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Section 1 **of** 2

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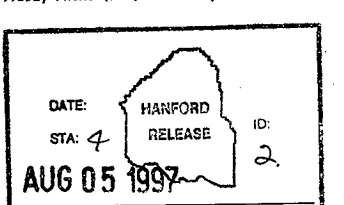

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ANALYTICAL SERVICES

TANK 241-T-203, CORE 190
ANALYTICAL RESULTS FOR THE FINAL REPORT

Project Coordinator: FRANCISKA H. STEEN

Prepared for the U.S. Department of Energy
Office of Environmental Restoration
and Waste Management

by

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222-S ANALYTICAL SERVICES

TANK 241-T-203, CORE 190, ANALYTICAL RESULTS FOR THE FINAL REPORT

This document is the analytical laboratory report for tank 241-T-203 push mode core segments collected on April 17, 1997 and April 18, 1997. The segments were subsampled and analyzed in accordance with the *Tank 241-T-203 Push Mode Core Sampling and Analysis Plan* (TSAP) (Schreiber, 1997a), the *Safety Screening Data Quality Objective* (DQO)(Dukelow, et al., 1995) and *Letter of Instruction for Core Sample Analysis of Tanks 241-T-201, 241-T-202, 241-T-203, and 241-T-204* (LOI)(Hall, 1997). The analytical results are included in the data summary report (Table 1).

None of the samples submitted for Differential Scanning Calorimetry (DSC), Total Alpha Activity (AT) and Total Organic Carbon (TOC) exceeded notification limits as stated in the TSAP (Schreiber, 1997a). The statistical results of the 95% confidence interval on the mean calculations are provided by the Tank Waste Remediation Systems (TWRS) Technical Basis Group in accordance with the Memorandum of Understanding (Schreiber, 1997b) and not considered in this report.

Appearance and Sample Handling

Attachment 1 is a cross reference to relate the tank farm identification numbers to the 222-S Laboratory LabCore/LIMS sample numbers. The subsamples generated in the laboratory for analyses are identified in these diagrams with their sources shown. The diagram for the core composite is also included.

Core 190
Ten push mode core segments were removed from tank 241-T-203 riser 3 on April 17, 1997 and April 18, 1997. Segments were received by the 222-S Laboratory between April 18, 1997 and April 22, 1997.

The TSAP (Schreiber, 1997a) states the core samples should be transported to the laboratory within three calendar days from the time each segment is removed from the tank, this requirement was not met. Table 2 summarizes the extrusion information.

Field Blank
A field blank was provided to the 222-S laboratory with core 190. It underwent the same analysis as the drainable liquid as instructed by the TSAP (Schreiber, 1997a).

Core Composite
One core composite was created and analyzed in accordance with the LOI (Hall, 1997). The composite preparation worksheets are included in this document.

Table 2. Sample Receipt and Extrusion Information for 241-T-203 Core 190.

Customer Id	Segment	Date Sampled	Date Received	Date Extruded	Inches Extruded*	Liquid Recovered (g)	Solids Recovered (g)	Sample Description
190-01	1	4/17/97	4/18/97	4/23/97	18.0	0.0	170.4-Upper Half 155.4-Lower Half	The solids were black in color and resembled a wet sludge.
190-01R	1R	4/17/97	4/22/97	4/28/97	15.0	55.6-Drainable	109.6-Upper Half 137.8-Lower Half	The solids were black in color and resembled a sludge slurry. The liquid was black in color and opaque. Collected 60 mL of liquid. No organic layer was observed.
190-02	2	4/17/97	4/18/97	4/23/97	19.0	0.0	189.1-Upper Half 167.3-Lower Half	The solids were black in color and resembled a wet sludge.
190-03	3	4/17/97	4/22/97	4/28/97	16.0	0.0	138.4-Upper Half 130.3-Lower Half	The solids were black in color and resembled a wet sludge.
190-4	4	4/17/97	4/18/97	4/23/97	19.0	0.0	176.3-Upper Half 182.4-Lower Half	The solids were black in color and resembled a wet sludge.
190-5	5	4/17/97	4/18/97	4/23/97	19.0	0.0	191.4-Upper Half 171.6-Lower Half	The solids were black in color and resembled a dry sludge.
190-06	6	4/17/97	4/22/97	4/29/97	19.0	0.0	169.8-Upper Half 183.7-Lower Half	The solids were black in color and resembled a wet sludge.
190-07	7	4/17/97	4/22/97	4/29/97	19.0	0.0	183.6-Upper Half 158.1-Lower Half	The solids were black in color and resembled a wet sludge.
190-08	8	4/17/97	4/22/97	4/29/97	19.0	0.0	168.1-Upper Half 175.0-Lower Half	The solids were black in color and resembled a wet sludge.
190-09	9	4/18/97	4/22/97	4/29/97	19.0	0.0	169.2-Upper Half 185.0-Lower Half	The solids were black in color and resembled a wet sludge.
Field Blank	FB	4/18/97	4/18/97	4/23/97	0.0	145.1-Drainable	n/a	The liquid was colorless and clear. Collected 270 mL of liquid. No organic layer was observed.

*Approximate Inches Extruded

Analytical Results Summary

The data summary report (Table 1) compiles the analytical results that satisfy all applicable DQOs.

Inorganic Analyses

Differential Scanning Calorimetry (DSC)

The DSC analyses were performed in duplicate on direct subsamples. The exothermic energy based on dry weight of subsample was calculated for all subsamples. The average of the TGA results for each subsample was used in the dry weight correction for that subsample.

Relative percent differences (RPDs) greater than 30% were reported for two of the twenty-three subsamples submitted for analysis. The nonhomogeneous material and small sample size required for this analysis made it difficult to obtain reproducible results. No reruns were requested. The standard recoveries for this analysis were within the required limits.

Thermogravimetric Analysis (TGA)

The TGA analyses were performed in duplicate on direct subsamples. The TGA results were determined by summing the weight loss steps which occurred below 250°C; weight loss steps above this were not used to determine the result. More information may be obtained by examining the raw data.

The standard recoveries and RPDs for this analysis were within the required limits.

Density

Bulk density was performed on the solid subsamples as required by the TSAP (Schreiber, 1997a). The results of the bulk density test ranged from 1.14 g/mL to 1.39 g/mL. The bulk density results were less than the 1.5 g/mL used to determine the solid total alpha activity notification limit stated in the TSAP (Schreiber, 1997a), therefore, no corrections were required. There were no quality control (QC) parameters stated in the TSAP (Schreiber, 1997a) for these samples.

Specific gravity analyses were performed on the liquid subsamples. The results are provided in Table 1. The standard recoveries and RPDs for this analysis were within the required limits.

Ion Chromatography (IC)

The IC analyses were performed on direct subsamples of liquid samples as indicated by a blank in the aliquot class (A#) column in Table 1. The solid subsamples were prepared for analysis by performing a water digest. This is indicated with a "W" in the A# column in Table 1.

The results for all IC analytes are included in Table 1. However, the QC review discussed in this report is limited to Br for the half segment subsamples. All other analyte results presented are considered "opportunistic" and do not have customer defined QC parameters. Therefore, any anomalies in those results are not discussed in this report. The standard recoveries, RPDs and spike recoveries for the Br analysis were within the required limits.

The analytes required for the core composite subsample were F, Cl, NO2, NO3, SO4, PO4 and Oxalate. A high RPD (>20%) was reported for PO4 and was attributed to sample inhomogeneity. This method is temporarily out of service while instrumentation is moved in the lab (Rice, 1997). A reanalysis will only be performed at the request of the TWRS technical Basis Group.

The standard recoveries and spike recoveries for these analytes were within the required limits.

Inductively Coupled Plasma Spectrophotometry (ICP)

The liquid subsamples were prepared for analysis by an acid adjustment of the direct subsample. This is indicated by a "D" in the A# column in Table 1. Solid subsamples were prepared for analysis by performing both an acid digest as indicated by an "A" and a fusion as indicated by an "F"in the A# column in table 1.

The results for all ICP analytes are included in Table 1. However the QC review discussed in this report is limited to Li for the half segment subsamples. All other analyte results presented are considered "opportunistic" and do not have customer defined QC parameters. Therefore, any anomalies in those results are not discussed in this report. The standard recoveries, RPDs and spike recoveries for the Li analysis were within the required limits.

The analytes required for the core composite subsamples were Al, Ba, Bi, Ca, Cr, Fe, La, Mn, Ni, P, K, Si, S, Na, Sr and U. Matrix spike recoveries outside of the required range (75% - 125%) were reported for Bi, Cr, Fe, K, La, Mn, P and Na. These spike failures were attributed to the high concentration of these analytes in the samples with respect to the amount of spike standard added. Therefore, the matrix spike recovery results for these analytes should not be used as a means to determine the accuracy of the results.

A post digestion spike analysis was performed for each analyte that failed the matrix spike analysis as an instrument performance check. The post digestion spike recoveries were all within the required limits (75% to 125%). The results were as follows: Bi 95.6%, Cr 99.75%, Fe 93.4%, K 103.4%, La 100.5%, Mn 103.6% , P 100.1% and Na 97.8%. More information may be obtained by examining the raw data.

In addition to the matrix spike and post digestion spike analyses, a serial dilution analysis was performed by diluting the sample an additional five-fold. The serial dilution provides information about the accuracy of the analysis when the sample concentration is more than four times the concentration of the matrix spike standard added. For acceptable performance the percent difference between the serial dilution and the undiluted results must be ≤ 10 percent.

Table 3 shows a comparison of the result of the sample with that of the serial dilution for those required analytes that had a matrix spike recovery outside of the requested limits. The results presented in this table have not been corrected for the acid digestion factor, and are therefore reported as μg/mL. The serial dilution results may be found in the raw data and are identified by an "_L" at the end of the sample number. The results provided in Table 3 indicate that the accuracy of the analysis was acceptable, with the exception of Mn.

The percent difference between the sample and serial dilution results for Mn was 15.1%. This was likely the result of the high concentration of Fe in the sample. Iron is known to interfere with the determination of Mn. Although the interelement correction factor normally used is sufficient for compensating for this spectral interference, it did not adequately correct for the high concentration of Fe found in this particular sample. Therefore, the sample results may be biased high.

A high RPD was reported for Fe and the sample was reanalyzed. The results of the reanalyses showed no improvement in the RPD. Since Fe was the only analyte that failed the precision requirements, no redigestion was requested. Sample inhomogeneity may have been a contributing factor to the RPD failure. An ICP analysis was performed on the fusion digestion portion as an additional check for sample inhomogeneity, the resultant RPD was 34.6%. For informational purposes the raw data from the first acid digest ICP analysis and the fusion digest ICP analysis have been included in this document and marked as "data not used".

The standard recoveries for this analysis were within the required limits.

Table 3. ICP Serial Dilution Raw Results for Tank 241-T-203

Sample ID	Analyte	Sample Result Undiluted (ug/mL)	Serial Dilution Result (ug/mL)	% Difference
S97T001017	Bi	248.10	262.60	5.8
S97T001017	Na	177.00	183.30	3.6
S97T001017	Mn	82.31	69.88	15.1
S97T001017	La	59.59	60.58	1.7
S97T001017	K	34.85	35.04	0.5
S97T001017	Cr	19.39	20.30	4.7
S97T001017	P	12.10	12.48	3.1
S97T001017	Fe	18.14	19.00	4.7

% Difference = (ABS(Sample - Serial))/Sample X 100

TIC/TOC - Total Inorganic/Organic Carbon Persulfate

TIC/TOC analyses by persulfate oxidation/coulometry were performed in duplicate on direct subsamples of the core composite. None of the results exceeded the TOC notification limit of 30,000 μgC/g.

For all TIC and TOC analyses, an Analysis Report worksheet is included for each sample as raw data. Due to programming limitations with the instrument software, the sample size listed on the worksheet is incorrect. This value is not used in the final calculations and has no bearing on the results in Table 1.

The blank is considered a reagent blank. The value was within the acceptance limits and all results were corrected for the concentration found in the blank.

The standard recoveries, RPDs and spike recoveries for this analysis were within the required limits.

Radionuclide Analyses

Total Alpha (AT)

The total alpha (AT) analyses were performed in duplicate on direct subsamples for the liquids as indicated by a blank in the A# column in Table 1. Solid subsamples were prepared for analysis by performing a fusion digest in duplicate. The fusion digest is indicated with an "F" in the A# column in Table 1.

All liquid AT results were below the total alpha activity action limit of 61.5 μCi/mL. All solid AT results were below the total alpha activity limit of 41μCi/g.

High RPDs (>20%) were reported for three of the twelve subsamples submitted for analyses. Selected samples were reanalyzed. The results of the reanalyses showed little improvement in the RPDs. No additional reruns were requested due to the low alpha activity in the samples. The standard recoveries and spike recoveries for this analysis were within the required limits.

Strontium 90 (^{90}Sr)

^{90}Sr analyses were performed on the core composite subsamples. The solid subsamples were prepared for analysis by performing a fusion digest in duplicate. The fusion preparation is indicated with an "F" in A# column in Table 1. The standard recoveries, spike recoveries and RPDs for this analysis were within the required limits.

Gamma Energy Analysis (GEA)

GEA analyses were performed on the core composite subsamples. The solid core composite subsamples were prepared for analysis by performing a fusion digest in duplicate. The fusion preparation is indicated with an "F" in A# column in Table 1.

Actual detection limits for GEA analytes are not currently available. The latest GEA software does not currently report a minimum detectable activity (MDA). If an analyte is reported as "less than", the value reported is the detection limit. The standard recoveries and RPDs for this analysis were within the required limits.

Procedures

Table 4 lists the analytical procedures used for performing the sample analyses. Abbreviations for analyses are defined in the table notes.

Table 4. Analytical Procedures

Analysis	Sample Portion	Preparation Procedure +	Analysis Procedure
DSC	Solid/Liquid	N/A	LA-514-114 Rev. D-0
TGA	Solid/Liquid	N/A	LA-514-114 Rev. D-0
Bulk Density	Solid	N/A	LO-160-103 Rev. B-0
Sp.G.	Liquid	N/A	LA-510-112 Rev. D-0 LA-510-112 Rev. D-1
IC	Solid Liquid	LA-504-101 Rev. E-0 N/A	LA-533-105 Rev. D-1

Table 4. Analytical Procedures

Analysis	Sample Portion	Preparation Procedure +	Analysis Procedure
ICP	Solid Liquid	LA-505-159 Rev. D-0 LA-549-141 Rev. F-0 N/A	LA-505-151 Rev. E-1 LA-505-161 Rev. C-1
TICTOC	Solid/Liquid	N/A	LA-342-100 Rev. E-0
AT	Solid Liquid	LA-549-101 Rev. F-0 N/A	LA-508-101 Rev. G-0
^{90}Sr	Solid	LA-549-141 Rev. F-0	LA-220-101 Rev. E-1
GEA	Solid	LA-549-101 Rev. F-0	LA-548-121 Rev. F-0

Abbreviations:
N/A = not applicable (these are direct samples)
DSC = differential scanning calorimetry
TGA = thermogravimetric analysis
Sp.G. = specific gravity
IC = ion chromatography
ICP = inductively coupled plasma
TOC = total organic carbon
TIC = total inorganic carbon
AT = total alpha
^{90}Sr = strontium 90
GEA = gamma energy analysis

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Hall, K. M., 1997, *Letter of Instruction for Core Sample Analysis of Tanks 241-T-201, 241-T-202, 241-T-203, and 241-T-204*, (interoffice memo 74620-97-195 to A. D. Rice, May 8), Lockheed Martin Hanford Company, Richland, WA 99352. (Included in Attachment 2, Correspondences)

ATTACHMENT 1

T-203 SAMPLE BREAKDOWN

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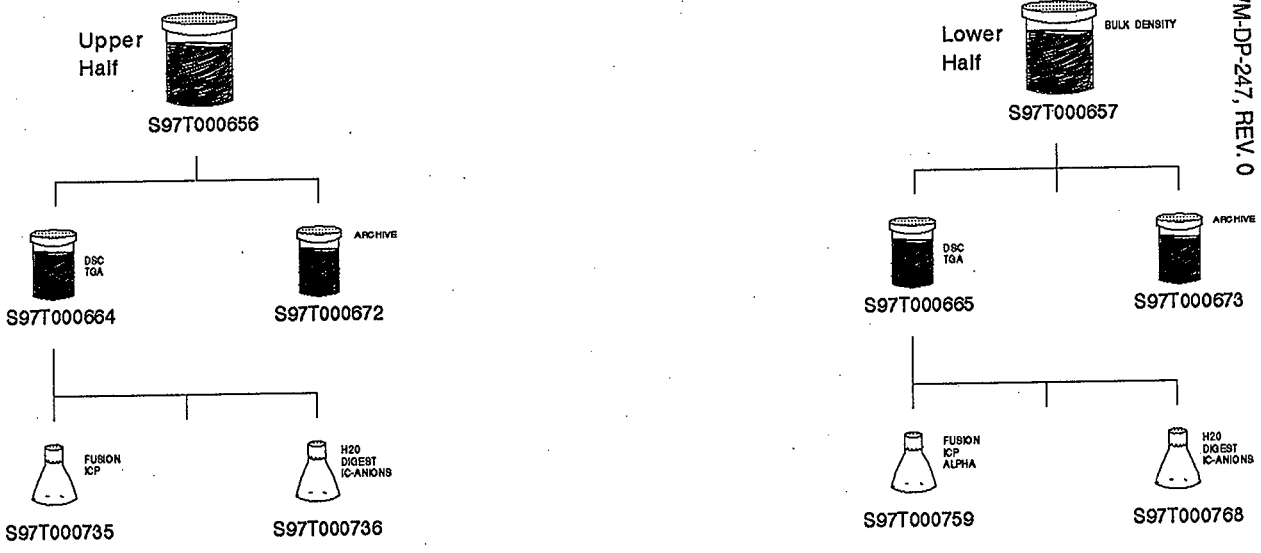
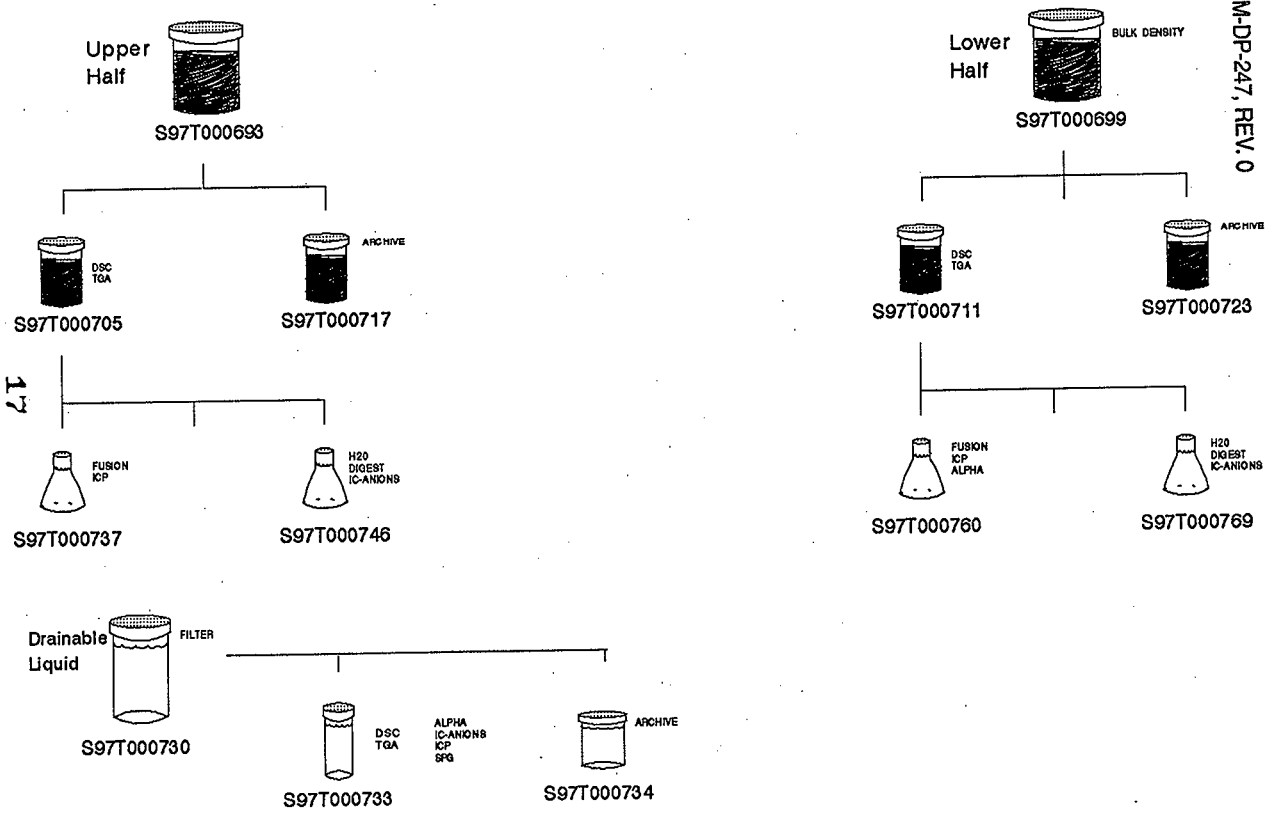
Attachment 1

T-203
Core:190
Seg: 1
S97T000583



Attachment 1

T-203
Core:190
Seg: 1R
S97T000597



Attachment 1

T-203
Core:190
Seg: 2
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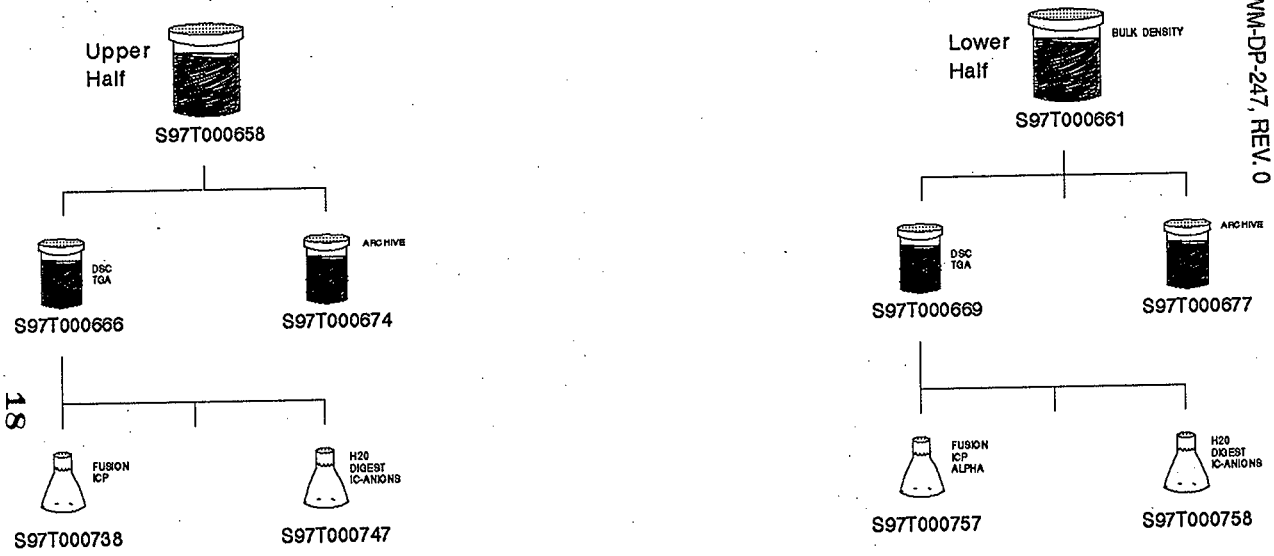
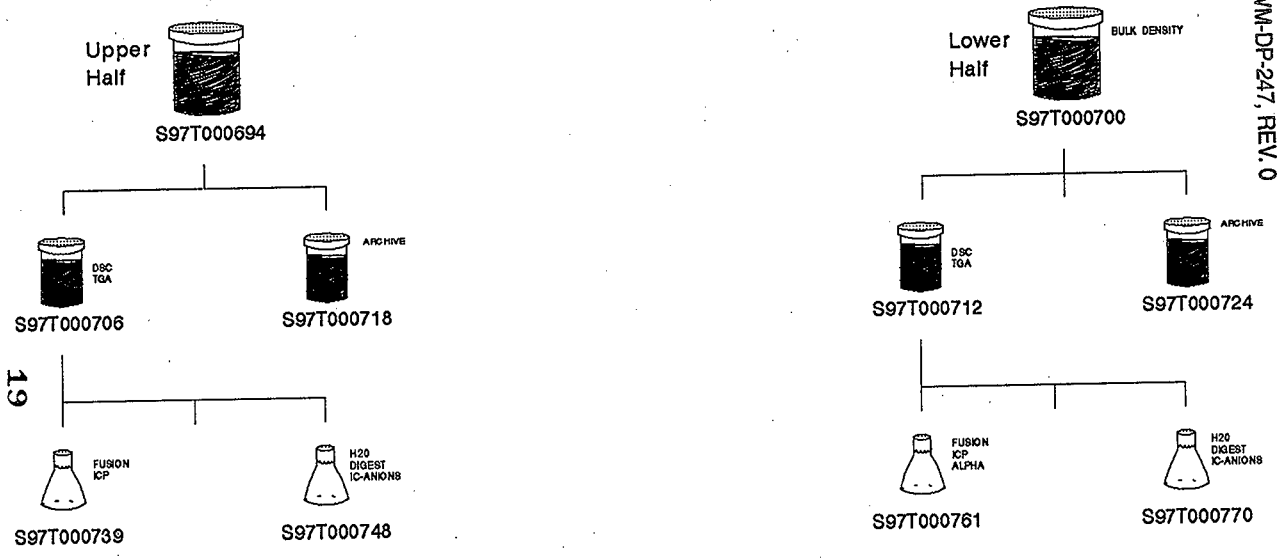


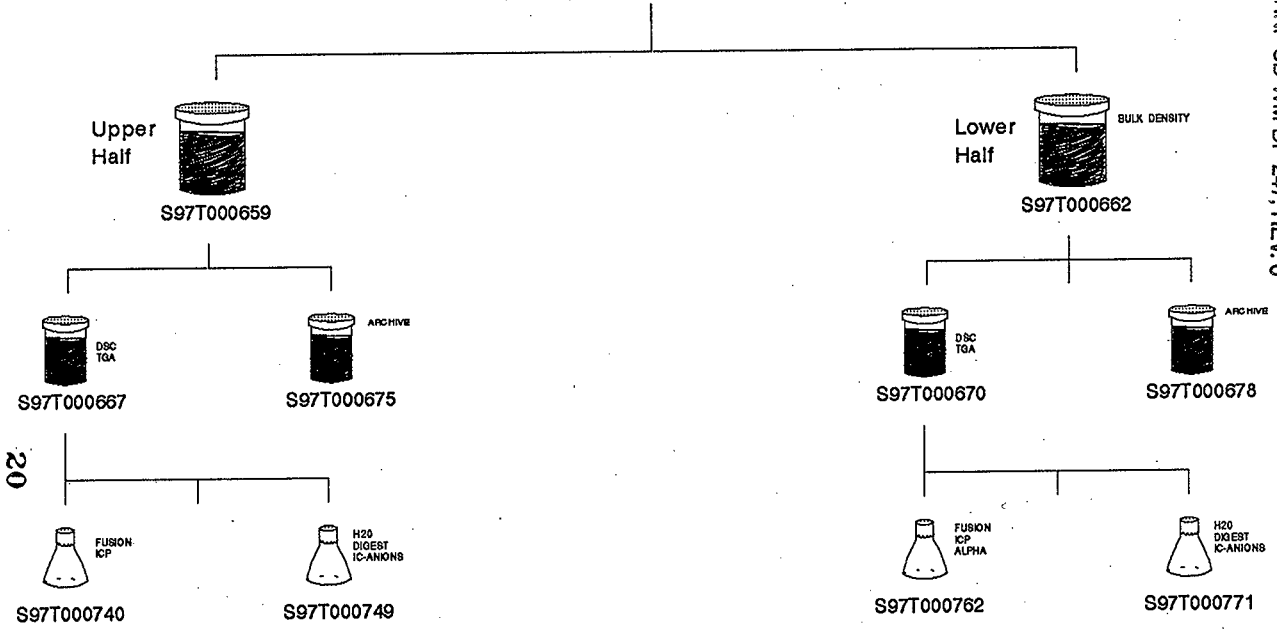
T-203
Core:190
Seg: 3
S97T000598

Attachment 1



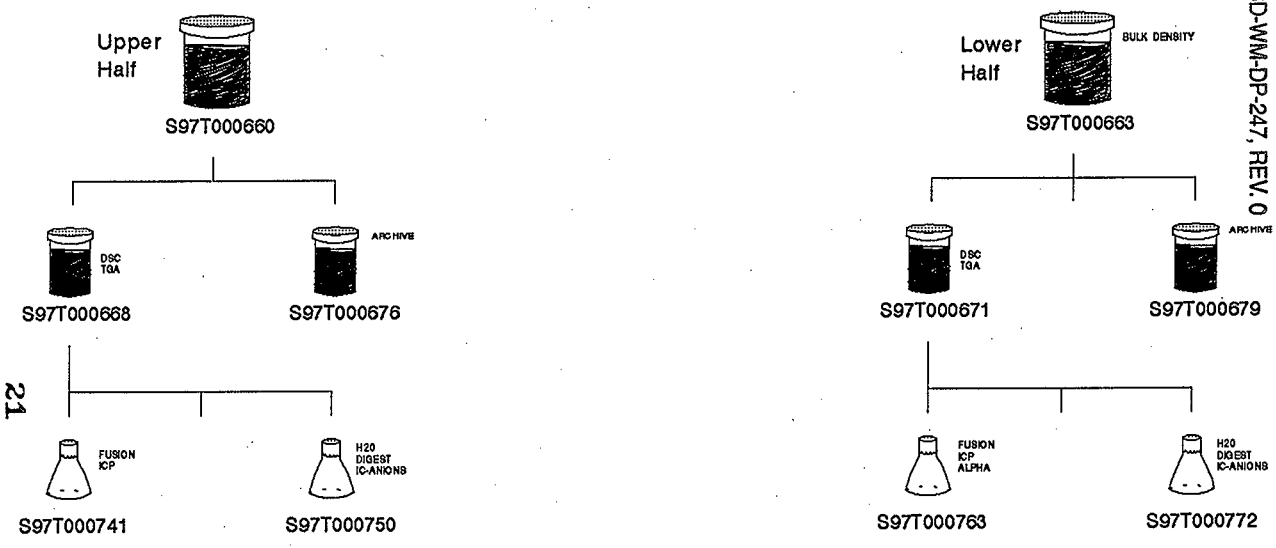
Attachment 1

T-203
Core:190
Seg: 4
S97T000585



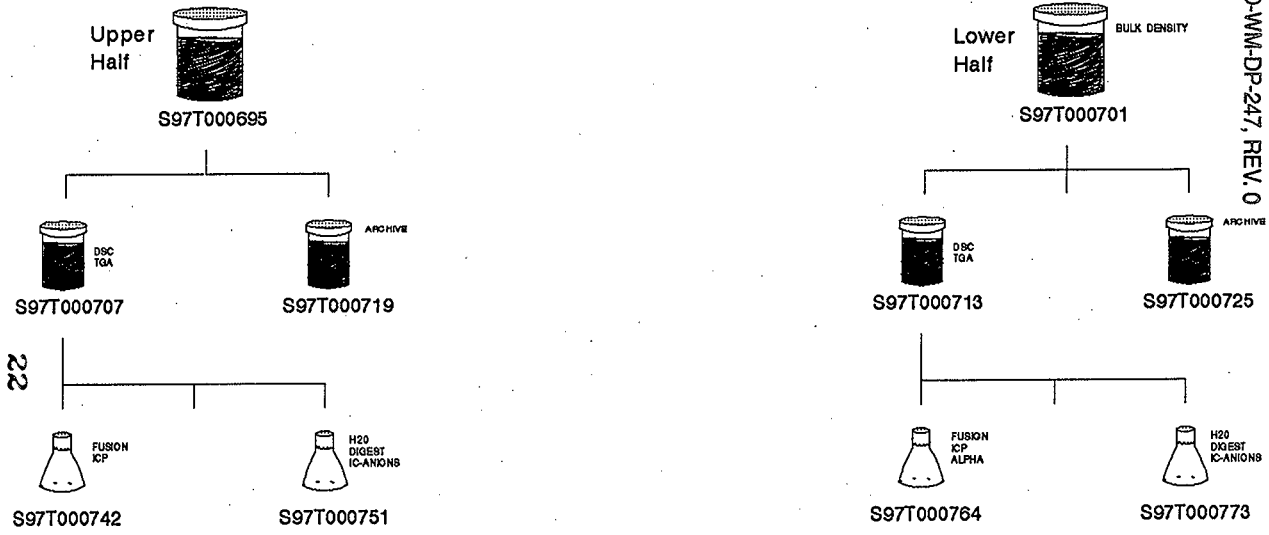
T-203
Core:190
Seg: 5
S97T000586

Attachment 1



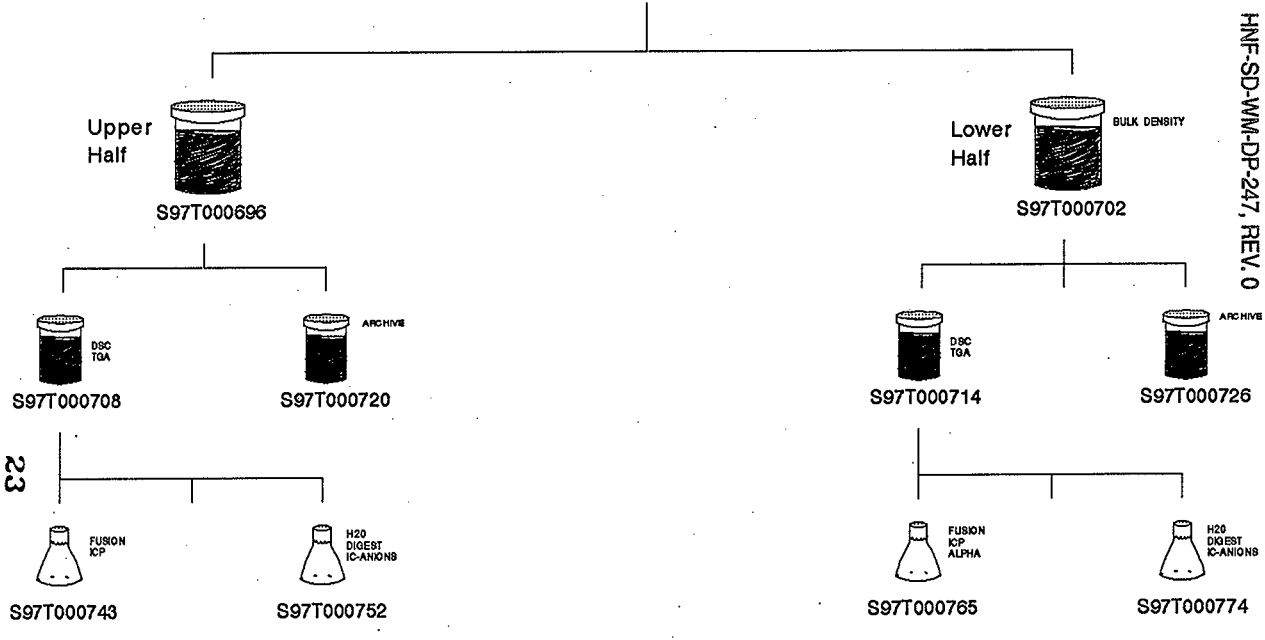
T-203
Core:190
Seg: 6
S97T000599

Attachment 1

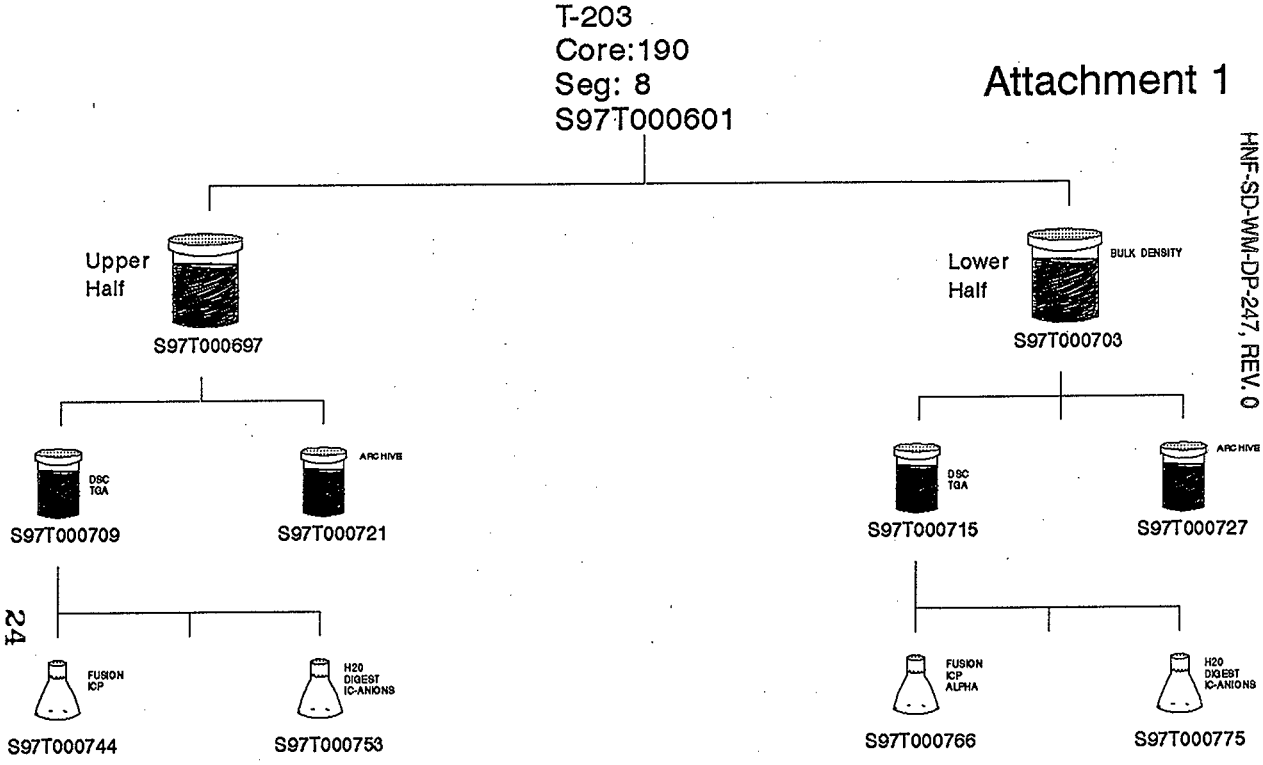


T-203
Core:190
Seg: 7
S97T000600

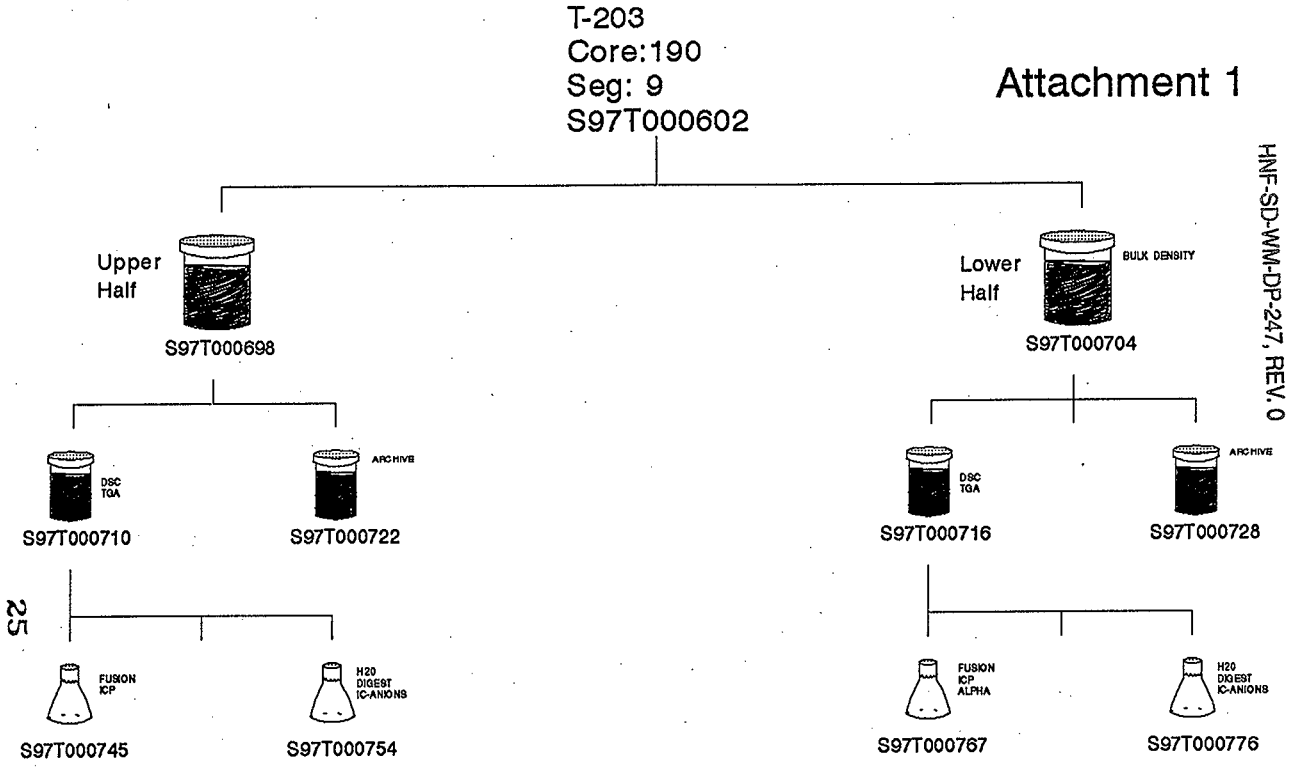
Attachment 1



Attachment 1



Attachment 1

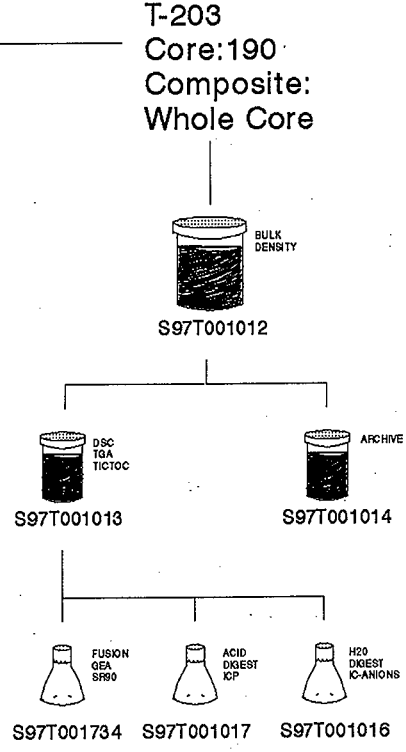


Attachment 1

T-203
Core:190
Seg: FB
S97T000582

Composited:

Segment	Grams
1 UH	5.0
1 LH	5.0
1R UH	5.0
1R LH	5.0
2 UH	5.0
2 LH	5.0
3 UH	5.0
3 LH	5.0
4 UH	5.0
4 LH	5.0
5 UH	5.0
5 LH	5.0
6 UH	5.0
6 LH	5.0
7 UH	5.0
7 LH	5.0
8 UH	5.0
8 LH	5.0
9 UH	5.0
9 LH	5.0



ATTACHMENT 2

CORRESPONDENCE

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INTEROFFICE MEMO LOCKHEED MARTIN

From: Data Assessment and Interpretation 74620-97-195
Phone: 376-5029 R2-12
Date: May 8, 1997
Subject: LETTER OF INSTRUCTION FOR CORE SAMPLE ANALYSIS OF TANKS 241-T-201, 241-T-202, 241-T-203, AND 241-T-204

To: A. D. Rice T6-06

cc: K. E. Bell R2-12
J. G. Kristofzski R2-12
J. E. Meacham S7-14
L. F. Perkins T6-14
C. M. Seidel T6-14
KMH File/LB R2-12

The attached letter of instruction (LOI) covers the creation and analysis of core composites from tanks 241-T-201, 241-T-202, 241-T-203, and 241-T-204.

This LOI directs the 222-S Laboratory to provide Process Engineering with additional necessary analyses on waste samples from the four T-200 series tanks. These additional data will then be available to the appropriate personnel so that the statistical evaluation requirements for the T-200 series tanks can be met and accurate best basis inventories can be calculated.

If you have any questions on this LOI, please contact Dr. K. E. Bell on 373-1629 or Ms. K. M. Hall on 376-5029.

Kathleen M. Hall

K. M. Hall
Manager

klh

Attachment

Letter of Instruction for Core Sample Analysis of Tanks
241-T-201, 241-T-202, 241-T-203, and 241-T-204

1. Subject

This letter of instruction covers the creation and analysis of core composites from tanks 241-T-201, 241-T-202, 241-T-203, and 241-T-204.

2. References

[1] B. C. Simpson and D. J. McCain, 1997, *Historical Model Evaluation Data Requirements*, HNF-SD-WM-DQO-018, Rev. 2, Lockheed Martin Hanford Corporation, Richland, Washington.

[2] T. A. Hu, 1997, *Tank 241-T-201 Push Mode Core Sampling and Analysis Plan*, HNF-SD-WM-TSAP-130, Rev. 0, Lockheed Martin Hanford Corporation, Richland, Washington.

[3] K. E. Bell, 1997, *Tank 241-T-202 Push Mode Core Sampling and Analysis Plan*, HNF-SD-WM-TSAP-121, Rev. 0, Lockheed Martin Hanford Corporation, Richland, Washington.

[4] R. D. Schreiber, 1997, *Tank 241-T-203 Push Mode Core Sampling and Analysis Plan*, HNF-SD-WM-TSAP-515, Rev. 0, Lockheed Martin Hanford Corporation, Richland, Washington.

[5] W. D. Winkleman, 1997, *Tank 241-T-204 Push Mode Core Sampling and Analysis Plan*, HNF-SD-WM-TSAP-119, Rev. 0, Lockheed Martin Hanford Corporation, Richland, Washington.

3. Task Objective

This letter of instruction (LOI) will allow the 222-S Laboratory to provide Process Engineering with additional necessary analyses on waste samples from the four T-200 series tanks. These additional data will then be available to the appropriate personnel so that the statistical evaluation requirements for the T-200 series tanks can be met and accurate best basis inventories can be calculated.

4. Introduction and Overall Scope

The T-200 tanks are not currently in the scope of the historical data quality objectives (DQO) document (Reference 1). In the vein of the historical DQO, the goal of the additional work is to determine if information from the previously sampled B-200 series tanks sufficiently quantifies the contents of

the T-200 series tanks, within established uncertainty levels. Furthermore, the additional data is important in calculating an accurate tank inventory.

5. Functional Requirements

All four of the T-200 series tanks have approved tank sampling and analysis plans (TSAPs), shown respectively in References 2-5. The requirements in each TSAP should be followed as written. This LOI requests additional analytes on one core composite from each of the four T-200 series tanks.

After subsampling to meet the requirements of each respective TSAP, a core composite shall be created for each of the T-200 series tanks by combining an equal mass of each subsample collected. Drainable liquid samples shall not be used in creating the core composites. Each core composite shall be homogenized before aliquots are removed for analysis or sample preparation.

Each core composite shall be analyzed in accordance with Table 1. As shown, analyses shall be measured directly or following water, acid, or fusion digestion.

Table 1. Core Composite Analytes of the T-200 Series Tanks.

Method	Sample Preparation	Analyte
ICP	Acid	Al, Ba, Bi, Ca, Cr, Fe, La, Mn, Ni, P, K, Si, S, Na, Sr, U
IC	Water	F^-, Cl^-, NO_2^-, NO_3^-, SO_4^{2-}, PO_4^{3-}, Oxalate
GEA	Fusion	^{137}Cs, ^{241}Am
Separation/β counting	Fusion	^{90}Sr
Coulometry	None	TOC, TIC
DSC	None	Energetics
TGA	None	Percent water
Gravimetry	None	Bulk density

Notes:
ICP = inductively coupled plasma
IC = ion chromatography
GEA = gamma energy analysis
DSC = differential scanning calorimetry
TGA = thermal gravimetric analysis
TOC = total organic carbon
TIC = total inorganic carbon

Quality control requirements for the additional analyses are listed in Table 2. All analyses shall be performed in duplicate. All ICP and IC analytes require spikes or serial dilutions. Spikes are required for the ^{90}Sr analyses.

Table 2. T-200 Series Core Composite Quality Control Precision and Accuracy Requirements.

Method or Analyte	Duplicate Criteria (RPD)[a]	Spike Criteria (% recovery)[b]	Preparation Blank Criteria[c]	LCS Criteria[d]
ICP	≤20	75 - 125	<EQL	80 - 120%
IC	≤20	75 - 125	<EQL	80 - 120%
GEA	≤20	N/A	<MDA	80 - 120%
^{90}Sr	≤20	75 - 125	<MDA	80 - 120%
TOC	≤20	75 - 125	<EQL	80 - 120%
TIC	≤20	75 - 125	<EQL	80 - 120%
DSC	≤30	N/A	N/A	80 - 120%
TGA	≤30	N/A	N/A	80 - 120%
Bulk Density	≤30	N/A	N/A	N/A

Notes:

N/A = not applicable
MDA = Minimum Detectable Activity
EQL = Estimated Quantitation Limit
LCS = Laboratory Control Standard

[a]For the calculation of the relative percent difference, both the sample and the duplicate results must exceed the EQL or MDA. Failures are permissible if the requirements in Item 13 are followed.

[b]These criteria are recommended. Failures are permissible if the requirements in Item 13 are followed.

[c]When a blank exceeds the EQL or MDA, sample results that exceed the contribution from the blank twenty-fold or more are reportable. Also see the quality assurance sections of the TSAPs.

[d]For some analyses, this could be a method spike or a blank spike. Ranges are percent recovery of theoretical.

6. Schedule

The data shall be reported in the same format IV data package, within the same time, and downloaded into the Tank Characterization Database, as required in the respective T-200 TSAPs.

7. Cost

The costs for this activity shall be covered under Characterization Project's 222-S Laboratory Support.

8. Procurement

N/A

9. Permits

N/A

10. Specific Services and Special Instructions

N/A

11. Deliverables

These are covered in item 6.

12. Meetings, Reports, and Activities

N/A

13. Quality Assurance Requirements

Quality assurance requirements for the additional work shall be identical to those identified in each respective T-200 series TSAP.

14. Safety Requirements

No special safety requirements are required to perform the additional work described herein.

15. Task Management

The list of key personnel is provided in Table 3.

Table 3. Key Personnel

Individual and Phone Number	Organization	Responsibility
K. E. Bell; 373-1629	TWRS Process Engineering (LMHC)	Tank 241-T-202 Tank Coordinator
B. C. Simpson; 373-5915	TWRS Process Engineering (LMHC)	Best Basis Inventory Task Leader
A. D. Rice; 373-5878	Analytical Services	Team Leader, 222-S Laboratory Production
K. M. Hall; 376-5029	TWRS Process Engineering (LMHC)	Manager, Data Assessment and Interpretation

16. Other

N/A

17. Approvals

Kevin E. Bell
K. E. Bell, tank 241-T-202 Tank Coordinator
LMHC TWRS Process Engineering

Kathleen M. Hall
K. M. Hall, Manager
LMHC TWRS Process Engineering: Data Assessment and Interpretation

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Richland, WA 99352

July 24, 1997 WMH-9756544

Distribution

Dear Ladies and Gentlemen:

CLOSURE OF LABORATORY ROOM 4D

Adverse environmental conditions specific to room 4D of the 222-S analytical laboratory have resulted in the suspension of all analytical operations in room 4D. Room 4D currently houses the 222-S Laboratory's ion chromatography (IC) and differential scanning calorimetry/thermal gravimetric analysis (DSC/TGA) capability. The analytical equipment in 4D will be moved to other locations in the 222-S laboratory and room 4D will be closed indefinitely. Relocation of the instrumentation has begun and is expected to take several weeks to accomplish. During this time no anion IC and DSC/TGA analyses will be performed.

This letter is being provided to customers that may be impacted by this loss of analytical capability. The laboratory staff is expending every effort to minimize the downtime of the IC and DSC/TGA instruments. You will be provided a weekly status of developments and any known or expected impacts to analytical commitments.

Should you desire further assistance, please contact me at 373-5878.

Very truly yours,

Andrew D. Rice, Team Lead
Production Planning and Control
222-S Laboratory

mte

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SAMPLE DATA SUMMARY

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Table 1. Data Summary Report
T-203

CORE NUMBER: 190
SEGMENT #: 1

SEGMENT PORTION: U Upper Half of Segment

Sample#	R	A#	Analyte	Unit	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S97T000664			DSC Exotherm Dry Calculated	Joules/g Dry	n/a	n/a	0.00e+00	0.00e+00	0.00e+00	0.00	n/a	n/a	n/a
S97T000664			DSC Exotherm on Perkin Elmer	Joules/g	102.8	n/a	0.00e+00	0.00e+00	0.00e+00	0.00	n/a	n/a	n/a
S97T000664			% Water by TGA on Perkin Elmer	%	98.28	n/a	77.76	76.74	77.25	1.32	n/a	n/a	n/a
S97T000735		F	Silver -ICP-Fusion	ug/g	96.00	<1.00e-02	<1.95e+02	<1.97e2	n/a	n/a	80.90	195.0	n/a
S97T000735		F	Aluminium -ICP-Fusion	ug/g	96.60	<5.00e-02	<9.75e+02	<9.84e2	n/a	n/a	96.10	976.0	n/a
S97T000735		F	Arsenic -ICP-Fusion	ug/g	102.0	<1.00e-01	<1.95e+03	<1.97e3	n/a	n/a	101.0	1.95e+03	n/a
S97T000735		F	Boron -ICP-Fusion	ug/g	98.20	<5.00e-02	<9.75e+02	<9.84e2	n/a	n/a	95.60	976.0	n/a
S97T000735		F	Barium -ICP-Fusion	ug/g	96.80	<5.00e-02	<9.75e+02	<9.84e2	n/a	n/a	94.70	976.0	n/a
S97T000735		F	Beryllium -ICP-Fusion	ug/g	100.4	<5.00e-03	< 97.50	<9.84e1	n/a	n/a	97.80	97.60	n/a
S97T000735		F	Bismuth -ICP-Fusion	ug/g	99.60	<1.00e-01	2.90e+04	2.71e+04	2.80e+04	6.77	95.30	1.95e+03	n/a
S97T000735		F	Calcium -ICP-Fusion	ug/g	96.60	<1.00e-01	<1.95e+03	<1.97e3	n/a	n/a	100.0	1.95e+03	n/a
S97T000735		F	Cadmium -ICP-Fusion	ug/g	98.60	<5.00e-03	< 97.50	<9.84e1	n/a	n/a	97.50	97.60	n/a
S97T000735		F	Cerium -ICP-Fusion	ug/g	96.80	<1.00e-01	<1.95e+03	<1.97e3	n/a	n/a	95.30	1.95e+03	n/a
S97T000735		F	Cobalt -ICP-Fusion	ug/g	99.80	<2.00e-02	<3.90e+02	<3.93e2	n/a	n/a	98.30	390.0	n/a
S97T000735		F	Chromium -ICP-Fusion	ug/g	97.60	<1.00e-02	2.67e+03	2.64e+03	2.66e+03	1.13	96.60	195.0	n/a
S97T000735		F	Copper -ICP-Fusion	ug/g	97.60	<1.00e-02	<1.95e+02	<1.97e2	n/a	n/a	96.30	195.0	n/a
S97T000735		F	Iron -ICP-Fusion	ug/g	91.60	<5.00e-02	1.96e+03	1.78e+03	1.87e+03	9.63	91.50	976.0	n/a
S97T000735		F	Lanthanum -ICP-Fusion	ug/g	98.60	<5.00e-02	8.68e+03	8.63e+03	8.66e+03	0.58	97.10	976.0	n/a
S97T000735		F	Lithium -ICP-Fusion	ug/g	97.20	<1.00e-02	<1.95e+02	<1.97e2	n/a	n/a	94.10	195.0	n/a
S97T000735		F	Magnesium -ICP-Fusion	ug/g	99.00	<1.00e-01	<1.95e+03	<1.97e3	n/a	n/a	96.90	1.95e+03	n/a
S97T000735		F	Manganese -ICP-Fusion	ug/g	96.20	<1.00e-02	9.23e+03	9.08e+03	9.16e+03	1.64	93.70	195.0	n/a
S97T000735		F	Molybdenum -ICP-Fusion	ug/g	99.20	<5.00e-02	<9.75e+02	<9.84e2	n/a	n/a	98.00	976.0	n/a
S97T000735		F	Sodium -ICP-Fusion	ug/g	100.4	<1.00e-01	3.66e+04	3.69e+04	3.68e+04	0.82	100.0	1.95e+03	n/a
S97T000735		F	Neodymium -ICP-Fusion	ug/g	98.20	<1.00e-01	<1.95e+03	<1.97e3	n/a	n/a	96.30	1.95e+03	n/a
S97T000735		F	Phosphorus -ICP-Fusion	ug/g	99.60	<2.00e-01	<3.90e+03	<3.93e3	n/a	n/a	111.0	3.90e+03	n/a
S97T000735		F	Lead -ICP-Fusion	ug/g	96.20	<1.00e-01	<1.95e+03	<1.97e3	n/a	n/a	94.90	1.95e+03	n/a
S97T000735		F	Sulfur -ICP-Fusion	ug/g	96.60	<1.00e-01	<1.95e+03	<1.97e3	n/a	n/a	96.60	1.95e+03	n/a
S97T000735		F	Antimony -ICP-Fusion	ug/g	94.40	<6.00e-02	<1.17e+03	<1.18e3	n/a	n/a	92.80	1.17e+03	n/a
S97T000735		F	Selenium -ICP-Fusion	ug/g	93.20	<1.00e-01	<1.95e+03	<1.97e3	n/a	n/a	93.50	1.95e+03	n/a
S97T000735		F	Silicon -ICP-Fusion	ug/g	99.00	<5.00e-02	<9.75e+02	1.05e+03	n/a	n/a	103.0	976.0	n/a
S97T000735		F	Samarium -ICP-Fusion	ug/g	97.00	<1.00e-01	<1.95e+03	<1.97e3	n/a	n/a	95.10	1.95e+03	n/a
S97T000735		F	Strontium -ICP-Fusion	ug/g	97.40	<1.00e-02	4.09e+02	412.0	410.5	0.73	95.30	195.0	n/a
S97T000735		F	Titanium-ICP-Fusion	ug/g	96.20	<1.00e-02	<1.95e+02	<1.97e2	n/a	n/a	95.20	195.0	n/a
S97T000735		F	Thallium -ICP-Fusion	ug/g	94.60	<2.00e-01	<3.90e+03	<3.93e3	n/a	n/a	93.10	3.90e+03	n/a
S97T000735		F	Uranium -ICP-Fusion	ug/g	94.50	<5.00e-01	<9.75e+03	<9.84e3	n/a	n/a	90.50	9.76e+03	n/a
S97T000735		F	Vanadium -ICP-Fusion	ug/g	99.20	<5.00e-02	<9.75e+02	<9.84e2	n/a	n/a	98.10	976.0	n/a
S97T000735		F	Zinc -ICP-Fusion	ug/g	94.40	<1.00e-02	<1.95e+02	<1.97e2	n/a	n/a	92.80	195.0	n/a
S97T000735		F	Zirconium -ICP-Fusion	ug/g	97.20	<1.00e-02	<1.95e+02	<1.97e2	n/a	n/a	95.50	195.0	n/a
S97T000736		W	Fluoride-IC-Dionex 4000/4500	ug/g	93.39	<1.20e-02	7.19e+03	6.90e+03	7.05e+03	4.12	n/a	25.08	n/a
S97T000736		W	Chloride-IC-Dionex 4000/4500	ug/g	93.42	4.50e-02	6.59e+02	642.0	650.7	2.61	n/a	35.52	n/a
S97T000736		W	Nitrite-IC - Dionex 4000/4500	ug/g	97.06	<1.08e-01	4.97e+02	489.0	492.9	1.62	n/a	225.7	n/a
S97T000736		W	Bromide by Ion Chromatograph	ug/g	95.59	<1.25e-01	<2.61e+02	<2.60e2	n/a	n/a	n/a	261.2	n/a
S97T000736		W	Nitrate by IC-Dionex 4000/4500	ug/g	98.32	2.46e-01	6.36e+04	6.29e+04	6.33e+04	1.11	n/a	290.5	n/a
S97T000736		W	Phosphate-IC-Dionex 4000/4500	ug/g	98.90	<1.20e-01	2.88e+03	2.90e+03	2.89e+03	0.69	n/a	250.8	n/a

Sample#	R	A#	Analyte	Unit	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S97T000736		W	Sulfate by IC-Dionex 4000/4500	ug/g	96.99	<1.38e-01	6.07e+02	613.0	610.0	0.98	n/a	288.4	n/a
S97T000736		W	Oxalate-IC-Dionex 4000/4500	ug/g	94.92	<1.05e-01	<2.19e+02	<2.19e2	n/a	n/a	n/a	219.4	n/a

L Lower Half of Segment: L Lower Half of Segment

Sample#	R	A#	Analyte	Unit	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S97T000657			Bulk Density of Sample	g/mL	n/a	n/a	1.210	n/a	n/a	n/a	n/a	5.00e-01	n/a
S97T000665			DSC Exotherm Dry Calculated	Joules/g Dry	n/a	n/a	0.00e+00	0.00e+00	0.00e+00	0.00	n/a	n/a	n/a
S97T000665			DSC Exotherm on Perkin Elmer	Joules/g	102.8	n/a	0.00e+00	0.00e+00	0.00e+00	0.00	n/a	n/a	n/a
S97T000665			% Water by TGA on Perkin Elmer	%	98.28	n/a	74.09	75.61	74.85	2.03	n/a	n/a	n/a
S97T000759		F	Silver -ICP-Fusion	ug/g	96.00	<1.00e-02	<2.08e+02	<2.06e2	n/a	n/a	n/a	208.0	n/a
S97T000759		F	Aluminium -ICP-Fusion	ug/g	96.60	<5.00e-02	<1.04e+03	<1.03e3	n/a	n/a	n/a	1.04e+03	n/a
S97T000759		F	Arsenic -ICP-Fusion	ug/g	102.0	<1.00e-01	<2.08e+03	<2.06e3	n/a	n/a	n/a	2.08e+03	n/a
S97T000759		F	Boron -ICP-Fusion	ug/g	98.20	<5.00e-02	<1.04e+03	<1.03e3	n/a	n/a	n/a	1.04e+03	n/a
S97T000759		F	Barium -ICP-Fusion	ug/g	96.80	<5.00e-02	<1.04e+03	<1.03e3	n/a	n/a	n/a	1.04e+03	n/a
S97T000759		F	Beryllium -ICP-Fusion	ug/g	100.4	<5.00e-03	<1.04e+02	<1.03e2	n/a	n/a	n/a	104.0	n/a
S97T000759		F	Bismuth -ICP-Fusion	ug/g	99.60	<1.00e-01	3.63e+04	3.41e+04	3.52e+04	6.25	n/a	2.08e+03	n/a
S97T000759		F	Calcium -ICP-Fusion	ug/g	96.60	<1.00e-01	<2.08e+03	<2.06e3	n/a	n/a	n/a	2.08e+03	n/a
S97T000759		F	Cadmium -ICP-Fusion	ug/g	98.60	<5.00e-03	<1.04e+02	<1.03e2	n/a	n/a	n/a	104.0	n/a
S97T000759		F	Cerium -ICP-Fusion	ug/g	96.80	<1.00e-01	<2.08e+03	<2.06e3	n/a	n/a	n/a	2.08e+03	n/a
S97T000759		F	Cobalt -ICP-Fusion	ug/g	99.80	<2.00e-02	<4.15e+02	<4.12e2	n/a	n/a	n/a	414.0	n/a
S97T000759		F	Chromium -ICP-Fusion	ug/g	97.60	<1.00e-02	2.53e+03	2.61e+03	2.57e+03	3.11	n/a	208.0	n/a
S97T000759		F	Copper -ICP-Fusion	ug/g	97.60	<1.00e-02	<2.08e+02	<2.06e2	n/a	n/a	n/a	208.0	n/a
S97T000759		F	Iron -ICP-Fusion	ug/g	91.60	<5.00e-02	2.21e+03	2.04e+03	2.12e+03	8.00	n/a	1.04e+03	n/a
S97T000759		F	Lanthanum -ICP-Fusion	ug/g	98.60	<5.00e-02	9.63e+03	9.89e+03	9.76e+03	2.66	n/a	1.04e+03	n/a
S97T000759		F	Lithium -ICP-Fusion	ug/g	97.20	<1.00e-02	<2.08e+02	<2.06e2	n/a	n/a	n/a	208.0	n/a
S97T000759		F	Magnesium -ICP-Fusion	ug/g	99.00	<1.00e-01	<2.08e+03	<2.06e3	n/a	n/a	n/a	2.08e+03	n/a
S97T000759		F	Manganese -ICP-Fusion	ug/g	96.20	<1.00e-02	1.07e+04	1.08e+04	1.08e+04	0.93	n/a	208.0	n/a
S97T000759		F	Molybdenum -ICP-Fusion	ug/g	99.20	<5.00e-02	<1.04e+03	<1.03e3	n/a	n/a	n/a	1.04e+03	n/a
S97T000759		F	Sodium -ICP-Fusion	ug/g	100.4	<1.00e-01	3.60e+04	3.69e+04	3.64e+04	2.47	n/a	2.08e+03	n/a
S97T000759		F	Neodymium -ICP-Fusion	ug/g	98.20	<1.00e-01	<2.08e+03	<2.06e3	n/a	n/a	n/a	2.08e+03	n/a
S97T000759		F	Phosphorus -ICP-Fusion	ug/g	99.60	<2.00e-01	<4.15e+03	<4.12e3	n/a	n/a	n/a	4.14e+03	n/a
S97T000759		F	Lead -ICP-Fusion	ug/g	96.20	<1.00e-01	<2.08e+03	<2.06e3	n/a	n/a	n/a	2.08e+03	n/a
S97T000759		F	Sulfur -ICP-Fusion	ug/g	96.60	<1.00e-01	<2.08e+03	<2.06e3	n/a	n/a	n/a	2.08e+03	n/a
S97T000759		F	Antimony -ICP-Fusion	ug/g	94.40	<6.00e-02	<1.25e+03	<1.24e3	n/a	n/a	n/a	1.25e+03	n/a
S97T000759		F	Selenium -ICP-Fusion	ug/g	93.20	<1.00e-01	<2.08e+03	<2.06e3	n/a	n/a	n/a	2.08e+03	n/a
S97T000759		F	Silicon -ICP-Fusion	ug/g	99.00	<5.00e-02	<1.04e+03	<1.03e3	n/a	n/a	n/a	1.04e+03	n/a
S97T000759		F	Samarium -ICP-Fusion	ug/g	97.00	<1.00e-01	<2.08e+03	<2.06e3	n/a	n/a	n/a	2.08e+03	n/a
S97T000759		F	Strontium -ICP-Fusion	ug/g	97.40	<1.00e-02	4.37e+02	478.0	457.5	8.96	n/a	208.0	n/a
S97T000759		F	Titanium-ICP-Fusion	ug/g	96.20	<1.00e-02	<2.08e+02	<2.06e2	n/a	n/a	n/a	208.0	n/a
S97T000759		F	Thallium -ICP-Fusion	ug/g	94.60	<2.00e-01	<4.15e+03	<4.12e3	n/a	n/a	n/a	4.14e+03	n/a
S97T000759		F	Uranium -ICP-Fusion	ug/g	94.50	<5.00e-01	<1.04e+04	<1.03e4	n/a	n/a	n/a	1.04e+04	n/a
S97T000759		F	Vanadium -ICP-Fusion	ug/g	99.20	<5.00e-02	<1.04e+03	<1.03e3	n/a	n/a	n/a	1.04e+03	n/a
S97T000759		F	Zinc -ICP-Fusion	ug/g	94.40	<1.00e-02	<2.08e+02	<2.06e2	n/a	n/a	n/a	208.0	n/a
S97T000759		F	Zirconium -ICP-Fusion	ug/g	97.20	<1.00e-02	<2.08e+02	<2.06e2	n/a	n/a	n/a	208.0	n/a
S97T000759		F	Alpha of Digested Solid	uCi/g	90.50	<5.33e-03	2.30e-01	2.49e-01	2.39e-01	7.93	n/a	7.00e-03	1.04E+01
S97T000768		W	Fluoride-IC-Dionex 4000/4500	ug/g	95.42	<1.20e-02	6.22e+03	6.44e+03	6.33e+03	3.48	n/a	25.84	n/a
S97T000768		W	Chloride-IC-Dionex 4000/4500	ug/g	95.32	2.40e-02	5.77e+02	632.0	604.6	9.10	n/a	36.60	n/a
S97T000768		W	Nitrite-IC - Dionex 4000/4500	ug/g	95.22	<1.08e-01	3.22e+02	309.0	315.7	4.12	n/a	232.5	n/a
S97T000768		W	Bromide by Ion Chromatograph	ug/g	93.21	<1.25e-01	<2.69e+02	<2.65e2	n/a	n/a	n/a	269.2	n/a
S97T000768		W	Nitrate by IC-Dionex 4000/4500	ug/g	92.93	<1.39e-01	6.27e+04	6.27e+04	6.27e+04	0.00	n/a	299.3	n/a

Sample#	R	A#	Analyte	Unit	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S97T000768		W	Phosphate-IC-Dionex 4000/4500	ug/g	95.60	<1.20e-01	2.28e+03	2.32e+03	2.30e+03	1.74	n/a	258.4	n/a
S97T000768		W	Sulfate by IC-Dionex 4000/4500	ug/g	95.25	<1.38e-01	4.32e+02	450.0	441.0	4.08	n/a	297.1	n/a
S97T000768		W	Oxalate-IC-Dionex 4000/4500	ug/g	97.37	<1.05e-01	5.46e+02	554.0	550.0	1.45	n/a	226.1	n/a

Table 1. Data Summary Report
T-203

CORE NUMBER: 190
SEGMENT #: 1R

SEGMENT PORTION: U Upper Half of Segment

Sample#	R	A#	Analyte	Unit	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S97T000705			DSC Exotherm Dry Calculated	Joules/g Dry	n/a	n/a	0.00e+00	0.00e+00	0.00e+00	0.00	n/a	n/a	n/a
S97T000705			DSC Exotherm on Perkin Elmer	Joules/g	96.10	n/a	0.00e+00	0.00e+00	0.00e+00	0.00	n/a	n/a	n/a
S97T000705			% Water by TGA on Perkin Elmer	%	98.92	n/a	79.81	80.92	80.37	1.38	n/a	n/a	n/a
S97T000737		F	Silver -ICP-Fusion	ug/g	96.00	<1.00e-02	<2.01e+02	<2.00e2	n/a	n/a	n/a	201.0	n/a
S97T000737		F	Aluminium -ICP-Fusion	ug/g	96.60	<5.00e-02	<1.01e+03	<1.00e3	n/a	n/a	n/a	1.00e+03	n/a
S97T000737		F	Arsenic -ICP-Fusion	ug/g	102.0	<1.00e-01	<2.01e+03	<2.00e3	n/a	n/a	n/a	2.01e+03	n/a
S97T000737		F	Boron -ICP-Fusion	ug/g	98.20	<5.00e-02	<1.01e+03	<1.00e3	n/a	n/a	n/a	1.00e+03	n/a
S97T000737		F	Barium -ICP-Fusion	ug/g	96.80	<5.00e-02	<1.01e+03	<1.00e3	n/a	n/a	n/a	1.00e+03	n/a
S97T000737		F	Beryllium -ICP-Fusion	ug/g	100.4	<5.00e-03	<1.01e+02	<1.00e2	n/a	n/a	n/a	100.0	n/a
S97T000737		F	Bismuth -ICP-Fusion	ug/g	99.60	<1.00e-01	2.50e+04	2.60e+04	2.55e+04	3.92	n/a	2.01e+03	n/a
S97T000737		F	Calcium -ICP-Fusion	ug/g	96.60	<1.00e-01	<2.01e+03	<2.00e3	n/a	n/a	n/a	2.01e+03	n/a
S97T000737		F	Cadmium -ICP-Fusion	ug/g	98.60	<5.00e-03	<1.01e+02	<1.00e2	n/a	n/a	n/a	100.0	n/a
S97T000737		F	Cerium -ICP-Fusion	ug/g	96.80	<1.00e-01	<2.01e+03	<2.00e3	n/a	n/a	n/a	2.01e+03	n/a
S97T000737		F	Cobalt -ICP-Fusion	ug/g	99.80	<2.00e-02	<4.03e+02	<4.00e2	n/a	n/a	n/a	403.0	n/a
S97T000737		F	Chromium -ICP-Fusion	ug/g	97.60	<1.00e-02	1.77e+03	1.77e+03	1.77e+03	0.00	n/a	201.0	n/a
S97T000737		F	Copper -ICP-Fusion	ug/g	97.60	<1.00e-02	<2.01e+02	<2.00e2	n/a	n/a	n/a	201.0	n/a
S97T000737		F	Iron -ICP-Fusion	ug/g	91.60	<5.00e-02	1.45e+04	3.02e+04	2.24e+04	70.2	n/a	1.00e+03	n/a
S97T000737		F	Lanthanum -ICP-Fusion	ug/g	98.60	<5.00e-02	8.37e+03	8.33e+03	8.35e+03	0.48	n/a	1.00e+03	n/a
S97T000737		F	Lithium -ICP-Fusion	ug/g	97.20	<1.00e-02	<2.01e+02	<2.00e2	n/a	n/a	n/a	201.0	n/a
S97T000737		F	Magnesium -ICP-Fusion	ug/g	99.00	<1.00e-01	<2.01e+03	<2.00e3	n/a	n/a	n/a	2.01e+03	n/a
S97T000737		F	Manganese -ICP-Fusion	ug/g	96.20	<1.00e-02	8.04e+03	8.11e+03	8.08e+03	0.87	n/a	201.0	n/a
S97T000737		F	Molybdenum -ICP-Fusion	ug/g	99.20	<5.00e-02	<1.01e+03	<1.00e3	n/a	n/a	n/a	1.00e+03	n/a
S97T000737		F	Sodium -ICP-Fusion	ug/g	100.4	<1.00e-01	3.66e+04	3.60e+04	3.63e+04	1.65	n/a	2.01e+03	n/a
S97T000737		F	Neodymium -ICP-Fusion	ug/g	98.20	<1.00e-01	<2.01e+03	<2.00e3	n/a	n/a	n/a	2.01e+03	n/a
S97T000737		F	Phosphorus -ICP-Fusion	ug/g	99.60	<2.00e-01	<4.03e+03	<4.00e3	n/a	n/a	n/a	4.03e+03	n/a
S97T000737		F	Lead -ICP-Fusion	ug/g	96.20	<1.00e-01	<2.01e+03	<2.00e3	n/a	n/a	n/a	2.01e+03	n/a
S97T000737		F	Sulfur -ICP-Fusion	ug/g	96.60	<1.00e-01	<2.01e+03	<2.00e3	n/a	n/a	n/a	2.01e+03	n/a
S97T000737		F	Antimony -ICP-Fusion	ug/g	94.40	<6.00e-02	<1.21e+03	<1.20e3	n/a	n/a	n/a	1.21e+03	n/a
S97T000737		F	Selenium -ICP-Fusion	ug/g	93.20	<1.00e-01	<2.01e+03	<2.00e3	n/a	n/a	n/a	2.01e+03	n/a
S97T000737		F	Silicon -ICP-Fusion	ug/g	99.00	<5.00e-02	1.06e+03	<1.00e3	n/a	n/a	n/a	1.00e+03	n/a
S97T000737		F	Samarium -ICP-Fusion	ug/g	97.00	<1.00e-01	<2.01e+03	<2.00e3	n/a	n/a	n/a	2.01e+03	n/a
S97T000737		F	Strontium -ICP-Fusion	ug/g	97.40	<1.00e-02	4.19e+02	413.0	416.0	1.44	n/a	201.0	n/a
S97T000737		F	Titanium-ICP-Fusion	ug/g	96.20	<1.00e-02	<2.01e+02	<2.00e2	n/a	n/a	n/a	201.0	n/a
S97T000737		F	Thallium -ICP-Fusion	ug/g	94.60	<2.00e-01	<4.03e+03	<4.00e3	n/a	n/a	n/a	4.03e+03	n/a
S97T000737		F	Uranium -ICP-Fusion	ug/g	94.50	<5.00e-01	<1.01e+04	<1.00e4	n/a	n/a	n/a	1.00e+04	n/a
S97T000737		F	Vanadium -ICP-Fusion	ug/g	99.20	<5.00e-02	<1.01e+03	<1.00e3	n/a	n/a	n/a	1.00e+03	n/a
S97T000737		F	Zinc -ICP-Fusion	ug/g	94.40	<1.00e-02	<2.01e+02	<2.00e2	n/a	n/a	n/a	201.0	n/a
S97T000737		F	Zirconium -ICP-Fusion	ug/g	97.20	<1.00e-02	<2.01e+02	<2.00e2	n/a	n/a	n/a	201.0	n/a
S97T000746		W	Fluoride-IC-Dionex 4000/4500	ug/g	95.42	<1.20e-02	6.60e+03	6.71e+03	6.65e+03	1.65	n/a	26.66	n/a
S97T000746		W	Chloride-IC-Dionex 4000/4500	ug/g	95.32	2.40e-02	6.02e+02	592.0	597.0	1.68	n/a	37.77	n/a
S97T000746		W	Nitrite-IC - Dionex 4000/4500	ug/g	95.22	<1.08e-01	3.36e+02	338.0	336.9	0.59	n/a	239.9	n/a
S97T000746		W	Bromide by Ion Chromatograph	ug/g	93.21	<1.25e-01	<2.78e+02	<2.71e2	n/a	n/a	n/a	277.8	n/a
S97T000746		W	Nitrate by IC-Dionex 4000/4500	ug/g	92.93	<1.39e-01	6.32e+04	6.18e+04	6.25e+04	2.24	n/a	308.9	n/a
S97T000746		W	Phosphate-IC-Dionex 4000/4500	ug/g	95.60	<1.20e-01	2.62e+03	2.66e+03	2.64e+03	1.52	n/a	266.6	n/a

Sample#	R	A#	Analyte	Unit	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S97T000746		W	Sulfate by IC-Dionex 4000/4500	ug/g	95.25	<1.38e-01	3.37e+02	<2.99e2	n/a	n/a	n/a	306.6	n/a
S97T000746		W	Oxalate-IC-Dionex 4000/4500	ug/g	97.37	<1.05e-01	3.02e+02	265.0	283.3	13.1	n/a	233.3	n/a

L Lower Half of Segment: L Lower Half of Segment

Sample#	R	A#	Analyte	Unit	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S97T000699			Bulk Density of Sample	g/mL	n/a	n/a	1.190	n/a	n/a	n/a	n/a	5.00e-01	n/a
S97T000711			DSC Exotherm Dry Calculated	Joules/g Dry	n/a	n/a	0.00e+00	0.00e+00	0.00e+00	0.00	n/a	n/a	n/a
S97T000711			DSC Exotherm on Perkin Elmer	Joules/g	96.10	n/a	0.00e+00	0.00e+00	0.00e+00	0.00	n/a	n/a	n/a
S97T000711			% Water by TGA on Perkin Elmer	%	98.92	n/a	83.80	82.90	83.35	1.08	n/a	n/a	n/a
S97T000760		F	Silver -ICP-Fusion	ug/g	98.00	<1.00e-02	<1.97e+02	<1.86e2	n/a	n/a	n/a	197.0	n/a
S97T000760		F	Aluminium -ICP-Fusion	ug/g	97.20	<5.00e-02	2.23e+03	<9.29e2	n/a	n/a	n/a	984.0	n/a
S97T000760		F	Arsenic -ICP-Fusion	ug/g	103.0	<1.00e-01	<1.97e+03	<1.86e3	n/a	n/a	n/a	1.97e+03	n/a
S97T000760		F	Boron -ICP-Fusion	ug/g	99.00	<5.00e-02	<9.83e+02	<9.29e2	n/a	n/a	n/a	984.0	n/a
S97T000760		F	Barium -ICP-Fusion	ug/g	98.80	<5.00e-02	<9.83e+02	<9.29e2	n/a	n/a	n/a	984.0	n/a
S97T000760		F	Beryllium -ICP-Fusion	ug/g	100.4	<5.00e-03	< 98.30	<9.29e1	n/a	n/a	n/a	98.40	n/a
S97T000760		F	Bismuth -ICP-Fusion	ug/g	100.8	<1.00e-01	2.93e+04	3.11e+04	3.02e+04	5.96	n/a	1.97e+03	n/a
S97T000760		F	Calcium -ICP-Fusion	ug/g	100.0	<1.00e-01	<1.97e+03	<1.86e3	n/a	n/a	n/a	1.97e+03	n/a
S97T000760		F	Cadmium -ICP-Fusion	ug/g	100.4	<5.00e-03	< 98.30	<9.29e1	n/a	n/a	n/a	98.40	n/a
S97T000760		F	Cerium -ICP-Fusion	ug/g	97.80	<1.00e-01	<1.97e+03	<1.86e3	n/a	n/a	n/a	1.97e+03	n/a
S97T000760		F	Cobalt -ICP-Fusion	ug/g	101.8	<2.00e-02	<3.93e+02	<3.72e2	n/a	n/a	n/a	394.0	n/a
S97T000760		F	Chromium -ICP-Fusion	ug/g	99.80	<1.00e-02	3.09e+03	3.06e+03	3.08e+03	0.98	n/a	197.0	n/a
S97T000760		F	Copper -ICP-Fusion	ug/g	97.40	<1.00e-02	<1.97e+02	<1.86e2	n/a	n/a	n/a	197.0	n/a
S97T000760		F	Iron -ICP-Fusion	ug/g	93.00	<5.00e-02	2.11e+03	1.80e+03	1.96e+03	15.9	n/a	984.0	n/a
S97T000760		F	Lanthanum -ICP-Fusion	ug/g	99.00	<5.00e-02	7.09e+03	7.50e+03	7.30e+03	5.62	n/a	984.0	n/a
S97T000760		F	Lithium -ICP-Fusion	ug/g	96.60	<1.00e-02	<1.97e+02	<1.86e2	n/a	n/a	n/a	197.0	n/a
S97T000760		F	Magnesium -ICP-Fusion	ug/g	99.20	<1.00e-01	<1.97e+03	<1.86e3	n/a	n/a	n/a	1.97e+03	n/a
S97T000760		F	Manganese -ICP-Fusion	ug/g	98.60	<1.00e-02	7.94e+03	8.18e+03	8.06e+03	2.98	n/a	197.0	n/a
S97T000760		F	Molybdenum -ICP-Fusion	ug/g	101.0	<5.00e-02	<9.83e+02	<9.29e2	n/a	n/a	n/a	984.0	n/a
S97T000760		F	Sodium -ICP-Fusion	ug/g	100.8	<1.00e-01	3.67e+04	3.64e+04	3.66e+04	0.82	n/a	1.97e+03	n/a
S97T000760		F	Neodymium -ICP-Fusion	ug/g	99.00	<1.00e-01	<1.97e+03	<1.86e3	n/a	n/a	n/a	1.97e+03	n/a
S97T000760		F	Phosphorus -ICP-Fusion	ug/g	101.0	<2.00e-01	<3.93e+03	<3.72e3	n/a	n/a	n/a	3.94e+03	n/a
S97T000760		F	Lead -ICP-Fusion	ug/g	98.80	<1.00e-01	<1.97e+03	<1.86e3	n/a	n/a	n/a	1.97e+03	n/a
S97T000760		F	Sulfur -ICP-Fusion	ug/g	99.00	<1.00e-01	<1.97e+03	<1.86e3	n/a	n/a	n/a	1.97e+03	n/a
S97T000760		F	Antimony -ICP-Fusion	ug/g	95.40	<6.00e-02	<1.18e+03	<1.11e3	n/a	n/a	n/a	1.18e+03	n/a
S97T000760		F	Selenium -ICP-Fusion	ug/g	93.80	<1.00e-01	<1.97e+03	<1.86e3	n/a	n/a	n/a	1.97e+03	n/a
S97T000760		F	Silicon -ICP-Fusion	ug/g	100.8	<5.00e-02	6.27e+03	<9.29e2	n/a	n/a	n/a	984.0	n/a
S97T000760		F	Samarium -ICP-Fusion	ug/g	96.60	<1.00e-01	<1.97e+03	<1.86e3	n/a	n/a	n/a	1.97e+03	n/a
S97T000760		F	Strontium -ICP-Fusion	ug/g	98.00	<1.00e-02	2.55e+02	284.0	269.5	10.8	n/a	197.0	n/a
S97T000760		F	Titanium-ICP-Fusion	ug/g	96.60	<1.00e-02	<1.97e+02	<1.86e2	n/a	n/a	n/a	197.0	n/a
S97T000760		F	Thallium -ICP-Fusion	ug/g	97.60	<2.00e-01	<3.93e+03	<3.72e3	n/a	n/a	n/a	3.94e+03	n/a
S97T000760		F	Uranium -ICP-Fusion	ug/g	94.70	<5.00e-01	<9.83e+03	<9.29e3	n/a	n/a	n/a	9.84e+03	n/a
S97T000760		F	Vanadium -ICP-Fusion	ug/g	100.6	<5.00e-02	<9.83e+02	<9.29e2	n/a	n/a	n/a	984.0	n/a
S97T000760		F	Zinc -ICP-Fusion	ug/g	96.80	<1.00e-02	<1.97e+02	<1.86e2	n/a	n/a	n/a	197.0	n/a
S97T000760		F	Zirconium -ICP-Fusion	ug/g	98.20	<1.00e-02	<1.97e+02	<1.86e2	n/a	n/a	n/a	197.0	n/a
S97T000760		F	Alpha of Digested Solid	uCi/g	85.00	4.00e-03	1.79e-01	1.69e-01	1.74e-01	5.75	n/a	8.00e-03	1.18E+01
S97T000769		W	Fluoride-IC-Dionex 4000/4500	ug/g	92.37	<1.20e-02	6.46e+03	6.11e+03	6.29e+03	5.57	n/a	21.99	n/a
S97T000769		W	Chloride-IC-Dionex 4000/4500	ug/g	97.34	<1.70e-02	6.53e+02	618.0	635.5	5.51	n/a	31.15	n/a
S97T000769		W	Nitrite-IC - Dionex 4000/4500	ug/g	92.28	<1.08e-01	2.67e+02	253.0	260.1	5.38	n/a	197.9	n/a
S97T000769		W	Bromide by Ion Chromatograph	ug/g	94.57	<1.25e-01	<2.29e+02	<2.25e2	n/a	n/a	n/a	229.1	n/a
S97T000769		W	Nitrate by IC-Dionex 4000/4500	ug/g	95.29	<1.39e-01	6.63e+04	6.27e+04	6.45e+04	5.58	n/a	254.8	n/a

Sample#	R	A#	Analyte	Unit	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S97T000769		W	Phosphate-IC-Dionex 4000/4500	ug/g	95.05	<1.20e-01	2.19e+03	1.81e+03	2.00e+03	19.0	n/a	219.9	n/a
S97T000769		W	Sulfate by IC-Dionex 4000/4500	ug/g	95.40	<1.38e-01	3.88e+02	294.0	341.1	27.6	n/a	252.9	n/a
S97T000769		W	Oxalate-IC-Dionex 4000/4500	ug/g	99.25	<1.05e-01	7.50e+02	757.0	753.5	0.93	n/a	192.4	n/a

Drainable Liquid: Drainable Liquid

Sample#	R	A#	Analyte	Unit	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S97T000733			DSC Exotherm Dry Calculated	Joules/g Dry	n/a	n/a	0.00e+00	0.00e+00	0.00e+00	0.00	n/a	n/a	n/a
S97T000733			DSC Exotherm on Perkin Elmer	Joules/g	92.65	n/a	0.00e+00	0.00e+00	0.00e+00	0.00	n/a	n/a	n/a
S97T000733			Specific Gravity	Sp.G.	99.25	n/a	1.087	1.084	1.086	0.28	n/a	1.00e-03	n/a
S97T000733			% Water by TGA on Perkin Elmer	%	98.43	n/a	85.30	85.23	85.27	0.08	n/a	n/a	n/a
S97T000733		D	Silver-ICP-Acid Dil.	ug/mL	97.00	<1.00e-02	2.950	2.910	2.930	1.37	87.30	1.010	n/a
S97T000733		D	Aluminium-ICP-Acid Dil.	ug/mL	97.00	<5.00e-02	< 5.050	<5.05e0	n/a	n/a	95.80	5.050	n/a
S97T000733		D	Arsenic-ICP-Acid Dil.	ug/mL	102.2	<1.00e-01	< 10.10	<1.01e1	n/a	n/a	103.0	10.10	n/a
S97T000733		D	Boron-ICP-Acid Dil.	ug/mL	99.80	<5.00e-02	< 5.050	<5.05e0	n/a	n/a	99.50	5.050	n/a
S97T000733		D	Barium-ICP-Acid Dil.	ug/mL	98.20	<5.00e-02	< 5.050	<5.05e0	n/a	n/a	97.50	5.050	n/a
S97T000733		D	Beryllium-ICP-Acid Dil.	ug/mL	99.80	<5.00e-03	<5.05e-01	<5.05e-1	n/a	n/a	97.60	5.05e-01	n/a
S97T000733		D	Bismuth-ICP-Acid Dil.	ug/mL	100.8	<1.00e-01	< 10.10	<1.01e1	n/a	n/a	106.0	10.10	n/a
S97T000733		D	Calcium-ICP-Acid Dil.	ug/mL	97.60	<1.00e-01	< 10.10	<1.01e1	n/a	n/a	98.10	10.10	n/a
S97T000733		D	Cadmium-ICP-Acid Dil.	ug/mL	98.60	<5.00e-03	<5.05e-01	<5.05e-1	n/a	n/a	97.10	5.05e-01	n/a
S97T000733		D	Cerium-ICP-Acid Dil.	ug/mL	97.20	<1.00e-01	< 10.10	<1.01e1	n/a	n/a	96.50	10.10	n/a
S97T000733		D	Cobalt-ICP-Acid Dil.	ug/mL	100.8	<2.00e-02	< 2.020	<2.02e0	n/a	n/a	98.90	2.020	n/a
S97T000733		D	Chromium-ICP-Acid Dil.	ug/mL	98.00	<1.00e-02	42.30	42.90	42.60	1.41	97.60	1.010	n/a
S97T000733		D	Copper-ICP-Acid Dil.	ug/mL	98.40	<1.00e-02	< 1.010	<1.01e0	n/a	n/a	97.10	1.010	n/a
S97T000733		D	Iron-ICP-Acid Dil.	ug/mL	91.80	<5.00e-02	< 5.050	<5.05e0	n/a	n/a	90.40	5.050	n/a
S97T000733		D	Potassium-ICP-Acid Dil.	ug/mL	103.6	<5.00e-01	8.37e+03	8.40e+03	8.38e+03	0.36	205.0	50.50	n/a
S97T000733		D	Lanthanum-ICP-Acid Dil.	ug/mL	98.80	<5.00e-02	< 5.050	<5.05e0	n/a	n/a	98.70	5.050	n/a
S97T000733		D	Lithium-ICP-Acid Dil.	ug/mL	97.60	<1.00e-02	< 1.010	<1.01e0	n/a	n/a	98.40	1.010	n/a
S97T000733		D	Magnesium-ICP-Acid Dil.	ug/mL	99.00	<1.00e-01	< 10.10	<1.01e1	n/a	n/a	94.50	10.10	n/a
S97T000733		D	Manganese-ICP-Acid Dil.	ug/mL	97.00	<1.00e-02	< 1.010	<1.01e0	n/a	n/a	93.70	1.010	n/a
S97T000733		D	Molybdenum-ICP-Acid Dil.	ug/mL	100.2	<5.00e-02	< 5.050	<5.05e0	n/a	n/a	99.90	5.050	n/a
S97T000733		D	Sodium-ICP-Acid Dil.	ug/mL	101.8	<1.00e-01	4.11e+04	4.12e+04	4.12e+04	0.24	604.0	10.10	n/a
S97T000733		D	Neodymium-ICP-Acid Dil.	ug/mL	98.80	<1.00e-01	< 10.10	<1.01e1	n/a	n/a	98.50	10.10	n/a
S97T000733		D	Nickel-ICP-Acid Dil.	ug/mL	99.00	<2.00e-02	< 2.020	<2.02e0	n/a	n/a	95.10	2.020	n/a
S97T000733		D	Phosphorus-ICP-Acid Dil.	ug/mL	100.2	<2.00e-01	7.45e+02	754.0	749.5	1.20	88.80	20.20	n/a
S97T000733		D	Lead-ICP-Acid Dil.	ug/mL	96.80	<1.00e-01	< 10.10	<1.01e1	n/a	n/a	97.90	10.10	n/a
S97T000733		D	Sulfur-ICP-Acid Dil.	ug/mL	98.60	<1.00e-01	1.25e+02	125.0	125.0	0.00	96.70	10.10	n/a
S97T000733		D	Antimony-ICP-Acid Dil.	ug/mL	95.00	<6.00e-02	< 6.060	<6.06e0	n/a	n/a	94.00	6.060	n/a
S97T000733		D	Selenium-ICP-Acid Dil.	ug/mL	92.40	<1.00e-01	< 10.10	<1.01e1	n/a	n/a	104.0	10.10	n/a
S97T000733		D	Silicon-ICP-Acid Dil.	ug/mL	100.6	<5.00e-02	49.80	53.90	51.85	7.91	104.0	5.050	n/a
S97T000733		D	Samarium-ICP-Acid Dil.	ug/mL	96.60	<1.00e-01	< 10.10	<1.01e1	n/a	n/a	96.20	10.10	n/a
S97T000733		D	Strontium-ICP-Acid Dil.	ug/mL	97.60	<1.00e-02	< 1.010	<1.01e0	n/a	n/a	97.20	1.010	n/a
S97T000733		D	Titanium-ICP-Acid Dil.	ug/mL	96.60	<1.00e-02	< 1.010	<1.01e0	n/a	n/a	96.00	1.010	n/a
S97T000733		D	Thallium-ICP-Acid Dil.	ug/mL	95.20	<2.00e-01	< 20.20	<2.02e1	n/a	n/a	97.00	20.20	n/a
S97T000733		D	Uranium-ICP-Acid Dil.	ug/mL	95.30	<5.00e-01	< 50.50	<5.05e1	n/a	n/a	100.5	50.50	n/a
S97T000733		D	Vanadium-ICP-Acid Dil.	ug/mL	100.0	<5.00e-02	< 5.050	<5.05e0	n/a	n/a	99.40	5.050	n/a
S97T000733		D	Zinc-ICP-Acid Dil.	ug/mL	95.80	<1.00e-02	< 1.010	<1.01e0	n/a	n/a	95.30	1.010	n/a
S97T000733		D	Zirconium-ICP-Acid Dil.	ug/mL	98.00	<1.00e-02	< 1.010	<1.01e0	n/a	n/a	97.30	1.010	n/a
S97T000733			Fluoride-IC-Dionex 4000/4500	ug/mL	104.9	<1.20e-02	7.10e+03	6.94e+03	7.02e+03	2.28	176.3	25.45	n/a
S97T000733			Chloride-IC-Dionex 4000/4500	ug/mL	109.0	<1.70e-02	6.93e+02	722.0	707.4	4.10	121.5	36.06	n/a
S97T000733			Nitrite-IC - Dionex 4000/4500	ug/mL	103.1	<1.08e-01	3.48e+02	359.0	353.4	3.11	106.1	229.1	n/a

Sample#	R	A#	Analyte	Unit	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S97T000733			Bromide by Ion Chromatograph	ug/mL	97.28	<1.25e-01	<2.65e+02	<2.65e2	n/a	n/a	88.12	265.1	n/a
S97T000733			Nitrate by IC-Dionex 4000/4500	ug/mL	97.81	<1.39e-01	7.37e+04	7.38e+04	7.37e+04	0.14	167.7	294.8	n/a
S97T000733			Phosphate-IC-Dionex 4000/4500	ug/mL	102.2	<1.20e-01	1.87e+03	1.92e+03	1.90e+03	2.64	109.0	254.5	n/a
S97T000733			Sulfate by IC-Dionex 4000/4500	ug/mL	98.10	<1.38e-01	4.30e+02	507.0	468.6	16.4	104.1	292.7	n/a
S97T000733			Oxalate-IC-Dionex 4000/450	ug/mL	104.9	<1.05e-01	<2.23e+02	<2.23e2	n/a	n/a	112.4	222.7	n/a
S97T000733			Alpha in Liquid Samples	uCi/mL	91.50	3.71e-05	<8.48e-05	<5.50E-5	n/a	n/a	90.49	6.70e-05	2.94E+02

Table 1. Data Summary Report
T-203

CORE NUMBER: 190
SEGMENT #: 2

SEGMENT PORTION: U Upper Half of Segment

Sample#	R	A#	Analyte	Unit	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S97T000666			DSC Exotherm Dry Calculated	Joules/g Dry	n/a	n/a	0.00e+00	0.00e+00	0.00e+00	0.00	n/a	n/a	n/a
S97T000666			DSC Exotherm on Perkin Elmer	Joules/g	93.43	n/a	0.00e+00	0.00e+00	0.00e+00	0.00	n/a	n/a	n/a
S97T000666			% Water by TGA on Perkin Elmer	%	98.72	n/a	76.29	75.18	75.74	1.47	n/a	n/a	n/a
S97T000738		F	Silver -ICP-Fusion	ug/g	98.00	<1.00e-02	<1.95e+02	<2.00e2	n/a	n/a	n/a	195.0	n/a
S97T000738		F	Aluminium -ICP-Fusion	ug/g	97.20	<5.00e-02	<9.76e+02	<9.99e2	n/a	n/a	n/a	976.0	n/a
S97T000738		F	Arsenic -ICP-Fusion	ug/g	103.0	<1.00e-01	<1.95e+03	<2.00e3	n/a	n/a	n/a	1.95e+03	n/a
S97T000738		F	Boron -ICP-Fusion	ug/g	99.00	<5.00e-02	<9.76e+02	<9.99e2	n/a	n/a	n/a	976.0	n/a
S97T000738		F	Barium -ICP-Fusion	ug/g	98.80	<5.00e-02	<9.76e+02	<9.99e2	n/a	n/a	n/a	976.0	n/a
S97T000738		F	Beryllium -ICP-Fusion	ug/g	100.4	<5.00e-03	< 97.60	<9.99e1	n/a	n/a	n/a	97.60	n/a
S97T000738		F	Bismuth -ICP-Fusion	ug/g	100.8	<1.00e-01	2.55e+04	2.90e+04	2.72e+04	12.8	n/a	1.95e+03	n/a
S97T000738		F	Calcium -ICP-Fusion	ug/g	100.0	<1.00e-01	<1.95e+03	<2.00e3	n/a	n/a	n/a	1.95e+03	n/a
S97T000738		F	Cadmium -ICP-Fusion	ug/g	100.4	<5.00e-03	< 97.60	<9.99e1	n/a	n/a	n/a	97.60	n/a
S97T000738		F	Cerium -ICP-Fusion	ug/g	97.80	<1.00e-01	<1.95e+03	<2.00e3	n/a	n/a	n/a	1.95e+03	n/a
S97T000738		F	Cobalt -ICP-Fusion	ug/g	101.8	<2.00e-02	<3.91e+02	<4.00e2	n/a	n/a	n/a	391.0	n/a
S97T000738		F	Chromium -ICP-Fusion	ug/g	99.80	<1.00e-02	2.90e+03	3.11e+03	3.00e+03	6.99	n/a	195.0	n/a
S97T000738		F	Copper -ICP-Fusion	ug/g	97.40	<1.00e-02	<1.95e+02	<2.00e2	n/a	n/a	n/a	195.0	n/a
S97T000738		F	Iron -ICP-Fusion	ug/g	93.00	<5.00e-02	1.75e+04	3.13e+03	1.03e+04	139	n/a	976.0	n/a
S97T000738		F	Lanthanum -ICP-Fusion	ug/g	99.00	<5.00e-02	7.14e+03	7.87e+03	7.50e+03	9.73	n/a	976.0	n/a
S97T000738		F	Lithium -ICP-Fusion	ug/g	96.60	<1.00e-02	<1.95e+02	<2.00e2	n/a	n/a	n/a	195.0	n/a
S97T000738		F	Magnesium -ICP-Fusion	ug/g	99.20	<1.00e-01	<1.95e+03	<2.00e3	n/a	n/a	n/a	1.95e+03	n/a
S97T000738		F	Manganese -ICP-Fusion	ug/g	98.60	<1.00e-02	7.90e+03	8.68e+03	8.29e+03	9.41	n/a	195.0	n/a
S97T000738		F	Molybdenum -ICP-Fusion	ug/g	101.0	<5.00e-02	<9.76e+02	<9.99e2	n/a	n/a	n/a	976.0	n/a
S97T000738		F	Sodium -ICP-Fusion	ug/g	100.8	<1.00e-01	3.44e+04	3.53e+04	3.48e+04	2.58	n/a	1.95e+03	n/a
S97T000738		F	Neodymium -ICP-Fusion	ug/g	99.00	<1.00e-01	<1.95e+03	<2.00e3	n/a	n/a	n/a	1.95e+03	n/a
S97T000738		F	Phosphorus -ICP-Fusion	ug/g	101.0	<2.00e-01	<3.91e+03	<4.00e3	n/a	n/a	n/a	3.91e+03	n/a
S97T000738		F	Lead -ICP-Fusion	ug/g	98.80	<1.00e-01	<1.95e+03	<2.00e3	n/a	n/a	n/a	1.95e+03	n/a
S97T000738		F	Sulfur -ICP-Fusion	ug/g	99.00	<1.00e-01	<1.95e+03	<2.00e3	n/a	n/a	n/a	1.95e+03	n/a
S97T000738		F	Antimony -ICP-Fusion	ug/g	95.40	<6.00e-02	<1.17e+03	<1.20e3	n/a	n/a	n/a	1.17e+03	n/a
S97T000738		F	Selenium -ICP-Fusion	ug/g	93.80	<1.00e-01	<1.95e+03	<2.00e3	n/a	n/a	n/a	1.95e+03	n/a
S97T000738		F	Silicon -ICP-Fusion	ug/g	100.8	<5.00e-02	<9.76e+02	1.19e+03	n/a	n/a	n/a	976.0	n/a
S97T000738		F	Samarium -ICP-Fusion	ug/g	96.60	<1.00e-01	<1.95e+03	<2.00e3	n/a	n/a	n/a	1.95e+03	n/a
S97T000738		F	Strontium -ICP-Fusion	ug/g	98.00	<1.00e-02	2.29e+02	240.0	234.5	4.69	n/a	195.0	n/a
S97T000738		F	Titanium-ICP-Fusion	ug/g	96.60	<1.00e-02	<1.95e+02	<2.00e2	n/a	n/a	n/a	195.0	n/a
S97T000738		F	Thallium -ICP-Fusion	ug/g	97.60	<2.00e-01	<3.91e+03	<4.00e3	n/a	n/a	n/a	3.91e+03	n/a
S97T000738		F	Uranium -ICP-Fusion	ug/g	94.70	<5.00e-01	<9.76e+03	<9.99e3	n/a	n/a	n/a	9.76e+03	n/a
S97T000738		F	Vanadium -ICP-Fusion	ug/g	100.6	<5.00e-02	<9.76e+02	<9.99e2	n/a	n/a	n/a	976.0	n/a
S97T000738		F	Zinc -ICP-Fusion	ug/g	96.80	<1.00e-02	<1.95e+02	<2.00e2	n/a	n/a	n/a	195.0	n/a
S97T000738		F	Zirconium -ICP-Fusion	ug/g	98.20	<1.00e-02	<1.95e+02	<2.00e2	n/a	n/a	n/a	195.0	n/a
S97T000747		W	Fluoride-IC-Dionex 4000/4500	ug/g	92.37	<1.20e-02	6.38e+03	6.50e+03	6.44e+03	1.86	79.49	25.12	n/a
S97T000747		W	Chloride-IC-Dionex 4000/4500	ug/g	97.34	<1.70e-02	5.99e+02	641.0	620.2	6.77	102.4	35.60	n/a
S97T000747		W	Nitrite-IC - Dionex 4000/4500	ug/g	92.28	<1.08e-01	3.00e+02	295.0	297.6	1.68	91.18	226.2	n/a
S97T000747		W	Bromide by Ion Chromatograph	ug/g	94.57	<1.25e-01	<2.62e+02	<2.59e2	n/a	n/a	84.55	261.7	n/a
S97T000747		W	Nitrate by IC-Dionex 4000/4500	ug/g	95.29	<1.39e-01	6.46e+04	6.59e+04	6.52e+04	1.99	88.22	291.1	n/a
S97T000747		W	Phosphate-IC-Dionex 4000/4500	ug/g	95.05	<1.20e-01	2.14e+03	1.99e+03	2.07e+03	7.26	97.98	251.2	n/a

Sample#	R	A#	Analyte	Unit	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S97T000747		W	Sulfate by IC-Dionex 4000/4500	ug/g	95.40	<1.38e-01	<2.89e+02	387.0	n/a	n/a	96.35	289.0	n/a
S97T000747		W	Oxalate-IC-Dionex 4000/4500	ug/g	99.25	<1.05e-01	1.01e+03	1.04e+03	1.03e+03	2.93	97.18	219.8	n/a

L Lower Half of Segment: L Lower Half of Segment

Sample#	R	A#	Analyte	Unit	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S97T000661			Bulk Density of Sample	g/mL	n/a	n/a	1.200	n/a	n/a	n/a	n/a	5.00e-01	n/a
S97T000669			DSC Exotherm Dry Calculated	Joules/g Dry	n/a	n/a	0.00e+00	0.00e+00	0.00e+00	0.00	n/a	n/a	n/a
S97T000669			DSC Exotherm on Perkin Elmer	Joules/g	95.61	n/a	0.00e+00	0.00e+00	0.00e+00	0.00	n/a	n/a	n/a
S97T000669			% Water by TGA on Perkin Elmer	%	97.96	n/a	76.78	76.32	76.55	0.60	n/a	n/a	n/a
S97T000757		F	Silver -ICP-Fusion	ug/g	98.00	<1.00e-02	<1.81e+02	<1.76e2	n/a	n/a	42.60	181.0	n/a
S97T000757		F	Aluminium -ICP-Fusion	ug/g	97.20	<5.00e-02	<9.04e+02	<8.81e2	n/a	n/a	101.0	902.0	n/a
S97T000757		F	Arsenic -ICP-Fusion	ug/g	103.0	<1.00e-01	<1.81e+03	<1.76e3	n/a	n/a	107.0	1.81e+03	n/a
S97T000757		F	Boron -ICP-Fusion	ug/g	99.00	<5.00e-02	<9.04e+02	<8.81e2	n/a	n/a	97.30	902.0	n/a
S97T000757		F	Barium -ICP-Fusion	ug/g	98.80	<5.00e-02	<9.04e+02	<8.81e2	n/a	n/a	99.00	902.0	n/a
S97T000757		F	Beryllium -ICP-Fusion	ug/g	100.4	<5.00e-03	< 90.40	<8.81e1	n/a	n/a	99.90	90.20	n/a
S97T000757		F	Bismuth -ICP-Fusion	ug/g	100.8	<1.00e-01	3.72e+04	3.59e+04	3.66e+04	3.56	103.0	1.81e+03	n/a
S97T000757		F	Calcium -ICP-Fusion	ug/g	100.0	<1.00e-01	<1.81e+03	<1.76e3	n/a	n/a	103.0	1.81e+03	n/a
S97T000757		F	Cadmium -ICP-Fusion	ug/g	100.4	<5.00e-03	< 90.40	<8.81e1	n/a	n/a	101.0	90.20	n/a
S97T000757		F	Cerium -ICP-Fusion	ug/g	97.80	<1.00e-01	<1.81e+03	<1.76e3	n/a	n/a	99.30	1.81e+03	n/a
S97T000757		F	Cobalt -ICP-Fusion	ug/g	101.8	<2.00e-02	<3.62e+02	<3.53e2	n/a	n/a	102.0	362.0	n/a
S97T000757		F	Chromium -ICP-Fusion	ug/g	99.80	<1.00e-02	3.25e+03	3.25e+03	3.25e+03	0.00	100.0	181.0	n/a
S97T000757		F	Copper -ICP-Fusion	ug/g	97.40	<1.00e-02	<1.81e+02	<1.76e2	n/a	n/a	98.40	181.0	n/a
S97T000757		F	Iron -ICP-Fusion	ug/g	93.00	<5.00e-02	2.27e+03	2.01e+03	2.14e+03	12.1	94.00	902.0	n/a
S97T000757		F	Lanthanum -ICP-Fusion	ug/g	99.00	<5.00e-02	9.75e+03	9.26e+03	9.50e+03	5.16	102.0	902.0	n/a
S97T000757		F	Lithium -ICP-Fusion	ug/g	96.60	<1.00e-02	<1.81e+02	<1.76e2	n/a	n/a	96.30	181.0	n/a
S97T000757		F	Magnesium -ICP-Fusion	ug/g	99.20	<1.00e-01	<1.81e+03	<1.76e3	n/a	n/a	100.0	1.81e+03	n/a
S97T000757		F	Manganese -ICP-Fusion	ug/g	98.60	<1.00e-02	1.06e+04	1.04e+04	1.05e+04	1.90	98.60	181.0	n/a
S97T000757		F	Molybdenum -ICP-Fusion	ug/g	101.0	<5.00e-02	<9.04e+02	<8.81e2	n/a	n/a	102.0	902.0	n/a
S97T000757		F	Sodium -ICP-Fusion	ug/g	100.8	<1.00e-01	3.47e+04	3.55e+04	3.51e+04	2.28	106.0	1.81e+03	n/a
S97T000757		F	Neodymium -ICP-Fusion	ug/g	99.00	<1.00e-01	<1.81e+03	<1.76e3	n/a	n/a	100.0	1.81e+03	n/a
S97T000757		F	Phosphorus -ICP-Fusion	ug/g	101.0	<2.00e-01	<3.62e+03	<3.53e3	n/a	n/a	112.0	3.62e+03	n/a
S97T000757		F	Lead -ICP-Fusion	ug/g	98.80	<1.00e-01	<1.81e+03	<1.76e3	n/a	n/a	97.50	1.81e+03	n/a
S97T000757		F	Sulfur -ICP-Fusion	ug/g	99.00	<1.00e-01	<1.81e+03	<1.76e3	n/a	n/a	99.40	1.81e+03	n/a
S97T000757		F	Antimony -ICP-Fusion	ug/g	95.40	<6.00e-02	<1.08e+03	<1.06e3	n/a	n/a	97.30	1.09e+03	n/a
S97T000757		F	Selenium -ICP-Fusion	ug/g	93.80	<1.00e-01	<1.81e+03	<1.76e3	n/a	n/a	94.60	1.81e+03	n/a
S97T000757		F	Silicon -ICP-Fusion	ug/g	100.8	<5.00e-02	2.21e+03	1.10e+03	1.66e+03	67.1	101.0	902.0	n/a
S97T000757		F	Samarium -ICP-Fusion	ug/g	96.60	<1.00e-01	<1.81e+03	<1.76e3	n/a	n/a	97.20	1.81e+03	n/a
S97T000757		F	Strontium -ICP-Fusion	ug/g	98.00	<1.00e-02	3.42e+02	335.0	338.5	2.07	98.90	181.0	n/a
S97T000757		F	Titanium-ICP-Fusion	ug/g	96.60	<1.00e-02	<1.81e+02	<1.76e2	n/a	n/a	97.60	181.0	n/a
S97T000757		F	Thallium -ICP-Fusion	ug/g	97.60	<2.00e-01	<3.62e+03	<3.53e3	n/a	n/a	96.20	3.62e+03	n/a
S97T000757		F	Uranium -ICP-Fusion	ug/g	94.70	<5.00e-01	<9.04e+03	<8.81e3	n/a	n/a	91.50	9.02e+03	n/a
S97T000757		F	Vanadium -ICP-Fusion	ug/g	100.6	<5.00e-02	<9.04e+02	<8.81e2	n/a	n/a	101.0	902.0	n/a
S97T000757		F	Zinc -ICP-Fusion	ug/g	96.80	<1.00e-02	<1.81e+02	<1.76e2	n/a	n/a	96.60	181.0	n/a
S97T000757		F	Zirconium -ICP-Fusion	ug/g	98.20	<1.00e-02	<1.81e+02	<1.76e2	n/a	n/a	98.60	181.0	n/a
S97T000757		F	Alpha of Digested Solid	uCi/g	85.00	4.00e-03	2.47e-01	2.06e-01	2.26e-01	18.1	85.93	8.00e-03	9.87E+00
S97T000758		W	Fluoride-IC-Dionex 4000/4500	ug/g	92.71	<1.20e-02	6.32e+03	5.86e+03	6.09e+03	7.55	123.9	26.42	n/a
S97T000758		W	Chloride-IC-Dionex 4000/4500	ug/g	99.49	<1.70e-02	6.21e+02	577.0	599.0	7.35	116.5	37.43	n/a
S97T000758		W	Nitrite-IC - Dionex 4000/4500	ug/g	99.63	1.12e-01	3.03e+02	276.0	289.4	9.33	106.6	237.8	n/a
S97T000758		W	Bromide by Ion Chromatograph	ug/g	96.44	<1.25e-01	<2.75e+02	<2.70e2	n/a	n/a	97.28	275.3	n/a
S97T000758		W	Nitrate by IC-Dionex 4000/4500	ug/g	98.99	1.71e-01	6.49e+04	5.85e+04	6.17e+04	10.4	93.77	306.1	n/a

Sample#	R	A#	Analyte	Unit	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S97T000758		W	Phosphate-IC-Dionex 4000/4500	ug/g	99.08	<1.20e-01	2.25e+03	1.88e+03	2.06e+03	17.9	108.6	264.2	n/a
S97T000758		W	Sulfate by IC-Dionex 4000/4500	ug/g	96.04	<1.38e-01	<3.04e+02	329.0	n/a	n/a	109.2	303.9	n/a
S97T000758		W	Oxalate-IC-Dionex 4000/4500	ug/g	102.3	<1.05e-01	1.42e+03	1.22e+03	1.32e+03	15.2	112.2	231.2	n/a

Table 1. Data Summary Report
T-203

CORE NUMBER: 190
SEGMENT #: 3

SEGMENT PORTION: U Upper Half of Segment

Sample#	R	A#	Analyte	Unit	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S97T000706			DSC Exotherm Dry Calculated	Joules/g Dry	n/a	n/a	0.00e+00	0.00e+00	0.00e+00	0.00	n/a	n/a	n/a
S97T000706			DSC Exotherm on Perkin Elmer	Joules/g	96.56	n/a	0.00e+00	0.00e+00	0.00e+00	0.00	n/a	n/a	n/a
S97T000706			% Water by TGA on Perkin Elmer	%	99.07	n/a	78.10	78.34	78.22	0.31	n/a	n/a	n/a
S97T000739		F	Silver -ICP-Fusion	ug/g	97.00	<1.00e-02	<2.07e+02	<2.11e2	n/a	n/a	79.50	207.0	n/a
S97T000739		F	Aluminium -ICP-Fusion	ug/g	97.00	<5.00e-02	<1.03e+03	<1.06e3	n/a	n/a	95.60	1.03e+03	n/a
S97T000739		F	Arsenic -ICP-Fusion	ug/g	103.0	<1.00e-01	<2.07e+03	<2.11e3	n/a	n/a	101.0	2.07e+03	n/a
S97T000739		F	Boron -ICP-Fusion	ug/g	99.60	<5.00e-02	<1.03e+03	<1.06e3	n/a	n/a	94.80	1.03e+03	n/a
S97T000739		F	Barium -ICP-Fusion	ug/g	98.80	<5.00e-02	<1.03e+03	<1.06e3	n/a	n/a	94.40	1.03e+03	n/a
S97T000739		F	Beryllium -ICP-Fusion	ug/g	101.0	<5.00e-03	<1.03e+02	<1.06e2	n/a	n/a	97.10	103.0	n/a
S97T000739		F	Bismuth -ICP-Fusion	ug/g	98.40	<1.00e-01	3.62e+04	3.39e+04	3.50e+04	6.56	105.0	2.07e+03	n/a
S97T000739		F	Calcium -ICP-Fusion	ug/g	98.60	<1.00e-01	<2.07e+03	<2.11e3	n/a	n/a	104.0	2.07e+03	n/a
S97T000739		F	Cadmium -ICP-Fusion	ug/g	99.20	<5.00e-03	<1.03e+02	<1.06e2	n/a	n/a	99.90	103.0	n/a
S97T000739		F	Cerium -ICP-Fusion	ug/g	97.80	<1.00e-01	<2.07e+03	<2.11e3	n/a	n/a	94.90	2.07e+03	n/a
S97T000739		F	Cobalt -ICP-Fusion	ug/g	100.6	<2.00e-02	<4.14e+02	<4.23e2	n/a	n/a	101.0	414.0	n/a
S97T000739		F	Chromium -ICP-Fusion	ug/g	98.40	<1.00e-02	3.04e+03	2.98e+03	3.01e+03	1.99	99.50	207.0	n/a
S97T000739		F	Copper -ICP-Fusion	ug/g	98.20	<1.00e-02	<2.07e+02	<2.11e2	n/a	n/a	93.50	207.0	n/a
S97T000739		F	Iron -ICP-Fusion	ug/g	92.20	<5.00e-02	5.70e+03	8.05e+03	6.88e+03	34.2	92.50	1.03e+03	n/a
S97T000739		F	Lanthanum -ICP-Fusion	ug/g	99.40	<5.00e-02	1.00e+04	9.72e+03	9.86e+03	2.84	97.30	1.03e+03	n/a
S97T000739		F	Lithium -ICP-Fusion	ug/g	97.40	<1.00e-02	<2.07e+02	<2.11e2	n/a	n/a	90.80	207.0	n/a
S97T000739		F	Magnesium -ICP-Fusion	ug/g	99.20	<1.00e-01	<2.07e+03	<2.11e3	n/a	n/a	95.60	2.07e+03	n/a
S97T000739		F	Manganese -ICP-Fusion	ug/g	97.00	<1.00e-02	1.02e+04	9.97e+03	1.01e+04	2.28	96.70	207.0	n/a
S97T000739		F	Molybdenum -ICP-Fusion	ug/g	99.80	<5.00e-02	<1.03e+03	<1.06e3	n/a	n/a	100.0	1.03e+03	n/a
S97T000739		F	Sodium -ICP-Fusion	ug/g	101.8	<1.00e-01	3.18e+04	3.24e+04	3.21e+04	1.87	101.0	2.07e+03	n/a
S97T000739		F	Neodymium -ICP-Fusion	ug/g	99.20	<1.00e-01	<2.07e+03	<2.11e3	n/a	n/a	95.80	2.07e+03	n/a
S97T000739		F	Phosphorus -ICP-Fusion	ug/g	101.0	<2.00e-01	<4.14e+03	<4.23e3	n/a	n/a	108.0	4.14e+03	n/a
S97T000739		F	Lead -ICP-Fusion	ug/g	96.40	<1.00e-01	<2.07e+03	<2.11e3	n/a	n/a	98.20	2.07e+03	n/a
S97T000739		F	Sulfur -ICP-Fusion	ug/g	97.80	<1.00e-01	<2.07e+03	<2.11e3	n/a	n/a	97.20	2.07e+03	n/a
S97T000739		F	Antimony -ICP-Fusion	ug/g	94.60	<6.00e-02	<1.24e+03	<1.27e3	n/a	n/a	94.70	1.24e+03	n/a
S97T000739		F	Selenium -ICP-Fusion	ug/g	93.20	<1.00e-01	<2.07e+03	<2.11e3	n/a	n/a	93.70	2.07e+03	n/a
S97T000739		F	Silicon -ICP-Fusion	ug/g	99.80	<5.00e-02	1.06e+03	<1.06e3	n/a	n/a	101.0	1.03e+03	n/a
S97T000739		F	Samarium -ICP-Fusion	ug/g	97.40	<1.00e-01	<2.07e+03	<2.11e3	n/a	n/a	96.20	2.07e+03	n/a
S97T000739		F	Strontium -ICP-Fusion	ug/g	98.20	<1.00e-02	3.34e+02	328.0	331.0	1.81	94.60	207.0	n/a
S97T000739		F	Titanium-ICP-Fusion	ug/g	97.40	<1.00e-02	<2.07e+02	<2.11e2	n/a	n/a	95.50	207.0	n/a
S97T000739		F	Thallium -ICP-Fusion	ug/g	96.20	<2.00e-01	<4.14e+03	<4.23e3	n/a	n/a	91.70	4.14e+03	n/a
S97T000739		F	Uranium -ICP-Fusion	ug/g	95.30	<5.00e-01	<1.03e+04	<1.06e4	n/a	n/a	92.50	1.03e+04	n/a
S97T000739		F	Vanadium -ICP-Fusion	ug/g	100.0	<5.00e-02	<1.03e+03	<1.06e3	n/a	n/a	99.50	1.03e+03	n/a
S97T000739		F	Zinc -ICP-Fusion	ug/g	94.80	<1.00e-02	<2.07e+02	<2.11e2	n/a	n/a	95.40	207.0	n/a
S97T000739		F	Zirconium -ICP-Fusion	ug/g	97.80	<1.00e-02	<2.07e+02	<2.11e2	n/a	n/a	96.00	207.0	n/a
S97T000748		W	Fluoride-IC-Dionex 4000/4500	ug/g	88.81	<1.20e-02	6.12e+03	6.17e+03	6.15e+03	0.81	n/a	25.36	n/a
S97T000748		W	Chloride-IC-Dionex 4000/4500	ug/g	95.44	<1.70e-02	5.98e+02	573.0	585.4	4.27	n/a	35.91	n/a
S97T000748		W	Nitrite-IC - Dionex 4000/4500	ug/g	99.45	<1.08e-01	2.72e+02	271.0	271.6	0.37	n/a	228.1	n/a
S97T000748		W	Bromide by Ion Chromatograph	ug/g	97.45	<1.25e-01	<2.64e+02	<2.58e2	n/a	n/a	n/a	264.1	n/a
S97T000748		W	Nitrate by IC-Dionex 4000/4500	ug/g	96.80	<1.39e-01	6.32e+04	6.09e+04	6.21e+04	3.71	n/a	293.6	n/a
S97T000748		W	Phosphate-IC-Dionex 4000/4500	ug/g	93.58	<1.20e-01	2.22e+03	2.16e+03	2.19e+03	2.74	n/a	253.6	n/a

Sample#	R	A#	Analyte	Unit	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S97T000748		W	Sulfate by IC-Dionex 4000/4500	ug/g	95.56	<1.38e-01	<2.92e+02	<2.84e2	n/a	n/a	n/a	291.5	n/a
S97T000748		W	Oxalate-IC-Dionex 4000/4500	ug/g	99.06	<1.05e-01	1.43e+03	1.51e+03	1.47e+03	5.44	n/a	221.9	n/a

L Lower Half of Segment: L Lower Half of Segment

Sample#	R	A#	Analyte	Unit	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S97T000700			Bulk Density of Sample	g/mL	n/a	n/a	1.390	n/a	n/a	n/a	n/a	5.00e-01	n/a
S97T000712			DSC Exotherm Dry Calculated	Joules/g Dry	n/a	n/a	0.00e+00	0.00e+00	0.00e+00	0.00	n/a	n/a	n/a
S97T000712			DSC Exotherm on Perkin Elmer	Joules/g	92.65	n/a	0.00e+00	0.00e+00	0.00e+00	0.00	n/a	n/a	n/a
S97T000712			% Water by TGA on Perkin Elmer	%	98.43	n/a	69.53	75.99	72.76	8.88	n/a	n/a	n/a
S97T000761		F	Silver -ICP-Fusion	ug/g	97.00	<1.00e-02	<1.89e+02	<1.91e2	n/a	n/a	n/a	189.0	n/a
S97T000761		F	Aluminium -ICP-Fusion	ug/g	97.00	<5.00e-02	<9.47e+02	<9.56e2	n/a	n/a	n/a	947.0	n/a
S97T000761		F	Arsenic -ICP-Fusion	ug/g	103.0	<1.00e-01	<1.89e+03	<1.91e3	n/a	n/a	n/a	1.89e+03	n/a
S97T000761		F	Boron -ICP-Fusion	ug/g	99.60	<5.00e-02	<9.47e+02	<9.56e2	n/a	n/a	n/a	947.0	n/a
S97T000761		F	Barium -ICP-Fusion	ug/g	98.80	<5.00e-02	<9.47e+02	<9.56e2	n/a	n/a	n/a	947.0	n/a
S97T000761		F	Beryllium -ICP-Fusion	ug/g	101.0	<5.00e-03	< 94.70	<9.56e1	n/a	n/a	n/a	94.70	n/a
S97T000761		F	Bismuth -ICP-Fusion	ug/g	98.40	<1.00e-01	4.60e+04	4.14e+04	4.37e+04	10.5	n/a	1.89e+03	n/a
S97T000761		F	Calcium -ICP-Fusion	ug/g	98.60	<1.00e-01	<1.89e+03	<1.91e3	n/a	n/a	n/a	1.89e+03	n/a
S97T000761		F	Cadmium -ICP-Fusion	ug/g	99.20	<5.00e-03	< 94.70	<9.56e1	n/a	n/a	n/a	94.70	n/a
S97T000761		F	Cerium -ICP-Fusion	ug/g	97.80	<1.00e-01	<1.89e+03	<1.91e3	n/a	n/a	n/a	1.89e+03	n/a
S97T000761		F	Cobalt -ICP-Fusion	ug/g	100.6	<2.00e-02	<3.79e+02	<3.82e2	n/a	n/a	n/a	379.0	n/a
S97T000761		F	Chromium -ICP-Fusion	ug/g	98.40	<1.00e-02	3.65e+03	3.64e+03	3.64e+03	0.27	n/a	189.0	n/a
S97T000761		F	Copper -ICP-Fusion	ug/g	98.20	<1.00e-02	<1.89e+02	<1.91e2	n/a	n/a	n/a	189.0	n/a
S97T000761		F	Iron -ICP-Fusion	ug/g	92.20	<5.00e-02	2.52e+03	2.48e+03	2.50e+03	1.60	n/a	947.0	n/a
S97T000761		F	Lanthanum -ICP-Fusion	ug/g	99.40	<5.00e-02	1.18e+04	1.18e+04	1.18e+04	0.00	n/a	947.0	n/a
S97T000761		F	Lithium -ICP-Fusion	ug/g	97.40	<1.00e-02	<1.89e+02	<1.91e2	n/a	n/a	n/a	189.0	n/a
S97T000761		F	Magnesium -ICP-Fusion	ug/g	99.20	<1.00e-01	<1.89e+03	<1.91e3	n/a	n/a	n/a	1.89e+03	n/a
S97T000761		F	Manganese -ICP-Fusion	ug/g	97.00	<1.00e-02	1.17e+04	1.17e+04	1.17e+04	0.00	n/a	189.0	n/a
S97T000761		F	Molybdenum -ICP-Fusion	ug/g	99.80	<5.00e-02	<9.47e+02	<9.56e2	n/a	n/a	n/a	947.0	n/a
S97T000761		F	Sodium -ICP-Fusion	ug/g	101.8	<1.00e-01	3.31e+04	3.34e+04	3.32e+04	0.90	n/a	1.89e+03	n/a
S97T000761		F	Neodymium -ICP-Fusion	ug/g	99.20	<1.00e-01	<1.89e+03	<1.91e3	n/a	n/a	n/a	1.89e+03	n/a
S97T000761		F	Phosphorus -ICP-Fusion	ug/g	101.0	<2.00e-01	<3.79e+03	<3.82e3	n/a	n/a	n/a	3.79e+03	n/a
S97T000761		F	Lead -ICP-Fusion	ug/g	96.40	<1.00e-01	<1.89e+03	<1.91e3	n/a	n/a	n/a	1.89e+03	n/a
S97T000761		F	Sulfur -ICP-Fusion	ug/g	97.80	<1.00e-01	<1.89e+03	<1.91e3	n/a	n/a	n/a	1.89e+03	n/a
S97T000761		F	Antimony -ICP-Fusion	ug/g	94.60	<6.00e-02	<1.14e+03	<1.15e3	n/a	n/a	n/a	1.14e+03	n/a
S97T000761		F	Selenium -ICP-Fusion	ug/g	93.20	<1.00e-01	<1.89e+03	<1.91e3	n/a	n/a	n/a	1.89e+03	n/a
S97T000761		F	Silicon -ICP-Fusion	ug/g	99.80	<5.00e-02	<9.47e+02	<9.56e2	n/a	n/a	n/a	947.0	n/a
S97T000761		F	Samarium -ICP-Fusion	ug/g	97.40	<1.00e-01	<1.89e+03	<1.91e3	n/a	n/a	n/a	1.89e+03	n/a
S97T000761		F	Strontium -ICP-Fusion	ug/g	98.20	<1.00e-02	4.50e+02	454.0	452.0	0.88	n/a	189.0	n/a
S97T000761		F	Titanium-ICP-Fusion	ug/g	97.40	<1.00e-02	<1.89e+02	<1.91e2	n/a	n/a	n/a	189.0	n/a
S97T000761		F	Thallium -ICP-Fusion	ug/g	96.20	<2.00e-01	<3.79e+03	<3.82e3	n/a	n/a	n/a	3.79e+03	n/a
S97T000761		F	Uranium -ICP-Fusion	ug/g	95.30	<5.00e-01	<9.47e+03	<9.56e3	n/a	n/a	n/a	9.47e+03	n/a
S97T000761		F	Vanadium -ICP-Fusion	ug/g	100.0	<5.00e-02	<9.47e+02	<9.56e2	n/a	n/a	n/a	947.0	n/a
S97T000761		F	Zinc -ICP-Fusion	ug/g	94.80	<1.00e-02	<1.89e+02	<1.91e2	n/a	n/a	n/a	189.0	n/a
S97T000761		F	Zirconium -ICP-Fusion	ug/g	97.80	<1.00e-02	<1.89e+02	<1.91e2	n/a	n/a	n/a	189.0	n/a
S97T000761		F	Alpha of Digested Solid	uCi/g	87.50	<2.28e-03	3.11e-01	2.47e-01	2.79e-01	22.9	n/a	6.00e-03	9.38E+00
S97T000770		W	Fluoride-IC-Dionex 4000/4500	ug/g	88.81	<1.20e-02	6.12e+03	6.24e+03	6.18e+03	1.94	n/a	22.04	n/a
S97T000770		W	Chloride-IC-Dionex 4000/4500	ug/g	95.44	<1.70e-02	6.09e+02	636.0	622.3	4.34	n/a	31.23	n/a
S97T000770		W	Nitrite-IC - Dionex 4000/4500	ug/g	99.45	<1.08e-01	2.46e+02	239.0	242.4	2.89	n/a	198.3	n/a
S97T000770		W	Bromide by Ion Chromatograph	ug/g	97.45	<1.25e-01	<2.30e+02	<2.32e2	n/a	n/a	n/a	229.6	n/a
S97T000770		W	Nitrate by IC-Dionex 4000/4500	ug/g	96.80	<1.39e-01	6.24e+04	6.37e+04	6.30e+04	2.06	n/a	255.3	n/a

Sample#	R	A#	Analyte	Unit	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S97T000770		W	Phosphate-IC-Dionex 4000/4500	ug/g	93.58	<1.20e-01	2.40e+03	2.83e+03	2.61e+03	16.4	n/a	220.4	n/a
S97T000770		W	Sulfate by IC-Dionex 4000/4500	ug/g	95.56	<1.38e-01	3.66e+02	<2.56e2	n/a	n/a	n/a	253.4	n/a
S97T000770		W	Oxalate-IC-Dionex 4000/4500	ug/g	99.06	<1.05e-01	1.62e+03	1.69e+03	1.66e+03	4.23	n/a	192.8	n/a

Table 1. Data Summary Report
T-203

CORE NUMBER: 190
SEGMENT #: 4

SEGMENT PORTION: U Upper Half of Segment

Sample#	R	A#	Analyte	Unit	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S97T000667			DSC Exotherm Dry Calculated	Joules/g Dry	n/a	n/a	0.00e+00	0.00e+00	0.00e+00	0.00	n/a	n/a	n/a
S97T000667			DSC Exotherm on Perkin Elmer	Joules/g	93.43	n/a	0.00e+00	0.00e+00	0.00e+00	0.00	n/a	n/a	n/a
S97T000667			% Water by TGA on Perkin Elmer	%	98.72	n/a	74.75	75.93	75.34	1.57	n/a	n/a	n/a
S97T000740		F	Silver -ICP-Fusion	ug/g	97.00	<1.00e-02	<1.86e+02	<1.89e2	n/a	n/a	n/a	186.0	n/a
S97T000740		F	Aluminium -ICP-Fusion	ug/g	97.00	<5.00e-02	<9.31e+02	<9.45e2	n/a	n/a	n/a	931.0	n/a
S97T000740		F	Arsenic -ICP-Fusion	ug/g	103.0	<1.00e-01	<1.86e+03	<1.89e3	n/a	n/a	n/a	1.86e+03	n/a
S97T000740		F	Boron -ICP-Fusion	ug/g	99.60	<5.00e-02	<9.31e+02	<9.45e2	n/a	n/a	n/a	931.0	n/a
S97T000740		F	Barium -ICP-Fusion	ug/g	98.80	<5.00e-02	<9.31e+02	<9.45e2	n/a	n/a	n/a	931.0	n/a
S97T000740		F	Beryllium -ICP-Fusion	ug/g	101.0	<5.00e-03	< 93.10	<9.45e1	n/a	n/a	n/a	93.10	n/a
S97T000740		F	Bismuth -ICP-Fusion	ug/g	98.40	<1.00e-01	4.11e+04	3.78e+04	3.94e+04	8.37	n/a	1.86e+03	n/a
S97T000740		F	Calcium -ICP-Fusion	ug/g	98.60	<1.00e-01	<1.86e+03	<1.89e3	n/a	n/a	n/a	1.86e+03	n/a
S97T000740		F	Cadmium -ICP-Fusion	ug/g	99.20	<5.00e-03	< 93.10	<9.45e1	n/a	n/a	n/a	93.10	n/a
S97T000740		F	Cerium -ICP-Fusion	ug/g	97.80	<1.00e-01	<1.86e+03	<1.89e3	n/a	n/a	n/a	1.86e+03	n/a
S97T000740		F	Cobalt -ICP-Fusion	ug/g	100.6	<2.00e-02	<3.72e+02	<3.78e2	n/a	n/a	n/a	372.0	n/a
S97T000740		F	Chromium -ICP-Fusion	ug/g	98.40	<1.00e-02	3.96e+03	3.87e+03	3.92e+03	2.30	n/a	186.0	n/a
S97T000740		F	Copper -ICP-Fusion	ug/g	98.20	<1.00e-02	<1.86e+02	<1.89e2	n/a	n/a	n/a	186.0	n/a
S97T000740		F	Iron -ICP-Fusion	ug/g	92.20	<5.00e-02	2.71e+03	4.22e+03	3.46e+03	43.6	n/a	931.0	n/a
S97T000740		F	Lanthanum -ICP-Fusion	ug/g	99.40	<5.00e-02	9.73e+03	9.27e+03	9.50e+03	4.84	n/a	931.0	n/a
S97T000740		F	Lithium -ICP-Fusion	ug/g	97.40	<1.00e-02	<1.86e+02	<1.89e2	n/a	n/a	n/a	186.0	n/a
S97T000740		F	Magnesium -ICP-Fusion	ug/g	99.20	<1.00e-01	<1.86e+03	<1.89e3	n/a	n/a	n/a	1.86e+03	n/a
S97T000740		F	Manganese -ICP-Fusion	ug/g	97.00	<1.00e-02	1.10e+04	1.04e+04	1.07e+04	5.61	n/a	186.0	n/a
S97T000740		F	Molybdenum -ICP-Fusion	ug/g	99.80	<5.00e-02	<9.31e+02	<9.45e2	n/a	n/a	n/a	931.0	n/a
S97T000740		F	Sodium -ICP-Fusion	ug/g	101.8	<1.00e-01	3.31e+04	3.29e+04	3.30e+04	0.61	n/a	1.86e+03	n/a
S97T000740		F	Neodymium -ICP-Fusion	ug/g	99.20	<1.00e-01	<1.86e+03	<1.89e3	n/a	n/a	n/a	1.86e+03	n/a
S97T000740		F	Phosphorus -ICP-Fusion	ug/g	101.0	<2.00e-01	<3.72e+03	<3.78e3	n/a	n/a	n/a	3.72e+03	n/a
S97T000740		F	Lead -ICP-Fusion	ug/g	96.40	<1.00e-01	<1.86e+03	<1.89e3	n/a	n/a	n/a	1.86e+03	n/a
S97T000740		F	Sulfur -ICP-Fusion	ug/g	97.80	<1.00e-01	<1.86e+03	<1.89e3	n/a	n/a	n/a	1.86e+03	n/a
S97T000740		F	Antimony -ICP-Fusion	ug/g	94.60	<6.00e-02	<1.12e+03	<1.13e3	n/a	n/a	n/a	1.12e+03	n/a
S97T000740		F	Selenium -ICP-Fusion	ug/g	93.20	<1.00e-01	<1.86e+03	<1.89e3	n/a	n/a	n/a	1.86e+03	n/a
S97T000740		F	Silicon -ICP-Fusion	ug/g	99.80	<5.00e-02	<9.31e+02	<9.45e2	n/a	n/a	n/a	931.0	n/a
S97T000740		F	Samarium -ICP-Fusion	ug/g	97.40	<1.00e-01	<1.86e+03	<1.89e3	n/a	n/a	n/a	1.86e+03	n/a
S97T000740		F	Strontium -ICP-Fusion	ug/g	98.20	<1.00e-02	3.58e+02	340.0	349.0	5.16	n/a	186.0	n/a
S97T000740		F	Titanium-ICP-Fusion	ug/g	97.40	<1.00e-02	<1.86e+02	<1.89e2	n/a	n/a	n/a	186.0	n/a
S97T000740		F	Thallium -ICP-Fusion	ug/g	96.20	<2.00e-01	<3.72e+03	<3.78e3	n/a	n/a	n/a	3.72e+03	n/a
S97T000740		F	Uranium -ICP-Fusion	ug/g	95.30	<5.00e-01	<9.31e+03	<9.45e3	n/a	n/a	n/a	9.31e+03	n/a
S97T000740		F	Vanadium -ICP-Fusion	ug/g	100.0	<5.00e-02	<9.31e+02	<9.45e2	n/a	n/a	n/a	931.0	n/a
S97T000740		F	Zinc -ICP-Fusion	ug/g	94.80	<1.00e-02	<1.86e+02	<1.89e2	n/a	n/a	n/a	186.0	n/a
S97T000740		F	Zirconium -ICP-Fusion	ug/g	97.80	<1.00e-02	<1.86e+02	<1.89e2	n/a	n/a	n/a	186.0	n/a
S97T000749		W	Fluoride-IC-Dionex 4000/4500	ug/g	88.81	<1.20e-02	6.31e+03	6.35e+03	6.33e+03	0.63	n/a	24.61	n/a
S97T000749		W	Chloride-IC-Dionex 4000/4500	ug/g	95.44	<1.70e-02	6.18e+02	596.0	607.2	3.62	n/a	34.86	n/a
S97T000749		W	Nitrite-IC - Dionex 4000/4500	ug/g	99.45	<1.08e-01	2.60e+02	248.0	253.8	4.72	n/a	221.4	n/a
S97T000749		W	Bromide by Ion Chromatograph	ug/g	97.45	<1.25e-01	<2.56e+02	<2.46e2	n/a	n/a	n/a	256.3	n/a
S97T000749		W	Nitrate by IC-Dionex 4000/4500	ug/g	96.80	<1.39e-01	6.25e+04	5.96e+04	6.10e+04	4.75	n/a	285.0	n/a
S97T000749		W	Phosphate-IC-Dionex 4000/4500	ug/g	93.58	<1.20e-01	2.29e+03	2.22e+03	2.25e+03	3.10	n/a	246.1	n/a

Sample#	R	A#	Analyte	Unit	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S97T000749		W	Sulfate by IC-Dionex 4000/4500	ug/g	95.56	<1.38e-01	<2.83e+02	<2.72e2	n/a	n/a	n/a	283.0	n/a
S97T000749		W	Oxalate-IC-Dionex 4000/4500	ug/g	99.06	<1.05e-01	1.55e+03	1.50e+03	1.53e+03	3.28	n/a	215.3	n/a

L Lower Half of Segment: L Lower Half of Segment

Sample#	R	A#	Analyte	Unit	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S97T000662			Bulk Density of Sample	g/mL	n/a	n/a	1.220	n/a	n/a	n/a	n/a	5.00e-01	n/a
S97T000670			DSC Exotherm Dry Calculated	Joules/g Dry	n/a	n/a	0.00e+00	0.00e+00	0.00e+00	0.00	n/a	n/a	n/a
S97T000670			DSC Exotherm on Perkin Elmer	Joules/g	95.61	n/a	0.00e+00	0.00e+00	0.00e+00	0.00	n/a	n/a	n/a
S97T000670			% Water by TGA on Perkin Elmer	%	97.96	n/a	75.69	72.97	74.33	3.66	n/a	n/a	n/a
S97T000762		F	Silver -ICP-Fusion	ug/g	97.00	<1.00e-02	<1.98e+02	<1.96e2	n/a	n/a	n/a	198.0	n/a
S97T000762		F	Aluminium -ICP-Fusion	ug/g	97.00	<5.00e-02	<9.89e+02	<9.81e2	n/a	n/a	n/a	988.0	n/a
S97T000762		F	Arsenic -ICP-Fusion	ug/g	103.0	<1.00e-01	<1.98e+03	<1.96e3	n/a	n/a	n/a	1.98e+03	n/a
S97T000762		F	Boron -ICP-Fusion	ug/g	99.60	<5.00e-02	<9.89e+02	<9.81e2	n/a	n/a	n/a	988.0	n/a
S97T000762		F	Barium -ICP-Fusion	ug/g	98.80	<5.00e-02	<9.89e+02	<9.81e2	n/a	n/a	n/a	988.0	n/a
S97T000762		F	Beryllium -ICP-Fusion	ug/g	101.0	<5.00e-03	< 98.90	<9.81e1	n/a	n/a	n/a	98.80	n/a
S97T000762		F	Bismuth -ICP-Fusion	ug/g	98.40	<1.00e-01	4.11e+04	3.34e+04	3.72e+04	20.7	n/a	1.98e+03	n/a
S97T000762		F	Calcium -ICP-Fusion	ug/g	98.60	<1.00e-01	<1.98e+03	<1.96e3	n/a	n/a	n/a	1.98e+03	n/a
S97T000762		F	Cadmium -ICP-Fusion	ug/g	99.20	<5.00e-03	< 98.90	<9.81e1	n/a	n/a	n/a	98.80	n/a
S97T000762		F	Cerium -ICP-Fusion	ug/g	97.80	<1.00e-01	<1.98e+03	<1.96e3	n/a	n/a	n/a	1.98e+03	n/a
S97T000762		F	Cobalt -ICP-Fusion	ug/g	100.6	<2.00e-02	<3.96e+02	<3.92e2	n/a	n/a	n/a	396.0	n/a
S97T000762		F	Chromium -ICP-Fusion	ug/g	98.40	<1.00e-02	4.29e+03	3.55e+03	3.92e+03	18.9	n/a	198.0	n/a
S97T000762		F	Copper -ICP-Fusion	ug/g	98.20	<1.00e-02	<1.98e+02	<1.96e2	n/a	n/a	n/a	198.0	n/a
S97T000762		F	Iron -ICP-Fusion	ug/g	92.20	<5.00e-02	2.44e+03	2.10e+03	2.27e+03	15.0	n/a	988.0	n/a
S97T000762		F	Lanthanum -ICP-Fusion	ug/g	99.40	<5.00e-02	1.13e+04	1.12e+04	1.12e+04	0.89	n/a	988.0	n/a
S97T000762		F	Lithium -ICP-Fusion	ug/g	97.40	<1.00e-02	<1.98e+02	<1.96e2	n/a	n/a	n/a	198.0	n/a
S97T000762		F	Magnesium -ICP-Fusion	ug/g	99.20	<1.00e-01	<1.98e+03	<1.96e3	n/a	n/a	n/a	1.98e+03	n/a
S97T000762		F	Manganese -ICP-Fusion	ug/g	97.00	<1.00e-02	1.18e+04	1.13e+04	1.16e+04	4.33	n/a	198.0	n/a
S97T000762		F	Molybdenum -ICP-Fusion	ug/g	99.80	<5.00e-02	<9.89e+02	<9.81e2	n/a	n/a	n/a	988.0	n/a
S97T000762		F	Sodium -ICP-Fusion	ug/g	101.8	<1.00e-01	3.52e+04	2.98e+04	3.25e+04	16.6	n/a	1.98e+03	n/a
S97T000762		F	Neodymium -ICP-Fusion	ug/g	99.20	<1.00e-01	<1.98e+03	<1.96e3	n/a	n/a	n/a	1.98e+03	n/a
S97T000762		F	Phosphorus -ICP-Fusion	ug/g	101.0	<2.00e-01	<3.96e+03	<3.92e3	n/a	n/a	n/a	3.96e+03	n/a
S97T000762		F	Lead -ICP-Fusion	ug/g	96.40	<1.00e-01	<1.98e+03	<1.96e3	n/a	n/a	n/a	1.98e+03	n/a
S97T000762		F	Sulfur -ICP-Fusion	ug/g	97.80	<1.00e-01	<1.98e+03	<1.96e3	n/a	n/a	n/a	1.98e+03	n/a
S97T000762		F	Antimony -ICP-Fusion	ug/g	94.60	<6.00e-02	<1.19e+03	<1.18e3	n/a	n/a	n/a	1.19e+03	n/a
S97T000762		F	Selenium -ICP-Fusion	ug/g	93.20	<1.00e-01	<1.98e+03	<1.96e3	n/a	n/a	n/a	1.98e+03	n/a
S97T000762		F	Silicon -ICP-Fusion	ug/g	99.80	<5.00e-02	<9.89e+02	1.31e+03	n/a	n/a	n/a	988.0	n/a
S97T000762		F	Samarium -ICP-Fusion	ug/g	97.40	<1.00e-01	<1.98e+03	<1.96e3	n/a	n/a	n/a	1.98e+03	n/a
S97T000762		F	Strontium -ICP-Fusion	ug/g	98.20	<1.00e-02	6.39e+02	487.0	563.0	27.0	n/a	198.0	n/a
S97T000762		F	Titanium-ICP-Fusion	ug/g	97.40	<1.00e-02	<1.98e+02	<1.96e2	n/a	n/a	n/a	198.0	n/a
S97T000762		F	Thallium -ICP-Fusion	ug/g	96.20	<2.00e-01	<3.96e+03	<3.92e3	n/a	n/a	n/a	3.96e+03	n/a
S97T000762		F	Uranium -ICP-Fusion	ug/g	95.30	<5.00e-01	<9.89e+03	<9.81e3	n/a	n/a	n/a	9.88e+03	n/a
S97T000762		F	Vanadium -ICP-Fusion	ug/g	100.0	<5.00e-02	<9.89e+02	<9.81e2	n/a	n/a	n/a	988.0	n/a
S97T000762		F	Zinc -ICP-Fusion	ug/g	94.80	<1.00e-02	<1.98e+02	<1.96e2	n/a	n/a	n/a	198.0	n/a
S97T000762		F	Zirconium -ICP-Fusion	ug/g	97.80	<1.00e-02	<1.98e+02	<1.96e2	n/a	n/a	n/a	198.0	n/a
S97T000762		F	Alpha of Digested Solid	uCi/g	87.00	<1.08e-03	2.01e-01	1.81e-01	1.91e-01	10.5	n/a	3.00e-03	7.59E+00
S97T000771		W	Fluoride-IC-Dionex 4000/4500	ug/g	89.66	<1.20e-02	6.26e+03	6.47e+03	6.36e+03	3.30	n/a	25.39	n/a
S97T000771		W	Chloride-IC-Dionex 4000/4500	ug/g	89.49	2.90e-02	6.07e+02	618.0	612.5	1.80	n/a	35.96	n/a
S97T000771		W	Nitrite-IC - Dionex 4000/4500	ug/g	89.34	2.22e-01	3.98e+02	405.0	401.6	1.74	n/a	228.5	n/a
S97T000771		W	Bromide by Ion Chromatograph	ug/g	88.28	<1.25e-01	<2.64e+02	<2.67e2	n/a	n/a	n/a	264.4	n/a
S97T000771		W	Nitrate by IC-Dionex 4000/4500	ug/g	89.56	1.88e-01	5.46e+04	5.54e+04	5.50e+04	1.45	n/a	294.0	n/a

Sample#	R	A#	Analyte	Unit	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S97T000771		W	Phosphate-IC-Dionex 4000/4500	ug/g	91.38	<1.20e-01	2.20e+03	2.28e+03	2.24e+03	3.57	n/a	253.9	n/a
S97T000771		W	Sulfate by IC-Dionex 4000/4500	ug/g	92.23	<1.38e-01	5.67e+02	610.0	588.4	7.31	n/a	291.9	n/a
S97T000771		W	Oxalate-IC-Dionex 4000/4500	ug/g	88.72	<1.05e-01	1.15e+03	1.16e+03	1.15e+03	0.87	n/a	222.1	n/a

Table 1. Data Summary Report
T-203

CORE NUMBER: 190
SEGMENT #: 5

SEGMENT PORTION: U Upper Half of Segment

Sample#	R	A#	Analyte	Unit	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S97T000668			DSC Exotherm Dry Calculated	Joules/g Dry	n/a	n/a	0.00e+00	0.00e+00	0.00e+00	0.00	n/a	n/a	n/a
S97T000668			DSC Exotherm on Perkin Elmer	Joules/g	96.10	n/a	0.00e+00	0.00e+00	0.00e+00	0.00	n/a	n/a	n/a
S97T000668			% Water by TGA on Perkin Elmer	%	98.92	n/a	78.12	77.81	77.97	0.40	n/a	n/a	n/a
S97T000741		F	Silver -ICP-Fusion	ug/g	97.00	<1.00e-02	<2.05e+02	<2.03e2	n/a	n/a	n/a	205.0	n/a
S97T000741		F	Aluminium -ICP-Fusion	ug/g	97.00	<5.00e-02	<1.02e+03	<1.01e3	n/a	n/a	n/a	1.02e+03	n/a
S97T000741		F	Arsenic -ICP-Fusion	ug/g	103.0	<1.00e-01	<2.05e+03	<2.03e3	n/a	n/a	n/a	2.05e+03	n/a
S97T000741		F	Boron -ICP-Fusion	ug/g	99.60	<5.00e-02	<1.02e+03	<1.01e3	n/a	n/a	n/a	1.02e+03	n/a
S97T000741		F	Barium -ICP-Fusion	ug/g	98.80	<5.00e-02	<1.02e+03	<1.01e3	n/a	n/a	n/a	1.02e+03	n/a
S97T000741		F	Beryllium -ICP-Fusion	ug/g	101.0	<5.00e-03	<1.02e+02	<1.01e2	n/a	n/a	n/a	102.0	n/a
S97T000741		F	Bismuth -ICP-Fusion	ug/g	98.40	<1.00e-01	3.49e+04	3.81e+04	3.65e+04	8.77	n/a	2.05e+03	n/a
S97T000741		F	Calcium -ICP-Fusion	ug/g	98.60	<1.00e-01	<2.05e+03	<2.03e3	n/a	n/a	n/a	2.05e+03	n/a
S97T000741		F	Cadmium -ICP-Fusion	ug/g	99.20	<5.00e-03	<1.02e+02	<1.01e2	n/a	n/a	n/a	102.0	n/a
S97T000741		F	Cerium -ICP-Fusion	ug/g	97.80	<1.00e-01	<2.05e+03	<2.03e3	n/a	n/a	n/a	2.05e+03	n/a
S97T000741		F	Cobalt -ICP-Fusion	ug/g	100.6	<2.00e-02	<4.09e+02	<4.05e2	n/a	n/a	n/a	409.0	n/a
S97T000741		F	Chromium -ICP-Fusion	ug/g	98.40	<1.00e-02	3.36e+03	3.44e+03	3.40e+03	2.35	n/a	205.0	n/a
S97T000741		F	Copper -ICP-Fusion	ug/g	98.20	<1.00e-02	<2.05e+02	<2.03e2	n/a	n/a	n/a	205.0	n/a
S97T000741		F	Iron -ICP-Fusion	ug/g	92.20	<5.00e-02	1.86e+03	1.93e+03	1.90e+03	3.69	n/a	1.02e+03	n/a
S97T000741		F	Lanthanum -ICP-Fusion	ug/g	99.40	<5.00e-02	9.85e+03	1.01e+04	9.98e+03	2.51	n/a	1.02e+03	n/a
S97T000741		F	Lithium -ICP-Fusion	ug/g	97.40	<1.00e-02	<2.05e+02	<2.03e2	n/a	n/a	n/a	205.0	n/a
S97T000741		F	Magnesium -ICP-Fusion	ug/g	99.20	<1.00e-01	<2.05e+03	<2.03e3	n/a	n/a	n/a	2.05e+03	n/a
S97T000741		F	Manganese -ICP-Fusion	ug/g	97.00	<1.00e-02	1.07e+04	1.09e+04	1.08e+04	1.85	n/a	205.0	n/a
S97T000741		F	Molybdenum -ICP-Fusion	ug/g	99.80	<5.00e-02	<1.02e+03	<1.01e3	n/a	n/a	n/a	1.02e+03	n/a
S97T000741		F	Sodium -ICP-Fusion	ug/g	101.8	<1.00e-01	3.38e+04	3.35e+04	3.36e+04	0.89	n/a	2.05e+03	n/a
S97T000741		F	Neodymium -ICP-Fusion	ug/g	99.20	<1.00e-01	<2.05e+03	<2.03e3	n/a	n/a	n/a	2.05e+03	n/a
S97T000741		F	Phosphorus -ICP-Fusion	ug/g	101.0	<2.00e-01	<4.09e+03	<4.05e3	n/a	n/a	n/a	4.09e+03	n/a
S97T000741		F	Lead -ICP-Fusion	ug/g	96.40	<1.00e-01	<2.05e+03	<2.03e3	n/a	n/a	n/a	2.05e+03	n/a
S97T000741		F	Sulfur -ICP-Fusion	ug/g	97.80	<1.00e-01	<2.05e+03	<2.03e3	n/a	n/a	n/a	2.05e+03	n/a
S97T000741		F	Antimony -ICP-Fusion	ug/g	94.60	<6.00e-02	<1.23e+03	<1.22e3	n/a	n/a	n/a	1.23e+03	n/a
S97T000741		F	Selenium -ICP-Fusion	ug/g	93.20	<1.00e-01	<2.05e+03	<2.03e3	n/a	n/a	n/a	2.05e+03	n/a
S97T000741		F	Silicon -ICP-Fusion	ug/g	99.80	<5.00e-02	<1.02e+03	<1.01e3	n/a	n/a	n/a	1.02e+03	n/a
S97T000741		F	Samarium -ICP-Fusion	ug/g	97.40	<1.00e-01	<2.05e+03	<2.03e3	n/a	n/a	n/a	2.05e+03	n/a
S97T000741		F	Strontium -ICP-Fusion	ug/g	98.20	<1.00e-02	5.15e+02	529.0	522.0	2.68	n/a	205.0	n/a
S97T000741		F	Titanium-ICP-Fusion	ug/g	97.40	<1.00e-02	<2.05e+02	<2.03e2	n/a	n/a	n/a	205.0	n/a
S97T000741		F	Thallium -ICP-Fusion	ug/g	96.20	<2.00e-01	<4.09e+03	<4.05e3	n/a	n/a	n/a	4.09e+03	n/a
S97T000741		F	Uranium -ICP-Fusion	ug/g	95.30	<5.00e-01	<1.02e+04	<1.01e4	n/a	n/a	n/a	1.02e+04	n/a
S97T000741		F	Vanadium -ICP-Fusion	ug/g	100.0	<5.00e-02	<1.02e+03	<1.01e3	n/a	n/a	n/a	1.02e+03	n/a
S97T000741		F	Zinc -ICP-Fusion	ug/g	94.80	<1.00e-02	<2.05e+02	<2.03e2	n/a	n/a	n/a	205.0	n/a
S97T000741		F	Zirconium -ICP-Fusion	ug/g	97.80	<1.00e-02	<2.05e+02	<2.03e2	n/a	n/a	n/a	205.0	n/a
S97T000750		W	Fluoride-IC-Dionex 4000/4500	ug/g	89.66	<1.20e-02	6.75e+03	6.86e+03	6.81e+03	1.62	n/a	25.70	n/a
S97T000750		W	Chloride-IC-Dionex 4000/4500	ug/g	89.49	2.90e-02	7.86e+02	839.0	812.4	6.52	n/a	36.41	n/a
S97T000750		W	Nitrite-IC - Dionex 4000/4500	ug/g	89.34	2.22e-01	4.18e+02	435.0	426.4	3.99	n/a	231.3	n/a
S97T000750		W	Bromide by Ion Chromatograph	ug/g	88.28	<1.25e-01	<2.68e+02	<2.74e2	n/a	n/a	n/a	267.7	n/a
S97T000750		W	Nitrate by IC-Dionex 4000/4500	ug/g	89.56	1.88e-01	5.94e+04	6.11e+04	6.02e+04	2.82	n/a	297.7	n/a
S97T000750		W	Phosphate-IC-Dionex 4000/4500	ug/g	91.38	<1.20e-01	2.42e+03	2.40e+03	2.41e+03	0.83	n/a	257.0	n/a

Sample#	R	A#	Analyte	Unit	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S97T000750		W	Sulfate by IC-Dionex 4000/4500	ug/g	92.23	<1.38e-01	6.37e+02	688.0	662.5	7.70	n/a	295.6	n/a
S97T000750		W	Oxalate-IC-Dionex 4000/4500	ug/g	88.72	<1.05e-01	1.30e+03	1.37e+03	1.33e+03	5.24	n/a	224.8	n/a

L Lower Half of Segment: L Lower Half of Segment

Sample#	R	A#	Analyte	Unit	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S97T000663			Bulk Density of Sample	g/mL	n/a	n/a	1.140	n/a	n/a	n/a	n/a	5.00e-01	n/a
S97T000671			DSC Exotherm Dry Calculated	Joules/g Dry	n/a	n/a	0.00e+00	0.00e+00	0.00e+00	0.00	n/a	n/a	n/a
S97T000671			DSC Exotherm on Perkin Elmer	Joules/g	96.10	n/a	0.00e+00	0.00e+00	0.00e+00	0.00	n/a	n/a	n/a
S97T000671			% Water by TGA on Perkin Elmer	%	98.92	n/a	76.90	76.46	76.68	0.57	n/a	n/a	n/a
S97T000763		F	Silver -ICP-Fusion	ug/g	97.00	<1.00e-02	<1.99e+02	<2.00e2	n/a	n/a	n/a	199.0	n/a
S97T000763		F	Aluminium -ICP-Fusion	ug/g	97.00	<5.00e-02	<9.95e+02	<1.00e3	n/a	n/a	n/a	996.0	n/a
S97T000763		F	Arsenic -ICP-Fusion	ug/g	103.0	<1.00e-01	<1.99e+03	<2.00e3	n/a	n/a	n/a	1.99e+03	n/a
S97T000763		F	Boron -ICP-Fusion	ug/g	99.60	<5.00e-02	<9.95e+02	<1.00e3	n/a	n/a	n/a	996.0	n/a
S97T000763		F	Barium -ICP-Fusion	ug/g	98.80	<5.00e-02	<9.95e+02	<1.00e3	n/a	n/a	n/a	996.0	n/a
S97T000763		F	Beryllium -ICP-Fusion	ug/g	101.0	<5.00e-03	< 99.50	<1.00e2	n/a	n/a	n/a	99.60	n/a
S97T000763		F	Bismuth -ICP-Fusion	ug/g	98.40	<1.00e-01	3.82e+04	4.11e+04	3.96e+04	7.31	n/a	1.99e+03	n/a
S97T000763		F	Calcium -ICP-Fusion	ug/g	98.60	<1.00e-01	<1.99e+03	<2.00e3	n/a	n/a	n/a	1.99e+03	n/a
S97T000763		F	Cadmium -ICP-Fusion	ug/g	99.20	<5.00e-03	< 99.50	<1.00e2	n/a	n/a	n/a	99.60	n/a
S97T000763		F	Cerium -ICP-Fusion	ug/g	97.80	<1.00e-01	<1.99e+03	<2.00e3	n/a	n/a	n/a	1.99e+03	n/a
S97T000763		F	Cobalt -ICP-Fusion	ug/g	100.6	<2.00e-02	<3.98e+02	<4.01e2	n/a	n/a	n/a	398.0	n/a
S97T000763		F	Chromium -ICP-Fusion	ug/g	98.40	<1.00e-02	4.04e+03	4.32e+03	4.18e+03	6.70	n/a	199.0	n/a
S97T000763		F	Copper -ICP-Fusion	ug/g	98.20	<1.00e-02	<1.99e+02	<2.00e2	n/a	n/a	n/a	199.0	n/a
S97T000763		F	Iron -ICP-Fusion	ug/g	92.20	<5.00e-02	2.23e+03	2.34e+03	2.28e+03	4.81	n/a	996.0	n/a
S97T000763		F	Lanthanum -ICP-Fusion	ug/g	99.40	<5.00e-02	1.20e+04	1.11e+04	1.16e+04	7.79	n/a	996.0	n/a
S97T000763		F	Lithium -ICP-Fusion	ug/g	97.40	<1.00e-02	<1.99e+02	<2.00e2	n/a	n/a	n/a	199.0	n/a
S97T000763		F	Magnesium -ICP-Fusion	ug/g	99.20	<1.00e-01	<1.99e+03	<2.00e3	n/a	n/a	n/a	1.99e+03	n/a
S97T000763		F	Manganese -ICP-Fusion	ug/g	97.00	<1.00e-02	1.23e+04	1.15e+04	1.19e+04	6.72	n/a	199.0	n/a
S97T000763		F	Molybdenum -ICP-Fusion	ug/g	99.80	<5.00e-02	<9.95e+02	<1.00e3	n/a	n/a	n/a	996.0	n/a
S97T000763		F	Sodium -ICP-Fusion	ug/g	101.8	<1.00e-01	3.37e+04	3.51e+04	3.44e+04	4.07	n/a	1.99e+03	n/a
S97T000763		F	Neodymium -ICP-Fusion	ug/g	99.20	<1.00e-01	<1.99e+03	<2.00e3	n/a	n/a	n/a	1.99e+03	n/a
S97T000763		F	Phosphorus -ICP-Fusion	ug/g	101.0	<2.00e-01	<3.98e+03	<4.01e3	n/a	n/a	n/a	3.98e+03	n/a
S97T000763		F	Lead -ICP-Fusion	ug/g	96.40	<1.00e-01	<1.99e+03	<2.00e3	n/a	n/a	n/a	1.99e+03	n/a
S97T000763		F	Sulfur -ICP-Fusion	ug/g	97.80	<1.00e-01	<1.99e+03	<2.00e3	n/a	n/a	n/a	1.99e+03	n/a
S97T000763		F	Antimony -ICP-Fusion	ug/g	94.60	<6.00e-02	<1.19e+03	<1.20e3	n/a	n/a	n/a	1.19e+03	n/a
S97T000763		F	Selenium -ICP-Fusion	ug/g	93.20	<1.00e-01	<1.99e+03	<2.00e3	n/a	n/a	n/a	1.99e+03	n/a
S97T000763		F	Silicon -ICP-Fusion	ug/g	99.80	<5.00e-02	<9.95e+02	<1.00e3	n/a	n/a	n/a	996.0	n/a
S97T000763		F	Samarium -ICP-Fusion	ug/g	97.40	<1.00e-01	<1.99e+03	<2.00e3	n/a	n/a	n/a	1.99e+03	n/a
S97T000763		F	Strontium -ICP-Fusion	ug/g	98.20	<1.00e-02	5.07e+02	640.0	573.5	23.2	n/a	199.0	n/a
S97T000763		F	Titanium-ICP-Fusion	ug/g	97.40	<1.00e-02	<1.99e+02	<2.00e2	n/a	n/a	n/a	199.0	n/a
S97T000763		F	Thallium -ICP-Fusion	ug/g	96.20	<2.00e-01	<3.98e+03	<4.01e3	n/a	n/a	n/a	3.98e+03	n/a
S97T000763		F	Uranium -ICP-Fusion	ug/g	95.30	<5.00e-01	<9.95e+03	<1.00e4	n/a	n/a	n/a	9.96e+03	n/a
S97T000763		F	Vanadium -ICP-Fusion	ug/g	100.0	<5.00e-02	<9.95e+02	<1.00e3	n/a	n/a	n/a	996.0	n/a
S97T000763		F	Zinc -ICP-Fusion	ug/g	94.80	<1.00e-02	<1.99e+02	<2.00e2	n/a	n/a	n/a	199.0	n/a
S97T000763		F	Zirconium -ICP-Fusion	ug/g	97.80	<1.00e-02	<1.99e+02	<2.00e2	n/a	n/a	n/a	199.0	n/a
S97T000763		F	Alpha of Digested Solid	uCi/g	96.50	<2.81e-03	2.78e-01	2.78e-01	2.78e-01	0.00	n/a	7.00e-03	9.29E+00
S97T000772		W	Fluoride-IC-Dionex 4000/4500	ug/g	89.66	<1.20e-02	6.64e+03	6.55e+03	6.60e+03	1.36	n/a	25.87	n/a
S97T000772		W	Chloride-IC-Dionex 4000/4500	ug/g	89.49	2.90e-02	6.06e+02	623.0	614.4	2.77	n/a	36.65	n/a
S97T000772		W	Nitrite-IC - Dionex 4000/4500	ug/g	89.34	2.22e-01	3.99e+02	425.0	412.1	6.31	n/a	232.9	n/a
S97T000772		W	Bromide by Ion Chromatograph	ug/g	88.28	<1.25e-01	<2.70e+02	<2.66e2	n/a	n/a	n/a	269.5	n/a
S97T000772		W	Nitrate by IC-Dionex 4000/4500	ug/g	89.56	1.88e-01	5.76e+04	5.82e+04	5.79e+04	1.04	n/a	299.6	n/a

Sample#	R	A#	Analyte	Unit	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S97T000772		W	Phosphate-IC-Dionex 4000/4500	ug/g	91.38	<1.20e-01	2.37e+03	2.41e+03	2.39e+03	1.67	n/a	258.7	n/a
S97T000772		W	Sulfate by IC-Dionex 4000/4500	ug/g	92.23	<1.38e-01	8.16e+02	621.0	718.3	27.1	n/a	297.6	n/a
S97T000772		W	Oxalate-IC-Dionex 4000/4500	ug/g	88.72	<1.05e-01	1.34e+03	1.26e+03	1.30e+03	6.15	n/a	226.4	n/a

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Table 1. Data Summary Report
T-203

CORE NUMBER: 190
SEGMENT #: 6

SEGMENT PORTION: U Upper Half of Segment

Sample#	R	A#	Analyte	Unit	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S97T000707			DSC Exotherm Dry Calculated	Joules/g Dry	n/a	n/a	0.00e+00	0.00e+00	0.00e+00	0.00	n/a	n/a	n/a
S97T000707			DSC Exotherm on Perkin Elmer	Joules/g	96.56	n/a	0.00e+00	0.00e+00	0.00e+00	0.00	n/a	n/a	n/a
S97T000707			% Water by TGA on Perkin Elmer	%	99.07	n/a	76.60	76.16	76.38	0.58	n/a	n/a	n/a
S97T000742		F	Silver -ICP-Fusion	ug/g	98.20	<1.00e-02	<2.04e+02	<2.06e2	n/a	n/a	92.70	204.0	n/a
S97T000742		F	Aluminium -ICP-Fusion	ug/g	99.60	<5.00e-02	<1.02e+03	<1.03e3	n/a	n/a	102.0	1.02e+03	n/a
S97T000742		F	Arsenic -ICP-Fusion	ug/g	103.8	<1.00e-01	<2.04e+03	<2.06e3	n/a	n/a	106.0	2.04e+03	n/a
S97T000742		F	Boron -ICP-Fusion	ug/g	101.2	<5.00e-02	<1.02e+03	<1.03e3	n/a	n/a	100.0	1.02e+03	n/a
S97T000742		F	Barium -ICP-Fusion	ug/g	101.8	<5.00e-02	<1.02e+03	<1.03e3	n/a	n/a	101.0	1.02e+03	n/a
S97T000742		F	Beryllium -ICP-Fusion	ug/g	103.0	<5.00e-03	<1.02e+02	<1.03e2	n/a	n/a	102.0	102.0	n/a
S97T000742		F	Bismuth -ICP-Fusion	ug/g	100.8	<1.00e-01	4.12e+04	3.98e+04	4.05e+04	3.46	107.0	2.04e+03	n/a
S97T000742		F	Calcium -ICP-Fusion	ug/g	99.80	<1.00e-01	<2.04e+03	<2.06e3	n/a	n/a	103.0	2.04e+03	n/a
S97T000742		F	Cadmium -ICP-Fusion	ug/g	99.40	<5.00e-03	<1.02e+02	<1.03e2	n/a	n/a	101.0	102.0	n/a
S97T000742		F	Cerium -ICP-Fusion	ug/g	100.6	<1.00e-01	<2.04e+03	<2.06e3	n/a	n/a	102.0	2.04e+03	n/a
S97T000742		F	Cobalt -ICP-Fusion	ug/g	101.2	<2.00e-02	<4.08e+02	<4.12e2	n/a	n/a	102.0	408.0	n/a
S97T000742		F	Chromium -ICP-Fusion	ug/g	99.20	<1.00e-02	4.82e+03	4.64e+03	4.73e+03	3.81	101.0	204.0	n/a
S97T000742		F	Copper -ICP-Fusion	ug/g	101.2	<1.00e-02	<2.04e+02	<2.06e2	n/a	n/a	101.0	204.0	n/a
S97T000742		F	Iron -ICP-Fusion	ug/g	93.40	<5.00e-02	2.24e+03	2.24e+03	2.24e+03	0.00	94.40	1.02e+03	n/a
S97T000742		F	Lanthanum -ICP-Fusion	ug/g	102.6	<5.00e-02	1.03e+04	1.07e+04	1.05e+04	3.81	104.0	1.02e+03	n/a
S97T000742		F	Lithium -ICP-Fusion	ug/g	101.0	<1.00e-02	<2.04e+02	<2.06e2	n/a	n/a	98.90	204.0	n/a
S97T000742		F	Magnesium -ICP-Fusion	ug/g	101.6	<1.00e-01	<2.04e+03	<2.06e3	n/a	n/a	102.0	2.04e+03	n/a
S97T000742		F	Manganese -ICP-Fusion	ug/g	97.80	<1.00e-02	1.18e+04	1.20e+04	1.19e+04	1.68	98.90	204.0	n/a
S97T000742		F	Molybdenum -ICP-Fusion	ug/g	100.8	<5.00e-02	<1.02e+03	<1.03e3	n/a	n/a	102.0	1.02e+03	n/a
S97T000742		F	Sodium -ICP-Fusion	ug/g	104.8	<1.00e-01	3.45e+04	3.52e+04	3.48e+04	2.01	109.0	2.04e+03	n/a
S97T000742		F	Neodymium -ICP-Fusion	ug/g	102.4	<1.00e-01	<2.04e+03	<2.06e3	n/a	n/a	103.0	2.04e+03	n/a
S97T000742		F	Phosphorus -ICP-Fusion	ug/g	100.0	<2.00e-01	<4.08e+03	<4.12e3	n/a	n/a	113.0	4.08e+03	n/a
S97T000742		F	Lead -ICP-Fusion	ug/g	97.00	<1.00e-01	<2.04e+03	<2.06e3	n/a	n/a	99.30	2.04e+03	n/a
S97T000742		F	Sulfur -ICP-Fusion	ug/g	98.40	<1.00e-01	<2.04e+03	<2.06e3	n/a	n/a	98.80	2.04e+03	n/a
S97T000742		F	Antimony -ICP-Fusion	ug/g	96.00	<6.00e-02	<1.22e+03	<1.24e3	n/a	n/a	96.50	1.22e+03	n/a
S97T000742		F	Selenium -ICP-Fusion	ug/g	93.60	<1.00e-01	<2.04e+03	<2.06e3	n/a	n/a	98.30	2.04e+03	n/a
S97T000742		F	Silicon -ICP-Fusion	ug/g	100.8	<5.00e-02	<1.02e+03	<1.03e3	n/a	n/a	106.0	1.02e+03	n/a
S97T000742		F	Samarium -ICP-Fusion	ug/g	101.0	<1.00e-01	<2.04e+03	<2.06e3	n/a	n/a	100.0	2.04e+03	n/a
S97T000742		F	Strontium -ICP-Fusion	ug/g	101.4	<1.00e-02	5.56e+02	560.0	558.0	0.72	101.0	204.0	n/a
S97T000742		F	Titanium-ICP-Fusion	ug/g	99.60	<1.00e-02	<2.04e+02	<2.06e2	n/a	n/a	100.0	204.0	n/a
S97T000742		F	Thallium -ICP-Fusion	ug/g	97.40	<2.00e-01	<4.08e+03	<4.12e3	n/a	n/a	97.70	4.08e+03	n/a
S97T000742		F	Uranium -ICP-Fusion	ug/g	98.60	<5.00e-01	<1.02e+04	<1.03e4	n/a	n/a	94.50	1.02e+04	n/a
S97T000742		F	Vanadium -ICP-Fusion	ug/g	101.4	<5.00e-02	<1.02e+03	<1.03e3	n/a	n/a	102.0	1.02e+03	n/a
S97T000742		F	Zinc -ICP-Fusion	ug/g	95.00	<1.00e-02	<2.04e+02	<2.06e2	n/a	n/a	95.60	204.0	n/a
S97T000742		F	Zirconium -ICP-Fusion	ug/g	99.80	<1.00e-02	<2.04e+02	<2.06e2	n/a	n/a	100.0	204.0	n/a
S97T000751		W	Fluoride-IC-Dionex 4000/4500	ug/g	93.73	<1.20e-02	4.83e+03	4.84e+03	4.83e+03	0.21	n/a	49.77	n/a
S97T000751		W	Chloride-IC-Dionex 4000/4500	ug/g	98.48	4.35e-01	4.61e+02	500.0	480.5	8.12	n/a	70.52	n/a
S97T000751		W	Nitrite-IC - Dionex 4000/4500	ug/g	99.82	<1.08e-01	<4.48e+02	<4.54e2	n/a	n/a	n/a	447.9	n/a
S97T000751		W	Bromide by Ion Chromatograph	ug/g	96.77	<1.25e-01	<5.18e+02	<5.25e2	n/a	n/a	n/a	518.5	n/a
S97T000751		W	Nitrate by IC-Dionex 4000/4500	ug/g	98.32	<1.39e-01	4.51e+04	4.62e+04	4.56e+04	2.41	n/a	576.4	n/a
S97T000751		W	Phosphate-IC-Dionex 4000/4500	ug/g	98.90	<1.20e-01	1.88e+03	1.78e+03	1.83e+03	5.46	n/a	497.7	n/a

Sample#	R	A#	Analyte	Unit	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S97T000751		W	Sulfate by IC-Dionex 4000/4500	ug/g	94.77	<1.38e-01	<5.72e+02	<5.80e2	n/a	n/a	n/a	572.5	n/a
S97T000751		W	Oxalate-IC-Dionex 4000/4500	ug/g	99.81	<1.05e-01	1.31e+03	1.28e+03	1.30e+03	2.32	n/a	435.5	n/a

L Lower Half of Segment: L Lower Half of Segment

Sample#	R	A#	Analyte	Unit	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S97T000701			Bulk Density of Sample	g/mL	n/a	n/a	1.270	n/a	n/a	n/a	n/a	5.00e-01	n/a
S97T000713			DSC Exotherm Dry Calculated	Joules/g Dry	n/a	n/a	9.986	13.83	11.91	32.3	n/a	n/a	n/a
S97T000713			DSC Exotherm on Perkin Elmer	Joules/g	91.88	n/a	2.440	3.380	2.910	32.3	n/a	n/a	n/a
S97T000713			% Water by TGA on Perkin Elmer	%	98.72	n/a	75.22	75.91	75.56	0.91	n/a	n/a	n/a
S97T000764		F	Silver -ICP-Fusion	ug/g	98.20	<1.00e-02	<2.01e+02	<2.02e2	n/a	n/a	n/a	201.0	n/a
S97T000764		F	Aluminium -ICP-Fusion	ug/g	99.60	<5.00e-02	<1.01e+03	<1.01e3	n/a	n/a	n/a	1.01e+03	n/a
S97T000764		F	Arsenic -ICP-Fusion	ug/g	103.8	<1.00e-01	<2.01e+03	<2.02e3	n/a	n/a	n/a	2.01e+03	n/a
S97T000764		F	Boron -ICP-Fusion	ug/g	101.2	<5.00e-02	<1.01e+03	<1.01e3	n/a	n/a	n/a	1.01e+03	n/a
S97T000764		F	Barium -ICP-Fusion	ug/g	101.8	<5.00e-02	<1.01e+03	<1.01e3	n/a	n/a	n/a	1.01e+03	n/a
S97T000764		F	Beryllium -ICP-Fusion	ug/g	103.0	<5.00e-03	<1.01e+02	<1.01e2	n/a	n/a	n/a	101.0	n/a
S97T000764		F	Bismuth -ICP-Fusion	ug/g	100.8	<1.00e-01	3.74e+04	3.58e+04	3.66e+04	4.37	n/a	2.01e+03	n/a
S97T000764		F	Calcium -ICP-Fusion	ug/g	99.80	<1.00e-01	<2.01e+03	<2.02e3	n/a	n/a	n/a	2.01e+03	n/a
S97T000764		F	Cadmium -ICP-Fusion	ug/g	99.40	<5.00e-03	<1.01e+02	<1.01e2	n/a	n/a	n/a	101.0	n/a
S97T000764		F	Cerium -ICP-Fusion	ug/g	100.6	<1.00e-01	<2.01e+03	<2.02e3	n/a	n/a	n/a	2.01e+03	n/a
S97T000764		F	Cobalt -ICP-Fusion	ug/g	101.2	<2.00e-02	<4.03e+02	<4.05e2	n/a	n/a	n/a	403.0	n/a
S97T000764		F	Chromium -ICP-Fusion	ug/g	99.20	<1.00e-02	4.44e+03	4.34e+03	4.39e+03	2.28	n/a	201.0	n/a
S97T000764		F	Copper -ICP-Fusion	ug/g	101.2	<1.00e-02	<2.01e+02	<2.02e2	n/a	n/a	n/a	201.0	n/a
S97T000764		F	Iron -ICP-Fusion	ug/g	93.40	<5.00e-02	2.54e+03	2.57e+03	2.56e+03	1.17	n/a	1.01e+03	n/a
S97T000764		F	Lanthanum -ICP-Fusion	ug/g	102.6	<5.00e-02	1.00e+04	1.04e+04	1.02e+04	3.92	n/a	1.01e+03	n/a
S97T000764		F	Lithium -ICP-Fusion	ug/g	101.0	<1.00e-02	<2.01e+02	<2.02e2	n/a	n/a	n/a	201.0	n/a
S97T000764		F	Magnesium -ICP-Fusion	ug/g	101.6	<1.00e-01	<2.01e+03	<2.02e3	n/a	n/a	n/a	2.01e+03	n/a
S97T000764		F	Manganese -ICP-Fusion	ug/g	97.80	<1.00e-02	1.16e+04	1.17e+04	1.16e+04	0.86	n/a	201.0	n/a
S97T000764		F	Molybdenum -ICP-Fusion	ug/g	100.8	<5.00e-02	<1.01e+03	<1.01e3	n/a	n/a	n/a	1.01e+03	n/a
S97T000764		F	Sodium -ICP-Fusion	ug/g	104.8	<1.00e-01	3.41e+04	3.39e+04	3.40e+04	0.59	n/a	2.01e+03	n/a
S97T000764		F	Neodymium -ICP-Fusion	ug/g	102.4	<1.00e-01	<2.01e+03	<2.02e3	n/a	n/a	n/a	2.01e+03	n/a
S97T000764		F	Phosphorus -ICP-Fusion	ug/g	100.0	<2.00e-01	<4.03e+03	<4.05e3	n/a	n/a	n/a	4.03e+03	n/a
S97T000764		F	Lead -ICP-Fusion	ug/g	97.00	<1.00e-01	<2.01e+03	<2.02e3	n/a	n/a	n/a	2.01e+03	n/a
S97T000764		F	Sulfur -ICP-Fusion	ug/g	98.40	<1.00e-01	<2.01e+03	<2.02e3	n/a	n/a	n/a	2.01e+03	n/a
S97T000764		F	Antimony -ICP-Fusion	ug/g	96.00	<6.00e-02	<1.21e+03	<1.21e3	n/a	n/a	n/a	1.21e+03	n/a
S97T000764		F	Selenium -ICP-Fusion	ug/g	93.60	<1.00e-01	<2.01e+03	<2.02e3	n/a	n/a	n/a	2.01e+03	n/a
S97T000764		F	Silicon -ICP-Fusion	ug/g	100.8	<5.00e-02	<1.01e+03	<1.01e3	n/a	n/a	n/a	1.01e+03	n/a
S97T000764		F	Samarium -ICP-Fusion	ug/g	101.0	<1.00e-01	<2.01e+03	<2.02e3	n/a	n/a	n/a	2.01e+03	n/a
S97T000764		F	Strontium -ICP-Fusion	ug/g	101.4	<1.00e-02	5.87e+02	603.0	595.0	2.69	n/a	201.0	n/a
S97T000764		F	Titanium-ICP-Fusion	ug/g	99.60	<1.00e-02	<2.01e+02	<2.02e2	n/a	n/a	n/a	201.0	n/a
S97T000764		F	Thallium -ICP-Fusion	ug/g	97.40	<2.00e-01	<4.03e+03	<4.05e3	n/a	n/a	n/a	4.03e+03	n/a
S97T000764		F	Uranium -ICP-Fusion	ug/g	98.60	<5.00e-01	<1.01e+04	<1.01e4	n/a	n/a	n/a	1.01e+04	n/a
S97T000764		F	Vanadium -ICP-Fusion	ug/g	101.4	<5.00e-02	<1.01e+03	<1.01e3	n/a	n/a	n/a	1.01e+03	n/a
S97T000764		F	Zinc -ICP-Fusion	ug/g	95.00	<1.00e-02	<2.01e+02	<2.02e2	n/a	n/a	n/a	201.0	n/a
S97T000764		F	Zirconium -ICP-Fusion	ug/g	99.80	<1.00e-02	<2.01e+02	<2.02e2	n/a	n/a	n/a	201.0	n/a
S97T000764		F	Alpha of Digested Solid	uCi/g	89.50	<2.61e-04	1.29e-01	1.28e-01	1.29e-01	0.78	n/a	3.08e-04	2.81E+00
S97T000773		W	Fluoride-IC-Dionex 4000/4500	ug/g	93.73	<1.20e-02	5.84e+03	5.88e+03	5.86e+03	0.68	n/a	26.27	n/a
S97T000773		W	Chloride-IC-Dionex 4000/4500	ug/g	98.48	4.35e-01	5.46e+02	549.0	547.5	0.55	n/a	37.21	n/a
S97T000773		W	Nitrite-IC - Dionex 4000/4500	ug/g	99.82	<1.08e-01	2.92e+02	273.0	282.8	6.73	n/a	236.4	n/a
S97T000773		W	Bromide by Ion Chromatograph	ug/g	96.77	<1.25e-01	<2.74e+02	<2.70e2	n/a	n/a	n/a	273.7	n/a
S97T000773		W	Nitrate by IC-Dionex 4000/4500	ug/g	98.32	<1.39e-01	5.76e+04	5.75e+04	5.76e+04	0.17	n/a	304.3	n/a

Sample#	R	A#	Analyte	Unit	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S97T000773		W	Phosphate-IC-Dionex 4000/4500	ug/g	98.90	<1.20e-01	2.07e+03	2.26e+03	2.17e+03	8.78	n/a	262.7	n/a
S97T000773		W	Sulfate by IC-Dionex 4000/4500	ug/g	94.77	<1.38e-01	<3.02e+02	658.0	n/a	n/a	n/a	302.1	n/a
S97T000773		W	Oxalate-IC-Dionex 4000/4500	ug/g	99.81	<1.05e-01	1.56e+03	1.57e+03	1.57e+03	0.64	n/a	229.9	n/a

Table 1. Data Summary Report
T-203

CORE NUMBER: 190
SEGMENT #: 7

SEGMENT PORTION: U Upper Half of Segment

Sample#	R	A#	Analyte	Unit	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S97T000708			DSC Exotherm Dry Calculated	Joules/g Dry	n/a	n/a	0.00e+00	0.00e+00	0.00e+00	0.00	n/a	n/a	n/a
S97T000708			DSC Exotherm on Perkin Elmer	Joules/g	96.56	n/a	0.00e+00	0.00e+00	0.00e+00	0.00	n/a	n/a	n/a
S97T000708			% Water by TGA on Perkin Elmer	%	98.87	n/a	74.18	76.56	75.37	3.16	n/a	n/a	n/a
S97T000743		F	Silver -ICP-Fusion	ug/g	98.20	<1.00e-02	<2.05e+02	<2.04e2	n/a	n/a	n/a	205.0	n/a
S97T000743		F	Aluminium -ICP-Fusion	ug/g	99.60	<5.00e-02	<1.02e+03	<1.02e3	n/a	n/a	n/a	1.02e+03	n/a
S97T000743		F	Arsenic -ICP-Fusion	ug/g	103.8	<1.00e-01	<2.05e+03	<2.04e3	n/a	n/a	n/a	2.05e+03	n/a
S97T000743		F	Boron -ICP-Fusion	ug/g	101.2	<5.00e-02	<1.02e+03	<1.02e3	n/a	n/a	n/a	1.02e+03	n/a
S97T000743		F	Barium -ICP-Fusion	ug/g	101.8	<5.00e-02	<1.02e+03	<1.02e3	n/a	n/a	n/a	1.02e+03	n/a
S97T000743		F	Beryllium -ICP-Fusion	ug/g	103.0	<5.00e-03	<1.02e+02	<1.02e2	n/a	n/a	n/a	102.0	n/a
S97T000743		F	Bismuth -ICP-Fusion	ug/g	100.8	<1.00e-01	5.39e+04	5.25e+04	5.32e+04	2.63	n/a	2.05e+03	n/a
S97T000743		F	Calcium -ICP-Fusion	ug/g	99.80	<1.00e-01	<2.05e+03	<2.04e3	n/a	n/a	n/a	2.05e+03	n/a
S97T000743		F	Cadmium -ICP-Fusion	ug/g	99.40	<5.00e-03	<1.02e+02	<1.02e2	n/a	n/a	n/a	102.0	n/a
S97T000743		F	Cerium -ICP-Fusion	ug/g	100.6	<1.00e-01	<2.05e+03	<2.04e3	n/a	n/a	n/a	2.05e+03	n/a
S97T000743		F	Cobalt -ICP-Fusion	ug/g	101.2	<2.00e-02	<4.10e+02	<4.08e2	n/a	n/a	n/a	410.0	n/a
S97T000743		F	Chromium -ICP-Fusion	ug/g	99.20	<1.00e-02	3.55e+03	3.40e+03	3.48e+03	4.32	n/a	205.0	n/a
S97T000743		F	Copper -ICP-Fusion	ug/g	101.2	<1.00e-02	<2.05e+02	<2.04e2	n/a	n/a	n/a	205.0	n/a
S97T000743		F	Iron -ICP-Fusion	ug/g	93.40	<5.00e-02	3.89e+03	3.78e+03	3.84e+03	2.87	n/a	1.02e+03	n/a
S97T000743		F	Lanthanum -ICP-Fusion	ug/g	102.6	<5.00e-02	1.08e+04	1.09e+04	1.08e+04	0.92	n/a	1.02e+03	n/a
S97T000743		F	Lithium -ICP-Fusion	ug/g	101.0	<1.00e-02	<2.05e+02	<2.04e2	n/a	n/a	n/a	205.0	n/a
S97T000743		F	Magnesium -ICP-Fusion	ug/g	101.6	<1.00e-01	<2.05e+03	<2.04e3	n/a	n/a	n/a	2.05e+03	n/a
S97T000743		F	Manganese -ICP-Fusion	ug/g	97.80	<1.00e-02	1.27e+04	1.28e+04	1.28e+04	0.78	n/a	205.0	n/a
S97T000743		F	Molybdenum -ICP-Fusion	ug/g	100.8	<5.00e-02	<1.02e+03	<1.02e3	n/a	n/a	n/a	1.02e+03	n/a
S97T000743		F	Sodium -ICP-Fusion	ug/g	104.8	<1.00e-01	3.49e+04	3.50e+04	3.50e+04	0.29	n/a	2.05e+03	n/a
S97T000743		F	Neodymium -ICP-Fusion	ug/g	102.4	<1.00e-01	<2.05e+03	<2.04e3	n/a	n/a	n/a	2.05e+03	n/a
S97T000743		F	Phosphorus -ICP-Fusion	ug/g	100.0	<2.00e-01	<4.10e+03	<4.08e3	n/a	n/a	n/a	4.10e+03	n/a
S97T000743		F	Lead -ICP-Fusion	ug/g	97.00	<1.00e-01	<2.05e+03	<2.04e3	n/a	n/a	n/a	2.05e+03	n/a
S97T000743		F	Sulfur -ICP-Fusion	ug/g	98.40	<1.00e-01	<2.05e+03	<2.04e3	n/a	n/a	n/a	2.05e+03	n/a
S97T000743		F	Antimony -ICP-Fusion	ug/g	96.00	<6.00e-02	<1.23e+03	<1.22e3	n/a	n/a	n/a	1.23e+03	n/a
S97T000743		F	Selenium -ICP-Fusion	ug/g	93.60	<1.00e-01	<2.05e+03	<2.04e3	n/a	n/a	n/a	2.05e+03	n/a
S97T000743		F	Silicon -ICP-Fusion	ug/g	100.8	<5.00e-02	<1.02e+03	<1.02e3	n/a	n/a	n/a	1.02e+03	n/a
S97T000743		F	Samarium -ICP-Fusion	ug/g	101.0	<1.00e-01	<2.05e+03	<2.04e3	n/a	n/a	n/a	2.05e+03	n/a
S97T000743		F	Strontium -ICP-Fusion	ug/g	101.4	<1.00e-02	5.83e+02	580.0	581.5	0.52	n/a	205.0	n/a
S97T000743		F	Titanium-ICP-Fusion	ug/g	99.60	<1.00e-02	<2.05e+02	<2.04e2	n/a	n/a	n/a	205.0	n/a
S97T000743		F	Thallium -ICP-Fusion	ug/g	97.40	<2.00e-01	<4.10e+03	<4.08e3	n/a	n/a	n/a	4.10e+03	n/a
S97T000743		F	Uranium -ICP-Fusion	ug/g	98.60	<5.00e-01	<1.02e+04	<1.02e4	n/a	n/a	n/a	1.02e+04	n/a
S97T000743		F	Vanadium -ICP-Fusion	ug/g	101.4	<5.00e-02	<1.02e+03	<1.02e3	n/a	n/a	n/a	1.02e+03	n/a
S97T000743		F	Zinc -ICP-Fusion	ug/g	95.00	<1.00e-02	<2.05e+02	<2.04e2	n/a	n/a	n/a	205.0	n/a
S97T000743		F	Zirconium -ICP-Fusion	ug/g	99.80	<1.00e-02	<2.05e+02	<2.04e2	n/a	n/a	n/a	205.0	n/a
S97T000752		W	Fluoride-IC-Dionex 4000/4500	ug/g	93.73	<1.20e-02	4.54e+03	4.61e+03	4.58e+03	1.53	n/a	25.72	n/a
S97T000752		W	Chloride-IC-Dionex 4000/4500	ug/g	98.48	4.35e-01	4.22e+02	444.0	433.2	5.08	n/a	36.43	n/a
S97T000752		W	Nitrite-IC - Dionex 4000/4500	ug/g	99.82	<1.08e-01	2.55e+02	257.0	255.9	0.78	n/a	231.4	n/a
S97T000752		W	Bromide by Ion Chromatograph	ug/g	96.77	<1.25e-01	<2.68e+02	<2.72e2	n/a	n/a	n/a	267.9	n/a
S97T000752		W	Nitrate by IC-Dionex 4000/4500	ug/g	98.32	<1.39e-01	4.36e+04	4.45e+04	4.41e+04	2.04	n/a	297.9	n/a
S97T000752		W	Phosphate-IC-Dionex 4000/4500	ug/g	98.90	<1.20e-01	1.50e+03	2.33e+03	1.92e+03	43.3	n/a	257.2	n/a

Sample#	R	A#	Analyte	Unit	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S97T000752		W	Sulfate by IC-Dionex 4000/4500	ug/g	94.77	<1.38e-01	<2.96e+02	<3.01e2	n/a	n/a	n/a	295.7	n/a
S97T000752		W	Oxalate-IC-Dionex 4000/4500	ug/g	99.81	<1.05e-01	1.25e+03	1.26e+03	1.26e+03	0.80	n/a	225.1	n/a

