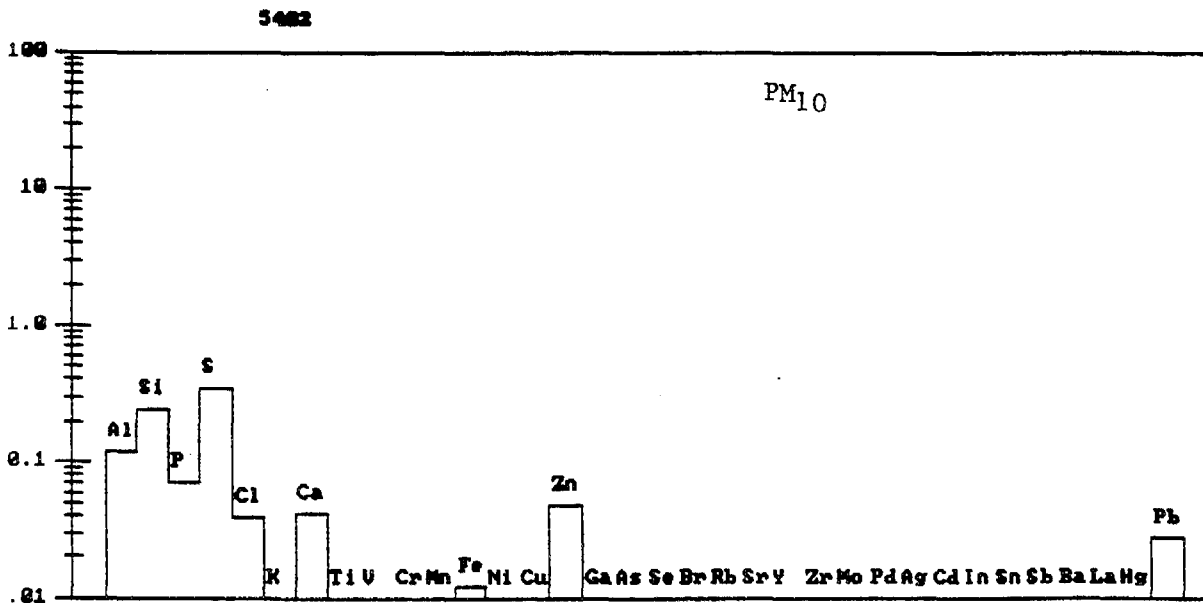
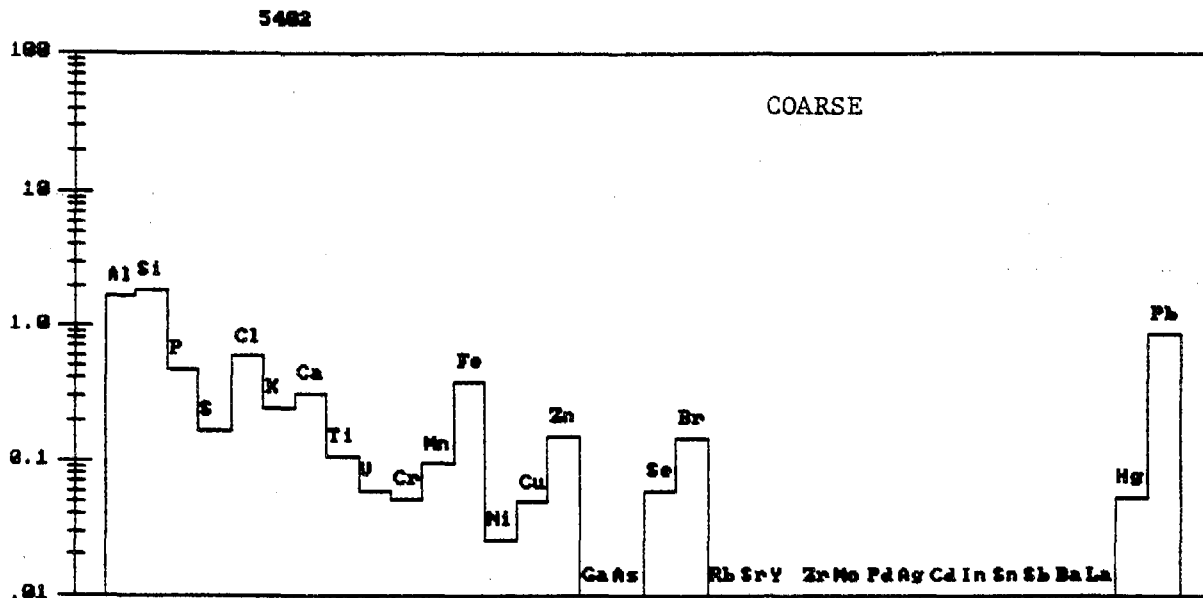
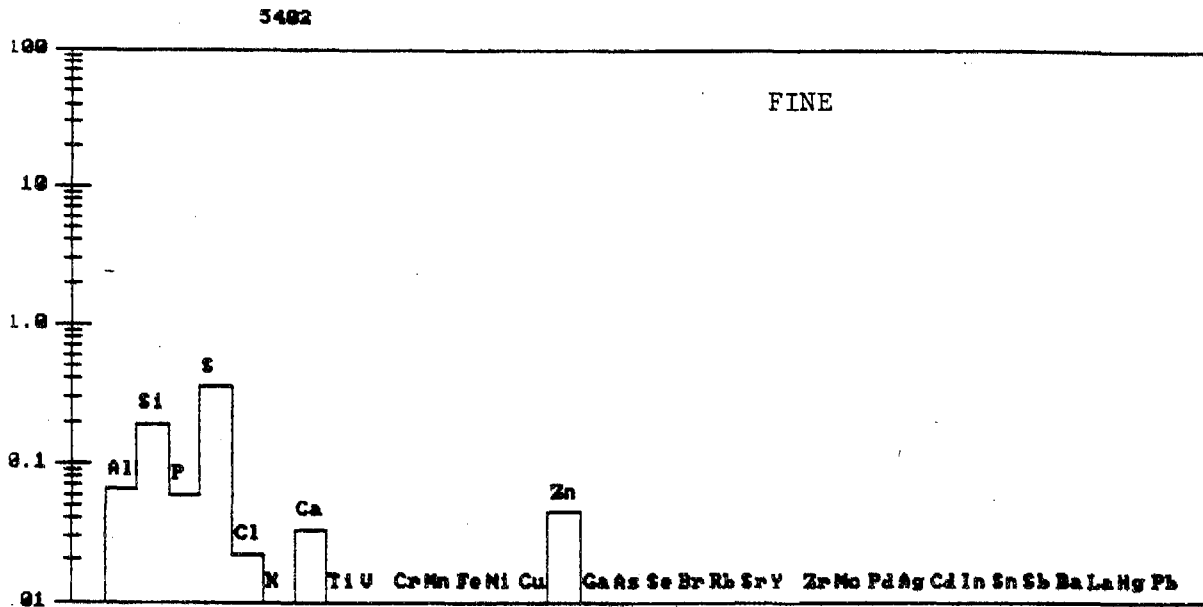
SPECIES	P E R C E N T C O M P O S I T I O N		
	FINE	COARSE	TOTAL
Fe			45.9000 +- 3.9000
Cu			2.2600 +- .1800
Mo			.3700 +- .0500
Sn			.6600 +- .0500
Ba			3.4500 +- .1900
Sum			52.6400

SEMI-METAL DISK BRAKE PADS

5473



H.D. DIESEL, Steady State



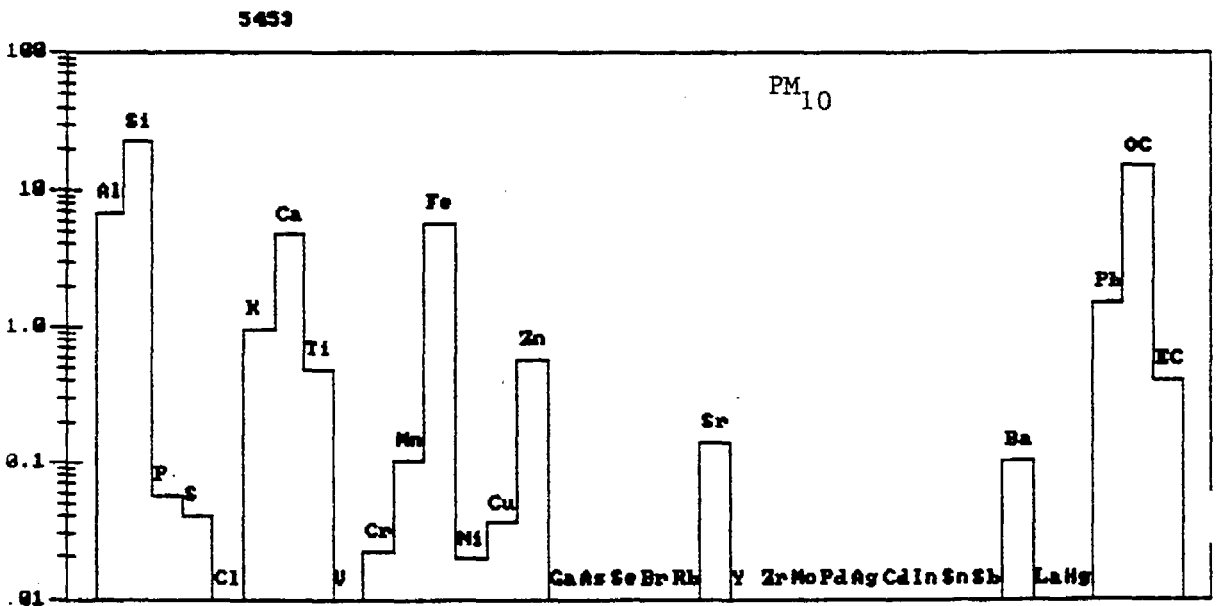
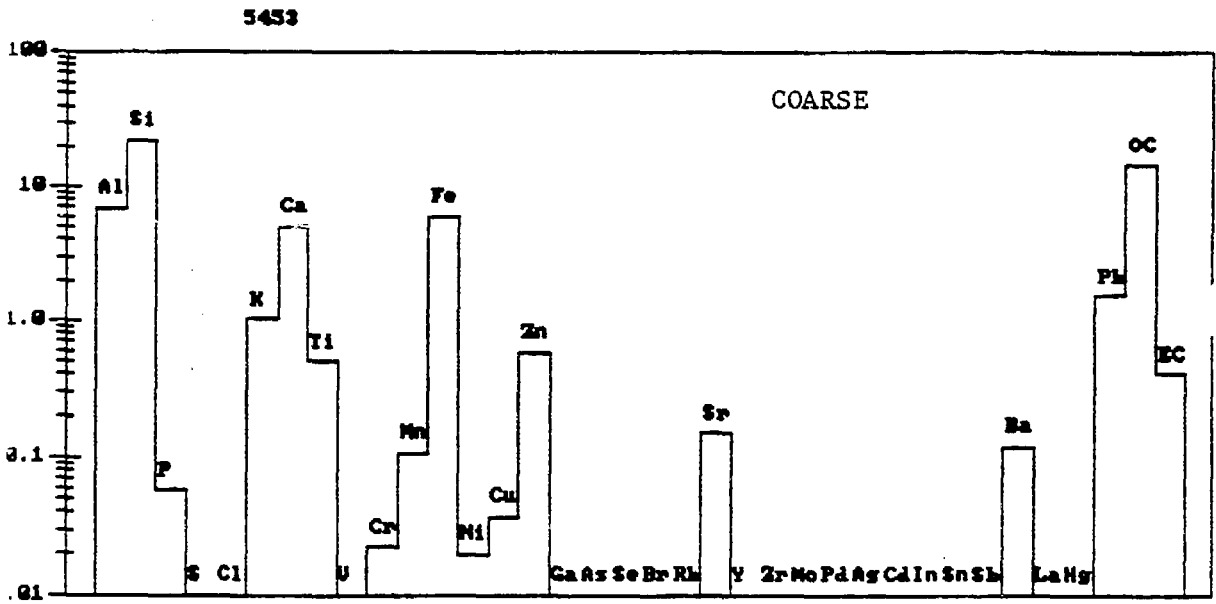
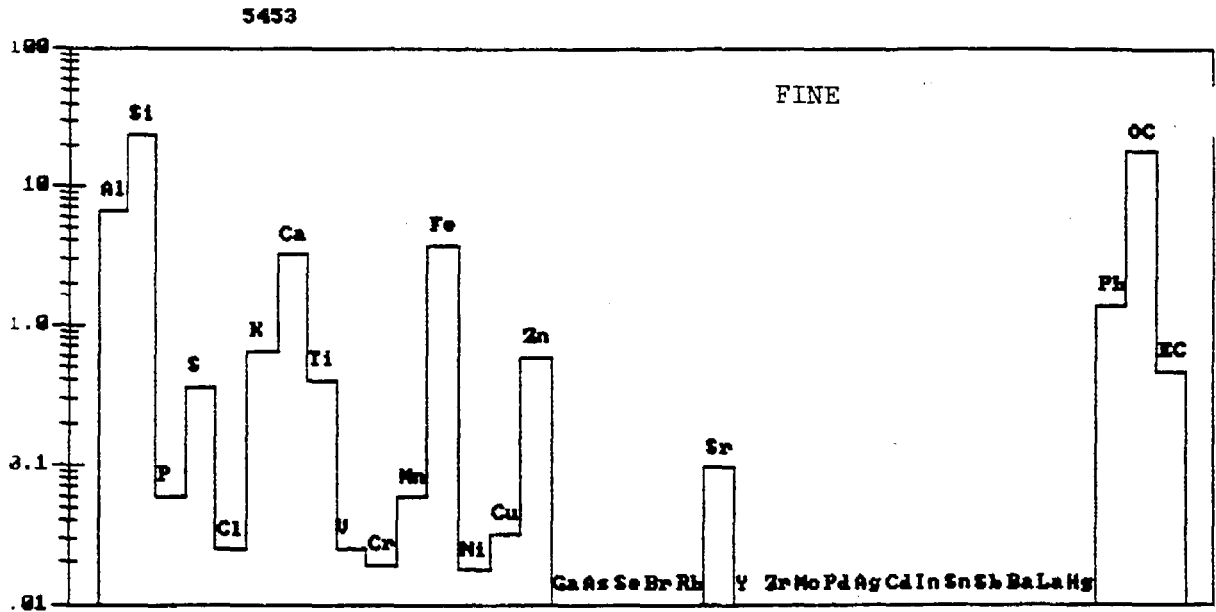
srce	part	revison	source description	reference	date
code	size	date			
5472	T	06/25/87	Brake Lining Asbestos	3	00/74

SPECIES	P E R C E N T C O M P O S I T I O N		
	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	part	revsion	source description	reference	date
code	size	date			
5453	FCT	07/09/87	Pasadena Freeway road dust	1	04/87

SPECIES	P E R C E N T C O M P O S I T I O N					
	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

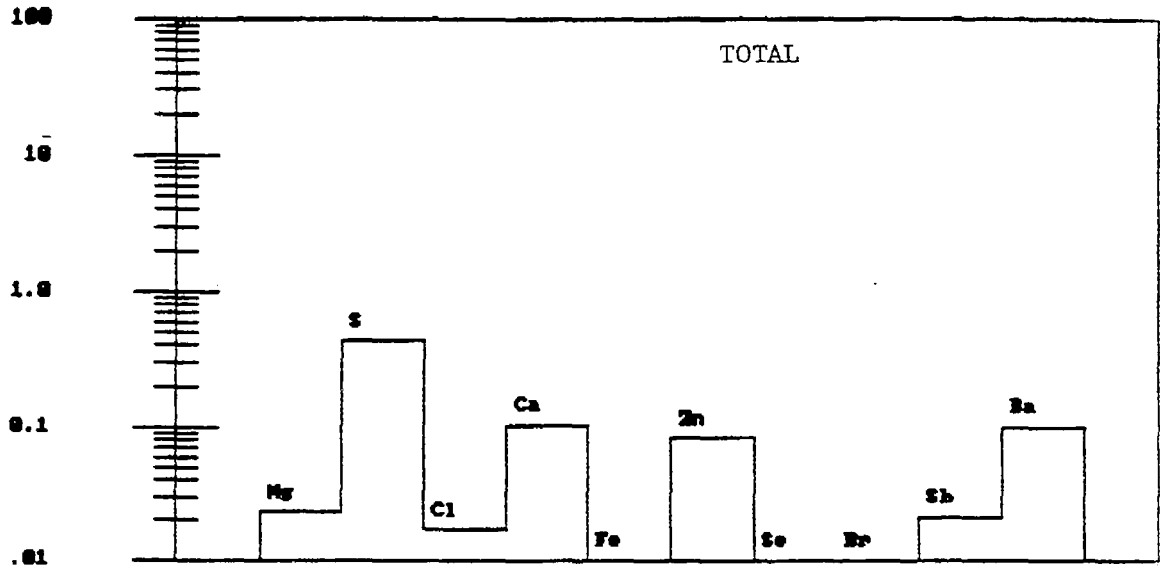


srce code	part size	revision date	source description	reference	date
5471	T	05/04/87	Motor Oil	3	00/74

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

5471

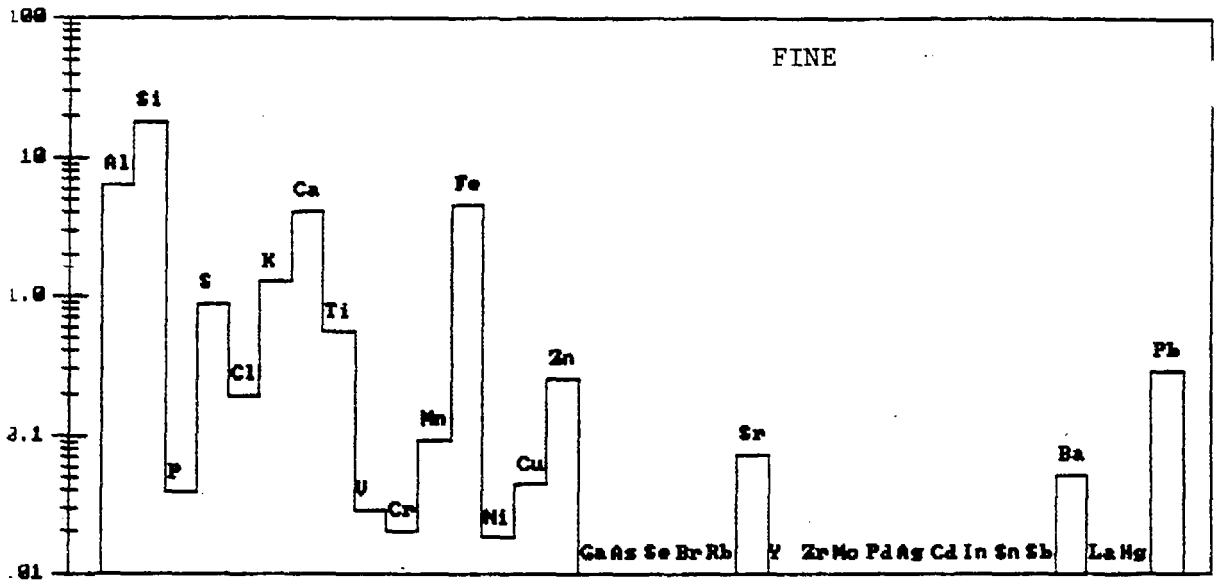


srce	part	revision	source description	reference	date
code	size	date			
5454	FCT	07/09/87	Artesia Freeway road dust	1	04/87

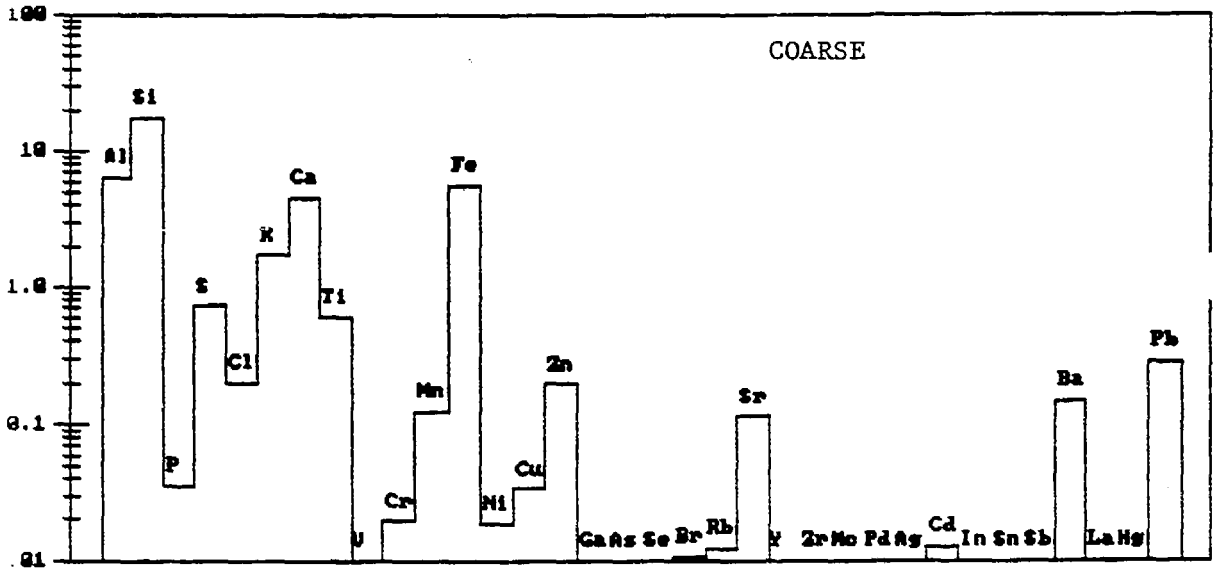
SPECIES	P E R C E N T C O M P O S I T I O N					
	FINE		COARSE		TOTAL	
Al	6.3712 +- .9556	6.4604 +- .9691	6.4539 +- .9005			
Si	17.9945 +- 2.6992	17.4861 +- 2.6229	17.5235 +- 2.4381			
P	.0386 +- .0077	.0352 +- .0070	.0354 +- .0065			
S	.8738 +- .0436	.7180 +- .0359	.7295 +- .0334			
Cl	.1900 +- .0095	.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

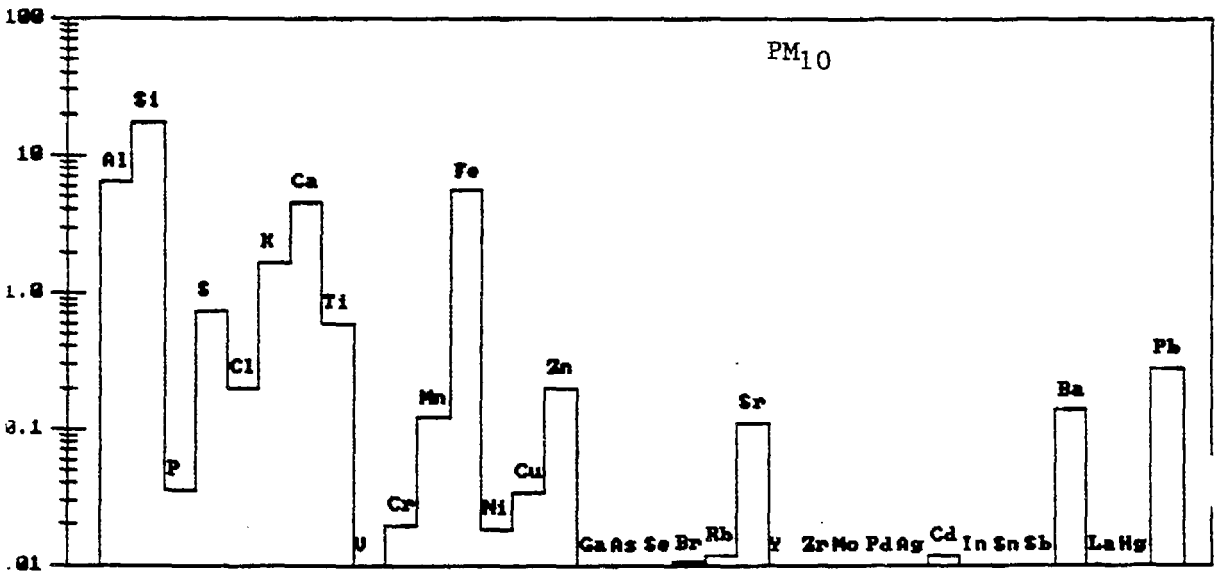
5454



5454



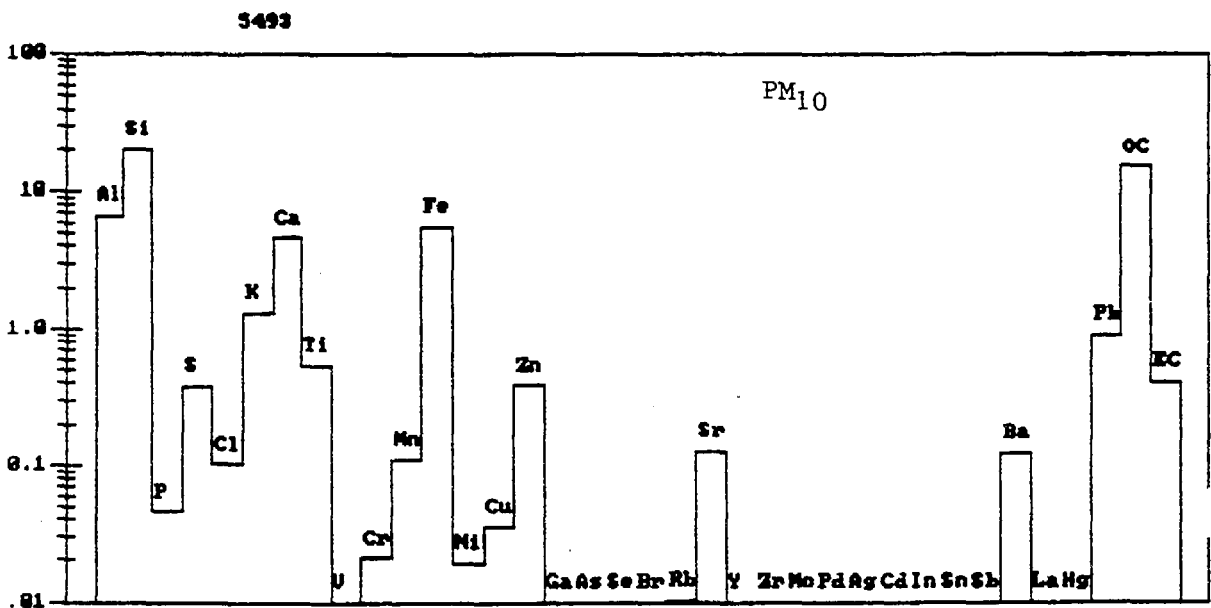
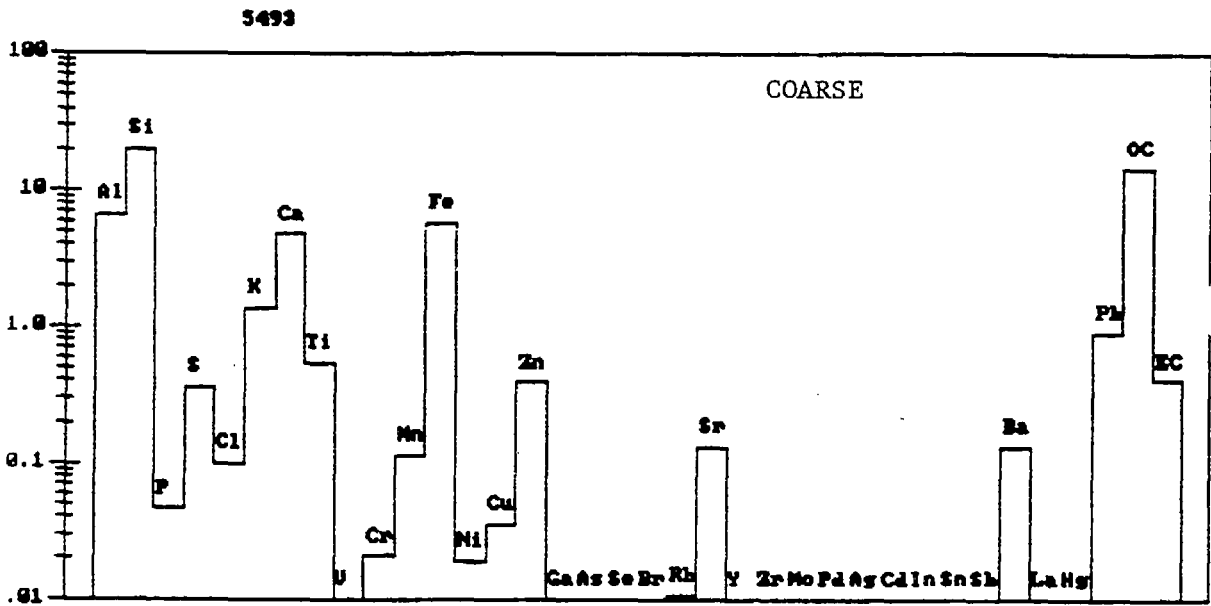
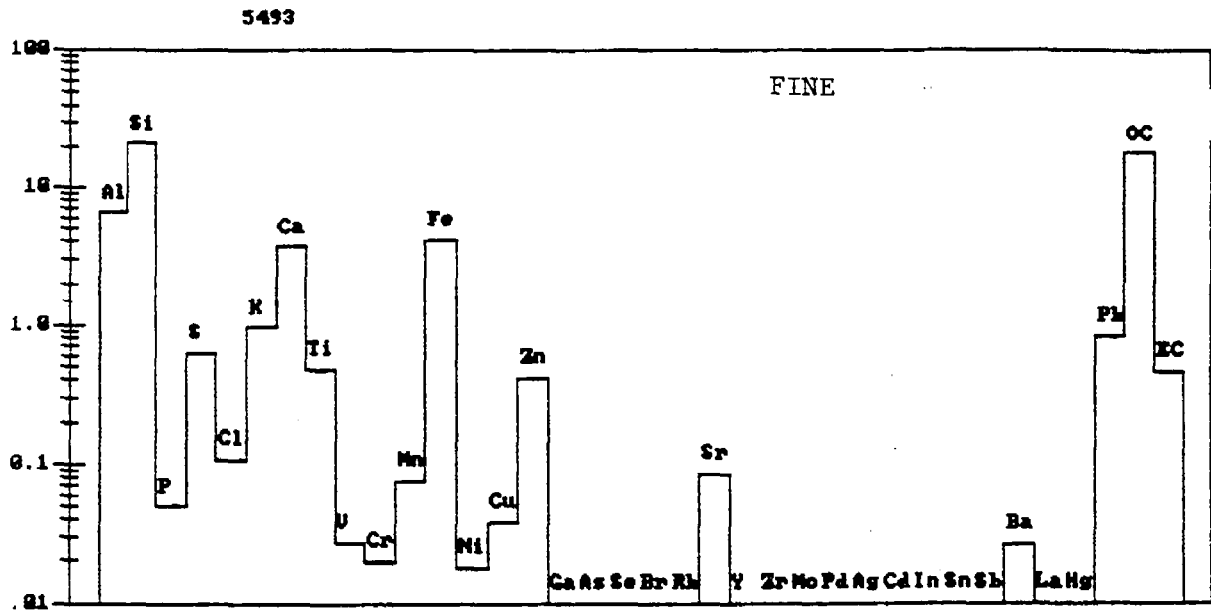
5454



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

SPECIES	P E R C E N T C O M P O S I T I O N					
	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

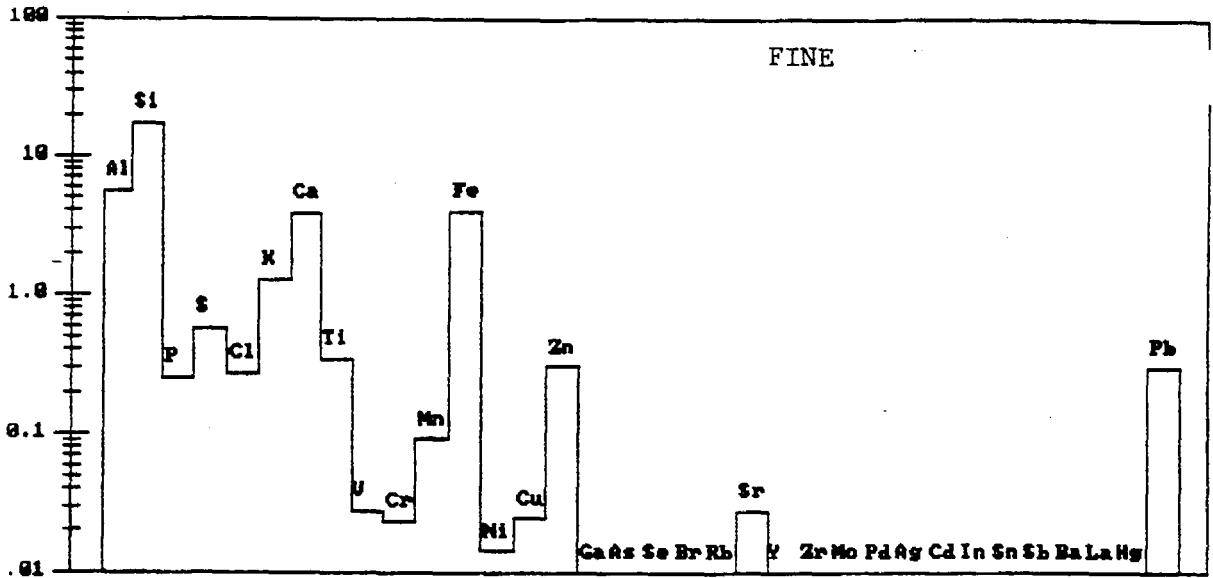


srce	part	revison	code	size	date	source description	reference	date
5455	FCT	07/09/87	Long Beach Blvd paved rd	dust	Sherman, J.R.	04/87		

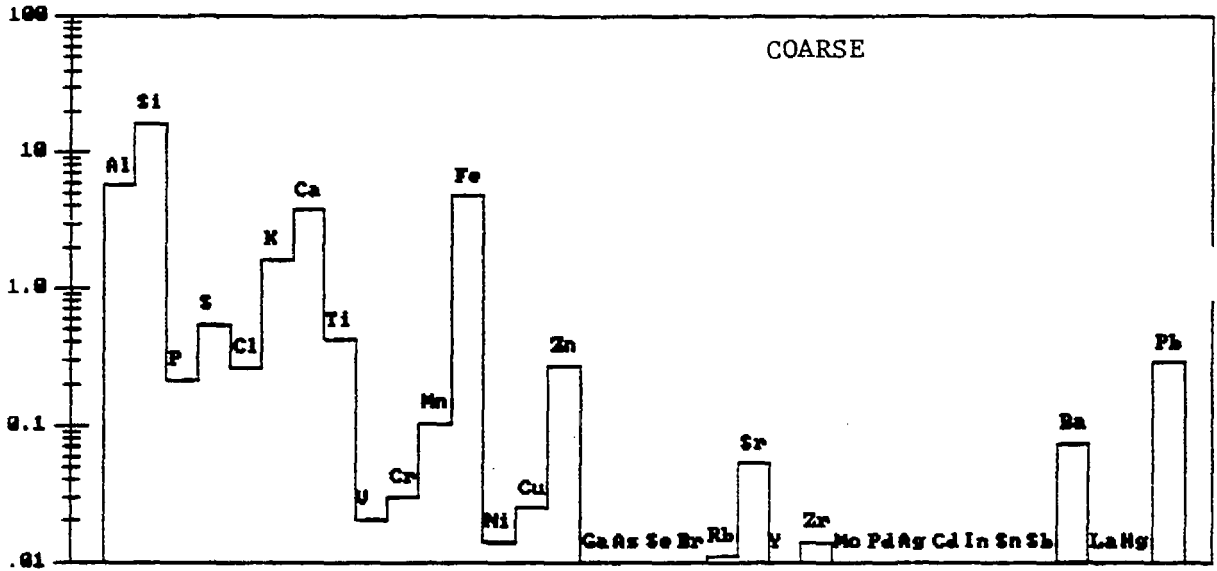
SPECIES	P E R C E N T C O M P O S I T I O N					
	FINE		COARSE		TOTAL	
Al	5.6108 +- .8417	5.6812 +- .8522	5.6762 +- .7938			
Si	17.1737 +- 2.5760	16.0878 +- 2.4132	16.1650 +- 2.2491			
P	.2502 +- .0501	.2103 +- .0421	.2131 +- .0392			
S	.5759 +- .0288	.5313 +- .0266	.5345 +- .0248			
Cl	.2675 +- .0133	.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

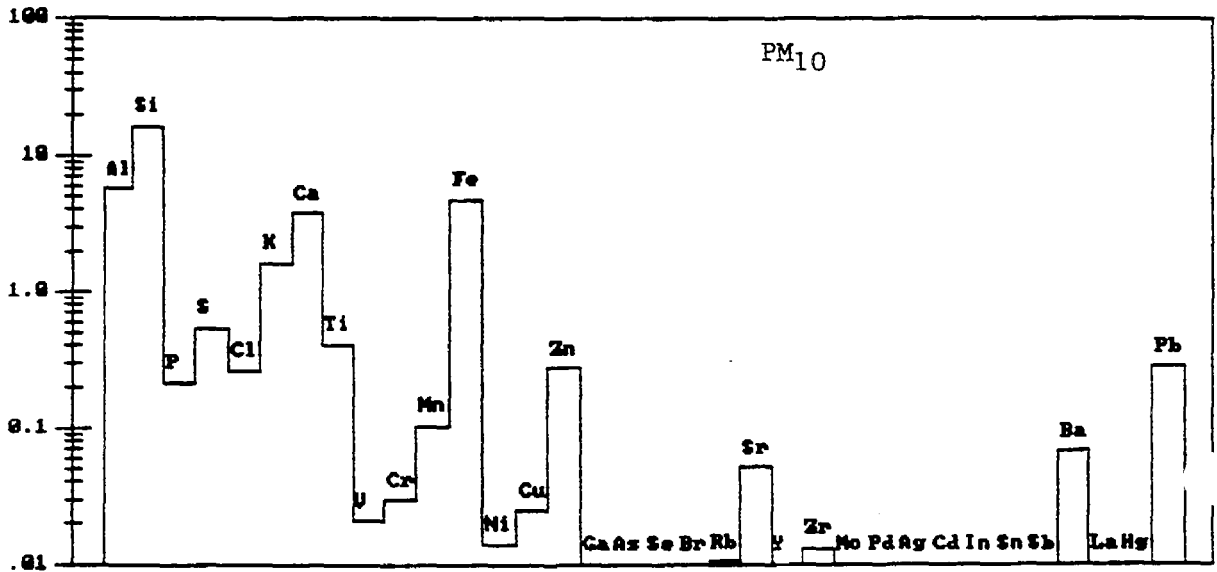
5455



5455



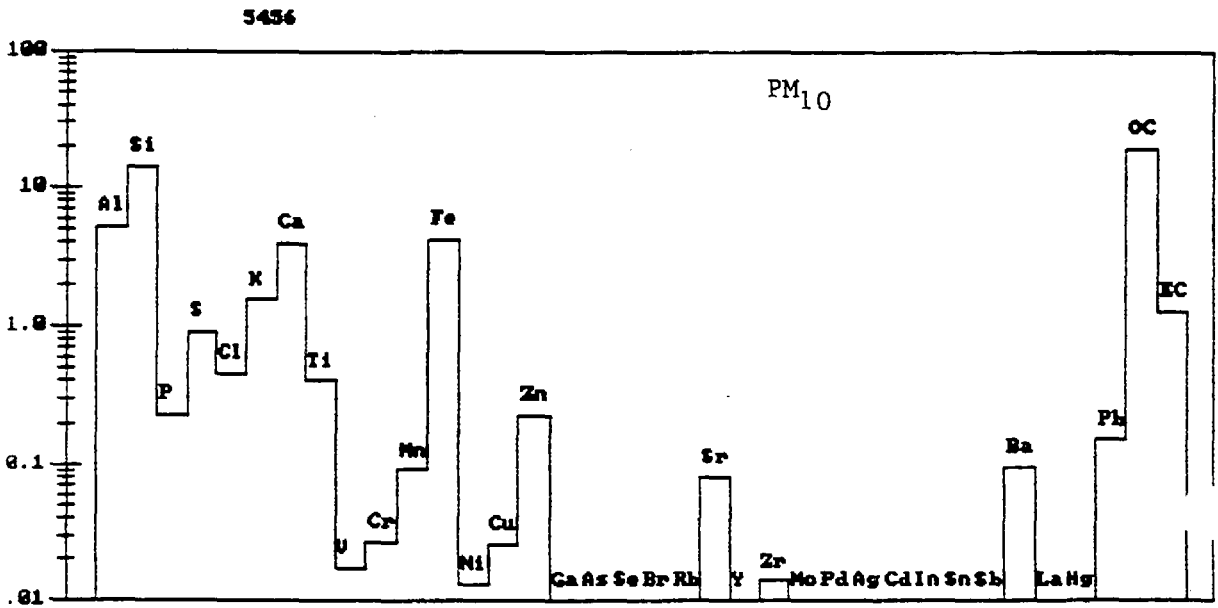
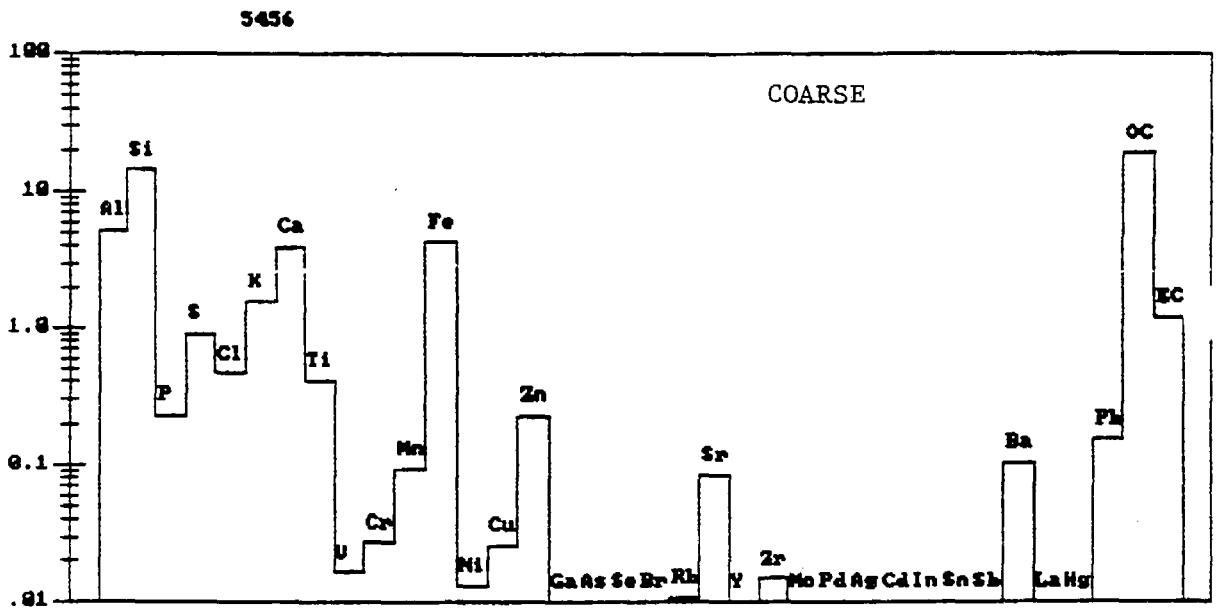
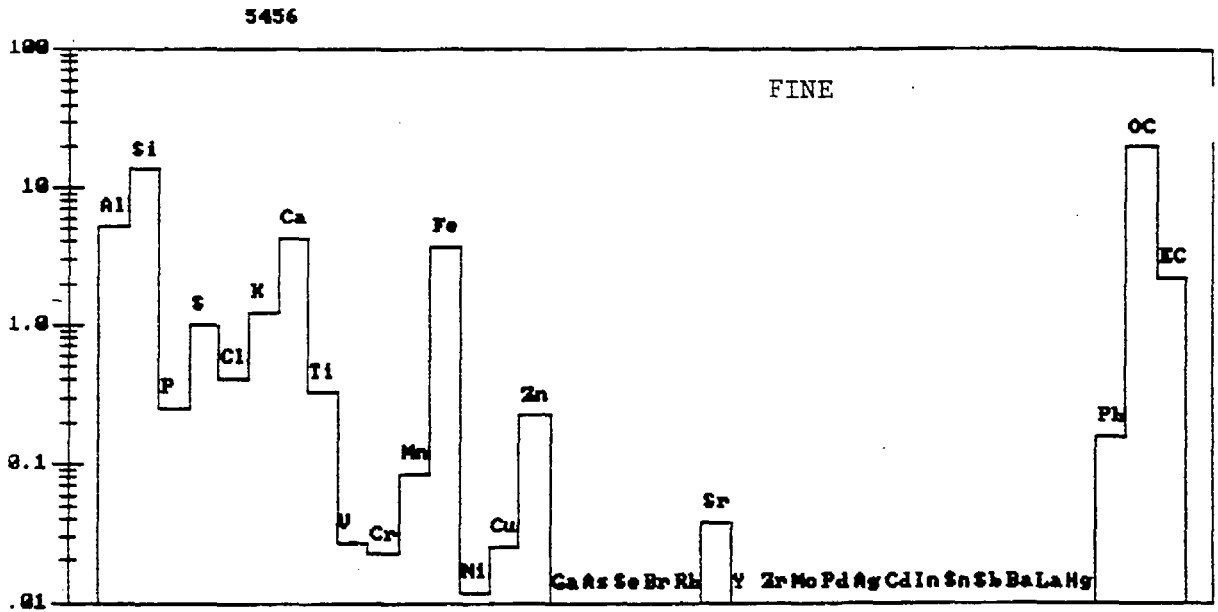
5455



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

SPECIES	P E R C E N T C O M P O S I T I O N					
	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			

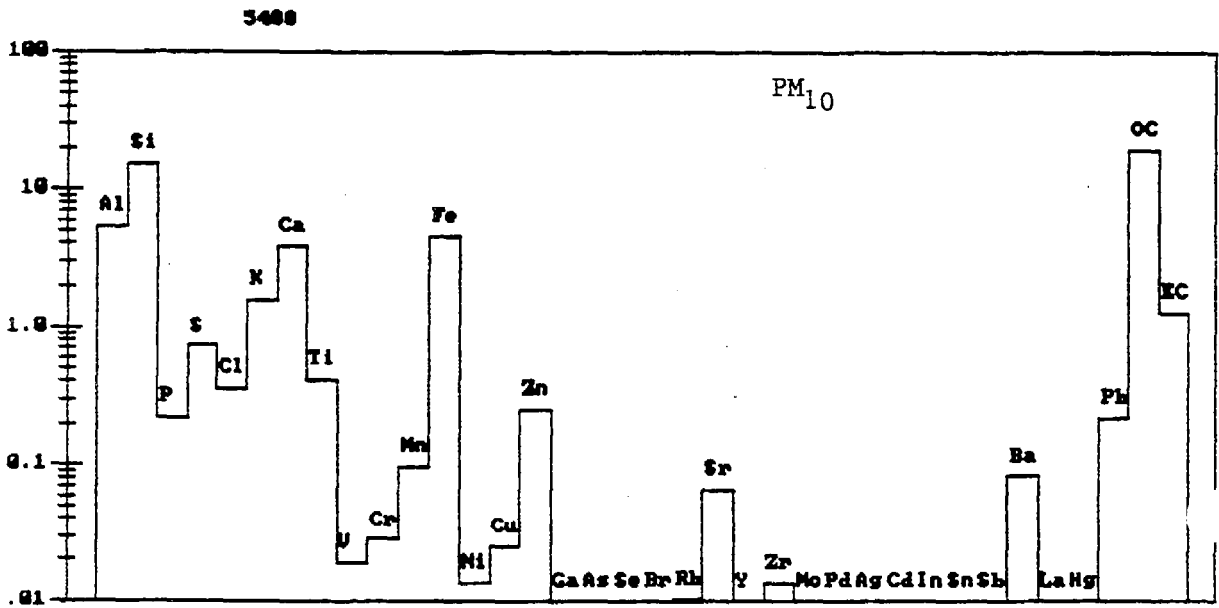
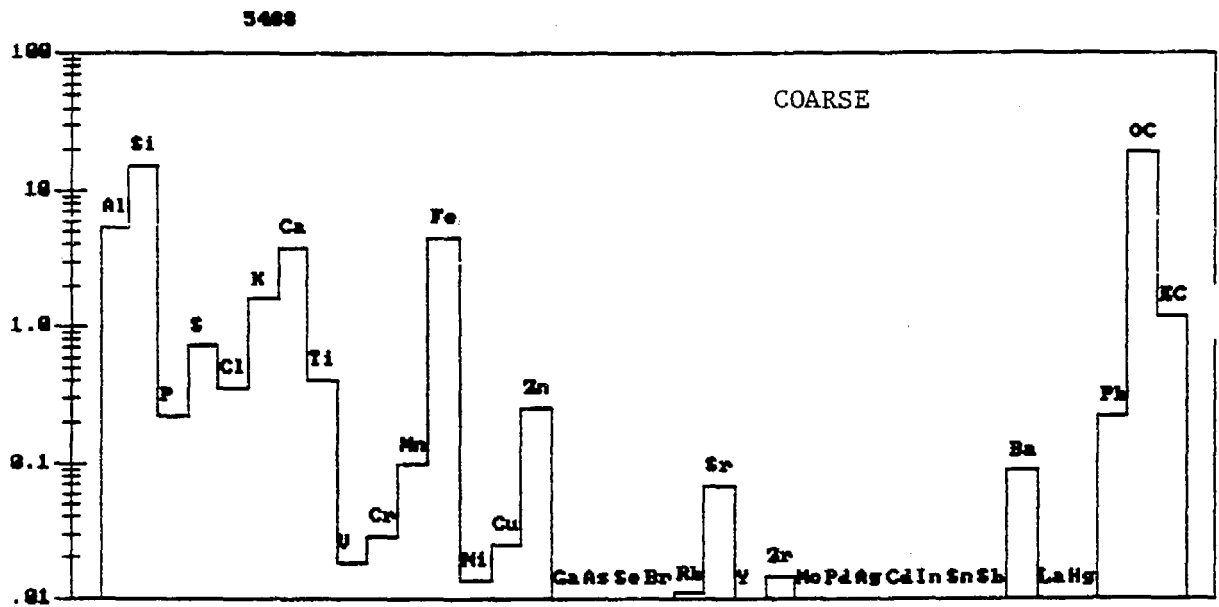
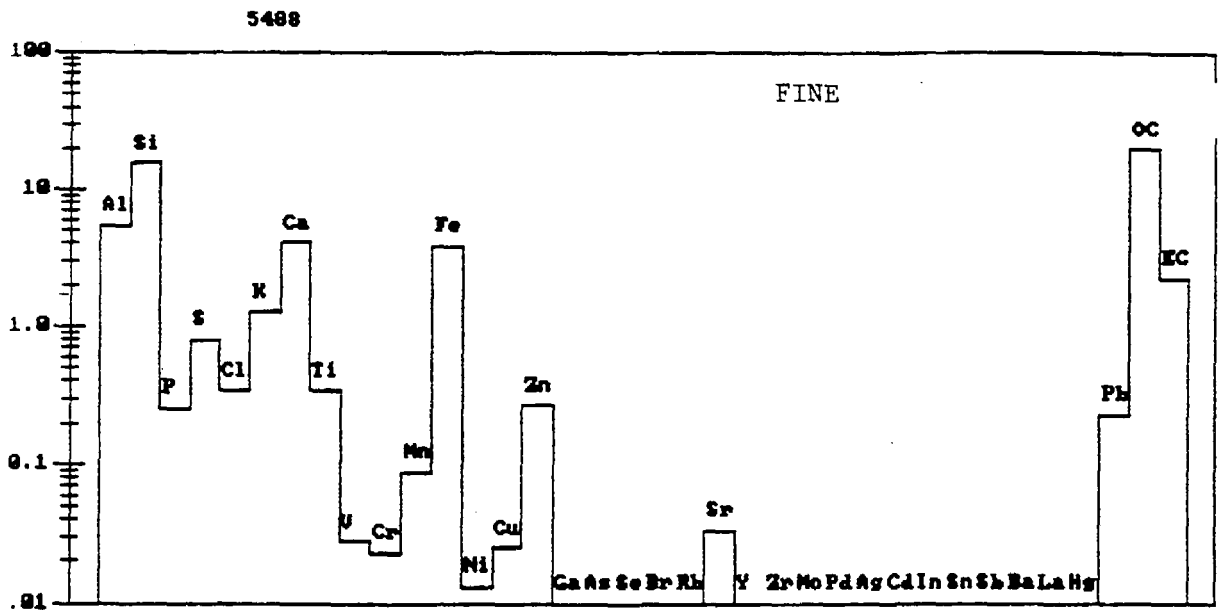
LONG BEACH SAMPLE COMPOSITE



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

SPECIES	P E R C E N T C O M P O S I T I O N					
	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

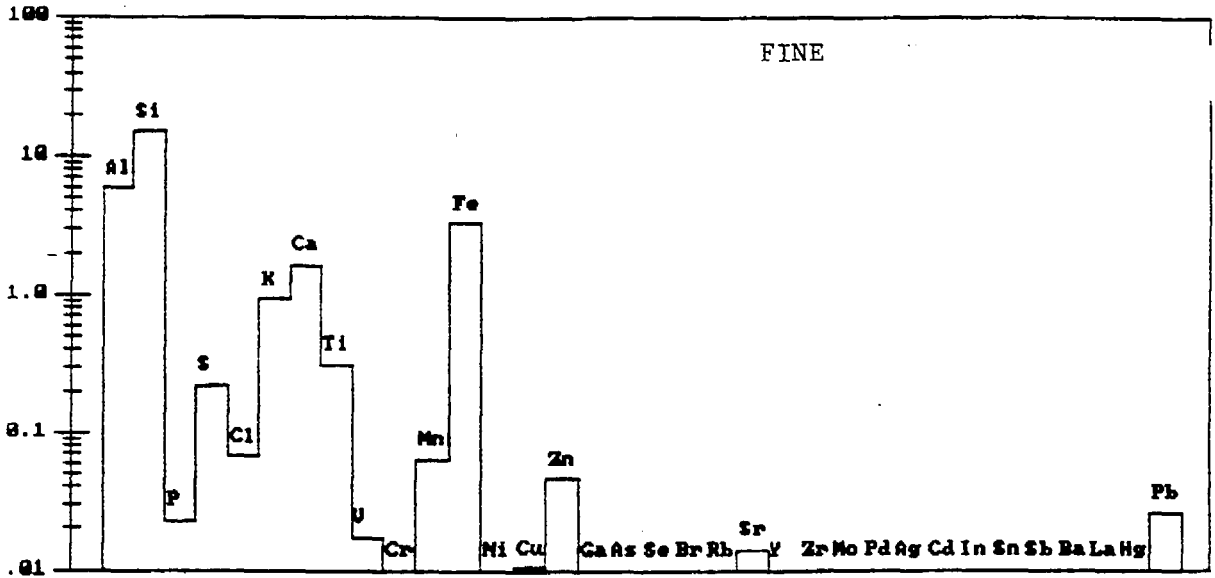


srce	part	revision	code	size	date	source description	reference	date
5457	FCT	07/09/87				La Cienega Blvd. paved Rd dust	1	04/87

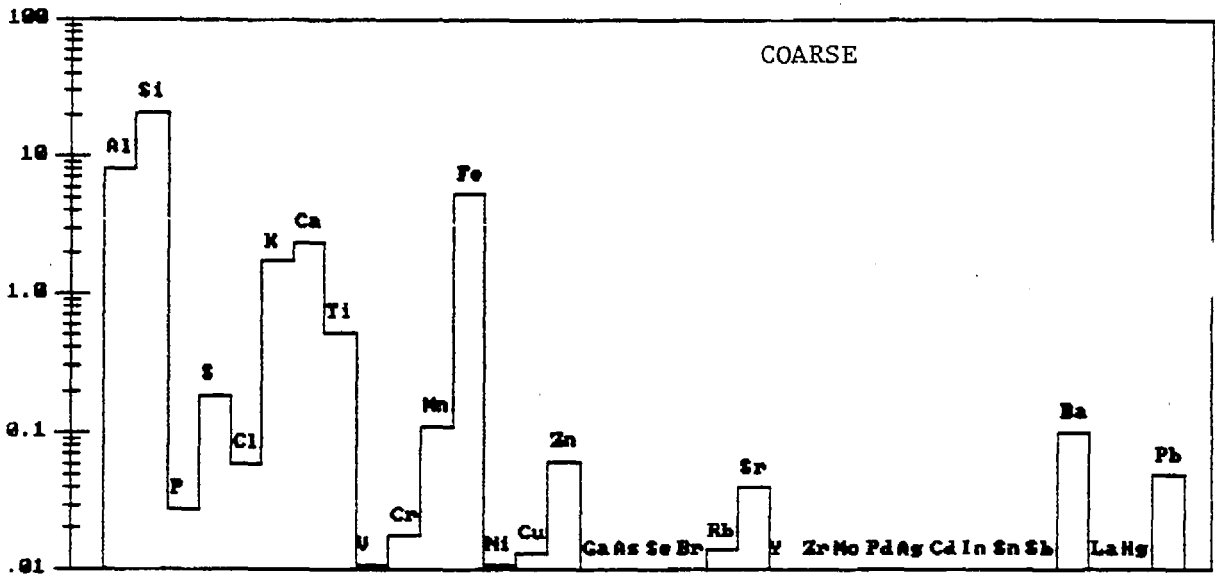
SPECIES	P E R C E N T C O M P O S I T I O N					
	FINE		COARSE		TOTAL	
Al	5.8370 +- .8755	8.0959 +- 1.2144	7.9574 +- 1.1412			
Si	14.8508 +- 2.2276	20.7686 +- 3.1153	20.4057 +- 2.9274			
P	.0228 +- .0046	.0279 +- .0056	.0276 +- .0053			
S	.2200 +- .0110	.1835 +- .0092	.1858 +- .0086			
Cl	.0673 +- .0034	.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

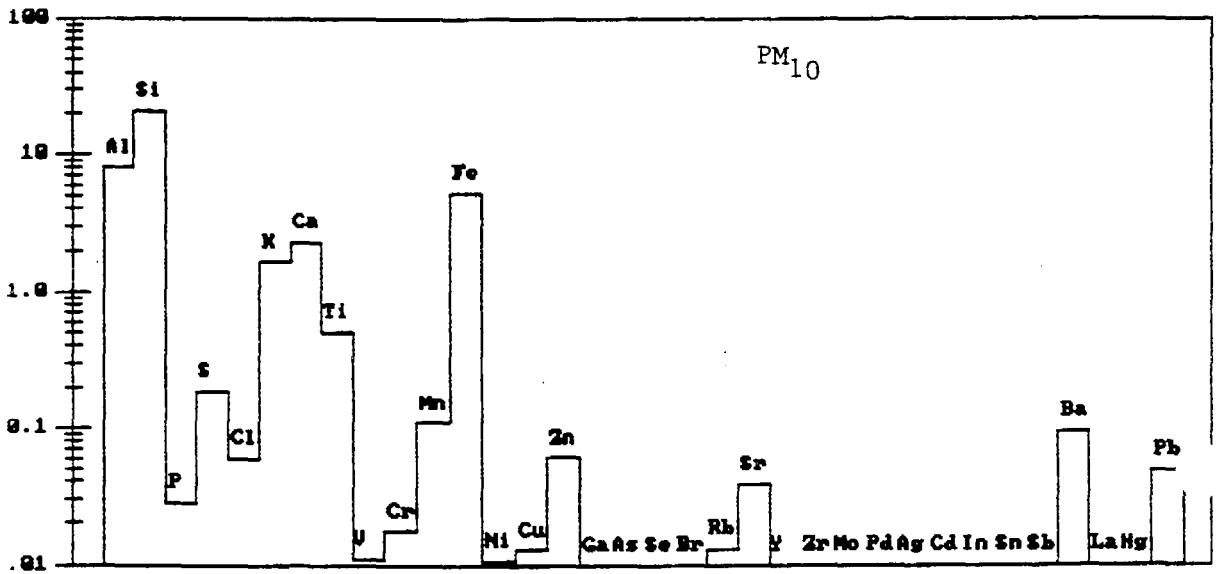
5457



5457



5457

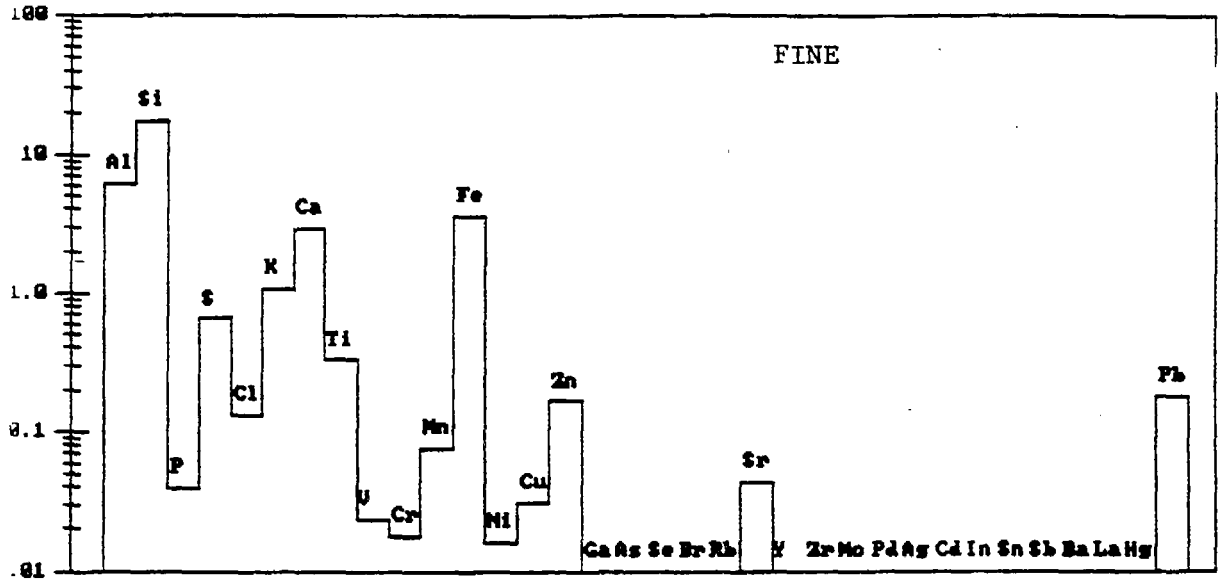


srce	part	revision	code	size	date	source description	reference	date
5458	FCT	07/09/87				Hawthorne prd sample composite	1	04/87

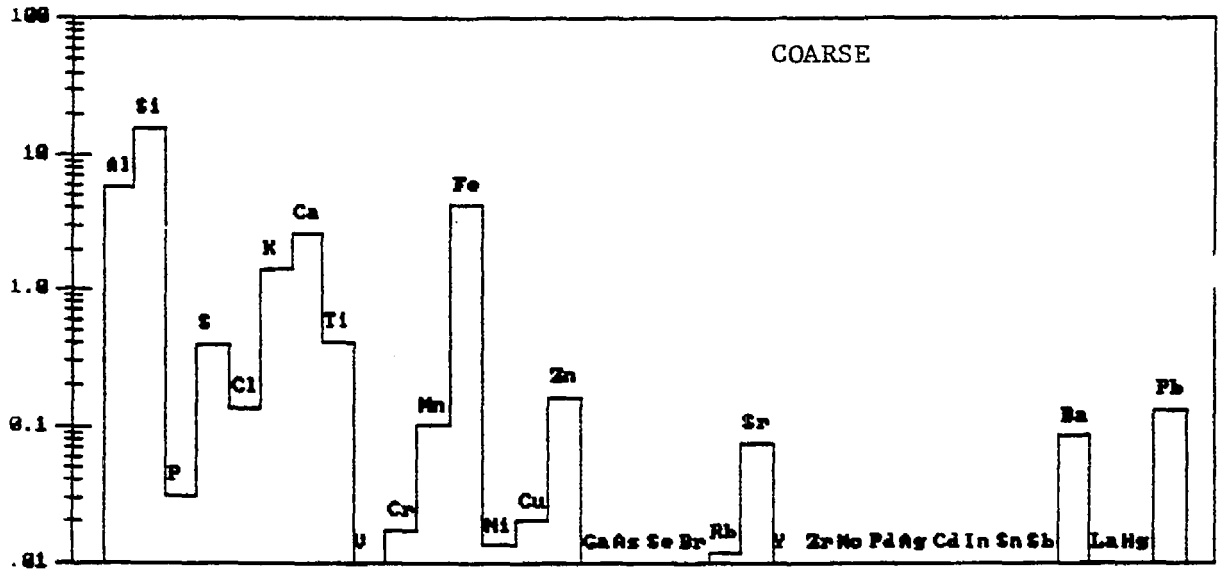
SPECIES	PERCENT COMPOSITION					
	FINE		COARSE		TOTAL	
Al	6.1464	+- .9219	5.8104	+- .8716	5.8304	+- .8215
Si	17.4108	+- 2.6116	15.6334	+- 2.3450	15.7391	+- 2.2110
P	.0396	+- .0079	.0312	+- .0062	.0317	+- .0059
S	.6481	+- .0324	.3976	+- .0199	.4125	+- .0188
Cl	.1300	+- .0065	.1341	+- .0067	.1338	+- .0063
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

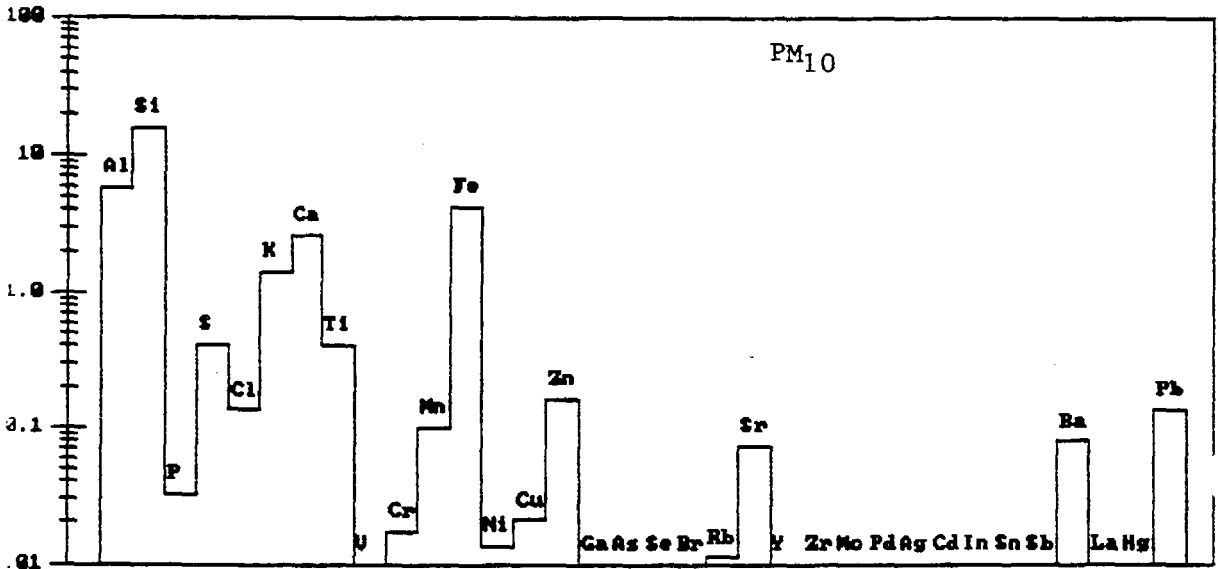
5458



5458



5458

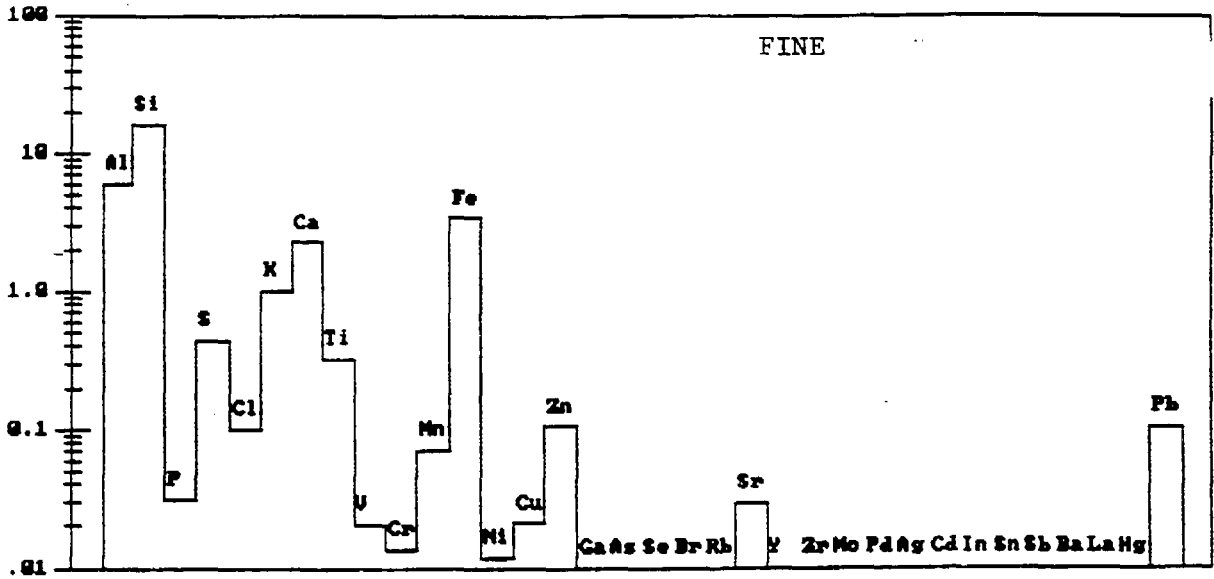


srce	part	revison	code	size	date	source description	reference	date
5489	FCT	07/09/87				Hawthorne prd Profile compos.	1	07/87

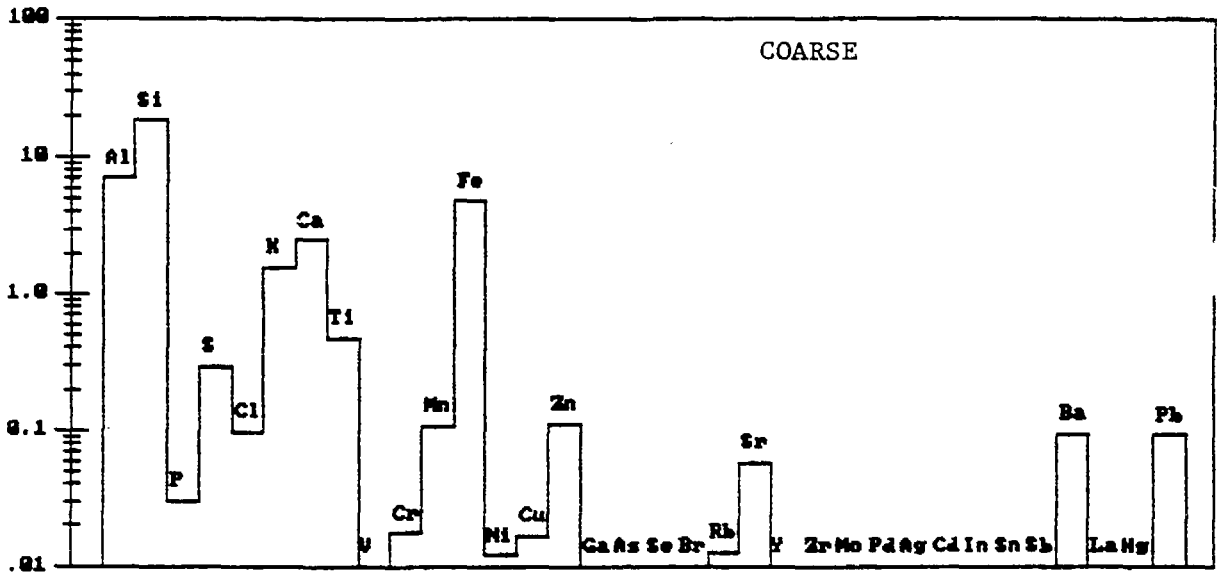
SPECIES	P E R C E N T C O M P O S I T I O N					
	FINE		COARSE		TOTAL	
Al	5.9917 +- .6757	6.9532 +- 1.1427	6.8939 +- 1.0635			
Si	16.1308 +- 1.8259	18.2010 +- 2.5676	18.0724 +- 2.3333			
P	.0312 +- .0084	.0295 +- .0042	.0296 +- .0039			
S	.4340 +- .2140	.2906 +- .1071	.2992 +- .1134			
Cl	.0986 +- .0314	.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

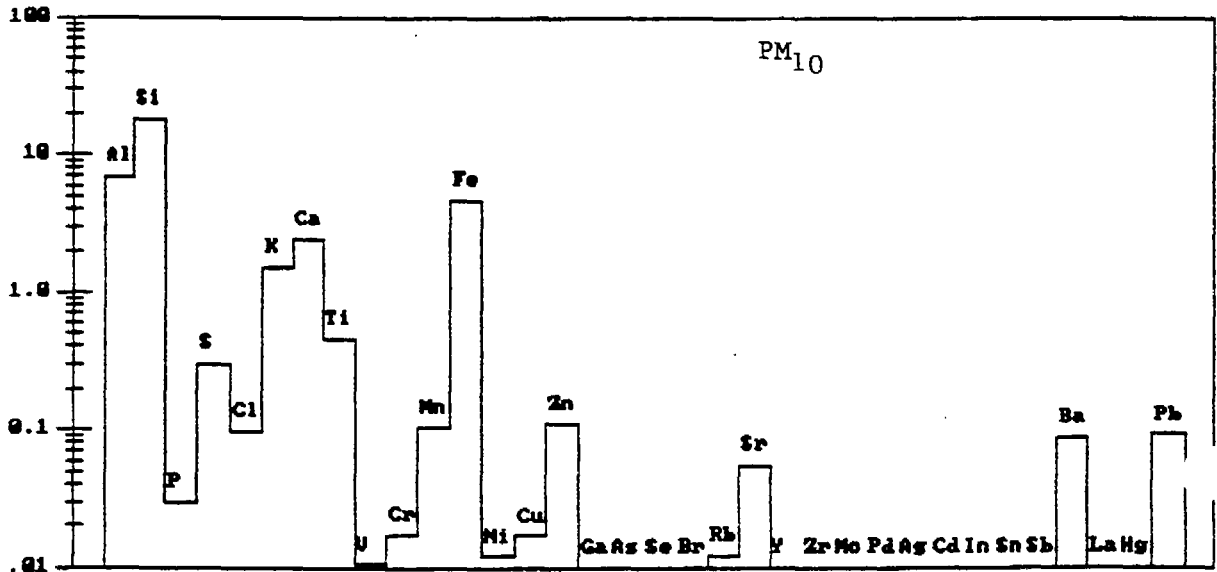
5489



5489



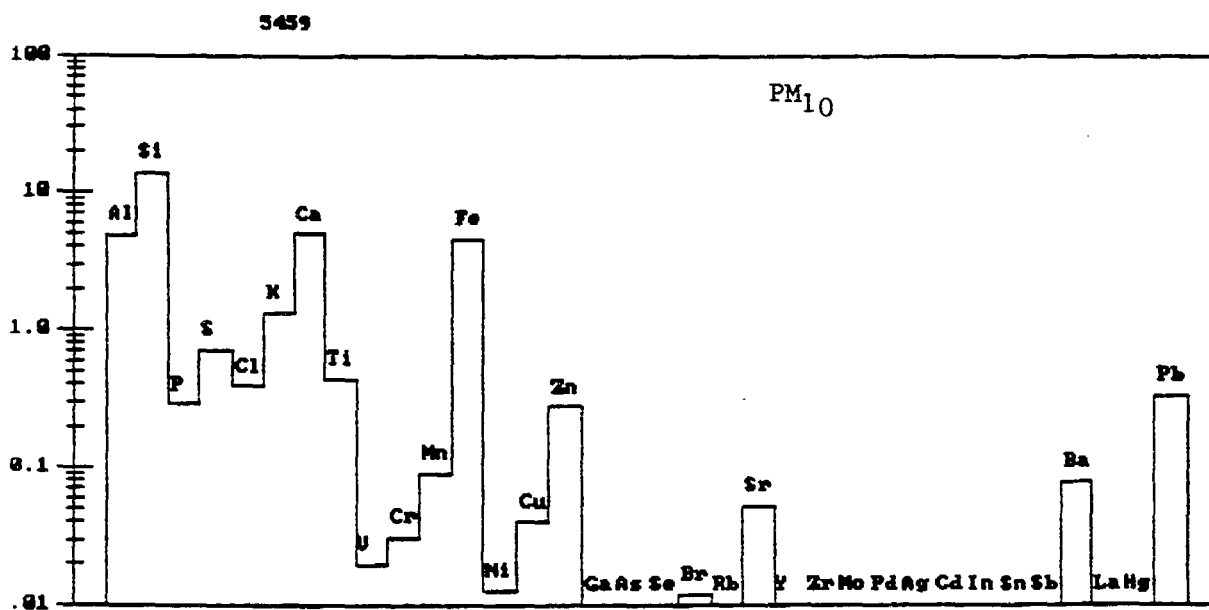
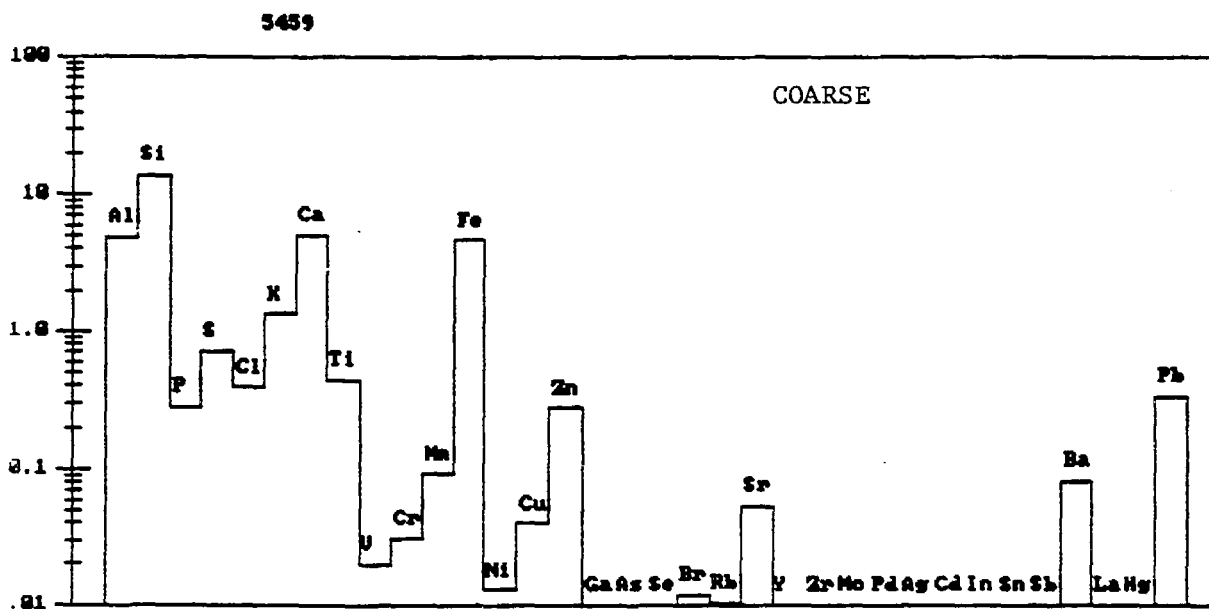
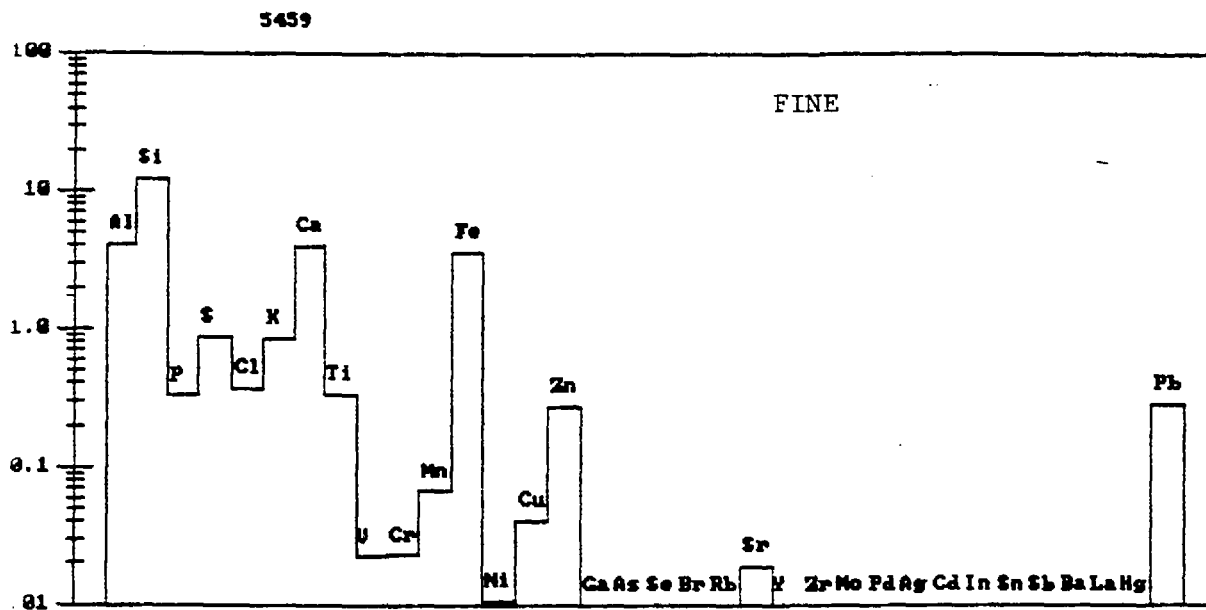
5489



srce	part	revison	code	size	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

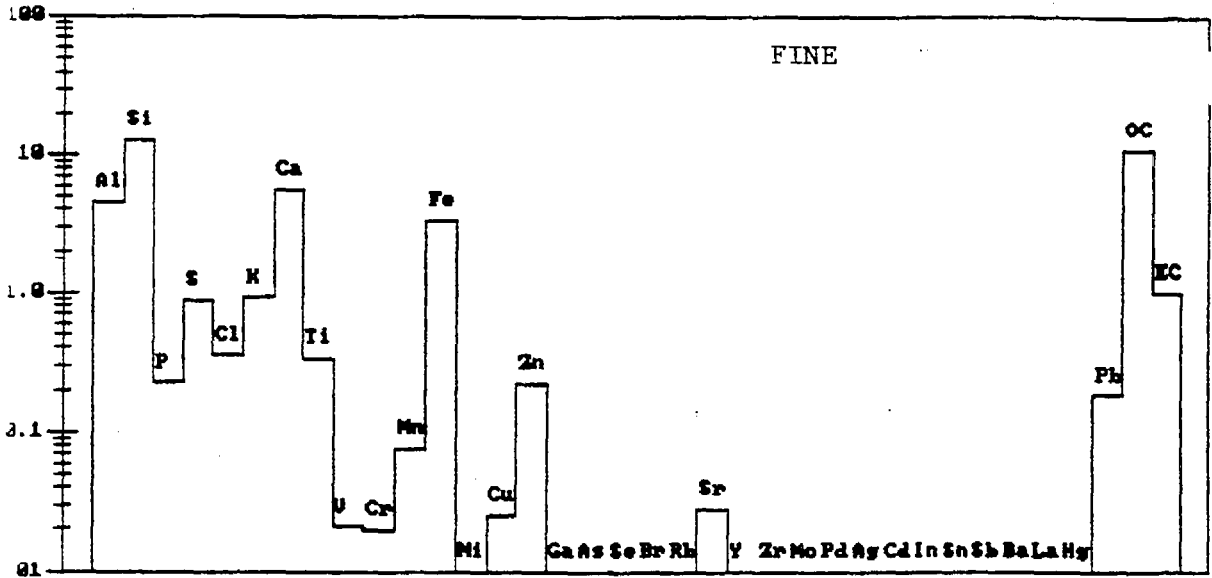


srce	part	revision	source description	reference	date
code	size	date			
5460	FCT	07/09/87	Burbank prd sample composite	1	04/87

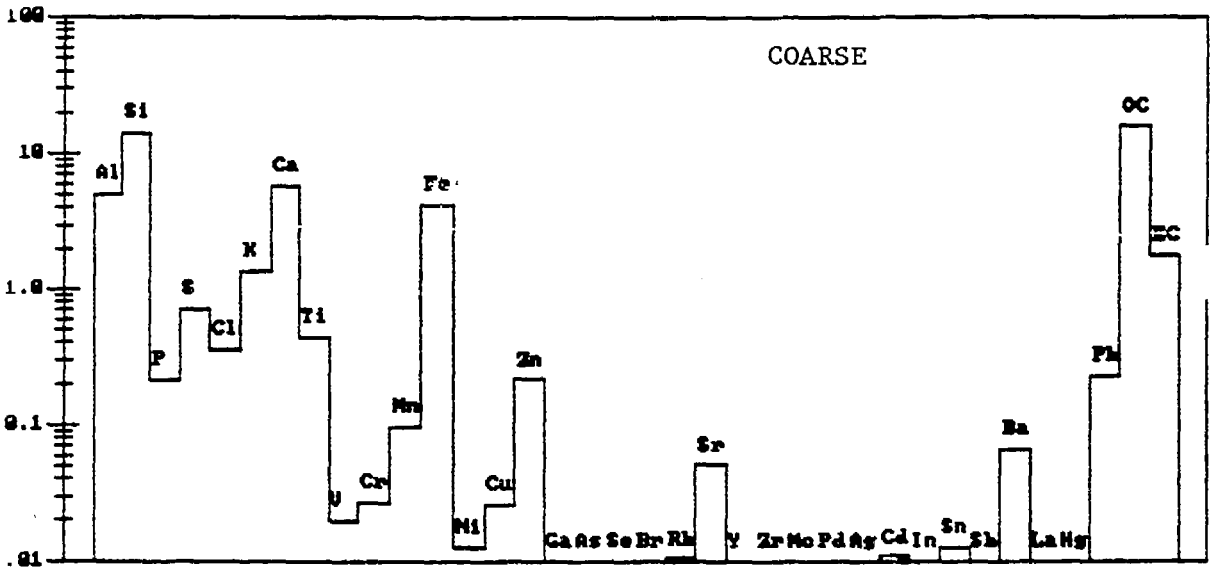
SPECIES	P E R C E N T C O M P O S I T I O N					
	FINE		COARSE		TOTAL	
Al	4.5108 +- .6766	5.0341 +- .7551	5.0021 +- .7101			
Si	12.6658 +- 1.8999	14.0874 +- 2.1131	14.0003 +- 1.9870			
P	.2233 +- .0447	.2130 +- .0426	.2136 +- .0401			
S	.8720 +- .0436	.7029 +- .0351	.7133 +- .0331			
Cl	.3483 +- .0174	.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

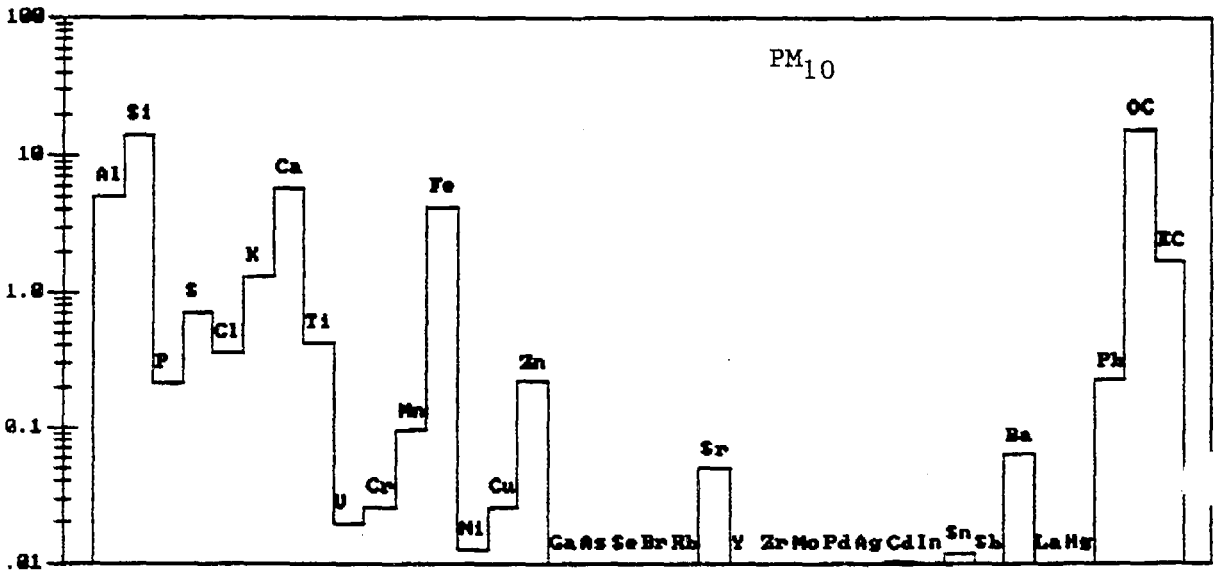
5468



5468



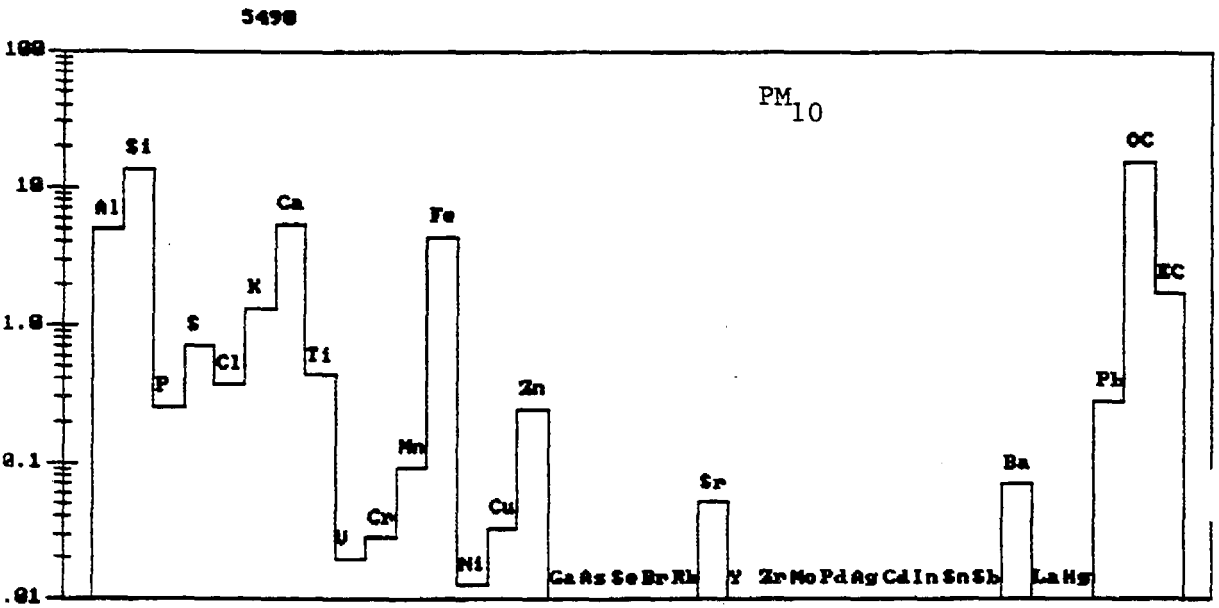
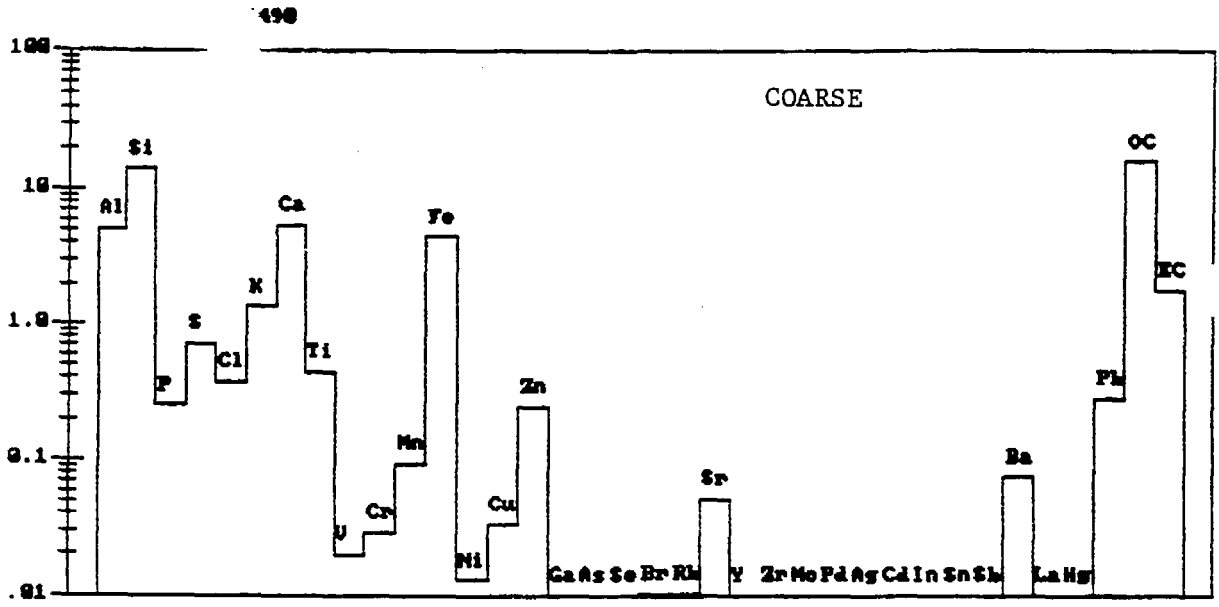
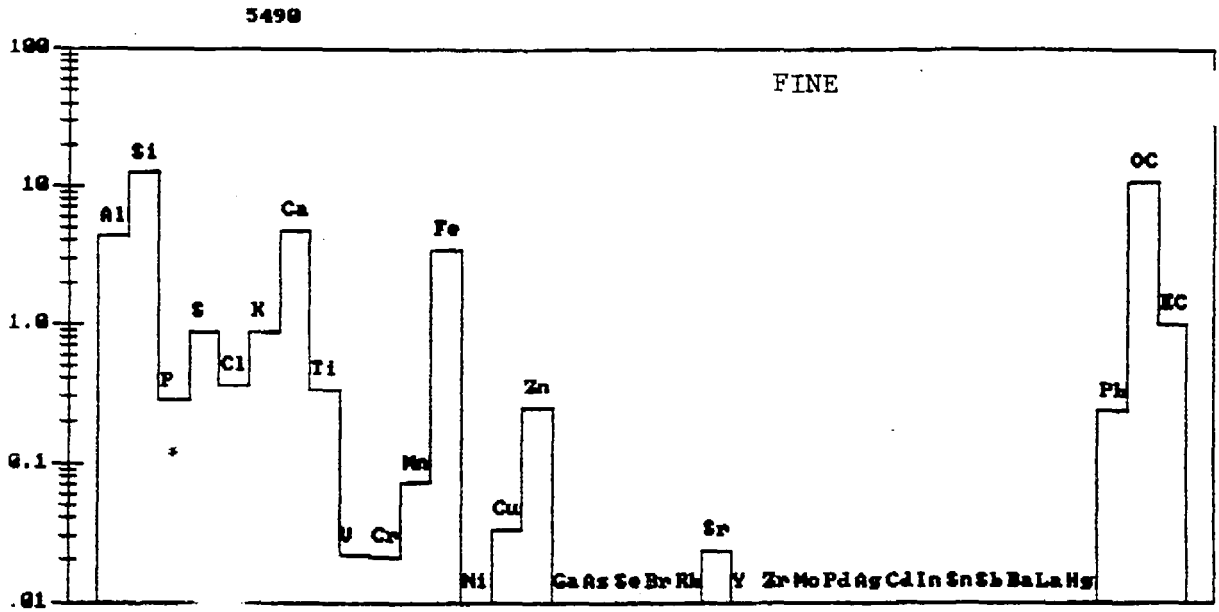
5468



srce	part	revision	code	size	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

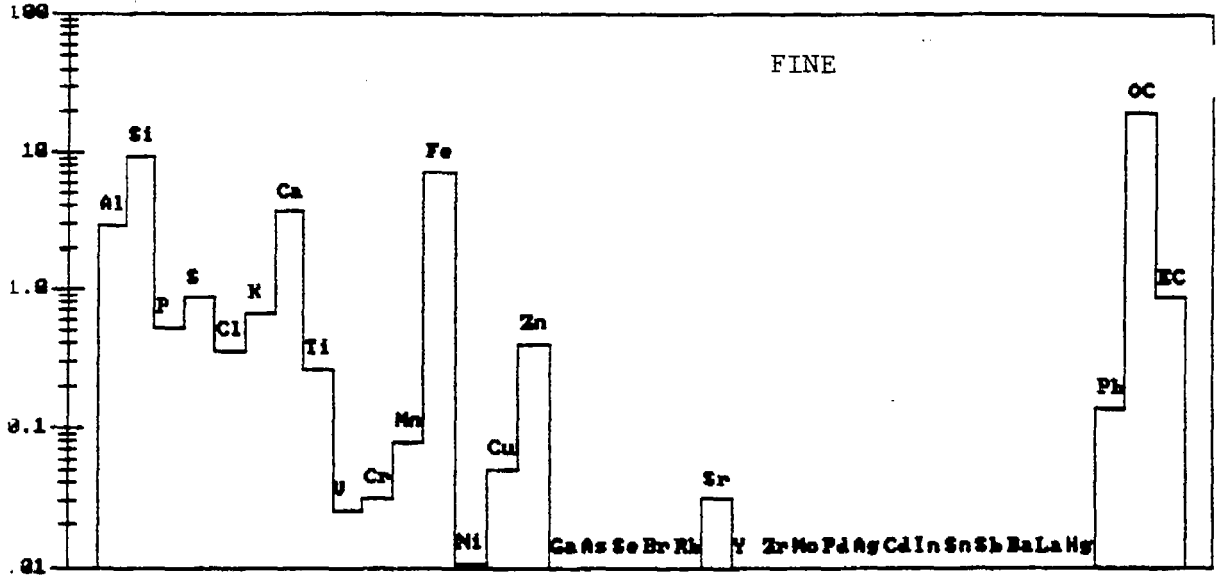


srce	part	revision	source description	reference	date
code	size	date			
5461	FCT	07/09/87	North Main Str. paved rd dust	1	04/87

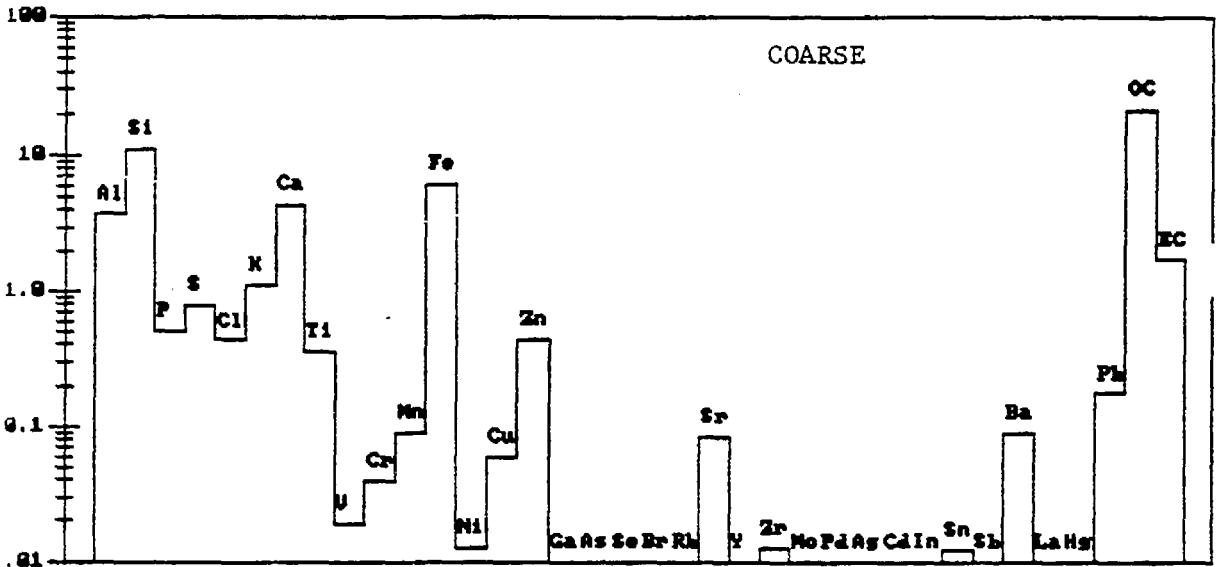
SPECIES	P E R C E N T C O M P O S I T I O N					
	FINE		COARSE		TOTAL	
Al	2.8929 +- .4340	3.7340 +- .5601	3.6894 +- .5309			
Si	9.4390 +- 1.4159	10.9871 +- 1.6481	10.9051 +- 1.5626			
P	.5237 +- .1048	.4962 +- .0992	.4977 +- .0942			
S	.8524 +- .0426	.7815 +- .0391	.7853 +- .0371			
Cl	.3524 +- .0176	.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