L Lower Half of Segment: L Lower Half of Segment

Sample#	R	A#	Analyte	Unit	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S97T000702			Bulk Density of Sample	g/mL	n/a	n/a	1.170	n/a	n/a	n/a	n/a	5.00e-01	n/a
S97T000714			DSC Exotherm Dry Calculated	Joules/g Dry	n/a	n/a	17.47	8.546	13.01	68.6	n/a	n/a	n/a
S97T000714			DSC Exotherm on Perkin Elmer	Joules/g	91.88	n/a	4.680	2.290	3.485	68.6	n/a	n/a	n/a
S97T000714			% Water by TGA on Perkin Elmer	%	98.72	n/a	74.96	71.45	73.20	4.79	n/a	n/a	n/a
S97T000765		F	Silver -ICP-Fusion	ug/g	98.20	<1.00e-02	<2.05e+02	<2.02e2	n/a	n/a	n/a	205.0	n/a
S97T000765		F	Aluminium -ICP-Fusion	ug/g	99.60	<5.00e-02	<1.03e+03	<1.01e3	n/a	n/a	n/a	1.02e+03	n/a
S97T000765		F	Arsenic -ICP-Fusion	ug/g	103.8	<1.00e-01	<2.05e+03	<2.02e3	n/a	n/a	n/a	2.05e+03	n/a
S97T000765		F	Boron -ICP-Fusion	ug/g	101.2	<5.00e-02	<1.03e+03	<1.01e3	n/a	n/a	n/a	1.02e+03	n/a
S97T000765		F	Barium -ICP-Fusion	ug/g	101.8	<5.00e-02	<1.03e+03	<1.01e3	n/a	n/a	n/a	1.02e+03	n/a
S97T000765		F	Beryllium -ICP-Fusion	ug/g	103.0	<5.00e-03	<1.03e+02	<1.01e2	n/a	n/a	n/a	102.0	n/a
S97T000765		F	Bismuth -ICP-Fusion	ug/g	100.8	<1.00e-01	5.30e+04	4.40e+04	4.85e+04	18.6	n/a	2.05e+03	n/a
S97T000765		F	Calcium -ICP-Fusion	ug/g	99.80	<1.00e-01	<2.05e+03	<2.02e3	n/a	n/a	n/a	2.05e+03	n/a
S97T000765		F	Cadmium -ICP-Fusion	ug/g	99.40	<5.00e-03	<1.03e+02	<1.01e2	n/a	n/a	n/a	102.0	n/a
S97T000765		F	Cerium -ICP-Fusion	ug/g	100.6	<1.00e-01	<2.05e+03	<2.02e3	n/a	n/a	n/a	2.05e+03	n/a
S97T000765		F	Cobalt -ICP-Fusion	ug/g	101.2	<2.00e-02	<4.10e+02	<4.03e2	n/a	n/a	n/a	410.0	n/a
S97T000765		F	Chromium -ICP-Fusion	ug/g	99.20	<1.00e-02	4.54e+03	4.46e+03	4.50e+03	1.78	n/a	205.0	n/a
S97T000765		F	Copper -ICP-Fusion	ug/g	101.2	<1.00e-02	<2.05e+02	<2.02e2	n/a	n/a	n/a	205.0	n/a
S97T000765		F	Iron -ICP-Fusion	ug/g	93.40	<5.00e-02	3.08e+03	2.81e+03	2.94e+03	9.17	n/a	1.02e+03	n/a
S97T000765		F	Lanthanum -ICP-Fusion	ug/g	102.6	<5.00e-02	9.74e+03	9.56e+03	9.65e+03	1.87	n/a	1.02e+03	n/a
S97T000765		F	Lithium -ICP-Fusion	ug/g	101.0	<1.00e-02	<2.05e+02	<2.02e2	n/a	n/a	n/a	205.0	n/a
S97T000765		F	Magnesium -ICP-Fusion	ug/g	101.6	<1.00e-01	<2.05e+03	<2.02e3	n/a	n/a	n/a	2.05e+03	n/a
S97T000765		F	Manganese -ICP-Fusion	ug/g	97.80	<1.00e-02	1.29e+04	1.22e+04	1.26e+04	5.58	n/a	205.0	n/a
S97T000765		F	Molybdenum -ICP-Fusion	ug/g	100.8	<5.00e-02	<1.03e+03	<1.01e3	n/a	n/a	n/a	1.02e+03	n/a
S97T000765		F	Sodium -ICP-Fusion	ug/g	104.8	<1.00e-01	3.38e+04	3.41e+04	3.40e+04	0.88	n/a	2.05e+03	n/a
S97T000765		F	Neodymium -ICP-Fusion	ug/g	102.4	<1.00e-01	<2.05e+03	<2.02e3	n/a	n/a	n/a	2.05e+03	n/a
S97T000765		F	Phosphorus -ICP-Fusion	ug/g	100.0	<2.00e-01	<4.10e+03	<4.03e3	n/a	n/a	n/a	4.10e+03	n/a
S97T000765		F	Lead -ICP-Fusion	ug/g	97.00	<1.00e-01	<2.05e+03	<2.02e3	n/a	n/a	n/a	2.05e+03	n/a
S97T000765		F	Sulfur -ICP-Fusion	ug/g	98.40	<1.00e-01	<2.05e+03	<2.02e3	n/a	n/a	n/a	2.05e+03	n/a
S97T000765		F	Antimony -ICP-Fusion	ug/g	96.00	<6.00e-02	<1.23e+03	<1.21e3	n/a	n/a	n/a	1.23e+03	n/a
S97T000765		F	Selenium -ICP-Fusion	ug/g	93.60	<1.00e-01	<2.05e+03	<2.02e3	n/a	n/a	n/a	2.05e+03	n/a
S97T000765		F	Silicon -ICP-Fusion	ug/g	100.8	<5.00e-02	<1.03e+03	1.08e+03	n/a	n/a	n/a	1.02e+03	n/a
S97T000765		F	Samarium -ICP-Fusion	ug/g	101.0	<1.00e-01	<2.05e+03	<2.02e3	n/a	n/a	n/a	2.05e+03	n/a
S97T000765		F	Strontium -ICP-Fusion	ug/g	101.4	<1.00e-02	5.89e+02	589.0	589.0	0.00	n/a	205.0	n/a
S97T000765		F	Titanium-ICP-Fusion	ug/g	99.60	<1.00e-02	<2.05e+02	<2.02e2	n/a	n/a	n/a	205.0	n/a
S97T000765		F	Thallium -ICP-Fusion	ug/g	97.40	<2.00e-01	<4.10e+03	<4.03e3	n/a	n/a	n/a	4.10e+03	n/a
S97T000765		F	Uranium -ICP-Fusion	ug/g	98.60	<5.00e-01	<1.03e+04	<1.01e4	n/a	n/a	n/a	1.02e+04	n/a
S97T000765		F	Vanadium -ICP-Fusion	ug/g	101.4	<5.00e-02	<1.03e+03	<1.01e3	n/a	n/a	n/a	1.02e+03	n/a
S97T000765		F	Zinc -ICP-Fusion	ug/g	95.00	<1.00e-02	<2.05e+02	<2.02e2	n/a	n/a	n/a	205.0	n/a
S97T000765		F	Zirconium -ICP-Fusion	ug/g	99.80	<1.00e-02	<2.05e+02	<2.02e2	n/a	n/a	n/a	205.0	n/a
S97T000765		F	Alpha of Digested Solid	uCi/g	89.00	<4.06e-04	1.40e-01	1.23e-01	1.32e-01	12.9	n/a	1.00e-03	3.95E+00
S97T000774		W	Fluoride-IC-Dionex 4000/4500	ug/g	90.51	<1.20e-02	6.71e+03	6.67e+03	6.69e+03	0.60	n/a	26.02	n/a
S97T000774		W	Chloride-IC-Dionex 4000/4500	ug/g	93.04	3.20e-02	5.96e+02	615.0	605.3	3.14	n/a	36.85	n/a
S97T000774		W	Nitrite-IC - Dionex 4000/4500	ug/g	91.54	1.57e-01	4.07e+02	398.0	402.4	2.24	n/a	234.1	n/a
S97T000774		W	Bromide by Ion Chromatograph	ug/g	90.66	<1.25e-01	<2.71e+02	<2.71e2	n/a	n/a	n/a	271.0	n/a
S97T000774		W	Nitrate by IC-Dionex 4000/4500	ug/g	90.40	1.75e-01	5.76e+04	5.88e+04	5.82e+04	2.06	n/a	301.3	n/a

Sample#	R	A#	Analyte	Unit	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S97T000774		W	Phosphate-IC-Dionex 4000/4500	ug/g	92.11	<1.20e-01	2.31e+03	2.27e+03	2.29e+03	1.75	n/a	260.1	n/a
S97T000774		W	Sulfate by IC-Dionex 4000/4500	ug/g	91.28	<1.38e-01	3.53e+02	696.0	524.4	65.4	n/a	299.2	n/a
S97T000774		W	Oxalate-IC-Dionex 4000/4500	ug/g	89.66	<1.05e-01	1.26e+03	1.30e+03	1.28e+03	3.12	n/a	227.6	n/a

Table 1. Data Summary Report
T-203

CORE NUMBER: 190
SEGMENT #: 8

SEGMENT PORTION: U Upper Half of Segment

Sample#	R	A#	Analyte	Unit	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S97T000709			DSC Exotherm Dry Calculated	Joules/g Dry	n/a	n/a	0.00e+00	0.00e+00	0.00e+00	0.00	n/a	n/a	n/a
S97T000709			DSC Exotherm on Perkin Elmer	Joules/g	96.56	n/a	0.00e+00	0.00e+00	0.00e+00	0.00	n/a	n/a	n/a
S97T000709			% Water by TGA on Perkin Elmer	%	98.87	n/a	75.38	76.43	75.91	1.38	n/a	n/a	n/a
S97T000744	F		Silver -ICP-Fusion	ug/g	98.20	<1.00e-02	<2.07e+02	<2.02e2	n/a	n/a	n/a	207.0	n/a
S97T000744	F		Aluminium -ICP-Fusion	ug/g	99.60	<5.00e-02	<1.03e+03	<1.01e3	n/a	n/a	n/a	1.03e+03	n/a
S97T000744	F		Arsenic -ICP-Fusion	ug/g	103.8	<1.00e-01	<2.07e+03	<2.02e3	n/a	n/a	n/a	2.07e+03	n/a
S97T000744	F		Boron -ICP-Fusion	ug/g	101.2	<5.00e-02	<1.03e+03	<1.01e3	n/a	n/a	n/a	1.03e+03	n/a
S97T000744	F		Barium -ICP-Fusion	ug/g	101.8	<5.00e-02	<1.03e+03	<1.01e3	n/a	n/a	n/a	1.03e+03	n/a
S97T000744	F		Beryllium -ICP-Fusion	ug/g	103.0	<5.00e-03	<1.03e+02	<1.01e2	n/a	n/a	n/a	103.0	n/a
S97T000744	F		Bismuth -ICP-Fusion	ug/g	100.8	<1.00e-01	5.42e+04	5.90e+04	5.66e+04	8.48	n/a	2.07e+03	n/a
S97T000744	F		Calcium -ICP-Fusion	ug/g	99.80	<1.00e-01	<2.07e+03	<2.02e3	n/a	n/a	n/a	2.07e+03	n/a
S97T000744	F		Cadmium -ICP-Fusion	ug/g	99.40	<5.00e-03	<1.03e+02	<1.01e2	n/a	n/a	n/a	103.0	n/a
S97T000744	F		Cerium -ICP-Fusion	ug/g	100.6	<1.00e-01	<2.07e+03	<2.02e3	n/a	n/a	n/a	2.07e+03	n/a
S97T000744	F		Cobalt -ICP-Fusion	ug/g	101.2	<2.00e-02	<4.13e+02	<4.04e2	n/a	n/a	n/a	414.0	n/a
S97T000744	F		Chromium -ICP-Fusion	ug/g	99.20	<1.00e-02	3.94e+03	4.12e+03	4.03e+03	4.47	n/a	207.0	n/a
S97T000744	F		Copper -ICP-Fusion	ug/g	101.2	<1.00e-02	<2.07e+02	<2.02e2	n/a	n/a	n/a	207.0	n/a
S97T000744	F		Iron -ICP-Fusion	ug/g	93.40	<5.00e-02	3.08e+03	3.13e+03	3.10e+03	1.61	n/a	1.03e+03	n/a
S97T000744	F		Lanthanum -ICP-Fusion	ug/g	102.6	<5.00e-02	1.06e+04	1.12e+04	1.09e+04	5.50	n/a	1.03e+03	n/a
S97T000744	F		Lithium -ICP-Fusion	ug/g	101.0	<1.00e-02	<2.07e+02	<2.02e2	n/a	n/a	n/a	207.0	n/a
S97T000744	F		Magnesium -ICP-Fusion	ug/g	101.6	<1.00e-01	<2.07e+03	<2.02e3	n/a	n/a	n/a	2.07e+03	n/a
S97T000744	F		Manganese -ICP-Fusion	ug/g	97.80	<1.00e-02	1.26e+04	1.28e+04	1.27e+04	1.57	n/a	207.0	n/a
S97T000744	F		Molybdenum -ICP-Fusion	ug/g	100.8	<5.00e-02	<1.03e+03	<1.01e3	n/a	n/a	n/a	1.03e+03	n/a
S97T000744	F		Sodium -ICP-Fusion	ug/g	104.8	<1.00e-01	3.41e+04	3.46e+04	3.44e+04	1.46	n/a	2.07e+03	n/a
S97T000744	F		Neodymium -ICP-Fusion	ug/g	102.4	<1.00e-01	<2.07e+03	<2.02e3	n/a	n/a	n/a	2.07e+03	n/a
S97T000744	F		Phosphorus -ICP-Fusion	ug/g	100.0	<2.00e-01	<4.13e+03	<4.04e3	n/a	n/a	n/a	4.14e+03	n/a
S97T000744	F		Lead -ICP-Fusion	ug/g	97.00	<1.00e-01	<2.07e+03	<2.02e3	n/a	n/a	n/a	2.07e+03	n/a
S97T000744	F		Sulfur -ICP-Fusion	ug/g	98.40	<1.00e-01	<2.07e+03	<2.02e3	n/a	n/a	n/a	2.07e+03	n/a
S97T000744	F		Antimony -ICP-Fusion	ug/g	96.00	<6.00e-02	<1.24e+03	<1.21e3	n/a	n/a	n/a	1.24e+03	n/a
S97T000744	F		Selenium -ICP-Fusion	ug/g	93.60	<1.00e-01	<2.07e+03	<2.02e3	n/a	n/a	n/a	2.07e+03	n/a
S97T000744	F		Silicon -ICP-Fusion	ug/g	100.8	<5.00e-02	<1.03e+03	<1.01e3	n/a	n/a	n/a	1.03e+03	n/a
S97T000744	F		Samarium -ICP-Fusion	ug/g	101.0	<1.00e-01	<2.07e+03	<2.02e3	n/a	n/a	n/a	2.07e+03	n/a
S97T000744	F		Strontium -ICP-Fusion	ug/g	101.4	<1.00e-02	7.29e+02	748.0	738.5	2.57	n/a	207.0	n/a
S97T000744	F		Titanium-ICP-Fusion	ug/g	99.60	<1.00e-02	<2.07e+02	<2.02e2	n/a	n/a	n/a	207.0	n/a
S97T000744	F		Thallium -ICP-Fusion	ug/g	97.40	<2.00e-01	<4.13e+03	<4.04e3	n/a	n/a	n/a	4.14e+03	n/a
S97T000744	F		Uranium -ICP-Fusion	ug/g	98.60	<5.00e-01	<1.03e+04	<1.01e4	n/a	n/a	n/a	1.03e+04	n/a
S97T000744	F		Vanadium -ICP-Fusion	ug/g	101.4	<5.00e-02	<1.03e+03	<1.01e3	n/a	n/a	n/a	1.03e+03	n/a
S97T000744	F		Zinc -ICP-Fusion	ug/g	95.00	<1.00e-02	<2.07e+02	<2.02e2	n/a	n/a	n/a	207.0	n/a
S97T000744	F		Zirconium -ICP-Fusion	ug/g	99.80	<1.00e-02	<2.07e+02	<2.02e2	n/a	n/a	n/a	207.0	n/a
S97T000753	W		Fluoride-IC-Dionex 4000/4500	ug/g	90.51	<1.20e-02	6.58e+03	4.71e+03	5.64e+03	33.1	n/a	26.55	n/a
S97T000753	W		Chloride-IC-Dionex 4000/4500	ug/g	93.04	3.20e-02	5.91e+02	444.0	517.5	28.4	n/a	37.61	n/a
S97T000753	W		Nitrite-IC - Dionex 4000/4500	ug/g	91.54	1.57e-01	4.10e+02	374.0	391.9	9.18	n/a	238.9	n/a
S97T000753	W		Bromide by Ion Chromatograph	ug/g	90.66	<1.25e-01	<2.76e+02	<2.70e2	n/a	n/a	n/a	276.5	n/a
S97T000753	W		Nitrate by IC-Dionex 4000/4500	ug/g	90.40	1.75e-01	5.73e+04	4.22e+04	4.98e+04	30.4	n/a	307.6	n/a
S97T000753	W		Phosphate-IC-Dionex 4000/4500	ug/g	92.11	<1.20e-01	2.00e+03	1.59e+03	1.79e+03	22.8	n/a	265.5	n/a

Sample#	R	A#	Analyte	Unit	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S97T000753		W	Sulfate by IC-Dionex 4000/4500	ug/g	91.28	<1.38e-01	3.17e+02	582.0	449.7	59.0	n/a	305.4	n/a
S97T000753		W	Oxalate-IC-Dionex 4000/4500	ug/g	89.66	<1.05e-01	1.30e+03	865.0	1.08e+03	40.2	n/a	232.3	n/a

L Lower Half of Segment: L Lower Half of Segment

Sample#	R	A#	Analyte	Unit	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S97T000703			Bulk Density of Sample	g/mL	n/a	n/a	1.150	n/a	n/a	n/a	n/a	5.00e-01	n/a
S97T000715			DSC Exotherm Dry Calculated	Joules/g Dry	n/a	n/a	0.00e+00	0.00e+00	0.00e+00	0.00	n/a	n/a	n/a
S97T000715			DSC Exotherm on Perkin Elmer	Joules/g	96.10	n/a	0.00e+00	0.00e+00	0.00e+00	0.00	n/a	n/a	n/a
S97T000715			% Water by TGA on Perkin Elmer	%	99.14	n/a	75.76	75.86	75.81	0.13	n/a	n/a	n/a
S97T000766		F	Silver -ICP-Fusion	ug/g	98.20	<1.00e-02	<2.06e+02	<2.02e2	n/a	n/a	n/a	205.0	n/a
S97T000766		F	Aluminium -ICP-Fusion	ug/g	99.60	<5.00e-02	<1.03e+03	<1.01e3	n/a	n/a	n/a	1.03e+03	n/a
S97T000766		F	Arsenic -ICP-Fusion	ug/g	103.8	<1.00e-01	<2.06e+03	<2.02e3	n/a	n/a	n/a	2.05e+03	n/a
S97T000766		F	Boron -ICP-Fusion	ug/g	101.2	<5.00e-02	<1.03e+03	<1.01e3	n/a	n/a	n/a	1.03e+03	n/a
S97T000766		F	Barium -ICP-Fusion	ug/g	101.8	<5.00e-02	<1.03e+03	<1.01e3	n/a	n/a	n/a	1.03e+03	n/a
S97T000766		F	Beryllium -ICP-Fusion	ug/g	103.0	<5.00e-03	<1.03e+02	<1.01e2	n/a	n/a	n/a	103.0	n/a
S97T000766		F	Bismuth -ICP-Fusion	ug/g	100.8	<1.00e-01	5.30e+04	6.31e+04	5.80e+04	17.4	n/a	2.05e+03	n/a
S97T000766		F	Calcium -ICP-Fusion	ug/g	99.80	<1.00e-01	<2.06e+03	<2.02e3	n/a	n/a	n/a	2.05e+03	n/a
S97T000766		F	Cadmium -ICP-Fusion	ug/g	99.40	<5.00e-03	<1.03e+02	<1.01e2	n/a	n/a	n/a	103.0	n/a
S97T000766		F	Cerium -ICP-Fusion	ug/g	100.6	<1.00e-01	<2.06e+03	<2.02e3	n/a	n/a	n/a	2.05e+03	n/a
S97T000766		F	Cobalt -ICP-Fusion	ug/g	101.2	<2.00e-02	<4.11e+02	<4.05e2	n/a	n/a	n/a	410.0	n/a
S97T000766		F	Chromium -ICP-Fusion	ug/g	99.20	<1.00e-02	3.98e+03	3.95e+03	3.96e+03	0.76	n/a	205.0	n/a
S97T000766		F	Copper -ICP-Fusion	ug/g	101.2	<1.00e-02	<2.06e+02	<2.02e2	n/a	n/a	n/a	205.0	n/a
S97T000766		F	Iron -ICP-Fusion	ug/g	93.40	<5.00e-02	2.91e+03	2.68e+03	2.80e+03	8.23	n/a	1.03e+03	n/a
S97T000766		F	Lanthanum -ICP-Fusion	ug/g	102.6	<5.00e-02	1.19e+04	1.39e+04	1.29e+04	15.5	n/a	1.03e+03	n/a
S97T000766		F	Lithium -ICP-Fusion	ug/g	101.0	<1.00e-02	<2.06e+02	<2.02e2	n/a	n/a	n/a	205.0	n/a
S97T000766		F	Magnesium -ICP-Fusion	ug/g	101.6	<1.00e-01	<2.06e+03	<2.02e3	n/a	n/a	n/a	2.05e+03	n/a
S97T000766		F	Manganese -ICP-Fusion	ug/g	97.80	<1.00e-02	1.31e+04	1.40e+04	1.36e+04	6.64	n/a	205.0	n/a
S97T000766		F	Molybdenum -ICP-Fusion	ug/g	100.8	<5.00e-02	<1.03e+03	<1.01e3	n/a	n/a	n/a	1.03e+03	n/a
S97T000766		F	Sodium -ICP-Fusion	ug/g	104.8	<1.00e-01	3.46e+04	3.44e+04	3.45e+04	0.58	n/a	2.05e+03	n/a
S97T000766		F	Neodymium -ICP-Fusion	ug/g	102.4	<1.00e-01	<2.06e+03	<2.02e3	n/a	n/a	n/a	2.05e+03	n/a
S97T000766		F	Phosphorus -ICP-Fusion	ug/g	100.0	<2.00e-01	<4.11e+03	<4.05e3	n/a	n/a	n/a	4.10e+03	n/a
S97T000766		F	Lead -ICP-Fusion	ug/g	97.00	<1.00e-01	<2.06e+03	<2.02e3	n/a	n/a	n/a	2.05e+03	n/a
S97T000766		F	Sulfur -ICP-Fusion	ug/g	98.40	<1.00e-01	<2.06e+03	<2.02e3	n/a	n/a	n/a	2.05e+03	n/a
S97T000766		F	Antimony -ICP-Fusion	ug/g	96.00	<6.00e-02	<1.23e+03	<1.21e3	n/a	n/a	n/a	1.23e+03	n/a
S97T000766		F	Selenium -ICP-Fusion	ug/g	93.60	<1.00e-01	<2.06e+03	<2.02e3	n/a	n/a	n/a	2.05e+03	n/a
S97T000766		F	Silicon -ICP-Fusion	ug/g	100.8	<5.00e-02	1.10e+03	<1.01e3	n/a	n/a	n/a	1.03e+03	n/a
S97T000766		F	Samarium -ICP-Fusion	ug/g	101.0	<1.00e-01	<2.06e+03	<2.02e3	n/a	n/a	n/a	2.05e+03	n/a
S97T000766		F	Strontium -ICP-Fusion	ug/g	101.4	<1.00e-02	6.71e+02	780.0	725.5	15.0	n/a	205.0	n/a
S97T000766		F	Titanium-ICP-Fusion	ug/g	99.60	<1.00e-02	<2.06e+02	<2.02e2	n/a	n/a	n/a	205.0	n/a
S97T000766		F	Thallium -ICP-Fusion	ug/g	97.40	<2.00e-01	<4.11e+03	<4.05e3	n/a	n/a	n/a	4.10e+03	n/a
S97T000766		F	Uranium -ICP-Fusion	ug/g	98.60	<5.00e-01	<1.03e+04	<1.01e4	n/a	n/a	n/a	1.03e+04	n/a
S97T000766		F	Vanadium -ICP-Fusion	ug/g	101.4	<5.00e-02	<1.03e+03	<1.01e3	n/a	n/a	n/a	1.03e+03	n/a
S97T000766		F	Zinc -ICP-Fusion	ug/g	95.00	<1.00e-02	<2.06e+02	<2.02e2	n/a	n/a	n/a	205.0	n/a
S97T000766		F	Zirconium -ICP-Fusion	ug/g	99.80	<1.00e-02	<2.06e+02	<2.02e2	n/a	n/a	n/a	205.0	n/a
S97T000766		F	Alpha of Digested Solid	uCi/g	89.00	<4.06e-04	1.54e-01	1.80e-01	1.67e-01	15.6	n/a	1.00e-03	5.28E+00
S97T000775		W	Fluoride-IC-Dionex 4000/4500	ug/g	90.51	<1.20e-02	6.39e+03	6.63e+03	6.51e+03	3.69	n/a	26.41	n/a
S97T000775		W	Chloride-IC-Dionex 4000/4500	ug/g	93.04	3.20e-02	6.14e+02	607.0	610.7	1.15	n/a	37.41	n/a
S97T000775		W	Nitrite-IC - Dionex 4000/4500	ug/g	91.54	1.57e-01	4.18e+02	412.0	415.0	1.45	n/a	237.7	n/a
S97T000775		W	Bromide by Ion Chromatograph	ug/g	90.66	<1.25e-01	<2.75e+02	<2.79e2	n/a	n/a	n/a	275.1	n/a
S97T000775		W	Nitrate by IC-Dionex 4000/4500	ug/g	90.40	1.75e-01	5.71e+04	5.77e+04	5.74e+04	1.05	n/a	305.9	n/a

Sample#	R	A#	Analyte	Unit	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S97T000775		W	Phosphate-IC-Dionex 4000/4500	ug/g	92.11	<1.20e-01	2.08e+03	1.93e+03	2.00e+03	7.48	n/a	264.1	n/a
S97T000775		W	Sulfate by IC-Dionex 4000/4500	ug/g	91.28	<1.38e-01	3.52e+02	733.0	542.2	70.2	n/a	303.7	n/a
S97T000775		W	Oxalate-IC-Dionex 4000/4500	ug/g	89.66	<1.05e-01	1.24e+03	1.22e+03	1.23e+03	1.63	n/a	231.1	n/a

Table 1. Data Summary Report
T-203

CORE NUMBER: 190
SEGMENT #: 9

SEGMENT PORTION: U Upper Half of Segment

Sample#	R	A#	Analyte	Unit	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S97T000710			DSC Exotherm Dry Calculated	Joules/g Dry	n/a	n/a	16.14	17.17	16.66	6.18	n/a	n/a	n/a
S97T000710			DSC Exotherm on Perkin Elmer	Joules/g	92.65	n/a	4.390	4.670	4.530	6.18	n/a	n/a	n/a
S97T000710			% Water by TGA on Perkin Elmer	%	98.43	n/a	74.32	71.29	72.81	4.16	n/a	n/a	n/a
S97T000745		F	Silver -ICP-Fusion	ug/g	97.20	<1.00e-02	<2.05e+02	<2.03e2	n/a	n/a	n/a	205.0	n/a
S97T000745		F	Aluminium -ICP-Fusion	ug/g	97.20	<5.00e-02	<1.02e+03	<1.02e3	n/a	n/a	n/a	1.02e+03	n/a
S97T000745		F	Arsenic -ICP-Fusion	ug/g	102.8	<1.00e-01	<2.05e+03	<2.03e3	n/a	n/a	n/a	2.05e+03	n/a
S97T000745		F	Boron -ICP-Fusion	ug/g	99.00	<5.00e-02	<1.02e+03	<1.02e3	n/a	n/a	n/a	1.02e+03	n/a
S97T000745		F	Barium -ICP-Fusion	ug/g	98.40	<5.00e-02	<1.02e+03	<1.02e3	n/a	n/a	n/a	1.02e+03	n/a
S97T000745		F	Beryllium -ICP-Fusion	ug/g	101.4	<5.00e-03	<1.02e+02	<1.02e2	n/a	n/a	n/a	102.0	n/a
S97T000745		F	Bismuth -ICP-Fusion	ug/g	100.8	<1.00e-01	3.19e+04	2.86e+04	3.02e+04	10.9	n/a	2.05e+03	n/a
S97T000745		F	Calcium -ICP-Fusion	ug/g	99.40	<1.00e-01	<2.05e+03	<2.03e3	n/a	n/a	n/a	2.05e+03	n/a
S97T000745		F	Cadmium -ICP-Fusion	ug/g	98.80	<5.00e-03	<1.02e+02	<1.02e2	n/a	n/a	n/a	102.0	n/a
S97T000745		F	Cerium -ICP-Fusion	ug/g	97.80	<1.00e-01	<2.05e+03	<2.03e3	n/a	n/a	n/a	2.05e+03	n/a
S97T000745		F	Cobalt -ICP-Fusion	ug/g	100.8	<2.00e-02	<4.09e+02	<4.06e2	n/a	n/a	n/a	409.0	n/a
S97T000745		F	Chromium -ICP-Fusion	ug/g	98.60	<1.00e-02	3.75e+03	3.50e+03	3.62e+03	6.90	n/a	205.0	n/a
S97T000745		F	Copper -ICP-Fusion	ug/g	98.40	<1.00e-02	<2.05e+02	<2.03e2	n/a	n/a	n/a	205.0	n/a
S97T000745		F	Iron -ICP-Fusion	ug/g	92.40	<5.00e-02	2.15e+03	1.66e+03	1.90e+03	25.7	n/a	1.02e+03	n/a
S97T000745		F	Lanthanum -ICP-Fusion	ug/g	99.40	<5.00e-02	9.29e+03	9.76e+03	9.52e+03	4.93	n/a	1.02e+03	n/a
S97T000745		F	Lithium -ICP-Fusion	ug/g	97.20	<1.00e-02	<2.05e+02	<2.03e2	n/a	n/a	n/a	205.0	n/a
S97T000745		F	Magnesium -ICP-Fusion	ug/g	100.0	<1.00e-01	<2.05e+03	<2.03e3	n/a	n/a	n/a	2.05e+03	n/a
S97T000745		F	Manganese -ICP-Fusion	ug/g	97.00	<1.00e-02	1.08e+04	6.15e+03	8.48e+03	54.9	n/a	205.0	n/a
S97T000745		F	Molybdenum -ICP-Fusion	ug/g	100.2	<5.00e-02	<1.02e+03	<1.02e3	n/a	n/a	n/a	1.02e+03	n/a
S97T000745		F	Sodium -ICP-Fusion	ug/g	101.4	<1.00e-01	3.43e+04	3.49e+04	3.46e+04	1.73	n/a	2.05e+03	n/a
S97T000745		F	Neodymium -ICP-Fusion	ug/g	99.00	<1.00e-01	<2.05e+03	<2.03e3	n/a	n/a	n/a	2.05e+03	n/a
S97T000745		F	Phosphorus -ICP-Fusion	ug/g	99.60	<2.00e-01	<4.09e+03	<4.06e3	n/a	n/a	n/a	4.09e+03	n/a
S97T000745		F	Lead -ICP-Fusion	ug/g	97.00	<1.00e-01	<2.05e+03	<2.03e3	n/a	n/a	n/a	2.05e+03	n/a
S97T000745		F	Sulfur -ICP-Fusion	ug/g	98.20	1.44e-01	<2.05e+03	<2.03e3	n/a	n/a	n/a	2.05e+03	n/a
S97T000745		F	Antimony -ICP-Fusion	ug/g	95.80	<6.00e-02	<1.23e+03	<1.22e3	n/a	n/a	n/a	1.23e+03	n/a
S97T000745		F	Selenium -ICP-Fusion	ug/g	94.80	<1.00e-01	<2.05e+03	<2.03e3	n/a	n/a	n/a	2.05e+03	n/a
S97T000745		F	Silicon -ICP-Fusion	ug/g	98.80	<5.00e-02	<1.02e+03	<1.02e3	n/a	n/a	n/a	1.02e+03	n/a
S97T000745		F	Samarium -ICP-Fusion	ug/g	97.20	<1.00e-01	<2.05e+03	<2.03e3	n/a	n/a	n/a	2.05e+03	n/a
S97T000745		F	Strontium -ICP-Fusion	ug/g	98.40	<1.00e-02	6.39e+02	676.0	657.5	5.63	n/a	205.0	n/a
S97T000745		F	Titanium-ICP-Fusion	ug/g	98.40	<1.00e-02	<2.05e+02	<2.03e2	n/a	n/a	n/a	205.0	n/a
S97T000745		F	Thallium -ICP-Fusion	ug/g	94.00	<2.00e-01	<4.09e+03	<4.06e3	n/a	n/a	n/a	4.09e+03	n/a
S97T000745		F	Uranium -ICP-Fusion	ug/g	96.00	<5.00e-01	<1.02e+04	<1.02e4	n/a	n/a	n/a	1.02e+04	n/a
S97T000745		F	Vanadium -ICP-Fusion	ug/g	100.6	<5.00e-02	<1.02e+03	<1.02e3	n/a	n/a	n/a	1.02e+03	n/a
S97T000745		F	Zinc -ICP-Fusion	ug/g	95.40	<1.00e-02	<2.05e+02	<2.03e2	n/a	n/a	n/a	205.0	n/a
S97T000745		F	Zirconium -ICP-Fusion	ug/g	98.40	<1.00e-02	<2.05e+02	<2.03e2	n/a	n/a	n/a	205.0	n/a
S97T000754		W	Fluoride-IC-Dionex 4000/4500	ug/g	91.69	<1.20e-02	6.22e+03	6.09e+03	6.16e+03	2.11	n/a	25.19	n/a
S97T000754		W	Chloride-IC-Dionex 4000/4500	ug/g	100.6	<1.70e-02	5.80e+02	556.0	568.1	4.23	n/a	35.68	n/a
S97T000754		W	Nitrite-IC - Dionex 4000/4500	ug/g	102.4	1.59e-01	2.10e+02	207.0	208.3	1.44	n/a	123.7	n/a
S97T000754		W	Bromide by Ion Chromatograph	ug/g	98.98	<1.25e-01	<2.62e+02	<2.67e2	n/a	n/a	n/a	262.4	n/a
S97T000754		W	Nitrate by IC-Dionex 4000/4500	ug/g	97.98	1.49e-01	6.22e+04	5.95e+04	6.08e+04	4.44	n/a	291.8	n/a
S97T000754		W	Phosphate-IC-Dionex 4000/4500	ug/g	99.45	<1.20e-01	2.50e+03	3.16e+03	2.83e+03	23.3	n/a	251.9	n/a

Sample#	R	A#	Analyte	Unit	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S97T000754		W	Sulfate by IC-Dionex 4000/4500	ug/g	98.73	<1.38e-01	3.68e+02	371.0	369.3	0.81	n/a	289.7	n/a
S97T000754		W	Oxalate-IC-Dionex 4000/4500	ug/g	101.1	<1.05e-01	1.60e+03	1.59e+03	1.59e+03	0.63	n/a	220.4	n/a

L Lower Half of Segment: L Lower Half of Segment

Sample#	R	A#	Analyte	Unit	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S97T000704			Bulk Density of Sample	g/mL	n/a	n/a	1.290	n/a	n/a	n/a	n/a	5.00e-01	n/a
S97T000716			DSC Exotherm Dry Calculated	Joules/g Dry	n/a	n/a	0.00e+00	0.00e+00	0.00e+00	0.00	n/a	n/a	n/a
S97T000716			DSC Exotherm on Perkin Elmer	Joules/g	96.10	n/a	0.00e+00	0.00e+00	0.00e+00	0.00	n/a	n/a	n/a
S97T000716			% Water by TGA on Perkin Elmer	%	99.14	n/a	76.59	76.13	76.36	0.60	n/a	n/a	n/a
S97T000767		F	Silver -ICP-Fusion	ug/g	97.20	<1.00e-02	<2.01e+02	<2.03e2	n/a	n/a	n/a	201.0	n/a
S97T000767		F	Aluminium -ICP-Fusion	ug/g	97.20	<5.00e-02	<1.01e+03	<1.01e3	n/a	n/a	n/a	1.01e+03	n/a
S97T000767		F	Arsenic -ICP-Fusion	ug/g	102.8	<1.00e-01	<2.01e+03	<2.03e3	n/a	n/a	n/a	2.01e+03	n/a
S97T000767		F	Boron -ICP-Fusion	ug/g	99.00	<5.00e-02	<1.01e+03	<1.01e3	n/a	n/a	n/a	1.01e+03	n/a
S97T000767		F	Barium -ICP-Fusion	ug/g	98.40	<5.00e-02	<1.01e+03	<1.01e3	n/a	n/a	n/a	1.01e+03	n/a
S97T000767		F	Beryllium -ICP-Fusion	ug/g	101.4	<5.00e-03	<1.01e+02	<1.01e2	n/a	n/a	n/a	101.0	n/a
S97T000767		F	Bismuth -ICP-Fusion	ug/g	100.8	<1.00e-01	3.47e+04	3.09e+04	3.28e+04	11.6	n/a	2.01e+03	n/a
S97T000767		F	Calcium -ICP-Fusion	ug/g	99.40	<1.00e-01	<2.01e+03	<2.03e3	n/a	n/a	n/a	2.01e+03	n/a
S97T000767		F	Cadmium -ICP-Fusion	ug/g	98.80	<5.00e-03	<1.01e+02	<1.01e2	n/a	n/a	n/a	101.0	n/a
S97T000767		F	Cerium -ICP-Fusion	ug/g	97.80	<1.00e-01	<2.01e+03	<2.03e3	n/a	n/a	n/a	2.01e+03	n/a
S97T000767		F	Cobalt -ICP-Fusion	ug/g	100.8	<2.00e-02	<4.03e+02	<4.06e2	n/a	n/a	n/a	403.0	n/a
S97T000767		F	Chromium -ICP-Fusion	ug/g	98.60	<1.00e-02	3.75e+03	3.83e+03	3.79e+03	2.11	n/a	201.0	n/a
S97T000767		F	Copper -ICP-Fusion	ug/g	98.40	<1.00e-02	<2.01e+02	<2.03e2	n/a	n/a	n/a	201.0	n/a
S97T000767		F	Iron -ICP-Fusion	ug/g	92.40	<5.00e-02	2.32e+03	2.20e+03	2.26e+03	5.31	n/a	1.01e+03	n/a
S97T000767		F	Lanthanum -ICP-Fusion	ug/g	99.40	<5.00e-02	1.04e+04	9.91e+03	1.02e+04	4.83	n/a	1.01e+03	n/a
S97T000767		F	Lithium -ICP-Fusion	ug/g	97.20	<1.00e-02	<2.01e+02	<2.03e2	n/a	n/a	n/a	201.0	n/a
S97T000767		F	Magnesium -ICP-Fusion	ug/g	100.0	<1.00e-01	<2.01e+03	<2.03e3	n/a	n/a	n/a	2.01e+03	n/a
S97T000767		F	Manganese -ICP-Fusion	ug/g	97.00	<1.00e-02	8.18e+03	7.28e+03	7.73e+03	11.6	n/a	201.0	n/a
S97T000767		F	Molybdenum -ICP-Fusion	ug/g	100.2	<5.00e-02	<1.01e+03	<1.01e3	n/a	n/a	n/a	1.01e+03	n/a
S97T000767		F	Sodium -ICP-Fusion	ug/g	101.4	<1.00e-01	3.41e+04	3.40e+04	3.40e+04	0.29	n/a	2.01e+03	n/a
S97T000767		F	Neodymium -ICP-Fusion	ug/g	99.00	<1.00e-01	<2.01e+03	<2.03e3	n/a	n/a	n/a	2.01e+03	n/a
S97T000767		F	Phosphorus -ICP-Fusion	ug/g	99.60	<2.00e-01	<4.03e+03	<4.06e3	n/a	n/a	n/a	4.03e+03	n/a
S97T000767		F	Lead -ICP-Fusion	ug/g	97.00	<1.00e-01	<2.01e+03	<2.03e3	n/a	n/a	n/a	2.01e+03	n/a
S97T000767		F	Sulfur -ICP-Fusion	ug/g	98.20	1.44e-01	<2.01e+03	<2.03e3	n/a	n/a	n/a	2.01e+03	n/a
S97T000767		F	Antimony -ICP-Fusion	ug/g	95.80	<6.00e-02	<1.21e+03	<1.22e3	n/a	n/a	n/a	1.21e+03	n/a
S97T000767		F	Selenium -ICP-Fusion	ug/g	94.80	<1.00e-01	<2.01e+03	<2.03e3	n/a	n/a	n/a	2.01e+03	n/a
S97T000767		F	Silicon -ICP-Fusion	ug/g	98.80	<5.00e-02	1.28e+03	<1.01e3	n/a	n/a	n/a	1.01e+03	n/a
S97T000767		F	Samarium -ICP-Fusion	ug/g	97.20	<1.00e-01	<2.01e+03	<2.03e3	n/a	n/a	n/a	2.01e+03	n/a
S97T000767		F	Strontium -ICP-Fusion	ug/g	98.40	<1.00e-02	6.96e+02	683.0	689.5	1.89	n/a	201.0	n/a
S97T000767		F	Titanium-ICP-Fusion	ug/g	98.40	<1.00e-02	<2.01e+02	<2.03e2	n/a	n/a	n/a	201.0	n/a
S97T000767		F	Thallium -ICP-Fusion	ug/g	94.00	<2.00e-01	<4.03e+03	<4.06e3	n/a	n/a	n/a	4.03e+03	n/a
S97T000767		F	Uranium -ICP-Fusion	ug/g	96.00	<5.00e-01	<1.01e+04	<1.01e4	n/a	n/a	n/a	1.01e+04	n/a
S97T000767		F	Vanadium -ICP-Fusion	ug/g	100.6	<5.00e-02	<1.01e+03	<1.01e3	n/a	n/a	n/a	1.01e+03	n/a
S97T000767		F	Zinc -ICP-Fusion	ug/g	95.40	<1.00e-02	<2.01e+02	<2.03e2	n/a	n/a	n/a	201.0	n/a
S97T000767		F	Zirconium -ICP-Fusion	ug/g	98.40	<1.00e-02	<2.01e+02	<2.03e2	n/a	n/a	n/a	201.0	n/a
S97T000767		F	Alpha of Digested Solid	uCi/g	86.50	2.00e-03	1.59e-01	1.24e-01	1.42e-01	24.7	n/a	3.00e-03	8.06E+00
S97T000776		W	Fluoride-IC-Dionex 4000/4500	ug/g	91.69	<1.20e-02	6.15e+03	6.21e+03	6.18e+03	0.97	n/a	24.90	n/a
S97T000776		W	Chloride-IC-Dionex 4000/4500	ug/g	100.6	<1.70e-02	5.92e+02	596.0	594.0	0.67	n/a	35.28	n/a
S97T000776		W	Nitrite-IC - Dionex 4000/4500	ug/g	102.4	1.59e-01	2.75e+02	271.0	273.2	1.47	n/a	224.1	n/a
S97T000776		W	Bromide by Ion Chromatograph	ug/g	98.98	<1.25e-01	<2.59e+02	<2.58e2	n/a	n/a	n/a	259.4	n/a
S97T000776		W	Nitrate by IC-Dionex 4000/4500	ug/g	97.98	1.49e-01	5.93e+04	6.02e+04	5.97e+04	1.51	n/a	288.4	n/a

Sample#	R	A#	Analyte	Unit	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S97T000776		W	Phosphate-IC-Dionex 4000/4500	ug/g	99.45	<1.20e-01	3.62e+03	2.56e+03	3.09e+03	34.3	n/a	249.0	n/a
S97T000776		W	Sulfate by IC-Dionex 4000/4500	ug/g	98.73	<1.38e-01	4.67e+02	734.0	600.5	44.5	n/a	286.3	n/a
S97T000776		W	Oxalate-IC-Dionex 4000/4500	ug/g	101.1	<1.05e-01	1.52e+03	1.55e+03	1.54e+03	1.95	n/a	217.9	n/a

Table 1. Data Summary Report
T-203

CORE NUMBER: 190
SEGMENT #: FB

SEGMENT PORTION: Field Blank

Sample#	R	A#	Analyte	Unit	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S97T000731			DSC Exotherm Dry Calculated	Joules/g Dry	n/a	n/a	0.00e+00	0.00e+00	0.00e+00	0.00	n/a	n/a	n/a
S97T000731			DSC Exotherm on Perkin Elmer	Joules/g	96.56	n/a	0.00e+00	0.00e+00	0.00e+00	0.00	n/a	n/a	n/a
S97T000731			Specific Gravity	Sp.G.	99.82	n/a	1.008	9.90e-01	9.99e-01	1.80	n/a	1.00e-03	n/a
S97T000731			% Water by TGA on Perkin Elmer	%	99.07	n/a	99.55	99.68	99.62	0.13	n/a	n/a	n/a
S97T000731		D	Silver-ICP-Acid Dil.	ug/mL	96.40	<1.00e-02	<1.00e-02	n/a	n/a	n/a	n/a	1.00e-02	n/a
S97T000731		D	Aluminium-ICP-Acid Dil.	ug/mL	96.80	<5.00e-02	<5.00e-02	n/a	n/a	n/a	n/a	5.00e-02	n/a
S97T000731		D	Arsenic-ICP-Acid Dil.	ug/mL	102.2	<1.00e-01	<1.00e-01	n/a	n/a	n/a	n/a	1.00e-01	n/a
S97T000731		D	Boron-ICP-Acid Dil.	ug/mL	99.60	<5.00e-02	3.09e-01	n/a	n/a	n/a	n/a	5.00e-02	n/a
S97T000731		D	Barium-ICP-Acid Dil.	ug/mL	98.40	<5.00e-02	<5.00e-02	n/a	n/a	n/a	n/a	5.00e-02	n/a
S97T000731		D	Beryllium-ICP-Acid Dil.	ug/mL	100.4	<5.00e-03	<5.00e-03	n/a	n/a	n/a	n/a	5.00e-03	n/a
S97T000731		D	Bismuth-ICP-Acid Dil.	ug/mL	99.20	<1.00e-01	<1.00e-01	n/a	n/a	n/a	n/a	1.00e-01	n/a
S97T000731		D	Calcium-ICP-Acid Dil.	ug/mL	96.40	<1.00e-01	18.20	n/a	n/a	n/a	n/a	1.00e-01	n/a
S97T000731		D	Cadmium-ICP-Acid Dil.	ug/mL	98.20	<5.00e-03	<5.00e-03	n/a	n/a	n/a	n/a	5.00e-03	n/a
S97T000731		D	Cerium-ICP-Acid Dil.	ug/mL	97.20	<1.00e-01	<1.00e-01	n/a	n/a	n/a	n/a	1.00e-01	n/a
S97T000731		D	Cobalt-ICP-Acid Dil.	ug/mL	100.2	<2.00e-02	<2.00e-02	n/a	n/a	n/a	n/a	2.00e-02	n/a
S97T000731		D	Chromium-ICP-Acid Dil.	ug/mL	97.40	<1.00e-02	4.91e-02	n/a	n/a	n/a	n/a	1.00e-02	n/a
S97T000731		D	Copper-ICP-Acid Dil.	ug/mL	99.20	<1.00e-02	<1.00e-02	n/a	n/a	n/a	n/a	1.00e-02	n/a
S97T000731		D	Iron-ICP-Acid Dil.	ug/mL	91.80	<5.00e-02	2.10e-01	n/a	n/a	n/a	n/a	5.00e-02	n/a
S97T000731		D	Potassium-ICP-Acid Dil.	ug/mL	95.20	<5.00e-01	1.900	n/a	n/a	n/a	n/a	5.00e-01	n/a
S97T000731		D	Lanthanum-ICP-Acid Dil.	ug/mL	98.80	<5.00e-02	<5.00e-02	n/a	n/a	n/a	n/a	5.00e-02	n/a
S97T000731		D	Lithium-ICP-Acid Dil.	ug/mL	98.80	<1.00e-02	<1.00e-02	n/a	n/a	n/a	n/a	1.00e-02	n/a
S97T000731		D	Magnesium-ICP-Acid Dil.	ug/mL	99.40	<1.00e-01	3.820	n/a	n/a	n/a	n/a	1.00e-01	n/a
S97T000731		D	Manganese-ICP-Acid Dil.	ug/mL	96.20	<1.00e-02	4.41e-02	n/a	n/a	n/a	n/a	1.00e-02	n/a
S97T000731		D	Molybdenum-ICP-Acid Dil.	ug/mL	100.0	<5.00e-02	<5.00e-02	n/a	n/a	n/a	n/a	5.00e-02	n/a
S97T000731		D	Sodium-ICP-Acid Dil.	ug/mL	101.6	<1.00e-01	9.090	n/a	n/a	n/a	n/a	1.00e-01	n/a
S97T000731		D	Neodymium-ICP-Acid Dil.	ug/mL	99.00	<1.00e-01	<1.00e-01	n/a	n/a	n/a	n/a	1.00e-01	n/a
S97T000731		D	Nickel-ICP-Acid Dil.	ug/mL	98.00	<2.00e-02	<2.00e-02	n/a	n/a	n/a	n/a	2.00e-02	n/a
S97T000731		D	Phosphorus-ICP-Acid Dil.	ug/mL	101.2	<2.00e-01	<2.00e-01	n/a	n/a	n/a	n/a	2.00e-01	n/a
S97T000731		D	Lead-ICP-Acid Dil.	ug/mL	96.00	<1.00e-01	<1.00e-01	n/a	n/a	n/a	n/a	1.00e-01	n/a
S97T000731		D	Sulfur-ICP-Acid Dil.	ug/mL	98.20	<1.00e-01	6.030	n/a	n/a	n/a	n/a	1.00e-01	n/a
S97T000731		D	Antimony-ICP-Acid Dil.	ug/mL	95.00	<6.00e-02	<6.00e-02	n/a	n/a	n/a	n/a	6.00e-02	n/a
S97T000731		D	Selenium-ICP-Acid Dil.	ug/mL	92.80	<1.00e-01	<1.00e-01	n/a	n/a	n/a	n/a	1.00e-01	n/a
S97T000731		D	Silicon-ICP-Acid Dil.	ug/mL	99.60	<5.00e-02	2.590	n/a	n/a	n/a	n/a	5.00e-02	n/a
S97T000731		D	Samarium-ICP-Acid Dil.	ug/mL	96.80	<1.00e-01	<1.00e-01	n/a	n/a	n/a	n/a	1.00e-01	n/a
S97T000731		D	Strontium-ICP-Acid Dil.	ug/mL	98.00	<1.00e-02	9.36e-02	n/a	n/a	n/a	n/a	1.00e-02	n/a
S97T000731		D	Titanium-ICP-Acid Dil.	ug/mL	97.00	<1.00e-02	<1.00e-02	n/a	n/a	n/a	n/a	1.00e-02	n/a
S97T000731		D	Thallium-ICP-Acid Dil.	ug/mL	95.00	<2.00e-01	<2.00e-01	n/a	n/a	n/a	n/a	2.00e-01	n/a
S97T000731		D	Uranium-ICP-Acid Dil.	ug/mL	95.60	<5.00e-01	<5.00e-01	n/a	n/a	n/a	n/a	5.00e-01	n/a
S97T000731		D	Vanadium-ICP-Acid Dil.	ug/mL	100.0	<5.00e-02	<5.00e-02	n/a	n/a	n/a	n/a	5.00e-02	n/a
S97T000731		D	Zinc-ICP-Acid Dil.	ug/mL	95.00	<1.00e-02	7.95e-02	n/a	n/a	n/a	n/a	1.00e-02	n/a
S97T000731		D	Zirconium-ICP-Acid Dil.	ug/mL	97.80	<1.00e-02	<1.00e-02	n/a	n/a	n/a	n/a	1.00e-02	n/a
S97T000731			Fluoride-IC-Dionex 4000/4500	ug/mL	95.93	<1.20e-02	3.345	3.310	3.328	1.20	n/a	1.212	n/a
S97T000731			Chloride-IC-Dionex 4000/4500	ug/mL	100.9	<1.70e-02	6.605	6.330	6.468	4.33	n/a	1.717	n/a
S97T000731			Nitrite-IC - Dionex 4000/4500	ug/mL	104.6	<1.08e-01	< 10.91	<1.09e1	n/a	n/a	n/a	10.91	n/a

Sample#	R	A#	Analyte	Unit	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S97T000731			Bromide by Ion Chromatograph	ug/mL	99.66	<1.25e-01	< 12.62	<1.26e1	n/a	n/a	n/a	12.62	n/a
S97T000731			Nitrate by IC-Dionex 4000/4500	ug/mL	100.0	1.42e-01	31.19	35.70	33.45	13.5	n/a	14.04	n/a
S97T000731			Phosphate-IC-Dionex 4000/4500	ug/mL	98.17	<1.20e-01	< 12.12	<1.21e1	n/a	n/a	n/a	12.12	n/a
S97T000731			Sulfate by IC-Dionex 4000/4500	ug/mL	100.8	<1.38e-01	21.05	21.90	21.48	3.72	n/a	13.94	n/a
S97T000731			Oxalate-IC-Dionex 4000/450	ug/mL	101.3	<1.05e-01	< 10.61	<1.06e1	n/a	n/a	n/a	10.61	n/a
S97T000731			Alpha in Liquid Samples	uCi/mL	84.50	<4.96e-07	4.41e-07	5.52e-07	4.97e-07	22.4	n/a	5.29e-07	1.06E+02

Table 1. Data Summary Report
T-203

CORE NUMBER: 190
SEGMENT #: Core Composite

SEGMENT PORTION: Core Composite

Sample#	R	A#	Analyte	Unit	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S97T001012			Bulk Density of Sample	g/mL	n/a	n/a	1.230	n/a	n/a	n/a	n/a	5.00e-01	n/a
S97T001013			DSC Exotherm Dry Calculated	Joules/g Dry	n/a	n/a	0.00e+00	0.00e+00	0.00e+00	0.00	n/a	n/a	n/a
S97T001013			DSC Exotherm on Perkin Elmer	Joules/g	99.82	n/a	0.00e+00	0.00e+00	0.00e+00	0.00	n/a	n/a	n/a
S97T001013			% Water by TGA on Perkin Elmer	%	99.44	n/a	69.57	72.49	71.03	4.11	n/a	n/a	n/a
S97T001013			TIC by Acid/Coulometry	ug/g	100.7	3.200	1.58e+03	1.58e+03	1.58e+03	0.00	96.20	5.000	n/a
S97T001013			TOC by Persulfate/Coulometry	ug/g	99.67	6.000	4.18e+02	423.0	420.5	1.19	89.40	40.00	n/a
S97T001016	W		Fluoride-IC-Dionex 4000/4500	ug/g	89.66	<1.20e-02	6.32e+03	6.35e+03	6.34e+03	0.47	103.9	28.91	n/a
S97T001016	W		Chloride-IC-Dionex 4000/4500	ug/g	95.32	<1.70e-02	6.89e+02	627.0	657.9	9.42	102.8	40.95	n/a
S97T001016	W		Nitrite-IC - Dionex 4000/4500	ug/g	95.58	<1.08e-01	2.97e+02	292.0	294.5	1.70	91.16	260.1	n/a
S97T001016	W		Bromide by Ion Chromatograph	ug/g	99.66	<1.25e-01	<3.01e+02	<2.92e2	n/a	n/a	84.21	301.2	n/a
S97T001016	W		Nitrate by IC-Dionex 4000/4500	ug/g	97.47	<1.39e-01	6.37e+04	6.52e+04	6.44e+04	2.33	85.19	334.8	n/a
S97T001016	W		Phosphate-IC-Dionex 4000/4500	ug/g	93.39	<1.20e-01	2.29e+03	3.53e+03	2.91e+03	42.6	91.38	289.1	n/a
S97T001016	W		Sulfate by IC-Dionex 4000/4500	ug/g	96.68	<1.38e-01	<3.32e+02	543.0	n/a	n/a	96.99	332.4	n/a
S97T001016	W		Oxalate-IC-Dionex 4000/4500	ug/g	101.3	<1.05e-01	1.40e+03	1.33e+03	1.37e+03	5.13	101.5	253.0	n/a
S97T001017	A		Silver -ICP-Acid Digest	ug/g	99.60	<1.00e-02	2.410	<2.00e0	n/a	n/a	94.40	2.000	n/a
S97T001017	A		Aluminium -ICP-Acid Digest	ug/g	98.20	9.60e-02	57.50	55.00	56.25	4.44	97.00	9.980	n/a
S97T001017	A		Arsenic -ICP-Acid Digest	ug/g	102.6	<1.00e-01	< 20.00	<2.00e1	n/a	n/a	100.2	20.00	n/a
S97T001017	A		Boron -ICP-Acid Digest	ug/g	104.2	3.93e-01	75.20	111.0	93.10	38.5	90.60	9.980	n/a
S97T001017	A		Barium -ICP-Acid Digest	ug/g	99.80	<5.00e-02	73.20	76.30	74.75	4.15	107.2	9.980	n/a
S97T001017	A		Beryllium -ICP-Acid Digest	ug/g	103.2	<5.00e-03	<9.98e-01	<9.98e-1	n/a	n/a	100.4	9.98e-01	n/a
S97T001017	A		Bismuth -ICP-Acid Digest	ug/g	100.4	<1.00e-01	4.95e+04	4.78e+04	4.86e+04	3.49	-5.560e2	20.00	n/a
S97T001017	A		Calcium -ICP-Acid Digest	ug/g	104.6	1.23e-01	3.53e+02	339.0	346.0	4.05	104.4	20.00	n/a
S97T001017	A		Cadmium -ICP-Acid Digest	ug/g	96.80	<5.00e-03	<9.98e-01	<9.98e-1	n/a	n/a	94.60	9.98e-01	n/a
S97T001017	A		Cerium -ICP-Acid Digest	ug/g	101.4	<1.00e-01	56.60	53.90	55.25	4.89	98.80	20.00	n/a
S97T001017	A		Cobalt -ICP-Acid Digest	ug/g	100.2	<2.00e-02	< 3.990	<3.99e0	n/a	n/a	98.40	3.990	n/a
S97T001017	A		Chromium -ICP-Acid Digest	ug/g	97.40	<1.00e-02	3.87e+03	3.71e+03	3.79e+03	4.22	39.20	2.000	n/a
S97T001017	A		Copper -ICP-Acid Digest	ug/g	89.60	1.00e-02	< 2.000	<2.00e0	n/a	n/a	87.60	2.000	n/a
S97T001017	A		Iron -ICP-Acid Digest	ug/g	91.20	<5.00e-02	3.62e+03	1.00e+04	6.81e+03	93.7	4.60e+03	9.980	n/a
S97T001017	A		Potassium -ICP-Acid Digest	ug/g	99.80	<5.00e-01	6.96e+03	6.74e+03	6.85e+03	3.21	11.54	99.80	n/a
S97T001017	A		Lanthanum -ICP-Acid Digest	ug/g	102.0	<5.00e-02	1.19e+04	1.15e+04	1.17e+04	3.42	-6.380e1	9.980	n/a
S97T001017	A		Lithium -ICP-Acid Digest	ug/g	100.4	<1.00e-02	< 2.000	<2.00e0	n/a	n/a	99.00	2.000	n/a
S97T001017	A		Magnesium -ICP-Acid Digest	ug/g	97.60	<1.00e-01	77.80	80.20	79.00	3.04	95.20	20.00	n/a
S97T001017	A		Manganese -ICP-Acid Digest	ug/g	95.60	<1.00e-02	1.64e+04	1.57e+04	1.60e+04	4.36	-1.150e2	2.000	n/a
S97T001017	A		Molybdenum -ICP-Acid Digest	ug/g	95.80	<5.00e-02	< 9.980	<9.98e0	n/a	n/a	92.00	9.980	n/a
S97T001017	A		Sodium -ICP-Acid Digest	ug/g	105.6	5.01e-01	3.53e+04	3.43e+04	3.48e+04	2.87	-3.340e2	20.00	n/a
S97T001017	A		Neodymium -ICP-Acid Digest	ug/g	100.0	<1.00e-01	< 20.00	<2.00e1	n/a	n/a	98.40	20.00	n/a
S97T001017	A		Nickel -ICP-Acid Digest	ug/g	100.4	<2.00e-02	1.49e+02	146.0	147.5	2.03	95.60	3.990	n/a
S97T001017	A		Phosphorus -ICP-Acid Digest	ug/g	96.60	<2.00e-01	2.42e+03	2.35e+03	2.38e+03	2.94	72.20	39.90	n/a
S97T001017	A		Lead -ICP-Acid Digest	ug/g	95.80	<1.00e-01	< 20.00	21.50	n/a	n/a	148.2	20.00	n/a
S97T001017	A		Sulfur -ICP-Acid Digest	ug/g	97.20	1.01e-01	1.24e+02	131.0	127.5	5.49	95.80	20.00	n/a
S97T001017	A		Antimony -ICP-Acid Digest	ug/g	95.00	<6.00e-02	< 12.00	<1.20e1	n/a	n/a	91.40	12.00	n/a
S97T001017	A		Silicon -ICP-Acid Digest	ug/g	138.8	7.08e-01	1.69e+03	1.51e+03	1.60e+03	11.2	83.80	9.980	n/a
S97T001017	A		Samarium -ICP-Acid Digest	ug/g	98.40	<1.00e-01	< 20.00	<2.00e1	n/a	n/a	95.80	20.00	n/a
S97T001017	A		Strontium -ICP-Acid Digest	ug/g	98.60	<1.00e-02	5.70e+02	544.0	557.0	4.67	87.40	2.000	n/a

Sample#	R	A#	Analyte	Unit	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S97T001017		A	Titanium-ICP-Acid Digest	ug/g	88.80	<1.00e-02	3.200	3.340	3.270	4.28	86.60	2.000	n/a
S97T001017		A	Thallium -ICP-Acid Digest	ug/g	93.40	<2.00e-01	< 39.90	<3.99e1	n/a	n/a	88.60	39.90	n/a
S97T001017		A	Uranium -ICP-Acid Digest	ug/g	96.10	<5.00e-01	< 99.80	<9.98e1	n/a	n/a	100.0	99.80	n/a
S97T001017		A	Vanadium -ICP-Acid Digest	ug/g	97.20	<5.00e-02	< 9.980	<9.98e0	n/a	n/a	96.00	9.980	n/a
S97T001017		A	Zinc -ICP-Acid Digest	ug/g	90.60	1.90e-02	20.70	20.50	20.60	0.97	100.0	2.000	n/a
S97T001017		A	Zirconium -ICP-Acid Digest	ug/g	98.00	<1.00e-02	< 2.000	<2.00e0	n/a	n/a	96.20	2.000	n/a
S97T001734		F	Strontium-89/90 High Level	uCi/g	96.23	<1.22e-03	2.46e-03	2.67e-03	2.57e-03	8.19	103.8	1.00e-03	4.59E+01
S97T001734		F	Cobalt-60 by GEA	uCi/g	100.7	<1.25e-02	<1.29e-02	<1.22e-2	n/a	n/a	n/a	1.30e-02	n/a
S97T001734		F	Cesium-137 by GEA	uCi/g	99.67	<1.41e-02	<1.78e-02	<1.83e-2	n/a	n/a	n/a	1.80e-02	n/a
S97T001734		F	Europium-154 by GEA	uCi/g	n/a	<4.23e-02	<4.32e-02	<3.92e-2	n/a	n/a	n/a	4.30e-02	n/a
S97T001734		F	Europium-155 by GEA	uCi/g	n/a	<3.35e-02	<3.34e-02	<3.37e-2	n/a	n/a	n/a	3.30e-02	n/a
S97T001734		F	Americium-241 by GEA	uCi/g	n/a	<1.67e-02	3.59e-02	3.59e-02	3.59e-02	0.00	n/a	n/a	44.3

COMPOSITE WORKSHEETS

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Composite Worksheet

Date: 5/20/97

Tank: T203

P.C. Steen

Phone# 372-249

Sample ID: 597T000656

Auger/ Core: 190

Segment: 1UH

Jar#: 12208 (4floor)

Jar/Vial Size: 250 mL

Initial Weight: 241.4 g

Final Weight: 233.9 g

Net Weight: 7.5 g

Sample ID: 597T000657

Auger/ Core: 190

Segment: 1LH

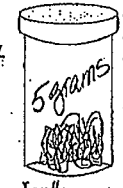
Jar#: 12207 (4floor)

Jar/Vial Size: 250 mL

Initial Weight: 255.0 g

Final Weight: 248.2 g

Net Weight: 6.8 g



Sample ID: 597T000693

Auger/ Core: 190

Segment: 1RUH

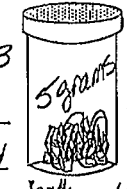
Jar#: 12352 (4floor)

Jar/Vial Size: 125 mL

Initial Weight: 140.3 g

Final Weight: 133.9 g

Net Weight: 6.4 g



Sample ID: 597T000695

Auger/ Core: 190

Segment: 1RLH

Jar#: 12265 (4floor)

Jar/Vial Size: 250 mL

Initial Weight: 253.0 g

Final Weight: 245.9 g

Net Weight: 7.1 g

6/17/97

Start Time: 4:50

End Time: 4:55

Tests:
COMPOS01
HOMGN201
BLKDEN01

Jar#: 12377

Jar/Vial Size: 125 mL

Final Weight: 226.4 g

Initial Weight: 120.3 g

Net Weight: 106.1 g

Homogenization Time (Min.): 5 min

(after final subsample added)

Special Instructions: Composite using weights listed.

HNF-SD-WM-DP-247, REV. 0

Composite Worksheet

Date: 5/20/97

Tank: T203

P.C. Steen

Phone# 372-2495

Sample ID: S97T000658

Auger/ Core: 190

Segment: 2UH

Jar#: 12548 (Tray 001)

Jar/Vial Size: 250 mL

Initial Weight: 303.7 g

Final Weight: 296.5 g

Net Weight: 7.2 g

Sample ID: S97T000661

Auger/ Core: 190

Segment: 2LH

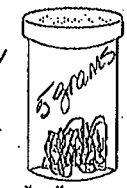
Jar#: 12255 (Tray 001)

Jar/Vial Size: 250 mL

Initial Weight: 270.2 g

Final Weight: 262.5 g

Net Weight: 7.7 g



Sample ID: S97T000694

Auger/ Core: 190

Segment: 3UH

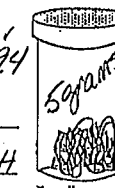
Jar#: 12257 (Tray 001)

Jar/Vial Size: 250 mL

Initial Weight: 248.2 g

Final Weight: 240.6 g

Net Weight: 7.6 g



Sample ID: S97T000725

Auger/ Core: 190

Segment: 3LH

Jar#: 12628 (Tray 13

Jar/Vial Size: 60 mL (Archi

Initial Weight: 160.9 g

Final Weight: 151.9 g

Net Weight: 9.0 g

See Parent Jar# 12377 on Page #1

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HNF-SD-WM-DP-247, REV. 0

Special Instructions:

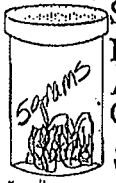
Composite Worksheet

Date: 5/20/97

Tank: T203

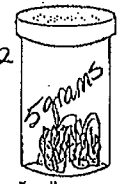
P.C. Steen

Phone# 372-249



Sample ID: 597000659
Auger/ Core: 190
Segment: 4UH
Jar#: 122560 (floor)
Jar/Vial Size: 250 mL
Initial Weight: 289.1 g
Final Weight: 281.3 g
Net Weight: 7.8 g

Sample ID: 597000662
Auger/ Core: 190
Segment: 4LH
Jar#: 122547 (floor)
Jar/Vial Size: 250 mL
Initial Weight: 270.8 g
Final Weight: 263.4 g
Net Weight: 7.4 g



Sample ID: 597000660
Auger/ Core: 190
Segment: 5UH
Jar#: 122568 (floor)
Jar/Vial Size: 250 mL
Initial Weight: 295.4 g
Final Weight: 288.6 g
Net Weight: 6.8 g

Sample ID: 597000663
Auger/ Core: 190
Segment: 5LH
Jar#: 122569 (floor)
Jar/Vial Size: 250 mL
Initial Weight: 256.5 g
Final Weight: 249.4 g
Net Weight: 7.1 g

See Parent Jar# 12377 on Page #1

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HNF-SD-WM-DP-247, REV. 0

Special Instructions:

Composite Worksheet

Date: 5/20/97

Tank: T203

P.C. Steen

Phone# 372-249

Sample ID: 597000695

Auger/ Core: 190

Segment: 6UH

Jar#: 12264 (floor)

Jar/Vial Size: 250 mL

Initial Weight: 293.9 g

Final Weight: 287.6 g

Net Weight: 6.2 g

Sample ID: 597000725

Auger/ Core: 190

Segment: 6LH

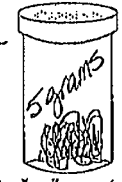
Jar#: 12631 (Bin 132)

Jar/Vial Size: 60 mL (archive)

Initial Weight: 162.7 g

Final Weight: 156.1 g

Net Weight: 6.6 g



Sample ID: 597000696

Auger/ Core: 190

Segment: 7UH

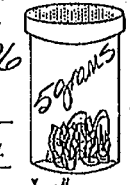
Jar#: 12260 (floor)

Jar/Vial Size: 250 mL

Initial Weight: 295.2 g

Final Weight: 287.8 g

Net Weight: 7.4 g



Sample ID: 597000702

Auger/ Core: 190

Segment: 7LH

Jar#: 12261 (floor)

Jar/Vial Size: 250 mL

Initial Weight: 246.2 g

Final Weight: 238.7 g

Net Weight: 7.5 g

See Parent Jar# 12327 on Page #1

HNF-SD-WM-DP-247, REV. 0

Special Instructions:

Composite Worksheet

Date: 5/20/97

Tank: T203

P.C. Steen

Phone# 372-269

Sample ID: 597000697

Auger/ Core: 190

Segment: 8UH

Jar#: 12262 (ft001)

Jar/Vial Size: 250 mL

Initial Weight: 279.5 g

Final Weight: 272.6 g

Net Weight: 6.9 g

Sample ID: 597000703

Auger/ Core: 190

Segment: 8LH

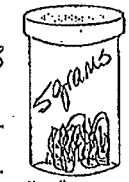
Jar#: 12259 (ft001)

Jar/Vial Size: 250 mL

Initial Weight: 274.9 g

Final Weight: 268.7 g

Net Weight: 6.2 g



Sample ID: 597000698

Auger/ Core: 190

Segment: 9UH

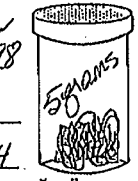
Jar#: 12258 (ft001)

Jar/Vial Size: 250 mL

Initial Weight: 277.6 g

Final Weight: 270.7 g

Net Weight: 6.9 g



Sample ID: 597000704

Auger/ Core: 190

Segment: 9LH

Jar#: 12263 (ft001)

Jar/Vial Size: 250 mL

Initial Weight: 278.8 g

Final Weight: 272.3 g

Net Weight: 6.5 g

See Parent Jar# 12377 on Page #1

81

HNF-SD-WM-DP-247, REV.0

Special Instructions:

Final Composite Calculation Sheet

Date: 6/17/97 Technician: A Hurson

Total number of jars used to build the composite: 20

Composite Jar number: 12379 Jar size: 125 ml

1) Sample from segment jar 12208 to composite jar = 5.6 grams
2) Sample from segment jar 12207 to composite jar = 5.3 grams
3) Sample from segment jar 12352 to composite jar = 5.0 grams
4) Sample from segment jar 12265 to composite jar = 5.2 grams
5) Sample from segment jar 12548 to composite jar = 5.0 grams
6) Sample from segment jar 12255 to composite jar = 5.2 grams
7) Sample from segment jar 12257 to composite jar = 5.0 grams
8) Sample from segment jar 12628 to composite jar = 5.1 grams
9) Sample from segment jar 12256 to composite jar = 6.1 grams
10) Sample from segment jar 12547 to composite jar = 5.1 grams
11) Sample from segment jar 12268 to composite jar = 5.7 grams
12) Sample from segment jar 12269 to composite jar = 5.1 grms
13) Sample from segment jar 12264 to composite jar = 5.0 grams
14) Sample from segment jar 12631 to composite jar = 5.1 grms
15) Sample from segment jar 12260 to composite jar = 5.0 grams
16) Sample from segment jar 12261 to composite jar = 5.9 grams
17) Sample from segment jar 12262 to composite jar = 6.1 grams
18) Sample from segment jar 12259 to composite jar = 5.0 grams
19) Sample from segment jar 12258 to composite jar = 5.5 grams
20) Sample from segment jar 12263 to composite jar = 5.1 grams

Total grams collected in composite jar "12379" 104.1

HNF-SD-WM-DP-247, REV. 0

Composite % Calculation Sheet

Date: 6/18/97 Technician: A Hurson

1) Segment jar # 12208:

5.6 / 106.1 grams from segment jar to composite jar / Total grams in composite jar X 100 = 5.3 %

2) Segment jar # 12207:

5.3 / 106.1 grams from segment jar to composite jar / Total grams in composite jar X 100 = 5.0 %

3) Segment jar # 12352:

5.0 / 106.1 grams from segment jar to composite jar / Total grams in composite jar X 100 = 4.7 %

4) Segment jar # 12265:

5.2 / 106.1 grams from segment jar to composite jar / Total grams in composite jar X 100 = 4.9 %

5) Segment jar # 12544:

5.0 / 106.1 grams from segment jar to composite jar / Total grams in composite jar X 100 = 4.7 %

6) Segment jar # 12255:

5.2 / 106.1 grams from segment jar to composite jar / Total grams in composite jar X 100 = 4.9 %

7) Segment jar # 12257:

5.0 / 106.1 grams from segment jar to composite jar / Total grams in composite jar X 100 = 4.7 %

8) Segment jar # 12628:

5.1 / 106.1 grams from segment jar to composite jar / Total grams in composite jar X 100 = 4.8 %

9) Segment jar # 12256:

6.1 / 106.1 grams from segment jar to composite jar / Total grams in composite jar X 100 = 5.7 %

10) Segment jar # 12547:

5.1 / 106.1 grams from segment jar to composite jar / Total grams in composite jar X 100 = 4.8 %

HNF-SD-WM-DP-247, REV. 0

Composite % Calculation Sheet

Date: 6/18/97 Technician: A Hutson

1) Segment jar # 12268:

5.7 / 106.1 grams from segment jar to composite jar / Total grams in composite jar X 100 = 5.4 %

2) Segment jar # 12269:

5.1 / 106.1 grams from segment jar to composite jar / Total grams in composite jar X 100 = 4.8 %

3) Segment jar # 12264:

5.0 / 106.1 grams from segment jar to composite jar / Total grams in composite jar X 100 = 4.7 %

4) Segment jar # 12631:

5.1 / 106.1 grams from segment jar to composite jar / Total grams in composite jar X 100 = 4.8 %

5) Segment jar # 12260:

5.0 / 106.1 grams from segment jar to composite jar / Total grams in composite jar X 100 = 4.7 %

6) Segment jar # 12261:

5.9 / 106.1 grams from segment jar to composite jar / Total grams in composite jar X 100 = 5.6 %

7) Segment jar # 12262:

6.1 / 106.1 grams from segment jar to composite jar / Total grams in composite jar X 100 = 5.7 %

8) Segment jar # 12259:

5.0 / 106.1 grams from segment jar to composite jar / Total grams in composite jar X 100 = 4.7 %

9) Segment jar # 12254:

5.5 / 106.1 grams from segment jar to composite jar / Total grams in composite jar X 100 = 5.2 %

10) Segment jar # 12263:

5.1 / 106.1 grams from segment jar to composite jar / Total grams in composite jar X 100 = 4.8 %

Chemist review: _____ Date _____

CHAIN OF CUSTODY FORMS

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CHAIN-OF-CUSTODY RECORD FOR CORE SAMPLING

(1) Shipment Number 200W-08-TF (2) Sample Number # 190-01 (3) Supervisor Daniel Bergs, Daniel Garza

(4) Tank T-203 (5) Riser 3 (6) Segment #1 (7) Core 190 (8) Cask Serial Number C-2017

Radiation Survey Data:	(9) FIELD	(33) LABORATORY
Over Top Dose Rate	RST 4-18-97 <0.5 <0.005 mSv/hr	<0.005 mSv/hr
Side Dose Rate	<0.005 mSv/hr	<0.005 mSv/hr
Bottom Dose Rate	<0.005 mSv/hr	<0.005 mSv/hr
Smearable Contamination	<0.324 RST 4/18/97 <0.367 Bq (Alpha)	<1.334 Bq/LAW (Alpha)
	<16.7 Bq (Beta-Gamma)	<2.505 BQ/LAW (Beta-Gamma)
RCT* (HPT)	(Signature)	RCT* (HPT) (Signature)

(10) Shipment Description	
A. Work Package Number	WS-96-00304
B. Cask Seal Number	12228
C. Sampler Serial Number	96-173
D. Date and Time Sampler Uncoated	04/17/97, 0119 hrs
E. Expected Liquid Content	10%
F. Expected Solid Content	90%
G. Dose Rate Through Drill String	0.005 Sv.
H. Expected Sample Length	6 1/2"

(11) INFORMATION (Include statement of laboratory tests to be performed.)

HNF-SD-WM-DP-247, REV. 0

(12) Field Comments

(34) Laboratory Comments

5977000583

(13) Point of Origin	(14) Destination	(15) Sender Name (Sign and PRINT)	(16) Date/Time	(17) Sender Comments
T-203	222-S Labs	R.J. Reynolds for D. Garza	4/18/97 0900	
(19) Relinquished By (Sign and PRINT)		(20) Received By (Sign and PRINT)	(21) Date/Time	(22) Receiver Comments
R.J. Reynolds		Kim E. Hamilton KE HAMILTON	4/18/97 1103	
(23) Relinquished By (Sign and PRINT)		(24) Received By (Sign and PRINT)	(25) Date/Time	(26) Receiver Comments
Kim E. Hamilton KE HAMILTON		Jim Knight Jr.	4/18/97 1130	
(27) Relinquished By (Sign and PRINT)		(28) Received By (Sign and PRINT)	(29) Date/Time	(30) Receiver Comments

(18) Seal Intact Upon Release?	(31) Seal Intact Upon Receipt?	(32) Seal Data Consistent with this Record?		
		Shipment No.	Cask Seal No.	Sample No.
☒ Yes ☐ No	☒ Yes ☐ No	☒ Yes ☐ No	☒ Yes ☐ No	☒ Yes ☐ No

DISTRIBUTION: White - Office of Sample Management Yellow - Recipient of Sample Pink - Core Sampling, S6-35 Goldenrod - Tank Farm Operations, S4-42

222S HAZMAT UNIT ==> LAB DATA MGMT 509 373 5047 04/21/97 13:35 002

CHAIN-OF-CUSTODY RECORD FOR CORE SAMPLING

(1) Shipment Number 200W-08-TF (2) Sample Number 190-01B (3) Supervisor Daniel Garza, Daniel Kaya

(4) Tank T-203 (5) Riser 3 (6) Segment 1R (7) Core 190 (8) Cask Serial Number C-2012

Radiation Survey Data:	(9) FIELD	(33) LABORATORY
Over Top Dose Rate	.005 Sv	.005 m Sv
Side Dose Rate	.005 Sv	.005 m Sv
Bottom Dose Rate	.005 Sv	.005 m Sv
Smearable Contamination	<20 dpm/100 cm² (Alpha)	<20 dpm/100 cm² (Alpha)
	<1000 dpm/100 cm² (Beta-Gamma)	4000 dpm/100 cm² (Beta-Gamma)
RCT* (HPT)	(Signature)	RCT* (HPT) (Signature)

(10) Shipment Description

A. Work Package Number	WS-96-00304
B. Cask Seal Number	12226
C. Sampler Serial Number	96-327
D. Date and Time Sampler Unseated	04/17/97, 0232 hrs
E. Expected Liquid Content	10%
F. Expected Solid Content	90%
G. Dose Rate Through Drill String	0.005 Sv.
H. Expected Sample Length	14.½'

(11) INFORMATION (include statement of laboratory tests to be performed.)

HNF-SD-WM-DP-247, REV. 0

(12) Field Comments

TRUCK RELEVELED TO OBTAIN MORE STROKE

(34) Laboratory Comments

S97T000597

(13) Point of Origin	(14) Destination	(15) Sender Name (Sign and PRINT)	(16) Date/Time	(17) Sender Comments
T-203	222-S Labs	Steven B Carter Steven B Carter	4-22-97 1045	
(19) Relinquished By (Sign and PRINT)		(20) Received By (Sign and PRINT)	(21) Date/Time	(22) Receiver Comments
Steven B Carter Steven B Carter		C E Byrd C E Byrd	4-22-97 1045	
(23) Relinquished By (Sign and PRINT)		(24) Received By (Sign and PRINT)	(25) Date/Time	(26) Receiver Comments
C E Byrd C E Byrd		R L Chambers R L Chambers	4-22-97 11:13	
(27) Relinquished By (Sign and PRINT)		(28) Received By (Sign and PRINT)	(29) Date/Time	(30) Receiver Comments

(18) Seal Intact Upon Release?	(31) Seal Intact Upon Receipt?	(32) Seal Data Consistent with this Record?		
		Shipment No.	Cask Seal No.	Sample No.
☒ Yes ☐ No	☒ Yes ☐ No	☒ Yes ☐ No	☒ Yes ☐ No	☒ Yes ☐ No

DISTRIBUTION: White - Office of Sample Management Yellow - Recipient of Sample Pink - Core Sampling, S6-85 Goldenrod - Tank Farm Operations, S4-43 BC-6000-309 (02/94)

Apr. 22. 1997 12:24PM WHC 222S LAB ROOM 2F BACKSIDE No. 2270 P. 6/6

CHAIN-OF-CUSTODY RECORD FOR CORE SAMPLING

(1) Shipment Number 200W-08-TF (2) Sample Number 190-02 (3) Supervisor Daniel Garza, Daniel Kaya

(4) Tank T-203 (5) Riser 3 (6) Segment # 2 (7) Core 190 (8) Cask Serial Number 67

Radiation Survey Data:	(9) FIELD	(33) LABORATORY
Over Top Dose Rate	< 0.005 mSv/hr	< 0.005 mSv/hr
Side Dose Rate	< 0.005 mSv/hr	< 0.005 mSv/hr
Bottom Dose Rate	< 0.005 mSv/hr	< 0.005 mSv/hr
Smearable Contamination	< 0.334 Bq (Alpha)	< .334 Bq/LAW (Alpha)
	< 16.7 Bq (Beta-Gamma)	< 2.505 Bq/LAW (Beta-Gamma)
	RCT* (HPT) RB Franck (Signature)	RCT* (HPT) (Signature)

(10) Shipment Description

A. Work Package Number	WS-96-00304
B. Cask Seal Number	12221
C. Sampler Serial Number	96-184
D. Date and Time Sampler Unsealed	04/17/97, 0515 hrs
E. Expected Liquid Content	10%
F. Expected Solid Content	90%
G. Dose Rate Through Drill String	0.005 Sv
H. Expected Sample Length	19"

(11) INFORMATION (Requirement of laboratory tests to be performed.)

COPY

68

HNF-SD-WM-DP-247, REV. 0

(12) Field Comments: A Small Tunnel at bottom of Sampler.

(34) Laboratory Comments: S97T000584

(13) Point of Origin	(14) Destination	(15) Sendor Name (Sign and PRINT)	(16) Date/Time	(17) Sendor Comments
T-203	222-S labs	R.J. Remsnik for D. Garza	4/18/97 1100	

(19) Relinquished By (Sign and PRINT)	(20) Received By (Sign and PRINT)	(21) Date/Time	(22) Receiver Comments
R.J. Remsnik	Kevin E. Hamilton KE HAMILTON	4/18/97 1103	

(23) Relinquished By (Sign and PRINT)	(24) Received By (Sign and PRINT)	(25) Date/Time	(26) Receiver Comments
Kevin E. Hamilton KE HAMILTON	Lisa Knight	4/18/97 1130	

(27) Relinquished By (Sign and PRINT)	(28) Received By (Sign and PRINT)	(29) Date/Time	(30) Receiver Comments

(18) Seal Intact Upon Release?	(31) Seal Intact Upon Receipt?	(32) Seal Data Consistent with this Record?		
		Shipment No.	Cask Seal No.	Sample No.
☒ Yes ☐ No	☒ Yes ☐ No	☒ Yes ☐ No	☒ Yes ☐ No	☒ Yes ☐ No

DISTRIBUTION: White - Office of Sample Management Yellow - Recipient of Sample

222S HAZMAT UNIT +++ LAB DATA MGMT 04/21/97 13:45 509 373 5047 P.003

CHAIN-OF-CUSTODY RECORD FOR CORE SAMPLING

(1) Shipment Number 200W-08-TF (2) Sample Number 190-05 (3) Supervisor Daniel Garza, Daniel Dorje
(4) Tank T-203 (5) Riser 3 (6) Segment 3 (7) Core 190 (8) Cask Serial Number C-2000

Radiation Survey Data:	(9) FIELD	(33) LABORATORY
Over Top Dose Rate	.005 Sv	.005 m Sv
Side Dose Rate	.005 Sv	.005 m Sv
Bottom Dose Rate	.005 Sv	.005 m Sv
Smearable Contamination	<20 dpm/100 cm² (Alpha)	<20 dpm/100 cm² (Alpha)
	<1000 dpm/100 cm² (Beta-Gamma)	<1000 dpm/100 cm² (Beta-Gamma)
	RCT* (HPT) (Signature)	RCT* (HPT) (Signature)

(10) Shipment Description

A. Work Package Number	WS-96-00304
B. Cask Seal Number	12225
C. Sampler Serial Number	96-334
D. Date and Time Sampler Unseated	04/17/97, 0615 hrs
E. Expected Liquid Content	10%
F. Expected Solid Content	90%
G. Dose Rate Through Drill String	0.005 Sv.
H. Expected Sample Length	19"

(11) INFORMATION (Include statement of laboratory tests to be performed.)

HNF-SD-WM-OP-247, REV. 0

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(12) Field Comments

(34) Laboratory Comments

S97T000598

(13) Point of Origin	(14) Destination	(15) Sender Name (Sign and PRINT)	(16) Date/Time	(17) Sender Comments
T-203	222-S Labs	Steven B Carter	04/22/97 1030	
(19) Relinquished By (Sign and PRINT)		(20) Received By (Sign and PRINT)	(21) Date/Time 1031	(22) Receiver Comments
Steven B Carter			04/22/97	
(23) Relinquished By (Sign and PRINT)		(24) Received By (Sign and PRINT)	(25) Date/Time 1105	(26) Receiver Comments
		R L Chambers	04-22-97	
(27) Relinquished By (Sign and PRINT)		(28) Received By (Sign and PRINT)	(29) Date/Time	(30) Receiver Comments

(18) Seal Intact Upon Release?	(31) Seal Intact Upon Receipt?	(32) Seal Data Consistent with this Record?		
		Shipment No.	Cask Seal No.	Sample No.
☒ Yes ☐ No	☒ Yes ☐ No	☒ Yes ☐ No	☒ Yes ☐ No	☒ Yes ☐ No

DISTRIBUTION: White - Office of Sample Management Yellow - Recipient of Sample Pink - Core Sampling, S6-85 Goldenrod - Tank Farm Operations, S4-43 BC-6000-309 (02/94)

Apr. 22. 1997 12:24PM WHC 222S LAB ROOM 2F BACKSIDE No. 2270 P. 5/6

CHAIN-OF-CUSTODY RECORD FOR CORE SAMPLING

(1) Shipment Number 200W-08-TF (2) Sample Number 190-4 (3) Supervisor Hartley

(4) Tank T-203 (5) Riser 3 (6) Segment 4 (7) Core 190 (8) Cask Serial Number #61

Radiation Survey Data:	(9) FIELD	(33) LABORATORY
Over Top Dose Rate	< 0.005 mSV/hr	<0.005mSv/hr
Side Dose Rate	< 0.005 mSV/hr	<0.005mSv/hr
Bottom Dose Rate	< 0.005 mSv/hr	<0.005 ~~mSv/hr~~ hr
Smearable Contamination	< 0.367 Bq/100cm² (Alpha)	<.334 Bq/LAW (Alpha)
	< 16.7 Bq/100cm² (Beta-Gamma)	<2,505 Bq/LAW. (Beta-Gamma)
	RCT* (HPT) (Signature)	RCT* (HPT) (Signature)

(10) Shipment Description	
A. Work Package Number	WS-96-00304/0
B. Cask Seal Number	13062
C. Sampler Serial Number	96-333
D. Date and Time Sampler Unseated	4-17-97, 0945
E. Expected Liquid Content	50%
F. Expected Solid Content	50%
G. Dose Rate Through Drill String	1 MR/HR, 1.0 MSV
H. Expected Sample Length	191

(11) INFORMATION (Include statement of laboratory tests to be performed.)

91

HNF-SD-WM-DP-247, REV. 0

(12) Field Comments

(34) Laboratory Comments

S97T000585

(13) Point of Origin	(14) Destination	(15) Sender Name (Sign and PRINT)	(16) Date/Time	(17) Sender Comments
T-203	222S	RJ Pawnik for D. Hartley	4-18-97/0900	
(18) Relinquished By (Sign and PRINT)		(20) Received By (Sign and PRINT)	(21) Date/Time	(22) Receiver Comments
RJ Pawnik		Kevin E Hamilton KE HAMILTON	4/18/97 0925	
(23) Relinquished By (Sign and PRINT)		(24) Received By (Sign and PRINT)	(25) Date/Time	(26) Receiver Comments
Kevin E Hamilton KE HAMILTON		Jim Knight	4-18-97 1030	
(27) Relinquished By (Sign and PRINT)		(28) Received By (Sign and PRINT)	(29) Date/Time	(30) Receiver Comments

(18) Seal Intact Upon Release?	(31) Seal Intact Upon Receipt?	(32) Seal Data Consistent with this Record?		
		Shipment No.	Cask Seal No.	Sample No.
☒ Yes ☐ No	☒ Yes ☐ No	☒ Yes ☐ No	☒ Yes ☐ No	☒ Yes ☐ No

DISTRIBUTION: White - Office of Sample Management Yellow - Recipient of Sample Pink - Core Sampling, S6-85 Goldenrod - Tank Farm Operations, S4-43 BC-6000-309 (02/94)

Apr. 18. 1997 11:25AM WHC 222S LAB ROOM 2F BACKSIDE No. 2172 P. 5/5

CHAIN-OF-CUSTODY RECORD FOR CORE SAMPLING

Shipment Number 200W-97-TP (2) Sample Number 190-5 (3) Supervisor D.H. Hartley

Tank T-203 (5) Riser 3 (6) Segment 5 (7) Core 190 (8) Cask Serial Number C2013

	(9) FIELD	(33) LABORATORY
diation Survey Data:		
Over Top Dose Rate	<0.005 mSv/hr	<0.005 msv/hr
Side Dose Rate	<0.005 mSv/hr	<0.005 msv/hr
Bottom Dose Rate	<0.005 mSv/hr	<0.005 msv/hr
Smearable Contamination	< 0.037 Bq/100cm² (Alpha)	2.35 Bq/LAW 4-18-97 (Alpha)
	< 16.7 Bq/100cm² (Beta-Gamma)	<2.505 dpm/LAW (Beta-Gamma) 4-18-97
	RCT* (HPT) RB Frazel (Signature)	RCT* (HPT) (Signature)

(10) Shipment Description

A. Work Package Number	WS-96-00304/C
B. Cask Seal Number	13063
C. Sampler Serial Number	96-185
D. Date and Time Sampler Unseated	4-17-97, 0945hr
E. Expected Liquid Content	50%
F. Expected Solid Content	50%
G. Dose Rate Through Drill String	<.5MR/HR/.005in
H. Expected Sample Length	191"

(11) INFORMATION (Include statement of laboratory tests to be performed.)

HNF-SD-WM-DP-247, REV. 0

92

(12) Field Comments

(34) Laboratory Comments

597T000586

(13) Point of Origin T-203	(14) Destination 222S	(15) Sender Name (Sign and PRINT) RJ Pearsall for D. Hartley	(16) Date/Time 4-18-97 0900	(17) Sender Comments
(19) Relinquished By (Sign and PRINT) RJ Pearsall		(20) Received By (Sign and PRINT) Kim E. Hamilton KE HAMILTON	(21) Date/Time 4/18/97 0925	(22) Receiver Comments
(23) Relinquished By (Sign and PRINT) Kim E. Hamilton KE HAMILTON		(24) Received By (Sign and PRINT) Sue Knight	(25) Date/Time 4/18/97 1030	(26) Receiver Comments
(27) Relinquished By (Sign and PRINT)		(28) Received By (Sign and PRINT)	(29) Date/Time	(30) Receiver Comments

(18) Seal Intact Upon Release?	(31) Seal Intact Upon Receipt?	(32) Seal Data Consistent with this Record?		
		Shipment No.	Cask Seal No.	Sample No.
☒ Yes ☐ No	☒ Yes ☐ No	☒ Yes ☐ No	☒ Yes ☐ No	☒ Yes ☐ No

DISTRIBUTION: White - Office of Sample Management Yellow - Recipient of Sample Pink - Core Sampling, S6-85 Goldenrod - Tank Farm Operations, S4-43 BC-8000-309 (02/94)

Apr. 18. 1997 11:22AM WHC 222S LAB ROOM 2F BACKSIDE No. 2172 P. 1/5

CHAIN-OF-CUSTODY RECORD FOR CORE SAMPLING

Shipment Number 200W-08-TF (2) Sample Number 190-06 (3) Supervisor M. C. Jones

Tank T-203 (5) Riser 3 (6) Segment 6 (7) Core 190 (8) Cask Serial Number SV-70

diation Survey Data:	(9) FIELD	(33) LABORATORY
Over Top Dose Rate	.005 Sv	.005 mSv
Side Dose Rate	.005 Sv	.005 mSv
Bottom Dose Rate	.005 Sv	.005 mSv
Smearable Contamination	20 dpm/100cm² (Alpha)	<20 dpm/100 cm² (Alpha)
	<1000 dpm/100cm² (Beta-Gamma)	<1000 dpm/100cm² (Beta-Gamma)
RCT* (HPT)	(Signature)	RCT* (HPT) (Signature)

(10) Shipment Description

A. Work Package Number	WS-96-00304
B. Cask Seal Number	12456
C. Sampler Serial Number	96-332
D. Date and Time Sampler Unseated	4-17-97 / 1715
E. Expected Liquid Content	50%
F. Expected Solid Content	50%
G. Dose Rate Through Drill String	1.5
H. Expected Sample Length	19"

(11) INFORMATION (Include statement of laboratory tests to be performed.)

HNF-SD-WM-DP-247, REV. 0

93

(12) Field Comments

(34) Laboratory Comments

S97T000599

(13) Point of Origin	(14) Destination	(15) Sender Name (Sign and PRINT)	(16) Date/Time	(17) Sender Comments
T-203	222-S	Steven B Carlson	4-22-97 1045	
(19) Relinquished By (Sign and PRINT)		(20) Received By (Sign and PRINT)	(21) Date/Time	(22) Receiver Comments
Steven B Carlson		C.E.L. Byrd	4-22-97 1045	
(23) Relinquished By (Sign and PRINT)		(24) Received By (Sign and PRINT)	(25) Date/Time	(26) Receiver Comments
C.E.L. Byrd		R.L. Chambers	4-22-97 1:13	
(27) Relinquished By (Sign and PRINT)		(28) Received By (Sign and PRINT)	(29) Date/Time	(30) Receiver Comments

(18) Seal Intact Upon Release?	(31) Seal Intact Upon Receipt?	(32) Seal Data Consistent with this Record?		
		Shipment No.	Cask Seal No.	Sample No.
☒ Yes ☐ No	☒ Yes ☐ No	☒ Yes ☐ No	☒ Yes ☐ No	☒ Yes ☐ No

DISTRIBUTION: White - Office of Sample Management Yellow - Recipient of Sample Pink - Core Sampling, S6-85 Goldenrod - Tank Farm Operations, S4-43

BC-6000-309 (02/94)

Apr. 22. 1997 12:23PM WHC 222S LAB ROOM 2F BACKSIDE No. 2270 P. 4/6

CHAIN-OF-CUSTODY RECORD FOR CORE SAMPLING

Shipment Number: B200W-08-TF (2) Sample Number: 190-07 (3) Supervisor: M.C. Jones M.C. Jones

Tank: T-203 (5) Riser: 3 (6) Segment: 7 (7) Core: 190 (8) Cask Serial Number: C-2002

Radiation Survey Data:	(9) FIELD	(33) LABORATORY
Over Top Dose Rate	.005 Sv	.005 m Sv
Side Dose Rate	.005 Sv	.005 m Sv
Bottom Dose Rate	.005 Sv	.005 m Sv
Smearable Contamination	< 20 dpm/100 cm² (Alpha)	< 20 dpm/100 cm² (Alpha)
	< 1000 dpm/100 cm² (Beta-Gamma)	< 1000 dpm/100 cm² (Beta-Gamma)
	RCT* (HPT) (Signature)	RCT* (HPT) (Signature)

(10) Shipment Description

A. Work Package Number	WS-97-00304
B. Cask Seal Number	12450
C. Sampler Serial Number	96-336
D. Date and Time Sampler Unseated	4-17-97/1815
E. Expected Liquid Content	80%
F. Expected Solid Content	20%
G. Dose Rate Through Drill String	LS
H. Expected Sample Length	19"

(1) INFORMATION (Include statement of laboratory tests to be performed.)

HNF-SD-WM-DP-247, REV. 0

94

(12) Field Comments

(34) Laboratory Comments

S97T000600

(13) Point of Origin	(14) Destination	(15) Sender Name (Sign and PRINT)	(16) Date/Time	(17) Sender Comments
203 R3	222S	Steven B Carter STEVEN B CARTER	04/22/97 1030	
(19) Relinquished By (Sign and PRINT)		(20) Received By (Sign and PRINT)	(21) Date/Time	(22) Receiver Comments
Steven B Carter STEVEN B CARTER		James R Richardson James R Richardson	0423/97 1033	
(23) Relinquished By (Sign and PRINT)		(24) Received By (Sign and PRINT)	(25) Date/Time	(26) Receiver Comments
James R Richardson James R Richardson		R L Chambers R L CHAMBERS	04-22-97 1100	
(27) Relinquished By (Sign and PRINT)		(28) Received By (Sign and PRINT)	(29) Date/Time	(30) Receiver Comments

(18) Seal Intact Upon Release?	(31) Seal Intact Upon Receipt?	(32) Seal Data Consistent with this Record?		
		Shipment No.	Cask Seal No.	Sample No.
☒ Yes ☐ No	☒ Yes ☐ No	☒ Yes ☐ No	☒ Yes ☐ No	☒ Yes ☐ No

DISTRIBUTION: White - Office of Sample Management Yellow - Recipient of Sample Pink - Core Sampling, S6-85 Goldenrod - Tank Farm Operations, S4-43

BC-6000-309 (02/94)

Apr. 22, 1997 12:22PM WHC 222S LAB ROOM 2F BACKSIDE No. 2270 P. 3/6

CHAIN-OF-CUSTODY RECORD FOR CORE SAMPLING

Shipment Number 200W-08-TF (2) Sample Number 190-08 (3) Supervisor M. C. Jones

Tank T-203 (5) Riser 3 (6) Segment 8 (7) Core 190 (8) Cask Serial Number SN-59

Radiation Survey Data:	(9) FIELD	(33) LABORATORY
Over Top Dose Rate	.005 Sv	.005 mSv
Side Dose Rate	.005 Sv	.005 mSv
Bottom Dose Rate	.005 Sv	.005 mSv
Smearable Contamination	<20 dpm/100 cm² (Alpha)	<20 dpm/100 cm² (Alpha)
	<1000 dpm/100 cm² (Beta-Gamma)	<1000 dpm/100 cm² (Beta-Gamma)
	RCT* (HPT) (Signature)	RCT* (HPT) (Signature)

(10) Shipment Description

A. Work Package Number	WS-96-00304
B. Cask Seal Number	12428
C. Sampler Serial Number	96-328
D. Date and Time Sampler Unseated	4-17-97 1908
E. Expected Liquid Content	80%
F. Expected Solid Content	20%
G. Dose Rate Through Drill String	<.5
H. Expected Sample Length	19"

) INFORMATION (Include statement of laboratory tests to be performed.)

HNF-SD-WM-DP-247, REV. 0

95

2) Field Comments

(34) Laboratory Comments

S97T000601

3) Point of Origin: T-203	(14) Destination: 222-S	(15) Sender Name (Sign and PRINT): Steven B Carter	(16) Date/Time: 4-22-97 1045	(17) Sender Comments
9) Relinquished By (Sign and PRINT): Steven B Carter		(20) Received By (Sign and PRINT): C.E. Byrd	(21) Date/Time: 4-22-97 10:45	(22) Receiver Comments
3) Relinquished By (Sign and PRINT): C.E. Byrd		(24) Received By (Sign and PRINT): R L Chambers	(25) Date/Time: 4-22-97 11:13	(26) Receiver Comments
7) Relinquished By (Sign and PRINT)		(28) Received By (Sign and PRINT)	(29) Date/Time	(30) Receiver Comments

(18) Seal Intact Upon Release?	(31) Seal Intact Upon Receipt?	(32) Seal Data Consistent with this Record?		
		Shipment No.	Cask Seal No.	Sample No.
☑ Yes ☐ No	☑ Yes ☐ No	☒ Yes ☐ No	☒ Yes ☐ No	☒ Yes ☐ No

DISTRIBUTION: White - Office of Sample Management Yellow - Recipient of Sample Pink - Core Sampling, S6-85 Goldenrod - Tank Farm Operations, S4-43 BC-6000-309 (02/94)

Apr. 22. 1997 12:22PM WHC 222S LAB ROOM 2F BACKSIDE No. 2270 P. 2/6

CHAIN-OF-CUSTODY RECORD FOR CORE SAMPLING

Shipment Number: 200W-08-TF | (2) Sample Number: 190-09 | (3) Supervisor: Daniel Gates, Dennis Mays

Tank: T-203 | (5) Riser: 3 | (6) Segment: 9 | (7) Core: 190 | (8) Cask Serial Number: 1033

Radiation Survey Data:	(9) FIELD	(33) LABORATORY
Over Top Dose Rate	.005 Sv	.005 mSV
Side Dose Rate	.005 Sv	.005 mSV
Bottom Dose Rate	.005 Sv	.005 mSV
Smearable Contamination	<20 dpm/100cm² (Alpha)	<20 dpm/100 cm² (Alpha)
	<10000 dpm/100cm² (Beta-Gamma)	<4000 dpm/100 cm² (Beta-Gamma)
RCT* (HPT) (Signature)		

(10) Shipment Description	
A. Work Package Number	WS-96-00304
B. Cask Seal Number	12213
C. Sampler Serial Number	96-196
D. Date and Time Sampler Unseated	4/18/97, 0235 hrs
E. Expected Liquid Content	10%
F. Expected Solid Content	90%
G. Dose Rate Through Drill String	0.005 Sv.
H. Expected Sample Length	19"

(1) INFORMATION (Include statement of laboratory tests to be performed.)

HNF-SD-WM-DP-247, REV. 0

96

(12) Field Comments

(34) Laboratory Comments

S97T000602

(13) Point of Origin	(14) Destination	(15) Sender Name (Sign and PRINT)	(16) Date/Time	(17) Sender Comments
T-203	222-S labs	Steven B Carter	4/22/97 1030	
(19) Relinquished By (Sign and PRINT)		(20) Received By (Sign and PRINT)	(21) Date/Time	(22) Receiver Comments
Steven B Carter		James E Hulsey	04/22/97 1033	
(23) Relinquished By (Sign and PRINT)		(24) Received By (Sign and PRINT)	(25) Date/Time	(26) Receiver Comments
James E Hulsey		R L Chambers	04-22-97 1102	
(27) Relinquished By (Sign and PRINT)		(28) Received By (Sign and PRINT)	(29) Date/Time	(30) Receiver Comments

(18) Seal Intact Upon Release?	(31) Seal Intact Upon Receipt?	(32) Seal Data Consistent with this Record?		
		Shipment No.	Cask Seal No.	Sample No.
☒ Yes ☐ No	☒ Yes ☐ No	☒ Yes ☐ No	☒ Yes ☐ No	☒ Yes ☐ No

DISTRIBUTION: White - Office of Sample Management | Yellow - Recipient of Sample | Pink - Core Sampling, S6-85 | Goldenrod - Tank Farm Operations, S4-43

BC-6000-309 (02/94)

Apr. 22. 1997 12:21PM WHC 222S LAB ROOM 2F BACKSIDE No. 2270 P. 1/6

CHAIN-OF-CUSTODY RECORD FOR CORE SAMPLING

(1) Shipment Number 200W-08-TF (2) Sample Number Field Blank (3) Supervisor Daniel Garza, Daniel Key

(4) Tank T-203 (5) Riser 3 (6) Segment Field Blank (7) Core 190 (8) Cask Serial Number C 1049

Radiation Survey Data:	(9) FIELD	(33) LABORATORY
Over Top Dose Rate	<0.005 mSv/hr	<0.005 mSv/hr
Side Dose Rate	<0.005 mSv/hr	<0.005 mSv/hr
Bottom Dose Rate	<0.005 mSv/hr	<0.005 mSv/hr
Smearable Contamination	<0.037 Bq/100cm² (Alpha)	<.334 Bq/LAW (Alpha)
	<16.7 Bq/100cm² (Beta-Gamma)	<2,505 Bq/LAW (Beta-Gamma)
	*RCT (HPT) RP Trend (Signature)	RCT (HPT) (Signature)

(10) Shipment Description	
A. Work Package Number	WS-96-00304
B. Cask Seal Number	12227
C. Sampler Serial Number	96-329
D. Date and Time Sampler Unseated	4/18/97, 0245 hrs
E. Expected Liquid Content	100%
F. Expected Solid Content	5 %
G. Dose Rate Through Drill String	No Expected Dose Rate
H. Expected Sample Length	19"

(11) INFORMATION (Include statement of laboratory tests to be performed.)

HNF-SD-WM-DP-247, REV. 0

96

(12) Field Comments

FIELD BLANK

(34) Laboratory Comments

S97T000582

(13) Point of Origin	(14) Destination	(15) Sender Name (Sign and PRINT)	(16) Date/Time	(17) Sender Comments
T-203	222-S lab.	R.J. Pearzwich for D. Garza	4/18/97 0900	
(19) Relinquished By (Sign and PRINT)		(20) Received By (Sign and PRINT)	(21) Date/Time	(22) Receiver Comments
R.J. Pearzwich		Ken E Hamilton KE HAMILTON	4/18/97 0925	
(23) Relinquished By (Sign and PRINT)		(24) Received By (Sign and PRINT)	(25) Date/Time	(26) Receiver Comments
Ken E Hamilton KE HAMILTON		Jim Knight	4/18/97 1030	
(27) Relinquished By (Sign and PRINT)		(28) Received By (Sign and PRINT)	(29) Date/Time	(30) Receiver Comments

(18) Seal Intact Upon Release?	(31) Seal Intact Upon Receipt?	(32) Seal Data Consistent with this Record?		
		Shipment No.	Cask Seal No.	Sample No.
☒ Yes ☐ No	☒ Yes ☐ No	☒ Yes ☐ No	☒ Yes ☐ No	☒ Yes ☐ No

DISTRIBUTION: White - Office of Sample Management Yellow - Recipient of Sample Pink - Core Sampling, S6-85 Goldenrod - Tank Farm Operations, S4-43 BC-6000-309 (02/94)

Apr. 18. 1997 11:23AM WHC 222S LAB ROOM 2F BACKSIDE No. 2172 P. 2/5

PHOTOGRAPHS

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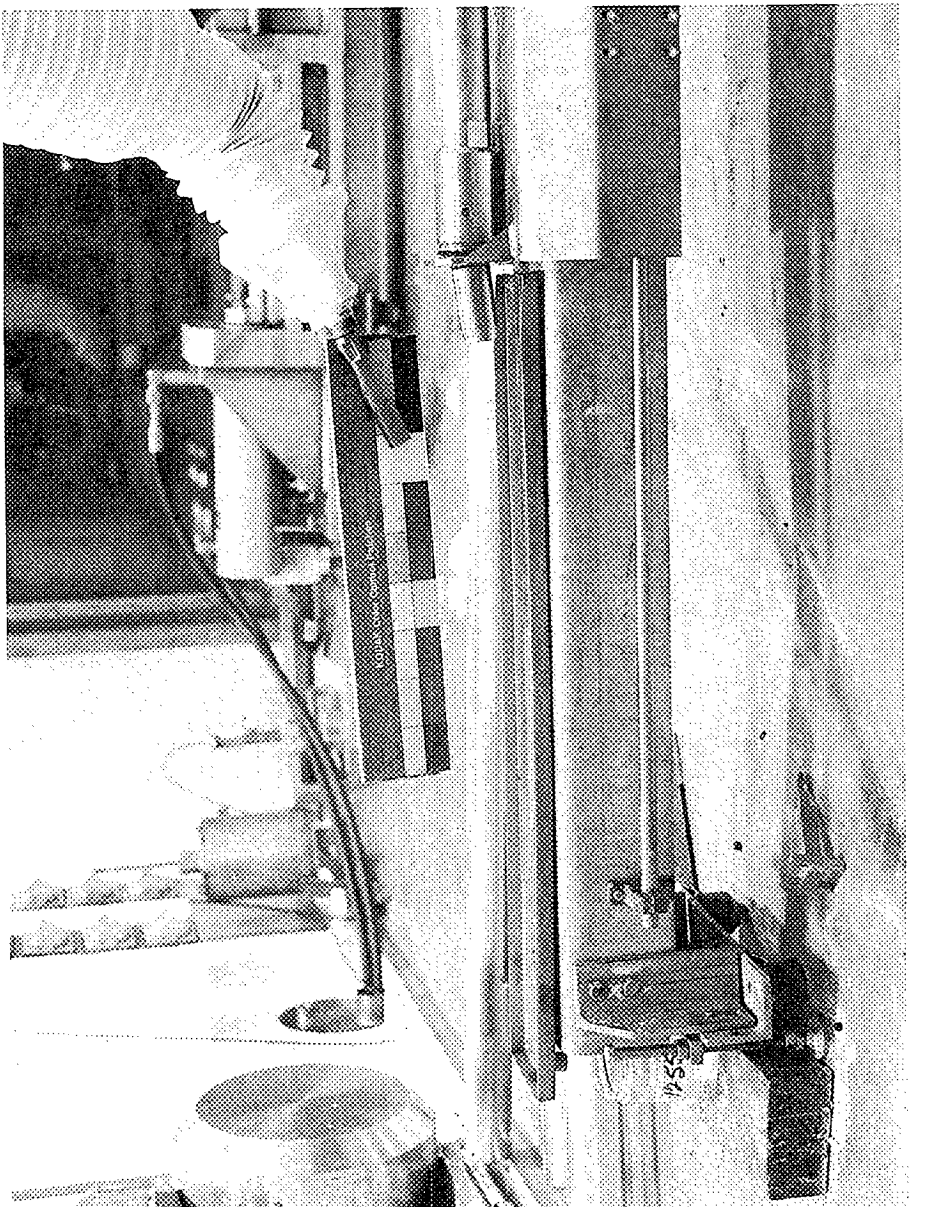
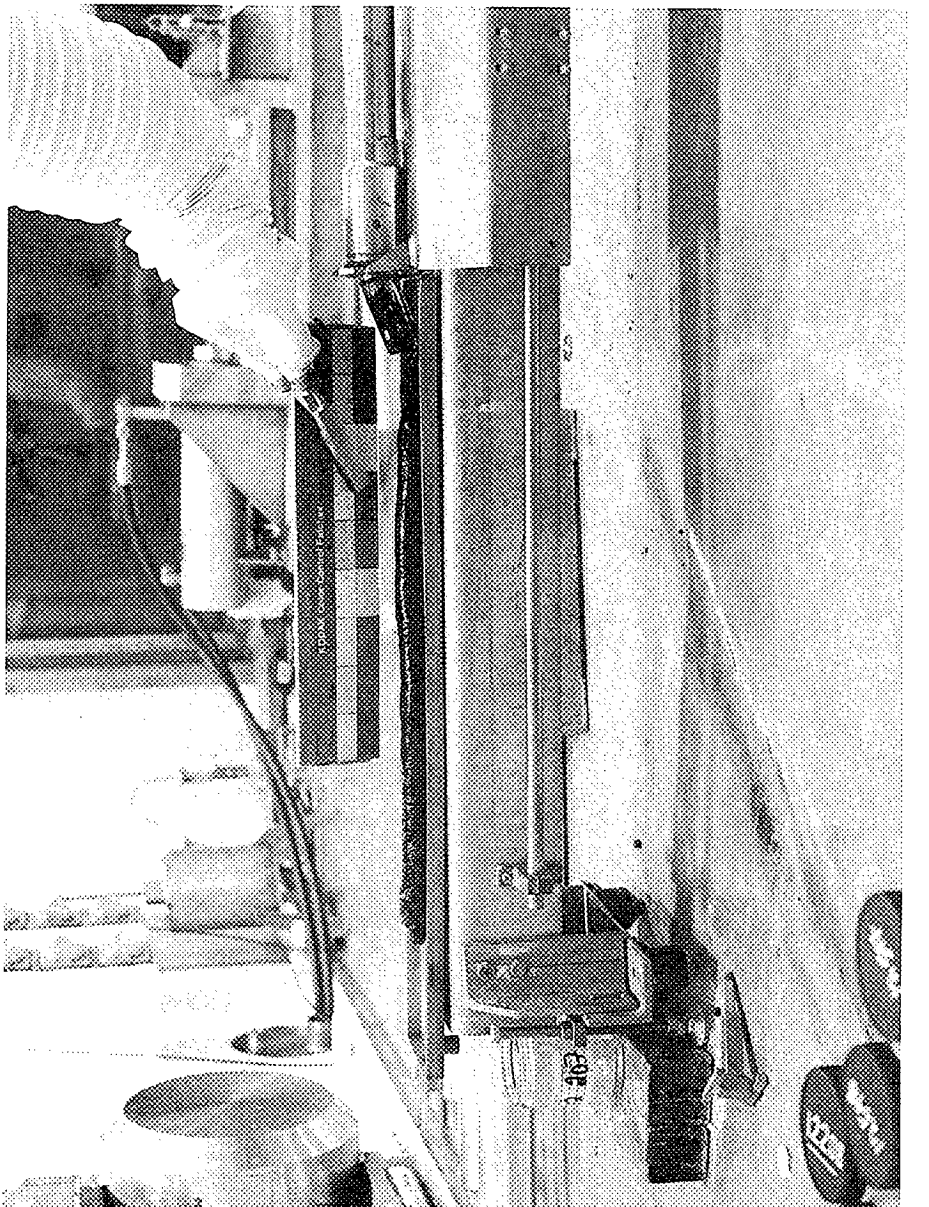
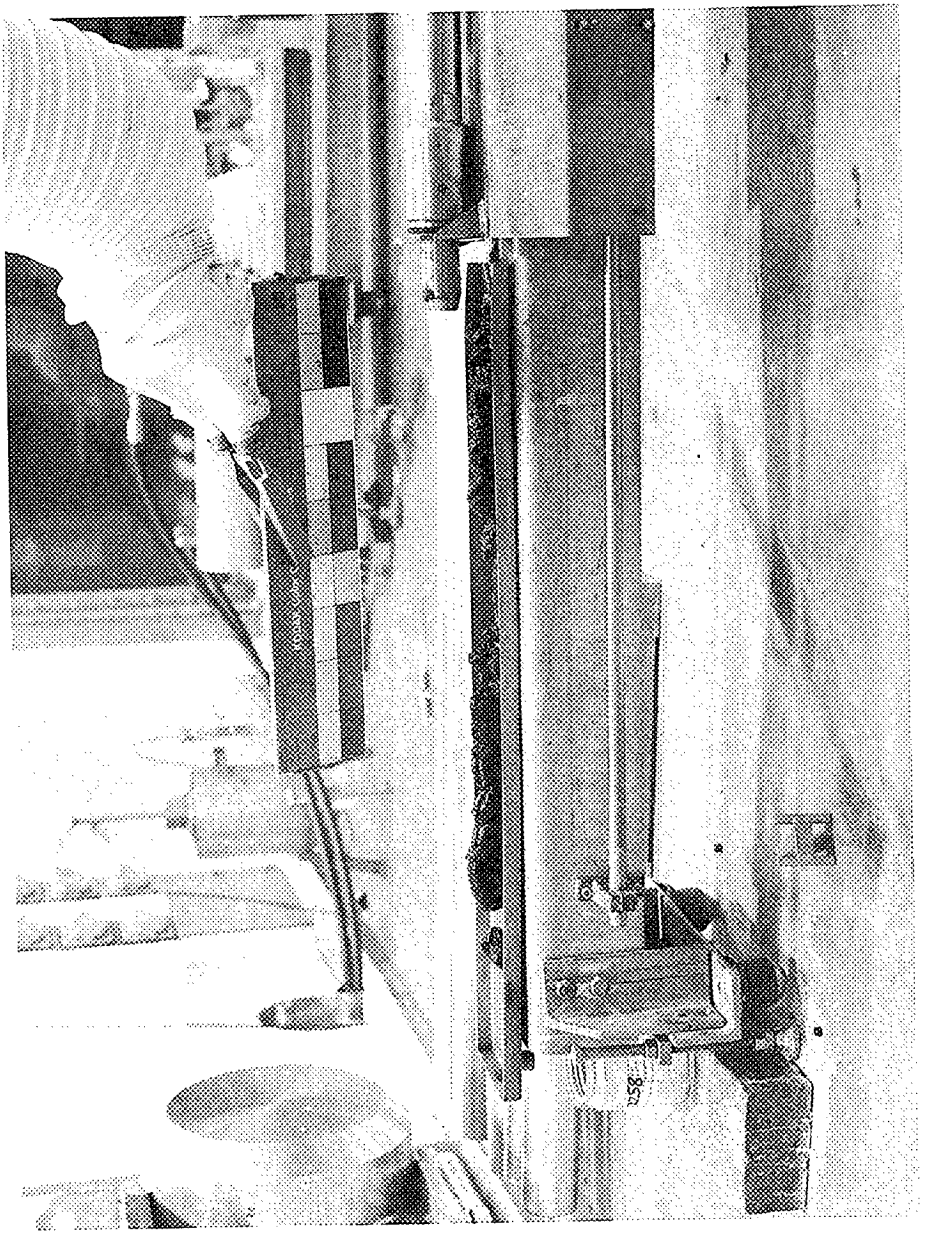
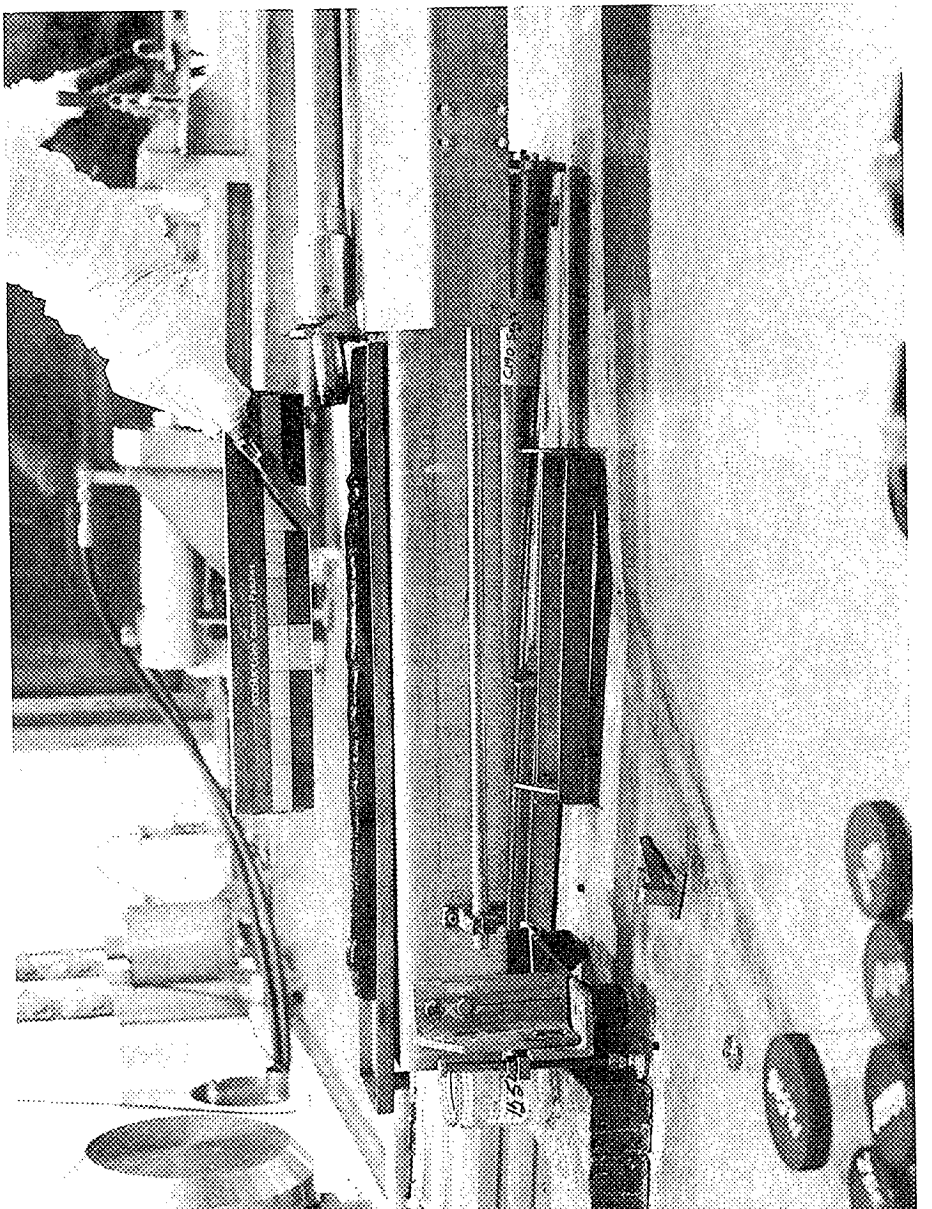




T-203 C190 Seg 1

T-203 C190 Seg 1R

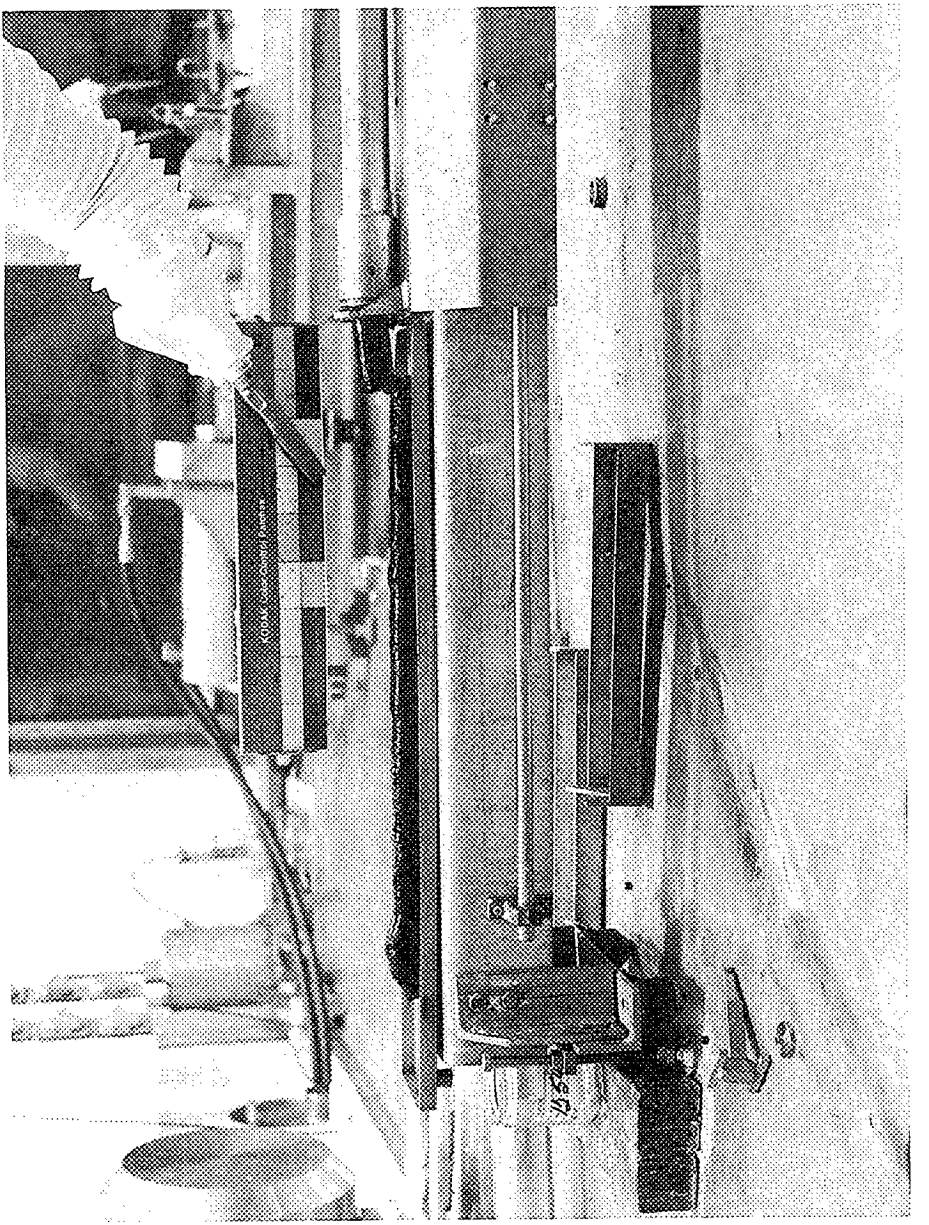


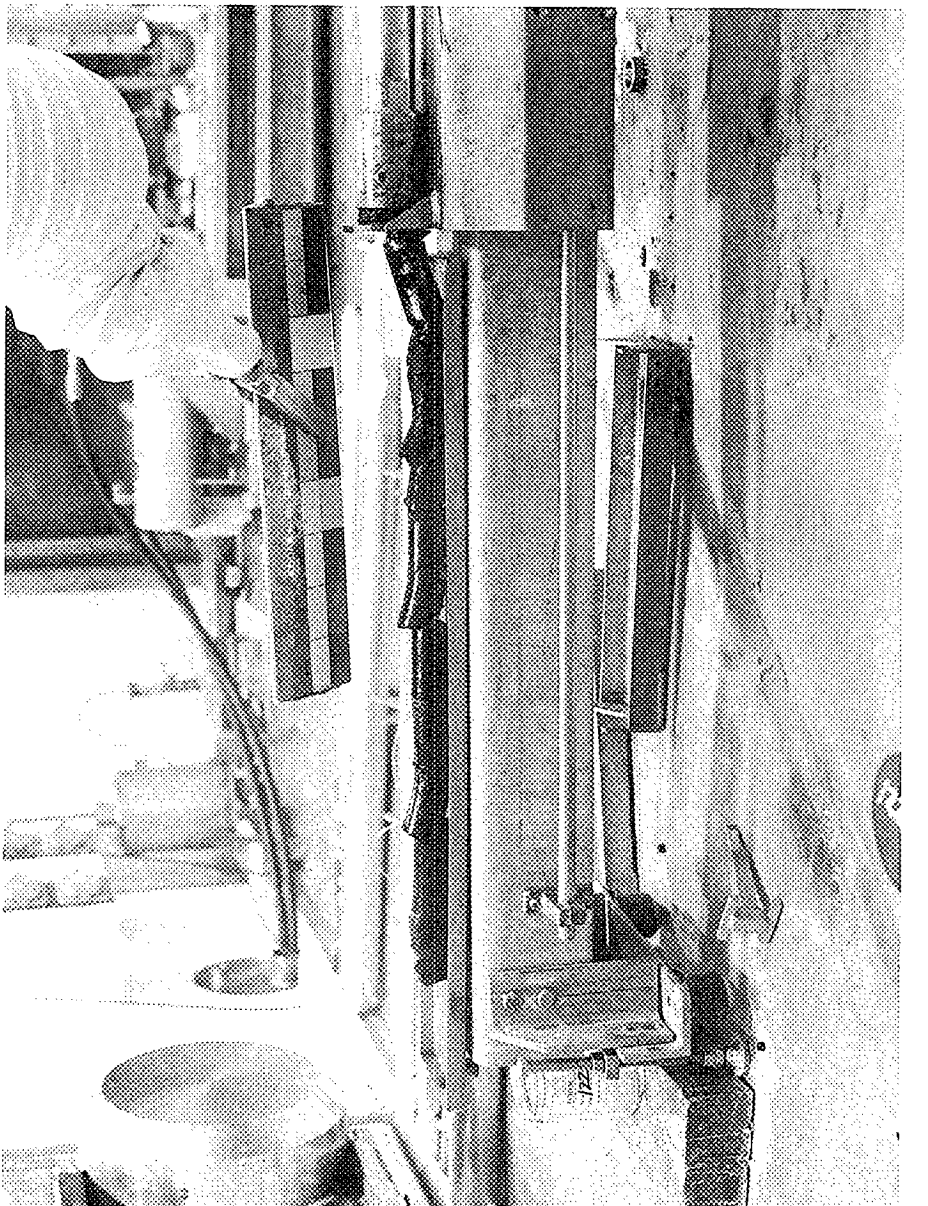


T-203 C190 Seg 2

T-203 C190 Sep 3

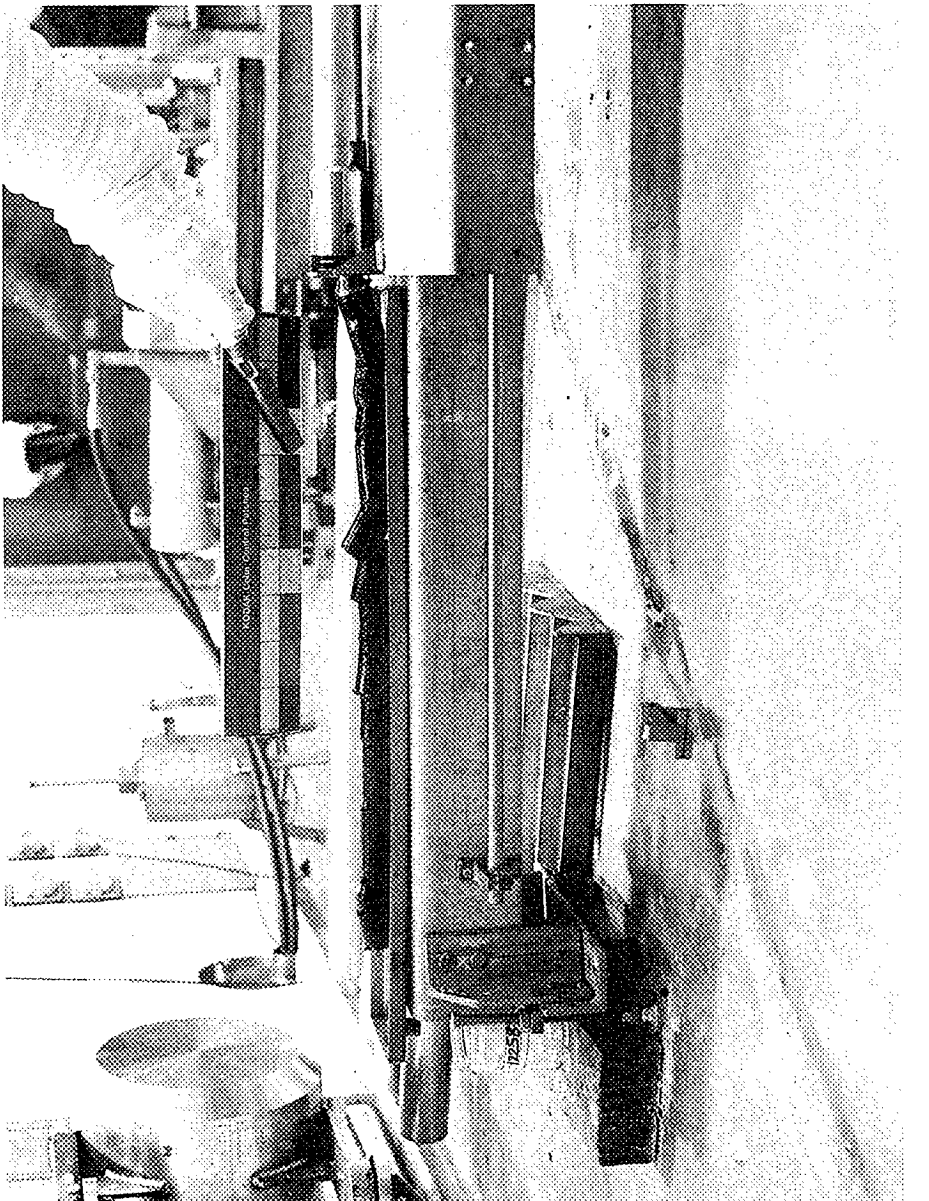
T-203 C190 Seg 4





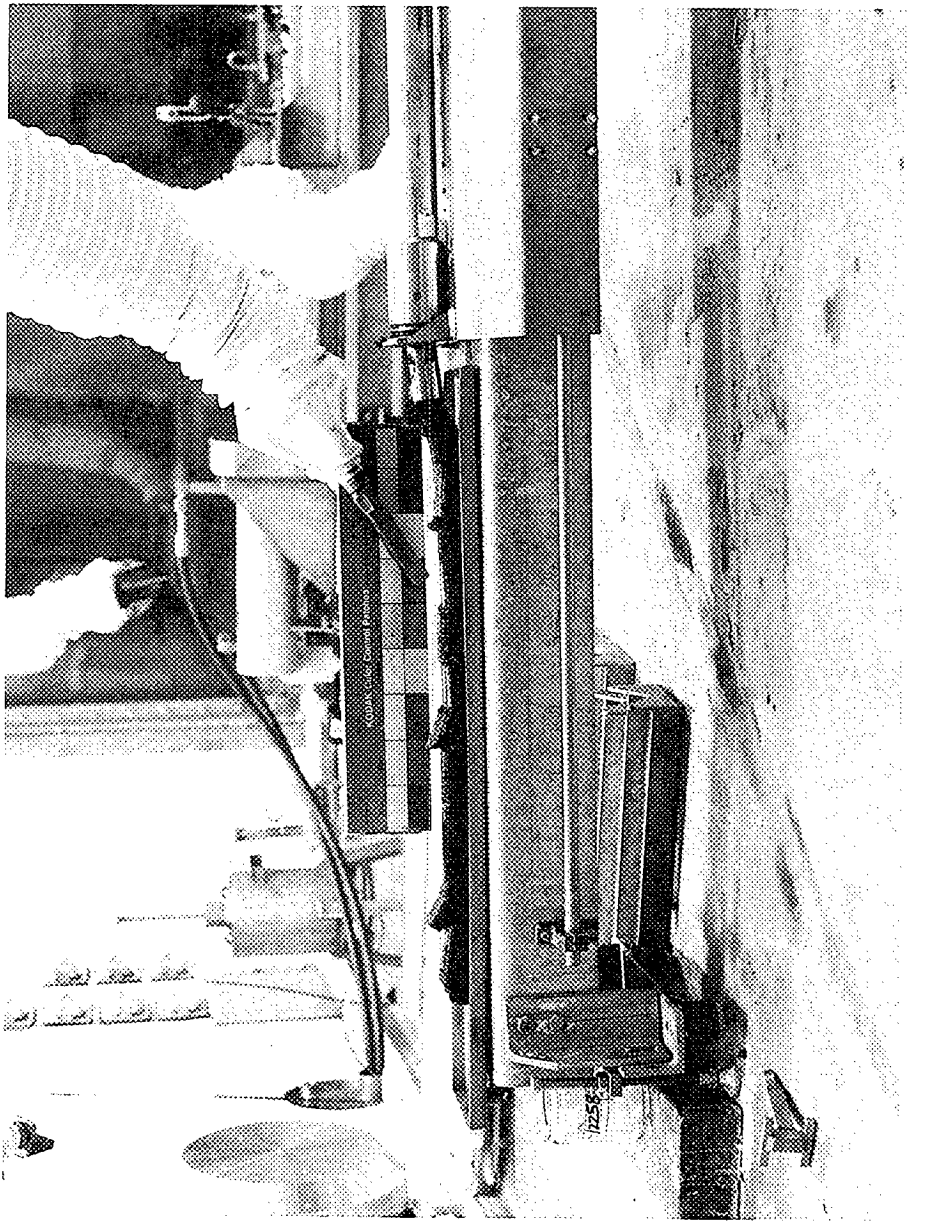
T-203 C190 Seg 5

T-203 C190 Seg 6



T-203 C190 Seg 7

T-203 C190 Sag 8



T-203 C190 Sag 9

SAMPLE HANDLING

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LABCORE Data Entry Template for Worklist# 17690

Analyst: CL **Instrument:** BA000 _____ **Book #** ~~EC~~ NA

Method: LO-160-103 Rev/Mod BO

Worklist Comment: T-203 C190 FIELD BLANK RISER 3 EXTRUSION

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	INSTCHK01				EXTRUD01	SOLID	20	20.02	N/A	
		2	INSTCHK02				EXTRUD01	SOLID	500	500.12	N/A	
97000299	T-203	3	SAMPLE	S97T000582	0		DLIQVOL1	SOLID	N/A	170		mL
97000299	T-203	4	SAMPLE	S97T000582	0		DLIQWT01	SOLID	N/A	145.1		g
97000299	T-203	5	SAMPLE	S97T000582	0		EST.G/ML	SOLID	N/A	17.85		g/mL
97000299	T-203	6	SAMPLE	S97T000582	0		EXTRUD01	SOLID	N/A	Complete		
97000299	T-203	7	SAMPLE	S97T000582	0		LLIQWT01	SOLID	N/A	0		g
97000299	T-203	8	SAMPLE	S97T000582	0		NOTEBOOK	SOLID	N/A	N-30		
97000299	T-203	9	SAMPLE	S97T000582	0		SLDVOL01	SOLID	N/A	NA		mL
97000299	T-203	10	SAMPLE	S97T000582	0		SLDWT-01	SOLID	N/A	0		g
97000299	T-203	11	SAMPLE	S97T000582	0		APPEAR01	SOLID	N/A	complete		
97000299	T-203	12	SAMPLE	S97T000582	0		ORGVOL01	SOLID	N/A	0		mL

Final page for worklist # 17690

CL 4-29-97
Analyst Signature **Date**

CL 4-29-97
Analyst Signature **Date**

Validated by N Lapcis 4-29-97

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 17700

Analyst: EC **Instrument:** BA000 **Book #** NA

Method: LO-160-103 Rev/Mod BO

Worklist Comment: T-203 C190 SEGMENT 1 RISER 3 EXTRUSION

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	INSTCHK01				EXTRUD01	SOLID	20	20.02	N/A	
		2	INSTCHK02				EXTRUD01	SOLID	500	500.12	N/A	
97000299	T-203	3	SAMPLE	S97T000583	0		DLIQVOL1	SOLID	N/A	0		mL
97000299	T-203	4	SAMPLE	S97T000583	0		DLIQWT01	SOLID	N/A	0		g
97000299	T-203	5	SAMPLE	S97T000583	0		EST.G/ML	SOLID	N/A	0		g/mL
97000299	T-203	6	SAMPLE	S97T000583	0		EXTRUD01	SOLID	N/A	complete		
97000299	T-203	7	SAMPLE	S97T000583	0		LLIQWT01	SOLID	N/A	<1		g
97000299	T-203	8	SAMPLE	S97T000583	0		NOTEBOOK	SOLID	N/A	N-30		
97000299	T-203	9	SAMPLE	S97T000583	0		SLDVOL01	SOLID	N/A	NA		mL
97000299	T-203	10	SAMPLE	S97T000583	0		SLDWT-01	SOLID	N/A	325.8		g
97000299	T-203	11	SAMPLE	S97T000583	0		APPEAR01	SOLID	N/A	complete		
97000299	T-203	12	SAMPLE	S97T000583	0		ORGVOL01	SOLID	N/A	0		mL

Final page for worklist # 17700

CLC 4-29-97
Analyst Signature **Date**

CLC 4-29-97
Analyst Signature **Date**

Validated by N. Lapeins 4-29-97

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 17702

Analyst: EL **Instrument:** BA000 **Book #** NA

Method: LO-160-103 Rev/Mod BO

Worklist Comment: T-203 C190 Seg.#2 Riser 3 Extrusion

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	INSTCHK01				EXTRUD01	SOLID	20	20.02	N/A	
		2	INSTCHK02				EXTRUD01	SOLID	500	500.12	N/A	
97000299	T-203	3	SAMPLE	S97T000584	0		DLIQVOL1	SOLID	N/A	0		mL
97000299	T-203	4	SAMPLE	S97T000584	0		DLIQWT01	SOLID	N/A	0		g
97000299	T-203	5	SAMPLE	S97T000584	0		EST.G/ML	SOLID	N/A	0		g/mL
97000299	T-203	6	SAMPLE	S97T000584	0		EXTRUD01	SOLID	N/A	Complete		
97000299	T-203	7	SAMPLE	S97T000584	0		LLIQWT01	SOLID	N/A	0		g
97000299	T-203	8	SAMPLE	S97T000584	0		NOTEBOOK	SOLID	N/A	N-30		
97000299	T-203	9	SAMPLE	S97T000584	0		SLDVOL01	SOLID	N/A	NA		mL
97000299	T-203	10	SAMPLE	S97T000584	0		SLDWT-01	SOLID	N/A	356.4		g
97000299	T-203	11	SAMPLE	S97T000584	0		APPEAR01	SOLID	N/A	Complete		
97000299	T-203	12	SAMPLE	S97T000584	0		ORGVOL01	SOLID	N/A	0		mL

Final page for worklist # 17702

EL 4-29-97
Analyst Signature **Date**

Validated by N Lapcins 4-29-97

EL 4-29-97
Analyst Signature **Date**

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

worklistrpt Version 2.1 05/15/95
04/23/97 09:55

LABCORE Data Entry Template for Worklist# 17703

Analyst: CL **Instrument:** BA000 _____ **Book #** NA

Method: LO-160-103 Rev/Mod BO

Worklist Comment: T-203 C190 Seg.#1R Riser 3 Extrusion

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	INSTCHK01				EXTRUD01	SOLID	20	20.00	N/A	
		2	INSTCHK02				EXTRUD01	SOLID	500	500.11	N/A	
97000299	T-203	3	SAMPLE	S97T000597	0		DLIQVOL1	SOLID	N/A	60		mL
97000299	T-203	4	SAMPLE	S97T000597	0		DLIQWT01	SOLID	N/A	55.6		g
97000299	T-203	5	SAMPLE	S97T000597	0		EST.G/ML	SOLID	N/A	.93		g/mL
97000299	T-203	6	SAMPLE	S97T000597	0		EXTRUD01	SOLID	N/A	complete		
97000299	T-203	7	SAMPLE	S97T000597	0		LLIQWT01	SOLID	N/A	<10		g
97000299	T-203	8	SAMPLE	S97T000597	0		NOTEBOOK	SOLID	N/A	N-30		
97000299	T-203	9	SAMPLE	S97T000597	0		SLDVOL01	SOLID	N/A	NA		mL
97000299	T-203	10	SAMPLE	S97T000597	0		SLDWT-01	SOLID	N/A	247.4		g
97000299	T-203	11	SAMPLE	S97T000597	0		APPEAR01	SOLID	N/A	complete		
97000299	T-203	12	SAMPLE	S97T000597	0		ORGVOL01	SOLID	N/A	0		mL

Final page for worklist # 17703

CL 4-29-97
Analyst Signature **Date**

Validated by N Lapcins 4-29-97

CL 4-29-97
Analyst Signature **Date**

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

worklistrpt Version 2.1 05/15/95
04/23/97 10:59

LABCORE Data Entry Template for Worklist# 17705

Analyst: [illegible] **Instrument:** BA000 _____ **Book #** NA

Method: LO-160-103 Rev/Mod B0

Worklist Comment: T-203 C190 Seg.#3 Riser 3 Extrusion

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	INSTCHK01				EXTRUD01	SOLID	20	20.00	N/A	
		2	INSTCHK02				EXTRUD01	SOLID	500	500.11	N/A	
97000299	T-203	3	SAMPLE	S97T000598	0		DLIQVOL1	SOLID	N/A	0		mL
97000299	T-203	4	SAMPLE	S97T000598	0		DLIQWT01	SOLID	N/A	0		g
97000299	T-203	5	SAMPLE	S97T000598	0		EST.G/ML	SOLID	N/A	0		g/mL
97000299	T-203	6	SAMPLE	S97T000598	0		EXTRUD01	SOLID	N/A	complete		
97000299	T-203	7	SAMPLE	S97T000598	0		LLIQWT01	SOLID	N/A	0		g
97000299	T-203	8	SAMPLE	S97T000598	0		NOTEBOOK	SOLID	N/A	NA30		
97000299	T-203	9	SAMPLE	S97T000598	0		SLDVOL01	SOLID	N/A	NA		mL
97000299	T-203	10	SAMPLE	S97T000598	0		SLDWT-01	SOLID	N/A	268.7		g
97000299	T-203	11	SAMPLE	S97T000598	0		APPEAR01	SOLID	N/A	complete		
97000299	T-203	12	SAMPLE	S97T000598	0		ORGVOL01	SOLID	N/A	0		mL

Final page for worklist # 17705

[signature] 4-29-97
Analyst Signature **Date**

[signature] 4-29-97
Analyst Signature **Date**

Validated by N Lapis 4-29-97

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 17707

Analyst: CL **Instrument:** BA000 _____ **Book #** NA

Method: LO-160-103 Rev/Mod B0

Worklist Comment: T-203 C190 Seg.#5 Riser 3 Extrusion

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	INSTCHK01				EXTRUD01	SOLID	20	20.02	N/A	
		2	INSTCHK02				EXTRUD01	SOLID	500	500.12	N/A	
97000299	T-203	3	SAMPLE	S97T000586	0		DLIQVOL1	SOLID	N/A	0		mL
97000299	T-203	4	SAMPLE	S97T000586	0		DLIQWT01	SOLID	N/A	0		g
97000299	T-203	5	SAMPLE	S97T000586	0		EST.G/ML	SOLID	N/A	0		g/mL
97000299	T-203	6	SAMPLE	S97T000586	0		EXTRUD01	SOLID	N/A	complete		
97000299	T-203	7	SAMPLE	S97T000586	0		LLIQWT01	SOLID	N/A	0		g
97000299	T-203	8	SAMPLE	S97T000586	0		NOTEBOOK	SOLID	N/A	N230		
97000299	T-203	9	SAMPLE	S97T000586	0		SLDVOL01	SOLID	N/A	NA		mL
97000299	T-203	10	SAMPLE	S97T000586	0		SLDWT-01	SOLID	N/A	363.0		g
97000299	T-203	11	SAMPLE	S97T000586	0		APPEAR01	SOLID	N/A	complete		
97000299	T-203	12	SAMPLE	S97T000586	0		ORGVOL01	SOLID	N/A	0		mL

Final page for worklist # 17707

CL 4-29-97
Analyst Signature **Date**

CL 4-29-97
Analyst Signature **Date**

Validated by N Lapiris 4-29-97

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

worklistrpt Version 2.1 05/15/95
04/23/97 11:05

LABCORE Data Entry Template for Worklist# 17708

Analyst: CL **Instrument:** BA000 _____ **Book #** NA

Method: LO-160-103 Rev/Mod B0

Worklist Comment: T-203 C190 Seg.#4 Riser 3 Extrusion

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	INSTCHK01				EXTRUD01	SOLID	20	20.02	N/A	
		2	INSTCHK02				EXTRUD01	SOLID	500	500.12	N/A	
97000299	T-203	3	SAMPLE	S97T000585	0		DLIQVOL1	SOLID	N/A	0		mL
97000299	T-203	4	SAMPLE	S97T000585	0		DLIQWT01	SOLID	N/A	0		g
97000299	T-203	5	SAMPLE	S97T000585	0		EST.G/ML	SOLID	N/A	0		g/mL
97000299	T-203	6	SAMPLE	S97T000585	0		EXTRUD01	SOLID	N/A	complete		
97000299	T-203	7	SAMPLE	S97T000585	0		LLIQWT01	SOLID	N/A	0		g
97000299	T-203	8	SAMPLE	S97T000585	0		NOTEBOOK	SOLID	N/A	N-30		
97000299	T-203	9	SAMPLE	S97T000585	0		SLDVOL01	SOLID	N/A	NA		mL
97000299	T-203	10	SAMPLE	S97T000585	0		SLDWT-01	SOLID	N/A	358.7		g
97000299	T-203	11	SAMPLE	S97T000585	0		APPEAR01	SOLID	N/A	complete		
97000299	T-203	12	SAMPLE	S97T000585	0		ORGVOL01	SOLID	N/A	0		mL

Final page for worklist # 17708

CL 4-29-97
Analyst Signature **Date**
Validated by N. Lapins

CL 4-29-97
Analyst Signature **Date**

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

worklistrpt Version 2.1 05/15/95
04/23/97 11:29

LABCORE Data Entry Template for Worklist# 17709

Analyst: EC **Instrument:** BA000 _____ **Book #** NA

Method: LO-160-103 Rev/Mod DO

Worklist Comment: T-203 C190 Seg.#6 Riser 3 Extrusion

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	INSTCHK01				EXTRUD01	SOLID	20	20.01	N/A	
		2	INSTCHK02				EXTRUD01	SOLID	500	500.12	N/A	
97000299	T-203	3	SAMPLE	S97T000599	0		DLIQVOL1	SOLID	N/A	0		mL
97000299	T-203	4	SAMPLE	S97T000599	0		DLIQWT01	SOLID	N/A	0		g
97000299	T-203	5	SAMPLE	S97T000599	0		EST.G/ML	SOLID	N/A	0		g/mL
97000299	T-203	6	SAMPLE	S97T000599	0		EXTRUD01	SOLID	N/A	complete		
97000299	T-203	7	SAMPLE	S97T000599	0		LLIQWT01	SOLID	N/A	<5		g
97000299	T-203	8	SAMPLE	S97T000599	0		NOTEBOOK	SOLID	N/A	N-30		
97000299	T-203	9	SAMPLE	S97T000599	0		SLDVOL01	SOLID	N/A	NA		mL
97000299	T-203	10	SAMPLE	S97T000599	0		SLDWT-01	SOLID	N/A	353.5		g
97000299	T-203	11	SAMPLE	S97T000599	0		APPEAR01	SOLID	N/A	complete		
97000299	T-203	12	SAMPLE	S97T000599	0		ORGVOL01	SOLID	N/A	0		mL

Final page for worklist # 17709

EC 4-29-97
Analyst Signature **Date**

EC 4-29-97
Analyst Signature **Date**

Validated by N Lapiens 4-29-97

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

worklistrpt Version 2.1 05/15/95
04/23/97 11:54

LABCORE Data Entry Template for Worklist# 17710

Analyst: CL **Instrument:** BA000 _____ **Book #** NA

Method: LO-160-103 Rev/Mod BO

Worklist Comment: T-203 C190 Seg.#7 Riser 3 Extrusion

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	INSTCHK01				EXTRUD01	SOLID	20	20.01	N/A	
		2	INSTCHK02				EXTRUD01	SOLID	500	500.12	N/A	
97000299	T-203	3	SAMPLE	S97T000600	0		DLIQVOL1	SOLID	N/A	0		mL
97000299	T-203	4	SAMPLE	S97T000600	0		DLIQWT01	SOLID	N/A	0		g
97000299	T-203	5	SAMPLE	S97T000600	0		EST.G/ML	SOLID	N/A	0		g/mL
97000299	T-203	6	SAMPLE	S97T000600	0		EXTRUD01	SOLID	N/A	complete		
97000299	T-203	7	SAMPLE	S97T000600	0		LLIQWT01	SOLID	N/A	0		g
97000299	T-203	8	SAMPLE	S97T000600	0		NOTEBOOK	SOLID	N/A	N-30		
97000299	T-203	9	SAMPLE	S97T000600	0		SLDVOL01	SOLID	N/A	NA		mL
97000299	T-203	10	SAMPLE	S97T000600	0		SLDWT-01	SOLID	N/A	341.7		g
97000299	T-203	11	SAMPLE	S97T000600	0		APPEAR01	SOLID	N/A	complete		
97000299	T-203	12	SAMPLE	S97T000600	0		ORGVOL01	SOLID	N/A	0		mL

Final page for worklist # 17710

CL 4-29-97
Analyst Signature **Date**

CL 4-29-97
Analyst Signature **Date**

Validated by N. Lapins 4-29-97

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

worklistrpt Version 2.1 05/15/95
04/24/97 10:38

LABCORE Data Entry Template for Worklist# 17727

Analyst: EK **Instrument:** BA000 _____ **Book #** NA

Method: LO-160-103 Rev/Mod 150

Worklist Comment: T-203 Core 190 Seg.8 Riser 3 Extrusion

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	INSTCHK01				EXTRUD01	SOLID	20	20.01	N/A	
		2	INSTCHK02				EXTRUD01	SOLID	500	500.12	N/A	
97000299	T-203	3	SAMPLE	S97T000601	0		DLIQVOL1	SOLID	N/A	0		mL
97000299	T-203	4	SAMPLE	S97T000601	0		DLIQWT01	SOLID	N/A	0		g
97000299	T-203	5	SAMPLE	S97T000601	0		EST.G/ML	SOLID	N/A	0		g/mL
97000299	T-203	6	SAMPLE	S97T000601	0		EXTRUD01	SOLID	N/A	Complete		
97000299	T-203	7	SAMPLE	S97T000601	0		LLIQWT01	SOLID	N/A	25		g
97000299	T-203	8	SAMPLE	S97T000601	0		NOTEBOOK	SOLID	N/A	N-30		
97000299	T-203	9	SAMPLE	S97T000601	0		SLDVOL01	SOLID	N/A	NA		mL
97000299	T-203	10	SAMPLE	S97T000601	0		SLDWT-01	SOLID	N/A	343.1		g
97000299	T-203	11	SAMPLE	S97T000601	0		APPEAR01	SOLID	N/A	Complete		
97000299	T-203	12	SAMPLE	S97T000601	0		ORGVOL01	SOLID	N/A	0		mL

Final page for worklist # 17727

EK 4-29-97
Analyst Signature **Date**

EK 4-29-97
Analyst Signature **Date**

Validated by N Lapcins 4-30-97

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 17728

Analyst: CL **Instrument:** BA000 _____ **Book #** NA

Method: LO-160-103 Rev/Mod BO

Worklist Comment: T-203 CORE 190 Seg #9 RISER 3 Extrusion

GROUP	PROJECT	S TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 INSTCHK01				EXTRUD01	SOLID	20	20.01	N/A	
		2 INSTCHK02				EXTRUD01	SOLID	500	500.12	N/A	
97000299	T-203	3 SAMPLE	S97T000602	0		DLIQVOL1	SOLID	N/A	0		mL
97000299	T-203	4 SAMPLE	S97T000602	0		DLIQWT01	SOLID	N/A	0		g
97000299	T-203	5 SAMPLE	S97T000602	0		EST.G/ML	SOLID	N/A	0		g/mL
97000299	T-203	6 SAMPLE	S97T000602	0		EXTRUD01	SOLID	N/A	Complete		
97000299	T-203	7 SAMPLE	S97T000602	0		LLIQWT01	SOLID	N/A	0		g
97000299	T-203	8 SAMPLE	S97T000602	0		NOTEBOOK	SOLID	N/A	NV-30		
97000299	T-203	9 SAMPLE	S97T000602	0		SLDVOL01	SOLID	N/A	NA		mL
97000299	T-203	10 SAMPLE	S97T000602	0		SLDWT-01	SOLID	N/A	354.2		g
97000299	T-203	11 SAMPLE	S97T000602	0		APPEAR01	SOLID	N/A	Complete		
97000299	T-203	12 SAMPLE	S97T000602	0		ORGVOL01	SOLID	N/A	0		mL

Final page for worklist # 17728

CL 4-29-97
Analyst Signature **Date**

CL 4-29-97
Analyst Signature **Date**

Validated by M. Lapcins 4-30-97

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

SAMPLE PREPARATIONS

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LABCORE Data Entry Template for Worklist# 17877

Analyst: DJB **Instrument:** FUS01 **Book #**

Method: LA-549-141 Rev/Mod F-0

Worklist Comment: T-203 FUSION DIGEST C190S1UH,LH, 1RUH lad

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	BLNK-PREP				FUSION01	SOLID	1	.250 L	N/A	g/L
97000299	T-203	2	SAMPLE	S97T000735	0	F	FUSION01	SOLID	N/A	2.1036		g/L
				0.52599 →			.250 L					
97000299	T-203	3	SAMPLE	S97T000735	0		DOSE-02	SOLID	N/A	<5		mrad/hour
97000299	T-203	4	DUP	S97T000735	0	F	FUSION01	SOLID	2.1036	2.0840	N/A	g/L
				0.5210 g. →			.250 L					
97000299	T-203	5	DUP	S97T000735	0		DOSE-02	SOLID	<5	<5	N/A	mrad/hour
97000299	T-203	6	SAMPLE	S97T000737	0	F	FUSION01	SOLID	N/A	2.0372		g/L
				0.5093 g. →			.250 L					
97000299	T-203	7	SAMPLE	S97T000737	0		DOSE-02	SOLID	N/A	<5		mrad/hour
97000299	T-203	8	DUP	S97T000737	0	F	FUSION01	SOLID	2.0372	2.0476	N/A	g/L
				0.5119 g. →			.250 L					
97000299	T-203	9	DUP	S97T000737	0		DOSE-02	SOLID	<5	<5	N/A	mrad/hour
97000299	T-203	10	SAMPLE	S97T000759	0	F	FUSION01	SOLID	N/A	1.9740		g/L
				0.4935 g. →			.250 L					
97000299	T-203	11	SAMPLE	S97T000759	0		DOSE-02	SOLID	N/A	<5 1.9740 MK 5-12-97		mrad/hour
97000299	T-203	12	DUP	S97T000759	0	F	FUSION01	SOLID	1.9740	1.9884	N/A	g/L
				0.4991 g. →			.250 L					
97000299	T-203	13	DUP	S97T000759	0		DOSE-02	SOLID	<5	<5	N/A	mrad/hour

Final page for worklist # 17877

DJB 5-10-97
Analyst Signature Date

Susan Bee 5/11/97
Analyst Signature Date

S97T000664 → S97T000735
S97T000665 → S97T000759
S97T000705 → S97T000737

Validated by M Lyons 5-12-97

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 17878

Analyst: ADP **Instrument:** FUS01 **Book #** —

Method: LA-549-141 Rev/Mod F-O

Worklist Comment: T-203 FUSION DIGEST C190S1LH, 2UH,LH lad

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	BLNK-PREP				FUSION01	SOLID	1	.250	N/A	g/L
97000299	T-203	2	SAMPLE	S97T000738	0	F	FUSION01	SOLID	N/A	2.0996		g/L
		.5249g → .250l										
97000299	T-203	3	SAMPLE	S97T000738	0		DOSE-02	SOLID	N/A	<1.5		mrad/hour
97000299	T-203	4	DUP	S97T000738	0	F	FUSION01	SOLID	2.0996	2.0520	N/A	g/L
		.5130g → .250l										
97000299	T-203	5	DUP	S97T000738	0		DOSE-02	SOLID	<1.5	<1.5	N/A	mrad/hour
97000299	T-203	6	SAMPLE	S97T000757	0	F	FUSION01	SOLID	N/A	2.268		g/L
		.5690g → .250l										
97000299	T-203	7	SAMPLE	S97T000757	0		DOSE-02	SOLID	N/A	<1.5		mrad/hour
97000299	T-203	8	DUP	S97T000757	0	F	FUSION01	SOLID	2.268	2.3256	N/A	g/L
		.5814g → .250l										
97000299	T-203	9	DUP	S97T000757	0		DOSE-02	SOLID	<1.5	<1.5	N/A	mrad/hour
97000299	T-203	10	SAMPLE	S97T000760	0	F	FUSION01	SOLID	N/A	2.0844		g/L
		.5211g → .250l										
97000299	T-203	11	SAMPLE	S97T000760	0		DOSE-02	SOLID	N/A	<1.5		mrad/hour
97000299	T-203	12	DUP	S97T000760	0	F	FUSION01	SOLID	2.0844	2.2044	N/A	g/L
		.5516g → .250l										
97000299	T-203	13	DUP	S97T000760	0		DOSE-02	SOLID	<1.5	<1.5	N/A	mrad/hour

Final page for worklist # 17878

Analyst Signature Date 5-10-97

Analyst Signature Date 5/11/97

Validated By N Lapins 5-12-97

S97T000666 → S97T000738
S97T000669 → S97T000757
S97T000711 → S97T000760

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

worklistrpt Version 2.1 05/15/95
05/10/97 21:39

LABCORE Data Entry Template for Worklist# 17879

Analyst: DK **Instrument:** FUS01 **Book #**

Method: LA-549-141 Rev/Mod

Worklist Comment: T-203 FUSION DIGEST C190S3UH,LH, 4UH lad

GROUP	PROJECT	S TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 BLNK-PREP				FUSION01	SOLID	1	.250L	N/A	g/L
97000299	T-203	2 SAMPLE .4954 → .250L	S97T000739	0	F	FUSION01	SOLID	N/A	1.9816		g/L
97000299	T-203	3 SAMPLE	S97T000739	0		DOSE-02	SOLID	N/A	<.5		mrad/hour ✓
97000299	T-203	4 DUP .4847 → .250L	S97T000739	0	F	FUSION01	SOLID	1.9816	1.9388	N/A	g/L
97000299	T-203	5 DUP	S97T000739	0		DOSE-02	SOLID	<.5	<.5	N/A	mrad/hour
97000299	T-203	6 SAMPLE .5506 → .250L	S97T000740	0	F	FUSION01	SOLID	N/A	2.2024		g/L
97000299	T-203	7 SAMPLE	S97T000740	0		DOSE-02	SOLID	N/A	<.5		mrad/hour ✓
97000299	T-203	8 DUP .5425 → .250L	S97T000740	0	F	FUSION01	SOLID	2.2024	2.1700	N/A	g/L
97000299	T-203	9 DUP	S97T000740	0		DOSE-02	SOLID	<.5	<.5	N/A	mrad/hour
97000299	T-203	10 SAMPLE .5411 → .250L	S97T000761	0	F	FUSION01	SOLID	N/A	2.1644		g/L
97000299	T-203	11 SAMPLE	S97T000761	0		DOSE-02	SOLID	N/A	<.5		mrad/hour ✓
97000299	T-203	12 DUP .5360 → .250L	S97T000761	0	F	FUSION01	SOLID	2.1644	2.1440	N/A	g/L
97000299	T-203	13 DUP	S97T000761	0		DOSE-02	SOLID	<.5	<.5	N/A	mrad/hour

Final page for worklist # 17879

Rob Kim 5/11/97
Analyst Signature **Date**

Susan Lee 5/11/97
Analyst Signature **Date**
Validated by N Laycus 5-12-97

S97T000706 → S97T000739
S97T000712 → S97T000761
S97T000667 → S97T000740

Data Entry Comments: Used 40ml of Con HNO3 for all samples
Faxed 5/11/97 by R. Kim

Units shown for QC (SPK & SID) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

MAY. 11. 1997 12:11AM WHC 222S LAB ROOM 2F BACKSIDE NO. 2015 P. 1/1

05/01/97 09:15
A-0004-1

LABCORE Data Entry Template for Worklist# 17880

Analyst: MSL **Instrument:** FUS01 **Book#** —

Method: LA-549-141 Rev/Mod F-0

Worklist Comment: T-203 FUSION DIGEST C190S4LH, 5UH,LH lad

S	Type	Sample#	R	A	Test	Matrix	Group#	Project	Actual	Found	DL	Units
1	BLNK-PREP				FUSION01	SOLID			1	.250	NA	g/L
2	SAMPLE	S97T000741	0	F	FUSION01	SOLID	97000299	T-203	NA	2.0044		g/L
	Analytes Requested: FUSION01											
	.5011 → .250mL											
3	SAMPLE	S97T000741	0		DOSE-02	SOLID	97000299	T-203	NA	<0.5		mrad
	Analytes Requested: DOSE-02											
4	DUP	S97T000741	0	F	FUSION01	SOLID			2.0044	2.0236	NA	g/L
	.5059 → .250mL											
5	DUP	S97T000741	0		DOSE-02	SOLID			<0.5	<0.5	NA	mrad
6	SAMPLE	S97T000762	0	F	FUSION01	SOLID	97000299	T-203	NA	2.0724		g/L
	Analytes Requested: FUSION01											
	.5181 → .250mL											
7	SAMPLE	S97T000762	0		DOSE-02	SOLID	97000299	T-203	NA	<0.5		mrad
	Analytes Requested: DOSE-02											
8	DUP	S97T000762	0	F	FUSION01	SOLID			2.0724	2.0904	NA	g/L
	.5226 → .250											
9	DUP	S97T000762	0		DOSE-02	SOLID			<0.5	<0.5	NA	mrad
10	SAMPLE	S97T000763	0	F	FUSION01	SOLID	97000299	T-203	NA	2.0612		g/L
	Analytes Requested: FUSION01											
	.5153 → .250											
11	SAMPLE	S97T000763	0		DOSE-02	SOLID	97000299	T-203	NA	<0.5		mrad
	Analytes Requested: DOSE-02											
12	DUP	S97T000763	0	F	FUSION01	SOLID			2.0612	2.0452	NA	g/L
	.5113 → .250											
13	DUP	S97T000763	0		DOSE-02	SOLID			<0.5	<0.5	NA	mrad

Final page for worklist # 17880

Kathy Pamenter 5-1-97
Validated by N Lagrius 5-13-97

Data Entry Comments:

Susan Bee 5/11/97
S97T000668 → S97T000741
S97T000670 → S97T000762
S97T000671 → S97T000763

S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

May. 11. 1997 2:31PM WHC 222S LAB ROOM 2F BACKSIDE NO. 2004 P. 1/1

LABCORE Data Entry Template for Worklist# 17881

Analyst: DSB **Instrument:** FUS01 **Book #** N/A

Method: LA-549-141 Rev/Mod

Worklist Comment: T-203 FUSION DIGEST C190S7LH,8UH,LH lad

GROUP	PROJECT	S	TYPE	SAMPLE #	R	A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	BLNK-PREP				FUSION01	SOLID	1	.250 L	N/A	g/L
97000299	T-203	2	SAMPLE	S97T000742	0	F	FUSION01	SOLID	N/A	2.0108		g/L
				0.5027 g. → .250 L								
97000299	T-203	3	SAMPLE	S97T000742	0		DOSE-02	SOLID	N/A	<.5		mrad/hour
97000299	T-203	4	DUP	S97T000742	0	F	FUSION01	SOLID	2.0108	1.9880	N/A	g/L
				0.4970 g. → .250 L								
97000299	T-203	5	DUP	S97T000742	0		DOSE-02	SOLID	<.5	<.5	N/A	mrad/hour
97000299	T-203	6	SAMPLE	S97T000743	0	F	FUSION01	SOLID	N/A	2.0016		g/L
				0.5004 g. → .250 L								
97000299	T-203	7	SAMPLE	S97T000743	0		DOSE-02	SOLID	N/A	<.5		mrad/hour
97000299	T-203	8	DUP	S97T000743	0	F	FUSION01	SOLID	2.0016	2.0092	N/A	g/L
				0.5023 g. → .250 L								
97000299	T-203	9	DUP	S97T000743	0		DOSE-02	SOLID	<.5	<.5	N/A	mrad/hour
97000299	T-203	10	SAMPLE	S97T000764	0	F	FUSION01	SOLID	N/A	2.0352		g/L
				0.5083 g. → .250 L								
97000299	T-203	11	SAMPLE	S97T000764	0		DOSE-02	SOLID	N/A	<.5		mrad/hour
97000299	T-203	12	DUP	S97T000764	0	F	FUSION01	SOLID	2.0352	2.0256	N/A	g/L
				0.5064 g. → .250 L								
97000299	T-203	13	DUP	S97T000764	0		DOSE-02	SOLID	<.5	<.5	N/A	mrad/hour

Final page for worklist # 17881

D S Bailey 5-12-97
Analyst Signature Date

Linda Mark 5-13-97
Analyst Signature Date

S97T000707 → S97T000742
S97T000713 → S97T000764
S97T000708 → S97T000743

Validated by N Lapins 5-13-97

Data Entry Comments:

HPT: Darrel HAINES

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 17882

Analyst: SMF **Instrument:** FUS01 **Book #** N/A

Method: LA-549-141 Rev/Mod F-0

Worklist Comment: T-203 FUSION DIGEST C190S7LH 8UH, LH lad

GROUP	PROJECT	S TYPE	SAMPLE#	R	A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 BLNK-PREP				FUSION01	SOLID	1	.250	N/A	g/L
97000299	T-203	2 SAMPLE	S97T000744	0	F	FUSION01	SOLID	N/A	1.9836		g/L
		.4959g → .250l									
97000299	T-203	3 SAMPLE	S97T000744	0		DOSE-02	SOLID	N/A	2.5		mrad/hour
97000299	T-203	4 DUP	S97T000744	0	F	FUSION01	SOLID	1.9836	2.032	N/A	g/L
		.5080g → .250l									
97000299	T-203	5 DUP	S97T000744	0		DOSE-02	SOLID	2.5	2.5	N/A	mrad/hour
97000299	T-203	6 SAMPLE	S97T000765	0	F	FUSION01	SOLID	N/A	1.9984		g/L
		.4996g → .250l									
97000299	T-203	7 SAMPLE	S97T000765	0		DOSE-02	SOLID	N/A	2.5		mrad/hour
97000299	T-203	8 DUP	S97T000765	0	F	FUSION01	SOLID	1.9984	2.0324	N/A	g/L
		.5081g → .250l									
97000299	T-203	9 DUP	S97T000765	0		DOSE-02	SOLID	2.5	2.5	N/A	mrad/hour
97000299	T-203	10 SAMPLE	S97T000766	0	F	FUSION01	SOLID	N/A	1.9948		g/L
		.4987g → .250l									
97000299	T-203	11 SAMPLE	S97T000766	0		DOSE-02	SOLID	N/A	2.5		mrad/hour
[illegible]		[illegible]	[illegible]			[illegible]	SOLID	1.9948	2.0264	N/A	g/L
		.5066g → .250l									
[illegible]		[illegible]	S97T000766	0		DOSE-02	SOLID	2.5	2.5	N/A	mrad/hour

Final page for worklist # 17882

Analyst Signature 5-12-97 Date

Dave Chadwick 5-13-97

S97T000709 →

S97T000714 →

S97T000715 →

Data Entry Comments:

HPT: Chuck Felder

Approver Signature 5-13-97 Date

Validated by N. Lapcevich 5-16-97

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 17883

Analyst: Elk **Instrument:** FUS01 **Book #** N/A

Method: LA-549-141 Rev/Mod F.0

Worklist Comment: T-203 FUSION DIGEST C190S9UH, LH lad

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	BLNK-PREP				FUSION01	SOLID	1	.250	N/A	g/L
97000299	T-203	2	SAMPLE	S97T000745	0	F	FUSION01	SOLID	N/A	2.0048		g/L
			.5012g → .250ℓ									
97000299	T-203	3	SAMPLE	S97T000745	0		DOSE-02	SOLID	N/A	<.5		mrad/hour
97000299	T-203	4	DUP	S97T000745	0	F	FUSION01	SOLID	2.0048	2.0192	N/A	g/L
			.5048g → .250ℓ									
97000299	T-203	5	DUP	S97T000745	0		DOSE-02	SOLID	N/A	<.5	N/A	mrad/hour
97000299	T-203	6	SAMPLE	S97T000767	0	F	FUSION01	SOLID	N/A	2.0360		g/L
			.5090g → .250ℓ									
97000299	T-203	7	SAMPLE	S97T000767	0		DOSE-02	SOLID	N/A	<.5		mrad/hour
97000299	T-203	8	DUP	S97T000767	0	F	FUSION01	SOLID	2.0360	2.0208	N/A	g/L
			.5052g → .250ℓ									
97000299	T-203	9	DUP	S97T000767	0		DOSE-02	SOLID	N/A	<.5	N/A	mrad/hour

Final page for worklist # 17883

Lisa Laabel 05.14.97
Analyst Signature **Date**

Linda Mark 05-15-97
Analyst Signature **Date**
Validated by N Lapius 5-19-97

Data Entry Comments: Added: 45ml conc HNO3 & 5ml 4M HCl. Samples have 1% solids by volume. HPT: Pam Higby container was <.5 mrad/hr. Parent samples were black & tar-like.

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

worklistrpt Version 2.1 05/15/95
06/25/97 09:05

LABCORE Data Entry Template for Worklist# 18196

Analyst: KSH **Instrument:** FUS01 **Book #** N/A

Method: LA-549-141 Rev/Mod _____

Worklist Comment: T-203 Fusion Digest C190 Core Comp lad

GROUP	PROJECT	S TYPE	SAMPLE#	R	A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 BLNK-PREP				FUSION01	SOLID	1	.250	N/A	g/L
97000299	T-203	2 SAMPLE	S97T001015	0	F	FUSION01	SOLID	N/A	2.1124		g/L
		.5281 → 7.250 ℓ									
97000299	T-203	3 SAMPLE	S97T001015	0		DOSE-02	SOLID	N/A	<.5		mrad/hour
97000299	T-203	4 DUP	S97T001015	0	F	FUSION01	SOLID	2.1124	2.1176	N/A	g/L
		.5294 → 7.250 ℓ									
97000299	T-203	5 DUP	S97T001015	0		DOSE-02	SOLID		<.5	N/A	mrad/hour

Final page for worklist # 18196

Analyst Signature Date 6-25-97

Analyst Signature Date 6-25-97

Validated by RK Fuller 6/26/97

Data Entry Comments: FAXED 6-25

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 19251

Analyst: EAL **Instrument:** FUS01 **Book #** N/A

Method: LA-549-141 Rev/Mod F.0

Worklist Comment: T-203 fusion digest C190 Core Composit lad

GROUP	PROJECT	S TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 BLNK-PREP				FUSION01	SOLID	1	.250	N/A	g/L
97000299	T-203	2 SAMPLE .5238g → .250 l	S97T001734	0	F	FUSION01	SOLID	N/A	2.0952		g/L
97000299	T-203	3 SAMPLE	S97T001734	0		DOSE-02	SOLID	N/A	<0.5		mrad/hour
97000299	T-203	4 DUP .5264g → .250 l	S97T001734	0	F	FUSION01	SOLID	2.0952	2.1056	N/A	g/L
97000299	T-203	5 DUP	S97T001734	0		DOSE-02	SOLID	N/A	<0.5	N/A	mrad/hour

Final page for worklist # 19251

A. Lambel 07.10.97
Analyst Signature **Date**

Analyst Signature 7-11-97 **Date**

Reviewed 7/12/97

Data Entry Comments: 5ml 4M HCl & 15ml Con HNO3. Ø Solids. SAMPLE Color: Brown DUPLICATE COLOR-ROSE. HPT: SCOTT CORBALEY - CONTAINER DOSE RATE: <0.5 mrad/h Location: Shelf 3

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

worklistrpt Version 2.1 05/15/95
05/06/97 09:51

HNF-SD-WM-DP-247, REV. 0

LABCORE Data Entry Template for Worklist# 17884

Analyst: DPB **Instrument:** H2O01 **Book #**

Method: LA-504-101 Rev/Mod F-o

Worklist Comment: T-203 H2O DIGEST C190S1UH, LH, 1RUH lad

GROUP	PROJECT	S TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 BLNK-PREP				H2ODIG01	SOLID	1	.100 L	N/A	g/L
97000299	T-203	2 SAMPLE	S97T000736	0	W	H2ODIG01	SOLID	N/A	5.2640		g/L
		0.5264 g → .100 L									
97000299	T-203	3 SAMPLE	S97T000736	0		DOSE-02	SOLID	N/A	5		mrad/hour
97000299	T-203	4 DUP	S97T000736	0	W	H2ODIG01	SOLID	5.2640	5.2830	N/A	g/L
		0.5283 g. → .100 L									
97000299	T-203	5 DUP	S97T000736	0		DOSE-02	SOLID	5	5	N/A	mrad/hour
97000299	T-203	6 SAMPLE	S97T000746	0	W	H2ODIG01	SOLID	N/A	4.9510		g/L
		0.4951 g. → .100 L									
97000299	T-203	7 SAMPLE	S97T000746	0		DOSE-02	SOLID	N/A	5		mrad/hour
97000299	T-203	8 DUP	S97T000746	0	W	H2ODIG01	SOLID	4.9510	5.0800	N/A	g/L
		0.5080 g. → .100 L									
97000299	T-203	9 DUP	S97T000746	0		DOSE-02	SOLID	5	5	N/A	mrad/hour
97000299	T-203	10 SAMPLE	S97T000768	0	W	H2ODIG01	SOLID	N/A	5.1090		g/L
		0.5109 g. → .100 L									
97000299	T-203	11 SAMPLE	S97T000768	0		DOSE-02	SOLID	N/A	5		mrad/hour
97000299	T-203	12 DUP	S97T000768	0	W	H2ODIG01	SOLID	5.1090	5.1980	N/A	g/L
		0.5198 g. → .100 L									
97000299	T-203	13 DUP	S97T000768	0		DOSE-02	SOLID	5	5	N/A	mrad/hour

Final page for worklist # 17884

D P Baffin 5-10-97
Analyst Signature **Date**

Susan Rea 5/11/97
Analyst Signature **Date**

Validated by N Lapins 5-12-97

Data Entry Comments:

S97T000664 → S97T000736
S97T000665 → S97T000768
S97T000759 (DBG 705) → S97T000746

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 17885

Analyst: #DP **Instrument:** H2O01 **Book #** —

Method: LA-504-101 Rev/Mod F0

Worklist Comment: T-203 H2O DIGEST C190S1RLH, 2UH, LH lad

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	BLNK-PREP				H2ODIG01	SOLID	1	.100	N/A	g/L
97000299	T-203	2	SAMPLE	S97T000747	0	W	H2ODIG01	SOLID	N/A	5.254		g/L
			.5254g → .100l									
97000299	T-203	3	SAMPLE	S97T000747	0		DOSE-02	SOLID	N/A	<.5		mrad/hour
97000299	T-203	4	DUP	S97T000747	0	W	H2ODIG01	SOLID	5.254	5.305	N/A	g/L
			.5305g → .100l									
97000299	T-203	5	DUP	S97T000747	0		DOSE-02	SOLID	<.5	<.5	N/A	mrad/hour
97000299	T-203	6	SAMPLE	S97T000758	0	W	H2ODIG01	SOLID	N/A	4.995		g/L
			.4995g → .100l									
97000299	T-203	7	SAMPLE	S97T000758	0		DOSE-02	SOLID	N/A	<.5		mrad/hour
97000299	T-203	8	DUP	S97T000758	0	W	H2ODIG01	SOLID	4.995	5.094	N/A	g/L
			.5094g → .100l									
97000299	T-203	9	DUP	S97T000758	0		DOSE-02	SOLID	<.5	<.5	N/A	mrad/hour
97000299	T-203	10	SAMPLE	S97T000769	0	W	H2ODIG01	SOLID	N/A	6.002		g/L
			.6002g → .100l									
97000299	T-203	11	SAMPLE	S97T000769	0		DOSE-02	SOLID	N/A	<.5		mrad/hour
97000299	T-203	12	DUP	S97T000769	0	W	H2ODIG01	SOLID	6.002	6.100	N/A	g/L
			.6100g → .100l									
97000299	T-203	13	DUP	S97T000769	0		DOSE-02	SOLID	<.5	<.5	N/A	mrad/hour

NZ 5-12-97 Rad HF

Final page for worklist # 17885

Analyst Signature Date 5-10-97

Analyst Signature Date 5/11/97

Validated by NZ 5-12-97

S97T000666 ⇒ S97T000747
S97T000669 ⇒ S97T000758
S97T000711 ⇒ S97T000769

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 17886

Analyst: RK **Instrument:** H2O01 **Book #**

Method: LA-504-101 Rev/Mod

Worklist Comment: T-203 H2O DIGEST C190S3UH,LH, 4UH lad

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	BLNK-PREP				H2ODIG01	SOLID	1	.100	N/A	g/L
97000299	T-203	2	SAMPLE	S97T000748	0	W	H2ODIG01	SOLID	N/A	5.207		g/L
			.5207 → .100									
97000299	T-203	3	SAMPLE	S97T000748	0		DOSE-02	SOLID	N/A	<1.5		mrad/hour
97000299	T-203	4	DUP	S97T000748	0	W	H2ODIG01	SOLID	5.207	5.336	N/A	g/L
			.5336 → .100									
97000299	T-203	5	DUP	S97T000748	0		DOSE-02	SOLID	<1.5	<1.5	N/A	mrad/hour
97000299	T-203	6	SAMPLE	S97T000749	0	W	H2ODIG01	SOLID	N/A	5.364		g/L
			.5364 → .100									
97000299	T-203	7	SAMPLE	S97T000749	0		DOSE-02	SOLID	N/A	<1.5		mrad/hour
97000299	T-203	8	DUP	S97T000749	0	W	H2ODIG01	SOLID	5.364	5.583	N/A	g/L
			.5583 → .100									
97000299	T-203	9	DUP	S97T000749	0		DOSE-02	SOLID	<1.5	<1.5	N/A	mrad/hour
97000299	T-203	10	SAMPLE	S97T000770	0	W	H2ODIG01	SOLID	N/A	5.989		g/L
			.5989 → .100									
97000299	T-203	11	SAMPLE	S97T000770	0		DOSE-02	SOLID	N/A	<1.5		mrad/hour
97000299	T-203	12	DUP	S97T000770	0	W	H2ODIG01	SOLID	5.989	5.920	N/A	g/L
			.5920 → .100									
97000299	T-203	13	DUP	S97T000770	0		DOSE-02	SOLID	<1.5	<1.5	N/A	mrad/hour

Final page for worklist # 17886

Analyst Signature Date

Analyst Signature Date 5/11/97

S97T000706 → S97T000748
S97T000712 → S97T000770
S97T000667 → S97T000749

Validated by N Lapcins 5-13-97

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 17887

Analyst: ADP **Instrument:** H2O01 **Book#** —

Method: LA-504-101 Rev/Mod F-0

Worklist Comment: T-203 H2O DIGEST C190S4LH, 5UH,LH lad

S	Type	Sample#	R	A	Test	Matrix	Group#	Project	Actual	Found	DL	UU
1	BLNK-PREP				H2ODIG01	SOLID			1	.100	NA	g/L
2	SAMPLE	S97T000750	0	W	H2ODIG01	SOLID	97000299	T-203	NA	5.136	—	g/L
	Analytes Requested: H2ODIG01								.5136 → 100mL			
3	SAMPLE	S97T000750	0		DOSE-02	SOLID	97000299	T-203	NA	<0.5	—	mrad/h
	Analytes Requested: DOSE-02											
4	DUP	S97T000750	0	W	H2ODIG01	SOLID			5.136	5.025	NA	g/L
									.5025 → 100mL			
5	DUP	S97T000750	0		DOSE-02	SOLID			<0.5	<0.5	NA	mrad/h
6	SAMPLE	S97T000771	0	W	H2ODIG01	SOLID	97000299	T-203	NA	5.200	—	g/L
	Analytes Requested: H2ODIG01								.5200 → 100mL			
7	SAMPLE	S97T000771	0		DOSE-02	SOLID	97000299	T-203	NA	<0.5	—	mrad/h
	Analytes Requested: DOSE-02											
8	DUP	S97T000771	0	W	H2ODIG01	SOLID			5.200	5.150	NA	g/L
									.5150 → 100mL			
9	DUP	S97T000771	0		DOSE-02	SOLID			<0.5	<0.5	NA	mrad/h
10	SAMPLE	S97T000772	0	W	H2ODIG01	SOLID	97000299	T-203	NA	5.102	—	g/L
	Analytes Requested: H2ODIG01								.5102 → 100mL			
11	SAMPLE	S97T000772	0		DOSE-02	SOLID	97000299	T-203	NA	<0.5	—	mrad/h
	Analytes Requested: DOSE-02											
12	DUP	S97T000772	0	W	H2ODIG01	SOLID			5.102	5.170	NA	g/L
									.5170 → 100mL			
13	DUP	S97T000772	0		DOSE-02	SOLID			<0.5	<0.5	NA	mrad/h

Final page for worklist # 17887

Anthony Punato 5-11-97
Validated by N Loyens 5-13-97

Susan Bee 5/11/97

S97T000668 → S97T000750
S97T000670 → S97T000771
S97T000671 → S97T000772

Data Entry Comments:

S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 17888

Analyst: QBB **Instrument:** H2O01 **Book #** N/A

Method: LA-504-101 Rev/Mod

Worklist Comment: T-203 H2O DIGEST C190S6UH, LH 7UH lad

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	BLNK-PREP				H2ODIG01	SOLID	/	.100 L	N/A	g/L
97000299	T-203	2	SAMPLE	S97T000751	0	W	H2ODIG01	SOLID	N/A	5.0630		g/L
			0.5063 g. → .100 L									
97000299	T-203	3	SAMPLE	S97T000751	0		DOSE-02	SOLID	N/A	<.5		mrad/hour
97000299	T-203	4	DUP	S97T000751	0	W	H2ODIG01	SOLID	5.0630	4.9960	N/A	g/L
			0.4996 g. → .100 L									
97000299	T-203	5	DUP	S97T000751	0		DOSE-02	SOLID	<.5	<.5	N/A	mrad/hour
97000299	T-203	6	SAMPLE	S97T000752	0	W	H2ODIG01	SOLID	N/A	5.1330		g/L
			0.5133 g. → .100 L									
97000299	T-203	7	SAMPLE	S97T000752	0		DOSE-02	SOLID	N/A	<.5		mrad/hour
97000299	T-203	8	DUP	S97T000752	0	W	H2ODIG01	SOLID	5.1330	5.0480	N/A	g/L
			0.5048 g. → .100 L									
97000299	T-203	9	DUP	S97T000752	0		DOSE-02	SOLID	<.5	<.5	N/A	mrad/hour
97000299	T-203	10	SAMPLE	S97T000773	0	W	H2ODIG01	SOLID	N/A	5.0250		g/L
			0.5025 g. → .100 L									
97000299	T-203	11	SAMPLE	S97T000773	0		DOSE-02	SOLID	N/A	<.5		mrad/hour
[illegible]								SOLID	5.0250	5.0840	N/A	g/L
			0.5084 g. → .100 L									
97000299	T-203	12	DUP	S97T000773	0		DOSE-02	SOLID	<.5	<.5	N/A	mrad/hour

Final page for worklist # 17888

[signature] 5-12-97
Signature Date

[signature] 5-13-97
Analyst Signature Date

[signature] 5-13-97

S97T000707 → S97T000751
S97T000713 → S97T000773
S97T000708 → S97T000752

Validated by [signature] 5-16-97

Data Entry Comments:
HPT : Chuck Felder

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LA[illegible]ORT Data Entry Template for Worklist# 17889

Analyst: SM[illegible] **Instrument:** H2O01 _____ **Book #** NK

Method: L[illegible]-504-101 Rev/Mod [illegible]-O

Worklist Comment: T-203 H2O D[illegible]GEST C190S7LH, 8UH, LH lad

GROUP	PROJECT	SAMPLE	SAMPLE #	R	A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 BLANK-PREP				H2ODIG01	SOLID	/	.100	N/A	g/L
97000299	T-203	2 SAMPLE	S97T000753	0	W	H2ODIG01	SOLID	N/A	4.972		g/L
		.4972g → .100l									
97000299	T-203	3 SAMPLE	S97T000753	0		DOSE-02	SOLID	N/A	2.5		mrad/hour
97000299	T-203	4 DUP	S97T000753	0	W	H2ODIG01	SOLID	4.972	5.090	N/A	g/L
		.5090g → .100l									
97000299	T-203	5 DUP	S97T000753	0		DOSE-02	SOLID	<.5	<.5	N/A	mrad/hour
97000299	T-203	6 SAMPLE	S97T000774	0	W	H2ODIG01	SOLID	N/A	5.074		g/L
		.5074g → .100l									
97000299	T-203	7 SAMPLE	S97T000774	0		DOSE-02	SOLID	N/A	<.5		mrad/hour
97000299	T-203	8 DUP	S97T000774	0	W	H2ODIG01	SOLID	5.074	5.066	N/A	g/L
		.5066g → 100l									
97000299	T-203	9 DUP	S97T000774	0		DOSE-02	SOLID	<.5	<.5	N/A	mrad/hour
97000299	T-203	10 SAMPLE	S97T000775	0	W	H2ODIG01	SOLID	N/A	4.998		g/L
		.4998g → .100l									
97000299	T-203	11 SAMPLE	S97T000775	0		DOSE-02	SOLID	N/A	<.5		mrad/hour
97000299	T-203	12 DUP	S97T000775	0	W	H2ODIG01	SOLID	4.998	4.930	N/A	g/L
		.4930g → .100l									
97000299	T-203	13 DUP	S97T000775	0		DOSE-02	SOLID	<.5	<.5	N/A	mrad/hour

Final page for worklist # 17889

Susie M. Dalton 5-12-97
Analyst Signature Date

Linda J. Mack 5-13-97
Analyst Signature Date
Validated by N Lapuis 5-13-97

S97T000709 → S97T000753
S97T000714 → S97T000774
S97T000715 → S97T000775

Data Entry Comments:
HPT: Darrel Haines

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

worklistrpt Version 2.1 05/15/95
05/14/97 10:15

HNF-SD-WM-DP-247, REV. 0

LABCORE Data Entry Template for Worklist# 17890

Analyst: EAL **Instrument:** H2O01 **Book #** N/A

Method: LA-504-101 Rev/Mod

Worklist Comment: T-203 H2O DIGEST C190S9 UH, LH lad

GROUP	PROJECT	S TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 BLNK-PREP				H2ODIG01	SOLID	1	.100	N/A	g/L
97000299	T-203	2 SAMPLE	S97T000754	0	W	H2ODIG01	SOLID	N/A	5.240		g/L
		.5240g → .100ℓ									
97000299	T-203	3 SAMPLE	S97T000754	0		DOSE-02	SOLID	N/A	<.5		mrad/hour
97000299	T-203	4 DUP	S97T000754	0	W	H2ODIG01	SOLID	5.240	5.152	N/A	g/L
		.5152g → .100ℓ									
97000299	T-203	5 DUP	S97T000754	0		DOSE-02	SOLID	N/A	<.5	N/A	mrad/hour
97000299	T-203	6 SAMPLE	S97T000776	0	W	H2ODIG01	SOLID	N/A	5.301		g/L
		.5301g → .100ℓ									
97000299	T-203	7 SAMPLE	S97T000776	0		DOSE-02	SOLID	N/A	<.5		mrad/hour
97000299	T-203	8 DUP	S97T000776	0	W	H2ODIG01	SOLID	5.301	5.334	N/A	g/L
		.5334g → .100ℓ									
97000299	T-203	9 DUP	S97T000776	0		DOSE-02	SOLID	N/A	<.5	N/A	mrad/hour

Final page for worklist # 17890

Gina Lambel 05.14.97
Analyst Signature **Date**

Linda Mock 5-15-97
Analyst Signature **Date**

Validated by N Lapcins 5-19-97

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 18198

Analyst: DGS **Instrument:** H2O01 **Book #**

Method: LA-504-101 Rev/Mod

Worklist Comment: T-203 H2O Digest C190 Core Comp lad

GROUP	PROJECT	S TYPE	SAMPLE#	R	A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 BLNK-PREP				H2ODIG01	SOLID	1	.100	N/A	g/L
97000299	T-203	2 SAMPLE .4566g	S97T001016 → .100L	0	W	H2ODIG01	SOLID	N/A	4.5660		g/L
97000299	T-203	3 SAMPLE	S97T001016	0		DOSE-02	SOLID	N/A	<.5mrad		mrad/hour
97000299	T-203	4 DUP	S97T001016	0	W	H2ODIG01	SOLID	4.5660	4.7020	N/A	g/L
97000299	T-203	5 DUP .4702g	S97T001016 → .100L	0		DOSE-02	SOLID	<.5mrad	<.5mrad	N/A	mrad/hour

Final page for worklist # 18198

DG Griffin 6-25-97
Analyst Signature **Date**

Validated by N Lagins 6-25-97

Susan Bee 6/25/97
Analyst Signature **Date**

S97T001013 → S97T001016

Data Entry Comments:

Weighted By Don Griffin 6-25-97
Submitted by Don Griffin 6-25-97
Labeled 6-25-97

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

worklistrpt Version 2.1 05/15/95 *Page: 1*
06/25/97 09:08

LABCORE Data Entry Template for Worklist# 18197

Analyst: JK Soto **Instrument:** ACD01 **Book #** 2.5 mls each dil/1 + 2 to 50 mls final volume

Method: LA-505-163 Rev/Mod A-0

Worklist Comment: T-203 Acid Digest C190 Core Comp lad

GROUP	PROJECT	S TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD-PREP				ACIDIG01	SOLID	20	20	N/A	g/L
		2 BLNK-PREP				ACIDIG01	SOLID	1	50	N/A	g/L
97000299	T-203	3 SAMPLE 0.2504g → .05ℓ	S97T001017	0	A	ACIDIG01	SOLID	N/A	5.008		g/L
97000299	T-203	4 SAMPLE	S97T001017	0		DOSE-02	SOLID	N/A	<2.5		mrad/hour
97000299	T-203	5 DUP 0.2506g → .05ℓ	S97T001017	0	A	ACIDIG01	SOLID	5.008	5.012	N/A	g/L
97000299	T-203	6 DUP	S97T001017	0		DOSE-02	SOLID	<2.5	<2.5	N/A	mrad/hour
97000299	T-203	7 SPK 0.2505g → .05ℓ	S97T001017	0	A	ACIDIG01	SOLID	N/A	5.010	N/A	g/L
97000299	T-203	8 SPK	S97T001017	0		DOSE-02	SOLID	N/A	<2.5	N/A	mrad/hour

Final page for worklist # 18197

JK Soto 06-25-97
Analyst Signature **Date**

[signature] 6-25-97
Analyst Signature **Date**

Validated By RH Fuller 6/26/97

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

T-203 BULK DENSITY WORKSHEETS

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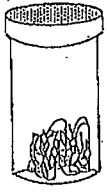
Bulk Density Worksheet

Requestor: STEEN

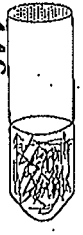
Date: 4/30/97

Tank: T-203
Core: 190
Seg: 1 LH
Auger: ____
Sample ID: 557 Tank 57



Start Time: ____
End Time: ____
Homogenization Time (Min.): ____

Jar#: 12207
Jar/Vial Size: ____ mL
Initial Weight: ____ g
Final Weight: 4/30/97 g
Net Weight: ____ g



146

Cone#: 12207
Final Vol: 25 10 mL
Initial Weight: 7.44 g
Final Weight: 19.58 g
Net Weight: 12.14 g
Sample ID: ____

Appearance/Narrative:

Bulk den = 12.14 / 10 = 1.21 gm/cm³

Tank: ____
Core: ____
Seg: ____
Auger: ____
Sample ID: ____

Start Time: ____
End Time: ____
Homogenization Time (Min.): ____

Jar#: AKH 4/30/97
Jar/Vial Size: ____ mL
Initial Weight: ____ g
Final Weight: ____ g
Net Weight: ____ g

Cone#: ____
Final Vol: ____ mL
Initial Weight: ____ g
Final Weight: ____ g
Net Weight: ____ g
Sample ID: ____

Appearance/Narrative:

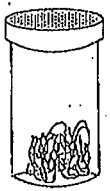
04/30/97 18:59 ☎509 373 5047 222S HAZMAT UNIT +++ LAB DATA MGMT ☑005
HNF-SD-WM-DP-247, REV.0

Bulk Density Worksheet

Requestor: Stan

Date: 5/6/97

Tank: T-203
Core: 190
Seg: 1R LH
Auger: —
Sample ID: S97T000699



Start Time: ____
End Time: ____
Homogenization Time (Min.): ____

Jar#: 12265
Jar/Vial Size: ____ mL
Initial Weight: ____ g
Final Weight: 98.97 g
Net Weight: 4.74 g

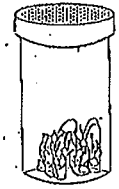
Cone#: 12265
Final Vol: 14 mL
Initial Weight: 7.43 g
Final Weight: 24.03 g
Net Weight: 16.60 g
Sample ID: S97T000699

Appearance/Narrative:

Bulk Den = 16.60/14.0 / 1.19 = gm/ml

147

Tank: ____
Core: ____
Seg: ____
Auger: ____
Sample ID: ____



Start Time: ____
End Time: ____
Homogenization Time (Min.): ____

Jar#: ____
Jar/Vial Size: ____ mL
Initial Weight: ____ g
Final Weight: ____ g
Net Weight: ____ g

DLD 4-30-97

Cone#: ____
Final Vol: ____ mL
Initial Weight: ____ g
Final Weight: ____ g
Net Weight: ____ g
Sample ID: ____

Appearance/Narrative:

HNF-SD-WM-DP-247, REV. 0

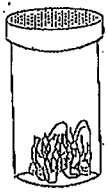
05/07/97 13:41 ☎509 373 5047 2225 HAZMAT UNIT →→→ LAB DATA MGMT 002

Bulk Density Worksheet

Requestor: STEEN

Date: _____

Tank: T-203
Core: 190
Seg: 2LH
Auger: —
Sample ID: S97T000658



Start Time: _____
End Time: _____
Homogenization Time (Min.): ~~5~~

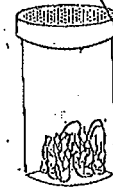
Jar#: ~~12546~~ 12255
Jar/Vial Size: _____ mL
Initial Weight: ~~MH 4/30/97~~ g
Final Weight: _____ g
Net Weight: _____ g

AB 4/30/97
Cone#: ~~12548~~ 12255
Final Vol: ~~115~~ 150 mL
Initial Weight: 7.10 g
Final Weight: ~~21.00~~ g 20.94
Net Weight: ~~13.9~~ g 13.84
Sample ID: S97T000658

Appearance/Narrative: 13.84
BulkDen = 13.84/11.5 = 1.20 gm/cm³

148

Tank: _____
Core: _____
Seg: _____
Auger: _____
Sample ID: _____



Start Time: _____
End Time: _____
Homogenization Time (Min.): _____

Jar#: ~~12546~~
Jar/Vial Size: ~~250~~ 27 mL
Initial Weight: _____ g
Final Weight: _____ g
Net Weight: _____ g

Cone#: _____
Final Vol: _____ mL
Initial Weight: _____ g
Final Weight: _____ g
Net Weight: _____ g
Sample ID: _____

Appearance/Narrative:

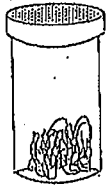
04/30/97 22:48 ☎509 373 5047 222S HAZMAT UNIT +++ LAB DATA MGMT 002

Bulk Density Worksheet

Requestor: sTeen

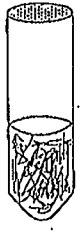
Date: 5-7-97

Tank: T-203
Core: 190
Seg: 3LH
Auger: —
Sample ID: 597000700



Start Time: ____
End Time: ____
Homogenization Time (Min.): ____

Jar#: 12266
Jar/Vial Size: ____ mL
Initial Weight: ____ g
Final Weight: 0/0 g
Net Weight: ____ g 4-30-97



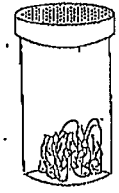
Cone#: 12266
Final Vol: 13.5 mL
Initial Weight: 7.47 g
Final Weight: 26.30 g
Net Weight: 18.83 g
Sample ID: 597000700

Appearance/Narrative:

18.83 / 13.5 = 1.39

149

Tank: ____
Core: ____
Seg: ____
Auger: ____
Sample ID: ____



Start Time: ____
End Time: ____
Homogenization Time (Min.): ____

Jar#: ____
Jar/Vial Size: 0/0 mL
Initial Weight: ____ g
Final Weight: 4-30 g
Net Weight: 7g

Cone#: ____
Final Vol: ____ mL
Initial Weight: ____ g
Final Weight: ____ g
Net Weight: ____ g
Sample ID: ____

Appearance/Narrative:

HNF-SD-WM-DP-247, REV. 0

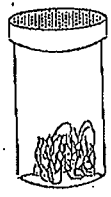
05/07/97 13:34 ☎509 373 5047 222S HAZMAT UNIT ☑002

Bulk Density Worksheet

Requestor: STEEN

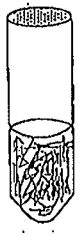
Date: 4/30/97

Tank: T-203
Core: 150
Seg: 4 LH
Auger: ____
Sample ID: S97T000662



Start Time: ____
End Time: ____
Homogenization Time (Min.): ____

Jar#: 12547
Jar/Vial Size: ____ mL
Initial Weight: ~~AN~~ 4/30/97 g
Final Weight: ____ g
Net Weight: ____ g

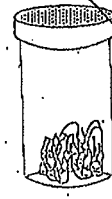


Cone#: 12547
Final Vol: 15.0 mL
Initial Weight: 7.40 g
Final Weight: ~~25.64~~ g 25.64
Net Weight: ~~18.2~~ g 18.24
Sample ID: S97T000662

Appearance/Narrative:

Bulk den = 18.24 / 15.0 = 1.22 gm/ml

Tank: ____
Core: ____
Seg: ____
Auger: ____
Sample ID: ____



Start Time: ____
End Time: ____
Homogenization Time (Min.): ____

Jar#: AKH
Jar/Vial Size: ~~125~~ 33 mL
Initial Weight: 29 g
Final Weight: ____ g
Net Weight: ____ g

Cone#: ____
Final Vol: ____ mL
Initial Weight: ____ g
Final Weight: ____ g
Net Weight: ____ g
Sample ID: ____

Appearance/Narrative:

150

HNF-SD-WM-DP-247, REV.0

04/30/97 22:50 ☎509 373 5047 222S HAZMAT UNIT →→→ LAB DATA MGMT ☑005

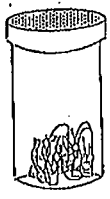
Bulk Density Worksheet

Requestor: SAMPLE

Date: 5/7/97

Tank: T-203
Core: 190
Seg: 5LH
Auger: —
Sample ID: S97T000663

LC
CC
5/8/97



Start Time: ____
End Time: ____
Homogenization Time (Min.): ____

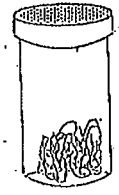
Jar#: 12269
Jar/Vial Size: ____ mL
Initial Weight: AKH g
Final Weight: 4/30/97 g
Net Weight: ____ g

Cone#: 12269
Final Vol: 10 ml mL
Initial Weight: 7.46 g
Final Weight: 18.90 g
Net Weight: 11.44 g
Sample ID: ____

Appearance/Narrative:
1.14 g/ml

151

Tank: ____
Core: ____
Seg: ____
Auger: ____
Sample ID: ____



Start Time: ____
End Time: ____
Homogenization Time (Min.): ____

Jar#: AKH
Jar/Vial Size: 4 mL
Initial Weight: 4/30/97 g
Final Weight: ____ g
Net Weight: ____ g

Cone#: ____
Final Vol: ____ mL
Initial Weight: ____ g
Final Weight: ____ g
Net Weight: ____ g
Sample ID: ____

Appearance/Narrative:

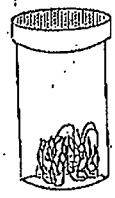
HNF-SD-WM-DP-247, REV. 0

Bulk Density Worksheet

Date: 5-7-97

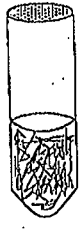
Requestor: Steen

Tank: T-203
Core: 190
Seg: 6 LH
Auger: ____
Sample ID: S97T000701



Start Time: ____
End Time: ____
Homogenization Time (Min.): ____

Jar#: 12267
Jar/Vial Size: ____ mL
Initial Weight: ____ g
Final Weight: ____ g
Net Weight: ____ g



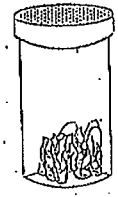
Cone#: 12267
Final Vol: 14.0 mL
Initial Weight: 7.65 g
Final Weight: 25.6 g
Net Weight: 17.9 g
Sample ID: S97T000701

Appearance/Narrative:

17.9/14.0 = 1.27

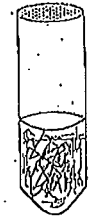
152

Tank: ____
Core: ____
Seg: ____
Auger: ____
Sample ID: ____



Start Time: ____
End Time: ____
Homogenization Time (Min.): ____

Jar#: ____
Jar/Vial Size: ____ mL
Initial Weight: ____ g
Final Weight: ____ g
Net Weight: ____ g



Cone#: ____
Final Vol: ____ mL
Initial Weight: ____ g
Final Weight: ____ g
Net Weight: ____ g
Sample ID: ____

Appearance/Narrative:

HNF-SD-WM-DP-247, REV. 0

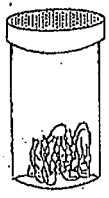
05/08/97 13:18 2509 373 5047 2225 HAZMAT UNIT 444 LAB DATA @006

Bulk Density Worksheet

Date: 5/8/97

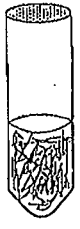
Requestor: Steen

Tank: T-203
Core: 190
Seg: 7 LH
Auger: —
Sample ID: S97T000702



Start Time: ____
End Time: ____
Homogenization Time (Min.): ____

Jar#: 12261
Jar/Vial Size: 6 mL
Initial Weight: 76.6 g
Final Weight: 84.1 g
Net Weight: ____ g



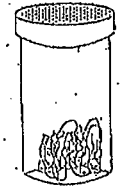
Cone#: 12261
Final Vol: 12.5 mL
Initial Weight: 7.48 g
Final Weight: 22.13 g
Net Weight: 14.65 g
Sample ID: ____

Appearance/Narrative:
BLK DENSITY = 14.65 / 12.5 = 1.17 g/mL

VC
ac
5/12/97

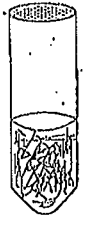
153

Tank: ____
Core: ____
Seg: ____
Auger: ____
Sample ID: ____



Start Time: ____
End Time: ____
Homogenization Time (Min.): ____

Jar#: ____
Jar/Vial Size: 6 mL
Initial Weight: 76.4 g
Final Weight: 84 g
Net Weight: 7.6 g



Cone#: ____
Final Vol: ____ mL
Initial Weight: ____ g
Final Weight: ____ g
Net Weight: ____ g
Sample ID: ____

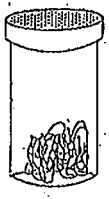
Appearance/Narrative:

HNF-SD-WM-DP-247, REV. 0

Bulk Density Worksheet

Requestor: _____ Date: 5/9/97

Tank: T203
Core: 190
Seg: 8 LH
Auger: —
Sample ID: _____

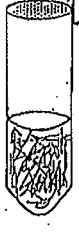


Start Time: _____
End Time: _____
Homogenization Time (Min.): _____

Jar#: _____
Jar/Vial Size: _____ mL
Initial Weight: _____ g
Final Weight: _____ g
Net Weight: _____ g

LC 5/12/97

LC S97T000703



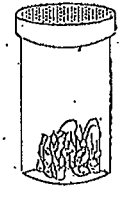
Cone#: 12259
Final Vol: 14.0 mL
Initial Weight: 7.67 g
Final Weight: 19.87 g
Net Weight: 12.2 g
Sample ID: _____

Appearance/Narrative:

BK Den = 12²/1.15 = 9 gm/ml

154

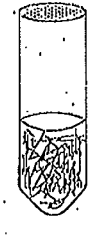
Tank: _____
Core: _____
Seg: _____
Auger: _____
Sample ID: _____



Start Time: _____
End Time: _____
Homogenization Time (Min.): _____

Jar#: 48
Jar/Vial Size: _____ mL
Initial Weight: _____ g
Final Weight: _____ g
Net Weight: _____ g

5/9/97



Cone#: _____
Final Vol: 19 mL
Initial Weight: _____ g
Final Weight: _____ g
Net Weight: _____ g
Sample ID: _____

Appearance/Narrative:

HNF-SD-WM-DP-247, REV. 0

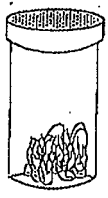
05/12/97 15:08 2224 HAZMAT UNIT +++ LAB DATA MGMT 509 373 5047 007

Bulk Density Worksheet

Requestor: Steen

Date: 5/8/97

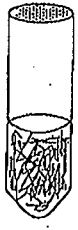
Tank: T203
Core: 90
Seg: 9TH
Auger: ____
Sample ID: 5977600704



Start Time: ____
End Time: ____
Homogenization Time (Min.): ____

Jar#: 12263
Jar/Vial Size: ____ mL
Initial Weight: ____ g
Final Weight: ____ g
Net Weight: ____ g

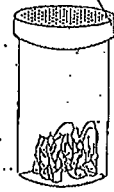
LC
CC
5/12/97



Cone#: 12263
Final Vol: 9 mL
Initial Weight: 7.51 g
Final Weight: 19.12 g
Net Weight: 11.61 g
Sample ID: ____

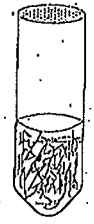
Appearance/Narrative: 11.61 g / 9 ml = 1.29 g/ml

Tank: ____
Core: ____
Seg: ____
Auger: ____
Sample ID: ____



Start Time: ____
End Time: ____
Homogenization Time (Min.): ____

Jar#: 9TH 5/6/97
Jar/Vial Size: ____ mL
Initial Weight: ____ g
Final Weight: ____ g
Net Weight: ____ g



Cone#: ____
Final Vol: ____ mL
Initial Weight: ____ g
Final Weight: ____ g
Net Weight: ____ g
Sample ID: ____

Appearance/Narrative: ____

HNF-SD-WM-DP-247, REV. 0

155

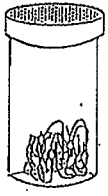
05/12/97 15:09 ☎509 373 5047 222S HAZMAT UNIT +++ LAB DATA MGMT 010

Bulk Density Worksheet

Requestor: Fran Steen

Date: 6/17/97

Tank: T-203
Core: 190
Seg: Composite
Auger: —
Sample ID: 597T00101 2



Start Time: ____
End Time: ____
Homogenization Time (Min.): ____

Jar#: 12377
Jar/Vial Size: 125 mL
Initial Weight: — g
Final Weight: — g
Net Weight: — g

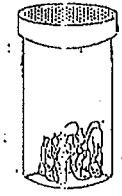
Cone#: 12377
Final Vol: 9.5 mL
Initial Weight: 7.47 g
Final Weight: 19.13 g
Net Weight: 11.66 g
Sample ID: 597T00101 2

Appearance/Narrative:

Bulk Den = 11.66/9.5 1.23 = gm/ml

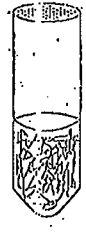
156

Tank: ____
Core: ____
Seg: ____
Auger: ____
Sample ID: ____



Start Time: ____
End Time: ____
Homogenization Time (Min.): ____

Jar#: ____
Jar/Vial Size: ____ mL
Initial Weight: ____ g
Final Weight: ____ g
Net Weight: ____ g



Cone#: ____
Final Vol: ____ mL
Initial Weight: 8.447 g
Final Weight: ____ g
Net Weight: ____ g
Sample ID: ____

Appearance/Narrative:

HNF-SD-WM-DP-247, REV.0

INORGANIC ANALYSIS

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LABCORE Data Entry Template for Worklist# 18004

Analyst: RDM **Instrument:** DSC0 3 **Book #** 12N148

Method: LA-514-114 Rev/Mod D-0

Worklist Comment: T203, AW106 GRAB1, DSC-01 skm

GROUP	PROJECT	S TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD				DSC-03	LIQUID	28.45	26.36	N/A	Joules/g
97000327	AW-106 GRAB1	2 SAMPLE	S97T000781	0		DSC-03	LIQUID	N/A	93.3		Joules/g
97000299	T-203	3 SAMPLE	S97T000733	0		DSC-03	LIQUID	N/A	0		Joules/g
97000299	T-203	4 DUP	S97T000733	0		DSC-03	LIQUID	0	0	N/A	Joules/g

Final page for worklist # 18004

See Attached for Signature
Analyst Signature **Date**

Validated 5/22/97 Bachelor

5-21-97
Analyst Signature **Date**

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 18004

Analyst: [signature] **Instrument:** DSC0 3 **Book #** 12N148

Method: LA-514-113 Rev/Mod D-0

Worklist Comment: T203, AW106 GRAB1, DSC-01 skm

GROUP	PROJECT	S TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD				DSC-01	LIQUID			N/A	Joules/g
97000327	AW-106 GRAB1	2 SAMPLE	S97T000781	0		DSC-01	LIQUID	N/A			Joules/g
97000299	T-203	3 SAMPLE	S97T000733	0		DSC-01	LIQUID	N/A			Joules/g
97000299	T-203	4 DUP	S97T000733	0		DSC-01	LIQUID			N/A	Joules/g

Final page for worklist # 18004

[signature] 5/20/97

Analyst Signature **Date** **Analyst Signature** **Date**

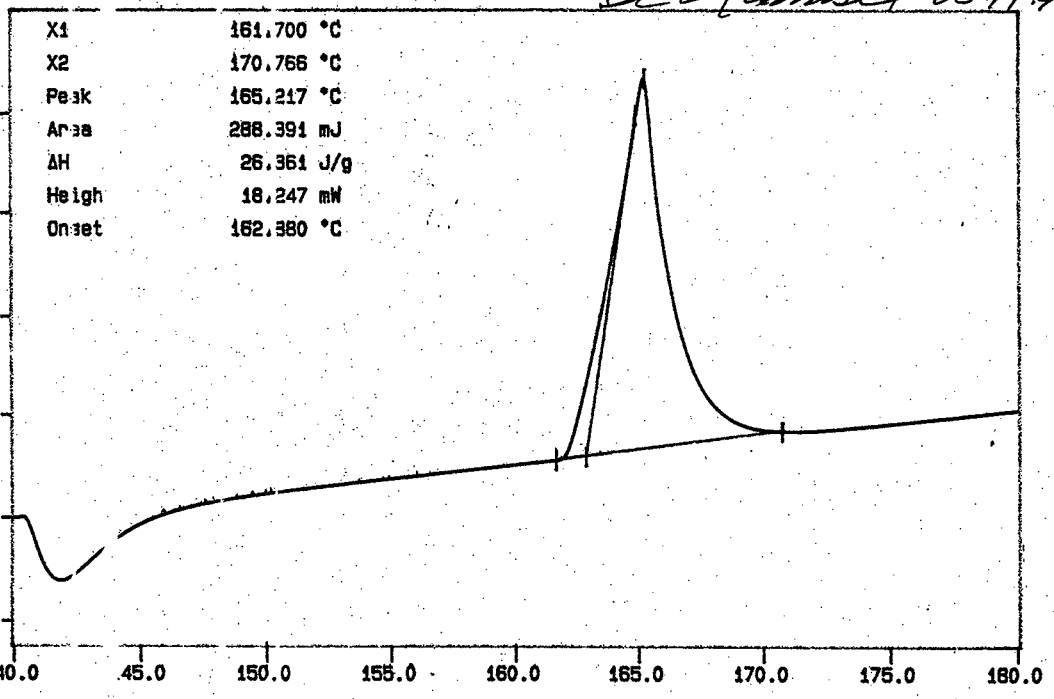
Data Entry Comments:
Ran samples on DSC-03. 5/20/97

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

Curve 1: DSC
File info: IND051902 | on May 19 05:58:39 1997
Sample Weight: 10.940 mg
12N14-B

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 161 TO 163.

EA Lambel 05.19.97



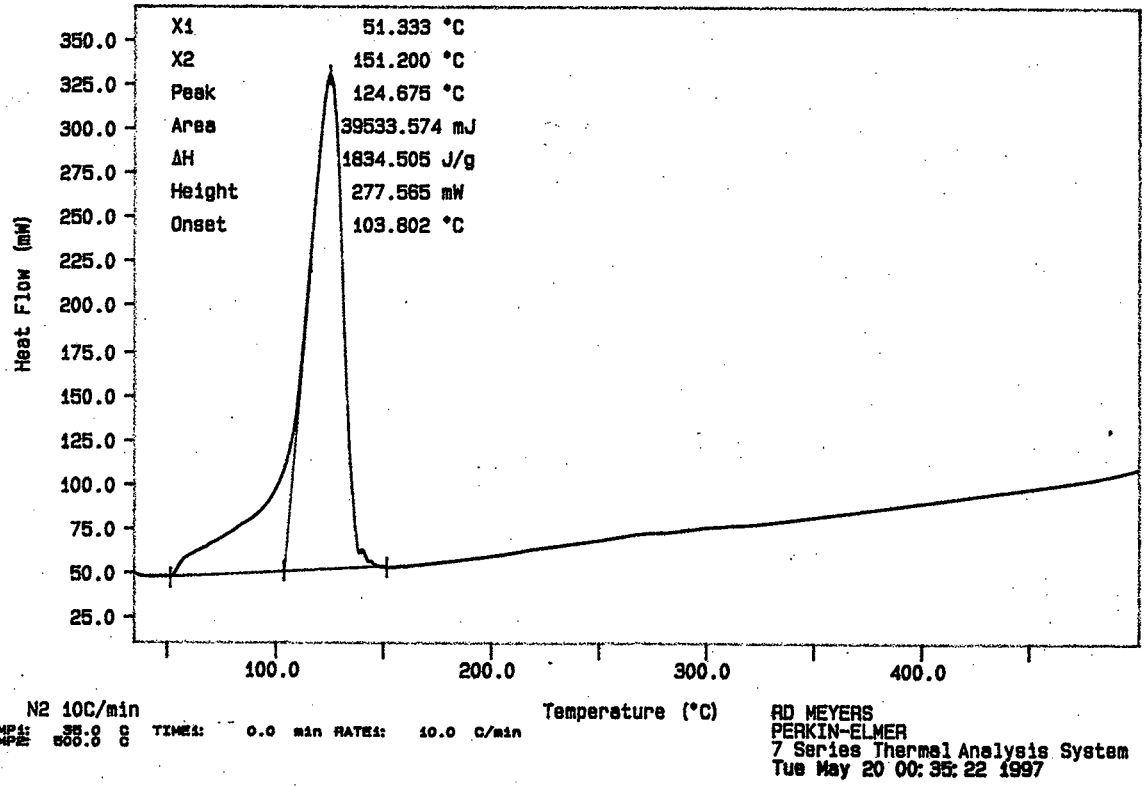
N2, EXOTHERM DOWN
TEMP1: 140.0 C TIME: 0.0 min RATE: 10.0 C/min
TEMP2: 180.0 C

EA LAMBEL
PERKIN-ELMER
7 Series Thermal Analysis System
Mon May 19 14:23:51 1997

161

HNF-SD-WM-DP-247, REV.0

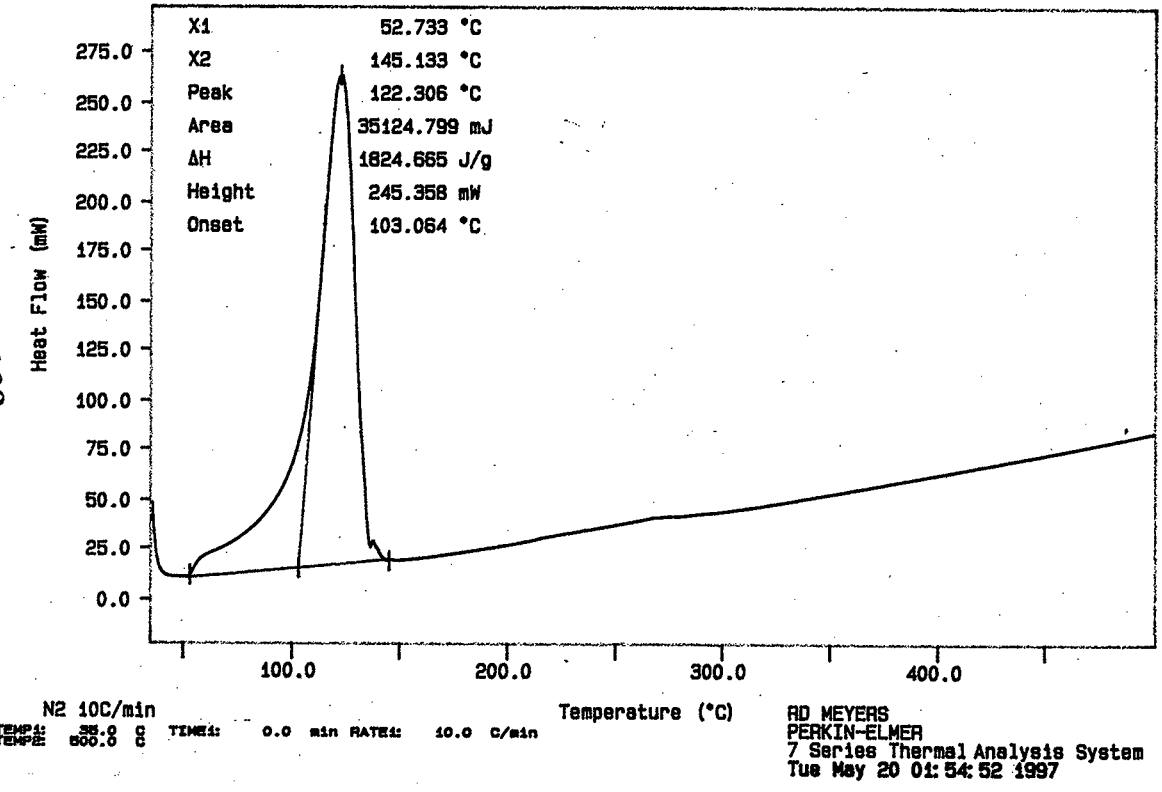
Curve 1: DSC
File info: SAM051911 Mon May 19 22:41:52 1997
Sample Weight: 21.550 mg
S97T000733



N2 10C/min
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 500.0 C

RD MEYERS
PERKIN-ELMER
7 Series Thermal Analysis System
Tue May 20 00:35:22 1997

Curve 1: DSC
File info: SAM052001 Tue May 20 01:32:13 1997
Sample Weight: 19.250 mg
S97T000733DUP



N2 10C/min
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 600.0 C

RD MEYERS
PERKIN-ELMER
7 Series Thermal Analysis System
Tue May 20 01:54:52 1997

LABCORE Data Entry Template for Worklist# 18014

Analyst: VLM **Instrument:** DSC0 3 **Book #** 12N14B

Method: LA-514-114 Rev/Mod D-0

Worklist Comment: T203, DSC-01 skm

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	STD				DSC-03	SOLID	28.45	29.25	N/A	Joules/g
97000299	T-203	2	SAMPLE	S97T000664	0		DSC-03	SOLID	N/A	0 ~~848.96~~	~~5/21/97~~	Joules/g
97000299	T-203	3	DUP	S97T000664	0		DSC-03	SOLID	0 ~~848.96~~	0 ~~1530.23~~	~~5/21/97~~ N/A	Joules/g
97000299	T-203	4	SAMPLE	S97T000665	0		DSC-03	SOLID	N/A	0		Joules/g
97000299	T-203	5	DUP	S97T000665	0		DSC-03	SOLID	0	0	N/A	Joules/g

Final page for worklist # 18014

See Attached for Signature
Analyst Signature **Date**

5-29-97
Analyst Signature **Date**

Validated 6/2/97 Bachelor

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

worklistrpt Version 2.1 05/15/95
05/12/97 14:39

LABCORE Data Entry Template for Worklist# 18014

Analyst: VLM **Instrument:** DSC0 03 **Book #** 12N14B

Method: LA-514-113 Rev/Mod D-0

Worklist Comment: T203, DSC-01 skm

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	STD				DSC-01	SOLID			N/A	Joules/g
97000299	T-203	2	SAMPLE	S97T000664	0		DSC-01	SOLID	N/A			Joules/g
97000299	T-203	3	DUP	S97T000664	0		DSC-01	SOLID			N/A	Joules/g
97000299	T-203	4	SAMPLE	S97T000665	0		DSC-01	SOLID	N/A			Joules/g
97000299	T-203	5	DUP	S97T000665	0		DSC-01	SOLID			N/A	Joules/g

Final page for worklist # 18014

Valerie K Massie 05-20-97
Analyst Signature **Date**

Analyst Signature **Date**

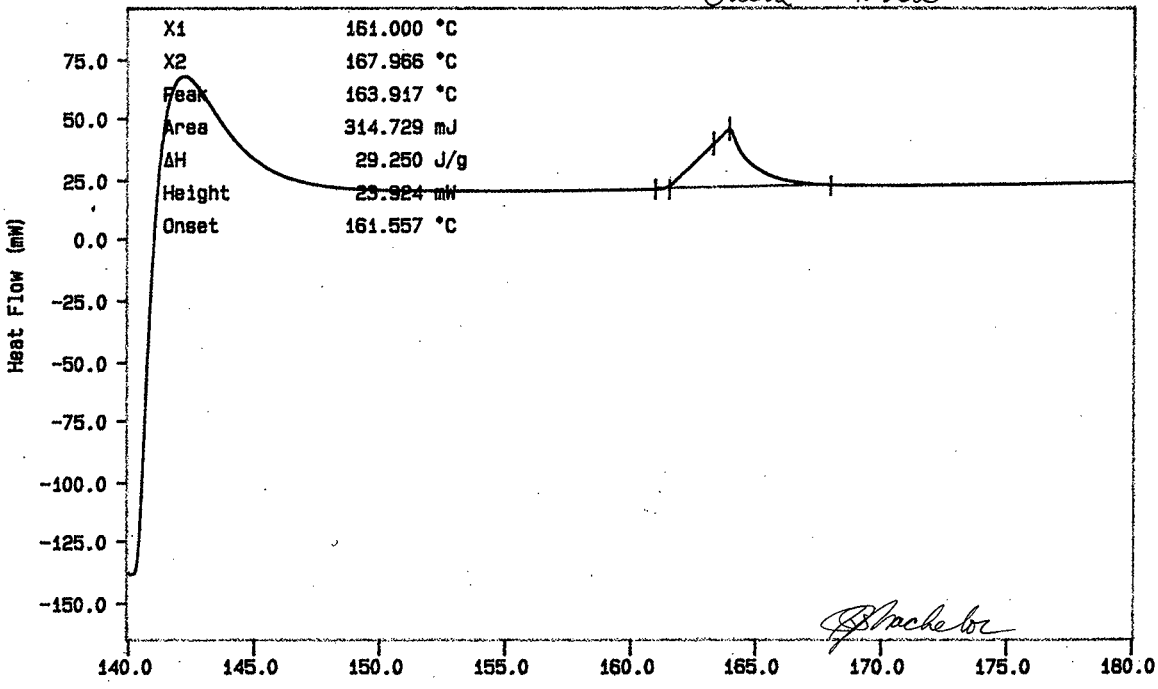
Data Entry Comments:
Ran samples on DSC-03. 5/21/97

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

Curve 1: DSC
File info: IND052002 Tue May 20 08:10:55 1997
Sample Weight: 10.760 mg
12N14-B

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 166 TO 170.

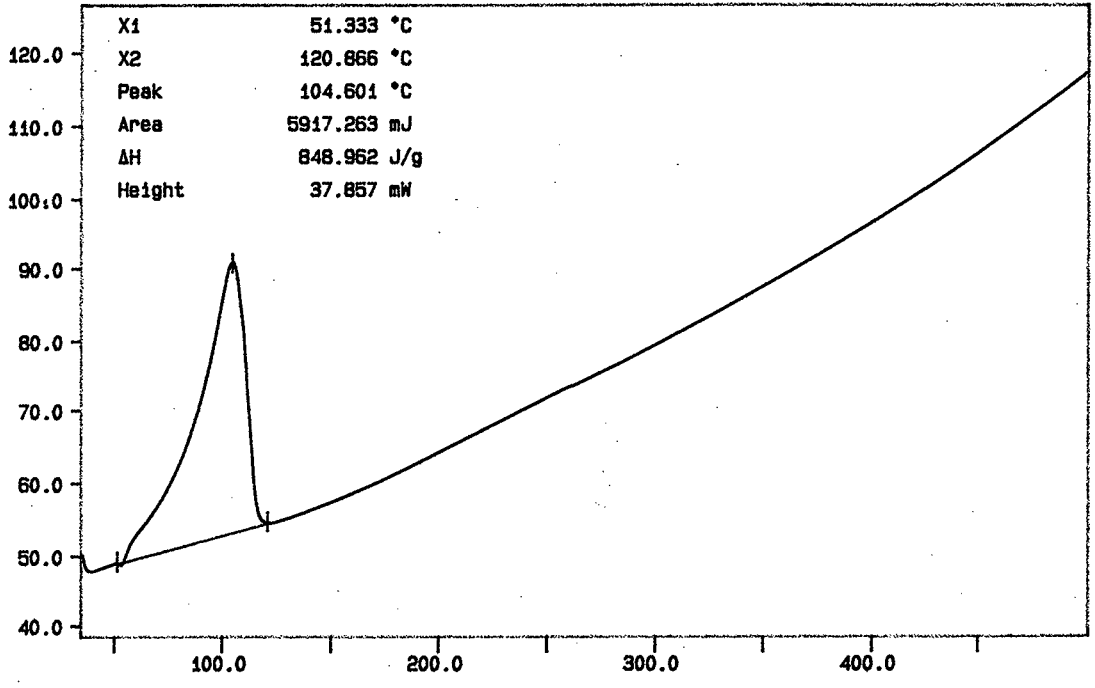
Valerie L Massie



N2, EXOTHERM DOWN
TEMP1: 140.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 180.0 C

VL MASSIE
PERKIN-ELMER
7 Series Thermal Analysis System
Tue May 20 08:15:07 1997

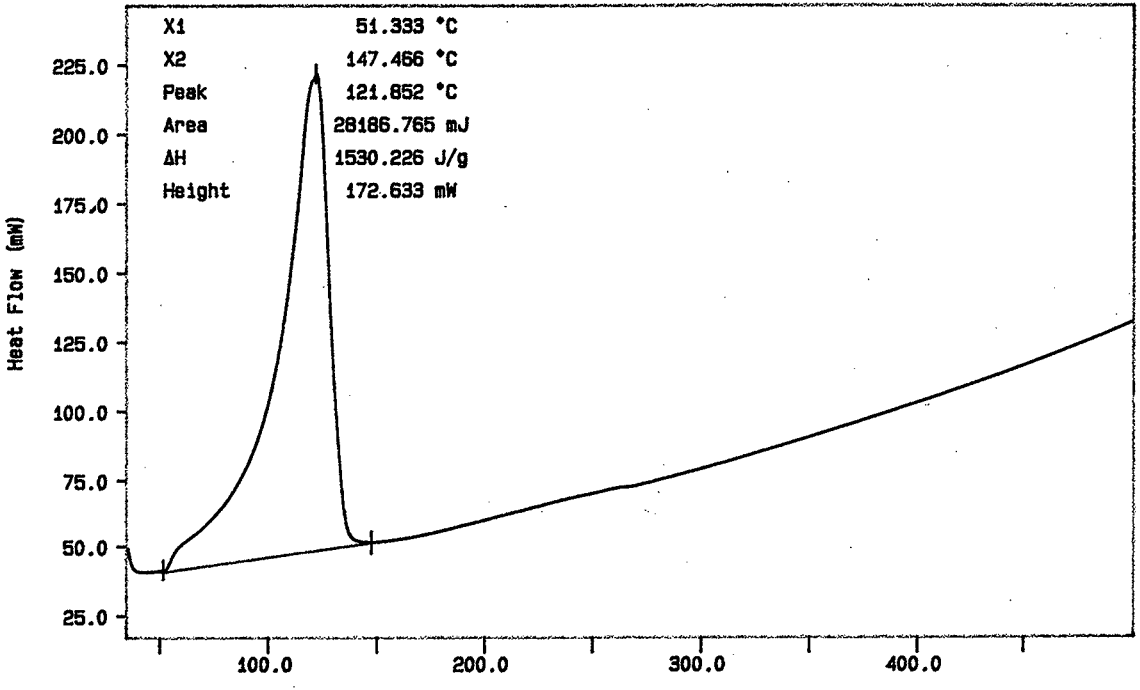
Curve 1: DSC
File info: SAM052003 Tue May 20 10:48:45 1997
Sample Weight: 6.970 mg
S97T000664



N2 10C/min
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 500.0 C

VL MASSIE
PERKIN-ELMER
7 Series Thermal Analysis System
Tue May 20 11:48:00 1997

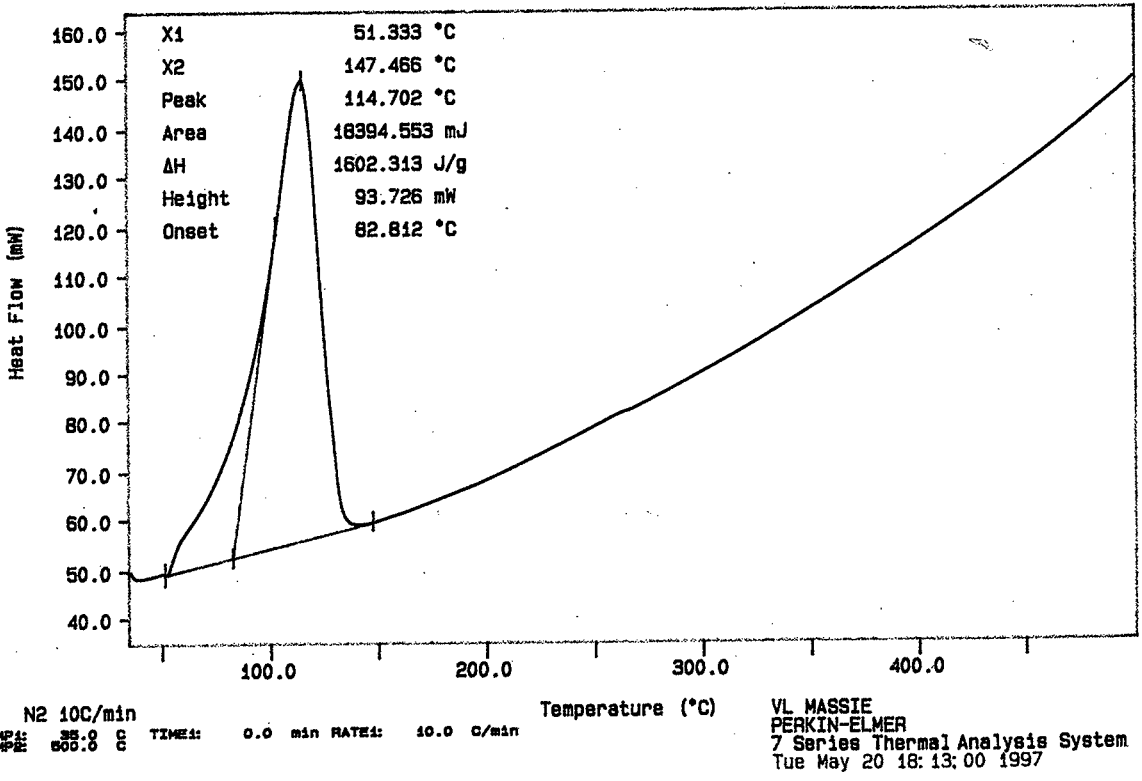
Curve 1: DSC
File info: SAM052004 Tue May 20 12:56:47 1997
Sample Weight: 18.420 mg
S97T000664 DUP



N2 10C/min
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 500.0 C

VL MASSIE
PERKIN-ELMER
7 Series Thermal Analysis System
Tue May 20 13:02:35 1997

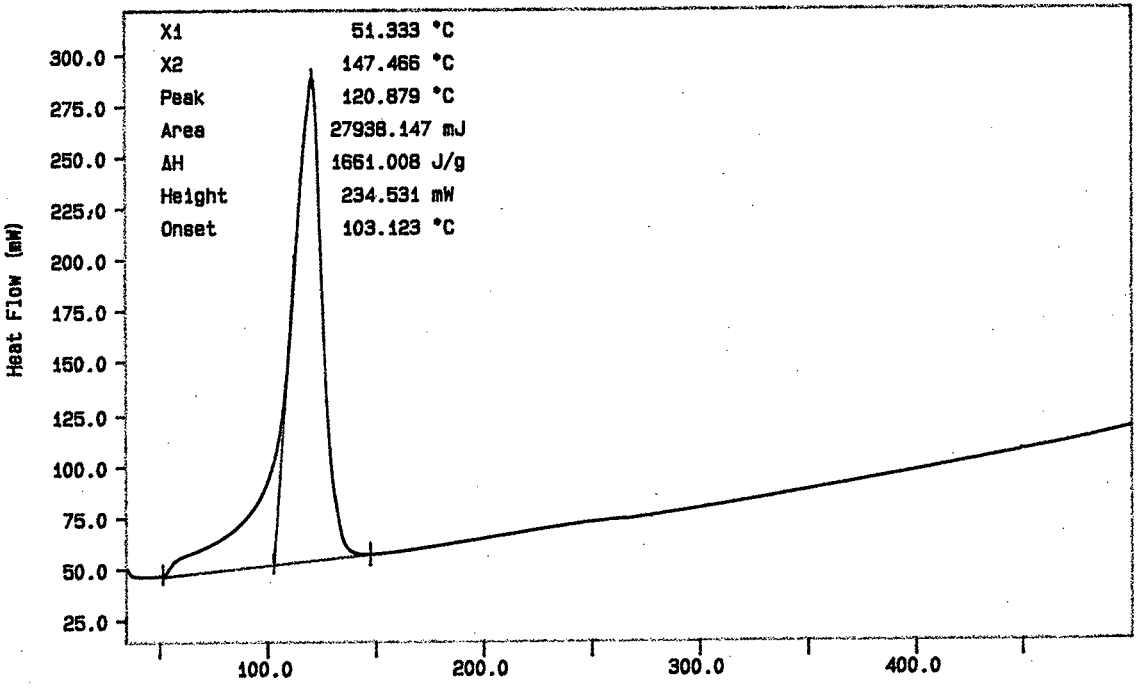
Curve 1: DSC
File info: SAM052006 Tue May 20 15:01:34 1997
Sample Weight: 11.480 mg
S97T000665



N2 10C/min
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 600.0 C

VL MASSIE
PERKIN-ELMER
7 Series Thermal Analysis System
Tue May 20 18:13:00 1997

Curve 1: DSC
File info: SAM052007 Tue May 20 21:51:39 1997
Sample Weight: 16.820 mg
S97T000665 DUP



N2 10C/min
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 650.0 C

PJ MCCOWN
PERKIN-ELMER
7 Series Thermal Analysis System
Tue May 20 22:23:48 1997

LABCORE Data Entry Template for Worklist# 18015

Analyst: ADP **Instrument:** DSC0 3 **Book #** 12N14 B

Method: LA-514-114 Rev/Mod D-0

Worklist Comment: T203, DSC-01 skm

GROUP	PROJECT	S TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD				DSC-03	SOLID	28.45	26.58	N/A	Joules/g
97000299	T-203	2 SAMPLE	S97T000666	0		DSC-03	SOLID	N/A	0		Joules/g
97000299	T-203	3 DUP	S97T000666	0		DSC-03	SOLID	0	0	N/A	Joules/g
97000299	T-203	4 SAMPLE	S97T000667	0		DSC-03	SOLID	N/A	0		Joules/g
97000299	T-203	5 DUP	S97T000667	0		DSC-03	SOLID	0	0	N/A	Joules/g

Final page for worklist # 18015

See Attached for Signature
Analyst Signature **Date**

Susan Bu 5/22/97
Analyst Signature **Date**

Validated 6/2/97 B Bachelor

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 18015

Analyst: AOP **Instrument:** DSC0 **Book #** 12014B

Method: LA-514-113 Rev/Mod D-0

Worklist Comment: T203, DSC-01 skm

GROUP	PROJECT	S TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD				DSC-01	SOLID	28.45	26.58	N/A	Joules/g
97000299	T-203	2 SAMPLE	S97T000666	0		DSC-01	SOLID	N/A	0		Joules/g
97000299	T-203	3 DUP	S97T000666	0		DSC-01	SOLID	0	0	N/A	Joules/g
97000299	T-203	4 SAMPLE	S97T000667	0		DSC-01	SOLID	N/A	0		Joules/g
97000299	T-203	5 DUP	S97T000667	0		DSC-01	SOLID	0	0	N/A	Joules/g

Final page for worklist # 18015

Analyst Signature Date 5-21-97

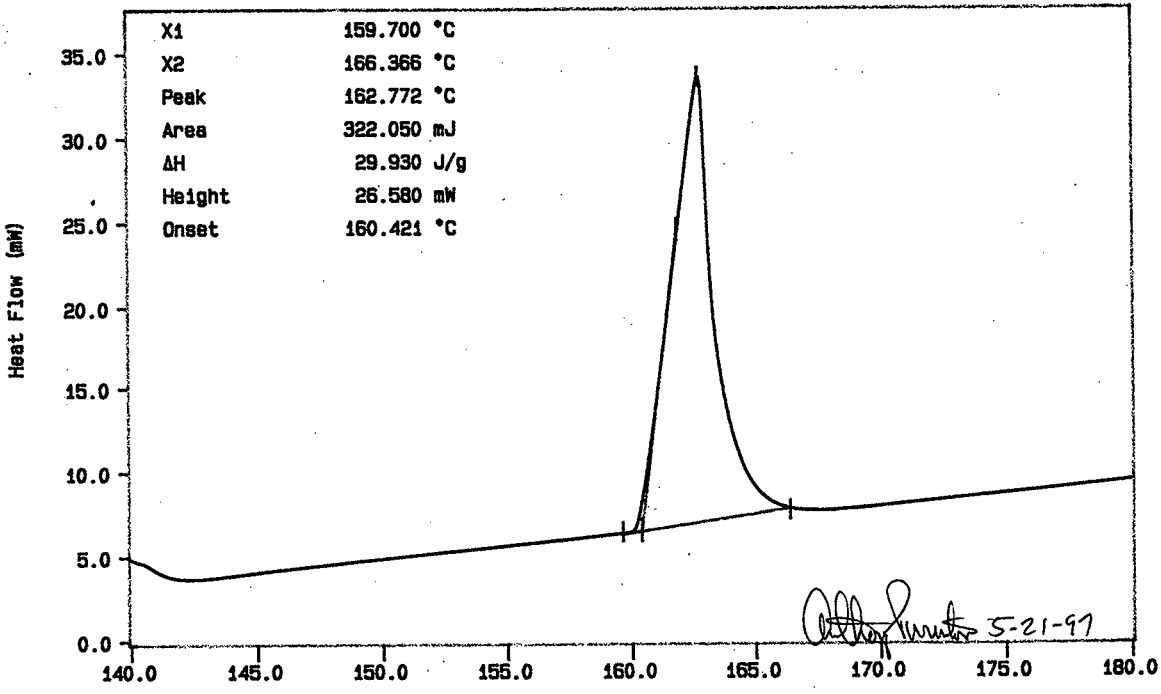
Analyst Signature Date

Data Entry Comments: S97T000667 Ran in triplicate. Ran samples on DSC-03. 5/22/97

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

Curve 1: DSC
File info: IND052101 Wed May 21 06:57:00 1997
Sample Weight: 10.760 mg
12N14-B

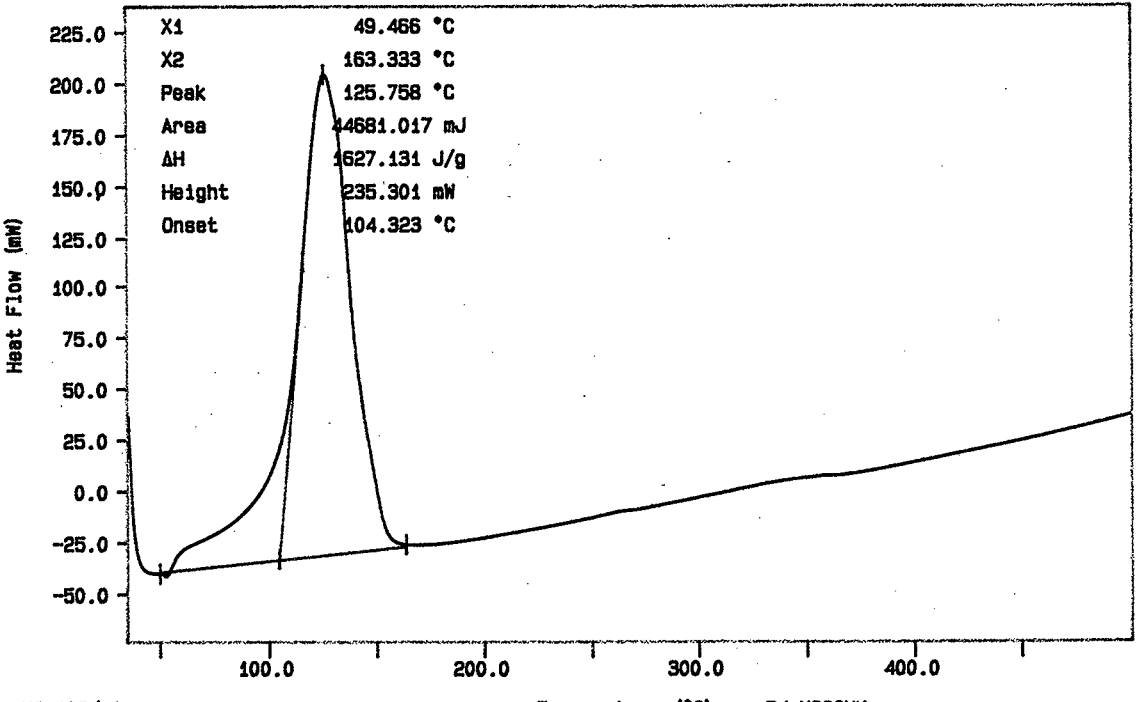
SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 173 TO 178.



N2, EXOTHERM DOWN
Temperature (°C)
AD PURINTON
PERKIN-ELMER
7 Series Thermal Analysis System
Wed May 21 07:03:18 1997

TEMP1: 140.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 180.0 C

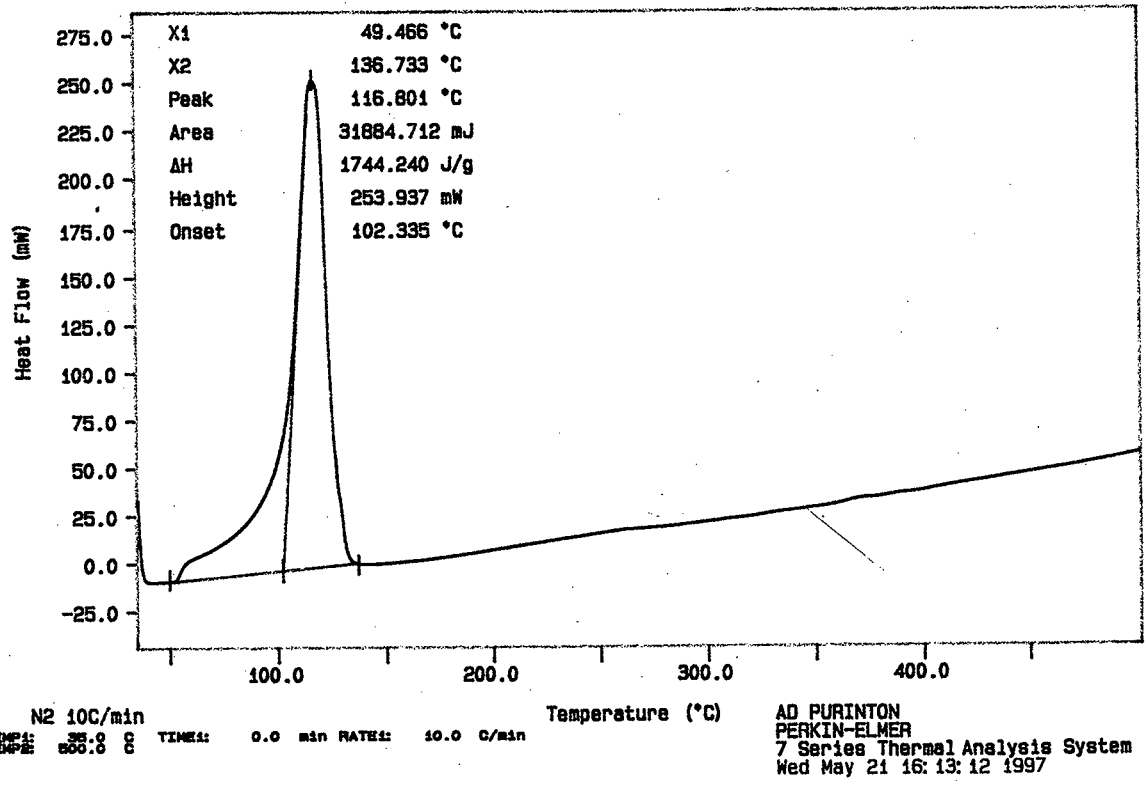
Curve 1: DSC
File info: SAM052105 Wed May 21 08:55:28 1997
Sample Weight: 27.460 mg
S97T000666



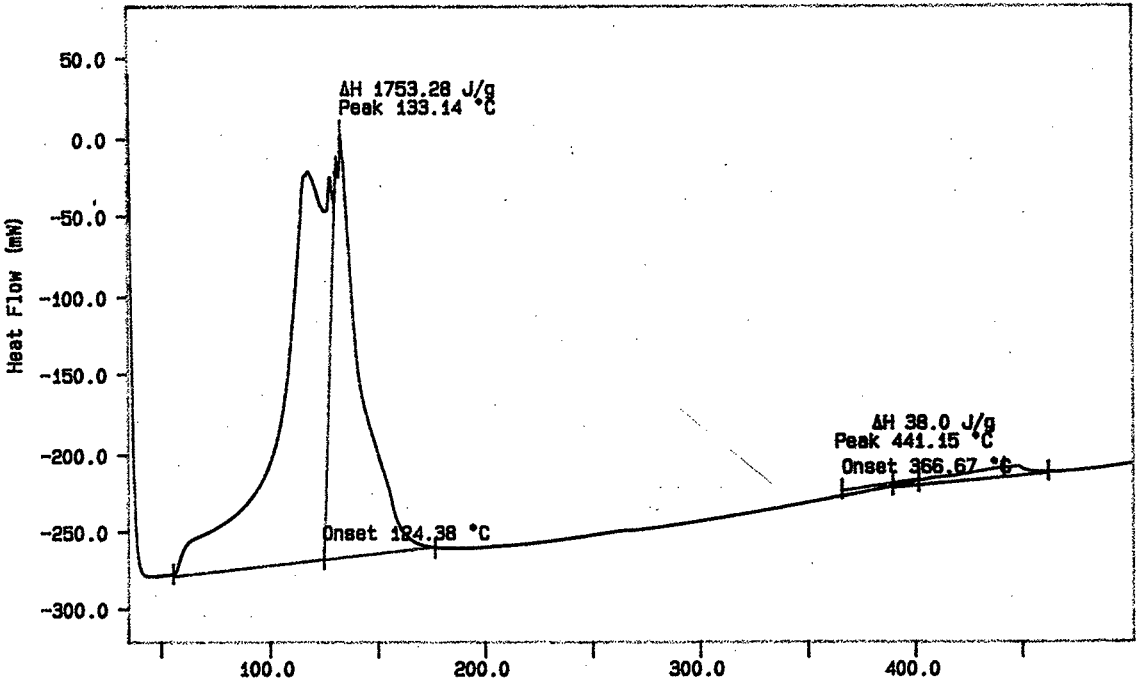
N2 10C/min
TEMP1: 30.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 600.0 C

PJ MCCOWN
PERKIN-ELMER
7 Series Thermal Analysis System
Wed May 21 09:08:23 1997

Curve 1: DSC
File info: SAM051208 Wed May 21 16:11:03 1997
Sample Weight: 18.280 mg
S97T000666 DUP



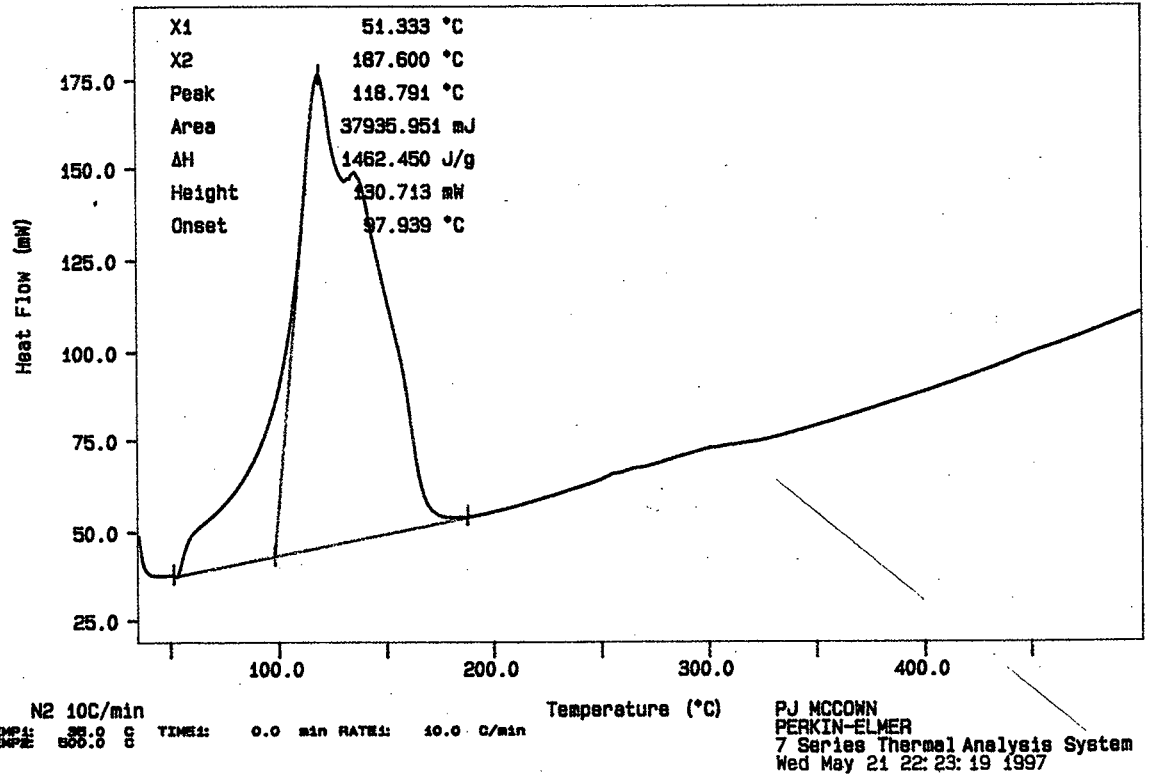
Curve 1: DSC
File info: SAM052109 Wed May 21 17:05:15 1997
Sample Weight: 35.060 mg
S97T000667 SAM



N2 10C/min
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 500.0 C

AD PURINTON
PERKIN-ELMER
7 Series Thermal Analysis System
Wed May 21 17:49:43 1997

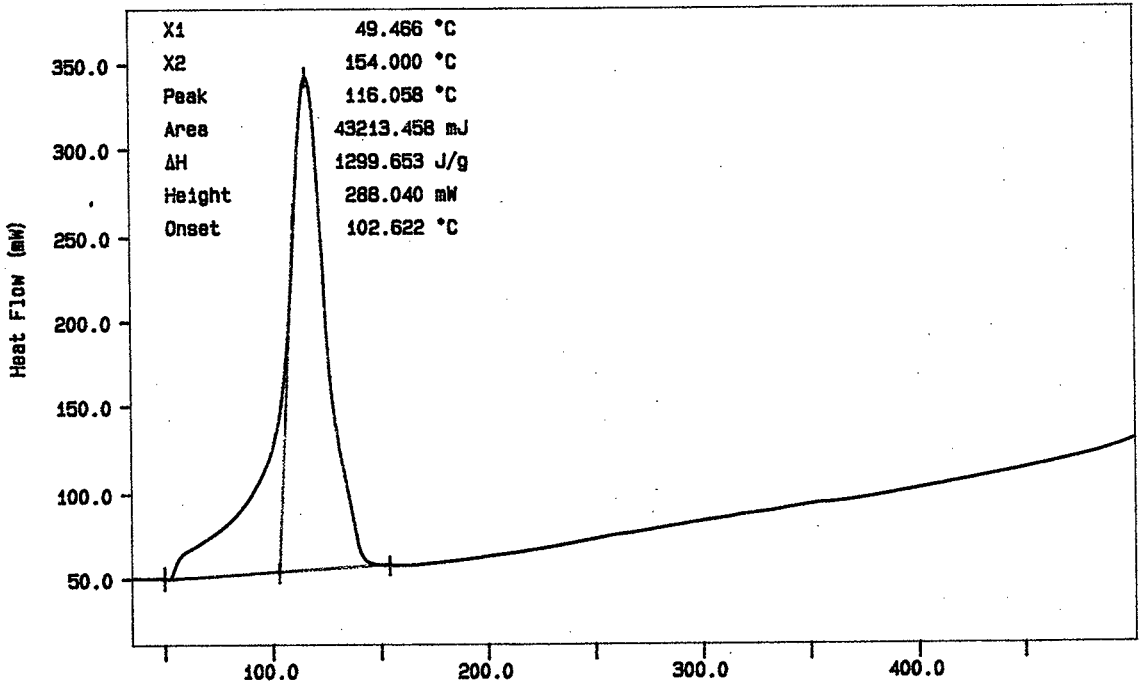
Curve 1: DSC
File info: SAM052111 Wed May 21 22:07:31 1997
Sample Weight: 25.940 mg
S97T000867 TRIP



N2 10C/min
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 500.0 C

PJ MCCOWN
PERKIN-ELMER
7 Series Thermal Analysis System
Wed May 21 22:23:19 1997

Curve 1: DSC
File info: SAM052110 Wed May 21 18:58:00 1997
Sample Weight: 33.250 mg
S97T000667 DUP



N2 10C/min
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 500.0 C

PJ MCCOWN
PERKIN-ELMER
7 Series Thermal Analysis System
Wed May 21 19:02:55 1997

LABCORE Data Entry Template for Worklist# 18016

Analyst: ADP **Instrument:** DSC0 3 **Book #** 12N14B

Method: LA-514-114 Rev/Mod D-0

Worklist Comment: T203, DSC-01 skm

GROUP	PROJECT	S TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD				DSC-03	SOLID	28.45	27.20	N/A	Joules/g
97000299	T-203	2 SAMPLE	S97T000669	0		DSC-03	SOLID	N/A	0		Joules/g
97000299	T-203	3 DUP	S97T000669	0		DSC-03	SOLID	0	0	N/A	Joules/g
97000299	T-203	4 SAMPLE	S97T000670	0		DSC-03	SOLID	N/A	0		Joules/g
97000299	T-203	5 DUP	S97T000670	0		DSC-03	SOLID	0	0	N/A	Joules/g

Final page for worklist # 18016

See Attached for Signature
Analyst Signature **Date**

Validated 6/2/97 Rachelor

Susan Bu 5/27/97
Analyst Signature **Date**

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 18016

Analyst: ADP **Instrument:** DSC0 **Book #** 12N4B

Method: LA-514-113 Rev/Mod D-0

Worklist Comment: T203, DSC-01 skm

GROUP	PROJECT	S TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD				DSC-01	SOLID			N/A	Joules/g
97000299	T-203	2 SAMPLE	S97T000669	0		DSC-01	SOLID	N/A			Joules/g
97000299	T-203	3 DUP	S97T000669	0		DSC-01	SOLID			N/A	Joules/g
97000299	T-203	4 SAMPLE	S97T000670	0		DSC-01	SOLID	N/A			Joules/g
97000299	T-203	5 DUP	S97T000670	0		DSC-01	SOLID			N/A	Joules/g

Final page for worklist # 18016

Anthony Perrotta 5-22-97
Analyst Signature **Date**

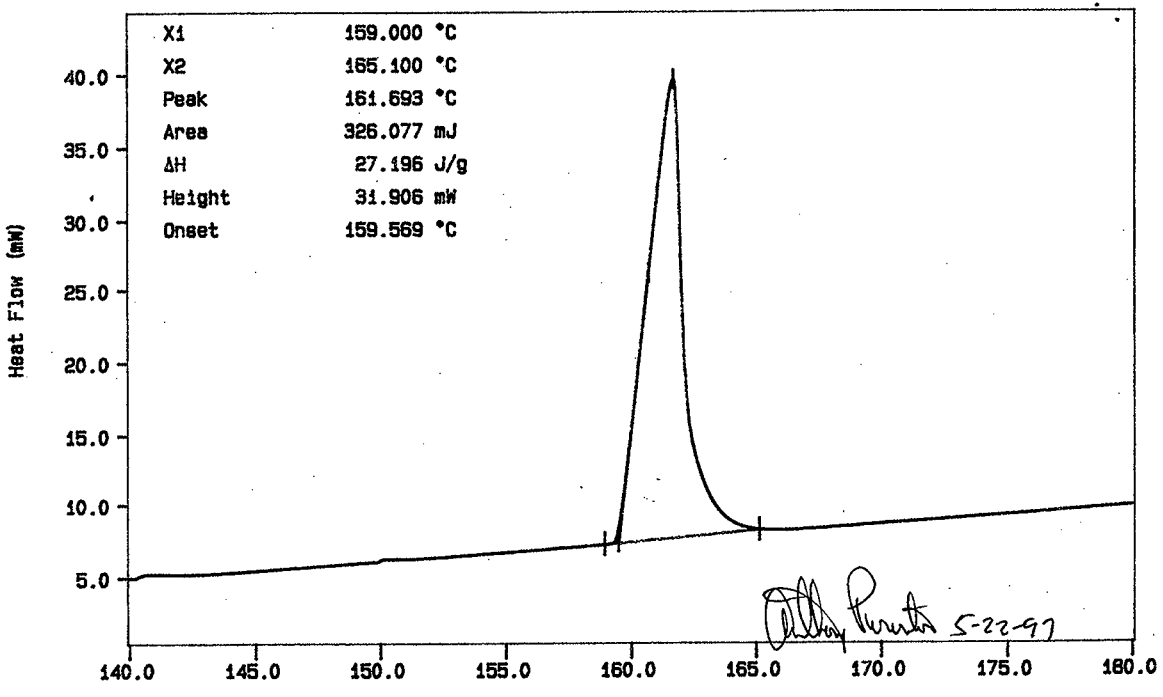
Rob King 5-23-97
Analyst Signature **Date**

Data Entry Comments:
Ran samples on DSC-03. JPB 5/27/97

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

Curve 1: DSC
File info: IND052201 Thu May 22 11:16:17 1997
Sample Weight: 11.990 mg
12N14-B

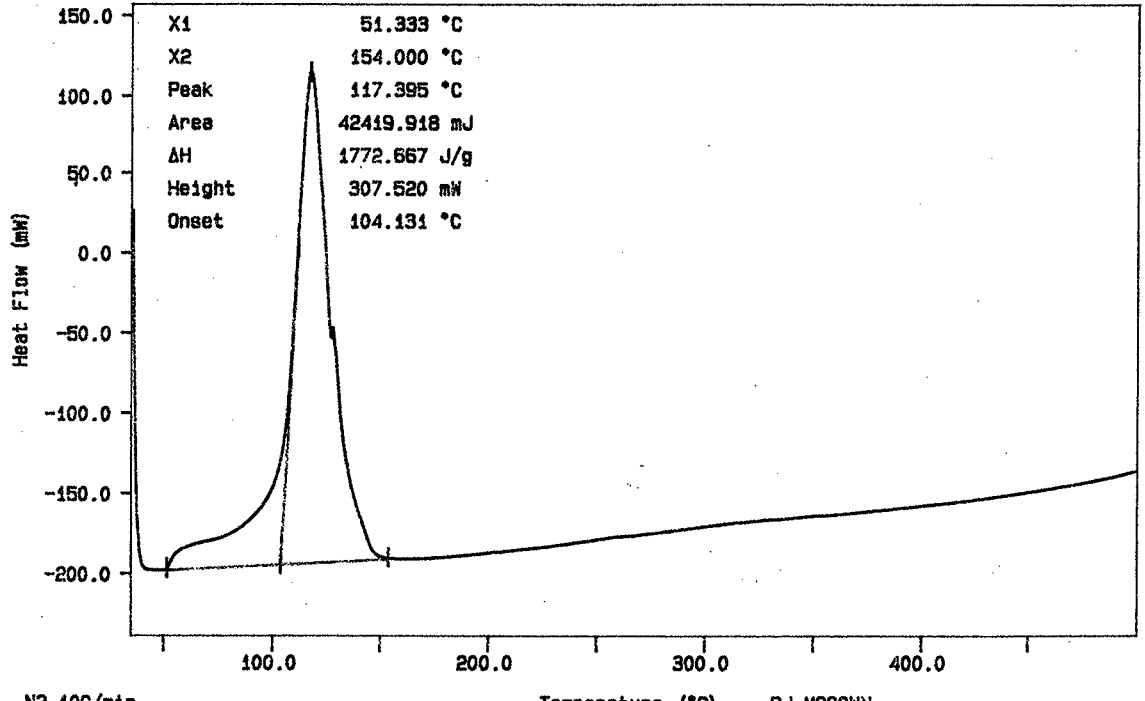
SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 184 TO 185



N2, EXOTHERM DOWN
TEMP1: 140.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 180.0 C

AD PURINTON
PERKIN-ELMER
7 Series Thermal Analysis System
Thu May 22 11:17:20 1997

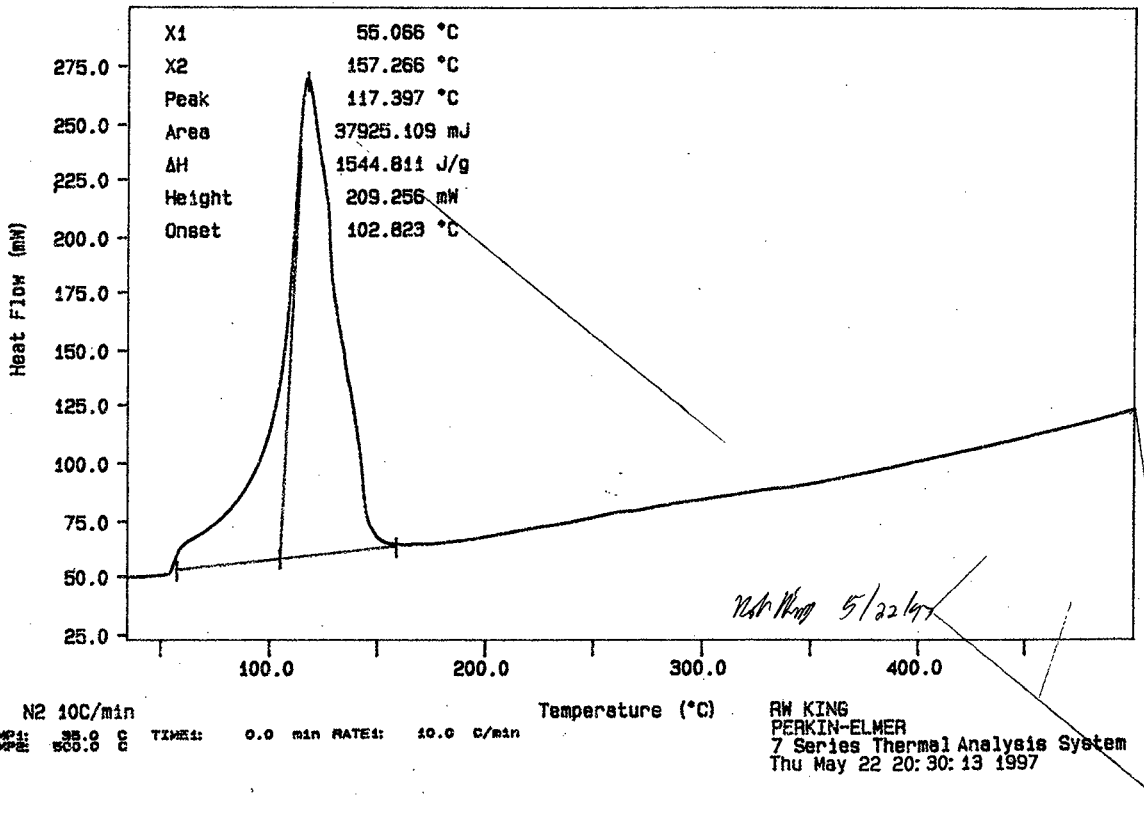
Curve 1: DSC
File info: SAM052205 Thu May 22 16:48:55 1997
Sample Weight: 23.930 mg
S97T000669 SAM



N2 10C/min
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 600.0 C

PJ MCCOWN
PERKIN-ELMER
7 Series Thermal Analysis System
Thu May 22 18:34:42 1997

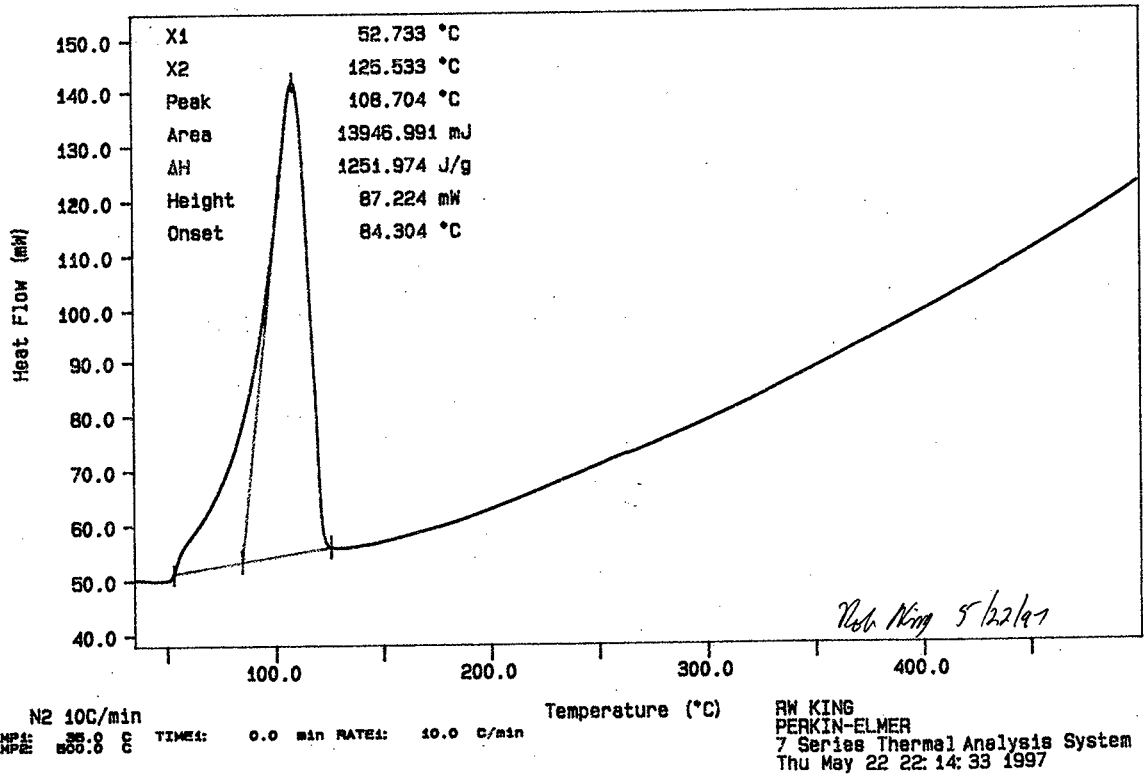
Curve 1: DSC
File info: SAM052206 Thu May 22 19:48:36 1997
Sample Weight: 24.550 mg
S97T000669 DUP



183

HNF-SD-WM-DP-247, REV. 0

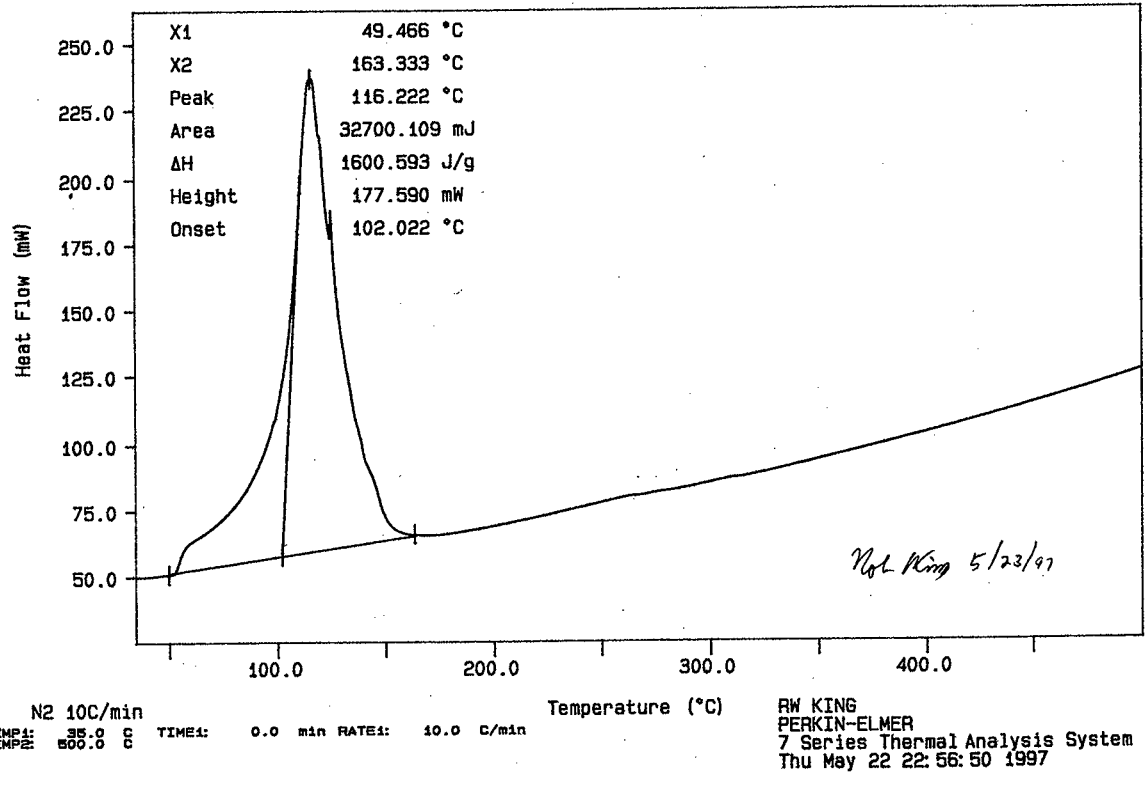
Curve 1: DSC
File info: SAM052203 Thu May 22 21:02:43 1997
Sample Weight: 11.140 mg
S97T000670



N2 10C/min
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 550.0 C

RW KING
PERKIN-ELMER
7 Series Thermal Analysis System
Thu May 22 22:14:33 1997

Curve 1: DSC
File info: SAM052204 Thu May 22 22:48:23 1997
Sample Weight: 20.430 mg
S97T000670 DUP



N2 10C/min
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 500.0 C

RW KING
PERKIN-ELMER
7 Series Thermal Analysis System
Thu May 22 22:56:50 1997

LABCORE Data Entry Template for Worklist# 18017

Analyst: RDM **Instrument:** DSC0 3 **Book #** BN14B

Method: LA-514-114 Rev/Mod D-0

Worklist Comment: T203, DSC-01 skm

GROUP	PROJECT	S TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD				DSC-03	SOLID	28.45	27.34	N/A	Joules/g
97000299	T-203	2 SAMPLE	S97T000705	0		DSC-03	SOLID	N/A	0		Joules/g
97000299	T-203	3 DUP	S97T000705	0		DSC-03	SOLID	0	0	N/A	Joules/g
97000299	T-203	4 SAMPLE	S97T000711	0		DSC-03	SOLID	N/A	0		Joules/g
97000299	T-203	5 DUP	S97T000711	0		DSC-03	SOLID	0	0	N/A	Joules/g

Final page for worklist # 18017

See Attached for Signature
Analyst Signature **Date**
Validated 6/2/97 Bachelor

Susan Bee 5/27/97
Analyst Signature **Date**

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

worklistrpt Version 2.1 05/15/95
05/08/97 14:43

LABCORE Data Entry Template for Worklist# 18017

Analyst: [illegible] **Instrument:** DSC0 **Book #** 12N148

Method: LA-514-113 Rev/Mod

Worklist Comment: T203, DSC-01 skm

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	STD				DSC-01	SOLID			N/A	Joules/g
97000299	T-203	2	SAMPLE	S97T000705	0		DSC-01	SOLID	N/A			Joules/g
97000299	T-203	3	DUP	S97T000705	0		DSC-01	SOLID			N/A	Joules/g
97000299	T-203	4	SAMPLE	S97T000711	0		DSC-01	SOLID	N/A			Joules/g
97000299	T-203	5	DUP	S97T000711	0		DSC-01	SOLID			N/A	Joules/g

Final page for worklist # 18017

[illegible] 5/23/97
Analyst Signature **Date**

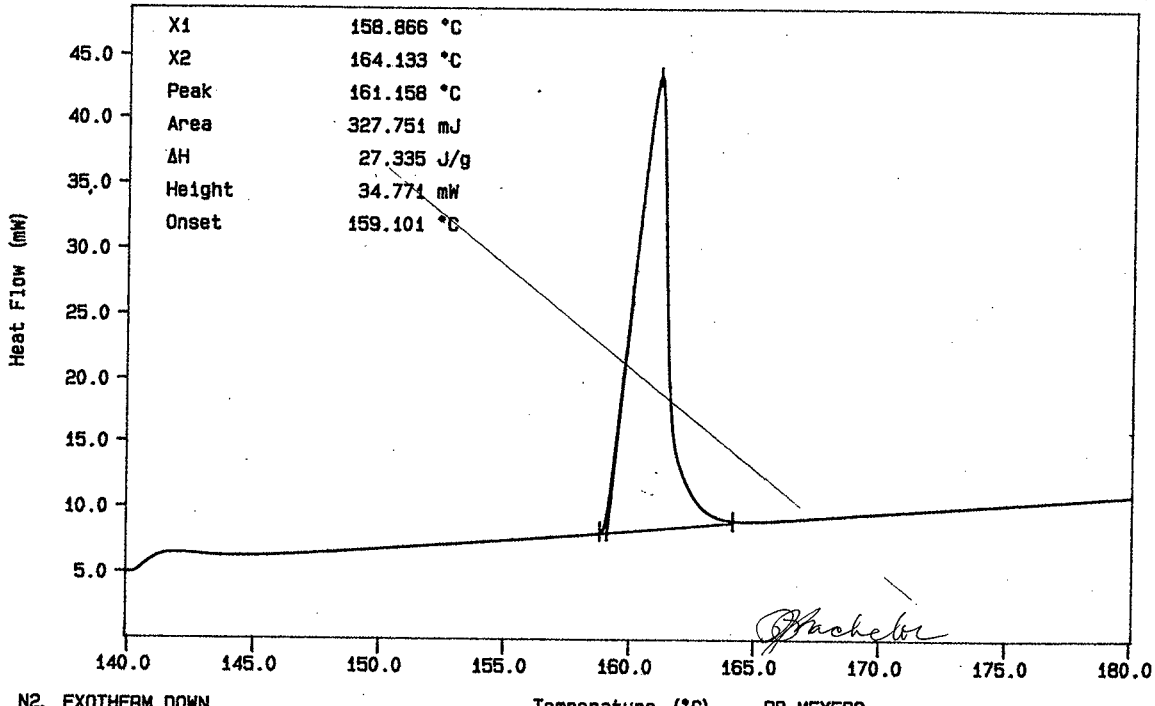
Analyst Signature **Date**

Data Entry Comments:
Ran samples on DSC-03. [illegible] 5/27/97

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

Curve 1: DSC
File info: IND052301 Fri May 23 07:23:50 1997
Sample Weight: 11.990 mg
12N14-B

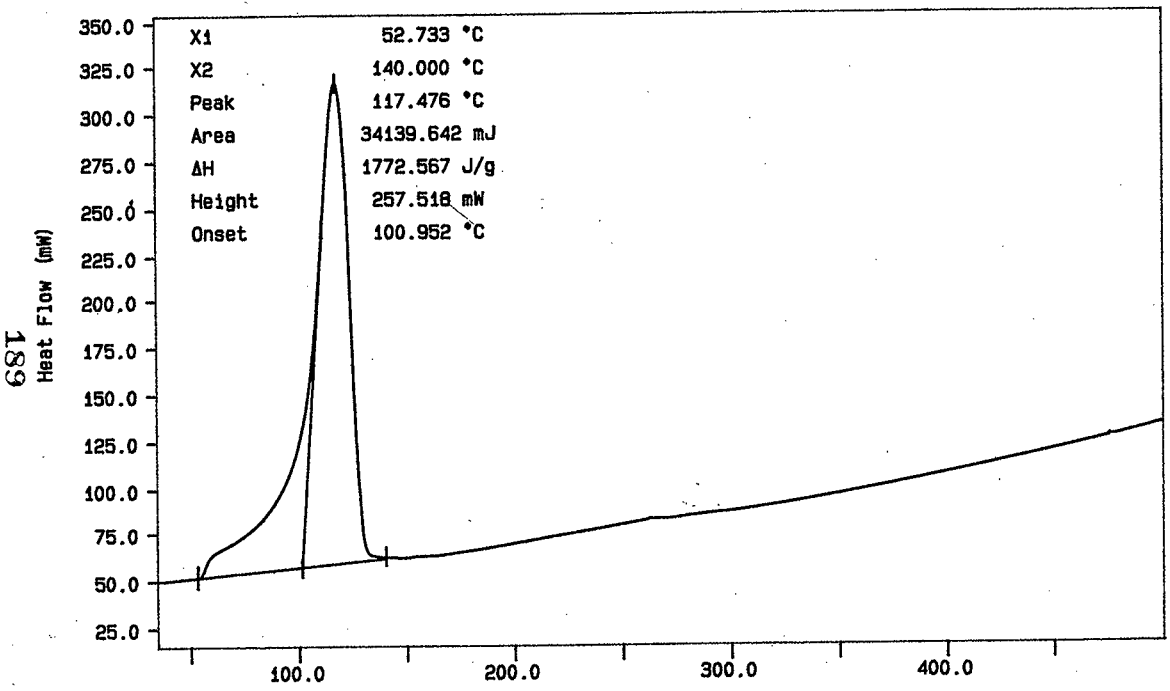
SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 188 TO 192.



N2, EXOTHERM DOWN
TEMP1: 140.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 160.0 C

RD MEYERS
PERKIN-ELMER
7 Series Thermal Analysis System
Fri May 23 09:10:44 1997

Curve 1: DSC
File info: SAM052305 Fri May 23 10:02:07 1997
Sample Weight: 19.260 mg
S97T000705

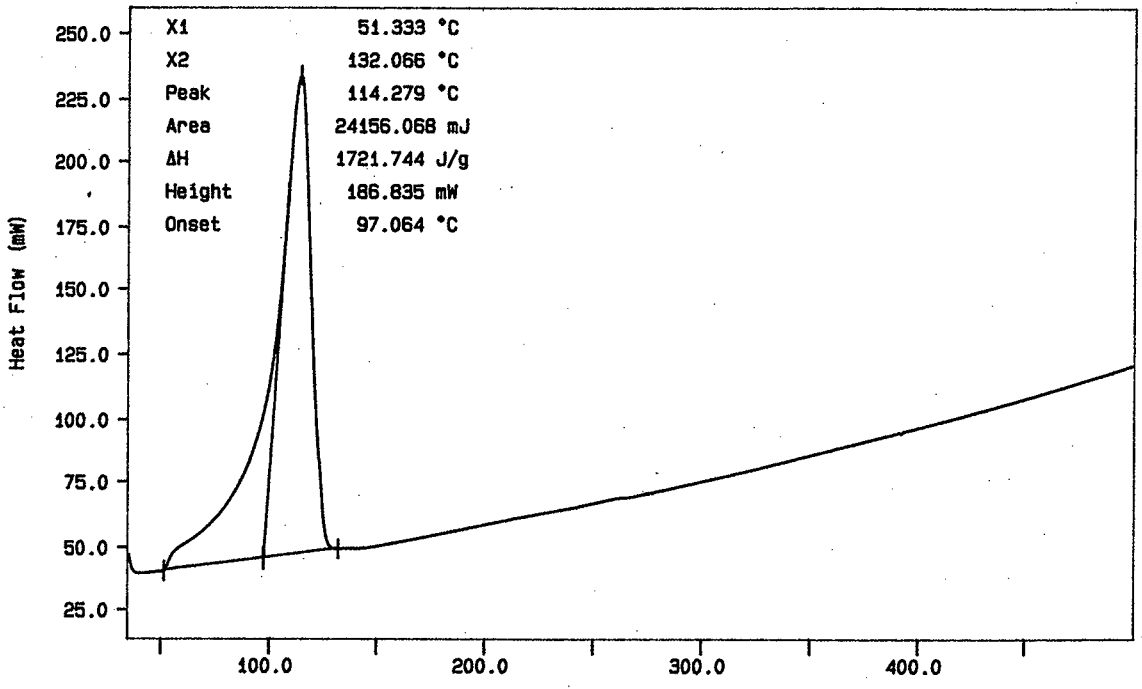


N2 10C/min
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 500.0 C

RD MEYERS
PERKIN-ELMER
7 Series Thermal Analysis System
Fri May 23 12:40:58 1997

189

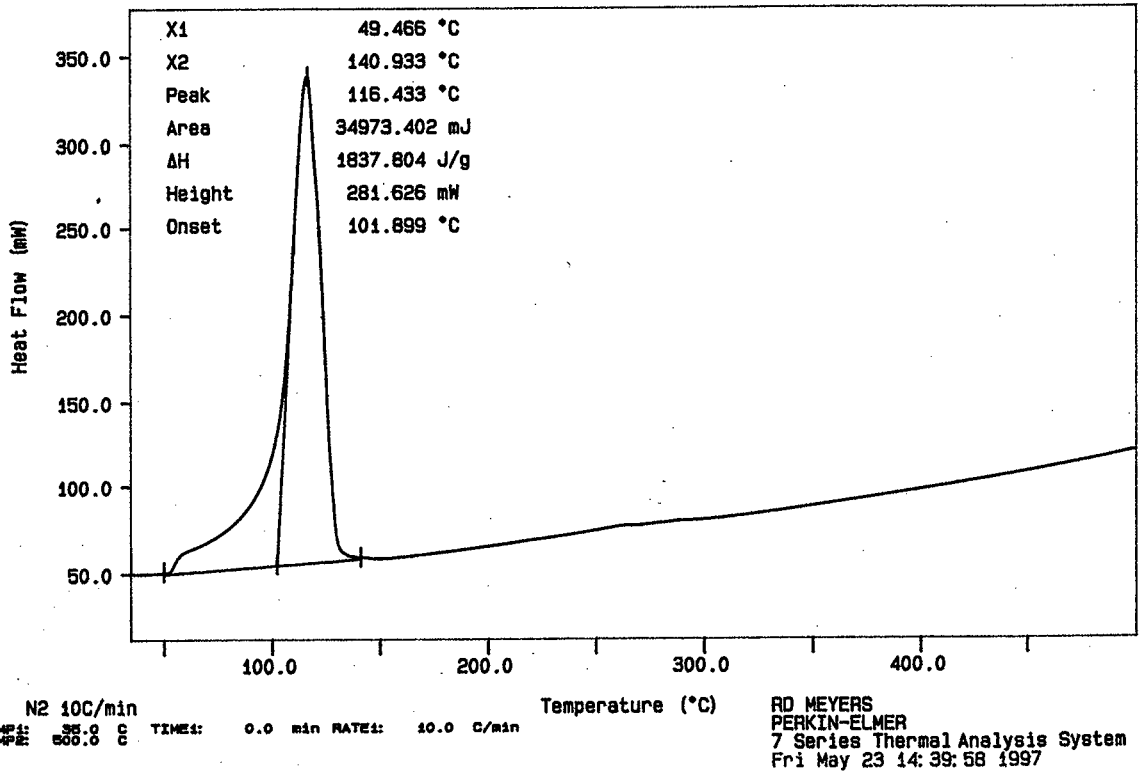
Curve 1: DSC
File info: SAM052306 Fri May 23 13:31:00 1997
Sample Weight: 14.030 mg
S97T000705DUP



N2 10C/min
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 500.0 C

RD MEYERS
PERKIN-ELMER
7 Series Thermal Analysis System
Fri May 23 13:42:27 1997

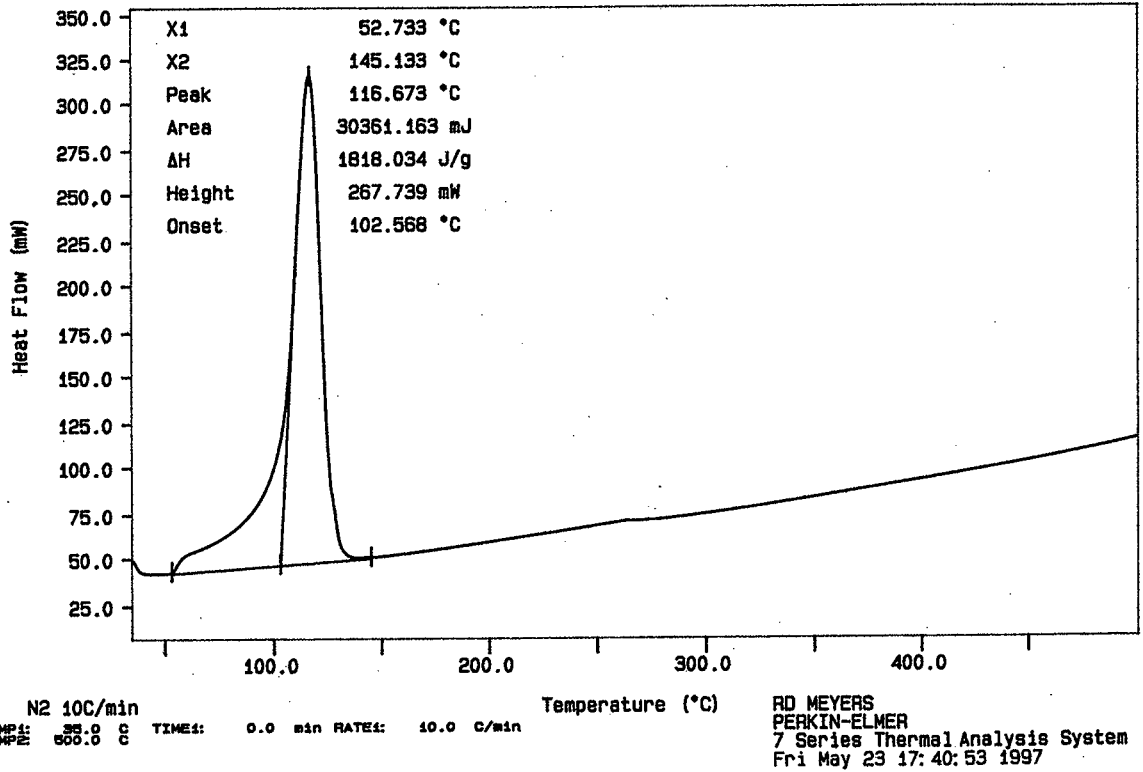
Curve 1: DSC
File info: SAM052307 Fri May 23 14:37:31 1997
Sample Weight: 19.030 mg
S97T000711



N2 10C/min
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 500.0 C

RD MEYERS
PERKIN-ELMER
7 Series Thermal Analysis System
Fri May 23 14:39:58 1997

Curve 1: DSC
File info: SAM052308 Fri May 23 15:34:15 1997
Sample Weight: 16.700 mg
S97T000711DUP



N2 10C/min
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 500.0 C

RD MEYERS
PERKIN-ELMER
7 Series Thermal Analysis System
Fri May 23 17:40:53 1997

LABCORE Data Entry Template for Worklist# 18045

Analyst: SMF **Instrument:** DSC0 3 **Book #** 12N148

Method: LA-514-114 Rev/Mod D-0

Worklist Comment: T-203 DSC, RUN UNDER N2. RCJ

GROUP	PROJECT	S TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD				DSC-03	LIQUID	28.45	27.47	N/A	Joules/g
97000299	T-203	2 SAMPLE	S97T000731	0		DSC-03	LIQUID	N/A	0		Joules/g
97000299	T-203	3 DUP	S97T000731	0		DSC-03	LIQUID	0	0	N/A	Joules/g

Final page for worklist # 18045

See Attached for Signature
Analyst Signature **Date**

Susan Bee 5/27/97
Analyst Signature **Date**

Validated 6/2/97 Bachelor

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 18045

Analyst: SMF **Instrument:** DSC0 3 **Book #** 12XN4B

Method: LA-514-113 Rev/Mod D-0

Worklist Comment: T-203 DSC, RUN UNDER N2. RCJ

GROUP	PROJECT	S TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD				DSC-01	LIQUID			N/A	Joules/g
97000299	T-203	2 SAMPLE	S97T000731	0		DSC-01	LIQUID	N/A			Joules/g
97000299	T-203	3 DUP	S97T000731	0		DSC-01	LIQUID			N/A	Joules/g

Final page for worklist # 18045

Susie M. Dalton 5-24-97

Analyst Signature **Date**

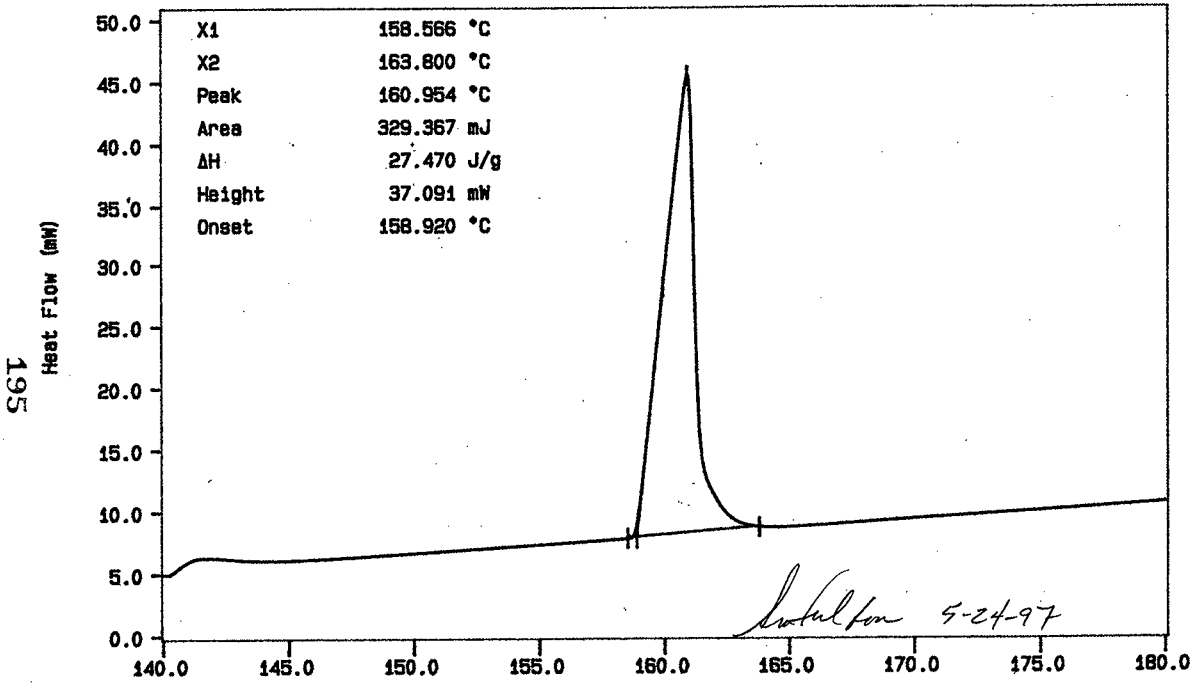
Analyst Signature **Date**

Data Entry Comments:
Ran samples on DSC-03. SMF 5/23/97

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

Curve 1: DSC
File info: IND052401 Sat May 24 09:37:53 1997
Sample Weight: 11.990 mg
12N14-B

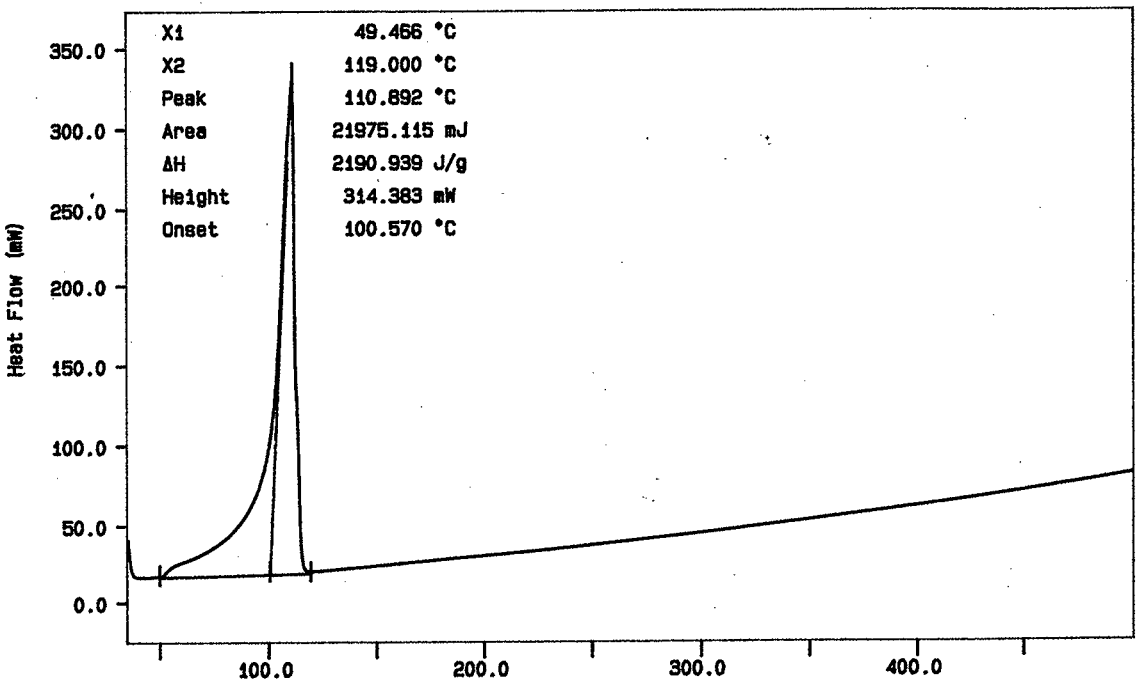
SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 195 TO 198



N2, EXOTHERM DOWN
TEMP1: 140.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 180.0 C

RD MEYERS
PERKIN-ELMER
7 Series Thermal Analysis System
Sat May 24 17:22:19 1997

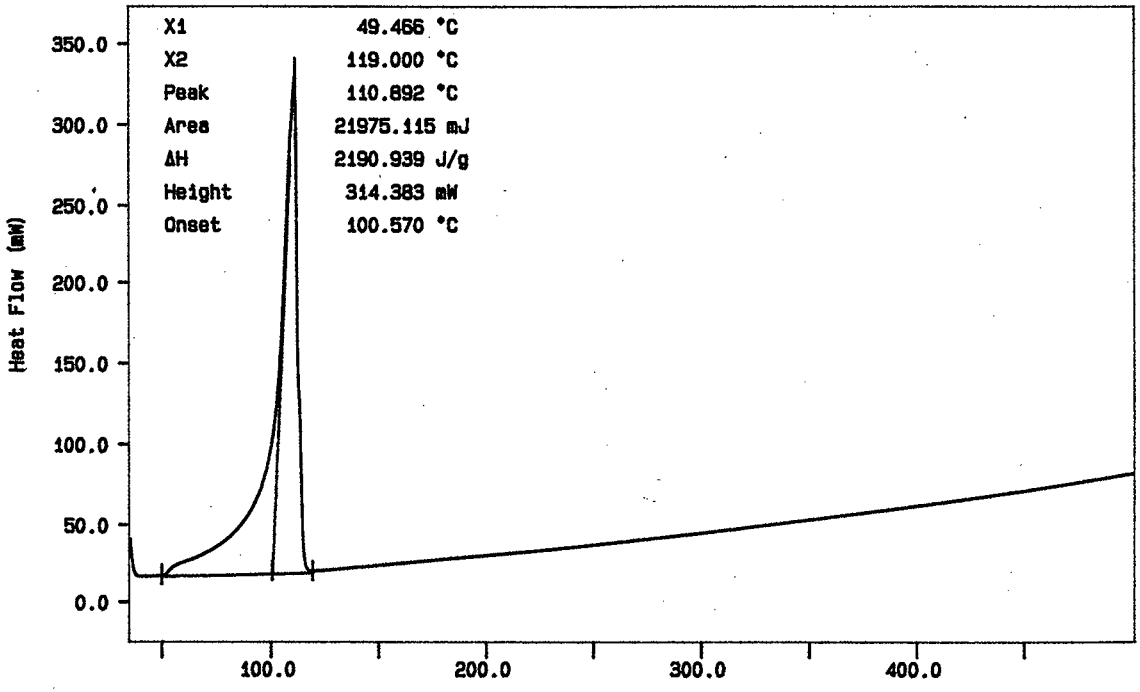
Curve 1: DSC
File info: SAM052409 Sat May 24 18:05:08 1997
Sample Weight: 10.030 mg
S97T000731



N2 10C/min
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 600.0 C

SM FULTON
PERKIN-ELMER
7 Series Thermal Analysis System
Sat May 24 18:09:47 1997

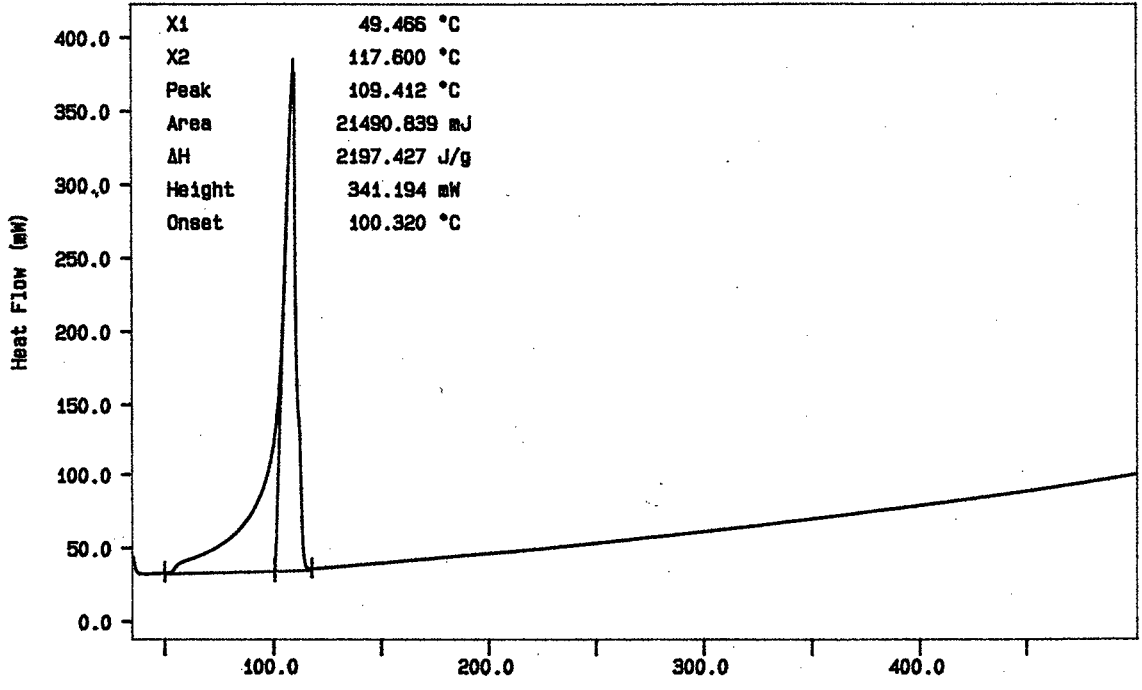
Curve 1: DSC
File info: SAM052409 Sat May 24 18:05:08 1997
Sample Weight: 10.030 mg
S97T000731



N2 10C/min
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 600.0 C

SM FULTON
PERKIN-ELMER
7 Series Thermal Analysis System
Sat May 24 18:09:47 1997

Curve 1: DSC
File info: SAM052410 Sat May 24 19:01:29 1997
Sample Weight: 9.780 mg
S97T000731 DUP



N2 10C/min
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 600.0 C
SM FULTON
PERKIN-ELMER
7 Series Thermal Analysis System
Sat May 24 19:56:33 1997

LABCORE Data Entry Template for Worklist# 18047

Analyst: SMF **Instrument:** DSC0 3 **Book #** 12N14B

Method: LA-514-114 Rev/Mod D-0

Worklist Comment: T-203 DSC, RUN UNDER N2. RCJ

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	STD				DSC-03	SOLID	28.45	27.34*	N/A	Joules/g
97000299	T-203	2	SAMPLE	S97T000668	0		DSC-03	SOLID	N/A	0		Joules/g
97000299	T-203	3	DUP	S97T000668	0		DSC-03	SOLID	0	0	N/A	Joules/g
97000299	T-203	4	SAMPLE	S97T000671	0		DSC-03	SOLID	N/A	0		Joules/g
97000299	T-203	5	DUP	S97T000671	0		DSC-03	SOLID	0	0	N/A	Joules/g

Final page for worklist # 18047

See Attached for Signature
Analyst Signature Date

Validated 6/2/97 Bracketed

Susan Bu 5/27/97
Analyst Signature Date

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 18047

Analyst: SMF **Instrument:** DSC0 3 **Book #** 12W14-B

Method: LA-514-113 Rev/Mod D-0

Worklist Comment: T-203 DSC, RUN UNDER N2. RCJ

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	STD				DSC-01	SOLID			N/A	Joules/g
97000299	T-203	2	SAMPLE	S97T000668	0		DSC-01	SOLID	N/A			Joules/g
97000299	T-203	3	DUP	S97T000668	0		DSC-01	SOLID			N/A	Joules/g
97000299	T-203	4	SAMPLE	S97T000671	0		DSC-01	SOLID	N/A			Joules/g
97000299	T-203	5	DUP	S97T000671	0		DSC-01	SOLID			N/A	Joules/g

Final page for worklist # 18047

Susie M. Dalton 5-23-97
Analyst Signature **Date**

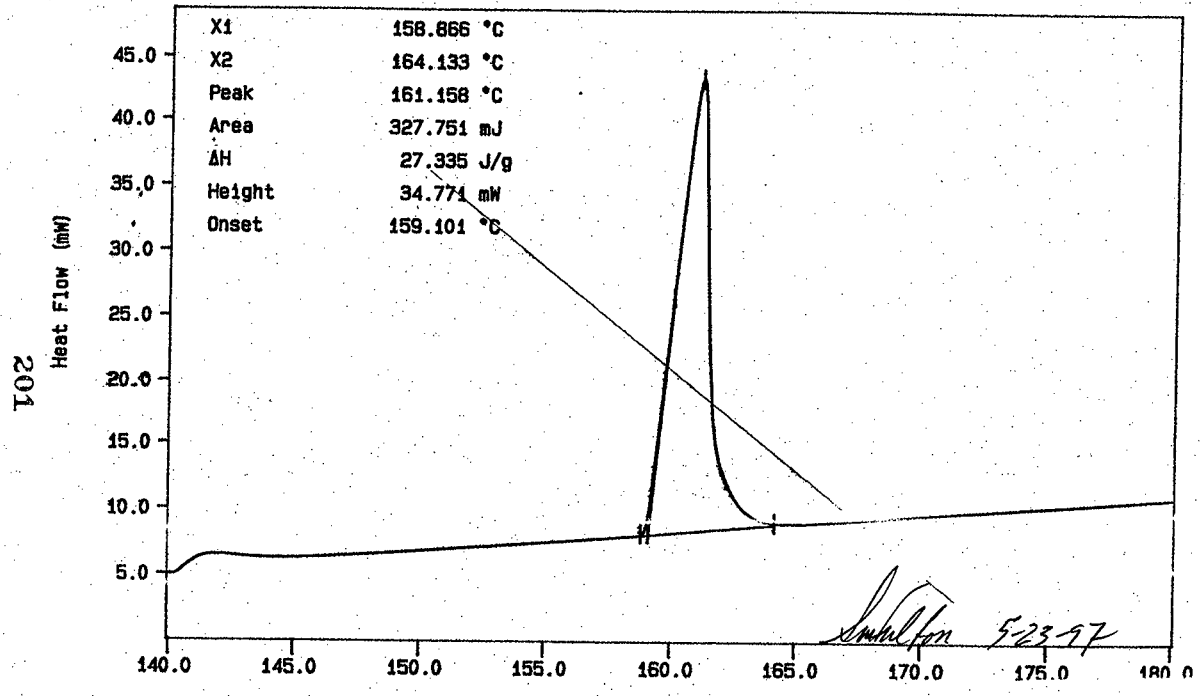
Analyst Signature **Date**

Data Entry Comments:
Ran samples on DSC-03. SMF 5/27/97

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

Curve 1: DSC
File info: IND052301 Fri May 23 07:23:50 1997
Sample Weight: 11.990 mg
12N14-B

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 201 TO 205



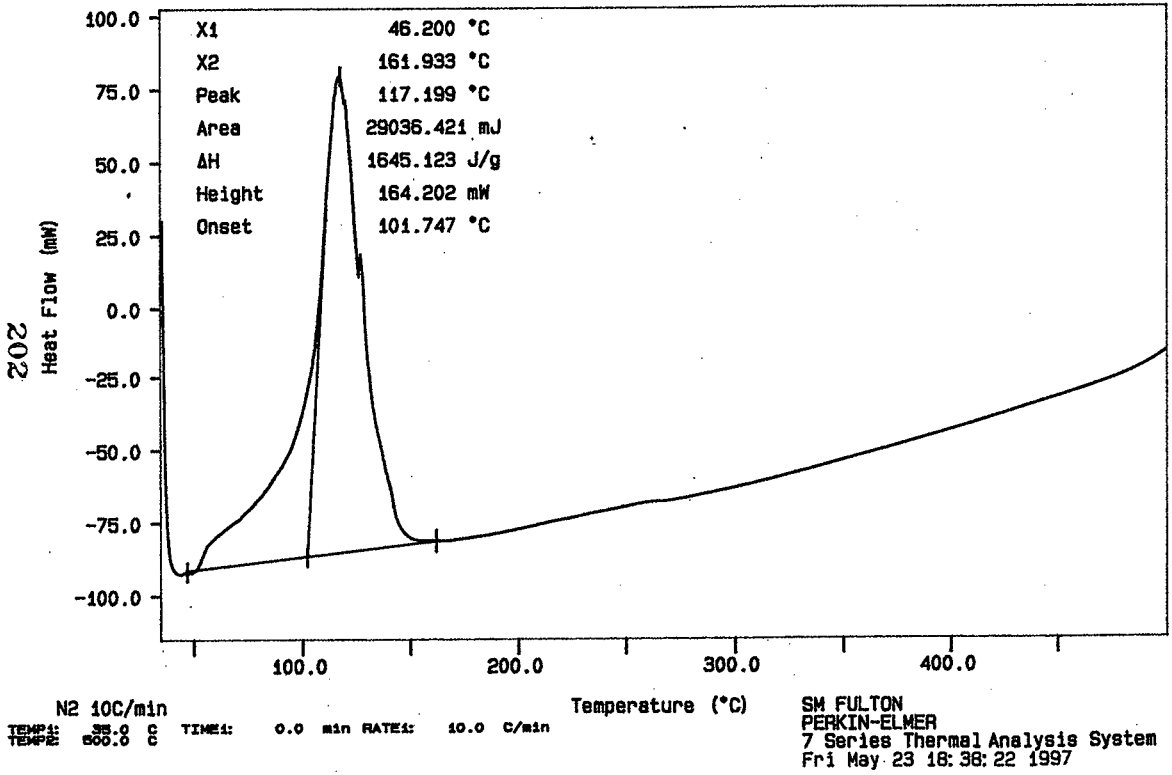
N2, EXOTHERM DOWN
TEMP1: 140.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 180.0 C

RD MEYERS
PERKIN-ELMER
7 Series Thermal Analysis System
Fri May 23 09:10:44 1997

201

HNF-SD-WM-DP-247, REV. 0

Curve 1: DSC
File info: SAM052309 Fri May 23 18:30:52 1997
Sample Weight: 17.650 mg
S97T000668



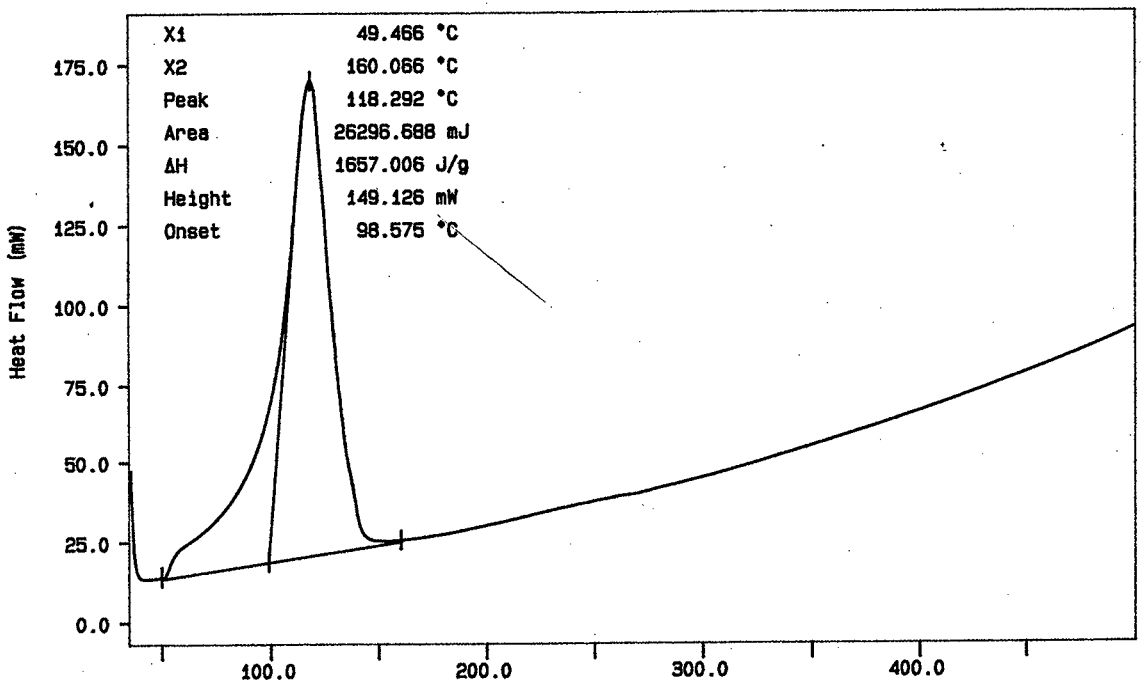
202

N2 10C/min
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 600.0 C

SM FULTON
PERKIN-ELMER
7 Series Thermal Analysis System
Fri May 23 18:38:22 1997

HNF-SD-WM-DP-247, REV. 0

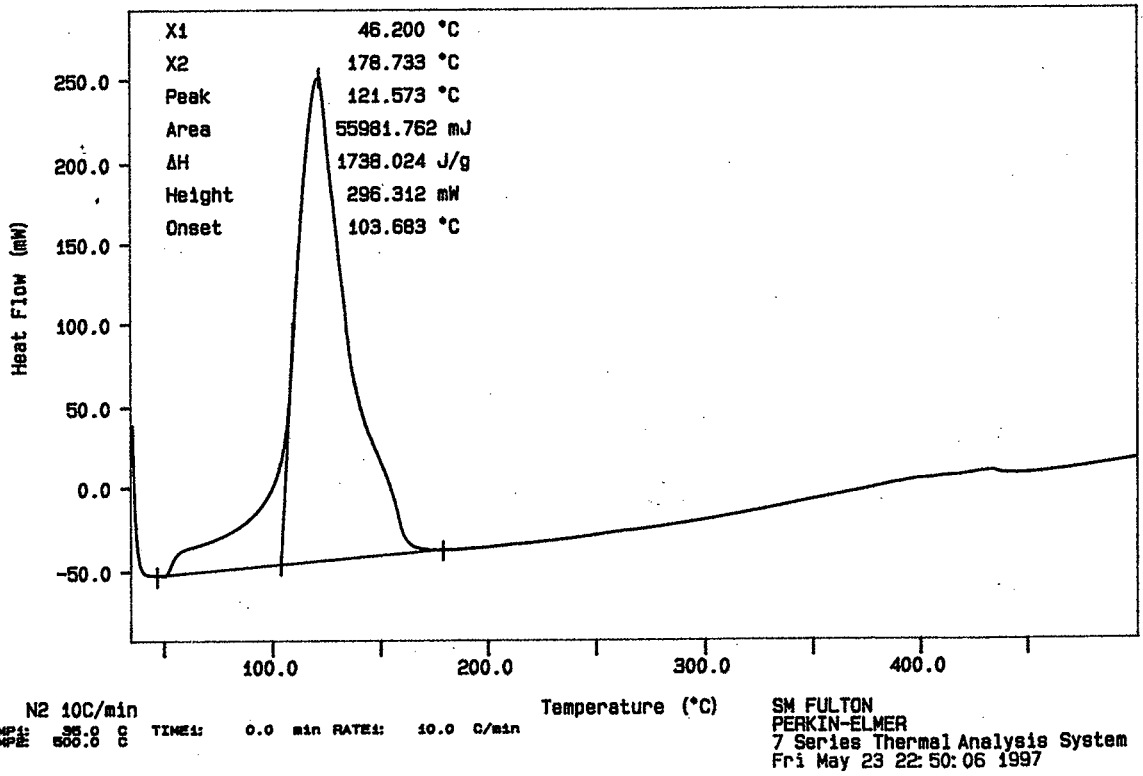
Curve 1: DSC
File info: SAM052310 Fri May 23 21:09:43 1997
Sample Weight: 15.870 mg
S97T000668 DUP



N2 10C/min
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 600.0 C

SM FULTON
PERKIN-ELMER
7 Series Thermal Analysis System
Fri May 23 21:46:26 1997

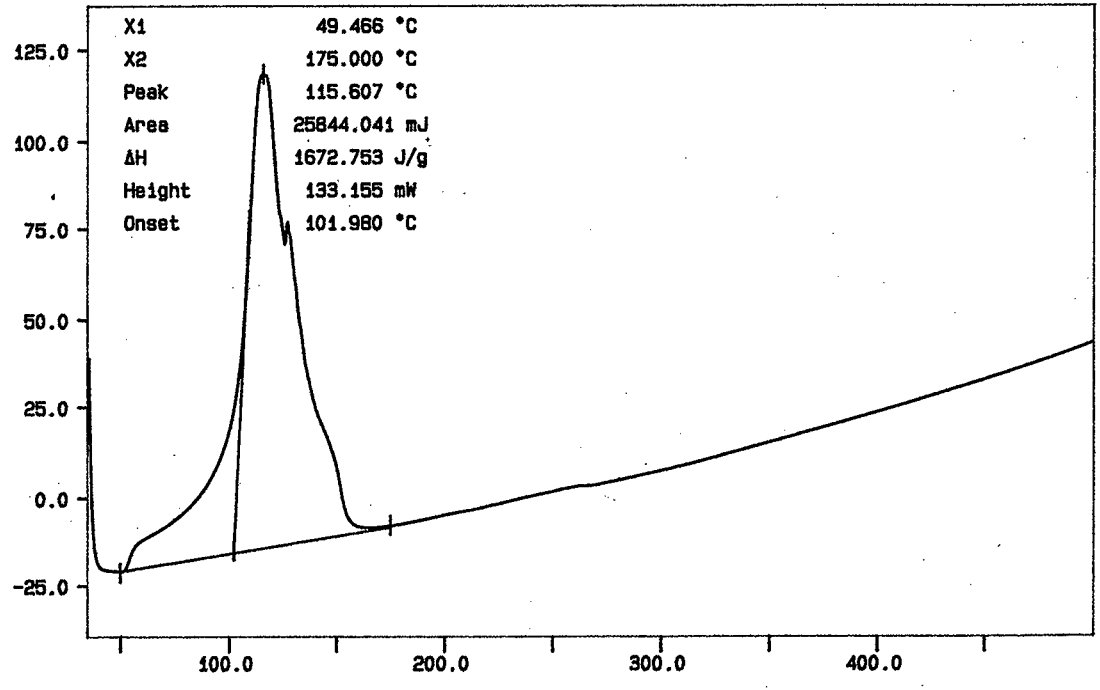
Curve 1: DSC
File info: SAM052311 Fri May 23 22:30:23 1997
Sample Weight: 32.210 mg
S97T000671



N2 10C/min
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 500.0 C

SM FULTON
PERKIN-ELMER
7 Series Thermal Analysis System
Fri May 23 22:50:06 1997

Curve 1: DSC
File info: SAM052312 Fri May 23 23:41:23 1997
Sample Weight: 15.450 mg
S97T000671 DUP



205

N2 10C/min
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 500.0 C

SM FULTON
PERKIN-ELMER
7 Series Thermal Analysis System
Sat May 24 00:11:21 1997

worklistrpt Version 2.1 05/15/95
05/27/97 10:40

LABCORE Data Entry Template for Worklist# 18048

Analyst: SMF **Instrument:** DSC0 3 **Book #** 12N14B

Method: LA-514-114 Rev/Mod D-0

Worklist Comment: T-203 DSC, RUN UNDER N2. RCJ

GROUP	PROJECT	S TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD				DSC-03	SOLID	28.45	27.47*	N/A	Joules/g
97000299	T-203	2 SAMPLE	S97T000706	0		DSC-03	SOLID	N/A	0		Joules/g
97000299	T-203	3 DUP	S97T000706	0		DSC-03	SOLID	0	0	N/A	Joules/g
97000299	T-203	4 SAMPLE	S97T000707	0		DSC-03	SOLID	N/A	0		Joules/g
97000299	T-203	5 DUP	S97T000707	0		DSC-03	SOLID	0	0	N/A	Joules/g

Final page for worklist # 18048

See Attached for Signature
Analyst Signature Date

Susan Bu 5/27/97
Analyst Signature Date

Validated 6/2/97 DJMachelor

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 18048

Analyst: SMF **Instrument:** DSC0 3 **Book #** 12N14-B

Method: LA-514-113 Rev/Mod D-0

Worklist Comment: T-203 DSC, RUN UNDER N2. RCJ

GROUP	PROJECT	S TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD				DSC-01	SOLID			N/A	Joules/g
97000299	T-203	2 SAMPLE	S97T000706	0		DSC-01	SOLID	N/A			Joules/g
97000299	T-203	3 DUP	S97T000706	0		DSC-01	SOLID			N/A	Joules/g
97000299	T-203	4 SAMPLE	S97T000707	0		DSC-01	SOLID	N/A			Joules/g
97000299	T-203	5 DUP	S97T000707	0		DSC-01	SOLID			N/A	Joules/g

Final page for worklist # 18048

Susie M. Fulton 5-25-97
Analyst Signature **Date**

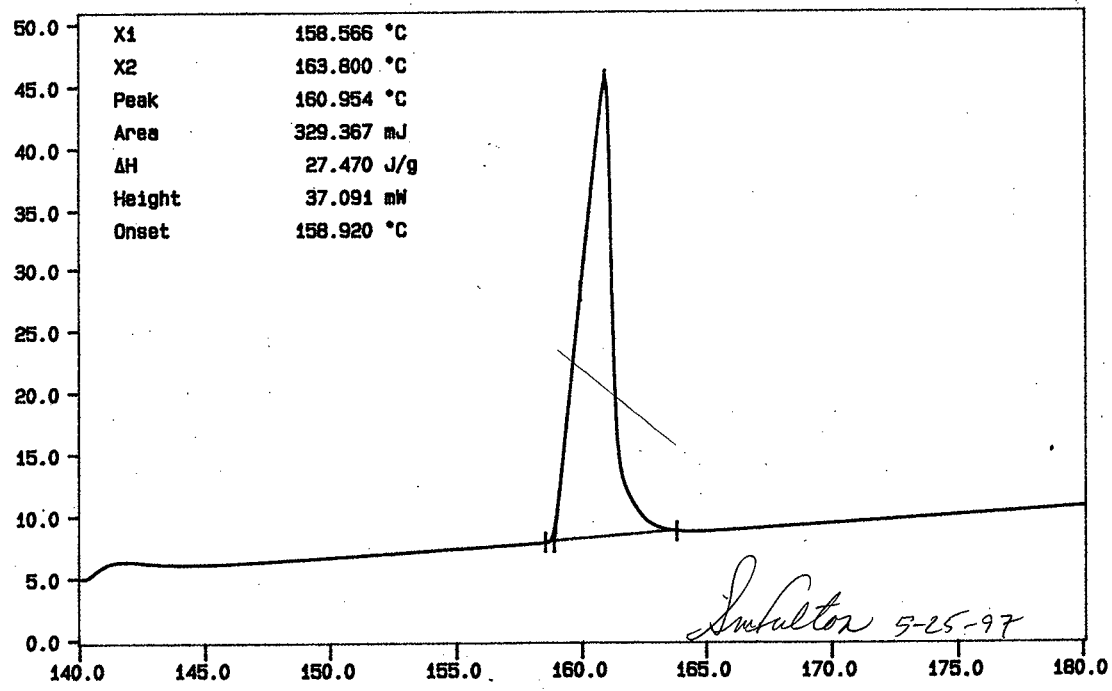
Analyst Signature **Date**

Data Entry Comments:
Ran samples on DSC-03. SMF 5/27/97

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

Curve 1: DSC
File info: IND052401 Sat May 24 09:37:53 1997
Sample Weight: 11.990 mg
12N14-B

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 208 TO 212.



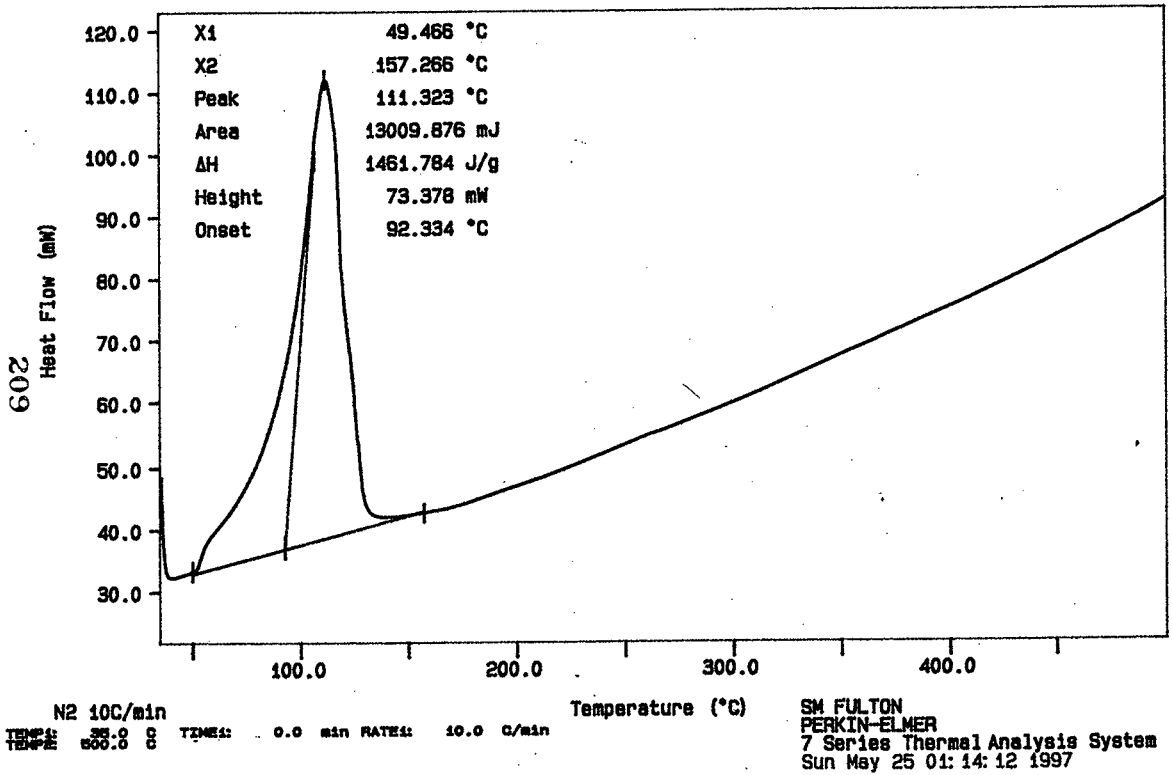
N2, EXOTHERM DOWN
TEMP1: 140.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 180.0 C

RD MEYERS
PERKIN-ELMER
7 Series Thermal Analysis System
Sat May 24 20:11:14 1997

208

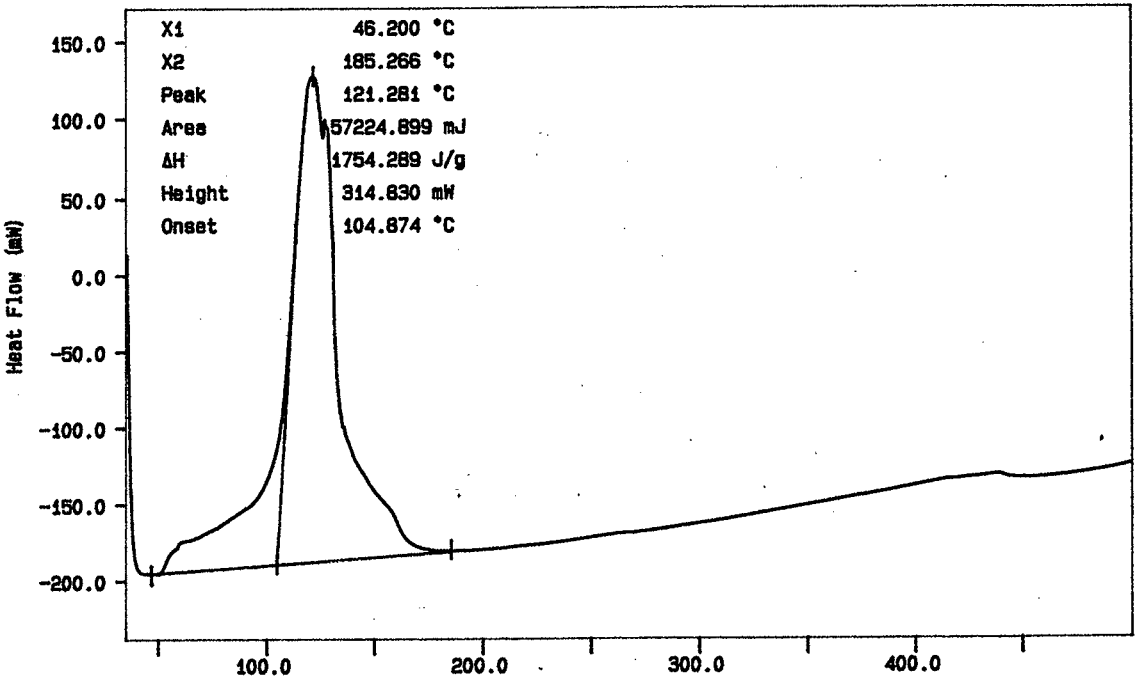
HNF-SD-WM-DP-247, REV. 0

Curve 1: DSC
File info: SAM052414 Sun May 25 01:06:08 1997
Sample Weight: 8.900 mg
S97T000706



209

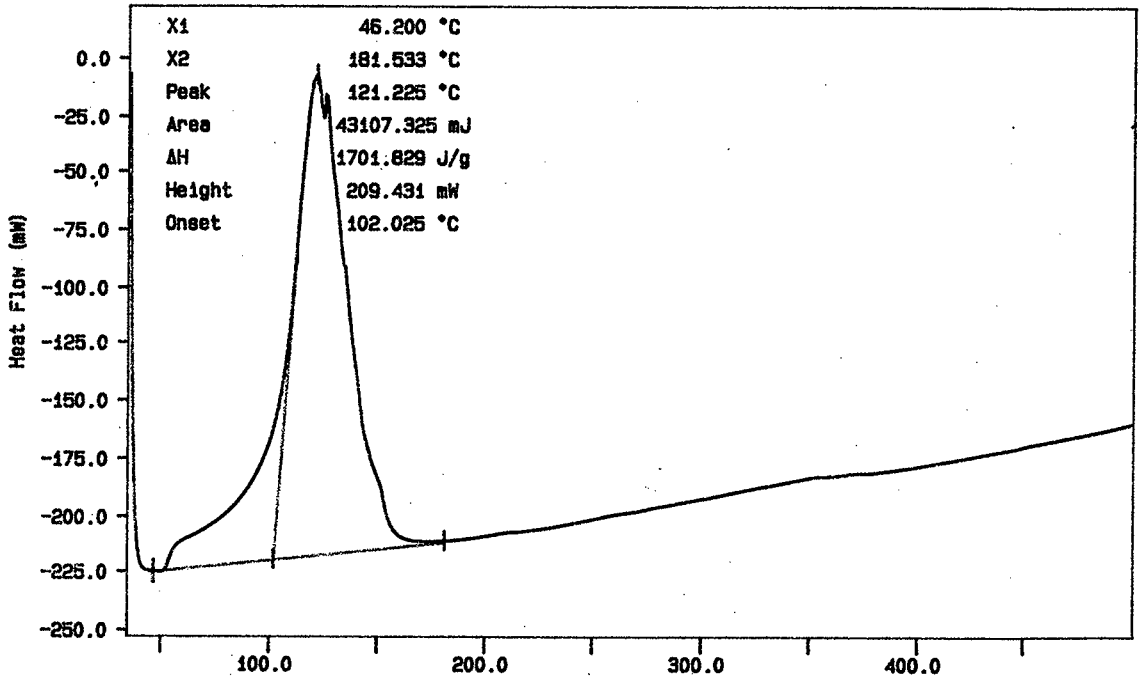
Curve 1: DSC
File info: SAM052415 Sun May 25 02:15:13 1997
Sample Weight: 32.620 mg
S97T000706 DUP



N2 10C/min
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 500.0 C

SM FULTON
PERKIN-ELMER
7 Series Thermal Analysis System
Sun May 25 03:09:25 1997

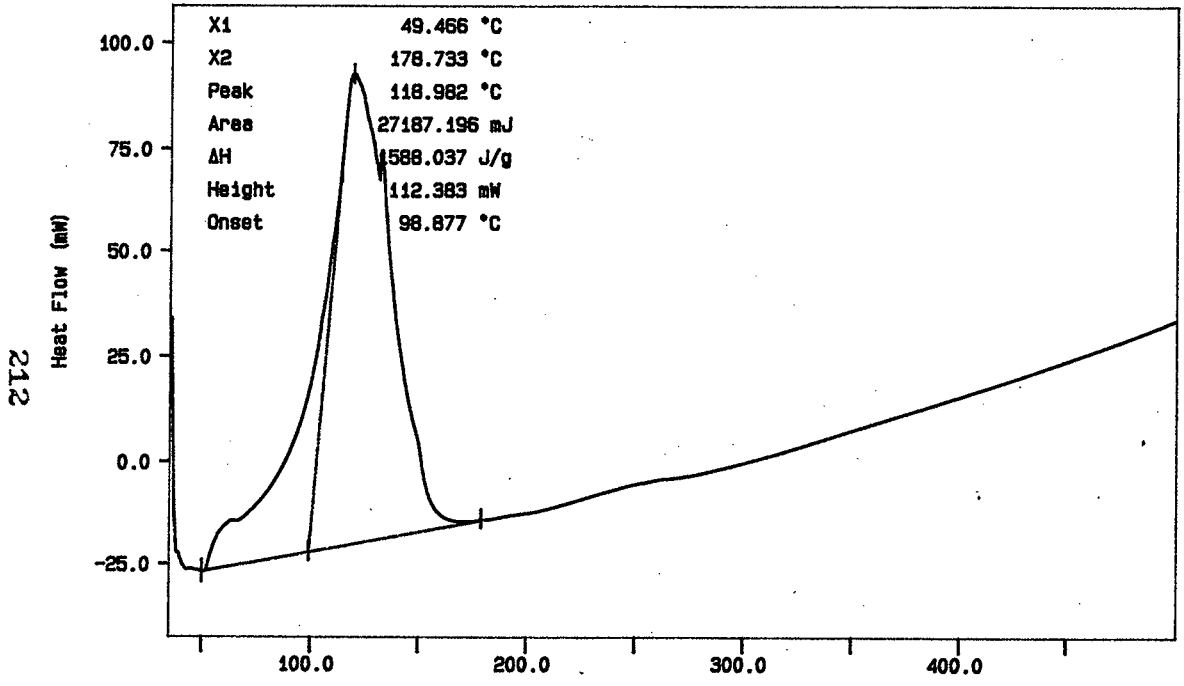
Curve 1: DSC
File info: SAM052416 Sun May 25 03:59:17 1997
Sample Weight: 25.330 mg
S97T000707



N2 10C/min
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 600.0 C

SM FULTON
PERKIN-ELMER
7 Series Thermal Analysis System
Tue May 27 09:59:55 1997

Curve 1: DSC
File info: SAM052417 Sun May 25 05:03:59 1997
Sample Weight: 17.120 mg
S97T000707 DUP



N2 10C/min
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 500.0 C

SM FULTON
PERKIN-ELMER
7 Series Thermal Analysis System
Sun May 25 07:08:37 1997

LABCORE Data Entry Template for Worklist# 18049

Analyst: RDM **Instrument:** DSC0 3 **Book #** 12N14B

Method: LA-514-114 Rev/Mod D-0

Worklist Comment: T-203 DSC, RUN UNDER N2. RCJ

GROUP	PROJECT	S TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD				DSC-03	SOLID	28.45	27.47%	N/A	Joules/g
97000299	T-203	2 SAMPLE	S97T000708	0		DSC-03	SOLID	N/A	0		Joules/g
97000299	T-203	3 DUP	S97T000708	0		DSC-03	SOLID	0	0	N/A	Joules/g
97000299	T-203	4 SAMPLE	S97T000709	0		DSC-03	SOLID	N/A	0		Joules/g
97000299	T-203	5 DUP	S97T000709	0		DSC-03	SOLID	0	0	N/A	Joules/g

Final page for worklist # 18049

See Attached for Signature
Analyst Signature Date

Susan Bue 5/27/97
Analyst Signature Date

Validated 6/2/97 Bachelor

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 18049

Analyst: RJM **Instrument:** DSC0 3 **Book #** 12N193

Method: LA-514-113 Rev/Mod D-0

Worklist Comment: T-203 DSC, RUN UNDER N2. RCJ

GROUP	PROJECT	S TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD				DSC-01	SOLID			N/A	Joules/g
97000299	T-203	2 SAMPLE	S97T000708	0		DSC-01	SOLID	N/A			Joules/g
97000299	T-203	3 DUP	S97T000708	0		DSC-01	SOLID			N/A	Joules/g
97000299	T-203	4 SAMPLE	S97T000709	0		DSC-01	SOLID	N/A			Joules/g
97000299	T-203	5 DUP	S97T000709	0		DSC-01	SOLID			N/A	Joules/g

Final page for worklist # 18049

RJMcLaughlin 5/24/97
Analyst Signature **Date**

Analyst Signature **Date**

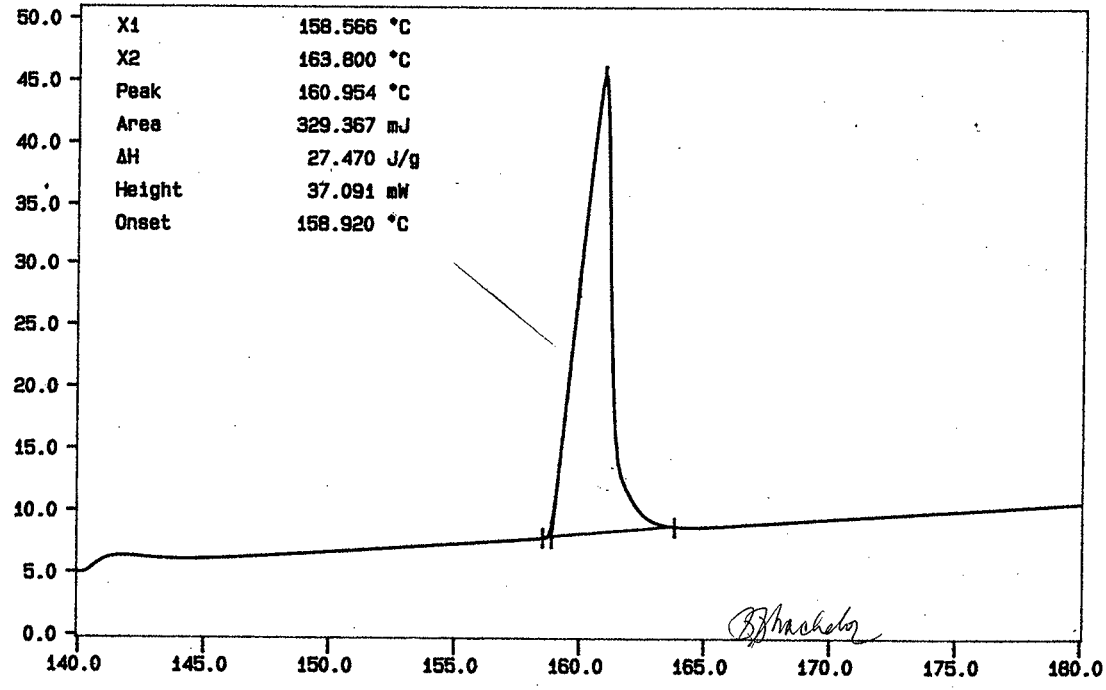
Susie M. Fulton 5-24-97

Data Entry Comments:
Ran samples on DSC-03. RJM 5/27/97

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

Curve 1: DSC
File info: IND052401 Sat May 24 09:37:53 1997
Sample Weight: 11.990 mg
12N14-B

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 215 TO 219.



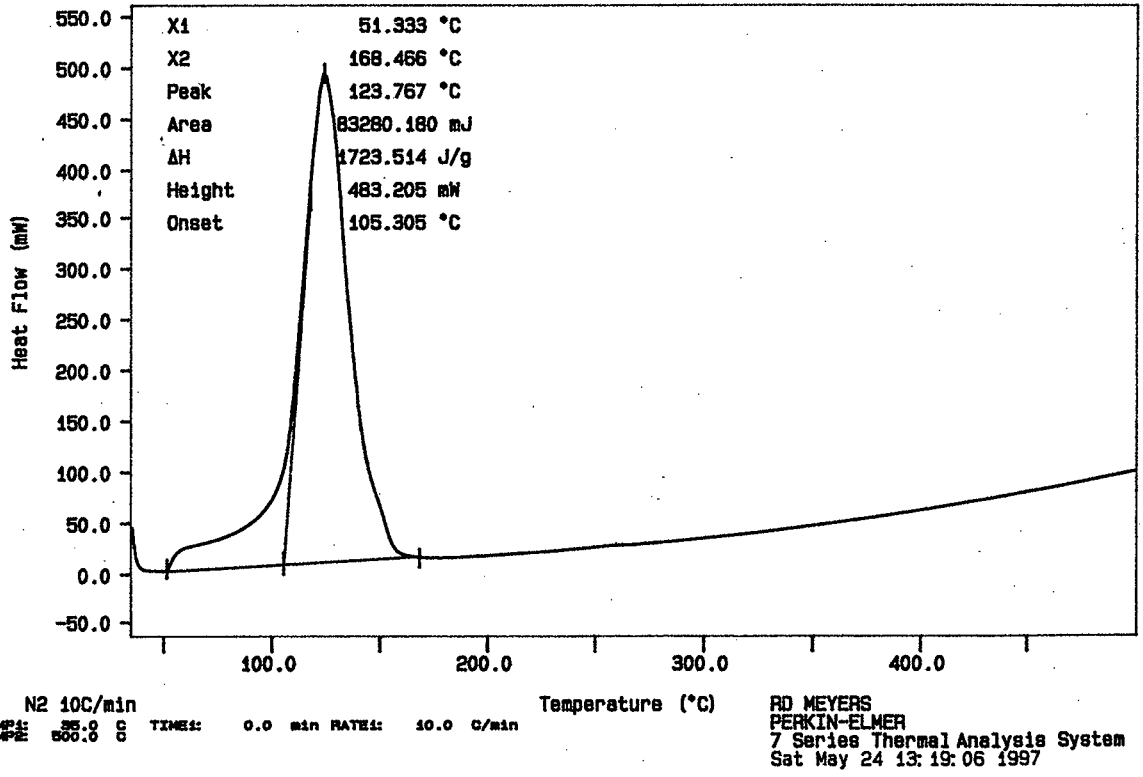
N2, EXOTHERM DOWN
TEMP1: 140.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 180.0 C

RD MEYERS
PERKIN-ELMER
7 Series Thermal Analysis System
Sat May 24 10:13:25 1997

215

HNF-SD-WM-DP-247, REV. 0

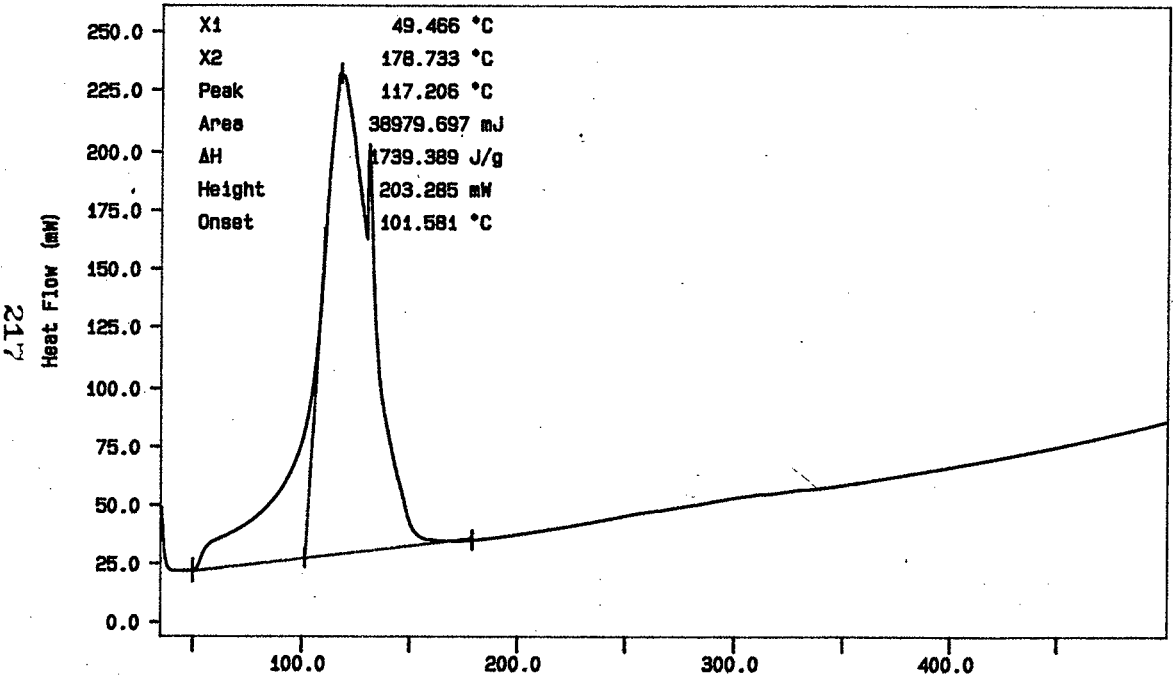
Curve 1: DSC
File info: SAM052408 Sat May 24 13:13:51 1997
Sample Weight: 48.320 mg
S97T000708



N2 10C/min
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 500.0 C

RD MEYERS
PERKIN-ELMER
7 Series Thermal Analysis System
Sat May 24 13:19:06 1997

Curve 1: DSC
File info: SAM052411 Sat May 24 20:47:02 1997
Sample Weight: 22.410 mg
S97T000708 DUP

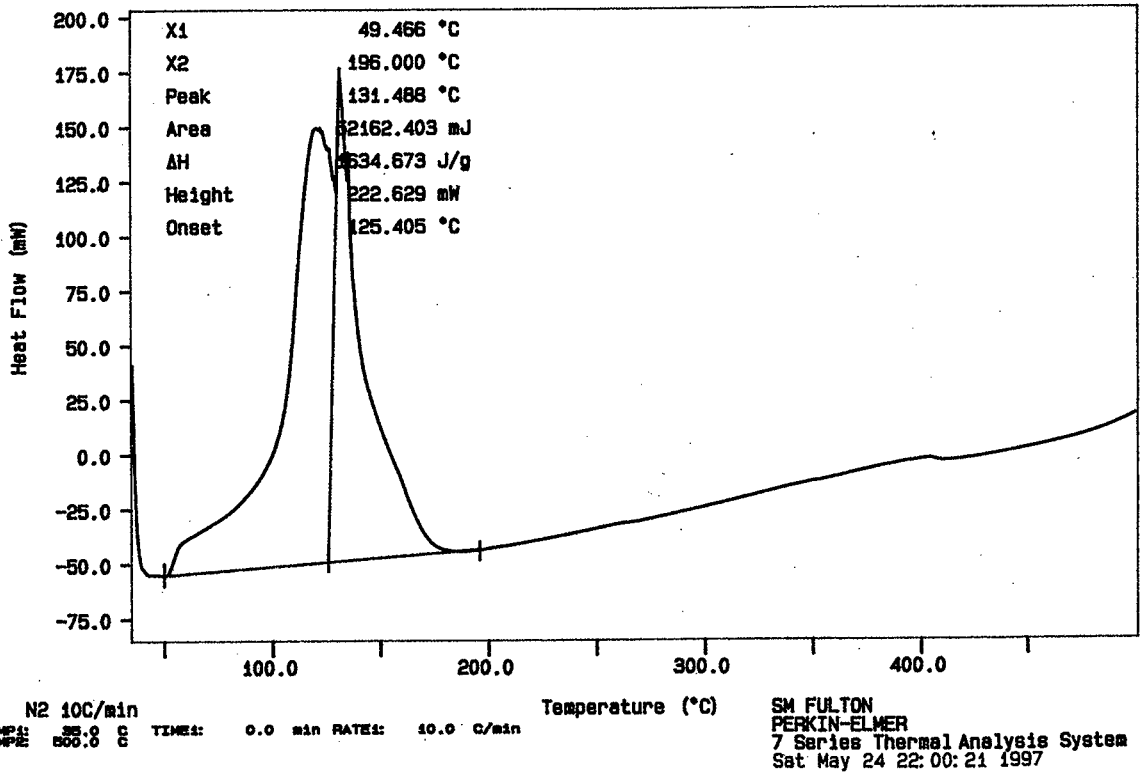


N2 10C/min
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 600.0 C

SM FULTON
PERKIN-ELMER
7 Series Thermal Analysis System
Sat May 24 20:47:42 1997

217

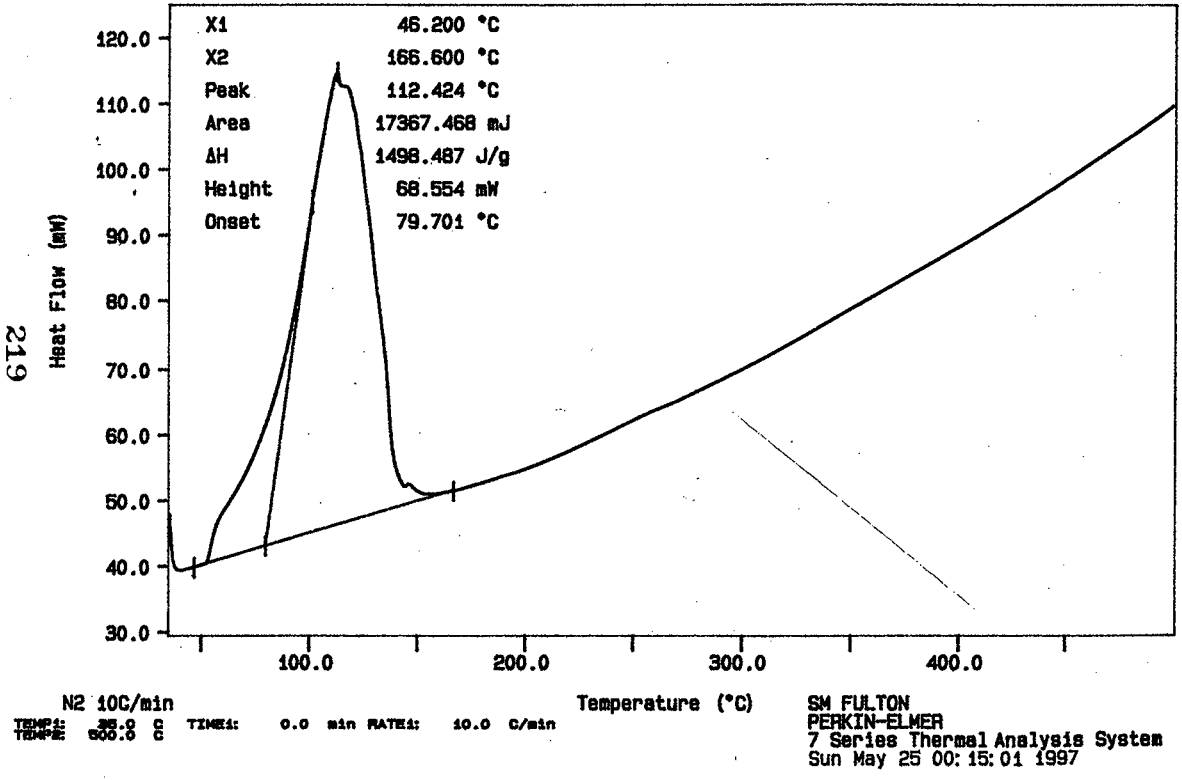
Curve 1: DSC
File info: SAM052412 Sat May 24 21:52:34 1997
Sample Weight: 31.910 mg
S97T000709



N2 10C/min
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 600.0 C

SM FULTON
PERKIN-ELMER
7 Series Thermal Analysis System
Sat May 24 22:00:21 1997

Curve 1: DSC
File info: SAM052413 Sat May 24 22:50:56 1997
Sample Weight: 11.590 mg
S97T000709 DUP



LABCORE Data Entry Template for Worklist# 18053

Analyst: EAL **Instrument:** DSC0 3 **Book #** 12N14B

Method: LA-514-114 Rev/Mod D-0

Worklist Comment: T-203 DSC, RUN UNDER N2. RCJ

GROUP	PROJECT	S TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD				DSC-03	SOLID	28.45	26.36*	N/A	Joules/g
97000299	T-203	2 SAMPLE	S97T000710	0		DSC-03	SOLID	N/A	4.39		Joules/g
97000299	T-203	3 DUP	S97T000710	0		DSC-03	SOLID	4.39	4.67	N/A	Joules/g
97000299	T-203	4 SAMPLE	S97T000712	0		DSC-03	SOLID	N/A	0		Joules/g
97000299	T-203	5 DUP	S97T000712	0		DSC-03	SOLID	0	0	N/A	Joules/g

Final page for worklist # 18053

See Attached for Signature
Analyst Signature **Date**

5-21-97
Analyst Signature **Date**

Validated 5/22/97 Bachelor

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

worklistrpt Version 2.1 05/15/95
05/12/97 08:38

LABCORE Data Entry Template for Worklist# 18053

Analyst: EAL **Instrument:** DSC0 3 **Book #** 12N14-B

Method: LA-514-113 Rev/Mod D-0

Worklist Comment: T-203 DSC, RUN UNDER N2. RCJ

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	STD				DSC-01	SOLID			N/A	Joules/g
97000299	T-203	2	SAMPLE	S97T000710	0		DSC-01	SOLID	N/A			Joules/g
97000299	T-203	3	DUP	S97T000710	0		DSC-01	SOLID			N/A	Joules/g
97000299	T-203	4	SAMPLE	S97T000712	0		DSC-01	SOLID	N/A			Joules/g
97000299	T-203	5	DUP	S97T000712	0		DSC-01	SOLID			N/A	Joules/g

Final page for worklist # 18053

E Lambert 05.19.97
Analyst Signature **Date**

Analyst Signature **Date**

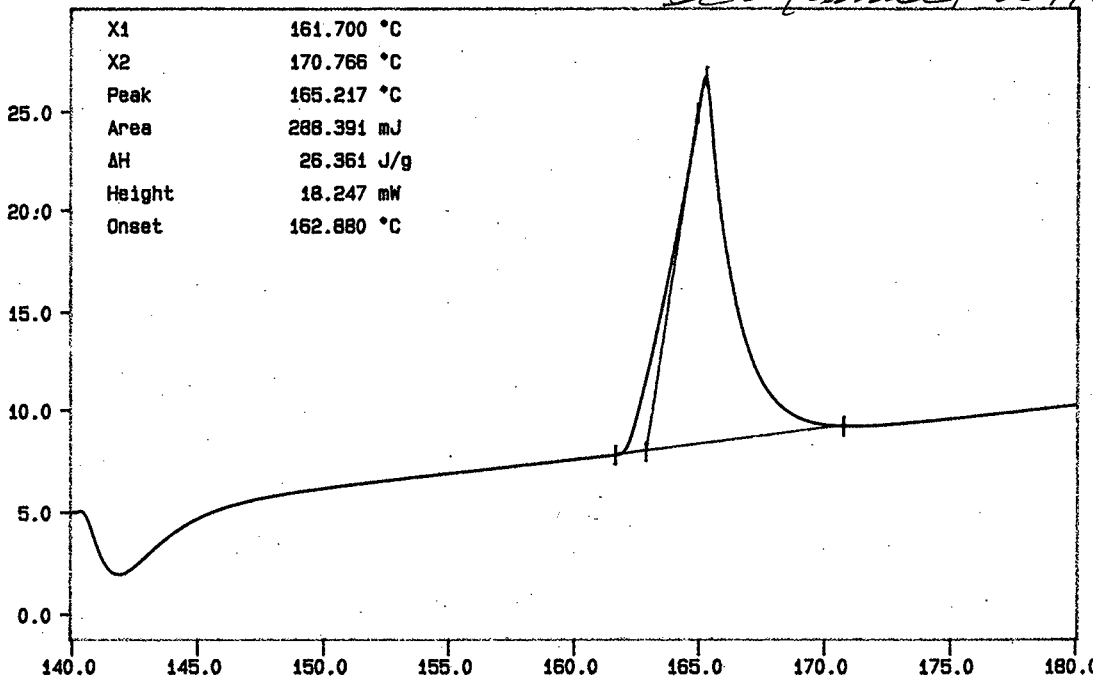
Data Entry Comments:
Ran samples on DSC-03. 5/20/97

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

Curve 1: DSC
File info: IND051902 Mon May 19 05:58:39 1997
Sample Weight: 10.940 mg
12N14-B

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 222 TO 226.

EA Lambel 05.19.97

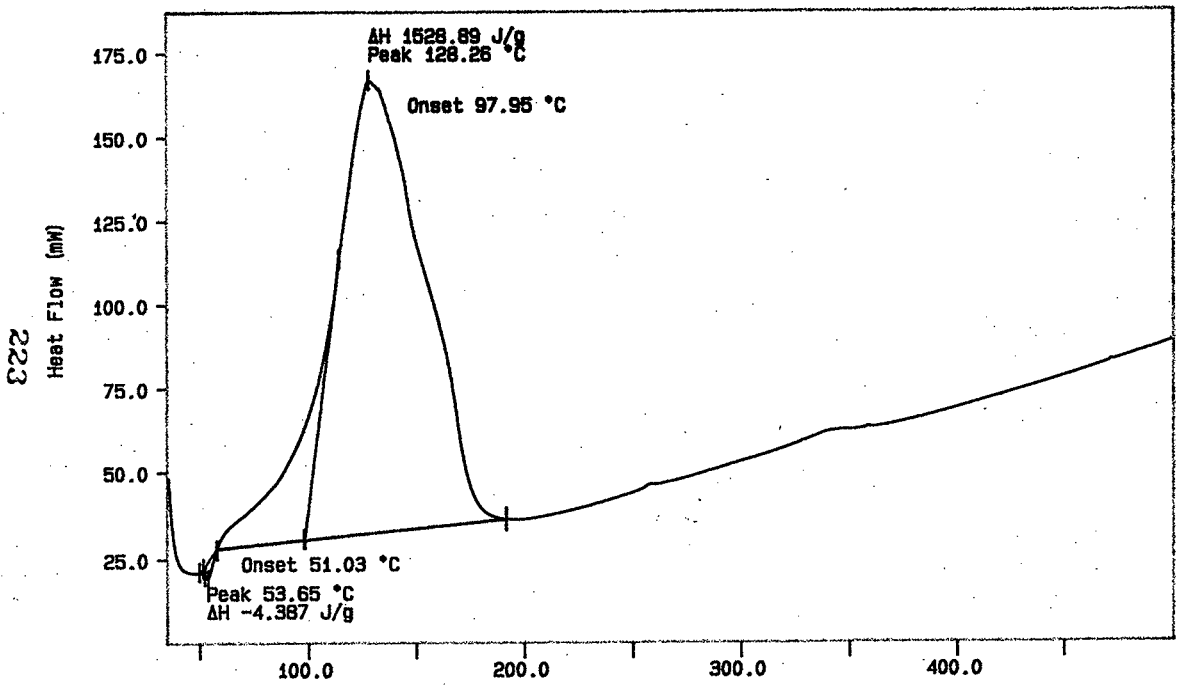


N2, EXOTHERM DOWN
TEMP1: 140.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 180.0 C

EA LAMBEL
PERKIN-ELMER
7 Series Thermal Analysis System
Mon May 19 14:23:51 1997

222

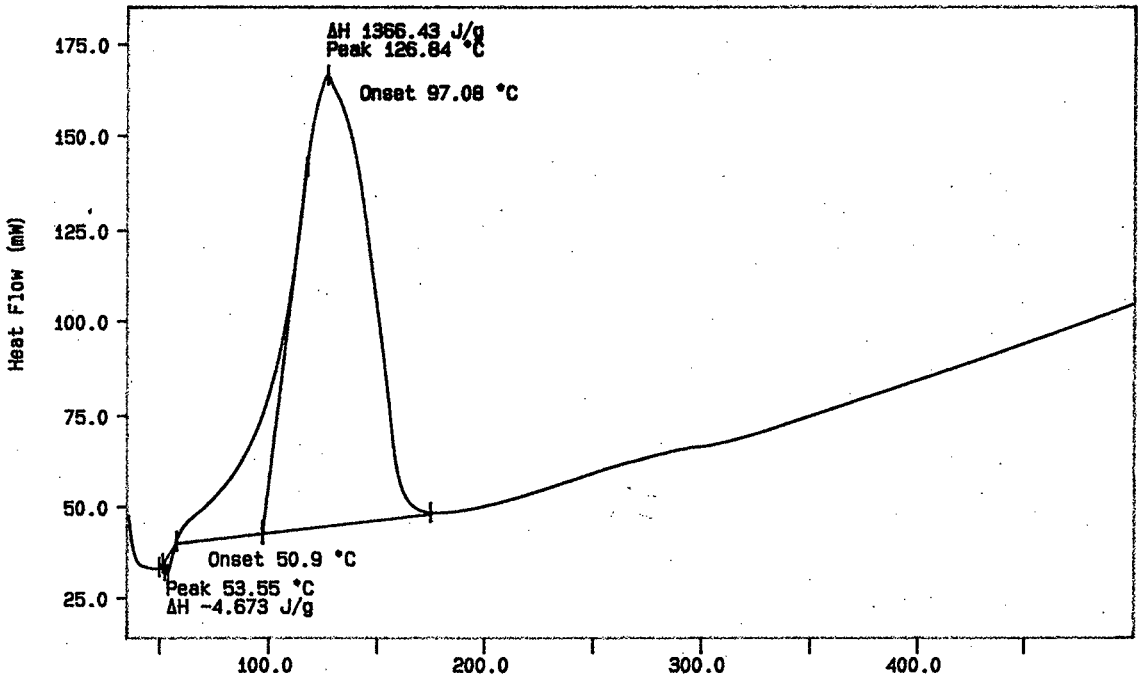
Curve 1: DSC
File info: SAM051905 Mon May 19 12:42:57 1997
Sample Weight: 27.110 mg
S97T000710



N2 10C/min
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 500.0 C

EA LAMBEL
PERKIN-ELMER
7 Series Thermal Analysis System
Mon May 19 13:10:50 1997

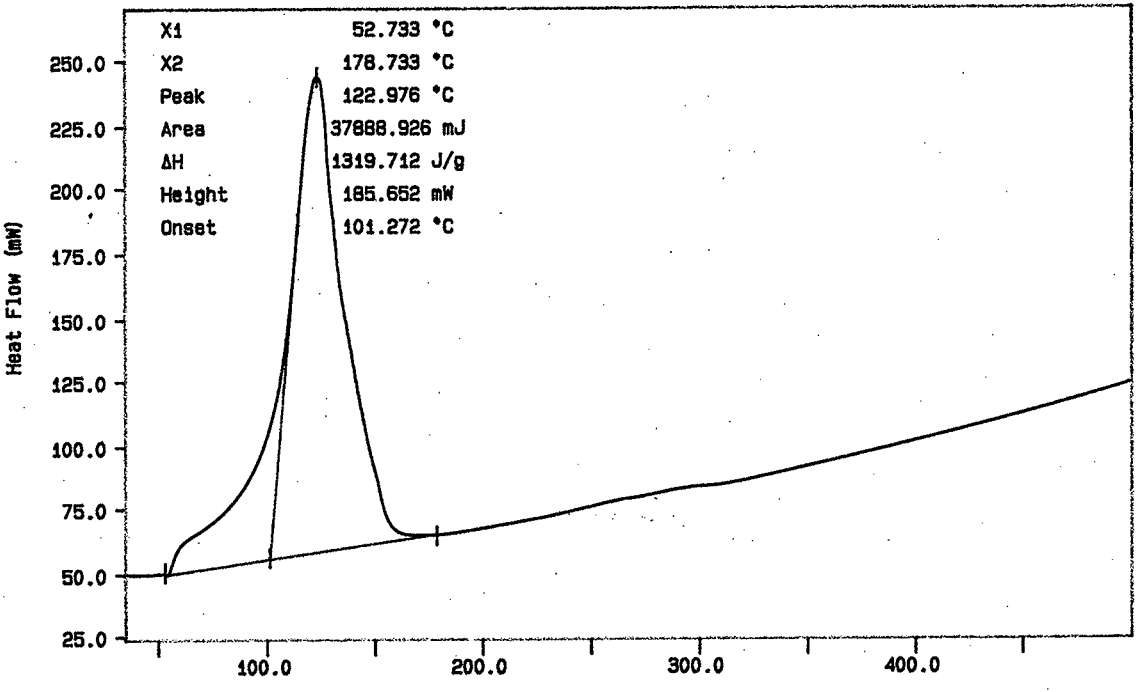
Curve 1: DSC
File info: SAM051906 Mon May 19 14:02:20 1997
Sample Weight: 23.830 mg
S97T000710DUP



N2 10C/min
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 500.0 C

EA LAMBEL
PERKIN-ELMER
7 Series Thermal Analysis System
Mon May 19 14:08:30 1997

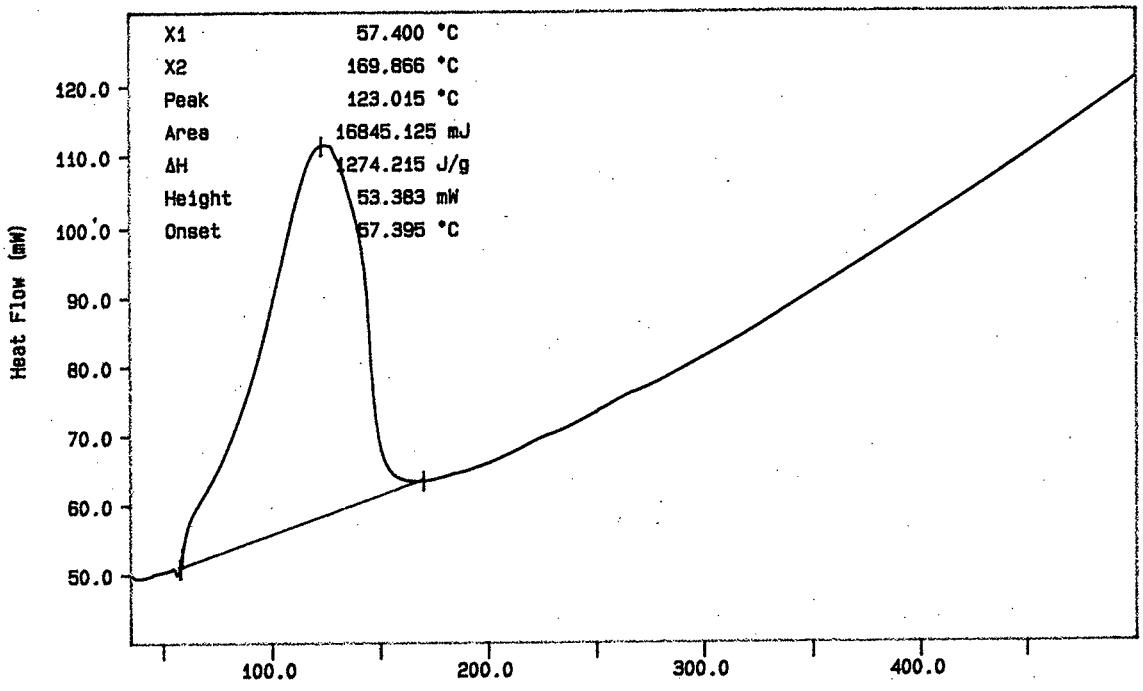
Curve 1: DSC
File info: SAM051907 Mon May 19 15:00:33 1997
Sample Weight: 28.710 mg
S97T000712



N2 10C/min
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 500.0 C

EA LAMBEL
PERKIN-ELMER
7 Series Thermal Analysis System
Mon May 19 15:04:57 1997

Curve 1: DSC
File info: SAM051908 Mon May 19 15:54:55 1997
Sample Weight: 13.220 mg
S97T000712DUP



N2 10C/min
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 500.0 C

EA LAMBEL
PERKIN-ELMER
7 Series Thermal Analysis System
Mon May 19 15:56:16 1997

LABCORE Data Entry Template for Worklist# 18054

Analyst: EAL **Instrument:** DSC0 3 **Book #** 12N148

Method: LA-514-114 Rev/Mod D-0

Worklist Comment: T-203 DSC, RUN UNDER N2. RCJ

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	STD				DSC-03	SOLID	28.45	26.14	N/A	Joules/g
97000299	T-203	2	SAMPLE	S97T000713	0		DSC-03	SOLID	N/A	2.44		Joules/g
97000299	T-203	3	DUP	S97T000713	0		DSC-03	SOLID	2.44	3.38	N/A	Joules/g
97000299	T-203	4	SAMPLE	S97T000714	0		DSC-03	SOLID	N/A	4.68		Joules/g
97000299	T-203	5	DUP	S97T000714	0		DSC-03	SOLID	4.68	2.29	N/A	Joules/g

Final page for worklist # 18054

See Attached for Signature
Analyst Signature Date

Validated 5/22/97 Rachelor

5-21-97
Analyst Signature Date

Data Entry Comments:
High RPD due to sample inhomogeneities. Rerun only at customer request.

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 18054

Analyst: Gil **Instrument:** DSC0 3 **Book #** 12N14.13

Method: LA-514-113 Rev/Mod D-0

Worklist Comment: T-203 DSC, RUN UNDER N2. RCJ

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	STD				DSC-01	SOLID			N/A	Joules/g
97000299	T-203	2	SAMPLE	S97T000713	0		DSC-01	SOLID	N/A			Joules/g
97000299	T-203	3	DUP	S97T000713	0		DSC-01	SOLID			N/A	Joules/g
97000299	T-203	4	SAMPLE	S97T000714	0		DSC-01	SOLID	N/A			Joules/g
97000299	T-203	5	DUP	S97T000714	0		DSC-01	SOLID			N/A	Joules/g

Final page for worklist # 18054

Analyst Signature 05.19.97 Date

Analyst Signature Date

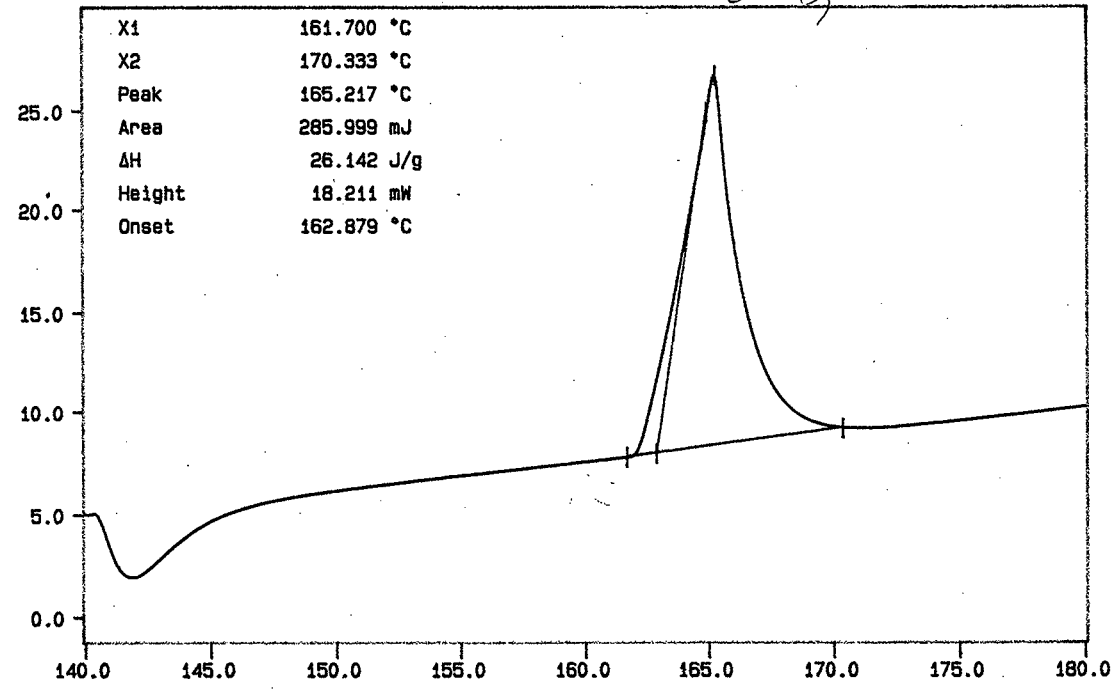
Data Entry Comments:
Ran samples on DSC-03. 5/20/97

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 232 TO 233.