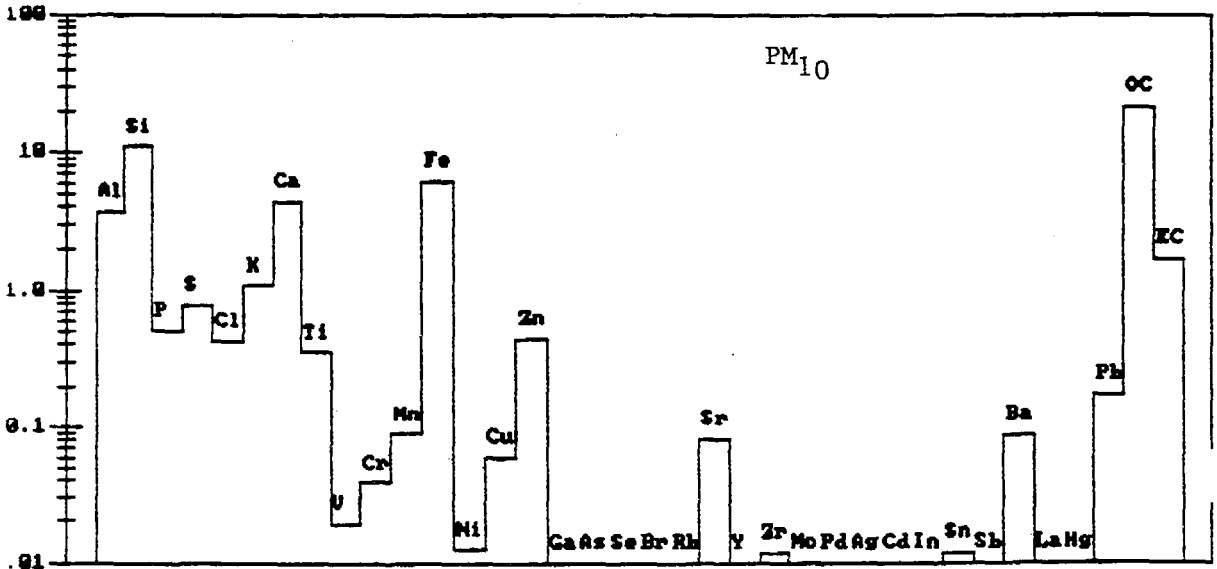
5461



5461



5461



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

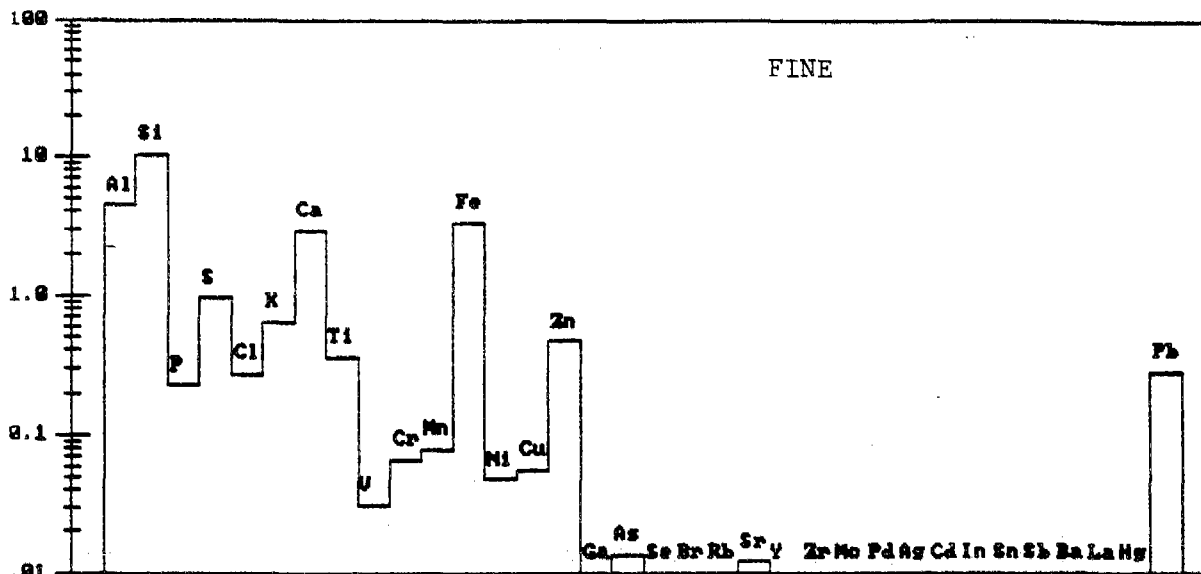
SPECIES	P E R C E N T C O M P O S I T I O N					
	FINE		COARSE		TOTAL	
Al	4.4562 +- .6685	4.8594 +- .7289	4.8427 +- .6992			
Si	10.3983 +- 1.5597	11.8893 +- 1.7834	11.8274 +- 1.7106			
P	.2229 +- .0446	.2239 +- .0448	.2239 +- .0430			
S	.9429 +- .0472	.8384 +- .0419	.8428 +- .0402			
Cl	.2699 +- .0135	.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	part	revison	code	size	date	source description	reference	dat
5491	FCT	07/09/87	Los Angeles	prd	Profile comp.	1	07/87	

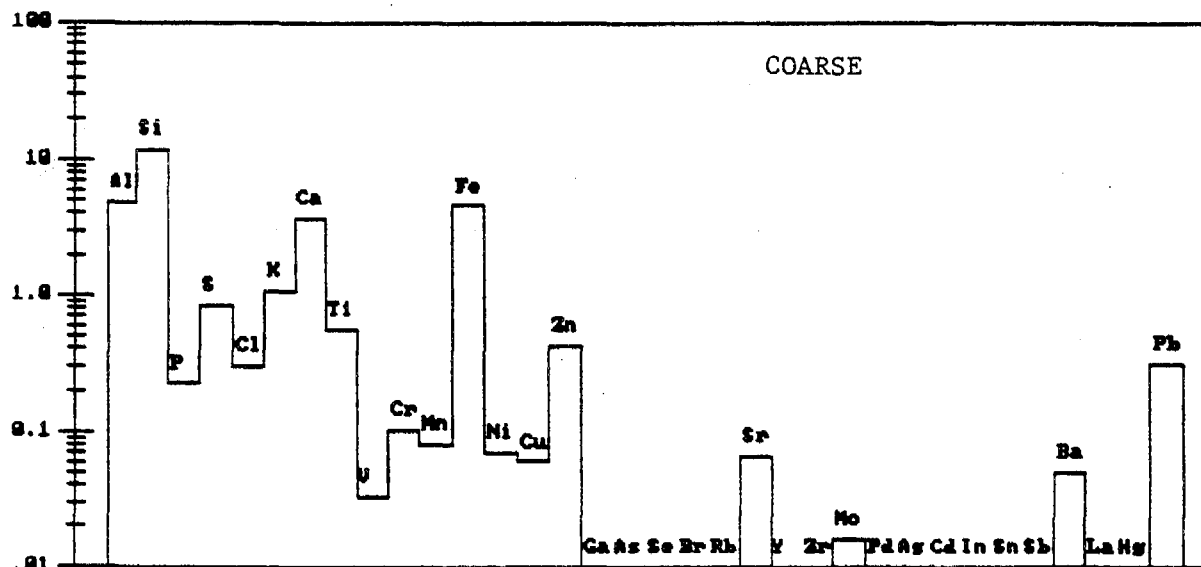
SPECIES	P E R C E N T C O M P O S I T I O N					
	FINE		COARSE		TOTAL	
Al	3.6746 +- .7816	4.2967 +- .5627	4.2661 +- .5766			
Si	9.9187 +- 1.1696	11.4382 +- 1.2145	11.3662 +- 1.1590			
P	.3733 +- .1504	.3600 +- .1361	.3608 +- .1369			
S	.8977 +- .0560	.8100 +- .0287	.8140 +- .0287			
Cl	.3111 +- .0412	.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

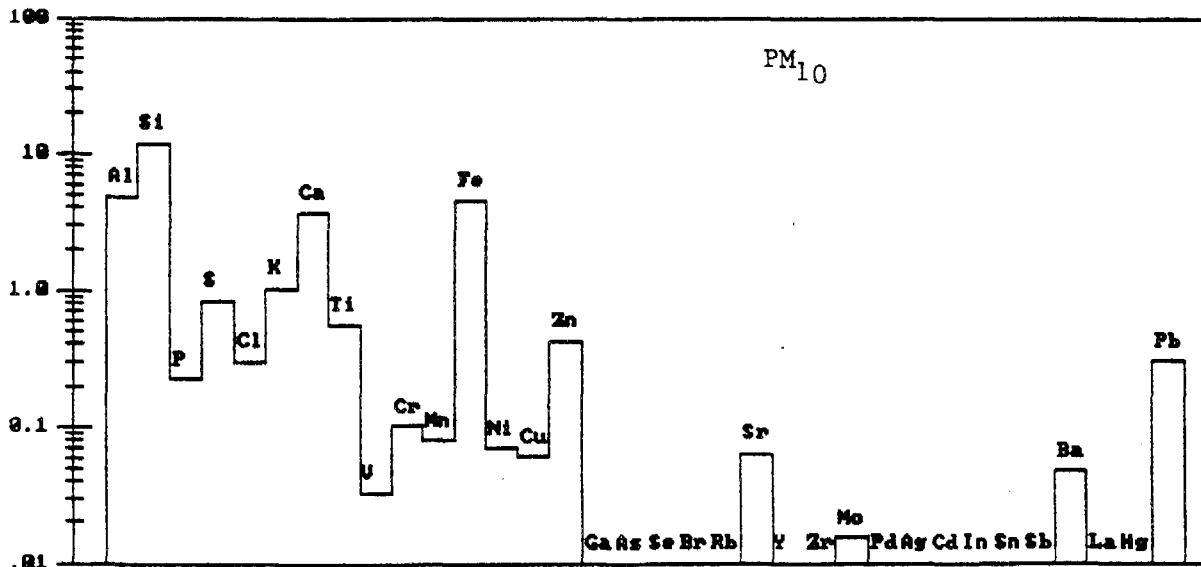
5462



5462

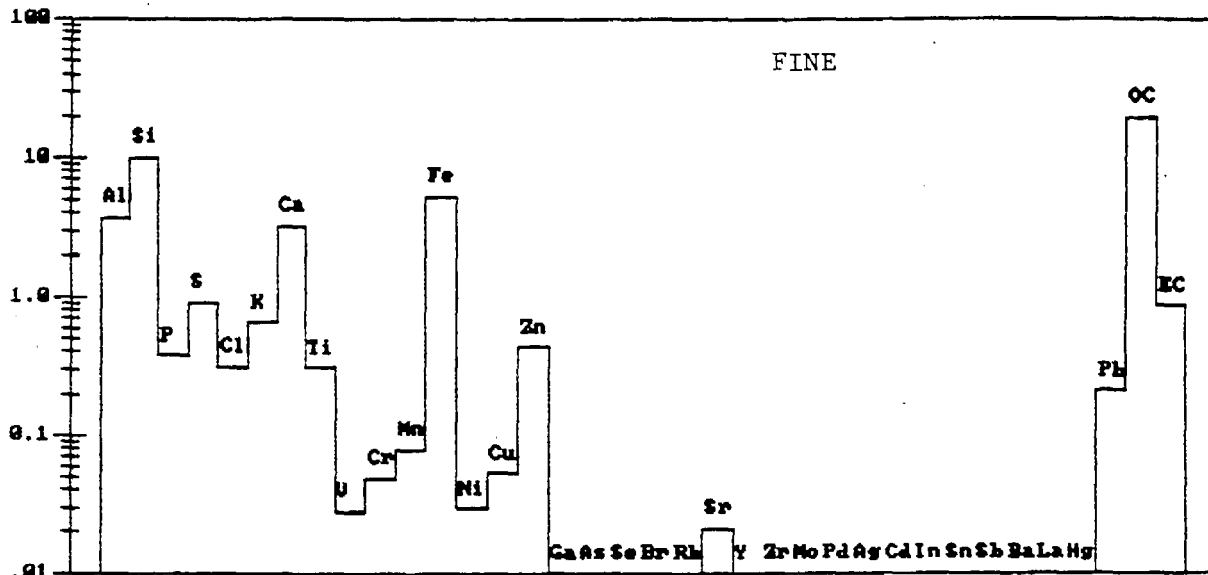


5462

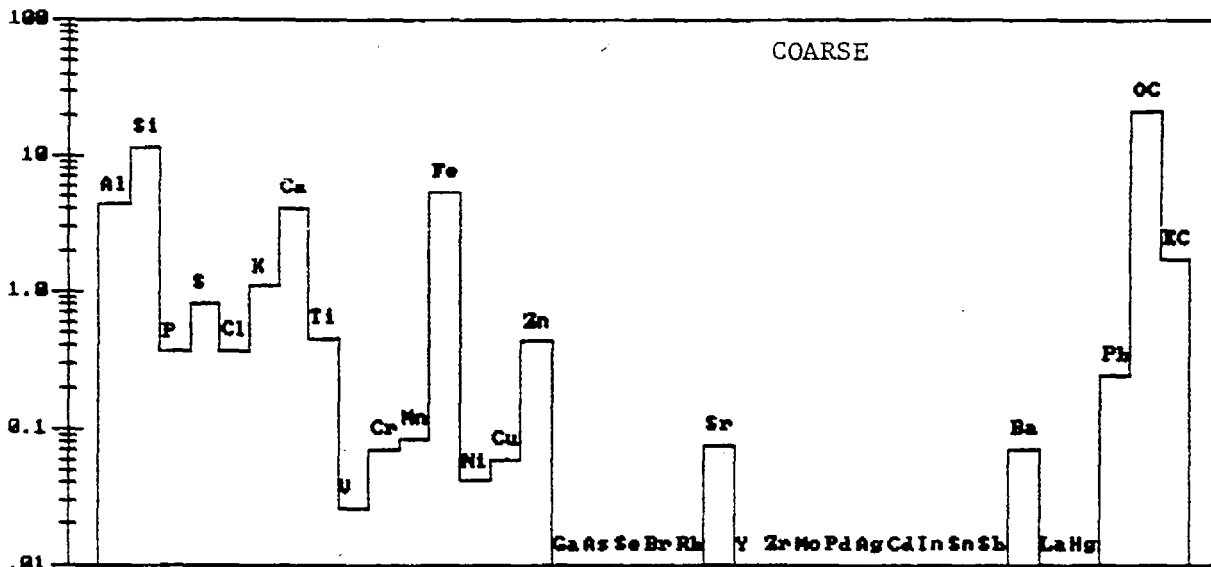


LOS ANGELES PROFILE COMPOSITE

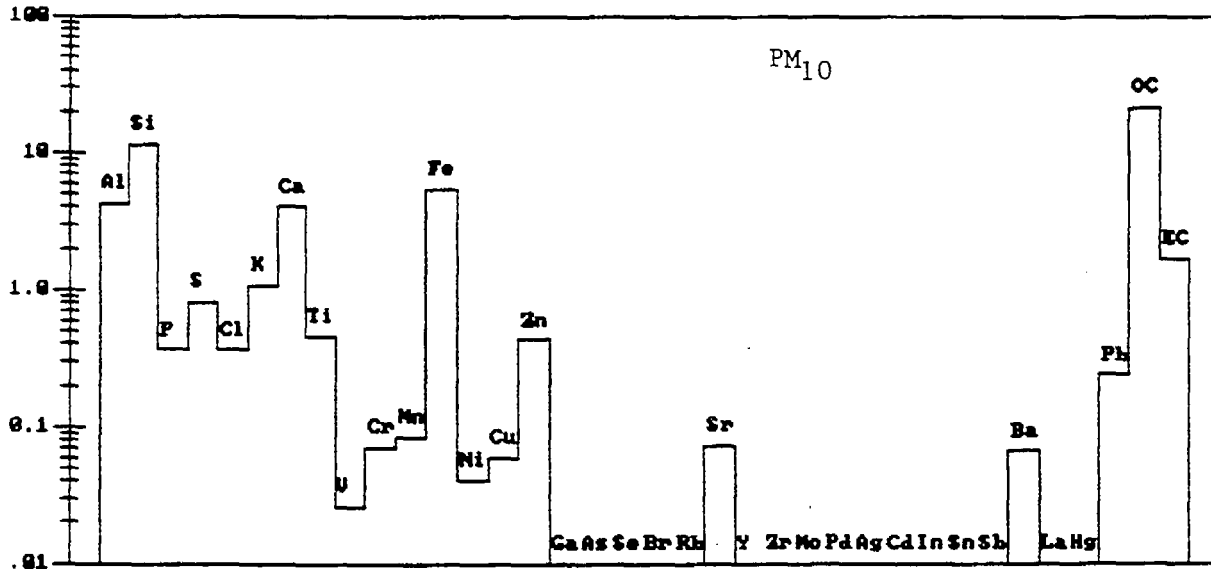
5491



5491



5491

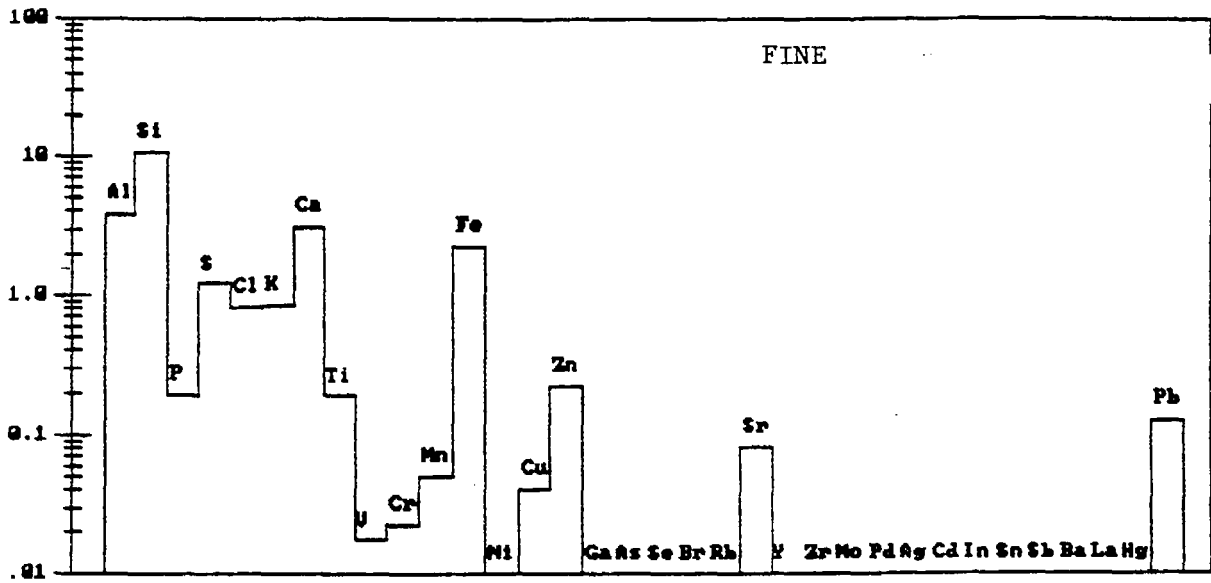


srce	part	revision	code	size	date	source description	reference	date
5463	FCT	07/09/87				South Harbor Blvd paved road	1	04/87

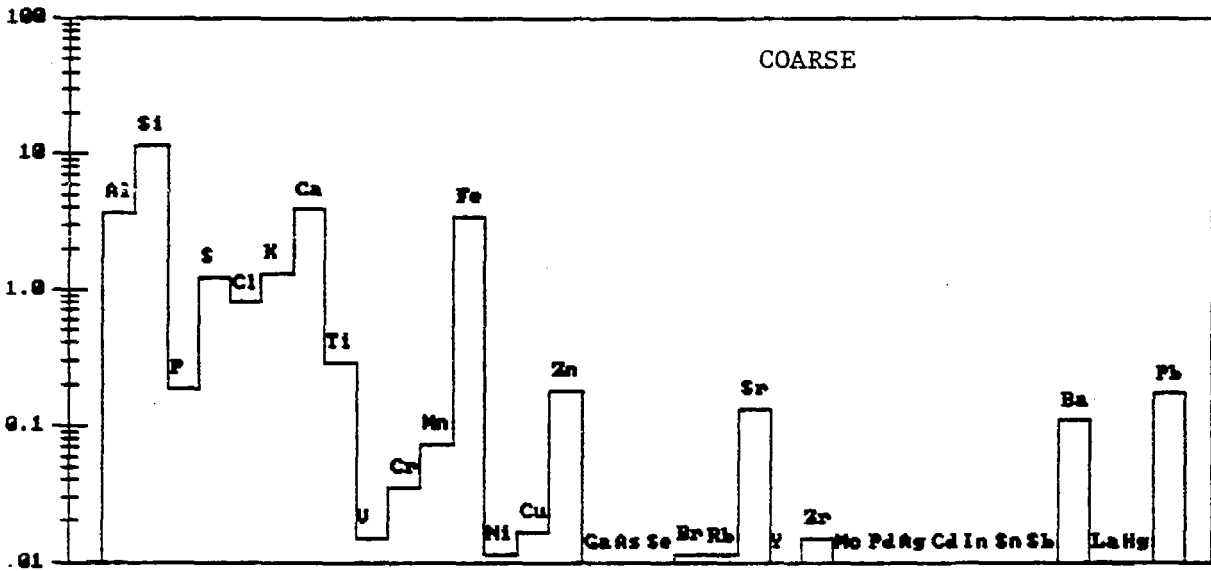
SPECIES	PERCENT COMPOSITION					
	FINE		COARSE		TOTAL	
Al	3.8208	+-.5732	3.7202	+-.5580	3.7258	+-.5281
Si	10.6447	+-.15968	11.3780	+-.17067	11.3374	+-.16147
P	.1913	+-.0383	.1852	+-.0370	.1855	+-.0351
S	1.2087	+-.0604	1.2367	+-.0618	1.2352	+-.0585
Cl	.8182	+-.0409	.7972	+-.0398	.7984	+-.0377
K	.8471	+-.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

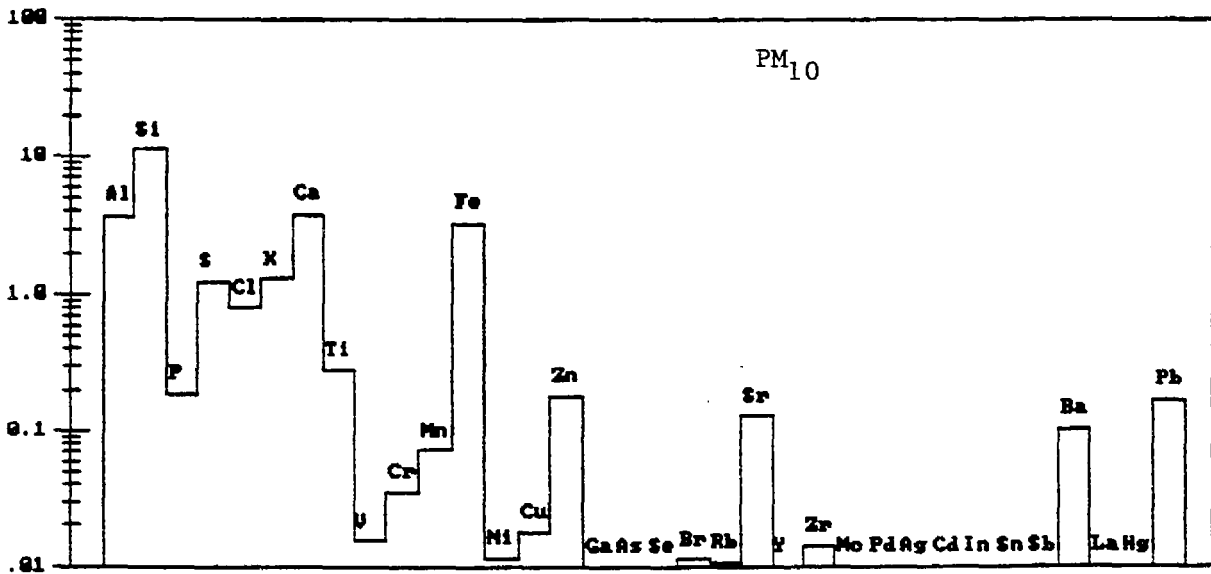
5463



5463



5463

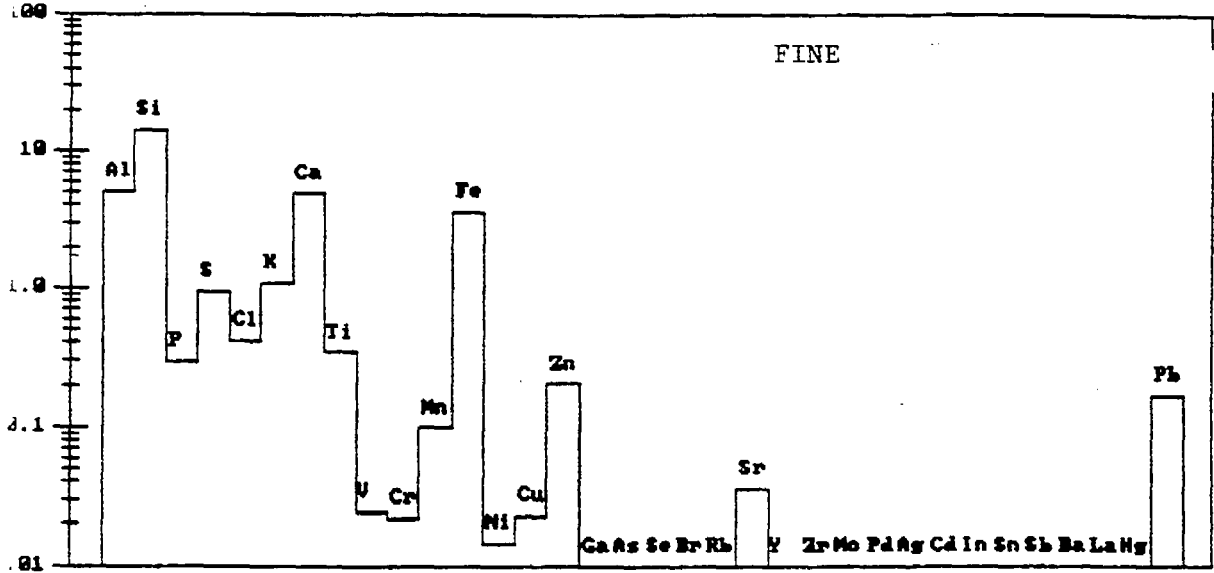


srce	part	revison	source description	reference	date
code	size	date			
5464	FCT	07/09/87	Anaheim prd sample composite	1	04/87

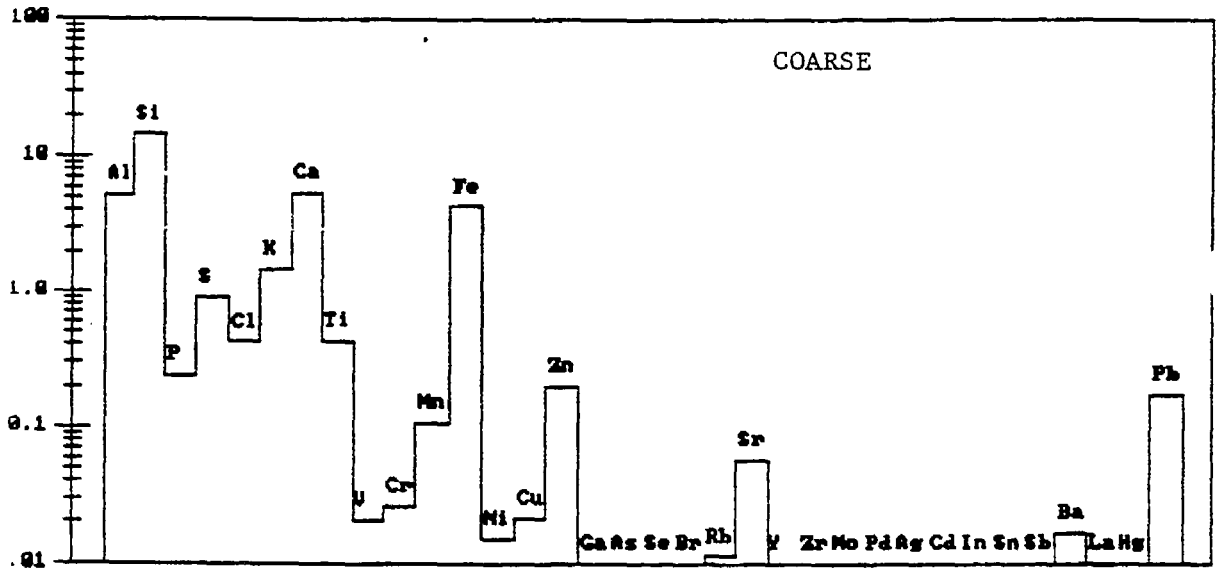
SPECIES	P E R C E N T C O M P O S I T I O N					
	FINE		COARSE		TOTAL	
Al	4.9936 +- .7491	5.2587 +- .7888	5.2429 +- .7430			
Si	14.0289 +- 2.1043	14.4206 +- 2.1631	14.3972 +- 2.0377			
P	.2901 +- .0580	.2368 +- .0474	.2400 +- .0447			
S	.9407 +- .0470	.8994 +- .0450	.9019 +- .0424			
Cl	.4119 +- .0206	.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

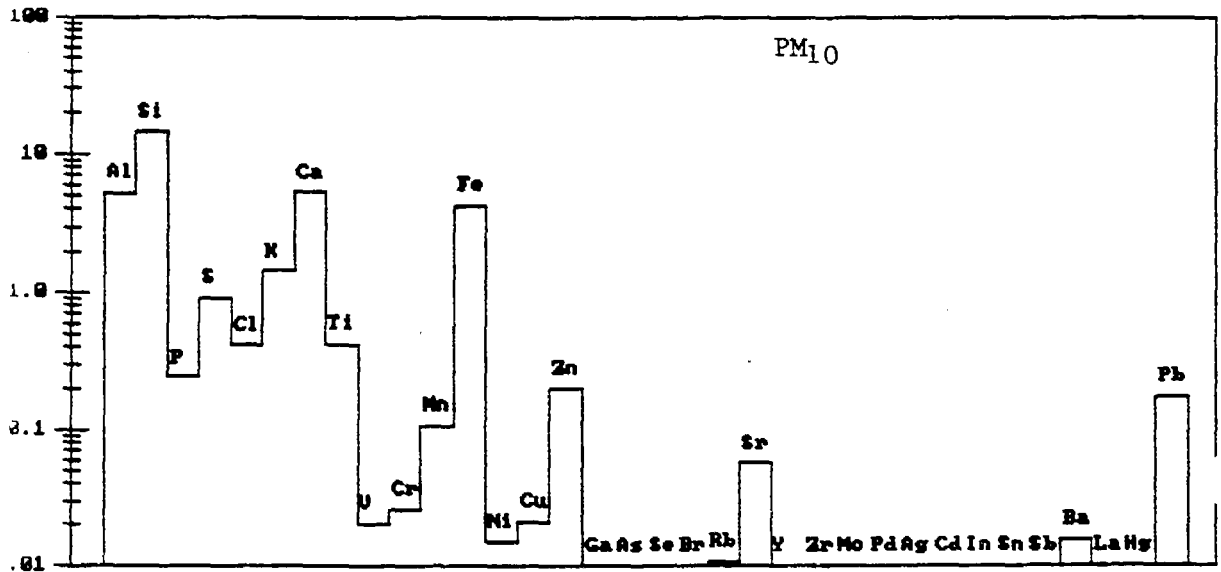
5464



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5464

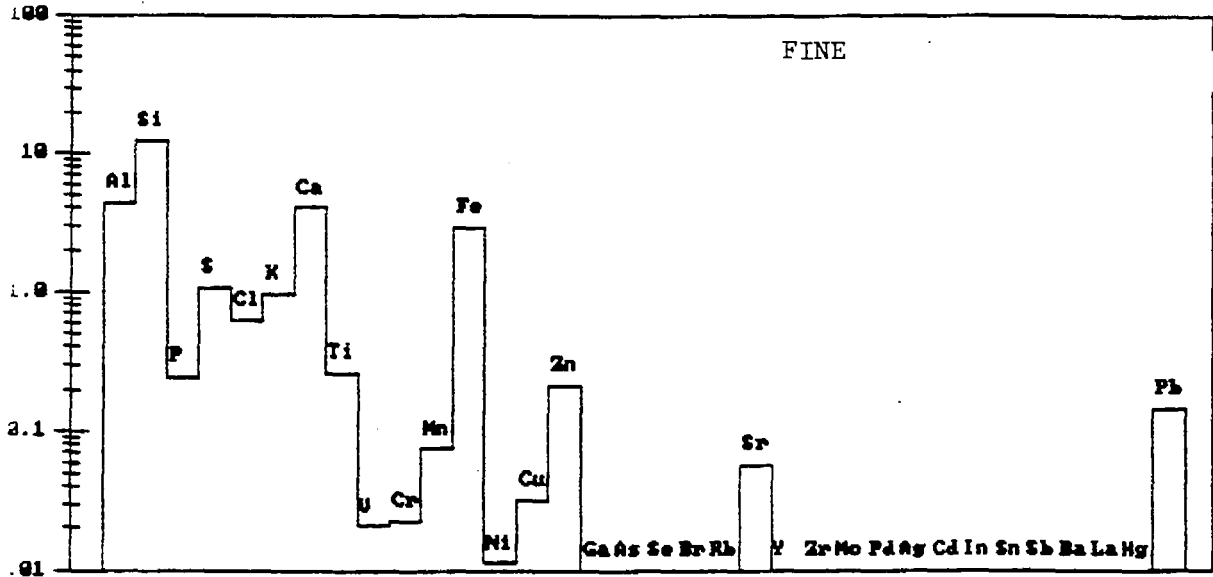


srce	part	revision	code	size	date	source description	reference	date
5492	FCT	07/09/87	Anaheim	prd	Profile composite	1	07/87	

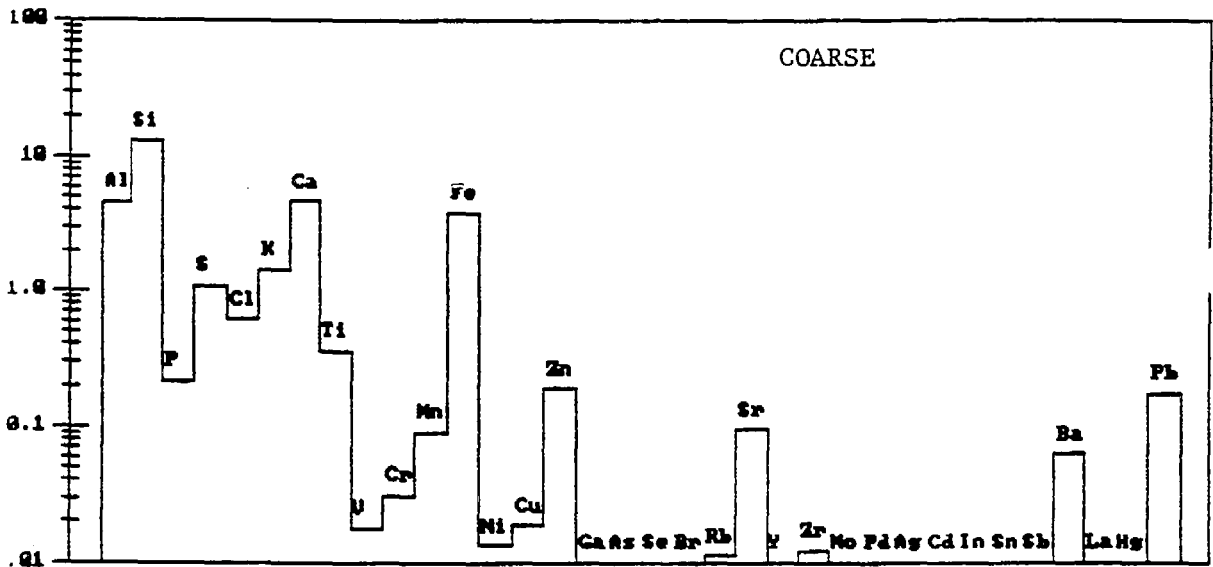
SPECIES	P E R C E N T C O M P O S I T I O N					
	FINE		COARSE		TOTAL	
Al	4.4072 +- .5864	4.4895 +- .7692	4.4843 +- .7585			
Si	12.3368 +- 1.6921	12.8993 +- 1.5213	12.8673 +- 1.5299			
P	.2407 +- .0494	.2110 +- .0301	.2128 +- .0284			
S	1.0747 +- .1340	1.0681 +- .1687	1.0685 +- .1667			
Cl	.6150 +- .2032	.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

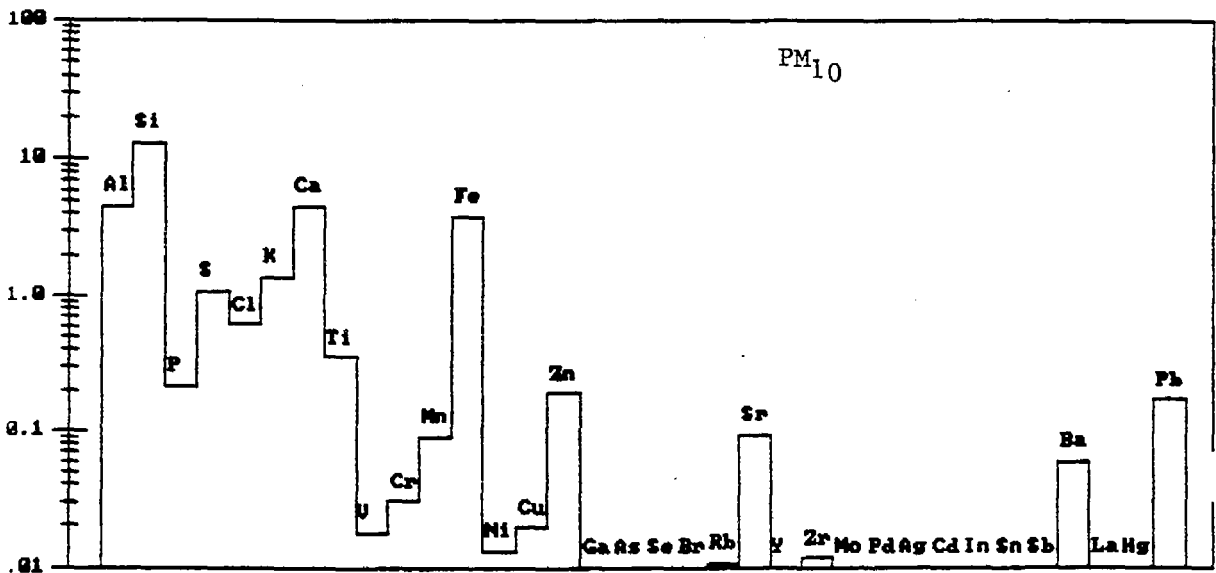
5492



5492



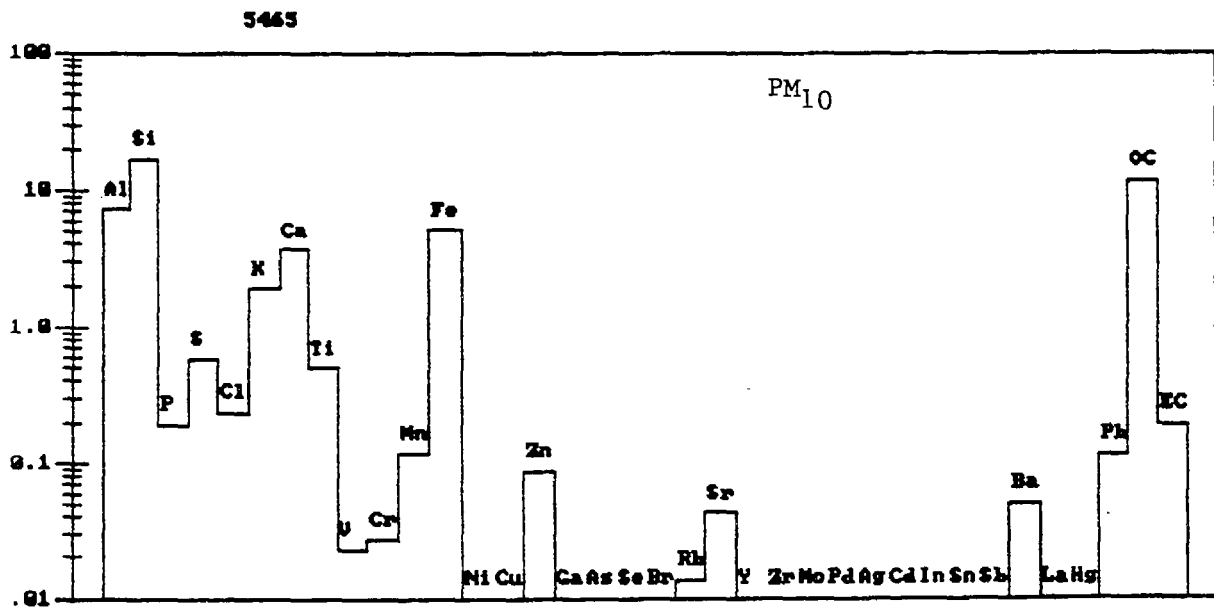
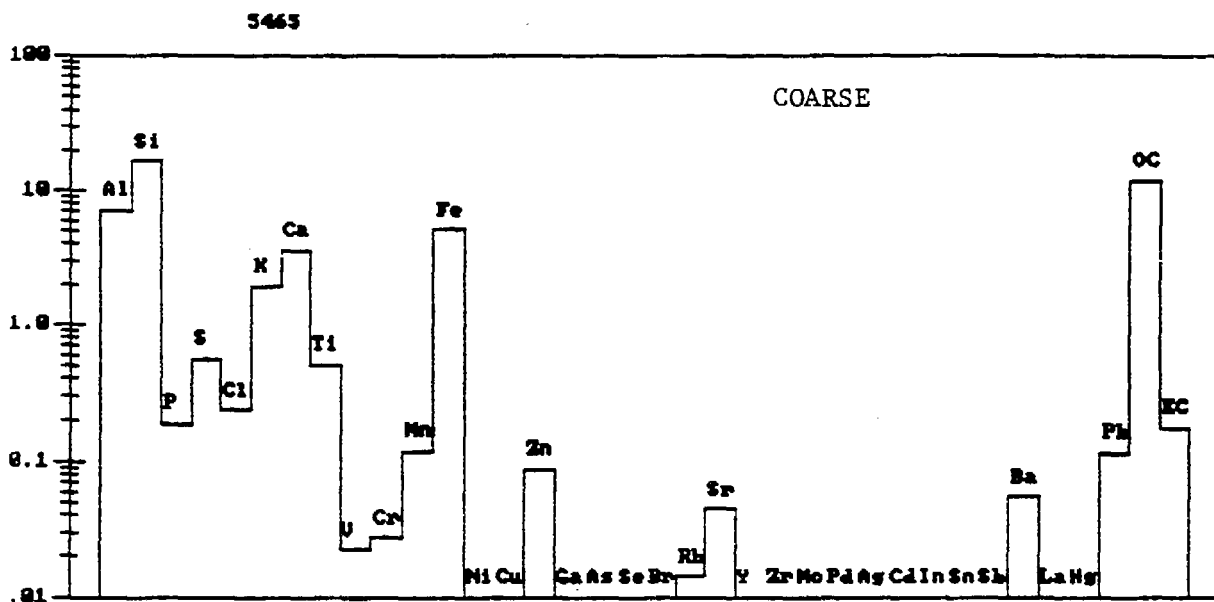
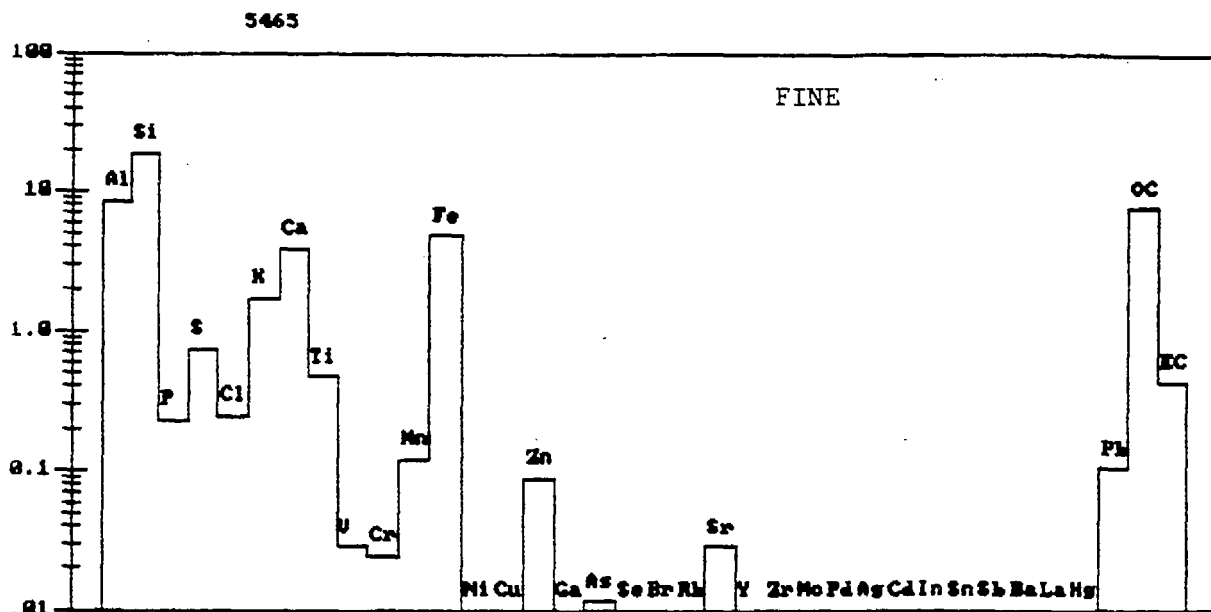
5492



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

SPECIES	P E R C E N T C O M P O S I T I O N					
	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

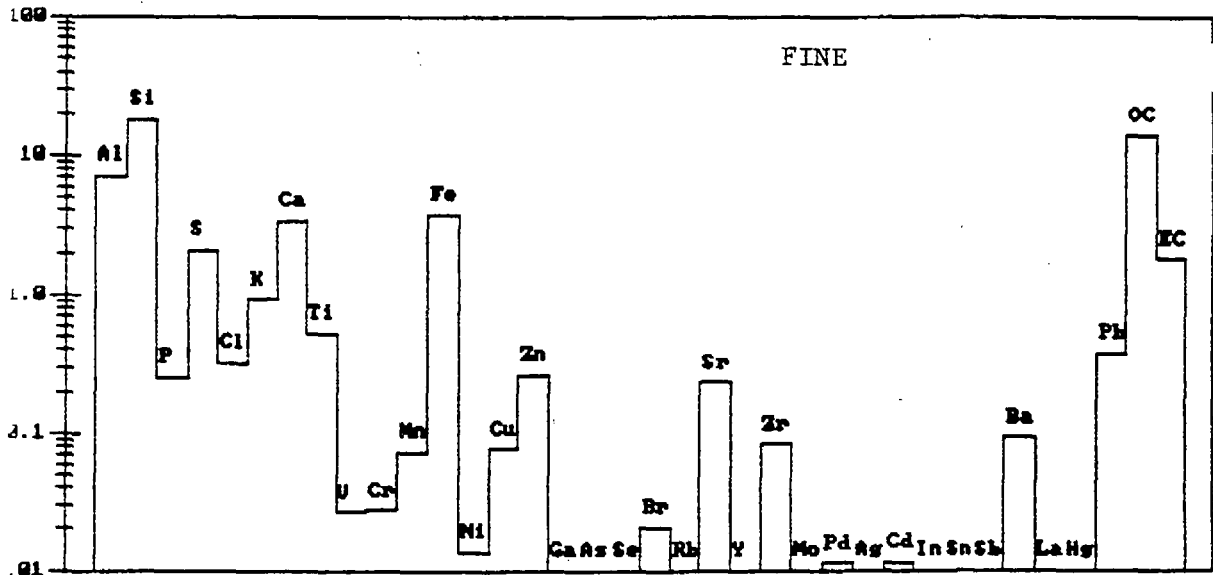


srce	part	revision	source description	reference	date
code	size	date			
5466	FCT	04/14/87	Sepulveda Tunnel paved rd dust	1	04/87

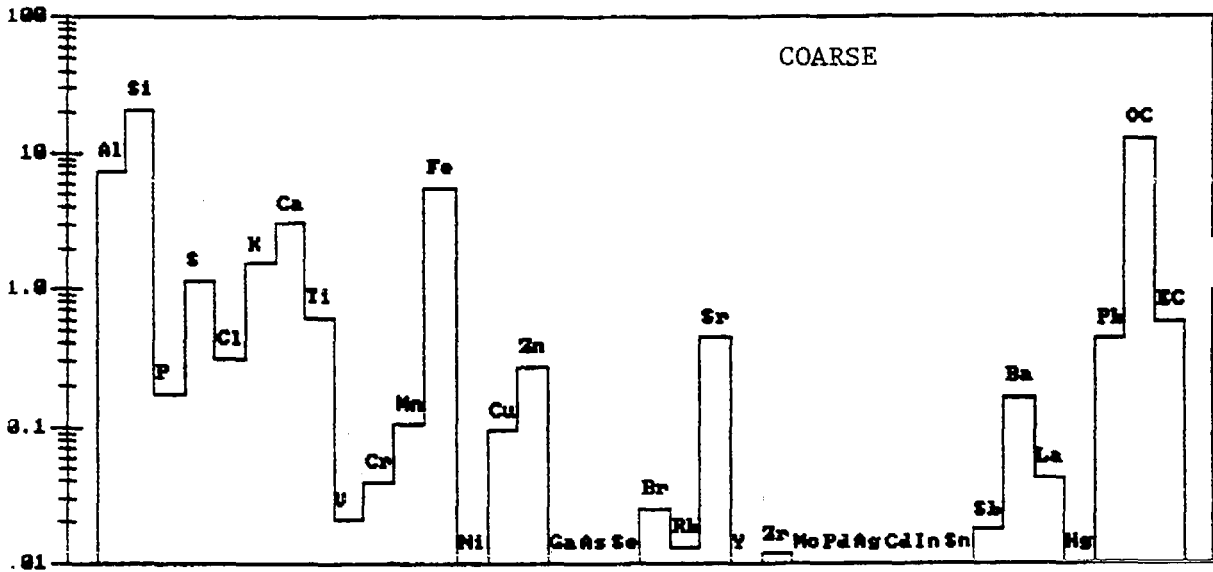
SPECIES	P E R C E N T C O M P O S I T I O N					
	FINE		COARSE		TOTAL	
Al	7.0867 +-	.3566	7.3530 +-	.3682	7.3361 +-	.3456
Si	17.8532 +-	.8941	20.8426 +-	1.0445	20.6530 +-	.9799
P	.2498 +-	.0502	.1744 +-	.0350	.1792 +-	.0329
S	2.0663 +-	.1163	1.1451 +-	.0721	1.2036 +-	.0679
Cl	.3173 +-	.0218	.3117 +-	.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

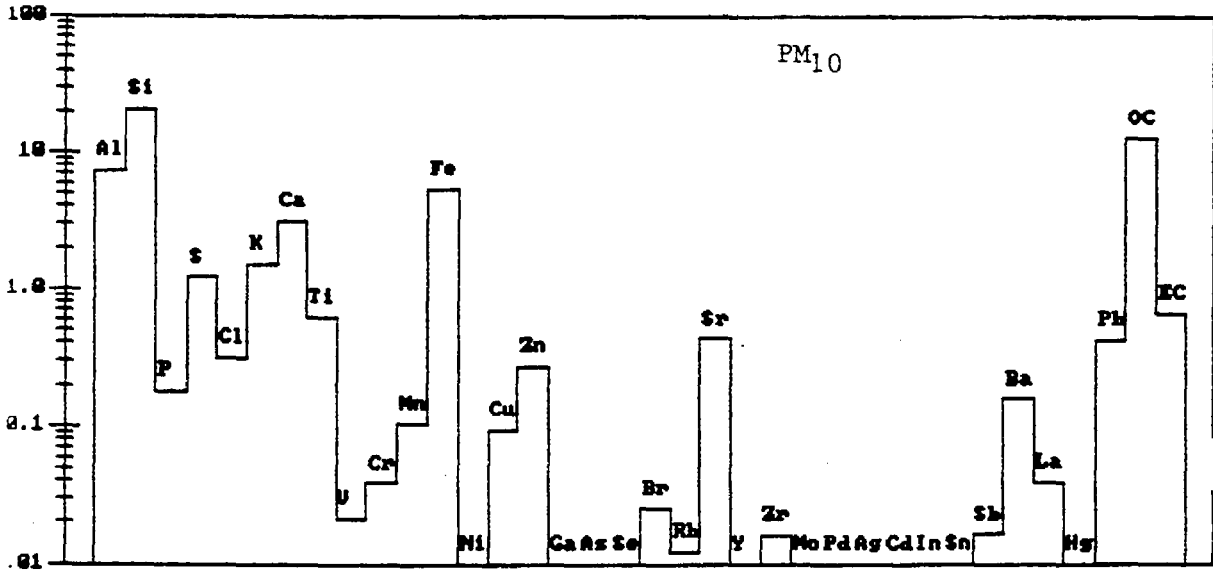
5466



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5466

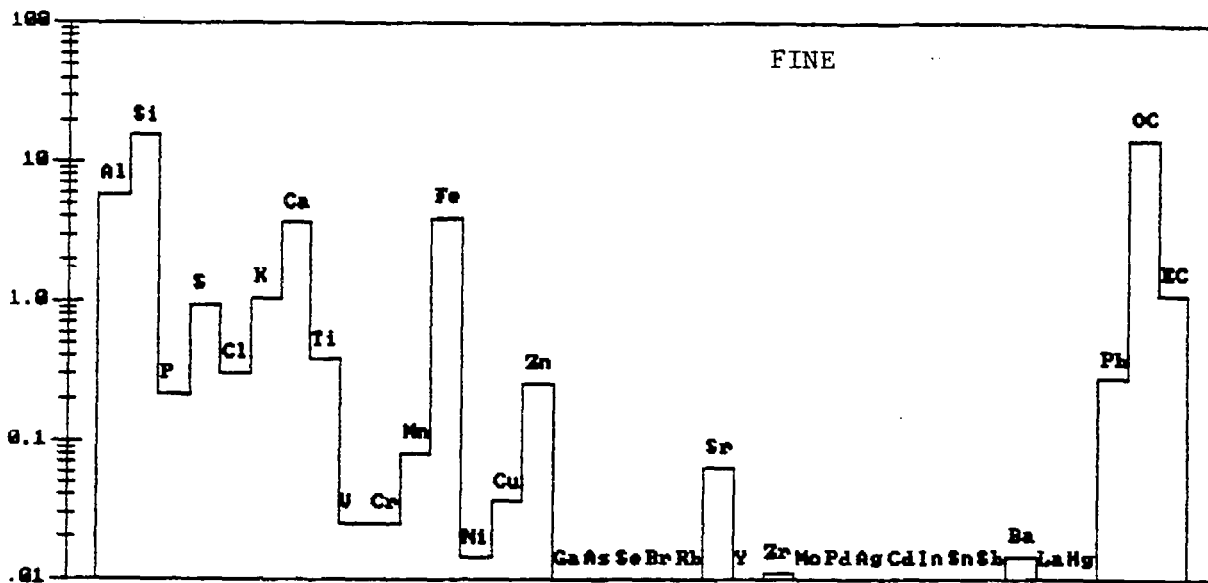


srce	part	revision	source description	reference	date
code	size	date			
5494	FCT	07/09/87	SCAB prd Profile composite	1	07/87

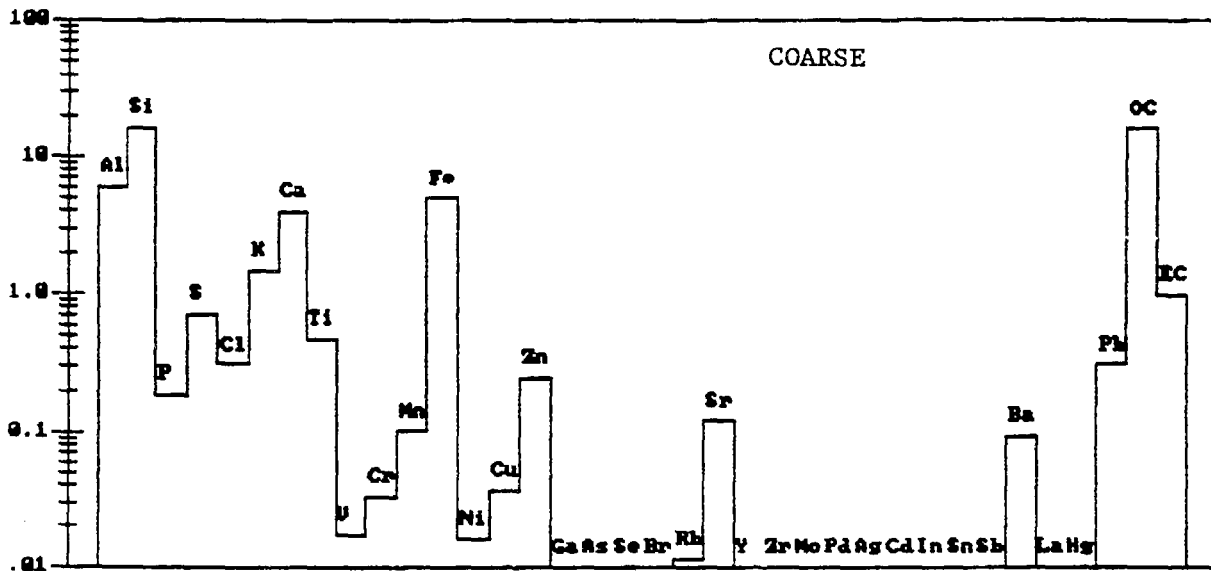
SPECIES	P E R C E N T C O M P O S I T I O N					
	FINE		COARSE		TOTAL	
Al	5.7044 +- .5563	5.9137 +- .4427	5.9037 +- .4468			
Si	15.4440 +- 1.2956	16.0992 +- 1.1905	16.0718 +- 1.1888			
P	.2123 +- .0408	.1843 +- .0378	.1861 +- .0379			
S	.9354 +- .1752	.7058 +- .1078	.7213 +- .1099			
Cl	.2981 +- .0576	.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

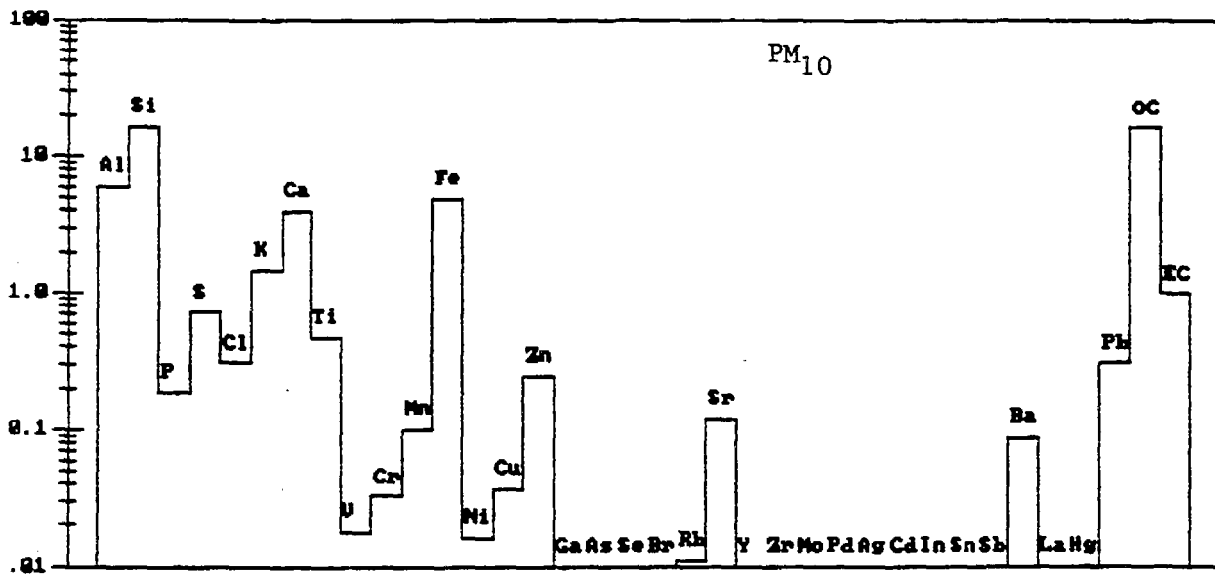
5494



5494



5494

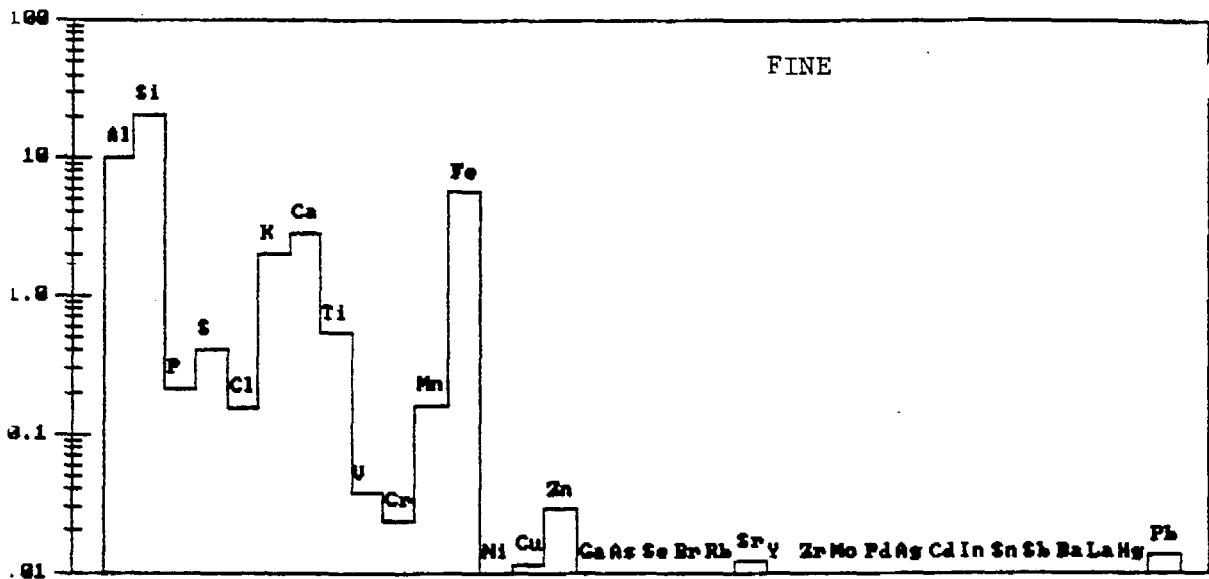


srce	part	revision	source description	reference	date
code	size	date			
5467	FCT	07/09/87	Riverside unpaved rd composite	1	04/87

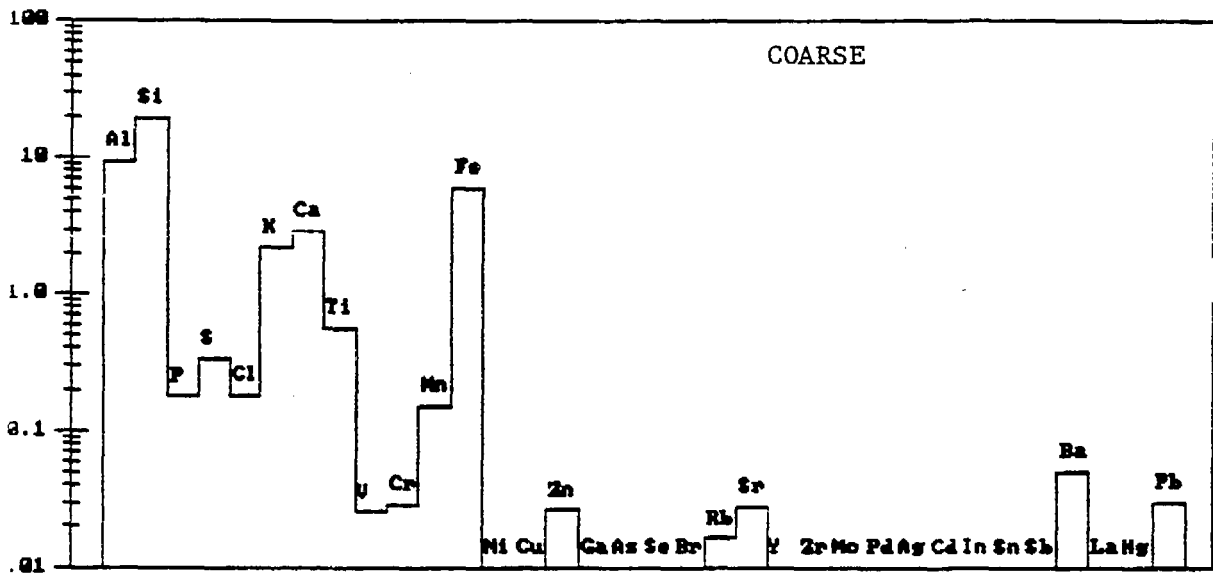
SPECIES	P E R C E N T C O M P O S I T I O N					
	FINE		COARSE		TOTAL	
Al	9.8903	+ - 1.4835	9.2309	+ - 1.3846	9.2665	+ - 1.3123
Si	20.3601	+ - 3.0540	19.1896	+ - 2.8784	19.2529	+ - 2.7279
P	.2124	+ - .0425	.1753	+ - .0351	.1773	+ - .0332
S	.4056	+ - .0203	.3316	+ - .0166	.3356	+ - .0157
Cl	.1570	+ - .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

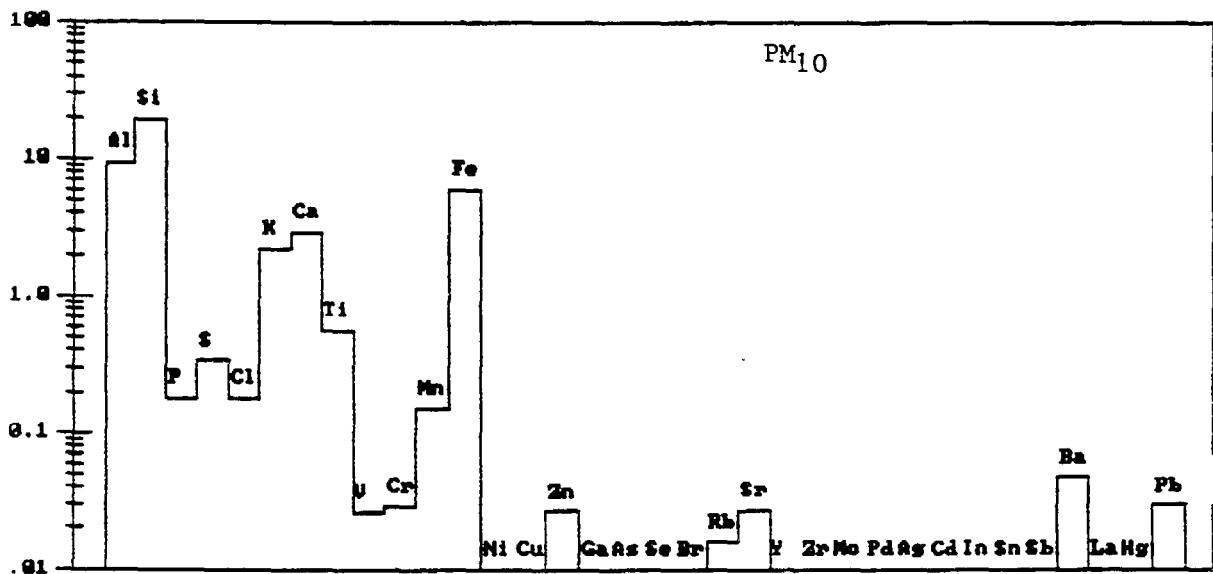
5467



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5467

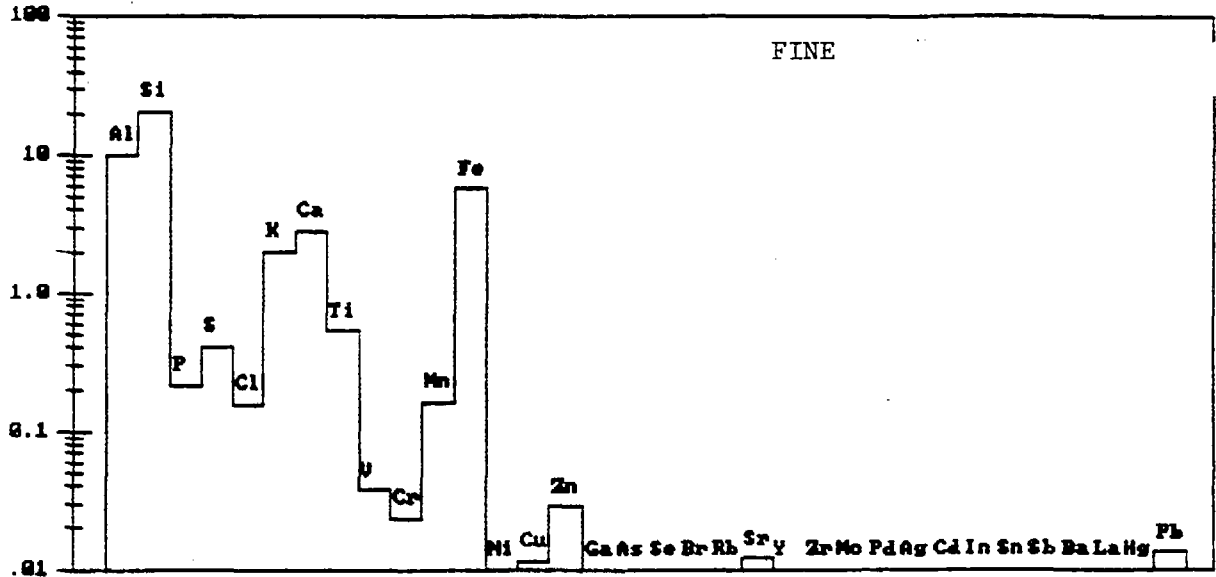


srce	part	revision	code	size	date	source description	reference	date
5468	FCT	07/09/87				Riverside soil composite	1	04/87

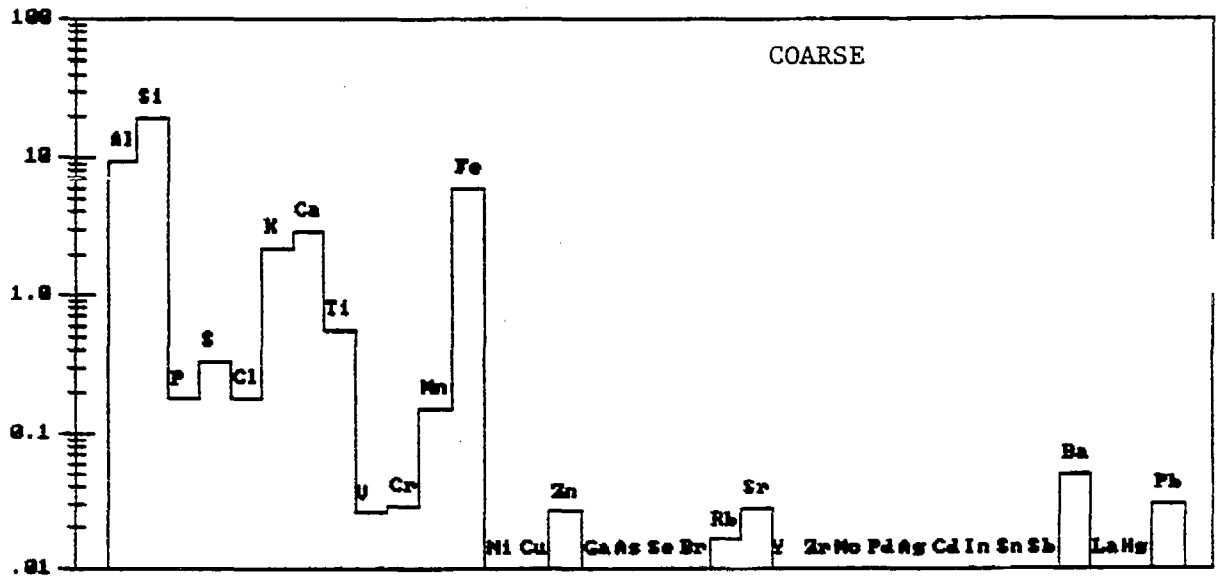
SPECIES	P E R C E N T C O M P O S I T I O N					
	FINE		COARSE		TOTAL	
Al	9.8903	+ - 1.4835	9.2309	+ - 1.3846	9.2665	+ - 1.3123
Si	20.3601	+ - 3.0540	19.1896	+ - 2.8784	19.2529	+ - 2.7279
P	.2124	+ - .0425	.1753	+ - .0351	.1773	+ - .0332
S	.4056	+ - .0203	.3316	+ - .0166	.3356	+ - .0157
Cl	.1570	+ - .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

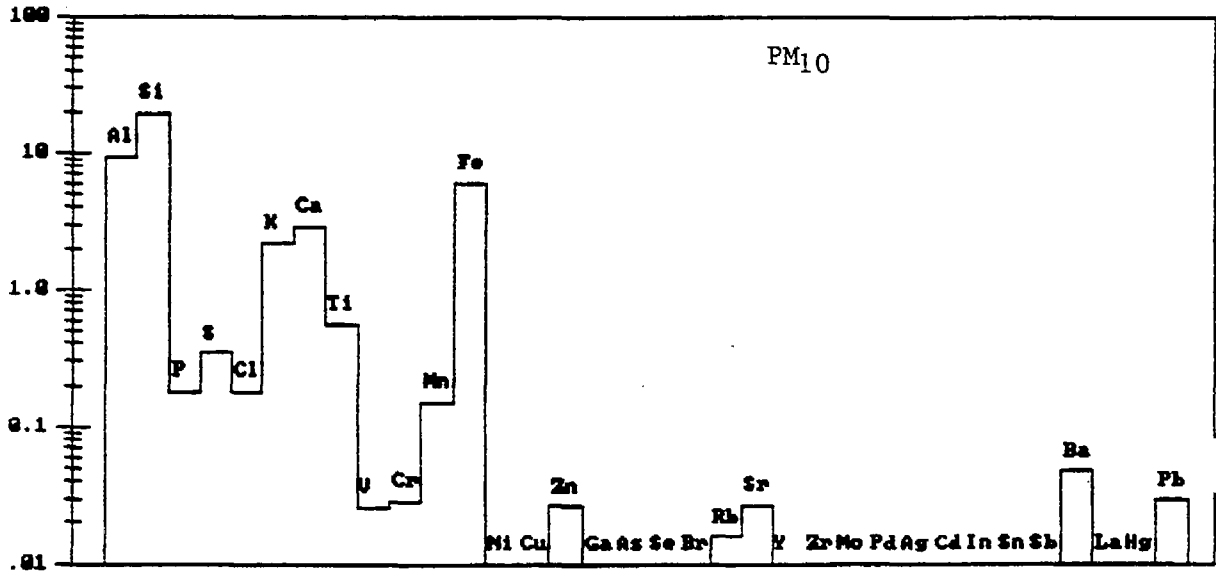
5468



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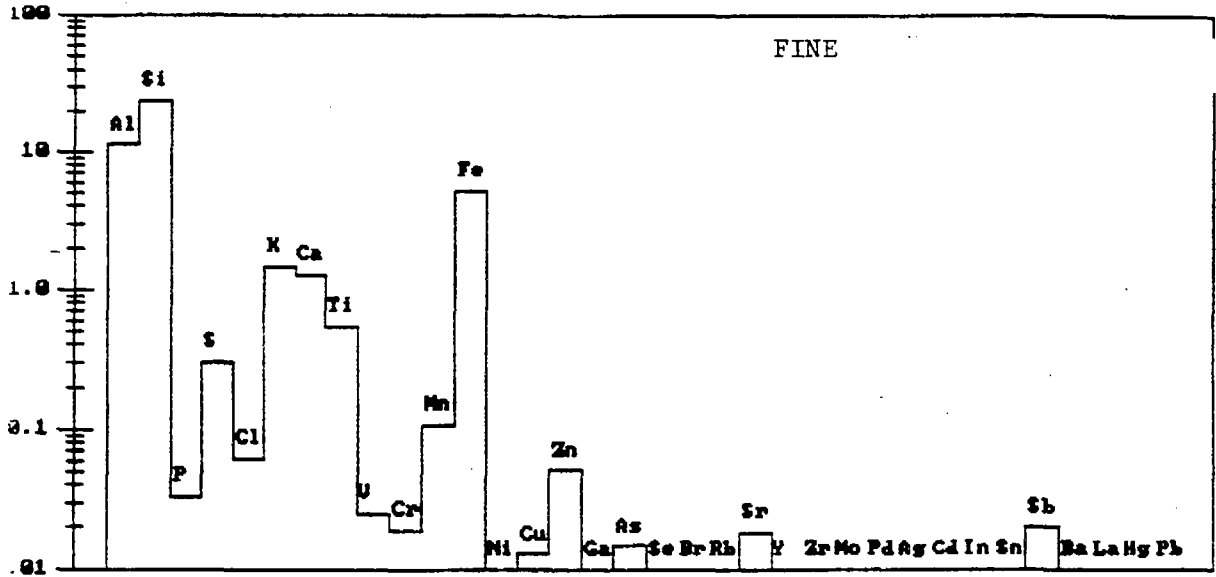


srce	part	revision	code	size	date	source description	reference	date
5469	FCT	07/09/87				Hawthorne soil composite	1	04/87

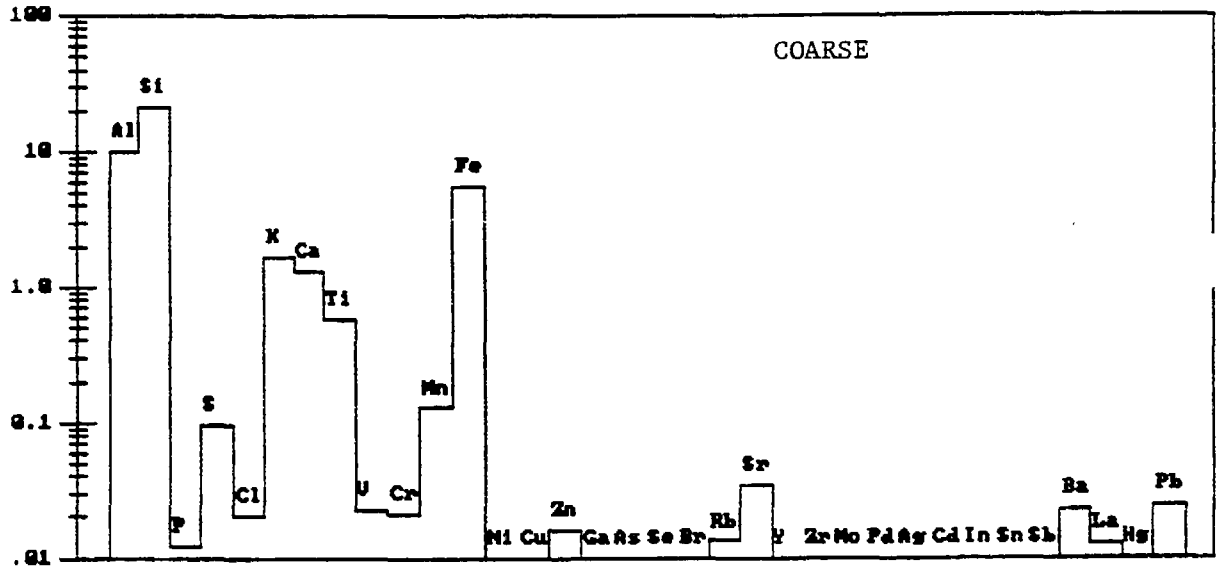
SPECIES	P E R C E N T C O M P O S I T I O N					
	FINE		COARSE		TOTAL	
Al	11.2766	+- 1.2985	10.0206	+- 1.0636	9.8897	+- 2.3019
Si	23.5750	+- 2.7165	21.2178	+- 2.2512	20.8019	+- 4.2909
P	.0332	+- .0049	.0123	+- .0123	.0105	+- .0088
S	.3001	+- .0498	.0950	+- .0128	.1008	+- .0049
Cl	.0612	+- .0261	.0202	+- .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

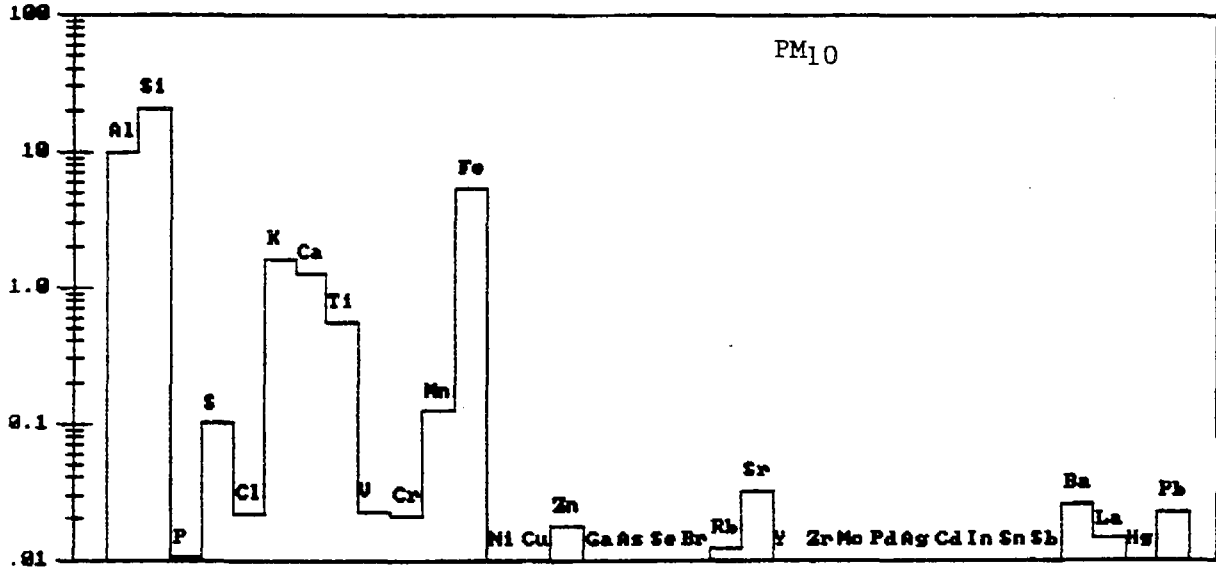
5469



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5469

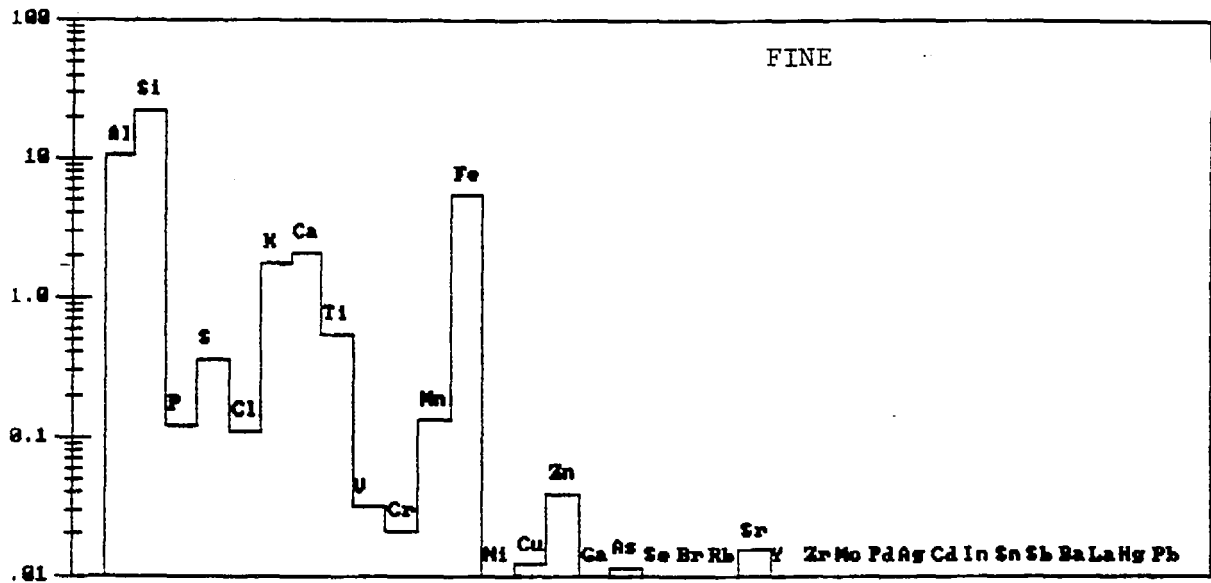


srce	part	revision	source description	reference	date
code	size	date			
5495	FCT	07/09/87	SCAB Soil Profile composite	1	07/87

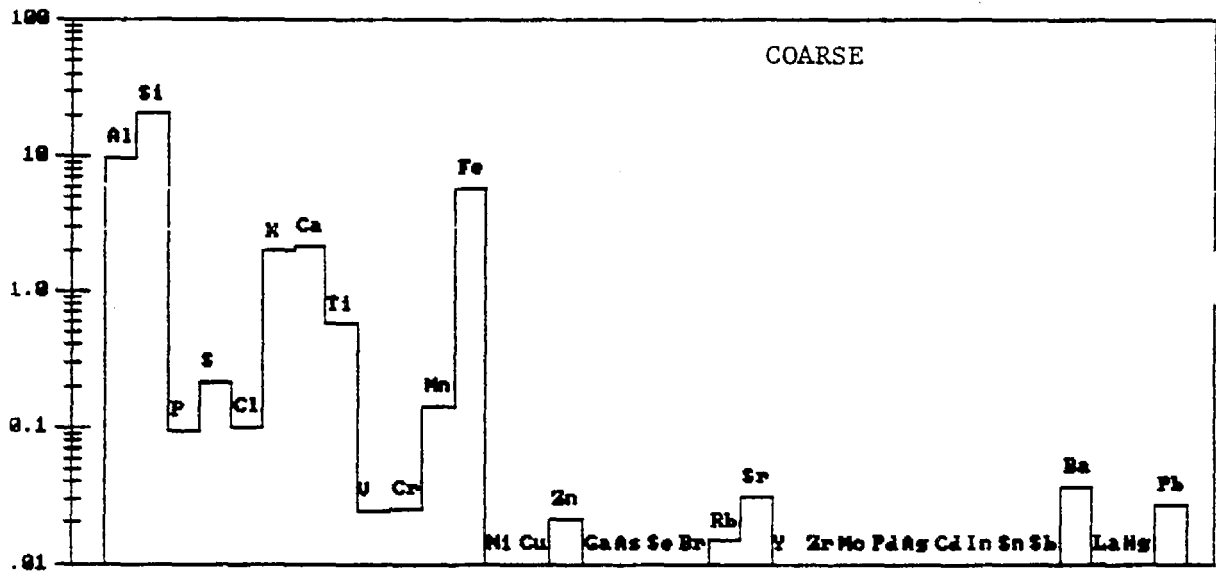
SPECIES	PERCENT COMPOSITION					
	FINE		COARSE		TOTAL	
Al	10.5834	+ - 1.0111	9.6257	+ - .8731	9.6826	+ - .8271
Si	21.9675	+ - 2.0954	20.2037	+ - 1.8273	20.3097	+ - 1.7306
P	.1228	+ - .0896	.0938	+ - .0815	.0953	+ - .0820
S	.3528	+ - .0527	.2133	+ - .1183	.2213	+ - .1142
Cl	.1091	+ - .0479	.0993	+ - .0791	.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

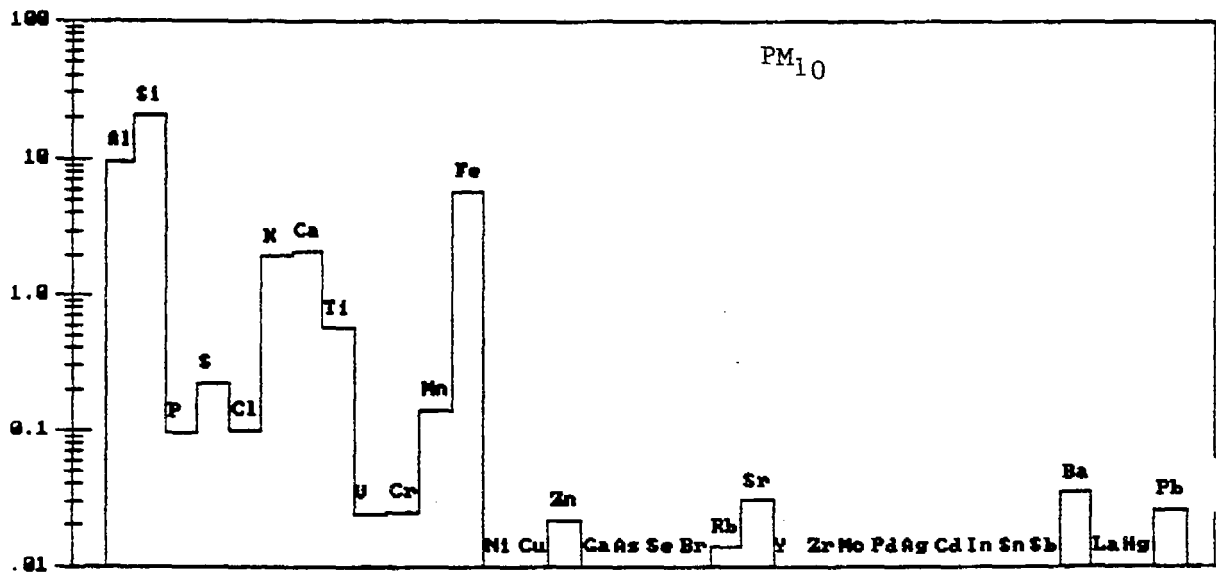
5495



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5495

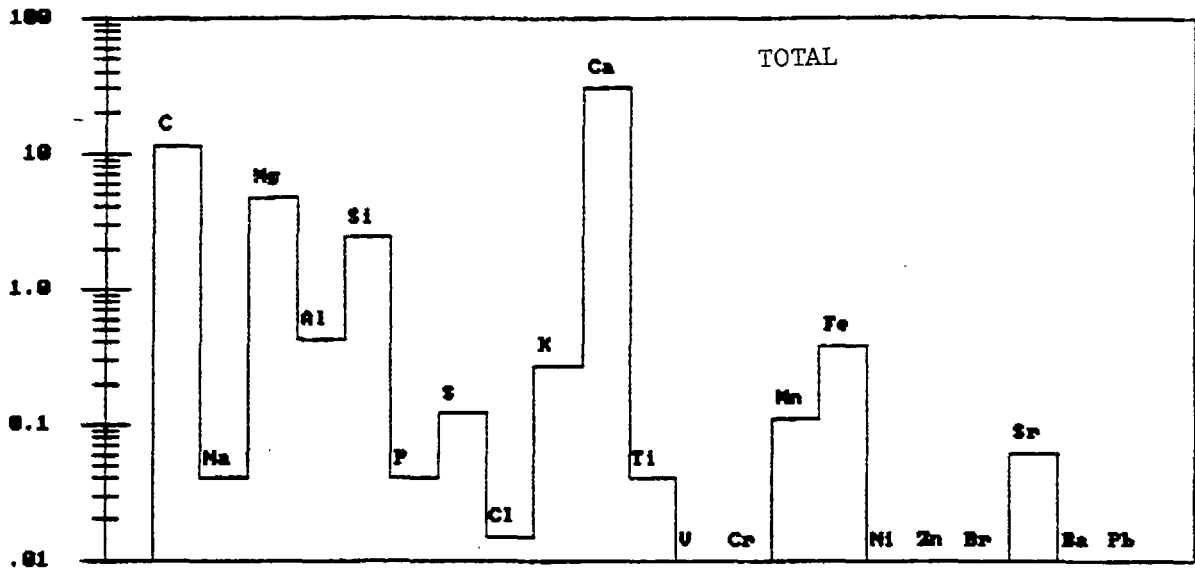


srce	part	revison				
code	size	date	source description	reference	date	
5093	T	04/15/87	LIMESTONE, CRUSTAL	17	00/66	

SPECIES	P E R C E N T C O M P O S I T I O N		
	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

5893

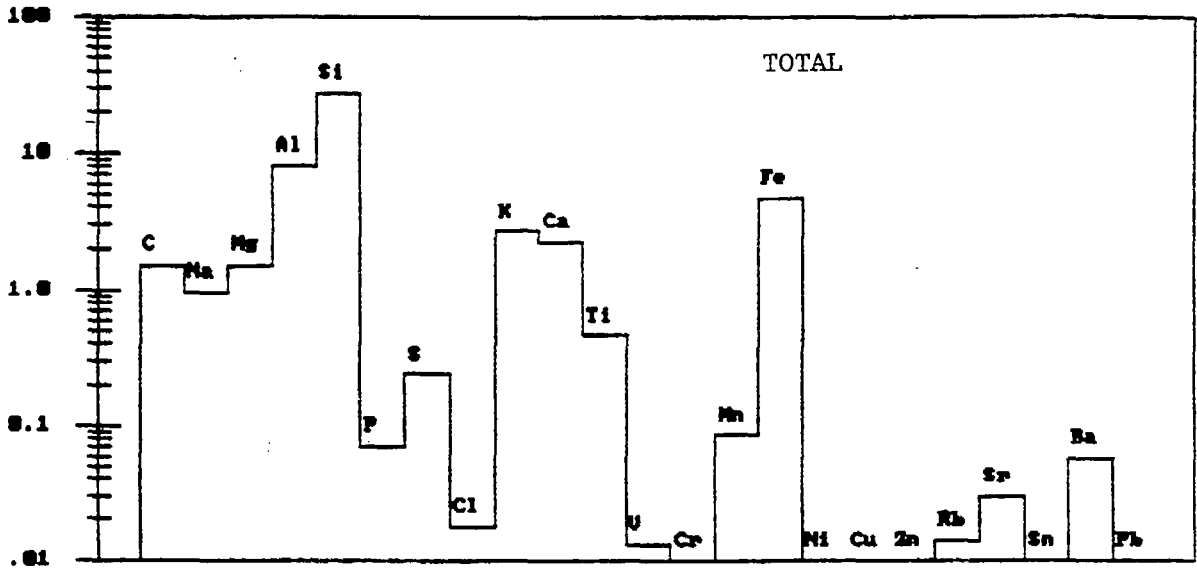


srce code	part size	revision date	source description	reference	date
5092	T	04/15/87	SHALE, CRUSTAL	17	00/66

SPECIES	P E R C E N T C O M P O S I T I O N		
	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

5892

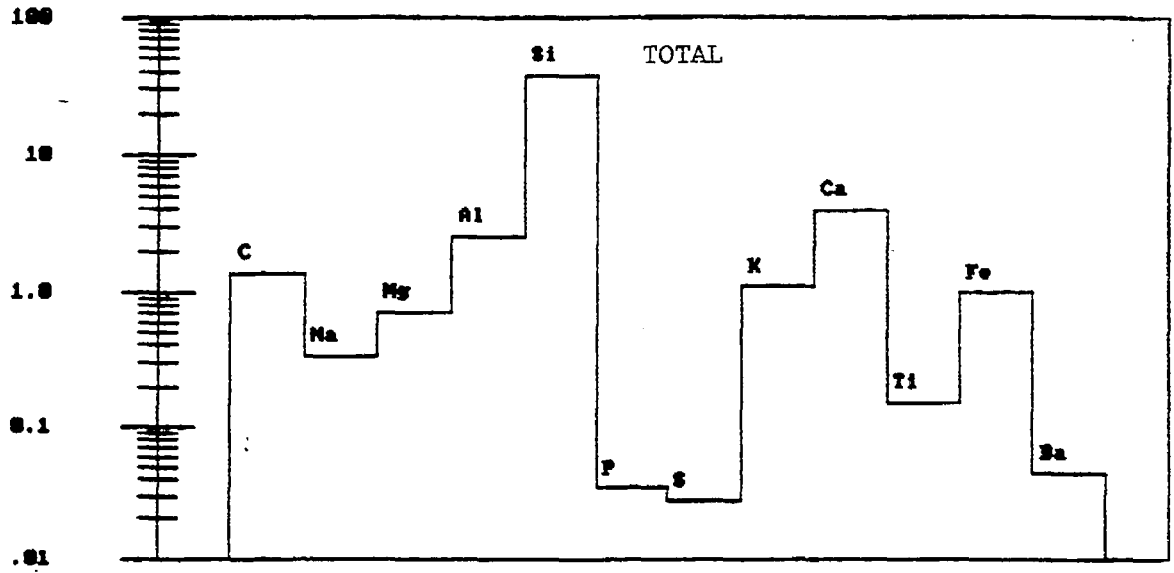


srce	part	revision				
code	size	date	source	description	reference	date
5307	T	03/17/87	SANDSTONE,	CRUSTAL	65th CRC	4

SPECIES	P E R C E N T C O M P O S I T I O N		
	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

5387

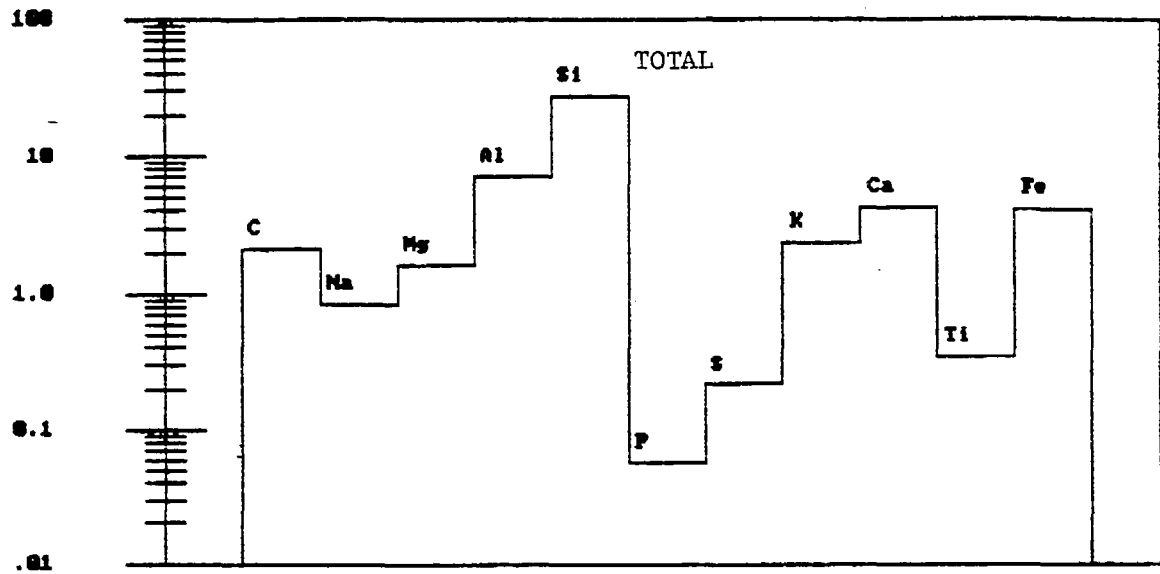


srce code	part size	revision date	source description	reference	date
5282	T	03/17/87	SEDIMENT, CRUSTAL 65th CRC	4	