A Lambel 05.19.97

Curve 1: DSC
File info: IND051902 Mon May 19 05:58:39 1997
Sample Weight: 10.940 mg
12N14-B

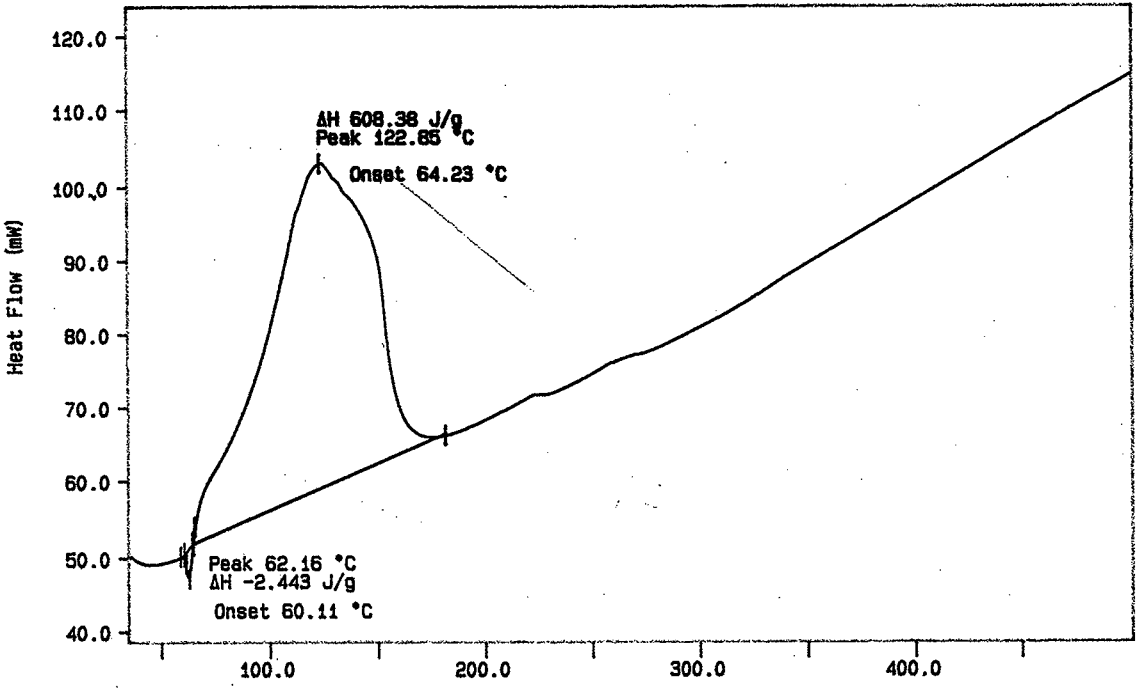


N2, EXOTHERM DOWN

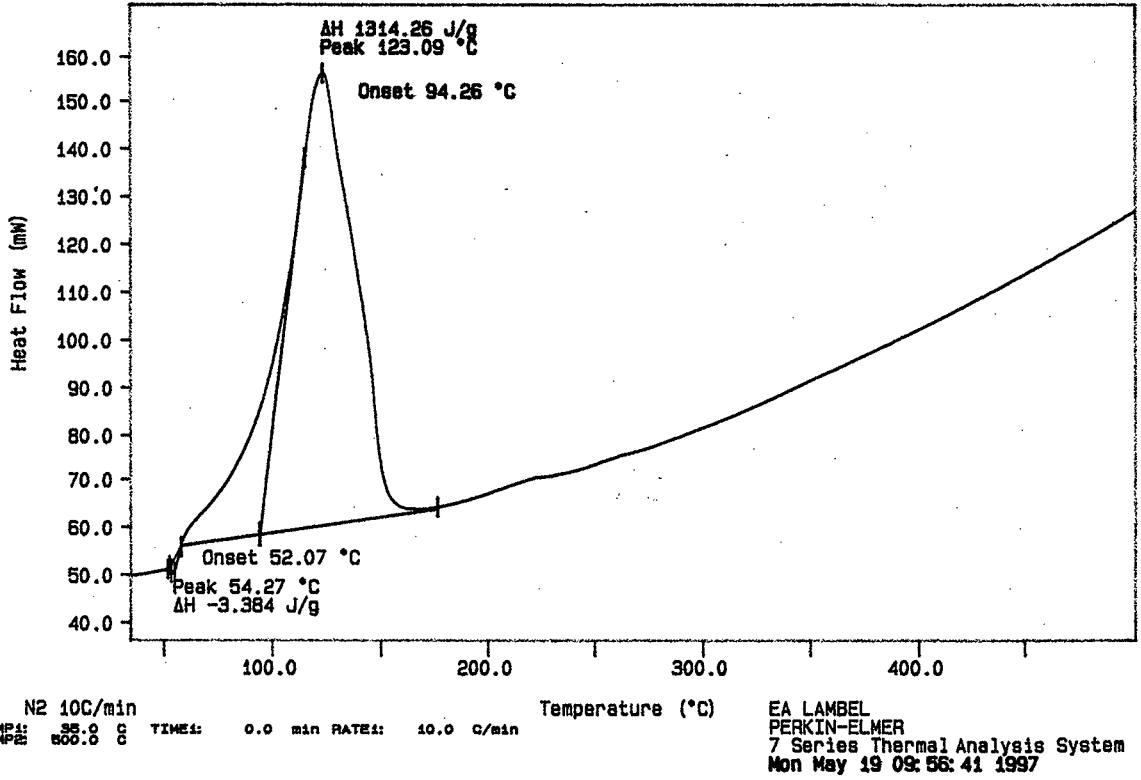
TEMP1: 140.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 180.0 C

EA LAMBEL
PERKIN-ELMER
7 Series Thermal Analysis System
Mon May 19 08:00:03 1997

Curve 1: DSC
File info: SAM051901 Mon May 19 06:54:55 1997
Sample Weight: 24.540 mg
S97T000713



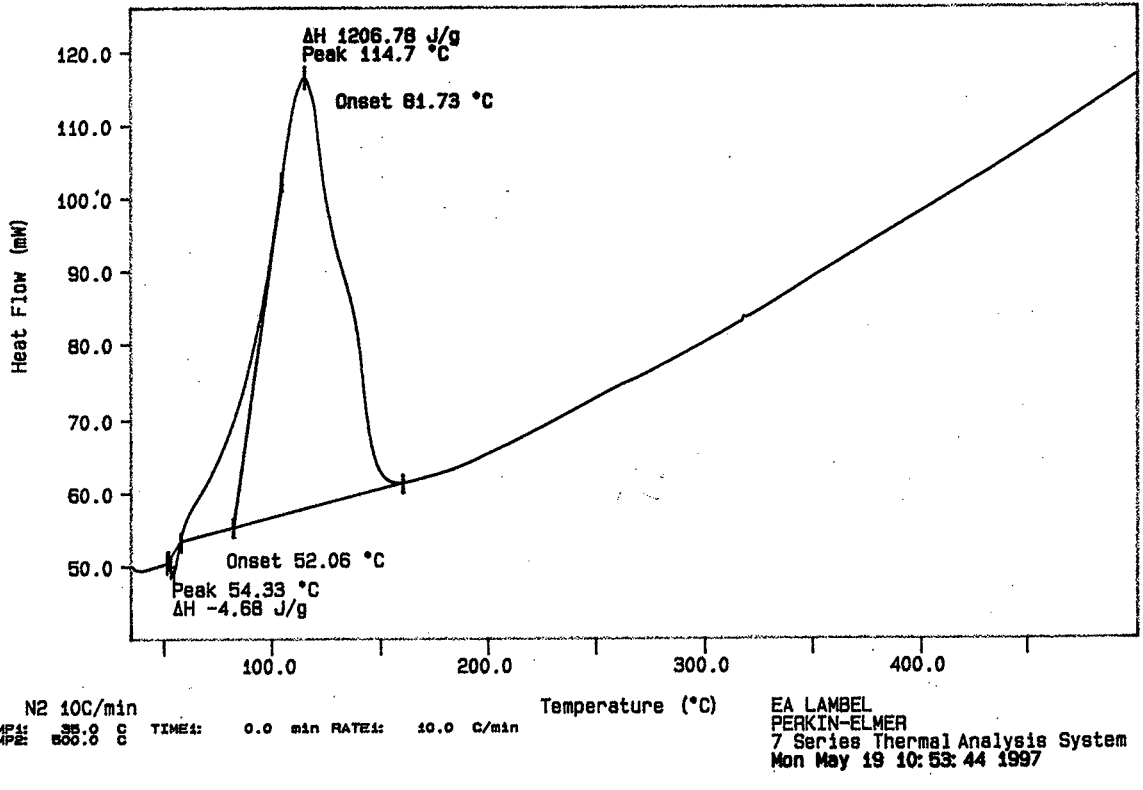
Curve 1: DSC
File info: SAM051902 Mon May 19 09:49:32 1997
Sample Weight: 17.240 mg
S97T000713DUP



N2 10C/min
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 600.0 C

EA LAMBEL
PERKIN-ELMER
7 Series Thermal Analysis System
Mon May 19 09:56:41 1997

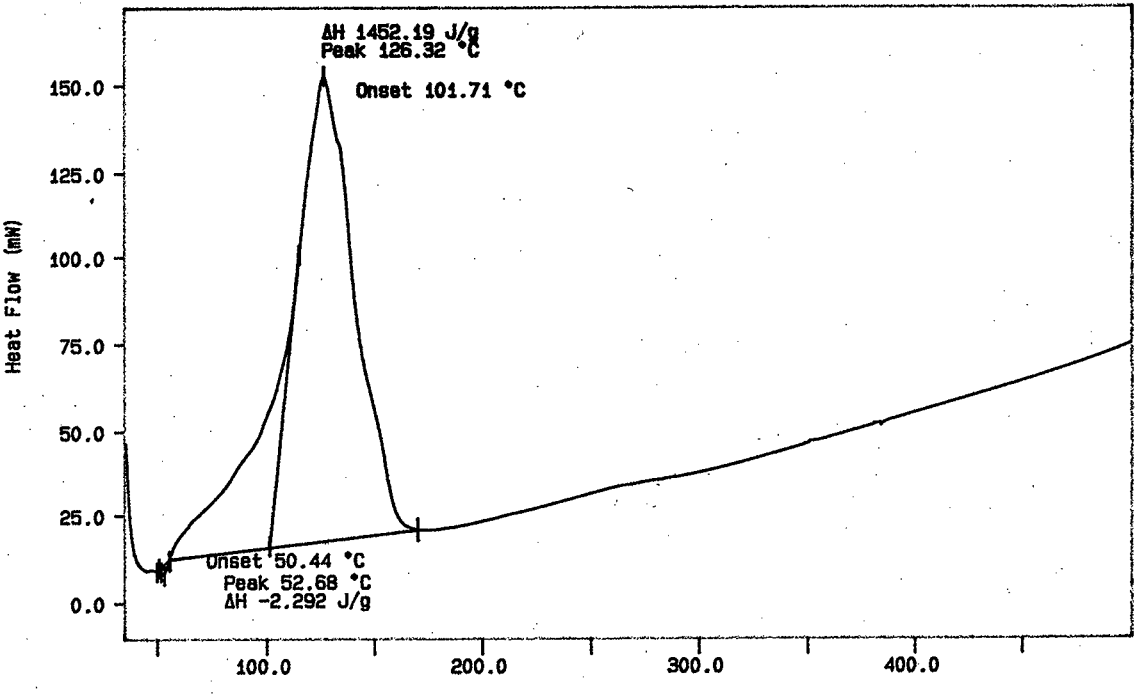
Curve 1: DSC
File info: SAM051903 Mon May 19 10:48:09 1997
Sample Weight: 12.120 mg
S97T000714



N2 10C/min
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 500.0 C

EA LAMBEL
PERKIN-ELMER
7 Series Thermal Analysis System
Mon May 19 10:53:44 1997

Curve 1: DSC
File info: SAM051904 Mon May 19 11:46:13 1997
Sample Weight: 21.430 mg
S97T000714DUP



N2 10C/min
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 500.0 C

EA LAMBEL
PERKIN-ELMER
7 Series Thermal Analysis System
Mon May 19 11:50:06 1997

LABCORE Data Entry Template for Worklist# 18055

Analyst: SMF **Instrument:** DSC0 3 **Book #** EN 148

Method: LA-514-114 Rev/Mod D-0

Worklist Comment: T-203 DSC, RUN UNDER N2. RCJ

GROUP	PROJECT	S TYPE	SAMPLE#	R	A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD				DSC-03	SOLID	28.45	27.34	N/A	Joules/g
97000299	T-203	2 SAMPLE	S97T000715	0		DSC-03	SOLID	N/A	0		Joules/g
97000299	T-203	3 DUP	S97T000715	0		DSC-03	SOLID	0	0	N/A	Joules/g
97000299	T-203	4 SAMPLE	S97T000716	0		DSC-03	SOLID	N/A	0		Joules/g
97000299	T-203	5 DUP	S97T000716	0		DSC-03	SOLID	0	0	N/A	Joules/g

Final page for worklist # 18055

See Attached for Signature
Analyst Signature **Date**

Susan Bee 5/27/97
Analyst Signature **Date**

Validated 6/2/97 Rachelor

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 18055

Analyst: SMF **Instrument:** DSC0 3 **Book #** (ZW 148

Method: LA-514-113 Rev/Mod D- 0

Worklist Comment: T-203 DSC, RUN UNDER N2. RCJ

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	STD				DSC-01	SOLID			N/A	Joules/g
97000299	T-203	2	SAMPLE	S97T000715	0		DSC-01	SOLID	N/A			Joules/g
97000299	T-203	3	DUP	S97T000715	0		DSC-01	SOLID			N/A	Joules/g
97000299	T-203	4	SAMPLE	S97T000716	0		DSC-01	SOLID	N/A			Joules/g
97000299	T-203	5	DUP	S97T000716	0		DSC-01	SOLID			N/A	Joules/g

Final page for worklist # 18055

Susie M. Dalton 5-23-97
Analyst Signature **Date**

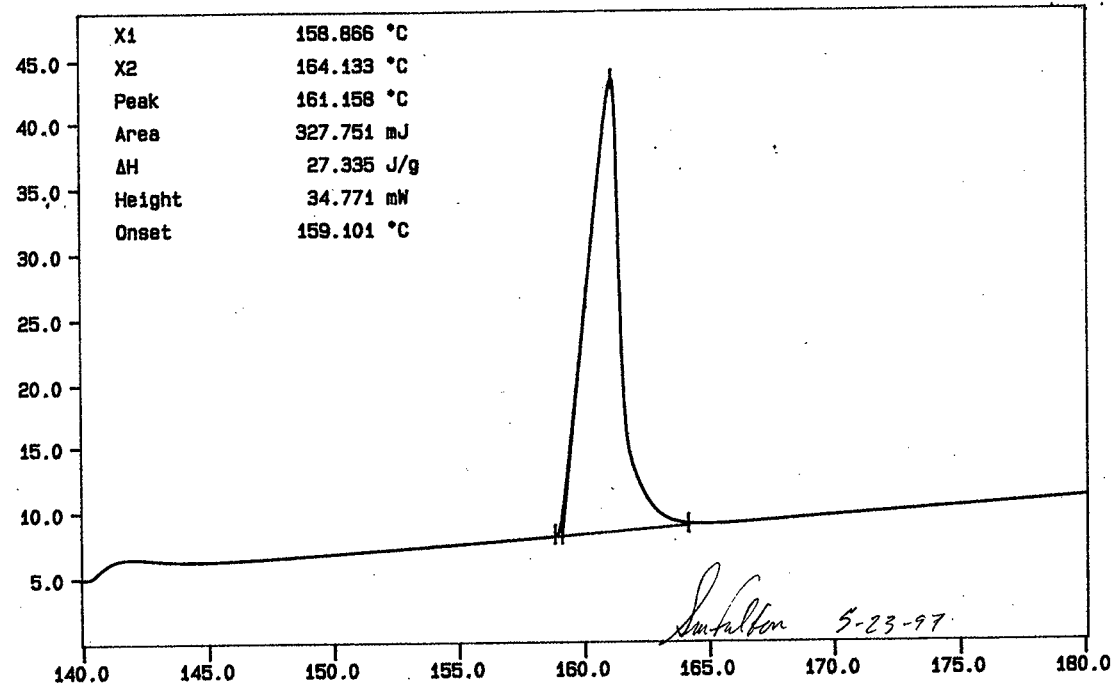
Analyst Signature **Date**

Data Entry Comments:
Ran samples on DSC-03. SMD 5/27/97

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

Curve 1: DSC
File info: IND052301 Fri May 23 07:23:50 1997
Sample Weight: 11.990 mg
12N14-B

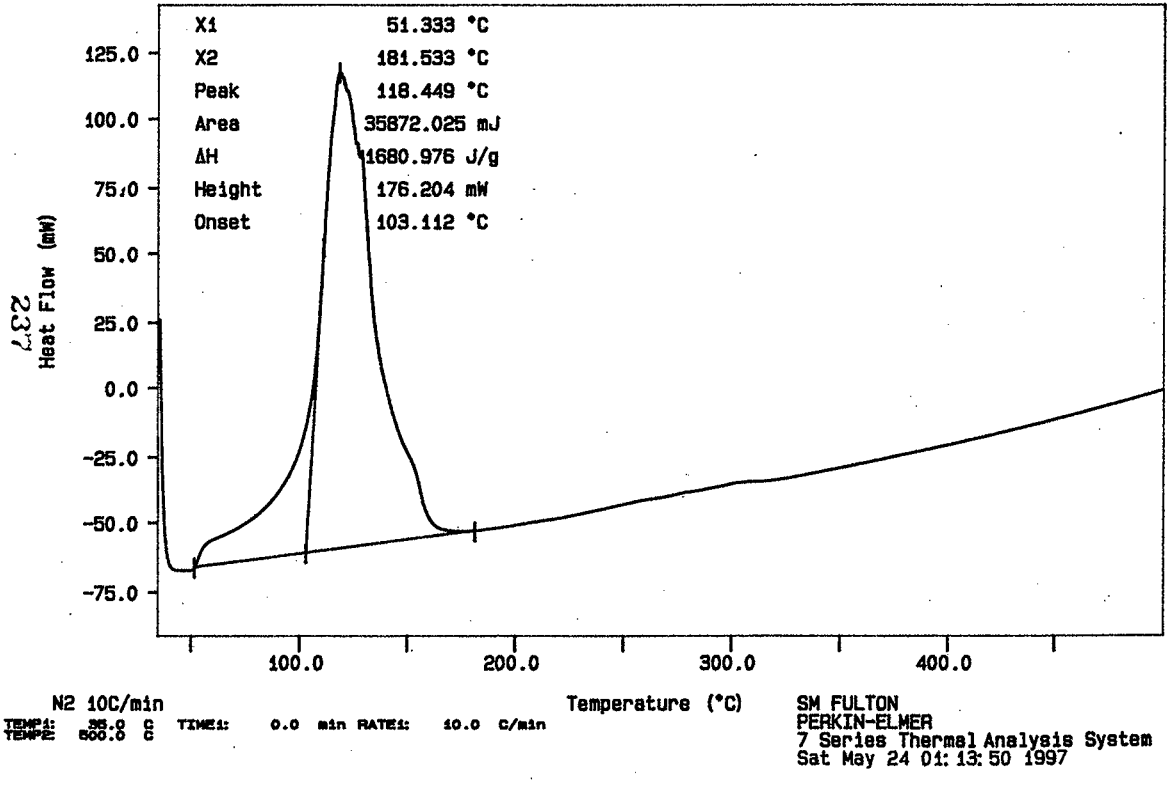
SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 236 TO 240



N2, EXOTHERM DOWN
TEMP1: 140.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 180.0 C

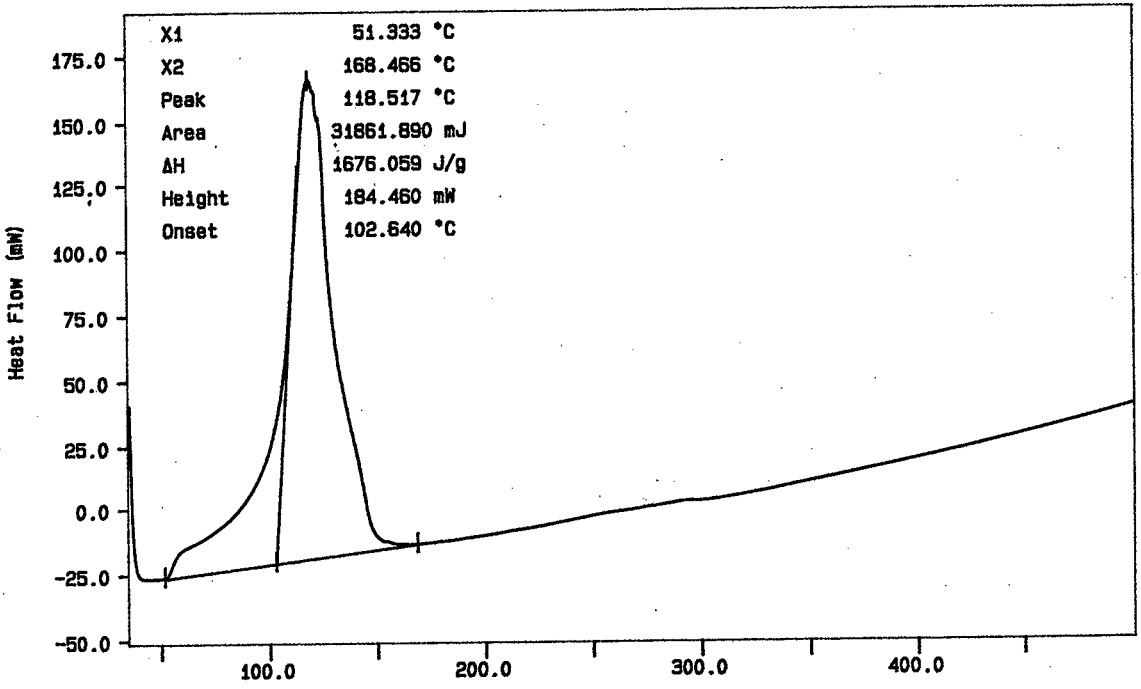
RD MEYERS
PERKIN-ELMER
7 Series Thermal Analysis System
Sat May 24 00:55:13 1997

Curve 1: DSC
File info: SAM052313 Sat May 24 01:06:13 1997
Sample Weight: 21.340 mg
S97T000715



237

Curve 1: DSC
File info: SAM052314 Sat May 24 02:04:22 1997
Sample Weight: 19.010 mg
S97T000715 DUP

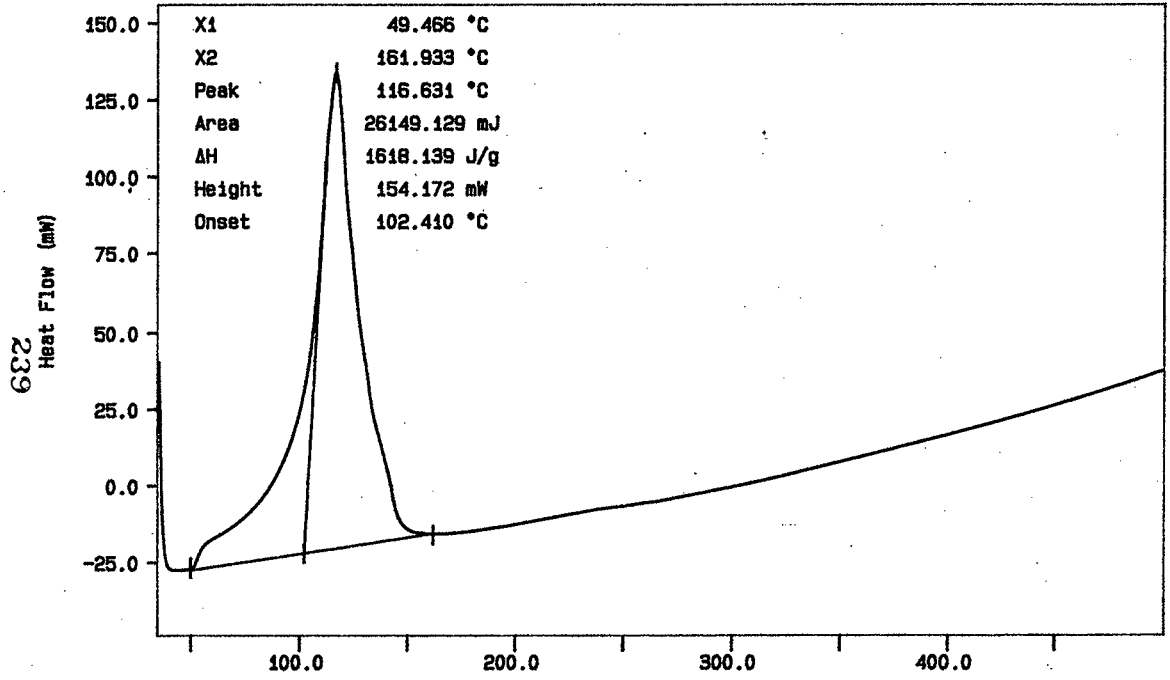


N2 10C/min
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 500.0 C

SM FULTON
PERKIN-ELMER
7 Series Thermal Analysis System
Sat May 24 03:12:38 1997

238

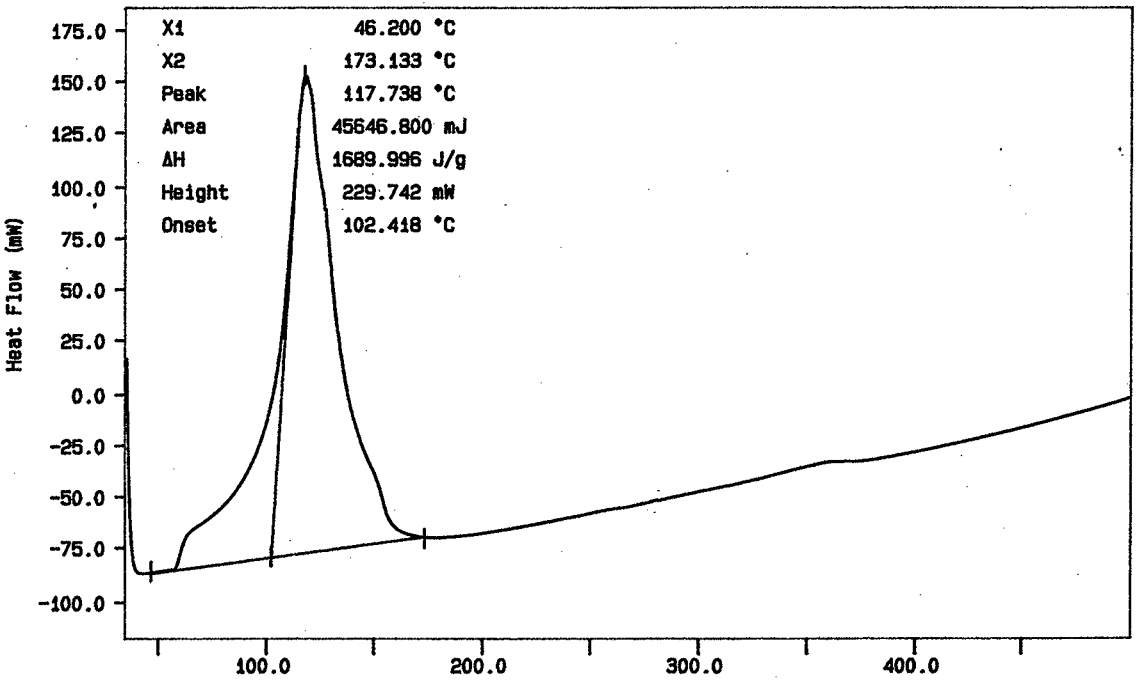
Curve 1: DSC
File info: SAM052315 Sat May 24 03:56:29 1997
Sample Weight: 16.160 mg
S97T000716



N2 10C/min
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 500.0 C

SM FULTON
PERKIN-ELMER
7 Series Thermal Analysis System
Sat May 24 03:56:51 1997

Curve 1: DSC
File info: SAM052316 Sat May 24 04:46:50 1997
Sample Weight: 27.010 mg
S97T000716 DUP



N2 10C/min
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 500.0 C

SM FULTON
PERKIN-ELMER
7 Series Thermal Analysis System
Sat May 24 09:25:43 1997

LABCORE Data Entry Template for Worklist# 18422

Analyst: ppb **Instrument:** DSC0 2 **Book #** N/A

Method: ~~LA-514-113 Rev/Mod~~ ~~BB~~ 6/2/97

Worklist Comment: DSC-02 T-203 liauid. -ppb

GROUP	PROJECT	S TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
97000299	T-203	1 SAMPLE	S97T000731	0		DSC-02	LIQUID	N/A	0		Joules/g Dry
97000299	T-203	2 DUP	S97T000731	0		DSC-02	LIQUID	0	0	N/A	Joules/g Dry
97000299	T-203	3 SAMPLE	S97T000733	0		DSC-02	LIQUID	N/A	0		Joules/g Dry
97000299	T-203	4 DUP	S97T000733	0		DSC-02	LIQUID	0	0	N/A	Joules/g Dry

Final page for worklist # 18422

BB Bachelor 6/2/97
Analyst Signature **Date**

Analyst Signature **Date**

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 18423

Analyst: ppb **Instrument:** DSC0 02 **Book #** N/A

Method: ~~LA-514-113 Rev/Mod~~ 6/4/97

Worklist Comment: DSC-02 T-203 solid. -ppb

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
97000299	T-203	1	SAMPLE	S97T000664	0		DSC-02	SOLID	N/A	0		Joules/g Dry
97000299	T-203	2	DUP	S97T000664	0		DSC-02	SOLID	0	0	N/A	Joules/g Dry
97000299	T-203	3	SAMPLE	S97T000665	0		DSC-02	SOLID	N/A	0		Joules/g Dry
97000299	T-203	4	DUP	S97T000665	0		DSC-02	SOLID	0	0	N/A	Joules/g Dry
97000299	T-203	5	SAMPLE	S97T000666	0		DSC-02	SOLID	N/A	0		Joules/g Dry
97000299	T-203	6	DUP	S97T000666	0		DSC-02	SOLID	0	0	N/A	Joules/g Dry
97000299	T-203	7	SAMPLE	S97T000667	0		DSC-02	SOLID	N/A	0		Joules/g Dry
97000299	T-203	8	DUP	S97T000667	0		DSC-02	SOLID	0	0	N/A	Joules/g Dry
97000299	T-203	9	SAMPLE	S97T000668	0		DSC-02	SOLID	N/A	0		Joules/g Dry
97000299	T-203	10	DUP	S97T000668	0		DSC-02	SOLID	0	0	N/A	Joules/g Dry
97000299	T-203	11	SAMPLE	S97T000669	0		DSC-02	SOLID	N/A	0		Joules/g Dry
97000299	T-203	12	DUP	S97T000669	0		DSC-02	SOLID	0	0	N/A	Joules/g Dry
97000299	T-203	13	SAMPLE	S97T000670	0		DSC-02	SOLID	N/A	0		Joules/g Dry
97000299	T-203	14	DUP	S97T000670	0		DSC-02	SOLID	0	0	N/A	Joules/g Dry
97000299	T-203	15	SAMPLE	S97T000671	0		DSC-02	SOLID	N/A	0		Joules/g Dry
97000299	T-203	16	DUP	S97T000671	0		DSC-02	SOLID	0	0	N/A	Joules/g Dry
97000299	T-203	17	SAMPLE	S97T000705	0		DSC-02	SOLID	N/A	0		Joules/g Dry
97000299	T-203	18	DUP	S97T000705	0		DSC-02	SOLID	0	0	N/A	Joules/g Dry

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

worklistrpt Version 2.1 05/15/95
06/02/97 16:24

LABCORE Data Entry Template for Worklist# 18423

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
97000299	T-203	19	SAMPLE	S97T000706	0		DSC-02	SOLID	N/A	0		Joules/g Dry
97000299	T-203	20	DUP	S97T000706	0		DSC-02	SOLID	0	0	N/A	Joules/g Dry

Final page for worklist # 18423

BBachelor 6/2/97
Analyst Signature **Date**

Analyst Signature **Date**

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 18424

Analyst: ppb **Instrument:** DSC0 2 **Book #** NA

Method: ~~LA-514-113 Rev/Mod 203~~ 6/2/97

Worklist Comment: DSC-02 T-203 soldi. -ppb

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
97000299	T-203	1	SAMPLE	S97T000707	0		DSC-02	SOLID	N/A	0		Joules/g Dry
97000299	T-203	2	DUP	S97T000707	0		DSC-02	SOLID	0	0	N/A	Joules/g Dry
97000299	T-203	3	SAMPLE	S97T000708	0		DSC-02	SOLID	N/A	0		Joules/g Dry
97000299	T-203	4	DUP	S97T000708	0		DSC-02	SOLID	0	0	N/A	Joules/g Dry
97000299	T-203	5	SAMPLE	S97T000709	0		DSC-02	SOLID	N/A	0		Joules/g Dry
97000299	T-203	6	DUP	S97T000709	0		DSC-02	SOLID	0	0	N/A	Joules/g Dry
97000299	T-203	7	SAMPLE	S97T000710	0		DSC-02	SOLID	N/A	16.14		Joules/g Dry
97000299	T-203	8	DUP	S97T000710	0		DSC-02	SOLID	16.14	17.17	N/A	Joules/g Dry
97000299	T-203	9	SAMPLE	S97T000711	0		DSC-02	SOLID	N/A	0		Joules/g Dry
97000299	T-203	10	DUP	S97T000711	0		DSC-02	SOLID	0	0	N/A	Joules/g Dry
97000299	T-203	11	SAMPLE	S97T000712	0		DSC-02	SOLID	N/A	0		Joules/g Dry
97000299	T-203	12	DUP	S97T000712	0		DSC-02	SOLID	0	0	N/A	Joules/g Dry
97000299	T-203	13	SAMPLE	S97T000713	0		DSC-02	SOLID	N/A	9.986		Joules/g Dry
97000299	T-203	14	DUP	S97T000713	0		DSC-02	SOLID	9.986	13.83	N/A	Joules/g Dry
97000299	T-203	15	SAMPLE	S97T000714	0		DSC-02	SOLID	N/A	17.47		Joules/g Dry
97000299	T-203	16	DUP	S97T000714	0		DSC-02	SOLID	17.47	8.546	N/A	Joules/g Dry
97000299	T-203	17	SAMPLE	S97T000715	0		DSC-02	SOLID	N/A	0		Joules/g Dry
97000299	T-203	18	DUP	S97T000715	0		DSC-02	SOLID	0	0	N/A	Joules/g Dry

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 18424

GROUP	PROJECT	S TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
97000299	T-203	19 SAMPLE	S97T000716	0		DSC-02	SOLID	N/A	0		Joules/g Dry
97000299	T-203	20 DUP	S97T000716	0		DSC-02	SOLID	0	0	N/A	Joules/g Dry

Final page for worklist # 18424

Analyst Signature Date 6/2/97

Analyst Signature Date

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

worklistrpt Version 2.1 05/15/95
07/07/97 14:50

LABCORE Data Entry Template for Worklist# 18776

Analyst: RMM **Instrument:** DSC0 3 **Book #** 12N148

Method: LA-514-114 Rev/Mod D-1

Worklist Comment: T203, DSC-03 Run under Nitrogen. skm

GROUP	PROJECT	S TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD				DSC-03	SOLID	28.45	28.40*	N/A	Joules/g
97000299	T-203	2 SAMPLE	S97T001013	0		DSC-03	SOLID	N/A	0		Joules/g
97000299	T-203	3 DUP	S97T001013	0		DSC-03	SOLID	0	0	N/A	Joules/g

Final page for worklist # 18776

R Mayer 7/14/97
Analyst Signature **Date**

Susan Bee 7/22/97
Analyst Signature **Date**

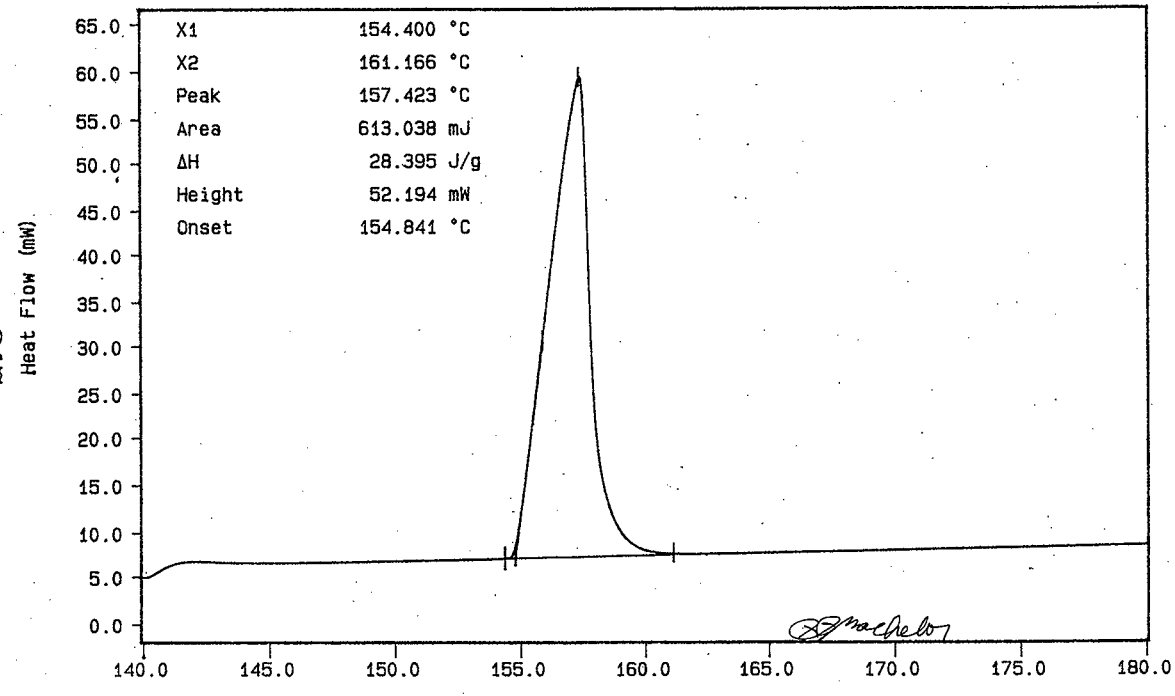
Validated 7/24/97 Bachelor

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

Curve 1: DSC
File info: IOND071901 Sat Jul 19 07:20:05 1997
Sample Weight: 21.590 mg
12N14-B

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 247 TO 249.

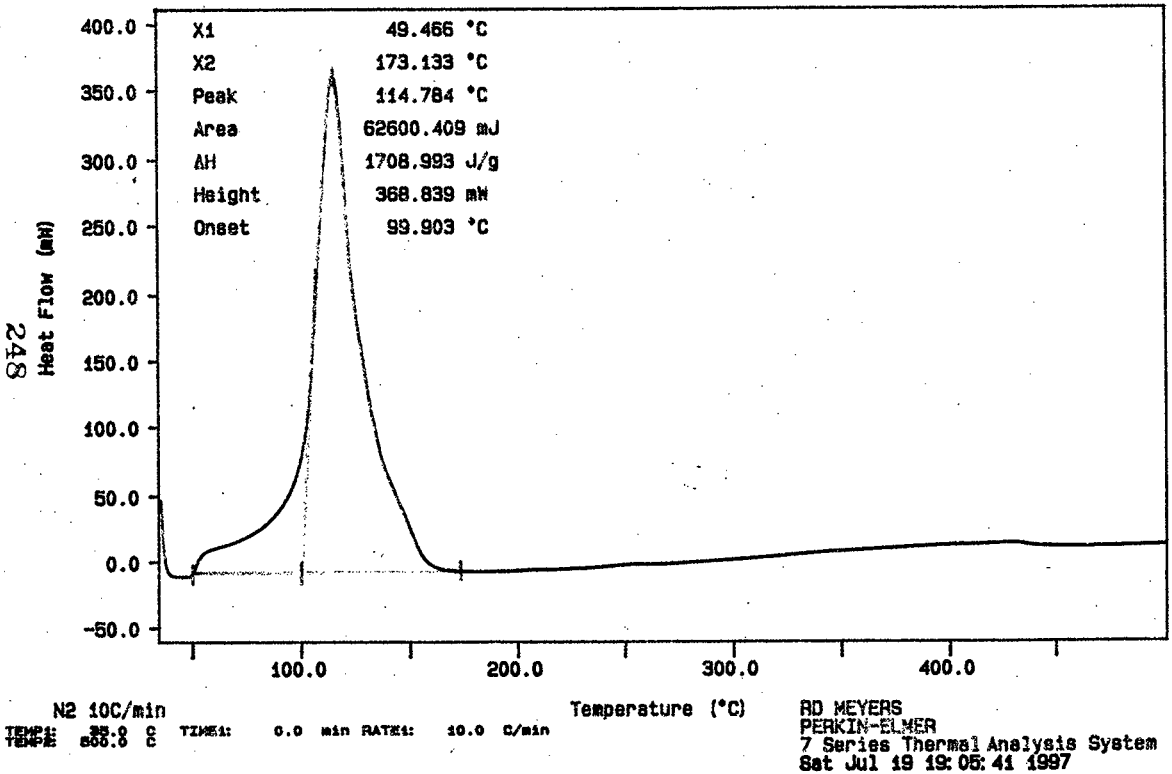


N2, EXOTHERM DOWN
TEMP1: 140.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 180.0 C

RD MEYERS
PERKIN-ELMER
7 Series Thermal Analysis System
Sat Jul 19 19:10:09 1997

247

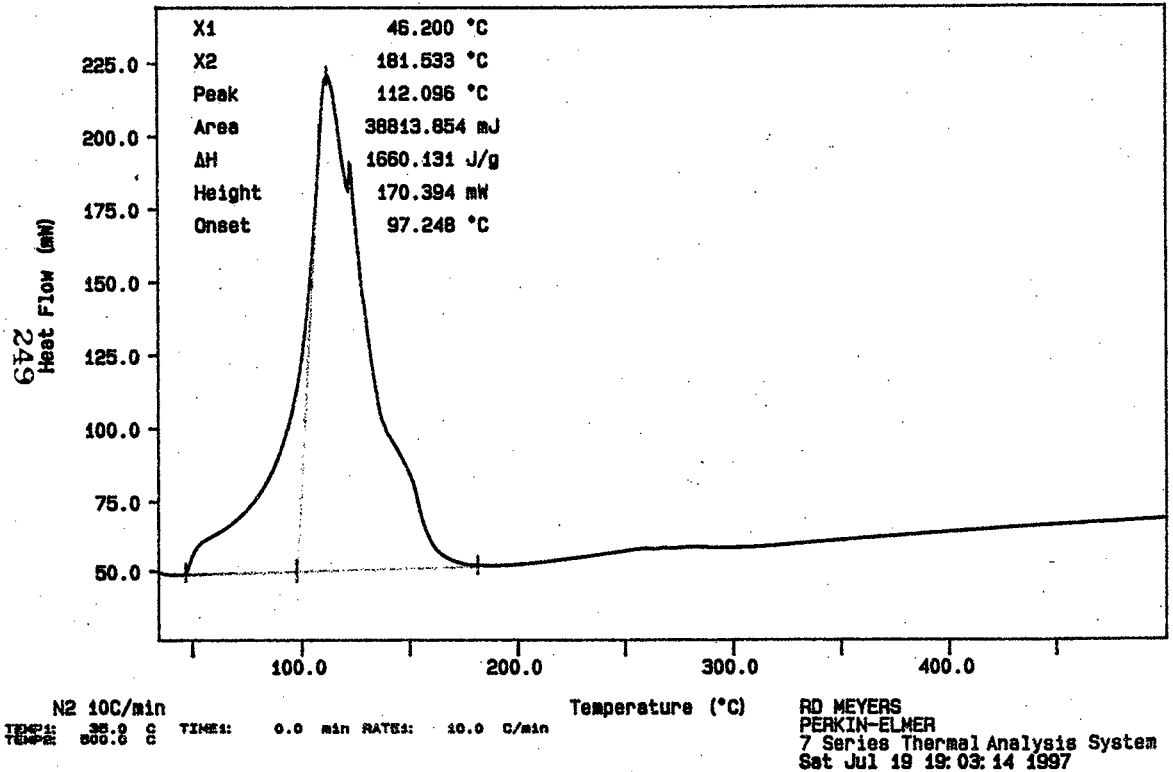
Curve 1: DSC
File info: SAM071907 Sat Jul 19 08:56:07 1997
Sample Weight: 36.630 mg
S97T001013



N2 10C/min
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 550.0 C

RD MEYERS
PERKIN-ELMER
7 Series Thermal Analysis System
Sat Jul 19 19:05:41 1997

Curve 1: DSC
File info: SAM071908 Sat Jul 19 11:21:58 1997
Sample Weight: 23.380 mg
S97T001013DUP



N2 10C/min
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 500.0 C

RD MEYERS
PERKIN-ELMER
7 Series Thermal Analysis System
Sat Jul 19 19:03:14 1997

249

LABCORE Data Entry Template for Worklist# 19451

Analyst: ppb **Instrument:** DSC0 02 **Book #** NA

Method: ~~LA-514-113 Rev/Mod~~ ~~7/22/97~~

Worklist Comment: DSC-02 T-203 comp solid. -ppb

GROUP	PROJECT	S TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
97000299	T-203	1 SAMPLE	S97T001013	0		DSC-02	SOLID	N/A	0		Joules/g Dry
97000299	T-203	2 DUP	S97T001013	0		DSC-02	SOLID	0	0	N/A	Joules/g Dry

Final page for worklist # 19451

Analyst Signature Date 7/22/97

Analyst Signature Date

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 18013

Analyst: RDM **Instrument:** TGA0 3 **Book #** 97N8A

Method: LA-514-114 Rev/Mod D-0

Worklist Comment: T203, AW106 GRAB1, TGA-01 skm

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	STD				TGA-03	LIQUID	59.4	58.47*	N/A	%
97000327	AW-106 GRAB1	2	SAMPLE	S97T000781	0		TGA-03	LIQUID	N/A	58.95		%
97000299	T-203	3	SAMPLE	S97T000733	0		TGA-03	LIQUID	N/A	85.30		%
97000299	T-203	4	DUP	S97T000733	0		TGA-03	LIQUID	85.30	85.23	N/A	%

Final page for worklist # 18013

See Attached for Signatures
Analyst Signature **Date**

5-21-97
Analyst Signature **Date**

Validated 5/22/97 Bachelor

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 18013

Analyst: [signature] **Instrument:** TGA0 3 **Book #** 97NEA

Method: LA-560-112 Rev/Mod D-0

Worklist Comment: T203, AW106 GRAB1, TGA-01 skm

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	STD				TGA-01	LIQUID			N/A	%
97000327	AW-106 GRAB1	2	SAMPLE	S97T000781	0		TGA-01	LIQUID	N/A			%
97000299	T-203	3	SAMPLE	S97T000733	0		TGA-01	LIQUID	N/A			%
97000299	T-203	4	DUP	S97T000733	0		TGA-01	LIQUID			N/A	%

Final page for worklist # 18013

[signature] 5/20/97

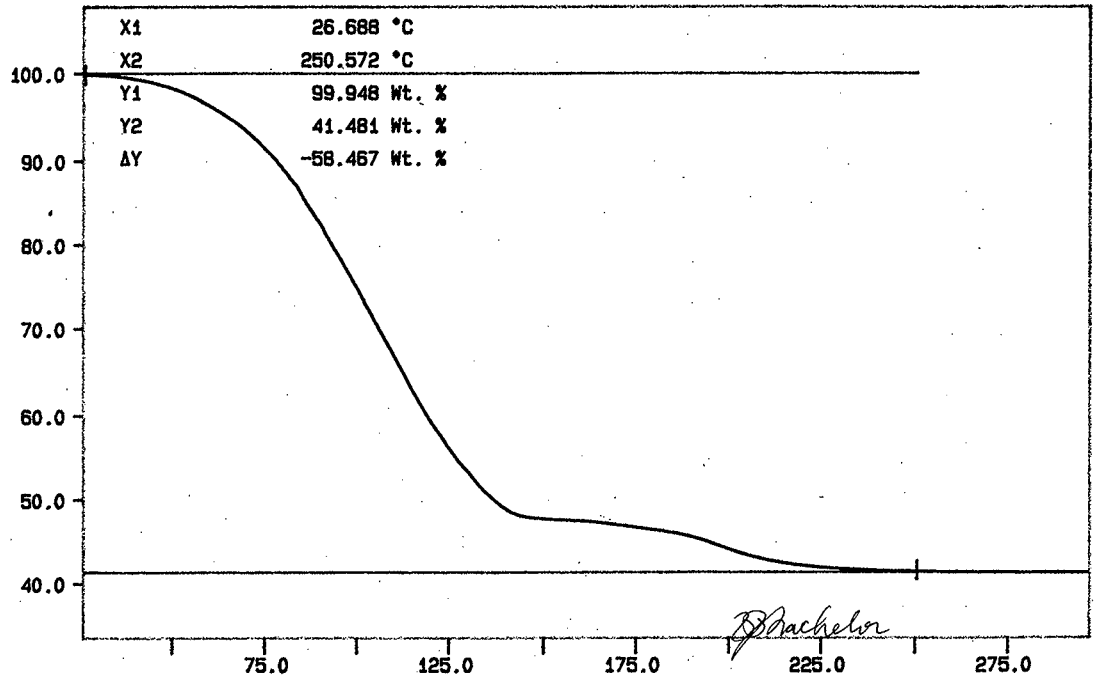
Analyst Signature **Date** **Analyst Signature** **Date**

Data Entry Comments:
Ran samples on TGA-01. [signature] 5/

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

Curve 1: TGA
File info: TER051906 Mon May 19 17:38:56 1997
Sample Weight: 7.930 mg
TGA STD 97NB-A

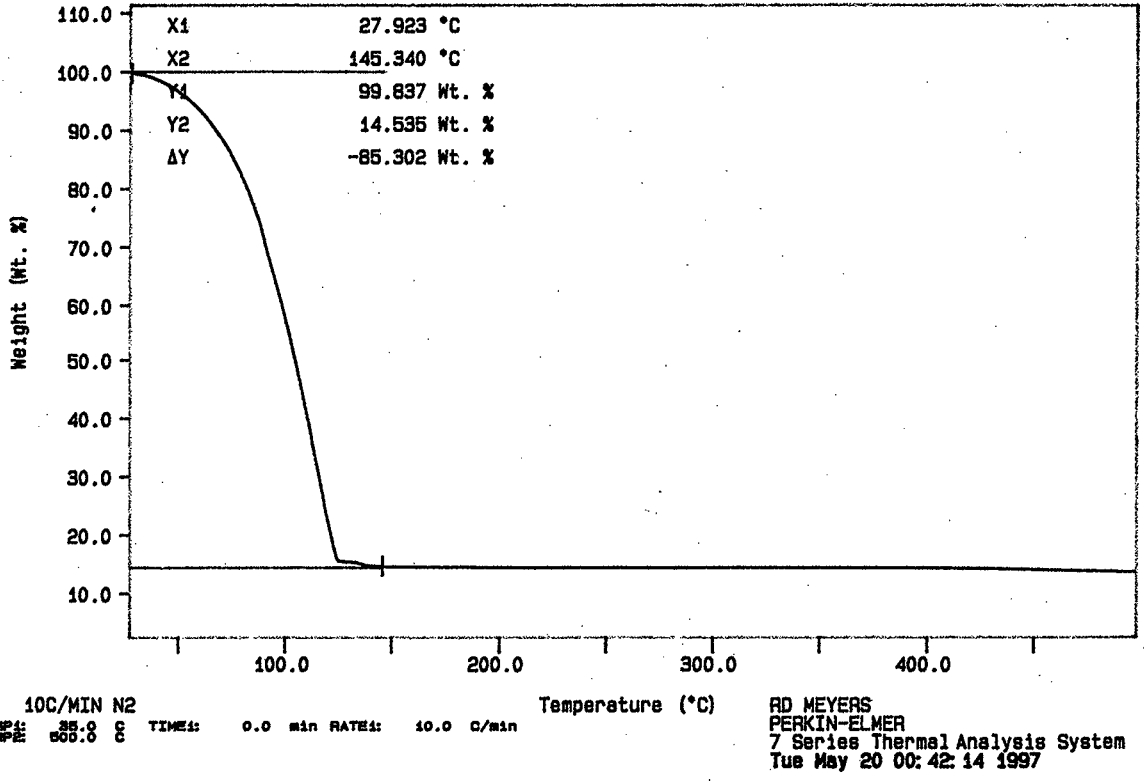
SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 2.5.2 TO 2.5.5



N2 10C/MIN
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 300.0 C

RD MEYERS
PERKIN-ELMER
7 Series Thermal Analysis System
Mon May 19 17:42:02 1997

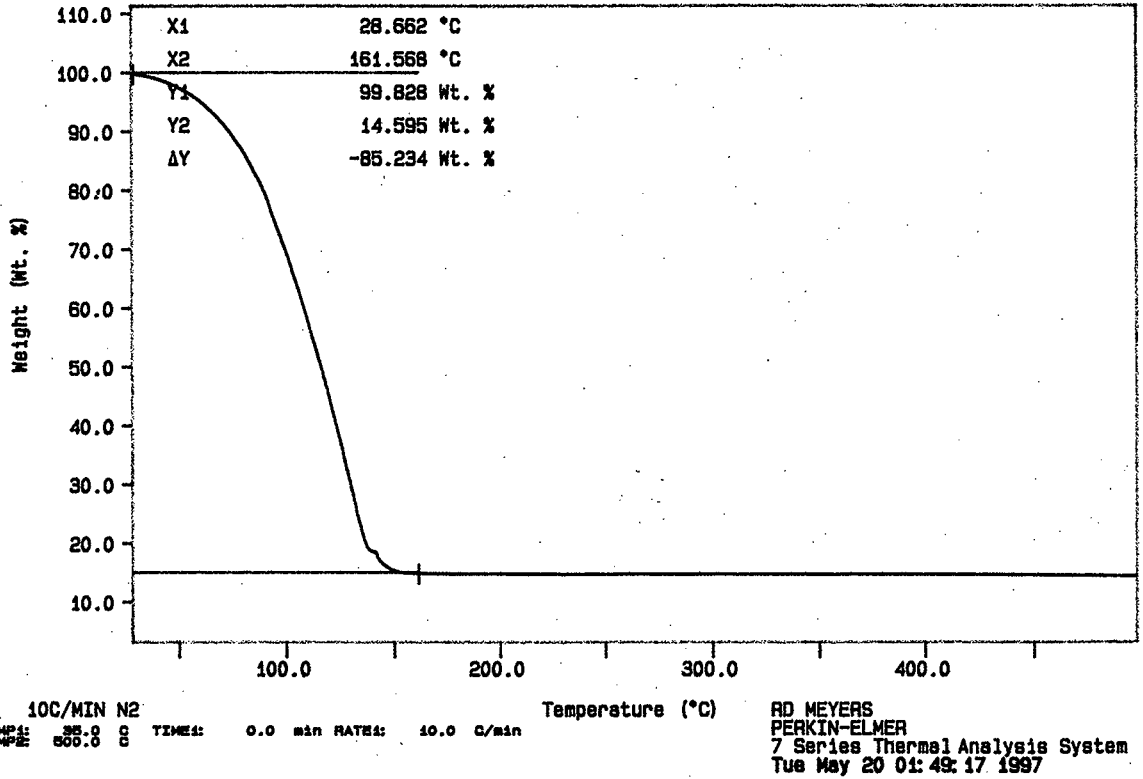
Curve 1: TGA
File info: SAM051911 Mon May 19 22:45:35 1997
Sample Weight: 8.609 mg
S97T000733



10C/MIN N2
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 600.0 C

RD MEYERS
PERKIN-ELMER
7 Series Thermal Analysis System
Tue May 20 00:42:14 1997

Curve 1: TGA
File info: SAM052001 Tue May 20 01:35:41 1997
Sample Weight: 13.975 mg
S97T000733DUP



10C/MIN N2
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 500.0 C

RD MEYERS
PERKIN-ELMER
7 Series Thermal Analysis System
Tue May 20 01:49:17 1997

LABCORE Data Entry Template for Worklist# 18018

Analyst: VLM **Instrument:** TGA0 3 **Book #** 97N8A

Method: LA-514-114 Rev/Mod D-0

Worklist Comment: T203, TGA-01 skm

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	STD				TGA-03	SOLID	59.4	58.38	N/A	%
97000299	T-203	2	SAMPLE	S97T000664	0		TGA-03	SOLID	N/A	77.76		%
97000299	T-203	3	DUP	S97T000664	0		TGA-03	SOLID	~~76.74~~ 77.76	~~76.74~~ 76.74 5/21/97	N/A	%
97000299	T-203	4	SAMPLE	S97T000665	0		TGA-03	SOLID	N/A	74.09		%
97000299	T-203	5	DUP	S97T000665	0		TGA-03	SOLID	74.09	75.61	N/A	%

Final page for worklist # 18018

See Attached for Signature
Analyst Signature **Date**
Validated 6/2/97 Bachelor

LS Jones 5-29-97
Analyst Signature **Date**

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 18018

Analyst: VLM **Instrument:** TGA0 03 **Book #** 97N8A

Method: LA-560-112 Rev/Mod D-0

Worklist Comment: T203, TGA-01 skm

GROUP	PROJECT	S TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD				TGA-01	SOLID			N/A	%
97000299	T-203	2 SAMPLE	S97T000664	0		TGA-01	SOLID	N/A			%
97000299	T-203	3 DUP	S97T000664	0		TGA-01	SOLID			N/A	%
97000299	T-203	4 SAMPLE	S97T000665	0		TGA-01	SOLID	N/A			%
97000299	T-203	5 DUP	S97T000665	0		TGA-01	SOLID			N/A	%

Final page for worklist # 18018

Vabiel Masai 05-20-97
Analyst Signature **Date**

Analyst Signature **Date**

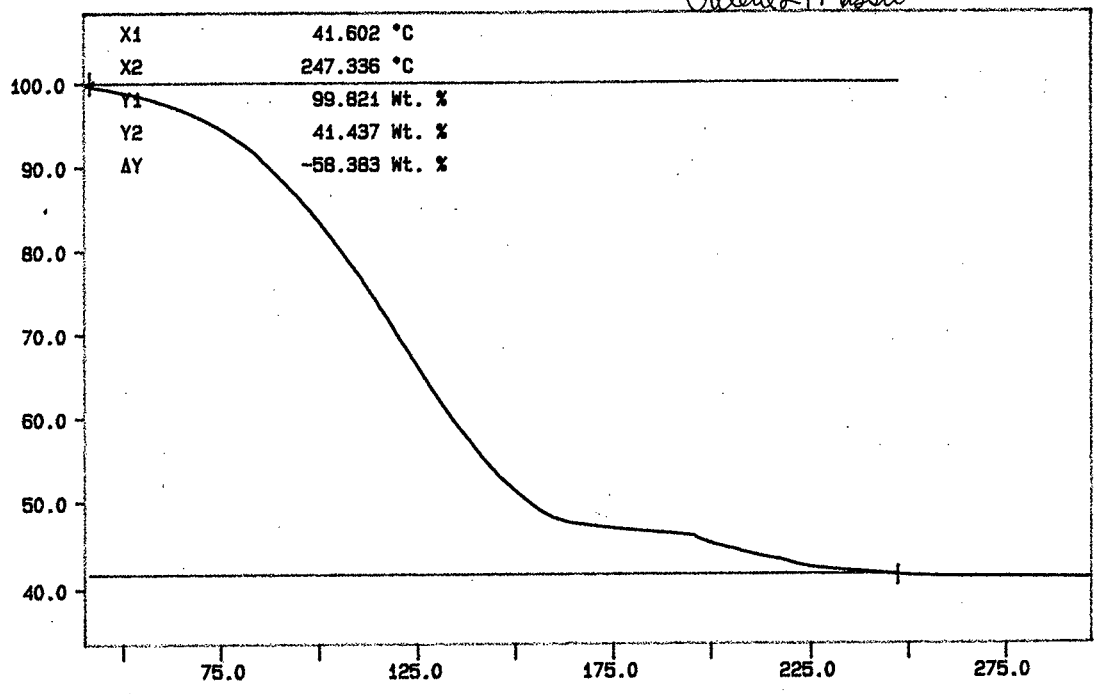
Data Entry Comments:
Ran samples on TGA-03. 5/21/97

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

Curve 1: TGA
File info: TER052002 Tue May 20 08:56:54 1997
Sample Weight: 13.933 mg

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 258 TO 262

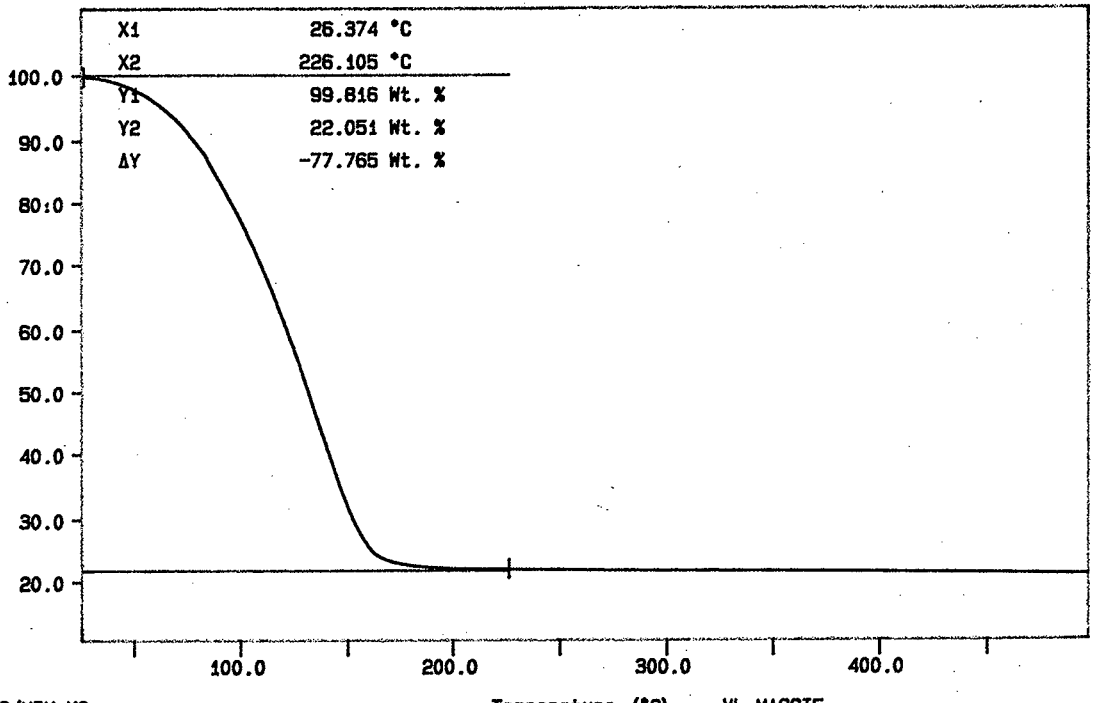
Valerie L Massie



10C/MIN N2
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 300.0 C

VL MASSIE
PERKIN-ELMER
7 Series Thermal Analysis System
Tue May 20 09:34:19 1997

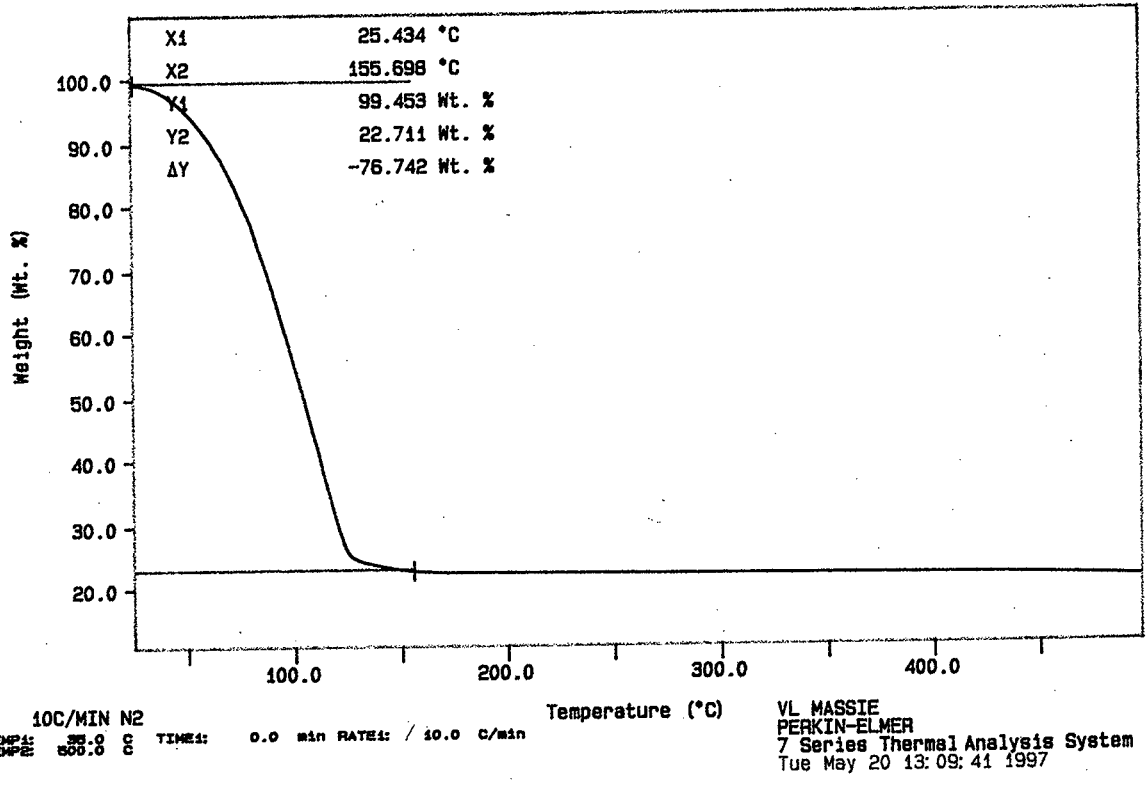
Curve 1: TGA
File info: SAM052003 Tue May 20 10:59:09 1997
Sample Weight: 28.587 mg
S97T000664



10C/MIN N2
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 600.0 C

VL MASSIE
PERKIN-ELMER
7 Series Thermal Analysis System
Tue May 20 12:50:07 1997

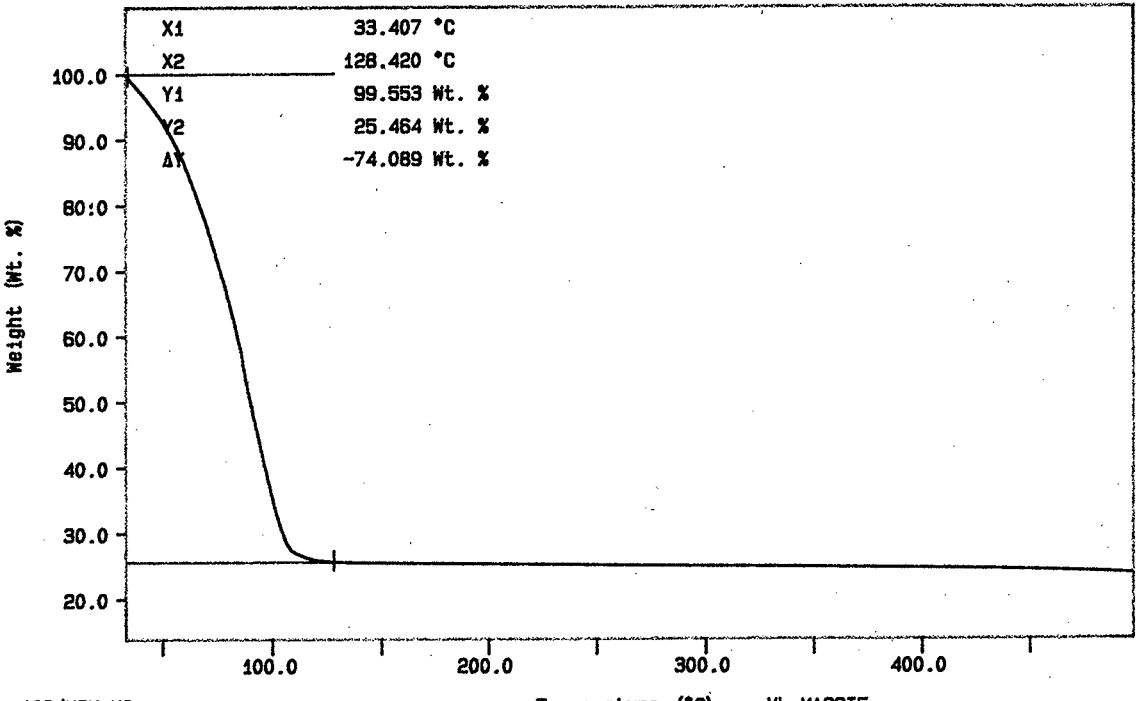
Curve 1: TGA
File info: SAM052004 Tue May 20 13:03:29 1997
Sample Weight: 14.061 mg
S97T000664 DUP



10C/MIN N2
TEMP1: 35.0 C TIME1: 0.0 min RATE1: / 10.0 C/min
TEMP2: 600.0 C

VL MASSIE
PERKIN-ELMER
7 Series Thermal Analysis System
Tue May 20 13:09:41 1997

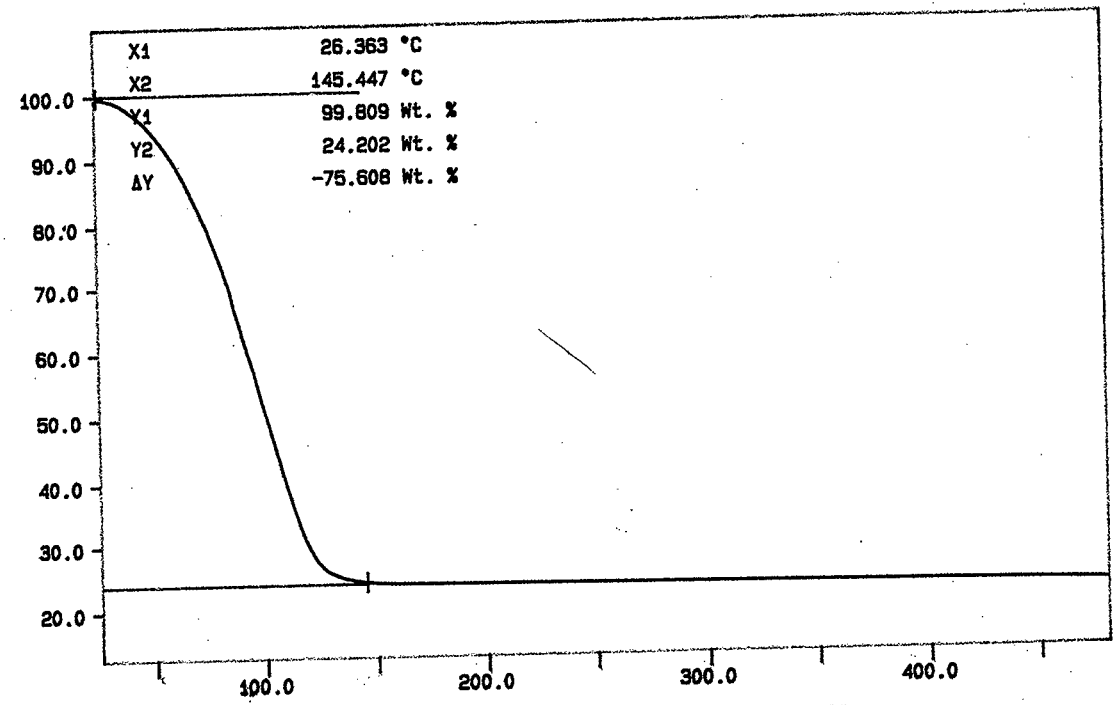
Curve 1: TGA
File info: SAM052005 Tue May 20 14:09:47 1997
Sample Weight: 8.445 mg
S97T000665



10C/MIN N2
TEMP1: 25.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 600.0 C

VL MASSIE
PERKIN-ELMER
7 Series Thermal Analysis System
Tue May 20 14:16:42 1997

Curve 1: TGA
File info: SAM052006 Tue May 20 15:19:12 1997
Sample Weight: 11.150 mg
S97T000665 DUP



10C/MIN N2
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 500.0 C

VL MASSIE
PERKIN-ELMER
7 Series Thermal Analysis System
Tue May 20 18:05:07 1997

worklistrpt Version 2.1 05/15/95
05/22/97 10:28

LABCORE Data Entry Template for Worklist# 18019

Analyst: ADP **Instrument:** TGA0 3 **Book #** 97NBA

Method: LA-514-114 Rev/Mod D-0

Worklist Comment: T203, TGA-01 skm

GROUP	PROJECT	S TYPE	SAMPLE#	R	A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD				TGA-03	SOLID	59.4	58.64	N/A	%
97000299	T-203	2 SAMPLE	S97T000666	0		TGA-03	SOLID	N/A	76.29		%
97000299	T-203	3 DUP	S97T000666	0		TGA-03	SOLID	76.29 ~~76.18~~	5/22/97 75.18 ~~76.18~~ 5/22/97	N/A	%
97000299	T-203	4 SAMPLE	S97T000667	0		TGA-03	SOLID	N/A	74.75		%
97000299	T-203	5 DUP	S97T000667	0		TGA-03	SOLID	74.75	75.93	N/A	%

Final page for worklist # 18019

See Attached for Signature
Analyst Signature **Date**

Validated 6/2/97 Rachelor

Susan Bee 5/22/97
Analyst Signature **Date**

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 18019

Analyst: ADP **Instrument:** TGA0 3 **Book #** 97N&A

Method: LA-560-112 Rev/Mod DO

Worklist Comment: T203, TGA-01 skm

GROUP	PROJECT	S TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD				TGA-01	SOLID			N/A	%
97000299	T-203	2 SAMPLE	S97T000666	0		TGA-01	SOLID	N/A			%
97000299	T-203	3 DUP	S97T000666	0		TGA-01	SOLID			N/A	%
97000299	T-203	4 SAMPLE	S97T000667	0		TGA-01	SOLID	N/A			%
97000299	T-203	5 DUP	S97T000667	0		TGA-01	SOLID			N/A	%

Final page for worklist # 18019

Arthur Pruett 5-21-97
Analyst Signature **Date**

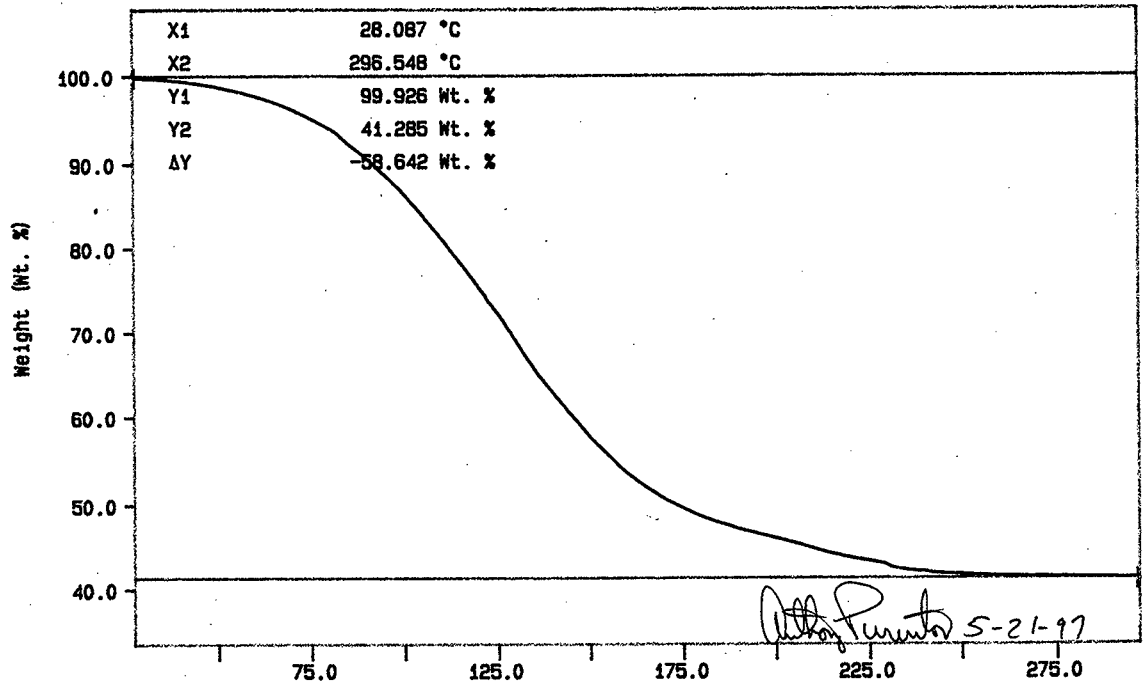
Analyst Signature **Date**

Data Entry Comments:
Ran Samples on TGA-03. 5/21/97

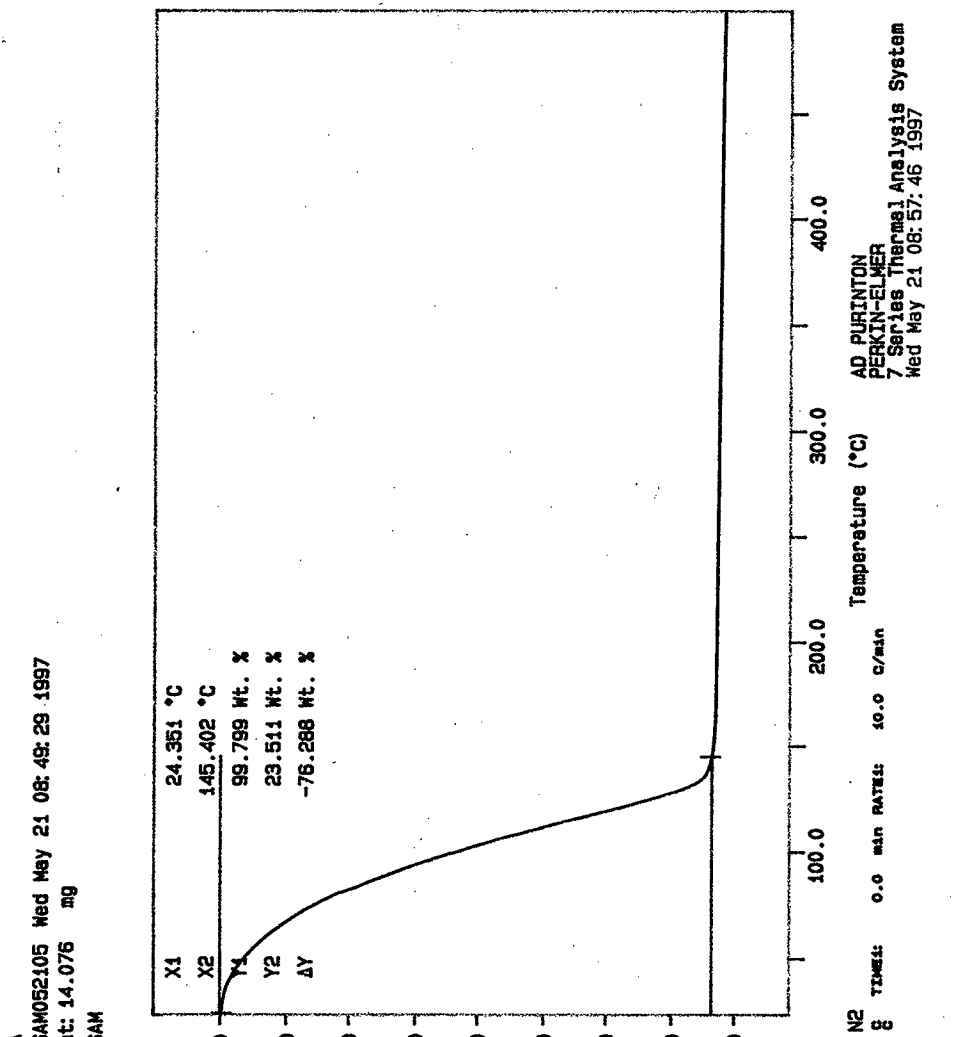
Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

Curve 1: TGA
File info: TER052101 Wed May 21 07:08:54 1997
Sample Weight: 22.268 mg
97N8-A

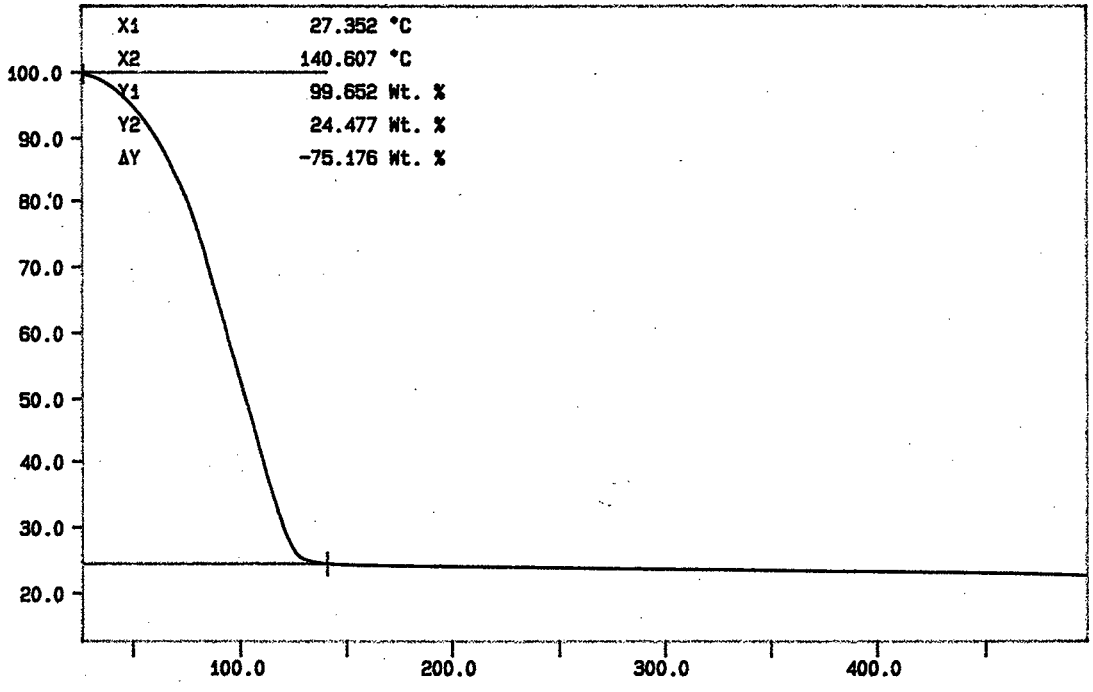
SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 265 TO 269.



5-21-97


Curve 1: TGA
File info: SAM052105 Wed May 21 08:49:29 1997
Sample Weight: 14.076 mg
S97T000666 SAM
X1 24.351 °C
X2 145.402 °C
Y1 99.799 Wt. %
Y2 23.511 Wt. %
ΔY -76.288 Wt. %
Weight (Wt. %)
100.0
90.0
80.0
70.0
60.0
50.0
40.0
30.0
20.0
100.0
200.0
300.0
400.0
Temperature (°C)
10C/MIN N2
TEMP1: 38.8 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 600.0 C
AD PURINTON
PERKIN-ELMER
7 Series Thermal Analysis System
Wed May 21 08:57:46 1997

Curve 1: TGA
File info: SAM052106 Wed May 21 10:00:38 1997
Sample Weight: 11.880 mg
S97T000666 DUP

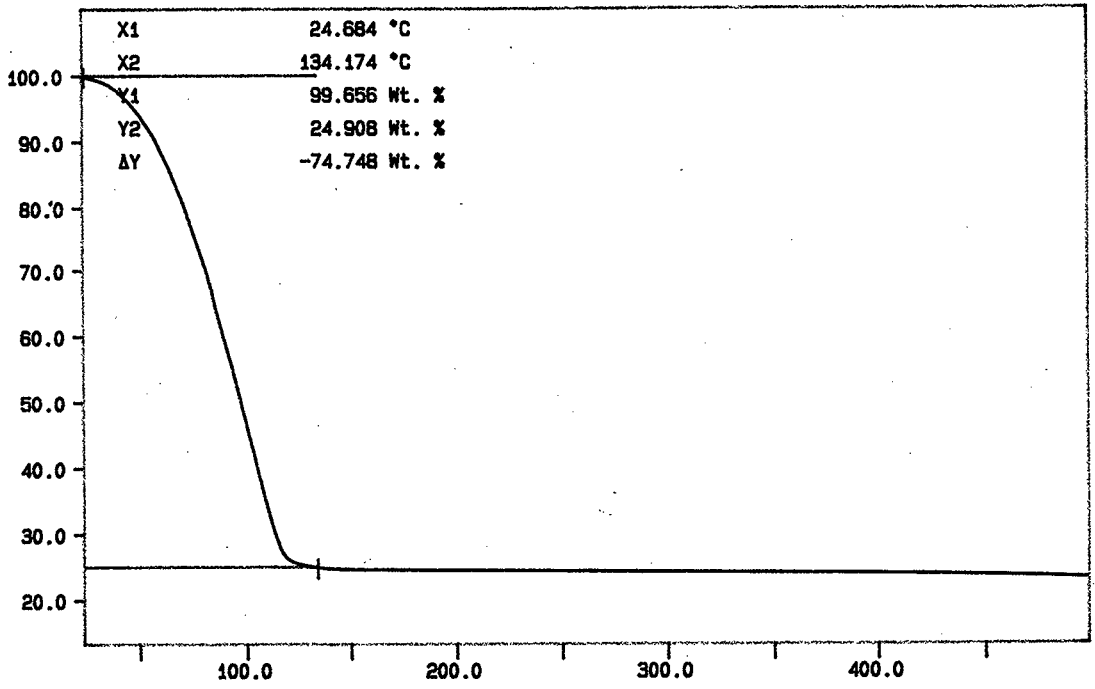


10C/MIN N2
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 600.0 C

AD PURINTON
PERKIN-ELMER
7 Series Thermal Analysis System
Wed May 21 10:09:34 1997

26.7

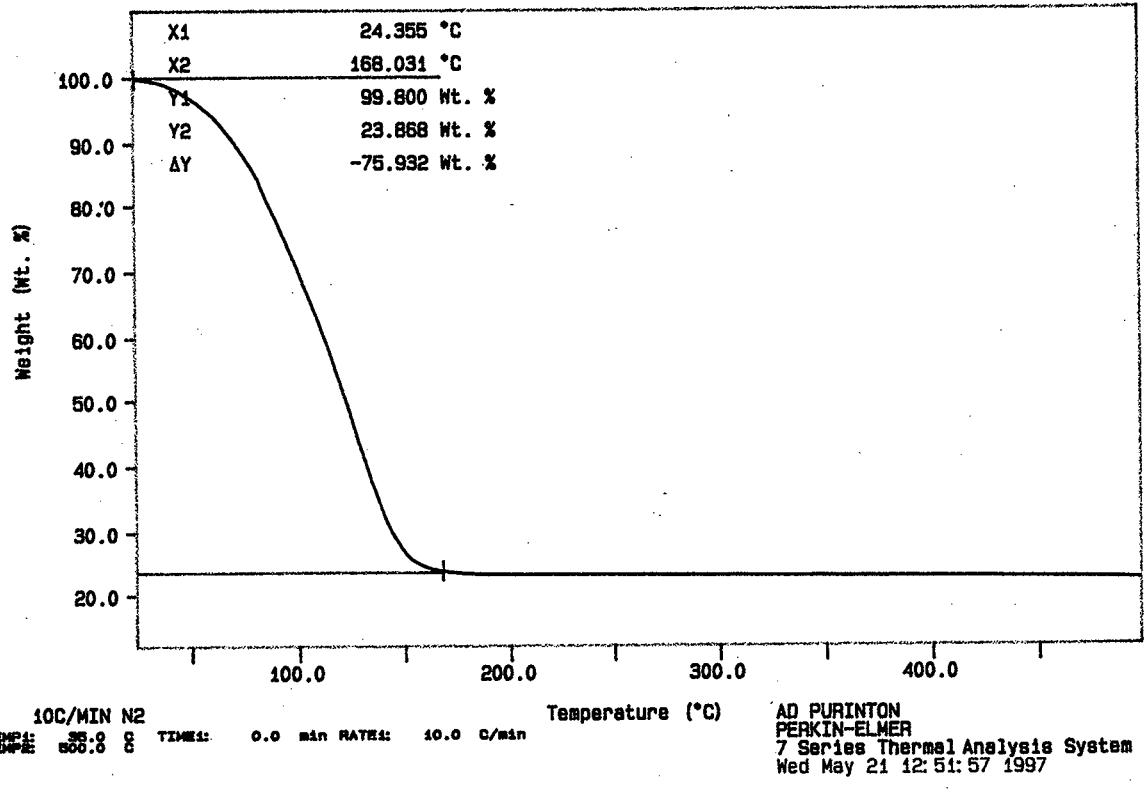
Curve 1: TGA
File info: SAM052107 Wed May 21 11:15:48 1997
Sample Weight: 10.033 mg
S97T000667 SAM



10C/MIN N2
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 600.0 C

AD PURINTON
PERKIN-ELMER
7 Series Thermal Analysis System
Wed May 21 11:56:03 1997

Curve 1: TGA
File info: SAM052108 Wed May 21 12:51:13 1997
Sample Weight: 21.545 mg
S97T000667 DUP



LABCORE Data Entry Template for Worklist# 18020

Analyst: ADP **Instrument:** TGA0 3 **Book #** 97N8A

Method: LA-514-114 Rev/Mod D-0

Worklist Comment: T203, TGA-01 skm

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	STD				TGA-03	SOLID	59.4	58.19%	N/A	%
97000299	T-203	2	SAMPLE	S97T000669	0		TGA-03	SOLID	N/A	76.78		%
97000299	T-203	3	DUP	S97T000669	0		TGA-03	SOLID	76.78	76.32	N/A	%
97000299	T-203	4	SAMPLE	S97T000670	0		TGA-03	SOLID	N/A	75.69		%
97000299	T-203	5	DUP	S97T000670	0		TGA-03	SOLID	75.69	72.97	N/A	%

Final page for worklist # 18020

See Attached for Signature
Analyst Signature **Date**
Validated 6/2/97 GBrachelor

Susan Bee 5/27/97
Analyst Signature **Date**

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 18020

Analyst: ADP **Instrument:** TGA0 **Book #** 97N8A

Method: LA-560-112 Rev/Mod D-0

Worklist Comment: T203, TGA-01 skm

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	STD				TGA-01	SOLID			N/A	%
97000299	T-203	2	SAMPLE	S97T000669	0		TGA-01	SOLID	N/A			%
97000299	T-203	3	DUP	S97T000669	0		TGA-01	SOLID			N/A	%
97000299	T-203	4	SAMPLE	S97T000670	0		TGA-01	SOLID	N/A			%
97000299	T-203	5	DUP	S97T000670	0		TGA-01	SOLID			N/A	%

Final page for worklist # 18020

Anthony Peruzzo 5-22-97
Analyst Signature **Date**

Victor Wang 5-22-97

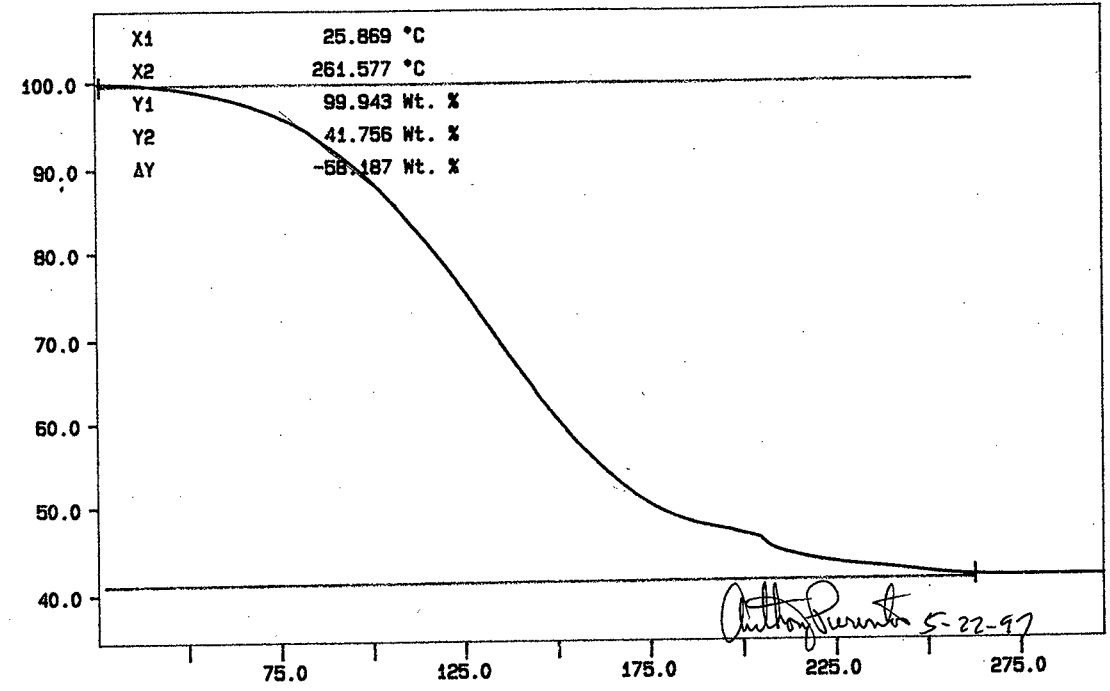
Analyst Signature **Date**

Data Entry Comments: TGA
Ran samples on ~~DSC~~-03. QJS 5/27/97

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

Curve 1: TGA
File info: TER052201 Thu May 22 06:27:16 1997
Sample Weight: 24.197 mg
97NB-A

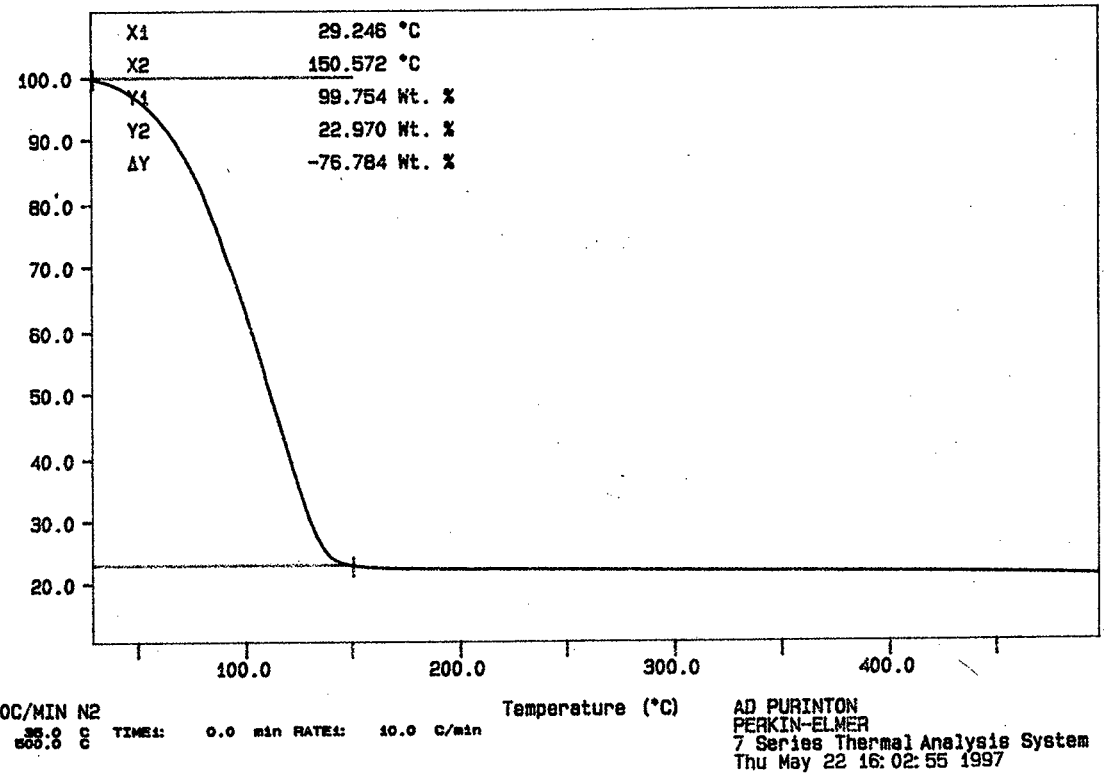
SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 276 TO 279.



10C/MIN N2
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 300.0 C

AD PURINTON
PERKIN-ELMER
7 Series Thermal Analysis System
Thu May 22 06:37:53 1997

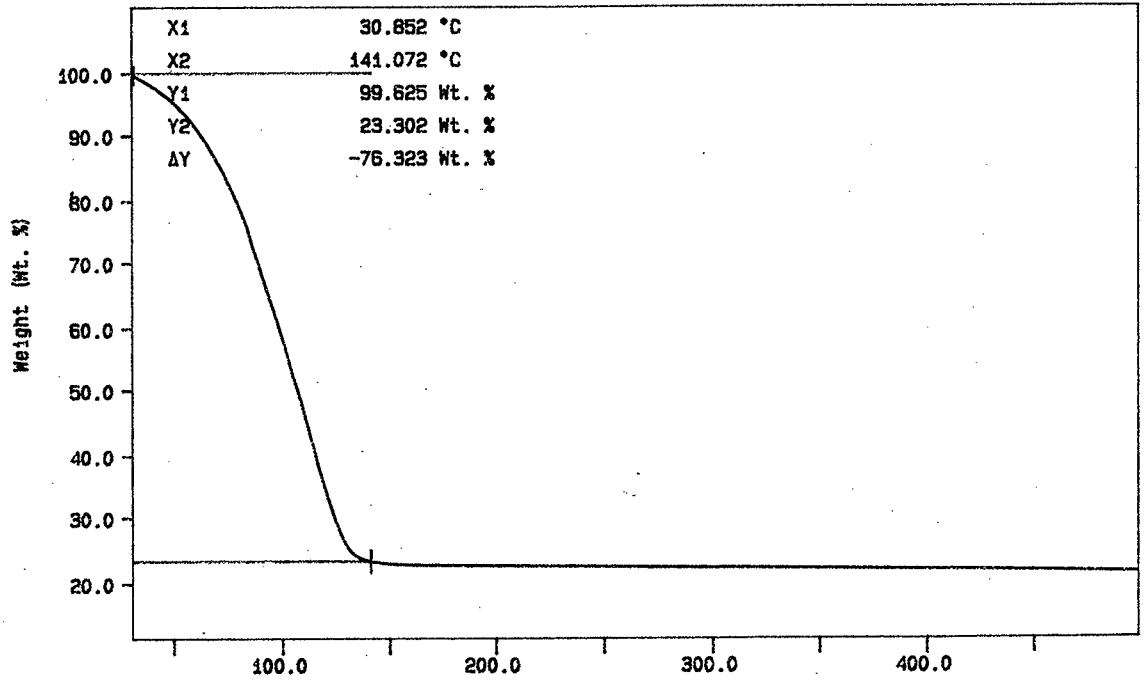
Curve 1: TGA
File info: SAM052212 Thu May 22 15:46:25 1997
Sample Weight: 19.301 mg
S97T000669 SAM



10C/MIN N2
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 600.0 C

AD PURINTON
PERKIN-ELMER
7 Series Thermal Analysis System
Thu May 22 16:02:55 1997

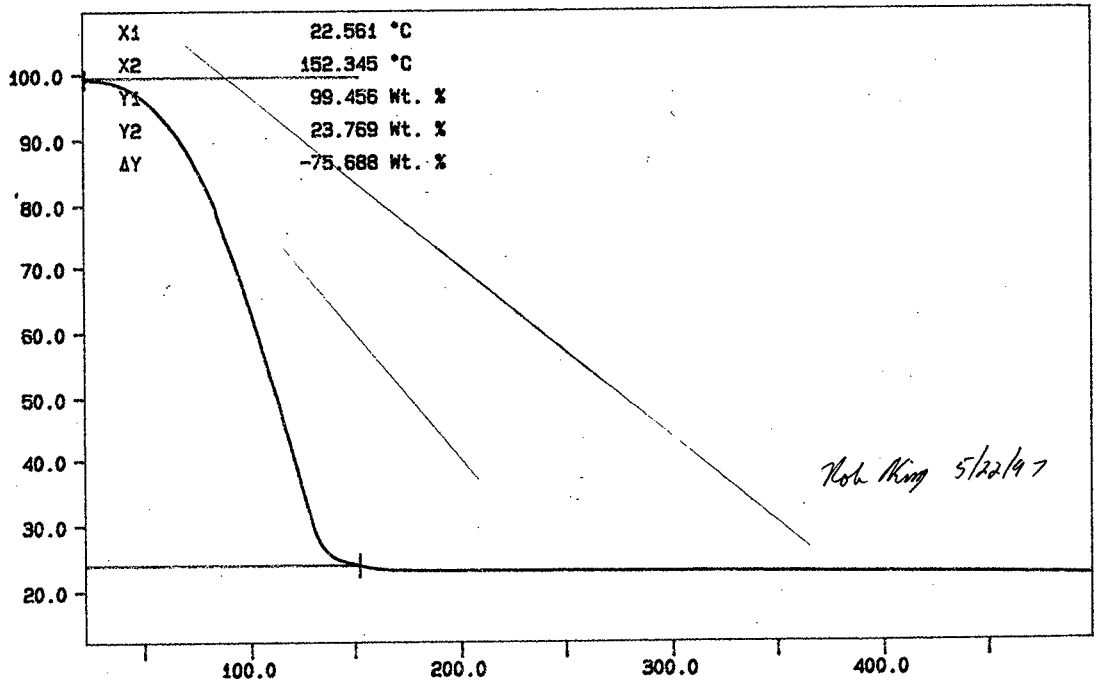
Curve 1: TGA
File info: SAM052213 Thu May 22 16:54:18 1997
Sample Weight: 16.458 mg
S97T000669 DUP



10C/MIN N2
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 600.0 C

AD PURINTON
PERKIN-ELMER
7 Series Thermal Analysis System
Thu May 22 20:42:24 1997

Curve 1: TGA
File info: SAM052215 Thu May 22 20:06:09 1997
Sample Weight: 17.841 mg
S97T000670

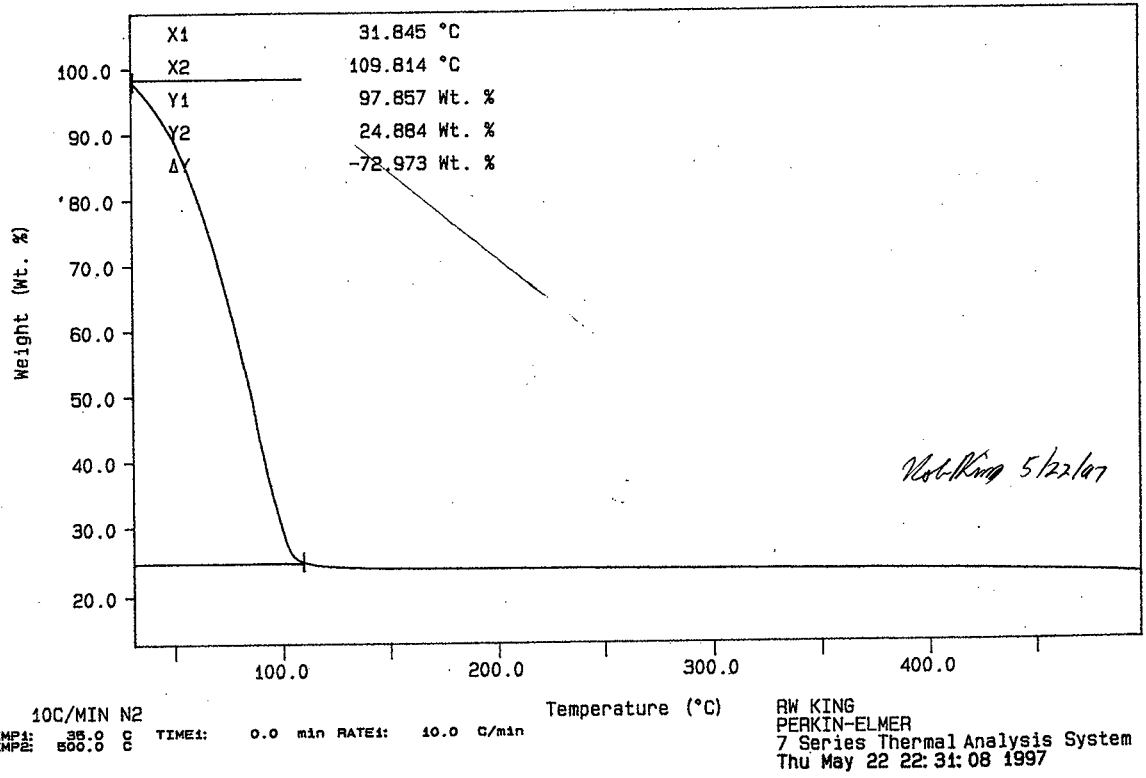


10C/MIN N2
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 500.0 C

RW KING
PERKIN-ELMER
7 Series Thermal Analysis System
Thu May 22 20:36:58 1997

2175

Curve 1: TGA
File info: SAM052216 Thu May 22 21:12:06 1997
Sample Weight: 6.488 mg
S97T000670 DUP



10C/MIN N2
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 500.0 C

RW KING
PERKIN-ELMER
7 Series Thermal Analysis System
Thu May 22 22:31:08 1997

278

worklistrpt Version 2.1 05/15/95
05/27/97 09:54

LABCORE Data Entry Template for Worklist# 18021

Analyst: RDM **Instrument:** TGA0 3 **Book #** 97N8 A

Method: LA-514-114 Rev/Mod D-0

Worklist Comment: T203, TGA-01 skm

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	STD				TGA-03	SOLID	59.4	58.76	N/A	%
97000299	T-203	2	SAMPLE	S97T000705	0		TGA-03	SOLID	N/A	79.81		%
97000299	T-203	3	DUP	S97T000705	0		TGA-03	SOLID	79.81	80.92	N/A	%
97000299	T-203	4	SAMPLE	S97T000711	0		TGA-03	SOLID	N/A	83.80		%
97000299	T-203	5	DUP	S97T000711	0		TGA-03	SOLID	83.80	82.90	N/A	%

Final page for worklist # 18021

See Attached for Signature
Analyst Signature **Date**

Validated 6/2/97 Bachelor

Susan Bee 5/27/97
Analyst Signature **Date**

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 18021

Analyst: [signature] **Instrument:** TGA0 _____ **Book #** 97N84

Method: LA-560-112 Rev/Mod _____

Worklist Comment: T203, TGA-01 skm

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	STD				TGA-01	SOLID			N/A	%
97000299	T-203	2	SAMPLE	S97T000705	0		TGA-01	SOLID	N/A			%
97000299	T-203	3	DUP	S97T000705	0		TGA-01	SOLID			N/A	%
97000299	T-203	4	SAMPLE	S97T000711	0		TGA-01	SOLID	N/A			%
97000299	T-203	5	DUP	S97T000711	0		TGA-01	SOLID			N/A	%

Final page for worklist # 18021

[signature] 5/23/97
Analyst Signature **Date**

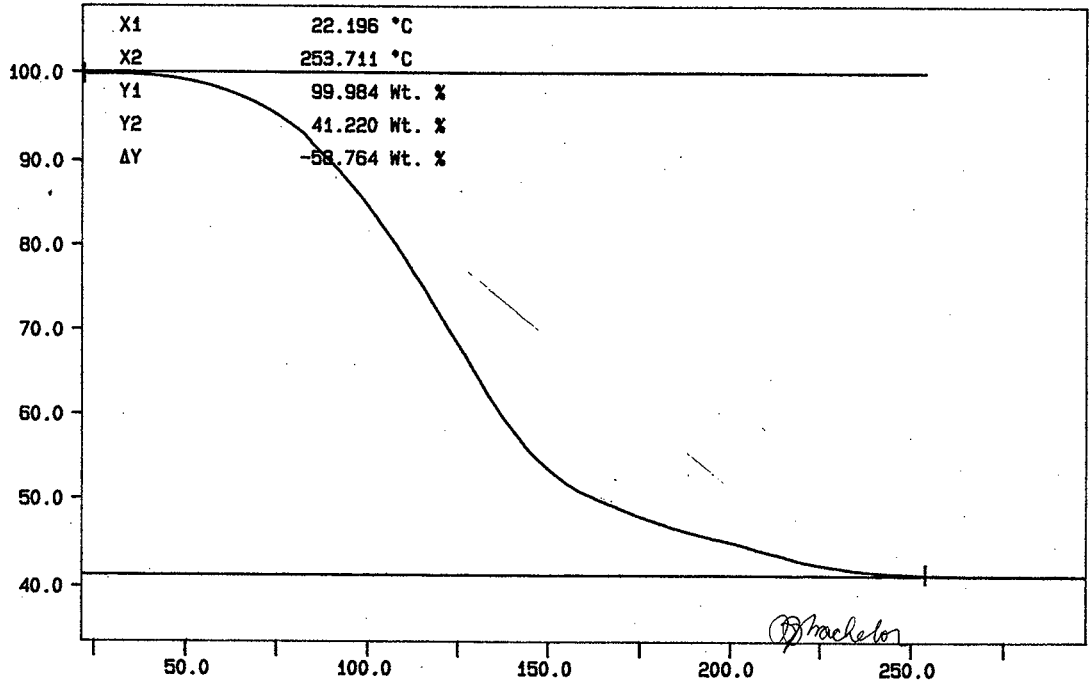
Analyst Signature **Date**

Data Entry Comments:
Ran samples on TGA-03. [signature] 5/27/97

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

Curve 1: TGA
File info: TER052301 Fri May 23 07:45:20 1997
Sample Weight: 15.510 mg
97N8-A

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 279 TO 283

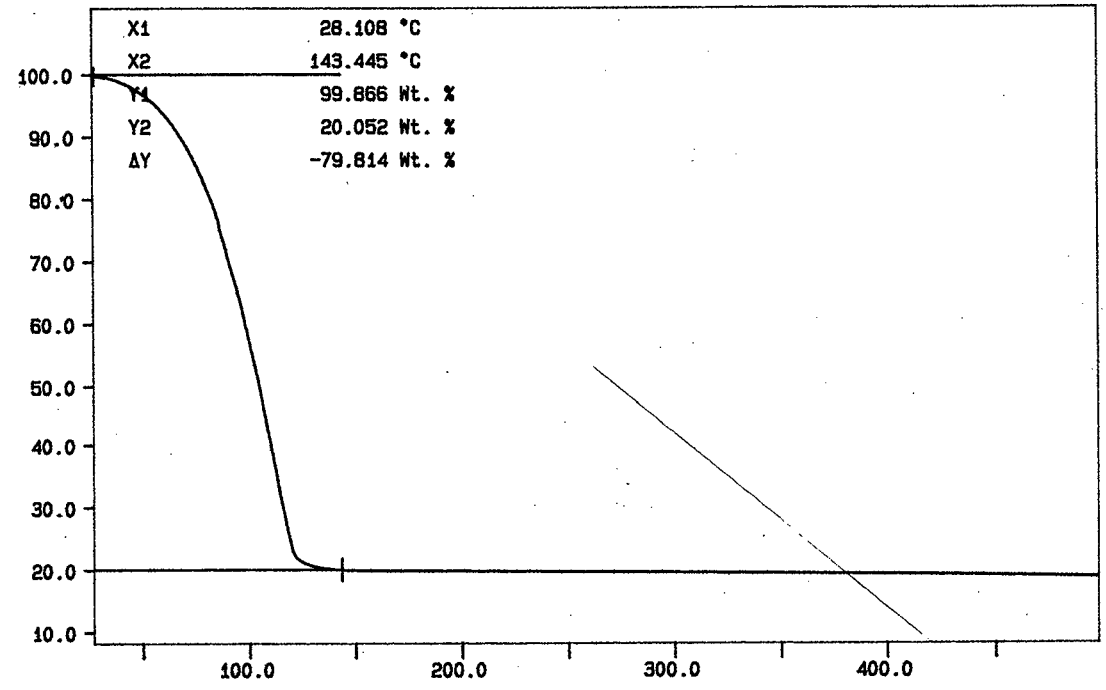


10C/MIN N2
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 300.0 C

RD MEYERS
PERKIN-ELMER
7 Series Thermal Analysis System
Fri May 23 09:16:26 1997

279

Curve 1: TGA
File info: SAM052305 Fri May 23 10:07:33 1997
Sample Weight: 7.584 mg
S97T000670 RDM 5/13/97
705



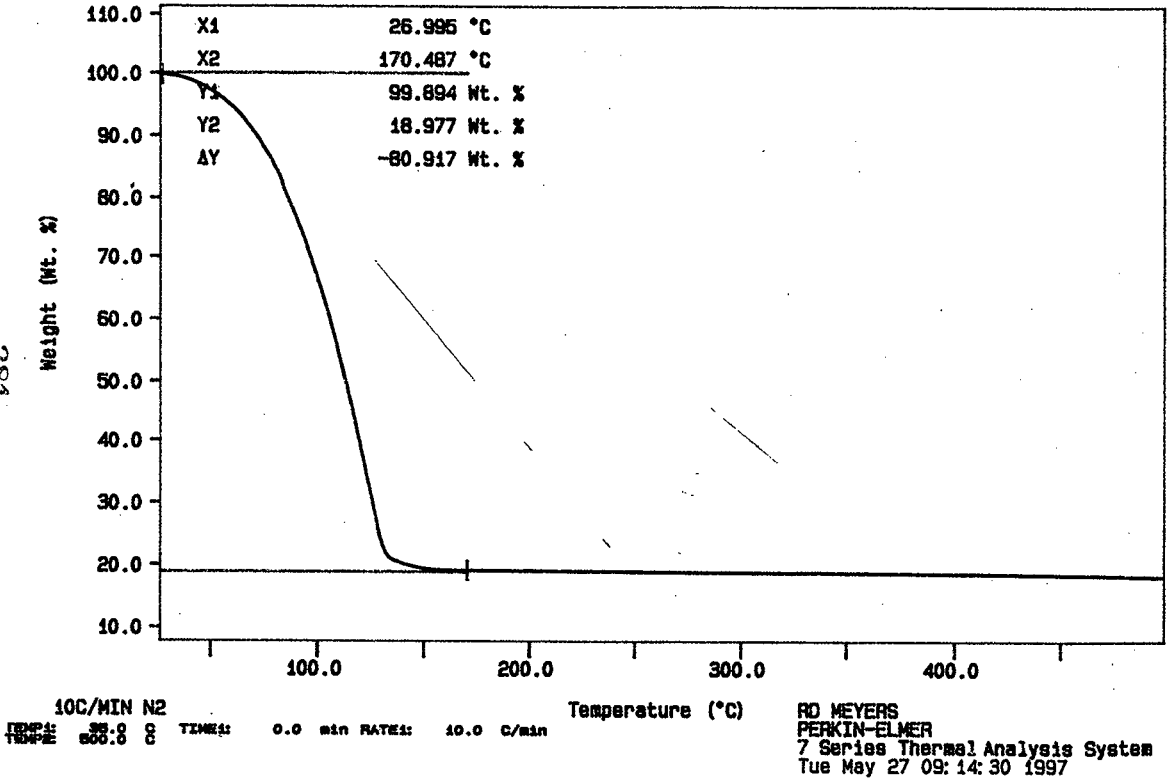
10C/MIN N2
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 600.0 C

RD MEYERS
PERKIN-ELMER
7 Series Thermal Analysis System
Fri May 23 12:34:07 1997

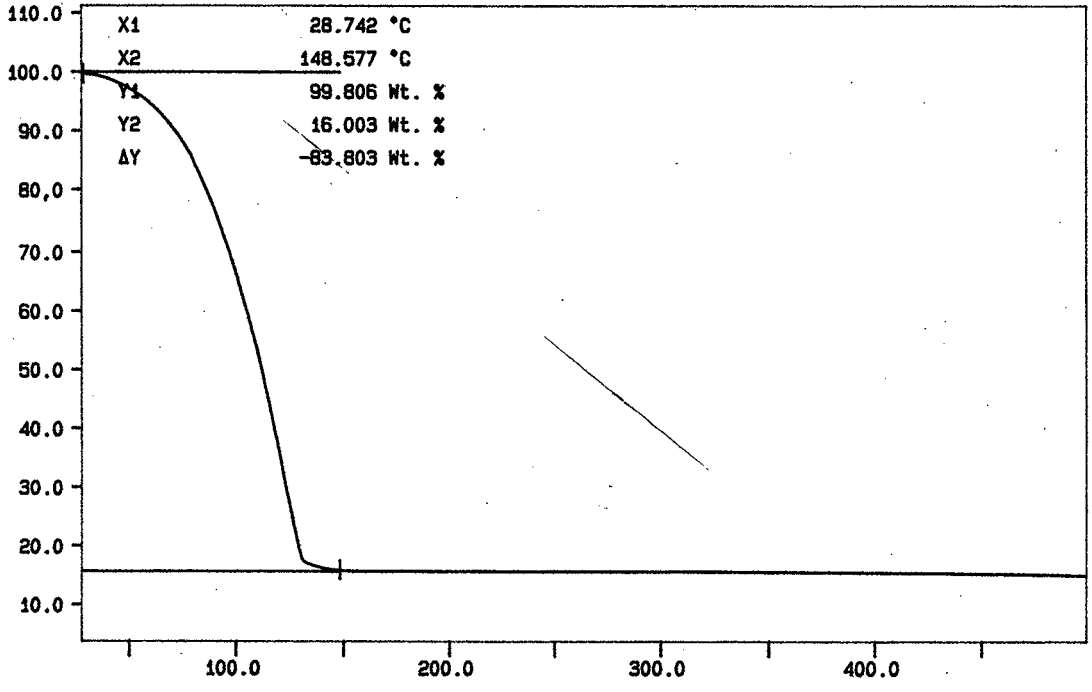
280

HNF-SD-WM-DP-247, REV.0

Curve 1: TGA
File info: SAM052306 Fri May 23 13:26:37 1997
Sample Weight: 11.633 mg
S97T000705DUP



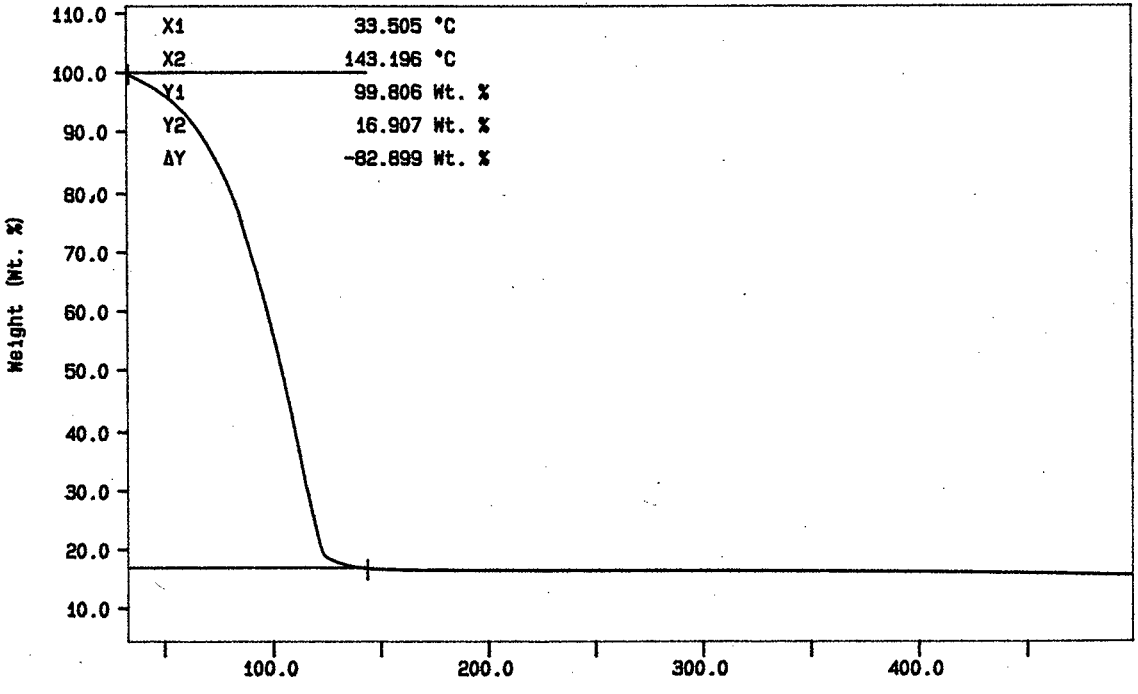
Curve 1: TGA
File info: SAM052307 Fri May 23 14:33:53 1997
Sample Weight: 10.682 mg
S97T000711



10C/MIN N2
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 500.0 C

RD MEYERS
PERKIN-ELMER
7 Series Thermal Analysis System
Fri May 23 14:34:48 1997

Curve 1: TGA
File info: SAM052308 Fri May 23 15:37:41 1997
Sample Weight: 8.114 mg
S97T000711DUP



10C/MIN N2
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 600.0 C

RD MEYERS
PERKIN-ELMER
7 Series Thermal Analysis System
Fri May 23 17:35:42 1997

LABCORE Data Entry Template for Worklist# 18038

Analyst: SMF **Instrument:** TGA0 3 **Book #** 97N8A

Method: LA-514-114 Rev/Mod D-0

Worklist Comment: T-203 TGA, RUN UNDER N2. RCJ

GROUP	PROJECT	S TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD				TGA-03	LIQUID	59.4	58.85	N/A	%
97000299	T-203	2 SAMPLE	S97T000731	0		TGA-03	LIQUID	N/A	99.55		%
97000299	T-203	3 DUP	S97T000731	0		TGA-03	LIQUID	99.55	99.60	N/A	%

Final page for worklist # 18038

See Attached for Signature
Analyst Signature **Date**

Susan Bee 5/27/97
Analyst Signature **Date**

Validated 6/2/97 Bachelor

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 18038

Analyst: SMF **Instrument:** TGA0 3 **Book #** 97N8A

Method: LA-560-112 Rev/Mod D-0

Worklist Comment: T-203 TGA, RUN UNDER N2. RCJ

GROUP	PROJECT	S TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD				TGA-01	LIQUID			N/A	%
97000299	T-203	2 SAMPLE	S97T000731	0		TGA-01	LIQUID	N/A			%
97000299	T-203	3 DUP	S97T000731	0		TGA-01	LIQUID			N/A	%

Final page for worklist # 18038

Susie M. Fulton 5-24-97
Analyst Signature **Date**

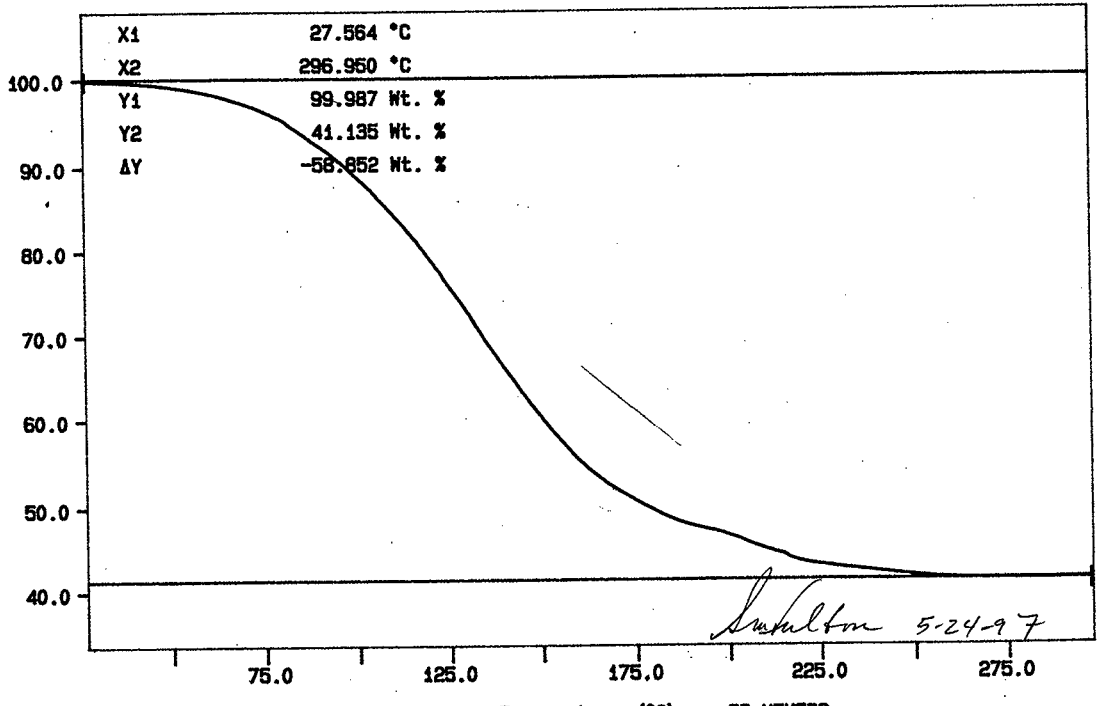
Analyst Signature **Date**

Data Entry Comments:
Ran Samples on TGA-03. 5/27/97

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

Curve 1: TGA
File info: TER052401 Sat May 24 10:00:17 1997
Sample Weight: 23.069 mg
97N8-A

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 282 TO 288.

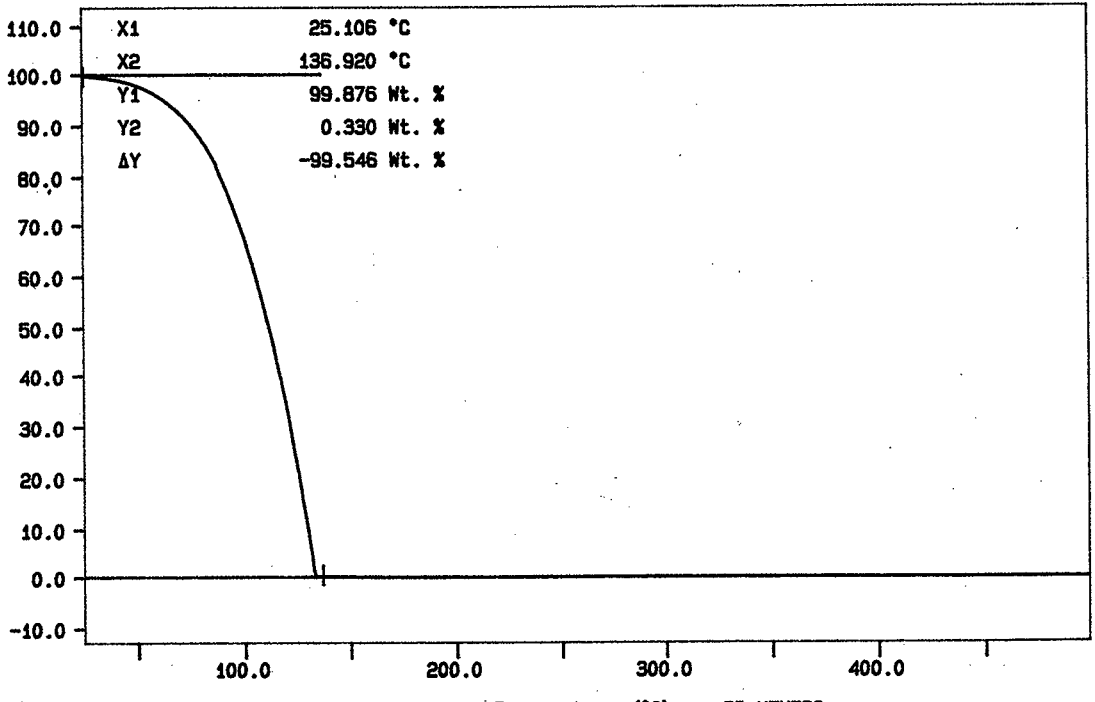


10C/MIN N2
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 300.0 C

RD MEYERS
PERKIN-ELMER
7 Series Thermal Analysis System
Sat May 24 17:37:24 1997

282

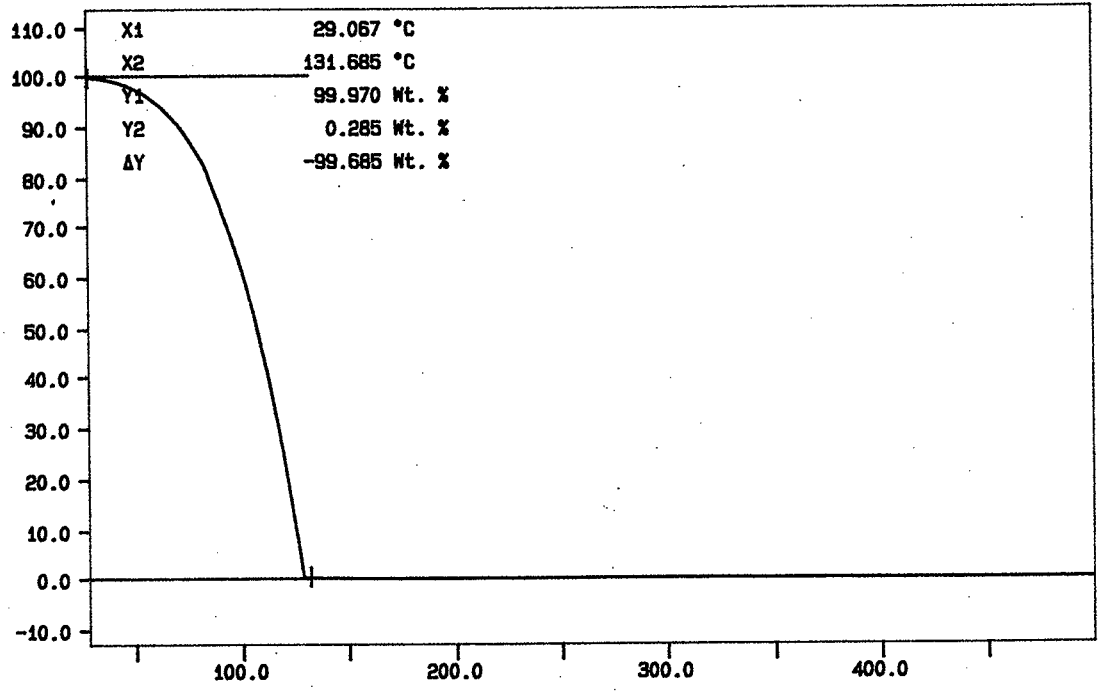
Curve 1: TGA
File info: SAM052409 Sat May 24 18:06:44 1997
Sample Weight: 11.306 mg
S97T000731



10C/MIN N2
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 500.0 C

RD MEYERS
PERKIN-ELMER
7 Series Thermal Analysis System
Sat May 24 18:15:18 1997

Curve 1: TGA
File info: SAM052410 Sat May 24 19:15:21 1997
Sample Weight: 10.018 mg
S97T000731 DUP



10C/MIN N2
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 600.0 C

SM FULTON
PERKIN-ELMER
7 Series Thermal Analysis System
Sat May 24 20:03:02 1997

worklistrpt Version 2.1 05/15/95
05/27/97 09:53

LABCORE Data Entry Template for Worklist# 18039

Analyst: SMF **Instrument:** TGA0 3 **Book #** 97NBA

Method: LA-514-114 Rev/Mod D-0

Worklist Comment: T-203 TGA, RUN UNDER N2. RCJ

GROUP	PROJECT	S TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD				TGA-03	SOLID	59.4	58.76 X	N/A	%
97000299	T-203	2 SAMPLE	S97T000668	0		TGA-03	SOLID	N/A	78.12		%
97000299	T-203	3 DUP	S97T000668	0		TGA-03	SOLID	78.12	77.81	N/A	%
97000299	T-203	4 SAMPLE	S97T000671	0		TGA-03	SOLID	N/A	76.90		%
97000299	T-203	5 DUP	S97T000671	0		TGA-03	SOLID	76.90	76.46	N/A	%

Final page for worklist # 18039

See Attached for Signature
Analyst Signature **Date**

Susan Bee 5/27/97
Analyst Signature **Date**

Validated 6/2/97 Machelor

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 18039

Analyst: SMF **Instrument:** TGA0 3 **Book #** 97N8-A

Method: LA-560-112 Rev/Mod D-0

Worklist Comment: T-203 TGA, RUN UNDER N2. RCJ

GROUP	PROJECT	S TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD				TGA-01	SOLID			N/A	%
97000299	T-203	2 SAMPLE	S97T000668	0		TGA-01	SOLID	N/A			%
97000299	T-203	3 DUP	S97T000668	0		TGA-01	SOLID			N/A	%
97000299	T-203	4 SAMPLE	S97T000671	0		TGA-01	SOLID	N/A			%
97000299	T-203	5 DUP	S97T000671	0		TGA-01	SOLID			N/A	%

Final page for worklist # 18039

Susie M. Fulton 5-23-97
Analyst Signature **Date**

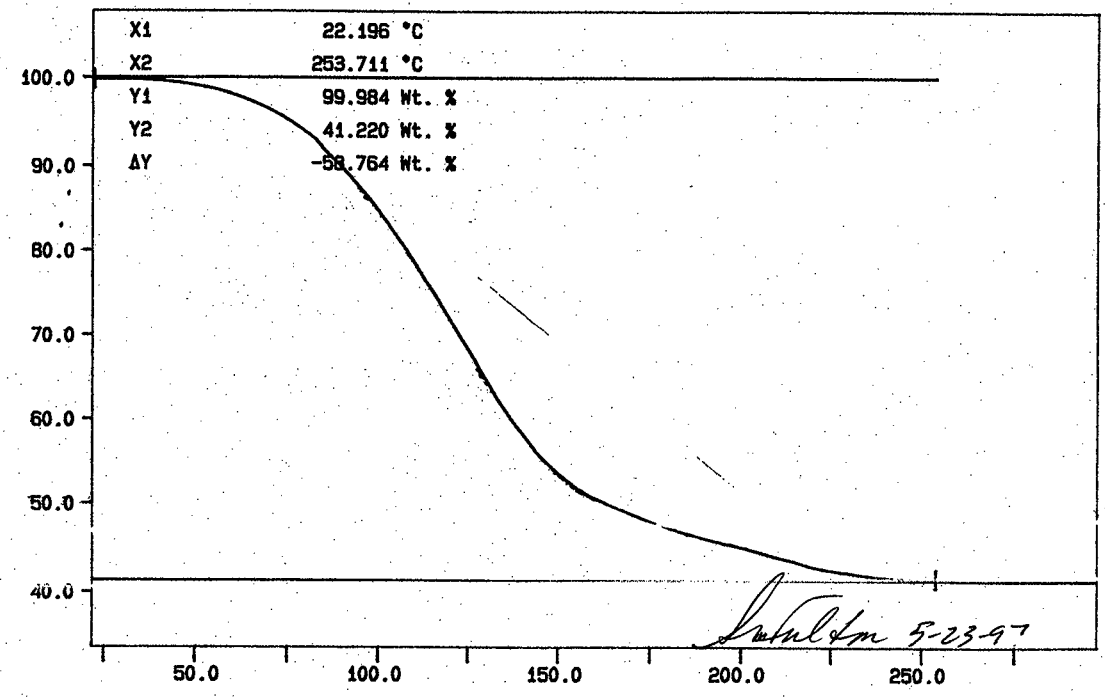
Analyst Signature **Date**

Data Entry Comments:
Ran samples on TGA-03. SMF 5/27/97

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

Curve 1: TGA
File info: TER052301 Fri May 23 07:45:20 1997
Sample Weight: 15.510 mg
97N8-A

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 291 TO 295

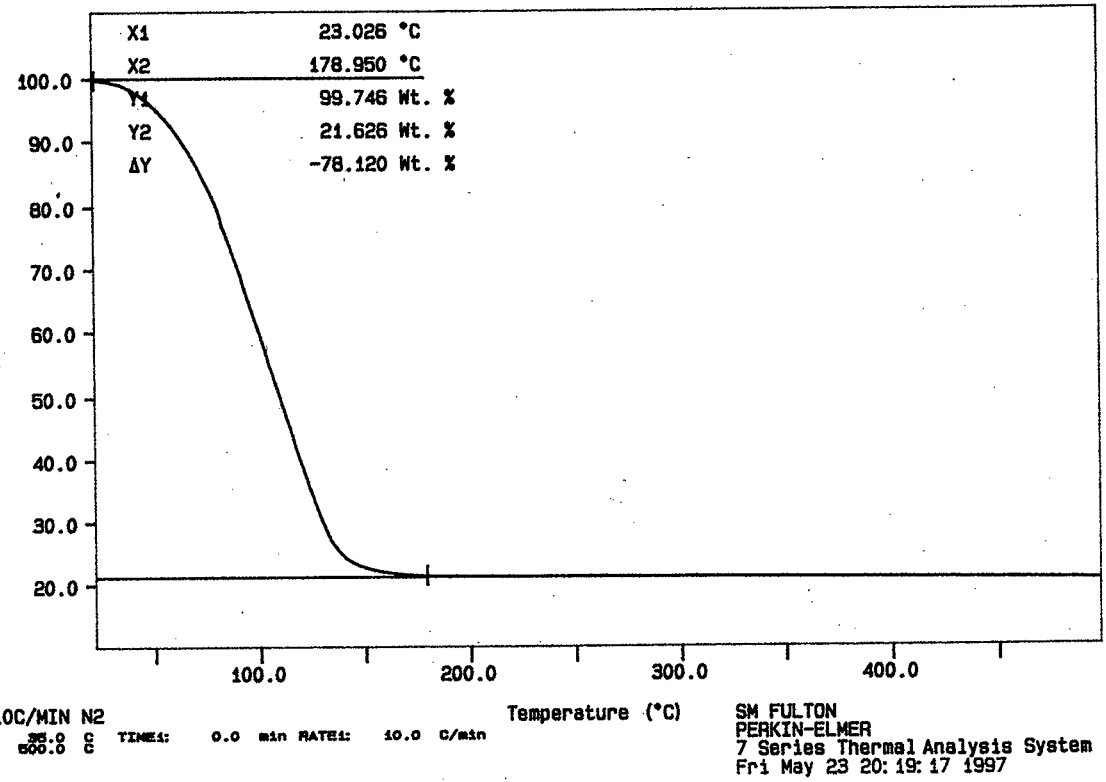


10C/MIN N2
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 300.0 C

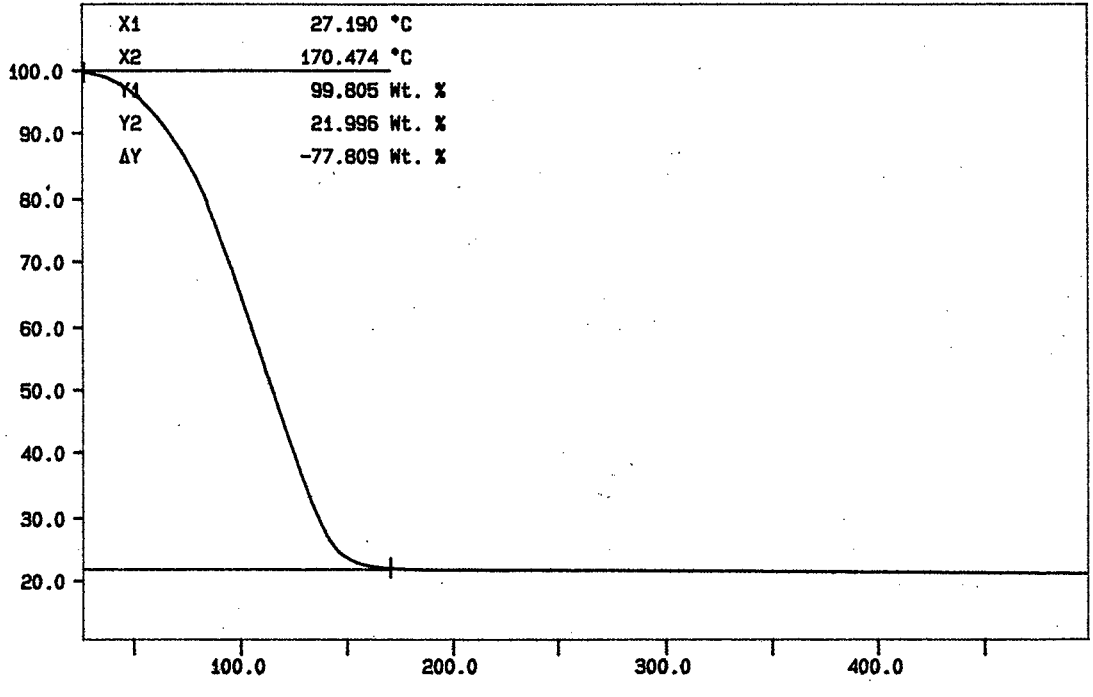
RD MEYERS
PERKIN-ELMER
7 Series Thermal Analysis System
Fri May 23 09:16:26 1997

291

Curve 1: TGA
File info: SAM052309 Fri May 23 18:33:21 1997
Sample Weight: 14.123 mg
S97T000668



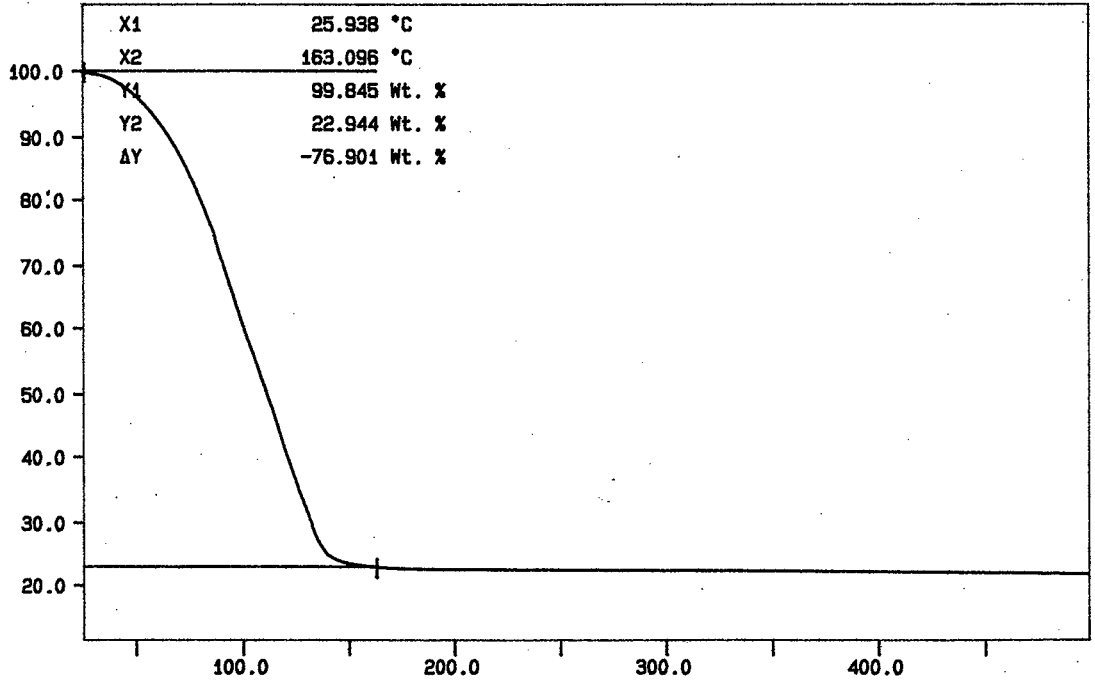
Curve 1: TGA
File info: SAM052310 Fri May 23 21:10:52 1997
Sample Weight: 17.592 mg
S97T000668 DUP



10C/MIN N2
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 500.0 C

SM FULTON
PERKIN-ELMER
7 Series Thermal Analysis System
Fri May 23 21:38:41 1997

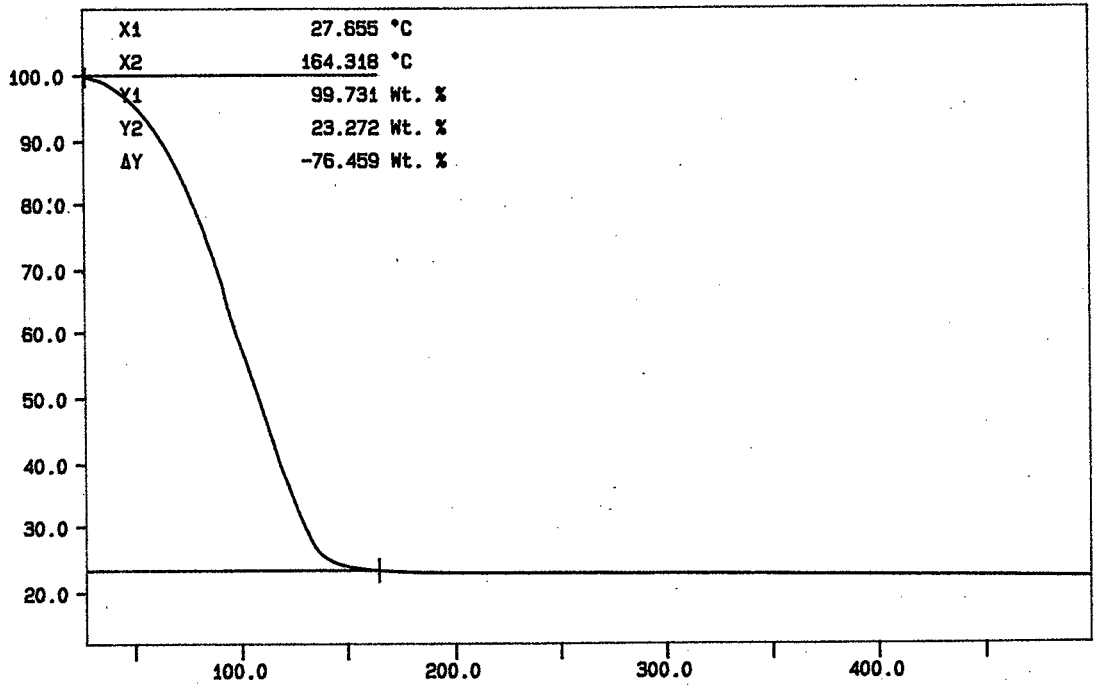
Curve 1: TGA
File info: SAM052311 Fri May 23 22:31:53 1997
Sample Weight: 17.640 mg
S97T000671



10C/MIN N2
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 500.0 C

SM FULTON
PERKIN-ELMER
7 Series Thermal Analysis System
Fri May 23 22:56:53 1997

Curve 1: TGA
File info: SAM052312 Fri May 23 23:43:10 1997
Sample Weight: 12.627 mg
S97T000671 DUP



10C/MIN N2
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 600.0 C

SM FULTON
PERKIN-ELMER
7 Series Thermal Analysis System
Sat May 24 00:16:55 1997

LABCORE Data Entry Template for Worklist# 18040

Analyst: SMF **Instrument:** TGA0 3 **Book #** 97N8A

Method: LA-514-114 Rev/Mod D-0

Worklist Comment: T-203 TGA, RUN UNDER N2. RCJ

GROUP	PROJECT	S TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD				TGA-03	SOLID	59.4	58.85	N/A	%
97000299	T-203	2 SAMPLE	S97T000706	0		TGA-03	SOLID	N/A	78.10		%
97000299	T-203	3 DUP	S97T000706	0		TGA-03	SOLID	78.10	78.34	N/A	%
97000299	T-203	4 SAMPLE	S97T000707	0		TGA-03	SOLID	N/A	76.60		%
97000299	T-203	5 DUP	S97T000707	0		TGA-03	SOLID	76.60	76.16	N/A	%

Final page for worklist # 18040

See Attached for Signature
Analyst Signature **Date**

Susan Bee 5/27/97
Analyst Signature **Date**

Validated 6/2/97 Bachelor

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 18040

Analyst: SMF **Instrument:** TGA0 3 **Book #** 97N8-A

Method: LA-560-112 Rev/Mod D-0

Worklist Comment: T-203 TGA, RUN UNDER N2. RCJ

GROUP	PROJECT	S TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD				TGA-01	SOLID			N/A	%
97000299	T-203	2 SAMPLE	S97T000706	0		TGA-01	SOLID	N/A			%
97000299	T-203	3 DUP	S97T000706	0		TGA-01	SOLID			N/A	%
97000299	T-203	4 SAMPLE	S97T000707	0		TGA-01	SOLID	N/A			%
97000299	T-203	5 DUP	S97T000707	0		TGA-01	SOLID			N/A	%

Final page for worklist # 18040

Susie M. Dutton 5-25-97
Analyst Signature **Date**

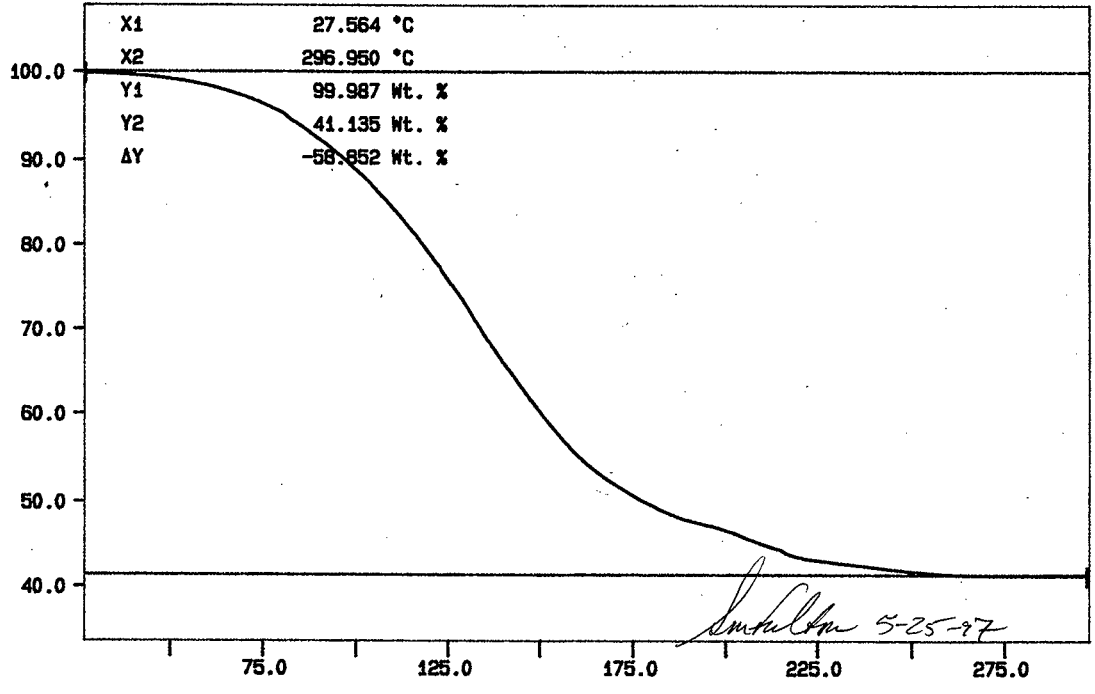
Analyst Signature **Date**

Data Entry Comments:
Ran samples on TGA-03. SMF 5/27/97

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

Curve 1: TGA
File info: TER052401 Sat May 24 10:00:17 1997
Sample Weight: 23.069 mg
97N8-A

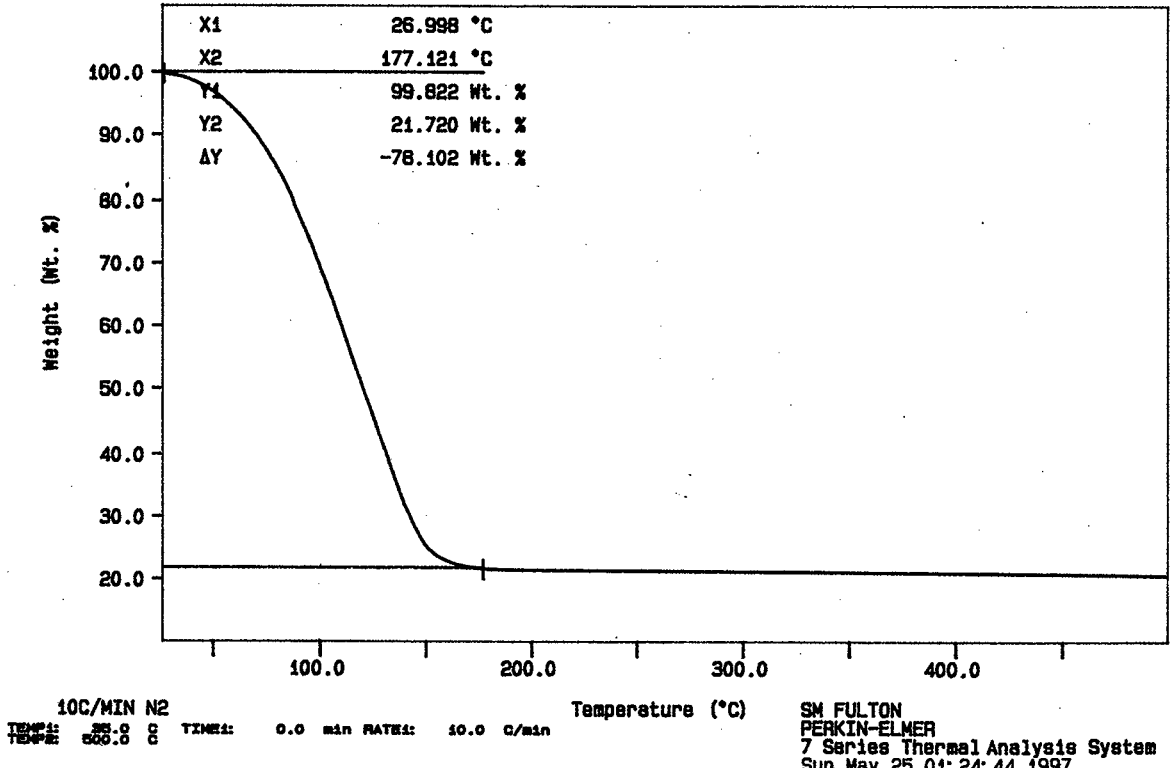
SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 298 TO 302.



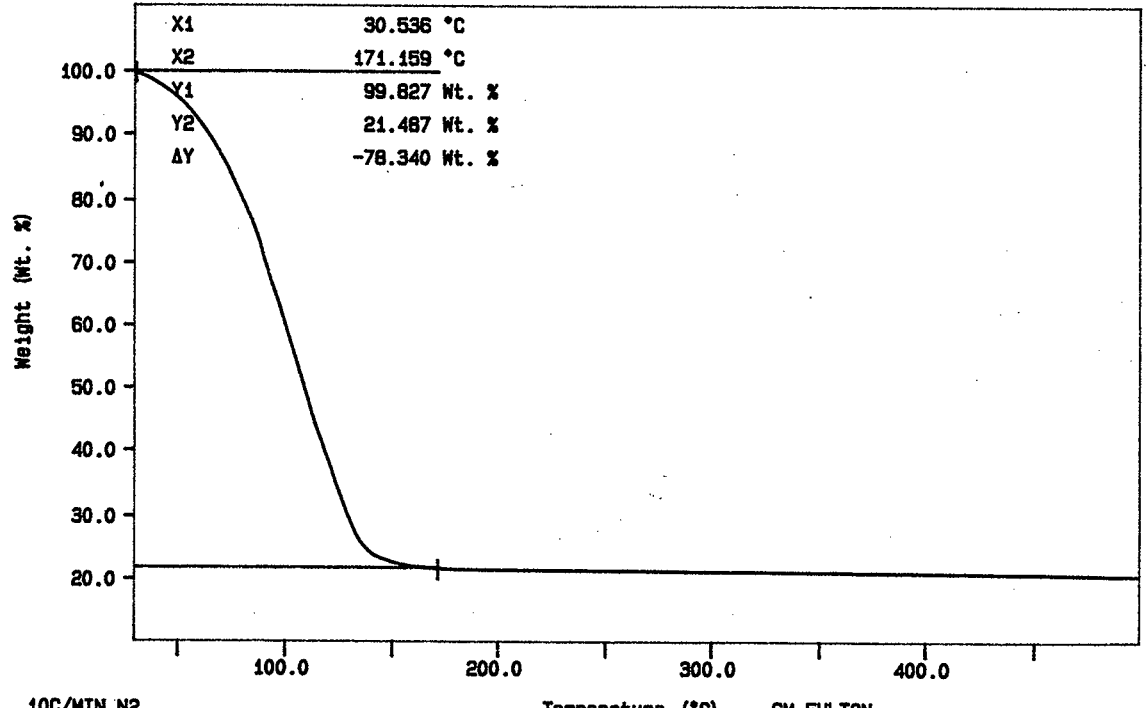
10C/MIN N2
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 300.0 C

RD MEYERS
PERKIN-ELMER
7 Series Thermal Analysis System
Sat May 24 20:24:33 1997

Curve 1: TGA
File info: SAM052414 Sun May 25 01:07:59 1997
Sample Weight: 20.608 mg
S97T000706



Curve 1: TGA
File info: SAM052415 Sun May 25 02:16:46 1997
Sample Weight: 14.502 mg
S97T000706 DUP

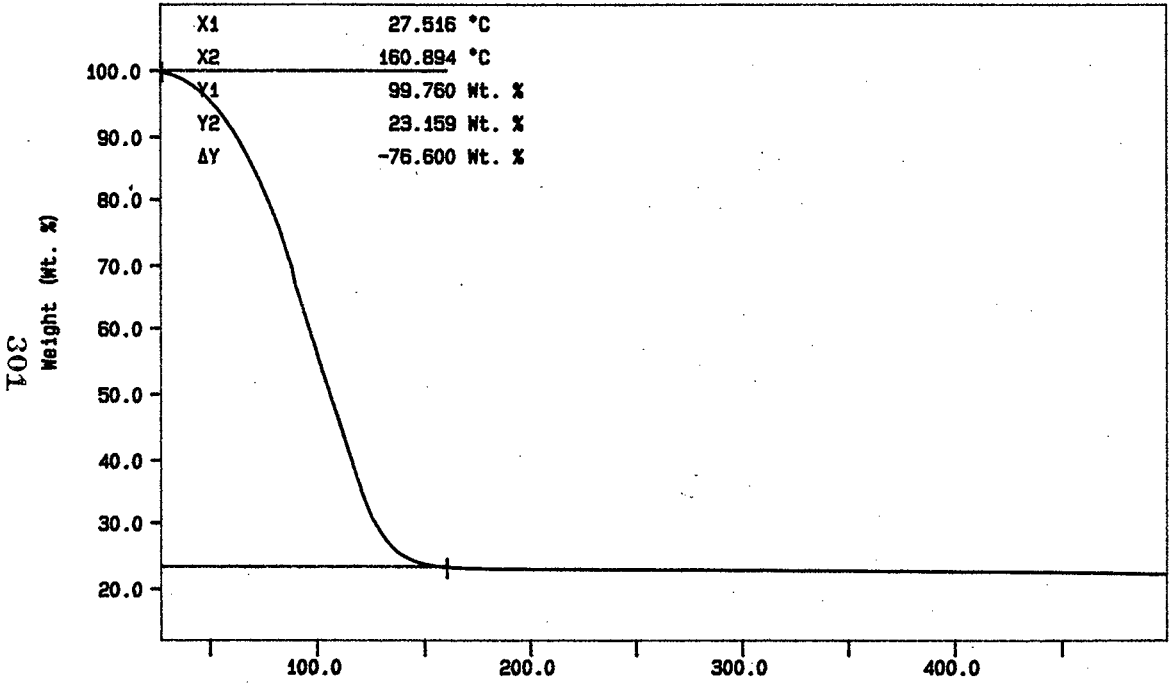


10C/MIN N2
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 600.0 C

SM FULTON
PERKIN-ELMER
7 Series Thermal Analysis System
Sun May 25 03:16:02 1997

300

Curve 1: TGA
File info: SAM052416 Sun May 25 04:01:23 1997
Sample Weight: 13.018 mg
S97T000707

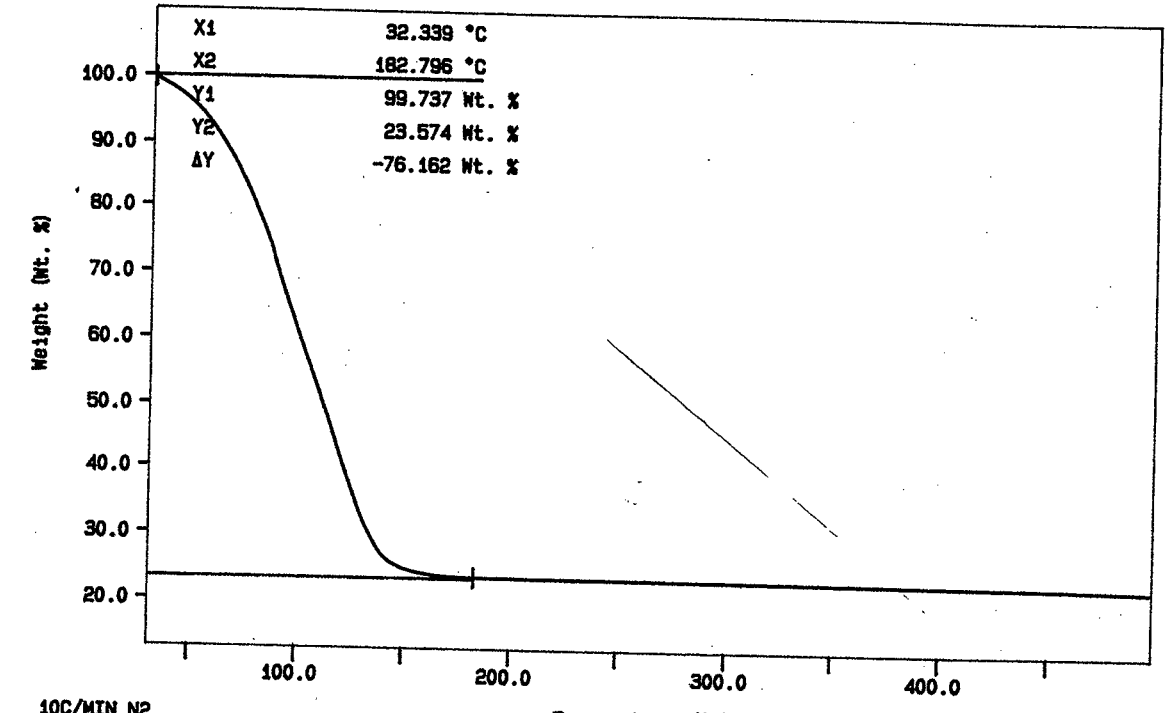


10C/MIN N2
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 600.0 C

SM FULTON
PERKIN-ELMER
7 Series Thermal Analysis System
Sun May 25 04:13:48 1997

301

Curve 1: TGA
File info: SAM052417 Sun May 25 05:08:41 1997
Sample Weight: 14.287 mg
S97T000707 DUP



10C/MIN N2
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 500.0 C

SM FULTON
PERKIN-ELMER
7 Series Thermal Analysis System
Sun May 25 07:01:40 1997

LABCORE Data Entry Template for Worklist# 18041

Analyst: RDM **Instrument:** TGA0 3 **Book #** 97N8A

Method: LA-514-114 Rev/Mod 0

Worklist Comment: T-203 TGA, RUN UNDER N2. RCJ

GROUP	PROJECT	S TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD				TGA-03	SOLID	59.4	58.73*	N/A	%
97000299	T-203	2 SAMPLE	S97T000708	0		TGA-03	SOLID	N/A	74.18		%
97000299	T-203	3 DUP	S97T000708	0		TGA-03	SOLID	74.18	76.56	N/A	%
97000299	T-203	4 SAMPLE	S97T000709	0		TGA-03	SOLID	N/A	75.38		%
97000299	T-203	5 DUP	S97T000709	0		TGA-03	SOLID	75.38	76.43	N/A	%

Final page for worklist # 18041

See Attached for Signature
Analyst Signature Date

Gary J. Hammond Sr 5-27-97
Analyst Signature Date

Validated 6/2/97 Michelon

Data Entry Comments:
~~See~~ 5/27/97

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 18041

Analyst: [illegible] **Instrument:** TGA0 3 **Book #** 91NBA

Method: LA-560-112 Rev/Mod D-0

Worklist Comment: T-203 TGA, RUN UNDER N2. RCJ

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	STD				TGA-01	SOLID			N/A	%
97000299	T-203	2	SAMPLE	S97T000708	0		TGA-01	SOLID	N/A			%
97000299	T-203	3	DUP	S97T000708	0		TGA-01	SOLID			N/A	%
97000299	T-203	4	SAMPLE	S97T000709	0		TGA-01	SOLID	N/A			%
97000299	T-203	5	DUP	S97T000709	0		TGA-01	SOLID			N/A	%

Final page for worklist # 18041

[signature] 5/24/97
Analyst Signature **Date**

Analyst Signature **Date**

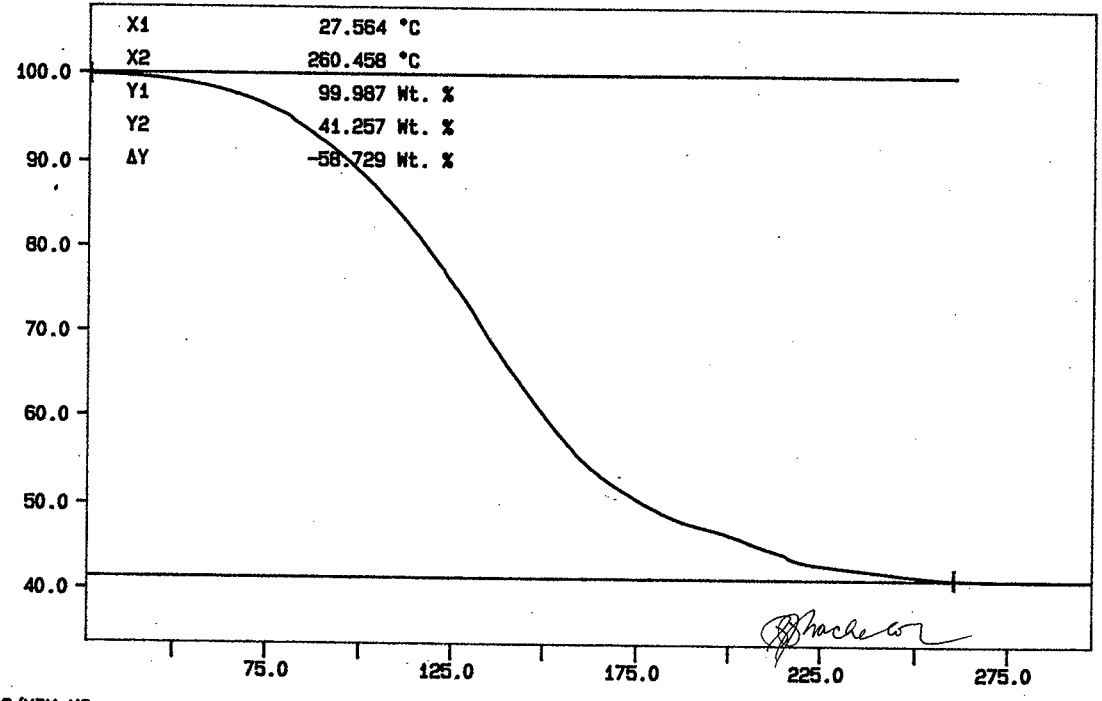
Susie M. Dalton 5-24-97

Data Entry Comments:
Ran samples on TGA-03. [signature] 5/27/97

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

Curve 1: TGA
File info: TER052401 Sat May 24 10:00:17 1997
Sample Weight: 23.069 mg
97N8-A

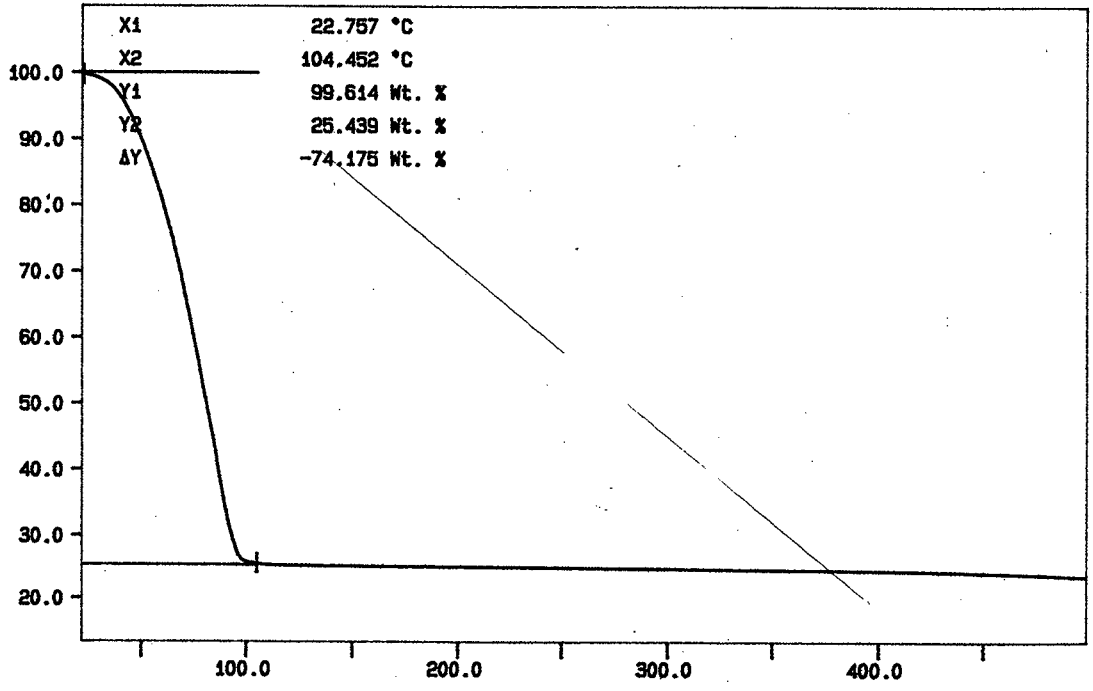
SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 205 TO 209



10C/MIN N2
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 300.0 C

RD MEYERS
PERKIN-ELMER
7 Series Thermal Analysis System
Sat May 24 10:19:09 1997

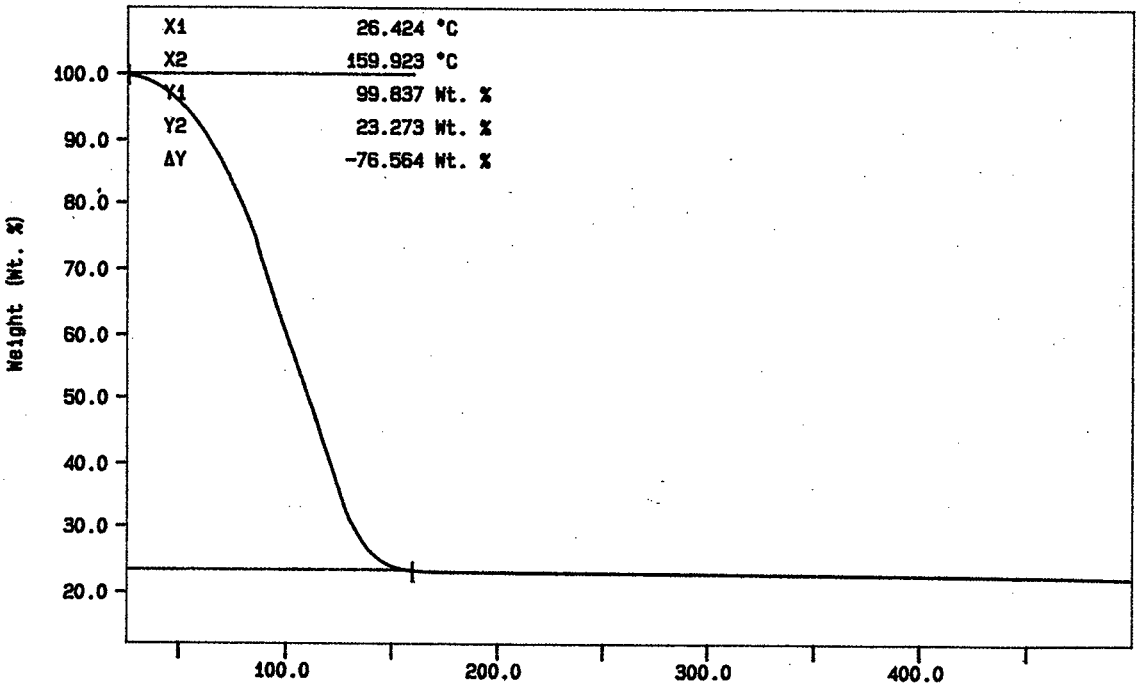
Curve 1: TGA
File info: SAM052408 Sat May 24 13:10:21 1997
Sample Weight: 5.914 mg
S97T000708



10C/MIN N2
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 500.0 C

RD MEYERS
PERKIN-ELMER
7 Series Thermal Analysis System
Sat May 24 13:13:50 1997

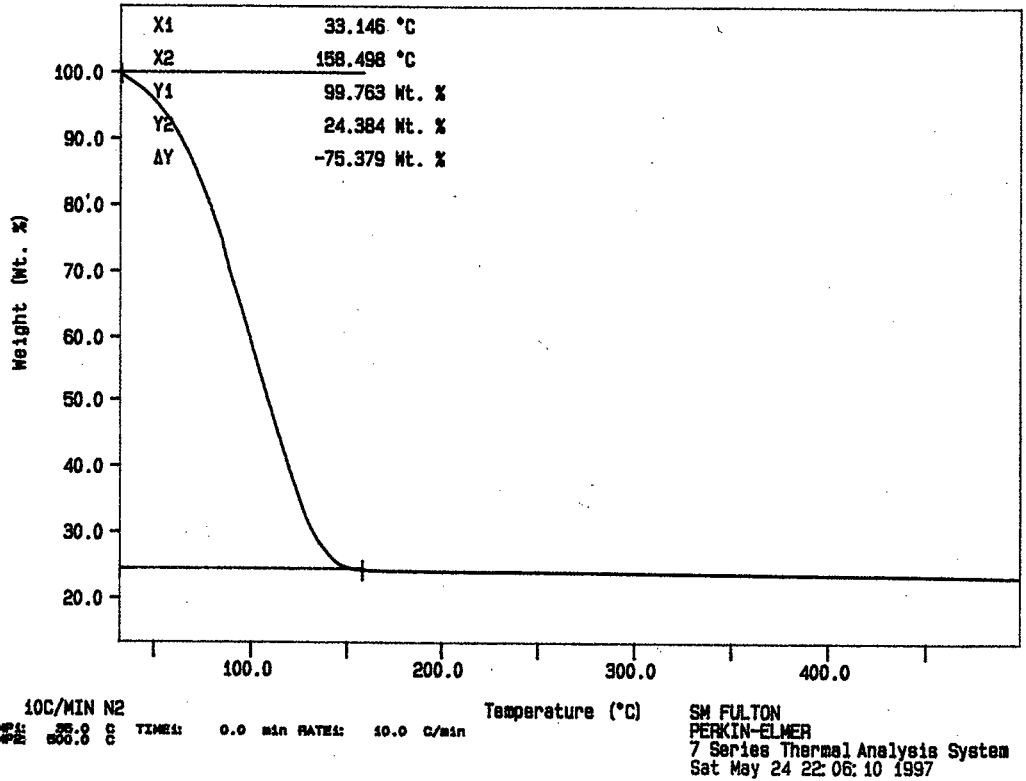
Curve 1: TGA
File info: SAM052411 Sat May 24 20:48:30 1997
Sample Weight: 15.153 mg
S97T000708 DUP



10C/MIN N2
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 600.0 C

SM FULTON
PERKIN-ELMER
7 Series Thermal Analysis System
Sat May 24 20:56:33 1997

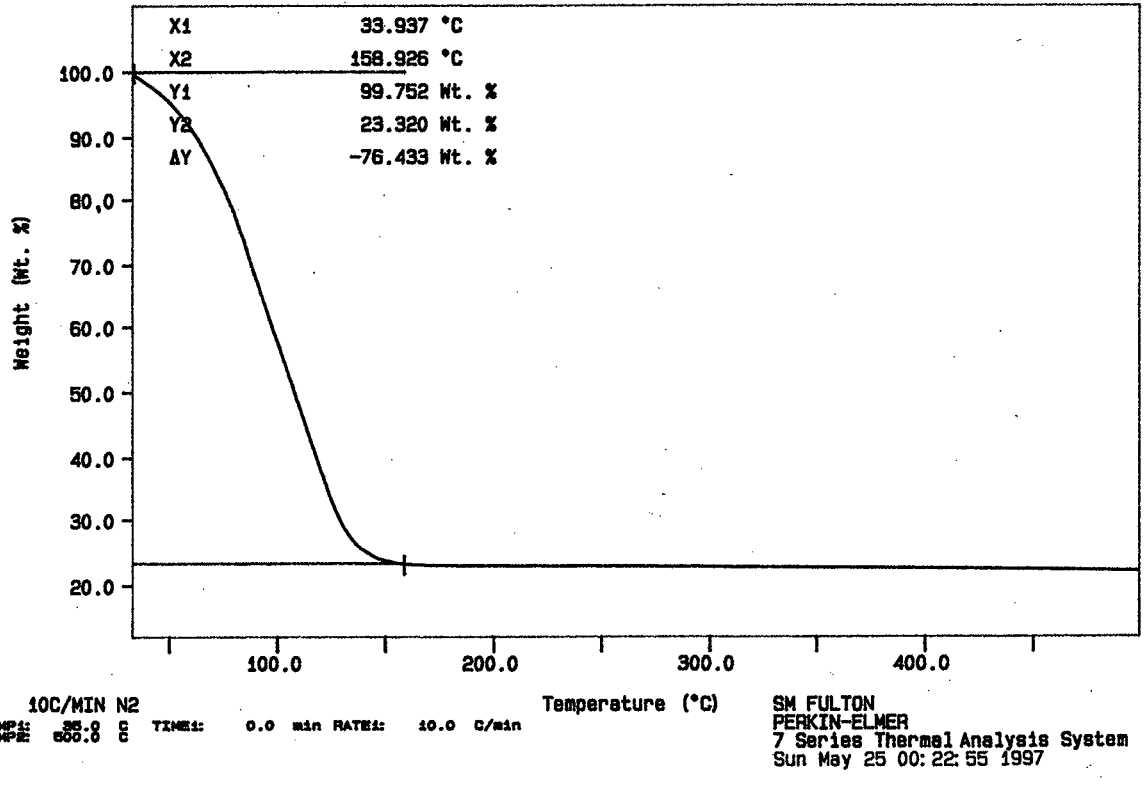
Curve 1: TGA
File info: SAM052412 Sat May 24 21:54:51 1997
Sample Weight: 14.572 mg
S97T000709



10C/MIN N2
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 600.0 C

SM FULTON
PERKIN-ELMER
7 Series Thermal Analysis System
Sat May 24 22:06:10 1997

Curve 1: TGA
File info: SAM052413 Sat May 24 23:01:14 1997
Sample Weight: 12.963 mg
S97T000709 DUP



LABCORE Data Entry Template for Worklist# 18042

Analyst: EAL **Instrument:** TGA0 3 **Book #** 97N8A

Method: LA-514-114 Rev/Mod D-0

Worklist Comment: T-203 TGA, RUN UNDER N2. RCJ

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	STD				TGA-03	SOLID	59.4	58.47	N/A	%
97000299	T-203	2	SAMPLE	S97T000710	0		TGA-03	SOLID	N/A	~~57.45~~ 74.32	~~5/20/97~~	%
97000299	T-203	3	DUP	S97T000710	0		TGA-03	SOLID	74.32	71.29	N/A	%
97000299	T-203	4	SAMPLE	S97T000712	0		TGA-03	SOLID	N/A	69.53		%
97000299	T-203	5	DUP	S97T000712	0		TGA-03	SOLID	69.53	75.99	N/A	%

Final page for worklist # 18042

See Attached for Signature
Analyst Signature **Date**

5-21-97
Analyst Signature **Date**

RJMichelon Validated 5/22/97

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 18042

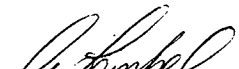
Analyst: EAL **Instrument:** TGA0 3 **Book #** 97NBA

Method: LA-560-112 Rev/Mod D-0

Worklist Comment: T-203 TGA, RUN UNDER N2. RCJ

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	STD				TGA-01	SOLID			N/A	%
97000299	T-203	2	SAMPLE	S97T000710	0		TGA-01	SOLID	N/A			%
97000299	T-203	3	DUP	S97T000710	0		TGA-01	SOLID			N/A	%
97000299	T-203	4	SAMPLE	S97T000712	0		TGA-01	SOLID	N/A			%
97000299	T-203	5	DUP	S97T000712	0		TGA-01	SOLID			N/A	%

Final page for worklist # 18042



05.19.97

Analyst Signature **Date**

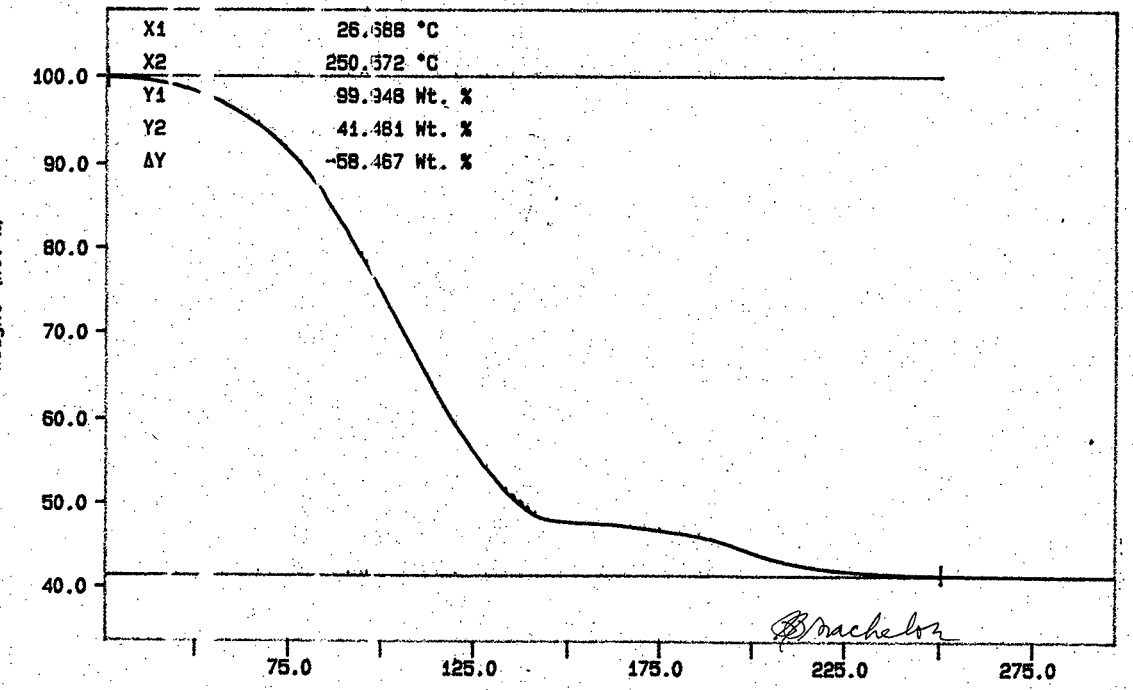
Analyst Signature **Date**

Data Entry Comments:
Ran Samples on TGA-03 5/20/97

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

Curve 1: TGA
File info: TER051903 Mon May 19 17:38:56 1997
Sample Weight: 7.930 mg
TGA STD 97N8-A

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 312 TO 316.



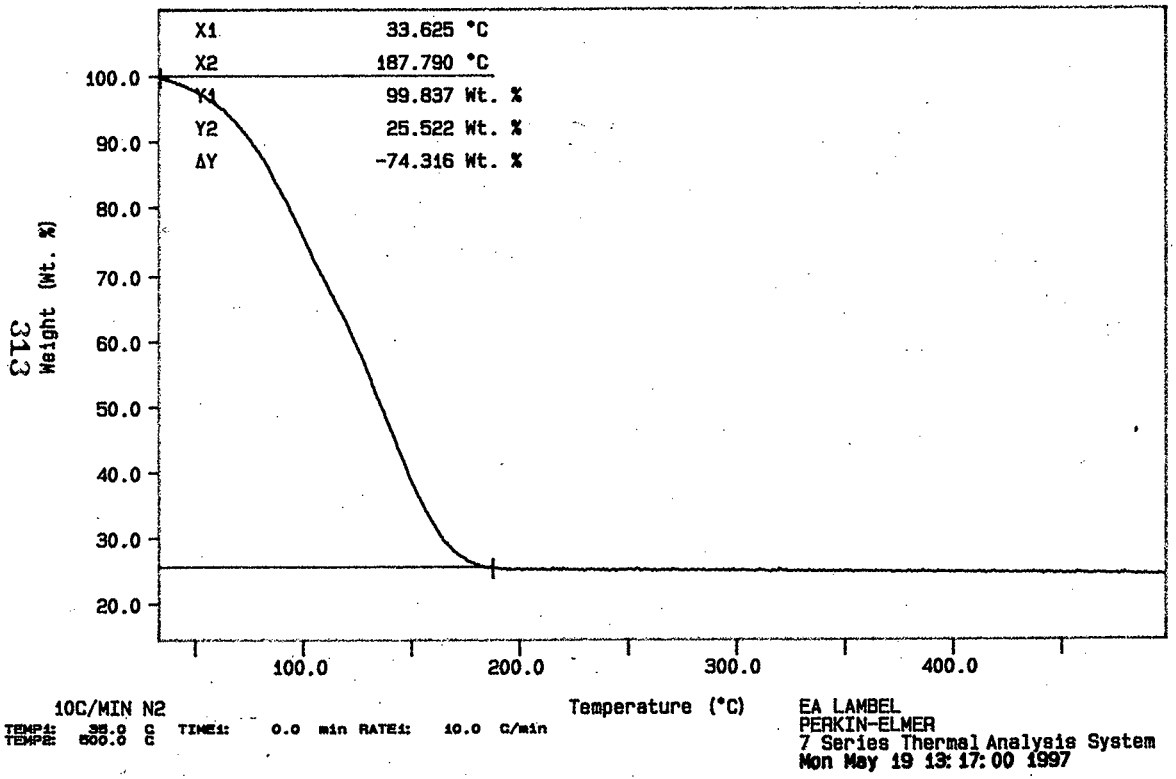
N2 10C/MIN
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 300.0 C

RD MEYERS
PERKIN-ELMER
7 Series Thermal Analysis System
Mon May 19 17:42:02 1997

312

HNF-SD-WM-DP-247, REV. 0

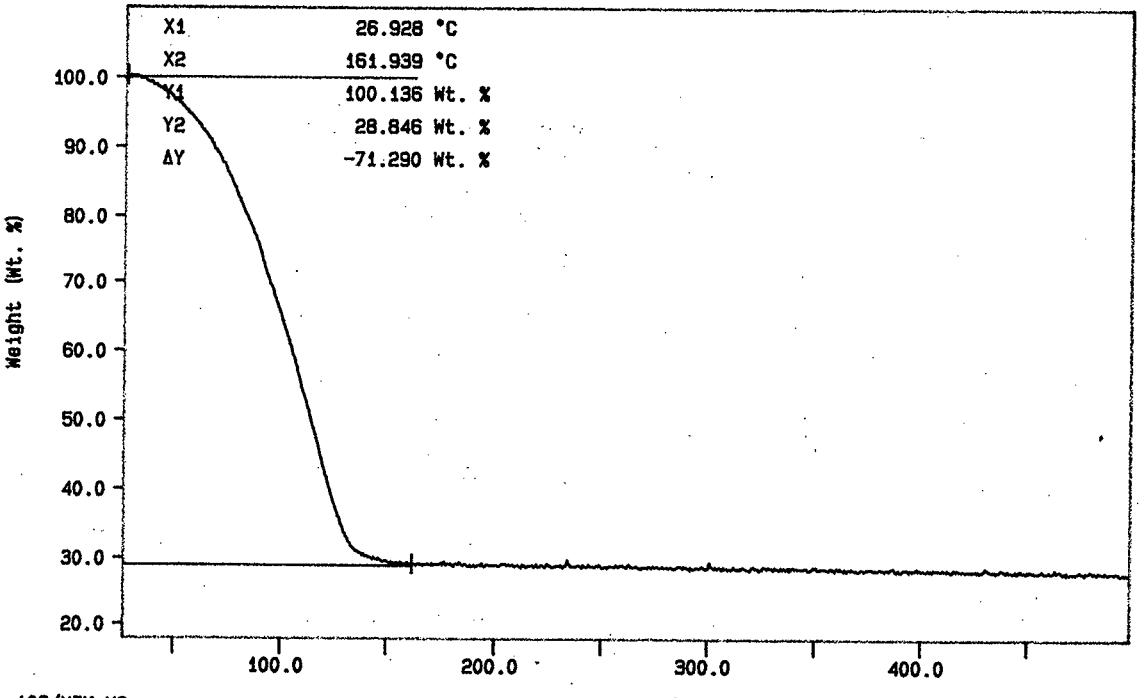
Curve 1: TGA
File info: SAM051901 Mon May 19 12:20:21 1997
Sample Weight: 27.934 mg
S97T000710



10C/MIN N2
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 500.0 C

EA LAMBEL
PERKIN-ELMER
7 Series Thermal Analysis System
Mon May 19 13:17:00 1997

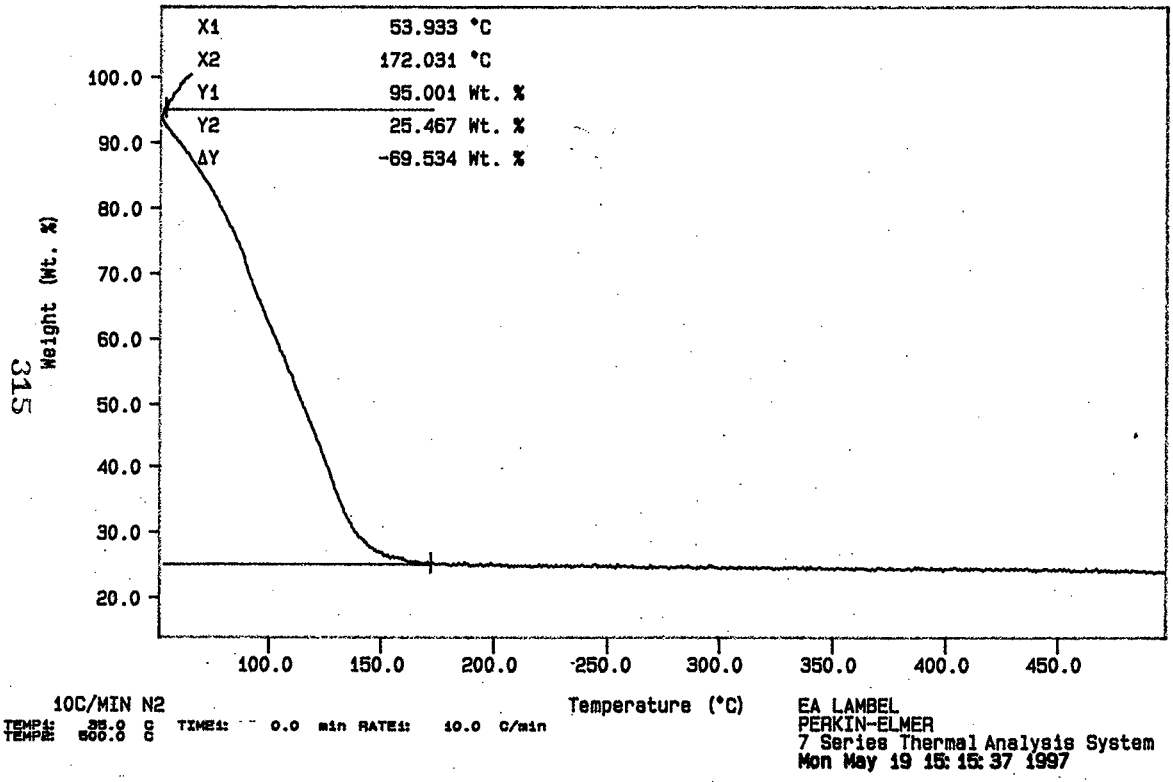
Curve 1: TGA
File info: SAM051902 Mon May 19 14:10:03 1997
Sample Weight: 14.814 mg
S97T000710DUP



10C/MIN N2
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 600.0 C

EA LAMBEL
PERKIN-ELMER
7 Series Thermal Analysis System
Mon May 19 14:14:40 1997

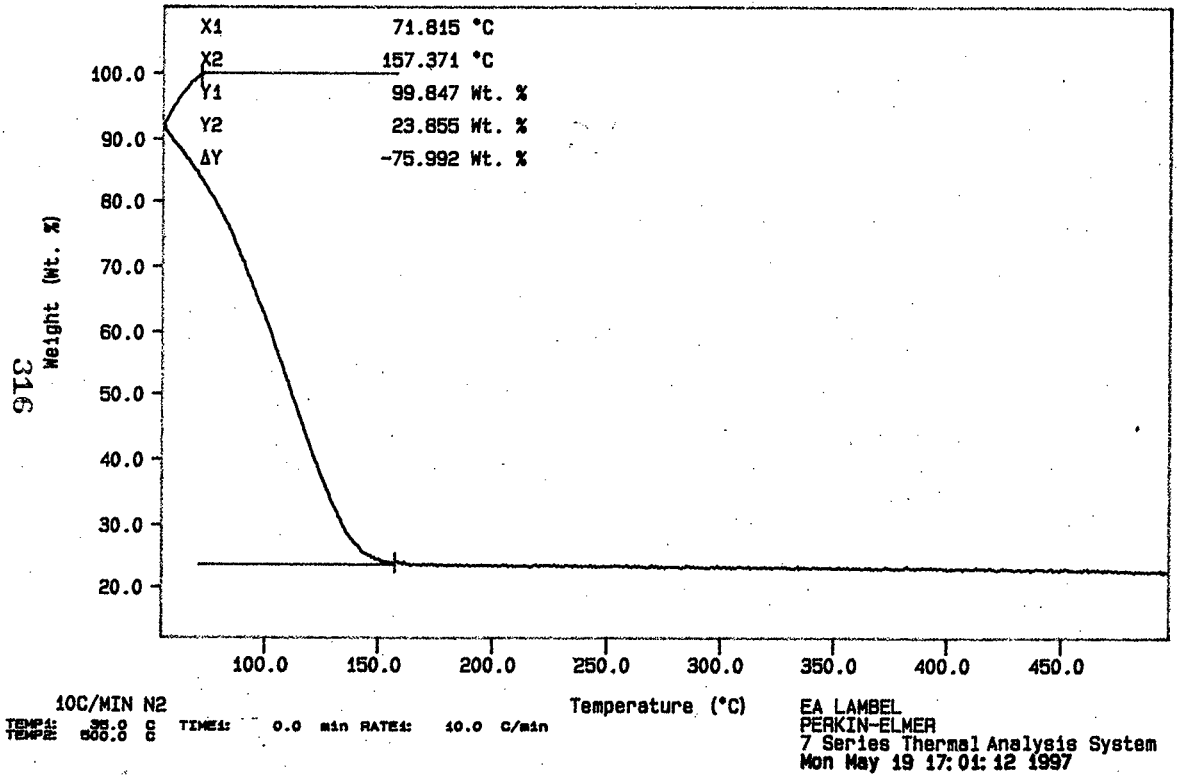
Curve 1: TGA
File info: SAM051903 Mon May 19 15:08:51 1997
Sample Weight: 18.311 mg
S97T000712



10C/MIN N2
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 600.0 C

EA LAMBEL
PERKIN-ELMER
7 Series Thermal Analysis System
Mon May 19 15:15:37 1997

Curve 1: TGA
File info: SAM051904 Mon May 19 16:06:56 1997
Sample Weight: 21.692 mg
S97T000712DUP



316

LABCORE Data Entry Template for Worklist# 18043

Analyst: ADP **Instrument:** TGA0 3 **Book #** 97N8A

Method: LA-514-114 Rev/Mod D-0

Worklist Comment: T-203 TGA, RUN UNDER N2. RCJ

GROUP	PROJECT	S TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD				TGA-03	SOLID	59.4	58.64X	N/A	%
97000299	T-203	2 SAMPLE	S97T000713	0		TGA-03	SOLID	N/A	75.22		%
97000299	T-203	3 DUP	S97T000713	0		TGA-03	SOLID	75.22	75.91	N/A	%
97000299	T-203	4 SAMPLE	S97T000714	0		TGA-03	SOLID	N/A	74.96		%
97000299	T-203	5 DUP	S97T000714	0		TGA-03	SOLID	74.96	71.45	N/A	%

Final page for worklist # 18043

See Attached for Signature
Analyst Signature **Date**

Susan Lee 5/22/97
Analyst Signature **Date**

Validated 6/2/97 Bachelor

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 18043

Analyst: ADP **Instrument:** TGA0 **Book #** 97N 8-4

Method: LA-560-112 Rev/Mod D-0

Worklist Comment: T-203 TGA, RUN UNDER N2. RCJ

GROUP	PROJECT	S TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD				TGA-01	SOLID			N/A	%
97000299	T-203	2 SAMPLE	S97T000713	0		TGA-01	SOLID	N/A			%
97000299	T-203	3 DUP	S97T000713	0		TGA-01	SOLID			N/A	%
97000299	T-203	4 SAMPLE	S97T000714	0		TGA-01	SOLID	N/A			%
97000299	T-203	5 DUP	S97T000714	0		TGA-01	SOLID			N/A	%

Final page for worklist # 18043

Anthony Saueressig 5-21-97
Analyst Signature **Date**

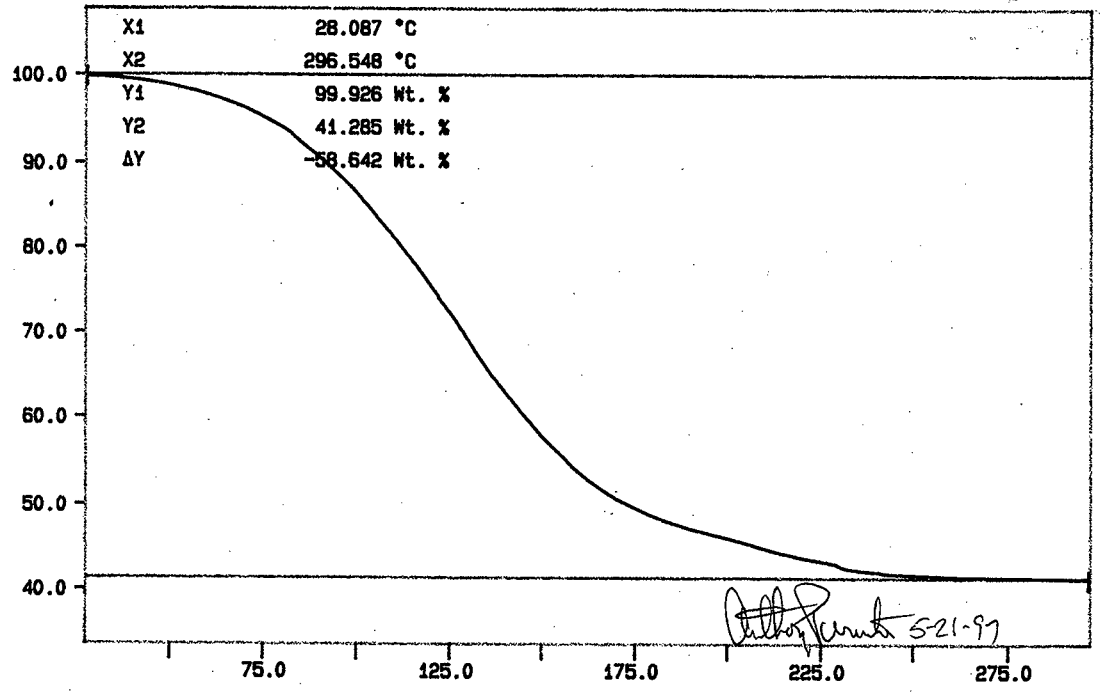
Analyst Signature **Date**

Data Entry Comments:
Ran Samples on TGA-03. SSS 5/22/97

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

Curve 1: TGA
File info: TER052101 Wed May 21 07:08:54 1997
Sample Weight: 22.268 mg
97N8-A

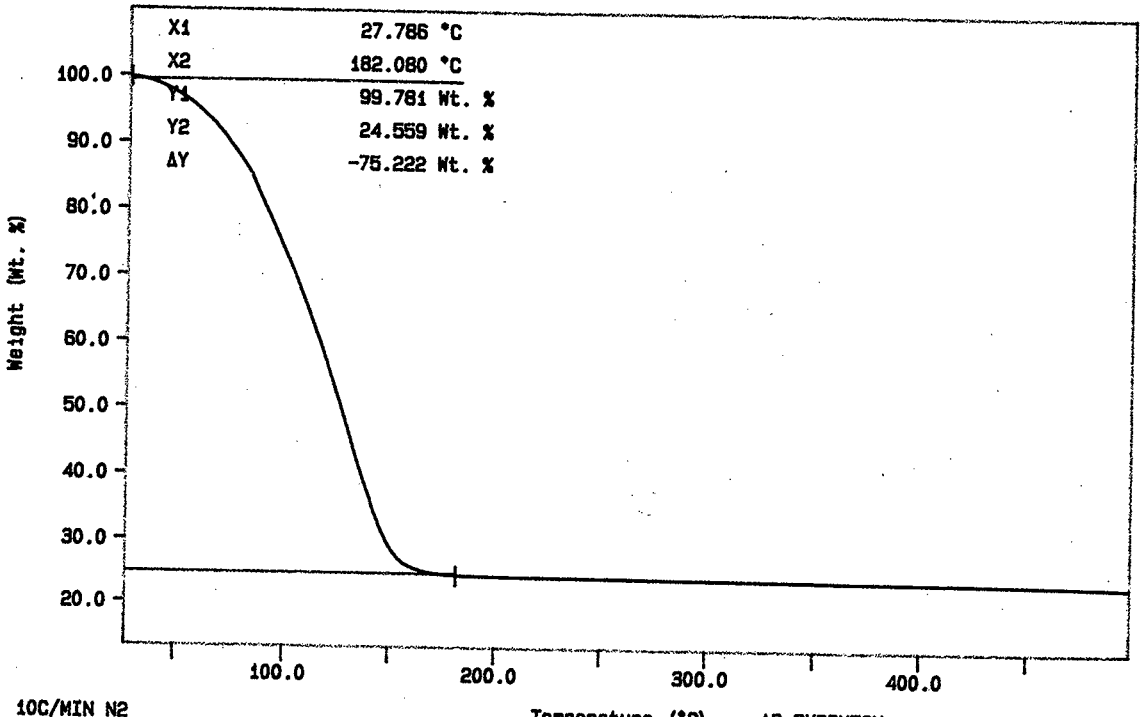
SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 319 TO 333



10C/MIN N2
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 300.0 C

AD PURINTON
PERKIN-ELMER
7 Series Thermal Analysis System
Wed May 21 07:51:56 1997

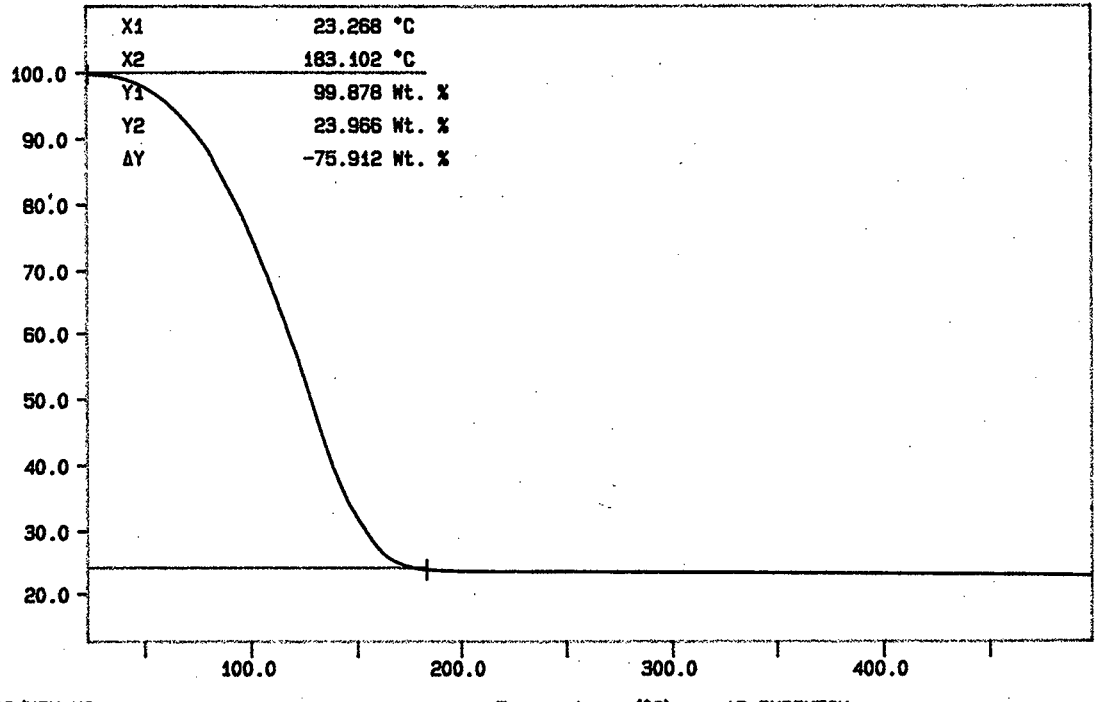
Curve 1: TGA
File info: SAM052109 Wed May 21 14:18:52 1997
Sample Weight: 22.586 mg
S97T000713 SAM



10C/MIN N2
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 500.0 C

AD PURINTON
PERKIN-ELMER
7 Series Thermal Analysis System
Wed May 21 14:22:10 1997

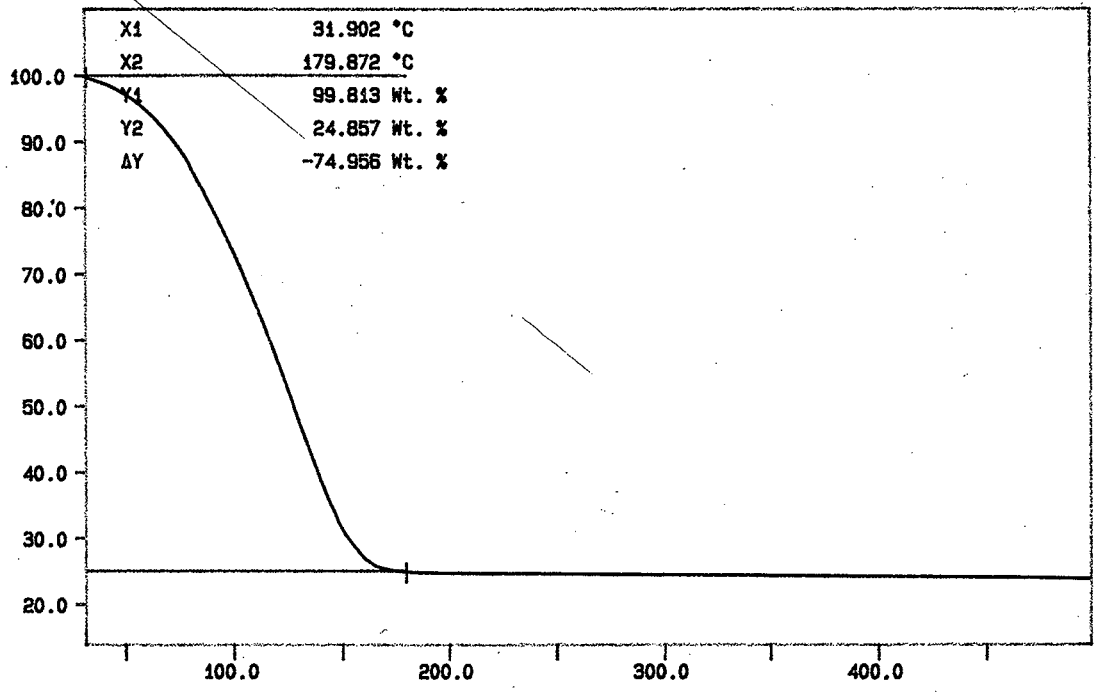
Curve 1: TGA
File info: SAM052110 Wed May 21 16:02:58 1997
Sample Weight: 26.294 mg
S97T000713 DUP



10C/MIN N2
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 600.0 C

AD PURINTON
PERKIN-ELMER
7 Series Thermal Analysis System
Wed May 21 16:05:27 1997

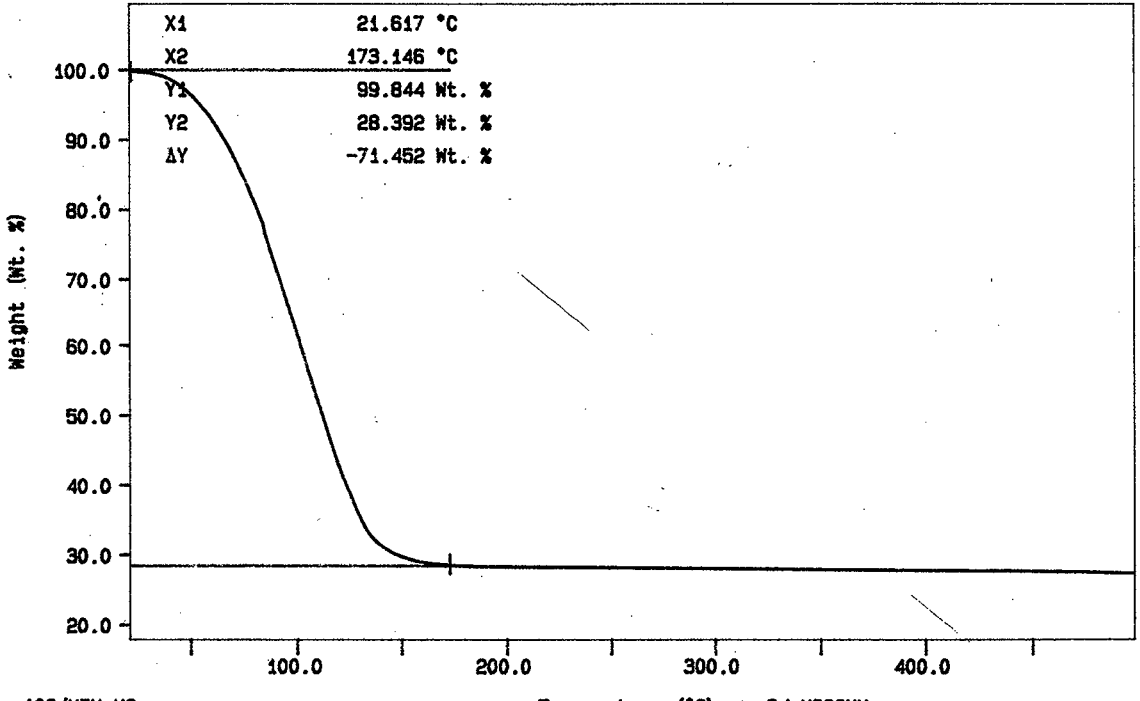
Curve 1: TGA
File info: SAM052111 Wed May 21 17:10:08 1997
Sample Weight: 18.562 mg
S97T000714 SAM



10C/MIN N2
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 600.0 C

AD PURINTON
PERKIN-ELMER
7 Series Thermal Analysis System
Wed May 21 17:42:39 1997

Curve 1: TGA
File info: SAM052112 Wed May 21 18:57:09 1997
Sample Weight: 13.054 mg
S97T000714 DUP



10C/MIN N2
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 500.0 C

PJ MCCOWN
PERKIN-ELMER
7 Series Thermal Analysis System
Wed May 21 18:57:41 1997

LABCORE Data Entry Template for Worklist# 18044

Analyst: SMF **Instrument:** TGA0 3 **Book #** 97N8A

Method: LA-514-114 Rev/Mod D-0

Worklist Comment: T-203 TGA, RUN UNDER N2. RCJ

GROUP	PROJECT	S TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD				TGA-03	SOLID	59.4	58.89	N/A	%
97000299	T-203	2 SAMPLE	S97T000715	0		TGA-03	SOLID	N/A	75.76		%
97000299	T-203	3 DUP	S97T000715	0		TGA-03	SOLID	75.76	75.86	N/A	%
97000299	T-203	4 SAMPLE	S97T000716	0		TGA-03	SOLID	N/A	76.59		%
97000299	T-203	5 DUP	S97T000716	0		TGA-03	SOLID	76.59	76.13	N/A	%

Final page for worklist # 18044

See Attached for Signature 5/27/97
Analyst Signature **Date**

Susan Lee 5/27/97
Analyst Signature **Date**

Validated 6/2/97 Bachelor

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 18044

Analyst: SMF **Instrument:** TGA0 3 **Book #** 97N8A

Method: LA-560-112 Rev/Mod D-0

Worklist Comment: T-203 TGA, RUN UNDER N2. RCJ

GROUP	PROJECT	S TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD				TGA-01	SOLID			N/A	%
97000299	T-203	2 SAMPLE	S97T000715	0		TGA-01	SOLID	N/A			%
97000299	T-203	3 DUP	S97T000715	0		TGA-01	SOLID			N/A	%
97000299	T-203	4 SAMPLE	S97T000716	0		TGA-01	SOLID	N/A			%
97000299	T-203	5 DUP	S97T000716	0		TGA-01	SOLID			N/A	%

Final page for worklist # 18044

Susie M. Dalton 5-23-97

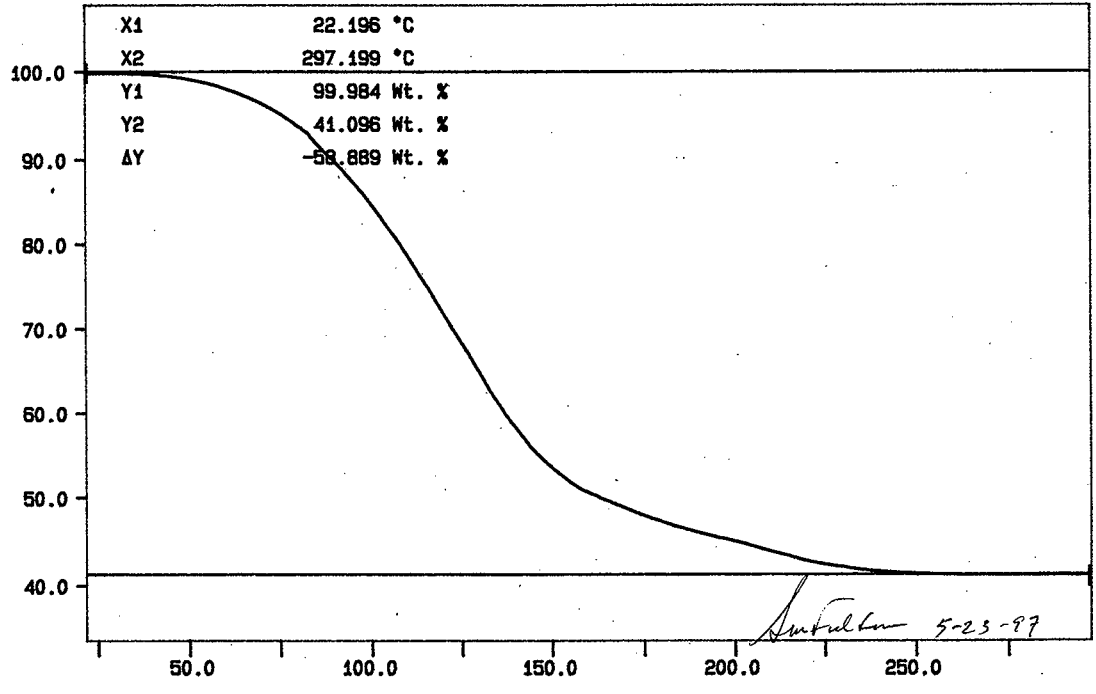
Analyst Signature **Date** **Analyst Signature** **Date**

Data Entry Comments:
Ran samples on TGA-03. 5/27/97

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

Curve 1: TGA
File info: TER052301 Fri May 23 07:45:20 1997
Sample Weight: 15.510 mg
97N8-A

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 329 TO 330



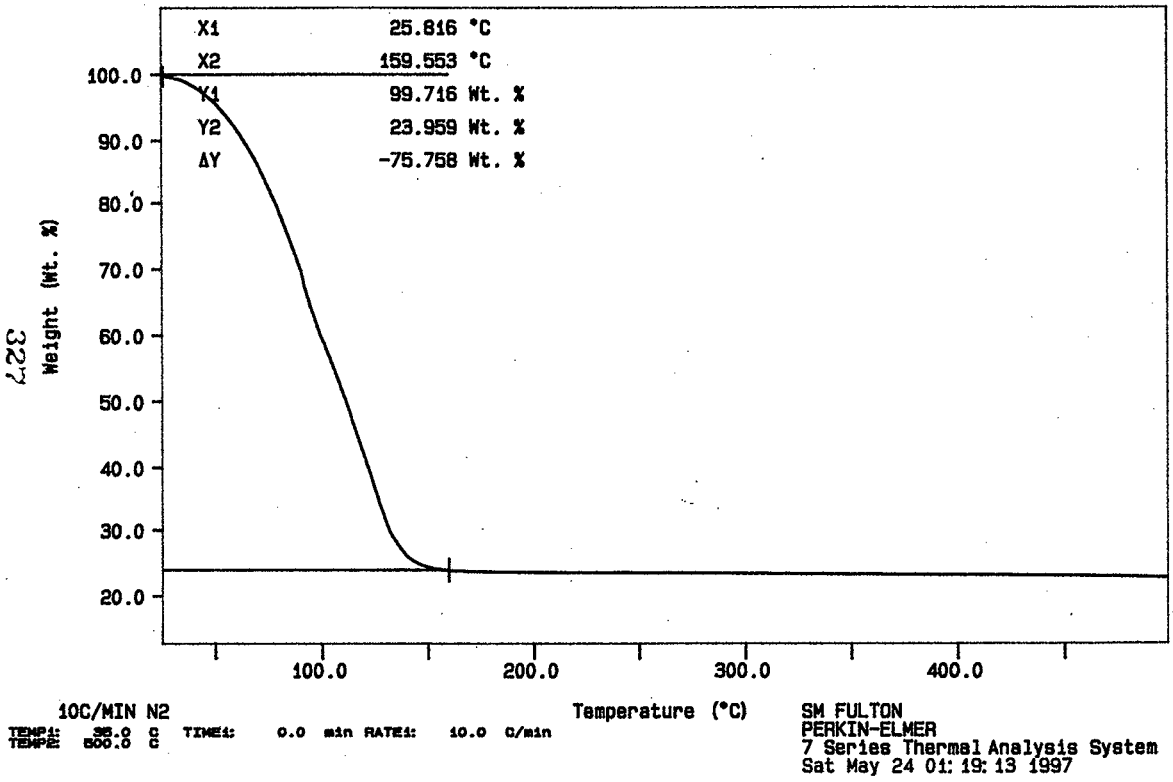
10C/MIN N2
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 300.0 C

RD MEYERS
PERKIN-ELMER
7 Series Thermal Analysis System
Sat May 24 00:23:02 1997

326

HNF-SD-WM-DP-247, REV.0

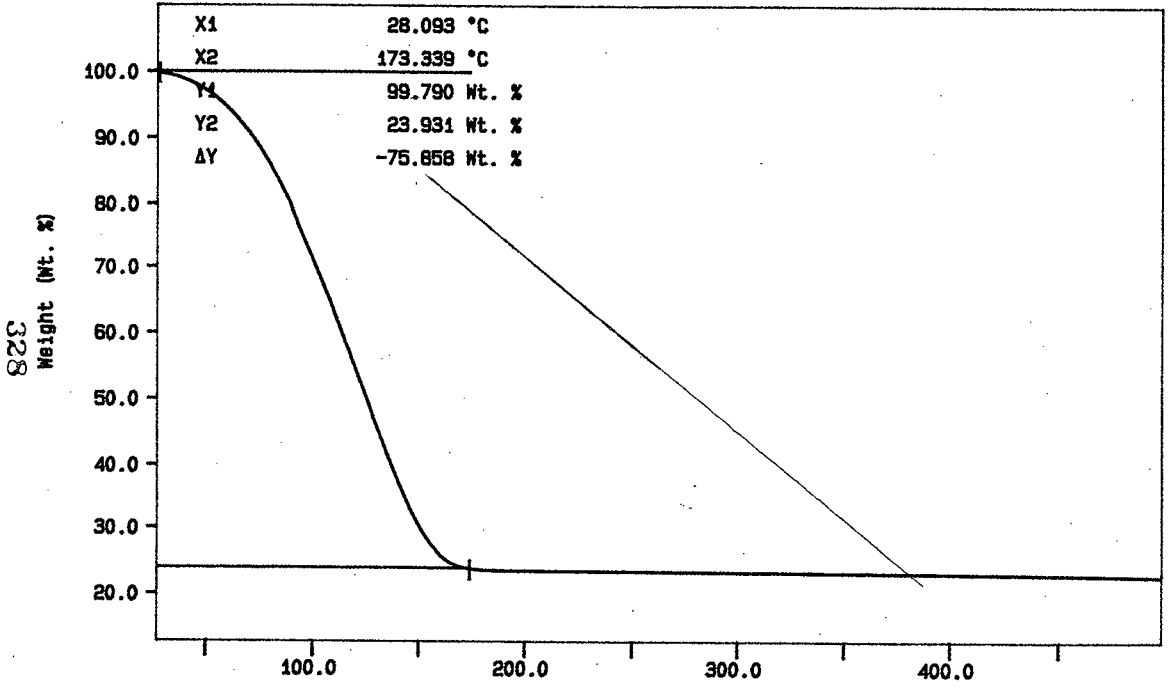
Curve 1: TGA
File info: SAM052313 Sat May 24 01:07:57 1997
Sample Weight: 14.580 mg
S97T000715



10C/MIN N2
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 600.0 C

SM FULTON
PERKIN-ELMER
7 Series Thermal Analysis System
Sat May 24 01:19:13 1997

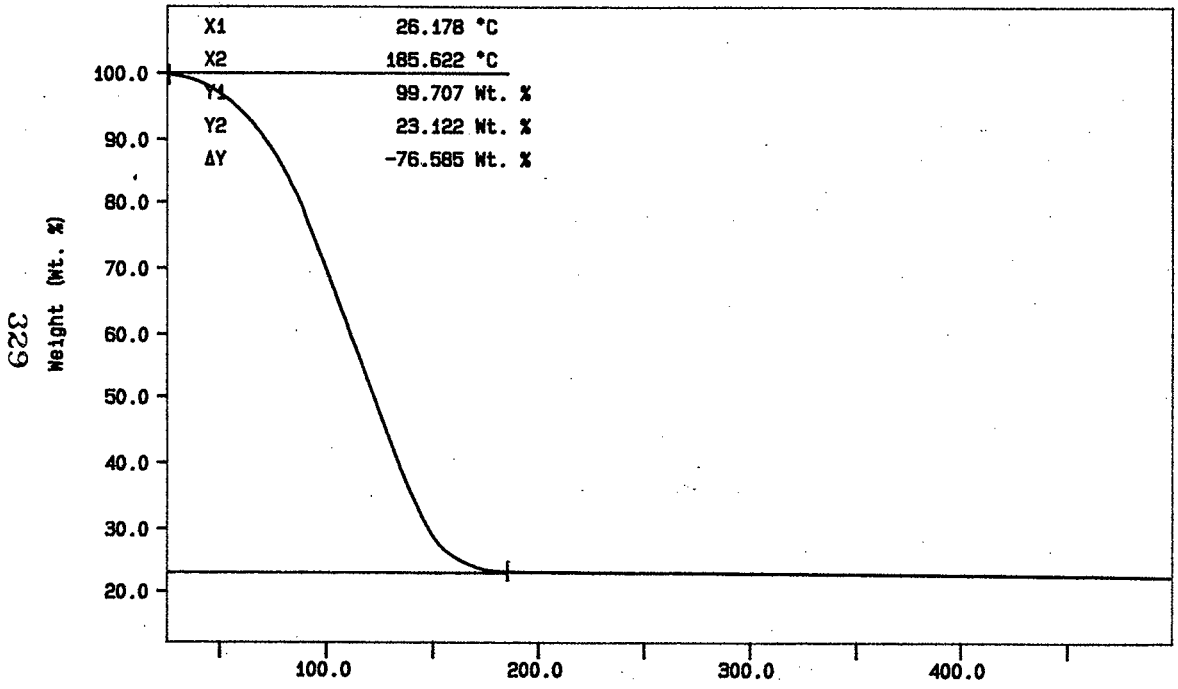
Curve 1: TGA
File info: SAM052314 Sat May 24 02:18:09 1997
Sample Weight: 20.674 mg
S97T000715 DUP



10C/MIN N2
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 600.0 C

SM FULTON
PERKIN-ELMER
7 Series Thermal Analysis System
Sat May 24 03:05:55 1997

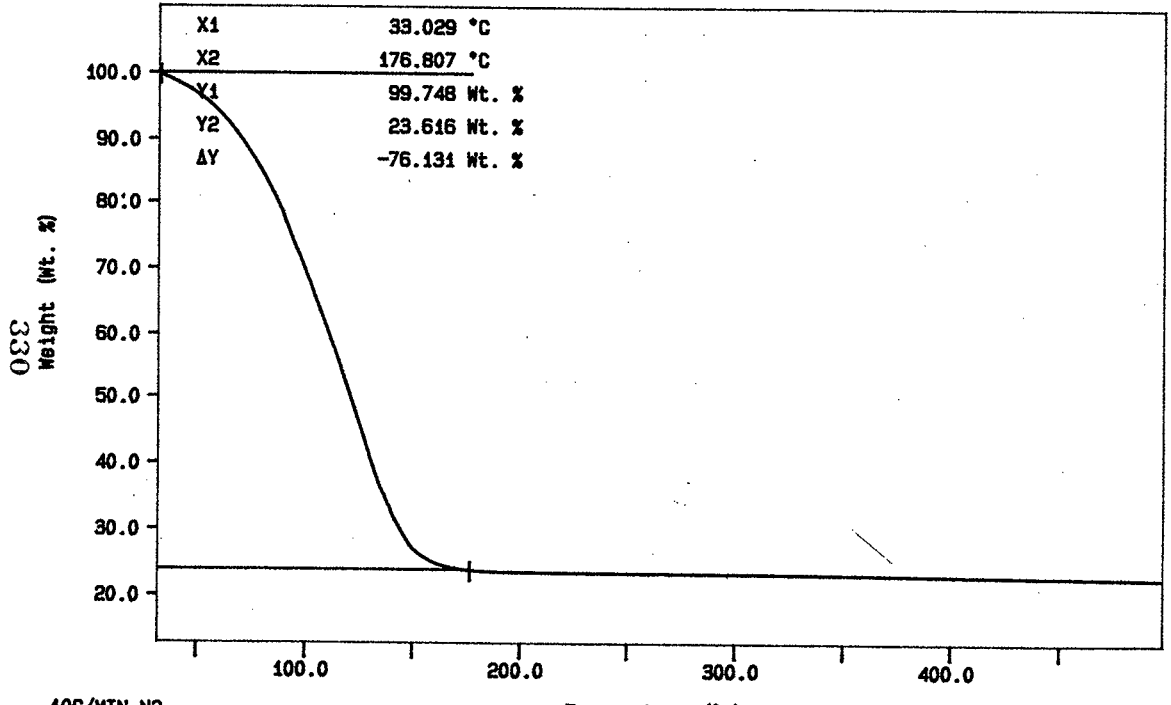
Curve 1: TGA
File info: SAM052315 Sat May 24 03:58:07 1997
Sample Weight: 20.358 mg
S97T000716



10C/MIN N2
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 600.0 C

SM FULTON
PERKIN-ELMER
7 Series Thermal Analysis System
Sat May 24 04:02:37 1997

Curve 1: TGA
File info: SAM052316 Sat May 24 05:03:09 1997
Sample Weight: 17.090 mg
S97T000716 DUP



10C/MIN N2
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 600.0 C

SM FULTON
PERKIN-ELMER
7 Series Thermal Analysis System
Sat May 24 09:19:52 1997

330

worklistrpt Version 2.1 05/15/95
07/07/97 14:53

LABCORE Data Entry Template for Worklist# 18779

Analyst: [illegible] **Instrument:** TGA0 3 **Book #** 103N9A

Method: LA-514-114 Rev/Mod D-1

Worklist Comment: T203, TGA-03 Run under Nitrogen. skm

GROUP	PROJECT	S TYPE	SAMPLE#	R	A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD				TGA-03	SOLID	59.0	58.67*	N/A	%
97000299	T-203	2 SAMPLE	S97T001013	0		TGA-03	SOLID	N/A	69.57		%
97000299	T-203	3 DUP	S97T001013	0		TGA-03	SOLID	69.57	72.49	N/A	%

Final page for worklist # 18779

[illegible] 7/14/97
Analyst Signature **Date**

Susan Lee 7/22/97
Analyst Signature **Date**

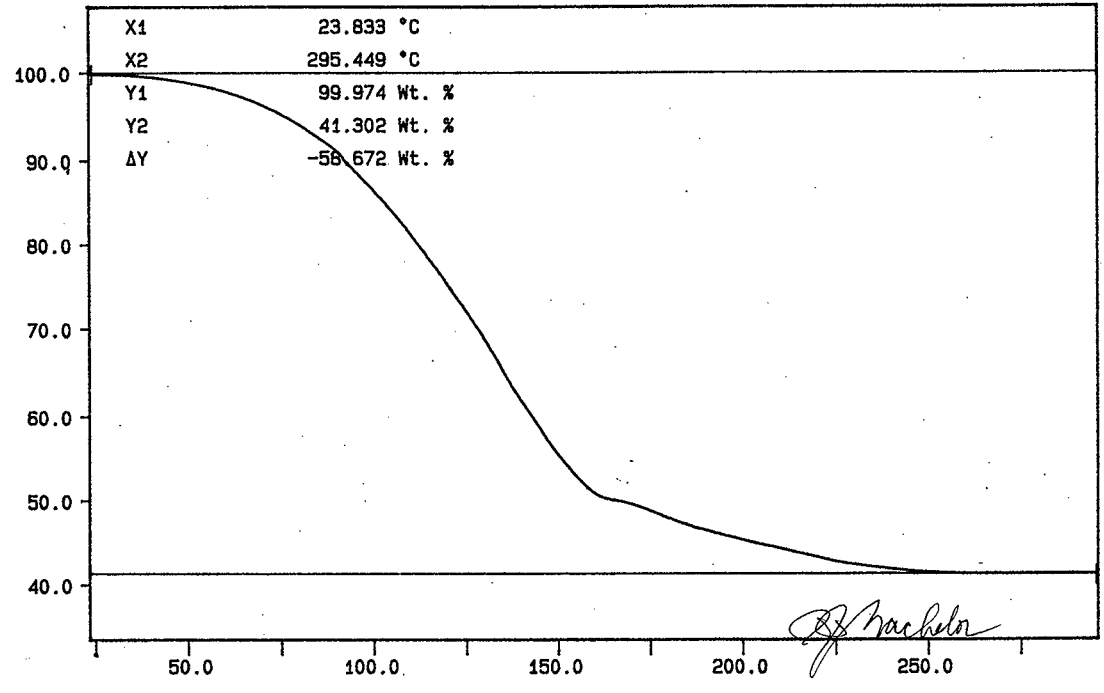
Validated 7/24/97 [illegible]

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

Curve 1: TGA
File info: TER071901 Sat Jul 19 07:31:57 1997
Sample Weight: 13.821 mg
STD 103N8-A

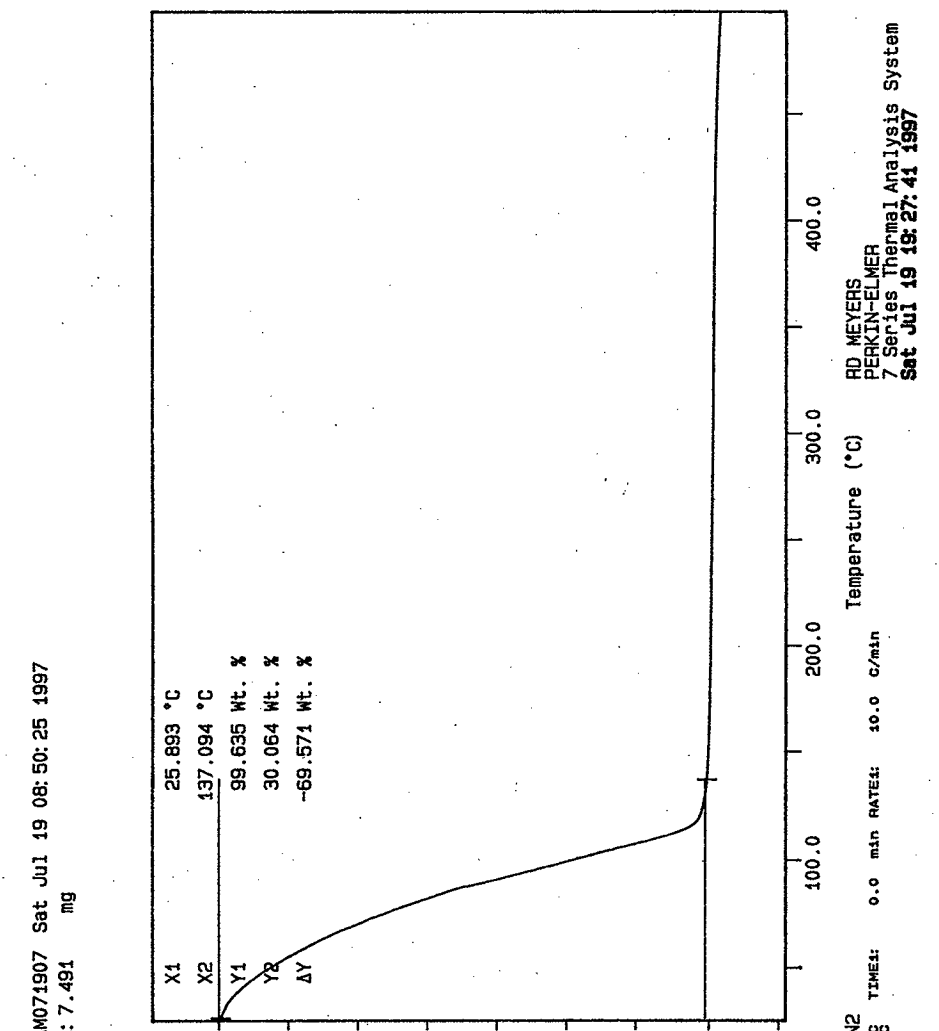
SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 332 TO 334



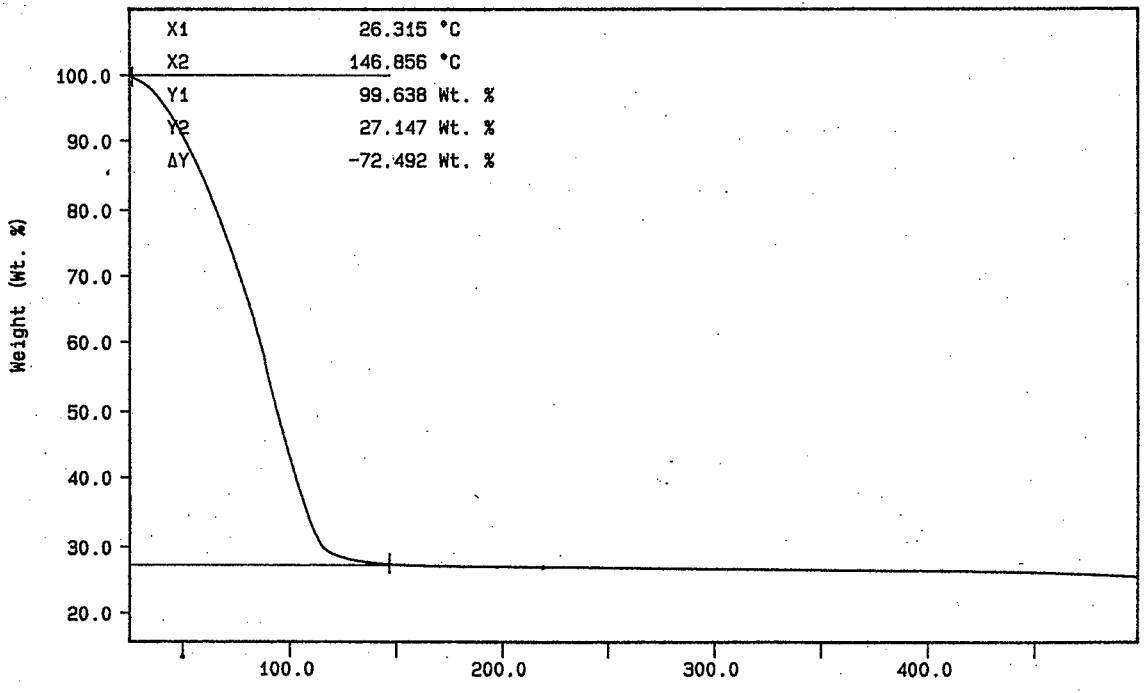
10C/MIN N2
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 300.0 C

RD MEYERS
PERKIN-ELMER
7 Series Thermal Analysis System
Sat Jul 19 19:40:17 1997

332


Curve 1: TGA
File info: SAM071907 Sat Jul 19 08:50:25 1997
Sample Weight: 7.491 mg
S97T001013
X1 25.893 °C
X2 137.094 °C
Y1 99.635 Wt. %
Y2 30.064 Wt. %
ΔY -69.571 Wt. %
Weight (Wt. %)
100.0
90.0
80.0
70.0
60.0
50.0
40.0
30.0
20.0
100.0
200.0
300.0
400.0
Temperature (°C)
10C/MIN N2
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 600.0 C
RD MEYERS
PERKIN-ELMER
7 Series Thermal Analysis System
Sat Jul 19 13:27:41 1997

Curve 1: TGA
File info: SAM071908 Sat Jul 19 11:18:19 1997
Sample Weight: 6.580 mg
S97T001013DUP



10C/MIN N2
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 500.0 C

RD MEYERS
PERKIN-ELMER
7 Series Thermal Analysis System
Sat Jul 19 19:23:59 1997

worklistrpt Version 2.1 05/15/95
05/07/97 07:28

LABCORE Data Entry Template for Worklist# 17965

Analyst: KMM **Instrument:** BA001 **Book #** 133N16A

Method: LA-510-112 Rev/Mod D-0

Worklist Comment: T203, AW106 SPG-01 Use a cal. pipette. skm

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	STD				SPG-01	LIQUID	1.3935	1.387	N/A	Sp.G.
97000327	AW-106 GRAB1	2	SAMPLE	S97T000781	0		SPG-01	LIQUID	N/A	1.291	0.01	Sp.G.
97000299	T-203	3	SAMPLE	S97T000733	0		SPG-01	LIQUID	N/A	1.087	0.01	Sp.G.
97000299	T-203	4	DUP	S97T000733	0		SPG-01	LIQUID	1.087	1.084	N/A	Sp.G.

Final page for worklist # 17965

RWSchneider 5/7/97
Analyst Signature **Date**

[signature] 5-7-97
Analyst Signature **Date**

Approved RW Schneider 5/7/97

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

SPECIFIC GRAVITY : LA-510-112 (C-3)

Type		STANDARD	STANDARD
STANDARD	Gross Weight (W2)	1.9909	2.0077
Work List	Tare Weight (W1)	1.8874	1.9027
17965	Weight of Solution (W2-W1)	0.1035	0.105
Test Code	Volume of Solution µL	75.1400	75.1400
SPG-01	Specific Gravity	1.3774	1.3974
Matrix	Specific Gravity (Average)	1.3874	
LIQUID			
Sample #			
STD			
Instrument Code	Gross Weight (W2) = Wt. of vial + cap + cotton + solution		
BA001	Tare Weight (W1) = Wt. of vial + cap + cotton		
Analyst			
RDM	Specific Gravity = [(W2-W1) * 1000 µL/mL] / [Vol. of Solution µL * 1.000 g/mL]		
Date			
05/07/97	v RESULT v		
Time	Specific Gravity Average =	1.387	
09:15 AM			

Data Entry by: [signature] Date: 05/07/97

Approved by: RW Schroeder Date: 5/7/97

Form 510112L1 Rev. 1.1

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

SPECIFIC GRAVITY : LA-510-112 (C-3)

Type		SAMPLE	REPLICATE
SAMPLE	Gross Weight (W2)	1.9159	1.9446
Work List	Tare Weight (W1)	1.8344	1.8627
17965	Weight of Solution (W2-W1)	0.0815	0.0819
Test Code	Volume of Solution µL	75.1400	75.1400
SPG-01	Specific Gravity	1.0846	1.0900
Matrix	Specific Gravity (Average)	1.0873	
LIQUID			
Sample.#			
S97T000733			
Instrument Code	Gross Weight (W2) = Wt. of vial + cap + cotton + solution		
BA001	Tare Weight (W1) = Wt. of vial + cap + cotton		
Analyst			
RDM	Specific Gravity = [(W2-W1) * 1000 µL/mL] / [Vol. of Solution µL * 1.000 g/mL]		
Date			
05/07/97	v RESULT v		
Time	Specific Gravity Average =	1.087	
09:15 AM			

Data Entry by: [signature] Date: 05/07/97

Approved by: RW Schroeder Date: 5/7/97

Form 510112L1 Rev. 1.1

mle 6-12-97

~~HNF-SD-WM-DP-247, REV. 0~~

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

SPECIFIC GRAVITY : LA-510-112 (C-3)

Type		DUPLICATE	REPLICATE
DUPLICATE	Gross Weight (W2)	1.9474	1.9718
Work List	Tare Weight (W1)	1.8666	1.8897
17965	Weight of Solution (W2-W1)	0.0808	0.0821
Test Code	Volume of Solution µL	75.1400	75.1400
SPG-01	Specific Gravity	1.0753	1.0926
Matrix	Specific Gravity (Average)	1.0840	
LIQUID			
Sample #			
S97T000~~733~~ RWS O.K. 5/7/97			
Instrument Code	Gross Weight (W2) = Wt. of vial + cap + cotton + solution		
BA001	Tare Weight (W1) = Wt. of vial + cap + cotton		
Analyst			
RDM	Specific Gravity = [(W2-W1) * 1000 µL/mL] / [Vol. of Solution µL * 1.000 g/mL]		
Date			
05/07/97	v RESULT v		
Time	Specific Gravity Average =	1.084	
09:15 AM			

Data Entry by:		Date:	05/07/97
Approved by:	RW Schroeder	Date:	5/7/97

Form 510112L1 Rev. 1.1

worklistrpt Version 2.1 05/15/95
05/12/97 08:41

LABCORE Data Entry Template for Worklist# 18056

Analyst: ADP **Instrument:** BA001 **Book #** 133N16-A

Method: LA-510-112 Rev/Mod D-1

Worklist Comment: T-203 SPG. RCJ

GROUP	PROJECT	S TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT	
		1 STD				SPG-01	LIQUID	1.39755	1.395 1.008	N/A	Sp.G.	
97000299	T-203	2 SAMPLE	S97T000731	0		SPG-01	LIQUID	N/A 1.008	~~1.0075~~ 0.990	0.010	Sp.G.	RWS 5/14/9
97000299	T-203	3 DUP	S97T000731	0		SPG-01	LIQUID	~~1.0075~~	~~0.9900~~	N/A	Sp.G.	RWS 5/14/9

Final page for worklist # 18056

Analyst Signature Date 5-13-97

Analyst Signature Date 5-14-97

RW Schroeder 5/14/97

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

SPECIFIC GRAVITY : LA-510-112 (C-3)

Type		STANDARD	STANDARD
STANDARD	Gross Weight (W2)	1.9884	1.9282
Work List	Tare Weight (W1)	1.8835	1.8234
18056	Weight of Solution (W2-W1)	0.1049	0.1048
Test Code	Volume of Solution µL	75.1400	75.1400
SPG-01	Specific Gravity	1.3961	1.3947
Matrix	Specific Gravity (Average)	1.3954	
LIQUID			
Sample #			
STD			
Instrument Code	Gross Weight (W2) = Wt. of vial + cap + cotton + solution		
BA001	Tare Weight (W1) = Wt. of vial + cap + cotton		
Analyst			
ADP	Specific Gravity = [(W2-W1) * 1000 µL/mL] / [Vol. of Solution µL * 1.000 g/mL]		
Date			
05/13/97	v RESULT v		
Time	Specific Gravity Average =	1.395	
11:45 PM			

Data Entry by:	Mary J. Hammett Sc	Date:	05/14/97
Approved by:	R W Schroeder	Date:	5/14/97

Form 510112L1 Rev. 1.1

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

SPECIFIC GRAVITY : LA-510-112 (C-3)

Type		SAMPLE	REPLICATE
SAMPLE	Gross Weight (W2)	1.9528	1.9442
Work List	Tare Weight (W1)	1.8771	1.8698
18056	Weight of Solution (W2-W1)	0.0757	0.0744
Test Code	Volume of Solution µL	75.1400	75.1400
SPG-01	Specific Gravity	1.0075	0.9902
Matrix	Specific Gravity (Average)	0.9988	
LIQUID			
Sample #			
S97T000731			
Instrument Code	Gross Weight (W2) = Wt. of vial + cap + cotton + solution		
BA001	Tare Weight (W1) = Wt. of vial + cap + cotton		
Analyst			
ADP	Specific Gravity = [(W2-W1) * 1000 µL/mL] / [Vol. of Solution µL * 1.000 g/mL]		
Date			
05/13/97	v RESULT v		
Time	Specific Gravity Average =	0.999	
11:45 PM			

Data Entry by:	Daryl J. Hammond Sr	Date:	05/14/97
Approved by:	R W Schroeder	Date:	5/14/97

Form 510112L1 Rev. 1.1

LABCORE Completed Worklist Report for Worklist# 18000

Analyst: rag **Instrument:** IC01 **Book#** 50N20D

Method: LA-533-105 Rev/Mod D-1

Worklist Comment: T203, AW106 GRAB1, @IC-01 skm

Seq	Type	Sample#	R	A	Test	Matrix	Actual		Found	DL or Yield	Unit
1	CCB		0	@IC-QC	F	QC	1		<1.20e-2		ug/mL
1	CCB		0	@IC-QC	CL	QC	1		<1.70e-2		ug/mL
1	CCB		0	@IC-QC	NO2	QC	1		<1.08e-1		ug/mL
1	CCB		0	@IC-QC	BR	QC	1		<1.25e-1		ug/mL
1	CCB		0	@IC-QC	NO3	QC	1		<1.39e-1		ug/mL
1	CCB		0	@IC-QC	PO4	QC	1		<1.20e-1		ug/mL
1	CCB		0	@IC-QC	SO4	QC	1		<1.38e-1		ug/mL
1	CCB		0	@IC-QC	OXALATE2	QC	1		<1.05e-1		ug/mL
2	CCV		0	@IC-QC	F	QC	5.90e01		6.19e+01	104.915	% Recovery
2	CCV		0	@IC-QC	CL	QC	7.90e01		8.61e+01	108.987	% Recovery
2	CCV		0	@IC-QC	NO2	QC	5.43e02		5.60e+02	103.131	% Recovery
2	CCV		0	@IC-QC	BR	QC	5.89e02		5.73e+02	97.284	% Recovery
2	CCV		0	@IC-QC	NO3	QC	5.94e02		5.81e+02	97.811	% Recovery
2	CCV		0	@IC-QC	PO4	QC	5.45e02		5.57e+02	102.202	% Recovery
2	CCV		0	@IC-QC	SO4	QC	6.31e02		6.19e+02	98.098	% Recovery
2	CCV		0	@IC-QC	OXALATE2	QC	5.32e02		5.58e+02	104.887	% Recovery
3	SAMPLE	S97T000781	0	@IC-01	F-02	LIQUID	N/A		3.441e+03	122.400	ug/mL
3	SAMPLE	S97T000781	0	@IC-01	CL-02	LIQUID	N/A		7.362e+03	173.400	ug/mL
3	SAMPLE	S97T000781	0	@IC-01	NO2-02	LIQUID	N/A		1.358e+05	1102.000	ug/mL
3	SAMPLE	S97T000781	0	@IC-01	BR-02	LIQUID	N/A	<	1.275e+03	1275.000	ug/mL
3	SAMPLE	S97T000781	0	@IC-01	NO3-02	LIQUID	N/A		2.958e+05	1418.000	ug/mL
3	SAMPLE	S97T000781	0	@IC-01	PO4-02	LIQUID	N/A		2.591e+03	1224.000	ug/mL
3	SAMPLE	S97T000781	0	@IC-01	SO4-02	LIQUID	N/A		5.967e+03	1408.000	ug/mL
3	SAMPLE	S97T000781	0	@IC-01	OXALATE2	LIQUID	N/A		1.724e+03	1071.000	ug/mL
4	SAMPLE	S97T000733	0	@IC-01	F-02	LIQUID	N/A		7.096e+03	25.450	ug/mL
4	SAMPLE	S97T000733	0	@IC-01	CL-02	LIQUID	N/A		6.927e+02	36.060	ug/mL
4	SAMPLE	S97T000733	0	@IC-01	NO2-02	LIQUID	N/A		3.479e+02	229.100	ug/mL
4	SAMPLE	S97T000733	0	@IC-01	BR-02	LIQUID	N/A	<	2.651e+02	265.100	ug/mL
4	SAMPLE	S97T000733	0	@IC-01	NO3-02	LIQUID	N/A		7.367e+04	294.800	ug/mL
4	SAMPLE	S97T000733	0	@IC-01	PO4-02	LIQUID	N/A		1.871e+03	254.500	ug/mL
4	SAMPLE	S97T000733	0	@IC-01	SO4-02	LIQUID	N/A		4.302e+02	292.700	ug/mL
4	SAMPLE	S97T000733	0	@IC-01	OXALATE2	LIQUID	N/A	<	2.227e+02	222.700	ug/mL
5	DUP	S97T000733	0	@IC-01	F-02	LIQUID	7.10e+03		6.94e+03	2.279	RPD
5	DUP	S97T000733	0	@IC-01	CL-02	LIQUID	6.93e+02		7.22e+02	4.099	RPD
5	DUP	S97T000733	0	@IC-01	NO2-02	LIQUID	3.48e+02		3.59e+02	3.112	RPD
5	DUP	S97T000733	0	@IC-01	BR-02	LIQUID	<2.65e2		<2.65e2		RPD
5	DUP	S97T000733	0	@IC-01	NO3-02	LIQUID	7.37e+04		7.38e+04	0.136	RPD
5	DUP	S97T000733	0	@IC-01	PO4-02	LIQUID	1.87e+03		1.92e+03	2.639	RPD
5	DUP	S97T000733	0	@IC-01	SO4-02	LIQUID	4.30e+02		5.07e+02	16.435	RPD
5	DUP	S97T000733	0	@IC-01	OXALATE2	LIQUID	<2.23e2		<2.23e2		RPD
6	SPK	S97T000733	0	@IC-01	F-02	LIQUID	5.90e01		1.04e+02	176.271	% Recovery

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Worklist Report for Worklist# 18000

Seq	Type	Sample#	R	A	Test	Matrix	Actual	Found	DL or Yield	Unit
6	SPK	S97T000733	0	@IC-01	CL-02	LIQUID	7.90e01	9.60e+01	121.519	% Recovery
6	SPK	S97T000733	0	@IC-01	NO2-02	LIQUID	5.43e02	5.76e+02	106.077	% Recovery
6	SPK	S97T000733	0	@IC-01	BR-02	LIQUID	5.89e02	5.19e+02	88.115	% Recovery
6	SPK	S97T000733	0	@IC-01	NO3-02	LIQUID	5.94e02	9.96e+02	167.677	% Recovery
6	SPK	S97T000733	0	@IC-01	PO4-02	LIQUID	5.45e02	5.94e+02	108.991	% Recovery
6	SPK	S97T000733	0	@IC-01	SO4-02	LIQUID	6.31e02	6.57e+02	104.120	% Recovery
6	SPK	S97T000733	0	@IC-01	OXALATE2	LIQUID	5.32e02	5.98e+02	112.406	% Recovery

Final page for worklist# 18000

Analyst Signature **Date**

Analyst Signature **Date**

James M. Luey 5/22/97
Reviewer Signature **Date**

Units shown for QC (BLK/BKG) may not reflect the actual units.

This document was too large to scan as a whole document, therefore it required breaking into smaller sections.

Document number: SD-WM-DP-247

Section 2 **of** 2

Title: Tank 241-T-203 Core 190 Analytical Results for the Final Report

Date: 8/5/97 **Revision:** 0

Originator: Steen, F. H.
Co: WMH

Recipient:
Co:

References: EDT-620414

LABCORE Data Entry Template for Worklist# 18000

Analyst: RJS **Instrument:** IC0 1 **Book#** 50N20-D

Method: LA-533-105 Rev/Mod D-1

Worklist Comment: T203, AW106 GRAB1, @IC-01 skm

S	Type	Sample#	R	A	Test	Matrix	Group#	Project
1	CCB				@IC-QC	QC		
2	CCV				@IC-QC	QC		
3	SAMPLE	S97T000781	0		@IC-01	LIQUID	97000327	AW-106 GRAB1
	Analytes Requested:				BR-02 , CL-02 , F-02 , NO2-02 , NO3-02 , OXALATE2, PO4-02 , SO4-02			
4	SAMPLE	S97T000733	0		@IC-01	LIQUID	97000299	T-203
	Analytes Requested:				BR-02 , CL-02 , F-02 , NO2-02 , NO3-02 , OXALATE2, PO4-02 , SO4-02			
5	DUP	S97T000733	0		@IC-01	LIQUID		
6	SPK	S97T000733	0		@IC-01	LIQUID		

Final page for worklist # 18000

RaeAnn Green 5-12-97
Analyst Signature **Date**

uploaded 5-13-97
John Worrell
18000MAY.CSV

Validated 5/18/97 JM Fuyo

Analyst Signature **Date**

Data Entry Comments:

S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

MAY. 12. 1997 1:47PM WHC 222S LAB ROOM 2F BACKSIDE NO. 2910 P. 2/2

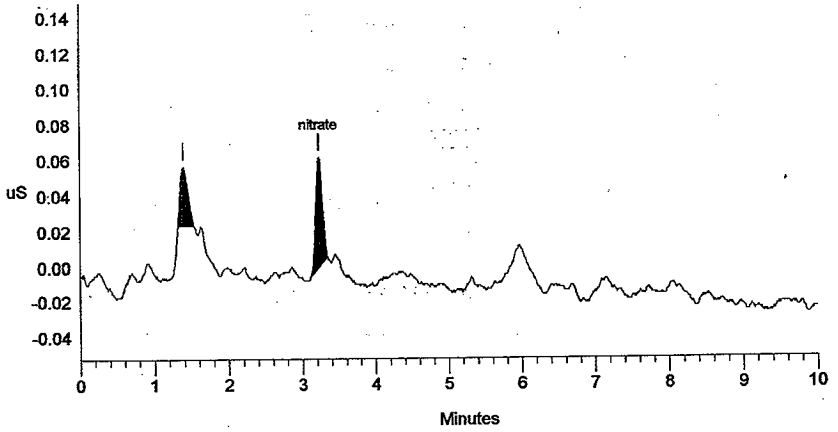
Sample Name: CCB Date: 05/12/1997 09:19:54
Data File : C:\DX\DATA\97051201.D06
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 6 Detector:CDM-1
Analyst : Rae Ann Green Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	1	3000	5Hz	0.00	10.00	30

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.39		0.000	33	231	1	
2	3.23	nitrate	0.121	62	385	1	-0.72
		Totals	0.121	95	616		

File: 97051201.D06 Sample: CCB



SIGNATURE ABOVE REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 345 TO 347.

May. 12. 1997 1:47PM WHC 222S LAB ROOM 2F BACKSIDE NO. 2910 P. 3/6

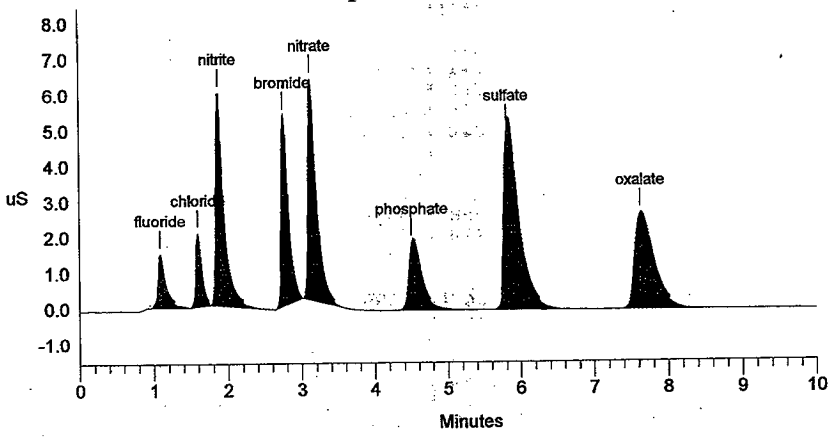
Sample Name: CCV 50N20-D Date: 05/12/1997 08:53:10
Data File : C:\DX\DATA\97051201.D05
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 5 Detector:CDM-1
Analyst : Rae Ann Green Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	101	3000	5Hz	0.00	10.00	30

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.09	fluoride	61.873	1501	11217	1	-2.98
2	1.59	chloride	86.142	2047	11259	1	0.00
3	1.87	nitrite	559.862	5968	44292	1	-2.77
4	2.75	bromide	572.993	5320	35797	1	-3.39
5	3.13	nitrate	581.046	6188	48360	1	-3.79
6	4.51	phosphate	556.560	1902	24696	1	-2.31
7	5.81	sulfate	618.834	5051	75959	1	-3.54
8	7.63	oxalate	558.364	2684	49396	1	-2.72
		Totals	3595.674	30660	300977		

File: 97051201.D05 Sample: CCV 50N20-D



May. 12. 1997 1:48PM WHC 222S LAB ROOM 2F BACKSIDE NO. 2910 P. 4/9

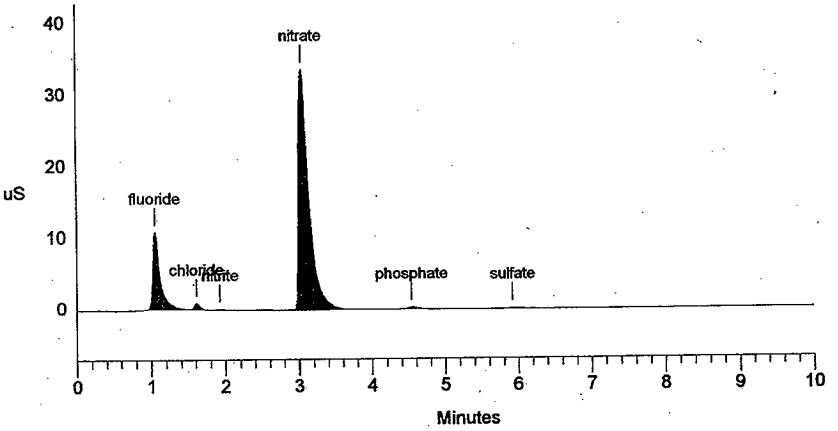
Sample Name: S97T000733 Date: 05/12/1997 14:08:14
Data File : C:\DX\DATA\97051201.D08
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 8 Detector:CDM-1
Analyst : Rae Ann Theon Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	2121	3000	5Hz	0.00	10.00	30

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.05	fluoride	7096.019	10793	68894	1	-5.95
2	1.61	chloride	692.692	849	4304	1	0.84
3	1.93	nitrite	347.948	99	546	1	0.00
4	3.04	nitrate	73665.473	33678	321570	1	-6.46
5	4.53	phosphate	1871.229	284	3663	1	-1.73
6	5.92	sulfate	430.241	191	3230	1	-1.77
		Totals	84103.603	45893	402206		

File: 97051201.D08 Sample: S97T000733



May. 12. 1997 1:48PM WHC 222S LAB ROOM 2F BACKSIDE No. 2910 P. 0/0

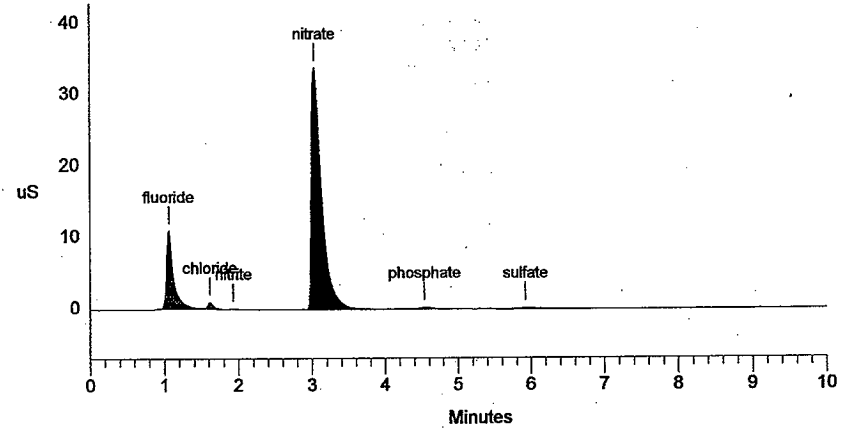
```
Sample Name: S97T000733 DUP                    Date: 05/12/1997 14:31:56
Data File  : C:\DX\DATA\97051201.D10
Method     : C:\DX\METHOD\KIT.MET
ACI Address: 1  System: 1  Inject#: 10                  Detector:CDM-1
Analyst    : Raelynn Green  Column: AG4A/AS4A anion column
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	2121	3000	5Hz	0.00	10.00	30

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.06	fluoride	6940.612	10852	67219	1	-5.36
2	1.61	chloride	721.625	878	4483	1	0.84
3	1.93	nitrite	358.784	100	587	1	0.00
4	3.03	nitrate	73843.560	33866	322441	1	-6.67
5	4.53	phosphate	1917.112	285	3760	1	-1.73
6	5.92	sulfate	506.787	229	3666	1	-1.77
		Totals	84288.480	46210	402155		

File: 97051201.D10 Sample: S97T000733 DUP



May. 12. 1997 1:49PM WHC 222S LAB ROOM 2F BACKSIDE No. 2910 P. 1/8

Data Reprocessed On 05/19/1997 08:15:52

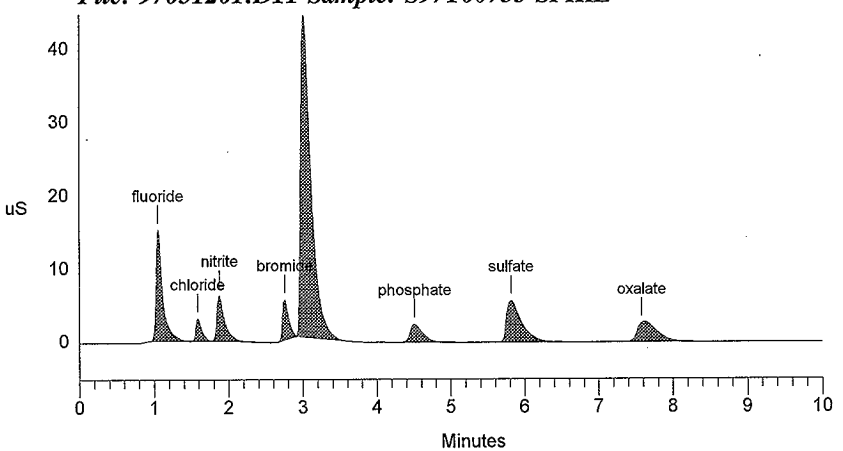
```
Sample Name: S97T00733 SPIKE                    Date: 05/12/1997 14:46:27
Data File  : F:\DATA\97051201.D11
Method     : C:\DX\METHOD\KIT.MET
ACI Address: 1  System: 1  Inject#: 11                    Detector:CDM-1
Analyst    :                Column: AG4A/AS4A anion column
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	2121	3000	5Hz	0.00	10.00	30

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.05	fluoride	9192.987	15206	92371	1	-5.95
2	1.58	chloride	2631.431	3027	16491	1	-0.84
3	1.87	nitrite	11986.300	6198	45183	1	-2.77
4	2.75	bromide	10477.229	5475	31051	1	-3.39
5	3.01	nitrate	93777.563	43961	423722	1	0.11
6	4.51	phosphate	13863.906	2460	29438	1	-2.31
7	5.81	sulfate	13701.727	5688	80116	1	-3.54
8	7.57	oxalate	12075.348	2575	50888	1	-3.40
		Totals	167706.489	84590	769259		

File: 97051201.D11 Sample: S97T00733 SPIKE



LABCORE Completed Worklist Report for Worklist# 18034

Analyst: adp **Instrument:** IC01 **Book#** 570N20D

Method: LA-533-705 Rev/Mod D-1

Worklist Comment: T-203 IC. RCJ

Seq	Type	Sample#	R	A	Test	Matrix	Actual		Found	DL or Yield	Unit
1	CCB		0	@IC-QC	F	QC	1		<1.20e-2		ug/mL
1	CCB		0	@IC-QC	CL	QC	1		<1.70e-2		ug/mL
1	CCB		0	@IC-QC	NO2	QC	1		<1.08e-1		ug/mL
1	CCB		0	@IC-QC	BR	QC	1		<1.25e-1		ug/mL
1	CCB		0	@IC-QC	NO3	QC	1		1.42e-01	0.142	ug/mL
1	CCB		0	@IC-QC	PO4	QC	1		<1.20e-1		ug/mL
1	CCB		0	@IC-QC	SO4	QC	1		<1.38e-1		ug/mL
1	CCB		0	@IC-QC	OXALATE2	QC	1		<1.05e-1		ug/mL
2	CCV		0	@IC-QC	F	QC	5.90e01		5.66e+01	95.932	% Recovery
2	CCV		0	@IC-QC	CL	QC	7.90e01		7.97e+01	100.886	% Recovery
2	CCV		0	@IC-QC	NO2	QC	5.43e02		5.68e+02	104.604	% Recovery
2	CCV		0	@IC-QC	BR	QC	5.89e02		5.87e+02	99.660	% Recovery
2	CCV		0	@IC-QC	NO3	QC	5.94e02		5.94e+02	100.000	% Recovery
2	CCV		0	@IC-QC	PO4	QC	5.45e02		5.35e+02	98.165	% Recovery
2	CCV		0	@IC-QC	SO4	QC	6.31e02		6.36e+02	100.792	% Recovery
2	CCV		0	@IC-QC	OXALATE2	QC	5.32e02		5.39e+02	101.316	% Recovery
3	SAMPLE	S97T000731	0	@IC-01	F-02	LIQUID	N/A		3.345e+00	1.212	ug/mL
3	SAMPLE	S97T000731	0	@IC-01	CL-02	LIQUID	N/A		6.605e+00	1.717	ug/mL
3	SAMPLE	S97T000731	0	@IC-01	NO2-02	LIQUID	N/A	<	1.091e+01	10.910	ug/mL
3	SAMPLE	S97T000731	0	@IC-01	BR-02	LIQUID	N/A	<	1.262e+01	12.620	ug/mL
3	SAMPLE	S97T000731	0	@IC-01	NO3-02	LIQUID	N/A		3.119e+01	14.040	ug/mL
3	SAMPLE	S97T000731	0	@IC-01	PO4-02	LIQUID	N/A	<	1.212e+01	12.120	ug/mL
3	SAMPLE	S97T000731	0	@IC-01	SO4-02	LIQUID	N/A		2.105e+01	13.940	ug/mL
3	SAMPLE	S97T000731	0	@IC-01	OXALATE2	LIQUID	N/A	<	1.061e+01	10.610	ug/mL
4	DUP	S97T000731	0	@IC-01	F-02	LIQUID	3.35e+00		3.31e+00	1.201	RPD
4	DUP	S97T000731	0	@IC-01	CL-02	LIQUID	6.61e+00		6.33e+00	4.328	RPD
4	DUP	S97T000731	0	@IC-01	NO2-02	LIQUID	<1.09e1		<1.09e1		RPD
4	DUP	S97T000731	0	@IC-01	BR-02	LIQUID	<1.26e1		<1.26e1		RPD
4	DUP	S97T000731	0	@IC-01	NO3-02	LIQUID	3.12e+01		3.57e+01	13.453	RPD
4	DUP	S97T000731	0	@IC-01	PO4-02	LIQUID	<1.21e1		<1.21e1		RPD
4	DUP	S97T000731	0	@IC-01	SO4-02	LIQUID	2.11e+01		2.19e+01	3.721	RPD
4	DUP	S97T000731	0	@IC-01	OXALATE2	LIQUID	<1.06e1		<1.06e1		RPD

Final page for worklist# 18034

Analyst Signature **Date** **Analyst Signature** **Date**

5/15/97

Units shown for QC (BLK/BKG) may not reflect the actual units.

05/12/97 07:47
A-0004-1

LABCORE Data Entry Template for Worklist# 18034

Analyst: ADO **Instrument:** IC0 1 **Book#** 50N20-D

Method: LA-533-105 Rev/Mod D-1

Worklist Comment: T-203 IC. RCJ

S	Type	Sample#	R	A	Test	Matrix	Group#	Project
1	CCB				@IC-QC	QC		
2	CCV				@IC-QC	QC		
3	SAMPLE	S97T000731	0		@IC-01	LIQUID	97000299	T-203
		Analytes Requested: BR-02 , CL-02 , F-02 , NO2-02 , NO3-02 , OXALATE2, PO4-02 , SO4-02						
4	DUP	S97T000731	0		@IC-01	LIQUID		

Final page for worklist # 18034

Analyst Signature 5-13-97 Date

Analyst Signature Date

Uploaded 5-14-97 John Worrell

18034MAY.CSV

Validated 5/15/97 JM Fuyo

Data Entry Comments:

S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

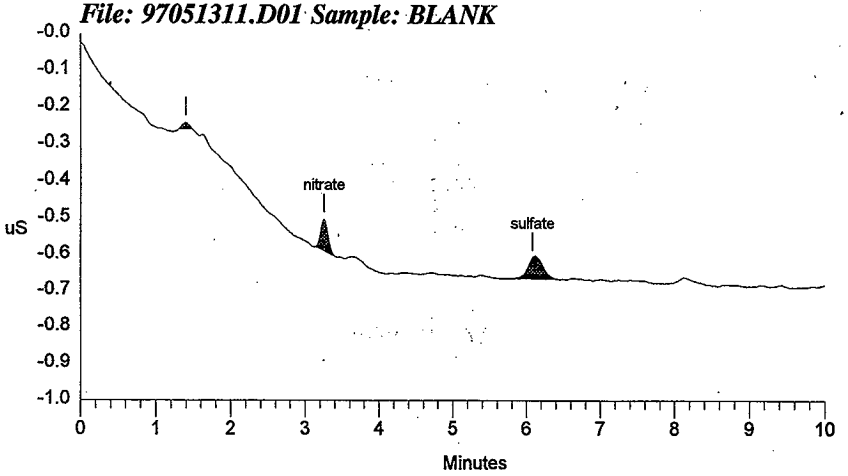
Sample Name: BLANK Date: 05/13/1997 21:37:03
Data File : C:\DX\DATA\97051311.D01
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 1 Detector:CDM-1
Analyst : Joan Kuyper Column: AG4A/AS4A anion column

Joan Kuyper ADPO 5/15/97

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	1	3000	5Hz	0.00	10.00	30

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.39		0.000	17	107	1	
2	3.25	nitrate	0.142	85	566	1	0.10
3	6.08	sulfate	0.008	59	875	1	0.88
		Totals	0.150	160	1549		



SIGNATURE ABOVE REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 352 TO 355

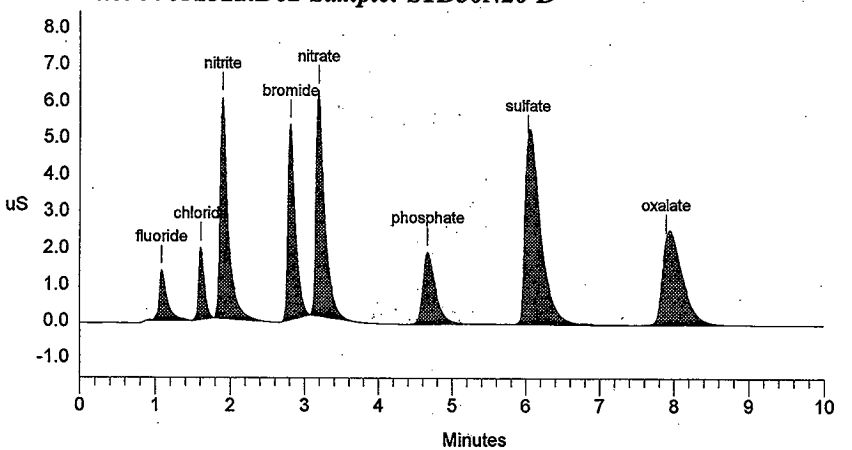
Sample Name: STD50N20-D Date: 05/13/1997 21:51:02
Data File : C:\DX\DATA\97051311.D02
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 2 Detector:CDM-1
Analyst : [signature] Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	101	3000	5Hz	0.00	10.00	30

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.09	fluoride	56.611	1374	10199	1	-2.98
2	1.61	chloride	79.714	1974	10409	1	0.84
3	1.89	nitrite	568.299	6029	44981	1	-1.73
4	2.81	bromide	587.432	5334	36724	1	-1.52
5	3.19	nitrate	594.042	6155	49473	1	-1.95
6	4.67	phosphate	534.699	1980	23700	1	1.16
7	6.03	sulfate	635.593	5042	78030	1	0.00
8	7.89	oxalate	539.370	2340	47696	1	0.68
		Totals	3595.760	30227	301212		

File: 97051311.D02 Sample: STD50N20-D



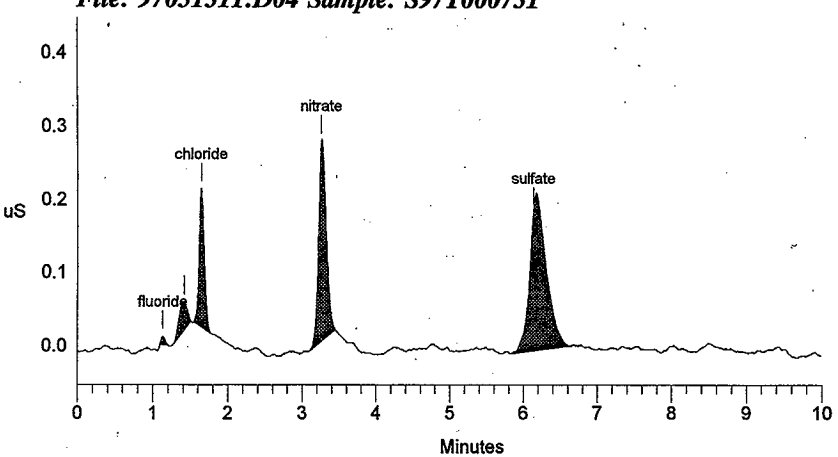
```
Sample Name: S97T000731                          Date: 05/13/1997 22:44:31
Data File  : C:\DX\DATA\97051311.D04
Method     : C:\DX\METHOD\KIT.MET
ACI Address: 1  System: 1  Inject#: 4                    Detector:CDM-1
Analyst    :                Column: AG4A/AS4A anion column
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	101	3000	5Hz	0.00	10.00	30

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.13	fluoride	3.345	12	42	1	1.19
2	1.42		0.000	39	309	1	
3	1.65	chloride	6.605	190	913	1	3.35
4	3.26	nitrate	31.189	274	1965	1	0.31
5	6.13	sulfate	21.048	188	3297	1	1.77
		Totals	62.187	703	6525		

File: 97051311.D04 Sample: S97T000731



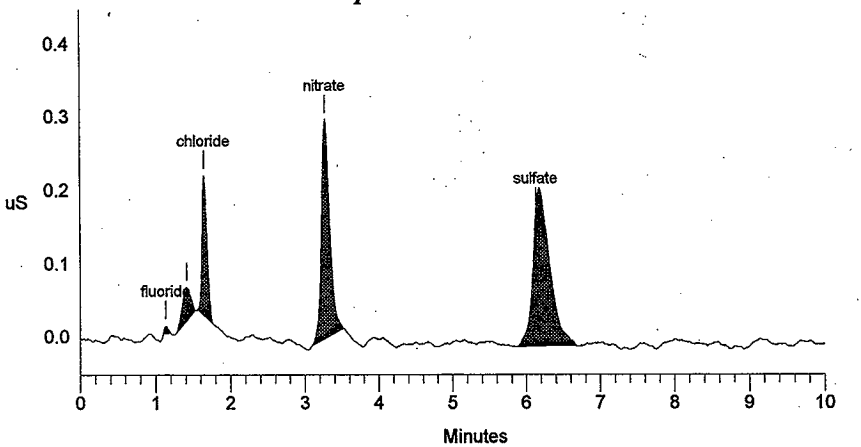
```
Sample Name: S97T000731 DUP                    Date: 05/13/1997 22:56:45
Data File  : C:\DX\DATA\97051311.D05
Method     : C:\DX\METHOD\KIT.MET
ACI Address: 1  System: 1  Inject#: 5                  Detector:CDM-1
Analyst    :               Column: AG4A/AS4A anion column
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	101	3000	5Hz	0.00	10.00	30

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.13	fluoride	3.315	11	36	1	1.19
2	1.41		0.000	45	353	1	
3	1.65	chloride	6.335	190	878	1	3.35
4	3.27	nitrate	35.664	298	2337	1	0.72
5	6.13	sulfate	21.923	182	3401	1	1.77
		Totals	67.237	726	7006		

File: 97051311.D05 Sample: S97T000731 DUP



HNF-SD-WM-DP-247, REV. 0

LABCORE Completed Worklist Report for Worklist# 18063

Analyst: rag **Instrument:** IC03 **Book#** 6/N20A

Method: LA-533-105 Rev/Mod D-1

Worklist Comment: T-203 IC. RCJ

Seq	Type	Sample#	R	A	Test	Matrix	Actual		Found	DL or Yield	Unit
1	CCB			0	@IC-QC	F	QC	1	<1.20e-2		ug/mL
1	CCB			0	@IC-QC	CL	QC	1	<1.70e-2		ug/mL
1	CCB			0	@IC-QC	NO2	QC	1	<1.08e-1		ug/mL
1	CCB			0	@IC-QC	BR	QC	1	<1.25e-1		ug/mL
1	CCB			0	@IC-QC	NO3	QC	1	2.07e-01	0.207	ug/mL
1	CCB			0	@IC-QC	PO4	QC	1	<1.20e-1		ug/mL
1	CCB			0	@IC-QC	SO4	QC	1	<1.38e-1		ug/mL
1	CCB			0	@IC-QC	OXALATE2	QC	1	<1.05e-1		ug/mL
2	CCV			0	@IC-QC	F	QC	5.90e01	5.51e+01	93.390	% Recovery
2	CCV			0	@IC-QC	CL	QC	7.90e01	7.38e+01	93.418	% Recovery
2	CCV			0	@IC-QC	NO2	QC	5.44e02	5.28e+02	97.059	% Recovery
2	CCV			0	@IC-QC	BR	QC	5.89e02	5.63e+02	95.586	% Recovery
2	CCV			0	@IC-QC	NO3	QC	5.94e02	5.84e+02	98.316	% Recovery
2	CCV			0	@IC-QC	PO4	QC	5.45e02	5.39e+02	98.899	% Recovery
2	CCV			0	@IC-QC	SO4	QC	6.31e02	6.12e+02	96.989	% Recovery
2	CCV			0	@IC-QC	OXALATE2	QC	5.32e02	5.05e+02	94.925	% Recovery
3	BLNK-PREP			0	@IC-01	F-02	SOLID	1	<1.20e-2		ug/g
3	BLNK-PREP			0	@IC-01	CL-02	SOLID	1	4.50e-02	0.045	ug/g
3	BLNK-PREP			0	@IC-01	NO2-02	SOLID	1	<1.08e-1		ug/g
3	BLNK-PREP			0	@IC-01	BR-02	SOLID	1	<1.25e-1		ug/g
3	BLNK-PREP			0	@IC-01	NO3-02	SOLID	1	2.46e-01	0.246	ug/g
3	BLNK-PREP			0	@IC-01	PO4-02	SOLID	1	<1.20e-1		ug/g
3	BLNK-PREP			0	@IC-01	SO4-02	SOLID	1	<1.38e-1		ug/g
3	BLNK-PREP			0	@IC-01	OXALATE2	SOLID	1	<1.05e-1		ug/g
4	SAMPLE	S97T000736	0	W	@IC-01	F-02	SOLID	N/A	7.192e+03	25.080	ug/g
4	SAMPLE	S97T000736	0	W	@IC-01	CL-02	SOLID	N/A	6.594e+02	35.520	ug/g
4	SAMPLE	S97T000736	0	W	@IC-01	NO2-02	SOLID	N/A	4.968e+02	225.700	ug/g
4	SAMPLE	S97T000736	0	W	@IC-01	BR-02	SOLID	N/A <	2.612e+02	261.200	ug/g
4	SAMPLE	S97T000736	0	W	@IC-01	NO3-02	SOLID	N/A	6.364e+04	290.500	ug/g
4	SAMPLE	S97T000736	0	W	@IC-01	PO4-02	SOLID	N/A	2.875e+03	250.800	ug/g
4	SAMPLE	S97T000736	0	W	@IC-01	SO4-02	SOLID	N/A	6.071e+02	288.400	ug/g
4	SAMPLE	S97T000736	0	W	@IC-01	OXALATE2	SOLID	N/A <	2.194e+02	219.400	ug/g
5	DUP	S97T000736	0	W	@IC-01	F-02	SOLID	7.19e+03	6.90e+03	4.116	RPD
5	DUP	S97T000736	0	W	@IC-01	CL-02	SOLID	6.59e+02	6.42e+02	2.613	RPD
5	DUP	S97T000736	0	W	@IC-01	NO2-02	SOLID	4.97e+02	4.89e+02	1.623	RPD
5	DUP	S97T000736	0	W	@IC-01	BR-02	SOLID	<2.61e2	<2.60e2		RPD
5	DUP	S97T000736	0	W	@IC-01	NO3-02	SOLID	6.36e+04	6.29e+04	1.107	RPD
5	DUP	S97T000736	0	W	@IC-01	PO4-02	SOLID	2.88e+03	2.90e+03	0.692	RPD
5	DUP	S97T000736	0	W	@IC-01	SO4-02	SOLID	6.07e+02	6.13e+02	0.984	RPD
5	DUP	S97T000736	0	W	@IC-01	OXALATE2	SOLID	<2.19e2	<2.19e2		RPD
7	DUP	S97T000746	0	W	@IC-01	F-02	SOLID	1.38e+03	7.19e+03	113.631	RPD

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Worklist Report for Worklist# 18063

Seq	Type	Sample#	R	A	Test	Matrix	Actual	Found	DL or Yield	Unit
7	DUP	S97T000746	0	W	@IC-01	CL-02	SOLID	2.11e+02	5.94e+02	95.155 RPD
7	DUP	S97T000746	0	W	@IC-01	NO2-02	SOLID	3.56e+02	5.04e+02	34.419 RPD
7	DUP	S97T000746	0	W	@IC-01	BR-02	SOLID	<2.78e2	<2.71e2	RPD
7	DUP	S97T000746	0	W	@IC-01	NO3-02	SOLID	1.76e+04	5.98e+04	109.044 RPD
7	DUP	S97T000746	0	W	@IC-01	PO4-02	SOLID	9.12e+02	2.68e+03	98.441 RPD
7	DUP	S97T000746	0	W	@IC-01	SO4-02	SOLID	<3.07e2	6.30e+02	RPD
7	DUP	S97T000746	0	W	@IC-01	OXALATE2	SOLID	<2.33e2	<2.27e2	RPD
9	DUP	S97T000768	0	W	@IC-01	F-02	SOLID	3.27e+03	6.68e+03	68.543 RPD
9	DUP	S97T000768	0	W	@IC-01	CL-02	SOLID	<3.66e1	6.14e+02	RPD
9	DUP	S97T000768	0	W	@IC-01	NO2-02	SOLID	3.76e+02	4.71e+02	22.432 RPD
9	DUP	S97T000768	0	W	@IC-01	BR-02	SOLID	<2.69e2	<2.65e2	RPD
9	DUP	S97T000768	0	W	@IC-01	NO3-02	SOLID	2.86e+04	6.09e+04	72.179 RPD
9	DUP	S97T000768	0	W	@IC-01	PO4-02	SOLID	1.32e+03	2.51e+03	62.141 RPD
9	DUP	S97T000768	0	W	@IC-01	SO4-02	SOLID	3.62e+02	7.20e+02	66.174 RPD
9	DUP	S97T000768	0	W	@IC-01	OXALATE2	SOLID	<2.26e2	2.81e+02	RPD

Final page for worklist# 18063

Analyst Signature **Date**

Analyst Signature **Date**

James M. Tingey 5/23/97
Reviewer Signature **Date**

Rerun on WKL 18291

Units shown for QC (BLK/BKG) may not reflect the actual units.

05/13/97 07:55
A-0004-1

LABCORE Data Entry Template for Worklist# 18063

Analyst: RJ **Instrument:** IC0 2 **Book#** 61N20-A

Method: LA-533-105 Rev/Mod D-1

Worklist Comment: T-203 IC. RCJ

S	Type	Sample#	R	A	Test	Matrix	Group#	Project
1	CCB				@IC-QC	QC		
2	CCV				@IC-QC	QC		
3	BLNK-PREP				@IC-01	SOLID		
4	SAMPLE	S97T000736	0	W	@IC-01	SOLID	97000299	T-203
	Analytes Requested:				BR-02 , CL-02 , F-02 , NO2-02 , NO3-02 , OXALATE2, PO4-02 , SO4-02			
5	DUP	S97T000736	0	W	@IC-01	SOLID		
6	SAMPLE	S97T000746	0	W	@IC-01	SOLID	97000299	T-203
	Analytes Requested:				BR-02 , CL-02 , F-02 , NO2-02 , NO3-02 , OXALATE2, PO4-02 , SO4-02			
7	DUP	S97T000746	0	W	@IC-01	SOLID		
8	SAMPLE	S97T000768	0	W	@IC-01	SOLID	97000299	T-203
	Analytes Requested:				BR-02 , CL-02 , F-02 , NO2-02 , NO3-02 , OXALATE2, PO4-02 , SO4-02			
9	DUP	S97T000768	0	W	@IC-01	SOLID		

Final page for worklist # 18063

Rae Ann Green 5-20-97
Analyst Signature **Date**

Analyst Signature **Date**

uploaded 5-21-97
Joh Worrell

18063MAY.CSV

Data Entry Comments: Sample 746 & 768 rejected & put out for rerun due to poor RSD, rest Validated. Reran on WKL # 18291. JM Lyle

S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

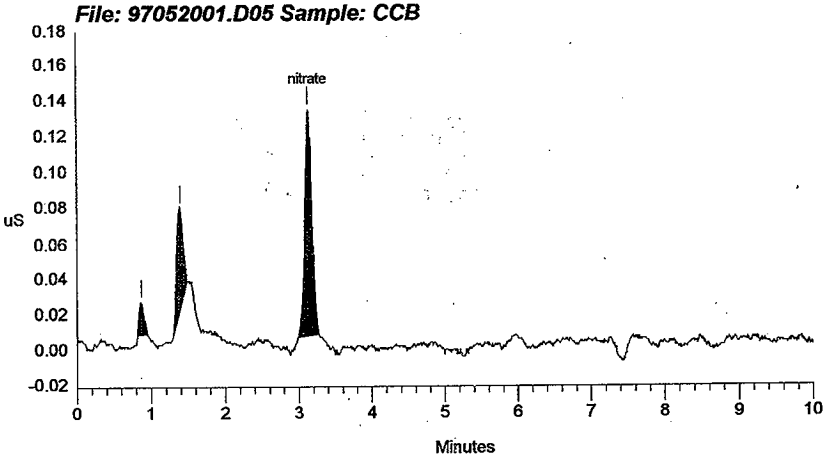
May. 20. 1997 2:56PM WHC 222S LAB ROOM 2F BACKSIDE NO. 3136 P. 10/11

Sample Name: CCB Date: 05/20/1997 07:32:37
Data File : C:\DX\DATA\97052001.D05
Method : C:\DX\METHOD\ANIONS.MET
ACI Address: 1 System: 1 Inject#: 5 Detector:CDM-1
Analyst : Rae Ann Green Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	1	3000	5Hz	0.00	10.00	50

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.87		0.000	17	83	1	
2	1.39		0.000	55	348	1	
3	3.13	nitrate	0.207	126	848	1	-1.16
		Totals	0.207	198	1280		



SIGNATURE ABOVE REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 357 TO 358

May. 20. 1997 2:58PM WHC 222S LAB ROOM 2F BACKSIDE NO. 3130 P. 11/11

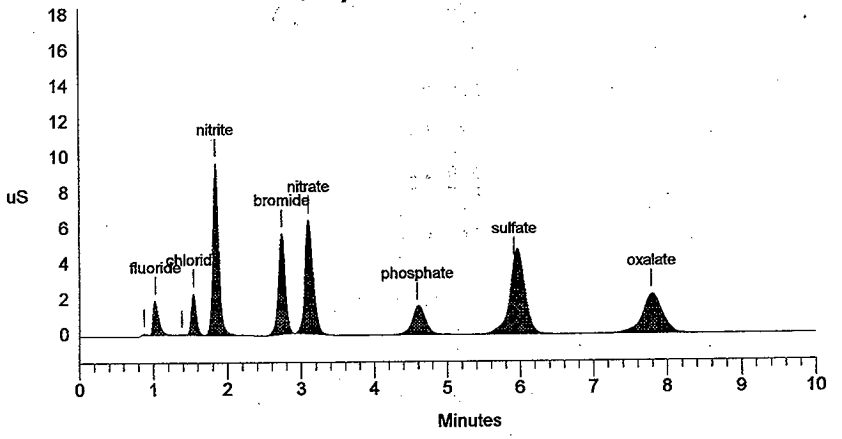
```
Sample Name: STD 61N20-A                          Date: 05/20/1997 07:03:46
Data File  : C:\DX\DATA\97052001.D03
Method     : C:\DX\METHOD\ANIONS.MET
ACI Address: 1  System: 1  Inject#: 3                        Detector:CDM-1
Analyst    : Rae Ann Green                Column: AG4A/AS4A anion column
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	101	3000	5Hz	0.00	10.00	50

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.87		0.000	77	298	2	
2	1.03	fluoride	55.100	1909	10014	2	1.65
3	1.39		0.000	19	77	1	
4	1.54	chloride	73.828	2329	10458	1	0.00
5	1.84	nitrite	528.063	9683	51221	1	-1.43
6	2.73	bromide	563.357	5671	35243	1	-2.03
7	3.10	nitrate	584.259	6408	47697	1	-2.21
8	4.59	phosphate	538.695	1599	21083	1	2.99
9	5.92	sulfate	611.906	4066	67266	1	3.68
10	7.79	oxalate	504.534	2223	42353	1	-2.05
		Totals	3459.742	33983	285711		

File: 97052001.D03 Sample: STD 61N20-A



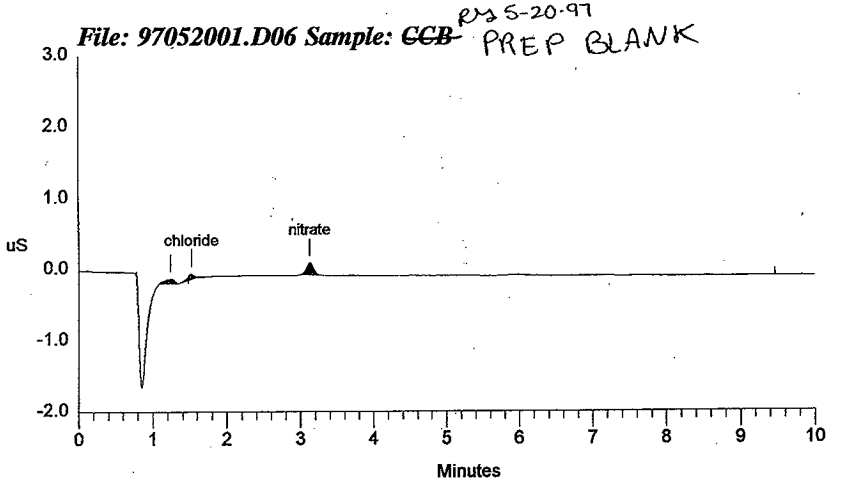
May. 20. 1997 2:57PM WHC 222S LAB ROOM 2F BACKSIDE NO. 3158 P. 12/17

Sample Name: ~~CCB~~ PB 5-20-97 Date: 05/20/1997 08:26:26
Data File : C:\DX\DATA\97052001.D06
Method : C:\DX\METHOD\ANIONS.MET
ACI Address: 1 System: 1 Inject#: 6 Detector:CDM-1
Analyst : Rae Ann Green Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	1	3000	5Hz	0.00	10.00	50

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.24		0.000	66	644	1	
2	1.52	chloride	0.045	80	486	1	-1.30
3	3.13	nitrate	0.246	172	1169	1	-1.37
		Totals	0.291	317	2298		



May. 20. 1997 2:57PM WHC 222S LAB ROOM 2F BACKSIDE NO. 3158 P. 13/17

Data Reprocessed On 05/21/1997 14:59:47

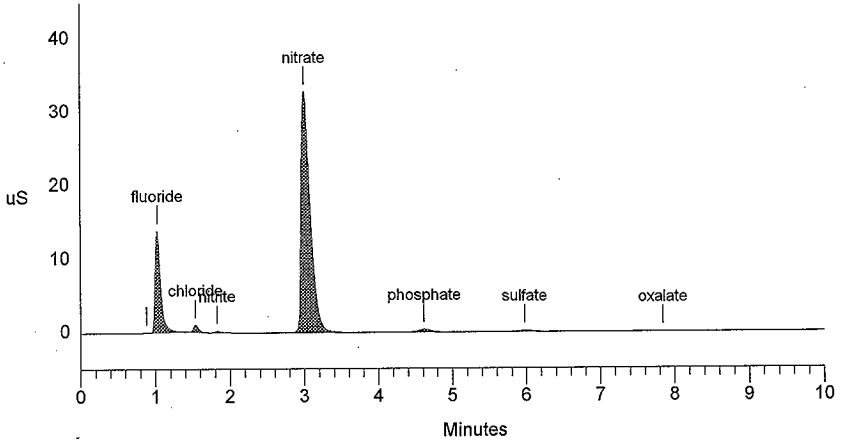
Sample Name: S97T000736 Date: 05/20/1997 09:34:17
Data File : E:\DATA\97052001.D11
Method : C:\DX\METHOD\ANIONS.MET
ACI Address: 1 System: 1 Inject#: 11 Detector:CDM-1
Analyst : Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	11	3000	5Hz	0.00	10.00	50

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.88		0.000	40	144	1	
2	1.03	fluoride	37.859	13871	71045	1	1.65
3	1.53	chloride	3.471	969	4400	1	-0.43
4	1.83	nitrite	2.615	203	1047	1	-2.14
5	3.00	nitrate	334.998	32797	278414	1	0.00
6	4.61	phosphate	15.133	396	5153	1	3.59
7	5.97	sulfate	3.196	206	3013	1	4.61
8	7.84	oxalate	0.696	75	1423	1	-1.38
		Totals	397.968	48556	364638		

File: 97052001.D11 Sample: S97T000736



Data Reprocessed On 05/21/1997 15:00:41

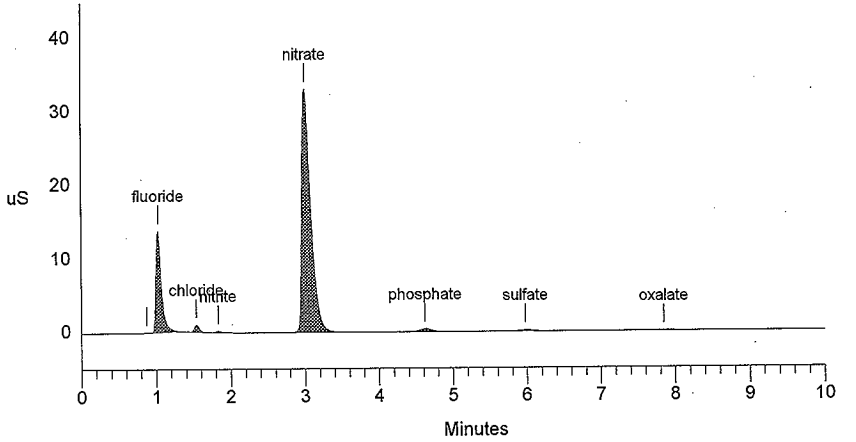
Sample Name: S97T000736 DUP Date: 05/20/1997 09:52:05
Data File : E:\DATA\97052001.D12
Method : C:\DX\METHOD\ANIONS.MET
ACI Address: 1 System: 1 Inject#: 12 Detector:CDM-1
Analyst : Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	11	3000	5Hz	0.00	10.00	50

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.87		0.000	47	166	1	
2	1.03	fluoride	36.429	13852	68002	1	1.65
3	1.53	chloride	3.393	980	4296	1	-0.43
4	1.83	nitrite	2.586	206	1021	1	-2.14
5	3.00	nitrate	332.245	33141	275833	1	0.00
6	4.61	phosphate	15.300	400	5214	1	3.59
7	5.97	sulfate	3.241	211	3057	1	4.61
8	7.84	oxalate	0.940	79	1605	1	-1.38
		Totals	394.134	48916	359194		

File: 97052001.D12 Sample: S97T000736 DUP



LABCORE Completed Worklist Report for Worklist# 18064

Analyst: rag **Instrument:** IC01 **Book#** 50N20D

Method: IA-533-105 Rev/Mod D-1

Worklist Comment: T-203 IC. RCJ

Seq	Type	Sample#	R	A	Test	Matrix	Actual		Found	DL or Yield	Unit
1	CCB			0	@IC-QC	F	QC	1	<1.20e-2		ug/mL
1	CCB			0	@IC-QC	CL	QC	1	<1.70e-2		ug/mL
1	CCB			0	@IC-QC	NO2	QC	1	<1.08e-1		ug/mL
1	CCB			0	@IC-QC	BR	QC	1	<1.25e-1		ug/mL
1	CCB			0	@IC-QC	NO3	QC	1	1.49e-01	0.149	ug/mL
1	CCB			0	@IC-QC	PO4	QC	1	<1.20e-1		ug/mL
1	CCB			0	@IC-QC	SO4	QC	1	<1.38e-1		ug/mL
1	CCB			0	@IC-QC	OXALATE2	QC	1	<1.05e-1		ug/mL
2	CCV			0	@IC-QC	F	QC	5.90e01	5.47e+01	92.712	% Recovery
2	CCV			0	@IC-QC	CL	QC	7.90e01	7.86e+01	99.494	% Recovery
2	CCV			0	@IC-QC	NO2	QC	5.43e02	5.41e+02	99.632	% Recovery
2	CCV			0	@IC-QC	BR	QC	5.89e02	5.68e+02	96.435	% Recovery
2	CCV			0	@IC-QC	NO3	QC	5.94e02	5.88e+02	98.990	% Recovery
2	CCV			0	@IC-QC	PO4	QC	5.45e02	5.40e+02	99.083	% Recovery
2	CCV			0	@IC-QC	SO4	QC	6.31e02	6.06e+02	96.038	% Recovery
2	CCV			0	@IC-QC	OXALATE2	QC	5.32e02	5.44e+02	102.256	% Recovery
3	BLNK-PREP			0	@IC-01	F-02	SOLID	1	<1.20e-2		ug/g
3	BLNK-PREP			0	@IC-01	CL-02	SOLID	1	<1.70e-2		ug/g
3	BLNK-PREP			0	@IC-01	NO2-02	SOLID	1	1.12e-01	0.112	ug/g
3	BLNK-PREP			0	@IC-01	BR-02	SOLID	1	<1.25e-1		ug/g
3	BLNK-PREP			0	@IC-01	NO3-02	SOLID	1	1.71e-01	0.171	ug/g
3	BLNK-PREP			0	@IC-01	PO4-02	SOLID	1	<1.20e-1		ug/g
3	BLNK-PREP			0	@IC-01	SO4-02	SOLID	1	<1.38e-1		ug/g
3	BLNK-PREP			0	@IC-01	OXALATE2	SOLID	1	<1.05e-1		ug/g
4	SAMPLE	S97T000758	0	W	@IC-01	F-02	SOLID	N/A	6.323e+03	26.420	ug/g
4	SAMPLE	S97T000758	0	W	@IC-01	CL-02	SOLID	N/A	6.210e+02	37.430	ug/g
4	SAMPLE	S97T000758	0	W	@IC-01	NO2-02	SOLID	N/A	3.027e+02	237.800	ug/g
4	SAMPLE	S97T000758	0	W	@IC-01	BR-02	SOLID	N/A <	2.753e+02	275.300	ug/g
4	SAMPLE	S97T000758	0	W	@IC-01	NO3-02	SOLID	N/A	6.487e+04	306.100	ug/g
4	SAMPLE	S97T000758	0	W	@IC-01	PO4-02	SOLID	N/A	2.248e+03	264.200	ug/g
4	SAMPLE	S97T000758	0	W	@IC-01	SO4-02	SOLID	N/A <	3.039e+02	303.900	ug/g
4	SAMPLE	S97T000758	0	W	@IC-01	OXALATE2	SOLID	N/A	1.418e+03	231.200	ug/g
5	DUP	S97T000758	0	W	@IC-01	F-02	SOLID	6.32e+03	5.86e+03	7.553	RPD
5	DUP	S97T000758	0	W	@IC-01	CL-02	SOLID	6.21e+02	5.77e+02	7.346	RPD
5	DUP	S97T000758	0	W	@IC-01	NO2-02	SOLID	3.03e+02	2.76e+02	9.326	RPD
5	DUP	S97T000758	0	W	@IC-01	BR-02	SOLID	<2.75e2	<2.70e2		RPD
5	DUP	S97T000758	0	W	@IC-01	NO3-02	SOLID	6.49e+04	5.85e+04	10.373	RPD
5	DUP	S97T000758	0	W	@IC-01	PO4-02	SOLID	2.25e+03	1.88e+03	17.918	RPD
5	DUP	S97T000758	0	W	@IC-01	SO4-02	SOLID	<3.04e2	3.29e+02		RPD
5	DUP	S97T000758	0	W	@IC-01	OXALATE2	SOLID	1.42e+03	1.22e+03	15.152	RPD
6	SPK	S97T000758	0	W	@IC-01	F-02	SOLID	5.90e01	7.31e+01	123.898	% Recovery

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Worklist Report for Worklist# 18064

Seq	Type	Sample#	R	A	Test	Matrix	Actual	Found	DL or Yield	Unit
6	SPK	S97T000758	0	W	@IC-01	CL-02	SOLID	7.90e01	9.20e+01	116.456 % Recovery
6	SPK	S97T000758	0	W	@IC-01	NO2-02	SOLID	5.43e02	5.79e+02	106.630 % Recovery
6	SPK	S97T000758	0	W	@IC-01	BR-02	SOLID	5.89e02	5.73e+02	97.284 % Recovery
6	SPK	S97T000758	0	W	@IC-01	NO3-02	SOLID	5.94e02	5.57e+02	93.771 % Recovery
6	SPK	S97T000758	0	W	@IC-01	PO4-02	SOLID	5.45e02	5.92e+02	108.624 % Recovery
6	SPK	S97T000758	0	W	@IC-01	SO4-02	SOLID	6.31e02	6.89e+02	109.192 % Recovery
6	SPK	S97T000758	0	W	@IC-01	OXALATE2	SOLID	5.32e02	5.97e+02	112.218 % Recovery

Final page for worklist# 18064

Rae Ann Green 05-15-97
Analyst Signature **Date**

Analyst Signature **Date**

Jason Teyer 5/22/97
Reviewer Signature **Date**

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Data Entry Template for Worklist# 18064

Analyst: rag **Instrument:** IC0 1 **Book#** 50N20D

Method: LA-533-105 Rev/Mod _____

Worklist Comment: T-203 IC. RCJ

S	Type	Sample#	R	A	Test	Matrix	Group#	Project
1	CCB				@IC-QC	QC		
2	CCV				@IC-QC	QC		
3	BLNK-PREP				@IC-01	SOLID		
4	SAMPLE	S97T000758	0	W	@IC-01	SOLID	97000299	T-203
	Analytes Requested:				BR-02 , CL-02 , F-02 , NO2-02 , NO3-02 , OXALATE2, PO4-02 , SO4-02			
5	DUP	S97T000758	0	W	@IC-01	SOLID		
6	SPK	S97T000758	0	W	@IC-01	SOLID		

Final page for worklist # 18064

Rae Ann Green 05-15-97
Analyst Signature **Date**

Linda Mask 5-15-97
Analyst Signature **Date**

Data Entry Comments:

S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 18064

Analyst: RS **Instrument:** IC0 _____ **Book#** 50N20-D

Method: LA-533-105 Rev/Mod D-1

Worklist Comment: T-203 IC. RCJ

S	Type	Sample#	R	A	Test	Matrix	Group#	Project
1	CCB				@IC-QC	QC		
2	CCV				@IC-QC	QC		
3	~~BLNK PREP~~				~~@IC-01~~	SOLID		
4	SAMPLE	S97T000758	0	W	@IC-01	SOLID	97000299	T-203
		Analytes Requested: BR-02 , CL-02 , F-02 , NO2-02 , NO3-02 , OXALATE2, PO4-02 , SO4-02						
5	DUP	~~S97T000758~~	~~0~~	~~W~~	~~@IC-01~~	~~SOLID~~		
6	~~CRK~~	~~S97T000758~~	~~0~~	~~W~~	~~@IC-01~~	~~SOLID~~		
7	SAMPLE	S97T000747	0	W	@IC-01	SOLID	97000299	T-203
		Analytes Requested: BR-02 , CL-02 , F-02 , NO2-02 , NO3-02 , OXALATE2, PO4-02 , SO4-02						
8	DUP	S97T000747	0	W	@IC-01	SOLID		
9	SAMPLE	S97T000769	0	W	@IC-01	SOLID	97000299	T-203
		Analytes Requested: BR-02 , CL-02 , F-02 , NO2-02 , NO3-02 , OXALATE2, PO4-02 , SO4-02						
10	DUP	S97T000769	0	W	@IC-01	SOLID		

Final page for worklist # 18064

Raelynn Green 5-14-97
Analyst Signature **Date**

_____
Analyst Signature **Date**

Please cut 2 WL - one with completed work above + another for the remaining samples - I will sign paperwork 5-15-97

Data Entry Comments:

S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

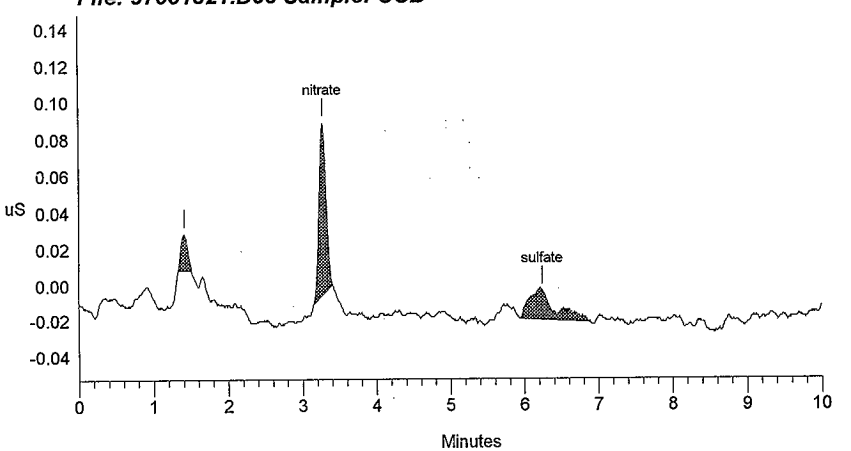
Sample Name: CCB Date: 05/14/1997 10:39:09
Data File : C:\DX\DATA\97051321.D05
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 5 Detector:CDM-1
Analyst : Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	1	3000	5Hz	0.00	10.00	30

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.41		0.000	20	127	1	
2	3.27	nitrate	0.149	94	624	1	0.72
3	6.24	sulfate	-0.030	16	414	1	3.54
		Totals	0.119	129	1165		

File: 97051321.D05 Sample: CCB



SIGNATURE ABOVE REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 366 TO 372

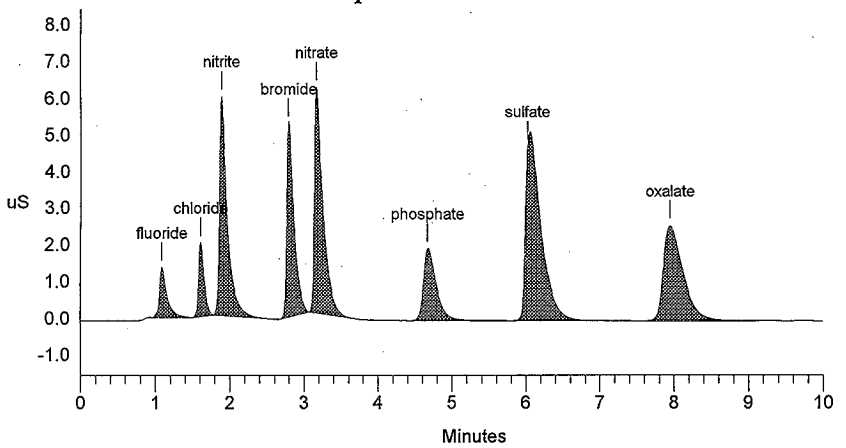
```
Sample Name: CCV 50N20-D                          Date: 05/14/1997 10:00:33
Data File  : C:\DX\DATA\97051321.D02
Method     : C:\DX\METHOD\KIT.MET
ACI Address: 1  System: 1  Inject#: 2                      Detector:CDM-1
Analyst    : Barbara Green                 Column: AG4A/AS4A anion column
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	101	3000	5Hz	0.00	10.00	30

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.09	fluoride	54.722	1356	9835	1	-2.98
2	1.61	chloride	78.607	1999	10263	1	0.84
3	1.89	nitrite	540.740	5974	42733	1	-1.73
4	2.79	bromide	568.137	5273	35485	1	-1.99
5	3.17	nitrate	588.340	6150	48985	1	-2.36
6	4.67	phosphate	539.714	1954	23928	1	1.16
7	6.03	sulfate	606.322	4748	74414	1	0.00
8	7.95	oxalate	543.734	2592	48087	1	1.36
		Totals	3520.316	30045	293729		

File: 97051321.D02 Sample: CCV 50N20-D



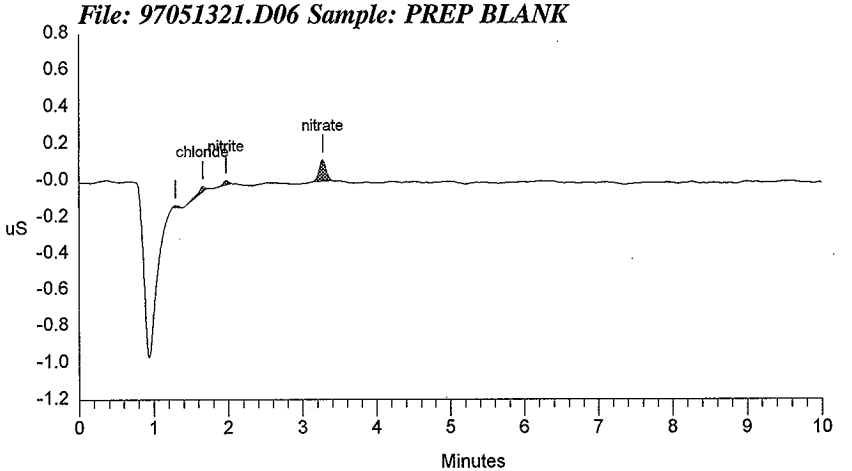
Sample Name: PREP BLANK Date: 05/14/1997 11:14:14
Data File : C:\DX\DATA\97051321.D06
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 6 Detector:CDM-1
Analyst : Rae Ann Green Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	1	3000	5Hz	0.00	10.00	30

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.29		0.000	11	54	1	
2	1.66	chloride	0.012	30	230	1	4.18
3	1.97	nitrite	0.112	24	125	1	2.42
4	3.27	nitrate	0.171	117	806	1	0.72
		Totals	0.295	181	1215		

File: 97051321.D06 Sample: PREP BLANK



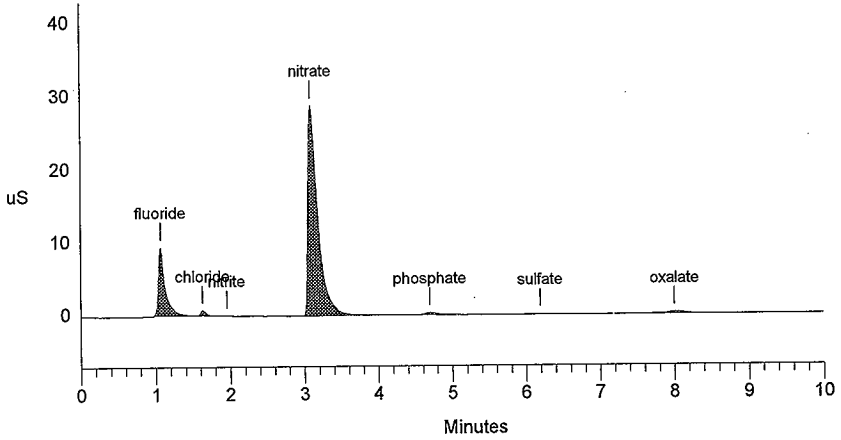
Sample Name: S97T00758 Dup
Data File : C:\DX\DATA\97051321.D09
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 9 Detector:CDM-1
Analyst : RaeAnn Green Column: AG4A/AS4A anion column
Date: 05/14/1997 14:59:05

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	11	3000	5Hz	0.00	10.00	30

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.07	fluoride	31.581	9372	58188	1	-4.76
2	1.63	chloride	3.102	707	3722	1	2.09
3	1.95	nitrite	1.512	59	333	1	1.38
4	3.09	nitrate	324.011	28763	267911	1	-5.03
5	4.69	phosphate	11.227	338	4283	1	1.73
6	6.19	sulfate	1.120	116	2008	1	2.65
7	8.00	oxalate	7.085	280	5506	1	2.04
		Totals	379.637	39634	341952		

File: 97051321.D09 Sample: S97T00758 ~~Dup~~ ps



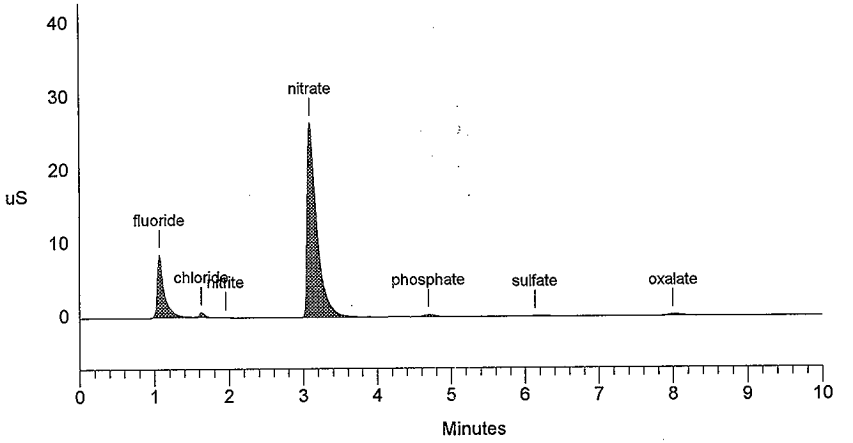
Sample Name: S97T00758 DUP Date: 05/14/1997 15:12:22
Data File : C:\DX\DATA\97051321.D10
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 10 Detector:CDM-1
Analyst : Ray Ann Green Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	11	3000	5Hz	0.00	10.00	30

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.07	fluoride	29.857	8514	54725	1	-4.76
2	1.63	chloride	2.941	667	3532	1	2.09
3	1.95	nitrite	1.407	48	256	1	1.38
4	3.09	nitrate	297.921	26547	244437	1	-4.82
5	4.69	phosphate	9.602	295	3621	1	1.73
6	6.13	sulfate	1.676	135	2620	1	1.77
7	8.00	oxalate	6.221	254	4805	1	2.04
		Totals	349.625	36461	313995		

File: 97051321.D10 Sample: S97T00758 DUP



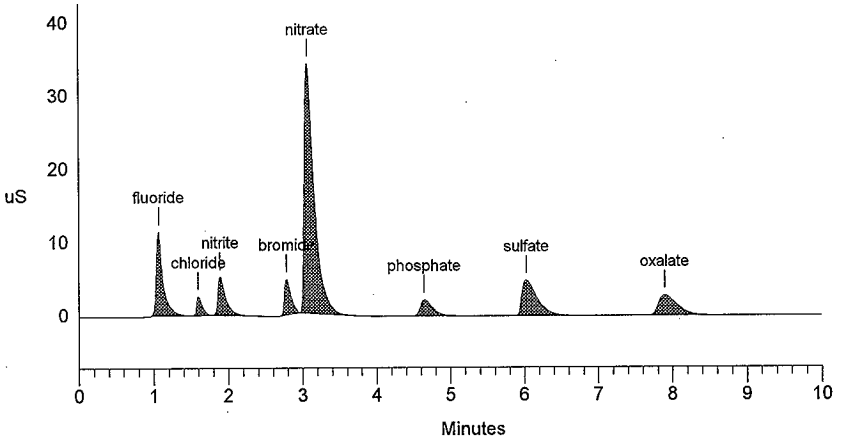
Sample Name: S97T00758 SPIKE Date: 05/14/1997 15:27:40
Data File : C:\DX\DATA\97051321.D11
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 11 Detector:CDM-1
Analyst : Rae Ann Green Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	11	3000	5Hz	0.00	10.00	30

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.07	fluoride	38.230	11437	71883	1	-4.76
2	1.59	chloride	11.462	2551	13799	1	0.00
3	1.89	nitrite	54.130	5225	39171	1	-2.08
4	2.78	bromide	52.121	4846	29751	1	-2.46
5	3.07	nitrate	374.656	34034	314620	1	-5.64
6	4.64	phosphate	65.085	2201	26571	1	0.58
7	6.03	sulfate	62.653	4832	70585	1	0.00
8	7.89	oxalate	61.331	2721	49823	1	0.68
		Totals	719.669	67847	616203		

File: 97051321.D11 Sample: S97T00758 SPIKE



LABCORE Completed Worklist Report for Worklist# 18065

Analyst: eal **Instrument:** IC01 **Book#** 6/W20A

Method: LA-523-105 Rev/Mod D-1

Worklist Comment: T-203 IC. RCJ

Seq	Type	Sample#	R	A	Test	Matrix	Actual		Found	DL or Yield	Unit
1	CCB		0		@IC-QC F	QC	1		<1.20e-2		ug/mL
1	CCB		0		@IC-QC CL	QC	1		<1.70e-2		ug/mL
1	CCB		0		@IC-QC NO2	QC	1		<1.08e-1		ug/mL
1	CCB		0		@IC-QC BR	QC	1		<1.25e-1		ug/mL
1	CCB		0		@IC-QC NO3	QC	1		1.76e-01	0.176	ug/mL
1	CCB		0		@IC-QC PO4	QC	1		<1.20e-1		ug/mL
1	CCB		0		@IC-QC SO4	QC	1		1.89e-01	0.189	ug/mL
1	CCB		0		@IC-QC OXALATE2	QC	1		<1.05e-1		ug/mL
2	CCV		0		@IC-QC F	QC	5.90e01		4.45e+01	75.424	% Recovery
2	CCV		0		@IC-QC CL	QC	7.90e01		7.54e+01	95.443	% Recovery
2	CCV		0		@IC-QC NO2	QC	5.44e02		5.41e+02	99.449	% Recovery
2	CCV		0		@IC-QC BR	QC	5.89e02		5.74e+02	97.453	% Recovery
2	CCV		0		@IC-QC NO3	QC	5.94e02		5.75e+02	96.801	% Recovery
2	CCV		0		@IC-QC PO4	QC	5.45e02		5.10e+02	93.578	% Recovery
2	CCV		0		@IC-QC SO4	QC	6.31e02		6.03e+02	95.563	% Recovery
2	CCV		0		@IC-QC OXALATE2	QC	5.32e02		5.27e+02	99.060	% Recovery
3	BLNK-PREP		0		@IC-01 F-02	SOLID	1		<1.20e-2		ug/g
3	BLNK-PREP		0		@IC-01 CL-02	SOLID	1		<1.70e-2		ug/g
3	BLNK-PREP		0		@IC-01 NO2-02	SOLID	1		<1.08e-1		ug/g
3	BLNK-PREP		0		@IC-01 BR-02	SOLID	1		<1.25e-1		ug/g
3	BLNK-PREP		0		@IC-01 NO3-02	SOLID	1		<1.39e-1		ug/g
3	BLNK-PREP		0		@IC-01 PO4-02	SOLID	1		<1.20e-1		ug/g
3	BLNK-PREP		0		@IC-01 SO4-02	SOLID	1		<1.38e-1		ug/g
3	BLNK-PREP		0		@IC-01 OXALATE2	SOLID	1		<1.05e-1		ug/g
4	SAMPLE	S97T000748	0	W	@IC-01 CL-02	SOLID	N/A		5.977e+02	35.910	ug/g
4	SAMPLE	S97T000748	0	W	@IC-01 NO2-02	SOLID	N/A		2.723e+02	228.100	ug/g
4	SAMPLE	S97T000748	0	W	@IC-01 BR-02	SOLID	N/A	<	2.641e+02	264.100	ug/g
4	SAMPLE	S97T000748	0	W	@IC-01 NO3-02	SOLID	N/A		6.322e+04	293.600	ug/g
4	SAMPLE	S97T000748	0	W	@IC-01 PO4-02	SOLID	N/A		2.220e+03	253.600	ug/g
4	SAMPLE	S97T000748	0	W	@IC-01 SO4-02	SOLID	N/A	<	2.915e+02	291.500	ug/g
4	SAMPLE	S97T000748	0	W	@IC-01 OXALATE2	SOLID	N/A		1.428e+03	221.900	ug/g
5	DUP	S97T000748	0	W	@IC-01 F-02	SOLID	6.28e+03		6.05e+03	3.731	RPD
5	DUP	S97T000748	0	W	@IC-01 CL-02	SOLID	5.98e+02		5.73e+02	4.270	RPD
5	DUP	S97T000748	0	W	@IC-01 NO2-02	SOLID	2.72e+02		2.71e+02	0.368	RPD
5	DUP	S97T000748	0	W	@IC-01 BR-02	SOLID	<2.64e2		<2.58e2		RPD
5	DUP	S97T000748	0	W	@IC-01 NO3-02	SOLID	6.32e+04		6.09e+04	3.707	RPD
5	DUP	S97T000748	0	W	@IC-01 PO4-02	SOLID	2.22e+03		2.16e+03	2.740	RPD
5	DUP	S97T000748	0	W	@IC-01 SO4-02	SOLID	<2.92e2		<2.84e2		RPD
5	DUP	S97T000748	0	W	@IC-01 OXALATE2	SOLID	1.43e+03		1.51e+03	5.442	RPD
6	SAMPLE	S97T000749	0	W	@IC-01 CL-02	SOLID	N/A		6.184e+02	34.860	ug/g
6	SAMPLE	S97T000749	0	W	@IC-01 NO2-02	SOLID	N/A		2.597e+02	221.400	ug/g

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Worklist Report for Worklist# 18065

Seq	Type	Sample#	R	A	Test	Matrix	Actual		Found	DL or Yield	Unit
6	SAMPLE	S97T000749	0	W	@IC-01	BR-02	SOLID	N/A	< 2.563e+02	256.300	ug/g
6	SAMPLE	S97T000749	0	W	@IC-01	NO3-02	SOLID	N/A	6.250e+04	285.000	ug/g
6	SAMPLE	S97T000749	0	W	@IC-01	PO4-02	SOLID	N/A	2.289e+03	246.100	ug/g
6	SAMPLE	S97T000749	0	W	@IC-01	SO4-02	SOLID	N/A	< 2.830e+02	283.000	ug/g
6	SAMPLE	S97T000749	0	W	@IC-01	OXALATE2	SOLID	N/A	1.552e+03	215.300	ug/g
7	DUP	S97T000749	0	W	@IC-01	F-02	SOLID	6.35e+03	6.02e+03	5.335	RPD
7	DUP	S97T000749	0	W	@IC-01	CL-02	SOLID	6.18e+02	5.96e+02	3.624	RPD
7	DUP	S97T000749	0	W	@IC-01	NO2-02	SOLID	2.60e+02	2.48e+02	4.724	RPD
7	DUP	S97T000749	0	W	@IC-01	BR-02	SOLID	<2.56e2	<2.46e2		RPD
7	DUP	S97T000749	0	W	@IC-01	NO3-02	SOLID	6.25e+04	5.96e+04	4.750	RPD
7	DUP	S97T000749	0	W	@IC-01	PO4-02	SOLID	2.29e+03	2.22e+03	3.104	RPD
7	DUP	S97T000749	0	W	@IC-01	SO4-02	SOLID	<2.83e2	<2.72e2		RPD
7	DUP	S97T000749	0	W	@IC-01	OXALATE2	SOLID	1.55e+03	1.50e+03	3.279	RPD
8	SAMPLE	S97T000770	0	W	@IC-01	CL-02	SOLID	N/A	6.086e+02	31.230	ug/g
8	SAMPLE	S97T000770	0	W	@IC-01	NO2-02	SOLID	N/A	2.458e+02	198.300	ug/g
8	SAMPLE	S97T000770	0	W	@IC-01	BR-02	SOLID	N/A	< 2.296e+02	229.600	ug/g
8	SAMPLE	S97T000770	0	W	@IC-01	NO3-02	SOLID	N/A	6.236e+04	255.300	ug/g
8	SAMPLE	S97T000770	0	W	@IC-01	PO4-02	SOLID	N/A	2.398e+03	220.400	ug/g
8	SAMPLE	S97T000770	0	W	@IC-01	SO4-02	SOLID	N/A	3.660e+02	253.400	ug/g
8	SAMPLE	S97T000770	0	W	@IC-01	OXALATE2	SOLID	N/A	1.620e+03	192.800	ug/g
9	DUP	S97T000770	0	W	@IC-01	F-02	SOLID	6.25e+03	6.39e+03	2.215	RPD
9	DUP	S97T000770	0	W	@IC-01	CL-02	SOLID	6.09e+02	6.36e+02	4.337	RPD
9	DUP	S97T000770	0	W	@IC-01	NO2-02	SOLID	2.46e+02	2.39e+02	2.867	RPD
9	DUP	S97T000770	0	W	@IC-01	BR-02	SOLID	<2.30e2	<2.32e2		RPD
9	DUP	S97T000770	0	W	@IC-01	NO3-02	SOLID	6.24e+04	6.37e+04	2.062	RPD
9	DUP	S97T000770	0	W	@IC-01	PO4-02	SOLID	2.40e+03	2.83e+03	16.444	RPD
9	DUP	S97T000770	0	W	@IC-01	SO4-02	SOLID	3.66e+02	<2.56e2		RPD
9	DUP	S97T000770	0	W	@IC-01	OXALATE2	SOLID	1.62e+03	1.69e+03	4.230	RPD

Final page for worklist# 18065

Analyst Signature **Date**

Analyst Signature **Date**

Jason M. Luyendyk 5/22/97
Reviewer Signature **Date**

Units shown for QC (BLK/BKG) may not reflect the actual units.

05/13/97 07:56
A-0004-1

LABCORE Data Entry Template for Worklist# 18065

Analyst: EAL **Instrument:** IC0 \ **Book#** 6IN20A

Method: LA-533-105 Rev/Mod D-1

Worklist Comment: T-203 IC. RCJ

S	Type	Sample#	R	A	Test	Matrix	Group#	Project
1	CCB				@IC-QC	QC		
2	CCV				@IC-QC	QC		
3	BLNK-PREP				@IC-01	SOLID		
4	SAMPLE	S97T000748	0	W	@IC-01	SOLID	97000299	T-203
	Analytes Requested:				BR-02 , CL-02 , F-02 , NO2-02 , NO3-02 , OXALATE2, PO4-02 , SO4-02			
5	DUP	S97T000748	0	W	@IC-01	SOLID		
6	SAMPLE	S97T000749	0	W	@IC-01	SOLID	97000299	T-203
	Analytes Requested:				BR-02 , CL-02 , F-02 , NO2-02 , NO3-02 , OXALATE2, PO4-02 , SO4-02			
7	DUP	S97T000749	0	W	@IC-01	SOLID		
8	SAMPLE	S97T000770	0	W	@IC-01	SOLID	97000299	T-203
	Analytes Requested:				BR-02 , CL-02 , F-02 , NO2-02 , NO3-02 , OXALATE2, PO4-02 , SO4-02			
9	DUP	S97T000770	0	W	@IC-01	SOLID		

Final page for worklist # 18065

R Lambert 05-19-97
Analyst Signature **Date**

Analyst Signature **Date**

uploaded 5-20-97
Jok Worell

18065MAY.CSV
Frejected CCV failed, rest validated 5/20/97 JMFuge

Data Entry Comments: Rerun on WKL# 18215. JMFuge

S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

May 20, 1997 6:05AM WHC 222S LAB ROOM 2F BACKSIDE No. 3101 P. 10/31

Sample Name: INST. BLANK Date: 05/19/1997 14:55:47
Data File : C:\DX\DATA\97051901.D15
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 15 Detector:CDM-1
Analyst : Column: AG4A/AS4A anion column

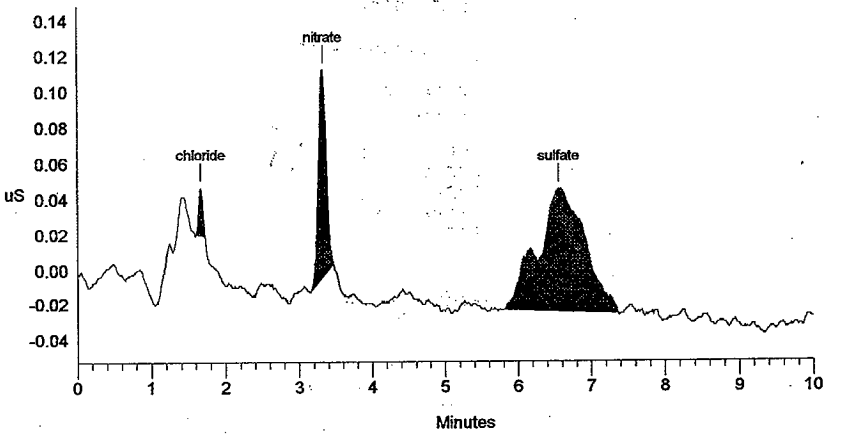
for EAL 5/22/97

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	1	3000	5Hz	0.00	10.00	30

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.67	chloride	0.002	27	98	1	4.60
2	3.33	nitrate	0.176	116	850	1	2.36
3	6.56	sulfate	0.189	69	3057	1	8.85
		Totals	0.367	212	4006		

File: 97051901.D15 Sample: INST. BLANK



SIGNATURE ABOVE REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 374 TO 380

May. 20. 1997 6:05AM WHC 222S LAB ROOM 2F BACKSIDE No. 3101 P. 11/31

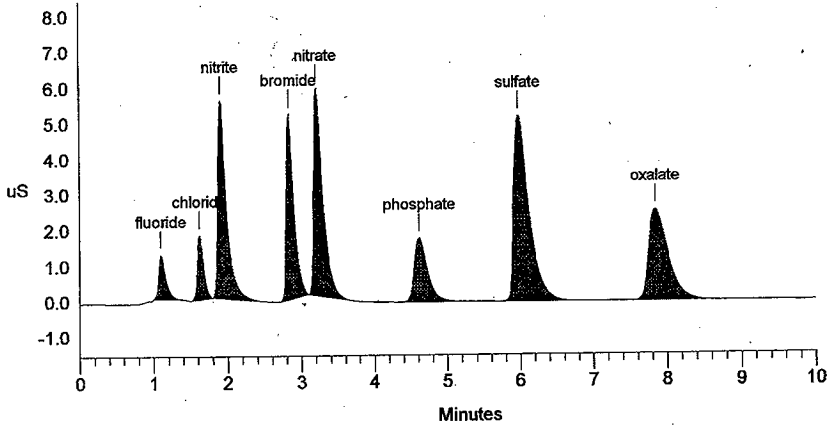
```
Sample Name: 61N20-A STD.                          Date: 05/19/1997 15:06:38
Data File  : C:\DX\DATA\97051901.D16
Method     : C:\DX\METHOD\KIT.MET
ACI Address: 1  System: 1  Inject#: 16                    Detector:CDM-1
Analyst    :                Column: AG4A/AS4A anion column
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	101	3000	5Hz	0.00	10.00	30

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.10	fluoride	44.517	1230	7870	1	-1.79
2	1.62	chloride	75.416	1801	9842	1	1.67
3	1.91	nitrite	541.139	5554	42765	1	-1.04
4	2.83	bromide	574.364	5210	35885	1	-0.58
5	3.21	nitrate	575.241	5808	47864	1	-1.33
6	4.61	phosphate	510.275	1800	22588	1	0.00
7	5.97	sulfate	602.722	5224	73970	1	-0.88
8	7.84	oxalate	527.313	2568	46617	1	0.00
		Totals	3450.986	29195	287401		

File: 97051901.D16 Sample: 61N20-A STD.



May. 20. 1997 6:06AM WHC 222S LAB ROOM 2F BACKSIDE No. 3101 P. 12/31

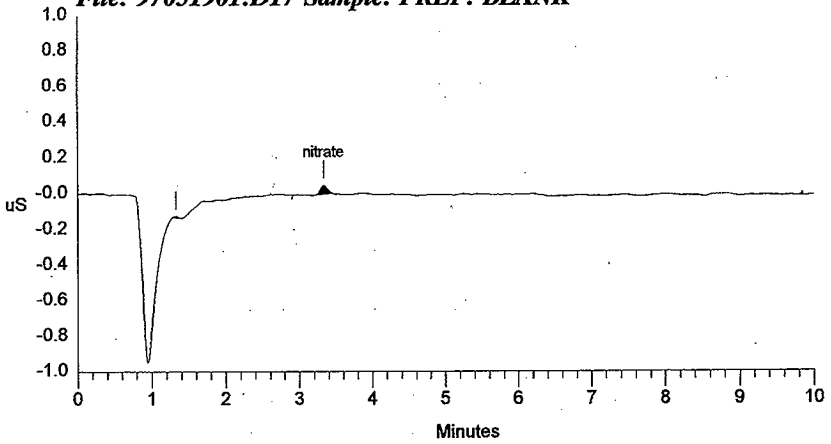
```
Sample Name: PREP. BLANK                    Date: 05/19/1997 15:17:56
Data File  : C:\DX\DATA\97051901.D17
Method     : C:\DX\METHOD\KIT.MET
ACI Address: 1  System: 1  Inject#: 17              Detector:CDM-1
Analyst    :               Column: AG4A/AS4A anion column
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	1	3000	5Hz	0.00	10.00	30

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.33		0.000	10	45	1	
2	3.33	nitrate	0.113	48	322	1	2.56
		Totals	0.113	58	367		

File: 97051901.D17 Sample: PREP. BLANK



May 20, 1997 6:07AM WHC 222S LAB ROOM 2F BACKSIDE No. 3101 P. 13/31

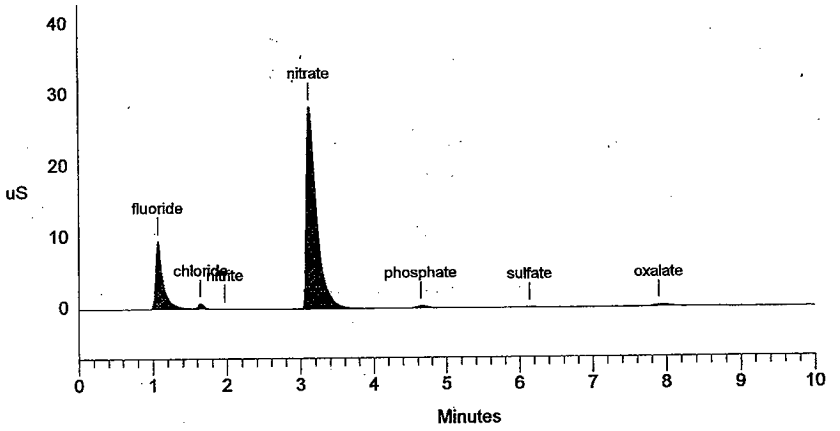
```
Sample Name: S97T000748                          Date: 05/19/1997 15:32:45
Data File  : C:\DX\DATA\97051901.D18
Method     : C:\DX\METHOD\KIT.MET
ACI Address: 1  System: 1  Inject#: 18                    Detector:CDM-1
Analyst    :                Column: AG4A/AS4A anion column
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	11	3000	5Hz	0.00	10.00	30

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.07	fluoride	32.697	9404	60448	1	-4.76
2	1.64	chloride	3.112	700	3735	1	2.93
3	1.97	nitrite	1.418	47	264	1	2.08
4	3.12	nitrate	329.209	28385	272634	1	-4.00
5	4.64	phosphate	11.559	350	4419	1	0.58
6	6.13	sulfate	0.762	105	1616	1	1.77
7	7.89	oxalate	7.435	291	5790	1	0.68
		Totals	386.193	39282	348906		

File: 97051901.D18 Sample: S97T000748



May 20, 1997 6:07AM WHC 222S LAB ROOM 2F BACKSIDE No. 3101 P. 14/31

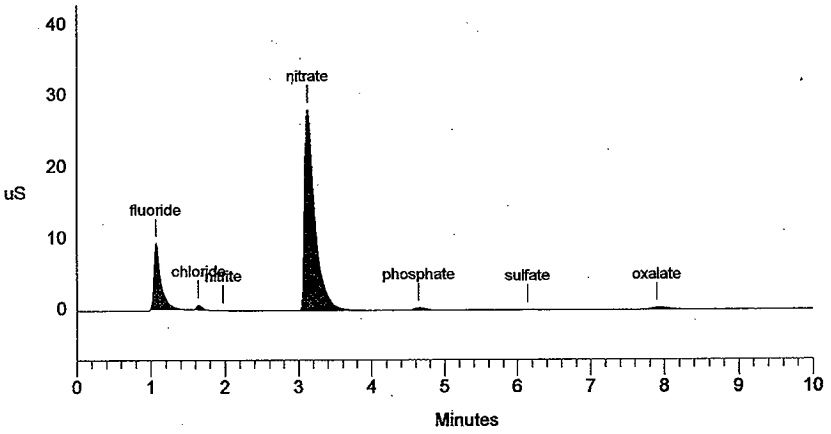
```
Sample Name: S97T000748DUP                    Date: 05/19/1997 15:43:32
Data File  : C:\DX\DATA\97051901.D19
Method     : C:\DX\METHOD\KIT.MET
ACI Address: 1  System: 1  Inject#: 19                  Detector:CDM-1
Analyst    :                Column: AG4A/AS4A anion column
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	11	3000	5Hz	0.00	10.00	30

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.07	fluoride	32.306	9276	59656	1	-4.76
2	1.64	chloride	3.058	695	3670	1	2.93
3	1.97	nitrite	1.446	50	284	1	2.42
4	3.12	nitrate	324.703	28160	268538	1	-4.00
5	4.64	phosphate	11.502	346	4396	1	0.58
6	6.13	sulfate	0.376	89	1192	1	1.77
7	7.89	oxalate	8.041	314	6283	1	0.68
		Totals	381.432	38929	344019		

File: 97051901.D19 Sample: S97T000748DUP



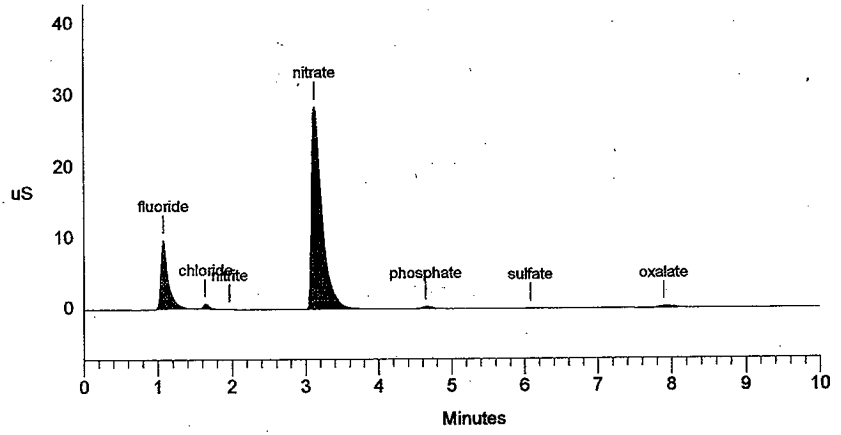
Sample Name: S97T000749 Date: 05/19/1997 15:54:48
Data File : C:\DX\DATA\97051901.D20
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 20 Detector:CDM-1
Analyst : Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	11	3000	5Hz	0.00	10.00	30

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.07	fluoride	34.043	9758	63195	1	-4.17
2	1.64	chloride	3.317	716	3978	1	2.93
3	1.97	nitrite	1.393	42	246	1	2.08
4	3.13	nitrate	335.267	28567	278158	1	-3.79
5	4.64	phosphate	12.280	364	4713	1	0.58
6	6.08	sulfate	1.516	101	2444	1	0.88
7	7.89	oxalate	8.326	326	6514	1	0.68
		Totals	396.141	39873	359247		

File: 97051901.D20 Sample: S97T000749



May. 20. 1997 6:08AM WHC 222S LAB ROOM 2F BACKSIDE No. 3101 P. 10/31

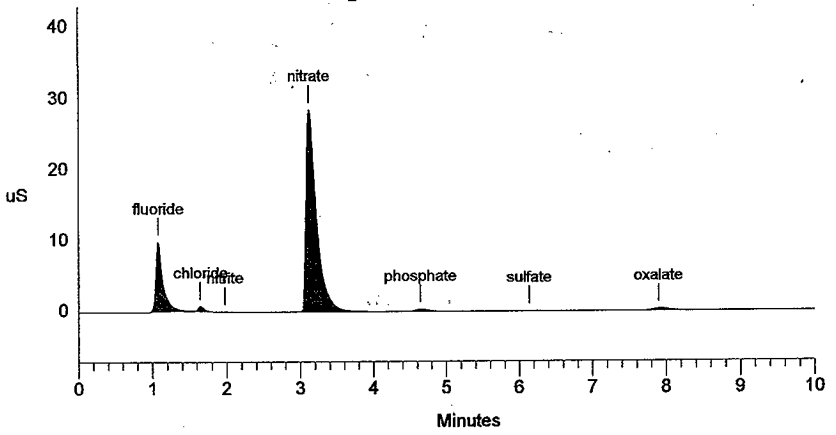
Sample Name: S97T000749DUP Date: 05/19/1997 16:05:47
Data File : C:\DX\DATA\97051901.D21
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 21 Detector:CDM-1
Analyst : Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	11	3000	5Hz	0.00	10.00	30

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.07	fluoride	33.637	9743	62364	1	-4.17
2	1.64	chloride	3.328	726	3991	1	2.93
3	1.97	nitrite	1.384	44	239	1	2.42
4	3.12	nitrate	332.767	28551	275875	1	-4.00
5	4.64	phosphate	12.405	359	4764	1	0.58
6	6.13	sulfate	0.161	81	956	1	1.77
7	7.89	oxalate	8.390	327	6566	1	0.68
		Totals	392.071	39831	354755		

File: 97051901.D21 Sample: S97T000749DUP



May. 20. 1997 6:09AM WHC 222S LAB ROOM 2F BACKSIDE No. 3101 P. 17/31

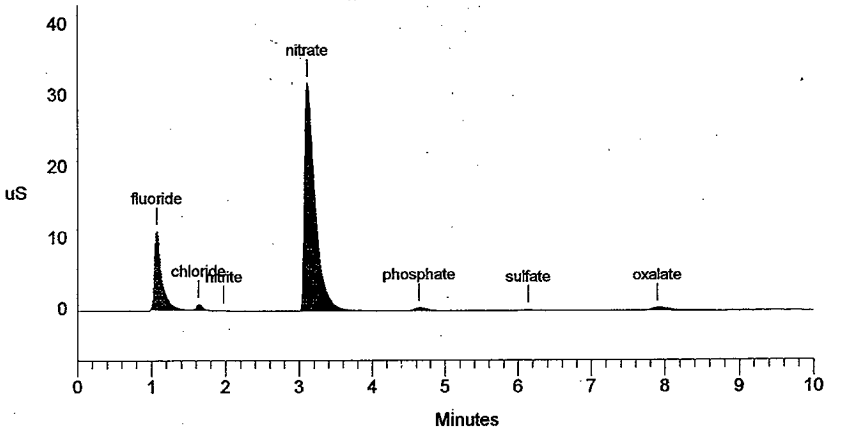
Sample Name: S97T000770 Date: 05/19/1997 16:17:07
Data File : C:\DX\DATA\97051901.D22
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 22 Detector:CDM-1
Analyst : Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	11	3000	5Hz	0.00	10.00	30

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.07	fluoride	37.447	10967	70241	1	-4.76
2	1.63	chloride	3.645	794	4367	1	2.51
3	1.97	nitrite	1.472	56	303	1	2.42
4	3.11	nitrate	373.480	31944	313518	1	-4.41
5	4.64	phosphate	14.360	425	5563	1	0.58
6	6.13	sulfate	2.192	147	3186	1	1.77
7	7.89	oxalate	9.700	388	7629	1	0.68
		Totals	442.296	44722	404807		

File: 97051901.D22 Sample: S97T000770



May 20, 1997 6:09AM WHC 222S LAB ROOM 2F BACKSIDE No. 3101 P. 18/31

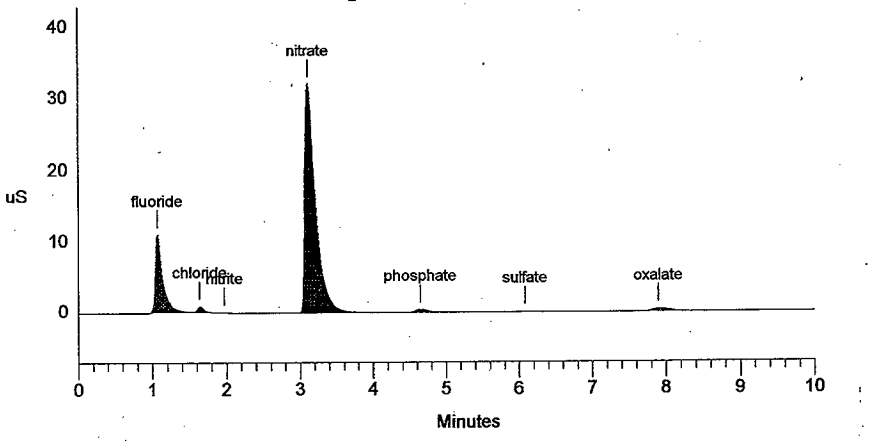
```
Sample Name: S97T000770DUP                    Date: 05/19/1997 16:29:31
Data File  : C:\DX\DATA\97051901.D23
Method     : C:\DX\METHOD\KIT.MET
ACI Address: 1  System: 1  Inject#: 23                  Detector:CDM-1
Analyst    :                Column: AG4A/AS4A anion column
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	11	3000	5Hz	0.00	10.00	30

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.07	fluoride	37.829	10967	71041	1	-4.76
2	1.63	chloride	3.767	822	4511	1	2.51
3	1.97	nitrite	1.414	48	261	1	2.08
4	3.11	nitrate	377.048	32060	316866	1	-4.41
5	4.64	phosphate	16.745	432	6537	1	0.58
6	6.08	sulfate	1.251	111	2153	1	0.88
7	7.89	oxalate	10.016	402	7887	1	0.68
		Totals	448.069	44842	409256		

File: 97051901.D23 Sample: S97T000770DUP



LABCORE Completed Worklist Report for Worklist# 18066

Analyst: eal **Instrument:** IC02 **Book#** GIN204

Method: IA-533-105 Rev/Mod D-1

Worklist Comment: T-203 IC. RCJ

Seq	Type	Sample#	R	A	Test	Matrix	Actual	Found	DL or Yield	Unit
1	CCB			0	@IC-QC	F	QC	1	<1.20e-2		ug/mL
1	CCB			0	@IC-QC	CL	QC	1	<1.70e-2		ug/mL
1	CCB			0	@IC-QC	NO2	QC	1	<1.08e-1		ug/mL
1	CCB			0	@IC-QC	BR	QC	1	<1.25e-1		ug/mL
1	CCB			0	@IC-QC	NO3	QC	1	<1.39e-1		ug/mL
1	CCB			0	@IC-QC	PO4	QC	1	<1.20e-1		ug/mL
1	CCB			0	@IC-QC	SO4	QC	1	<1.38e-1		ug/mL
1	CCB			0	@IC-QC	OXALATE2	QC	1	<1.05e-1		ug/mL
2	CCV			0	@IC-QC	F	QC	5.90e01	5.29e+01	89.661	% Recovery
2	CCV			0	@IC-QC	CL	QC	7.90e01	7.07e+01	89.494	% Recovery
2	CCV			0	@IC-QC	NO2	QC	5.44e02	4.86e+02	89.338	% Recovery
2	CCV			0	@IC-QC	BR	QC	5.89e02	5.20e+02	88.285	% Recovery
2	CCV			0	@IC-QC	NO3	QC	5.94e02	5.32e+02	89.562	% Recovery
2	CCV			0	@IC-QC	PO4	QC	5.45e02	4.98e+02	91.376	% Recovery
2	CCV			0	@IC-QC	SO4	QC	6.31e02	5.82e+02	92.235	% Recovery
2	CCV			0	@IC-QC	OXALATE2	QC	5.32e02	4.72e+02	88.722	% Recovery
3	BLNK-PREP			0	@IC-01	F-02	SOLID	1	<1.20e-2		ug/g
3	BLNK-PREP			0	@IC-01	CL-02	SOLID	1	2.90e-02	0.029	ug/g
3	BLNK-PREP			0	@IC-01	NO2-02	SOLID	1	2.22e-01	0.222	ug/g
3	BLNK-PREP			0	@IC-01	BR-02	SOLID	1	<1.25e-1		ug/g
3	BLNK-PREP			0	@IC-01	NO3-02	SOLID	1	1.88e-01	0.188	ug/g
3	BLNK-PREP			0	@IC-01	PO4-02	SOLID	1	<1.20e-1		ug/g
3	BLNK-PREP			0	@IC-01	SO4-02	SOLID	1	<1.38e-1		ug/g
3	BLNK-PREP			0	@IC-01	OXALATE2	SOLID	1	<1.05e-1		ug/g
4	SAMPLE	S97T000750	0	W	@IC-01	F-02	SOLID	N/A	6.753e+03	25.700	ug/g
4	SAMPLE	S97T000750	0	W	@IC-01	CL-02	SOLID	N/A	7.858e+02	36.410	ug/g
4	SAMPLE	S97T000750	0	W	@IC-01	NO2-02	SOLID	N/A	4.178e+02	231.300	ug/g
4	SAMPLE	S97T000750	0	W	@IC-01	BR-02	SOLID	N/A <	2.677e+02	267.700	ug/g
4	SAMPLE	S97T000750	0	W	@IC-01	NO3-02	SOLID	N/A	5.937e+04	297.700	ug/g
4	SAMPLE	S97T000750	0	W	@IC-01	PO4-02	SOLID	N/A	2.418e+03	257.000	ug/g
4	SAMPLE	S97T000750	0	W	@IC-01	SO4-02	SOLID	N/A	6.371e+02	295.600	ug/g
4	SAMPLE	S97T000750	0	W	@IC-01	OXALATE2	SOLID	N/A	1.295e+03	224.800	ug/g
5	DUP	S97T000750	0	W	@IC-01	F-02	SOLID	6.75e+03	6.86e+03	1.616	RPD
5	DUP	S97T000750	0	W	@IC-01	CL-02	SOLID	7.86e+02	8.39e+02	6.523	RPD
5	DUP	S97T000750	0	W	@IC-01	NO2-02	SOLID	4.18e+02	4.35e+02	3.986	RPD
5	DUP	S97T000750	0	W	@IC-01	BR-02	SOLID	<2.68e2	<2.74e2		RPD
5	DUP	S97T000750	0	W	@IC-01	NO3-02	SOLID	5.94e+04	6.11e+04	2.822	RPD
5	DUP	S97T000750	0	W	@IC-01	PO4-02	SOLID	2.42e+03	2.40e+03	0.830	RPD
5	DUP	S97T000750	0	W	@IC-01	SO4-02	SOLID	6.37e+02	6.86e+02	7.698	RPD
5	DUP	S97T000750	0	W	@IC-01	OXALATE2	SOLID	1.30e+03	1.37e+03	5.243	RPD
6	SAMPLE	S97T000771	0	W	@IC-01	F-02	SOLID	N/A	6.256e+03	25.390	ug/g

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Worklist Report for Worklist# 18066

Seq	Type	Sample#	R	A	Test	Matrix	Actual		Found	DL or Yield	Unit
6	SAMPLE	S97T000771	0	W	@IC-01	CL-02	SOLID	N/A		6.069e+02	35.960 ug/g
6	SAMPLE	S97T000771	0	W	@IC-01	NO2-02	SOLID	N/A		3.983e+02	228.500 ug/g
6	SAMPLE	S97T000771	0	W	@IC-01	BR-02	SOLID	N/A	<	2.644e+02	264.400 ug/g
6	SAMPLE	S97T000771	0	W	@IC-01	NO3-02	SOLID	N/A		5.459e+04	294.000 ug/g
6	SAMPLE	S97T000771	0	W	@IC-01	PO4-02	SOLID	N/A		2.195e+03	253.900 ug/g
6	SAMPLE	S97T000771	0	W	@IC-01	SO4-02	SOLID	N/A		5.667e+02	291.900 ug/g
6	SAMPLE	S97T000771	0	W	@IC-01	OXALATE2	SOLID	N/A		1.146e+03	222.100 ug/g
7	DUP	S97T000771	0	W	@IC-01	F-02	SOLID	6.26e+03		6.47e+03	3.299 RPD
7	DUP	S97T000771	0	W	@IC-01	CL-02	SOLID	6.07e+02		6.18e+02	1.796 RPD
7	DUP	S97T000771	0	W	@IC-01	NO2-02	SOLID	3.98e+02		4.05e+02	1.743 RPD
7	DUP	S97T000771	0	W	@IC-01	BR-02	SOLID	<2.64e2		<2.67e2	RPD
7	DUP	S97T000771	0	W	@IC-01	NO3-02	SOLID	5.46e+04		5.54e+04	1.455 RPD
7	DUP	S97T000771	0	W	@IC-01	PO4-02	SOLID	2.20e+03		2.28e+03	3.571 RPD
7	DUP	S97T000771	0	W	@IC-01	SO4-02	SOLID	5.67e+02		6.10e+02	7.307 RPD
7	DUP	S97T000771	0	W	@IC-01	OXALATE2	SOLID	1.15e+03		1.16e+03	0.866 RPD
8	SAMPLE	S97T000772	0	W	@IC-01	F-02	SOLID	N/A		6.645e+03	25.870 ug/g
8	SAMPLE	S97T000772	0	W	@IC-01	CL-02	SOLID	N/A		6.058e+02	36.650 ug/g
8	SAMPLE	S97T000772	0	W	@IC-01	NO2-02	SOLID	N/A		3.993e+02	232.900 ug/g
8	SAMPLE	S97T000772	0	W	@IC-01	BR-02	SOLID	N/A	<	2.695e+02	269.500 ug/g
8	SAMPLE	S97T000772	0	W	@IC-01	NO3-02	SOLID	N/A		5.756e+04	299.600 ug/g
8	SAMPLE	S97T000772	0	W	@IC-01	PO4-02	SOLID	N/A		2.370e+03	258.700 ug/g
8	SAMPLE	S97T000772	0	W	@IC-01	SO4-02	SOLID	N/A		8.156e+02	297.600 ug/g
8	SAMPLE	S97T000772	0	W	@IC-01	OXALATE2	SOLID	N/A		1.342e+03	226.400 ug/g
9	DUP	S97T000772	0	W	@IC-01	F-02	SOLID	6.64e+03		6.55e+03	1.365 RPD
9	DUP	S97T000772	0	W	@IC-01	CL-02	SOLID	6.06e+02		6.23e+02	2.766 RPD
9	DUP	S97T000772	0	W	@IC-01	NO2-02	SOLID	3.99e+02		4.25e+02	6.311 RPD
9	DUP	S97T000772	0	W	@IC-01	BR-02	SOLID	<2.70e2		<2.66e2	RPD
9	DUP	S97T000772	0	W	@IC-01	NO3-02	SOLID	5.76e+04		5.82e+04	1.036 RPD
9	DUP	S97T000772	0	W	@IC-01	PO4-02	SOLID	2.37e+03		2.41e+03	1.674 RPD
9	DUP	S97T000772	0	W	@IC-01	SO4-02	SOLID	8.16e+02		6.21e+02	27.140 RPD
9	DUP	S97T000772	0	W	@IC-01	OXALATE2	SOLID	1.34e+03		1.26e+03	6.154 RPD

Final page for worklist# 18066

Analyst Signature **Date**

Analyst Signature **Date**

Jean M. Faye 6/2/97
Reviewer Signature **Date**

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Data Entry Template for Worklist# 18066

Analyst: EAL **Instrument:** IC0 2 **Book#** 61N20.A

Method: LA-533-105 Rev/Mod D.1

Worklist Comment: T-203 IC. RCJ

S	Type	Sample#	R	A	Test	Matrix	Group#	Project
1	CCB				@IC-QC	QC		
2	CCV				@IC-QC	QC		
3	BLNK-PREP				@IC-01	SOLID		
4	SAMPLE	S97T000750	0	W	@IC-01	SOLID	97000299	T-203
	Analytes Requested:				BR-02, CL-02, F-02, NO2-02, NO3-02, OXALATE2, PO4-02, SO4-02			
5	DUP	S97T000750	0	W	@IC-01	SOLID		
6	SAMPLE	S97T000771	0	W	@IC-01	SOLID	97000299	T-203
	Analytes Requested:				BR-02, CL-02, F-02, NO2-02, NO3-02, OXALATE2, PO4-02, SO4-02			
7	DUP	S97T000771	0	W	@IC-01	SOLID		
8	SAMPLE	S97T000772	0	W	@IC-01	SOLID	97000299	T-203
	Analytes Requested:				BR-02, CL-02, F-02, NO2-02, NO3-02, OXALATE2, PO4-02, SO4-02			
9	DUP	S97T000772	0	W	@IC-01	SOLID		

Final page for worklist # 18066

Analyst Signature 05.21.97 Date

Analyst Signature Date

uploaded 6-2-97 JKW

18066MA9.CSV

Validated 6/2/97 JMF

Data Entry Comments:

S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

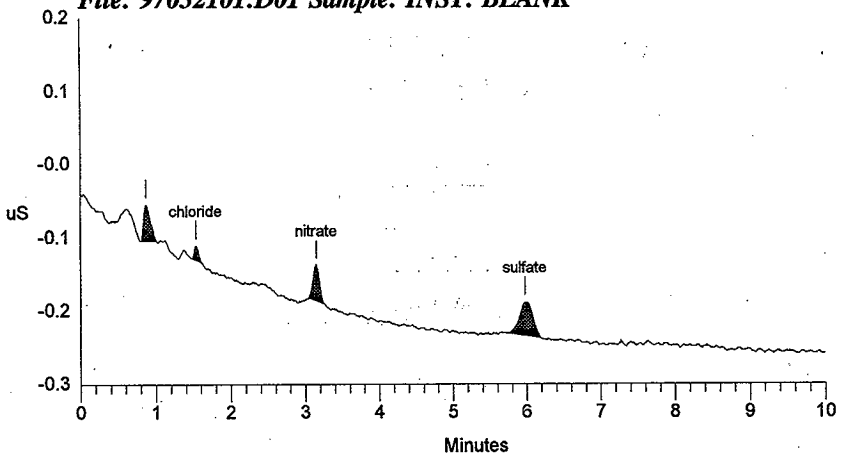
Sample Name: INST. BLANK Date: 05/21/1997 10:00:56
Data File : C:\DX\DATA\97052101.D01
Method : C:\DX\METHOD\ANIONS.MET
ACI Address: 1 System: 1 Inject#: 1 Detector:CDM-1
Analyst : [signature] for EAL 6/2/97 Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	1	3000	5Hz	0.00	10.00	50

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.87		0.000	49	299	1	
2	1.53	chloride	0.016	20	77	1	-0.43
3	3.15	nitrate	0.138	48	283	1	-0.74
4	5.97	sulfate	0.068	46	581	1	4.61
		Totals	0.223	162	1240		

File: 97052101.D01 Sample: INST. BLANK



SIGNATURE ABOVE REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 388 TO 389

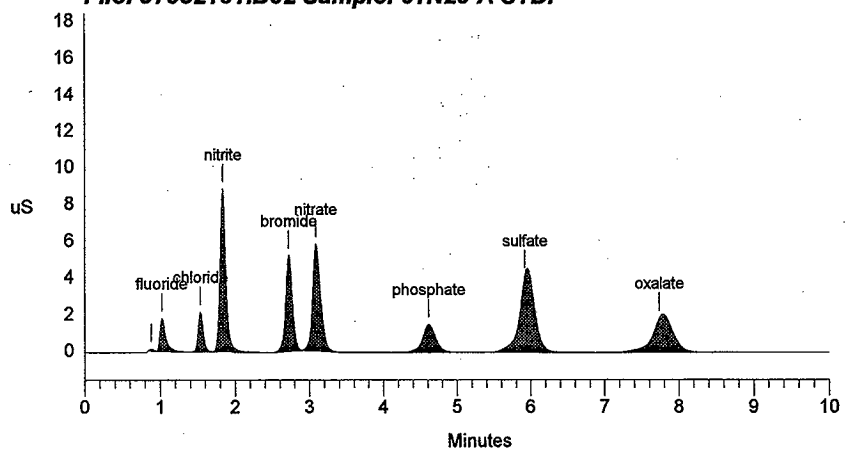
Sample Name: 61N20-A STD. Date: 05/21/1997 10:12:06
Data File : C:\DX\DATA\97052101.D02
Method : C:\DX\METHOD\ANIONS.MET
ACI Address: 1 System: 1 Inject#: 2 Detector:CDM-1
Analyst : Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	101	3000	5Hz	0.00	10.00	50

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.88		0.000	108	458	2	
2	1.02	fluoride	52.897	1782	9598	2	0.99
3	1.53	chloride	70.660	2150	9998	1	-0.43
4	1.83	nitrite	486.155	8838	47038	1	-1.79
5	2.72	bromide	520.103	5199	32425	1	-2.51
6	3.09	nitrate	532.467	5805	43322	1	-2.63
7	4.61	phosphate	498.371	1527	19454	1	3.59
8	5.92	sulfate	581.783	4171	63887	1	3.68
9	7.73	oxalate	472.026	1861	39660	1	-2.73
		Totals	3214.461	31440	265842		

File: 97052101.D02 Sample: 61N20-A STD.



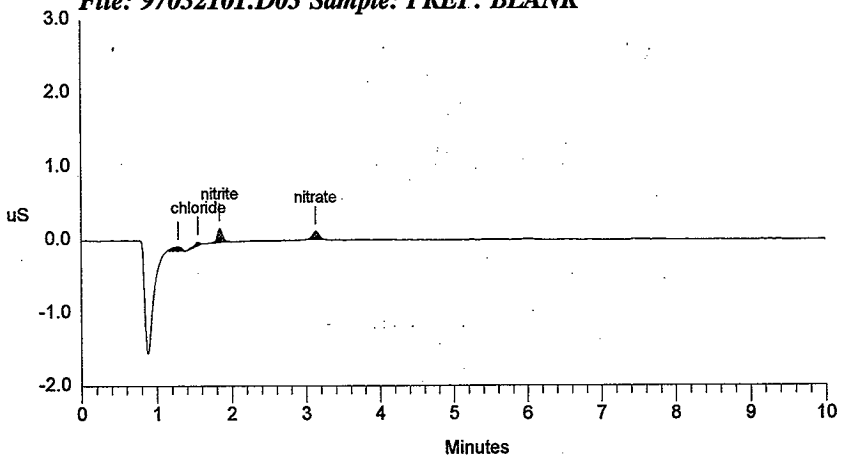
```
Sample Name: PREP. BLANK                    Date: 05/21/1997 10:24:25
Data File  : C:\DX\DATA\97052101.D03
Method     : C:\DX\METHOD\ANIONS.MET
ACI Address: 1  System: 1  Inject#: 3                  Detector:CDM-1
Analyst    :                Column: AG4A/AS4A anion column
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	1	3000	5Hz	0.00	10.00	50

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.29		0.000	57	523	1	
2	1.55	chloride	0.029	43	253	1	0.87
3	1.84	nitrite	0.222	188	895	1	-1.43
4	3.13	nitrate	0.188	108	694	1	-1.16
		Totals	0.439	397	2365		

File: 97052101.D03 Sample: PREP. BLANK



Data Reprocessed On 05/23/1997 12:56:28

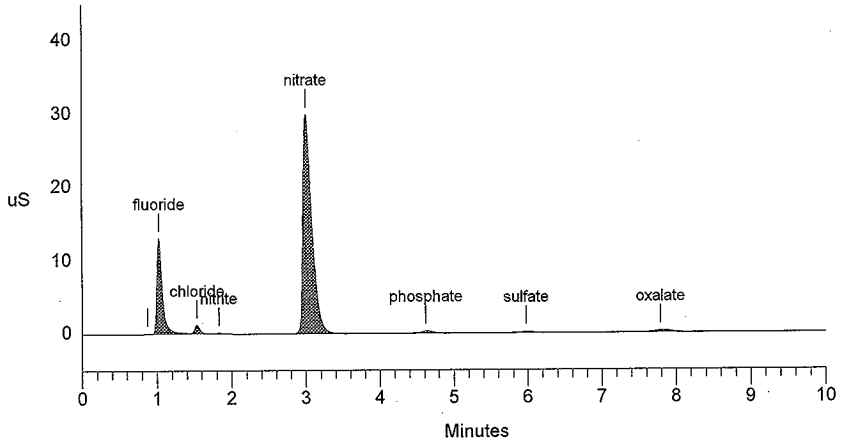
Sample Name: S97T000750 Date: 05/21/1997 10:38:19
Data File : E:\DATA\97052101.D04
Method : C:\DX\METHOD\ANIONS.MET
ACI Address: 1 System: 1 Inject#: 4 Detector:CDM-1
Analyst : Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	11	3000	5Hz	0.00	10.00	50

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.87		0.000	48	178	1	
2	1.03	fluoride	34.681	13004	64329	1	1.65
3	1.53	chloride	4.036	1106	5145	1	-0.43
4	1.83	nitrite	2.146	127	620	1	-2.14
5	3.00	nitrate	304.900	29898	250511	1	0.00
6	4.61	phosphate	12.420	322	4176	1	3.59
7	5.97	sulfate	3.272	212	3088	1	4.61
8	7.79	oxalate	6.650	292	5880	1	-2.05
		Totals	368.105	45009	333927		

File: 97052101.D04 Sample: S97T000750



Data Reprocessed On 05/23/1997 12:57:41

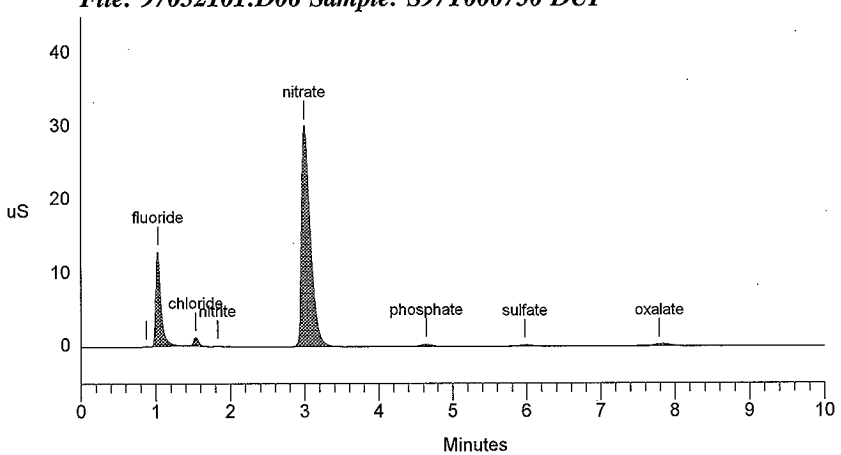
Sample Name: S97T000750 DUP Date: 05/21/1997 11:02:38
Data File : E:\DATA\97052101.D06
Method : C:\DX\METHOD\ANIONS.MET
ACI Address: 1 System: 1 Inject#: 6 Detector:CDM-1
Analyst : Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	11	3000	5Hz	0.00	10.00	50

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.87		0.000	50	179	1	
2	1.03	fluoride	34.452	12901	63853	1	1.65
3	1.53	chloride	4.216	1157	5383	1	-0.43
4	1.83	nitrite	2.187	129	658	1	-2.14
5	2.99	nitrate	307.060	30075	252491	1	0.11
6	4.64	phosphate	12.062	319	4047	1	4.19
7	5.97	sulfate	3.459	227	3274	1	4.61
8	7.79	oxalate	6.887	290	6058	1	-2.05
		Totals	370.323	45149	335942		

File: 97052101.D06 Sample: S97T000750 DUP



Data Reprocessed On 05/23/1997 12:58:31

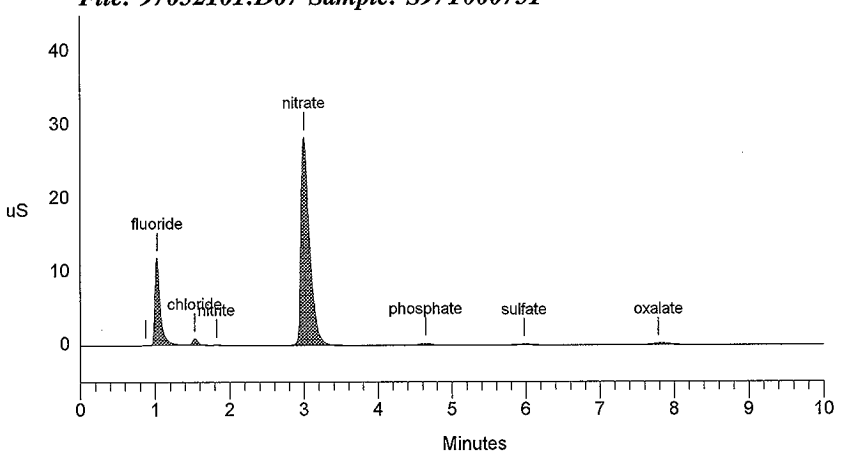
Sample Name: S97T000751 771 JW 6-2-97 Date: 05/21/1997 11:16:47
Data File : E:\DATA\97052101.D07
Method : C:\DX\METHOD\ANIONS.MET
ACI Address: 1 System: 1 Inject#: 7 Detector:CDM-1
Analyst : Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	11	3000	5Hz	0.00	10.00	50

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.87		0.000	47	173	1	
2	1.03	fluoride	32.530	11925	59880	1	1.65
3	1.53	chloride	3.156	873	3984	1	-0.87
4	1.82	nitrite	2.071	111	552	1	-2.50
5	3.00	nitrate	283.878	28400	231422	1	0.00
6	4.64	phosphate	11.414	303	3814	1	4.19
7	5.97	sulfate	2.947	196	2765	1	4.61
8	7.79	oxalate	5.959	263	5362	1	-2.05
		Totals	341.954	42117	307951		

File: 97052101.D07 Sample: S97T000751



Data Reprocessed On 05/23/1997 12:59:16

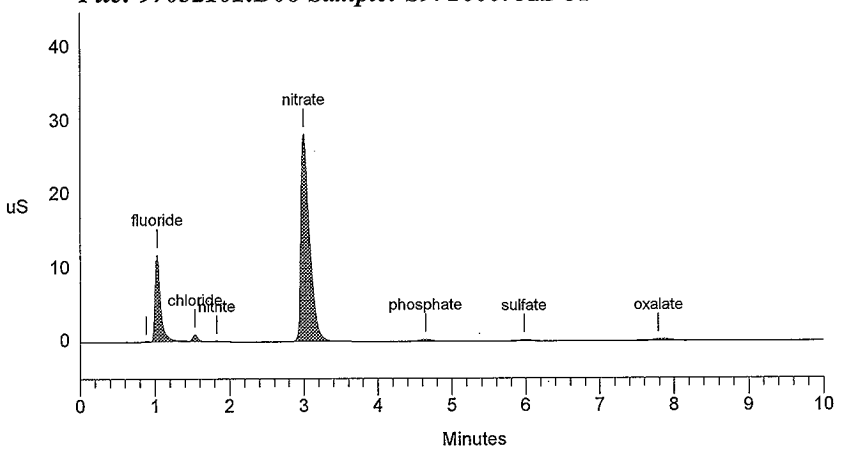
Sample Name: S97T000~~751DUP~~ 771 DUP gs 6-2-97 Date: 05/21/1997 11:30:34
Data File : E:\DATA\97052101.D08
Method : C:\DX\METHOD\ANIONS.MET
ACI Address: 1 System: 1 Inject#: 8 Detector:CDM-1
Analyst : Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	11	3000	5Hz	0.00	10.00	50

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.88		0.000	52	185	1	
2	1.03	fluoride	33.329	11884	61524	1	1.65
3	1.53	chloride	3.184	900	4021	1	-0.43
4	1.83	nitrite	2.088	116	568	1	-2.14
5	3.00	nitrate	285.186	28346	232600	1	0.00
6	4.64	phosphate	11.740	310	3931	1	4.19
7	5.97	sulfate	3.140	206	2956	1	4.61
8	7.79	oxalate	5.987	263	5383	1	-2.05
		Totals	344.653	42076	311169		

File: 97052101.D08 Sample: S97T000751DUP



Data Reprocessed On 05/23/1997 13:00:42

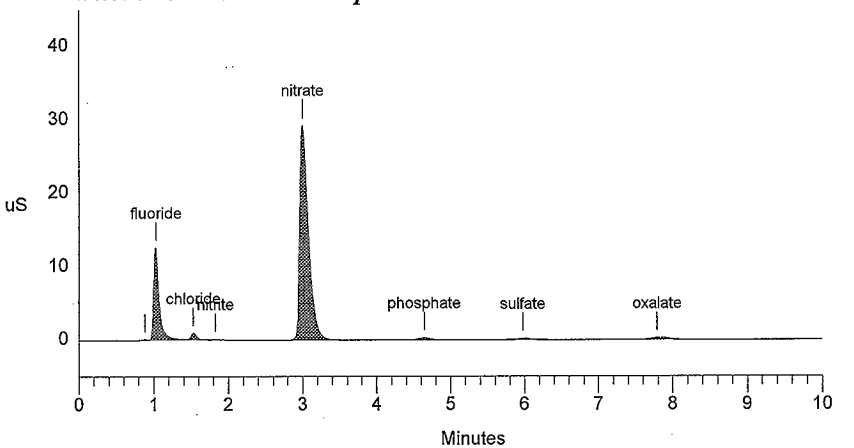
```
Sample Name: S97T000772                    Date: 05/21/1997 11:41:38
Data File  : E:\DATA\97052101.D09
Method     : C:\DX\METHOD\ANIONS.MET
ACI Address: 1  System: 1  Inject#: 9                Detector:CDM-1
Analyst    :                Column: AG4A/AS4A anion column
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	11	3000	5Hz	0.00	10.00	50

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.88		0.000	47	163	1	
2	1.03	fluoride	33.901	12526	62708	1	1.65
3	1.53	chloride	3.091	845	3899	1	-0.87
4	1.83	nitrite	2.037	110	521	1	-2.14
5	3.00	nitrate	293.657	29297	240262	1	0.00
6	4.64	phosphate	12.093	317	4059	1	4.19
7	5.97	sulfate	4.161	227	3973	1	4.61
8	7.79	oxalate	6.848	284	6028	1	-2.05
		Totals	355.789	43653	321613		

File: 97052101.D09 Sample: S97T000772



Data Reprocessed On 05/23/1997 13:01:29

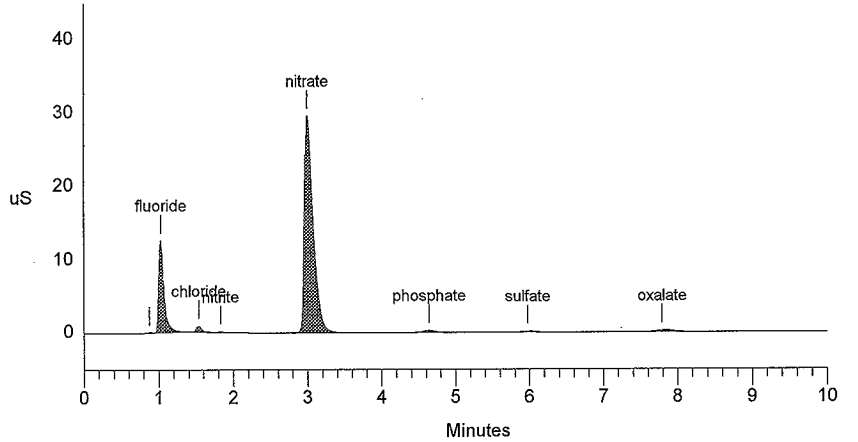
```
Sample Name: S97T000772 DUP                    Date: 05/21/1997 11:57:01
Data File  : E:\DATA\97052101.D10
Method     : C:\DX\METHOD\ANIONS.MET
ACI Address: 1  System: 1  Inject#: 10                  Detector:CDM-1
Analyst    :                Column: AG4A/AS4A anion column
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	11	3000	5Hz	0.00	10.00	50

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.87		0.000	48	169	1	
2	1.03	fluoride	33.856	12657	62614	1	1.65
3	1.53	chloride	3.222	876	4071	1	-0.43
4	1.83	nitrite	2.195	122	665	1	-2.14
5	2.99	nitrate	300.812	29621	246774	1	0.11
6	4.64	phosphate	12.464	327	4192	1	4.19
7	5.97	sulfate	3.211	209	3028	1	4.61
8	7.79	oxalate	6.513	280	5777	1	-2.05
		Totals	362.273	44140	327290		

File: 97052101.D10 Sample: S97T000772 DUP



LABCORE Completed Worklist Report for Worklist# 18088

Analyst: eal **Instrument:** IC01 **Book#** 6/W2074

Method: LA-533-105 Rev/Mod D-1

Worklist Comment: T-203 IC. RCJ

Seq	Type	Sample#	R	A	Test	Matrix	Actual		Found	DL or Yield	Unit
1	CCB			0	@IC-QC F	QC	1		<1.20e-2		ug/mL
1	CCB			0	@IC-QC CL	QC	1		<1.70e-2		ug/mL
1	CCB			0	@IC-QC NO2	QC	1		<1.08e-1		ug/mL
1	CCB			0	@IC-QC BR	QC	1		<1.25e-1		ug/mL
1	CCB			0	@IC-QC NO3	QC	1		1.72e-01	0.172	ug/mL
1	CCB			0	@IC-QC PO4	QC	1		<1.20e-1		ug/mL
1	CCB			0	@IC-QC SO4	QC	1		<1.38e-1		ug/mL
1	CCB			0	@IC-QC OXALATE2	QC	1		<1.05e-1		ug/mL
2	CCV			0	@IC-QC F	QC	5.90e01		5.53e+01	93.729	% Recovery
2	CCV			0	@IC-QC CL	QC	7.90e01		7.78e+01	98.481	% Recovery
2	CCV			0	@IC-QC NO2	QC	5.44e02		5.43e+02	99.816	% Recovery
2	CCV			0	@IC-QC BR	QC	5.89e02		5.70e+02	96.774	% Recovery
2	CCV			0	@IC-QC NO3	QC	5.94e02		5.84e+02	98.316	% Recovery
2	CCV			0	@IC-QC PO4	QC	5.45e02		5.39e+02	98.899	% Recovery
2	CCV			0	@IC-QC SO4	QC	6.31e02		5.98e+02	94.770	% Recovery
2	CCV			0	@IC-QC OXALATE2	QC	5.32e02		5.31e+02	99.812	% Recovery
3	BLNK-PREP			0	@IC-01 F-02	SOLID	1		<1.20e-2		ug/g
3	BLNK-PREP			0	@IC-01 CL-02	SOLID	1		4.35e-01	0.435	ug/g
3	BLNK-PREP			0	@IC-01 NO2-02	SOLID	1		<1.08e-1		ug/g
3	BLNK-PREP			0	@IC-01 BR-02	SOLID	1		<1.25e-1		ug/g
3	BLNK-PREP			0	@IC-01 NO3-02	SOLID	1		<1.39e-1		ug/g
3	BLNK-PREP			0	@IC-01 PO4-02	SOLID	1		<1.20e-1		ug/g
3	BLNK-PREP			0	@IC-01 SO4-02	SOLID	1		<1.38e-1		ug/g
3	BLNK-PREP			0	@IC-01 OXALATE2	SOLID	1		<1.05e-1		ug/g
4	SAMPLE	S97T000751	0	W	@IC-01 F-02	SOLID	N/A		4.829e+03	49.770	ug/g
4	SAMPLE	S97T000751	0	W	@IC-01 CL-02	SOLID	N/A		4.610e+02	70.520	ug/g
4	SAMPLE	S97T000751	0	W	@IC-01 NO2-02	SOLID	N/A	<	4.480e+02	447.900	ug/g
4	SAMPLE	S97T000751	0	W	@IC-01 BR-02	SOLID	N/A	<	5.185e+02	518.500	ug/g
4	SAMPLE	S97T000751	0	W	@IC-01 NO3-02	SOLID	N/A		4.509e+04	576.400	ug/g
4	SAMPLE	S97T000751	0	W	@IC-01 PO4-02	SOLID	N/A		1.883e+03	497.700	ug/g
4	SAMPLE	S97T000751	0	W	@IC-01 SO4-02	SOLID	N/A	<	5.724e+02	572.500	ug/g
4	SAMPLE	S97T000751	0	W	@IC-01 OXALATE2	SOLID	N/A		1.312e+03	435.500	ug/g
5	DUP	S97T000751	0	W	@IC-01 F-02	SOLID	4.83e+03		4.84e+03	0.207	RPD
5	DUP	S97T000751	0	W	@IC-01 CL-02	SOLID	4.61e+02		5.00e+02	8.117	RPD
5	DUP	S97T000751	0	W	@IC-01 NO2-02	SOLID	<4.48e2		<4.54e2		RPD
5	DUP	S97T000751	0	W	@IC-01 BR-02	SOLID	<5.18e2		<5.25e2		RPD
5	DUP	S97T000751	0	W	@IC-01 NO3-02	SOLID	4.51e+04		4.62e+04	2.410	RPD
5	DUP	S97T000751	0	W	@IC-01 PO4-02	SOLID	1.88e+03		1.78e+03	5.464	RPD
5	DUP	S97T000751	0	W	@IC-01 SO4-02	SOLID	<5.72e2		<5.80e2		RPD
5	DUP	S97T000751	0	W	@IC-01 OXALATE2	SOLID	1.31e+03		1.28e+03	2.317	RPD
6	SAMPLE	S97T000752	0	W	@IC-01 F-02	SOLID	N/A		4.540e+03	25.720	ug/g

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Worklist Report for Worklist# 18088

Seq	Type	Sample#	R	A		Test	Matrix	Actual		Found	DL or Yield	Unit	
6	SAMPLE	S97T000752	0	W	@IC-01	CL-02	SOLID	N/A		4.224e+02	36.430	ug/g	
6	SAMPLE	S97T000752	0	W	@IC-01	NO2-02	SOLID	N/A		2.548e+02	231.400	ug/g	
6	SAMPLE	S97T000752	0	W	@IC-01	BR-02	SOLID	N/A	<	2.679e+02	267.900	ug/g	
6	SAMPLE	S97T000752	0	W	@IC-01	NO3-02	SOLID	N/A		4.361e+04	297.900	ug/g	
6	SAMPLE	S97T000752	0	W	@IC-01	PO4-02	SOLID	N/A		1.503e+03	257.200	ug/g	
6	SAMPLE	S97T000752	0	W	@IC-01	SO4-02	SOLID	N/A	<	2.957e+02	295.700	ug/g	
6	SAMPLE	S97T000752	0	W	@IC-01	OXALATE2	SOLID	N/A		1.253e+03	225.100	ug/g	
7	DUP	S97T000752	0	W	@IC-01	F-02	SOLID	4.54e+03		4.61e+03	1.530	RPD	
7	DUP	S97T000752	0	W	@IC-01	CL-02	SOLID	4.22e+02		4.44e+02	5.081	RPD	
7	DUP	S97T000752	0	W	@IC-01	NO2-02	SOLID	2.55e+02		2.57e+02	0.781	RPD	
7	DUP	S97T000752	0	W	@IC-01	BR-02	SOLID	<2.68e2		<2.72e2		RPD	
7	DUP	S97T000752	0	W	@IC-01	NO3-02	SOLID	4.36e+04		4.45e+04	2.043	RPD	
7	DUP	S97T000752	0	W	@IC-01	PO4-02	SOLID	1.50e+03		2.33e+03	43.342	RPD	
7	DUP	S97T000752	0	W	@IC-01	SO4-02	SOLID	<2.96e2		<3.01e2		RPD	
7	DUP	S97T000752	0	W	@IC-01	OXALATE2	SOLID	1.25e+03		1.26e+03	0.797	RPD	
8	SAMPLE	S97T000773	0	W	@IC-01	F-02	SOLID	N/A		5.843e+03	26.270	ug/g	
8	SAMPLE	S97T000773	0	W	@IC-01	CL-02	SOLID	N/A		5.461e+02	37.210	ug/g	
8	SAMPLE	S97T000773	0	W	@IC-01	NO2-02	SOLID	N/A		2.925e+02	236.400	ug/g	
8	SAMPLE	S97T000773	0	W	@IC-01	BR-02	SOLID	N/A	<	2.736e+02	273.700	ug/g	
8	SAMPLE	S97T000773	0	W	@IC-01	NO3-02	SOLID	N/A		5.761e+04	304.300	ug/g	
8	SAMPLE	S97T000773	0	W	@IC-01	PO4-02	SOLID	N/A		2.071e+03	262.700	ug/g	
8	SAMPLE	S97T000773	0	W	@IC-01	SO4-02	SOLID	N/A	<	3.021e+02	302.100	ug/g	
8	SAMPLE	S97T000773	0	W	@IC-01	OXALATE2	SOLID	N/A		1.562e+03	229.900	ug/g	
9	DUP	S97T000773	0	W	@IC-01	F-02	SOLID	5.84e+03		5.88e+03	0.683	RPD	
9	DUP	S97T000773	0	W	@IC-01	CL-02	SOLID	5.46e+02		5.49e+02	0.548	RPD	
9	DUP	S97T000773	0	W	@IC-01	NO2-02	SOLID	2.92e+02		2.73e+02	6.726	RPD	
9	DUP	S97T000773	0	W	@IC-01	BR-02	SOLID	<2.74e2		<2.70e2		RPD	
9	DUP	S97T000773	0	W	@IC-01	NO3-02	SOLID	5.76e+04		5.75e+04	0.174	RPD	
9	DUP	S97T000773	0	W	@IC-01	PO4-02	SOLID	2.07e+03		2.26e+03	8.776	RPD	
9	DUP	S97T000773	0	W	@IC-01	SO4-02	SOLID	<3.02e2		6.58e+02		RPD	
9	DUP	S97T000773	0	W	@IC-01	OXALATE2	SOLID	1.56e+03		1.57e+03	0.639	RPD	

Final page for worklist# 18088

Analyst Signature **Date**

Analyst Signature **Date**

Jann M. Fuyi 5/22/97
Reviewer Signature **Date**

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Data Entry Template for Worklist# 18088

Analyst: EAL **Instrument:** IC0 | **Book#** ~~HNH20B~~ 61N20A JW 5-20-97

Method: LA-533-105 **Rev/Mod** D1

Worklist Comment: T-203 IC. RCJ

S	Type	Sample#	R	A	Test	Matrix	Group#	Project
1	CCB				@IC-QC	QC		
2	CCV				@IC-QC	QC		
3	BLNK-PREP				@IC-01	SOLID		
4	SAMPLE	S97T000751	0	W	@IC-01	SOLID	97000299	T-203
	Analytes Requested:				BR-02 , CL-02 , F-02 , NO2-02 , NO3-02 , OXALATE2, PO4-02 , SO4-02			
5	DUP	S97T000751	0	W	@IC-01	SOLID		
6	SAMPLE	S97T000752	0	W	@IC-01	SOLID	97000299	T-203
	Analytes Requested:				BR-02 , CL-02 , F-02 , NO2-02 , NO3-02 , OXALATE2, PO4-02 , SO4-02			
7	DUP	S97T000752	0	W	@IC-01	SOLID		
8	SAMPLE	S97T000773	0	W	@IC-01	SOLID	97000299	T-203
	Analytes Requested:				BR-02 , CL-02 , F-02 , NO2-02 , NO3-02 , OXALATE2, PO4-02 , SO4-02			
9	DUP	S97T000773	0	W	@IC-01	SOLID		

Final page for worklist # 18088

A. Lambert 05.19.97

Analyst Signature **Date**

Analyst Signature **Date**

Uploaded 5-20-97
John Worrell
18088MA4.CSV
Validated 5/20/97 MF Fuyo

Data Entry Comments:

S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

May. 20. 1997 8:10AM WHC 222S LAB ROOM 2F BACKSIDE No. 3101 P. 20/31

Sample Name: INST. BLANK Date: 05/19/1997 10:42:42
Data File : C:\DX\DATA\97051901.D01
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 1 Detector:CDM-1
Analyst : Column: AG4A/AS4A anion column

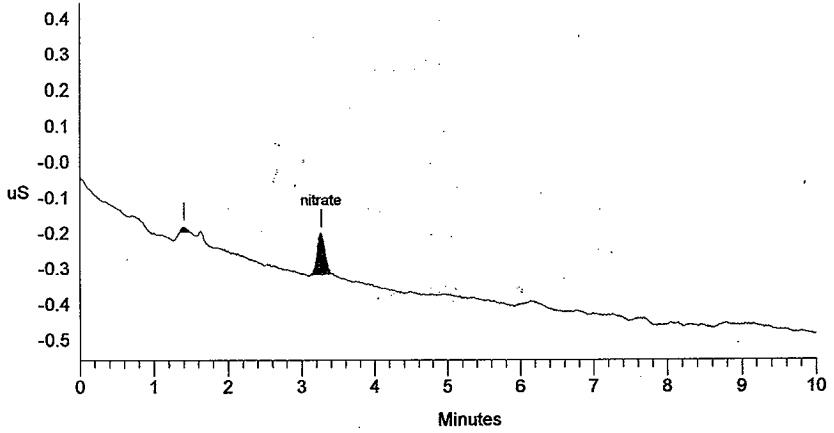
Calibration Volume Dilution Points Rate Start Stop Area Reject

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	1	3000	5Hz	0.00	10.00	30

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.41		0.000	14	71	1	
2	3.27	nitrate	0.172	114	818	1	0.51
		Totals	0.172	128	889		

File: 97051901.D01 Sample: INST. BLANK



SIGNATURE ABOVE REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 401 TO 409

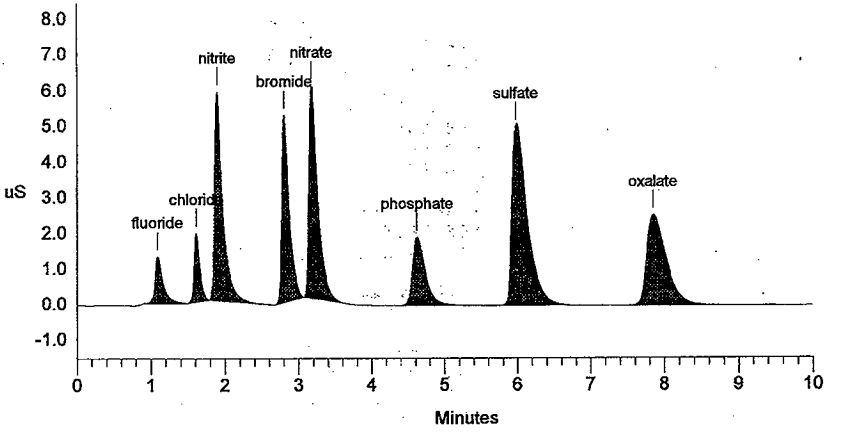
```
Sample Name: 61N20-A STD.                          Date: 05/19/1997 11:20:04
Data File  : C:\DX\DATA\97051901.D03
Method     : C:\DX\METHOD\KIT.MET
ACI Address: 1  System: 1  Inject#: 3                      Detector:CDM-1
Analyst    :                Column: AG4A/AS4A anion column
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	101	3000	5Hz	0.00	10.00	30

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.09	fluoride	55.342	1327	9954	1	-2.98
2	1.61	chloride	77.805	1944	10157	1	0.84
3	1.89	nitrite	542.761	5863	42897	1	-1.73
4	2.80	bromide	570.411	5257	35631	1	-1.75
5	3.17	nitrate	583.851	5953	48600	1	-2.36
6	4.61	phosphate	538.669	1933	23881	1	0.00
7	5.97	sulfate	597.609	5023	73339	1	-0.88
8	7.84	oxalate	530.944	2551	46942	1	0.00
		Totals	3497.393	29851	291402		

File: 97051901.D03 Sample: 61N20-A STD.



MAY.20.1997 5:11AM WHC 222S LAB ROOM 2F BACKSIDE NO.310I P.22/31

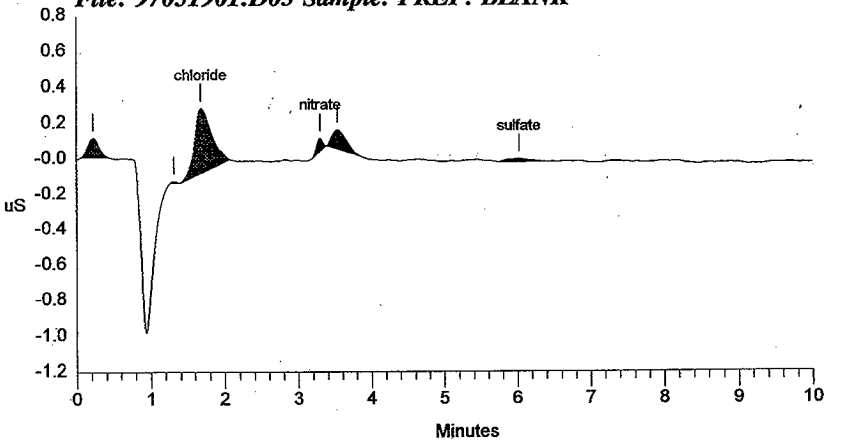
```
Sample Name: PREP. BLANK                          Date: 05/19/1997 11:40:17
Data File  : C:\DX\DATA\97051901.D05
Method     : C:\DX\METHOD\KIT.MET
ACI Address: 1  System: 1  Inject#: 5                        Detector:CDM-1
Analyst    :                Column: AG4A/AS4A anion column
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	1	3000	5Hz	0.00	10.00	30

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.23		0.000	113	1160	1	
2	1.31		0.000	10	38	1	
3	1.68	chloride	0.435	363	5727	1	5.44
4	3.30	nitrate	0.121	71	388	1	1.54
5	3.53		0.000	109	1490	1	
6	6.03	sulfate	-0.029	19	426	1	0.00
		Totals	0.527	684	9230		

File: 97051901.D05 Sample: PREP. BLANK



May. 20. 1997 6:12AM WHC 222S LAB ROOM 2F BACKSIDE No. 3101 P. 23/31

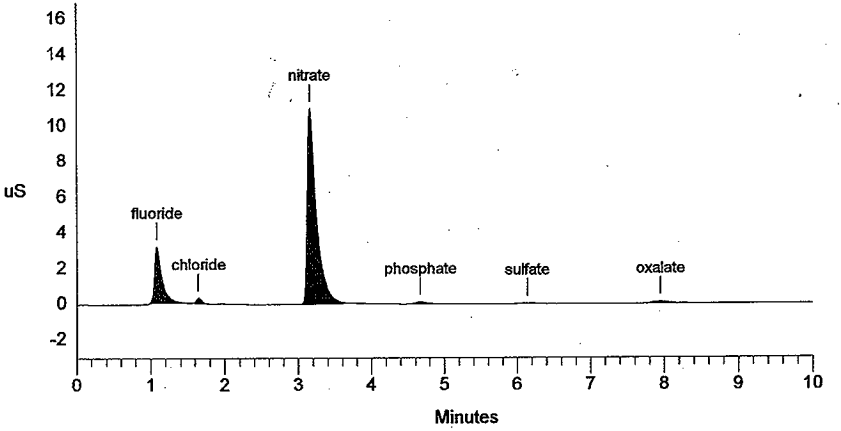
```
Sample Name: S97T000751                          Date: 05/19/1997 12:05:05
Data File  : C:\DX\DATA\97051901.D08
Method     : C:\DX\METHOD\KIT.MET
ACI Address: 1  System: 1  Inject#: 8                    Detector:CDM-1
Analyst    :                Column: AG4A/AS4A anion column
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	21	3000	5Hz	0.00	10.00	30

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.08	fluoride	24.449	3191	22158	1	-3.57
2	1.64	chloride	2.334	305	1504	1	2.93
3	3.15	nitrate	228.309	11021	93215	1	-2.97
4	4.67	phosphate	9.533	132	1745	1	1.16
5	6.13	sulfate	0.391	57	1004	1	1.77
6	7.95	oxalate	6.643	138	2581	1	1.36
		Totals	271.659	14844	122207		

File: 97051901.D08 Sample: S97T000751



May. 20. 1997 6:13AM WHC 222S LAB ROOM 2F BACKSIDE No. 3101 P. 25/31

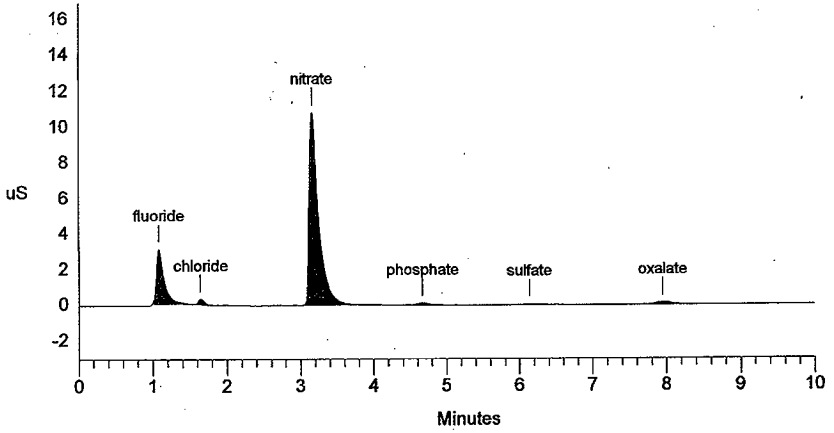
Sample Name: S97T000751DUP Date: 05/19/1997 12:18:37
Data File : C:\DX\DATA\97051901.D09
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 9 Detector:CDM-1
Analyst : Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	21	3000	5Hz	0.00	10.00	30

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.08	fluoride	24.199	3109	21918	1	-3.57
2	1.64	chloride	2.498	311	1605	1	2.93
3	3.15	nitrate	230.589	10858	94180	1	-2.97
4	4.67	phosphate	8.910	132	1612	1	1.16
5	6.13	sulfate	-0.048	51	752	1	1.77
6	7.95	oxalate	6.415	134	2484	1	1.36
		Totals	272.563	14595	122552		

File: 97051901.D09 Sample: S97T000751DUP



May 20, 1997 6:14AM WHC 222S LAB ROOM 2F BACKSIDE No. 3101 P. 26/31

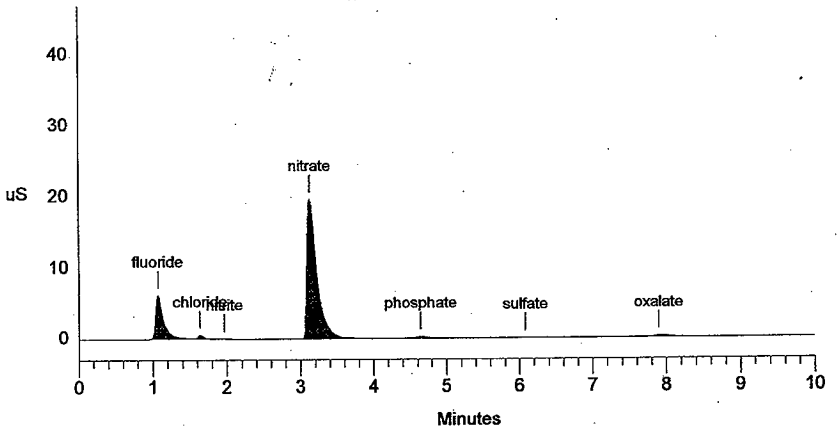
```
Sample Name: S97T000752                          Date: 05/19/1997 12:42:34
Data File  : C:\DX\DATA\97051901.D11
Method     : C:\DX\METHOD\KIT.MET
ACI Address: 1  System: 1  Inject#: 11                    Detector:CDM-1
Analyst    :                Column: AG4A/AS4A anion column
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	11	3000	5Hz	0.00	10.00	30

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.07	fluoride	23.306	6138	41867	1	-4.76
2	1.63	chloride	2.168	497	2618	1	2.51
3	1.96	nitrite	1.308	34	184	1	1.73
4	3.13	nitrate	223.867	19653	179799	1	-3.79
5	4.64	phosphate	7.716	242	2852	1	0.58
6	6.08	sulfate	0.480	70	1307	1	0.88
7	7.89	oxalate	6.434	243	4978	1	0.68
		Totals	265.281	26878	233606		

File: 97051901.D11 Sample: S97T000752



May. 20. 1997 6:15AM WHC 222S LAB ROOM 2F BACKSIDE NO. 3101 P. 28/31

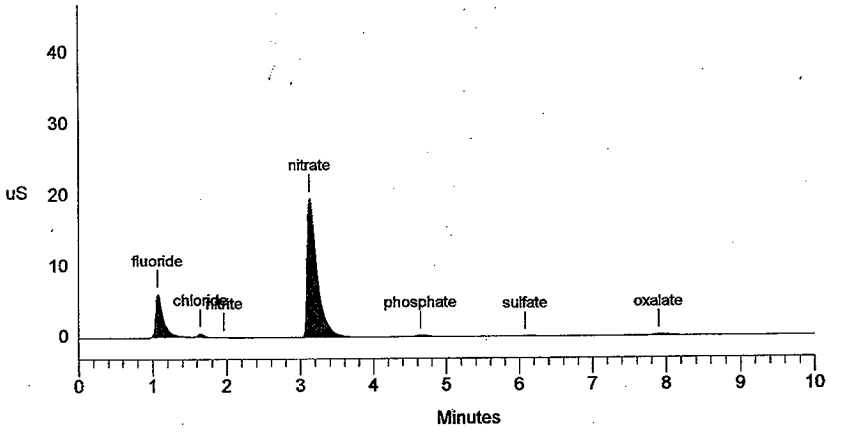
Sample Name: S97T000752DUP Date: 05/19/1997 12:55:17
Data File : C:\DX\DATA\97051901.D12
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 12 Detector:CDM-1
Analyst : Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	11	3000	5Hz	0.00	10.00	30

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.07	fluoride	23.270	6080	41798	1	-4.76
2	1.64	chloride	2.241	515	2704	1	2.93
3	1.96	nitrite	1.298	33	177	1	1.73
4	3.13	nitrate	224.531	19623	180366	1	-3.79
5	4.64	phosphate	11.768	260	4504	1	0.58
6	6.08	sulfate	0.618	81	1457	1	0.88
7	7.89	oxalate	6.385	243	4939	1	0.68
		Totals	270.110	26834	235943		

File: 97051901.D12 Sample: S97T000752DUP



May. 20. 1997 6:15AM WHC 222S LAB ROOM 2F BACKSIDE No. 3101 P. 29/31

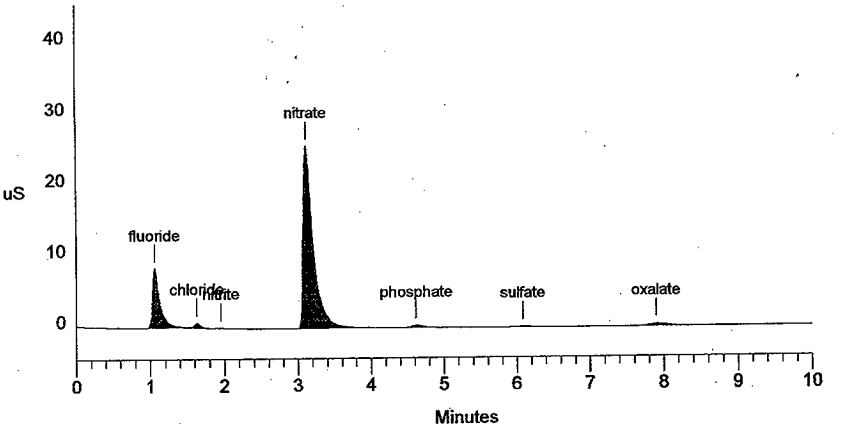
```
Sample Name: S97TOOO773                          Date: 05/19/1997 14:33:42
Data File  : C:\DX\DATA\97051901.D13
Method     : C:\DX\METHOD\KIT.MET
ACI Address: 1  System: 1  Inject#: 13                    Detector:CDM-1
Analyst    :                Column: AG4A/AS4A anion column
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	11	3000	5Hz	0.00	10.00	30

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.06	fluoride	29.361	8227	53735	1	-5.36
2	1.63	chloride	2.744	646	3298	1	2.09
3	1.95	nitrite	1.470	55	302	1	1.38
4	3.11	nitrate	289.470	25616	236915	1	-4.21
5	4.61	phosphate	10.409	302	3950	1	0.00
6	6.08	sulfate	0.663	94	1508	1	0.88
7	7.89	oxalate	7.851	316	6129	1	0.68
		Totals	341.968	35256	305836		

File: 97051901.D13 Sample: S97TOOO773



May 20, 1997 6:16AM WHC 222S LAB ROOM 2F BACKSIDE No. 310 P. 30/31

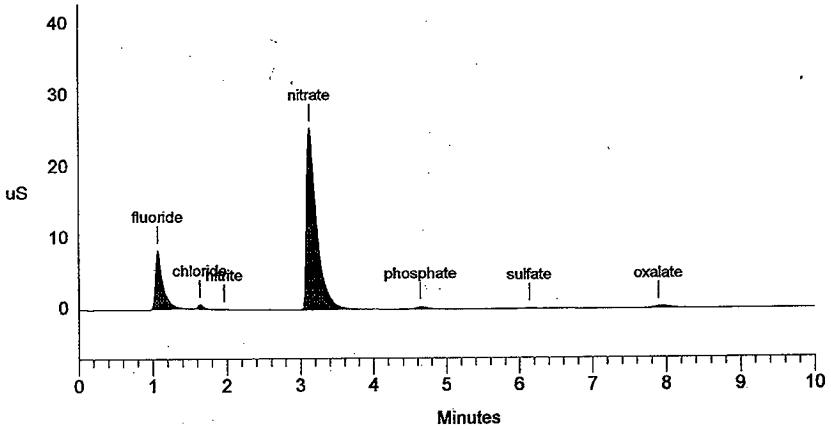
```
Sample Name: S97T000773DUP                    Date: 05/19/1997 14:44:48
Data File  : C:\DX\DATA\97051901.D14
Method     : C:\DX\METHOD\KIT.MET
ACI Address: 1  System: 1  Inject#: 14                  Detector:CDM-1
Analyst    :                Column: AG4A/AS4A anion column
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	11	3000	5Hz	0.00	10.00	30

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.07	fluoride	29.901	8278	54814	1	-4.76
2	1.63	chloride	2.793	647	3357	1	2.51
3	1.96	nitrite	1.387	46	241	1	1.73
4	3.13	nitrate	292.184	25426	239327	1	-3.79
5	4.64	phosphate	11.485	312	4389	1	0.58
6	6.13	sulfate	3.343	128	4452	1	1.77
7	7.89	oxalate	7.960	300	6217	1	0.68
		Totals	349.055	35137	312796		

File: 97051901.D14 Sample: S97T000773DUP



May 20, 1997 6:17AM WHC 222S LAB ROOM 2F BACKSIDE No. 3101 P. 31/31

LABCORE Completed Worklist Report for Worklist# 18089

Analyst: krq **Instrument:** IC02 **Book#** 61N20A

Method: LA-533-105 Rev/Mod D-1

Worklist Comment: T-203 IC. RCJ

Seq	Type	Sample#	R	A	Test	Matrix	Actual	Found	DL or Yield	Unit
1	CCB			0	@IC-QC	F	QC	1	<1.20e-2		ug/mL
1	CCB			0	@IC-QC	CL	QC	1	<1.70e-2		ug/mL
1	CCB			0	@IC-QC	NO2	QC	1	<1.08e-1		ug/mL
1	CCB			0	@IC-QC	BR	QC	1	<1.25e-1		ug/mL
1	CCB			0	@IC-QC	NO3	QC	1	<1.39e-1		ug/mL
1	CCB			0	@IC-QC	PO4	QC	1	<1.20e-1		ug/mL
1	CCB			0	@IC-QC	SO4	QC	1	<1.38e-1		ug/mL
1	CCB			0	@IC-QC	OXALATE2	QC	1	<1.05e-1		ug/mL
2	CCV			0	@IC-QC	F	QC	5.90e01	5.34e+01	90.508	% Recovery
2	CCV			0	@IC-QC	CL	QC	7.90e01	7.35e+01	93.038	% Recovery
2	CCV			0	@IC-QC	NO2	QC	5.44e02	4.98e+02	91.544	% Recovery
2	CCV			0	@IC-QC	BR	QC	5.89e02	5.34e+02	90.662	% Recovery
2	CCV			0	@IC-QC	NO3	QC	5.94e02	5.37e+02	90.404	% Recovery
2	CCV			0	@IC-QC	PO4	QC	5.45e02	5.02e+02	92.110	% Recovery
2	CCV			0	@IC-QC	SO4	QC	6.31e02	5.76e+02	91.284	% Recovery
2	CCV			0	@IC-QC	OXALATE2	QC	5.32e02	4.77e+02	89.662	% Recovery
3	BLNK-PREP			0	@IC-01	F-02	SOLID	1	<1.20e-2		ug/g
3	BLNK-PREP			0	@IC-01	CL-02	SOLID	1	3.20e-02	0.032	ug/g
3	BLNK-PREP			0	@IC-01	NO2-02	SOLID	1	1.57e-01	0.157	ug/g
3	BLNK-PREP			0	@IC-01	BR-02	SOLID	1	<1.25e-1		ug/g
3	BLNK-PREP			0	@IC-01	NO3-02	SOLID	1	1.75e-01	0.175	ug/g
3	BLNK-PREP			0	@IC-01	PO4-02	SOLID	1	<1.20e-1		ug/g
3	BLNK-PREP			0	@IC-01	SO4-02	SOLID	1	<1.38e-1		ug/g
3	BLNK-PREP			0	@IC-01	OXALATE2	SOLID	1	<1.05e-1		ug/g
4	SAMPLE	S97T000753	0	W	@IC-01	F-02	SOLID	N/A	6.579e+03	26.550	ug/g
4	SAMPLE	S97T000753	0	W	@IC-01	CL-02	SOLID	N/A	5.911e+02	37.610	ug/g
4	SAMPLE	S97T000753	0	W	@IC-01	NO2-02	SOLID	N/A	4.097e+02	238.900	ug/g
4	SAMPLE	S97T000753	0	W	@IC-01	BR-02	SOLID	N/A <	2.765e+02	276.500	ug/g
4	SAMPLE	S97T000753	0	W	@IC-01	NO3-02	SOLID	N/A	5.730e+04	307.600	ug/g
4	SAMPLE	S97T000753	0	W	@IC-01	PO4-02	SOLID	N/A	1.997e+03	265.500	ug/g
4	SAMPLE	S97T000753	0	W	@IC-01	SO4-02	SOLID	N/A	3.174e+02	305.400	ug/g
4	SAMPLE	S97T000753	0	W	@IC-01	OXALATE2	SOLID	N/A	1.303e+03	232.300	ug/g
5	DUP	S97T000753	0	W	@IC-01	F-02	SOLID	6.58e+03	4.71e+03	33.127	RPD
5	DUP	S97T000753	0	W	@IC-01	CL-02	SOLID	5.91e+02	4.44e+02	28.406	RPD
5	DUP	S97T000753	0	W	@IC-01	NO2-02	SOLID	4.10e+02	3.74e+02	9.184	RPD
5	DUP	S97T000753	0	W	@IC-01	BR-02	SOLID	<2.76e2	<2.70e2		RPD
5	DUP	S97T000753	0	W	@IC-01	NO3-02	SOLID	5.73e+04	4.22e+04	30.352	RPD
5	DUP	S97T000753	0	W	@IC-01	PO4-02	SOLID	2.00e+03	1.59e+03	22.841	RPD
5	DUP	S97T000753	0	W	@IC-01	SO4-02	SOLID	3.17e+02	5.82e+02	58.954	RPD
5	DUP	S97T000753	0	W	@IC-01	OXALATE2	SOLID	1.30e+03	8.65e+02	40.185	RPD
6	SAMPLE	S97T000774	0	W	@IC-01	F-02	SOLID	N/A	6.711e+03	26.020	ug/g

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Worklist Report for Worklist# 18089

Seq	Type	Sample#	R	A		Test	Matrix	Actual		Found	DL or Yield	Unit
6	SAMPLE	S97T000774	0	W	@IC-01	CL-02	SOLID	N/A		5.956e+02	36.850	ug/g
6	SAMPLE	S97T000774	0	W	@IC-01	NO2-02	SOLID	N/A		4.068e+02	234.100	ug/g
6	SAMPLE	S97T000774	0	W	@IC-01	BR-02	SOLID	N/A	<	2.710e+02	271.000	ug/g
6	SAMPLE	S97T000774	0	W	@IC-01	NO3-02	SOLID	N/A		5.762e+04	301.300	ug/g
6	SAMPLE	S97T000774	0	W	@IC-01	PO4-02	SOLID	N/A		2.312e+03	260.100	ug/g
6	SAMPLE	S97T000774	0	W	@IC-01	SO4-02	SOLID	N/A		3.528e+02	299.200	ug/g
6	SAMPLE	S97T000774	0	W	@IC-01	OXALATE2	SOLID	N/A		1.258e+03	227.600	ug/g
7	DUP	S97T000774	0	W	@IC-01	F-02	SOLID	6.71e+03		6.67e+03	0.598	RPD
7	DUP	S97T000774	0	W	@IC-01	CL-02	SOLID	5.96e+02		6.15e+02	3.138	RPD
7	DUP	S97T000774	0	W	@IC-01	NO2-02	SOLID	4.07e+02		3.98e+02	2.236	RPD
7	DUP	S97T000774	0	W	@IC-01	BR-02	SOLID	<2.71e2		<2.71e2		RPD
7	DUP	S97T000774	0	W	@IC-01	NO3-02	SOLID	5.76e+04		5.88e+04	2.062	RPD
7	DUP	S97T000774	0	W	@IC-01	PO4-02	SOLID	2.31e+03		2.27e+03	1.747	RPD
7	DUP	S97T000774	0	W	@IC-01	SO4-02	SOLID	3.53e+02		6.96e+02	65.396	RPD
7	DUP	S97T000774	0	W	@IC-01	OXALATE2	SOLID	1.26e+03		1.30e+03	3.125	RPD
8	SAMPLE	S97T000775	0	W	@IC-01	F-02	SOLID	N/A		6.389e+03	26.410	ug/g
8	SAMPLE	S97T000775	0	W	@IC-01	CL-02	SOLID	N/A		6.144e+02	37.410	ug/g
8	SAMPLE	S97T000775	0	W	@IC-01	NO2-02	SOLID	N/A		4.180e+02	237.700	ug/g
8	SAMPLE	S97T000775	0	W	@IC-01	BR-02	SOLID	N/A	<	2.751e+02	275.100	ug/g
8	SAMPLE	S97T000775	0	W	@IC-01	NO3-02	SOLID	N/A		5.707e+04	305.900	ug/g
8	SAMPLE	S97T000775	0	W	@IC-01	PO4-02	SOLID	N/A		2.080e+03	264.100	ug/g
8	SAMPLE	S97T000775	0	W	@IC-01	SO4-02	SOLID	N/A		3.515e+02	303.700	ug/g
8	SAMPLE	S97T000775	0	W	@IC-01	OXALATE2	SOLID	N/A		1.236e+03	231.100	ug/g
9	DUP	S97T000775	0	W	@IC-01	F-02	SOLID	6.39e+03		6.63e+03	3.687	RPD
9	DUP	S97T000775	0	W	@IC-01	CL-02	SOLID	6.14e+02		6.07e+02	1.147	RPD
9	DUP	S97T000775	0	W	@IC-01	NO2-02	SOLID	4.18e+02		4.12e+02	1.446	RPD
9	DUP	S97T000775	0	W	@IC-01	BR-02	SOLID	<2.75e2		<2.79e2		RPD
9	DUP	S97T000775	0	W	@IC-01	NO3-02	SOLID	5.71e+04		5.77e+04	1.045	RPD
9	DUP	S97T000775	0	W	@IC-01	PO4-02	SOLID	2.08e+03		1.93e+03	7.481	RPD
9	DUP	S97T000775	0	W	@IC-01	SO4-02	SOLID	3.52e+02		7.33e+02	70.230	RPD
9	DUP	S97T000775	0	W	@IC-01	OXALATE2	SOLID	1.24e+03		1.22e+03	1.626	RPD

Final page for worklist# 18089

Analyst Signature Date

Analyst Signature Date

Reviewer Signature Date 5/28/97

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Data Entry Template for Worklist# 18089

Analyst: KBC **Instrument:** IC0 2 **Book#** 64120-A

Method: LA-533-105 Rev/Mod D-1

Worklist Comment: T-203 IC. RCJ

S	Type	Sample#	R	A	Test	Matrix	Group#	Project
1	CCB				@IC-QC	QC		
2	CCV				@IC-QC	QC		
3	BLNK-PREP				@IC-01	SOLID		
4	SAMPLE	S97T000753	0	W	@IC-01	SOLID	97000299	T-203
	Analytes Requested:	BR-02 , CL-02 , F-02 , NO2-02 , NO3-02 , OXALATE2, PO4-02 , SO4-02						
5	DUP	S97T000753	0	W	@IC-01	SOLID		
6	SAMPLE	S97T000774	0	W	@IC-01	SOLID	97000299	T-203
	Analytes Requested:	BR-02 , CL-02 , F-02 , NO2-02 , NO3-02 , OXALATE2, PO4-02 , SO4-02						
7	DUP	S97T000774	0	W	@IC-01	SOLID		
8	SAMPLE	S97T000775	0	W	@IC-01	SOLID	97000299	T-203
	Analytes Requested:	BR-02 , CL-02 , F-02 , NO2-02 , NO3-02 , OXALATE2, PO4-02 , SO4-02						
9	DUP	S97T000775	0	W	@IC-01	SOLID		

10 spike S97T000775

Final page for worklist # 18089

Analyst Signature Date 5/25/97

Analyst Signature Date

uploaded 5-28-97
JK Worrell
18089MAY.CSV

Validated 5/28/97 MM Luyc

Data Entry Comments: Ran S97T00073 twice because of the discrepancy between the sample and sample dup

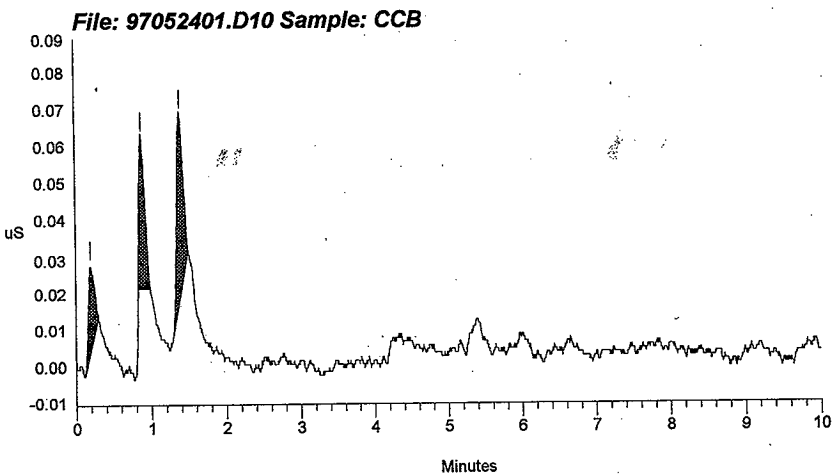
S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

Sample Name: CCB Date: 05/24/1997 21:15:17
Data File : C:\DX\DATA\97052401.D10
Method : C:\DX\METHOD\ANIONSA.MET
ACI Address: 1 System: 1 Inject#: 10 Detector:CDM-1
Analyst Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	1	3000	5Hz	0.00	10.00	50

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.19		0.000	23	128	1	
2	0.88		0.000	41	220	1	
3	1.39		0.000	49	301	1	
		Totals	0.000	113	649		



SIGNATURE ABOVE REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 412 TO 421.