SPECIES	P E R C E N T C O M P O S I T I O N		
	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

5202

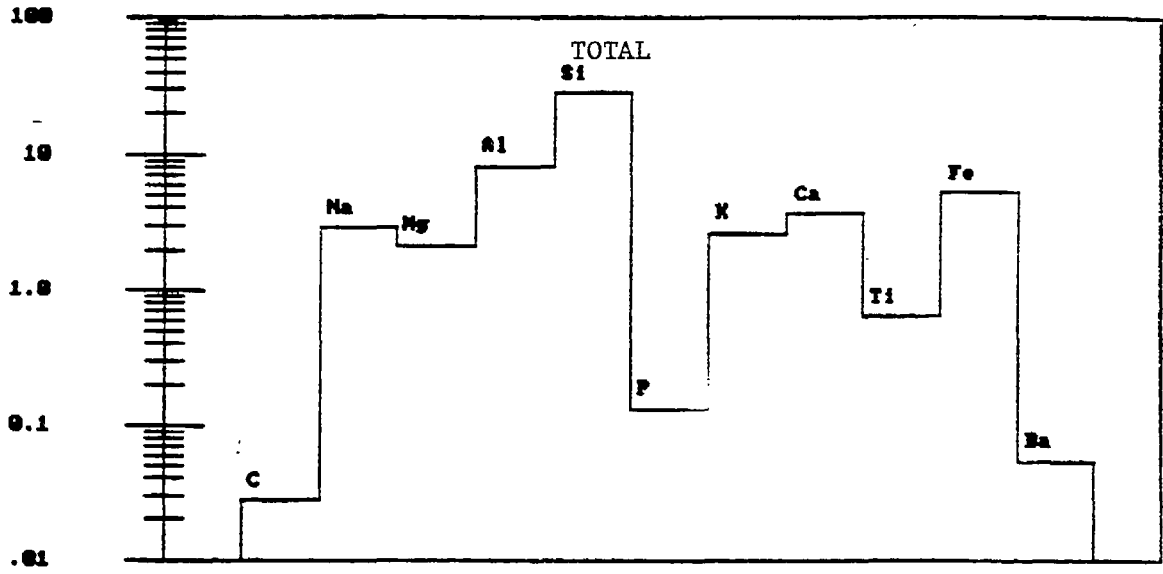


srce code	part size	revision date	source description	reference	date
5315	T	03/17/87	IGNEOUS ROCK	65th CRC	4

SPECIES	PERCENT COMPOSITION		TOTAL
	FINE	COARSE	
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

5315

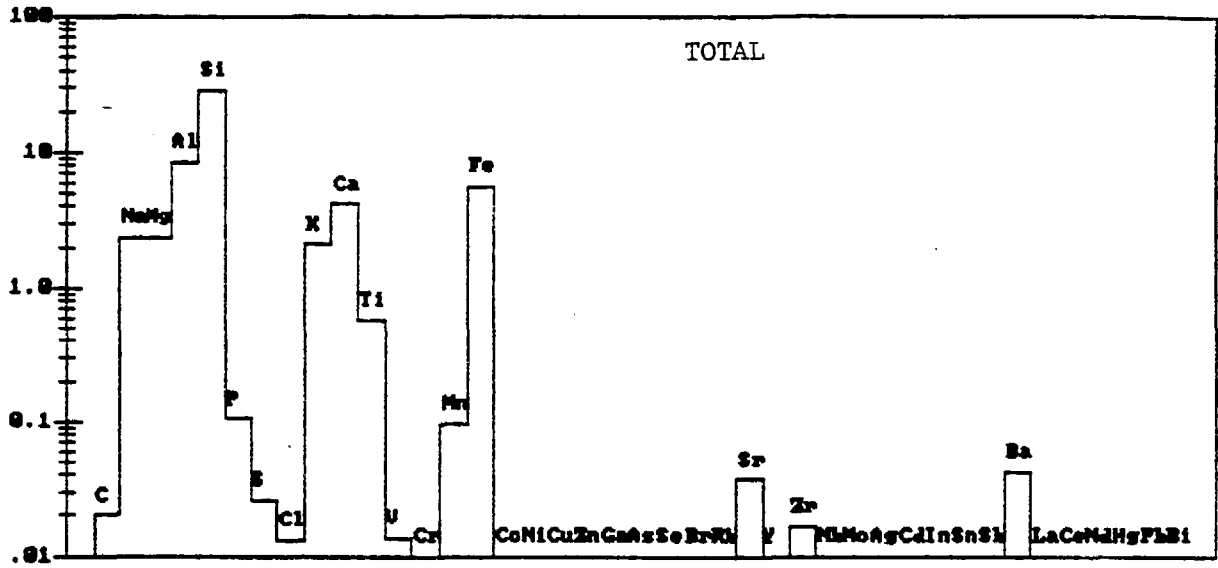


srce	part	revision	source description	reference	date
code	size	date			
5314	T	03/17/87	EARTH'S CRUST	65th CRC	4

SPECIES	P E R C E N T		C O M P O S I T I O N	
	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

5314

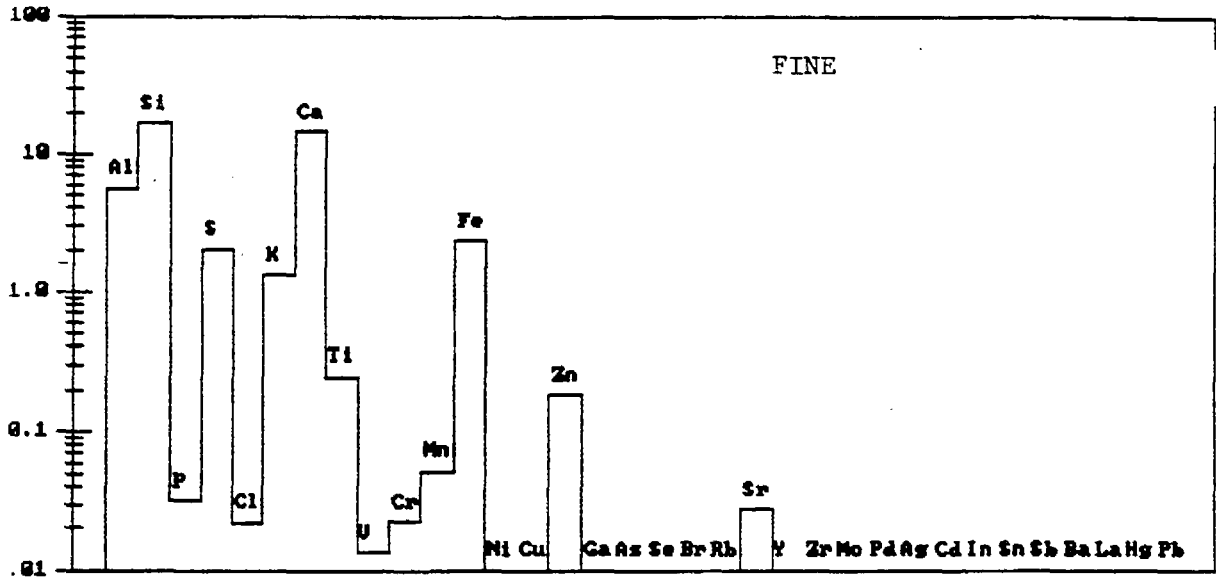


srce	part	revision	code	size	date	source description	reference	date
5450	FCT	07/09/87				Sandblasting & Plastering	1	04/87

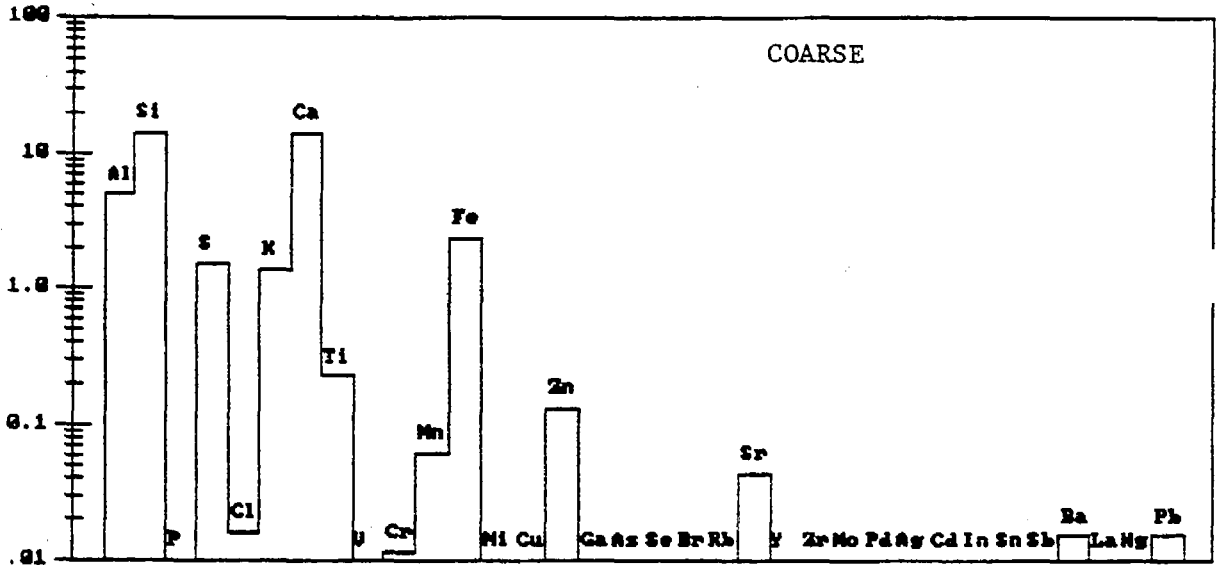
SPECIES	P E R C E N T C O M P O S I T I O N					
	FINE		COARSE		TOTAL	
Al	5.5528 +- .8329	4.9440 +- .7416	4.9835 +- .6955			
Si	16.4427 +- 2.4664	14.2102 +- 2.1315	14.3552 +- 1.9995			
P	.0314 +- .0063	.0000 +- .0000	.0020 +- .0004			
S	1.9819 +- .0991	1.5239 +- .0762	1.5536 +- .0715			
Cl	.0219 +- .0011	.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

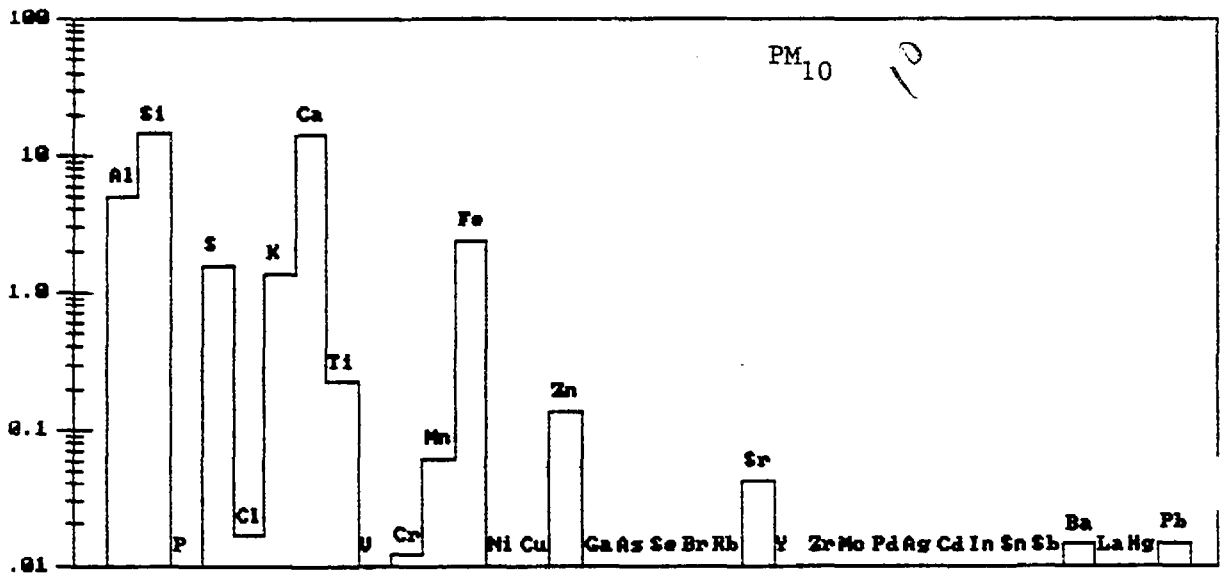
5459



5458



5458

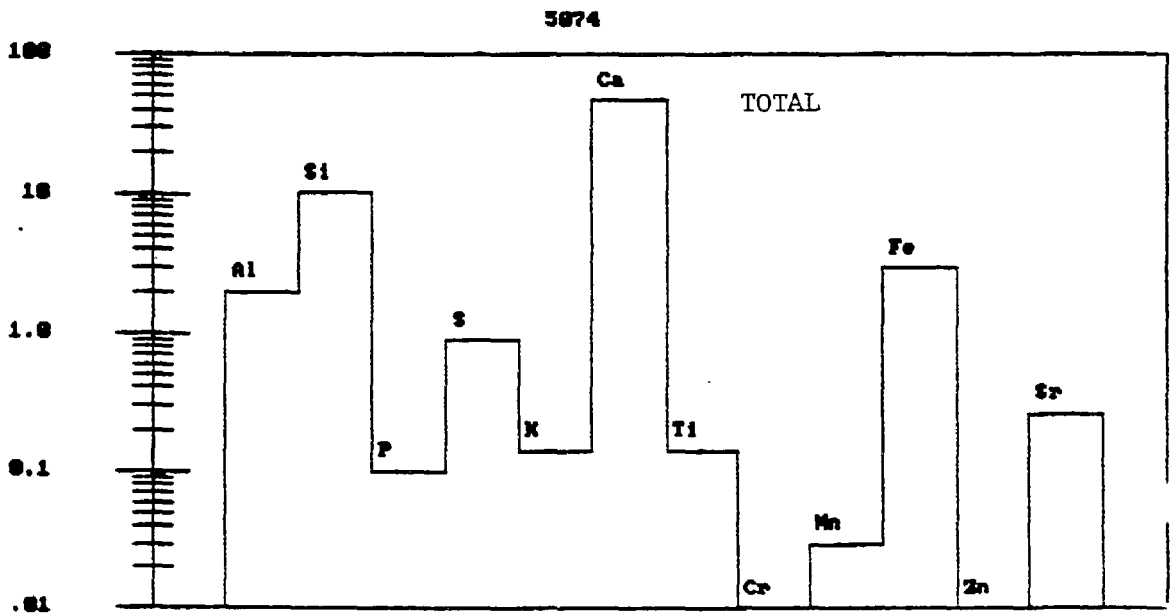
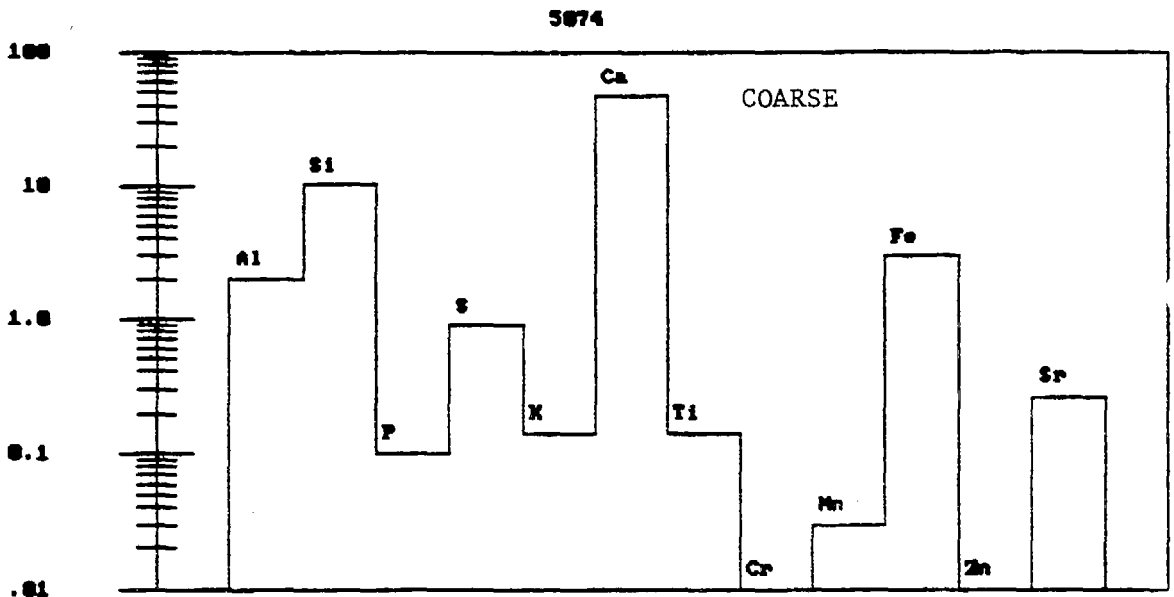
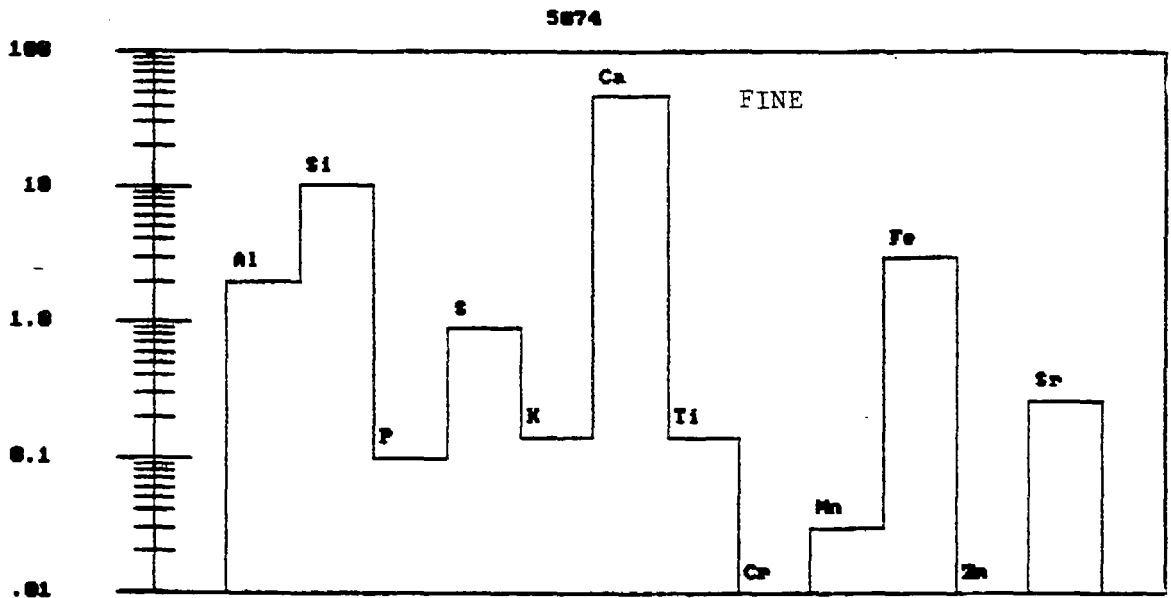


srce part revision			source description	reference	date
code	size	date			
5074	FCT	03/19/87	NBS cement dust (SRM 633)	NBS catalog	02/84

SPECIES	P E R C E N T C O M P O S I T I O N					
	FINE		COARSE		TOTAL	
Al	2.0000	+-.4000	2.0000	+-.4000	2.0000	+-.4000
Si	10.2000	+-.2000	10.2000	+-.2000	10.2000	+-.2000
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 47.5um
COARSE 72.5*

NBS CEMENT DUST (SRM 633)

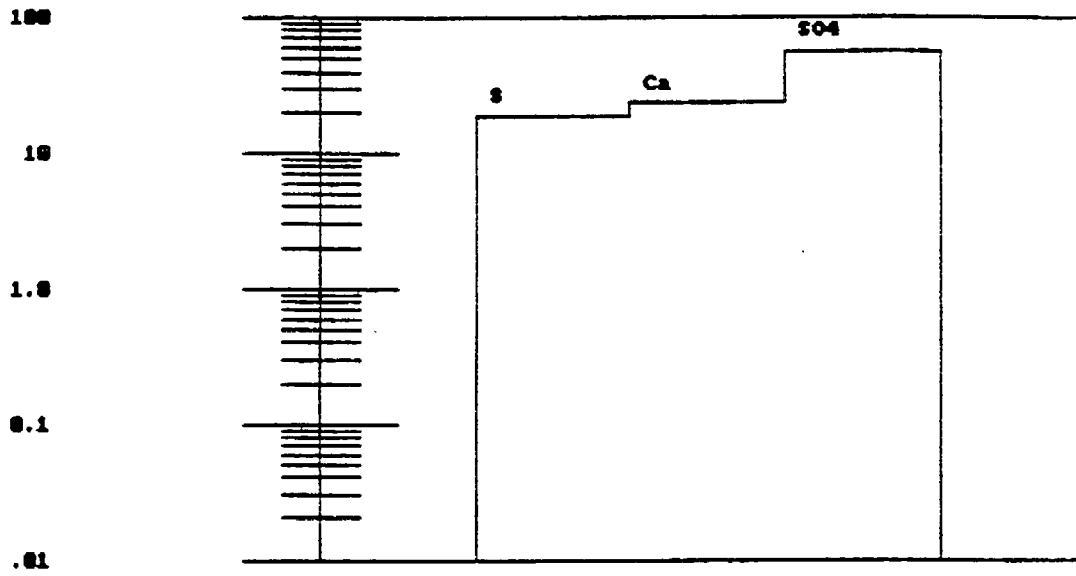


srce	part	revison			
code	size	date	source description	reference	date
5117	T	09/26/83	gypsum handling (CaSO4.2H2O)		09/83

SPECIES	P E R C E N T C O M P O S I T I O N		
	FINE	COARSE	TOTAL
S			18.6000 +- 1.8600
Ca			23.3000 +- 2.3300
SO4			55.8000 +- 5.5800
Sum			97.7000

GYPSUM HANDLING ($\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$)

5117 TOTAL

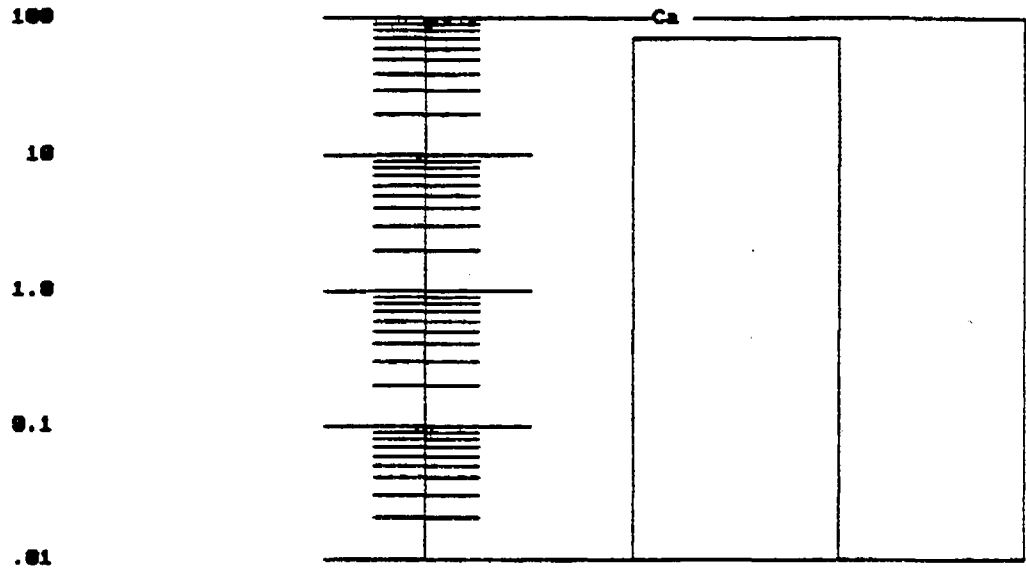


srce	part	revsion			
code	size	date	source description	reference	date
5116	T	09/26/83	lime handling (CaO)		09/83

SPECIES	P E R C E N T C O M P O S I T I O N		
	FINE	COARSE	TOTAL
Ca			71.0000 +- 7.1000
Sum			71.0000

LIME HANDLING (CaO)

5116 TOTAL

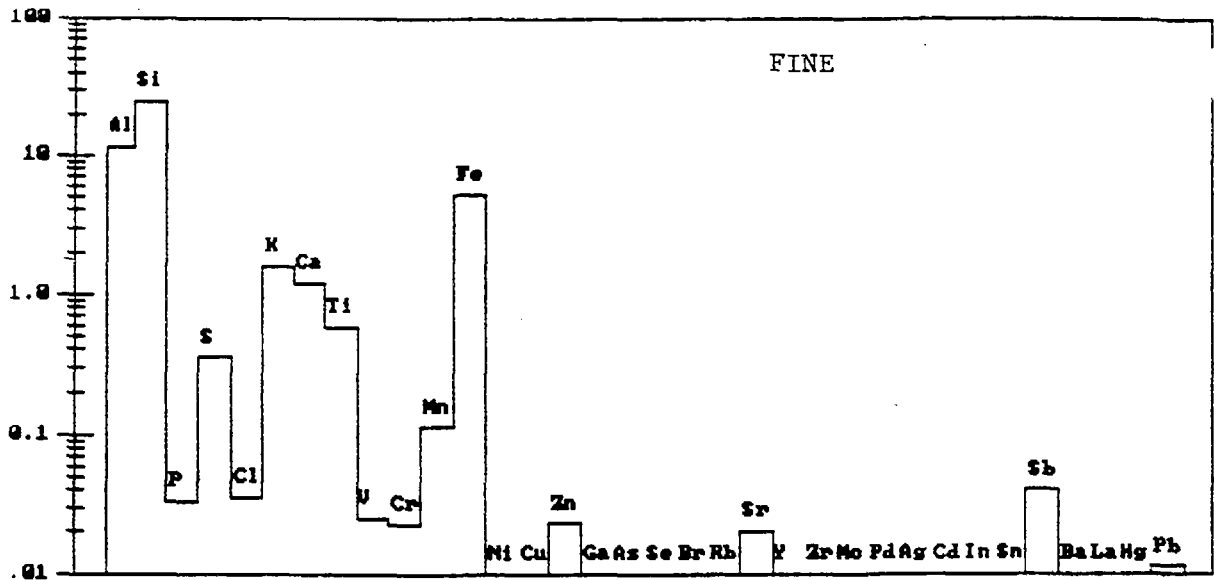


srce	part	revision	code	size	date	source description	reference	date
5451	FCT	07/09/87	Excavation,	I405/E1	Segundo	1	04/87	

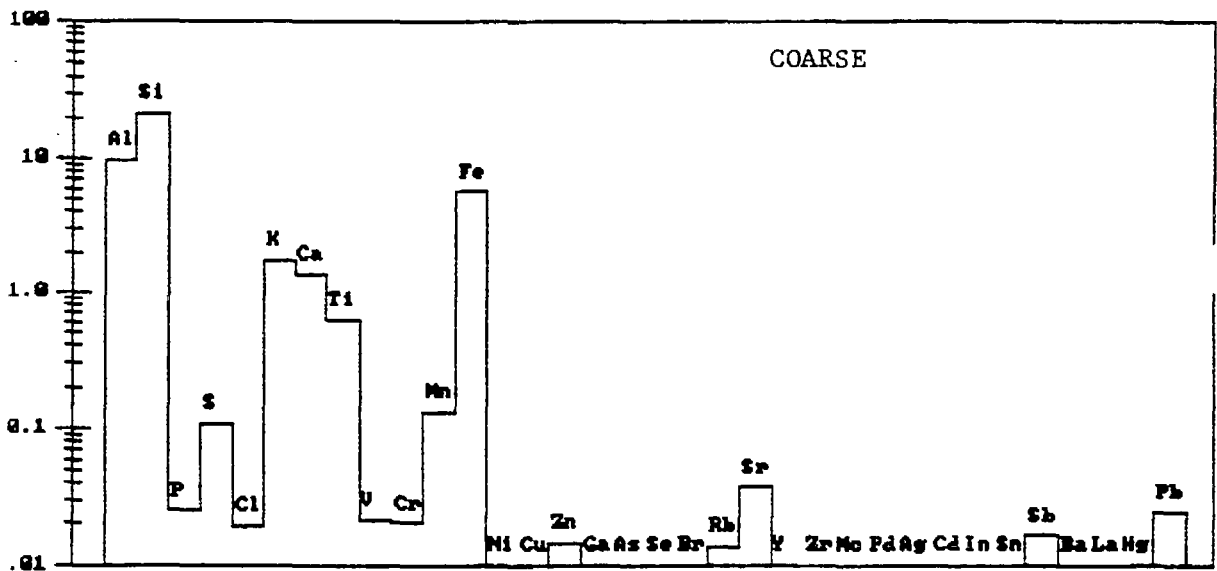
SPECIES	P E R C E N T C O M P O S I T I O N					
	FINE		COARSE		TOTAL	
Al	11.5125	+ - 1.7269	9.7489	+ - 1.4623	9.8727	+ - 1.3651
Si	24.7096	+ - 3.7065	21.2392	+ - 3.1859	21.4828	+ - 2.9737
P	.0330	+ - .0066	.0246	+ - .0049	.0252	+ - .0046
S	.3499	+ - .0175	.1078	+ - .0054	.1248	+ - .0052
Cl	.0351	+ - .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

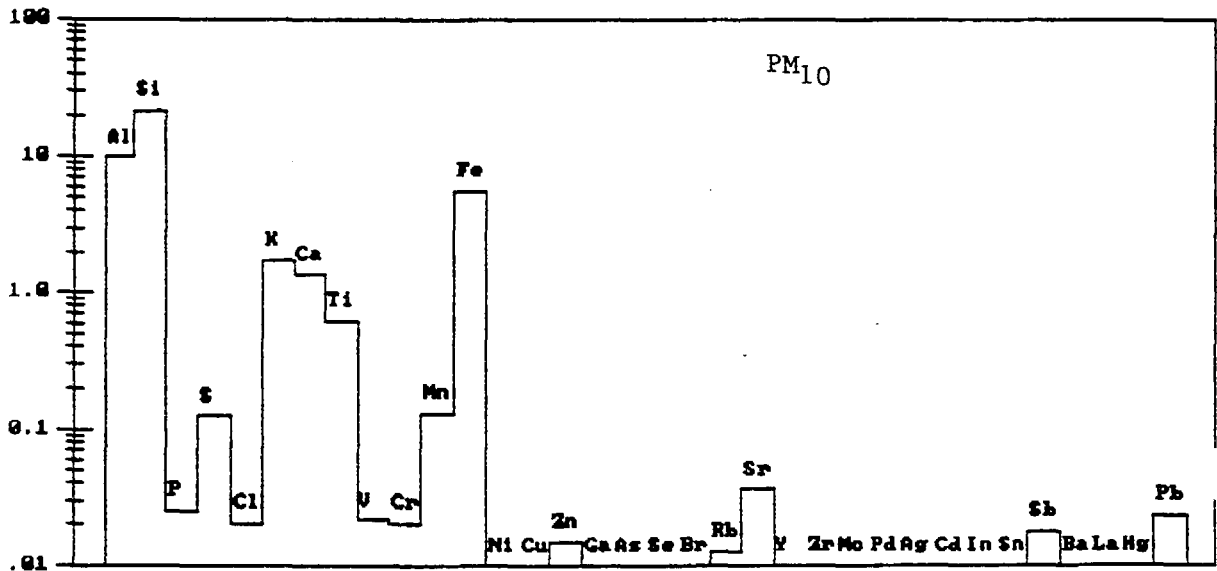
5451



5451



5451

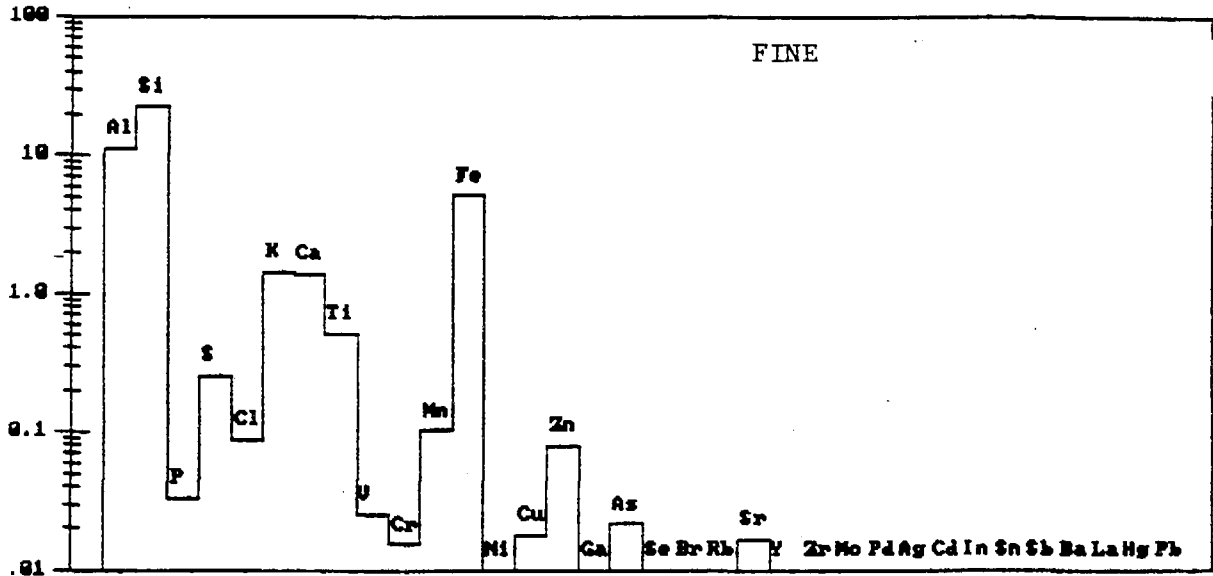


srce	part	revision	source description	reference	date
code	size	date			
5452	FCT	07/09/87	Excavation, Haul road, I405/ES	1	04/87

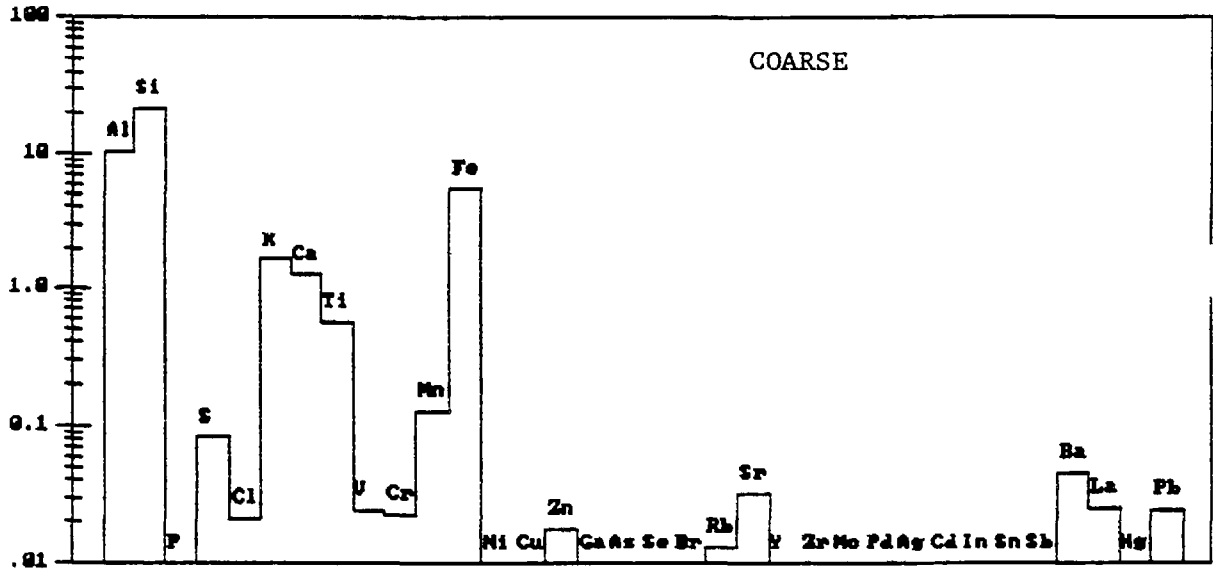
SPECIES	PERCENT COMPOSITION					
	FINE		COARSE		TOTAL	
Al	11.0408	+ - 1.6562	10.2923	+ - 1.5438	10.3248	+ - 1.4785
Si	22.4405	+ - 3.3661	21.1963	+ - 3.1794	21.2503	+ - 3.0449
P	.0334	+ - .0067	.0000	+ - .0000	.0015	+ - .0003
S	.2503	+ - .0125	.0822	+ - .0041	.0895	+ - .0040
Cl	.0873	+ - .0043	.0212	+ - .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

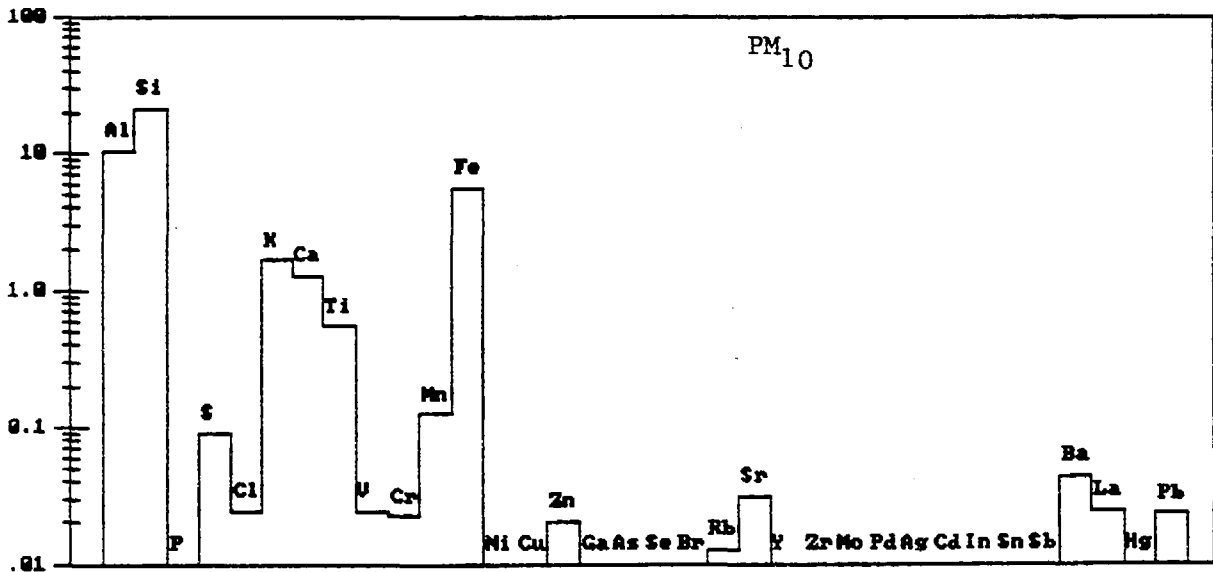
5452



5452



5452

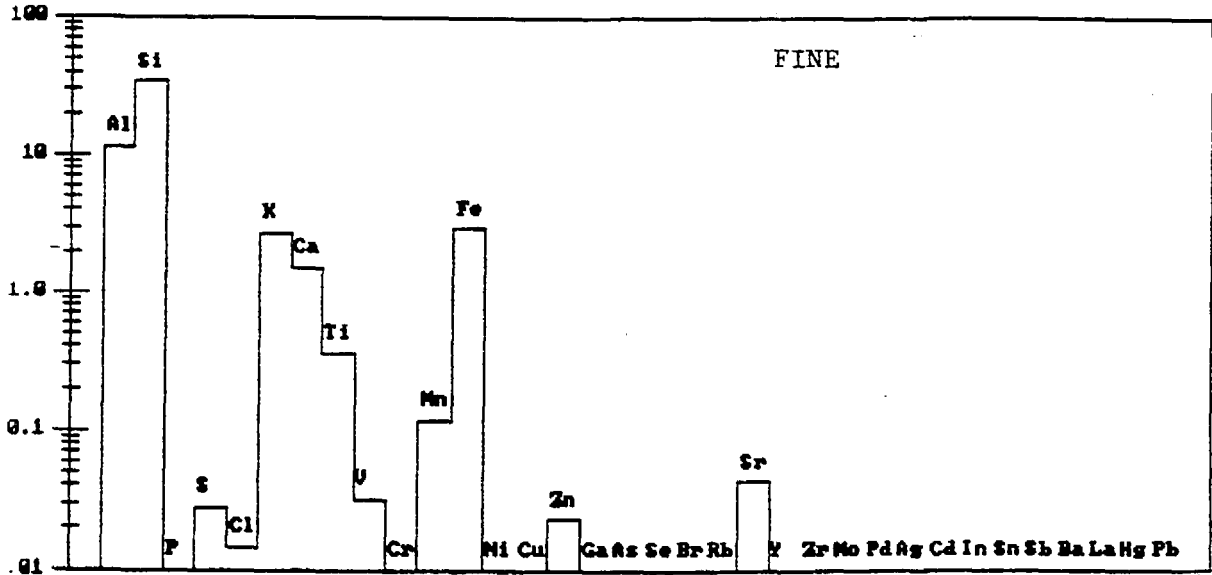


srce	part	revision	code	size	date	source description	reference	date
5449	FCT	07/09/87	Rock	Crushing	1987	SCAB	1	04/87

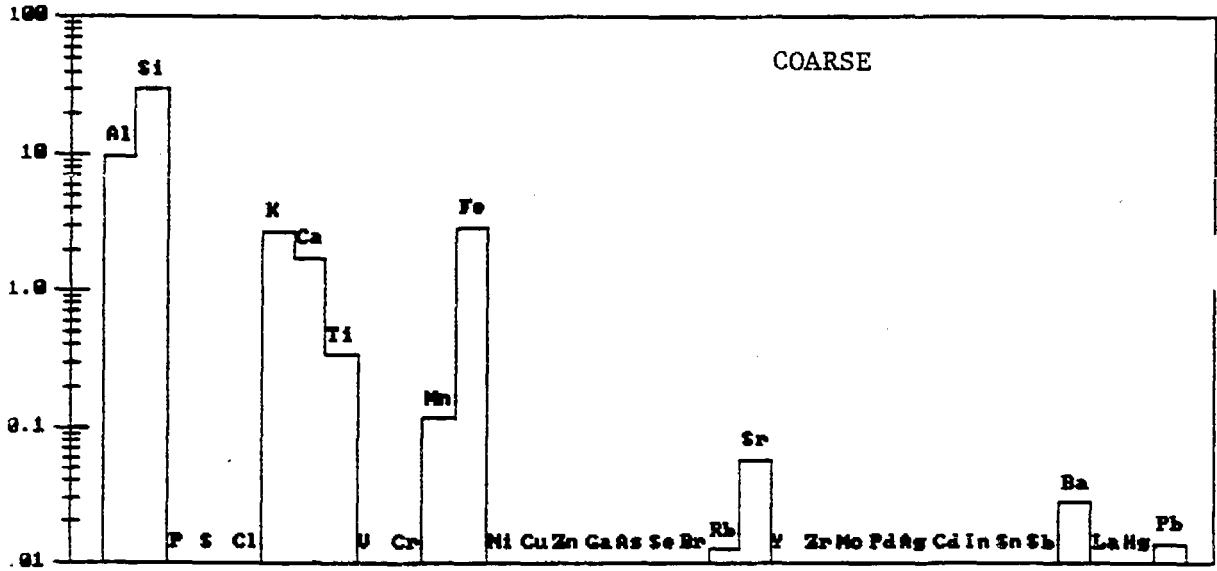
SPECIES	P E R C E N T C O M P O S I T I O N					
	FINE		COARSE		TOTAL	
Al	11.5390	+ - 1.7308	9.6806	+ - 1.4521	9.8570	+ - 1.3245
Si	34.0028	+ - 5.1004	29.4138	+ - 4.4121	29.8494	+ - 4.0225
P	.0000	+ - .0000	.0000	+ - .0000	.0000	+ - .0000
S	.0276	+ - .0014	.0000	+ - .0000	.0026	+ - .0001
Cl	.0143	+ - .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

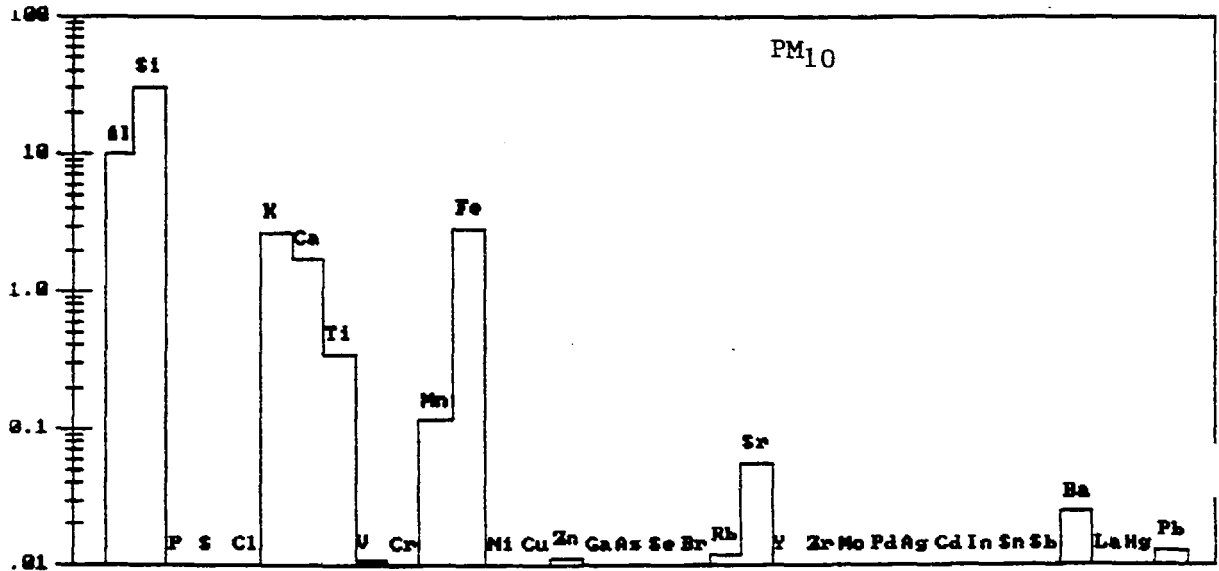
5449



5449



5449

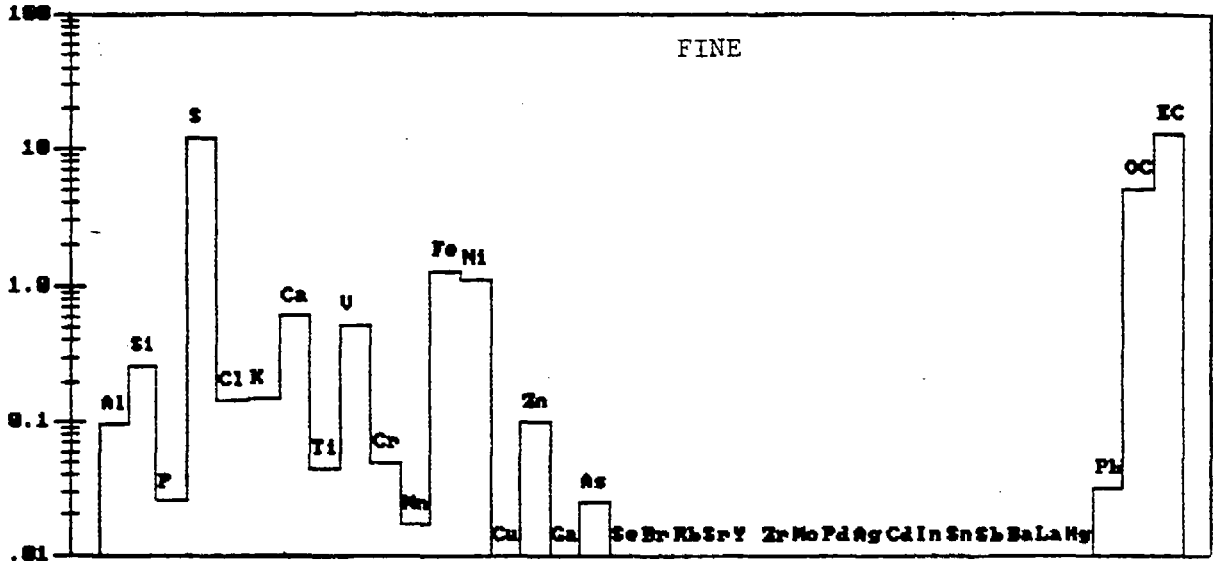


srce	part	revision	code	size	date	source description	reference	date
5334	FCT	12/26/86	SDGE	blrs. #1,2,3	compst., oil		5	01/87

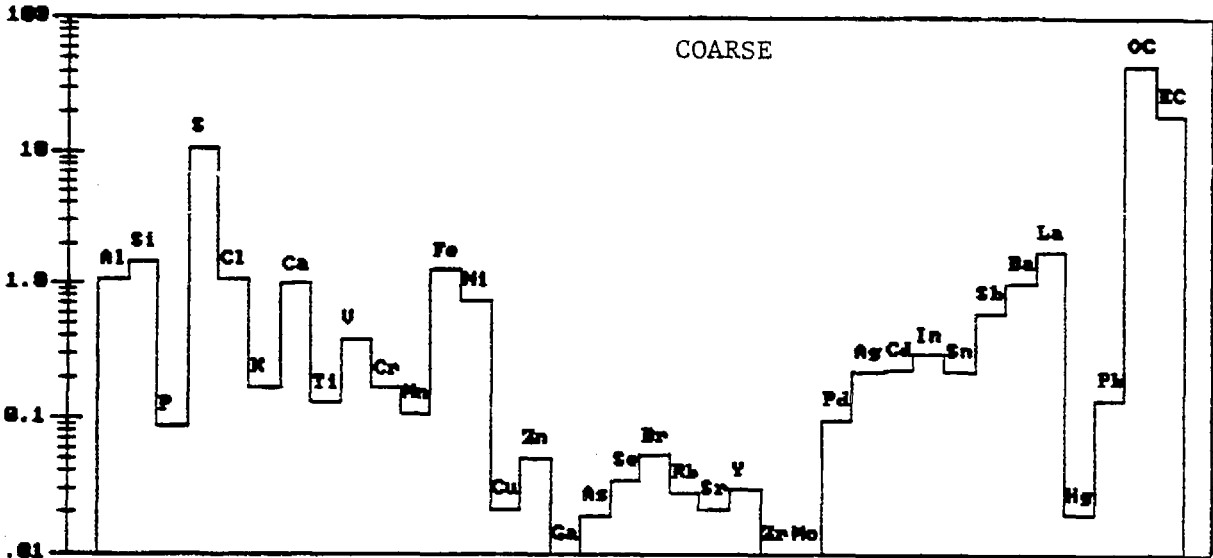
SPECIES	PERCENT COMPOSITION					
	FINE		COARSE		TOTAL	
Al	.0971 +- .1392	1.0629 +- .5940	.1550 +- .1356			
Si	.2627 +- .1521	1.4476 +- .4668	.3338 +- .1457			
P	.0255 +- .0315	.0866 +- .0906	.0292 +- .0301			
S	11.8576 +- 1.0710	10.7577 +- 3.2266	11.7916 +- 1.0252			
Cl	.1444 +- .1219	1.0562 +- .6291	.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

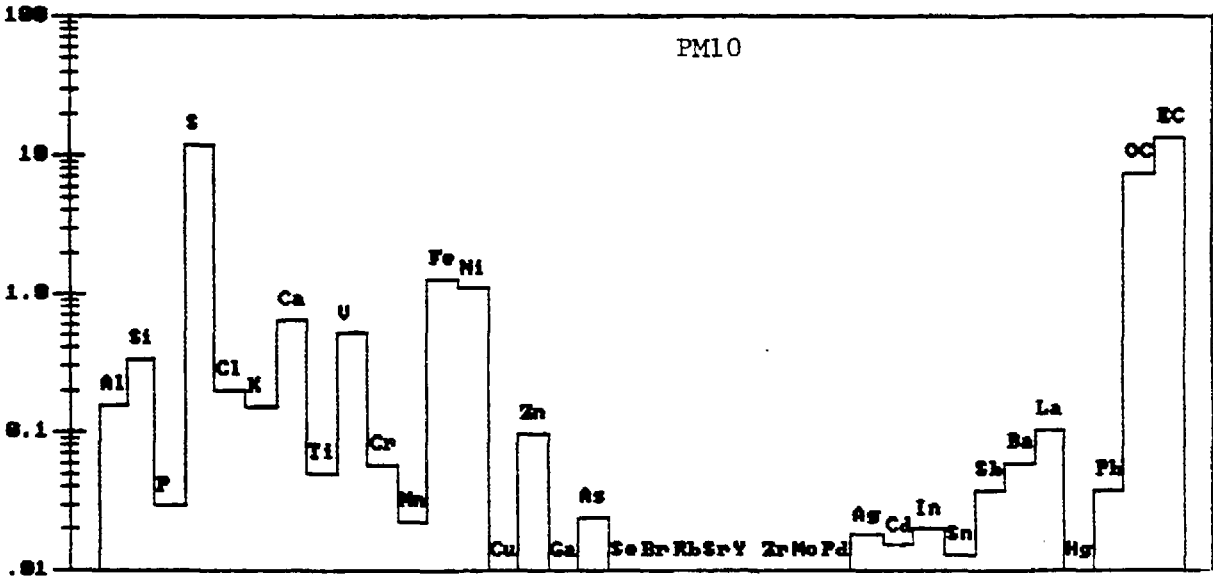
5334



5334



5334

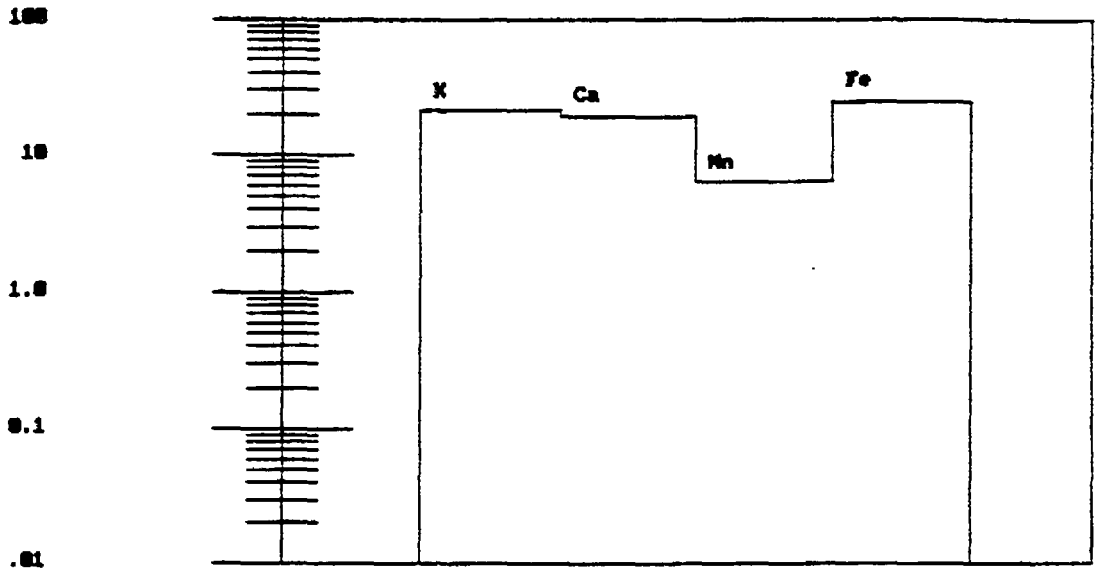


srce	part	revsion				
code	size	date	source	description	reference	date
5470	F	04/20/87	WELDING	APPROXIMATION U-MINE	19	02/73

SPECIES	P E R C E N T C O M P O S I T I O N		
	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

FINE 5478

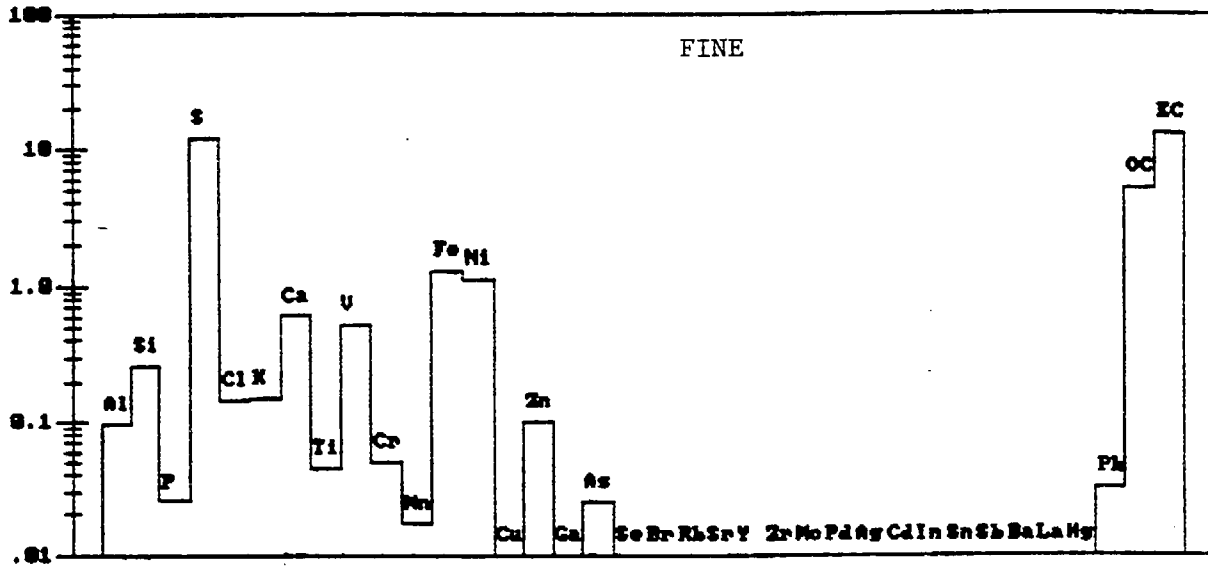


srce	part	revision	code	size	date	source description	reference	date
5334	FCT	12/26/86	SDGE	blrs. #1,2,3	compst., oil		5	01/87

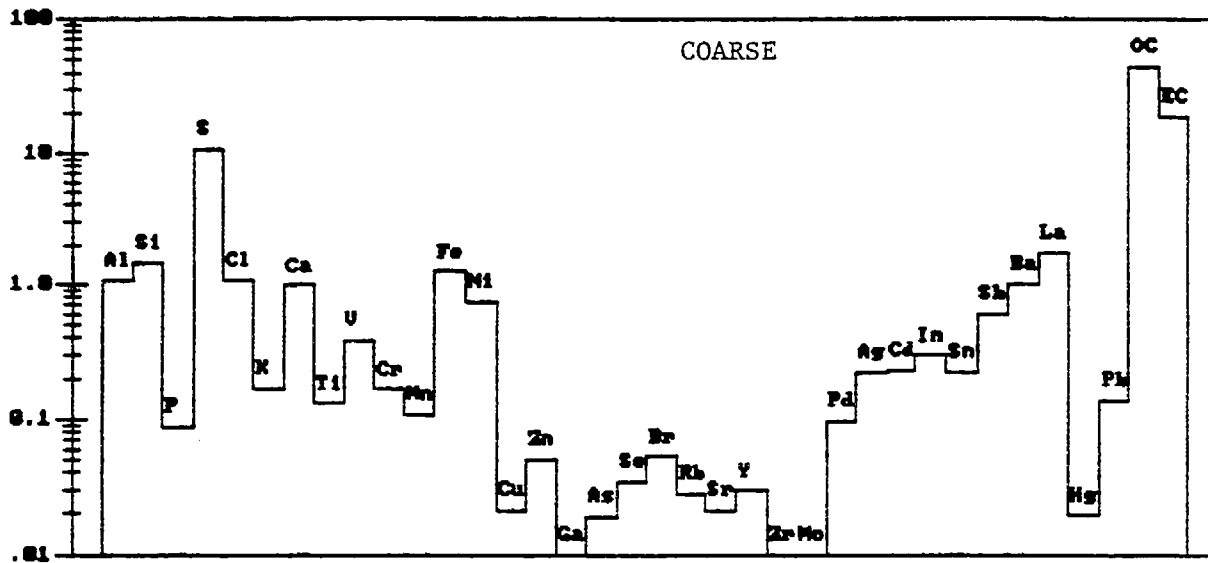
SPECIES	P E R C E N T C O M P O S I T I O N					
	FINE		COARSE		TOTAL	
Al	.0971 +- .1392	1.0629 +- .5940	.1550 +- .1356			
Si	.2627 +- .1521	1.4476 +- .4668	.3338 +- .1457			
P	.0255 +- .0315	.0866 +- .0906	.0292 +- .0301			
S	11.8576 +- 1.0710	10.7577 +- 3.2266	11.7916 +- 1.0252			
Cl	.1444 +- .1219	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

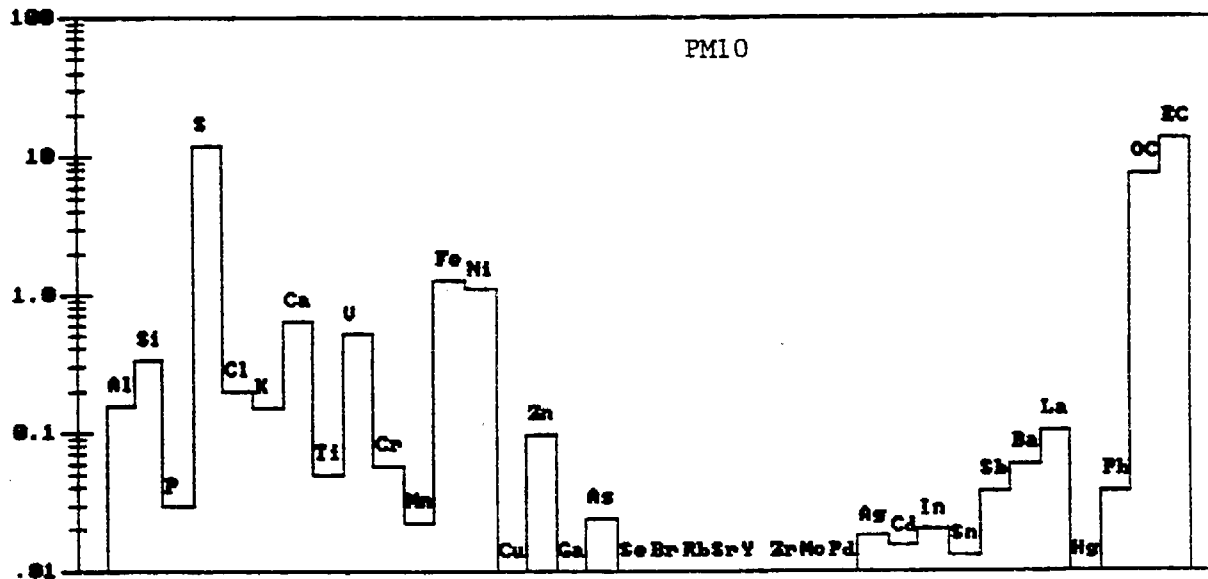
5334



5334



5334

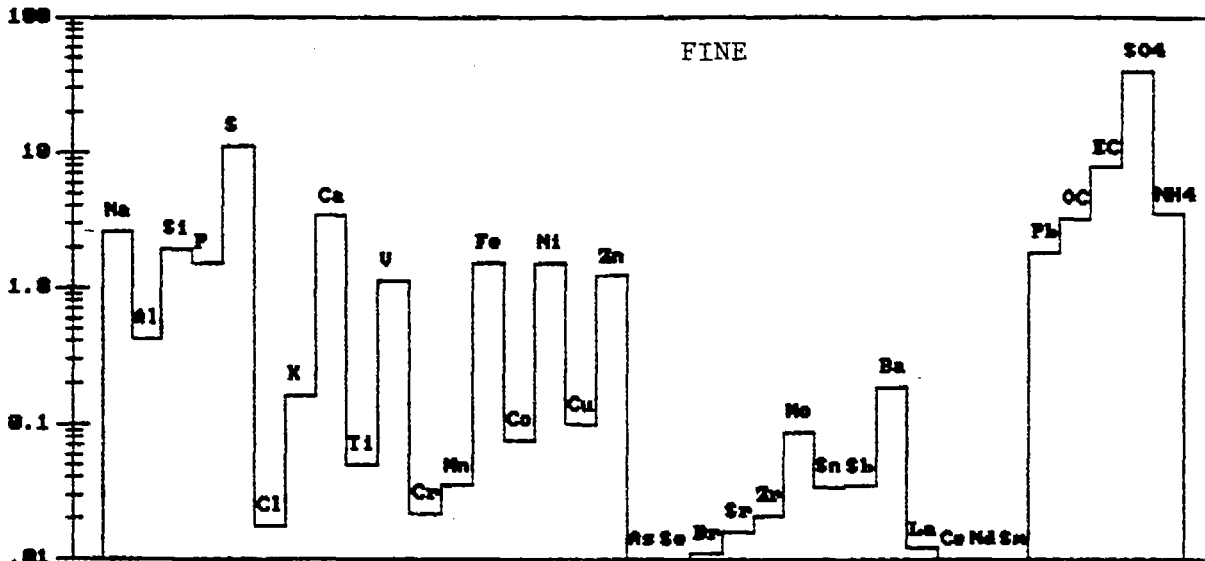


srce	part	revision	source description	reference	date
code	size	date			
5100	FCT	03/18/87	EDDYSTONE OIL-FIRED POWER PLNT	6	03/87

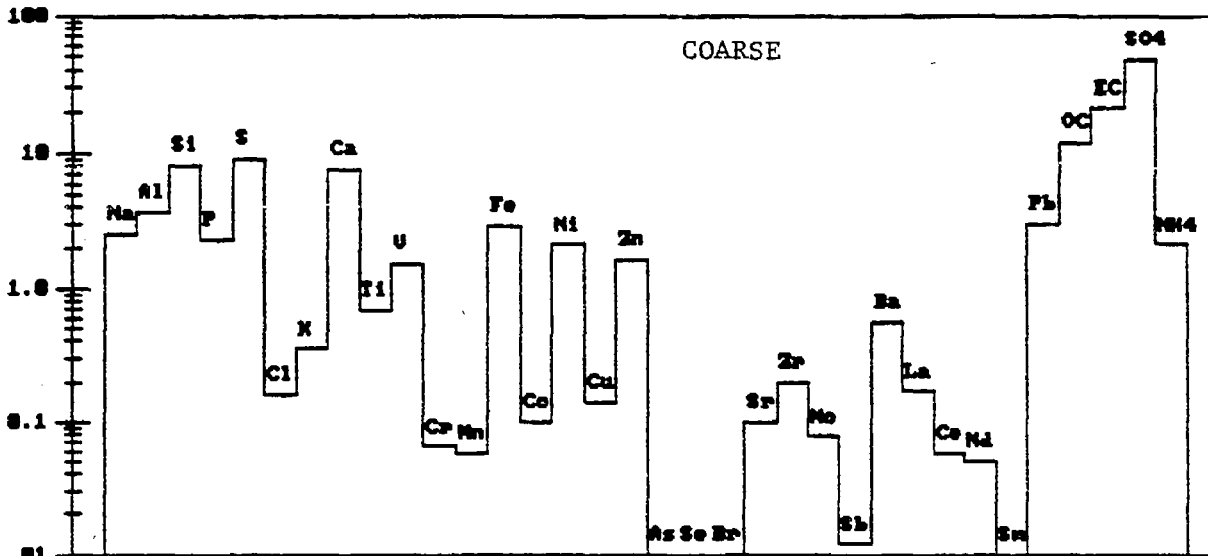
SPECIES	PERCENT COMPOSITION					
	FINE		COARSE		TOTAL	
Na	2.6000	+-.6000	2.5000	+-.1.1000	2.5944	+-.6672
Al	.4200	+-.0800	3.7000	+-.3000	.6022	+-.1039
Si	1.9000	+-.6000	8.2000	+-.1.5000	2.2500	+-.6367
P	1.5000	+-.4000	2.3000	+-.2000	1.5444	+-.4292
S	11.0000	+-.2.0000	9.0000	+-.1.0000	10.8889	+-.2.3891
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

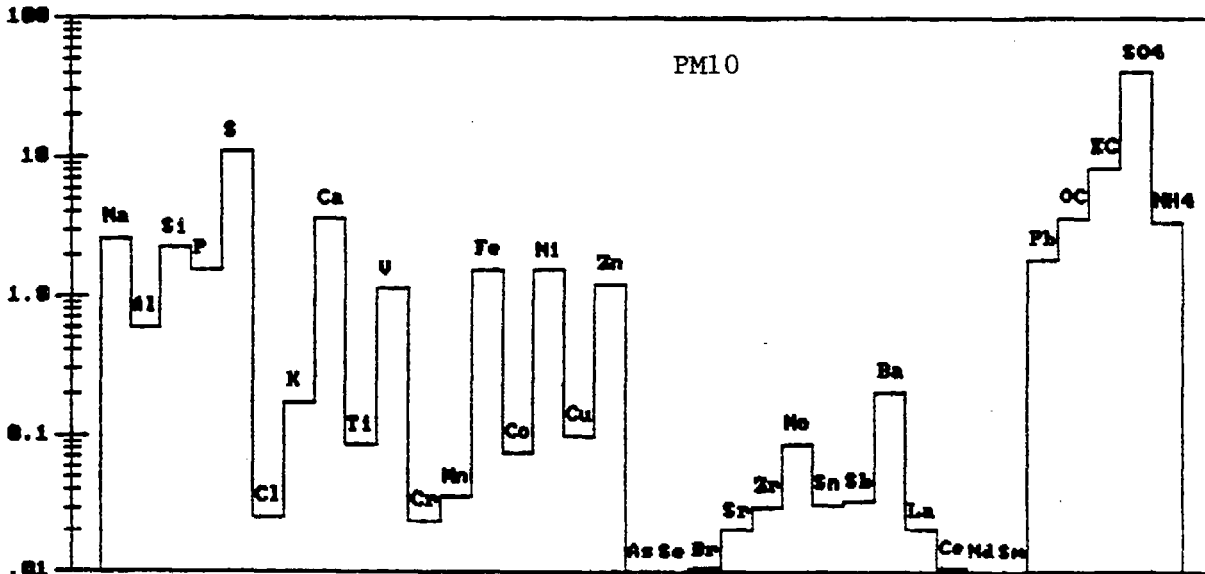
5100



5100



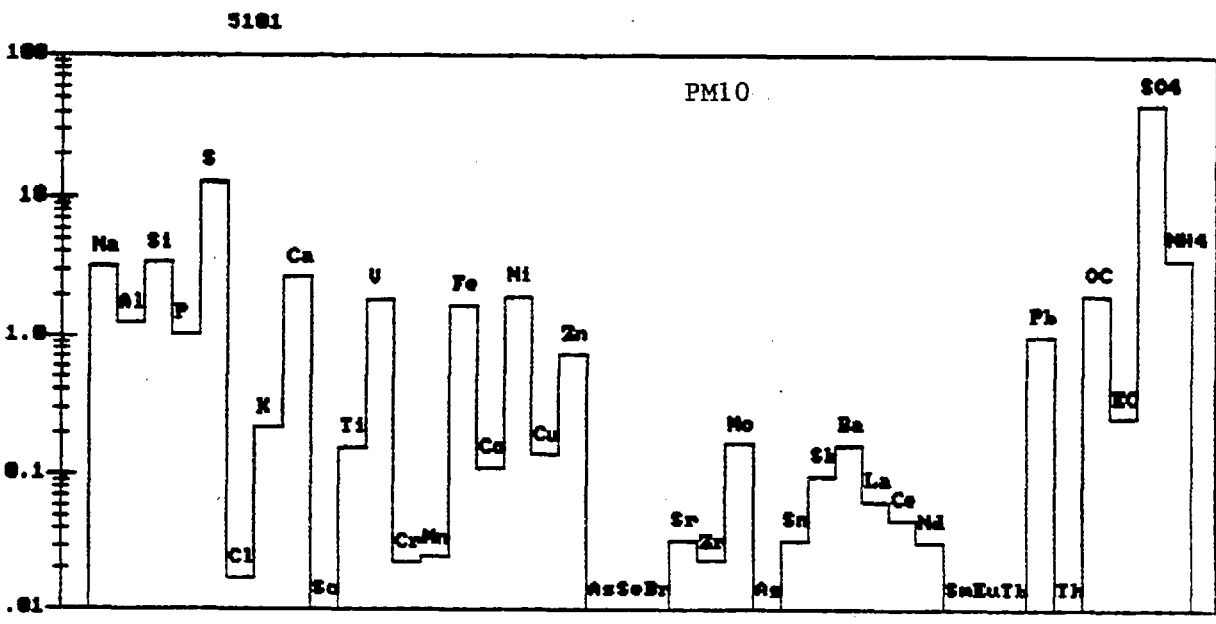
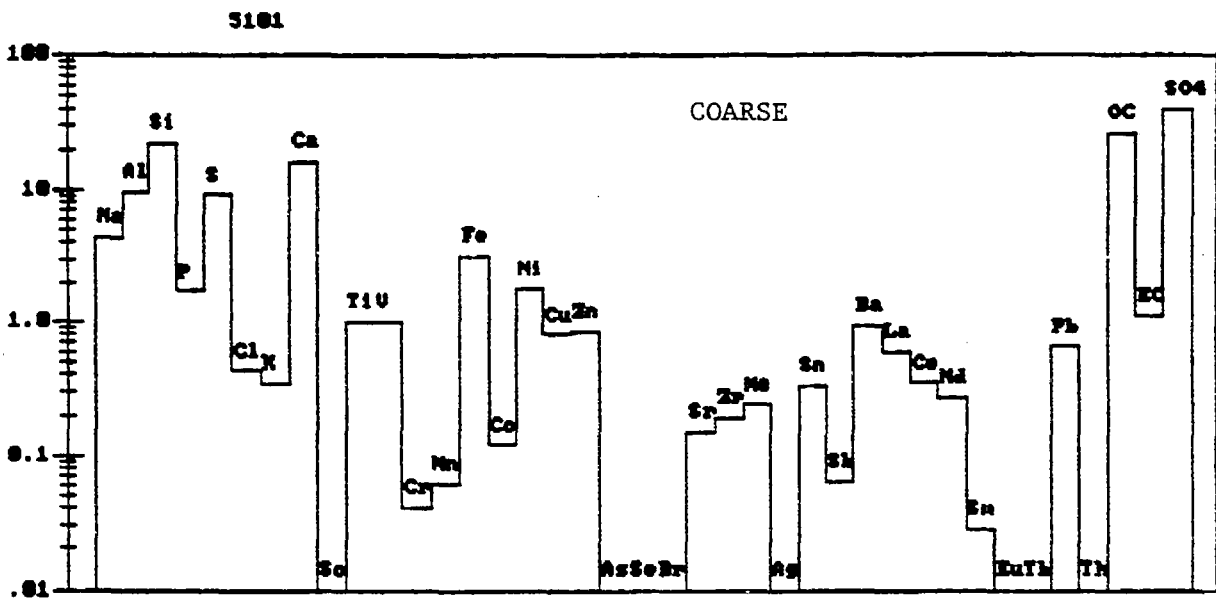
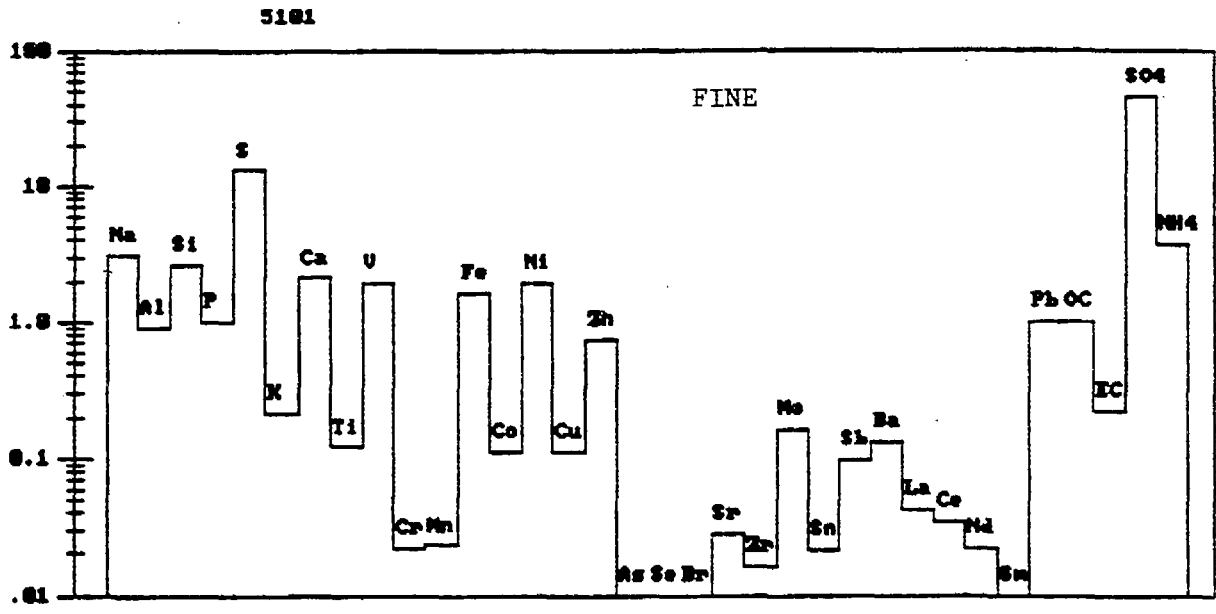
5100



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

SPECIES	P E R C E N T C O M P O S I T I O N					
	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

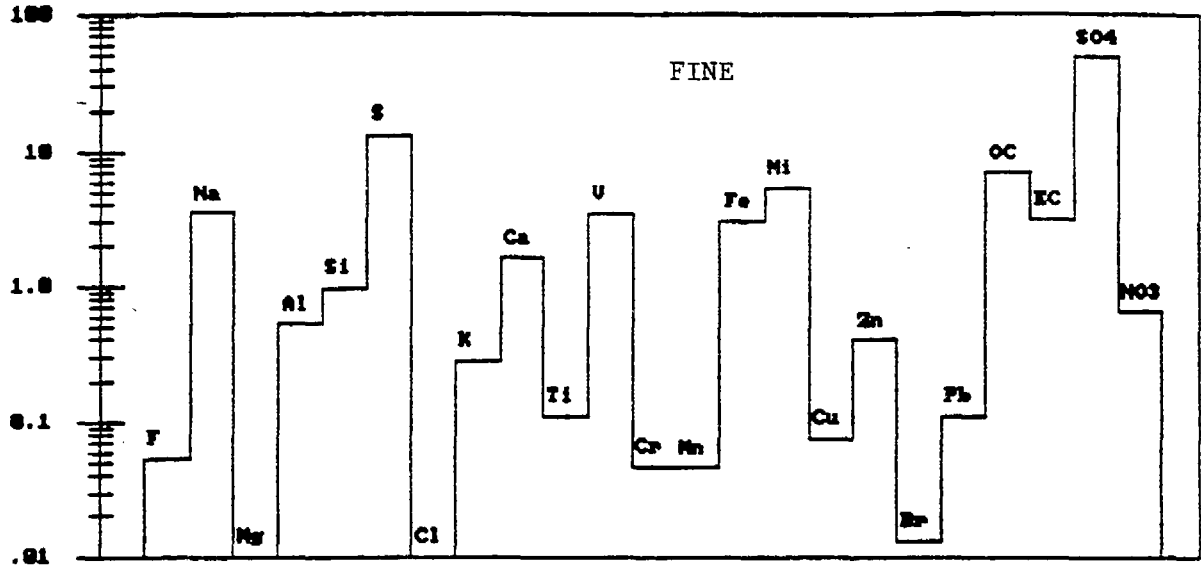


srce	part	revision	source description	reference	date
code	size	date			
5038	F	02/01/79	residual oil combustion	7	02/79

SPECIES	P E R C E N T C O M P O S I T I O N		
	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

5838

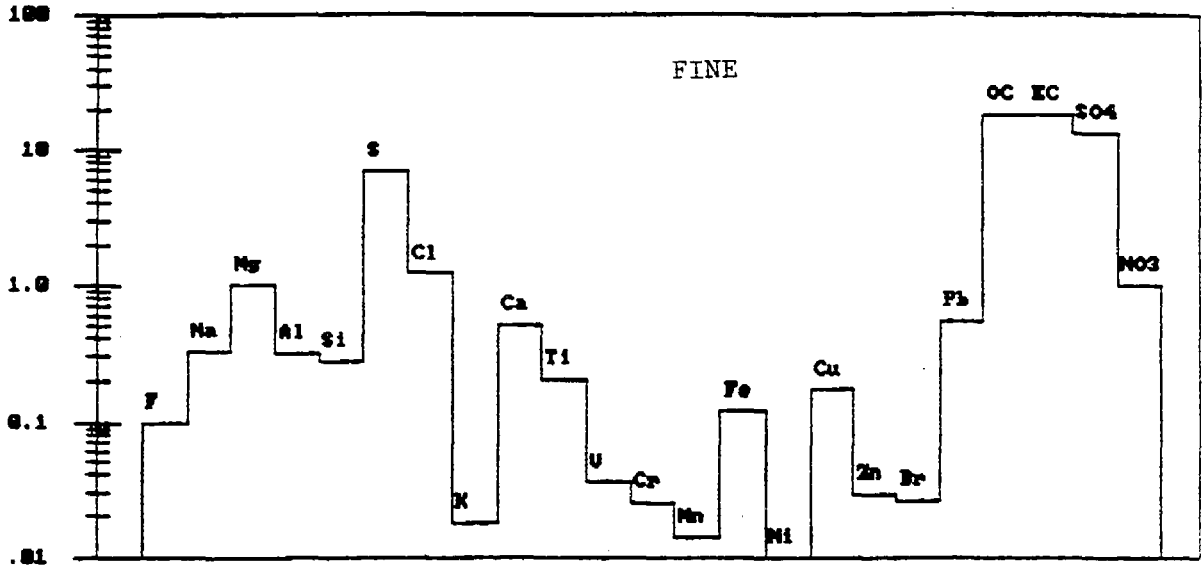


srce	part	revision	source description	reference	date
code	size	date			
5066	FCT	04/10/87	distillate oil combustion	7	09/83

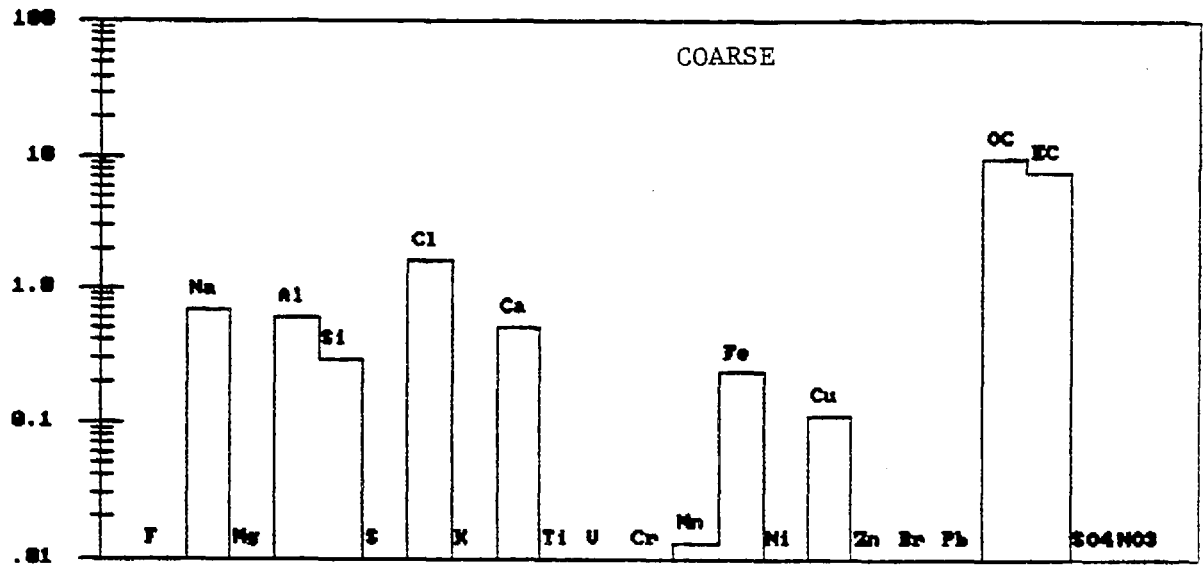
SPECIES	P E R C E N T C O M P O S I T I O N					
	FINE		COARSE		TOTAL	
F	.1000 +-	.1000	.0000 +-	.5000	.1600 +-	.1166
Na	.3200 +-	.2300	.6900 +-	1.1000	.4680 +-	.4611
Mg	1.0000 +-	1.0000	.0000 +-	3.0000	1.2000 +-	.8485
Al	.3100 +-	.2100	.5900 +-	.5900	.4220 +-	.2675
Si	.2700 +-	.3200	.2900 +-	.3800	.2780 +-	.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

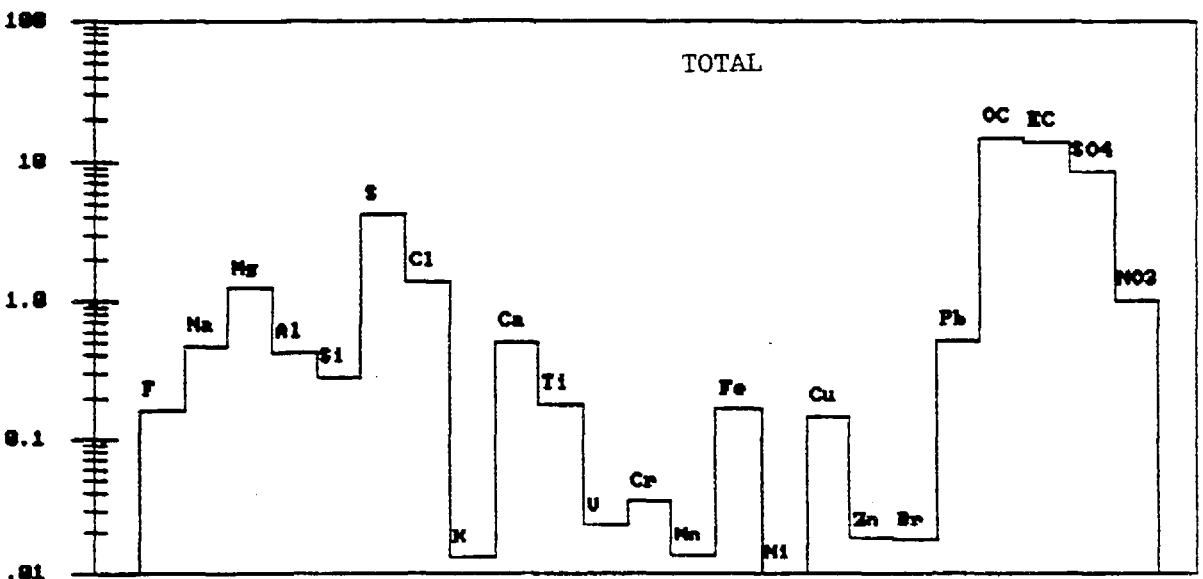
5866



5866



5866

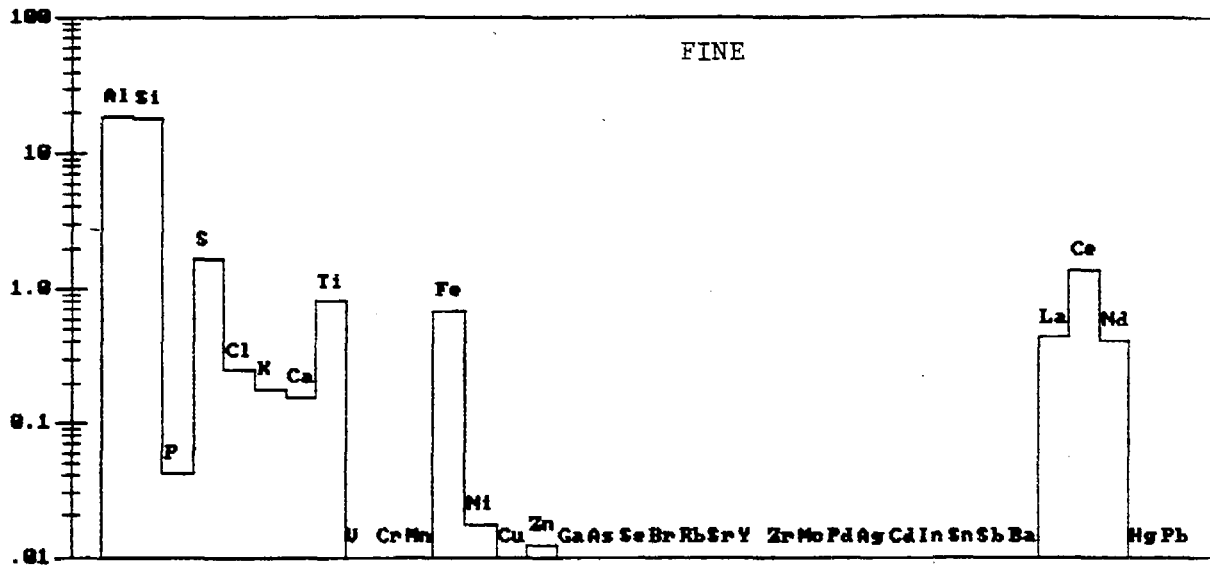


srce	part	revison	source description		reference	date
code	size	date				
5447	FCT	05/22/87	Catalytic Cracker	1987 SCAB	1	04/87

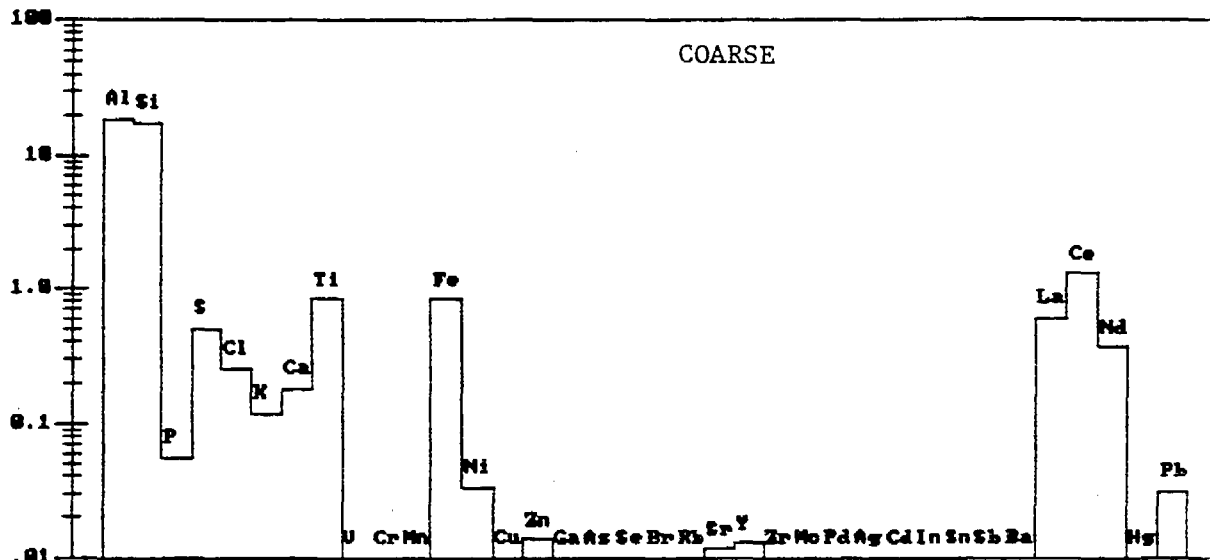
SPECIES	P E R C E N T C O M P O S I T I O N					
	FINE		COARSE		TOTAL	
	-----		-----		-----	
Al	18.3766 +- 2.4264		18.7612 +- 3.1536		18.4805 +- 2.6539	
Si	17.8451 +- 2.4791		17.3948 +- 2.8075		17.6277 +- 2.5690	
P	.0416 +- .0239		.0553 +- .0089		.0480 +- .0139	
S	1.6468 +- .3796		.5040 +- .0923		1.1886 +- .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

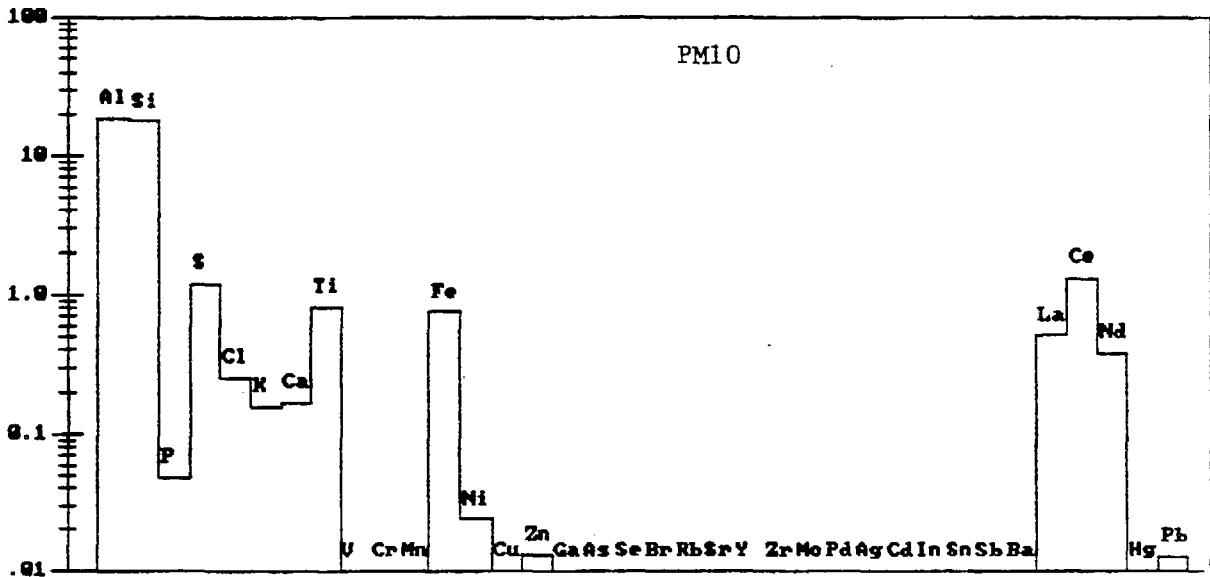
5447



5447



5447

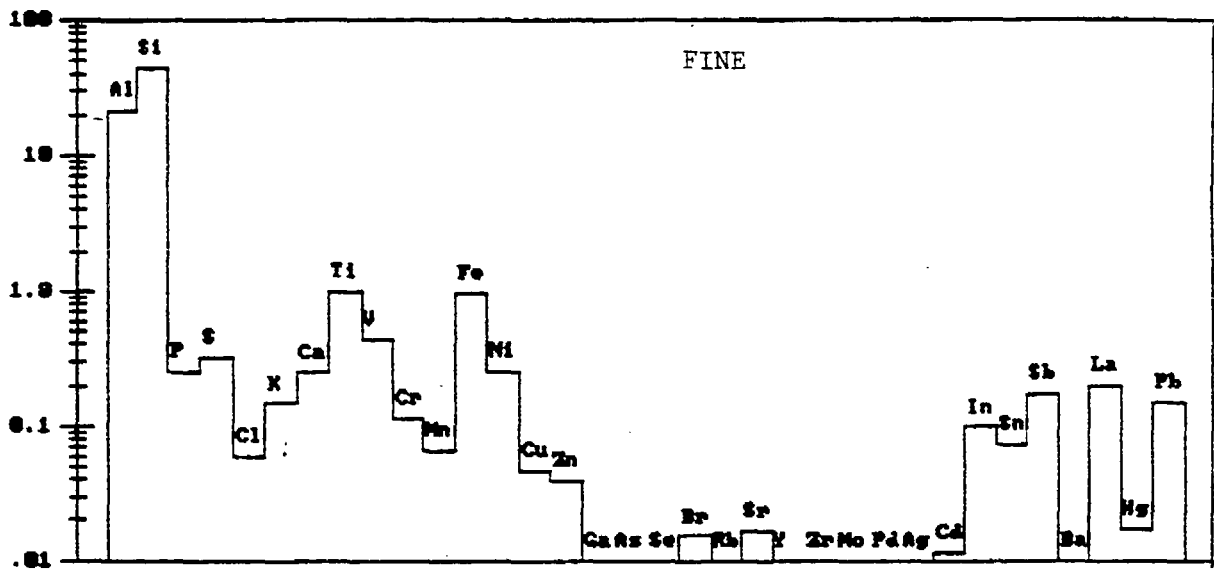


srce	part	revision	source description	reference	date
code	size	date			
5217	FC	03/01/85	cat. crckng. recycled catalyst	8	03/85

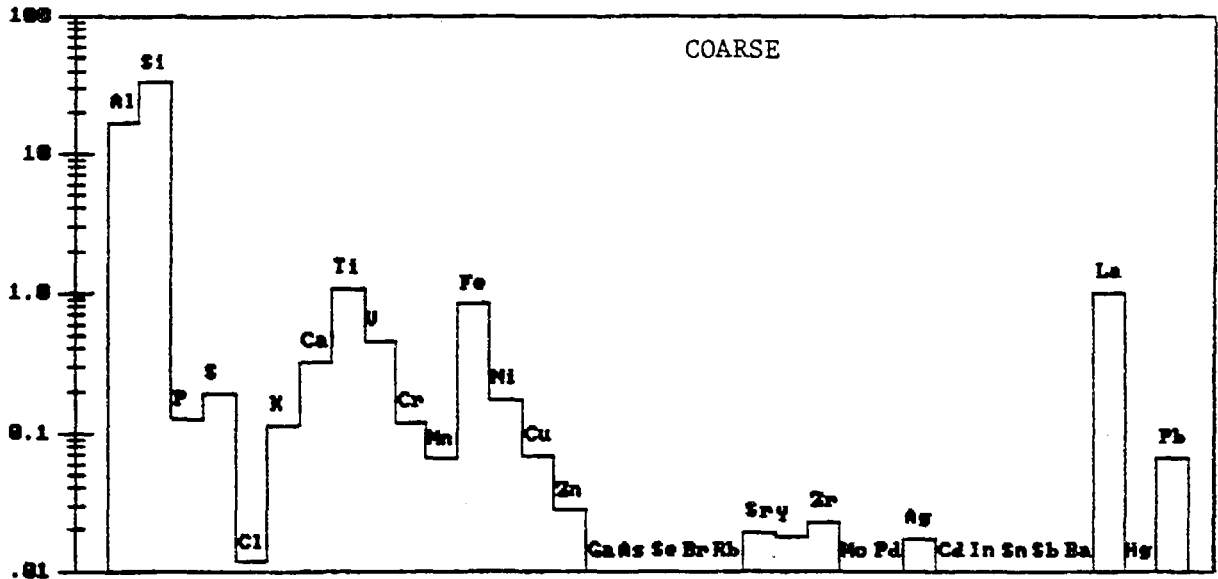
SPECIES	P E R C E N T C O M P O S I T I O N				
	FINE		COARSE		TOTAL
Al	21.4123 +- 2.1412	16.9110 +- 1.6911			
Si	43.4618 +- 4.3462	32.6519 +- 3.2652			
P	.2492 +- .0518	.1248 +- .0253			
S	.3239 +- .0774	.1917 +- .0259			
Cl	.0588 +- .0276	.0116 +- .0095			
K	.1475 +- .0216	.1151 +- .0115			
Ca	.2472 +- .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