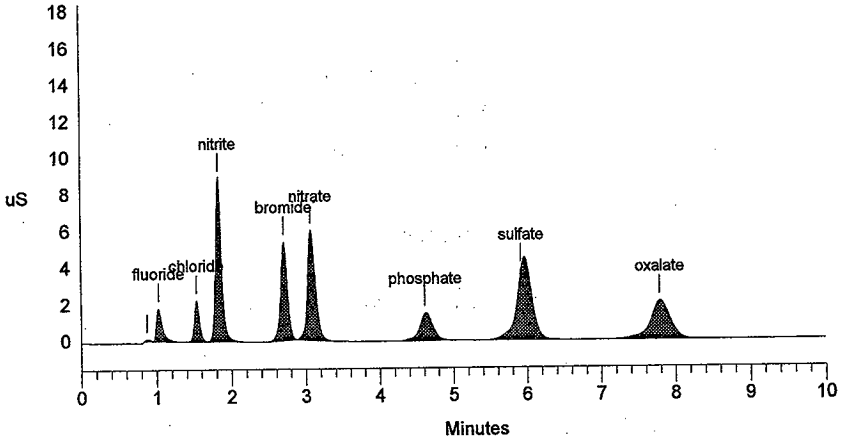
Sample Name: CCV 61N20-A Date: 05/24/1997 23:38:28
Data File : C:\DX\DATA\97052411.D01
Method : C:\DX\METHOD\ANIONS.MET
ACI Address: 1 System: 1 Inject#: 1 Detector:CDM-1
Analyst Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	101	3000	5Hz	0.00	10.00	50

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.87		0.000	99	441	2	
2	1.03	fluoride	53.351	1800	9684	2	1.65
3	1.53	chloride	73.476	2244	10407	1	-0.43
4	1.83	nitrite	497.606	8920	48181	1	-2.14
5	2.71	bromide	533.622	5364	33305	1	-2.99
6	3.07	nitrate	536.593	5975	43670	1	-3.26
7	4.61	phosphate	502.149	1525	19607	1	3.59
8	5.92	sulfate	575.905	3891	63229	1	3.68
9	7.79	oxalate	476.923	2122	40066	1	-2.05
		Totals	3249.624	31939	268589		

File: 97052411.D01 Sample: CCV 61N20-A



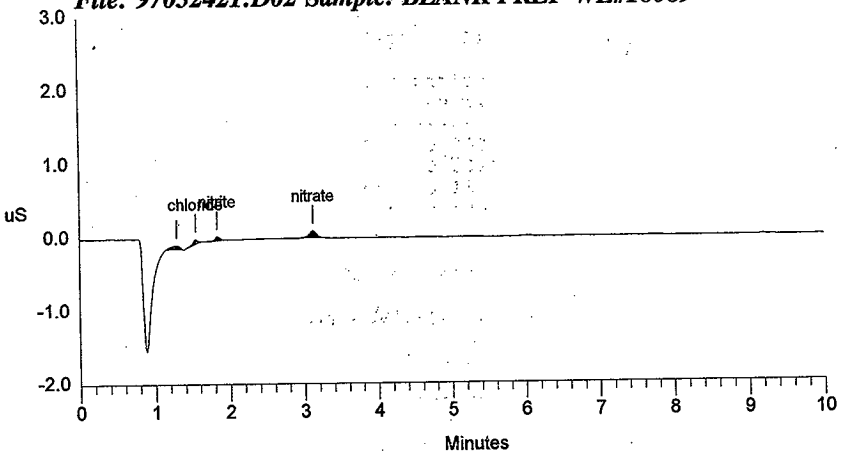
```
Sample Name: BLANK PREP WL#18089          Date: 05/25/1997 00:03:29
Data File  : C:\DX\DATA\97052421.D02
Method     : C:\DX\METHOD\ANIONS.MET
ACI Address: 1  System: 1  Inject#: 2                Detector:CDM-1
Analyst                    Column: AG4A/AS4A anion column
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	1	3000	5Hz	0.00	10.00	50

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.29		0.000	54	477	1	
2	1.55	chloride	0.032	60	296	1	0.43
3	1.83	nitrite	0.157	55	236	1	-1.79
4	3.12	nitrate	0.175	94	583	1	-1.58
		Totals	0.363	263	1592		

File: 97052421.D02 Sample: BLANK PREP WL#18089



Data Reprocessed On 05/27/1997 14:01:09

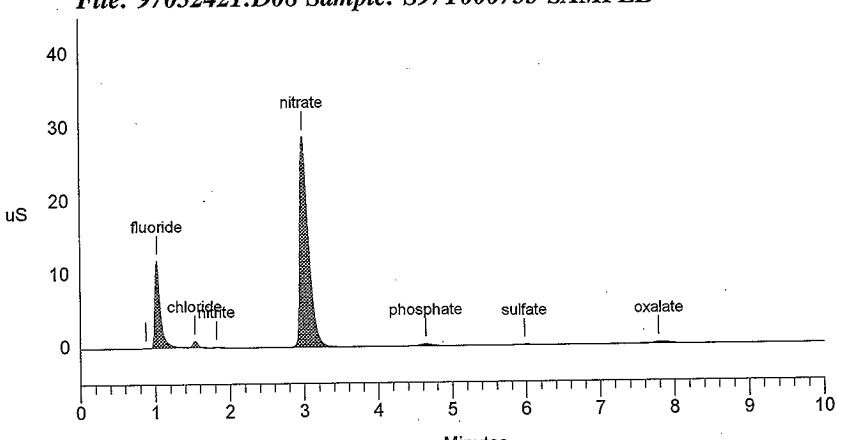
Sample Name: S97T000753 SAMPLE Date: 05/25/1997 01:20:01
Data File : E:\DATA\97052421.D08
Method : C:\DX\METHOD\ANIONS.MET
ACI Address: 1 System: 1 Inject#: 8 Detector:CDM-1
Analyst : Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	11	3000	5Hz	0.00	10.00	50

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.87		0.000	37	134	1	
2	1.03	fluoride	32.709	11872	60248	1	1.65
3	1.53	chloride	2.939	821	3699	1	-0.87
4	1.82	nitrite	2.037	109	521	1	-2.50
5	2.99	nitrate	284.901	28701	232343	1	-0.11
6	4.64	phosphate	9.927	277	3280	1	4.19
7	5.97	sulfate	1.578	104	1403	1	4.61
8	7.79	oxalate	6.477	280	5751	1	-2.05
		Totals	340.569	42200	307379		

File: 97052421.D08 Sample: S97T000753 SAMPLE



Data Reprocessed On 05/27/1997 14:02:46

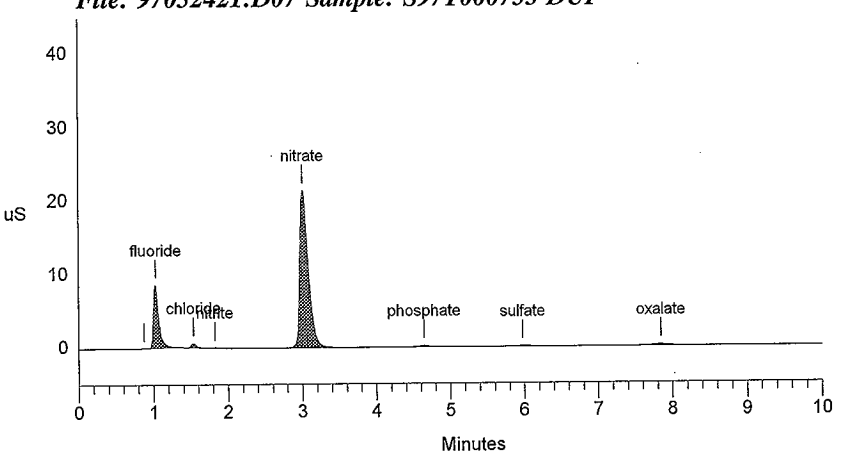
Sample Name: S97T000753 DUP Date: 05/25/1997 01:08:07
Data File : E:\DATA\97052421.D07
Method : C:\DX\METHOD\ANIONS.MET
ACI Address: 1 System: 1 Inject#: 7 Detector:CDM-1
Analyst : Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	11	3000	5Hz	0.00	10.00	50

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.87		0.000	24	80	1	
2	1.03	fluoride	23.994	8605	42895	1	1.65
3	1.53	chloride	2.260	622	2806	1	-0.43
4	1.82	nitrite	1.904	78	400	1	-2.50
5	3.01	nitrate	214.707	21438	170725	1	-0.11
6	4.64	phosphate	8.078	213	2616	1	4.19
7	5.97	sulfate	2.961	129	2779	1	4.61
8	7.84	oxalate	4.403	228	4197	1	-1.38
		Totals	258.309	31336	226497		

File: 97052421.D07 Sample: S97T000753 DUP



Data Reprocessed On 05/27/1997 14:07:32

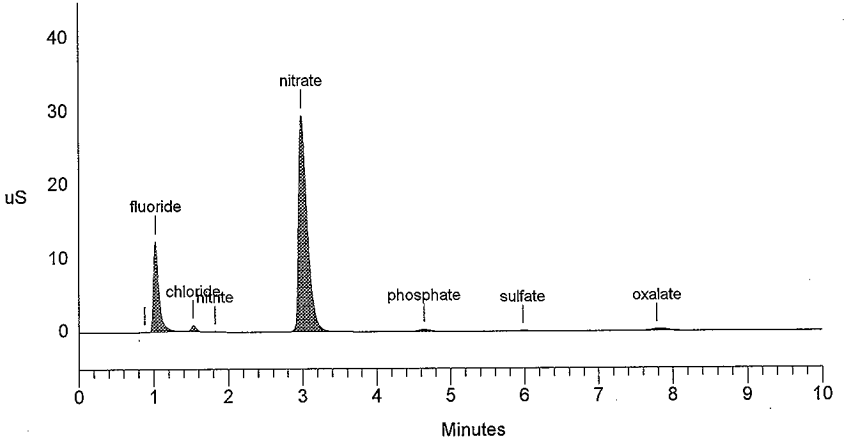
Sample Name: S97T000774 SAMPLE Date: 05/25/1997 00:56:56
Data File : E:\DATA\97052421.D06
Method : C:\DX\METHOD\ANIONS.MET
ACI Address: 1 System: 1 Inject#: 6 Detector:CDM-1
Analyst : Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	11	3000	5Hz	0.00	10.00	50

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.88		0.000	41	139	1	
2	1.03	fluoride	34.051	12408	63018	1	1.65
3	1.53	chloride	3.022	846	3808	1	-0.87
4	1.82	nitrite	2.064	113	546	1	-2.50
5	2.99	nitrate	292.342	29526	239069	1	-0.11
6	4.64	phosphate	11.730	305	3928	1	4.19
7	5.97	sulfate	1.790	115	1614	1	4.61
8	7.79	oxalate	6.381	286	5679	1	-2.05
		Totals	351.381	43640	317802		

File: 97052421.D06 Sample: S97T000774 SAMPLE



Data Reprocessed On 05/27/1997 14:06:30

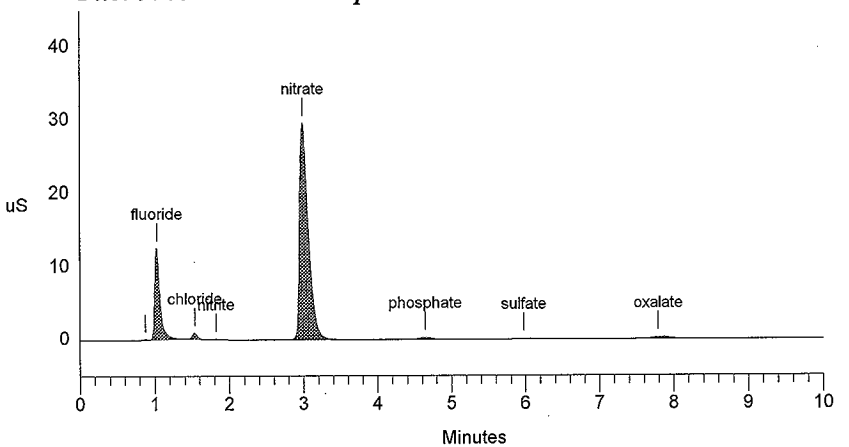
```
Sample Name: S97T000774 DUP                    Date: 05/25/1997 01:30:56
Data File  : E:\DATA\97052421.D09
Method     : C:\DX\METHOD\ANIONS.MET
ACI Address: 1  System: 1  Inject#: 9                    Detector:CDM-1
Analyst    :                Column: AG4A/AS4A anion column
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	11	3000	5Hz	0.00	10.00	50

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.87		0.000	44	160	1	
2	1.03	fluoride	33.804	12490	62506	1	1.65
3	1.53	chloride	3.118	870	3934	1	-0.43
4	1.82	nitrite	2.018	103	503	1	-2.50
5	2.99	nitrate	297.773	29540	244004	1	-0.11
6	4.64	phosphate	11.519	307	3852	1	4.19
7	5.97	sulfate	3.528	142	3343	1	4.61
8	7.79	oxalate	6.588	286	5834	1	-2.05
		Totals	358.349	43782	324137		

File: 97052421.D09 Sample: S97T000774 DUP



Data Reprocessed On 05/27/1997 14:13:57

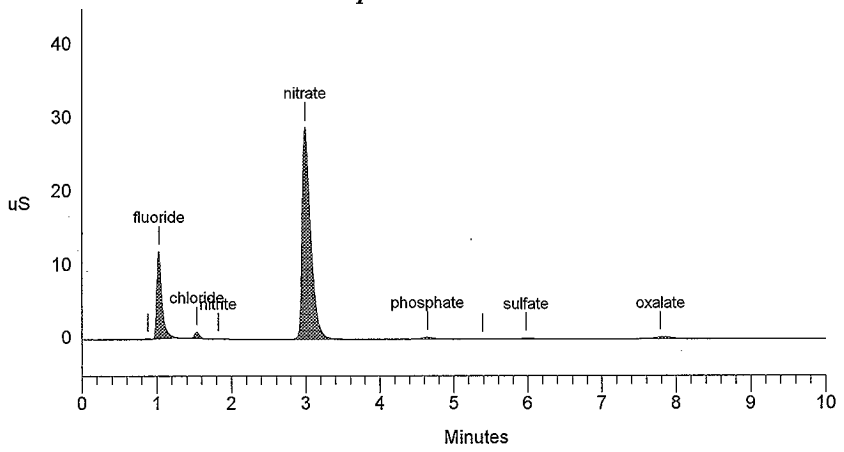
```
Sample Name: S97T000775 SAMPLE              Date: 05/25/1997 01:42:45
Data File  : E:\DATA\97052421.D10
Method     : C:\DX\METHOD\ANIONS.MET
ACI Address: 1  System: 1  Inject#: 10                  Detector:CDM-1
Analyst    :               Column: AG4A/AS4A anion column
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	11	3000	5Hz	0.00	10.00	50

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.88		0.000	48	177	1	
2	1.03	fluoride	31.930	11886	58651	1	1.65
3	1.53	chloride	3.071	899	3873	1	-0.43
4	1.82	nitrite	2.089	116	568	1	-2.50
5	2.99	nitrate	285.239	28816	232648	1	-0.11
6	4.64	phosphate	10.394	287	3448	1	4.19
7	5.39		0.000	19	427	1	
8	5.97	sulfate	1.757	121	1581	1	4.61
9	7.79	oxalate	6.178	275	5526	1	-2.05
		Totals	340.658	42467	306899		

File: 97052421.D10 Sample: S97T000775 SAMPLE



Data Reprocessed On 05/27/1997 14:15:27

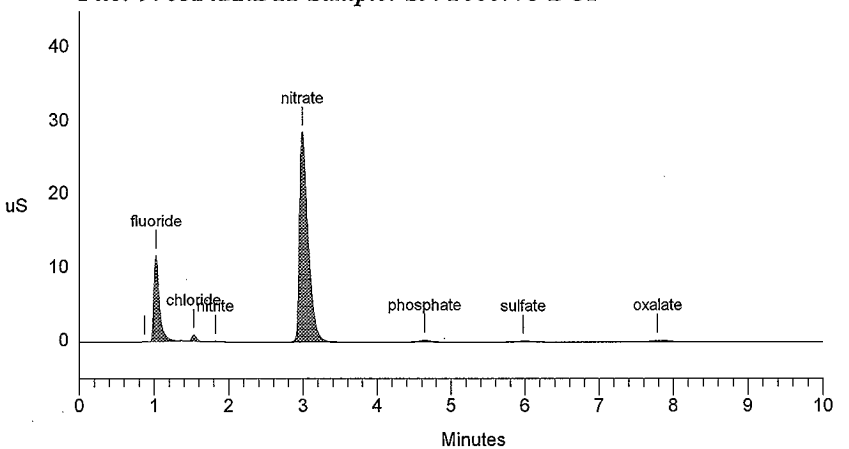
Sample Name: S97T000775 DUP Date: 05/25/1997 01:53:51
Data File : E:\DATA\97052421.D11
Method : C:\DX\METHOD\ANIONS.MET
ACI Address: 1 System: 1 Inject#: 11 Detector:CDM-1
Analyst : Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	11	3000	5Hz	0.00	10.00	50

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.87		0.000	52	190	1	
2	1.03	fluoride	32.667	11669	60161	1	1.65
3	1.53	chloride	2.993	854	3769	1	-0.87
4	1.82	nitrite	2.032	109	516	1	-2.50
5	2.99	nitrate	284.520	28579	232000	1	-0.11
6	4.64	phosphate	9.525	261	3135	1	4.19
7	5.97	sulfate	3.614	181	3429	1	4.61
8	7.79	oxalate	6.015	273	5404	1	-2.05
		Totals	341.366	41977	308604		

File: 97052421.D11 Sample: S97T000775 DUP



LABCORE Completed Worklist Report for Worklist# 18128

Analyst: krq **Instrument:** IC01 **Book#** 61N20A

Method: LA-533-105 Rev/Mod D-1

Worklist Comment: T-203 IC. lcm

Seq	Type	Sample#	R	A	Test	Matrix	Actual		Found	DL or Yield	Unit
1	CCB		0		@IC-QC F	QC	1		<1.20e-2		ug/mL
1	CCB		0		@IC-QC CL	QC	1		<1.70e-2		ug/mL
1	CCB		0		@IC-QC NO2	QC	1		<1.08e-1		ug/mL
1	CCB		0		@IC-QC BR	QC	1		<1.25e-1		ug/mL
1	CCB		0		@IC-QC NO3	QC	1		<1.39e-1		ug/mL
1	CCB		0		@IC-QC PO4	QC	1		<1.20e-1		ug/mL
1	CCB		0		@IC-QC SO4	QC	1		<1.38e-1		ug/mL
1	CCB		0		@IC-QC OXALATE2	QC	1		<1.05e-1		ug/mL
2	CCV		0		@IC-QC F	QC	5.90e01		5.45e+01	92.373	% Recovery
2	CCV		0		@IC-QC CL	QC	7.90e01		7.69e+01	97.342	% Recovery
2	CCV		0		@IC-QC NO2	QC	5.44e02		5.02e+02	92.279	% Recovery
2	CCV		0		@IC-QC BR	QC	5.89e02		5.57e+02	94.567	% Recovery
2	CCV		0		@IC-QC NO3	QC	5.94e02		5.66e+02	95.286	% Recovery
2	CCV		0		@IC-QC PO4	QC	5.45e02		5.18e+02	95.046	% Recovery
2	CCV		0		@IC-QC SO4	QC	6.31e02		6.02e+02	95.404	% Recovery
2	CCV		0		@IC-QC OXALATE2	QC	5.32e02		5.28e+02	99.248	% Recovery
3	BLNK-PREP		0		@IC-01 F-02	SOLID	1		<1.20e-2		ug/g
3	BLNK-PREP		0		@IC-01 CL-02	SOLID	1		<1.70e-2		ug/g
3	BLNK-PREP		0		@IC-01 NO2-02	SOLID	1		<1.08e-1		ug/g
3	BLNK-PREP		0		@IC-01 BR-02	SOLID	1		<1.25e-1		ug/g
3	BLNK-PREP		0		@IC-01 NO3-02	SOLID	1		<1.39e-1		ug/g
3	BLNK-PREP		0		@IC-01 PO4-02	SOLID	1		<1.20e-1		ug/g
3	BLNK-PREP		0		@IC-01 SO4-02	SOLID	1		<1.38e-1		ug/g
3	BLNK-PREP		0		@IC-01 OXALATE2	SOLID	1		<1.05e-1		ug/g
4	SAMPLE	S97T000747	0	W	@IC-01 F-02	SOLID	N/A		6.376e+03	25.120	ug/g
4	SAMPLE	S97T000747	0	W	@IC-01 CL-02	SOLID	N/A		5.994e+02	35.600	ug/g
4	SAMPLE	S97T000747	0	W	@IC-01 NO2-02	SOLID	N/A		3.003e+02	226.200	ug/g
4	SAMPLE	S97T000747	0	W	@IC-01 BR-02	SOLID	N/A	<	2.617e+02	261.700	ug/g
4	SAMPLE	S97T000747	0	W	@IC-01 NO3-02	SOLID	N/A		6.460e+04	291.100	ug/g
4	SAMPLE	S97T000747	0	W	@IC-01 PO4-02	SOLID	N/A		2.141e+03	251.200	ug/g
4	SAMPLE	S97T000747	0	W	@IC-01 SO4-02	SOLID	N/A	<	2.889e+02	289.000	ug/g
4	SAMPLE	S97T000747	0	W	@IC-01 OXALATE2	SOLID	N/A		1.013e+03	219.800	ug/g
5	DUP	S97T000747	0	W	@IC-01 F-02	SOLID	6.38e+03		6.50e+03	1.863	RPD
5	DUP	S97T000747	0	W	@IC-01 CL-02	SOLID	5.99e+02		6.41e+02	6.774	RPD
5	DUP	S97T000747	0	W	@IC-01 NO2-02	SOLID	3.00e+02		2.95e+02	1.681	RPD
5	DUP	S97T000747	0	W	@IC-01 BR-02	SOLID	<2.62e2		<2.59e2		RPD
5	DUP	S97T000747	0	W	@IC-01 NO3-02	SOLID	6.46e+04		6.59e+04	1.992	RPD
5	DUP	S97T000747	0	W	@IC-01 PO4-02	SOLID	2.14e+03		1.99e+03	7.264	RPD
5	DUP	S97T000747	0	W	@IC-01 SO4-02	SOLID	<2.89e2		3.87e+02		RPD
5	DUP	S97T000747	0	W	@IC-01 OXALATE2	SOLID	1.01e+03		1.04e+03	2.927	RPD
6	SPK	S97T000747	0	W	@IC-01 F-02	SOLID	5.90e01		4.69e+01	79.492	% Recovery

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Worklist Report for Worklist# 18128

Seq	Type	Sample#	R	A		Test	Matrix	Actual	Found	DL or Yield	Unit
6	SPK	S97T000747	0	W	@IC-01	CL-02	SOLID	7.90e01	8.09e+01	102.405	% Recovery
6	SPK	S97T000747	0	W	@IC-01	NO2-02	SOLID	5.44e02	4.96e+02	91.176	% Recovery
6	SPK	S97T000747	0	W	@IC-01	BR-02	SOLID	5.89e02	4.98e+02	84.550	% Recovery
6	SPK	S97T000747	0	W	@IC-01	NO3-02	SOLID	5.94e02	5.24e+02	88.215	% Recovery
6	SPK	S97T000747	0	W	@IC-01	PO4-02	SOLID	5.45e02	5.34e+02	97.982	% Recovery
6	SPK	S97T000747	0	W	@IC-01	SO4-02	SOLID	6.31e02	6.08e+02	96.355	% Recovery
6	SPK	S97T000747	0	W	@IC-01	OXALATE2	SOLID	5.32e02	5.17e+02	97.180	% Recovery
7	SAMPLE	S97T000769	0	W	@IC-01	F-02	SOLID	N/A	6.462e+03	21.990	ug/g
7	SAMPLE	S97T000769	0	W	@IC-01	CL-02	SOLID	N/A	6.531e+02	31.150	ug/g
7	SAMPLE	S97T000769	0	W	@IC-01	NO2-02	SOLID	N/A	2.671e+02	197.900	ug/g
7	SAMPLE	S97T000769	0	W	@IC-01	BR-02	SOLID	N/A	< 2.291e+02	229.100	ug/g
7	SAMPLE	S97T000769	0	W	@IC-01	NO3-02	SOLID	N/A	6.630e+04	254.800	ug/g
7	SAMPLE	S97T000769	0	W	@IC-01	PO4-02	SOLID	N/A	2.188e+03	219.900	ug/g
7	SAMPLE	S97T000769	0	W	@IC-01	SO4-02	SOLID	N/A	3.882e+02	252.900	ug/g
7	SAMPLE	S97T000769	0	W	@IC-01	OXALATE2	SOLID	N/A	7.501e+02	192.400	ug/g
8	DUP	S97T000769	0	W	@IC-01	F-02	SOLID	6.46e+03	6.11e+03	5.569	RPD
8	DUP	S97T000769	0	W	@IC-01	CL-02	SOLID	6.53e+02	6.18e+02	5.507	RPD
8	DUP	S97T000769	0	W	@IC-01	NO2-02	SOLID	2.67e+02	2.53e+02	5.385	RPD
8	DUP	S97T000769	0	W	@IC-01	BR-02	SOLID	<2.29e2	<2.25e2		RPD
8	DUP	S97T000769	0	W	@IC-01	NO3-02	SOLID	6.63e+04	6.27e+04	5.581	RPD
8	DUP	S97T000769	0	W	@IC-01	PO4-02	SOLID	2.19e+03	1.81e+03	19.000	RPD
8	DUP	S97T000769	0	W	@IC-01	SO4-02	SOLID	3.88e+02	2.94e+02	27.566	RPD
8	DUP	S97T000769	0	W	@IC-01	OXALATE2	SOLID	7.50e+02	7.57e+02	0.929	RPD

Final page for worklist# 18128

Analyst Signature **Date**

Analyst Signature **Date**

Jann M. Luge 5/28/97
Reviewer Signature **Date**

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Data Entry Template for Worklist# 18128

Analyst: [illegible] **Instrument:** IC0 1 **Book#** GLN20-A

Method: LA-533-105 **Rev/Mod** D-1

Worklist Comment: T-203 IC. lcm

S	Type	Sample#	R	A	Test	Matrix	Group#	Project
1	CCB				@IC-QC	QC		
2	CCV				@IC-QC	QC		
3	BLNK-PREP				@IC-01	SOLID		
4	SAMPLE	S97T000747	0	W	@IC-01	SOLID	97000299	T-203
	Analytes Requested:				BR-02 , CL-02 , F-02 , NO2-02 , NO3-02 , OXALATE2, PO4-02 , SO4-02			
5	DUP	S97T000747	0	W	@IC-01	SOLID		
6	SPK	S97T000747	0	W	@IC-01	SOLID		
7	SAMPLE	S97T000769	0	W	@IC-01	SOLID	97000299	T-203
	Analytes Requested:				BR-02 , CL-02 , F-02 , NO2-02 , NO3-02 , OXALATE2, PO4-02 , SO4-02			
8	DUP	S97T000769	0	W	@IC-01	SOLID		

Final page for worklist # 18128

[signature] 5/23/97

Analyst Signature **Date**

Analyst Signature **Date**

uploaded 5-28-97
John Worrell
18128MAY.CSV
Validated 5/28/97 JM Luyk

Data Entry Comments:

S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

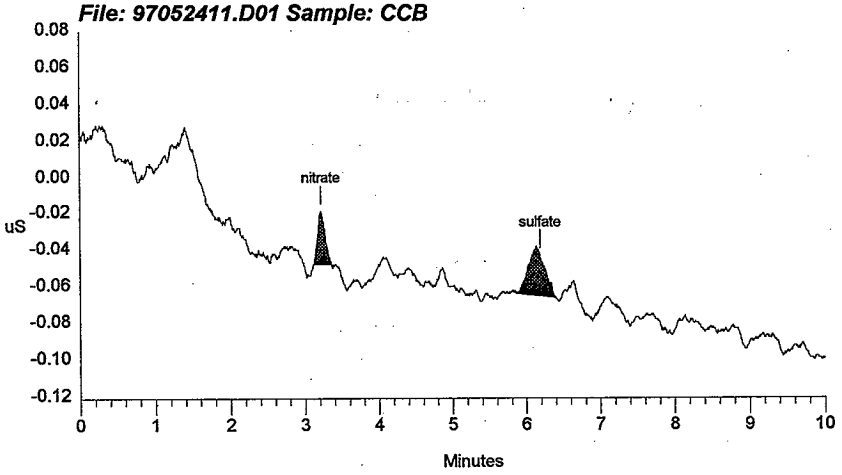
Sample Name: CCB Date: 05/24/1997 23:38:52
Data File : C:\DX\DATA\97052411.D01
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 1 Detector:CDM-1
Analyst : Column: AG4A/AS4A anion column

for KRQ 5/28/97

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	1	3000	5Hz	0.00	10.00	30

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	3.22	nitrate	0.099	29	203	1	-0.92
2	6.19	sulfate	-0.031	22	405	1	2.65
		Totals	0.068	51	608		



SIGNATURE ABOVE REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 425 TO 432.

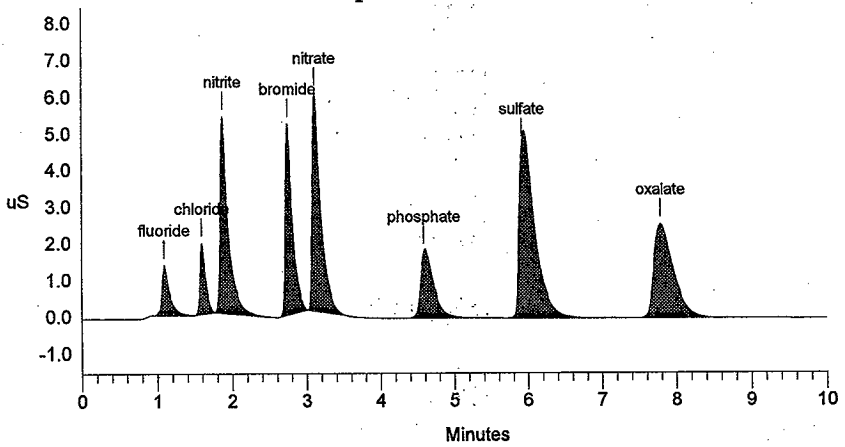
Sample Name: CCV 61N20-A Date: 05/24/1997 23:52:32
Data File : C:\DX\DATA\97052411.D02
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 2 Detector:CDM-1
Analyst : Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	101	3000	5Hz	0.00	10.00	30

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.09	fluoride	54.451	1384	9782	1	-2.38
2	1.59	chloride	76.931	1940	10042	1	0.00
3	1.87	nitrite	502.222	5365	39595	1	-2.77
4	2.75	bromide	557.076	5233	34775	1	-3.63
5	3.11	nitrate	566.438	5968	47111	1	-4.41
6	4.59	phosphate	517.870	1826	22934	1	-0.58
7	5.92	sulfate	602.210	4782	73907	1	-1.77
8	7.79	oxalate	527.697	2569	46651	1	-0.68
		Totals	3404.895	29067	284797		

File: 97052411.D02 Sample: CCV 61N20-A

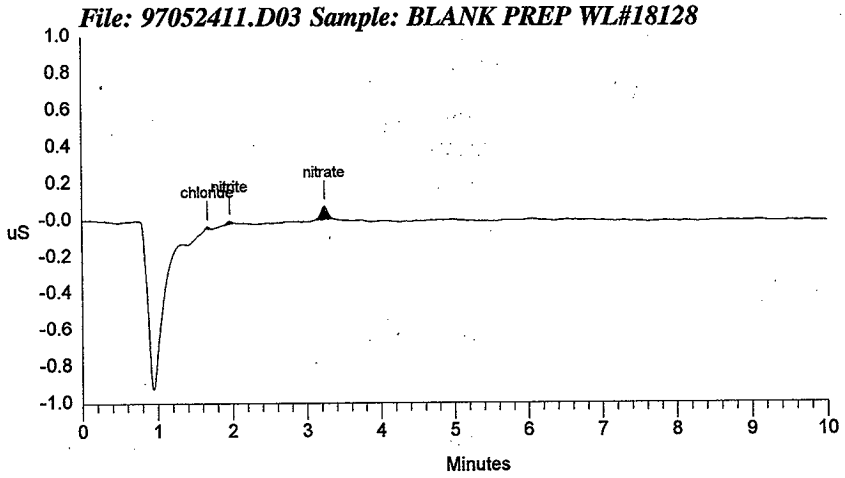


```
Sample Name: BLANK PREP WL#18128              Date: 05/25/1997 00:05:25
Data File  : C:\DX\DATA\97052411.D03
Method     : C:\DX\METHOD\KIT.MET
ACI Address: 1  System: 1  Inject#: 3                    Detector:CDM-1
Analyst    :                Column: AG4A/AS4A anion column
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	1	3000	5Hz	0.00	10.00	30

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.67	chloride	-0.003	12	36	1	4.60
2	1.97	nitrite	0.106	16	80	1	2.08
3	3.24	nitrate	0.130	71	459	1	-0.31
		Totals	0.233	99	574		



Data Reprocessed On 05/27/1997 14:29:25

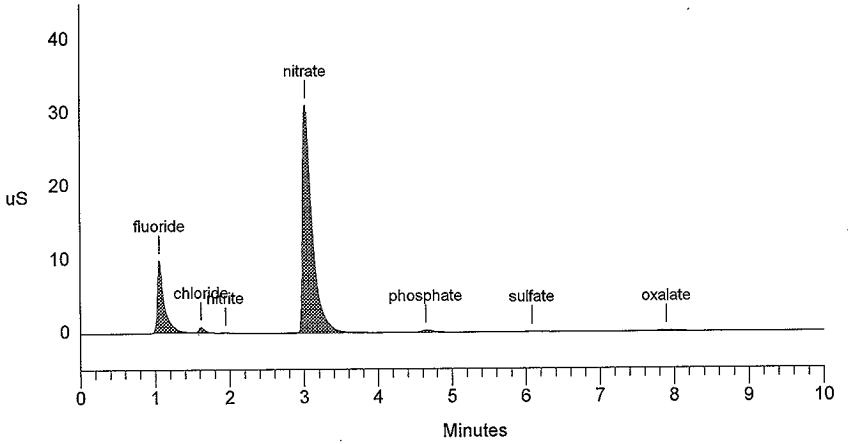
Sample Name: S97T000747 SAMPLE Date: 05/25/1997 00:31:07
Data File : F:\DATA\97052411.D05
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 5 Detector:CDM-1
Analyst : Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	11	3000	5Hz	0.00	10.00	30

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.06	fluoride	33.497	9848	62080	1	-5.36
2	1.61	chloride	3.149	732	3778	1	1.26
3	1.94	nitrite	1.578	66	381	1	0.69
4	3.02	nitrate	339.396	31079	281936	1	0.00
5	4.64	phosphate	11.249	322	4292	1	0.58
6	6.08	sulfate	1.505	141	2432	1	0.88
7	7.89	oxalate	5.324	210	4077	1	0.68
		Totals	395.699	42397	358977		

File: 97052411.D05 Sample: S97T000747 SAMPLE



Data Reprocessed On 05/27/1997 14:30:18

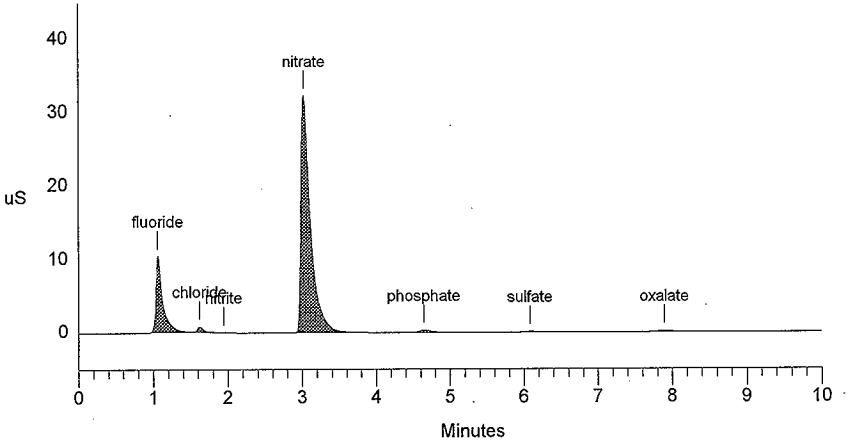
```
Sample Name: S97T000747 DUP                    Date: 05/25/1997 00:41:59
Data File  : F:\DATA\97052411.D06
Method     : C:\DX\METHOD\KIT.MET
ACI Address: 1  System: 1  Inject#: 6                    Detector:CDM-1
Analyst    :                Column: AG4A/AS4A anion column
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	11	3000	5Hz	0.00	10.00	30

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.06	fluoride	34.457	10330	64044	1	-5.36
2	1.61	chloride	3.403	762	4080	1	1.26
3	1.94	nitrite	1.565	65	371	1	0.69
4	3.02	nitrate	349.428	32279	291158	1	0.00
5	4.64	phosphate	10.547	320	4006	1	0.58
6	6.08	sulfate	2.055	157	3035	1	0.88
7	7.89	oxalate	5.527	222	4242	1	0.68
		Totals	406.982	44135	370937		

File: 97052411.D06 Sample: S97T000747 DUP



Data Reprocessed On 05/27/1997 14:32:12

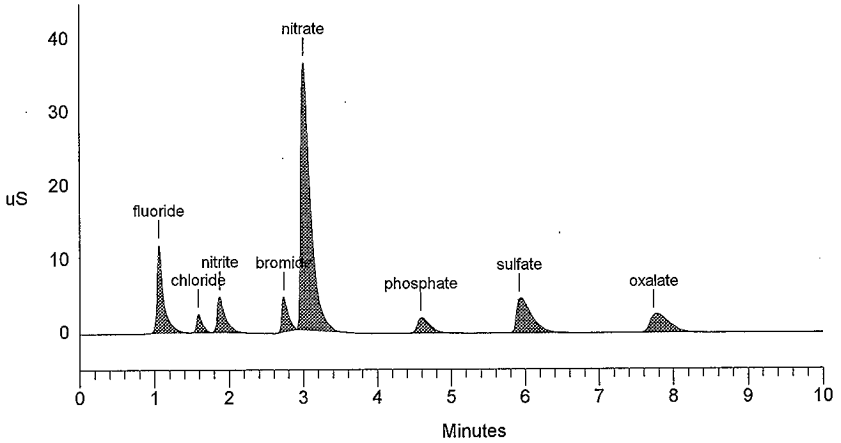
Sample Name: S97T000747 SPIKE Date: 05/25/1997 00:54:26
Data File : F:\DATA\97052411.D07
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 7 Detector:CDM-1
Analyst : Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	11	3000	5Hz	0.00	10.00	30

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.06	fluoride	38.182	11890	71781	1	-5.36
2	1.59	chloride	11.243	2516	13530	1	-0.42
3	1.87	nitrite	51.219	4913	36998	1	-2.77
4	2.73	bromide	49.801	4786	28392	1	0.12
5	3.01	nitrate	391.755	36326	330754	1	-0.11
6	4.59	phosphate	64.625	2111	26378	1	-0.58
7	5.92	sulfate	60.815	4701	68506	1	-1.77
8	7.73	oxalate	57.017	2379	46277	1	-1.36
		Totals	724.657	69621	622617		

File: 97052411.D07 Sample: S97T000747 SPIKE



Data Reprocessed 14:33:20

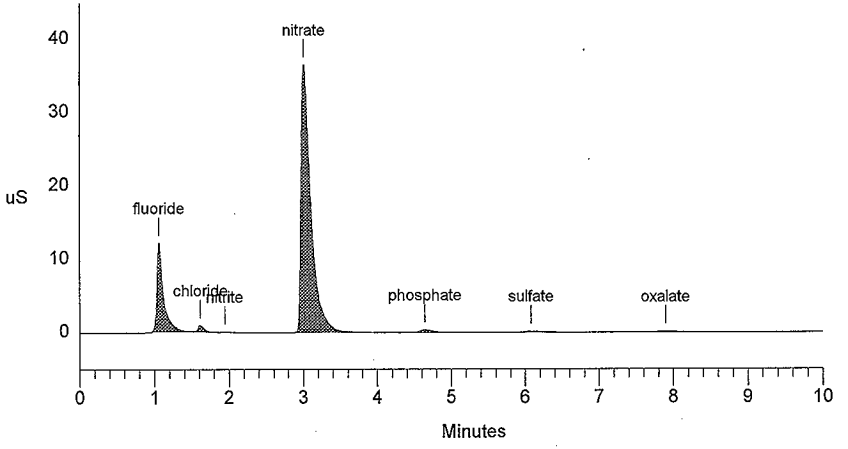
Sample Name:	S97T000769 SAMPLE
Data File :	F:\DATA\97052411.D08
Method :	C:\DX\METHOD\KIT.MET
ACI Address:	1 System: 1 Inject#: 8
Analyst :	
Date:	05/25/1997 01:05:24
Detector:	CDM-1
Column:	AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	11	3000	5Hz	0.00	10.00	30

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.06	fluoride	38.784	12098	73050	1	-5.36
2	1.61	chloride	3.920	871	4694	1	1.26
3	1.94	nitrite	1.603	72	399	1	0.69
4	3.01	nitrate	397.916	36542	336614	1	-0.11
5	4.64	phosphate	13.135	388	5062	1	0.58
6	6.08	sulfate	2.330	193	3338	1	0.88
7	7.89	oxalate	4.502	187	3410	1	0.68
		Totals	462.190	50351	426566		

File: 97052411.D08 Sample: S97T000769 SAMPLE



Data Reprocessed on 05/27/1997 14:34:15

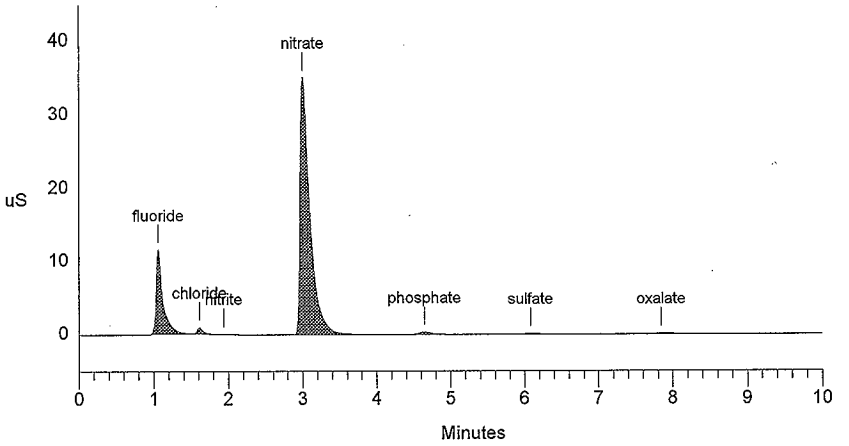
```
Sample Name: S97T000769 DUP                    Date: 05/25/1997 01:17:22
Data File  : F:\DATA\97052411.D09
Method     : C:\DX\METHOD\KIT.MET
ACI Address: 1  System: 1  Inject#: 9                    Detector:CDM-1
Analyst    :                Column: AG4A/AS4A anion column
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	11	3000	5Hz	0.00	10.00	30

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.06	fluoride	37.280	11486	69892	1	-5.36
2	1.61	chloride	3.767	861	4511	1	0.84
3	1.93	nitrite	1.546	71	357	1	0.35
4	3.00	nitrate	382.195	35085	321710	1	0.00
5	4.64	phosphate	11.065	348	4217	1	0.58
6	6.08	sulfate	1.793	180	2748	1	0.88
7	7.84	oxalate	4.620	164	3506	1	0.00
		Totals	442.265	48194	406941		

File: 97052411.D09 Sample: S97T000769 DUP



LABCORE Completed Worklist Report for Worklist# 18149

Analyst: rag **Instrument:** IC01 **Book#** 6/N20A

Method: IA-533-105 Rev/Mod D-1

Worklist Comment: T-203 IC. RCJ

Seq	Type	Sample#	R	A	Test	Matrix	Actual	Found	DL or Yield	Unit
1	CCB			0	@IC-QC F	QC	1	<1.20e-2		ug/mL
1	CCB			0	@IC-QC CL	QC	1	<1.70e-2		ug/mL
1	CCB			0	@IC-QC NO2	QC	1	<1.08e-1		ug/mL
1	CCB			0	@IC-QC BR	QC	1	<1.25e-1		ug/mL
1	CCB			0	@IC-QC NO3	QC	1	1.39e-01	0.139	ug/mL
1	CCB			0	@IC-QC PO4	QC	1	<1.20e-1		ug/mL
1	CCB			0	@IC-QC SO4	QC	1	<1.38e-1		ug/mL
1	CCB			0	@IC-QC OXALATE2	QC	1	<1.05e-1		ug/mL
2	CCV			0	@IC-QC F	QC	5.90e01	5.41e+01	91.695	% Recovery
2	CCV			0	@IC-QC CL	QC	7.90e01	7.95e+01	100.633	% Recovery
2	CCV			0	@IC-QC NO2	QC	5.44e02	5.57e+02	102.390	% Recovery
2	CCV			0	@IC-QC BR	QC	5.89e02	5.83e+02	98.981	% Recovery
2	CCV			0	@IC-QC NO3	QC	5.94e02	5.82e+02	97.980	% Recovery
2	CCV			0	@IC-QC PO4	QC	5.45e02	5.42e+02	99.450	% Recovery
2	CCV			0	@IC-QC SO4	QC	6.31e02	6.23e+02	98.732	% Recovery
2	CCV			0	@IC-QC OXALATE2	QC	5.32e02	5.38e+02	101.128	% Recovery
3	BLNK-PREP			0	@IC-01 F-02	SOLID	1	<1.20e-2		ug/g
3	BLNK-PREP			0	@IC-01 CL-02	SOLID	1	<1.70e-2		ug/g
3	BLNK-PREP			0	@IC-01 NO2-02	SOLID	1	1.59e-01	0.159	ug/g
3	BLNK-PREP			0	@IC-01 BR-02	SOLID	1	<1.25e-1		ug/g
3	BLNK-PREP			0	@IC-01 NO3-02	SOLID	1	1.49e-01	0.149	ug/g
3	BLNK-PREP			0	@IC-01 PO4-02	SOLID	1	<1.20e-1		ug/g
3	BLNK-PREP			0	@IC-01 SO4-02	SOLID	1	<1.38e-1		ug/g
3	BLNK-PREP			0	@IC-01 OXALATE2	SOLID	1	<1.05e-1		ug/g
4	SAMPLE	S97T000754	0	W	@IC-01 F-02	SOLID	N/A	6.223e+03	25.190	ug/g
4	SAMPLE	S97T000754	0	W	@IC-01 CL-02	SOLID	N/A	5.802e+02	35.680	ug/g
4	SAMPLE	S97T000754	0	W	@IC-01 NO2-02	SOLID	N/A	2.097e+02	123.700	ug/g
4	SAMPLE	S97T000754	0	W	@IC-01 BR-02	SOLID	N/A <	2.624e+02	262.400	ug/g
4	SAMPLE	S97T000754	0	W	@IC-01 NO3-02	SOLID	N/A	6.220e+04	291.800	ug/g
4	SAMPLE	S97T000754	0	W	@IC-01 PO4-02	SOLID	N/A	2.497e+03	251.900	ug/g
4	SAMPLE	S97T000754	0	W	@IC-01 SO4-02	SOLID	N/A	3.676e+02	289.700	ug/g
4	SAMPLE	S97T000754	0	W	@IC-01 OXALATE2	SOLID	N/A	1.597e+03	220.400	ug/g
5	DUP	S97T000754	0	W	@IC-01 F-02	SOLID	6.22e+03	6.09e+03	2.112	RPD
5	DUP	S97T000754	0	W	@IC-01 CL-02	SOLID	5.80e+02	5.56e+02	4.225	RPD
5	DUP	S97T000754	0	W	@IC-01 NO2-02	SOLID	2.10e+02	2.07e+02	1.439	RPD
5	DUP	S97T000754	0	W	@IC-01 BR-02	SOLID	<2.62e2	<2.67e2		RPD
5	DUP	S97T000754	0	W	@IC-01 NO3-02	SOLID	6.22e+04	5.95e+04	4.437	RPD
5	DUP	S97T000754	0	W	@IC-01 PO4-02	SOLID	2.50e+03	3.16e+03	23.322	RPD
5	DUP	S97T000754	0	W	@IC-01 SO4-02	SOLID	3.68e+02	3.71e+02	0.812	RPD
5	DUP	S97T000754	0	W	@IC-01 OXALATE2	SOLID	1.60e+03	1.59e+03	0.627	RPD
6	SAMPLE	S97T000776	0	W	@IC-01 F-02	SOLID	N/A	6.146e+03	24.900	ug/g

Units shown for QC (BLK/BKG) may not reflect the actual units.

HNF-SD-WM-DP-247, REV. 0

LABCORE Completed Worklist Report for Worklist# 18149

Seq	Type	Sample#	R	A	Test	Matrix	Actual	Found	DL or Yield	Unit
6	SAMPLE	S97T000776	0	W	@IC-01	CL-02	SOLID	N/A	5.920e+02	35.280 ug/g
6	SAMPLE	S97T000776	0	W	@IC-01	NO2-02	SOLID	N/A	2.754e+02	224.100 ug/g
6	SAMPLE	S97T000776	0	W	@IC-01	BR-02	SOLID	N/A	< 2.594e+02	259.400 ug/g
6	SAMPLE	S97T000776	0	W	@IC-01	NO3-02	SOLID	N/A	5.928e+04	288.400 ug/g
6	SAMPLE	S97T000776	0	W	@IC-01	PO4-02	SOLID	N/A	3.617e+03	249.000 ug/g
6	SAMPLE	S97T000776	0	W	@IC-01	SO4-02	SOLID	N/A	4.669e+02	286.300 ug/g
6	SAMPLE	S97T000776	0	W	@IC-01	OXALATE2	SOLID	N/A	1.523e+03	217.900 ug/g
7	DUP	S97T000776	0	W	@IC-01	F-02	SOLID	6.15e+03	6.21e+03	0.971 RPD
7	DUP	S97T000776	0	W	@IC-01	CL-02	SOLID	5.92e+02	5.96e+02	0.673 RPD
7	DUP	S97T000776	0	W	@IC-01	NO2-02	SOLID	2.75e+02	2.71e+02	1.465 RPD
7	DUP	S97T000776	0	W	@IC-01	BR-02	SOLID	<2.59e2	<2.58e2	RPD
7	DUP	S97T000776	0	W	@IC-01	NO3-02	SOLID	5.93e+04	6.02e+04	1.506 RPD
7	DUP	S97T000776	0	W	@IC-01	PO4-02	SOLID	3.62e+03	2.56e+03	34.304 RPD
7	DUP	S97T000776	0	W	@IC-01	SO4-02	SOLID	4.67e+02	7.34e+02	44.463 RPD
7	DUP	S97T000776	0	W	@IC-01	OXALATE2	SOLID	1.52e+03	1.55e+03	1.954 RPD

Final page for worklist# 18149

Analyst Signature **Date**

Analyst Signature **Date**

Reviewer Signature Date 6/5/97

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Data Entry Template for Worklist# 18149

Analyst: RAG **Instrument:** IC0 1 **Book#** LIN204

Method: LA-533-105 Rev/Mod D-1

Worklist Comment: T-203 IC. RCJ

S	Type	Sample#	R	A	Test	Matrix	Group#	Project
1	CCB				@IC-QC	QC		
2	CCV				@IC-QC	QC		
3	BLNK-PREP				@IC-01	SOLID		
4	SAMPLE	S97T000754	0	W	@IC-01	SOLID	97000299	T-203
	Analytes Requested:				BR-02 , CL-02 , F-02 , NO2-02 , NO3-02 , OXALATE2, PO4-02 , SO4-02			
5	DUP	S97T000754	0	W	@IC-01	SOLID		
6	SAMPLE	S97T000776	0	W	@IC-01	SOLID	97000299	T-203
	Analytes Requested:				BR-02 , CL-02 , F-02 , NO2-02 , NO3-02 , OXALATE2, PO4-02 , SO4-02			
7	DUP	S97T000776	0	W	@IC-01	SOLID		

Final page for worklist # 18149

JM Fuyer for R.A. Green 5/22/97
Analyst Signature Date

See attached for signature
uploaded 6-3-97
JK Worrell
18149MAY.CSV
Validated 6/4/97 JM Fuyer

Analyst Signature Date

Data Entry Comments:

S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 18149

Analyst: RLS **Instrument:** IC0 / **Book#** 61W20-A

Method: LA-533-105 **Rev/Mod** D-1

Worklist Comment: T-203 IC. RCJ

S	Type	Sample#	R	A	Test	Matrix	Group#	Project
✓1	CCB				@IC-QC	QC		
✓2	CCV				@IC-QC	QC		
>3. PREPBLANK								
3	SAMPLE	S97T000754	0	W	@IC-01	SOLID	97000299	T-203
	Analytes Requested:	BR-02 , CL-02 , F-02 , NO2-02 , NO3-02 , OXALATE2, PO4-02 , SO4-02						
4	DUP	S97T000754	0	W	@IC-01	SOLID		
5	SAMPLE	S97T000776	0	W	@IC-01	SOLID	97000299	T-203
	Analytes Requested:	BR-02 , CL-02 , F-02 , NO2-02 , NO3-02 , OXALATE2, PO4-02 , SO4-02						
6	DUP	S97T000776	0	W	@IC-01	SOLID		

Final page for worklist # 18149

RaLynn Green 5-20-97
Analyst Signature **Date**

Analyst Signature **Date**

This should be re-worklisted adding a prep blank to this worklist.

Ran @ dilutions of 11 and 6 for NO_2 on S97T754

Data Entry Comments:

S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

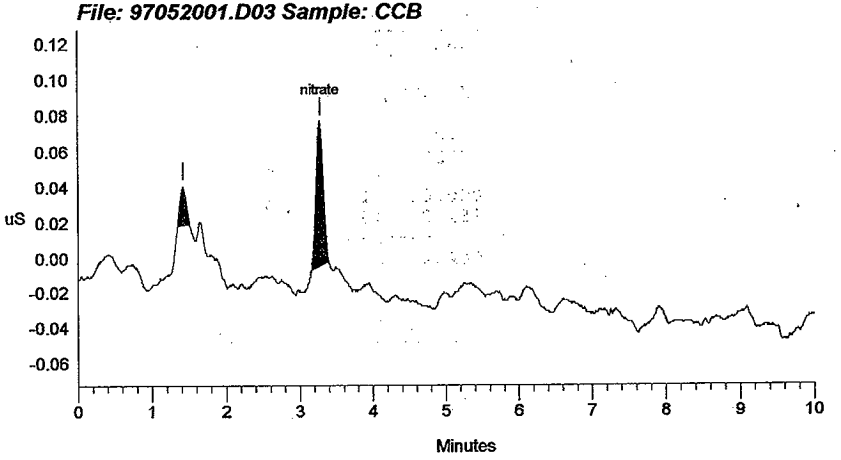
May. 20. 1997 3:00PM WHC 222S LAB ROOM 2F BACKSIDE No. 3159 P. 1/10

```
Sample Name: CCB                                  Date: 05/20/1997 07:18:39
Data File  : C:\DX\DATA\97052001.D03
Method     : C:\DX\METHOD\KIT.MET
ACI Address: 1  System: 1  Inject#: 3                        Detector:CDM-1
Analyst    : Rae Ann Green  Column: AG4A/AS4A anion column
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	1	3000	5Hz	0.00	10.00	30

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.42		0.000	22	120	1	
2	3.28	nitrate	0.139	81	539	1	0.92
		Totals	0.139	102	659		



SIGNATURE ABOVE REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 436 TO 446

May. 20. 1997 3:01PM WHC 222S LAB ROOM 2F BACKSIDE NO. 3139 P. 2/10

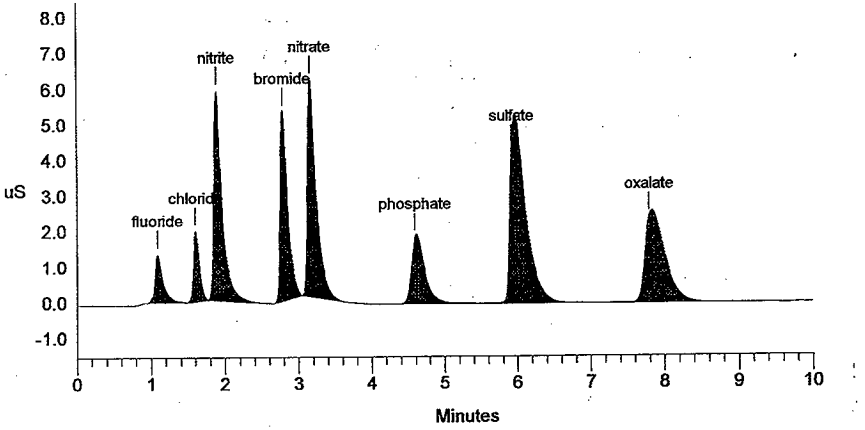
```
Sample Name: STD 61N20-A                    Date: 05/20/1997 08:36:32
Data File  : C:\DX\DATA\97052001.D01
Method     : C:\DX\METHOD\KIT.MET
ACI Address: 1  System: 1  Inject#: 1                  Detector:CDM-1
Analyst    : Rae Ann Green  Column: AG4A/AS4A anion column
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	101	3000	5Hz	0.00	10.00	30

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.09	fluoride	54.109	1348	9716	1	-2.98
2	1.60	chloride	79.450	1972	10374	1	0.42
3	1.89	nitrite	557.250	5879	44079	1	-2.08
4	2.78	bromide	583.066	5306	36444	1	-2.46
5	3.15	nitrate	581.841	6069	48428	1	-2.97
6	4.59	phosphate	541.601	1871	24014	1	-0.58
7	5.92	sulfate	622.577	4332	76421	1	-1.77
8	7.79	oxalate	538.458	2423	47614	1	-0.68
		Totals	3558.353	29200	297092		

File: 97052001.D01 Sample: STD 61N20-A



May. 20. 1997 3:02PM WHC 222S LAB ROOM 2F BACKSIDE NO. 3139 P. 3/10

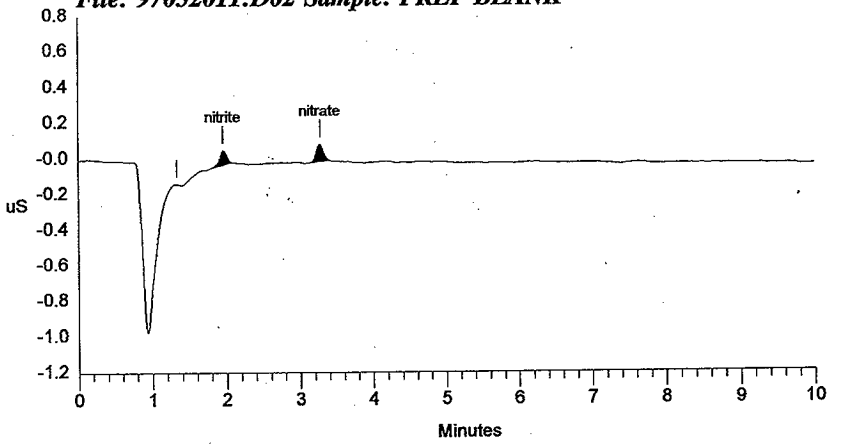
```
Sample Name: PREP BLANK                          Date: 05/20/1997 08:50:06
Data File  : C:\DX\DATA\97052011.D02
Method     : C:\DX\METHOD\KIT.MET
ACI Address: 1  System: 1  Inject#: 2                    Detector:CDM-1
Analyst    : Rae Ann Sues  Column: AG4A/AS4A anion column
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	1	3000	5Hz	0.00	10.00	30

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
2	1.95	nitrite	0.159	79	509	1	1.38
3	3.27	nitrate	0.149	95	624	1	0.72
		Totals	0.309	174	1132		

File: 97052011.D02 Sample: PREP BLANK



May. 20. 1997 3:02PM WHC 222S LAB ROOM 2F BACKSIDE No. 3159 P. 4/10

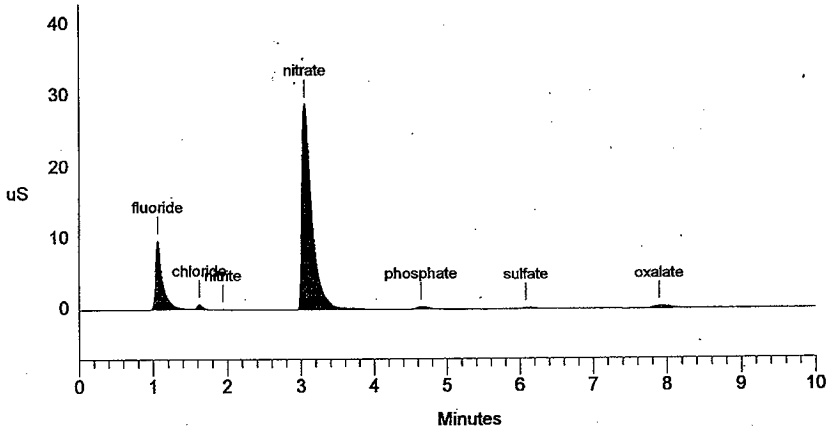
```
Sample Name: S97T000754                          Date: 05/20/1997 09:17:09
Data File  : C:\DX\DATA\97052011.D04
Method     : C:\DX\METHOD\KIT.MET
ACI Address: 1  System: 1  Inject#: 4                    Detector:CDM-1
Analyst    : Rae Ann Green  Column: AG4A/AS4A anion column
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	11	3000	5Hz	0.00	10.00	30

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.06	fluoride	32.610	9718	60273	1	-5.36
2	1.62	chloride	3.040	709	3649	1	1.67
3	1.94	nitrite	1.576	68	379	1	0.69
4	3.05	nitrate	325.929	28910	269651	1	-6.05
5	4.64	phosphate	13.085	377	5042	1	0.58
6	6.08	sulfate	1.926	181	2894	1	0.88
7	7.89	oxalate	8.369	336	6549	1	0.68
		Totals	386.534	40298	348436		

File: 97052011.D04 Sample: S97T000754



May. 20. 1997 3:03PM WHC 222S LAB ROOM 2F BACKSIDE NO. 3139 P. 3/10

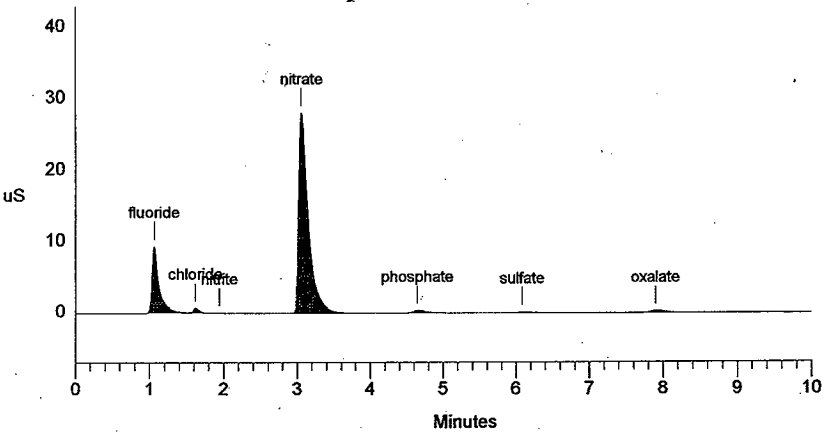
Sample Name: S97T000754 DUP Date: 05/20/1997 09:29:39
Data File : C:\DX\DATA\97052011.D05
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 5 Detector:CDM-1
Analyst : RaeAnn Green Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	11	3000	5Hz	0.00	10.00	30

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.06	fluoride	31.366	9288	57755	1	-5.36
2	1.61	chloride	2.862	665	3438	1	1.26
3	1.94	nitrite	1.550	64	361	1	0.69
4	3.05	nitrate	306.639	28126	252238	1	-6.05
5	4.64	phosphate	16.274	390	6345	1	0.58
6	6.08	sulfate	1.913	185	2880	1	0.88
7	7.89	oxalate	8.180	330	6396	1	0.68
		Totals	368.784	39049	329412		

File: 97052011.D05 Sample: S97T000754 DUP



MAY.20.1997 3:04PM WHC 222S LAB ROOM 2F BACKSIDE NO.313 P.8/10

Data Reprocessed On 05/28/1997 10:35:36

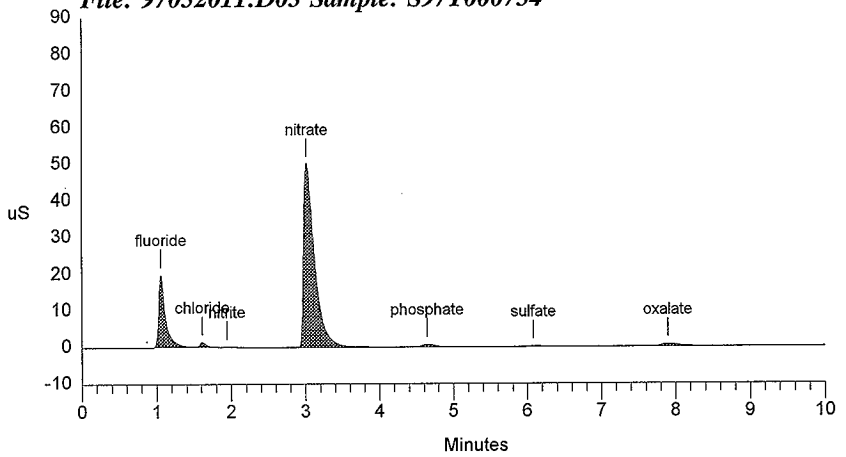
Sample Name: S97T000754 Date: 05/20/1997 09:03:29
Data File : F:\DATA\97052011.D03
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 3 Detector:CDM-1
Analyst : Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	6	3000	5Hz	0.00	10.00	30

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.06	fluoride	32.235	19690	119092	1	-5.36
2	1.61	chloride	3.133	1299	6870	1	0.84
3	1.94	nitrite	1.099	129	699	1	0.69
4	3.01	nitrate	311.403	50052	513027	1	0.11
5	4.64	phosphate	12.714	736	9228	1	0.58
6	6.08	sulfate	1.647	266	4096	1	0.88
7	7.89	oxalate	8.026	637	11705	1	0.68
		Totals	370.258	72809	664717		

File: 97052011.D03 Sample: S97T000754



Data Reprocessed On 05/28/1997 10:36:39

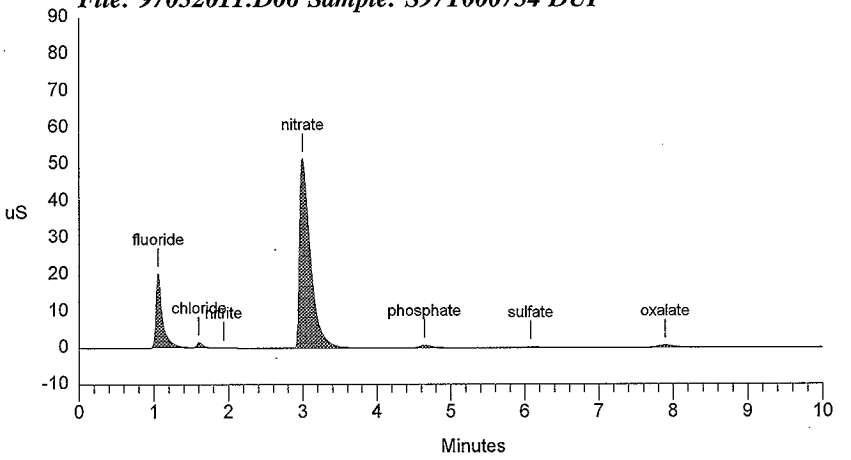
Sample Name: S97T000754 DUP Date: 05/20/1997 09:44:33
Data File : F:\DATA\97052011.D06
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 6 Detector:CDM-1
Analyst : Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	6	3000	5Hz	0.00	10.00	30

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.06	fluoride	32.210	20094	118983	1	-5.36
2	1.60	chloride	3.404	1422	7466	1	0.42
3	1.93	nitrite	1.064	121	652	1	0.35
4	3.00	nitrate	316.676	51489	523672	1	0.00
5	4.64	phosphate	12.853	744	9332	1	0.58
6	6.08	sulfate	1.899	286	4604	1	0.88
7	7.89	oxalate	8.272	660	12071	1	0.68
		Totals	376.378	74816	676780		

File: 97052011.D06 Sample: S97T000754 DUP



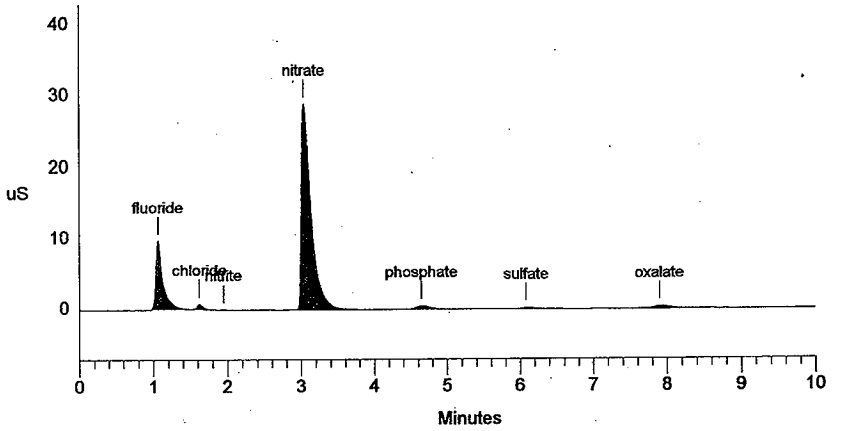
```
Sample Name: S97T000776                          Date: 05/20/1997 09:57:16
Data File  : C:\DX\DATA\97052011.D07
Method     : C:\DX\METHOD\KIT.MET
ACI Address: 1  System: 1  Inject#: 7                    Detector:CDM-1
Analyst    : Rae Ann Green                Column: AG4A/AS4A anion column
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	11	3000	5Hz	0.00	10.00	30

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.06	fluoride	32.579	9645	60209	1	-5.36
2	1.61	chloride	3.138	728	3765	1	1.26
3	1.94	nitrite	1.460	55	295	1	0.69
4	3.04	nitrate	314.219	28910	259055	1	-6.46
5	4.64	phosphate	19.175	487	7532	1	0.58
6	6.08	sulfate	2.475	217	3498	1	0.88
7	7.89	oxalate	8.072	340	6308	1	0.68
		Totals	381.118	40381	340662		

File: 97052011.D07 Sample: S97T000776



May. 20. 1997 3:06PM WHC 222S LAB ROOM 2F BACKSIDE No. 3159 P. 9/10

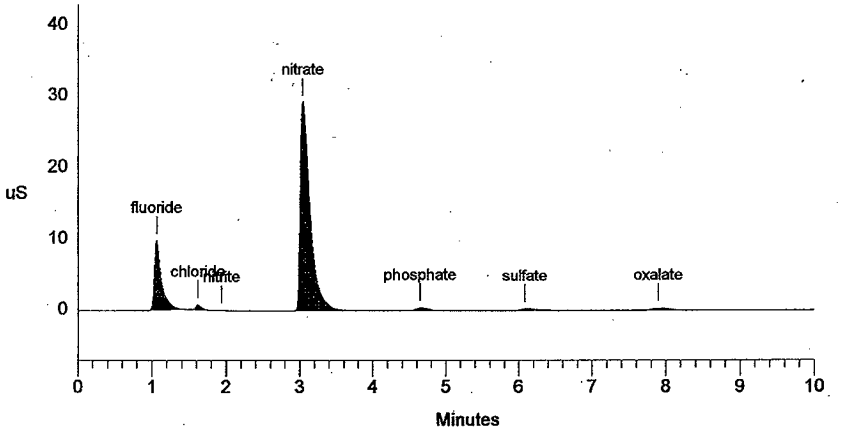
Sample Name: S97T000776 DUP Date: 05/20/1997 10:08:21
Data File : C:\DX\DATA\97052011.D08
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 8 Detector:CDM-1
Analyst : Rae Ann Green Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	11	3000	5Hz	0.00	10.00	30

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.06	fluoride	33.117	9698	61304	1	-5.36
2	1.61	chloride	3.181	742	3816	1	1.26
3	1.93	nitrite	1.448	48	286	1	0.35
4	3.03	nitrate	320.889	29195	265081	1	-6.67
5	4.64	phosphate	13.644	405	5270	1	0.58
6	6.08	sulfate	3.914	255	5079	1	0.88
7	7.89	oxalate	8.280	340	6477	1	0.68
		Totals	384.473	40683	347313		

File: 97052011.D08 Sample: S97T000776 DUP



May 20, 1997 3:06PM WHC 222S LAB ROOM 2F BACKSIDE No. 3159 P. 10/10

LABCORE Completed Worklist Report for Worklist# 18215

Analyst: rdm **Instrument:** IC01 **Book#** 61N20A

Method: LA-533-105 Rev/Mod D-1

Worklist Comment: Rerun for F using DF 11. jmf T203

Seq	Type	Sample#	R	A	Test	Matrix	Actual	Found	DL or Yield	Unit
1	CCB			0	@IC-QC	F	QC	1	<1.20e-2	ug/mL
1	CCB			0	@IC-QC	CL	QC	1	<1.70e-2	ug/mL
1	CCB			0	@IC-QC	NO2	QC	1	<1.08e-1	ug/mL
1	CCB			0	@IC-QC	BR	QC	1	<1.25e-1	ug/mL
1	CCB			0	@IC-QC	NO3	QC	1	<1.39e-1	ug/mL
1	CCB			0	@IC-QC	PO4	QC	1	<1.20e-1	ug/mL
1	CCB			0	@IC-QC	SO4	QC	1	<1.38e-1	ug/mL
1	CCB			0	@IC-QC	OXALATE2	QC	1	<1.05e-1	ug/mL
2	CCV			0	@IC-QC	F	QC	5.90e01	5.24e+01	88.814 % Recovery
2	CCV			0	@IC-QC	CL	QC	7.90e01	7.47e+01	94.557 % Recovery
2	CCV			0	@IC-QC	NO2	QC	5.44e02	5.23e+02	96.140 % Recovery
2	CCV			0	@IC-QC	BR	QC	5.89e02	5.64e+02	95.756 % Recovery
2	CCV			0	@IC-QC	NO3	QC	5.94e02	5.71e+02	96.128 % Recovery
2	CCV			0	@IC-QC	PO4	QC	5.45e02	5.32e+02	97.615 % Recovery
2	CCV			0	@IC-QC	SO4	QC	6.31e02	6.03e+02	95.563 % Recovery
2	CCV			0	@IC-QC	OXALATE2	QC	5.32e02	5.23e+02	98.308 % Recovery
3	SAMPLE	S97T000748	0	W	@IC-01	F-02	SOLID	N/A	6.122e+03	25.260 ug/g
4	DUP	S97T000748	0	W	@IC-01	F-02	SOLID	6.12e+03	6.17e+03	0.814 RPD
4	DUP	S97T000748	0	W	@IC-01	CL-02	SOLID	?	5.78e+02	RPD
4	DUP	S97T000748	0	W	@IC-01	NO2-02	SOLID	?	2.78e+02	RPD
4	DUP	S97T000748	0	W	@IC-01	BR-02	SOLID	?	<2.58e2	RPD
4	DUP	S97T000748	0	W	@IC-01	NO3-02	SOLID	?	6.28e+04	RPD
4	DUP	S97T000748	0	W	@IC-01	PO4-02	SOLID	?	2.38e+03	RPD
4	DUP	S97T000748	0	W	@IC-01	SO4-02	SOLID	?	<2.84e2	RPD
4	DUP	S97T000748	0	W	@IC-01	OXALATE2	SOLID	?	1.38e+03	RPD
5	SAMPLE	S97T000749	0	W	@IC-01	F-02	SOLID	N/A	6.313e+03	24.610 ug/g
6	DUP	S97T000749	0	W	@IC-01	F-02	SOLID	6.31e+03	6.35e+03	0.632 RPD
6	DUP	S97T000749	0	W	@IC-01	CL-02	SOLID	?	5.84e+02	RPD
6	DUP	S97T000749	0	W	@IC-01	NO2-02	SOLID	?	2.49e+02	RPD
6	DUP	S97T000749	0	W	@IC-01	BR-02	SOLID	?	<2.46e2	RPD
6	DUP	S97T000749	0	W	@IC-01	NO3-02	SOLID	?	6.28e+04	RPD
6	DUP	S97T000749	0	W	@IC-01	PO4-02	SOLID	?	2.38e+03	RPD
6	DUP	S97T000749	0	W	@IC-01	SO4-02	SOLID	?	<2.72e2	RPD
6	DUP	S97T000749	0	W	@IC-01	OXALATE2	SOLID	?	1.52e+03	RPD
7	SAMPLE	S97T000770	0	W	@IC-01	F-02	SOLID	N/A	6.117e+03	22.040 ug/g
8	DUP	S97T000770	0	W	@IC-01	F-02	SOLID	6.12e+03	6.24e+03	1.942 RPD
8	DUP	S97T000770	0	W	@IC-01	CL-02	SOLID	?	5.77e+02	RPD
8	DUP	S97T000770	0	W	@IC-01	NO2-02	SOLID	?	2.41e+02	RPD
8	DUP	S97T000770	0	W	@IC-01	BR-02	SOLID	?	<2.32e2	RPD
8	DUP	S97T000770	0	W	@IC-01	NO3-02	SOLID	?	6.31e+04	RPD
8	DUP	S97T000770	0	W	@IC-01	PO4-02	SOLID	?	2.41e+03	RPD

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Worklist Report for Worklist# 18215

Seq	Type	Sample#	R	A	Test	Matrix	Actual	Found	DL or Yield	Unit
8	DUP	S97T000770	0	W	@IC-01	SO4-02	SOLID	?	<2.56e2	RPD
8	DUP	S97T000770	0	W	@IC-01	OXALATE2	SOLID	?	1.59e+03	RPD

Final page for worklist# 18215

Analyst Signature Date

Analyst Signature Date

Reviewer Signature Date 5/28/97

Units shown for QC (BLK/BKG) may not reflect the actual units.

05/20/97 16:24
A-0004-1

LABCORE Data Entry Template for Worklist# 18215

Analyst: [signature] **Instrument:** IC0 1 **Book#** 61N20A

Method: LA-533-105 Rev/Mod D-1

Worklist Comment: Rerun for F using DF 11. jmf

S	Type	Sample#	R	A	Test	Matrix	Group#	Project
1	CCB				@IC-QC	QC		
2	CCV				@IC-QC	QC		
3	SAMPLE	S97T000748	0	W	@IC-01	SOLID	97000299	T-203
		Analytes Requested: F-02						
4	DUP	S97T000748	0	W	@IC-01	SOLID		
5	SAMPLE	S97T000749	0	W	@IC-01	SOLID	97000299	T-203
		Analytes Requested: F-02						
6	DUP	S97T000749	0	W	@IC-01	SOLID		
7	SAMPLE	S97T000770	0	W	@IC-01	SOLID	97000299	T-203
		Analytes Requested: F-02						
8	DUP	S97T000770	0	W	@IC-01	SOLID		

Final page for worklist # 18215

[signature] 5/25/97
Analyst Signature **Date**

Analyst Signature **Date**

Uploaded 5-28-97
JK Worrell
18215MAY.CSV
Validated 5/28/97 MLuy

Data Entry Comments:

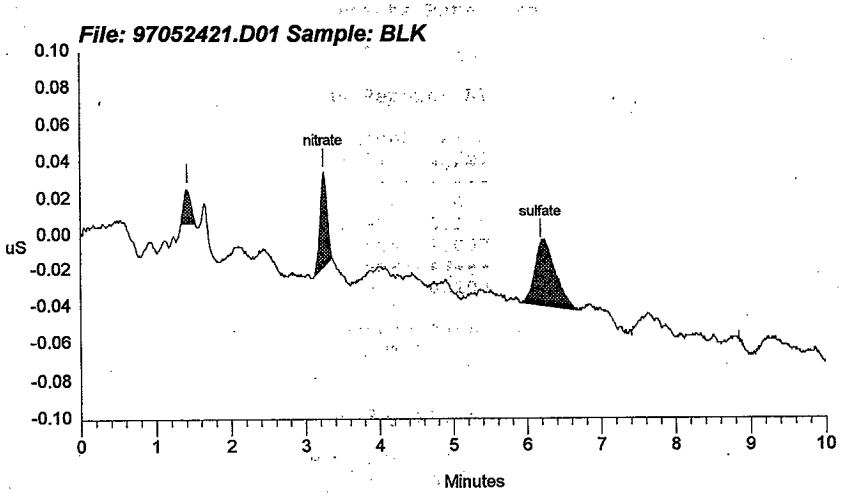
S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

Sample Name: BLK Date: 05/25/1997 07:18:23
Data File : C:\DX\DATA\97052421.D01
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 1 Detector:CDM-1
Analyst : [signature] RDM 5/26/97 Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	1	3000	5Hz	0.00	10.00	30

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.42		0.000	19	126	1	
2	3.25	nitrate	0.115	51	338	1	-0.10
3	6.19	sulfate	-0.007	33	696	1	2.65
		Totals	0.108	103	1160		



SIGNATURE ABOVE REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 449 TO 456

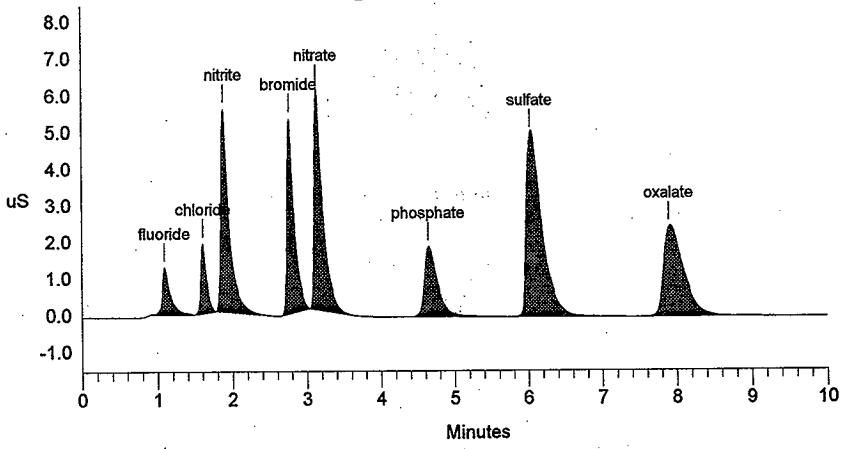
Sample Name: 61N20-A Date: 05/25/1997 07:33:45
Data File : C:\DX\DATA\97052421.D02
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 2 Detector:CDM-1
Analyst : Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	101	3000	5Hz	0.00	10.00	30

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.09	fluoride	52.351	1270	9377	1	-2.38
2	1.61	chloride	74.729	1900	9752	1	0.84
3	1.89	nitrite	522.795	5542	41270	1	-2.08
4	2.77	bromide	564.360	5327	35243	1	-2.92
5	3.13	nitrate	570.793	6014	47483	1	-3.59
6	4.64	phosphate	532.124	1899	23583	1	0.58
7	6.03	sulfate	602.535	4989	73947	1	0.00
8	7.89	oxalate	523.029	2446	46234	1	0.68
		Totals	3442.716	29387	286888		

File: 97052421.D02 Sample: 61N20-A



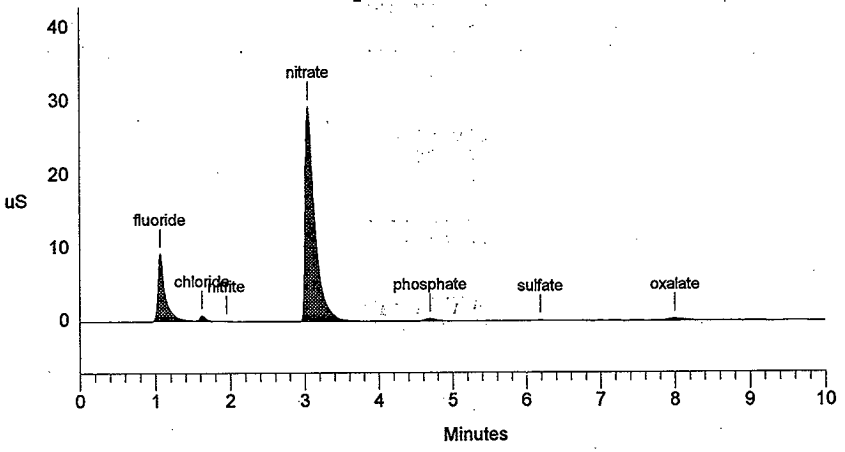
```
Sample Name: S97T000748                    Date: 05/25/1997 08:09:05
Data File  : C:\DX\DATA\97052421.D03
Method     : C:\DX\METHOD\KIT.MET
ACI Address: 1  System: 1  Inject#: 3                  Detector:CDM-1
Analyst    :               Column: AG4A/AS4A anion column
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	11	3000	5Hz	0.00	10.00	30

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.06	fluoride	31.876	9153	58785	1	-5.36
2	1.62	chloride	3.031	684	3638	1	1.67
3	1.95	nitrite	1.418	48	264	1	1.04
4	3.05	nitrate	317.933	29358	262408	1	-6.26
5	4.69	phosphate	11.392	349	4351	1	1.73
6	6.19	sulfate	1.263	132	2166	1	2.65
7	8.00	oxalate	7.251	307	5641	1	2.04
		Totals	374.164	40031	337253		

File: 97052421.D03 Sample: S97T000748



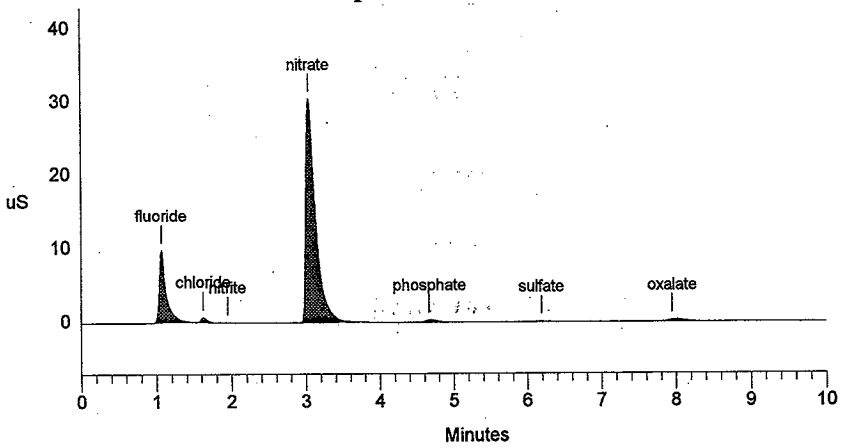
```
Sample Name: S97T000748DUP                    Date: 05/25/1997 08:22:51
Data File  : C:\DX\DATA\97052421.D04
Method     : C:\DX\METHOD\KIT.MET
ACI Address: 1  System: 1  Inject#: 4                    Detector:CDM-1
Analyst    :                Column: AG4A/AS4A anion column
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	11	3000	5Hz	0.00	10.00	30

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.06	fluoride	32.934	9740	60932	1	-5.36
2	1.62	chloride	3.083	719	3700	1	1.67
3	1.95	nitrite	1.481	54	310	1	1.04
4	3.04	nitrate	335.286	30579	278175	1	-6.46
5	4.67	phosphate	12.676	355	4875	1	1.16
6	6.19	sulfate	1.201	136	2098	1	2.65
7	7.95	oxalate	7.367	288	5735	1	1.36
		Totals	394.028	41870	355825		

File: 97052421.D04 Sample: S97T000748DUP



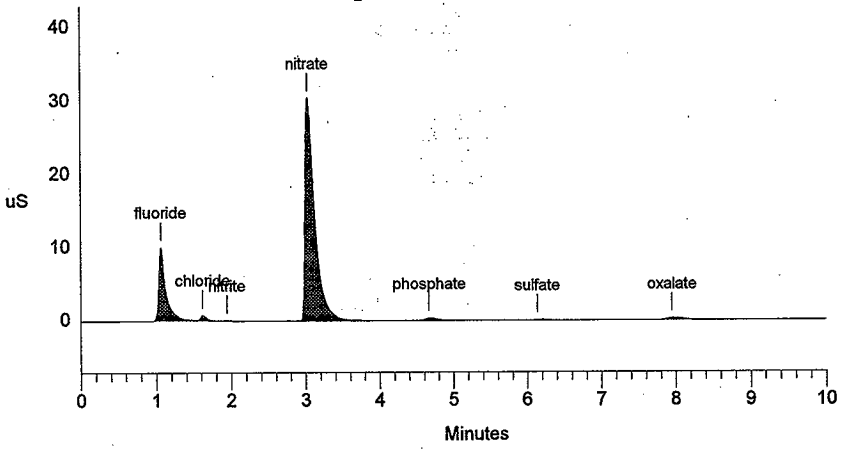
Sample Name: S97T000749 Date: 05/25/1997 08:53:01
Data File : C:\DX\DATA\97052421.D06
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 6 Detector:CDM-1
Analyst : Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	11	3000	5Hz	0.00	10.00	30

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.06	fluoride	33.863	10034	62826	1	-5.36
2	1.61	chloride	3.079	710	3696	1	1.26
3	1.94	nitrite	1.449	49	286	1	0.69
4	3.03	nitrate	332.785	30480	275892	1	-6.87
5	4.67	phosphate	12.151	361	4660	1	1.16
6	6.13	sulfate	1.085	110	1970	1	1.77
7	7.95	oxalate	8.114	316	6342	1	1.36
		Totals	392.524	42059	355672		

File: 97052421.D06 Sample: S97T000749



Data Reprocessed On 05/27/1997 14:19:06

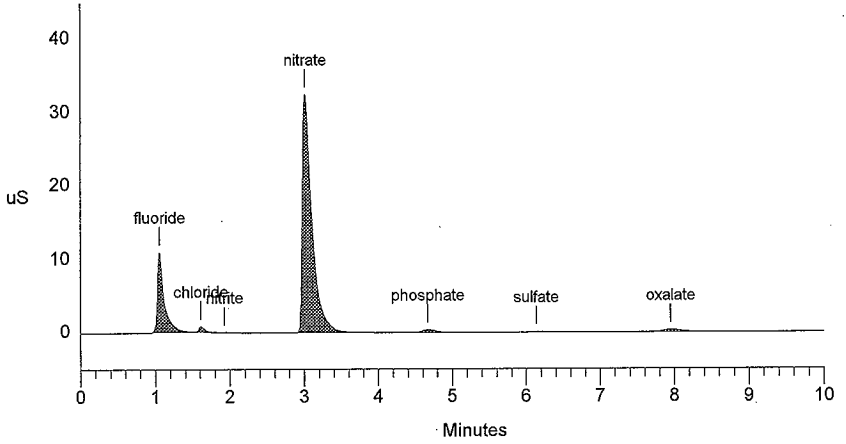
Sample Name: S97T000749DUP Date: 05/25/1997 10:39:18
Data File : F:\DATA\97052421.D07
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 7 Detector:CDM-1
Analyst : Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	11	3000	5Hz	0.00	10.00	30

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.06	fluoride	35.445	10831	66079	1	-5.36
2	1.61	chloride	3.262	759	3913	1	0.84
3	1.93	nitrite	1.391	45	244	1	0.00
4	3.01	nitrate	350.799	32454	292423	1	0.11
5	4.67	phosphate	13.264	403	5115	1	1.16
6	6.13	sulfate	1.083	121	1969	1	1.77
7	7.95	oxalate	8.504	354	6658	1	1.36
		Totals	413.748	44966	376400		

File: 97052421.D07 Sample: S97T000749DUP



Data Reprocessed On 05/27/1997 14:20:23

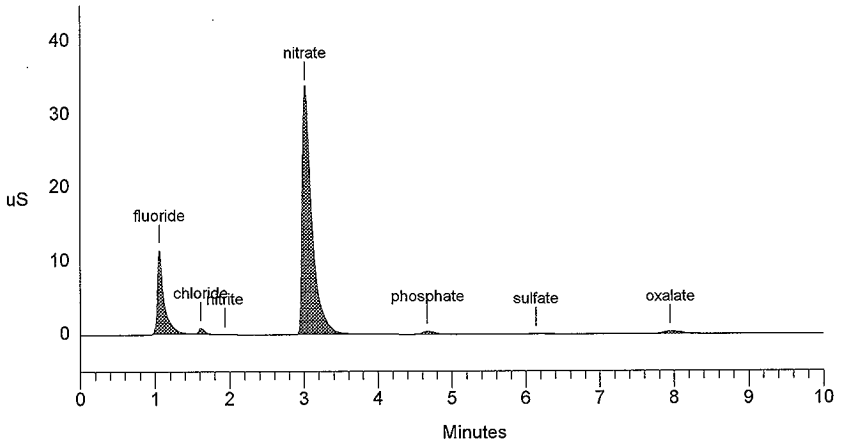
Sample Name: S97T000770 Date: 05/25/1997 10:52:44
Data File : F:\DATA\97052421.D08
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 8 Detector:CDM-1
Analyst : Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	11	3000	5Hz	0.00	10.00	30

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.06	fluoride	36.633	11388	68542	1	-5.36
2	1.61	chloride	3.376	785	4048	1	0.84
3	1.93	nitrite	1.430	50	273	1	0.35
4	3.01	nitrate	368.645	33713	308994	1	0.11
5	4.67	phosphate	13.717	435	5300	1	1.16
6	6.13	sulfate	1.415	132	2333	1	1.77
7	7.95	oxalate	8.895	382	6976	1	1.36
		Totals	434.112	46883	396466		

File: 97052421.D08 Sample: S97T000770



Data Reprocessed On 05/27/1997 14:22:04

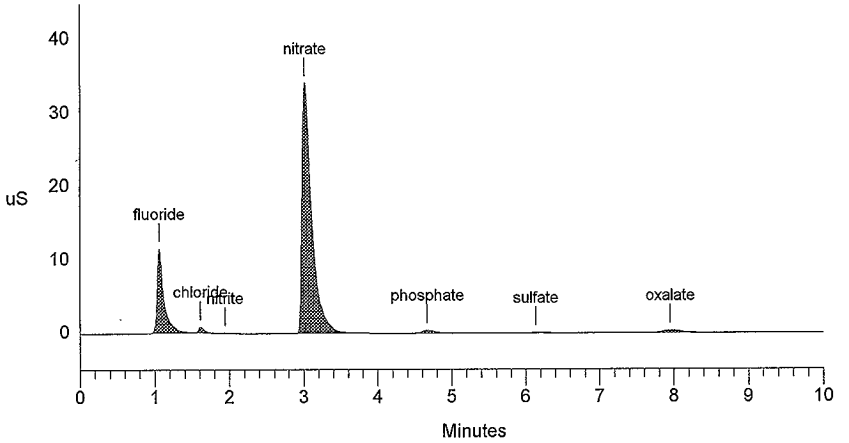
```
Sample Name: S97T000770DUP                    Date: 05/25/1997 11:22:30
Data File  : F:\DATA\97052421.D09
Method     : C:\DX\METHOD\KIT.MET
ACI Address: 1  System: 1  Inject#: 9                  Detector:CDM-1
Analyst    :                Column: AG4A/AS4A anion column
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	11	3000	5Hz	0.00	10.00	30

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.06	fluoride	36.934	11482	69170	1	-5.36
2	1.61	chloride	3.417	790	4095	1	0.84
3	1.94	nitrite	1.427	52	271	1	0.69
4	3.01	nitrate	373.672	34149	313698	1	0.11
5	4.67	phosphate	14.248	423	5517	1	1.16
6	6.13	sulfate	1.144	131	2035	1	1.77
7	7.95	oxalate	9.414	392	7398	1	1.36
		Totals	440.256	47418	402183		

File: 97052421.D09 Sample: S97T000770DUP



worklistdata Version 1.0 05/15/96
05/29/97 16:48

LABCORE Completed Worklist Report for Worklist# 18291

Analyst: vlm **Instrument:** IC01 **Book#** 6/N204

Method: IA-533-105 Rev/Mod D-1

Worklist Comment: T-203 IC rerun use df 11. RPDs

Seq	Type	Sample#	R	A	Test	Matrix	Actual		Found	DL or Yield	Unit
1	CCB			0	@IC-QC F	QC	1		<1.20e-2		ug/mL
1	CCB			0	@IC-QC CL	QC	1		<1.70e-2		ug/mL
1	CCB			0	@IC-QC NO2	QC	1		<1.08e-1		ug/mL
1	CCB			0	@IC-QC BR	QC	1		<1.25e-1		ug/mL
1	CCB			0	@IC-QC NO3	QC	1		<1.39e-1		ug/mL
1	CCB			0	@IC-QC PO4	QC	1		<1.20e-1		ug/mL
1	CCB			0	@IC-QC SO4	QC	1		<1.38e-1		ug/mL
1	CCB			0	@IC-QC OXALATE2	QC	1		<1.05e-1		ug/mL
2	CCV			0	@IC-QC F	QC	5.90e01		5.63e+01	95.424	% Recovery
2	CCV			0	@IC-QC CL	QC	7.90e01		7.53e+01	95.316	% Recovery
2	CCV			0	@IC-QC NO2	QC	5.44e02		5.18e+02	95.221	% Recovery
2	CCV			0	@IC-QC BR	QC	5.89e02		5.49e02	93.209	% Recovery
2	CCV			0	@IC-QC NO3	QC	5.94e02		5.52e+02	92.929	% Recovery
2	CCV			0	@IC-QC PO4	QC	5.45e02		5.21e+02	95.596	% Recovery
2	CCV			0	@IC-QC SO4	QC	6.21e02		6.01e+02	95.246	% Recovery
2	CCV			0	@IC-QC OXALATE2	QC	5.32e02		5.18e+02	97.368	% Recovery
3	BLNK-PREP			0	@IC-01 F-02	SOLID	1		<1.20e-2		ug/g
3	BLNK-PREP			0	@IC-01 CL-02	SOLID	1		2.40e-02	0.024	ug/g
3	BLNK-PREP			0	@IC-01 NO2-02	SOLID	1		<1.08e-1		ug/g
3	BLNK-PREP			0	@IC-01 BR-02	SOLID	1		<1.25e-1		ug/g
3	BLNK-PREP			0	@IC-01 NO3-02	SOLID	1		<1.39e-1		ug/g
3	BLNK-PREP			0	@IC-01 PO4-02	SOLID	1		<1.20e-1		ug/g
3	BLNK-PREP			0	@IC-01 SO4-02	SOLID	1		<1.38e-1		ug/g
3	BLNK-PREP			0	@IC-01 OXALATE2	SOLID	1		<1.05e-1		ug/g
4	SAMPLE	S97T000746	0	W	@IC-01 F-02	SOLID	N/A		6.597e+03	26.660	ug/g
4	SAMPLE	S97T000746	0	W	@IC-01 CL-02	SOLID	N/A		6.019e+02	37.770	ug/g
4	SAMPLE	S97T000746	0	W	@IC-01 NO2-02	SOLID	N/A		3.359e+02	239.900	ug/g
4	SAMPLE	S97T000746	0	W	@IC-01 BR-02	SOLID	N/A	<	2.777e+02	277.800	ug/g
4	SAMPLE	S97T000746	0	W	@IC-01 NO3-02	SOLID	N/A		6.325e+04	308.900	ug/g
4	SAMPLE	S97T000746	0	W	@IC-01 PO4-02	SOLID	N/A		2.624e+03	266.600	ug/g
4	SAMPLE	S97T000746	0	W	@IC-01 SO4-02	SOLID	N/A		3.367e+02	306.600	ug/g
4	SAMPLE	S97T000746	0	W	@IC-01 OXALATE2	SOLID	N/A		3.016e+02	233.300	ug/g
5	DUP	S97T000746	0	W	@IC-01 F-02	SOLID	6.60e+03		6.71e+03	1.653	RPD
5	DUP	S97T000746	0	W	@IC-01 CL-02	SOLID	6.02e+02		5.92e+02	1.675	RPD
5	DUP	S97T000746	0	W	@IC-01 NO2-02	SOLID	3.36e+02		3.38e+02	0.593	RPD
5	DUP	S97T000746	0	W	@IC-01 BR-02	SOLID	<2.78e2		<2.71e2		RPD
5	DUP	S97T000746	0	W	@IC-01 NO3-02	SOLID	6.32e+04		6.18e+04	2.240	RPD
5	DUP	S97T000746	0	W	@IC-01 PO4-02	SOLID	2.62e+03		2.66e+03	1.515	RPD
5	DUP	S97T000746	0	W	@IC-01 SO4-02	SOLID	3.37e+02		<2.99e2		RPD
5	DUP	S97T000746	0	W	@IC-01 OXALATE2	SOLID	3.02e+02		2.65e+02	13.051	RPD
6	SAMPLE	S97T000768	0	W	@IC-01 F-02	SOLID	N/A		6.215e+03	25.840	ug/g

Units shown for QC (BLK/BKG) may not reflect the actual units.

worklistdata Version 1.0 05/15/96
05/29/97 16:48

LABCORE Completed Worklist Report for Worklist# 18291

Seq	Type	Sample#	R	A	Test	Matrix	Actual		Found	DL or Yield	Unit
6	SAMPLE	S97T000768	0	W	@IC-01	CL-02	SOLID	N/A		5.772e+02	36.600 ug/g
6	SAMPLE	S97T000768	0	W	@IC-01	NO2-02	SOLID	N/A		3.224e+02	232.500 ug/g
6	SAMPLE	S97T000768	0	W	@IC-01	BR-02	SOLID	N/A	<	2.691e+02	269.200 ug/g
6	SAMPLE	S97T000768	0	W	@IC-01	NO3-02	SOLID	N/A		6.270e+04	299.300 ug/g
6	SAMPLE	S97T000768	0	W	@IC-01	PO4-02	SOLID	N/A		2.283e+03	258.400 ug/g
6	SAMPLE	S97T000768	0	W	@IC-01	SO4-02	SOLID	N/A		4.320e+02	297.100 ug/g
6	SAMPLE	S97T000768	0	W	@IC-01	OXALATE2	SOLID	N/A		5.459e+02	226.100 ug/g
7	DUP	S97T000768	0	W	@IC-01	F-02	SOLID	6.22e+03		6.44e+03	3.476 RPD
7	DUP	S97T000768	0	W	@IC-01	CL-02	SOLID	5.77e+02		6.32e+02	9.098 RPD
7	DUP	S97T000768	0	W	@IC-01	NO2-02	SOLID	3.22e+02		3.09e+02	4.120 RPD
7	DUP	S97T000768	0	W	@IC-01	BR-02	SOLID	<2.69e2		<2.65e2	RPD
7	DUP	S97T000768	0	W	@IC-01	NO3-02	SOLID	6.27e+04		6.27e+04	0.000 RPD
7	DUP	S97T000768	0	W	@IC-01	PO4-02	SOLID	2.28e+03		2.32e+03	1.739 RPD
7	DUP	S97T000768	0	W	@IC-01	SO4-02	SOLID	4.32e+02		4.50e+02	4.082 RPD
7	DUP	S97T000768	0	W	@IC-01	OXALATE2	SOLID	5.46e+02		5.54e+02	1.455 RPD

Final page for worklist# 18291

Analyst Signature **Date**

Analyst Signature **Date**

Jann M. Luge 5/29/97
Reviewer Signature **Date**

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Data Entry Template for Worklist# 18291

Analyst: VLM **Instrument:** IC0 01 **Book#** 61N20-A

Method: LA-533-105 **Rev/Mod** D-)

Worklist Comment: T-203 IC rerun use df 11. RPD's were poor first time.jmf

S	Type	Sample#	R	A	Test	Matrix	Group#	Project
1	CCB				@IC-QC	QC		
2	CCV				@IC-QC	QC		
3	BLNK-PREP				@IC-01	SOLID		
4	SAMPLE	S97T000746	0	W	@IC-01	SOLID	97000299	T-203
	Analytes Requested:				BR-02 , CL-02 , F-02 , NO2-02 , NO3-02 , OXALATE2, PO4-02 , SO4-02			
5	DUP	S97T000746	0	W	@IC-01	SOLID		
6	SAMPLE	S97T000768	0	W	@IC-01	SOLID	97000299	T-203
	Analytes Requested:				BR-02 , CL-02 , F-02 , NO2-02 , NO3-02 , OXALATE2, PO4-02 , SO4-02			
7	DUP	S97T000768	0	W	@IC-01	SOLID		

Final page for worklist # 18291

Valerie Massie 05-28-97
Analyst Signature **Date**

Analyst Signature **Date**

Uploaded 5-29-97
John Worrell
1829IMA4.CSV

Validated 5/29/97 JM Lyon

Data Entry Comments:

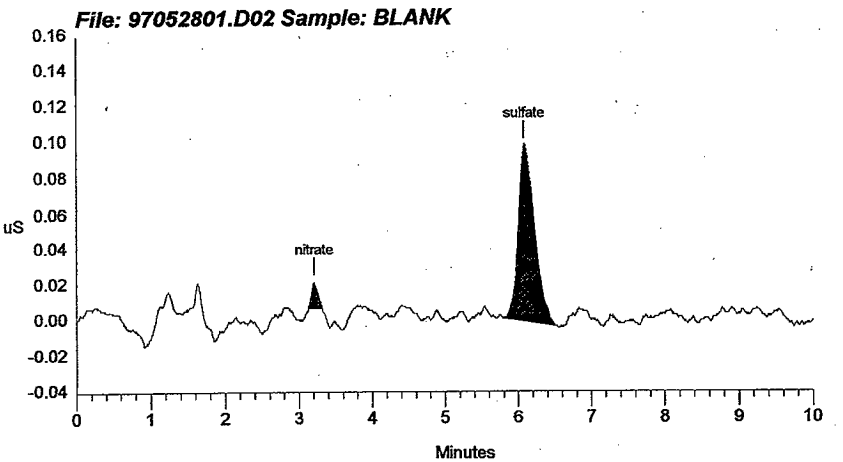
S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

Sample Name: BLANK Date: 05/28/1997 09:50:29
Data File : C:\DX\DATA\97052801.D02
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 2 Detector:CDM-1
Analyst : Valentz Massaci Column: AG4A/AS4A anion column
05-28-97

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	1	3000	5Hz	0.00	10.00	30

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	3.21	nitrate	0.085	15	87	1	-1.33
2	6.08	sulfate	0.061	99	1514	1	0.88
		Totals	0.146	114	1601		



SIGNATURE ABOVE REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 460 TO 460.

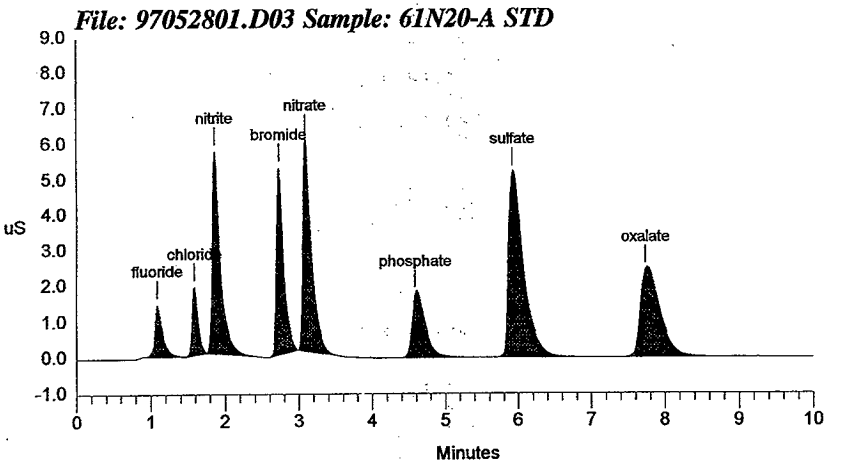
Data Reprocessed On 05/28/1997 10:12:30

Sample Name: 61N20-A STD Date: 05/28/1997 10:05:17
Data File : C:\DX\DATA\97052801.D03
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 3 Detector:CDM-1
Analyst : Valerie L Massey Column: AG4A/AS4A anion column
05-28-97

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	101	3000	5Hz	0.00	10.00	30

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.09	fluoride	56.326	1441	10144	1	-2.98
2	1.59	chloride	75.342	1893	9832	1	-0.42
3	1.86	nitrite	517.647	5665	40851	1	-3.46
4	2.73	bromide	549.477	5245	34288	1	-0.12
5	3.09	nitrate	552.427	5962	45913	1	-5.03
6	4.59	phosphate	520.803	1771	23067	1	-0.58
7	5.92	sulfate	600.840	5193	73738	1	-1.77
8	7.73	oxalate	517.607	2442	45749	1	0.04
		Totals	3390.470	29612	283582		



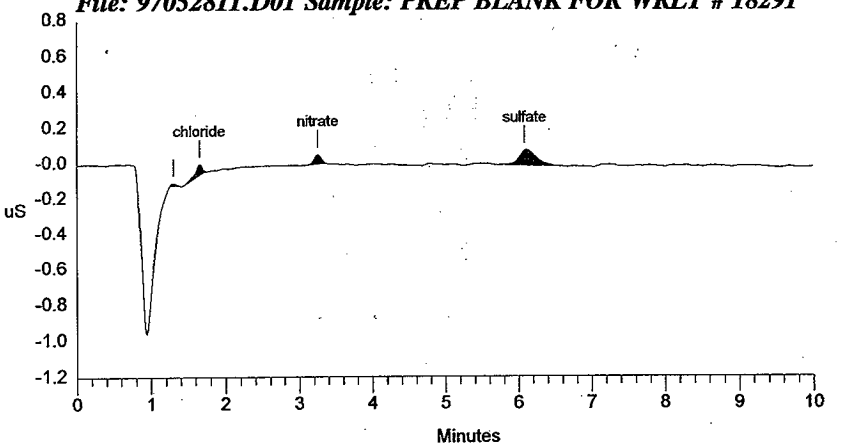
Sample Name: PREP BLANK FOR WRLT # 18291 Date: 05/28/1997 12:51:28
Data File : C:\DX\DATA\97052811.D01
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 1 Detector:CDM-1
Analyst : Valerie L Massey Column: AG4A/AS4A anion column
05-28-97

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	1	3000	5Hz	0.00	10.00	30

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.30		0.000	15	68	1	
2	1.65	chloride	0.024	60	382	1	3.77
3	3.25	nitrate	0.119	54	367	1	0.10
4	6.08	sulfate	0.055	83	1441	1	0.88
		Totals	0.198	212	2259		

File: 97052811.D01 Sample: PREP BLANK FOR WRLT # 18291



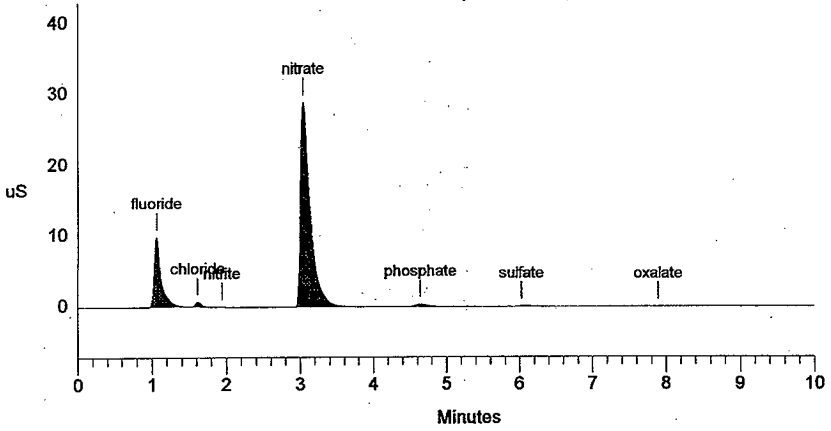
Sample Name: S97T000746 Date: 05/28/1997 13:10:13
Data File : C:\DX\DATA\97052811.D02
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 2 Detector:CDM-1
Analyst Valerie L Massie Column: AG4A/AS4A anion column
05-28-97

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	11	3000	5Hz	0.00	10.00	30

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.06	fluoride	32.664	9824	60382	1	-5.36
2	1.61	chloride	2.980	686	3578	1	1.26
3	1.94	nitrite	1.663	78	442	1	0.69
4	3.04	nitrate	313.145	28927	258087	1	-6.46
5	4.64	phosphate	12.992	383	5004	1	0.58
6	6.03	sulfate	1.667	136	2610	1	0.00
7	7.89	oxalate	1.493	54	970	1	0.68
		Totals	366.604	40088	331075		

File: 97052811.D02 Sample: S97T000746



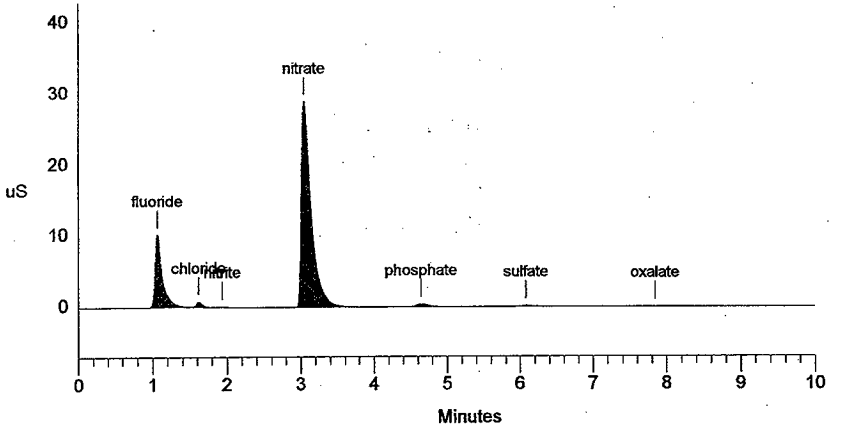
Sample Name: S97T000746 DUP Date: 05/28/1997 13:26:16
Data File : C:\DX\DATA\97052811.D03
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 3 Detector:CDM-1
Analyst : Valerie Moore Column: AG4A/AS4A anion column
05-28-97

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	11	3000	5Hz	0.00	10.00	30

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.06	fluoride	34.082	10164	63276	1	-5.36
2	1.61	chloride	3.005	688	3608	1	1.26
3	1.93	nitrite	1.715	82	481	1	0.35
4	3.04	nitrate	314.091	28919	258940	1	-6.46
5	4.64	phosphate	13.491	393	5208	1	0.58
6	6.08	sulfate	1.443	164	2364	1	0.88
7	7.84	oxalate	1.345	43	851	1	0.00
		Totals	369.173	40452	334727		

File: 97052811.D03 Sample: S97T000746 DUP



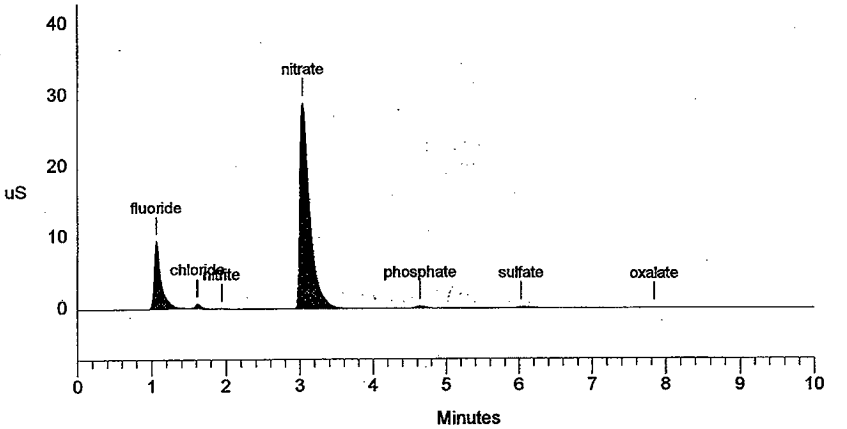
Sample Name: S97T000768 Date: 05/28/1997 13:39:11
Data File : C:\DX\DATA\97052811.D04
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 4 Detector:CDM-1
Analyst : Valerie Mason Column: AG4A/AS4A anion column
05-28-97

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	11	3000	5Hz	0.00	10.00	30

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.06	fluoride	31.752	9384	58533	1	-5.36
2	1.61	chloride	2.949	664	3542	1	1.26
3	1.94	nitrite	1.647	73	431	1	0.69
4	3.04	nitrate	320.356	29013	264599	1	-6.46
5	4.64	phosphate	11.663	359	4461	1	0.58
6	6.03	sulfate	2.207	202	3203	1	0.00
7	7.84	oxalate	2.789	103	2021	1	0.00
		Totals	373.363	39798	336790		

File: 97052811.D04 Sample: S97T000768



HNF-SD-WM-DP-247, REV. 0

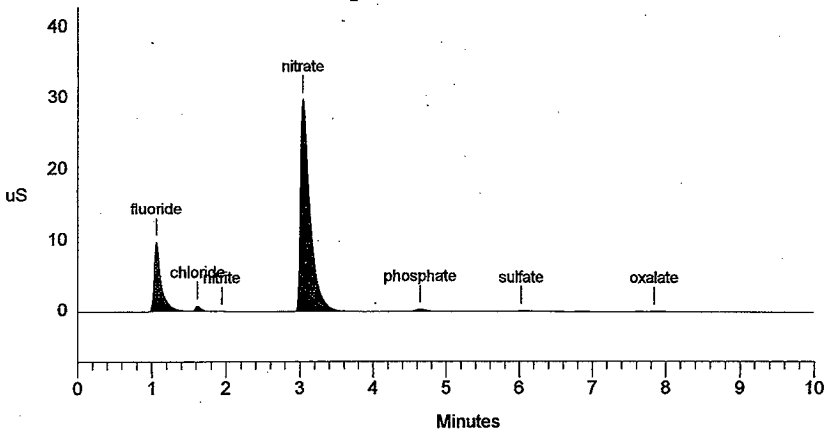
Sample Name: S97T000768 DUP Date: 05/28/1997 13:52:22
Data File : C:\DX\DATA\97052811.D05
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 5 Detector:CDM-1
Analyst : Valeri Massay Column: AG4A/AS4A anion column
05-28-97

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	11	3000	5Hz	0.00	10.00	30

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.06	fluoride	33.501	9768	62087	1	-5.36
2	1.61	chloride	3.285	738	3939	1	1.26
3	1.94	nitrite	1.606	70	401	1	0.69
4	3.03	nitrate	325.761	29852	269499	1	-6.67
5	4.64	phosphate	12.057	366	4622	1	0.58
6	6.03	sulfate	2.341	187	3350	1	0.00
7	7.84	oxalate	2.880	107	2095	1	0.00
		Totals	381.432	41089	345994		

File: 97052811.D05 Sample: S97T000768 DUP



LABCORE Completed Worklist Report for Worklist# 18959

Analyst: eal **Instrument:** IC01 **Book#** 72N/204

Method: LA-533-105 Rev/Mod D-1

Worklist Comment: T-203 IC. RCJ

Seq	Type	Sample#	R	A	Test	Matrix	Actual		Found	DL or Yield	Unit
1	CCB		0		@IC-QC	F	QC	1		<1.20e-2		ug/mL
1	CCB		0		@IC-QC	CL	QC	1		9.50e-02	0.095	ug/mL
1	CCB		0		@IC-QC	NO2	QC	1		<1.08e-1		ug/mL
1	CCB		0		@IC-QC	BR	QC	1		<1.25e-1		ug/mL
1	CCB		0		@IC-QC	NO3	QC	1		1.97e-01	0.197	ug/mL
1	CCB		0		@IC-QC	PO4	QC	1		<1.20e-1		ug/mL
1	CCB		0		@IC-QC	SO4	QC	1		<1.38e-1		ug/mL
1	CCB		0		@IC-QC	OXALATE2	QC	1		<1.05e-1		ug/mL
2	CCV		0		@IC-QC	F	QC	5.90e01		5.29e+01	89.661	% Recovery
2	CCV		0		@IC-QC	CL	QC	7.90e01		7.53e+01	95.316	% Recovery
2	CCV		0		@IC-QC	NO2	QC	5.43e02		5.19e+02	95.580	% Recovery
2	CCV		0		@IC-QC	BR	QC	5.89e02		5.87e+02	99.660	% Recovery
2	CCV		0		@IC-QC	NO3	QC	5.94e02		5.79e+02	97.475	% Recovery
2	CCV		0		@IC-QC	PO4	QC	5.45e02		5.09e+02	93.394	% Recovery
2	CCV		0		@IC-QC	SO4	QC	6.32e02		6.11e+02	96.677	% Recovery
2	CCV		0		@IC-QC	OXALATE2	QC	5.34e02		5.41e+02	101.311	% Recovery
3	BLNK-PREP		0		@IC-01	F-02	SOLID	1		<1.20e-2		ug/g
3	BLNK-PREP		0		@IC-01	CL-02	SOLID	1		<1.70e-2		ug/g
3	BLNK-PREP		0		@IC-01	NO2-02	SOLID	1		<1.08e-1		ug/g
3	BLNK-PREP		0		@IC-01	BR-02	SOLID	1		<1.25e-1		ug/g
3	BLNK-PREP		0		@IC-01	NO3-02	SOLID	1		<1.39e-1		ug/g
3	BLNK-PREP		0		@IC-01	PO4-02	SOLID	1		<1.20e-1		ug/g
3	BLNK-PREP		0		@IC-01	SO4-02	SOLID	1		<1.38e-1		ug/g
3	BLNK-PREP		0		@IC-01	OXALATE2	SOLID	1		<1.05e-1		ug/g
4	SAMPLE	S97T001016	0	W	@IC-01	F-02	SOLID	N/A		6.320e+02	28.910	ug/g
4	SAMPLE	S97T001016	0	W	@IC-01	CL-02	SOLID	N/A		6.888e+02	40.950	ug/g
4	SAMPLE	S97T001016	0	W	@IC-01	NO2-02	SOLID	N/A		2.970e+02	260.100	ug/g
4	SAMPLE	S97T001016	0	W	@IC-01	BR-02	SOLID	N/A	<	3.011e+02	301.200	ug/g
4	SAMPLE	S97T001016	0	W	@IC-01	NO3-02	SOLID	N/A		6.368e+04	334.800	ug/g
4	SAMPLE	S97T001016	0	W	@IC-01	PO4-02	SOLID	N/A		2.290e+03	289.100	ug/g
4	SAMPLE	S97T001016	0	W	@IC-01	SO4-02	SOLID	N/A	<	3.325e+02	332.400	ug/g
4	SAMPLE	S97T001016	0	W	@IC-01	OXALATE2	SOLID	N/A		1.405e+03	253.000	ug/g
5	DUP	S97T001016	0	W	@IC-01	F-02	SOLID	6.32e+03		6.35e+03	0.474	RPD
5	DUP	S97T001016	0	W	@IC-01	CL-02	SOLID	6.89e+02		6.27e+02	9.422	RPD
5	DUP	S97T001016	0	W	@IC-01	NO2-02	SOLID	2.97e+02		2.92e+02	1.698	RPD
5	DUP	S97T001016	0	W	@IC-01	BR-02	SOLID	<3.01e2		<2.92e2		RPD
5	DUP	S97T001016	0	W	@IC-01	NO3-02	SOLID	6.37e+04		6.52e+04	2.327	RPD
5	DUP	S97T001016	0	W	@IC-01	PO4-02	SOLID	2.29e+03		3.53e+03	42.612	RPD
5	DUP	S97T001016	0	W	@IC-01	SO4-02	SOLID	<3.32e2		5.43e+02		RPD
5	DUP	S97T001016	0	W	@IC-01	OXALATE2	SOLID	1.40e+03		1.33e+03	5.128	RPD
6	SPK	S97T001016	0	W	@IC-01	F-02	SOLID	5.90e01		6.13e+01	103.898	% Recovery

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Worklist Report for Worklist# 18959

Seq	Type	Sample#	R	A	Test	Matrix	Actual	Found	DL or Yield	Unit
6	SPK	S97T001016	0	W	@IC-01	CL-02	SOLID	7.90e01	8.12e+01	102.785 % Recovery
6	SPK	S97T001016	0	W	@IC-01	NO2-02	SOLID	5.43e02	4.95e+02	91.160 % Recovery
6	SPK	S97T001016	0	W	@IC-01	BR-02	SOLID	5.89e02	4.96e+02	84.211 % Recovery
6	SPK	S97T001016	0	W	@IC-01	NO3-02	SOLID	5.94e02	5.06e+02	85.185 % Recovery
6	SPK	S97T001016	0	W	@IC-01	PO4-02	SOLID	5.45e02	4.98e+02	91.376 % Recovery
6	SPK	S97T001016	0	W	@IC-01	SO4-02	SOLID	6.32e02	6.13e+02	96.994 % Recovery
6	SPK	S97T001016	0	W	@IC-01	OXALATE2	SOLID	5.34e02	5.42e+02	101.498 % Recovery

Final page for worklist# 18959

Analyst Signature **Date**

Analyst Signature **Date**

Jann M. Luse 7/1/97
Reviewer Signature **Date**

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Data Entry Template for Worklist# 18959

Analyst: EAL **Instrument:** IC0 1 **Book#** 72N20.A

Method: LA-533-105 Rev/Mod D.1

Worklist Comment: T-203 IC. RCJ

S	Type	Sample#	R	A	Test	Matrix	Group#	Project
1	CCB				@IC-QC	QC		
2	CCV				@IC-QC	QC		
3	BLNK-PREP				@IC-01	SOLID		
4	SAMPLE	S97T001016	0	W	@IC-01	SOLID	97000299	T-203
	Analytes Requested:	BR-02 , CL-02 , F-02 , NO2-02 , NO3-02 , OXALATE2, PO4-02 , SO4-02						
5	DUP	S97T001016	0	W	@IC-01	SOLID		
6	SPK	S97T001016	0	W	@IC-01	SOLID		

Final page for worklist # 18959

A. Lamkey 06.28.97

Analyst Signature **Date** **Analyst Signature** **Date**

uploaded 6-30-97
John Worrell
18959JUN.CSV

Validated 6/30/97 JM Tuge

Data Entry Comments:

S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

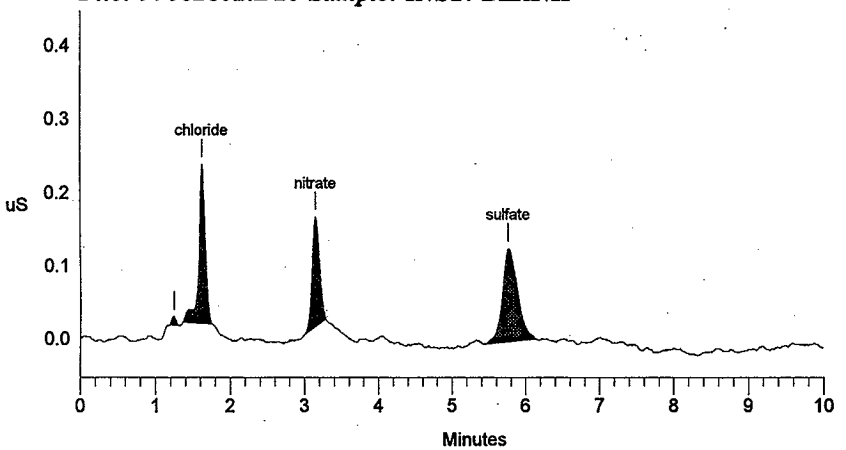
Sample Name: INST. BLANK Date: 06/28/1997 22:21:32
Data File : C:\DX\DATA\97062801.D10
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 10 Detector:CDM-1
Analyst Jann Fuge for EAL 7/1/97 Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	1	3000	5Hz	0.00	10.00	30

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.25		0.000	11	43	1	
2	1.62	chloride	0.095	217	1298	1	1.67
3	3.15	nitrate	0.197	149	1025	1	-3.18
4	5.76	sulfate	0.086	127	1813	1	-4.42
		Totals	0.378	504	4180		

File: 97062801.D10 Sample: INST. BLANK



SIGNATURE ABOVE REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 470 TO 475

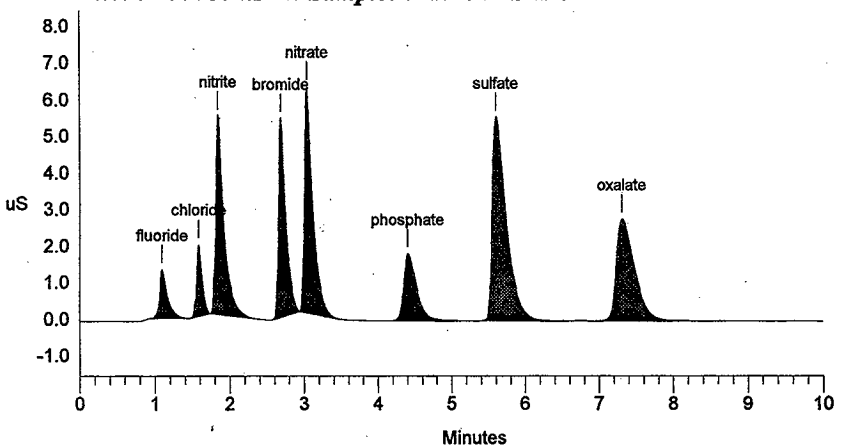
Sample Name: 72N20-A STD. Date: 06/28/1997 22:33:24
Data File : C:\DX\DATA\97062801.D11
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 11 Detector:CDM-1
Analyst : Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	101	3000	5Hz	0.00	10.00	30

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.09	fluoride	52.883	1335	9480	1	-2.38
2	1.58	chloride	75.264	1965	9822	1	-0.84
3	1.84	nitrite	519.163	5416	40974	1	-4.50
4	2.69	bromide	586.583	5432	36670	1	-1.59
5	3.04	nitrate	578.740	6183	48163	1	-6.46
6	4.40	phosphate	509.292	1832	22543	1	-4.62
7	5.60	sulfate	610.840	5568	74972	1	-7.08
8	7.31	oxalate	541.481	2795	47885	1	-6.80
		Totals	3474.247	30525	290509		

File: 97062801.D11 Sample: 72N20-A STD.

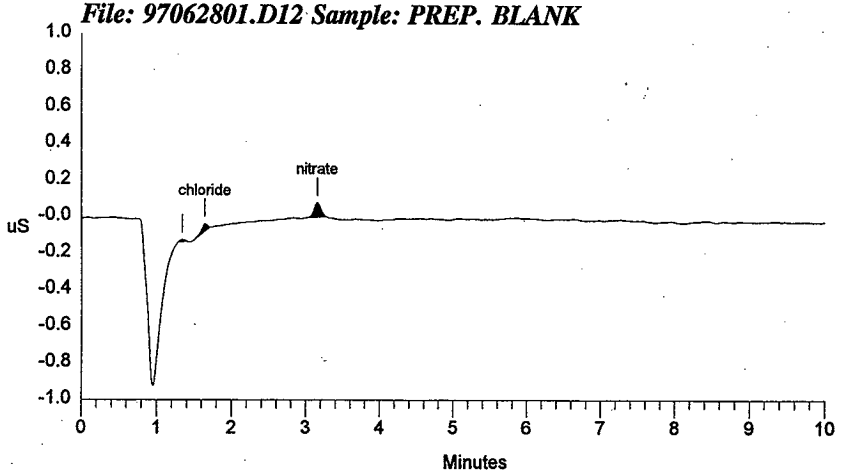


```
Sample Name: PREP. BLANK                    Date: 06/28/1997 22:44:29
Data File  : C:\DX\DATA\97062801.D12
Method     : C:\DX\METHOD\KIT.MET
ACI Address: 1  System: 1  Inject#: 12                  Detector:CDM-1
Analyst    :                Column: AG4A/AS4A anion column
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	1	3000	5Hz	0.00	10.00	30

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.34		0.000	12	52	1	
2	1.64	chloride	0.011	39	212	1	2.93
3	3.15	nitrate	0.135	79	508	1	-2.97
		Totals	0.146	130	772		



Data Reprocessed On 06/30/1997 13:18:03

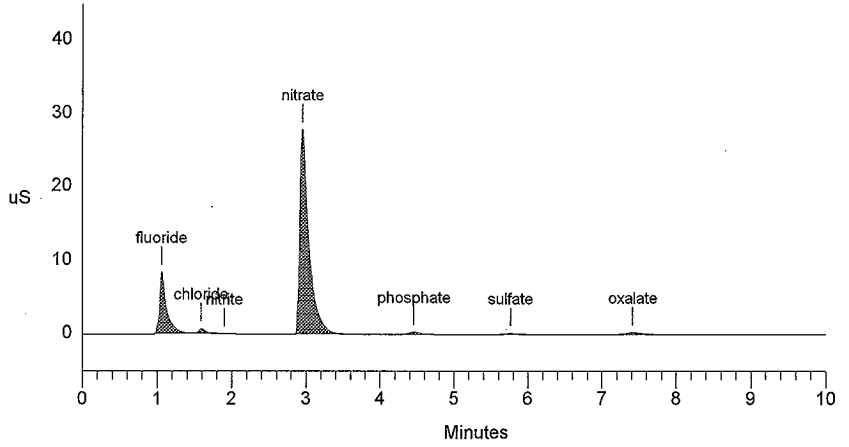
Sample Name: S97T001016		Date: 06/28/1997 23:24:26	
Data File : F:\DATA\97062801.D15			
Method : C:\DX\METHOD\KIT.MET			
ACI Address: 1 System: 1 Inject#: 15			Detector:CDM-1
Analyst :	Column: AG4A/AS4A anion column		

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	11	3000	5Hz	0.00	10.00	30

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.06	fluoride	28.855	8351	52728	1	-5.36
2	1.59	chloride	3.145	680	3773	1	-0.42
3	1.90	nitrite	1.356	40	219	1	-1.38
4	2.95	nitrate	290.742	27894	238045	1	-0.11
5	4.45	phosphate	10.456	315	3969	1	-3.47
6	5.76	sulfate	1.273	159	2177	1	-4.42
7	7.41	oxalate	6.414	284	4962	1	-5.44
		Totals	342.241	37723	305873		

File: 97062801.D15 Sample: S97T001016



Data Reprocessed On 06/30/1997 13:18:59

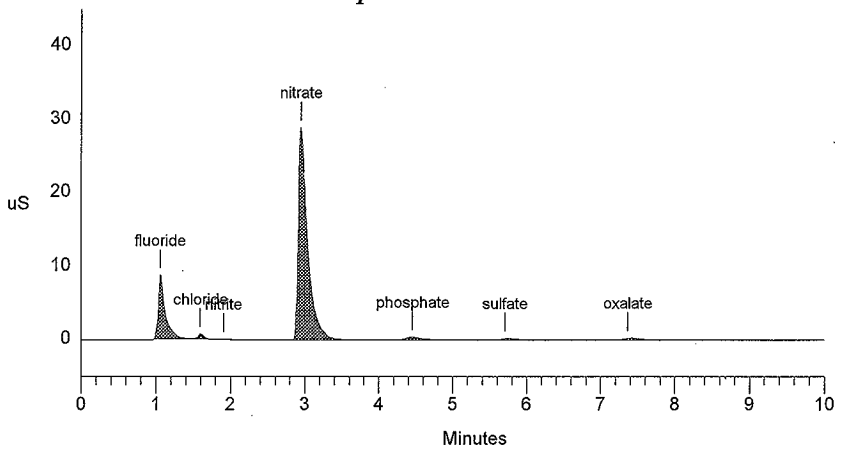
```
Sample Name: S97T001016 DUP                    Date: 06/28/1997 23:35:56
Data File  : F:\DATA\97062801.D16
Method     : C:\DX\METHOD\KIT.MET
ACI Address: 1  System: 1  Inject#: 16                  Detector:CDM-1
Analyst    :                Column: AG4A/AS4A anion column
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	11	3000	5Hz	0.00	10.00	30

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.06	fluoride	29.866	8697	54743	1	-5.36
2	1.59	chloride	2.949	683	3541	1	0.00
3	1.91	nitrite	1.374	44	232	1	-1.04
4	2.95	nitrate	306.442	28947	252062	1	-0.11
5	4.45	phosphate	16.590	395	6474	1	-3.47
6	5.71	sulfate	2.551	221	3581	1	-5.31
7	7.36	oxalate	6.252	254	4831	1	-6.12
		Totals	366.024	39241	325464		

File: 97062801.D16 Sample: S97T001016 DUP



Data Reprocessed On 06/30/1997 13:19:51

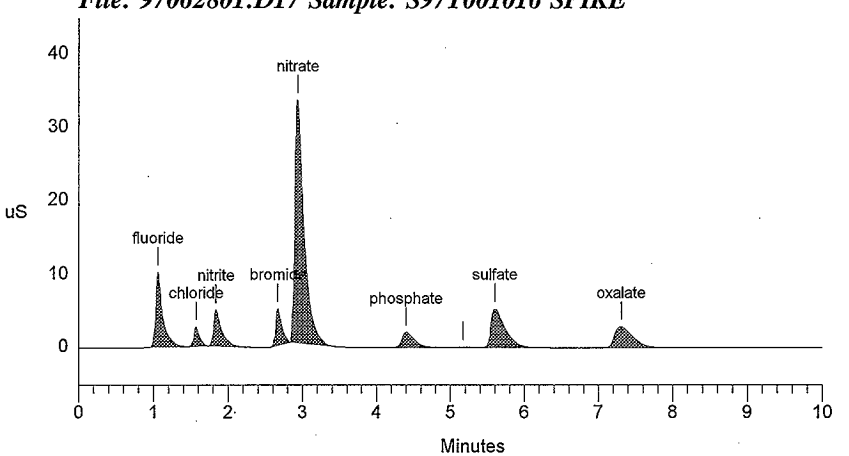
Sample Name: S97T001016 SPIKE Date: 06/28/1997 23:46:46
Data File : F:\DATA\97062801.D17
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 17 Detector:CDM-1
Analyst : Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	11	3000	5Hz	0.00	10.00	30

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.06	fluoride	34.984	10204	65128	1	-5.36
2	1.57	chloride	11.263	2659	13555	1	-1.67
3	1.83	nitrite	50.864	4974	36734	1	-4.84
4	2.67	bromide	49.636	5046	28295	1	-2.32
5	2.93	nitrate	341.350	33078	283728	1	0.11
6	4.40	phosphate	60.246	2074	24542	1	-4.62
7	5.17		0.000	26	404	1	
8	5.60	sulfate	61.338	5287	69097	1	-7.08
9	7.31	oxalate	60.605	2900	49227	1	-6.80
		Totals	670.286	66249	570708		

File: 97062801.D17 Sample: S97T001016 SPIKE



File #: 9705080.TXT

LABCORE Data Entry Template for Worklist# 18006

Analyst: JK Soto **Instrument:** ICP01-2 JK 5-8-97 **Book#** 66648B

Method: LA-505-151/161 Rev/Mod C-1
JK 5-8-97

Worklist Comment: ICP T-203 (DIRECT)

S	Type	Sample#	R	A	Test	Matrix	Group#	Project
1	ICV				@ICP-QC	QC		
2	ICB				@ICP-QC	QC		
3	LLS				@ICP-QC	QC		
4	ICSA				@ICP-QC	QC		
5	ICSAB				@ICP-QC	QC		
6	SERDIL	S97T000733	0	D	@ICP-D01	LIQUID		
7	SAMPLE	S97T000733	0	D	@ICP-D01	LIQUID	97000299	T-203
	Analytes Requested:	AG-D-01 , AL-D-01 , AS-D-01 , B-D-01 , BA-D-01 , BE-D-01 , BI-D-01 , CA-D-01 , CD-D-01 , CE-D-01 , CO-D-01 , CR-D-01 , CU-D-01 , FE-D-01 , K-D-01 , LA-D-01 , LI-D-01 , MG-D-01 , MN-D-01 , MO-D-01 , NA-D-01 , ND-D-01 , NI-D-01 , P-D-01 , PB-D-01 , S-D-01 , SB-D-01 , SE-D-01 , SI-D-01 , SM-D-01 , SR-D-01 , TI-D-01 , TL-D-01 , U-D-01 , V-D-01 , ZN-D-01 , ZR-D-01						
8	DUP	S97T000733	0	D	@ICP-D01	LIQUID		
9	SPK, Sample & Spike QC	S97T000733 JK 5-8-97	0	D	@ICP-D01	LIQUID		
10	ICSA				@ICP-QC	QC		
11	ICSAB				@ICP-QC	QC		
12	CCV				@ICP-QC	QC		
13	CCB				@ICP-QC	QC		

Data Entry Comments:

S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 18006

S Type	Sample#	R A	Test	Matrix	Group#	Project

Final page for worklist # 18006

DK Lott 05-08-97
Analyst Signature Date

Reviewed by: Sal M. Perez 5/8/97
Analyst Signature Date

S97T000733_L	,1-10-2-8	DF 505	
S97T000733	,1-10	101	
S97T000733_D	,1-10	101	
S97T000733_G	,1-10	101	, .1ml sample + 2.02ml 5575 + 8.08ml HNO3
S97T000733_X	,1-10-1-9	1010	
S97T000733_GX	,1-10-1-9	1010	, 1ml sample + 1ml each XUHC 28+35 + 7ml HNO3
S97T000781	,025-10	DF 401	

Data Entry Comments:

S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

Analysis Report Summary Thu 05-08-97 11:33:24 AM page 1

#	Sample Name	File	Method	Date	Time	OpID	Type	Mode
1	ICV	970508A	ICP2	05/08/97	10:31	DKS	Q	CONC
2	ICB	970508A	ICP2	05/08/97	10:37	DKS	Q	CONC
3	LLS	970508A	ICP2	05/08/97	10:40	DKS	Q	CONC
4	ICSA	970508A	ICP2	05/08/97	10:42	DKS	Q	CONC
5	ICSAB	970508A	ICP2	05/08/97	10:45	DKS	Q	CONC
6	S97T000733_L	970508A	ICP2	05/08/97	10:49	DKS	S	CONC
7	S97T000733	970508A	ICP2	05/08/97	10:52	DKS	S	CONC
8	S97T000733_D	970508A	ICP2	05/08/97	10:56	DKS	S	CONC
9	S97T000733_A	970508A	ICP2	05/08/97	10:59	DKS	S	CONC
10	S97T000733_X	970508A	ICP2	05/08/97	11:03	DKS	S	CONC
11	S97T000733_AX	970508A	ICP2	05/08/97	11:06	DKS	S	CONC
12	CCV	970508A	ICP2	05/08/97	11:10	DKS	Q	CONC
13	CCB	970508A	ICP2	05/08/97	11:13	DKS	Q	CONC
14	S97T000781	970508A	ICP2	05/08/97	11:17	DKS	S	CONC
15	ICSA	970508A	ICP2	05/08/97	11:21	DKS	Q	CONC
16	ICSAB	970508A	ICP2	05/08/97	11:24	DKS	Q	CONC
17	CCV_1	970508A	ICP2	05/08/97	11:27	DKS	Q	CONC
18	CCB_1	970508A	ICP2	05/08/97	11:30	DKS	Q	CONC

DK
05-08-97
T-403 S97T000733
OW-106 S97T000781

Post Spike:

$$K = \frac{\left(\frac{18800}{1010}\right) - \left(\frac{8486}{1010}\right)}{10} \times 100 = 102.1\ \%$$

$$Na = \frac{\left(\frac{52850}{1010}\right) - \left(\frac{42740}{1010}\right)}{10} \times 100 = 100.1\ \%$$

SIGNATURE ABOVE REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 476 TO 481.

Analysis Report Averages Thu 05-08-97 11:33:24 AM page 2

#	Sample Name	Ag	Al	As	B	Ba	Be
1	ICV	4.849	4.847	5.106	4.985	4.912	4.988
2	ICB	.0001	.0022	-.0032	.0077	.0000	.0000
3	LLS	.0226	.0999	.2103	.1051	.1005	.0104
4	ICSA	.0015	242.1	-.0286	-.0003	.0003	-.0000
5	ICSAB	.9569	240.2	-.0163	.0043	.4739	.4708
6	S97T000733_L	3.360	2.465	-1.140	4.601	.6607	-.0429
7	S97T000733_	2.945	.7530	.5456	2.568	.6173	-.0047
8	S97T000733_D	2.909	.1111	1.537	3.053	.6310	.0036
9	S97T000733_A	91.08	96.75	103.6	100.5	98.52	98.54
10	S97T000733_X	5.422	4.340	-2.294	5.809	.6583	-.0850
11	S97T000733_AX	9785.	9933.	10200.	10120.	10320.	10100.
12	CCV	4.916	4.883	5.153	4.989	5.026	5.043
13	CCB	.0057	.0014	-.0007	.0019	.0001	-.0000
14	S97T000781	13.88	26660.	-37.05	17.12	.1228	.4776
15	ICSA	.0030	245.0	-.0062	.0025	.0002	.0002
16	ICSAB	.9596	241.6	-.0422	.0007	.4815	.4755
17	CCV_1	4.906	4.879	5.164	4.989	5.049	5.059
18	CCB_1	.0009	-.0041	-.0093	.0019	.0001	-.0000

#	Sample Name	Bi	Ca	Cd	Ce	Co	Cr
1	ICV	5.041	4.882	4.933	4.863	5.035	4.905
2	ICB	.0260	-.0012	-.0015	-.0076	.0004	.0009
3	LLS	.1719	.2272	.0104	.2092	.0420	.0218
4	ICSA	.0136	249.5	.0013	.0129	.0014	-.0021
5	ICSAB	.0195	247.8	.9277	.0108	.4666	.4654
6	S97T000733_L	21.19	.5152	.1797	-.0059	-.3216	43.14
7	S97T000733_	6.813	.8324	.1362	-.4189	.0146	42.28
8	S97T000733_D	7.475	.6145	.0096	-.1405	-.1261	42.87
9	S97T000733_A	106.7	99.07	98.12	97.42	99.93	140.9
10	S97T000733_X	37.66	.6744	-.7715	-1.553	.3870	44.65
11	S97T000733_AX	10360.	10240.	10040.	10270.	10030.	10120.
12	CCV	5.131	5.010	4.987	4.925	5.098	4.973
13	CCB	-.0032	.0005	.0008	.0001	.0009	.0005
14	S97T000781	15.98	11.83	.6260	-1.047	1.495	346.2
15	ICSA	.0243	252.0	.0032	.0107	.0009	-.0032
16	ICSAB	.0317	250.0	.9325	.0144	.4663	.4676
17	CCV_1	5.108	5.048	4.999	4.934	5.111	4.990
18	CCB_1	.0244	.0019	-.0000	-.0003	-.0009	.0017

#	Sample Name	Cu	Eu	Fe	K	La	Li
1	ICV	4.919	-.0009	4.593	5.185	4.935	4.879
2	ICB	-.0000	.0001	-.0003	-.0180	-.0003	.0002
3	LLS	.0176	.0015	.0964	Q.6461	.1033	.0216
4	ICSA	-.0101	-.0267	93.56	.1933	-.0037	.0035
5	ICSAB	.4413	-.0243	92.72	.1182	-.0037	.9931
6	S97T000733_L	.0852	.0609	-.4086	8610.	.2458	-.0001
7	S97T000733_	-.1027	.0434	-.2127	8373.	.0214	.0727
8	S97T000733_D	.0382	.0520	-.3325	8405.	.0816	.1211
9	S97T000733_A	98.02	-.0103	91.32	8580.	99.70	99.39

Analysis Report Averages Thu 05-08-97 11:33:24 AM page 3

#	Sample Name	Cu	Eu	Fe	K	La	Li
10	S97T000733_X	.6106	-.1616	.3073	8486.	.0630	.6099
11	S97T000733_AX	9386.	-2.273	9434.	18800.	10250.	10160.
12	CCV	4.964	-.0005	4.666	4.926	5.016	4.882
13	CCB	-.0003	.0010	-.0009	.1388	-.0002	.0008
14	S97T000781	.3522	.0964	6.331	11450.	.4769	.2398
15	ICSA	-.0102	-.0286	94.54	.0906	-.0038	.0027
16	ICSAB	.4466	-.0270	93.42	.1522	-.0046	.9977
17	CCV_1	4.983	-.0002	4.674	5.068	5.037	4.884
18	CCB_1	.0005	.0009	-.0005	.0419	.0006	.0011

#	Sample Name	Mg	Mn	Mo	Na	Nd	Ni
1	ICV	4.946	4.850	5.015	5.092	4.937	4.948
2	ICB	-.0011	.0001	-.0013	.0021	-.0001	.0008
3	LLS	.2163	.0203	.0994	.1957	.2012	.0345
4	ICSA	254.4	-.0059	-.0116	195.5	.0018	.0008
5	ICSAB	252.2	.4403	-.0121	194.8	.0019	.9016
6	S97T000733_L	1.459	-.0185	-1.299	42400.	-.5201	-3.850
7	S97T000733_	-.0101	.0234	-.1798	41140.	-.3821	.5340
8	S97T000733_D	.0918	.0347	.0454	41240.	.2288	.1554
9	S97T000733_A	95.44	94.60	100.8	41750.	99.44	96.07
10	S97T000733_X	.4538	.0015	-2.235	42740.	.3726	-3.403
11	S97T000733_AX	10520.	10050.	10050.	52850.	9990.	10050.
12	CCV	4.995	4.911	5.075	5.118	5.012	5.020
13	CCB	-.0018	.0004	-.0009	.0114	.0005	-.0035
14	S97T000781	.5056	.0050	47.05	185400.	-1.229	3.230
15	ICSA	257.5	-.0063	-.0079	198.2	.0035	.0010
16	ICSAB	253.7	.4426	-.0098	195.7	.0015	.9128
17	CCV_1	4.992	4.912	5.072	5.115	5.030	5.011
18	CCB_1	-.0061	.0002	-.0011	.0789	-.0009	.0024

#	Sample Name	P	Pb	S	Sb	Se	Si
1	ICV	5.013	4.837	4.930	4.745	4.619	5.026
2	ICB	.0093	.0049	-.0131	-.0130	-.0008	.0044
3	LLS	.4083	.2227	.1954	.0901	.2036	.1356
4	ICSA	.0010	.0299	-.0413	-.0107	-.0427	.0088
5	ICSAB	.0284	.9945	-.0495	-.0028	-.0477	.0045
6	S97T000733_L	753.8	-4.050	120.4	-5.241	3.735	45.84
7	S97T000733_	744.7	-.1944	125.1	-.4777	3.570	49.80
8	S97T000733_D	754.3	1.251	124.8	-.3247	5.604	53.93
9	S97T000733_A	834.3	98.93	222.7	94.93	105.3	154.5
10	S97T000733_X	768.5	-5.304	124.9	-10.39	10.44	57.72
11	S97T000733_AX	10740.	10140.	9979.	10150.	9880.	10520.
12	CCV	5.024	4.891	4.944	4.800	4.684	5.072
13	CCB	-.0062	.0118	-.0004	-.0024	.0291	.0127
14	S97T000781	669.9	54.42	1254.	-3.365	11.45	45.73
15	ICSA	.0001	.0426	-.0486	-.0009	-.0226	.0086
16	ICSAB	.0145	.9944	-.0488	-.0142	-.0278	.0100
17	CCV_1	5.046	4.903	4.933	4.807	4.658	5.071
18	CCB_1	.0073	.0044	-.0094	-.0077	.0291	.0087

Analysis Report Averages Thu 05-08-97 11:33:24 AM page 4

#	Sample Name	Sm	Sr	Th	Ti	Tl	U
1	ICV	4.827	4.877	.0152	4.831	4.756	9.526
2	ICB	.0019	.0000	.0063	.0000	-.0012	-.0036
3	LLS	.2150	.0205	.0036	.0199	.4018	.5532
4	ICSA	.0099	.0021	-.0063	.0017	.0163	.0530
5	ICSAB	.0068	.0022	-.0041	.0017	-.0003	.0528
6	S97T000733_L	-.2794	.1575	2.840	.0092	9.058	2.292
7	S97T000733	.2465	.1569	.1254	-.0286	.6634	9.202
8	S97T000733_D	.5839	.1564	-.1904	-.0075	-.8592	14.98
9	S97T000733_A	97.20	98.12	.2847	97.00	97.98	202.8
10	S97T000733_X	-1.831	.1582	4.660	-.2293	-16.05	-5.559
11	S97T000733_AX	9954.	10190.	45.08	10130.	9970.	19450.
12	CCV	4.915	4.961	.0203	4.907	4.789	9.667
13	CCB	.0110	.0001	.0033	.0003	.0091	.0455
14	S97T000781	.0333	.0585	.2438	.0774	6.122	42.36
15	ICSA	-.0006	.0021	-.0036	.0012	.0100	.0051
16	ICSAB	.0012	.0022	-.0042	.0017	.0117	.0225
17	CCV_1	4.934	4.988	.0154	4.929	4.807	9.719
18	CCB_1	.0080	.0001	.0038	.0003	.0133	.0370

#	Sample Name	V	Y	Zn	Zr
1	ICV	5.004	.0052	4.793	4.898
2	ICB	-.0002	.0000	.0008	-.0001
3	LLS	.1066	.0011	.0217	.0229
4	ICSA	.0009	.0072	.0057	-.0009
5	ICSAB	.4638	.0069	.9220	-.0015
6	S97T000733_L	-.1049	-.0010	-.1173	-.3959
7	S97T000733	.0407	.0040	.1155	.0202
8	S97T000733_D	.1262	.0253	.1477	.1484
9	S97T000733_A	100.4	.0959	96.26	98.25
10	S97T000733_X	-.1894	-.0768	.7962	-.3379
11	S97T000733_AX	10010.	10.34	9399.	10060.
12	CCV	5.068	.0055	4.830	4.968
13	CCB	.0026	.0006	.0008	.0015
14	S97T000781	.0109	-.0180	12.69	1.382
15	ICSA	-.0006	.0067	.0058	-.0022
16	ICSAB	.4664	.0069	.9212	-.0019
17	CCV_1	5.084	.0057	4.833	4.984
18	CCB_1	.0020	.0005	-.0004	.0011

JK 5/8/97

05-08-97

FILE# 970512A.TXT

05/13/97 13:38
A-0004-1

HNF-SD-WM-DP-247, REV. 0

LABCORE Data Entry Template for Worklist# 18080

Analyst: A. SATO **Instrument:** ICP01 **Book#** 66648

Method: LA-505-151/161 Rev/Mod <-1 BJK 5-12-97 BJK 5-12-97

Worklist Comment: T-203 (DIRECT)

S	Type	Sample#	R	A	Test	Matrix	Group#	Project
1	ICV				@ICP-QC	QC		
2	ICB				@ICP-QC	QC		
3	LLS				@ICP-QC	QC		
4	ICSA				@ICP-QC	QC		
5	ICSAB				@ICP-QC	QC		
6	SAMPLE	S97T000731	0	D	@ICP-D01	LIQUID	97000299	T-203
	Analytes Requested:	AG-D-01 , AL-D-01 , AS-D-01 , B-D-01 , BA-D-01 , BE-D-01 , BI-D-01 , CA-D-01 , CD-D-01 , CE-D-01 , CO-D-01 , CR-D-01 , CU-D-01 , FE-D-01 , K-D-01 , LA-D-01 , LI-D-01 , MG-D-01 , MN-D-01 , MO-D-01 , NA-D-01 , ND-D-01 , NI-D-01 , P-D-01 , PB-D-01 , S-D-01 , SB-D-01 , SE-D-01 , SI-D-01 , SM-D-01 , SR-D-01 , TI-D-01 , TL-D-01 , U-D-01 , V-D-01 , ZN-D-01 , ZR-D-01			
7	ICSA				@ICP-QC	QC		
8	ICSAB				@ICP-QC	QC		
9	CCV				@ICP-QC	QC		
10	CCB				@ICP-QC	QC		

Final page for worklist # 18080

JK Sato 05-12-97
Analyst Signature **Date**

Reviewed by: Sam M. Pang 5/27/97
Analyst Signature **Date**

S97T000731 DIRECT DF 1

Data Entry Comments: Validated 5-19-97 JAnastos

LLS failure for SI, sample will not be rerun unless requested.