5217



5217

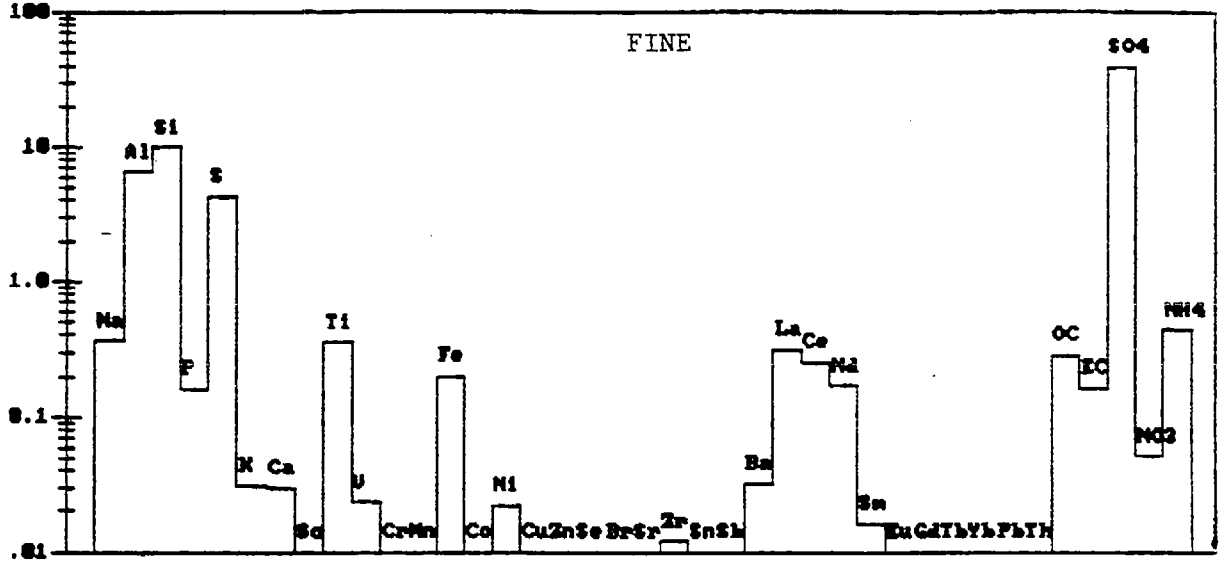


srce code	part size	revision date	source description	reference	date
5387	FCT	03/19/87	Catalytic Cracker, Phil. 1984	6	03/87

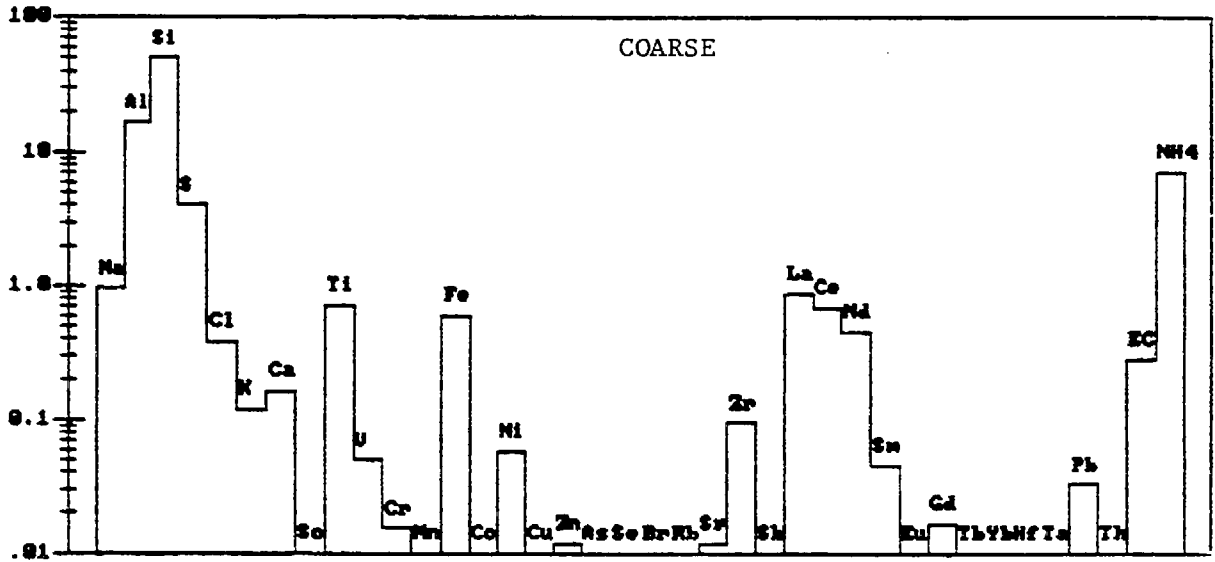
SPECIES	P E R C E N T C O M P O S I T I O N					
	FINE		COARSE		TOTAL	
Na	.3600	+- .0400	.9440	+- .1180	.3839	+- .0636
Al	6.5000	+- 1.1000	16.5200	+- 2.3600	6.9107	+- 1.3964
Si	9.8000	+- 1.3000	49.5600	+- 2.9500	11.4295	+- 1.9115
P	.1600	+- .0300			.1534	+- .0358
S	4.2000	+- .5000	4.0120	+- 1.8290	4.1923	+- .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

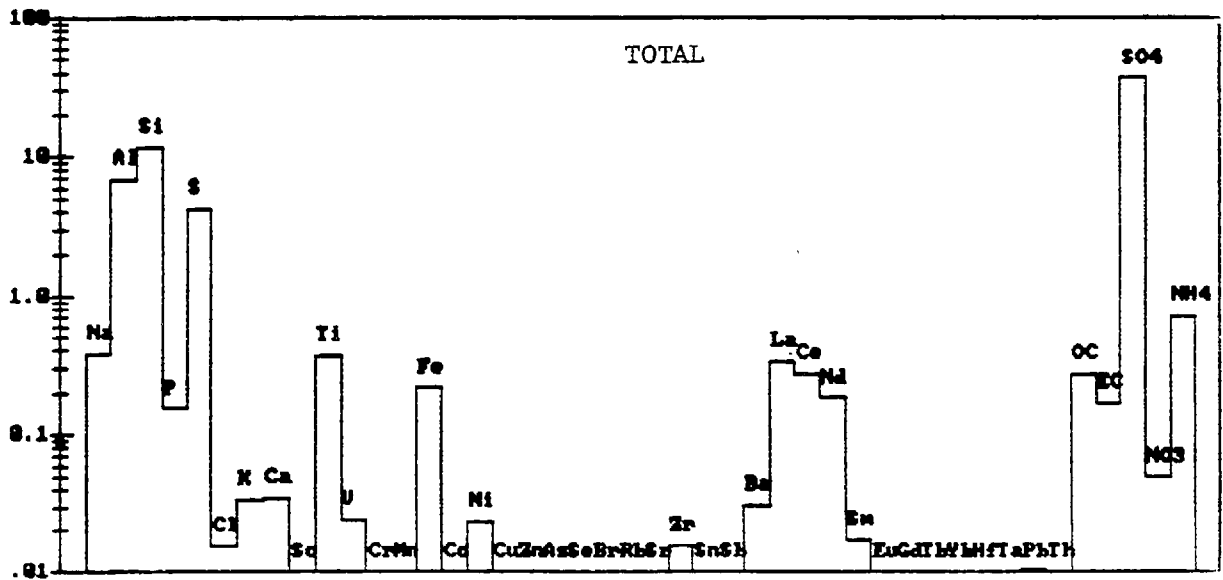
5387



5387



5387

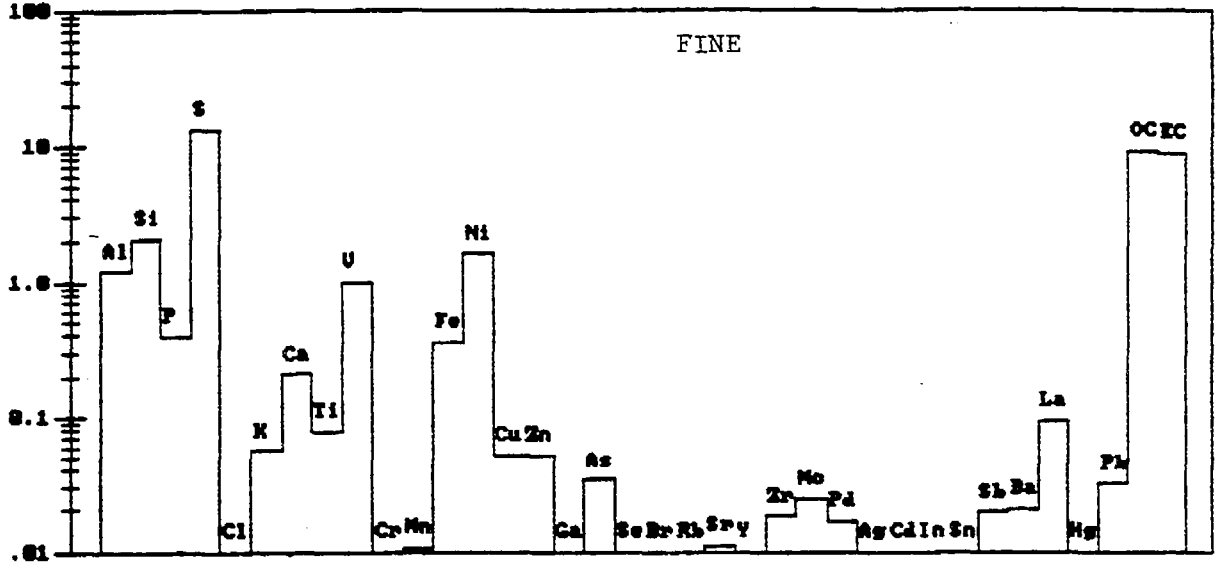


srce	part	revison	source description	reference	date
code	size	date			
5221	FCT	03/01/85	oil boiler, Cubatao, T<15	8	03/85

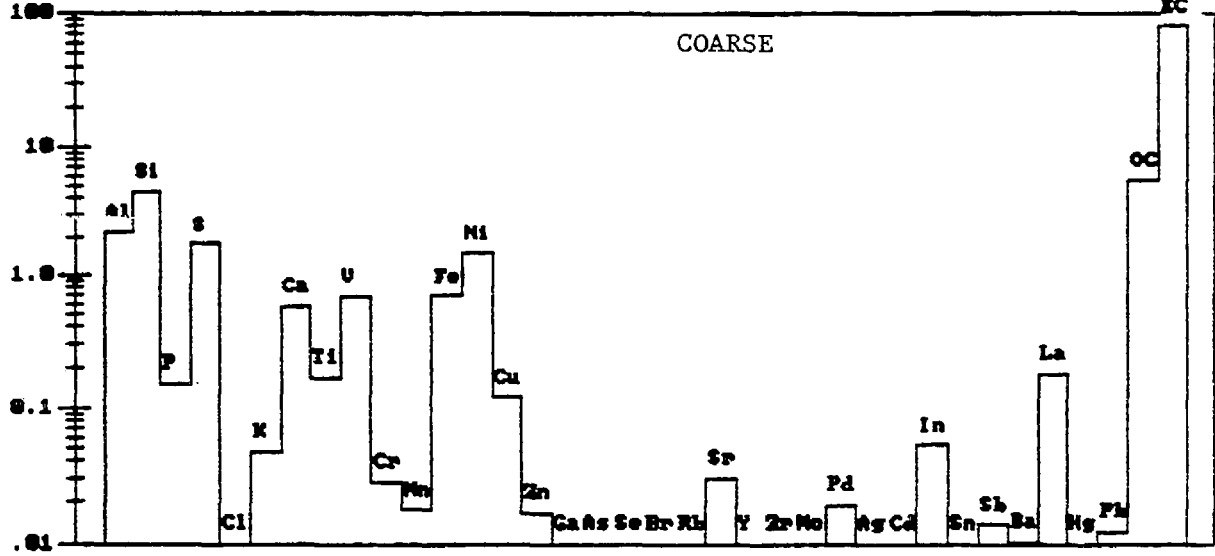
SPECIES	P E R C E N T C O M P O S I T I O N					
	FINE		COARSE		TOTAL	
Al	1.2032 +- .1203	2.2167 +- .2217	1.5408 +- .1541			
Si	2.0768 +- .2077	4.5053 +- .4505	2.8789 +- .2879			
P	.3980 +- .0726	.1506 +- .0502	.3158 +- .0651			
S	13.0736 +- 1.3074	1.7611 +- .2798	9.3213 +- .9321			
Cl	.0000 +- .0557	.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

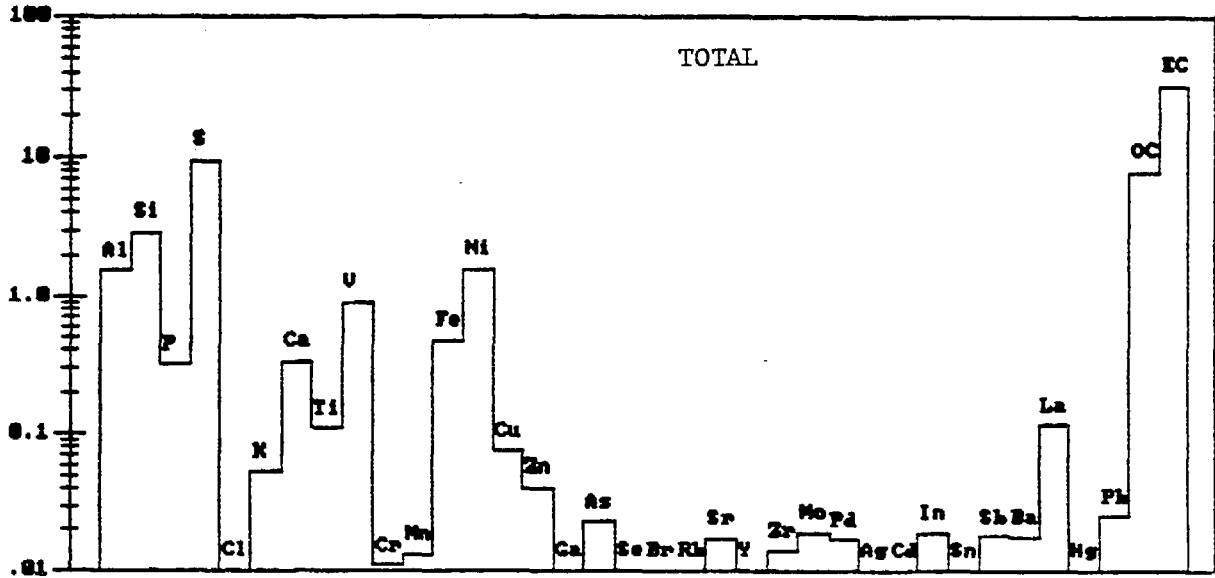
5221



5221



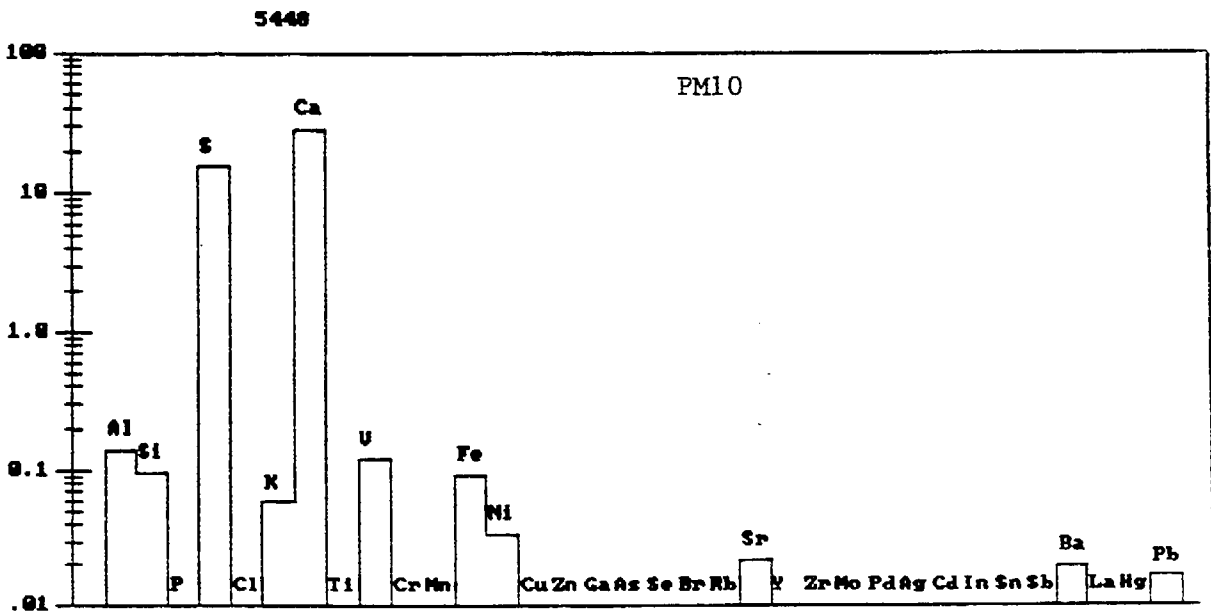
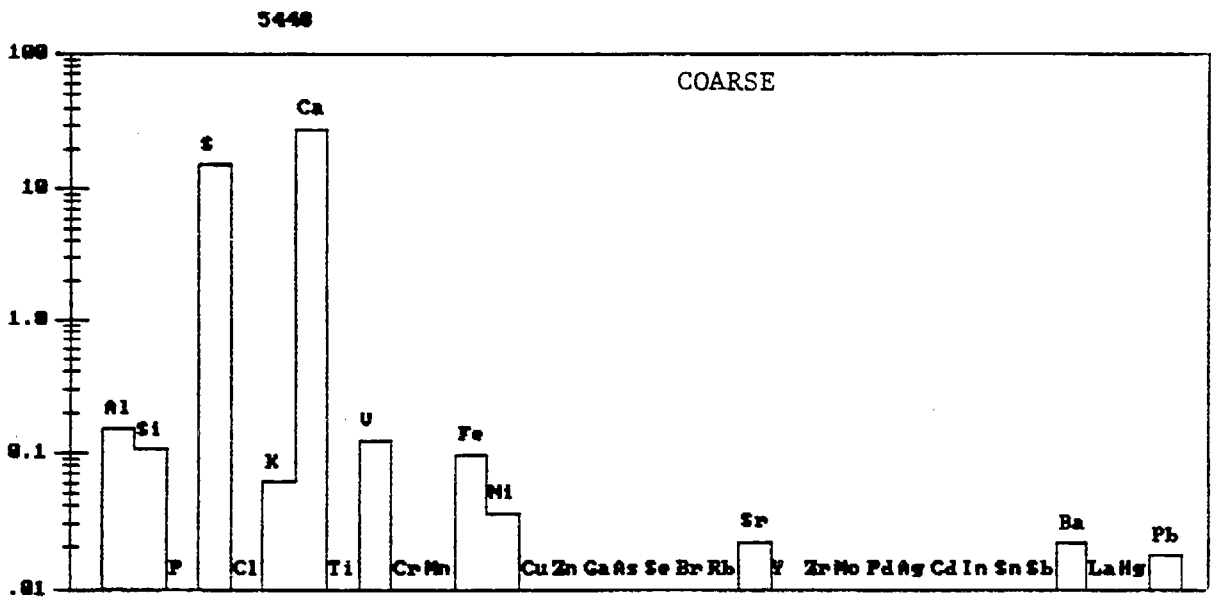
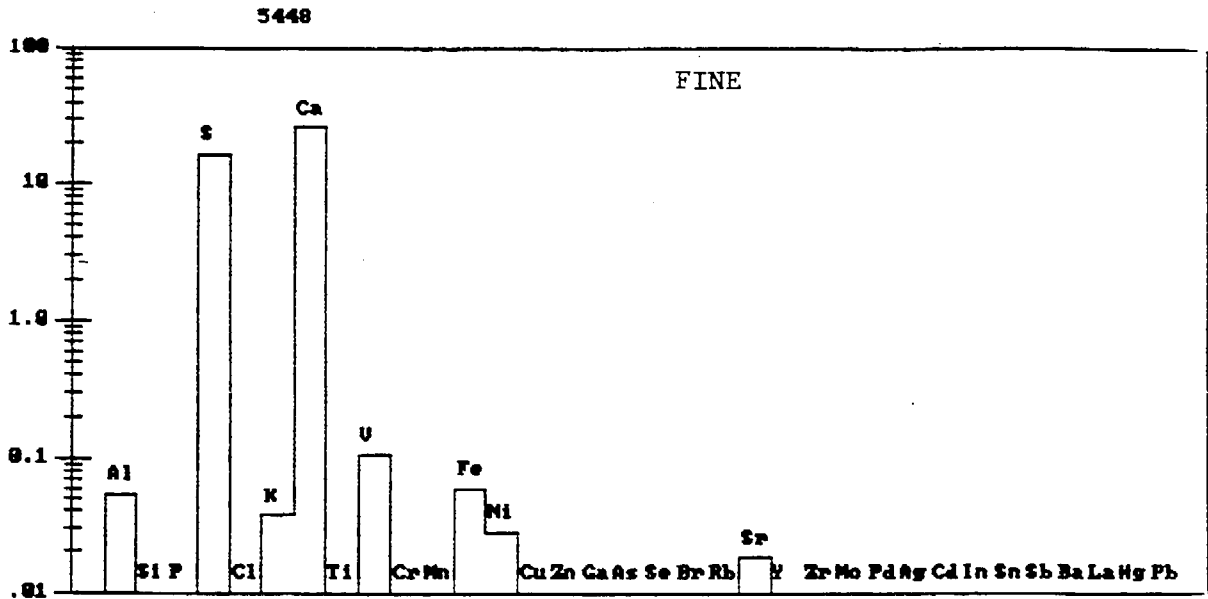
5221



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

SPECIES	P E R C E N T C O M P O S I T I O N					
	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

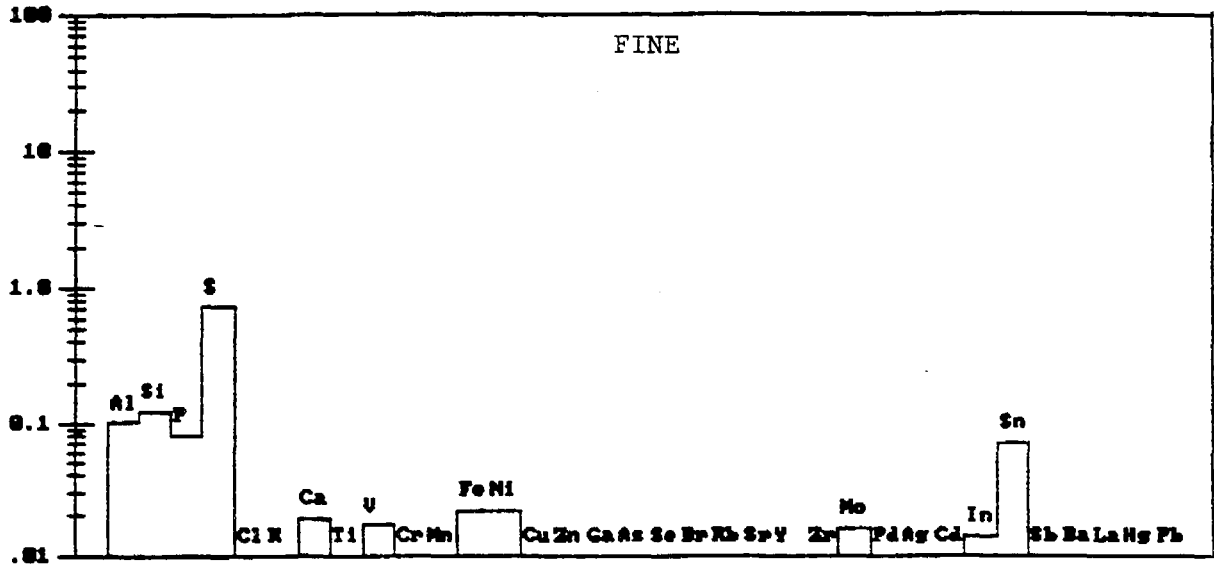


srce	part	revision	source description	reference	date
code	size	date			
523I	FCT	03/19/87	green coke dust, raw material	8	03/85

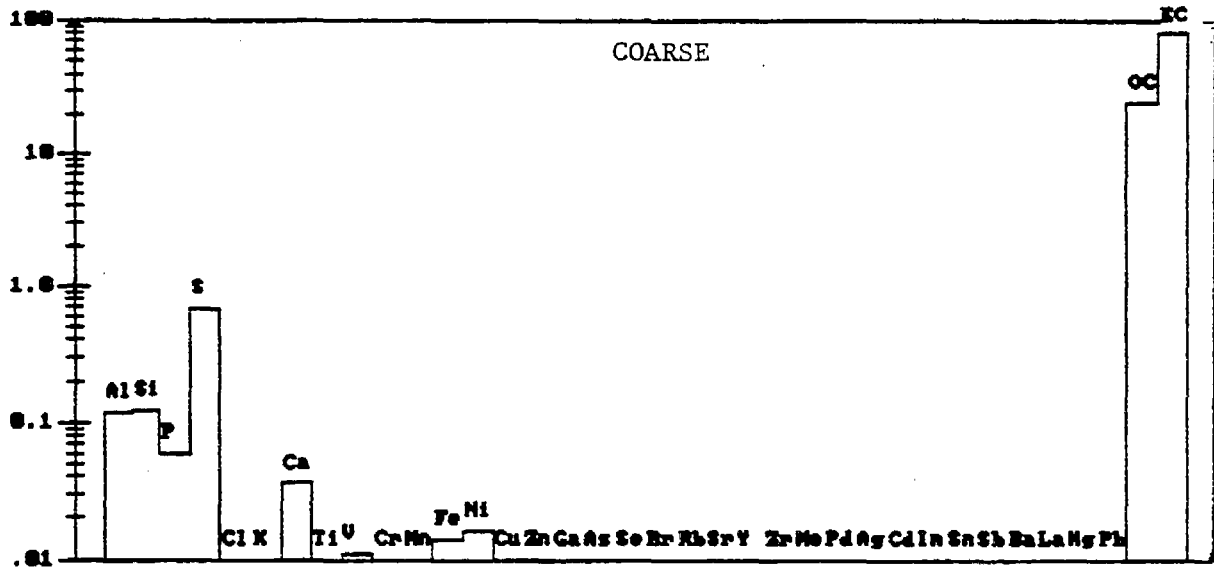
SPECIES	P E R C E N T C O M P O S I T I O N								
	FINE		COARSE		TOTAL				
Al	.1010	+-	.0150	.1190	+-	.0119	.1134	+-	.0105
Si	.1230	+-	.0123	.1220	+-	.0122	.1223	+-	.0107
P	.0800	+-	.0170	.0590	+-	.0120	.0655	+-	.0103
S	.7230	+-	.0723	.6870	+-	.0687	.6982	+-	.0610
Cl	.0010	+-	.0110	.0000	+-	.0070	.0003	+-	.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

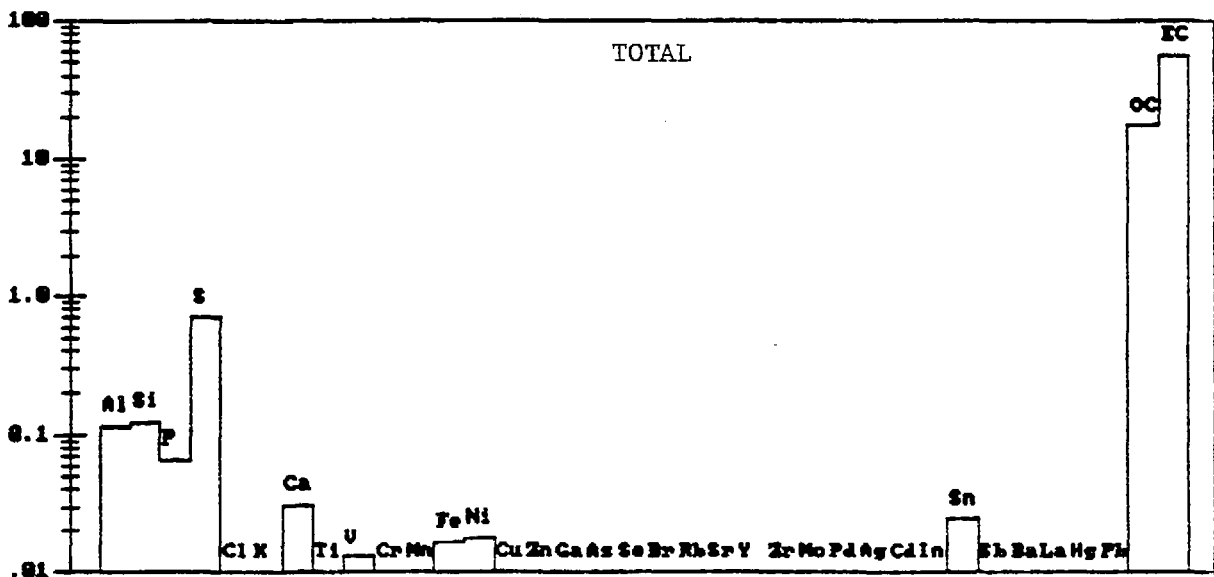
5231



5231



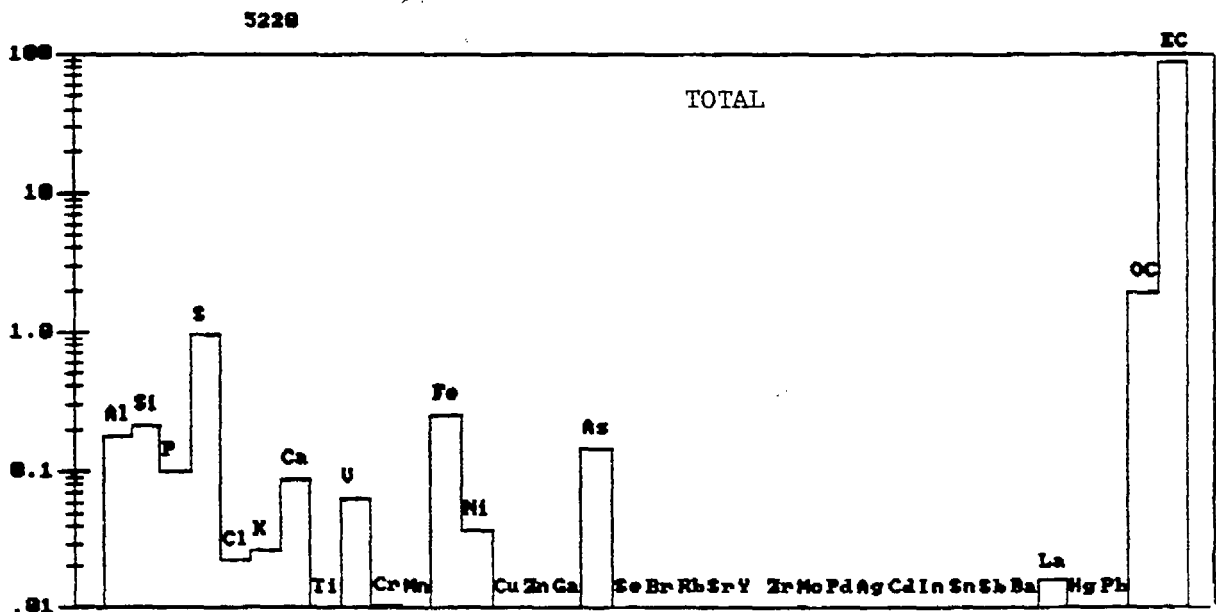
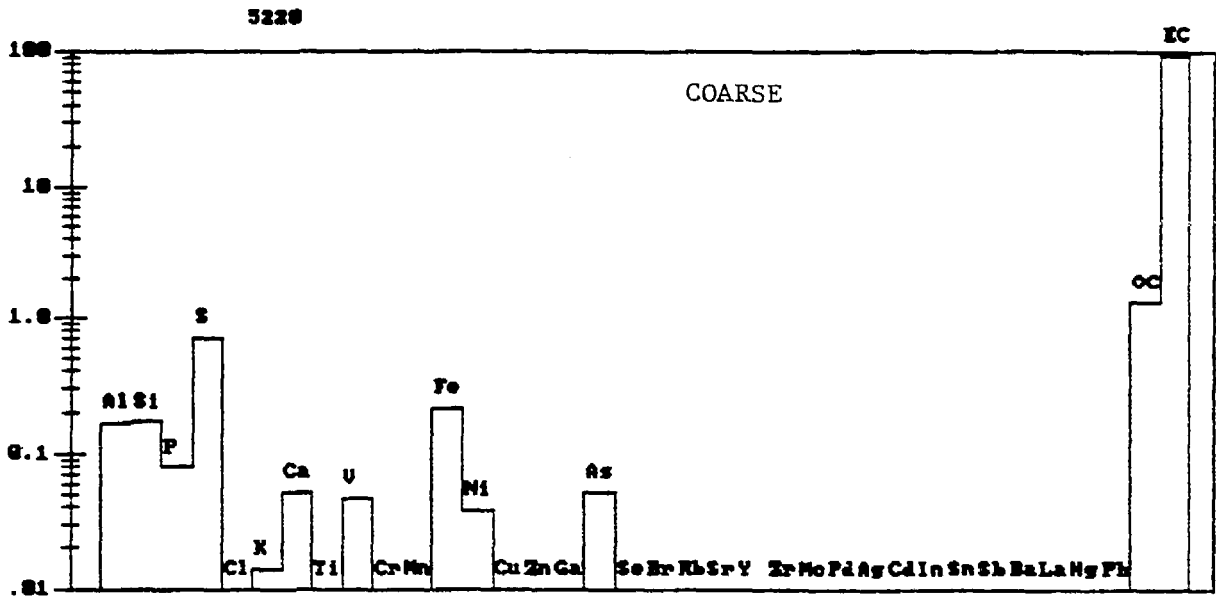
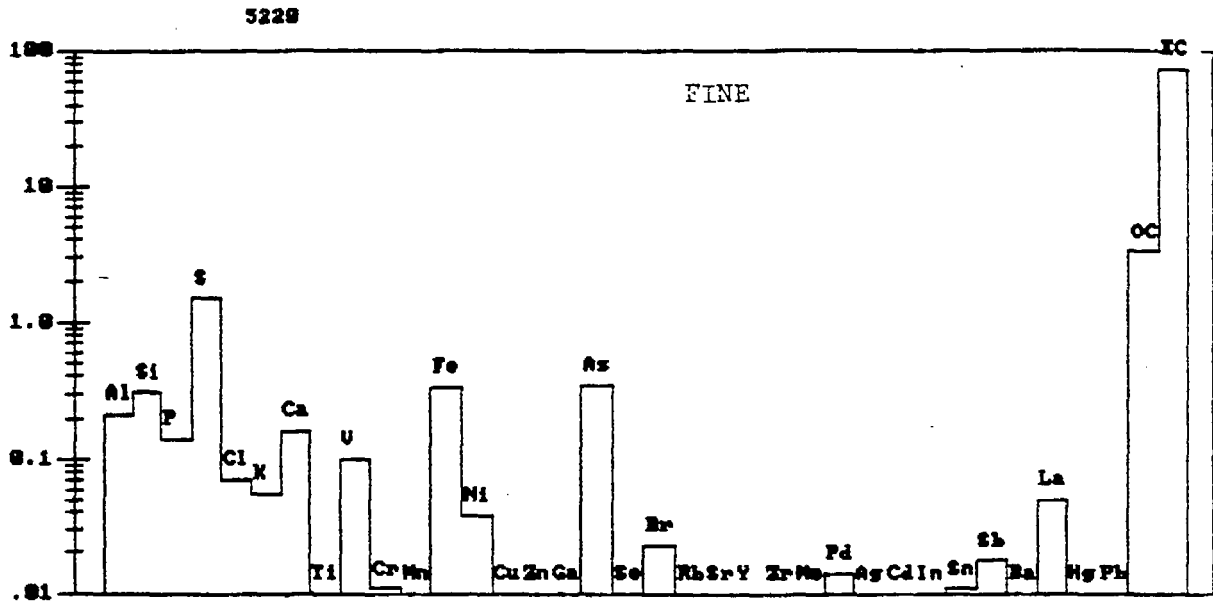
5231



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

SPECIES	P E R C E N T C O M P O S I T I O N					
	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





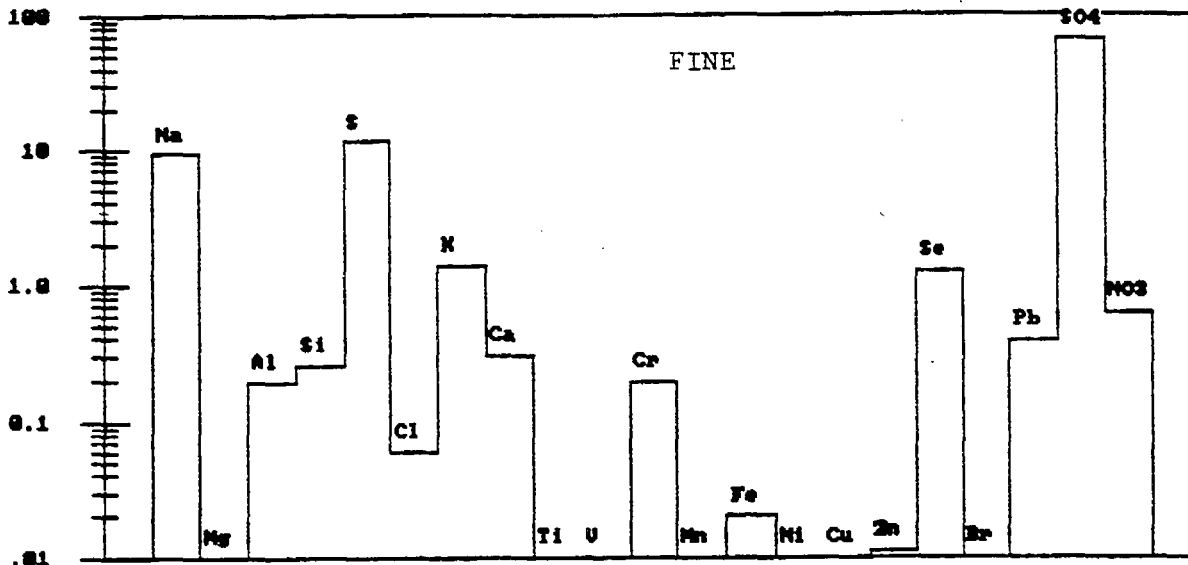


srce	part	revision	source description	reference	date
code	size	date			
5029	FCT	03/18/87	glass furnace	7	02/79

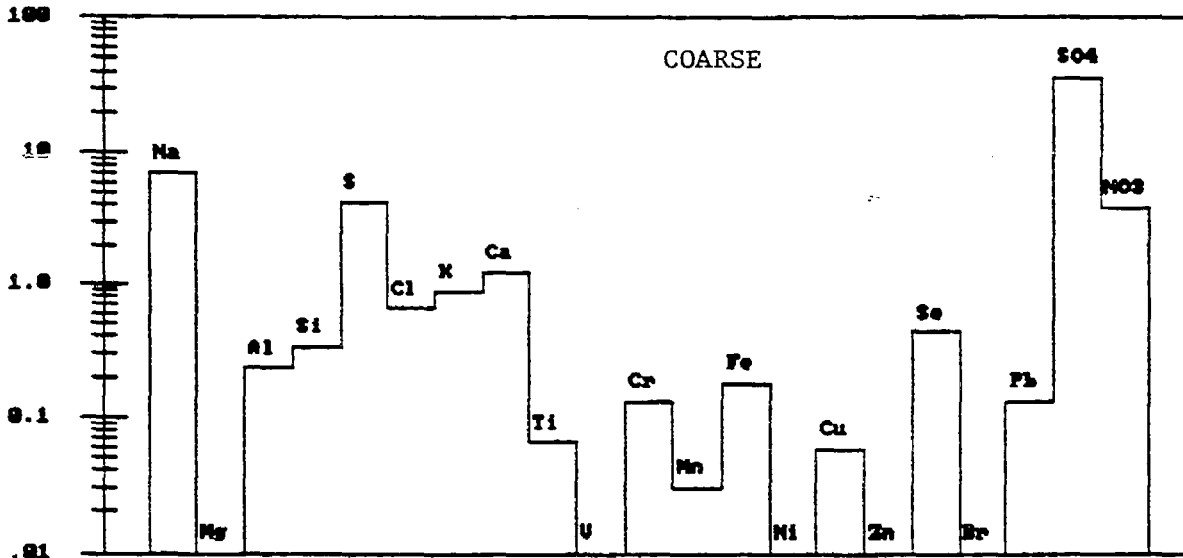
SPECIES	P E R C E N T C O M P O S I T I O N		
	FINE	COARSE	TOTAL
Na	9.2000 +- 1.0000	6.9500 +- 2.6200	9.0393 +- 1.5270
Mg	.0000 +- 1.0000	.0000 +- 2.0000	.0000 +- .9395
Al	.1900 +- .0140	.2300 +- .0230	.1929 +- .0283
Si	.2500 +- .0700	.3300 +- .2900	.2557 +- .0759
S	11.3000 +- 2.3000	4.2000 +- 3.7000	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

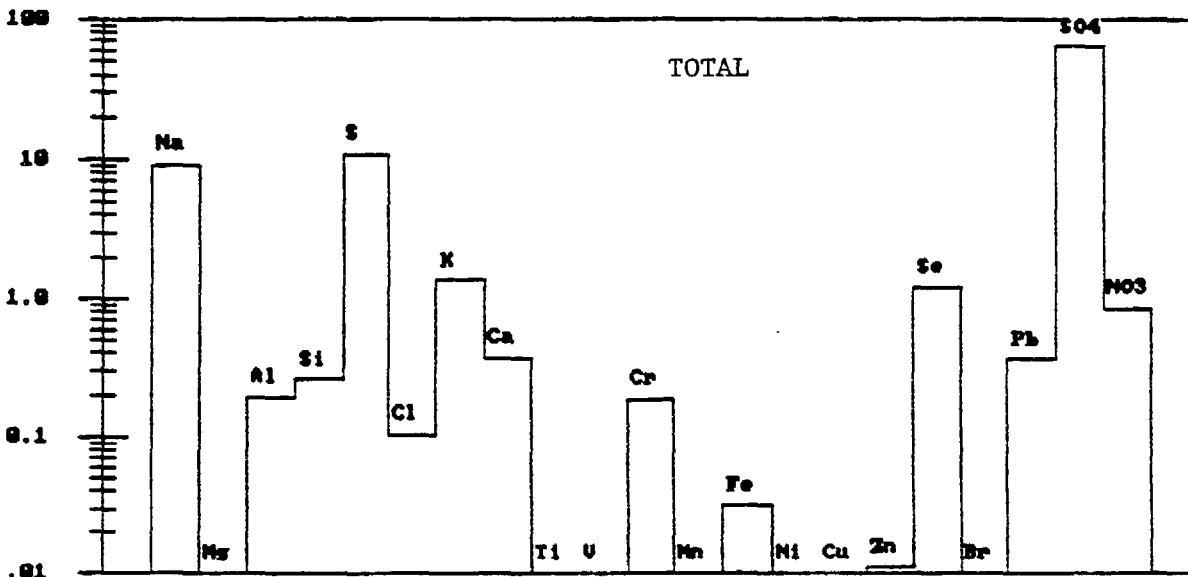
5829



5829



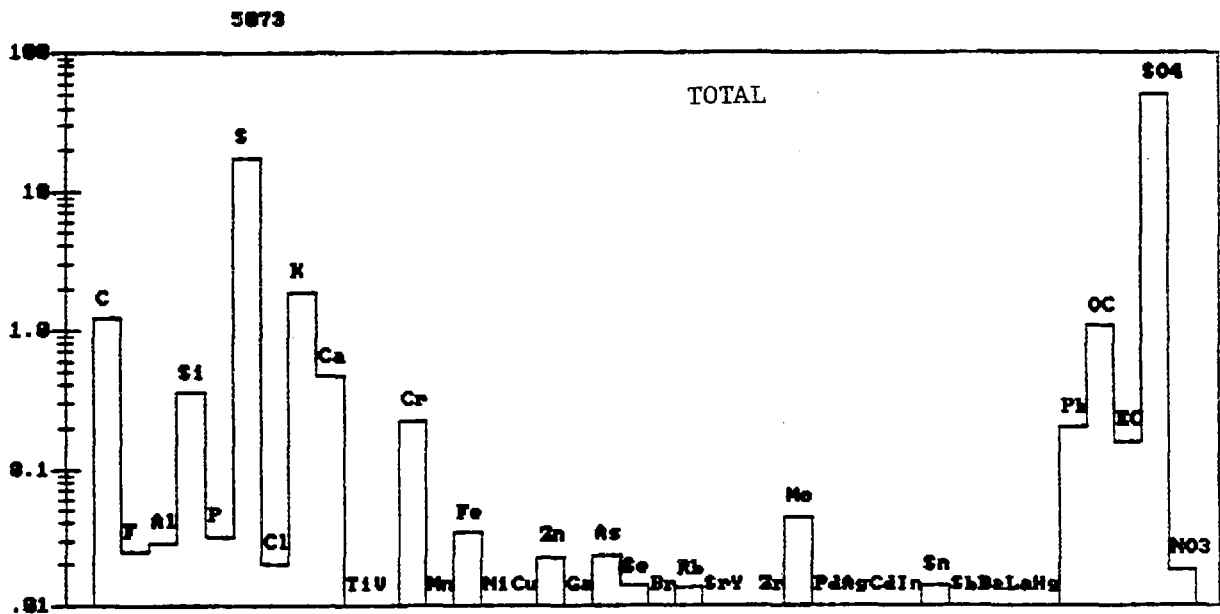
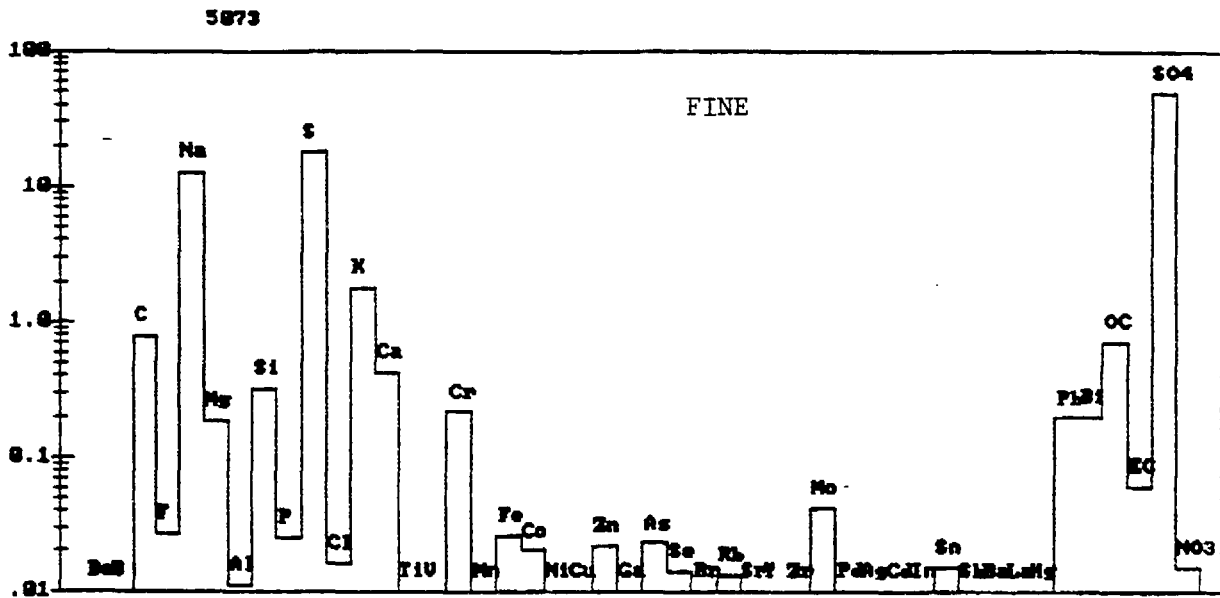
5829



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

SPECIES	P E R C E N T		C O M P O S I T I O N	
	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

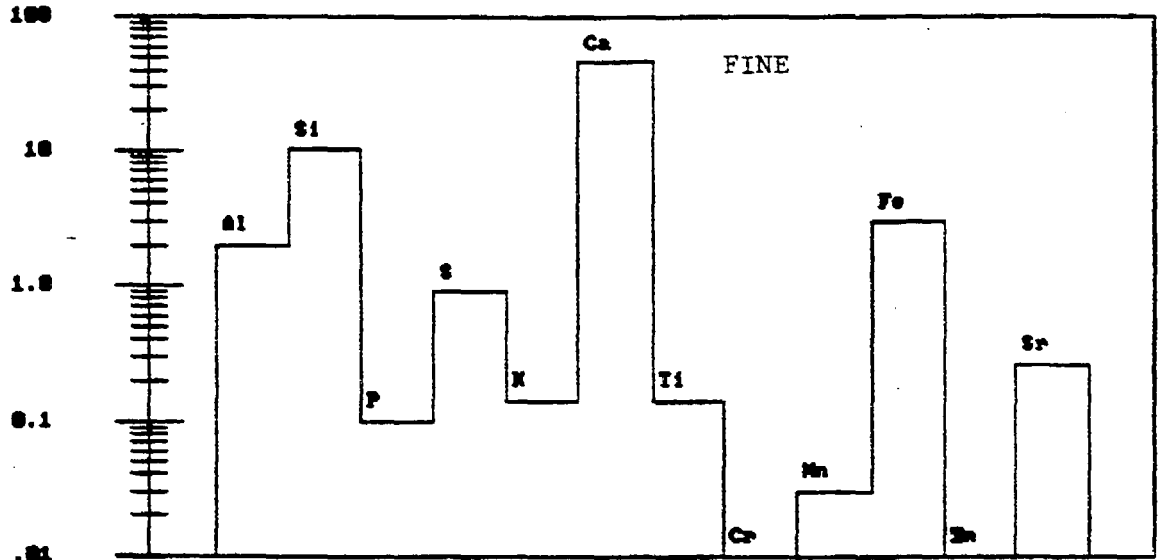


srce	part	revision				
code	size	date	source	description	reference	date
5074	FCT	03/19/87	NBS	cement dust (SRM 633)	NBS catalog	02/84

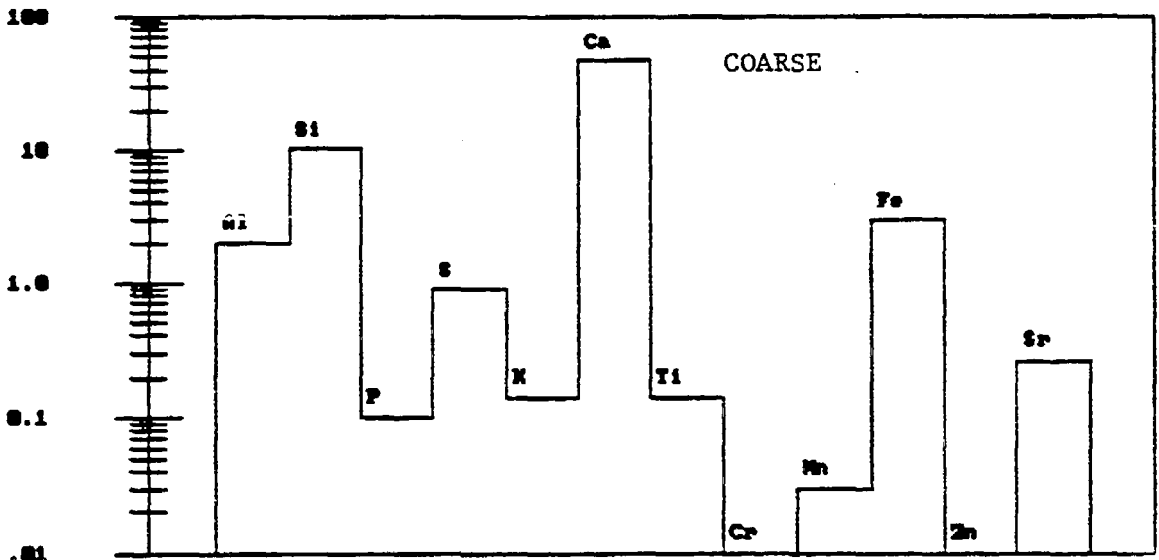
SPECIES	P E R C E N T C O M P O S I T I O N					
	FINE		COARSE		TOTAL	
Al	2.0000	+- .4000	2.0000	+- .4000	2.0000	+- .4000
Si	10.2000	+- 2.0000	10.2000	+- 2.0000	10.2000	+- 2.0000
P	.1000	+- .0200	.1000	+- .0200	.1000	+- .0200
S	.8800	+- .1700	.8800	+- .1700	.8800	+- .1700
K	.1400	+- .0280	.1400	+- .0280	.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)

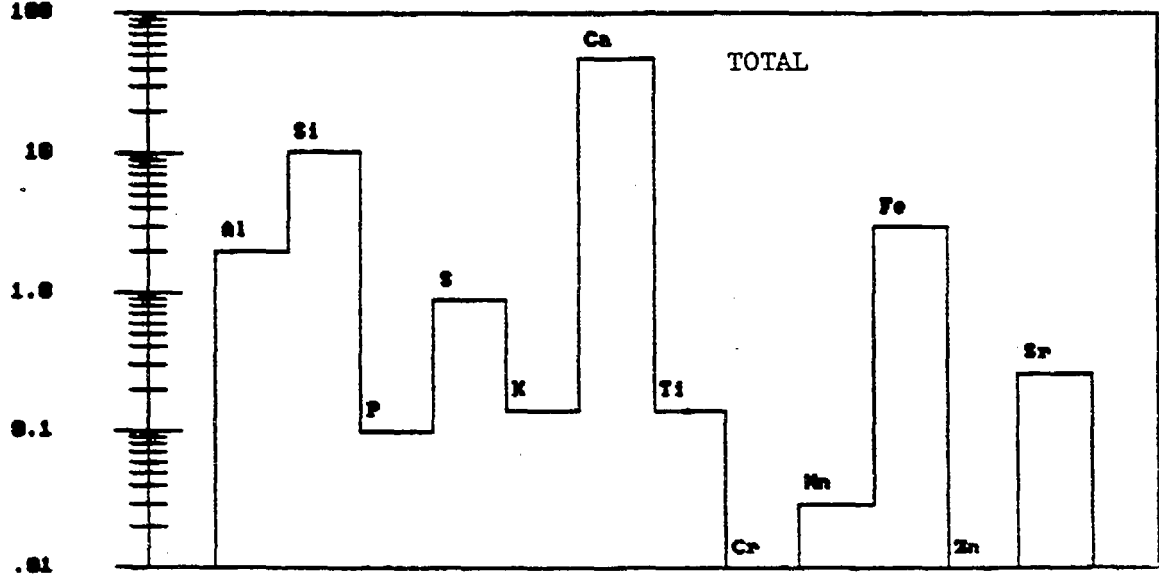
5874



5874



5874

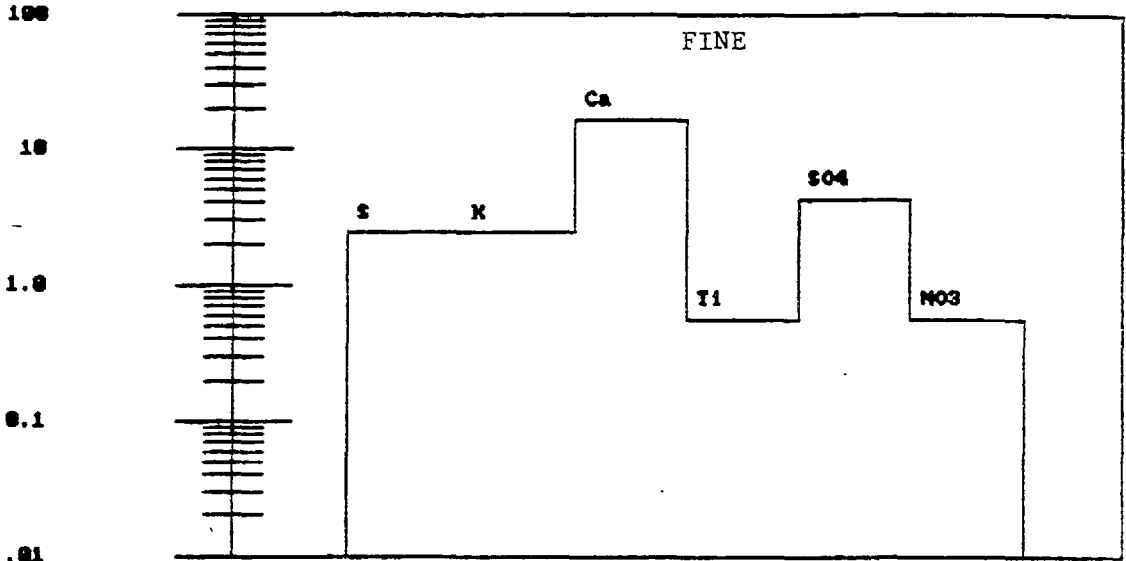


srce	part	revision	source description	reference	date
code	size	date			
5394	FCT	03/19/87	Portland Cement Kilm (gas)	9	00/79

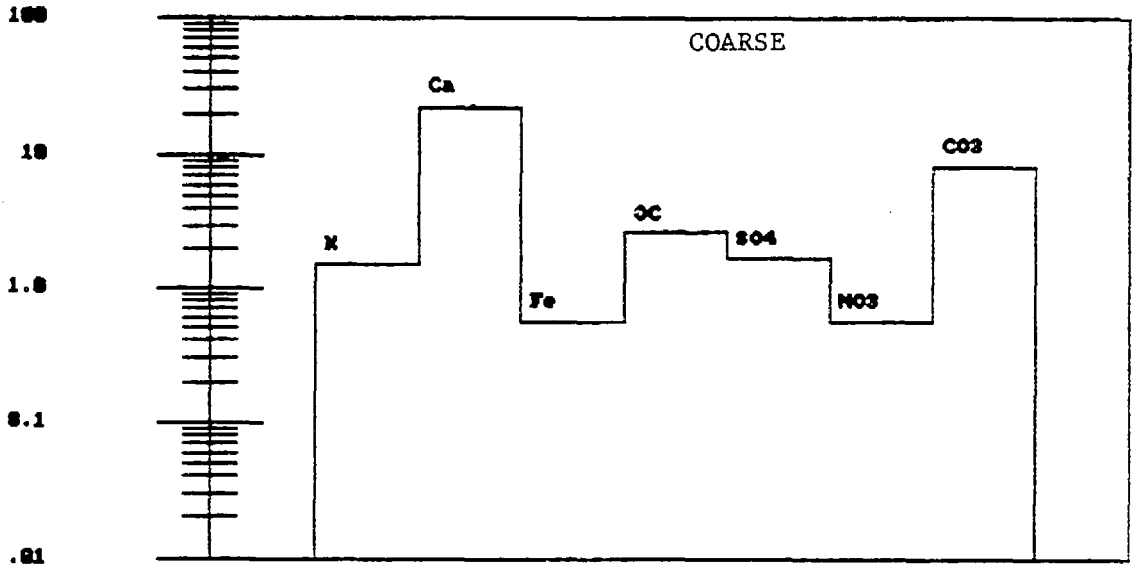
SPECIES	P E R C E N T C O M P O S I T I O N		
	FINE	COARSE	TOTAL
S	2.4000 +- .4000		2.2000 +- .8000
K	2.4000 +- .4000	1.5000 +- .3000	1.4000 +- .3000
Ca	16.1000 +- 3.0000	22.0000 +- 3.0000	27.0000 +- 3.0000
Ti	.5500 +- .1650		
Cr			.5500 +- .1650
Fe		.5500 +- .1650	1.2000 +- .1000
OC		2.6600 +- .7980	3.2200 +- .9660
S04	4.2700 +- 1.2810	1.6800 +- .5040	1.2600 +- .3780
N03	.5500 +- .1650	.5500 +- .1650	.5500 +- .1650
C03		8.1000 +- 2.4300	8.7900 +- 2.6370
Sum	26.2700	37.0400	46.1700

PORTLAND CEMENT KILN (GAS)

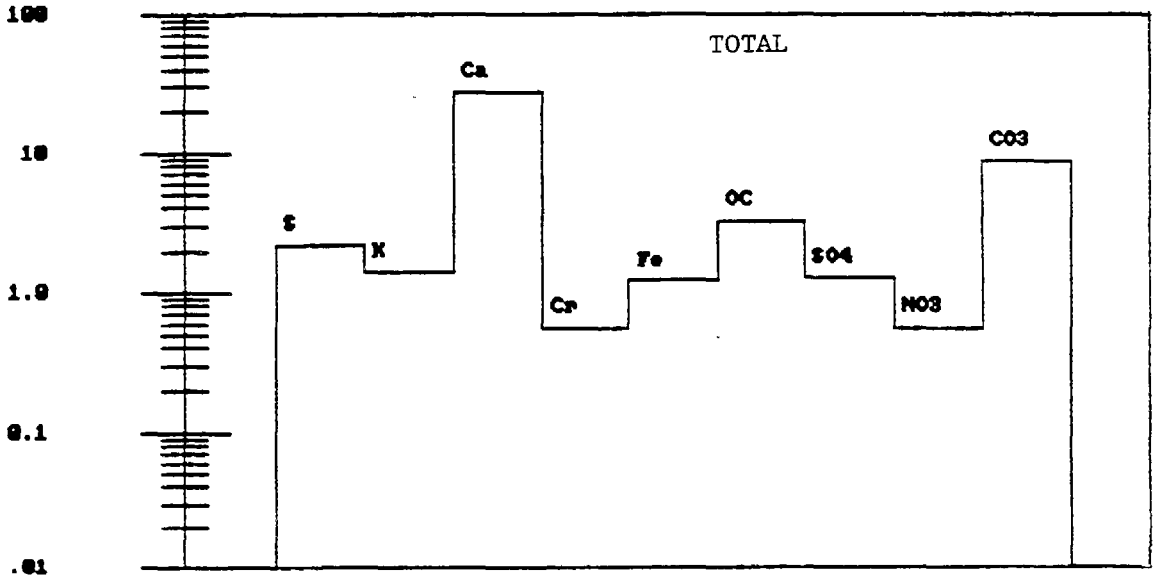
5394



5394



5394

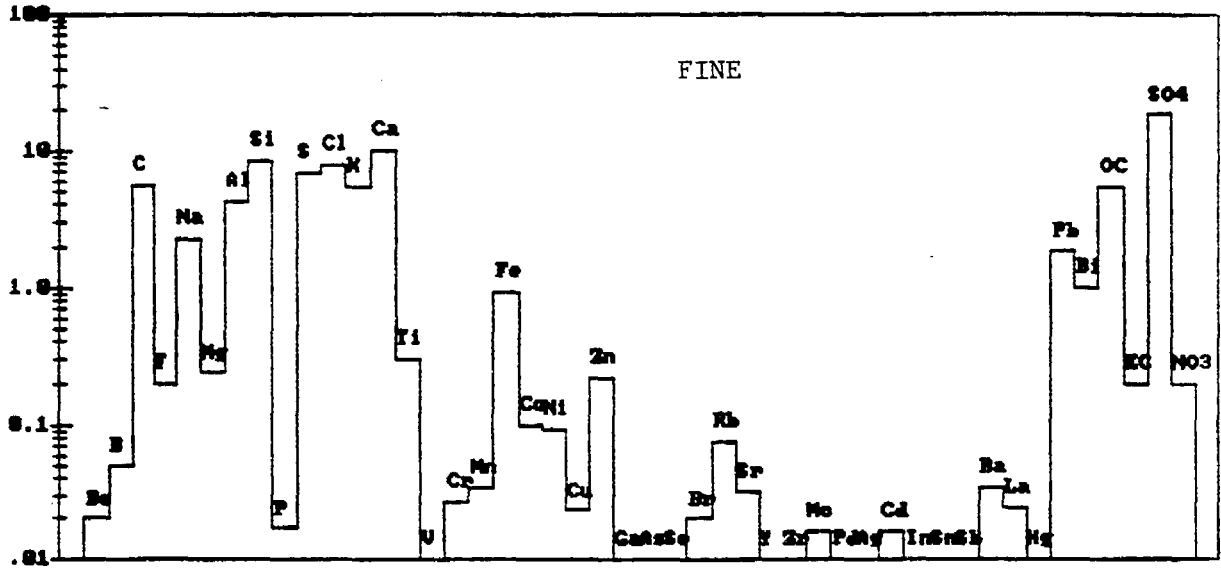


srce	part	revision	source	description	reference	date
code	size	date				
5072	F T	09/26/83	cement	kiln	2	09/83

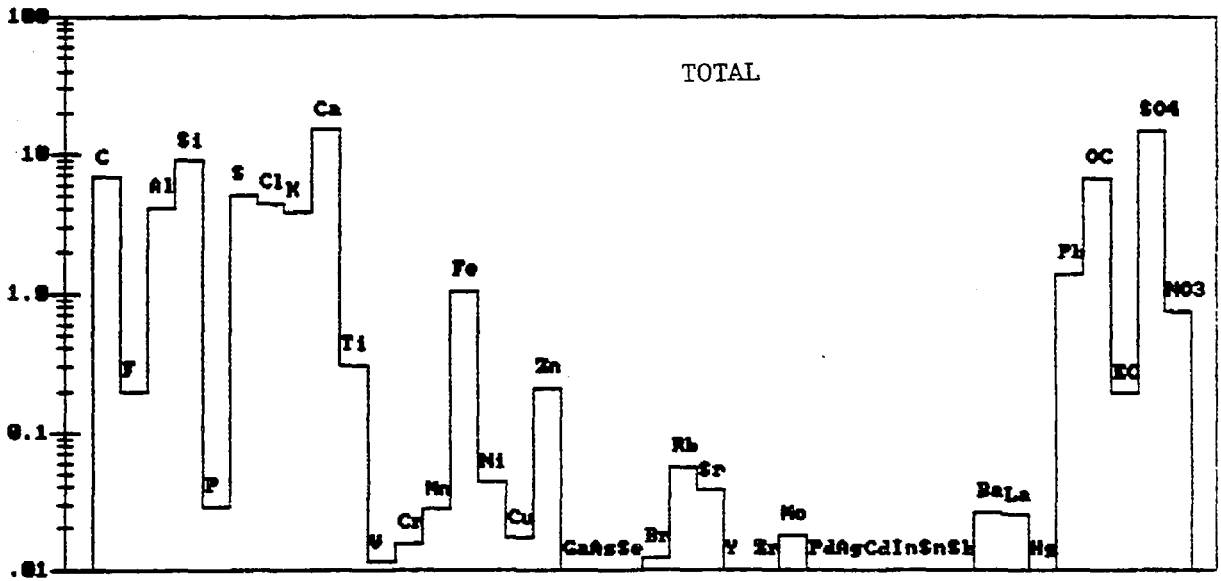
SPECIES	P E R C E N T C O M P O S I T I O N		
	FINE	COARSE	TOTAL
Be	.0200 +- .0200		
B	.0500 +- .0500		
C	5.6000 +- .6000		6.7340 +- .6734
F	.2000 +- .0280		.2000 +- .1086
Na	2.2900 +- .4600		
Mg	.2400 +- .0240		
Al	4.2800 +- .4300		4.1060 +- .4106
Si	8.4400 +- .8440		8.8960 +- 1.3621
P	.0170 +- .0750		.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



5872

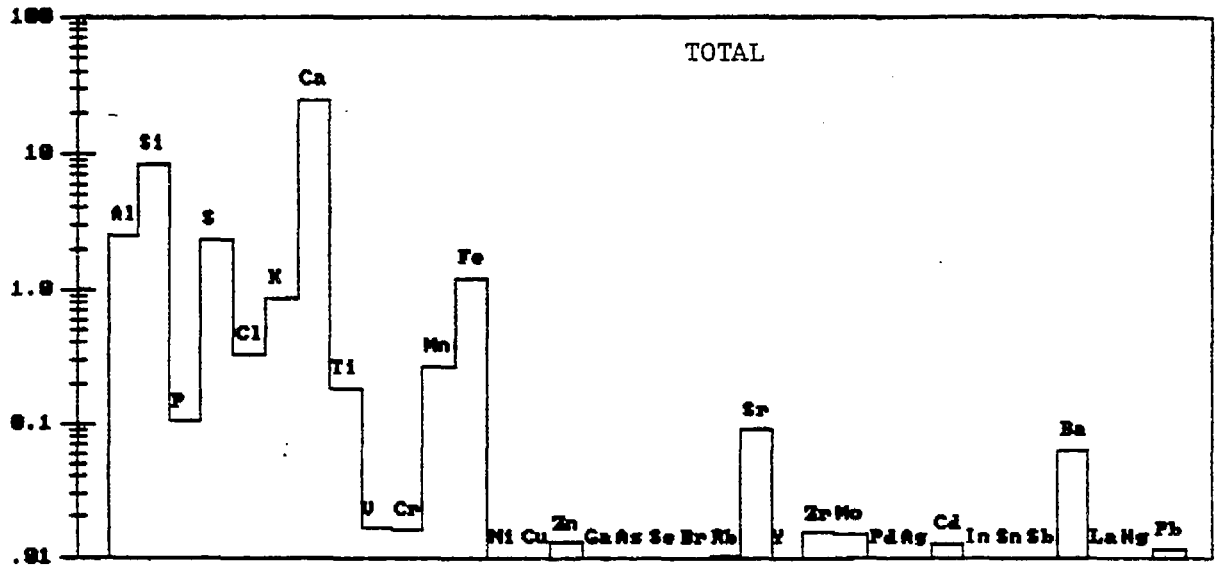


srce	part	revision	source description	reference	date
code	size	date			
5233	T	03/01/85	cement ball mill, Cubatao	8	03/85

SPECIES	P E R C E N T C O M P O S I T I O N		
	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

5333

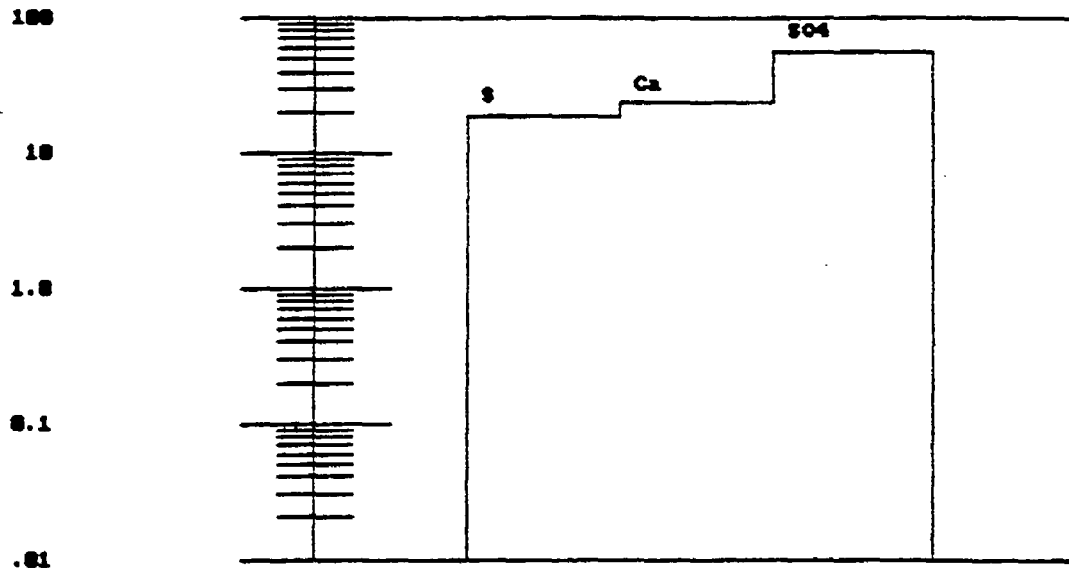


srce	part	revsion			
code	size	date	source description	reference	date
5117	T	09/26/83	gypsum handling (CaSO4.2H2O)		09/83

SPECIES	P E R C E N T C O M P O S I T I O N		
	FINE	COARSE	TOTAL
S			18.6000 +- 1.8600
Ca			23.3000 +- 2.3300
SO4			55.8000 +- 5.5800
Sum			97.7000

GYPSUM HANDLING (CaSO₄·2H₂O)

5117 TOTAL

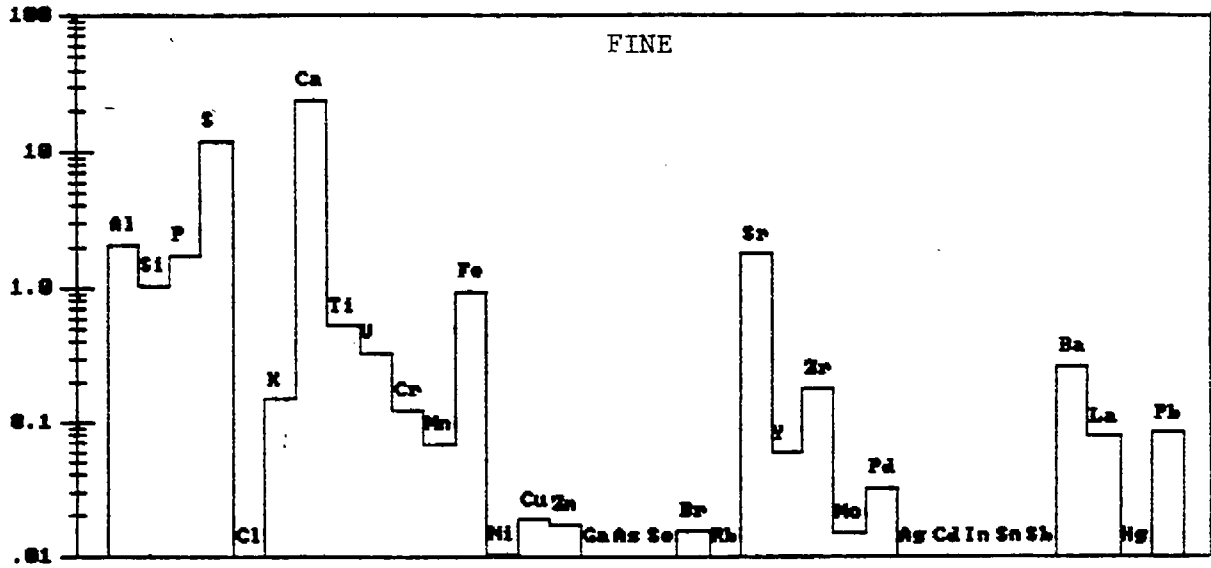


srce	part	revision	code	size	date	source description	reference	date
5211	FC		03/01/85			gypsum dust--kiln elc. prcptr.	8	03/85

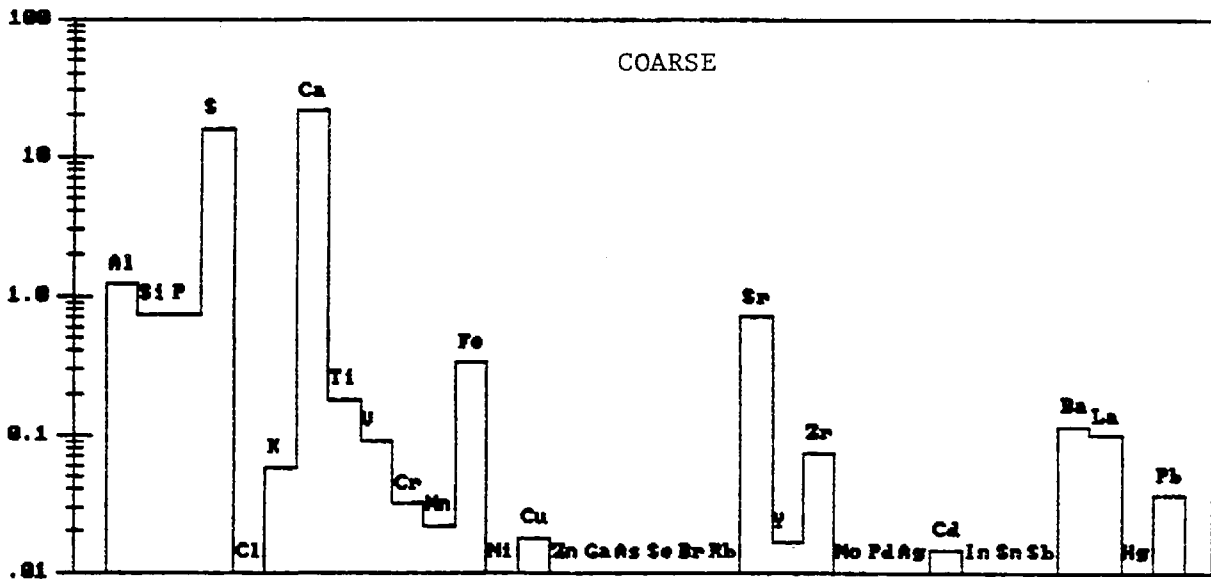
SPECIES	P E R C E N T C O M P O S I T I O N				
	FINE		COARSE		TOTAL
Al	2.0441 +- .2044		1.2004 +- .1200		
Si	1.0358 +- .2826		.7278 +- .1270		
P	1.7332 +- .3481		.7357 +- .1487		
S	11.7831 +- 1.1783		15.4556 +- 1.5456		
Cl	.0000 +- .0625		.0000 +- .0730		
K	.1476 +- .0372		.0580 +- .0280		
Ca	23.7915 +- 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.

5211



5211

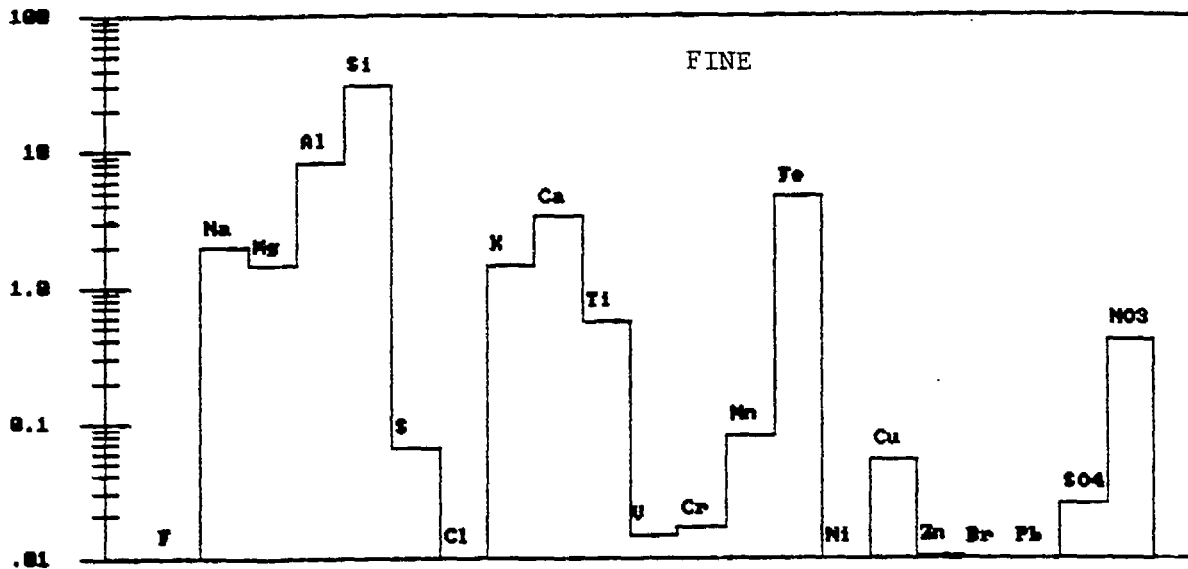


srce	part	revision	source description	reference	date
code	size	date			
5064	FCT	04/10/87	rock crusher	7	09/83

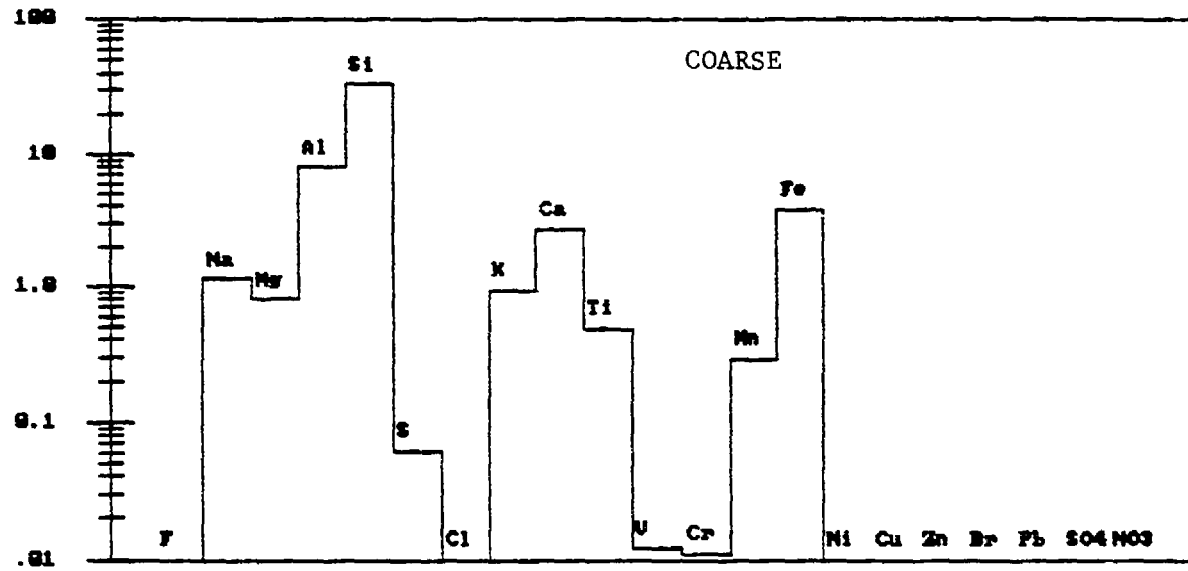
SPECIES	P E R C E N T C O M P O S I T I O N					
	FINE		COARSE		TOTAL	
F	.0050 +-	.0050	.0000 +-	.0100	.0050 +-	.0036
Na	1.9500 +-	.3200	1.1200 +-	.4500	1.6014 +-	.2649
Mg	1.4300 +-	.1460	.8000 +-	.3000	1.1654 +-	.1518
Al	8.0700 +-	.8100	7.9900 +-	1.3000	8.0364 +-	.8036
Si	29.9400 +-	2.9940	32.7100 +-	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

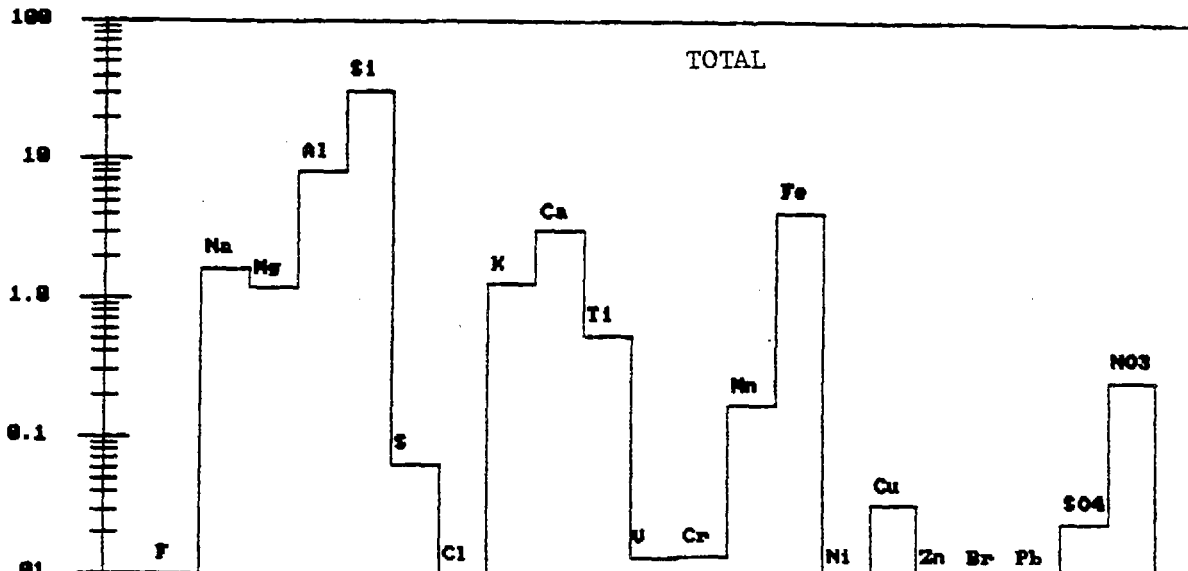
5864



5864



5864

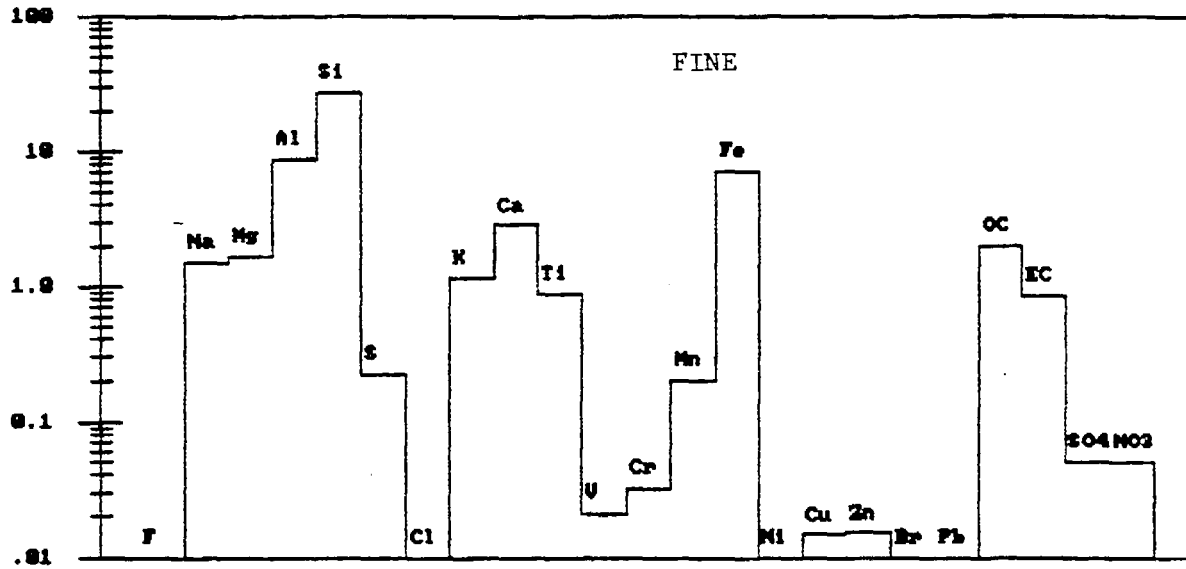


srce	part	revision	code	size	date	source description	reference	date
5065	FCT	04/10/87				asphalt production	7	09/83

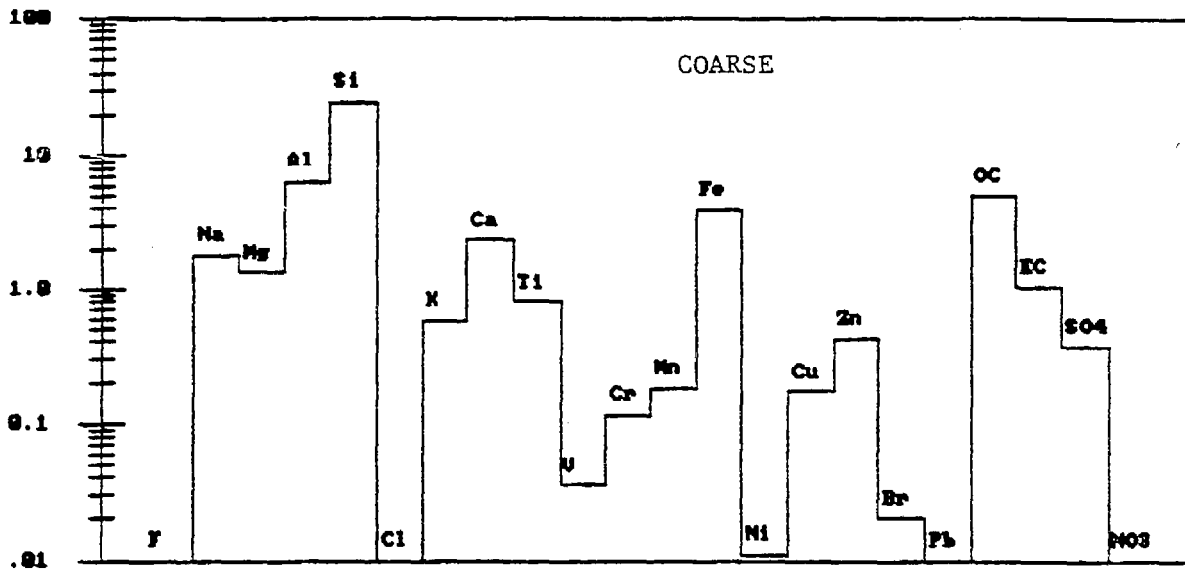
SPECIES	P E R C E N T C O M P O S I T I O N					
	FINE		COARSE		TOTAL	
F	.0050	+-.0050	.0000	+-.0100	.0050	+-.0046
Na	1.4900	+-.1490	1.8000	+-.1.5200	1.5148	+-.1832
Mg	1.6800	+-.2100	1.3300	+-.8900	1.6520	+-.2059
Al	8.6600	+-.8700	6.3900	+-.1.2300	8.4784	+-.8478
Si	27.1300	+-.2.7130	24.6500	+-.3.5100	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

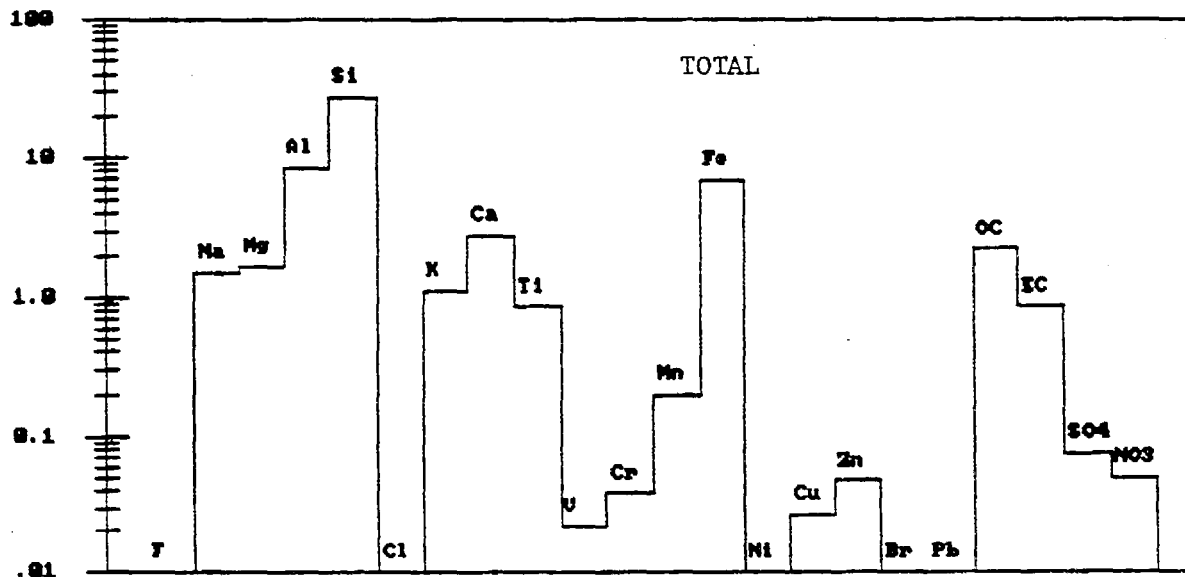
5865



5865



5865

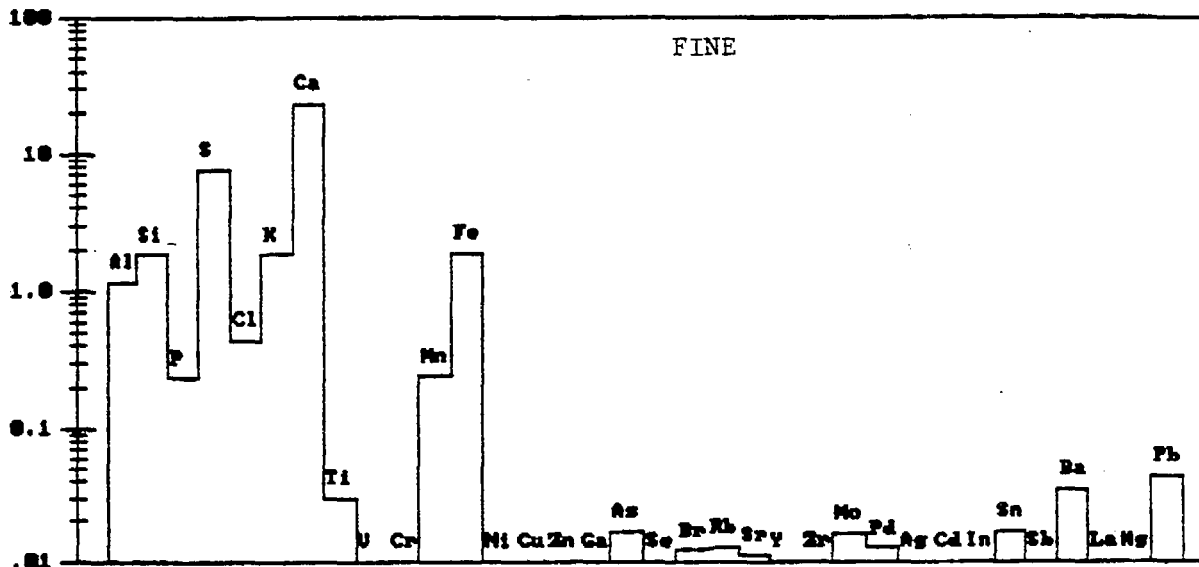


srce	part	revision	source description	reference	date
code	size	date			
5218	FCT	03/01/85	lime kiln, Cubatao, T<15	8	03/85

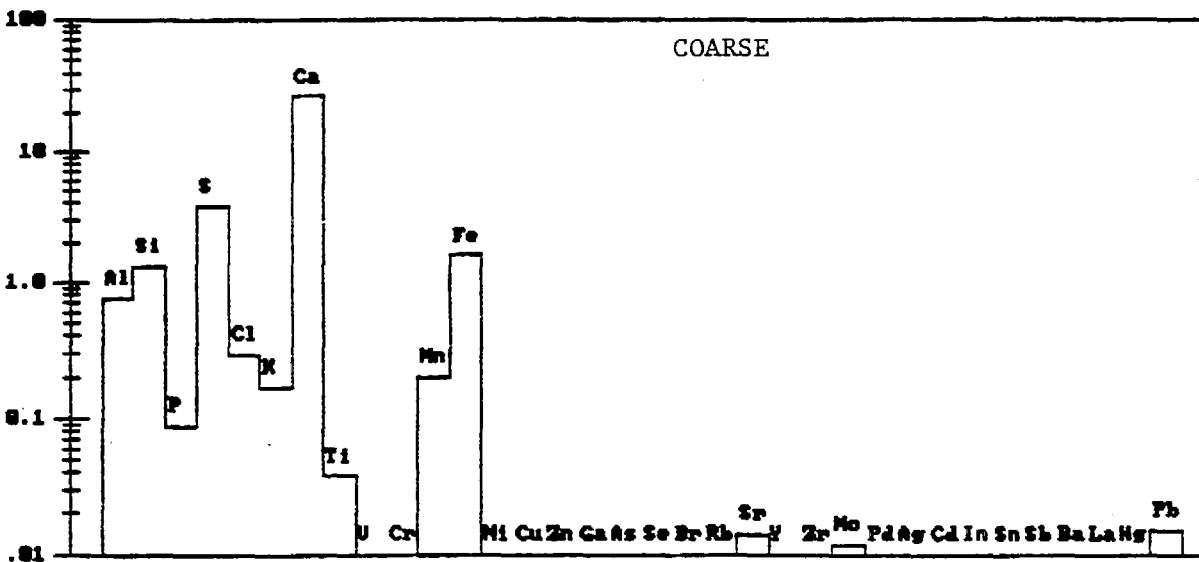
SPECIES	P E R C E N T C O M P O S I T I O N					
	FINE		COARSE		TOTAL	
Al	1.1381 +- .1138	.7653 +- .0765	.8682 +- .0868			
Si	1.8116 +- .2221	1.2999 +- .1300	1.4403 +- .1440			
P	.2310 +- .0468	.0877 +- .0310	.1275 +- .0354			
S	7.5310 +- .7531	3.8192 +- .3819	4.8514 +- .4851			
Cl	.4385 +- .2179	.2865 +- .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

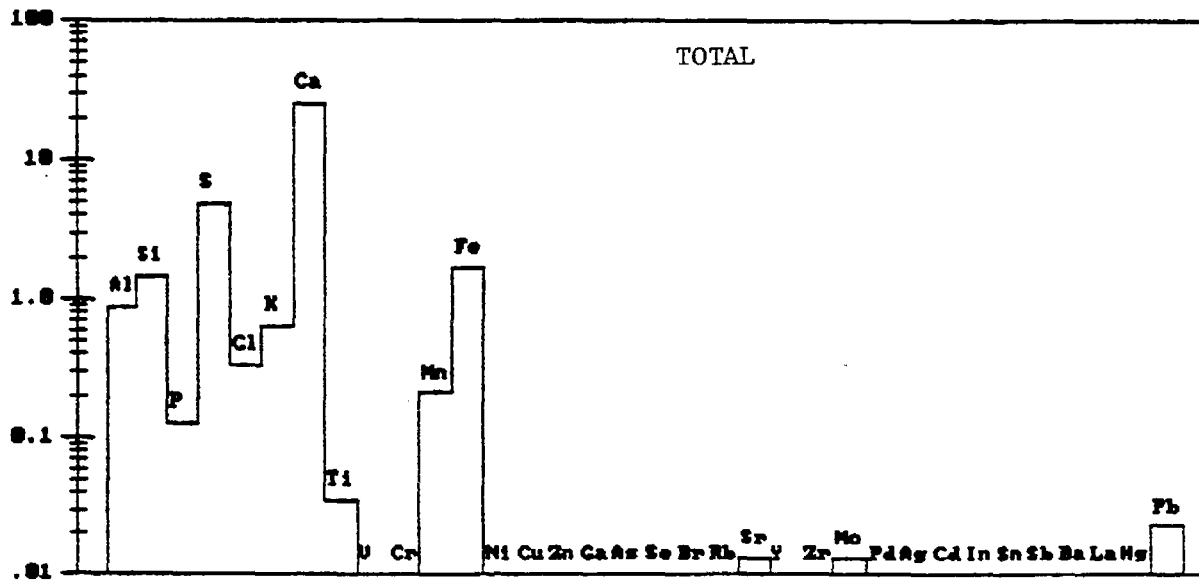
5218



5218



5218

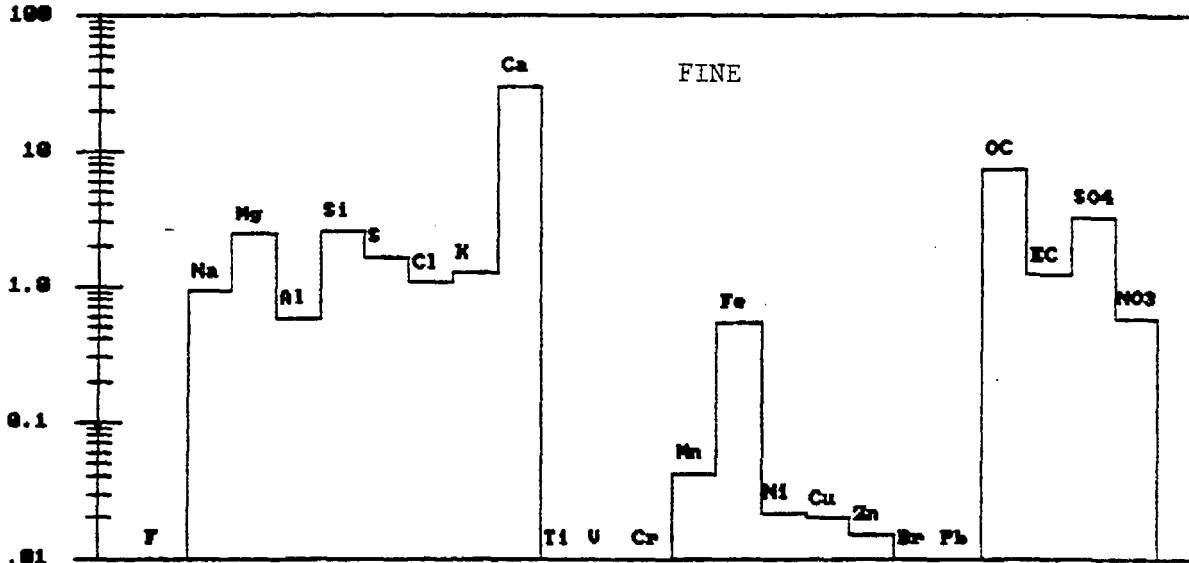


srce	part	revision	source description	reference	date
code	size	date			
5027	FCT	03/19/87	carbide furnace (Ca source)	7	02/79

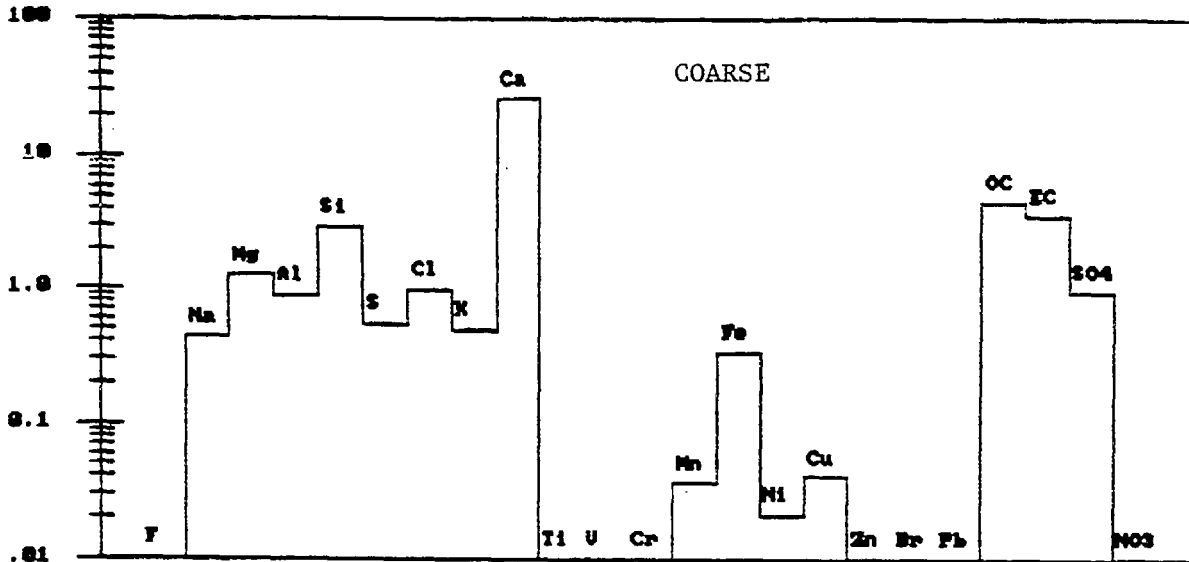
SPECIES	P E R C E N T C O M P O S I T I O N					
	FINE		COARSE		TOTAL	
F	.0000 +-	.1000	.0000 +-	.2000	.0000 +-	.1060
Na	.9200 +-	.1000	.4300 +-	.0500	.6973 +-	.0864
Mg	2.4000 +-	.3500	1.2500 +-	.3500	1.8773 +-	.2990
Al	.5800 +-	.1100	.8600 +-	.1300	.7073 +-	.0979
Si	2.5000 +-	.0700	2.9000 +-	1.3000	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)

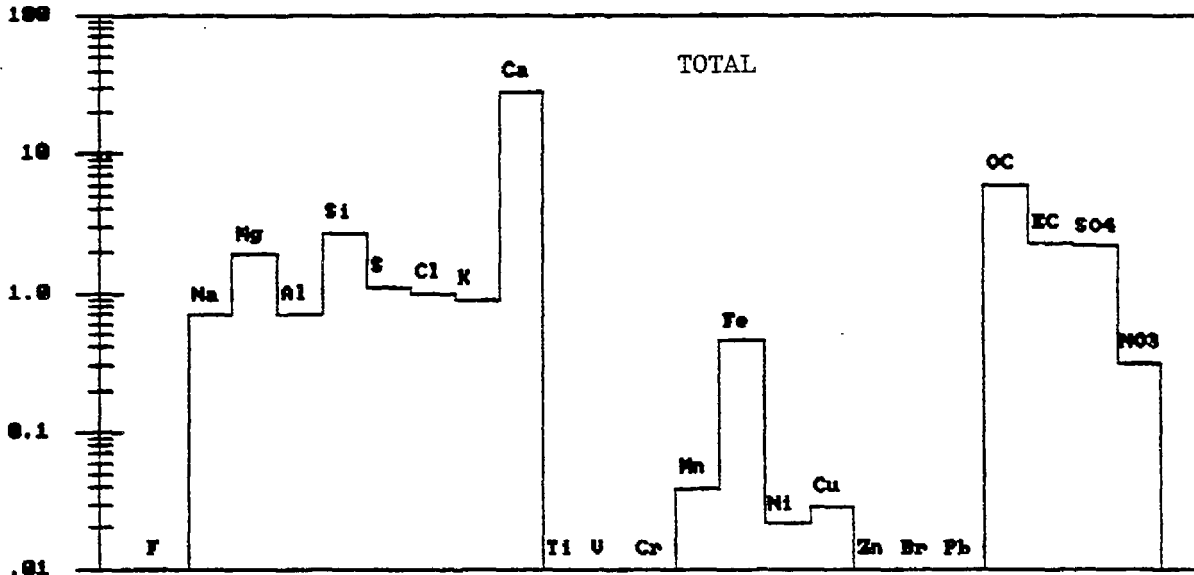
5827



5827



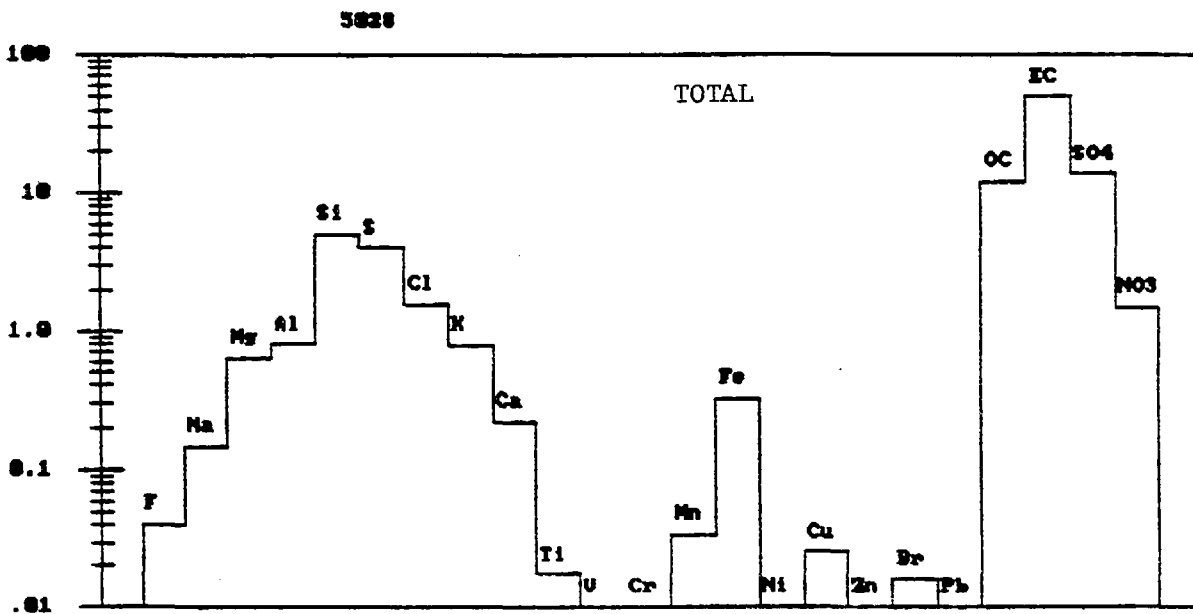
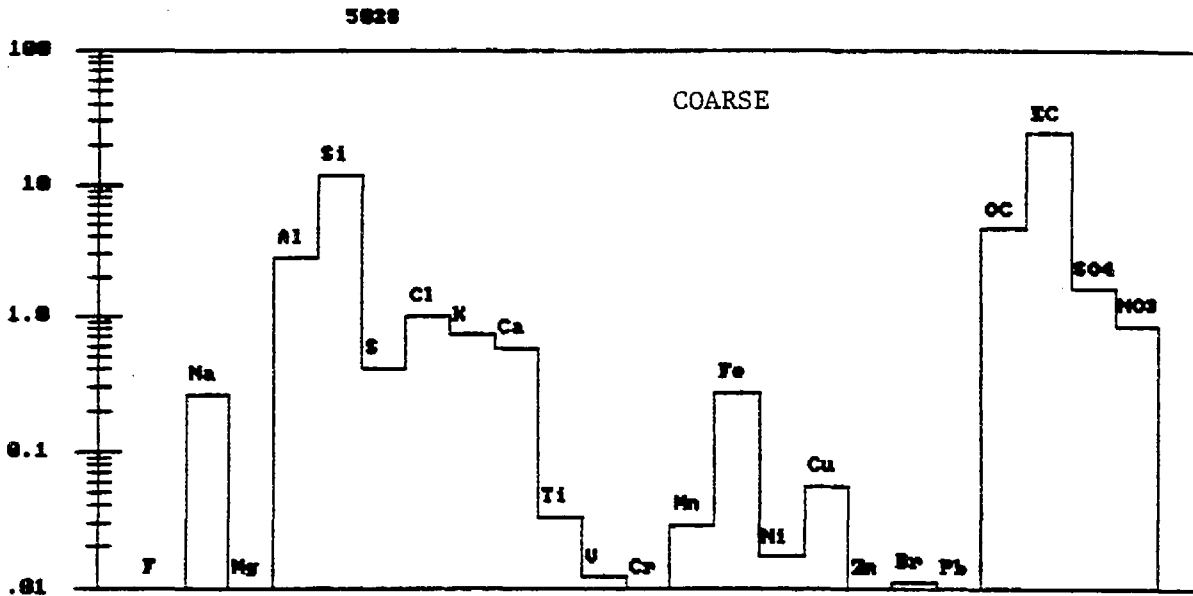
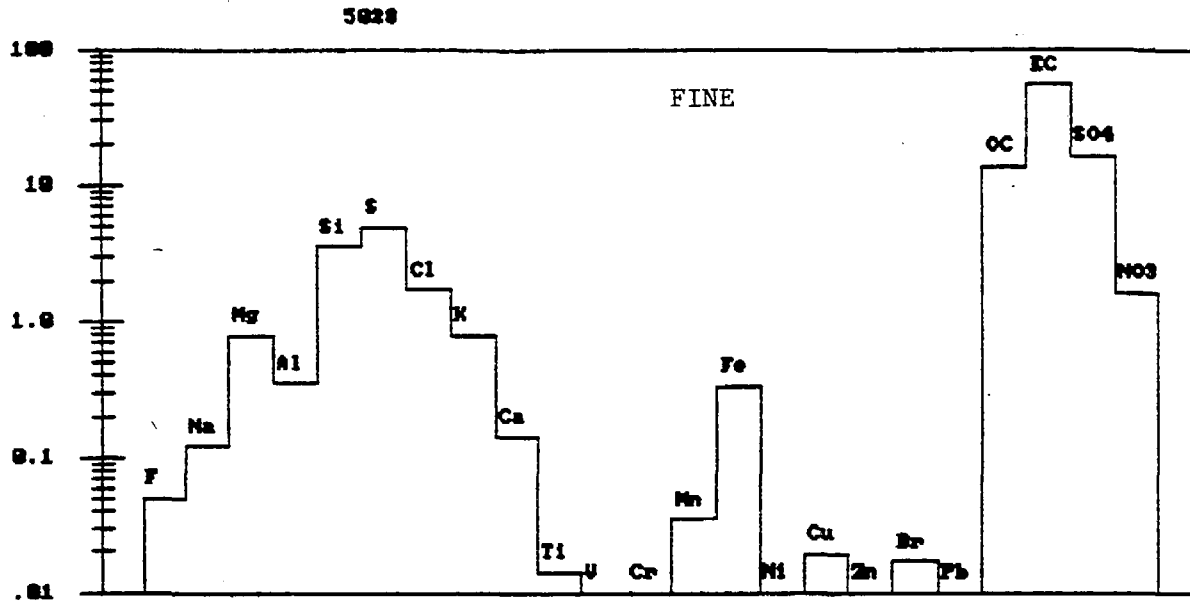
5827



srce	part	revision	source description	reference	date
code	size	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



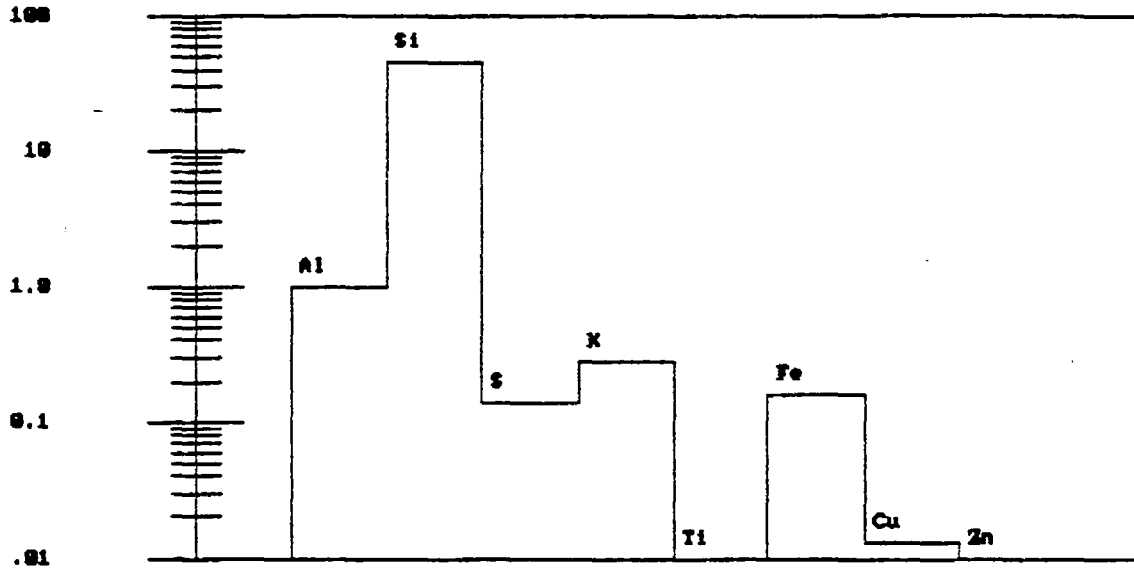
srce	part	revision					
code	size	date	source	description		reference	date
5429	FC	04/10/87	Silica	Manufacturing		16	00/79

SPECIES	P E R C E N T C O M P O S I T I O N				
	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		

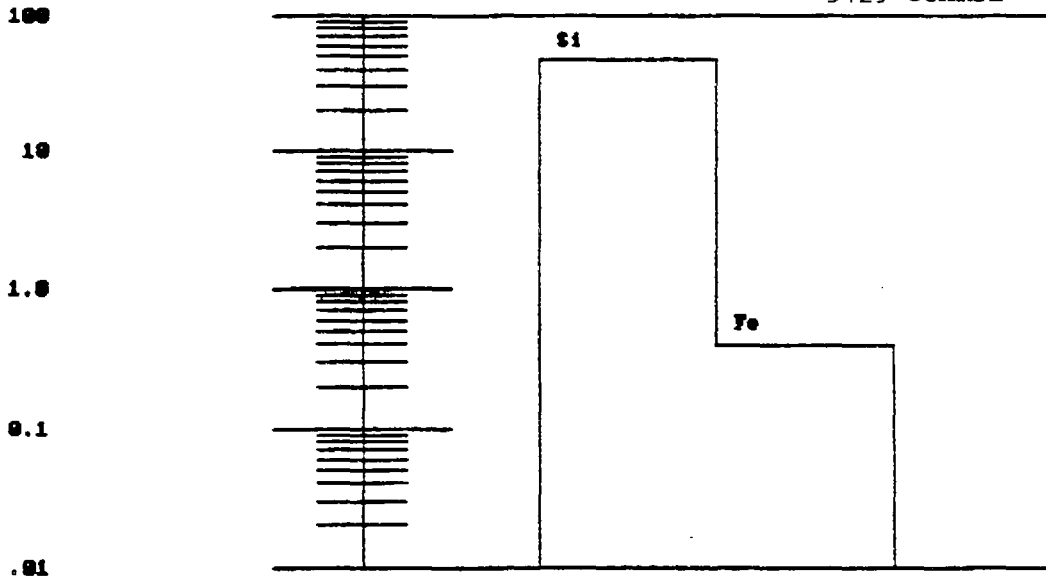
SILICA MANUFACTURING

5429

FINE



5429 COARSE

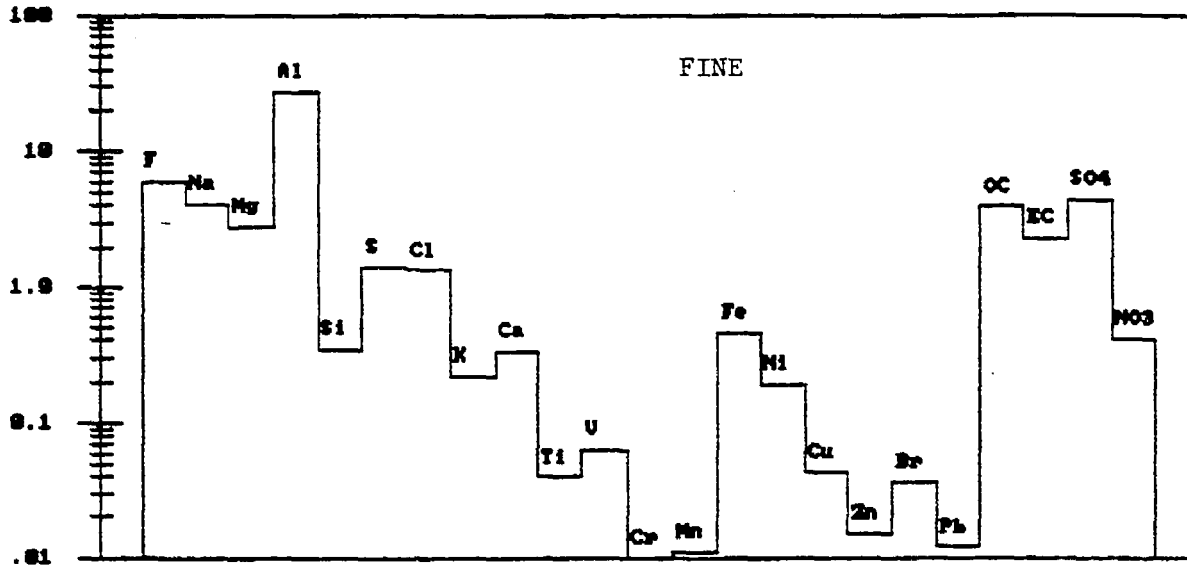


srce	part	revision	source description	reference	date
code	size	date			
5032	FCT	03/19/87	aluminum processing	7	02/79

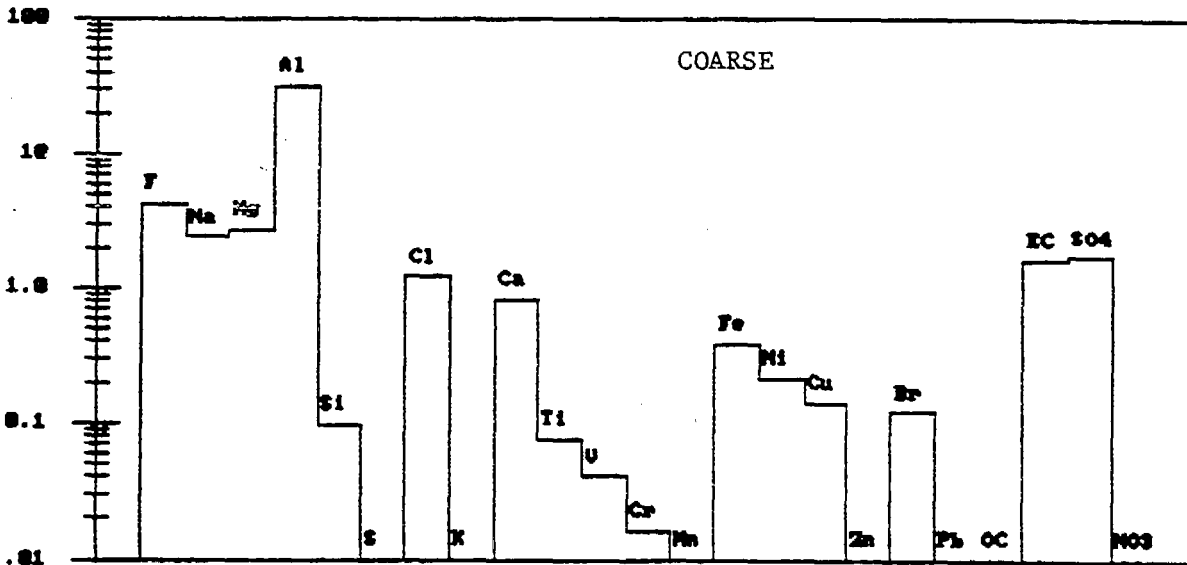
SPECIES	P E R C E N T C O M P O S I T I O N		
	FINE	COARSE	TOTAL
F	6.0000 +- 2.3000	4.2000 +- 1.9000	5.2174 +- 1.6045
Na	4.1000 +- 1.7000	2.4000 +- .6000	3.3609 +- 1.0398
Mg	2.8000 +- 1.8000	2.7000 +- .5500	2.7565 +- 1.0685
Al	27.0000 +- 8.0000	31.3000 +- 4.9000	28.8696 +- 5.4751
Si	.3400 +- .3400	.0970 +- .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

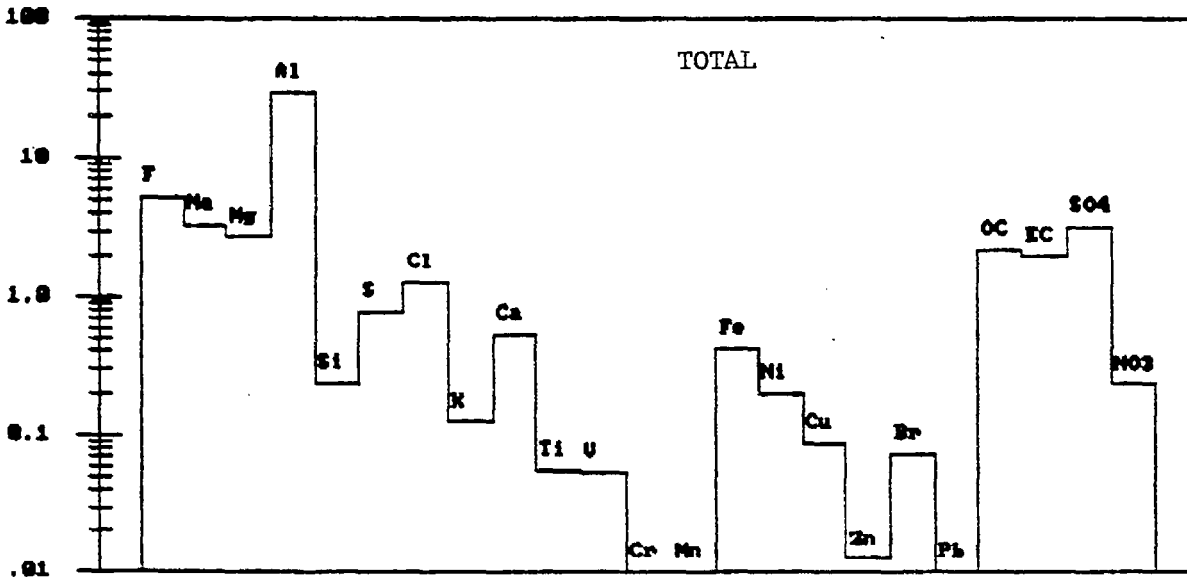
5832



5832



5832

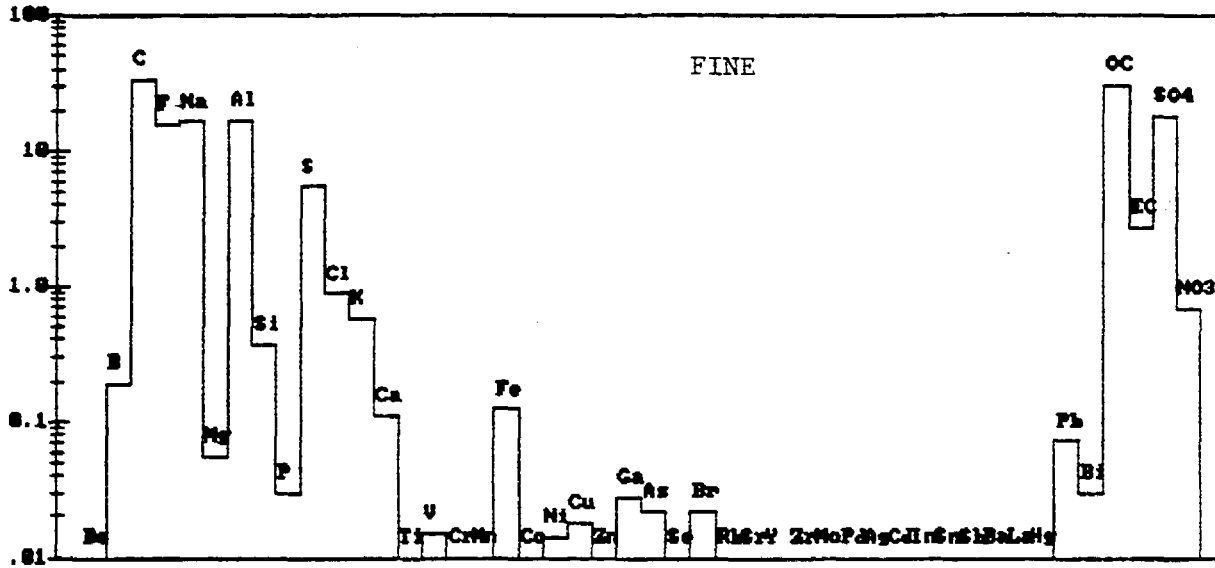


srce code	part size	revision date	source description	reference	date
5063	FT	03/19/87	aluminum potline baghouse	2	09/83

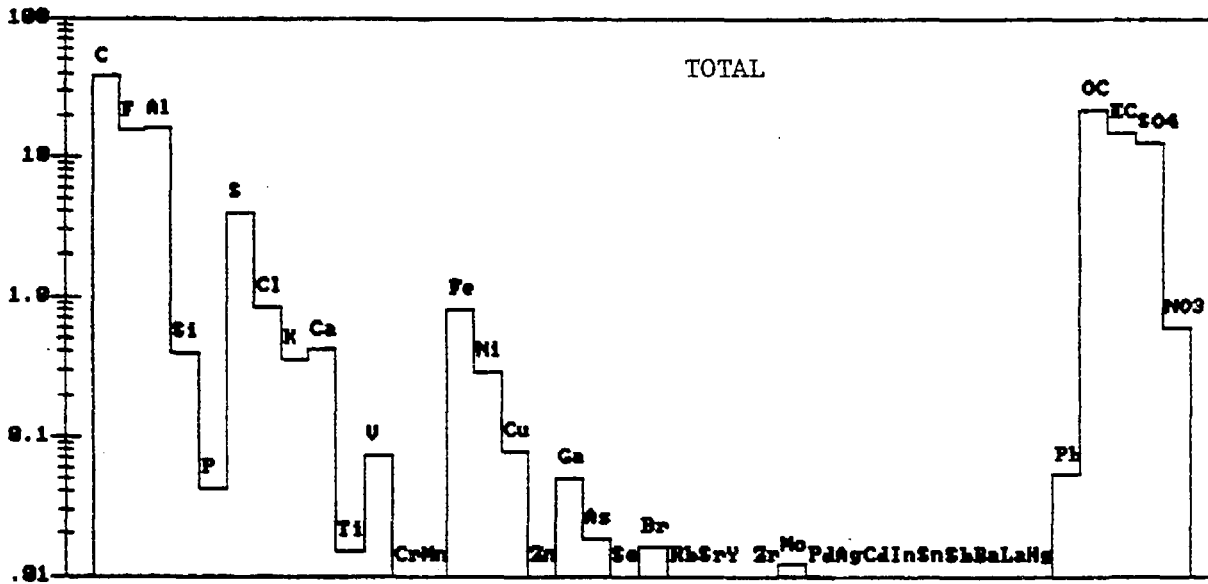
SPECIES	P E R C E N T		C O M P O S I T I O N	
	FINE	COARSE	TOTAL	
Be	.0005 +- .0005			
B	.1900 +- .0200			
C	33.0000 +- 5.0000		37.6000 +- 4.2022	
F	15.5000 +- 5.9000		15.4540 +- 3.3872	
Na	16.5000 +- 1.7000			
Mg	.0550 +- .0060			
Al	16.8000 +- 1.7000		15.9260 +- 1.6574	
Si	.3700 +- .0400		.3976 +- .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

5063



5063

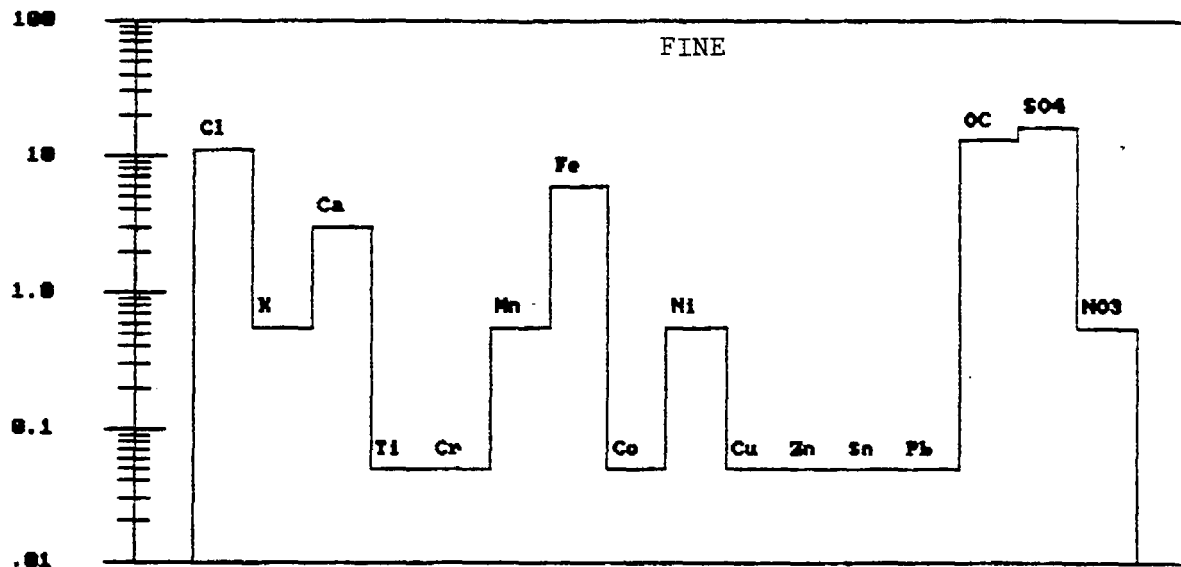


srce	part	revision				
code	size	date	source	description	reference	date
5428	FCT	04/10/87	Aluminum	Reverb. Furnace	9	00/79

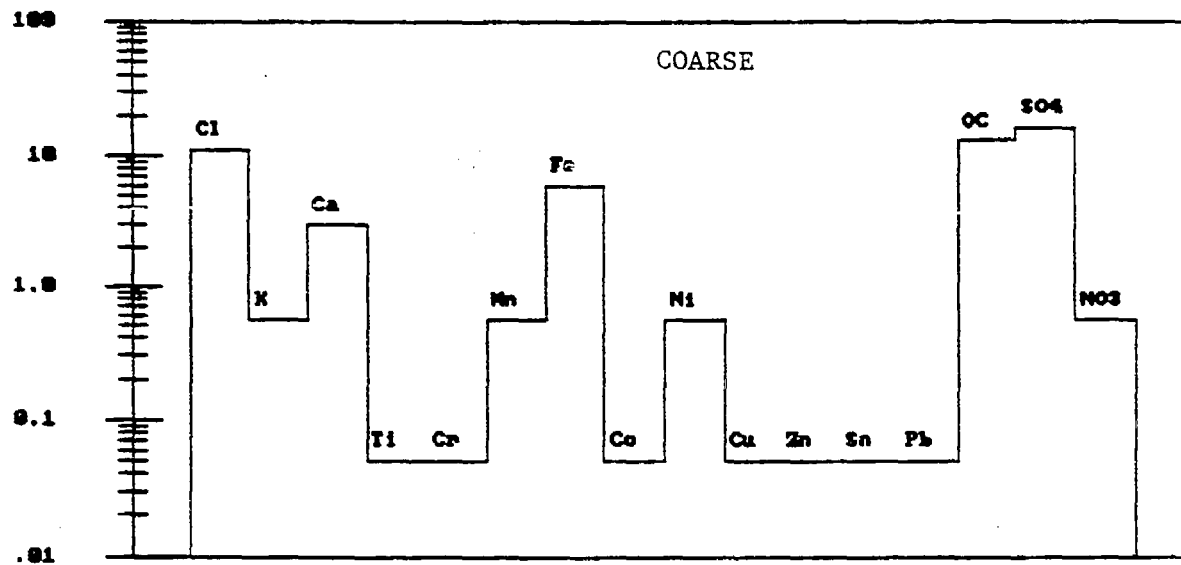
SPECIES	P E R C E N T C O M P O S I T I O N					
	FINE		COARSE		TOTAL	
Cl	11.0000	+ - 3.3000	11.0000	+ - 3.3000	11.0000	+ - 3.3000
K	.5500	+ - .1650	.5500	+ - .1650	.5500	+ - .1650
Ca	3.0000	+ - .9000	3.0000	+ - .9000	3.0000	+ - .9000
Ti	.0500	+ - .0150	.0500	+ - .0150	.0500	+ - .0150
Cr	.0500	+ - .0150	.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

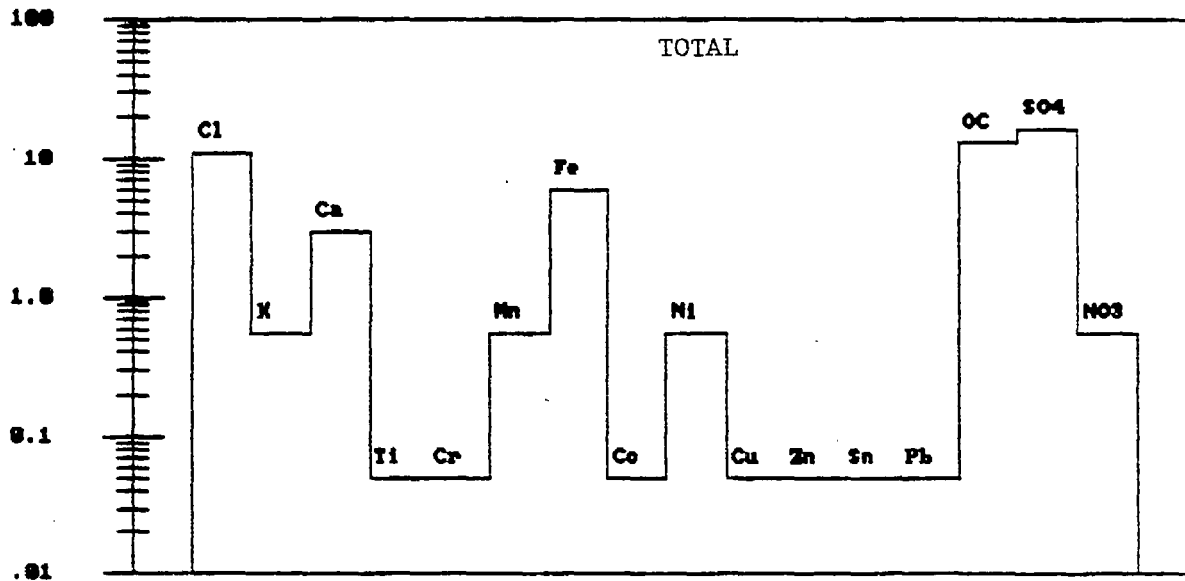
5428



5428



5428

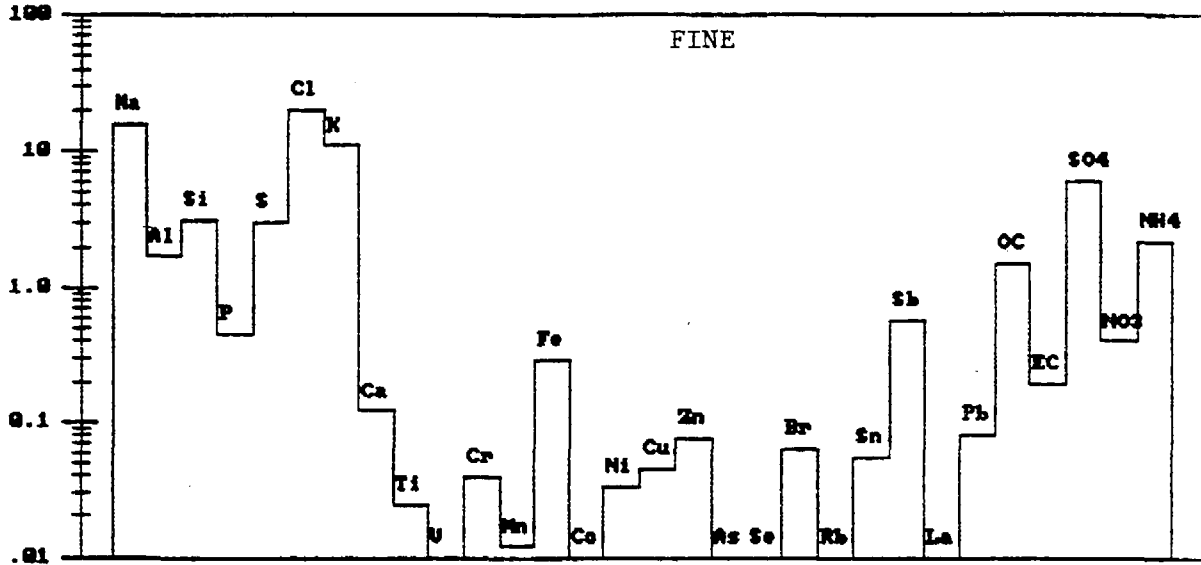


srce	part	revison	source description	reference	date
code	size	date			
5393	FCT	03/19/87	Secondary Aluminum Dross Furn.	6	03/87

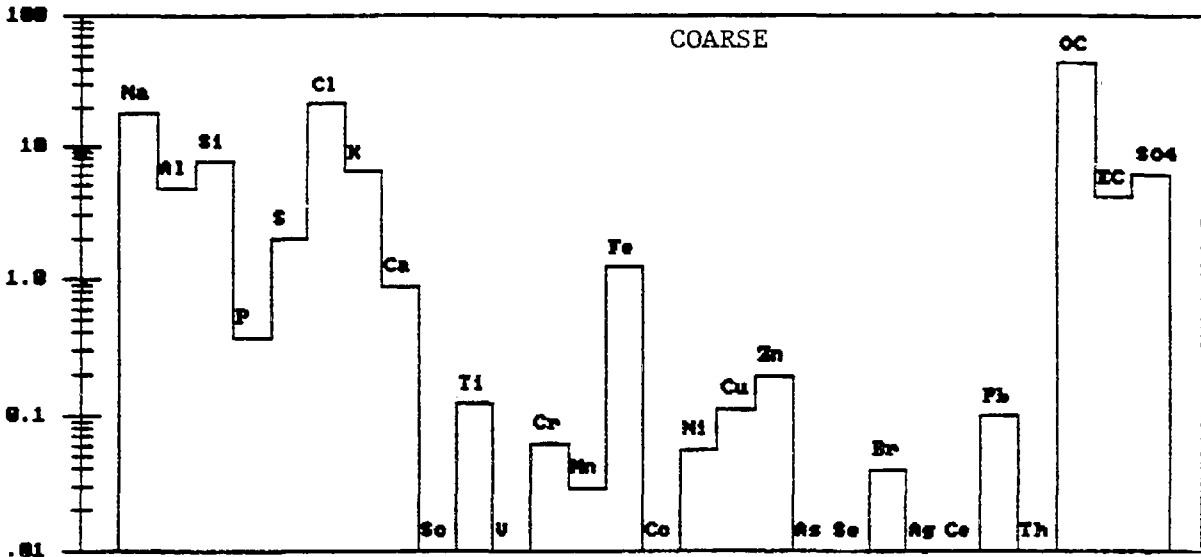
SPECIES	PERCENT COMPOSITION		
	FINE	COARSE	TOTAL
Na	15.5000 +- 1.6000	18.0000 +- 4.4000	15.9717 +- 2.3738
Al	1.7000 +- .2000	4.7000 +- .8000	2.2660 +- .3193
Si	3.1000 +- 2.2000	7.6000 +- 3.7000	3.9491 +- 1.9594
P	.4500 +- .2700	.3700 +- .1100	.4349 +- .2258
S	3.0000 +- 4.0000	2.0000 +- .2000	2.8113 +- 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.

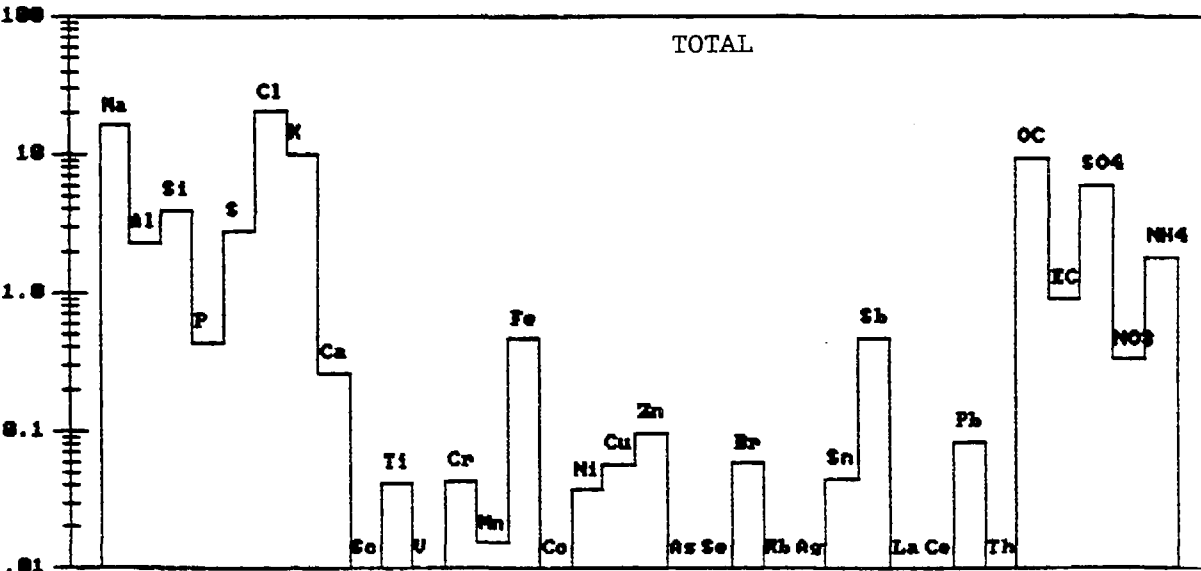
5393



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5393

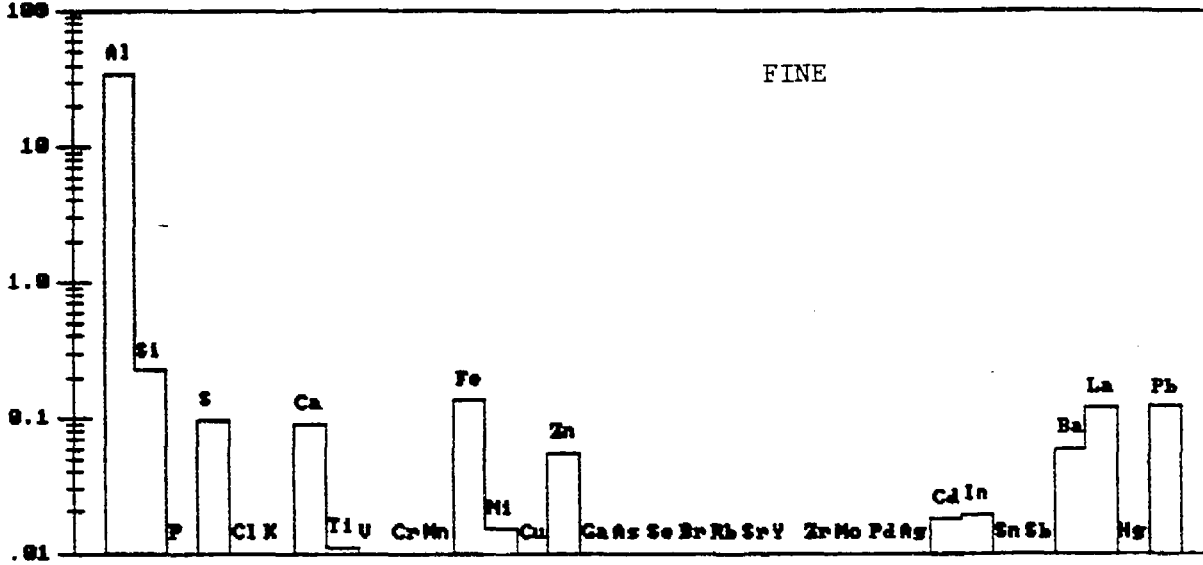


srce	part	revision	source description	reference	date
code	size	date			
5059	FCT	03/19/87	alumina handling	2	09/83

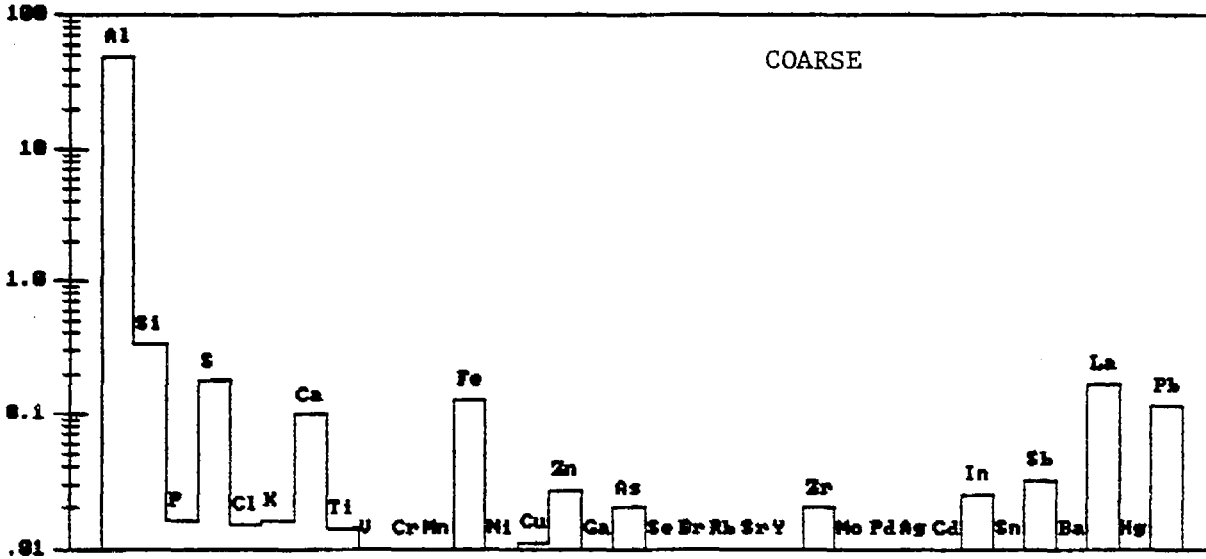
SPECIES	P E R C E N T C O M P O S I T I O N					
	FINE		COARSE		TOTAL	
Al	34.1960 +- 3.4196		48.1550 +- 4.8155		38.6629 +- 3.8663	
Si	.2240 +- .0290		.3330 +- .0500		.2589 +- .0259	
P	.0030 +- .0030		.0160 +- .0110		.0072 +- .0041	
S	.0960 +- .0290		.1760 +- .0530		.1216 +- .0260	
Cl	.0040 +- .0100		.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

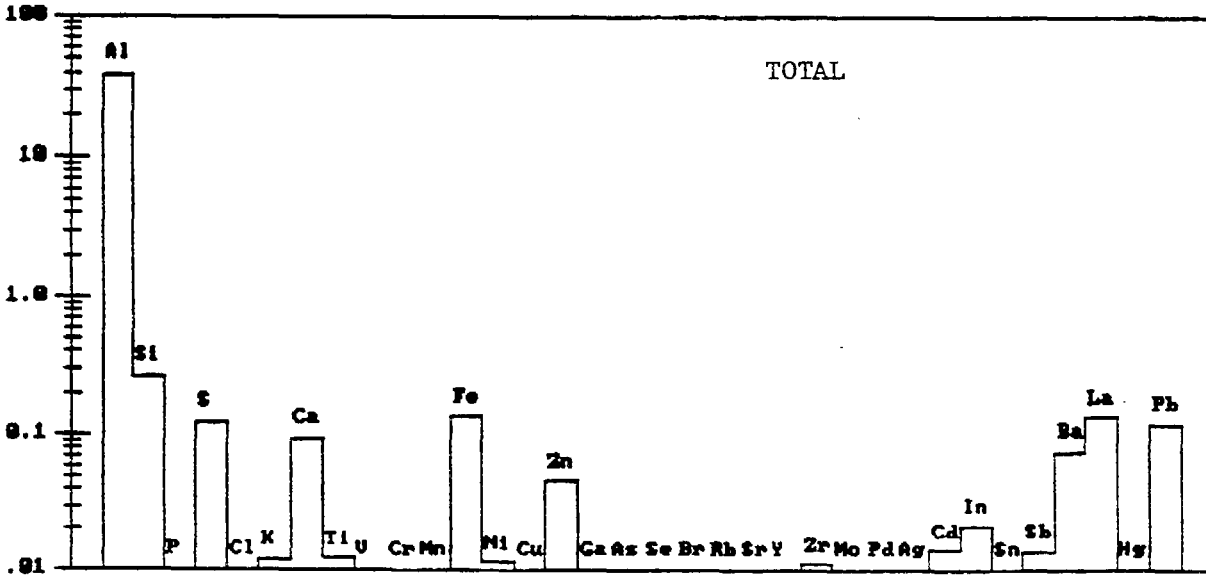
5859



5859



5859

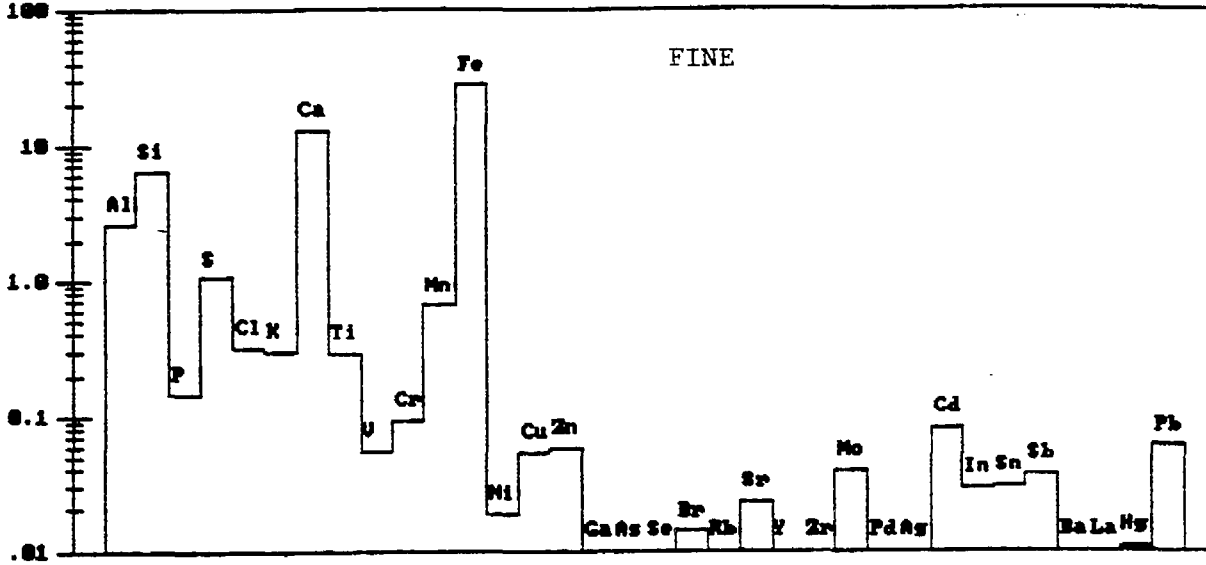


srce	part	revision	code	size	date	source description	reference	date
5215	FCT	03/19/87				iron ore dust--sinter r. mat.	8	03/85

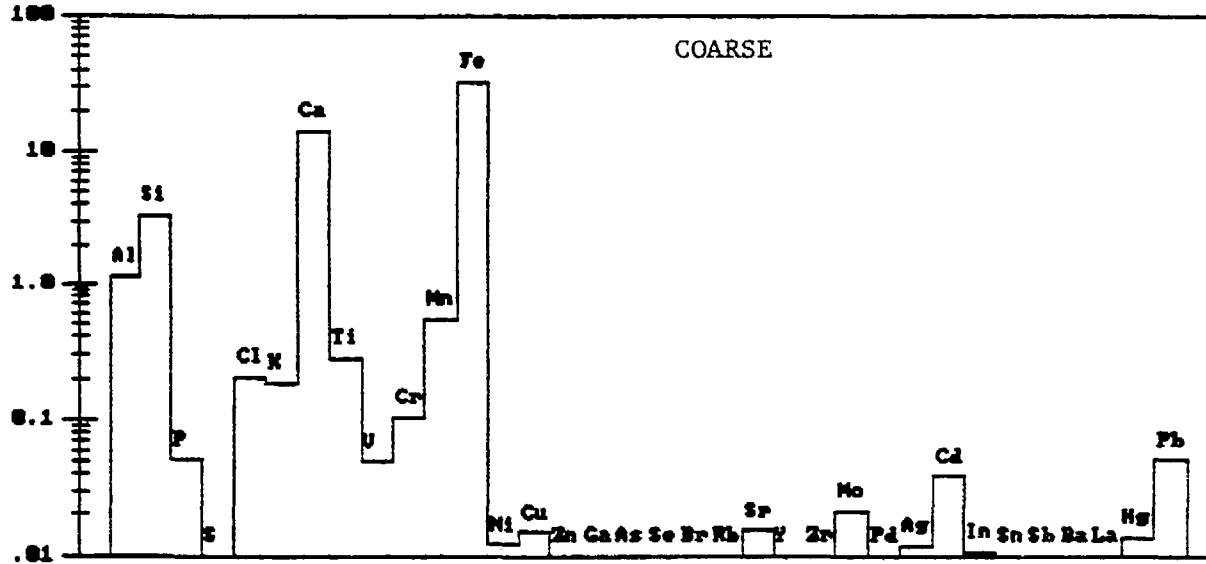
SPECIES	P E R C E N T C O M P O S I T I O N					
	FINE		COARSE		TOTAL	
Al	2.6343 +- .2634	1.1385 +- .1139	2.2438 +- .3227			
Si	6.4470 +- .6447	3.3084 +- .3308	5.6275 +- .7964			
P	.1450 +- .0331	.0508 +- .0166	.1204 +- .0285			
S	1.0500 +- .1050	.0000 +- .1013	.7758 +- .1266			
Cl	.3187 +- .0365	.2055 +- .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.

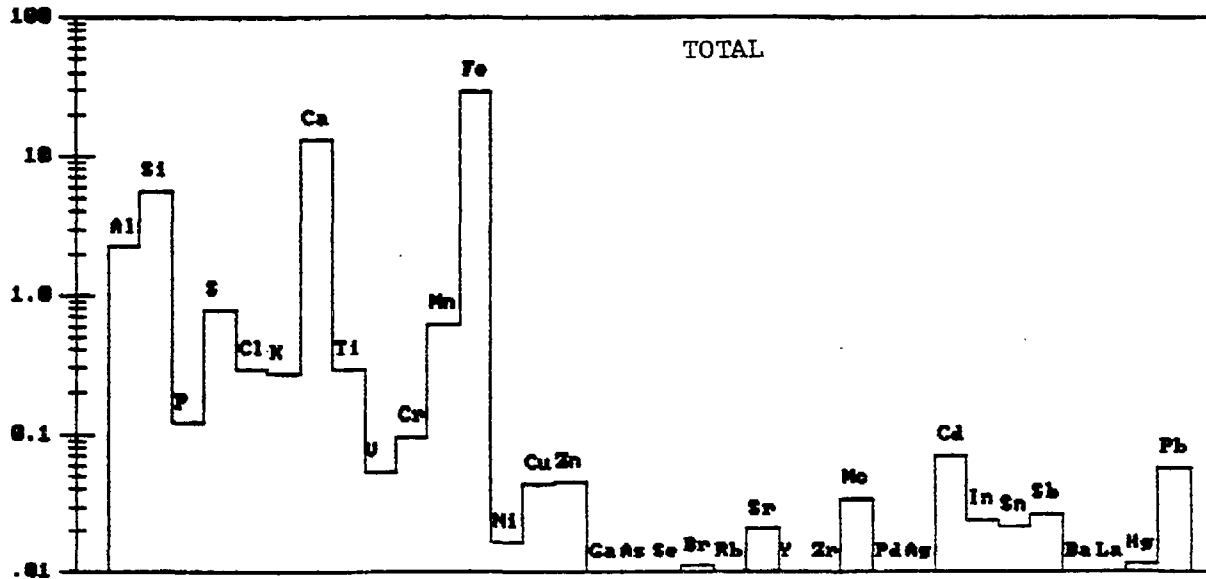
5215



5215



5215

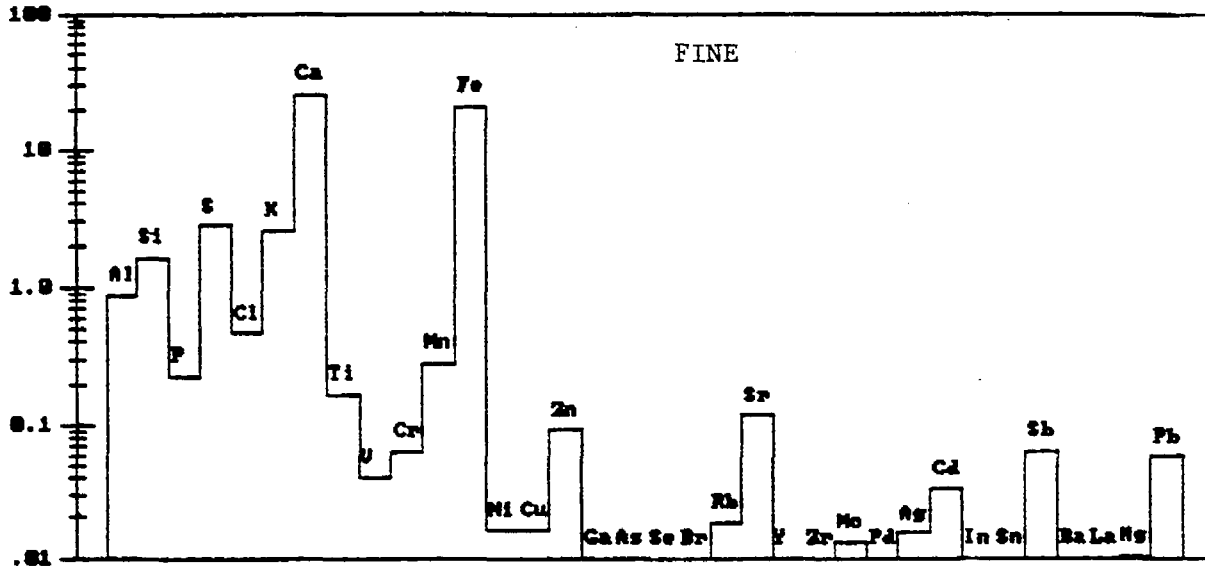


srce	part	revision	code	size	date	source description	reference	date
5214	FCT	03/19/87				steel desulftrn. baghouse dust	8	03/85

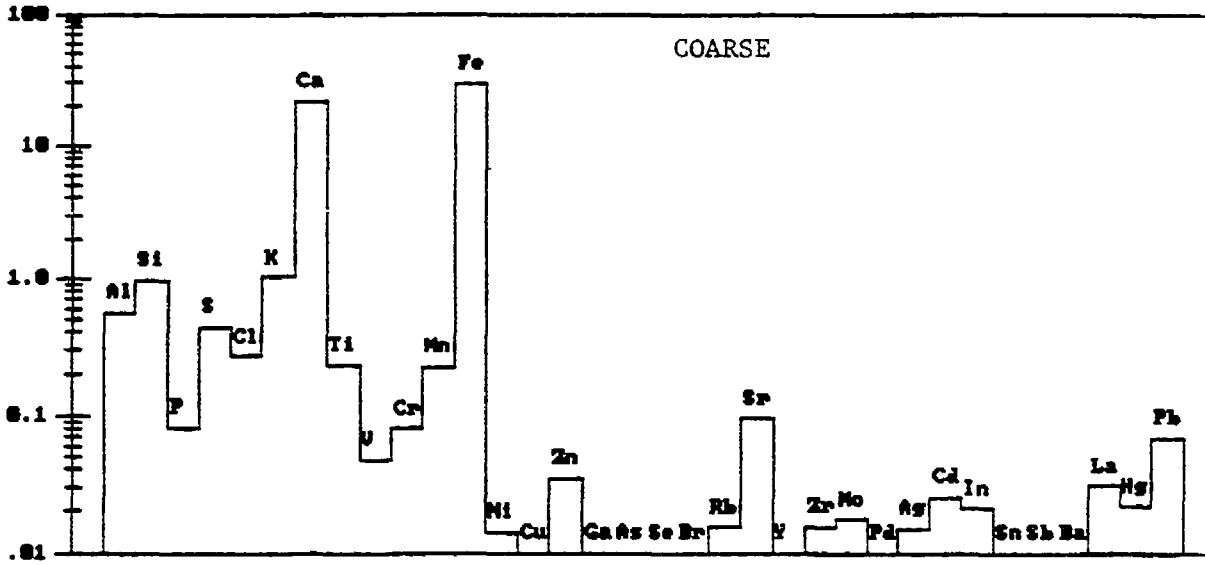
SPECIES	P E R C E N T C O M P O S I T I O N					
	FINE		COARSE		TOTAL	
Al	.8775 +-	.0877	.5613 +-	.0561	.5977 +-	.0521
Si	1.6282 +-	.1628	.9665 +-	.0967	1.0426 +-	.0904
P	.2261 +-	.0530	.0810 +-	.0246	.0977 +-	.0228
S	2.7391 +-	.2739	.4367 +-	.1149	.7016 +-	.1113
Cl	.4577 +-	.0458	.2650 +-	.0286	.2872 +-	.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

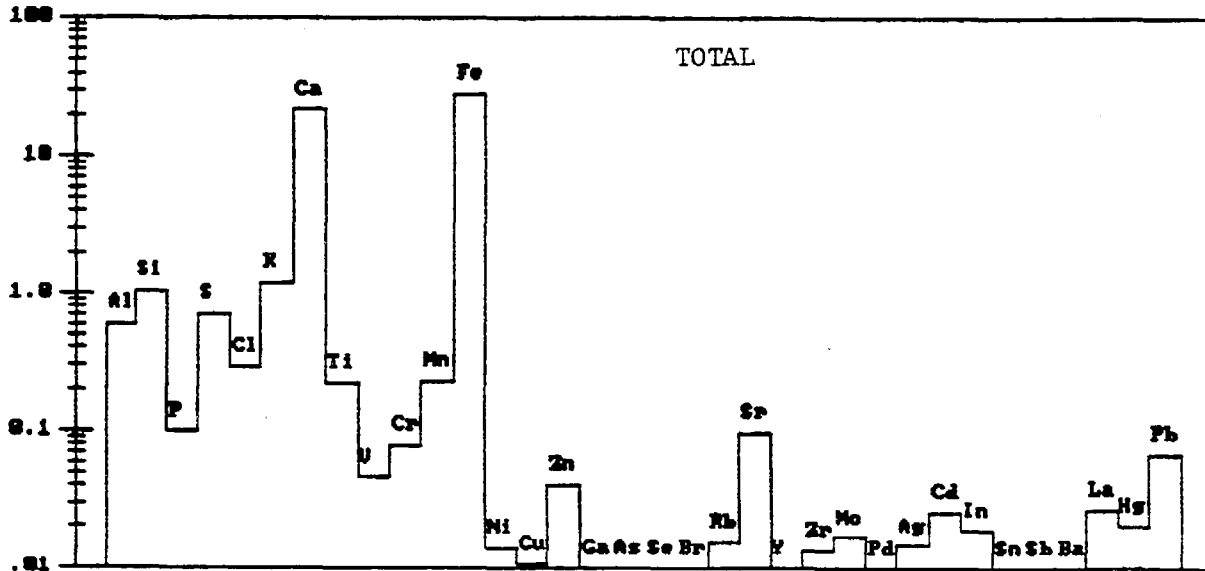
5214



5214



5214

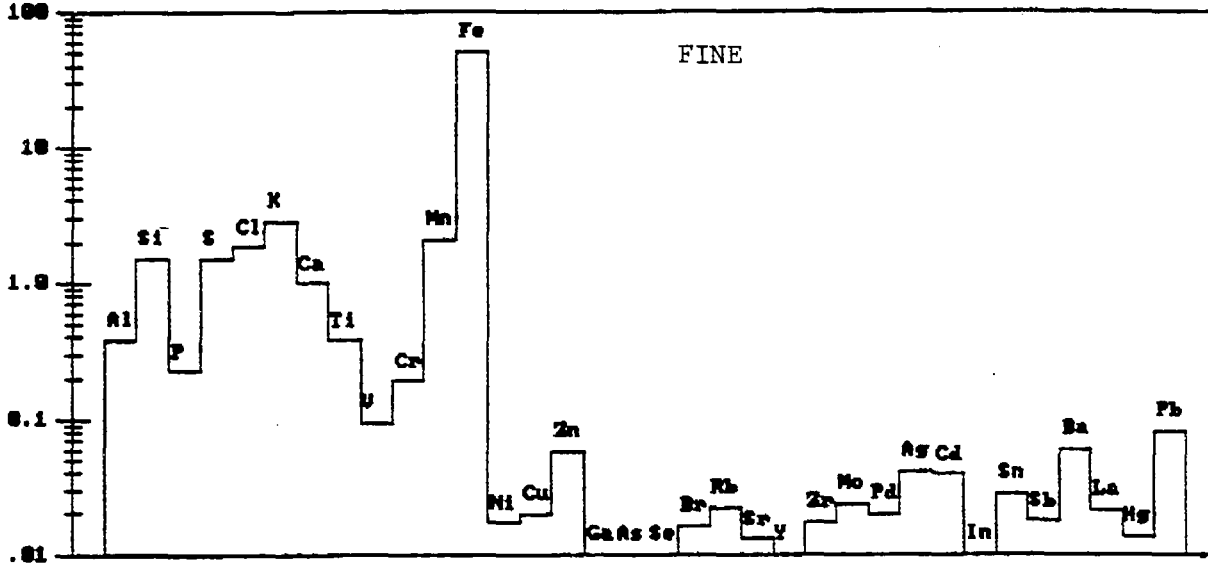


srce	part	revison	source description	reference	date
code	size	date			
5234	FCT	03/01/85	basic oxygen furnc., Cubatao	8	03/85

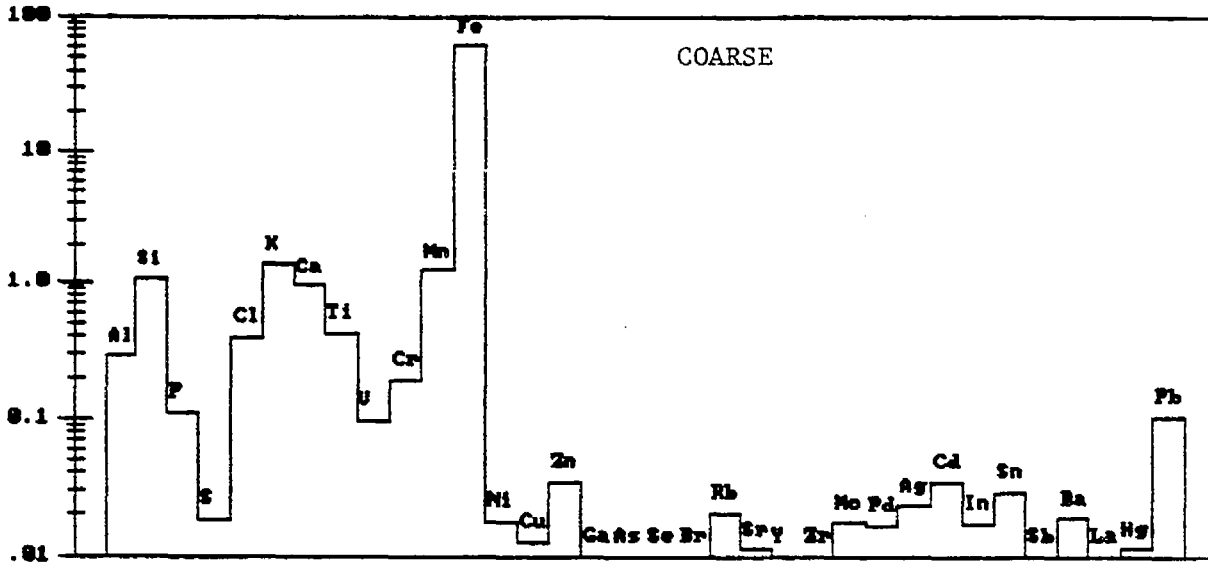
SPECIES	P E R C E N T C O M P O S I T I O N					
	FINE		COARSE		TOTAL	
Al	.3834 +-	.0552	.2849 +-	.0919	.4651 +-	.1618
Si	1.4997 +-	.6475	1.0596 +-	.6370	1.2286 +-	.5448
P	.2231 +-	.0450	.1112 +-	.0513	.1489 +-	.0558
S	1.5252 +-	1.1257	.0186 +-	.1982	1.1287 +-	1.2613
Cl	1.8192 +-	.8246	.3977 +-	.3938	.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 FURNAC., CUBATAO

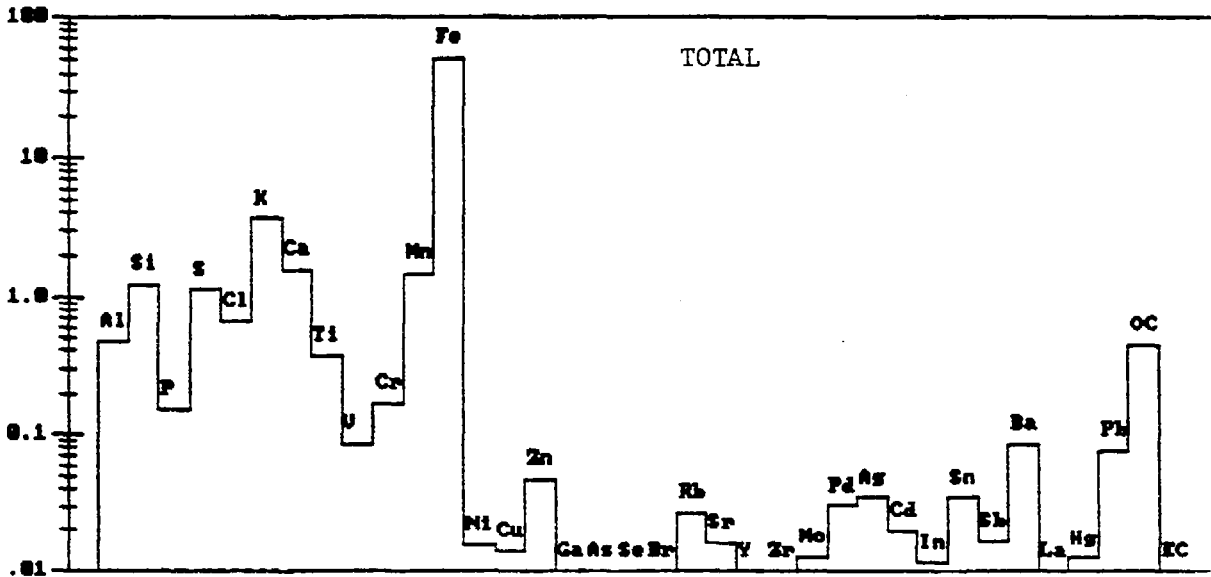
5234



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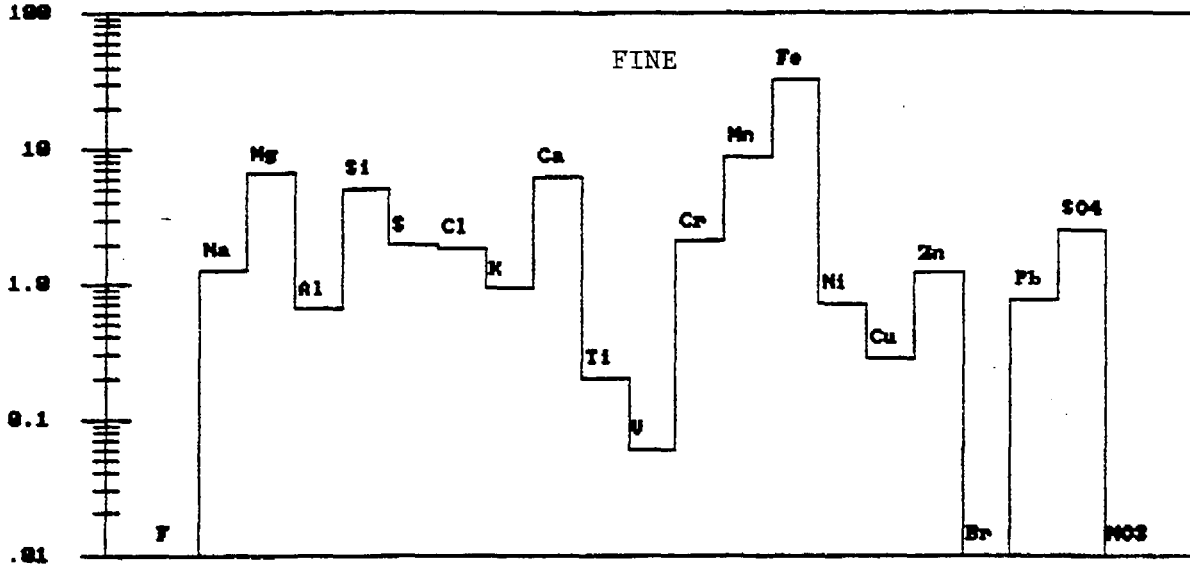


srce	part	revision	source description	reference	date
code	size	date			
5031	FCT	03/18/87	steel electric arc	7	02/79

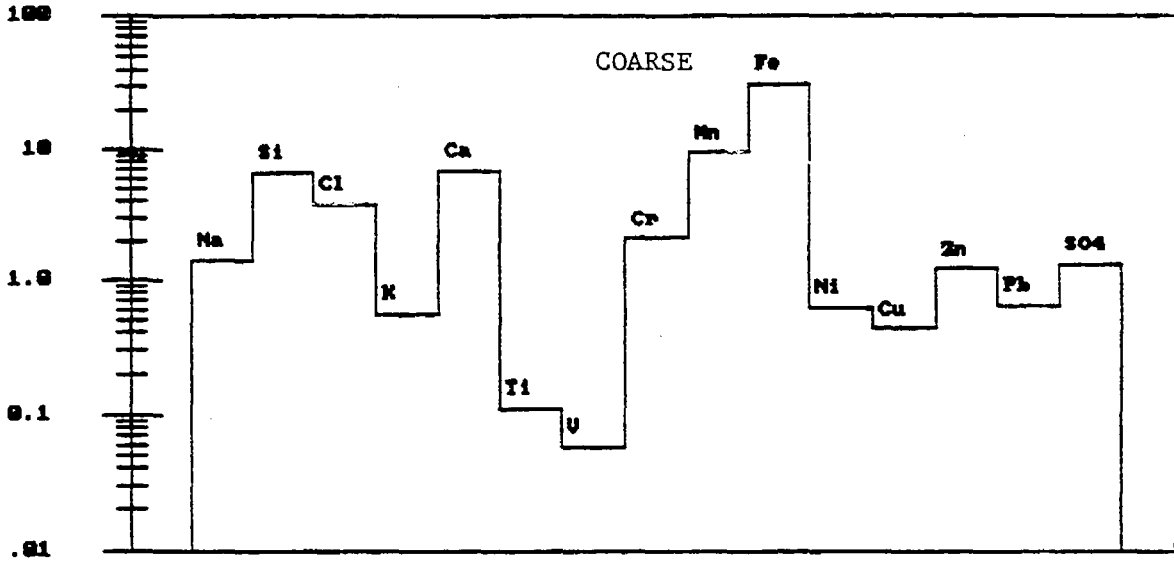
SPECIES	P E R C E N T C O M P O S I T I O N		
	FINE	COARSE	TOTAL
F	.0000 +- .5000		.0000 +- .4533
Na	1.2600 +- .4800	1.4000 +- .4200	1.2731 +- .4661
Mg	6.5000 +- .7100		5.8925 +- 1.0232
Al	.6500 +- .1600		.5893 +- .1654
Si	5.0000 +- .2100	6.6000 +- 1.9800	5.1495 +- .7028
S	1.9600 +- .0700		1.7768 +- .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

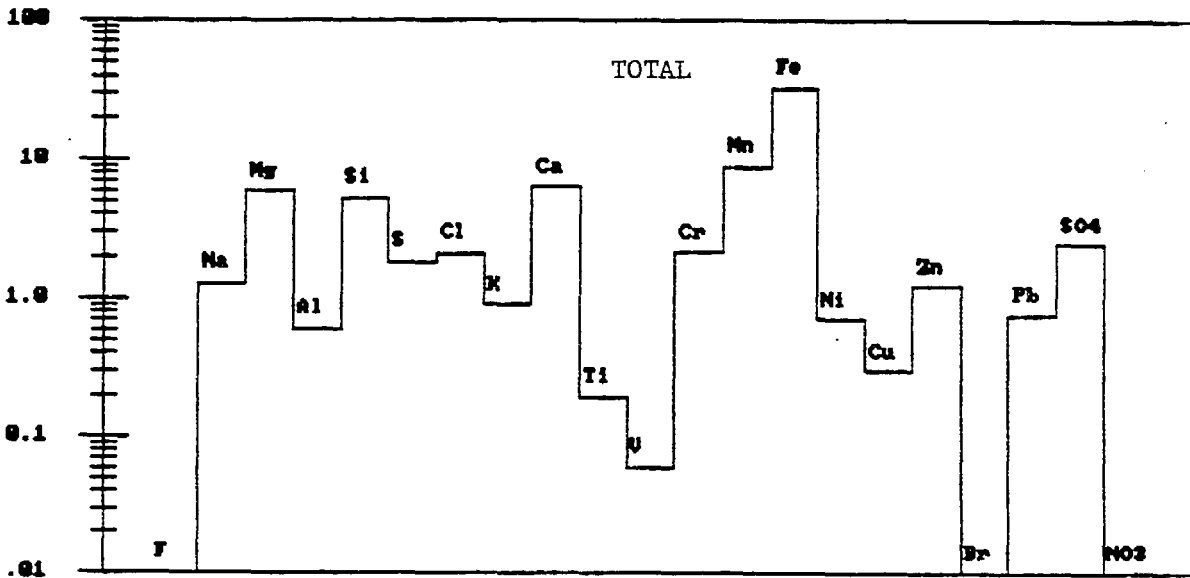
5831



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5831

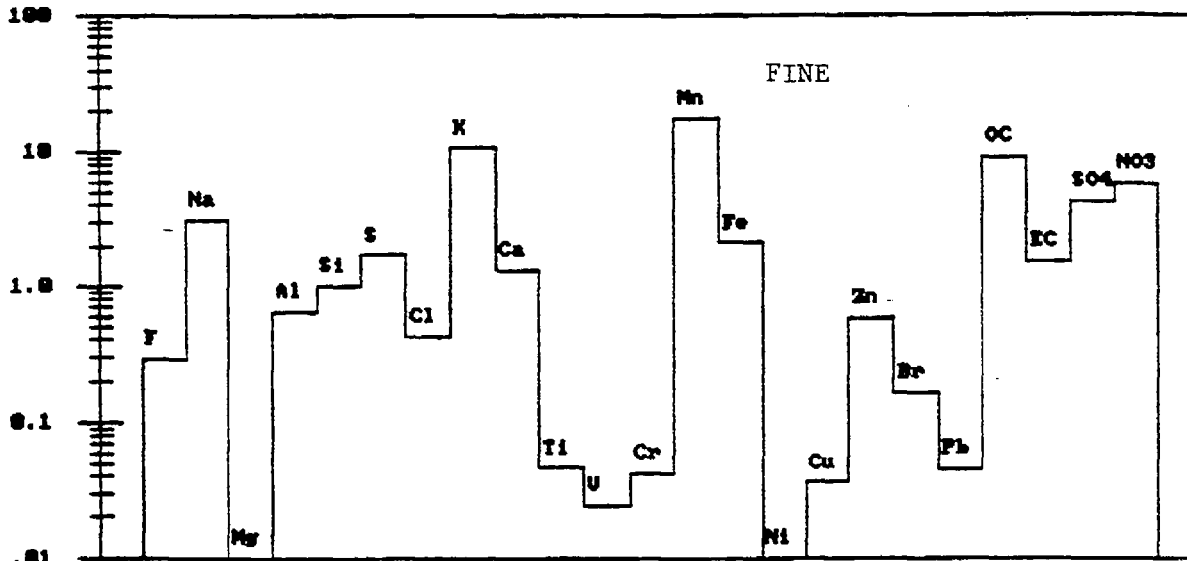


srce	part	revision	source description	reference	date
code	size	date			
5030	FCT	03/18/87	ferromanganese	7	02/79

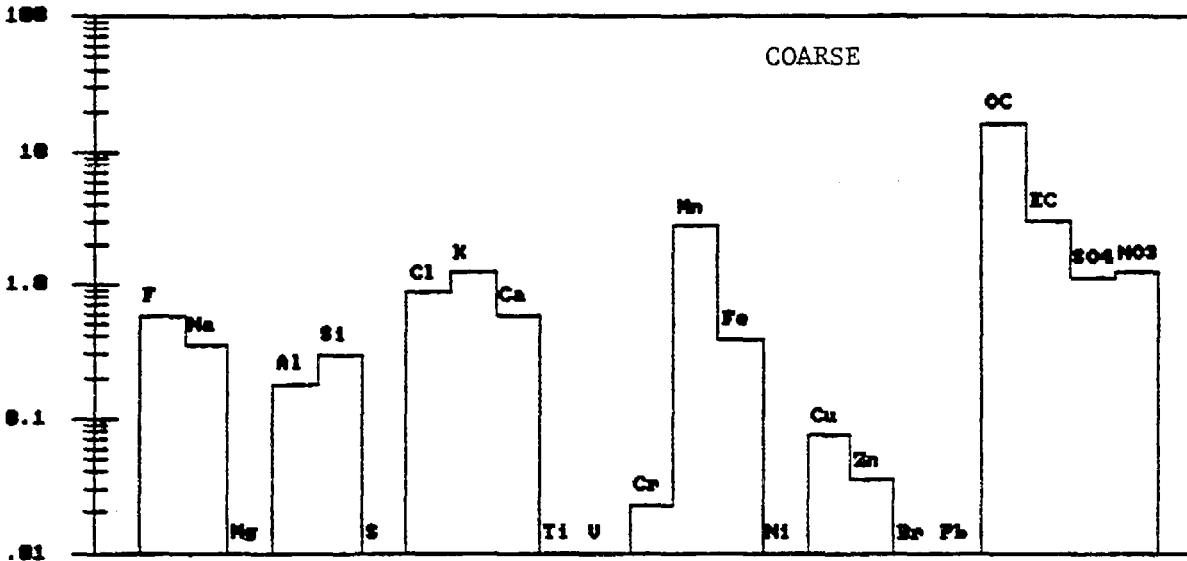
SPECIES	P E R C E N T C O M P O S I T I O N					
	FINE		COARSE		TOTAL	
F	.2900 +-	.0800	.5700 +-	.3200	.3015 +-	.0876
Na	3.1000 +-	.3000	.3400 +-	.1600	2.9869 +-	.5032
Mg	.0000 +-	4.0000	.0000 +-	2.0000	.0000 +-	3.8369
Al	.6400 +-	.1300	.1800 +-	.1100	.6211 +-	.1513
Si	.9900 +-	.3000	.2900 +-	.2700	.9613 +-	.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

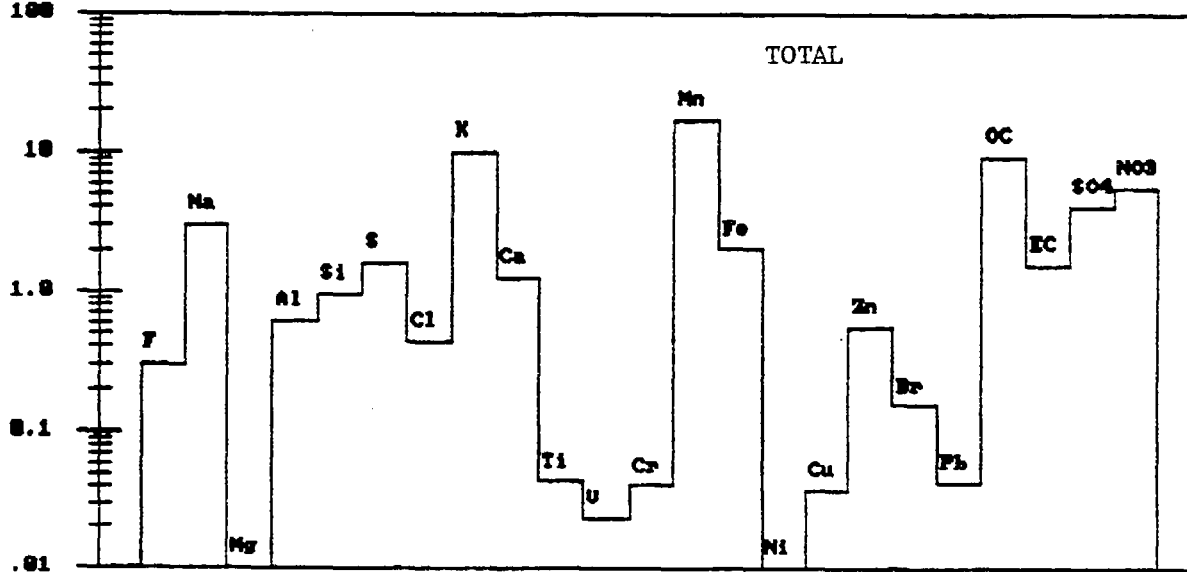
5838



5838

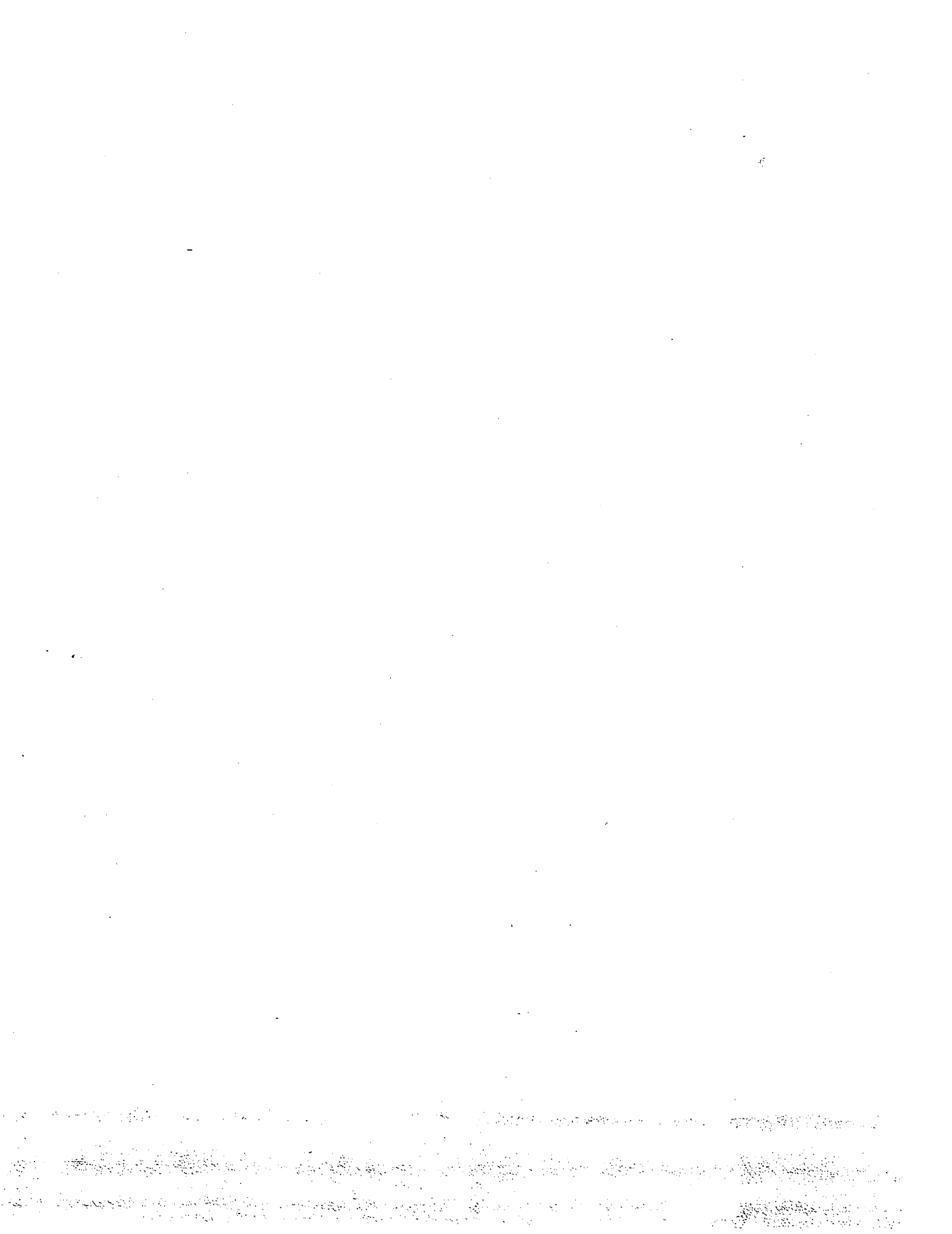


5838



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

SPECIES	P E R C E N T C O M P O S I T I O N		
	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

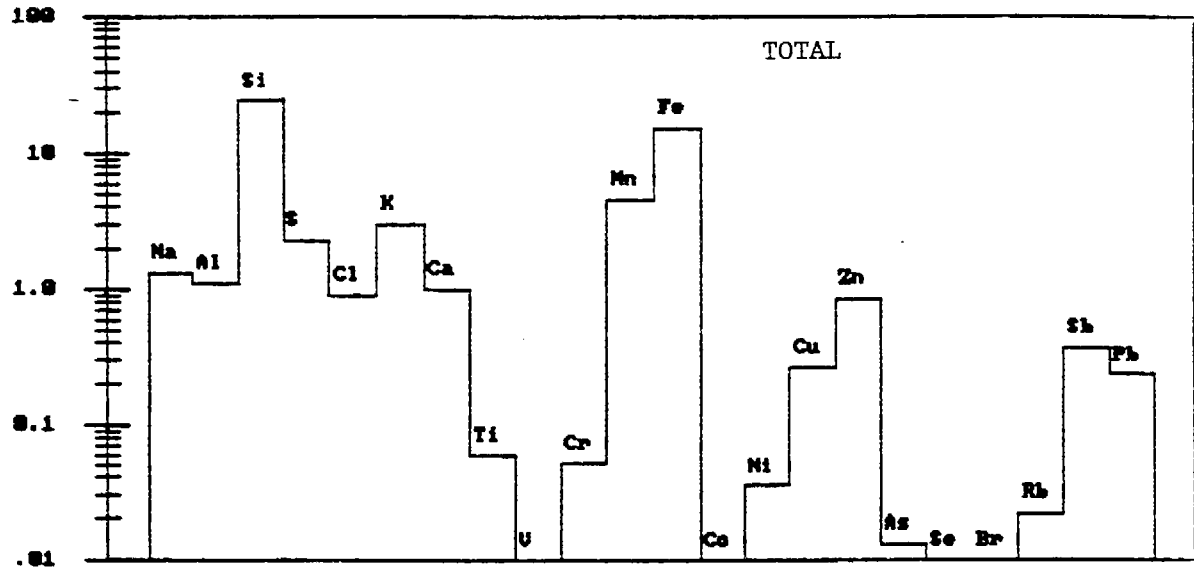


srce	part	revision	code	size	date	source description	reference	date
5431	FCT				04/10/87	Steel Sinter Plant	9	00/79

SPECIES	P E R C E N T C O M P O S I T I O N		
	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
S04	20.0000 +- 6.0000	8.0000 +- 2.4000	19.0000 +- 5.7000
Sum	98.4000	74.1000	*****

CAST IRON CUPOLA

5438

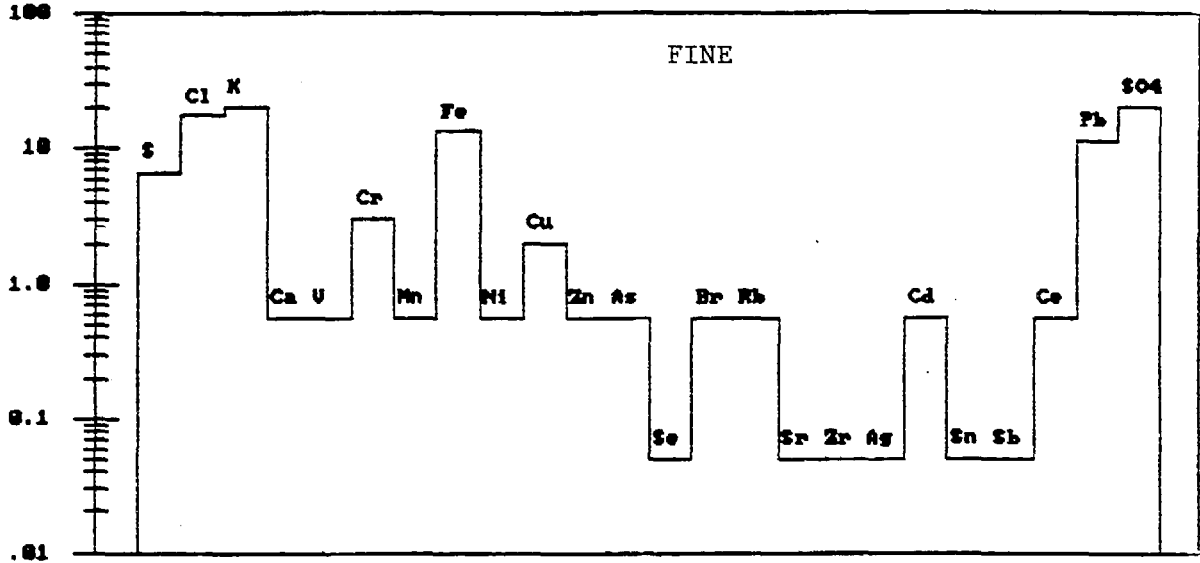


srce	part	revision	source description	reference	date
code	size	date			
5432	FCT	04/10/87	Steel Open Hearth Furnace	9	00/79

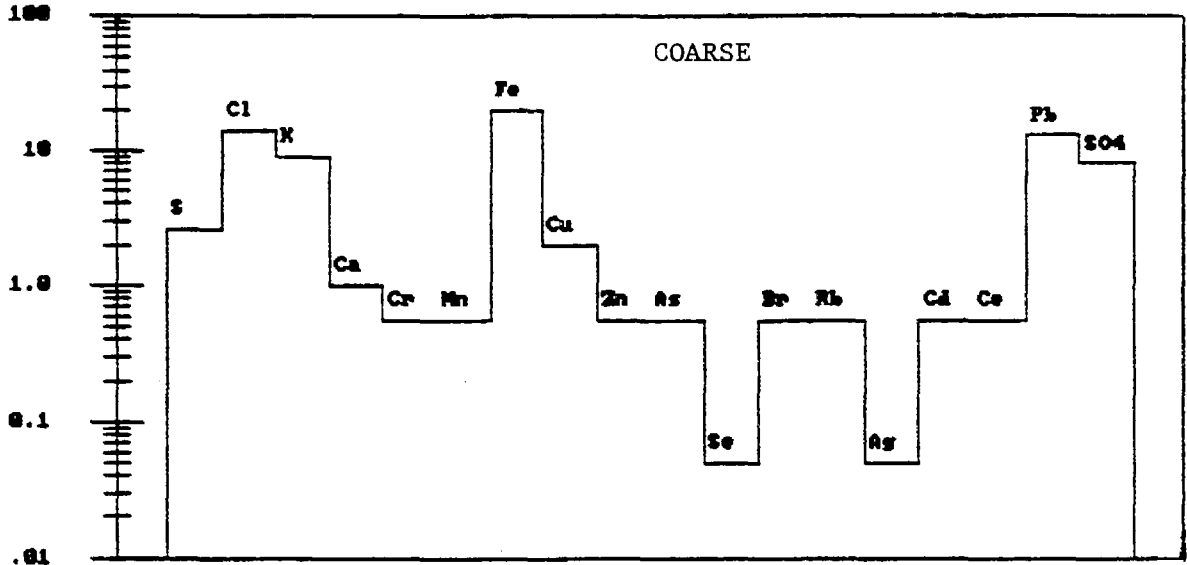
ELEM	P E R C E N T C O M P O S I T I O N		
	FINE	COARSE	TOTAL
S	13.3000 +- 3.9900	3.0000 +- .9000	13.3000 +- 3.9900
K	5.0000 +- 1.5000	5.0000 +- 1.5000	5.0000 +- 1.5000
Ca	.5500 +- .1650	.5500 +- .1650	.5500 +- .1650
V	.5500 +- .1650	.5500 +- .1650	.5500 +- .1650
Cr	2.0000 +- .6000	.5500 +- .1650	2.0000 +- .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
S04	40.0000 +-12.0000	35.0000 +-10.5000	40.0000 +-12.0000
N03	.5500 +- .1650	.5500 +- .1650	.5500 +- .1650
Sum	75.5000	63.7500	75.5000