S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

Analysis Report Summary Mon 05-12-97 09:56:07 AM page 1

#	Sample Name	File	Method	Date	Time	OpID	Type	Mode
1	ICV	970512A	ICP2	05/12/97	09:13	DKS	Q	CONC
2	ICB	970512A	ICP2	05/12/97	09:18	DKS	Q	CONC
3	LLS	970512A	ICP2	05/12/97	09:21	DKS	Q	CONC
4	ICSA	970512A	ICP2	05/12/97	09:24	DKS	Q	CONC
5	ICSAB	970512A	ICP2	05/12/97	09:27	DKS	Q	CONC
6	S97T000731	970512A	ICP2	05/12/97	09:36	DKS	S	CONC
7	ICSA	970512A	ICP2	05/12/97	09:39	DKS	Q	CONC
8	ICSA	970512A	ICP2	05/12/97	09:42	DKS	Q	CONC
9	ICSAB	970512A	ICP2	05/12/97	09:45	DKS	Q	CONC
10	CCV	970512A	ICP2	05/12/97	09:49	DKS	Q	CONC
11	CCB	970512A	ICP2	05/12/97	09:53	DKS	Q	CONC

DK 5-12-97

DK Ltd
05-12-97

T-203 S97T000731

SIGNATURE ABOVE REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 482 TO 485

HNF-SD-WM-DP-247, REV. 0

Analysis Report Averages Mon 05-12-97 09:56:07 AM page 2

#	Sample Name	Ag	Al	As	B	Ba	Be
1	ICV	4.822	4.845	5.111	4.978	4.921	5.024
2	ICB	.0006	-.0003	-.0211	.0010	.0000	-.0002
3	LLS	.0210	.1087	.2044	.1044	.0992	.0105
4	ICSA	.0015	241.2	-.0167	-.0060	.0003	.0000
5	ICSAB	.9500	238.1	-.0214	-.0038	.4650	.4708
6	S97T000731	.0009	.0088	-.0061	.3092	.0192	.0000
~~7~~	~~ICSA~~	~~.0019~~	~~Q239.0~~	~~.0092~~	~~-.0014~~	~~.0004~~	~~.0001~~
8	ICSA	.0032	239.8	.0128	-.0029	.0004	.0002
9	ICSAB	.9439	237.7	-.0258	-.0073	.4650	.4696
10	CCV	4.807	4.803	5.118	4.957	4.869	5.019
11	CCB	.0006	.0067	-.0062	.0082	.0001	.0000

5-12-97

#	Sample Name	Bi	Ca	Cd	Ce	Co	Cr
1	ICV	4.959	4.821	4.906	4.864	5.006	4.870
2	ICB	-.0083	.0001	-.0017	-.0019	-.0003	.0006
3	LLS	.1540	.2064	.0107	.1963	.0405	.0208
4	ICSA	-.0286	248.0	.0002	.0063	-.0019	-.0014
5	ICSAB	-.0121	246.3	.9240	.0077	.4623	.4623
6	S97T000731	.0039	18.24	.0004	.0037	.0009	.0491
~~7~~	~~ICSA~~	~~-.0140~~	~~Q247.7~~	~~.0029~~	~~.0150~~	~~.0005~~	~~-.0030~~
8	ICSA	.0075	247.2	.0033	.0097	.0005	-.0019
9	ICSAB	-.0237	245.8	.9143	.0133	.4586	.4578
10	CCV	4.900	4.935	4.909	4.813	5.017	4.880
11	CCB	-.0109	.0014	.0011	.0057	-.0008	.0001

5-12-97

#	Sample Name	Cu	Eu	Fe	K	La	Li
1	ICV	4.963	-.0011	4.586	4.763	4.941	4.941
2	ICB	.0009	-.0003	.0001	-.0341	.0011	-.0011
3	LLS	.0189	.0007	.0905	.4221	.1012	.0207
4	ICSA	-.0084	-.0262	93.21	.0577	-.0033	.0028
5	ICSAB	.4389	-.0249	92.16	.0091	-.0038	.9827
6	S97T000731	.0047	.0145	.2098	1.898	.0013	.0049
~~7~~	~~ICSA~~	~~-.0084~~	~~-.0281~~	~~Q92.46~~	~~.1333~~	~~-.0036~~	~~.0028~~
8	ICSA	-.0086	-.0250	92.45	.0527	-.0040	.0024
9	ICSAB	.4408	-.0244	91.83	.1619	-.0034	.9819
10	CCV	4.907	-.0004	4.589	4.763	4.890	4.862
11	CCB	.0007	.0005	.0003	-.0258	.0007	-.0001

5-12-97

#	Sample Name	Mg	Mn	Mo	Na	Nd	Ni
1	ICV	4.966	4.809	4.997	5.083	4.951	4.899
2	ICB	.0011	-.0001	-.0000	-.0017	.0034	.0028
3	LLS	.2150	.0200	.1015	.1525	.1992	.0378
~~4~~	~~ICSA~~	~~252.8~~	~~-.0058~~	~~-.0083~~	~~195.5~~	~~.0045~~	~~-.0076~~
5	ICSAB	249.8	.4381	-.0081	193.5	.0012	.9044
6	S97T000731	3.822	.0441	.0012	9.087	.0071	.0068
7	ICSA	Q250.8	-.0057	-.0086	193.9	.0033	-.0052
8	ICSA	251.3	-.0060	-.0124	195.0	.0034	-.0014

5-12-97

Analysis Report Averages Mon 05-12-97 09:56:07 AM page 3

#	Sample Name	Mg	Mn	Mo	Na	Nd	Ni
9	ICSAB	249.1	.4346	-.0105	193.3	.0038	.8953
10	CCV	4.911	4.806	4.980	5.010	4.886	4.910
11	CCB	.0075	.0004	.0019	.0076	.0006	.0017

#	Sample Name	P	Pb	S	Sb	Se	Si
1	ICV	5.058	4.799	4.910	4.749	4.637	4.984
2	ICB	.0021	-.0130	-.0050	-.0056	.0005	.0019
3	LLS	.4085	.2019	.2004	.0952	.2120	.1467
4	ICSA	-.0066	.0409	-.0380	.0003	-.0108	.0092
5	ICSAB	-.0078	.9909	-.0542	-.0157	-.0250	.0055
6	S97T000731	.0704	.0092	6.031	-.0022	.0386	2.593
7	ICSA	.0150	.0330	-.0118	-.0012	-.0087	.0141
8	ICSA	-.0001	.0314	-.0256	-.0115	-.0238	.0043
9	ICSAB	.0119	.9592	-.0170	-.0173	-.0016	.0052
10	CCV	5.028	4.787	4.943	4.754	4.637	4.986
11	CCB	-.0101	-.0076	.0008	.0006	.0245	.0087

KS-12-97

#	Sample Name	Sm	Sr	Th	Ti	Tl	U
1	ICV	4.844	4.901	.0219	4.855	4.745	9.564
2	ICB	-.0035	-.0000	.0006	.0007	-.0131	-.0220
3	LLS	.2065	.0204	-.0053	.0204	.3815	.5155
4	ICSA	.0097	.0022	-.0128	.0017	.0143	-.0260
5	ICSAB	.0062	.0022	-.0081	.0020	.0006	-.0222
6	S97T000731	.0126	.0936	-.0081	.0006	-.0188	.1710
7	ICSA	.0040	.0020	-.0028	.0020	.0382	-.0224
8	ICSA	.0029	.0021	-.0119	.0014	-.0025	-.0403
9	ICSAB	.0015	.0021	-.0085	.0020	.0067	-.0514
10	CCV	4.789	4.855	.0240	4.817	4.676	9.466
11	CCB	.0052	.0003	-.0041	.0002	-.0208	.0243

KS-12-97

#	Sample Name	V	Y	Zn	Zr
1	ICV	4.996	.0049	4.749	4.893
2	ICB	-.0011	-.0002	-.0017	-.0011
3	LLS	.1032	.0007	.0205	.0221
4	ICSA	.0009	.0068	.0047	-.0018
5	ICSAB	.4628	.0069	.9172	-.0010
6	S97T000731	.0021	.0012	.0795	.0022
7	ICSA	.0010	.0068	.0061	-.0014
8	ICSA	.0002	.0067	.0053	-.0021
9	ICSAB	.4587	.0067	.9087	-.0028
10	CCV	4.983	.0051	4.757	4.860
11	CCB	.0009	.0003	.0003	.0010

KS-12-97

KS-12-97

05-12-97

LABCORE Data Entry Template for Worklist# 18122

Analyst: D. Stiv **Instrument:** ICP01 02 **Book#** 66848

Method: LA-505-151/161 Rev/Mod C-1 5-14-97 5-14-97

Worklist Comment: T-203 (SOLID FUSION DIGEST)

S	Type	Sample#	R	A	Test	Matrix	Group#	Project
1	ICV				@ICP-QC	QC		
2	ICB				@ICP-QC	QC		
3	LLS				@ICP-QC	QC		
4	ICSA				@ICP-QC	QC		
5	ICSAB				@ICP-QC	QC		
6	PREPBLKTJA				@ICP-F01	SOLID		
7	SERDIL	S97T000757	0	F	@ICP-F01	SOLID		
8	SAMPLE	S97T000757	0	F	@ICP-F01	SOLID	97000299	T-203
	Analytes Requested:	AG-F-01 , AL-F-01 , AS-F-01 , B-F-01 , BA-F-01 , BE-F-01 , BI-F-01 , CA-F-01 , CD-F-01 , CE-F-01 , CO-F-01 , CR-F-01 , CU-F-01 , FE-F-01 , LA-F-01 , LI-F-01 , MG-F-01 , MN-F-01 , MO-F-01 , NA-F-01 , ND-F-01 , P-F-01 , PB-F-01 , S-F-01 , SB-F-01 , SE-F-01 , SI-F-01 , SM-F-01 , SR-F-01 , TI-F-01 , TL-F-01 , U-F-01 , V-F-01 , ZN-F-01 , ZR-F-01						
9	DUP	S97T000757	0	F	@ICP-F01	SOLID		
10	SPK	S97T000757	0	F	@ICP-F01	SOLID		
11	CCV				@ICP-QC	QC		
12	CCB				@ICP-QC	QC		
13	SAMPLE	S97T000738	0	F	@ICP-F01	SOLID	97000299	T-203
	Analytes Requested:	AG-F-01 , AL-F-01 , AS-F-01 , B-F-01 , BA-F-01 , BE-F-01 , BI-F-01 , CA-F-01 , CD-F-01 , CE-F-01 , CO-F-01 , CR-F-01 , CU-F-01 , FE-F-01 , LA-F-01 , LI-F-01 , MG-F-01 , MN-F-01 , MO-F-01 , NA-F-01 , ND-F-01 , P-F-01 , PB-F-01 , S-F-01 , SB-F-01 , SE-F-01 , SI-F-01 , SM-F-01 , SR-F-01 , TI-F-01 , TL-F-01 , U-F-01 , V-F-01 , ZN-F-01 , ZR-F-01						

Data Entry Comments: High RPD on Fe for S97T000738 (139%) - sample can be rerun if requested. HLA 5.19.97

S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 18122

S	Type	Sample#	R	A	Test	Matrix	Group#	Project
14	DUP	S97T000738	0	F	@ICP-F01	SOLID		
15	SAMPLE	S97T000760	0	F	@ICP-F01	SOLID	97000299	T-203

Analytes Requested: AG-F-01 , AL-F-01 , AS-F-01 , B-F-01 , BA-F-01 , BE-F-01 , BI-F-01 , CA-F-01 , CD-F-01 , CE-F-01 , CO-F-01 , CR-F-01 , CU-F-01 , FE-F-01 , LA-F-01 , LI-F-01 , MG-F-01 , MN-F-01 , MO-F-01 , NA-F-01 , ND-F-01 , P-F-01 , PB-F-01 , S-F-01 , SB-F-01 , SE-F-01 , SI-F-01 , SM-F-01 , SR-F-01 , TI-F-01 , TL-F-01 , U-F-01 , V-F-01 , ZN-F-01 , ZR-F-01

16	DUP	S97T000760	0	F	@ICP-F01	SOLID		
17	ICSA				@ICP-QC	QC		
18	ICSAB				@ICP-QC	QC		
19	CCV				@ICP-QC	QC		
20	CCB				@ICP-QC	QC		

Final page for worklist # 18122

JK Todd 05-13-97
Analyst Signature Date

Reviewed by: Sam R. Pang 5/22/97
Analyst Signature Date

PrepBlk TIQ , .25-10 mL, DF 1
S97T000757_L , .25-10-2.8 , DF 205
S97T000757 .25-10 41
S97T000757_D .25-10 41
S97T000757_Q .25-10 41 , .25 mL sample + 2.05 mL SSTS + 7.85 mL HNO_3
S97T000757_X .25-10-1.9 , DF 410
S97T000757_QX .25-10-1.9 410 , 1 mL sample + 1 mL ccal + water 18.435 + 7 mL HNO_3
S97T000738 , .25-10 , DF 41
S97T000738_D .25-10 41
S97T000760 .25-10 41
S97T000760_D .25-10 41

Data Entry Comments: Validated 5.19.97 by WAnasto

S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

Analysis Report Summary Tue 05-13-97 10:05:24 AM page 1

#	Sample Name	File	Method	Date	Time	OpID	Type	Mode
1	ICV	970513A	ICP2	05/13/97	08:37	DKS	Q	CONC
2	ICB	970513A	ICP2	05/13/97	08:40	DKS	Q	CONC
3	LLS	970513A	ICP2	05/13/97	08:43	DKS	Q	CONC
4	ICSA	970513A	ICP2	05/13/97	08:46	DKS	Q	CONC
5	ICSAB	970513A	ICP2	05/13/97	08:49	DKS	Q	CONC
6	PREPBLKTJA	970513A	ICP2	05/13/97	08:52	DKS	Q	CONC
7	S97T000757_L	970513A	ICP2	05/13/97	08:55	DKS	S	CONC
8	S97T000757	970513A	ICP2	05/13/97	08:58	DKS	S	CONC
9	S97T000757_D	970513A	ICP2	05/13/97	09:00	DKS	S	CONC
10	S97T000757_A	970513A	ICP2	05/13/97	09:04	DKS	S	CONC
11	S97T000757_X	970513A	ICP2	05/13/97	09:07	DKS	S	CONC
12	S97T000757_AX	970513A	ICP2	05/13/97	09:10	DKS	S	CONC
13	CCV	970513A	ICP2	05/13/97	09:31	DKS	Q	CONC
14	CCB	970513A	ICP2	05/13/97	09:34	DKS	Q	CONC
15	S97T000738	970513A	ICP2	05/13/97	09:37	DKS	S	CONC
16	S97T000738_D	970513A	ICP2	05/13/97	09:40	DKS	S	CONC
17	S97T000760	970513A	ICP2	05/13/97	09:43	DKS	S	CONC
18	S97T000760_D	970513A	ICP2	05/13/97	09:46	DKS	S	CONC
19	ICSA	970513A	ICP2	05/13/97	09:53	DKS	Q	CONC
20	ICSAB	970513A	ICP2	05/13/97	09:56	DKS	Q	CONC
21	CCV_1	970513A	ICP2	05/13/97	09:59	DKS	Q	CONC
22	CCB_1	970513A	ICP2	05/13/97	10:02	DKS	Q	CONC

DKD
05-13-97
T-203

S97T000757
S97T000738
S97T000760

SIGNATURE ABOVE REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 488 TO 492

Analysis Report Averages Tue 05-13-97 10:05:24 AM

#	Sample Name	Ag	Al	As	B	Ba	Be
1	ICV	4.903	4.862	5.149	4.952	4.939	5.022
2	ICB	-.0003	.0008	.0197	-.0010	.0000	.0001
3	LLS	.0211	.0985	.2256	.1038	.1013	.0105
4	ICSA	.0017	241.2	-.0102	-.0074	.0004	.0004
5	ICSAB	.9579	241.1	.0077	-.0042	.4761	.4726
6	PREPBLKTJA	-.0002	.0070	.0149	-.0010	.0002	-.0000
7	S97T000757_L	.0046	-2.004	2.977	-.5965	.0554	-.0268
8	S97T000757	-.0016	.4702	.8041	-.1385	.0560	-.0034
9	S97T000757_D	-.0013	.4345	1.420	.0609	.0559	.0055
10	S97T000757_A	17.45	41.28	44.06	39.91	40.58	40.95
11	S97T000757_X	.3566	2.803	6.363	-1.397	.0564	.0711
12	S97T000757_AX	398.4	4041.	4147.	4032.	4179.	4108.
13	CCV	4.922	4.912	5.205	5.021	5.002	5.078
14	CCB	.0062	.0079	.0152	.0019	.0001	.0002
15	S97T000738	.0100	.5749	.6522	.0328	.0700	.0181
16	S97T000738_D	.0229	.5003	1.002	.0220	.0726	.0037
17	S97T000760	.0235	4.650	.5771	.2210	.0620	.0055
18	S97T000760_D	.0112	.1253	.3678	-.0390	.0615	.0001
19	ICSA	.0055	241.9	.0224	-.0058	.0004	.0005
20	ICSAB	.9668	239.9	.0109	.0004	.4734	.4747
21	CCV_1	4.880	4.794	5.101	4.891	4.860	4.987
22	CCB_1	.0028	-.0145	.0083	.0029	.0002	-.0000

#	Sample Name	Bi	Ca	Cd	Ce	Co	Cr
1	ICV	5.035	5.001	5.018	4.888	5.089	4.988
2	ICB	.0030	.0035	.0006	-.0008	.0007	-.0006
3	LLS	Q.1307	.2131	.0111	.1987	.0412	.0213
4	ICSA	-.0181	248.2	.0024	.0126	.0018	-.0040
5	ICSAB	.0031	250.9	.9352	.0101	.4655	.4685
6	PREPBLKTJA	.0033	.0158	.0003	-.0023	.0018	.0003
7	S97T000757_L	85.69	2.755	-.0780	.8881	-.1207	7.454
8	S97T000757	84.44	1.268	.0364	.0792	.0761	7.381
9	S97T000757_D	83.38	.9855	.0208	.2508	.0997	7.560
10	S97T000757_A	126.8	42.30	41.32	40.71	41.95	48.54
11	S97T000757_X	80.69	2.388	-.3123	1.449	1.297	7.761
12	S97T000757_AX	4286.	4297.	4152.	4170.	4115.	4184.
13	CCV	5.076	5.045	5.024	4.920	5.106	5.001
14	CCB	.0126	.0036	.0002	.0081	.0004	.0004
15	S97T000738	53.52	1.048	.0341	.0084	.1149	6.098
16	S97T000738_D	59.55	.8036	.0592	.2013	.0460	6.378
17	S97T000760	61.01	.7853	.0443	.3754	.0699	6.446
18	S97T000760_D	68.60	.8257	-.0202	.2640	.0855	6.761
19	ICSA	.0026	256.9	.0015	.0182	.0009	-.0012
20	ICSAB	-.0257	256.8	.9454	.0159	.4753	.4739
21	CCV_1	4.961	5.120	4.999	4.800	5.090	4.986
22	CCB_1	-.0043	.0096	-.0001	.0032	.0016	.0003

#	Sample Name	Cu	Eu	Fe	K	La	Li
1	ICV	4.874	-.0006	4.655	4.942	4.953	4.830
2	ICB	-.0010	.0003	-.0009	-.0260	-.0004	.0006
3	LLS	.0168	.0006	.0925	.4899	.1015	.0216
4	ICSA	-.0098	-.0332	92.99	.1593	-.0048	.0025
5	ICSAB	.4391	-.0352	93.23	.2510	-.0057	.9869
6	PREPBLKTJA	-.0005	.0005	.0062	Q299.6	-.0001	.0002
7	S97T000757_L	.0444	.0908	5.420	12460.	22.68	.0985
8	S97T000757	.1831	.0268	5.157	12160.	22.11	.0100
9	S97T000757_D	.0521	.0167	4.672	12340.	21.54	.0051
10	S97T000757_A	40.33	-.0019	43.71	12440.	63.88	39.50
11	S97T000757_X	.1686	.1506	5.626	12290.	22.30	.2460
12	S97T000757_AX	3735.	-.6600	3897.	16660.	4168.	4036.
13	CCV	4.940	-.0013	4.695	5.047	4.994	4.899
14	CCB	-.0000	.0001	.0003	.1728	.0004	-.0001
15	S97T000738	.0436	-.0068	36.84	11870.	14.99	-.0047
16	S97T000738_D	.0374	.0346	6.427	11860.	16.15	.0198
17	S97T000760	.0442	.0478	4.397	11510.	14.78	.0543
18	S97T000760_D	-.0213	.0276	3.981	11770.	16.55	.0149
19	ICSA	-.0095	-.0462	94.64	.2520	-.0043	.0034
20	ICSAB	.4330	-.0466	94.12	.1407	-.0049	.9667
21	CCV_1	4.771	.0009	4.648	4.743	4.853	4.695
22	CCB_1	-.0007	.0018	-.0013	.2532	.0001	.0016

#	Sample Name	Mg	Mn	Mo	Na	Nd	Ni
1	ICV	4.962	4.930	5.048	5.039	4.951	5.012
2	ICB	.0071	.0002	.0025	.0034	-.0024	-.0010
3	LLS	.2106	.0203	.1024	Q.1439	.2005	.0415
4	ICSA	251.7	-.0056	-.0088	195.8	.0028	-.0123
5	ICSAB	251.0	.4447	-.0065	195.7	.0012	.9084
6	PREPBLKTJA	.0128	.0016	.0007	.0461	-.0018	Q.2437
7	S97T000757_L	.8049	24.74	-.6996	71.08	-.0027	31.95
8	S97T000757	.4064	24.11	-.1105	78.75	.0135	25.36
9	S97T000757_D	.5363	24.14	.0059	82.53	-.0153	20.29
10	S97T000757_A	41.01	64.54	41.85	122.3	41.03	67.68
11	S97T000757_X	3.893	24.75	.7039	57.43	.4831	24.33
12	S97T000757_AX	4275.	4187.	4110.	4158.	4041.	4181.
13	CCV	5.004	4.935	5.058	5.100	4.990	4.991
14	CCB	.0047	.0002	.0008	.0017	.0002	-.0042
15	S97T000738	.1354	16.59	.0057	72.18	.0223	35.48
16	S97T000738_D	.2922	17.82	.0145	72.48	-.0235	73.08
17	S97T000760	.5102	16.55	-.0632	76.49	.0942	55.16
18	S97T000760_D	.1503	18.05	.0769	80.27	-.0848	16.34
19	ICSA	253.1	-.0051	-.0088	194.2	.0026	-.0086
20	ICSAB	250.7	.4494	-.0075	192.8	.0042	.9308
21	CCV_1	4.899	4.901	5.019	4.918	4.848	4.990
22	CCB_1	.0031	.0007	.0033	-.0162	.0013	-.0112

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#	Sample Name	P	Pb	S	Sb	Se	Si
1	ICV	5.052	4.940	4.949	4.773	4.692	5.039
2	ICB	.0043	.0001	-.0110	-.0070	.0016	.0109
3	LLS	.4180	.2170	.2016	.1044	.2076	.1458
4	ICSA	.0187	.0295	-.0417	.0193	-.0460	.0121
5	ICSAB	.0090	1.003	-.0370	.0011	-.0335	.0086
6	PREPBLKTJA	-.0026	.0160	-.0054	-.0071	.0004	.0426
7	S97T000757_L	4.402	-2.799	-2.232	.3179	-.3938	9.555
8	S97T000757	4.138	-.1416	-.2084	-.0963	.6209	5.001
9	S97T000757_D	4.516	.5077	.1459	.0046	.4929	2.560
10	S97T000757_A	46.10	39.97	40.77	39.91	38.77	46.29
11	S97T000757_X	14.48	1.196	-3.192	-1.015	6.993	9.204
12	S97T000757_AX	4123.	4201.	4003.	4132.	4031.	4290.
13	CCV	5.068	4.916	4.976	4.799	4.688	5.057
14	CCB	.0031	-.0123	-.0014	.0047	.0032	.0065
15	S97T000738	3.384	.0235	.0880	.2263	.7637	1.728
16	S97T000738_D	4.176	-.0176	-.3199	.2875	.5317	2.437
17	S97T000760	3.668	.2375	.0428	-.0474	1.663	13.08
18	S97T000760_D	4.341	-.4024	.0209	-.0803	.8491	1.811
19	ICSA	.0279	.0381	-.0367	-.0162	-.0321	.0216
20	ICSAB	.0250	1.007	-.0395	-.0048	-.0276	.0170
21	CCV_1	4.967	4.902	4.933	4.752	4.660	5.019
22	CCB_1	.0073	-.0051	-.0067	-.0069	.0364	.0165

#	Sample Name	Sm	Sr	Th	Ti	Tl	U
1	ICV	4.834	4.896	.0222	4.835	4.877	9.468
2	ICB	.0035	.0001	-.0017	-.0005	-.0144	.0171
3	LLS	.2069	.0206	-.0028	.0203	.4018	.5210
4	ICSA	-.0011	.0020	.0013	.0013	.0321	-.0560
5	ICSAB	-.0006	.0021	-.0096	.0012	.0351	-.0600
6	PREPBLKTJA	.0060	.0003	.0043	-.0004	.0018	-.0536
7	S97T000757_L	.8742	.8171	.6993	.0537	-3.630	1.951
8	S97T000757	.0943	.7766	.1426	.0629	-1.050	-2.540
9	S97T000757_D	-.0323	.7786	.3804	.0234	-1.137	-3.243
10	S97T000757_A	39.87	41.32	.5486	40.03	39.44	74.93
11	S97T000757_X	1.578	.8381	.3131	.2028	-5.700	7.680
12	S97T000757_AX	3996.	4127.	19.53	4081.	4125.	7753.
13	CCV	4.883	4.954	.0213	4.873	4.847	9.597
14	CCB	-.0014	.0001	.0012	.0000	-.0136	.0091
15	S97T000738	-.2244	.4798	.4746	.0642	-.8213	-3.537
16	S97T000738_D	.3328	.4927	.2489	.0531	-.2807	-1.752
17	S97T000760	.4932	.5313	.1959	.0426	-.9631	-1.032
18	S97T000760_D	.1498	.6260	.1420	.0220	.4352	-1.807
19	ICSA	.0095	.0020	-.0036	.0020	.0279	-.0749
20	ICSAB	.0113	.0020	-.0028	.0018	.0628	-.0707
21	CCV_1	4.738	4.824	.0206	4.778	4.758	9.301
22	CCB_1	.0219	.0005	-.0026	-.0000	-.0097	.0967

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#	Sample Name	V	Y	Zn	Zr
1	ICV	5.035	.0057	4.842	4.912
2	ICB	.0005	.0004	.0003	.0005
3	LLS	.1037	.0007	.0201	.0214
4	ICSA	-.0004	.0067	.0068	-.0034
5	ICSAB	.4622	.0068	.9187	-.0024
6	PREPBLKTJA	.0014	.0003	-.0008	.0001
7	S97T000757_L	.1381	.0795	-.0803	.0212
8	S97T000757	.0284	.0107	-.1253	-.0088
9	S97T000757_D	-.0023	.0046	-.1268	-.0409
10	S97T000757_A	41.46	.0420	39.62	40.43
11	S97T000757_X	.3644	.1253	.0253	.1185
12	S97T000757_AX	4076.	4.448	3867.	4071.
13	CCV	5.063	.0054	4.847	4.937
14	CCB	.0002	.0001	-.0000	-.0001
15	S97T000738	-.0283	.0015	-.1423	-.0336
16	S97T000738_D	.0777	.0264	-.4469	.0126
17	S97T000760	.1017	.0326	-.3042	.0763
18	S97T000760_D	.0624	.0233	-.0500	.0209
19	ICSA	.0021	.0072	.0057	-.0003
20	ICSAB	.4686	.0074	.9321	-.0001
21	CCV_1	5.003	.0065	4.853	4.845
22	CCB_1	.0045	.0011	-.0007	.0027

JK [illegible]
05-13-97

FILE # 0970512B.TXT

LABCORE Data Entry Template for Worklist# 18123

Analyst: D. Sipio **Instrument:** ICP02 ICP01 **Book#** 66848

Method: LA-505-151/161 Rev/Mod C-1 5-12-97 5-12-97

Worklist Comment: T-203 (SOLID FUSION DIGEST)

S	Type	Sample#	R	A	Test	Matrix	Group#	Project
1	ICV				@ICP-QC	QC		
2	ICB				@ICP-QC	QC		
3	LLS				@ICP-QC	QC		
4	ICSA				@ICP-QC	QC		
5	ICSAB				@ICP-QC	QC		
6	PREPBLKTJA				@ICP-F01	SOLID		
7	SERDIL	S97T000735	0	F	@ICP-F01	SOLID		
8	SAMPLE	S97T000735	0	F	@ICP-F01	SOLID	97000299	T-203
	Analytes Requested:	AG-F-01 , AL-F-01 , AS-F-01 , B-F-01 , BA-F-01 , BE-F-01 , BI-F-01 , CA-F-01 , CD-F-01 , CE-F-01 , CO-F-01 , CR-F-01 , CU-F-01 , FE-F-01 , LA-F-01 , LI-F-01 , MG-F-01 , MN-F-01 , MO-F-01 , NA-F-01 , ND-F-01 , P-F-01 , PB-F-01 , S-F-01 , SB-F-01 , SE-F-01 , SI-F-01 , SM-F-01 , SR-F-01 , TI-F-01 , TL-F-01 , U-F-01 , V-F-01 , ZN-F-01 , ZR-F-01			
9	DUP	S97T000735	0	F	@ICP-F01	SOLID		
10	SPK	S97T000735	0	F	@ICP-F01	SOLID		
11	CCV				@ICP-QC	QC		
12	CCB				@ICP-QC	QC		
13	SAMPLE	S97T000737	0	F	@ICP-F01	SOLID	97000299	T-203
	Analytes Requested:	AG-F-01 , AL-F-01 , AS-F-01 , B-F-01 , BA-F-01 , BE-F-01 , BI-F-01 , CA-F-01 , CD-F-01 , CE-F-01 , CO-F-01 , CR-F-01 , CU-F-01 , FE-F-01 , LA-F-01 , LI-F-01 , MG-F-01 , MN-F-01 , MO-F-01 , NA-F-01 , ND-F-01 , P-F-01 , PB-F-01 , S-F-01 , SB-F-01 , SE-F-01 , SI-F-01 , SM-F-01 , SR-F-01 , TI-F-01 , TL-F-01 , U-F-01 , V-F-01 , ZN-F-01 , ZR-F-01			

Data Entry Comments: High RPD on Fe S97T000737 (70.24%)
Can be rerun if requested - HLa 5-19-97

S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 18123

S	Type	Sample#	R	A	Test	Matrix	Group#	Project
14	DUP	S97T000737	0	F	@ICP-F01	SOLID		
15	SAMPLE	S97T000759	0	F	@ICP-F01	SOLID	97000299	T-203

Analytes Requested: AG-F-01 , AL-F-01 , AS-F-01 , B-F-01 , BA-F-01 ,
BE-F-01 , BI-F-01 , CA-F-01 , CD-F-01 , CE-F-01 , CO-F-01 ,
CR-F-01 , CU-F-01 , FE-F-01 , LA-F-01 , LI-F-01 , MG-F-01 ,
MN-F-01 , MO-F-01 , NA-F-01 , ND-F-01 , P-F-01 , PB-F-01 ,
S-F-01 , SB-F-01 , SE-F-01 , SI-F-01 , SM-F-01 , SR-F-01 ,
TI-F-01 , TL-F-01 , U-F-01 , V-F-01 , ZN-F-01 , ZR-F-01

16	DUP	S97T000759	0	F	@ICP-F01	SOLID		
17	ICSA				@ICP-QC	QC		
18	ICSAB				@ICP-QC	QC		
19	CCV				@ICP-QC	QC		
20	CCB				@ICP-QC	QC		

Final page for worklist # 18123

JK Lott 05-16-97
Analyst Signature Date

Reviewed by: Saul M. Pang 5/27/97
Analyst Signature Date

		DE.
PBTJA	.250ml - 10ml	1
S97T000735_C	.250ml - 10ml - 2ml - 5ml	205
735	.250 - 10ml	41
735_B	.250ml - 10ml	41
735_A	.250ml - 205ml(S97S) - 7.95ml	41
735_X	.250ml - 10ml - 1ml - 9ml	410
735_AX	.250ml - 10ml - (1ml - 1ml(KuX(25+35)) - 2ml	410
S97T000737	.250ml - 10ml	41
737_D	.250ml - 10ml	41
S97T000759	.250ml - 10ml	41
759_D	.250ml - 10ml	41

Data Entry Comments: Validated by JAnaston 5.19.97

S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

T-203 05-12-97

ICV
ICB
~~HGS~~
ICSQ
ICSQB
Prep Blk TIQ , .25-10 ml, JF 1
595T000735_L , ~~25 10 ml~~ , 25-10-28 , JF 205
595T000735 , 25-10 , JF 41
595T000735_D , 25-10 41
595T000735_Q , 25-10 41 , .25 ml samp/c + 2.05 ml SSTS + 7.85 ml HNO_3
595T000735_X , 25-10-19 , JF 410
595T000735_QX , 25-10-19 416 , 1 ml samp/c + 1 ml each xonic 25 + 35 + 7 ml HNO_3
CCV
CCB
595T000737 , 25-10 , JF 41
595T000737_D , 25-10 41
595T000759 , 25-10 41
595T000759_D , 25-10 41
ICSQ
ICSQB
CCV
CCB

Analysis Report Summary Mon 05-12-97 01:04:44 PM page 1

#	Sample Name	File	Method	Date	Time	OpID	Type	Mode
1	ICV	970512B	ICP2	05/12/97	11:41	DKS	Q	CONC
2	ICB	970512B	ICP2	05/12/97	11:45	DKS	Q	CONC
3	LLS	970512B	ICP2	05/12/97	11:48	DKS	Q	CONC
4	ICSA	970512B	ICP2	05/12/97	11:51	DKS	Q	CONC
5	ICSAB	970512B	ICP2	05/12/97	11:54	DKS	Q	CONC
6	PREPBLKTJA	970512B	ICP2	05/12/97	11:57	DKS	Q	CONC
7	S97T000735_L	970512B	ICP2	05/12/97	12:00	DKS	S	CONC
8	S97T000735	970512B	ICP2	05/12/97	12:03	DKS	S	CONC
9	S97T000735_D	970512B	ICP2	05/12/97	12:06	DKS	S	CONC
10	S97T000735_A	970512B	ICP2	05/12/97	12:10	DKS	S	CONC
11	S97T000735_X	970512B	ICP2	05/12/97	12:13	DKS	S	CONC
12	S97T000735_AX	970512B	ICP2	05/12/97	12:16	DKS	S	CONC
13	CCV	970512B	ICP2	05/12/97	12:21	DKS	Q	CONC
14	CCB	970512B	ICP2	05/12/97	12:34	DKS	Q	CONC
15	S97T000737	970512B	ICP2	05/12/97	12:37	DKS	S	CONC
16	S97T000737_D	970512B	ICP2	05/12/97	12:40	DKS	S	CONC
17	S97T000759	970512B	ICP2	05/12/97	12:43	DKS	S	CONC
18	S97T000759_D	970512B	ICP2	05/12/97	12:46	DKS	S	CONC
19	ICSA	970512B	ICP2	05/12/97	12:52	DKS	Q	CONC
20	ICSAB	970512B	ICP2	05/12/97	12:54	DKS	Q	CONC
21	CCV_1	970512B	ICP2	05/12/97	12:58	DKS	Q	CONC
22	CCB_1	970512B	ICP2	05/12/97	13:02	DKS	Q	CONC

JK [signature]
05-12-97
T-203

S97T000735
S97T000737
S97T000759

SIGNATURE ABOVE REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 496 TO 522

Analysis Report Averages Mon 05-12-97 01:04:44 PM page 2

#	Sample Name	Ag	Al	As	B	Ba	Be
1	ICV	4.802	4.833	5.101	4.911	4.844	5.024
2	ICB	-.0003	.0038	.0032	-.0005	.0000	.0002
3	LLS	.0207	.0914	.2067	.0994	.0980	.0105
4	ICSA	.0025	243.3	.0019	-.0020	.0003	.0004
5	ICSAB	.9544	240.3	.0282	-.0047	.4665	.4746
6	PREPBLKTJA	.0001	.0149	.0016	.0029	.0001	.0003
7	S97T000735_L	.0386	2.342	.4164	-.1934	.2888	.0528
8	S97T000735	-.0172	.2287	.0218	.0404	.2848	.0019
9	S97T000735_D	.0289	.6731	-.4543	.0794	.2720	.0037
10	S97T000735_A	33.14	39.42	41.61	39.19	38.83	40.09
11	S97T000735_X	.7025	3.318	3.452	.0008	.3404	.1059
12	S97T000735_AX	3124.	3979.	4051.	4007.	4061.	4056.
13	CCV	4.902	4.847	5.122	4.919	4.857	5.004
14	CCB	.0075	.0075	.0074	-.0014	-.0000	.0003
15	S97T000737	.0402	.5517	.2632	.1671	1.233	.0107
16	S97T000737_D	.0105	.2473	.4637	.0420	1.211	.0020
17	S97T000759	.0505	.7706	.0193	-.0383	.0462	.0054
18	S97T000759_D	.0152	.9352	.2153	.0202	.0440	.0160
19	ICSA	.0056	242.9	.0044	.0013	.0004	.0006
20	ICSAB	.9560	240.8	-.0372	.0019	.4660	.4748
21	CCV_1	4.835	4.884	5.096	4.947	4.900	5.059
22	CCB_1	.0028	.0102	.0033	.0024	.0000	.0003

#	Sample Name	Bi	Ca	Cd	Ce	Co	Cr
1	ICV	4.977	4.829	4.929	4.843	4.994	4.883
2	ICB	-.0139	.0030	.0020	-.0041	.0016	.0001
3	LLS	.1691	.2091	.0112	.1984	.0410	.0196
4	ICSA	.0091	248.2	.0042	.0166	-.0009	-.0033
5	ICSAB	-.0268	246.5	.9315	.0115	.4652	.4641
6	PREPBLKTJA	.0183	.0087	.0026	.0023	.0015	.0008
7	S97T000735_L	65.52	1.757	.3821	.1101	.3707	5.851
8	S97T000735	61.07	1.076	.0528	-.0314	.0525	5.625
9	S97T000735_D	56.57	.5853	.0745	.2334	.0373	5.511
10	S97T000735_A	100.1	41.09	39.97	39.07	40.31	45.22
11	S97T000735_X	59.21	3.221	.5012	-.6029	.6610	5.921
12	S97T000735_AX	4166.	4111.	4051.	4097.	4049.	4067.
13	CCV	4.980	4.933	4.948	4.837	5.024	4.923
14	CCB	.0296	.0032	.0006	-.0038	.0022	.0007
15	S97T000737	50.87	1.099	.0738	-.0030	.1387	3.598
16	S97T000737_D	53.31	.9530	.0050	-.3496	.0199	3.616
17	S97T000759	71.66	.6110	.0761	.0279	.0481	4.998
18	S97T000759_D	67.79	.4820	.0809	-.1297	.0871	5.184
19	ICSA	-.0240	248.0	.0035	.0161	-.0003	-.0023
20	ICSAB	.0192	245.4	.9259	.0122	.4617	.4628
21	CCV_1	4.923	4.895	4.930	4.875	5.007	4.905
22	CCB_1	-.0065	.0059	.0014	.0011	.0001	-.0003

Analysis Report Averages Mon 05-12-97 01:04:44 PM

#	Sample Name	Cu	Eu	Fe	K	La	Li
1	ICV	4.878	-.0003	4.580	5.063	4.927	4.856
2	ICB	-.0004	.0010	-.0017	-.0312	-.0003	.0011
3	LLS	.0167	.0014	.0885	.5080	.1010	.0222
4	ICSA	-.0096	-.0253	93.72	.0001	-.0049	.0035
5	ICSAB	.4375	-.0234	92.72	.0846	-.0044	.9832
6	PREPBLKTJA	.0004	.0006	.0007	Q263.8	.0001	.0005
7	S97T000735_L	.1413	.2515	3.894	11970.	18.65	.2462
8	S97T000735	.0185	.0576	4.133	11790.	18.26	.0741
9	S97T000735_D	.0569	.0444	3.715	12330.	17.99	.0494
10	S97T000735_A	39.49	.0230	41.67	11910.	58.09	38.59
11	S97T000735_X	.3105	.0710	3.389	12060.	18.59	.0492
12	S97T000735_AX	3736.	-.2179	3797.	16310.	4110.	4021.
13	CCV	4.848	.0007	4.613	4.730	4.911	4.819
14	CCB	-.0002	.0007	-.0020	-.0048	-.0001	.0005
15	S97T000737	.0521	.0380	29.49	11900.	17.05	.0198
16	S97T000737_D	.0344	.0096	61.87	11980.	17.06	.0100
17	S97T000759	.0308	.0059	4.365	11930.	19.01	.0150
18	S97T000759_D	.1023	-.0113	4.050	12040.	19.66	-.0096
19	ICSA	-.0094	-.0263	93.54	.0887	-.0037	.0035
20	ICSAB	.4402	-.0224	92.45	.1726	-.0038	.9920
21	CCV 1	4.931	-.0004	4.602	5.003	4.963	4.927
22	CCB_1	.0000	.0000	.0008	-.0934	.0008	-.0001

#	Sample Name	Mg	Mn	Mo	Na	Nd	Ni
1	ICV	4.947	4.811	4.961	5.022	4.909	4.878
2	ICB	.0002	.0006	.0025	.0089	-.0021	.0047
3	LLS	.2062	.0200	.0980	.1561	.1956	.0450
4	ICSA	255.0	-.0056	-.0056	196.9	.0035	.0080
5	ICSAB	252.0	.4409	-.0088	194.5	.0027	.9219
6	PREPBLKTJA	.0034	.0012	.0020	.0315	-.0014	Q.1584
7	S97T000735_L	1.294	19.79	.3486	69.35	.3441	82.53
8	S97T000735	.2217	19.42	.0224	76.97	-.0436	80.85
9	S97T000735_D	.4259	18.93	.0143	76.83	-.0049	78.03
10	S97T000735_A	39.74	57.84	40.18	118.0	39.49	119.0
11	S97T000735_X	1.775	19.73	2.144	56.00	.1234	85.02
12	S97T000735_AX	4218.	4068.	4046.	4103.	3966.	4113.
13	CCV	4.974	4.861	4.979	5.013	4.879	4.905
14	CCB	-.0049	.0003	.0036	.0055	-.0014	-.0084
15	S97T000737	.2795	16.39	.1215	74.58	-.0731	76.36
16	S97T000737_D	.0007	16.60	-.0169	73.66	-.1132	92.66
17	S97T000759	.4641	21.09	.0517	71.04	-.0434	101.9
18	S97T000759_D	.1619	21.54	.0971	73.27	-.0347	122.7
19	ICSA	254.9	-.0055	-.0067	196.8	.0024	-.0044
20	ICSAB	252.9	.4387	-.0071	195.5	.0034	.9145
21	CCV 1	5.003	4.837	4.971	5.076	4.938	4.920
22	CCB_1	.0032	-.0001	.0028	.0017	-.0018	.0031

Analysis Report Averages Mon 05-12-97 01:04:44 PM

#	Sample Name	P	Pb	S	Sb	Se	Si
1	ICV	4.977	4.807	4.826	4.719	4.656	4.947
2	ICB	-.0002	.0045	-.0061	-.0021	.0114	.0048
3	LLS	.3814	.2204	.1991	.0971	.1942	.1413
4	ICSA	.0012	.0416	-.0396	-.0049	-.0523	.0070
5	ICSAB	.0058	.9886	-.0237	-.0003	-.0450	.0122
6	PREPBLKTJA	.0089	.0122	-.0059	-.0009	.0031	.0120
7	S97T000735_L	4.027	1.542	.3155	.5514	-1.340	4.388
8	S97T000735	3.988	-.6680	.1680	.0988	-.1645	1.899
9	S97T000735_D	4.514	-.4167	.2248	-.0684	-.3590	2.179
10	S97T000735_A	45.51	38.89	39.62	38.06	38.32	42.36
11	S97T000735_X	4.182	5.689	-2.979	-.9852	-4.196	5.605
12	S97T000735_AX	4014.	4094.	3927.	4097.	3958.	4213.
13	CCV	4.980	4.887	4.926	4.743	4.663	4.999
14	CCB	-.0074	.0178	-.0079	-.0078	.0179	.0031
15	S97T000737	4.061	.1660	.0497	.1792	.4870	2.167
16	S97T000737_D	5.124	.0080	.2994	-.3732	-.1220	1.815
17	S97T000759	3.892	.0982	.2427	-.5392	-.4457	1.621
18	S97T000759_D	4.439	-.0834	-.2381	-.1997	-.1550	1.747
19	ICSA	.0066	.0311	-.0344	-.0072	-.0290	.0109
20	ICSAB	.0162	.9834	-.0255	-.0100	-.0508	.0067
21	CCV_1	4.981	4.822	4.883	4.742	4.682	4.991
22	CCB_1	-.0141	.0072	-.0114	.0025	-.0040	-.0012

#	Sample Name	Sm	Sr	Th	Ti	Tl	U
1	ICV	4.847	4.869	.0326	4.812	4.734	9.454
2	ICB	.0136	.0001	-.0025	-.0000	.0195	.0502
3	LLS	.2169	.0203	-.0078	.0191	.4074	.5535
4	ICSA	.0065	.0022	-.0105	.0005	.0516	-.0225
5	ICSAB	.0101	.0023	-.0080	.0015	.0293	-.0231
6	PREPBLKTJA	.0094	.0003	.0056	-.0002	.0472	-.0453
7	S97T000735_L	3.404	.8947	.7000	.1033	-1.458	9.314
8	S97T000735	.7129	.8594	.0155	.0418	.3337	-.9252
9	S97T000735_D	.4400	.8595	.3937	.0432	-.9716	-1.626
10	S97T000735_A	38.97	39.92	.4360	39.02	38.18	74.02
11	S97T000735_X	2.339	.8952	-.0203	-.0988	.0363	3.250
12	S97T000735_AX	3969.	4054.	27.37	4077.	3973.	7748.
13	CCV	4.823	4.844	.0298	4.805	4.753	9.445
14	CCB	.0092	.0001	-.0034	-.0003	.0093	.0354
15	S97T000737	.3544	.8531	.1967	.3337	-.3106	-1.740
16	S97T000737_D	.0712	.8466	.0019	.0820	-.6529	-3.049
17	S97T000759	.0476	.8636	.3463	.0433	-1.164	-3.381
18	S97T000759_D	-.2583	.9511	.3626	.0534	-.7903	-4.152
19	ICSA	.0106	.0022	-.0016	.0010	-.0133	-.0258
20	ICSAB	.0078	.0023	-.0018	.0015	-.0035	-.0252
21	CCV_1	4.875	4.911	.0363	4.846	4.745	9.528
22	CCB_1	-.0009	.0000	.0031	-.0002	.0026	-.0066

Analysis Report Averages Mon 05-12-97 01:04:44 PM page 5

#	Sample Name	V	Y	Zn	Zr		
1	ICV	4.965	.0052	4.722	4.856		
2	ICB	.0024	.0005	.0015	.0016		
3	LLS	.1050	.0010	.0201	.0227		
4	ICSA	.0019	.0070	.0068	-.0012		
5	ICSAB	.4643	.0071	.9134	-.0011		
6	PREPBLKTJA	.0010	.0003	.0011	.0007		
7	S97T000735_L	.5923	.1085	-.2334	.3108		
8	S97T000735	.1370	.0293	-.4008	.0887		
9	S97T000735_D	.1142	.0200	-.5250	.0315		
10	S97T000735_A	40.20	.0553	38.06	39.16		
11	S97T000735_X	.4467	.0629	-.2919	.1450		
12	S97T000735_AX	4028.	4.322	3789.	4037.		
13	CCV	4.983	.0059	4.772	4.854		
14	CCB	.0017	.0003	.0011	.0013		
15	S97T000737	.0786	.0168	-.3977	.0451		
16	S97T000737_D	.0202	-.0019	-.4264	.0149		
17	S97T000759	.0074	-.0050	-.6694	.0369		
18	S97T000759_D	-.0463	-.0111	-.7505	-.0383		
19	ICSA	.0019	.0071	.0072	-.0015		
20	ICSAB	.4622	.0070	.9116	-.0019		
21	CCV_1	4.992	.0051	4.733	4.875		
22	CCB_1	-.0002	-.0002	.0004	-.0006		

JK 5/12
05-12-97

LABCORE Data Entry Template for Worklist# 18150

Analyst: D. STOO **Instrument:** ICP02 **Book#** 66848

Method: LA-505-151/161 Rev/Mod C-1 BK 5-15-97 BK 5-15-97

Worklist Comment: T-203 (SOLID FUSION DIGEST)

S	Type	Sample#	R	A	Test	Matrix	Group#	Project
1	ICV				@ICP-QC	QC		
2	ICB				@ICP-QC	QC		
3	LLS				@ICP-QC	QC		
4	ICSA				@ICP-QC	QC		
5	ICSAB				@ICP-QC	QC		
6	PREPBLKTJA				@ICP-F01	SOLID		
7	SERDIL	S97T000739	0	F	@ICP-F01	SOLID		
8	SAMPLE	S97T000739	0	F	@ICP-F01	SOLID	97000299	T-203
	Analytes Requested:	AG-F-01 , AL-F-01 , AS-F-01 , B-F-01 , BA-F-01 , BE-F-01 , BI-F-01 , CA-F-01 , CD-F-01 , CE-F-01 , CO-F-01 , CR-F-01 , CU-F-01 , FE-F-01 , LA-F-01 , LI-F-01 , MG-F-01 , MN-F-01 , MO-F-01 , NA-F-01 , ND-F-01 , P-F-01 , PB-F-01 , S-F-01 , SB-F-01 , SE-F-01 , SI-F-01 , SM-F-01 , SR-F-01 , TI-F-01 , TL-F-01 , U-F-01 , V-F-01 , ZN-F-01 , ZR-F-01			
9	DUP	S97T000739	0	F	@ICP-F01	SOLID		
10	SPK 1 ppm Sample & Spike Qty 10 ppm	S97T000739	0	F	@ICP-F01	SOLID		
11	CCV	BK 05-15-97			@ICP-QC	QC		
12	CCB				@ICP-QC	QC		
13	SAMPLE	S97T000740	0	F	@ICP-F01	SOLID	97000299	T-203
	Analytes Requested:	AG-F-01 , AL-F-01 , AS-F-01 , B-F-01 , BA-F-01 , BE-F-01 , BI-F-01 , CA-F-01 , CD-F-01 , CE-F-01 , CO-F-01 , CR-F-01 , CU-F-01 , FE-F-01 , LA-F-01 , LI-F-01 , MG-F-01 , MN-F-01 , MO-F-01 , NA-F-01 , ND-F-01 , P-F-01 , PB-F-01 , S-F-01 , SB-F-01 , SE-F-01 , SI-F-01 , SM-F-01 , SR-F-01 , TI-F-01 , TL-F-01 , U-F-01 , V-F-01 , ZN-F-01 , ZR-F-01			

Data Entry Comments:

S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 18150

S	Type	Sample#	R	A	Test	Matrix	Group#	Project
14	DUP	S97T000740	0	F	@ICP-F01	SOLID		
15	SAMPLE	S97T000761	0	F	@ICP-F01	SOLID	97000299	T-203
	Analytes Requested:	AG-F-01 , AL-F-01 , AS-F-01 , B-F-01 , BA-F-01 , BE-F-01 , BI-F-01 , CA-F-01 , CD-F-01 , CE-F-01 , CO-F-01 , CR-F-01 , CU-F-01 , FE-F-01 , LA-F-01 , LI-F-01 , MG-F-01 , MN-F-01 , MO-F-01 , NA-F-01 , ND-F-01 , P-F-01 , PB-F-01 , S-F-01 , SB-F-01 , SE-F-01 , SI-F-01 , SM-F-01 , SR-F-01 , TI-F-01 , TL-F-01 , U-F-01 , V-F-01 , ZN-F-01 , ZR-F-01					
16	DUP	S97T000761	0	F	@ICP-F01	SOLID		
17	CCV				@ICP-QC	QC		
18	CCB				@ICP-QC	QC		
19	PREPBLKTJA				@ICP-F01	SOLID		
20	SAMPLE	S97T000741	0	F	@ICP-F01	SOLID	97000299	T-203
	Analytes Requested:	AG-F-01 , AL-F-01 , AS-F-01 , B-F-01 , BA-F-01 , BE-F-01 , BI-F-01 , CA-F-01 , CD-F-01 , CE-F-01 , CO-F-01 , CR-F-01 , CU-F-01 , FE-F-01 , LA-F-01 , LI-F-01 , MG-F-01 , MN-F-01 , MO-F-01 , NA-F-01 , ND-F-01 , P-F-01 , PB-F-01 , S-F-01 , SB-F-01 , SE-F-01 , SI-F-01 , SM-F-01 , SR-F-01 , TI-F-01 , TL-F-01 , U-F-01 , V-F-01 , ZN-F-01 , ZR-F-01					
21	DUP	S97T000741	0	F	@ICP-F01	SOLID		
22	SAMPLE	S97T000762	0	F	@ICP-F01	SOLID	97000299	T-203
	Analytes Requested:	AG-F-01 , AL-F-01 , AS-F-01 , B-F-01 , BA-F-01 , BE-F-01 , BI-F-01 , CA-F-01 , CD-F-01 , CE-F-01 , CO-F-01 , CR-F-01 , CU-F-01 , FE-F-01 , LA-F-01 , LI-F-01 , MG-F-01 , MN-F-01 , MO-F-01 , NA-F-01 , ND-F-01 , P-F-01 , PB-F-01 , S-F-01 , SB-F-01 , SE-F-01 , SI-F-01 , SM-F-01 , SR-F-01 , TI-F-01 , TL-F-01 , U-F-01 , V-F-01 , ZN-F-01 , ZR-F-01					
23	DUP	S97T000762	0	F	@ICP-F01	SOLID		
24	SAMPLE	S97T000763	0	F	@ICP-F01	SOLID	97000299	T-203
	Analytes Requested:	AG-F-01 , AL-F-01 , AS-F-01 , B-F-01 , BA-F-01 , BE-F-01 , BI-F-01 , CA-F-01 , CD-F-01 , CE-F-01 , CO-F-01 , CR-F-01 , CU-F-01 , FE-F-01 , LA-F-01 , LI-F-01 , MG-F-01 , MN-F-01 , MO-F-01 , NA-F-01 , ND-F-01 , P-F-01 , PB-F-01 ,					

Data Entry Comments:

S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 18150

S	Type	Sample#	R	A	Test	Matrix	Group#	Project
					S-F-01 , SB-F-01 , SE-F-01 , SI-F-01 , SM-F-01 , SR-F-01 , TI-F-01 , TL-F-01 , U-F-01 , V-F-01 , ZN-F-01 , ZR-F-01			
25	DUP	S97T000763	0	F	@ICP-F01	SOLID		
26	ICSA				@ICP-QC	QC		
27	ICSAB				@ICP-QC	QC		
28	CCV				@ICP-QC	QC		
29	CCB				@ICP-QC	QC		

Final page for worklist # 18150

JK 05-15-97
Analyst Signature Date

Reviewed by: Sam M. Pang 5/27/97
Analyst Signature Date
Validated 5/27/97 SP

Prepblk TJQ	.25-10	DF 1	
S97T000739_L	.25-10-2-8	DF 205	
S97T000739	.25-10	41	
S97T000739_D	.25-10	41	
S97T000739_Q	.25-10	41	.25 mL + 2.05 mL SBTS + 7.95 mL HNO_3
S97T000739_X	.25-10-4-9	DF 410	
S97T000739_QX	.25-10-4-9	410	1 mL sample + 1 mL each XWHC 28435 + 7 mL HNO_3
S97T000740	.25-10	DF 41	
S97T000740_D	.25-10	41	
S97T000741	.25-10	41	
S97T000741_D	.25-10	41	
Prepblk TJQ	.25-10	DF 1	
S97T000781	.25-10	41	
S97T000781_D	.25-10	41	
S97T000763	.25-10	41	
S97T000763_D	.25-10	41	
S97T000763	.25-10	41	
S97T000763_D	.25-10	41	

Data Entry Comments:

S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

Analysis Report Summary Thu 05-15-97 02:28:05 PM

#	Sample Name	File	Method	Date	Time	OpID	Type	Mode
1	ICV	970515A	ICP2	05/15/97	12:37	DKS	Q	CONC
2	ICB	970515A	ICP2	05/15/97	12:40	DKS	Q	CONC
3	LLS	970515A	ICP2	05/15/97	12:43	DKS	Q	CONC
4	ICSA	970515A	ICP2	05/15/97	12:46	DKS	Q	CONC
5	ICSAB	970515A	ICP2	05/15/97	12:49	DKS	Q	CONC
6	PREPBLKTJA	970515A	ICP2	05/15/97	12:52	DKS	Q	CONC
7	S97T000739_L	970515A	ICP2	05/15/97	12:56	DKS	S	CONC
8	S97T000739	970515A	ICP2	05/15/97	12:59	DKS	S	CONC
9	S97T000739_D	970515A	ICP2	05/15/97	13:01	DKS	S	CONC
10	S97T000739_A	970515A	ICP2	05/15/97	13:05	DKS	S	CONC
11	S97T000739_X	970515A	ICP2	05/15/97	13:08	DKS	S	CONC
12	S97T000739_AX	970515A	ICP2	05/15/97	13:15	DKS	S	CONC
13	CCV	970515A	ICP2	05/15/97	13:23	DKS	Q	CONC
14	CCB	970515A	ICP2	05/15/97	13:28	DKS	Q	CONC
15	S97T000740	970515A	ICP2	05/15/97	13:33	DKS	S	CONC
16	S97T000740_D	970515A	ICP2	05/15/97	13:35	DKS	S	CONC
17	S97T000761	970515A	ICP2	05/15/97	13:38	DKS	S	CONC
18	S97T000761_D	970515A	ICP2	05/15/97	13:41	DKS	S	CONC
19	CCV_1	970515A	ICP2	05/15/97	13:45	DKS	Q	CONC
20	CCB_1	970515A	ICP2	05/15/97	13:49	DKS	Q	CONC
21	PREPBLKTJA	970515A	ICP2	05/15/97	13:52	DKS	Q	CONC
22	S97T000741	970515A	ICP2	05/15/97	13:55	DKS	S	CONC
23	S97T000741_D	970515A	ICP2	05/15/97	13:58	DKS	S	CONC
24	S97T000762	970515A	ICP2	05/15/97	14:00	DKS	S	CONC
25	S97T000762_D	970515A	ICP2	05/15/97	14:03	DKS	S	CONC
26	S97T000763	970515A	ICP2	05/15/97	14:06	DKS	S	CONC
27	S97T000763_D	970515A	ICP2	05/15/97	14:09	DKS	S	CONC
28	ICSA	970515A	ICP2	05/15/97	14:14	DKS	Q	CONC
29	ICSAB	970515A	ICP2	05/15/97	14:17	DKS	Q	CONC
30	CCV_2	970515A	ICP2	05/15/97	14:21	DKS	Q	CONC
31	CCB_2	970515A	ICP2	05/15/97	14:25	DKS	Q	CONC

JK Lab
05-15-97
T-103

S97T000739
S97T000740
S97T000761

S97T000741
S97T000762
S97T000763

SIGNATURE ABOVE REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 504 TO 509

Analysis Report Averages THU 05-15-97 02:28:05 PM

#	Sample Name	Ag	Al	As	B	Ba	Be
1	ICV	4.846	4.846	5.149	4.980	4.936	5.047
2	ICB	-.0004	-.0050	-.0023	.0000	.0000	.0000
3	LLS	.0209	.0931	.2126	.0992	.1004	.0105
4	ICSA	.0003	240.4	-.0373	-.0000	.0005	-.0001
5	ICSAB	.9494	236.7	-.0152	.0002	.4601	.4664
6	PREPBLKTJA	-.0004	.0027	.0007	.0010	.0002	.0002
7	S97T000739_L	.0106	1.027	-.0413	-.3949	.0786	.0357
8	S97T000739	-.0469	.1325	-.5446	-.1958	.0564	.0001
9	S97T000739_D	-.0412	-.2154	-.5173	-.1543	.0688	-.0088
10	S97T000739_A	32.61	39.20	41.57	38.88	38.69	39.80
11	S97T000739_X	2.355	-3.476	2.926	-.1872	.1081	-.0182
12	S97T000739_AX	3315.	3931.	4056.	3988.	4037.	4024.
13	CCV	4.885	4.905	5.185	5.025	5.013	5.101
14	CCB	.0043	.0052	-.0015	.0000	.0001	.0003
15	S97T000740	.0097	-.2241	.4337	-.0586	.0545	-.0069
16	S97T000740_D	.0099	-.0335	.6826	-.0775	.0472	.0020
17	S97T000761	.0092	.0387	.1772	-.0989	.0488	.0038
18	S97T000761_D	.0266	.3570	-.0001	-.1392	.0523	.0003
19	CCV_1	4.909	4.903	5.207	5.048	5.027	5.127
20	CCB_1	.0000	-.0123	.0073	-.0034	.0001	-.0002
21	PREPBLKTJA	.0003	-.0040	.0020	-.0015	.0002	.0001
22	S97T000741	.0093	.0688	.3334	-.2598	.0325	.0056
23	S97T000741_D	-.0080	.5220	-.0452	-.1198	.0360	.0146
24	S97T000762	.0037	.2447	-.1356	-.1591	.0435	.0056
25	S97T000762_D	-.0262	.8394	.5848	.0411	.0346	.0127
26	S97T000763	-.0141	.1829	-.1704	.0209	.0400	.0038
27	S97T000763_D	-.0195	.1103	-.1530	-.3797	.0381	.0074
28	ICSA	.0008	246.9	.0285	-.0070	.0003	.0005
29	ICSAB	.9746	245.4	-.0130	-.0071	.4873	.4868
30	CCV_2	4.937	4.924	5.238	5.055	5.060	5.146
31	CCB_2	-.0001	-.0038	-.0064	-.0020	.0000	.0000

#	Sample Name	Bi	Ca	Cd	Ce	Co	Cr
1	ICV	4.924	4.931	4.960	4.891	5.031	4.925
2	ICB	-.0257	.0021	.0006	-.0097	-.0003	.0005
3	LLS	Q.1099	.2109	.0119	.1983	.0435	.0220
4	ICSA	-.0395	250.9	.0033	.0113	.0028	-.0014
5	ICSAB	-.0285	250.1	.9319	.0124	.4627	.4667
6	PREPBLKTJA	-.0115	.0174	.0030	-.0019	.0018	.0012
7	S97T000739_L	73.03	3.474	.1883	.5933	.3822	6.445
8	S97T000739	71.79	1.187	.0315	.0997	-.0484	6.021
9	S97T000739_D	65.82	.8602	-.0098	.1940	-.0027	5.771
10	S97T000739_A	115.0	42.69	40.94	38.90	41.42	46.82
11	S97T000739_X	57.52	5.986	.8055	-2.626	-.2794	5.968
12	S97T000739_AX	4178.	4182.	4060.	4034.	4034.	4083.
13	CCV	5.045	4.994	4.993	4.931	5.058	4.959
14	CCB	-.0279	.0036	.0018	-.0063	-.0016	-.0002
15	S97T000740	90.61	.9730	.0427	.0307	.0750	8.711
16	S97T000740_D	82.13	1.039	.0463	.0296	.0567	8.403
17	S97T000761	99.63	.9379	.0664	-.0310	-.0021	7.901
18	S97T000761_D	88.68	.9827	.0686	-.1118	.0421	7.801

Analysis Report Averages Thu 05-15-97 02:28:05 PM page 3

#	Sample Name	Bi	Ca	Cd	Ce	Co	Cr
19	CCV_1	5.027	5.070	5.043	4.939	5.113	5.022
20	CCB_1	-.0302	.0048	.0010	-.0050	.0003	-.0001
21	PREPBLKTJA	-.0328	.0209	.0007	-.0047	-.0007	.0004
22	S97T000741	69.97	1.009	.0621	-.1953	-.0033	6.728
23	S97T000741_D	77.00	.9390	.0144	-.0838	.0510	6.960
24	S97T000762_	85.21	.9733	.1029	-.2718	-.0369	8.895
25	S97T000762_D	69.76	1.065	.0987	-.1590	.0452	7.414
26	S97T000763_	78.76	1.063	.0542	-.1098	.1116	8.326
27	S97T000763_D	84.09	.9342	.0630	-.1282	.0595	8.841
28	ICSA	-.0422	255.5	.0026	.0076	.0000	-.0017
29	ICSAB	-.0213	255.9	.9527	.0127	.4745	.4783
30	CCV_2	5.029	5.111	5.051	4.973	5.132	5.041
31	CCB_2	-.0276	.0037	.0012	-.0086	-.0001	.0002

#	Sample Name	Cu	Eu	Fe	K	La	Li
1	ICV	4.908	-.0020	4.608	4.942	4.969	4.868
2	ICB	-.0002	-.0001	.0001	-.1232	-.0002	.0001
3	LLS	.0168	.0011	.0899	.3963	.1028	.0222
4	ICSA	-.0109	-.0415	93.35	.0385	-.0044	.0050
5	ICSAB	.4243	-.0414	92.33	.2373	-.0033	.9493
6	PREPBLKTJA	-.0004	.0014	.0005	Q271.8	-.0006	.0017
7	S97T000739_L	-.1407	.2928	11.27	11180.	20.37	.3972
8	S97T000739_	-.0323	.0872	11.30	10900.	19.83	.0745
9	S97T000739_D	-.0072	.0795	15.61	10940.	18.84	.0745
10	S97T000739_A	38.35	.0623	49.24	11200.	59.73	37.21
11	S97T000739_X	-.2162	.7684	11.96	10980.	20.17	.8928
12	S97T000739_AX	3653.	-.9357	3798.	15180.	4051.	3920.
13	CCV	4.976	-.0022	4.658	5.050	5.020	4.951
14	CCB	.0006	-.0006	.0001	-.1841	-.0001	.0001
15	S97T000740	.0254	.0093	5.961	11350.	21.42	.0350
16	S97T000740_D	.0181	-.0037	9.148	12180.	20.11	.0002
17	S97T000761_	.0140	-.0180	5.445	11010.	25.60	.0052
18	S97T000761_D	.0391	-.0192	5.327	11030.	25.21	-.0197
19	CCV_1	4.955	-.0018	4.699	5.263	5.032	4.905
20	CCB_1	-.0007	.0004	-.0005	-.0341	-.0005	.0027
21	PREPBLKTJA	-.0003	-.0003	.0024	Q304.7	.0010	.0005
22	S97T000741	.0151	-.0091	3.736	12250.	19.74	-.0148
23	S97T000741_D	.0305	-.0164	3.913	13010.	20.44	-.0147
24	S97T000762_	.0246	-.0146	5.049	12500.	23.35	-.0097
25	S97T000762_D	.0568	.0029	4.389	11050.	23.32	.0101
26	S97T000763_	.0608	.0029	4.592	12160.	24.83	.0350
27	S97T000763_D	.0176	-.0149	4.783	12350.	22.64	.0201
28	ICSA	-.0100	-.0419	95.64	.1529	-.0049	.0030
29	ICSAB	.4485	-.0421	95.23	.1298	-.0043	1.002
30	CCV_2	4.988	-.0016	4.701	4.840	5.066	4.951
31	CCB_2	-.0011	-.0002	-.0001	-.2000	-.0008	.0004

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#	Sample Name	Mg	Mn	Mo	Na	Nd	Ni
1	ICV	4.956	4.849	4.990	5.095	4.957	4.890
2	ICB	-.0003	.0000	.0030	.0051	.0027	-.0104
3	LLS	.2085	.0203	.1040	.1835	.1994	.0371
4	ICSA	252.4	-.0055	-.0025	192.2	.0044	.0029
5	ICSAB	248.7	.4402	-.0111	188.4	.0018	.9088
6	PREPBLKTJA	.0028	.0016	.0019	.0686	-.0004	Q.0962
7	S97T000739_L	-.2051	20.76	.5870	61.56	-.1034	70.59
8	S97T000739	.3286	20.16	-.0843	62.92	-.1108	68.64
9	S97T000739_D	.2286	19.33	-.0151	62.73	-.0001	101.2
10	S97T000739_A	39.20	59.83	41.02	104.5	39.29	111.1
11	S97T000739_X	.7835	20.74	.7192	61.47	.5689	69.33
12	S97T000739_AX	4164.	4066.	4016.	4011.	3915.	4123.
13	CCV	5.014	4.891	5.025	5.165	4.998	4.997
14	CCB	-.0012	-.0001	.0013	-.0009	.0010	-.0088
15	S97T000740	.1861	24.24	.0443	72.84	.0615	131.2
16	S97T000740_D	.2692	22.63	-.0333	71.41	.0774	57.21
17	S97T000761	.1721	25.36	.0516	71.65	.0511	55.30
18	S97T000761_D	.0564	25.15	-.0335	71.57	-.0207	170.9
19	CCV_1	5.032	4.935	5.063	5.132	5.019	5.030
20	CCB_1	.0005	.0001	.0019	.0072	-.0008	-.0002
21	PREPBLKTJA	-.0010	.0021	.0022	.0758	.0017	Q.1492
22	S97T000741	.0961	21.42	-.1105	67.79	-.0440	71.61
23	S97T000741_D	.2285	21.96	.0590	67.76	-.0061	83.28
24	S97T000762	.1031	24.36	.0053	72.86	.0142	34.96
25	S97T000762_D	-.3041	23.61	.0369	62.28	-.0106	59.41
26	S97T000763	-.0675	25.30	-.0023	69.37	.1169	68.28
27	S97T000763_D	.2110	23.59	-.0179	71.74	.0678	37.13
28	ICSA	258.6	-.0060	-.0093	198.8	.0030	-.0120
29	ICSAB	256.9	.4522	-.0085	197.6	.0028	.9443
30	CCV_2	5.039	4.953	5.088	5.166	5.047	5.020
31	CCB_2	.0004	-.0001	.0025	.0004	-.0009	-.0004

#	Sample Name	P	Pb	S	Sb	Se	Si
1	ICV	5.049	4.819	4.894	4.734	4.664	4.989
2	ICB	-.0053	.0092	-.0028	-.0007	.0128	.0050
3	LLS	.3989	.2272	.2052	.1058	.1939	.1456
4	ICSA	.0312	.0309	-.0402	.0098	-.0243	.0157
5	ICSAB	.0121	.9871	-.0369	.0062	-.0277	.0143
6	PREPBLKTJA	-.0037	.0069	-.0119	.0118	.0051	.0127
7	S97T000739_L	.7358	1.570	-1.717	-.8533	3.742	3.905
8	S97T000739	3.587	-.1808	-.0831	.2134	1.204	2.099
9	S97T000739_D	3.210	-.2399	-.7548	-.0002	.5195	1.465
10	S97T000739_A	44.31	40.26	39.87	38.83	38.43	43.45
11	S97T000739_X	-1.600	-2.340	-.5301	3.110	9.339	7.398
12	S97T000739_AX	3986.	4104.	3922.	4046.	3914.	4176.
13	CCV	5.040	4.849	4.936	4.794	4.734	5.040
14	CCB	-.0216	-.0103	-.0134	.0050	-.0100	.0021
15	S97T000740	4.337	-.3326	.1336	-.0490	-.4441	1.325
16	S97T000740_D	3.918	.2425	-.2451	.2001	-.0455	1.376
17	S97T000761	4.142	.0341	.0710	.0910	-.0128	1.386
18	S97T000761_D	4.314	.0370	-.1478	.0559	.0364	1.366

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#	Sample Name	P	Pb	S	Sb	Se	Si
19	CCV_1	5.008	4.923	4.950	4.795	4.758	5.073
20	CCB_1	-.0128	-.0117	-.0076	.0051	.0124	.0061
21	PREPBLKTJA	-.0142	-.0126	-.0041	.0006	-.0022	.0105
22	S97T000741	4.111	-.4174	-.0897	.2281	.1900	1.296
23	S97T000741_D	4.473	-.0564	-.2618	-.0924	-.0609	1.322
24	S97T000762	4.523	.0791	-.1273	.2744	.5531	1.482
25	S97T000762_D	4.495	.2695	-.2316	.1308	.5931	2.731
26	S97T000763	4.143	.6442	-.0079	.1059	.7049	1.237
27	S97T000763_D	4.361	.1012	-.3308	.2180	.1099	1.518
28	ICSA	.0017	.0414	-.0423	.0081	-.0295	.0094
29	ICSAB	.0169	.9996	-.0285	.0051	-.0194	.0055
30	CCV_2	5.091	4.918	4.952	4.818	4.720	5.088
31	CCB_2	.0028	-.0091	-.0058	.0110	-.0044	.0004

#	Sample Name	Sm	Sr	Th	Ti	Tl	U
1	ICV	4.872	4.912	.0311	4.866	4.815	9.531
2	ICB	.0023	.0001	-.0008	.0002	-.0220	.0068
3	LLS	.2191	.0206	-.0049	.0198	.4027	.5512
4	ICSA	.0178	.0020	-.0092	.0010	-.0306	.0202
5	ICSAB	.0202	.0021	-.0028	.0013	-.0101	.0373
6	PREPBLKTJA	.0173	.0005	.0013	-.0002	-.0013	-.0060
7	S97T000739_L	3.947	.7148	.1229	-.0517	-5.050	12.65
8	S97T000739	1.208	.6616	-.3188	-.0104	-.5766	1.311
9	S97T000739_D	1.022	.6356	-.0217	.0112	-.3945	.9514
10	S97T000739_A	39.44	39.47	.2815	39.16	37.58	75.79
11	S97T000739_X	11.62	.8421	-2.033	-.0134	-5.674	44.43
12	S97T000739_AX	3905.	4006.	26.58	4021.	3969.	7588.
13	CCV	4.930	4.961	.0307	4.892	4.784	9.646
14	CCB	-.0058	.0000	.0050	-.0005	-.0133	-.0249
15	S97T000740	-.0320	.7876	.2362	.0540	.2115	-3.358
16	S97T000740_D	-.0860	.7378	.1183	.0331	-1.127	-3.669
17	S97T000761	-.2356	.9744	.2367	.0233	-1.026	-4.222
18	S97T000761_D	-.2895	.9743	.3213	.0339	-1.212	-4.444
19	CCV_1	4.936	4.981	.0374	4.906	4.817	9.674
20	CCB_1	.0082	.0001	-.0046	-.0005	-.0103	.0250
21	PREPBLKTJA	-.0001	.0003	.0036	.0003	-.0340	-.0915
22	S97T000741	-.1549	1.033	.2753	.0131	-1.122	-3.949
23	S97T000741_D	-.2472	1.070	.3000	.0341	-.3824	-4.901
24	S97T000762	-.1026	1.324	.2953	.0442	-1.229	-4.151
25	S97T000762_D	-.0118	1.018	.0523	.0223	-.3707	-3.064
26	S97T000763	-.0135	1.046	.2303	.0644	-1.644	-3.545
27	S97T000763_D	-.1045	1.308	.1629	.0230	-1.091	-3.878
28	ICSA	-.0038	.0021	-.0018	.0013	.0016	-.0428
29	ICSAB	.0036	.0022	.0037	.0020	-.0330	-.0298
30	CCV_2	4.966	5.016	.0301	4.941	4.856	9.722
31	CCB_2	-.0017	.0001	-.0005	.0000	-.0207	-.0036

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#	Sample Name	V	Y	Zn	Zr		
1	ICV	4.999	.0049	4.744	4.892		
2	ICB	.0006	.0001	-.0004	.0004		
3	LLS	.1062	.0011	.0196	.0228		
4	ICSA	.0023	.0074	.0051	-.0001		
5	ICSAB	.4610	.0075	.9200	.0001		
6	PREPBLKTJA	.0037	.0008	.0015	.0029		
7	S97T000739_L	.8703	.2035	-.2731	.5091		
8	S97T000739	.2601	.0541	-.4204	.2040		
9	S97T000739_D	.2438	.0510	-.6590	.1669		
10	S97T000739_A	40.78	.0931	39.10	39.38		
11	S97T000739_X	2.203	.5273	-.3648	1.626		
12	S97T000739_AX	3991.	4.326	3789.	3981.		
13	CCV	5.040	.0049	4.777	4.934		
14	CCB	-.0005	-.0001	.0011	-.0011		
15	S97T000740	.0218	.0046	-.8949	-.0150		
16	S97T000740_D	.0387	.0016	-.3310	.0092		
17	S97T000761	-.0188	-.0046	-.3240	-.0293		
18	S97T000761_D	-.0183	-.0078	-1.145	-.0351		
19	CCV_1	5.080	.0054	4.825	4.960		
20	CCB_1	.0013	.0003	-.0002	.0011		
21	PREPBLKTJA	.0003	-.0000	-.0014	-.0006		
22	S97T000741	-.0229	-.0047	-.4543	-.0475		
23	S97T000741_D	-.0299	-.0140	-.5162	-.0638		
24	S97T000762	-.0175	-.0047	-.1766	-.0490		
25	S97T000762_D	.0208	.0045	-.3096	.0138		
26	S97T000763	.0044	.0015	-.3907	-.0144		
27	S97T000763_D	.0224	-.0048	-.1980	-.0242		
28	ICSA	-.0004	.0066	.0064	-.0030		
29	ICSAB	.4736	.0069	.9326	-.0017		
30	CCV_2	5.105	.0054	4.833	4.989		
31	CCB_2	.0000	-.0001	-.0007	-.0007		

JK Ldd
05-15-97

LABCORE Data Entry Template for Worklist# 18163

Analyst: S470 **Instrument:** ICP01 02 **Book#** 66848

Method: LA-505-151/161 Rev/Mod C-1 5-16-97

Worklist Comment: T-203 (SOLID FUSION DIGEST)

S	Type	Sample#	R	A	Test	Matrix	Group#	Project
1	ICV				@ICP-QC	QC		
2	ICB				@ICP-QC	QC		
3	LLS				@ICP-QC	QC		
4	ICSA				@ICP-QC	QC		
5	ICSAB				@ICP-QC	QC		
6	PREPBLKTJA				@ICP-F01	SOLID		
7	SERDIL	S97T000742	0	F	@ICP-F01	SOLID		
8	SAMPLE	S97T000742	0	F	@ICP-F01	SOLID	97000299	T-203
	Analytes Requested:	AG-F-01 , AL-F-01 , AS-F-01 , B-F-01 , BA-F-01 , BE-F-01 , BI-F-01 , CA-F-01 , CD-F-01 , CE-F-01 , CO-F-01 , CR-F-01 , CU-F-01 , FE-F-01 , LA-F-01 , LI-F-01 , MG-F-01 , MN-F-01 , MO-F-01 , NA-F-01 , ND-F-01 , P-F-01 , PB-F-01 , S-F-01 , SB-F-01 , SE-F-01 , SI-F-01 , SM-F-01 , SR-F-01 , TI-F-01 , TL-F-01 , U-F-01 , V-F-01 , ZN-F-01 , ZR-F-01						
9	DUP	S97T000742	0	F	@ICP-F01	SOLID		
10	SPK	S97T000742	0	F	@ICP-F01	SOLID		
11	CCV				@ICP-QC	QC		
12	CCB				@ICP-QC	QC		
13	SAMPLE	S97T000743	0	F	@ICP-F01	SOLID	97000299	T-203
	Analytes Requested:	AG-F-01 , AL-F-01 , AS-F-01 , B-F-01 , BA-F-01 , BE-F-01 , BI-F-01 , CA-F-01 , CD-F-01 , CE-F-01 , CO-F-01 , CR-F-01 , CU-F-01 , FE-F-01 , LA-F-01 , LI-F-01 , MG-F-01 , MN-F-01 , MO-F-01 , NA-F-01 , ND-F-01 , P-F-01 , PB-F-01 , S-F-01 , SB-F-01 , SE-F-01 , SI-F-01 , SM-F-01 , SR-F-01 , TI-F-01 , TL-F-01 , U-F-01 , V-F-01 , ZN-F-01 , ZR-F-01						

Data Entry Comments:

S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 18163

S	Type	Sample#	R	A	Test	Matrix	Group#	Project
14	DUP	S97T000743	0	F	@ICP-F01	SOLID		
15	SAMPLE	S97T000764	0	F	@ICP-F01	SOLID	97000299	T-203
	Analytes Requested:	AG-F-01 , AL-F-01 , AS-F-01 , B-F-01 , BA-F-01 , BE-F-01 , BI-F-01 , CA-F-01 , CD-F-01 , CE-F-01 , CO-F-01 , CR-F-01 , CU-F-01 , FE-F-01 , LA-F-01 , LI-F-01 , MG-F-01 , MN-F-01 , MO-F-01 , NA-F-01 , ND-F-01 , P-F-01 , PB-F-01 , S-F-01 , SB-F-01 , SE-F-01 , SI-F-01 , SM-F-01 , SR-F-01 , TI-F-01 , TL-F-01 , U-F-01 , V-F-01 , ZN-F-01 , ZR-F-01				
16	DUP	S97T000764	0	F	@ICP-F01	SOLID		
17	CCV				@ICP-QC	QC		
18	CCB				@ICP-QC	QC		
19	PREPBLKTJA				@ICP-F01	SOLID		
20	SAMPLE	S97T000744	0	F	@ICP-F01	SOLID	97000299	T-203
	Analytes Requested:	AG-F-01 , AL-F-01 , AS-F-01 , B-F-01 , BA-F-01 , BE-F-01 , BI-F-01 , CA-F-01 , CD-F-01 , CE-F-01 , CO-F-01 , CR-F-01 , CU-F-01 , FE-F-01 , LA-F-01 , LI-F-01 , MG-F-01 , MN-F-01 , MO-F-01 , NA-F-01 , ND-F-01 , P-F-01 , PB-F-01 , S-F-01 , SB-F-01 , SE-F-01 , SI-F-01 , SM-F-01 , SR-F-01 , TI-F-01 , TL-F-01 , U-F-01 , V-F-01 , ZN-F-01 , ZR-F-01				
21	DUP	S97T000744	0	F	@ICP-F01	SOLID		
22	SAMPLE	S97T000765	0	F	@ICP-F01	SOLID	97000299	T-203
	Analytes Requested:	AG-F-01 , AL-F-01 , AS-F-01 , B-F-01 , BA-F-01 , BE-F-01 , BI-F-01 , CA-F-01 , CD-F-01 , CE-F-01 , CO-F-01 , CR-F-01 , CU-F-01 , FE-F-01 , LA-F-01 , LI-F-01 , MG-F-01 , MN-F-01 , MO-F-01 , NA-F-01 , ND-F-01 , P-F-01 , PB-F-01 , S-F-01 , SB-F-01 , SE-F-01 , SI-F-01 , SM-F-01 , SR-F-01 , TI-F-01 , TL-F-01 , U-F-01 , V-F-01 , ZN-F-01 , ZR-F-01				
23	DUP	S97T000765	0	F	@ICP-F01	SOLID		
24	SAMPLE	S97T000766	0	F	@ICP-F01	SOLID	97000299	T-203
	Analytes Requested:	AG-F-01 , AL-F-01 , AS-F-01 , B-F-01 , BA-F-01 , BE-F-01 , BI-F-01 , CA-F-01 , CD-F-01 , CE-F-01 , CO-F-01 , CR-F-01 , CU-F-01 , FE-F-01 , LA-F-01 , LI-F-01 , MG-F-01 , MN-F-01 , MO-F-01 , NA-F-01 , ND-F-01 , P-F-01 , PB-F-01 ,				

Data Entry Comments:

S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 18163

S	Type	Sample#	R	A	Test	Matrix	Group#	Project
					S-F-01 , SB-F-01 , SE-F-01 , SI-F-01 , SM-F-01 , SR-F-01 , TI-F-01 , TL-F-01 , U-F-01 , V-F-01 , ZN-F-01 , ZR-F-01			
25	DUP	S97T000766	0	F	@ICP-F01	SOLID		
26	ICSA				@ICP-QC	QC		
27	ICSAB				@ICP-QC	QC		
28	CCV				@ICP-QC	QC		
29	CCB				@ICP-QC	QC		

Final page for worklist # 18163

JK LAD 05-16-97
Analyst Signature Date

Reviewed + Validated by:
Carl R. Pang 5/28/97
Analyst Signature Date

PrepBlkTJQ , 25-10, DF 1
S97T000742_L , 25-10-2-8 , DF 205
S97T000742 , 25-10 41
S97T000742_D , 25-10 41
S97T000742_Q , 25-10 41 , .25 ml sample + 2.05 ml SSTS + 7.25 ml HNO_3
S97T000742_X , 25-10-1-9 410
S97T000742_QX , 25-10-1-9 410 ; 1ml sample + 1ml each XUHC 28+35 + 7ml HNO_3
S97T000743 , 25-10 , DF 41
S97T000743_D , 25-10 41
S97T000744 , 25-10 41
S97T000744_D , 25-10 41

PrepBlkTJQ , 25-10 , DF 1
S97T000744 , 25-10 , DF 41
S97T000744_D , 25-10 41
S97T000745 , 25-10 41
S97T000745_D , 25-10 41
S97T000764 , 25-10 41
S97T000764_D , 25-10 41

Data Entry Comments:

S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

Analysis Report Summary Fri 05-16-97 01:56:15 PM page 1

#	Sample Name	File	Method	Date	Time	OpID	Type	Mode
1	ICV	970516B	ICP2	05/16/97	12:06	DKS	Q	CONC
2	ICB	970516B	ICP2	05/16/97	12:10	DKS	Q	CONC
3	LLS	970516B	ICP2	05/16/97	12:12	DKS	Q	CONC
4	ICSA	970516B	ICP2	05/16/97	12:15	DKS	Q	CONC
5	ICSAB	970516B	ICP2	05/16/97	12:18	DKS	Q	CONC
6	PREPBLKTJA	970516B	ICP2	05/16/97	12:22	DKS	Q	CONC
7	S97T000742_L	970516B	ICP2	05/16/97	12:25	DKS	S	CONC
8	S97T000742	970516B	ICP2	05/16/97	12:28	DKS	S	CONC
9	S97T000742_D	970516B	ICP2	05/16/97	12:31	DKS	S	CONC
10	S97T000742_A	970516B	ICP2	05/16/97	12:34	DKS	S	CONC
11	S97T000742_X	970516B	ICP2	05/16/97	12:38	DKS	S	CONC
12	S97T000742_AX	970516B	ICP2	05/16/97	12:41	DKS	S	CONC
13	CCV	970516B	ICP2	05/16/97	12:49	DKS	Q	CONC
14	CCB	970516B	ICP2	05/16/97	12:54	DKS	Q	CONC
15	S97T000743	970516B	ICP2	05/16/97	12:58	DKS	S	CONC
16	S97T000743_D	970516B	ICP2	05/16/97	13:00	DKS	S	CONC
17	S97T000764	970516B	ICP2	05/16/97	13:03	DKS	S	CONC
18	S97T000764_D	970516B	ICP2	05/16/97	13:06	DKS	S	CONC
19	CCV_1	970516B	ICP2	05/16/97	13:12	DKS	Q	CONC
20	CCB_1	970516B	ICP2	05/16/97	13:16	DKS	Q	CONC
21	PREPBLKTJA	970516B	ICP2	05/16/97	13:19	DKS	Q	CONC
22	S97T000744	970516B	ICP2	05/16/97	13:22	DKS	S	CONC
23	S97T000744_D	970516B	ICP2	05/16/97	13:24	DKS	S	CONC
24	S97T000765	970516B	ICP2	05/16/97	13:27	DKS	S	CONC
25	S97T000765_D	970516B	ICP2	05/16/97	13:30	DKS	S	CONC
26	S97T000766	970516B	ICP2	05/16/97	13:33	DKS	S	CONC
27	S97T000766_D	970516B	ICP2	05/16/97	13:35	DKS	S	CONC
28	ICSA	970516B	ICP2	05/16/97	13:42	DKS	Q	CONC
29	ICSAB	970516B	ICP2	05/16/97	13:45	DKS	Q	CONC
30	CCV_2	970516B	ICP2	05/16/97	13:48	DKS	Q	CONC
31	CCB_2	970516B	ICP2	05/16/97	13:52	DKS	Q	CONC

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SIGNATURE ABOVE REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 513 TO 518. 5-30-97

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#	Sample Name	Ag	Al	As	B	Ba	Be
1	ICV	4.914	4.979	5.185	5.065	5.094	5.153
2	ICB	.0016	.0170	-.0074	.0040	.0000	.0006
3	LLS	.0244	.1195	.2231	.1101	.1062	.0113
4	ICSA	.0036	248.6	-.0846	.0047	.0003	.0003
5	ICSAB	.9856	249.6	-.0476	.0029	.4976	.4892
6	PREPBLKTJA	.0019	.0150	-.0090	.0020	.0001	.0003
7	S97T000742_L	.3863	3.143	-4.328	.7107	.0345	.0997
8	S97T000742	.0745	.2895	-.5378	-.0601	.0395	.0183
9	S97T000742_D	.0570	.7304	.0939	.1432	.0378	.0128
10	S97T000742_A	38.00	41.69	43.35	41.20	41.53	41.88
11	S97T000742_X	.5290	7.259	-2.148	2.844	.0504	.1993
12	S97T000742_AX	3856.	4121.	4188.	4169.	4304.	4198.
13	CCV	5.000	5.021	5.243	5.089	5.211	5.178
14	CCB	.0026	.0171	-.0045	.0045	.0000	.0006
15	S97T000743	.1268	.9686	-.0511	.0018	.0256	.0274
16	S97T000743_D	.1278	1.161	-.0744	.2254	.0392	.0327
17	S97T000764	.1276	1.741	.4797	.2040	.0446	.0292
18	S97T000764_D	.0504	1.020	-.3787	.2854	.0410	.0256
19	CCV 1	4.954	5.009	5.250	5.070	5.142	5.186
20	CCB 1	.0014	.0197	-.0127	.0069	.0000	.0007
21	PREPBLKTJA	.0018	.0298	-.0096	.0030	.0002	.0009
22	S97T000744	.1036	1.556	-.5698	.2655	.0334	.0346
23	S97T000744_D	.1159	1.343	-.8718	.3267	.0392	.0255
24	S97T000765	.0386	.6455	-.0686	.1845	.0413	.0147
25	S97T000765_D	.0862	1.298	-.2591	.2249	.0413	.0219
26	S97T000766	.0977	.7375	-.2238	.1231	.0240	.0238
27	S97T000766_D	.0558	1.020	-.1317	.1637	.0278	.0129
28	ICSA	.0035	248.3	-.0317	.0043	.0003	.0006
29	ICSAB	.9843	248.4	-.0371	-.0015	.4962	.4892
30	CCV 2	4.964	4.983	5.209	5.064	5.130	5.178
31	CCB 2	.0014	.0165	-.0199	.0064	.0000	.0006

#	Sample Name	Bi	Ca	Cd	Ce	Co	Cr
1	ICV	5.039	4.989	4.974	5.033	5.064	4.956
2	ICB	.0318	.0019	.0013	.0048	.0033	.0013
3	LLS	Q.1361	.2134	.0122	.2264	.0446	.0223
4	ICSA	-.0040	254.4	.0011	.0234	.0019	-.0021
5	ICSAB	.0158	255.1	.9458	.0210	.4763	.4789
6	PREPBLKTJA	-.0074	-.0002	.0016	.0103	.0010	.0007
7	S97T000742_L	90.12	-1.006	-.0358	2.148	.1721	9.938
8	S97T000742	82.93	.1741	.0379	.1782	.0951	9.696
9	S97T000742_D	79.21	.0833	.0609	.2622	.1110	9.222
10	S97T000742_A	127.0	42.37	41.37	42.01	41.94	51.12
11	S97T000742_X	88.56	-2.894	.1277	4.121	.4417	9.926
12	S97T000742_AX	4307.	4241.	4130.	4289.	4127.	4168.
13	CCV	5.150	5.159	5.057	5.121	5.155	5.059
14	CCB	.0182	.0010	.0013	.0044	.0007	.0010
15	S97T000743	107.8	-.0468	.0493	.1767	.1425	7.101
16	S97T000743_D	105.4	-.0979	.0121	.4583	.0396	6.834
17	S97T000764	76.22	-.0217	.0568	.6211	.1457	9.041
18	S97T000764_D	72.47	-.0818	-.0123	.2925	.1412	8.784

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#	Sample Name	Bi	Ca	Gd	Ce	Co	Cr
19	CCV_1	5.062	5.091	5.021	5.058	5.122	5.018
20	CCB_1	.0346	.0038	.0014	.0068	.0014	.0004
21	PREPBLKTJA	.0293	-.0094	.0007	.0084	.0020	.0013
22	S97T000744	107.6	.3880	.0822	.4247	.1019	7.810
23	S97T000744_D	119.8	.8497	.0331	.7396	.0643	8.368
24	S97T000765	105.9	.1490	.0120	.2759	.0227	9.082
25	S97T000765_D	89.36	.2153	.0422	.5071	.1034	9.065
26	S97T000766	105.8	.1893	.0483	.2623	.1253	7.939
27	S97T000766_D	127.9	.1719	-.0072	.0675	.0306	8.014
28	ICSA	.0073	256.4	.0014	.0191	.0025	-.0021
29	ICSAB	.0464	257.9	.9504	.0285	.4762	.4801
30	CCV_2	5.109	5.143	5.045	5.037	5.133	5.046
31	CCB_2	.0427	.0043	.0009	.0133	-.0001	.0011

#	Sample Name	Cu	Eu	Fe	K	La	Li
1	ICV	5.063	-.0035	4.666	5.094	5.132	5.048
2	ICB	.0003	-.0008	.0010	-.1976	.0007	-.0004
3	LLS	.0187	.0002	.0942	.4526	.1090	.0226
4	ICSA	-.0107	-.0433	95.39	-.0630	-.0036	.0026
5	ICSAB	.4583	-.0416	95.62	-.0659	-.0037	1.029
6	PREPBLKTJA	.0000	-.0004	.0020	Q281.9	.0013	-.0004
7	S97T000742_L	.0329	-.1071	4.329	11420.	21.16	-.0254
8	S97T000742	.0525	.0100	4.502	11220.	20.80	.0002
9	S97T000742_D	.0422	.0130	4.457	11550.	21.36	.0105
10	S97T000742_A	41.41	-.0175	43.20	11410.	63.31	40.56
11	S97T000742_X	.2501	-.1887	3.707	11490.	21.42	.0004
12	S97T000742_AX	3886.	-2.349	3900.	15420.	4307.	4200.
13	CCV	5.077	-.0031	4.760	4.809	5.202	5.040
14	CCB	-.0003	-.0002	.0003	-.1989	.0000	-.0001
15	S97T000743	.0916	-.0214	7.776	11480.	21.67	-.0101
16	S97T000743_D	.1184	-.0013	7.602	12440.	22.00	-.0153
17	S97T000764	.1370	-.0206	5.177	10700.	20.40	-.0204
18	S97T000764_D	.0988	-.0109	5.212	11020.	21.11	.0054
19	CCV_1	5.070	-.0030	4.727	4.858	5.139	5.050
20	CCB_1	.0004	-.0007	.0002	-.1081	.0010	-.0004
21	PREPBLKTJA	.0013	-.0005	.0018	Q293.6	.0005	.0000
22	S97T000744	.0739	-.0124	6.107	12100.	21.11	.0054
23	S97T000744_D	.0275	-.0036	6.361	11690.	22.75	-.0050
24	S97T000765	.0970	.0028	6.147	11780.	19.47	.0054
25	S97T000765_D	.0621	.0040	5.713	11900.	19.44	.0053
26	S97T000766	.0821	-.0082	5.806	11550.	23.82	.0054
27	S97T000766_D	.0408	-.0129	5.434	13290.	28.26	-.0049
28	ICSA	-.0100	-.0481	95.78	.1205	-.0036	.0032
29	ICSAB	.4529	-.0477	95.85	.1666	-.0036	1.018
30	CCV_2	5.038	-.0025	4.724	4.864	5.135	4.988
31	CCB_2	.0007	-.0000	.0002	-.1292	.0014	.0000

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#	Sample Name	Mg	Mn	Mo	Na	Nd	Ni
1	ICV	5.075	4.894	5.038	5.235	5.120	4.985
2	ICB	.0097	.0001	.0036	-.0035	.0021	.0023
3	LLS	.2290	.0208	.1009	.1989	.2103	Q.0532
4	ICSA	259.6	-.0064	-.0114	202.5	.0044	.0050
5	ICSAB	260.6	.4531	-.0084	202.8	.0030	.9573
6	PREPBLKTJA	.0102	.0012	.0001	.0750	-.0006	Q.2753
7	S97T000742_L	2.202	23.93	.0332	67.19	.2926	99.88
8	S97T000742	.2530	23.68	.0059	69.40	.0003	96.94
9	S97T000742_D	.3497	23.84	-.0797	69.92	-.0132	124.8
10	S97T000742_A	41.83	64.24	41.89	114.0	42.13	141.1
11	S97T000742_X	5.619	24.27	.4635	62.04	.4077	100.3
12	S97T000742_AX	4362.	4174.	4128.	4256.	4154.	4233.
13	CCV	5.128	4.999	5.121	5.248	5.171	5.071
14	CCB	.0077	.0001	-.0008	.0009	-.0005	.0026
15	S97T000743	.3712	25.50	.0598	69.85	.0172	19.57
16	S97T000743_D	.6509	25.66	-.0418	70.37	.0558	19.72
17	S97T000764	.7789	23.70	.0833	69.34	.0212	170.3
18	S97T000764_D	.5950	23.78	-.0795	68.58	-.0654	168.8
19	CCV_1	5.127	4.946	5.078	5.246	5.108	5.033
20	CCB_1	.0120	.0000	.0011	-.0053	.0000	.0025
21	PREPBLKTJA	.0155	.0014	-.0016	.0556	.0035	Q.1737
22	S97T000744	.9150	24.94	-.0336	67.61	.0448	171.7
23	S97T000744_D	.8252	25.96	-.0099	70.32	.0072	52.45
24	S97T000765	.3949	25.75	.0136	67.62	.0045	166.9
25	S97T000765_D	.6698	24.77	-.0799	69.23	.0283	116.3
26	S97T000766	.5260	26.22	.0755	68.93	.0479	75.30
27	S97T000766_D	.2403	28.46	-.0414	69.65	-.0160	15.32
28	ICSA	260.1	-.0059	-.0101	201.6	.0038	.0025
29	ICSAB	259.9	.4540	-.0103	200.3	.0029	.9490
30	CCV_2	5.091	4.962	5.096	5.190	5.103	5.062
31	CCB_2	.0094	.0002	.0023	.0031	.0016	.0020

#	Sample Name	P	Pb	S	Sb	Se	Si
1	ICV	5.003	4.853	4.918	4.804	4.681	5.038
2	ICB	.0010	.0109	-.0105	.0009	.0234	-.0036
3	LLS	.4003	.2372	.1947	.1042	.2213	.1409
4	ICSA	.0153	.0399	-.0498	.0103	-.0416	.0011
5	ICSAB	-.0058	1.010	-.0289	-.0066	-.0318	-.0008
6	PREPBLKTJA	.0019	.0148	-.0112	-.0118	.0166	.0012
7	S97T000742_L	3.779	3.981	-2.966	.5903	4.145	.6469
8	S97T000742	4.762	.6429	.1777	-.3698	.7862	1.128
9	S97T000742_D	4.581	.4002	-.1140	-.3378	1.353	1.781
10	S97T000742_A	46.17	40.73	40.50	39.56	40.30	43.57
11	S97T000742_X	2.179	3.909	-.6840	-.8420	6.854	.6043
12	S97T000742_AX	4076.	4156.	3993.	4171.	4045.	4266.
13	CCV	5.027	4.972	4.947	4.872	4.737	5.113
14	CCB	.0123	.0070	-.0049	-.0045	.0237	.0013
15	S97T000743	4.579	.2491	.0258	-.0350	.7898	1.082
16	S97T000743_D	4.201	.1700	-.2006	.0355	1.267	1.196
17	S97T000764	5.117	.5991	-.2334	-.3018	.9116	1.516
18	S97T000764_D	4.991	-.2114	-.4064	-.3544	1.078	1.754

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#	Sample Name	P	Pb	S	Sb	Se	Si
19	CCV_1	4.979	4.921	4.974	4.858	4.768	5.095
20	CCB_1	-.0109	.0079	-.0138	-.0105	.0234	-.0014
21	PREPBLKTJA	.0086	.0101	-.0154	-.0069	.0415	.0053
22	S97T000744	4.913	.4999	-.2462	-.3972	1.256	1.241
23	S97T000744_D	5.234	.3281	.1378	-.0191	1.732	1.224
24	S97T000765	4.923	.5665	.0248	-.0997	1.375	1.381
25	S97T000765_D	4.880	.1005	-.2176	.2676	1.189	2.189
26	S97T000766	4.644	.6484	-.4976	-.0488	1.945	2.197
27	S97T000766_D	6.100	.5568	.1541	-.3319	1.510	1.881
28	ICSA	.0134	.0288	-.0464	-.0063	-.0245	.0031
29	ICSAB	.0157	1.032	-.0327	-.0069	-.0291	.0058
30	CCV_2	4.950	4.937	4.922	4.852	4.742	5.089
31	CCB_2	-.0071	.0121	-.0197	-.0060	.0338	.0001

#	Sample Name	Sm	Sr	Th	Ti	Tl	U
1	ICV	5.046	5.074	.0308	4.980	4.872	9.864
2	ICB	-.0127	-.0001	.0048	.0003	.0299	-.0285
3	LLS	.2147	.0215	.0048	.0215	.4222	.5470
4	ICSA	-.0040	.0023	-.0044	.0017	.0281	.0334
5	ICSAB	-.0070	.0023	-.0022	.0015	.0372	.0206
6	PREPBLKTJA	-.0106	.0002	.0103	.0001	.0119	-.1068
7	S97T000742_L	-2.240	1.112	1.307	.1112	3.283	-9.340
8	S97T000742	-.1312	1.118	.5014	.0243	1.016	-3.280
9	S97T000742_D	.0024	1.113	.1660	.0440	.6941	-2.828
10	S97T000742_A	41.10	42.67	.6229	41.02	40.04	77.62
11	S97T000742_X	-4.295	1.101	3.864	.1170	3.461	-7.606
12	S97T000742_AX	4172.	4250.	26.21	4217.	4105.	8127.
13	CCV	5.107	5.133	.0323	5.030	5.006	10.00
14	CCB	-.0024	.0000	.0065	.0003	.0088	-.0062
15	S97T000743	-.6084	1.168	.5746	.0246	.5626	-4.537
16	S97T000743_D	-.3404	1.165	.6007	.0250	.3492	-4.497
17	S97T000764	-.5176	1.194	.7392	.0776	1.397	-4.413
18	S97T000764_D	-.3808	1.221	.4953	.0661	.3190	-3.770
19	CCV_1	5.052	5.084	.0267	4.987	4.968	9.902
20	CCB_1	-.0099	-.0001	.0060	.0005	.0426	-.0231
21	PREPBLKTJA	-.0097	.0000	.0114	.0006	.0172	-.0950
22	S97T000744	-.4201	1.446	.5860	.0874	-.3741	-3.895
23	S97T000744_D	-.3095	1.520	.6744	.0458	.5206	-3.566
24	S97T000765	-.2267	1.176	.3913	.0658	-.1697	-3.467
25	S97T000765_D	-.2108	1.197	.4443	.0658	.9207	-3.086
26	S97T000766	-.3807	1.338	.3519	.0343	.6816	-4.171
27	S97T000766_D	-.3813	1.581	.3531	.0029	-.0801	-4.189
28	ICSA	.0011	.0022	-.0033	.0012	.0480	.0339
29	ICSAB	.0010	.0023	-.0038	.0018	.0386	.0135
30	CCV_2	5.050	5.079	.0244	4.991	4.907	9.876
31	CCB_2	-.0058	.0000	.0070	-.0002	.0281	.0043

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#	Sample Name	V	Y	Zn	Zr		
1	ICV	5.073	.0044	4.749	4.994		
2	ICB	-.0015	-.0003	.0014	-.0018		
3	LLS	.1071	.0006	.0226	.0207		
4	ICSA	-.0004	.0066	.0064	-.0027		
5	ICSAB	.4755	.0066	.9289	-.0030		
6	PREPBLKTJA	-.0006	-.0002	-.0014	-.0022		
7	S97T000742_L	-.2819	-.0442	-.5680	-.3992		
8	S97T000742	-.0019	.0014	-.5773	-.0346		
9	S97T000742_D	.0139	.0044	-.7850	.0055		
10	S97T000742_A	41.99	.0409	39.18	41.11		
11	S97T000742_X	-.4925	.0032	-.5320	-.7447		
12	S97T000742_AX	4129.	3.904	3822.	4164.		
13	CCV	5.152	.0052	4.842	5.071		
14	CCB	-.0008	-.0001	.0012	-.0016		
15	S97T000743	-.0733	-.0141	.0023	-.1321		
16	S97T000743_D	-.0334	-.0013	-.0386	-.0877		
17	S97T000764	-.0405	-.0110	-1.098	-.0821		
18	S97T000764_D	-.0173	-.0048	-1.086	-.0644		
19	CCV_1	5.113	.0049	4.816	5.017		
20	CCB_1	-.0011	-.0002	.0021	-.0019		
21	PREPBLKTJA	-.0006	-.0002	-.0002	-.0019		
22	S97T000744	-.0095	-.0016	-1.124	-.0401		
23	S97T000744_D	.0046	.0015	-.2777	-.0627		
24	S97T000765	.0153	.0015	-1.092	-.0262		
25	S97T000765_D	.0147	.0013	-.7158	-.0149		
26	S97T000766	-.0183	-.0046	-.4510	-.0382		
27	S97T000766_D	-.0209	-.0046	-.0741	-.0537		
28	ICSA	.0010	.0070	.0066	-.0021		
29	ICSAB	.4776	.0069	.9346	-.0022		
30	CCV_2	5.123	.0053	4.831	5.026		
31	CCB_2	-.0002	.0000	.0014	-.0009		

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File # 09705158.TRT

LABCORE Data Entry Template for Worklist# 18222

Analyst: D. SATO **Instrument:** ICP~~01~~ 02 **Book#** 66648

Method: LA-505-~~151~~/161 Rev/Mod C-1 ~~5-15-97~~ 5-15-97

Worklist Comment: T-203(SOLID FUSION DIGEST)

S	Type	Sample#	R	A	Test	Matrix	Group#	Project
1	ICV				@ICP-QC	QC		
2	ICB				@ICP-QC	QC		
3	LLS				@ICP-QC	QC		
4	ICSA				@ICP-QC	QC		
5	ICSAB				@ICP-QC	QC		
6	PREPBLKTJA				@ICP-F01	SOLID		
7	SAMPLE	S97T000745	0	F	@ICP-F01	SOLID	97000299	T-203
	Analytes Requested:	AG-F-01 , AL-F-01 , AS-F-01 , B-F-01 , BA-F-01 , BE-F-01 , BI-F-01 , CA-F-01 , CD-F-01 , CE-F-01 , CO-F-01 , CR-F-01 , CU-F-01 , FE-F-01 , LA-F-01 , LI-F-01 , MG-F-01 , MN-F-01 , MO-F-01 , NA-F-01 , ND-F-01 , P-F-01 , PB-F-01 , S-F-01 , SB-F-01 , SE-F-01 , SI-F-01 , SM-F-01 , SR-F-01 , TI-F-01 , TL-F-01 , U-F-01 , V-F-01 , ZN-F-01 , ZR-F-01			
8	DUP	S97T000745	0	F	@ICP-F01	SOLID		
9	CCV				@ICP-QC	QC		
10	CCB				@ICP-QC	QC		
11	SAMPLE	S97T000767	0	F	@ICP-F01	SOLID	97000299	T-203
	Analytes Requested:	AG-F-01 , AL-F-01 , AS-F-01 , B-F-01 , BA-F-01 , BE-F-01 , BI-F-01 , CA-F-01 , CD-F-01 , CE-F-01 , CO-F-01 , CR-F-01 , CU-F-01 , FE-F-01 , LA-F-01 , LI-F-01 , MG-F-01 , MN-F-01 , MO-F-01 , NA-F-01 , ND-F-01 , P-F-01 , PB-F-01 , S-F-01 , SB-F-01 , SE-F-01 , SI-F-01 , SM-F-01 , SR-F-01 , TI-F-01 , TL-F-01 , U-F-01 , V-F-01 , ZN-F-01 , ZR-F-01			
12	DUP	S97T000767	0	F	@ICP-F01	SOLID		
13	ICSA				@ICP-QC	QC		

Data Entry Comments:

S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 18222

S	Type	Sample#	R	A	Test	Matrix	Group#	Project
14	ICSAB				@ICP-QC	QC		
15	CCV				@ICP-QC	QC		
16	CCB				@ICP-QC	QC		

Final page for worklist # 18222

JK Lee 05-19-97
Analyst Signature Date

Reviewed + Validated by:
Saul M. Pang 5/24/97
Analyst Signature Date

		D.F.
PREPBLKTJA	.250-10	1
5977000745	.250-10	41
745-D	.250-10	41
5977000767	.250-10	41
767-D	.250-10	41

Data Entry Comments:

S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

SX-104
T-202
T-203

ICV
ICB
LLS
ICSA
ICSAB
S97T000869_L , .025-15-1.8 , IF3005
S97T000869 .025-15 601
S97T000869_D .025-15 601
S97T000869_Q .025-15 601 , .025 ml sample + 12 ml HNO_3 + 3 ml SST5
S97T000869_X .025-15-1.9 6010
S97T000869_QX .025-15-1.9 6010 , 1 ml sample + 1 ml each XWHC 18-35 + 7 ml HNO_3
} SX-104
CCV
CCB
S97T000798 , Direct , IF1
S97T000798_D , Direct , 1
} T-202
Prep BLK DA , .25-10 , IF 1
S97T000745 , .25-10 , IF41
S97T000743_D .25-10 41
S97T000767 .25-10 41
S97T000767_D .25-10 41
} T-203
ICSA
ICSAB
CCV
CCB

Analysis Report Summary Mon 05-19-97 01:27:47 PM page 1

#	Sample Name	File	Method	Date	Time	OpID	Type	Mode
1	ICV	970519A	ICP2	05/19/97	11:50	DKS	Q	CONC
2	ICB	970519A	ICP2	05/19/97	11:53	DKS	Q	CONC
3	LLS	970519A	ICP2	05/19/97	11:57	DKS	Q	CONC
4	ICSA	970519A	ICP2	05/19/97	12:00	DKS	Q	CONC
5	ICSAB	970519A	ICP2	05/19/97	12:03	DKS	Q	CONC
6	S97T000869_L	970519A	ICP2	05/19/97	12:06	DKS	S	CONC
7	S97T000869	970519A	ICP2	05/19/97	12:10	DKS	S	CONC
8	S97T000869_D	970519A	ICP2	05/19/97	12:13	DKS	S	CONC
9	S97T000869_A	970519A	ICP2	05/19/97	12:16	DKS	S	CONC
10	S97T000869_X	970519A	ICP2	05/19/97	12:20	DKS	S	CONC
11	S97T000869_AX	970519A	ICP2	05/19/97	12:24	DKS	S	CONC
12	CCV	970519A	ICP2	05/19/97	12:29	DKS	Q	CONC
13	CCB	970519A	ICP2	05/19/97	12:33	DKS	Q	CONC
14	S97T000798	970519A	ICP2	05/19/97	12:36	DKS	S	CONC
15	S97T000798_D	970519A	ICP2	05/19/97	12:38	DKS	S	CONC
16	PREPBLKTJA	970519A	ICP2	05/19/97	12:42	DKS	Q	CONC
17	S97T000745	970519A	ICP2	05/19/97	12:50	DKS	S	CONC
18	S97T000745_D	970519A	ICP2	05/19/97	12:52	DKS	S	CONC
19	S97T000767	970519A	ICP2	05/19/97	12:56	DKS	S	CONC
20	S97T000767_D	970519A	ICP2	05/19/97	13:04	DKS	S	CONC
21	ICSA	970519A	ICP2	05/19/97	13:15	DKS	Q	CONC
22	ICSAB	970519A	ICP2	05/19/97	13:17	DKS	Q	CONC
23	CCV_1	970519A	ICP2	05/19/97	13:21	DKS	Q	CONC
24	CCB_1	970519A	ICP2	05/19/97	13:24	DKS	Q	CONC

DK
05-19-97

SX-104 S97T000869
T-201 S97T000798
T-203 S97T000745
S97T000767

SIGNATURE ABOVE REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 520 TO 520.

Analysis Report Averages Mon 05-19-97 01:27:47 PM page 2

#	Sample Name	Ag	Al	As	B	Ba	Be
1	ICV	4.861	4.857	5.140	4.945	4.919	5.072
2	ICB	-.0012	-.0006	.0025	.0049	.0001	-.0000
3	LLS	.0207	.1088	.2059	.1036	.0996	.0110
4	ICSA	.0011	240.3	.0180	.0042	.0002	.0004
5	ICSAB	.9608	241.1	-.0116	-.0016	.4697	.4789
6	S97T000869_L	14.18	31580.	-97.76	51.64	.4437	-.2661
7	S97T000869_	16.65	31720.	-49.93	63.12	.0257	-.2451
8	S97T000869_D	17.51	33690.	-37.34	67.26	.0243	.2445
9	S97T000869_A	551.8	32870.	567.7	647.6	581.5	600.4
10	S97T000869_X	26.80	32330.	-14.01	70.77	-.2919	1.073
11	S97T000869_AX	56060.	90380.	60450.	59460.	60220.	60430.
12	CCV	4.896	4.890	5.189	4.957	5.004	5.101
13	CCB	.0012	.0007	-.0034	.0069	.0000	.0001
14	S97T000798	-.0013	.0044	.0031	.3608	.0221	.0000
15	S97T000798_D	-.0006	.0064	.0063	.3584	.0221	-.0000
16	PREPBLKTJA_	.0003	.0157	-.0016	.0024	.0003	.0003
17	S97T000745	.0098	.4898	-.2689	-.0393	.0334	.0075
18	S97T000745_D	-.0309	.4706	-.4812	-.0801	.0313	.0112
19	S97T000767_	-.0018	.7766	-.1158	.0812	.0292	.0057
20	S97T000767_D	-.0372	.3568	-.3049	.0815	.0297	.0038
21	ICSA	.0022	243.6	-.0086	-.0087	.0002	.0005
22	ICSAB	.9705	243.6	-.0200	-.0021	.4807	.4865
23	CCV_1	4.937	4.938	5.219	5.012	5.044	5.174
24	CCB_1	-.0012	.0013	.0094	.0069	.0000	.0004

#	Sample Name	Bi	Ca	Cd	Ce	Co	Cr
1	ICV	5.037	4.967	4.940	4.894	5.044	4.931
2	ICB	.0057	.0048	.0007	.0004	-.0011	-.0002
3	LLS	.2033	.2239	.0122	.2059	.0421	.0222
4	ICSA	.0001	249.6	.0021	.0147	.0000	-.0022
5	ICSAB	.0186	250.9	.9313	.0073	.4620	.4674
6	S97T000869_L	92.84	18.01	3.539	-1.084	-8.916	889.5
7	S97T000869_	-3.989	14.49	.6836	-2.370	-.3268	879.3
8	S97T000869_D	11.77	6.061	-.0997	-2.594	.0023	938.7
9	S97T000869_A	617.0	613.2	586.9	586.2	599.5	1491.
10	S97T000869_X	187.7	15.75	10.35	-33.36	-2.474	897.9
11	S97T000869_AX	60800.	60700.	59270.	60160.	59240.	60400.
12	CCV	5.121	5.070	4.977	4.926	5.091	4.978
13	CCB	.0128	.0060	.0011	-.0055	-.0009	-.0006
14	S97T000798	.0161	18.62	.0009	-.0034	-.0019	.0049
15	S97T000798_D	.0106	18.58	.0007	-.0018	.0000	.0060
16	PREPBLKTJA_	.0451	-.0003	.0024	.0059	-.0005	.0016
17	S97T000745	64.05	.5132	.0454	.1090	.0409	7.526
18	S97T000745_D	57.84	.4747	.0301	-.2627	.0393	7.070
19	S97T000767_	70.68	.3525	-.0030	-.0680	.0810	7.630
20	S97T000767_D	62.39	.4600	.0105	-.1798	.0573	7.747
21	ICSA	.0291	252.7	.0028	.0085	-.0003	-.0022
22	ICSAB	.0125	255.8	.9437	.0146	.4706	.4749
23	CCV_1	5.090	5.135	5.016	4.981	5.134	5.028
24	CCB_1	.0147	.0049	.0013	-.0154	-.0012	.0005

Analysis Report Averages Mon 05-19-97 01:27:47 PM page 3

#	Sample Name	Cu	Eu	Fe	K	La	Li
1	ICV	4.923	-.0020	4.616	4.734	4.969	4.865
2	ICB	-.0006	.0001	.0009	-.1703	-.0006	-.0001
3	LLS	.0178	.0008	.0904	.4283	.1019	.0213
4	ICSA	-.0092	-.0414	93.19	.0994	-.0047	.0026
5	ICSAB	.4401	-.0411	93.26	.1289	-.0046	.9791
6	S97T000869_L	-1.114	1.902	-5.230	2619.	-1.497	1.466
7	S97T000869	-.5865	-.1041	2.917	2890.	-.3093	-.0736
8	S97T000869_D	-.8325	-.1804	1.650	3091.	-.1916	-.2213
9	S97T000869_A	580.4	-.0651	549.4	3545.	596.9	584.3
10	S97T000869_X	-3.533	-2.071	-10.31	2499.	-3.485	-2.931
11	S97T000869_AX	55470.	-23.61	55720.	62430.	60150.	59990.
12	CCV	4.950	-.0020	4.668	4.878	5.011	4.894
13	CCB	-.0008	-.0001	.0001	-.1801	-.0009	-.0004
14	S97T000798	-.0005	.0131	.3055	.7390	-.0005	.0045
15	S97T000798_D	-.0001	.0127	.3017	.7682	.0001	.0048
16	PREPBLKTJA	.0010	-.0001	.0010	Q303.1	.0020	-.0004
17	S97T000745	.1052	.0059	4.317	12140.	18.63	.0151
18	S97T000745_D	.0881	-.0091	3.343	12030.	19.70	-.0148
19	S97T000767	.1133	-.0074	4.718	12210.	21.18	-.0148
20	S97T000767_D	.0943	.0005	4.442	11090.	20.02	-.0048
21	ICSA	-.0091	-.0423	94.32	.0840	-.0057	.0024
22	ICSAB	.4457	-.0453	94.70	-.0038	-.0045	.9919
23	CCV_1	5.001	-.0016	4.709	4.852	5.058	4.952
24	CCB_1	-.0006	-.0003	.0008	-.1813	-.0016	-.0005

#	Sample Name	Mg	Mn	Mo	Na	Nd	Ni
1	ICV	4.995	4.854	5.013	5.073	4.946	4.927
2	ICB	-.0004	.0001	.0016	.0017	-.0047	.0013
3	LLS	.2143	.0202	.0987	.1907	.1980	.0413
4	ICSA	252.7	-.0055	-.0111	194.3	.0026	-.0006
5	ICSAB	253.7	.4437	-.0134	193.6	.0026	.9074
6	S97T000869_L	10.47	.9399	99.89	241800.	-3.243	1.184
7	S97T000869	1.618	.9479	99.40	239300.	-1.185	2.678
8	S97T000869_D	2.114	.9793	105.1	255200.	-.7624	-2.008
9	S97T000869_A	588.1	568.7	703.5	243000.	592.9	581.1
10	S97T000869_X	-6.823	.5462	94.61	243200.	-25.37	23.79
11	S97T000869_AX	62700.	59350.	59630.	301900.	58360.	59040.
12	CCV	5.020	4.913	5.049	5.084	4.980	4.940
13	CCB	-.0000	-.0000	.0008	.0009	-.0042	.0042
14	S97T000798	3.967	.0788	.0005	3.564	.0007	.0075
15	S97T000798_D	3.954	.0794	-.0009	3.546	.0033	.0031
16	PREPBLKTJA	.0053	.0017	-.0020	.0699	.0006	Q.1577
17	S97T000745	.2483	21.60	-.0734	68.83	-.0671	88.05
18	S97T000745_D	.0229	12.42	-.1458	70.44	-.0521	77.54
19	S97T000767	.0490	16.65	-.1144	69.35	.0282	164.5
20	S97T000767_D	.3194	14.71	-.1531	68.76	.0017	129.1
21	ICSA	256.0	-.0056	-.0096	197.4	.0015	-.0054
22	ICSAB	256.1	.4502	-.0132	195.6	.0001	.9388
23	CCV_1	5.077	4.951	5.103	5.140	5.027	4.981
24	CCB_1	-.0076	.0001	.0015	-.0013	-.0024	.0050

Analysis Report Averages Mon 05-19-97 01:27:47 PM page 4

#	Sample Name	P	Pb	S	Sb	Se	Si
1	ICV	4.977	4.848	4.911	4.786	4.737	4.937
2	ICB	-.0227	-.0080	.0048	-.0007	.0376	-.0016
3	LLS	.3873	.2170	.1995	.1027	.2414	.1310
4	ICSA	-.0081	.0318	-.0268	.0153	.0181	.0011
5	ICSAB	-.0046	.9835	-.0337	-.0087	.0074	.0034
6	S97T000869_L	1361.	-14.83	1979.	-4.792	100.2	63.25
7	S97T000869	1404.	23.98	1946.	2.333	26.37	36.87
8	S97T000869_D	1468.	14.43	2062.	-6.434	36.21	37.76
9	S97T000869_A	2044.	603.5	2585.	573.9	631.9	635.9
10	S97T000869_X	1279.	49.98	1950.	-20.52	230.7	65.62
11	S97T000869_AX	62100.	59830.	60870.	60400.	59440.	61380.
12	CCV	5.034	4.889	4.913	4.843	4.754	4.989
13	CCB	-.0113	-.0069	-.0031	-.0062	.0207	.0020
14	S97T000798	-.0153	-.0135	7.258	-.0074	.0415	2.943
15	S97T000798_D	-.0078	.0021	7.479	-.0025	.0406	2.938
16	PREPBLKTJA	-.0201	-.0056	Q.1444	.0020	.0269	.0230
17	S97T000745	3.763	-.3724	2.033	-.2700	1.424	1.857
18	S97T000745_D	3.847	-.1961	1.098	-.3500	1.252	1.478
19	S97T000767	2.414	-.3248	.9307	-.1597	1.035	2.612
20	S97T000767_D	3.247	-.6813	.8829	-.3281	1.518	1.804
21	ICSA	-.0082	.0388	-.0155	-.0065	.0014	-.0022
22	ICSAB	-.0063	1.003	-.0244	-.0111	.0215	.0012
23	CCV_1	5.133	4.931	5.040	4.868	4.801	5.025
24	CCB_1	-.0085	-.0001	.0127	-.0033	.0385	-.0025

#	Sample Name	Sm	Sr	Th	Ti	Tl	U
1	ICV	4.865	4.920	.0347	4.915	4.697	9.602
2	ICB	.0005	.0000	.0021	-.0005	.0252	-.0062
3	LLS	.2128	.0204	-.0022	.0210	.3842	.5286
4	ICSA	.0056	.0021	.0010	.0010	.0261	-.0204
5	ICSAB	.0088	.0021	-.0048	.0013	.0517	-.0256
6	S97T000869_L	24.91	.1579	-17.45	-1.582	-58.56	35.58
7	S97T000869	-.9700	-.0009	-2.182	.1414	13.30	4.502
8	S97T000869_D	-1.906	-.0021	-3.489	.2799	7.164	21.12
9	S97T000869_A	582.4	586.7	1.317	580.6	550.9	1182.
10	S97T000869_X	-13.96	-.3162	-21.50	-3.126	55.92	-86.78
11	S97T000869_AX	58590.	59860.	445.4	60060.	58370.	114700.
12	CCV	4.920	4.957	.0382	4.920	4.740	9.685
13	CCB	.0024	.0000	-.0026	-.0003	.0151	-.0058
14	S97T000798	.0061	.1010	-.0073	-.0001	.0029	.1467
15	S97T000798_D	.0046	.1002	-.0123	.0004	.0153	.1606
16	PREPBLKTJA	.0002	.0002	.0070	-.0002	.0098	-.0880
17	S97T000745	.0265	1.281	.2060	.0338	.0657	-3.166
18	S97T000745_D	-.1346	1.365	.1948	.0237	-.2254	-4.325
19	S97T000767	-.2489	1.418	.2379	.0867	.4891	-4.795
20	S97T000767_D	.0646	1.380	.0948	.0648	.5581	-3.014
21	ICSA	-.0015	.0021	-.0040	.0013	.0620	-.0806
22	ICSAB	.0019	.0021	-.0054	.0008	.0525	-.0635
23	CCV_1	4.973	5.019	.0394	4.980	4.766	9.778
24	CCB_1	-.0043	-.0001	.0014	-.0002	.0200	-.0203

Analysis Report Averages Mon 05-19-97 01:27:47 PM page 5

#	Sample Name	V	Y	Zn	Zr
1	ICV	5.029	.0049	4.774	4.916
2	ICB	-.0010	-.0001	-.0004	-.0005
3	LLS	.1041	.0006	.0205	.0216
4	ICSA	.0017	.0067	.0055	-.0025
5	ICSAB	.4671	.0069	.9242	-.0019
6	S97T000869_L	-.1508	.4559	-5.102	2.318
7	S97T000869	-.8467	-.1903	.8256	-.8139
8	S97T000869_D	-.6431	-.2445	1.127	-.5059
9	S97T000869_A	599.8	.5337	574.8	589.5
10	S97T000869_X	-10.60	-.9051	-4.649	-2.895
11	S97T000869_AX	59260.	57.70	55720.	59310.
12	CCV	5.072	.0050	4.817	4.956
13	CCB	-.0014	-.0001	-.0003	-.0002
14	S97T000798	-.0011	.0006	.4222	.0003
15	S97T000798_D	-.0007	.0006	.4502	.0010
16	PREPBLKTJA	-.0010	-.0001	.0001	-.0008
17	S97T000745	.0003	.0046	-.5717	.0028
18	S97T000745_D	-.0628	-.0110	-.5175	-.0572
19	S97T000767	-.0796	-.0140	-1.088	-.0445
20	S97T000767_D	-.0168	.0045	-.8598	.0110
21	ICSA	-.0001	.0064	.0061	-.0030
22	ICSAB	.4735	.0068	.9344	-.0019
23	CCV_1	5.128	.0050	4.850	5.001
24	CCB_1	-.0021	-.0005	.0003	-.0016

JK LJD
05-19-97

LABCORE Data Entry Template for Worklist# 18948

Analyst: JK Sato **Instrument:** ICP01 **Book#** 67848

DATA NOT USED

Method: LA-505-151/~~161~~ Rev/Mod E-1

Worklist Comment: ICP T-203 (SOLID ACID DIGEST) JK 6-26-97

S	Type	Sample#	R	A	Test	Matrix	Group#	Project
1	ICV				@ICP-QC	QC		
2	ICB				@ICP-QC	QC		
3	LLS				@ICP-QC	QC		
4	ICSA				@ICP-QC	QC		
5	ICSAB				@ICP-QC	QC		
6	PREPSTDARL				@ICP-A01	SOLID		
7	PREPBLKARL				@ICP-A01	SOLID		
8	SERDIL	S97T001017	0	A	@ICP-A01	SOLID		
9	SAMPLE	S97T001017	0	A	@ICP-A01	SOLID	97000299	T-203
	Analytes Requested:	AG-A-01 , AL-A-01 , AS-A-01 , B-A-01 , BA-A-01 , BE-A-01 , BI-A-01 , CA-A-01 , CD-A-01 , CE-A-01 , CO-A-01 , CR-A-01 , CU-A-01 , FE-A-01 , K-A-01 , LA-A-01 , LI-A-01 , MG-A-01 , MN-A-01 , MO-A-01 , NA-A-01 , ND-A-01 , NI-A-01 , P-A-01 , PB-A-01 , S-A-01 , SB-A-01 , SE-A-01 , SI-A-01 , SM-A-01 , SR-A-01 , TI-A-01 , TL-A-01 , U-A-01 , V-A-01 , ZN-A-01 , ZR-A-01						
10	DUP	S97T001017	0	A	@ICP-A01	SOLID		
11	SPK-PREDIG	S97T001017	0	A	@ICP-A01	SOLID		
12	ICSA				@ICP-QC	QC		
13	ICSAB				@ICP-QC	QC		
14	CCV				@ICP-QC	QC		
15	CCB				@ICP-QC	QC		

sample + spike GX (10 ppm) JK 6-26-97

Data Entry Comments:

S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 18948

S Type	Sample#	R A	Test	Matrix	Group#	Project

Final page for worklist # 18948

JK Lott 06-26-97
Analyst Signature Date

Reviewed + Validated by:
Sarah M. Pang 6/30/97
Analyst Signature Date

DATA NOT USED

Prep std GRL	Direct	DF 1
Prep blk GRL	Direct	1
S97T001017_L	4-4-2-8	DF 10
S97T001017	4-4	2
S97T001017_D	4-4	2
S97T001017_S	4-4	2
S97T001017_X	4-4-1-9	20
S97T001017_GX	4-4-1-9	20, 1 mL sample + 1 mL each X with HCl 28 + 35 + 7 mL HNO_3

Post Spike:

$$Cr = \frac{\left(\frac{223.130}{20}\right) - \left(\frac{20.454}{20}\right)}{10} \times 100 = 101.3\%$$

$$Fe = \frac{\left(\frac{215.189}{20}\right) - \left(\frac{18.625}{20}\right)}{10} \times 100 = 98.3\%$$

$$K = \frac{\left(\frac{230.263}{20}\right) - \left(\frac{36.252}{20}\right)}{10} \times 100 = 97.0\%$$

$$Mn = \frac{\left(\frac{389.348}{20}\right) - \left(\frac{188.420}{20}\right)}{10} \times 100 = 100.5\%$$

$$Pb = \frac{\left(\frac{203.799}{20}\right) - (0)}{10} \times 100 = 101.9\%$$

Data Entry Comments:

S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

File # 970626C.DAT

DATA NOT USED

Identity 1: ICV Identity 2: Quality Control 1:03 PM June 26, 1997
Task name : OPTIMA
Sample Weight : 1.0000 Solution Volume : 1.00
On-Peak Integrations : 3 Off-Peak Integrations : 1

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	4.902	4.957	5.009	4.919	4.921	5.016	5.162	4.947
S.D.	0.008	0.015	0.031	0.006	0.014	0.015	0.008	0.005
% R.S.D.	0.155	0.303	0.618	0.119	0.288	0.300	0.147	0.099

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	5.112	4.931	4.941	4.930	4.714	4.864	5.075	10.140
S.D.	0.007	0.008	0.006	0.018	0.005	0.007	0.037	0.038
% R.S.D.	0.146	0.165	0.121	0.356	0.115	0.145	0.727	0.378

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	4.797	5.132	4.965	5.001	4.882	4.812	5.115	5.133
S.D.	0.020	0.005	0.013	0.033	0.034	0.009	0.003	0.018
% R.S.D.	0.423	0.097	0.269	0.664	0.689	0.177	0.065	0.343

	Mo (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)	Mn (ppm)
Mean	5.033	5.085	4.868	4.874	4.973	4.989	5.012	4.949
S.D.	0.022	0.003	0.048	0.011	0.004	0.007	0.049	0.004
% R.S.D.	0.440	0.065	0.995	0.221	0.088	0.150	0.982	0.080

	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	4.742	5.051	5.078	5.113
S.D.	0.003	0.002	0.007	0.041
% R.S.D.	0.059	0.043	0.129	0.795

JK 06-26-97

T-204 S97T001199
T-203 S97T001138
T-203 S97T001017

Post Spike : SIGNATURE ABOVE REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 541 TO 545

$$B = \frac{\left(\frac{476.70}{20}\right) - \left(\frac{269.821}{20}\right)}{10} \times 100 = 103.4\%$$

$$La = \frac{\left(\frac{258.352}{20}\right) - \left(\frac{57.380}{20}\right)}{10} \times 100 = 100.4\%$$

$$Mn = \frac{\left(\frac{268.489}{20}\right) - \left(\frac{68.016}{20}\right)}{10} \times 100 = 100.2\%$$

DATA NOT USED

Identity 1: ICB Identity 2: Quality Control 1:07 PM June 26, 1997
Task name : OPTIMA
Sample Weight : 1.0000 Solution Volume : 1.00
On-Peak Integrations : 3 Off-Peak Integrations : 1

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	-0.004	-0.000	-0.006	-0.013	0.004	0.007	0.000	-0.001
S.D.	0.001	0.000	0.008	0.003	0.006	0.002	0.000	0.000
% R.S.D.	26.186	76.376	140.607	19.594	148.274	28.916	773.377	25.001

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	-0.000	-0.003	0.000	-0.002	0.002	0.001	-0.010	-0.149
S.D.	0.000	0.002	0.001	0.001	0.001	0.001	0.013	0.033
% R.S.D.	732.205	68.126	203.749	34.704	20.862	178.780	126.856	22.057

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	0.003	-0.033	-0.000	0.013	-0.007	0.004	0.009	-0.001
S.D.	0.009	0.004	0.000	0.002	0.002	0.000	0.002	0.004
% R.S.D.	271.266	12.803	20.785	14.565	22.427	12.008	26.362	312.210

	Mo (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)	Mn (ppm)
Mean	-0.001	-0.000	-0.020	-0.002	0.001	-0.003	-0.009	-0.000
S.D.	0.001	0.000	0.006	0.000	0.001	0.001	0.009	0.000
% R.S.D.	66.810	147.373	31.894	22.836	139.445	22.543	94.471	198.476

	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	-0.015	-0.000	-0.000	0.047
S.D.	0.013	0.001	0.000	0.016
% R.S.D.	84.171	319.656	1.344	35.086

DATA NOT USED

Identity 1: LLS Identity 2: Quality Control 1:09 PM June 26, 1997
Task name : OPTIMA
Sample Weight : 1.0000 Solution Volume : 1.00
On-Peak Integrations : 3 Off-Peak Integrations : 1

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	0.018	0.019	0.199	0.119	0.089	0.050	0.019	0.019
S.D.	0.001	0.000	0.010	0.004	0.013	0.004	0.000	0.000
% R.S.D.	3.643	1.156	4.869	3.179	14.086	8.646	0.490	1.581

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	0.021	0.038	0.098	0.101	0.197	0.016	0.186	0.368
S.D.	0.000	0.002	0.002	0.003	0.001	0.001	0.013	0.049
% R.S.D.	1.316	5.321	2.119	2.466	0.754	3.630	7.153	13.340

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	0.157	0.184	0.097	0.419	0.203	0.206	0.188	0.200
S.D.	0.010	0.007	0.000	0.006	0.002	0.002	0.002	0.001
% R.S.D.	6.662	3.885	0.066	1.362	0.869	1.180	0.937	0.621

	Mo (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)	Mn (ppm)
Mean	0.101	0.020	0.200	0.019	0.011	0.098	0.608	0.020
S.D.	0.001	0.000	0.006	0.000	0.001	0.001	0.010	0.000
% R.S.D.	0.892	2.115	3.160	1.234	7.083	0.901	1.699	1.832

	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	0.085	0.103	0.010	0.475
S.D.	0.036	0.002	0.000	0.017
% R.S.D.	42.848	1.515	2.944	3.603

DATA NOT USED

Identity 1: ICSA Identity 2: Quality Control 1:12 PM June 26, 1997
Task name : OPTIMA
Sample Weight : 1.0000 Solution Volume : 1.00
On-Peak Integrations : 3 Off-Peak Integrations : 1

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	-0.001	0.001	-0.025	0.028	207.554	0.005	-0.002	-0.001
S.D.	0.001	0.000	0.008	0.002	0.742	0.002	0.000	0.000
% R.S.D.	173.404	8.807	30.299	8.726	0.357	39.600	23.318	36.898

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	0.006	-0.004	0.000	99.273	103.734	0.000	0.006	-0.034
S.D.	0.000	0.002	0.001	0.192	0.333	0.001	0.009	0.038
% R.S.D.	4.981	43.393	180.345	0.193	0.321	1094.599	148.302	113.797

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	-0.001	0.010	0.001	0.017	-0.041	96.830	-0.005	185.430
S.D.	0.011	0.006	0.000	0.010	0.007	0.283	0.005	1.465
% R.S.D.	1606.330	64.969	28.502	59.299	17.225	0.293	100.015	0.790

	Mo (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)	Mn (ppm)
Mean	-0.003	-0.000	-0.012	-0.001	0.003	0.009	0.092	0.005
S.D.	0.002	0.001	0.022	0.000	0.000	0.000	0.012	0.001
% R.S.D.	86.672	232.158	181.005	20.929	16.111	4.482	13.333	11.059

	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	0.038	-0.001	0.002	0.011
S.D.	0.017	0.001	0.000	0.012
% R.S.D.	44.690	70.831	12.307	108.839

Identity 1: ICSAB Identity 2: Quality Control 1:15 PM June 26, 1997
Task name : OPTIMA
Sample Weight : 1.0000 Solution Volume : 1.00
On-Peak Integrations : 3 Off-Peak Integrations : 1

DATA NOT USED

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	0.006	0.002	0.012	0.054	206.476	0.512	0.498	0.931
S.D.	0.001	0.000	0.007	0.006	1.559	0.002	0.000	0.007
% R.S.D.	14.718	6.547	56.232	11.446	0.755	0.389	0.049	0.725

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	1.020	1.006	0.009	98.091	104.180	0.514	-0.012	0.430
S.D.	0.002	0.004	0.001	0.174	0.284	0.006	0.009	0.036
% R.S.D.	0.162	0.414	9.078	0.177	0.273	1.155	79.078	8.459

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	0.033	0.090	0.509	0.012	-0.039	97.745	-0.008	187.590
S.D.	0.008	0.006	0.000	0.003	0.003	0.527	0.005	1.146
% R.S.D.	25.599	6.335	0.096	29.740	8.913	0.539	61.282	0.611

	Mo (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)	Mn (ppm)
Mean	0.000	1.071	0.983	0.002	1.015	0.010	0.058	0.512
S.D.	0.001	0.002	0.027	0.000	0.002	0.001	0.000	0.001
% R.S.D.	1024.790	0.214	2.760	12.921	0.180	14.094	0.009	0.282

	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	0.074	0.504	0.502	0.121
S.D.	0.024	0.001	0.001	0.008
% R.S.D.	32.643	0.117	0.137	6.778

Identity 1: Prepstdarl Identity 2: acid dig, direct 2:22 PM June 26, 1997

DATA NOT USED

Task name : OPTIMA

Sample Weight : 1.0000 Solution Volume : 1.00

On-Peak Integrations : 3 Off-Peak Integrations : 1

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	4.877	5.022	5.001	7.123	5.053	5.144	4.745	5.025
S.D.	0.018	0.007	0.016	0.019	0.010	0.009	0.005	0.025
% R.S.D.	0.369	0.145	0.330	0.273	0.196	0.181	0.101	0.503

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	4.903	5.006	4.939	4.707	4.953	4.816	4.804	9.624
S.D.	0.015	0.013	0.025	0.035	0.017	0.004	0.041	0.025
% R.S.D.	0.304	0.266	0.504	0.745	0.343	0.091	0.851	0.260

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	5.360	5.020	4.976	5.059	5.071	4.915	5.221	5.366
S.D.	0.009	0.014	0.008	0.054	0.021	0.013	0.040	0.028
% R.S.D.	0.160	0.281	0.157	1.064	0.421	0.258	0.762	0.515

	Mo (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)	Mn (ppm)
Mean	4.975	1.169	4.748	4.436	4.885	5.068	4.747	4.841
S.D.	0.010	0.012	0.034	0.010	0.016	0.018	0.017	0.022
% R.S.D.	0.200	1.008	0.719	0.219	0.327	0.346	0.348	0.449

	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	4.733	4.894	5.065	4.948
S.D.	0.016	0.018	0.015	0.050
% R.S.D.	0.336	0.369	0.302	1.010

Identity 1: PREPBLK Identity 2: Quality Control 2:25 PM June 26, 1997
Task name : OPTIMA
Sample Weight : 1.0000 Solution Volume : 1.00
On-Peak Integrations : 3 Off-Peak Integrations : 1

DATA NOT USED

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	-0.002	0.001	0.009	0.698	0.102	0.012	0.010	0.001
S.D.	0.001	0.000	0.001	0.000	0.005	0.002	0.000	0.000
% R.S.D.	57.347	17.347	5.619	0.030	4.698	17.168	1.091	11.114

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	0.017	-0.003	-0.001	0.006	0.122	-0.003	-0.002	-0.137
S.D.	0.000	0.002	0.001	0.002	0.000	0.001	0.005	0.041
% R.S.D.	1.577	46.472	81.652	33.938	0.296	32.477	227.190	29.880

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	0.025	-0.039	0.001	0.033	0.096	0.024	0.004	0.529
S.D.	0.013	0.009	0.000	0.001	0.001	0.000	0.003	0.002
% R.S.D.	53.926	22.503	7.418	1.700	1.502	0.850	71.921	0.469

	Mo (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)	Mn (ppm)
Mean	0.002	0.142	0.016	-0.001	0.001	0.382	0.106	0.002
S.D.	0.001	0.006	0.012	0.000	0.001	0.002	0.006	0.000
% R.S.D.	51.637	4.410	76.690	40.753	44.742	0.534	5.898	12.578

	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	-0.034	0.004	0.001	0.086
S.D.	0.011	0.000	0.000	0.028
% R.S.D.	31.331	9.917	43.450	31.978

DATA NOT USED

Identity 1: S97T001017_L Identity 2: acid dig,4-4-2-8 ml 2:28 PM June 26, 1997
Task name : OPTIMA
Sample Weight : 1.0000 Solution Volume : 10.00
On-Peak Integrations : 3 Off-Peak Integrations : 1

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	0.001	2.981	265.389	8.775	0.403	0.066	0.041	-0.008
S.D.	0.012	0.003	0.627	0.014	0.040	0.021	0.005	0.004
% R.S.D.	805.904	0.101	0.236	0.158	9.837	32.354	11.376	50.219

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	0.093	0.765	58.537	18.399	1.680	20.127	-0.042	-1.369
S.D.	0.005	0.021	0.089	0.115	0.003	0.122	0.062	0.303
% R.S.D.	4.917	2.736	0.152	0.622	0.151	0.608	148.643	22.123

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	0.127	-0.118	0.101	13.109	-0.082	0.290	1.120	186.565
S.D.	0.131	0.084	0.004	0.060	0.026	0.001	0.028	1.344
% R.S.D.	103.444	71.079	3.896	0.457	31.465	0.398	2.475	0.721

	Mo (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)	Mn (ppm)
Mean	-0.006	0.069	0.217	0.008	-0.003	0.356	35.880	67.967
S.D.	0.009	0.008	0.161	0.006	0.005	0.005	0.317	0.160
% R.S.D.	153.641	12.060	74.251	68.500	179.010	1.295	0.882	0.235

	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	-0.248	-0.005	-0.002	1.812
S.D.	0.380	0.012	0.002	0.293
% R.S.D.	153.601	244.396	81.834	16.195

t

Identity 1: S97T001017 Identity 2: acid dig,4-4 ml 2:31 PM June 26, 1997

DATA NOT USED

Task name : OPTIMA
Sample Weight : 1.0000 Solution Volume : 2.00
On-Peak Integrations : 3 Off-Peak Integrations : 1

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	-0.004	2.959	258.645	8.425	0.295	0.047	0.050	-0.000
S.D.	0.002	0.005	0.473	0.007	0.020	0.007	0.001	0.000
% R.S.D.	52.998	0.159	0.183	0.089	6.757	15.230	1.119	199.246

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	0.089	0.748	58.242	17.968	1.643	19.554	-0.036	-1.466
S.D.	0.001	0.006	0.077	0.037	0.002	0.039	0.015	0.050
% R.S.D.	0.854	0.813	0.132	0.203	0.133	0.199	40.879	3.407

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	0.316	-0.138	0.109	12.619	-0.053	0.272	1.049	180.341
S.D.	0.014	0.008	0.000	0.034	0.010	0.008	0.014	0.898
% R.S.D.	4.487	5.803	0.448	0.269	19.005	0.085	1.348	0.498

	Mo (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)	Mn (ppm)
Mean	-0.010	0.080	0.361	0.010	0.004	0.364	33.932	65.605
S.D.	0.004	0.003	0.029	0.001	0.001	0.004	0.148	0.068
% R.S.D.	42.424	4.282	7.993	5.336	33.262	1.006	0.438	0.104

	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	0.052	0.015	0.000	1.450
S.D.	0.054	0.001	0.000	0.031
% R.S.D.	102.713	9.939	438.738	2.143

DATA NOT USED

Identity 1: S97T001017_D Identity 2: acid dig,4-4 ml 2:34 PM June 26, 1997
Task name : OPTIMA
Sample Weight : 1.0000 Solution Volume : 2.00
On-Peak Integrations : 3 Off-Peak Integrations : 1

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	-0.003	2.880	252.435	7.474	0.297	0.024	0.055	-0.000
S.D.	0.003	0.005	0.562	0.028	0.007	0.005	0.000	0.000
% R.S.D.	100.954	0.169	0.223	0.377	2.216	19.158	0.821	107.684

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	0.089	0.738	56.851	49.777	1.604	18.993	-0.045	-1.438
S.D.	0.001	0.004	0.118	0.179	0.002	0.053	0.011	0.066
% R.S.D.	0.601	0.545	0.208	0.359	0.137	0.281	24.006	4.589

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	0.307	-0.122	0.137	12.627	-0.008	0.296	1.030	175.409
S.D.	0.020	0.015	0.000	0.118	0.003	0.000	0.011	1.960
% R.S.D.	6.399	12.499	0.298	0.937	38.193	0.147	1.045	1.117

	Mo (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)	Mn (ppm)
Mean	-0.006	0.069	0.465	0.010	0.005	0.545	32.034	63.689
S.D.	0.002	0.003	0.019	0.001	0.002	0.004	0.322	0.187
% R.S.D.	33.340	4.085	4.142	6.851	44.637	0.766	1.005	0.294

	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	0.029	0.016	-0.003	1.401
S.D.	0.009	0.001	0.000	0.052
% R.S.D.	32.476	9.492	0.384	3.711

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Identity 1: S97T001017_s Identity 2: acid dig,4-4 ml 2:37 PM June 26, 1997

Task name : OPTIMA

Sample Weight : 1.0000 Solution Volume : 2.00

On-Peak Integrations : 3 Off-Peak Integrations : 1

DATA NOT USED

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	4.946	7.593	233.218	13.015	5.493	5.039	4.908	4.917
S.D.	0.007	0.029	0.585	0.042	0.011	0.004	0.024	0.032
% R.S.D.	0.146	0.384	0.251	0.325	0.199	0.081	0.497	0.654

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	5.567	5.722	56.279	247.851	6.722	21.972	4.944	8.578
S.D.	0.009	0.017	0.138	0.168	0.023	0.008	0.040	0.061
% R.S.D.	0.162	0.291	0.246	0.068	0.336	0.038	0.802	0.714

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	5.691	4.846	5.649	16.849	5.231	5.282	6.085	161.828
S.D.	0.014	0.007	0.027	0.088	0.031	0.003	0.028	0.920
% R.S.D.	0.245	0.135	0.473	0.521	0.588	0.053	0.461	0.569

	Mo (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)	Mn (ppm)
Mean	4.921	1.208	7.801	4.457	4.925	5.010	33.708	62.706
S.D.	0.010	0.002	0.096	0.008	0.010	0.020	0.174	0.056
% R.S.D.	0.202	0.161	1.226	0.187	0.206	0.407	0.516	0.089

	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	4.831	4.982	5.010	6.253
S.D.	0.145	0.001	0.013	0.055
% R.S.D.	2.992	0.026	0.257	0.883

Identity 1: S97T001017_X Identity 2: acid dig,4-4-1-9 ml 2:40 PM June 26, 1997

DATA NOT USED

Task name : OPTIMA

Sample Weight : 1.0000 Solution Volume : 20.00

On-Peak Integrations : 3 Off-Peak Integrations : 1

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	-0.038	3.034	269.821	8.940	0.830	0.178	0.055	0.003
S.D.	0.005	0.006	0.344	0.057	0.118	0.043	0.011	0.009
% R.S.D.	13.991	0.199	0.128	0.640	14.170	24.061	19.855	304.288

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	0.097	0.716	57.580	18.625	1.691	20.454	0.092	-2.048
S.D.	0.008	0.030	0.140	0.363	0.007	0.061	0.075	0.613
% R.S.D.	8.165	4.216	0.243	1.949	0.410	0.298	81.881	29.950

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	0.556	-0.571	0.115	13.553	-0.063	0.304	1.153	188.420
S.D.	0.252	0.138	0.006	0.103	0.035	0.006	0.076	1.678
% R.S.D.	45.272	24.163	5.536	0.757	55.341	2.050	6.599	0.891

	Mo (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)	Mn (ppm)
Mean	0.027	0.038	-0.095	0.003	0.018	0.353	36.252	68.016
S.D.	0.002	0.013	0.135	0.014	0.018	0.029	0.352	0.029
% R.S.D.	7.634	33.994	141.733	393.708	99.427	8.146	0.971	0.042

	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	1.000	0.068	0.001	2.192
S.D.	0.286	0.011	0.009	0.313
% R.S.D.	28.645	16.701	1436.552	14.296

‡

DATA NOT USED

Identity 1: S97T001017_AX Identity 2: acid dig,4-4-1-9 ml 2:44 PM June 26, 1997
Task name : OPTIMA
Sample Weight : 1.0000 Solution Volume : 20.00
On-Peak Integrations : 3 Off-Peak Integrations : 1

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	201.861	211.725	476.760	222.966	207.180	208.878	194.168	200.813
S.D.	0.129	0.160	0.355	0.326	0.382	0.268	0.201	0.880
% R.S.D.	0.064	0.075	0.074	0.146	0.184	0.128	0.103	0.438

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	204.336	205.056	258.352	215.189	200.886	223.130	190.566	394.704
S.D.	0.098	0.385	0.599	0.513	0.265	0.205	0.888	0.276
% R.S.D.	0.048	0.188	0.232	0.239	0.132	0.092	0.466	0.070

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	219.225	205.057	205.455	229.357	209.579	211.731	209.708	389.348
S.D.	0.214	0.339	0.456	0.628	0.267	0.146	0.482	1.708
% R.S.D.	0.098	0.165	0.222	0.274	0.127	0.069	0.230	0.439

	Mo (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)	Mn (ppm)
Mean	211.040	152.629	203.799	203.469	204.689	194.324	230.263	268.489
S.D.	0.382	0.183	0.623	0.131	0.259	0.110	1.724	0.100
% R.S.D.	0.181	0.120	0.306	0.064	0.127	0.056	0.749	0.037

	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	202.242	202.814	199.905	212.672
S.D.	0.874	0.152	0.086	0.280
% R.S.D.	0.432	0.075	0.043	0.132

‡

Identity 1: ICSA Identity 2: Quality Control 2:48 PM June 26, 1997
Task name : OPTIMA
Sample Weight : 1.0000 Solution Volume : 1.00
On-Peak Integrations : 3 Off-Peak Integrations : 1

DATA NOT USED

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	0.002	0.003	0.014	0.025	210.827	0.014	-0.001	0.000
S.D.	0.001	0.000	0.007	0.002	0.184	0.000	0.000	0.000
% R.S.D.	43.821	10.461	48.985	8.635	0.087	1.696	32.247	3998.674

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	0.007	0.001	0.009	95.212	102.372	-0.001	-0.017	0.025
S.D.	0.000	0.001	0.001	0.123	0.136	0.001	0.012	0.008
% R.S.D.	5.022	108.471	8.349	0.129	0.133	88.547	69.383	34.046

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	-0.009	-0.011	0.002	0.035	0.005	99.725	-0.049	193.906
S.D.	0.004	0.002	0.000	0.002	0.010	0.309	0.003	0.762
% R.S.D.	39.542	17.253	13.500	6.854	203.897	0.310	6.232	0.393

	Mo (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)	Mn (ppm)
Mean	0.000	0.167	0.001	0.000	0.002	0.008	0.017	0.012
S.D.	0.002	0.012	0.004	0.000	0.001	0.000	0.010	0.000
% R.S.D.	695.543	7.218	375.859	200.685	47.972	6.350	57.745	0.928

	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	0.042	-0.000	0.004	0.013
S.D.	0.049	0.000	0.001	0.002
% R.S.D.	115.830	137.538	15.208	15.419

‡

Identity 1: ICSAB Identity 2: Quality Control 2:51 PM June 26, 1997
Task name : OPTIMA
Sample Weight : 1.0000 Solution Volume : 1.00
On-Peak Integrations : 3 Off-Peak Integrations : 1

DATA NOT USED

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	-0.005	0.003	-0.001	0.019	206.006	0.523	0.496	0.932
S.D.	0.002	0.000	0.006	0.004	0.815	0.004	0.002	0.003
% R.S.D.	35.402	2.727	386.831	19.433	0.396	0.748	0.329	0.283

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	1.016	0.998	0.000	96.771	103.174	0.508	-0.002	-0.085
S.D.	0.001	0.001	0.002	0.292	0.079	0.001	0.008	0.048
% R.S.D.	0.132	0.131	12658.721	0.302	0.076	0.143	498.096	56.778

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	0.029	-0.015	0.513	0.008	-0.007	98.494	-0.032	188.913
S.D.	0.014	0.007	0.001	0.009	0.008	0.312	0.004	0.267
% R.S.D.	47.300	47.116	0.272	122.104	105.865	0.316	12.466	0.141

	Mo (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)	Mn (ppm)
Mean	-0.001	1.083	1.012	-0.001	1.008	0.009	0.082	0.509
S.D.	0.001	0.005	0.012	0.000	0.003	0.001	0.017	0.001
% R.S.D.	156.372	0.438	1.183	67.624	0.298	6.455	20.068	0.198

	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	0.044	0.502	0.499	0.105
S.D.	0.014	0.001	0.001	0.014
% R.S.D.	31.068	0.292	0.180	13.002

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Identity 1: CCV Identity 2: Quality Control 2:55 PM June 26, 1997

DATA NOT USED

Task name : OPTIMA

Sample Weight : 1.0000 Solution Volume : 1.00

On-Peak Integrations : 3 Off-Peak Integrations : 1

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	4.939	5.009	5.122	4.999	5.006	5.206	5.074	4.824
S.D.	0.003	0.004	0.011	0.014	0.008	0.015	0.010	0.036
% R.S.D.	0.058	0.086	0.211	0.271	0.161	0.289	0.200	0.747

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	5.276	5.016	4.922	4.983	4.677	4.978	4.943	9.728
S.D.	0.019	0.012	0.008	0.015	0.010	0.023	0.013	0.033
% R.S.D.	0.351	0.241	0.158	0.297	0.208	0.459	0.270	0.339

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	5.028	4.991	4.946	5.255	5.128	5.010	5.216	5.141
S.D.	0.012	0.003	0.004	0.022	0.010	0.016	0.015	0.025
% R.S.D.	0.237	0.052	0.077	0.427	0.197	0.310	0.296	0.485

	Mo (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)	Mn (ppm)
Mean	5.213	5.038	4.905	4.906	5.041	4.974	5.036	5.008
S.D.	0.013	0.036	0.008	0.006	0.015	0.009	0.028	0.013
% R.S.D.	0.258	0.722	0.173	0.132	0.303	0.174	0.559	0.252

	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	4.838	5.125	5.048	5.151
S.D.	0.041	0.007	0.006	0.019
% R.S.D.	0.847	0.132	0.109	0.377

‡

DATA NOT USED

Identity 1: CCB Identity 2: Quality Control 3:02 PM June 26, 1997
Task name : OPTIMA
Sample Weight : 1.0000 Solution Volume : 1.00
On-Peak Integrations : 3 Off-Peak Integrations : 1

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	-0.003	-0.000	0.013	-0.006	0.020	0.005	-0.001	-0.001
S.D.	0.000	0.000	0.002	0.001	0.006	0.002	0.000	0.000
% R.S.D.	17.398	85.714	18.337	21.540	30.873	43.415	32.663	6.660

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	0.000	-0.006	-0.001	0.016	0.011	-0.003	-0.005	-0.064
S.D.	0.000	0.002	0.002	0.001	0.002	0.001	0.002	0.004
% R.S.D.	64.438	26.049	169.543	7.430	17.771	52.061	43.323	7.073

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	-0.038	-0.012	-0.000	0.012	-0.003	0.011	-0.001	0.037
S.D.	0.002	0.001	0.000	0.003	0.003	0.002	0.003	0.002
% R.S.D.	4.876	7.757	24.168	27.242	114.539	18.548	491.438	6.661

	Mo (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)	Mn (ppm)
Mean	0.001	0.062	-0.032	-0.001	0.001	-0.005	0.036	0.000
S.D.	0.001	0.003	0.012	0.000	0.000	0.001	0.009	0.000
% R.S.D.	139.114	5.004	37.432	5.564	19.349	13.478	25.815	88.337

	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	0.006	-0.001	0.000	0.044
S.D.	0.055	0.001	0.000	0.013
% R.S.D.	877.002	54.998	121.024	29.865

JK 6/26
04-26-97

LABCORE Data Entry Template for Worklist# 19496

Analyst: DK Sato **Instrument:** ICP01 JK 7-24-97 **Book#** 678488

Method: LA-505-~~151~~/161, Rev/Mod C-1

JK 7-24-97

Worklist Comment: ICP T-203 (FUSION)

S	Type	Sample#	R	A	Test	Matrix	Group#	Project
1	ICV				@ICP-QC	QC		
2	ICB				@ICP-QC	QC		
3	LLS				@ICP-QC	QC		
4	ICSA				@ICP-QC	QC		
5	ICSAB				@ICP-QC	QC		
6	PREPBLKTJA				@ICP-F01	SOLID		
7	SERDIL	S97T001734	0	F	@ICP-F01	SOLID		
8	SAMPLE	S97T001734	0	F	@ICP-F01	SOLID	97000299	T-203
	Analytes Requested:	AG-F-01 , AL-F-01 , AS-F-01 , B-F-01 , BA-F-01 , BE-F-01 , BI-F-01 , CA-F-01 , CD-F-01 , CE-F-01 , CO-F-01 , CR-F-01 , CU-F-01 , FE-F-01 , LA-F-01 , LI-F-01 , MG-F-01 , MN-F-01 , MO-F-01 , NA-F-01 , ND-F-01 , P-F-01 , PB-F-01 , S-F-01 , SB-F-01 , SE-F-01 , SI-F-01 , SM-F-01 , SR-F-01 , TI-F-01 , TL-F-01 , U-F-01 , V-F-01 , ZN-F-01 , ZR-F-01						
9	DUP	S97T001734	0	F	@ICP-F01	SOLID		
10	SPK	S97T001734	0	F	@ICP-F01	SOLID		
11	ICSA (10 ppm) JK 7-24-97				@ICP-QC	QC		
12	ICSAB				@ICP-QC	QC		
13	CCV				@ICP-QC	QC		
14	CCB				@ICP-QC	QC		

DATA NOT USED

Data Entry Comments:

S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 19496

S	Type	Sample#	R	A	Test	Matrix	Group#	Project

Final page for worklist # 19496

Reviewed + Validated by:

JK [illegible] 07-24-97
Analyst Signature Date

Sandra Pang 7/24/97
Analyst Signature Date

PrepBlkTJC	.25-10	JF1		
597T001734_L	.25-10-2.8	205		
597T001734	.25-10	41		
597T001734_D	.25-10	41		
597T001734_A	.25-10	41	.25 ml sample + 2.05 ml SSTS + 7.85 ml HNO_3	
597T001734_X	.25-10-1.9	410		
597T001734_AX	.25-10-1.9	410	1ml sample + 1ml excl xvalue 2.5+35 + 7ml HNO_3	

DATA NOT USED

Data Entry Comments:

S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

Analysis Report Summary Thu 07-24-97 02:30:08 PM page 1

#	Sample Name	File	Method	Date	Time	OpID	Type	Mode
1	ICV	970724A	ICP2	07/24/97	10:59	DKS	Q	CONC
2	ICB	970724A	ICP2	07/24/97	11:02	DKS	Q	CONC
3	LLS	970724A	ICP2	07/24/97	11:06	DKS	Q	CONC
4	ICSA	970724A	ICP2	07/24/97	11:10	DKS	Q	CONC
5	ICSAB	970724A	ICP2	07/24/97	11:13	DKS	Q	CONC
6	PREPSTDTJA	970724A	ICP2	07/24/97	11:17	DKS	Q	CONC
7	PREPBLKTJA	970724A	ICP2	07/24/97	11:21	DKS	Q	CONC
8	S97T001017_L	970724A	ICP2	07/24/97	11:25	DKS	S	CONC
9	S97T001017	970724A	ICP2	07/24/97	11:29	DKS	S	CONC
10	S97T001017_D	970724A	ICP2	07/24/97	11:32	DKS	S	CONC
11	S97T001017_S	970724A	ICP2	07/24/97	11:36	DKS	S	CONC
12	S97T001017_X	970724A	ICP2	07/24/97	11:41	DKS	S	CONC
13	S97T001017_AX	970724A	ICP2	07/24/97	11:44	DKS	S	CONC
14	CCV	970724A	ICP2	07/24/97	11:48	DKS	Q	CONC
15	CCB	970724A	ICP2	07/24/97	11:56	DKS	Q	CONC
16	PREPSTDTJA	970724A	ICP2	07/24/97	12:00	DKS	Q	CONC
17	PREPBLKTJA	970724A	ICP2	07/24/97	12:03	DKS	Q	CONC
18	S97T001128_L	970724A	ICP2	07/24/97	12:07	DKS	S	CONC
19	S97T001128	970724A	ICP2	07/24/97	12:11	DKS	S	CONC
20	S97T001128_D	970724A	ICP2	07/24/97	12:14	DKS	S	CONC
21	S97T001128_S	970724A	ICP2	07/24/97	12:18	DKS	S	CONC
22	S97T001128_X	970724A	ICP2	07/24/97	12:21	DKS	S	CONC
23	S97T001128_AX	970724A	ICP2	07/24/97	12:24	DKS	S	CONC
24	CCV_1	970724A	ICP2	07/24/97	12:29	DKS	Q	CONC
25	CCV_1	970724A	ICP2	07/24/97	12:42	DKS	Q	CONC
26	PREPSTDTJA	970724A	ICP2	07/24/97	12:45	DKS	Q	CONC
27	PREPBLKTJA	970724A	ICP2	07/24/97	12:48	DKS	Q	CONC
28	S97T001805_L	970724A	ICP2	07/24/97	12:52	DKS	S	CONC
29	S97T001805	970724A	ICP2	07/24/97	12:55	DKS	S	CONC
30	S97T001805_D	970724A	ICP2	07/24/97	12:57	DKS	S	CONC
31	S97T001805_S	970724A	ICP2	07/24/97	13:01	DKS	S	CONC
32	S97T001805_X	970724A	ICP2	07/24/97	13:04	DKS	S	CONC
33	S97T001805_AX	970724A	ICP2	07/24/97	13:07	DKS	S	CONC
34	CCV_2	970724A	ICP2	07/24/97	13:15	DKS	Q	CONC
35	CCB_2	970724A	ICP2	07/24/97	13:30	DKS	Q	CONC
36	PREPBLKTJA	970724A	ICP2	07/24/97	13:33	DKS	Q	CONC
37	S97T001734_L	970724A	ICP2	07/24/97	13:37	DKS	S	CONC
38	S97T001734	970724A	ICP2	07/24/97	13:40	DKS	S	CONC
39	S97T001734_D	970724A	ICP2	07/24/97	13:43	DKS	S	CONC
40	S97T001734_A	970724A	ICP2	07/24/97	13:46	DKS	S	CONC
41	S97T001734_X	970724A	ICP2	07/24/97	13:49	DKS	S	CONC
42	S97T001734_AX	970724A	ICP2	07/24/97	13:53	DKS	S	CONC
43	ICSA	970724A	ICP2	07/24/97	14:14	DKS	Q	CONC
44	ICSAB	970724A	ICP2	07/24/97	14:17	DKS	Q	CONC
45	CCV_3	970724A	ICP2	07/24/97	14:21	DKS	Q	CONC
46	CCB_3	970724A	ICP2	07/24/97	14:26	DKS	Q	CONC

DATA NOT USED

DK Lott
07-24-97

T-203 S97T001017
T-203 S97T001128
T-202 S97T001805
T-203 S97T001734

SIGNATURE ABOVE REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 547 TO 555

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#	Sample Name	Ag	Al	As	B	Ba	Be
1	ICV	5.108	4.987	5.257	5.061	5.173	5.197
2	ICB	.0001	.0033	-.0032	.0015	.0001	.0003
3	LLS	.0214	.1038	.2213	.1029	.1022	.0107
4	ICSA	.0017	242.3	-.0617	-.0001	.0002	.0001
5	ICSAB	.9705	243.8	-.0708	-.0064	.4817	.4842
6	PREPSTDTJA	.9959	4.909	5.128	5.212	4.988	5.159
7	PREPBLKTJA	.0032	Q.0962	-.0044	Q.3934	.0006	.0002
8	S97T001017_L	.0164	.2795	.0446	.3853	.3749	-.0000
9	S97T001017	.0121	.2882	.0258	.3764	.3664	-.0002
10	S97T001017_D	.0077	.2759	.0210	.5573	.3825	-.0002
11	S97T001017_S	.9562	5.139	5.013	4.911	5.722	5.023
12	S97T001017_X	-.0080	.2187	.0449	.4258	.3790	.0009
13	S97T001017_AX	89.23	98.19	100.6	99.65	103.7	99.81
14	CCV	5.235	5.034	5.305	5.115	5.280	5.278
15	CCB	.0065	-.0013	-.0092	.0010	-.0000	.0000
16	PREPSTDTJA	.9661	4.869	4.975	5.012	4.935	5.177
17	PREPBLKTJA	.0015	Q.1801	-.0007	Q.1906	.0014	.0004
18	S97T001128_L	.0127	.4774	.0122	.2778	6.293	.0013
19	S97T001128	.0154	.4089	.0251	.2446	6.162	-.0002
20	S97T001128_D	.0113	.4334	.0456	.4325	6.436	-.0001
21	S97T001128_S	1.631	8.640	8.836	1.185	16.29	9.041
22	S97T001128_X	.0052	.5501	.0233	.2906	6.389	.0043
23	S97T001128_AX	83.51	98.80	101.8	99.73	110.8	100.9
24	CCV_1	5.208	5.030	5.300	5.097	5.296	5.281
25	CCV_1	.0056	.0154	.0084	.0025	-.0001	.0004
26	PREPSTDTJA	.9860	5.000	5.062	5.657	5.077	5.176
27	PREPBLKTJA	.0049	Q.1320	.0053	Q.6027	.0011	.0005
28	S97T001805_L	.0050	.4320	-.0244	.8108	6.306	.0010
29	S97T001805	.0090	.3781	.0101	.7633	6.177	.0001
30	S97T001805_D	.0122	.3374	.0157	.8021	6.342	-.0001
31	S97T001805_S	.9627	5.116	5.028	5.457	11.64	5.002
32	S97T001805_X	.0038	.5440	.0418	.8818	6.413	.0052
33	S97T001805_AX	80.18	100.8	103.5	100.1	113.3	103.3
34	CCV_2	5.234	5.064	5.324	5.105	5.304	5.325
35	CCB_2	.0060	.0165	.0116	-.0020	.0000	.0005
36	PREPBLKTJA	.0005	.0158	.0105	.0035	.0003	.0005
37	S97T001734_L	-.1097	2.495	2.003	.1056	.1765	.0904
38	S97T001734	-.0166	.9520	-.0059	-.0169	.1840	.0254
39	S97T001734_D	-.0272	.9248	.4385	.1058	.1950	.0255
40	S97T001734_A	36.58	41.53	44.13	41.19	42.63	42.70
41	S97T001734_X	1.253	7.430	2.627	-.4146	.1481	.2165
42	S97T001734_AX	2752.	4098.	4159.	4131.	4344.	4167.
43	ICSA	.0121	243.8	-.0596	.0016	.0002	.0007
44	ICSAB	.9766	246.4	-.0723	-.0102	.4856	.4919
45	CCV_3	5.137	5.091	5.314	5.180	5.289	5.367
46	CCB_3	.0028	.0201	.0102	.0000	-.0000	.0008

DATA NOT USED

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#	Sample Name	Bi	Ca	Cd	Ce	Co	Cr
1	ICV	5.231	5.201	5.135	5.139	5.098	5.182
2	ICB	-.0010	-.0042	-.0009	-.0056	-.0004	.0008
3	LLS	.1978	.2098	.0110	.1939	.0420	.0214
4	ICSA	-.0102	252.7	.0014	.0054	.0013	-.0021
5	ICSAB	-.0051	255.5	.9465	.0039	.4713	.4744
6	PREPSTDTJA	5.015	5.225	4.836	5.071	5.010	4.874
7	PREPBLKTJA	.0038	Q.1228	-.0011	-.0028	.0004	.0023
8	S97T001017_L	262.6	1.811	.0020	.2873	.0207	20.30
9	S97T001017	248.1	1.768	.0032	.2833	.0132	19.39
10	S97T001017_D	239.7	1.701	.0042	.2702	.0157	18.59
11	S97T001017_S	220.4	6.992	4.735	5.219	4.917	21.35
12	S97T001017_X	267.4	1.749	.0052	.1907	.0008	20.55
13	S97T001017_AX	363.0	104.9	99.74	102.1	99.90	120.3
14	CCV	5.269	5.303	5.184	5.170	5.150	5.229
15	CCB	-.0074	-.0025	-.0017	-.0014	.0013	.0003
16	PREPSTDTJA	4.827	4.988	4.716	4.983	4.909	4.799
17	PREPBLKTJA	.0065	Q.1698	-.0002	-.0063	.0014	.0039
18	S97T001128_L	275.9	1.909	.0035	.3276	.0194	25.26
19	S97T001128	261.5	1.831	.0052	.3369	.0210	23.91
20	S97T001128_D	266.5	2.220	.0080	.3392	.0251	24.14
21	S97T001128_S	277.1	10.25	8.106	8.957	8.422	32.26
22	S97T001128_X	281.0	1.843	.0046	.3474	.0261	25.71
23	S97T001128_AX	377.8	107.2	101.0	102.4	101.4	127.0
24	CCV_1	5.239	5.332	5.184	5.174	5.153	5.252
25	CCV_1	.0074	-.0031	.0012	-.0048	.0017	-.0003
26	PREPSTDTJA	4.933	5.525	4.811	5.117	5.014	4.916
27	PREPBLKTJA	-.0083	Q.4185	.0004	-.0008	.0023	.0023
28	S97T001805_L	216.7	1.664	-.0050	.2587	.0228	19.69
29	S97T001805	202.0	1.598	.0045	.2630	.0186	18.56
30	S97T001805_D	204.1	1.477	.0049	.2690	.0194	18.67
31	S97T001805_S	211.4	6.481	4.640	5.199	4.829	23.39
32	S97T001805_X	221.3	1.634	-.0009	.2801	.0234	20.00
33	S97T001805_AX	321.9	107.9	102.6	104.2	100.5	123.4
34	CCV_2	5.256	5.382	5.226	5.181	5.206	5.301
35	CCB_2	.0017	-.0019	-.0005	-.0038	.0024	.0014
36	PREPBLKTJA	-.0185	-.0068	-.0005	.0024	.0002	.0005
37	S97T001734_L	135.8	-.5219	-.0847	-1.265	.1988	10.17
38	S97T001734	127.5	.4882	-.0285	-.1229	-.0210	9.856
39	S97T001734_D	131.2	.4094	-.0041	-.2911	.0733	10.21
40	S97T001734_A	173.5	44.64	42.37	42.15	41.98	53.39
41	S97T001734_X	125.5	-3.171	-.3778	-1.562	.9484	11.00
42	S97T001734_AX	4332.	4157.	4062.	4243.	4091.	4127.
43	ICSA	-.0080	253.4	.0018	.0117	.0026	-.0014
44	ICSAB	-.0187	255.9	.9398	.0094	.4701	.4744
45	CCV_3	5.288	5.280	5.150	5.194	5.138	5.239
46	CCB_3	.0193	-.0018	.0002	.0020	.0022	.0005

DATA NOT USED

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#	Sample Name	Cu	Eu	Fe	K	La	Li
1	ICV	4.919	.0026	4.804	5.145	5.192	5.128
2	ICB	-.0004	-.0003	-.0004	-.0000	-.0009	-.0004
3	LLS	.0170	.0007	.0926	Q.6464	.1029	.0203
4	ICSA	-.0101	-.0139	93.15	.0291	-.0049	.0027
5	ICSAB	.4450	-.0147	93.54	-.0734	-.0053	1.005
6	PREPSTDTJA	4.483	.0022	4.564	4.990	5.097	5.022
7	PREPBLKTJA	Q.0103	-.0004	.0136	-.0655	-.0008	-.0005
8	S97T001017_L	-.0207	.0263	19.00	35.04	60.58	.0000
9	S97T001017	-.0202	.0253	18.14	34.85	59.59	.0012
10	S97T001017_D	-.0175	.0221	50.20	33.80	57.82	.0015
11	S97T001017_S	4.378	.0113	248.2	35.42	56.39	4.950
12	S97T001017_X	-.0208	.0248	19.31	34.66	61.24	-.0059
13	S97T001017_AX	91.54	.0735	112.7	138.1	161.7	99.17
14	CCV	4.986	.0022	4.873	5.007	5.250	5.175
15	CCB	-.0003	-.0001	.0003	-.0601	-.0009	.0000
16	PREPSTDTJA	4.386	.0011	4.551	4.776	5.003	4.882
17	PREPBLKTJA	.0042	-.0011	Q.0636	-.0804	.0009	-.0008
18	S97T001128_L	-.0430	.0351	21.31	47.11	78.21	.0029
19	S97T001128	-.0448	.0324	20.19	46.07	76.51	.0035
20	S97T001128_D	-.0450	.0312	50.74	45.84	77.97	.0053
21	S97T001128_S	7.704	.0311	191.3	55.78	88.68	8.794
22	S97T001128_X	-.0463	.0396	21.66	46.63	79.06	.0082
23	S97T001128_AX	91.31	.0903	116.3	148.0	179.3	98.35
24	CCV_1	4.984	.0028	4.892	5.031	5.242	5.147
25	CCV_1	-.0001	.0002	-.0010	-.0681	-.0017	.0002
26	PREFSTDTJA	4.500	.0017	4.662	4.837	5.134	5.013
27	PREPBLKTJA	Q.0171	-.0009	.0400	.0548	-.0011	-.0009
28	S97T001805_L	-.0324	.0252	50.82	36.13	63.46	.0041
29	S97T001805	-.0341	.0240	47.98	35.24	61.91	.0023
30	S97T001805_D	-.0298	.0254	27.45	35.53	62.54	.0030
31	S97T001805_S	4.337	.0276	56.49	40.32	68.85	4.959
32	S97T001805_X	-.0280	.0234	51.99	36.58	64.37	.0012
33	S97T001805_AX	91.32	.0855	147.6	139.0	167.5	101.1
34	CCV_2	4.989	.0028	4.932	4.981	5.251	5.154
35	CCB_2	.0009	.0003	-.0010	.0034	-.0003	.0008
36	PREPBLKTJA	.0005	-.0000	.0015	Q343.2	.0006	.0000
37	S97T001734_L	.0513	-.1592	12.59	14170.	29.85	-.1448
38	S97T001734	.0284	-.0108	12.36	13870.	29.25	.0148
39	S97T001734_D	.0449	-.0021	8.760	12810.	30.42	.0002
40	S97T001734_A	40.41	.0344	52.72	14110.	72.91	41.21
41	S97T001734_X	.5252	-.4641	12.46	14320.	30.18	-.2898
42	S97T001734_AX	3871.	1.744	3895.	18580.	4284.	4209.
43	ICSA	-.0091	-.0149	93.92	.1240	-.0044	.0022
44	ICSAB	.4516	-.0147	94.44	-.0449	-.0049	1.018
45	CCV_3	5.060	.0023	4.884	4.893	5.274	5.294
46	CCB_3	.0001	-.0009	.0005	-.1939	-.0002	-.0006

DATA NOT USED

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#	Sample Name	Mg	Mn	Mo	Na	Nd	Ni
1	ICV	5.210	5.055	5.112	4.984	5.206	5.133
2	ICB	-.0058	.0001	.0105	-.0053	-.0014	-.0065
3	LLS	.2001	.0206	.1047	.1647	.2022	.0486
4	ICSA	252.7	-.0058	-.0063	197.0	.0002	.0018
5	ICSAB	253.8	.4492	-.0103	196.9	.0015	.9408
6	PREPSTDTJA	4.883	4.783	4.795	5.283	5.003	5.023
7	PREPBLKTJA	.0165	.0009	.0054	Q.5007	.0013	.0036
8	S97T001017_L	.2797	69.88	-.0133	183.3	.0422	.8112
9	S97T001017	.3896	82.31	-.0138	177.0	.0371	.7463
10	S97T001017_D	.4018	78.85	-.0177	172.0	.0370	.7299
11	S97T001017_S	5.154	76.54	4.603	160.2	4.922	5.523
12	S97T001017_X	.1890	69.89	-.0190	185.3	.0344	.9026
13	S97T001017_AX	104.1	173.5	100.1	283.1	98.96	100.5
14	CCV	5.266	5.121	5.160	4.994	5.270	5.200
15	CCB	-.0071	.0001	.0023	-.0188	-.0022	-.0007
16	PREPSTDTJA	4.822	4.693	4.751	5.646	4.903	4.874
17	PREPBLKTJA	.0428	.0028	.0039	Q.5214	-.0004	.0008
18	S97T001128_L	.4708	82.72	-.0064	235.0	.0319	.9131
19	S97T001128	.5952	101.1	-.0149	228.0	.0459	.8735
20	S97T001128_D	.6593	103.6	-.0180	229.5	.0431	.8942
21	S97T001128_S	8.585	117.1	.8533	244.1	8.546	9.197
22	S97T001128_X	.4382	82.94	-.0278	236.6	.0172	.9035
23	S97T001128_AX	104.7	188.1	101.3	333.4	98.71	102.1
24	CCV_1	5.269	5.102	5.164	5.007	5.247	5.151
25	CCV_1	-.0086	.0003	.0004	-.0103	-.0022	-.0004
26	PREPSTDTJA	4.936	4.765	4.876	6.016	5.025	5.004
27	PREPBLKTJA	.0333	.0005	.0035	Q.7863	.0003	Q.1323
28	S97T001805_L	.4020	64.04	-.0290	183.2	.0441	.6653
29	S97T001805	.4684	72.82	-.0161	176.8	.0331	.6476
30	S97T001805_D	.4118	74.22	-.0145	178.5	.0372	.6616
31	S97T001805_S	5.154	82.35	4.726	182.4	4.887	5.428
32	S97T001805_X	.3902	64.49	.0133	186.5	.0339	.7095
33	S97T001805_AX	106.6	170.8	100.3	286.7	100.7	103.4
34	CCV_2	5.289	5.110	5.198	5.011	5.239	5.214
35	CCB_2	-.0046	.0003	-.0013	-.0103	.0016	-.0076
36	PREPBLKTJA	.0061	.0013	.0005	.0610	-.0007	Q.0379
37	S97T001734_L	-1.136	15.41	-.0445	94.80	-.2010	35.12
38	S97T001734	-.0509	15.19 ✓	-.0644	93.70	-.0243	35.34
39	S97T001734_D	-.0281	7.157 ✓	.0133	94.49	-.0081	29.94
40	S97T001734_A	42.77	56.06	42.15	135.8	42.60	78.64
41	S97T001734_X	-.7365	15.60	1.298	92.44	.6174	38.65
42	S97T001734_AX	4347.	4071.	4112.	4284.	4136.	4101.
43	ICSA	254.9	-.0064	-.0120	198.3	.0024	.0097
44	ICSAB	257.3	.4420	-.0092	199.5	.0013	.9381
45	CCV_3	5.333	5.010	5.156	5.122	5.269	5.150
46	CCB_3	.0011	-.0000	.0011	.0012	-.0009	.0027

DATA NOT USED

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#	Sample Name	P	Pb	S	Sb	Se	Si
1	ICV	5.127	5.189	5.002	4.846	4.921	4.900
2	ICB	-.0081	-.0103	.0043	-.0063	.0079	.0174
3	LLS	.4130	.2107	.2110	.0975	.2269	Q.1272
4	ICSA	.0176	.0367	-.0224	.0160	-.0019	.0204
5	ICSAB	-.0027	1.014	-.0355	-.0094	.0082	.0085
6	PREPSTDTJA	4.827	4.786	4.859	4.747	4.648	6.935
7	PREPBLKTJA	.0118	.0171	Q.1012	-.0004	.0244	Q.7082
8	S97T001017_L	12.48	-.0440	.6656	-.1614	.0378	8.900
9	S97T001017	12.10	.0194	.6191	-.1313	.0852	8.445
10	S97T001017_D	11.80	.1078	.6548	-.1169	.0657	7.549
11	S97T001017_S	15.71	7.409	5.411	4.566	4.562	12.63
12	S97T001017_X	12.79	-.1071	.6685	-.1847	.2824	9.045
13	S97T001017_AX	112.9	101.0	97.60	100.2	97.45	108.8
14	CCV	5.072	5.222	4.950	4.889	4.991	4.920
15	CCB	.0098	.0035	.0057	.0032	.0033	.0071
16	PREPSTDTJA	4.838	4.699	5.500	4.679	4.536	8.677
17	PREPBLKTJA	.0508	.0385	Q.7864	.0025	.0348	Q2.439
18	S97T001128_L	14.88	.2651	2.276	-.1768	.1826	1.125
19	S97T001128	14.67	.2389	2.097	-.1176	.0712	1.020
20	S97T001128_D	15.07	.3208	2.248	-.1142	.0707	.9376
21	S97T001128_S	16.50	8.480	3.103	.8087	8.005	11.30
22	S97T001128_X	15.29	.1852	2.221	-.2109	.3941	1.240
23	S97T001128_AX	115.5	103.0	100.1	101.6	97.81	102.1
24	CCV_1	5.147	5.249	5.000	4.879	4.997	4.917
25	CCV_1	-.0015	.0059	-.0100	.0049	.0382	.0026
26	PREFSTDTJA	4.834	4.788	4.767	4.796	4.605	8.896
27	PREPBLKTJA	.0134	.0089	Q.1171	.0015	.0249	Q1.291
28	S97T001805_L	12.30	.3586	1.569	-.1200	.1764	10.13
29	S97T001805	11.70	.4202	1.480	-.0897	.0794	9.531
30	S97T001805_D	11.96	.1534	1.509	-.0917	.0769	8.974
31	S97T001805_S	16.94	5.040	6.125	4.622	4.509	14.53
32	S97T001805_X	12.44	.3104	1.716	-.1107	.2619	10.33
33	S97T001805_AX	111.2	104.4	98.24	100.6	100.2	110.4
34	CCV_2	5.111	5.310	5.015	4.930	5.006	4.954
35	CCB_2	.0181	-.0149	.0025	-.0000	.0357	.0025
36	PREPBLKTJA	.0043	-.0033	.0034	.0089	.0297	.0166
37	S97T001734_L	2.031	-3.947	-.4752	-2.592	4.425	4.497
38	S97T001734	5.994	-.1238	.1960	-.1280	1.119	3.297
39	S97T001734_D	5.809	.3495	-.0464	.0758	1.330	3.719
40	S97T001734_A	48.34	42.75	41.41	39.98	41.79	44.00
41	S97T001734_X	13.86	1.237	-4.133	.4599	11.78	5.654
42	S97T001734_AX	4137.	4104.	3989.	4165.	4030.	4097.
43	ICSA	.0106	.0463	-.0377	.0031	.0199	.0006
44	ICSAB	.0259	.9933	-.0408	-.0062	.0475	-.0017
45	CCV_3	5.196	5.208	5.044	4.930	5.017	4.903
46	CCB_3	-.0033	.0004	-.0036	.0009	.0375	-.0036

DATA NOT USED

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#	Sample Name	Sm	Sr	Th	Ti	Tl	U
1	ICV	5.018	5.064	.0946	4.966	4.952	9.737
2	ICB	-.0062	-.0000	-.0017	-.0007	-.0093	-.0222
3	LLS	.2078	.0206	-.0019	.0200	.3945	.5168
4	ICSA	-.0032	.0019	-.0144	.0006	.0536	.1216
5	ICSAB	-.0065	.0019	-.0094	.0009	.0303	.1014
6	PREPSTDTJA	4.922	4.934	.0843	4.442	4.665	9.613
7	PREPBLKTJA	-.0062	.0004	-.0005	.0005	-.0017	-.0300
8	S97T001017_L	-.0216	2.929	-.0107	.0144	-.3142	.0021
9	S97T001017	-.0233	2.853	.0050	.0160	-.0942	.0728
10	S97T001017_D	-.0277	2.726	.0051	.0167	-.0782	.1233
11	S97T001017_S	4.794	7.223	.0768	4.346	4.427	10.02
12	S97T001017_X	-.0704	2.965	-.0612	.0117	-.1782	-.1099
13	S97T001017_AX	98.33	104.2	1.965	100.5	97.99	192.7
14	CCV	5.076	5.145	.0933	5.044	4.908	9.888
15	CCB	-.0015	.0000	-.0018	-.0002	-.0349	-.0072
16	PREPSTDTJA	4.829	4.857	.0902	4.417	4.468	9.466
17	PREPBLKTJA	-.0156	.0011	.0044	.0010	-.0061	-.0561
18	S97T001128_L	-.0143	3.174	-.0029	.0297	-.2872	.5290
19	S97T001128	-.0233	3.070	.0112	.0312	-.0913	.5148
20	S97T001128_D	-.0287	3.126	.0161	.0291	-.0455	.5717
21	S97T001128_S	8.382	11.71	.1351	.8831	7.634	17.41
22	S97T001128_X	.0274	3.213	.0035	.0357	.0227	.7352
23	S97T001128_AX	98.16	104.8	2.058	101.6	99.58	192.8
24	CCV_1	5.077	5.148	.0982	5.044	4.930	9.871
25	CCV_1	.0012	.0000	-.0054	-.0007	-.0102	.0070
26	PREPSTDTJA	4.950	4.992	.1039	4.549	4.573	9.709
27	PREPBLKTJA	-.0138	.0007	.0071	.0003	-.0115	-.0578
28	S97T001805_L	-.0200	2.524	.0058	.0298	-.2568	.4828
29	S97T001805	-.0249	2.441	.0097	.0240	-.0985	.5068
30	S97T001805_D	-.0238	2.490	.0125	.0224	-.0574	.4759
31	S97T001805_S	4.778	7.394	.1102	4.455	4.349	9.964
32	S97T001805_X	-.0229	2.564	.0108	.0238	-.2025	.4416
33	S97T001805_AX	100.7	106.4	2.127	101.4	100.3	193.0
34	CCV_2	5.085	5.157	.1077	5.080	4.982	9.883
35	CCB_2	.0063	.0001	.0021	.0005	-.0123	.0255
36	PREPBLKTJA	-.0006	.0001	.0082	-.0007	-.0199	-.0768
37	S97T001734_L	-1.115	1.465	.2957	-.1426	-4.415	-11.31
38	S97T001734	-.2235	1.443	.2417	.0030	-1.107	-4.752
39	S97T001734_D	-.1296	1.464	.3120	.0423	-.0610	-3.604
40	S97T001734_A	41.31	43.32	.9584	41.39	38.63	76.53
41	S97T001734_X	-4.649	1.447	1.064	.0080	-11.89	-21.02
42	S97T001734_AX	4154.	4258.	88.51	4212.	4034.	8143.
43	ICSA	-.0112	.0019	-.0020	.0007	.0240	.0802
44	ICSAB	-.0121	.0018	-.0139	.0011	.0402	.0736
45	CCV_3	5.109	5.186	.1149	5.082	4.932	9.956
46	CCB_3	-.0070	-.0001	.0039	-.0005	.0004	-.0314

DATA NOT USED

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#	Sample Name	V	Y	Zn	Zr
1	ICV	5.011	.0070	4.904	5.010
2	ICB	-.0011	-.0002	.0012	-.0002
3	LLS	.1034	.0004	.0247	.0222
4	ICSA	-.0013	.0069	.0095	-.0012
5	ICSAB	.4684	.0069	.9490	-.0018
6	PREPSTDTJA	4.856	.0055	4.528	4.899
7	PREPBLKTJA	-.0011	-.0005	Q.0192	.0011
8	S97T001017_L	.0230	.0012	.1192	.0084
9	S97T001017	.0218	.0011	.1037	.0072
10	S97T001017_D	.0203	.0010	.1030	.0062
11	S97T001017_S	4.801	.0084	5.102	4.810
12	S97T001017_X	.0210	.0000	.1300	.0106
13	S97T001017_AX	99.72	.1203	93.93	99.96
14	CCV	5.068	.0068	4.931	5.067
15	CCB	-.0002	-.0001	.0008	.0005
16	PREPSTDTJA	4.775	.0053	4.400	4.867
17	PREPBLKTJA	-.0020	-.0008	Q.0264	.0032
18	S97T001128_L	.0304	.0021	.1702	.0141
19	S97T001128	.0280	.0018	.1484	.0093
20	S97T001128_D	.0253	.0016	.1696	.0111
21	S97T001128_S	8.306	.0122	7.820	.9245
22	S97T001128_X	.0460	.0044	.1890	.0220
23	S97T001128_AX	100.9	.1296	95.81	100.7
24	CCV_1	5.076	.0071	4.944	5.069
25	CCV_1	.0006	.0001	.0034	.0011
26	PREPSTDTJA	4.892	.0054	4.516	4.976
27	PREPBLKTJA	-.0027	-.0008	Q.0564	.0002
28	S97T001805_L	.0227	.0018	.3238	.0106
29	S97T001805	.0193	.0014	.2962	.0087
30	S97T001805_D	.0205	.0013	.1407	.0090
31	S97T001805_S	4.751	.0074	4.555	4.857
32	S97T001805_X	.0182	.0006	.3375	.0136
33	S97T001805_AX	100.3	.1296	94.66	100.2
34	CCV_2	5.112	.0073	4.989	5.086
35	CCB_2	.0011	.0003	.0024	.0012
36	PREPBLKTJA	.0001	-.0001	.0014	-.0002
37	S97T001734_L	-.4188	-.0916	.3582	-.2224
38	S97T001734	-.0364	-.0108	.0893	-.0283
39	S97T001734_D	-.0009	-.0049	.1579	.0078
40	S97T001734_A	41.57	.0606	40.75	41.14
41	S97T001734_X	-.9731	-.2802	.6203	-.6212
42	S97T001734_AX	4125.	4.764	3831.	4163.
43	ICSA	-.0015	.0067	.0106	-.0029
44	ICSAB	.4703	.0067	.9454	-.0025
45	CCV_3	5.086	.0067	4.915	5.062
46	CCB_3	-.0016	-.0005	.0037	-.0013

DATA NOT USED

07-24-97

LABCORE Data Entry Template for Worklist# 19537

Analyst: DK Scho **Instrument:** ICP01-2 DK 7-24-97 **Book#** G7848B

Method: LA-505-~~151~~/161 Rev/Mod C-1
DK 7-24-97

Worklist Comment: ICP T-203 (SOLID ACID DIGEST)

S	Type	Sample#	R	A	Test	Matrix	Group#	Project
1	ICV				@ICP-QC	QC		
2	ICB				@ICP-QC	QC		
3	LLS				@ICP-QC	QC		
4	ICSA				@ICP-QC	QC		
5	ICSAB				@ICP-QC	QC		
6	PREPSTDTJA				@ICP-A01	SOLID		
7	PREPBLKTJA				@ICP-A01	SOLID		
8	SERDIL	S97T001017	0	A	@ICP-A01	SOLID		
9	SAMPLE	S97T001017	0	A	@ICP-A01	SOLID	97000299	T-203
	Analytes Requested:	AG-A-01 , AL-A-01 , AS-A-01 , B-A-01 , BA-A-01 , BE-A-01 , BI-A-01 , CA-A-01 , CD-A-01 , CE-A-01 , CO-A-01 , CR-A-01 , CU-A-01 , FE-A-01 , K-A-01 , LA-A-01 , LI-A-01 , MG-A-01 , MN-A-01 , MO-A-01 , NA-A-01 , ND-A-01 , NI-A-01 , P-A-01 , PB-A-01 , S-A-01 , SB-A-01 , SI-A-01 , SM-A-01 , SR-A-01 , TI-A-01 , TL-A-01 , U-A-01 , V-A-01 , ZN-A-01 , ZR-A-01			
10	DUP	S97T001017	0	A	@ICP-A01	SOLID		
11	SPK PREDIG	S97T001017	0	A	@ICP-A01	SOLID		
12	ICSA	Sample Spike @ (10ppm) DK 7-24-97			@ICP-QC	QC		
13	ICSAB				@ICP-QC	QC		
14	CCV				@ICP-QC	QC		
15	CCB				@ICP-QC	QC		

Data Entry Comments:

S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 19537

S	Type	Sample#	R	A	Test	Matrix	Group#	Project

Final page for worklist # 19537

Reviewed + Validated by:

JK 07-24-97
Analyst Signature Date

Sam R. Pang 7/28/97
Analyst Signature Date

PrepAddTQ	1 direct	DF	1
PrepblkTTQ	direct		1
SYTTOO1017_L	2-8		5
SYTTOO1017	direct		1
SYTTOO1017_D	direct		1
SYTTOO1017_S	direct		1
SYTTOO1017_Y	1-9		10
SYTTOO1017_QY	1-9		10, 1 mL sample + 1 mL acid Xwafc 28.35+7 mL HNO_3

Data Entry Comments:

S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

Post Spike :

$$Bi = \frac{\left(\frac{363.0}{10}\right) - \left(\frac{267.4}{10}\right)}{10} \times 100 = 95.6\%$$

$$Cr = \frac{\left(\frac{120.3}{10}\right) - \left(\frac{20.55}{10}\right)}{10} \times 100 = 99.75\%$$

$$Fe = \frac{\left(\frac{112.7}{10}\right) - \left(\frac{19.31}{10}\right)}{10} \times 100 = 93.4\%$$

$$K = \frac{\left(\frac{138.1}{10}\right) - \left(\frac{34.66}{10}\right)}{10} \times 100 = 103.4\%$$

$$La = \frac{\left(\frac{161.7}{10}\right) - \left(\frac{61.24}{10}\right)}{10} \times 100 = 100.5\%$$

$$Mn = \frac{\left(\frac{173.5}{10}\right) - \left(\frac{69.89}{10}\right)}{10} \times 100 = 103.6\%$$

$$Na = \frac{\left(\frac{283.1}{10}\right) - \left(\frac{185.3}{10}\right)}{10} \times 100 = 97.8\%$$

$$P = \frac{\left(\frac{112.9}{10}\right) - \left(\frac{12.79}{10}\right)}{10} \times 100 = 100.1\%$$

Analysis Report Summary Thu 07-24-97 02:30:08 PM page 1

#	Sample Name	File	Method	Date	Time	OpID	Type	Mode
1	ICV	970724A	ICP2	07/24/97	10:59	DKS	Q	CONC
2	ICB	970724A	ICP2	07/24/97	11:02	DKS	Q	CONC
3	LLS	970724A	ICP2	07/24/97	11:06	DKS	Q	CONC
4	ICSA	970724A	ICP2	07/24/97	11:10	DKS	Q	CONC
5	ICSAB	970724A	ICP2	07/24/97	11:13	DKS	Q	CONC
6	PREPSTDTJA	970724A	ICP2	07/24/97	11:17	DKS	Q	CONC
7	PREPBLKTJA	970724A	ICP2	07/24/97	11:21	DKS	Q	CONC
8	S97T001017_L	970724A	ICP2	07/24/97	11:25	DKS	S	CONC
9	S97T001017	970724A	ICP2	07/24/97	11:29	DKS	S	CONC
10	S97T001017_D	970724A	ICP2	07/24/97	11:32	DKS	S	CONC
11	S97T001017_S	970724A	ICP2	07/24/97	11:36	DKS	S	CONC
12	S97T001017_X	970724A	ICP2	07/24/97	11:41	DKS	S	CONC
13	S97T001017_AX	970724A	ICP2	07/24/97	11:44	DKS	S	CONC
14	CCV	970724A	ICP2	07/24/97	11:48	DKS	Q	CONC
15	CCB	970724A	ICP2	07/24/97	11:56	DKS	Q	CONC
16	PREPSTDTJA	970724A	ICP2	07/24/97	12:00	DKS	Q	CONC
17	PREPBLKTJA	970724A	ICP2	07/24/97	12:03	DKS	Q	CONC
18	S97T001128_L	970724A	ICP2	07/24/97	12:07	DKS	S	CONC
19	S97T001128	970724A	ICP2	07/24/97	12:11	DKS	S	CONC
20	S97T001128_D	970724A	ICP2	07/24/97	12:14	DKS	S	CONC
21	S97T001128_S	970724A	ICP2	07/24/97	12:18	DKS	S	CONC
22	S97T001128_X	970724A	ICP2	07/24/97	12:21	DKS	S	CONC
23	S97T001128_AX	970724A	ICP2	07/24/97	12:24	DKS	S	CONC
24	CCV_1	970724A	ICP2	07/24/97	12:29	DKS	Q	CONC
25	CCV_1	970724A	ICP2	07/24/97	12:42	DKS	Q	CONC
26	PREPSTDTJA	970724A	ICP2	07/24/97	12:45	DKS	Q	CONC
27	PREPBLKTJA	970724A	ICP2	07/24/97	12:48	DKS	Q	CONC
28	S97T001805_L	970724A	ICP2	07/24/97	12:52	DKS	S	CONC
29	S97T001805	970724A	ICP2	07/24/97	12:55	DKS	S	CONC
30	S97T001805_D	970724A	ICP2	07/24/97	12:57	DKS	S	CONC
31	S97T001805_S	970724A	ICP2	07/24/97	13:01	DKS	S	CONC
32	S97T001805_X	970724A	ICP2	07/24/97	13:04	DKS	S	CONC
33	S97T001805_AX	970724A	ICP2	07/24/97	13:07	DKS	S	CONC
34	CCV_2	970724A	ICP2	07/24/97	13:15	DKS	Q	CONC
35	CCB_2	970724A	ICP2	07/24/97	13:30	DKS	Q	CONC
36	PREPBLKTJA	970724A	ICP2	07/24/97	13:33	DKS	Q	CONC
37	S97T001734_L	970724A	ICP2	07/24/97	13:37	DKS	S	CONC
38	S97T001734	970724A	ICP2	07/24/97	13:40	DKS	S	CONC
39	S97T001734_D	970724A	ICP2	07/24/97	13:43	DKS	S	CONC
40	S97T001734_A	970724A	ICP2	07/24/97	13:46	DKS	S	CONC
41	S97T001734_X	970724A	ICP2	07/24/97	13:49	DKS	S	CONC
42	S97T001734_AX	970724A	ICP2	07/24/97	13:53	DKS	S	CONC
43	ICSA	970724A	ICP2	07/24/97	14:14	DKS	Q	CONC
44	ICSAB	970724A	ICP2	07/24/97	14:17	DKS	Q	CONC
45	CCV_3	970724A	ICP2	07/24/97	14:21	DKS	Q	CONC
46	CCB_3	970724A	ICP2	07/24/97	14:26	DKS	Q	CONC

DK Lott
07-24-97

T-203 S97T001017
T-203 S97T001128
T-202 S97T001805
T-203 S97T001734

SIGNATURE ABOVE REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 555 TO 560

Analysis Report Averages Thu 07-24-97 02:30:08 PM page 2

#	Sample Name	Ag	Al	As	B	Ba	Be
1	ICV	5.108	4.987	5.257	5.061	5.173	5.197
2	ICB	.0001	.0033	-.0032	.0015	.0001	.0003
3	LLS	.0214	.1038	.2213	.1029	.1022	.0107
4	ICSA	.0017	242.3	-.0617	-.0001	.0002	.0001
5	ICSAB	.9705	243.8	-.0708	-.0064	.4817	.4842
6	PREPSTDTJA	.9959	4.909	5.128	5.212	4.988	5.159
7	PREPBLKTJA	.0032	Q.0962	-.0044	Q.3934	.0006	.0002
8	S97T001017_L	.0164	.2795	.0446	.3853	.3749	-.0000
9	S97T001017	.0121	.2882	.0258	.3764	.3664	-.0002
10	S97T001017_D	.0077	.2759	.0210	.5573	.3825	-.0002
11	S97T001017_S	.9562	5.139	5.013	4.911	5.722	5.023
12	S97T001017_X	-.0080	.2187	.0449	.4258	.3790	.0009
13	S97T001017_AX	89.23	98.19	100.6	99.65	103.7	99.81
14	CCV	5.235	5.034	5.305	5.115	5.280	5.278
15	CCB	.0065	-.0013	-.0092	.0010	-.0000	.0000
16	PREPSTDTJA	.9661	4.869	4.975	5.012	4.935	5.177
17	PREPBLKTJA	.0015	Q.1801	-.0007	Q.1906	.0014	.0004
18	S97T001128_L	.0127	.4774	.0122	.2778	6.293	.0013
19	S97T001128	.0154	.4089	.0251	.2446	6.162	-.0002
20	S97T001128_D	.0113	.4334	.0456	.4325	6.436	-.0001
21	S97T001128_S	1.631	8.640	8.836	1.185	16.29	9.041
22	S97T001128_X	.0052	.5501	.0233	.2906	6.389	.0043
23	S97T001128_AX	83.51	98.80	101.8	99.73	110.8	100.9
24	CCV_1	5.208	5.030	5.300	5.097	5.296	5.281
25	CCV_1	.0056	.0154	.0084	.0025	-.0001	.0004
26	PREPSTDTJA	.9860	5.000	5.062	5.657	5.077	5.176
27	PREPBLKTJA	.0049	Q.1320	.0053	Q.6027	.0011	.0005
28	S97T001805_L	.0050	.4320	-.0244	.8108	6.306	.0010
29	S97T001805	.0090	.3781	.0101	.7633	6.177	.0001
30	S97T001805_D	.0122	.3374	.0157	.8021	6.342	-.0001
31	S97T001805_S	.9627	5.116	5.028	5.457	11.64	5.002
32	S97T001805_X	.0038	.5440	.0418	.8818	6.413	.0052
33	S97T001805_AX	80.18	100.8	103.5	100.1	113.3	103.3
34	CCV_2	5.234	5.064	5.324	5.105	5.304	5.325
35	CCB_2	.0060	.0165	.0116	-.0020	.0000	.0005
36	PREPBLKTJA	.0005	.0158	.0105	.0035	.0003	.0005
37	S97T001734_L	-.1097	2.495	2.003	.1056	.1765	.0904
38	S97T001734	-.0166	.9520	-.0059	-.0169	.1840	.0254
39	S97T001734_D	-.0272	.9248	.4385	.1058	.1950	.0255
40	S97T001734_A	36.58	41.53	44.13	41.19	42.63	42.70
41	S97T001734_X	1.253	7.430	2.627	-.4146	.1481	.2165
42	S97T001734_AX	2752.	4098.	4159.	4131.	4344.	4167.
43	ICSA	.0121	243.8	-.0596	.0016	.0002	.0007
44	ICSAB	.9766	246.4	-.0723	-.0102	.4856	.4919
45	CCV_3	5.137	5.091	5.314	5.180	5.289	5.367
46	CCB_3	.0028	.0201	.0102	.0000	-.0000	.0008

Analysis Report Averages Thu 07-24-97 02:30:08 PM page 3

#	Sample Name	Bi	Ca	Cd	Ce	Co	Cr
1	ICV	5.231	5.201	5.135	5.139	5.098	5.182
2	ICB	-.0010	-.0042	-.0009	-.0056	-.0004	.0008
3	LLS	.1978	.2098	.0110	.1939	.0420	.0214
4	ICSA	-.0102	252.7	.0014	.0054	.0013	-.0021
5	ICSAB	-.0051	255.5	.9465	.0039	.4713	.4744
6	PREPSTDTJA	5.015	5.225	4.836	5.071	5.010	4.874
7	PREPBLKTJA	.0038	Q.1228	-.0011	-.0028	.0004	.0023
8	S97T001017_L	262.6	1.811	.0020	.2873	.0207	20.30
9	S97T001017	248.1	1.768	.0032	.2833	.0132	19.39
10	S97T001017_D	239.7	1.701	.0042	.2702	.0157	18.59
11	S97T001017_S	220.4	6.992	4.735	5.219	4.917	21.35
12	S97T001017_X	267.4	1.749	.0052	.1907	.0008	20.55
13	S97T001017_AX	363.0	104.9	99.74	102.1	99.90	120.3
14	CCV	5.269	5.303	5.184	5.170	5.150	5.229
15	CCB	-.0074	-.0025	-.0017	-.0014	.0013	.0003
16	PREPSTDTJA	4.827	4.988	4.716	4.983	4.909	4.799
17	PREPBLKTJA	.0065	Q.1698	-.0002	-.0063	.0014	.0039
18	S97T001128_L	275.9	1.909	.0035	.3276	.0194	25.26
19	S97T001128	261.5	1.831	.0052	.3369	.0210	23.91
20	S97T001128_D	266.5	2.220	.0080	.3392	.0251	24.14
21	S97T001128_S	277.1	10.25	8.106	8.957	8.422	32.26
22	S97T001128_X	281.0	1.843	.0046	.3474	.0261	25.71
23	S97T001128_AX	377.8	107.2	101.0	102.4	101.4	127.0
24	CCV_1	5.239	5.332	5.184	5.174	5.153	5.252
25	CCV_1	.0074	-.0031	.0012	-.0048	.0017	-.0003
26	PREPSTDTJA	4.933	5.525	4.811	5.117	5.014	4.916
27	PREPBLKTJA	-.0083	Q.4185	.0004	-.0008	.0023	.0023
28	S97T001805_L	216.7	1.664	-.0050	.2587	.0228	19.69
29	S97T001805	202.0	1.598	.0045	.2630	.0186	18.56
30	S97T001805_D	204.1	1.477	.0049	.2690	.0194	18.67
31	S97T001805_S	211.4	6.481	4.640	5.199	4.829	23.39
32	S97T001805_X	221.3	1.634	-.0009	.2801	.0234	20.00
33	S97T001805_AX	321.9	107.9	102.6	104.2	100.5	123.4
34	CCV_2	5.256	5.382	5.226	5.181	5.206	5.301
35	CCB_2	.0017	-.0019	-.0005	-.0038	.0024	.0014
36	PREPBLKTJA	-.0185	-.0068	-.0005	.0024	.0002	.0005
37	S97T001734_L	135.8	-.5219	-.0847	-1.265	.1988	10.17
38	S97T001734	127.5	.4882	-.0285	-.1229	-.0210	9.856
39	S97T001734_D	131.2	.4094	-.0041	-.2911	.0733	10.21
40	S97T001734_A	173.5	44.64	42.37	42.15	41.98	53.39
41	S97T001734_X	125.5	-3.171	-.3778	-1.562	.9484	11.00
42	S97T001734_AX	4332.	4157.	4062.	4243.	4091.	4127.
43	ICSA	-.0080	253.4	.0018	.0117	.0026	-.0014
44	ICSAB	-.0187	255.9	.9398	.0094	.4701	.4744
45	CCV_3	5.288	5.280	5.150	5.194	5.138	5.239
46	CCB_3	.0193	-.0018	.0002	.0020	.0022	.0005

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#	Sample Name	Cu	Eu	Fe	K	La	Li
1	ICV	4.919	.0026	4.804	5.145	5.192	5.128
2	ICB	-.0004	-.0003	-.0004	-.0000	-.0009	-.0004
3	LLS	.0170	.0007	.0926	Q.6464	.1029	.0203
4	ICSA	-.0101	-.0139	93.15	.0291	-.0049	.0027
5	ICSAB	.4450	-.0147	93.54	-.0734	-.0053	1.005
6	PREPSTDTJA	4.483	.0022	4.564	4.990	5.097	5.022
7	PREPBLKTJA	Q.0103	-.0004	.0136	-.0655	-.0008	-.0005
8	S97T001017_L	-.0207	.0263	19.00	35.04	60.58	.0000
9	S97T001017	-.0202	.0253	18.14	34.85	59.59	.0012
10	S97T001017_D	-.0175	.0221	50.20	33.80	57.82	.0015
11	S97T001017_S	4.378	.0113	248.2	35.42	56.39	4.950
12	S97T001017_X	-.0208	.0248	19.31	34.66	61.24	-.0059
13	S97T001017_AX	91.54	.0735	112.7	138.1	161.7	99.17
14	CCV	4.986	.0022	4.873	5.007	5.250	5.175
15	CCB	-.0003	-.0001	.0003	-.0601	-.0009	.0000
16	PREPSTDTJA	4.386	.0011	4.551	4.776	5.003	4.882
17	PREPBLKTJA	.0042	-.0011	Q.0636	-.0804	.0009	-.0008
18	S97T001128_L	-.0430	.0351	21.31	47.11	78.21	.0029
19	S97T001128	-.0448	.0324	20.19	46.07	76.51	.0035
20	S97T001128_D	-.0450	.0312	50.74	45.84	77.97	.0053
21	S97T001128_S	7.704	.0311	191.3	55.78	88.68	8.794
22	S97T001128_X	-.0463	.0396	21.66	46.63	79.06	.0082
23	S97T001128_AX	91.31	.0903	116.3	148.0	179.3	98.35
24	CCV_1	4.984	.0028	4.892	5.031	5.242	5.147
25	CCV_1	-.0001	.0002	-.0010	-.0681	-.0017	.0002
26	PREPSTDTJA	4.500	.0017	4.662	4.837	5.134	5.013
27	PREPBLKTJA	Q.0171	-.0009	.0400	.0548	-.0011	-.0009
28	S97T001805_L	-.0324	.0252	50.82	36.13	63.46	.0041
29	S97T001805	-.0341	.0240	47.98	35.24	61.91	.0023
30	S97T001805_D	-.0298	.0254	27.45	35.53	62.54	.0030
31	S97T001805_S	4.337	.0276	56.49	40.32	68.85	4.959
32	S97T001805_X	-.0280	.0234	51.99	36.58	64.37	.0012
33	S97T001805_AX	91.32	.0855	147.6	139.0	167.5	101.1
34	CCV_2	4.989	.0028	4.932	4.981	5.251	5.154
35	CCB_2	.0009	.0003	-.0010	.0034	-.0003	.0008
36	PREPBLKTJA	.0005	-.0000	.0015	Q343.2	.0006	.0000
37	S97T001734_L	.0513	-.1592	12.59	14170.	29.85	-.1448
38	S97T001734	.0284	-.0108	12.36	13870.	29.25	.0148
39	S97T001734_D	.0449	-.0021	8.760	12810.	30.42	.0002
40	S97T001734_A	40.41	.0344	52.72	14110.	72.91	41.21
41	S97T001734_X	.5252	-.4641	12.46	14320.	30.18	-.2898
42	S97T001734_AX	3871.	1.744	3895.	18580.	4284.	4209.
43	ICSA	-.0091	-.0149	93.92	.1240	-.0044	.0022
44	ICSAB	.4516	-.0147	94.44	-.0449	-.0049	1.018
45	CCV_3	5.060	.0023	4.884	4.893	5.274	5.294
46	CCB_3	.0001	-.0009	.0005	-.1939	-.0002	-.0006

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#	Sample Name	Mg	Mn	Mo	Na	Nd	Ni
1	ICV	5.210	5.055	5.112	4.984	5.206	5.133
2	ICB	-.0058	.0001	.0105	-.0053	-.0014	-.0065
3	LLS	.2001	.0206	.1047	.1647	.2022	.0486
4	ICSA	252.7	-.0058	-.0063	197.0	.0002	.0018
5	ICSAB	253.8	.4492	-.0103	196.9	.0015	.9408
6	PREPSTDTJA	4.883	4.783	4.795	5.283	5.003	5.023
7	PREPBLKTJA	.0165	.0009	.0054	Q.5007	.0013	.0036
8	S97T001017_L	.2797	69.88	-.0133	183.3	.0422	.8112
9	S97T001017	.3896	82.31	-.0138	177.0	.0371	.7463
10	S97T001017_D	.4018	78.85	-.0177	172.0	.0370	.7299
11	S97T001017_S	5.154	76.54	4.603	160.2	4.922	5.523
12	S97T001017_X	.1890	69.89	-.0190	185.3	.0344	.9026
13	S97T001017_AX	104.1	173.5	100.1	283.1	98.96	100.5
14	CCV	5.266	5.121	5.160	4.994	5.270	5.200
15	CCB	-.0071	.0001	.0023	-.0188	-.0022	-.0007
16	PREPSTDTJA	4.822	4.693	4.751	5.646	4.903	4.874
17	PREPBLKTJA	.0428	.0028	.0039	Q.5214	-.0004	.0008
18	S97T001128_L	.4708	82.72	-.0064	235.0	.0319	.9131
19	S97T001128	.5952	101.1	-.0149	228.0	.0459	.8735
20	S97T001128_D	.6593	103.6	-.0180	229.5	.0431	.8942
21	S97T001128_S	8.585	117.1	.8533	244.1	8.546	9.197
22	S97T001128_X	.4382	82.94	-.0278	236.6	.0172	.9035
23	S97T001128_AX	104.7	188.1	101.3	333.4	98.71	102.1
24	CCV_1	5.269	5.102	5.164	5.007	5.247	5.151
25	CCV_1	-.0086	.0003	.0004	-.0103	-.0022	-.0004
26	PREPSTDTJA	4.936	4.765	4.876	6.016	5.025	5.004
27	PREPBLKTJA	.0333	.0005	.0035	Q.7863	.0003	Q.1323
28	S97T001805_L	.4020	64.04	-.0290	183.2	.0441	.6653
29	S97T001805	.4684	72.82	-.0161	176.8	.0331	.6476
30	S97T001805_D	.4118	74.22	-.0145	178.5	.0372	.6616
31	S97T001805_S	5.154	82.35	4.726	182.4	4.887	5.428
32	S97T001805_X	.3902	64.49	.0133	186.5	.0339	.7095
33	S97T001805_AX	106.6	170.8	100.3	286.7	100.7	103.4
34	CCV_2	5.289	5.110	5.198	5.011	5.239	5.214
35	CCB_2	-.0046	.0003	-.0013	-.0103	.0016	-.0076
36	PREPBLKTJA	.0061	.0013	.0005	.0610	-.0007	Q.0379
37	S97T001734_L	-1.136	15.41	-.0445	94.80	-.2010	35.12
38	S97T001734	-.0509	15.19	-.0644	93.70	-.0243	35.34
39	S97T001734_D	-.0281	7.157	.0133	94.49	-.0081	29.94
40	S97T001734_A	42.77	56.06	42.15	135.8	42.60	78.64
41	S97T001734_X	-.7365	15.60	1.298	92.44	.6174	38.65
42	S97T001734_AX	4347.	4071.	4112.	4284.	4136.	4101.
43	ICSA	254.9	-.0064	-.0120	198.3	.0024	.0097
44	ICSAB	257.3	.4420	-.0092	199.5	.0013	.9381
45	CCV_3	5.333	5.010	5.156	5.122	5.269	5.150
46	CCB_3	.0011	-.0000	.0011	.0012	-.0009	.0027

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#	Sample Name	P	Pb	S	Sb	Se	Si
1	ICV	5.127	5.189	5.002	4.846	4.921	4.900
2	ICB	-.0081	-.0103	.0043	-.0063	.0079	.0174
3	LLS	.4130	.2107	.2110	.0975	.2269	Q.1272
4	ICSA	.0176	.0367	-.0224	.0160	-.0019	.0204
5	ICSAB	-.0027	1.014	-.0355	-.0094	.0082	.0085
6	PREPSTDTJA	4.827	4.786	4.859	4.747	4.648	6.935
7	PREPBLKTJA	.0118	.0171	Q.1012	-.0004	.0244	Q.7082
8	S97T001017_L	12.48	-.0440	.6656	-.1614	.0378	8.900
9	S97T001017	12.10	.0194	.6191	-.1313	.0852	8.445
10	S97T001017_D	11.80	.1078	.6548	-.1169	.0657	7.549
11	S97T001017_S	15.71	7.409	5.411	4.566	4.562	12.63
12	S97T001017_X	12.79	-.1071	.6685	-.1847	.2824	9.045
13	S97T001017_AX	112.9	101.0	97.60	100.2	97.45	108.8
14	CCV	5.072	5.222	4.950	4.889	4.991	4.920
15	CCB	.0098	.0035	.0057	.0032	.0033	.0071
16	PREPSTDTJA	4.838	4.699	5.500	4.679	4.536	8.677
17	PREPBLKTJA	.0508	.0385	Q.7864	.0025	.0348	Q2.439
18	S97T001128_L	14.88	.2651	2.276	-.1768	.1826	1.125
19	S97T001128	14.67	.2389	2.097	-.1176	.0712	1.020
20	S97T001128_D	15.07	.3208	2.248	-.1142	.0707	.9376
21	S97T001128_S	16.50	8.480	3.103	.8087	8.005	11.30
22	S97T001128_X	15.29	.1852	2.221	-.2109	.3941	1.240
23	S97T001128_AX	115.5	103.0	100.1	101.6	97.81	102.1
24	CCV_1	5.147	5.249	5.000	4.879	4.997	4.917
25	CCV_1	-.0015	.0059	-.0100	.0049	.0382	.0026
26	PREFSTDTJA	4.834	4.788	4.767	4.796	4.605	8.896
27	PREPBLKTJA	.0134	.0089	Q.1171	.0015	.0249	Q1.291
28	S97T001805_L	12.30	.3586	1.569	-.1200	.1764	10.13
29	S97T001805	11.70	.4202	1.480	-.0897	.0794	9.531
30	S97T001805_D	11.96	.1534	1.509	-.0917	.0769	8.974
31	S97T001805_S	16.94	5.040	6.125	4.622	4.509	14.53
32	S97T001805_X	12.44	.3104	1.716	-.1107	.2619	10.33
33	S97T001805_AX	111.2	104.4	98.24	100.6	100.2	110.4
34	CCV_2	5.111	5.310	5.015	4.930	5.006	4.954
35	CCB_2	.0181	-.0149	.0025	-.0000	.0357	.0025
36	PREPBLKTJA	.0043	-.0033	.0034	.0089	.0297	.0166
37	S97T001734_L	2.031	-3.947	-.4752	-2.592	4.425	4.497
38	S97T001734	5.994	-.1238	.1960	-.1280	1.119	3.297
39	S97T001734_D	5.809	.3495	-.0464	.0758	1.330	3.719
40	S97T001734_A	48.34	42.75	41.41	39.98	41.79	44.00
41	S97T001734_X	13.86	1.237	-4.133	.4599	11.78	5.654
42	S97T001734_AX	4137.	4104.	3989.	4165.	4030.	4097.
43	ICSA	.0106	.0463	-.0377	.0031	.0199	.0006
44	ICSAB	.0259	.9933	-.0408	-.0062	.0475	-.0017
45	CCV_3	5.196	5.208	5.044	4.930	5.017	4.903
46	CCB_3	-.0033	.0004	-.0036	.0009	.0375	-.0036

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#	Sample Name	Sm	Sr	Th	Ti	Tl	U
		5.018	5.064	.0946	4.966	4.952	9.737
1	ICV	-.0062	-.0000	-.0017	-.0007	-.0093	-.0222
2	ICB	.2078	.0206	-.0019	.0200	.3945	.5168
3	LLS	-.0032	.0019	-.0144	.0006	.0536	.1216
4	ICSA	-.0065	.0019	-.0094	.0009	.0303	.1014
5	ICSAB	4.922	4.934	.0843	4.442	4.665	9.613
6	PREPSTDTJA	-.0062	.0004	-.0005	.0005	-.0017	-.0300
7	PREPBLKTJA	-.0216	2.929	-.0107	.0144	-.3142	.0021
8	S97T001017_L	-.0233	2.853	.0050	.0160	-.0942	.0728
9	S97T001017	-.0277	2.726	.0051	.0167	-.0782	.1233
10	S97T001017_D	4.794	7.223	.0768	4.346	4.427	10.02
11	S97T001017_S	-.0704	2.965	-.0612	.0117	-.1782	-.1099
12	S97T001017_X	98.33	104.2	1.965	100.5	97.99	192.7
13	S97T001017_AX	5.076	5.145	.0933	5.044	4.908	9.888
14	CCV	-.0015	.0000	-.0018	-.0002	-.0349	-.0072
15	CCB	4.829	4.857	.0902	4.417	4.468	9.466
16	PREPSTDTJA	-.0156	.0011	.0044	.0010	-.0061	-.0561
17	PREPBLKTJA	-.0143	3.174	-.0029	.0297	-.2872	.5290
18	S97T001128_L	-.0233	3.070	.0112	.0312	-.0913	.5148
19	S97T001128	-.0287	3.126	.0161	.0291	-.0455	.5717
20	S97T001128_D	8.382	11.71	.1351	.8831	7.634	17.41
21	S97T001128_S	.0274	3.213	.0035	.0357	.0227	.7352
22	S97T001128_X	98.16	104.8	2.058	101.6	99.58	192.8
23	S97T001128_AX	5.077	5.148	.0982	5.044	4.930	9.871
24	CCV_1	.0012	.0000	-.0054	-.0007	-.0102	.0070
25	CCV_1	4.950	4.992	.1039	4.549	4.573	9.709
26	PREPSTDTJA	-.0138	.0007	.0071	.0003	-.0115	-.0578
27	PREPBLKTJA	-.0200	2.524	.0058	.0298	-.2568	.4828
28	S97T001805_L	-.0249	2.441	.0097	.0240	-.0985	.5068
29	S97T001805	-.0238	2.490	.0125	.0224	-.0574	.4759
30	S97T001805_D	4.778	7.394	.1102	4.455	4.349	9.964
31	S97T001805_S	-.0229	2.564	.0108	.0238	-.2025	.4416
32	S97T001805_X	100.7	106.4	2.127	101.4	100.3	193.0
33	S97T001805_AX	5.085	5.157	.1077	5.080	4.982	9.883
34	CCV_2	.0063	.0001	.0021	.0005	-.0123	.0255
35	CCB_2	-.0006	.0001	.0082	-.0007	-.0199	-.0768
36	PREPBLKTJA	-1.115	1.465	.2957	-.1426	-4.415	-11.31
37	S97T001734_L	-.2235	1.443	.2417	.0030	-1.107	-4.752
38	S97T001734	-.1296	1.464	.3120	.0423	-.0610	-3.604
39	S97T001734_D	41.31	43.32	.9584	41.39	38.63	76.53
40	S97T001734_A	-4.649	1.447	1.064	.0080	-11.89	-21.02
41	S97T001734_X	4154.	4258.	88.51	4212.	4034.	8143.
42	S97T001734_AX	-.0112	.0019	-.0020	.0007	.0240	.0802
43	ICSA	-.0121	.0018	-.0139	.0011	.0402	.0736
44	ICSAB	5.109	5.186	.1149	5.082	4.932	9.956
45	CCV_3	-.0070	-.0001	.0039	-.0005	.0004	-.0314
46	CCB_3						