STEEL SINTER PLANT

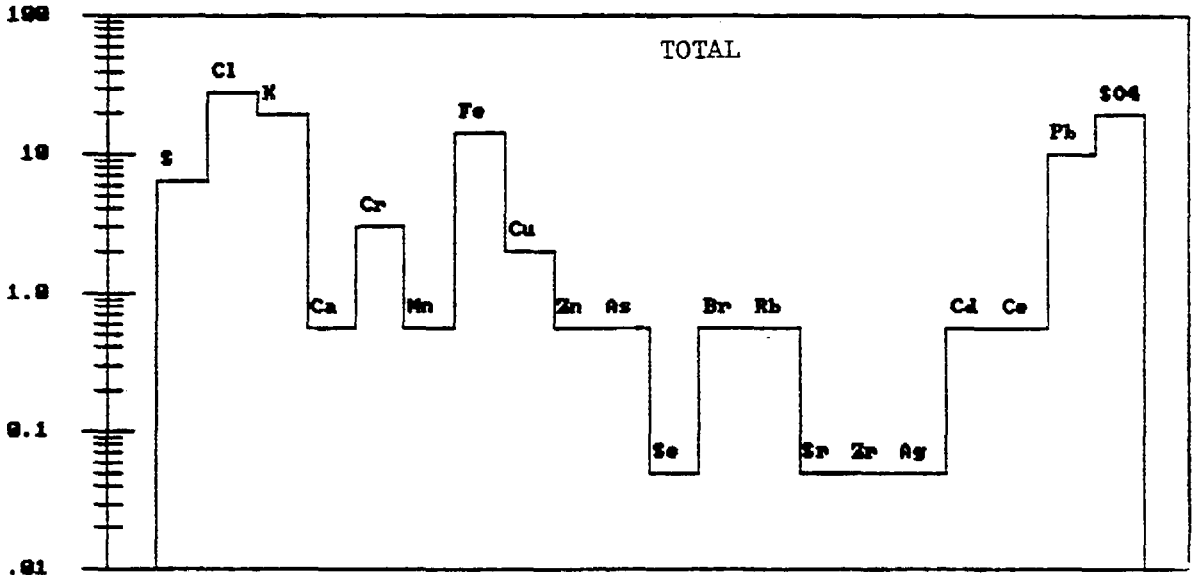
5431



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5431

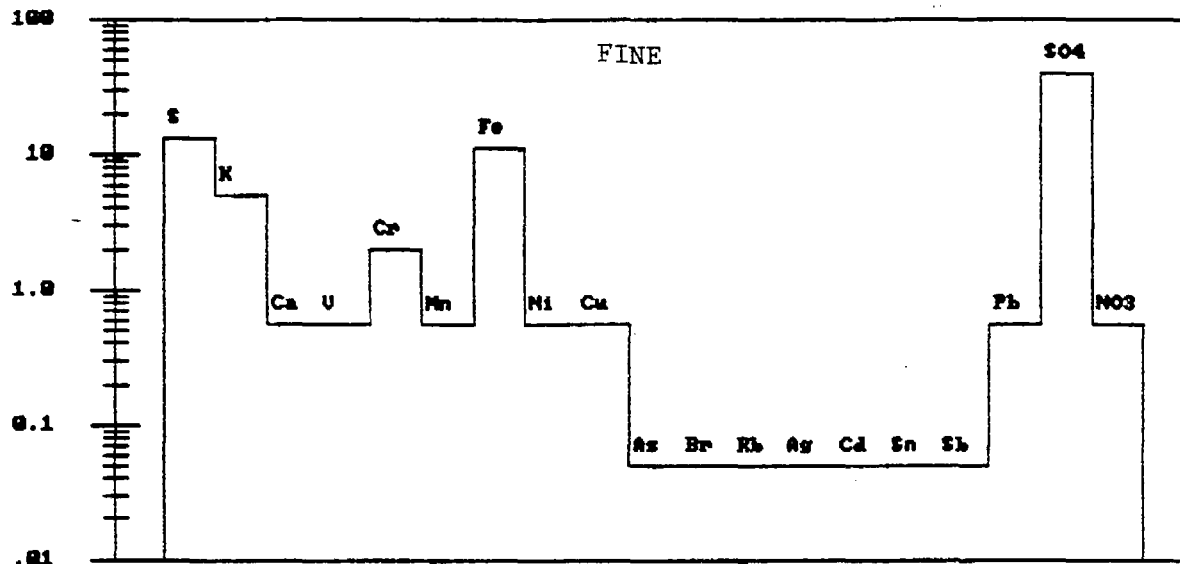


srce	part	revision	code	size	date	source description	reference	date
5433	FCT	04/10/87	Steel	Basic	Oxygen	Furnace	9	00/79

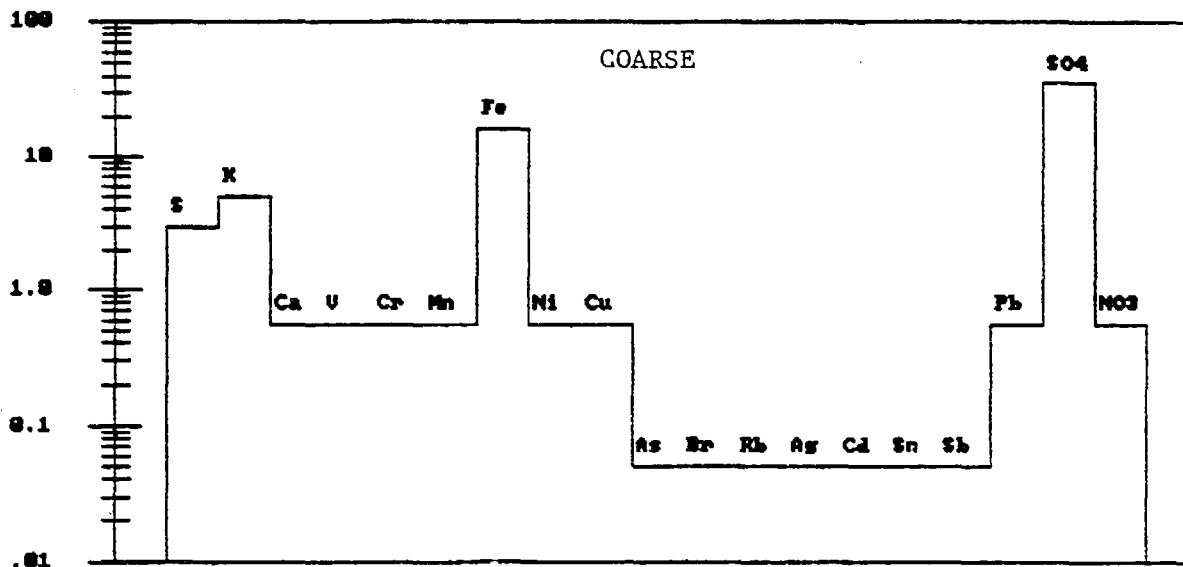
SPECIES	P E R C E N T C O M P O S I T I O N		
	FINE	COARSE	TOTAL
Si	9.9000 +- 2.9700	9.9000 +- 2.9700	9.9000 +- 2.9700
S	13.3300 +- 3.9990	13.3300 +- 3.9990	13.3300 +- 3.9990
K	5.0000 +- 1.5000	5.0000 +- 1.5000	5.0000 +- 1.5000
Ca	.5500 +- .1650	.5500 +- .1650	.5500 +- .1650
V	.5500 +- .1650	.5500 +- .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

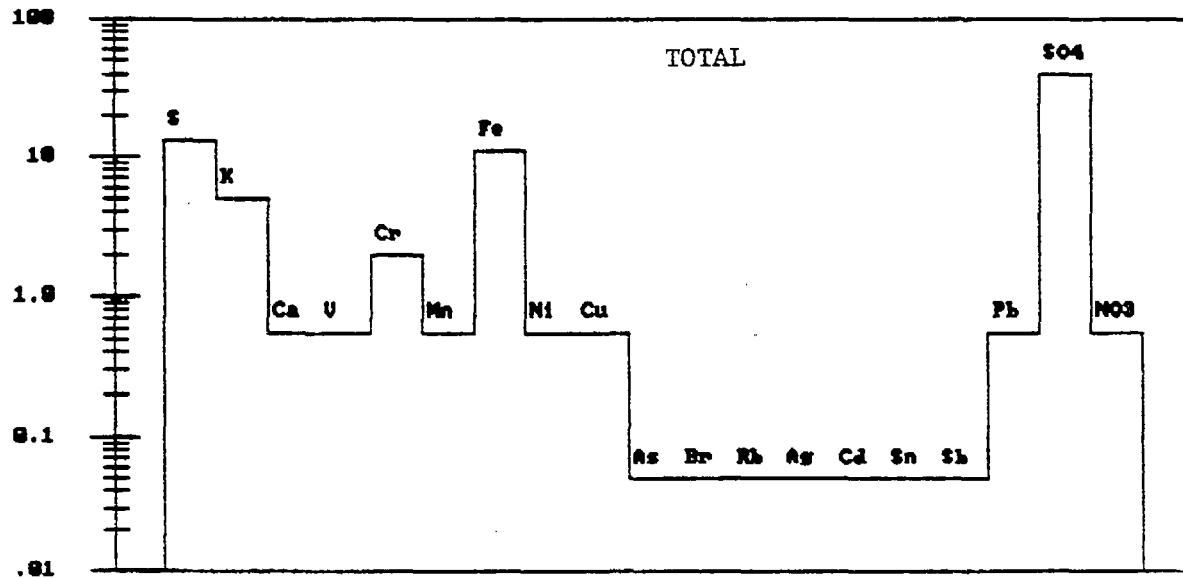
5432



5432



5432

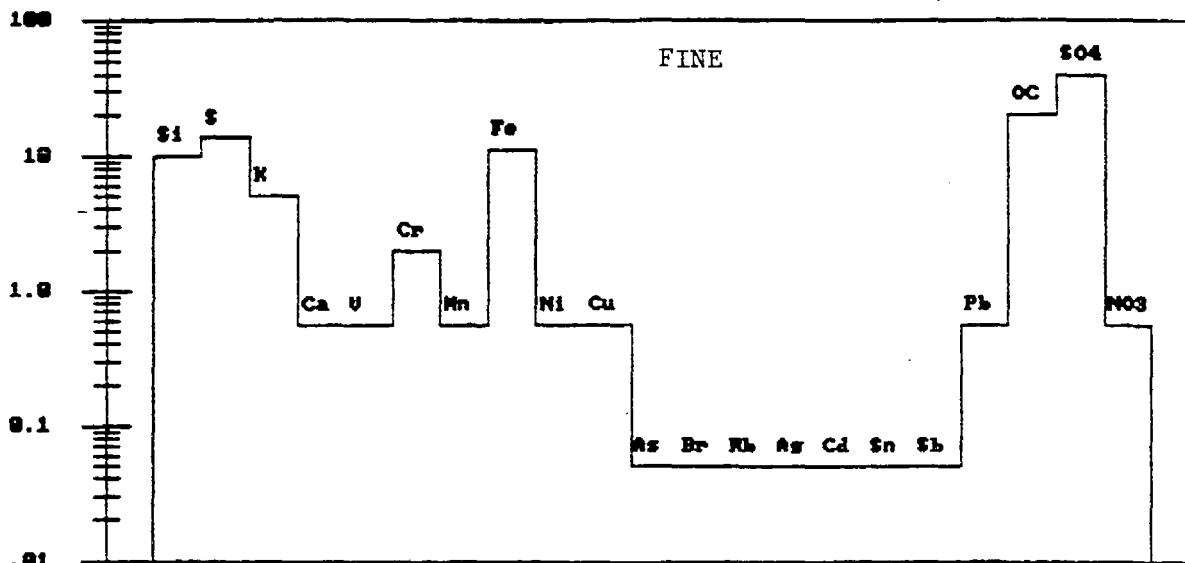


srce	part	revision	code	size	date	source description	reference	date
5434	T	04/10/87	Steel Heat Treating salt quenc				9	00/79

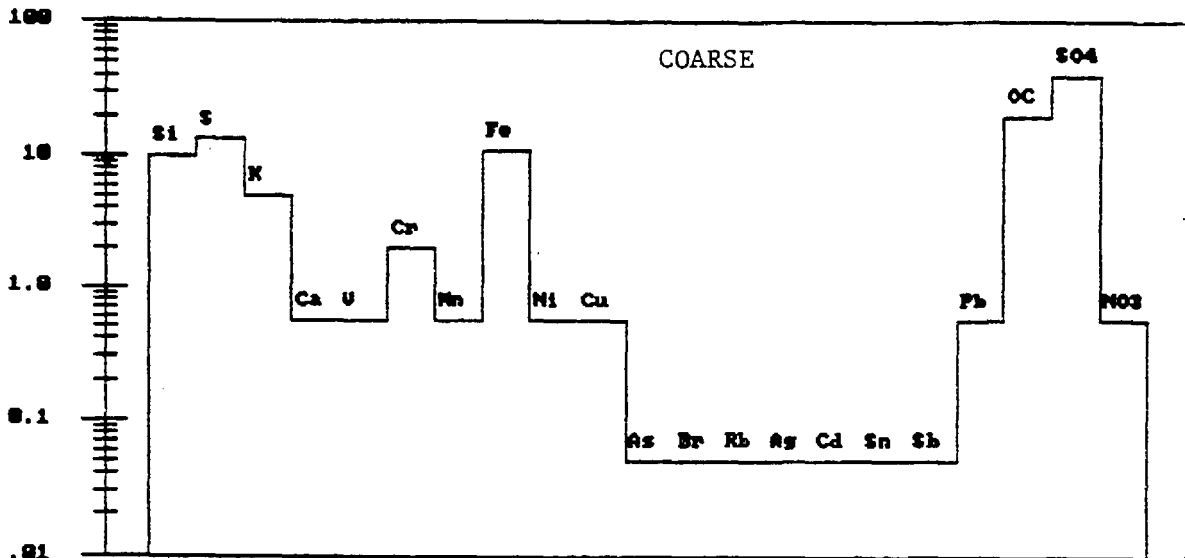
SPECIES	P E R C E N T C O M P O S I T I O N		
	FINE	COARSE	TOTAL
Cl			30.0000 +- 9.0000
K			4.0000 +- 1.2000
Ca			.5500 +- .1650
Cr			.5500 +- .1650
Fe			9.0000 +- 2.7000
Ni			2.0000 +- .6000
Cu			.0500 +- .0150
Zn			.0500 +- .0150
Br			.0500 +- .0150
Cd			.0500 +- .0150
Ba			.5500 +- .1650
Pb			.0500 +- .0150
OC			6.0000 +- 1.8000
SO4			32.0000 +- 9.6000
NO3			.5500 +- .1650
Sum			85.4500

STEEL BASIC OXYGEN FURNACE

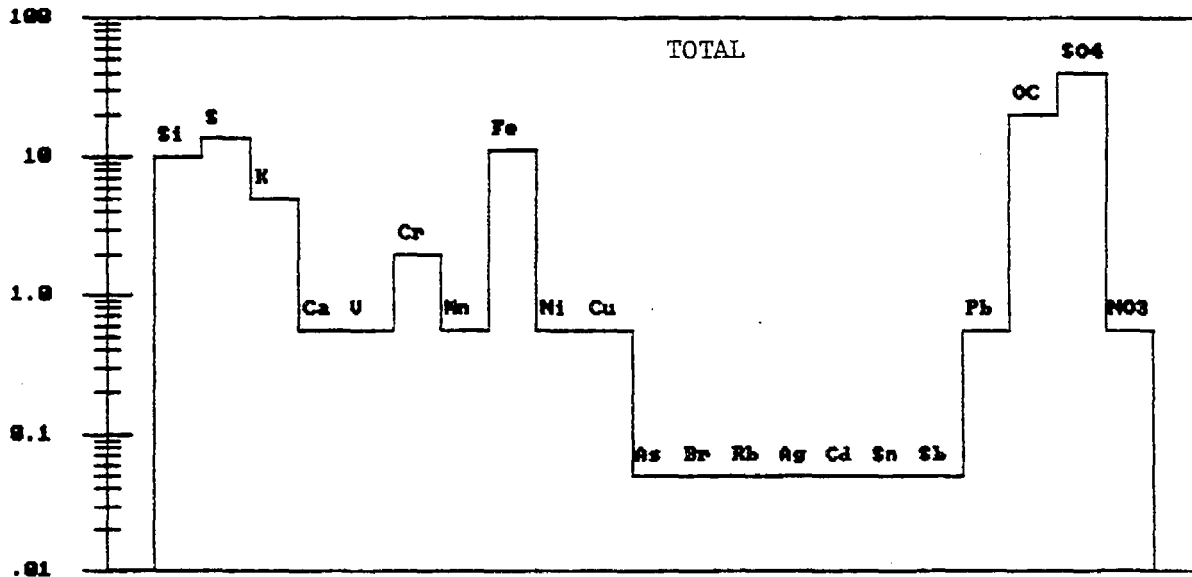
5433



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5433

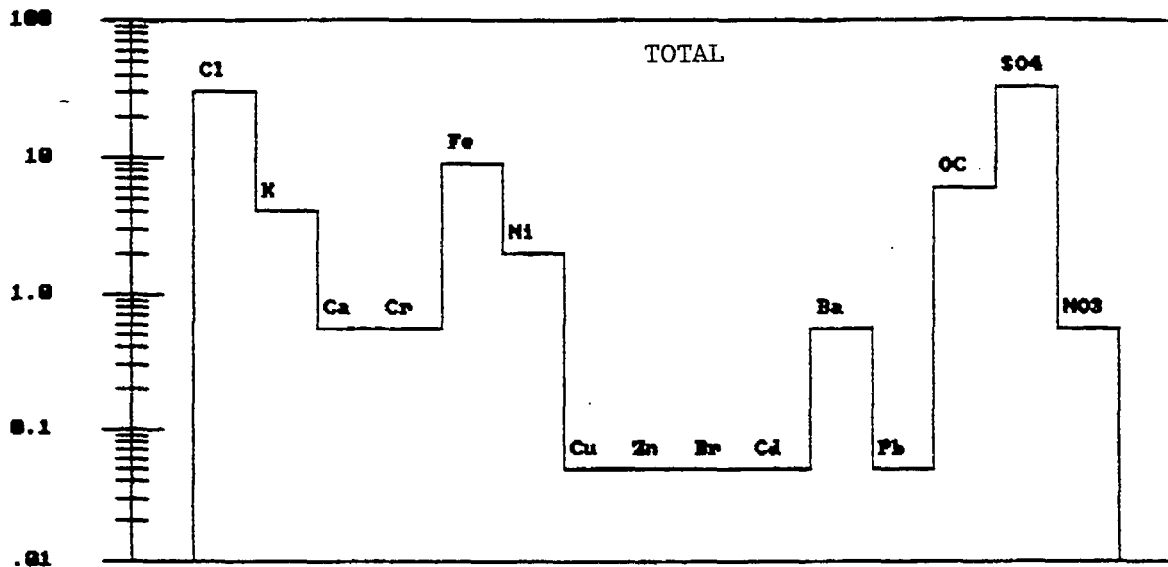


srce code	part size	revsion date	source description	reference	date
5435	F	04/10/87	Copper Primary Reverb Furnace	13	00/78

SPECIES	P E R C E N T C O M P O S I T I O N		
	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

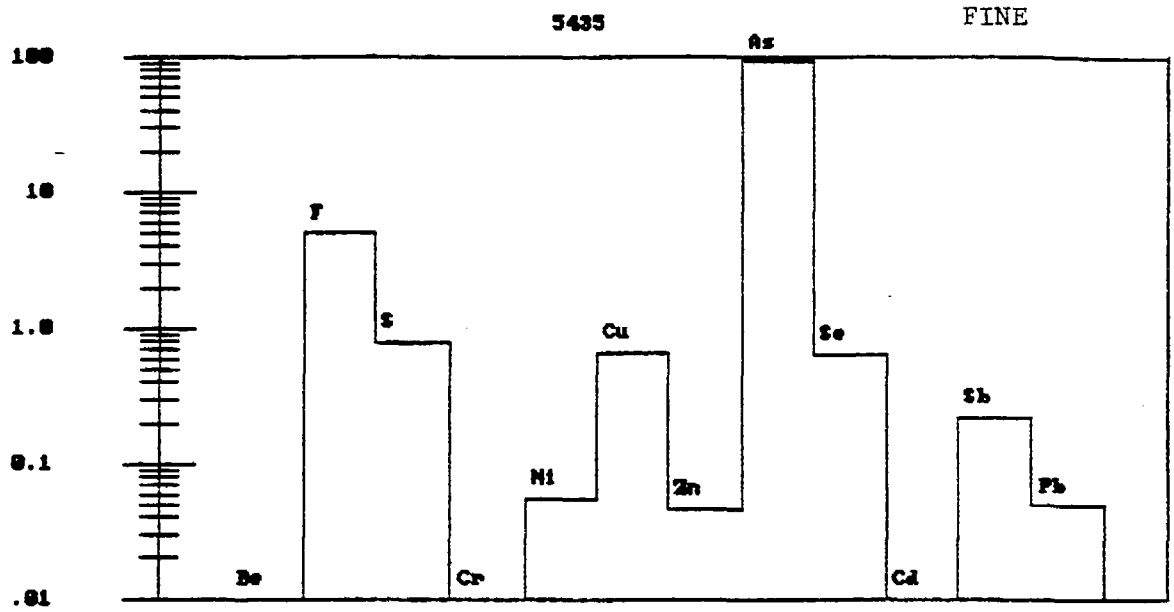
5434



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

SPECIES	P E R C E N T C O M P O S I T I O N					
	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

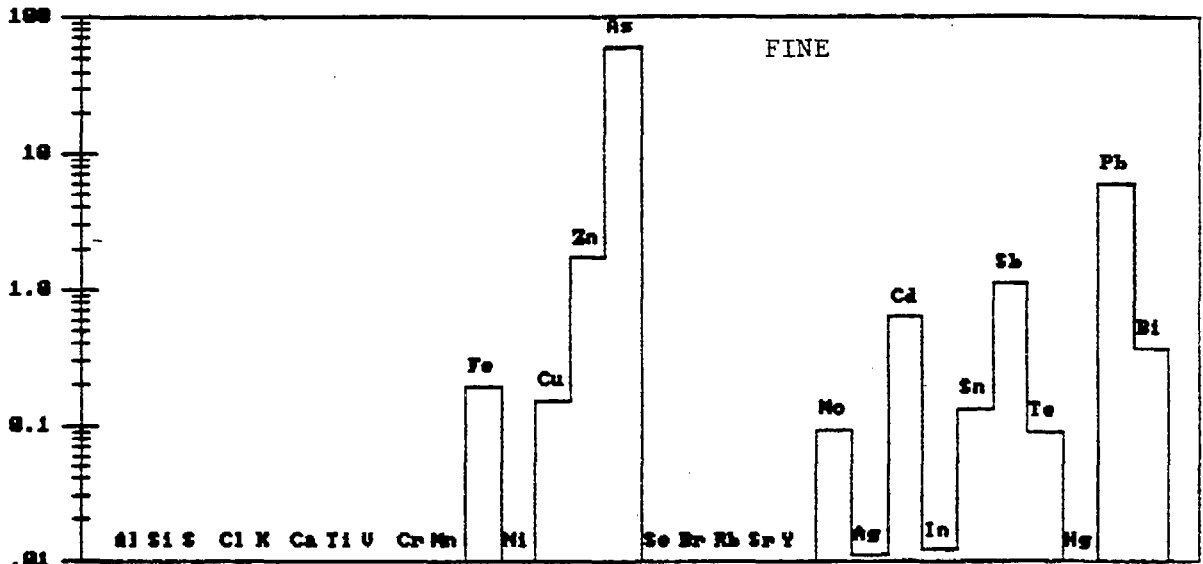


srce	part	revision	code	size	date	source description	reference	date	
5383	FCT	03/11/87	SLAG	SKIM	AND	POUR	COMPOSITE	11	03/87

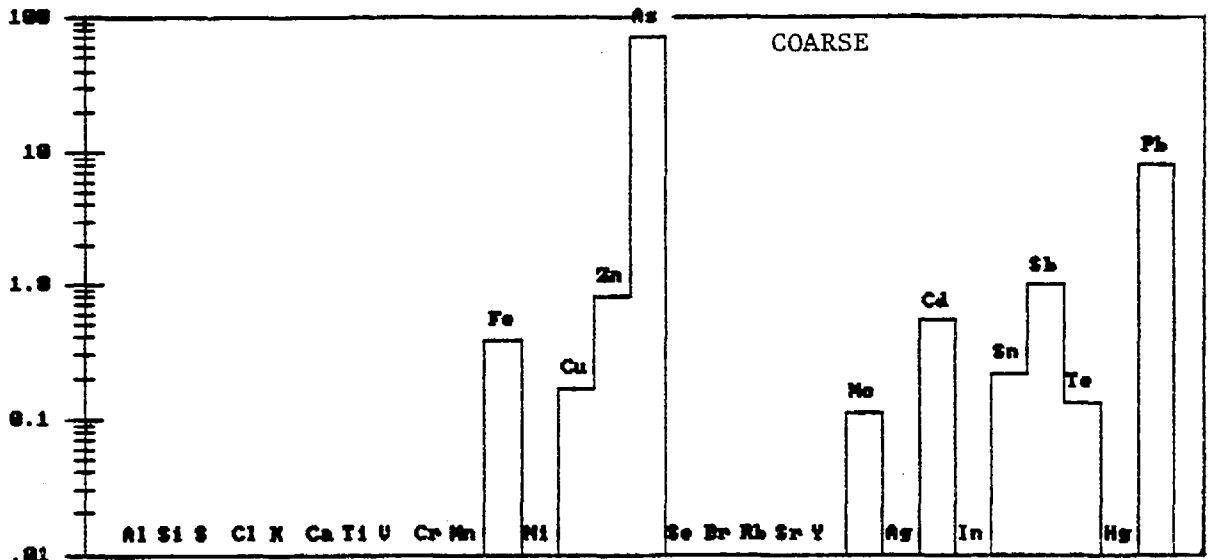
SPECIES	P E R C E N T C O M P O S I T I O N					
	FINE		COARSE		TOTAL	
Al	.0000 +- .0807	.0304 +- .7329	.0020 +- .0892			
Si	.0000 +- .2962	3.5928 +- .3593	.2330 +- .2788			
P	.0000 +- .0973	.0000 +- .2909	.0000 +- .0929			
S	.0497 +- 1.3505	.0000 +- 2.5958	.0465 +- 1.2741			
Cl	.0000 +- .2087	.0000 +- .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

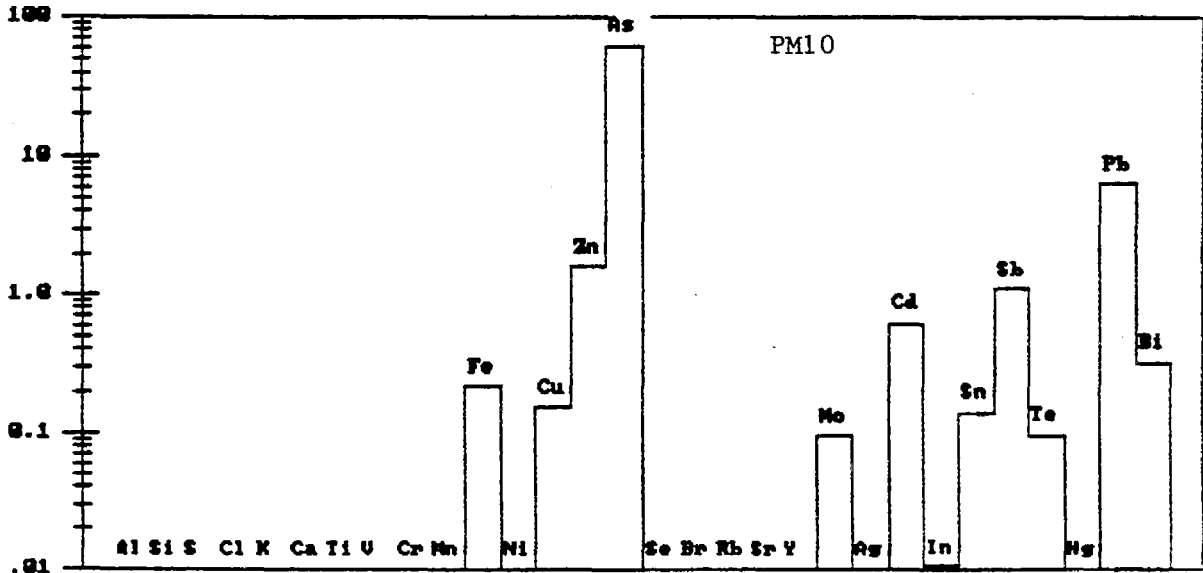
5398



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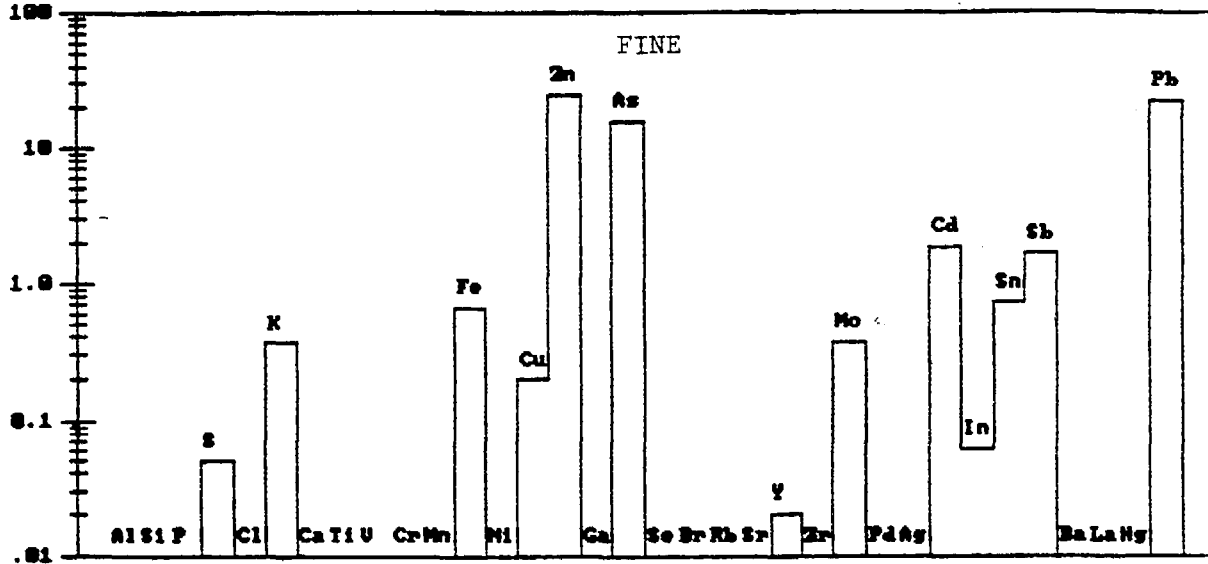


srce	part	revison	source description	reference	date
code	size	date			
5391	FCT	03/19/87	Converter Secondary Hood RTACS	10	06/85

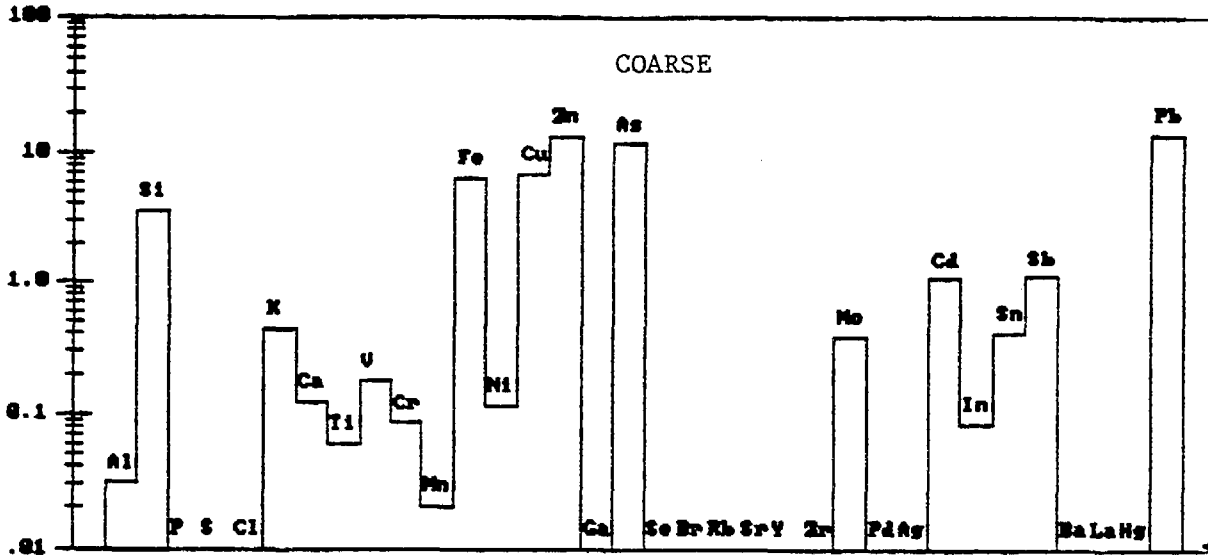
SPECIES	P E R C E N T C O M P O S I T I O N		
	FINE	COARSE	TOTAL
Al	.0000 +- .2000	.0000 +- 3.0000	.0000 +- .4130
Si	.0000 +- .2000	.0000 +-10.0000	.0000 +- 1.2591
S	.0000 +- 2.0000	.0000 +-30.0000	.0000 +- 4.1300
Cl	.0000 +- .2000	.0000 +- 5.0000	.0000 +- .6476
K	.0000 +- .4000	.0000 +- 5.0000	.0000 +- .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

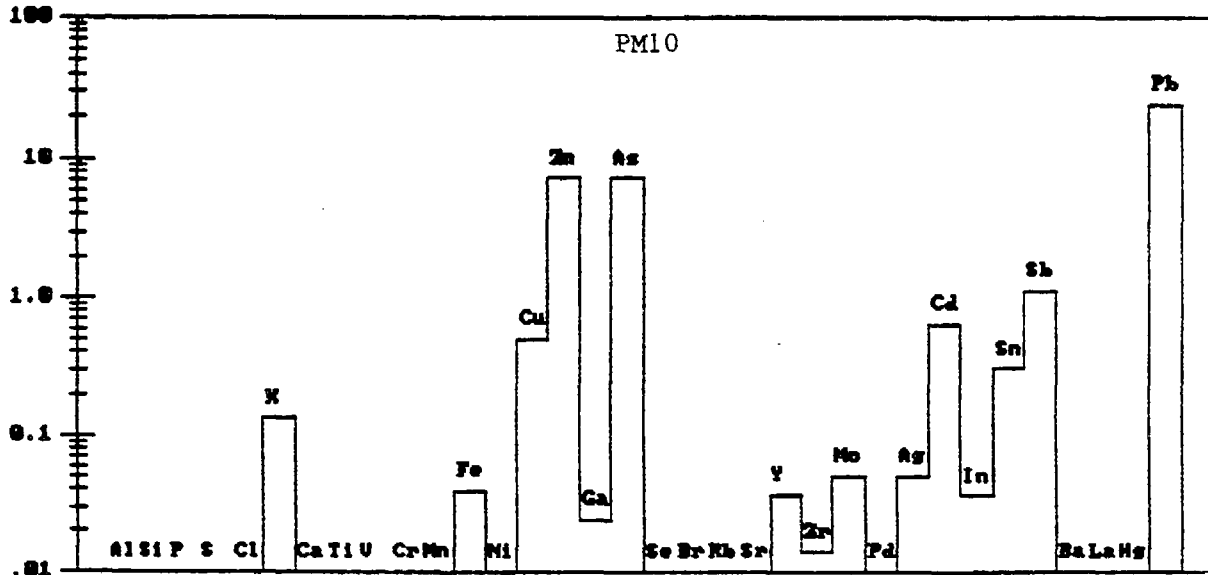
5383



5383



5385

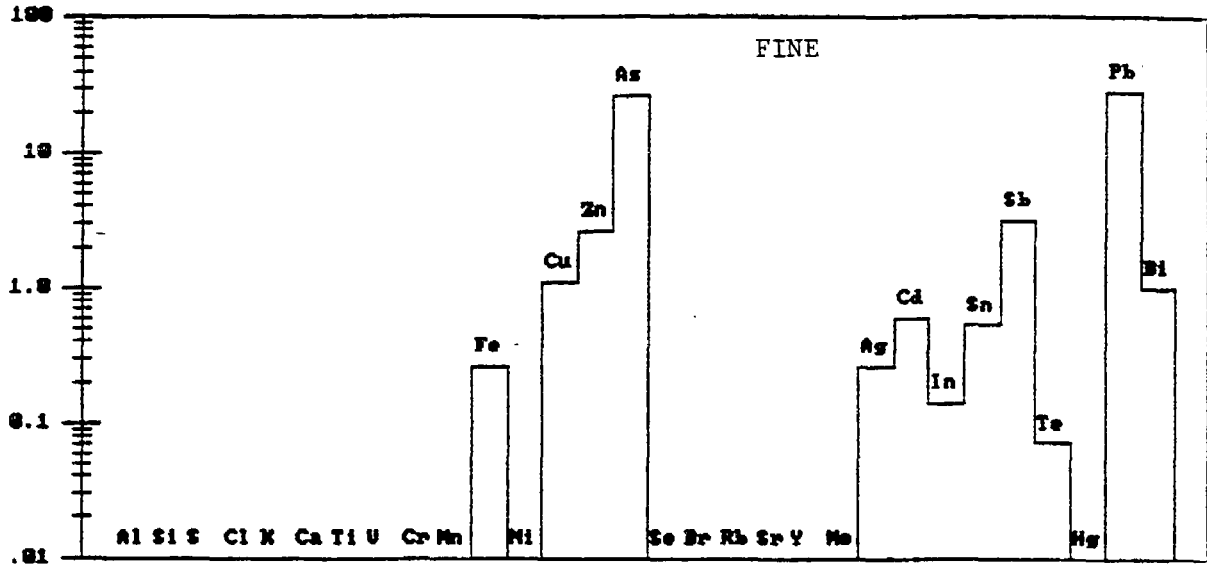


srce	part	revision	source description	reference	date
code	size	date			
5385	FCT	03/27/87	SECONDARY CONVERTER COMPOSITE	11	03/87

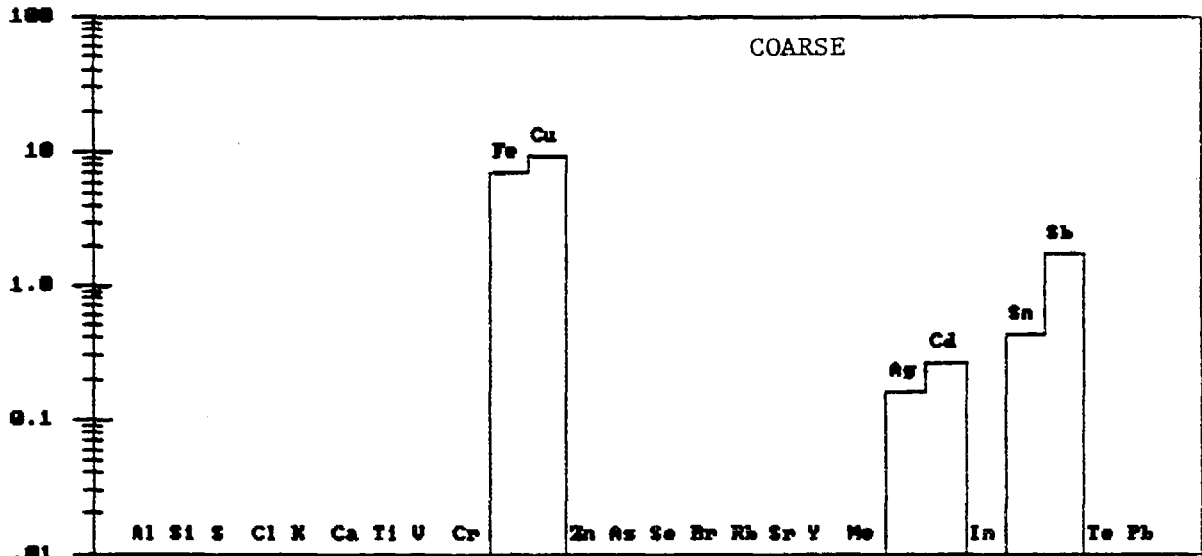
SPECIES	P E R C E N T C O M P O S I T I O N					
	FINE		COARSE		TOTAL	
Al	.0000 +-	.0391	.0000 +-	.5029	.0000 +-	.0487
Si	.0000 +-	.2313	.0000 +-	1.9987	.0000 +-	.2514
P	.0000 +-	.0867	.0000 +-	.4955	.0000 +-	.0871
S	.0000 +-	1.3932	.0000 +-	4.0307	.0000 +-	1.3292
Cl	.0000 +-	.2150	.0000 +-	.6777	.0000 +-	.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

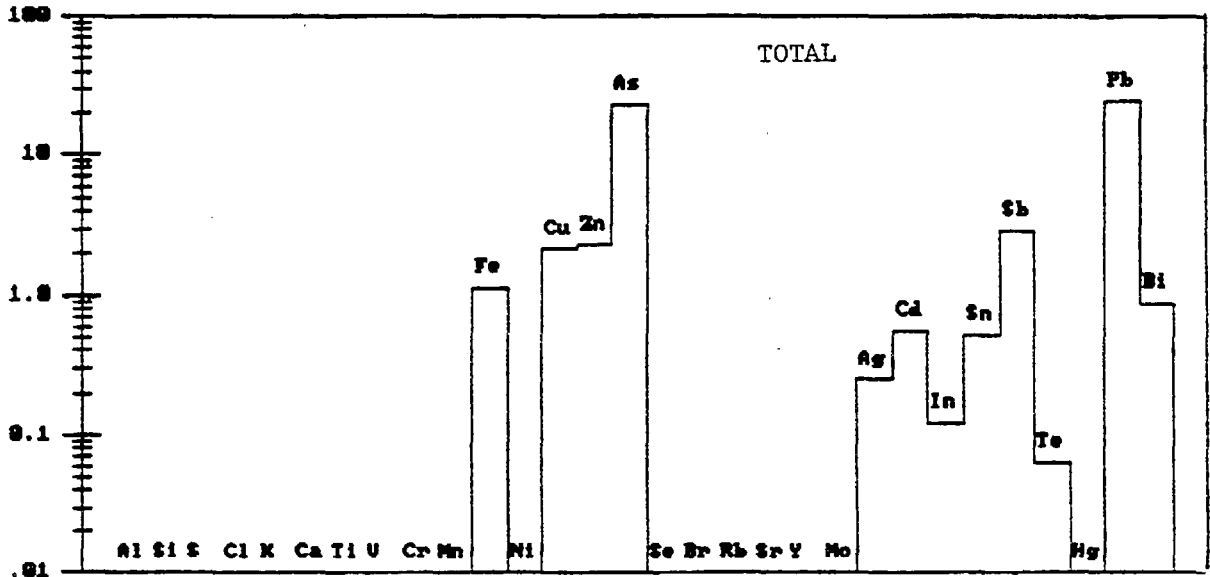
5391



5391



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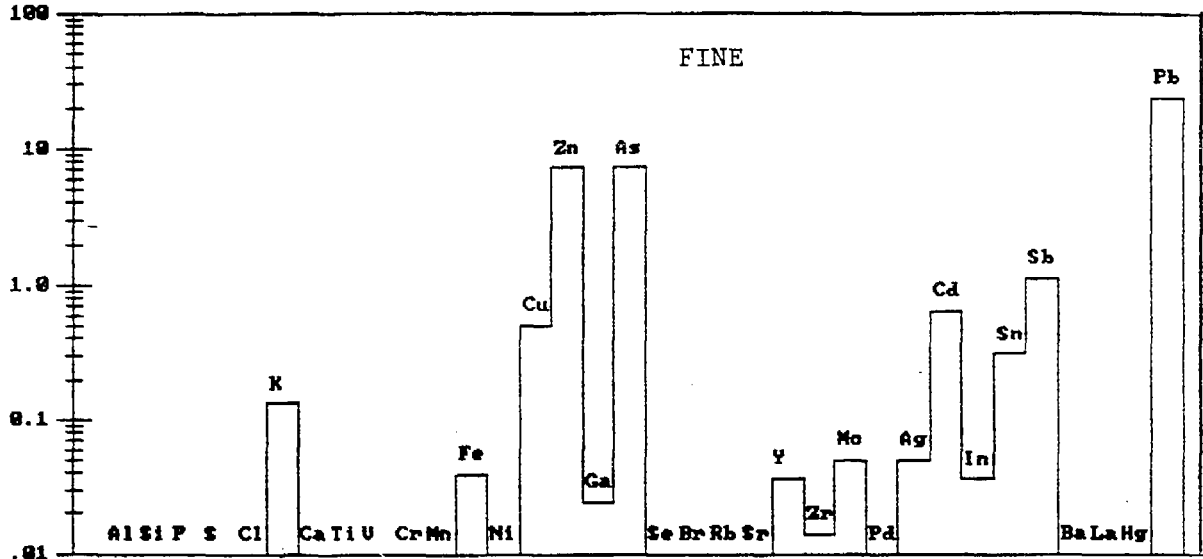


srce	part	revision	source description	reference	date
code	size	date			
5369	FCT	03/27/87	MATTE & SLAG TAP; FLASH FURNACE	11	03/87

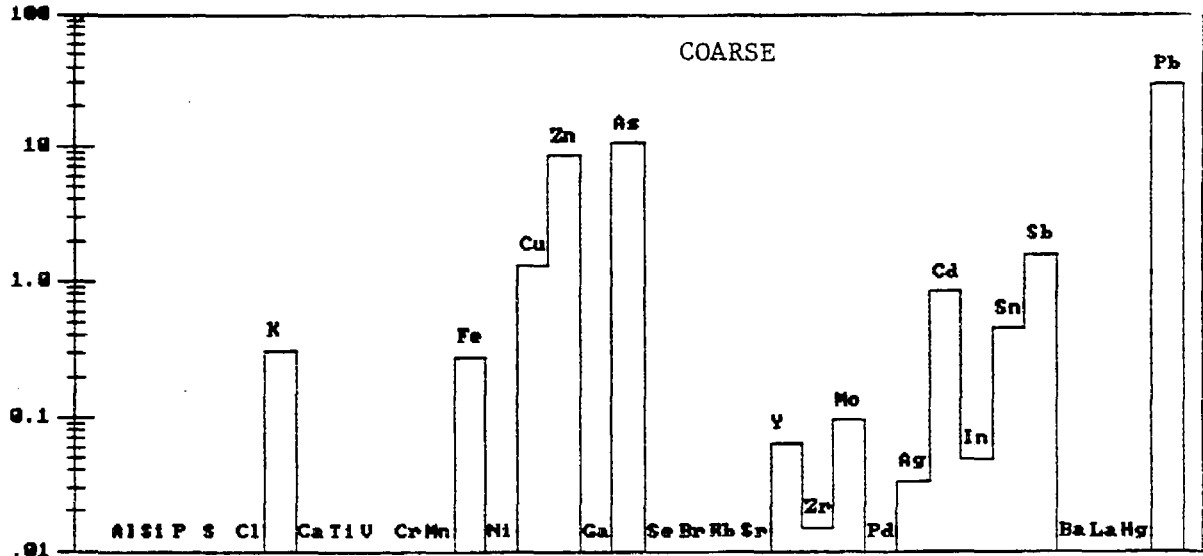
SPECIES	P E R C E N T C O M P O S I T I O N					
	FINE		COARSE		TOTAL	
Al	.0000 +-	.2283	.0000 +-	.6908	.0000 +-	.2183
Si	.0000 +-	.2041	2.1882 +-	.3610	.1365 +-	.1927
P	.0000 +-	.0880	.0000 +-	.1666	.0000 +-	.0831
S	.0000 +-	1.1951	.4671 +-	3.4552	.0291 +-	1.1411
Cl	.0000 +-	.1848	.0000 +-	.5356	.0000 +-	.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	2.5881 +-	.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

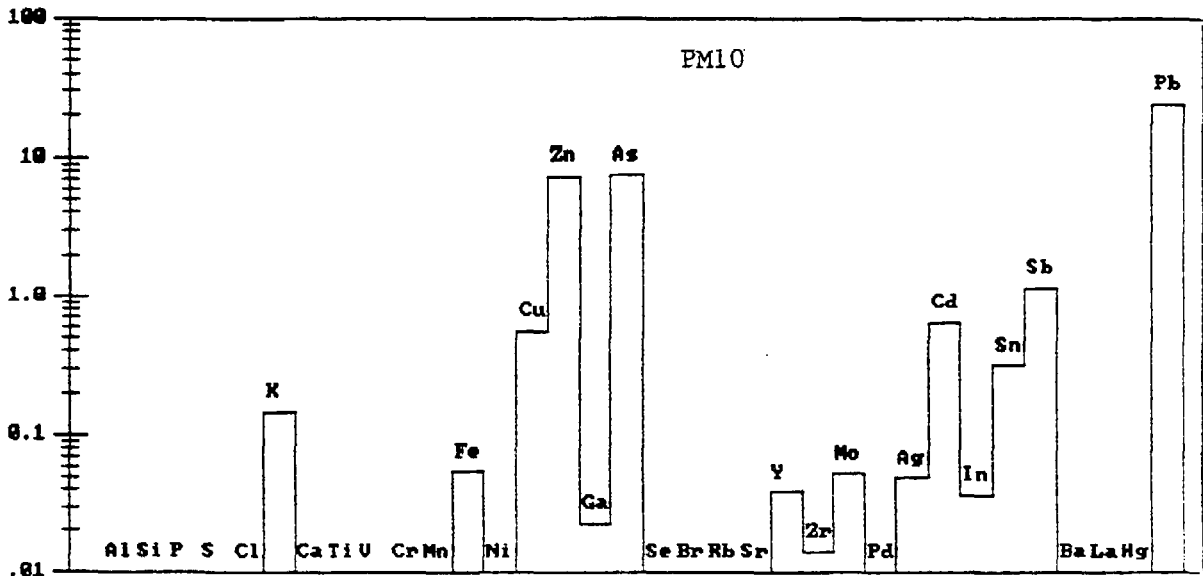
5385



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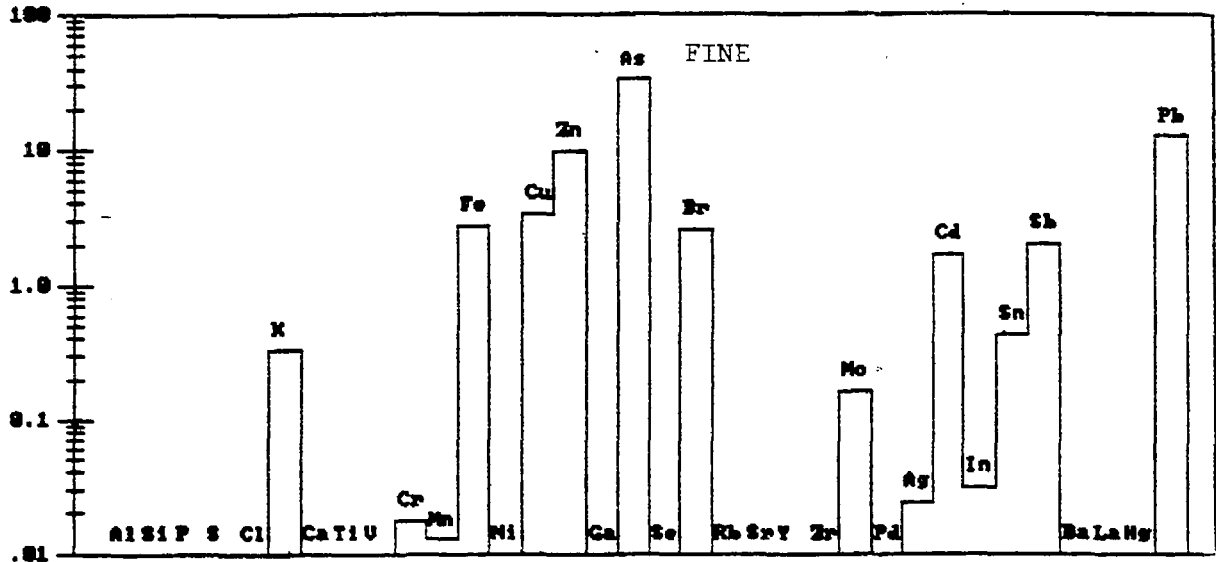


srce	part	revision	source description	reference	date
code	size	date			
5389	FCT	03/19/87	Copper Process Stack RTACS	10	06/85

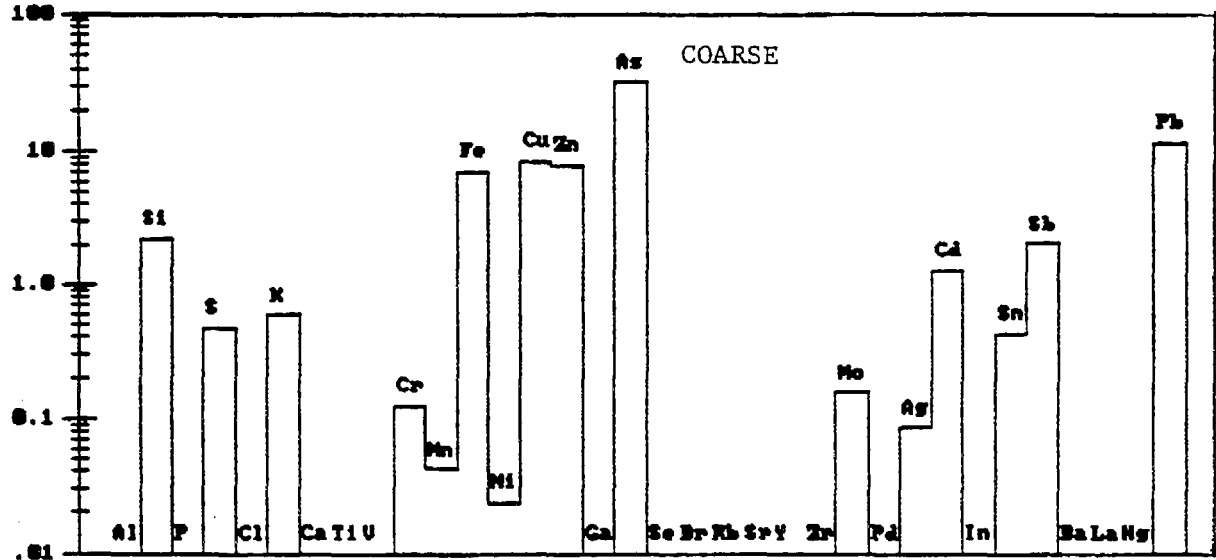
SPECIES	P E R C E N T C O M P O S I T I O N		
	FINE	COARSE	TOTAL
Al	.0000 +- .2000	.0000 +- 2.0000	.0000 +- .4426
Si	.0000 +- .2000	.0000 +- 1.0000	.0000 +- .2605
S	.0000 +- 2.0000	.0000 +- 2.0000	.0000 +- 1.6397
Cl	.0000 +- .3000	.0000 +- .5000	.0000 +- .2595
K	.0000 +- .5000	.0000 +- .5000	.0000 +- .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

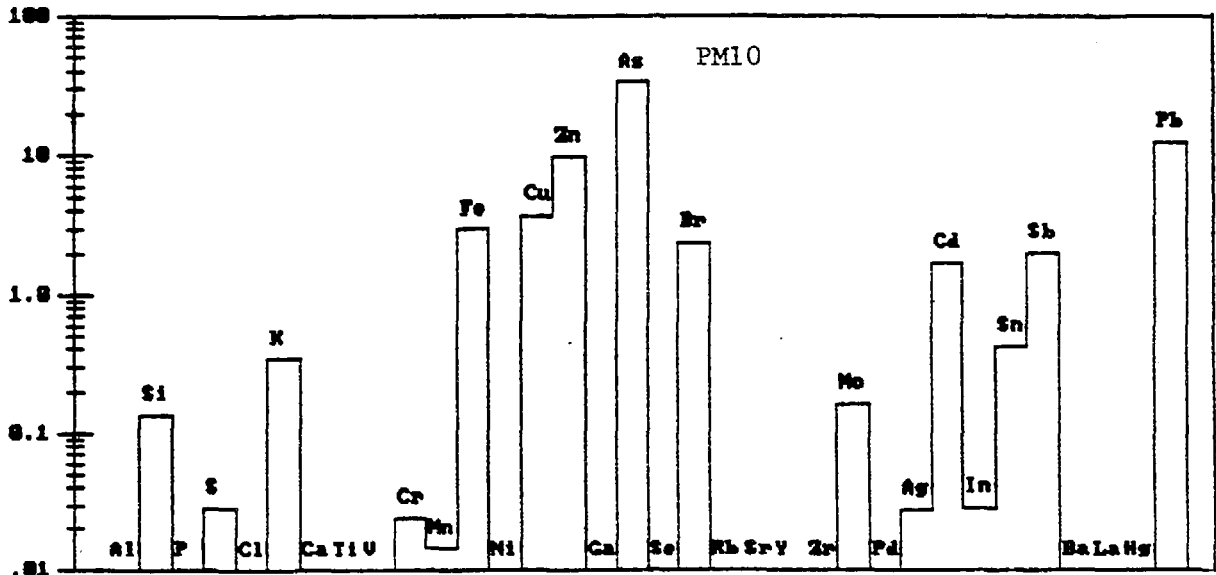
5369



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5369

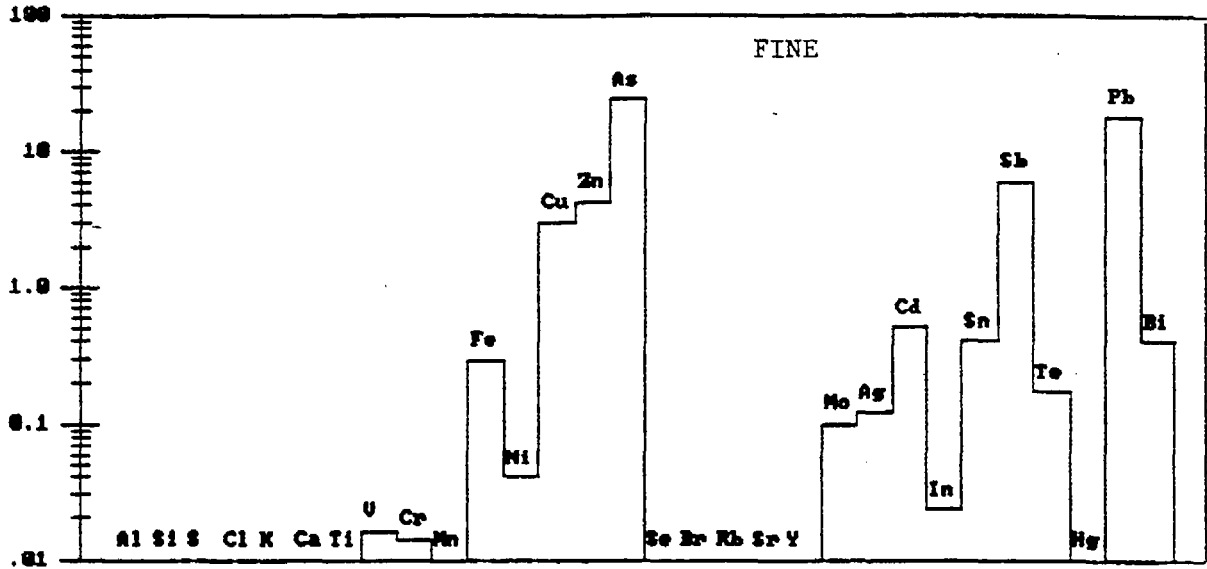


srce	part	revision	source description	reference	date
code	size	date			
5388	FCT	03/19/87	Herrechoff Roaster Calcine	10	06/85

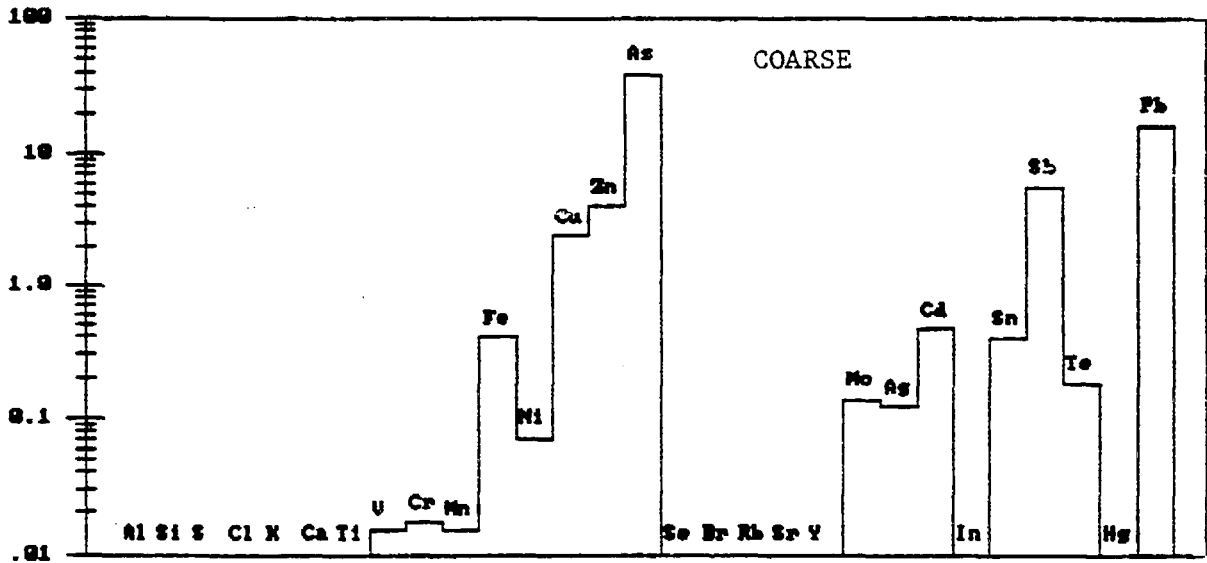
SPECIES	P E R C E N T C O M P O S I T I O N					
	FINE		COARSE		TOTAL	
Al	6.3000	+-.6000	2.4000	+-.2000	2.6208	+-.1956
Si	13.5000	+-.1.2000	4.8000	+-.5000	5.2925	+-.4836
S	9.8000	+-.9000	8.1000	+-.3000	8.1962	+-.2965
Cl	.0000	+-.1000	.0000	+-.1000	.0000	+-.0945
K	1.0100	+-.1000	.4200	+-.0800	.4534	+-.0759
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

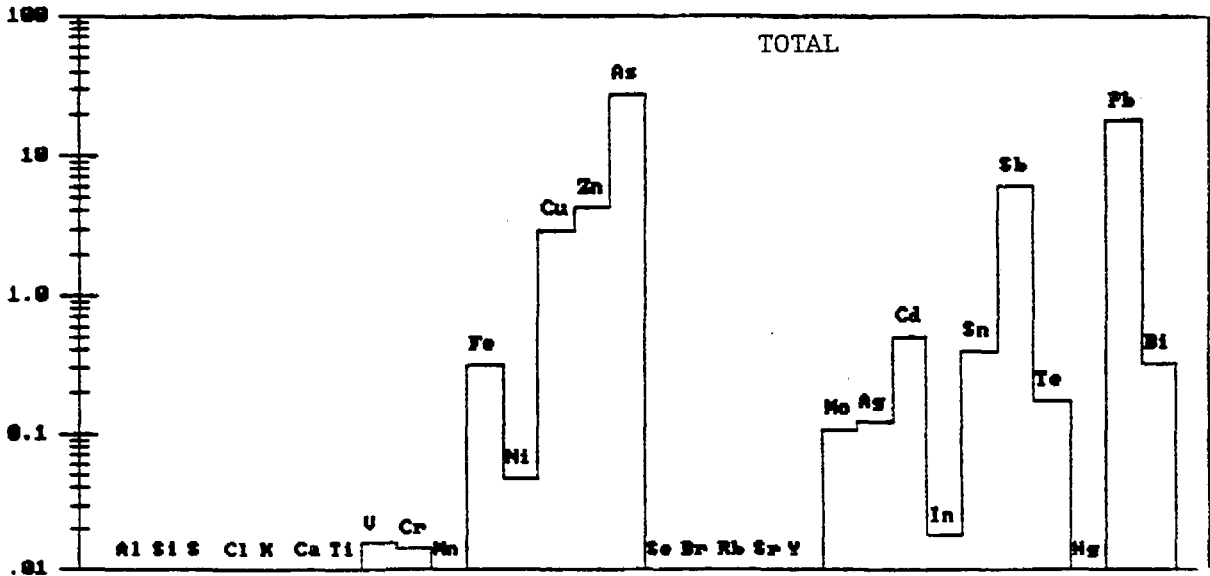
5389



5389



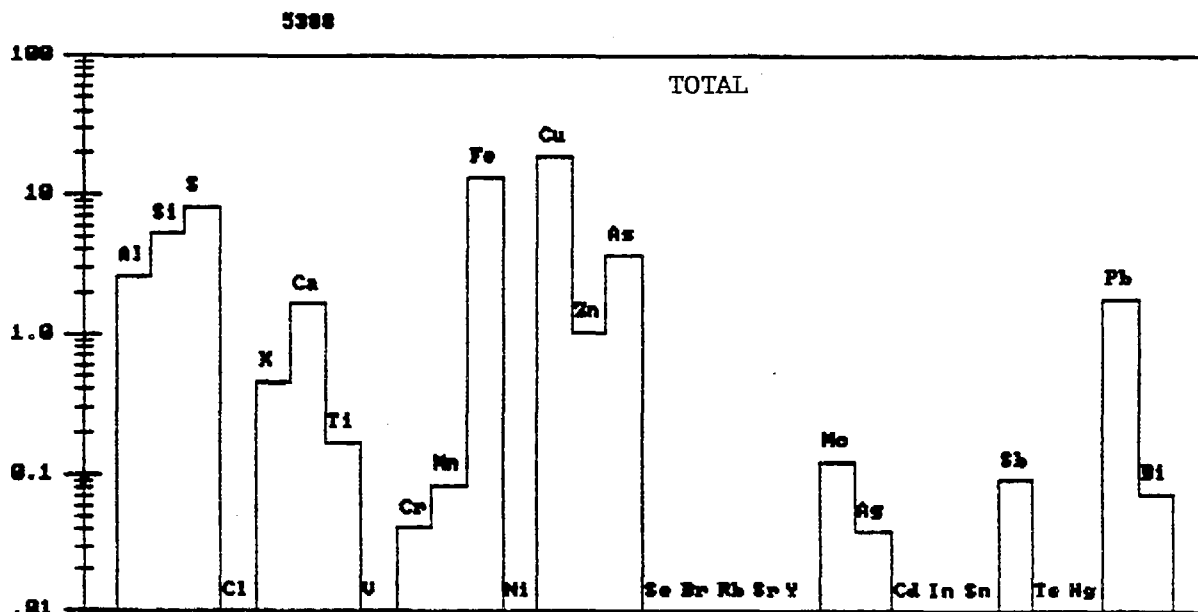
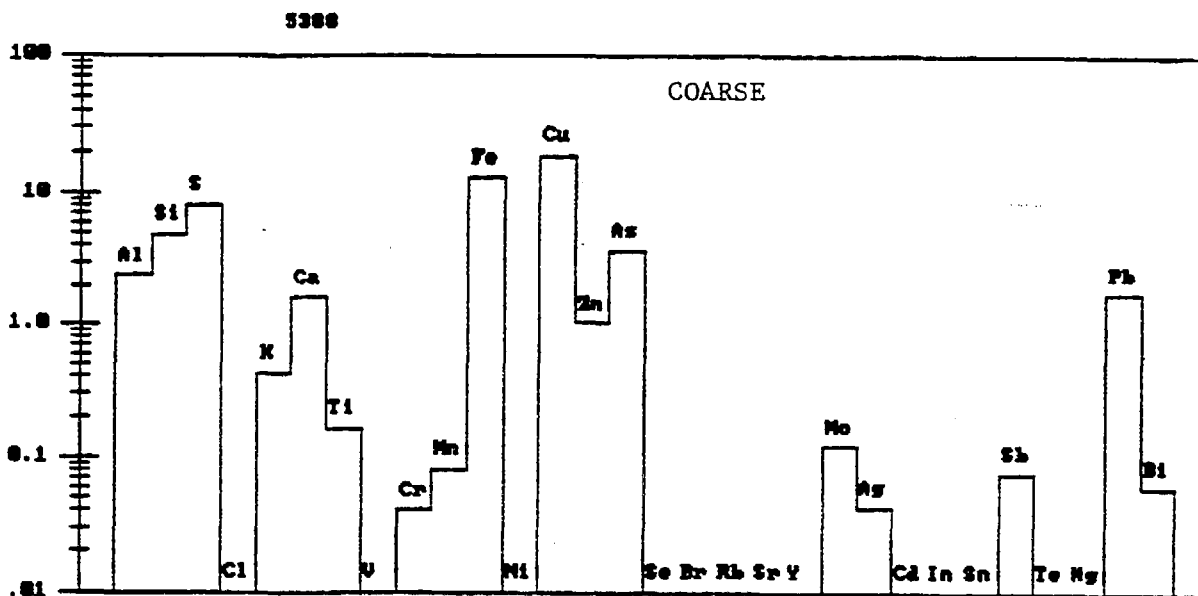
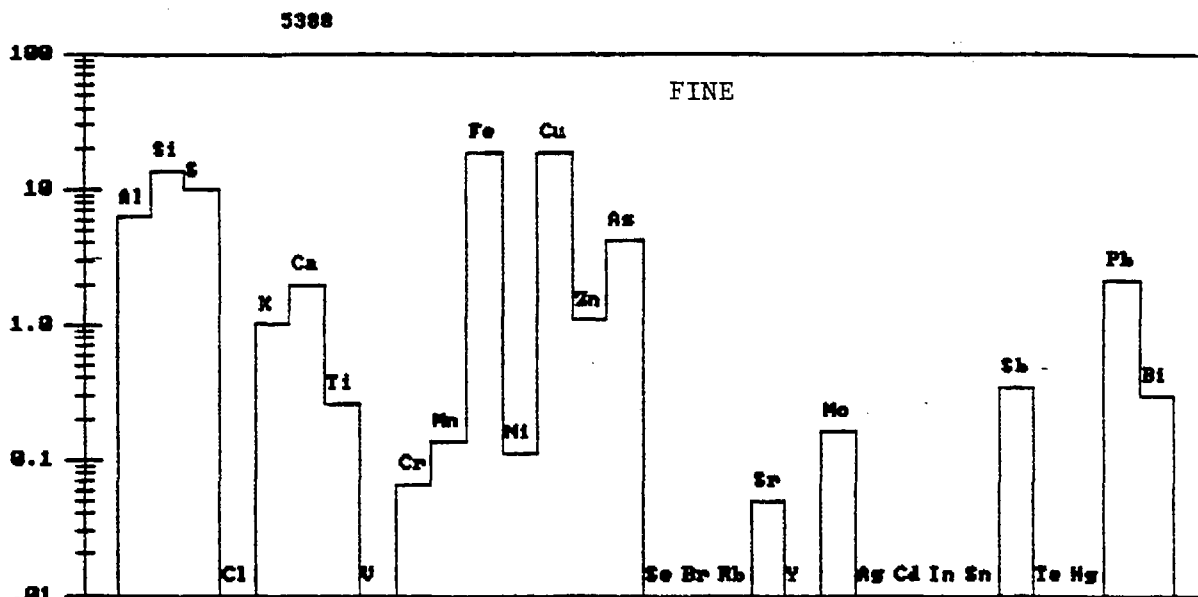
5389



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

SPECIES	P E R C E N T C O M P O S I T I O N		
	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

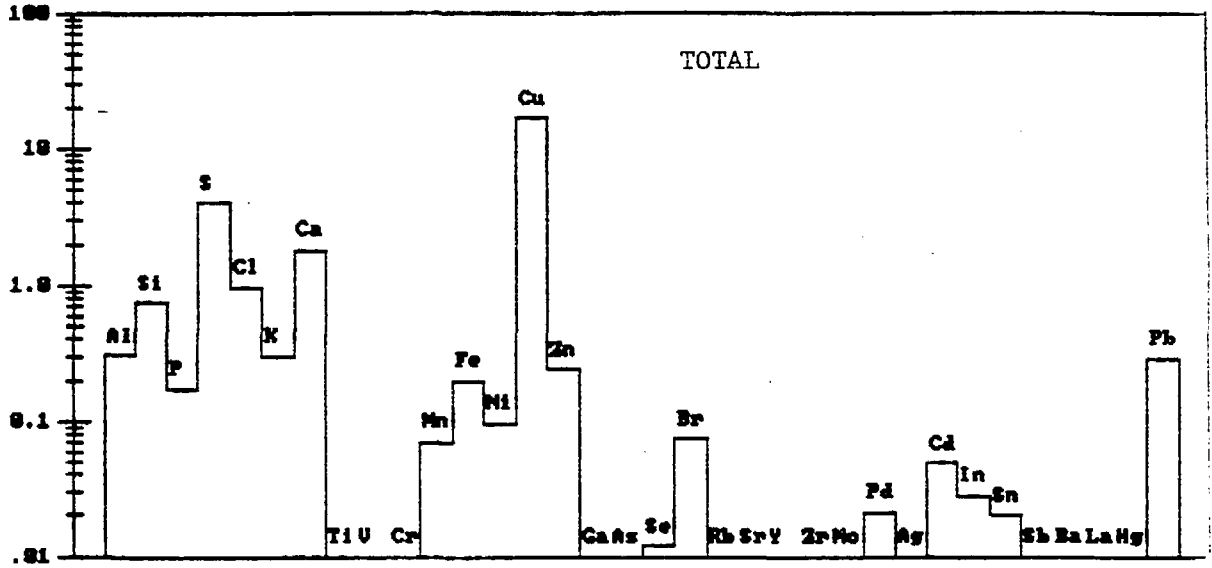


srce	part	revision	code	size	date	source description	reference	date
5130	T	11/26/84				pyrometal. stack #1, reg. chrg	12	11/84

SPECIES	P E R C E N T C O M P O S I T I O N		
	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

5129

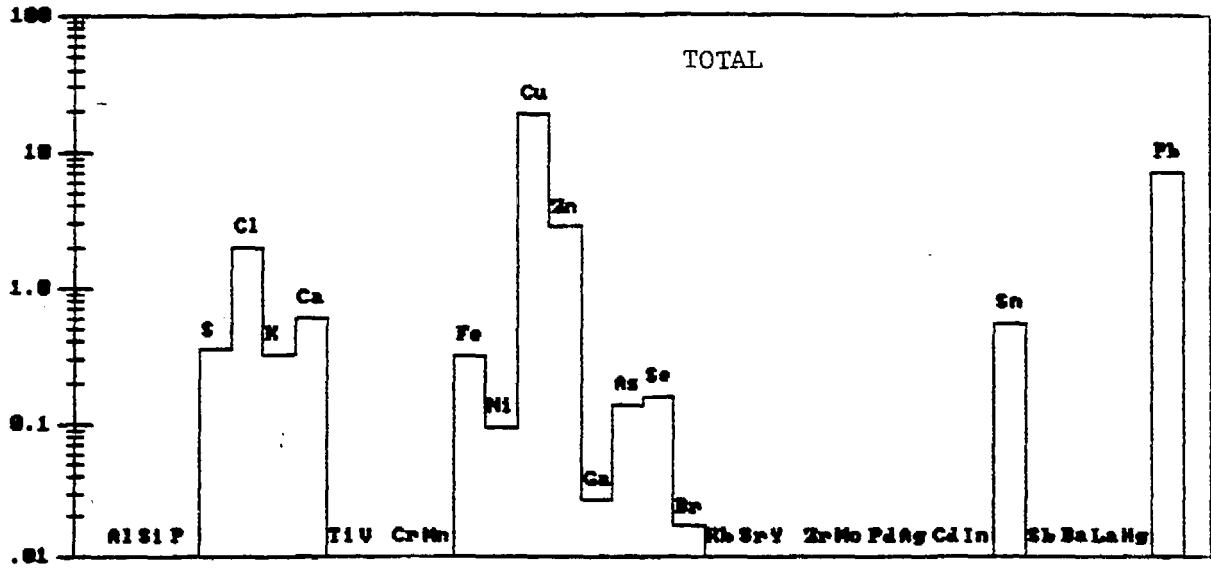


srce	part	revision	source description	reference	date
code	size	date			
5131	T	11/26/84	pyrometal. stack #2 cathode ch	12	11/84

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

5138

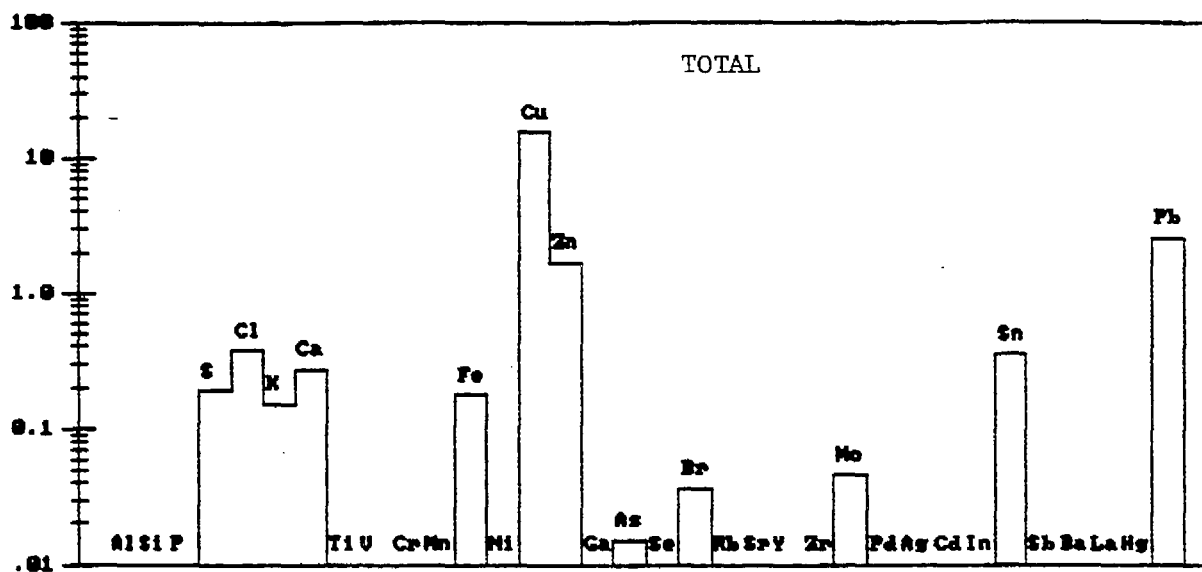


srce	part	revision	source description	reference	date
code	size	date			
5137	T	11/26/84	zinc kiln discharge	12	11/84

SPECIES	P E R C E N T C O M P O S I T I O N		
	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

5131

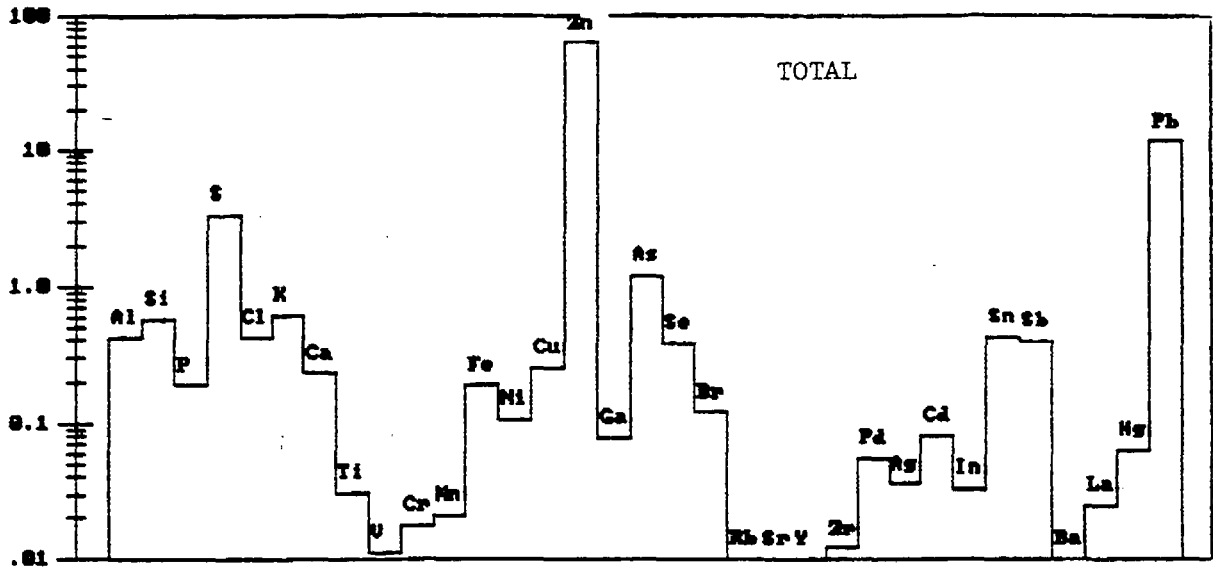


srce	part	revision	source description	reference	date
code	size	date			
5392	FC	03/19/87	Antimony Roaster	6	03/87

SPECIES	P E R C E N T C O M P O S I T I O N				
	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

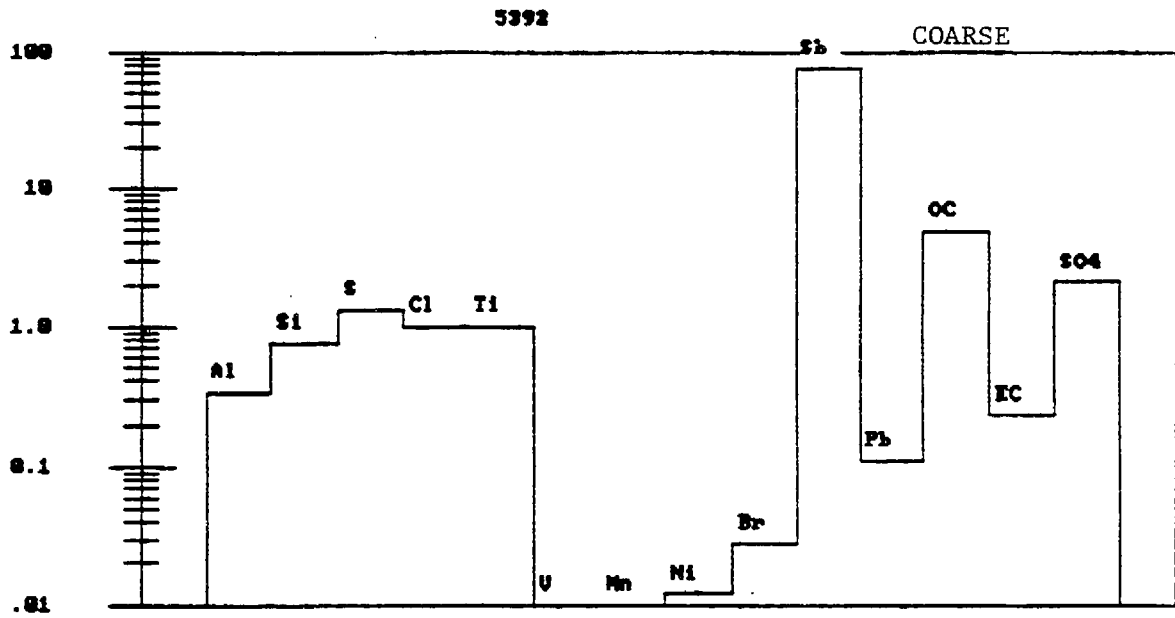
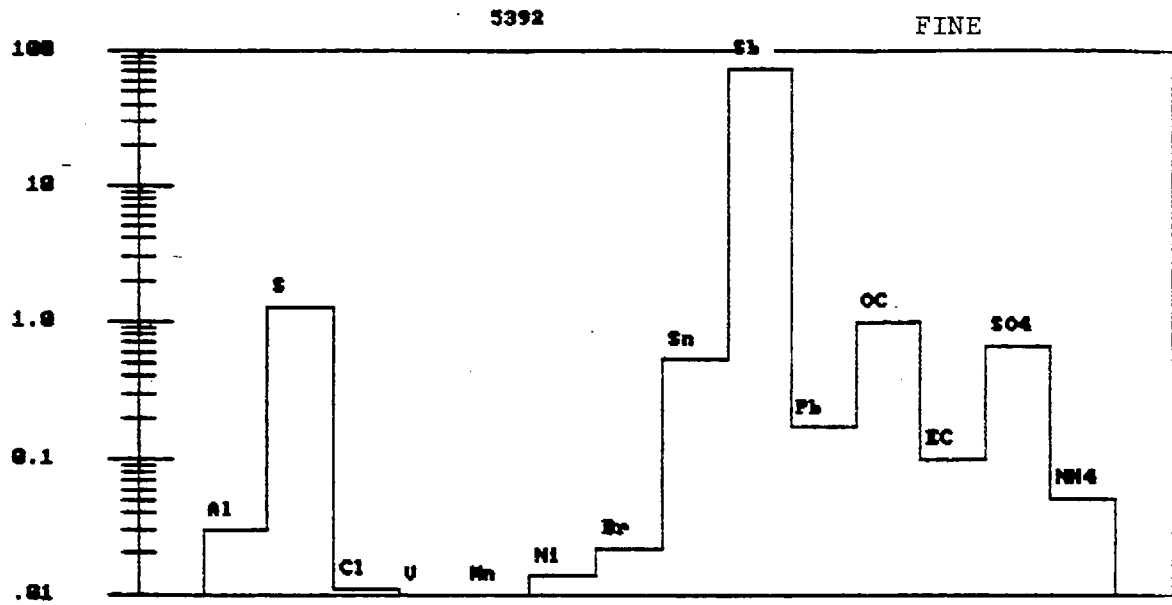
5197



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

SPECIES	P E R C E N T C O M P O S I T I O N					
	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

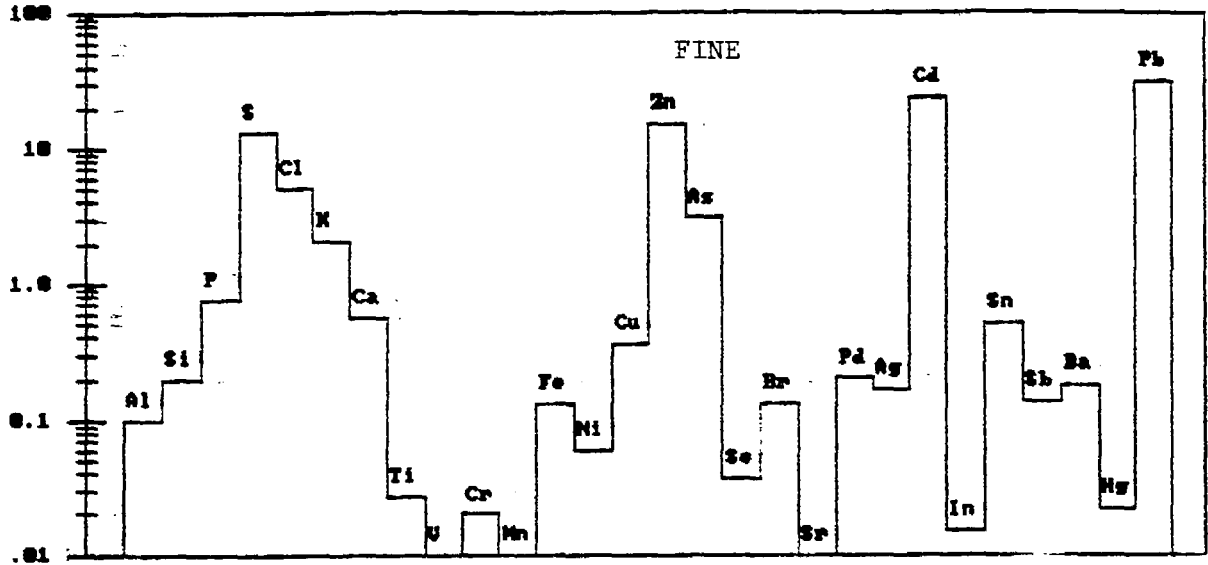


srce	part	revision	source description	reference	date
code	size	date			
5436	FCT	04/10/87	Lead Prim. Blast Furnace Upset	12	00/82

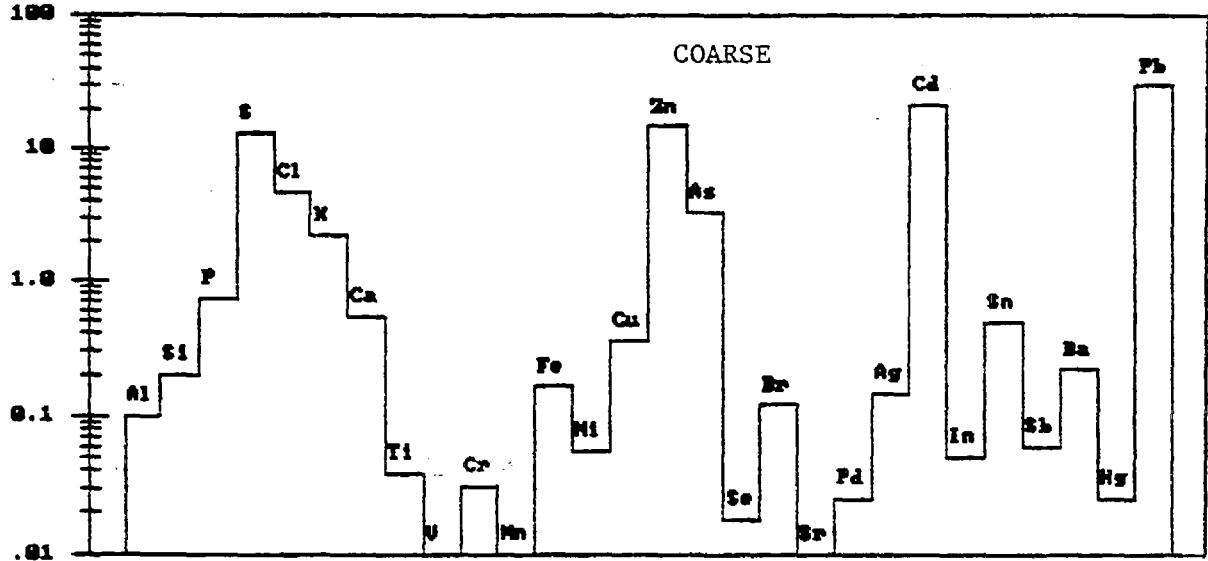
SPECIES	P E R C E N T C O M P O S I T I O N					
	FINE		COARSE		TOTAL	
Al			.2200 +- .0500			
Si	.0300 +- .0090		.5000 +- .2000		.0300 +- .0090	
P	.9590 +- .0960		.6420 +- .0640		.6880 +- .0690	
S	19.4000 +- 2.0770		11.8850 +- 1.4630		14.0580 +- 1.9010	
Cl	3.8800 +- 1.0000		2.0000 +- .5000		4.0000 +- 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

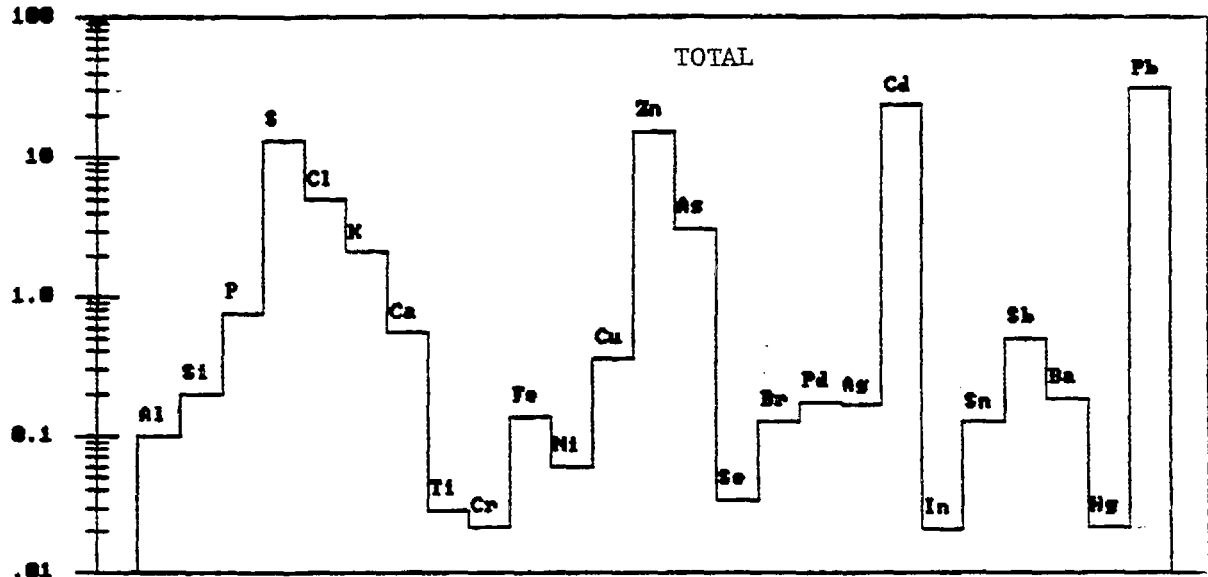
3161



3161



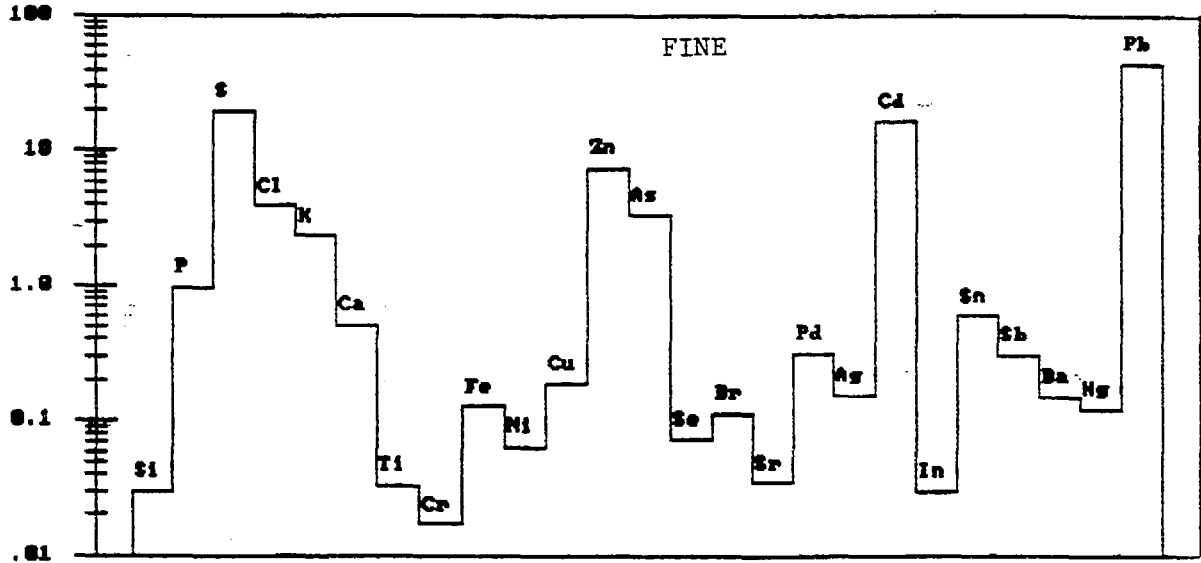
3161



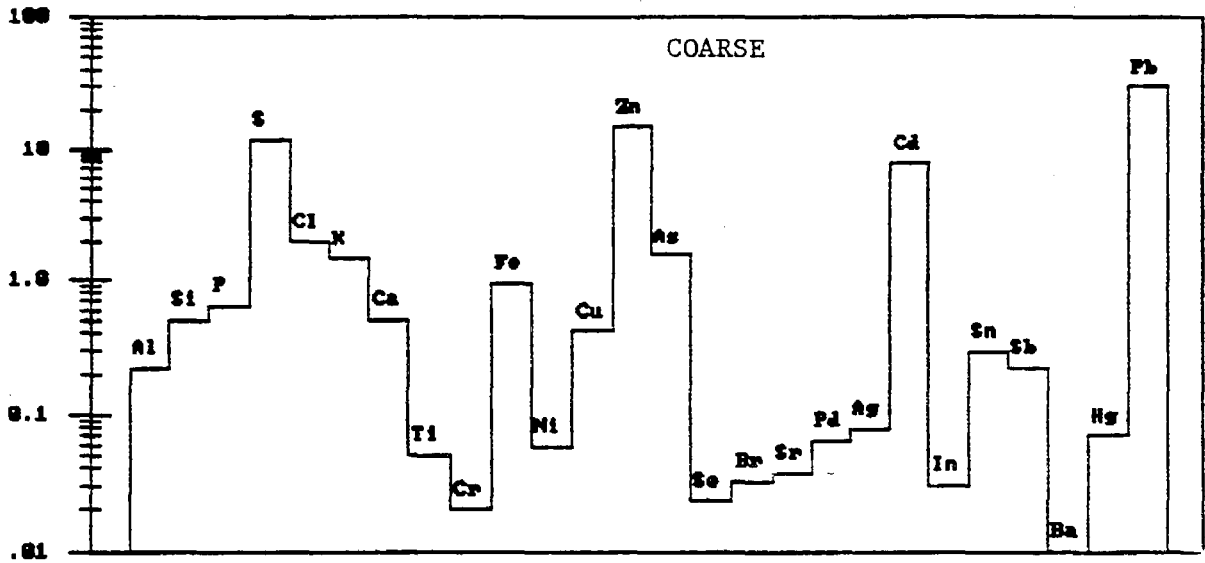
srce	part	revision	source description	reference	date
code	size	date			
5140	T	11/26/84	slag pour	12	11/84

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

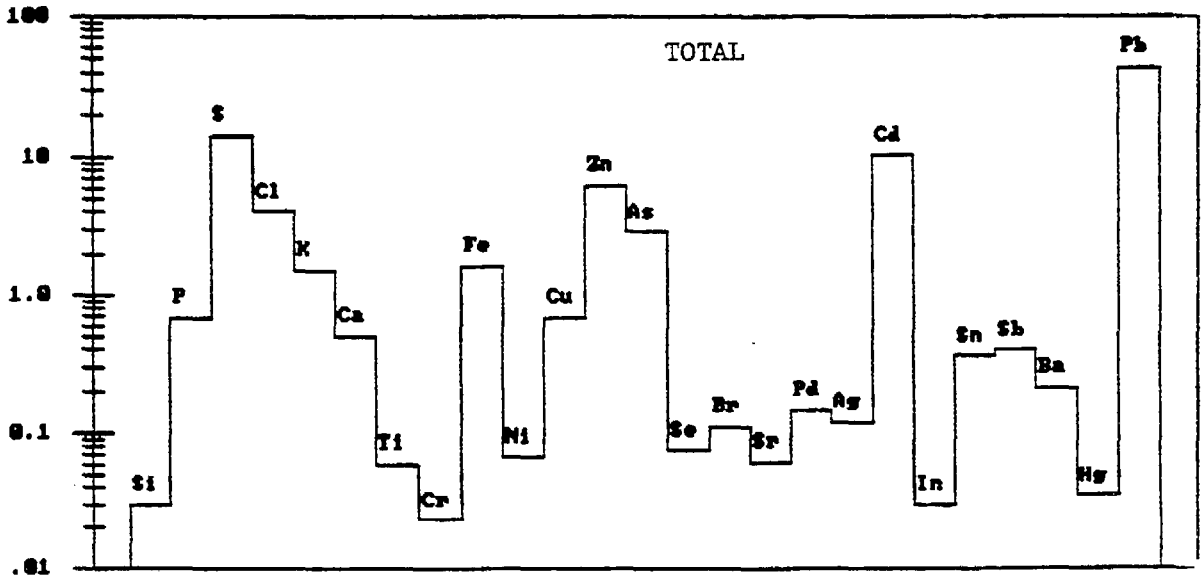
LEAD PRIM. BLAST FURNACE UPSET
5436



5436



5436

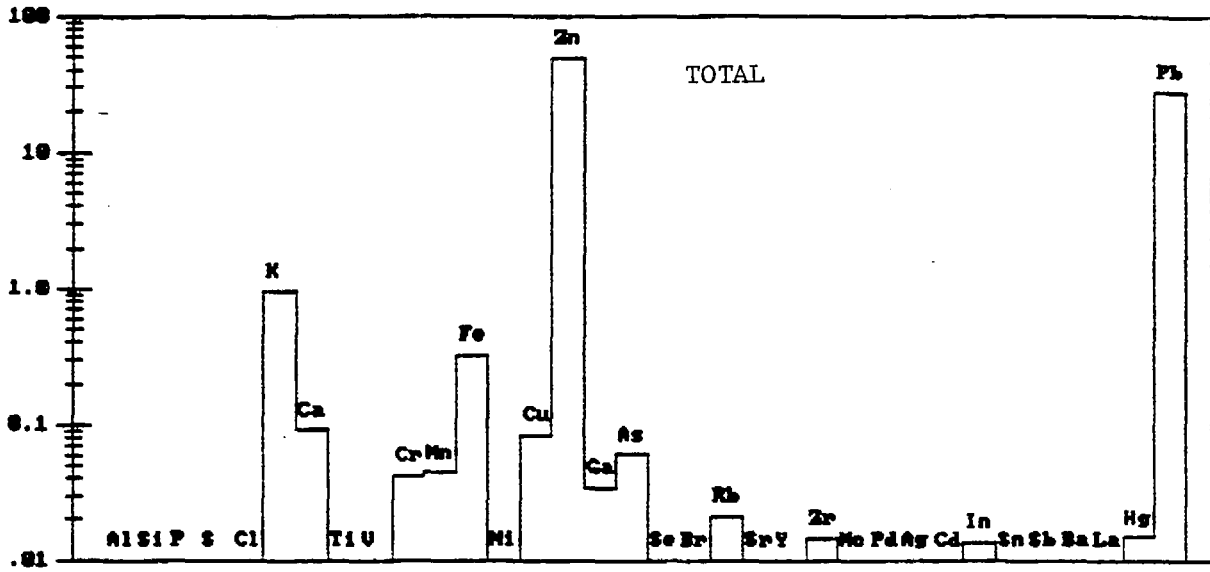


srce	part	revision	source description	reference	date
code	size	date			
5143	T	11/26/84	speiss pit stack	12	11/84

SPECIES	P E R C E N T C O M P O S I T I O N		
	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

5148

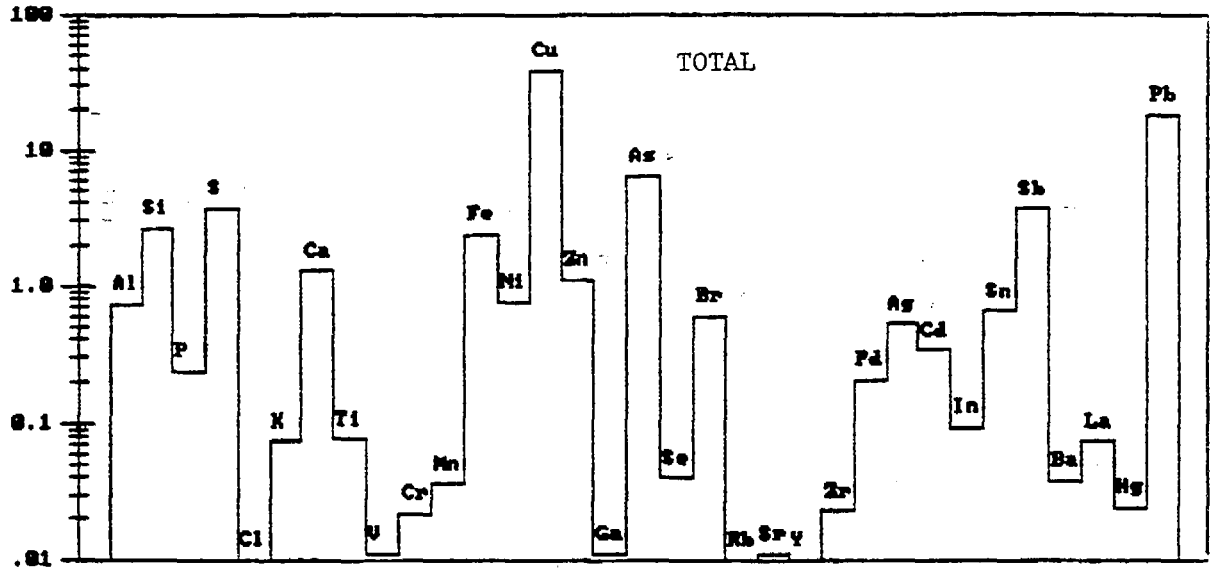


srce	part	revision	source description	reference	date
code	size	date			
5138	FCT	04/10/87	dross building	12	11/84

SPECIES	P E R C E N T C O M P O S I T I O N					
	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

5143

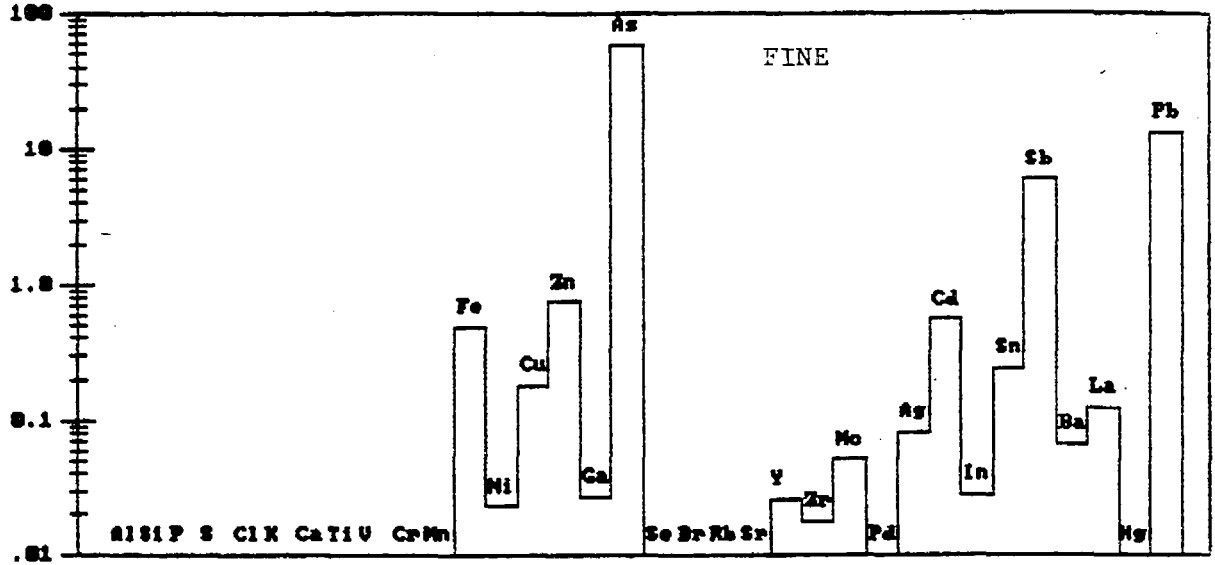


srce	part	revison	source description	reference	date
code	size	date			
5121	T	09/26/83	sanitary baghouse	14	09/83

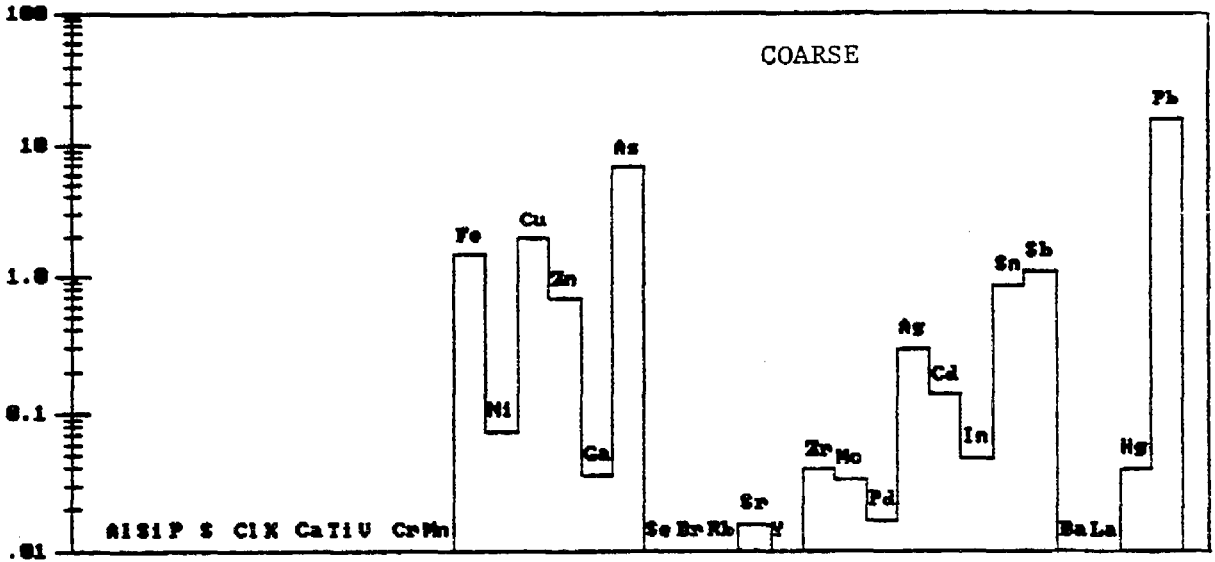
SPECIES	P E R C E N T C O M P O S I T I O N		
	FINE	COARSE	TOTAL
Na			.1200 +- .0240
Mg			.0150 +- .0150
Al			.1500 +- .0300
Si			.0720 +- .0144
P			.0100 +- .0100
Cl			.3800 +- .0760
K			.3900 +- .1200
Ca			.0390 +- .0200
Ti			.0110 +- .0080
V			.0004 +- .0001
Cr			.0150 +- .0030
Mn			.0310 +- .0062
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

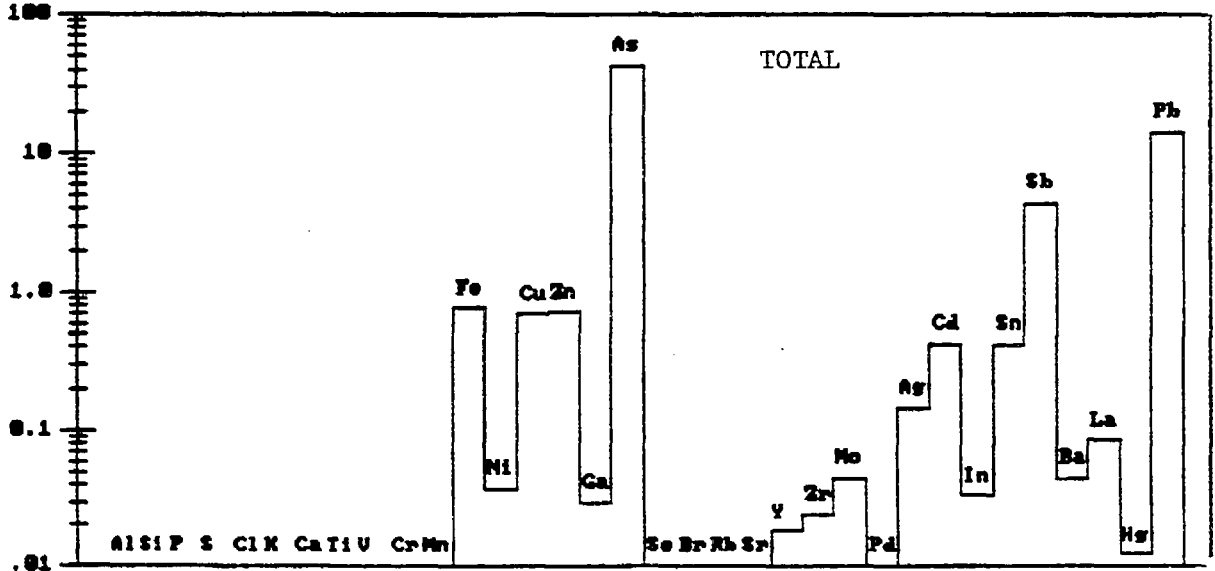
5138



5138



5138

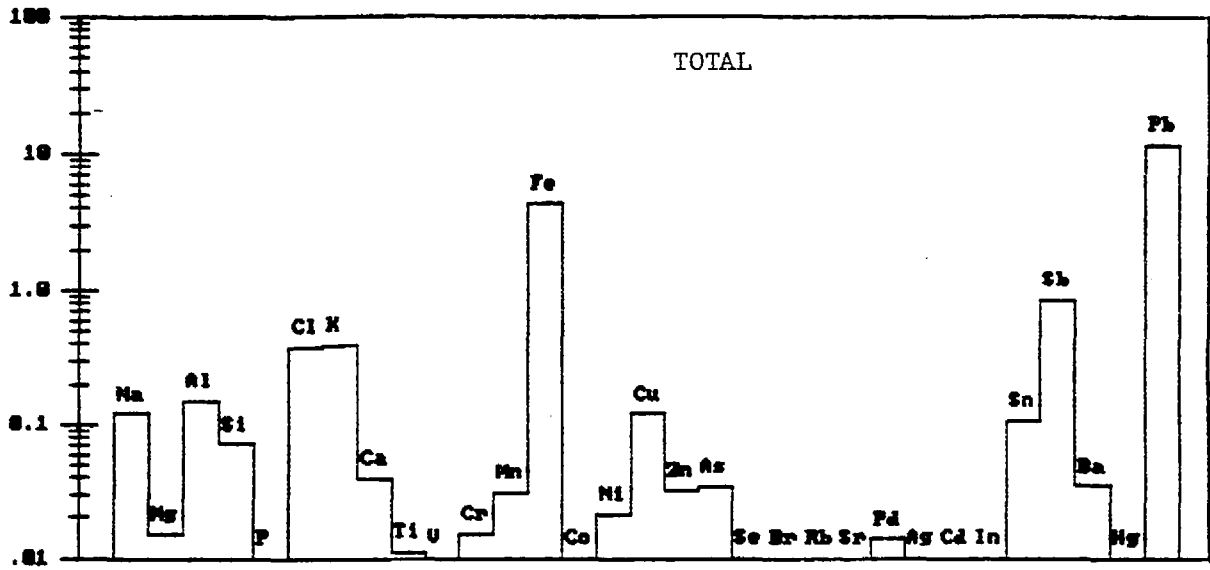


srce	part	revision	source description	reference	date
code	size	date			
5122	T	09/26/83	reverberatory furnace	14	09/83

SPECIES	P E R C E N T C O M P O S I T I O N		
	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

5121

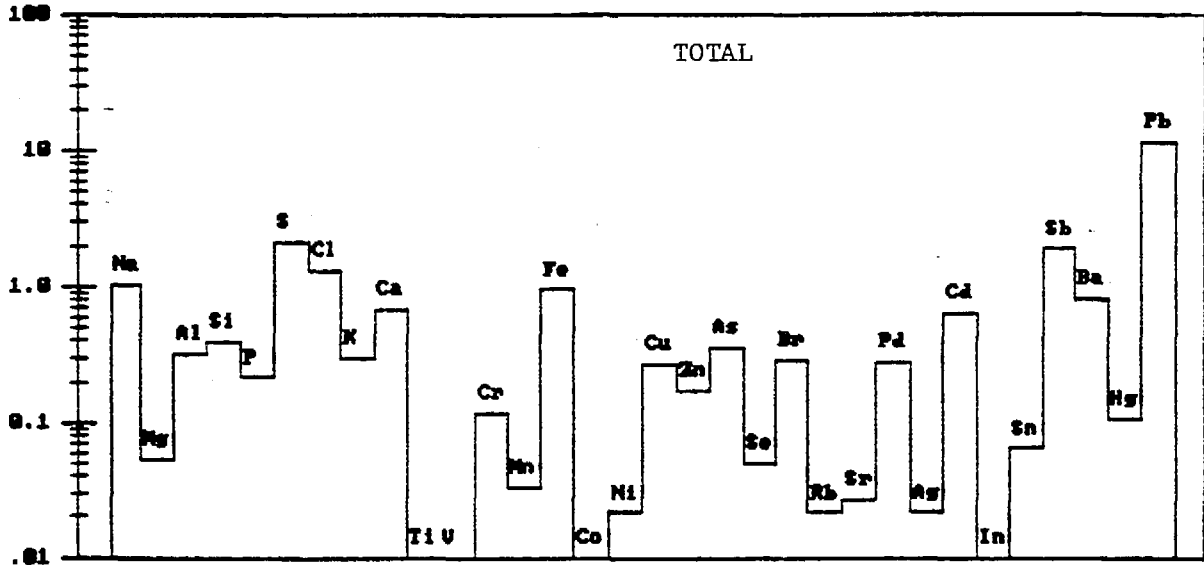


srce	part	revision	source description	reference	date
code	size	date			
5123	T	09/26/83	lead melting pot - fugitive	14	09/83

SPECIES	P E R C E N T C O M P O S I T I O N		
	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

5122

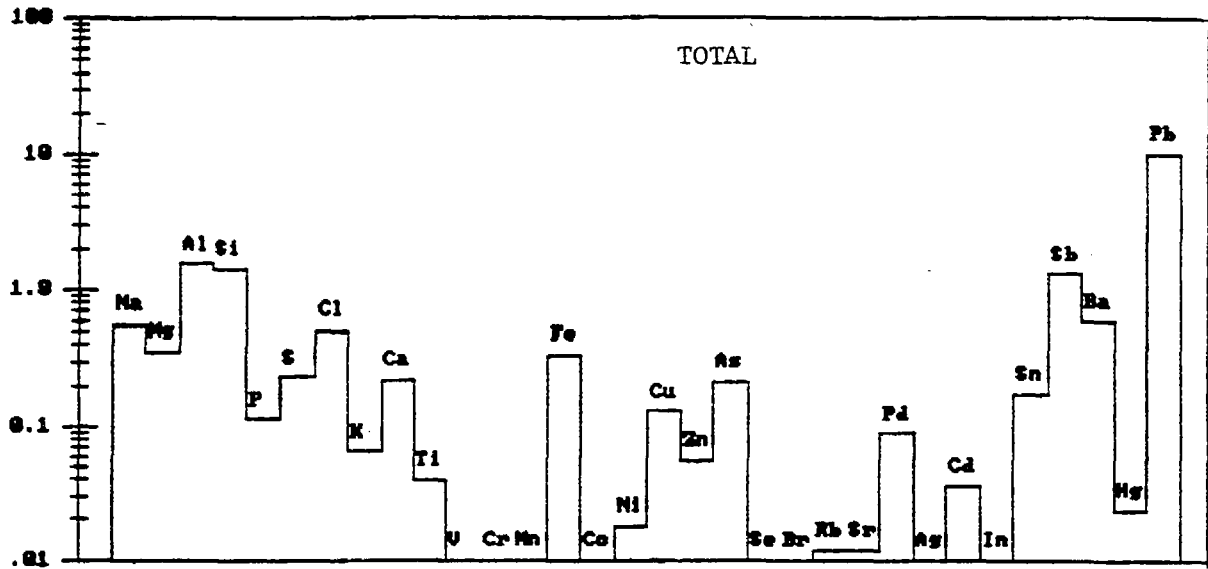


srce	part	revision	source description	reference	date
code	size	date			
5124	T	09/26/83	lead melting pot baghse stack	14	09/83

SPECIES	P E R C E N T C O M P O S I T I O N		
	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

5123

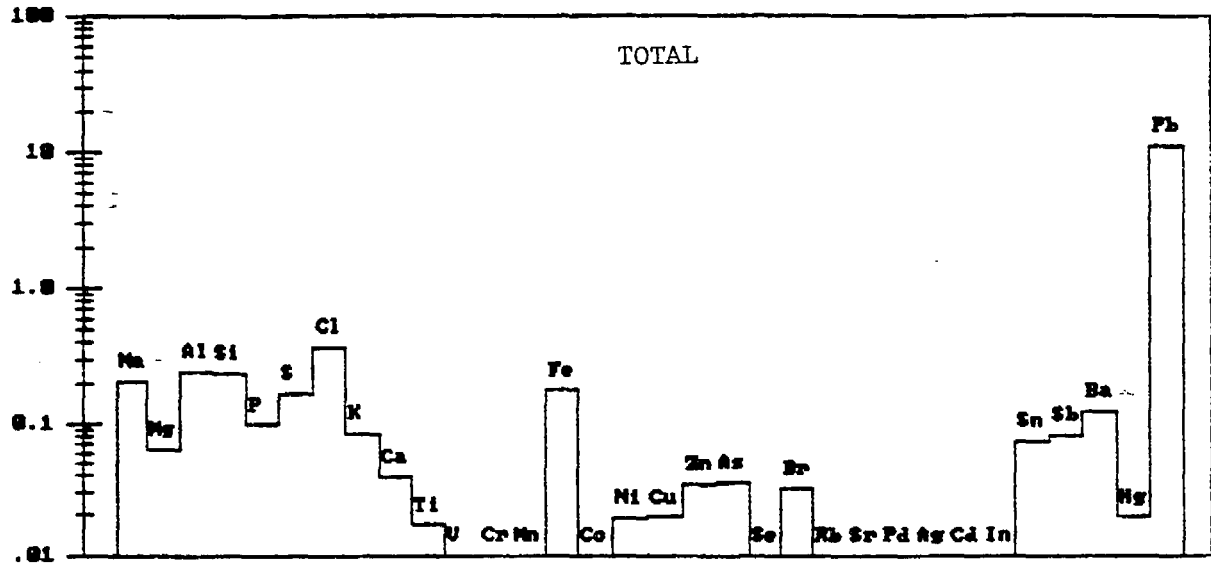


srce	part	revision	source description	reference	date
code	size	date			
5125	F T	09/26/83	resuspended yard dust	5	09/83

SPECIES	P E R C E N T C O M P O S I T I O N		
	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

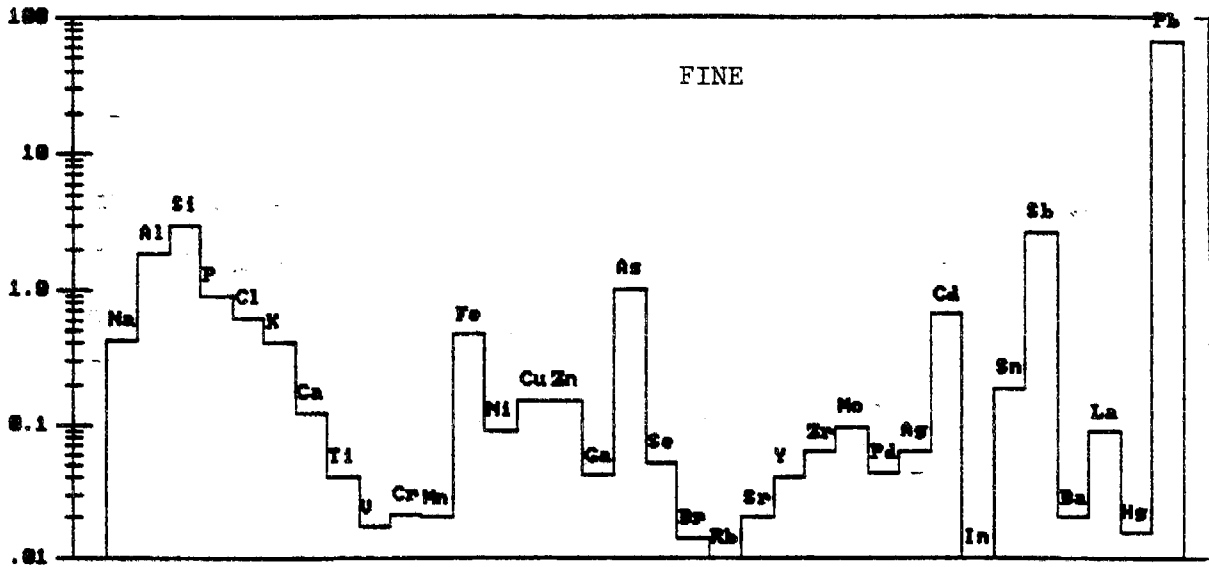
LEAD MELTING POT BAGHOUSE STACK

5124

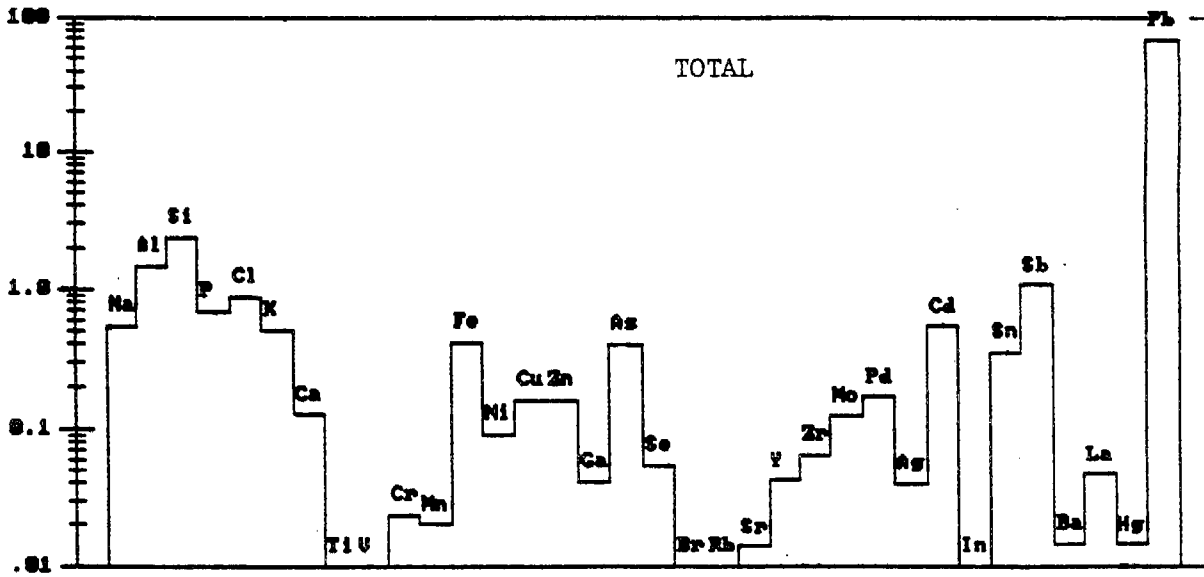


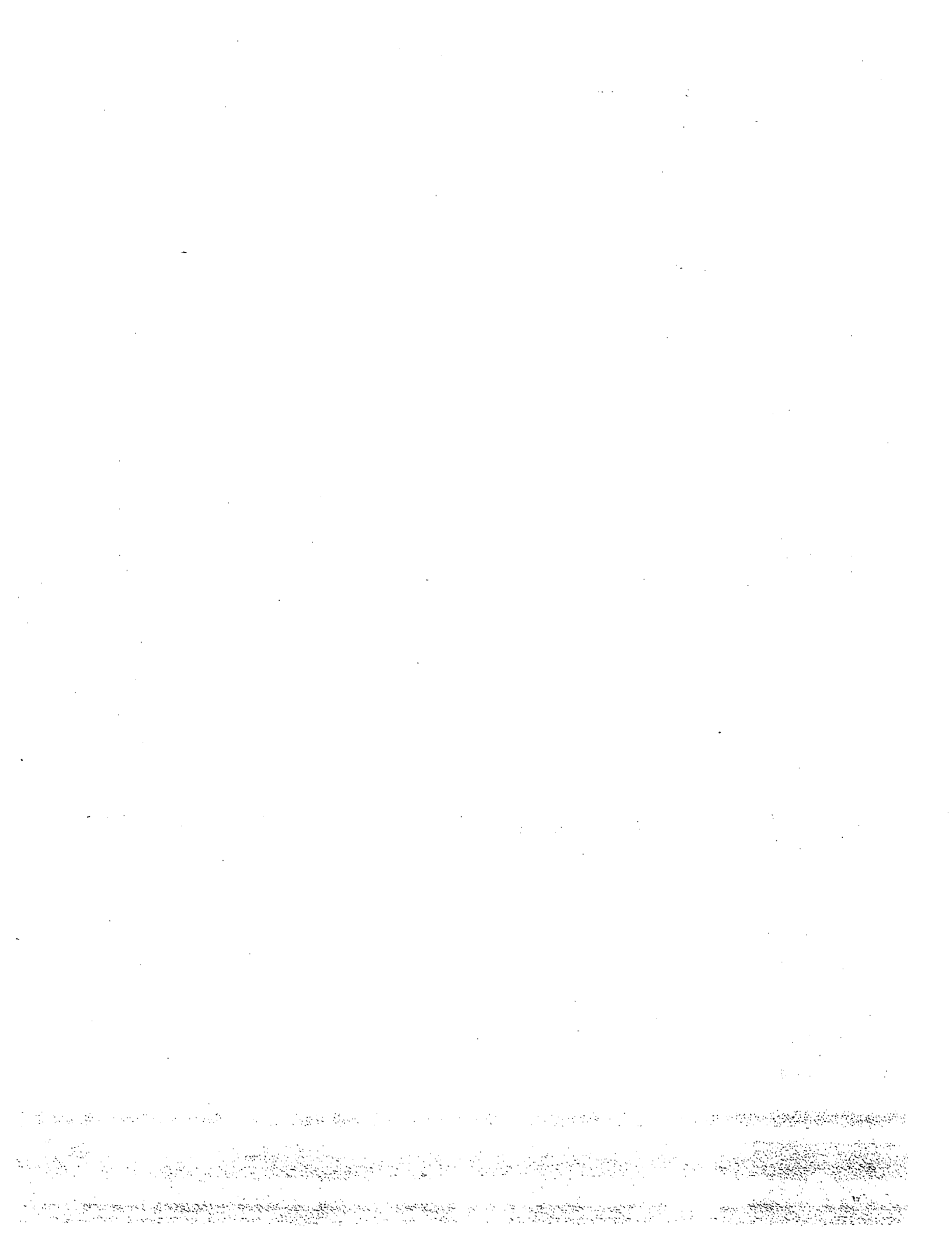
RESUSPENDED YARD DUST

5125

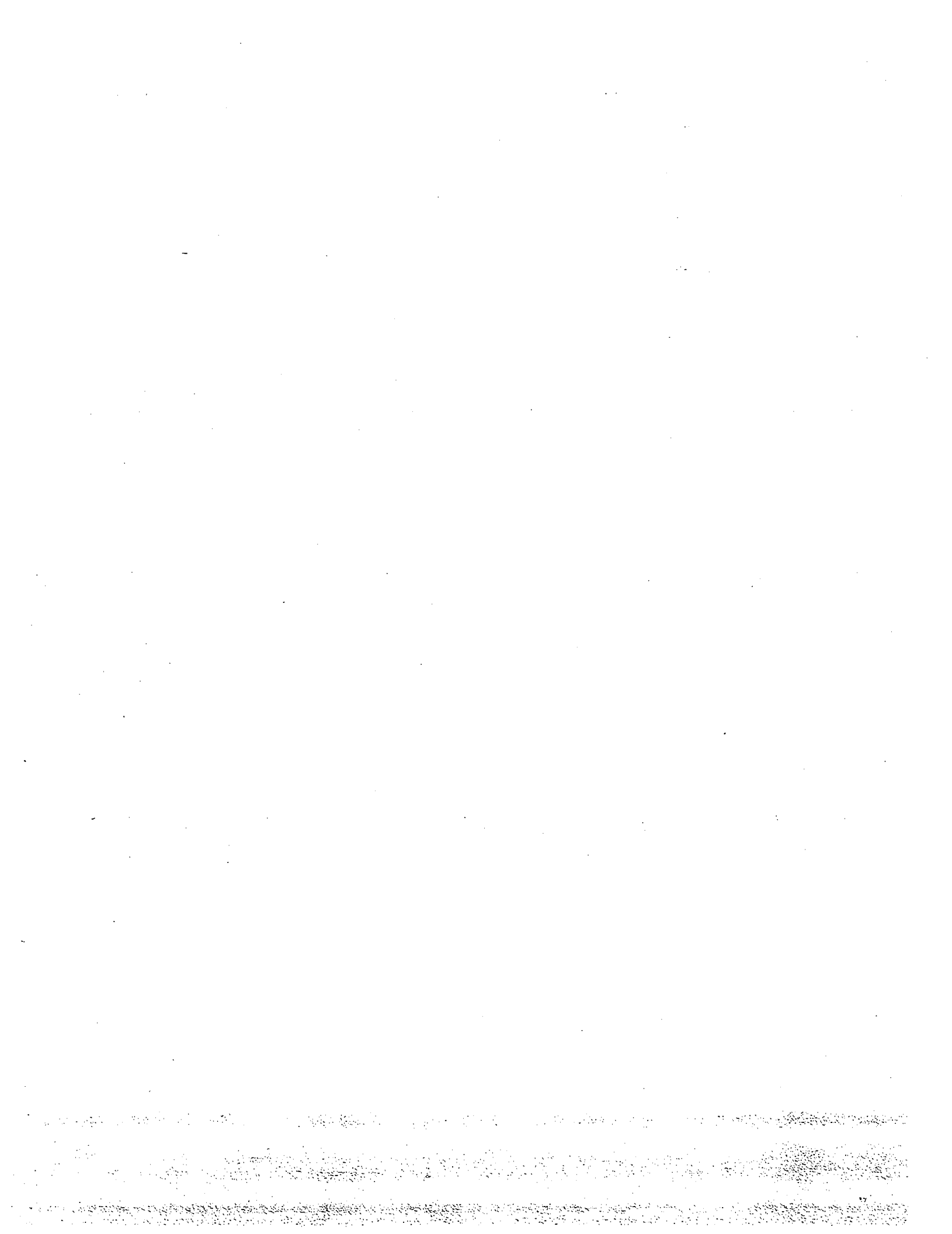


5125





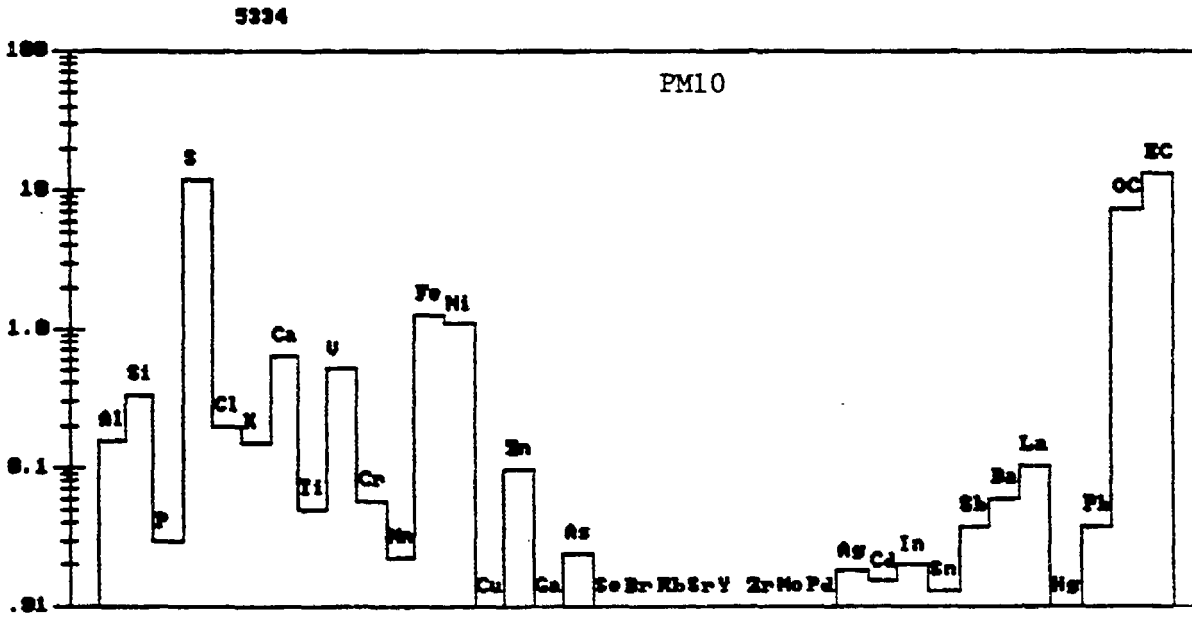
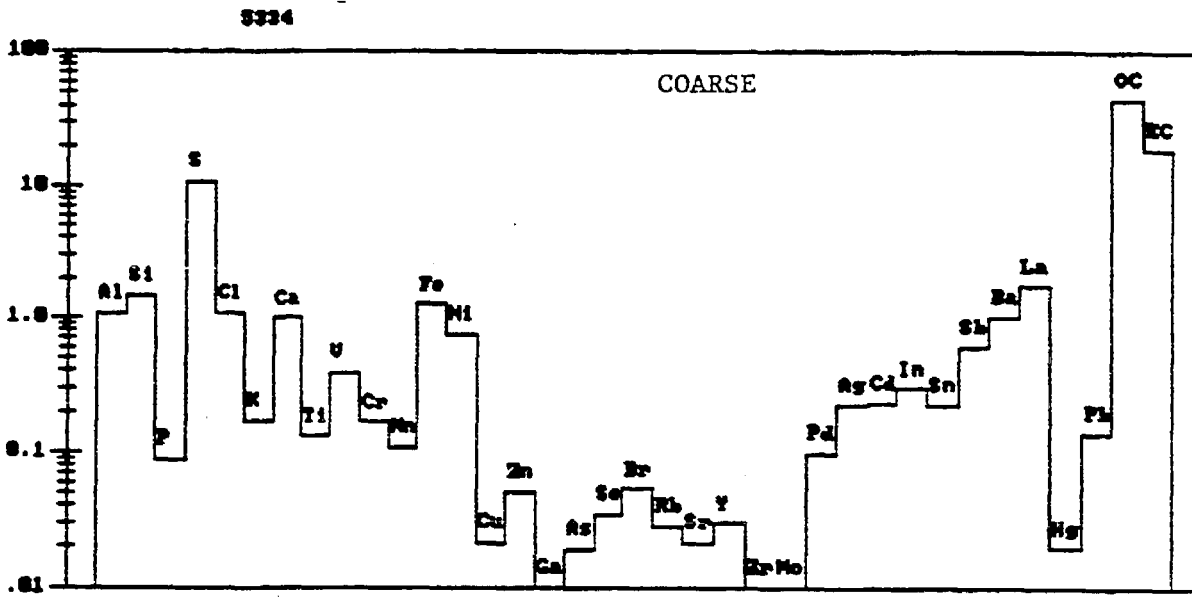
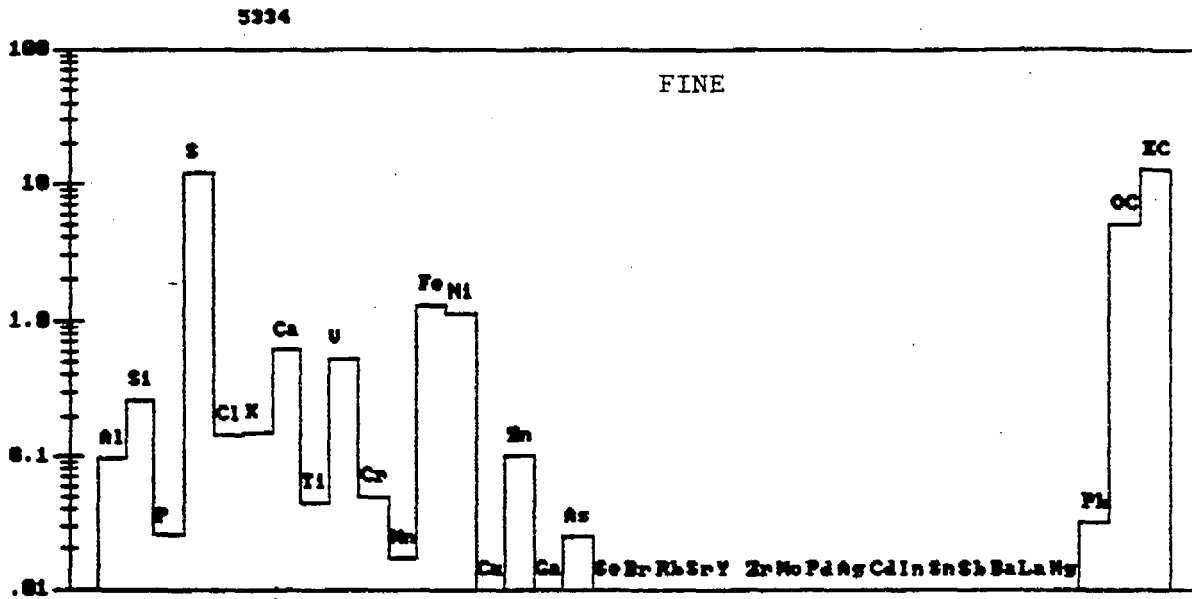




srce	part	revision	source description	reference	date
code	size	date			
5334	FCT	12/26/86	SDGE blrs. #1,2,3 compst., oil	5	01/87

SPECIES	P E R C E N T C O M P O S I T I O N					
	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



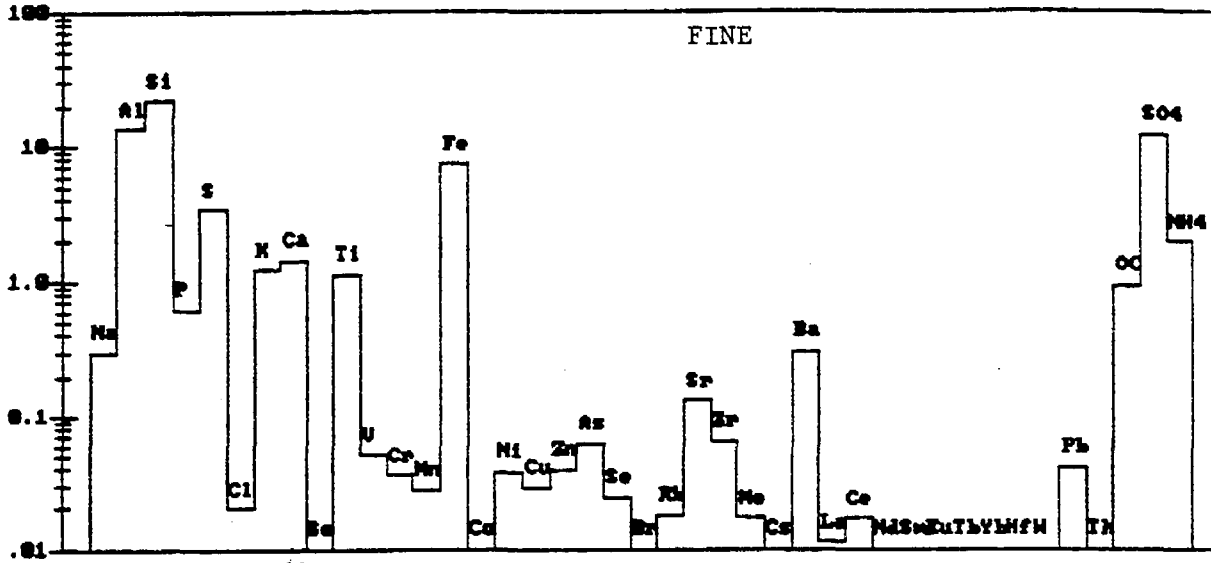
srce part revision
code size date source description reference date

5244 FCT 03/18/87 EDDYSTONE COAL-FIRED POWER PL. 6 03/87

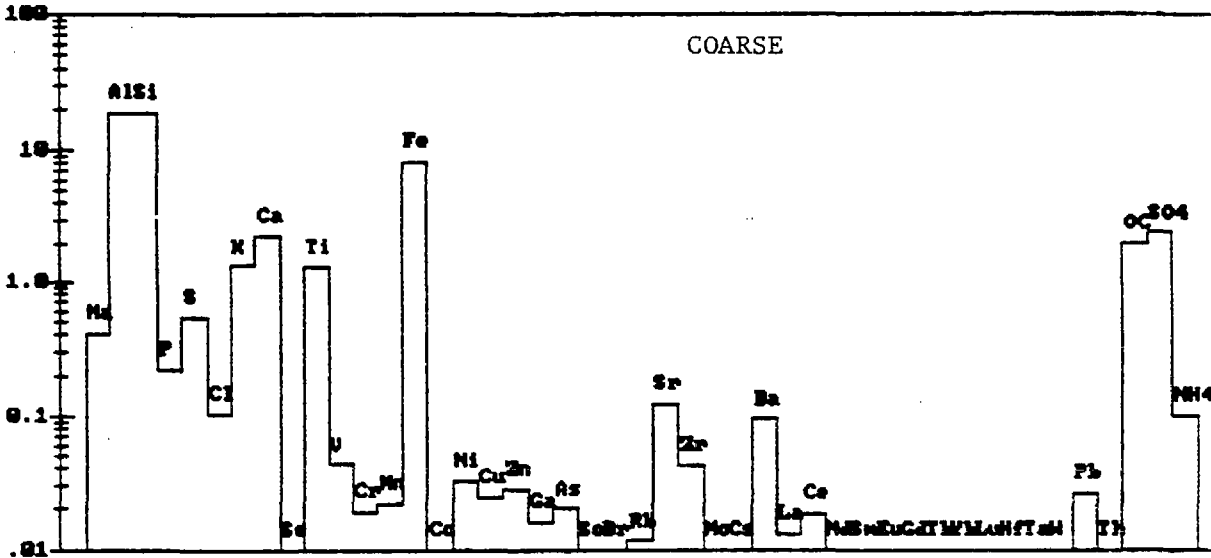
SPECIES	P E R C E N T C O M P O S I T I O N					
	FINE		COARSE		TOTAL	
Na	.3000 +-	.0200	.4100 +-	.0200	.3815 +-	.0201
Al	13.4000 +-	1.5000	18.4000 +-	2.7000	17.1037 +-	2.1139
Si	21.8000 +-	1.6000	18.5000 +-	2.8000	19.3556 +-	2.2461
P	.6200 +-	.0600	.2200 +-	.0400	.3237 +-	.0381
S	3.4000 +-	.6000	.5400 +-	.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.

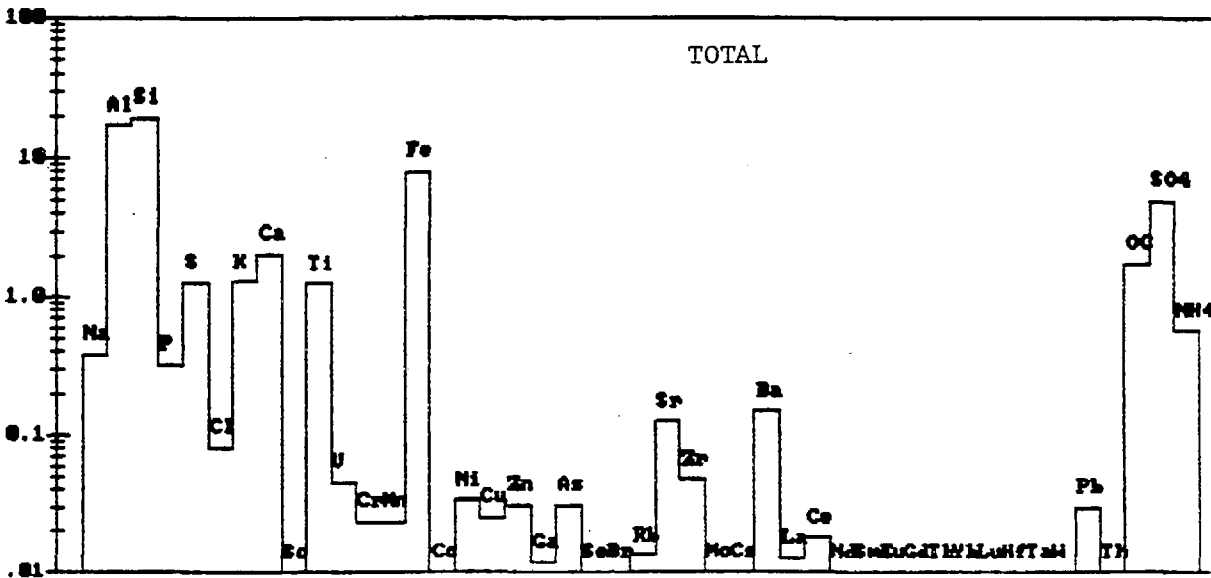
5244



5244



5244

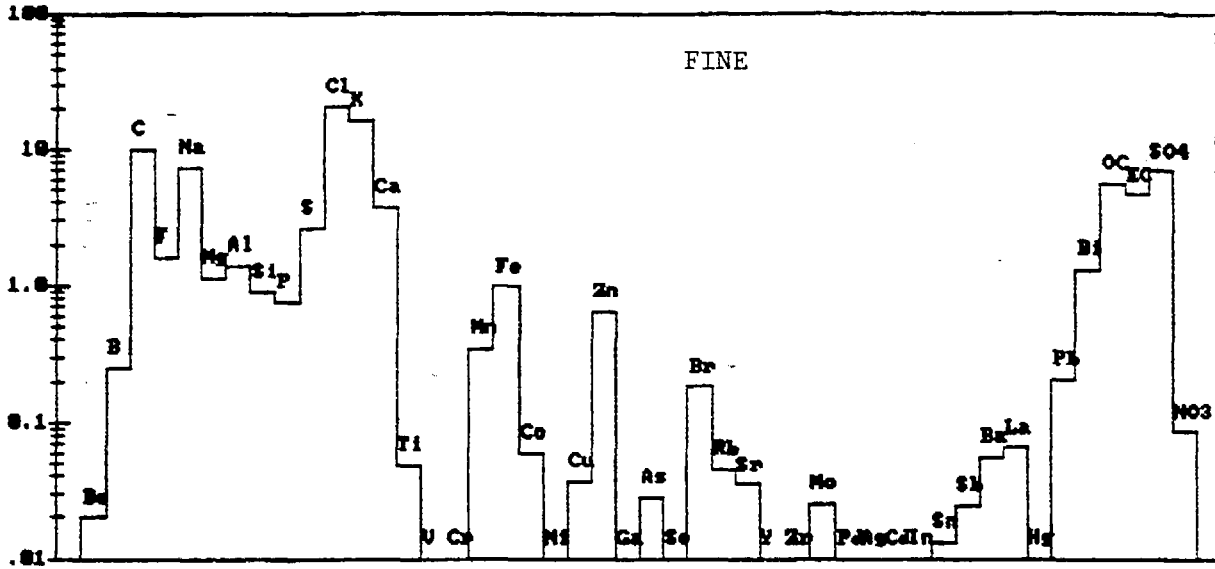


srce code	part size	revision date	source description	reference	date
5062	FT	09/26/83	hogged fuel boiler (STACS)	2	09/83

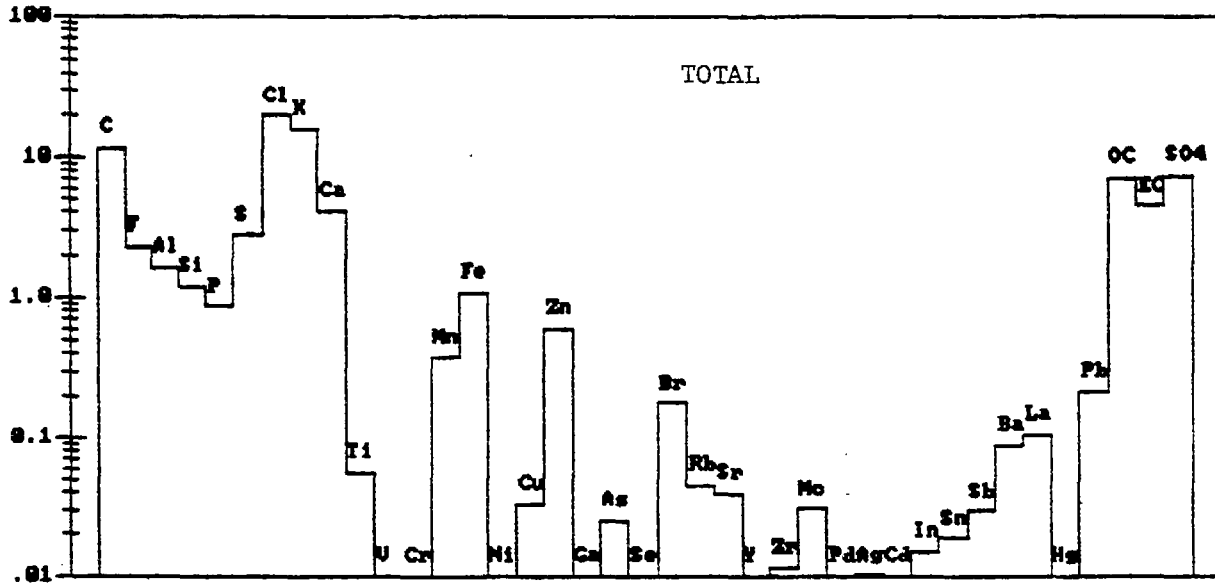
SPECIES	P E R C E N T C O M P O S I T I O N		
	FINE	COARSE	TOTAL
Be	.0200 +-	.0200	
B	.2500 +-	.1300	
C	10.1000 +-	1.0100	11.4350 +- 1.2379
F	1.6000 +-	.4000	2.2750 +- .3779
Na	7.2600 +-	.7300	
Mg	1.1400 +-	.1140	
Al	1.4100 +-	.9900	1.6035 +- .8575
Si	.9100 +-	.5500	1.1755 +- .4700
P	.7600 +-	.2500	.8560 +- .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)

5062



5062

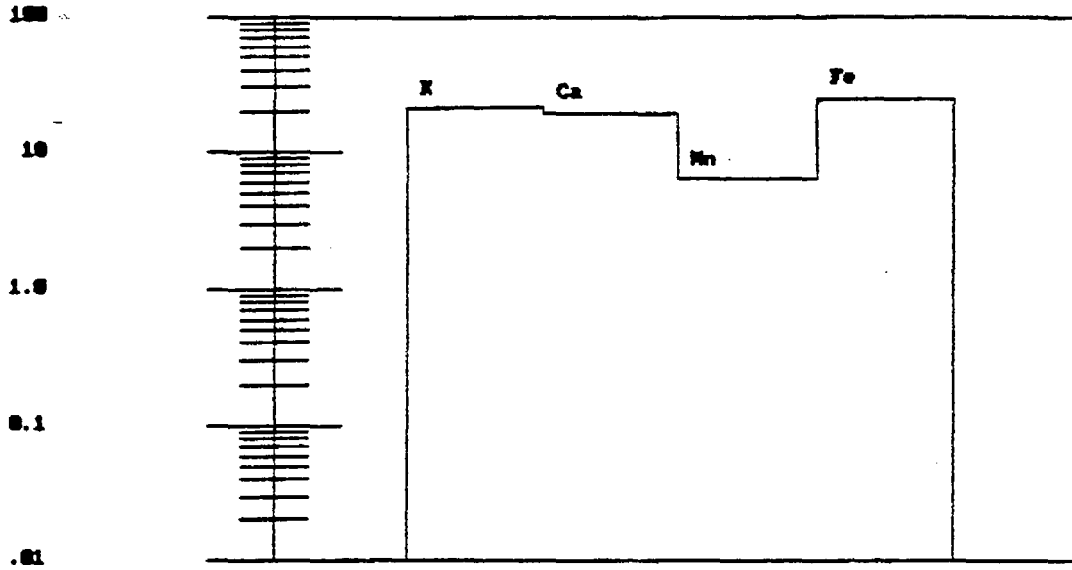


srce	part	revision	code	size	date	source description	reference	date
5470	F				04/20/87	WELDING APPROXIMATION U-MINE	19	02/73

SPECIES	P E R C E N T C O M P O S I T I O N		
	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

FINE 5478

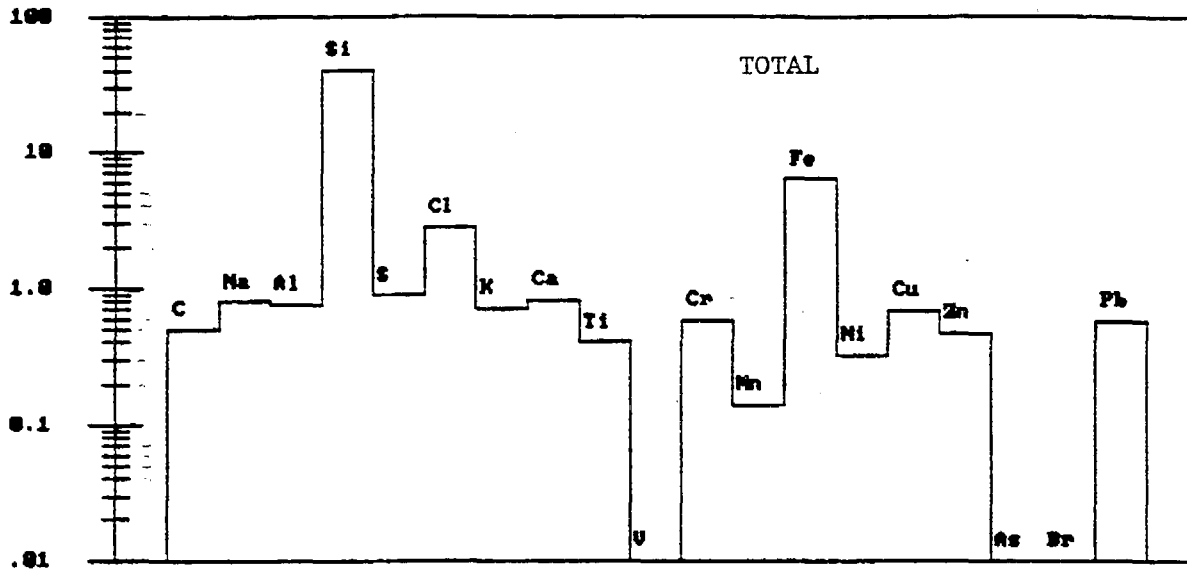


srce	part	revision	source description	reference	date
code	size	date			
5077	T	09/26/83	sandblasting	14	09/83

SPECIES	P E R C E N T C O M P O S I T I O N		
	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

5877

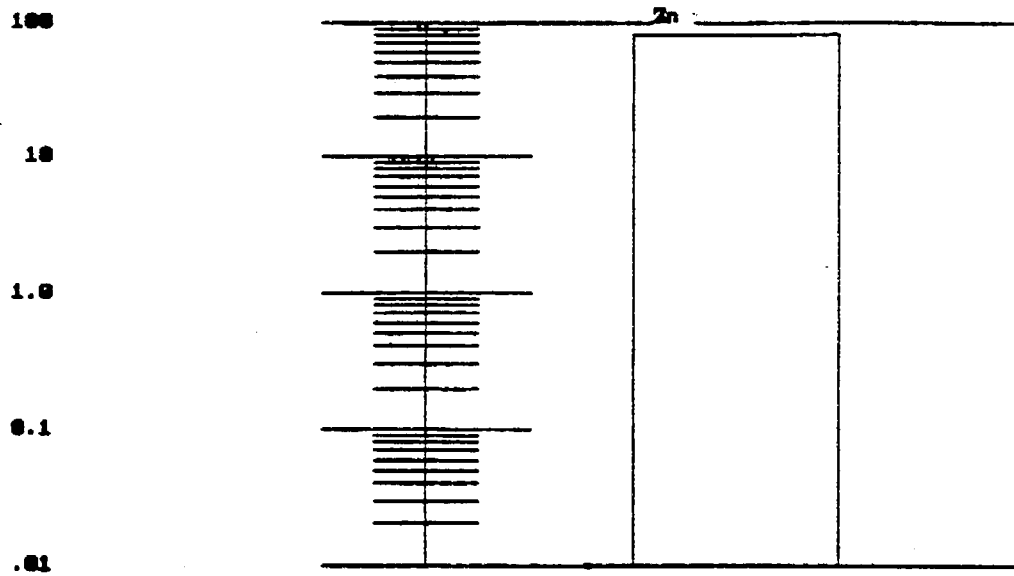


srce	part	revision				
code	size	date	source	description	reference	date
5118	T	09/26/83	galvanizing	(ZnO)	14	09/83

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

GALVANIZING (ZnO)

5118 TOTAL

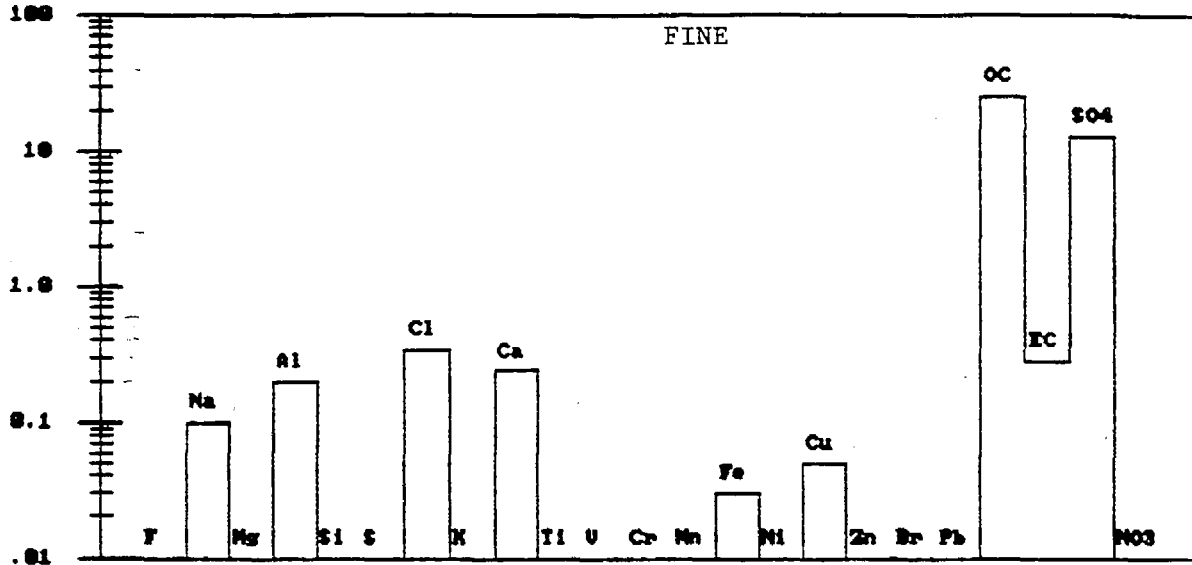


srce	part	revision	code	size	date	source description	reference	date
5444	FCT	04/13/87	Flour	Processing			7	00/79

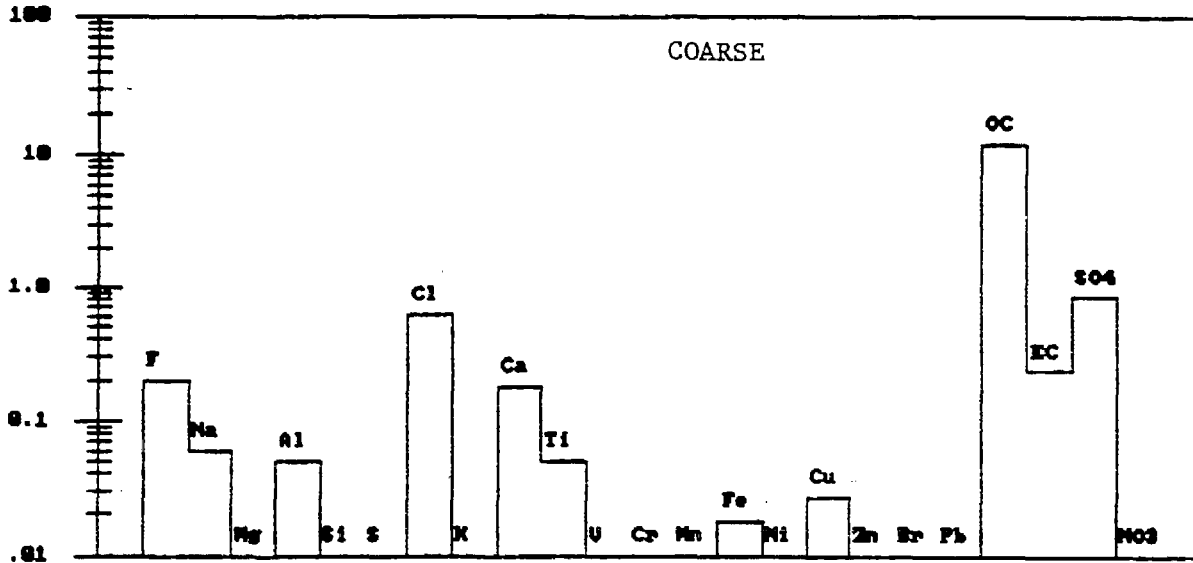
SPECIES	P E R C E N T C O M P O S I T I O N					
	FINE		COARSE		TOTAL	
F	.0000	+-.2000	.2000	+-.0400	.0225	+-.1776
Na	.1000	+-.0200	.0600	+-.0120	.0955	+-.0216
Mg	.0000	+-.1.0000	.0000	+-.2.0000	.0000	+-.9156
Al	.2000	+-.0400	.0500	+-.0100	.1831	+-.0429
Si	.0000	+-.1.000	.0000	+-.1.000	.0000	+-.0895
S	.0000	+-.1.000	.0000	+-.1.000	.0000	+-.0895
Cl	.3400	+-.0680	.6100	+-.1220	.3703	+-.0763
K	.0000	+-.0300	.0000	+-.1.000	.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	+-.1.660	11.2775	+-.2.6938
NO3	.0000	+-.6.000	.0000	+-.1.0000	.0000	+-.5443
Sum	39.1400		14.0720		36.3233	

FLOUR PROCESSING

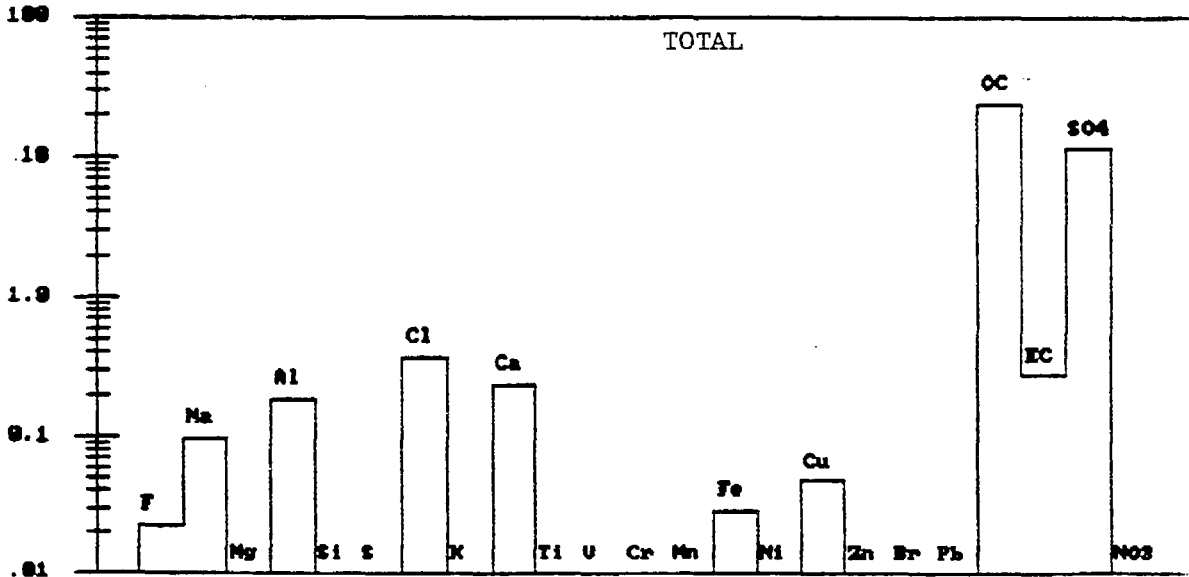
5444



5444



5444

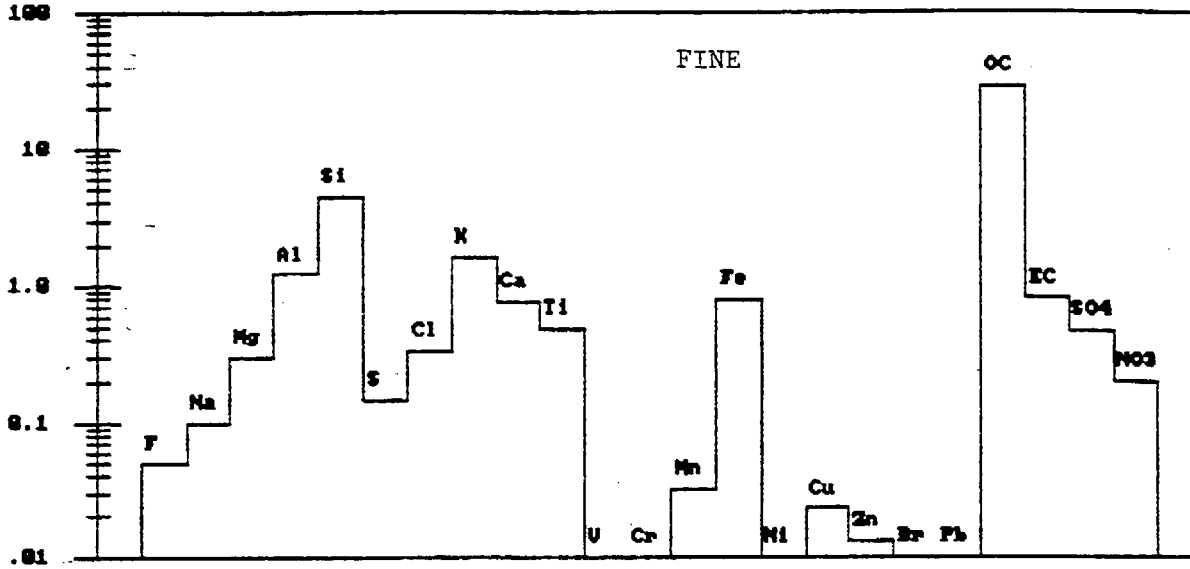


srce	part	revision	source description	reference	date
code	size	date			
5060	FCT	04/10/87	grain elevator (STACS)	7	09/83

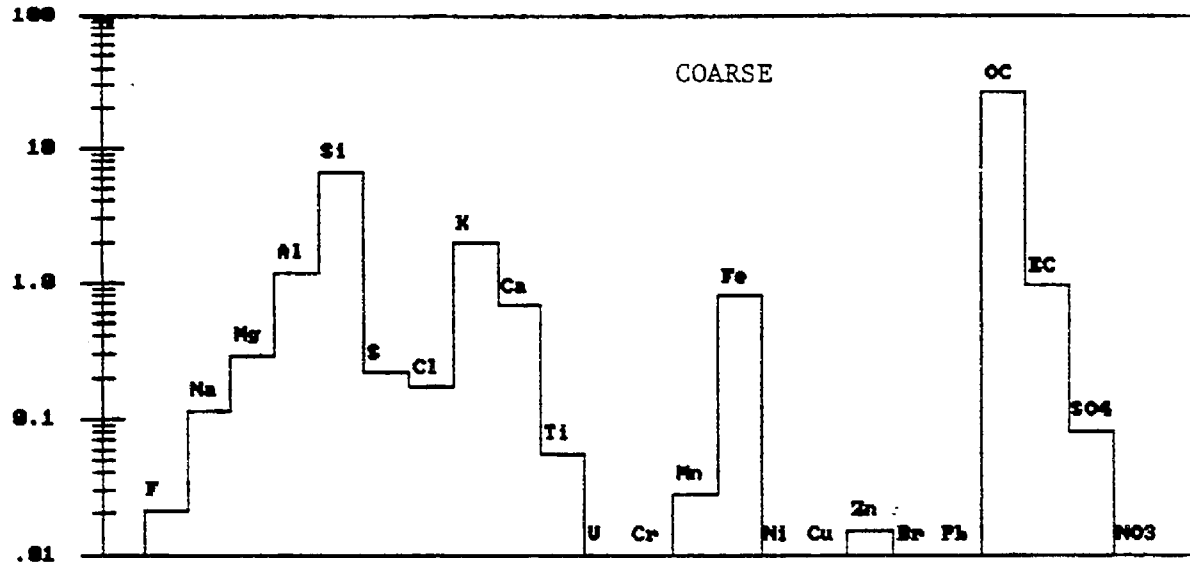
SPECIES	P E R C E N T C O M P O S I T I O N					
	FINE		COARSE		TOTAL	
F	.0500 +-	.0500	.0210 +-	.0080	.0265 +-	.0115
Na	.1000 +-	.0400	.1150 +-	.0210	.1121 +-	.0186
Mg	.3000 +-	.0640	.2900 +-	.0570	.2919 +-	.0477
Al	1.2000 +-	.1200	1.1800 +-	.1060	1.1838 +-	.1184
Si	4.3500 +-	.4350	6.5500 +-	.0710	6.1320 +-	.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)

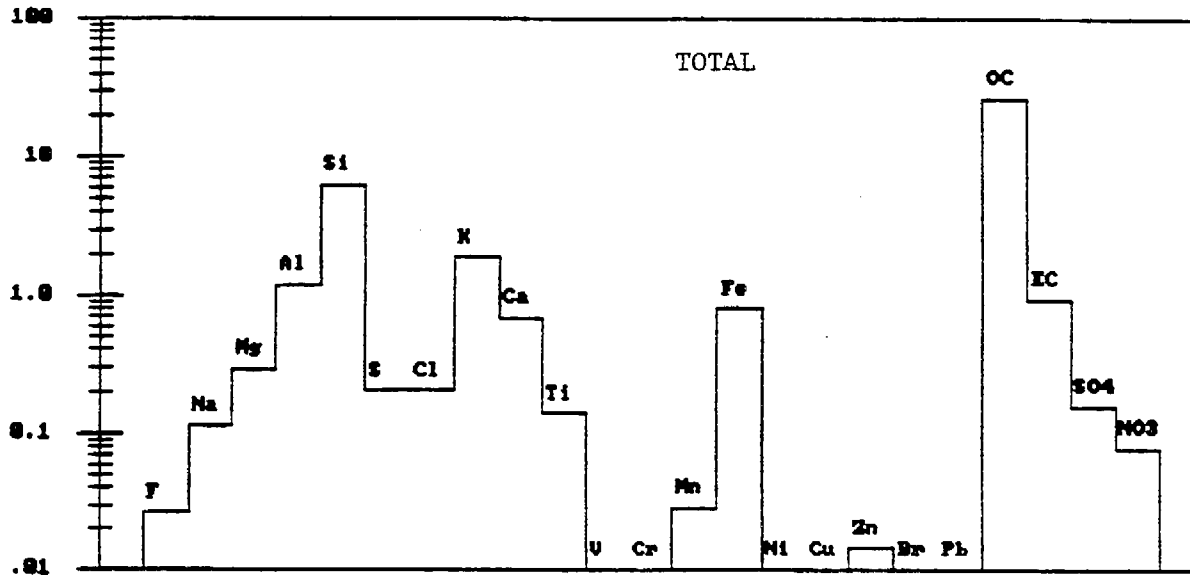
5060



5060



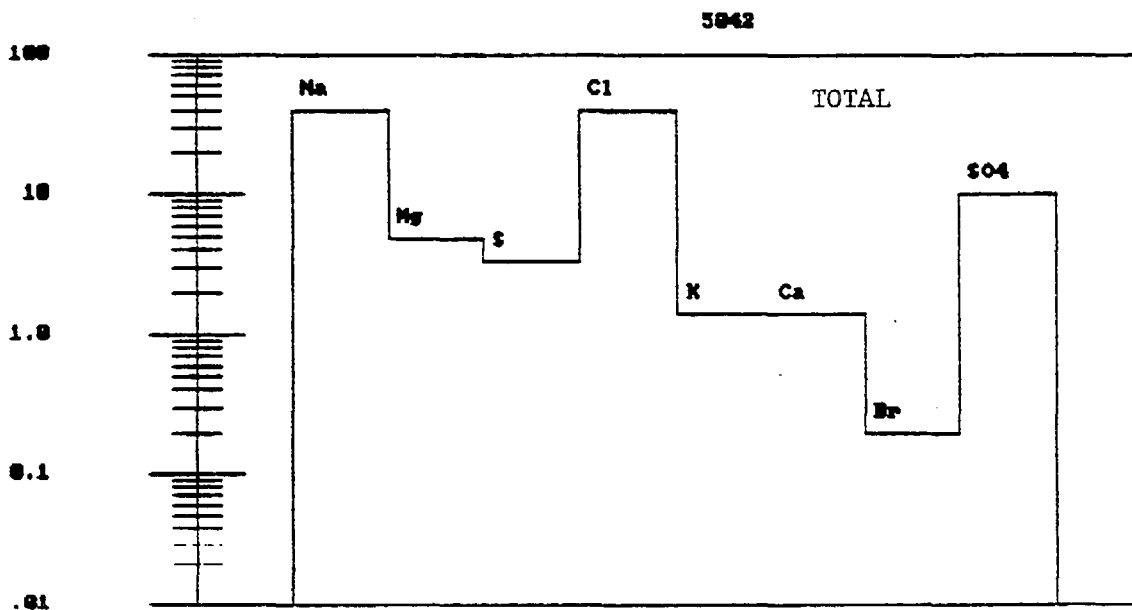
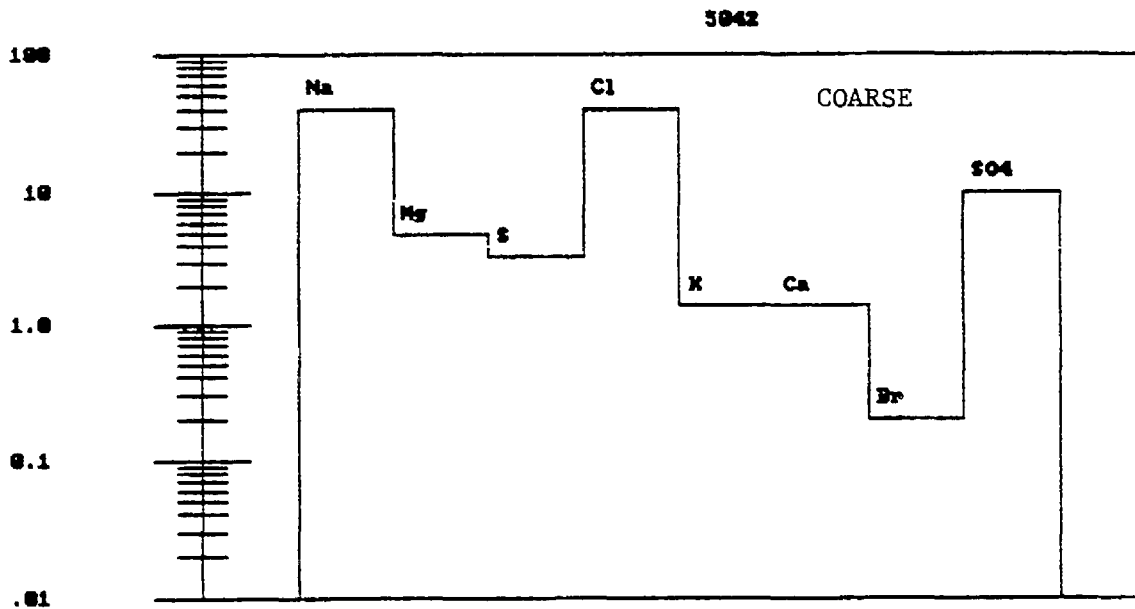
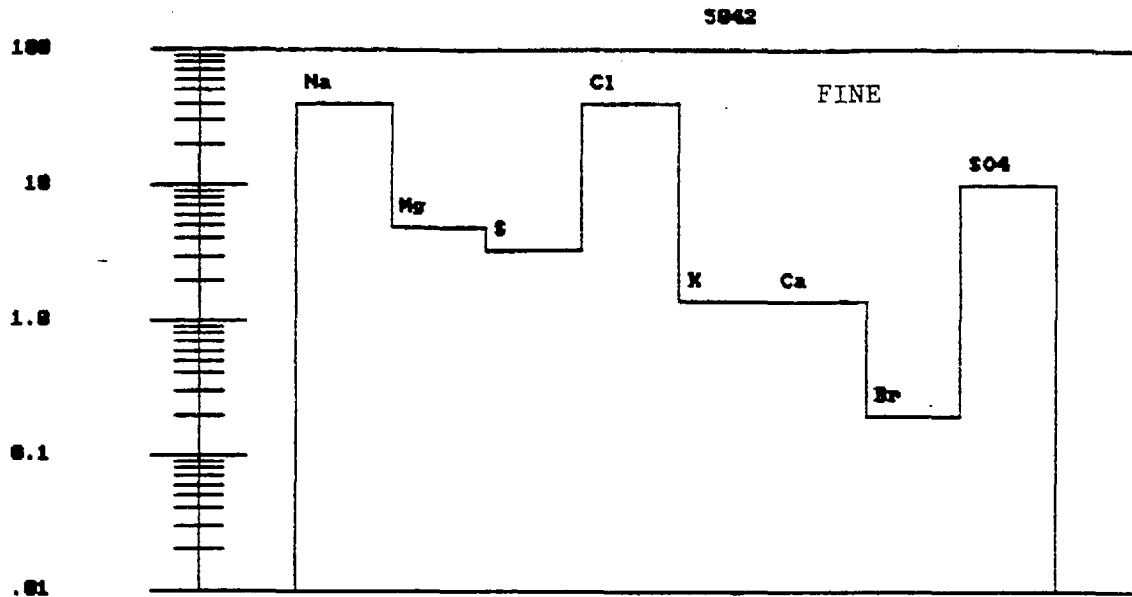
5060



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

SPECIES	P E R C E N T C O M P O S I T I O N		
	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

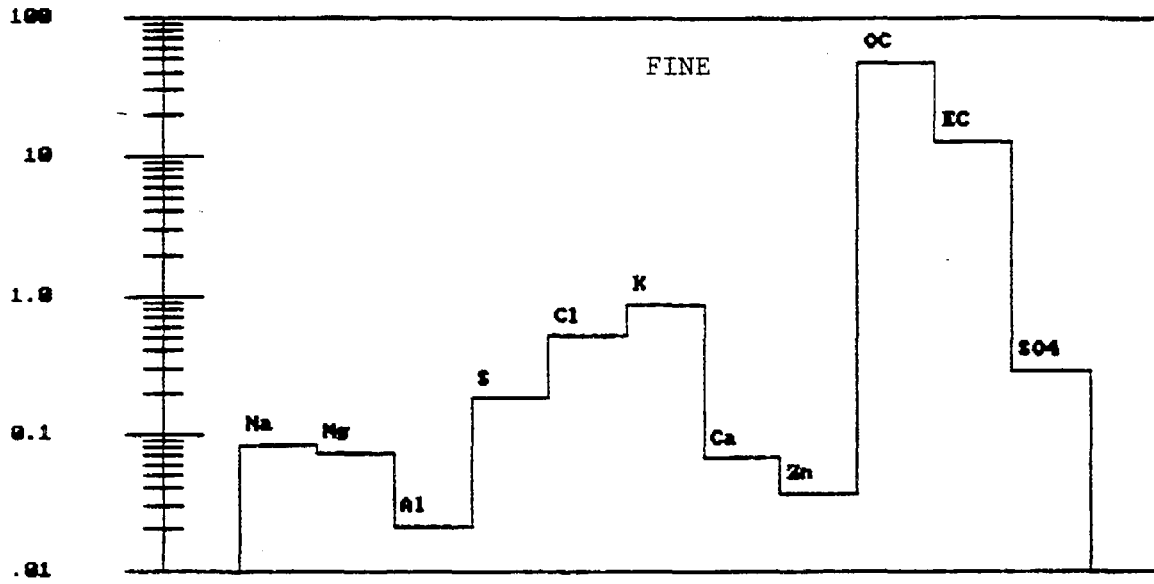


srce	part	revision	source description	reference	date
code	size	date			
5015	F	02/03/81	residential wood combustion	15	02/81

SPECIES	P E R C E N T C O M P O S I T I O N		
	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		
S04	.2890 +- .0210		
Sum	62.4210		

RESIDENTIAL WOOD COMBUSTION

5815

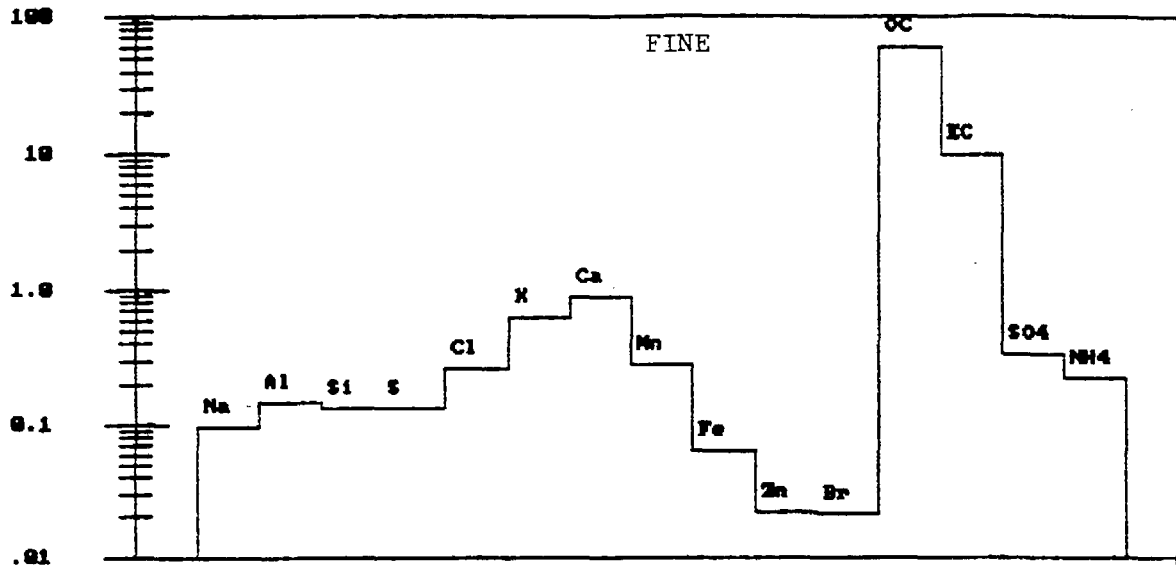


srce	part	revision	source description	reference	date
code	size	date			
5437	FC	04/10/87	Slash Burning	16	02/81

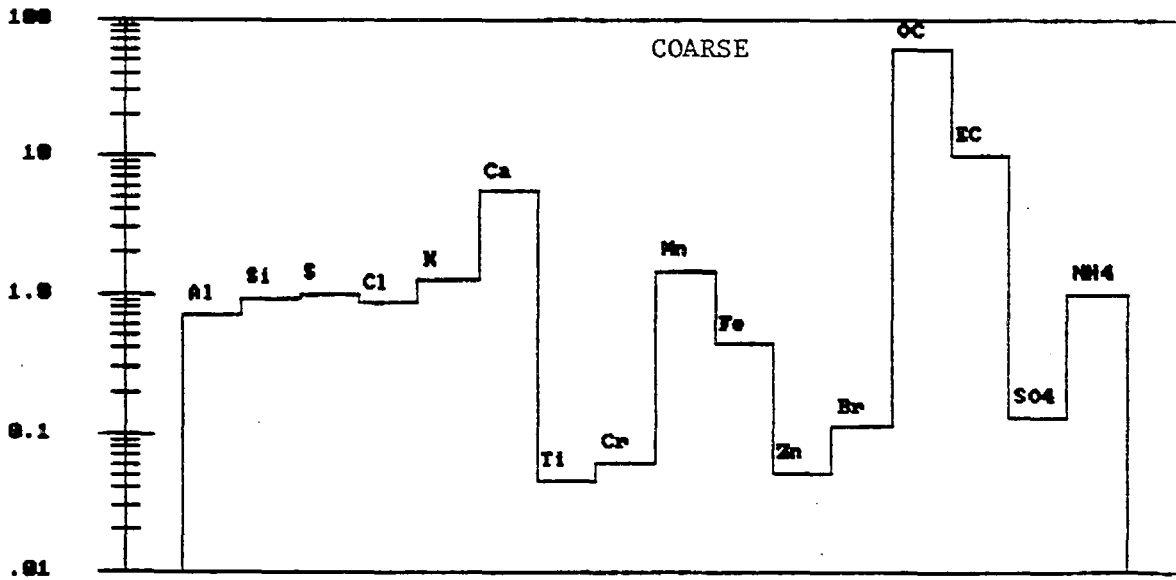
SPECIES	P E R C E N T C O M P O S I T I O N				
	FINE		COARSE		TOTAL
Na	.0960 +-	.0350			
Al	.1440 +-	.0660	.7050 +-	.2050	
Si	.1320 +-	.0410	.9300 +-	.0990	
S	.1320 +-	.0500	.9900 +-	.4380	
Cl	.2580 +-	.1180	.8500 +-	1.2000	
K	.6200 +-	.2350	1.2500 +-	.2120	
Ca	.8680 +-	.2880	5.5000 +-	.6000	
Ti			.0450 +-	.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

5437



5437

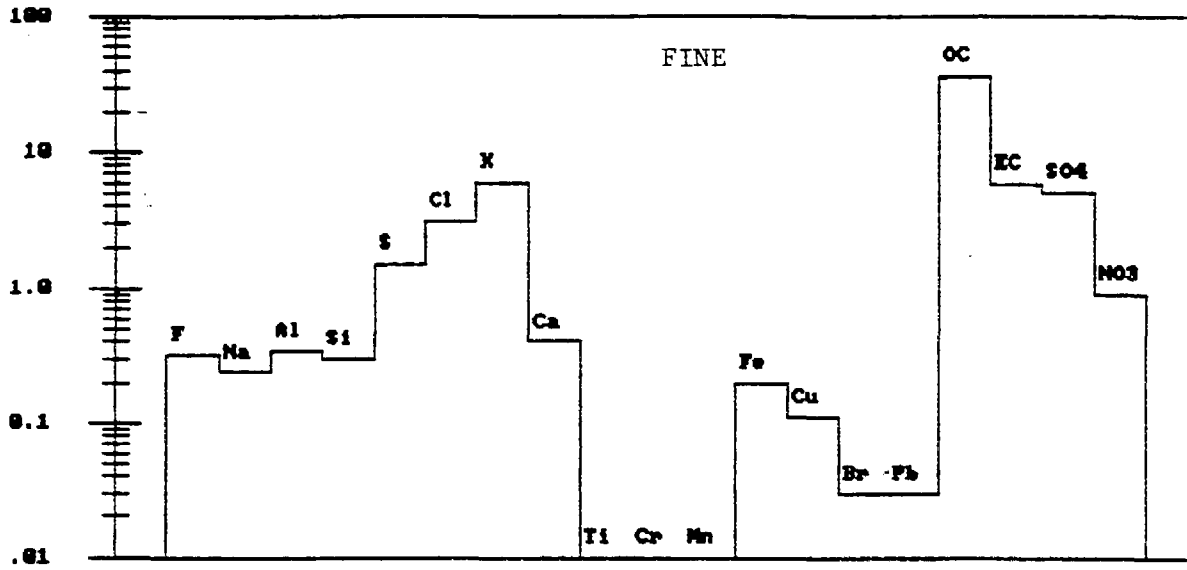


srce	part	revision	source description	reference	date
code	size	date			
5438	FC	04/10/87	Field Burning	16	00/79

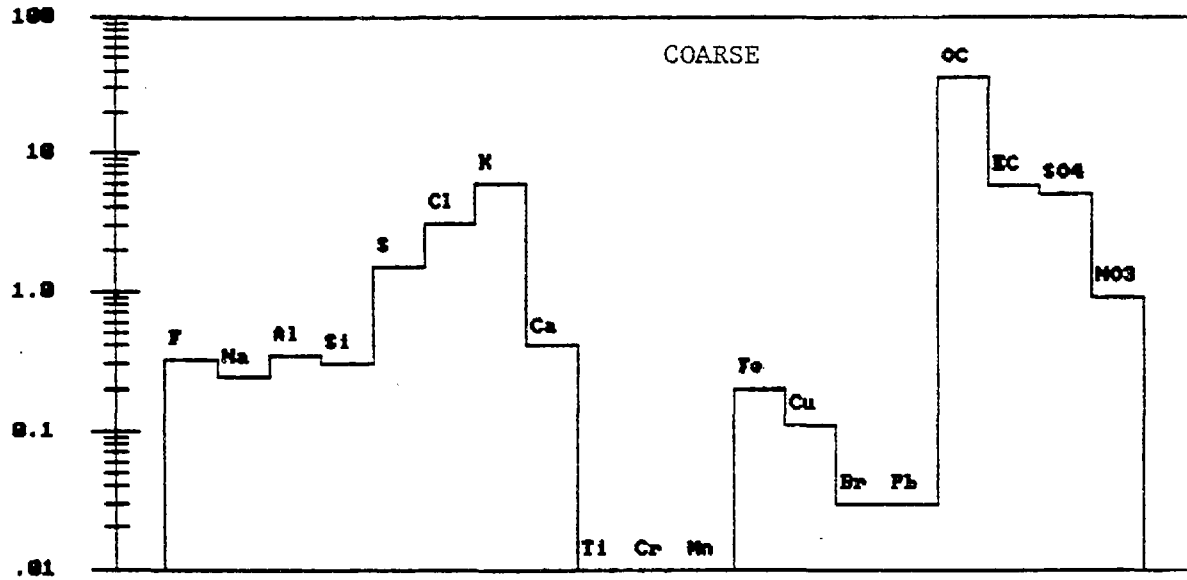
SPECIES	P E R C E N T C O M P O S I T I O N					
	FINE		COARSE		TOTAL	
F	.3200	+-.1500	.3200	+-.1500		
Na	.2400	+-.3400	.2400	+-.3400		
Al	.3400	+-.3000	.3400	+-.3000		
Si	.3000	+-.2000	.3000	+-.2000		
S	1.5000	+-.7000	1.5000	+-.7000		
Cl	3.1000	+-.2.0000	3.1000	+-.2.0000		
K	5.9000	+-.2.5000	5.9000	+-.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

5438



5438

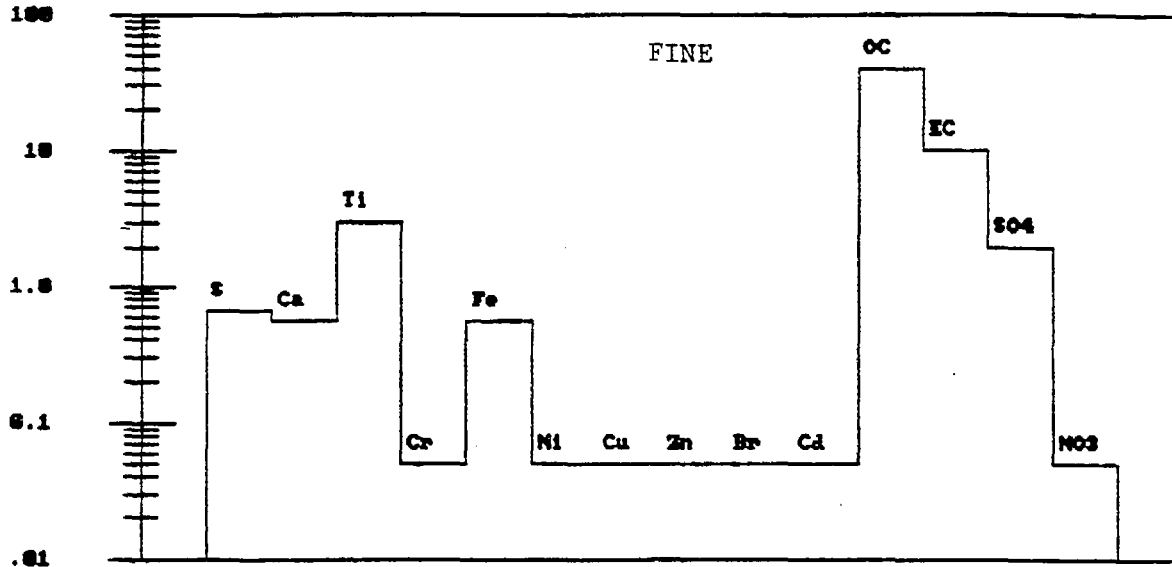


srce	part	revision	source description	reference	date
code	size	date			
5439	FCT	04/10/87	Paint Spray booth	9	00/79

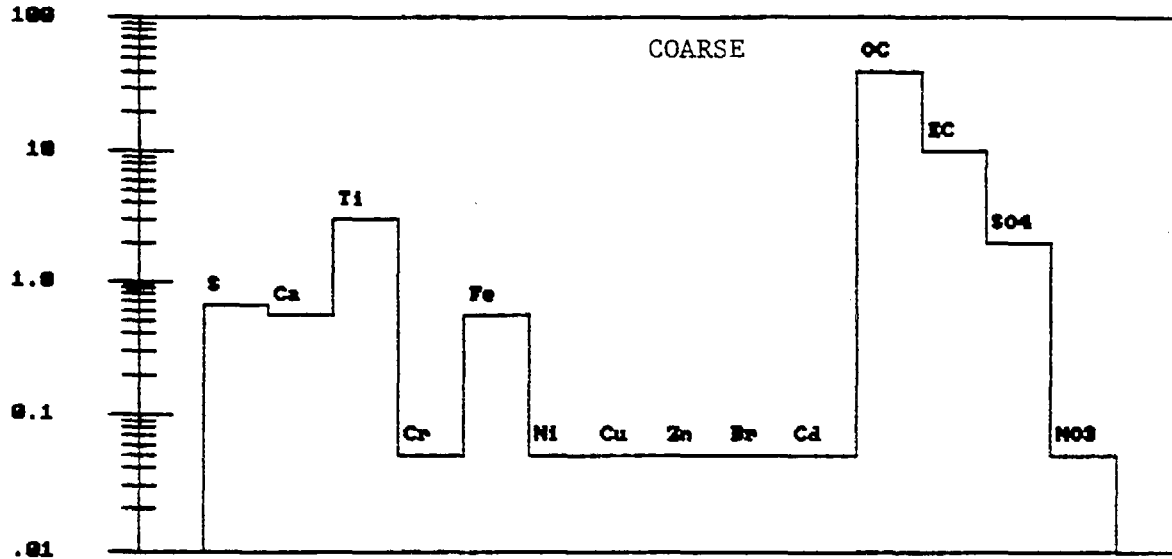
SPECIES	P E R C E N T C O M P O S I T I O N					
	FINE		COARSE		TOTAL	
S	.6600	+-.1980	.6600	+-.1980	.6600	+-.1980
Ca	.5500	+-.1650	.5500	+-.1650	.5500	+-.1650
Ti	3.0000	+-.9000	3.0000	+-.9000	3.0000	+-.9000
Cr	.0500	+-.0150	.0500	+-.0150	.0500	+-.0150
Fe	.5500	+-.1650	.5500	+-.1650	.5500	+-.1650
Ni	.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

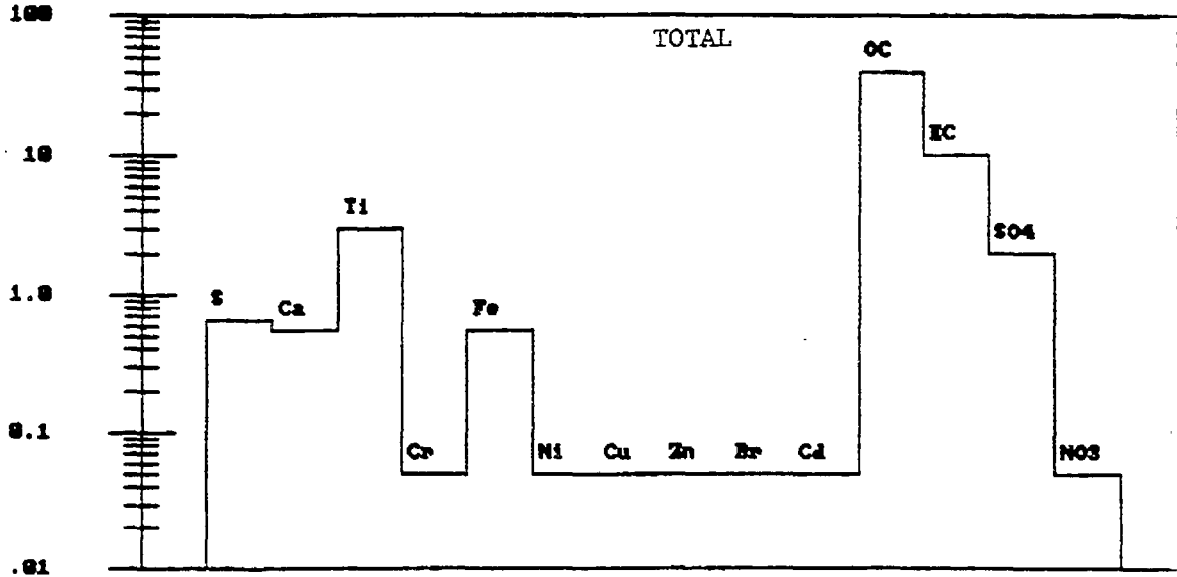
5439



5439



5439

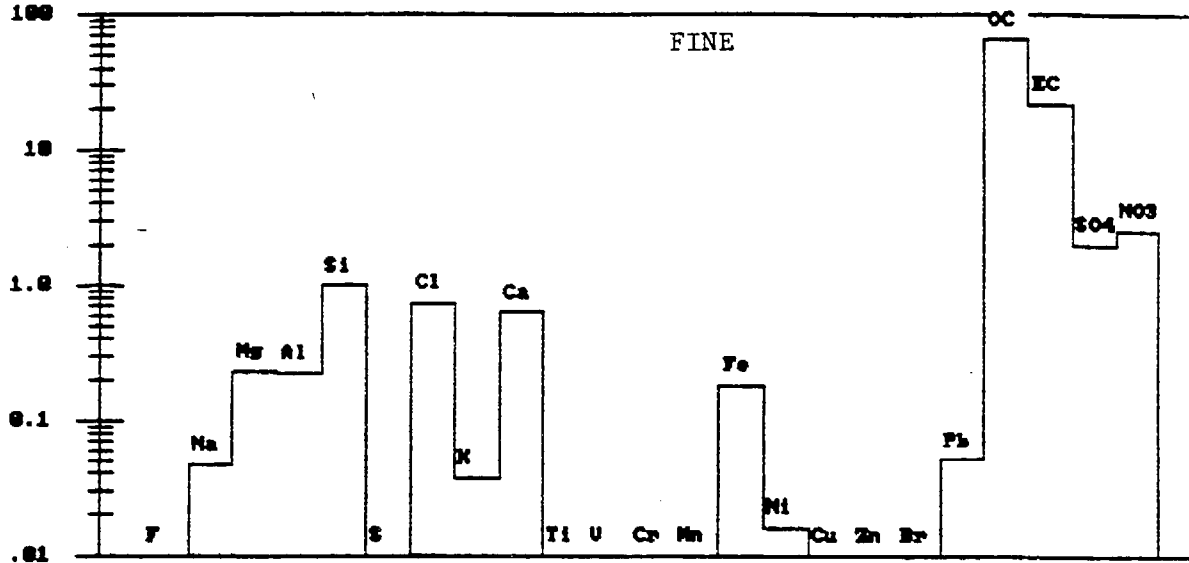


srce	part	revison	source description	reference	date
code	size	date			
5445	FCT	04/13/87	Diesel Train	7	00/79