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#	Sample Name	V	Y	Zn	Zr
1	ICV	5.011	.0070	4.904	5.010
2	ICB	-.0011	-.0002	.0012	-.0002
3	LLS	.1034	.0004	.0247	.0222
4	ICSA	-.0013	.0069	.0095	-.0012
5	ICSAB	.4684	.0069	.9490	-.0018
6	PREPSTDTJA	4.856	.0055	4.528	4.899
7	PREPBLKTJA	-.0011	-.0005	Q.0192	.0011
8	S97T001017_L	.0230	.0012	.1192	.0084
9	S97T001017	.0218	.0011	.1037	.0072
10	S97T001017_D	.0203	.0010	.1030	.0062
11	S97T001017_S	4.801	.0084	5.102	4.810
12	S97T001017_X	.0210	.0000	.1300	.0106
13	S97T001017_AX	99.72	.1203	93.93	99.96
14	CCV	5.068	.0068	4.931	5.067
15	CCB	-.0002	-.0001	.0008	.0005
16	PREPSTDTJA	4.775	.0053	4.400	4.867
17	PREPBLKTJA	-.0020	-.0008	Q.0264	.0032
18	S97T001128_L	.0304	.0021	.1702	.0141
19	S97T001128	.0280	.0018	.1484	.0093
20	S97T001128_D	.0253	.0016	.1696	.0111
21	S97T001128_S	8.306	.0122	7.820	.9245
22	S97T001128_X	.0460	.0044	.1890	.0220
23	S97T001128_AX	100.9	.1296	95.81	100.7
24	CCV_1	5.076	.0071	4.944	5.069
25	CCV_1	.0006	.0001	.0034	.0011
26	PREPSTDTJA	4.892	.0054	4.516	4.976
27	PREPBLKTJA	-.0027	-.0008	Q.0564	.0002
28	S97T001805_L	.0227	.0018	.3238	.0106
29	S97T001805	.0193	.0014	.2962	.0087
30	S97T001805_D	.0205	.0013	.1407	.0090
31	S97T001805_S	4.751	.0074	4.555	4.857
32	S97T001805_X	.0182	.0006	.3375	.0136
33	S97T001805_AX	100.3	.1296	94.66	100.2
34	CCV_2	5.112	.0073	4.989	5.086
35	CCB_2	.0011	.0003	.0024	.0012
36	PREPBLKTJA	.0001	-.0001	.0014	-.0002
37	S97T001734_L	-.4188	-.0916	.3582	-.2224
38	S97T001734	-.0364	-.0108	.0893	-.0283
39	S97T001734_D	-.0009	-.0049	.1579	.0078
40	S97T001734_A	41.57	.0606	40.75	41.14
41	S97T001734_X	-.9731	-.2802	.6203	-.6212
42	S97T001734_AX	4125.	4.764	3831.	4163.
43	ICSA	-.0015	.0067	.0106	-.0029
44	ICSAB	.4703	.0067	.9454	-.0025
45	CCV_3	5.086	.0067	4.915	5.062
46	CCB_3	-.0016	-.0005	.0037	-.0013

07-24-97

LABCORE Completed Worklist Report for Worklist# 18810

Analyst: krm **Instrument:** CARB2 **Book#** 25N12B 26N12B

Method: LA 342-100 Rev/Mod E-0

Worklist Comment: T-203 TICTOC. RCJ

Seq	Type	Sample#	R	A	Test	Matrix	Actual	Found	DL or Yield	Unit
1	BLNK		0		@TICTOC1 TIC-02	SOLID	1	3.20E+0	3.200	ug/g
1	BLNK		0		@TICTOC1 TOC-02	SOLID	1	6.00E+0	6.000	ug/g
2	STD		0		@TICTOC1 TIC-02	SOLID	6.02E+02	6.06E+2	100.664	% Recovery
2	STD		0		@TICTOC1 TOC-02	SOLID	3.00E+03	2.99E+3	99.667	% Recovery
3	SAMPLE	S97T001013	0		@TICTOC1 TIC-02	SOLID	N/A	1.58E+03	5.000	ug/g
3	SAMPLE	S97T001013	0		@TICTOC1 TOC-02	SOLID	N/A	4.18E+02	40.000	ug/g
4	DUP	S97T001013	0		@TICTOC1 TIC-02	SOLID	1.58E+3	1.58E+3	0.000	RPD
4	DUP	S97T001013	0		@TICTOC1 TOC-02	SOLID	4.18E+2	4.23E+2	1.189	RPD
5	SPK	S97T001013	0		@TICTOC1 TIC-02	SOLID	1.00E+02	9.62E+01	96.200	% Recovery
5	SPK	S97T001013	0		@TICTOC1 TOC-02	SOLID	1.00E+02	8.94E+01	89.400	% Recovery

Final page for worklist# 18810

Analyst Signature Date

Jay Hammett 7-15-97
Analyst Signature Date

RW Schroeder 7/22/97
Reviewer Signature Date

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Data Entry Template for Worklist# 18810

Analyst: KRM **Instrument:** CARB2 _____ **Book#** 25412B 26412B

Method: LA-342-100 Rev/Mod _____

Worklist Comment: T-203 TICTOC. RCJ

S	Type	Sample#	R	A	Test	Matrix	Group#	Project
1	BLNK				@TICTOC1	SOLID		
2	STD				@TICTOC1	SOLID		
3	SAMPLE	S97T001013	0		@TICTOC1	SOLID	97000299	T-203
		Analytes Requested: TIC-02 , TOC-02						
4	DUP	S97T001013	0		@TICTOC1	SOLID		
5	SPK	S97T001013	0		@TICTOC1	SOLID		

Final page for worklist # 18810

Analyst Signature Date 7-19-97

Analyst Signature Date 7-19-97

Data Entry Comments:

S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0
<<< BLANK ANALYSIS >>>

Sample: BASE1 Date: 07/18/97 Time: 21:18:16

Sample Size = 1 uL
Dil Factor = 1
Blank ID # = BASE1
Blank Value = N/A

Analyst : KR MONTEITH
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	Analysis Time	Coulometer	% Difference ==
1	0.51	0.10	0.00
2	1.01	0.20	50.00
3	1.51	0.40	50.00
4	2.00	0.60	33.33
5	2.50	0.90	33.33
6	3.00	1.20	25.00
7	3.50	1.50	20.00
8	4.00	1.70	11.76
9	4.50	1.90	10.53
10	5.00	2.10	9.52
11	5.50	2.40	12.50
12	6.00	2.50	4.00
13	6.50	2.70	7.41
14	7.00	2.90	6.90
15	7.50	3.00	3.33
16	8.00	3.20	6.25
17	8.50	3.40	5.88
18	9.00	3.60	5.56
19	9.50	3.70	2.70
20	10.00	3.90	5.13
21	10.50	4.10	4.88
22	11.00	4.30	4.65

BLANK VALUE = 4.3 micrograms carbon
BLANK FACTOR = 4.3 / 10.99792 = +3.9E-01 ug/min Carbon

Sample Run By: 7-19-97
KR MONTEITH 00000

SIGNATURE ABOVE REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 514 TO 587

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0
<<< BLANK ANALYSIS >>>

Sample: BASE1 Date: 07/18/97 Time: 21:32:16

Sample Size = 1 uL
Dil Factor = 1
Blank ID # = BASE1
Blank Value = N/A

Analyst : KR MONTEITH
Min Readings = 22
Max Readings = 22
% Difference = 10

Reading	Analysis Time	Coulometer	% Difference
1	0.51	0.20	0.00
2	1.01	0.80	75.00
3	1.50	5.30	84.91
4	2.00	13.60	61.03
5	2.50	19.80	31.31
6	3.00	23.30	15.02
7	3.50	25.10	7.17
8	4.00	26.00	3.46
9	4.50	26.60	2.26
10	5.00	27.00	1.48
11	5.50	27.40	1.46
12	6.00	27.60	0.72
13	6.50	27.90	1.08
14	7.00	28.40	1.76
15	7.50	28.70	1.05
16	8.00	29.10	1.37
17	8.50	29.50	1.36
18	9.00	29.80	1.01
19	9.50	30.10	1.00
20	10.00	30.30	0.66
21	10.50	30.60	0.98
22	11.00	30.80	0.65

BLANK VALUE = 30.8 micrograms carbon
BLANK FACTOR = 30.8 / 10.9978 = +2.80E+00 ug/min Carbon

<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: _____
KR MONTEITH 00000

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: STD Date: 07/18/97 Time: 21:45:45

Sample Size = 1000 uL
Dil Factor = 1
Blank ID # =
Blank Value = .39 ug/minute C

Analyst : KR MONTEITH
Min Readings = 22
Max Readings = 22
% Difference = 10

Reading	Analysis Time	Coulometer	% Difference
1	0.51	0.30	0.00
2	1.01	0.60	50.00
3	1.50	5.00	88.00
4	2.00	66.50	92.48
5	2.50	196.40	66.14
6	3.00	341.10	42.42
7	3.50	452.80	24.67
8	4.00	524.80	13.72
9	4.50	567.80	7.57
10	5.00	589.40	3.66
11	5.50	599.40	1.67
12	6.00	603.80	0.73
13	6.50	605.70	0.31
14	7.00	606.80	0.18
15	7.50	607.40	0.10
16	8.00	607.90	0.08
17	8.50	608.30	0.07
18	9.00	608.60	0.05
19	9.50	609.00	0.07
20	10.00	609.30	0.05
21	10.50	609.50	0.03
22	11.00	609.80	0.05

USER INPUT BLANK VALUE
BLANK VALUE = 4.289143 micrograms carbon
BLANK FACTOR = 4.289143 / 10.9978 = +3.9E-01 ug/min Carbon

SAMPLE RESULTS:
(609.8 - 4.289524)(1)/(1000) = +6.055E-01 g/L Carbon
(609.8 - 4.289524)(1)/(1000)(12) = +5.046E-02 Molar Carbon

Sample Run By: _____
KR MONTEITH 00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: STD Date: 07/18/97 Time: 22:38:13

Sample Size = 200 uL
Dil Factor = 1
Blank ID # =
Blank Value = 2.8 ug/minute C

Analyst : KR MONTEITH
Min Readings = 22
Max Readings = 22
% Difference = 10

Reading	Analysis Time	Coulometer	% Difference
1	0.51	0.50	0.00
2	1.01	4.70	89.36
3	1.51	67.20	93.01
4	2.00	261.20	74.27
5	2.50	467.00	44.07
6	3.00	560.50	16.68
7	3.50	599.70	6.54
8	4.00	614.40	2.39
9	4.50	620.10	0.92
10	5.00	622.70	0.42
11	5.50	624.00	0.21
12	6.00	625.00	0.16
13	6.50	625.70	0.11
14	7.00	626.30	0.10
15	7.50	626.80	0.08
16	8.00	627.30	0.08
17	8.50	627.60	0.05
18	9.00	628.10	0.08
19	9.50	628.40	0.05
20	10.00	628.80	0.06
21	10.50	629.10	0.05
22	11.00	629.40	0.05

USER INPUT BLANK VALUE
BLANK VALUE = 30.79385 micrograms carbon
BLANK FACTOR = 30.79385 / 10.9978 = +2.8E+00 ug/min Carbon

SAMPLE RESULTS:
(629.4 - 30.79624)(1)/(200) = +2.993E+00 g/L Carbon
(629.4 - 30.79624)(1)/(200)(12) = +2.494E-01 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: _____
KR MONTEITH 00000

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: BLK Date: 07/18/97 Time: 22:51:02

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = .39 ug/minute C

Analyst : KR MONTEITH
Min Readings = 22
Max Readings = 22
% Difference = 10

Reading	Analysis Time	Coulometer	% Difference
1	0.51	0.10	0.00
2	1.01	0.60	83.33
3	1.51	1.90	68.42
4	2.01	3.00	36.67
5	2.50	3.60	16.67
6	3.00	4.10	12.20
7	3.50	4.50	8.89
8	4.00	4.70	4.26
9	4.50	5.00	6.00
10	5.00	5.20	3.85
11	5.50	5.40	3.70
12	6.00	5.60	3.57
13	6.50	5.70	1.75
14	7.00	5.90	3.39
15	7.50	6.10	3.28
16	8.00	6.30	3.17
17	8.50	6.50	3.08
18	9.00	6.60	1.52
19	9.50	6.90	4.35
20	10.00	7.20	4.17
21	10.50	7.20	0.00
22	11.00	7.50	4.00

USER INPUT BLANK VALUE
BLANK VALUE = 4.289143 micrograms carbon
BLANK FACTOR = 4.289143 / 10.9978 = +3.9E-01 ug/min Carbon

SAMPLE RESULTS:
(7.5 - 4.289524)(1)/(1) = +3.2E+00 g/L Carbon
(7.5 - 4.289524)(1)/(1)(12) = +2.7E-01 Molar Carbon

Sample Run By: KR MONTEITH 00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: BLK1 Date: 07/18/97 Time: 23:02:55

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = 2.8 ug/minute C

Analyst : KR MONTEITH
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.10	0.00
2	1.01	0.30	66.67
3	1.51	1.90	84.21
4	2.00	11.10	82.88
5	2.50	21.00	47.14
6	3.00	27.20	22.79
7	3.50	30.50	10.82
8	4.00	32.10	4.98
9	4.50	33.00	2.73
10	5.00	33.60	1.79
11	5.50	34.10	1.47
12	6.00	34.30	0.58
13	6.50	34.70	1.15
14	7.00	34.90	0.57
15	7.50	35.20	0.85
16	8.00	35.40	0.56
17	8.50	35.80	1.12
18	9.00	35.90	0.28
19	9.50	36.20	0.83
20	10.00	36.40	0.55
21	10.50	36.60	0.55
22	11.00	36.80	0.54

USER INPUT BLANK VALUE
BLANK VALUE = 30.79385 micrograms carbon
BLANK FACTOR = 30.79385 / 10.9978 = +2.8E+00 ug/min Carbon

SAMPLE RESULTS:
(36.8 - 30.79692)(1)/(1) = +6.00E+00 g/L Carbon
(36.8 - 30.79692)(1)/(1)(12) = +5.00E-01 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: _____
KR MONTEITH 00000

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S97T1013-1 Date: 07/18/97 Time: 23:15:12

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = .39 ug/minute C

Analyst : KR MONTEITH
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.20	0.00
2	1.01	0.40	50.00
3	1.50	0.80	50.00
4	2.00	7.00	88.57
5	2.50	39.80	82.41
6	3.00	113.00	64.78
7	3.50	205.80	45.09
8	4.00	281.50	26.89
9	4.50	330.80	14.90
10	5.00	356.60	7.24
11	5.50	368.60	3.26
12	6.00	373.70	1.36
13	6.50	376.30	0.69
14	7.00	377.60	0.34
15	7.50	378.70	0.29
16	8.00	379.40	0.18
17	8.50	380.10	0.18
18	9.00	380.70	0.16
19	9.50	381.20	0.13
20	10.00	381.90	0.18
21	10.50	382.20	0.08
22	11.00	382.70	0.13

USER INPUT BLANK VALUE
BLANK VALUE = 4.289143 micrograms carbon
BLANK FACTOR = 4.289143 / 10.9978 = +3.9E-01 ug/min Carbon

SAMPLE RESULTS:
(382.7 - 4.289143)(1)/(1) = +3.784E+02 g/L Carbon
(382.7 - 4.289143)(1)/(1)(12) = +3.153E+01 Molar Carbon

Sample Run By: KR MONTEITH 00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S97T1013-1 Date: 07/18/97 Time: 23:27:14

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = 2.8 ug/minute C

Analyst : KR MONTEITH
Min Readings = 22
Max Readings = 22
% Difference = 10

Reading	Analysis Time	Coulometer	% Difference
1	0.51	0.50	0.00
2	1.01	1.20	58.33
3	1.50	12.90	90.70
4	2.00	48.70	73.51
5	2.50	73.60	33.83
6	3.00	87.40	15.79
7	3.50	95.50	8.48
8	4.00	101.30	5.73
9	4.50	106.10	4.52
10	5.00	110.30	3.81
11	5.50	113.70	2.99
12	6.00	117.00	2.82
13	6.50	119.60	2.17
14	7.00	121.90	1.89
15	7.50	123.90	1.61
16	8.00	125.60	1.35
17	8.50	127.00	1.10
18	9.00	128.20	0.94
19	9.50	129.10	0.70
20	10.00	129.70	0.46
21	10.50	130.40	0.54
22	11.03	130.70	0.23

USER INPUT BLANK VALUE
BLANK VALUE = 30.79385 micrograms carbon
BLANK FACTOR = 30.79385 / 10.9978 = +2.8E+00 ug/min Carbon

SAMPLE RESULTS:
(130.7 - 30.89126)(1)/(1) = +9.981E+01 g/L Carbon
(130.7 - 30.89126)(1)/(1)(12) = +8.317E+00 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: _____
KR MONTEITH 00000

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S97T1013DUP-1 Date: 07/18/97 Time: 23:39:12

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = .39 ug/minute C

Analyst : KR MONTEITH
Min Readings = 22
Max Readings = 22
% Difference = 10

Reading	Analysis Time	Coulometer	% Difference
1	0.51	0.40	0.00
2	1.01	0.80	50.00
3	1.51	1.30	38.46
4	2.00	5.40	75.93
5	2.50	29.70	81.82
6	3.00	89.90	66.96
7	3.50	167.10	46.20
8	4.00	233.10	28.31
9	4.50	276.10	15.57
10	5.00	297.90	7.32
11	5.50	307.90	3.25
12	6.00	312.20	1.38
13	6.50	314.50	0.73
14	7.00	315.50	0.32
15	7.50	316.40	0.28
16	8.00	317.00	0.19
17	8.50	317.50	0.16
18	9.00	318.00	0.16
19	9.50	318.40	0.13
20	10.00	318.80	0.13
21	10.50	319.20	0.13
22	11.00	319.60	0.13

USER INPUT BLANK VALUE
BLANK VALUE = 4.289143 micrograms carbon
BLANK FACTOR = 4.289143 / 10.9978 = +3.9E-01 ug/min Carbon

SAMPLE RESULTS:
(319.6 - 4.28919)(1)/(1) = +3.153E+02 g/L Carbon
(319.6 - 4.28919)(1)/(1)(12) = +2.628E+01 Molar Carbon

Sample Run By: KR MONTEITH 00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S97T1013DUP-1 Date: 07/19/97 Time: 01:07:23

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = 2.8 ug/minute C

Analyst : KR MONTEITH
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.40	0.00
2	1.01	0.80	50.00
3	1.51	6.20	87.10
4	2.00	27.80	77.70
5	2.50	54.30	48.80
6	3.00	71.20	23.74
7	3.50	80.40	11.44
8	4.00	86.70	7.27
9	4.50	91.50	5.25
10	5.00	95.50	4.19
11	5.50	98.90	3.44
12	6.00	101.90	2.94
13	6.50	104.60	2.58
14	7.00	106.70	1.97
15	7.50	108.70	1.84
16	8.00	110.50	1.63
17	8.50	112.00	1.34
18	9.00	113.00	0.88
19	9.50	113.80	0.70
20	10.00	114.40	0.52
21	10.50	114.80	0.35
22	11.00	115.20	0.35

USER INPUT BLANK VALUE
BLANK VALUE = 30.79385 micrograms carbon
BLANK FACTOR = 30.79385 / 10.9978 = +2.8E+00 ug/min Carbon

SAMPLE RESULTS:
(115.2 - 30.79692)(1)/(1) = +8.440E+01 g/L Carbon
(115.2 - 30.79692)(1)/(1)(12) = +7.034E+00 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: KR MONTEITH 00000

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S97T1013SPK-1 Date: 07/19/97 Time: 01:22:35

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = .39 ug/minute C

Analyst : KR MONTEITH
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.30	0.00
2	1.01	0.50	40.00
3	1.50	1.60	68.75
4	2.00	29.60	94.59
5	2.50	135.30	78.12
6	3.00	305.20	55.67
7	3.50	471.70	35.30
8	4.00	589.30	19.96
9	4.50	658.60	10.52
10	5.00	699.90	5.90
11	5.50	718.70	2.62
12	6.00	726.60	1.09
13	6.50	730.30	0.51
14	7.00	732.20	0.26
15	7.50	733.60	0.19
16	8.00	734.70	0.15
17	8.50	735.60	0.12
18	9.00	736.40	0.11
19	9.50	737.00	0.08
20	10.00	737.70	0.09
21	10.50	738.20	0.07
22	11.00	738.70	0.07

USER INPUT BLANK VALUE
BLANK VALUE = 4.289143 micrograms carbon
BLANK FACTOR = 4.289143 / 10.9978 = +3.9E-01 ug/min Carbon

SAMPLE RESULTS:
(738.7 - 4.28883)(1)/(1) = +7.344E+02 g/L Carbon
(738.7 - 4.28883)(1)/(1)(12) = +6.120E+01 Molar Carbon

Sample Run By: KR MONTEITH 00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S97T1013SPK-1 Date: 07/19/97 Time: 01:38:58

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = 2.8 ug/minute C

Analyst : KR MONTEITH
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading ====	Analysis Time ====	Coulometer ====	% Difference ==
1	0.51	0.60	0.00
2	1.01	1.10	45.45
3	1.50	19.30	94.30
4	2.00	144.00	86.60
5	2.50	282.60	49.04
6	3.00	343.50	17.73
7	3.50	371.90	7.64
8	4.00	384.50	3.28
9	4.50	392.00	1.91
10	5.00	397.20	1.31
11	5.50	401.70	1.12
12	6.00	405.20	0.86
13	6.50	408.30	0.76
14	7.00	411.00	0.66
15	7.50	413.20	0.53
16	8.00	415.10	0.46
17	8.50	416.90	0.43
18	9.00	418.40	0.36
19	9.50	419.60	0.29
20	10.00	420.50	0.21
21	10.50	421.10	0.14
22	11.00	421.60	0.12

USER INPUT BLANK VALUE
BLANK VALUE = 30.79385 micrograms carbon
BLANK FACTOR = 30.79385 / 10.9978 = +2.8E+00 ug/min Carbon

SAMPLE RESULTS:
(421.6 - 30.79395)(1)/(1) = +3.908E+02 g/L Carbon
(421.6 - 30.79395)(1)/(1)(12) = +3.257E+01 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: _____
KR MONTEITH 00000

WORKBOOK PAGE: BLANK1

TIC/TOC : LA-342-100 (E-0) SOLIDS

Type:			TIC	TOC
BLNK	Sample Size in g	(SS)	1.0000	1.0000
	Dilution Factor	(DF)	1	1
Work List:	µg of Carbon in Sample	(C1)	7.5	36.8
18810	µg of Carbon from Baseline	(C2)	4.3	30.8

Test Code:
@TICTOC1

Matrix:
SOLID

Batch Number:
97002892

Rerun:
0

µg of Carbon = |C1-C2|

Sample Prep:
N/A

Sample #:
BLNK

Instrument Code:
CARB2

Prepared By:
GJH

Chemist:
RWS

Analyst:
KRM

Date Complete:
07/19/97

Analysis Date:
07/19/97

Analysis Time:
03:00 AM

Sample Point:
T-203

	TIC	TOC
Method Detection Limit in ug/g	5	40
µg of Carbon	3.20E+00	6.00E+00

Data Entered By: GJH, Date: 07/19/97

Signature of Chemist: RW Schroeder Date: 7/22/97

BLANK.WB1 REV 1.0 342100ML

WORKBOOK PAGE: STD2

TIC/TOC : LA-342-100 (E-0) LIQUIDS

Type	Sample Size in mL	(SS)	TIC	TOC
STD	Dilution Factor	(DF)	1	1
Work List	Final Coulometer Reading in µg	(C1)	609.8	629.4
18810	µg of Carbon from Baseline	(C2)	4.3	30.8
Test Code	Standard Book Number		25N12B	26N12B
@TICTOC1	Standard Value (µg/ml)		602	3000
Matrix				
LIQUID				
Batch Number				
97002892				
Rerun				
0				
Sample Prep				
N/A				
Sample #				
STD				
Instrument Code				
CARB2				
Prepared By				
GJH				
Chemist				
RWS				
Analyst				
KRM				
Date Complete				
07/19/97				
Analysis Date				
07/19/97				
Analysis Time				
03:00 AM				
Sample Point				
T-203				

QC Actual in µg/mL = Standard Value (µg/mL)

QC Found in µg/mL = (C1 - C2) * DF / SS

QC Found in µg/mL for TIC = 5 if C1 < C2

QC Found in µg/mL for TOC = 40 if C1 < C2

% Recovery = QC Found / QC Actual * 100

	TIC	TOC
Method Detection Limit in µg/mL	5	40
QC Actual in µg/mL	6.02E+02	3.00E+03
QC Found in µg/mL	6.06E+02	2.99E+03
Percent Standard Recovery	100.6	99.8

Data Entered By: GJH Date: 07/19/97

Signature of Chemist: RW Schroeder Date: 7/22/97

STANDARD.WB1 REV 1.0 342100ML

WORKBOOK PAGE: SAM3

TIC/TOC : LA-342-100 (E-0) SOLIDS

			TIC	TOC
Type: SAMPLE	Sample Size in g	(SS)	0.2389	0.2389
	Dilution Factor	(DF)	1	1
Work List: 18810	µg of Carbon in Sample	(C1)	382.7	130.7
	µg of Carbon from Baseline	(C2)	4.3	30.8
Test Code: @TICTOC1				

Matrix: SOLID
Batch Number: 97002892
Rerun: 0
Sample Prep: N/A
Sample #: S97T001013
Instrument Code: CARB2
Prepared By: GJH
Chemist: RWS
Analyst: KRM
Date Complete: 07/19/97
Analysis Date: 07/19/97
Analysis Time: 03:00 AM
Sample Point: T-203

µg of Carbon/g = (C1-C2) * DF / SS
µg of Carbon/g for TIC = 5 if C1 < C2
µg of Carbon/g for TOC = 40 if C1 < C2

	TIC	TOC
Method Detection Limit in ug/g	5	40
µg of Carbon/g	1.58E+03	4.18E+02

Data Entered By: GJH Date: 07/19/97

Signature of Chemist: RW Schroeder Date: 7/22/97

WORKBOOK PAGE: DUP4

TIC/TOC : LA-342-100 (E-0) SOLIDS

Type	Sample Size in g	(SS)	TIC: 0.1995	TOC: 0.1995
DUP	Dilution Factor	(DF)	1	1
Work List	µg of Carbon in Sample	(C1)	319.6	115.2
18810	µg of Carbon from Baseline	(C2)	4.3	30.8
Test Code	Known µg of C from Original Sample		1.58E+3	4.18E+2
@TICTOC1				
Matrix				
SOLID				
Batch Number				
97002892				
Rerun	µg of Carbon/g = (C1-C2) * DF / SS			
0	µg of Carbon/g for TIC = 5 if C1 < C2			
Sample Prep	µg of Carbon/g for TOC = 40 if C1 < C2			
N/A				
Sample #				
S97T001013				
Instrument Code				
CARB2				
Prepared By				
GJH				
Chemist				
RWS				
Analyst				
KRM				
Date Complete				
07/19/97				
Analysis Date				
07/19/97				
Analysis Time	Method Detection Limit in ug/g		5	40
03:00 AM				
Sample Point	µg of Carbon/g		1.58E+03	4.23E+02
T-203				

Data Entered By:	GJH	Date:	07/19/97
Signature of Chemist:	RW Schroeder	Date:	7/22/97

WORKBOOK PAGE: SPIKE5

TIC/TOC : LA-342-100 (E-0) SOLIDS

Type	Sample Vial Data		TIC	TOC
SPK	Sample Size in g	(SS)	0.2389	0.2389
Work List	Final Coulometer Reading in µg	(C1)	382.7	130.7
18810	**Spiked Vial Data**			
Test Code	Sample Size in g	(SPK SS)	0.2804	0.2804
@TICTOC1	Amount of Spike Std. in mL	(SPK VOL)	0.500	0.100
Matrix	Final Coulometer Reading in µg	(C2)	738.7	421.6
SOLID	Spike Book Number		25N12B	26N12B
Batch Number	Spike Standard Value in µg/ml	(SPK CONC)	602	3000
97002892				
Rerun				
0				
Sample Prep				
N/A				
Sample #				
S97T001013				
Instrument Code				
CARB2				
Prepared By				
GJH				
Chemist				
RWS				
Analyst				
KRM				
Date Complete				
07/19/97				
Analysis Date				
07/19/97				
Analysis Time				
03:00 AM				
Sample Point				
T-203				

Percent Spike Recovery = (C2 - C1 * (SPK SS) / SS) / ((SPK CONC) * (SPK VOL)) * 1

QC Actual in µg/mL = Spike Value (µg/mL)
QC Found in µg/mL = (Percent Spike Recovery)*(QC Actual) / 100

	TIC	TOC
QC Actual in µg/mL	6.02E+02	3.00E+03
QC Found in µg/mL	5.79E+02	2.68E+03
Percent Spike Recovery	96.2	89.4

Data Entered By:	GJH	Date:	07/19/97
Signature of Chemist:	RW Schroeder	Date:	7/22/97

RADIOCHEMICAL ANALYSIS

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LABCORE Completed RadChem Report for Worklist#: 17970

Analyst: scl **Instrument:** AB15 **Book#** _____

Method: _____ Rev/Mod _____

Worklist Comment: T203, @ALPHA01 S.S. by Ludlum. Std: 1.0mL, Spk: 0.1mL skm

Seq	Type	Sample#	R	A	Test	Matrix	Actual	Found	DL or Yield	Unit
1	STD		0		@ALPHA01 ALPHA01	LIQUID	2.00E-04	1.83E-4	91.500	% Recovery
1	STD		0		@ALPHA01 ALPHA01E	LIQUID	1.00	3.47E+00	3.470	% Ct. Erro
2	BLNK		0		@ALPHA01 ALPHA01	LIQUID	1	3.71E-5	37.100e-006	uCi/mL
2	BLNK		0		@ALPHA01 ALPHA01E	LIQUID	1.00	1.20E+02	120.000	uCi/mL
3	BLNK/BKG		0		@ALPHA01 ALPHA01	LIQUID	1.00E+00	2.69E+00	2.690	BLNK/BKG
4	SAMPLE	S97T000733	0		@ALPHA01 ALPHA01	LIQUID	N/A <	8.48E-05	670.0e-007	uCi/mL
4	SAMPLE	S97T000733	0		@ALPHA01 ALPHA01E	LIQUID	N/A	2.94E+02	0.0e+000	% Ct. Error
5	DUP	S97T000733	0		@ALPHA01 ALPHA01	LIQUID	<8.48E-5	<5.50E-5		RPD
5	DUP	S97T000733	0		@ALPHA01 ALPHA01E	LIQUID	1.00	2.94E+02	294.000	% Ct. Erro
6	SPK	S97T000733	0		@ALPHA01 ALPHA01	LIQUID	2.63E-02	2.38E-02	90.494	% Recovery

Final page for worklist# 17970

Analyst Signature **Date**

Analyst Signature **Date**

5/13/97

Reviewer Signature **Date**

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Data Entry Template for Worklist# 17970

Analyst: S.L **Instrument:** AB00 15 **Book#** 19B-6

Method: LA-508-101 Rev/Mod G-0

Worklist Comment: T203, @ALPHA01 S.S. by Ludlum. Std: 1.0mL, Spk: 0.1mL skm

S	Type	Sample#	R	A	Test	Matrix	Group#	Project
1	STD				@ALPHA01	LIQUID		
2	BLNK				@ALPHA01	LIQUID		
3	BLNK/BKG				@ALPHA01	LIQUID		
4	SAMPLE	S97T000733	0		@ALPHA01	LIQUID	97000299	T-203
		Analytes Requested: ALPHA01 , ALPHA01E						
5	DUP	S97T000733	0		@ALPHA01	LIQUID		
6	SPK	S97T000733	0		@ALPHA01	LIQUID		

Final page for worklist # 17970

Sue Lai 5-12-97
Analyst Signature Date

Analyst Signature Date 5/13/97
Shane L Ludlum 5-13-97

Data Entry Comments:

S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

WORKBOOK PAGE: STD1

AT : LA-508-101 (E-1) **LA-508-113 (B-0) STANDARD**

Type			STANDARD	REPLICATE
STD	DETECTOR NUMBER		15	15
	DISH SIZE (1 , 2 , or 5)	(MS)	2	2
Work List	GROSS COUNTS	(GC)	3393	3206
17970	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.13	0.13
AT	SAMPLE SIZE in mL	(SS)	1.000	1.000
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	STANDARD BOOK NUMBER	(Std BN)	79B56	79B56
Matrix	EFFICIENCY FACTOR	(EFF)	0.2701	0.2701
LIQUID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		112.970	106.737
Batch Number	Standard Value in µCi/mL		2.00E-04	
97001985	Concentration in µCi/L	=	1.88E-01	
Rerun	Replicate Concentration in µCi/L	=	1.78E-01	
0	AVERAGE CONCENTRATION in µCi/L	=	1.8320E-01	

Sample Prep	
N/A	Rs (Sample Count Rate) = (TC / CT) - BKG
Sample #	ALPHA TOTAL µCi/L = Rs * 1000mL/L * DF / (EFF * SS * 2220000dpm/µCi)
WL17970	ALPHA TOTAL µCi/mL = ALPHA TOTAL µCi/L / 1000mL/L
Instrument Code	Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100
WB26872	Detection Levels and Less Than Values are determined from Procedure LA-508-002.
Prepared By	
MCB	
Chemist	
SLF	
Analyst	
SCL	
Date Complete	
05/13/97	
Analysis Date	
05/12/97	
Analysis Time	
03:00 PM	
Sample Point	
T-203	

			DETECTION LEVEL
ALPHA TOTAL CONCENTRATION in µCi/mL	=	1.83E-04	
RELATIVE COUNTING ERROR	=	3.5%	6.64E-07 µCi/mL

Analyst: MCB Date: 13-May-97

Signature of Chemist: SLF Date: 5/13/97

STANDARD.WB1 Rev. 1.0 508101ML

WORKBOOK PAGE: BLANK2

AT : LA-508-101 (E-1) LIQUIDS

			BLNK	REPLICATE
Type	DETECTOR NUMBER		15	15
BLNK	DISH SIZE (1 , 2 , or 5)	(MS)	2	2
Work List	GROSS COUNTS	(GC)	10	11
17970	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.13	0.13
AT	SAMPLE SIZE in mL	(SS)	1.000	1.000
Test Code	DILUTION FACTOR	(DF)	101	101
@ALPHA01	DIGEST DILUTION FACTOR	(DDF)	1	1
Matrix	EFFICIENCY FACTOR	(EFF)	0.2701	0.2701
LIQUID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		0.203	0.237

Batch Number	
97001985	Blank Concentration in µCi/L 3.42E-02
Rerun	Replicate Concentration in µCi/L 3.99E-02
0	Average Concentration in µCi/L 3.7057E-02
Sample Prep	
N/A	Rs (Sample Count Rate) = (TC / CT) - BKG
Sample #	ALPHA TOTAL µCi/L = Rs * 1000mL/L * DF * DDF / (EFF * SS * 2220000dpm/µCi)
	ALPHA TOTAL µCi/mL = ALPHA TOTAL µCi/L / 1000mL/L
Instrument Code	Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100
WB26872	Detection Levels and Less Than Values are determined from Procedure LA-508-002.
Prepared By	
MCB	
Chemist	
SLF	ALPHA TOTAL in µCi/mL (Average) = 3.71E-05
Analyst	
SCL	
Date Complete	
05/13/97	RELATIVE COUNTING ERROR 119.8%
Analysis Date	
05/12/97	
Analysis Time	
03:00 PM	
Sample Point	
T-203	

DETECTION LEVEL
6.70E-05 µCi/mL

Analyst: SCL Date: 13-May-97

Signature of Chemist: SLF Date: 5/13/97

BLANK.WB1 Rev. 1.0 508101ML

WORKBOOK PAGE: SAM4

AT : LA-508-101 (E-1) LIQUIDS

Type			SAMPLE	REPLICATE
SAMPLE	DETECTOR NUMBER		15	15
Work List	DISH SIZE (1 , 2 , or 5)	(MS)	2	2
17970	GROSS COUNTS	(GC)	19	6
AT or TB ?	COUNT TIME in MINUTES	(CT)	30	30
AT	BACKGROUND in cpm	(BKG)	0.13	0.13
Test Code	SAMPLE SIZE in mL	(SS)	1.000	1.000
@ALPHA01	DILUTION FACTOR	(DF)	101	101
Matrix	DIGEST DILUTION FACTOR	(DDF)	1	1
LIQUID	EFFICIENCY FACTOR	(EFF)	0.2701	0.2701
Batch Number	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		0.503	0.243
97001985	Blank Concentration in µCi/L		8.48E-02	
Rerun	Replicate Concentration in µCi/L	<	4.09E-02	
0	Maximum Concentration in µCi/L	<	8.4781E-02	
Sample Prep				
N/A				
Sample #				
S97T000733				
Instrument Code				
WB26872				
Prepared By				
MCB				
Chemist				
SLF				
Analyst				
SCL				
Date Complete				
05/13/97				
Analysis Date				
05/12/97				
Analysis Time				
03:00 PM				
Sample Point				
T-203				

Rs (Sample Count Rate) = (TC / CT) - BKG

ALPHA TOTAL µCi/L = Rs * 1000mL/L * DF * DDF / (EFF * SS * 2220000dpm/µCi)

ALPHA TOTAL µCi/mL = ALPHA TOTAL µCi/L / 1000mL/L

Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100

Detection Levels and Less Than Values are determined from Procedure LA-508-002.

ALPHA TOTAL in µCi/mL	(Maximum)	=	< 8.48E-05	DETECTION LEVEL
LESS THAN Value was Determined from Rs.				6.70E-05 µCi/mL
RELATIVE COUNTING ERROR			293.7%	

Analyst:	SCL		Date: 13-May-97
Signature of Chemist:		SLF	Date: 5/13/97

SAMPLE.WB1 Rev. 1.0 508101ML

WORKBOOK PAGE: DUP5

AT : LA-508-101 (E-1) LIQUIDS

Type	DETECTOR NUMBER		DUP	REPLICATE
DUP	DISH SIZE (1 , 2 , or 5)	(MS)	2	2
Work List	GROSS COUNTS	(GC)	8	6
17970	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.13	0.13
AT	SAMPLE SIZE in mL	(SS)	1.000	1.000
Test Code	DILUTION FACTOR	(DF)	101	101
@ALPHA01	DIGEST DILUTION FACTOR	(DDF)	1	1
Matrix	EFFICIENCY FACTOR	(EFF)	0.2701	0.2701
LIQUID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		0.326	0.243

Batch Number			
97001985	Blank Concentration in µCi/L	<	5.50E-02
Rerun	Replicate Concentration in µCi/L	<	4.09E-02
0	Maximum Concentration in µCi/L	<	5.4978E-02

Sample Prep	
N/A	Rs (Sample Count Rate) = (TC / CT) - BKG
Sample #	ALPHA TOTAL µCi/L = Rs * 1000mL/L * DF * DDF / (EFF * SS * 2220000dpm/µCi)
S97T000733	ALPHA TOTAL µCi/mL = ALPHA TOTAL µCi/L / 1000mL/L
Instrument Code	Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100
WB26872	Detection Levels and Less Than Values are determined from Procedure LA-508-002.
Prepared By	
MCB	
Chemist	
SLF	
Analyst	
SCL	
Date Complete	
05/13/97	
Analysis Date	
05/12/97	
Analysis Time	
03:00 PM	
Sample Point	
T-203	

			DETECTION LEVEL
ALPHA TOTAL in µCi/mL (Maximum)	=	< 5.50E-05	
LESS THAN Value was Determined from Rmax.			6.70E-05 µCi/mL
RELATIVE COUNTING ERROR		293.7%	

Analyst:		SCL	Date: 13-May-97
Signature of Chemist:		SLF	Date: 5/13/97

SAMPLE.WB1 Rev. 1.0 508101ML

WORKBOOK PAGE: SPK6

AT : LA-508-101 (E-1) LA-508-113 (B-0) SPIKED SAMPLE

			SPIKE	REPLICATE
Type	DETECTOR NUMBER		15	15
SPK	DISH SIZE 1, 2, or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	43159	42647
17970	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.13	0.13
AT	SAMPLE VOLUME in mL (Spiked Vial)	(SS)	1.000	1.000
Test Code	SAMPLE DILUTION FACTOR (Spiked Vial)	(DF)	101	101
@ALPHA01	DIGEST DILUTION FACTOR	(DDF)	1	1
Matrix	SPIKE VOLUME in mL	(SVol)	0.100	0.100
LIQUID	SPIKE DILUTION FACTOR	(SDF)	1	1
Batch Number	SPIKE BOOK NUMBER	(Spk BN)	131B43	131B43
97001985	SPIKE VALUE in µCi/mL	(SVal)	2.6294E-02	2.6294E-02
Rerun	INSTRUMENT EFFICIENCY FACTOR	(EFF)	0.2701	0.2701
0	SAMPLE + SPIKE µCi/mL	(S+S)	2.42E-01	2.39E-01
Sample Prep	AVERAGE or MAXIMUM µCi/mL in SAMPLE	<	8.4781E-05	
N/A				
Sample #				
S97T000733	Rs (Sample Count Rate) = (TC / CT) - BKG			
Instrument Code	SAMPLE + SPIKE µCi/mL = Rs * DF * DDF / (EFF * SS * 2220000dpm/µCi)			
WB26872	QC ACTUAL = SVal			
Prepared By	QC FOUND = (((S+S µCi/mL - SAMPLE µCi/mL) * ((SDF/SVol)/(DF*DDF/SS))))			
MCB	PERCENT SPIKE RECOVERY = (QC FOUND / QC ACTUAL) *100			
Work Chemist				
SLF				
Analyst				
SCL				
Date Complete	NOTE: Original Sample result was a LESS THAN value. Zero (0) was subtracted from the spiked value for QC found calculation.			
05/13/97				
Analysis Date				
05/12/97	QC ACTUAL	=	2.63E-02	
Analysis Time	QC FOUND	=	2.38E-02	
03:00 PM	AVG. PERCENT SPIKE RECOVERY	=	90.7%	
Sample Point				
T-203				

Analyst:		MCB	Date: 13-May-97
Signature of Chemist:		SLF	Date: 5/13/97

SPIKE.WB1 Rev. 1.0 508101ML

LABCORE Completed RadChem Report for Worklist#: 18037

Analyst: scl **Instrument:** AB14 **Book#** _____

Method: _____ Rev/Mod _____

Worklist Comment: T203, @ALPHA01, Deter s.s. by Ludlum. Std: 1.0mL skm

Seq	Type	Sample#	R	A	Test	Matrix	Actual	Found	DL or Yield	Unit
1	STD			0	@ALPHA01 ALPHA01	LIQUID	2.00E-04	1.69E-4	84.500	% Recovery
1	STD			0	@ALPHA01 ALPHA01E	LIQUID	1.00	3.58E+00	3.580	% Ct. Erro
2	BLNK			0	@ALPHA01 ALPHA01	LIQUID	1	<4.96E-7		uCi/mL
2	BLNK			0	@ALPHA01 ALPHA01E	LIQUID	1.00	1.80E+02	180.000	uCi/mL
3	BLNK/BKG			0	@ALPHA01 ALPHA01	LIQUID	1.00E+00	3.81E+00	3.810	BLNK/BKG
4	SAMPLE	S97T000731		0	@ALPHA01 ALPHA01	LIQUID	N/A	4.41E-07	529.0e-009	uCi/mL
4	SAMPLE	S97T000731		0	@ALPHA01 ALPHA01E	LIQUID	N/A	1.06E+02	0.0e+000	% Ct. Error
5	DUP	S97T000731		0	@ALPHA01 ALPHA01	LIQUID	4.41E-7	5.52E-7	22.356 RPD	
5	DUP	S97T000731		0	@ALPHA01 ALPHA01E	LIQUID	1.00	7.97E+01	79.700	% Ct. Erro

Final page for worklist# 18037

Analyst Signature **Date** **Analyst Signature** **Date**

5/14/97
Reviewer Signature **Date**

The RPD is acceptable due to low sample alpha activity.
5/14/97

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Data Entry Template for Worklist# 18037

Analyst: S. L **Instrument:** AB00 14 **Book#** 79856

Method: LA-508-101 Rev/Mod 9-0

Worklist Comment: T203, @ALPHA01, Deter s.s. by Ludlum. Std: 1.0mL skm

S	Type	Sample#	R	A	Test	Matrix	Group#	Project
1	STD				@ALPHA01	LIQUID		
2	BLNK				@ALPHA01	LIQUID		
3	BLNK/BKG				@ALPHA01	LIQUID		
4	SAMPLE	S97T000731	0		@ALPHA01	LIQUID	97000299	T-203
		Analytes Requested: ALPHA01 , ALPHA01E						
5	DUP	S97T000731	0		@ALPHA01	LIQUID		

Final page for worklist # 18037

Sue Lee 5-13-97
Analyst Signature Date

C.J. Quinn 5/14/97
Analyst Signature Date
Jane E. Hogan 5-14-97

Data Entry Comments:

S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

WORKBOOK PAGE: STD1

AT : LA-508-101 (E-1) **LA-508-113 (B-0) STANDARD**

Type			STANDARD	REPLICATE
STD	DETECTOR NUMBER		14	14
Work List	DISH SIZE (1 , 2 , or 5)	(MS)	2	2
18037	GROSS COUNTS	(GC)	3061	3007
AT or TB?	COUNT TIME in MINUTES	(CT)	30	30
AT	BACKGROUND in cpm	(BKG)	0.07	0.07
Test Code	SAMPLE SIZE in mL	(SS)	1.000	1.000
@ALPHA01	DILUTION FACTOR	(DF)	1	1
Matrix	STANDARD BOOK NUMBER	(Std BN)	79B56	79B56
LIQUID	EFFICIENCY FACTOR	(EFF)	0.2692	0.2692
Batch Number	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		101.963	100.163
97002061	Standard Value in µCi/mL		2.00E-04	
Rerun	Concentration in µCi/L	=	1.71E-01	
0	Replicate Concentration in µCi/L	=	1.68E-01	
Sample Prep	AVERAGE CONCENTRATION in µCi/L	=	1.6911E-01	
N/A				

Rs (Sample Count Rate) = (TC / CT) - BKG

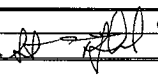
ALPHA TOTAL µCi/L = Rs * 1000mL/L * DF / (EFF * SS * 2220000dpm/µCi)

ALPHA TOTAL µCi/mL = ALPHA TOTAL µCi/L / 1000mL/L

Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100

Detection Levels and Less Than Values are determined from Procedure LA-508-002.

Sample #				
WL18037				
Instrument Code				
WB27807				
Prepared By				
CJO				
Chemist				
SLF	ALPHA TOTAL CONCENTRATION in µCi/mL	=	1.69E-04	DETECTION LEVEL
Analyst				
SCL				5.29E-07
Date Complete	RELATIVE COUNTING ERROR	=	3.6%	µCi/mL
05/14/97				
Analysis Date				
05/13/97				
Analysis Time				
01:05 PM				
Sample Point				
T-203				

Analyst:		CJO	Date: 14-May-97
Signature of Chemist:		SLF	Date: 5/14/97

STANDARD.WB1 Rev. 1.0 508101ML

WORKBOOK PAGE: BLANK2

AT : LA-508-101 (E-1) LIQUIDS

Type	DETECTOR NUMBER		BLNK	REPLICATE
BLNK	DISH SIZE (1 , 2 , or 5)	(MS)	2	2
Work List	GROSS COUNTS	(GC)	5	11
18037	COUNT TIME in MINUTES	(CT)	30	30
AT or AT B?	BACKGROUND in cpm	(BKG)	0.07	0.07
AT	SAMPLE SIZE in mL	(SS)	1.000	1.000
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST DILUTION FACTOR	(DDF)	1	1
Matrix	EFFICIENCY FACTOR	(EFF)	0.2692	0.2692
LIQUID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		0.243	0.297

Batch Number			
97002061	Blank Concentration in µCi/L	<	4.07E-04
Rerun #	Replicate Concentration in µCi/L		4.96E-04
0	Maximum Concentration in µCi/L	<	4.9641E-04

Sample Prep
N/A
Sample #
WL18037
Instrument Code
WB27807
Prepared By
CJO
Chemist
SLF
Analyst
SCL
Date Complete
05/14/97
Analysis Date
05/13/97
Analysis Time
01:05 PM
Sample Point
T-203

Rs (Sample Count Rate) = (TC / CT) - BKG

ALPHA TOTAL µCi/L = Rs * 1000mL/L * DF * DDF / (EFF * SS * 2220000dpm/µCi)

ALPHA TOTAL µCi/mL = ALPHA TOTAL µCi/L / 1000mL/L

Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100

Detection Levels and Less Than Values are determined from Procedure LA-508-002.

ALPHA TOTAL in µCi/mL	(Maximum)	=	< 4.96E-07	DETECTION LEVEL
LESS THAN Value was Determined from Rmax.				5.29E-07 µCi/mL
RELATIVE COUNTING ERROR			180.1%	

Analyst:		SCL	Date: 14-May-97
Signature of Chemist:		SLF	Date: 5/14/97

BLANK.WB1 Rev. 1.0 508101ML

WORKBOOK PAGE: SAM4

AT : LA-508-101 (E-1) LIQUIDS

Type		SAMPLE	REPLICATE
SAMPLE	DETECTOR NUMBER	14	14
Work List	DISH SIZE (1 , 2 , or 5) (MS)	2	2
18037	GROSS COUNTS (GC)	12	8
AT or TB?	COUNT TIME in MINUTES (CT)	30	30
AT	BACKGROUND in cpm (BKG)	0.07	0.07
Test Code	SAMPLE SIZE in mL (SS)	1.000	1.000
@ALPHA01	DILUTION FACTOR (DF)	1	1
Matrix	DIGEST DILUTION FACTOR (DDF)	1	1
LIQUID	EFFICIENCY FACTOR (EFF)	0.2692	0.2692
Batch Number	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE	0.330	0.197
97002061			
Rerun #	Blank Concentration in µCi/L	5.52E-04	
0	Replicate Concentration in µCi/L	3.29E-04	
Sample Prep	Average Concentration in µCi/L	4.4063E-04	
N/A			
Sample #	Rs (Sample Count Rate) = (TC / CT) - BKG		
S97T000731	ALPHA TOTAL µCi/L = Rs * 1000mL/L * DF * DDF / (EFF * SS * 2220000dpm/µCi)		
Instrument Code	ALPHA TOTAL µCi/mL = ALPHA TOTAL µCi/L / 1000mL/L		
WB27807	Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100		
Prepared By	Detection Levels and Less Than Values are determined from Procedure LA-508-002.		
CJO			
Chemist			
SLF	ALPHA TOTAL in µCi/mL (Average) =	4.41E-07	DETECTION LEVEL
Analyst			
SCL			5.29E-07 µCi/mL
Date Complete	RELATIVE COUNTING ERROR	105.6%	
05/14/97			
Analysis Date			
05/13/97			
Analysis Time			
01:05 PM			
Sample Point			
T-203			

Analyst:	SCL	Date: 14-May-97	
Signature of Chemist:	SLF	Date: 5/14/97	

SAMPLE.WB1 Rev. 1.0 508101ML

WORKBOOK PAGE: DUP5

AT : LA-508-101 (E-1) LIQUIDS

Type			DUP	REPLICATE
DUP	DETECTOR NUMBER		14	14
Work List	DISH SIZE (1 , 2 , or 5)	(MS)	2	2
18037	GROSS COUNTS	(GC)	13	11
A1 or TB?	COUNT TIME in MINUTES	(CT)	30	30
AT	BACKGROUND in cpm	(BKG)	0.07	0.07
Test Code	SAMPLE SIZE in mL	(SS)	1.000	1.000
@ALPHA01	DILUTION FACTOR	(DF)	1	1
Matrix	DIGEST DILUTION FACTOR	(DDF)	1	1
LIQUID	EFFICIENCY FACTOR	(EFF)	0.2692	0.2692
Batch Number	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		0.363	0.297

97002061	Blank Concentration in µCi/L 6.08E-04
Rerun	Replicate Concentration in µCi/L 4.96E-04
0	Average Concentration in µCi/L 5.5219E-04

Sample Preps
N/A

Rs (Sample Count Rate) = (TC / CT) - BKG

Sample #
S97T000731

ALPHA TOTAL µCi/L = Rs * 1000mL/L * DF * DDF / (EFF * SS * 2220000dpm/µCi)

ALPHA TOTAL µCi/mL = ALPHA TOTAL µCi/L / 1000mL/L

Instrument Code
WB27807

Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100

Detection Levels and Less Than Values are determined from Procedure LA-508-002.

Prepared By
CJO

Chemist
SLF

ALPHA TOTAL in µCi/mL (Average)	=	5.52E-07
RELATIVE COUNTING ERROR		79.7%

DETECTION LEVEL	
5.29E-07	µCi/mL

Analyst
SCL

Date Complete
05/14/97

Analysis Date
05/13/97

Analysis Time
01:05 PM

Sample Point
T-203

Analyst: SCL Date: 14-May-97

Signature of Chemist: SLF Date: 5/14/97

SAMPLE.WB1 Rev. 1.0 508101ML

LABCORE Completed RadChem Report for Worklist#: 18052

Analyst: krq **Instrument:** AB15 **Book#** _____

Method: _____ Rev/Mod _____

Worklist Comment: T203, @ALPHA01, Deter s.s. by Ludlum. Std: 1.0 mL skm

Seq	Type	Sample#	R	A	Test	Matrix	Actual	Found	DL or Yield	Unit
1	STD		0		@ALPHA01	ALPHA01 SOLID	2.00E-04	1.74E-4	87.000	% Recovery
1	STD		0		@ALPHA01	ALPHA01E SOLID	1.00	3.55E+00	3.550	% Ct. Erro
2	BLNK-PREP		0		@ALPHA01	ALPHA01 SOLID	1	<1.08E-3		uCi/g
2	BLNK-PREP		0		@ALPHA01	ALPHA01E SOLID	1.00	5.00E+02	500.000	uCi/g
3	BLNK/BKG		0		@ALPHA01	ALPHA01 SOLID	1.00E+00	6.67E-01	0.667	BLNK/BKG
4	SAMPLE	S97T000762	0	F	@ALPHA01	ALPHA01 SOLID	N/A	2.01E-01	290.0e-005	uCi/g
4	SAMPLE	S97T000762	0	F	@ALPHA01	ALPHA01E SOLID	N/A	7.59E+00	0.0e+000	% Ct. Error
5	DUP	S97T000762	0	F	@ALPHA01	ALPHA01 SOLID	2.01E-1	1.81E-1	10.471 RPD	
5	DUP	S97T000762	0	F	@ALPHA01	ALPHA01E SOLID	1.00	7.60E+00	7.600	% Ct. Erro
6	SAMPLE	S97T000763	0	F	@ALPHA01	ALPHA01 SOLID	N/A	1.03E-01	291.0e-005	uCi/g
6	SAMPLE	S97T000763	0	F	@ALPHA01	ALPHA01E SOLID	N/A	1.13E+02	0.0e+000	% Ct. Error
7	DUP	S97T000763	0	F	@ALPHA01	ALPHA01 SOLID	1.03E-1	3.25E-1	103.738 RPD	
7	DUP	S97T000763	0	F	@ALPHA01	ALPHA01E SOLID	1.00	6.95E+00	6.950	% Ct. Erro

Final page for worklist# 18052

Analyst Signature **Date**

Analyst Signature **Date**

5/16/97
Reviewer Signature **Date**

The RPD for 763 is out of limits. Sample will be rerun.

5/16/97

Units shown for QC (BLK/BKG) may not reflect the actual units.

05/12/97 08:36
A-0004-1

LABCORE Data Entry Template for Worklist# 18052

Analyst: KBO **Instrument:** AB00 15 **Book#** 79856

Method: LA-508-101 Rev/Mod 6-0

Worklist Comment: T203, @ALPHA01, Deter s.s. by Ludlum. Std: 1.0 mL skm

S	Type	Sample#	R	A	Test	Matrix	Group#	Project
1	STD				@ALPHA01	SOLID		
2	BLNK-PREP				@ALPHA01	SOLID		
3	BLNK/BKG				@ALPHA01	SOLID		
4	SAMPLE	S97T000762	0	F	@ALPHA01	SOLID	97000299	T-203
	Analytes Requested: ALPHA01 , ALPHA01E							
5	DUP	S97T000762	0	F	@ALPHA01	SOLID		
6	SAMPLE	S97T000763	0	F	@ALPHA01	SOLID	97000299	T-203
	Analytes Requested: ALPHA01 , ALPHA01E							
7	DUP	S97T000763	0	F	@ALPHA01	SOLID		

Final page for worklist # 18052

Analyst Signature Date 5/15/97

C.J. Driver 5/16/97
Analyst Signature Date
5/16/97

Data Entry Comments:

S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

WORKBOOK PAGE: STD1

AT : LA-508-101 (E-1) **LA-508-113 (B-0) STANDARD**

			STANDARD	REPLICATE
Type	DETECTOR NUMBER		15	15
STD	DISH SIZE (1 , 2 , or 5)	(MS)	2	2
Work List	GROSS COUNTS	(GC)	3214	3059
18052	COUNT TIME in MINUTES	(CT)	30	30
AT or TBI?	BACKGROUND in cpm	(BKG)	0.1	0.1
AT	SAMPLE SIZE in mL	(SS)	1.000	1.000
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	STANDARD BOOK NUMBER	(Std BN)	79B56	79B56
Matrix	EFFICIENCY FACTOR	(EFF)	0.2701	0.2701
LIQUID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		107.033	101.867
Batch Number	Standard Value in µCi/mL		2.00E-04	
97002076	Concentration in µCi/L	=	1.79E-01	
Rerun	Replicate Concentration in µCi/L	=	1.70E-01	
0	AVERAGE CONCENTRATION in µCi/L	=	1.7419E-01	

Sample Prep
N/A
Sample #
wl18052
Instrument Code
WB26872
Prepared By
CJO
Chemist
SLF
Analyst
KRQ
Date Complete
05/16/97
Analysis Date
05/15/97
Analysis Time
05:30 PM
Sample Point
T-203

Rs (Sample Count Rate) = (TC / CT) - BKG

ALPHA TOTAL µCi/L = Rs * 1000mL/L * DF / (EFF * SS * 2220000dpm/µCi)

ALPHA TOTAL µCi/mL = ALPHA TOTAL µCi/L / 1000mL/L

Relative Counting Error = [ ](The Square Root of TC + BKG * CT) / (TC - BKG * CT)[ ] * 1.96 * 100

Detection Levels and Less Than Values are determined from Procedure LA-508-002.

ALPHA TOTAL CONCENTRATION in µCi/mL	=	1.74E-04	DETECTION LEVEL	
RELATIVE COUNTING ERROR	=	3.5%	6.01E-07	µCi/mL

Analyst: CJO Date: 16-May-97

Signature of Chemist: SLF Date: 5/16/97

STANDARD.WB1 Rev. 1.0 508101ML

WORKBOOK PAGE: BLANK2

AT : LA-508-101 (E-1) SOLIDS

Type			BLNK-PREP	REPLICATE
BLNK-PREP	DETECTOR NUMBER		15	15
Work List	DISH SIZE (1 , 2 , or 5)	(MS)	2	2
18052	GROSS COUNTS	(GC)	3	1
AT or TB?	COUNT TIME in MINUTES	(CT)	30	30
AT	BACKGROUND in cpm	(BKG)	0.1	0.1
Test Code	SAMPLE SIZE in mL	(SS)	0.100	0.100
@ALPHA01	DILUTION FACTOR	(DF)	1	1
Matrix	DIGEST GRAMS of SOLIDS / L	(Dg/L)	2.0724	2.0724
SOLID	EFFICIENCY FACTOR	(EFF)	0.2701	0.2701
Batch Number	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		0.135	0.135
97002076	Blank Concentration in µCi/g	<	1.08E-03	
Rerun	Replicate Concentration in µCi/g	<	1.08E-03	
0	Maximum Concentration in µCi/g	<	1.0841E-03	

Sample Prep
N/A

Rs (Sample Count Rate) = (TC / CT) - BKG

Sample #
WL18052

ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)

Instrument Code
WB26872

Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100

Detection Levels and Less Than Values are determined from Procedure LA-508-002.

Prepared By
CJO

Chemist
SLF

ALPHA TOTAL in µCi/g (Maximum)	=	< 1.08E-03	DETECTION LEVEL
LESS Than Value was Determined from Lc.			2.90E-03 µCi/g
RELATIVE COUNTING ERROR		500.0%	

Analyst
KRQ

Date Complete
05/16/97

Analysis Date
05/15/97

Analysis Time
05:30 PM

Sample Point
T-203

Analyst: KRQ Date: 16-May-97

Signature of Chemist: SLF Date: 5/16/97

BLANK.WB1 Rev. 1.0 508101ML

WORKBOOK PAGE: SAM4

AT : LA-508-101 (E-1) SOLIDS

Type	DETECTOR NUMBER		SAMPLE	REPLICATE
SAMPLE	DISH SIZE (1 , 2 , or 5)	(MS)	2	2
Work List	GROSS COUNTS	(GC)	676	825
18052	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.1	0.1
AT	SAMPLE SIZE in mL	(SS)	0.100	0.100
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS / L	(Dg/L)	2.0724	2.0724
Matrix	EFFICIENCY FACTOR	(EFF)	0.2701	0.2701
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		22.433	27.400

Batch Number		
97002076	Blank Concentration in µCi/g	1.81E-01
Rerun	Replicate Concentration in µCi/g	2.20E-01
0	Average Concentration in µCi/g	2.0051E-01

Sample Prep: FUSION01

Rs (Sample Count Rate) = (TC / CT) - BKG

ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)

Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100

Detection Levels and Less Than Values are determined from Procedure LA-508-002.

Sample #				
S97T000762				DETECTION LEVEL
Instrument Code	ALPHA TOTAL in µCi/g (Average)	=	2.01E-01	
WB26872				2.90E-03
Prepared By	RELATIVE COUNTING ERROR		7.6%	µCi/g
CJO				
Chemist				
SLF				
Analyst				
KRQ				
Date Complete				
05/16/97				
Analysis Date				
05/15/97				
Analysis Time				
05:30 PM				
Sample Point				
T-203				

Analyst:	KRQ	Date:	16-May-97
Signature of Chemist:	SLF	Date:	5/16/97

SAMPLE.WB1 Rev. 1.0 508101ML

WORKBOOK PAGE: DUP5

AT : LA-508-101 (E-1) SOLIDS

Type			DUP	REPLICATE
DUP	DETECTOR NUMBER		15	15
Work List #	DISH SIZE (1 , 2 , or 5)	(MS)	2	2
18052	GROSS COUNTS	(GC)	674	694
AT or TBP	COUNT TIME in MINUTES	(CT)	30	30
AT	BACKGROUND in cpm	(BKG)	0.1	0.1
Test Code	SAMPLE SIZE in mL	(SS)	0.100	0.100
@ALPHA01	DILUTION FACTOR	(DF)	1	1
Matrix	DIGEST GRAMS of SOLIDS / L	(Dg/L)	2.0904	2.0904
SOLID	EFFICIENCY FACTOR	(EFF)	0.2701	0.2701
Batch Number	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		22.367	23.033
97002076				
Rerun #	Blank Concentration in µCi/g		1.78E-01	
0	Replicate Concentration in µCi/g		1.84E-01	
Sample Prep	Average Concentration in µCi/g		1.8110E-01	
FUSION01				
Sample #				
S97T000762				
Instrument Code				
WB26872				
Prepared By				
CJO				
Chemist				
SLF				
Analyst				
KRQ				
Date Complete				
05/16/97				
Analysis Date				
05/15/97				
Analysis Time				
05:30 PM				
Sample Point				
T-203				

Rs (Sample Count Rate) = (TC / CT) - BKG

ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)

Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100

Detection Levels and Less Than Values are determined from Procedure LA-508-002.

				DETECTION LEVEL
ALPHA TOTAL in µCi/g	(Average)	=	1.81E-01	
RELATIVE COUNTING ERROR			7.6%	2.87E-03 µCi/g

Analyst:		KRQ	Date: 16-May-97
Signature of Chemist:		SLF	Date: 5/16/97

SAMPLE.WB1 Rev. 1.0 508101ML

LABCORE Completed Worklist Report for Worklist# 18062

Analyst: slh **Instrument:** AB13 **Book#** _____

Method: _____ Rev/Mod _____

Worklist Comment: T203, @ALPHA01, Deter s.s. by Ludlum. Std: 1.0mL skm

Seq	Type	Sample#	R	A	Test	Matrix	Actual	Found	DL or Yield	Unit
1	STD			0	@ALPHA01	ALPHA01 SOLID	2.00E-04	1.79E-4	89.500	% Recovery
1	STD			0	@ALPHA01	ALPHA01E SOLID	1.00	3.39E+00	3.390	% Ct. Erro
2	BLNK-PREP			0	@ALPHA01	ALPHA01 SOLID	1	<2.61E-4		uCi/g
2	BLNK-PREP			0	@ALPHA01	ALPHA01E SOLID	1.00	2.94E+02	294.000	uCi/g
3	BLNK/BKG			0	@ALPHA01	ALPHA01 SOLID	1.00E+00	2.56E+00	2.560	BLNK/BKG
4	SAMPLE	S97T000764	0	F	@ALPHA01	ALPHA01 SOLID	N/A	1.29E-01	3.08e-004	uCi/g
4	SAMPLE	S97T000764	0	F	@ALPHA01	ALPHA01E SOLID	N/A	2.81E+00		% Ct. Error
5	DUP	S97T000764	0	F	@ALPHA01	ALPHA01 SOLID	1.29E-1	1.28E-1	0.778	RPD
5	DUP	S97T000764	0	F	@ALPHA01	ALPHA01E SOLID	1.00	2.80E+00	2.800	% Ct. Erro

Final page for worklist# 18062

Analyst Signature **Date**

Analyst Signature **Date**

Reviewer Signature 5/16/97 **Date**

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Data Entry Template for Worklist# 18062

Analyst: SLH **Instrument:** AB00 13 **Book#** 79B56

Method: LA-508-101 Rev/Mod G-0

Worklist Comment: T203, @ALPHA01, Deter s.s. by Ludlum. Std: 1.0mL skm

S	Type	Sample#	R	A	Test	Matrix	Group#	Project
1	STD				@ALPHA01	SOLID		
2	BLNK-PREP				@ALPHA01	SOLID		
3	BLNK/BKG				@ALPHA01	SOLID		
4	SAMPLE	S97T000764	0	F	@ALPHA01	SOLID	97000299	T-203
		Analytes Requested: ALPHA01 , ALPHA01E						
5	DUP	S97T000764	0	F	@ALPHA01	SOLID		

Final page for worklist # 18062

Sandra L Hood Boatright
Analyst Signature Date
5-14-97

C J Glass 5/14/97
Analyst Signature Date
C.J. Glass 5/15/97

Data Entry Comments:

S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

WORKBOOK PAGE: STD1

AT : LA-508-101 (E-1) **LA-508-113 (B-0) STANDARD**

Type			STANDARD	REPLICATE
STD	DETECTOR NUMBER		13	13
	DISH SIZE (1 , 2 , or 5)	(MS)	2	2
Worklist	GROSS COUNTS	(GC)	3360	3451
18062	COUNT TIME in MINUTES	(CT)	30	30
AT or LB?	BACKGROUND in cpm	(BKG)	0.13	0.13
AT	SAMPLE SIZE in mL	(SS)	1.000	1.000
TestCode	DILUTION FACTOR	(DF)	1	1
@ALPHA01	STANDARD BOOK NUMBER	(Std BN)	79B56	79B56
Matrix	EFFICIENCY FACTOR	(EFF)	0.2857	0.2857
LIQUID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		111.870	114.903
BatchNumber	Standard Value in µCi/mL		2.00E-04	
97002083	Concentration in µCi/L	=	1.76E-01	
Rerun	Replicate Concentration in µCi/L	=	1.81E-01	
0	AVERAGE CONCENTRATION in µCi/L	=	1.7877E-01	

SamplePrep	
N/A	Rs (Sample Count Rate) = (TC / CT) - BKG
Sample#	ALPHA TOTAL µCi/L = Rs * 1000mL/L * DF / (EFF * SS * 2220000dpm/µCi)
WL18062	ALPHA TOTAL µCi/mL = ALPHA TOTAL µCi/L / 1000mL/L
InstrumentCode	Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100
WB27810	Detection Levels and Less Than Values are determined from Procedure LA-508-002.
PreparedBy	
MCB	
Chemist	
SLF	
Analyst	
SLH	
DataComplete	
05/14/97	
AnalysisDate	
05/14/97	
AnalysisTime	
05:00 AM	
SamplePoint	
T-203	

			DETECTION LEVEL
ALPHA TOTAL CONCENTRATION in µCi/mL	=	1.79E-04	
RELATIVE COUNTING ERROR	=	3.4%	6.27E-07 µCi/mL

Analyst: MCB Date: 14-May-97

Signature of Chemist: SLF Date: 5/16/97

STANDARD.WB1 Rev. 1.0 508101ML

WORKBOOK PAGE: BLANK2

AT : LA-508-101 (E-1) SOLIDS

Type			BLNK-PREP	REPLICATE
BLNK-PREP	DETECTOR NUMBER		13	13
Worklist	DISH SIZE (1 , 2 , or 5)	(MS)	2	2
18062	GROSS COUNTS	(GC)	14	6
AT or TBT	COUNT TIME in MINUTES	(CT)	30	30
AT	BACKGROUND in cpm	(BKG)	0.13	0.13
Test Code	SAMPLE SIZE in mL	(SS)	1.000	1.000
@ALPHA01	DILUTION FACTOR	(DF)	1	1
Matrix	DIGEST GRAMS of SOLIDS / L	(Dg/L)	2.0352	2.0352
SOLID	EFFICIENCY FACTOR	(EFF)	0.2857	0.2857
Batch Number	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		0.337	0.243
97002083	Blank Concentration in µCi/g		2.61E-04	
Rerun #	Replicate Concentration in µCi/g	<	1.88E-04	
0	Maximum Concentration in µCi/g	<	2.6081E-04	
Sample Prep				
N/A				
Sample #				
WL18062				
Instrument Code				
WB27810				
Prepared By				
MCB				
Chemist				
SLF				
Analyst				
SLH				
Date Complete				
05/14/97				
Analysis Date				
05/14/97				
Analysis Time				
05:00 AM				
Sample Point				
T-203				

Rs (Sample Count Rate) = (TC / CT) - BKG

ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)

Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100

Detection Levels and Less Than Values are determined from Procedure LA-508-002.

ALPHA TOTAL in µCi/g (Maximum)	=	< 2.61E-04	DETECTION LEVEL	
LESS THAN Value was Determined from Rs.			3.08E-04 µCi/g	
RELATIVE COUNTING ERROR		293.7%		

Analyst:	SLH	Date: 14-May-97	
Signature of Chemist:	SLF	Date: 5/16/97	

BLANK.WB1 Rev. 1.0 508101ML

WORKBOOK PAGE: SAM4

AT : LA-508-101 (E-1) SOLIDS

Type			SAMPLE	REPLICATE
SAMPLE	DETECTOR NUMBER		13	13
	DISH SIZE (1 , 2 , or 5)	(MS)	2	2
Work List	GROSS COUNTS	(GC)	4884	5126
18062	COUNT TIME in MINUTES	(CT)	.30	30
AT or TBT?	BACKGROUND in cpm	(BKG)	0.13	0.13
AT	SAMPLE SIZE in mL	(SS)	1.000	1.000
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS / L	(Dg/L)	2.0352	2.0352
Matrix	EFFICIENCY FACTOR	(EFF)	0.2857	0.2857
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		162.670	170.737

Batch Number		
97002083	Blank Concentration in µCi/g	1.26E-01
Rerun #	Replicate Concentration in µCi/g	1.32E-01
0	Average Concentration in µCi/g	1.2914E-01

Sample Prep #
FUSION01

Rs (Sample Count Rate) = (TC / CT) - BKG

Sample #
S97T000764

ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)

Instrument Code
WB27810

Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100

Detection Levels and Less Than Values are determined from Procedure LA-508-002.

Prepared By
MCB

Chemist
SLF

ALPHA TOTAL in µCi/g (Average)	=	1.29E-01	DETECTION LEVEL
			3.08E-04 µCi/g
RELATIVE COUNTING ERROR		2.8%	

Analyst
SLH

Date Complete
05/14/97

Analysis Date
05/14/97

Analysis Time
05:00 AM

Sample Point
T-203

Analyst:		SLH	Date: 14-May-97
Signature of Chemist:		SLF	Date: 5/16/97

SAMPLE.WB1 Rev. 1.0 508101ML

WORKBOOK PAGE: DUP5

AT : LA-508-101 (E-1) SOLIDS

Type			DUP	REPLICATE
DUP	DETECTOR NUMBER		13	13
	DISH SIZE (1 , 2 , or 5)	(MS)	2	2
Work List	GROSS COUNTS	(GC)	4911	4961
18062	COUNT TIME in MINUTES	(CT)	30	30
Analyst ID	BACKGROUND in cpm	(BKG)	0.13	0.13
AT	SAMPLE SIZE in mL	(SS)	1.000	1.000
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS / L	(Dg/L)	2.0256	2.0256
Matrix	EFFICIENCY FACTOR	(EFF)	0.2857	0.2857
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		163.570	165.237

Batch Number		
97002083	Blank Concentration in µCi/g	1.27E-01
Rerun	Replicate Concentration in µCi/g	1.29E-01
0	Average Concentration in µCi/g	1.2797E-01

Sample Prep
FUSION01

Rs (Sample Count Rate) = (TC / CT) - BKG

Sample #
S97T000764

ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)

Instrument Code
WB27810

Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100

Detection Levels and Less Than Values are determined from Procedure LA-508-002.

Prepared By
MCB

Chemist
SLF

ALPHA TOTAL in µCi/g (Average)	=	1.28E-01	DETECTION LEVEL
			3.10E-04 µCi/g
RELATIVE COUNTING ERROR		2.8%	

Analyst
SLH

Date Complete
05/14/97

Analysis Date
05/14/97

Analysis Time
05:00 AM

Sample Point
T-203

Analyst: SLH Date: 14-May-97

Signature of Chemist: SLF Date: 5/14/97

SAMPLE.WB1 Rev. 1.0 508101ML

LABCORE Completed RadChem Report for Worklist#: 18097

Analyst: slh **Instrument:** AB15 **Book#** _____

Method: _____ Rev/Mod _____

Worklist Comment: T203, @ALPHA-01, Deter s.s. by Ludlum. Std= 1.0mL skm

Seq	Type	Sample#	R	A	Test	Matrix	Actual	Found	DL or Yield	Unit
1	STD			0	@ALPHA01	ALPHA01 SOLID	2.00E-04	1.78E-4	89.000	% Recovery
1	STD			0	@ALPHA01	ALPHA01E SOLID	1.00	3.47E+00	3.470	% Ct. Erro
2	BLNK-PREP			0	@ALPHA01	ALPHA01 SOLID	1	<4.06E-4		uCi/g
2	BLNK-PREP			0	@ALPHA01	ALPHA01E SOLID	1.00	1.80E+02	180.000	uCi/g
3	BLNK/BKG			0	@ALPHA01	ALPHA01 SOLID	1.00E+00	2.38E+00	2.380	BLNK/BKG
4	SAMPLE	S97T000765	0	F	@ALPHA01	ALPHA01 SOLID	N/A	1.40E-01	528.0e-006	uCi/g
4	SAMPLE	S97T000765	0	F	@ALPHA01	ALPHA01E SOLID	N/A	3.95E+00	0.0e+000	% Ct. Error
5	DUP	S97T000765	0	F	@ALPHA01	ALPHA01 SOLID	1.40E-1	1.23E-1	12.928	RPD
5	DUP	S97T000765	0	F	@ALPHA01	ALPHA01E SOLID	1.00	4.25E+00	4.250	% Ct. Erro
6	SAMPLE	S97T000766	0	F	@ALPHA01	ALPHA01 SOLID	N/A	1.54E-01	106.0e-005	uCi/g
6	SAMPLE	S97T000766	0	F	@ALPHA01	ALPHA01E SOLID	N/A	5.28E+00	0.0e+000	% Ct. Error
7	DUP	S97T000766	0	F	@ALPHA01	ALPHA01 SOLID	1.54E-1	1.80E-1	15.569	RPD
7	DUP	S97T000766	0	F	@ALPHA01	ALPHA01E SOLID	1.00	4.91E+00	4.910	% Ct. Erro

Final page for worklist# 18097

Analyst Signature **Date**

Analyst Signature **Date**

Reviewer Signature 5/16/97 **Date**

Units shown for QC (BLK/BKG) may not reflect the actual units.

05/14/97 08:47
A-0004-1

LABCORE Data Entry Template for Worklist# 18097

Analyst: SLH **Instrument:** AB00 15 **Book#** 79B56

Method: LA-508-101 Rev/Mod G-0

Worklist Comment: T203, @ALPHA-01, Deter s.s. by Ludlum. Std= 1.0mL skm

S	Type	Sample#	R	A	Test	Matrix	Group#	Project
1	STD				@ALPHA01	SOLID		
2	BLNK-PREP				@ALPHA01	SOLID		
3	BLNK/BKG				@ALPHA01	SOLID		
4	SAMPLE	S97T000765	0	F	@ALPHA01	SOLID	97000299	T-203
		Analytes Requested: ALPHA01 , ALPHA01E						
5	DUP	S97T000765	0	F	@ALPHA01	SOLID		
6	SAMPLE	S97T000766	0	F	@ALPHA01	SOLID	97000299	T-203
		Analytes Requested: ALPHA01 , ALPHA01E						
7	DUP	S97T000766	0	F	@ALPHA01	SOLID		

Final page for worklist # 18097

Sandra L Hood Boatright 5-15-97
Analyst Signature Date

Sue E. Hogan 5-15-97
Analyst Signature Date

MC Brown 5/16/97

Data Entry Comments:

S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

WORKBOOK PAGE: STD1

AT : LA-508-101 (E-1) **LA-508-113 (B-0) STANDARD**

Type			STANDARD	REPLICATE
STD	DETECTOR NUMBER		15	15
Work List	DISH SIZE (1, 2, or 5)	(MS)	2	2
18097	GROSS COUNTS	(GC)	3212	3199
A Tor TB ?	COUNT TIME in MINUTES	(CT)	30	30
AT	BACKGROUND in cpm	(BKG)	0.07	0.07
Test Code	SAMPLE SIZE in mL	(SS)	1.000	1.000
@ALPHA01	DILUTION FACTOR	(DF)	1	1
Matrix	STANDARD BOOK NUMBER	(Std BN)	79B56	79B56
LIQUID	EFFICIENCY FACTOR	(EFF)	0.2701	0.2701
Batch/Number	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		106.997	106.563
97002116	Standard Value in µCi/mL		2.00E-04	
Rerun	Concentration in µCi/L	=	1.78E-01	
0	Replicate Concentration in µCi/L	=	1.78E-01	
Sample Prep	AVERAGE CONCENTRATION in µCi/L	=	1.7808E-01	
N/A				

Rs (Sample Count Rate) = (TC / CT) - BKG

ALPHA TOTAL µCi/L = Rs * 1000mL/L * DF / (EFF * SS * 2220000dpm/µCi)

ALPHA TOTAL µCi/mL = ALPHA TOTAL µCi/L / 1000mL/L

Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100

Detection Levels and Less Than Values are determined from Procedure LA-508-002.

Sample #				
WL18097				
Instrument Code				
WB26872				
Prepared By				
SEH				
Chemist	ALPHA TOTAL CONCENTRATION in µCi/mL	=	1.78E-04	DETECTION LEVEL
SLF				
Analyst				5.27E-07 µCi/mL
SLH				
Date Complete	RELATIVE COUNTING ERROR	=	3.5%	
05/15/97				
Analysis Date				
05/15/97				
Analysis Time				
03:40 AM				
Sample Point				
T-203				

Analyst:		SEH	Date: 15-May-97
Signature of Chemist:		SLF	Date: 5/16/97

STANDARD.WB1 Rev. 1.0 508101ML

WORKBOOK PAGE: BLANK2

AT : LA-508-101 (E-1) SOLIDS

Type			BLNK-PREP	REPLICATE
BLNK-PREP	DETECTOR NUMBER		15	15
Work List	DISH SIZE (1 , 2 , or 5)	(MS)	2	2
18097	GROSS COUNTS	(GC)	5	5
AT or TB?	COUNT TIME in MINUTES	(CT)	30	30
AT	BACKGROUND in cpm	(BKG)	0.07	0.07
Test Code	SAMPLE SIZE in mL	(SS)	0.500	0.500
@ALPHA01	DILUTION FACTOR	(DF)	1	1
Matrix	DIGEST GRAMS of SOLIDS / L	(Dg/L)	1.9984	1.9984
SOLID	EFFICIENCY FACTOR	(EFF)	0.2701	0.2701
Batch Number	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		0.243	0.243
97002116	Blank Concentration in µCi/g	<	4.06E-04	
Rerun	Replicate Concentration in µCi/g	<	4.06E-04	
0	Maximum Concentration in µCi/g	<	4.0594E-04	

Sample Prep	
N/A	Rs (Sample Count Rate) = (TC / CT) - BKG
Sample #	ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)
WL18097	
Instrument Code	Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100
WB26872	Detection Levels and Less Than Values are determined from Procedure LA-508-002.
Prepared By	
SEH	
Chemist	
SLF	
Analyst	
SLH	
Date Complete	
05/15/97	
Analysis Date	
05/15/97	
Analysis Time	
03:40 AM	
Sample Point	
T-203	

ALPHA TOTAL in µCi/g (Maximum)	=	< 4.06E-04	DETECTION LEVEL
LESS THAN Value was Determined from Rmax.			5.28E-04 µCi/g
RELATIVE COUNTING ERROR		180.1%	

Analyst:		SLH	Date: 15-May-97
Signature of Chemist:		SLF	Date: 5/16/97

BLANK.WB1 Rev. 1.0 508101ML

WORKBOOK PAGE: SAM4

AT : LA-508-101 (E-1) SOLIDS

			SAMPLE	REPLICATE
Type:	DETECTOR NUMBER		15	15
SAMPLE	DISH SIZE (1 , 2 , or 5)	(MS)	2	2
Work List:	GROSS COUNTS	(GC)	2470	2559
18097	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?:	BACKGROUND in cpm	(BKG)	0.07	0.07
AT	SAMPLE SIZE in mL	(SS)	0.500	0.500
Test Code:	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS / L	(Dg/L)	1.9984	1.9984
Matrix:	EFFICIENCY FACTOR	(EFF)	0.2701	0.2701
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		82.263	85.230
Batch Number:				
97002116	Blank Concentration in µCi/g		1.37E-01	
Rerun:	Replicate Concentration in µCi/g		1.42E-01	
0	Average Concentration in µCi/g		1.3978E-01	

Sample Prep:
FUSION01

Rs (Sample Count Rate) = (TC / CT) - BKG

Sample #:
S97T000765

ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)

Instrument Code:
WB26872

Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100

Detection Levels and Less Than Values are determined from Procedure LA-508-002.

Prepared By:
SEH

Chemist:
SLF

			DETECTION LEVEL
ALPHA TOTAL in µCi/g (Average)	=	1.40E-01	
			5.28E-04 µCi/g
RELATIVE COUNTING ERROR		3.9%	

Analyst:
SLH

Date Complete:
05/15/97

Analysis Date:
05/15/97

Analysis Time:
03:40 AM

Sample Point:
T-203

{/ system;exit}yes~

Analyst: SLH Date: 15-May-97

Signature of Chemist: SLF Date: 5/16/97

SAMPLE.WB1 Rev. 1.0 508101ML

WORKBOOK PAGE: DUP5

AT : LA-508-101 (E-1) SOLIDS

Type			DUP	REPLICATE
DUP	DETECTOR NUMBER		15	15
Work List	DISH SIZE (1 , 2 , or 5)	(MS)	2	2
18097	GROSS COUNTS	(GC)	2129	2386
AT or TBT	COUNT TIME in MINUTES	(CT)	30	30
AT	BACKGROUND in cpm	(BKG)	0.07	0.07
Test Code	SAMPLE SIZE in mL	(SS)	0.500	0.500
@ALPHA01	DILUTION FACTOR	(DF)	1	1
Matrix	DIGEST GRAMS of SOLIDS / L	(Dg/L)	2.0324	2.0324
SOLID	EFFICIENCY FACTOR	(EFF)	0.2701	0.2701
Batch Number	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		70.897	79.463
97002116	Blank Concentration in µCi/g		1.16E-01	
Rerun	Replicate Concentration in µCi/g		1.30E-01	
0	Average Concentration in µCi/g		1.2338E-01	

Sample Prep	
FUSION01	Rs (Sample Count Rate) = (TC / CT) - BKG
Sample #	ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)
S97T000765	
Instrument Code	Relative Counting Error = [ ](The Square Root of TC + BKG * CT) / (TC - BKG * CT)[ ] * 1.96 * 100
WB26872	Detection Levels and Less Than Values are determined from Procedure LA-508-002.
Prepared By	
SEH	
Chemist	
SLF	
Analyst	
SLH	
Date Complete	
05/15/97	
Analysis Date	
05/15/97	
Analysis Time	
03:40 AM	
Sample Point	
T-203	

			DETECTION LEVEL
ALPHA TOTAL in µCi/g (Average)	=	1.23E-01	
			5.19E-04
RELATIVE COUNTING ERROR		4.3%	µCi/g

{/ system;exit}yes~

Analyst:	SLH	Date: 15-May-97	
Signature of Chemist:	SLF	Date: 5/16/97	

SAMPLE.WB1 Rev. 1.0 508101ML

WORKBOOK PAGE: SAM6

AT : LA-508-101 (E-1) SOLIDS

			SAMPLE	REPLICATE
Type:	DETECTOR NUMBER		15	15
SAMPLE	DISH SIZE (1 , 2 , or 5)	(MS)	2	2
Work List:	GROSS COUNTS	(GC)	1387	1386
18097	COUNT TIME in MINUTES	(CT)	30	30
A for LB2	BACKGROUND in cpm	(BKG)	0.07	0.07
AT	SAMPLE SIZE in mL	(SS)	0.250	0.250
Test Code:	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS / L	(Dg/L)	1.9948	1.9948
Matrix:	EFFICIENCY FACTOR	(EFF)	0.2701	0.2701
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		46.163	46.130

Batch Number:		
97002116	Blank Concentration in µCi/g	1.54E-01
Rerun:	Replicate Concentration in µCi/g	1.54E-01
0	Average Concentration in µCi/g	1.5432E-01

Sample Prep:
FUSION01

Rs (Sample Count Rate) = (TC / CT) - BKG

Sample #:
S97T000766

ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)

Instrument Code:
WB26872

Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100

Detection Levels and Less Than Values are determined from Procedure LA-508-002.

Prepared By:
SEH

Chemist:
SLF

			DETECTION LEVEL
ALPHA TOTAL in µCi/g (Average)	=	1.54E-01	
			1.06E-03
RELATIVE COUNTING ERROR		5.3%	µCi/g

Analyst:
SLH

Date Complete:
05/15/97

Analysis Date:
05/15/97

Analysis Time:
03:40 AM

Sample Point:
T-203

{/ system;exit}yes~

Analyst:		SLH	Date: 15-May-97
Signature of Chemist:		SLF	Date: 5/16/97

SAMPLE.WB1 Rev. 1.0 508101ML

WORKBOOK PAGE: DUP7

AT : LA-508-101 (E-1) SOLIDS

			DUP	REPLICATE
Type:	DETECTOR NUMBER		15	15
DUP	DISH SIZE (1 , 2 , or 5)	(MS)	2	2
Work List:	GROSS COUNTS	(GC)	1599	1678
18097	COUNT TIME in MINUTES	(CT)	30	30
A1 or LB?:	BACKGROUND in cpm	(BKG)	0.07	0.07
AT	SAMPLE SIZE in mL	(SS)	0.250	0.250
Test Code:	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS / L	(Dg/L)	2.0264	2.0264
Matrix:	EFFICIENCY FACTOR	(EFF)	0.2701	0.2701
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		53.230	55.863

Batch Number:		
97002116	Blank Concentration in µCi/g	1.75E-01
Rerun:	Replicate Concentration in µCi/g	1.84E-01
0	Average Concentration in µCi/g	1.7957E-01

Sample Prep:
FUSION01

Rs (Sample Count Rate) = (TC / CT) - BKG

Sample #:
S97T000766

ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)

Instrument Code:
WB26872

Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100

Detection Levels and Less Than Values are determined from Procedure LA-508-002.

Prepared By:
SEH

Chemist:
SLF

ALPHA TOTAL in µCi/g (Average)	=	1.80E-01	DETECTION LEVEL
			1.04E-03
RELATIVE COUNTING ERROR		4.9%	µCi/g

Analyst:
SLH

Date Complete:
05/15/97

Analysis Date:
05/15/97

Analysis Time:
03:40 AM

Sample Point:
T-203

{/ system;exit}yes~

Analyst:	SLH	Date:	15-May-97
Signature of Chemist:	SLF	Date:	5/16/97

SAMPLE.WB1 Rev. 1.0 508101ML

worklistrad Version 1.0 05/09/96
05/19/97 09:44

LABCORE Completed RadChem Report for Worklist#: 18126

Analyst: scl **Instrument:** AB15 **Book#** _____

Method: _____ Rev/Mod _____

Worklist Comment: Use 1-10-.500 mL sample size. Rerun #1. SLF

Seq	Type	Sample#	R	A	Test	Matrix	Actual	Found	DL or Yield	Unit
1	STD		0		@ALPHA01 ALPHA01	SOLID	2.00E-04	1.75E-4	87.500	% Recovery
1	STD		0		@ALPHA01 ALPHA01E	SOLID	1.00	3.55E+00	3.550	% Ct. Erro
2	BLNK-PREP		0		@ALPHA01 ALPHA01	SOLID	1	<2.28E-3		uCi/g
2	BLNK-PREP		0		@ALPHA01 ALPHA01E	SOLID	1.00	5.00E+02	500.000	uCi/g
3	BLNK/BKG		0		@ALPHA01 ALPHA01	SOLID	1.00E+00	8.33E-01	0.833	BLNK/BKG
4	SAMPLE	S97T000761	0	F	@ALPHA01 ALPHA01	SOLID	N/A	3.11E-01	610.0e-005	uCi/g
4	SAMPLE	S97T000761	0	F	@ALPHA01 ALPHA01E	SOLID	N/A	9.38E+00	0.0e+000	% Ct. Error
5	DUP	S97T000761	0	F	@ALPHA01 ALPHA01	SOLID	3.11E-1	2.47E-1	22.939 RPD	
5	DUP	S97T000761	0	F	@ALPHA01 ALPHA01E	SOLID	1.00	9.50E+00	9.500	% Ct. Erro

Final page for worklist# 18126

Analyst Signature **Date** **Analyst Signature** **Date**

Reviewer Signature 5/19/97 **Date**

The RPD is consistent with the 1st run. (copy attached).
No further reruns requested

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Worklist Report for Worklist# 18051

Analyst: scl **Instrument:** AB16 **Book#** _____

Method: _____ Rev/Mod _____

Worklist Comment: T203, @ALPHA01, Deter s.s. by Ludlum. Std: 1.0 mL skm

Seq	Type	Sample#	R	A	Test	Matrix	Actual	Found	DL or Yield	Unit
1	STD		0		@ALPHA01	ALPHA01 SOLID	2.00E-04	1.70E-4	85.000	% Recovery
1	STD		0		@ALPHA01	ALPHA01E SOLID	1.00	3.61E+00	3.610	% Ct. Erro
2	BLNK-PREP		0		@ALPHA01	ALPHA01 SOLID	1	<2.53E-3		uCi/g
2	BLNK-PREP		0		@ALPHA01	ALPHA01E SOLID	1.00	1.65E+02	165.000	uCi/g
3	BLNK/BKG		0		@ALPHA01	ALPHA01 SOLID	1.00E+00	2.44E+00	2.440	BLNK/BKG
4	SAMPLE	S97T000761	0	F	@ALPHA01	ALPHA01 SOLID	N/A	2.58E-01	3.09e-003	uCi/g
4	SAMPLE	S97T000761	0	F	@ALPHA01	ALPHA01E SOLID	N/A	6.62E+00		% Ct. Error
5	DUP	S97T000761	0	F	@ALPHA01	ALPHA01 SOLID	2.58E-1	1.98E-1	26.316	RPD
5	DUP	S97T000761	0	F	@ALPHA01	ALPHA01E SOLID	1.00	7.31E+00	7.310	% Ct. Erro

Final page for worklist# 18051

Analyst Signature **Date**

Analyst Signature **Date**

5/14/97
Reviewer Signature **Date**

The RPD for 761 is out of limits. Batch will be rerun.

5/14/97

Units shown for QC (BLK/BKG) may not reflect the actual units.

05/14/97 14:55
A-0004-1

LABCORE Data Entry Template for Worklist# 18126

Analyst: S.L **Instrument:** AB00 15 **Book#** 19856

Method: LA-508-101 Rev/Mod G-0

Worklist Comment: Use 1-10-.500 mL sample size. Rerun #1. SLF

S	Type	Sample#	R	A	Test	Matrix	Group#	Project
1	STD				@ALPHA01	SOLID		
2	BLNK-PREP				@ALPHA01	SOLID		
3	BLNK/BKG				@ALPHA01	SOLID		
4	SAMPLE	S97T000761	0	F	@ALPHA01	SOLID	97000299	T-203
		Analytes Requested: ALPHA01 , ALPHA01E						
5	DUP	S97T000761	0	F	@ALPHA01	SOLID		

Final page for worklist # 18126

Sue Lai 5-16-97
Analyst Signature **Date**

Sue E. Hogan 5-18-97
Analyst Signature **Date**

HTS Sue 5/19/97

Data Entry Comments:

S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

WORKBOOK PAGE: STD1

AT : LA-508-101 (E-1) **LA-508-113 (B-0) STANDARD**

			STANDARD	REPLICATE
Type:	DETECTOR NUMBER		15	15
STD	DISH SIZE (1, 2, or 5)	(MS)	2	2
Work List:	GROSS COUNTS	(GC)	3254	3061
18126	COUNT TIME in MINUTES	(CT)	30	30
AT or LB?:	BACKGROUND in cpm	(BKG)	0.1	0.1
AT	SAMPLE SIZE in mL	(SS)	1.000	1.000
Test Code:	DILUTION FACTOR	(DF)	1	1
@ALPHA01	STANDARD BOOK NUMBER	(Std BN)	79B56	79B56
Matrix:	EFFICIENCY FACTOR	(EFF)	0.2701	0.2701
LIQUID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		108.367	101.933
Batch Number:	Standard Value in µCi/mL		2.00E-04	
97002147	Concentration in µCi/L	=	1.81E-01	
Rerun:	Replicate Concentration in µCi/L	=	1.70E-01	
0	AVERAGE CONCENTRATION in µCi/L	=	1.7536E-01	

Sample Prep:
N/A

Sample #:
WL18126

Instrument Code:
WB26872

Prepared By:
SEH

Chemist:
SLF

Analyst:
SCL

Date Completed:
05/18/97

Analysis Date:
05/16/97

Analysis Time:
10:20 AM

Sample Point:
T-203

Rs (Sample Count Rate) = (TC / CT) - BKG

ALPHA TOTAL µCi/L = Rs * 1000mL/L * DF / (EFF * SS * 2220000dpm/µCi)

ALPHA TOTAL µCi/mL = ALPHA TOTAL µCi/L / 1000mL/L

Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100

Detection Levels and Less Than Values are determined from Procedure LA-508-002.

ALPHA TOTAL CONCENTRATION in µCi/mL	=	1.75E-04	DETECTION LEVEL	
				6.01E-07 µCi/mL
RELATIVE COUNTING ERROR	=	3.5%		

Analyst:		SEH	Date: 18-May-97
Signature of Chemist:		SLF	Date: 5/19/97

STANDARD.WB1 Rev. 1.0 508101ML

WORKBOOK PAGE: BLANK2

AT : LA-508-101 (E-1) SOLIDS

Type	DETECTOR NUMBER		BLNK-PREP	REPLICATE
BLNK-PREP	DISH SIZE (1 , 2 , or 5)	(MS)	2	2
Work List	GROSS COUNTS	(GC)	3	2
18126	COUNT TIME in MINUTES	(CT)	30	30
A T or A TX	BACKGROUND in cpm	(BKG)	0.1	0.1
AT	SAMPLE SIZE in mL	(SS)	0.500	0.500
Test Code	DILUTION FACTOR	(DF)	11	11
@ALPHA01	DIGEST GRAMS of SOLIDS / L	(Dg/L)	2.1644	2.1644
Matrix	EFFICIENCY FACTOR	(EFF)	0.2701	0.2701
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		0.135	0.135

Batch Number			
97002147	Blank Concentration in µCi/g	<	2.28E-03
Rerun	Replicate Concentration in µCi/g	<	2.28E-03
0	Maximum Concentration in µCi/g	<	2.2837E-03

Sample Prep
N/A

Rs (Sample Count Rate) = (TC / CT) - BKG

Sample #
WL18126

ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)

Instrument Code
WB26872

Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100

Detection Levels and Less Than Values are determined from Procedure LA-508-002.

Prepared By
SEH

Chemist
SLF

ALPHA TOTAL in µCi/g (Maximum) = < 2.28E-03	DETECTION LEVEL
LESS Than Value was Determined from Lc.	6.10E-03 µCi/g
RELATIVE COUNTING ERROR 500.0%	

Analyst
SCL

Date Complete
05/18/97

Analysis Date
05/16/97

Analysis Time
10:20 AM

Sample Point
T-203

Analyst: SCL Date: 18-May-97

Signature of Chemist: SLF Date: 5/19/97

BLANK.WB1 Rev. 1.0 508101ML

WORKBOOK PAGE: SAM4

AT : LA-508-101 (E-1) SOLIDS

			SAMPLE	REPLICATE
Type	DETECTOR NUMBER		15	15
SAMPLE	DISH SIZE (1 , 2 , or 5)	(MS)	2	2
Work List	GROSS COUNTS	(GC)	661	446
18126	COUNT TIME in MINUTES	(CT)	30	30
AT or LBK	BACKGROUND in cpm	(BKG)	0.1	0.1
AT	SAMPLE SIZE in mL	(SS)	0.500	0.500
Test Code	DILUTION FACTOR	(DF)	11	11
@ALPHA01	DIGEST GRAMS of SOLIDS / L	(Dg/L)	2.1644	2.1644
Matrix	EFFICIENCY FACTOR	(EFF)	0.2701	0.2701
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		21.933	14.767

Batch Number		
97002147	Blank Concentration in µCi/g	3.72E-01
Rerun	Replicate Concentration in µCi/g	2.50E-01
1	Average Concentration in µCi/g	3.1106E-01

Sample Prep
FUSION01

Rs (Sample Count Rate) = (TC / CT) - BKG

Sample #
S97T000761

ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)

Instrument Code
WB26872

Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100

Detection Levels and Less Than Values are determined from Procedure LA-508-002.

Prepared By
SEH

Chemist
SLF

			DETECTION LEVEL
ALPHA TOTAL in µCi/g (Average)	=	3.11E-01	
Analyst			
SCL			6.10E-03
Date Complete			µCi/g
05/18/97	RELATIVE COUNTING ERROR	9.4%	

Analysis Date
05/16/97

Analysis Time
10:20 AM

Sample Point
T-203

{/ system;exit}yes~

Analyst:		SCL	Date: 18-May-97
Signature of Chemist:		SLF	Date: 5/19/97

SAMPLE.WB1 Rev. 1.0 508101ML

WORKBOOK PAGE: DUP5

AT : LA-508-101 (E-1) SOLIDS

Type			DUP	REPLICATE
DUP	DETECTOR NUMBER		15	15
Work List	DISH SIZE (1 , 2 , or 5)	(MS)	2	2
18126	GROSS COUNTS	(GC)	435	437
A Tron / Bx	COUNT TIME in MINUTES	(CT)	30	30
AT	BACKGROUND in cpm	(BKG)	0.1	0.1
Test Code	SAMPLE SIZE in mL	(SS)	0.500	0.500
@ALPHA01	DILUTION FACTOR	(DF)	11	11
Matrix	DIGEST GRAMS of SOLIDS / L	(Dg/L)	2.144	2.144
SOLID	EFFICIENCY FACTOR	(EFF)	0.2701	0.2701
Batch Number	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		14.400	14.467

97002147	Blank Concentration in µCi/g	2.46E-01
Rerun	Replicate Concentration in µCi/g	2.48E-01
1	Average Concentration in µCi/g	2.4699E-01

Sample Prep
FUSION01

Rs (Sample Count Rate) = (TC / CT) - BKG

Sample #
S97T000761

ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)

Instrument Code
WB26872

Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100

Detection Levels and Less Than Values are determined from Procedure LA-508-002.

Prepared By
SEH

Chemist
SLF

			DETECTION LEVEL
ALPHA TOTAL in µCi/g (Average)	=	2.47E-01	
Analyst			
SCL			6.16E-03
RELATIVE COUNTING ERROR		9.5%	µCi/g

Date Complete
05/18/97

Analysis Date
05/16/97

Analysis Time
10:20 AM

Sample Point
T-203

{/ system;exit}yes~

Analyst:		SCL	Date: 18-May-97
Signature of Chemist:		SLF	Date: 5/19/97

SAMPLE.WB1 Rev. 1.0 508101ML

LABCORE Completed Worklist Report for Worklist# 18138

Analyst: scl **Instrument:** AB13 **Book#** _____

Method: _____ Rev/Mod _____

Worklist Comment: T203, @ALPHA01, Deter s.s. by Ludlum. skm

Seq	Type	Sample#	R	A	Test	Matrix	Actual	Found	DL or Yield	Unit
1	STD			0	@ALPHA01	ALPHA01 SOLID	2.00E-04	1.73E-4	86.500	% Recovery
1	STD			0	@ALPHA01	ALPHA01E SOLID	1.00	3.42E+00	3.420	% Ct. Erro
2	BLNK-PREP			0	@ALPHA01	ALPHA01 SOLID	1	2.19E-3	0.002	uCi/g
2	BLNK-PREP			0	@ALPHA01	ALPHA01E SOLID	1.00	1.01E+02	101.000	uCi/g
3	BLNK/BKG			0	@ALPHA01	ALPHA01 SOLID	1.00E+00	3.83E+00	3.830	BLNK/BKG
4	SAMPLE	S97T000767	0	F	@ALPHA01	ALPHA01 SOLID	N/A	1.59E-01	2.79e-003	uCi/g
4	SAMPLE	S97T000767	0	F	@ALPHA01	ALPHA01E SOLID	N/A	8.06E+00		% Ct. Error
5	DUP	S97T000767	0	F	@ALPHA01	ALPHA01 SOLID	1.59E-1	1.24E-1	24.735	RPD
5	DUP	S97T000767	0	F	@ALPHA01	ALPHA01E SOLID	1.00	9.61E+00	9.610	% Ct. Erro

Final page for worklist# 18138

Analyst Signature **Date**

Analyst Signature **Date**

5/19/97

Reviewer Signature **Date**

Replicate data indicate that the elevated RPD is the result of inhomogeneity. No rerun requested

5/19/97

Units shown for QC (BLK/BKG) may not reflect the actual units.

05/15/97 13:05
A-0004-1

LABCORE Data Entry Template for Worklist# 18138

Analyst: S.L **Instrument:** AB00 #13 **Book#** 79856

Method: LA-508-101 Rev/Mod G-0

Worklist Comment: T203, @ALPHA01, Deter s.s. by Ludlum. skm

S	Type	Sample#	R	A	Test	Matrix	Group#	Project
1	STD				@ALPHA01	SOLID		
2	BLNK-PREP				@ALPHA01	SOLID		
3	BLNK/BKG				@ALPHA01	SOLID		
4	SAMPLE	S97T000767	0	F	@ALPHA01	SOLID	97000299	T-203
	Analytes Requested: ALPHA01 , ALPHA01E							
5	DUP	S97T000767	0	F	@ALPHA01	SOLID		

Final page for worklist # 18138

S L 5-16-97
Analyst Signature Date

Lisa E Hogan 5-18-97
Analyst Signature Date

C.J. Ojineu 5/19/97

Data Entry Comments: boil down

S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

WORKBOOK PAGE: STD1

AT : LA-508-101 (E-1) LA-508-113 (B-0) STANDARD

Type		STANDARD	REPLICATE
STD	DETECTOR NUMBER	13	13
Work List	DISH SIZE (1 , 2 , or 5) (MS)	2	2
18138	GROSS COUNTS (GC)	3315	3284
AT or TB?	COUNT TIME in MINUTES (CT)	30	30
AT	BACKGROUND in cpm (BKG)	0.1	0.1
Test Code	SAMPLE SIZE in mL (SS)	1.000	1.000
@ALPHA01	DILUTION FACTOR (DF)	1	1
Matrix	STANDARD BOOK NUMBER (Std BN)	79B56	79B56
LIQUID	EFFICIENCY FACTOR (EFF)	0.2857	0.2857
Batch Number	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE	110.400	109.367
97002160	Standard Value in µCi/mL	2.00E-04	
Rerun	Concentration in µCi/L =	1.74E-01	
0	Replicate Concentration in µCi/L =	1.72E-01	
Sample Prep	AVERAGE CONCENTRATION in µCi/L =	1.7325E-01	

N/A	Rs (Sample Count Rate) = (TC / CT) - BKG
Sample #	ALPHA TOTAL µCi/L = Rs * 1000mL/L * DF / (EFF * SS * 2220000dpm/µCi)
WL18138	ALPHA TOTAL µCi/mL = ALPHA TOTAL µCi/L / 1000mL/L
Instrument Code	Relative Counting Error = [ ](The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100
WB27810	Detection Levels and Less Than Values are determined from Procedure LA-508-002.
Prepared By	
SEH	
Chemist	
SLF	
Analyst	
SCL	
Date Complete	
05/19/97	
Analysis Date	
05/16/97	
Analysis Time	
02:45 PM	
Sample Point	
T-203	

ALPHA TOTAL CONCENTRATION in µCi/mL	=	1.73E-04	DETECTION LEVEL
RELATIVE COUNTING ERROR	=	3.4%	5.68E-07 µCi/mL

Analyst:	SEH	Date: 19-May-97
Signature of Chemist:	SLF	Date: 5/19/97

STANDARD.WB1 Rev. 1.0 508101ML

WORKBOOK PAGE: BLANK2

AT : LA-508-101 (E-1) SOLIDS

Type			BLNK-PREP	REPLICATE
BLNK-PREP	DETECTOR NUMBER		13	13
Work List #	DISH SIZE (1 , 2 , or 5)	(MS)	2	2
18138	GROSS COUNTS	(GC)	10	13
AT or TB ?	COUNT TIME in MINUTES	(CT)	30	30
AT	BACKGROUND in cpm	(BKG)	0.1	0.1
Test Code	SAMPLE SIZE in mL	(SS)	0.100	0.100
@ALPHA01	DILUTION FACTOR	(DF)	1	1
Matrix	DIGEST GRAMS of SOLIDS / L	(Dg/L)	2.036	2.036
SOLID	EFFICIENCY FACTOR	(EFF)	0.2857	0.2857
Batch Number	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		0.233	0.333

Blank Concentration in µCi/g	1.81E-03
Replicate Concentration in µCi/g	2.58E-03
Average Concentration in µCi/g	2.1941E-03

97002160
Rerun #
0
Sample Prep
N/A
Sample #
WL18138
Instrument Code
WB27810
Prepared By
SEH
Chemist
SLF
Analyst
SCL
Date Complete
05/19/97
Analysis Date
05/16/97
Analysis Time
02:45 PM
Sample Point
T-203

Rs (Sample Count Rate) = (TC / CT) - BKG

ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)

Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100

Detection Levels and Less Than Values are determined from Procedure LA-508-002.

			DETECTION LEVEL
ALPHA TOTAL in µCi/g (Average)	=	2.19E-03	
RELATIVE COUNTING ERROR		101.0%	2.79E-03 µCi/g

Analyst: SCL Date: 19-May-97

Signature of Chemist: SLF Date: 5/19/97

BLANK.WB1 Rev. 1.0 508101ML

WORKBOOK PAGE: SAM4

AT : LA-508-101 (E-1) SOLIDS

Type			SAMPLE	REPLICATE
SAMPLE	DETECTOR NUMBER		13	13
Work List	DISH SIZE (1 , 2 , or 5)	(MS)	2	2
18138	GROSS COUNTS	(GC)	600	635
A Tor TB?	COUNT TIME in MINUTES	(CT)	30	30
AT	BACKGROUND in cpm	(BKG)	0.1	0.1
Test Code	SAMPLE SIZE in mL	(SS)	0.100	0.100
@ALPHA01	DILUTION FACTOR	(DF)	1	1
Matrix	DIGEST GRAMS of SOLIDS / L	(Dg/L)	2.036	2.036
SOLID	EFFICIENCY FACTOR	(EFF)	0.2857	0.2857
Batch Number	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		19.900	21.067
97002160	Blank Concentration in µCi/g		1.54E-01	
Rerun	Replicate Concentration in µCi/g		1.63E-01	
0	Average Concentration in µCi/g		1.5862E-01	

Sample Prep	
FUSION01	Rs (Sample Count Rate) = (TC / CT) - BKG
Sample #	ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)
S97T000767	
Instrument Code	Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100
WB27810	Detection Levels and Less Than Values are determined from Procedure LA-508-002.
Prepared By	
SEH	
Chemist	
SLF	
Analyst	
SCL	
Date Complete	
05/19/97	
Analysis Date	
05/16/97	
Analysis Time	
02:45 PM	
Sample Point	
T-203	

			DETECTION LEVEL
ALPHA TOTAL in µCi/g (Average)	=	1.59E-01	
RELATIVE COUNTING ERROR		8.1%	2.79E-03 µCi/g

Analyst:	SCL		Date: 19-May-97
Signature of Chemist:		SLF	Date: 5/19/97

SAMPLE.WB1 Rev. 1.0 508101ML

WORKBOOK PAGE: DUP5

AT : LA-508-101 (E-1) SOLIDS

			DUP	REPLICATE
Type	DETECTOR NUMBER		13	13
DUP	DISH SIZE (1 , 2 , or 5)	(MS)	2	2
Work List	GROSS COUNTS	(GC)	532	425
18138	COUNT TIME in MINUTES	(CT)	30	30
AT or TBP	BACKGROUND in cpm	(BKG)	0.1	0.1
AT	SAMPLE SIZE in mL	(SS)	0.100	0.100
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS / L	(Dg/L)	2.0208	2.0208
Matrix	EFFICIENCY FACTOR	(EFF)	0.2857	0.2857
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		17.633	14.067

Batch Number		
97002160	Blank Concentration in µCi/g	1.38E-01
Rerun	Replicate Concentration in µCi/g	1.10E-01
0	Average Concentration in µCi/g	1.2366E-01

Sample Prep
FUSION01

Rs (Sample Count Rate) = (TC / CT) - BKG

Sample #
S97T000767

ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)

Instrument Code
WB27810

Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100

Detection Levels and Less Than Values are determined from Procedure LA-508-002.

Prepared By
SEH

Chemist
SLF

			DETECTION LEVEL
ALPHA TOTAL in µCi/g (Average)	=	1.24E-01	
RELATIVE COUNTING ERROR		9.6%	2.81E-03 µCi/g

Analyst
SCL

Date Complete
05/19/97

Analysis Date
05/16/97

Analysis Time
02:45 PM

Sample Point
T-203

Analyst:		SCL	Date: 19-May-97
Signature of Chemist:		SLF	Date: 5/19/97

SAMPLE.WB1 Rev. 1.0 508101ML

LABCORE Completed RadChem Report for Worklist#: 18162

Analyst: rdm **Instrument:** AB14 **Book#** _____

Method: _____ Rev/Mod _____

Worklist Comment: Use 1-10-.500 mL sample size. Rerun #1. SLF

Seq	Type	Sample#	R	A	Test	Matrix	Actual	Found	DL or Yield	Unit
1	STD		0		@ALPHA01 ALPHA01	SOLID	2.00E-04	1.70E-4	85.000	% Recovery
1	STD		0		@ALPHA01 ALPHA01E	SOLID	1.00	3.60E+00	3.600	% Ct. Erro
2	BLNK-PREP		0		@ALPHA01 ALPHA01	SOLID	1	4.06E-3	40.600e-004	uCi/g
2	BLNK-PREP		0		@ALPHA01 ALPHA01E	SOLID	1.00	1.22E+02	122.000	uCi/g
3	BLNK/BKG		0		@ALPHA01 ALPHA01	SOLID	1.00E+00	2.25E+00	2.250	BLNK/BKG
4	SAMPLE	S97T000757	0	F	@ALPHA01 ALPHA01	SOLID	N/A	2.47E-01	766.0e-005	uCi/g
4	SAMPLE	S97T000757	0	F	@ALPHA01 ALPHA01E	SOLID	N/A	9.87E+00	0.0e+000	% Ct. Error
5	DUP	S97T000757	0	F	@ALPHA01 ALPHA01	SOLID	2.47E-1	2.06E-1	18.102 RPD	
5	DUP	S97T000757	0	F	@ALPHA01 ALPHA01E	SOLID	1.00	1.04E+01	10.400	% Ct. Erro
6	SPK	S97T000757	0	F	@ALPHA01 ALPHA01	SOLID	2.63E-02	2.26E-02	85.932	% Recovery
7	SAMPLE	S97T000760	0	F	@ALPHA01 ALPHA01	SOLID	N/A	1.79E-01	833.0e-005	uCi/g
7	SAMPLE	S97T000760	0	F	@ALPHA01 ALPHA01E	SOLID	N/A	1.18E+01	0.0e+000	% Ct. Error
8	DUP	S97T000760	0	F	@ALPHA01 ALPHA01	SOLID	1.79E-1	1.69E-1	5.747 RPD	
8	DUP	S97T000760	0	F	@ALPHA01 ALPHA01E	SOLID	1.00	1.15E+01	11.500	% Ct. Erro

Final page for worklist# 18162

Analyst Signature **Date**

Analyst Signature **Date**

Reviewer Signature 5/21/97 **Date**

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Data Entry Template for Worklist# 18162

Analyst: [signature] **Instrument:** AB00 14 **Book#** 19856

Method: LA-508-101 Rev/Mod G-0

Worklist Comment: Use 1-10-.500 mL sample size. Rerun #1. SLF

S	Type	Sample#	R	A	Test	Matrix	Group#	Project
1	STD				@ALPHA01	SOLID		
2	BLNK-PREP				@ALPHA01	SOLID		
3	BLNK/BKG				@ALPHA01	SOLID		
4	SAMPLE	S97T000757	0	F	@ALPHA01	SOLID	97000299	T-203
		Analytes Requested: ALPHA01 , ALPHA01E						
5	DUP	S97T000757	0	F	@ALPHA01	SOLID		
6	SPK	S97T000757	0	F	@ALPHA01	SOLID		
7	SAMPLE	S97T000760	0	F	@ALPHA01	SOLID	97000299	T-203
		Analytes Requested: ALPHA01 , ALPHA01E						
8	DUP	S97T000760	0	F	@ALPHA01	SOLID		

Final page for worklist # 18162

[signature] 5/18/97
Analyst Signature **Date**

[signature] 5/20/97
Analyst Signature **Date**
Sue E. Hogan 5-20-97

Data Entry Comments:

S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

WORKBOOK PAGE: STD1

AT : LA-508-101 (E-1) **LA-508-113 (B-0) STANDARD**

			STANDARD	REPLICATE
Type	DETECTOR NUMBER		14	14
STD	DISH SIZE (1 , 2 , or 5)	(MS)	2	2
Work List	GROSS COUNTS	(GC)	2975	3130
18162	COUNT TIME in MINUTES	(CT)	30	30
AT or TBr?	BACKGROUND in cpm	(BKG)	0.2	0.2
AT	SAMPLE SIZE in mL	(SS)	1.000	1.000
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	STANDARD BOOK NUMBER	(Std BN)	79B56	79B56
Matrix	EFFICIENCY FACTOR	(EFF)	0.2692	0.2692
LIQUID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		98.967	104.133
Batch Number	Standard Value in µCi/mL		2.00E-04	
97002184	Concentration in µCi/L	=	1.66E-01	
Rerun	Replicate Concentration in µCi/L	=	1.74E-01	
0	AVERAGE CONCENTRATION in µCi/L	=	1.6992E-01	

Sample Prep	
N/A	Rs (Sample Count Rate) = (TC / CT) - BKG
Sample #	ALPHA TOTAL µCi/L = Rs * 1000mL/L * DF / (EFF * SS * 2220000dpm/µCi)
WL18162	ALPHA TOTAL µCi/mL = ALPHA TOTAL µCi/L / 1000mL/L
Instrument Code	Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100
WB27807	Detection Levels and Less Than Values are determined from Procedure LA-508-002.
Prepared By	
CJO	
Chemist	
SLF	
Analyst	
RDM	
Date Complete	
05/20/97	
Analysis Date	
05/18/97	
Analysis Time	
04:00 AM	
Sample Point	
T-203	

			DETECTION LEVEL
ALPHA TOTAL CONCENTRATION in µCi/mL	=	1.70E-04	
RELATIVE COUNTING ERROR	=	3.6%	7.89E-07 µCi/mL

Analyst:	CJO	Date: 20-May-97
Signature of Chemist:	SLF	Date: 5/21/97

STANDARD.WB1 Rev. 1.0 508101ML

WORKBOOK PAGE: BLANK2

AT : LA-508-101 (E-1) SOLIDS

Type			BLNK-PREP	REPLICATE
BLNK-PREP	DETECTOR NUMBER		14	14
Work List	DISH SIZE (1 , 2 , or 5)	(MS)	2	2
18162	GROSS COUNTS	(GC)	14	13
AT or TB?	COUNT TIME in MINUTES	(CT)	30	30
AT	BACKGROUND in cpm	(BKG)	0.2	0.2
Test Code	SAMPLE SIZE in mL	(SS)	0.500	0.500
@ALPHA01	DILUTION FACTOR	(DF)	11	11
Matrix	DIGEST GRAMS of SOLIDS / L	(Dg/L)	2.268	2.268
SOLID	EFFICIENCY FACTOR	(EFF)	0.2692	0.2692
Batch Number	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		0.267	0.233
97002184	Blank Concentration in µCi/g		4.33E-03	
Rerun	Replicate Concentration in µCi/g		3.79E-03	
0	Average Concentration in µCi/g		4.0578E-03	
Sample Prep				
N/A				
Sample #				
WL18162				
Instrument Code				
WB27807				
Prepared By				
CJO				
Chemist				
SLF				
Analyst				
RDM				
Date Complete				
05/20/97				
Analysis Date				
05/18/97				
Analysis Time				
04:00 AM				
Sample Point				
T-203				

Rs (Sample Count Rate) = (TC / CT) - BKG

ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)

Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100

Detection Levels and Less Than Values are determined from Procedure LA-508-002.

ALPHA TOTAL in µCi/g (Average)	=	4.06E-03	DETECTION LEVEL
			7.66E-03 µCi/g
RELATIVE COUNTING ERROR		122.0%	

Analyst:		RDM	Date: 20-May-97
Signature of Chemist:		SLF	Date: 5/21 SLF 5/21/97
BLANK.WB1 Rev. 1.0	508101ML		

WORKBOOK PAGE: SAM4

AT : LA-508-101 (E-1) SOLIDS

Type			SAMPLE	REPLICATE
SAMPLE	DETECTOR NUMBER		14	14
Work List	DISH SIZE (1 , 2 , or 5)	(MS)	2	2
18162	GROSS COUNTS	(GC)	512	412
AT or TB ?	COUNT TIME in MINUTES	(CT)	30	30
AT	BACKGROUND in cpm	(BKG)	0.2	0.2
Test Code	SAMPLE SIZE in mL	(SS)	0.500	0.500
@ALPHA01	DILUTION FACTOR	(DF)	11	11
Matrix	DIGEST GRAMS of SOLIDS / L	(Dg/L)	2.268	2.268
SOLID	EFFICIENCY FACTOR	(EFF)	0.2692	0.2692
Batch Number	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		16.867	13.533

97002184	Blank Concentration in µCi/g 2.74E-01
Rerun #	Replicate Concentration in µCi/g 2.20E-01
1	Average Concentration in µCi/g 2.4671E-01

Sample Prep
FUSION01

Rs (Sample Count Rate) = (TC / CT) - BKG

Sample #
S97T000757

ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)

Instrument Code
WB27807

Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100

Detection Levels and Less Than Values are determined from Procedure LA-508-002.

Prepared By
CJO

Chemist
SLF

			DETECTION LEVEL
ALPHA TOTAL in µCi/g (Average)	=	2.47E-01	
RELATIVE COUNTING ERROR		9.9%	7.66E-03 µCi/g

Analyst
RDM

Date Complete
05/20/97

Analysis Date
05/18/97

Analysis Time
04:00 AM

Sample Point
T-203

Analyst:	RDM		Date: 20-May-97
Signature of Chemist:		SLF	Date: 5/21/97

SAMPLE.WB1 Rev. 1.0 508101ML

WORKBOOK PAGE: DUP5

AT : LA-508-101 (E-1) SOLIDS

Type	DETECTOR NUMBER		DUP	REPLICATE
DUP	DISH SIZE (1 , 2 , or 5)	(MS)	2	2
Work List	GROSS COUNTS	(GC)	420	373
18162	COUNT TIME in MINUTES	(CT)	30	30
A1 or TB-2	BACKGROUND in cpm	(BKG)	0.2	0.2
AT	SAMPLE SIZE in mL	(SS)	0.500	0.500
Test Code	DILUTION FACTOR	(DF)	11	11
@ALPHA01	DIGEST GRAMS of SOLIDS / L	(Dg/L)	2.3256	2.3256
Matrix	EFFICIENCY FACTOR	(EFF)	0.2692	0.2692
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		13.800	12.233

Batch Number		
97002184	Blank Concentration in µCi/g	2.18E-01
Rerun	Replicate Concentration in µCi/g	1.94E-01
1	Average Concentration in µCi/g	2.0604E-01

Sample Prep
FUSION01

Rs (Sample Count Rate) = (TC / CT) - BKG

Sample #
S97T000757

ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)

Instrument Code
WB27807

Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100

Detection Levels and Less Than Values are determined from Procedure LA-508-002.

Prepared By
CJO

Chemist
SLF

ALPHA TOTAL in µCi/g (Average)	=	2.06E-01	DETECTION LEVEL
			7.47E-03 µCi/g
RELATIVE COUNTING ERROR		10.4%	

Analyst
RDM

Date Complete
05/20/97

Analysis Date
05/18/97

Analysis Time
04:00 AM

Sample Point
T-203

Analyst:	RDM		Date: 20-May-97
Signature of Chemist:		SLF	Date: 5/21/97

SAMPLE.WB1 Rev. 1.0 508101ML

WORKBOOK PAGE: SPK6

AT : LA-508-101 (E-1) LA-508-113 (B-0) SPIKED SAMPLE

Type	DETECTOR NUMBER		SPIKE	REPLICATE
SPK	DISH SIZE 1 , 2 , or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	43165	38658
18162	COUNT TIME in MINUTES	(CT)	30	30
AT or TB?	BACKGROUND in cpm	(BKG)	0.2	0.2
AT	SAMPLE VOLUME in mL (Spiked Vial)	(SS)	0.500	0.500
Test Code	SAMPLE DILUTION FACTOR (Spiked Vial)	(DF)	11	11
@ALPHA01	DIGEST GRAMS of SOLIDS / L	(Dg/L)	2.268	2.268
Matrix	SPIKE VOLUME in mL	(SVol)	0.100	0.100
SOLID	SPIKE DILUTION FACTOR	(SDF)	1	1
Batch Number	SPIKE BOOK NUMBER	(Spk BN)	131B43	131B43
97002184	SPIKE VALUE in µCi/mL	(SVal)	2.6294E-02	2.6294E-02
Rerun	INSTRUMENT EFFICIENCY FACTOR	(EFF)	0.2692	0.2692
1	SAMPLE + SPIKE µCi/g	(S+S)	2.34E+01	2.09E+01
Sample Prep	AVERAGE or MAXIMUM µCi/g in SAMPLE		2.4671E-01	
FUSION01				

Sample #	
S97T000757	Rs (Sample Count Rate) = (TC / CT) - BKG
Instrument Code	SAMPLE + SPIKE µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L *2220000dpm/µCi)
WB27807	QC ACTUAL = SVal
Prepared By	QC FOUND = (((S+S µCi/g - SAMPLE µCi/g) * ((SDF/(SVol*1000))/(DF/SS/Dg/L))))
CJO	PERCENT SPIKE RECOVERY = (QC FOUND / QC ACTUAL) *100
Chemist	
SLF	
Analyst	
RDM	
Date Complete	
05/20/97	
Analysis Date	
05/18/97	
Analysis Time	
04:00 AM	
Sample Point	
T-203	

QC ACTUAL	=	2.63E-02	
QC FOUND	=	2.26E-02	
AVG. PERCENT SPIKE RECOVERY	=	85.8%	

Analyst:		CJO	Date: 20-May-97
Signature of Chemist:		SLF	Date: 5/21/97

SPIKE.WB1 Rev. 1.0 508101ML

WORKBOOK PAGE: SAM7

AT : LA-508-101 (E-1) SOLIDS

Type			SAMPLE	REPLICATE
SAMPLE	DETECTOR NUMBER		14	14
Work List	DISH SIZE (1 , 2 , or 5)	(MS)	2	2
18162	GROSS COUNTS	(GC)	294	325
AT or TB ?	COUNT TIME in MINUTES	(CT)	30	30
AT	BACKGROUND in cpm	(BKG)	0.2	0.2
Test Code	SAMPLE SIZE in mL	(SS)	0.500	0.500
@ALPHA01	DILUTION FACTOR	(DF)	11	11
Matrix	DIGEST GRAMS of SOLIDS / L	(Dg/L)	2.0844	2.0844
SOLID	EFFICIENCY FACTOR	(EFF)	0.2692	0.2692
Batch Number	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		9.600	10.633

97002184	Blank Concentration in µCi/g 1.70E-01
Rerun	Replicate Concentration in µCi/g 1.88E-01
1	Average Concentration in µCi/g 1.7867E-01

Sample Prep
FUSION01

Rs (Sample Count Rate) = (TC / CT) - BKG

Sample #
S97T000760

ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)

Instrument Code
WB27807

Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100

Detection Levels and Less Than Values are determined from Procedure LA-508-002.

Prepared By
CJO

Chemist
SLF

	ALPHA TOTAL in µCi/g (Average)	=	1.79E-01	DETECTION LEVEL
Analyst				
RDM				8.33E-03
Date Complete	RELATIVE COUNTING ERROR		11.8%	µCi/g
05/20/97				

Analysis Date
05/18/97

Analysis Time
04:00 AM

Sample Point
T-203

Analyst:		RDM	Date: 20-May-97
Signature of Chemist:		SLF	Date: 5/21/97

SAMPLE.WB1 Rev. 1.0 508101ML

WORKBOOK PAGE: DUP8

AT : LA-508-101 (E-1) SOLIDS

Type	DETECTOR NUMBER		DUP	REPLICATE
DUP	DISH SIZE (1 , 2 , or 5)	(MS)	2	2
Work List	GROSS COUNTS	(GC)	310	309
18162	COUNT TIME in MINUTES	(CT)	30	30
AT or TB?	BACKGROUND in cpm	(BKG)	0.2	0.2
AT	SAMPLE SIZE in mL	(SS)	0.500	0.500
Test Code	DILUTION FACTOR	(DF)	11	11
@ALPHA01	DIGEST GRAMS of SOLIDS / L	(Dg/L)	2.2064	2.2064
Matrix	EFFICIENCY FACTOR	(EFF)	0.2692	0.2692
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		10.133	10.100

Batch Number		
97002184	Blank Concentration in µCi/g	1.69E-01
Rerun	Replicate Concentration in µCi/g	1.69E-01
1	Average Concentration in µCi/g	1.6879E-01

Sample Prep: FUSION01

Sample #: S97T000760

Instrument Code: WB27807

Prepared By: CJO

Chemist: SLF

Analyst: RDM

Date Complete: 05/20/97

Analysis Date: 05/18/97

Analysis Time: 04:00 AM

Sample Point: T-203

Rs (Sample Count Rate) = (TC / CT) - BKG

ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)

Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100

Detection Levels and Less Than Values are determined from Procedure LA-508-002.

			DETECTION LEVEL
ALPHA TOTAL in µCi/g (Average)	=	1.69E-01	
RELATIVE COUNTING ERROR		11.5%	7.87E-03 µCi/g

Analyst:	RDM		Date: 20-May-97
Signature of Chemist:		SLF	Date: 5/21/97

SAMPLE.WB1 Rev. 1.0 508101ML

HNF-SD-WM-DP-247, REV. 0

LABCORE Completed RadChem Report for Worklist#: 18210

Analyst: scl **Instrument:** AB16 **Book#** _____

Method: _____ Rev/Mod _____

Worklist Comment: Use 1-10-.5 mL sample size. Rerun #2. SLF

Seq	Type	Sample#	R	A	Test	Matrix	Actual	Found	DL or Yield	Unit
1	STD			0	@ALPHA01 ALPHA01	SOLID	2.00E-04	1.81E-4	90.500	% Recovery
1	STD			0	@ALPHA01 ALPHA01E	SOLID	1.00	3.47E+00	3.470	% Ct. Erro
2	BLNK-PREP			0	@ALPHA01 ALPHA01	SOLID	1	<5.33E-3		uCi/g
2	BLNK-PREP			0	@ALPHA01 ALPHA01E	SOLID	1.00	5.00E+02	500.000	uCi/g
3	BLNK/BKG			0	@ALPHA01 ALPHA01	SOLID	1.00E+00	1.03E+00	1.030	BLNK/BKG
4	SAMPLE	S97T000759	0	F	@ALPHA01 ALPHA01	SOLID	N/A	2.30E-01	744.0e-005	uCi/g
4	SAMPLE	S97T000759	0	F	@ALPHA01 ALPHA01E	SOLID	N/A	1.04E+01	0.0e+000	% Ct. Error
5	DUP	S97T000759	0	F	@ALPHA01 ALPHA01	SOLID	2.30E-1	2.49E-1	7.933 RPD	
5	DUP	S97T000759	0	F	@ALPHA01 ALPHA01E	SOLID	1.00	1.01E+01	10.100	% Ct. Erro

Final page for worklist# 18210

Analyst Signature **Date** **Analyst Signature** **Date**

5/21/97

Reviewer Signature **Date**

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Data Entry Template for Worklist# 18210

Analyst: S.L **Instrument:** AB00 AK **Book#** 79056

Method: LA-508-101 Rev/Mod G-0

Worklist Comment: Use 1-10-.5 mL sample size. Rerun #2. SLF

S	Type	Sample#	R	A	Test	Matrix	Group#	Project
1	STD				@ALPHA01	SOLID		
2	BLNK-PREP				@ALPHA01	SOLID		
3	BLNK/BKG				@ALPHA01	SOLID		
4	SAMPLE	S97T000759	0	F	@ALPHA01	SOLID	97000299	T-203
		Analytes Requested: ALPHA01 , ALPHA01E						
5	DUP	S97T000759	0	F	@ALPHA01	SOLID		

Final page for worklist # 18210

Sue Lai 5-20-97
Analyst Signature **Date**

[signature] 5/21/97
Analyst Signature **Date**

Sue E. Hogan 5-21-97

Data Entry Comments:

S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

HNF-SD-WM-DP-247, REV. 0

AT : LA-508-101 (E-1) **LA-508-113 (B-0) STANDARD**

Type			STANDARD	REPLICATE
STD	DETECTOR NUMBER		16	16
Work List	DISH SIZE (1 , 2 , or 5)	(MS)	2	2
18210	GROSS COUNTS	(GC)	3289	3205
Aliquot ID?	COUNT TIME in MINUTES	(CT)	30	30
AT	BACKGROUND in cpm	(BKG)	0.13	0.13
Test Code	SAMPLE SIZE in mL	(SS)	1.000	1.000
@ALPHA01	DILUTION FACTOR	(DF)	1	1
Matrix	STANDARD BOOK NUMBER	(Std BN)	79B56	79B56
LIQUID	EFFICIENCY FACTOR	(EFF)	0.2683	0.2683
Batch Number	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		109.503	106.703
97002242	Standard Value in µCi/mL		2.00E-04	
Rerun	Concentration in µCi/L	=	1.84E-01	
0	Replicate Concentration in µCi/L	=	1.79E-01	
Sample Prep	AVERAGE CONCENTRATION in µCi/L	=	1.8150E-01	
N/A				
Sample #				
WL18210				
Instrument Code				
WB27806				
Prepared By				
MCB				
Chemist				
SLF	ALPHA TOTAL CONCENTRATION in µCi/mL	=	1.81E-04	DETECTION LEVEL
Analyst				
SCL				6.68E-07 µCi/mL
Date Complete	RELATIVE COUNTING ERROR	=	3.5%	
05/21/97				
Analysis Date				
05/20/97				
Analysis Time				
02:50 PM				
Sample Point				
T-203				

Rs (Sample Count Rate) = (TC / CT) - BKG

ALPHA TOTAL µCi/L = Rs * 1000mL/L * DF / (EFF * SS * 2220000dpm/µCi)

ALPHA TOTAL µCi/mL = ALPHA TOTAL µCi/L / 1000mL/L

Relative Counting Error = [ ](The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100

Detection Levels and Less Than Values are determined from Procedure LA-508-002.

Analyst:	MCB	Date: 21-May-97
Signature of Chemist:	SLF	Date: 5/21/97

STANDARD.WB1 Rev. 1.0 508101ML

WORKBOOK PAGE: BLANK2

AT : LA-508-101 (E-1) SOLIDS

Type			BLNK-PREP	REPLICATE
BLNK-PREP	DETECTOR NUMBER		16	16
WorkList	DISH SIZE (1 , 2 , or 5)	(MS)	2	2
18210	GROSS COUNTS	(GC)	1	7
A,Tor,LB?	COUNT TIME in MINUTES	(CT)	30	30
AT	BACKGROUND in cpm	(BKG)	0.13	0.13
Lab Code	SAMPLE SIZE in mL	(SS)	0.500	0.500
@ALPHA01	DILUTION FACTOR	(DF)	11	11
Matrix	DIGEST GRAMS of SOLIDS / L	(Dg/L)	1.974	1.974
SOLID	EFFICIENCY FACTOR	(EFF)	0.2683	0.2683
BatchNumber	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		0.154	0.285
97002242	Blank Concentration in µCi/g	<	2.87E-03	
Rerun	Replicate Concentration in µCi/g	<	5.33E-03	
0	Maximum Concentration in µCi/g	<	5.3311E-03	

Sample Prep
N/A
Sample #
WL18210
Instrument Code
WB27806
Prepared By
MCB
Chemist
SLF
Analyst
SCL
Date Complete
05/21/97
Analysis Date
05/20/97
Analysis Time
02:50 PM
Sample Point
T-203

Rs (Sample Count Rate) = (TC / CT) - BKG

ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)

Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100

Detection Levels and Less Than Values are determined from Procedure LA-508-002.

ALPHA TOTAL in µCi/g (Maximum)	=	< 5.33E-03	DETECTION LEVEL
LESS Than Value was Determined from Lc.			7.44E-03 µCi/g
RELATIVE COUNTING ERROR		500.0%	

Analyst:	SCL	Date: 21-May-97	
Signature of Chemist:	SLF	Date: 5/21/97	

BLANK.WB1 Rev. 1.0 508101ML

WORKBOOK PAGE: SAM4

AT : LA-508-101 (E-1) SOLIDS

Type			SAMPLE	REPLICATE
SAMPLE	DETECTOR NUMBER		16	16
Work List	DISH SIZE (1 , 2 , or 5)	(MS)	2	2
18210	GROSS COUNTS	(GC)	381	364
AT or LB?	COUNT TIME in MINUTES	(CT)	30	30
AT	BACKGROUND in cpm	(BKG)	0.13	0.13
Test Code	SAMPLE SIZE in mL	(SS)	0.500	0.500
@ALPHA01	DILUTION FACTOR	(DF)	11	11
Matrix	DIGEST GRAMS of SOLIDS / L	(Dg/L)	1.974	1.974
SOLID	EFFICIENCY FACTOR	(EFF)	0.2683	0.2683
	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		12.570	12.003

Batch Number		
97002242	Blank Concentration in µCi/g	2.35E-01
Rerun	Replicate Concentration in µCi/g	2.25E-01
2	Average Concentration in µCi/g	2.2990E-01

Sample Prep	
FUSION01	Rs (Sample Count Rate) = (TC / CT) - BKG
Sample #	ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)
S97T000759	
Instrument Code	Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100
WB27806	Detection Levels and Less Than Values are determined from Procedure LA-508-002.
Prepared By	
MCB	
Chemist	
SLF	
Analyst	
SCL	
Date Complete	
05/21/97	
Analysis Date	
05/20/97	
Analysis Time	
02:50 PM	
Sample Point	
T-203	

ALPHA TOTAL in µCi/g (Average) =	2.30E-01	DETECTION LEVEL
		7.44E-03 µCi/g
RELATIVE COUNTING ERROR	10.4%	

Analyst:	SCL		Date: 21-May-97
Signature of Chemist:		SLF	Date: 5/21/97

SAMPLE.WB1 Rev. 1.0 508101ML

WORKBOOK PAGE: DUP5

AT : LA-508-101 (E-1) SOLIDS

Type			DUP	REPLICATE
DUP	DETECTOR NUMBER		16	16
Work List	DISH SIZE (1 , 2 , or 5)	(MS)	2	2
18210	GROSS COUNTS	(GC)	427	385
AT or LBG	COUNT TIME in MINUTES	(CT)	30	30
AT	BACKGROUND in cpm	(BKG)	0.13	0.13
Test Code	SAMPLE SIZE in mL	(SS)	0.500	0.500
@ALPHA01	DILUTION FACTOR	(DF)	11	11
Matrix	DIGEST GRAMS of SOLIDS / L	(Dg/L)	1.9884	1.9884
SOLID	EFFICIENCY FACTOR	(EFF)	0.2683	0.2683
	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		14.103	12.703

Batch Number		
97002242	Blank Concentration in µCi/g	2.62E-01
Rerun	Replicate Concentration in µCi/g	2.36E-01
2	Average Concentration in µCi/g	2.4898E-01

Sample Prep
FUSION01

Rs (Sample Count Rate) = (TC / CT) - BKG

Sample #
S97T000759

ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)

Instrument Code
WB27806

Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100

Detection Levels and Less Than Values are determined from Procedure LA-508-002.

Prepared By
MCB

Chemist
SLF

ALPHA TOTAL in µCi/g (Average)	=	2.49E-01	DETECTION LEVEL
			7.39E-03 µCi/g
RELATIVE COUNTING ERROR		10.1%	

Analyst
SCL

Date Complete
05/21/97

Analysis Date
05/20/97

Analysis Time
02:50 PM

Sample Point
T-203

Analyst:	SCL		Date: 21-May-97
Signature of Chemist:		SLF	Date: 5/21/97

SAMPLE.WB1 Rev. 1.0 508101ML

LABCORE Completed RadChem Report for Worklist#: 18211

Analyst: scl **Instrument:** AB15 **Book#** _____

Method: _____ Rev/Mod _____

Worklist Comment: Use 1-10-.5 mL sample size. Rerun #2. SLF

Seq	Type	Sample#	R	A	Test	Matrix	Actual	Found	DL or Yield	Unit
1	STD		0		@ALPHA01 ALPHA01	SOLID	2.00E-04	1.93E-4	96.500	% Recovery
1	STD		0		@ALPHA01 ALPHA01E	SOLID	1.00	3.39E+00	3.390	% Ct. Erro
2	BLNK-PREP		0		@ALPHA01 ALPHA01	SOLID	1	<2.81E-3		uCi/g
2	BLNK-PREP		0		@ALPHA01 ALPHA01E	SOLID	1.00	5.00E+02	500.000	uCi/g
3	BLNK/BKG		0		@ALPHA01 ALPHA01	SOLID	1.00E+00	1.03E+00	1.030	BLNK/BKG
4	SAMPLE	S97T000763	0	F	@ALPHA01 ALPHA01	SOLID	N/A	2.78E-01	708.0e-005	uCi/g
4	SAMPLE	S97T000763	0	F	@ALPHA01 ALPHA01E	SOLID	N/A	9.29E+00	0.0e+000	% Ct. Error
5	DUP	S97T000763	0	F	@ALPHA01 ALPHA01	SOLID	2.78E-1	2.78E-1	0.000	RPD
5	DUP	S97T000763	0	F	@ALPHA01 ALPHA01E	SOLID	1.00	9.39E+00	9.390	% Ct. Erro

Final page for worklist# 18211

Analyst Signature **Date**

Analyst Signature **Date**

5/21/97

Reviewer Signature **Date**

Units shown for QC (BLK/BKG) may not reflect the actual units.

05/20/97 13:30
A-0004-1

LABCORE Data Entry Template for Worklist# 18211

Analyst: S.L **Instrument:** AB00 #15 **Book#** 79856

Method: LA-508-101 Rev/Mod 67-0

Worklist Comment: Use 1-10-.5 mL sample size. Rerun #2. SLF

S	Type	Sample#	R	A	Test	Matrix	Group#	Project
1	STD				@ALPHA01	SOLID		
2	BLNK-PREP				@ALPHA01	SOLID		
3	BLNK/BKG				@ALPHA01	SOLID		
4	SAMPLE	S97T000763	0	F	@ALPHA01	SOLID	97000299	T-203
		Analytes Requested: ALPHA01 , ALPHA01E						
5	DUP	S97T000763	0	F	@ALPHA01	SOLID		

Final page for worklist # 18211

Sue Li 5-20-97
Analyst Signature **Date**

5/21/97
Analyst Signature **Date**
Sue E. Hogan 5-21-97

Data Entry Comments:

S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

WORKBOOK PAGE: STD1

AT : LA-508-101 (E-1) **LA-508-113 (B-0) STANDARD**

Type			STANDARD	REPLICATE
STD	DETECTOR NUMBER		15	15
Work Set	DISH SIZE (1 , 2 , or 5)	(MS)	2	2
18211	GROSS COUNTS	(GC)	3586	3355
Analyst ID	COUNT TIME in MINUTES	(CT)	30	30
AT	BACKGROUND in cpm	(BKG)	0.13	0.13
Test Code	SAMPLE SIZE in mL	(SS)	1.000	1.000
@ALPHA01	DILUTION FACTOR	(DF)	1	1
Matrix	STANDARD BOOK NUMBER	(Std BN)	79B56	79B56
LIQUID	EFFICIENCY FACTOR	(EFF)	0.2701	0.2701
Batch Number	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		119.403	111.703
97002243	Standard Value in µCi/mL		2.00E-04	
Rerun	Concentration in µCi/L	=	1.99E-01	
0	Replicate Concentration in µCi/L	=	1.86E-01	
Sample Prep	AVERAGE CONCENTRATION in µCi/L	=	1.9271E-01	
N/A				
Sample #				
WL18211				
Instrument Code				
WB26872				
Prepared By				
MCB				
Chemist				
SLF	ALPHA TOTAL CONCENTRATION in µCi/mL	=	1.93E-04	DETECTION LEVEL
Analyst				
SCL				6.64E-07 µCi/mL
Date Complete	RELATIVE COUNTING ERROR	=	3.4%	
05/21/97				
Analysis Date				
05/20/97				
Analysis Time				
02:50 PM				
Sample Point				
T-203				

Rs (Sample Count Rate) = (TC / CT) - BKG

ALPHA TOTAL µCi/L = Rs * 1000mL/L * DF / (EFF * SS * 2220000dpm/µCi)

ALPHA TOTAL µCi/mL = ALPHA TOTAL µCi/L / 1000mL/L

Relative Counting Error = [ ](The Square Root of TC + BKG * CT) / (TC - BKG * CT)[ ] * 1.96 * 100

Detection Levels and Less Than Values are determined from Procedure LA-508-002.

Analyst:		MCB	Date: 21-May-97
Signature of Chemist:		SLF	Date: 5/21/97

STANDARD.WB1 Rev. 1.0 508101ML

WORKBOOK PAGE: BLANK2

AT : LA-508-101 (E-1) SOLIDS

Type			BLNK-PREP	REPLICATE
BLNK-PREP	DETECTOR NUMBER		15	15
WorkList	DISH SIZE (1 , 2 , or 5)	(MS)	2	2
18211	GROSS COUNTS	(GC)	4	4
AnalysisType	COUNT TIME in MINUTES	(CT)	30	30
AT	BACKGROUND in cpm	(BKG)	0.13	0.13
TestCode	SAMPLE SIZE in mL	(SS)	0.500	0.500
@ALPHA01	DILUTION FACTOR	(DF)	11	11
Matrix	DIGEST GRAMS of SOLIDS / L	(Dg/L)	2.0612	2.0612
SOLID	EFFICIENCY FACTOR	(EFF)	0.2701	0.2701
BatchNumber	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		0.158	0.158
97002243				
Rerun	Blank Concentration in µCi/g	<	2.81E-03	
0	Replicate Concentration in µCi/g	<	2.81E-03	
SamplePrep	Maximum Concentration in µCi/g	<	2.8110E-03	
N/A				
Sample#				
WL18211				
InstrumentCode				
WB26872				
PreparedBy				
MCB				
Chemist				
SLF				
Analyst				
SCL				
DateComplete				
05/21/97				
AnalysisDate				
05/20/97				
AnalysisTime				
02:50 PM				
SamplePoint				
T-203				

Rs (Sample Count Rate) = (TC / CT) - BKG

ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)

Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100

Detection Levels and Less Than Values are determined from Procedure LA-508-002.

ALPHA TOTAL in µCi/g	(Maximum)	=	< 2.81E-03	DETECTION LEVEL
LESS THAN Value was Determined from Rmax.				7.08E-03 µCi/g
RELATIVE COUNTING ERROR			500.0%	

Analyst:	SCL		Date: 21-May-97
Signature of Chemist:		SLF	Date: 5/21/97

BLANK.WB1 Rev. 1.0 508101ML

WORKBOOK PAGE: SAM4

AT : LA-508-101 (E-1) SOLIDS

			SAMPLE	REPLICATE
Type	DETECTOR NUMBER		15	15
SAMPLE	DISH SIZE (1 , 2 , or 5)	(MS)	2	2
WorkList	GROSS COUNTS	(GC)	487	457
18211	COUNT TIME in MINUTES	(CT)	30	30
AT or LB?	BACKGROUND in cpm	(BKG)	0.13	0.13
AT	SAMPLE SIZE in mL	(SS)	0.500	0.500
TestCode	DILUTION FACTOR	(DF)	11	11
@ALPHA01	DIGEST GRAMS of SOLIDS / L	(Dg/L)	2.0612	2.0612
Matrix	EFFICIENCY FACTOR	(EFF)	0.2701	0.2701
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		16.103	15.103

BatchNumber		
97002243	Blank Concentration in µCi/g	2.87E-01
Rerun?	Replicate Concentration in µCi/g	2.69E-01
2	Average Concentration in µCi/g	2.7774E-01

Sample Prep
FUSION01

Rs (Sample Count Rate) = (TC / CT) - BKG

Sample #
S97T000763

ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)

InstrumentCode
WB26872

Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100

Detection Levels and Less Than Values are determined from Procedure LA-508-002.

Prepared By
MCB

Chemist
SLF

	ALPHA TOTAL in µCi/g (Average)	=	2.78E-01	DETECTION LEVEL
Analyst				
SCL				7.08E-03
Date Complete				µCi/g
05/21/97	RELATIVE COUNTING ERROR		9.3%	

Analysis Date
05/20/97

Analysis Time
02:50 PM

Sample Point
T-203

Analyst:	SCL	Date:	21-May-97
Signature of Chemist:	SLF	Date:	5/21/97

SAMPLE.WB1 Rev. 1.0 508101ML

WORKBOOK PAGE: DUP5

AT : LA-508-101 (E-1) SOLIDS

			DUP	REPLICATE
Type	DETECTOR NUMBER		15	15
DUP	DISH SIZE (1 , 2 , or 5)	(MS)	2	2
Work List	GROSS COUNTS	(GC)	447	489
18211	COUNT TIME in MINUTES	(CT)	30	30
AT or LB?	BACKGROUND in cpm	(BKG)	0.13	0.13
AT	SAMPLE SIZE in mL	(SS)	0.500	0.500
Test Code	DILUTION FACTOR	(DF)	11	11
@ALPHA01	DIGEST GRAMS of SOLIDS / L	(Dg/L)	2.0452	2.0452
Matrix	EFFICIENCY FACTOR	(EFF)	0.2701	0.2701
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		14.770	16.170

Batch Number	
97002243	Blank Concentration in µCi/g 2.65E-01
Rerun?	Replicate Concentration in µCi/g 2.90E-01
2	Average Concentration in µCi/g 2.7752E-01

Sample Prep
FUSION01

Rs (Sample Count Rate) = (TC / CT) - BKG

Sample #
S97T000763

ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)

Instrument Code
WB26872

Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100

Detection Levels and Less Than Values are determined from Procedure LA-508-002.

Prepared By
MCB

Chemist
SLF

			DETECTION LEVEL
Analyst	ALPHA TOTAL in µCi/g (Average)	= 2.78E-01	
SCL			7.14E-03 µCi/g
Date Complete	RELATIVE COUNTING ERROR	9.4%	
05/21/97			

Analysis Date
05/20/97

Analysis Time
02:50 PM

Sample Point
T-203

Analyst:		SCL	Date: 21-May-97
Signature of Chemist:		SLF	Date: 5/21/97

SAMPLE.WB1 Rev. 1.0 508101ML

LABCORE Completed RadChem Report for Worklist#: 19354

Analyst: rdm **Instrument:** GEA01 **Book#** _____

Method: _____ Rev/Mod _____

Worklist Comment: T203, GEA, STD: 1mL SS: 5mL. Rerun(1). llf

Seq	Type	Sample#	R	A	Test	Matrix	Actual		Found	DL or Yield	Unit
1	STD			0	@GEA-02	CO60-02	SOLID	6.289e-03	6.33e-03	100.652	% Recovery
1	STD			0	@GEA-02	CO60-02E	SOLID	1	1.57	1.570	% Ct Error
1	STD			0	@GEA-02	CS13702	SOLID	5.779e-03	5.76e-03	99.671	% Recovery
1	STD			0	@GEA-02	CS13702E	SOLID	1	1.96	1.960	% Ct Error
2	BLNK-PREP			0	@GEA-02	CO60-02	SOLID	1	<1.25e-2		uCi/g
2	BLNK-PREP			0	@GEA-02	CS13702	SOLID	1	<1.41e-2		uCi/g
2	BLNK-PREP			0	@GEA-02	EU15402	SOLID	1	<4.23e-2		uCi/g
2	BLNK-PREP			0	@GEA-02	EU15502	SOLID	1	<3.35e-2		uCi/g
2	BLNK-PREP			0	@GEA-02	AM24102	SOLID	1	<1.67e-2		uCi/g
3	SAMPLE	S97T001734		0	@GEA-02	CO60-02	SOLID	N/A	< 1.295e-02	129.5e-004	uCi/g
3	SAMPLE	S97T001734	F	0	@GEA-02	CO60-02E	SOLID	N/A	n/a	0.0e+000	% Ct. Error
3	SAMPLE	S97T001734		0	@GEA-02	CS13702	SOLID	N/A	< 1.780e-02	178.0e-004	uCi/g
3	SAMPLE	S97T001734	F	0	@GEA-02	CS13702E	SOLID	N/A	n/a	0.0e+000	% Ct. Error
3	SAMPLE	S97T001734		0	@GEA-02	EU15402	SOLID	N/A	< 4.325e-02	432.5e-004	uCi/g
3	SAMPLE	S97T001734	F	0	@GEA-02	EU15402E	SOLID	N/A	n/a	0.0e+000	% Ct. Error
3	SAMPLE	S97T001734		0	@GEA-02	EU15502	SOLID	N/A	< 3.344e-02	334.4e-004	uCi/g
3	SAMPLE	S97T001734	F	0	@GEA-02	EU15502E	SOLID	N/A	n/a	0.0e+000	% Ct. Error
3	SAMPLE	S97T001734		0	@GEA-02	AM24102	SOLID	N/A	3.594e-02	0.0e+000	uCi/g
3	SAMPLE	S97T001734	F	0	@GEA-02	AM24102E	SOLID	N/A	44.3	0.0e+000	% Ct. Error
4	DUP	S97T001734		0	@GEA-02	CO60-02	SOLID	<1.29e-2	<1.22e-2		RPD
4	DUP	S97T001734	F	0	@GEA-02	CO60-02E	SOLID	1	n/a		% Ct Error
4	DUP	S97T001734		0	@GEA-02	CS13702	SOLID	<1.78e-2	<1.83e-2		RPD
4	DUP	S97T001734	F	0	@GEA-02	CS13702E	SOLID	1	n/a		% Ct Error
4	DUP	S97T001734		0	@GEA-02	EU15402	SOLID	<4.32e-2	<3.92e-2		RPD
4	DUP	S97T001734	F	0	@GEA-02	EU15402E	SOLID	1	n/a		% Ct Error
4	DUP	S97T001734		0	@GEA-02	EU15502	SOLID	<3.34e-2	<3.37e-2		RPD
4	DUP	S97T001734	F	0	@GEA-02	EU15502E	SOLID	1	n/a		% Ct Error
4	DUP	S97T001734		0	@GEA-02	AM24102	SOLID	3.59e-02	3.59e-02	0.000	RPD
4	DUP	S97T001734	F	0	@GEA-02	AM24102E	SOLID	1	44.3	44.300	% Ct Error

Comments Section:

Comments for sample# S97T001734 and test @GEA-02 .

DL=0 => n/a.
DL=0 => n/a.
DL=0 => n/a.

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed RadChem Report for Worklist#: 19354

Seq	Type	Sample#	R	A	Test	Matrix	Actual	Found	DL or Yield	Unit

Final page for worklist# 19354

Analyst Signature **Date**

Analyst Signature **Date**

23 Jul 97

Reviewer Signature **Date**

Units shown for QC (BLK/BKG) may not reflect the actual units.

07/17/97 11:39
A-0004-1

LABCORE Data Entry Template for Worklist# 19354

Analyst: RDM **Instrument:** GEA00 / **Book#** 75B56

Method: LA-548-121 Rev/Mod _____

Worklist Comment: T203, GEA, STD: 1mL SS: 5mL. Rerun(1). llf

S	Type	Sample#	R	A	Test	Matrix	Group#	Project
1	STD				@GEA-02	SOLID		
2	BLNK-PREP				@GEA-02	SOLID		
3	SAMPLE	S97T001734	0	F	@GEA-02	SOLID	97000299	T-203
	Analytes Requested:	AM24102 , AM24102E, CO60-02 , CO60-02E, CS13702 , CS13702E, EU15402 , EU15402E, EU15502 , EU15502E						
4	DUP	S97T001734	0	F	@GEA-02	SOLID		

Final page for worklist # 19354

RDMoyer 7/18/97
Analyst Signature **Date**

[signature] 7/23/97
Analyst Signature **Date**

Data Entry Comments:

S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

****
* 222-S Laboratory Counting Room 18-JUL-1997 16:40:27.84 *
****

>>>>>>>>>> SAMPLE INFORMATION <<<<<<<<<<

Worklist #:	19354
Sample ID:	WL19354-STD
Sample Size:	1.00000E-03 L
Dilution Factor:	1.00000E+00

Removed by:

>>>>>>>>>> COUNT INFORMATION <<<<<<<<<<

Detector ID:	GEA1
File Number:	dka300:[spec.GEA1]lg1969.cnf
Geometry:	41
Count Time:	0 02:30:00.00 sec
Real Time:	0 02:30:44.33 sec
Dead Time:	0.5%

Verified by: 21 Jul 97

HNF-SD-WM-DP-247, REV. 0

>>>>>>>>>> ANALYSIS INFORMATION <<<<<<<<<<

Sample Count Time:	18-JUL-1997 14:09:06.83
Decayed to:	18-JUL-1997 14:09:06.83
Standard Deviations:	2
Analysis Library:	ENVGEA
Analyst:	GL
Background Subtract:	DKA300:[SPEC.GEA1]1GBACK

>>>>>>>>>> CALIBRATION INFORMATION <<<<<<<<<<

Date of last energy calibration: 20-MAR-1996 09:10:33.62
Date of last efficiency calibration: 20-MAR-1996 09:10:52.48

****

Post-NID Peak Search Report

It	Energy	Area	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides	Activity uCi/L
0	12.73	219	1.45	26.11	23	7	68.4			
0	31.81	2459	1.03	64.27	60	10	9.5			
0	36.40	723	0.78	73.45	70	8	23.2			
0	59.59	304	0.93	119.81	116	8	58.8		AM-241	7.021E-02
0	661.54*	14268	1.43	1323.72	1317	14	2.0	2.03E+00	CS-137	5.76
0	1172.94	10961	1.74	2346.77	2337	20	2.3		CO-60	6.29
0	1332.17	10021	1.90	2665.37	2655	20	2.2		CO-60	6.37

Summary of Nuclide Activity
Sample ID : WL19354-STD Acquisition date : 18-JUL-1997 14:09:06

Total number of lines in spectrum 7
Number of unidentified lines 3
Number of lines tentatively identified by NID 4 57.14%

Nuclide Type :

Nuclide	Hlife	Decay	Wtd Mean Uncorrected uCi/L	Wtd Mean Decay Corr uCi/L	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
CO-60	5.27Y	1.00	6.332E+00	6.332E+00	0.010E+01	1.57	
CS-137	30.00Y	1.00	5.758E+00	5.758E+00	0.113E+00	1.96	
~~AM-241~~	~~432.20Y~~	~~1.00~~	~~7.021E-02~~	~~7.021E-02~~	~~4.125E-02~~	~~58.76~~	
			---------	---------			
	Total Activity :		1.216E+01	1.216E+01			
	Grand Total Activity :		1.216E+01	1.216E+01			

7/21/97

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Minimum Detectable Activity Report
Sample ID : WL19354-STD Acquisition date : 18-JUL-1997 14:09:06

Nuclide	Bckgnd Sum	Energy (keV)	MDA (uCi/L)
BE-7	1143.	477.59	3.9276E-01
NA-22	140.	1274.53	3.5448E-02
NA-24	72.	1368.55	2.8963E-02
K-40	1791.	1460.75	1.2766E+00
CR-51	1381.	320.08	3.0948E-01
MN-54	719.	834.83	5.4276E-02
CO-56	711.	846.76	5.4722E-02
CO-57	2199.	122.06	2.3866E-02
CO-58	631.	810.78	4.9855E-02
FE-59	657.	1099.25	1.1717E-01
SE-75	1638.	264.66	4.9488E-02
SR-85	983.	514.01	4.2085E-02
Y-88	30.	1836.06	2.2888E-02
NB-94	744.	871.09	5.7389E-02
ZRNB-95	605.	724.18	1.0021E-01
RU-103	930.	497.08	4.1896E-02
RURH-106	688.	621.93	8.1616E-01
AG-108m	630.	722.94	4.9078E-02
CD-109	1959.	88.03	4.8439E-01
AG-110M	1028.	657.76	5.4875E-02
SN-113	1235.	391.69	5.5029E-02
TE-123m	2122.	159.00	2.7410E-02
SB-124	733.	602.73	4.1495E-02
SB-125	1186.	427.89	1.2722E-01
TE-125m	1986.	109.27	6.6214E+00
I-131	1238.	364.48	4.0900E-02
CS-134	736.	604.70	4.1744E-02
BA-140	769.	537.31	1.5340E-01
LA-140	38.	1596.21	2.4490E-02
CEPR-144	2169.	133.51	3.8203E-01
EU-152	94.	1408.01	1.5171E-01
EU-154	140.	1274.51	1.0297E-01
EU-155	2006.	105.31	8.5018E-02
HG-203	1479.	279.20	3.5306E-02
TL-208	1475.	277.36	4.5243E-01
BI-212	668.	727.18	6.9338E-01
PB-212	2113.	238.63	6.9401E-02
BI-214	1080.	609.31	1.1058E-01
PB-214	1519.	351.92	3.9409E-01
RA-224	1840.	240.99	7.2444E-01
RA-226	2291.	186.10	7.5323E-01
AC-228	1051.	911.21	2.6575E-01
TH-228	2112.	84.37	1.4227E+00
TH-229	1930.	88.47	7.0332E-02
PA-233	1391.	312.17	7.9407E-02
UTH-233	1587.	245.34	2.5081E+01
PA-234M	621.	1001.03	1.0063E-01
TH-234	1685.	63.29	3.5427E-01
U-235	2265.	185.71	4.5529E-02
NP-237	2008.	86.48	1.4226E-01
NP-239	2052.	106.12	8.3305E-02

Nuclide	Bckgnd Sum	Energy (keV)	MDA (uCi/L)
PU-239	2203.	129.30	3.2834E+02
AM-243	2136.	74.67	2.9794E-02

****
* 222-S Laboratory Counting Room 18-JUL-1997 19:16:32.86 *
****

>>>>>>>>>> SAMPLE INFORMATION <<<<<<<<<<

Worklist #:	19354
Sample ID:	WL19354-BLK
Sample Size:	1.00000E-03 L
Dilution Factor:	1.00000E+00

Removed by: Sue Hogan

>>>>>>>>>> COUNT INFORMATION <<<<<<<<<<

Detector ID:	GEA1
File Number:	dka300:[spec.GEA1]1g1970.cnf
Geometry:	41
Count Time:	0 02:30:00.00 sec
Real Time:	0 02:30:33.22 sec
Dead Time:	0.4%

Verified by: 21 Jul 97

HNF-SD-WM-DP-247, REV. 0

>>>>>>>>>> ANALYSIS INFORMATION <<<<<<<<<<

Sample Count Time:	18-JUL-1997 16:45:26.16
Decayed to:	18-JUL-1997 16:45:26.16
Standard Deviations:	2
Analysis Library:	ENVGEA
Analyst:	GL
Background Subtract:	DKA300:[SPEC.GEA1]1GBACK

>>>>>>>>>> CALIBRATION INFORMATION <<<<<<<<<<

Date of last energy calibration: 20-MAR-1996 09:10:33.62
Date of last efficiency calibration: 20-MAR-1996 09:10:52.48

****

Post-NID Peak Search Report

It	Energy	Area	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides	Activity uCi/L
0	12.75	152	1.23	26.14	24	6	69.0			
0	16.08	259	1.14	32.81	29	8	50.2			
0	661.52*	73	1.49	1323.67	1320	10	89.3	1.32E+00	CS-137	2.964E-02
0	1730.41	34	1.21	3462.27	3455	16	62.5			

Total number of lines in spectrum 4
Number of unidentified lines 3
Number of lines tentatively identified by NID 1 25.00%

Nuclide Type :

Nuclide	Hlife	Decay	Wtd Mean Uncorrected uCi/L	Wtd Mean Decay Corr uCi/L	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
~~CS-137~~	~~30.00Y~~	~~1.00~~	~~2.964E-02~~	~~2.964E-02~~	~~2.647E-02~~	~~89.32~~	
Total Activity :			2.964E-02	2.964E-02			
Grand Total Activity :			2.964E-02	2.964E-02			

7/21/97

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Minimum Detectable Activity Report
Sample ID : WL19354-BLK Acquisition date : 18-JUL-1997 16:45:26

Nuclide	Bckgnd Sum	Energy (keV)	MDA (uCi/L)
BE-7	341.	477.59	2.1760E-01
NA-22	102.	1274.53	3.0508E-02
NA-24	49.	1368.55	2.4159E-02
K-40	1738.	1460.75	1.2575E+00
CR-51	617.	320.08	2.0837E-01
MN-54	178.	834.83	2.7571E-02
CO-56	169.	846.76	2.7233E-02
CO-57	1465.	122.06	1.9534E-02
CO-58	165.	810.78	2.6077E-02
FE-59	131.	1099.25	5.3824E-02
CO-60	69.	1332.50	2.6257E-02
SE-75	753.	264.66	3.3779E-02
SR-85	397.	514.01	2.7012E-02
Y-88	23.	1836.06	2.0375E-02
NB-94	137.	871.09	2.5269E-02
ZRNB-95	212.	724.18	6.0296E-02
RU-103	300.	497.08	2.4138E-02
RURH-106	235.	621.93	4.8438E-01
AG-108m	203.	722.94	2.8371E-02
CD-109	1306.	88.03	3.9667E-01
AG-110M	213.	657.76	2.5544E-02
SN-113	455.	391.69	3.3741E-02
TE-123m	1452.	159.00	2.2732E-02
SB-124	251.	602.73	2.4654E-02
SB-125	373.	427.89	7.2265E-02
TE-125m	1400.	109.27	5.5739E+00
I-131	485.	364.48	2.5853E-02
CS-134	270.	604.70	2.5652E-02
BA-140	280.	537.31	9.3846E-02
LA-140	49.	1596.21	2.7486E-02
CEPR-144	1472.	133.51	3.1558E-01
EU-152	82.	1408.01	1.4230E-01
EU-154	102.	1274.51	8.8579E-02
EU-155	1357.	105.31	7.0097E-02
HG-203	741.	279.20	2.5144E-02
TL-208	770.	277.36	3.2882E-01
BI-212	252.	727.18	4.3221E-01
PB-212	1228.	238.63	5.3109E-02
BI-214	629.	609.31	8.4825E-02
PB-214	831.	351.92	2.9266E-01
RA-224	1069.	240.99	5.5452E-01
RA-226	1311.	186.10	5.7194E-01
AC-228	371.	911.21	1.5981E-01
TH-228	1463.	84.37	1.1872E+00
TH-229	1269.	88.47	5.7202E-02
PA-233	648.	312.17	5.4558E-02
UTH-233	861.	245.34	1.8571E+01
PA-234M	151.	1001.03	5.0724E-02
TH-234	1121.	63.29	2.8991E-01
U-235	1323.	185.71	3.4927E-02
NP-237	1386.	86.48	1.1849E-01

Sample ID : WL19354-BLK Acquisition date : 18-JUL-1997 16:45:26

Nuclide	Bckgnd Sum	Energy (keV)	MDA (uCi/L)
NP-239	1327.	106.12	6.7206E-02
PU-239	1507.	129.30	2.7226E+02
AM-241	1022.	59.54	3.4962E-02
AM-243	1552.	74.67	2.5452E-02

```
********************************************************************************
* 222-S Laboratory Counting Room   18-JUL-1997 22:12:09.07                     *
********************************************************************************
      >>>>>>>>>> SAMPLE INFORMATION <<<<<<<<<<
Worklist #:              19354
Sample ID:               S97T001734-SAM
Sample Size:             1.00000E-03 L
Dilution Factor:         1.00000E+00

      >>>>>>>>>> COUNT INFORMATION <<<<<<<<<<
Detector ID:             GEA1
File Number:             dka300:[spec.GEA1]1g1971.cnf
Geometry:                41
Count Time:              0 02:30:00.00 sec
Real Time:               0 02:30:32.50 sec
Dead Time:               0.4%

      >>>>>>>>>> ANALYSIS INFORMATION <<<<<<<<<<
Sample Count Time:       18-JUL-1997 19:40:56.04
Decayed to:              18-JUL-1997 19:40:56.04
Standard Deviations:     2
Analysis Library:        ENVGEA
Analyst:                 SEH
Background Subtract:     DKA300:[SPEC.GEA1]1GBACK

      >>>>>>>>>> CALIBRATION INFORMATION <<<<<<<<<<
 Date of last energy calibration:      20-MAR-1996 09:10:33.62
 Date of last efficiency calibration:  20-MAR-1996 09:10:52.48
********************************************************************************
```

Removed by:

Verified by: 7/21/97

HNF-SD-WM-DP-247, REV. 0

Post-NID Peak Search Report

It	Energy	Area	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides	Activity uCi/L
0	12.75	180	0.98	26.15	23	7	66.2			
0	15.96	138	1.28	32.58	29	7	87.8			
0	59.45	326	0.97	119.55	116	8	44.3		AM-241	7.530E-02
0	511.15*	168	1.98	1022.90	1014	20	82.1	1.23E+00		
0	661.77*	92	1.30	1324.18	1319	10	71.0		CS-137	3.727E-02
0	1460.78*	64	2.10	2922.71	2914	17	156.5		K-40	0.409

HNF-SD-WM-DP-247, REV. 0

Total number of lines in spectrum 6
Number of unidentified lines 2
Number of lines tentatively identified by NID 4 66.67%

Nuclide Type :

Nuclide	Hlife	Decay	Wtd Mean Uncorrected uCi/L	Wtd Mean Decay Corr uCi/L	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
~~K-40~~	~~1.28E+09Y~~	~~1.00~~	~~4.093E-01~~	~~4.093E-01~~	~~6.403E-01~~	~~156.46~~	
~~CS-137~~	~~30.00Y~~	~~1.00~~	~~3.727E-02~~	~~3.727E-02~~	~~2.645E-02~~	~~70.97~~	
AM-241	432.20Y	1.00	7.530E-02	7.530E-02	3.337E-02	44.32	
Total Activity :			5.218E-01	5.218E-01			
Grand Total Activity :			5.218E-01	5.218E-01			

7/21/97

Flags: "K" = Keyline not found
"E" = Manually edited
"M" = Manually accepted
"A" = Nuclide specific abn. limit

Minimum Detectable Activity Report
Sample ID : S97T001734-SAM

Acquisition date : 18-JUL-1997 19:40:56

Nuclide	Bckgnd Sum	Energy (keV)	MDA (uCi/L)
BE-7	349.	477.59	2.1997E-01
NA-22	107.	1274.53	3.1208E-02
NA-24	50.	1368.55	2.4553E-02
CR-51	581.	320.08	2.0238E-01
MN-54	166.	834.83	2.6690E-02
CO-56	166.	846.76	2.7025E-02
CO-57	1526.	122.06	1.9931E-02
CO-58	163.	810.78	2.5888E-02
FE-59	132.	1099.25	5.3922E-02
CO-60	74.	1332.50	2.7123E-02
SE-75	768.	264.66	3.4096E-02
SR-85	347.	514.01	2.5299E-02
Y-88	29.	1836.06	2.2485E-02
NB-94	143.	871.09	2.5851E-02
ZRNB-95	194.	724.18	5.7707E-02
RU-103	286.	497.08	2.3582E-02
RURH-106	238.	621.93	4.8754E-01
AG-108m	182.	722.94	2.6917E-02
CD-109	1359.	88.03	4.0456E-01
AG-110M	208.	657.76	2.5241E-02
SN-113	509.	391.69	3.5643E-02
TE-123m	1397.	159.00	2.2305E-02
SB-124	263.	602.73	2.5209E-02
SB-125	329.	427.89	6.8039E-02
TE-125m	1384.	109.27	5.5416E+00
I-131	511.	364.48	2.6510E-02
CS-134	268.	604.70	2.5534E-02
BA-140	320.	537.31	1.0001E-01
LA-140	33.	1596.21	2.2919E-02
CEPR-144	1476.	133.51	3.1603E-01
EU-152	53.	1408.01	1.1647E-01
EU-154	107.	1274.51	9.0607E-02
EU-155	1355.	105.31	7.0072E-02
HG-203	806.	279.20	2.6201E-02
TL-208	778.	277.36	3.3048E-01
BI-212	248.	727.18	4.2849E-01
PB-212	1283.	238.63	5.4276E-02
BI-214	614.	609.31	8.3815E-02
PB-214	830.	351.92	2.9240E-01
RA-224	969.	240.99	5.2829E-01
RA-226	1325.	186.10	5.7494E-01
AC-228	375.	911.21	1.6069E-01
TH-228	1496.	84.37	1.2002E+00
TH-229	1343.	88.47	5.8825E-02
PA-233	623.	312.17	5.3555E-02
UTH-233	901.	245.34	1.8991E+01
PA-234M	163.	1001.03	5.2659E-02
TH-234	1129.	63.29	2.9088E-01
U-235	1347.	185.71	3.5232E-02
NP-237	1354.	86.48	1.1714E-01
NP-239	1365.	106.12	6.8139E-02

Nuclide	Bckgnd Sum	Energy (keV)	MDA (uCi/L)
PU-239	1528.	129.30	2.7412E+02
AM-243	1563.	74.67	2.5536E-02

****
* 222-S Laboratory Counting Room 19-JUL-1997 00:55:25.38 *
****

>>>>>>>>>> SAMPLE INFORMATION <<<<<<<<<<

Worklist #:	19354
Sample ID:	S97T001734-DUP
Sample Size:	1.00000E-03 L
Dilution Factor:	1.00000E+00

Removed by:

>>>>>>>>>> COUNT INFORMATION <<<<<<<<<<

Detector ID:	GEA1
File Number:	dka300:[spec.GEA1]1g1973.cnf
Geometry:	41
Count Time:	0 02:30:00.00 sec
Real Time:	0 02:30:32.54 sec
Dead Time:	0.4%

Verified by: 21 Jul 97

HNF-SD-WM-DP-247, REV. 0

>>>>>>>>>> ANALYSIS INFORMATION <<<<<<<<<<

Sample Count Time:	18-JUL-1997 22:24:19.54
Decayed to:	18-JUL-1997 22:24:19.54
Standard Deviations:	2
Analysis Library:	ENVGEA
Analyst:	SEH
Background Subtract:	DKA300:[SPEC.GEA1]1GBACK

>>>>>>>>>> CALIBRATION INFORMATION <<<<<<<<<<

Date of last energy calibration: 20-MAR-1996 09:10:33.62
Date of last efficiency calibration: 20-MAR-1996 09:10:52.48

****

Post-NID Peak Search Report

It	Energy	Area	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides	Activity uCi/L
0	12.92	211	0.95	26.50	23	7	54.9			
0	16.28	336	1.42	33.21	30	9	41.0			
0	59.18	327	0.94	119.00	115	8	44.3		AM-241	7.559E-02
0	661.54*	96	1.43	1323.72	1317	12	78.7		CS-137	3.856E-02
0	1423.77	23	1.36	2848.65	2844	10	101.1			

Summary of Nuclide Activity
Sample ID : S97T001734-DUP

Acquisition date : 18-JUL-1997 22:24:19

Total number of lines in spectrum	5	
Number of unidentified lines	3	
Number of lines tentatively identified by NID	2	40.00%

Nuclide Type :

Nuclide	Hlife	Decay	Wtd Mean Uncorrected uCi/L	Wtd Mean Decay Corr uCi/L	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
~~CS-137~~	~~30.00Y~~	~~1.00~~	~~3.856E-02~~	~~3.856E-02~~	~~3.036E-02~~	~~78.75~~	
AM-241	432.20Y	1.00	7.559E-02	7.559E-02	3.350E-02	44.31	
	Total Activity :		1.141E-01	1.141E-01			
	Grand Total Activity :		1.141E-01	1.141E-01			

7/21/97

Flags: "K" = Keyline not found
"E" = Manually edited
"M" = Manually accepted
"A" = Nuclide specific abn. limit

Nuclide	Bckgnd Sum	Energy (keV)	MDA (uCi/L)
BE-7	336.	477.59	2.1585E-01
NA-22	88.	1274.53	2.8481E-02
NA-24	54.	1368.55	2.5392E-02
K-40	1763.	1460.75	1.2664E+00
CR-51	614.	320.08	2.0792E-01
MN-54	180.	834.83	2.7758E-02
CO-56	137.	846.76	2.4687E-02
CO-57	1438.	122.06	1.9356E-02
CO-58	173.	810.78	2.6675E-02
FE-59	125.	1099.25	5.2579E-02
CO-60	65.	1332.50	2.5636E-02
SE-75	809.	264.66	3.4977E-02
SR-85	396.	514.01	2.6998E-02
Y-88	22.	1836.06	1.9761E-02
NB-94	163.	871.09	2.7527E-02
ZRNB-95	213.	724.18	6.0437E-02
RU-103	318.	497.08	2.4829E-02
RURH-106	224.	621.93	4.7289E-01
AG-108m	205.	722.94	2.8452E-02
CD-109	1302.	88.03	3.9607E-01
AG-110M	229.	657.76	2.6443E-02
SN-113	451.	391.69	3.3610E-02
TE-123m	1405.	159.00	2.2363E-02
SB-124	267.	602.73	2.5391E-02
SB-125	407.	427.89	7.5392E-02
TE-125m	1414.	109.27	5.6004E+00
I-131	530.	364.48	2.7003E-02
CS-134	280.	604.70	2.6081E-02
BA-140	275.	537.31	9.3048E-02
LA-140	44.	1596.21	2.6069E-02
CEPR-144	1554.	133.51	3.2411E-01
EU-152	65.	1408.01	1.2768E-01
EU-154	88.	1274.51	8.2643E-02
EU-155	1388.	105.31	7.0891E-02
HG-203	748.	279.20	2.5258E-02
TL-208	738.	277.36	3.2207E-01
BI-212	242.	727.18	4.2375E-01
PB-212	1300.	238.63	5.4622E-02
BI-214	618.	609.31	8.4139E-02
PB-214	804.	351.92	2.8798E-01
RA-224	1035.	240.99	5.4578E-01
RA-226	1341.	186.10	5.7826E-01
AC-228	359.	911.21	1.5724E-01
TH-228	1486.	84.37	1.1962E+00
TH-229	1255.	88.47	5.6890E-02
PA-233	679.	312.17	5.5844E-02
UTH-233	924.	245.34	1.9230E+01
PA-234M	139.	1001.03	4.8802E-02
TH-234	1138.	63.29	2.9206E-01
U-235	1338.	185.71	3.5121E-02
NP-237	1343.	86.48	1.1669E-01

Nuclide	Bckgnd Sum	Energy (keV)	MDA (uCi/L)
NP-239	1391.	106.12	6.8782E-02
PU-239	1552.	129.30	2.7622E+02
AM-243	1561.	74.67	2.5526E-02

LABCORE Completed RadChem Report for Worklist#: 19271

Analyst: jds **Instrument:** AB12 **Book#** _____

Method: _____ Rev/Mod _____

Worklist Comment: T203, @SR90-01 S.S. by Ludlum. Std:1.0mL skm

Seq	Type	Sample#	R	A	Test	Matrix	Actual	Found	DL or Yield	Unit
1	STD		0		@SR90-01 SR90-01	SOLID	2.39E-03	2.30E-3	96.234	% Recovery
1	STD		0		@SR90-01 SR90-01C	SOLID	100	9.56E+01	95.600	% Recovery
1	STD		0		@SR90-01 SR90-01E	SOLID	1.00	1.33E+00	1.330	% Ct. Erro
2	BLNK-PREP		0		@SR90-01 SR90-01	SOLID	1	<1.22E-3		uCi/g
2	BLNK-PREP		0		@SR90-01 SR90-01C	SOLID	100	9.29E+01	92.900	% Recovery
2	BLNK-PREP		0		@SR90-01 SR90-01E	SOLID	1.00	1.64E+02	164.000	uCi/g
3	BLNK/BKG		0		@SR90-01 SR90-01	SOLID	1	1.30E+00	1.300	BLNK/BKG
4	SAMPLE	S97T001734	0	F	@SR90-01 SR90-01	SOLID	N/A	2.46E-03	126.0e-005	uCi/g
4	SAMPLE	S97T001734	0	F	@SR90-01 SR90-01C	SOLID	N/A	9.06E+01	0.0e+000	% Recovery
4	SAMPLE	S97T001734	0	F	@SR90-01 SR90-01E	SOLID	N/A	4.59E+01	0.0e+000	% Ct. Error
5	DUP	S97T001734	0	F	@SR90-01 SR90-01	SOLID	2.46E-3	2.67E-3	8.187 RPD	
5	DUP	S97T001734	0	F	@SR90-01 SR90-01C	SOLID	100	9.02E+01	90.200	% Recovery
5	DUP	S97T001734	0	F	@SR90-01 SR90-01E	SOLID	1.00	4.30E+01	43.000	% Cnt Err
6	SPK	S97T001734	0	F	@SR90-01 SR90-01	SOLID	2.39E-03	2.48E-03	103.766	% Recovery

Final page for worklist# 19271

Analyst Signature Date

Analyst Signature Date

Reviewer Signature 14/14/97 Date

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Data Entry Template for Worklist# 19271

Analyst: _____ **Instrument:** AB00 12 **Book#** 86856

Method: LA-220-101 Rev/Mod E-1

Worklist Comment: T203, @SR90-01 S.S. by Ludlum. Std:1.0mL skm Use S1F for spike. SKM

S	Type	Sample#	R	A	Test	Matrix	Group#	Project
1	STD				@SR90-01	SOLID		
2	BLNK-PREP				@SR90-01	SOLID		
3	BLNK/BKG				@SR90-01	SOLID		
4	SAMPLE	S97T001734	0	F	@SR90-01	SOLID	97000299	T-203
	Analytes Requested: SR90-01 , SR90-01C, SR90-01E							
5	DUP	S97T001734	0	F	@SR90-01	SOLID		
6	SPK	S97T001734	0	F	@SR90-01	SOLID		

Final page for worklist # 19271

Analyst Signature 7/17/97 Date

Analyst Signature Sue Hogan 7-14-97 Date

7/14/97

Data Entry Comments: SPK = 1ml of 86856

S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

WORKBOOK PAGE: STD1

Sr-89/90 : LA-220-101 (D-1), 102 (E-3), 104 (D-1) LIQUIDS

Type	DETECTOR NUMBER		12	CARRIER ADDED in mL	(CVA)	STANDARD 1.000
STD	TOTAL COUNTS	(TC)	21784	GROSS WEIGHT	(W2)	7.1388
Work List	COUNT TIME in MINUTES	(CT)	10	TARE WEIGHT	(W1)	7.0432
19271	BACKGROUND in cpm	(BKG)	3.7	NET WEIGHT	(W3)	0.0956
Test Code	SAMPLE VOLUME in mL	(SS)	1.000	DELTA TIME (HOURS)	(DT)	5.75
@SR90-01	DILUTION FACTOR	(DF)	1			
Matrix	DIGEST DILUTION FACTOR	DDF	1			
LIQUID	SAMPLE COUNT RATE	(Rs)	2174.70	SR-90 EFFICIENCY FACTO	(C1)	0.4180
Batch Number	CRITICAL LEVEL	(Lc)	1.16	Y-90 EFFICIENCY FACTOR	(C2)	0.4660
97003383	TIME OF SEPARATION	(ST)	01:30	Rmax		N/A
Rerun	DATE OF SEPARATION	(SD)	07/14/97	DETECTION LIMIT	(Ld)	2.41
0	TIME OF COUNT	(TOC)	07:15	Sr-89/90 CONC. in µCi/L		2.2972E+00
Sample Prep	DATE OF COUNT	(DOC)	07/14/97			
N/A	STANDARD BOOK #		86B56			
Sample #	STANDARD VALUE in µCi/mL		2.3907E-03			
WL19271						
Instrument Code						
WB27811	Sample Count Rate (Rs) = (Total Counts (TC) / Count Time (CT)) - Background in cpm (BKG)					
Prepared By	Sr-89/90 CONC in µCi/mL REPLACE RS WITH RMAX IF RS<=LcAND RS>=0 OR REPLACE RS WITH Lc IF RS<0					
SEH	RS*DF*DDF*1000/((C1+C2*(1-e to the power of ((-natural log 2)/64.2*DT)))*SS*REC*2220000)					
Chemist	NOTE: 64.2 = Half Life for Y-90 and Rec. = Fractional Carrier Recovery ((W2-W1) / (CVA * 0.1000))					
SAC	Relative Counting Error = The Square Root of ((TC + BKG * CT) / (TC - BKG * CT)*1.96)					
Analyst	Percent Carrier Recovery = (Net Weight / Expected weight) * 100					
JDS	NOTE: Expected weight = CVA * 0.1					
Date Complete	Detection Levels and Less Than Values are determined from Procedure LA-508-002.					
07/14/97	Delta Time (hours) = ((DOC - SD) * 24) + (TOC - ST) / 100					
Analysis Date						DETECTION LEVEL
07/14/97	Sr-89/90 CONCENTRATION		2.30E-03	µCi/mL		
Analysis Time						2.54E-06 µCi/L
05:00 AM	RELATIVE COUNTING ERROR		1.3%			
Sample Point						
T-203	PERCENT CARRIER RECOVERY		95.6%			

Analyst:		JDS	Date:	14-Jul-97
Signature of Chemist:	SAC		Date:	14 July 97

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WORKBOOK PAGE: BLANK2

LA-220-101 / D-1 Sr-89/90 : LA-220-101 (D-1), 102 (E-3), 104 (D-1)

Type						BLNK-PREP
BLNK-PREP	DETECTOR NUMBER		12	CARRIER ADDED in mL	(CVA)	1.000
Work List	TOTAL COUNTS	(TC)	48	GROSS WEIGHT	(W2)	7.1511
19271	COUNT TIME in MINUTES	(CT)	10	TARE WEIGHT	(W1)	7.0582
Test Code	BACKGROUND in cpm	(BKG)	3.7	NET WEIGHT	(W3)	0.0929
@SR90-01	SAMPLE VOLUME in mL	(SS)	1.000	DELTA TIME (HOURS)	(DT)	6.67
Matrix	DILUTION FACTOR	DF	1			
SOLID	DIGEST FACTOR (g/L)	(D g/L	2.0952			
Batch Number	SAMPLE COUNT RATE	(Rs)	1.10	SR-90 EFFICIENCY FACTOR	(C1)	0.4180
97003383	CRITICAL LEVEL	(Lc)	1.16	Y-90 EFFICIENCY FACTOR	(C2)	0.4660
Rerun	TIME OF SEPARATION	(ST)	01:30	Rmax		2.38
0	DATE OF SEPARATION	(SD)	07/14/97	DETECTION LIMIT	(Ld)	2.41
Sample Prep	TIME OF COUNT	(TOC)	08:10	Sr-89/90 CONC in µCi/g	<	1.2238E-03
N/A	DATE OF COUNT	(DOC)	07/14/97			
Sample #						
WL19271						

Sample Count Rate (Rs) = (Total Counts (TC) / Count Time (CT)) - Background in cpm (BKG)

Sr-89/90 CONC in µCi/g Replace RS with RMAX if RS<=Lc and RS>=0 or Replace RS with Lc if RS<0

RS*1000*DF/((C1+C2*(1-e to the power of ((-natural log 2)/64.2*DT)))*SS*(Dg/L)*REC*2220000)

NOTE: 64.2 = Half Life for Y-90 and Rec. = Fractional Carrier Recovery ((W2-W1) / (CVA * 0.1000))

Relative Counting Error = (The Square Root of (TC + BKG * CT) / (TC - BKG * CT))*1.96

Percent Carrier Recovery = (Net Weight / Expected weight) * 100

NOTE: Expected weight = CVA * 0.1

Detection Levels and Less Than Values are determined from Procedure LA-508-002.

Delta Time (hours) = ((DOC - SD) * 24) + (TOC - ST) / 100

Instrument Code					
WB27811					
Prepared By					
SEH					
Chemist					
SAC					
Analyst					
JDS					
Date Complete					
07/14/97					
Analysis Date					DETECTION LEVEL
07/14/97	Sr-89/90 CONCENTRATION		< 1.22E-03	µCi/g	
Analysis Time	LESS THAN Value was Determined from Rmax.				
05:00 AM	RELATIVE COUNTING ERROR		164.3%		1.24E-03 µCi/g
Sample Point					
T-203	PERCENT CARRIER RECOVERY		92.9%		

Analyst:		JDS	Date:	14-Jul-97
Signature of Chemist:		SAC	Date:	14 Jul 97

BLANK.WB1 REV 2.0 22010NML

WORKBOOK PAGE: SAM4

Sr-89/90 : LA-220-101 (D-1), 102 (E-3), 104 (D-1)

Type						SAMPLE
SAMPLE	DETECTOR NUMBER		12	CARRIER ADDED in mL	(CVA)	1.000
Work List #	TOTAL COUNTS	(TC)	84	GROSS WEIGHT	(W2)	7.1616
19271	COUNT TIME in MINUTES	(CT)	10	TARE WEIGHT	(W1)	7.0710
Test Code	BACKGROUND in cpm	(BKG)	3.7	NET WEIGHT	(W3)	0.0906
@SR90-01	SAMPLE VOLUME in mL	(SS)	1.000	DELTA TIME (HOURS)	(DT)	7.12
Matrix	DILUTION FACTOR	DF	1			
SOLID	DIGEST FACTOR (g/L)	(D g/L	2.0952			
Batch Number	SAMPLE COUNT RATE	(Rs)	4.70	SR-90 EFFICIENCY FACTOR	(C1)	0.4180
97003383	CRITICAL LEVEL	(Lc)	1.16	Y-90 EFFICIENCY FACTOR	(C2)	0.4660
Rerun	TIME OF SEPARATION	(ST)	01:30	Rmax		N/A
0	DATE OF SEPARATION	(SD)	07/14/97	DETECTION LIMIT	(Ld)	2.41
Sample Prep	TIME OF COUNT	(TOC)	08:37	Sr-89/90 CONC in µCi/g		2.4649E-03
FUSION01	DATE OF COUNT	(DOC)	07/14/97			
Sample #						
S97T001734						

Instrument Code: WB27811

Prepared By: SEH

Chemist: SAC

Analyst: JDS

Date Complete: 07/14/97

Analysis Date: 07/14/97

Analysis Time: 05:00 AM

Sample Point: T-203

Sample Count Rate (Rs) = (Total Counts (TC) / Count Time (CT)) - Background in cpm (BKG)

Sr-89/90 CONC in µCi/g Replace RS with RMAX if RS<=Lc and RS>=0 or Replace RS with Lc if RS<0

RS*1000*DF/((C1+C2*(1-e to the power of ((-natural log 2)/64.2*DT)))*SS*(Dg/L)*REC*2220000)

NOTE: 64.2 = Half Life for Y-90 and Rec. = Fractional Carrier Recovery ((W2-W1) / (CVA * 0.1000))

Relative Counting Error = (The Square Root of (TC + BKG * CT) / (TC - BKG * CT))*1.96

Percent Carrier Recovery = (Net Weight / Expected weight) * 100

NOTE: Expected weight = CVA * 0.1

Detection Levels and Less Than Values are determined from Procedure LA-508-002.

Delta Time (hours) = ((DOC - SD) * 24) + (TOC - ST) / 100

			DETECTION LEVEL
Sr-89/90 CONCENTRATION	2.46E-03	µCi/g	
RELATIVE COUNTING ERROR	45.9%		1.26E-03 µCi/g
PERCENT CARRIER RECOVERY	90.6%		

Analyst:		JDS	Date:	14-Jul-97
Signature of Chemist:		SAC	Date:	14 July 97

SAMPLE.WB1 REV 2.0 22010NML

WORKBOOK PAGE: DUP5

Sr-89/90 : LA-220-101 (D-1), 102 (E-3), 104 (D-1)

Type						DUP
DUP	DETECTOR NUMBER		12	CARRIER ADDED in mL	(CVA)	1.000
	TOTAL COUNTS	(TC)	88	GROSS WEIGHT	(W2)	7.1821
Work List	COUNT TIME in MINUTES	(CT)	10	TARE WEIGHT	(W1)	7.0919
19271	BACKGROUND in cpm	(BKG)	3.7	NET WEIGHT	(W3)	0.0902
Test Code	SAMPLE VOLUME in mL	(SS)	1.000	DELTA TIME (HOURS)	(DT)	7.42
@SR90-01	DILUTION FACTOR	DF	1			
Matrix	DIGEST FACTOR (g/L)	(D g/L	2.1056			
SOLID	SAMPLE COUNT RATE	(Rs)	5.10	SR-90 EFFICIENCY FACTOR	(C1)	0.4180
Batch Number	CRITICAL LEVEL	(Lc)	1.16	Y-90 EFFICIENCY FACTOR	(C2)	0.4660
97003383	TIME OF SEPARATION	(ST)	01:30	Rmax		N/A
Rerun	DATE OF SEPARATION	(SD)	07/14/97	DETECTION LIMIT	(Ld)	2.41
0	TIME OF COUNT	(TOC)	08:59	Sr-89/90 CONC in µCi/g		2.6651E-03
Sample Prep	DATE OF COUNT	(DOC)	07/14/97			
FUSION01						
Sample #						
S97T001734						

Instrument Code	Sample Count Rate (Rs) = (Total Counts (TC) / Count Time (CT)) - Background in cpm (BKG)
WB27811	Sr-89/90 CONC in µCi/g Replace RS with RMAX if RS<=Lc and RS>=0 or Replace RS with Lc if RS<0
Prepared By	RS*1000*DF/((C1+C2*(1-e to the power of ((-natural log 2)/64.2*DT)))*SS*(Dg/L)*REC*2220000)
SEH	NOTE: 64.2 = Half Life for Y-90 and Rec. = Fractional Carrier Recovery ((W2-W1) / (CVA * 0.1000))
Chemist	Relative Counting Error = (The Square Root of (TC + BKG * CT) / (TC - BKG * CT))*1.96
SAC	Percent Carrier Recovery = (Net Weight / Expected weight) * 100
Analyst	NOTE: Expected weight = CVA * 0.1
JDS	Detection Levels and Less Than Values are determined from Procedure LA-508-002.
Date Complete	Delta Time (hours) = ((DOC - SD) * 24) + (TOC - ST) / 100
07/14/97	

Analysis Date				DETECTION LEVEL
07/14/97	Sr-89/90 CONCENTRATION	2.67E-03	µCi/g	
Analysis Time				
05:00 AM	RELATIVE COUNTING ERROR	43.0%		1.26E-03 µCi/g
Sample Point				
T-203	PERCENT CARRIER RECOVERY	90.2%		

Analyst:		JDS	Date:	14-Jul-97
Signature of Chemist:		SAC	Date:	14 July 97

SAMPLE.WB1 REV 2.0 22010NML

WORKBOOK PAGE: SPIKE6

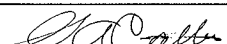
Sr-89/90 : LA-220-101 (D-1), 102 (E-3), 103 (E-2), 104 (D-1)

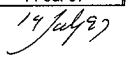
						SPIKE
Type	DETECTOR NUMBER		12	CARRIER ADDED in mL	(CVA)	1.000
SPK	TOTAL COUNTS	(TC)	22986			
Work List	COUNT TIME in MINUTES	(CT)	10	GROSS WEIGHT	(W2)	7.1089
19271	BACKGROUND in cpm	(BKG)	3.7	TARE WEIGHT	(W1)	7.0174
Test Code	SAMPLE VOLUME in mL	(SS)	1.000	NET WEIGHT	(W3)	0.0915
@SR90-01	DILUTION FACTOR	DF	1	% CARRIER RECOVERY	(Rec)	91.5%
Matrix	DIGEST FACTOR (g/L)	(D g/L)	2.0952	SPIKE VOLUME in mL	(Spk Vol)	1.000
SOLID	TIME OF SEPARATION	(ST)	01:30	SPIKE DILUTION FACTOR	(Spk DF)	1
Batch Number	DATE OF SEPARATION	(SD)	07/14/97	SPIKE BOOK NUMBER	(Spk BN)	86B56
97003383	TIME OF COUNT	(TOC)	09:05	SPIKE VALUE in µCi/mL	(Spk Val)	2.3907E-03
Rerun	DATE OF COUNT	(DOC)	07/14/97	SR-90 EFFICIENCY FACTOR	(C1)	0.4180
0	DELTA TIME (hours)	(DT)	7.58	Y-90 EFFICIENCY FACTOR	(C2)	0.4660
Sample Prep				Sr µCi/g IN SAMPLE	(Sr1)	2.46E-3
FUSION01				Sr-89/90 CONC. in µCi/g	(Sr2)	1.1860E+00

Sample #	(Note: If there is not enough sample for an analysis type INS in the Count Time result cell.)
S97T001734	
Instrument Code	Sample Count Rate (Rs) = (Total Counts (TC) / Count Time (CT)) - Background in cpm (BKG)
WB27811	Sr-89/90 CONC. in µCi/g
Prepared By	RS*DF/((C1+C2*(1-e to the power of ((-natural log 2)/64.2*DT)))*SS*Dg/L*(1L/1000mL)*(REC/100)*2220000)
SEH	QC Actual in µCi/mL = Spk Val
Chemist	QC Found in µCi/mL = (Sr2 - Sr1) * ((Spk DF/Spk Vol* 1000 mL/L) / (DF/SS/(Dg/L)))
SAC	Percent Carrier Recovery = (Net Weight / Expected Weight) * 100
Analyst	Spk val = value taken from RCTABLE and then decayed using a ½ life of 29.1 years
JDS	NOTE: 64.2 = Half Life for Y-90
Date Complete	NOTE: Expected Weight = CVA * 0.1
07/14/97	Percent Spike Recovery = (QC Found / QC Actual) * 100
Analysis Date	Delta Time (hours) = ((DOC - SD) * 24) + (TOC - ST) /100
07/14/97	
Analysis Time	

05:00 AM	QC Actual in µCi/mL	=	2.39E-03
Sample Point	QC Found in µCi/mL	=	2.48E-03
T-203	Percent Spike Recovery	=	103.7%

Analyst:	JDS	Date:	14-Jul-97





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