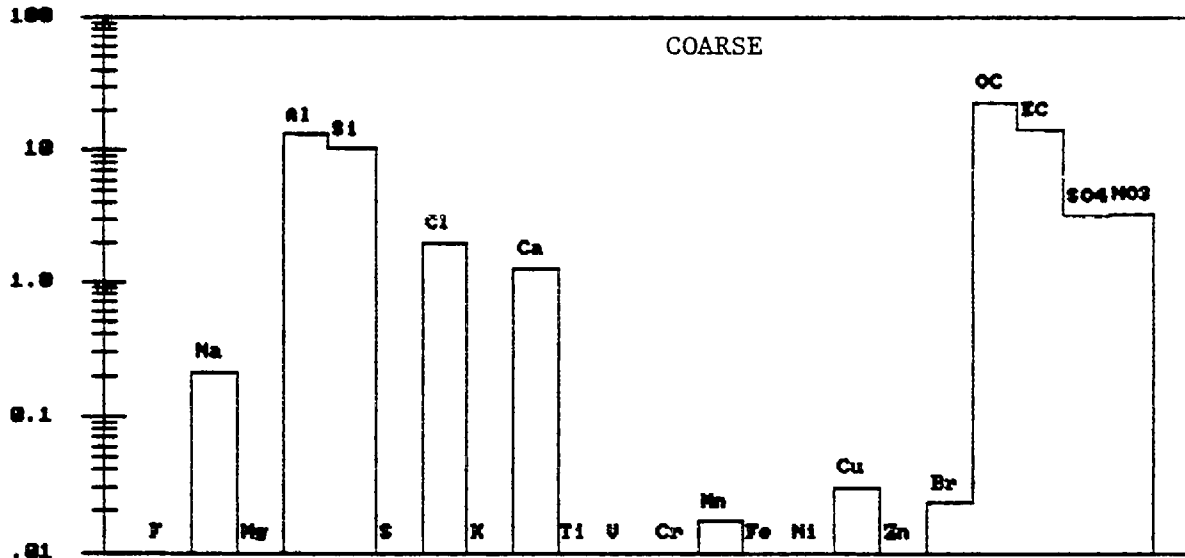
SPECIES	P E R C E N T C O M P O S I T I O N					
	FINE		COARSE		TOTAL	
F	.0000	+- .1000	.0000	+- .1000	.0000	+- .0931
Na	.0470	+- .0071	.2100	+- .0640	.0586	+- .0106
Mg	.2250	+- .0350	.0000	+- 2.0000	.2089	+- .1493
Al	.2200	+- .0640	12.9000	+- 16.0000	1.1257	+- 1.1493
Si	.9800	+- 1.0700	10.2000	+- 5.9400	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

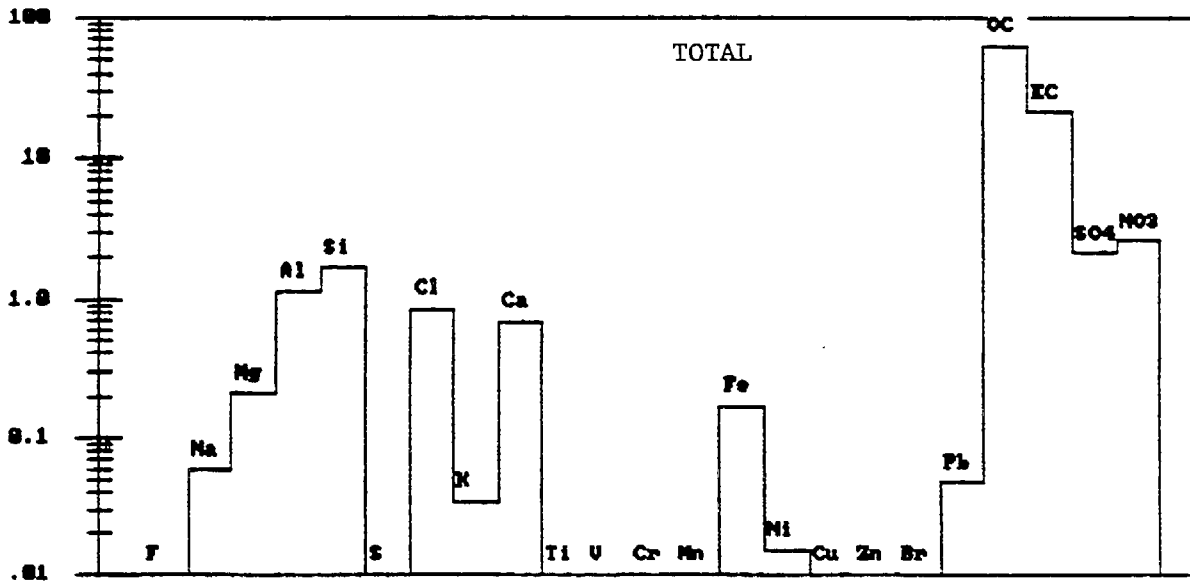
5445



5445



5445

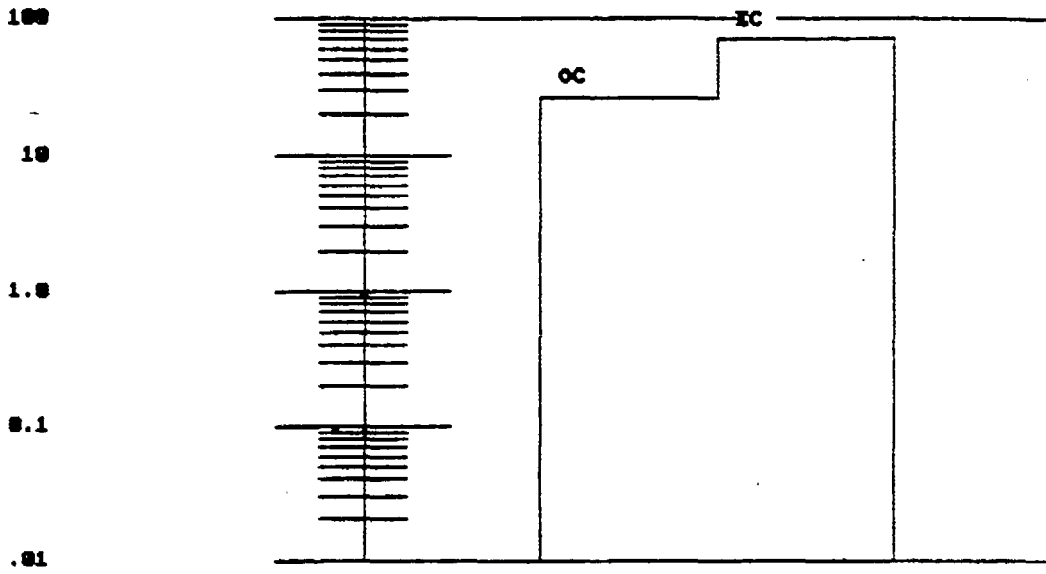


srce code	part size	revision date	source description	reference	date
5446	C	04/13/87	Jet Aircraft	16	11/84

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

JET AIRCRAFT

5446 COARSE



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

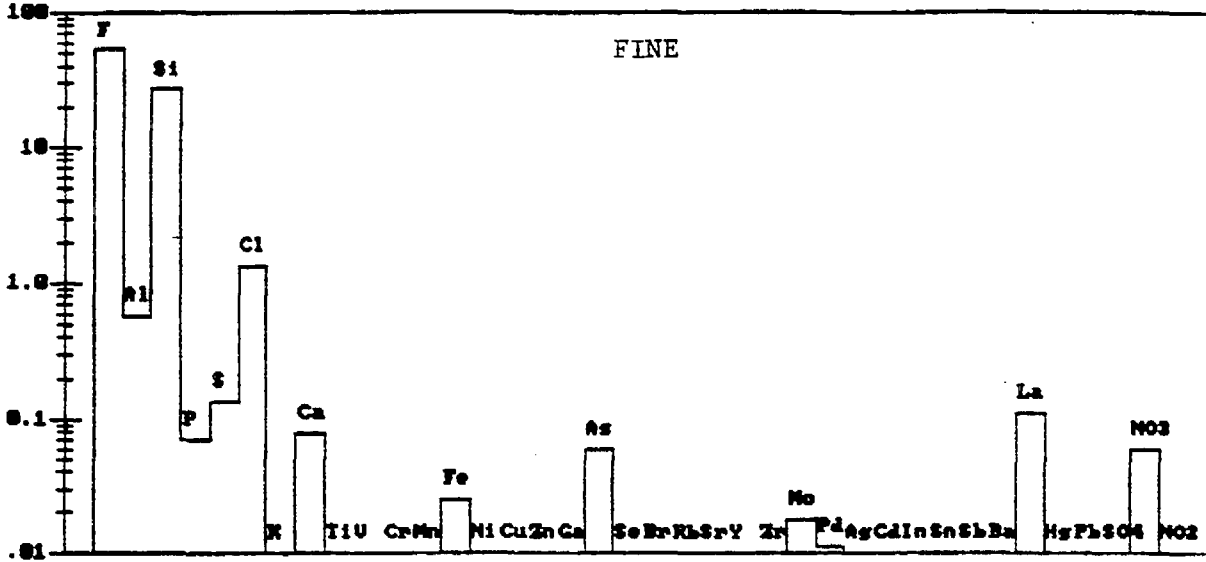
SPECIES	P E R C E N T C O M P O S I T I O N					
	FINE		COARSE		TOTAL	
Na			.3400 +- .0200		.3063 +- .0183	
Mg			.1300 +- .0100		.1171 +- .0091	
Al	2.5434 +- .2543		2.0988 +- .2099		2.1429 +- .1936	
Si	3.3491 +- .3349		2.4823 +- .2482		2.5682 +- .2299	
P	11.1516 +- 2.2314		9.5468 +- 1.9100		9.7058 +- 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	

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

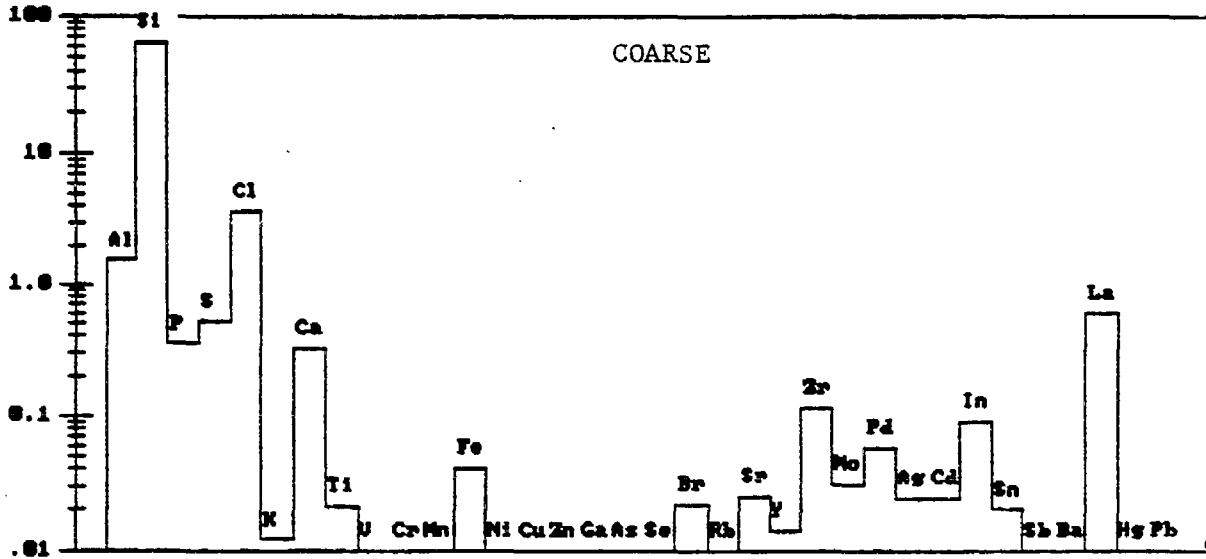
SPECIES	P E R C E N T C O M P O S I T I O N					
	FINE		COARSE		TOTAL	
F	52.9000	+- 5.2900				
Al	.5720	+- .1144	1.5410	+- .3082	.6785	+- .1357
Si	26.6060	+- 2.6606	64.7830	+- 6.4783	30.8128	+- 3.0813
P	.0700	+- .0140	.3500	+- .0870	.1008	+- .0209
S	.1360	+- .0272	.5180	+- .1140	.1778	+- .0356
Cl	1.3090	+- .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	

ŞUPRPHOS. PLANT, CUBATAO, T<15

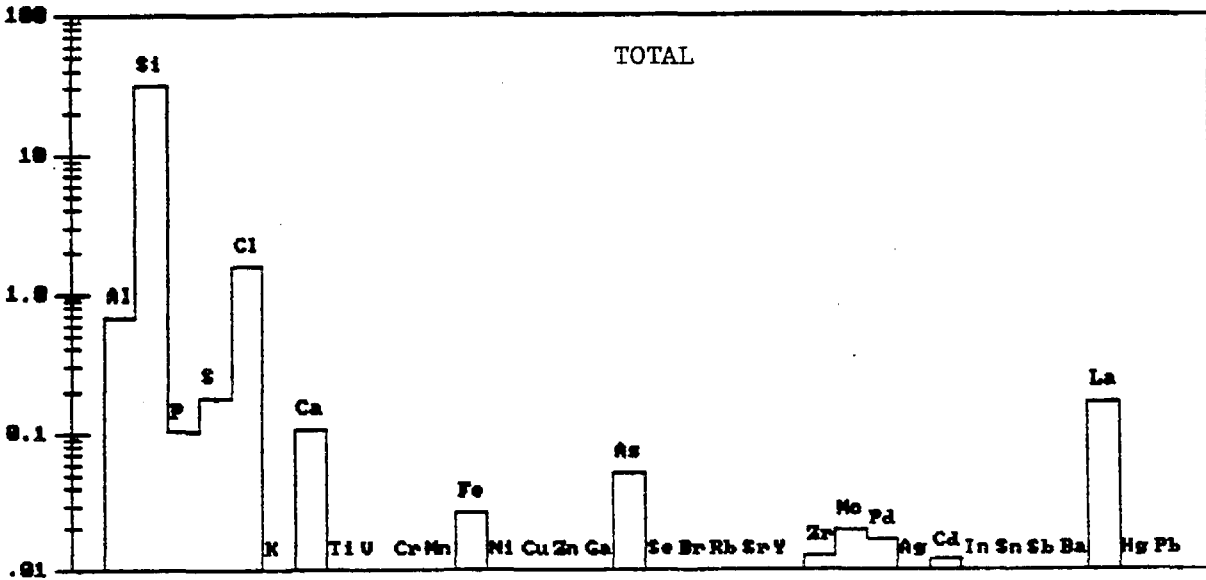
5223



5223



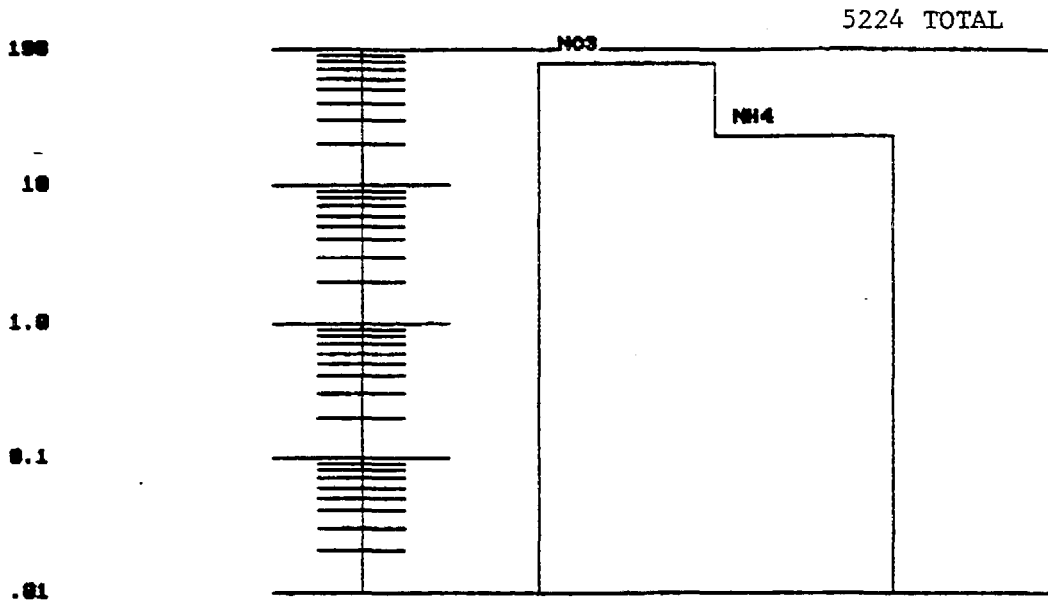
5223



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

SPECIES	P E R C E N T C O M P O S I T I O N		
	FINE	COARSE	TOTAL
NO3			77.5000 +- 7.7500
NH4			22.5000 +- 2.2500
Sum			100.0000

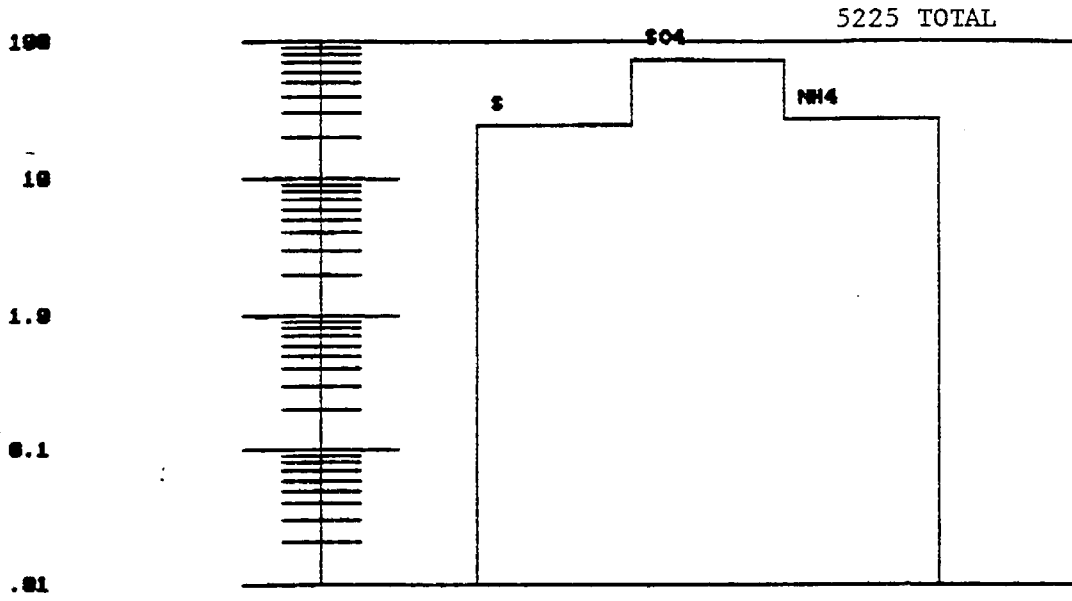
NH4NO3 PRILL TOWER, CUBATAO



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

SPECIES	P E R C E N T C O M P O S I T I O N		
	FINE	COARSE	TOTAL
S			24.2000 +- 2.4200
SO4			72.7000 +- 7.2700
NH4			27.3000 +- 2.7300
Sum			*****

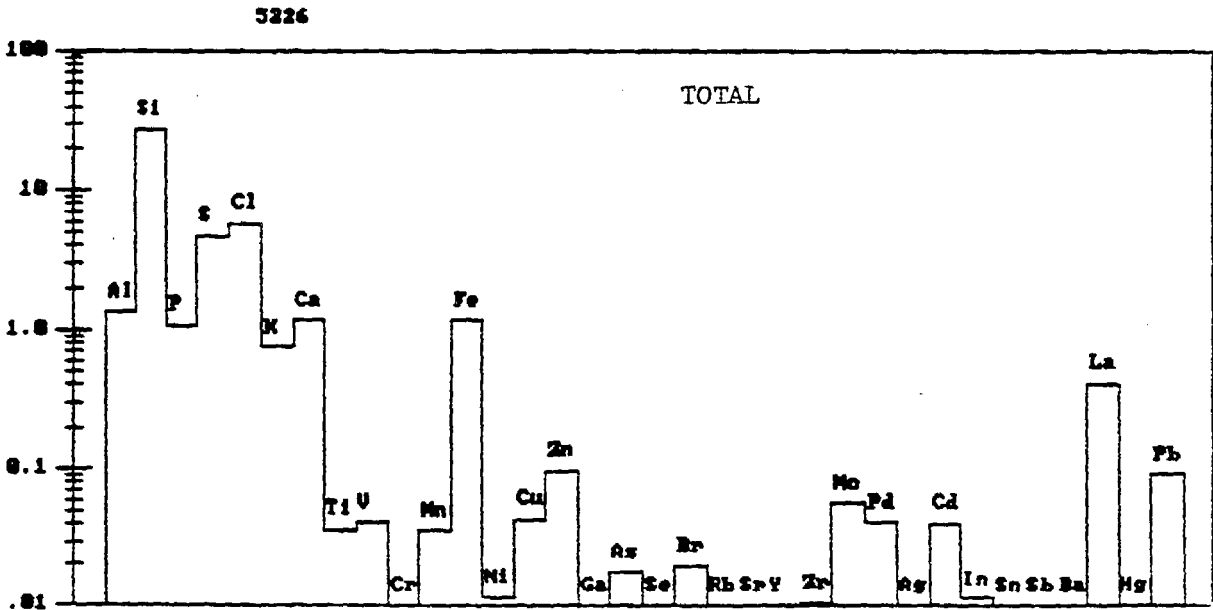
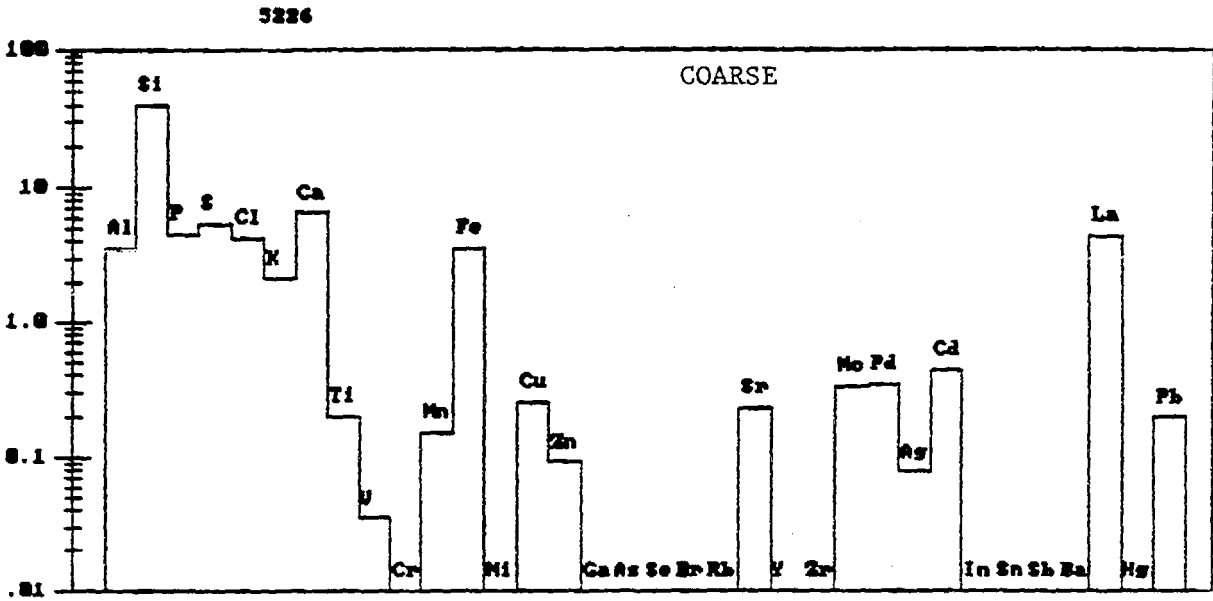
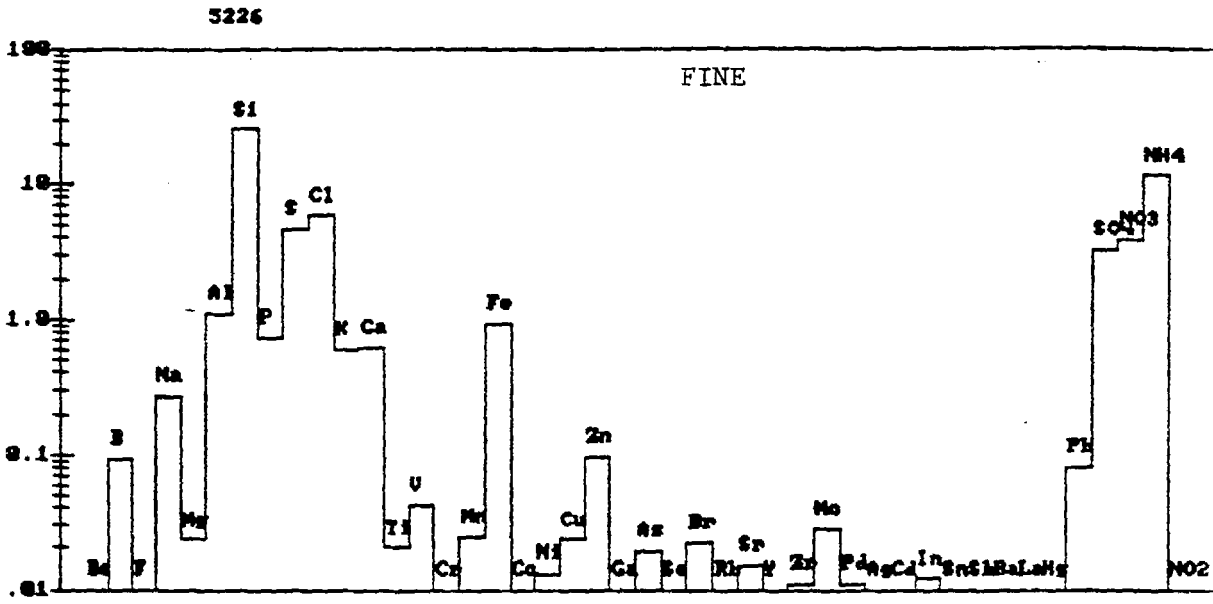
AMMONIUM SULFATE, CUBATAO



srce part revision
code size date source description reference date

5226 FCT 03/01/85 DAP plant, run 2, Cub., T<15 8 03/85

SPECIES	P E R C E N T		C O M P O S I T I O N		T O T A L	
	FINE		COARSE			
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			

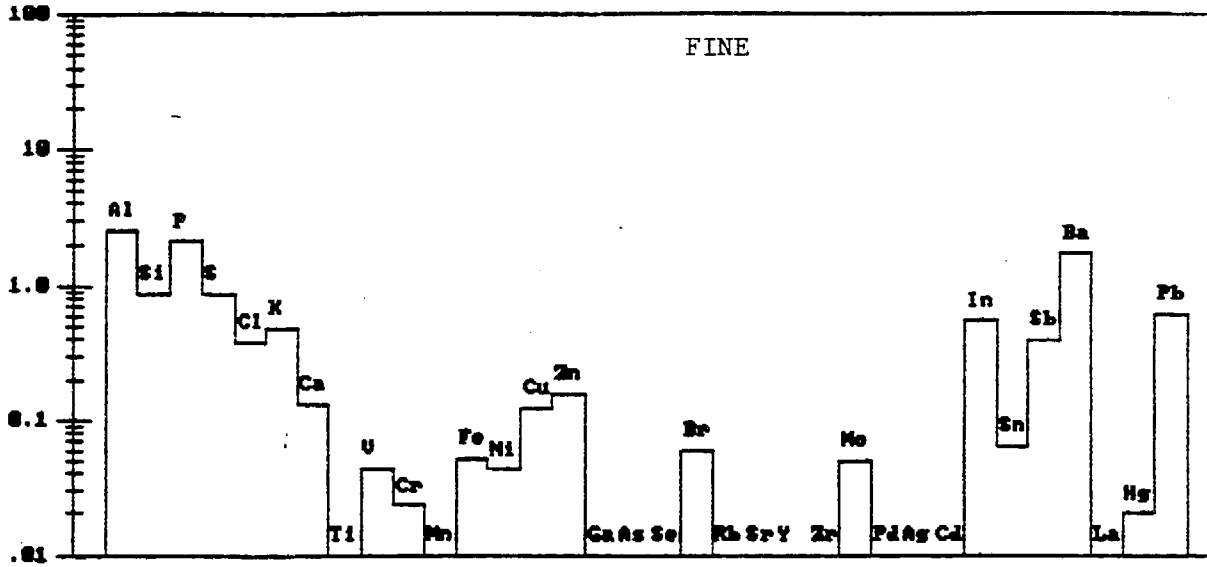


srce code	part size	revision date	source description	reference	date
5230	FC	03/01/85	Na tripolyphs. cyclone dust	8	03/85

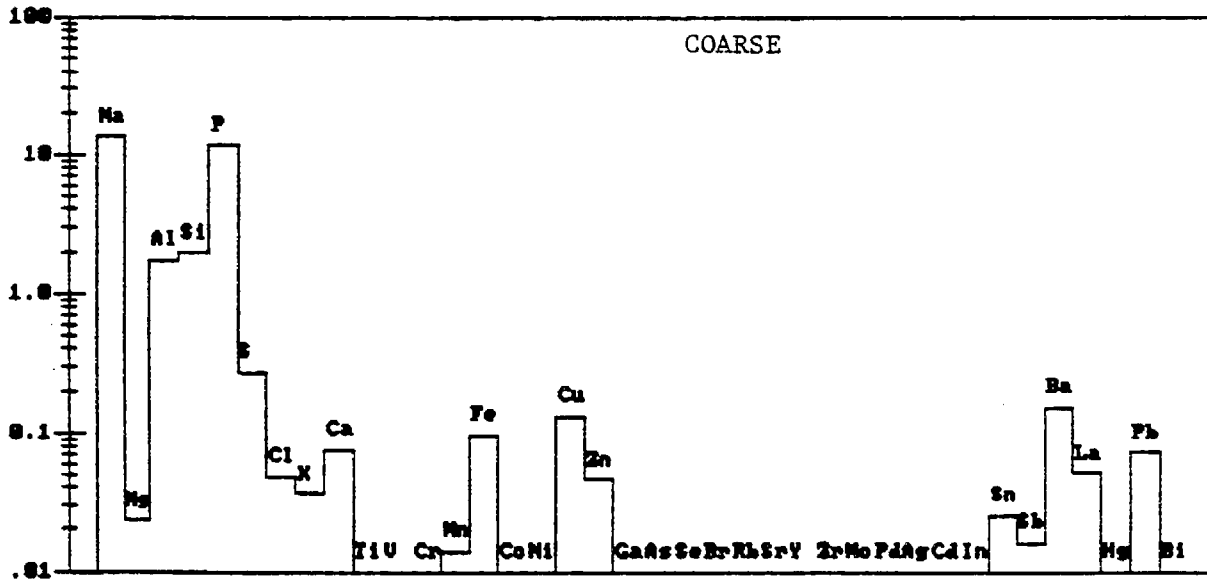
SPECIES	P E R C E N T C O M P O S I T I O N				
	FINE		COARSE		TOTAL
Na			13.4000 +- 2.6800		
Mg			.0230 +- .0060		
Al	2.5370 +- .3570		1.7320 +- .1732		
Si	.8750 +- .1410		1.9470 +- .1947		
P	2.0860 +- .4860		11.7330 +- 2.3500		
S	.8700 +- .2890		.2700 +- .0330		
Cl	.3800 +- .1180		.0480 +- .0130		
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

5230



5230

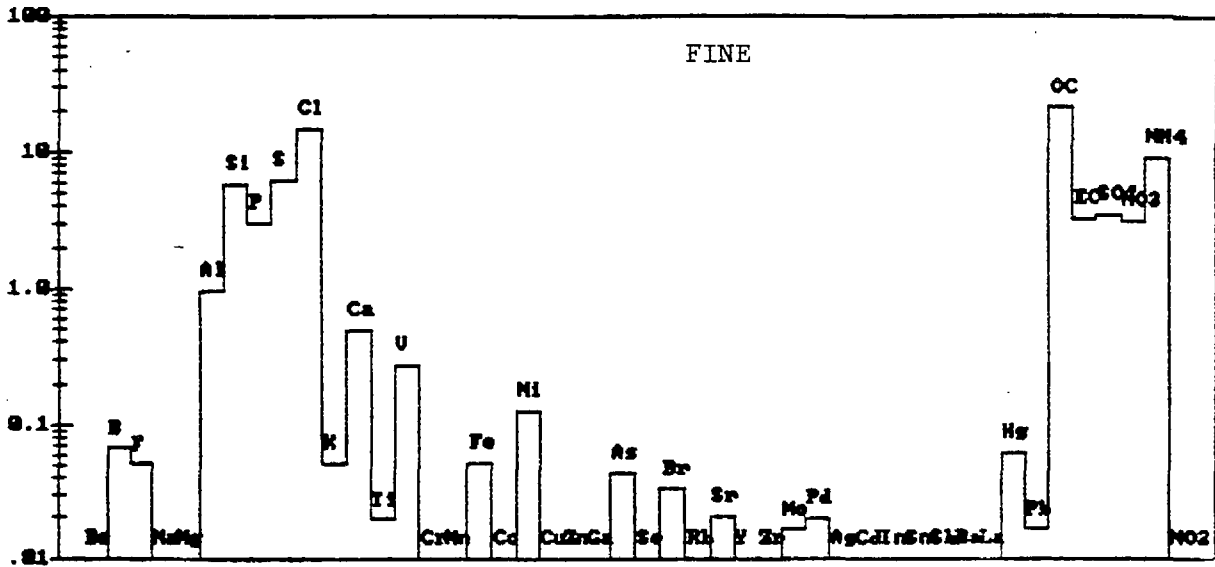


srce	part	revision	source description	reference	date
code	size	date			
5222	FCT	03/01/85	sprphs. granulation, Cub. T<15	8	03/85

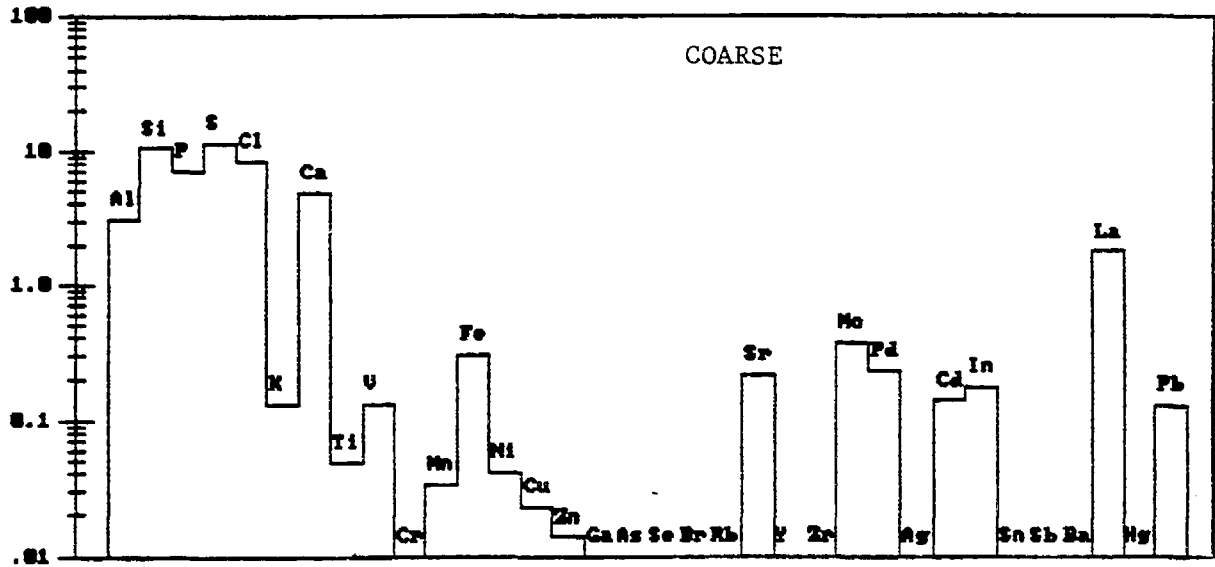
SPECIES	P E R C E N T C O M P O S I T I O N					
	FINE		COARSE		TOTAL	
Be	.0000	+- .0110				
B	.0670	+- .0450				
F	.0510	+- .0450				
Na	.0000	+- .4400				
Mg	.0000	+- .0057				
Al	.9729	+- .0973	3.1372	+- .7843	1.0461	+- .1046
Si	5.7913	+- 1.4526	10.5624	+- 3.6749	5.9495	+- 1.5147
P	3.0160	+- 1.8055	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

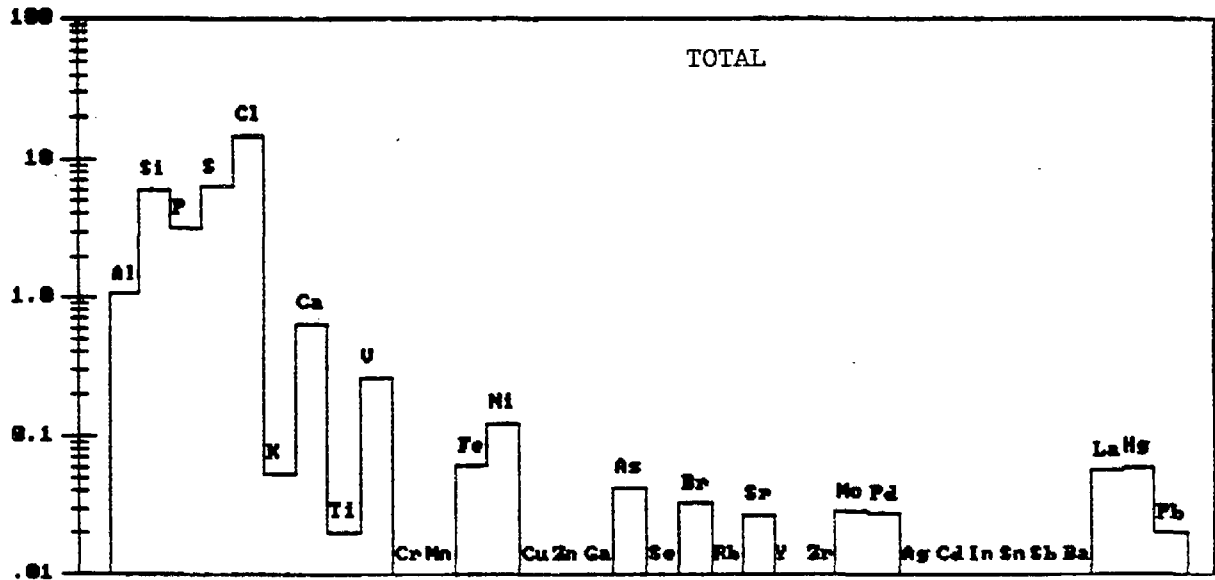
5222



5222



5222

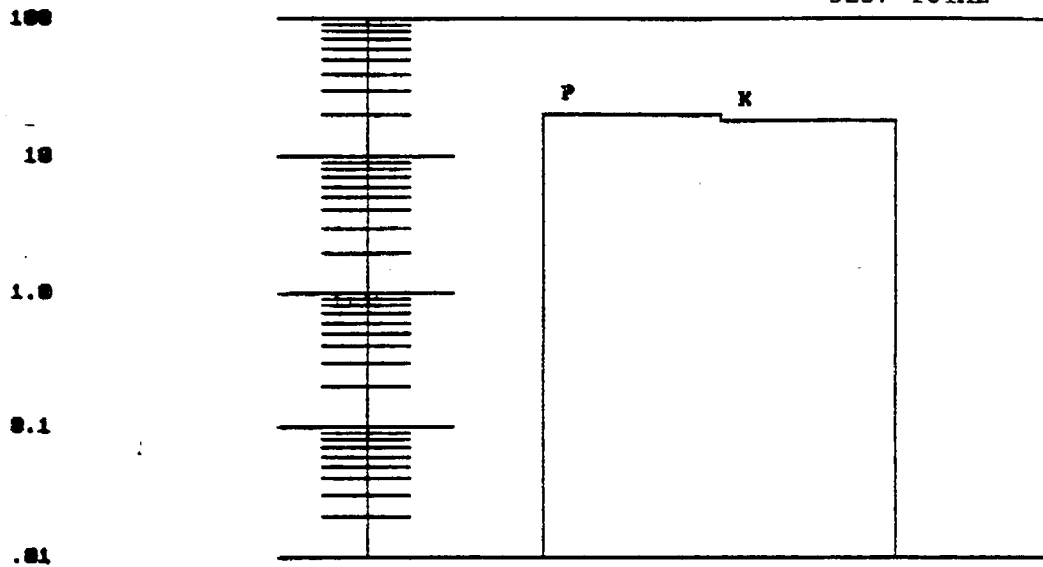


srce code	part size	revsion date	source description	reference	date
5237	T	03/01/85	NPK fertilizer, 2-20-18	8	03/85

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

NPK FERTILIZER, 2-20-18

5237 TOTAL

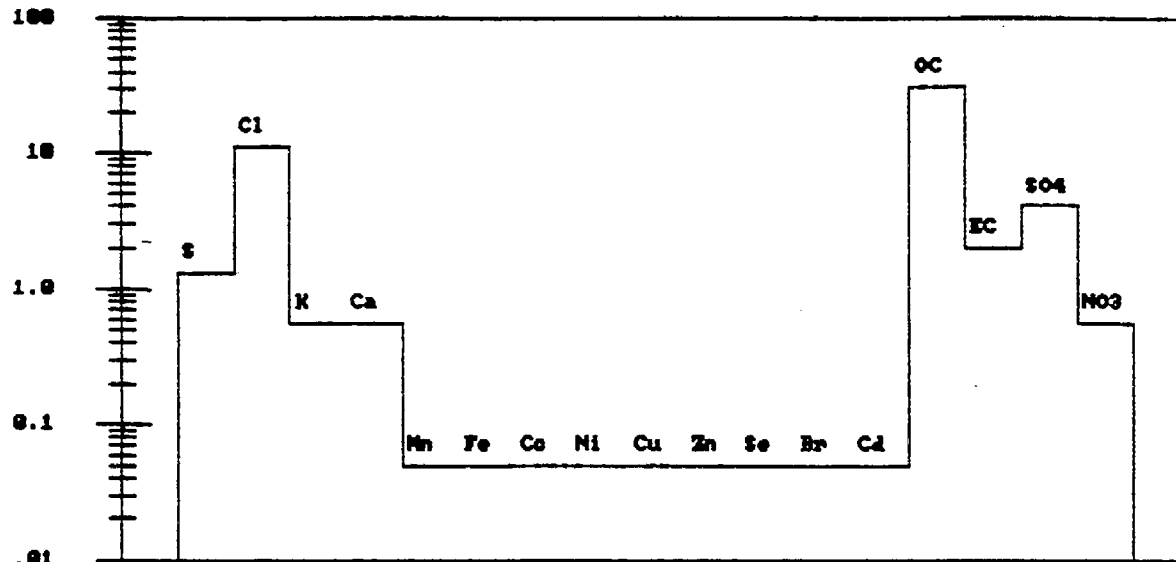


srce	part	revison	source description	reference	date
code	size	date			
5442	FCT	04/10/87	Urea Fertilizer Production	9	00/79

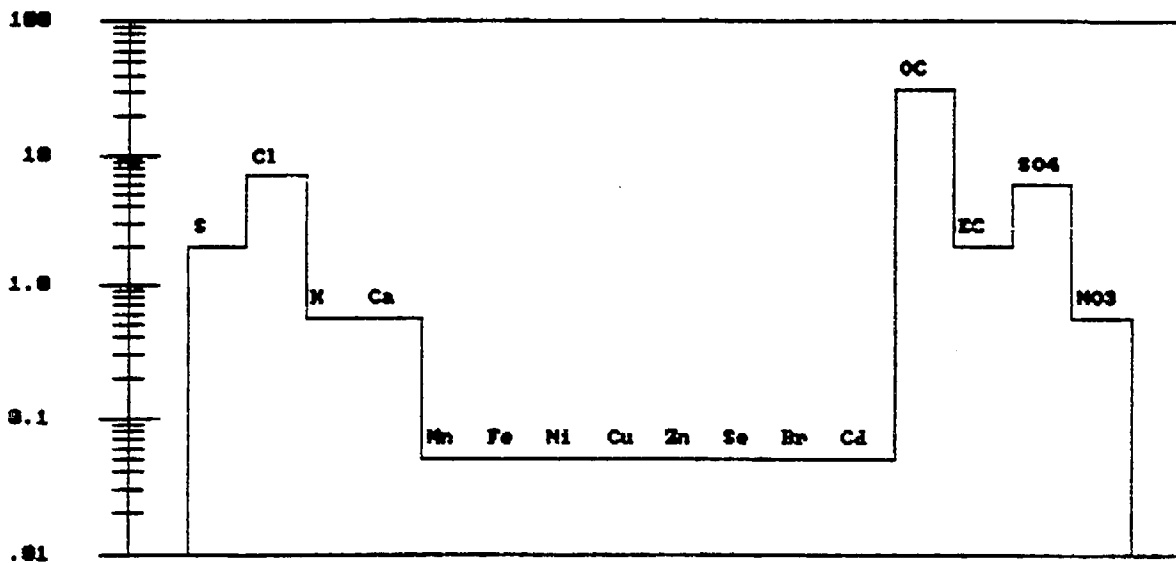
SPECIES	P E R C E N T C O M P O S I T I O N					
	FINE		COARSE		TOTAL	
S	1.3000	+- .3900	2.0000	+- .6000	2.6000	+- .7800
Cl	11.0000	+- 3.3000	7.0000	+- 2.1000	5.0000	+- 1.5000
K	.5500	+- .1650	.5500	+- .1650	.5500	+- .1650
Ca	.5500	+- .1650	.5500	+- .1650	.5500	+- .1650
Mn	.0500	+- .0150	.0500	+- .0150	.0500	+- .0150
Fe	.0500	+- .0150	.0500	+- .0150	.0500	+- .0150
Co	.0500	+- .0150	.0500	+- .0150	.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

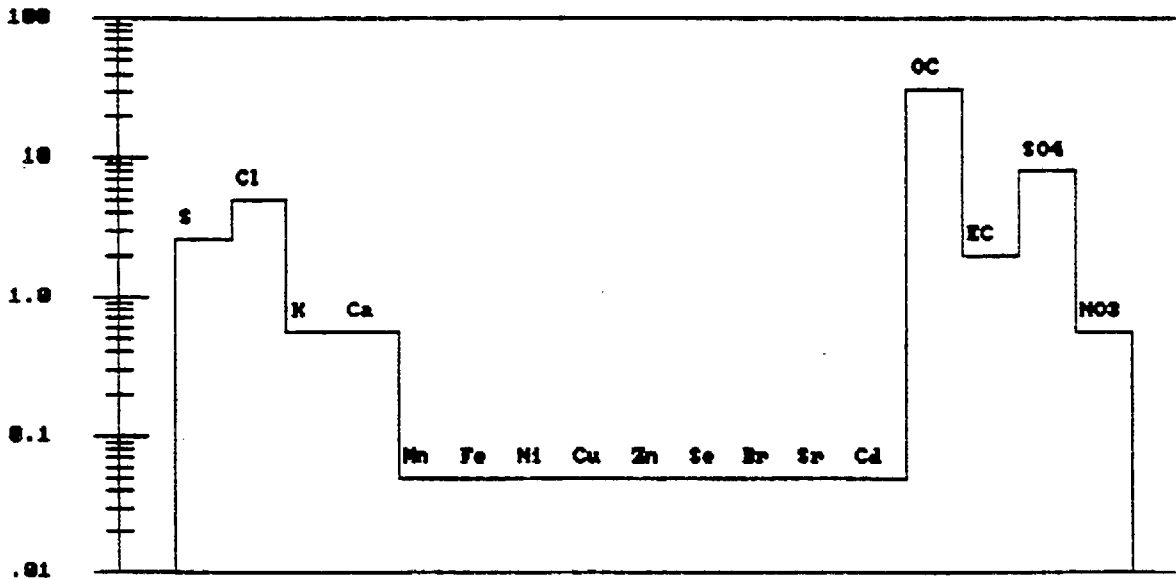
5442



5442



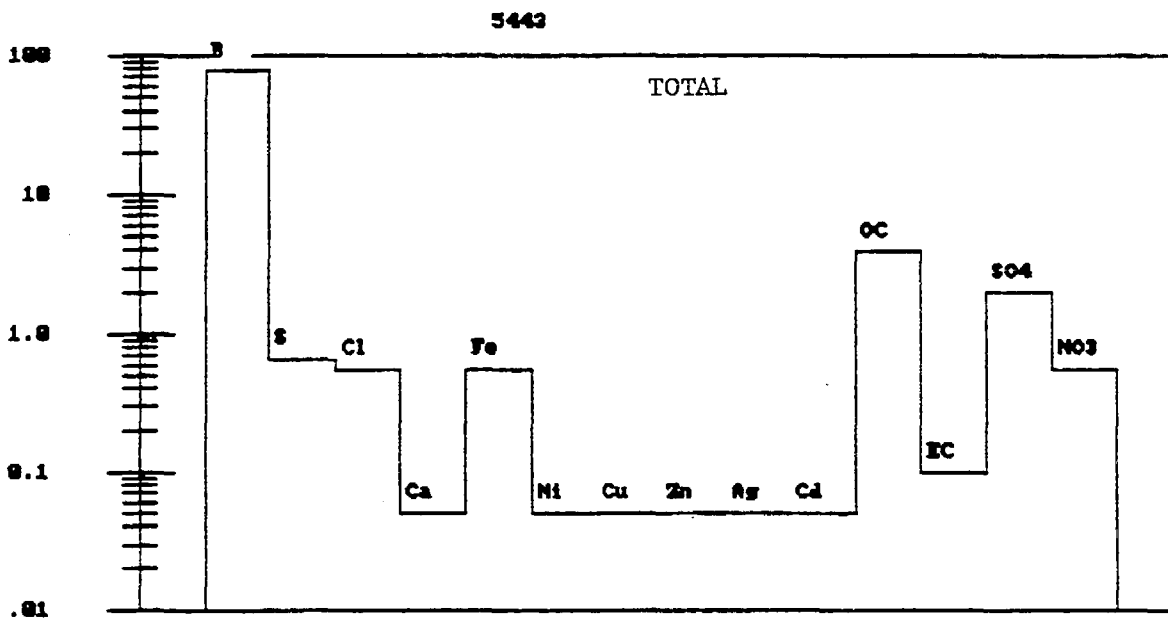
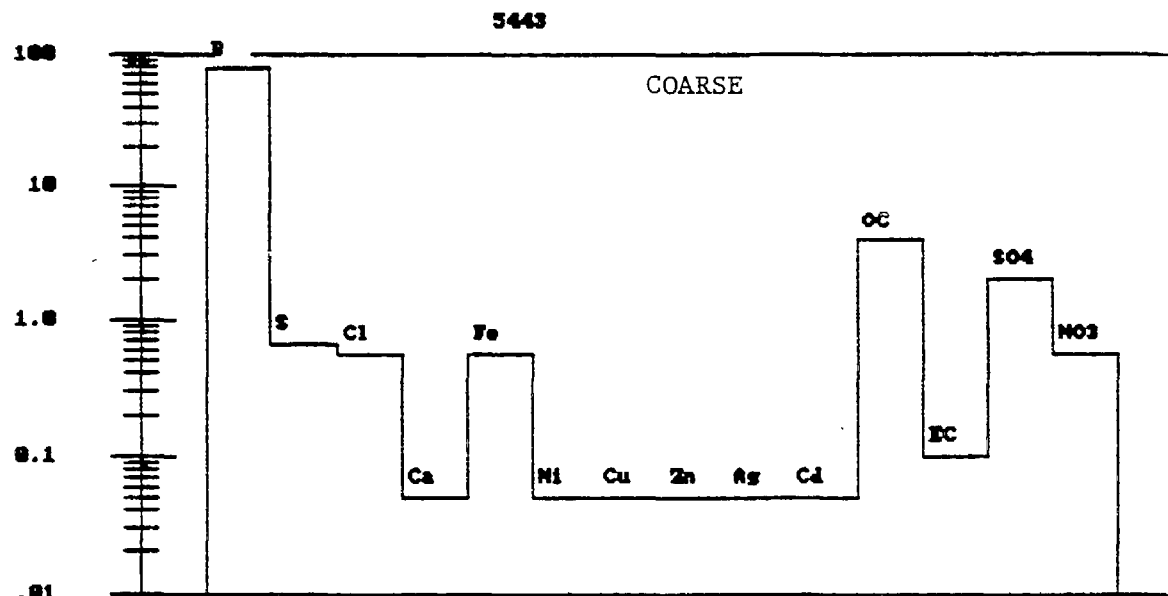
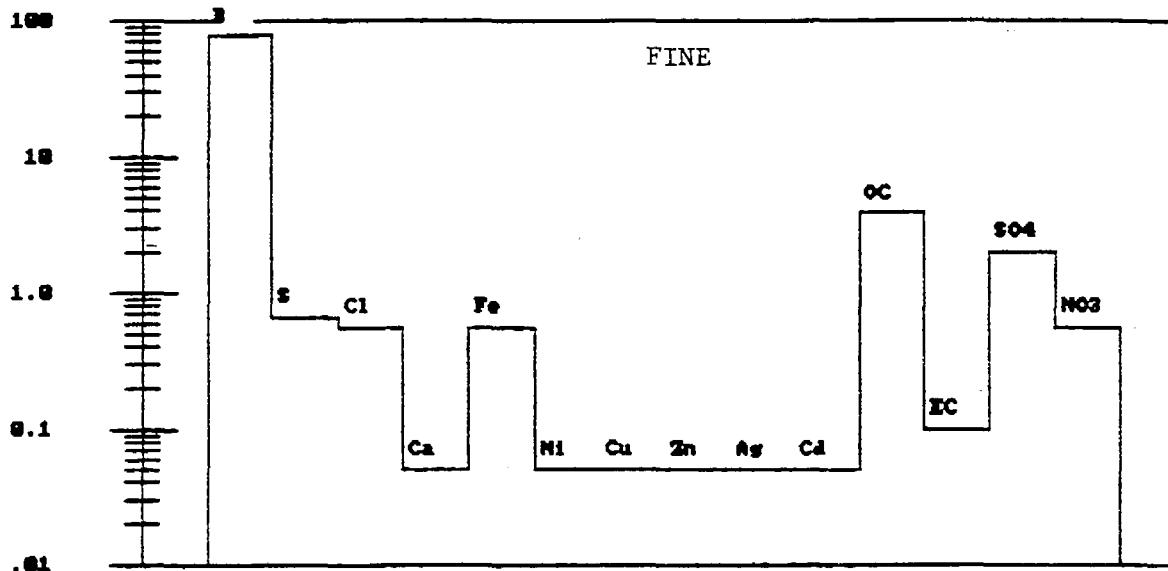
5442



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

SPECIES	P E R C E N T C O M P O S I T I O N					
	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
5443

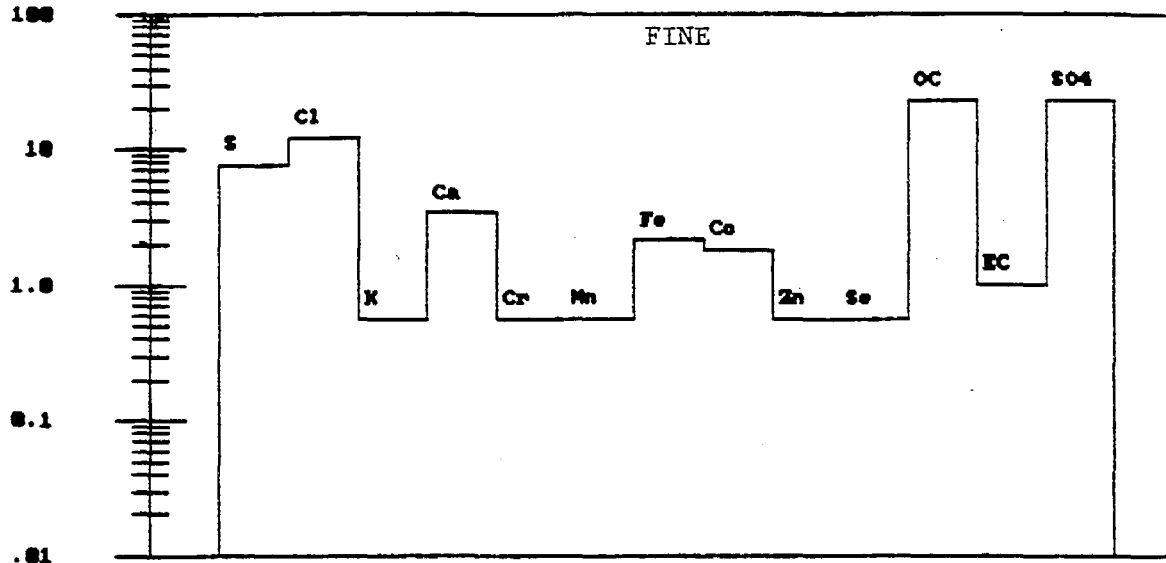


srce	part	revision				
code	size	date	source	description	reference	date
5441	FCT	04/10/87	Asphalt	Roofing Manufacturing	9	00/79

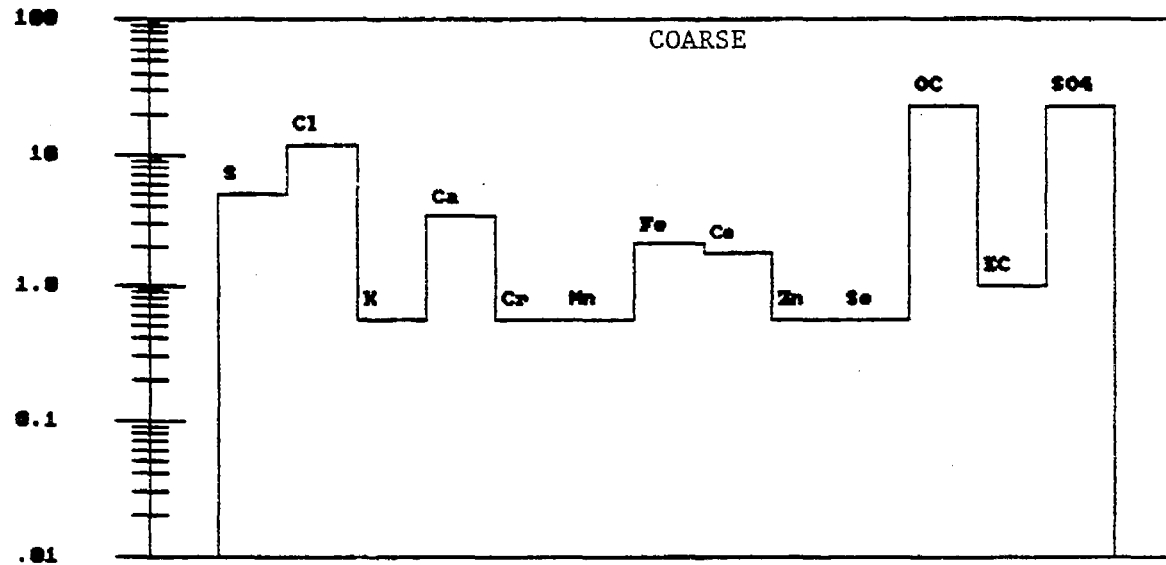
SPECIES	P E R C E N T C O M P O S I T I O N		
	FINE	COARSE	TOTAL
S	7.6000 +- 7.0000	5.0000 +- 7.0000	7.3300 +- 7.0000
Cl	12.0000 +- 3.0000	12.0000 +- 3.0000	12.0000 +- 3.0000
K	.5500 +- .1650	.5500 +- .1650	.5500 +- .1650
Ca	3.4000 +- .7000	3.4000 +- .7000	3.4000 +- .7000
Cr	.5500 +- .1650	.5500 +- .1650	.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

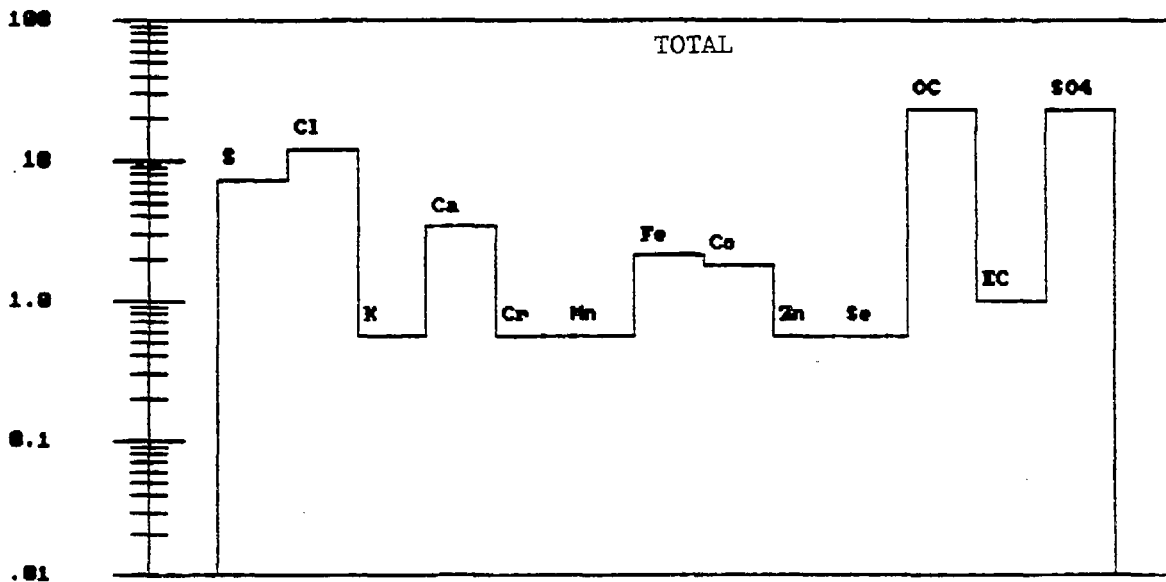
5441



5441



5441

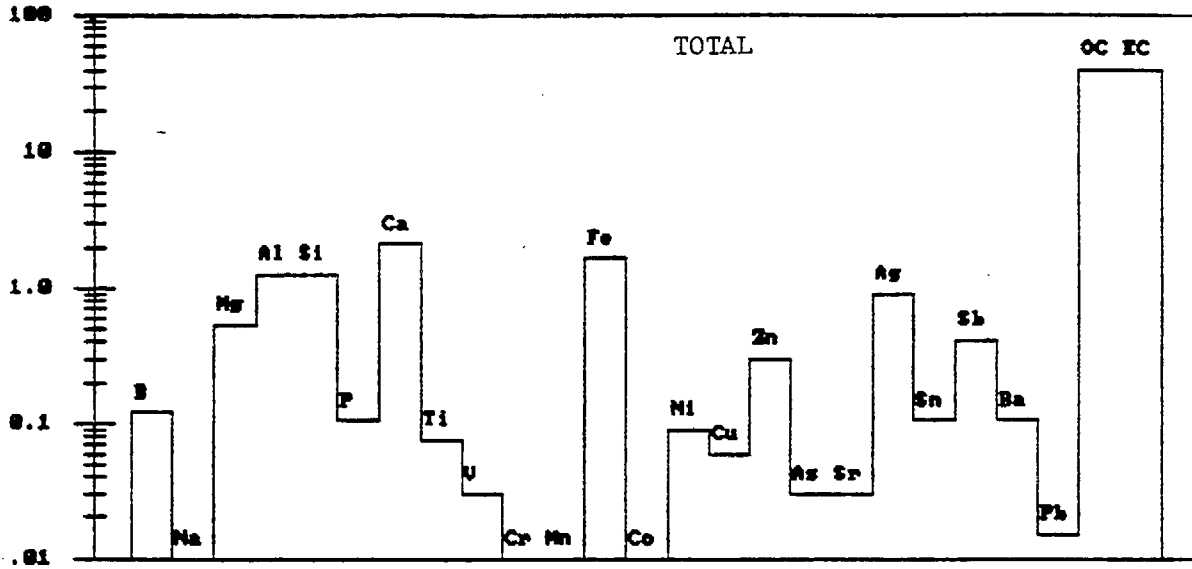


srce	part	revision	source description	reference	date
code	size	date			
5440	T	04/10/87	Residential Space Heating Coal	18	00/81

SPECIES	P E R C E N T C O M P O S I T I O N		
	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

5448

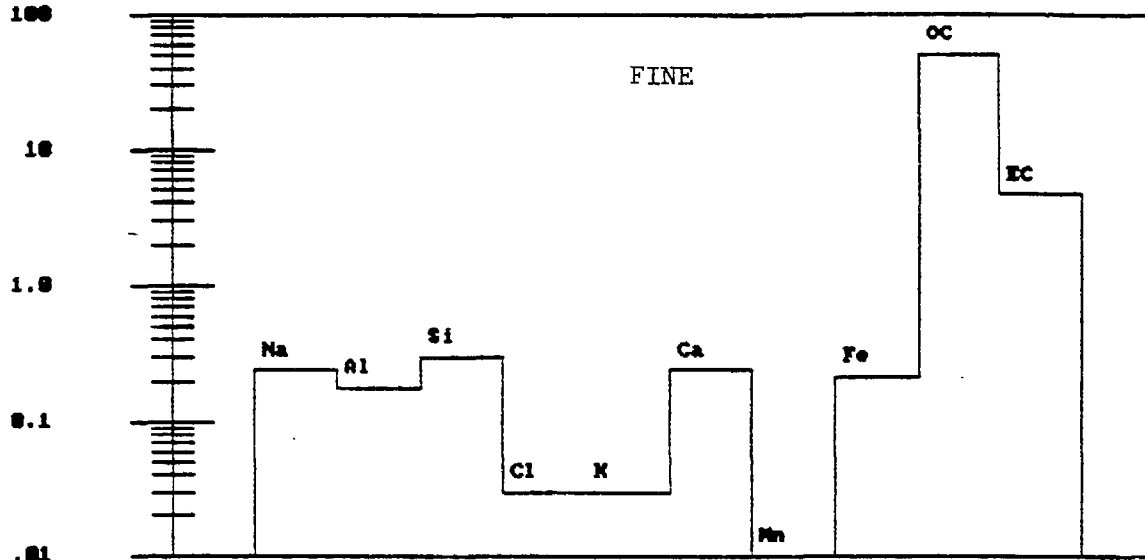


srce	part	revision	code	size	date	source description	reference	date
5061	FCT		04/10/87			wood cyclone, sanding	15	09/83

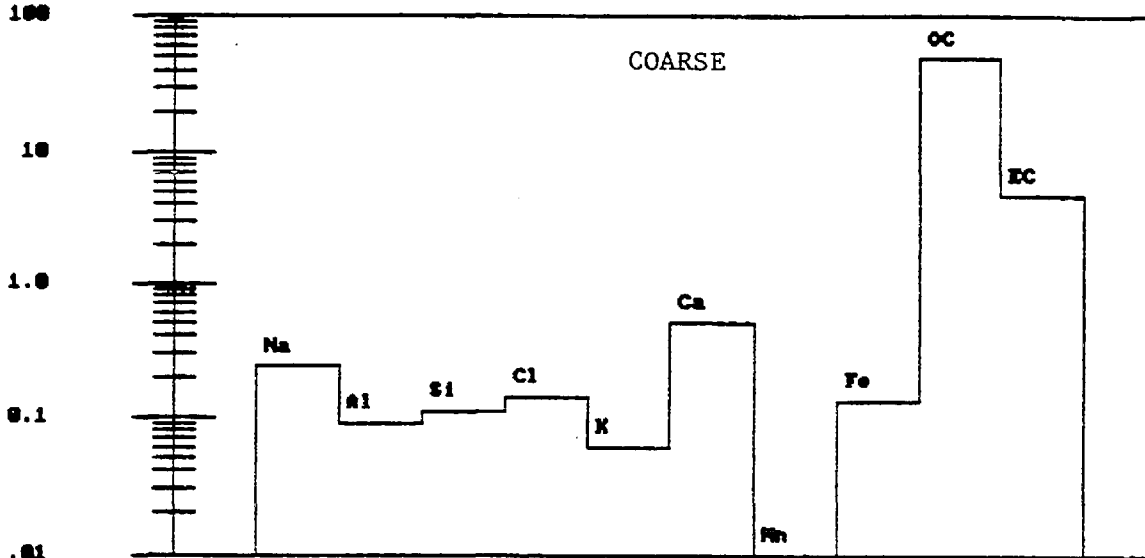
SPECIES	P E R C E N T C O M P O S I T I O N					
	FINE		COARSE		TOTAL	
Na	.2400 +-	.1400	.2400 +-	.1000	.2400 +-	.1386
Al	.1800 +-	.1300	.0900 +-	.0900	.1791 +-	.1287
Si	.3000 +-	.4000	.1100 +-	.1600	.2981 +-	.3960
Cl	.0300 +-	.0300	.1400 +-	.1400	.0311 +-	.0297
K	.0300 +-	.0400	.0600 +-	.0300	.0303 +-	.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

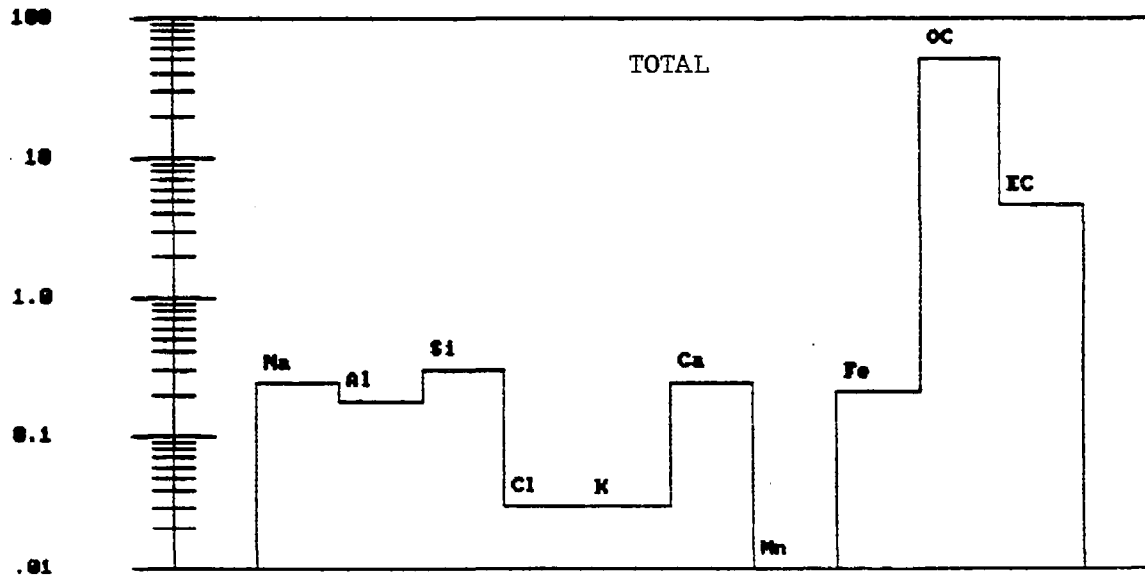
5061



5061



5061

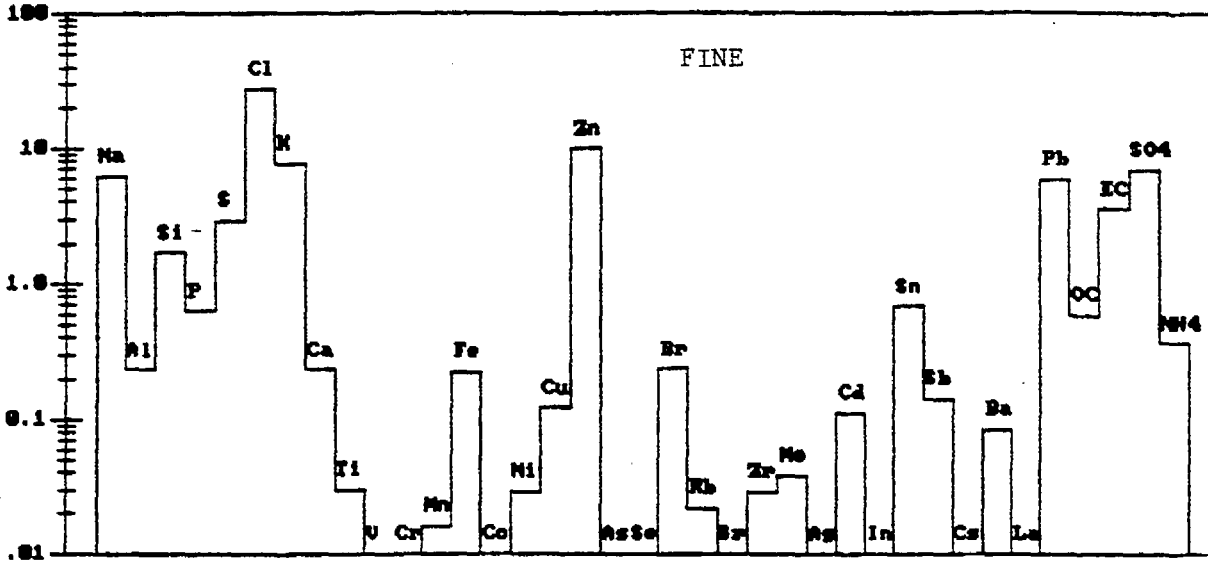


srce code	part size	revision date	source description	reference	date
5099	FCT	03/19/87	Municipal Incinerator (Phil.)	6	03/87

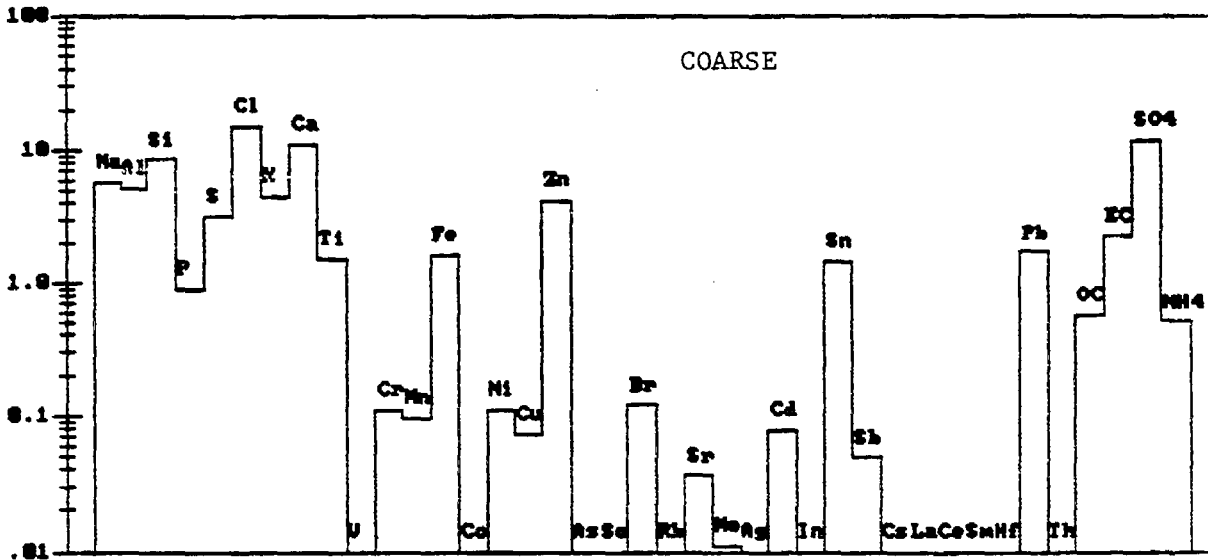
SPECIES	P E R C E N T		C O M P O S I T I O N		TOTAL
	FINE		COARSE		
Na	6.2000 +- 3.2000		5.7000 +- .8000		6.1479 +- 2.9726
Al	.2300 +- .1000		5.2000 +- .6000		.7477 +- .1298
Si	1.7000 +- .3000		8.6000 +- 2.0000		2.4187 +- .4310
P	.6300 +- .1200		.9000 +- .1400		.6581 +- .1358
S	2.9000 +- .8000		3.2000 +- .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.)

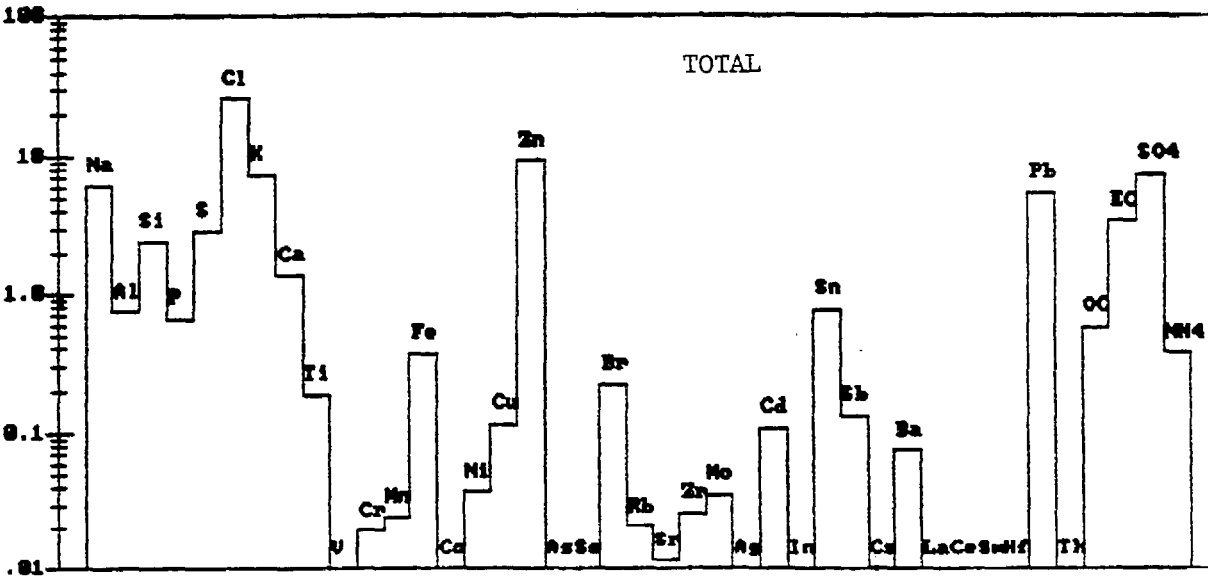
5899



5899



5899



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

SPECIES	P E R C E N T C O M P O S I T I O N		
	FINE	COARSE	TOTAL
NO3	100.0000	+ - 10.0000	
Sum	100.0000		

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

SPECIES	P E R C E N T C O M P O S I T I O N		
	FINE	COARSE	TOTAL
S			24.0000 +- 1.0000
SO4			73.0000 +- 3.6000
Sum			97.0000

NITRATE

5126 FINE

NO3

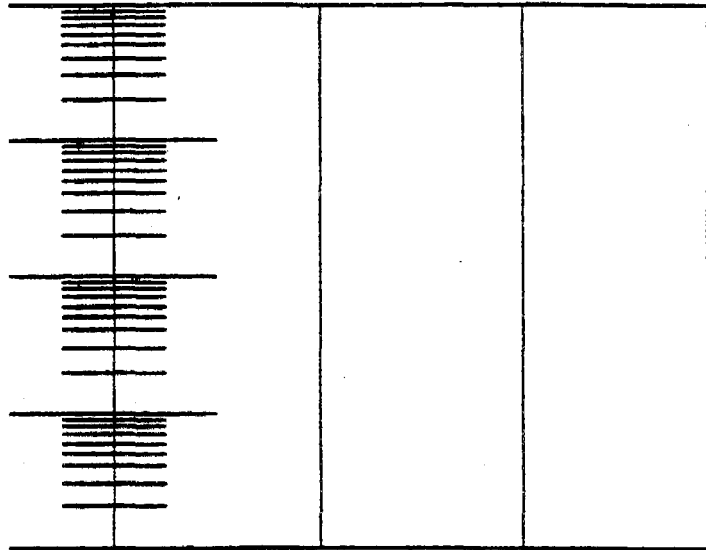
100

10

1.0

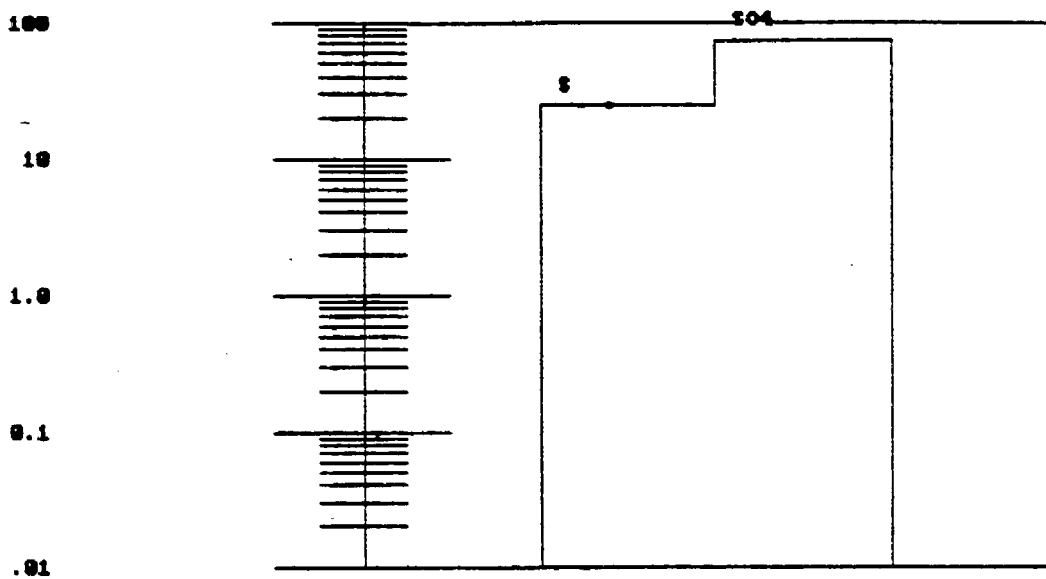
0.1

.01



AMMONIUM SULFATE

5095 TOTAL

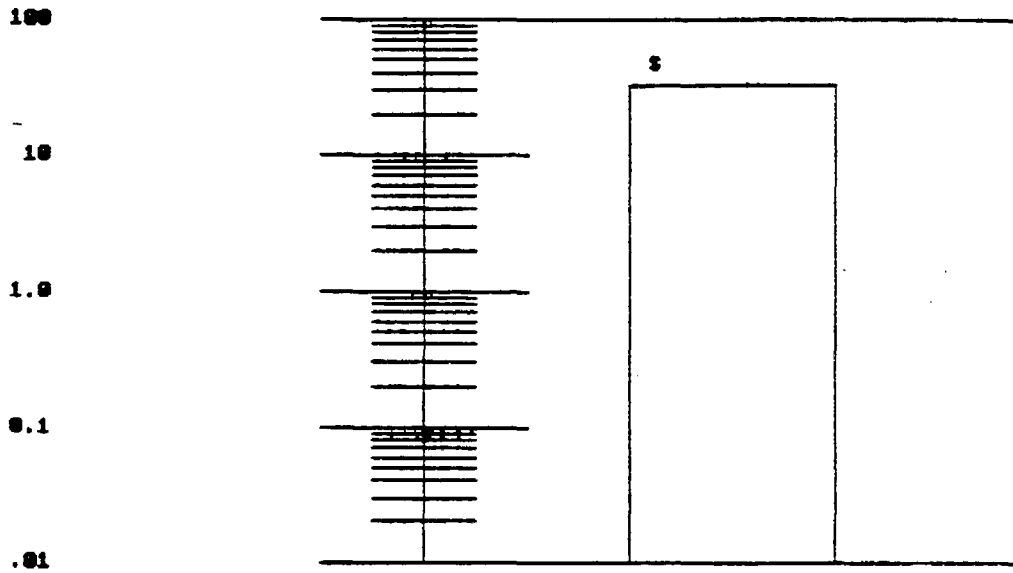


srce	part	revision	source description	reference	date
code	size	date			
5199	F	05/01/84	sulfuric acid		05/84

SPECIES	P E R C E N T C O M P O S I T I O N		
	FINE	COARSE	TOTAL
S	32.6000	+ - 3.2600	
Sum	32.6000		

SULFURIC ACID

5199 FINE

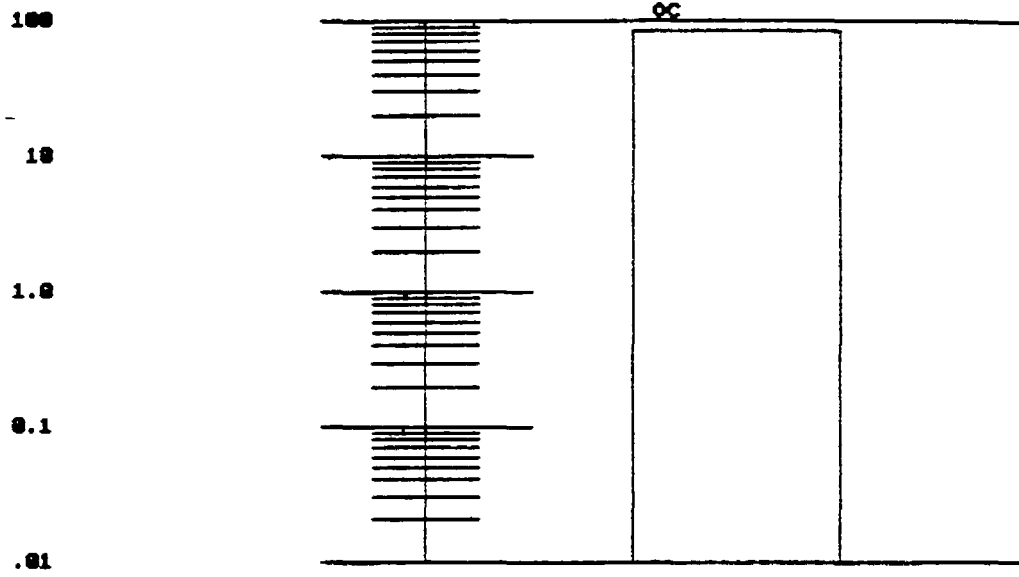


srce	part	revision			
code	size	date	source description	reference	date
5127	F	09/26/83	secondary organic carbon		09/83

SPECIES	P E R C E N T C O M P O S I T I O N		
	FINE	COARSE	TOTAL
OC	83.0000	+ - 8.3000	
Sum	83.0000		

SECONDARY ORGANIC CARBON

5127 FINE

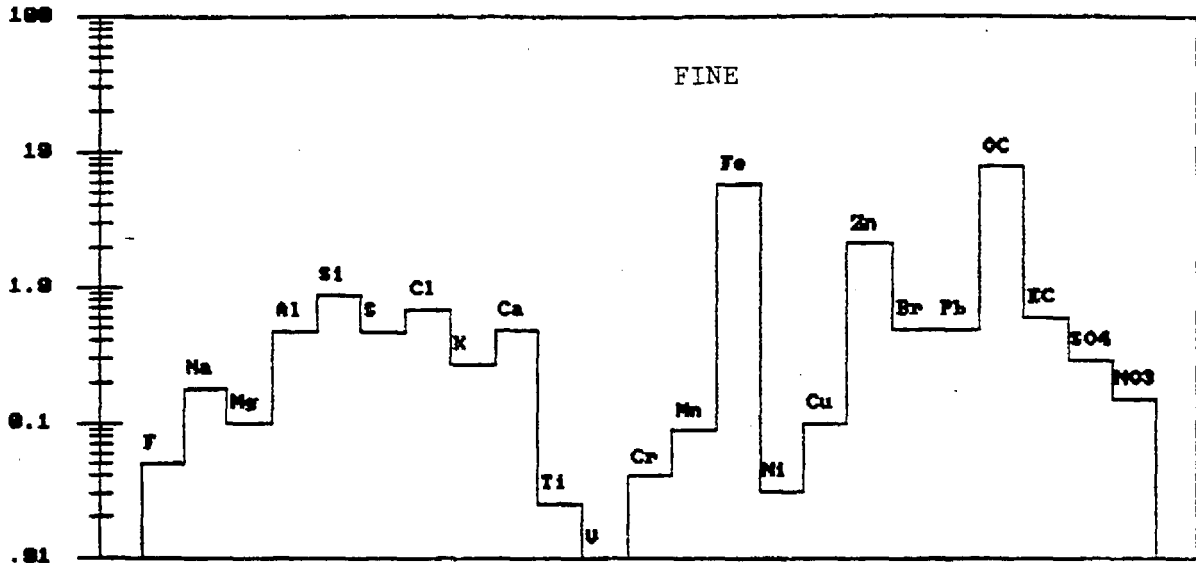


srce	part	revision	source description	reference	date
code	size	date			
5067	FCT	03/19/87	car shredder	2	09/83

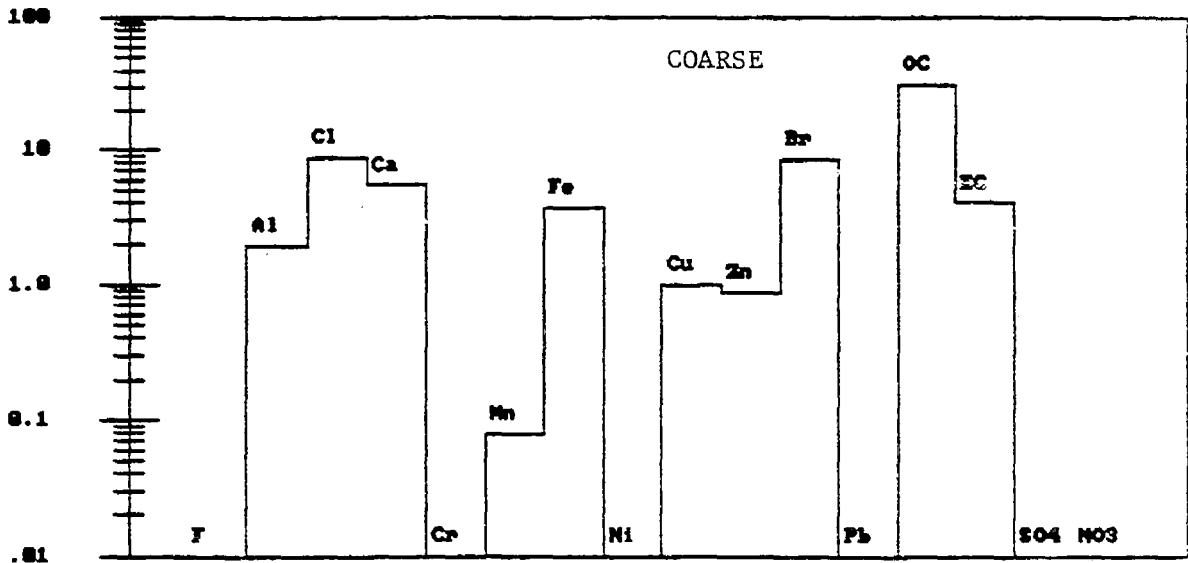
SPECIES	P E R C E N T C O M P O S I T I O N					
	FINE		COARSE		TOTAL	
F	.0500 +-	.0500	.0000 +-	5.0000	.1970 +-	.1572
Na	.1800 +-	.2400				
Mg	.1000 +-	.1000				
Al	.4700 +-	.0640	1.9000 +-	.3500	.5558 +-	.0637
Si	.8700 +-	.1900				
S	.4700 +-	.0850				
Cl	.6800 +-	.4600	8.7000 +-	.7900	1.1612 +-	.4355
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

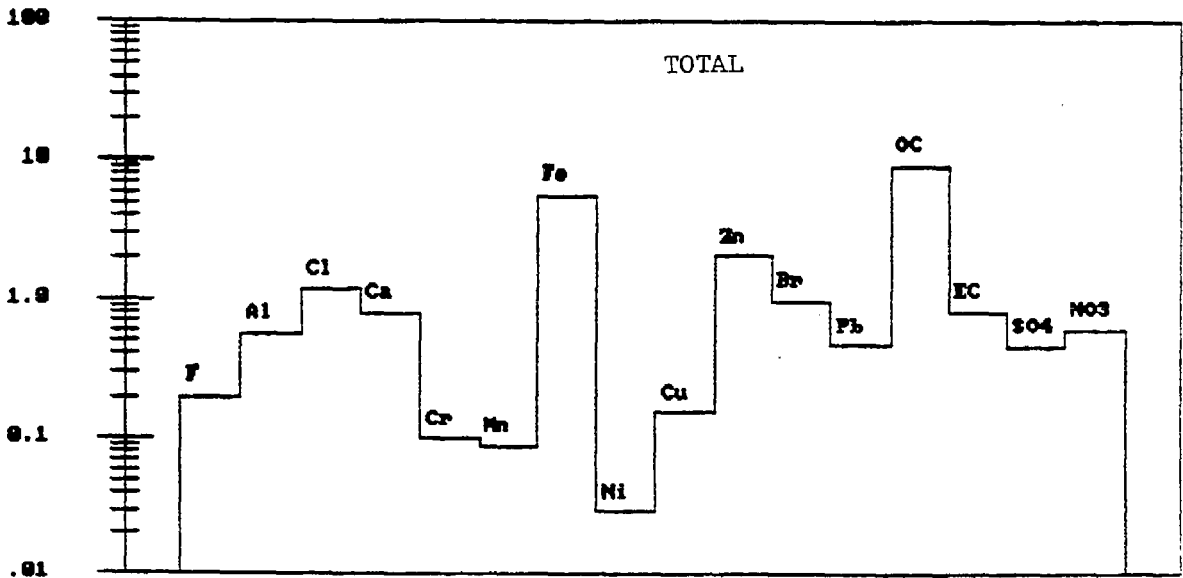
5867



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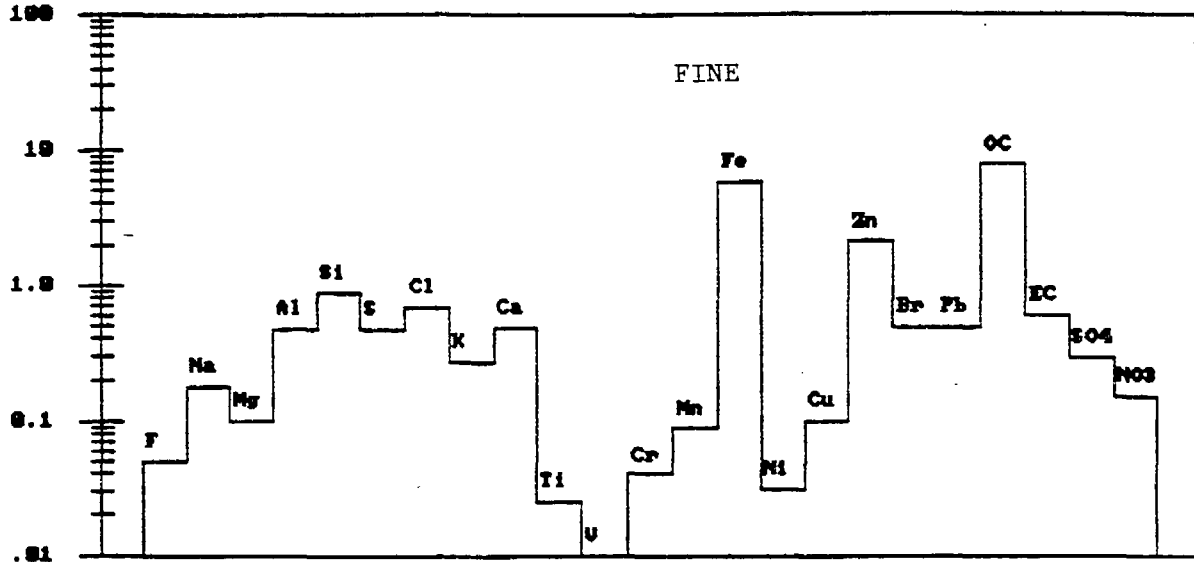


srce	part	revision			
code	size	date	source	description	reference
					date
5067	FCT	03/19/87	car	shredder	2
					09/83

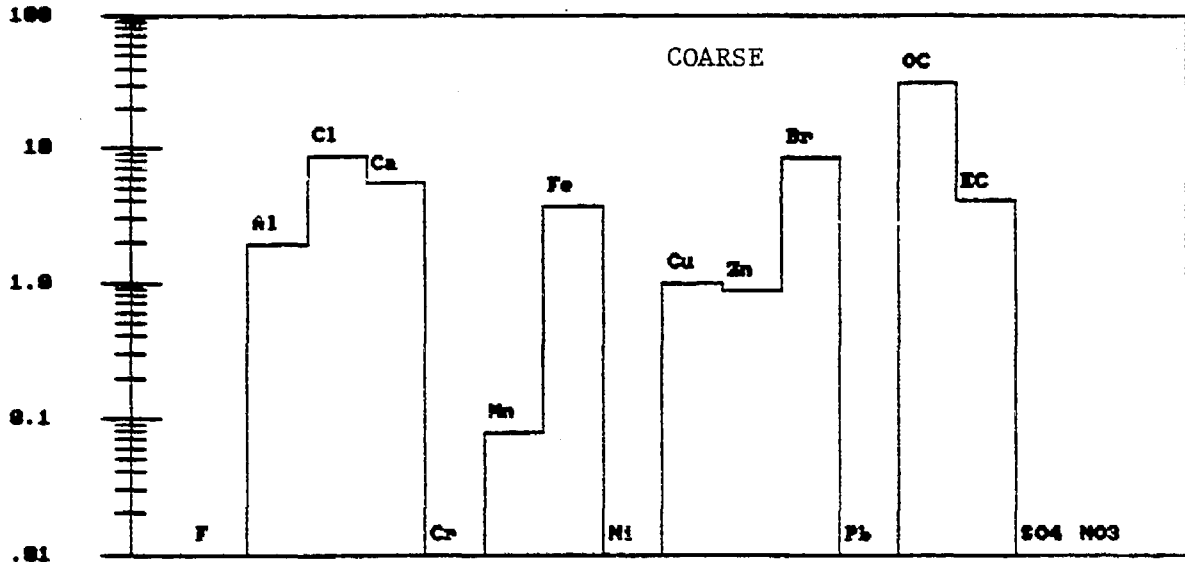
SPECIES	P E R C E N T C O M P O S I T I O N					
	FINE		COARSE		TOTAL	
F	.0500 +-	.0500	.0000 +-	5.0000	.1970 +-	.1572
Na	.1800 +-	.2400				
Mg	.1000 +-	.1000				
Al	.4700 +-	.0640	1.9000 +-	.3500	.5558 +-	.0637
Si	.8700 +-	.1900				
S	.4700 +-	.0850				
Cl	.6800 +-	.4600	8.7000 +-	.7900	1.1612 +-	.4355
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

5067



5067



5067

